



Article 47

2017 Roads & Parking Lot Program

ARTICLE 47 - Mr. Wallis moves: That the Town take affirmative action on Article 47 as printed in the Warrant, in the amount of \$1,415,000 from borrowing under the provisions of Chapter 44, Section 7(1) of the Massachusetts General Laws or any other enabling authority.



Article 47

2017 Roads & Parking Lot Program Goals

- Repair and maintain the Town's 107 mile roadway network and paved public infrastructure.
- Recommend adequate investments to repair:
 - Arterial/Collector and Residential Roadways
 - Off-street Parking Facilities
 - Access Drives
- Coordinate projects with planned utility work (CMLP, CPW W/S, National Grid, etc.)
- Evaluate and implement drainage and safety improvements when applicable.



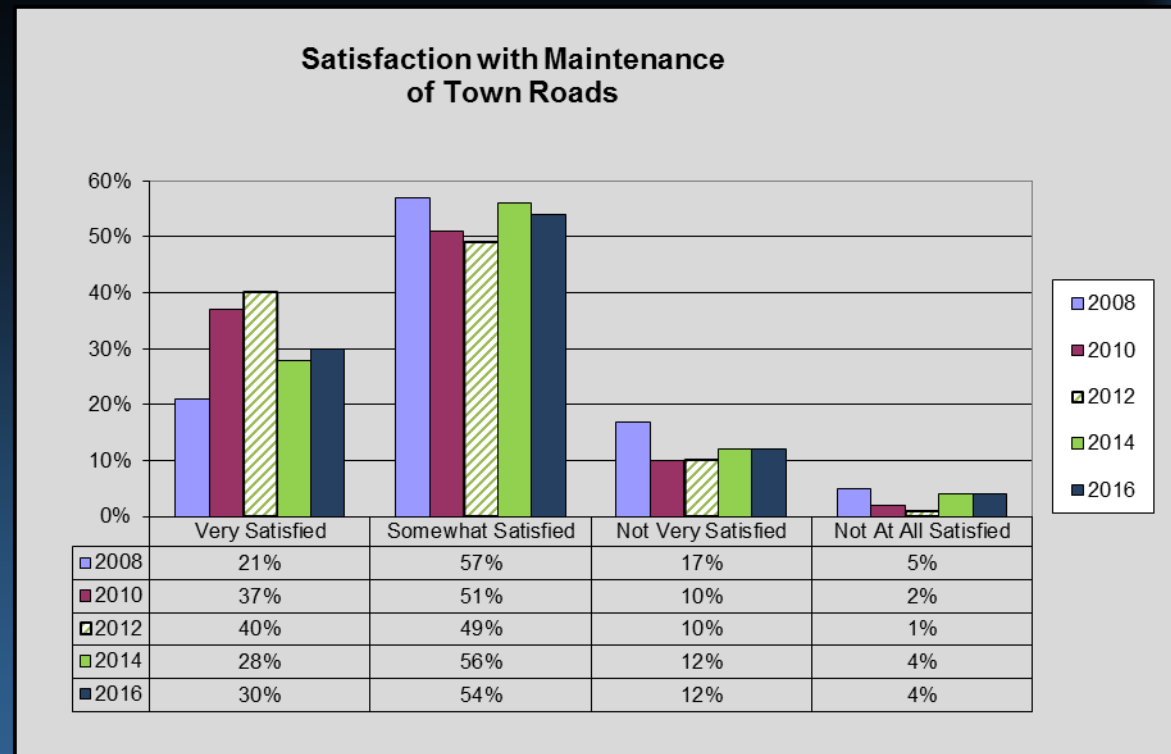
Article 47

2017 Roads & Parking Lot Program



Strategic Plan / Resident Survey

- Public Works Implements a Strategic Plan for Continuous Investments to Maintain Roadway Infrastructure Integrity
- The Most Recent 2016 Town Wide Survey Indicates that 84% of Those Surveyed are “Very Satisfied” or “Somewhat Satisfied”
- This is a Consistent Trend Over the Past 8 Years



