

# **DPW Engineering Division Capital Improvement Plan**



# Town of Tewksbury FY2025-FY2029 Capital Improvements Projects/Equipment

**Project Name:** Transportation: Pavement Management and Sidewalks

**Department:** Public Works Dept. **First Year Submission** \_\_\_\_\_ **Priority:** \_\_\_\_\_

**Description of Project:** This request proposes the funding of an annual Transportation/Street Improvement Program including preventative maintenance, resurfacing, reconstruction, and sidewalks. As part of this program, the Town has established a Complete Streets Policy, which has been evaluated and approved by the Massachusetts Department of Transportation (MassDOT). Acceptance of the policy by MassDOT enables the Town to be eligible for additional State aid under its Complete Streets program. The Town has established a prioritization plan outlining the roadway improvement projects that will provide safe and accessible options for all modes of travel including walking, biking, transit, and vehicles. Whipple Road from Pleasant Street to Chandler Street is identified in the Complete Streets Project Prioritization Plan and Pedestrian Mobility Master Plan. This project includes construction of the first phase of that sidewalk segment on Whipple Road from Pleasant Street to Ferncroft Road.

In FY25, the Town proposes the following roadway treatments: crack-seal approximately four miles of roads, micro-surfacing approximately one mile of road, and resurfacing of approximately four miles of roads based on the Pavement Management Plan developed in FY23 and also roadways where water main replacement work was recently completed. Resurfacing projects will include expenses for permitting, catch basin/manhole repair, drain repair, installation of new drains and shoulder/driveway berm installation. Funding for sidewalk repair and installation is also included in this request. Locations and specifications have been established as part of a sidewalk plan developed in FY18. In FY25, various streets will be resurfaced using Chapter 90 funds and the General Fund based on our five-year paving schedule.

**Justification/Benefit:** The lack of additional Town funding for a regular street improvement program over many years has resulted in the deterioration of Tewksbury's roads. In the calendar years 2004-2010, the sewer installation project injected approximately \$10,560,000 to improve many of the Town roads. However, there remained numerous miles of roads in disrepair and in need of preventative maintenance. At this time, roads paved during the sewer project are showing signs of distress. The large number of roads currently in need of preventative maintenance will begin to degrade into poor condition if regular investment and preventative maintenance practices are withheld. Roads more recently treated should be maintained through crack-sealing techniques to gain the greatest return on investment while avoiding higher costs for repair. Continued funding through State programs and Town accounts will increase the quality and safety of Tewksbury's roads as well as provide accommodations for various modes of transportation.

**Impact if not Completed:** The life cycle of roads will be reduced, road surface quality will diminish, operating and resurfacing costs increase, safety is diminished, while damage to private property escalates. A safe sidewalk network will not be provided for pedestrians.

**Timeframe:** Projects are included on the attached FY25-FY29 spreadsheet.

**Replacement Frequency:** 5-25 years



## Town of Tewksbury FY2025-FY2029 Capital Improvements Projects/Equipment

**Operating Budget Impact:** Engineering Division, Highway/Forestry, and Water & Sewer Division personnel time will be required to support the projects to be completed. There will be increased costs for sidewalk maintenance.

**Funding Source:** Levy and State Aid

| Capital Funding Request |                  |                  |                    |                  |                  |                    |
|-------------------------|------------------|------------------|--------------------|------------------|------------------|--------------------|
| Fiscal Year             | 2025             | 2026             | 2027               | 2028             | 2029             | Totals             |
| Site Acquisition        | \$0              | \$0              | \$0                | \$0              | \$0              | \$0                |
| Design/Engineer         | \$0              | \$0              | \$0                | \$0              | \$0              | \$0                |
| Construction            | \$895,000        | \$895,000        | \$1,295,000        | \$895,000        | \$895,000        | \$4,875,000        |
| Equipment               | \$0              | \$0              | \$0                | \$0              | \$0              | \$0                |
| Contingency             | \$0              | \$0              | \$0                | \$0              | \$0              | \$0                |
| <b>Totals</b>           | <b>\$895,000</b> | <b>\$895,000</b> | <b>\$1,295,000</b> | <b>\$895,000</b> | <b>\$895,000</b> | <b>\$4,875,000</b> |

