TRANSPORTATION INVESTMENT REPORT

Special Bridge Replacement Program

Hamilton County / City of Chattanooga / City of East Ridge PIN 124069.00

Interstate 24 Bridge over South Germantown Road Bridge ID: 33100240055 Log Mile: 12.08 Belvoir Avenue Bridge over Interstate 24 Bridge ID: 33100240057 Log Mile: 1.01



PREPARED BY BARGE DESIGN SOLUTIONS For the TENNESSEE DEPARTMENT OF TRANSPORTATION STRATEGIC TRANSPORTATION INVESTMENTS DIVISION

Date 7.10.18 Approved by

Deputy Commissioner Chief of Environment and Planning

Approved by P. D. Jerm Date 7/1/19 Deputy Commissioner and Chief Engineer

This document is covered by 23 USC § 409 and its production pursuant to fulfilling public planning requirements does not waive the provisions of § 409.

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Project Description

The Construction Manager/General Contractor (CM/GC) project on Interstate 24 in Hamilton County includes the Interstate 24 bridge over South Germantown Road and the Belvoir Avenue Bridge over Interstate 24. The proposed project includes the design and construction of the bridge replacement for both bridges. Accelerated Bridge Construction (ABC) techniques will be used to minimize impacts on vehicular traffic.

The purpose of this study is to review the existing structures and evaluate the recommended improvements. The proposed actions under consideration are as follows:

Interstate 24 Bridge over South Germantown Road

- Existing structure is four (4) span concrete bridge that is 166 feet long with eight (8) foot interior shoulders, three (3) twelve (12) foot lanes, and a three (3) foot outside shoulder in each direction.
- Proposed structure will either be a four (4) span concrete or two (2) span steel bridge that is 166 feet long with eight (8) foot interior shoulders, three (3) twelve (12) foot lanes, and a twelve (12) foot outside shoulder in each direction.
- The substructure will be designed and built to accommodate future roadway widening along Interstate 24.
- Proposed phased construction plan.
- Four (4) separate cost estimates were prepared for this bridge based on various construction alternates.
- Widening of eastbound exit ramp for Interstate 24 to South Germantown Road.
- Both intersections at the interchange will be updated to meet current signal and Americans with Disabilities Act (ADA) design standards.

Belvoir Avenue Bridge over Interstate 24

- Existing structure is four (4) span concrete bridge that is 190.5 feet long with ten (10) foot shoulders, four (4) twelve (12) foot lanes, and five (5) sidewalks on each side.
- Proposed structure will be a two (2) span bridge that is 152 feet long with four (4) eleven (11) foot lanes, two (2) foot shoulders, six (6) inch curbs, six (6) foot sidewalks on each side, and retaining walls beneath the bridge to accommodate for Interstate 24 being widened in the future.
- Local traffic will need to be detoured during construction.
- One cost estimate was prepared for this bridge.
- Both intersections on either side of the bridge will be updated to meet current signal and Americans with Disabilities Act (ADA) design standards.

Proposed Alternates

For the study, multiple build alternates were evaluated for proposed projects. The various costs associated with each build alternate was also assessed.

Build Alternates

The exact method of construction for each bridge has yet to be determined. For the purpose of this study, a few alternates were considered and evaluated.



Interstate 24 Bridge over South Germantown Road

There are multiple options for construction, bridge phase, and traffic phasing that have been evaluated for feasibility for the Interstate 24 Bridge over South Germantown Road. Accelerated Bridge Construction (ABC) techniques will be used to minimize impacts on vehicular traffic. The allowable configurations of the various categories can be seen in the following table.

Construction Alternates		Bridge Alternates	Traffic Phasing Plans		
Concrete	Baseline	Alternate 1	Road Closure (Detour to Next Ramp) Road Closure (Temporary Ramp)		
Bridge	Accelerated Bridge Construction	Alternate 2	Slide (Traffic Out then In)		
Steel Bridge- Lateral Slide		I Bridge- Lateral Slide Alternate 3			
Steel Bridge - SPMT		Alternate 4	Road Closure (Detour to Next Ramp) Road Closure (Temporary Ramp)		

Belvoir Avenue Bridge over Interstate 24

At this time, there are no plans to use ABC techniques to build the Belvoir Avenue bridge over Interstate 24. It will be built using traditional construction, and traffic will be detoured to local roads while the bridge is closed to traffic for construction.

Cost Alternates

The build alternates allow for a "best" to "worst" case scenario regarding days under construction and probable construction costs. This type of cost analysis gives a broader analysis in regard to cost comparison. A comparison of the cost estimates can be seen in the following tables.

Interstate 24 Bridge over South Germantown Road	Cost (Millions)
BASELINE: TRADITIONAL CONSTRUCTION Utilizing Traditional Techniques for Precast Concrete Box Beams and Cast-in-Place Deck	\$7.86
ALTERNATE 1: ACCELERATED BRIDGE CONSTRUCTION Utilizing ABC Techniques for Precast Concrete Box Beams and Full Depth Deck Panels	\$13.15
ALTERNATE 2: ACCELERATED BRIDGE CONSTRUCTION Utilizing ABC Techniques for Lateral Slide Steel Bridge	\$19.34
ALTERNATE 3: ACCELERATED BRIDGE CONSTRUCTION Utilizing ABC Techniques for Steel Bridge SPMT move	\$17.12



Belvoir Avenue Bridge over Interstate 24	Cost (Millions)
BASELINE: TRADITIONAL CONSTRUCTION	\$5.13

The total estimated construction cost for all construction alternatives are detailed in Attachment B for each section.

Alternative Contracting

The chosen contracting method for the project is CM/GC (Construction Manager/General Contractor). This contracting method involves a contractor in not only the construction phase of a project but also the design phase. The goal of the partnership between the client, the designer, and the contractor are to reduce risk, improve construction schedule, streamline the design process, and develop a project that keeps to budget. All design decisions are subject to change until the contractor is officially on board.



Index Of Sheets

SHEET NO. DESCRIPTION

1TITLE SHEET
2-3TYPICAL SECTIONS
4AREA OF INFLUENCE
5-6PROPOSED LAYOUTS
5A-5DTRAFFIC CONTROL PLANS
6ADETOUR MAP
7-10I-24 BRIDGE PHASING PLANS

STATE OF TENNESSEE **DEPARTMENT OF TRANSPORTATION BUREAU OF ENGINEERING**

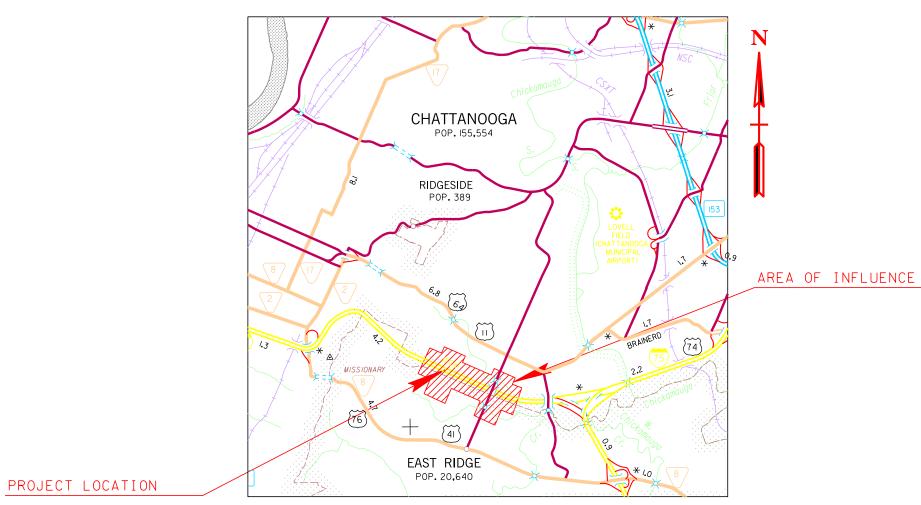
HAMILTON COUNTY

I-24 OVER S. GERMANTOWN ROAD CM/GC PROJECT



TRANSPORTATION INVESTMENT REPORT

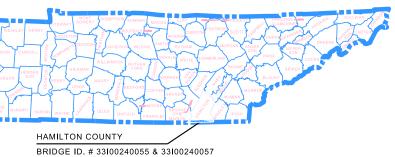
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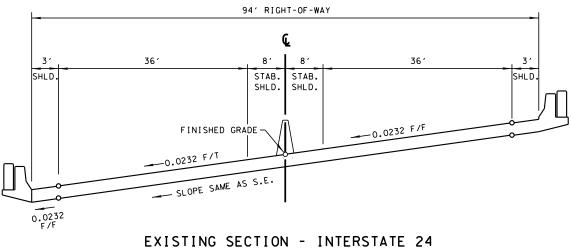


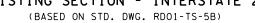
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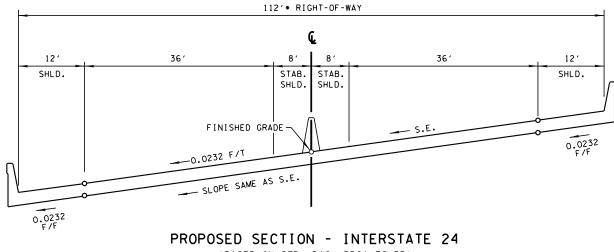
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PIN NO.	124069.00		
STATE PROJ. NO.	BR - I- 24 - 3(97)		









(BASED ON STD. DWG. RD01-TS-5B)

*EXISTING INSIDE SHOULDER WIDTH IS 8'. NEW TDOT STANDARDS CALL FOR 12' MINIMUM SHOULDERS.

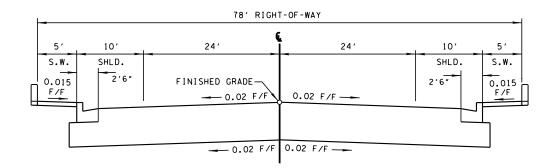
TRANSPORTATION INVESTMENT REPORT

PIN 124069.00 I-24 OVER S. GERMANTOWN ROAD CM/GC PROJECT HAMILTON COUNTY

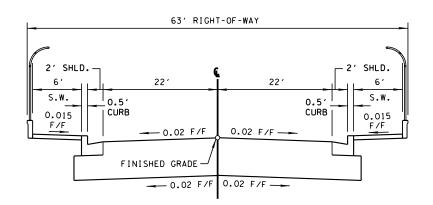
STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

I-24 BRIDGE OVER S GERMANTOWN RD

TYPICAL SECTIONS



EXISTING SECTION - BELVOIR AVENUE (BASED ON STD. DWG. RD01-TS-6)

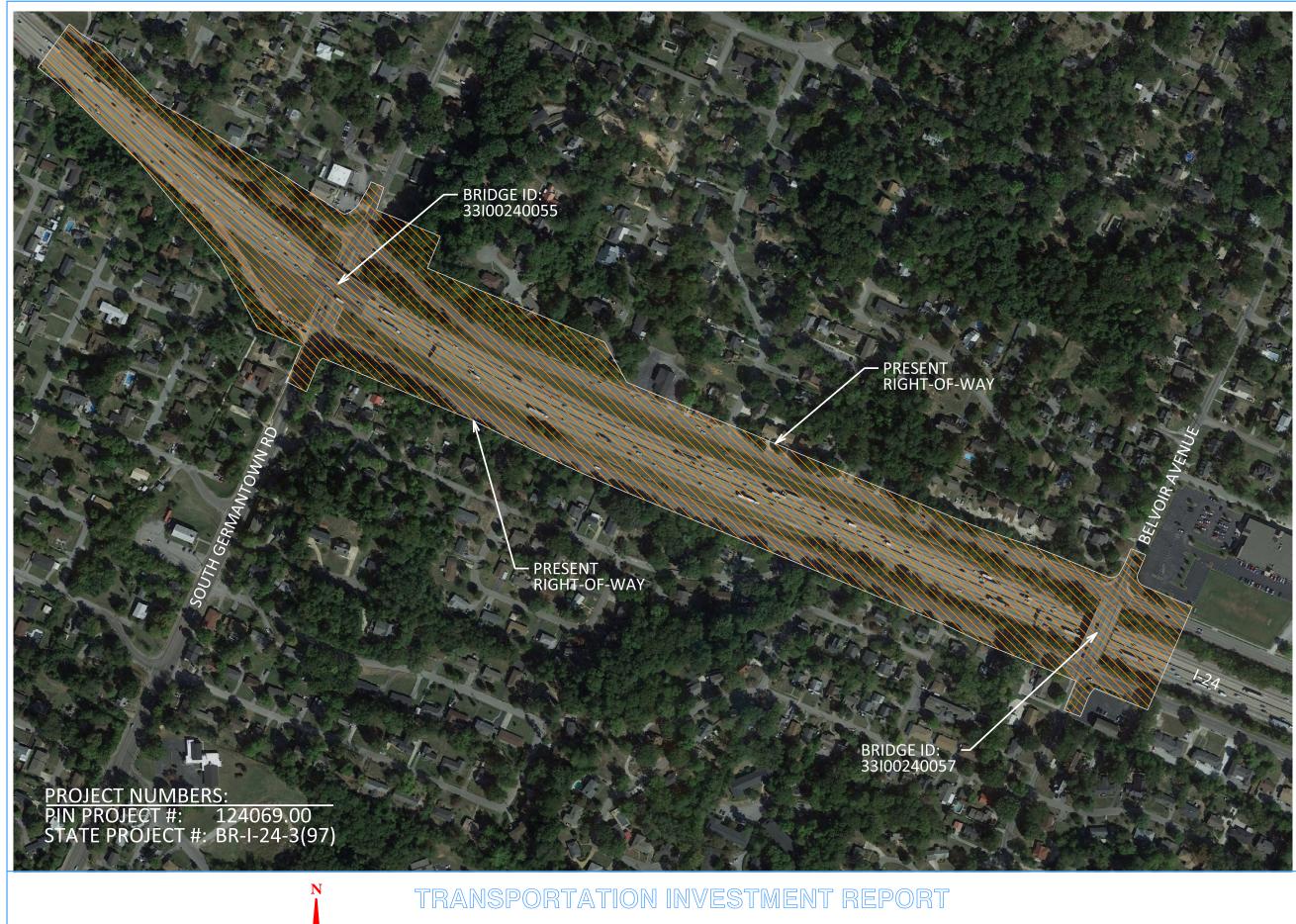


PROPOSED SECTION - BELVOIR AVENUE (BASED ON STD. DWG. RD01-TS-6A)

TRANSPORTATION INVESTMENT REPORT

PIN 124069.00 I-24 OVER S. GERMANTOWN ROAD CM/GC PROJECT HAMILTON COUNTY

STATE OF TENNESSEE
DEPARTMENT OF TRANSPORTATION BELVOIR AVE
BRIDGE OVER I-24
TYPICAL SECTIONS



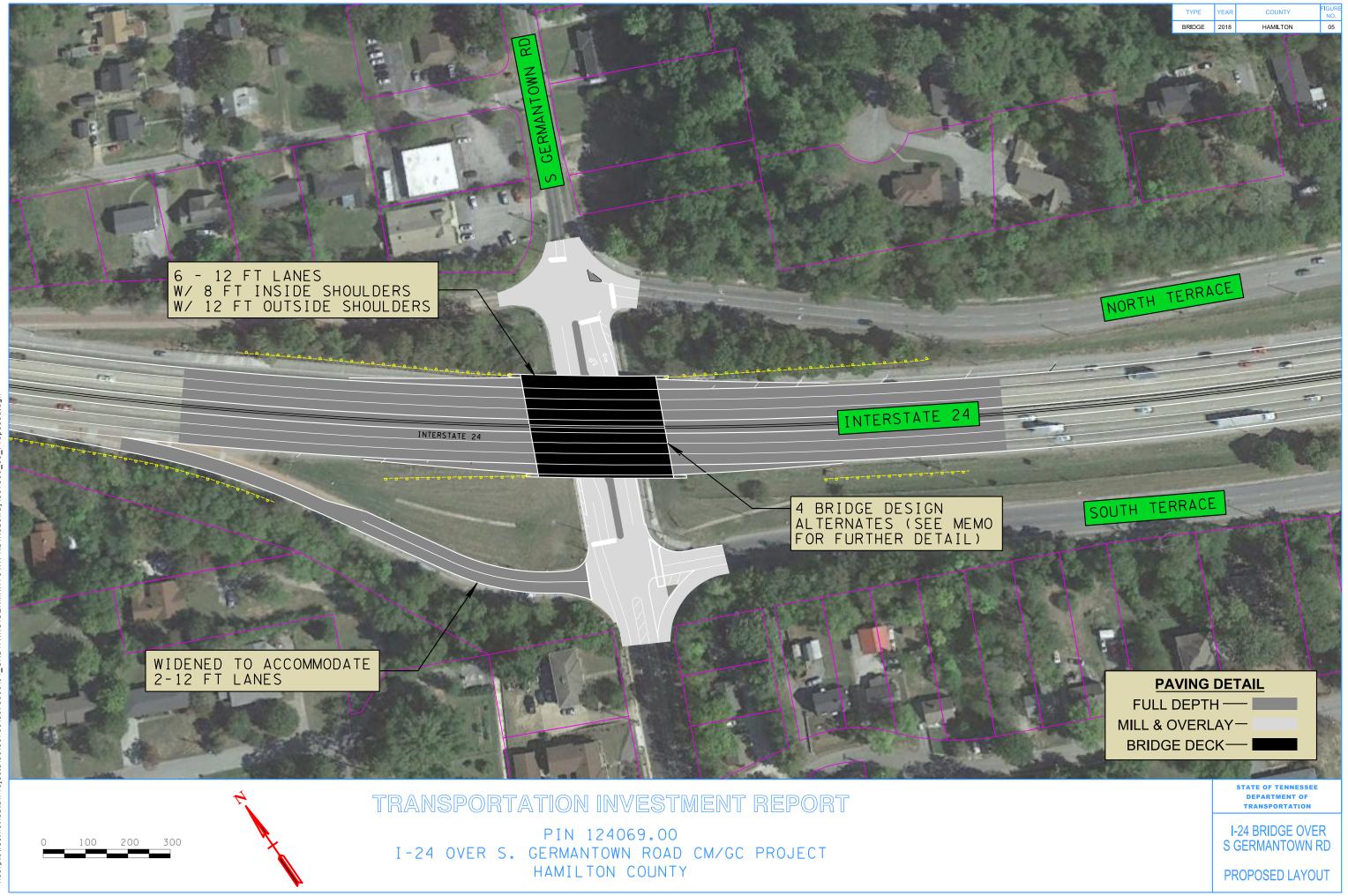
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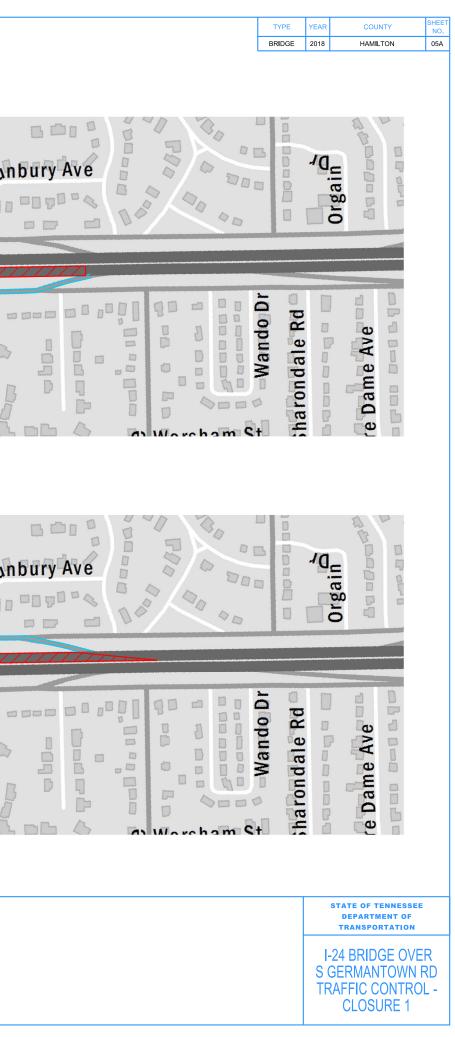
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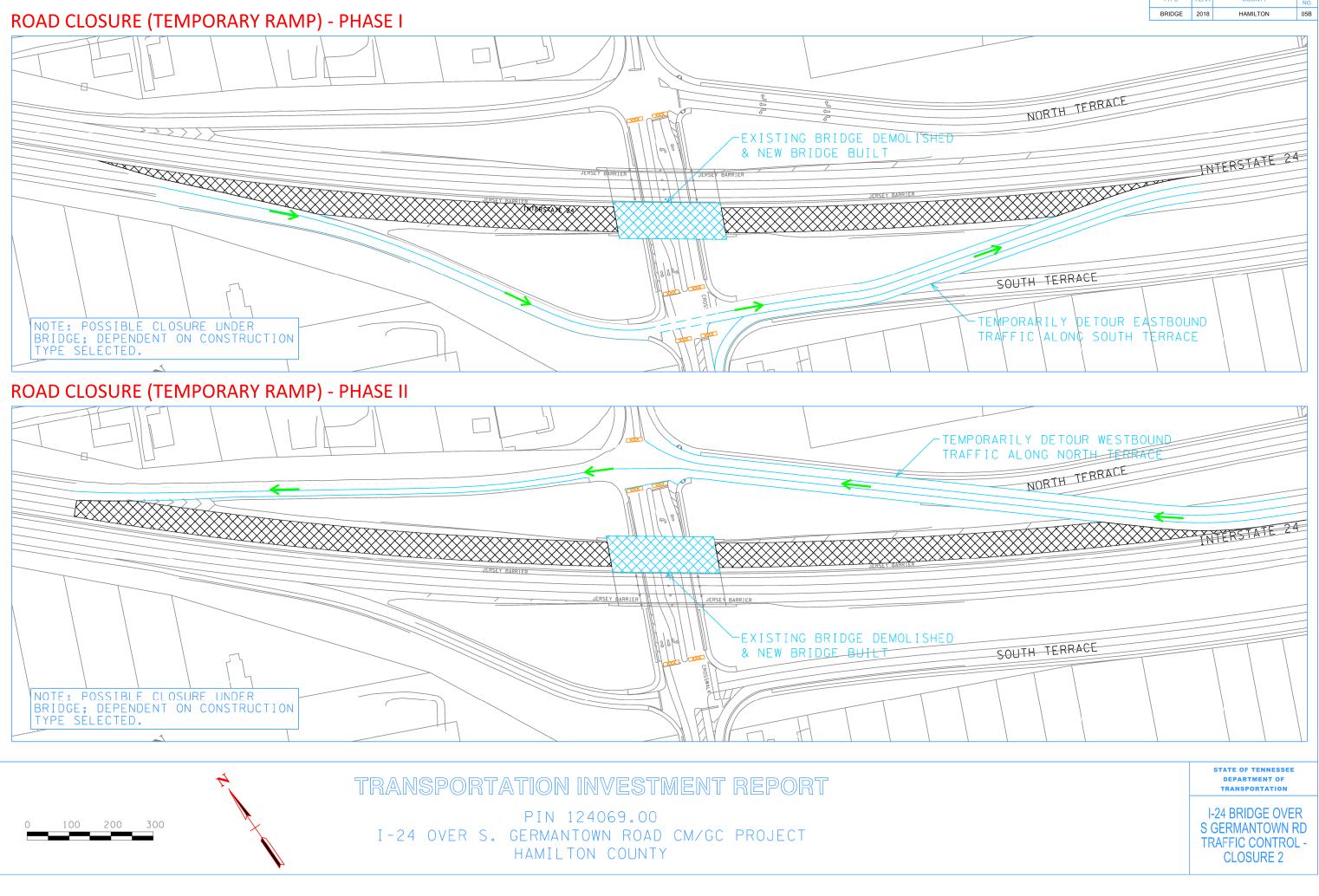


TRANSPORTATION INVESTMENT REPORT

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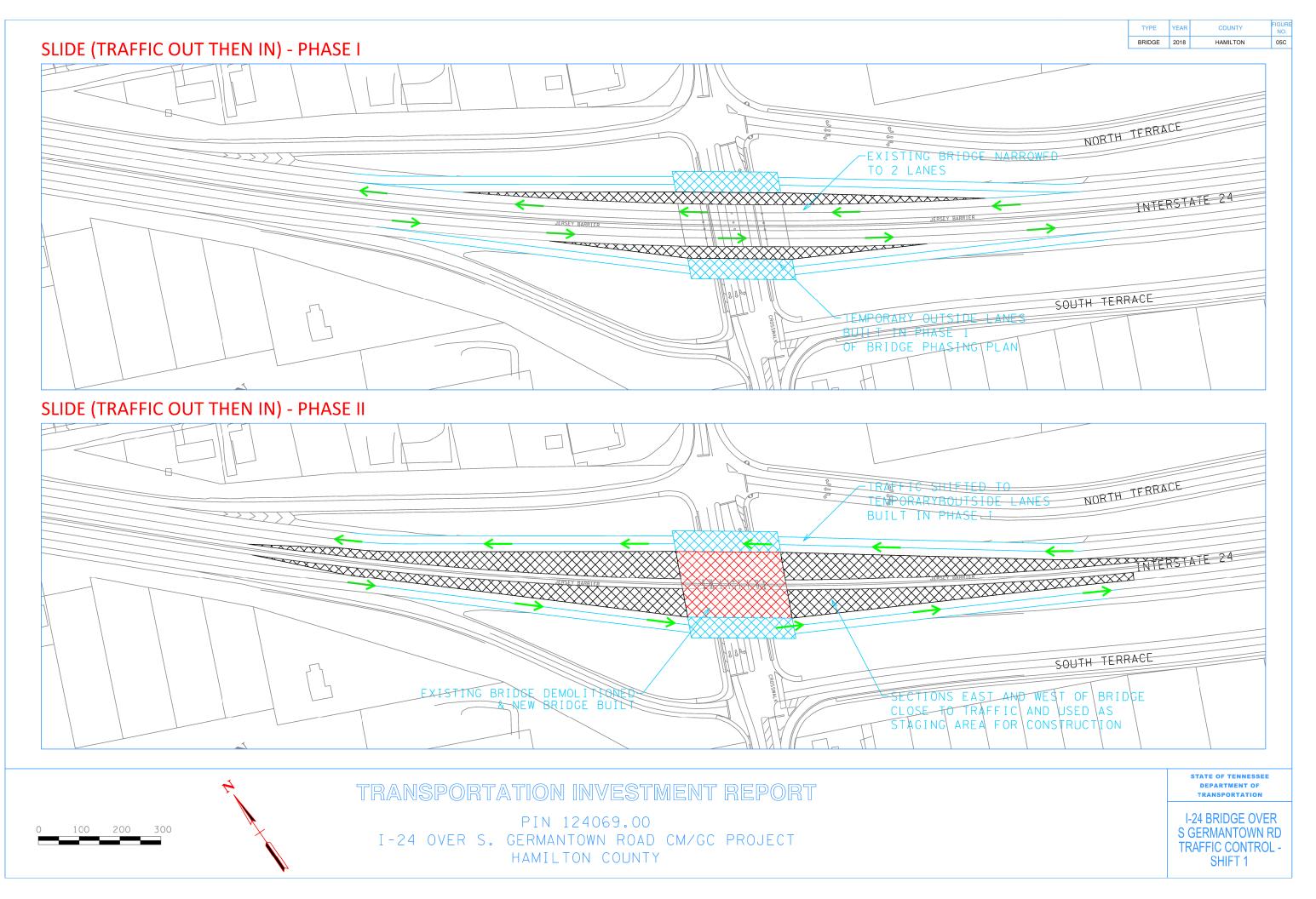
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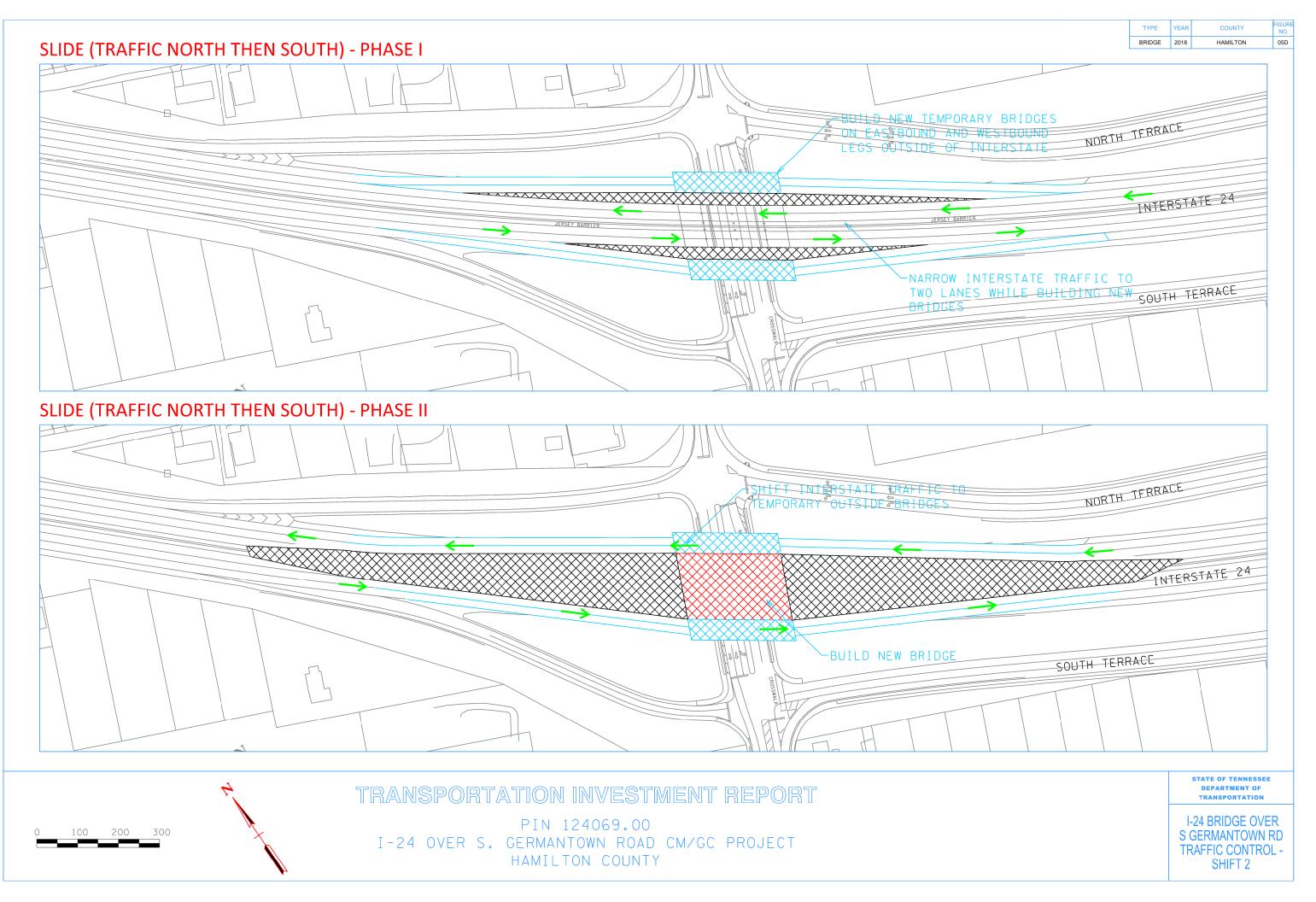


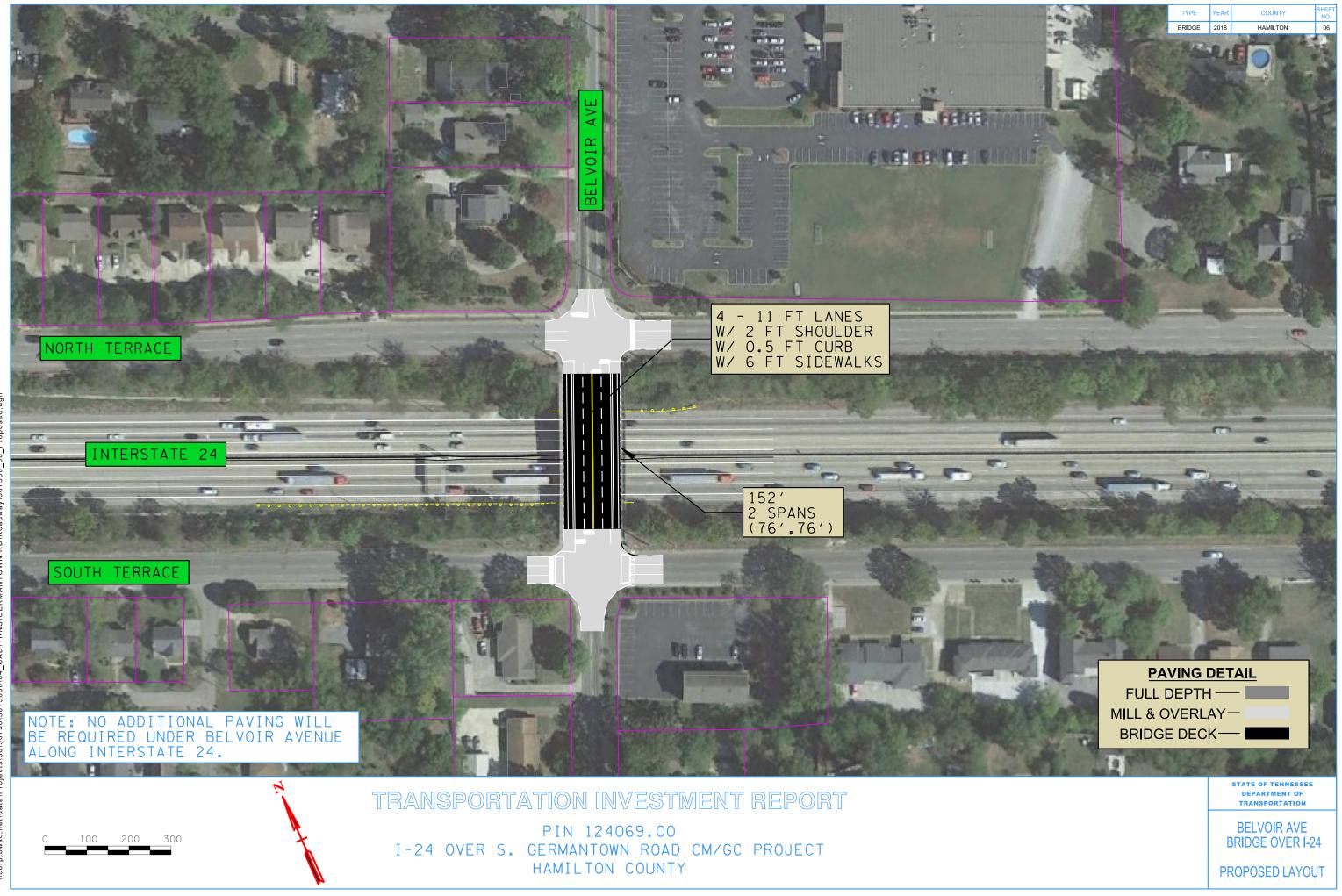
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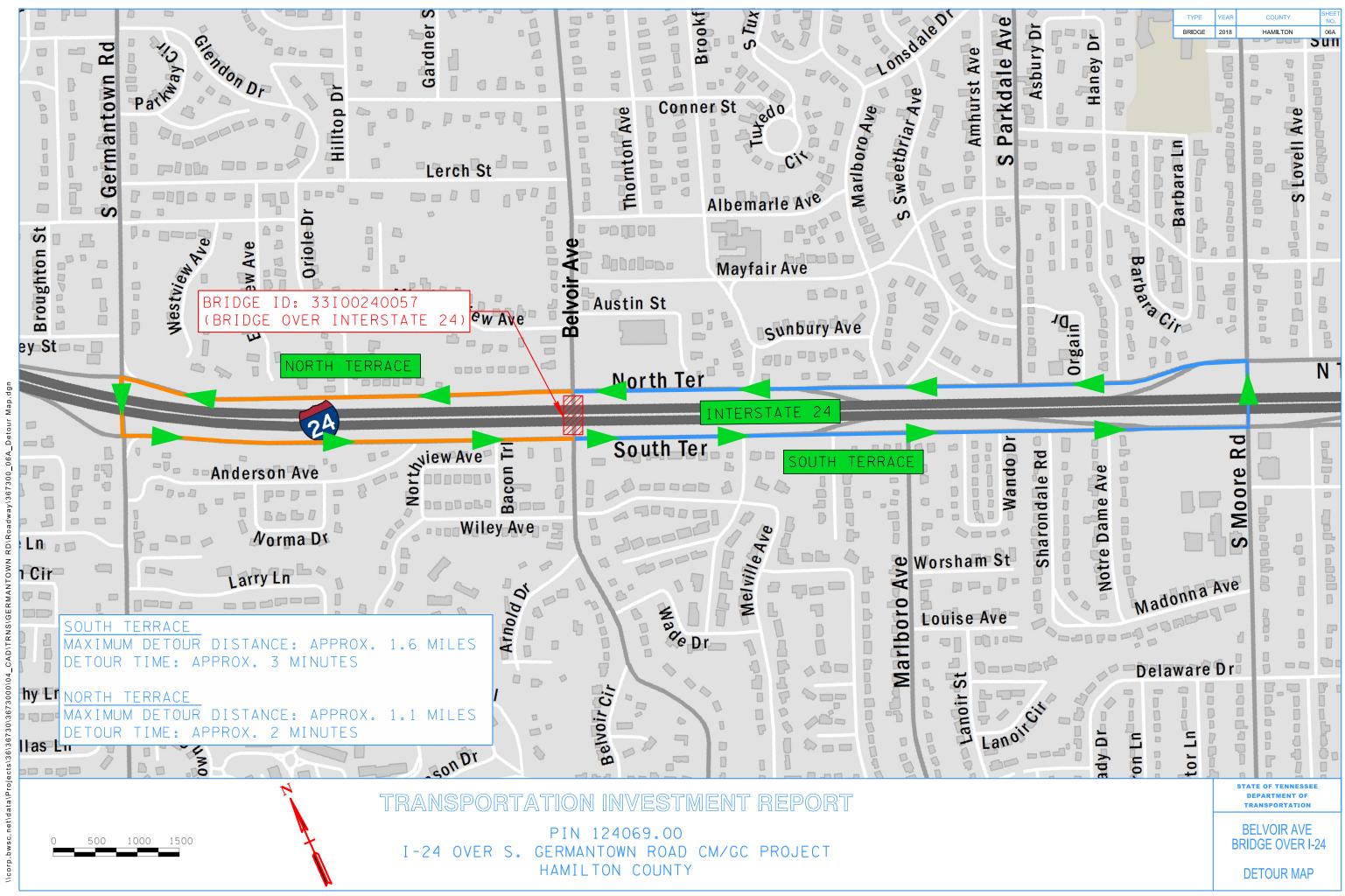
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SECTION 1

