

COST ESTIMATES



SUMMARY

The following pages are the individual cost estimates of the project. Below are summary tables of the individual costs as presented in the DEIS.

Estimated Construction Costs (as of April 2016)

	6-Lane Widening Alternative	8-Lane Widening Alternative	Hybrid 6/8-Lane Widening Alternative
I-4400	215,000,000	287,600,000	243,300,000
I-4700	149,800,000	196,900,000	196,900,000
Total Cost	\$364,800,000	\$484,500,000	\$440,200,000

Estimated Utility Cost (as of June 2015)

	6-Lane Widening Alternative	8-Lane Widening Alternative	Hybrid 6/8-Lane Widening Alternative
I-4400/I-4700	4,940,664	6,213,704	5,161,501
US 25 Interchange	68,096	68,096	68,096
Total Cost	\$5,008,760	\$6,281,800	\$5,229,597

Estimated Right of Way Cost (as of February 2016)

	6-Lane Widening Alternative		8-Lane Widening Alternative		Hybrid 6/8-Lane Widening Alternative	
	Type	Cost (\$)	Type	Cost (\$)	Type	Cost (\$)
I-4400/ I-4700	R - 2	40,000	R - 13	260,000	R - 8	160,000
	B - 0		B - 1	25,000	B - 0	
	L, I, & D	4,675,000	L, I, & D	7,265,000	L, I, & D	3,775,000
	ACQ	585,000	ACQ	1,200,000	ACQ	840,000
	TOTAL	5,300,000	TOTAL	8,750,000	TOTAL	4,775,000
US 25 Interchange	R - 10	400,000	R - 10	400,000	R - 10	400,000
	B - 1	75,000	B - 1	75,000	B - 1	75,000
	L, I, & D	3,928,500	L, I, & D	4,631,500	L, I, & D	3,931,500
	ACQ	125,000	ACQ	135,000	ACQ	130,000
	TOTAL	4,528,500	TOTAL	4,631,500	TOTAL	4,536,500
I-4400/ I-4700 + US 25 Interchange	R - 12	440,000	R - 23	660,000	R - 18	560,000
	B - 1	75,000	B - 2	100,000	B - 1	75,000
	L, I, & D	8,603,500	L, I, & D	11,896,500	L, I, & D	7,706,500
	ACQ	710,000	ACQ	1,335,000	ACQ	970,000
	TOTAL	\$9,828,500	TOTAL	\$13,381,500	TOTAL	\$9,311,500

R - Residential Relocateses

B - Business Relocateses

L, I, & D - Land, Improvements, and Damages

ACQ - Acquisition

NC-DOT
Contract Standards and Development Unit
Preliminary Estimate Section

April 25, 2016

FUNC

Memo To: Steve Kendall, PE
Project Design Engineer

From: Doug Lane
Preliminary Estimate Engineer

Subject: Construction Alternatives for I-4400 / 4700, in Henderson and Buncombe Counties.

I-4400

TIP NUMBER	LENGTH (Miles)	CONSTR.COST (6-Lanes)	CONSTR.COST (8-Lanes)	CONSTR.COST (Hybrid 6 / 8 Lns)
I-4400A	5.10	\$72,400,000	\$93,000,000	\$72,400,000
I-4400B	5.80	\$78,100,000	\$110,800,000	\$78,100,000
I-4400C	3.30	\$64,500,000	\$83,800,000	\$83,800,000
I-4400	14.20	\$215,000,000	\$287,600,000	\$234,300,000

cc: Kevin Moore, PE

Note: Right-of-Way, and R/W Utilities are not included.

NC-DOT
Contract Standards and Development
Estimating Management

April 20, 2016

Memo To: Preliminary Estimate Engineer
From: Eric Seckinger, PE (HNTB)
Project Planning Engineer or Project Design Engineer
Subject: TIP Project I-4400A 6 lane Alternative Construction Cost Estimate Request

Please provide an Updated Construction Cost Estimate for TIP Project I-4400A.
Type of Estimate and Update Description is indicated below.

ESTIMATE TYPE

- Update Feasibility Study Estimate (Project to be added to TIP)
- Scoping Meeting
- CP 1 -----
 Functional Design of All Alternatives
- CP 2 -----
 Functional Design of Alternatives to be Studied in Further Detail
- Preliminary Design
- CP 2A -----
 Preliminary Design with Approved Structure Types and Locations
- CP 3 -----
 Preliminary Design on Selected Alternate
- CP 4A -----
 Preliminary Design after Impacts are Minimized
- CP 4B -----
 Right-of-Way Plans
- CP 4C -----
 13 Month Letting
- Final Quantities
- Other (Comparison for a Scope Change, or other Revision to Plans)

UPDATE DESCRIPTION

- Update Unit Prices Only.
- Updated Quantities and Unit Prices.
- Scope Change and / or other Revisions to the project.

2

Briefly describe any changes to the design that will create either a major construction cost increase or decrease.

The quantities are being split up into the segments outlined in the TIP.
Add updated US 64 interchange quantities

Has there been a project scope change since the last verified estimate? Briefly describe both increases and decreases to the project scope.

Add updated US 64 interchange quantities

Describe any major changes to the quantities since the last verified estimate and the reasons for the changes.

Add updated US 64 interchange quantities

VERIFICATION LETTER

- Send Verification Letter.
- Verification Letter is not required at this time.

cc: Roadway Project Engineer
PDEA Project Engineer

TIP No. **I-4400A**
Route I-26 from US 25 to US 64 (Exit 49)
From HNTB
Typical Section Alt 2: 6 LANE Section: 6 ln with conc. median barrier wall full depth reconstruction
Prepared By: EWS
Requested By: KEM
Priced By: Doug Lane

Func

County: **HENDERSON**

CONSTR. COST
\$72,400,000

4/20/16
4/20/16
4/23/16

Line Item	Des	Sec No.	Description	Quantity	Unit	Price	Amount
			Clearing and Grubbing	75.0	Acre	\$ 12,000.00	\$ 900,000.00
			Earthwork (Excav)	427,190	CY	\$ 5.00	\$ 2,135,950.00
			Earthwork (Fill)	53,770	CY	\$ 6.00	\$ 322,620.00
			Drainage (Interstate)	4.80	Miles	\$ 450,000.00	\$ 2,160,000.00
			Drainage (Y line)	1.00	Miles	\$ 200,000.00	\$ 200,000.00
			Fine Grading	389,030	SY	\$ 2.00	\$ 778,060.00
			New Pavement (Main Line)	207,530	SY	\$ 64.00	\$ 13,281,920.00
			New Shoulder Pavement (Main Line)	132,090	SY	\$ 40.00	\$ 5,283,600.00
			New Pavement (Ramps)	24,513	SY	\$ 60.00	\$ 1,470,780.00
			New Pavement (Y lines)	11,970	SY	\$ 40.00	\$ 478,800.00
			Subgrade Stabilization	450,000	SY	\$ 6.00	\$ 2,700,000.00
			Asphalt Pavement Resurfacing	6,700	SY	\$ 12.00	\$ 80,400.00
			Pavement Removal	221,400	SY	\$ 7.00	\$ 1,549,800.00
			Steel Beam Guardrail	8,190	LF	\$ 15.00	\$ 122,850.00
			GRAU 350 End Unit	11	Each	\$ 1,800.00	\$ 19,800.00
			CAT-1 End Unit	10	Each	\$ 600.00	\$ 6,000.00
			TYPE III End Unit	10	Each	\$ 1,400.00	\$ 14,000.00
			Concrete Median Barrier Wall	25,400	LF	\$ 95.00	\$ 2,413,000.00
			Single Faced Concrete Barrier Wall	50	LF	\$ 110.00	\$ 5,500.00
			Shoulder Rumble Strip	97,020	LF	\$ 0.25	\$ 24,255.00
			2'-6" Concrete Curb and Gutter	2,000	LF	\$ 20.00	\$ 40,000.00
			Fencing				
			Woven Wire	3,490	LF	\$ 4.30	\$ 15,007.00
			Erosion Control	120	Acres	\$ 15,000.00	\$ 1,800,000.00
			Signing Interchanges*				
			Diamond	2.0	Each	\$ 400,000.00	\$ 800,000.00
			Clover	1.0	Each	\$ 500,000.00	\$ 500,000.00
			Traffic Control	5.1	Miles	\$ 400,000.00	\$ 2,040,000.00
			Thermo and Markers	5.1	Miles	\$ 30,000.00	\$ 153,000.00
			Structures				
			Crest Rd over I-26 - 260'x33'	8,580	SF	\$ 115.00	\$ 986,700.00
			US 64 Over I-26 - 205'x125'	25,625.00	SF	\$ 115.00	\$ 2,946,875.00
			Existing Structure Removal				
			Crest Rd over I-26 - 224'x28.5'	6,384	SF	\$ 15.00	\$ 95,760.00
			US 64 Over I-26 - 260'x106'	27,150.00	SF	\$ 20.00	\$ 543,000.00
			RC Box Culverts				
			Culvert L4400 Sta 79+09 Extend 6'x6' RCBC, Fill Height - 3', Skew - 135°	65	LF	\$ 960.00	\$ 62,400.00
			Culvert L4400 Sta 208+70 Extend 3-9'x10' RCBC, Fill Height - 6', Skew - 135°	62	LF	\$ 3,420.00	\$ 212,040.00
			Retaining Walls				
			L4400 Sta 239+00 to 242+50 - 10' Average Height	3,500	SF	\$ 90.00	\$ 315,000.00
			Utility Construction				
			NA				
			NA				
			Misc. & Mob (15% Strs&Util)				\$ 774,883.00
			Misc. & Mob (45% Functional)				\$ 17,683,000.00

Lgth 5.1

Contract Cost	\$ 62,915,000.00
E. & C. 15%	\$ 9,485,000.00
Construction Cost	\$ 72,400,000.00

* Includes US 64 Interchange

TIP No. **I-4400B**
Route I-26 from US 64 (Exit 49) to US 25 Business (Exist 44)
From HNTB
Typical Section Alt 2: 6 LANE Section: 6 In with conc. median barrier wall
full depth reconstruction
Prepared By: EWS
Requested By: KEM
Priced By: Doug Lane

Func

County: **Henderson**

CONSTR. COST
\$78,100,000

4/20/16
4/20/16
4/23/16

Line Item	Des	Sec No.	Description	Quantity	Unit	Price	Amount
			Clearing and Grubbing	87	Acre	\$ 12,000.00	\$ 1,044,000.00
			Earthwork (Excav)	492,970	CY	\$ 5.00	\$ 2,464,850.00
			Earthwork (Fill)	49,950	CY	\$ 6.00	\$ 299,700.00
			Drainage (Interstate)	5.80	Miles	\$ 450,000.00	\$ 2,610,000.00
			Fine Grading	423,400	SY	\$ 2.00	\$ 846,800.00
			New Pavement (Main Line)	248,200	SY	\$ 64.00	\$ 15,884,800.00
			New Shoulder Pavement (Main Line)	157,980	SY	\$ 40.00	\$ 6,319,200.00
			New Pavement (Ramps)	220	SY	\$ 45.00	\$ 9,900.00
			Subgrade Stabilization	488,540	SY	\$ 6.00	\$ 2,931,240.00
			Pavement Removal	258,800	SY	\$ 7.00	\$ 1,811,600.00
			Steel Beam Guardrail	9,430	LF	\$ 15.00	\$ 141,450.00
			GRAU 350 End Unit	12	Each	\$ 1,800.00	\$ 21,600.00
			CAT-1 End Unit	9	Each	\$ 600.00	\$ 5,400.00
			TYPE III End Unit	6	Each	\$ 1,400.00	\$ 8,400.00
			Concrete Median Barrier Wall	28,860	LF	\$ 95.00	\$ 2,741,700.00
			Single Faced Concrete Barrier Wall	50	LF	\$ 110.00	\$ 5,500.00
			Shoulder Rumble Strip	116,030	LF	\$ 0.25	\$ 29,007.50
			Fencing				
			Woven Wire	4,170	LF	\$ 4.30	\$ 17,931.00
			Erosion Control	139	Acres	\$ 15,000.00	\$ 2,085,000.00
			Signing Interchanges*				
			Weigh Station	1	Each	\$ 400,000.00	\$ 400,000.00
			Clover	1	Each	\$ 500,000.00	\$ 500,000.00
			Traffic Control	5.8	Miles	\$ 400,000.00	\$ 2,320,000.00
			Thermo and Markers	5.8	Miles	\$ 30,000.00	\$ 174,000.00
			Structures				
			I-26 over Clear Creek - 300'x126'	37,800	SF	\$ 110.00	\$ 4,158,000.00
			Existing Structure Removal				
			I-26 NB over Clear Creek - 220'x33.5'	7,370	SF	\$ 15.00	\$ 110,550.00
			I-26 SB over Clear Creek - 220'x33.5'	7,370	SF	\$ 15.00	\$ 110,550.00
			RC Box Culverts				
			Culvert L4400 Sta 407+69 Extend 7'x7' RCBC, Fill Height - 21', Skew - 120	18	LF	\$ 1,120.00	\$ 20,160.00
			Culvert L4400 Sta 500+94 Extend 2-8'x8' RCBC, Fill Height - 8', Skew - 90	37	LF	\$ 2,240.00	\$ 82,880.00
			Retaining Walls				
			L4400 Sta 378+00 to 385+50 - 5.5' Average Height	3,850	SF	\$ 75.00	\$ 288,750.00
			L4400 Sta 530+00 to 537+00 - 8' Average Height	5,600	SF	\$ 85.00	\$ 476,000.00
			Utility Construction				
			NA				
			NA				
			Misc. & Mob (15% Strs&Util)				\$ 787,031.50
			Misc. & Mob (45% Functional)				\$ 19,202,000.00

Lgth 5.8 Miles

Contract Cost \$ 67,908,000.00
E. & C. 15% \$ 10,192,000.00
Construction Cost \$ 78,100,000.00

TIP No. **I-4400C**
Route I-26 from US 25 Business (Exit 44) to NC 280 (Exit 40)
From HNTB
Typical Section Alt 2: 6 LANE Section: 6 In with conc. median barrier wall
full depth reconstruction
Prepared By: EWS 4/20/16
Requested By: KEM 4/20/16
Priced By: Doug Lane 4/23/16