Article 47

2017 Roads & Parking Lot Program Funding Sources



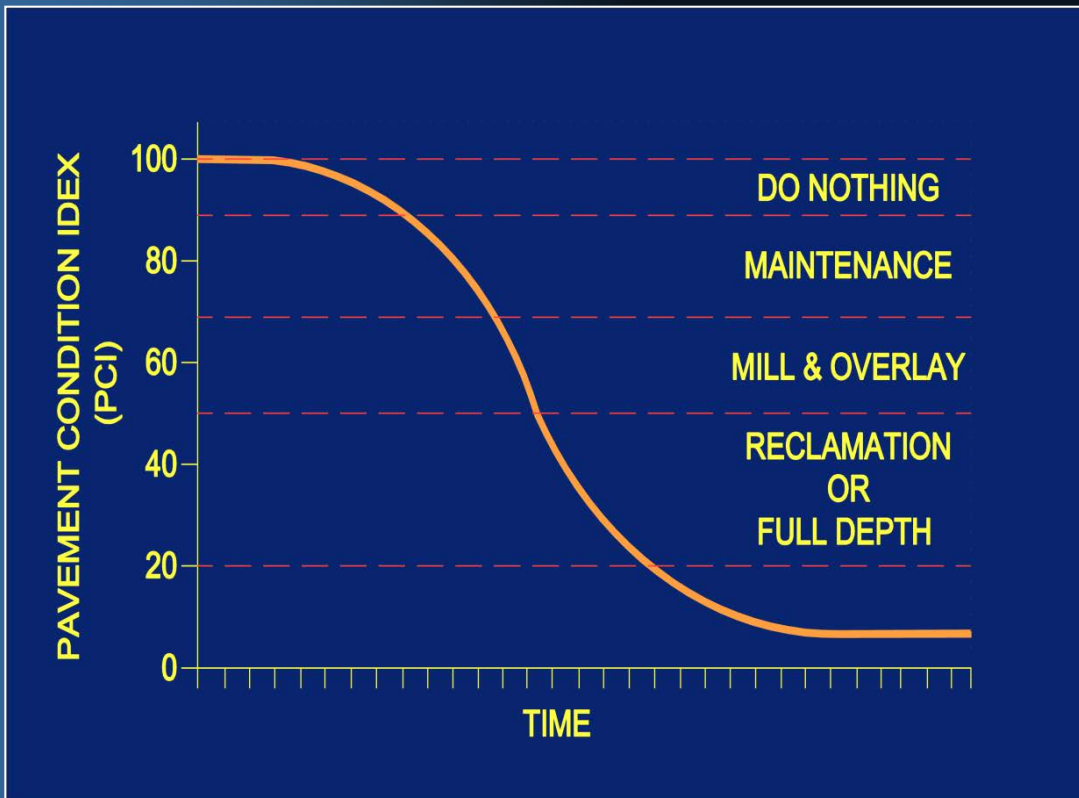
- State Aid (Chapter 90)
 - ✓ Approximately \$680,000 Annually
- Roads Repair Revolving Fund (Article 45)
 - ✓ Road Cut Fees Collected
 - ✓ Approximately \$120,000
- CPW Operational Budget (Article 7, Item 17C)
 - ✓ \$20,000 Crack Sealing
 - ✓ \$18,000 Infrared Patching
 - ✓ \$43,050 Pavement for Patching
- CPW Capital Budget (Article 7, Item 23)
 - ✓ \$90,000 Roadway Improvements
- **Bonding Authorization Request**
 - ✓ **\$1,415,000**





Article 47

2017 Roads & Parking Lot Program Project Selection



Project Selection

1. Condition Inventory (Assign PCI)
2. Develop Treatment Strategies
3. Develop Project List
4. Rank Projects (Assign BVI)

Recommended Investment

\$1.5 Million Dollar investment in pavement rehabilitation is required to maintain the Townwide target pavement condition of 80 PCI.

Article 47

2017 Roads & Parking Lot Program



Pavement Preservation / Pothole Maintenance

- CPW Uses a Systematic Approach to Pothole Maintenance
- Investments Made in Required Equipment to Optimize Repair Operations
- Annual Spring Field Survey of 107 Miles of Public Roadways Conducted by CPW staff to Identify Pothole Repair Requirements
- Repairs Carried out with Priority Focused on Main and Arterial Roadways followed by Collector and Residential Streets





Article 47

2017 Roads & Parking Lot Program Preliminary Plan

4.3 Miles of Road Reconstruction

➤ Mill and Overlay

- Lowell Road (*Barrett's Mill Rd. to Westford Rd.*)
- Laurel Street (*Thoreau St. to Stow St.*)
- Monument Street (*Bridge to Hutchins Farm*)
- Sudbury Road (*Fitchburg Tpk. to Town Line*)
- ORNAC (*Main St. to Rte. 2*)

