

**Appendix A**  
**FEMA Floodplain Mapping**

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**Appendix B**  
**Traffic Counts**

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Site Code: 2  
 Station ID:  
 Patton Farm Road  
 just north of South River bridge  
 Latitude: 0' 0.0000 Undefined

NB															
Start Time	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13	Not Classe	Total
02/07/1															
8	0	2	0	0	0	1	0	0	0	0	0	0	0	0	3
01:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
02:00	0	2	1	0	0	0	0	0	0	0	0	0	0	0	3
03:00	0	9	3	0	0	0	0	0	0	0	0	0	0	0	12
04:00	0	15	6	0	0	0	0	0	0	0	0	0	0	0	21
05:00	0	32	13	0	0	0	0	0	1	0	0	0	0	0	46
06:00	0	48	10	0	0	0	0	0	0	0	0	0	0	0	58
07:00	0	68	20	0	0	1	0	0	0	0	0	0	0	0	89
08:00	0	67	10	0	0	1	0	0	0	0	0	0	0	0	78
09:00	0	41	12	0	0	0	0	0	0	0	0	0	0	2	55
10:00	0	39	1	1	0	0	0	0	0	0	0	0	0	4	45
11:00	0	29	8	0	0	0	0	0	0	0	0	0	0	0	37
12 PM	0	44	6	0	0	1	0	0	0	0	0	0	0	0	51
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	0	396	90	1	0	4	0	0	1	0	0	0	0	6	498
Percent	0.0%	79.5%	18.1%	0.2%	0.0%	0.8%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	1.2%	
AM Peak		07:00	07:00	10:00		00:00			05:00					10:00	07:00
Vol.		68	20	1		1			1					4	89
PM Peak		12:00	12:00			12:00									12:00
Vol.		44	6			1									51
Grand Total	0	850	171	5	3	5	0	0	1	0	0	0	0	11	1046
Percent	0.0%	81.3%	16.3%	0.5%	0.3%	0.5%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	1.1%	

Site Code: 2  
 Station ID:  
 Patton Farm Road  
 just north of South River bridge  
 Latitude: 0' 0.0000 Undefined

SB

Start Time	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13	Not Classe	Total
02/06/18	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	0	41	20	0	1	0	0	0	0	0	0	0	0	1	63
14:00	0	58	14	0	1	0	0	0	0	0	0	0	0	0	73
15:00	0	106	22	6	0	0	0	0	0	0	0	0	0	1	135
16:00	0	104	23	0	2	0	0	0	0	0	0	0	0	1	130
17:00	0	112	35	0	0	0	0	0	0	0	0	0	0	1	148
18:00	0	74	17	0	0	0	0	0	0	0	0	0	0	1	92
19:00	0	72	16	0	0	1	0	0	0	0	0	0	0	0	89
20:00	0	70	11	0	0	0	0	0	0	0	0	0	0	0	81
21:00	0	38	8	0	0	1	0	0	0	0	0	0	0	0	47
22:00	0	23	4	0	0	0	0	0	0	0	0	0	0	0	27
23:00	0	12	6	0	0	0	0	0	0	0	0	0	0	0	18
Total	0	710	176	6	4	2	0	0	0	0	0	0	0	5	903
Percent	0.0%	78.6%	19.5%	0.7%	0.4%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.6%	

AM  
Peak  
Vol.

PM  
Peak  
Vol.

17:00	17:00	15:00	16:00	19:00
112	35	6	2	1

13:00	17:00
1	148





Site Code: 1  
 Station ID:  
 Draft Ave  
 just north of South River bridge  
 Latitude: 0' 0.0000 Undefined

SB

Start Time	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13	Not Classe	Total
02/06/18	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	0	165	39	0	0	5	0	0	0	0	0	0	0	6	215
14:00	0	184	54	1	1	0	0	0	1	0	0	0	0	4	245
15:00	1	338	101	8	3	2	0	0	0	0	0	0	0	16	469
16:00	1	363	97	3	0	0	0	0	0	0	0	0	0	16	480
17:00	0	423	105	1	1	0	0	0	0	0	0	0	0	14	544
18:00	0	295	64	0	0	0	0	0	0	0	0	0	0	15	374
19:00	0	217	41	0	0	0	0	0	0	0	0	0	0	4	262
20:00	0	201	35	0	0	0	0	0	0	0	0	0	0	1	237
21:00	0	129	18	0	0	0	0	0	0	0	0	0	0	0	147
22:00	0	65	7	0	0	0	0	0	0	0	0	0	0	0	72
23:00	0	54	15	0	0	0	0	0	0	0	0	0	0	0	69
Total	2	2434	576	13	5	7	0	0	1	0	0	0	0	76	3114
Percent	0.1%	78.2%	18.5%	0.4%	0.2%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.4%	
AM Peak Vol.															
PM Peak Vol.	15:00	17:00	17:00	15:00	15:00	13:00			14:00					15:00	17:00
	1	423	105	8	3	5			1					16	544



Site Code: 1  
 Station ID:  
 Draft Ave  
 just north of South River bridge  
 Latitude: 0' 0.0000 Undefined

NB

Start Time	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13	Not Classe	Total
02/06/18	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
01:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12 PM	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
13:00	0	175	43	1	1	1	0	0	1	0	0	0	0	10	232
14:00	0	188	50	4	0	0	2	0	0	0	0	0	0	14	258
15:00	0	183	72	0	1	0	0	1	0	0	0	0	0	20	277
16:00	0	212	55	1	1	0	0	0	0	0	0	0	0	10	279
17:00	0	212	56	0	0	0	0	0	0	0	0	0	0	19	287
18:00	0	178	43	0	0	0	0	0	0	0	0	0	0	9	230
19:00	0	86	24	0	0	0	0	0	0	0	0	0	0	4	114
20:00	0	85	8	0	0	0	0	0	0	0	0	0	0	0	93
21:00	0	57	10	0	0	1	0	0	0	0	0	0	0	0	68
22:00	0	59	15	0	0	0	0	0	0	0	0	0	0	0	74
23:00	0	15	4	0	0	0	0	0	0	0	0	0	0	0	19
Total	0	1450	380	6	3	2	2	1	1	0	0	0	0	86	1931
Percent	0.0%	75.1%	19.7%	0.3%	0.2%	0.1%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	4.5%	
AM Peak Vol.															
PM Peak Vol.		16:00	15:00	14:00	13:00	13:00	14:00	15:00	13:00					15:00	17:00
		212	72	4	1	1	2	1	1					20	287

Site Code: 1  
 Station ID:  
 Draft Ave  
 just north of South River bridge  
 Latitude: 0' 0.0000 Undefined

