

EXHIBIT D

LFUCG - HDR - Engineering Services Fee Proposal

February 23, 2018



**LFUCG
Engineering Services
Fee Proposal**

Citation Boulevard Phase III-A

February 23, 2018

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February 23, 2018

Andrew Grunwald, P.E.
Project Manager
Department of Planning, Preservation and Development
Division of Engineering, Design and Construction Section
Lexington-Fayette Urban County Government
101 E. Vine Street
Lexington, KY 40507

RE: Citation Boulevard Phase III-A
Fayette County, Kentucky

Dear Mr. Grunwald:

Please find enclosed our scope and fee proposal for providing engineering and related services for the subject project.

The project Contract Scoping Meeting was held at the LFUCG Engineering Conference Room on November 15, 2017. Services to be provided generally include field survey and utility coordination, roadway engineering design, meetings, sub-consultant oversight and coordination, public involvement and bidding assistance.

Sincerely,

A handwritten signature in blue ink, appearing to read "Joseph D. Cochran".

Joseph Cochran, P.E.
Project Manager
CC: files

Citation Boulevard Phase III-A

Fayette County, Kentucky

Negotiation Minutes

February 23, 2018

Participants:

Andrew Grunwald – LFUCG, Mark Feibes - LFUCG
Joe Cochran – HDR, Ben Edelen – HDR, Jonathan West - HDR

All negotiations were held by e-mail transmittals, telephone and meeting at the LFUCG office. General comments from the negotiations included:

1. The general project scope was discussed during the Contract Scoping Meeting conducted at the LFUCG Engineering Conference Room on November 15, 2017.

2. The following summarizes negotiations with LFUCG:

<u>Date</u>	<u>Discussion</u>
11/2/17	HDR received notice of selection from LFUCG.
11/15/17	Scoping meeting held at LFUCG.
12/13/17	HDR submitted (via email) draft scope/units to LFCUG for review.
1/2/18	LFUCG accepted scope/units.
1/23/18	HDR and LFUCG agreed to include scope for terrain verification (under survey).
1/23/18	HDR submitted (via email) a Fee Proposal to LFUCG.
2/9/18	LFUCG provided (via email) comments on the Fee Proposal.
2/21-23/18	HDR met with LFUCG to discuss proposed scope and man-hours. Items included the removal of Right-of-Way Acquisition services, and adjustments to survey, preliminary line and grade, right-of-way plans and final plans.

3. Production Hour Negotiations

	HDR 1/23/18	LFUCG 2/9/18	Negotiated 2/23/18
Survey	426	426	434
Preliminary Line and Grade	647	418	449
Utility Coordination	24	24	24
Right-of-way Plans	196	140	212
Final Plans	820	712	783
Meetings	140	140	140
Public Involvement	96	96	96
QA/QC	16	16	16
Right-of-way Acquisition	384	0	0
Total	2,749	1,972	2,154

4. Project Schedule

Notice to Proceed	2/28/2018
PL&G Meeting	10/1/2018
Final Plans	3/1/2019
Right of Way Plans	4/1/2019

5. Payment Percentages

PL&G Meeting	50% Payment
Submit Final Plans	95% Payment
Right of Way submittal	100% Payment

APPROVED:

HDR ENGINEERING, INC.



2/23/2018

Signature

Date

Joe Cochran, P.E. Project Manager

Printed Name/Title

LFUCG

Signature

Date

Printed Name/Title



KENTUCKY TRANSPORTATION CABINET
Department of Highways
DIVISION OF PROFESSIONAL SERVICES
ENGINEERING AND RELATED SERVICES FEE PROPOSAL

TC 40-2
 Rev. 12/2017
 Page 1 of 1

SECTION 1: PROJECT INFORMATION

DATE:	Feb 23, 2018	COUNTY:	Fayette	ITEM #:	
PROJECT:	Citation Boulevard Phase III-A				
DESC:					

SECTION 2: BUDGET INFORMATION

FEE CONSIDERATIONS	PROPOSED MAN HOURS	NEGOTIATED MAN HOURS	AVERAGE RATE	ESTIMATED COST
Survey	434		\$ 35.45	\$ 15,385.30
Preliminary Line and Grade	449		\$ 45.28	\$ 20,330.72
Utility Coordination	24		\$ 45.90	\$ 1,101.60
Right-of-Way Plans	212		\$ 45.28	\$ 9,599.36
Final Plans	783		\$ 45.28	\$ 35,454.24
Meetings	140		\$ 65.72	\$ 9,200.80
Public Involvement	96		\$ 72.24	\$ 6,935.04
QA/QC	16		\$ 64.41	\$ 1,030.56
Right-of-Way Acquisition	0		\$ 45.05	\$ -
				\$ -
TOTAL PRODUCTION HOURS & PAYROLL	2154			\$ 99,037.62

OVERHEAD (156.48 %)	\$ 154,974.07
PROFIT (15.00 %)	\$ 38,101.75
COST OF MONEY (0.35 %)	\$ 350.30


DIRECT COSTS	AMOUNT
Mileage	\$ 333.00
Survey Crew Travel Time	\$ -
Printing	\$ 735.00
TOTAL DIRECT COSTS	\$ 1,068.00

SUBCONSULTANTS	AMOUNT
Vision Engineering	\$ 39,825.00
Salt River Engineering	\$ 12,572.00
Gess, Mattingly and Atchison PSC	\$ -
Bluegrass Valuation Group LLC	\$ -
Geotech Services	\$ 20,431.00
TOTAL SUBCONSULTANTS	\$ 72,828.00

TOTAL FEE	\$ 366,360
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*Rounded to the nearest dollar

SECTION 3: SIGNATURE

FIRM NAME: HDR Engineering		SIGNED BY: Ben Edelen	
	Area Manager/Sr. Vice President	2/23/2018	
CONSULTANT SIGNATURE	TITLE	DATE	
PROFESSIONAL SERVICES SIGNATURE	TITLE	DATE	

**TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS
CLASSIFICATIONS AND DETERMINATION OF AVERAGE RATES**

COUNTY FAYETTE
PROJECT Citation Boulevard Phase III-A
UPN 0
ITEM NO. 0

DATE 2/23/2018

Position	7/14/2017 Rate	Escalated Rate 4.142%	% Classification	Cost
Survey				
Land Surveyor	\$ 49.54	\$ 51.59	40%	\$ 20.64
Survey Party Chief/LS	\$ 28.12	\$ 29.28	30%	\$ 8.79
Survey Technician	\$ 19.28	\$ 20.08	30%	\$ 6.02
Average Rate			100%	\$ 35.45
Preliminary Line and Grade				
Senior Project Manager	\$ 71.90	\$ 74.88	10%	\$ 7.49
Project Manager/Sr. Proj Eng.	\$ 51.80	\$ 53.95	25%	\$ 13.49
Project Engineer	\$ 36.34	\$ 37.85	35%	\$ 13.25
Senior Designer	\$ 36.20	\$ 37.70	25%	\$ 9.42
Designer	\$ 31.46	\$ 32.76	5%	\$ 1.64
Average Rate			100%	\$ 45.28
Utility Coordination				
Project Manager/Sr. Proj Eng.	\$ 51.80	\$ 53.95	50%	\$ 26.97
Project Engineer	\$ 36.34	\$ 37.85	50%	\$ 18.92
Average Rate			100%	\$ 45.90
Right Of Way Plans				
Senior Project Manager	\$ 71.90	\$ 74.88	10%	\$ 7.49
Project Manager/Sr. Proj Eng.	\$ 51.80	\$ 53.95	25%	\$ 13.49
Project Engineer	\$ 36.34	\$ 37.85	35%	\$ 13.25
Senior Designer	\$ 36.20	\$ 37.70	25%	\$ 9.42
Designer	\$ 31.46	\$ 32.76	5%	\$ 1.64
Average Rate			100%	\$ 45.28
Final Plans				
Senior Project Manager	\$ 71.90	\$ 74.88	10%	\$ 7.49
Project Manager/Sr. Proj Eng.	\$ 51.80	\$ 53.95	25%	\$ 13.49
Project Engineer	\$ 36.34	\$ 37.85	35%	\$ 13.25
Senior Designer	\$ 36.20	\$ 37.70	25%	\$ 9.42
Designer	\$ 31.46	\$ 32.76	5%	\$ 1.64
Average Rate			100%	\$ 45.28
Meetings				
Area Manager	\$ 90.95	\$ 94.72	10%	\$ 9.47
ROW Project Manager	\$ 45.29	\$ 47.17	10%	\$ 4.72
Senior Project Manager	\$ 71.90	\$ 74.88	40%	\$ 29.95
Project Manager/Sr. Proj Eng.	\$ 51.80	\$ 53.95	40%	\$ 21.58
Average Rate			100%	\$ 65.72
Public Involvement				
Area Manager	\$ 90.95	\$ 94.72	10%	\$ 9.47
Principal Project Manager	\$ 77.21	\$ 80.41	30%	\$ 24.12
Senior Project Manager	\$ 71.90	\$ 74.88	30%	\$ 22.46
Project Manager/Sr. Proj Eng.	\$ 51.80	\$ 53.95	30%	\$ 16.18
Average Rate			100%	\$ 72.24
QA/QC				
Senior Project Manager	\$ 71.90	\$ 74.88	50%	\$ 37.44
Project Manager/Sr. Proj Eng.	\$ 51.80	\$ 53.95	50%	\$ 26.97
Average Rate			100%	\$ 64.41
Right of Way Acquisition				
Project Manager/Sr. Proj Eng.	\$ 51.80	\$ 53.95	20%	\$ 10.79
ROW Agent 3	\$ 38.62	\$ 40.22	50%	\$ 20.11
ROW Project Manager	\$ 45.29	\$ 47.17	30%	\$ 14.15
Average Rate			100%	\$ 45.05

Escalated rate increase based on midpoint of project. Maximum allowed salary increase is 3.20%.

- Notice to Proceed 2/28/2018
- Midpoint of Project 10/29/2018
- Final Plans 6/30/2019

- Audited Rates as of: 7/14/2017
- Midpoint of Project 10/29/2018
- Days (7/14/2017 to Midpoint) = 472.5

472.5 Days ÷ 365 =	1.295 Years
1.295 Years x 3.20% per year	4.142% = Escalation Rate

PRODUCTION-HOUR WORKSHEET (revised 7/14)

COUNTY	FAYETTE	PROJECT TYPE	Phase I & II Design
ROUTE	Citation Boulevard Phase III-A	CONSULTANT	HDR Engineering, Inc.
DESC		REVIEWED BY	
ITEM NO.		PREPARED BY	Joe Cochran
		DATE	2/23/2018

SURVEY

No.	ITEM	CREW	UNIT	AMOUNT	HRS/UNIT	HOURS
RECONNAISSANCE						
1	Control - (existing)	1	Mile	2.2	4	9
2	Utilities - (data gathering, identification & contact)	1	No.	4	2	8
3	Drainage - (sink holes, streams, pipes, etc.)	1	Mile	2.2	2	4
CONTROL						
4	Horizontal	2	Mile	2.2	8	35
5	Vertical	2	Mile	2.2	5	22
6	Process data	1	Mile	2.2	2	4
PLANIMETRIC SURVEY						
7	Planimetric location <i>(complete)</i>	2	Mile	2.2	16	70
8	Subsurface Utility Engineering, Quality Levels C & D	1	Mile	2.2	8	18
9	Subsurface Utility Engineering, Quality Level B	1	LS			0
10	Subsurface Utility Engineering, Quality Level A	1	LS			0
11	Process data	1	Mile	2.2	2	4
TERRAIN SURVEY						
12	DTM data collection <i>(Items 13-20 not required if used)</i>	2	Acre	19	2	76
13	Verify terrain model accuracy	2	Mile	1.4	8	22
14	Tie-ins	2	No.			0
15	Drainage situations survey (Bridge)	2	No.			0
16	Drainage situations survey (Culvert)	2	No.			0
17	Drainage pipe section (non-situation size)	2	No.			0
18	Flood plain data	2	No.			0
19	Railroad Surveys	2	No.			0
20	Additional necessary DTM data <i>(pickup)</i>	2	Acre	19	0.5	19
21	Process data	1	Mile	1.1	4	4
ESTABLISH PROPERTY LINES & OWNERSHIP						
22	Contact & Interview Property Owners	1	Parcel	9	0.5	5
23	Field tie property lines/corners	2	Parcel	9	2	36
STAKING						
24	Stake centerlines, approaches, detours	2	Mile	1.1	8	18
25	Stake core holes - structures <i>(unit is per structure)</i>	2	No.			0
26	Stake core holes - roadway <i>(unit is per core hole)</i>	2	No.	20	0.5	20
SURVEY MISCELLANEOUS						
27	Determine roadway elevations (Crown and EP)	2	Mile			0
28	Stake Easement Acquisitions Prior to Bidding	2	Parcel	9	2	36
29	Set Property Corner Pins for R/W Acquisition	2	Parcel	3	4	24
SURVEY TOTAL						434