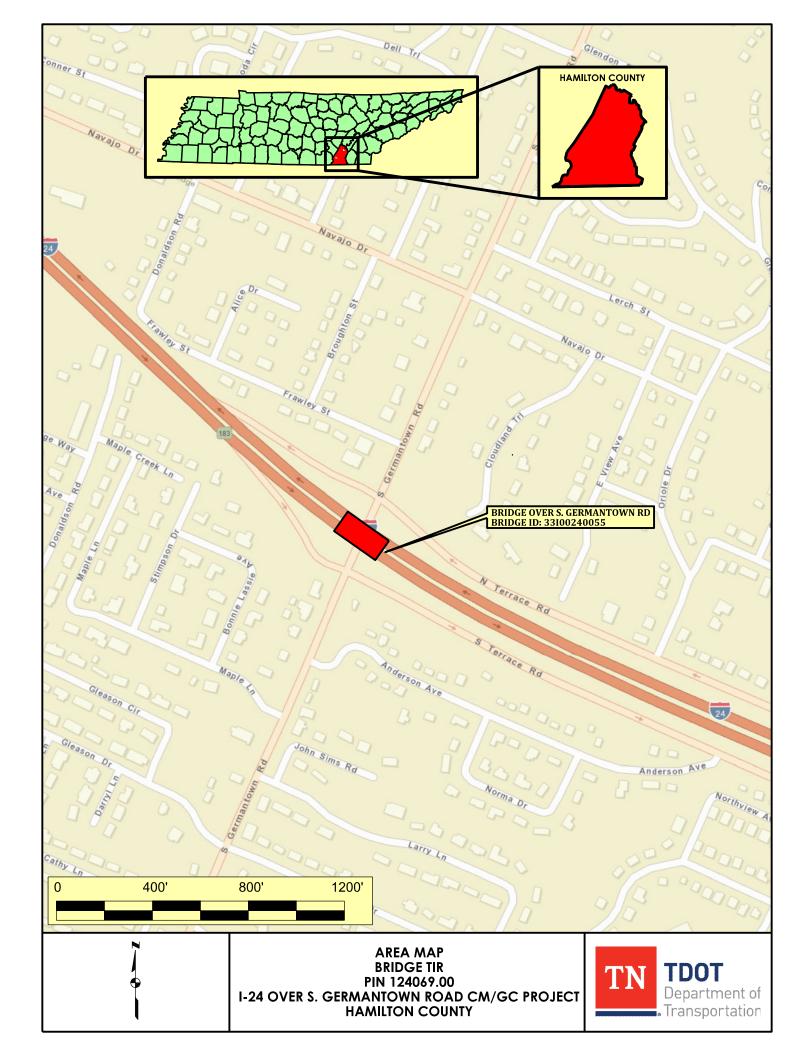
Interstate 24 Bridge

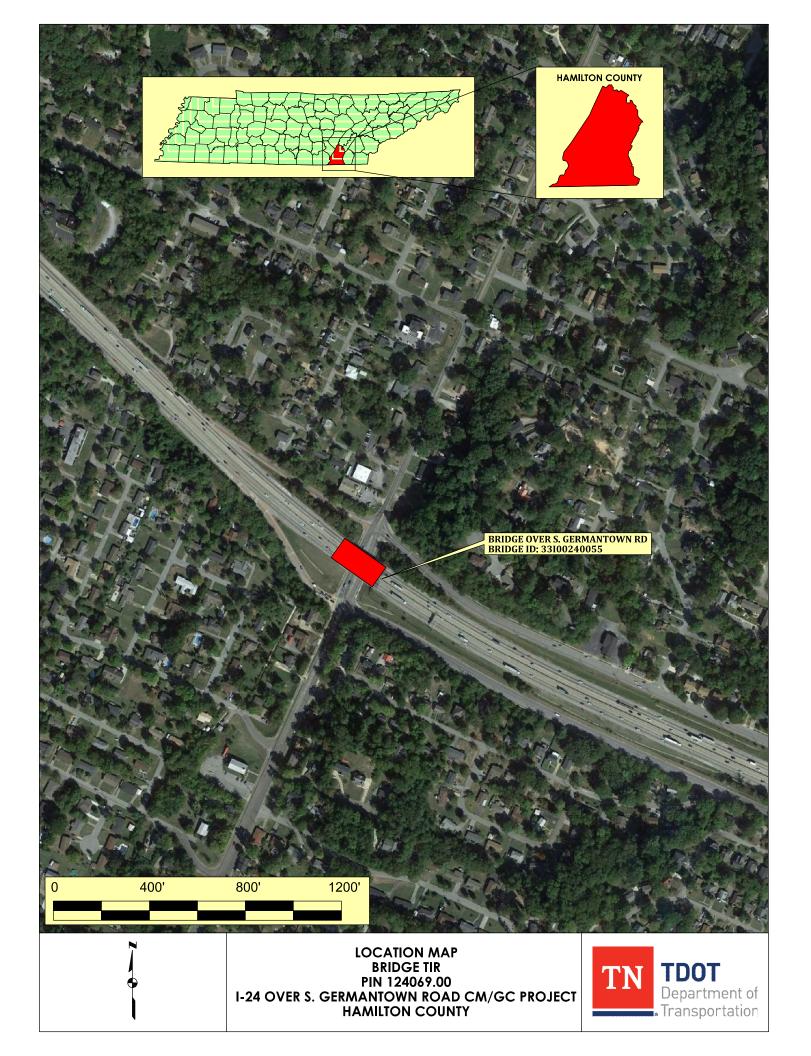
over South Germantown Road

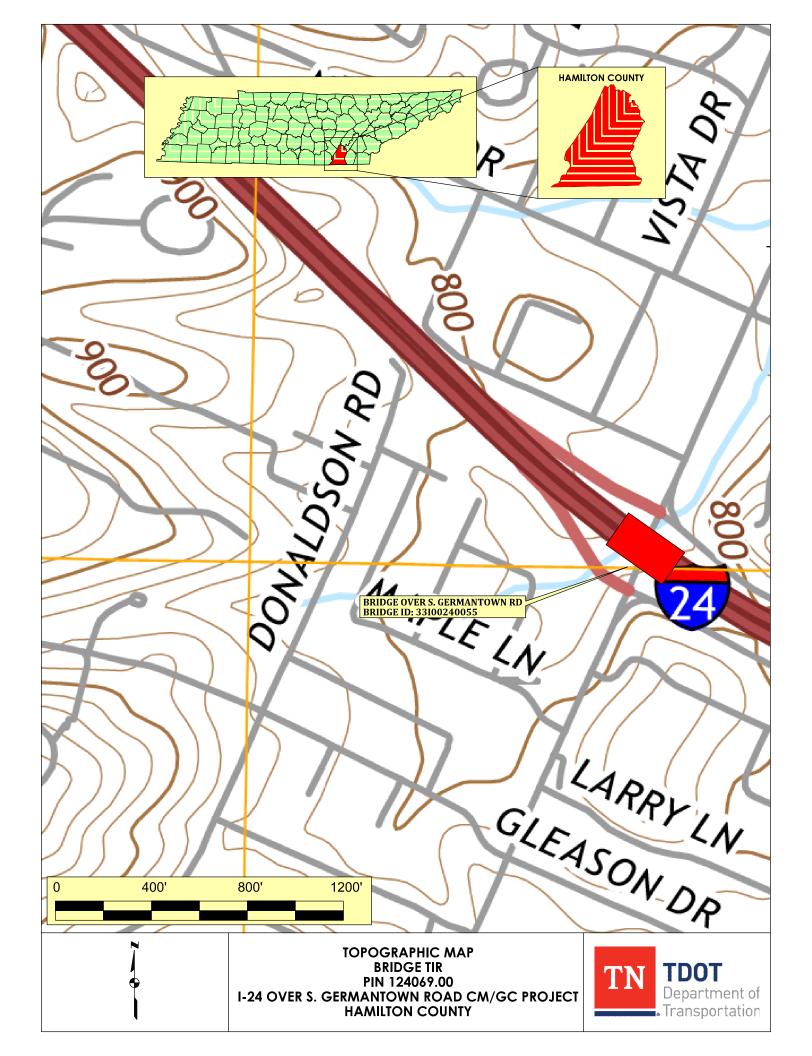
PIN 124069.00

Bridge ID: 33100240055











STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

STRATEGIC TRANSPORTATION INVESTMENTS DIVISION

SUITE 1000, JAMES K. POLK BUILDING 505 DEADERICK STREET NASHVILLE, TN 37243 (615) 741-2208

JOHN C. SCHROER COMMISSIONER BILL HASLAM GOVERNOR

MEMORANDUM

- TO: Steve Allen, Transportation Director Strategic Transportation Investments DivisionFROM: Lia Obaid, Asst. Director of Construction Construction Division
- **DATE:** June 11, 2018
- SUBJECT: TIR Field Review (Special Bridge Replacement Program) Interstate 24 Bridge over South Germantown Road Log Mile 12.08 Bridge ID: 33I00240055 Hamilton County PIN 124069.00

A field review was held for the above-mentioned project on Thursday, April 5, 2018.

The existing structure is a four (4) span concrete bridge that is 166 feet long at a 79 degree skew with eight (8) foot interior shoulders, three (3) twelve (12) foot lanes, and a three (3) foot outside shoulder in each direction. The current right of way (R.O.W.) is 300 feet. The current posted speed on Interstate 24 is fifty-five (55) miles per hour. This structure crosses South Germantown Road in Hamilton County and is within Chattanooga city limits. The existing structure has an out-to-out width of 100 feet. The sufficiency rating of this bridge is 30.9 according to the last bridge inspection report. There exists a stream that is piped and runs diagonally below Interstate 24. The culvert will be assessed during the design phase to determine if replacement is necessary. This stream is not anticipated to be impacted by the project in question. The Q10, Q50, and Q100 are 154 cfs, 240 cfs and 284 cfs, respectively; these values were collected from Streamstats.

The proposed bridge will be designed to meet TDOT standard RD01-TS-5B. The substructure will be designed and built to accommodate future roadway widening along Interstate 24. The

proposed structure's centerline will match the existing. Laneage will likely be shifted to accommodate traffic as part of the phased construction. There are four (4) phasing plans that have been proposed for the bridge. Two (2) phasing plans include temporarily closing the structure and detouring traffic and two (2) of the phasing plans include shifting traffic. If traffic is shifted, the laneage will potentially need to narrow to two (2) lanes in each direction during certain parts of the construction phasing. For more information, see the functional plans at the beginning of the study. The route has a 2022 base year AADT of 114,670 vehicles per day and a 2042 design year AADT of 142,650 vehicles per day. A baseline alternative was proposed for the bridge utilizing traditional construction methods and was analyzed for cost comparison purposes, but it is the intention to construct the structure by Accelerated Bridge Construction (ABC) methods.

1. The baseline proposed structure is a four (4) span concrete cast-in-place box beam bridge that is 166 feet long and would be built using traditional construction methods.

There are three (3) Accelerated Bridge Construction (ABC) proposed alternates for the structure.

- 1. The proposed structure for the first accelerated bridge construction (ABC) alternate is a four (4) span concrete box beam bridge that is 166 feet long.
- 2. The second alternate proposes a two (2) span steel girder bridge that is 166 feet long to be constructed using the lateral slide method, which is an accelerated bridge construction (ABC) technique.
- 3. The third alternate also proposes a two (2) span steel girder bridge that is 166 feet long. However, construction of the bridge will utilize self-propelled modular transporter (SPMT), another accelerated bridge construction (ABC) technique.

The proposed alignment will remain for the replacement structure the same as the existing structure including the 79° skew. The proposed typical section for each alternate consists of eight (8) foot interior shoulders, three (3) twelve (12) foot lanes, and a twelve (12) foot outside shoulder in each direction. A design exception will be required due to the proposed eight (8) foot interior shoulder, as a minimum twelve (12) foot shoulder is currently required based on design standards. Eight (8) foot shoulders will limit the area of impact. No additional R.O.W. is anticipated. The posted speed is anticipated to remain 55 mph. The project will tie into the existing concrete pavement of Interstate 24. It is also estimated that overhead and underground utilities will need to be relocated.

Both intersections at the interchange will be updated to meet current signal and Americans with Disabilities Act (ADA) design standards.

The bridge has been selected for replacement utilizing the CM/GC (Construction Manager/General Contractor) Method for design phase and the ABC (Accelerated Bridge Construction) technique for the construction phase in an effort to minimize negative long-term traffic impacts during construction. At this time the design team is anticipating closing the South Germantown Road bridge to local traffic during the construction phase, but this is subject to change as the design phase continues. A preliminary detour map is attached. It is not the intention of the design team to have simultaneous lane closures and detours for both bridges. However, this analysis is also subject to change during the CM/GC design process. Once a CM

(Construction Manager) has been selected, the formal design process will begin and a final traffic control plan will be determined.

A total cost for the bridge replacement, including approach work, estimated replacement, and preliminary engineering, was conducted for each alternate. A man day estimate cannot be conducted until the CM (Construction Manager) is selected for the project.

Baseline: \$ 7,856,000 Alternate #1: \$ 13,150,000 Alternate #2: \$ 19,338,000 Alternate #3: \$ 17,117,000

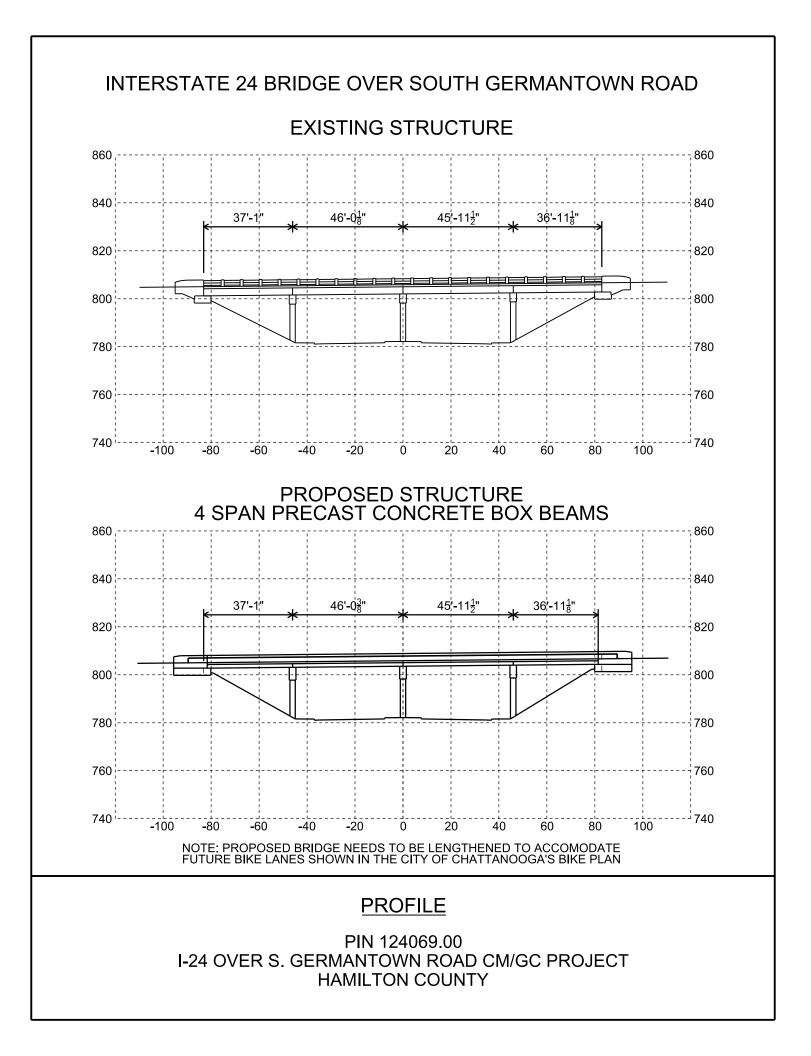
ATTACHMENT 1-A

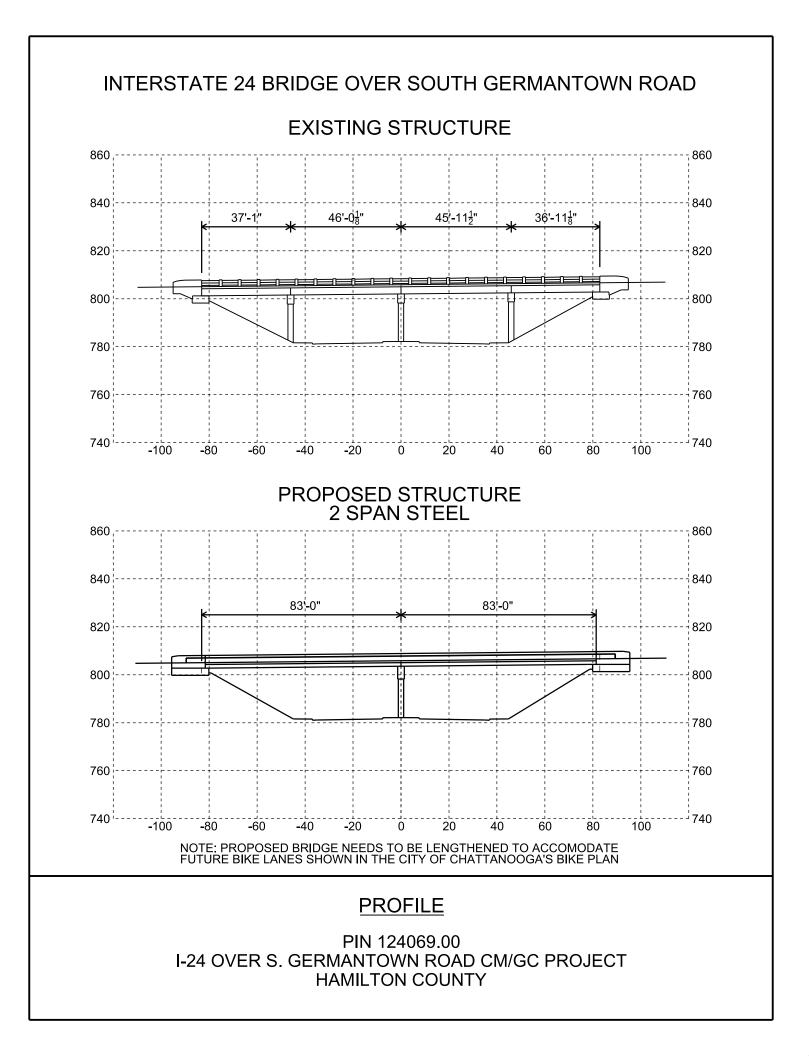
Bridge Figures

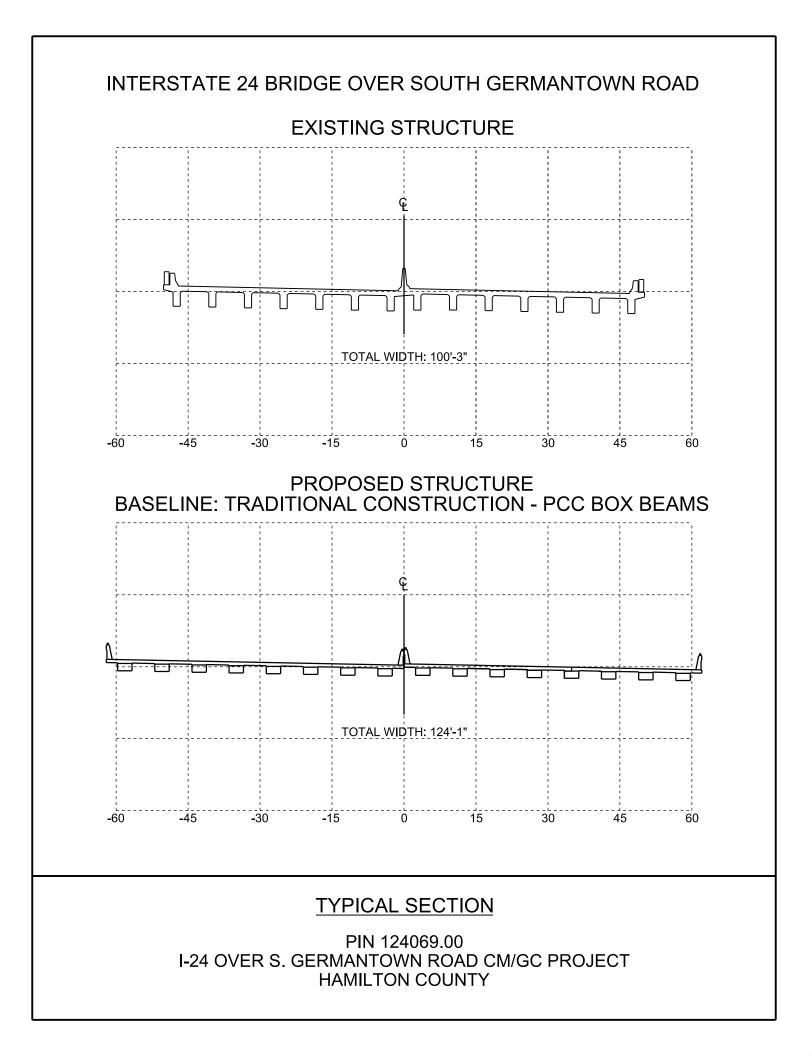
PIN 124069.00

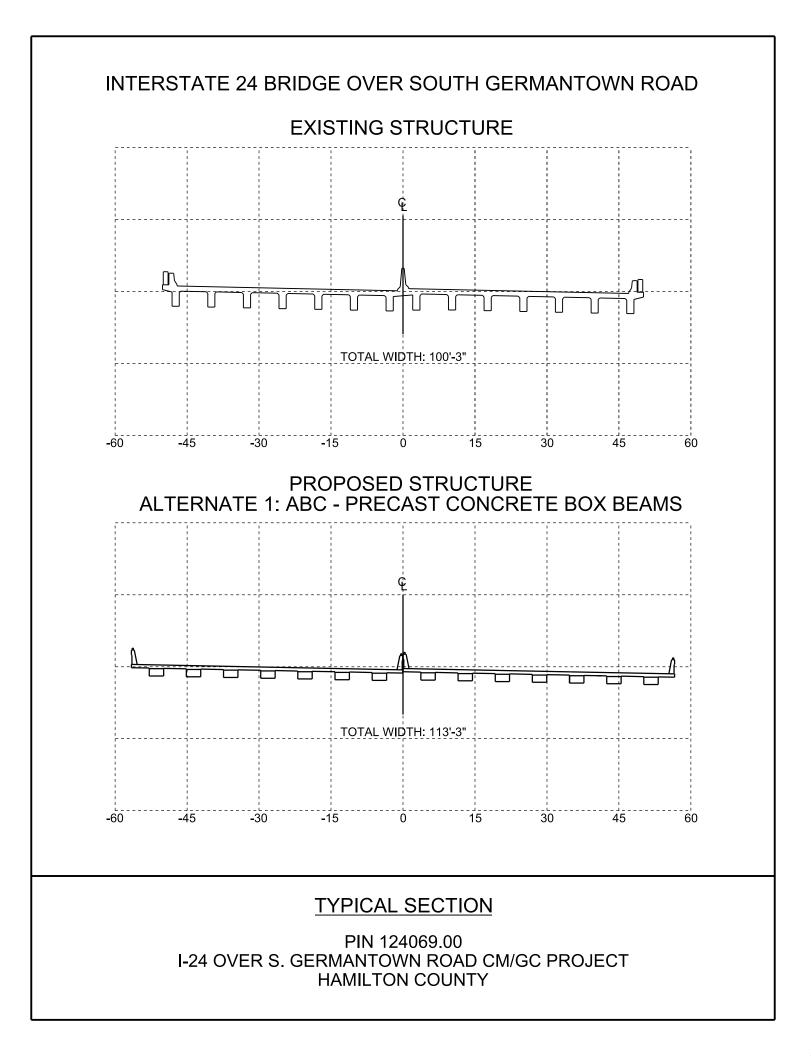
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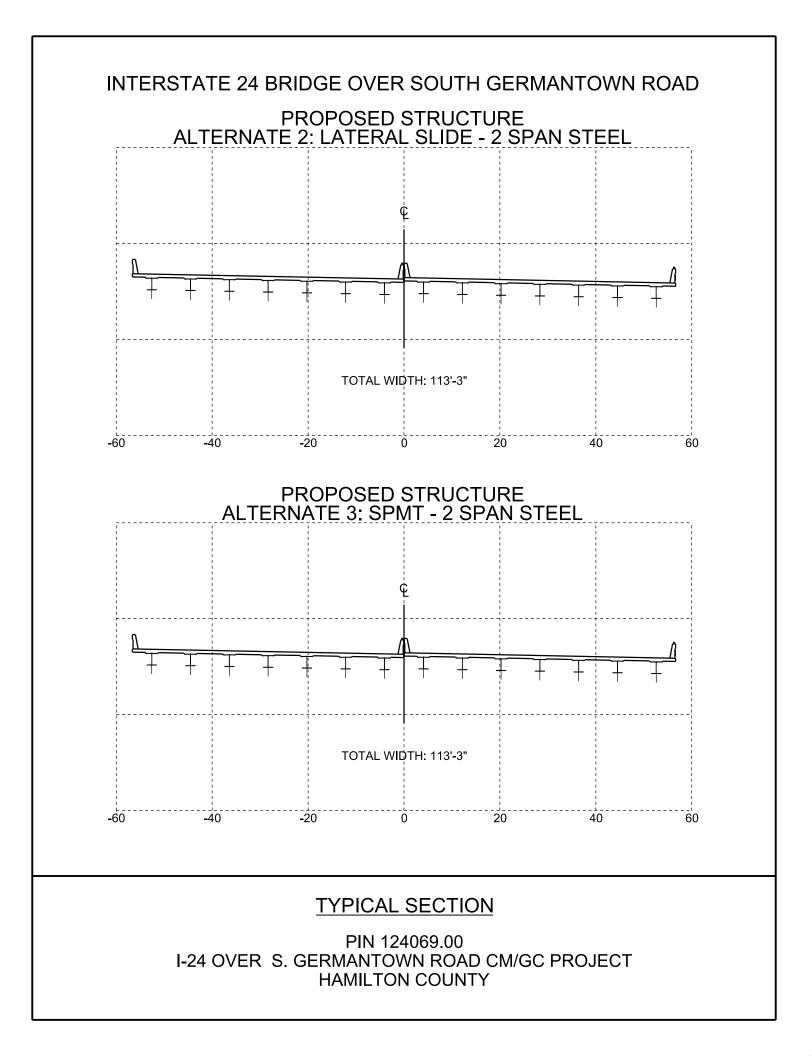












ATTACHMENT 1-B

Preliminary Cost Estimate

PIN 124069.00

Bridge ID: 33100240055



COST ESTIMATE SUMMARY (BASELINE: TRADITIONAL CONSTRUCTION)

Route:	Interstate 24 over S	South G	ermantown Road		
	PIN 124069.00 - Inte	-			
Description:	Log Mile 12.08				and a second of
County:	Hamilton				TN TDOT
Length:					Department of Transportation
	June 8, 2018				In an sportation
-					-
DESCRIPTION	LOCAL		STATE	FEDERAL	TOTAL
Construction Items	0%	_	0%	100%	
Pavement Removal		\$0	\$0	\$159,200	\$159,200
Asphalt Paving ⁽⁴⁾		\$0 \$0	\$0 \$0	\$199,200	\$139,200
Concrete Pavement		\$0 \$0	\$0 \$0	\$195,000	\$195,000
Drainage		\$0 \$0	\$0 \$0		
Appurtenances		\$0 \$0	\$0 \$0	\$54,600 \$691,800	\$54,600 \$691,800
Structures ⁽³⁾		\$0 \$0	\$0 \$0	\$091,800	\$2,692,900
Fencing		\$0 \$0	\$0 \$0	¢2,092,900 \$0	¢2,692,900 \$0
Lighting, Signalization, & ITS		\$0 \$0	\$0 \$0	\$0	\$0
Railroad Crossing or Separatio	n l	\$0 \$0	\$0 \$0	\$228,500	\$220,500
Earthwork		\$0 \$0	\$0	\$328,800	\$328,800
Clearing and Grubbing		\$0 \$0	\$0	\$528,800	\$320,800
Seeding & Sodding		\$0 \$0	\$0	\$0	\$0
Rip-Rap or Slope Protection		\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0
Guardrail		\$0 \$0	\$0 \$0		
			1.5	\$22,000	\$22,000
Signing		\$0 ©0	\$0	\$4,400	\$4,400 \$11,600
Pavement Markings ⁽¹⁾ Maintenance of Traffic		\$0	\$0	\$11,600	
		\$0	\$0	\$294,200	\$294,200
Mobilization (5%)	40%	\$0 \$0	\$0	\$234,200	\$234,200
Other Items ⁽²⁾ =	10%	\$0 \$0	\$0	\$491,700	\$491,700
Const. Contingency ⁽²⁾ =	15%	\$0 \$0	\$0	\$407,400	\$407,400
Construction Estimate Interchanges & Unique Interchanges	arootiono	\$0	\$0	\$5,816,300	\$5,816,300
Roundabouts	ersections	\$0	0.9	¢0	¢o
Interchanges		\$0 \$0	\$0 \$0	\$0 \$0	\$0 \$0
Interchanges	LOCAL	φU	هو STATE	FEDERAL	\$0
Right-of-Way & Utilties	s LOCAL		0%	100%	TOTAL
Dight of Wow	0%	\$0	\$0	\$0	¢0
Right-of-Way Utilities		\$0 \$0			\$0 \$720,700
Preliminary & Construction	- Engineering and la		\$0	\$730,700	\$730,700
	10%	_		¢054 700	\$CE4.700
Prelim. Eng.		\$0 ©0	\$0	\$654,700	. ,
Const. Eng. & Inspec.	10%	\$0	\$0	\$654,700	\$654,700
Total Project Cos	t	\$0	\$0	\$7,856,400	\$ 7,856,000

⁽¹⁾ Additional quantities were added to the 'Pavement Markings' pay item to account for temporary traffic control.

⁽²⁾ 'Other Items' and 'Const. Contingency' were not increased to account for CM/GC method. The price of 'New Bridge (Concrete Girder)' on the following 'Pay Items' spreadsheet in the pay item table reflects the change in preices for various construction methods.

⁽³⁾ The cost for bridge construction types are as follows and can be seen on the following pay items tables:

ABC 1 (PCC Box Beams & Panels) : \$300.00/s.f.

ABC 2 (Lateral Slide) : \$500.00/s.f.

ABC 3 (SPMT) : \$450.00/s.f.

 $^{\rm (4)}$ All traffic phasing options, including temporary ramps, were taken into consideration.

PAY ITEM SUMMARY (BASELINE: TRADITIONAL CONSTRUCTION)

