

Pine Tree Road Roadway Improvements

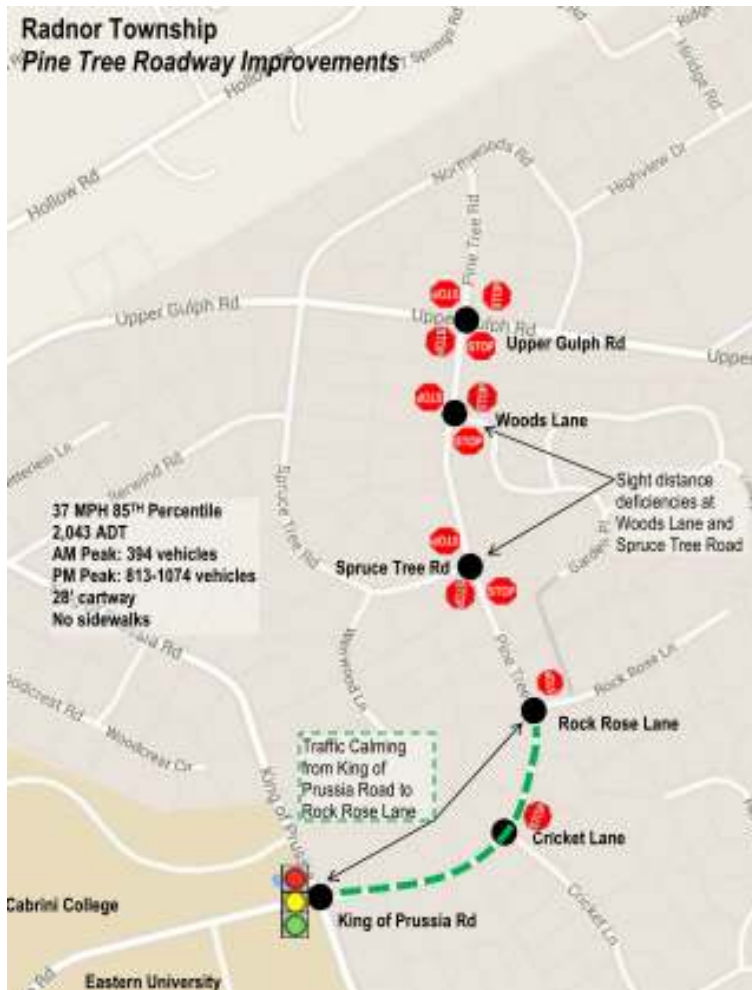
October 28, 2015

Located in
Radnor Township, Delaware County



Prepared by Gilmore & Associates, Inc.

Background



March 23 – Approval of Staff Traffic Minutes by Board of Commissioners’ meeting

April 21 – Meeting with Residents to discuss findings and concerns

May 18 –

- ✓ Meeting with Board of Commissioners to discuss Sight distance issues
- ✓ Decisions to provide all way stop control at Woods Lane and Spruce Tree Road
- ✓ Directed G&A to develop a new plan for section from King of Prussia Road to Rock Rose Lane

- 1. Wood Lane- All Way Stop Control-Installed**
- 2. Spruce Tree Road – All Way Stop Control-Installed**
- 3. Rock Rose Lane – Traffic Calming**
- 4. Cricket Lane – Traffic Calming**

Median

- PROPOSED IMPROVEMENTS:
- PROVIDE 4' WIDE GRASS MEDIAN.
 - PROVIDE 2 MEDIANS FOR EACH ROADWAY SECTION (TYPICAL).
 - PROVIDE PAVEMENT MARKINGS FOR 11' WDE TRAVEL LANES.

SIGN TABULATION		
SERIES	SIZE	DESCRIPTION
RT-1	30"x30"	STOP
RA-7	24"x30"	KEEP RIGHT
W23-2	36"x36"	NEW TRAFFIC PATTERN AHEAD
DRT-3	18"x18"	OBJECT MARKER



