BOROUGH OF CONSHOHOCKEN

INFRASTRUCTURE MANAGEMENT PLAN

SCOPE OF WORK

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G&A 100 YEARS

ENGINEERING & CONSULTING SERVICES

BOROUGH OF CONSHOHOCKEN INCORPORATED 1850

Schedule & Timeline Milestones

MAY

- **Discuss recommended scope of work**
  - **Roadway Assessment & Field Data**
  - **Initiate coordination with other parties**
  - **Council to select 3 potential scenarios**

JUNE

- Discuss scenarios
  - Opinion of probable cost for budgeting for up to 3 scenarios
  - Continue coordination with other parties

SEPTEMBER

- Present narrative report

Coordination with Other Parties

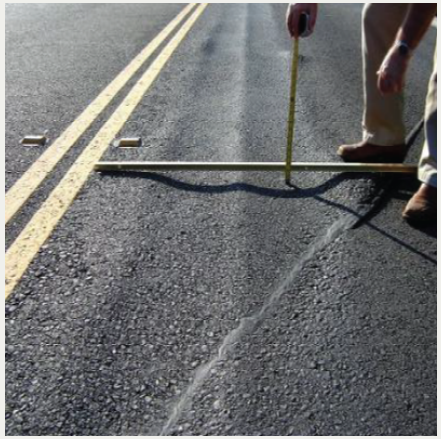
Coordination

- Utility companies and all parities responsible for infrastructure systems within the Borough
  - Borough Public Services, Borough Traffic Engineer, Aqua, PECO, PennDOT, etc.
- 5-year plans to coordinate schedules and reduce potential impacts on plan implementation
  - Account for timing of future planned work by utility companies

Determining the Scope

Assessment of Roadways

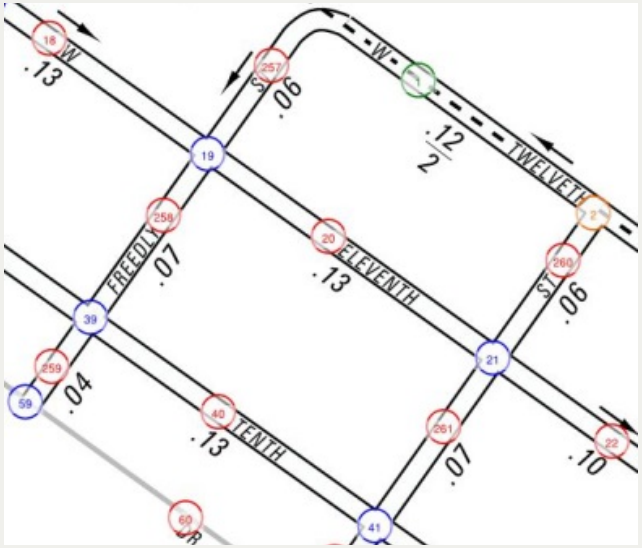
- Assessed for failure patterns
  - Longitudinal cracking
  - Transverse cracking
  - Raveling
  - Alligator cracking
  - Potholes/Rutting

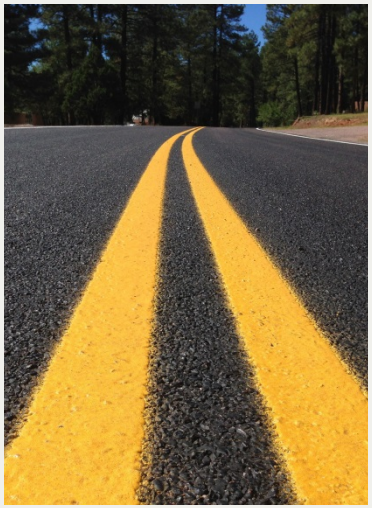


Determining the Scope

Assessment of Roadways

- Block by Block Analysis
  - Pavement Condition
  - Repair Recommendations
  - Quantities