Alternation Data Number for alternation Data Numer for alternation Data Number for	TDOT PAY ITEM	TDOT DESCRIPTION	UNIT	TOOL QUANTITIES	ADDITIONAL QUANTITIES	TOOL QUANTITIES + ADDITIONAL QUANTITIES	Statewide UNIT COST	TOTAL COST
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	*13*01.02		31	0	21515.27855			
	Asphalt Roads							
		Asphalt Conc MX (PG76-22)(BPMB-HM) GR B-M2	TON		95,50072583	96	\$ 78.53 \$	7,499.52
				0				5,697.19
	411-01.07	ACS (PG64-22) GR "E"	TON	0	313.5	314	\$ 111.16 \$	34,849.37
Image: book book book book book book book boo	411-02.10	ACS Mix(PG70-22) Grading D	TON	0	1221	1221	\$ 113.26 \$	138,286.03
	411-03.08	ACS Mix (PG70-22) Thin Lift CS Asphalt	TON		89.58475167			8,667.32
Control Control <t< td=""><td></td><td></td><td></td><td></td><td></td><td>PA</td><td>VING TOTAL (ROUNDED) \$</td><td>195,000</td></t<>						PA	VING TOTAL (ROUNDED) \$	195,000
	Concrete Roads				CONCERT			
					CONCRE	IE RAMPS AND ROAD	WAYS TOTAL (ROUNDED) \$	-
	Drainage							
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1 Instal Pull Box (Type B) FA 4 4 4 4 6 41.22 5 1.226.47 7300.50.1 Eletrical Service Connection FA 2 2 2 2.22.5 5 2.023.65 5 4.047.33 7300.80.3 Signal Cable - 7 Conductor IF 800 800 5 1.65 5 1.232.04 7300.11 Conduit 2' Conduct Schedule 80 IF 400 400 5 2.574 5 1.0256.16 730.12.16 Conduit 2' Conduct Schedule 80 IF 200 200 5 1.80.15 2.706.30 1.02.25 7.14.45 730.12.16 Conduit 2' Condurt Schedule 80 IF 2000 200 5 1.81.6 2.706.30 5 1.72.15 44.46 5 1.78.62 7.14.45 730.13.0 VHICE IOP OFTIC SHLE MOUNT IF A 4 4 4 5 1.79.43 5 7.79.41 730.13.2 Cabier Elight Phase Rase Mounted] FA 2 2 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>								
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Seeding and Sodding SODDING TOTAL (ROUNDED) \$ 22,000 Maintenace of Traffic SODDING TOTAL (ROUNDED) \$ N/A Traffic Control LS 1 \$ 94,232.64 712-02.02 Interconnected Portable Barrier Rail LF 0 5200 \$ 31.79 \$ 165,297.44 712-04.50 Portable Barrier Rail Delineator EA 100 100.0 \$ 1.117 \$ 1.117.27 712-09.01 Removable Pavement Marking Line LF 16000 1000.0 \$ 2.09 \$ 33,494.26 MAINTENANCE OF TRAFFIC TOTAL (ROUNDED) \$ 294,200 \$ 33,494.26	Guardrail 705-01.01	Eight Phase Actuated Controller Cantilever Signal Support (1 ARM @ 45') Cantilever Signal Support (1 ARM @ 50') Guardrail at Bridge Ends	EA EA EA		2 3 3	2 3 IGHTING & SIGNALIZA	\$ 14,116.19 \$ \$ 19,551.62 \$ THON TOTAL (ROUNDED) \$ \$ 73.64 \$	42,348.57 58,654.85 228,500 7,364.49
Seeding and Sodding SODDING TOTAL (ROUNDED) \$ \$ Maintenace of Traffic N/A Traffic Control LS 1 \$ 94,232.64 712.02.02 Interconnected Portable Barrier Rail LF 0 5200 \$ 31.79 \$ 165,297.44 712.04.50 Portable Barrier Rail Delineator EA 100 100 \$ 11.17 \$ 11.17.27 712.09.01 Removable Pavement Marking Line LF 16000 15000 \$ 2.09 \$ 33,494.26 MAINTENANCE OF TRAFFIC TOTAL (ROUNDED) \$ 294,200 \$ 33,494.26 \$ 33,494.26 \$ 34,94.26 \$ 34,94.26 \$ 34,94.26 \$ 34,94.26 \$ \$ 34,94.26 \$ 34,94.26 \$ \$ 34,94.26 \$ \$ 34,94.26 \$ \$ 34,94.26 \$ \$ 34,94.26 \$ \$ 34,94.26 \$ \$ 34,94.26 \$ \$ 34,94.26 \$	Guardrail 705-01.01 705-04.07	Eight Phase Actuated Controller Cantilever Signal Support (1 ARM @ 45') Cantilever Signal Support (1 ARM @ 50') Guardrail at Bridge Ends Tan Energy Absg Term (NCHRP, 350, TL3)	EA EA EA LF EA	4	2 3 3	2 3 3 IGHTING & SIGNALIZA 100 4	\$ 14,116.19 \$ \$ 19,551.62 \$ TION TOTAL (ROUNDED) \$ \$ 73.64 \$ \$ 2,352.59 \$	42,348.57 58,654.85 228,500 7,364.49 9,410.38
Maintenace of Traffic Soppling ToTAL (ROUNDED) \$ \$ N/A Traffic Control LS 1 \$ 94,232.64 712-02.02 Interconnected Portable Barrier Rail LF 0 5200 \$ 31.75 \$ 165,297.44 712-02.02 Interconnected Portable Barrier Rail Delineator EA 100 100 \$ 1,117 \$ 1,117.22 \$ 1,117.22 \$ 1,117.22 \$ 1,117.22 \$ 1,117.22 \$ 1,117.22 \$ 3,149.42 \$ 3,349.42 \$ 3,349.42 \$ 3,349.42 \$ 3,349.42 \$ 3,349.42 \$ 3,349.42 \$ 3,349.42 \$ \$ 3,349.42 \$ \$ 3,349.42 \$ \$ 3,349.42 \$ \$ 3,349.42 \$ \$ 3,349.42 \$ \$ 3,349.42 \$ \$ 3,349.42 \$ \$ \$ 3,349.42 \$ \$ 3,349.42 \$ \$ \$ <td< td=""><td>Guardrail 705-01.01 705-04.07</td><td>Eight Phase Actuated Controller Cantilever Signal Support (1 ARM @ 45') Cantilever Signal Support (1 ARM @ 50') Guardrail at Bridge Ends Tan Energy Absg Term (NCHRP, 350, TL3)</td><td>EA EA EA LF EA</td><td>4</td><td>2 3 3</td><td>2 3 3 IGHTING & SIGNALIZA 100 4 4</td><td>\$ 14,116.19 \$ \$ 19,551.62 \$ TION TOTAL (ROUNDED) \$ \$ 73.64 \$ \$ 2,352.59 \$ \$ 1,294.80 \$</td><td>42,348.57 58,654.85 228,500 7,364.49 9,410.38 5,179.21</td></td<>	Guardrail 705-01.01 705-04.07	Eight Phase Actuated Controller Cantilever Signal Support (1 ARM @ 45') Cantilever Signal Support (1 ARM @ 50') Guardrail at Bridge Ends Tan Energy Absg Term (NCHRP, 350, TL3)	EA EA EA LF EA	4	2 3 3	2 3 3 IGHTING & SIGNALIZA 100 4 4	\$ 14,116.19 \$ \$ 19,551.62 \$ TION TOTAL (ROUNDED) \$ \$ 73.64 \$ \$ 2,352.59 \$ \$ 1,294.80 \$	42,348.57 58,654.85 228,500 7,364.49 9,410.38 5,179.21
Maintenace of Traffic Maintenace of Traffic Traffic Control LS 1 \$ 94,232.64 N/A Interconnected Portable Barrier Rail LF 0 5200 \$ 31.79 \$ 165,297.44 712-02.02 Interconnected Portable Barrier Rail Delineator EA 100 100 \$ 11.17 \$ 1,117.27 712-04.50 Portable Barrier Rail Delineator EA 100 1000 \$ 1,117.27 \$ 1,317.27 712-09.01 Removable Pavement Marking Line LF 16000 15000 \$ 2.09 \$ 33,494.26 MAINTENANCE OF TRAFFIC TOTAL (ROUNDED) \$ 294,200	Guardrail 705-01.01 705-04.07	Eight Phase Actuated Controller Cantilever Signal Support (1 ARM @ 45') Cantilever Signal Support (1 ARM @ 50') Guardrail at Bridge Ends Tan Energy Absg Term (NCHRP, 350, TL3)	EA EA EA LF EA	4	2 3 3	2 3 3 IGHTING & SIGNALIZA 100 4 4	\$ 14,116.19 \$ \$ 19,551.62 \$ TION TOTAL (ROUNDED) \$ \$ 73.64 \$ \$ 2,352.59 \$ \$ 1,294.80 \$	42,348.57 58,654.85 228,500 7,364.49 9,410.38
N/A Traffic Control LS 1 \$ 94,232,64 712-02.02 Interconnected Portable Barrier Rail LF 0 5200 \$ 31.79 \$ 165,297.44 712-04.50 Portable Barrier Rail Delineator EA 100 100 \$ 1,11.72 \$ 1,117.27 712-09.01 Removable Pavement Marking Line LF 16000 16000 \$ 2.09 \$ 3,349,26 MAINTENANCE OF TRAFFIC TOTAL (ROUNDED) \$ 294,200	Guardrail 705-01.01 705-04.07 705-04.09	Eight Phase Actuated Controller Cantilever Signal Support (1 ARM @ 45') Cantilever Signal Support (1 ARM @ 50') Guardrail at Bridge Ends Tan Energy Absg Term (NCHRP, 350, TL3)	EA EA EA LF EA	4	2 3 3	2 3 3 IGHTING & SIGNALIZA 100 4 4	\$ 14,116.19 \$ \$ 19,551.62 \$ TION TOTAL (ROUNDED) \$ \$ 73.64 \$ \$ 2,352.59 \$ \$ 1,294.80 \$	42,348.57 58,654.85 228,500 7,364.49 9,410.38 5,179.21
712-02.02 Interconnected Portable Barrier Rail LF 0 5200 5 31.79 \$ 165,297.44 712-04.50 Portable Barrier Rail Delineator EA 100 100 \$ 1.117 \$ 1.117.27 712-09.01 Removable Pavement Marking Line LF 16000 16000 \$ 2.09 \$ 33,349.26 MAINTENANCE OF TRAFFIC TOTAL (ROUNDED) \$ 294,200	Guardrail 705-01.01 705-04.07 705-04.09	Eight Phase Actuated Controller Cantilever Signal Support (1 ARM @ 45') Cantilever Signal Support (1 ARM @ 50') Guardrail at Bridge Ends Tan Energy Absg Term (NCHRP, 350, TL3)	EA EA EA LF EA	4	2 3 3	2 3 3 LIGHTING & SIGNALIZA 100 4 4 GUARI	\$ 14,116,19 \$ \$ 19,551,62 \$ TITION TOTAL (ROUNDED) \$ \$ 73,64 \$ \$ 2,352,59 \$ \$ 2,352,59 \$ \$ 1,294,80 \$ \$ 1,294,80 \$	42,348.57 58,654.85 228,500 7,364.49 9,410.38 5,179.21
712-04.50 Portable Barrier Rail Delineator EA 100 100 \$ 11.17 \$ 1,117.27 712-09.01 Removable Pavement Marking Line LF 16000 16000 \$ 2.09 \$ 33,494.26 MAINTENANCE OF TRAFFIC TOTAL (ROUNDED) Signs	Guardrail 705-01.01 705-04.07 705-04.09 Seeding and Sodding Maintenace of Traffic	Eight Phase Actuated Controller Cantilever Signal Support (1 ARM @ 45') Cantilever Signal Support (1 ARM @ 50') Guardrail at Bridge Ends Tan Energy Absg Term (NCHRP, 350, TL3) Earth Pad for Type 38 GR End Treatment	EA EA EA LF EA EA	4	2 3 3	2 3 IGHTING & SIGNALIZA 100 4 4 GUARI SOD	\$ 14,116,19 \$ \$ 19,551,62 \$ TION TOTAL (ROUNDED) \$ \$ 73,64 \$ \$ 73,64 \$ \$ 2,352,59 \$ \$ 1,294,80 \$ DRAIL TOTAL (ROUNDED) \$	42,348,57 58,654,85 228,500 7,364,49 9,410,38 5,179,21 22,000
712-09.01 Removable Pavement Marking Line LF 16000 \$ 2.09 \$ 33,494.26 MAINTENANCE OF TRAFFIC TOTAL (ROUNDED) \$ 294,200 Signs	Guardrail 705-01.01 705-04.07 705-04.09 Seeding and Sodding Maintenace of Traffic N/A	Eight Phase Actuated Controller Cantilever Signal Support (1 ARM @ 45') Cantilever Signal Support (1 ARM @ 50') Guardrail at Bridge Ends Tan Energy Absg Term (NCHRP, 350, TL3) Earth Pad for Type 38 GR End Treatment Traffic Control	EA EA EA EA EA EA	4 4		2 3 IGHTING & SIGNALIZA 100 4 4 GUARI SOD	\$ 14,116.19 \$ \$ 19,551.62 \$ TION TOTAL (ROUNDED) \$ \$ 73.64 \$ \$ 2,352.59 \$ \$ 1,294.80 \$ SRAIL TOTAL (ROUNDED) \$ DING TOTAL (ROUNDED) \$ \$	42,348,57 58,654,85 228,500 7,364,49 9,410,38 5,179,21 22,000
MAINTENANCE OF TRAFFIC TOTAL (ROUNDED) \$ 294,200 Signs	Guardrail 705-01.01 705-04.07 705-04.09 Seeding and Sodding Maintenace of Traffic N/A 712-02.02	Eight Phase Actuated Controller Cantilever Signal Support (1 ARM @ 45') Cantilever Signal Support (1 ARM @ 50') Guardrail at Bridge Ends Tan Energy Absg Term (NCHRP, 350, TL3) Earth Pad for Type 38 GR End Treatment Traffic Control Interconnected Portable Barrier Rail	EA EA EA EA EA EA LS LF	4 4	2 3 3	2 3 3 IGHTING & SIGNALIZA 100 4 4 4 50D 1 5200	\$ 14,116,19 \$ \$ 19,551,62 \$ TITION TOTAL (ROUNDED) \$ \$ 73,64 \$ \$ 2,352,59 \$ \$ 1,294.80 \$ DING TOTAL (ROUNDED) \$	42,348.57 58,654.85 228,500 7,364.49 9,410.38 5,179,21 22,000 94,232.64 165,297.44
Signs	Guardrail 705-01.01 705-04.07 705-04.09 Seeding and Sodding Maintenace of Traffic N/A 712-02.02 712-04.50	Eight Phase Actuated Controller Cantilever Signal Support (1 ARM @ 45') Cantilever Signal Support (1 ARM @ 50') Guardrail at Bridge Ends Guardrail at Bridge Ends Tan Energy Absg Term (NCHRP, 350, TL3) Earth Pad for Type 38 GR End Treatment Traffic Control Interconnected Portable Barrier Rail Portable Barrier Rail Delineator	EA EA EA LF EA EA LS LF EA	4 4	2 3 3	2 3 3 IGHTING & SIGNALIZA 100 4 4 GUARI SOD 100	\$ 14,116,19 \$ \$ 19,551.62 \$ TION TOTAL (ROUNDED) \$ \$ 73.64 \$ \$ 2,352.59 \$ \$ 1,294.80 \$ DING TOTAL (ROUNDED) \$ DING TOTAL (ROUNDED) \$ \$ 31.79 \$ \$ 11.17 \$	42,348.57 58,654.85 228,500 7,364.49 9,410.38 5,179.21 22,000 - - - - - - - - - - - - - - - - - -
Signs Not Listed Signs (Construction) LS 1 \$ - \$ 4,400	Guardrail 705-01.01 705-04.07 705-04.09 Seeding and Sodding Maintenace of Traffic N/A 712-02.02 712-04.50	Eight Phase Actuated Controller Cantilever Signal Support (1 ARM @ 45') Cantilever Signal Support (1 ARM @ 50') Guardrail at Bridge Ends Guardrail at Bridge Ends Tan Energy Absg Term (NCHRP, 350, TL3) Earth Pad for Type 38 GR End Treatment Traffic Control Interconnected Portable Barrier Rail Portable Barrier Rail Delineator	EA EA EA LF EA EA LS LF EA	4 4	2 3 3 5200 100 16000	2 3 3 IGHTING & SIGNALIZA 100 4 4 GUARI 500 100 16000	\$ 14,116,19 \$ \$ 19,551,62 \$ \$ 19,551,62 \$ \$ 73,64 \$ \$ 2,352,59 \$ \$ 2,352,59 \$ \$ 2,1294,80 \$ DING TOTAL (ROUNDED) \$ \$ 3,179 \$ \$ 3,179 \$ \$ 11,17 \$ \$ 2,09 \$	42,348.57 58,654.85 228,500 7,364.49 9,410.38 5,179,21 22,000 - - 94,232.64 165,297.44 1,117.27 33,494.26
Not Listed Signs [Construction] L5 1 \$ - \$ 4,400	Guardrail 705-01.01 705-04.07 705-04.09 Seeding and Sodding Maintenace of Traffic N/A 712-02.02 712-04.50	Eight Phase Actuated Controller Cantilever Signal Support (1 ARM @ 45') Cantilever Signal Support (1 ARM @ 50') Guardrail at Bridge Ends Guardrail at Bridge Ends Tan Energy Absg Term (NCHRP, 350, TL3) Earth Pad for Type 38 GR End Treatment Traffic Control Interconnected Portable Barrier Rail Portable Barrier Rail Delineator	EA EA EA LF EA EA LS LF EA	4 4	2 3 3 5200 100 16000	2 3 3 IGHTING & SIGNALIZA 100 4 4 GUARI 500 100 16000	\$ 14,116,19 \$ \$ 19,551,62 \$ \$ 19,551,62 \$ \$ 73,64 \$ \$ 2,352,59 \$ \$ 2,352,59 \$ \$ 2,1294,80 \$ DING TOTAL (ROUNDED) \$ \$ 3,179 \$ \$ 3,179 \$ \$ 11,17 \$ \$ 2,09 \$	42,348.57 58,654.85 228,500 7,364.49 9,410.38 5,179,21 22,000 - - - - - - - - - - - - - - - - - -
	Guardrail 705-01.01 705-04.07 705-04.09 Seeding and Sodding Maintenace of Traffic N/A 712-02.02 712-04.50 712-09.01 Signs	Eight Phase Actuated Controller Cantilever Signal Support (1 ARM @ 45') Cantilever Signal Support (1 ARM @ 50') Guardrail at Bridge Ends Guardrail at Bridge Ends Tan Energy Absg Term (NCHRP, 350, TL3) Earth Pad for Type 38 GR End Treatment Traffic Control Interconnected Portable Barrier Rail Portable Barrier Rail Delineator	EA EA EA LF EA EA LS LF EA	4 4	2 3 3 5200 100 16000	2 3 3 IGHTING & SIGNALIZA 100 4 4 GUARI 500 100 16000	\$ 14,116,19 \$ \$ 19,551,62 \$ \$ 19,551,62 \$ \$ 73,64 \$ \$ 2,352,59 \$ \$ 2,352,59 \$ \$ 2,1294,80 \$ DING TOTAL (ROUNDED) \$ \$ 3,179 \$ \$ 3,179 \$ \$ 11,17 \$ \$ 2,09 \$	42,348.57 58,654.85 228,500 7,364.49 9,410.38 5,179,21 22,000 - - 94,232.64 165,297.44 1,117.27 33,494.26

4,400

PAY ITEM SUMMARY (BASELINE: TRADITIONAL CONSTRUCTION)

Pavement Markings									
716-09.31	STOP LINE	LF		200	200	\$	16.65	\$	3,330
716-13.06	Spray Thermo P.M. (40 mil 4")	LM	0.0	2	2.0	\$	2,878.11	\$	5,756
716-13.07	Spray Thermo P.M. (40 mil 6")	LM		2	2	\$	1,237.50	\$	2,475
					PAVEMENT MAP	RKINGS TO	OTAL (ROUNDED)	\$	11,6
Fencing									
					FE	ENCE TOT	AL (ROUNDED)	\$	
Rip-Rap									
				RIP-	RAP & SLOPE PROTE	ECTION TO	OTAL (ROUNDED)	\$	
Clearing and Grubing									
clearing and Grubing					CLEAR AND GRU	IBBING TO	OTAL (ROUNDED)	\$	
Clearing and Grubing					CLEAR AND GRU	IBBING TO	OTAL (ROUNDED)	\$	
Railroad At-Grade Crossing					CLEAR AND GRU	IBBING TO	OTAL (ROUNDED)	\$	
				RAILROAD	CLEAR AND GRU				
				RAILROAD (
				RAILROAD (
Railroad At-Grade Crossing	Overhead Distribution	LM	0.25	RAILROAD (\$	93,
Railroad At-Grade Crossing Utilties	Overhead Distribution Overhead Transmission	LM	0.25	RAILROAD (CROSSING OR SEPAR	RATION TO	OTAL (ROUNDED)	\$	
Railroad At-Grade Crossing Utilties N/A				RAILROAD (CROSSING OR SEPAR	ATION TO	OTAL (ROUNDED) 375,000	\$ \$ \$	187,
Railroad At-Grade Crossing Utilties N/A N/A	Overhead Transmission	LM	0.25	RAILROAD (CROSSING OR SEPAR 0.25 0.25	S S	OTAL (ROUNDED) 375,000 750,000	\$ \$ \$ \$	187, 125,
Railroad At-Grade Crossing Utilties N/A N/A N/A	Overhead Transmission Underground Power	LM LM	0.25 0.25	RAILROAD (0.25 0.25 0.25 0.25	S S S S	OTAL (ROUNDED) 375,000 750,000 500,000	\$ \$ \$ \$ \$	187, 125, 125,
Railroad At-Grade Crossing Utilities N/A N/A N/A N/A	Overhead Transmission Underground Power Underground Communication	LM LM LM	0.25 0.25 0.25	RAILROAD (0.25 0.25 0.25 0.25 0.25	S S S S S	0TAL (ROUNDED) 375,000 750,000 500,000 500,000	\$ \$ \$ \$ \$ \$	187, 125, 125, 62,
Railroad At-Grade Crossing Utilities N/A N/A N/A N/A N/A N/A N/A	Overhead Transmission Underground Power Underground Communication Underground Gas Underground Water	LM LM LM	0.25 0.25 0.25 0.25 0.25 0.25	RAILROAD (0.25 0.25 0.25 0.25 0.25 0.25	S S S S S S	375,000 750,000 500,000 500,000 250,000 237,600	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	93, 187, 125, 125, 62, 59, 77,
Railroad At-Grade Crossing Utilities N/A N/A N/A N/A N/A	Overhead Transmission Underground Power Underground Communication Underground Gas	LM LM LM LM	0.25 0.25 0.25 0.25	RAILROAD (0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25	ATION TO \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	OTAL (ROUNDED) 375,000 750,000 500,000 500,000 250,000	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	187, 125, 125, 62, 59, 77,
Railroad At-Grade Crossing Utilities N/A N/A N/A N/A N/A N/A N/A	Overhead Transmission Underground Power Underground Communication Underground Gas Underground Water	LM LM LM LM	0.25 0.25 0.25 0.25 0.25 0.25	RAILROAD (0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25	ATION TO \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	375,000 750,000 500,000 500,000 250,000 237,600 310,200	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	187, 125, 125, 62, 59, 77,
Railroad At-Grade Crossing Utilities N/A N/A N/A N/A N/A N/A N/A	Overhead Transmission Underground Power Underground Communication Underground Gas Underground Water	LM LM LM LM	0.25 0.25 0.25 0.25 0.25 0.25	RAILROAD (0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25	ATION TO \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	375,000 750,000 500,000 500,000 250,000 237,600 310,200	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	187, 125, 125, 62, 59, 77,
Railroad At-Grade Crossing Utilities N/A N/A N/A N/A N/A N/A N/A	Overhead Transmission Underground Power Underground Communication Underground Gas Underground Water	LM LM LM LM	0.25 0.25 0.25 0.25 0.25 0.25	RAILROAD (0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25	ATION TO \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	375,000 750,000 500,000 500,000 250,000 237,600 310,200	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	187, 125, 125, 125, 62, 59,

COST ESTIMATE SUMMARY (ABC 1 - PCC BOX BEAMS AND PANELS)

Route:		state 24 over South 0			
Decorintion	PIN 1	24069.00 - Interstate	24 over Germanto	wn Rd	-
Description:	Log M	Aile 12.08			A Smaller
County:	Hami	lton			TN TDOT
Length:					Department of Transportation
Date:	June	11, 2018			
					-
DESCRIPTION		LOCAL	STATE	FEDERAL	TOTAL
		0%	0%	100%	
Construction Items					
Pavement Removal		\$0	\$0	\$148,000	\$148,00
Asphalt Paving ⁽⁴⁾		\$0	\$0	\$195,000	\$195,00
Concrete Pavement		\$0	\$0	\$0	\$
Drainage		\$0	\$0	\$54,600	\$54,60
Appurtenances		\$0	\$0	\$691,800	\$691,80
Structures ⁽³⁾		\$0	\$0	\$6,472,100	\$6,472,10
Fencing		\$0	\$0	\$0	\$
Lighting, Signalization, & I		\$0	\$0	\$228,500	\$228,50
Railroad Crossing or Sepa	ration	\$0	\$0	\$0	\$
Earthwork		\$0	\$0	\$328,800	\$328,80
Clearing and Grubbing		\$0	\$0	\$0	\$
Seeding & Sodding		\$0	\$0	\$0	\$
Rip-Rap or Slope Protection	n	\$0	\$0	\$0	\$
Guardrail		\$0	\$0	\$22,000	\$22,00
Signing		\$0	\$0	\$8,100	\$8,10
Pavement Markings ⁽¹⁾		\$0	\$0	\$11,600	\$11,60
Maintenance of Traffic		\$0	\$0	\$323,600	\$323,60
Mobilization (5%)		\$0	\$0	\$424,200	\$424,20
Other Items	²⁾ = 10%	\$0	\$0	\$890,800	\$890,80
Const. Contingency	²⁾ = 15%	\$0	\$0	\$499,100	\$499,10
Construction Estimate		\$0	\$0	\$10,298,200	\$10,298,20
Interchanges & Unique	Intersec	tions			
Roundabouts		\$0	\$0	\$0	\$
Interchanges		\$0	\$0	\$0	\$
Dische of Most 9 114	14:00	LOCAL	STATE	FEDERAL	TOTAL
Right-of-Way & Uti	ities	0%	0%	100%	TOTAL
Right-of-Way		\$0	\$0	\$0	\$
Utilities		\$0	\$0	\$730,700	\$730,70
Preliminary & Construc	ction Eng	ineering and Inspection			
Prelim. Eng.	9%	\$0	\$0	\$1,017,700	\$1,017,70
Const. Eng. & Inspec.	10%	\$0	\$0	\$1,102,900	
Total Project C	ost	\$0	\$0	\$13,149,500	
(1)					

⁽¹⁾ Additional quantities were added to the 'Pavement Markings' pay item to account for temporary traffic control.

⁽²⁾ 'Other Items' and 'Const. Contingency' were not increased to account for CM/GC method. The price of 'New Bridge (Concrete Girder)' on the following 'Pay Items' spreadsheet in the pay item table reflects the change in preices for various construction methods.

⁽³⁾ The cost for bridge construction types are as follows and can be seen on the following pay items tables:

ABC 1 (PCC Box Beams & Panels) : \$300.00/s.f.

ABC 2 (Lateral Slide) : \$500.00/s.f.

ABC 3 (SPMT) : \$450.00/s.f.

(4) All traffic phasing options, including temporary ramps, were taken into consideration.

PAY ITEM SUMMARY (ABC 1 - PCC BOX BEAMS AND PANELS)