Func

County: **Henderson/Buncombe**

CONSTR. COST
\$64,500,000

Line Item	Des	Sec No.	Description	Quantity	Unit	Price	Amount
			Building Demo	30,793	SF	\$ 10.00	\$ 307,930.00
			Clearing and Grubbing	85	Acre	\$ 12,000.00	\$ 1,020,000.00
			Earthwork (Excav)	463,190	CY	\$ 5.00	\$ 2,315,950.00
			Earthwork (Fill)	130,546	CY	\$ 6.00	\$ 783,276.00
			Drainage (Interstate)	3.30	Miles	\$ 450,000.00	\$ 1,485,000.00
			Drainage (US 25)	1.00	LS	\$ 300,000.00	\$ 300,000.00
			Fine Grading	287,720	SY	\$ 2.00	\$ 575,440.00
			New Pavement (Main Line)	142,340	SY	\$ 64.00	\$ 9,109,760.00
			New Shoulder Pavement (Main Line)	90,600	SY	\$ 40.00	\$ 3,624,000.00
			New Pavement (Ramps)	39,010	SY	\$ 45.00	\$ 1,755,450.00
			Asphalt Pavement Resurfacing (Y)	18,320	SY	\$ 12.00	\$ 219,840.00
			2'-6" Curb and Gutter	5,900	LF	\$ 20.00	\$ 118,000.00
			Concrete Mono Island	1,500	SY	\$ 42.00	\$ 63,000.00
			Subgrade Stabilization	354,520	SY	\$ 6.00	\$ 2,127,120.00
			Pavement Removal	161,320	SY	\$ 7.00	\$ 1,129,240.00
			Steel Beam Guardrail	12,160	LF	\$ 15.00	\$ 182,400.00
			GRAU 350 End Unit	10	Each	\$ 1,800.00	\$ 18,000.00
			CAT-1 End Unit	8	Each	\$ 6,000.00	\$ 48,000.00
			TYPE III End Unit	10	Each	\$ 1,400.00	\$ 14,000.00
			Concrete Median Barrier Wall	16,550	LF	\$ 95.00	\$ 1,572,250.00
			Single Faced Concrete Barrier Wall	90	LF	\$ 110.00	\$ 9,900.00
			Shoulder Rumble Strip	66,550	LF	\$ 0.25	\$ 16,637.50
			Removal of Existing Concrete Island	3,070	SY	\$ 8.00	\$ 24,560.00
			Concrete Expressway Gutter	250	LF	\$ 40.00	\$ 10,000.00
			Fencing				
			Woven Wire	5,770	LF	\$ 4.30	\$ 24,811.00
			Erosion Control	100	Acres	\$ 15,000.00	\$ 1,500,000.00
			Signing Interchanges*				
			Rest Area	1	Each	\$ 120,000.00	\$ 120,000.00
			Loop	1	Each	\$ 200,000.00	\$ 200,000.00
			Traffic Control	3.3	Miles	\$ 400,000.00	\$ 1,320,000.00
			Thermo and Markers	3.3	Miles	\$ 30,000.00	\$ 99,000.00
			Structures				
			I-26 over Cane Creek - 300'x126'	37,800	SF	\$ 110.00	\$ 4,158,000.00
			I-26 over NSRR - 300' x 174'	52,200	SF	\$ 115.00	\$ 6,003,000.00
			Existing Structure Removal				
			I-26 NB over Cane Creek - 198'x33.5'	6,630	SF	\$ 15.00	\$ 99,450.00
			I-26 SB over Cane Creek - 198'x33.5'	6,630	SF	\$ 15.00	\$ 99,450.00
			I-26 NB over NSRR - 203' x 33.5'	7,370	SF	\$ 20.00	\$ 147,400.00
			I-26 SB over NSRR - 203' x 33.5'	7,370.00	SF	\$ 20.00	\$ 147,400.00
			RC Box Culverts				
			Culvert L4400 Sta 682+68 Extend 3-7'x7' RCBC, Fill Height - 17', Skew - 45°	50	LF	\$ 2,520.00	\$ 126,000.00
			Retaining Walls				
			Retaining Wall Ramp A (8' Average Height)	120	LF	\$ 85.00	\$ 10,200.00
			Utility Construction				
			NA				
			NA				
			Misc. & Mob (15% Strs&Util)				\$ 1,618,535.50
			Misc. & Mob (45% Functional)				\$ 13,542,000.00

Lgth 3.3 Miles

Contract Cost	\$ 56,045,000.00
E. & C. 15%	\$ 8,455,000.00
Construction Cost	\$ 64,500,000.00

*Includes US 25 Interchange

TIP No. **I-4400A**
Route I-26 from US 25 to US 64 (Exit 49)
From HNTB
Typical Section Alt 3: 8 LANE Section: 8 ln with conc. median barrier wall
full depth reconstruction
Prepared By: EWS
Requested By: KEM
Priced By: Doug Lane

Func

County: **Henderson**

CONSTR. COST
\$93,000,000

4/20/16
4/20/16
4/23/16

Line Item	Des	Sec No.	Description	Quantity	Unit	Price	Amount
			Clearing and Grubbing	103	Acre	\$ 12,000.00	\$ 1,236,000.00
			Earthwork (Excav)	581,980	CY	\$ 5.00	\$ 2,909,900.00
			Earthwork (Fill)	170,040	CY	\$ 6.00	\$ 1,020,240.00
			Drainage (Interstate)	4.80	Miles	\$ 550,000.00	\$ 2,640,000.00
			Drainage (y line)	1.7	Miles	\$ 200,000.00	\$ 340,000.00
			Fine Grading	492,730	SY	\$ 2.00	\$ 985,460.00
			New Pavement (Main Line)	276,030	SY	\$ 64.00	\$ 17,665,920.00
			New Shoulder Pavement (Main Line/Ramps)	135,200	SY	\$ 40.00	\$ 5,408,000.00
			New Pavement (Ramps)	32,373	SY	\$ 45.00	\$ 1,456,785.00
			New Pavement (-y- lines)	22,530	SY	\$ 40.00	\$ 901,200.00
			Subgrade Stabilization	566,640	SY	\$ 6.00	\$ 3,399,840.00
			Pavement Removal	237,380	SY	\$ 7.00	\$ 1,661,660.00
			Steel Beam Guardrail	11,870	LF	\$ 15.00	\$ 178,050.00
			GRAU 350 End Unit	21	Each	\$ 1,800.00	\$ 37,800.00
			CAT-1 End Unit	22	Each	\$ 600.00	\$ 13,200.00
			TYPE III End Unit	19	Each	\$ 1,400.00	\$ 26,600.00
			Concrete Median Barrier Wall	24,600	LF	\$ 95.00	\$ 2,337,000.00
			Single Faced Concrete Barrier Wall	340	LF	\$ 110.00	\$ 37,400.00
			2'-6" Concrete Curb and Gutter	2,890	LF	\$ 20.00	\$ 57,800.00
			Shoulder Rumble Strip	96,570	LF	\$ 0.25	\$ 24,142.50
			Fencing				
			Woven Wire	6,820	LF	\$ 4.30	\$ 29,326.00
			Erosion Control	151	Acres	\$ 15,000.00	\$ 2,265,000.00
			Signing Interchanges*				
			Diamond	2	Each	\$ 400,000.00	\$ 800,000.00
			Clover	1	Each	\$ 500,000.00	\$ 500,000.00
			Traffic Control	5.6	Miles	\$ 500,000.00	\$ 2,800,000.00
			Thermo and Markers	5.6	Miles	\$ 40,000.00	\$ 224,000.00
			Structures				
			Crest Rd over I-26 - 260'x33'	8,580	SF	\$ 115.00	\$ 986,700.00
			Tracey Grove Rd over I-26 - 285'x33'	8,790	SF	\$ 115.00	\$ 1,010,850.00
			Dana Rd over I-26 - 265'x42'	10,560	SF	\$ 115.00	\$ 1,214,400.00
			US 64 Over I-26 - 205'x125'	25,625.00	SF	\$ 115.00	\$ 2,946,875.00
			Existing Structure Removal				
			Crest Rd over I-26 - 224'x28.5'	6,380	SF	\$ 15.00	\$ 95,700.00
			Tracey Grove Rd over I-26 - 261'x28.5'	7,440	SF	\$ 15.00	\$ 111,600.00
			Dana Rd over I-26 - 208'x33.5'	6,970	SF	\$ 15.00	\$ 104,550.00
			US 64 Over I-26 - 260'x106'	27,150.00	SF	\$ 20.00	\$ 543,000.00
			RC Box Culverts				
			Culvert L4400 Sta 79+09 Extend 6'x6' RCBC, Fill Height - 3', Skew - 135°	52	LF	\$ 960.00	\$ 49,920.00
			Culvert L4400 Sta 90+32 Extend 2-8'x8' RCBC, Fill Height - 8', Skew - 45°	63	LF	\$ 2,240.00	\$ 141,120.00
			Culvert L4400 Sta 208+70 Extend 3-9'x10' RCBC, Fill Height - 6', Skew - 135°	112	LF	\$ 3,420.00	\$ 383,040.00
			Culvert L4400 Sta 248+18 Extend 6'x6' RCBC, Fill Height - 2', Skew - 42°	8	LF	\$ 960.00	\$ 7,680.00
			Retaining Walls				
			L4400 Sta 239+00 to 247+00 - 11' Average Height	8,800	SF	\$ 90.00	\$ 792,000.00
			Y6RPB Sta 12+00 to 16+00 - 7' Average Height	2,800	SF	\$ 80.00	\$ 224,000.00
			Utility Construction				
			NA				
			NA				
			Misc. & Mob (15% Strs&Util)				\$ 1,291,241.50
			Misc. & Mob (45% Functional)				\$ 22,030,000.00

Lgth 5.1 Miles

Contract Cost	\$ 80,888,000.00
E. & C. 15%	\$ 12,112,000.00
Construction Cost	\$ 93,000,000.00

* Includes US 64 Interchange

TIP No. **I-4400B**
Route I-26 from US 64 (Exit 49) to US 25 Business (Exist 44)
From HNTB
Typical Section Alt 3: 8 LANE Section: 8 In with conc. median barrier wall
full depth reconstruction
Prepared By: EWS
Requested By: KEM
Priced By: Doug Lane

Func

County: **HENDERSON**

CONSTR. COST
\$110,800,000

4/20/16
4/20/16
4/23/16

Line Item	Des	Sec No.	Description	Quantity	Unit	Price	Amount
			Clearing and Grubbing	120	Acre	\$ 12,000.00	\$ 1,444,200.00
			Earthwork (Excav)	678,090	CY	\$ 5.00	\$ 3,390,450.00
			Earthwork (Fill)	189,010	CY	\$ 6.00	\$ 1,134,060.00
			Drainage (Interstate)	5.80	Miles	\$ 550,000.00	\$ 3,190,000.00
			Drainage (y line)	1.0	Miles	\$ 200,000.00	\$ 200,000.00
			Fine Grading	547,435	SY	\$ 2.00	\$ 1,094,869.60
			New Pavement (Main Line)	330,120	SY	\$ 64.00	\$ 21,127,686.40
			New Shoulder Pavement (Main Line/Ramps)	161,690	SY	\$ 40.00	\$ 6,467,600.00
			New Pavement (Ramps)	9,620	SY	\$ 45.00	\$ 432,886.50
			New Pavement (-y- lines)	15,460	SY	\$ 40.00	\$ 618,400.00
			Subgrade Stabilization	621,990	SY	\$ 6.00	\$ 3,731,940.00
			Pavement Removal	277,910	SY	\$ 7.00	\$ 1,945,370.00
			Steel Beam Guardrail	13,830	LF	\$ 15.00	\$ 207,450.00
			GRAU 350 End Unit	23	Each	\$ 1,800.00	\$ 41,400.00
			CAT-1 End Unit	24	Each	\$ 600.00	\$ 14,400.00
			TYPE III End Unit	18	Each	\$ 1,400.00	\$ 25,200.00
			Concrete Median Barrier Wall	29,420	LF	\$ 95.00	\$ 2,794,900.00
			Single Faced Concrete Barrier Wall	410	LF	\$ 110.00	\$ 45,100.00
			2'-6" Concrete Curb and Gutter	1,070	LF	\$ 22.00	\$ 23,540.00
			Shoulder Rumble Strip	115,490	LF	\$ 0.25	\$ 28,872.50
			Fencing				
			Woven Wire	8,150	LF	\$ 4.30	\$ 35,045.00
			Erosion Control	176	Acres	\$ 15,000.00	\$ 2,640,022.50
			Signing Interchanges*				
			Weigh Station	1	Each	\$ 400,000.00	\$ 400,000.00
			Diamond	2	Each	\$ 400,000.00	\$ 800,000.00
			Traffic Control	6.8	Miles	\$ 500,000.00	\$ 3,400,000.00
			Thermo and Markers	6.8	Miles	\$ 40,000.00	\$ 272,000.00
			Structures				
			I-26 over Clear Creek - 300'x150'	45,000	SF	\$ 110.00	\$ 4,950,000.00
			Clear Creek Rd over I-26 - 280'x42'	11,160	SF	\$ 115.00	\$ 1,283,400.00
			Brookside Camp Rd over I-26 - 265'x33'	8,750	SF	\$ 115.00	\$ 1,006,250.00
			Naples Rd over I-26 - 285'x42'	11,360	SF	\$ 115.00	\$ 1,306,400.00
			Existing Structure Removal				
			I-26 NB over Clear Creek - 220'x33.5'	7,370	SF	\$ 15.00	\$ 110,550.00
			I-26 SB over Clear Creek - 220'x33.5'	7,370	SF	\$ 15.00	\$ 110,550.00
			Clear Creek Rd over I-26 - 240'x33.5'	8,040	SF	\$ 15.00	\$ 120,600.00
			Brookside Camp Rd over I-26 - 203'x28.5'	5,790	SF	\$ 15.00	\$ 86,850.00
			Naples Rd over I-26 - 248'x33.5'	8,310	SF	\$ 15.00	\$ 124,650.00
			RC Box Culverts				
			Culvert L4400 Sta 407+69 Extend 7'x7' RCBC, Fill Height - 21', Skew - 120°	44	LF	\$ 1,120.00	\$ 49,280.00
			Culvert L4400 Sta 438+81 Extend 3-8'x8' RCBC, Fill Height - 10', Skew - 95°	84	LF	\$ 2,880.00	\$ 241,920.00
			Culvert L4400 Sta 500+94 Extend 2-8'x8' RCBC, Fill Height - 8', Skew - 90°	61	LF	\$ 2,240.00	\$ 136,640.00
			Retaining Walls				
			L4400 Sta 318+00 to 327+00 - 13.5' Average Height	12,150	SF	\$ 95.00	\$ 1,154,250.00
			L4400 Sta 353+00 to 362+50 - 6' Average Height	5,700	SF	\$ 75.00	\$ 427,500.00
			L4400 Sta 369+00 to 385+50 - 7.5' Average Height	12,380	SF	\$ 80.00	\$ 990,400.00
			L4400 Sta 528+00 to 538+00 - 13.5' Average Height	13,500	SF	\$ 95.00	\$ 1,282,500.00
			L4400 Sta 547+00 to 551+00 - 5.5' Average Height	2,200	SF	\$ 75.00	\$ 165,000.00
			Y6RPB Sta 12+00 to 16+00 - 7' Average Height	2,800	SF	\$ 80.00	\$ 224,000.00
			Utility Construction				
			NA				
			NA				
			Misc. & Mob (15% Strs&Util)				\$ 2,065,867.50
			Misc. & Mob (45% Functional)				\$ 24,977,000.00