PRODUCTION-HOUR WORKSHEET (revised 7/14)

COUNTY	<u>FAYETTE</u>	PROJECT TYPE	<u>Phase I & II Design</u>
ROUTE	<u>Citation Boulevard Phase III-A</u>	CONSULTANT	<u>HDR Engineering, Inc.</u>
DESC	_____	REVIEWED BY	_____
ITEM NO.	_____	PREPARED BY	<u>Joe Cochran</u>
		DATE	<u>2/23/2018</u>

PRELIMINARY LINE AND GRADE

No.	ITEM	UNIT	AMOUNT	HRS/UNIT	HOURS
30	Computer setup	LS	1	4	4
31	Prepare existing manuscripts	Mile	2.2	8	18
32	Establish approximate property lines and ownership	Parcel	32	0.5	16
33	Study and develop typical sections	No.	7	2	14
34	Study and develop horizontal alignments	Mile	2.5	40	100
35	Study and develop vertical alignments	Mile	2.5	40	100
36	Create and evaluate proposed roadway models	Mile	2.5	24	60
37	Design entrances	No.	4	2	8
38	Pre-size pipes (all alternates)	No.	0	0	0
39	Pre-size culverts (all alternates)	No.	0	0	0
40	Pre-size bridges (all alternates)	No.			0
41a	Conduct Traffic Engineering Analysis (Basic; Highway Capacity Manual	Intersection			0
41b	Conduct Traffic Engineering Analysis (Advanced; Micro-simulation)	Intersection			0
42	Study and development of interchange	No.			0
43	Study and development of intersection	No.	1	8	8
44	Study and develop maintenance of traffic plan	LS	1	12	12
45	Plot/print copies of plans for team meeting and inspections	LS	1	8	8
46	Calculate preliminary quantities and develop cost estimates	Alt.	2	8	16
47	Revise plans and estimates	LS	1	24	24
48	Preliminary Right of Way with taking areas	Parcel	9	0.5	5
49	Prepare Design Executive Summary	LS			0
50	Develop/document "Avoidance Alternatives to Water Related Impacts"	LS			0
PRELIMINARY LINE & GRADE MISCELLANEOUS					
51	KDOW and FEMA Coordination	LS	0	0	0
52	Identify Utility Conflicts and Develop Proposed Solutions	LS	1	16	16
53	Prepare Preliminary Design Technical Memorandum	LS	1	16	16
54	Environmental Support Documents	LS	1	8	8
55	Property Owner and Deed Research	Parcel	32	0.5	16
PRELIMINARY LINE AND GRADE TOTAL					449

PRODUCTION-HOUR WORKSHEET (revised 7/14)

COUNTY	FAYETTE	PROJECT TYPE	Phase I & II Design
ROUTE	Citation Boulevard Phase III-A	CONSULTANT	HDR Engineering, Inc.
DESC		REVIEWED BY	
ITEM NO.		PREPARED BY	Joe Cochran
		DATE	2/23/2018

UTILITY COORDINATION

No.	ITEM	PERSONS	UNIT	AMOUNT	HRS/UNIT	HOURS
56	Utility Coordination Meeting	2	No.	2	4	16
57	Develop Utility Relocation Layout Sheets (1"=200')		Mile			0
58	Develop Utility Relocation Plans (1"=50')		Mile			0
UTILITY COORDINATION MISCELLANEOUS						
59	Correspondence with Utilities for Locations of Existing Facilities		LS	1	8	8
UTILITY COORDINATION TOTAL						24

RIGHT OF WAY PLANS

No.	ITEM	UNIT	AMOUNT	HRS/UNIT	HOURS	
60	Deed research	Parcel	9	1	9	
61	Establish property and ownership	Parcel	9	2	18	
62	Calculate Right of Way	Parcel	9	2	18	
63	Prepare legal descriptions	Parcel	9	2	18	
64	Complete Right of Way summary sheet	Parcel	9	0.5	5	
65	Generate Right of Way strip map (scale 1" = 100')	Sheet	1	8	8	
66	Prepare Right of Way Plans Submittal	LS	1	8	8	
67	Right of Way revisions after Right of Way submittal	Parcel	1	16	16	
R/W PLANS MISCELLANEOUS						
68	Deed Research for Existing Alignments	LS			0	
69	Prepare Legal Descriptions for Right of Way transfer (Plats)	Parcel	3	32	96	
70	Existing Easement Lines	LS	1	16	16	
71					0	
72						
RIGHT OF WAY PLANS TOTAL						212

PRODUCTION-HOUR WORKSHEET (revised 7/14)

COUNTY	FAYETTE	PROJECT TYPE	Phase I & II Design
ROUTE	Citation Boulevard Phase III-A	CONSULTANT	HDR Engineering, Inc.
DESC		REVIEWED BY	
ITEM NO.		PREPARED BY	Joe Cochran
		DATE	2/23/2018

FINAL PLAN PREPARATION

No.	ITEM	UNIT	AMOUNT	HRS/UNIT	HOURS
80	Computer setup	LS	1	4	4
81	Update existing topography and terrain model	Mile	1	8	8
82	Refine alignments (horizontal & vertical)	Mile	1	12	12
83	Develop pavement design	No.	2	4	8
84	Finalize templates & transitions	No.	4	4	16
85	Develop final roadway model	Mile	1	120	120
86	Develop proposed design	Mile	1	120	120
87	Generate plan sheets <i>(scale 1" = 20')</i>	Sheet	10	8	80
88	Generate profile sheets <i>(scale 1" = 20')</i>	Sheet	10	8	80
89	Detail cross sections <i>(scale 1" = 5')</i>	No.	110	0.5	55
90	Design entrances	No.	4	2	8
91	Revise roadway plans from soils report	Mile	1	4	4
DRAINAGE					
92	Develop pipe sections (< 54")	No.	0	0	0
93	Develop drainage system map	Mile	0	0	0
94	Develop drainage situation (bridge)	No.			0
95	Develop drainage situation (culvert)	No.	0	0	0
96	Develop blue line stream channel change (=> 200')	No.			0
97	Drainage analysis (entrance pipes)	No.			0
98	Drainage analysis (A <= 200 acres)	No.	0	0	0
99	Drainage analysis (200 acres < A < 1.0 sq. mile)	No.			0
100	Drainage analysis (A => 1.0 sq. mile) level 1 analysis	No.			0
101	Drainage analysis (A => 1.0 sq. mile) level 2 analysis	No.			0
102	Drainage analysis (A => 1.0 sq. mile) level 3 analysis	No.			0
103	Special drainage studies	No.			0
104	Roadway ditches and channels	Mile	0	0	0
105	Develop Erosion Control Plan	Mile	1	24	24
106	Inlet spacing calculations	No.	0	0	0
107	Storm sewers calculations	No.	0	0	0
108	Perform scour analysis	No.			0
109	Assemble preliminary and final drainage folders	LS	0	0	0
110	Prepare advanced situation folder - bridge	No.			0
111	Prepare advanced situation folder - culvert	No.	0	0	0
DRAINAGE MISCELLANEOUS					
112					0
113					0
114					0
115					0

PRODUCTION-HOUR WORKSHEET (revised 7/14)

COUNTY	<u>FAYETTE</u>	PROJECT TYPE	<u>Phase I & II Design</u>
ROUTE	<u>Citation Boulevard Phase III-A</u>	CONSULTANT	<u>HDR Engineering, Inc.</u>
DESC	_____	REVIEWED BY	_____
ITEM NO.	_____	PREPARED BY	<u>Joe Cochran</u>
		DATE	<u>2/23/2018</u>

FINAL PLAN PREPARATION (Continued)

No.	ITEM	UNIT	AMOUNT	HRS/UNIT	HOURS
116	Prepare layout sheet	LS	1	8	8
117	Prepare typical sections	No.	7	4	28
118	Prepare Interchange geometric approval	No.			0
119	Prepare intersection geometric approval	No.			0
120	Prepare coordinate control sheet	Mile	1	16	16
121	Prepare elevation developments	No.	1	16	16
122	Prepare striping plan	No.	1	16	16
123	Calculate final quantities	Mile	1	32	32
124	Complete general summary	LS	1	8	8
125	Complete paving summary	LS	1	8	8
126	Complete drainage summary	LS	1	8	8
127	Complete pavement under-drain summary	LS			0
128	Prepare cost estimate	LS	1	8	8
129	Plot/print copies of plans	LS	1	8	8
130	Plan revisions	Mile	1	16	16
131	Prepare final construction plans submittal	LS	1	8	8
MAINTENANCE OF TRAFFIC					
132	Write maintenance of traffic notes (TCP)	LS	1	16	16
133	Prepare construction phasing plans	Mile	1	24	24
134	Develop diversion plan sheets	Sheet			0
135	Develop diversion profile sheets	Sheet			0
136	Develop diversion cross sections	No.			0
137	Develop temporary drainage	No.			0
FINAL PLANS MISCELLANEOUS					
138	Document available rock quantities	LS			0
139	Prepare Specifications and Bid Documents	LS	1	24	24
140					0
141					0
142					0
143					0
FINAL PLANS TOTAL					783

PRODUCTION-HOUR WORKSHEET (revised 7/14)

COUNTY	<u>FAYETTE</u>	PROJECT TYPE	<u>Phase I & II Design</u>
ROUTE	<u>Citation Boulevard Phase III-A</u>	CONSULTANT	<u>HDR Engineering, Inc.</u>
DESC	_____	REVIEWED BY	_____
ITEM NO.	_____	PREPARED BY	<u>Joe Cochran</u>
		DATE	<u>2/23/2018</u>

MEETINGS

No.	ITEM	PERSONS	UNIT	AMOUNT	HRS/UNIT	HOURS
150	Prelim. line and grade inspection	3	No.	1	8	24
151	Drainage inspection	2	No.	1	4	8
152	Final inspection	3	No.	1	8	24
153	Misc. project coordination meetings	2	No.	3	2	12
154	Project team meetings	2	No.	2	2	8
MEETINGS MISCELLANEOUS						
155	Home Owner Association Meeting	1	No.			0
156	Local Officials Meetings	3	No.	3	4	36
157	Attend Pre-Bid Meeting	2	No.	1	8	16
157	Attend Bid Opening	2	No.	1	6	12
MEETINGS TOTAL						140

PUBLIC INVOLVEMENT

No.	ITEM	PERSONS	UNIT	AMOUNT	HRS/UNIT	HOURS
160	Develop and Maintain Mailing List		LS	1	4	4
161	Prepare for Advisory Committee/Officials Meeting		No.	1	8	8
162	Attend Advisory Committee/Officials Meeting	3	No.	2	4	24
163	Prepare for Public Meetings/Hearings		No.	1	16	16
164	Attend Public Meetings/Hearings	4	No.	1	6	24
165	Prepare and Distribute Newsletter		No.			0
166	Property owner coordination		No.	32	0.5	16
PUBLIC INVOLVEMENT MISCELLANEOUS						
167	Attend LFUCG Council Meeting (1 person)		No.	1	4	4
168						0
169						
PUBLIC INVOLVEMENT TOTAL						96

QA/QC

No.	ITEM	UNIT	AMOUNT	HRS/UNIT	HOURS
180	Plan review	LS	1	16	16
181	Structure review				0
QA/QC TOTAL					16

