

*TOWN OF
BRUNSWICK*

*ENGINEERING
DEPARTMENT*

*2025-2026
BUDGET*

Trey Crews, PE

Town Engineer

March 13, 2025



ENGINEERING DEPARTMENT

Roles and Responsibilities

- Developing and overseeing plans and specifications for municipal projects
- Develops and solicits bids for proposals, drawings, specifications, cost estimates
- Manages town infrastructure projects
- Coordinates inspections and progress reports of town projects
- Provides technical support on Public Works projects and for other departments
- Assists in applying and implementing federal, state, and local grants
- Reviews and advises on plans submitted to the town
- Reviews and advises on submitted permits for entrances, road closures, utility poles, storm water, and excavations

ENGINEERING DEPARTMENT

Roles and Responsibilities

- Oversees maintenance of public records of town infrastructure
- Develops and oversees department operating budget and CIP requests
- Responds to concerns from citizens, developers, council members, regulatory agencies, other municipal departments, and all other matters relating to public works projects and town infrastructure
- Compliance with Federal, State, and Local legislation related to engineering activities in the town
- Collaborating with Maine DOT and other external partners on projects

DEPARTMENT BUDGET

| Engineering 11800 (page 39) | 23-24 Expended | 24-25 Available | 24-25 Estimated Expended | 25-26 Budget Request | Increases & (Decreases) |
|-----------------------------------|-------------------|--------------------|--------------------------------|----------------------------|----------------------------|
| Personnel Services | 154,713 | 198,566 | 140,000 | 190,762 | (7,804) |
| Employee Benefits | 67,018 | 70,305 | 65,800 | 70,130 | (175) |
| Contractual Services | 18,640 | 55,004 | 34,982 | 55,587 | 583 |
| Materials & Supplies | 58 | 1,700 | 100 | 1,700 | - |
| Capital Outlay | 4,340 | - | 15,000 | - | - |
| Totals | 277,189 | 325,575 | 255,882 | 318,179 | (7,396) (2.3%) |

PAVEMENT MANAGEMENT



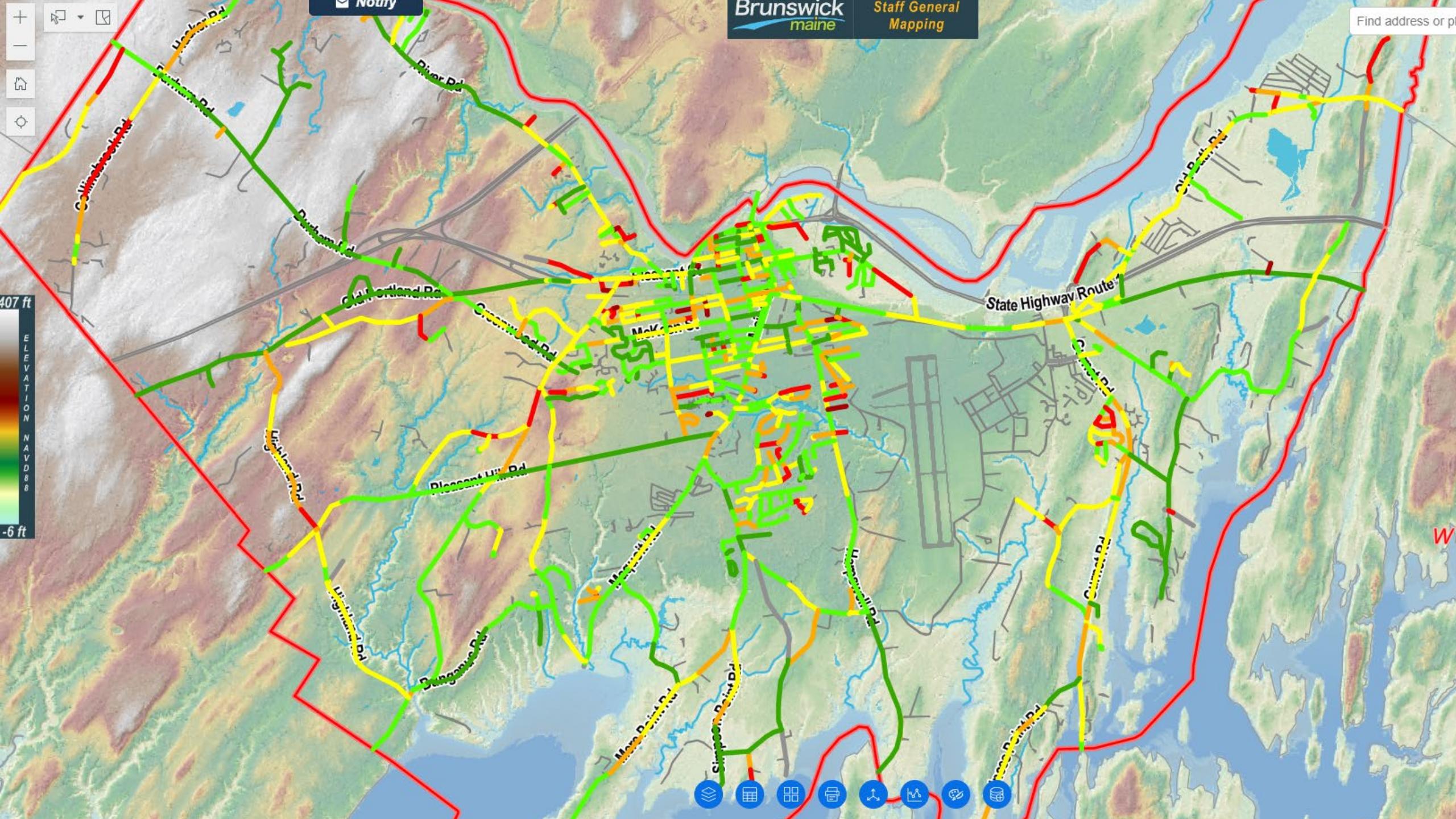
ANNUAL PAVING BUDGET

| | |
|----------------------------------|-------------------------|
| Miles of Town Maintained Roads | Approximately 144 Miles |
| 2022-2023 Paving Budget | \$2,100,000 |
| 2023-2024 Paving Budget | \$2,200,000 |
| 2024-2025 Paving Budget | \$2,250,000 |
| 2025-2026 Proposed Paving Budget | \$2,400,000 |

Does not include Maine DOT Municipal Partnership Paving Projects. Those are separate CIP paving projects in conjunction with Maine DOT