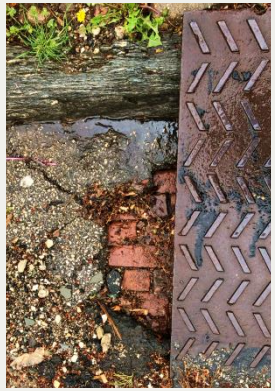


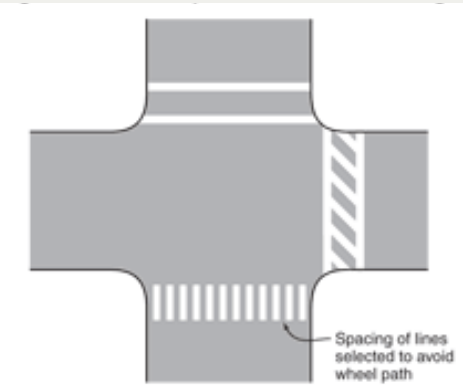


Determining the Scope

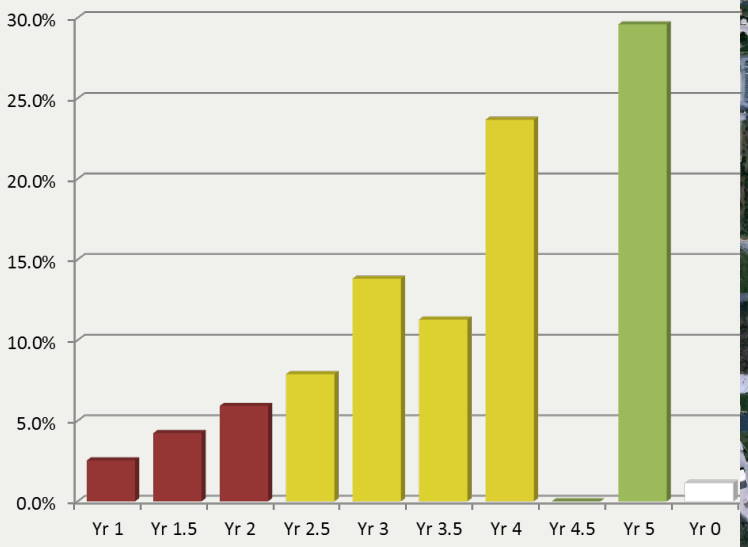
Assessment of Incidentals

- Curbs
- Curb Ramps
  - Upgrading non-compliant curb ramps
  - Maximizing walkability of the Borough
- Replacing pavement markings
- Standardizing non-decorative crosswalk markings





Determining the Scope



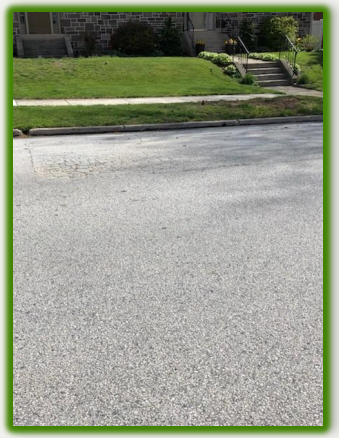
TREATMENT YEAR LEGEND

- YEAR 1.0 - 2.0
- YEAR 2.5 - 4.0
- YEAR 4.5 - 5.0
- YEAR 0 - NO TREATMENT

Determining the Scope

W. 11th Avenue
(Maple- Fayette)

Maple Street (Typ.)



E. 11th Avenue (Hallowell-Wells)

E. Hector Street (Typ.)

E. 3rd Avenue
(Harry-Hallowell)

E. 5th Avenue
(Wells-Spring Mill)

Determining the Scope

Washington Street
(Harry-Ash)

Hallowell Street
(E. 4th-E. 3rd)