PRODUCTION-HOUR WORKSHEET (revised 7/14)			
COUNTY	<u>FAYETTE</u>	PROJECT TYPE	<u>Phase I & II Design</u>
ROUTE	<u>Citation Boulevard Phase III-A</u>	CONSULTANT	<u>HDR Engineering, Inc.</u>
DESC	_____	REVIEWED BY	_____
ITEM NO.	_____	PREPARED BY	<u>Joe Cochran</u>
		DATE	<u>2/23/2018</u>

PRODUCTION-HOUR SUMMARY

SURVEY TOTAL		434
LINE AND GRADE TOTAL		449
UTILITY COORDINATION TOTAL		24
RIGHT OF WAY PLANS TOTAL		212
FINAL PLANS TOTAL		783
MEETINGS TOTAL		140
PUBLIC INVOLVEMENT TOTAL		96
QA/QC TOTAL		16
GRAND TOTAL		2154

RIGHT-OF-WAY PRODUCTION-HOUR WORKSHEET

COUNTY	Fayette	PROJECT TYPE	Right-of-Way Services
ROUTE	Citation Boulevard Phase III-A	CONSULTANT	HDR
DESC.		PREPARED BY	Leigh Karr
ITEM NO.		DATE	1/4/18

RIGHT OF WAY ACQUISITION

No.	ITEM	CREW	UNIT	AMOUNT	HRS/UNIT	HOURS
APPRAISAL SERVICES						
1	Plan Prep		Parcel		0	0
2	Administrative		Parcel		0	0
3	Property Owner Contact/Fieldwork		Parcel		0	0
4	Research/Record Gathering		Parcel		0	0
5	Comparable Sales		Parcel		0	0
6	Finalizing/Assembling Appraisal		Parcel		0	0
APPRAISAL REVIEW SERVICES						
7	Paperwork		Parcel		0	0
8	Administrative		Parcel		0	0
9	Fieldwork		Parcel		0	0
10	Finalizing/Assembling Appraisal Review		Parcel		0	0
11	Revised Review		Parcel		0	0
MINOR ACQUISITION						
12	Minor Acquisition Review	1	Parcel	0	5	0
13	Initial Offer Meeting	1	Parcel	0	7	0
14	Follow-up Meeting(s)/Contacts	1	Parcel	0	6	0
15	Parcel File Documentation	1	Parcel	0	4	0
16	Payment Packet	1	Parcel	0	5	0
17	Condemnation Packet		Parcel		0	0
COMPLEX ACQUISITION						
18	Initial Offer Meeting	1	Parcel	0	7	0
19	Follow-up Meeting(s)/Contacts	1	Parcel	0	6	0
20	Parcel File Documentation	1	Parcel	0	4	0
21	Payment Packet	1	Parcel	0	5	0
22	Condemnation Packet		Parcel		0	0
RESIDENTIAL RELOCATION						
23	Initial Worksheet and Meeting		Parcel		0	0
24	Certified Inventory		Parcel		0	0
25	Worksheet Update		Parcel		0	0
26	RHP/RAP Computations		Parcel		0	0
27	Relocation Offer Meeting		Parcel		0	0
28	Advisory Services		Parcel		0	0
29	Move Estimates/Bids		Parcel		0	0
30	Move Verification/Monitoring		Parcel		0	0
31	DS&S Inspections		Parcel		0	0
32	Records of Contact		Parcel		0	0
33	Parcel File Documentation		Parcel		0	0
34	Check Delivery		Parcel		0	0

RIGHT-OF-WAY PRODUCTION-HOUR WORKSHEET

COUNTY	Fayette	PROJECT TYPE	Right-of-Way Services
ROUTE	Citation Boulevard Phase III-A	CONSULTANT	HDR
DESC.		PREPARED BY	Leigh Karr
ITEM NO.		DATE	1/4/18

No.	ITEM	CREW	UNIT	AMOUNT	HRS/UNIT	HOURS
COMMERCIAL/BUSINESS RELOCATION						
35	Initial Worksheet and Meeting		Parcel		0	0
36	Certified Inventory		Parcel		0	0
37	Move Estimates/Bids		Parcel		0	0
38	Relocation Offer Meeting		Parcel		0	0
39	Advisory Services		Parcel		0	0
40	In lieu of Move		Parcel		0	0
41	Move/Re-establishment		Parcel		0	0
42	Records of Contact		Parcel		0	0
43	Parcel File Documentation		Parcel		0	0
44	Check Delivery		Parcel		0	0
MISCELLANEOUS MOVE						
45	Initial Worksheet and Meeting		Parcel		0	0
46	Certified Inventory		Parcel		0	0
47	Move Estimates/Bids		Parcel		0	0
48	Relocation Offer Meeting		Parcel		0	0
49	Advisory Services		Parcel		0	0
50	Move Verification		Parcel		0	0
51	Records of Contact		Parcel		0	0
52	Parcel File Documentation		Parcel		0	0
53	Check Delivery		Parcel		0	0
OUTDOOR ADVERTISING RELOCATION						
54	Initial Worksheet and Meeting		Parcel		0	0
55	Move Estimates/Bids		Parcel		0	0
56	Relocation Offer Meeting		Parcel		0	0
57	Advisory Services		Parcel		0	0
58	Move Verification		Parcel		0	0
59	Records of Contact		Parcel		0	0
60	Parcel File Documentation		Parcel		0	0
61	Check Delivery		Parcel		0	0
ROW PROJECT MANAGEMENT						
62	Project Report Development/Revisions	1	Parcel	0	1	0
63	Parcel File Preparation and Management	1	Parcel	0	3	0
64	Acquisition Stage Relocation Report and Updates		Each		0	0
65	Commercial/Business Re-establishment Memorandum		Parcel		0	0
66	Relocation Computation Packets QA/QC and Submittals		Parcel		0	0
67	Minor Acquisition Review Value Range and Reviews	1	Parcel	0	4	0
68	Monthly Project Status Meetings and Preparation	1	Each	0	3	0
69	Bi-Weekly Status Reports		Each		0	0
70	District Coordination		Parcel		0	0
71	Payment/Condemnation Packets QA/QC and Submittals	1	Parcel	0	4	0
72	Sub-consultant Coordination		Each		0	0
73	Title and Closing Attorney Coordination	1	Parcel	0	2	0
74	Property Owner Pro-rata Property Tax Reminder Letters		Parcel		0	0
75	Invoicing		Each		0	0
76	Project Close-out	1	Parcel	0	2	0
RIGHT OF WAY TOTAL						0

**TRANSPORTATION CABINET
DEPARTMENT OF HIGHWAYS
DIRECT COSTS**

COUNTY FAYETTE
PROJECT Citation Boulevard Phase III-A
UPN 0
ITEM NO. 0

DATE 2/23/2018

SURVEY CREW									
Mileage									
Area	Total Manhours ÷ 8 hours	÷ No. of Crew Members	= No. of Days	No. of Round Trips/Day	= Total No. of Trips	Miles/Trip	Rate/Mile	Mileage Cost	
Survey Crew	54	2	27	1	27	20	0.54	\$ 292	
	54	0	0	0	0	0	0.41	\$ -	
Total Mileage								\$ 292	
Meals									
Area	Total Manhours ÷ 8 hours	÷ No. of Crew Members	= No. of Days	x No. of Crew Members	= Total Days	Meal	Rate/day	Meals Cost	
Survey Crew	54	0	0	0	0		\$ -	\$ -	
	54	0	0	0	0		\$ -	\$ -	
	54	0	0	0	0		\$ -	\$ -	
	54	0	0	0	0		\$ -	\$ -	
	54	0	0	0	0		\$ -	\$ -	
	54	0	0	0	0		\$ -	\$ -	
Total Meals								\$ -	
*Meals: \$8.00-breakfast; \$10.00-lunch; \$18.00-dinner									
Travel Time									
Area	No. of Trips	Hours/Trip	No. of Crew Members	x Avg Hourly Survey Rate				Travel Time	
Survey Crew	0	3	2	\$ 35.45	x 1.3			\$ -	
Total Travel Time								\$ -	
Lodging									
Area		# of Nights	x \$90/Night	x No. of Rooms				Lodging Cost	
Survey Crew		0	\$ 90.00	0				\$ -	
Total Lodging								\$ -	

OTHER PERSONNEL									
Mileage									
Area		# Miles	Rate/Mile	Mileage Cost					
Trips for (5) Meetings		100	0.41	\$ 41					
		0	0.41	\$ -					
Total Mileage								\$ 41	
Meals									
Area		x No. of Persons	Meal	Rate/day	Meals Cost				
		0		\$ -	\$ -				
		0		\$ -	\$ -				
		0		\$ -	\$ -				
		0		\$ -	\$ -				
		0		\$ -	\$ -				
		0		\$ -	\$ -				
Total Meals								\$ -	
*Meals: \$8.00-breakfast; \$10.00-lunch; \$18.00-dinner									
Lodging									
Area		# of Nights	x \$90/Night	x No. of Rooms				Lodging Cost	
		0	\$ 90.00	0				\$ -	
Total Lodging								\$ -	

PRINTING			
Item	No. of Sheets	Cost (each)	Printing Cost
Miscellaneous Reports / Documents - 8-1/2" x 11"	200	\$0.10	\$ 20
Sheets for Preliminary Line and Grade Inspection - full size - B/W	5	\$15.00	\$ 75
Final Check Prints / Production Prints - full size - B/W	150	\$1.00	\$ 150
Half Scale Plans for Joint Inspection	600	\$0.25	\$ 150
Final Mylars - full size	0	\$5.00	\$ -
Color Prints for Public Meetings / Displays - full size	4	\$85.00	\$ 340
Total Printing			\$ 735

MISCELLANEOUS			
Item	No.	Cost (each)	Misc. Cost
	0	\$0.00	\$ -
	0	\$0.00	\$ -
Total Misc.			\$ -

CERTIFICATION OF FINAL INDIRECT COSTS

Firm Name: HDR Engineering, Inc.

Final Indirect Cost Rates:

Home Rate: 156.48% ** Field Rate: _____

Cost of Capital: 0.3537% Other: _____

Fiscal Period Covered (mm/dd/yyyy): 12/31/2016

I, the undersigned, certify that I have reviewed the proposal to establish final indirect cost rates for the fiscal period as specified above and to the best of my knowledge and belief:

- 1.) All costs included in this proposal to establish final indirect cost rates are allowable in accordance with the cost principles of the Federal Acquisition Regulations (FAR) of title 48, Code of Federal Regulations (CFR), part 31.*
- 2.) This proposal does not include any costs which are expressly unallowable under the cost principles of the FAR of 48 CFR 31.*

All known material transaction or events that have occurred affecting the firm's ownership, organization and indirect cost rates have been disclosed.

*Signature:  _____

*Name of Certifying Official (Print): Quint R. English

*Title: Vice President | Company Controller

Date of Certification (mm/dd/yyyy): 06/23/2017

*Note: This form is to be completed by an individual executive or financial officer of the consultant at a level no lower than a Vice President or Chief Financial Officer, or equivalent, who has the authority to represent the financial information utilized to establish the indirect cost rate proposal submitted in conjunction with a contract

**** For work performed on contracts awarded on or after June 24, 2014**



Matthew G. Bevin
Governor

COMMONWEALTH OF KENTUCKY
TRANSPORTATION CABINET
Frankfort, Kentucky 40622
www.transportation.ky.gov/

Greg Thomas
Secretary

MEMORANDUM

TO: Eric Pelfrey, Director
Division of Professional Services

FROM: Michael Coffey, Audit Manager *cc* 8/2/17
External Audit Branch

DATE: August 2, 2017

SUBJECT: HDR Engineering, Inc. and Subsidiaries
Acceptance of Cognizant Rate

We have received a cognizant letter for HDR Engineering, Inc. and Subsidiaries' (Company) year ended December 31, 2016 Statement of Direct Labor, Fringe Benefits, and General Overhead and Schedule of Facilities Capital Cost of Money Prepared in Accordance with the Federal Acquisition Regulation Part 31 from the State of Nebraska Department of Roads.

