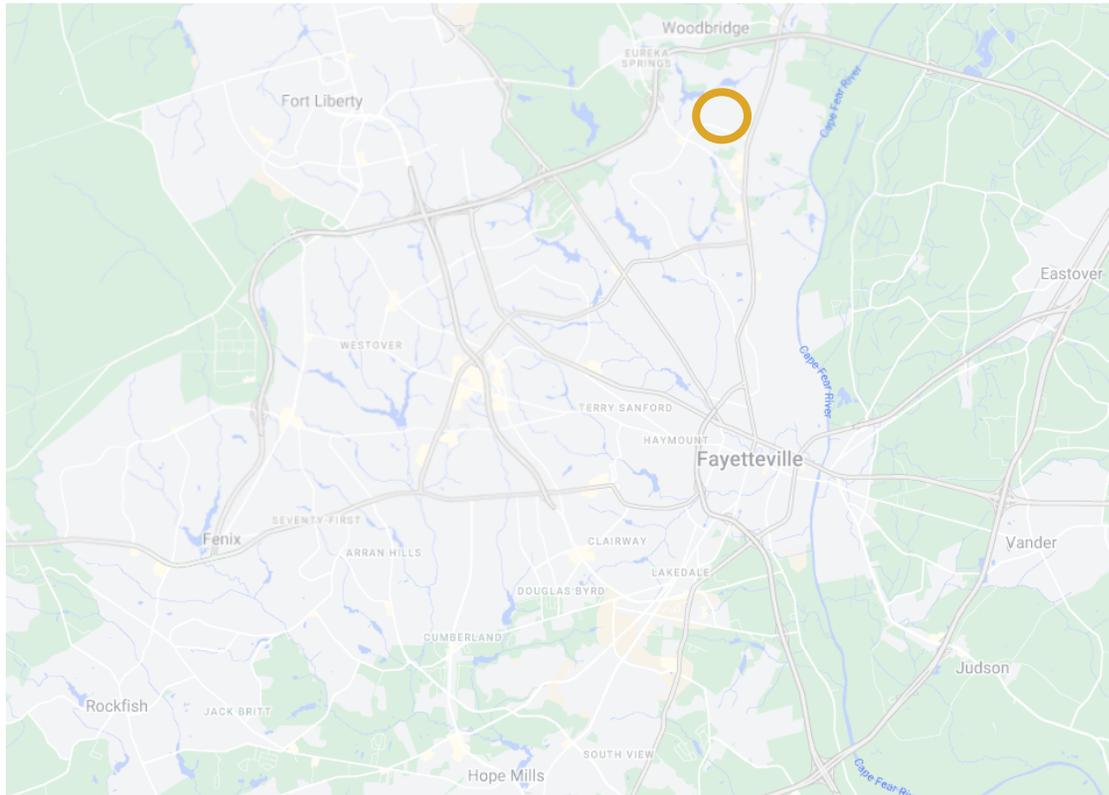


Location 1: King's Grant



Subdivision Name: King's Grant

Acreage of Subdivision: 61 acres

Number of Households in Subdivision: 113 households

Streets Connected: Nottingham Drive, Cherrystone Drive, Cooper Road

Barrier to Access: Creek (potential culvert needed)

Change in Distance to:

Arterial – 1 mile

Bus Stop – 1 mile

Sidewalk – ¾ mile

School – 1 mile

Commercial Uses – ½ mile

Community Center – 2 miles

Fire Station – 1¾ mile

Total Estimated Cost: \$1.285M

Construction - \$690,000

Engineering - \$140,000

Right-of-Way - \$23,000

Management/Inspection - \$140,000

Contingency – 30%

PERFORMANCE METRICS

Equity



38%

Feasibility



80%

Resiliency



78%

Multimodal



80%

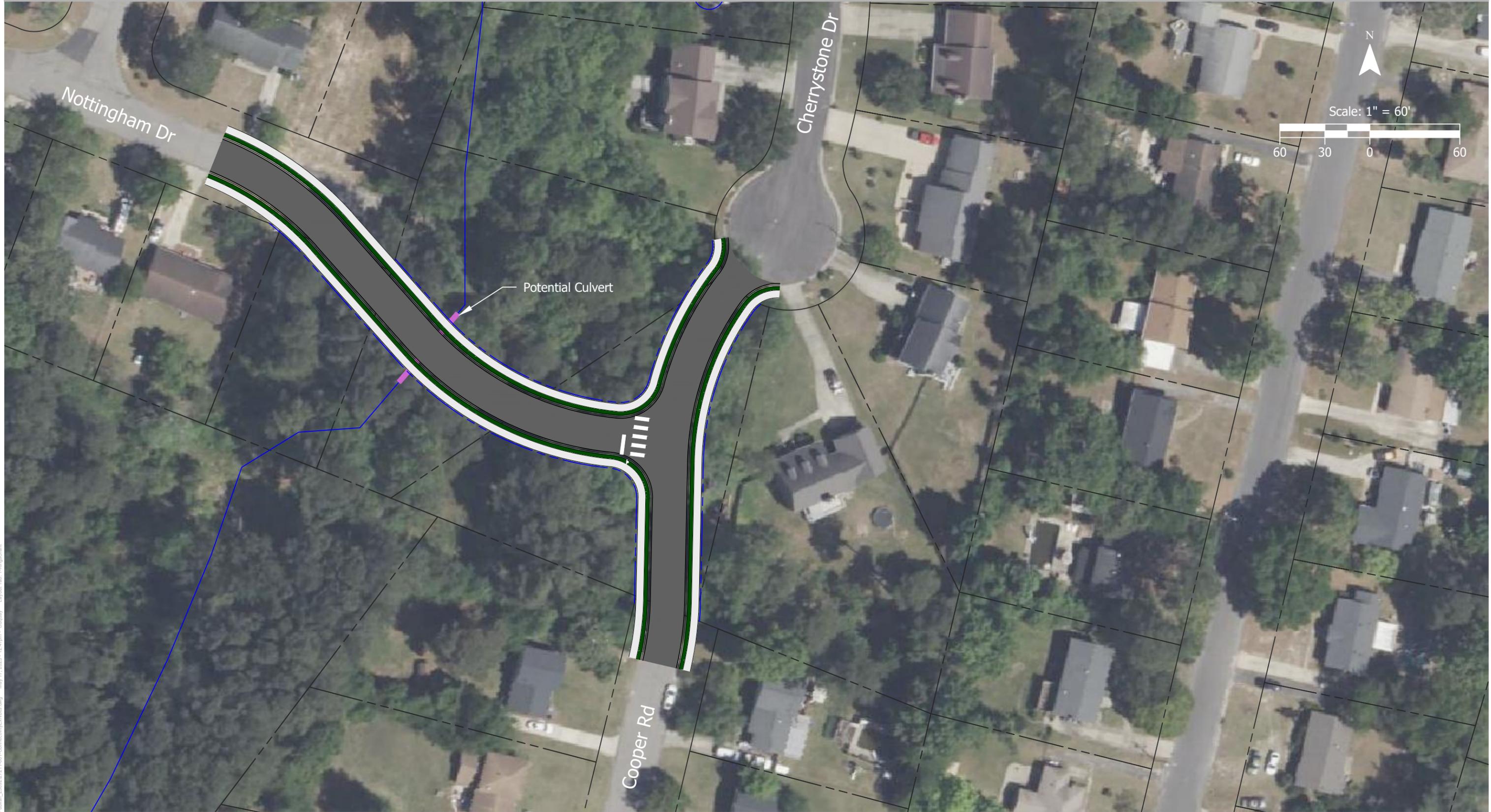
Community



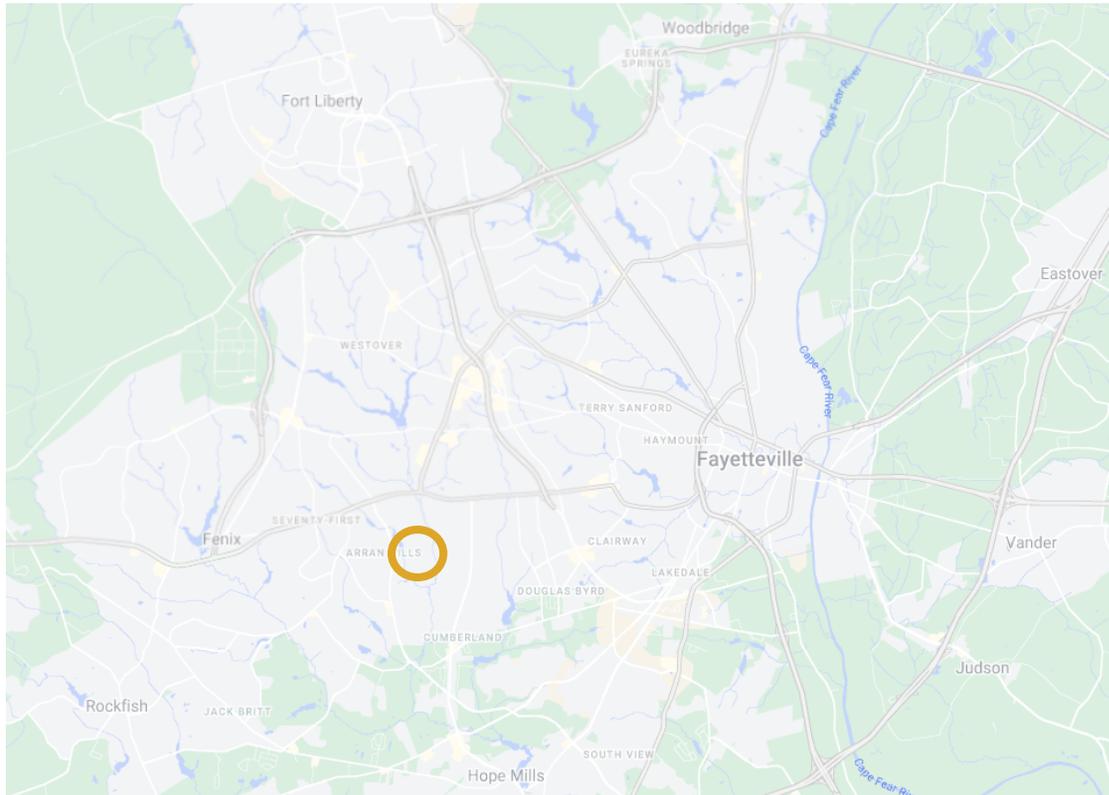
83%

Location 1 - Kings Grant

Preliminary Design Subject to Change
April 2023



Location 2: Creeks Edge



Subdivision Name: Creeks Edge
Acreage of Subdivision: 28 acres
Number of Households in Subdivision: 180 households
Streets Connected: Blairwood Drive, Birch Road
Barrier to Access: Beaver Creek (potential bridge needed)
Change in Distance to:

- Arterial – 1/10 mile
- Bus Stop – 1 mile
- Sidewalk – 3/4 mile
- School – 1/2 mile
- Commercial Uses – 1 1/2 miles
- Community Center – 1 1/4 miles
- Fire Station – 2 miles

Total Estimated Cost: \$4.165M (Phase 1); \$1.187M (Phase 2)

- Construction - \$2,257,000 (P1); \$635,000 (P2)
- Engineering - \$451,500 (P1); \$127,000
- Right-of-Way - \$43,750 (P1); \$24,500 (P2)
- Management/Inspection - \$451,500 (P1), \$127,000 (P2)
- Contingency – 30%