PAVEMENT MANAGEMENT GOALS

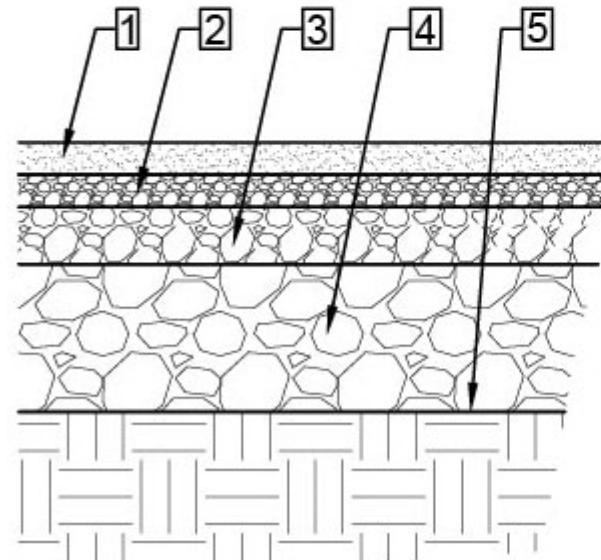
- Identify roads in poor condition and evaluate different treatment options and costs
- Prepare 5 year plan to balance costs and scheduling with other projects
- Proactive coordination with Public Works, Brunswick Sewer District, and Brunswick-Topsham Water District to share costs and do other upgrades/replacements
- Repair and improve sidewalks, curbing, crosswalks, and bike lanes where existing
- Evaluate roads in regards to the Town of Brunswick Complete Street Policy (ie accommodating all modes of transit)
- Reconstruct inadequate roads (ie roads with severe structural issues or costly annual maintenance)