NB

Start Time	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10	Class 11	Class 12	Class 13	Not Classe	Total
02/07/1															
8	0	10	2	0	0	0	0	0	0	0	0	0	0	0	12
01:00	0	8	3	0	1	0	0	0	0	0	0	0	0	0	12
02:00	0	10	1	0	1	0	0	0	0	0	0	0	0	0	12
03:00	0	15	4	0	0	0	0	0	0	0	0	0	0	0	19
04:00	0	32	9	0	0	0	0	0	0	0	0	0	0	0	41
05:00	0	121	44	0	1	0	0	0	0	0	0	0	0	0	166
06:00	0	228	83	0	1	0	0	0	0	0	0	0	0	3	315
07:00	0	252	61	1	1	0	0	0	0	0	0	0	0	6	321
08:00	0	218	58	1	2	1	1	0	0	0	0	0	0	3	284
09:00	0	169	42	0	0	1	1	0	0	0	0	0	0	7	220
10:00	0	160	41	0	1	0	0	0	0	0	0	0	0	7	209
11:00	0	116	51	1	3	0	1	0	1	0	0	0	0	1	174
12 PM	0	129	54	1	1	0	0	1	0	0	0	0	0	5	191
13:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
14:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
15:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
16:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
17:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
18:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
19:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
20:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
21:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
22:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
23:00	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Total	0	1468	453	4	12	2	3	1	1	0	0	0	0	32	1976
Percent	0.0%	74.3%	22.9%	0.2%	0.6%	0.1%	0.2%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	1.6%	
AM Peak		07:00	06:00	07:00	11:00	08:00	08:00		11:00					09:00	07:00
Vol.		252	83	1	3	1	1		1					7	321
PM Peak		12:00	12:00	12:00	12:00			12:00						12:00	12:00
Vol.		129	54	1	1			1						5	191
Grand Total	0	2918	833	10	15	4	5	2	2	0	0	0	0	118	3907
Percent	0.0%	74.7%	21.3%	0.3%	0.4%	0.1%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	3.0%	

**Appendix C**  
**Patton Farm Road Culvert – Field Report**

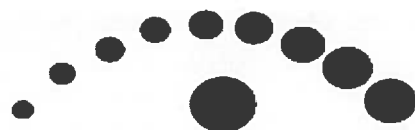
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# TIMMONS GROUP

YOUR VISION ACHIEVED THROUGH OURS.



## FIELD REPORT

<b>Project Name:</b> Stuarts Draft SAP	<b>Location:</b> Patton Farm Rd. over South River
<b>Project No.:</b> 37725	<b>Permit No.:</b>
<b>Client:</b> Augusta County	<b>Weather:</b> Sunny, 30°
<b>Contractor:</b> N/A	<b>Date:</b> February 3, 2018
<b>Report by:</b> Brian Wright	<b>Portal to Portal Time:</b>

**Summary:** Timmons Group (TG) completed a site visit to review the condition of the existing pipe culvert carrying Patton Farm Rd. over the South River. This visit, along with the provided structure inspection report, will be used to develop preliminary recommendations for any necessary improvements.

**Timmons Group Employees:** Brian Wright

### Findings

The structure is an eight-barrel CMP culvert carrying one northbound lane and one southbound lane of Patton Farm Rd. over the South River. A reinforced concrete endwall is cast at both the inlet and outlet of the pipes. A reinforced concrete slab carries traffic over the CMPs.

The structure appears to be in generally good condition. A few of the pipe inlets exhibited minor debris build-up.

It appears that this structure is prone to somewhat frequent overtopping. Signs on the approach to the structure advise against crossing when water is over the roadway. There is also a water height gauge at both ends of the structure.

There is no railing protecting vehicles from driving into the waterway. The structure sits on a curve and is susceptible to distracted or otherwise impaired drivers driving off the road at this location.

### Recommendation

Consideration should be given to raising the grade of this crossing in order to prevent frequent overtopping events. A hydraulic analysis would need to be completed to determine if this could be achieved with larger pipes, a culvert, or if a bridge is required.

At a minimum, some type of railing or guardrail should be installed to prevent traffic from driving into the waterway.

**Report By:** Brian Wright (Signature) Brian Wright, EIT (Print)

**Reviewed By:** \_\_\_\_\_ **Date:** \_\_\_\_\_

# TIMMONS GROUP

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South approach. Note curve at the north approach and the water height gauge.



General condition of pipe outlets and endwall.

Report By: Brian Wright (Signature) Brian Wright, EIT (Print)

Reviewed By: \_\_\_\_\_ Date: \_\_\_\_\_



# TIMMONS GROUP

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Debris at the inlet of Pipe 1.



Joint between reinforced concrete slab over pipes and general condition of slab.

Report By: *Brian Wright* (Signature) Brian Wright, EIT (Print)

Reviewed By: \_\_\_\_\_ Date: \_\_\_\_\_



**Appendix D**  
**Draft Avenue Bridge – Field Report**

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# TIMMONS GROUP

YOUR VISION ACHIEVED THROUGH OURS.



## FIELD REPORT

<b>Project Name:</b> Stuarts Draft SAP	<b>Location:</b> Draft Ave. over South River
<b>Project No.:</b> 37725	<b>Permit No.:</b>
<b>Client:</b> Augusta County	<b>Weather:</b> Sunny, 30°
<b>Contractor:</b> N/A	<b>Date:</b> February 3, 2018
<b>Report by:</b> Brian Wright	<b>Portal to Portal Time:</b>

**Summary:** Timmons Group (TG) completed a site visit to review the condition of the existing bridge carrying Draft Ave. over the South River. This visit, along with the provided bridge inspection report, will be used to develop preliminary recommendations for any necessary improvements.

**Timmons Group Employees:** Brian Wright

### Findings

The structure consists of four simple spans utilizing four cast-in-place reinforced concrete tee beams. The structure carries one northbound and one southbound lane of Draft Ave. over the South River.

The top of the bridge deck exhibits cracking throughout. Approximately 400 square feet of delamination is noted on the most recent inspection report. Previously patched areas are visible and appear to be sound. The expansion joints have failed at various locations at the piers and abutments, with the joint seal falling completely through the joint.

The bottom of the bridge deck exhibits cracking with scattered efflorescence. There are multiple spalls exposing deck reinforcing, which is corroded.

The beams are in good condition with areas of spalling and delamination typical at the beam ends. The heavy concentration of deterioration at the beams ends is likely due to water leaking through the failing joints.

The piers and abutments are generally in good condition.

There is heavy silt build up under the two northern-most spans that is stopping water underneath the structure and forcing it to flow back upstream.

### Recommendation

The structure is performing sufficiently under current conditions. The structure's load rating should be periodically updated to account for any further deterioration.