PERFORMANCE METRICS

Equity



75%

Feasibility



20%

Resiliency



56%

Multimodal



100%

Community

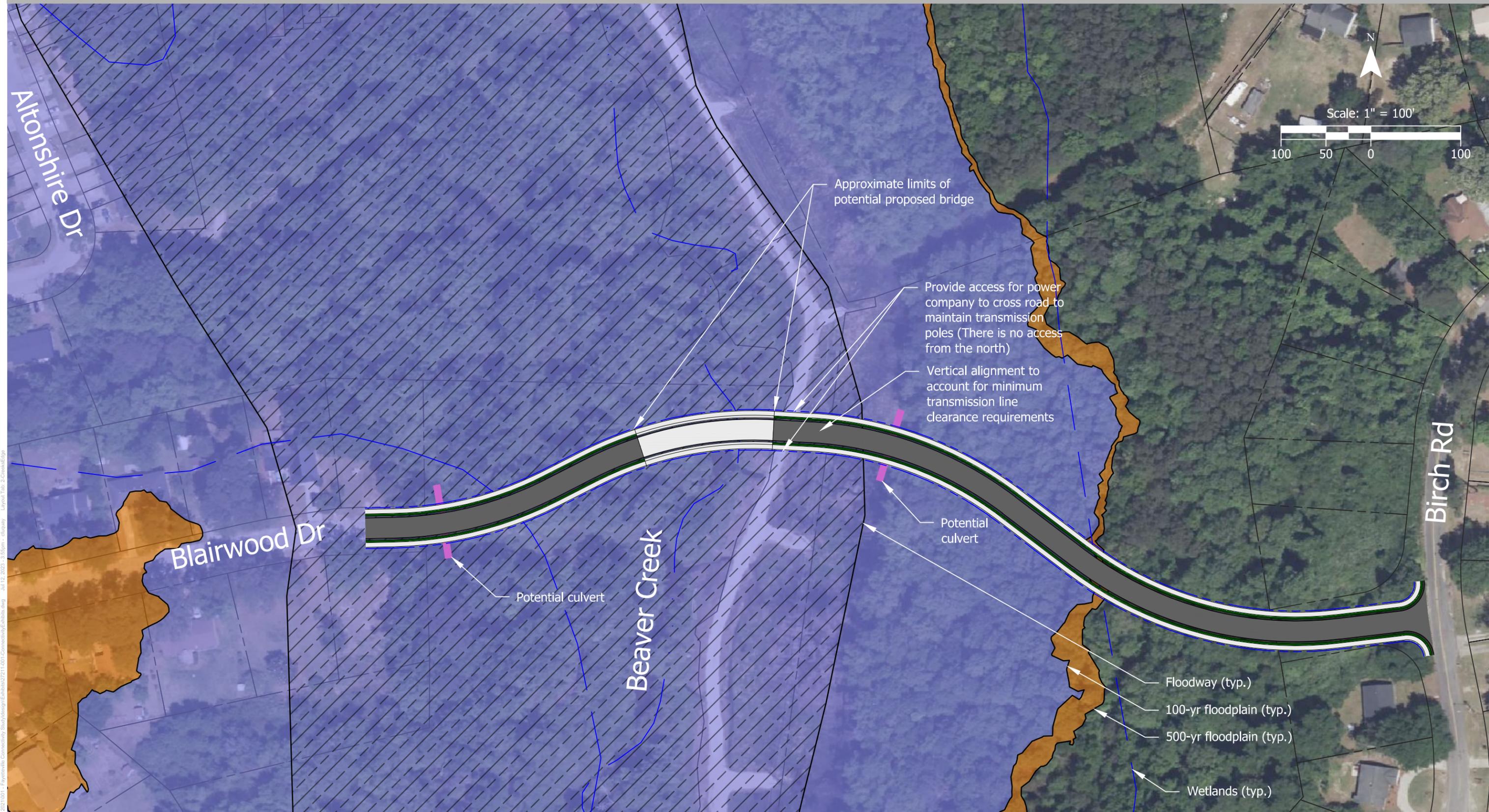


92%



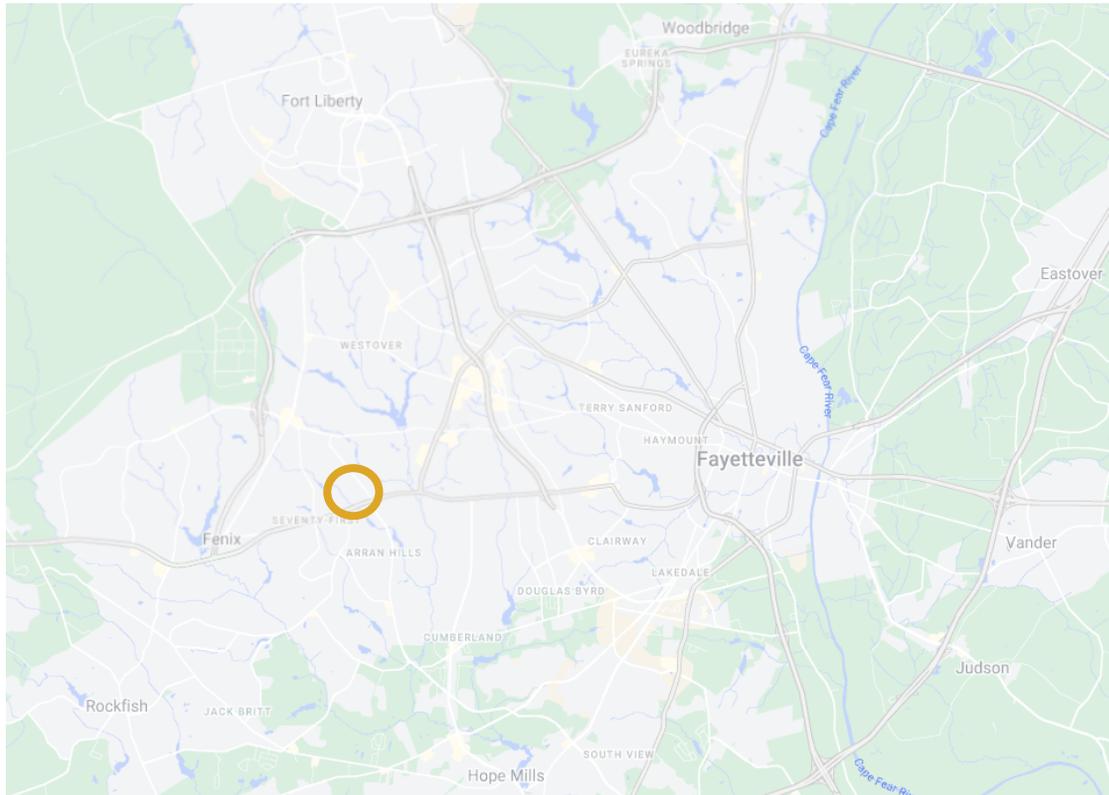
Location 2 - Creeks Edge

Preliminary Design Subject to Change
July 2023



H:\02\2211 - City of Fayetteville OR-CAL 2021\001 - Fayetteville Connectivity Study\design\Exhibits\2211-001-Connectivity\Exhibits.dwg - Jul 12, 2023 - 3:55pm - dbugay - Layout Tab: 2-CreeksEdge

Location 3: Woodchase



Subdivision Name: Woodchase

Acreage of Subdivision: 70 acres

Number of Households in Subdivision: 157 households

Streets Connected: Pebblestone Drive, Strickland Bridge Road

Barrier to Access: None (avoid stormwater pond)

Change in Distance to:

Arterial – ¼ mile

Bus Stop – 1 mile

Sidewalk – 1 mile

School – minimal change

Commercial Uses – ¾ mile

Community Center – ¼ mile

Fire Station – minimal change

Total Estimated Cost: \$1.540M

Construction - \$845,000

Engineering - \$169,000

Right-of-Way - \$1,400

Management/Inspection - \$169,000

Contingency – 30%

PERFORMANCE METRICS

Equity



88%

Feasibility



80%

Resiliency



22%

Multimodal



80%

Community



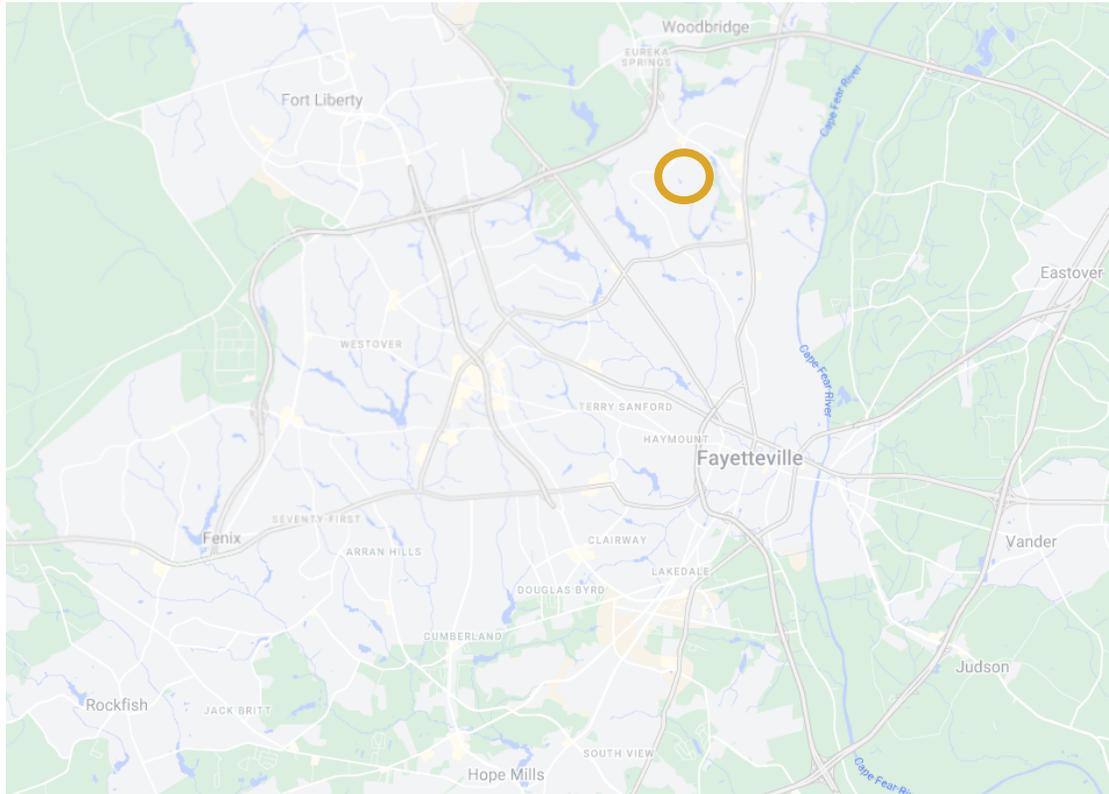
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Location 4: McKinley Reserve



Subdivision Name: McKinley Reserve

Acreage of Subdivision: 36 acres

Number of Households in Subdivision: 27 households

Streets Connected: Hilliard Drive, McKinley Drive, Oakmont Circle, Lakeside Drive, Crystal Drive, Idlewild Drive

Barrier to Access: stream (potential culvert needed)

Change in Distance to:

Arterial – 1 mile

Bus Stop – ½ mile

Sidewalk – 1½ mile

School – 1 mile

Commercial Uses – 1½ miles

Community Center – 2 miles

Fire Station – minimal change

Total Estimated Cost: \$2.148M (P1); \$1.591M (P2); \$1.640M (P3)

Construction - \$1.150M (P1); \$517K (P2); \$878K (P3)

Engineering - \$230K (P1); \$103K (P2); \$176K (P3)

Right-of-Way - \$42K (P1); \$500K (P2); \$31.5K (P3)

Management/Inspection - \$230K (P1); \$103K (P2); \$176K (P3)

Contingency – 30%

PERFORMANCE METRICS

Equity



25%

Feasibility



80%

Resiliency



22%

Multimodal



90%

Community



100%

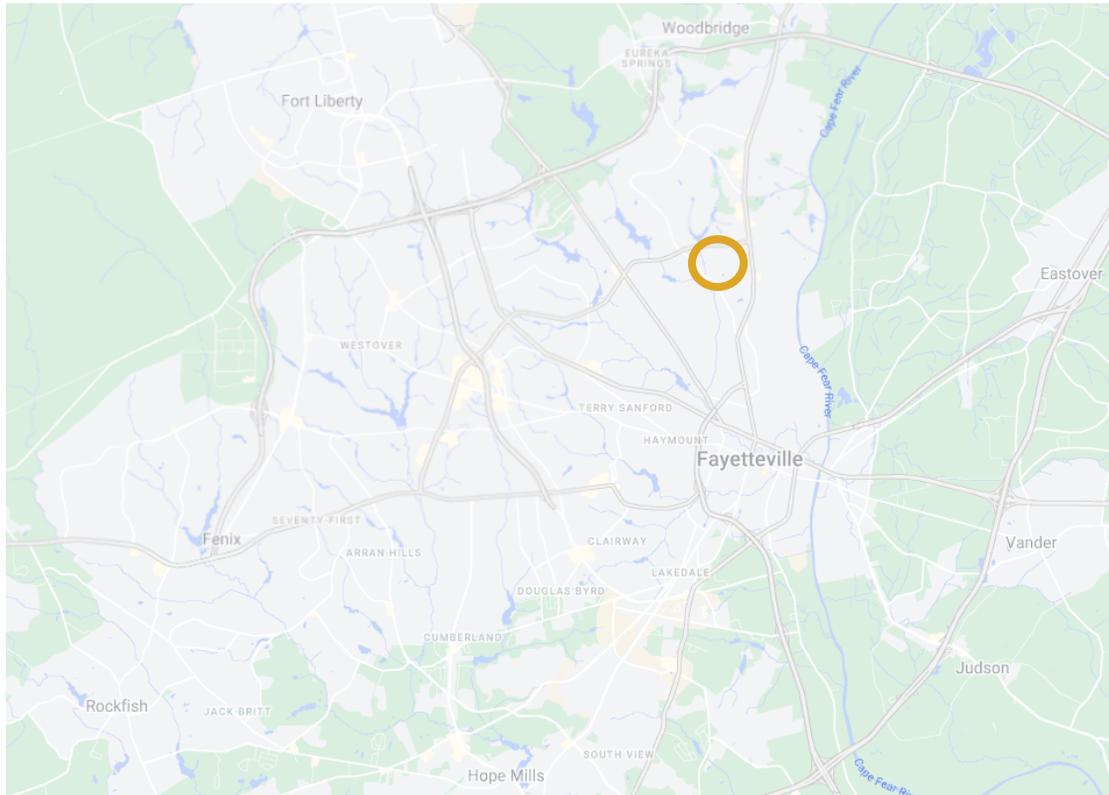


Location 4 - McKinley Reserve

Preliminary Design Subject to Change
April 2023



Location 5: North Ridge Park



Subdivision Name: North Ridge Park

Acreage of Subdivision: 57 acres

Number of Households in Subdivision: 71 households

Streets Connected: Plantation Road, Rock Creek Lane, Mt. Rainer Drive, Rosehill Road