PAVEMENT TYPICAL SECTION

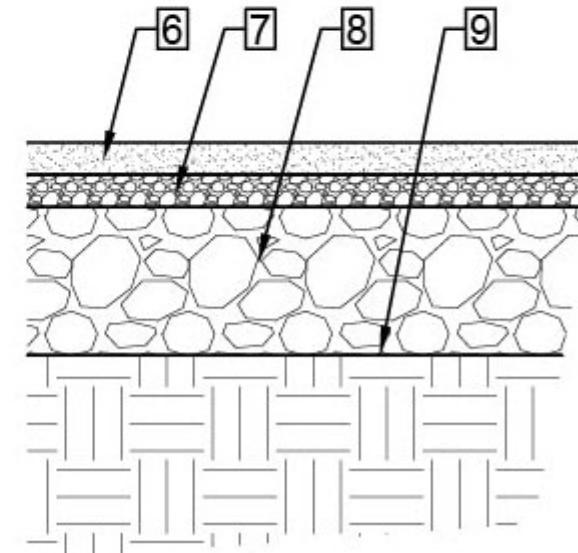
HIGH VOLUME ROADWAY

1. HMA SURFACE COURSE
2. HMA INTERMEDIATE COURSE
3. HMA BASE COURSE
4. GRAVEL SUBBASE
5. SUBGRADE

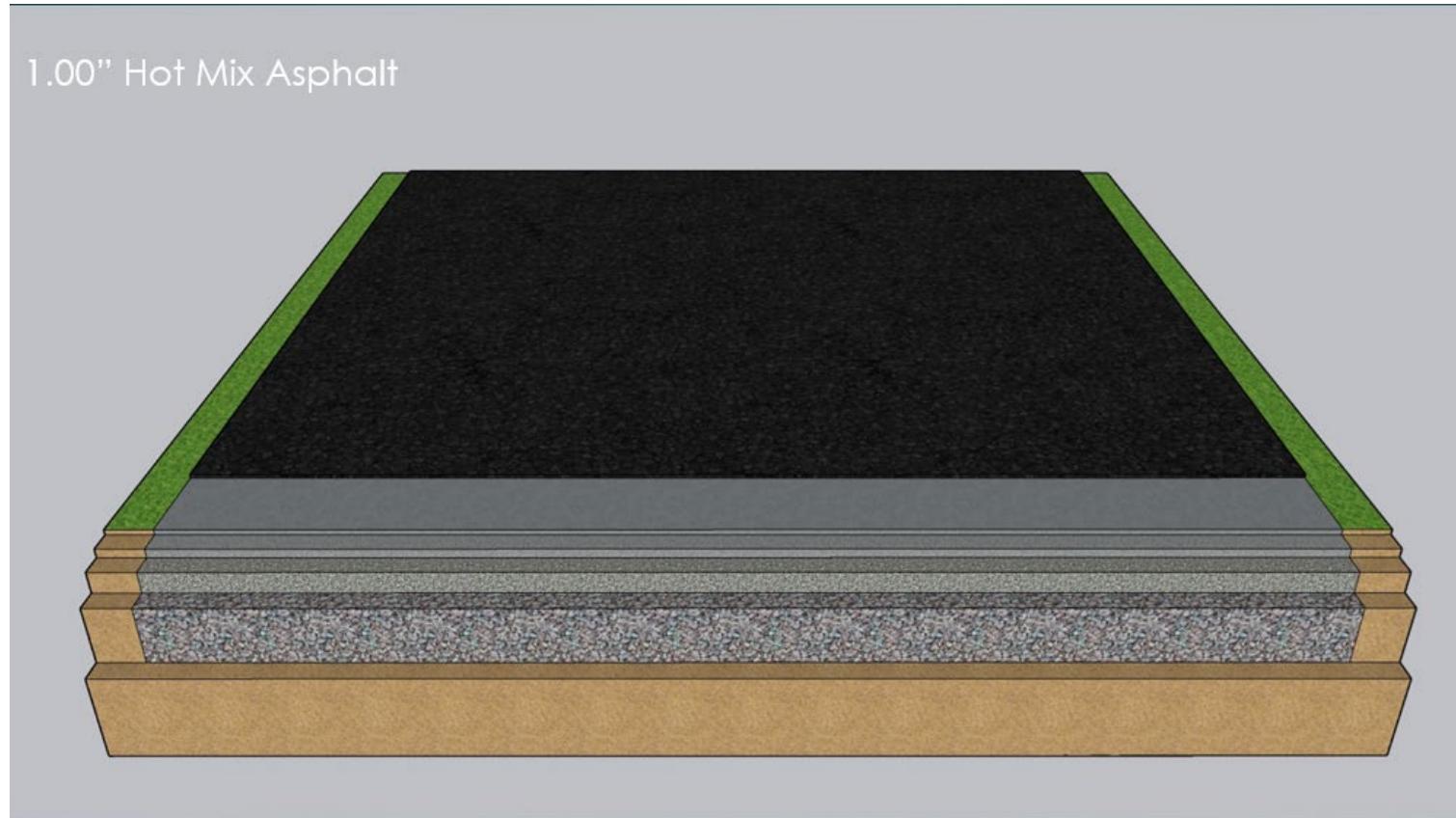


LOW VOLUME ROADWAY

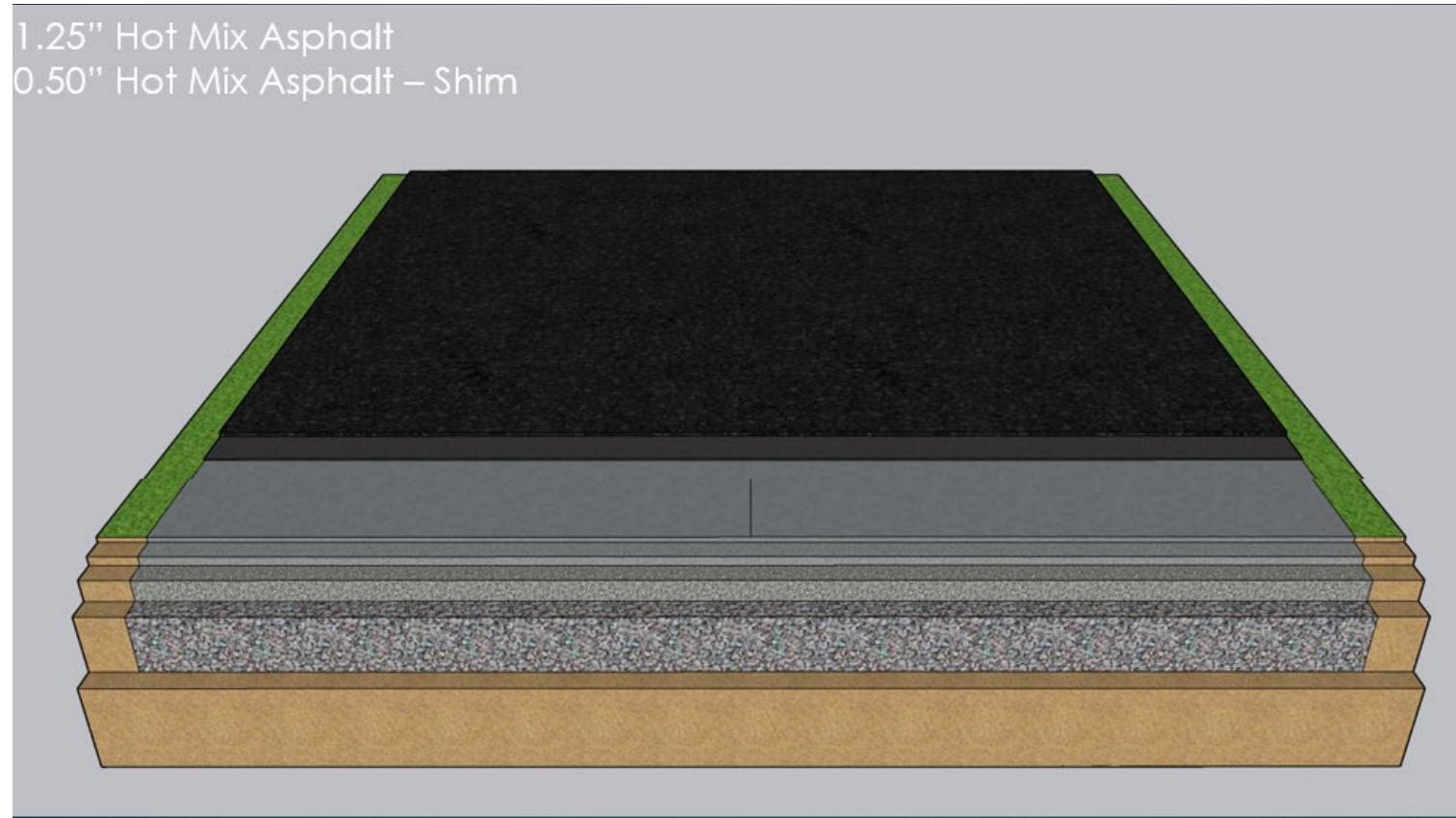
6. HMA SURFACE COURSE
7. HMA INTERMEDIATE SURFACE
8. GRAVEL BASE COURSE
9. SUBGRADE



OVERVIEW OF TREATMENTS – RESURFACING (LCP)