Lgth 5.8 Miles

Contract Cost \$ 96,319,000.00
E. & C. 15% \$ 14,481,000.00
Construction Cost \$ 110,800,000.00

* Excludes US 25

TIP No. **I-4400C**
 Route I-26 from US 25 Business (Exit 44) to NC 280 (Exit 40)
 From HNTB
 Typical Section Alt 3: 8 LANE Section: 8 ln with conc. median barrier wall
 full depth reconstruction

Func

County: **Henderson/Buncombe**

CONSTR. COST
\$83,800,000

Prepared By: EWS 4/20/16
 Requested By: KEM 4/20/16
 Priced By: Doug Lane 4/23/16

Line Item	Des	Sec No.	Description	Quantity	Unit	Price	Amount
			Building Demo	30,793	SF	\$ 10.00	\$ 307,930.00
			Clearing and Grubbing	104	Acre	\$ 12,000.00	\$ 1,248,240.00
			Earthwork (Excav)	569,350	CY	\$ 5.00	\$ 2,846,750.50
			Earthwork (Fill)	210,296	CY	\$ 6.00	\$ 1,261,776.00
			Drainage (Interstate)	3.30	Miles	\$ 550,000.00	\$ 1,815,000.00
			Drainage (y line)	0.5	Miles	\$ 200,000.00	\$ 100,000.00
			Drainage (US 25)	1.00	LS	\$ 300,000.00	\$ 300,000.00
			Fine Grading	358,850	SY	\$ 2.00	\$ 717,700.00
			New Pavement (Main Line)	189,320	SY	\$ 64.00	\$ 12,116,480.00
			New Shoulder Pavement (Main Line/Ramps)	92,730	SY	\$ 40.00	\$ 3,709,200.00
			New Pavement (Ramps)	44,400	SY	\$ 45.00	\$ 1,998,000.00
			New Pavement (-y- lines)	8,870	SY	\$ 40.00	\$ 354,800.00
			Asphalt Pavement Resurfacing	18,320	SY	\$ 12.00	\$ 219,840.00
			Subgrade Stabilization	431,050	SY	\$ 6.00	\$ 2,586,297.60
			Pavement Removal	172,280	SY	\$ 7.00	\$ 1,205,960.00
			Steel Beam Guardrail	14,690	LF	\$ 15.00	\$ 220,350.00
			GRAU 350 End Unit	16	Each	\$ 1,800.00	\$ 28,800.00
			CAT-1 End Unit	17	Each	\$ 600.00	\$ 10,200.00
			TYPE III End Unit	16	Each	\$ 1,400.00	\$ 22,400.00
			Concrete Median Barrier Wall	16,870	LF	\$ 95.00	\$ 1,602,650.00
			Single Faced Concrete Barrier Wall	290	LF	\$ 110.00	\$ 31,900.00
			2'-6" Concrete Curb and Gutter	6,510	LF	\$ 22.00	\$ 143,220.00
			Shoulder Rumble Strip	66,240	LF	\$ 0.25	\$ 16,560.00
			Removal of Existing Concrete Island	3,070	SY	\$ 8.00	\$ 24,560.00
			Concrete Expressway Gutter	250	LF	\$ 40.00	\$ 10,000.00
			Conc Mono Island	1,500	SY	\$ 42.00	\$ 63,000.00
			Fencing				
			Woven Wire	8,050	LF	\$ 4.30	\$ 34,615.00
			Erosion Control	121	Acres	\$ 15,000.00	\$ 1,814,037.00
			Signing Interchanges*				
			Rest Area	1	Each	\$ 120,000.00	\$ 120,000.00
			Loop	1	Each	\$ 200,000.00	\$ 200,000.00
			Traffic Control	3.8	Miles	\$ 600,000.00	\$ 2,280,000.00
			Thermo and Markers	3.8	Miles	\$ 40,000.00	\$ 152,000.00
			Structures				
			Butler Rd over I-26 - 245'x46'	11,270	SF	\$ 115.00	\$ 1,296,050.00
			I-26 over Cane Creek - 300'x150'	45,000	SF	\$ 110.00	\$ 4,950,000.00
			Fanning Bridge Rd over I-26 - 263'x33'	8,680	SF	\$ 115.00	\$ 998,200.00
			I-26 over NSRR - 300' x 174'	52,200	SF	\$ 115.00	\$ 6,003,000.00
			Existing Structure Removal				
			Butler Rd over I-26 - 206'x33.5'	6,900	SF	\$ 15.00	\$ 103,500.00
			I-26 NB over Cane Creek - 198'x33.5'	6,630	SF	\$ 15.00	\$ 99,450.00
			I-26 SB over Cane Creek - 198'x33.5'	6,630	SF	\$ 15.00	\$ 99,450.00
			Fanning Bridge Rd over I-26 - 221'x28.5'	6,300	SF	\$ 15.00	\$ 94,500.00
			I-26 NB over NSRR - 203' x 33.5'	6,800	SF	\$ 20.00	\$ 136,000.00
			I-26 SB over NSRR - 203' x 39.5'	8,020	SF	\$ 20.00	\$ 160,400.00
			RC Box Culverts				
			Culvert I4400 Sta 682+68 Extend 3-7'x7' RCBC, Fill Height - 17', Skew - 45°	84	LF	\$ 2,520.00	\$ 211,680.00
			Culvert Y12 Sta 11+44 Extend 6'x5' RCBC, 66" RCP, Fill Height - 2', Skew - 10°	8	LF	\$ 880.00	\$ 7,040.00
			Retaining Walls				
			Y11 Sta 12+30 to 16+45 - 18.5' Average Height	7,680	SF	\$ 105.00	\$ 806,400.00
			Y11 Sta 20+00 to 21+50 - 7' Average Height	1,050	SF	\$ 80.00	\$ 84,000.00
			Y12 Sta 17+70 to 21+05 - 25' Average Height	8,380	SF	\$ 110.00	\$ 921,800.00
			Retaining Wall Ramp A (8' Average Height)	120	LF	\$ 85.00	\$ 10,200.00
			Utility Construction				
			Misc. & Mob (15% Strs&Util)				\$ 2,397,063.90
			Misc. & Mob (45% Functional)				\$ 16,903,000.00

Lgth 3.3 Miles

Contract Cost	\$ 72,844,000.00
E. & C. 15%	\$ 10,956,000.00
Construction Cost	\$ 83,800,000.00

*Includes US 25 Interchange

TIP No. **I-4400A**
Route I-26 from US 25 to US 64 (Exit 49)
From HNTB
Typical Section Hybrid Section: 6-Ln with Conc. Median Barrier Wall
full depth reconstruction
Prepared By: EWS
Requested By: KEM
Priced By: Doug Lane

Func

County: **HENDERSON**

CONSTR. COST
\$72,400,000

4/20/16
4/20/16
4/25/16

Line Item	Des	Sec No.	Description	Quantity	Unit	Price	Amount
			Clearing and Grubbing	75.0	Acre	\$ 12,000.00	\$ 900,000.00
			Earthwork (Excav)	427,190	CY	\$ 5.00	\$ 2,135,950.00
			Earthwork (Fill)	53,770	CY	\$ 6.00	\$ 322,620.00
			Drainage (Interstate)	4.80	Miles	\$ 450,000.00	\$ 2,160,000.00
			Drainage (Y line)	1.00	Miles	\$ 200,000.00	\$ 200,000.00
			Fine Grading	389,030	SY	\$ 2.00	\$ 778,060.00
			New Pavement (Main Line)	207,530	SY	\$ 64.00	\$ 13,281,920.00
			New Shoulder Pavement (Main Line)	132,090	SY	\$ 40.00	\$ 5,283,600.00
			New Pavement (Ramps)	24,513	SY	\$ 60.00	\$ 1,470,780.00
			New Pavement (Y lines)	11,970	SY	\$ 40.00	\$ 478,800.00
			Subgrade Stabilization	450,000	SY	\$ 6.00	\$ 2,700,000.00
			Asphalt Pavement Resurfacing	6,700	SY	\$ 12.00	\$ 80,400.00
			Pavement Removal	221,400	SY	\$ 7.00	\$ 1,549,800.00
			Steel Beam Guardrail	8,190	LF	\$ 15.00	\$ 122,850.00
			GRAU 350 End Unit	11	Each	\$ 1,800.00	\$ 19,800.00
			CAT-1 End Unit	10	Each	\$ 600.00	\$ 6,000.00
			TYPE III End Unit	10	Each	\$ 1,400.00	\$ 14,000.00
			Concrete Median Barrier Wall	25,400	LF	\$ 95.00	\$ 2,413,000.00
			Single Faced Concrete Barrier Wall	50	LF	\$ 110.00	\$ 5,500.00
			Shoulder Rumble Strip	97,020	LF	\$ 0.25	\$ 24,255.00
			2'-6" Concrete Curb and Gutter	2,000	LF	\$ 20.00	\$ 40,000.00
			Fencing				
			Woven Wire	3,490	LF	\$ 4.30	\$ 15,007.00
			Erosion Control	120	Acres	\$ 15,000.00	\$ 1,800,000.00
			Signing Interchanges*				
			Diamond	2.0	Each	\$ 400,000.00	\$ 800,000.00
			Clover	1.0	Each	\$ 500,000.00	\$ 500,000.00
			Traffic Control	5.1	Miles	\$ 400,000.00	\$ 2,040,000.00
			Thermo and Markers	5.1	Miles	\$ 30,000.00	\$ 153,000.00
			Structures				
			Crest Rd over I-26 - 260'x33'	8,580	SF	\$ 115.00	\$ 986,700.00
			US 64 Over I-26 - 205'x125'	25,625.00	SF	\$ 115.00	\$ 2,946,875.00
			Existing Structure Removal				
			Crest Rd over I-26 - 224'x28.5'	6,384	SF	\$ 15.00	\$ 95,760.00
			US 64 Over I-26 - 260'x106'	27,150.00	SF	\$ 20.00	\$ 543,000.00
			RC Box Culverts				
			Culvert L4400 Sta 79+09 Extend 6'x6' RCBC, Fill Height - 3', Skew - 135°	65	LF	\$ 960.00	\$ 62,400.00
			Culvert L4400 Sta 208+70 Extend 3-9'x10' RCBC, Fill Height - 6', Skew - 135°	62	LF	\$ 3,420.00	\$ 212,040.00
			Retaining Walls				
			L4400 Sta 239+00 to 242+50 - 10' Average Height	3,500	SF	\$ 90.00	\$ 315,000.00
			Utility Construction				
			NA				
			NA				
			Misc. & Mob (15% Strs&Util)				\$ 774,883.00
			Misc. & Mob (45% Functional)				\$ 17,683,000.00

Lgth 5.1

Contract Cost	\$ 62,915,000.00
E. & C. 15%	\$ 9,485,000.00
Construction Cost	\$ 72,400,000.00

* Includes US 64 Interchange

TIP No. **I-4400B**
Route I-26 from US 64 (Exit 49) to US 25 Business (Exist 44)
From HNTB
Typical Section Hybrid Section: 6-Ln with Conc. Median Barrier Wall
full depth reconstruction
Prepared By: EWS
Requested By: KEM
Priced By: Doug Lane

Func

County: **Henderson**

CONSTR. COST
\$78,100,000

4/20/16
4/20/16
4/25/16

Line Item	Des	Sec No.	Description	Quantity	Unit	Price	Amount
			Clearing and Grubbing	87	Acre	\$ 12,000.00	\$ 1,044,000.00
			Earthwork (Excav)	492,970	CY	\$ 5.00	\$ 2,464,850.00
			Earthwork (Fill)	49,950	CY	\$ 6.00	\$ 299,700.00
			Drainage (Interstate)	5.80	Miles	\$ 450,000.00	\$ 2,610,000.00
			Fine Grading	423,400	SY	\$ 2.00	\$ 846,800.00
			New Pavement (Main Line)	248,200	SY	\$ 64.00	\$ 15,884,800.00
			New Shoulder Pavement (Main Line)	157,980	SY	\$ 40.00	\$ 6,319,200.00
			New Pavement (Ramps)	220	SY	\$ 45.00	\$ 9,900.00
			Subgrade Stabilization	488,540	SY	\$ 6.00	\$ 2,931,240.00
			Pavement Removal	258,800	SY	\$ 7.00	\$ 1,811,600.00
			Steel Beam Guardrail	9,430	LF	\$ 15.00	\$ 141,450.00
			GRAU 350 End Unit	12	Each	\$ 1,800.00	\$ 21,600.00
			CAT-1 End Unit	9	Each	\$ 600.00	\$ 5,400.00
			TYPE III End Unit	6	Each	\$ 1,400.00	\$ 8,400.00
			Concrete Median Barrier Wall	28,860	LF	\$ 95.00	\$ 2,741,700.00
			Single Faced Concrete Barrier Wall	50	LF	\$ 110.00	\$ 5,500.00
			Shoulder Rumble Strip	116,030	LF	\$ 0.25	\$ 29,007.50
			Fencing				
			Woven Wire	4,170	LF	\$ 4.30	\$ 17,931.00
			Erosion Control	139	Acres	\$ 15,000.00	\$ 2,085,000.00
			Signing Interchanges*				
			Weigh Station	1	Each	\$ 400,000.00	\$ 400,000.00
			Clover	1	Each	\$ 500,000.00	\$ 500,000.00
			Traffic Control	5.8	Miles	\$ 400,000.00	\$ 2,320,000.00
			Thermo and Markers	5.8	Miles	\$ 30,000.00	\$ 174,000.00
			Structures				
			I-26 over Clear Creek - 300'x126'	37,800	SF	\$ 110.00	\$ 4,158,000.00
			Existing Structure Removal				
			I-26 NB over Clear Creek - 220'x33.5'	7,370	SF	\$ 15.00	\$ 110,550.00
			I-26 SB over Clear Creek - 220'x33.5'	7,370	SF	\$ 15.00	\$ 110,550.00
			RC Box Culverts				
			Culvert L4400 Sta 407+69 Extend 7'x7' RCBC, Fill Height - 21', Skew - 120	18	LF	\$ 1,120.00	\$ 20,160.00
			Culvert L4400 Sta 500+94 Extend 2-8'x8' RCBC, Fill Height - 8', Skew - 90	37	LF	\$ 2,240.00	\$ 82,880.00
			Retaining Walls				
			L4400 Sta 378+00 to 385+50 - 5.5' Average Height	3,850	SF	\$ 75.00	\$ 288,750.00
			L4400 Sta 530+00 to 537+00 - 8' Average Height	5,600	SF	\$ 85.00	\$ 476,000.00
			Utility Construction				
			NA				
			NA				
			Misc. & Mob (15% Strs&Util)				\$ 787,031.50
			Misc. & Mob (45% Functional)				\$ 19,202,000.00