**Basis of Cost Projection:**  
Cost projection based on current bid pricing.

**Submitted By:** Kevin Hardiman, Director of Public Works **Date:** 2/2/2024



# Town of Tewksbury FY2025-FY2029 Capital Improvements Projects/Equipment

**Project Name:** Transportation: Project Development and Design

**Department:** Public Works Dept. **First Year Submission** \_\_\_\_\_ **Priority:** \_\_\_\_\_

**Description of Project:** This project will consist of developing design plans and specifications for sidewalk reconstruction along Livingston Street from Roys Way to Hazel Field and for sidewalk reconstruction along Chandler Street from Foster Road to Indian Hill Road. The project construction schedule will be dependent on available funding.

**Justification/Benefit:** The Town must provide engineered design specifications for certain construction projects to ensure engineering and construction standards are met. In addition, various metrics are applied to ensure a plan will work as designed given site criteria and constraints. The Town has developed a Pedestrian Mobility Master Plan, which identifies thirteen (13) arterial roadways where sidewalk construction will improve pedestrian safety. These locations are part of the Town’s existing sidewalk network but are in poor condition. Reconstruction of these sidewalks along these key pedestrian corridors will allow for their continued use and will provide a safe pathway for pedestrians to utilize.

**Impact if not Completed:** Not promoting safe accessible multi-modal transportation options, including walking, biking, transit, and vehicular, for all ages and abilities. Lack of well-maintained sidewalks may put pedestrians at risk.

**Timeframe:** Generally, project development will be completed in the year preceding project construction.

**Replacement Frequency:** 25 years

**Operating Budget Impact:** Increased costs for sidewalk maintenance.

**Funding Source:** State Aid

| Capital Funding Request |                  |                  |                  |                  |                  |                  |
|-------------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Fiscal Year             | 2025             | 2026             | 2027             | 2028             | 2029             | Totals           |
| Site Acquisition        | \$0              | \$0              | \$0              | \$0              | \$0              | \$0              |
| Design/Engineer         | \$100,000        | \$100,000        | \$100,000        | \$100,000        | \$100,000        | \$500,000        |
| Construction            | \$0              | \$0              | \$0              | \$0              | \$0              | \$0              |
| Equipment               | \$0              | \$0              | \$0              | \$0              | \$0              | \$0              |
| Contingency             | \$0              | \$0              | \$0              | \$0.00           | \$0              | \$0              |
| <b>Totals</b>           | <b>\$100,000</b> | <b>\$100,000</b> | <b>\$100,000</b> | <b>\$100,000</b> | <b>\$100,000</b> | <b>\$500,000</b> |

**Basis of Cost Projection:**  
Engineering Proposals

**Submitted By:** Kevin Hardiman, Director of Public Works **Date:** 2/1/2024



# Town of Tewksbury FY2025-FY2029 Capital Improvements Projects/Equipment

**Project Name:** Transportation: Traffic Improvements

**Department:** Public Works Dept. **First Year Submission** \_\_\_\_\_ **Priority:** \_\_\_\_\_

**Description of Project:** Projects under this category are one-time projects intended to improve roadway function, enhance traffic safety, and preserve public and private property. The project scheduled for FY25 is upgrades to the traffic signal equipment at the intersection of Andover Street (MA Route 133) and Ames Pond Drive.

**Justification/Benefit:** An analysis of the existing traffic signal equipment and the intersection was performed in 2018. The analysis identified recommended improvements to the traffic signal equipment and the roadway that will allow for the signalized intersection to operate more efficiently and will promote increased safety for pedestrians, cyclists, and motorists.

**Impact if not Completed:** If the improvements are not completed, the intersection will not operate as efficiently as feasible. Users of the intersection may experience longer delays and the existing equipment may underserve the safety needs of the intersection which will see increased traffic due to residential and commercial development in the area.