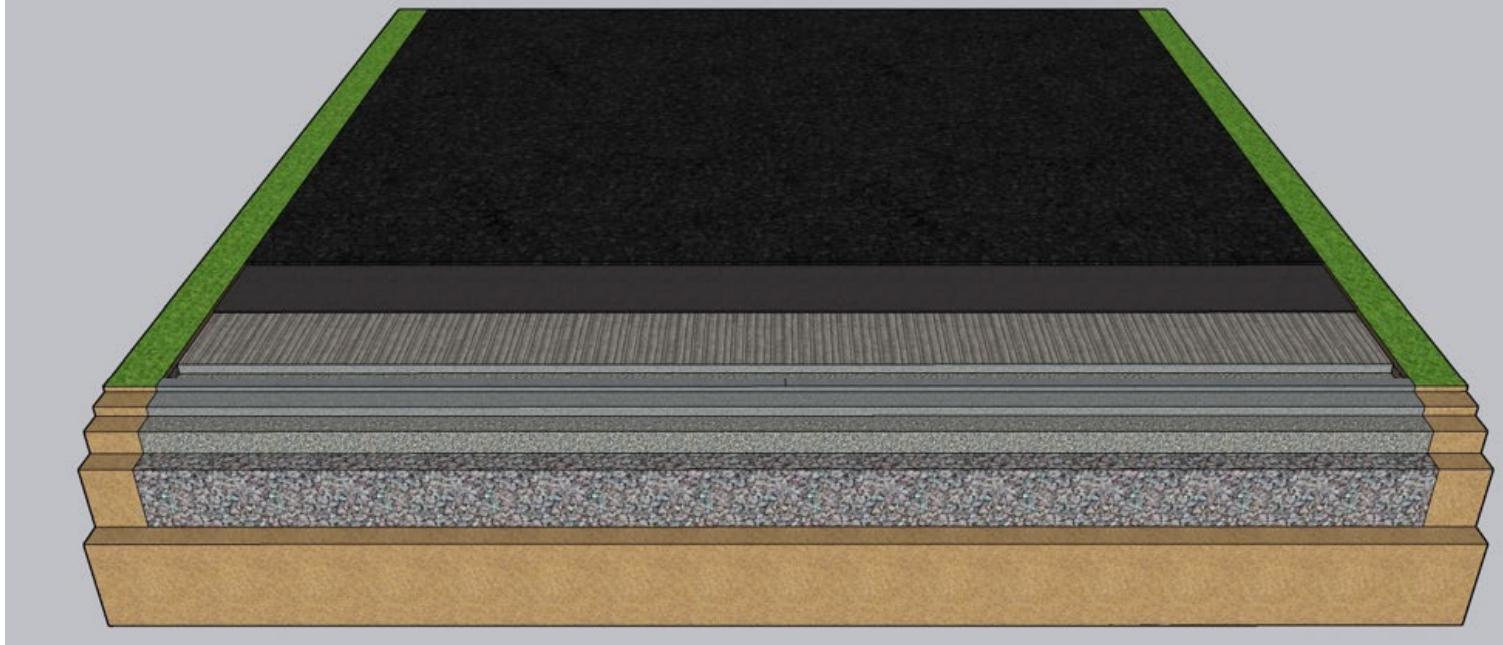


OVERVIEW OF TREATMENTS – SHIM & OVERLAY

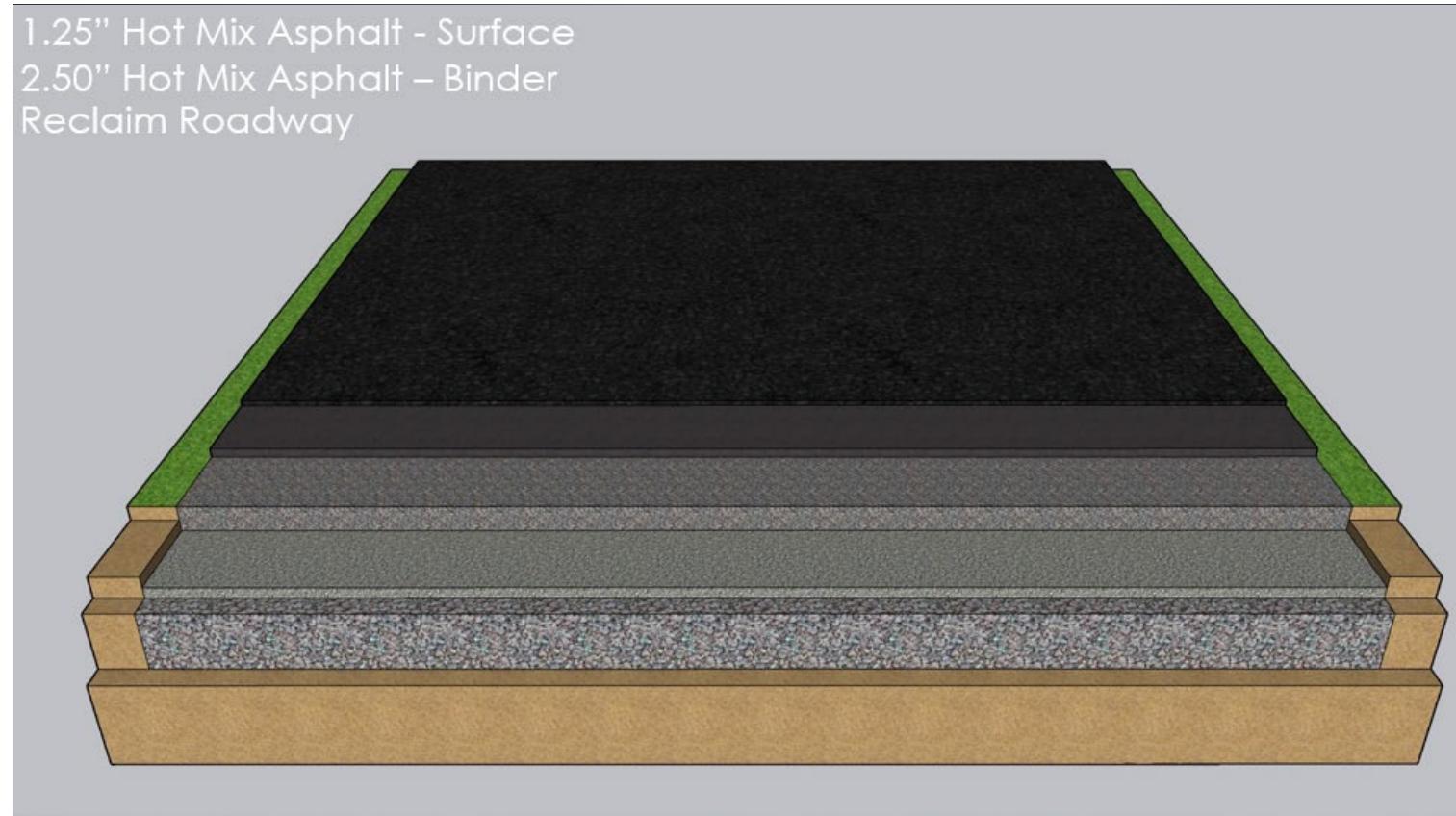