➤ Reclamation Treatment:

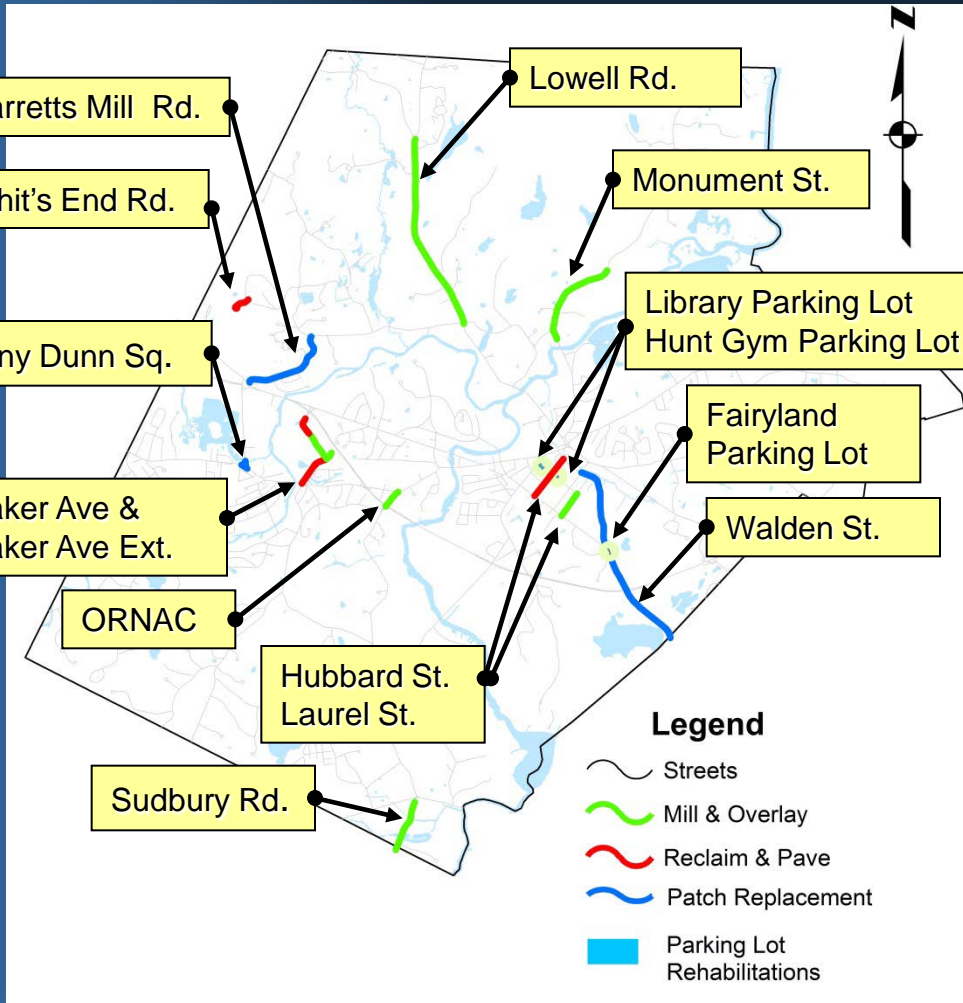
- Whit's End Road
- Baker Avenue (*Main St. to Baker Ave Ext.*)
- Baker Avenue Extension
- Hubbard Street

1.7 Miles of Planned Patching

- Walden Street (*Heywood St. to Rte 2*)
- Barrett's Mill Road (*College Ave. to Rte 2*)
- Kenny Dunn Square

Parking Lot Rehabilitation

- Fairyland Parking Lot – Walden Street
- Library Parking Lot - Stow Street
- Hunt Gym Parking Lot – Stow Street





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Concord Public Works 2016/2017 Roads Program Treatment Strategies

Mill & Overlay

- Plane off top course pavement
- Grooved Pavement
- Install 2" top course pavement



Reclaim Treatment

- Grind road into sub base material.
- Regrade Roadway
- Install 2" binder course pavement
- Install 1-1/2" top course pavement