Barrier to Access: none (private properties)

Change in Distance to:

Arterial – ½ mile

Bus Stop – ¾ mile

Sidewalk – ½ mile

School – minimal change

Commercial Uses – ¼ mile

Community Center – 1¼ miles

Fire Station – 1 mile

Total Estimated Cost: \$4.578M

Construction - \$2,452,550

Engineering - \$490,600

Right-of-Way - \$87,500

Management/Inspection - \$490,600

Contingency – 30%

PERFORMANCE METRICS

Equity



50%

Feasibility



80%

Resiliency



44%

Multimodal



60%

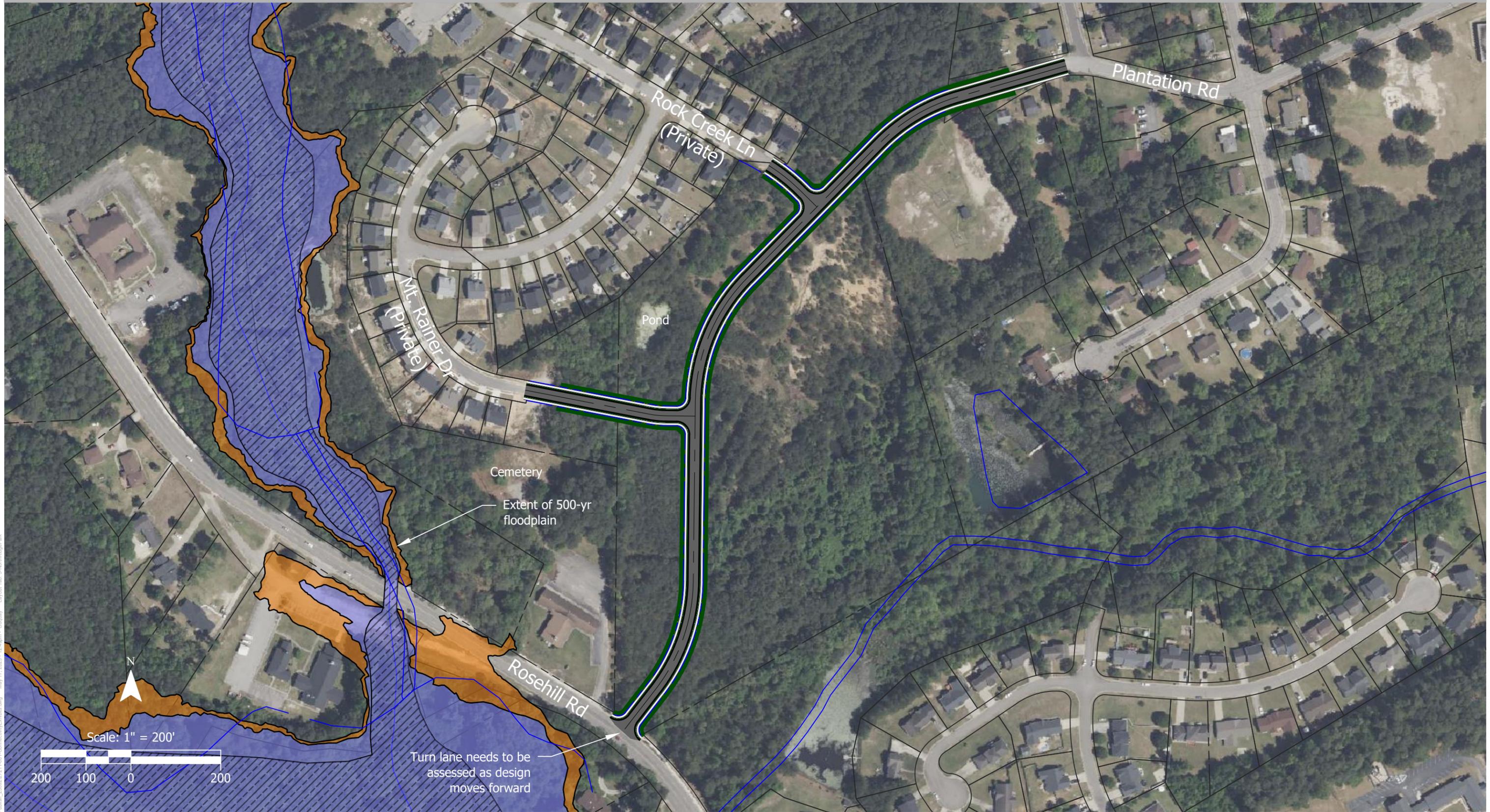
Community



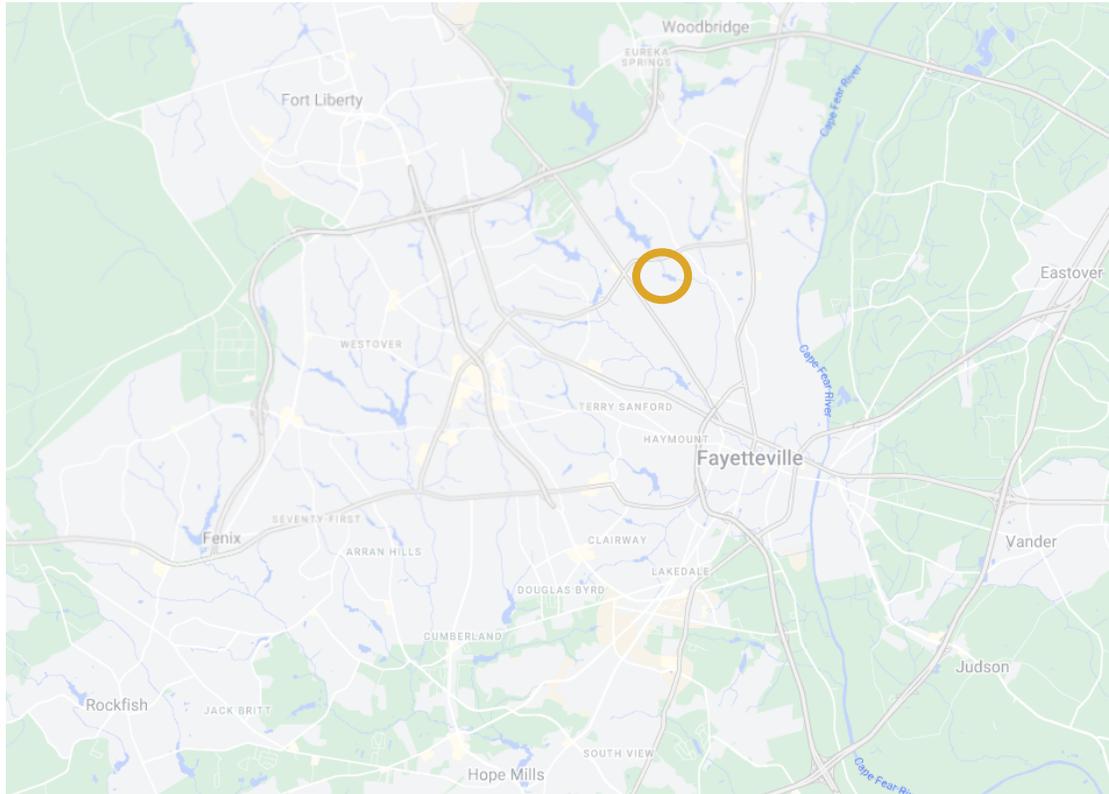
50%

Location 5 - North Ridge Park

Preliminary Design Subject to Change
April 2023



Location 6: North Hills



Subdivision Name: North Hills

Acreage of Subdivision: 77 acres

Number of Households in Subdivision: 189 households

Streets Connected: McChoen Drive, Country Club Drive

Barrier to Access: none (private properties)

Change in Distance to:

Arterial – ¼ mile

Bus Stop – ¼ mile

Sidewalk – ¼ mile

School – ½ mile

Commercial Uses – ½ mile

Community Center – ¼ mile

Fire Station – 1/10 mile

Total Estimated Cost: \$403K

Construction - \$220,802

Engineering - \$44,200

Right-of-Way - \$875

Management/Inspection - \$44,200

Contingency – 30%

PERFORMANCE METRICS

Equity



50%

Feasibility



80%

Resiliency



33%

Multimodal



50%

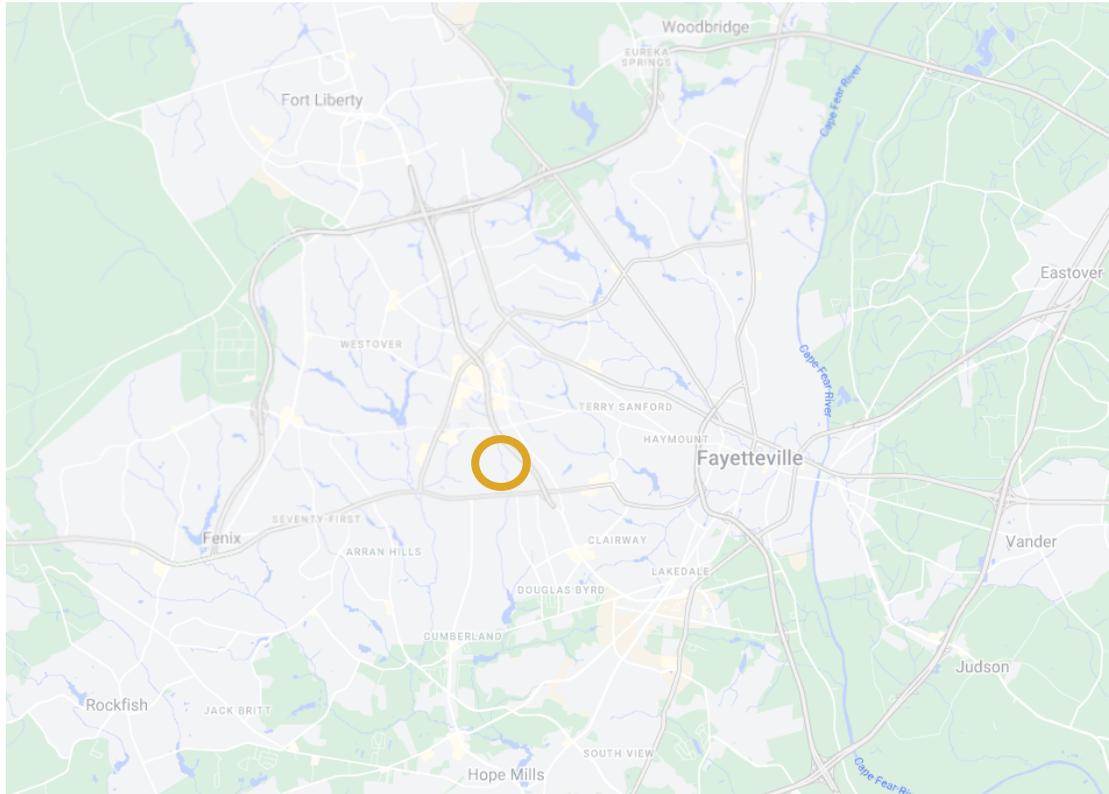
Community



42%



Location 7: Buckhead



Subdivision Name: Buckhead

Acreage of Subdivision: 125 acres

Number of Households in Subdivision: 241 households

Streets Connected: Weaverhall Drive, Tradewins Drive

Barrier to Access: Buckhead Creek (potential culvert)

Change in Distance to:

Arterial – 1 mile

Bus Stop – ½ mile

Sidewalk – 1 mile

School – 1 mile

Commercial Uses – ½ mile

Community Center – minimal change

Fire Station – 2¼ miles

Total Estimated Cost: \$1.037M

Construction - \$301,805

Engineering - \$60,400

Right-of-Way - \$375,000

Management/Inspection - \$60,400

Contingency – 30%

PERFORMANCE METRICS

Equity



0%

Feasibility



20%

Resiliency



100%

Multimodal



80%

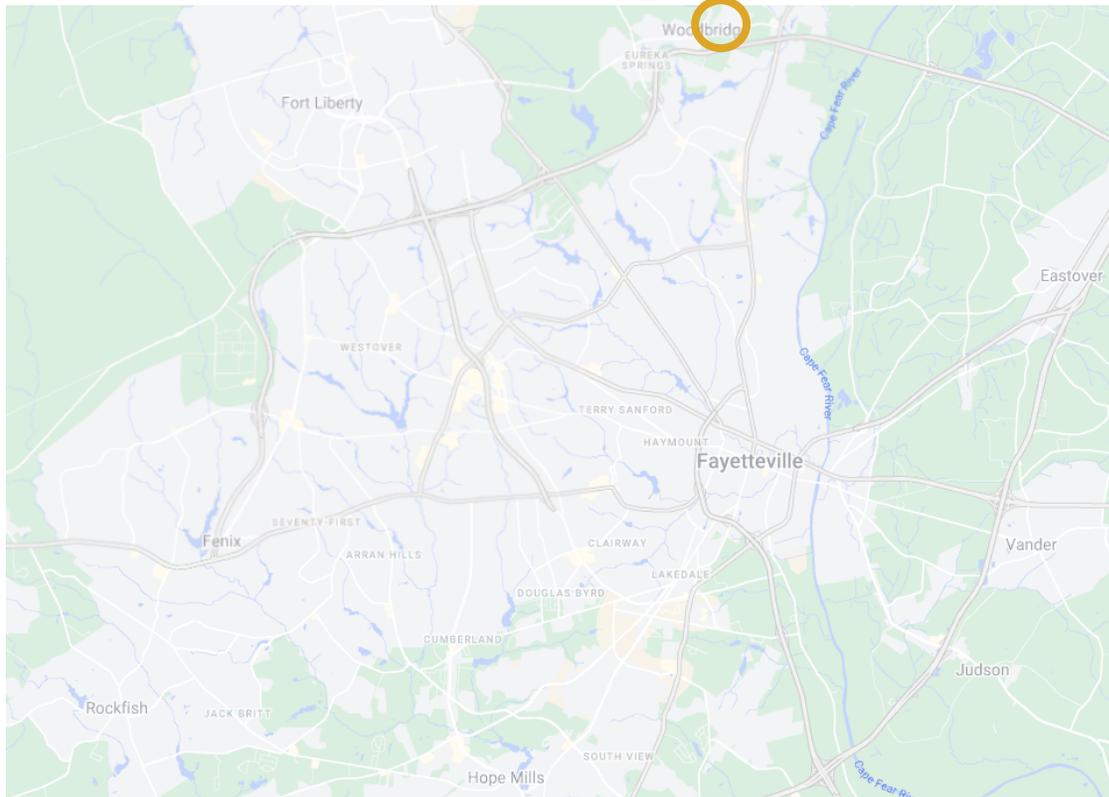
Community



50%



Location 8: Stonegate



Subdivision Name: Stonegate

Acreage of Subdivision: 48 acres

Number of Households in Subdivision: 78 households

Streets Connected: Whitemoss Court, Howard Hall

Elementary School

Barrier to Access: Private property

Change in Distance to:

Arterial – ¼ mile

Bus Stop – minimal change

Sidewalk – ½ mile

School – ¾ mile

Commercial Uses – minimal change

Community Center – ½ mile

Fire Station – minimal change

Total Estimated Cost: \$124K

Construction - \$66,000

Engineering - \$13,300

Right-of-Way - \$2,600

Management/Inspection - \$13,300

Contingency – 30%

PERFORMANCE METRICS

Equity



13%

Feasibility



100%

Resiliency



33%

Multimodal



30%

Community



58%

Location 8 - Stonegate

Preliminary Design Subject to Change
April 2023



Whitemoss Ct

Edwinstowe Ave

10-ft shared-use path

Howard Hall
Elementary School

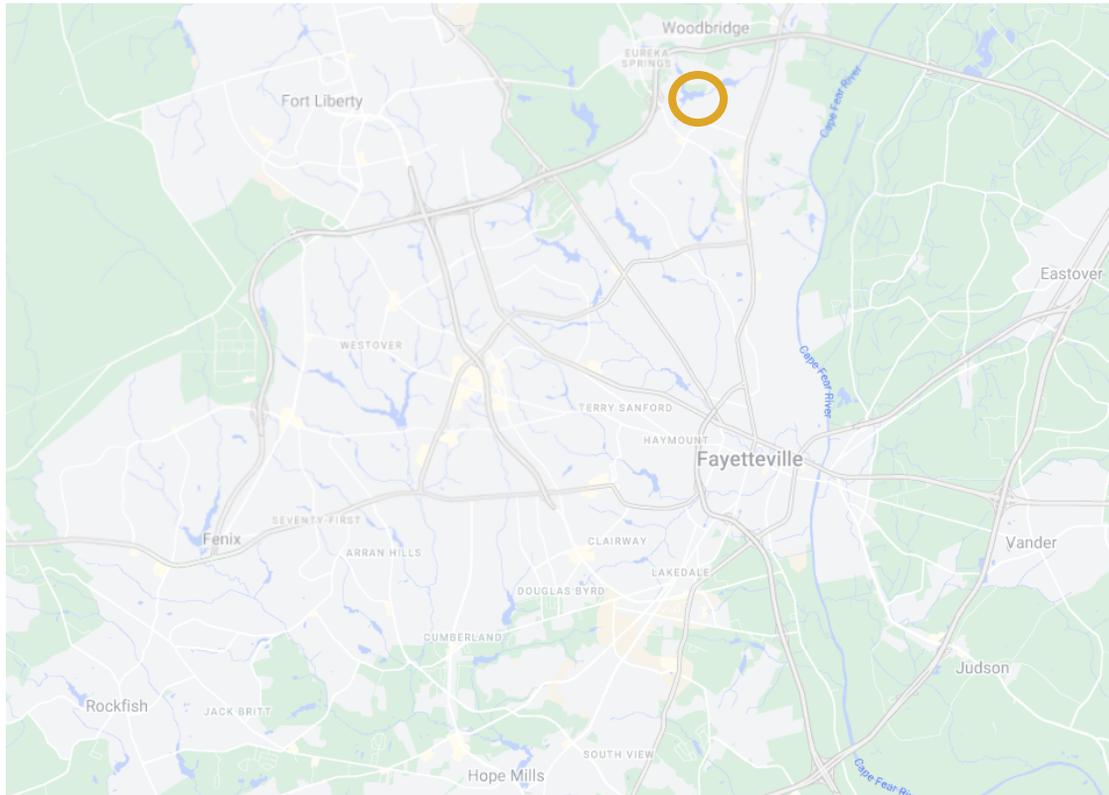


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Location 9: King's Grant 2



Subdivision Name: King's Grant

Acreage of Subdivision: 237 acres

Number of Households in Subdivision: 429 households

Streets Connected: Little Bridge Road, Waterbury Drive, Rempstone Lane

Barrier to Access: Creeks, wetlands, private property, (possible bridge or culvert needed)

Change in Distance to:

Arterial – ¼ mile

Bus Stop – minimal change

Sidewalk – minimal change

School – ½ mile

Commercial Uses – minimal change

Community Center – 2¼ mile

Fire Station – 1½ mile

Total Estimated Cost: \$1.952M

Construction - \$1,460,000

Engineering - \$209,300

Right-of-Way - \$36,750

Management/Inspection - \$209,300

PERFORMANCE METRICS

Equity



0%

Feasibility



40%

Resiliency



100%

Multimodal



20%

Community

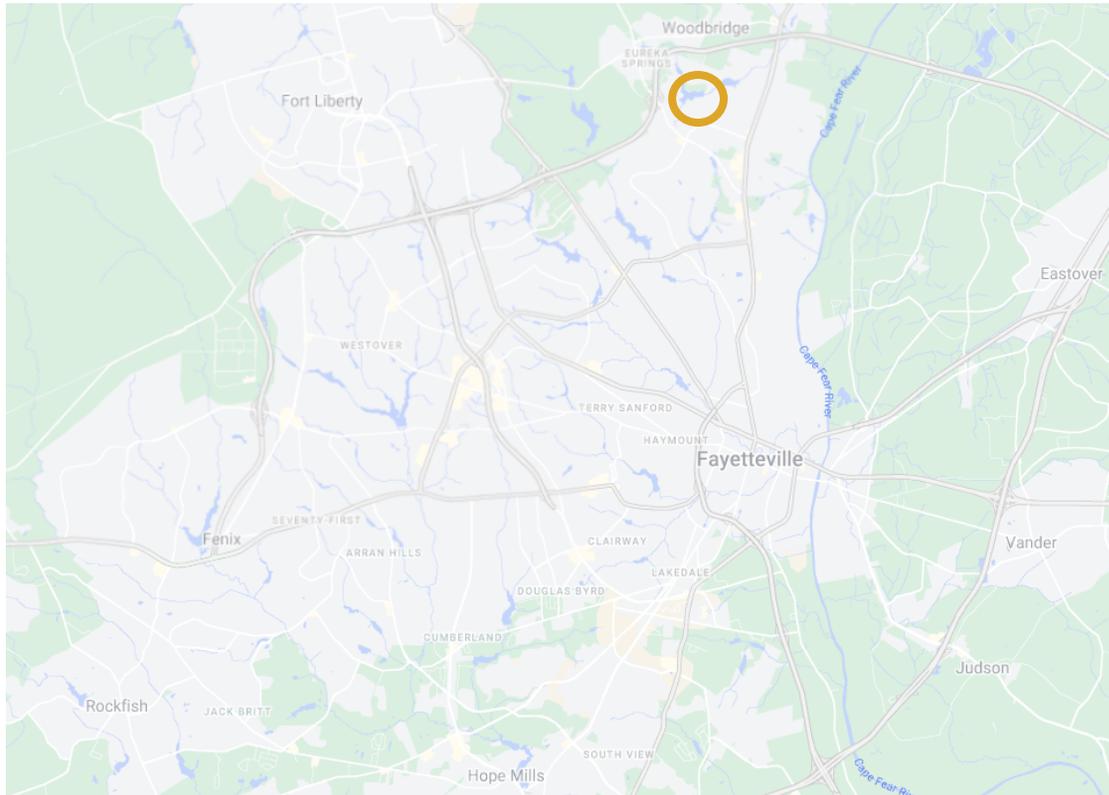


100%





Location 10: Liberty Hills



Subdivision Name: Liberty Hills

Acreage of Subdivision: 50 acres

Number of Households in Subdivision: 115 households

Streets Connected: Farmers Road, Burnside Place, Northgate Drive, Pine Forest High School

Barrier to Access: Private property, I-295, creeks (potential culvert needed)

Change in Distance to:

Arterial – ¼ mile

Bus Stop – ¼ mile

Sidewalk – ¼ mile

School – ¼ mile

Commercial Uses – ¼ mile

Community Center – ¼ mile

Fire Station – ¼ mile

Total Estimated Cost: \$1.952M

Construction - \$1,460,000

Engineering - \$209,300

Right-of-Way - \$36,750

Management/Inspection - \$209,300

PERFORMANCE METRICS

Equity



0%

Feasibility



80%

Resiliency



33%

Multimodal



40%

Community



25%

Location 10 - Liberty Hills

Preliminary Design Subject to Change
April 2023



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Fayetteville Connectivity Study

Fayetteville, NC

Project No. 27211

Engineer's Opinion of Probable Construction Costs

Prepared by: Josh Hurst, P.E.

5/17/2023 (edited January 2024 to eliminate Creeks Edge Phase 2)

This Estimate has a Rating of: **3C** (See rating scale guide below.)

1 - Kings Grant

ITEM	UNIT	QUANTITY	UNIT PRICE	TOTAL COST
Mobilization / Construction Surveying	LS	1	\$56,000.00	\$56,000.00
Traffic Control	LS	1	\$10,000.00	\$10,000.00
Erosion Control	LS	1	\$44,000.00	\$44,000.00
Removal of Structures and Obstructions	LS	1	\$13,000.00	\$13,000.00
Clearing and Grubbing	LS	1	\$12,000.00	\$12,000.00
Regular Excavation	CY	4,333	\$40.00	\$173,333.33
Aggregate Base Course, 8"	TON	829	\$40.00	\$33,176.00
Shared Use Path - 4" Asphalt Surface Course	TON	0	\$110.00	\$0.00
Curb and Gutter	LF	1,300	\$30.00	\$39,000.00
Bridge	SF	0	\$300.00	\$0.00
Asphalt Concrete Surface Course, 2"	TON	210	\$110.00	\$23,070.67
Asphalt Concrete Base Course, 3"	TON	315	\$105.00	\$33,033.00
48" Storm Drainage Culvert	LF	80	\$300.00	\$24,000.00
Storm Drainage 15" RCP Pipe	LF	780	\$150.00	\$117,000.00
Storm Drainage Structures	EA	8	\$10,000.00	\$78,000.00
Landscaping, Complete	LS	1	\$5,200.00	\$5,200.00
Pavement Markings	LS	1	\$1,300.00	\$1,300.00
Signage, Complete	LS	1	\$2,600.00	\$2,600.00
Water, Sewer, and Franchise Utility Relocations	LS	1	\$ 25,000.00	\$25,000.00
TOTAL CONSTRUCTION COST				\$ 689,713
ENGINEERING, R/W, CEI				
Engineering (PS&E)	LS	20%	\$ 689,713.00	\$138,000.00
Potential New Right-of-Way Needed	SF	32,500	\$ 0.70	\$22,750.00
Construction Management & Inspection	LS	20%	\$ 689,713.00	\$138,000.00
ENGINEERING, R/W, CEI SUBTOTAL				\$ 298,750
TOTAL ENGINEERING, R/W, CEI, AND CONSTRUCTION SUBTOTAL				\$ 988,463
30% Contingency				\$ 296,540
TOTAL ESTIMATED ENGINEERING, R/W, CEI, AND CONSTRUCTION COST				\$ 1,285,000

Scope Accuracy:

Level 1: Project scope well understood and well defined.