OVERVIEW OF TREATMENTS – MILL & FILL

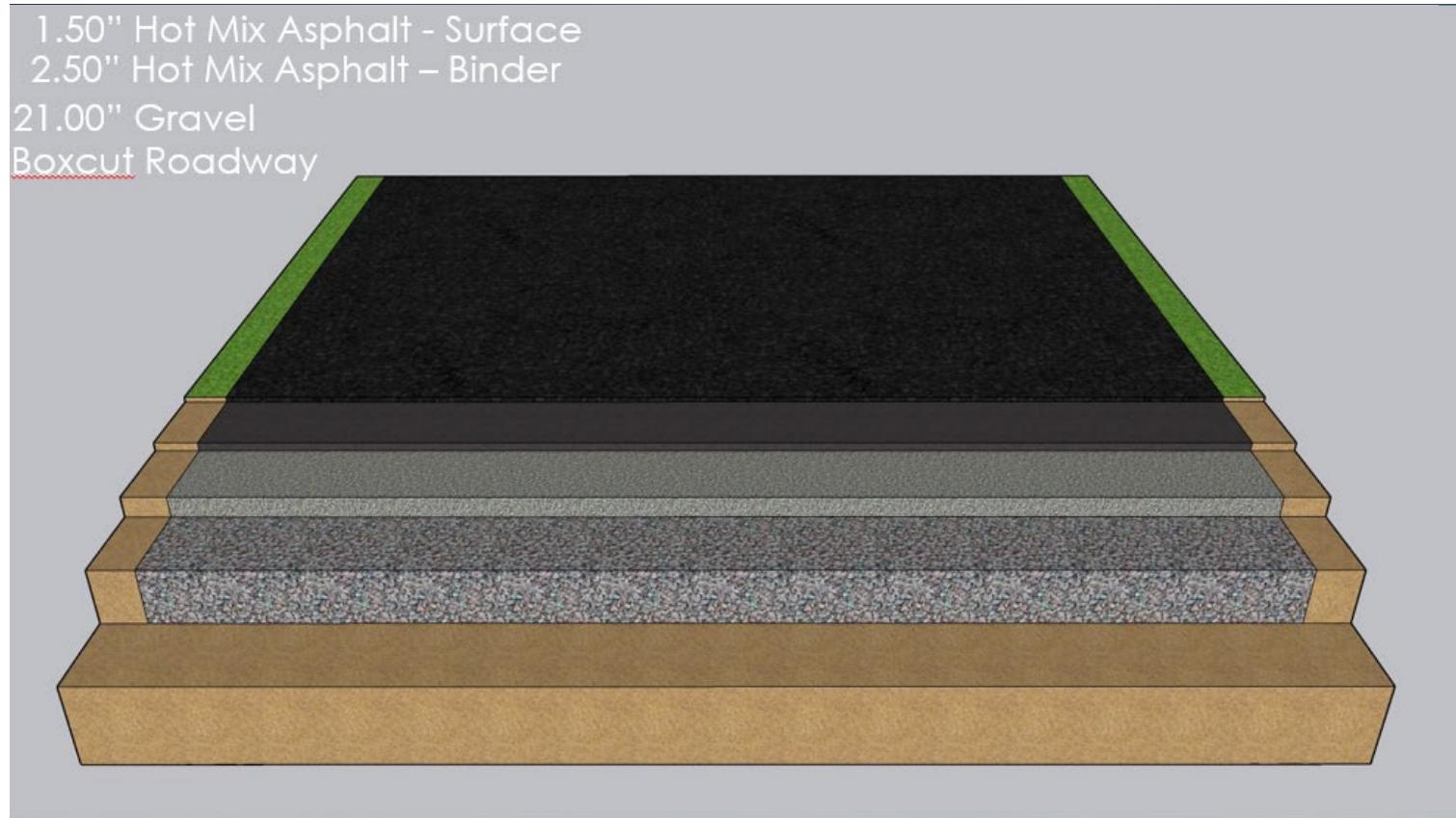
1.25" Hot Mix Asphalt - Surface
0.50" Hot Mix Asphalt – Shim
Mill Roadway