Lgth 5.8 Miles

Contract Cost \$ 67,908,000.00
E. & C. 15% \$ 10,192,000.00
Construction Cost \$ 78,100,000.00

TIP No. **I-4400C**
Route I-26 from US 25 Business (Exit 44) to NC 280 (Exit 40)
From HNTB
Typical Section Hybrid Section: 8-Ln with Conc. Median Barrier Wall
full depth reconstruction
Prepared By: EWS
Requested By: KEM
Priced By: Doug Lane

Func

County: **Henderson/Buncombe**

CONSTR. COST
\$83,800,000

4/20/16
4/20/16
4/25/16

Line Item	Des	Sec No.	Description	Quantity	Unit	Price	Amount
			Building Demo	30,793	SF	\$ 10.00	\$ 307,930.00
			Clearing and Grubbing	104	Acre	\$ 12,000.00	\$ 1,248,240.00
			Earthwork (Excav)	569,350	CY	\$ 5.00	\$ 2,846,750.50
			Earthwork (Fill)	210,296	CY	\$ 6.00	\$ 1,261,776.00
			Drainage (Interstate)	3.30	Miles	\$ 550,000.00	\$ 1,815,000.00
			Drainage (Y line)	0.50	Miles	\$ 200,000.00	\$ 100,000.00
			Drainage (US 25)	1.00	LS	\$ 300,000.00	\$ 300,000.00
			Fine Grading	358,850	SY	\$ 2.00	\$ 717,700.00
			New Pavement (Main Line)	189,320	SY	\$ 64.00	\$ 12,116,480.00
			New Shoulder Pavement (Main Line/Ramps)	92,730	SY	\$ 40.00	\$ 3,709,182.40
			New Pavement (Ramps)	44,400	SY	\$ 45.00	\$ 1,998,000.00
			New Pavement (Y lines)	8,870	SY	\$ 40.00	\$ 354,800.00
			Asphalt Pavement Resurfacing	18,320	SY	\$ 12.00	\$ 219,840.00
			Subgrade Stabilization	431,050	SY	\$ 6.00	\$ 2,586,297.60
			Pavement Removal	172,280	SY	\$ 7.00	\$ 1,205,960.00
			Steel Beam Guardrail	14,690	LF	\$ 15.00	\$ 220,350.00
			GRAU 350 End Unit	16	Each	\$ 1,800.00	\$ 28,800.00
			CAT-1 End Unit	17	Each	\$ 600.00	\$ 10,200.00
			TYPE III End Unit	16	Each	\$ 1,400.00	\$ 22,400.00
			Concrete Median Barrier Wall	16,870	LF	\$ 95.00	\$ 1,602,650.00
			Single Faced Concrete Barrier Wall	290	LF	\$ 110.00	\$ 31,900.00
			2'-6" Concrete Curb and Gutter	6,510	LF	\$ 20.00	\$ 130,200.00
			Shoulder Rumble Strip	66,240	LF	\$ 0.25	\$ 16,560.00
			Removal of Existing Concrete Island	3,070	SY	\$ 8.00	\$ 24,560.00
			Concrete Mono Island	1,500	SY	\$ 42.00	\$ 63,000.00
			Concrete Expressway Gutter	250	LF	\$ 40.00	\$ 10,000.00
			Fencing				
			Woven Wire	8,050	LF	\$ 4.30	\$ 34,615.00
			Erosion Control	121	Acres	\$ 15,000.00	\$ 1,814,037.00
			Signing Interchanges*				
			Rest Area	1	Each	\$ 120,000.00	\$ 120,000.00
			Loop	1	Each	\$ 200,000.00	\$ 200,000.00
			Traffic Control	3.8	Miles	\$ 600,000.00	\$ 2,280,000.00
			Thermo and Markers	3.8	Miles	\$ 40,000.00	\$ 152,000.00
			Structures				
			Butler Rd over I-26 - 245'x46'	11,270	SF	\$ 115.00	\$ 1,296,050.00
			I-26 over Cane Creek - 300'x150'	45,000	SF	\$ 110.00	\$ 4,950,000.00
			Fanning Bridge Rd over I-26 - 263'x33'	8,680	SF	\$ 115.00	\$ 998,200.00
			I-26 over NSRR - 300' x 174'	52,200	SF	\$ 115.00	\$ 6,003,000.00
			Existing Structure Removal				
			Butler Rd over I-26 - 206'x33.5'	6,900	SF	\$ 15.00	\$ 103,500.00
			I-26 NB over Cane Creek - 198'x33.5'	6,630	SF	\$ 15.00	\$ 99,450.00
			I-26 SB over Cane Creek - 198'x33.5'	6,630	SF	\$ 15.00	\$ 99,450.00
			Fanning Bridge Rd over I-26 - 221'x28.5'	6,300	SF	\$ 15.00	\$ 94,500.00
			I-26 NB over NSRR - 203' x 33.5'	6,800	SF	\$ 20.00	\$ 136,000.00
			I-26 SB over NSRR - 203' x 39.5'	8,020	SF	\$ 20.00	\$ 160,400.00
			RC Box Culverts				
			Culvert L4400 Sta 682+68 Extend 3-7'x7' RCBC, Fill Height - 17', Skew - 45°	84	LF	\$ 2,520.00	\$ 211,680.00
			Culvert Y12 Sta 11+44 Extend 6'x5' RCBC, 66" RCP, Fill Height - 2', Skew - 109	8	LF	\$ 880.00	\$ 7,040.00
			Retaining Walls				
			Y11 Sta 12+30 to 16+45 - 18.5' Average Height	7,680	SF	\$ 105.00	\$ 806,400.00
			Y11 Sta 20+00 to 21+50 - 7' Average Height	1,050	SF	\$ 80.00	\$ 84,000.00
			Y12 Sta 17+70 to 21+05 - 25' Average Height	8,380	SF	\$ 110.00	\$ 921,800.00
			Retaining Wall Ramp A (8' Average Height)	120	LF	\$ 80.00	\$ 9,600.00
			Utility Construction				
			Misc. & Mob (15% Strs&Util)				\$ 2,397,701.50
			Misc. & Mob (45% Functional)				\$ 16,897,000.00

Lgth 3.3 Miles

Contract Cost	\$ 72,825,000.00
E. & C. 15%	\$ 10,975,000.00
Construction Cost	\$ 83,800,000.00

*Includes US 25 Interchange

NC-DOT
Contract Standards and Development Unit
Preliminary Estimate Section

April 25, 2016

FUNC

Memo To: Steve Kendall, PE
Project Design Engineer

From: Doug Lane
Preliminary Estimate Engineer

Subject: Construction Alternatives for I-4400 / 4700, in Henderson and Buncombe Counties.

I-4700

TIP NUMBER	LENGTH (Miles)	CONSTR.COST (6-Lanes)	CONSTR.COST (8-Lanes)	CONSTR.COST (Hybrid 8 Lns)
I-4700A	3.10	\$52,400,000	\$73,700,000	\$73,700,000
I-4700B	3.90	\$97,400,000	\$123,200,000	\$123,200,000
I-4700	7.00	\$149,800,000	\$196,900,000	\$196,900,000

cc: Kevin Moore, PE

Note: Right-of-Way, and R/W Utilities are not included.

NC-DOT
Contract Standards and Development
Estimating Management

April 20, 2016

Memo To: Preliminary Estimate Engineer
From: Eric Seckinger, PE (HNTB)
Project Planning Engineer or Project Design Engineer
Subject: TIP Project I-4700A 6 lane Alternate Construction Cost Estimate Request

Please provide an Updated Construction Cost Estimate for TIP Project I-4700A.
Type of Estimate and Update Description is indicated below.

ESTIMATE TYPE

- Update Feasibility Study Estimate (Project to be added to TIP)
- Scoping Meeting
- CP 1 -----
 Functional Design of All Alternatives
- CP 2 -----
 Functional Design of Alternatives to be Studied in Further Detail
- Preliminary Design
- CP 2A -----
 Preliminary Design with Approved Structure Types and Locations
- CP 3 -----
 Preliminary Design on Selected Alternate
- CP 4A -----
 Preliminary Design after Impacts are Minimized
- CP 4B -----
 Right-of-Way Plans
- CP 4C -----
 13 Month Letting
- Final Quantities
- Other (Comparison for a Scope Change, or other Revision to Plans)

UPDATE DESCRIPTION

- Update Unit Prices Only.
- Updated Quantities and Unit Prices.
- Scope Change and / or other Revisions to the project.

2

Briefly describe any changes to the design that will create either a major construction cost increase or decrease.

The quantities are being split up into the segments outlined in the TIP.
Add retaining wall to 6 lane alternative

Has there been a project scope change since the last verified estimate? Briefly describe both increases and decreases to the project scope.

Describe any major changes to the quantities since the last verified estimate and the reasons for the changes.

Add retaining wall to 6 lane alternative

VERIFICATION LETTER

- Send Verification Letter.
- Verification Letter is not required at this time.

cc: Roadway Project Engineer
PDEA Project Engineer

North Carolina Department of Transportation
Preliminary Estimate

TIP No. **I-4700A**
 Route I-26 from NC 280 (Exit 40) to NC 146 - Long Shoals Road (Exit 37)
 From HNTB
 Typical Section Alt 2: 6 LANE Section: 6 ln with conc. median barrier wall
 full depth reconstruction
 Prepared By: EWS
 Requested By: KEM
 Priced By: Doug Lane

Func

County: **BUNCOMBE**

CONSTR. COST
\$52,400,000

4/20/16
4/20/16
4/24/16

Line Item	Des	Sec No.	Description	Quantity	Unit	Price	Amount
			Clearing and Grubbing	75	Acre	\$ 12,000.00	\$ 895,560.00
			Earthwork (Excav)	635,380	CY	\$ 5.00	\$ 3,176,900.00
			Earthwork (Fill)	89,770	CY	\$ 6.00	\$ 538,620.00
			Drainage (Interstate)	3.10	Miles	\$450,000.00	\$ 1,395,000.00
			Drainage (Y line)	1	Miles	\$200,000.00	\$ 200,000.00
			Fine Grading	240,770	SY	\$ 2.00	\$ 481,540.00
			Pavement Widening	1,490	SY	\$ 80.00	\$ 119,200.00
			New Pavement (Main Line)	137,990	SY	\$ 64.00	\$ 8,831,360.00
			New Shoulder Pavement (Main Line/Ramps)	88,620	SY	\$ 40.00	\$ 3,544,800.00
			New Pavement (Ramps)	1,570	SY	\$ 45.00	\$ 70,650.00
			Pavement Resurfacing	18,800	SY	\$ 12.00	\$ 225,600.00
			Subgrade Stabilization	384,410	SY	\$ 6.00	\$ 2,306,460.00
			Pavement Removal	149,420	SY	\$ 7.00	\$ 1,045,940.00
			Concrete Median Barrier Wall	10,760	LF	\$ 95.00	\$ 1,022,200.00
			2'-6" Concrete Curb and Gutter	1,200	LF	\$ 22.00	\$ 26,400.00
			4" Concrete Sidewalk	290	SY	\$ 36.00	\$ 10,440.00
			7" Monolithic Islands	130	SY	\$ 65.00	\$ 8,450.00
			Steel Beam Guardrail	11,460	LF	\$ 15.00	\$ 171,900.00
			GRAU 350 End Unit	17	Each	\$ 1,800.00	\$ 30,817.80
			CAT-1 End Unit	17	Each	\$ 600.00	\$ 10,009.20
			TYPE III End Unit	9	Each	\$ 1,400.00	\$ 12,292.00
			Shoulder Rumble Strip	64,670	LF	\$ 0.25	\$ 16,167.50
			Fencing				
			Woven Wire	6,050	LF	\$ 4.30	\$ 26,015.00
			Erosion Control	102	Acres	\$ 15,000.00	\$ 1,523,110.50
			Signing Interchanges				
			SPUI	1.0	Each	\$500,000.00	\$ 500,000.00
			Upgrade Traffic Signal	1	Each	\$ 80,000.00	\$ 80,000.00
			Traffic Control	4.1	Miles	\$400,000.00	\$ 1,640,000.00
			Thermo and Markers	4.1	Miles	\$ 30,000.00	\$ 123,000.00
			Structures				
			I-26 NB OVER SR3495 (GLEN BRIDGE) - 200'x64'	12,800	SF	\$ 110.00	\$ 1,408,000.00
			I-26 SB OVER SR3495 (GLEN BRIDGE) - 200'x64'	12,800	SF	\$ 110.00	\$ 1,408,000.00
			Existing Structure Removal				
			I-26 NB OVER SR3495 (GLEN BRIDGE) - 133'x43.5'	5,790	SF	\$ 15.00	\$ 86,850.00
			I-26 SB OVER SR3495 (GLEN BRIDGE) - 133'x43.5'	5,790	SF	\$ 15.00	\$ 86,850.00
			RC Box Culverts				
			Culvert L4400 Sta 800+81 Extend - 6'x6' RCBC, Fill Height - 6', Skew - 120°	49	LF	\$ 1,104.00	\$ 54,096.00
			Vehicle Underpass 100094 Sta 895+00 Extend 14'x14', Fill Height - 9', Skew - 90°	30	LF	\$ 2,400.00	\$ 72,000.00
			Culvert L47001 Sta 897+06 Extend 10'x10' RCBC, Fill Height - 30', Skew - 110°	28	LF	\$ 1,836.00	\$ 51,408.00
			Retaining Walls				
			L4400 Sta 829+00 to 837+00 - 9' Average Height	7,200	SF	\$ 85.00	\$ 612,000.00
			L4400 Sta 778+00 to 783+00 - 11' Average Height	5,500	SF	\$ 90.00	\$ 495,000.00
			Utility Construction				
			NA				
			NA				
			Misc. & Mob (15% Strs&Util)				\$ 641,364.00
			Misc. & Mob (45% Functional)				\$ 12,615,000.00