We have verified the Company's pay rates per classification to their payroll register dated as of July 14, 2017 and noted the pay rate in the attachment.

We recommend the Kentucky Transportation Cabinet use the following rates:

Contracts signed before 6/24/14:

Combined Indirect Cost Rate	157.28%
Facilities Capital Cost of Money	0.3537%

Contracts signed on or after 6/24/14:

Combined Indirect Cost Rate	156.48%
Facilities Capital Cost of Money	0.3537%

This memorandum is intended solely for the use and information of the Company and the Kentucky Transportation Cabinet related to contracts employing the cost principles of the Federal Acquisition Regulations and should not be used for any other purpose.

Attachment



An Equal Opportunity Employer M/F/D

HDR Engineering, Inc. and Subsidiaries
Attachment

Average Pay Rates

We have verified HDR Engineering, Inc. and Subsidiaries' pay rates per classification as of July 14, 2017:

<u>Classification</u>	<u>Hourly Rate</u>	<u>Classification</u>	<u>Hourly Rate</u>
Accounting.....	\$22.76	Marketing.....	\$43.89
Acquisition & Relocation Manager.....	\$47.94	Operations Specialist.....	\$37.13
Acquisition / Relocation Agent.....	\$41.81	Principal Project Manager.....	\$77.21
Administration / Sr. Accounting.....	\$39.94	Program Manager.....	\$109.80
Administrative Assistant.....	\$18.35	Project Engineer.....	\$36.34
Area Manager.....	\$90.95	Project Manager / Sr. Project Eng.....	\$51.80
Bridge EIT.....	\$25.92	Quality Assurance Specialist.....	\$65.37
Bridge Engineer.....	\$38.17	Rail Project Engineer.....	\$34.36
CAD Technician.....	\$22.56	Rail Section Manager.....	\$65.22
Construction Admin. / Engineer.....	\$59.55	Real Estate Services Agent 1.....	\$31.06
Construction Asst.....	\$21.11	Real Estate Services Agent 3.....	\$49.49
Construction Inspector 2.....	\$30.54	Real Estate Services Director.....	\$98.33
Construction Inspector 3.....	\$39.61	ROW Agent 3.....	\$38.62
Designer.....	\$31.46	ROW Project Manager.....	\$45.29
Driller.....	\$25.75	ROW Sr. Project Manager.....	\$50.26
EIT.....	\$27.79	Senior Bridge Eng. / Project Mgr.....	\$57.34
Environmental Planner.....	\$41.57	Senior CAD Technician.....	\$31.45
Geologist.....	\$46.39	Senior Designer.....	\$36.20
Geotechnical EIT.....	\$27.39	Senior Geotechnical Engineer.....	\$62.96
Geotechnical Engineer.....	\$39.42	Senior Project Manager.....	\$71.90
GIS Analyst.....	\$19.77	Senior Real Estate Services.....	\$37.51
GIS Manager.....	\$51.63	Senior Structural Energy Engineer.....	\$72.07
GIS Sr. Developer.....	\$44.24	Senior Transit Planner.....	\$67.31
Intern / Co-op.....	\$16.00	Senior Transportation Planner.....	\$78.18
JYLA Construction Inspector.....	\$22.60	Soil Technician.....	\$28.85
Land Surveyor.....	\$49.54	Structural CAD Technician.....	\$30.45
LSIORB Construction Inspector 2.....	\$35.97	Support Technician.....	\$17.49
LSIORB DBE Liaison.....	\$33.47	Survey Party Chief / Land Surv.....	\$28.12
LSIORB Project Manager.....	\$120.13	Survey Technician.....	\$19.28
LSIORB Technician.....	\$36.87		

The average pay rates per classification have increased an average of 3.20% over the last two years.



Pete Ricketts
Governor

STATE OF NEBRASKA

DEPARTMENT OF ROADS
Kyle Schneweis, P.E., Director

1500 Highway 2 • PO Box 94759 • Lincoln NE 68509-4759
Phone (402) 471-4567 • FAX (402) 479-4325 • www.roads.nebraska.gov

June 26, 2017

Report No. 2017-116

HDR Engineering, Inc. and Subsidiaries
8404 Indian Hills Drive
Omaha, NE 68114

Quint English, Company Controller:

Subject: Review of FYE December 31, 2016 Indirect Cost Rate Audit performed by Ernst & Young, LLP.

We have completed a cognizant review of the independent Certified Public Accountant (CPA) audit and supporting work papers of the Indirect Cost Rates of HDR Engineering, Inc. and Subsidiaries for the year ended December 31, 2016. This review was conducted in accordance with our role as Cognizant Agency as defined in 23 U.S.C. 112(b)(2)(c) and 23 CFR 172.3 and 172.7.

Our review consisted of discussions with HDR officials and a review of Ernst & Young LLP's (E-Y) audit report and audit working papers to ensure that the indirect cost rate was calculated in accordance with Government Auditing Standards, and that the schedule of indirect costs was prepared in accordance with accounting practices prescribed in 48 CFR Part 31 of the Federal Acquisition Regulations. Our cognizant review was performed in accordance with the AASHTO Review Program for CPA Audits of Consulting Engineers' Indirect Cost Rates.

A new applicable benchmark compensation cap was established by the Bipartisan Budget Act of 2013 (BBA) that set executive compensation at \$487,000, applicable for contracts awarded on or after June 24, 2014. As a result HDR submitted a dual rate for 2016, one rate for work performed on contracts signed before 6/24/14 and a second rate for work performed on contracts signed on or after 6/24/14. With regards to the balance of the results of the E-Y audit, nothing came to our attention that caused us to believe that the examination and supporting workpapers for the Indirect Cost Rates and the related Accountant's Report we reviewed did not conform in all material respects to the aforementioned regulations and auditing standards.

NDOR, in consultation with HDR, made mutually agreed-upon adjustments to the submitted overhead costs. These adjustments are identified in the enclosed overhead rate schedule.

Accordingly, we recommend acceptance of the following rates:

<u>Contracts signed before 6/24/14</u>	
Combined Indirect Cost Rate	157.28%
Facilities Capital Cost of Money	.3537%
<u>Contracts signed on or after 6/24/14</u>	
Combined Indirect Cost Rate	156.48%
Facilities Capital Cost of Money	.3537%

The accepted overhead rate schedules have been included with this letter.

Tim Baker, CICA
Audit Supervisor

HDR ENGINEERING, INC. AND SUBSIDIARIES
STATEMENT OF DIRECT LABOR, FRINGE BENEFITS AND GENERAL OVERHEAD
FOR THE YEAR ENDED DECEMBER 31, 2016

	As Proposed by Consultant: Pre 6/24/14				As Proposed by Consultant: Post 6/24/14				Notes
	Final	Unallowable	Allowable	NDOR Adj	Unallowable	Allowable	NDOR Adj	NDOR Allow.	
DIRECT LABOR	\$ 383,588,118	\$ -	\$ 383,588,118	\$ -	\$ -	\$ 383,588,118	\$ -	\$ 383,588,118	
FRINGE BENEFITS:									
Vacation	\$ 50,677,779	\$ -	\$ 50,677,779	\$ -	\$ -	\$ 50,677,779	\$ -	\$ 50,677,779	
Holiday	18,414,583	-	18,414,583	-	-	18,414,583	-	18,414,583	
Sick Leave	350,998	-	350,998	-	-	350,998	-	350,998	
Payroll Taxes	46,092,240	-	46,092,240	-	-	46,092,240	-	46,092,240	
Group insurance	49,383,899	-	49,383,899	-	-	49,383,899	-	49,383,899	
Retirement Benefits	28,612,762	11,879	28,624,641	-	-	28,624,641	-	28,624,641	1
Total Fringe Benefits	\$ 193,532,261	\$ 11,879	\$ 193,544,140	\$ -	\$ -	\$ 193,544,140	\$ -	\$ 193,544,140	
GENERAL OVERHEAD:									
Indirect labor:									
General	\$ 153,726,627	\$ (3,870,995)	\$ 149,855,632	\$ (65,348)	\$ (2,174,160)	\$ 147,616,124	\$ (33,230)	\$ 147,582,894	2, A, D
Marketing	47,999,949	(117,220)	47,882,729	-	-	47,882,729	-	47,882,729	3
Travel and expenses - general	7,762,478	(693,222)	7,069,256	-	-	7,069,256	-	7,069,256	4
Employees' expenses	10,633,780	(2,990,566)	7,643,214	-	-	7,643,214	-	7,643,214	5
Supplies	121,419	-	121,419	-	-	121,419	-	121,419	
Building rental and expenses -	50,121,621	1,388,372	51,459,993	-	-	51,459,993	-	51,459,993	6
Taxes - general	4,843,356	(116,842)	4,726,514	(400,053)	-	4,326,461	-	4,326,461	7, B
Computer expense	65,854,280	-	65,854,280	-	-	65,854,280	-	65,854,280	
Depreciation and amortization	7,373,121	(1,327,664)	6,045,457	-	-	6,045,457	-	6,045,457	8
Postage	1,038,595	-	1,038,595	-	-	1,038,595	-	1,038,595	
Telephone	3,394,924	1,967	3,396,891	-	-	3,396,891	-	3,396,891	9
Subscriptions	167,360	-	167,360	-	-	167,360	-	167,360	
Donations	1,939,372	(1,939,372)	-	-	-	-	-	-	10
Insurance and self-insurance	12,220,188	(1,295,040)	10,925,148	-	-	10,925,148	-	10,925,148	11
Bad debts	374,030	(374,030)	-	-	-	-	-	-	12
Office expenses	2,082,911	-	2,082,911	-	-	2,082,911	-	2,082,911	
Printing	764,325	-	764,325	-	-	764,325	-	764,325	

HDR ENGINEERING, INC. AND SUBSIDIARIES
STATEMENT OF DIRECT LABOR, FRINGE BENEFITS AND GENERAL OVERHEAD
FOR THE YEAR ENDED DECEMBER 31, 2016

	Final	As Proposed by Consultant: Pre 6/24/14			As Proposed by Consultant: Post 6/24/14			Notes
		Unallowable	Allowable	NDOR Adj	Unallowable	Allowable	NDOR Allow	
GENERAL OVERHEAD (continued):								
Marketing	4,056,841	(4,254,533)	(197,692)	-	(197,692)	-	(197,692)	13
Intercompany overhead	(1,707,059)	-	(1,707,059)	-	(1,707,059)	-	(1,707,059)	
Administrative costs	11,983,912	(1,996,323)	9,987,589	-	9,987,589	-	9,987,589	14
Temporary Help	1,167,220	-	1,167,220	-	1,167,220	-	1,167,220	
Goodwill	10,197,719	(10,197,719)	-	-	-	-	-	8
Interest - net	1,741,580	(1,741,580)	-	-	-	-	-	15
Autos	1,644,315	(65,232)	1,579,083	-	1,579,083	-	1,579,083	16
Professional services	1,746,700	(499,184)	1,247,516	-	1,247,516	-	1,247,516	17
Miscellaneous	2,085,742	(624,417)	1,461,325	-	1,461,325	-	1,461,325	18
Allocated expenses	55,421,294	(17,593,964)	37,827,330	(176,847)	37,650,483	(12,044)	36,791,049	19, C, D
Total general overhead	\$ 458,756,600	\$ (48,357,564)	\$ 410,399,036	\$ (642,248)	\$ 409,756,788	\$ (45,274)	\$ 406,689,964	
GENERAL OVERHEAD	\$ 652,288,861	\$ (48,345,685)	\$ 603,943,176	\$ (642,248)	\$ 603,300,928	\$ (45,274)	\$ 600,234,104	

GENERAL OVERHEAD RATE

157.45%
0.3537%

156.49%
0.3537%

Facilities Capital Cost of Money (FCCM) Rate

HDR FAR References:

- 1 31.205-6(j) – Allowable pension cost is limited to the net contribution required to be made for a cost accounting period after taking into account dividends and other credits, where applicable. The amount related to the distribution in excess of expense is added back to the pool.
- 2 31.201-6(a) – Labor associated with unallowable activities and a related percentage of fringe benefits is unallowable.
31.205-6(e)(2) – Differential allowances for additional income taxes resulting from domestic assignments are unallowable.
31.205-6(p) – Compensation paid to senior executives in excess of allowable limits is unallowable. Associated fringe benefits were not disallowed for compensation paid to executives in excess of allowable limits because the labor was not associated with unallowable activities but simply exceeding benchmarks.
- 3 31.205-8 – Contributions and donations are unallowable including labor and a related percentage of fringe benefits.
- 4 31.205-14 – Costs of entertainment are unallowable.
- 3 31.205-1(t)(1) – A portion of public relations and advertising costs is unallowable.
- 4 31.201-6(a) – When an unallowable cost is incurred, its directly associated costs are also unallowable.
- 31.205-14 – Costs of entertainment are unallowable.
- 31.205-46 – Meals and lodging costs in excess of federal per diem rates are unallowable.
- 31.205-51 – Costs of alcoholic beverages are unallowable.