OVERVIEW OF TREATMENTS – RECLAIM & REPAVE

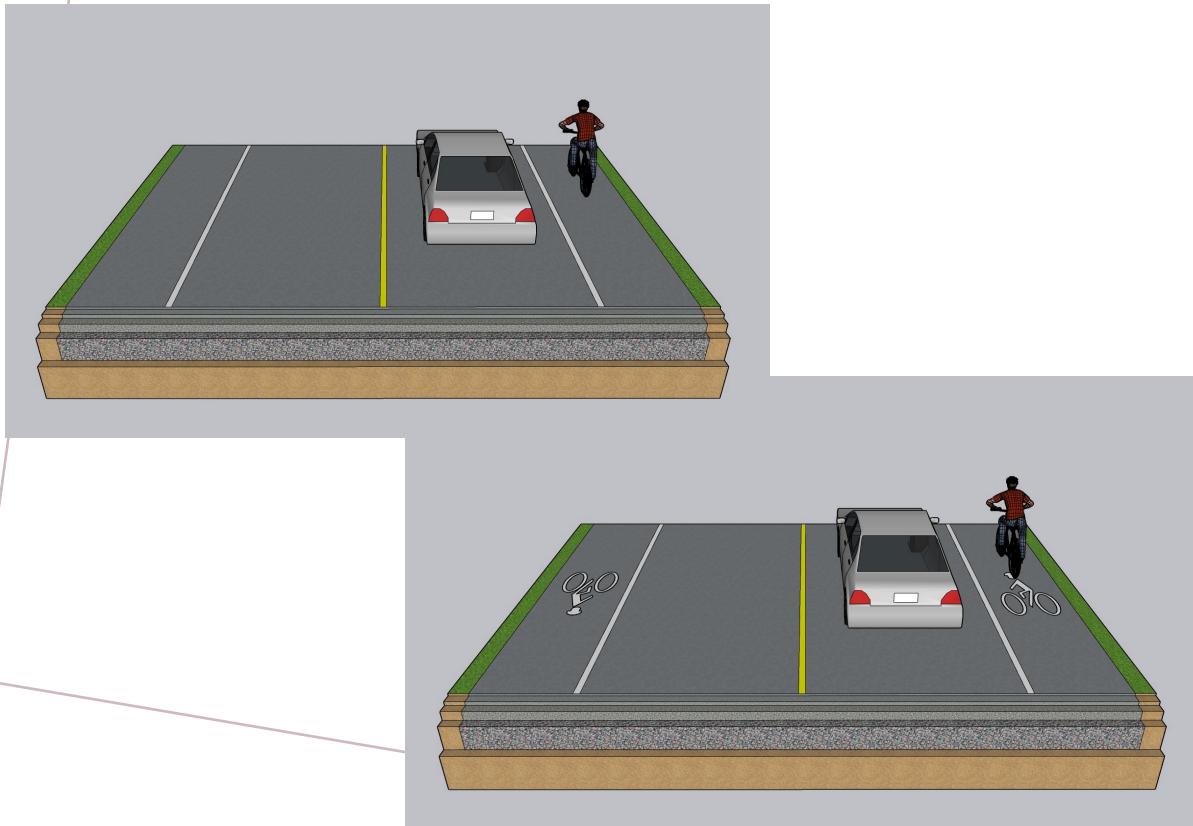


OVERVIEW OF TREATMENTS – FULL DEPTH RECONSTRUCTION

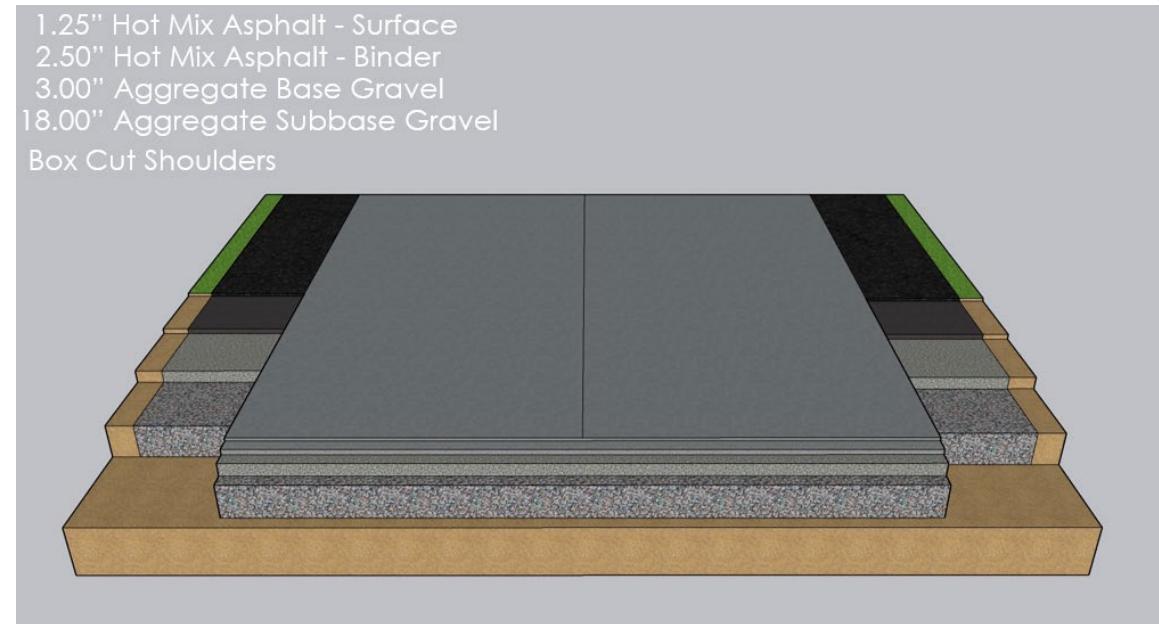


AMENITIES AND ENHANCEMENTS

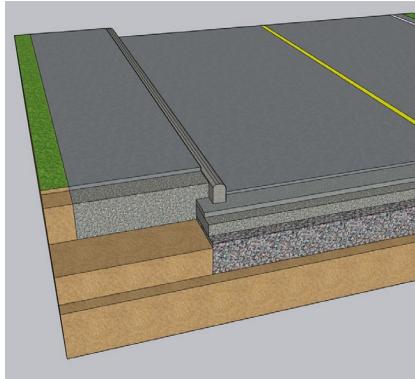
ADDING BIKE LANES (STRIPING)



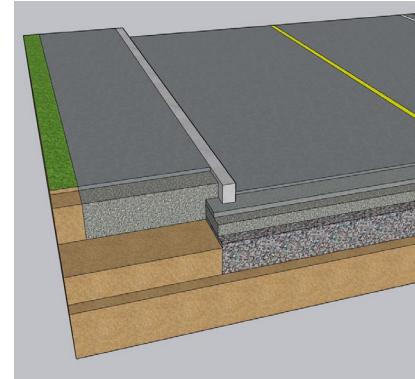
ADDING BIKE LANES (WIDENING)



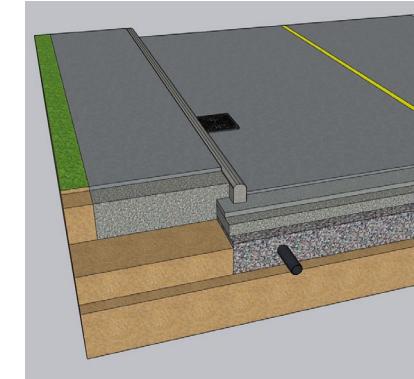
AMENITIES AND ENHANCEMENTS



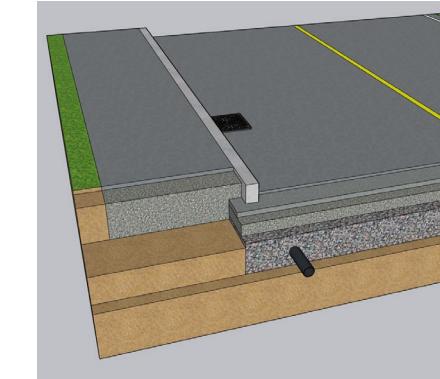
New slipform
curb, sidewalk,
no drainage



New granite
curb, sidewalk,
no drainage



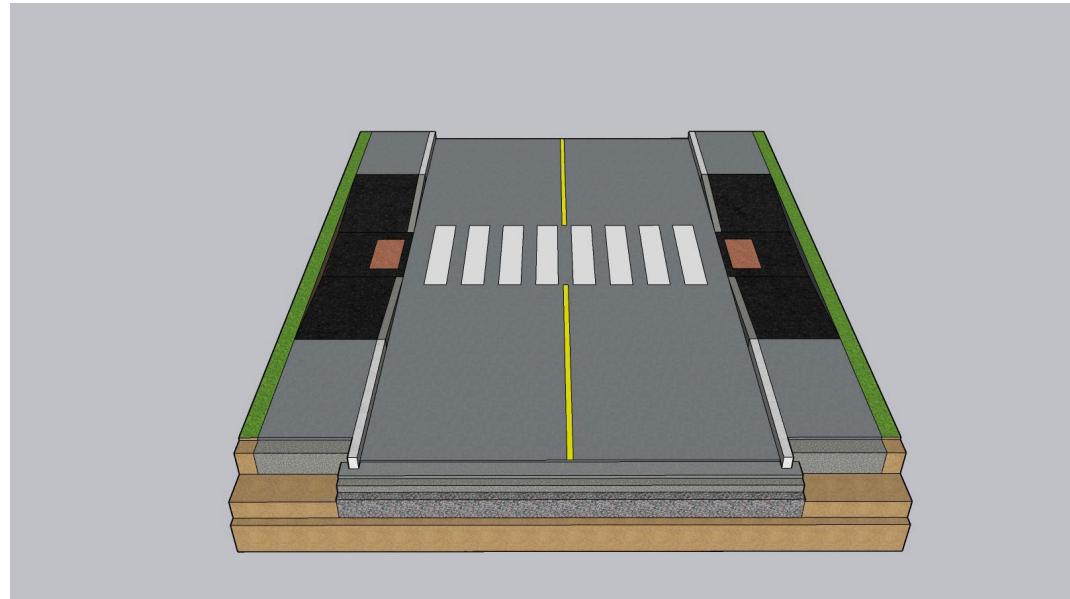
New slipform
curb, sidewalk,
and drainage



