



Old McHenry Road &
Robert Parker Coffin Road
Streetscape Improvements
Preliminary Value Engineering Analysis

Overview

- ▶ Lake County Division of Transportation (LCDOT)
Preferred Alternative
 - Scope
 - Costs
- ▶ Value Engineering Alternatives
 - Scope
 - Costs
- ▶ Robert Parker Coffin Road
- ▶ Summary

LCDOT Preferred Alternative

Old McHenry Road Village of Long Grove



Proposed Streetscape Elements



Segmental Block Wall



Bench



Recycle Bin



Sign Pole



Pedestrian Lighting



Landscape Planter Box



Trash Receptacle

LCDOT Preferred Alternative

VALUE ENGINEERING ANALYSIS

OLD MCHENRY ROAD STREETScape IMPROVEMENTS
 PREPARED BY LAKE COUNTY DIVISION OF TRANSPORTATION
 LONG GROVE, IL

Date: April 28, 2015
 Prepared by: Geoffrey Perry, P.E.

"PREFERRED ALTERNATIVE"

ENGINEER'S OPINION OF PROBABLE COST (BY LAKE COUNTY DOT, DATED FEBRUARY 2015)

ITEM	DESCRIPTION	UNIT PRICE	UNIT	QUANTITY	COUNTY TOTAL	VILLAGE TOTAL	ITEM TOTAL	VILLAGE PERCENTAGE
12A	PCC SIDEWALK	\$10.00	SQ.FT	3,540.0	\$29,000	\$7,000	\$36,000	19.4%
12B	MULTI-USE PATH	\$30.00	SQ.YD	910.0	\$23,000	\$5,000	\$28,000	17.9%
12C	STREETSCAPING							
	DOWNTOWN LIGHTING	\$475.00	FOOT	2,000.0	\$0	\$950,000	\$950,000	100.0%
	BRICK PAVER - SIDEWALK	\$20.00	SQ.FT	23,180.0	\$186,000	\$278,000	\$464,000	59.9%
	BRICK PAVER - NON SIDEWALK	\$20.00	SQ.FT	9,280.0	\$0	\$186,000	\$186,000	100.0%
	TRASH RECEPTACLES / RECYCLING BINS	\$1,500.00	EACH	6.0	\$0	\$9,000	\$9,000	100.0%
	WAYFINDING SIGNS	\$6,500.00	EACH	4.0	\$0	\$26,000	\$26,000	100.0%
	PLANTER BOX	\$150.00	SQ.FT	1,440.0	\$0	\$216,000	\$216,000	100.0%
	BENCH	\$1,800.00	EACH	7.0	\$0	\$13,000	\$13,000	100.0%
13	STRUCTURES							
	CAST-IN-PLACE RETAINING WALL	\$120.00	SQ.FT	2,364.0	\$284,000	\$0	\$284,000	0.0%
14	UTILITY ADJUSTMENTS	\$12,000.00	LSUM	1.0	\$0	\$12,000	\$12,000	100.0%
15	CONTINGENCY			20% of Roadway Construction	\$601,000	\$377,000	\$978,000	38.5%
TOTAL CONSTRUCTION COST (rounded to \$100,000)					\$1,130,000.00	\$2,080,000.00	\$3,210,000.00	
TOTAL CONSTRUCTION COST in 2019 (rounded to nearest \$10,000, assuming 3% annual inflation)					\$1,310,000.00	\$2,410,000.00	\$3,510,000.00	
Phase II Engineering (7%)					\$90,000.00	\$170,000.00	\$260,000.00	
Phase III Engineering (10% of Construction Costs)					\$91,700.00	\$242,000.00	\$333,700.00	
GRAND TOTAL						\$2,820,000.00		

Detailed Description:

- Costs as reported by LCDOT on their Preliminary Estimate of Cost dated February 2015.
- Costs are ONLY for items which Village contributes funds.
- Total project is \$9.65M for this alternative.