TDOT PAY ITEM	TDOT DESCRIPTION	UNIT	TOOL QUANTITIES	ADDITIONAL QUANTITIES	TOOL QUANTITIES + ADDITIONAL QUANTITIES	Statewide UNIT COST	TOTAL COST
Pavment Removal							
202-08.15	Removal of Curb and Gutter	LF		682	682	\$ 5.45 \$	3,717.47
415-01.02	Cold Planning Bituminous Pavement	SY	0	20229	20229	\$ 7.13 \$ DVAL TOTAL (ROUNDED) \$	144,274.47 148.000
					PAVEIVIENT KEIVI	SVAL TOTAL (ROONDED) 3	148,000
Asphalt Roads							
307-03.08	Asphalt Conc MX (PG76-22)(BPMB-HM) GR B-M2	TON	-	95.50072583	96	\$ 78.53 \$	7,499.52
403-01 411-01.07	Bituminous Material For Tack Coat (TC) ACS (PG64-22) GR "E"	TON TON	0	7.331722222 313.5	7 314	\$ 777.06 \$ \$ 111.16 \$	5,697.19 34,849.37
411-01.07 411-02.10	ACS (PG64-22) GR "E" ACS Mix(PG70-22) Grading D	TON	0	313.5	314 1221	\$ 111.16 \$ \$ 113.26 \$	34,849.37
411-02.10	ACS Mix (PG70-22) Grading D ACS Mix (PG70-22) Thin Lift CS Asphalt	TON	0	89.58475167	90	\$ 96.75 \$	8,667.32
						VING TOTAL (ROUNDED) \$	195,000
Concrete Roads							
Concrete Roads				CONCRET	E RAMPS AND ROADV	VAYS TOTAL (ROUNDED) \$	-
Drainage					1	· · · · ·	
607-03.30 611-09.01	18" Pipe Culvert ADJUSTMENT OF EXISTING CATCHBASIN	LF EA		300 5	300 5	\$ 52.65 \$ \$ 736.91 \$	15,793.57 3,684.54
611-09.02	REWORK CATCHBASIN	EA		7	7	\$ 1,104.68 \$	7,732.74
611-09.03	CAPPING EXISTING CATCHBASIN	EA		7	7	\$ 1,354.35 \$	9,480.42
611-10.01	Catch Basins, Type 10, 0' -4' Depth	EA		6	6	\$ 2,973.64 \$	17,841.84
					DRAI	NAGE TOTAL (ROUNDED) \$	54,600
Appurtenances							
202-03	Removal of Rigid Pvmt, Sidewalk, Etc	SY		820	820	\$ 9.53 \$	7,813.10
701-01.01	Concrete Sidewalk (4")	SF	0	820	820	\$ 7.40 \$	6,063.91
701-02.03	Concrete Handicap Ramp	SF		570	570	\$ 17.74 \$	10,112.84
702-01	Concrete Curb	CY		25	25	\$ 334.36 \$	8,358.93
702-03	Concrete Combined Curb & Gutter	CY	0	40	40	\$ 374.57 \$	14,982.88
711-05.01	Removal & Disposal of Concrete Median Barrier	LF		2600	2600	\$ 152.55 \$	396,630.00
711-05.71	51" Single Slope Concrete Barrier Wall	LF	0	2600	2600	\$ 95.30 \$	247,777.73
				ROADWAY AND PA	VEMENT APPURTÈNA	NCES TOTAL (ROUNDED) \$	691,800
Earthwork & Mineral							
203-01	Road & Drainage Excavation (Unclassified)	CY	0	9186.672652	9187	\$ 16.73 \$	153,664.94
203-03	Borrow Excavation (Unclassified)	CY	0	11691.06056	11691	\$ 14.97 \$	175,064.29
					EARTHWORK & MIN	ERAL TOTAL (ROUNDED) \$	328,800
Church Inte							
Structures N/A	Removal of Bridge	SF	0	16642	16642	\$ 50.00 \$	832,100.00
N/A	New Bridge (Box):	SF	0	18800	18800	\$ 300.00 \$	5,640,000.00
· · · · · · · · · · · · · · · · · · ·	· · · ·				STRUCT	URES TOTAL (ROUNDED) \$	6,472,100
Interchanges and Unique Intersections							
Lighting & Signalization						IONS TOTAL (ROUNDED) \$	-
Lighting & Signalization 714-01.32	Structural Lighting	LS		1	1	\$ 9,743.29 \$	9,743.29
Lighting & Signalization 714-01.32 714-03.01	Direct Brl Conduit (2" PVC, Schedule 40)	LF		1 250	1 250	\$ 9,743.29 \$ \$ 6.67 \$	1,666.42
Lighting & Signalization 714-01.32 714-03.01 714-05.04	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C)	LF EA		1 250 4	1 250 4	\$ 9,743.29 \$ \$ 6.67 \$ \$ 620.37 \$	1,666.42 2,481.49
Lighting & Signalization 714-01.32 714-03.01 714-05.04 714-05.05	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG)	LF		1 250 4 500	1 250 4 500	\$ 9,743.29 \$ \$ 6.67 \$ \$ 620.37 \$ \$ 1.05 \$	1,666.42 2,481.49 525.00
Lighting & Signalization 714-01.32 714-03.01 714-05.04	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C)	LF EA LF		1 250 4	1 250 4	\$ 9,743.29 \$ \$ 6.67 \$ \$ 620.37 \$ \$ 1.05 \$	1,666.42 2,481.49
Lighting & Signalization 714-01.32 714-03.01 714-05.04 714-06.05 714-06.05 714-08.28 714-08.28 714-08.30	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARN) Found for Light Standards - Roadway Remove and Relocate Light Standard	LF EA LF EA EA EA		1 250 4 500 3 3 3 3	1 250 4 500 3	\$ 9,743.29 \$ \$ 6.67 \$ \$ 620.37 \$ \$ 1.05 \$ \$ 3,722.26 \$ \$ 1,384.42 \$ \$ 2,046.75 \$	1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25
Lighting & Signalization 714-01.32 714-03.01 714-05.04 714-06.05 714-08.01 714-08.01 714-08.28 714-08.30 714-09.03	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 Aw(3) Light Standards (45' MH, 15' ARM) Found for Light Standards-Roadway Remove and Relocate Light Standard Luminaires (250 WATT)	LF EA LF EA EA EA EA		1 250 4 500 3 3 3 3 3 3 3	1 250 4 500 3 3 3 3 3 3 3	\$ 9,743.29 \$ \$ 6.67 \$ \$ 620.37 \$ \$ 1.05 \$ \$ 3,722.26 \$ \$ 1,384.42 \$ \$ 2,046.75 \$ \$ 472.73 \$	1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,418.19
Lighting & Signalization 714-01.32 714-03.01 714-05.04 714-06.05 714-08.01 714-08.28 714-08.28 714-09.03 714-25	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AwG) Light Standards (45" MH, 15" ARM) Found for Light Standards - Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection	LF EA LF EA EA EA EA EA		1 250 4 500 3 3 3 3 3 1	1 250 4 500 3 3 3 3 3 1	\$ 9,743.29 \$ \$ 6.67 \$ \$ 620.37 \$ \$ 1.05 \$ \$ 3,722.26 \$ \$ 1.384.42 \$ \$ 2,046.75 \$ \$ 472.73 \$ \$ 99.06 \$	1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,418.19 599.06
Lighting & Signalization 714-01.32 714-03.01 714-05.04 714-06.05 714-08.01 714-08.28 714-08.30 714-09.03 714-09.03 714-25 714-26.05	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards - Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting	LF EA EA EA EA EA EA LS		1 250 4 500 3 3 3 3 3 1 1 1	1 250 4 500 3 3 3 3 1 1 1	\$ 9,743.29 \$ \$ 6.67 \$ \$ 620.37 \$ \$ 1.05 \$ \$ 3,722.26 \$ \$ 1,384.42 \$ \$ 472.73 \$ \$ 599.06 \$ \$ 6,825.00 \$	1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,418.19 599.06 6,825.00
Lighting & Signalization 714-01.32 714-03.01 714-05.04 714-06.05 714-08.01 714-08.01 714-08.28 714-08.28 714-09.03 714-25 714-25 714-26.05 730-01.02	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards - Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment	LF EA LF EA EA EA EA LS EA		1 250 4 500 3 3 3 3 3 1 1 2 2	1 250 4 500 3 3 3 3 3 1 1 1 2	\$ 9,743.29 \$ \$ 6.67 \$ \$ 620.37 \$ \$ 1.05 \$ \$ 3,722.26 \$ \$ 2,046.75 \$ \$ 4,72.73 \$ \$ 599.06 \$ \$ 599.00 \$ \$ 6,825.00 \$ \$ 1,97.78 \$	1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,418.19 599.06 6,825.00 3,915.58
Lighting & Signalization 714-01.32 714-03.01 714-05.04 714-06.05 714-08.01 714-08.28 714-08.30 714-09.03 714-25 714-25 714-25.05 730-01.02 730-02.09	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AwG) Light Standards (45' MH, 15' ARM) Found for Light Standards - Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 With Backplated	LF EA LF EA EA EA LS EA EA EA		1 250 4 500 3 3 3 3 1 1 1 2 10	1 250 4 500 3 3 3 3 1 1 1 2 10	\$ 9,743.29 \$ \$ 6.67 \$ \$ 620.37 \$ \$ 1.05 \$ \$ 1.05 \$ \$ 1.04 \$ \$ 2.046.75 \$ \$ 472.73 \$ \$ 599.06 \$ \$ 599.06 \$ \$ 1.957.79 \$ \$ 807.65 \$	1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,418.19 599.06 6,825.00 3,915.58 8,076.53
Lighting & Signalization 714-01.32 714-03.01 714-05.04 714-06.05 714-08.01 714-08.01 714-08.28 714-08.28 714-09.03 714-25 714-25 714-26.05 730-01.02	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards - Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment	LF EA LF EA EA EA EA LS EA		1 250 4 500 3 3 3 3 3 1 1 2 2	1 250 4 500 3 3 3 3 3 1 1 1 2	\$ 9,743.29 \$ \$ 6.67 \$ \$ 620.37 \$ \$ 1.05 \$ \$ 3,722.26 \$ \$ 2,046.75 \$ \$ 4,72.73 \$ \$ 599.06 \$ \$ 599.00 \$ \$ 6,825.00 \$ \$ 1,97.78 \$	1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,418.19 599.06 6,825.00 3,915.58
Lighting & Signalization 714-01.32 714-03.01 714-05.04 714-06.05 714-08.01 714-08.28 714-08.30 714-09.03 714-25 714-25 714-25 714-26.05 730-01.02 730-02.09 730-02.17 730-03.20	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards - Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Faced Assembly (130 A2H With Backplate) Signal Head Assembly (150 A2H With Backplate) Signal Head Assembly (150 A2H With Backplate) Install Pull Box (Type A)	LF EA LF EA EA EA EA EA EA EA EA EA EA EA		1 250 4 500 3 3 3 1 1 1 2 10 2 4 4 4	1 250 3 3 3 3 1 1 1 2 10 2 4 4	\$ 9,743.29 \$ \$ 6.67 \$ \$ 6.037 \$ \$ 1.05 \$ \$ 3,722.26 \$ \$ 2,046.75 \$ \$ 2,046.75 \$ \$ 472.73 \$ \$ 599.06 \$ \$ 599.06 \$ \$ 1,957.79 \$ \$ 99.06 \$ \$ 1,957.79 \$ \$ 307.65 \$ \$ 385.67 \$ \$ 385.67 \$ \$ 385.67 \$	1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,418.19 599.06 6,825.00 3,915.58 8,075.53 2,627.67 1,542.67 1,542.67
Lighting & Signalization 714-01.32 714-03.01 714-05.04 714-06.05 714-08.01 714-08.28 714-08.28 714-08.30 714-09.03 714-25 714-26.05 730-01.02 730-02.09 730-02.17 730-03.20 730-03.21 730-05.01	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards - Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 With Backplate) Signal Head Assembly (150 A2H With Backplate) Signal Head Assembly (150 A2H With Backplate) Install Pull Box (Type A) Install Pull Box (Type A) Electrical Service Connection	LF EA LF EA EA EA EA EA EA EA EA EA EA EA EA		1 250 4 500 3 3 3 3 1 1 2 2 10 2 2 4 4 2 2	1 250 4 500 3 3 3 3 1 1 2 10 2 2 4 4 4 2 2	\$ 9,743.29 \$ \$ 6.67 \$ \$ 620.37 \$ \$ 1.05 \$ \$ 3.722.26 \$ \$ 2.046.75 \$ \$ 4.72.73 \$ \$ 599.06 \$ \$ 1.957.79 \$ \$ 1.957.78 \$ \$ 1.313.83 \$ \$ 385.67 \$ \$ 481.62 \$ \$ 4.82.62 \$	1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,418.19 599.06 6,825.00 3,915.58 8,076.53 2,627.67 1,542.67 1,542.67 1,926.47 4,047.30
Lighting & Signalization 714-01.32 714-03.01 714-05.04 714-06.05 714-08.01 714-08.28 714-08.28 714-09.03 714-25 714-25 714-25 714-26.05 730-01.02 730-02.09 730-02.17 730-03.20 730-03.20 730-05.01 730-05.01 730-06.03	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AwG) Light Standards (45' MH, 15' ARM) Found for Light Standards. Roadway Remove and Relocate Light Standard Luminalres (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (150 A2H With Backplate) Install Pull Box (Type B) Electrical Service Connection Signal Cable - 7 Conductor	LF EA LF EA EA EA EA EA EA EA EA EA EA EA EA EA		1 250 4 500 3 3 3 3 1 1 2 2 10 2 4 4 4 2 800	1 250 4 500 3 3 3 3 1 1 2 2 10 2 4 4 4 2 800	\$ 9,743.29 \$ \$ 6.67 \$ \$ 6.037 \$ \$ 1.05 \$ \$ 1.05 \$ \$ 1.0384.42 \$ \$ 4.9384.42 \$ \$ 9.99.06 \$ \$ 5.99.06 \$ \$ 1.957.79 \$ \$ 807.65 \$ \$ 3836.67 \$ \$ 3985.67 \$ \$ 481.62 \$ \$ 2,023.65 \$ \$ 2,023.65 \$	1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,418.19 599.06 6,825.00 3,915.58 8,076.53 2,627.67 1,542.67 1,542.67 1,542.67 1,223.59
Lighting & Signalization 714-01.32 714-03.01 714-05.04 714-06.05 714-08.01 714-08.28 714-08.30 714-09.03 714-25 714-25 714-26.05 730-01.02 730-02.09 730-02.17 730-03.20 730-05.01 730-05.01 730-06.03 730-08.03 730-08.30	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards - Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Faculy With Backplate) Signal Head Assembly (150 A2H With Backplate) Install Pull Box (Type A) Install Pull Box (Type A) Electrical Service Connection Signal Cable - 7 Conductor Interconnect Cable (Copper-Twistel Pair)	LF EA LF EA EA		1 250 4 500 3 3 3 1 1 2 10 2 4 4 2 800 1000	1 250 4 500 3 3 3 3 3 1 1 2 2 10 2 2 4 4 2 800 1000	\$ 9,743.29 \$ \$ 6.67 \$ \$ 620.37 \$ \$ 1.05 \$ \$ 1.05 \$ \$ 3.722.26 \$ \$ 1.384.42 \$ \$ 4.72.73 \$ \$ 5.99.06 \$ \$ 6.825.00 \$ \$ 1.957.79 \$ \$ 385.67 \$ \$ 385.67 \$ \$ 2.023.65 \$ \$ 481.62 \$ \$ 2.023.65 \$ \$ 1.65 \$ \$ 1.65 \$	$\begin{array}{c} 1,666.42\\ 2,481.49\\ 525.00\\ 11,166.78\\ 4,153.26\\ 6,140.25\\ 1,418.19\\ 599.06\\ 6,825.00\\ 3,915.58\\ 8,076.53\\ 2,627.67\\ 1,542.67\\ 1,542.67\\ 1,526.47\\ 4,047.30\\ 1,323.59\\ 2,670.00\\ 1,323.59\\ 2,670.00\\ 1,570.00\\ 1,$
Lighting & Signalization 714-01.32 714-03.01 714-05.04 714-06.05 714-08.01 714-08.01 714-08.01 714-08.28 714-08.30 714-09.03 714-25 714-26.05 714-26.05 730-01.02 730-02.09 730-02.17 730-03.21 730-03.21 730-03.21 730-08.03 730-08.30 730-08.30 730-01.21	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards (45' MH, 15' ARM) Found for Light Standards - Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 AZH With Backplate) Install Pull Box (Type A) Electrical Service Connection Signal Cable - 7 Conductor Interconnect Cable (Capper-Twisted Pair) Conduit 3" Diameter Ligk and Bore)	LF EA EA EA EA EA EA EA EA EA EA EA EA EA		1 250 4 500 3 3 3 1 1 2 10 2 4 4 2 800 1000 400	1 250 4 500 3 3 3 3 1 1 2 2 10 2 2 4 4 2 800 1000 400	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c} 1,666.42 \\ 2,481.49 \\ 525.00 \\ 11,166.78 \\ 4,153.26 \\ 6,140.25 \\ 1,418.19 \\ 599.06 \\ 6,825.00 \\ 3,315.58 \\ 8,076.53 \\ 2,627.67 \\ 1,526.47 \\ 4,047.30 \\ 1,323.59 \\ 2,670.00 \\ 10,295.16 \\ 1,295.00 \\ 10,295.16 \\ 1,295.00 \\ 10,295.16 \\ 1,295.00 \\ 10,295.16 \\ 1,295.00 \\ 10,295.16 \\ 1,295.16 \\ 10,295.16 \\$
Lighting & Signalization 714-01.32 714-03.01 714-05.04 714-06.05 714-06.05 714-08.28 714-08.28 714-09.03 714-09.03 714-25 710-20 710-03.21 710-03.21 710-05.01 710-03.21 710-05.01 71	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards (45' MH, 15' ARM) Found for Light Standards - Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 K1) Mith Backplate) Signal Head Assembly (130 K1) Mith Backplate) Install Pull Box (Type B) Electrical Service Connection Signal Cable - 7 Conductor Interconnect Cable (Copper-Twisted Pair) Conduit 3" Diameter (Jack and Bore) Conduit 3" Diameter (Jack and Bore)	LF EA LF LF LF LF		1 250 4 500 3 3 3 1 1 1 2 10 2 4 4 4 2 800 1000 400 200	1 250 4 500 3 3 3 1 1 1 2 10 2 4 4 2 800 1000 400 200	\$ 9,743.29 \$ \$ 6.67 \$ \$ 6.03.7 \$ \$ 1.05 \$ \$ 1.05 \$ \$ 1.05 \$ \$ 3.722.26 \$ \$ 1.384.42 \$ \$ 472.73 \$ \$ 599.06 \$ \$ 599.06 \$ \$ 599.06 \$ \$ 1.957.79 \$ \$ 807.65 \$ \$ 385.67 \$ \$ 481.62 \$ \$ 2.033.65 \$ \$ 2.67 \$ \$ 2.67 \$ \$ 2.67 \$ \$ 2.67 \$	$\begin{array}{c} 1,666.42\\ 2,481.49\\ 525.00\\ 11,166.78\\ 4,153.26\\ 6,140.25\\ 1,418.19\\ 599.06\\ 6,825.00\\ 3,915.58\\ 8,076.53\\ 2,627.67\\ 1,542.67\\ 1,926.47\\ 4,047.30\\ 1,523.59\\ 2,670.00\\ 10,296.16\\ 2,760.38\end{array}$
Lighting & Signalization 714-01.32 714-03.01 714-05.04 714-06.05 714-08.01 714-08.01 714-08.01 714-08.28 714-08.30 714-09.03 714-25 714-26.05 714-26.05 730-01.02 730-02.09 730-02.17 730-03.21 730-03.21 730-03.21 730-08.03 730-08.30 730-08.30 730-01.21	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards (45' MH, 15' ARM) Found for Light Standards - Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 AZH With Backplate) Install Pull Box (Type A) Electrical Service Connection Signal Cable - 7 Conductor Interconnect Cable (Capper-Twisted Pair) Conduit 3" Diameter Ligk and Bore)	LF EA EA EA EA EA EA EA EA EA EA EA EA EA		1 250 4 500 3 3 3 1 1 2 10 2 4 4 2 800 1000 400	1 250 4 500 3 3 3 3 1 1 2 2 10 2 2 4 4 2 800 1000 400	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c} 1,666.42 \\ 2,481.49 \\ 525.00 \\ 11,166.78 \\ 4,153.26 \\ 6,140.25 \\ 1,418.19 \\ 599.06 \\ 6,825.00 \\ 3,315.58 \\ 8,076.53 \\ 2,627.67 \\ 1,526.47 \\ 4,047.30 \\ 1,323.59 \\ 2,670.00 \\ 10,295.16 \\ 1,295.00 \\ 10,295.16 \\ 1,295.00 \\ 10,295.16 \\ 1,295.00 \\ 10,295.16 \\ 1,295.00 \\ 10,295.16 \\ 1,295.16 \\ 10,295.16 \\$
Lighting & Signalization 714-01.32 714-03.01 714-05.04 714-06.05 714-08.01 714-08.28 714-08.30 714-08.30 714-09.03 714-25 714-26.05 730-01.02 730-02.09 730-02.17 730-03.20 730-03.21 730-03.30 730-03.30 730-03.30 730-03.30 730-03.30 730-03.21 730-03.30 730-03.30 730-03.30 730-03.21 730-03.30 730-03.30 730-03.30 730-03.21 730-03.30 730-03.30 730-03.30 730-03.21 730-03.30	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards (45' MH, 15' ARM) Found for Light Standards - Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 APM With Backplate) Install Pull Box (Type 8) Electrical Service Connection Signal Cable - 7 Conductor Interconnect Cable (Copper Twisted Pair) Conduit 3" Diameter (Jack and Bore) Conduit 3" Cannet (Jack and Bore) Conduit 2" Conduit Schelue 80) V HCILC LOOP DETECTOR (SHELF MOUNT)	IF EA IF IF IF EA		1 250 4 500 3 3 3 1 1 2 10 2 4 4 2 800 1000 400 200 4 4	1 250 4 500 3 3 3 1 1 2 10 2 4 4 2 800 1000 400 200 4 4	\$ 9,743.29 \$ \$ 6.67 \$ \$ 620.37 \$ \$ 1.05 \$ \$ 3.722.26 \$ \$ 1.384.42 \$ \$ 2.046.75 \$ \$ 4.72.73 \$ \$ 9.906 \$ \$ 1.957.79 \$ \$ 1.957.79 \$ \$ 1.957.79 \$ \$ 1.957.79 \$ \$ 1.313.83 \$ \$ 2.023.65 \$ \$ 2.023.65 \$ \$ 2.023.65 \$ \$ 2.023.65 \$ \$ 2.67 \$ \$ 2.57.4 \$ \$ 2.57.4 \$ \$ 3.80 \$ \$ 1.360 \$	$\begin{array}{c} 1,666.42 \\ 2,481.49 \\ 525.00 \\ 11,165.78 \\ 4,153.26 \\ 6,140.25 \\ 1,418.19 \\ 599.06 \\ 6,825.00 \\ 3,915.58 \\ 8,076.53 \\ 2,627.67 \\ 1,542.67 \\ 1,542.67 \\ 1,542.67 \\ 1,542.67 \\ 1,232.59 \\ 2,670.00 \\ 10,296.16 \\ 2,760.38 \\ 714.49 \end{array}$
Lighting & Signalization 714-01.32 714-03.01 714-05.04 714-06.05 714-08.01 714-08.28 714-08.28 714-08.28 714-09.03 714-25 714-26.05 730-01.02 730-02.09 730-02.17 730-02.17 730-03.20 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-12.14 730-12.16 730-12.14 730-12.16 730-14.01 730-14.02 730-14.02	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards (45' MH, 15' ARM) Found for Light Standards - Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 Wth Backplate) Signal Head Assembly (130 Wth Backplate) Signal Head Assembly (130 A2H Wth Backplate) Install Pull Box (Type 8) Electrical Service Connection Signal Cable - 7 Conductor Interconnect Cable (Copper-Twisted Pair) Conduit 3" Diameter (Jack and Bore) Conduit 3" Diameter (Jack and Bore) Conduit 3" Diameter (Jack and Bore) Conduit 2" Conduit Schedule 80) VEHICLE LOOP DETECTOR (SHELF MOUNT) Shielded Detector Cable Saw Stot Cabinet (Eight Phase Base Mounted)	IF EA IF IF IF EA IF EA		1 250 4 500 3 3 3 1 1 2 10 2 4 4 2 800 1000 400 200 4 350 2000 2 2	1 250 4 500 3 3 3 1 1 2 10 2 4 4 2 800 1000 400 200 4 350 2000 2	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c} 1,666.42 \\ 2,481.49 \\ 525.00 \\ 11,166.78 \\ 4,153.26 \\ 6,140.25 \\ 1,418.19 \\ 599.66 \\ 6,825.00 \\ 3,315.58 \\ 8,076.53 \\ 2,627.67 \\ 1,526.47 \\ 4,047.30 \\ 1,223.59 \\ 2,670.00 \\ 10,296.16 \\ 2,760.38 \\ 714.49 \\ 444.66 \\ 5,779.41 \\ 27,089.00 \\ 2,089.00 \\ 10,298.16 \\ 10,298.16 \\ 10,296.16 \\ 10,$
Lighting & Signalization 714-01.32 714-03.01 714-05.04 714-06.05 714-06.05 714-08.28 714-08.28 714-08.30 714-09.03 714-09.03 714-25 714-25 714-25 714-25 714-25 714-25 714-25 714-25 714-25 714-25 714-25 714-25 730-01.02 730-02.09 730-02.17 730-03.20 730-03.21 730-03.21 730-05.01 730-05.01 730-03.21 730-08.33 730-08.33 730-08.12.14 730-12.16 730-12.16 730-13.01 730-13.01 730-14.01 730-14.02 730-15.32 730-16.02	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards. Foadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (150 A2H With Backplate) Install Pull Box (Type 8) Electrical Service Connection Signal Cable - 7 Conductor Install Pull Box (Type 8) Electrical Service Connection Signal Cable - 7 Conductor Interconnect Cable (Copper-Twisted Pair) Conduit (2" Conduit Schedule 80) VEHICLE LOOP DETECTOR (SHELF MOUNT) Shielde Detector Cable Say Sign	IF EA IF IF IF IF IF IF EA EA		1 250 4 500 3 3 3 1 1 2 10 2 4 4 4 2 800 1000 200 400 2000 4 350 2000 2 2 2	1 250 4 500 3 3 3 1 1 2 10 2 4 4 4 2 800 1000 200 400 200 4 350 2000 2 2 2	$\begin{array}{c c c c c c c c c c c c c c c c c c c $	$\begin{array}{c} 1,666.42\\ 2,481.49\\ 525.00\\ 11,166.78\\ 4,153.26\\ 6,140.25\\ 1,418.19\\ 599.06\\ 6,825.00\\ 3,915.58\\ 8,076.53\\ 2,627.67\\ 1,542.67\\ 1,926.47\\ 4,047.30\\ 1,223.59\\ 2,670.00\\ 10,296.16\\ 2,760.38\\ 714.49\\ 444.66\\ 5,779.41\\ 27,089.00\\ 9,473.13\\ 2,670.00\\ 9,473.13\\ 2,689.00\\ 9,473.13\\ 2,670.00\\ 9,473.13\\ 2,689.00\\ 9,473.13\\ 2,670.00\\ 9,473.13\\ 2,689.00\\ 9,473.13\\ 2,670.00\\ 9,473.13\\ 2,689.00\\ 9,473.13\\ 2,670.00\\ 1,670.00\\ 1,67$
Lighting & Signalization 714-01.32 714-03.01 714-05.04 714-06.05 714-08.01 714-08.01 714-08.30 714-08.30 714-08.30 714-25 730-01.02 730-01.02 730-01.02 730-02.09 730-02.17 730-03.20 730-03.21 730-03.21 730-05.01 730-08.30 730-12.16 730-12.16 730-13.01 730-14.02 730-15.32 730-16.02 730-16.02	Direct Brl Conduit (2* PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards (45' MH, 15' ARM) Found for Light Standards - Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 APM With Backplate) Electrical Service Connection Signal Cable - 7 Conductor Install Pull Box (Type 8) Electrical Service Connection Signal Cable - 7 Conducts Cable (Doper Twisted Pair) Conduit 3" Diameter (Jack and Bore) Conduit 3" Diameter (Jack and Bore) Conduit 3" Diameter (Jack and Bore) Conduit 2" Conduit Schedule 80) VEHICLE LOP DETECTOR (SHELF MOUNT) Shielded Detector Cable Saw Siot Cabinet (Eight Phase Base Mounted) Eight Phase Actuated Controller Cantilever Signal Support (J ARM @ 45)	IF EA IF IF IF IF IF IF EA EA EA		1 250 4 500 3 3 3 1 1 2 10 2 4 4 2 800 200 400 200 4 350 200 2 2 2 3 3	1 250 4 500 3 3 3 1 1 2 10 2 4 4 2 800 200 400 200 4 350 200 2 2 3 3	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c} 1,666.42 \\ 2,481.49 \\ 525.00 \\ 11,165.78 \\ 4,153.26 \\ 6,140.25 \\ 1,418.19 \\ 599.06 \\ 6,825.00 \\ 3,915.58 \\ 8,076.53 \\ 2,627.67 \\ 1,542.67 \\ 1,542.67 \\ 1,542.67 \\ 1,542.67 \\ 1,225.47 \\ 4,047.30 \\ 1,223.59 \\ 2,670.00 \\ 10,296.16 \\ 2,760.38 \\ 714.49 \\ 444.66 \\ 5,779.41 \\ 27,089.00 \\ 9,473.13 \\ 4,248.57 $
Lighting & Signalization 714-01.32 714-03.01 714-05.04 714-06.05 714-06.05 714-08.28 714-08.28 714-08.30 714-09.03 714-09.03 714-25 714-25 714-25 714-25 714-25 714-25 714-25 714-25 714-25 714-25 714-25 714-25 730-01.02 730-02.09 730-02.17 730-03.20 730-03.21 730-03.21 730-05.01 730-05.01 730-03.21 730-08.33 730-08.33 730-08.12.14 730-12.16 730-12.16 730-13.01 730-13.01 730-14.01 730-14.02 730-15.32 730-16.02	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards. Foadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (150 A2H With Backplate) Install Pull Box (Type 8) Electrical Service Connection Signal Cable - 7 Conductor Install Pull Box (Type 8) Electrical Service Connection Signal Cable - 7 Conductor Interconnect Cable (Copper-Twisted Pair) Conduit 2" Conduit 3" Diameter (Jack and Bore) Conduit (2" Conduit Schedule 80) VEHICLE LOOP DETECTOR (SHELF MOUNT) Shielded Detector Cable Say Stot Cablent (Eight Phase Base Mounted) Eight Phase Actuated Controille	IF EA IF IF IF IF IF IF EA EA		1 250 4 500 3 3 3 1 1 2 10 2 4 4 2 800 1000 400 200 400 200 4 350 2000 2 2 2 3 3 3	1 250 4 500 3 3 3 1 1 2 10 2 4 4 2 800 1000 400 200 400 200 4 350 2000 2 2 3 3 3	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,418.19 599.06 6,825.00 3,3915.58 8,076.53 2,627.67 1,526.47 4,047.30 1,323.59 2,670.00 10,296.16 2,760.38 7,14.49 4,047.30 10,296.16 5,779.41 27,708.90 9,473.13 42,248.57 55,854.85
Lighting & Signalization 714-01.32 714-03.01 714-05.04 714-06.05 714-08.01 714-08.28 714-08.28 714-08.30 714-09.03 714-25 714-25 714-26.05 730-01.02 730-02.09 730-02.17 730-03.20 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-12.14 730-12.14 730-12.14 730-12.16 730-14.01 730-14.02 730-16.02 730-23.88 730-23.96	Direct Brl Conduit (2* PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards (45' MH, 15' ARM) Found for Light Standards - Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 APM With Backplate) Electrical Service Connection Signal Cable - 7 Conductor Install Pull Box (Type 8) Electrical Service Connection Signal Cable - 7 Conducts Cable (Doper Twisted Pair) Conduit 3" Diameter (Jack and Bore) Conduit 3" Diameter (Jack and Bore) Conduit 3" Diameter (Jack and Bore) Conduit 2" Conduit Schedule 80) VEHICLE LOP DETECTOR (SHELF MOUNT) Shielded Detector Cable Saw Siot Cabinet (Eight Phase Base Mounted) Eight Phase Actuated Controller Cantilever Signal Support (J ARM @ 45)	IF EA IF IF IF IF IF IF EA EA EA		1 250 4 500 3 3 3 1 1 2 10 2 4 4 2 800 1000 400 200 400 200 4 350 2000 2 2 2 3 3 3	1 250 4 500 3 3 3 1 1 2 10 2 4 4 2 800 1000 400 200 400 200 4 350 2000 2 2 3 3 3	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c} 1,666.42 \\ 2,481.49 \\ 525.00 \\ 11,165.78 \\ 4,153.26 \\ 6,140.25 \\ 1,418.19 \\ 599.06 \\ 6,825.00 \\ 3,915.58 \\ 8,076.53 \\ 2,627.67 \\ 1,542.67 \\ 1,542.67 \\ 1,542.67 \\ 1,542.67 \\ 1,225.47 \\ 4,047.30 \\ 1,223.59 \\ 2,670.00 \\ 10,296.16 \\ 2,760.38 \\ 714.49 \\ 444.66 \\ 5,779.41 \\ 27,089.00 \\ 9,473.13 \\ 4,248.57 $
Lighting & Signalization 714-01.32 714-03.01 714-05.04 714-06.05 714-06.05 714-08.28 714-08.30 714-09.03 714-09.03 714-25 714-25 714-25 714-25 714-25 714-25 714-25 714-25 714-25 730-01.02 730-02.09 730-02.17 730-03.20 730-03.21 730-03.21 730-05.01 730-03.21 730-08.33 730-08.33 730-08.33 730-08.14 730-12.14 730-12.16 730-12.16 730-13.12 730-13.22 730-13.32 730-13.32 730-13.32 730-13.32 730-13.32 730-13.32 730-13.32 730-13.32 730-13.32 730-13.32 730-13.32 730-23.88 730-23.96	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards. Foadway Remove and Relocate Light Standard Luminalres (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 With Backplate) Install Pull Box (Type 4) Electrical Service Connection Signal Cable - 7 Conductor Install Pull Box (Type 4) Electrical Service Connection Signal Cable - 7 Conductor Conduit 2" Conduit Cash and Sero UC Conduit 2" Conduit Cash and Sero Conduit 2" Conduit Cash and Sero Signal Cable - 7 Conductor Signal Cable - 7 Conductor Conduit 2" Conduit Cash and Sero Conduit 2" Conduit Cash and Sero Saw Slot Cablenet (Eight Phase Base Mounted) Eight Phase Actuated Controller Cantilever Signal Support (1 ARM @ 45') Cantilever Signal Support (1 ARM @ 50')	IF EA IF EA IF IF IF IF EA		1 250 4 500 3 3 3 1 1 2 10 2 4 4 2 800 1000 400 200 400 200 4 350 2000 2 2 2 3 3 3	1 250 4 3 3 3 3 3 1 1 2 2 4 4 4 2 2 4 4 2 2 4 4 2 2 4 4 2 2 4 4 2 2 4 4 2 2 3 50 2000 200 2 2 2 2 3 3 3 3 3 3 3 3 3 3 3	\$ 9,743.29 \$ \$ 6.67 \$ \$ 6.037 \$ \$ 1.05 \$ \$ 3,722.26 \$ \$ 1.384.42 \$ \$ 2,046.75 \$ \$ 3,972.26 \$ \$ 1,384.42 \$ \$ 9,990.6 \$ \$ 599.06 \$ \$ 1,957.79 \$ \$ 807.65 \$ \$ 1,313.83 \$ \$ 2,023.65 \$ \$ 1.65 \$ \$ 2,677 \$ \$ 2,023.65 \$ \$ 1.65 \$ \$ 1.65 \$ \$ 1.65 \$ \$ 1.76 \$ \$ 1.78 \$ \$ 1.78 \$ \$ 1.78 \$ <td< td=""><td>1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,418.19 599.06 6,825.00 3,915.58 8,076.53 2,627.67 1,542.67 1,542.67 1,542.67 2,276.00 10,296.16 2,760.03 714.49 4,047.30 10,296.15 2,760.03 714.49 444.66 5,779.41 27,089.47 3,42,348.57 58,654.85 2,28,500</td></td<>	1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,418.19 599.06 6,825.00 3,915.58 8,076.53 2,627.67 1,542.67 1,542.67 1,542.67 2,276.00 10,296.16 2,760.03 714.49 4,047.30 10,296.15 2,760.03 714.49 444.66 5,779.41 27,089.47 3,42,348.57 58,654.85 2,28,500
Lighting & Signalization 714-01.32 714-03.01 714-05.04 714-06.05 714-08.01 714-08.01 714-08.30 714-08.30 714-25 714-25 730-01.02 730-02.09 730-02.09 730-02.17 730-03.20 730-05.01 730-05.01 730-05.01 730-05.01 730-12.16 730-13.01 730-13.01 730-14.02 730-15.32 730-15.32 730-15.32 730-15.32 730-15.32 730-15.32 730-15.32 730-15.32 730-15.32 730-15.32 730-15.32 730-15.32 730-15.32 730-15.32 730-12.38 730-23.96	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards (45' MH, 15' ARM) Found for Light Standards - Roadway Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 With Backplate) Install Pull Box (Type A) Electrical Service Connection Signal Cable - 7 Conductor Interconnect Cable (Copper-Twisted Pair) Conduit 3' Diameter (Jack and Bore) Conduit 3' Diameter (Jack and Bore) Conduit 3' Diameter (Jack and Bore) Conduit 5' Diameter (Jack and Bore) Conduit 5' Diameter (Jack and Bore) Cable Detector Cable Signal Cable - Conduit Conduit Schedule 80) VEHICLE LOP DETECTOR (SHEIT MOUNT) Shielded Detector Cable Saw Slot Cabinet (Eight Phase Actuated Controller Cantilever Signal Support (1 ARM @ 50') Cantilever Signal Support (1 ARM @ 50')	IF EA IF EA EA EA EA EA EA IS EA IF IF EA EA IF EA EA IF IF EA EA IF EA	100	1 250 4 500 3 3 3 1 1 2 10 2 4 4 2 800 1000 400 200 400 200 4 350 2000 2 2 2 3 3 3	1 250 4 500 3 3 3 1 1 2 10 2 4 4 2 800 200 4 200 4 350 200 4 350 200 200 2 2 3 3 3 3 1 1 1 2 2 1 1 2 2 1 4 2 2 1 2 2 1 3 3 3 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2	\$ 9,743.29 \$ \$ 6.67 \$ \$ 6.60.37 \$ \$ 1.05 \$ \$ 3.722.66 \$ \$ 2.046.75 \$ \$ 4.72.73 \$ \$ 5.99.06 \$ \$ 1.957.79 \$ \$ 1.957.79 \$ \$ 1.957.79 \$ \$ 1.957.79 \$ \$ 1.957.79 \$ \$ 1.31.83 \$ \$ 1.31.83 \$ \$ 1.357.74 \$ \$ 1.31.83 \$ \$ 1.357.75 \$ \$ 1.363 \$ \$ 1.31.83 \$ \$ 1.363 \$ \$ 1.360 \$ \$ 1.380 \$ \$ 1.320 \$ \$ 1.320 \$	1,666.42 2,481.49 5,25.00 11,165.78 4,153.26 6,140.25 1,418.19 5,99.06 6,825.00 3,915.58 8,076.53 2,627.67 1,542.67 1,542.67 1,542.67 1,542.67 2,670.00 10,296.16 2,760.38 714.49 444.66 5,779.41 27,089.00 9,473.13 4,248.57 58,654.85 223,500
Lighting & Signalization 714-01.32 714-03.01 714-05.04 714-06.05 714-06.05 714-08.01 714-08.28 714-09.03 714-25 714-25 714-25 714-25 714-25 714-25 730-01.02 730-02.09 730-02.09 730-02.09 730-02.17 730-03.20 730-03.20 730-03.21 730-08.03 730-03.21 730-08.03 730-01.214 730-12.14 730-12.16 730-12.16 730-12.16 730-13.01 730-14.01 730-14.02 730-15.32 730-16.02 730-23.88 730-23.96 Suardrail 705-01.01 705-01.01	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards. Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 With Backplate) Install Pull Box (Type A) Electrical Service Connection Signal Cable - 7 Conductor Signal Cable - 7 Conductor Conduit 2' Conduit Schedule 80) VEHICLE LOOP DETECTOR (SHELF MOUNT) Shielded Detector Cable Eight Phase Actuated Controller Cantilever Signal Support (1 ARM @ 50') Cantilever Signal Support (1 ARM @ 50')	IF EA IF EA IF IF IF EA EA IF IF EA EA IF IF IF EA	4	1 250 4 500 3 3 3 1 1 2 10 2 4 4 2 800 1000 400 200 400 200 4 350 2000 2 2 2 3 3 3	1 250 4 500 3 3 1 1 2 10 2 4 4 2 800 1000 400 200 400 200 200 200 200	\$ 9,743.29 \$ \$ 6.67 \$ \$ 6.037 \$ \$ 1.05 \$ \$ 3,722.26 \$ \$ 1,384.42 \$ \$ 2,046.75 \$ \$ 4,72.73 \$ \$ 599.06 \$ \$ 1,957.79 \$ \$ 1,957.79 \$ \$ 1,913.83 \$ \$ 2,023.65 \$ \$ 2,023.65 \$ \$ 2,023.65 \$ \$ 1.65 \$ \$ 2,023.65 \$ \$ 1.65 \$ \$ 2,023.65 \$ \$ 1.65 \$ \$ 1.65 \$ \$ 1.27 \$ \$ 1.27 \$ \$ 1.27 \$ \$ 1.351.62 \$	1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,418.19 599.06 6,825.00 3,915.58 8,076.53 2,627.67 1,526.47 4,047.30 10,296.16 2,760.03 7,14.49 444.66 5,779.41 27,089.00 9,473.13 42,348.57 58,654.85 228,500 7,364.49 9,410.38
Lighting & Signalization 714-01.32 714-03.01 714-05.04 714-06.05 714-08.01 714-08.01 714-08.30 714-08.30 714-25 714-25 730-01.02 730-02.09 730-02.09 730-02.17 730-03.20 730-05.01 730-05.01 730-05.01 730-05.01 730-12.16 730-13.01 730-13.01 730-14.02 730-15.32 730-15.32 730-15.32 730-15.32 730-15.32 730-15.32 730-15.32 730-15.32 730-15.32 730-15.32 730-15.32 730-15.32 730-15.32 730-15.32 730-12.38 730-23.96	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards (45' MH, 15' ARM) Found for Light Standards - Roadway Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 With Backplate) Install Pull Box (Type A) Electrical Service Connection Signal Cable - 7 Conductor Interconnect Cable (Copper-Twisted Pair) Conduit 3' Diameter (Jack and Bore) Conduit 3' Diameter (Jack and Bore) Conduit 3' Diameter (Jack and Bore) Conduit 5' Diameter (Jack and Bore) Conduit 5' Diameter (Jack and Bore) Cable Detector Cable Signal Cable - Conduit Conduit Schedule 80) VEHICLE LOP DETECTOR (SHEIT MOUNT) Shielded Detector Cable Saw Slot Cabinet (Eight Phase Actuated Controller Cantilever Signal Support (1 ARM @ 50') Cantilever Signal Support (1 ARM @ 50')	IF EA IF EA EA EA EA EA EA IS EA IF IF EA EA IF EA EA IF IF EA EA EA IF EA		1 250 4 500 3 3 3 1 1 2 10 2 4 4 2 800 1000 400 200 400 200 4 350 2000 2 2 2 3 3 3	1 250 4 500 3 3 3 1 1 2 10 2 4 4 2 800 1000 400 200 4 350 2000 4 3 300 2000 4 350 2000 4 3 300 2000 4 3 300 2000 4 3 300 2000 4 3 300 2000 4 4 3 300 2000 4 3 300 2000 4 3 3 3 3 3 3 3 3 3 3 3 3 3	\$ 9,743.29 \$ \$ 6.6.7 \$ \$ 6.60.37 \$ \$ 1.05 \$ \$ 3.722.26 \$ \$ 1.384.42 \$ \$ 4.72.73 \$ \$ 4.72.73 \$ \$ 4.92.500 \$ \$ 1.957.79 \$ \$ 1.957.79 \$ \$ 1.957.79 \$ \$ 1.313.83 \$ \$ 1.313.83 \$ \$ 2.023.65 \$ \$ 2.023.65 \$ \$ 2.03.65 \$ \$ 1.31.83 \$ \$ 1.65 \$ \$ 2.023.65 \$ \$ 1.27 \$ \$ 1.27 \$ \$ 1.27 \$ \$ 1.27 \$ \$ 1.27 \$ <	1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,418.19 599.06 6,825.00 3,915.58 8,076.53 2,627.67 1,542.67 1,926.47 4,047.30 1,926.47 4,047.30 1,926.47 2,760.38 714.49 444.66 5,779.41 27,089.00 9,473.13 42,348.57 58,654.85 223,500
Lighting & Signalization 714-01.32 714-03.01 714-05.04 714-06.05 714-06.05 714-08.01 714-08.28 714-09.03 714-09.03 714-25 714-25 714-25 714-25 714-25 730-01.02 730-02.09 730-02.09 730-02.09 730-02.17 730-03.20 730-03.20 730-03.21 730-08.03 730-03.21 730-08.03 730-03.21 730-08.03 730-12.14 730-12.14 730-12.16 730-12.16 730-13.01 730-14.01 730-14.02 730-14.02 730-23.88 730-23.96 Suardrail 705-01.01 705-01.01	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards. Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 With Backplate) Install Pull Box (Type A) Electrical Service Connection Signal Cable - 7 Conductor Signal Cable - 7 Conductor Conduit 2' Conduit Schedule 80) VEHICLE LOOP DETECTOR (SHELF MOUNT) Shielded Detector Cable Eight Phase Actuated Controller Cantilever Signal Support (1 ARM @ 50') Cantilever Signal Support (1 ARM @ 50')	IF EA IF EA IF IF IF EA EA IF IF EA EA IF IF IF EA	4	1 250 4 500 3 3 3 1 1 2 10 2 4 4 2 800 1000 400 200 400 200 4 350 2000 2 2 2 3 3 3	1 250 4 500 3 3 3 1 1 2 10 2 4 4 2 800 1000 400 200 4 350 2000 4 3 300 2000 4 350 2000 4 3 300 2000 4 3 300 2000 4 3 300 2000 4 3 300 2000 4 4 3 300 2000 4 3 300 2000 4 3 3 3 3 3 3 3 3 3 3 3 3 3	\$ 9,743.29 \$ \$ 6.67 \$ \$ 6.037 \$ \$ 1.05 \$ \$ 3,722.26 \$ \$ 1,384.42 \$ \$ 2,046.75 \$ \$ 4,72.73 \$ \$ 599.06 \$ \$ 1,957.79 \$ \$ 1,957.79 \$ \$ 1,913.83 \$ \$ 2,023.65 \$ \$ 2,023.65 \$ \$ 2,023.65 \$ \$ 1.65 \$ \$ 2,023.65 \$ \$ 1.65 \$ \$ 2,023.65 \$ \$ 1.65 \$ \$ 1.65 \$ \$ 1.27 \$ \$ 1.27 \$ \$ 1.27 \$ \$ 1.351.62 \$	1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,418.19 599.06 6,825.00 3,915.58 8,076.53 2,627.67 1,526.47 4,047.30 10,296.16 2,760.03 7,14.49 444.66 5,779.41 27,089.00 9,473.13 42,348.57 58,654.85 228,500 7,364.49 9,410.38
Lighting & Signalization 714-01.32 714-03.01 714-05.04 714-06.05 714-06.05 714-08.01 714-08.28 714-09.03 714-09.03 714-25 714-25 714-25 714-25 714-25 730-01.02 730-02.09 730-02.09 730-02.09 730-02.17 730-03.20 730-03.20 730-03.21 730-08.03 730-03.21 730-08.03 730-03.21 730-08.03 730-12.14 730-12.14 730-12.16 730-12.16 730-13.01 730-14.01 730-14.02 730-14.02 730-23.88 730-23.96 Suardrail 705-01.01 705-01.01	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards. Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 With Backplate) Install Pull Box (Type A) Electrical Service Connection Signal Cable - 7 Conductor Signal Cable - 7 Conductor Conduit 2' Conduit Schedule 80) VEHICLE LOOP DETECTOR (SHELF MOUNT) Shielded Detector Cable Eight Phase Actuated Controller Cantilever Signal Support (1 ARM @ 50') Cantilever Signal Support (1 ARM @ 50')	IF EA IF EA IF IF IF EA EA IF IF EA EA IF IF IF EA	4	1 250 4 500 3 3 3 1 1 2 10 2 4 4 2 800 1000 400 200 400 200 4 350 2000 2 2 2 3 3 3	1 250 4 500 3 3 3 1 1 2 10 2 4 4 2 800 200 4 200 4 350 2000 200 4 350 2000 200 4 350 2000 4 350 30 30 30 30 30 30 30 30 30 3	\$ 9,743.29 \$ \$ 6.6.7 \$ \$ 6.60.37 \$ \$ 1.05 \$ \$ 3.722.26 \$ \$ 1.384.42 \$ \$ 4.72.73 \$ \$ 4.72.73 \$ \$ 4.92.500 \$ \$ 1.957.79 \$ \$ 1.957.79 \$ \$ 1.957.79 \$ \$ 1.313.83 \$ \$ 1.313.83 \$ \$ 2.023.65 \$ \$ 2.023.65 \$ \$ 2.03.65 \$ \$ 1.31.83 \$ \$ 1.65 \$ \$ 2.023.65 \$ \$ 1.27 \$ \$ 1.27 \$ \$ 1.27 \$ \$ 1.27 \$ \$ 1.27 \$ <	1,666.42 2,481.49 5,25.00 11,166.78 4,153.26 6,140.25 1,418.19 5,99.06 6,825.00 3,915.58 8,076.53 2,627.67 1,542.67 1,926.47 4,047.30 1,926.47 4,047.30 1,926.47 2,760.38 7,14.49 4,446 5,779.41 27,089.00 9,473.13 42,348.57 5,865.485 2,23,500
Lighting & Signalization 714-01.32 714-03.01 714-05.04 714-06.05 714-08.01 714-08.28 714-08.30 714-09.03 714-25 714-02.09 730-02.09 730-02.09 730-02.09 730-02.17 730-03.20 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.20 730-12.14 730-13.01 730-13.05 730-13.06 730-13.06 730-13.06 730-23.88 730-23.96 Suardrail 705-01.01 705-04.09 Seeding and Sodding	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards. Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 With Backplate) Install Pull Box (Type A) Electrical Service Connection Signal Cable - 7 Conductor Signal Cable - 7 Conductor Conduit 2' Conduit Schedule 80) VEHICLE LOOP DETECTOR (SHELF MOUNT) Shielded Detector Cable Eight Phase Actuated Controller Cantilever Signal Support (1 ARM @ 50') Cantilever Signal Support (1 ARM @ 50')	IF EA IF EA IF IF IF EA EA IF IF EA EA IF IF IF EA	4	1 250 4 500 3 3 3 1 1 2 10 2 4 4 2 800 1000 400 200 400 200 4 350 2000 2 2 2 3 3 3	1 250 4 500 3 3 3 1 1 2 10 2 4 4 2 800 200 4 200 4 350 2000 200 4 350 2000 200 4 350 2000 4 350 30 30 30 30 30 30 30 30 30 3	\$ 9,743.29 \$ \$ 6.67 \$ \$ 6.60.37 \$ \$ 1.05 \$ \$ 3.722.66 \$ \$ 1.384.42 \$ \$ 2.046.75 \$ \$ 4.72.73 \$ \$ 9.90.6 \$ \$ 1.957.79 \$ \$ 1.957.79 \$ \$ 1.957.79 \$ \$ 1.31.83 \$ \$ 1.31.83 \$ \$ 2.03.56 \$ \$ 2.03.55 \$ \$ 1.380 \$ \$ 2.03.56 \$ \$ 1.380 \$ \$ 1.27 \$ \$ 1.380 \$ \$ 1.27 \$ \$ 1.380 \$ \$ 1.27 \$ \$ 1.27 \$	1,666.42 2,481.49 5,25.00 11,166.78 4,153.26 6,140.25 1,418.19 5,99.06 6,825.00 3,915.58 8,076.53 2,627.67 1,542.67 1,926.47 4,047.30 1,926.47 4,047.30 1,926.47 2,760.38 7,14.49 4,446 5,779.41 27,089.00 9,473.13 42,348.57 5,865.485 2,23,500
Lighting & Signalization 714-01.32 714-03.01 714-05.04 714-06.05 714-08.01 714-08.28 714-08.30 714-09.03 714-25 714-25 714-25 714-25 714-25 714-26.05 730-01.02 730-02.09 730-02.17 730-03.20 730-03.20 730-03.21 730-03.21 730-08.33 730-08.33 730-08.33 730-08.33 730-12.14 730-12.16 730-12.16 730-12.16 730-13.01 730-13.22 730-14.01 730-15.32 730-23.88 730-23.88 730-23.96 Suardrail 705-04.07 705-04.09	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards. Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 With Backplate) Install Pull Box (Type A) Electrical Service Connection Signal Cable - 7 Conductor Signal Cable - 7 Conductor Conduit 2' Conduit Schedule 80) VEHICLE LOOP DETECTOR (SHELF MOUNT) Shielded Detector Cable Eight Phase Actuated Controller Cantilever Signal Support (1 ARM @ 50') Cantilever Signal Support (1 ARM @ 50')	IF EA IF EA IF IF IF EA EA IF IF EA EA IF IF IF EA	4	1 250 4 500 3 3 3 1 1 2 10 2 4 4 2 800 1000 400 200 400 200 4 350 2000 2 2 2 3 3 3	1 250 4 500 3 3 3 1 1 2 10 2 4 4 2 800 200 4 200 4 350 2000 200 4 350 2000 200 4 350 2000 4 350 30 30 30 30 30 30 30 30 30 3	\$ 9,743.29 \$ \$ 6.67 \$ \$ 6.60.37 \$ \$ 1.05 \$ \$ 3.722.66 \$ \$ 1.384.42 \$ \$ 2.046.75 \$ \$ 4.72.73 \$ \$ 9.90.6 \$ \$ 1.957.79 \$ \$ 1.957.79 \$ \$ 1.957.79 \$ \$ 1.31.83 \$ \$ 1.31.83 \$ \$ 2.03.56 \$ \$ 2.03.55 \$ \$ 1.380 \$ \$ 2.03.56 \$ \$ 1.380 \$ \$ 1.27 \$ \$ 1.380 \$ \$ 1.27 \$ \$ 1.380 \$ \$ 1.27 \$ \$ 1.27 \$	1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,418.19 599.06 6,825.00 3,915.58 8,076.53 2,627.67 1,542.67 1,926.47 4,047.30 1,926.47 4,047.30 1,926.47 2,760.38 714.49 444.66 5,779.41 27,089.00 9,473.13 42,348.57 58,654.85 223,500
Lighting & Signalization 714-01.32 714-03.01 714-05.04 714-06.05 714-08.01 714-08.01 714-08.30 714-09.03 714-25 714-25 730-01.02 730-02.09 730-02.09 730-02.17 730-03.20 730-02.17 730-03.21 730-05.01 730-05.01 730-05.01 730-04.02 730-12.16 730-13.16 730-13.21 730-13.21 730-13.21 730-13.21 730-13.21 730-13.21 730-13.21 730-23.88 730-23.88 730-23.88 730-23.96 Suardrail 705-01.01 705-04.07 705-04.09 Seeding and Sodding	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45" MH, 15' ARM) Found for Light Standards (AS' MH, 25' ARM) Found for Light Standards - Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 Wth Backplate) Signal Head Assembly (130 AZH Wth Backplate) Install Pull Box (Type 4) Electrical Service Connection Signal Atead Assembly (150 AZH Wth Backplate) Install Pull Box (Type 4) Electrical Service Connection Signal Cable - 7 Conductor Interconnect Cable (Copper-Twisted Pair) Conduit 3" Diameter (Jack and Bore) Conduit 3" Diameter (Jack and Bore) Conduit Scheller MOLTY) VEHICLE LOOP DETECTOR (SHELF MOLTY) VEHICLE LOOP DETECTOR (SHELF MOLTY) Cabinet (Eight Phase Base Mounted) Eight Phase Actuated Controller Cantilever Signal Support (1 ARM @ 50') Cantilever Signal Support (1 ARM @ 50') Earth Pad for Type 38 GR End Treatment	IF EA IF EA IF IF IF EA IF IF EA IF IF EA EA IF IF EA EA	4 4	1 250 4 500 3 3 3 1 1 2 10 2 4 4 2 800 200 400 200 400 200 200 2 2 2 3 3 3 L	1 250 4 500 3 3 3 1 1 2 10 2 4 4 2 800 400 200 400 200 400 200 400 200 400 200 400 200 4 350 200 2 3 3 3 3 3 4 4 4 3 5 6 6 7 8 1 1 1 2 2 1 1 1 2 2 1 1 1 2 2 1 1 1 2 2 1 1 1 2 2 1 1 1 1 2 2 1 1 0 0 1 1 0 1 1 0 1 2 1 2 1 1 0 1 2 1 2 1 2 1 2 1 3 3 3 3 3 3 3 3 3 3 3 3 3	\$ 9,743.29 \$ \$ 6.67 \$ \$ 6.60.37 \$ \$ 1.05 \$ \$ 3.722.66 \$ \$ 1.384.42 \$ \$ 2.046.75 \$ \$ 4.72.73 \$ \$ 9.90.6 \$ \$ 9.90.6 \$ \$ 9.90.6 \$ \$ 9.90.6 \$ \$ 9.97.79 \$ \$ 1.957.79 \$ \$ 1.31.83 \$ \$ 1.31.83 \$ \$ 1.31.83 \$ \$ 1.360 \$ \$ 1.360 \$ \$ 1.380 \$ \$ 1.380 \$ \$ 1.27 \$ \$ 1.374.50 \$ \$ 1.354.50 \$ \$ 1.355.162 \$ <t< td=""><td>1,666.42 2,481.49 5,25.00 11,165.78 4,153.26 6,140.25 1,418.19 5,99.06 6,825.00 3,915.53 2,627.67 1,542.67 1,542.67 1,542.67 1,542.67 1,542.67 1,542.67 1,267.638 7,16.38 7,16.49 444.66 5,779.41 27,089.00 9,473.13 42,348.57 58,654.85 223,500 7,364.49 9,410.38 5,179.21 22,000</td></t<>	1,666.42 2,481.49 5,25.00 11,165.78 4,153.26 6,140.25 1,418.19 5,99.06 6,825.00 3,915.53 2,627.67 1,542.67 1,542.67 1,542.67 1,542.67 1,542.67 1,542.67 1,267.638 7,16.38 7,16.49 444.66 5,779.41 27,089.00 9,473.13 42,348.57 58,654.85 223,500 7,364.49 9,410.38 5,179.21 22,000
Lighting & Signalization 714-01.32 714-03.01 714-05.04 714-06.05 714-08.01 714-08.28 714-09.03 714-09.03 714-25 714-25 714-25 714-25 714-25 730-01.02 730-02.09 730-02.17 730-02.09 730-02.17 730-03.20 730-03.20 730-03.21 730-08.03 730-03.21 730-08.03 730-03.21 730-08.03 730-01.21.14 730-12.16 730-12.16 730-12.16 730-13.01 730-12.16 730-13.01 730-12.16 730-13.01 730-23.88 730-23.96 Guardrail 705-04.07 705-04.09 Seeding and Sodding Maintenace of Traffic N/A 712-02.02 712-04.50	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45" MH, 15' ARM) Found for Light Standards (45" MH, 15' ARM) Found for Light Standards - Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 With Backplate) Instal Pull Box (Type A) Electrical Service Connection Signal Cable - 7 Conductor Interconnet Clack (Capper-Twisted Pair) Conduit 3" Diameter (Cak and Bore) Conduit 2" Conduit Schedule 80) VEHICLE LOOP DETECTOR (SHEIF MOUNT) Shielded Detector Cable Saw Slot Cabinet (Eight Phase Asse Mounted) Eight Phase Asse Mounted) Eig	IF EA IF EA IF IF EA IF EA EA IF EA EA EA IF EA EA EA EA EA EA IF EA EA IF EA IF EA	4 4	1 250 4 500 3 3 1 1 2 4 4 2 800 1000 400 200 400 200 400 2000 2 2 3 3 3 1 1 1 1 1 2 1 1 1 2 1 1 2 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 1 2 1 1 2 1 1 2 1 2 2 4 4 4 2 2 2 2 4 4 4 2 2 2 2 4 4 4 2 2 2 2 2 2 2 2 2 2 2 2 2	1 250 4 500 3 3 3 1 1 2 4 4 2 800 200 400 200 400 200 400 200 2	\$ 9,743.29 \$ \$ 6.67 \$ \$ 6.037 \$ \$ 1.05 \$ \$ 3,722.26 \$ \$ 1.384.42 \$ \$ 2,046.75 \$ \$ 9,990.6 \$ \$ 9,977.9 \$ \$ 9,977.9 \$ \$ 1,957.79 \$ \$ 1,313.13 \$ \$ 2,046.75 \$ \$ 1,375.79 \$ \$ 1,313.13 \$ \$ 2,023.65 \$ \$ 2,023.65 \$ \$ 1,384.80 \$ \$ 1,277 \$ \$ 1,3544.50 \$ \$ 1,274 \$ \$ 1,289 \$ \$ 1,4116.19 \$ \$ 1,244.80 \$ > \$ 1,244.80 \$	1,666.42 2,481.49 525.00 11,1,166.78 4,153.26 6,140.25 1,418.19 599.06 6,825.00 3,315.58 8,076.53 2,627.67 1,526.47 4,047.30 10,296.16 2,760.38 7,164.49 2,760.38 7,74.41 2,770.91 2,770.31 4,248.57 5,8554.85 228,500 7,364.49 9,410.38 5,179.21 2,2,000
Lighting & Signalization 714-01.32 714-03.01 714-05.04 714-06.05 714-08.01 714-08.01 714-08.30 714-09.03 714-25 714-25 730-01.02 730-02.09 730-02.09 730-02.17 730-03.20 730-02.17 730-03.21 730-05.01 730-05.01 730-05.01 730-04.02 730-12.16 730-13.16 730-13.21 730-13.21 730-13.21 730-13.21 730-13.21 730-13.21 730-13.21 730-23.88 730-23.88 730-23.88 730-23.96 Suardrail 705-01.01 705-04.07 705-04.09 Seeding and Sodding	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards (45' MH, 15' ARM) Found for Light Standards - Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 With Backplate) Install Pull Box (Type 8) Electrical Service Connection Signal Cable - 7 Conductor Interconnet Cable (Copper Twisted Pair) Conduit 3" Diameter (Jack and Bore) Conduit 3" Diameter (Jack and Bore) Conduit 3" Diameter (Jack and Bore) Conduit 2" Conduit Schedule 80) V tHCLE LOP DFETCTOR (SHELF MOUNT) Shielded Detector Cable Saw Siot Cablinet (Eight Phase Base Mounted) Eight Phase Actuated Controller Cantilever Signal Support (1 ARM @ 50') Cantilever Signal Support (1 ARM @ 50) Earth Pad for Type 38 GR End Treatment Traffic Control	IF EA IF EA IF IF IF EA IF IF EA IF IF EA EA IF IF EA EA	4 4	1 250 4 500 3 3 3 1 1 2 10 2 4 4 2 800 1000 400 200 4 350 200 4 350 200 4 350 200 4 350 2 2 3 3 3 4 4 2 8 8 1 1 1 2 4 4 2 8 8 1 1 1 2 4 4 2 8 8 1 1 1 2 1 1 2 4 4 2 8 1 1 1 2 1 1 2 4 4 2 8 1 1 1 2 1 1 2 1 4 1 2 1 1 2 1 1 2 1 4 1 2 1 1 2 1 4 1 2 1 1 2 1 1 2 1 4 1 2 1 1 2 1 4 1 2 1 1 1 2 1 1 2 1 1 2 1 4 1 2 1 1 1 2 1 1 1 2 1 4 2 2 1 3 3 3 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 1 2 1 1 1 2 1 1 1 1 2 1 1 1 1 2 1 1 1 1 2 1 1 1 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	1 250 4 500 3 3 3 1 1 2 10 2 4 4 2 800 1000 400 400 200 4 350 200 4 350 200 4 350 200 4 3 3 1 1 5200 100 5200 100 100 100 100 100 100 100	\$ 9,743.29 \$ \$ 6.6.7 \$ \$ 6.60.37 \$ \$ 1.05 \$ \$ 3.722.26 \$ \$ 1.384.42 \$ \$ 4.72.73 \$ \$ 4.72.73 \$ \$ 4.92.79 \$ \$ 4.92.79 \$ \$ 4.92.79 \$ \$ 4.92.79 \$ \$ 4.92.79 \$ \$ 4.93.79 \$ \$ 4.93.79 \$ \$ 1.31.38 \$ \$ 1.31.38 \$ \$ 2.023.65 \$ \$ 2.023.65 \$ \$ 1.380 \$ \$ 1.27 \$ \$ 1.27 \$ \$ 1.280 \$ \$ 1.27 \$ \$ 1.284.00 \$ <t< td=""><td>1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,418.19 599.06 6,825.00 3,915.58 8,076.53 2,627.67 1,542.67 1,542.67 1,542.67 2,760.00 10,296.16 2,760.03 7,14.49 4,047.30 1,223.59 2,670.00 10,296.15 2,760.38 7,14.49 444.66 5,779.41 27,080 9,473.13 42,248.57 58,654.85 223,500 7,364.49 9,410.38 5,179.21 22,000</td></t<>	1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,418.19 599.06 6,825.00 3,915.58 8,076.53 2,627.67 1,542.67 1,542.67 1,542.67 2,760.00 10,296.16 2,760.03 7,14.49 4,047.30 1,223.59 2,670.00 10,296.15 2,760.38 7,14.49 444.66 5,779.41 27,080 9,473.13 42,248.57 58,654.85 223,500 7,364.49 9,410.38 5,179.21 22,000
Lighting & Signalization 714-01.32 714-03.01 714-05.04 714-06.05 714-08.01 714-08.28 714-09.03 714-09.03 714-25 714-25 714-25 714-25 714-25 730-01.02 730-02.09 730-02.17 730-02.09 730-02.17 730-03.20 730-03.20 730-03.21 730-08.03 730-03.21 730-08.03 730-03.21 730-08.03 730-01.21.14 730-12.16 730-12.16 730-12.16 730-13.01 730-12.16 730-13.01 730-12.16 730-13.01 730-23.88 730-23.96 Guardrail 705-04.07 705-04.09 Seeding and Sodding Maintenace of Traffic N/A 712-02.02 712-04.50	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45" MH, 15' ARM) Found for Light Standards (45" MH, 15' ARM) Found for Light Standards - Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 With Backplate) Instal Pull Box (Type A) Electrical Service Connection Signal Cable - 7 Conductor Interconnet Clack (Capper-Twisted Pair) Conduit 3" Diameter (Cak and Bore) Conduit 2" Conduit Schedule 80) VEHICLE LOOP DETECTOR (SHEIF MOUNT) Shielded Detector Cable Saw Slot Cabinet (Eight Phase Asse Mounted) Eight Phase Asse Mounted) Eig	IF EA IF EA IF IF EA IF EA EA IF EA EA EA IF EA EA EA EA EA EA IF EA EA IF EA IF EA	4 4	1 250 4 500 3 3 3 1 1 2 10 2 4 4 2 800 1000 400 200 4 350 200 4 350 200 4 350 200 4 350 2 2 3 3 3 4 4 2 8 8 1 1 1 2 4 4 2 8 8 1 1 1 2 4 4 2 8 8 1 1 1 2 1 1 2 4 4 2 8 1 1 1 2 1 1 2 4 4 2 8 1 1 1 2 1 1 2 1 4 1 2 1 1 2 1 1 2 1 4 1 2 1 1 2 1 4 1 2 1 1 2 1 1 2 1 4 1 2 1 1 2 1 4 1 2 1 1 1 2 1 1 2 1 1 2 1 4 1 2 1 1 1 2 1 1 1 2 1 4 2 2 1 3 3 3 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 1 2 1 1 1 2 1 1 1 1 2 1 1 1 1 2 1 1 1 1 2 1 1 1 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	1 250 4 500 3 3 3 1 1 2 10 2 4 4 2 800 1000 400 400 200 4 350 200 4 350 200 4 350 200 4 3 3 1 1 5200 100 5200 100 100 100 100 100 100 100	\$ 9,743.29 \$ \$ 6.67 \$ \$ 6.037 \$ \$ 1.05 \$ \$ 3,722.26 \$ \$ 1.384.42 \$ \$ 2,046.75 \$ \$ 9,990.6 \$ \$ 9,977.9 \$ \$ 9,977.9 \$ \$ 1,957.79 \$ \$ 1,313.13 \$ \$ 2,046.75 \$ \$ 1,375.79 \$ \$ 1,313.13 \$ \$ 2,023.65 \$ \$ 2,023.65 \$ \$ 1,384.80 \$ \$ 1,277 \$ \$ 1,3544.50 \$ \$ 1,274 \$ \$ 1,289 \$ \$ 1,4116.19 \$ \$ 1,244.80 \$ > \$ 1,244.80 \$	1,666.42 2,481.49 525.00 11,1,166.78 4,153.26 6,140.25 1,418.19 599.06 6,825.00 3,315.58 8,076.53 2,627.67 1,526.47 4,047.30 10,296.16 2,760.38 7,164.49 2,760.38 7,74.41 2,769.38 7,74.41 2,779
Lighting & Signalization 714-01.32 714-03.01 714-05.04 714-06.05 714-08.01 714-08.28 714-09.03 714-25 714-25 714-25 714-25 714-25 714-26.05 730-01.02 730-02.09 730-02.17 730-02.09 730-03.20 730-03.20 730-03.21 730-08.30 730-08.30 730-08.31 730-08.33 730-08.33 730-12.14 730-12.16 730-12.16 730-12.16 730-12.16 730-13.01 730-13.22 730-14.01 730-15.32 730-23.88 730-23.88 730-23.88 730-23.88 730-23.96 Seeding and Sodding Maintenace of Traffic N/A 712-09.01	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45" MH, 15' ARM) Found for Light Standards (45" MH, 15' ARM) Found for Light Standards - Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 With Backplate) Instal Pull Box (Type A) Electrical Service Connection Signal Cable - 7 Conductor Interconnet Clack (Capper-Twisted Pair) Conduit 3" Diameter (Cak and Bore) Conduit 2" Conduit Schedule 80) VEHICLE LOOP DETECTOR (SHEIF MOUNT) Shielded Detector Cable Saw Slot Cabinet (Eight Phase Asse Mounted) Eight Phase Asse Mounted) Eig	IF EA IF EA IF IF EA IF EA EA IF EA EA EA IF EA EA EA EA EA EA IF EA EA IF EA IF EA	4 4	1 250 4 500 3 3 3 1 1 2 10 2 4 4 2 800 1000 400 200 4 350 200 4 350 200 4 350 200 4 350 2 2 3 3 3 4 4 2 8 8 1 1 1 2 4 4 2 8 8 1 1 1 2 4 4 2 8 8 1 1 1 2 1 1 2 4 4 2 8 1 1 1 2 1 1 2 4 4 2 8 1 1 1 2 1 1 2 1 4 1 2 1 1 2 1 1 2 1 4 1 2 1 1 2 1 4 1 2 1 1 2 1 1 2 1 4 1 2 1 1 2 1 4 1 2 1 1 1 2 1 1 2 1 1 2 1 4 1 2 1 1 1 2 1 1 1 2 1 4 2 2 1 3 3 3 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 1 2 1 1 1 2 1 1 1 1 2 1 1 1 1 2 1 1 1 1 2 1 1 1 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	1 250 4 500 3 3 3 1 1 2 10 2 4 4 2 800 1000 400 400 200 4 350 200 4 350 200 4 350 200 4 3 3 1 1 5200 100 5200 100 100 100 100 100 100 100	\$ 9,743.29 \$ \$ 6.6.7 \$ \$ 6.60.37 \$ \$ 1.05 \$ \$ 3.722.26 \$ \$ 1.384.42 \$ \$ 4.72.73 \$ \$ 4.72.73 \$ \$ 4.92.79 \$ \$ 4.92.79 \$ \$ 4.92.79 \$ \$ 4.92.79 \$ \$ 4.92.79 \$ \$ 4.93.79 \$ \$ 4.93.79 \$ \$ 1.31.38 \$ \$ 1.31.38 \$ \$ 2.023.65 \$ \$ 2.023.65 \$ \$ 1.380 \$ \$ 1.27 \$ \$ 1.27 \$ \$ 1.280 \$ \$ 1.27 \$ \$ 1.284.00 \$ <t< td=""><td>1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,418.19 599.06 6,825.00 3,915.58 8,076.53 2,627.67 1,526.47 4,047.30 1,225.47 2,760.08 7,14.49 4,047.30 1,225.47 1,226.47 4,047.30 1,225.47 2,760.38 7,14.49 4,44.65 5,779.41 27,789.41 27,789.43 5,8,654.85 223,500 7,364.49 9,410.38 5,179.21 22,000</td></t<>	1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,418.19 599.06 6,825.00 3,915.58 8,076.53 2,627.67 1,526.47 4,047.30 1,225.47 2,760.08 7,14.49 4,047.30 1,225.47 1,226.47 4,047.30 1,225.47 2,760.38 7,14.49 4,44.65 5,779.41 27,789.41 27,789.43 5,8,654.85 223,500 7,364.49 9,410.38 5,179.21 22,000
Lighting & Signalization 714-01.32 714-03.01 714-05.04 714-06.05 714-08.01 714-08.28 714-08.30 714-09.03 714-25 714-25 714-25 714-25 714-25 730-01.02 730-02.09 730-02.17 730-02.09 730-02.17 730-03.20 730-03.20 730-03.21 730-08.03 730-03.21 730-08.03 730-03.21 730-08.03 730-01.21.4 730-12.16 730-12.16 730-12.16 730-13.01 730-12.16 730-13.01 730-12.16 730-13.01 730-12.16 730-13.01 730-23.88 730-23.96 Seeding and Sodding Maintenace of Traffic N/A 712-02.02 712-04.50	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45" MH, 15' ARM) Found for Light Standards (45" MH, 15' ARM) Found for Light Standards - Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 With Backplate) Instal Pull Box (Type A) Electrical Service Connection Signal Cable - 7 Conductor Interconnet Clack (Capper-Twisted Pair) Conduit 3" Diameter (Cak and Bore) Conduit 2" Conduit Schedule 80) VEHICLE LOOP DETECTOR (SHEIF MOUNT) Shielded Detector Cable Saw Slot Cabinet (Eight Phase Asse Mounted) Eight Phase Asse Mounted) Eig	IF EA JF EA IF IF IF EA IF EA EA IF IF EA EA IF EA EA IF EA EA IF EA EA EA IF EA IF EA IF EA IF EA IF	4 4	1 250 4 500 3 3 3 1 1 2 10 2 4 4 2 800 1000 400 200 4 350 200 4 350 200 4 350 200 4 350 2 2 3 3 3 4 4 2 8 8 1 1 1 2 4 4 2 8 8 1 1 1 2 4 4 2 8 8 1 1 1 2 1 1 2 4 4 2 8 1 1 1 2 1 1 2 4 4 2 8 1 1 1 2 1 1 2 1 4 1 2 1 1 2 1 1 2 1 4 1 2 1 1 2 1 4 1 2 1 1 2 1 1 2 1 4 1 2 1 1 2 1 4 1 2 1 1 1 2 1 1 2 1 1 2 1 4 1 2 1 1 1 2 1 1 1 2 1 4 2 2 1 3 3 3 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 1 2 1 1 1 2 1 1 1 1 2 1 1 1 1 2 1 1 1 1 2 1 1 1 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	1 250 4 3 3 3 1 1 2 4 4 2 100 2 4 4 2 800 1000 400 200 200 200 200 2 2 3 3 3 1 100 400 200 2 2 3 3 3 100 400 200 400 200 4 4 350 200 2 2 3 3 3 3 100 4 4 4 5 2 5 6 6 7 7 7 8 8 8 8 8 8 8 8 8 8 8 8 8	\$ 9,743.29 \$ \$ 6.67 \$ \$ 6.67 \$ \$ 6.037 \$ \$ 1.05 \$ \$ 1.05 \$ \$ 1.384.42 \$ \$ 9.72.26 \$ \$ 1.384.42 \$ \$ 9.90.6 \$ \$ 9.97.78 \$ \$ 9.97.79 \$ \$ 1.313.83 \$ \$ 385.67 \$ \$ 2.32.65 \$ \$ 1.313.83 \$ \$ 2.26.74 \$ \$ 1.35.44.50 \$ \$ 1.3.544.50 \$ \$ 1.3.544.50 \$ \$ 1.415.19 \$ \$ 1.416.19 \$ \$ 7.3.54 \$ \$ 2.352.59 \$ \$ 2.424.80 \$	1,666.42 2,481.49 5,25.00 11,1,66.78 4,153.26 6,140.25 1,418.19 5,99.06 6,525.00 3,315.58 8,076.53 2,627.67 1,526.47 4,047.30 10,295.16 2,760.38 7,14.99 4,047.30 10,295.16 2,760.38 7,74.49 4,44.66 5,779.41 2,760.38 7,74.49 9,473.13 42,348.57 58,654.85 228,500 7,364.49 9,410.38 5,179.21 22,000
Lighting & Signalization 714-01.32 714-03.01 714-05.04 714-06.05 714-08.01 714-08.28 714-08.30 714-08.30 714-09.03 714-25 730-01.02 730-02.09 730-02.09 730-02.09 730-02.09 730-02.17 730-03.20 730-03.21 730-05.01 730-05.01 730-05.01 730-03.20 730-12.14 730-13.01 730-13.01 730-13.01 730-13.28 730-13.28 730-23.88 730-23.88 730-23.88 730-23.88 730-23.96 Suardrail 705-01.01 705-04.07 705-04.09 Seeding and Sodding Maintenace of Traffic N/A 712-02.02 712-04.50 712-09.01	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards (45' MH, 15' ARM) Found for Light Standards - Roadway Remove and Relocate Light Standard Luminaires (250 WATI) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 With Backplate) Install Pull Box (Type A) Electrical Service Connection Signal Cable - 7 Conductor Interconnect Cable (Copper-Twisted Pair) Conduit 3" Diameter (Jack and Bore) Conduit 3" Diameter (Jack and Bore) Conduit 5" Diameter (Jack and Bore) Conduit 5" Diameter (Jack and Bore) Conduit 5" Diameter (Jack and Bore) Cable Detector Cable Signal Cable - 7 Conductor Interconnect Cable (ShEIT MOUNT) Shielded Detector Cable Saw Slot Cablinet (Eight Phase Base Mounted) Eight Phase Actuated Controller Cantilever Signal Support (1 ARM @ 50') Cantilever Signal Support (IF EA JF EA IF IF IF EA IF EA EA IF IF EA EA IF EA EA IF EA EA IF EA EA EA IF EA IF EA IF EA IF EA IF	4 4 1 0	1 250 4 500 3 3 3 1 1 2 10 2 4 4 2 800 1000 400 200 4 350 200 4 350 200 4 350 200 4 350 2 2 3 3 3 4 4 2 8 8 1 1 1 2 4 4 2 8 8 1 1 1 2 4 4 2 8 8 1 1 1 2 1 1 2 4 4 2 8 1 1 1 2 1 1 2 4 4 2 8 1 1 1 2 1 1 2 1 4 1 2 1 1 2 1 1 2 1 4 1 2 1 1 2 1 4 1 2 1 1 2 1 1 2 1 4 1 2 1 1 2 1 4 1 2 1 1 1 2 1 1 2 1 1 2 1 4 1 2 1 1 1 2 1 1 1 2 1 4 2 2 1 3 3 3 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 1 2 1 1 1 2 1 1 1 1 2 1 1 1 1 2 1 1 1 1 2 1 1 1 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	1 250 4 3 3 3 1 1 2 4 4 2 100 2 4 4 2 800 1000 400 200 200 200 200 2 2 3 3 3 1 100 400 200 2 2 3 3 3 100 400 200 400 200 4 4 350 200 2 2 3 3 3 3 100 4 4 4 5 2 5 6 6 7 7 7 8 8 8 8 8 8 8 8 8 8 8 8 8	\$ 9,743.29 \$ \$ 6.67 \$ \$ 6.60.37 \$ \$ 1.05 \$ \$ 3.722.66 \$ \$ 2.046.75 \$ \$ 4.72.73 \$ \$ 4.92.70 \$ \$ 4.92.73 \$ \$ 4.95.7.79 \$ \$ 1.957.79 \$ \$ 1.957.79 \$ \$ 1.957.79 \$ \$ 1.31.83 \$ \$ 2.023.65 \$ \$ 1.31.83 \$ \$ 1.35 \$ \$ 1.380 \$ \$ 1.380 \$ \$ 1.27 \$ \$ 1.380 \$ \$ 1.27 \$ \$ 1.380 \$ \$ 1.27 \$ \$ 1.285 \$	1,666.42 2,481.49 5,25.00 11,1,66.78 4,153.26 6,140.25 1,418.19 5,99.06 6,825.00 3,915.58 8,076.53 2,627.67 1,542.67 1,542.67 1,542.67 1,542.67 1,542.67 1,542.67 2,670.00 10,296.16 2,760.38 7,14.49 444.66 5,779.41 27,089.00 9,473.13 42,248.57 58,654.85 223,500 7,364.49 9,410.38 5,179.21 22,000