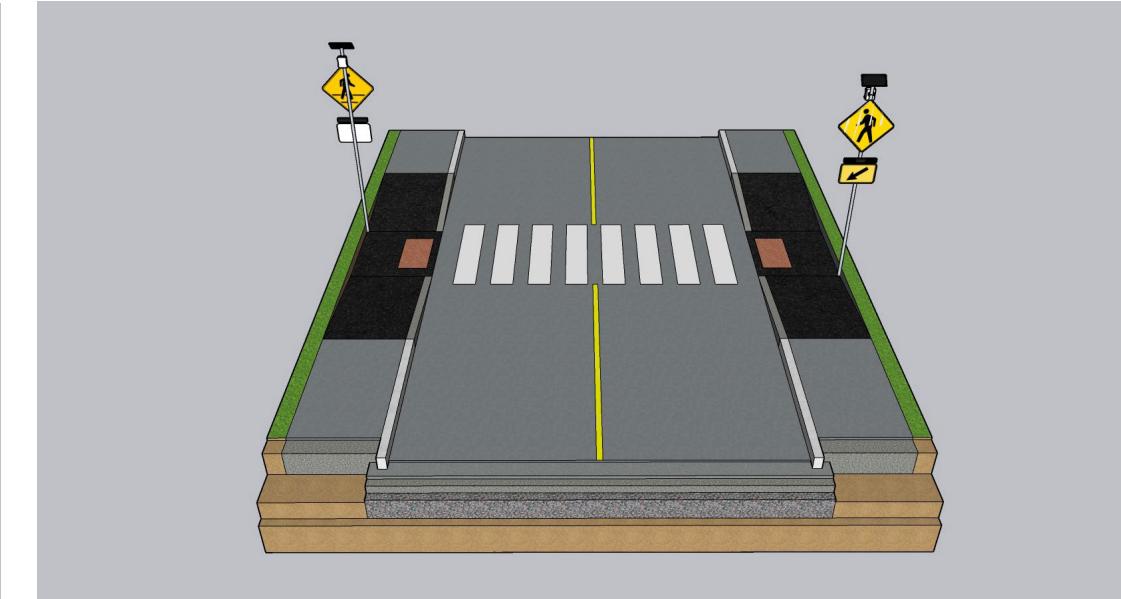
New granite
curb, sidewalk,
and drainage

AMENITIES AND ENHANCEMENTS

MARKED CROSSWALK



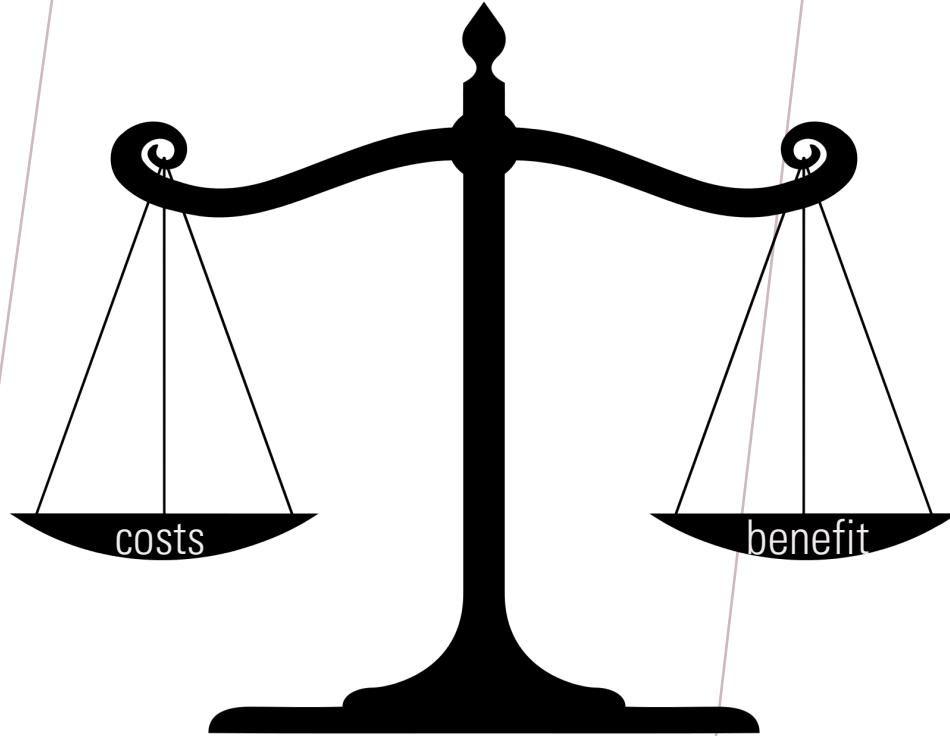
CROSSWALK WITH RRFB



COST SUMMARY

| | Avg. Cost | Annual Maintenance |
|--|---------------------------|--------------------|
| Pavement Management | | |
| Surface Treatment | \$264,000 per mile | - |
| Shim and Overlay | \$396,000 per mile | - |
| Mill and Fill | \$528,000 per mile | - |
| Reclaim and Pave | \$792,000 per mile | - |
| Full Depth Reconstruction | \$1,452,000 per mile | - |
| Bicycle Upgrades | | |
| Bike Lanes (stripping only) | \$4,200 per mile | \$1,200 per mile |
| Bike Symbols (markings only) | \$3,360 per mile | \$700 per mile |
| Bike Lanes (widening road) | \$570,000 per mile | \$5,000 per mile |
| Pedestrian Upgrades | | |
| Adding sidewalk and slipform curb | \$330,000 per mile | \$500 per mile |
| Adding sidewalk and granite curb | \$556,000 per mile | \$500 per mile |
| Adding sidewalk, slipform curb, and drainage | \$980,000 per mile | \$1,000 per mile |
| Adding sidewalk, granite curb, and drainage | \$1,246,000 per mile | \$1,000 per mile |
| Crosswalk Upgrades | | |
| Adding marked crosswalk | \$15,000 per installation | \$500 each |
| Adding crosswalk with RRFB | \$36,000 per installation | \$750 each |

TREATMENT SELECTION



- Less intensive treatments

- Pros: low cost = more miles paved
- Cons: can negatively affect drainage as road is built up. Cannot address structural failures which lowers potential service life

- Medium intensive treatments

- Pros: longer service life, fewer negative effects on existing drainage patterns
- Cons: Can fix structural issues in upper layers of pavement, but not lower

- High intensity treatments

- Pros: rebuilt roads have significantly longer projected lifespans, can address drainage issues, and bring up to modern road standards (widths and material)
- Cons: Cost is high and longer construction process