If a widening of this structure is proposed, a superstructure replacement should be investigated as a potential alternative to a full bridge replacement due to the good condition of the substructure.

**Report By:** Brian Wright (Signature) Brian Wright, EIT (Print)

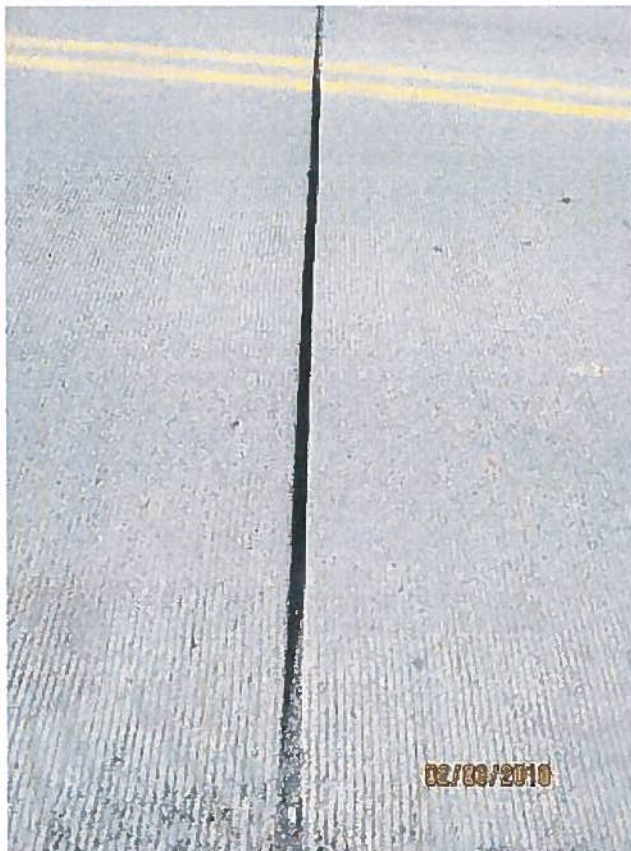
**Reviewed By:** \_\_\_\_\_ **Date:** \_\_\_\_\_

# TIMMONS GROUP

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General condition of the top of the bridge deck. Note the cracking and old patches.



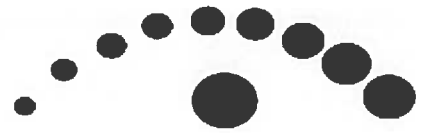
Failed joint seal over Pier 2. Other joints are similar.

Report By: Brian Wright (Signature) Brian Wright, EIT (Print)

Reviewed By: \_\_\_\_\_ Date: \_\_\_\_\_

# TIMMONS GROUP

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Spalling and cracking with efflorescence in the Span 1, Bay 2 soffit.



Cracking and spalling in Beam 4 bearings at Pier 3. This beam end condition is typical at all supports for various beams.

Report By: *Brian Wright* (Signature) Brian Wright, EIT (Print)

Reviewed By: \_\_\_\_\_ Date: \_\_\_\_\_

# TIMMONS GROUP

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General condition of superstructure. This is Span 3.



General condition of Piers. This is Pier 1.

Report By: *Brian Wright* (Signature) Brian Wright, EIT (Print)

Reviewed By: \_\_\_\_\_ Date: \_\_\_\_\_



# TIMMONS GROUP

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Water being backed up in Span 4 due to heavy silt build-up.

Report By: *Brian Wright* (Signature) Brian Wright, EIT (Print)

Reviewed By: \_\_\_\_\_ Date: \_\_\_\_\_



# **Appendix E**

## **Engineer's Estimate of Probable Cost**

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**ENGINEER'S ESTIMATE OF PROBABLE COST**  
**STUARTS DRAFT SMALL AREA PLAN**  
**BICYCLE PEDESTRIAN INFRASTRUCTURE ASSESSMENT**  
**AUGUSTA COUNTY, VA**  
**09/13/2019**

<b>Johnson Dr/Cold Spring Rd Connector</b> <i>Approx. 3,500' Multi-Use Path and/or Roadway Connector</i>				
	Option 1 - Stone	Option 2 - Asphalt	Option 3 - Permeable Pavement	Option 4 - Full-Depth Roadway
<b>CONSTRUCTION BID COSTS</b>				
Roadway and/or Path	\$ 100,000	\$ 200,000	\$ 300,000	\$ 500,000
Grading and Earthwork	\$ 50,000	\$ 50,000	\$ 50,000	\$ 260,000
Creek Crossing(s)	\$ 325,000	\$ 325,000	\$ 325,000	\$ 1,300,000
Safety Fencing and/or Barrier	\$ -	\$ -	\$ -	\$ 50,000
Stormwater and Hydraulics (5%)	\$ 24,000	\$ 29,000	\$ 34,000	\$ 106,000
Miscellaneous Construction (5%)	\$ 24,000	\$ 29,000	\$ 34,000	\$ 106,000
Annual Maintenance Requirements	\$ 10,000	\$ 5,000	\$ 7,500	\$ 30,000
<b>Sub-Total A:</b>	<b>\$ 533,000</b>	<b>\$ 638,000</b>	<b>\$ 750,500</b>	<b>\$ 2,352,000</b>
<b>OTHER BID COSTS</b>				
Mobilization for Sub-Total A (Calculated per VDOT formulas)	\$ 44,975	\$ 52,850	\$ 61,288	\$ 147,600
Construction Surveying (1%)	\$ 5,330	\$ 6,380	\$ 7,505	\$ 23,520
Materials Testing (2%)	\$ 10,660	\$ 12,760	\$ 15,010	\$ 47,040
<b>Sub-Total B:</b>	<b>\$ 60,965</b>	<b>\$ 71,990</b>	<b>\$ 83,803</b>	<b>\$ 218,160</b>
<b>Total Roadway Items (A + B):</b>	<b>\$ 595,000</b>	<b>\$ 710,000</b>	<b>\$ 835,000</b>	<b>\$ 2,570,000</b>
<b>DESIGN &amp; ADMINISTRATIVE COSTS</b>				
Construction Engineering & Inspection (10%)	\$ 59,500	\$ 71,000	\$ 83,500	\$ 257,000
Survey, Design Services, & Permitting (15%)	\$ 89,250	\$ 106,500	\$ 125,250	\$ 385,500
Wetlands Permitting & Mitigation (Includes Floodplain Study)	\$ 75,000	\$ 75,000	\$ 75,000	\$ 200,000
Contingency for Total Bid Items (15%)	\$ 79,950	\$ 95,700	\$ 112,575	\$ 352,800
<b>Sub-Total C (Total Bid Items + Other Administrative Costs):</b>	<b>\$ 303,700</b>	<b>\$ 348,200</b>	<b>\$ 396,325</b>	<b>\$ 1,195,300</b>
<b>GRAND TOTAL (A+B+C) (ROUNDED)</b>	<b>\$ 900,000</b>	<b>\$ 1,060,000</b>	<b>\$ 1,230,000</b>	<b>\$ 3,770,000</b>
<b>RIGHT OF WAY COSTS</b>				
Utility Relocations (5%)	\$ 45,000	\$ 53,000	\$ 61,500	\$ 188,500
Right of Way - Real Estate Costs	\$ 137,500	\$ 137,500	\$ 137,500	\$ 172,000
Right of Way - Acquisition Costs	\$ 25,000	\$ 25,000	\$ 25,000	\$ 50,000
Right of Way - Contingency	\$ 31,125	\$ 32,325	\$ 33,600	\$ 61,575
<b>ROW Total (ROUNDED):</b>	<b>\$ 240,000</b>	<b>\$ 250,000</b>	<b>\$ 260,000</b>	<b>\$ 470,000</b>
<b>Summary of Budget in VDOT 3 phased system</b>				
<b>Preliminary Engineering (PE)</b>	<b>\$ 160,000</b>	<b>\$ 180,000</b>	<b>\$ 200,000</b>	<b>\$ 590,000</b>
<b>Right of Way (RW)</b>	<b>\$ 240,000</b>	<b>\$ 250,000</b>	<b>\$ 260,000</b>	<b>\$ 470,000</b>
<b>Construction (CN)</b>	<b>\$ 730,000</b>	<b>\$ 880,000</b>	<b>\$ 1,030,000</b>	<b>\$ 3,180,000</b>
<b>TOTAL RECOMMENDED PROJECT BUDGET</b>	<b>\$ 1,130,000</b>	<b>\$ 1,310,000</b>	<b>\$ 1,490,000</b>	<b>\$ 4,240,000</b>