PAY ITEM SUMMARY (ABC 1 - PCC BOX BEAMS AND PANELS)

Pavement Markings									
716-09.31	STOP LINE	LF		200	200	\$	16.65	\$	3,33
716-13.06	Spray Thermo P.M. (40 mil 4")	LM	0.0	2	2.0	\$	2,878.11		5,75
716-13.07	Spray Thermo P.M. (40 mil 6")	LM		2	2	\$	1,237.50	\$	2,47
					PAVEMENT MAR	RKINGS TO	OTAL (ROUNDED)	\$	11
Fencing									
					FE	NCE TOT	TAL (ROUNDED)	\$	
Rip-Rap									
				RIP-	RAP & SLOPE PROTE	ECTION TO	OTAL (ROUNDED)	\$	
Clearing and Grubing									
					CLEAR AND GRU	BBING TO	OTAL (ROUNDED)	\$	
					CLEAR AND GRU	BBING TO	OTAL (ROUNDED)	\$	
Railroad At-Grade Crossing					CLEAR AND GRU	BBING TO	OTAL (ROUNDED)	\$	
Railroad At-Grade Crossing				RAILROAD					
Railroad At-Grade Crossing				RAILROAD (CLEAR AND GRU CROSSING OR SEPAR				
				RAILROAD (
Utilties	Overhead Distribution	LM	0.25	RAILROAD	CROSSING OR SEPAR	ATION TO	OTAL (ROUNDED)	\$	9
Utilties N/A	Overhead Distribution Overhead Transmission	LM	0.25	RAILROAD (OTAL (ROUNDED) 375,000	\$	
Utilties			0.25 0.25 0.25	RAILROAD (CROSSING OR SEPAR 0.25	ATION TO	OTAL (ROUNDED)	\$ \$ \$	18
Utilties N/A N/A	Overhead Transmission Underground Power	LM	0.25	RAILROAD (CROSSING OR SEPAR 0.25 0.25	S S	OTAL (ROUNDED) 375,000 750,000 500,000	\$ \$ \$ \$	18 12
Utilties N/A N/A N/A	Overhead Transmission	LM LM	0.25 0.25	RAILROAD (0.25 0.25 0.25 0.25	S S S	OTAL (ROUNDED) 375,000 750,000	\$ \$ \$ \$ \$	18 12 12
Utilties N/A N/A N/A N/A	Overhead Transmission Underground Power Underground Communication Underground Gas	LM LM LM	0.25 0.25 0.25	RAILROAD	0.25 0.25 0.25 0.25 0.25	S S S S S	OTAL (ROUNDED) 375,000 750,000 500,000 500,000	\$ \$ \$ \$ \$ \$	18 12 12 6
Utilities N/A N/A N/A N/A N/A	Overhead Transmission Underground Power Underground Communication Underground Gas Underground Gas Underground Water	LM LM LM	0.25 0.25 0.25 0.25	RAILROAD (0.25 0.25 0.25 0.25 0.25 0.25 0.25	S S S S S S	0TAL (ROUNDED) 375,000 750,000 500,000 500,000 250,000	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	18 12 12 6 5
Utilties N/A N/A N/A N/A N/A N/A	Overhead Transmission Underground Power Underground Communication Underground Gas	LM LM LM LM	0.25 0.25 0.25 0.25 0.25 0.25	RAILROAD (0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25	ATION TO S S S S S S S S S	OTAL (ROUNDED) 375,000 750,000 500,000 500,000 250,000 237,600	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	18 12 12 6 5 7
Utilties N/A N/A N/A N/A N/A N/A	Overhead Transmission Underground Power Underground Communication Underground Gas Underground Gas Underground Water	LM LM LM LM	0.25 0.25 0.25 0.25 0.25 0.25	RAILROAD (0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25	ATION TO S S S S S S S S S	375,000 750,000 500,000 500,000 250,000 237,600 310,200	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	18 12 12 6 5 7
Utilties N/A N/A N/A N/A N/A N/A	Overhead Transmission Underground Power Underground Communication Underground Gas Underground Gas Underground Water	LM LM LM LM	0.25 0.25 0.25 0.25 0.25 0.25	RAILROAD	0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25	ATION TO S S S S S S S S S	375,000 750,000 500,000 500,000 250,000 237,600 310,200	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	18 12 12 6 5 7
Utilties N/A N/A N/A N/A N/A N/A N/A	Overhead Transmission Underground Power Underground Communication Underground Gas Underground Gas Underground Water	LM LM LM LM	0.25 0.25 0.25 0.25 0.25 0.25	RAILROAD (0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25	ATION TO S S S S S S S S S	375,000 750,000 500,000 500,000 250,000 237,600 310,200	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	9 18 12 12 6 5 7 730,7

COST ESTIMATE SUMMARY (ABC 2 - LATERAL SLIDE)

Route:	nterstate	24 over South C	Germantown Road		
Recention F	PIN 12406	9.00 - Interstate	24 over Germanto	own Rd	-
Description:	.og Mile 1	2.08			the second of the
County:	lamilton				TN TDOT
Length:					Department of Transportation
Date:	lune 11, 2	018			n'ansportation
_					
DESCRIPTION		LOCAL	STATE	FEDERAL	TOTAL
		0%	0%	100%	
Construction Items					
Pavement Removal ⁽⁵⁾		\$0	\$0	\$606,100	\$606,10
Asphalt Paving ⁽⁴⁾⁽⁵⁾		\$0	\$0	\$305,200	\$305,20
Concrete Pavement		\$0	\$0	\$0	\$
Drainage		\$0	\$0	\$54,600	\$54,60
Appurtenances		\$0	\$0	\$691,800	\$691,80
Structures ⁽³⁾		\$0	\$0	\$10,232,100	\$10,232,10
Fencing		\$0	\$0	\$0	\$
Lighting, Signalization, & ITS		\$0	\$0	\$228,500	\$228,50
Railroad Crossing or Separatio	n	\$0	\$0	\$0	\$
Earthwork		\$0	\$0	\$328,800	\$328,80
Clearing and Grubbing		\$0	\$0	\$0	\$
Seeding & Sodding		\$0	\$0	\$0	\$
Rip-Rap or Slope Protection		\$0	\$0	\$0	\$0
Guardrail		\$0	\$0	\$22,000	\$22,000
Signing		\$0	\$0	\$12,500	\$12,50
Pavement Markings ⁽¹⁾		\$0	\$0	\$15,300	\$15,30
Maintenance of Traffic		\$0	\$0	\$357,400	\$357,40
Mobilization (5%)		\$0	\$0	\$642,700	\$642,70
Other Items ⁽²⁾ =	10%	\$0	\$0	\$1,349,700	\$1,349,70
Const. Contingency ⁽²⁾ =	15%	\$0	\$0	\$692,200	\$692,20
Construction Estimate		\$0	\$0	\$15,538,900	\$15,538,90
Interchanges & Unique Inte	rsections			. , ,	. , , ,
Roundabouts		\$0	\$0	\$0	\$
Interchanges		\$0	\$0	\$0	\$
		LOCAL	STATE	FEDERAL	
Right-of-Way & Utilties	;	0%	0%	100%	TOTAL
Right-of-Way		\$0	\$0	\$0	\$(
Utilities		\$0	\$0	\$730,700	\$730,700
Preliminary & Constructior	Engineer	T -		<i></i>	¢. 00,10
Prelim. Eng.	9%	\$0	\$0	\$1,441,700	\$1,441,70
Const. Eng. & Inspec.	10%	\$0	\$0	\$1,627,000	\$1,627,00
Total Project Cost		\$0 \$0	\$0 \$0	\$19,338,300	

⁽¹⁾ Additional quantities were added to the 'Pavement Markings' pay item to account for temporary traffic control.

⁽²⁾ 'Other Items' and 'Const. Contingency' were not increased to account for CM/GC method. The price of 'New Bridge (Concrete Girder)' on the following 'Pay Items' spreadsheet in the pay item table reflects the change in preices for various construction methods.

⁽³⁾ The cost for bridge construction types are as follows and can be seen on the following pay items tables:

ABC 1 (PCC Box Beams & Panels) : \$300.00/s.f.

ABC 2 (Lateral Slide) : \$500.00/s.f.

ABC 3 (SPMT) : \$450.00/s.f.

⁽⁴⁾ All traffic phasing options, including temporary ramps, were taken into consideration.

⁽⁵⁾ For the ABC 2 - Lateral Slide construction option, quantities for 'Pavement Removal' and 'Asphalt Paving' would be larger because temporary structures must be built and later removed.

PAY ITEM SUMMARY (ABC 2 - LATERAL SLIDE)