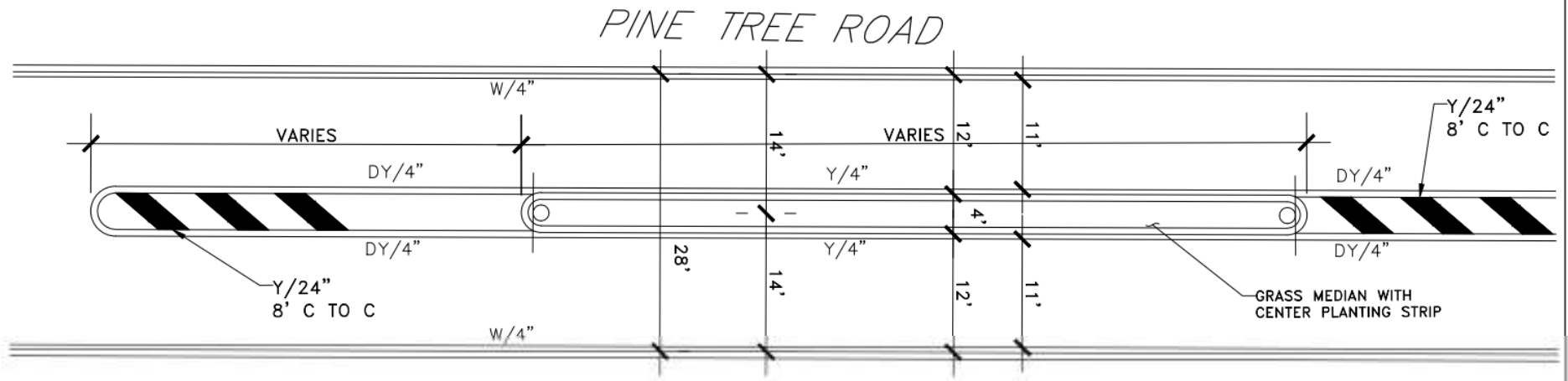
MEDIAN COST
\$15,000 PER MEDIAN
5 MEDIANS TOTAL --- \$75,000

INCLUDE NATIVE LOW-PROFILE DROUGHT RESISTANT PLANTINGS
ASSUMES CONSTRUCTION BY RADNOR TOWNSHIP PUBLIC WORKS

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FOR TOWNSHIP COMMENTS		DATE	BY
REV	DESCRIPTION		
TAX MAP PARCEL NO.	N/A		
TOTAL AREA	TOTAL LOTS		
N/A	N/A		
DATE	SCALE		
11/18/14	1"=40'		
<p>CONCEPTUAL PLAN TRAFFIC CALMING MEDIAN ISLANDS PINE TREE ROAD RADNOR TOWNSHIP, DELAWARE COUNTY, PENNSYLVANIA</p>			
<p>GILMORE & ASSOCIATES, INC. ENGINEERING & CONSULTING SERVICES</p>			
		<p>JOB NO. 2015-05007</p>	<p>SHEET NO. 1 OF 10</p>
DESIGNED BY: CHS	DRAWN BY: CHS	CHECKED BY: JMC	

Median Detail



TRAFFIC MEDIAN DETAIL

1"=5'