Notes:  
(1) Although there is a chance that a significant amount of the ROW could be donated, we have assumed that the ROW will be acquired for budgeting purposes.  
(2) Real Estate Values were figured on current tax assessment + 25% for Fair Market Value adjustment.  
(3) Assumes Federal Participation (worst case scenario).

**ENGINEER'S ESTIMATE OF PROBABLE COST**  
**STUARTS DRAFT SMALL AREA PLAN**  
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	Patton Farm Road Culvert/Bridge Improvements			
	Install Guardrail Only	Option 1 - 10-Yr Design	Option 2 - 25-Yr Design	Option 3 - 100-Yr Design
<b>CONSTRUCTION BID COSTS</b>				
Roadway and/or Path	\$ 10,000	\$ 200,000	\$ 250,000	\$ 500,000
Grading and Earthwork	\$ 10,000	\$ 100,000	\$ 150,000	\$ 250,000
Creek Crossing(s)	\$ -	\$ 1,000,000	\$ 1,500,000	\$ 2,000,000
Safety Fencing and/or Barrier	\$ -	\$ -	\$ -	\$ 50,000
Stormwater and Hydraulics (5%)	\$ -	\$ 65,000	\$ 95,000	\$ 140,000
Miscellaneous Construction (5%)	\$ 1,000	\$ 65,000	\$ 95,000	\$ 140,000
Annual Maintenance Requirements	\$ -	\$ -	\$ -	\$ 30,000
<b>Sub-Total A:</b>	<b>\$ 21,000</b>	<b>\$ 1,430,000</b>	<b>\$ 2,090,000</b>	<b>\$ 3,110,000</b>
<b>OTHER BID COSTS</b>				
Mobilization for Sub-Total A (Calculated per VDOT formulas)	\$ 2,100	\$ 101,500	\$ 134,500	\$ 185,500
Construction Surveying (1%)	\$ 210	\$ 14,300	\$ 20,900	\$ 31,100
Materials Testing (2%)	\$ 420	\$ 28,600	\$ 41,800	\$ 62,200
<b>Sub-Total B:</b>	<b>\$ 2,730</b>	<b>\$ 144,400</b>	<b>\$ 197,200</b>	<b>\$ 278,800</b>
<b>Total Roadway Items (A + B):</b>	<b>\$ 25,000</b>	<b>\$ 1,575,000</b>	<b>\$ 2,285,000</b>	<b>\$ 3,390,000</b>
<b>DESIGN &amp; ADMINISTRATIVE COSTS</b>				
Construction Engineering & Inspection (10%)	\$ 2,500	\$ 157,500	\$ 228,500	\$ 339,000
Survey, Design Services, & Permitting (15%)	\$ 3,750	\$ 236,250	\$ 342,750	\$ 508,500
Wetlands Permitting & Mitigation (Includes Floodplain Study)	\$ -	\$ 150,000	\$ 200,000	\$ 250,000
Contingency for Total Bid Items (15%)	\$ 3,150	\$ 214,500	\$ 313,500	\$ 466,500
<b>Sub-Total C (Total Bid Items + Other Administrative Costs):</b>	<b>\$ 9,400</b>	<b>\$ 758,250</b>	<b>\$ 1,084,750</b>	<b>\$ 1,564,000</b>
<b>GRAND TOTAL (A+B+C) (ROUNDED)</b>	<b>\$ 30,000</b>	<b>\$ 2,330,000</b>	<b>\$ 3,370,000</b>	<b>\$ 4,950,000</b>
<b>RIGHT OF WAY COSTS</b>				
Utility Relocations (5%)	\$ 1,500	\$ 116,500	\$ 168,500	\$ 247,500
Right of Way - Real Estate Costs	\$ -	\$ 3,200	\$ 3,200	\$ 4,500
Right of Way - Acquisition Costs	\$ -	\$ 10,000	\$ 10,000	\$ 10,000
Right of Way - Contingency	\$ 5,000	\$ 19,455	\$ 27,255	\$ 39,300
<b>ROW Total (ROUNDED):</b>	<b>\$ 10,000</b>	<b>\$ 150,000</b>	<b>\$ 210,000</b>	<b>\$ 300,000</b>
<b>Summary of Budget in VDOT 3 phased system</b>				
Preliminary Engineering (PE)	\$ -	\$ 390,000	\$ 540,000	\$ 760,000
Right of Way (RW)	\$ 10,000	\$ 150,000	\$ 210,000	\$ 300,000
Construction (CN)	\$ 30,000	\$ 1,950,000	\$ 2,830,000	\$ 4,200,000
<b>TOTAL RECOMMENDED PROJECT BUDGET</b>	<b>\$ 40,000</b>	<b>\$ 2,490,000</b>	<b>\$ 3,580,000</b>	<b>\$ 5,260,000</b>