TDOT PAY ITEM	TDOT DESCRIPTION	UNIT	TOOL QUANTITIES	ADDITIONAL QUANTITIES	TOOL QUANTITIES ADDITIONAL QUANTITIES		wide COST	TOTAL COST
Pavment Removal 202-03.01	Removal of Asphalt Pavement	SY	0	84480	84480	¢	5.42 \$	458,100.13
202-03.01	Removal of Curb and Gutter		0	682	682	\$	5.45 \$	3,717.47
415-01.02	Cold Planning Bituminous Pavement		0	20229	20229	ŝ	7.13 \$	144,274.47
	•				PAVEMENT RE	MOVAL TOTAL	(ROUNDED) \$	606,100
Asphalt Roads		TON		05 50073583	05 50073583	C.	77.20	7 272 10
307-01.08 403-01	Asphalt Conc MIX (PG64-22) (BPMB-HM) GR B-M2 Bituminous Material For Tack Coat (TC)	TON	0	95.50072583 11.73172222	95.50072583 12	\$	77.20 \$ 774.46 \$	7,372.19 9,085.71
411-01.07	ACS (PG64-22) GR "E"	TON	0	797.5	798	\$	108.88 \$	86,830.76
411-02.10	ACS Mix(PG70-22) Grading D		0	1719.3	1719	ŝ	112.39 \$	193,227.27
411-03.08	ACS Mix (PG70-22) Thin Lift CS Asphalt			89.58475167	90	Ş	96.75 \$	8,667.32
						PAVING TOTAL	(ROUNDED) \$	305,200
Concrete Roads								
				CONCRE	TE RAMPS AND ROA	DWAYS TOTAL	(ROUNDED) \$	•
Drainage								
607-03.30	18" Pipe Culvert	LF		300	300	ş	52.65 \$	15,793.57
611-09.01 611-09.02	ADJUSTMENT OF EXISTING CATCHBASIN REWORK CATCHBASIN	EA EA		5	5	\$ \$	736.91 \$ 1,104.68 \$	3,684.54 7,732.74
611-09.02	CAPPING EXISTING CATCHBASIN	EA		7	7	\$	1,354.35 \$	9,480.42
611-10.01	Catch Basins, Type 10, 0' -4' Depth			6	6	ŝ	2,973.64 \$	17,841.84
				-		AINAGE TOTAL		54,600
Appurtenances								
202-03	Removal of Rigid Pvmt, Sidewalk, Etc	SY		820	820	\$	9.53 \$	7,813.10
701-01.01	Concrete Sidewalk (4")	SF	0	820	820	\$	7.40 \$	6,063.91
701-02.03 702-01	Concrete Handicap Ramp Concrete Curb			570 25	570 25	\$ \$	17.74 \$ 334.36 \$	10,112.84 8,358.93
702-01 702-03			0	40	40		374.57 \$	14,982.88
702-03	Concrete Combined Curb & Gutter Removal & Disposal of Concrete Median Barrier	CY LF	0	2600	2600	\$ S	152.55 \$	396,630.00
711-05.01	51" Single Slope Concrete Barrier Wall	LF	0	2600	2600	\$	95.30 \$	247,777.73
					AVEMENT APPURTER	NANCES TOTAL	(ROUNDED) \$	691,800
Earthwork & Mineral 203-01	Road & Drainage Excavation (Unclassified)	CY	0	9186.672652	9187	Ş	16.73 \$	153,664.94
203-03	Borrow Excavation (Unclassified)		0	11691.06056	11691	ş	14.97 \$	175,064.29
					EARTHWORK & M	IINERAL TOTAL	(ROUNDED) \$	328,800
Structures								
N/A	Removal of Bridge		0	16642	16642	\$	50.00 \$	832,100.00
N/A	New Bridge (Steel Girder):	SF	0	18800	18800	\$ CTURES TOTAL	500.00 \$	9,400,000.00 10,232,100
Lighting & Signalization					ND UNIQUE INTERSE			
714-01.32	Structural Lighting			1	1	Ş	9,743.29 \$	9,743.29
714-03.01	Direct Brl Conduit (2" PVC, Schedule 40)	LF		250	250	\$	6.67 \$	1,666.42
714-03.01 714-05.04	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C)	LF EA		250 4	250 4	\$ \$	6.67 \$ 620.37 \$	1,666.42 2,481.49
714-03.01 714-05.04 714-06.05	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG)	LF EA LF		250 4 500	250 4 500	\$ \$ \$	6.67 \$ 620.37 \$ 1.05 \$	1,666.42 2,481.49 525.00
714-03.01 714-05.04 714-06.05 714-08.01	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM)	LF EA LF EA		250 4 500 3	250 4 500 3	\$ \$	6.67 \$ 620.37 \$ 1.05 \$ 3,722.26 \$	1,666.42 2,481.49 525.00 11,166.78
714-03.01 714-05.04 714-06.05	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG)	LF EA LF		250 4 500	250 4 500	\$ \$ \$ \$	6.67 \$ 620.37 \$ 1.05 \$	1,666.42 2,481.49 525.00
714-03.01 714-05.04 714-06.05 714-08.01 714-08.28	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards - Roadway	LF EA LF EA EA		250 4 500 3 3	250 4 500 3 3	\$ \$ \$ \$ \$	6.67 \$ 620.37 \$ 1.05 \$ 3,722.26 \$ 1,384.42 \$	1,666.42 2,481.49 525.00 11,166.78 4,153.26
714-03.01 714-05.04 714-06.05 714-08.01 714-08.28 714-08.30 714-09.30 714-25	Direct Brl Conduit (2° PVC, Schedule 40) Pull Boxes (Type C) Cable (17/2 # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards - Noadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection	LF EA EA EA EA EA EA		250 4 500 3 3 3 3 3 3 1	250 4 500 3 3 3 3 3 1	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	6.67 \$ 620.37 \$ 1.05 \$ 3,722.26 \$ 1,384.42 \$ 2,046.75 \$ 472.73 \$ 599.06 \$	1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,418.19 599.06
714-03.01 714-05.04 714-06.05 714-08.01 714-08.28 714-08.30 714-09.03 714-25 714-25 714-26.05	Direct Bri Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards - Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporar, Roadway Lighting	LF EA EA EA EA EA EA LS		250 4 500 3 3 3 3 3 3 1 1	250 4 500 3 3 3 3 3 1 1 1	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	6.67 \$ 620.37 \$ 1.05 \$ 3,722.26 \$ 2,046.75 \$ 472.73 \$ 599.06 \$ 6,825.00 \$	1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,418.19 599.06 6,825.00
714-03.01 714-05.04 714-06.05 714-08.01 714-08.28 714-08.30 714-09.03 714-25 714-26.05 730-01.02	Direct Brl Conduit (2* PVC, Schedule 40) Pull Boxes (Type C) Cable (1/2 # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards - Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment	LF EA EA EA EA EA EA LS EA		250 4 500 3 3 3 3 3 1 1 1 2	250 4 500 3 3 3 3 1 1 2	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	6.67 \$ 620.37 \$ 1.05 \$ 3,722.26 \$ 2,046.75 \$ 472.73 \$ 599.06 \$ 6,825.00 \$ 1,957.79 \$	1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,418.19 599.06 6,825.00 3,915.58
714-03.01 714-05.04 714-06.05 714-08.01 714-08.28 714-08.30 714-09.30 714-09.03 714-25 714-25 714-26.05 730-01.02 730-02.09	Direct Brl Conduit (2* PVC, Schedule 40) Pull Boxes (Type C) Cable (T/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards - Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 With Backplate)	LF EA EA EA EA EA EA EA EA EA		250 4 500 3 3 3 3 3 1 1 2 10	250 4 500 3 3 3 3 1 1 2 2 10	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	6.67 \$ 620.37 \$ 1.05 \$ 3,722.26 \$ 1,384.42 \$ 2,046.75 \$ 472.73 \$ 599.06 \$ 6,825.00 \$ 1,957.79 \$ 807.65 \$	1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,418.19 599.06 6,825.00 3,915.58 8,076.53
714-03.01 714-05.04 714-06.05 714-08.01 714-08.28 714-08.30 714-09.03 714-25 714-26.05 730-01.02	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards - Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 With Backplate)	LF EA EA EA EA EA EA LS EA		250 4 500 3 3 3 3 3 1 1 1 2	250 4 500 3 3 3 3 1 1 2	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	6.67 \$ 620.37 \$ 1.05 \$ 3,722.26 \$ 2,046.75 \$ 472.73 \$ 599.06 \$ 6,825.00 \$ 1,957.79 \$	1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,418.19 599.06 6,825.00 3,915.58 8,076.53 2,627.67
714-03.01 714-05.04 714-06.05 714-08.01 714-08.01 714-08.28 714-09.03 714-29.03 714-25 714-25 714-25 714-26.05 730-01.02 730-02.09 730-02.17	Direct Brl Conduit (2* PVC, Schedule 40) Pull Boxes (Type C) Cable (T/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards - Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 With Backplate)	LF EA LF EA EA EA EA EA EA EA EA		250 4 500 3 3 3 3 1 1 1 2 10 2	250 4 500 3 3 3 1 1 1 2 10 2	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	6.67 \$ 620.37 \$ 1.05 \$ 3,722.26 \$ 1,384.42 \$ 2,046.75 \$ 472.73 \$ 599.06 \$ 6,825.00 \$ 1,957.79 \$ 807.65 \$ 1,313.83 \$	1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,418.19 599.06 6,825.00 3,915.58 8,076.53
714-03.01 714-05.04 714-06.05 714-08.01 714-08.03 714-08.30 714-08.30 714-09.03 714-25 714-26.05 730-01.02 730-02.09 730-02.17 730-03.20 730-03.21 730-05.01	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards - Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 With Backplate) Install Pull Box (Type B) Electrical Service Connection	LF EA LF EA EA EA EA EA EA EA EA EA EA EA		250 4 500 3 3 3 3 1 1 1 2 10 2 4 4 4 2	250 4 500 3 3 3 1 1 2 10 2 4 4 2	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	6.67 \$ 620.37 \$ 1.05 \$ 3.722.26 \$ 1,384.42 \$ 2,046.75 \$ 472.73 \$ 599.06 \$ 6,825.00 \$ 1,957.79 \$ 807.65 \$ 1,313.83 \$ 385.67 \$ 2,023.65 \$	1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,418.19 5,99.06 6,825.00 3,915.58 8,076.53 2,627.67 1,542.67 1,926.47 4,047.30
714-03.01 714-05.04 714-06.05 714-08.01 714-08.30 714-08.30 714-08.30 714-25 714-25 714-25 714-25 714-25 730-01.02 730-02.17 730-03.20 730-03.21 730-05.01 730-05.03	Direct Brl Conduit (2* PVC, Schedule AD) Pull Boxes (Type C) Cable (T/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards - Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 Wth Backplate) Signal Head Assembly (130 AZH With Backplate) Signal Head Assemble (150 AZH With Backplate) Signal Head Assemble (150 AZH With Backplate) Signal Cable - 7 Conductor	LF EA LF EA EA EA EA EA EA EA EA EA EA EA LF		250 4 500 3 3 3 1 1 1 2 10 2 4 4 4 2 800	250 4 500 3 3 1 1 2 10 2 4 4 4 2 800	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	6.6.7 \$ 620.37 \$ 1.05 \$ 3,722.26 \$ 1,844.42 \$ 2,046.75 \$ 472.73 \$ 599.06 \$ 6,825.00 \$ 1,957.79 \$ 807.65 \$ 1,313.83 \$ 385.67 \$ 481.62 \$ 2,023.65 \$ 1.65 \$	1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,418.19 599.06 6,825.00 3,915.58 8,076.53 2,627.67 1,542.67 1,542.67 1,926.47 3,024.267 1,926.47 3,024.267 1,926.47 3,024.267 1,926.47 3,024.267 1,926.47 3,024.267 1,926.47 3,024.267 1,926.47 3,024.267 1,926.47 3,024.267 1,926.47 3,024.267 1,926.47 3,024.267 1,926.47 3,024.267 1,926.47 3,024.267 1,926.47 3,024.267 1,926.47 3,024.267 1,926.47 3,024.267 1,926.47 3,024.267 1,926.47 3,024.267 1,926.47 3,025.267 1,926.47 3,025.267 1,926.47 3,027 2,027 1,926.47 3,027 1,926.47 3,027 2,027 1,926.47 3,027 3,027 1,926.47 3,02,
714-03.01 714-05.04 714-06.05 714-08.01 714-08.03 714-08.30 714-08.30 714-08.30 714-08.30 714-08.30 714-08.30 714-25 714-25.05 730-02.09 730-02.17 730-03.20 730-03.21 730-06.03 730-08.30	Direct Brl Conduit (2* PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards - Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 WH Backplate) Signal Head Assembly (130 WH Backplate) Install Pull Box (Type 8) Electrical Service Connection Signal Cable - 7 Conductor Interconnect Cable (Copper - Twisted Pair)	LF EA LF EA EA EA EA EA EA EA EA EA EA EA LF LF		250 4 500 3 3 3 1 1 1 2 10 2 4 4 4 2 800 1000	250 4 500 3 3 3 1 1 2 10 2 4 4 2 800 1000	\$ \$	6.67 \$ 620.37 \$ 1.05 \$ 3.722.26 \$ 1.384.42 \$ 2.046.75 \$ 472.73 \$ 599.06 \$ 6,825.00 \$ 1,957.79 \$ 807.65 \$ 1,313.83 \$ 385.67 \$ 2,023.65 \$ 2,023.65 \$ 1.65 \$	1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,418.19 599.06 6,825.00 3,915.58 8,076.53 2,627.67 1,526.47 4,047.30 1,323.59 2,670.00
714-03.01 714-05.04 714-06.05 714-08.01 714-08.28 714-08.28 714-08.30 714-25 714-25 714-25 730-01.02 730-02.09 730-02.017 730-03.20 730-05.20 730-05.20 730-05.01 730-06.03 730-08.03 730-08.03 730-08.03 730-08.04	Direct Brl Conduit (2' PVC, Schedule 40) Pull Boxes (Type C) Cable (1/2 # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 ALT) With Backplate) Signal Cable - 7 Conductor Signal Cable - 7 Conductor Interconnect Cable (Copper-Twisted Pair) Conduct 3' Diameter (Lack and Bore)	LF EA EA EA EA EA EA EA EA EA EA EA EA LF LF		250 4 500 3 3 3 3 1 1 2 2 4 4 4 2 800 1000 400	250 4 500 3 3 3 1 1 2 2 4 4 2 800 1000 400	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	6.67 \$ 620.37 \$ 1.05 \$ 3,722.26 \$ 1,384.42 \$ 2,046.75 \$ 599.06 \$ 6,825.00 \$ 1,195.79 \$ 807.65 \$ 1,318.43 \$ 385.67 \$ 481.62 \$ 2,023.65 \$ 1.65 \$ 2.67 \$	1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,418.19 599.06 6,825.00 3,315.58 8,076.53 2,627.67 1,524.67 1,524.67 1,524.67 1,322.59 2,670.00 10,296.16
714-03.01 714-05.04 714-06.05 714-08.01 714-08.28 714-08.30 714-08.30 714-08.28 714-08.20 714-08.20 714-09.03 714-25 714-26.05 730-02.09 730-02.17 730-03.20 730-03.21 730-08.03 730-08.03 730-08.03 730-12.14 730-12.16	Direct Brl Conduit (2* PVC, Schedule 40) Pull Boxes (Tyc) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards - Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical School (250 WATT) Signal Head Assembly (130 WAT Backplate) Signal Head Assembly (130 WATH WITH Backplate) Signal Assembly (130 WATH WITH Backplate) Signal Assembly (130 WATH WITH Backplate) Signal Cable - Conductor Signal Cable - Conducto	LF EA EA EA EA EA EA EA EA EA EA EA EA EA		250 4 500 3 3 3 1 1 1 2 10 2 4 4 2 800 1000 400 200	250 4 500 3 3 1 1 2 10 2 4 4 2 800 1000 400 200	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	6.67 § 620.37 \$ 1.05 \$ 3.722.26 \$ 1.384.42 \$ 2.046.75 \$ 472.73 \$ 599.06 \$ 6.825.00 \$ 1.383.42 \$ 2.046.75 \$ 4.05.79 \$ 807.65 \$ 1.318.38 \$ 2.023.65 \$ 2.023.65 \$ 2.65 \$ 2.67.74 \$ 313.80 \$	1,666.42 2,481.49 525.00 11,1,66.78 4,153.26 6,140.25 1,418.19 599.06 6,825.00 3,915.58 8,075.53 2,627.67 1,542.67 1,926.47 4,047.30 1,323.59 2,670.00 10,296.16 2,760.38
714-03.01 714-05.04 714-06.05 714-08.01 714-08.28 714-08.30 714-08.30 714-09.03 714-25 714-25 714-25 714-25.02 730-01.02 730-02.09 730-02.17 730-03.20 730-05.21 730-05.01 730-08.30 730-08.30 730-12.14 730-13.01	Direct Brl Conduit (2' PVC, Schedule 40) Puil Boxes (Type C) Cable (1/2 # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards - Roadway Remove and Relocate Light Standards Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 AWT) MB Backplate) Signal Head Assembly (130 AWT) MB Backplate) Signal Head Assembly (130 AWT) MB Conduct Install Puil Box (Type A) Electrical Service Connection Signal Cable - 7 Conductor Interconnect Cable (Cooper-Tvisted Pair) Conduit 3" Diameter (Jack and Bore) Conduit 2" Conduit Chedule 80) VEHICLE LOOP DETECTOR (SHELH MOUNT)	LF EA EA EA EA EA EA EA EA EA EA EA LF LF LF EA		250 4 500 3 3 3 3 1 1 2 2 4 4 4 2 800 1000 400	250 4 500 3 3 3 1 1 2 2 4 4 2 800 1000 400	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	$\begin{array}{cccc} 6.67 & {\rm S} \\ 620.37 & {\rm S} \\ 1.05 & {\rm S} \\ 3.722.26 & {\rm S} \\ 2.046.75 & {\rm S} \\ 2.046.75 & {\rm S} \\ 4.72.73 & {\rm S} \\ 5.99.66 & {\rm S} \\ 6.825.00 & {\rm S} \\ 1.957.79 & {\rm S} \\ 8.07.65 & {\rm S} \\ 1.313.83 & {\rm S} \\ 3.85.67 & {\rm S} \\ 2.023.65 & {\rm S} \\ 1.65 & {\rm S} \\ 2.023.65 & {\rm S} \\ 2.67 & {\rm S} \\ 2.67 & {\rm S} \\ 2.574 & {\rm S} \\ 1.78.62 & {\rm S} \\ \end{array}$	1,666.42 2,481.49 525.00 11,166.78 4,153.25 5,140.25 1,418.19 599.06 6,825.00 3,915.58 8,076.53 2,627.67 1,542.67 1,542.67 1,542.67 1,542.67 1,542.67 1,542.67 1,542.67 1,542.67 1,542.67 1,542.67 1,542.67 1,542.67 1,542.67 1,542.67 1,542.67 1,542.67 1,542.67 1,256.16 2,760.38 714.49
714-03.01 714-05.04 714-06.05 714-08.01 714-08.28 714-08.30 714-08.30 714-08.28 714-08.20 714-08.20 714-09.03 714-25 714-26.05 730-02.09 730-02.17 730-03.20 730-03.21 730-08.03 730-08.03 730-08.03 730-12.14 730-12.16	Direct Brl Conduit (2* PVC, Schedule 40) Pull Boxes (Tyc) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards - Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical School (250 WATT) Signal Head Assembly (130 WAT Backplate) Signal Head Assembly (130 WATH WITH Backplate) Signal Assembly (130 WATH WITH Backplate) Signal Assembly (130 WATH WITH Backplate) Signal Cable - Conductor Signal Cable - Conducto	LF EA EA EA EA EA EA EA EA EA EA EA LF LF LF EA		250 4 500 3 3 3 1 1 1 2 10 2 4 4 2 800 1000 400 200 4 4	250 4 500 3 3 1 1 2 10 2 4 4 2 800 1000 400 4	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	$\begin{array}{cccc} 6.67 & {\rm S} \\ 620.37 & {\rm S} \\ 1.05 & {\rm S} \\ 3.722.26 & {\rm S} \\ 2.046.75 & {\rm S} \\ 2.046.75 & {\rm S} \\ 4.72.73 & {\rm S} \\ 5.99.66 & {\rm S} \\ 6.825.00 & {\rm S} \\ 1.957.79 & {\rm S} \\ 8.07.65 & {\rm S} \\ 1.313.83 & {\rm S} \\ 3.85.67 & {\rm S} \\ 2.023.65 & {\rm S} \\ 1.65 & {\rm S} \\ 2.023.65 & {\rm S} \\ 2.67 & {\rm S} \\ 2.67 & {\rm S} \\ 2.574 & {\rm S} \\ 1.78.62 & {\rm S} \\ \end{array}$	1,666.42 2,481.49 525.00 11,1,66.78 4,153.26 6,140.25 1,418.19 599.06 6,825.00 3,915.58 8,075.53 2,627.67 1,542.67 1,926.47 4,047.30 1,323.59 2,670.00 10,296.16 2,760.38
714-03.01 714-05.04 714-06.05 714-08.01 714-08.28 714-08.30 714-08.30 714-08.30 714-08.28 714-08.28 714-09.03 714-25 714-25.05 730-01.02 730-02.09 730-02.01 730-03.20 730-05.01 730-05.01 730-06.03 730-08.03 730-08.03 730-09.30 730-09.30 730-09.31 730-08.31 730-08.30 730-08.30 730-09.30 730-12.14 730-13.01 730-14.01 730-14.02 730-15.32	Direct Brl Conduit (2' PVC, Schedule AQ) Pull Boxes (Type C) Cable (1/2 # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 ALH With Backplate) Signal Head Assembly (130 ALH With Backplate) Signal Head Assembly (130 ALH With Backplate) Signal Assembly (130 ALH With Backplate) Signal Conduct School (130 ALH With Backplate) Cable (Copper-Twisted Pair) Conduit 3' Oimater (1ack and Bore) Conduit (2' Conduit Schedule BQ) VEHICLE LOOP DETECTOR (SHELF MOUNT) Shielded Detector Cable Saw Sido	LF EA EA EA EA EA EA EA EA EA EA LF LF LF EA		250 4 500 3 3 3 1 1 2 4 4 2 800 1000 400 200 4 350 2000 2 2	250 4 500 3 3 3 1 1 2 2 4 4 2 800 1000 400 200 400 200 400 2000 2 2	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	6.67 § 620.37 \$ 1.05 \$ 3,722.26 \$ 1,384.42 \$ 2,046.75 \$ 599.66 \$ 6,825.00 \$ 1,195.79 \$ 807.65 \$ 2,023.65 \$ 2,023.65 \$ 1.65 \$ 2,67 \$ 2,023.65 \$ 1.80 \$ 1.78.62 \$ 1.78.62 \$ 1.78.62 \$ 1.78.62 \$ 1.78.62 \$ 1.78.62 \$ 1.78.62 \$ 1.78.62 \$ 1.78.62 \$ 1.78.62 \$ 1.78.79 \$	1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,418.19 599.06 6,825.00 3,915.58 8,076.53 2,627.67 1,524.671,5256
714-03.01 714-05.04 714-06.05 714-08.01 714-08.28 714-08.30 714-08.30 714-08.30 714-08.28 714-08.30 714-08.28 714-09.33 714-05.5 730-01.02 730-01.02 730-02.17 730-03.20 730-03.21 730-03.21 730-06.03 730-08.03 730-12.14 730-12.16 730-14.01 730-14.02 730-15.32 730-15.02	Direct Brl Conduit (2* PVC, Schedule 40) Pull Boxes (Type C) Cable (T/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards - Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 Wth Backplate) Signal Head Assembly (130 AZH With Backplate) Signal Assembly (130 AZH With Backplate) Signal Cable - Conductor Install Pull Box (Type B) Electrical Service Connection Signal Cable - Conductor Interconnect Cable (Cooper-Twisted Pair) Conduit 3chedule 80 VEHICLE LOOP DETECTOR (SHELF MOUNT) Shielded Detector Cable Saw Slot Cabinet (Eight Phase Actuate Controller	LF EA EA EA EA EA EA EA EA EA EA EA LF LF LF LF EA LF EA EA EA		250 4 500 3 3 1 1 1 2 10 2 4 4 4 2 800 1000 400 2000 4 350 2000 2 2 2	250 4 500 3 1 1 1 2 10 2 4 4 4 2 800 1000 400 400 400 200 400 200 2 2 2 2	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	$\begin{array}{cccc} 6.67 & {\rm S} \\ 620.37 & {\rm S} \\ 1.05 & {\rm S} \\ 3.722.26 & {\rm S} \\ 2.226 & {\rm S} \\ 2.246.75 & {\rm S} \\ 472.73 & {\rm S} \\ 472.73 & {\rm S} \\ 599.06 & {\rm S} \\ 6.825.00 & {\rm S} \\ 6.825.00 & {\rm S} \\ 6.825.00 & {\rm S} \\ 1.957.79 & {\rm S} \\ 807.65 & {\rm S} \\ 1.838.67 & {\rm S} \\ 481.62 & {\rm S} \\ 2.024.65 & {\rm S} \\ 481.62 & {\rm S} \\ 2.024.65 & {\rm S} \\ 2.024.65 & {\rm S} \\ 1.860 & {\rm S} \\ 1.786.2 & {\rm S} \\ 1.860 & {\rm S} \\ 1.860 & {\rm S} \\ 1.786.2 & {\rm S} \\ 2.89 & {\rm S} \\ 1.354.450 & {\rm S} \\ 4.736.56 & {\rm S} \\ \end{array}$	1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,418.19 599.06 6,825.00 3,915.58 8,076.53 2,627.67 1,542.67 1,542.67 1,542.67 1,542.67 1,542.67 1,542.67 2,670.00 10,295.16 2,760.38 714.49 444.66 5,779.41 27,089.00 9,473.13
714-03.01 714-05.04 714-06.05 714-08.01 714-08.28 714-08.30 714-09.03 714-09.03 714-25 714-25 714-25.02 730.01.02 730.02.09 730.02.17 730.03.20 730.05.01 730.05.01 730.08.30 730.08.30 730.01.01 730.01.01 730.05.01 730.06.30 730.05.01 730.05.01 730.06.30 730.05.01 730.06.32 730.05.01 730.06.30 730.06.30 730.06.30 730.06.31 730.06.32 730.14.01 730.15.32 730.16.02 730.28.8	Direct Brl Conduit (2' PVC, Schedule AQ) Puil Boxes (Type C) Cable (1/2 # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards - Roadway Remove and Relocate Light Standards Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 AWT) Mackplate) Signal Conduit Signal Cable - 7 Conductor Interconect Cable (Copper-Twisted Pari Conduit 3" Diameter (Jack and Bore) Conduit 2" Conduit Cable Albertor Cable Saw Slot Cabinet (Eight Phase Base Mounted) Eight Phase Atuated Control Cathileer Signal Support (1 ARM) (4 ST)	LF EA EA EA EA EA EA EA EA EA EA EA LF LF LF EA EA EA EA EA EA		250 4 500 3 3 3 1 1 1 2 10 2 4 4 2 800 1000 400 200 4 3 500 200 2 2 3 3	250 4 500 3 3 1 1 1 2 4 4 2 4 4 2 800 1000 400 200 4 0 200 2000 2 20 3 3	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	$\begin{array}{cccc} 6.67 & {\rm S} \\ 620.37 & {\rm S} \\ 1.05 & {\rm S} \\ 3.722.26 & {\rm S} \\ 2.046.75 & {\rm S} \\ 2.046.75 & {\rm S} \\ 4.72.73 & {\rm S} \\ 5.99.66 & {\rm S} \\ 6.825.00 & {\rm S} \\ 1.957.79 & {\rm S} \\ 8.07.65 & {\rm S} \\ 1.313.83 & {\rm S} \\ 3.85.67 & {\rm S} \\ 1.313.83 & {\rm S} \\ 3.85.67 & {\rm S} \\ 2.023.65 & {\rm S} \\ 1.138.0 & {\rm S} \\ 2.67 & {\rm S} \\ 2.574 & {\rm S} \\ 1.380 & {\rm S} \\ 2.67 & {\rm S} \\ 2.574 & {\rm S} \\ 1.380 & {\rm S} \\ 2.88 & {\rm S} \\ 1.3544.50 & {\rm S} \\ 4.736.56 & {\rm S} \\ 4.14.116.19 & {\rm S} \end{array}$	1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,418.19 599.06 6,825.00 3,915.58 8,076.53 2,627.67 1,524.57 1,524.57 1,524.57 1,524.57 1,524.571,525 1,524.57 1,524.57 1,524.571,525 1,525.57 1,525.57 1,525.57 1,525.571,525.57 1,525.57 1,525.57 1,525.571,525.57 1,5
714-03.01 714-05.04 714-06.05 714-08.01 714-08.28 714-08.30 714-08.30 714-08.30 714-08.28 714-08.30 714-08.28 714-09.33 714-05.5 730-01.02 730-01.02 730-02.17 730-03.20 730-03.21 730-03.21 730-06.03 730-08.03 730-12.14 730-12.16 730-14.01 730-14.02 730-15.32 730-15.02	Direct Brl Conduit (2* PVC, Schedule 40) Pull Boxes (Type C) Cable (T/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards - Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 Wth Backplate) Signal Head Assembly (130 AZH With Backplate) Signal Assembly (130 AZH With Backplate) Signal Cable - Conductor Install Pull Box (Type B) Electrical Service Connection Signal Cable - Conductor Interconnect Cable (Cooper-Twisted Pair) Conduit 3chedule 80 VEHICLE LOOP DETECTOR (SHELF MOUNT) Shielded Detector Cable Saw Slot Cabinet (Eight Phase Actuate Controller	LF EA EA EA EA EA EA EA EA EA EA EA LF LF LF EA EA EA EA EA EA		250 4 500 3 3 3 1 1 2 10 2 4 4 4 2 800 1000 200 400 200 400 200 200 2 2 2 3 3 3	250 4 500 3 3 1 1 2 10 2 4 4 4 2 2 4 4 2 2 000 1000 200 400 200 200 200 200 2 2 3 3 3	\$ \$	$\begin{array}{cccc} 6.67 & {\rm S} \\ 620.37 & {\rm S} \\ 1.05 & {\rm S} \\ 3.722.26 & {\rm S} \\ 3.722.26 & {\rm S} \\ 2.046.75 & {\rm S} \\ 4.72.73 & {\rm S} \\ 5.99.06 & {\rm S} \\ 6.825.00 & {\rm S} \\ 6.825.00 & {\rm S} \\ 1.957.79 & {\rm S} \\ 807.65 & {\rm S} \\ 1.313.83 & {\rm S} \\ 807.65 & {\rm S} \\ 1.313.83 & {\rm S} \\ 4.81.62 & {\rm S} \\ 2.023.65 & {\rm S} \\ 1.65 & {\rm S} \\ 2.023.65 & {\rm S} \\ 1.65 & {\rm S} \\ 2.023.65 & {\rm S} \\ 1.87 & {\rm S} \\ 1.80 & {\rm S}$	1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,418.19 599.06 6,825.00 3,315.58 8,076.53 2,627.67 1,542.67 1,542.67 1,542.67 1,542.67 1,542.67 1,524.57 2,670.00 10,296.16 2,760.38 714.49 444.66 5,779.41 27,099.00 9,473.11 42,348.57 55,854.85
714-03.01 714-05.04 714-06.05 714-08.01 714-08.28 714-08.30 714-09.03 714-09.03 714-25 714-25 714-25.02 730.01.02 730.02.09 730.02.17 730.03.20 730.05.01 730.05.01 730.08.30 730.08.30 730.01.01 730.01.01 730.05.01 730.06.30 730.05.01 730.05.01 730.06.30 730.05.01 730.06.32 730.05.01 730.06.30 730.06.30 730.06.30 730.06.31 730.06.32 730.14.01 730.15.32 730.16.02 730.28.8	Direct Brl Conduit (2' PVC, Schedule AQ) Puil Boxes (Type C) Cable (1/2 # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards - Roadway Remove and Relocate Light Standards Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 AWT) Mackplate) Signal Conduit Signal Cable - 7 Conductor Interconect Cable (Copper-Twisted Pari Conduit 3" Diameter (Jack and Bore) Conduit 2" Conduit Cable Albertor Cable Saw Slot Cabinet (Eight Phase Base Mounted) Eight Phase Atuated Control Cathileer Signal Support (1 ARM) (4 ST)	LF EA EA EA EA EA EA EA EA EA EA EA LF LF LF EA EA EA EA EA EA		250 4 500 3 3 3 1 1 2 10 2 4 4 4 2 800 1000 200 400 200 400 200 200 2 2 2 3 3 3	250 4 500 3 3 1 1 1 2 4 4 2 4 4 2 800 1000 400 200 4 0 200 2000 2 20 3 3	\$ \$	$\begin{array}{cccc} 6.67 & {\rm S} \\ 620.37 & {\rm S} \\ 1.05 & {\rm S} \\ 3.722.26 & {\rm S} \\ 3.722.26 & {\rm S} \\ 2.046.75 & {\rm S} \\ 4.72.73 & {\rm S} \\ 5.99.06 & {\rm S} \\ 6.825.00 & {\rm S} \\ 6.825.00 & {\rm S} \\ 1.957.79 & {\rm S} \\ 807.65 & {\rm S} \\ 1.313.83 & {\rm S} \\ 807.65 & {\rm S} \\ 1.313.83 & {\rm S} \\ 4.81.62 & {\rm S} \\ 2.023.65 & {\rm S} \\ 1.65 & {\rm S} \\ 2.023.65 & {\rm S} \\ 1.65 & {\rm S} \\ 2.023.65 & {\rm S} \\ 1.87 & {\rm S} \\ 1.80 & {\rm S}$	1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,418.19 599.06 6,825.00 3,915.58 8,076.53 2,627.67 1,524.57 1,524.57 1,524.57 1,524.57 1,524.571,525 1,524.57 1,524.57 1,524.571,525 1,524.57 1,524.571,525 1,525.57 1,525.571,525 1,525.57 1,525.57 1,525.571,525 1,525.57 1,5
714-03.01 714-05.04 714-06.05 714-08.01 714-08.30 714-08.30 714-08.30 714-08.30 714-08.30 714-08.30 714-25 730-01.02 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-12.16 730-13.01 730-13.22 730-13.22 730-13.23 730-23.96	Direct Brl Conduit (2* PVC, Schedule AD) Pull Boxes (Type C) Cable (T/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards - Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 X4T With Backplate) Signal Cable - 7 Conductor Signal Cable - 7 Conductor Signal Cable - 7 Conductor Signal Cable - 7 Conductor Shielded Detector Cable Saw 300 Cabinet (Eight Phase Base Mounted Eight Phase Actuated Controller Cantilever Signal Support (1 ARM @ 50')	LF EA LF EA LF LF LF LF LF LF EA		250 4 500 3 3 3 1 1 2 10 2 4 4 4 2 800 1000 200 400 200 400 200 200 2 2 2 3 3 3	250 4 500 3 3 1 1 2 10 2 4 4 4 2 800 1000 200 400 200 400 200 400 200 400 200 2	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	6.67 § 620.37 \$ 1.05 \$ 3.722.26 \$ 1.1364.42 \$ 2.046.75 \$ 472.73 \$ 599.06 \$ 6.825.00 \$ 1,957.79 \$ 807.65 \$ 1,957.79 \$ 385.67 \$ 481.62 \$ 2,023.65 \$ 1.65 \$ 2,574 \$ 1.38.0 \$ 1.27 \$ 2,89 \$ 1.3,544.50 \$ 4,736.56 \$ 4,736.56 \$ 14,116.19 \$ 12,551.62 \$ (ROUNDE) \$	1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,418.19 599.06 6,825.00 3,915.58 8,076.53 2,627.67 1,542.67 1,542.67 1,542.67 1,542.67 2,670.00 10,296.15 2,760.38 714.49 444.66 5,779.41 27,089.00 9,473.13 42,348.57 58,654.85 228,500
714-03.01 714-05.04 714-06.05 714-08.01 714-08.28 714-08.30 714-08.30 714-09.03 714-09.03 714-25 714-25 714-25.02 730.01.02 730.02.09 730.02.17 730.02.01 730.05.01 730.05.01 730.08.30 730.08.30 730.08.30 730.08.30 730.01.01 730.05.01 730.08.30 730.08.30 730.08.30 730.08.30 730.01.21.4 730.13.01 730.14.01 730.15.32 730.15.32 730.23.96 Guardrall 705.0.01	Direct Brl Conduit (2* PVC, Schedule 40) Puil Boxes (Type C) Cable (1/2 # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards - Roadway Remove and Relocate Light Standards Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 Wth Backplate) Signal Head Assembly (130 AZH With Backplate) Signal Conduit 2 Conduit Schedule 80) VEVICLE LOOP DETECTOR (SHELF MOUNT) Shielded Detector Cable Saw Slot Cabinet (Eight Phase Base Mounted) Eight Phase Actuated Controller Cantilever Signal Support (1 ARM @ 457) Cantilever Signal Support (1 ARM @ 450) Support (1 ARM @ 450)	LF EA LF EA LF EA		250 4 500 3 3 3 1 1 2 10 2 4 4 4 2 800 1000 200 400 200 400 200 200 2 2 2 3 3 3	250 4 500 3 3 3 1 1 2 2 4 4 2 2 4 4 2 2 800 1000 400 200 400 200 400 200 200 2 3 3 0 3 1 GHTING & SIGNAL	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	6.67 5 620.37 \$ 1.05 \$ 3.722.26 \$ 1.04.42 \$ 2.046.75 \$ 5.99.66 \$ 6.825.00 \$ 1.195.79 \$ 807.65 \$ 1.313.83 \$ 385.67 \$ 4.81.62 \$ 2.023.65 \$ 1.33.80 \$ 2.57.4 \$ 2.89.5 \$ 1.38.0 \$ 2.89 \$ 1.37.78 \$ 2.89 \$ 1.35.45.50 \$ 4.41.61.91 \$ 19.551.62 \$ (ROUNDED) \$	1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,418.19 599.06 6,825.00 3,915.58 8,076.53 2,627.67 1,524.67 1,524.67 1,524.67 1,524.67 1,524.67 1,524.67 1,524.67 1,524.67 1,524.67 1,225.97 2,670.00 10,296.16 5,779.41 27,089.00 9,473.13 42,324.57 58,654.85 228,550
714-03.01 714-05.04 714-06.05 714-08.01 714-08.28 714-08.30 714-08.30 714-25 714-25 714-25 714-25 730-01.02 730-02.09 730-02.07 730-03.20 730-03.20 730-05.01 730-05.01 730-05.01 730-12.14 730-13.01 730-13.01 730-13.01 730-13.01 730-13.02 730-13.01 730-13.02 730-14.02 730-15.32 730-15.32 730-23.88 730-23.96 ToS-01.01 705-01.01	Direct Brl Conduit (2* PVC, Schedule AD) Pull Boxes (Type C) Cable (T/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards - Noadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Grometion Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 AZH With Backplate) Signal Abb (150 AZH With Backplate) Signal Abb (150 AZH With Backplate) Signal Cable - 7 Conductor Interconnect Cable (Copper-Twisted Pari) Conduit (2* Conduit Schedule 80) VEHICLE LOOP DETECTOR (SHELF MOUNT) Shielded Detector Cable Cablet (Eight Phase Bace Mounted Eight Phase Actuated Controller Cantilever Signal Support (1 ARM @ 57) Cantilever Signal Support (1 ARM @ 57) Cantilever Signal Support (1 ARM @ 57) Cantilever Signal Support (1 ARM @ 57) Support (1 ARM @ 57) Cantilever Signal Support (1 ARM @ 57) Cantilever Signal Support (1 ARM @ 57) Cantilever Signal Support (1 ARM @ 57) Support (1 ARM @ 57) Cantilever Signal Support (1 ARM @ 57) Support (1 ARM @ 57) Cantilever Signal Support (1 ARM @ 57) Cantilever Signal Support (1 ARM @ 57) Cantilever Signal Support (1 ARM @ 57) Support (1 ARM @	UF EA UF EA UF UF EA EA UF EA EA EA UF EA	4	250 4 500 3 3 3 1 1 2 10 2 4 4 4 2 800 1000 200 400 200 400 200 200 2 2 2 3 3 3	250 4 500 3 3 1 1 1 2 4 4 2 4 4 2 2 000 400 200 400 200 400 200 2	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	6.67 \$ 620.37 \$ 1.05 \$ 3.722.26 \$ 1.1384.42 \$ 2.046.75 \$ 472.73 \$ 599.06 \$ 6.825.00 \$ 1.957.79 \$ 807.65 \$ 1.313.43 \$ 2,023.65 \$ 1.865 \$ 2,023.65 \$ 1.80 \$ 1.80 \$ 1.27 \$ 3.544.50 \$ 4.736.25 \$ 1.27 \$ 2.89 \$ 1.354.50 \$ 4.736.56 \$ 1.416.19 \$ 1.95551.62 \$ (ROUNDED) \$	1,666.42 2,481.49 525.00 11,1,166.78 4,153.26 6,140.25 1,418.19 599.06 6,625.00 3,315.58 8,076.53 2,627.67 1,524.67 1,524.67 1,524.67 1,524.67 1,524.67 1,524.67 1,524.67 1,524.67 1,524.67 1,524.67 1,226.16 2,760.38 714.49 444.66 5,779.41 27,089.00 9,473.13 42,348.57 58,654.85 228,550
714-03.01 714-05.04 714-06.05 714-08.01 714-08.28 714-08.30 714-08.30 714-09.03 714-09.03 714-09.03 714-25 714-25 714-26.05 730.01.02 730.02.09 730.02.17 730.03.20 730.05.01 730.05.01 730.06.30 730.08.30 730.08.30 730.01.14 730.12.16 730.13.01 730.14.01 730.15.32 730.23.96 Guardrall 705-01.01	Direct Brl Conduit (2* PVC, Schedule 40) Puil Boxes (Type C) Cable (1/2 # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards - Roadway Remove and Relocate Light Standards Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 Wth Backplate) Signal Head Assembly (130 AZH With Backplate) Signal Conduit 2 Conduit Schedule 80) VEVICLE LOOP DETECTOR (SHELF MOUNT) Shielded Detector Cable Saw Slot Cabinet (Eight Phase Base Mounted) Eight Phase Actuated Controller Cantilever Signal Support (1 ARM @ 457) Cantilever Signal Support (1 ARM @ 450) Support (1 ARM @ 450)	UF EA UF EA UF UF EA EA UF EA EA EA UF EA		250 4 500 3 3 3 1 1 2 10 2 4 4 4 2 800 1000 200 400 200 400 200 200 2 2 2 3 3 3	250 4 500 3 1 1 1 2 10 2 4 4 2 4 4 2 4 00 4 00 4 00	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	6.67 § 620.37 \$ 1.05 \$ 3.722.26 \$ 1.364.42 \$ 2.046.75 \$ 472.73 \$ 599.06 \$ 6.825.00 \$ 1.957.79 \$ 807.65 \$ 1.431.83 \$ 2.023.65 \$ 481.62 \$ 2.023.65 \$ 1.65 \$ 2.67 \$ 1.88.67 \$ 1.80 \$ 1.27 \$ 2.89 \$ 1.354.450 \$ 4.736.55 \$ 4.736.56 \$ 4.000.000 \$ 73.64 \$ 2.352.59 \$ 1.294.80 \$	1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,418.19 599.06 6,825.00 3,915.58 8,076.53 2,627.67 1,524.67 1,524.67 1,524.67 1,524.67 1,524.67 1,524.67 1,524.67 1,524.67 1,524.67 1,225.97 2,670.00 10,296.16 5,779.41 27,089.00 9,473.13 42,324.57 58,654.85 228,550
714-03.01 714-05.04 714-06.05 714-08.01 714-08.28 714-08.30 714-08.30 714-25 714-25 714-25 714-25 730-01.02 730-02.09 730-02.07 730-03.20 730-03.20 730-05.01 730-05.01 730-05.01 730-12.14 730-13.01 730-13.01 730-13.01 730-13.01 730-13.02 730-13.01 730-13.02 730-14.02 730-15.32 730-15.32 730-23.88 730-23.96 ToS-01.01 705-01.01	Direct Brl Conduit (2* PVC, Schedule AD) Pull Boxes (Type C) Cable (T/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards - Noadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Grometion Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 AZH With Backplate) Signal Abb (150 AZH With Backplate) Signal Abb (150 AZH With Backplate) Signal Cable - 7 Conductor Interconnect Cable (Copper-Twisted Pari) Conduit (2* Conduit Schedule 80) VEHICLE LOOP DETECTOR (SHELF MOUNT) Shielded Detector Cable Cablet (Eight Phase Bace Mounted Eight Phase Actuated Controller Cantilever Signal Support (1 ARM @ 57) Cantilever Signal Support (1 ARM @ 57) Cantilever Signal Support (1 ARM @ 57) Cantilever Signal Support (1 ARM @ 57) Support (1 ARM @ 57) Cantilever Signal Support (1 ARM @ 57) Cantilever Signal Support (1 ARM @ 57) Cantilever Signal Support (1 ARM @ 57) Support (1 ARM @ 57) Cantilever Signal Support (1 ARM @ 57) Support (1 ARM @ 57) Cantilever Signal Support (1 ARM @ 57) Cantilever Signal Support (1 ARM @ 57) Cantilever Signal Support (1 ARM @ 57) Support (1 ARM @	UF EA UF EA UF UF EA EA UF EA EA EA UF EA	4	250 4 500 3 3 3 1 1 2 10 2 4 4 4 2 800 1000 200 400 200 400 200 200 2 2 2 3 3 3	250 4 500 3 3 3 1 1 1 2 2 4 4 2 2 4 4 2 2 800 400 200 400 200 400 200 400 200 200 2	\$ \$ \$ \$	6.67 5 620.37 \$ 1.05 \$ 3.722.26 \$ 1.05 \$ 3.722.26 \$ 2.046.75 \$ \$ \$99.66 \$ \$6,825.00 \$ \$ \$ \$1,957.79 \$ \$80.765 \$ \$ <td>1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,418.19 599.06 6,825.00 3,915.58 8,076.53 2,627.67 1,542.67 1,542.67 1,542.67 1,542.67 1,542.67 1,542.67 1,524.57 2,670.00 10,296.16 2,760.38 7,14.49 4,44.66 5,779.41 27,089.00 9,473.13 42,348.57 58,654.85 23,850 2,7364.49 9,440.38 5,179.21</td>	1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,418.19 599.06 6,825.00 3,915.58 8,076.53 2,627.67 1,542.67 1,542.67 1,542.67 1,542.67 1,542.67 1,542.67 1,524.57 2,670.00 10,296.16 2,760.38 7,14.49 4,44.66 5,779.41 27,089.00 9,473.13 42,348.57 58,654.85 23,850 2,7364.49 9,440.38 5,179.21
714-03.01 714-05.04 714-06.05 714-08.01 714-08.30 714-08.30 714-08.30 714-08.30 714-08.30 714-08.30 714-25 714-25 714-25 714-25.05 730-01.02 730-02.09 730-03.20 730-03.20 730-03.20 730-05.01 730-05.01 730-05.01 730-05.01 730-05.01 730-05.01 730-05.01 730-05.02 730-12.16 730-12.16 730-13.01 730-15.32 730-16.02 730-23.88 730-23.96 Guardrall 705-04.07 705-04.07	Direct Brl Conduit (2* PVC, Schedule AD) Pull Boxes (Type C) Cable (T/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards - Noadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Grometion Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 AZH With Backplate) Signal Abb (150 AZH With Backplate) Signal Abb (150 AZH With Backplate) Signal Cable - 7 Conductor Interconnect Cable (Copper-Twisted Pari) Conduit (2* Conduit Schedule 80) VEHICLE LOOP DETECTOR (SHELF MOUNT) Shielded Detector Cable Cablet (Eight Phase Bace Mounted Eight Phase Actuated Controller Cantilever Signal Support (1 ARM @ 57) Cantilever Signal Support (1 ARM @ 57) Cantilever Signal Support (1 ARM @ 57) Cantilever Signal Support (1 ARM @ 57) Support (1 ARM @ 57) Cantilever Signal Support (1 ARM @ 57) Cantilever Signal Support (1 ARM @ 57) Cantilever Signal Support (1 ARM @ 57) Support (1 ARM @ 57) Cantilever Signal Support (1 ARM @ 57) Support (1 ARM @ 57) Cantilever Signal Support (1 ARM @ 57) Cantilever Signal Support (1 ARM @ 57) Cantilever Signal Support (1 ARM @ 57) Support (1 ARM @	UF EA UF EA UF UF EA EA UF EA EA EA UF EA	4	250 4 500 3 3 3 1 1 2 10 2 4 4 4 2 800 1000 200 400 200 400 200 200 2 2 2 3 3 3	250 4 500 3 3 3 1 1 1 2 2 4 4 2 2 4 4 2 2 800 400 200 400 200 400 200 400 200 200 2	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	6.67 5 620.37 \$ 1.05 \$ 3.722.26 \$ 1.05 \$ 3.722.26 \$ 2.046.75 \$ \$ \$99.66 \$ \$6,825.00 \$ \$ \$ \$1,957.79 \$ \$80.765 \$ \$ <td>1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,418.19 599.06 6,825.00 3,915.58 8,076.53 2,627.67 1,542.67 1,542.67 1,542.67 1,542.67 1,542.67 1,542.67 1,524.57 2,670.00 10,296.16 2,760.38 7,14.49 4,44.66 5,779.41 27,089.00 9,473.13 42,348.57 58,654.85 23,850 2,7364.49 9,440.38 5,179.21</td>	1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,418.19 599.06 6,825.00 3,915.58 8,076.53 2,627.67 1,542.67 1,542.67 1,542.67 1,542.67 1,542.67 1,542.67 1,524.57 2,670.00 10,296.16 2,760.38 7,14.49 4,44.66 5,779.41 27,089.00 9,473.13 42,348.57 58,654.85 23,850 2,7364.49 9,440.38 5,179.21
714-03.01 714-05.04 714-06.05 714-08.01 714-08.28 714-08.30 714-08.30 714-08.30 714-09.03 714-25 714-25.05 730-01.02 730-02.09 730-02.09 730-02.17 730-03.20 730-05.01 730-05.01 730-06.03 730-05.01 730-05.01 730-05.20 730-05.32 730-12.14 730-13.01 730-14.01 730-15.32 730-23.96 Guardrall 705-01.01 705-04.07 705-04.09	Direct Brl Conduit (2' PVC, Schedule AQ) Pull Boxes (Type C) Cable (1/2 # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 ALF With Backplate) Signal Head Assembly (130 ALF With Backplate) Signal Face Connection Signal Cable - 7 Conductor Interconnect Cable (Copper-Twisted Pair) Conduit (2' Conduit Schedule BQ) VEHICLE LOOP DETECTOR (SHELF MOUNT) Shielded Detector Cable Saw Sido Cabinet (Eight Phase Base Mounted Eight Phase Actuated Controlline Cantilever Signal Support (1 ARM @ 45') Cantilever Signal Support (1 ARM @ 50') Cantilever Signal Support (1 ARM @ 50') Cant Energy Absg Term (NCHRP, 350, TL3) Earth Pad for Type 38 GR End Treatment	LF EA LF EA LF EA EA EA EA LF EA	4 4	250 4 500 3 3 3 1 1 2 10 2 4 4 4 2 800 1000 200 400 200 400 200 200 2 2 2 3 3 3	250 4 500 3 3 3 1 1 1 2 4 4 2 2 4 4 2 2 000 4 00 200 4 00 200 4 0 200 4 0 200 2 0 3 50 2 2 3 1 3 50 5 6 0 4 5 5 6 0 6 0 8 0 0 1 1 1 2 4 4 4 2 2 0 0 1 1 1 1 2 4 4 4 4 2 2 0 0 1 1 1 1 2 4 4 4 4 4 2 2 0 0 1 1 1 1 1 2 2 4 4 4 4 4 4 2 2 0 0 1 1 1 1 1 1 1 2 2 4 4 4 4 4 2 2 0 0 1 1 1 1 1 1 2 2 1 2 1 1 1 1 1 1	\$ \$ \$ \$	6.67 § 620.37 \$ 1.05 \$ 3.722.26 \$ 1.384.42 \$ 2,046.75 \$ 5.99.06 \$ 6,825.00 \$ 1,195.79 \$ 807.65 \$ 1,313.83 \$ 385.67 \$ 481.62 \$ 2,023.65 \$ 1.38.0 \$ 2,023.65 \$ 1.77 \$ 2.89 \$ 1.354.50 \$ 4,316.55 \$ 14,4116.19 \$ 19,551.62 \$ (ROUNDED) \$ 73.64 \$ 2,232.59 \$ 1,294.80 \$ 1,294.80 \$ 1,294.80 \$ (ROUNDED) \$	1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,418.19 599.06 6,525.00 3,315.58 8,076.53 2,627.67 1,524.67 1,524.67 1,524.67 1,524.67 1,524.67 1,524.67 1,524.67 1,524.67 1,524.67 2,760.38 714.49 444.66 5,779.41 27,789.41 27,789.41 27,789.41 27,789.41 27,789.41 27,789.41 27,789.41 27,789.41 27,789.41 27,789.41 27,269.48 5,179.21 2,2000
714-03.01 714-05.04 714-06.05 714-08.01 714-08.30 714-08.30 714-08.30 714-08.30 714-08.30 714-25 714-25 714-25 730-01.02 730-02.09 730-03.20 730-03.20 730-03.20 730-03.20 730-05.01 730-05.01 730-05.01 730-05.01 730-05.01 730-05.02 730-12.16 730-13.01 730-15.32 730-15.02 730-15.02 730-16.02 730-15.02 730-15.02 730-15.03 730-23.88 730-23.96 Guardrall 705-04.07 705-04.07 705-04.09 Seeding and Sodding	Direct Brl Conduit (2* PVC, Schedule 40) Pull Boxes (Type C) Cable (T/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards - Noadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 Wth Backplate) Signal Head Assembly (130 Wth Backplate) Signal Head Assembly (130 AZH Wth Backplate) Signal Head Assembly (130 AZH Wth Backplate) Signal Head Assembly (130 AZH Wth Backplate) Signal Head Assembly (150 AZH Wth Backplate) Signal Head Assembly (150 AZH Wth Backplate) Signal Head Assembly (150 AZH Wth Backplate) Signal Cable: - 7 Conductor Insterioral Pull Box (Type A) Electrical Service Connection Signal Cable: - 7 Conductor Interconnect Cable (Copper-Twisted Pari) Conduit (2* Conduit Schedule 80) VEHICLE LOOP DETECTOR (SHELF MOUNT) Shielded Detector Cable Cable (Eight Phase Ascuated Controller Cantilever Signal Support (1 ARM @ 450') Cantilever Signal Support (1 ARM @ 50) Guardrail at Bridge Ends Tan Energy Absg Term (NCHRP, 350, T13) Earth Pad for Type 38 GR End Treatment Earth Pad for Type 38 GR End Treatment	LF EA LF EA	4 4	250 4 500 3 3 1 1 2 10 2 4 4 4 2 800 1000 400 2000 4 000 2000 4 350 2000 2 2 2 3 3 3 3	250 4 500 3 3 1 1 1 2 10 2 4 4 2 2 4 4 2 2 000 400 200 400 200 400 200 2	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	6.67 \$ 620.37 \$ 1.05 \$ 3.722.26 \$ 3.722.26 \$ 1.05 \$ 3.722.26 \$ 2.046.75 \$ 472.73 \$ 599.06 \$ 6.825.00 \$ 1,957.79 \$ 807.65 \$ 1,313.43 \$ 2,023.65 \$ 2,023.65 \$ 1.85 \$ 2,623.65 \$ 1.80 \$ 1.80 \$ 1.80 \$ 1.80 \$ 1.80 \$ 1.80 \$ 1.80 \$ 1.80 \$ 1.80 \$ 1.80 \$ 1.80 \$ 1.80 \$ 1.80 \$ 1.80 \$ 1.80 \$	1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,418.19 599.06 6,825.00 3,915.58 8,076.53 2,627.67 1,542.67 1,542.67 1,542.67 1,542.67 1,542.67 1,542.67 1,542.67 1,542.67 1,542.67 1,226.49 2,670.00 10,296.16 2,760.38 714.49 444.66 5,779.41 27,089.00 9,473.13 42,248.57 5,856.85 2,28,500 7,364.49 9,410.38 5,179.21 22,000
714-03.01 714-05.04 714-06.05 714-08.01 714-08.28 714-08.30 714-08.30 714-09.03 714-09.03 714-25 714-25 714-25.02 730.01.02 730.02.09 730.02.17 730.02.09 730.02.17 730.03.20 730.05.01 730.05.01 730.05.01 730.06.30 730.07.01 730.08.30 730.08.30 730.08.30 730.08.30 730.08.30 730.08.30 730.08.30 730.08.30 730.08.30 730.08.30 730.08.30 730.08.30 730.10.1 730.15.32 730.23.96 Guardrall 705-04.07 705-04.09 Seeding and Sodding Maintenace of Traffic N/A 712.02.02	Direct Brl Conduit (2' PVC, Schedule 40) Puil Boxes (Type C) Cable (1/2 # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 Wth Backplate) Signal Head Assembly (130 AWH Backplate) Signal Conduit 3' Diameter (Lack and Bore) Conduit 2' Conduit 3' Diameter (Lack and Bore) Cantilever Signal Support (1 ARM @ 50') Cantilever Signal Support (1 ARM @ 50) Sater Part Pase Ascutated Controlle Canter Signal Support (1 ARM @ 50, Ta) Earth Pad for Type 38 GR End Treatment Traffic Control Interconnected Portable Barrier Rail	LF EA LF EA LF LF EA LF EA	4 4	250 4 500 3 3 3 1 1 2 4 4 2 4 4 2 800 1000 400 200 400 200 400 2000 2 2 3 3 3 3 3 3 3 3 3 5 2 2 4 4 5 2 5 2 5 2 5 2 5 2 5 2 5 2 5 2 5 5 5 5 5 5 5 5 5 5 5 5 5	250 4 500 3 3 3 1 1 1 2 2 4 4 2 2 4 4 2 2 4 4 2 2 000 4 0 0 000 4 0 0 2000 4 0 2000 4 0 2000 4 0 2000 4 0 2000 4 0 200 4 0 200 4 0 200 4 0 200 5 0 0 2 0 0 0 0 0 1 1 1 1 2 2 4 4 4 0 0 0 0 0 0 1 1 1 1 2 2 4 4 4 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	6.67 § 620.37 \$ 1.05 \$ 3.722.26 \$ 1.05 \$ 3.722.26 \$ 2.046.75 \$ 5.99.06 \$ 6.825.00 \$ 1.957.79 \$ 807.65 \$ 1.313.83 \$ 385.67 \$ 481.62 \$ 2.023.65 \$ 1.38.0 \$ 2.023.65 \$ 1.80 \$ 2.023.65 \$ 1.262 \$ 1.27 \$ 2.89 \$ 1.3544.50 \$ 4,736.56 \$ (ROUNDED) \$ 73.64 \$ (ROUNDED) \$ (ROUNDED) \$	1,666.42 2,481.49 5,25.00 11,166.78 4,153.26 6,140.25 1,418.19 5,99.06 6,625.00 3,915.58 8,076.53 2,627.67 1,542.57 5,8654.85 2,2500 2,760.38 5,179.41 2,700.38 5,179.21 2,2000 2,2000 15,7475.82 157,475,875 157,475,875 157,475,875 157,475,875 157,475,875 1
714-03.01 714-05.04 714-06.05 714-08.01 714-08.30 714-08.30 714-08.30 714-08.30 714-08.30 714-25 714-25 714-25 730-01.02 730-02.09 730-03.20 730-03.20 730-03.20 730-03.20 730-05.01 730-05.01 730-05.01 730-05.01 730-05.01 730-05.02 730-12.16 730-13.01 730-15.32 730-15.02 730-15.02 730-16.02 730-15.02 730-15.02 730-15.03 730-23.88 730-23.96 Guardrall 705-04.07 705-04.07 705-04.09 Seeding and Sodding	Direct Brl Conduit (2* PVC, Schedule 40) Pull Boxes (Type C) Cable (T/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards - Noadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 Wth Backplate) Signal Head Assembly (130 Wth Backplate) Signal Head Assembly (130 AZH Wth Backplate) Signal Head Assembly (130 AZH Wth Backplate) Signal Head Assembly (130 AZH Wth Backplate) Signal Head Assembly (150 AZH Wth Backplate) Signal Head Assembly (150 AZH Wth Backplate) Signal Head Assembly (150 AZH Wth Backplate) Signal Cable: - 7 Conductor Insterioral Pull Box (Type A) Electrical Service Connection Signal Cable: - 7 Conductor Interconnect Cable (Copper-Twisted Pari) Conduit (2* Conduit Schedule 80) VEHICLE LOOP DETECTOR (SHELF MOUNT) Shielded Detector Cable Cable (Eight Phase Ascuated Controller Cantilever Signal Support (1 ARM @ 450') Cantilever Signal Support (1 ARM @ 50) Guardrail at Bridge Ends Tan Energy Absg Term (NCHRP, 350, T13) Earth Pad for Type 38 GR End Treatment Earth Pad for Type 38 GR End Treatment	LF EA LF EA LF EA	4 4	250 4 500 3 3 1 1 2 10 2 4 4 4 2 800 1000 400 2000 4 000 2000 4 350 2000 2 2 2 3 3 3 3	250 4 500 3 3 1 1 1 2 10 2 4 4 2 2 4 4 2 2 000 400 200 400 200 400 200 2	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	6.67 \$ 620.37 \$ 1.05 \$ 3.722.26 \$ 3.722.26 \$ 1.05 \$ 3.722.26 \$ 2.046.75 \$ 472.73 \$ 599.06 \$ 6.825.00 \$ 1,957.79 \$ 807.65 \$ 1,313.43 \$ 2,023.65 \$ 2,023.65 \$ 1.85 \$ 2,623.65 \$ 1.80 \$ 1.80 \$ 1.80 \$ 1.80 \$ 1.80 \$ 1.80 \$ 1.80 \$ 1.80 \$ 1.80 \$ 1.80 \$ 1.80 \$ 1.80 \$ 1.80 \$ 1.80 \$ 1.80 \$	1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,418.19 599.06 6,825.00 3,915.58 8,076.53 2,627.67 1,542.67 1,542.67 1,542.67 1,542.67 1,542.67 1,542.67 1,542.67 1,542.67 1,542.67 1,226.49 2,670.00 10,296.16 2,760.38 714.49 444.66 5,779.41 27,089.00 9,473.13 42,248.57 5,856.85 2,28,500 7,364.49 9,410.38 5,179.21 22,000
714-03.01 714-05.04 714-06.05 714-08.01 714-08.28 714-08.30 714-08.30 714-08.28 714-08.20 714-25 714-25 714-25 730-01.02 730-02.09 730-02.07 730-03.20 730-03.20 730-05.01 730-06.03 730-06.03 730-07.01 730-13.01 730-13.01 730-13.01 730-13.01 730-13.01 730-13.01 730-13.01 730-13.01 730-13.01 730-13.01 730-13.02 730-14.01 730-13.01 730-13.02 730-14.01 730-13.2 730-10.01 705-01.01 705-04.09 Seeding and Sodding Maintenace of Traffic N/A 712-04.50	Direct Brl Conduit (2* PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards - Noadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 ALH With Backplate) Signal Cable - 7 Conductor Signal Cable - 7 Conductor Interconnect Cable (Copper-Twisted Pari) Conduit (2* Conduit Schedule 80) VEHICLE LOOP DETECTOR (SHELF MOUNT) Shielded Detector Cable Cable (Eight Phase Base Mounted Eight Phase Actuated Controller Cantilever Signal Support (1 ARM @ 45') Cantilever Signal Support (1 ARM @ 45') Cantilever Signal Support (1 ARM @ 55') Cantilever Signal Support (1 ARM @ 50') Cantilever Signal Support (1	LF EA LF EA LF EA	4 4	250 4 500 3 3 1 1 2 10 2 4 4 4 2 800 1000 400 200 400 200 400 200 200	250 4 500 3 3 3 1 1 1 2 2 4 4 2 2 4 4 2 2 4 4 2 2 800 1000 400 200 400 200 400 200 200 200 2 2 3 3 50 200 4 0 3 50 2 2 50 50 50 50 50 50 50 50 50 50 50 50 50	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	6.67 § 620.37 \$ 1.05 \$ 3.722.26 \$ 3.722.26 \$ 1.05 \$ 3.722.26 \$ 2.046.75 \$ 472.73 \$ \$99.06 \$ 6.825.00 \$ 1,957.79 \$ 807.65 \$ 1,957.79 \$ 385.67 \$ 481.62 \$ 2,023.65 \$ 2,023.65 \$ 1.80 \$ 1.27 \$ 2.89 \$ 1.354.450 \$ 4.736.56 \$ 1.9,551.62 \$ (ROUNDED) \$ (ROUNDED) \$ \$ \$ 31.79 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,418.19 599.06 6,522.50 3,915.58 8,076.53 2,627.67 1,524.67 1,524.67 1,524.67 1,524.67 1,524.67 1,524.67 1,524.67 1,524.67 1,524.67 1,524.67 1,524.67 1,524.67 1,524.67 1,524.67 1,524.67 1,525.57 5,86,554.85 228,550 7,364.49 9,410.38 5,179.21 22,000
714-03.01 714-05.04 714-06.05 714-08.01 714-08.30 714-08.30 714-08.30 714-08.30 714-08.30 714-25 714-25 714-25 730-01.02 730-02.09 730-02.09 730-03.20 730-03.20 730-05.01 730-05.01 730-06.03 730-05.01 730-07 730-07 730-07 730-16.02 730-16.02 730-16.02 730-16.02 730-23.96 Guardrail 705-04.07 705-04.07 705-04.09 Seeding and Sodding Maintenace of Traffic N/A 712-04.50 712-04.50	Direct Brl Conduit (2* PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards - Noadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 ALH With Backplate) Signal Cable - 7 Conductor Signal Cable - 7 Conductor Interconnect Cable (Copper-Twisted Pari) Conduit (2* Conduit Schedule 80) VEHICLE LOOP DETECTOR (SHELF MOUNT) Shielded Detector Cable Cable (Eight Phase Base Mounted Eight Phase Actuated Controller Cantilever Signal Support (1 ARM @ 45') Cantilever Signal Support (1 ARM @ 45') Cantilever Signal Support (1 ARM @ 55') Cantilever Signal Support (1 ARM @ 50') Cantilever Signal Support (1	LF EA LF EA LF EA	4 4	250 4 500 3 3 1 1 2 10 2 4 4 4 2 800 1000 400 200 400 200 400 200 200	250 4 500 3 3 1 1 2 10 2 4 4 4 2 2 4 4 2 2 4 4 2 2 00 4 0 200 4 0 200 4 0 200 4 0 200 4 0 200 4 0 200 4 0 200 4 0 200 4 3 50 200 200 4 0 200 4 3 50 200 200 4 3 50 200 200 4 50 200 4 50 200 50 200 50 200 50 50 50 50 50 50 50 50 50 50 50 50 5	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	6.67 § 620.37 \$ 1.05 \$ 3.722.26 \$ 3.722.26 \$ 1.05 \$ 3.722.26 \$ 2.046.75 \$ 472.73 \$ \$99.06 \$ 6.825.00 \$ 1,957.79 \$ 807.65 \$ 1,957.79 \$ 385.67 \$ 481.62 \$ 2,023.65 \$ 2,023.65 \$ 1.80 \$ 1.27 \$ 2.89 \$ 1.354.450 \$ 4.736.56 \$ 1.9,551.62 \$ (ROUNDED) \$ (ROUNDED) \$ \$ \$ 31.79 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,418.19 599.06 6,825.00 3,3915.58 8,076.53 2,627.67 1,542.67 1,542.67 1,542.67 1,542.67 1,542.67 1,542.67 2,670.00 10,296.16 2,760.38 714.49 444.66 5,779.41 27,089.00 9,473.13 42,248.57 58,654.85 228,500 7,364.49 9,410.38 5,179.21 22,000
714-03.01 714-05.04 714-06.05 714-08.01 714-08.28 714-08.30 714-08.30 714-08.28 714-08.20 714-25 714-25 714-25 730-01.02 730-02.09 730-02.07 730-03.20 730-03.20 730-05.01 730-06.03 730-06.03 730-07.01 730-07.01 730-13.01 730-13.01 730-13.01 730-13.01 730-13.01 730-13.01 730-13.01 730-13.01 730-13.01 730-13.02 730-14.01 730-13.01 730-13.02 730-14.01 730-13.2 730-10.01 705-01.01 705-04.09 Seeding and Sodding Maintenace of Traffic N/A 712-04.50	Direct Brl Conduit (2* PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards - Noadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 ALH With Backplate) Signal Cable - 7 Conductor Signal Cable - 7 Conductor Interconnect Cable (Copper-Twisted Pari) Conduit (2* Conduit Schedule 80) VEHICLE LOOP DETECTOR (SHELF MOUNT) Shielded Detector Cable Cable (Eight Phase Base Mounted Eight Phase Actuated Controller Cantilever Signal Support (1 ARM @ 45') Cantilever Signal Support (1 ARM @ 45') Cantilever Signal Support (1 ARM @ 55') Cantilever Signal Support (1 ARM @ 50') Cantilever Signal Support (1	LF EA LF EA LF EA	4 4	250 4 500 3 3 1 1 2 10 2 4 4 4 2 800 1000 400 200 400 200 400 200 200	250 4 500 3 3 1 1 2 10 2 4 4 4 2 2 4 4 2 2 4 4 2 2 00 4 0 200 4 0 200 4 0 200 4 0 200 4 0 200 4 0 200 4 0 200 4 0 200 4 3 50 200 200 4 0 200 4 3 50 200 200 4 3 50 200 200 4 50 200 4 50 200 50 200 50 200 50 50 50 50 50 50 50 50 50 50 50 50 5	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	6.67 § 620.37 \$ 1.05 \$ 3.722.26 \$ 3.722.26 \$ 1.05 \$ 3.722.26 \$ 2.046.75 \$ 472.73 \$ \$99.06 \$ 6.825.00 \$ 1,957.79 \$ 807.65 \$ 1,957.79 \$ 385.67 \$ 481.62 \$ 2,023.65 \$ 2,023.65 \$ 1.80 \$ 1.27 \$ 2.89 \$ 1.354.450 \$ 4.736.56 \$ 1.9,551.62 \$ (ROUNDED) \$ (ROUNDED) \$ \$ \$ 31.79 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,418.19 599.06 6,825.00 3,3915.58 8,076.53 2,627.67 1,542.67 1,542.67 1,542.67 1,542.67 1,542.67 1,542.67 2,670.00 10,296.16 2,760.38 714.49 444.66 5,779.41 27,089.00 9,473.13 42,248.57 58,654.85 228,500 7,364.49 9,410.38 5,179.21 22,000