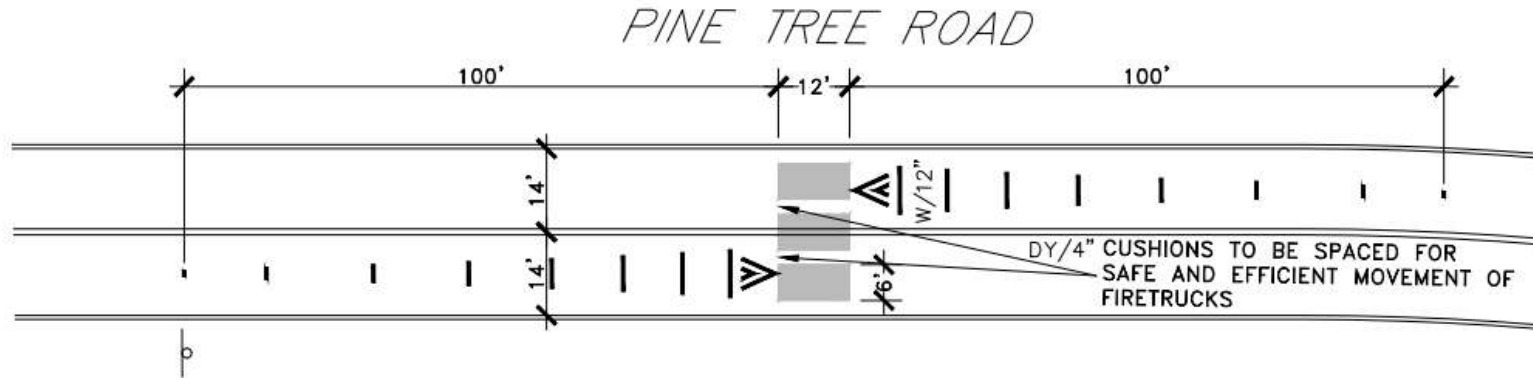
TRAFFIC MEDIAN PLANTING DETAIL

SOURCE: GOOGLE STREET VIEW

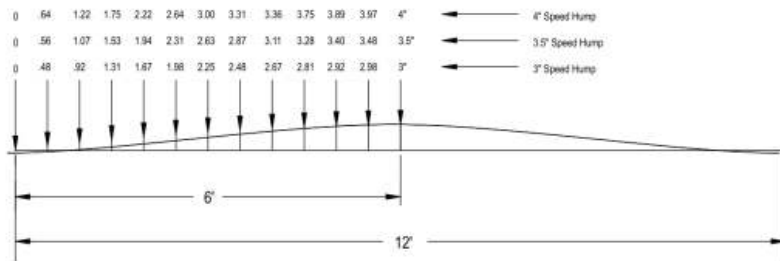
ALL NOTES APPLY UNLESS OTHERWISE NOTED. PROFESSIONAL SEAL SHALL BE OBTAINED OFFICIAL AND SHALL BE OPEN BY GILMORE & ASSOCIATES, INC. THIS PLAN IS HEREBY REVOKED FOR THE CLIENT AND PROJECT. GILMORE & ASSOCIATES, INC. ENGINEERING & CONSULTING SERVICES. PROJECT NO. 2016-0860. SHEET NO. 3 OF 10.

NO.	DESCRIPTION	DATE	BY
1	CONCEPT PLAN		
2	TRAFFIC CALMING		
3	MEDIAN ISLANDS		
4	PINE TREE ROAD		
ROAD: TOWSON, GILMANE COUNTY, MARYLAND			
GILMORE & ASSOCIATES, INC. ENGINEERING & CONSULTING SERVICES 1000 W. BALTIMORE AVENUE, SUITE 200, TOWSON, MD 21286-1000 TEL: 410-281-1000 FAX: 410-281-1001			
SCALE: 1"=5' 		JOB NO: 2016-0860 SHEET NO: 3 OF 10	
DESIGNED BY: GAA	DRAWN BY: GAA	CHECKED BY: GAA	DATE: 08/10/16