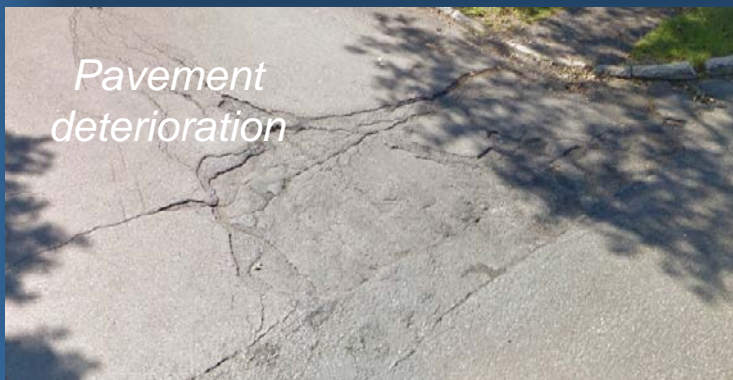
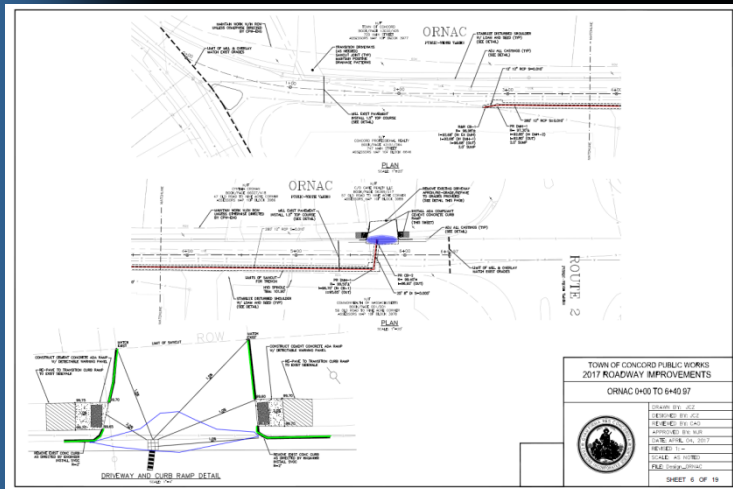
2017/2018 Roads Program ORNAC (Main St. to Rte. 2) Phase I

Treatment – Mill and Overlay with Full Depth Patch

Limits – Main Street to Route 2

Scope Highlights :

- Extend closed drainage system by adding 2 new DMH's, 1 new CB and 315' of new drainage pipe.
- Reconstruct apron to CareOne Facility to alleviate drainage problem
- Remove existing conc. curb and install SGE at CareOne apron
- Install two new curb ramps
- Install drainage improvements and pavement in 2017 construction season.



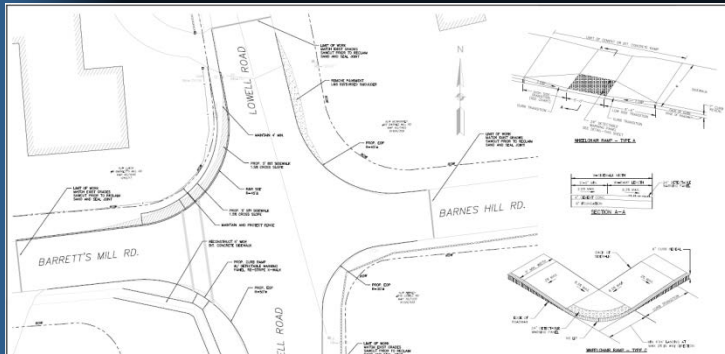
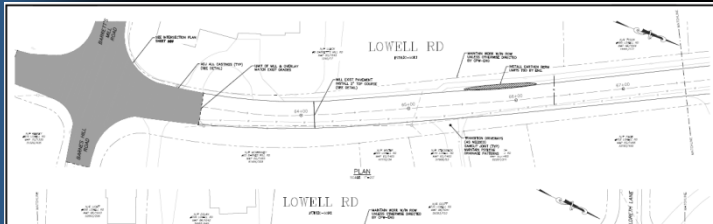
Resident Feedback:

- Met with CareOne Construction manager to ensure open communication and minimize disruption to the facility and its patrons.

2017/2018 Roads Program

Lowell Road

Phase I



Treatment – Mill and Overlay with Full Depth Patch

Limits – Barrett's Mill Road to Westford Road

Scope Highlights :

- Replace various failing drainage structures.
- Regrade driveway apron to #8 Barrett's Mill Road to alleviate drainage problem.
- Reconfigure intersection to construct ADA compliant sidewalk along Lowell Road.
- Install six new ADA compliant curb ramps
- Coordinate with Lowell Road Culvert project.