PAY ITEM SUMMARY (ABC 2 - LATERAL SLIDE)

					S	IGNING T	OTAL (ROUNDED)	\$	12,5
Pavement Markings									
716-09.31	STOP LINE	LF		200	200	\$	16.65	Ś	3,33
716-13.06	Spray Thermo P.M. (40 mil 4")	LM	0.0	2	2	\$	2,878.11	\$	5,756
716-13.07	Spray Thermo P.M. (40 mil 6")	LM		5	5	\$	1,237.50	\$	6,18
	· · · · · · · · · · · · · · · · · · ·				PAVEMENT MA	RKINGS T	OTAL (ROUNDED)	\$	15
Fencing									
					F	ENCE TOT	AL (ROUNDED)	\$	
Rip-Rap									
				RIP	-RAP & SLOPE PROT	ECTION T	OTAL (ROUNDED)	\$	
Clearing and Grubing									
					CLEAR AND GR	JBBING T	OTAL (ROUNDED)	Ş	
Railroad At-Grade Crossing				51//2012					
Railroad At-Grade Crossing				RAILROAD	CROSSING OR SEPA	RATION T	OTAL (ROUNDED)	\$	
· · · ·				RAILROAD	CROSSING OR SEPA	RATION T	OTAL (ROUNDED)	\$	
Utilties	Durch of Distribution		035	RAILROAD	-				03
Utilties N/A	Overhead Distribution	LM	0.25	RAILROAD	0.25	\$	375,000	\$	
Utilties N/A N/A	Overhead Transmission	LM	0.25	RAILROAD	0.25	\$ \$	375,000 750,000	\$ \$	187
Utilties N/A N/A N/A	Overhead Transmission Underground Power	LM LM	0.25 0.25	RAILROAD	0.25 0.25 0.25	\$ \$ \$	375,000 750,000 500,000	\$ \$ \$	187 125
Utilities N/A N/A N/A N/A	Overhead Transmission Underground Power Underground Communication	LM LM LM	0.25 0.25 0.25	RAILROAD	0.25 0.25 0.25 0.25	\$ \$ \$ \$	375,000 750,000 500,000 500,000	\$ \$ \$ \$	187 125 125
Utilities N/A N/A N/A N/A N/A	Overhead Transmission Underground Power Underground Communication Underground Gas	LM LM LM	0.25 0.25 0.25 0.25	RAILROAD	0.25 0.25 0.25 0.25 0.25	\$ \$ \$ \$	375,000 750,000 500,000 500,000 250,000	\$ \$ \$ \$	187 125 125 62
Utilties N/A N/A N/A N/A N/A N/A	Overhead Transmission Underground Power Underground Communication Underground Gas Underground Gas Underground Water	LM LM LM LM	0.25 0.25 0.25 0.25 0.25 0.25	RAILROAD	0.25 0.25 0.25 0.25 0.25 0.25 0.25	\$ \$ \$ \$ \$	375,000 750,000 500,000 500,000 250,000 237,600	\$ \$ \$ \$ \$ \$ \$	187 125 125 62 59
Utilities N/A N/A N/A N/A N/A	Overhead Transmission Underground Power Underground Communication Underground Gas	LM LM LM	0.25 0.25 0.25 0.25	RAILROAD	0.25 0.25 0.25 0.25 0.25 0.25 0.25	\$ \$ \$ \$ \$ \$	375,000 750,000 500,000 500,000 250,000 237,600 310,200	\$ \$ \$ \$ \$ \$ \$	187 125 125 62 59 77
Utilties N/A N/A N/A N/A N/A N/A	Overhead Transmission Underground Power Underground Communication Underground Gas Underground Gas Underground Water	LM LM LM LM	0.25 0.25 0.25 0.25 0.25 0.25	RAILROAD	0.25 0.25 0.25 0.25 0.25 0.25 0.25	\$ \$ \$ \$ \$ \$	375,000 750,000 500,000 500,000 250,000 237,600	\$ \$ \$ \$ \$ \$ \$	187 125 125 62 59 77
Utilties N/A N/A N/A N/A N/A N/A	Overhead Transmission Underground Power Underground Communication Underground Gas Underground Gas Underground Water	LM LM LM LM	0.25 0.25 0.25 0.25 0.25 0.25	RAILROAD	0.25 0.25 0.25 0.25 0.25 0.25 0.25	\$ \$ \$ \$ \$ \$	375,000 750,000 500,000 500,000 250,000 237,600 310,200	\$ \$ \$ \$ \$ \$ \$	187 125 125 62 59 77
Utilties N/A N/A N/A N/A N/A N/A N/A	Overhead Transmission Underground Power Underground Communication Underground Gas Underground Gas Underground Water	LM LM LM LM	0.25 0.25 0.25 0.25 0.25 0.25	RAILROAD	0.25 0.25 0.25 0.25 0.25 0.25 0.25	\$ \$ \$ \$ \$ \$	375,000 750,000 500,000 500,000 250,000 237,600 310,200	\$ \$ \$ \$ \$ \$ \$	93, 187 125, 125, 62, 59, 77, 730,70

COST ESTIMATE SUMMARY (ABC 3 - SPMT)

Route:	Interstate	24 over South C	Germantown Road		
Decemintica	PIN 12406	9.00 - Interstate	24 over Germanto	own Rd	-
Description:	Log Mile 1	2.08			and the second s
County:	Hamilton				TN TDOT
Length:					Department of Transportation
Date:	June 11, 2	018			
					-
DESCRIPTION		LOCAL	STATE	FEDERAL	TOTAL
DESCRIPTION		0%	0%	100%	IUTAL
Construction Items	-				
Pavement Removal		\$0	\$0	\$148,000	\$148,00
Asphalt Paving ⁽⁴⁾		\$0	\$0	\$195,000	\$195,00
Concrete Pavement		\$0	\$0	\$0	\$
Drainage		\$0	\$0	\$54,600	\$54,60
Appurtenances		\$0	\$0	\$691,800	\$691,80
Structures ⁽³⁾		\$0	\$0	\$9,292,100	\$9,292,10
Fencing		\$0	\$0	\$0	\$
Lighting, Signalization, & ITS		\$0	\$0	\$228,500	\$228,50
Railroad Crossing or Separati	on	\$0	\$0	\$0	\$
Earthwork		\$0	\$0	\$328,800	\$328,80
Clearing and Grubbing		\$0	\$0	\$0	\$
Seeding & Sodding		\$0	\$0	\$0	\$
Rip-Rap or Slope Protection		\$0	\$0	\$0	\$
Guardrail		\$0	\$0	\$22,000	\$22,00
Signing		\$0	\$0	\$11,000	\$11,00
Pavement Markings ⁽¹⁾		\$0	\$0	\$11,600	\$11,60
Maintenance of Traffic		\$0	\$0	\$345,600	\$345,60
Mobilization (5%)		\$0	\$0	\$566,500	\$566,50
Other Items ⁽²⁾ =	10%	\$0	\$0	\$1,189,600	\$1,189,60
Const. Contingency ⁽²⁾ =	15%	\$0	\$0	\$569,000	\$569,00
Construction Estimate		\$0	\$0	\$13,654,100	\$13,654,10
Interchanges & Unique Int	ersections	+-		, · · · , · · · · , · · · ·	+ · · · · · · · · · · · · · · · · · · ·
Roundabouts		\$0	\$0	\$0	\$
Interchanges		\$0	\$0	\$0	\$
-		LOCAL	STATE	FEDERAL	-
Right-of-Way & Utiltie	s	0%	0%	100%	TOTAL
Right-of-Way	_	\$0	\$0	\$0	\$
Utilities		\$0	\$0	\$730,700	پ \$730,70
Preliminary & Constructio	n Engineer	1.5		φ/ 30,700	φ130,10
Prelim. Eng.	9%	so	\$0	\$1,293,600	\$1,293,60
Const. Eng. & Inspec.	3 % 10%	\$0 \$0	\$0	\$1,438,500	
oonst. Eng. & inspec.	10 /0	\$ 0	φU	φ1,430,500	φ1,430,50
Total Project Cos	st	\$0	\$0	\$17,116,900	\$ 17,117,000
(4)					

⁽¹⁾ Additional quantities were added to the 'Pavement Markings' pay item to account for temporary traffic control.

⁽²⁾ 'Other Items' and 'Const. Contingency' were not increased to account for CM/GC method. The price of 'New Bridge (Concrete Girder)' on the following 'Pay Items' spreadsheet in the pay item table reflects the change in preices for various construction methods.

⁽³⁾ The cost for bridge construction types are as follows and can be seen on the following pay items tables:

ABC 1 (PCC Box Beams & Panels) : \$300.00/s.f.

ABC 2 (Lateral Slide) : \$500.00/s.f.

ABC 3 (SPMT) : \$450.00/s.f.

 $^{\rm (4)}$ All traffic phasing options, including temporary ramps, were taken into consideration.

PAY ITEM SUMMARY (ABC 3 - SPMT)