Level 2: Project scope conceptual. Scope lacks detail due to potential permit requirements; Unknown project conditions; limited knowledge of external impacts.

Level 3: Project scope is a "vision" with limited detail.

Engineering Effort:

Level A: Preliminary engineering performed. Technical information is available, engineering calculations have been performed; clear understanding of the materials size and quantities needed to execute job. Schedule understood; staff and permitting is fairly clear, (however this element may still need refining). Project Development & Construction Contingencies ranges between 10%-20%.

Level B: Conceptual engineering performed. Technical information is available, rough engineering calculations may have been performed, or similar information from previous similar work is compared and used. Project Development Contingencies ranges between 15% to 25% and Construction Contingencies ranges between 20% to 30%.

Level C: No engineering performed. Educated guesstimating. Limited technical information available and/or analysis performed. Project Development and Construction Contingencies should be selected appropriately by Project Manager. Contingency may range up to 50%.

Assumptions:

1. R/W unit costs of \$30,000 per acre are provided by City. This was increased significantly at Location 7 - Buckhead.
2. Quantities are based on the April 2023 concept plans.
3. Curb and gutter is for the full length of the improvements.

Fayetteville Connectivity Study

Fayetteville, NC

Project No. 27211

Engineer's Opinion of Probable Construction Costs

Prepared by: Josh Hurst, P.E.				
5/17/2023 (edited January 2024 to eliminate Creeks Edge Phase 2)				
This Estimate has a Rating of:		3C	(See rating scale guide below.)	
2 - Creeks Edge				
ITEM	UNIT	QUANTITY	UNIT PRICE	TOTAL COST
Mobilization / Construction Surveying	LS	1	\$188,000.00	\$188,000.00
Traffic Control	LS	1	\$31,000.00	\$31,000.00
Erosion Control	LS	1	\$84,000.00	\$84,000.00
Removal of Structures and Obstructions	LS	1	\$43,000.00	\$43,000.00
Clearing and Grubbing	LS	1	\$38,000.00	\$38,000.00
Regular Excavation	CY	8,333	\$40.00	\$333,333.33
Aggregate Base Course, 8"	TON	1,595	\$40.00	\$63,800.00
Shared Use Path - 4" Asphalt Surface Course	TON	0	\$110.00	\$0.00
Curb and Gutter	LF	2,500	\$30.00	\$75,000.00
Bridge	SF	3,000	\$300.00	\$900,000.00
Asphalt Concrete Surface Course, 2"	TON	403	\$110.00	\$44,366.67
Asphalt Concrete Base Course, 3"	TON	605	\$105.00	\$63,525.00
48" Storm Drainage Culvert	LF	80	\$300.00	\$24,000.00
Storm Drainage 15" RCP Pipe	LF	1,250	\$150.00	\$187,500.00
Storm Drainage Structures	EA	13	\$10,000.00	\$125,000.00
Landscaping, Complete	LS	1	\$18,200.00	\$18,200.00
Pavement Markings	LS	1	\$4,500.00	\$4,500.00
Signage, Complete	LS	1	\$9,100.00	\$9,100.00
Water, Sewer, and Franchise Utility Relocations	LS	1	\$25,000.00	\$25,000.00
TOTAL CONSTRUCTION COST			\$	2,257,325
ENGINEERING, R/W, CEI				
Engineering (PS&E)	LS		\$ 2,257,325.00	\$451,500.00
Potential New Right-of-Way Needed	SF	62,500	\$ 0.70	\$43,750.00
Construction Management & Inspection	LS		\$ 2,257,325.00	\$451,500.00
ENGINEERING, R/W, CEI SUBTOTAL			\$	946,750
TOTAL ENGINEERING, R/W, CEI, AN			\$	3,204,075
			\$	961,230
TOTAL ESTIMATED ENGINEERING, R/W, CEI,			\$	4,165,300

Scope Accuracy:

Level 1: Project scope well understood and well defined.

Level 2: Project scope conceptual. Scope lacks detail due to potential permit external impacts.

Level 3: Project scope is a "vision" with limited detail.

Engineering Effort:

Level A: Preliminary engineering performed. Technical information is available understanding of the materials size and quantities needed to execute job. (See this element may still need refining). Project Development & Construction Cor

Level B: Conceptual engineering performed. Technical information is available similar information from previous similar work is compared and used. Project Construction Contingencies ranges between 20% to 30%.

Level C: No engineering performed. Educated guesstimating. Limited technical Development and Construction Contingencies should be selected appropriate!

Assumptions:

1. R/W unit costs of \$30,000 per acre are provided by City. This was increased
2. Quantities are based on the April 2023 concept plans.
3. Curb and gutter is for the full length of the improvements.

Fayetteville Connectivity Study

Fayetteville, NC

Project No. 27211



Engineer's Opinion of Probable Construction Costs

Prepared by: Josh Hurst, P.E.					
5/17/2023 (edited January 2024 to eliminate Creeks Edge Phase 2)					
This Estimate has a Rating of:			3C	(See rating scale guide below.)	
3 - Woodchase					
ITEM	UNIT	QUANTITY	UNIT PRICE	TOTAL COST	
Mobilization / Construction Surveying	LS	1	\$68,000.00	\$68,000.00	
Traffic Control	LS	1	\$12,000.00	\$12,000.00	
Erosion Control	LS	1	\$60,000.00	\$60,000.00	
Removal of Structures and Obstructions	LS	1	\$16,000.00	\$16,000.00	
Clearing and Grubbing	LS	1	\$14,000.00	\$14,000.00	
Regular Excavation	CY	6,000	\$40.00	\$240,000.00	
Aggregate Base Course, 8"	TON	1,196	\$40.00	\$47,852.00	
Shared Use Path - 4" Asphalt Surface Course	TON	0	\$110.00	\$0.00	
Curb and Gutter	LF	1,500	\$30.00	\$45,000.00	
Bridge	SF	0	\$300.00	\$0.00	
Asphalt Concrete Surface Course, 2"	TON	303	\$110.00	\$33,275.00	
Asphalt Concrete Base Course, 3"	TON	454	\$105.00	\$47,643.75	
48" Storm Drainage Culvert	LF	0	\$300.00	\$0.00	
Storm Drainage 15" RCP Pipe	LF	900	\$150.00	\$135,000.00	
Storm Drainage Structures	EA	9	\$10,000.00	\$90,000.00	
Landscaping, Complete	LS	1	\$6,400.00	\$6,400.00	
Pavement Markings	LS	1	\$1,600.00	\$1,600.00	
Signage, Complete	LS	1	\$3,200.00	\$3,200.00	
Water, Sewer, and Franchise Utility Relocations	LS	1	\$25,000.00	\$25,000.00	
TOTAL CONSTRUCTION COST				\$	844,971
ENGINEERING, R/W, CEI					
Engineering (PS&E)	LS		\$ 844,970.75	\$169,000.00	
Potential New Right-of-Way Needed	SF	2,000	\$ 0.70	\$1,400.00	
Construction Management & Inspection	LS		\$ 844,970.75	\$169,000.00	
ENGINEERING, R/W, CEI SUBTOTAL				\$	339,400
TOTAL ENGINEERING, R/W, CEI, AN				\$	1,184,371
TOTAL ESTIMATED ENGINEERING, R/W, CEI, AN				\$	355,320
TOTAL ESTIMATED ENGINEERING, R/W, CEI, AN				\$	1,539,700

Scope Accuracy:

- Level 1:** Project scope well understood and well defined.
- Level 2:** Project scope conceptual. Scope lacks detail due to potential permit external impacts.
- Level 3:** Project scope is a "vision" with limited detail.

Engineering Effort:

- Level A:** Preliminary engineering performed. Technical information is available understanding of the materials size and quantities needed to execute job. (See this element may still need refining). Project Development & Construction Contingencies should be selected appropriate.
- Level B:** Conceptual engineering performed. Technical information is available similar information from previous similar work is compared and used. Project Construction Contingencies ranges between 20% to 30%.
- Level C:** No engineering performed. Educated guesstimating. Limited technical information available. Project Development and Construction Contingencies should be selected appropriate.

Assumptions:

1. R/W unit costs of \$30,000 per acre are provided by City. This was increased from \$20,000 per acre.
2. Quantities are based on the April 2023 concept plans.
3. Curb and gutter is for the full length of the improvements.

Fayetteville Connectivity Study

Fayetteville, NC

Project No. 27211

Engineer's Opinion of Probable Construction Costs

Prepared by: Josh Hurst, P.E.					
5/17/2023 (edited January 2024 to eliminate Creeks Edge Phase 2)					
This Estimate has a Rating of:			3C	(See rating scale guide below.)	
4 - McKinley Reserve - Phase 1					
ITEM	UNIT	QUANTITY	UNIT PRICE	TOTAL COST	
Mobilization / Construction Surveying	LS	1	\$93,000.00	\$93,000.00	
Traffic Control	LS	1	\$16,000.00	\$16,000.00	
Erosion Control	LS	1	\$80,000.00	\$80,000.00	
Removal of Structures and Obstructions	LS	1	\$21,000.00	\$21,000.00	
Clearing and Grubbing	LS	1	\$19,000.00	\$19,000.00	
Regular Excavation	CY	8,000	\$40.00	\$320,000.00	
Aggregate Base Course, 8"	TON	1,531	\$40.00	\$61,248.00	
Shared Use Path - 4" Asphalt Surface Course	TON	0	\$110.00	\$0.00	
Curb and Gutter	LF	2,400	\$30.00	\$72,000.00	
Bridge	SF	0	\$300.00	\$0.00	
Asphalt Concrete Surface Course, 2"	TON	387	\$110.00	\$42,592.00	
Asphalt Concrete Base Course, 3"	TON	581	\$105.00	\$60,984.00	
48" Storm Drainage Culvert	LF	80	\$300.00	\$24,000.00	
Storm Drainage 15" RCP Pipe	LF	1,200	\$150.00	\$180,000.00	
Storm Drainage Structures	EA	12	\$10,000.00	\$120,000.00	
Landscaping, Complete	LS	1	\$8,800.00	\$8,800.00	
Pavement Markings	LS	1	\$2,200.00	\$2,200.00	
Signage, Complete	LS	1	\$4,400.00	\$4,400.00	
Water, Sewer, and Franchise Utility Relocations	LS	1	\$25,000.00	\$25,000.00	
TOTAL CONSTRUCTION COST				\$	1,150,224
ENGINEERING, R/W, CEI					
Engineering (PS&E)	LS		\$ 1,150,224.00	\$230,100.00	
Potential New Right-of-Way Needed	SF	60,000	\$ 0.70	\$42,000.00	
Construction Management & Inspection	LS		\$ 1,150,224.00	\$230,100.00	
ENGINEERING, R/W, CEI SUBTOTAL				\$	502,200
TOTAL ENGINEERING, R/W, CEI, AN				\$	1,652,424
				\$	495,730
TOTAL ESTIMATED ENGINEERING, R/W, CEI,				\$	2,148,200

Scope Accuracy:

Level 1: Project scope well understood and well defined.

Level 2: Project scope conceptual. Scope lacks detail due to potential permit external impacts.

Level 3: Project scope is a "vision" with limited detail.

Engineering Effort:

Level A: Preliminary engineering performed. Technical information is available understanding of the materials size and quantities needed to execute job. (See this element may still need refining). Project Development & Construction Cor

Level B: Conceptual engineering performed. Technical information is available similar information from previous similar work is compared and used. Project Construction Contingencies ranges between 20% to 30%.

Level C: No engineering performed. Educated guesstimating. Limited technical Development and Construction Contingencies should be selected appropriate.

Assumptions:

1. R/W unit costs of \$30,000 per acre are provided by City. This was increased.
2. Quantities are based on the April 2023 concept plans.
3. Curb and gutter is for the full length of the improvements.