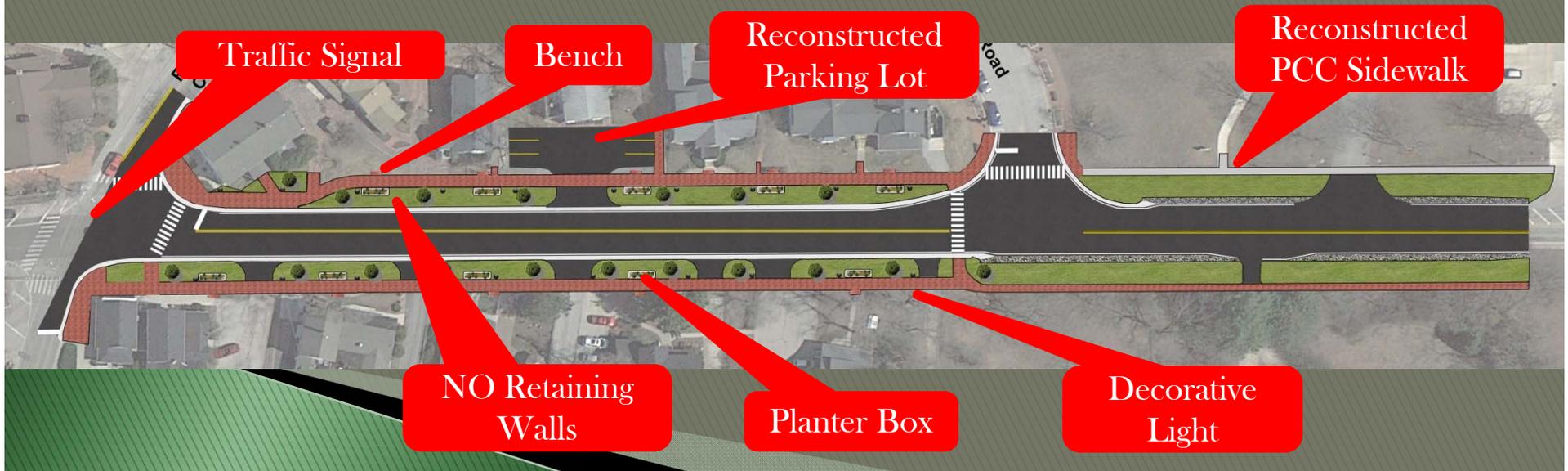
Project Grand
 Total: \$9,650,000

Local Total:
 \$2,820,000

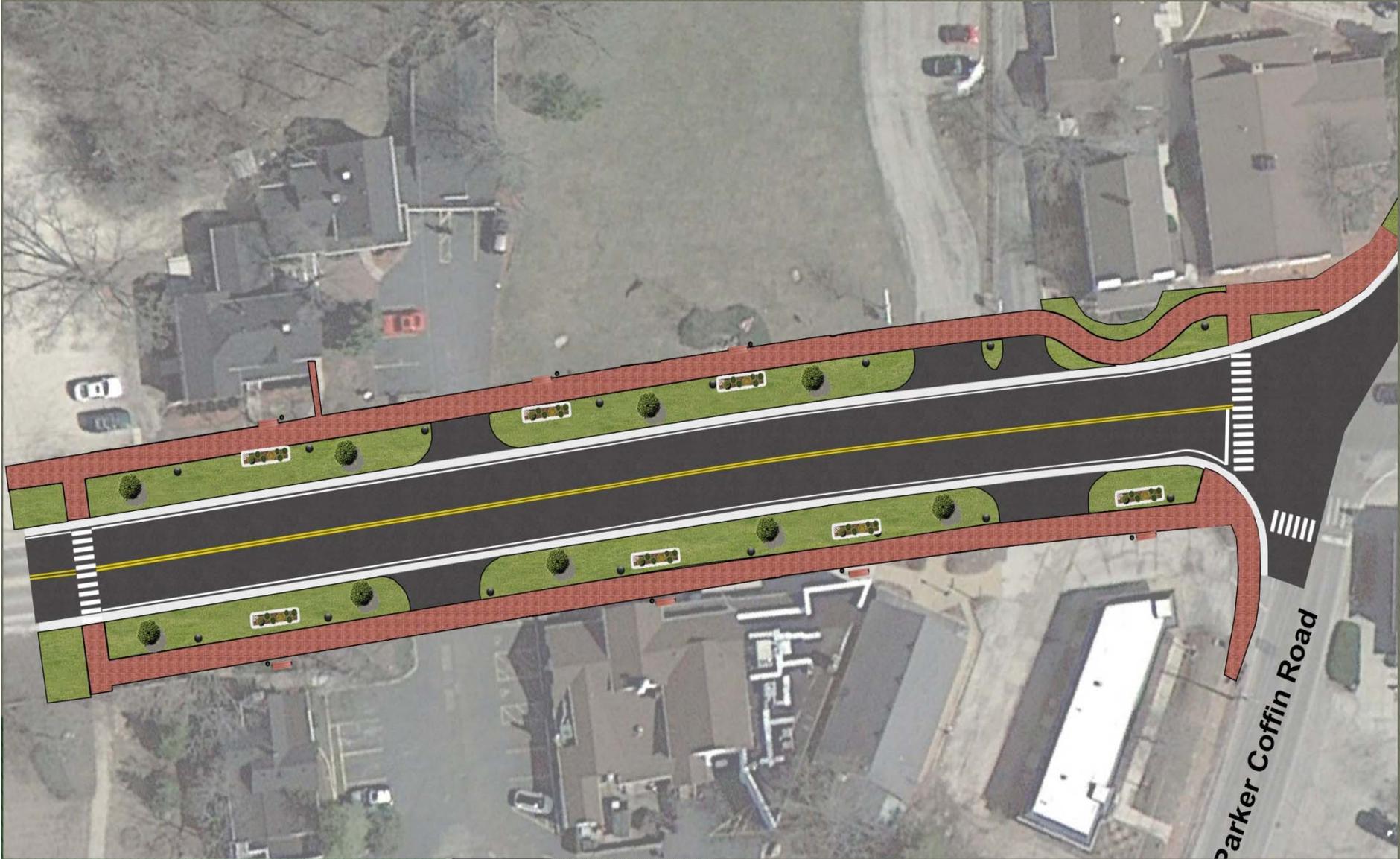
LCDOT Total:
 \$6,810,000

* 10' Brick Paver
 Sidewalk
 * Brick Paver
 Streetscape Areas

Value Engineering Alternative #1 Brick Paver Sidewalk



Value Engineering Alternative #1 Brick Paver Sidewalk



Value Engineering Alternative #1

VALUE ENGINEERING ANALYSIS

OLD MCHENRY ROAD STREETScape IMPROVEMENTS
LONG GROVE, IL
5000.015

Date: April 28, 2015
Prepared by: Geoffrey Perry, P.E.

GHA GEWALT HAMILTON
ASSOCIATES, INC.
CONSULTING ENGINEERS

625 Forest Edge Drive, Vernon Hills, IL 60061
TEL 847.478.9700 ■ FAX 847.478.9701
www.gha-engineers.com

VALUE ENGINEERING ALTERNATIVE #1 - BRICK PAVER SIDEWALK

VALUE ENGINEERING RECOMMENDATIONS BASED ON PLAN PREPARED BY GEWALT HAMILTON, DATED APRIL 28, 2015.

ITEM	DESCRIPTION	UNIT PRICE	UNIT	QUANTITY	COUNTY TOTAL	VILLAGE TOTAL	ITEM TOTAL	VILLAGE PERCENTAGE
12A	PCC SIDEWALK	\$10.00	SQ FT	3,540.0	\$29,000	\$7,000	\$36,000	19.4%
12B	MULTI-USE PATH	\$30.00	SQ YD	910.0	\$23,000	\$5,000	\$28,000	17.9%
12C	STREETSCAPING							