Lgth 3.1

Contract Cost				\$ 45,563,000.00
E. & C. 15%				\$ 6,837,000.00
Construction Cost				\$ 52,400,000.00

North Carolina Department of Transportation
Preliminary Estimate

TIP No. **I-4700B**
Route I-26 from Long Shoals Road (Exit 37) to I-40
From HNTB
Typical Section Alt 2: 6 LANE Section: 6 In with conc. median barrier wall full depth reconstruction
Prepared By: EWS
Requested By: KEM
Priced By: Doug Lane

Func

County: **BUNCOMBE**

CONSTR. COST
\$97,400,000

Line Item	Des	Sec No.	Description	Quantity	Unit	Price	Amount
			Clearing and Grubbing	95	Acre	\$ 12,000.00	\$ 1,144,440.00
			Earthwork (Excav)	811,950	CY	\$ 5.00	\$ 4,059,750.00
			Earthwork (Fill)	114,710	CY	\$ 6.00	\$ 688,260.00
			Drainage (Interstate)	3.90	Miles	\$ 450,000.00	\$ 1,755,000.00
			Fine Grading	307,670	SY	\$ 2.00	\$ 615,340.00
			New Pavement (Main Line)	176,330	SY	\$ 64.00	\$ 11,285,120.00
			New Shoulder Pavement (Main Line/Ramps)	113,240	SY	\$ 40.00	\$ 4,529,600.00
			Subgrade Stabilization	491,250	SY	\$ 6.00	\$ 2,947,500.00
			Pavement Removal	190,950	SY	\$ 7.00	\$ 1,336,650.00
			Concrete Median Barrier Wall	13,760	LF	\$ 95.00	\$ 1,307,200.00
			Steel Beam Guardrail	14,650	LF	\$ 15.00	\$ 219,750.00
			GRAU 350 End Unit	22	Each	\$ 1,700.00	\$ 37,194.30
			CAT-1 End Unit	21	Each	\$ 550.00	\$ 11,724.90
			TYPE III End Unit	11	Each	\$ 1,300.00	\$ 14,586.00
			Shoulder Rumble Strip	82,640	LF	\$ 0.25	\$ 20,660.00
			Fencing				
			Woven Wire	7,730	LF	\$ 4.30	\$ 33,239.00
			Erosion Control	130	Acres	\$ 15,000.00	\$ 1,950,000.00
			Signing Interchanges				
			Diamond	1.0	Each	\$ 350,000.00	\$ 350,000.00
			Traffic Control	3.9	Miles	\$ 400,000.00	\$ 1,560,000.00
			Thermo and Markers	3.9	Miles	\$ 30,000.00	\$ 117,000.00
			Structures				
			I-26 OVER PRIVATE DRIVE- 200'x126'	25,200	SF	\$ 110.00	\$ 2,772,000.00
			I-26 OVER FRENCH BROAD RIVER- 575'x126'	72,450	SF	\$ 105.00	\$ 7,607,250.00
			Existing Structure Removal				
			I-26 NB OVER PRIVIATE DRIVE- 102'x40'	4,080	SF	\$ 15.00	\$ 61,200.00
			I-26 SB OVER PRIVIATE DRIVE- 101'x40'	4,040	SF	\$ 15.00	\$ 60,600.00
			I-26 NB OVER FRENCH BROAD RIVER- 441'x33.5'	14,770	SF	\$ 15.00	\$ 221,550.00
			I-26 SB OVER FRENCH BROAD RIVER- 453'x33.5'	15,180	SF	\$ 15.00	\$ 227,700.00
			RC Box Culverts				
			Vehicle Underpass 100223 Sta 110900 Extend 2-14'x14', Fill Height - 16', Skew - 90°	15	LF	\$ 2,160.00	\$ 32,400.00
			Retaining Walls				
			Utility Construction				
			NA				
			NA				
			Blue Ridge Parkway I-26 Bridge (concrete box - Option 4) Provided by FHWA				
			Mobilization (8%)	All	Lpsm	\$ 1,466,000.00	\$ 1,466,000.00
			Construction Surveying and Staking (1.5%)	All	Lpsm	\$ 267,000.00	\$ 267,000.00
			Contractor Testing (1.5%)	All	Lpsm	\$ 267,000.00	\$ 267,000.00
			Design Contingency (20%)	All	Lpsm	\$ 2,965,000.00	\$ 2,965,000.00
			Soil Erosion Control (5%)	All	Lpsm	\$ 108,000.00	\$ 108,000.00
			Clearing and Grubbing	4.0	Acre	\$ 12,000.00	\$ 48,000.00
			Removal of Pavement, Asphalt	5,400.0	Sqyd	\$ 7.00	\$ 37,800.00
			Roadway Excavation	38,000.0	Cuyd	\$ 19.00	\$ 722,000.00
			Mechanically Stabilized Earth Wall, Welded Wire Face	16,400.0	Sqft	\$ 17.50	\$ 287,000.00
			Aggregate Base Grading C Or D	350.0	Ton	\$ 33.00	\$ 11,550.00
			Aggregate-Topsoil Course	30.0	Ton	\$ 41.00	\$ 1,230.00
			Asphalt Concrete Pavement, Gyratory Mix, 3/8-inch	45.0	Ton	\$ 190.00	\$ 8,550.00
			Asphalt Concrete Pavement, Gyratory Mix, 3/4-inch	90.0	Ton	\$ 160.00	\$ 14,400.00
			Overlook (12 spaces)	All	Lpsm	\$ 250,000.00	\$ 250,000.00
			Class B Masonry, Rock Face Finish	420.0	Cuyd	\$ 850.00	\$ 357,000.00
			Stone Masonry Guardwall	750.0	Lnft	\$ 420.00	\$ 315,000.00
			Furnishing and Placing Topsoil	700.0	Cuyd	\$ 47.00	\$ 32,900.00
			Turf Establishment	1.2	Acre	\$ 3,800.00	\$ 4,560.00
			Temporary Traffic Control	All	Lpsm	\$ 40,000.00	\$ 40,000.00
			Field Office	1.0	Each	\$ 22,000.00	\$ 22,000.00
			Concrete Box Girder Bridge	All	Lpsm	\$ 12,560,000.00	\$ 12,560,000.00
			Misc. & Mob (15% Strs&Util)				\$ 4,615,295.80
			Misc. & Mob (45% Functional)				\$ 15,292,000.00

Lgth 3.9 Miles

Contract Cost \$ 84,658,000.00
E. & C. 15% \$ 12,742,000.00
Construction Cost \$ 97,400,000.00

* Blue Ridge Parkway Quantities Provided by FHWA (Option 4)

TIP No. **I-4700A**
Route I-26 from NC 280 (Exit 40) to NC 146 - Long Shoals Road (Exit 37)
From HNTB
Typical Section Alt 3: 8 LANE Section: 8 In with conc. median barrier wall
full depth reconstruction
Prepared By: EWS
Requested By: KEM
Priced By: Doug Lane

Func

County: **BUNCOMBE**

CONSTR. COST
\$73,700,000

4/20/16
4/20/16
4/24/16

Line Item	Des	Sec No.	Description	Quantity	Unit	Price	Amount
			Clearing and Grubbing	92	Acre	\$ 12,000.00	\$ 1,106,280.00
			Earthwork (Excav)	853,640	CY	\$ 5.00	\$ 4,268,200.00
			Earthwork (Fill)	210,500	CY	\$ 6.00	\$ 1,263,000.00
			Drainage (Interstate)	3.10	Miles	\$ 550,000.00	\$ 1,705,000.00
			Drainage (Y line)	1.0	Miles	\$ 200,000.00	\$ 200,000.00
			Fine Grading	288,710	SY	\$ 2.00	\$ 577,420.00
			Pavement Widening	1,490	SY	\$ 80.00	\$ 119,200.00
			New Pavement (Main Line)	268,180	SY	\$ 64.00	\$ 17,163,520.00
			New Shoulder Pavement (Main Line/Ramps)	88,620	SY	\$ 40.00	\$ 3,544,800.00
			New Pavement (Ramps)	1,570	SY	\$ 45.00	\$ 70,650.00
			Pavement Resurfacing	18,800	SY	\$ 12.00	\$ 225,600.00
			Subgrade Stabilization	432,360	SY	\$ 6.00	\$ 2,594,160.00
			Pavement Removal	150,340	SY	\$ 7.00	\$ 1,052,380.00
			Concrete Median Barrier Wall	10,760	LF	\$ 95.00	\$ 1,022,200.00
			2'-6" Concrete Curb and Gutter	1,200	LF	\$ 22.00	\$ 26,400.00
			4" Concrete Sidewalk	290	SY	\$ 36.00	\$ 10,440.00
			7" Monolithic Islands	130	SY	\$ 65.00	\$ 8,450.00
			Steel Beam Guardrail	13,280	LF	\$ 15.00	\$ 199,200.00
			GRAU 350 End Unit	19	Each	\$ 1,800.00	\$ 33,978.60
			CAT-1 End Unit	18	Each	\$ 600.00	\$ 11,062.80
			TYPE III End Unit	9	Each	\$ 1,400.00	\$ 12,292.00
			Shoulder Rumble Strip	65,310	LF	\$ 0.25	\$ 16,327.51
			Fencing				
			Woven Wire	10,340	LF	\$ 4.30	\$ 44,462.00
			Erosion Control	119	Acres	\$ 15,000.00	\$ 1,785,193.50
			Signing Interchanges*				
			SPUI	1	Each	\$ 500,000.00	\$ 500,000.00
			Upgrade Traffic Signal	1	Each	\$ 80,000.00	\$ 80,000.00
			Traffic Control	4.1	Miles	\$ 500,000.00	\$ 2,050,000.00
			Thermo and Markers	4.1	Miles	\$ 40,000.00	\$ 164,000.00
			Structures				
			I-26 NB OVER SR3495 (GLEN BRIDGE) - 200'x76'	15,200	SF	\$ 110.00	\$ 1,672,000.00
			I-26 SB OVER SR3495 (GLEN BRIDGE) - 200'x76'	15,200	SF	\$ 110.00	\$ 1,672,000.00
			Existing Structure Removal				
			I-26 NB OVER SR3495 (GLEN BRIDGE) - 133'x43.5'	5,790	SF	\$ 15.00	\$ 86,850.00
			I-26 SB OVER SR3495 (GLEN BRIDGE) - 133'x43.5'	5,790	SF	\$ 15.00	\$ 86,850.00
			RC Box Culverts				
			Culvert L4400 Sta 800+81 Extend 6'x6' RCBC, Fill Height - 6', Skew - 120°	75	LF	\$ 1,104.00	\$ 82,800.00
			Vehicle Underpass 100094 Sta 895+00 Extend 14'x14', Fill Height - 9', Skew - 9	65	LF	\$ 2,400.00	\$ 156,000.00
			Culvert L47001 Sta 897+06 Extend 10'x10' RCBC, Fill Height - 30', Skew - 110	104	LF	\$ 1,836.00	\$ 190,944.00
			Retaining Walls				
			L4400 Sta 778+00 to 783+00 - 11' Average Height	5,500	SF	\$ 90.00	\$ 495,000.00
			LBSB47001 Sta 800+00 to 804+00 - 7' Average Height	2,800	SF	\$ 80.00	\$ 224,000.00
			LBNB47001 Sta 830+00 to 837+00 - 12' Average Height	8,400	SF	\$ 90.00	\$ 756,000.00
			Utility Construction				
			NA				
			NA				
			Misc. & Mob (15% Strs&Util)				\$ 813,339.59
			Misc. & Mob (45% Functional)				\$ 17,934,000.00

Lgth 3.1 Miles

Contract Cost \$ 64,024,000.00
E. & C. 15% \$ 9,676,000.00
Construction Cost \$ 73,700,000.00

TIP No. **I-4700B**
Route I-26 from Long Shoals Road (Exit 37) to I-40
From HNTB
Typical Section Alt 3: 8 LANE Section: 8 ln with conc. median barrier wall
full depth reconstruction
Prepared By: EWS
Requested By: KEM
Priced By: Doug Lane