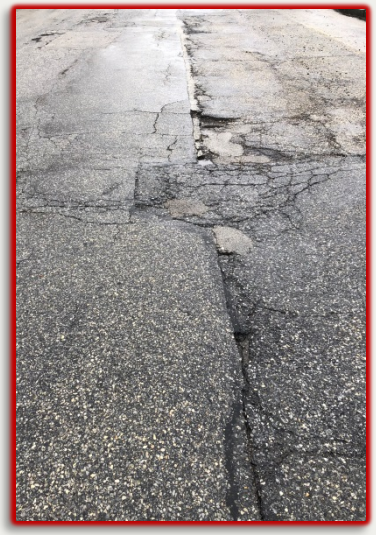
E. 6th Avenue &
Harry Street

Jones Street
(Spring Mill-E. Hector)

Determining the Scope

Spring Mill Avenue

(E. 4th-Cherry)



W. 5th Avenue

(Maple-Fayette)

Determining the Scope

E. 9th Avenue
(Jones-Righter)

7th Avenue & Hallowell Street

Hallowell Street
(E. 3rd-E. 4th)

E. 10th Avenue &
Harry Street

E. 5th Avenue &
Harry Street

Determining the Scope

Storm Sewer Assessment

- Existing storm sewer
- Storm sewer televising
  - Repair & replacement
- Identified project locations

STORM SEWER LEGEND

PROPOSED STORM SEWER PROJECT

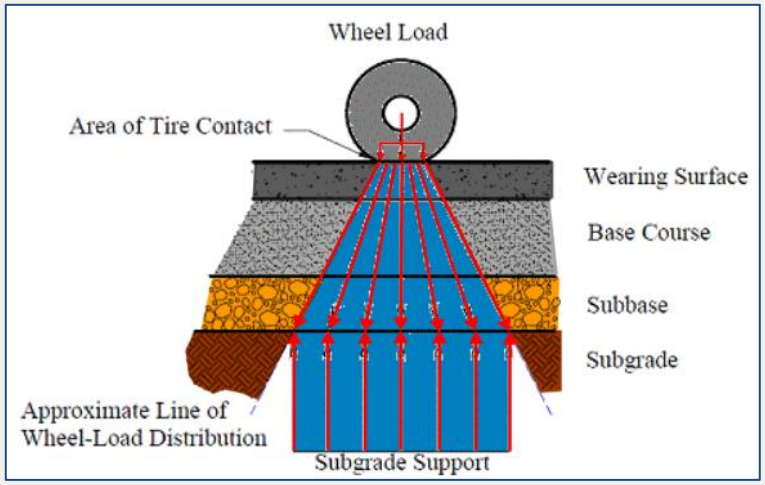
EXISTING STORM SEWER SYSTEM

Determining the Scope

Asphalt Coring

- 32 core samples
- Measured thickness of pavement and subbase layers
- Where subgrade was reached, stability was evaluated