Speed Cushion Detail



PROFILE OF SPEED CUSHION



Source: ITE, Guidelines for the Design and Application of Speed Humps



From Google Image

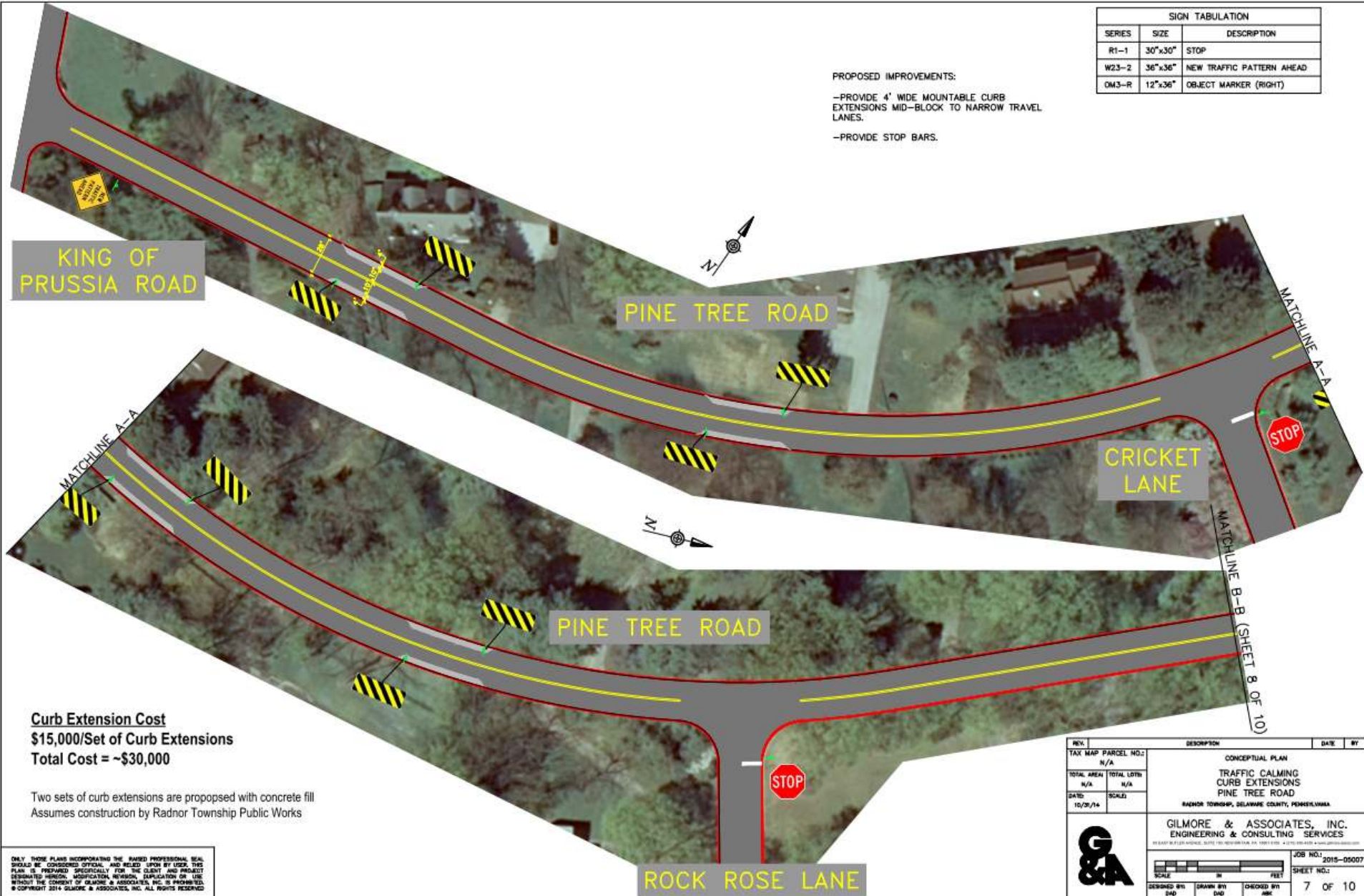
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REV.	DESCRIPTION	DATE	BY
TAX MAP PARCEL NO.:	N/A		
TOTAL AREA:	TOTAL LOTS:		
N/A	N/A		
DATE:	SCALE:		
10/29/14	1"=10'		
CONCEPTUAL PLAN TRAFFIC CALMING SPEED CUSHIONS PINE TREE ROAD		JOB NO. 2015-05007	
GILMORE & ASSOCIATES, INC. ENGINEERING & CONSULTING SERVICES		SHEET NO. 6 OF 10	
DESIGNED BY: DND		DRAWN BY: DND	
CHECKED BY: AME			

Curb Extensions

SIGN TABULATION		
SERIES	SIZE	DESCRIPTION
R1-1	30"x30"	STOP
W23-2	36"x36"	NEW TRAFFIC PATTERN AHEAD
OM3-R	12"x36"	OBJECT MARKER (RIGHT)

PROPOSED IMPROVEMENTS:
 -PROVIDE 4' WIDE MOUNTABLE CURB EXTENSIONS MID-BLOCK TO NARROW TRAVEL LANES.
 -PROVIDE STOP BARS.



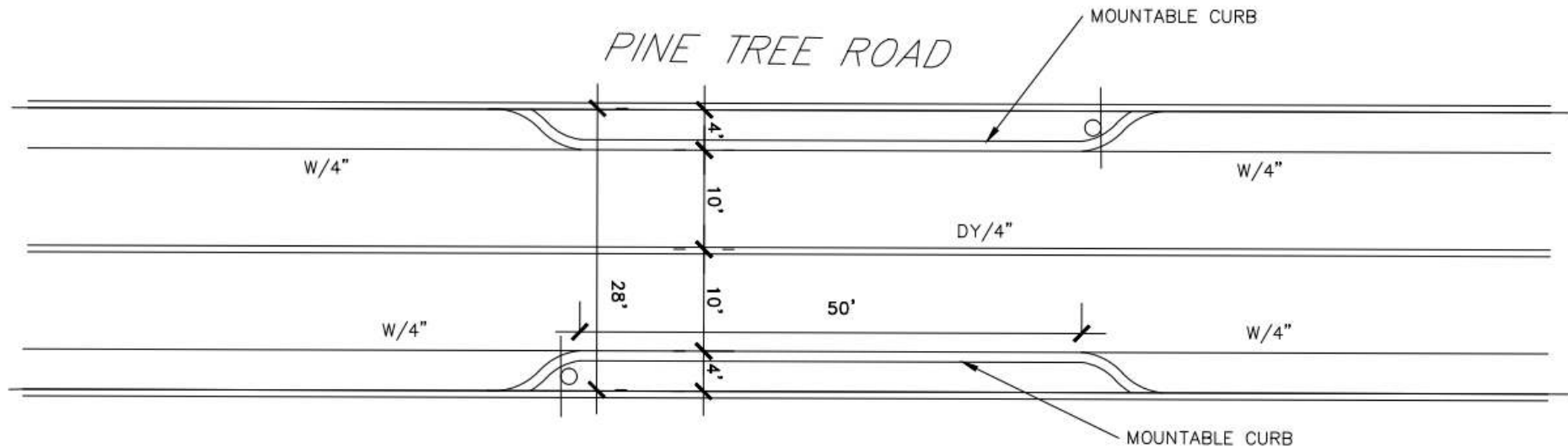
Curb Extension Cost
\$15,000/Set of Curb Extensions
Total Cost = ~\$30,000