**Timeframe:** The Andover Street (MA Route 133) at Ames Pond Drive Signal Improvements are planned for FY25.

**Replacement Frequency:** 25-50 years

**Operating Budget Impact:** The signal improvements at the Andover Street (MA Route 133) at Ames Pond Drive intersection may increase energy costs.

**Funding Source:** State Aid

| Capital Funding Request |                 |                 |                  |                 |                  |                  |
|-------------------------|-----------------|-----------------|------------------|-----------------|------------------|------------------|
| Fiscal Year             | 2025            | 2026            | 2027             | 2028            | 2029             | Totals           |
| Site Acquisition        | \$0             | \$0             | \$0              | \$0             | \$0              | \$0              |
| Design/Engineer         | \$0             | \$0             | \$0              | \$0             | \$0              | \$0              |
| Construction            | \$70,000        | \$60,000        | \$200,000        | \$55,000        | \$200,000        | \$585,000        |
| Equipment               | \$0             | \$0             | \$0              | \$0             | \$0              | \$0              |
| Contingency             | \$0             | \$0             | \$0              | \$0             | \$0              | \$0              |
| <b>Totals</b>           | <b>\$70,000</b> | <b>\$60,000</b> | <b>\$200,000</b> | <b>\$55,000</b> | <b>\$200,000</b> | <b>\$585,000</b> |

**Basis of Cost Projection:**  
Engineer's Estimate

**Submitted By:** Kevin Hardiman, Director of Public Works **Date:** 2/1/2024

**Transportation  
5-Year Capital Cost**

| Budget Cost Elements | FY25               | FY26               | FY27               | FY28               | FY29               | TOTAL              |
|----------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Site Acquisition     | \$0                | \$0                | \$0                | \$0                | \$0                | \$0                |
| Design/Eng.          | \$100,000          | \$100,000          | \$100,000          | \$100,000          | \$100,000          | \$500,000          |
| Construction         | \$965,000          | \$955,000          | \$1,495,000        | \$950,000          | \$1,095,000        | \$5,460,000        |
| Contingency          | \$0                | \$0                | \$0                | \$0                | \$0                | \$0                |
| <b>TOTAL</b>         | <b>\$1,065,000</b> | <b>\$1,055,000</b> | <b>\$1,595,000</b> | <b>\$1,050,000</b> | <b>\$1,195,000</b> | <b>\$5,960,000</b> |