Resident Feedback:

- Drainage issues at the driveway of #8 Barrett's Mill Road
- The sidewalk along Lowell Road near #8 Barrett's Mill Road is too narrow.
- Low spot in the sidewalk by #685 Lowell Road, creates ponding issues.

2017/2018 Roads Program

Whit's End Road

Phase I



Treatment – Full-depth reclamation, grading, and paving

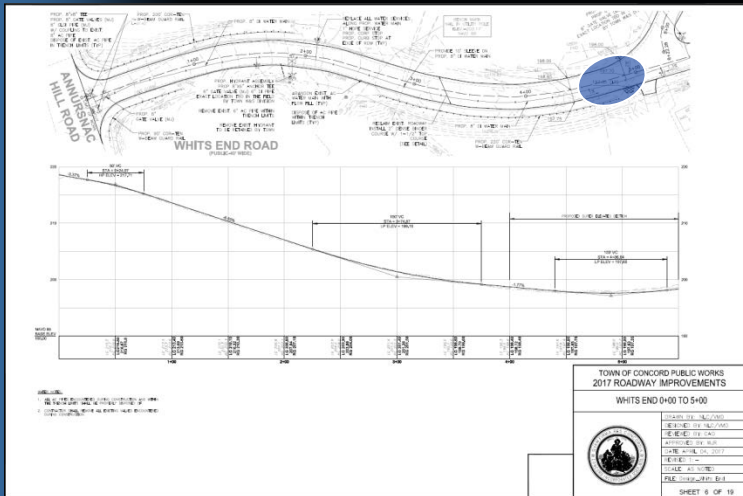
Limits –Annursnac Hill Road to the end

Scope Highlights :

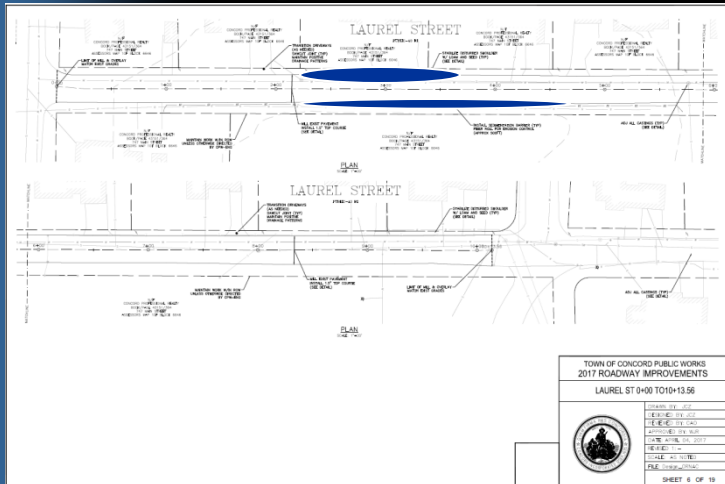
- Super-elevate roadway at the low spot to direct roadway runoff to the proposed drainage swale.
- Reconstruct apron to #58 Whit's End to prevent roadway runoff running down the driveway.
- Replace the existing water main.
- Install bituminous berm at various locations.
- Install drainage a drainage swale and pavement in 2017 construction season.

Resident Feedback:

- Alleviate puddling at the low spot of the road.
- There is a puddling issue at the driveway of #92



2017/2018 Roads Program Laurel Street Phase I



Treatment – Mill and Overlay with Full Depth Patch

Limits – Thoreau Street to Stow Street

Scope Highlights :