Fayetteville Connectivity Study

Fayetteville, NC

Project No. 27211

Engineer's Opinion of Probable Construction Costs

Prepared by: Josh Hurst, P.E.

5/17/2023 (edited January 2024 to eliminate Creeks Edge Phase 2)

This Estimate has a Rating of:		3C	(See rating scale guide below.)		
4 - McKinley Reserve - Phase 2					
ITEM	UNIT	QUANTITY	UNIT PRICE	TOTAL COST	
Mobilization / Construction Surveying	LS	1	\$42,000.00	\$42,000.00	
Traffic Control	LS	1	\$8,000.00	\$8,000.00	
Erosion Control	LS	1	\$34,000.00	\$34,000.00	
Removal of Structures and Obstructions	LS	1	\$10,000.00	\$10,000.00	
Clearing and Grubbing	LS	1	\$9,000.00	\$9,000.00	
Regular Excavation	CY	3,333	\$40.00	\$133,333.33	
Aggregate Base Course, 8"	TON	638	\$40.00	\$25,520.00	
Shared Use Path - 4" Asphalt Surface Course	TON	0	\$110.00	\$0.00	
Curb and Gutter	LF	1,000	\$30.00	\$30,000.00	
Bridge	SF	0	\$300.00	\$0.00	
Asphalt Concrete Surface Course, 2"	TON	161	\$110.00	\$17,746.67	
Asphalt Concrete Base Course, 3"	TON	242	\$105.00	\$25,410.00	
48" Storm Drainage Culvert	LF	0	\$300.00	\$0.00	
Storm Drainage 15" RCP Pipe	LF	600	\$150.00	\$90,000.00	
Storm Drainage Structures	EA	6	\$10,000.00	\$60,000.00	
Landscaping, Complete	LS	1	\$3,800.00	\$3,800.00	
Pavement Markings	LS	1	\$1,000.00	\$1,000.00	
Signage, Complete	LS	1	\$1,900.00	\$1,900.00	
Water, Sewer, and Franchise Utility Relocations	LS	1	\$25,000.00	\$25,000.00	
TOTAL CONSTRUCTION COST				\$	516,710
ENGINEERING, R/W, CEI					
Engineering (PS&E)	LS		\$ 516,710.00	\$103,400.00	
Potential New Right-of-Way Needed	SF	25,000	\$ 20.00	\$500,000.00	
Construction Management & Inspection	LS		\$ 516,710.00	\$103,400.00	
ENGINEERING, R/W, CEI SUBTOTAL				\$	706,800
TOTAL ENGINEERING, R/W, CEI, AN				\$	1,223,510
				\$	367,060
TOTAL ESTIMATED ENGINEERING, R/W, CEI,				\$	1,590,600

Scope Accuracy:

Level 1: Project scope well understood and well defined.

Level 2: Project scope conceptual. Scope lacks detail due to potential permit external impacts.

Level 3: Project scope is a "vision" with limited detail.

Engineering Effort:

Level A: Preliminary engineering performed. Technical information is available understanding of the materials size and quantities needed to execute job. (See this element may still need refining). Project Development & Construction Contingencies should be selected appropriate.

Level B: Conceptual engineering performed. Technical information is available similar information from previous similar work is compared and used. Project Construction Contingencies ranges between 20% to 30%.

Level C: No engineering performed. Educated guesstimating. Limited technical Development and Construction Contingencies should be selected appropriate.

Assumptions:

1. R/W unit costs of \$30,000 per acre are provided by City. This was increased.
2. Quantities are based on the April 2023 concept plans.
3. Curb and gutter is for the full length of the improvements.

Fayetteville Connectivity Study

Fayetteville, NC

Project No. 27211

Engineer's Opinion of Probable Construction Costs

Prepared by: Josh Hurst, P.E.					
5/17/2023 (edited January 2024 to eliminate Creeks Edge Phase 2)					
This Estimate has a Rating of:			3C	(See rating scale guide below.)	
4 - McKinley Reserve - Phase 3					
ITEM	UNIT	QUANTITY	UNIT PRICE	TOTAL COST	
Mobilization / Construction Surveying	LS	1	\$71,000.00	\$71,000.00	
Traffic Control	LS	1	\$12,000.00	\$12,000.00	
Erosion Control	LS	1	\$60,000.00	\$60,000.00	
Removal of Structures and Obstructions	LS	1	\$16,000.00	\$16,000.00	
Clearing and Grubbing	LS	1	\$15,000.00	\$15,000.00	
Regular Excavation	CY	6,000	\$40.00	\$240,000.00	
Aggregate Base Course, 8"	TON	1,148	\$40.00	\$45,936.00	
Shared Use Path - 4" Asphalt Surface Course	TON	0	\$110.00	\$0.00	
Curb and Gutter	LF	1,800	\$30.00	\$54,000.00	
Bridge	SF	0	\$300.00	\$0.00	
Asphalt Concrete Surface Course, 2"	TON	290	\$110.00	\$31,944.00	
Asphalt Concrete Base Course, 3"	TON	436	\$105.00	\$45,738.00	
48" Storm Drainage Culvert	LF	0	\$300.00	\$0.00	
Storm Drainage 15" RCP Pipe	LF	1,000	\$150.00	\$150,000.00	
Storm Drainage Structures	EA	10	\$10,000.00	\$100,000.00	
Landscaping, Complete	LS	1	\$6,700.00	\$6,700.00	
Pavement Markings	LS	1	\$1,700.00	\$1,700.00	
Signage, Complete	LS	1	\$3,300.00	\$3,300.00	
Water, Sewer, and Franchise Utility Relocations	LS	1	\$25,000.00	\$25,000.00	
TOTAL CONSTRUCTION COST				\$	878,318
ENGINEERING, R/W, CEI					
Engineering (PS&E)	LS		\$ 878,318.00	\$175,700.00	
Potential New Right-of-Way Needed	SF	45,000	\$ 0.70	\$31,500.00	
Construction Management & Inspection	LS		\$ 878,318.00	\$175,700.00	
ENGINEERING, R/W, CEI SUBTOTAL				\$	382,900
TOTAL ENGINEERING, R/W, CEI, AN				\$	1,261,218
				\$	378,370
TOTAL ESTIMATED ENGINEERING, R/W, CEI,				\$	1,639,600

Scope Accuracy:

Level 1: Project scope well understood and well defined.

Level 2: Project scope conceptual. Scope lacks detail due to potential permit external impacts.

Level 3: Project scope is a "vision" with limited detail.

Engineering Effort:

Level A: Preliminary engineering performed. Technical information is available understanding of the materials size and quantities needed to execute job. (See this element may still need refining). Project Development & Construction Contingencies should be selected appropriate.

Level B: Conceptual engineering performed. Technical information is available similar information from previous similar work is compared and used. Project Construction Contingencies ranges between 20% to 30%.

Level C: No engineering performed. Educated guesstimating. Limited technical Development and Construction Contingencies should be selected appropriate.

Assumptions:

1. R/W unit costs of \$30,000 per acre are provided by City. This was increased on the April 2023 concept plans.
2. Quantities are based on the April 2023 concept plans.
3. Curb and gutter is for the full length of the improvements.

Fayetteville Connectivity Study

Fayetteville, NC

Project No. 27211

Engineer's Opinion of Probable Construction Costs

Prepared by: Josh Hurst, P.E.					
5/17/2023 (edited January 2024 to eliminate Creeks Edge Phase 2)					
This Estimate has a Rating of:			3C	(See rating scale guide below.)	
5 - North Ridge Park					
ITEM	UNIT	QUANTITY	UNIT PRICE	TOTAL COST	
Mobilization / Construction Surveying	LS	1	\$198,000.00	\$198,000.00	
Traffic Control	LS	1	\$34,000.00	\$34,000.00	
Erosion Control	LS	1	\$167,000.00	\$167,000.00	
Removal of Structures and Obstructions	LS	1	\$45,000.00	\$45,000.00	
Clearing and Grubbing	LS	1	\$40,000.00	\$40,000.00	
Regular Excavation	CY	16,667	\$40.00	\$666,666.67	
Aggregate Base Course, 8"	TON	3,190	\$40.00	\$127,600.00	
Shared Use Path - 4" Asphalt Surface Course	TON	0	\$110.00	\$0.00	
Curb and Gutter	LF	5,000	\$30.00	\$150,000.00	
Bridge	SF	0	\$300.00	\$0.00	
Asphalt Concrete Surface Course, 2"	TON	807	\$110.00	\$88,733.33	
Asphalt Concrete Base Course, 3"	TON	1,210	\$105.00	\$127,050.00	
48" Storm Drainage Culvert	LF	0	\$300.00	\$0.00	
Storm Drainage 15" RCP Pipe	LF	3,000	\$150.00	\$450,000.00	
Storm Drainage Structures	EA	30	\$10,000.00	\$300,000.00	
Landscaping, Complete	LS	1	\$19,100.00	\$19,100.00	
Pavement Markings	LS	1	\$4,800.00	\$4,800.00	
Signage, Complete	LS	1	\$9,600.00	\$9,600.00	
Water, Sewer, and Franchise Utility Relocations	LS	1	\$25,000.00	\$25,000.00	
TOTAL CONSTRUCTION COST				\$	2,452,550
ENGINEERING, R/W, CEI					
Engineering (PS&E)	LS		\$ 2,452,550.00	\$490,600.00	
Potential New Right-of-Way Needed	SF	125,000	\$ 0.70	\$87,500.00	
Construction Management & Inspection	LS		\$ 2,452,550.00	\$490,600.00	
ENGINEERING, R/W, CEI SUBTOTAL				\$	1,068,700
TOTAL ENGINEERING, R/W, CEI, AN				\$	3,521,250
				\$	1,056,380
TOTAL ESTIMATED ENGINEERING, R/W, CEI,				\$	4,577,600

Scope Accuracy:

Level 1: Project scope well understood and well defined.

Level 2: Project scope conceptual. Scope lacks detail due to potential permit external impacts.

Level 3: Project scope is a "vision" with limited detail.

Engineering Effort:

Level A: Preliminary engineering performed. Technical information is available understanding of the materials size and quantities needed to execute job. (See this element may still need refining). Project Development & Construction Cor

Level B: Conceptual engineering performed. Technical information is available similar information from previous similar work is compared and used. Project Construction Contingencies ranges between 20% to 30%.

Level C: No engineering performed. Educated guesstimating. Limited technical Development and Construction Contingencies should be selected appropriate.

Assumptions:

1. R/W unit costs of \$30,000 per acre are provided by City. This was increased.
2. Quantities are based on the April 2023 concept plans.
3. Curb and gutter is for the full length of the improvements.

Fayetteville Connectivity Study

Fayetteville, NC

Project No. 27211

Engineer's Opinion of Probable Construction Costs

Prepared by: Josh Hurst, P.E.					
5/17/2023 (edited January 2024 to eliminate Creeks Edge Phase 2)					
This Estimate has a Rating of:			3C	(See rating scale guide below.)	
6 - North Hills					
ITEM	UNIT	QUANTITY	UNIT PRICE	TOTAL COST	
Mobilization / Construction Surveying	LS	1	\$19,000.00	\$19,000.00	
Traffic Control	LS	1	\$3,000.00	\$3,000.00	
Erosion Control	LS	1	\$7,000.00	\$7,000.00	
Removal of Structures and Obstructions	LS	1	\$5,000.00	\$5,000.00	
Clearing and Grubbing	LS	1	\$4,000.00	\$4,000.00	
Regular Excavation	CY	667	\$40.00	\$26,666.67	
Aggregate Base Course, 8"	TON	128	\$40.00	\$5,104.00	
Shared Use Path - 4" Asphalt Surface Course	TON	0	\$110.00	\$0.00	
Curb and Gutter	LF	200	\$30.00	\$6,000.00	
Bridge	SF	0	\$300.00	\$0.00	
Asphalt Concrete Surface Course, 2"	TON	32	\$110.00	\$3,549.33	
Asphalt Concrete Base Course, 3"	TON	48	\$105.00	\$5,082.00	
48" Storm Drainage Culvert	LF	0	\$300.00	\$0.00	
Storm Drainage 15" RCP Pipe	LF	100	\$150.00	\$15,000.00	
Storm Drainage Structures	EA	2	\$10,000.00	\$20,000.00	
Landscaping, Complete	LS	1	\$800.00	\$800.00	
Pavement Markings	LS	1	\$200.00	\$200.00	
Signage, Complete	LS	1	\$400.00	\$400.00	
Water, Sewer, and Franchise Utility Relocations	LS	1	\$ 100,000.00	\$100,000.00	
TOTAL CONSTRUCTION COST				\$	220,802
ENGINEERING, R/W, CEI					
Engineering (PS&E)	LS		\$ 220,802.00	\$44,200.00	
Potential New Right-of-Way Needed	SF	1,250	\$ 0.70	\$875.00	
Construction Management & Inspection	LS		\$ 220,802.00	\$44,200.00	
ENGINEERING, R/W, CEI SUBTOTAL				\$	89,275
TOTAL ENGINEERING, R/W, CEI, AN				\$	310,077
				\$	93,030
TOTAL ESTIMATED ENGINEERING, R/W, CEI,				\$	403,100

Scope Accuracy:

Level 1: Project scope well understood and well defined.