| Fiscal Year Program                  | Location   | Cost                   | Fund                     |            |
|--------------------------------------|--|------------------------|--------------------------|------------|
| <b>FY25 Cal 2024-2025</b>            |  |                        |                          |            |
| <b>Road Preventative Maintenance</b> |  |                        |                          | Chapter 90 |
| Crack sealing                        | Various locations based on Pavement Management Plan  | \$50,000               | Chapter 90               | Grants     |
| Nova Chip                            | Various locations based on Pavement Management Plan  | \$150,000              | Chapter 90               | Gen Fund   |
|                                      |  | <b>\$200,000</b>       |                          |            |
| <b>Reconstruction/Resurfacing</b>    |  |                        |                          |            |
| Grind and Overlay                    | Various locations based on Pavement Management Plan  | \$175,000              | Chapter 90               |            |
| Full-Depth Reconstruction            | Various locations based on Pavement Management Plan  | \$270,000              | Chapter 90               |            |
|                                      |  | <b>\$445,000</b>       |                          |            |
| <b>Sidewalks/Complete Streets</b>    |  |                        |                          |            |
| Sidewalk Construction                | Whipple Road - Phase 1 Construction (Pleasant St. to Fercroft Rd-South)  | \$250,000              | General Fund             |            |
|                                      |  | <b>\$250,000</b>       |                          |            |
| <b>Improvement Projects</b>          |  |                        |                          |            |
| Signal Improvements                  | Andover Street (Rte. 133) at Ames Pond Drive   | \$70,000               | Chapter 90               |            |
|                                      |  | <b>\$70,000</b>        |                          |            |
| <b>Project Development</b>           |  |                        |                          |            |
| Sidewalk Design                      | Livingston Street from Roys Way to Hazel Field (Sidewalk Reconstruction - Design)<br>& Chandler Street from Foster Road to Indian Hill Road (Sidewalk Reconstruction - Design) | \$50,000<br>\$50,000   | Chapter 90<br>Chapter 90 |            |
|                                      |  | <b>\$100,000</b>       |                          |            |
|                                      |  | <b>Total Cost FY25</b> | <b>\$1,065,000</b>       |            |
| <b>FY26 Cal 2025-2026</b>            |  |                        |                          |            |
| <b>Road Preventative Maintenance</b> |  |                        |                          | Chapter 90 |
| Crack sealing                        | Various locations based on Pavement Management Plan  | \$50,000               | Chapter 90               | Grants     |
| Nova Chip                            | Various locations based on Pavement Management Plan  | \$150,000              | Chapter 90               | Gen Fund   |
|                                      |  | <b>\$200,000</b>       |                          |            |
| <b>Reconstruction/Resurfacing</b>    |  |                        |                          |            |
| Grind and Overlay                    | Various locations based on Pavement Management Plan  | \$175,000              | Chapter 90               |            |
| Full-Depth Reconstruction            | Various locations based on Pavement Management Plan  | \$270,000              | Chapter 90               |            |
|                                      |  | <b>\$445,000</b>       |                          |            |
| <b>Sidewalks/Complete Streets</b>    |  |                        |                          |            |
| Sidewalk Construction                | Whipple Road - Phase 2 Construction (Fercroft Rd.-South to Pine Street)  | \$250,000              | General Fund             |            |
|                                      |  | <b>\$250,000</b>       |                          |            |
| <b>Improvement Projects</b>          |  |                        |                          |            |
| Signal Improvements                  | East Street at Livingston St.  | \$60,000               | Chapter 90               |            |
|                                      |  | <b>\$60,000</b>        |                          |            |
| <b>Project Development</b>           |  |                        |                          |            |
| Sidewalk Design                      | North Street from Frasca Field to I-495 & Colonial Drive from Water Booster Station to Main Street   | \$100,000              | Chapter 90               |            |
|                                      |  | <b>\$100,000</b>       |                          |            |
|                                      |  | <b>Total Cost FY26</b> | <b>\$1,055,000</b>       |            |
| <b>FY27 Cal 2026-2027</b>            |  |                        |                          |            |
| <b>Road Preventative Maintenance</b> |  |                        |                          | Chapter 90 |
| Crack sealing                        | Various locations based on Pavement Management Plan  | \$50,000               | Chapter 90               | Grants     |
| Nova Chip                            | Various locations based on Pavement Management Plan  | \$150,000              | Chapter 90               | Gen Fund   |
|                                      |  | <b>\$200,000</b>       |                          |            |
| <b>Reconstruction/Resurfacing</b>    |  |                        |                          |            |
| Grind and Overlay                    | Various locations based on Pavement Management Plan  | \$175,000              | Chapter 90               |            |
| Full-Depth Reconstruction            | Various locations based on Pavement Management Plan  | \$270,000              | Chapter 90               |            |
|                                      |  | <b>\$445,000</b>       |                          |            |