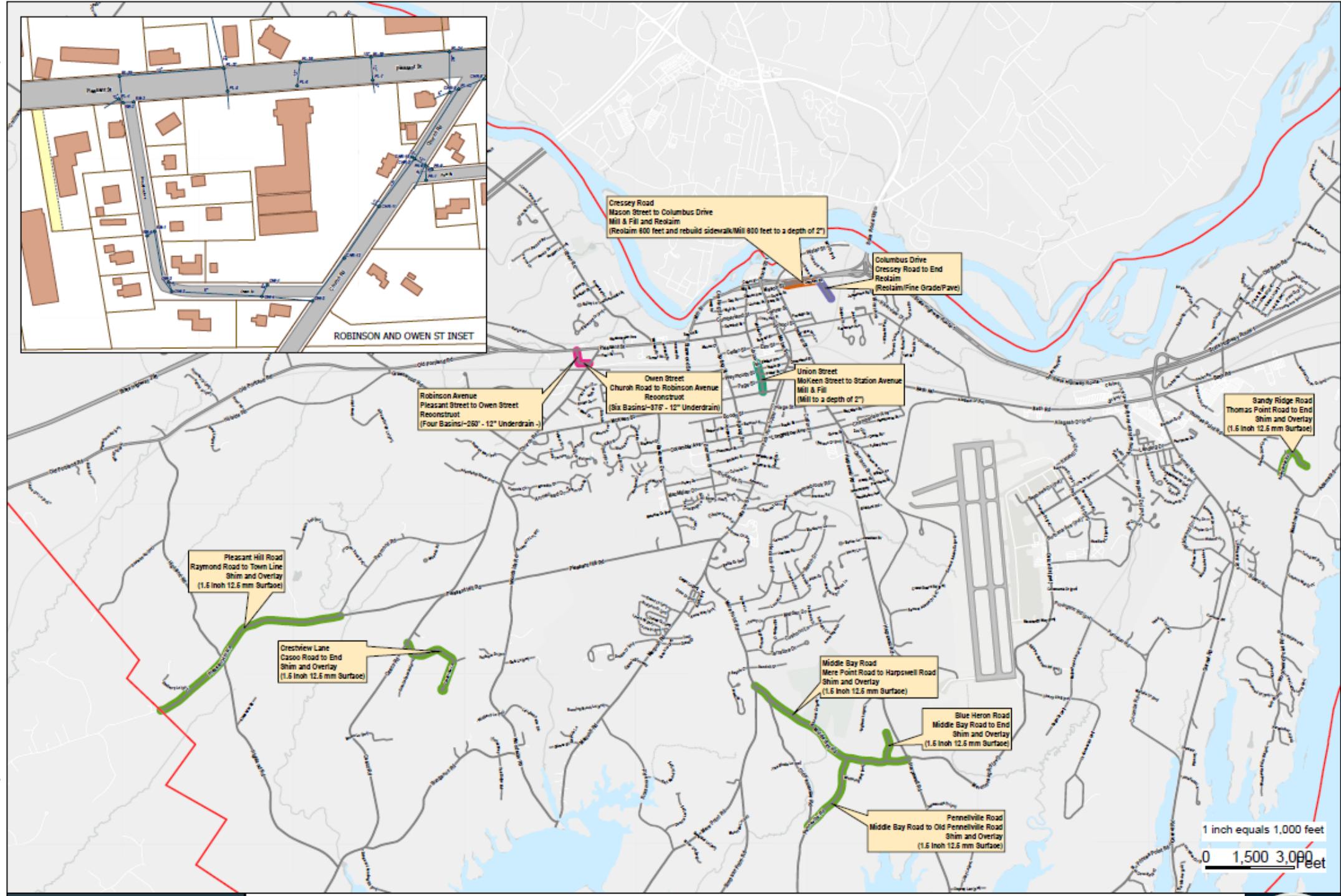
2025 PAVING PLANS

WORK STILL IN PROGRESS

- Bridge Road
- Final Surface Application
- Hillside
- Quarry
- Grant
- Grover
- Bayside
- Great Gully
- Atwood
- Berry
- Bowdoin
- Whittier
- Mere Point
- Simpsons Point

NEW 2025 PROJECTS

- Robinson Avenue - Reconstruct
- Owen Street – Reconstruct
- Union St – Mill & Fill
- Cressey Road – Mill & Fill and Reclaim
- Columbus Drive – Reclaim
- Crestview Lane – Shim & Overlay
- Pleasant Hill Rd – Shim & Overlay
- Blue Heron Rd – Shim & Overlay
- Middle Bay Rd – Shim & Overlay
- Pennellville Rd – Shim & Overlay
- Sandy Ridge Rd – Shim & Overlay



**CAPITAL
IMPROVEMENT
PROGRAM**

**C
I
P**



BUNGANUC ROAD CULVERT

Ample capacity for 100 year storm

Structurally deficient

Narrow road width

Preliminary design report with alternatives complete

Concrete Liner Cost: \$1.22M – 1.65M

- 25 year service life

Steel Slip Liner cost: \$1.42M – 1.91M

- 75 year service life

Upgrade to bridge: \$1.55M – 2.1M

- 75 year service life and Maine DOT assumes future maintenance costs

- Recommended to upgrade to bridge

- Requesting \$100,000 funding for consultant to begin full design of plans and start permitting process



RIVER ROAD CULVERT

Early stage of failure

Will need remediation or replacement

- Requesting \$75,000 funding for consultant to begin preliminary designs and evaluate alternative options

BICYCLE AND PEDESTRIAN IMPROVEMENTS



BICYCLE AND PEDESTRIAN IMPROVEMENTS



- Recommend projects from BBPAC
- Improve crosswalk at McKeen and Baribeau with Rapid Flashing Beacon
- Improve crosswalk at Bath/Old Bath with new marked crosswalk, ADA curb ramps, and minor sidewalk improvements
- Extend sidewalk along Maine St from Botany Place to Meadowbrook and install crosswalk
- Asking for \$100,000 total to design and construct all three projects



SPEED SIGNS

The engineering department receives regular requests from citizens, police, and other departments to evaluate and improve road safety and reduce excessive speeds

Speed feedback signs are shown to be a cost effective, low maintenance tool to assist in reducing speeds by raising awareness

Asking for \$100,000 to purchase about ten assemblies to be installed on priority roads, determined by staff and Brunswick Police, throughout the town

CUSHING STREET REHAB



- Cushing St pavement needs full depth reconstruction
- Cushing St needs drainage improvements
- Issues with existing sidewalks, ADA compliance, and large number of curb cuts creating dangerous conflict points
- Asking for \$200,000 for a consultant to prepare plans to completely rebuild Cushing St with associated sidewalk and drainage improvements

COFFIN ICE POND BRIDGE

Due to erosion, the foundations for the Coffin Ice Pond pedestrian bridge are being washed away

The department is requesting \$110,000 to construct a new replacement pedestrian bridge with a newer, more resilient design