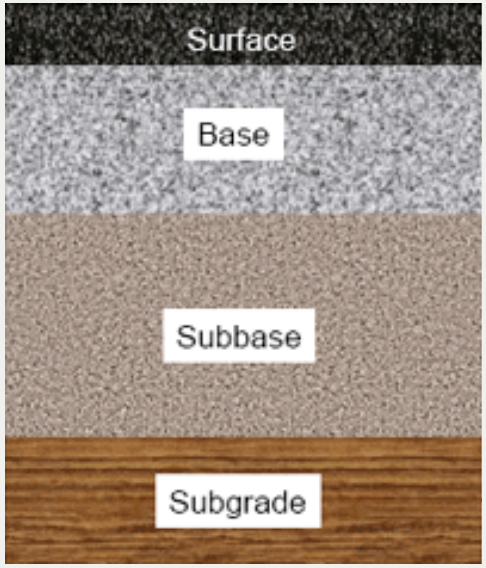
Determining the Scope



Standard Cross Section vs. Existing Cross Section

6" Asphalt
12+" Total

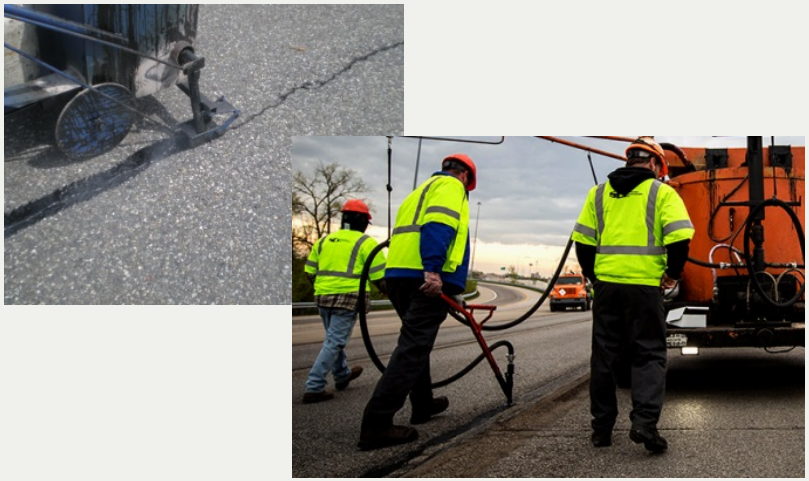
1.5"
4.5"
6+"



4.0"
0.0"

4" Asphalt
4" Total

Treatment Options



Crack Sealing

- Preventative maintenance method
- Extends existing pavement service life
- Surface must have only minor cracking
- Limits the spreading of open cracks, prevents moisture from penetrating and damaging subbase
- Applied to cracks only

Microsurfacing

- Preventative maintenance method
- Extends existing pavement service life
- Surface shows minor cracking and raveling. Base and subbase must be in good condition
- Prevents moisture from penetrating the surface layer and weakening the base. Replenishes lost asphalt and improves appearance
- Applied to entire roadway

Treatment Options

Mill & Overlay

- Rehabilitation
- Replacement of pavement surface. Extends service life of base and subbase
- Surface failure. Roadway base and subbase are performing well and generally sound
- Provides a level and smooth driving surface. Can help correct minor drainage issues and asphalt deformation
- Applied in patches or entire roadway

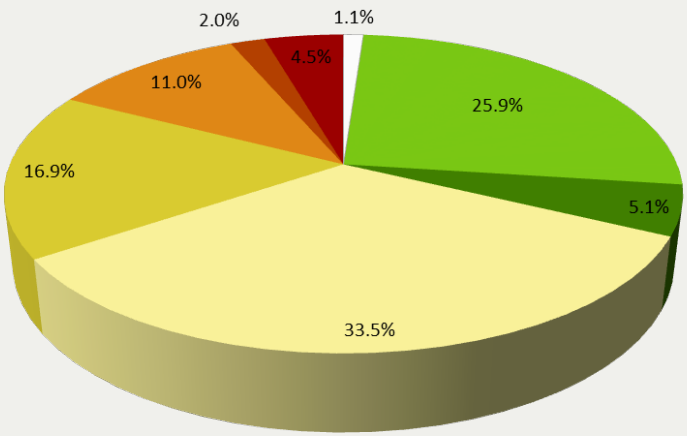
Full Depth Reconstruction

- Starting over
- Removal of all asphalt, aggregate, and potential subgrade soils, to a depth equal to the new pavement design
- Failure of multiple roadway layers. Roads that do not have structural capacity to continue service life
- Entire roadway is completely rebuilt to current standards

Recommended Scope

REPAIR TREATMENT LEGEND

- NO TREATMENT
- CRACK SEALING
- MICROSURFACING
- MILL & OVERLAY
- MILL & OVERLAY-MINOR BASE REPAIR
- MILL & OVERLAY-MODERATE BASE REPAIR
- MILL & OVERLAY-MAJOR BASE REPAIR
- FULL RECONSTRUCTION



Deliverables

- Engineer's opinion of project cost
- Implementation schedule
- Narrative report

Potential Scenarios for Consideration

- "Worst First"
- Account for efficiencies, concentrate on major repairs first and grouping storm sewer projects
- Storm sewer in years 1-2, account for remaining efficiencies
- East to west, grouping storm sewer projects
- Even costs years 1-5