HDR ENGINEERING, INC. AND SUBSIDIARIES
STATEMENT OF DIRECT LABOR, FRINGE BENEFITS AND GENERAL OVERHEAD
FOR THE YEAR ENDED DECEMBER 31, 2016

HDR FAR References continued:

- 5 31.205-1(t)(4) – A portion of public relations and advertising costs is unallowable.
- 31.205-1(t)(7) – Costs of memberships in civic and community organizations are not allowable.
- 31.205-8 – Contributions and donations are unallowable.
- 31.205-14 – Costs of entertainment are unallowable.
- 31.205-22 – Lobbying and political activities are unallowable.
- 31.205-27(a) – Costs of organization or reorganization are unallowable
- 31.205-35 – Certain expenditures in connection with relocation costs are unallowable.
- 31.205-51 – Costs of alcoholic beverages are unallowable.
- 31.203(g) – Adjustment for over-expensed rent deposits from prior years.
- 7 31.205-41(b)(7) – A portion of state income tax that is deferred, whether an expense or benefit, and not a current tax expense is unallowable.
- 8 31.205-49 – Amortization of acquisition intangibles and goodwill is unallowable.
- 9 31.201-6(a) – When an unallowable cost is incurred, its directly associated costs are also unallowable.
- 31.205-1(t)(4) – A portion of public relations and advertising costs is unallowable.
- 10 31.205-8 – Contributions and donations are unallowable.
- 11 31.205-19, 47(t)(6) – Insurance and self-insurance adjustment, partially offset by costs defending patent infringement suits which are unallowable.
- 12 31.205-3 – Bad debts are unallowable.
- 13 31.205-1(t)(4) – A portion of public relations and advertising costs is unallowable.
- 31.205-1(t)(7) – Costs of memberships in civic and community organizations are not allowable.
- 31.205-8 – Contributions and donations are unallowable.
- 31.205-14 – Costs of entertainment are unallowable.
- 31.205-22 – Costs of entertainment are unallowable.
- 31.205-46 – Meals and lodging costs in excess of federal per diem rates are unallowable.
- 31.205-51 – Costs of alcoholic beverages are unallowable.
- 14 31.205-1(f)(4) – A portion of public relations and advertising costs is unallowable.
- 31.205-1(f)(7) – Costs of memberships in civic and community organizations are not allowable.
- 31.205-8 – Contributions and donations are unallowable.
- 31.205-14 – Costs of entertainment are unallowable.
- 31.205-22 – Costs of entertainment are unallowable.
- 31.205-27 – Expenditures in connection with acquisition costs are unallowable.
- 31.205-46 – Meals and lodging costs in excess of federal per diem rates are unallowable.

HDR ENGINEERING, INC. AND SUBSIDIARIES
STATEMENT OF DIRECT LABOR, FRINGE BENEFITS AND GENERAL OVERHEAD
FOR THE YEAR ENDED DECEMBER 31, 2016

HDR FAR References continued:

- 31.205-51 – Costs of alcoholic beverages are unallowable.
- 31.205-20 – Interest and other financial costs are unallowable.
- 15 31.205-6(m)(2) – Portions of the cost of company-furnished automobiles that relate to personal use by employees, including transportation to and from work, are unallowable.
- 16 31.201-4(a) – A cost is allocable directly to a government contract if it is incurred specifically for the contract.
- 17 31.205-22 – Lobbying and political activities are unallowable.
- 31.205-46 – Meals and lodging costs in excess of federal per diem rates are unallowable.
- 31.205-47(t)(8) – Costs associated with a bid protest are unallowable.
- 18 31.201-4(a) – A cost is allocable directly to a government contract if it is incurred specifically for the contract.
- 31.205-1(t)(i) – A portion of public relations and advertising costs is unallowable.
- 31.205-3 – Bad debts are unallowable.
- 31.205-8 – Contributions and donations are unallowable.
- 31.205-14 – Costs of entertainment are unallowable.
- 31.205-15 – Costs of fines and penalties are unallowable.
- 31.205-46(c)(2) – Portions of costs of leased airplane for business travel are unallowable.
- 31.205-51 – Costs of alcoholic beverages are unallowable.
- 19 Amount represents allocations of expenses from the Company's parent, HDR, Inc. Adjustments for unallowable expenses include:
 - 31.205-6 (i)(1) – Any compensation which is calculated, or valued, based on changes in the price of corporate securities is unallowable.
 - 31.205-20 - Interest and other financials costs are unallowable. The adjustment also includes disallowances for unallowable expenses that are similar in nature to that incurred at the business segment level.

NDOR FAR References:

- A 31.201-6(a) - A related percentage of fringe benefits is unallowable for labor associated with unallowable activities: Indirect Labor-General pre 6/24 \$27,551.
- B 31.201-4(b) - Expenses that should have been coded to a direct project were incorrectly coded to and are not allocable to the overhead pool: \$400,053.
- C Amount represents allocations of expenses from the Company's parent, HDR, Inc. NDOR Adjustments for unallowable expenses specifically relate to:
 - 31.201-6(a) - A related percentage of fringe benefits is unallowable for labor associated with unallowable activities: \$376.
 - 31.201-4(b) - Expenses, net of depreciation, that should have been capitalized were incorrectly coded to and are not allocable to the overhead pool: \$150,608.
- D FAR 31.205-6(p) - NDOR confirmed that fringe benefits were included in HDR's calculation of executive compensation and disallowed accordingly. NDOR and HDR agreed to make an additional adjustment related to Medicare taxes. Adjustments were made as follows: Indirect Labor-General pre 6/24 of \$37,797 and post 6/24 of \$33,250; Allocated expenses pre 6/24 of \$25,863 and post 6/24 of \$12,044.



128 E. Reynold Rd, Ste 150
Lexington, Kentucky 40517
Ph: 859-333-8015
Fax: 859-523-0095

Date: January 18, 2018

Joseph D. Cochran, PE, VMA
Highway Section Manager

HDR
2517 Sir Barton Way
Lexington, KY 40509
D 859.629.4836 M 859.539.2630
joe.cochran@hdrinc.com

Re: **Citation Boulevard Phase III-A
Lexington, Kentucky
Proposal for Engineering Services**

Dear Mr. Cochran,

Thank you for the opportunity to submit this proposal for engineering services for design of Citation Boulevard Phase III-A, Lexington, KY. Per our understanding of the project. Vision Engineering shall prepare drainage analysis for the Line/ Grade and Final Plan as per attached spreadsheet.

- **Line & Grade for a total of 48 hours at \$135/hour**
- **Final Grade for a total of 247 hours at \$135/hour**

Vision Engineering scope of services consists of the following.

- Attend meetings
- Prepare drainage maps
- Prepare drainage calculation for the ditches, inlet spreads, and storm system.
- Prepare drainage calculation for the culverts.
- Assemble preliminary and final drainage folder.
- Coordination with KDOW/FEMA

We appreciate the opportunity to submit this proposal, upon approval and a notice to proceed; we can begin the process immediately. Rich Newton, PLS will manage this project. Should you have any questions or need additional information, please do not hesitate to call.

Sincerely,

Jihad Hallany

Jihad A. Hallany, P.E.

PRODUCTION-HOUR WORKSHEET (revised 7/14)

COUNTY	FAYETTE	PROJECT TYPE	Phase I & II Design
ROUTE	Citation Boulevard Phase III-A	CONSULTANT	Vision Engineering
DESC		REVIEWED BY	Jihad Hallany
ITEM NO.		PREPARED BY	Joe Cochran
		DATE	2/23/2018

SURVEY

No.	ITEM	CREW	UNIT	AMOUNT	HRS/UNIT	HOURS
RECONNAISSANCE						
1	Control - (existing)	1	Mile			0
2	Utilities - (data gathering, identification & contact)	1	No.			0
3	Drainage - (sink holes, streams, pipes, etc.)	1	Mile			0
CONTROL						
4	Horizontal	2	Mile			0
5	Vertical	2	Mile			0
6	Process data	1	Mile			0
PLANIMETRIC SURVEY						
7	Planimetric location <i>(complete)</i>	2	Mile			0
8	Subsurface Utility Engineering, Quality Levels C & D	1	Mile			0
9	Subsurface Utility Engineering, Quality Level B	1	LS			0
10	Subsurface Utility Engineering, Quality Level A	1	LS			0
11	Process data	1	Mile			0
TERRAIN SURVEY						
12	DTM data collection <i>(Items 13-20 not required if used)</i>	2	Acre			0
13	Verify terrain model accuracy	2	Mile			0
14	Tie-ins	2	No.			0
15	Drainage situations survey (Bridge)	2	No.			0
16	Drainage situations survey (Culvert)	2	No.			0
17	Drainage pipe section (non-situation size)	2	No.			0
18	Flood plain data	2	No.			0
19	Railroad Surveys	2	No.			0
20	Additional necessary DTM data <i>(pickup)</i>	2	Acre			0
21	Process data	1	Mile			0
ESTABLISH PROPERTY LINES & OWNERSHIP						
22	Contact & Interview Property Owners	1	Parcel			0
23	Field tie property lines/corners	2	Parcel			0
STAKING						
24	Stake centerlines, approaches, detours	2	Mile			0
25	Stake core holes - structures <i>(unit is per structure)</i>	2	No.			0
26	Stake core holes - roadway <i>(unit is per core hole)</i>	2	No.			0
SURVEY MISCELLANEOUS						
27	Determine roadway elevations (Crown and EP)	2	Mile			0
28	Stake Easement Acquisitions Prior to Bidding	2	Parcel			0
29	Set Property Corner Pins for R/W Acquisition	2	Parcel			0
SURVEY TOTAL						0

PRODUCTION-HOUR WORKSHEET (revised 7/14)

COUNTY	<u>FAYETTE</u>	PROJECT TYPE	<u>Phase I & II Design</u>
ROUTE	<u>Citation Boulevard Phase III-A</u>	CONSULTANT	<u>Vision Engineering</u>
DESC	_____	REVIEWED BY	<u>Jihad Hallany</u>
ITEM NO.	_____	PREPARED BY	<u>Joe Cochran</u>
		DATE	<u>2/23/2018</u>

PRELIMINARY LINE AND GRADE

No.	ITEM	UNIT	AMOUNT	HRS/UNIT	HOURS
30	Computer setup	LS			0
31	Prepare existing manuscripts	Mile			0
32	Establish approximate property lines and ownership	Parcel			0
33	Study and develop typical sections	No.			0
34	Study and develop horizontal alignments	Mile			0
35	Study and develop vertical alignments	Mile			0
36	Create and evaluate proposed roadway models	Mile			0
37	Design entrances	No.			0
38	Pre-size pipes (all alternates)	No.	8	1	8
39	Pre-size culverts (all alternates)	No.	2	4	8
40	Pre-size bridges (all alternates)	No.			0
41a	Conduct Traffic Engineering Analysis (Basic; Highway Capacity Manual Pr	Intersection			0
41b	Conduct Traffic Engineering Analysis (Advanced; Micro-simulation)	Intersection			0
42	Study and development of interchange	No.			0
43	Study and development of intersection	No.			0
44	Study and develop maintenance of traffic plan	LS			0
45	Plot/print copies of plans for team meeting and inspections	LS			0
46	Calculate preliminary quantities and develop cost estimates	Alt.			0
47	Revise plans and estimates	LS			0
48	Preliminary Right of Way with taking areas	Parcel			0
49	Prepare Design Executive Summary	LS			0
50	Develop/document "Avoidance Alternatives to Water Related Impacts"	LS			0