| <b>Sidewalks/Complete Streets</b>    |  |                        |                          |            |
| Sidewalk Construction                | Whipple Road - Phase 3 Construction (Pine St. to Chandler St.)   | \$250,000              | General Fund             |            |
| Complete Streets Construction        | Upper North Street and Colonial Drive  | \$400,000              | Complete Streets Grant   |            |
|                                      | Dependent on MADOT grant award   |                        |                          |            |
|                                      |  | <b>\$650,000</b>       |                          |            |
| <b>Improvement Projects</b>          |  |                        |                          |            |
| Intersection Improvements            | Main Street at Pleasant Street and East Street - Non-Participating Agreement   | \$200,000              | Chapter 90               |            |
|                                      |  | <b>\$200,000</b>       |                          |            |
| <b>Project Development</b>           |  |                        |                          |            |
| Sidewalk Design                      | Chandler Street from Indian Hill Road to Whipple Road  | \$100,000              | Chapter 90               |            |
|                                      |  | <b>\$100,000</b>       |                          |            |
|                                      |  | <b>Total Cost FY27</b> | <b>\$1,595,000</b>       |            |
| <b>FY28 Cal 2027-2028</b>            |  |                        |                          |            |
| <b>Road Preventative Maintenance</b> |  |                        |                          | Chapter 90 |
| Crack sealing                        | Various locations based on Pavement Management Plan  | \$50,000               | Chapter 90               | Grants     |
| Nova Chip                            | Various locations based on Pavement Management Plan  | \$150,000              | Chapter 90               | Gen Fund   |
|                                      |  | <b>\$200,000</b>       |                          |            |
| <b>Reconstruction/Resurfacing</b>    |  |                        |                          |            |
| Grind and Overlay                    | Various locations based on Pavement Management Plan  | \$175,000              | Chapter 90               |            |
| Full-Depth Reconstruction            | Various locations based on Pavement Management Plan  | \$270,000              | Chapter 90               |            |
|                                      |  | <b>\$445,000</b>       |                          |            |
| <b>Sidewalks/Complete Streets</b>    |  |                        |                          |            |
| Sidewalk Construction                | Livingston Street from Roys Way to Hazel Field (Sidewalk Reconstruction)   | \$250,000              | General Fund             |            |
|                                      |  | <b>\$250,000</b>       |                          |            |
| <b>Improvement Projects</b>          |  |                        |                          |            |
| Signal Improvements                  | North St. at International Place   | \$55,000               | Chapter 90               |            |
|                                      |  | <b>\$55,000</b>        |                          |            |
| <b>Project Development</b>           |  |                        |                          |            |
| Sidewalk Design                      | Chandler Street from East Street to Livingston Street  | \$100,000              | Chapter 90               |            |
|                                      |  | <b>\$100,000</b>       |                          |            |
|                                      |  | <b>Total Cost FY28</b> | <b>\$1,050,000</b>       |            |
| <b>FY29 Cal 2028-2029</b>            |  |                        |                          |            |
| <b>Road Preventative Maintenance</b> |  |                        |                          | Chapter 90 |
| Crack sealing                        | Various locations based on Pavement Management Plan  | \$50,000               | Chapter 90               | Grants     |
| Nova Chip                            | Various locations based on Pavement Management Plan  | \$150,000              | Chapter 90               | Gen Fund   |
|                                      |  | <b>\$200,000</b>       |                          |            |
| <b>Reconstruction/Resurfacing</b>    |  |                        |                          |            |
| Grind and Overlay                    | Various locations based on Pavement Management Plan  | \$175,000              | Chapter 90               |            |
| Full-Depth Reconstruction            | Various locations based on Pavement Management Plan  | \$270,000              | Chapter 90               |            |
|                                      |  | <b>\$445,000</b>       |                          |            |
| <b>Sidewalks/Complete Streets</b>    |  |                        |                          |            |
| Sidewalk Construction                | Chandler Street from Foster Road to Indian Hill Road (Sidewalk Reconstruction)   | \$250,000              | General Fund             |            |
|                                      |  | <b>\$250,000</b>       |                          |            |
| <b>Improvement Projects</b>          |  |                        |                          |            |
| Intersection Improvements            | Shawsheen St/Beech St/Foster Rd/Patten Rd - Non-Participating Agreement  | \$200,000              | Chapter 90               |            |
|                                      |  | <b>\$200,000</b>       |                          |            |
| <b>Project Development</b>           |  |                        |                          |            |
| Sidewalk Design                      | Location to be determined based on Prioritization Plan   | \$100,000              | Chapter 90               |            |
|                                      |  | <b>\$100,000</b>       |                          |            |
|                                      |  | <b>Total Cost FY29</b> | <b>\$1,195,000</b>       |            |