**Notes:**

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**ENGINEER'S ESTIMATE OF PROBABLE COST**  
**STUARTS DRAFT SMALL AREA PLAN**  
**BICYCLE PEDESTRIAN INFRASTRUCTURE ASSESSMENT**  
**AUGUSTA COUNTY, VA**  
**09/13/2019**

	Draft Avenue (Bridge Only)	
	Option 1 - Pedestrian Bridge	Option 2 - Widen Existing Bridge
<b>CONSTRUCTION BID COSTS</b>		
Roadway and/or Path	\$ -	\$ 100,000
Grading and Earthwork	\$ 100,000	\$ 100,000
Creek Crossing(s)	\$ 960,000	\$ 2,880,000
Safety Fencing and/or Barrier	\$ 35,000	\$ 75,000
Stormwater and Hydraulics (5%)	\$ 55,000	\$ 158,000
Miscellaneous Construction (5%)	\$ 55,000	\$ 158,000
Annual Maintenance Requirements	\$ 13,000	\$ 35,000
<b>Sub-Total A:</b>	<b>\$ 1,218,000</b>	<b>\$ 3,506,000</b>
<b>OTHER BID COSTS</b>		
Mobilization for Sub-Total A (Calculated per VDOT formulas)	\$ 90,900	\$ 205,300
Construction Surveying (1%)	\$ 12,180	\$ 35,060
Materials Testing (2%)	\$ 24,360	\$ 70,120
<b>Sub-Total B:</b>	<b>\$ 127,440</b>	<b>\$ 310,480</b>
<b>Total Roadway Items (A + B):</b>	<b>\$ 1,345,000</b>	<b>\$ 3,815,000</b>
<b>DESIGN &amp; ADMINISTRATIVE COSTS</b>		
Construction Engineering & Inspection (10%)	\$ 134,500	\$ 381,500
Survey, Design Services, & Permitting	\$ 201,750	\$ 381,500
Wetlands Permitting & Mitigation (Includes Floodplain Study)	\$ 150,000	\$ 250,000
Contingency for Total Bid Items (15%)	\$ 182,700	\$ 525,900
<b>Sub-Total C (Total Bid Items + Other Administrative Costs):</b>	<b>\$ 668,950</b>	<b>\$ 1,538,900</b>
<b>GRAND TOTAL (A+B+C) (ROUNDED)</b>	<b>\$ 2,010,000</b>	<b>\$ 5,360,000</b>
<b>RIGHT OF WAY COSTS</b>		
Utility Relocations (5%)	\$ 100,500	\$ 268,000
Right of Way - Real Estate Costs	\$ 5,000	\$ 5,000
Right of Way - Acquisition Costs	\$ 10,000	\$ 10,000
Right of Way - Contingency	\$ 17,325	\$ 42,450
<b>ROW Total (ROUNDED):</b>	<b>\$ 130,000</b>	<b>\$ 330,000</b>
<b>Summary of Budget in VDOT 3 phased system</b>		
Preliminary Engineering (PE)	\$ 350,000	\$ 630,000
Right of Way (RW)	\$ 130,000	\$ 330,000
Construction (CN)	\$ 1,660,000	\$ 4,720,000
<b>TOTAL RECOMMENDED PROJECT BUDGET</b>	<b>\$ 2,140,000</b>	<b>\$ 5,680,000</b>

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**ENGINEER'S ESTIMATE OF PROBABLE COST**  
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**AUGUSTA COUNTY, VA**  
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	Greenway Approx. 7.3 miles Multi-Use Path		
	Option 1 - Stone	Option 2 - Asphalt	Option 3 - Permeable Pavement
<b>CONSTRUCTION BID COSTS</b>			
Roadway and/or Path	\$ 1,255,000	\$ 1,735,000	\$ 2,890,000
Grading and Earthwork	\$ 585,000	\$ 585,000	\$ 585,000
Creek Crossing(s)	\$ 100,000	\$ 100,000	\$ 100,000
Safety Fencing and/or Barrier	\$ 125,000	\$ 125,000	\$ 125,000
Stormwater and Hydraulics (5%)	\$ 103,000	\$ 127,000	\$ 185,000
Miscellaneous Construction (5%)	\$ 103,000	\$ 127,000	\$ 185,000
Annual Maintenance Requirements	\$ 50,000	\$ 24,000	\$ 62,000
<b>Sub-Total A:</b>	<b>\$ 2,321,000</b>	<b>\$ 2,823,000</b>	<b>\$ 4,132,000</b>
<b>OTHER BID COSTS</b>			
Mobilization for Sub-Total A (Calculated per VDOT formulas)	\$ 146,050	\$ 171,150	\$ 236,600
Construction Surveying (1%)	\$ 23,210	\$ 28,230	\$ 41,320
Materials Testing (2%)	\$ 46,420	\$ 56,460	\$ 82,640
<b>Sub-Total B:</b>	<b>\$ 215,680</b>	<b>\$ 255,840</b>	<b>\$ 360,560</b>
<b>Total Roadway Items (A + B):</b>	<b>\$ 2,535,000</b>	<b>\$ 3,080,000</b>	<b>\$ 4,495,000</b>
<b>DESIGN &amp; ADMINISTRATIVE COSTS</b>			
Construction Engineering & Inspection (10%)	\$ 253,500	\$ 308,000	\$ 449,500
Survey, Design Services, & Permitting (15%)	\$ 380,250	\$ 462,000	\$ 674,250
Wetlands Permitting & Mitigation (Includes Floodplain Study)	\$ 250,000	\$ 250,000	\$ 250,000
Contingency for Total Bid Items (15%)	\$ 348,150	\$ 423,450	\$ 619,800
<b>Sub-Total C (Total Bid Items + Other Administrative Costs):</b>	<b>\$ 1,231,900</b>	<b>\$ 1,443,450</b>	<b>\$ 1,993,550</b>
<b>GRAND TOTAL (A+B+C) (ROUNDED)</b>	<b>\$ 3,770,000</b>	<b>\$ 4,520,000</b>	<b>\$ 6,490,000</b>
<b>RIGHT OF WAY COSTS</b>			
Utility Relocations (5%)	\$ 188,500	\$ 226,000	\$ 324,500
Right of Way - Real Estate Costs	\$ 925,000	\$ 925,000	\$ 925,000
Right of Way - Acquisition Costs	\$ 125,000	\$ 125,000	\$ 125,000
Right of Way - Contingency	\$ 185,775	\$ 191,400	\$ 206,175
<b>ROW Total (ROUNDED):</b>	<b>\$ 1,420,000</b>	<b>\$ 1,470,000</b>	<b>\$ 1,580,000</b>
<b>Summary of Budget in VDOT 3 phased system</b>			
<b>Preliminary Engineering (PE)</b>	<b>\$ 630,000</b>	<b>\$ 710,000</b>	<b>\$ 920,000</b>
<b>Right of Way (RW)</b>	<b>\$ 1,420,000</b>	<b>\$ 1,470,000</b>	<b>\$ 1,580,000</b>
<b>Construction (CN)</b>	<b>\$ 3,140,000</b>	<b>\$ 3,810,000</b>	<b>\$ 5,560,000</b>
<b>TOTAL RECOMMENDED PROJECT BUDGET</b>	<b>\$ 5,190,000</b>	<b>\$ 5,990,000</b>	<b>\$ 8,060,000</b>