PRELIMINARY LINE & GRADE MISCELLANEOUS

51	KDOW and FEMA Coordination	LS	1	32	32
52	Identify Utility Conflicts and Develop Proposed Solutions	LS			0
53	Prepare Preliminary Design Technical Memorandum	LS			0
54	Environmental Support Documents	LS			0
55	Property Owner and Deed Research	Parcel			0

PRELIMINARY LINE AND GRADE TOTAL

48

PRODUCTION-HOUR WORKSHEET (revised 7/14)

COUNTY	FAYETTE	PROJECT TYPE	Phase I & II Design
ROUTE	Citation Boulevard Phase III-A	CONSULTANT	Vision Engineering
DESC		REVIEWED BY	Jihad Hallany
ITEM NO.		PREPARED BY	Joe Cochran
		DATE	2/23/2018

UTILITY COORDINATION

No.	ITEM	PERSONS	UNIT	AMOUNT	HRS/UNIT	HOURS
56	Utility Coordination Meeting	2	No.			0
57	Develop Utility Relocation Layout Sheets (1"=200')		Mile			0
58	Develop Utility Relocation Plans (1"=50')		Mile			0
UTILITY COORDINATION MISCELLANEOUS						
59	Correspondence with Utilities for Locations of Existing Facilities		LS			0
UTILITY COORDINATION TOTAL						0

RIGHT OF WAY PLANS

No.	ITEM	UNIT	AMOUNT	HRS/UNIT	HOURS	
60	Deed research	Parcel			0	
61	Establish property and ownership	Parcel			0	
62	Calculate Right of Way	Parcel			0	
63	Prepare legal descriptions	Parcel			0	
64	Complete Right of Way summary sheet	Parcel			0	
65	Generate Right of Way strip map (<i>scale 1" = 100'</i>)	Sheet			0	
66	Prepare Right of Way Plans Submittal	LS			0	
67	Right of Way revisions after Right of Way submittal	Parcel			0	
R/W PLANS MISCELLANEOUS						
68	Deed Research for Existing Alignments	LS			0	
69	Prepare Legal Descriptions for Right of Way transfer (Plats)	Parcel			0	
70	Existing Easement Lines	LS			0	
71					0	
72					0	
RIGHT OF WAY PLANS TOTAL						0

PRODUCTION-HOUR WORKSHEET (revised 7/14)

COUNTY	FAYETTE	PROJECT TYPE	Phase I & II Design
ROUTE	Citation Boulevard Phase III-A	CONSULTANT	Vision Engineering
DESC		REVIEWED BY	Jihad Hallany
ITEM NO.		PREPARED BY	Joe Cochran
		DATE	2/23/2018

FINAL PLAN PREPARATION

No.	ITEM	UNIT	AMOUNT	HRS/UNIT	HOURS
80	Computer setup	LS			0
81	Update existing topography and terrain model	Mile			0
82	Refine alignments (horizontal & vertical)	Mile			0
83	Develop pavement design	No.			0
84	Finalize templates & transitions	No.			0
85	Develop final roadway model	Mile			0
86	Develop proposed design	Mile			0
87	Generate plan sheets (scale 1" = 20')	Sheet			0
88	Generate profile sheets (scale 1" = 20')	Sheet			0
89	Detail cross sections (scale 1" = 5')	No.			0
90	Design entrances	No.			0
91	Revise roadway plans from soils report	Mile			0
DRAINAGE					
92	Develop pipe sections (< 54")	No.	2	4	8
93	Develop drainage system map	Mile	1	16	16
94	Develop drainage situation (bridge)	No.			0
95	Develop drainage situation (culvert)	No.	1	16	16
96	Develop blue line stream channel change (=> 200')	No.			0
97	Drainage analysis (entrance pipes)	No.			0
98	Drainage analysis (A <= 200 acres)	No.	3	8	24
99	Drainage analysis (200 acres < A < 1.0 sq. mile)	No.			0
100	Drainage analysis (A => 1.0 sq. mile) level 1 analysis	No.			0
101	Drainage analysis (A => 1.0 sq. mile) level 2 analysis	No.			0
102	Drainage analysis (A => 1.0 sq. mile) level 3 analysis	No.			0
103	Special drainage studies	No.			0
104	Roadway ditches and channels	Mile	1	8	8
105	Develop Erosion Control Plan	Mile			0
106	Inlet spacing calculations	No.	38	0.5	19
107	Storm sewers calculations	No.	38	2	76
108	Perform scour analysis	No.			0
109	Assemble preliminary and final drainage folders	LS	1	40	40
110	Prepare advanced situation folder - bridge	No.			0
111	Prepare advanced situation folder - culvert	No.	1	40	40
DRAINAGE MISCELLANEOUS					
112					0
113					0
114					0
115					0

PRODUCTION-HOUR WORKSHEET (revised 7/14)

COUNTY	<u>FAYETTE</u>	PROJECT TYPE	<u>Phase I & II Design</u>
ROUTE	<u>Citation Boulevard Phase III-A</u>	CONSULTANT	<u>Vision Engineering</u>
DESC	_____	REVIEWED BY	<u>Jihad Hallany</u>
ITEM NO.	_____	PREPARED BY	<u>Joe Cochran</u>
		DATE	<u>2/23/2018</u>

FINAL PLAN PREPARATION (Continued)

No.	ITEM	UNIT	AMOUNT	HRS/UNIT	HOURS
116	Prepare layout sheet	LS			0
117	Prepare typical sections	No.			0
118	Prepare Interchange geometric approval	No.			0
119	Prepare intersection geometric approval	No.			0
120	Prepare coordinate control sheet	Mile			0
121	Prepare elevation developments	No.			0
122	Prepare striping plan	No.			0
123	Calculate final quantities	Mile			0
124	Complete general summary	LS			0
125	Complete paving summary	LS			0
126	Complete drainage summary	LS			0
127	Complete pavement under-drain summary	LS			0
128	Prepare cost estimate	LS			0
129	Plot/print copies of plans	LS			0
130	Plan revisions	Mile			0
131	Prepare final construction plans submittal	LS			0
MAINTENANCE OF TRAFFIC					
132	Write maintenance of traffic notes (TCP)	LS			0
133	Prepare construction phasing plans	Mile			0
134	Develop diversion plan sheets	Sheet			0
135	Develop diversion profile sheets	Sheet			0
136	Develop diversion cross sections	No.			0
137	Develop temporary drainage	No.			0
FINAL PLANS MISCELLANEOUS					
138	Document available rock quantities	LS			0
139	Prepare Specifications and Bid Documents	LS			0
140					0
141					0
142					0
143					0
FINAL PLANS TOTAL					247

PRODUCTION-HOUR WORKSHEET (revised 7/14)

COUNTY	<u>FAYETTE</u>	PROJECT TYPE	Phase I & II Design
ROUTE	<u>Citation Boulevard Phase III-A</u>	CONSULTANT	<u>Vision Engineering</u>
DESC	_____	REVIEWED BY	<u>Jihad Hallany</u>
ITEM NO.	_____	PREPARED BY	<u>Joe Cochran</u>
		DATE	<u>2/23/2018</u>

MEETINGS

No.	ITEM	PERSONS	UNIT	AMOUNT	HRS/UNIT	HOURS
150	Prelim. line and grade inspection	3	No.			0
151	Drainage inspection	1	No.			0
152	Final inspection	3	No.			0
153	Misc. project coordination meetings	1	No.			0
154	Project team meetings	1	No.			0
MEETINGS MISCELLANEOUS						
155	Home Owner Association Meeting	1	No.			0
156	Local Officials Meetings	3	No.			0
157	Attend Pre-Bid Meeting	2	No.			0
157	Attend Bid Opening	2	No.			0
MEETINGS TOTAL						0

PUBLIC INVOLVEMENT

No.	ITEM	PERSONS	UNIT	AMOUNT	HRS/UNIT	HOURS
160	Develop and Maintain Mailing List		LS			0
161	Prepare for Advisory Committee/Officials Meeting		No.			0
162	Attend Advisory Committee/Officials Meeting	3	No.			0
163	Prepare for Public Meetings/Hearings		No.			0
164	Attend Public Meetings/Hearings	4	No.			0
165	Prepare and Distribute Newsletter		No.			0
166	Property owner coordination		No.			0
PUBLIC INVOLVEMENT MISCELLANEOUS						
167	Attend LFUCG Council Meeting (1 person)		No.			0
168						0
169						0
PUBLIC INVOLVEMENT TOTAL						0

QA/QC

No.	ITEM	PERSONS	UNIT	AMOUNT	HRS/UNIT	HOURS
180	Plan review		LS			0
181	Structure review					0
QA/QC TOTAL						0

COUNTY	<u>FAYETTE</u>	PROJECT TYPE	<u>Phase I & II Design</u>
ROUTE	<u>Citation Boulevard Phase III-A</u>	CONSULTANT	<u>Vision Engineering</u>
DESC	<u></u>	REVIEWED BY	<u>Jihad Hallany</u>
ITEM NO.	<u></u>	PREPARED BY	<u>Joe Cochran</u>
		DATE	<u>2/23/2018</u>
PRODUCTION-HOUR SUMMARY			
SURVEY TOTAL			0
LINE AND GRADE TOTAL			48
UTILITY COORDINATION TOTAL			0
RIGHT OF WAY PLANS TOTAL			0
FINAL PLANS TOTAL			247
MEETINGS TOTAL			0
PUBLIC INVOLVEMENT TOTAL			0
QA/QC TOTAL			0
GRAND TOTAL			295



KENTUCKY TRANSPORTATION CABINET
 Department of Highways
 DIVISION OF PROFESSIONAL SERVICES
ENGINEERING AND RELATED SERVICES FEE PROPOSAL

TC 40-2
 Rev. 12/2017
 Page 1 of 1

SECTION 1: PROJECT INFORMATION

DATE:	Jan 22, 2018	COUNTY:	Fayette	ITEM #:	
PROJECT:	Citation Boulevard Phase III-A				
DESC:					

SECTION 2: BUDGET INFORMATION

FEE CONSIDERATIONS	PROPOSED MAN HOURS	NEGOTIATED MAN HOURS	AVERAGE RATE	ESTIMATED COST
Preliminary Line and Grade	20		\$ 105.00	\$ 2,100.00
Utility Coordination	28		\$ 105.00	\$ 2,940.00
Meetings	44		\$ 105.00	\$ 4,620.00
Public Involvement	24		\$ 105.00	\$ 2,520.00
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
TOTAL PRODUCTION HOURS & PAYROLL	116			\$ 12,180.00

	OVERHEAD (%)	\$ -
	PROFIT (%)	\$ -
	COST OF MONEY (%)	\$ -

DIRECT COSTS	AMOUNT
Travel to and from Meetings (9 meetings @ 80 miles roundtrip each meeting @ \$0.545/mile)	\$ 392.40
TOTAL DIRECT COSTS	\$ 392.40

SUBCONSULTANTS	AMOUNT
TOTAL SUBCONSULTANTS	\$ -

	TOTAL FEE	\$ 12,572
--	------------------	------------------

*Rounded to the nearest dollar

SECTION 3: SIGNATURE

FIRM NAME: Salt River Engineering	SIGNED BY: Connie Allen	
_____ Connie Allen	_____ Owner	_____ 1/22/2018
CONSULTANT SIGNATURE	TITLE	DATE
_____ [Blank Signature Line]	_____ [Blank Title Line]	_____ [Blank Date Line]
PROFESSIONAL SERVICES SIGNATURE	TITLE	DATE

PRODUCTION-HOUR WORKSHEET (revised 7/14)