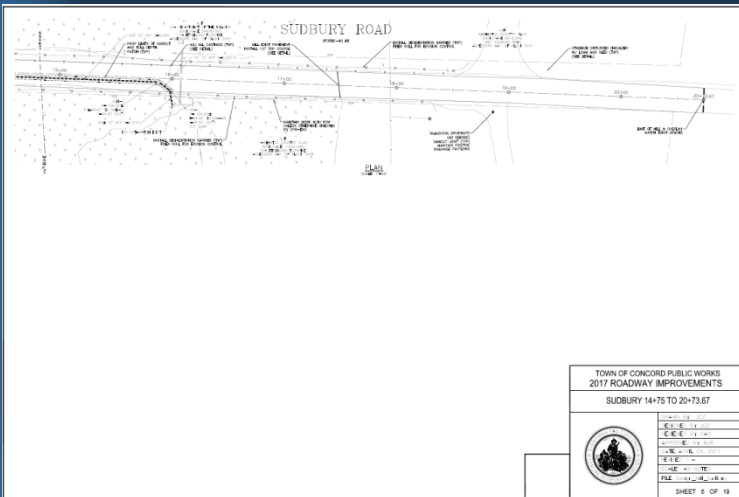
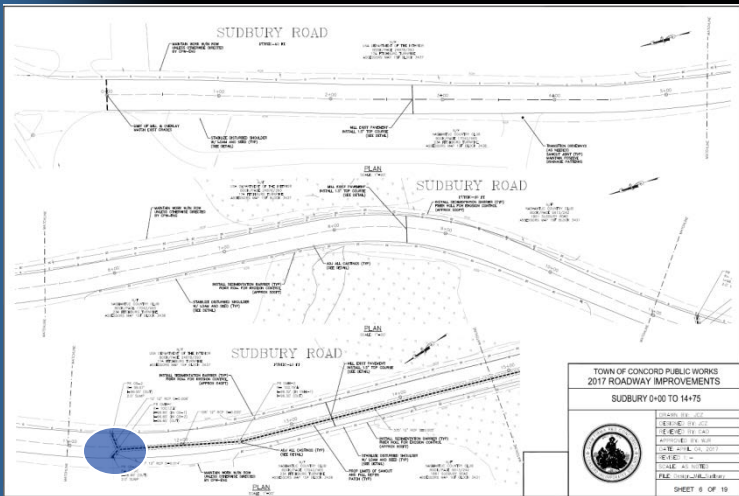
- Install four new curb ramps at the intersection of Stow St and Laurel St.
- Install pavement in 2017 construction season.

Resident Feedback:

- Met with residents and was informed that the surface drainage towards Thoreau Street lags and creates puddles at some of the driveways.



2017/2018 Roads Program Sudbury Road Phase I



Treatment – Mill and Overlay with Full Depth Patch

Limits – Fitchburg Turnpike to Town line

Scope Highlights :

- Extend closed drainage system by adding 3 new DMH's, 2 new CB and 450' of new drainage pipe.
- Install pavement in 2017 construction season.

Resident Feedback:

- There are flooding issues due to the existing leaching structures that get overburdened with storm water.



2017/2018 Roads Program Monument Street Phase I



Treatment – Mill and Overlay with Full Depth Patch

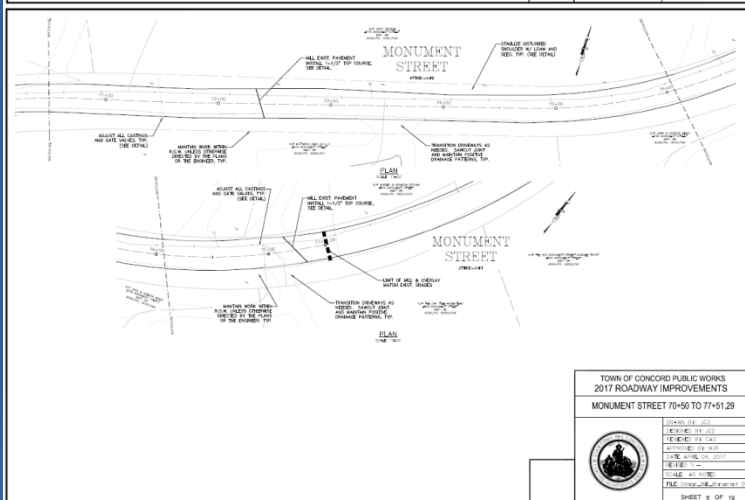
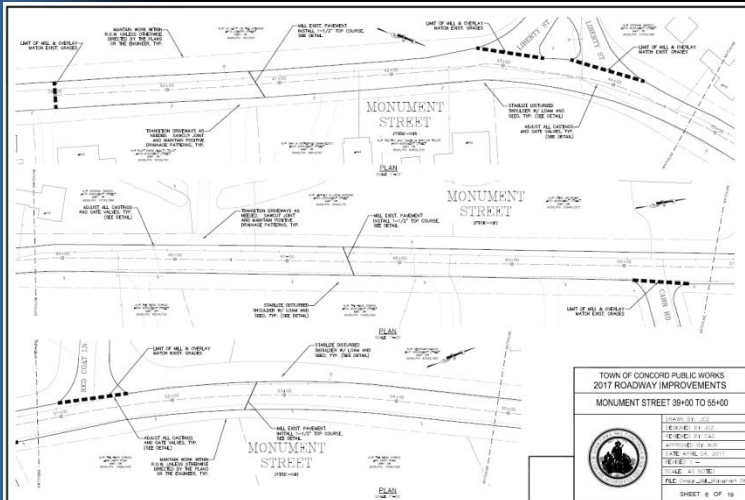
Limits – #418 to #790 Monument Street