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**ENGINEER'S ESTIMATE OF PROBABLE COST**  
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**BICYCLE PEDESTRIAN INFRASTRUCTURE ASSESSMENT**  
**AUGUSTA COUNTY, VA**  
**09/13/2019**

	Draft Avenue				
	Bicycle & Pedestrian Improvements				
	Option 1 - Complete Existing Sidewalk Network	Option 2 - ADA Compliance Existing Locations	Option 3 - Pavement Marking Options Only	Option 4 - Improvements South of At-Grade Railroad	Option 5 - Widen Roadway to Install Bicycle/Pedestrian Improvements
<b>CONSTRUCTION BID COSTS</b>					
Sidewalk & ADA Compliance Upgrades	\$ 240,000	\$ 100,000	\$ 50,000	\$ 555,000	\$ 1,110,000
Bicycle Improvements	\$ -	\$ -	\$ 50,000	\$ -	\$ 1,110,000
Grading and Earthwork	\$ 118,000	\$ 50,000	\$ -	\$ 250,000	\$ 3,220,000
At-Grade Railroad Crossing	\$ -	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000
Stormwater and Hydraulics (25%)	\$ 90,000	\$ 9,000	\$ -	\$ 42,000	\$ 273,000
Miscellaneous Construction (5%)	\$ 18,000	\$ 9,000	\$ 6,000	\$ 42,000	\$ 273,000
<b>Sub-Total A:</b>	<b>\$ 466,000</b>	<b>\$ 193,000.00</b>	<b>\$ 131,000.00</b>	<b>\$ 914,000.00</b>	<b>\$ 6,011,000.00</b>
<b>OTHER BID COSTS</b>					
Mobilization for Sub-Total A (Calculated per VDOT formulas)	\$ 39,950	\$ 19,300	\$ 13,100	\$ 73,550	\$ 330,550
Construction Surveying (1%)	\$ 4,660	\$ 1,930	\$ 1,310	\$ 9,140	\$ 60,110
Materials Testing (2%)	\$ 9,320	\$ 3,860	\$ 2,620	\$ 18,280	\$ 120,220
<b>Sub-Total B:</b>	<b>\$ 53,930</b>	<b>\$ 25,090</b>	<b>\$ 17,030</b>	<b>\$ 100,970</b>	<b>\$ 510,880</b>
<b>Total Roadway Items (A + B):</b>	<b>\$ 520,000</b>	<b>\$ 220,000</b>	<b>\$ 150,000</b>	<b>\$ 1,015,000</b>	<b>\$ 6,520,000</b>
<b>DESIGN &amp; ADMINISTRATIVE COSTS</b>					
Construction Engineering & Inspection (10%)	\$ 52,000	\$ 22,000	\$ 15,000	\$ 101,500	\$ 652,000
Survey, Design Services, & Permitting (15%)	\$ 78,000	\$ 33,000	\$ 22,500	\$ 152,250	\$ 652,000
Wetlands Permitting & Mitigation (Includes Floodplain Study)	\$ 25,000	\$ -	\$ -	\$ 150,000	\$ 250,000
Contingency for Total Bid Items (15%)	\$ 69,900	\$ 28,950	\$ 19,650	\$ 137,100	\$ 901,650
<b>Sub-Total C (Total Bid Items + Other Administrative Costs):</b>	<b>\$ 224,900</b>	<b>\$ 83,950</b>	<b>\$ 57,150</b>	<b>\$ 540,850</b>	<b>\$ 2,455,650</b>
<b>GRAND TOTAL (A+B+C) (ROUNDED)</b>	<b>\$ 740,000</b>	<b>\$ 300,000</b>	<b>\$ 210,000</b>	<b>\$ 1,560,000</b>	<b>\$ 8,980,000</b>
<b>RIGHT OF WAY COSTS</b>					
Utility Relocations (25%)	\$ 185,000	\$ 60,000	\$ -	\$ 390,000	\$ 2,245,000
Right of Way - Real Estate Costs	\$ 55,300	\$ 25,000	\$ -	\$ 188,650	\$ 377,300
Right of Way - Acquisition Costs	\$ 25,000	\$ 25,000	\$ -	\$ 50,000	\$ 125,000
Right of Way - Contingency	\$ 39,795	\$ 16,500	\$ 10,000	\$ 94,298	\$ 412,095
<b>ROW Total (ROUNDED):</b>	<b>\$ 310,000</b>	<b>\$ 130,000</b>	<b>\$ 10,000</b>	<b>\$ 720,000</b>	<b>\$ 3,160,000</b>
<b>Summary of Budget in VDOT 3 phased system</b>					
Preliminary Engineering (PE)	\$ 100,000	\$ 30,000	\$ 20,000	\$ 300,000	\$ 900,000
Right of Way (RW)	\$ 310,000	\$ 130,000	\$ 10,000	\$ 720,000	\$ 3,160,000
Construction (CN)	\$ 640,000	\$ 270,000	\$ 180,000	\$ 1,250,000	\$ 8,070,000
<b>TOTAL RECOMMENDED PROJECT BUDGET</b>	<b>\$ 1,050,000</b>	<b>\$ 430,000</b>	<b>\$ 210,000</b>	<b>\$ 2,270,000</b>	<b>\$ 12,130,000</b>

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(3) Assumes Federal Participation (worst case scenario).