COUNTY	FAYETTE	PROJECT TYPE	Phase I & II Design
ROUTE	Citation Boulevard Phase III-A	CONSULTANT	Salt River Engineering
DESC		REVIEWED BY	Connie Allen
ITEM NO.		PREPARED BY	Joe Cochran
		DATE	1/15/2018

SURVEY

No.	ITEM	CREW	UNIT	AMOUNT	HRS/UNIT	HOURS
RECONNAISSANCE						
1	Control - (existing)	1	Mile			0
2	Utilities - (data gathering, identification & contact)	1	No.			0
3	Drainage - (sink holes, streams, pipes, etc.)	1	Mile			0
CONTROL						
4	Horizontal	2	Mile			0
5	Vertical	2	Mile			0
6	Process data	1	Mile			0
PLANIMETRIC SURVEY						
7	Planimetric location <i>(complete)</i>	2	Mile			0
8	Subsurface Utility Engineering, Quality Levels C & D	1	Mile			0
9	Subsurface Utility Engineering, Quality Level B	1	LS			0
10	Subsurface Utility Engineering, Quality Level A	1	LS			0
11	Process data	1	Mile			0
TERRAIN SURVEY						
12	DTM data collection <i>(Items 13-20 not required if used)</i>	2	Acre			0
13	Verify terrain model accuracy	2	Mile			0
14	Tie-ins	2	No.			0
15	Drainage situations survey (Bridge)	2	No.			0
16	Drainage situations survey (Culvert)	2	No.			0
17	Drainage pipe section (non-situation size)	2	No.			0
18	Flood plain data	2	No.			0
19	Railroad Surveys	2	No.			0
20	Additional necessary DTM data <i>(pickup)</i>	2	Acre			0
21	Process data	1	Mile			0
ESTABLISH PROPERTY LINES & OWNERSHIP						
22	Contact & Interview Property Owners	1	Parcel			0
23	Field tie property lines/corners	2	Parcel			0
STAKING						
24	Stake centerlines, approaches, detours	2	Mile			0
25	Stake core holes - structures <i>(unit is per structure)</i>	2	No.			0
26	Stake core holes - roadway <i>(unit is per core hole)</i>	2	No.			0
SURVEY MISCELLANEOUS						
27	Determine roadway elevations (Crown and EP)	2	Mile			0
28	Stake Easement Acquisitions Prior to Bidding	2	Parcel			0
29	Set Property Corner Pins for R/W Acquisition	2	Parcel			0
SURVEY TOTAL						0

PRODUCTION-HOUR WORKSHEET (revised 7/14)

COUNTY	FAYETTE	PROJECT TYPE	Phase I & II Design
ROUTE	Citation Boulevard Phase III-A	CONSULTANT	Salt River Engineering
DESC		REVIEWED BY	Connie Allen
ITEM NO.		PREPARED BY	Joe Cochran
		DATE	1/15/2018

PRELIMINARY LINE AND GRADE

No.	ITEM	UNIT	AMOUNT	HRS/UNIT	HOURS
30	Computer setup	LS			0
31	Prepare existing manuscripts	Mile			0
32	Establish approximate property lines and ownership	Parcel			0
33	Study and develop typical sections	No.			0
34	Study and develop horizontal alignments	Mile			0
35	Study and develop vertical alignments	Mile			0
36	Create and evaluate proposed roadway models	Mile			0
37	Design entrances	No.			0
38	Pre-size pipes (all alternates)	No.			0
39	Pre-size culverts (all alternates)	No.			0
40	Pre-size bridges (all alternates)	No.			0
41a	Conduct Traffic Engineering Analysis (Basic; Highway Capacity Manual Pr	Intersection			0
41b	Conduct Traffic Engineering Analysis (Advanced; Micro-simulation)	Intersection			0
42	Study and development of interchange	No.			0
43	Study and development of intersection	No.			0
44	Study and develop maintenance of traffic plan	LS			0
45	Plot/print copies of plans for team meeting and inspections	LS			0
46	Calculate preliminary quantities and develop cost estimates	Alt.			0
47	Revise plans and estimates	LS			0
48	Preliminary Right of Way with taking areas	Parcel			0
49	Prepare Design Executive Summary	LS			0
50	Develop/document "Avoidance Alternatives to Water Related Impacts"	LS			0

PRELIMINARY LINE & GRADE MISCELLANEOUS

51	KDOW and FEMA Coordination	LS			0
52	Identify Utility Conflicts and Develop Proposed Solutions	LS	1	20	20
53	Prepare Preliminary Design Technical Memorandum	LS			0
54	Environmental Support Documents	LS			0
55	Property Owner and Deed Research	Parcel			0

PRELIMINARY LINE AND GRADE TOTAL

20

PRODUCTION-HOUR WORKSHEET (revised 7/14)			
COUNTY	FAYETTE	PROJECT TYPE	Phase I & II Design
ROUTE	Citation Boulevard Phase III-A	CONSULTANT	Salt River Engineering
DESC		REVIEWED BY	Connie Allen
ITEM NO.		PREPARED BY	Joe Cochran
		DATE	1/15/2018

UTILITY COORDINATION

No.	ITEM	PERSONS	UNIT	AMOUNT	HRS/UNIT	HOURS
56	Utility Coordination Meeting	1	No.	2	6	12
57	Develop Utility Relocation Layout Sheets (1"=200')		Mile			0
58	Develop Utility Relocation Plans (1"=50')		Mile			0
UTILITY COORDINATION MISCELLANEOUS						
59	Correspondence with Utilities for Locations of Existing Facilities		LS	1	16	16
UTILITY COORDINATION TOTAL						28

RIGHT OF WAY PLANS

No.	ITEM	UNIT	AMOUNT	HRS/UNIT	HOURS	
60	Deed research	Parcel			0	
61	Establish property and ownership	Parcel			0	
62	Calculate Right of Way	Parcel			0	
63	Prepare legal descriptions	Parcel			0	
64	Complete Right of Way summary sheet	Parcel			0	
65	Generate Right of Way strip map (<i>scale 1" = 100'</i>)	Sheet			0	
66	Prepare Right of Way Plans Submittal	LS			0	
67	Right of Way revisions after Right of Way submittal	Parcel			0	
R/W PLANS MISCELLANEOUS						
68	Deed Research for Existing Alignments	LS			0	
69	Prepare Legal Descriptions for Right of Way transfer (Plats)	Parcel			0	
70	Existing Easement Lines	LS			0	
71					0	
72					0	

RIGHT OF WAY PLANS TOTAL **0**

PRODUCTION-HOUR WORKSHEET (revised 7/14)

COUNTY	FAYETTE	PROJECT TYPE	Phase I & II Design
ROUTE	Citation Boulevard Phase III-A	CONSULTANT	Salt River Engineering
DESC		REVIEWED BY	Connie Allen
ITEM NO.		PREPARED BY	Joe Cochran
		DATE	1/15/2018

FINAL PLAN PREPARATION

No.	ITEM	UNIT	AMOUNT	HRS/UNIT	HOURS
80	Computer setup	LS			0
81	Update existing topography and terrain model	Mile			0
82	Refine alignments (horizontal & vertical)	Mile			0
83	Develop pavement design	No.			0
84	Finalize templates & transitions	No.			0
85	Develop final roadway model	Mile			0
86	Develop proposed design	Mile			0
87	Generate plan sheets (scale 1" = 20')	Sheet			0
88	Generate profile sheets (scale 1" = 20')	Sheet			0
89	Detail cross sections (scale 1" = 5')	No.			0
90	Design entrances	No.			0
91	Revise roadway plans from soils report	Mile			0
DRAINAGE					
92	Develop pipe sections (< 54")	No.			0
93	Develop drainage system map	Mile			0
94	Develop drainage situation (bridge)	No.			0
95	Develop drainage situation (culvert)	No.			0
96	Develop blue line stream channel change (=> 200')	No.			0
97	Drainage analysis (entrance pipes)	No.			0
98	Drainage analysis (A <= 200 acres)	No.			0
99	Drainage analysis (200 acres < A < 1.0 sq. mile)	No.			0
100	Drainage analysis (A => 1.0 sq. mile) level 1 analysis	No.			0
101	Drainage analysis (A => 1.0 sq. mile) level 2 analysis	No.			0
102	Drainage analysis (A => 1.0 sq. mile) level 3 analysis	No.			0
103	Special drainage studies	No.			0
104	Roadway ditches and channels	Mile			0
105	Develop Erosion Control Plan	Mile			0
106	Inlet spacing calculations	No.			0
107	Storm sewers calculations	No.			0
108	Perform scour analysis	No.			0
109	Assemble preliminary and final drainage folders	LS			0
110	Prepare advanced situation folder - bridge	No.			0
111	Prepare advanced situation folder - culvert	No.			0
DRAINAGE MISCELLANEOUS					
112					0
113					0
114					0
115					0

PRODUCTION-HOUR WORKSHEET (revised 7/14)

COUNTY	<u>FAYETTE</u>	PROJECT TYPE	<u>Phase I & II Design</u>
ROUTE	<u>Citation Boulevard Phase III-A</u>	CONSULTANT	<u>Salt River Engineering</u>
DESC	_____	REVIEWED BY	<u>Connie Allen</u>
ITEM NO.	_____	PREPARED BY	<u>Joe Cochran</u>
		DATE	<u>1/15/2018</u>

FINAL PLAN PREPARATION (Continued)

No.	ITEM	UNIT	AMOUNT	HRS/UNIT	HOURS
116	Prepare layout sheet	LS			0
117	Prepare typical sections	No.			0
118	Prepare Interchange geometric approval	No.			0
119	Prepare intersection geometric approval	No.			0
120	Prepare coordinate control sheet	Mile			0
121	Prepare elevation developments	No.			0
122	Prepare striping plan	No.			0
123	Calculate final quantities	Mile			0
124	Complete general summary	LS			0
125	Complete paving summary	LS			0
126	Complete drainage summary	LS			0
127	Complete pavement under-drain summary	LS			0
128	Prepare cost estimate	LS			0
129	Plot/print copies of plans	LS			0
130	Plan revisions	Mile			0
131	Prepare final construction plans submittal	LS			0
MAINTENANCE OF TRAFFIC					
132	Write maintenance of traffic notes (TCP)	LS			0
133	Prepare construction phasing plans	Mile			0
134	Develop diversion plan sheets	Sheet			0
135	Develop diversion profile sheets	Sheet			0
136	Develop diversion cross sections	No.			0
137	Develop temporary drainage	No.			0
FINAL PLANS MISCELLANEOUS					
138	Document available rock quantities	LS			0
139	Prepare Specifications and Bid Documents	LS			0
140					0
141					0
142					0
143					0
FINAL PLANS TOTAL					0

PRODUCTION-HOUR WORKSHEET (revised 7/14)

COUNTY	<u>FAYETTE</u>	PROJECT TYPE	Phase I & II Design
ROUTE	<u>Citation Boulevard Phase III-A</u>	CONSULTANT	Salt River Engineering
DESC	_____	REVIEWED BY	Connie Allen
ITEM NO.	_____	PREPARED BY	Joe Cochran
		DATE	1/15/2018

MEETINGS

No.	ITEM	PERSONS	UNIT	AMOUNT	HRS/UNIT	HOURS
150	Prelim. line and grade inspection	1	No.	1	8	8
151	Drainage inspection	1	No.			0
152	Final inspection	1	No.	1	12	12
153	Misc. project coordination meetings	1	No.			0
154	Project team meetings	1	No.			0
MEETINGS MISCELLANEOUS						
155	Home Owner Association Meeting	1	No.			0
156	Local Officials Meetings	1	No.	3	8	24
157	Attend Pre-Bid Meeting	2	No.			0
157	Attend Bid Opening	2	No.			0
MEETINGS TOTAL						44

PUBLIC INVOLVEMENT

No.	ITEM	PERSONS	UNIT	AMOUNT	HRS/UNIT	HOURS
160	Develop and Maintain Mailing List		LS			0
161	Prepare for Advisory Committee/Officials Meeting		No.	1	4	4
162	Attend Advisory Committee/Officials Meeting	1	No.	1	8	8
163	Prepare for Public Meetings/Hearings		No.	1	4	4
164	Attend Public Meetings/Hearings	1	No.	1	8	8
165	Prepare and Distribute Newsletter		No.			0
166	Property owner coordination		No.			0
PUBLIC INVOLVEMENT MISCELLANEOUS						
167	Attend LFUCG Council Meeting (1 person)		No.			0
168						0
169						0
PUBLIC INVOLVEMENT TOTAL						24