Scope Highlights :

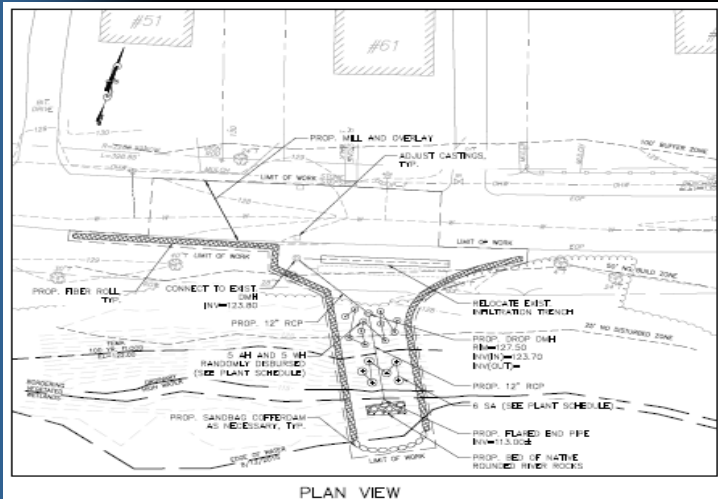
- Extend closed drainage system by adding 2 new DMH's, 4 new CB and 820' of new drainage pipe.
- Install pavement in 2017 construction season.

Resident Feedback:

- Requesting notification of construction schedule when available



2017/2018 Roads Program Assabet Avenue Phase I



Treatment – Mill and Overlay approx. 100' of roadway

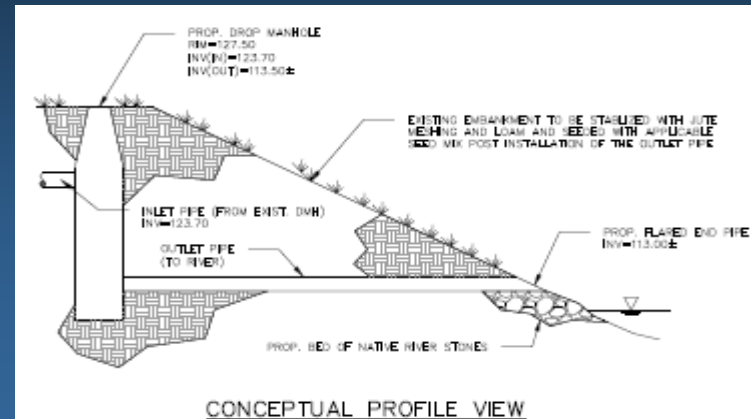
Limits – Between houses #51 and #61 Assabet Ave.

Scope Highlights :

- Address localized street flooding in the worst area along road
- Install a new drainage outfall to Assabet River with a drop manhole to disguise discharge point

Resident Feedback:

- There are flooding issues due to the undersized existing closed drainage system





2017/18 Roads Program Parking Lot Reconstructions

Locations: Library Lot
Stow Street Lot (Hunts Gym)
Fairyland Lot

Scope:

- Reclaim and pave parking areas
- Reconfigure parking layout and drive aisles to improve traffic flow (Library Lot)
- Maintain or add parking spaces
- Install sustainable infrastructure retrofits (drainage improvements)
- Incorporate Parking Management Plan recommendations.



Fairyland Lot



Library Lot



Stow Street Lot



2017/2018 Roads Program Phase II

Locations: Baker Avenue
Baker Avenue Extension
Hubbard Street

Scope:

- Reclaim and pave roadways
- Install major drainage replacements



Baker Ave Extension



Hubbard St.



Baker Ave