**ENGINEER'S ESTIMATE OF PROBABLE COST**  
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	Wayne Avenue - Draft to Crestview Bicycle/Pedestrian Improvements	Wayne Avenue - Crestview to Patton Farm Bicycle/Pedestrian Improvements
<b>CONSTRUCTION BID COSTS</b>		
Grading and Earthwork	\$ 37,950	\$ 115,000
Sidewalk & ADA Compliance Upgrades (1,500')	\$ 252,000	-
Multi-Use Path (11,000')	\$ -	\$ 825,000
Stormwater and Hydraulics	\$ 82,500	\$ 250,000
Miscellaneous Construction (5%)	\$ 19,000	\$ 60,000
<b>Sub-Total A:</b>	<b>\$ 391,450</b>	<b>\$ 1,250,000</b>
<b>OTHER BID COSTS</b>		
Mobilization for Sub-Total A (Calculated per VDOT formulas)	\$ 34,359	\$ 92,500
Construction Surveying (1%)	\$ 3,915	\$ 12,500
Materials Testing (2%)	\$ 7,829	\$ 25,000
<b>Sub-Total B:</b>	<b>\$ 46,102</b>	<b>\$ 130,000</b>
<b>Total Roadway Items (A + B):</b>	<b>\$ 440,000</b>	<b>\$ 1,380,000</b>
<b>DESIGN &amp; ADMINISTRATIVE COSTS</b>		
Construction Engineering & Inspection (10%)	\$ 44,000	\$ 138,000
Survey, Design Services, & Permitting (15%)	\$ 66,000	\$ 207,000
Wetlands Permitting & Mitigation (Includes Floodplain Study)	\$ 75,000	\$ 75,000
Contingency for Total Bid Items (15%)	\$ 58,718	\$ 187,500
<b>Sub-Total C (Total Bid Items + Other Administrative Costs):</b>	<b>\$ 243,718</b>	<b>\$ 607,500</b>
<b>GRAND TOTAL (A+B+C) (ROUNDED)</b>	<b>\$ 680,000</b>	<b>\$ 1,990,000</b>
<b>RIGHT OF WAY COSTS</b>		
Utility Relocations (25%)	\$ 170,000	\$ 497,500
Right of Way - Real Estate Costs	\$ 36,399	\$ 110,300
Right of Way - Acquisition Costs	\$ 24,750	\$ 75,000
Right of Way - Contingency	\$ 34,672	\$ 102,420
<b>ROW Total (ROUNDED):</b>	<b>\$ 270,000</b>	<b>\$ 790,000</b>
<b>Summary of Budget in VDOT 3 phased system</b>		
Preliminary Engineering (PE)	\$ 140,000	\$ 280,000
Right of Way (RW)	\$ 270,000	\$ 790,000
Construction (CN)	\$ 540,000	\$ 1,710,000
<b>TOTAL RECOMMENDED PROJECT BUDGET</b>	<b>\$ 950,000</b>	<b>\$ 2,780,000</b>

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ENGINEER'S ESTIMATE OF PROBABLE COST  
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 BICYCLE PEDESTRIAN INFRASTRUCTURE ASSESSMENT  
 AUGUSTA COUNTY, VA  
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	Cold Springs Road Bicycle/Pedestrian Improvements
<b>CONSTRUCTION BID COSTS</b>	
Grading and Earthwork	\$ 124,000
Creek Crossing(s)	\$ 114,000
Sidewalk & ADA Compliance Upgrades (4,250')	\$ 650,000
Stormwater and Hydraulics (20%)	\$ 178,000
Miscellaneous Construction (5%)	\$ 44,000
<b>Sub-Total A:</b>	<b>\$ 1,110,000</b>
<b>OTHER BID COSTS</b>	
Mobilization for Sub-Total A (Calculated per VDOT formulas)	\$ 85,500
Construction Surveying (1%)	\$ 11,100
Materials Testing (2%)	\$ 22,200
<b>Sub-Total B:</b>	<b>\$ 118,800</b>
<b>Total Roadway Items (A + B):</b>	<b>\$ 1,230,000</b>
<b>DESIGN &amp; ADMINISTRATIVE COSTS</b>	
Construction Engineering & Inspection (10%)	\$ 123,000
Survey, Design Services, & Permitting (15%)	\$ 184,500
Contingency for Total Bid Items (15%)	\$ 166,500
<b>Sub-Total C (Total Bid Items + Other Administrative Costs):</b>	<b>\$ 474,000</b>
<b>GRAND TOTAL (A+B+C) (ROUNDED)</b>	<b>\$ 1,700,000</b>
<b>RIGHT OF WAY COSTS</b>	
Utility Relocations (25%)	\$ 425,000
Right of Way - Real Estate Costs	\$ 146,600
Right of Way - Acquisition Costs	\$ 75,000
Right of Way - Contingency	\$ 96,990
<b>ROW Total (ROUNDED):</b>	<b>\$ 740,000</b>
<b>Summary of Budget in VDOT 3 phased system</b>	
Preliminary Engineering (PE)	\$ 180,000
Right of Way (RW)	\$ 740,000
Construction (CN)	\$ 1,520,000
<b>TOTAL RECOMMENDED PROJECT BUDGET</b>	<b>\$ 2,440,000</b>

Notes:

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- (2) Real Estate Values were figured on current tax assessment + 25% for Fair Market Value adjustment.
- (3) Assumes Federal Participation (worst case scenario).

**ENGINEER'S ESTIMATE OF PROBABLE COST**  
**STUARTS DRAFT SMALL AREA PLAN**  
**BICYCLE PEDESTRIAN INFRASTRUCTURE ASSESSMENT**  
**AUGUSTA COUNTY, VA**  
**09/13/2019**

	Howardsville Tpk/ Hodge St Bicycle/Pedestrian Improvements
<b>CONSTRUCTION BID COSTS</b>	
Grading and Earthwork	\$ 96,000
Traffic Signal Pedestrian Upgrades	\$ 50,000
Sidewalk & ADA Compliance Upgrades (2,750')	\$ 440,000
Stormwater and Hydraulics (25%)	\$ 147,000
Miscellaneous Construction (5%)	\$ 29,000
<b>Sub-Total A:</b>	<b>\$ 762,000</b>
<b>OTHER BID COSTS</b>	
Mobilization for Sub-Total A (Calculated per VDOT formulas)	\$ 62,150
Construction Surveying (1%)	\$ 7,620
Materials Testing (2%)	\$ 15,240
<b>Sub-Total B:</b>	<b>\$ 85,010</b>
<b>Total Roadway Items (A + B):</b>	<b>\$ 845,000</b>
<b>DESIGN &amp; ADMINISTRATIVE COSTS</b>	
Construction Engineering & Inspection (10%)	\$ 84,500
Survey, Design Services, & Permitting (15%)	\$ 126,750
Contingency for Total Bid Items (15%)	\$ 114,300
<b>Sub-Total C (Total Bid Items + Other Administrative Costs):</b>	<b>\$ 325,550</b>
<b>GRAND TOTAL (A+B+C) (ROUNDED)</b>	<b>\$ 1,170,000</b>
<b>RIGHT OF WAY COSTS</b>	
Utility Relocations (25%)	\$ 292,500
Right of Way - Real Estate Costs	\$ 91,500
Right of Way - Acquisition Costs	\$ 75,000
Right of Way - Contingency	\$ 68,850
<b>ROW Total (ROUNDED):</b>	<b>\$ 530,000</b>
<b>Summary of Budget in VDOT 3 phased system</b>	
Preliminary Engineering (PE)	\$ 130,000
Right of Way (RW)	\$ 530,000
Construction (CN)	\$ 1,040,000
<b>TOTAL RECOMMENDED PROJECT BUDGET</b>	<b>\$ 1,700,000</b>