Func

County: **BUNCOMBE**

CONSTR. COST
\$123,200,000

4/20/16
4/20/16
4/24/16

Line Item	Des	Sec No.	Description	Quantity	Unit	Price	Amount
			Clearing and Grubbing	118	Acre	\$ 12,000.00	\$ 1,413,720.00
			Earthwork (Excav)	1,090,880	CY	\$ 5.00	\$ 5,454,400.00
			Earthwork (Fill)	269,000	CY	\$ 6.00	\$ 1,613,997.00
			Drainage (Interstate)	3.90	Miles	\$ 550,000.00	\$ 2,145,000.00
			Fine Grading	368,950	SY	\$ 2.00	\$ 737,900.00
			New Pavement (Main Line)	342,710	SY	\$ 64.00	\$ 21,933,440.00
			New Shoulder Pavement (Main Line/Ramps)	13,180	SY	\$ 40.00	\$ 527,200.00
			Subgrade Stabilization	552,520	SY	\$ 6.00	\$ 3,315,120.00
			Pavement Removal	192,110	SY	\$ 7.00	\$ 1,344,770.00
			Concrete Median Barrier Wall	13,760	LF	\$ 95.00	\$ 1,307,200.00
			Steel Beam Guardrail	16,960	LF	\$ 15.00	\$ 254,400.00
			GRAU 350 End Unit	24	Each	\$ 1,800.00	\$ 43,421.40
			CAT-1 End Unit	24	Each	\$ 600.00	\$ 14,137.20
			TYPE III End Unit	11	Each	\$ 1,400.00	\$ 15,708.00
			Shoulder Rumble Strip	83,460	LF	\$ 0.25	\$ 20,864.99
			Conc Expressway Gutter	4,021	LF	\$ 20.00	\$ 80,420.00
			Fencing				
			Woven Wire	13,220	LF	\$ 4.30	\$ 56,846.00
			Erosion Control	152	Acres	\$ 15,000.00	\$ 2,281,306.50
			Signing Interchanges*				
			Diamond	1	Each	\$ 350,000.00	\$ 350,000.00
			Traffic Control	3.9	Miles	\$ 500,000.00	\$ 1,950,000.00
			Thermo and Markers	3.9	Miles	\$ 40,000.00	\$ 156,000.00
			Structures				
			I-26 OVER PRIVATE DRIVE- 200'x150'	30,000	SF	\$ 110.00	\$ 3,300,000.00
			I-26 OVER FRENCH BROAD RIVER- 575'x150'	86,250	SF	\$ 105.00	\$ 9,056,250.00
			Existing Structure Removal				
			I-26 NB OVER PRIVIATE DRIVE- 102'x40'	4,080	SF	\$ 15.00	\$ 61,200.00
			I-26 SB OVER PRIVIATE DRIVE- 101'x40'	4,040	SF	\$ 15.00	\$ 60,600.00
			I-26 NB OVER FRENCH BROAD RIVER- 441'x33.5'	14,770	SF	\$ 15.00	\$ 221,550.00
			I-26 SB OVER FRENCH BROAD RIVER- 453'x33.5'	15,180	SF	\$ 15.00	\$ 227,700.00
			RC Box Culverts				
			Vehicle Underpass 100223 Sta 110900 Extend 2-14'x14', Fill Height - 16', Skew - 90°	40	LF	\$ 2,160.00	\$ 86,400.00
			Culvert L47001 Sta 1151+85 Extend 14'x14 RCBC, Fill Height - 11', Skew - 90°	60	LF	\$ 2,400.00	\$ 144,000.00
			Retaining Walls				
			L47002 Sta 1141+00 to 1145+00 - 14' Average Height	5,600	SF	\$ 95.00	\$ 532,000.00
			L47001 Sta 984+00 to 990+00 - 14' Average Height	8,400	SF	\$ 95.00	\$ 798,000.00
			L47001 Sta 993+00 to 998+00 - 14' Average Height	7,000	SF	\$ 95.00	\$ 665,000.00
			L47001 Sta 999+00 to 1005+00 - 14' Average Height	8,400	SF	\$ 95.00	\$ 798,000.00
			L47001 Sta 985+00 to 990+00 - 14' Average Height	7,000	SF	\$ 95.00	\$ 665,000.00
			Utility Construction				
			NA				
			NA				
			Blue Ridge Parkway I-26 Bridge (concrete box - Option 4) Provided by FHWA				
			Mobilization (8%)	All	Lpsm	\$ 1,466,000.00	\$ 1,466,000.00
			Construction Surveying and Staking (1.5%)	All	Lpsm	\$ 267,000.00	\$ 267,000.00
			Contractor Testing (1.5%)	All	Lpsm	\$ 267,000.00	\$ 267,000.00
			Design Contingency (20%)	All	Lpsm	\$ 2,965,000.00	\$ 2,965,000.00
			Soil Erosion Control (5%)	All	Lpsm	\$ 108,000.00	\$ 108,000.00
			Clearing and Grubbing	4.0		\$ 12,000.00	\$ 48,000.00
			Removal of Pavement, Asphalt	5,400.0		\$ 7.00	\$ 37,800.00
			Roadway Excavation	38,000.0		\$ 19.00	\$ 722,000.00
			Mechanically Stabilized Earth Wall, Welded Wire Face	16,400.0		\$ 17.50	\$ 287,000.00
			Aggregate Base Grading C Or D	350.0		\$ 33.00	\$ 11,550.00

		Aggregate-Topsoil Course	30.0		\$ 41.00	\$ 1,230.00
		Asphalt Concrete Pavement, Gyratory Mix, 3/8-inch	45.0		\$ 190.00	\$ 8,550.00
		Asphalt Concrete Pavement, Gyratory Mix, 3/4-inch	90.0		\$ 160.00	\$ 14,400.00
		Overlook (12 spaces)	All	Lpsm	\$ 250,000.00	\$ 250,000.00
		Class B Masonry, Rock Face Finish	420.0		\$ 850.00	\$ 357,000.00
		Stone Masonry Guardwall	750.0		\$ 420.00	\$ 315,000.00
		Furnishing and Placing Topsoil	700.0		\$ 47.00	\$ 32,900.00
		Turf Establishment	1.2		\$ 3,800.00	\$ 4,560.00
		Temporary Traffic Control	All	Lpsm	\$ 40,000.00	\$ 40,000.00
		Field Office	1.0		\$ 22,000.00	\$ 22,000.00
		Concrete Box Girder Bridge	All	Lpsm	\$ 12,560,000.00	\$ 12,560,000.00
		Misc. & Mob (15% Strs&Util)				\$ 5,460,458.91
		Misc. & Mob (45% Functional)				\$ 20,257,000.00

Lgth 3.9 Miles

Contract Cost	\$ 107,134,000.00
E. & C. 15%	\$ 16,066,000.00
Construction Cost	\$ 123,200,000.00

* Blue Ridge Parkway Quantities Provided by FHWA (Option 4)

TIP No. **I-4700A**
Route I-26 from NC 280 (Exit 40) to NC 146 - Long Shoals Road (Exit 37)
From HNTB
Typical Section Hybrid Section: 8-Ln with Conc. Median Barrier Wall
full depth reconstruction
Prepared By: EWS
Requested By: KEM
Priced By: Doug Lane

Func

County: **BUNCOMBE**

CONSTR. COST
\$73,700,000

4/20/16
4/20/16
4/25/16

Line Item	Des	Sec No.	Description	Quantity	Unit	Price	Amount
			Clearing and Grubbing	92	Acre	\$ 12,000.00	\$ 1,106,280.00
			Earthwork (Excav)	853,640	CY	\$ 5.00	\$ 4,268,200.00
			Earthwork (Fill)	210,500	CY	\$ 6.00	\$ 1,263,000.00
			Drainage (Interstate)	3.10	Miles	\$ 550,000.00	\$ 1,705,000.00
			Drainage (Y line)	1.0	Miles	\$ 200,000.00	\$ 200,000.00
			Fine Grading	288,710	SY	\$ 2.00	\$ 577,420.00
			Pavement Widening	1,490	SY	\$ 80.00	\$ 119,200.00
			New Pavement (Main Line)	268,180	SY	\$ 64.00	\$ 17,163,520.00
			New Shoulder Pavement (Main Line/Ramps)	88,620	SY	\$ 40.00	\$ 3,544,800.00
			New Pavement (Ramps)	1,570	SY	\$ 45.00	\$ 70,650.00
			Pavement Resurfacing	18,800	SY	\$ 12.00	\$ 225,600.00
			Subgrade Stabilization	432,360	SY	\$ 6.00	\$ 2,594,160.00
			Pavement Removal	150,340	SY	\$ 7.00	\$ 1,052,380.00
			Concrete Median Barrier Wall	10,760	LF	\$ 95.00	\$ 1,022,200.00
			2'-6" Concrete Curb and Gutter	1,200	LF	\$ 22.00	\$ 26,400.00
			4" Concrete Sidewalk	290	SY	\$ 36.00	\$ 10,440.00
			7" Monolithic Islands	130	SY	\$ 65.00	\$ 8,450.00
			Steel Beam Guardrail	13,280	LF	\$ 15.00	\$ 199,200.00
			GRAU 350 End Unit	19	Each	\$ 1,800.00	\$ 33,978.60
			CAT-1 End Unit	18	Each	\$ 600.00	\$ 11,062.80
			TYPE III End Unit	9	Each	\$ 1,400.00	\$ 12,292.00
			Shoulder Rumble Strip	65,310	LF	\$ 0.25	\$ 16,327.51
			Fencing				
			Woven Wire	10,340	LF	\$ 4.30	\$ 44,462.00
			Erosion Control	119	Acres	\$ 15,000.00	\$ 1,785,193.50
			Signing Interchanges*				
			SPIU	1	Each	\$ 500,000.00	\$ 500,000.00
			Upgrade Traffic Signal	1	Each	\$ 80,000.00	\$ 80,000.00
			Traffic Control	4.1	Miles	\$ 500,000.00	\$ 2,050,000.00
			Thermo and Markers	4.1	Miles	\$ 40,000.00	\$ 164,000.00
			Structures				
			I-26 NB OVER SR3495 (GLEN BRIDGE) - 200'x76'	15,200	SF	\$ 110.00	\$ 1,672,000.00
			I-26 SB OVER SR3495 (GLEN BRIDGE) - 200'x76'	15,200	SF	\$ 110.00	\$ 1,672,000.00
			Existing Structure Removal				
			I-26 NB OVER SR3495 (GLEN BRIDGE) - 133'x43.5'	5,790	SF	\$ 15.00	\$ 86,850.00
			I-26 SB OVER SR3495 (GLEN BRIDGE) - 133'x43.5'	5,790	SF	\$ 15.00	\$ 86,850.00
			RC Box Culverts				
			Culvert L4400 Sta 800+81 Extend 6'x6' RCBC, Fill Height - 6', Skew - 120°	75	LF	\$ 1,104.00	\$ 82,800.00
			Vehicle Underpass 100094 Sta 895+00 Extend 14'x14', Fill Height - 9', Skew - 9	65	LF	\$ 2,400.00	\$ 156,000.00
			Culvert L47001 Sta 897+06 Extend 10'x10' RCBC, Fill Height - 30', Skew - 110	104	LF	\$ 1,836.00	\$ 190,944.00
			Retaining Walls				
			L4400 Sta 778+00 to 783+00 - 11' Average Height	5,500	SF	\$ 90.00	\$ 495,000.00
			LBSB47001 Sta 800+00 to 804+00 - 7' Average Height	2,800	SF	\$ 80.00	\$ 224,000.00
			LBNB47001 Sta 830+00 to 837+00 - 12' Average Height	8,400	SF	\$ 90.00	\$ 756,000.00
			Utility Construction				
			NA				
			NA				
			Misc. & Mob (15% Strs&Util)				\$ 813,339.59
			Misc. & Mob (45% Functional)				\$ 17,934,000.00

Lgth 3.1 Miles

Contract Cost \$ 64,024,000.00
E. & C. 15% \$ 9,676,000.00
Construction Cost \$ 73,700,000.00

TIP No. **I-4700B**
Route I-26 from Long Shoals Road (Exit 37) to I-40
From HNTB
Typical Section Hybrid Section: 8-Ln with Conc. Median Barrier Wall
full depth reconstruction
Prepared By: EWS
Requested By: KEM
Priced By: Doug Lane

Func

County: **BUNCOMBE**

CONSTR. COST
\$123,200,000

4/20/16
4/20/16
4/25/16

Line Item	Des	Sec No.	Description	Quantity	Unit	Price	Amount
			Clearing and Grubbing	118	Acre	\$ 12,000.00	\$ 1,413,720.00
			Earthwork (Excav)	1,090,880	CY	\$ 5.00	\$ 5,454,400.00
			Earthwork (Fill)	269,000	CY	\$ 6.00	\$ 1,613,997.00
			Drainage (Interstate)	3.90	Miles	\$ 550,000.00	\$ 2,145,000.00
			Fine Grading	368,950	SY	\$ 2.00	\$ 737,900.00
			New Pavement (Main Line)	342,710	SY	\$ 64.00	\$ 21,933,440.00
			New Shoulder Pavement (Main Line/Ramps)	13,180	SY	\$ 40.00	\$ 527,200.00
			Subgrade Stabilization	552,520	SY	\$ 6.00	\$ 3,315,120.00
			Pavement Removal	192,110	SY	\$ 7.00	\$ 1,344,770.00
			Concrete Median Barrier Wall	13,760	LF	\$ 95.00	\$ 1,307,200.00
			Steel Beam Guardrail	16,960	LF	\$ 15.00	\$ 254,400.00
			GRAU 350 End Unit	24	Each	\$ 1,800.00	\$ 43,421.40
			CAT-1 End Unit	24	Each	\$ 600.00	\$ 14,137.20
			TYPE III End Unit	11	Each	\$ 1,400.00	\$ 15,708.00
			Shoulder Rumble Strip	83,460	LF	\$ 0.25	\$ 20,864.99
			Conc Expressway Gutter	4,021	LF	\$ 20.00	\$ 80,420.00
			Fencing				
			Woven Wire	13,220	LF	\$ 4.30	\$ 56,846.00
			Erosion Control	152	Acres	\$ 15,000.00	\$ 2,281,306.50
			Signing Interchanges*				
			Diamond	1	Each	\$ 350,000.00	\$ 350,000.00
			Traffic Control	3.9	Miles	\$ 500,000.00	\$ 1,950,000.00
			Thermo and Markers	3.9	Miles	\$ 40,000.00	\$ 156,000.00
			Structures				
			I-26 OVER PRIVATE DRIVE- 200'x150'	30,000	SF	\$ 110.00	\$ 3,300,000.00
			I-26 OVER FRENCH BROAD RIVER- 575'x150'	86,250	SF	\$ 105.00	\$ 9,056,250.00
			Existing Structure Removal				
			I-26 NB OVER PRIVIATE DRIVE- 102'x40'	4,080	SF	\$ 15.00	\$ 61,200.00
			I-26 SB OVER PRIVIATE DRIVE- 101'x40'	4,040	SF	\$ 15.00	\$ 60,600.00
			I-26 NB OVER FRENCH BROAD RIVER- 441'x33.5'	14,770	SF	\$ 15.00	\$ 221,550.00
			I-26 SB OVER FRENCH BROAD RIVER- 453'x33.5'	15,180	SF	\$ 15.00	\$ 227,700.00
			RC Box Culverts				
			Vehicle Underpass 100223 Sta 110900 Extend 2-14'x14', Fill Height - 16', Skew - 90°	40	LF	\$ 2,160.00	\$ 86,400.00
			Culvert L47001 Sta 1151+85 Extend 14'x14 RCBC, Fill Height - 11', Skew - 90°	60	LF	\$ 2,400.00	\$ 144,000.00
			Retaining Walls				
			L47002 Sta 1141+00 to 1145+00 - 14' Average Height	5,600	SF	\$ 95.00	\$ 532,000.00
			L47001 Sta 984+00 to 990+00 - 14' Average Height	8,400	SF	\$ 95.00	\$ 798,000.00
			L47001 Sta 993+00 to 998+00 - 14' Average Height	7,000	SF	\$ 95.00	\$ 665,000.00
			L47001 Sta 999+00 to 1005+00 - 14' Average Height	8,400	SF	\$ 95.00	\$ 798,000.00
			L47001 Sta 985+00 to 990+00 - 14' Average Height	7,000	SF	\$ 95.00	\$ 665,000.00
			Utility Construction				
			NA				
			NA				
			Blue Ridge Parkway I-26 Bridge (concrete box - Option 4) Provided by FHWA				
			Mobilization (8%)	All	Lpsm	\$ 1,466,000.00	\$ 1,466,000.00
			Construction Surveying and Staking (1.5%)	All	Lpsm	\$ 267,000.00	\$ 267,000.00
			Contractor Testing (1.5%)	All	Lpsm	\$ 267,000.00	\$ 267,000.00
			Design Contingency (20%)	All	Lpsm	\$ 2,965,000.00	\$ 2,965,000.00
			Soil Erosion Control (5%)	All	Lpsm	\$ 108,000.00	\$ 108,000.00
			Clearing and Grubbing	4.0		\$ 12,000.00	\$ 48,000.00
			Removal of Pavement, Asphalt	5,400.0		\$ 7.00	\$ 37,800.00
			Roadway Excavation	38,000.0		\$ 19.00	\$ 722,000.00
			Mechanically Stabilized Earth Wall, Welded Wire Face	16,400.0		\$ 17.50	\$ 287,000.00
			Aggregate Base Grading C Or D	350.0		\$ 33.00	\$ 11,550.00