	DOWNTOWN LIGHTING	\$8,500.00	EACH	40.0	\$0	\$340,000	\$340,000	100.0%
	BRICK PAVER - SIDEWALK	\$20.00	SQ FT	17,162.0	\$137,000	\$206,000	\$344,000	59.9%
	BRICK PAVER - NON SIDEWALK	\$20.00	SQ FT	0.0	\$0	\$0	\$0	0.0%
	TRASH RECEPTACLES / RECYCLING BINS	\$1,500.00	EACH	17.0	\$0	\$26,000	\$26,000	100.0%
	WAYFINDING SIGNS	\$6,500.00	EACH	4.0	\$0	\$26,000	\$26,000	100.0%
	PLANTER BOX	\$150.00	SQ FT	1,488.0	\$0	\$224,000	\$224,000	100.0%
	BENCH	\$1,800.00	EACH	17.0	\$0	\$31,000	\$31,000	100.0%
13	STRUCTURES							
	CAST-IN-PLACE RETAINING WALL	\$120.00	SQ FT	0.0	\$228,000	\$0	\$0	0.0%
14	UTILITY ADJUSTMENTS	\$12,000.00	L SUM	1.0	\$0	\$12,000	\$12,000	100.0%
15	CONTINGENCY	20% of Roadway Construction			\$459,000	\$288,000	\$747,000	38.6%
TOTAL CONSTRUCTION COST (rounded to \$100,000)					\$880,000.00	\$1,170,000.00	\$1,820,000.00	
TOTAL CONSTRUCTION COST in 2019 (rounded to nearest \$10,000, assuming 3% annual inflation)					\$1,020,000.00	\$1,360,000.00	\$1,990,000.00	
Phase II Engineering (7%)					\$71,400.00	\$95,200.00	\$166,600.00	
Phase III Engineering (10% of Construction Costs)					\$102,000.00	\$136,000.00	\$238,000.00	
GRAND TOTAL						\$1,590,000.00		