**Notes:**

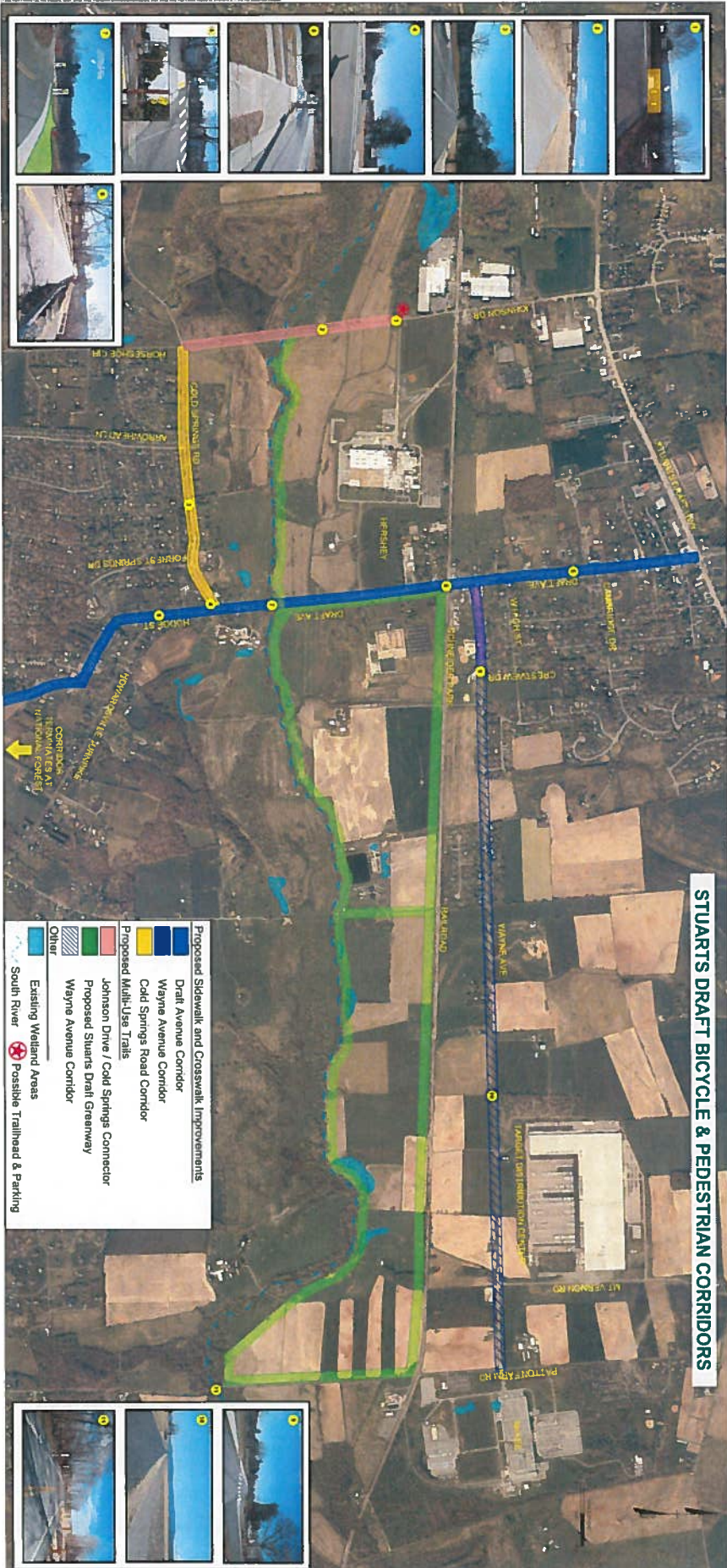
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- (2) Real Estate Values were figured on current tax assessment + 25% for Fair Market Value adjustment.
- (3) Assumes Federal Participation (worst case scenario).

# Appendix F

## Presentation Materials

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# STUARTS DRAFT BICYCLE & PEDESTRIAN CORRIDORS



## TIMMONS GROUP

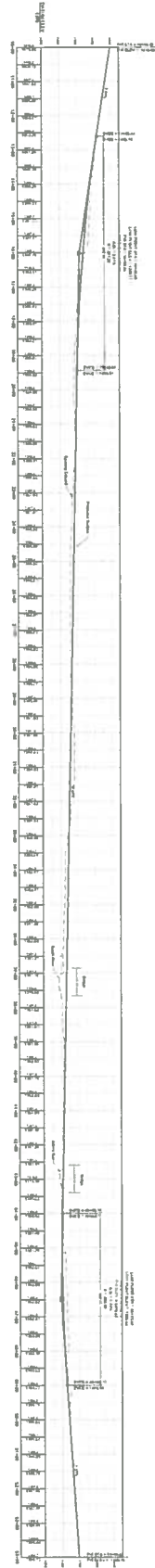
STUARTS DRAFT SMALL AREA STUDY  
BICYCLE & PEDESTRIAN CORRIDORS

THIS DOCUMENT PREPARED BY THE  
TIMMONS GROUP

10000 Riverchase Lane, Suite 200, The Woodlands, TX 77380  
Tel: 281-358-1000 Fax: 281-358-1001 www.tgusa.com

DATE	2/27/20	DRAWN	J. LAMBERT	CHECKED	J. LAMBERT
SCALE	1" = 200'	DATE	2/27/20	DATE	2/27/20
PROJECT	STUARTS DRAFT SMALL AREA STUDY				
LOCATION	STUART, VA				
PROJECT NO.	2019-001				
DATE	2/27/20				
BY	J. LAMBERT				
CHECKED	J. LAMBERT				
DATE	2/27/20				

**JOHNSON DRIVE/COLD SPRINGS ROAD BIKE/PEDESTRIAN CONNECTOR**



**TIMMONS GROUP**

STUARTS DRAFT SMALL AREA STUDY

PROPOSED AREA LAYOUT

DATE	12/15/2011
BY	J. STUART
CHECKED BY	M. TIMMONS
SCALE	AS SHOWN
PROJECT NO.	11-001
DRAWING NO.	11-001-01
DATE PLOTTED	12/15/2011
PLotted by	J. STUART