QA/QC

No.	ITEM	UNIT	AMOUNT	HRS/UNIT	HOURS
180	Plan review	LS			0
181	Structure review				0
QA/QC TOTAL					0

PRODUCTION-HOUR WORKSHEET (revised 7/14)

COUNTY	<u>FAYETTE</u>	PROJECT TYPE	<u>Phase I & II Design</u>
ROUTE	<u>Citation Boulevard Phase III-A</u>	CONSULTANT	<u>Salt River Engineering</u>
DESC	_____	REVIEWED BY	<u>Connie Allen</u>
ITEM NO.	_____	PREPARED BY	<u>Joe Cochran</u>
		DATE	<u>1/15/2018</u>

PRODUCTION-HOUR SUMMARY

SURVEY TOTAL		0
LINE AND GRADE TOTAL		20
UTILITY COORDINATION TOTAL		28
RIGHT OF WAY PLANS TOTAL		0
FINAL PLANS TOTAL		0
MEETINGS TOTAL		44
PUBLIC INVOLVEMENT TOTAL		24
QA/QC TOTAL		0
GRAND TOTAL		116

LFUCG Citation Boulevard Phase III-A

Geotechnical Engineering and Material Testing

HDR has the in-house ability to perform subsurface investigations, laboratory testing programs and provide geotechnical engineering services for transportation projects. Geotechnical engineering services provided by HDR include: Drilling & Sampling, Laboratory Testing & Analysis, Shallow Foundation Design, Deep Foundation Design, Slope Stability Analysis, Settlement Analysis, Seismic Mitigation & Ground Improvement Design, Pavement Design, Retaining Wall Analysis, Load & Resistance Factor Design (LRFD), Instrumentation Installation & Monitoring, Crosshole Sonic Logging (CSL), Seepage Analysis and Slide Repair & Mitigation. HDR's Materials Laboratory testing facilities include state of the art testing equipment and is certified by the AASHTO Materials Reference Laboratory and validated by USACE.

Craig Barnett, PE – Geotechnical Section Manager

Mr. Barnett serves as the Geotechnical Section Manager for the Lexington, KY office and is responsible for various geotechnical and structural projects including slope stability analyses; settlement analyses; external retaining wall analyses; rock cut slope design; deep and shallow foundation analyses. In addition, his experience includes development of geotechnical reports for railroads, roadways and structures designed in various geologic regions. His responsibilities include management, design, and quality control of various projects including geotechnical investigations involving structures including bridges, buildings, roadways and dams. He also has field experience in geotechnical exploration, field crew management, and exploratory foundation excavations.

Lyndsie Janbakhsh, PE – Geotechnical Engineer

Lyndsie has over seven years of professional experience in analysis, design, and construction of deep foundations for bridges, retaining walls, railroad track-beds and bridge approaches, building structures, embankment fills, earth dams, flood control levees, pavements, rock-fall catchments, subgrade stabilization, slope and excavation stability, and preparation of geotechnical reports, project specifications, construction plans and cost estimates.

Project Approach

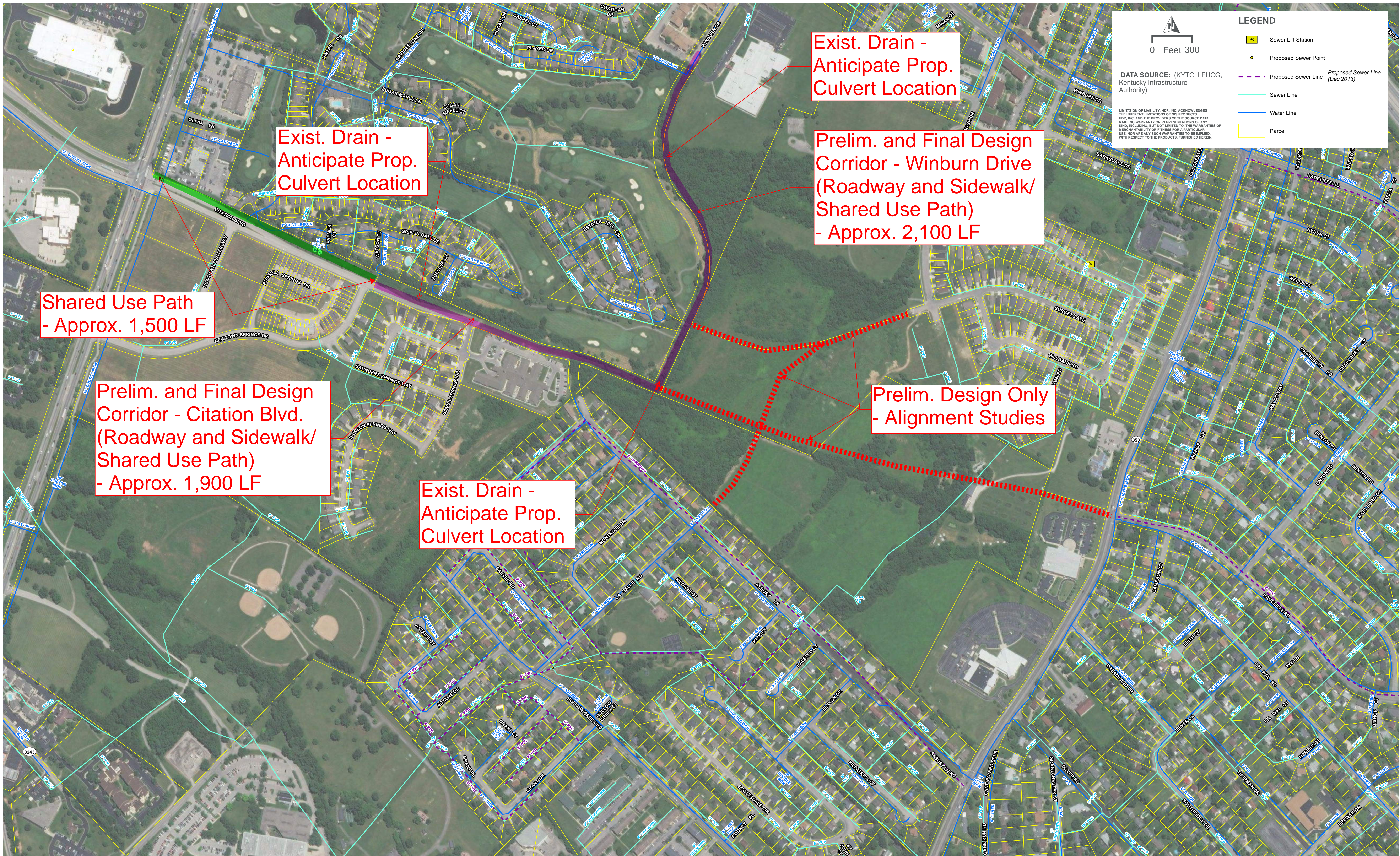
After receiving the notice to proceed on a project, HDR will assign a project engineer to the project. The project engineer will examine the project plans and data and prepare or review, as applicable, the proposed boring plan for the project. The project engineer will monitor drilling operations and provide instructions to ensure adequate samples are collected and appropriate field testing is performed. Soil and rock samples will be analyzed in our materials laboratory in Paducah, KY.

Laboratory testing and analysis will be performed in accordance with applicable AASHTO, ASTM and Kentucky methods, as specified in the current LFUCG geotechnical manual. Subsurface data will also be presented in the format specified in the LFUCG geotechnical manual.

Engineer's analyses and recommendations will include recommendations for pavement design, embankment stability analysis, foundation analysis for box culverts including settlement analysis and bearing capacity analysis. These operations will be conducted in accordance with current LFUCG procedures, manuals, specifications and protocols, as applicable.

Scope Includes:

- 4 soundings +/- proposed roadway extensions
- 2 borings for cut/fill sections
- 1 boring for culvert
- 2 pavement cores
- Assumed bedrock depth is 15'



LEGEND

- Sewer Lift Station
- Proposed Sewer Point
- Proposed Sewer Line
- Sewer Line
- Water Line
- Parcel

DATA SOURCE: (KYTC, LFUGG, Kentucky Infrastructure Authority)

LIMITATION OF LIABILITY: HDR, INC. ACKNOWLEDGES THE INHERENT LIMITATIONS OF GIS PRODUCTS. HDR, INC. AND THE PROVIDERS OF THE SOURCE DATA MAKE NO WARRANTY OR REPRESENTATIONS OF ANY KIND, INCLUDING, BUT NOT LIMITED TO, THE WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE, NOR ARE ANY SUCH WARRANTIES TO BE IMPLIED, WITH RESPECT TO THE PRODUCTS, FURNISHED HEREIN.

**Exist. Drain -
Anticipate Prop.
Culvert Location**

**Exist. Drain -
Anticipate Prop.
Culvert Location**

**Prelim. and Final Design
Corridor - Winburn Drive
(Roadway and Sidewalk/
Shared Use Path)
- Approx. 2,100 LF**

**Shared Use Path
- Approx. 1,500 LF**

**Prelim. and Final Design
Corridor - Citation Blvd.
(Roadway and Sidewalk/
Shared Use Path)
- Approx. 1,900 LF**

**Exist. Drain -
Anticipate Prop.
Culvert Location**

**Prelim. Design Only
- Alignment Studies**

LFUCG Citation BLVD 01/08/18

Scope includes: 4 soundings± for proposed roadway extension, 2 borings for cut/fill sections, 1 boring for the culvert and 2 pavement cores (Assume bedrock depth is 15')

<u>Task Item</u>	<u>Estimated Quantities</u>		<u>Rate</u>	<u>Unit</u>	<u>Total Cost</u>
<i>Field Work</i>					
Mob/Demob (Assume 1 crew)	1	X	\$ 1,000.00	/lump sum	\$ 1,000.00
Support Truck Mileage (Crew and Field Geo)	340	X	\$ 0.75	/mile	\$ 255.00
Crew Time - Standy/Move/Setup/(assume 1h/hole excluding sound)	6	X	\$ 200.00	/hour	\$ 1,200.00
Pavement Core Machine Rental	1	X	\$ 300.00	/day	\$ 300.00
Borings with SPT's every 5'	45	X	\$ 20.00	/foot	\$ 900.00
Extra SPT's Beyond every 5' (2 per boring)	6	X	\$ 35.00	/each	\$ 210.00
Bulk Samples	4	X	\$ 50.00	/each	\$ 200.00
Soundings for Roadway	60	X	\$ 14.00	/foot	\$ 840.00
Shelby Tubes	2	X	\$ 65.00	/each	\$ 130.00
Rock Coring Set-up	3	X	\$ 200.00	/each	\$ 600.00
Rock Coring	30	X	\$ 60.00	/foot	\$ 1,800.00
Per Diem/Hotel for Crew	3	X	\$ 240.00	/day	\$ 720.00
Per Diem/Hotel for Field Geologist/Engineer	3	X	\$ 120.00	/day	\$ 360.00
Traffic Control (assume none)	0	X	\$ 2,000.00	/day	\$ -
Dozer Work (assume none)	0	X	\$ 150.00	/hour	\$ -
Drilling Total					\$ 8,515.00
<i>Lab Testing</i>					
Moisture Contents	6	X	\$ 8.50	/each	\$ 51.00
Atterberg Limits	6	X	\$ 75.00	/each	\$ 450.00
Sieve Analysis with #200 wash	6	X	\$ 75.00	/each	\$ 450.00
Standard Proctor	2	X	\$ 140.00	/each	\$ 280.00
Unconfined Compression (soil)	2	X	\$ 60.00	/each	\$ 120.00
Unconfined Compression (rock)	2	X	\$ 150.00	/each	\$ 300.00
CBR	2	X	\$ 175.00	/each	\$ 350.00
Lab Total					\$ 2,001.00
				TOTAL	\$ 10,516.00