		Aggregate-Topsoil Course	30.0		\$ 41.00	\$ 1,230.00
		Asphalt Concrete Pavement, Gyratory Mix, 3/8-inch	45.0		\$ 190.00	\$ 8,550.00
		Asphalt Concrete Pavement, Gyratory Mix, 3/4-inch	90.0		\$ 160.00	\$ 14,400.00
		Overlook (12 spaces)	All	Lpsm	\$ 250,000.00	\$ 250,000.00
		Class B Masonry, Rock Face Finish	420.0		\$ 850.00	\$ 357,000.00
		Stone Masonry Guardwall	750.0		\$ 420.00	\$ 315,000.00
		Furnishing and Placing Topsoil	700.0		\$ 47.00	\$ 32,900.00
		Turf Establishment	1.2		\$ 3,800.00	\$ 4,560.00
		Temporary Traffic Control	All	Lpsm	\$ 40,000.00	\$ 40,000.00
		Field Office	1.0		\$ 22,000.00	\$ 22,000.00
		Concrete Box Girder Bridge	All	Lpsm	\$ 12,560,000.00	\$ 12,560,000.00
		Misc. & Mob (15% Strs&Util)				\$ 5,460,458.91
		Misc. & Mob (45% Functional)				\$ 20,257,000.00

Lgth 3.9 Miles

Contract Cost	\$ 107,134,000.00
E. & C. 15%	\$ 16,066,000.00
Construction Cost	\$ 123,200,000.00

* Blue Ridge Parkway Quantities Provided by FHWA (Option 4)

UTILITY ESTIMATE WORKSHEET

TIP No: I-4400/I-4700
 WBS Element No: 36030.1.2
 State Project No:
 Fed. Project No: NHF-26-1(62)23
 County: Buncombe/Henderson
 Description: I-26 Improvements from US 25 in Henderson County to I-40 in Buncombe County

Field Inspection - Evidence of Utilities

Gas: Yes Electric: Yes Telephone: Yes CATV: Yes
 Water: Yes Sewer: Yes Drainage: Yes Other: No

Anticipated Relocation

Gas: Yes Electric: Yes Telephone: Yes CATV: Yes
 Water: Yes Sewer: Yes Drainage: Yes Other: No

Summary:	I-4400/I-4700 6 Lane Alternative
Requesting Party:	Mr. Undrea Major/PDEA
Estimate Date:	June 12, 2015

Relocation Totals		Construction Total		Alternate Totals	
Power Poles:	\$3,190,902.00	Power Poles:		Relocation Total	\$3,818,306.00
Power Items:		Power Items:		Construction Total	\$1,122,358.00
Telephone Poles	\$83,504.00	Telephone Poles		Alternate Total	\$4,940,664.00
Telephone Items		Telephone Items			
Gas Line:	\$543,900.00	Gas Line:			
Gas Items:		Gas Items:			
Water Line:		Water Line:	\$647,900.00		
Water Items:		Water Items:	\$136,058.00		
Sewer Line:		Sewer Line:	\$232,000.00		
Sewer Items:		Sewer Items:	\$106,400.00		
Misc.Items:		Misc.Items:			

Summary: I-4400/I-4700 Hybrid Alternative

Requesting Party: Mr. Undrea Major/PDEA

Estimate Date: June 12, 2015

Relocation Totals		Construction Total		Alternate Totals	
Power Poles:	\$3,336,825.00	Power Poles:		Relocation Total	\$4,050,477.00
Power Items:		Power Items:		Construction Total	\$1,111,024.00
Telephone Poles	\$103,152.00	Telephone Poles		Alternate Total	\$5,161,501.00
Telephone Items		Telephone Items			
Gas Line:	\$610,500.00	Gas Line:			
Gas Items:		Gas Items:			
Water Line:		Water Line:	\$582,950.00		
Water Items:		Water Items:	\$153,706.00		
Sewer Line:		Sewer Line:	\$255,200.00		
Sewer Items:		Sewer Items:	\$119,168.00		
Misc.Items:		Misc.Items:			

Summary: I-4400/I-4700 8 Lane Alternative

Requesting Party: Mr. Undrea Major/PDEA

Estimate Date: June 12, 2015

Relocation Totals		Construction Total		Alternate Totals	
Power Poles:	\$4,058,966.00	Power Poles:		Relocation Total	\$4,856,952.00
Power Items:		Power Items:		Construction Total	\$1,356,752.00
Telephone Poles	\$137,536.00	Telephone Poles		Alternate Total	\$6,213,704.00
Telephone Items		Telephone Items			
Gas Line:	\$660,450.00	Gas Line:			
Gas Items:		Gas Items:			
Water Line:		Water Line:	\$783,400.00		
Water Items:		Water Items:	\$167,272.00		
Sewer Line:		Sewer Line:	\$278,400.00		
Sewer Items:		Sewer Items:	\$127,680.00		
Misc.Items:		Misc.Items:			

Summary: US 25 Interchange ALT 1
Requesting Party: Mr. Undrea Major/PDEA
Estimate Date: June 12, 2015

Relocation Totals		Construction Total		Alternate Totals	
Power Poles:	\$68,096.00	Power Poles:		Relocation Total	\$68,096.00
Power Items:		Power Items:		Construction Total	\$0.00
Telephone Poles		Telephone Poles		<hr/>	
Telephone Items		Telephone Items		Alternate Total	\$68,096.00
Gas Line:		Gas Line:			
Gas Items:		Gas Items:			
Water Line:		Water Line:			
Water Items:		Water Items:			
Sewer Line:		Sewer Line:	\$0.00		
Sewer Items:		Sewer Items:	\$0.00		
Misc.Items:		Misc.Items:			

Summary: US 25 Interchange ALT. 2
Requesting Party: Mr. Undrea Major/PDEA
Estimate Date: June 12, 2015

Relocation Totals		Construction Total		Alternate Totals	
Power Poles:	\$68,096.00	Power Poles:		Relocation Total	\$68,096.00
Power Items:		Power Items:		Construction Total	\$0.00
Telephone Poles		Telephone Poles		<hr/>	
Telephone Items		Telephone Items		Alternate Total	\$68,096.00
Gas Line:		Gas Line:			
Gas Items:		Gas Items:			
Water Line:		Water Line:			
Water Items:		Water Items:			
Sewer Line:		Sewer Line:			
Sewer Items:		Sewer Items:			
Misc.Items:		Misc.Items:			

Summary: US 25 Interchange ALT. 3

Requesting Party: Mr. Undrea Major/PDEA

Estimate Date: June 12, 2015

Relocation Totals		Construction Total		Alternate Totals	
Power Poles:	\$68,096.00	Power Poles:		Relocation Total	\$68,096.00
Power Items:		Power Items:		Construction Total	\$0.00
Telephone Poles		Telephone Poles		<hr/>	
Telephone Items		Telephone Items		Alternate Total	\$68,096.00
Gas Line:		Gas Line:			
Gas Items:		Gas Items:			
Water Line:		Water Line:			
Water Items:		Water Items:			
Sewer Line:		Sewer Line:			
Sewer Items:		Sewer Items:			
Misc.Items:		Misc.Items:			

Summary: US 25 Interchange ALT. 4

Requesting Party: Mr. Undrea Major/PDEA

Estimate Date: June 12, 2015

Relocation Totals		Construction Total		Alternate Totals	
Power Poles:	\$68,096.00	Power Poles:		Relocation Total	\$68,096.00
Power Items:		Power Items:		Construction Total	\$0.00
Telephone Poles		Telephone Poles		<hr/>	
Telephone Items		Telephone Items		Alternate Total	\$68,096.00
Gas Line:		Gas Line:			
Gas Items:		Gas Items:			
Water Line:		Water Line:			
Water Items:		Water Items:			
Sewer Line:		Sewer Line:			
Sewer Items:		Sewer Items:			
Misc.Items:		Misc.Items:			

Detail: I-4400/I-4700 6 Lane Alternative				
Power Poles				
Type	Location	Number	Cost / Pole	Total Cost
Transmission "H-Frame" Wood Structure		3	\$45,573.00	\$136,719.00
Transmission Large Tower		3	\$527,711.00	\$1,583,133.00
Distribution Pole Single Phase		48	\$8,760.00	\$420,480.00
Distribution Pole Three Phase		90	\$11,673.00	\$1,050,570.00
		Total:	144	\$3,190,902.00
Telephone Poles				
Type	Location	Number	Cost / Pole	Total Cost
Three Cable Telephone Pole		17	\$4,912.00	\$83,504.00
		Total:	17	\$83,504.00
Gas Lines				
Line Type	Location	Length	Cost per Ft.	Total Cost
8" Gas Line Per Linear Foot		1500	\$111.00	\$166,500.00
6" Gas Line Per Linear Foot		1600	\$111.00	\$177,600.00
4" Gas Line Per Linear Foot		1800	\$111.00	\$199,800.00
		Total:		\$543,900.00
Water Lines				
Line Type	Location	Length	Cost per Ft.	Total Cost
			\$0.00	\$0.00
12" DIP Water Line Per Linear Foot		1000	\$122.00	\$122,000.00
10" DIP Water Line Per Linear Foot		2000	\$122.00	\$244,000.00
8" PVC Water Line Per Linear Foot		2100	\$91.00	\$191,100.00
4" PVC Water Line Per Linear Foot		1200	\$62.00	\$74,400.00
2" PVC Water Line Per Linear Foot		400	\$41.00	\$16,400.00
		Total:		\$647,900.00
Water Items				
Item	Location	Number	Unit Cost	Total Cost
Water Meter Relocation		50	\$972.00	\$48,600.00
Valves 6-24"		42	\$1,069.00	\$44,898.00
Fire Hydrant New		10	\$4,256.00	\$42,560.00
		Total:		\$136,058.00
Sewer Lines				
Line Type	Location	Length	Cost per Ft.	Total Cost
24" DIP Sewer Line Per Linear Foot		200	\$165.00	\$33,000.00
12" DIP Sewer Line Per Linear Foot		1000	\$75.00	\$75,000.00
8" DIP Sewer Line Per Linear Foot		1000	\$59.00	\$59,000.00
6" PVC Sewer Line Per Linear Foot		1000	\$35.00	\$35,000.00
4" PVC Sewer Line Per Linear Foot		1000	\$30.00	\$30,000.00
		Total:		\$232,000.00
Sewer Items				
Item	Location	Number	Unit Cost	Total Cost
Manhole		25	\$4,256.00	\$106,400.00
		Total:		\$106,400.00
			Alternate Total	\$4,940,664.00

Detail: I-4400/I-4700 Hybrid Alternative				
Power Poles				
Type	Location	Number	Cost / Pole	Total Cost
Transmission "H-Frame" Wood Structure		3	\$45,573.00	\$136,719.00
Transmission Large Tower		3	\$527,711.00	\$1,583,133.00
Distribution Pole Single Phase		50	\$8,760.00	\$438,000.00
Distribution Pole Three Phase		101	\$11,673.00	\$1,178,973.00
		Total:	157	\$3,336,825.00
Telephone Poles				
Type	Location	Number	Cost / Pole	Total Cost
Three Cable Telephone Pole		21	\$4,912.00	\$103,152.00
		Total:	21	\$103,152.00
Gas Lines				
Line Type	Location	Length	Cost per Ft.	Total Cost
4" Gas Line Per Linear Foot		2000	\$111.00	\$222,000.00
6" Gas Line Per Linear Foot		1800	\$111.00	\$199,800.00
8" Gas Line Per Linear Foot		1700	\$111.00	\$188,700.00
		Total:		\$610,500.00
Water Lines				
Line Type	Location	Length	Cost per Ft.	Total Cost
10" DIP Water Line Per Linear Foot		0	\$122.00	\$0.00
10" DIP Water Line Per Linear Foot		2200	\$122.00	\$268,400.00
8" PVC Water Line Per Linear Foot		2300	\$91.00	\$209,300.00
4" PVC Water Line Per Linear Foot		1400	\$62.00	\$86,800.00
2" PVC Water Line Per Linear Foot		450	\$41.00	\$18,450.00
		Total:		\$582,950.00
Water Items				
Item	Location	Number	Unit Cost	Total Cost
Fire Hydrant New		12	\$4,256.00	\$51,072.00
Valves 6-24"		46	\$1,069.00	\$49,174.00
Water Meter Relocation		55	\$972.00	\$53,460.00
		Total:		\$153,706.00
Sewer Lines				
Line Type	Location	Length	Cost per Ft.	Total Cost
24" DIP Sewer Line Per Linear Foot		220	\$165.00	\$36,300.00
12" DIP Sewer Line Per Linear Foot		1100	\$75.00	\$82,500.00
8" DIP Sewer Line Per Linear Foot		1100	\$59.00	\$64,900.00
6" PVC Sewer Line Per Linear Foot		1100	\$35.00	\$38,500.00
4" PVC Sewer Line Per Linear Foot		1100	\$30.00	\$33,000.00
		Total:		\$255,200.00
Sewer Items				
Item	Location	Number	Unit Cost	Total Cost
Manhole		28	\$4,256.00	\$119,168.00
		Total:		\$119,168.00
			Alternate Total	\$5,161,501.00