Level 2: Project scope conceptual. Scope lacks detail due to potential permit external impacts.

Level 3: Project scope is a "vision" with limited detail.

Engineering Effort:

Level A: Preliminary engineering performed. Technical information is available understanding of the materials size and quantities needed to execute job. (See this element may still need refining). Project Development & Construction Cor

Level B: Conceptual engineering performed. Technical information is available similar information from previous similar work is compared and used. Project Construction Contingencies ranges between 20% to 30%.

Level C: No engineering performed. Educated guesstimating. Limited technical Development and Construction Contingencies should be selected appropriate!

Assumptions:

1. R/W unit costs of \$30,000 per acre are provided by City. This was increased
2. Quantities are based on the April 2023 concept plans.
3. Curb and gutter is for the full length of the improvements.

Fayetteville Connectivity Study

Fayetteville, NC

Project No. 27211

Engineer's Opinion of Probable Construction Costs

Prepared by: Josh Hurst, P.E.					
5/17/2023 (edited January 2024 to eliminate Creeks Edge Phase 2)					
This Estimate has a Rating of:			3C	(See rating scale guide below.)	
7- Buckhead					
ITEM	UNIT	QUANTITY	UNIT PRICE	TOTAL COST	
Mobilization / Construction Surveying	LS	1	\$25,000.00	\$25,000.00	
Traffic Control	LS	1	\$5,000.00	\$5,000.00	
Erosion Control	LS	1	\$17,000.00	\$17,000.00	
Removal of Structures and Obstructions	LS	1	\$6,000.00	\$6,000.00	
Clearing and Grubbing	LS	1	\$5,000.00	\$5,000.00	
Regular Excavation	CY	1,667	\$40.00	\$66,666.67	
Aggregate Base Course, 8"	TON	319	\$40.00	\$12,760.00	
Shared Use Path - 4" Asphalt Surface Course	TON	0	\$110.00	\$0.00	
Curb and Gutter	LF	500	\$30.00	\$15,000.00	
Bridge	SF	0	\$300.00	\$0.00	
Asphalt Concrete Surface Course, 2"	TON	81	\$110.00	\$8,873.33	
Asphalt Concrete Base Course, 3"	TON	121	\$105.00	\$12,705.00	
48" Storm Drainage Culvert	LF	80	\$300.00	\$24,000.00	
Storm Drainage 15" RCP Pipe	LF	300	\$150.00	\$45,000.00	
Storm Drainage Structures	EA	3	\$10,000.00	\$30,000.00	
Landscaping, Complete	LS	1	\$2,200.00	\$2,200.00	
Pavement Markings	LS	1	\$500.00	\$500.00	
Signage, Complete	LS	1	\$1,100.00	\$1,100.00	
Water, Sewer, and Franchise Utility Relocations	LS	1	\$25,000.00	\$25,000.00	
TOTAL CONSTRUCTION COST				\$	301,805
ENGINEERING, R/W, CEI					
Engineering (PS&E)	LS		\$ 301,805.00	\$60,400.00	
Potential New Right-of-Way Needed	SF	12,500	\$ 30.00	\$375,000.00	
Construction Management & Inspection	LS		\$ 301,805.00	\$60,400.00	
ENGINEERING, R/W, CEI SUBTOTAL				\$	495,800
TOTAL ENGINEERING, R/W, CEI, AN				\$	797,605
				\$	239,290
TOTAL ESTIMATED ENGINEERING, R/W, CEI,				\$	1,036,900

Scope Accuracy:

Level 1: Project scope well understood and well defined.

Level 2: Project scope conceptual. Scope lacks detail due to potential permit external impacts.

Level 3: Project scope is a "vision" with limited detail.

Engineering Effort:

Level A: Preliminary engineering performed. Technical information is available understanding of the materials size and quantities needed to execute job. (See this element may still need refining). Project Development & Construction Cor

Level B: Conceptual engineering performed. Technical information is available similar information from previous similar work is compared and used. Project Construction Contingencies ranges between 20% to 30%.

Level C: No engineering performed. Educated guesstimating. Limited technical Development and Construction Contingencies should be selected appropriate.

Assumptions:

1. R/W unit costs of \$30,000 per acre are provided by City. This was increased.
2. Quantities are based on the April 2023 concept plans.
3. Curb and gutter is for the full length of the improvements.

Fayetteville Connectivity Study

Fayetteville, NC

Project No. 27211

Engineer's Opinion of Probable Construction Costs

Prepared by: Josh Hurst, P.E.				
5/17/2023 (edited January 2024 to eliminate Creeks Edge Phase 2)				
This Estimate has a Rating of:			3C	(See rating scale guide below.)
8 - Stonegate				
ITEM	UNIT	QUANTITY	UNIT PRICE	TOTAL COST
Mobilization / Construction Surveying	LS	1	\$5,000.00	\$5,000.00
Traffic Control	LS	1	\$1,000.00	\$1,000.00
Erosion Control	LS	1	\$8,000.00	\$8,000.00
Removal of Structures and Obstructions	LS	1	\$2,000.00	\$2,000.00
Clearing and Grubbing	LS	1	\$1,000.00	\$1,000.00
Regular Excavation	CY	750	\$40.00	\$30,000.00
Aggregate Base Course, 8"	TON	0	\$40.00	\$0.00
Shared Use Path - 4" Asphalt Surface Course	TON	121	\$110.00	\$13,310.00
Curb and Gutter	LF	0	\$30.00	\$0.00
Bridge	SF	0	\$300.00	\$0.00
Asphalt Concrete Surface Course, 2"	TON	0	\$110.00	\$0.00
Asphalt Concrete Base Course, 3"	TON	0	\$105.00	\$0.00
48" Storm Drainage Culvert	LF	0	\$300.00	\$0.00
Storm Drainage 15" RCP Pipe	LF	0	\$150.00	\$0.00
Storm Drainage Structures	EA	0	\$10,000.00	\$0.00
Landscaping, Complete	LS	1	\$400.00	\$400.00
Pavement Markings	LS	1	\$100.00	\$100.00
Signage, Complete	LS	1	\$200.00	\$200.00
Water, Sewer, and Franchise Utility Relocations	LS	1	\$ 5,000.00	\$5,000.00
TOTAL CONSTRUCTION COST				\$ 66,010
ENGINEERING, R/W, CEI				
Engineering (PS&E)	LS		\$ 66,010.00	\$13,300.00
Potential New Right-of-Way Needed	SF	3,750	\$ 0.70	\$2,625.00
Construction Management & Inspection	LS		\$ 66,010.00	\$13,300.00
ENGINEERING, R/W, CEI SUBTOTAL				\$ 29,225
TOTAL ENGINEERING, R/W, CEI, AN				\$ 95,235
TOTAL ESTIMATED ENGINEERING, R/W, CEI, AN				\$ 123,800

Scope Accuracy:

Level 1: Project scope well understood and well defined.

Level 2: Project scope conceptual. Scope lacks detail due to potential permit external impacts.

Level 3: Project scope is a "vision" with limited detail.

Engineering Effort:

Level A: Preliminary engineering performed. Technical information is available understanding of the materials size and quantities needed to execute job. (See this element may still need refining). Project Development & Construction Contingencies ranges between 20% to 30%.

Level B: Conceptual engineering performed. Technical information is available similar information from previous similar work is compared and used. Project Construction Contingencies ranges between 20% to 30%.

Level C: No engineering performed. Educated guesstimating. Limited technical Development and Construction Contingencies should be selected appropriate.

Assumptions:

1. R/W unit costs of \$30,000 per acre are provided by City. This was increased.
2. Quantities are based on the April 2023 concept plans.
3. Curb and gutter is for the full length of the improvements.

Fayetteville Connectivity Study

Fayetteville, NC

Project No. 27211

Engineer's Opinion of Probable Construction Costs

Prepared by: Josh Hurst, P.E.					
5/17/2023 (edited January 2024 to eliminate Creeks Edge Phase 2)					
This Estimate has a Rating of:			3C	(See rating scale guide below.)	
9 - Kings Grant 2 - Phase 1					
ITEM	UNIT	QUANTITY	UNIT PRICE	TOTAL COST	
Mobilization / Construction Surveying	LS	1	\$85,000.00	\$85,000.00	
Traffic Control	LS	1	\$15,000.00	\$15,000.00	
Erosion Control	LS	1	\$70,000.00	\$70,000.00	
Removal of Structures and Obstructions	LS	1	\$19,000.00	\$19,000.00	
Clearing and Grubbing	LS	1	\$17,000.00	\$17,000.00	
Regular Excavation	CY	7,000	\$40.00	\$280,000.00	
Aggregate Base Course, 8"	TON	1,340	\$40.00	\$53,592.00	
Shared Use Path - 4" Asphalt Surface Course	TON	0	\$110.00	\$0.00	
Curb and Gutter	LF	2,100	\$30.00	\$63,000.00	
Bridge	SF	0	\$300.00	\$0.00	
Asphalt Concrete Surface Course, 2"	TON	339	\$110.00	\$37,268.00	
Asphalt Concrete Base Course, 3"	TON	508	\$105.00	\$53,361.00	
48" Storm Drainage Culvert	LF	80	\$300.00	\$24,000.00	
Storm Drainage 15" RCP Pipe	LF	1,200	\$150.00	\$180,000.00	
Storm Drainage Structures	EA	12	\$10,000.00	\$120,000.00	
Landscaping, Complete	LS	1	\$8,100.00	\$8,100.00	
Pavement Markings	LS	1	\$2,000.00	\$2,000.00	
Signage, Complete	LS	1	\$4,100.00	\$4,100.00	
Water, Sewer, and Franchise Utility Relocations	LS	1	\$15,000.00	\$15,000.00	
TOTAL CONSTRUCTION COST				\$	1,046,421
ENGINEERING, R/W, CEI					
Engineering (PS&E)	LS		\$ 1,046,421.00	\$209,300.00	
Potential New Right-of-Way Needed	SF	52,500	\$ 0.70	\$36,750.00	
Construction Management & Inspection	LS		\$ 1,046,421.00	\$209,300.00	
ENGINEERING, R/W, CEI SUBTOTAL				\$	455,350
TOTAL ENGINEERING, R/W, CEI, AN				\$	1,501,771
				\$	450,540
TOTAL ESTIMATED ENGINEERING, R/W, CEI,				\$	1,952,300

Scope Accuracy:

Level 1: Project scope well understood and well defined.

Level 2: Project scope conceptual. Scope lacks detail due to potential permit external impacts.

Level 3: Project scope is a "vision" with limited detail.

Engineering Effort:

Level A: Preliminary engineering performed. Technical information is available understanding of the materials size and quantities needed to execute job. (See this element may still need refining). Project Development & Construction Cor

Level B: Conceptual engineering performed. Technical information is available similar information from previous similar work is compared and used. Project Construction Contingencies ranges between 20% to 30%.

Level C: No engineering performed. Educated guesstimating. Limited technical Development and Construction Contingencies should be selected appropriate.

Assumptions:

1. R/W unit costs of \$30,000 per acre are provided by City. This was increased.
2. Quantities are based on the April 2023 concept plans.
3. Curb and gutter is for the full length of the improvements.

