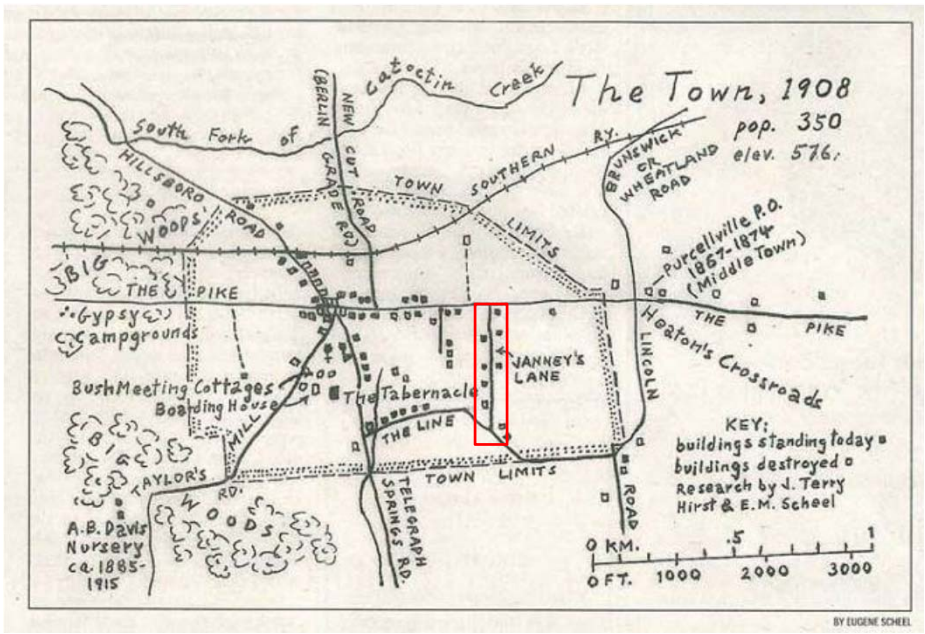
South 12th Street Improvements

Engineering Study Results

February 2, 2016



Location Map

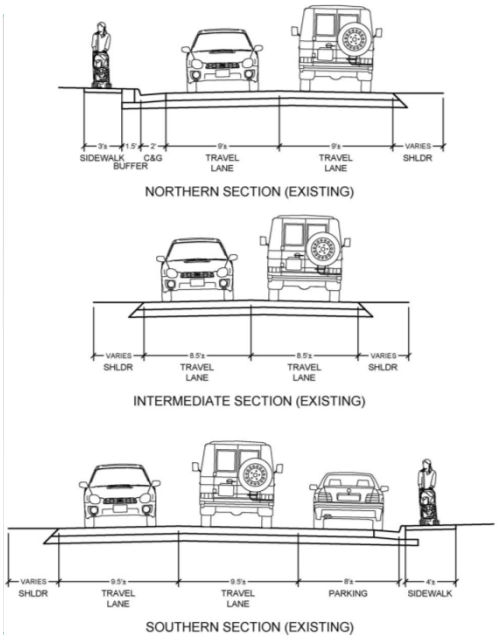
Location Map

Transportation Safety

17'-20' Pavement Widths

- *Narrow Travel Lanes*
- *Missing Curb & Gutter*
- *Inadequate Shoulders*

On-Street Parking (Grace Annex United Methodist Church - UMC)



Pedestrian Accessibility

- *Missing Sidewalks*
- *Narrow Sidewalks*
- *Damaged Concrete*

Utility Issues

4" Water Main at Both Ends (6" Min. Req'd.)

Sewer Condition Assessment (CHA)

- *Missing Sewer Cleanouts*
- *Deficient Pipe Sections*

Less Than 10' Horiz. Separation (W&S)

Less Than 18" Vert. Separation (W&S)

Drainage Issues

8 Low Points along Roadway and Damaged Cross Culvert
(Tracts 8, 10, 11, 12, 15, 19, 22 & 23)

Option A ($700,000)

Goal: Address Drainage Issues Only

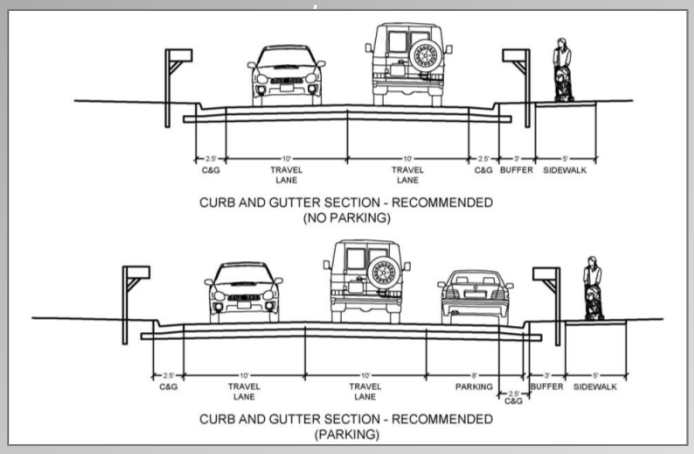
Drainage Solution (No Stormwater Management):

1. *Main Street (Connect to Storm Drain System)*
2. *Courts of St. Francis (15" RCP)*
3. *East G Street (Roadside Ditch)*
4. *South 11th Street (Rear Yard Issues)*

Property Issues = 13 Drainage Easements / no ROW's

Option B ($2.1M)

Expanded Goals: Sidewalks, Utilities & Drainage



Option B ($2.1M)

Lower Road Profile for Front Yard Drainage

Drainage and Stormwater Management:

1. *Main Street (Manufactured Treatment Device - MTD)*
2. *Courts of St. Francis (15" RCP – No SWM Req'd.)*
3. *East E Street (Roadside Ditch / 2 Bioretention Basins)*
4. *South 11th Street (Rear Yard Issues – No SWM Req'd.)*

Property Issues = 11 Drainage Easements + 19 ROW's

Option C ($2.0M)

Variation of Option B, as follows:

- *Retain Existing 36"W sidewalk at Main Street*
- *Eliminate Manufactured Treatment Device (at Main Street)*
- *Eliminate Outfall to the Courts of St. Francis*
- *Replace the Bioretention Basins (Grace Annex UMC / Ms. King) with Permeable Pavement in the On-Street Parking Spaces*
- *Add an Extended Detention Basin (S. 11th Street Outfall)*

Property Issues =

9 Drainage Easements (2 less) + 14 ROW's (5 less)

Comparison of Results

Alt	Budget	Remarks
A	$700,000	Addresses Drainage Issues Only
B	$2,100,000	Addresses All Identified Issues (Sidewalks, Utilities, & Drainage)
C	$2,000,000*	Reduces the Number of Property Impacts / Keeps 36" Sidewalk / Simplifies the Stormwater Management Plan versus Option B)

**** Alternative "C" is recommended***

Proposed Implementation Schedule

- *Engineering Studies – July 28, 2015 (6 Months)*
- *Recommendations – February 2, 2016*
- *The Next Steps:*

  Homeowner Meetings – Spring-Summer 2016

  Water & Sewer Upgrades – Fall-Winter 2016

  *Roadway & Drainage – Spring-Summer 2017**

  ** Depends on VDOT Revenue Sharing Funds*

Project Budget = $2,000,000

AMT