Detail: I-4400/I-4700 8 Lane Alternative				
Power Poles				
Type	Location	Number	Cost / Pole	Total Cost
Transmission "H-Frame" Wood Structure		4	\$45,573.00	\$182,292.00
Transmission Large Tower		4	\$527,711.00	\$2,110,844.00
Distribution Pole Single Phase		55	\$8,760.00	\$481,800.00
Distribution Pole Three Phase		110	\$11,673.00	\$1,284,030.00
		Total:	173	\$4,058,966.00
Telephone Poles				
Type	Location	Number	Cost / Pole	Total Cost
Three Cable Telephone Pole		28	\$4,912.00	\$137,536.00
		Total:	28	\$137,536.00
Gas Lines				
Line Type	Location	Length	Cost per Ft.	Total Cost
8" Gas Line Per Linear Foot		2200	\$111.00	\$244,200.00
6" Gas Line Per Linear Foot		1900	\$111.00	\$210,900.00
4" Gas Line Per Linear Foot		1850	\$111.00	\$205,350.00
		Total:		\$660,450.00
Water Lines				
Line Type	Location	Length	Cost per Ft.	Total Cost
12" DIP Water Line Per Linear Foot		1400	\$122.00	\$170,800.00
10" DIP Water Line Per Linear Foot		2200	\$122.00	\$268,400.00
8" PVC Water Line Per Linear Foot		2400	\$91.00	\$218,400.00
4" PVC Water Line Per Linear Foot		1500	\$62.00	\$93,000.00
2" PVC Water Line Per Linear Foot		800	\$41.00	\$32,800.00
		Total:		\$783,400.00
Water Items				
Item	Location	Number	Unit Cost	Total Cost
Fire Hydrant New		14	\$4,256.00	\$59,584.00
Valves 6-24"		48	\$1,069.00	\$51,312.00
Water Meter Relocation		58	\$972.00	\$56,376.00
		Total:		\$167,272.00
Sewer Lines				
Line Type	Location	Length	Cost per Ft.	Total Cost
24" DIP Sewer Line Per Linear Foot		240	\$165.00	\$39,600.00
12" DIP Sewer Line Per Linear Foot		1200	\$75.00	\$90,000.00
8" DIP Sewer Line Per Linear Foot		1200	\$59.00	\$70,800.00
4" PVC Sewer Line Per Linear Foot		1200	\$30.00	\$36,000.00
6" PVC Sewer Line Per Linear Foot		1200	\$35.00	\$42,000.00
		Total:		\$278,400.00
Sewer Items				
Item	Location	Number	Unit Cost	Total Cost
Manhole		30	\$4,256.00	\$127,680.00
		Total:		\$127,680.00
			Alternate Total	\$6,213,704.00

Detail: US 25 Interchange ALT 1

Power Poles				
Type	Location	Number	Cost / Pole	Total Cost
Distribution Pole 7200 volt < 20 Poles		8	\$8,512.00	\$68,096.00
Total:			8	\$68,096.00

Sewer Lines				
Line Type	Location	Length	Cost per Ft.	Total Cost
				\$0.00
				\$0.00
				\$0.00
				\$0.00
				\$0.00
Total:				\$0.00

Sewer Items				
Item	Location	Number	Unit Cost	Total Cost
				\$0.00
				\$0.00
Manhole				\$0.00
Total:				\$0.00

Alternate Total \$68,096.00

Detail: US 25 Interchange ALT. 2

Power Poles				
Type	Location	Number	Cost / Pole	Total Cost
Distribution Pole 7200 volt < 20 Poles		8	\$8,512.00	\$68,096.00
Total:			8	\$68,096.00

Alternate Total \$68,096.00

Detail: US 25 Interchange ALT. 3

Power Poles				
Type	Location	Number	Cost / Pole	Total Cost
Distribution Pole 7200 volt < 20 Poles		8	\$8,512.00	\$68,096.00
Total:			8	\$68,096.00

Alternate Total \$68,096.00

Detail: US 25 Interchange ALT. 4

Power Poles				
Type	Location	Number	Cost / Pole	Total Cost
Distribution Pole 7200 volt < 20 Poles		8	\$8,512.00	\$68,096.00
Total:			8	\$68,096.00

Alternate Total \$68,096.00

REQUEST FOR R/W COST ESTIMATE / RELOCATION EIS

COST ESTIMATE REQUEST

RELOCATION EIS REPORT

DATE RECEIVED: _____ DATE ASSIGNED: _____ DATE DUE: _____

NEW REQUEST:

UPDATE REQUEST:

REVISION REQUEST:

TIP NUMBER	DESCRIPTION: <u>Improvement of I-26 fro US 25 in Henderson Co. to I-40</u>
<u>I-4400/</u>	
<u>I-4700</u>	

WBS ELEMENT: 34232.1.1 COUNTY: Buncombe / Henderson DIV: 13 APPRAISAL OFFICE: 5

REQUESTOR: Undrea Major DEPT: PDEA TYPE OF PLANS PROVIDED: Preliminary

BASED ON PAST PROJECT HISTORICAL DATA, THE LAND AND DAMAGE FIGURES HAVE BEEN ADJUSTED TO INCLUDE CONDEMNATION AND ADMINISTRATIVE INCREASES THAT OCCUR DURING SETTLEMENT OF ALL PARCELS.

APPRAISER: J. Wynne / D. Page COMPLETION DATE: 06/03/2015 TRANSMITTED: 06/16/15

	6-Lane Alt		8-Lane Alt		Hybrid Alt	
TYPE OF ACCESS:	NONE: <input type="checkbox"/>	LIMITED: <input type="checkbox"/>	NONE: <input type="checkbox"/>	LIMITED: <input type="checkbox"/>	NONE: <input type="checkbox"/>	LIMITED: <input type="checkbox"/>
	PARTIAL: <input type="checkbox"/>	FULL: <input checked="" type="checkbox"/>	PARTIAL: <input type="checkbox"/>	FULL: <input checked="" type="checkbox"/>	PARTIAL: <input type="checkbox"/>	FULL: <input checked="" type="checkbox"/>
ESTIMATED NO. OF PARCELS:	78		160		112	
RESIDENTIAL RELOCATEES:	2	\$40,000	13	\$260,000	8	\$160,000
BUSINESS RELOCATEES:	1	\$25,000	1	\$25,000	-	\$-
GRAVES:	-	\$-	-	\$-	-	\$-
CHURCH / NON – PROFIT:	-	\$-	-	\$-	-	\$-
FARMS:	-	\$-	-	\$-	-	\$-
MISC: _____	-	\$-	-	\$-	-	\$-
SIGNS:	-	\$-	-	\$-	-	\$-
LAND, IMPROVEMENTS, AND DAMAGES:	\$9,675,000		\$7,265,000		\$3,775,000	
ACQUISITION:	\$585,000		\$1,200,000		\$840,000	
TOTAL ESTIMATED R/W COST:	\$10,325,000		\$8,750,000		\$4,775,000	

THE ESTIMATED NUMBER OF ABOVE RELOCATEES INCLUDES THOSE PARCELS WHERE THE PROPOSED ACQUISITION AREAS INVOLVE RELOCATION OF LIVABLE OR BUSINESS UNITS ONLY.

THERE ARE NO FIGURES FOR UTILITY INVOLVEMENT ON THIS ESTIMATE / RELOCATION EIS REPORT AND NO PUE's, AUE's NOR DUE's UNLESS DEPICTED ON PLANS FURNISHED.

NOTES: This is a revision of an estimate previously submitted 02/03/2015.

Kat Bukowy

From: Page, Daniel C <dcpage@ncdot.gov>
Sent: Monday, December 07, 2015 2:00 PM
To: Kat Bukowy
Subject: RE: STIP I-4400/I-4700 RW Estimate Question

Kat,

The additional cost for the six lane alternative is primarily in the acquisition of the Courtyard Hotel improvements (\$5,000,000). The other difference would be if there are changes in land area acquisition (\$50,000) in the vicinity of the hotel. Hopefully this answers your question....please contact me if you require further information.

Daniel

Daniel C. Page
NC Certified General Appraiser A7265

NCDOT Appraisal Review
Area 5 Appraisal Office
Asheville, North Carolina
828-274-8449

We only do well the things we like doing.....



Nothing Compares

From: Kat Bukowy [<mailto:kbukowy@HNTB.com>]
Sent: Monday, December 07, 2015 12:14 PM
To: Wynne, James R; Page, Daniel C
Cc: White, Sarah D; Jennifer Harris
Subject: STIP I-4400/I-4700 RW Estimate Question

Good afternoon,

Upon further refinement of the design for I-4400/I-4700, we have determined that the Courtyard hotel (356-360 Rockwood Rd, Arden) can be avoided in the 6-lane widening of I-26. Can you please tell me the right of way cost that was added to the 6-lane alternative and not included in the 8-lane alternative? Please see the attached June 2015 Cost Estimate for reference.

This is a separate request from the pending US 25 interchange area relocation and right of way cost estimate request. Please let me or Jennifer Harris (cc'd) know if you have any questions.

Regards,

Kat Bukowy

Kat Bukowy, AICP

Transportation Planner

Direct (919) 424-0441 **Fax** (919) 546-9421

HNTB North Carolina, P.C.

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REQUEST FOR R/W COST ESTIMATE / RELOCATION EIS

COST ESTIMATE REQUEST

RELOCATION EIS REPORT

NEW REQUEST:

UPDATE REQUEST:

REVISION REQUEST:

Update to _____ Estimate

Revision to 06/03/15 Estimate

Revision No.: 3rd

DATE RECEIVED: 11/16/15

DATE ASSIGNED: 11/16/15

of Alternates Requested: 3

DATE DUE: 12/11/15 Extension: 01/29/16

TIP NUMBER <u>I-4400/</u> <u>I-4700</u>	DESCRIPTION: <u>I-26 Widening</u> Revised request to June estimate. An addition based on new impacts beyond the original impacts estimated in June.
---	--

WBS ELEMENT: 34232.1.1 COUNTY: Henderson/Buncombe DIV: 14,13 APPRAISAL OFFICE: 5

REQUESTOR: John Williams DEPT: PDEA

TYPE OF PLANS PROVIDED: _____

BASED ON PAST PROJECT HISTORICAL DATA, THE LAND AND DAMAGE FIGURES HAVE BEEN ADJUSTED TO INCLUDE CONDEMNATION AND ADMINISTRATIVE INCREASES THAT OCCUR DURING SETTLEMENT OF ALL PARCELS.

APPRAISER: D. Page COMPLETED: 01/29/16 # of Alternates Completed: 3

TYPE OF ACCESS:	6-Lane w/loops		8-Lane w/loops		6/8 Lane Hybrid w/loops	
	NONE: <input type="checkbox"/>	LIMITED: <input type="checkbox"/>	NONE: <input type="checkbox"/>	LIMITED: <input type="checkbox"/>	NONE: <input type="checkbox"/>	LIMITED: <input type="checkbox"/>
	PARTIAL: <input type="checkbox"/>	FULL: <input checked="" type="checkbox"/>	PARTIAL: <input type="checkbox"/>	FULL: <input checked="" type="checkbox"/>	PARTIAL: <input type="checkbox"/>	FULL: <input checked="" type="checkbox"/>
ESTIMATED NO. OF PARCELS:	25		27		26	
RESIDENTIAL RELOCATEES:	10	\$400,000	10	\$400,000	10	\$400,000
BUSINESS RELOCATEES:	1	\$75,000	1	\$75,000	1	\$75,000
GRAVES:	-	\$-	-	\$-	-	\$-
CHURCH / NON – PROFIT: _	-	\$-	-	\$-	-	\$-
MISC: _	-	\$-	-	\$-	-	\$-
SIGNS:	-	\$-	-	\$-	-	\$-
LAND, IMPROVEMENTS, AND DAMAGES:	\$3,928,500		\$4,021,500		\$3,931,500	
ACQUISITION:	\$125,000		\$135,000		\$130,000	
TOTAL ESTIMATED R/W COST:	\$4,528,500		\$4,631,500		\$4,536,500	

THE ESTIMATED NUMBER OF ABOVE RELOCATEES INCLUDES THOSE PARCELS WHERE THE PROPOSED ACQUISITION AREAS INVOLVE RELOCATION OF LIVABLE OR BUSINESS UNITS ONLY.

NOTES: _____

REQUEST FOR R/W COST ESTIMATE / RELOCATION EIS

COST ESTIMATE REQUEST

RELOCATION EIS REPORT

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NEW REQUEST:

UPDATE REQUEST:

REVISION REQUEST:

TIP NUMBER	DESCRIPTION: <u>Improvement of I-26 fro US 25 in Henderson Co. to I-40</u>
<u>I-4400/</u>	
<u>I-4700</u>	

WBS ELEMENT: 34232.1.1 COUNTY: Buncombe / Henderson DIV: 13 APPRAISAL OFFICE: 5

REQUESTOR: Undrea Major DEPT: PDEA TYPE OF PLANS PROVIDED: Preliminary

BASED ON PAST PROJECT HISTORICAL DATA, THE LAND AND DAMAGE FIGURES HAVE BEEN ADJUSTED TO INCLUDE CONDEMNATION AND ADMINISTRATIVE INCREASES THAT OCCUR DURING SETTLEMENT OF ALL PARCELS.

APPRAISER: J. Wynne / D. Page COMPLETION DATE: 06/03/2015 TRANSMITTED: 06/16/15*

*See email from D. Page on 12/7/15

TYPE OF ACCESS:	6-Lane Alt		8-Lane Alt		Hybrid Alt	
	NONE: <input type="checkbox"/>	LIMITED: <input type="checkbox"/>	NONE: <input type="checkbox"/>	LIMITED: <input type="checkbox"/>	NONE: <input type="checkbox"/>	LIMITED: <input type="checkbox"/>
	PARTIAL: <input type="checkbox"/>	FULL: <input checked="" type="checkbox"/>	PARTIAL: <input type="checkbox"/>	FULL: <input checked="" type="checkbox"/>	PARTIAL: <input type="checkbox"/>	FULL: <input checked="" type="checkbox"/>
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CHURCH / NON – PROFIT:	-	\$-	-	\$-	-	\$-
FARMS:	-	\$-	-	\$-	-	\$-
MISC: _____	-	\$-	-	\$-	-	\$-
SIGNS:	-	\$-	-	\$-	-	\$-
LAND, IMPROVEMENTS, AND DAMAGES:	\$4,675,000		\$7,265,000		\$3,775,000	
ACQUISITION:	\$585,000		\$1,200,000		\$840,000	
TOTAL ESTIMATED R/W COST:	\$5,300,000		\$8,750,000		\$4,775,000	

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NOTES: This is a revision of an estimate previously submitted 02/03/2015.