Fayetteville Connectivity Study

Fayetteville, NC

Project No. 27211

Engineer's Opinion of Probable Construction Costs

Prepared by: Josh Hurst, P.E.				
5/17/2023 (edited January 2024 to eliminate Creeks Edge Phase 2)				
This Estimate has a Rating of:			3C	(See rating scale guide below.)
9 - Kings Grant 2 - Phase 2				
ITEM	UNIT	QUANTITY	UNIT PRICE	TOTAL COST
Mobilization / Construction Surveying	LS	1	\$129,000.00	\$129,000.00
Traffic Control	LS	1	\$21,000.00	\$21,000.00
Erosion Control	LS	1	\$27,000.00	\$27,000.00
Removal of Structures and Obstructions	LS	1	\$29,000.00	\$29,000.00
Clearing and Grubbing	LS	1	\$26,000.00	\$26,000.00
Regular Excavation	CY	2,667	\$40.00	\$106,666.67
Aggregate Base Course, 8"	TON	510	\$40.00	\$20,416.00
Shared Use Path - 4" Asphalt Surface Course	TON	0	\$110.00	\$0.00
Curb and Gutter	LF	800	\$30.00	\$24,000.00
Bridge	SF	3,000	\$300.00	\$900,000.00
Asphalt Concrete Surface Course, 2"	TON	129	\$110.00	\$14,197.33
Asphalt Concrete Base Course, 3"	TON	194	\$105.00	\$20,328.00
48" Storm Drainage Culvert	LF	0	\$300.00	\$0.00
Storm Drainage 15" RCP Pipe	LF	600	\$150.00	\$90,000.00
Storm Drainage Structures	EA	6	\$10,000.00	\$60,000.00
Landscaping, Complete	LS	1	\$12,400.00	\$12,400.00
Pavement Markings	LS	1	\$3,100.00	\$3,100.00
Signage, Complete	LS	1	\$6,200.00	\$6,200.00
Water, Sewer, and Franchise Utility Relocations	LS	1	\$25,000.00	\$25,000.00
TOTAL CONSTRUCTION COST				\$ 1,514,308
ENGINEERING, R/W, CEI				
Engineering (PS&E)	LS		\$ 1,514,308.00	\$302,900.00
Potential New Right-of-Way Needed	SF	30,000	\$ 0.70	\$21,000.00
Construction Management & Inspection	LS		\$ 1,514,308.00	\$302,900.00
ENGINEERING, R/W, CEI SUBTOTAL				\$ 626,800
TOTAL ENGINEERING, R/W, CEI, AN				\$ 2,141,108
TOTAL ESTIMATED ENGINEERING, R/W, CEI, AN				\$ 642,340
TOTAL ESTIMATED ENGINEERING, R/W, CEI, AN				\$ 2,783,400

Scope Accuracy:

Level 1: Project scope well understood and well defined.

Level 2: Project scope conceptual. Scope lacks detail due to potential permit external impacts.

Level 3: Project scope is a "vision" with limited detail.

Engineering Effort:

Level A: Preliminary engineering performed. Technical information is available understanding of the materials size and quantities needed to execute job. (See this element may still need refining). Project Development & Construction Contingencies

Level B: Conceptual engineering performed. Technical information is available similar information from previous similar work is compared and used. Project Construction Contingencies ranges between 20% to 30%.

Level C: No engineering performed. Educated guesstimating. Limited technical Development and Construction Contingencies should be selected appropriate.

Assumptions:

1. R/W unit costs of \$30,000 per acre are provided by City. This was increased.
2. Quantities are based on the April 2023 concept plans.
3. Curb and gutter is for the full length of the improvements.

Fayetteville Connectivity Study

Fayetteville, NC

Project No. 27211

Engineer's Opinion of Probable Construction Costs

Prepared by: Josh Hurst, P.E.				
5/17/2023 (edited January 2024 to eliminate Creeks Edge Phase 2)				
This Estimate has a Rating of:			3C	(See rating scale guide below.)
10 - Liberty Hills - Phase 1				
ITEM	UNIT	QUANTITY	UNIT PRICE	TOTAL COST
Mobilization / Construction Surveying	LS	1	\$160,000.00	\$160,000.00
Traffic Control	LS	1	\$27,000.00	\$27,000.00
Erosion Control	LS	1	\$134,000.00	\$134,000.00
Removal of Structures and Obstructions	LS	1	\$36,000.00	\$36,000.00
Clearing and Grubbing	LS	1	\$32,000.00	\$32,000.00
Regular Excavation	CY	13,333	\$40.00	\$533,333.33
Aggregate Base Course, 8"	TON	2,552	\$40.00	\$102,080.00
Shared Use Path - 4" Asphalt Surface Course	TON	0	\$110.00	\$0.00
Curb and Gutter	LF	4,000	\$30.00	\$120,000.00
Bridge	SF	0	\$300.00	\$0.00
Asphalt Concrete Surface Course, 2"	TON	645	\$110.00	\$70,986.67
Asphalt Concrete Base Course, 3"	TON	968	\$105.00	\$101,640.00
48" Storm Drainage Culvert	LF	80	\$300.00	\$24,000.00
Storm Drainage 15" RCP Pipe	LF	2,400	\$150.00	\$360,000.00
Storm Drainage Structures	EA	24	\$10,000.00	\$240,000.00
Landscaping, Complete	LS	1	\$15,500.00	\$15,500.00
Pavement Markings	LS	1	\$3,900.00	\$3,900.00
Signage, Complete	LS	1	\$7,800.00	\$7,800.00
Water, Sewer, and Franchise Utility Relocations	LS	1	\$ 10,000.00	\$10,000.00
TOTAL CONSTRUCTION COST				\$ 1,978,240
ENGINEERING, R/W, CEI				
Engineering (PS&E)	LS		\$ 1,978,240.00	\$395,700.00
Potential New Right-of-Way Needed	SF	100,000	\$ 0.70	\$70,000.00
Construction Management & Inspection	LS		\$ 1,978,240.00	\$395,700.00
ENGINEERING, R/W, CEI SUBTOTAL				\$ 861,400
TOTAL ENGINEERING, R/W, CEI, AN				\$ 2,839,640
TOTAL ESTIMATED ENGINEERING, R/W, CEI, AN				\$ 851,900
TOTAL ESTIMATED ENGINEERING, R/W, CEI, AN				\$ 3,691,500

Scope Accuracy:

Level 1: Project scope well understood and well defined.

Level 2: Project scope conceptual. Scope lacks detail due to potential permit external impacts.

Level 3: Project scope is a "vision" with limited detail.

Engineering Effort:

Level A: Preliminary engineering performed. Technical information is available understanding of the materials size and quantities needed to execute job. (See this element may still need refining). Project Development & Construction Contingencies should be selected appropriate.

Level B: Conceptual engineering performed. Technical information is available similar information from previous similar work is compared and used. Project Construction Contingencies ranges between 20% to 30%.

Level C: No engineering performed. Educated guesstimating. Limited technical Development and Construction Contingencies should be selected appropriate.

Assumptions:

1. R/W unit costs of \$30,000 per acre are provided by City. This was increased.
2. Quantities are based on the April 2023 concept plans.
3. Curb and gutter is for the full length of the improvements.

Fayetteville Connectivity Study

Fayetteville, NC

Project No. 27211

Engineer's Opinion of Probable Construction Costs

Prepared by: Josh Hurst, P.E.					
5/17/2023 (edited January 2024 to eliminate Creeks Edge Phase 2)					
This Estimate has a Rating of:			3C	(See rating scale guide below.)	
10 - Liberty Hills - Phase 2					
ITEM	UNIT	QUANTITY	UNIT PRICE	TOTAL COST	
Mobilization / Construction Surveying	LS	1	\$49,000.00	\$49,000.00	
Traffic Control	LS	1	\$9,000.00	\$9,000.00	
Erosion Control	LS	1	\$50,000.00	\$50,000.00	
Removal of Structures and Obstructions	LS	1	\$11,000.00	\$11,000.00	
Clearing and Grubbing	LS	1	\$10,000.00	\$10,000.00	
Regular Excavation	CY	5,000	\$40.00	\$200,000.00	
Aggregate Base Course, 8"	TON	0	\$40.00	\$0.00	
Shared Use Path - 4" Asphalt Surface Course	TON	484	\$110.00	\$53,240.00	
Curb and Gutter	LF	0	\$30.00	\$0.00	
Bridge	SF	0	\$300.00	\$0.00	
Asphalt Concrete Surface Course, 2"	TON	0	\$110.00	\$0.00	
Asphalt Concrete Base Course, 3"	TON	0	\$105.00	\$0.00	
48" Storm Drainage Culvert	LF	0	\$300.00	\$0.00	
Storm Drainage 15" RCP Pipe	LF	500	\$150.00	\$75,000.00	
Storm Drainage Structures	EA	5	\$10,000.00	\$50,000.00	
Landscaping, Complete	LS	1	\$3,800.00	\$3,800.00	
Pavement Markings	LS	1	\$900.00	\$900.00	
Signage, Complete	LS	1	\$1,900.00	\$1,900.00	
Water, Sewer, and Franchise Utility Relocations	LS	1	\$ 100,000.00	\$100,000.00	
TOTAL CONSTRUCTION COST				\$	613,840
ENGINEERING, R/W, CEI					
Engineering (PS&E)	LS		\$ 613,840.00	\$122,800.00	
Potential New Right-of-Way Needed	SF	0	\$ 0.70	\$0.00	
Construction Management & Inspection	LS		\$ 613,840.00	\$122,800.00	
ENGINEERING, R/W, CEI SUBTOTAL				\$	245,600
TOTAL ENGINEERING, R/W, CEI, AN				\$	859,440
				\$	257,840
TOTAL ESTIMATED ENGINEERING, R/W, CEI,				\$	1,117,300

Scope Accuracy:

Level 1: Project scope well understood and well defined.

Level 2: Project scope conceptual. Scope lacks detail due to potential permit external impacts.

Level 3: Project scope is a "vision" with limited detail.

Engineering Effort:

Level A: Preliminary engineering performed. Technical information is available understanding of the materials size and quantities needed to execute job. (See this element may still need refining). Project Development & Construction Cor

Level B: Conceptual engineering performed. Technical information is available similar information from previous similar work is compared and used. Project Construction Contingencies ranges between 20% to 30%.

Level C: No engineering performed. Educated guesstimating. Limited technical Development and Construction Contingencies should be selected appropriate.

Assumptions:

1. R/W unit costs of \$30,000 per acre are provided by City. This was increased.
2. Quantities are based on the April 2023 concept plans.
3. Curb and gutter is for the full length of the improvements.

Fayetteville Connectivity Study

Fayetteville, NC

Project No. 27211

Engineer's Opinion of Probable Construction Costs

Prepared by: Josh Hurst, P.E.				
5/17/2023 (edited January 2024 to eliminate Creeks Edge Phase 2)				
This Estimate has a Rating of:			3C	(See rating scale guide below.)
10 - Liberty Hills - Phase 3				
ITEM	UNIT	QUANTITY	UNIT PRICE	TOTAL COST
Mobilization / Construction Surveying	LS	1	\$23,000.00	\$23,000.00
Traffic Control	LS	1	\$4,000.00	\$4,000.00
Erosion Control	LS	1	\$20,000.00	\$20,000.00
Removal of Structures and Obstructions	LS	1	\$6,000.00	\$6,000.00
Clearing and Grubbing	LS	1	\$5,000.00	\$5,000.00
Regular Excavation	CY	2,000	\$40.00	\$80,000.00
Aggregate Base Course, 8"	TON	383	\$40.00	\$15,312.00
Shared Use Path - 4" Asphalt Surface Course	TON	0	\$110.00	\$0.00
Curb and Gutter	LF	600	\$30.00	\$18,000.00
Bridge	SF	0	\$300.00	\$0.00
Asphalt Concrete Surface Course, 2"	TON	97	\$110.00	\$10,648.00
Asphalt Concrete Base Course, 3"	TON	145	\$105.00	\$15,246.00
48" Storm Drainage Culvert	LF	0	\$300.00	\$0.00
Storm Drainage 15" RCP Pipe	LF	300	\$150.00	\$45,000.00
Storm Drainage Structures	EA	3	\$10,000.00	\$30,000.00
Landscaping, Complete	LS	1	\$2,100.00	\$2,100.00
Pavement Markings	LS	1	\$500.00	\$500.00
Signage, Complete	LS	1	\$1,100.00	\$1,100.00
Water, Sewer, and Franchise Utility Relocations	LS	1	\$ 10,000.00	\$10,000.00
TOTAL CONSTRUCTION COST				\$ 285,906
ENGINEERING, R/W, CEI				
Engineering (PS&E)	LS		\$ 285,906.00	\$57,200.00
Potential New Right-of-Way Needed	SF	0	\$ 0.70	\$0.00
Construction Management & Inspection	LS		\$ 285,906.00	\$57,200.00
ENGINEERING, R/W, CEI SUBTOTAL				\$ 114,400
TOTAL ENGINEERING, R/W, CEI, AN				\$ 400,306
TOTAL ESTIMATED ENGINEERING, R/W, CEI, AN				\$ 120,100
TOTAL ESTIMATED ENGINEERING, R/W, CEI, AN				\$ 520,400

Scope Accuracy:

Level 1: Project scope well understood and well defined.

Level 2: Project scope conceptual. Scope lacks detail due to potential permit external impacts.

Level 3: Project scope is a "vision" with limited detail.

Engineering Effort:

Level A: Preliminary engineering performed. Technical information is available understanding of the materials size and quantities needed to execute job. (See this element may still need refining). Project Development & Construction Contingencies should be selected appropriate.

Level B: Conceptual engineering performed. Technical information is available similar information from previous similar work is compared and used. Project Construction Contingencies ranges between 20% to 30%.

Level C: No engineering performed. Educated guesstimating. Limited technical Development and Construction Contingencies should be selected appropriate.

Assumptions:

1. R/W unit costs of \$30,000 per acre are provided by City. This was increased.
2. Quantities are based on the April 2023 concept plans.
3. Curb and gutter is for the full length of the improvements.