Two sets of curb extensions are proposed with concrete fill
 Assumes construction by Radnor Township Public Works

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REV.	DESCRIPTION	DATE	BY
TAX MAP PARCEL NO.:	CONCEPTUAL PLAN		
N/A	TRAFFIC CALMING CURB EXTENSIONS PINE TREE ROAD		
TOTAL AREA:	TOTAL LOTS:	RADNOR TOWNSHIP, DELAWARE COUNTY, PENNSYLVANIA	
N/A	N/A	GILMORE & ASSOCIATES, INC. ENGINEERING & CONSULTING SERVICES	
DATE:	SCALE:	JOB NO.: 2015-05007	
10/01/14		SHEET NO.: 7 OF 10	
SCALE: 1" = 40'		DESIGNED BY: DAD	CHECKED BY: AMK
		DRAWN BY: DAD	

Curb Extension Details



CURB EXTENSION DETAIL

1"=5'


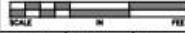


Source: Google Images



Source: Google Images

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REV.	DESCRIPTION	DATE	BY
TAX MAP PARCEL NO.:	CONCEPTUAL PLAN		
N/A	TRAFFIC CALMING		
TOTAL AREA:	CURB EXTENSIONS		
N/A	PINE TREE ROAD		
DATE:	RAZOR TOWNSHIP, DELAWARE COUNTY, PENNSYLVANIA		
10/20/14	GILMORE & ASSOCIATES, INC.		
SCALE:	ENGINEERING & CONSULTING SERVICES		
	30 EAST BURT STREET, SUITE 200, HARRISBURG, PA 17101-1000		
		JOB NO.:	2015-05007
		SHEET NO.:	
DESIGNED BY:	DND	DRAWN BY:	DND
CHECKED BY:	AKK	9 OF 10	

SUMMARY

MEDIAN	SPEED CUSHION	CURB EXTENSION
TOTAL COST: \$75,000 FOR 5 - 50' MEDIANS	TOTAL COST: \$15,000 FOR 3 SETS OF 6'X6'	TOTAL COST: \$60,000 FOR FOUR SETS
NATIVE LOW-PROFILE DROUGHT TOLERANT PLANTS	FIRE TRUCKS "STRADDLE" THE PILLOWS	FILL WITH CONCRETE OR PLANTINGS
NARROWS TRAVEL LANE		NARROWS TRAVEL LANES
ALL SLOW DOWN MOTORISTS' SPEED (1-5 MPH)		
ALL REDUCE CUT-THROUGH TRAFFIC VOLUMES (10-15%)		
NO DRAINAGE ISSUES	NO DRAINAGE ISSUES	COULD PRESENT DRAINAGE ISSUES/GRATES
NO ISSUE FOR BICYCLISTS	MINOR ISSUE FOR BICYCLIST	MINOR ISSUE FOR BICYCLISTS
NO ISSUE FOR EMERGENCY SERVICES	MINOR ISSUE FOR SOME EMERGENCY SERVICES	NO ISSUE FOR EMERGENCY SERVICES
MINOR ISSUE FOR SNOW REMOVAL	MAY REQUIRE ADDITIONAL WORK FOR SNOW REMOVAL	MINOR ISSUE FOR SNOW REMOVAL
	 <p style="text-align: center;">From Google Image</p>	 <p style="text-align: center;">Source: Google Images</p>

Questions/Comments