Project Grand
Total: \$8,400,000

Local Total:
\$1,590,000

LCDOT Total:
\$6,810,000

* 8' Brick Paver
Sidewalk
Spaced Benches
& Planter Boxes

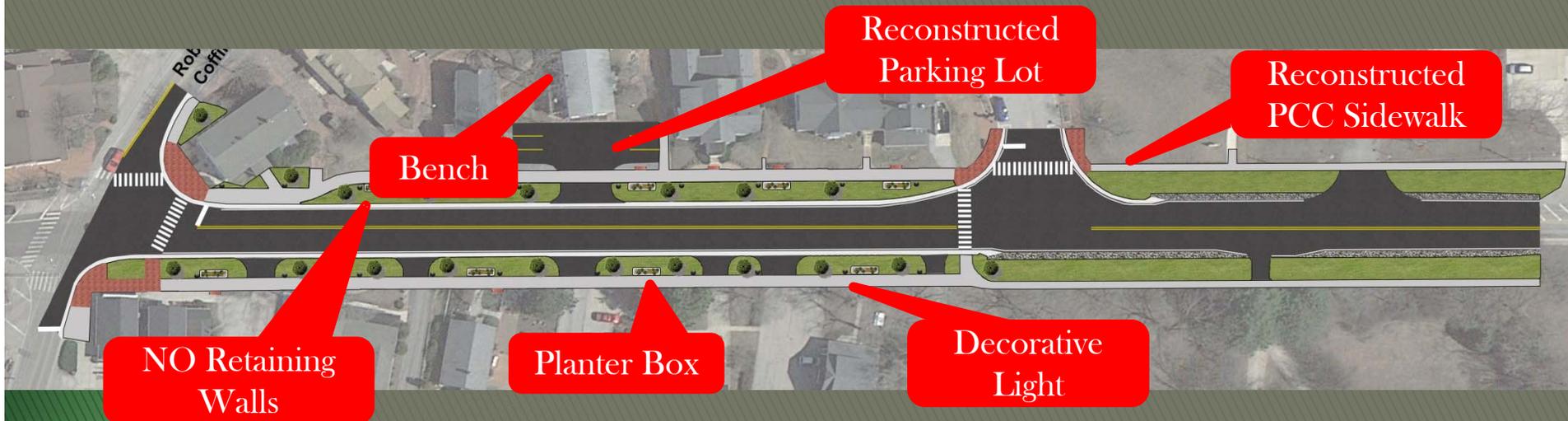
Detailed Description:

1. Costs have not been confirmed / verified with LCDOT.
2. Costs are only for items in which Village contributes funds.
3. All restoration, sodding and trees fully funded by LCDOT.

*Since Gewalt-Hamilton Associates Inc. Has No Control Over the Cost of Labor, Materials, or Equipment, or Over the Contractor's Methods of Determining Prices, or Over Competitive Bidding of Market Conditions, Opinions of Probable Costs, as Provided for Herein, Are to be Made on the Basis of Experience and Qualifications and Represent the Best Judgment as a Design Professional Familiar with the Construction Industry. Gewalt-Hamilton Associates, Inc., Cannot and Does Not Guarantee That Proposals, Bids, or The Construction Costs Will Not Vary From Opinions of Probable Cost Prepared for the Owner.

Value Engineering Alternative #2

PCC Sidewalk with Pavers @ Intersections



Value Engineering Alternative #2

PCC Sidewalk with Pavers @ Intersections



Value Engineering Alternative #2

VALUE ENGINEERING ANALYSIS

OLD MCHENRY ROAD STREETScape IMPROVEMENTS
LONG GROVE, IL
5000.015

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Prepared by: Geoffrey Perry, P.E.