**Roadway Projects Spring of 2024-Fall of 2024: Funding Chapter 90 and Town Budget Appropriation**  
*(The following road list is subject to change based on bid pricing)*

**RESURFACING ~\$590,000 (FY24 Funds)**

| <u>Name</u>       | <u>From</u>               | <u>To</u>                 | <u>Treatment</u>    |                   |
|-------------------|---------------------------|---------------------------|---------------------|-------------------|
| Trull Brook Lane  | Hood Road                 | Dead-End                  | RECLAIM AND 4" PAVE |                   |
| Green Meadow Lane | Andover Street            | Cul-de-sac                | 2" MILL AND OVERLAY |                   |
| Cleghorn Road     | Trull Road                | Trull Road                | 2" MILL AND OVERLAY |                   |
| Hood Road         | Andover Street            | River Road                | 2" MILL AND OVERLAY |                   |
| Guile Road        | Trull Road                | Martin Road               | 2" MILL AND OVERLAY |                   |
| Whipple Road      | End of DW at #836 Whipple | End of DW at #796 Whipple | 2" MILL AND OVERLAY | Water Trench Only |
| Whipple Road      | Pond Street               | Pine Street               | 2" MILL AND OVERLAY | Water Trench Only |
| Pine Street       | Whipple Road              | End of DW at #150         | 2" MILL AND OVERLAY | Water Trench Only |
| Rogers Street     | Whipple Road              | End of DW at #467         | 2" MILL AND OVERLAY | Water Trench Only |
| Livingston St     | Parking Lot               | to Park                   | 2 CROSSWALKS        |                   |

**TOTAL 2.95 MILES**

**MICROSURFACING 150,000 (FY24)**

| <u>Name</u>    | <u>From</u> | <u>To</u> | <u>Treatment</u> |
|----------------|-------------|-----------|------------------|
| Knollwood Road | Entire      | Street    | MICROSEALING     |
| Rhoda Street   | Entire      | Street    | MICROSEALING     |
| Oliver Street  | Entire      | Street    | MICROSEALING     |
| Amos Street    | Entire      | Street    | MICROSEALING     |
| Ida Street     | Entire      | Street    | MICROSEALING     |
| Herbert Street | Entire      | Street    | MICROSEALING     |

**TOTAL 0.95 MILES**

**CRACKSEALING 50,000 (FY24)**

| <u>ROAD NAME</u>  | <u>FROM</u>  | <u>TO</u>           | <u>TREATMENT</u> | <u>NOTES</u> |
|-------------------|--------------|---------------------|------------------|--------------|
| River Rd          | Andover St   | To Culvert Crossing | CRACKSEALING     |              |
| Trull             | Andover St   | 495 Overpass        | CRACKSEALING     |              |
| Foster Road       | Entire       | Street              | CRACKSEALING     |              |
| Beech Street      | Shawsheen St | #128 Beech St       | CRACKSEALING     |              |
| Driftwood         | Entire       | Street              | CRACKSEALING     |              |
| Sycamore Drive    | Entire       | Street              | CRACKSEALING     |              |
| Easement Road     | Entire       | Street              | CRACKSEALING     |              |
| Virginia Road     | Entire       | Street              | CRACKSEALING     |              |
| Coburn Avenue     | Entire       | Street              | CRACKSEALING     |              |
| Linwood Avenue    | Entire       | Street              | CRACKSEALING     |              |
| Hazelwood Avenue  | Entire       | Street              | CRACKSEALING     |              |
| David Morris Road | Entire       | Street              | CRACKSEALING     |              |
| Pinnacle Street   | Entire       | Street              | CRACKSEALING     |              |

**TOTAL 5.45 MILES**

**Sidewalk and Transportation Projects Spring of 2024-Spring of 2025**

| <b>Project Type</b>   | <b>Location</b>                                    | <b>Description</b>  | <b>Budget</b> |              |
|-----------------------|--|---|---------------|--------------|
| Sidewalk Construction | Whipple Road Phase I                               | Sidewalk construction - Pleasant Street to Ferncroft Road | 250,000       | General Fund |
| Signal Improvements   | Andover Street at Ames Pond Drive                  | Upgrade traffic signal equipment, pavement striping, etc. | 70,000        | Chapter 90   |
| Sidewalk Design       | Lower Chandler Street: Whipple Road to Indian Hill | Sidewalk design   | 50,000        | Chapter 90   |
| Sidewalk Design       | Livingston Street from Roys Way to Hazel Field     | Sidewalk design   | 50,000        | Chapter 90   |