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VALUE ENGINEERING ALTERNATIVE #2 - PCC SIDEWALK WITH PAVERS @ INTERSI

VALUE ENGINEERING RECOMMENDATIONS BASED ON PLAN PREPARED BY GEWALT HAMILTON, DATED APRIL 28, 2015.

ITEM	DESCRIPTION	UNIT PRICE	UNIT	QUANTITY	COUNTY TOTAL	VILLAGE TOTAL	ITEM TOTAL	VILLAGE PERCENTAGE
12A	PCC SIDEWALK	\$10.00	SQ FT	22,043.0	\$177,000	\$44,000	\$221,000	19.9%
12B	MULTI-USE PATH	\$30.00	SQ YD	910.0	\$23,000	\$5,000	\$28,000	17.9%
12C	STREETSCAPING							
	DOWNTOWN LIGHTING	\$8,500.00	EACH	40.0	\$0	\$340,000	\$340,000	100.0%
	BRICK PAVER - SIDEWALK	\$20.00	SQ FT	3,340.0	\$27,000	\$40,000	\$67,000	59.7%
	BRICK PAVER - NON SIDEWALK	\$20.00	SQ FT	0.0	\$0	\$0	\$0	0.0%
	TRASH RECEPTACLES / RECYCLING BINS	\$1,500.00	EACH	17.0	\$0	\$26,000	\$26,000	100.0%
	WAYFINDING SIGNS	\$6,500.00	EACH	4.0	\$0	\$26,000	\$26,000	100.0%
	PLANTER BOX	\$150.00	SQ FT	1,488.0	\$0	\$224,000	\$224,000	100.0%
	BENCH	\$1,800.00	EACH	17.0	\$0	\$31,000	\$31,000	100.0%
13	STRUCTURES							
	CAST-IN-PLACE RETAINING WALL	\$120.00	SQ FT	0.0	\$228,000	\$0	\$0	0.0%
14	UTILITY ADJUSTMENTS	\$12,000.00	L SUM	1.0	\$0	\$12,000	\$12,000	100.0%
15	CONTINGENCY							
					20% of Roadway Construction	\$448,000	\$280,000	38.5%
TOTAL CONSTRUCTION COST (rounded to \$100,000)					\$910,000.00	\$1,030,000.00	\$1,710,000.00	
TOTAL CONSTRUCTION COST in 2019 (rounded to nearest \$10,000, assuming 3% annual inflation)					\$1,060,000.00	\$1,200,000.00	\$1,870,000.00	
Phase II Engineering (7%)					\$74,200.00	\$84,000.00	\$158,200.00	
Phase III Engineering (10% of Construction Costs)					\$106,000.00	\$120,000.00	\$226,000.00	
GRAND TOTAL						\$1,400,000.00		

Detailed Description:

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2. Costs are only for items in which Village contributes funds.
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Project Grand
Total: \$8,100,000

Local Total:
\$1,400,000

LCDOT Total:
\$7,000,000

* 8' PCC
Sidewalk
* Brick Pavers at
Intersections
* Spaced Benches
& Planter Boxes

Robert Parker Coffin Road

- ▶ Approximately 920 L.F.
 - 450' Old McHenry Road to Bridge
 - 470' Old McHenry Road to Archer
- ▶ \$3,700,000 (LCDOT Estimate dated December 2014)
 - \$4,021.74 / L.F.
- ▶ Value Engineering Costs on Old McHenry Road
 - 13.8% Overall Project Cost Savings (Alt. #1; Brick Pavers)
 - $\$3,700,000 * 86.2\% = \$3,189,000$

 - 16.2% Overall Project Cost Savings (Alt. #2; PCC Sidewalk)
 - $\$3,700,000 * 83.8\% = \$3,101,000$

Summary

▶ Preliminary Costs by LCDOT (Village Totals)

- Old McHenry Road “Preferred Alternative”: \$2,840,000
- Robert Parker Coffin Road: \$3,700,000
- Total: \$6,540,000

▶ Value Engineering Option 1 (Brick Paver Sidewalk)

- Old McHenry Road: \$1,590,000
- Robert Parker Coffin Road: \$3,189,000
- Total: \$4,779,000

▶ Value Engineering Option 2 (PCC Sidewalk)

- Old McHenry Road: \$1,400,000
- Robert Parker Coffin Road: \$3,101,000
- Total: \$4,501,000

Questions