				ADDITIONAL	TOOL QUANTITIE	S+ :	Statewide	
TDOT PAY ITEM	TDOT DESCRIPTION	UNIT	TOOL QUANTITIES	QUANTITIES	QUANTITIES	ι	JNIT COST	TOTAL COST
Pavment Removal				602	602		5 45 6	0.747.47
202-08.15 415-01.02	Removal of Curb and Gutter Cold Planning Bituminous Pavement		0	682 20229	682 20229	\$ \$	5.45 \$ 7.13 \$	3,717.47 144,274.47
413-01.02			0	20225			TAL (ROUNDED) \$	148,000
Asphalt Roads						1.		
307-03.08 403-01	Asphalt Conc MX (PG76-22)(BPMB-HM) GR B-M2 Bituminous Material For Tack Coat (TC)		0	95.50072583 7.331722222	96 7	ş	78.53 \$ 777.06 \$	7,499.52 5,697.19
411-01.07	ACS (PG64-22) GR "E"		0	313.5	314	\$	111.16 \$	34,849.37
411-02.10	ACS Mix(PG70-22) Grading D		0	1221	1221	\$	113.26 \$	138,286.03
411-03.08	ACS Mix (PG70-22) Thin Lift CS Asphalt	TON		89.58475167	90	\$	96.75 \$	8,667.32
						PAVING TO)TAL (ROUNDED) \$	195,000
Concrete Roads								
contrete nodus		_		CONCRET	E RAMPS AND ROA	DWAYS TO	TAL (ROUNDED) \$	-
Drainage		—						
607-03.30 611-09.01	18" Pipe Culvert ADJUSTMENT OF EXISTING CATCHBASIN			300	300	Ş	52.65 \$ 736.91 \$	15,793.57 3,684.54
611-09.01	REWORK CATCHBASIN	EA		5	5	\$ \$	736.91 \$ 1,104.68 \$	7,732.74
611-09.03	CAPPING EXISTING CATCHBASIN	EA		7	7	Ş	1,354.35 \$	9,480.42
611-10.01	Catch Basins, Type 10, 0' -4' Depth	EA EA		6	6	\$	2,973.64 \$	17,841.84
					DR	AINAGE TO	TAL (ROUNDED) \$	54,600
Appurtenances 202-03	Removal of Rigid Pvmt, Sidewalk, Etc	SY		820	820	Ś	9.53 \$	7,813.10
701-01.01	Concrete Sidewalk (4")) SF	0	820	820	\$	7.40 \$	6,063.91
701-02.03	Concrete Handicap Ramp	SF		570	570	\$	17.74 \$	10,112.84
702-01	Concrete Curb			25	25	\$	334.36 \$	8,358.93
702-03	Concrete Combined Curb & Gutter		0	40	40	\$	374.57 \$	14,982.88
711-05.01 711-05.71	Removal & Disposal of Concrete Median Barrier 51" Single Slope Concrete Barrier Wall		0	2600 2600	2600 2600	ş Ş	152.55 \$ 95.30 \$	396,630.00 247,777.73
/11-05./1	ST Single slope concrete Barrier Wan		0		VEMENT APPURTE			691,800
Earthwork & Mineral								
203-01	Road & Drainage Excavation (Unclassified)		0	9186.672652	9187	\$	16.73 \$	153,664.94
203-03	Borrow Excavation (Unclassified)	CY	0	11691.06056	11691 EARTHWORK & N	Ş ANIEDAL TO	14.97 \$	175,064.29 328,800
					EARTHWORK & N		TAL (KOUNDED) 3	328,800
Structures								
N/A	Removal of Bridge		0	16642	16642	\$	50.00 \$	832,100.00
N/A	New Bridge (Steel Girder):	SF	0	18800	18800	\$	450.00 \$	8,460,000.00
					STRU	JCTURES TO	OTAL (ROUNDED) \$	9,292,100
Interchanges and Unique Intersections								
						CTIONS TO		
				INTERCHANGES AF	ND UNIQUE INTERSI	ECHONS IC	TAL (KOUNDED) Ş	-
				INTERCHANGES A	ND UNIQUE INTERSI	ECHONS IC	JTAL (ROUNDED) \$	-
Lighting & Signalization								
714-01.32	Structural Lighting Direct Brl Conduit (2" PVC Schedule 40)			1	1	\$	9,743.29 \$	9,743.29
	Direct Brl Conduit (2" PVC, Schedule 40)) LF				\$ \$		9,743.29 1,666.42 2,481.49
714-01.32 714-03.01 714-05.04 714-06.05	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG)) LF) EA) LF		1 250	1 250	\$	9,743.29 \$ 6.67 \$ 620.37 \$ 1.05 \$	1,666.42
714-01.32 714-03.01 714-05.04 714-06.05 714-06.05	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM)) LF) EA) LF) EA		1 250 4 500 3	1 250 4 500 3	\$ \$ \$ \$	9,743.29 \$ 6.67 \$ 620.37 \$ 1.05 \$ 3,722.26 \$	1,666.42 2,481.49 525.00 11,166.78
714-01.32 714-03.01 714-05.04 714-06.05 714-06.05 714-08.01 714-08.28	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45 MM, 51 ARM) Found for Light Standards - Roadway	LF EA LF EA ZEA		1 250 4 500 3 3	1 250 4 500 3 3	\$ \$ \$ \$ \$	9,743.29 \$ 6.67 \$ 620.37 \$ 1.05 \$ 3,722.26 \$ 1,384.42 \$	1,666.42 2,481.49 525.00 11,166.78 4,153.26
714-01.32 714-03.01 714-05.04 714-05.05 714-06.05 714-06.05 714-08.28 714-08.28 714-08.30	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards - Roadway Remove and Relocate Light Standard	LF EA LF EA EA EA		1 250 4 500 3 3 3 3	1 250 4 500 3 3 3 3	\$ \$ \$ \$ \$ \$ \$	9,743.29 \$ 6.67 \$ 620.37 \$ 1.05 \$ 3,722.26 \$ 1,384.42 \$ 2,046.75 \$	1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25
714-01.32 714-03.01 714-05.04 714-06.05 714-08.01 714-08.28 714-08.30 714-08.30 714-08.30	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45 MM, 51 ARM) Found for Light Standards - Roadway	LF EA EA EA EA EA EA		1 250 4 500 3 3	1 250 4 500 3 3	\$ \$ \$ \$ \$	9,743.29 \$ 6.67 \$ 620.37 \$ 1.05 \$ 3,722.26 \$ 1,384.42 \$	1,666.42 2,481.49 525.00 11,166.78 4,153.26
714-01.32 714-03.01 714-05.04 714-05.05 714-06.05 714-06.05 714-08.28 714-08.28 714-08.30	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AwG) Light Standards (45' MH, 15' ARM) Found for Light Standards- Roadway Remove and Relocate Light Standard Luminaires (250 WATT)	LF EA LF EA EA EA EA EA EA		1 250 4 500 3 3 3 3 3 3 3	1 250 4 500 3 3 3 3 3 3 3	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	9,743.29 \$ 6.67 \$ 620.37 \$ 1.05 \$ 3,722.26 \$ 1,384.42 \$ 2,046.75 \$ 472.73 \$	1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,418.19 599.06 6,825.00
714-01.32 714-03.01 714-05.04 714-06.05 714-06.01 714-08.28 714-08.30 714-08.30 714-08.30 714-08.30 714-08.30 714-08.30 714-08.30 714-08.30 714-08.30 714-08.30 714-25 714-26.05 730-01.02	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AwG) Light Standards (45' MH, 15' ARM) Found for Light Standards- Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment	LF EA LF EA EA EA EA EA LS EA		1 250 4 500 3 3 3 3 1 1 2	1 250 4 500 3 3 3 3 3 1 1 1 2	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	9,743.29 \$ 6.67 \$ 6.037 \$ 1.05 \$ 3,722.26 \$ 1,384.42 \$ 2,046.75 \$ 472.73 \$ 599.06 \$ 6,825.00 \$ 1,957.79 \$	1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,418.19 599.06 6,825.00 3,915.58
714-01.32 714-03.01 714-05.04 714-06.05 714-08.01 714-08.03 714-08.28 714-09.03 714-25 714-26.05 714-26.05 730-02.09	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards. Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 With Backplact)	LF EA EA EA EA EA EA EA LS EA EA EA		1 250 4 500 3 3 3 3 1 1 1 2 2 10	1 250 4 500 3 3 3 3 1 1 1 2 2 10	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	9,743.29 \$ 6.67 \$ 6.62 \$ 620.37 \$ 1.05 \$ 3,722.26 \$ 1,384.42 \$ 2,046.75 \$ 472.73 \$ 599.06 \$ 6,825.00 \$ 1,957.79 \$ 807.65 \$	1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,418.19 599.06 6,825.00 3,915.58 8,076.53
714-01.32 714-03.01 714-05.04 714-06.05 714-08.01 714-08.28 714-08.30 714-08.30 714-25 714-26.05 730-01.02 730-02.09 730-02.17	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1)C (# 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards - Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 AtH Backplate) Signal Head Assembly (150 AzH With Backplate)	LF EA LF EA		1 250 4 500 3 3 3 3 3 1 1 2 2 10 2	1 250 4 500 3 3 3 3 1 1 1 2 10 2	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	9,743.29 \$ 6.67 \$ 620.37 \$ 1.05 \$ 3,772.26 \$ 1,384.42 \$ 2,046.75 \$ 472.73 \$ 599.06 \$ 6,825.00 \$ 1,957.79 \$ 807.65 \$ 1,313.83 \$	1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,441.81.9 599.06 6,825.00 3,915.58 8,076.53 2,627.67
714-01.32 714-03.01 714-05.04 714-06.05 714-06.01 714-08.28 714-08.28 714-08.30 714-25 714-26.05 730-01.02 730-02.09 730-02.17 730-02.00	Direct Brl Conduit (2" PVC, Schedule 40) Puil Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards. Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 AVI the Backplate) Linstal Puil Box (Type A)	LF EA LF EA		1 250 4 500 3 3 3 1 1 2 100 2 4	1 250 4 500 3 3 3 3 3 1 1 2 2 10 2 2 4	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	9,743.29 \$ 6.67 \$ 620.37 \$ 1.05 \$ 3,722.26 \$ 1,384.42 \$ 2,046.75 \$ 442.77 \$ 599.06 \$ 6,825.00 \$ 6,825.00 \$ 1,957.79 \$ 807.65 \$ 1,313.83 \$ 385.67 \$	1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,418.19 599.06 6,825.00 3,3915.58 8,076.53 2,627.67 1,542.67
714-01.32 714-03.01 714-05.04 714-06.05 714-08.01 714-08.28 714-08.30 714-08.30 714-25 714-26.05 730-01.02 730-02.09 730-02.17	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1)C (# 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards - Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 AtH Backplate) Signal Head Assembly (150 AzH With Backplate)	LF EA LF EA LF EA		1 250 4 500 3 3 3 3 3 1 1 2 2 10 2	1 250 4 500 3 3 3 3 1 1 1 2 10 2	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	9,743.29 \$ 6.67 \$ 620.37 \$ 1.05 \$ 3,772.26 \$ 1,384.42 \$ 2,046.75 \$ 472.73 \$ 599.06 \$ 6,825.00 \$ 1,957.79 \$ 807.65 \$ 1,313.83 \$	1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,441.81.9 599.06 6,825.00 3,915.58 8,076.53 2,627.67
714-01.32 714-03.01 714-05.04 714-06.05 714-06.01 714-08.01 714-08.28 714-08.30 714-25 714-25 714-25 730-01.02 730-02.09 730-03.20 730-03.20 730-05.01 730-05.01	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards. Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (150 A2H With Backplate) Install Pull Box (Type A) Electrical Service Connection Signal Cable - 7 Conductor	LF EA LF EA		1 250 4 500 3 3 3 3 1 1 1 2 2 10 2 4 4 4 2 800	1 250 3 3 3 3 1 1 2 2 4 4 4 2 800	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	9,743.29 \$ 6.67 \$ 620.37 \$ 1.05 \$ 3,722.26 \$ 1,138.442 \$ 2,046.75 \$ 4,72.73 \$ 599.06 \$ 6,825.00 \$ 1,131.83 \$ 385.67 \$ 481.62 \$ 2,023.65 \$ 1.65 \$	1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,418.19 599.06 6,825.00 3,915.58 8,076.53 2,627.67 1,524.67 1,524.67 1,524.67 1,223.59
714-01.32 714-03.01 714-05.04 714-06.05 714-08.01 714-08.28 714-08.28 714-08.20 714-08.20 714-08.20 714-08.20 714-08.20 714-25 714-26.05 730-01.02 730-02.09 730-02.17 730-03.21 730-05.01 730-05.01 730-05.01 730-05.03	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cabie (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards (45' MH, 15' ARM) Found for Light Standards - Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Feadument Signal Head Assembly (130 A2H With Backplate) Install Pull Box (Type A) Install Pull Box (Type A) Electrical Service Connection Signal Cable - 7 Conductor Interconnect Cable (Copper-Twisted Pair)	LF EA LF EA LF		1 250 4 500 3 3 3 3 3 1 1 2 2 10 2 2 4 4 2 2 800 1000	1 250 4 500 3 3 3 3 3 1 1 2 10 2 4 4 2 800 1000	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	9,743.29 \$ 6.67 \$ 620.37 \$ 1.05 \$ 3,772.26 \$ 1,384.42 \$ 2,046.75 \$ 472.73 \$ 599.06 \$ 6,825.00 \$ 1,957.79 \$ 807.65 \$ 1,313.83 \$ 385.67 \$ 385.67 \$ 2,023.65 \$ 1.65 \$ 2,023.65 \$	1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,418.19 599.06 6,825.00 3,915.58 8,076.53 2,627.67 1,542.67 1,542.67 1,542.67 1,542.67 1,523.59 2,670.00
714-01.32 714-03.01 714-05.04 714-06.05 714-08.01 714-08.01 714-08.28 714-08.28 714-08.30 714-25 714-26.05 730-02.09 730-02.17 730-03.20 730-03.21 730-03.20 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards. Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 Xith Backplate) Install Pull Box (Type 8) Electrical Service Connection Signal Cable - 7 Conductor Linetronnect Cable (Casher Jack Park)	LF EA LF EA LF LF		1 250 4 500 3 3 3 1 1 2 10 2 4 4 2 800 1000 400	1 250 4 500 3 3 3 3 1 1 2 2 10 2 4 4 2 2 800 800 1000 400	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	9,743.29 \$ 6.67 \$ 620.37 \$ 1.05 \$ 3,722.26 \$ 1,384.42 \$ 2,046.75 \$ 472.73 \$ 599.06 \$ 6,825.00 \$ 1,138.3 \$ 3.85.67 \$ 481.62 \$ 2,020.35 \$ 1.65 \$ 2.67 \$	1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,418.19 599.06 6,825.00 3,3915.58 8,076.53 2,627.67 1,542.67 1,526.47 4,047.30 1,323.59 2,670.00 10,296.16
714-01.32 714-03.01 714-05.04 714-06.05 714-08.01 714-08.01 714-08.03 714-08.28 714-08.28 714-08.28 714-08.28 714-08.28 714-08.20 714-25 714-25.05 730-01.02 730-02.09 730-02.17 730-03.20 730-03.21 730-08.31 730-08.03 730-08.30 730-12.14 730-12.16	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards (45' MH, 15' ARM) Found for Light Standards - Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 A2H With Backplate) Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 A2H With Backplate) Install Pull Box (Type A) Electrical Service Connection Signal Cable - 7 Conductor Interconnect Cable (Copper-Twisted Pair) Conduit 3" Diameter (Jack and Bore) Conduit 3" Diameter (Jack and Bore)	LF EA LF EA LF LF		1 250 4 500 3 3 3 1 1 1 2 10 2 4 4 2 800 1000 400 200	1 250 3 3 3 1 1 1 2 10 2 4 4 4 2 800 1000 400 200	\$ \$	9,743.29 \$ 6.67 \$ 620.37 \$ 1.05 \$ 3,722.26 \$ 1.384.42 \$ 2,046.75 \$ 472.73 \$ 599.06 \$ 6,825.00 \$ 1,957.79 \$ 807.65 \$ 1,313.83 \$ 385.67 \$ 481.62 \$ 2,023.65 \$ 1.65 \$ 1.65 \$ 2.67 \$ 3.25.74 \$ 1.3.80 \$	1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,418.19 599.06 6,825.00 3,915.58 8,076.53 2,627.67 1,524.67 1,926.47 4,047.30 1,523.59 2,670.00 10,296.16 2,760.38
714-01.32 714-03.01 714-05.04 714-06.05 714-08.01 714-08.01 714-08.28 714-08.28 714-08.30 714-25 714-26.05 730-02.09 730-02.17 730-03.20 730-03.21 730-03.20 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards. Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 Xith Backplate) Install Pull Box (Type 8) Electrical Service Connection Signal Cable - 7 Conductor Linetronnect Cable (Casher Jack Park)	LF EA LF EA LF LF EA		1 250 4 500 3 3 3 1 1 2 10 2 4 4 2 800 1000 400	1 250 4 500 3 3 3 3 1 1 2 2 10 2 4 4 2 2 800 800 1000 400	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	9,743.29 \$ 6.67 \$ 620.37 \$ 1.05 \$ 3,722.26 \$ 1,384.42 \$ 2,046.75 \$ 472.73 \$ 599.06 \$ 6,825.00 \$ 1,138.3 \$ 3.85.67 \$ 481.62 \$ 2,020.35 \$ 1.65 \$ 2.67 \$	1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,418.19 599.06 6,825.00 3,3915.58 8,076.53 2,627.67 1,542.67 1,526.47 4,047.30 1,323.59 2,670.00 10,296.16
714-01.32 714-03.01 714-05.04 714-06.05 714-08.01 714-08.01 714-08.28 714-08.28 714-08.20 714-08.20 714-25 714-26.05 730-01.02 730-02.17 730-03.21 730-03.21 730-08.03 730-02.14 730-03.21 730-03.21 730-12.14 730-12.16 730-13.01	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards (45' MH, 15' ARM) Found for Light Standards - Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (150 A2H With Backplate) Signal Head Assembly (150 A2H With Backplate) Signal Head Assembly (150 A2H With Backplate) Signal Head Assembly (150 A2H With Backplate) Electrical Service Connection Signal Cable - 7 Conductor Install Pull Box (Type A) Electrical Service Connection Signal Cable - 7 Conductor Unterconnect Cable (Copper-Twisted Pair) Conduit 3" Diameter (Jack and Bore) Conduit 2" Conduit Schedule 80) VEHICLE LOOP DETECTOR (SHELF MOUNT) Shielded Detector Cable	LF EA LF EA LF EA LF LF LF LF LF LF LF		1 250 4 500 3 3 3 1 1 2 10 2 4 4 2 800 1000 400 200 4 350 2000	1 250 4 500 3 3 3 1 1 1 2 10 2 4 4 2 800 1000 400 4 4	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	9,743.29 \$ 6.67 \$ 620.37 \$ 1.05 \$ 3,772.26 \$ 1,384.42 \$ 2,046.75 \$ 472.73 \$ 599.06 \$ 6,825.00 \$ 1,957.79 \$ 807.65 \$ 1,957.79 \$ 807.65 \$ 1,313.83 \$ 385.67 \$ 2,023.65 \$ 1.65 \$ 2,023.65 \$ 1.65 \$ 2,023.65 \$ 1.65 \$ 2,023.65 \$ 1.65 \$ 1.65 \$ 2,023.65 \$ 1.65 \$ 1.65 \$ 2,023.65 \$ 1.65 \$ 2,023.65 \$ 1.65 \$ 2,023.65 \$ 1.65 \$ 2,023.65 \$ 1.65 \$ 2,023.65 \$ 1.65 \$ 2,023.65 \$ 1.65 \$ 2,023.65 \$ 1.65 \$ 2,023.65 \$ 1.65 \$ 2,023.65 \$ 1.65 \$ 2,023.65 \$ 1.65 \$ 2,023.65 \$ 1.65 \$ 2,023.65 \$ 1.62 \$ 2,023 \$ 2,02	$\begin{array}{r} 1,666.42\\ 2,481.49\\ 525.00\\ 11,166.78\\ 4,153.26\\ 6,140.25\\ 1,418.19\\ 599.06\\ 6,825.00\\ 3,915.58\\ 8,076.53\\ 2,627.67\\ 1,542.67\\ 1,542.67\\ 1,542.67\\ 1,926.47\\ 3,915.88\\ 2,670.00\\ 10,296.16\\ 2,760.38\\ 714.49\\ 444.66\\ 5,779.41\end{array}$
714-01.32 714-03.01 714-05.04 714-06.05 714-08.01 714-08.28 714-08.28 714-08.30 714-25 714-26.05 730-01.02 730-02.17 730-03.20 730-03.21 730-03.20 730-03.21 730-03.20 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.20 730-03.21 730-03.21 730-03.20 730-03.21 730-13.21 730-14.01 730-14.01 730-14.02 730-14.02	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards. Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 With Backplate) Install Pull Box (Type A) Electrical Swrice Connection Signal Aed Assembly (150 A2H With Backplate) Install Pull Box (Type A) Electrical Swrice Connection Signal Cable - 7 Conductor Interconnect Cable (Copper -Twisted Pair) Conduit 3" Diameter (Jack and Bore) Conduit 3" Diameter (Jack and Bore) WEHICLE LOO PETECTOR SHELF MOUNT) VEHICLE LOO PETECTOR SHELF MOUNT) Shielded Detector Cable Saw Slot	LF EA LF EA LF EA LF LF EA LF EA LF EA LF EA LF EA LF EA		1 250 4 500 3 3 3 1 1 2 10 2 4 4 2 800 1000 400 200 4 350 2 2000 2 2	1 250 4 500 3 3 3 1 1 2 10 2 4 4 2 800 1000 400 200 4 350 2 2	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	9,743.29 \$ 6.67 \$ 6,023 \$ 6,023 \$ 1.05 \$ 3,722.26 \$ 1,384.42 \$ 2,046.75 \$ 472.73 \$ 599.06 \$ 6,825.00 \$ 6,825.00 \$ 1,957.79 \$ 807.65 \$ 1,195.779 \$ 1,313.83 \$ 385.67 \$ 481.62 \$ 2,602.65 \$ 1,65 \$ 2,607 \$ 2,574 \$ 1,380 \$ 1,78.62 \$	$\begin{array}{c} 1,666.42\\ 2,481.49\\ 5,25.00\\ 11,166.78\\ 4,153.26\\ 6,140.25\\ 1,418.19\\ 5,99.66\\ 6,825.00\\ 3,315.58\\ 8,076.53\\ 2,627.67\\ 1,526.47\\ 4,267.7\\ 1,526.47\\ 4,047.30\\ 1,323.59\\ 2,670.00\\ 10,296.16\\ 2,760.38\\ 7,14.49\\ 444.66\\ 5,779.41\\ 2,708.90\\ \end{array}$
714-01.32 714-03.01 714-05.04 714-06.05 714-08.01 714-08.01 714-08.03 714-08.28 714-08.28 714-08.28 714-08.28 714-08.20 714-25 714-25 730-01.02 730-02.09 730-02.09 730-02.17 730-03.21 730-05.01 730-08.30 730-08.30 730-12.16 730-13.01 730-14.01 730-14.02 730-14.02 730-15.32	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards. Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (150 A2H With Backplate) Install Pull Box (Type A) Electrical Service Connection Signal Cable - 7 Conductor Install Pull Box (Type B) Electrical Service Connection Signal Cable - 7 Conductor Interconnect Cable (Copper-Twisted Pair) Conduit (2" Conduit Schedule 80) VEHICLE LOOP DETECTOR (SHELF MOUNT) Shielded Detector Cable Saw Stot Cabinet (Eight Phase Base Mounted) Eight Phase Actuated Controller	LF EA LF EA LF LF LF LF EA EA EA EA EA EA LF LF LF LF EA		1 250 4 500 3 3 3 3 1 1 1 2 10 2 4 4 4 2 800 1000 200 400 2000 4 350 2000 2 2 2	1 250 3 3 3 3 3 1 1 2 2 4 4 4 2 800 1000 200 4 0 200 4 0 200 2 2 2 2 2 2	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	9,743.29 \$ 6.67 \$ 620.37 \$ 1.05 \$ 3,722.26 \$ 1,138.442 \$ 2,046.75 \$ 4,72.73 \$ 599.06 \$ 6,825.00 \$ 1,131.88 \$ 2,023.65 \$ 1,165 \$ 2,023.65 \$ 1,155 \$ 2,77 \$ 1,380 \$ 1,78.62 \$ 1,178.62 \$ 1,178.62 \$ 1,27 \$	1,666.42 2,481.49 5,25.00 11,166.78 4,153.26 6,140.25 1,418.19 5,99.06 6,825.00 3,915.58 8,076.53 2,627.67 1,524.67 1,926.47 4,047.30 1,926.47 4,047.30 1,926.47 2,760.08 7,14.49 44.465 5,779.41 27,089.00 9,473.13
714-01.32 714-03.01 714-05.04 714-06.05 714-08.01 714-08.28 714-08.28 714-08.28 714-08.28 714-08.28 714-08.28 714-08.28 714-08.28 714-08.28 714-08.20 714-25 714-26.05 730-01.02 730-01.02 730-02.17 730-03.20 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-12.14 730-12.14 730-12.16 730-13.01 730-14.01 730-15.32 730-15.32 730-15.32 730-15.32	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards. Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 With Backplate) Install Pull Box (Type A) Electrical Service Connection Signal Cable - 7 Conductor Interconnet Cable (Copper Twisted Pair) Conduit 3" Diameter (Jack and Bore) Conduit 2" Conduit Schedule 80) VEHICLE LOOP DETECTOR (SHELF MOLUT) Shielded Detector Cable Saw Stot Cabinet (Eight Phase Base Mounted) Eight Phase Actuated Controller Cantilever Signal Support (J ARM @ 45)	LF EA LF EA LF LF LF LF EA LF EA EA		1 250 4 500 3 3 3 1 1 2 10 2 4 4 2 800 1000 400 200 4 350 2 2 2 2 3 3	1 250 4 500 3 3 3 1 1 2 10 2 4 4 2 800 400 400 400 200 4 350 200 2 2 3 3	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	9,743.29 \$ 6.67 \$ 620.37 \$ 1.05 \$ 3,722.26 \$ 1,384.42 \$ 2,046.75 \$ 472.73 \$ 599.06 \$ 6,825.00 \$ 1,957.79 \$ 807.65 \$ 1,957.79 \$ 807.65 \$ 1,313.83 \$ 385.67 \$ 481.62 \$ 2,023.65 \$ 1.65 \$ 2,023.65 \$ 1.65 \$ 2,023.65 \$ 1.65 \$ 1.65 \$ 2,023.65 \$ 1.65 \$ 1.65 \$ 2,023.65 \$ 1.65 \$ 1.65 \$ 2,023.65 \$ 1.65 \$ 1.65 \$ 2,023.65 \$ 1.65 \$ 1.65 \$ 2,023.65 \$ 1.65 \$ 2,023.65 \$ 1.65 \$ 2,023.65 \$ 1.65 \$ 1.65 \$ 2,023.65 \$ 1.6	1,666.42 2,481.49 5,25.00 11,166.78 4,153.26 6,140.25 1,418.19 5,99.06 6,825.00 3,915.58 8,076.53 2,627.67 1,542.67 1,542.67 1,542.67 1,542.67 1,542.67 2,670.00 10,296.16 2,760.38 7,14.49 444.66 5,779.41 27,089.00 9,473.13 42,348.57
714-01.32 714-03.01 714-05.04 714-06.05 714-08.01 714-08.01 714-08.03 714-08.28 714-08.28 714-08.28 714-08.28 714-08.20 714-25 714-25 730-01.02 730-02.09 730-02.09 730-02.17 730-03.21 730-05.01 730-08.30 730-08.30 730-12.16 730-13.01 730-14.01 730-14.02 730-14.02 730-15.32	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards. Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (150 A2H With Backplate) Install Pull Box (Type A) Electrical Service Connection Signal Cable - 7 Conductor Install Pull Box (Type B) Electrical Service Connection Signal Cable - 7 Conductor Interconnect Cable (Copper-Twisted Pair) Conduit (2" Conduit Schedule 80) VEHICLE LOOP DETECTOR (SHELF MOUNT) Shielded Detector Cable Saw Stot Cabinet (Eight Phase Base Mounted) Eight Phase Actuated Controller	LF EA LF EA LF LF LF LF EA LF EA LF EA		1 250 4 500 3 3 3 3 1 1 2 100 2 4 4 4 2 800 1000 1000 400 200 400 200 4 350 2000 2 2 2 3 3 3	1 250 4 500 3 3 3 1 1 2 10 10 2 4 4 2 800 1000 1000 200 400 200 400 200 200 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	9,743.29 \$ 6.67 \$ 620.37 \$ 1.05 \$ 3,722.26 \$ 1,138.442 \$ 2,046.75 \$ 4,72.73 \$ 599.06 \$ 6,825.00 \$ 1,131.88 \$ 2,023.65 \$ 1,165 \$ 2,023.65 \$ 1,155 \$ 2,77 \$ 1,380 \$ 1,78.62 \$ 1,178.62 \$ 1,178.62 \$ 1,27 \$	1,666.42 2,481.49 5,25.00 11,166.78 4,153.26 6,140.25 1,418.19 5,99.06 6,825.00 3,3915.58 8,076.53 2,627.67 1,526.67 1,526.47 4,047.30 1,323.59 2,670.00 10,296.16 2,760.38 7,14.49 4,446.65 5,779.41 2,7089.00 9,473.13 42,348.57 5,8654.85
714-01.32 714-03.01 714-05.04 714-06.05 714-08.01 714-08.28 714-08.28 714-08.28 714-08.28 714-08.28 714-08.28 714-08.28 714-08.28 714-08.28 714-08.20 714-25 714-26.05 730-01.02 730-01.02 730-02.17 730-03.20 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-12.14 730-12.14 730-12.16 730-13.01 730-14.01 730-15.32 730-15.32 730-15.32 730-15.32	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards. Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 With Backplate) Install Pull Box (Type A) Electrical Service Connection Signal Cable - 7 Conductor Interconnet Cable (Copper Twisted Pair) Conduit 3" Diameter (Jack and Bore) Conduit 3" Diameter (Jack and Bore) Conduit 3" Diameter (Jack and Bore) Conduit 2" Conduit Schedule 80) VEHICLE LOD P D'ETCTOR (SHELF MOLUT) Shielded Detector Cable Saw Stot Cabinet (Eight Phase Base Mounted) Eight Phase Actuated Controller Cantilever Signal Support (1 ARM @ 45)	LF EA LF EA LF LF LF LF EA LF EA EA		1 250 4 500 3 3 3 3 1 1 2 100 2 4 4 4 2 800 1000 1000 400 200 400 200 4 350 2000 2 2 2 3 3 3	1 250 4 500 3 3 3 1 1 2 10 10 2 4 4 2 800 1000 1000 200 400 200 400 200 200 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	9,743.29 \$ 6.67 \$ 6,07 \$ 6,07 \$ 1.05 \$ 3,722.26 \$ 1,384.42 \$ 2,046.75 \$ 472.73 \$ 599.06 \$ 6,825.00 \$ 6,825.00 \$ 1,957.79 \$ 807.65 \$ 1,131.83 \$ 385.67 \$ 481.62 \$ 2,023.65 \$ 1,65 \$ 2,607 \$ 2,607 \$ 1,380 \$ 1,325 \$ 1,354 \$ 1,380 \$ 1,365 \$ 1,345 \$ 1,365 \$ 1,3180 \$ 1,325 \$ 1,354 \$ 1,365 \$ 1,365 \$ 1,3180 \$ 1,325 \$ 1,355 \$ 1,356 \$ 1,4,116.19 \$ 1,955 \$ 1,9551 \$ 1	1,666.42 2,481.49 5,25.00 11,166.78 4,153.26 6,140.25 1,418.19 5,99.06 6,825.00 3,915.58 8,076.53 2,627.67 1,542.67 1,542.67 1,542.67 1,542.67 1,542.67 2,670.00 10,296.16 2,760.38 7,14.49 444.66 5,779.41 27,089.00 9,473.13 42,348.57
714-01.32 714-03.01 714-05.04 714-05.04 714-06.05 714-08.01 714-08.28 714-08.28 714-08.28 714-09.03 714-25 714-25 730-01.02 730-02.09 730-02.09 730-02.09 730-03.21 730-08.30 730-08.03 730-12.14 730-12.16 730-13.01 730-14.02 730-13.03 730-14.02 730-23.88 730-23.96	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards. Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (150 A2H With Backplate) Install Pull Box (Type A) Electrical Service Connection Signal Cable - 7 Conductor Install Pull Box (Type B) Electrical Service Connection Signal Cable - 7 Conductor Interconnect Cable (Copper-Twisted Pair) Conduit (2" Conduit Schedule 80) VEHICLE LOO' DETECTOR (SHELF MOUNT) Shielded Detector Cable Saw Slot Cabinet (Eight Phase Base Mounted) Eight Phase Actuated Controller	LF EA LF EA LF EA LF LF LF LF EA		1 250 4 500 3 3 3 3 1 1 2 100 2 4 4 4 2 800 1000 1000 400 200 400 200 4 350 2000 2 2 2 3 3 3	1 250 4 500 3 3 3 1 1 1 2 4 4 2 2 4 4 2 2 4 4 2 2 000 1000 1	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	9,743.29 \$ 6.67 \$ 520.37 \$ 1.05 \$ 3,722.26 \$ 1.138.442 \$ 2,046.75 \$ 472.73 \$ 599.06 \$ 6,825.00 \$ 1,957.79 \$ 807.65 \$ 1,131.383 \$ 1,957.79 \$ 20.023.65 \$ 1,313.83 \$ 1,165 \$ 2,023.65 \$ 1,65 \$ 2,67 \$ 1,313.80 \$ 1,78.62 \$ 1,32.45 \$ 1,32.65 \$ 1,32.65 \$ 1,33.65 \$ 1,33.65 \$ 1,33.65 \$ 1,33.65 \$ 1,33.65 \$ 1,33.65 \$ 1,33.65 \$ 1,33.65 \$ 1,33.65 \$ 1,33.65 \$ 1,34.65 \$ 1,35.65 \$ 1,4,116.19 \$ 1,95.61 \$ 1,95.6	1,666.42 2,481.49 5,25.00 11,166.78 4,153.26 6,140.25 1,418.19 5,99.06 6,825.00 3,915.58 8,076.53 2,627.67 1,526.67 1,526.67 1,526.47 4,047.30 1,0296.16 2,760.03 714.49 4,047.30 1,0296.16 2,760.38 714.49 444.66 5,779.41 27,089.00 9,473.13 42,348.57 58,554.85 2,28,550
714-01.32 714-03.01 714-05.04 714-06.05 714-08.01 714-08.28 714-08.28 714-08.28 714-08.30 714-25 714-25.05 730-01.02 730-01.02 730-02.09 730-02.09 730-03.20 730-05.01 730-05.01 730-05.01 730-05.01 730-05.01 730-05.01 730-05.01 730-12.16 730-13.01 730-15.32 730-15.32 730-53.28 730-23.96	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Found for Light Standards (45' MH, 15' ARM) Found for Light Standards. Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 With Backplate) Install Pull Box (Type 8) Electrical Service Connection Signal Cable - 7 Conductor Interconnect Cable (Copper-Twisted Pari) Conduit 3" Diameter (Jack and Bore) Conduit 3" Diameter (Jack and Bore) Conduit 3" Diameter (Jack and Bore) Conduit 2" Canduit Schedule 80) VEHICE LOP DETECTOR (SHEIF MOUNT) Shielded Detector Cable Saw Siot Cabinet (Eight Phase Base Mounted) Eight Phase Actuated Controller Cantilever Signal Support (1 ARM @ 50') Cantilever Signal Support (1 ARM @ 50')	LF EA LF EA LF EA	100	1 250 4 500 3 3 3 3 1 1 2 100 2 4 4 4 2 800 1000 1000 400 200 400 200 4 350 2000 2 2 2 3 3 3	1 250 4 500 3 3 1 1 2 10 2 4 4 2 800 400 400 400 200 400 200 4 350 200 4 350 100 200 200 200 200 200 200 20	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	9,743.29 \$ 6.67 \$ 620.37 \$ 1.05 \$ 3,722.26 \$ 1,384.42 \$ 2,046.75 \$ 472.73 \$ 599.06 \$ 6,825.00 \$ 1,957.79 \$ 807.65 \$ 1,957.79 \$ 807.65 \$ 1,957.79 \$ 2023.65 \$ 1,65 \$ 2,023.65 \$ 1,65 \$ 2,023.65 \$ 1,65 \$ 1,65 \$ 2,25.74 \$ 13.80 \$ 178.62 \$ 1,27 \$ 2,28 \$ 13,544.50 \$ 1,384.50 \$ 1,3544.50 \$ 1,3544.50 \$ 1,416.19 \$ 19,551.62 \$ 14,116.19 \$ 19,551.62 \$ 171AL (ROUNDED) \$ 73.64 \$	1,666.42 2,481.49 5,25.00 11,166.78 4,153.26 6,140.25 1,418.19 5,99.06 6,825.00 3,915.58 8,076.53 2,627.67 1,542.67 1,542.67 1,542.67 1,542.67 1,542.67 2,670.00 10,296.16 2,760.38 7,14.49 444.66 5,779.41 27,089.00 9,473.13 42,348.57 58,654.85 223,500
714-01.32 714-03.01 714-05.04 714-06.05 714-08.01 714-08.28 714-08.28 714-08.30 714-25 714-26.05 730-01.02 730-02.09 730-03.20 730-03.21 730-03.20 730-03.21 730-03.20 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-048.30 730-12.14 730-14.01 730-14.02 730-15.32 730-15.32 730-23.88 730-23.96 90 90 90 90 90 90 90 90 <td>Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards. Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary, Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 With Backplate) Install Pull Box (Type A) Electrical Service Connection Signal Cable - 7 Conductor Interconnect Cable (Copper-Twisted Pair) Conduit 3' Diameter (Lack and Bore) Conduit 3' Diameter (Lack and Bore) Signal Cable - 7 Conductor Signal Cable - 7 Conductor Signal Cable - 7 Conductor Conduit 3' Diameter (Lack and Bore) Conduit 3' Diameter (Back and Bore) Conduit 2' Conduit Schedule 80) VEHICLE LOOP DETECTOR (SHELF MOUNT) Shielded Detector Cable Eight Phase Actuated Controller Cantilever Signal Support (1 ARM @ 45') Cantilever Signal Support (1 ARM @ 50')</td> <td>LF EA LF EA LF EA LF EA LF EA LF EA LF EA EA LF EA EA EA EA EA EA EA</td> <td>4</td> <td>1 250 4 500 3 3 3 3 1 1 2 100 2 4 4 4 2 800 1000 1000 400 200 400 200 4 350 2000 2 2 2 3 3 3</td> <td>1 250 4 500 3 3 1 1 2 10 2 4 4 2 800 1000 400 200 400 200 200 200 200</td> <td>\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$</td> <td>9,743.29 \$ 6.67 \$ 6,02 \$ 6,02 \$ 1.05 \$ 3,722.26 \$ 3,722.26 \$ 2,046.75 \$ 442.5 \$ 442.5 \$ 472.73 \$ 599.06 \$ 6,825.00 \$ 6,825.00 \$ 1,957.79 \$ 807.65 \$ 1,195.77 \$ 385.67 \$ 481.62 \$ 2,023.65 \$ 1,65 \$ 2,67 \$ 2,67 \$ 2,67 \$ 2,67 \$ 1,380 \$ 2,67 \$ 1,380 \$ 2,57.4 \$ 1,380 \$ 1,78.62 \$ 1,7</td> <td>1,666.42 2,481.49 5,25.00 11,166.78 4,153.26 6,140.25 1,418.19 5,99.06 6,825.00 3,3915.58 8,076.53 2,627.67 1,526.67 1,526.47 4,047.30 10,296.16 2,760.03 7,14.49 4,44.66 5,779.41 27,089.00 9,473.13 42,348.57 5,8,654.45 2,28,500</td>	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards. Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary, Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 With Backplate) Install Pull Box (Type A) Electrical Service Connection Signal Cable - 7 Conductor Interconnect Cable (Copper-Twisted Pair) Conduit 3' Diameter (Lack and Bore) Conduit 3' Diameter (Lack and Bore) Signal Cable - 7 Conductor Signal Cable - 7 Conductor Signal Cable - 7 Conductor Conduit 3' Diameter (Lack and Bore) Conduit 3' Diameter (Back and Bore) Conduit 2' Conduit Schedule 80) VEHICLE LOOP DETECTOR (SHELF MOUNT) Shielded Detector Cable Eight Phase Actuated Controller Cantilever Signal Support (1 ARM @ 45') Cantilever Signal Support (1 ARM @ 50')	LF EA LF EA LF EA LF EA LF EA LF EA LF EA EA LF EA EA EA EA EA EA EA	4	1 250 4 500 3 3 3 3 1 1 2 100 2 4 4 4 2 800 1000 1000 400 200 400 200 4 350 2000 2 2 2 3 3 3	1 250 4 500 3 3 1 1 2 10 2 4 4 2 800 1000 400 200 400 200 200 200 200	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	9,743.29 \$ 6.67 \$ 6,02 \$ 6,02 \$ 1.05 \$ 3,722.26 \$ 3,722.26 \$ 2,046.75 \$ 442.5 \$ 442.5 \$ 472.73 \$ 599.06 \$ 6,825.00 \$ 6,825.00 \$ 1,957.79 \$ 807.65 \$ 1,195.77 \$ 385.67 \$ 481.62 \$ 2,023.65 \$ 1,65 \$ 2,67 \$ 2,67 \$ 2,67 \$ 2,67 \$ 1,380 \$ 2,67 \$ 1,380 \$ 2,57.4 \$ 1,380 \$ 1,78.62 \$ 1,7	1,666.42 2,481.49 5,25.00 11,166.78 4,153.26 6,140.25 1,418.19 5,99.06 6,825.00 3,3915.58 8,076.53 2,627.67 1,526.67 1,526.47 4,047.30 10,296.16 2,760.03 7,14.49 4,44.66 5,779.41 27,089.00 9,473.13 42,348.57 5,8,654.45 2,28,500
714-01.32 714-03.01 714-05.04 714-06.05 714-08.01 714-08.28 714-08.28 714-08.28 714-08.30 714-25 714-25.05 730-01.02 730-01.02 730-02.09 730-02.09 730-03.20 730-05.01 730-05.01 730-05.01 730-05.01 730-05.01 730-05.01 730-05.01 730-12.16 730-13.01 730-15.32 730-15.32 730-53.28 730-23.96	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Found for Light Standards (45' MH, 15' ARM) Found for Light Standards. Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 With Backplate) Install Pull Box (Type 8) Electrical Service Connection Signal Cable - 7 Conductor Interconnect Cable (Copper-Twisted Pari) Conduit 3" Diameter (Jack and Bore) Conduit 3" Diameter (Jack and Bore) Conduit 3" Diameter (Jack and Bore) Conduit 2" Canduit Schedule 80) VEHICE LOP DETECTOR (SHEIF MOUNT) Shielded Detector Cable Saw Siot Cabinet (Eight Phase Base Mounted) Eight Phase Actuated Controller Cantilever Signal Support (1 ARM @ 50') Cantilever Signal Support (1 ARM @ 50')	LF EA LF EA LF EA LF EA EA EA LF EA EA EA		1 250 4 500 3 3 3 3 1 1 2 100 2 4 4 4 2 800 1000 1000 400 200 400 200 4 350 2000 2 2 2 3 3 3	1 250 4 500 3 3 3 1 1 2 10 2 4 4 200 400 200 400 200 400 200 400 200 40 200 40 200 40 200 4 350 10 10 200 4 4 350 10 10 10 10 10 10 10 10 10 1	\$ \$ \$ \$	9,743.29 \$ 6.67 \$ 620.37 \$ 1.05 \$ 3,722.26 \$ 1,384.42 \$ 2,046.75 \$ 472.73 \$ 599.06 \$ 6,825.00 \$ 1,957.79 \$ 807.65 \$ 1,957.79 \$ 807.65 \$ 1,957.79 \$ 2023.65 \$ 1,65 \$ 2,023.65 \$ 1,65 \$ 2,023.65 \$ 1,65 \$ 1,65 \$ 2,25.74 \$ 13.80 \$ 178.62 \$ 1,27 \$ 2,28 \$ 13,544.50 \$ 1,384.50 \$ 1,3544.50 \$ 1,3544.50 \$ 1,416.19 \$ 19,551.62 \$ 14,116.19 \$ 19,551.62 \$ 171AL (ROUNDED) \$ 73.64 \$	1,666.42 2,481.49 5,25.00 11,166.78 4,153.26 6,140.25 1,418.19 5,99.06 6,825.00 3,915.58 8,076.53 2,627.67 1,542.67 1,542.67 1,542.67 1,542.67 1,542.67 2,670.00 10,296.16 2,760.38 7,14.49 444.66 5,779.41 27,089.00 9,473.13 42,348.57 58,654.85 223,500
714-01.32 714-03.01 714-05.04 714-06.05 714-08.01 714-08.28 714-08.28 714-08.30 714-08.30 714-25 714-26.05 730-01.02 730-02.17 730-03.20 730-03.21 730-03.20 730-03.21 730-03.20 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-048.30 730-12.14 730-14.01 730-14.02 730-15.32 730-15.32 730-23.88 730-23.96 Stardrail 705-01.01 705-04.07	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards. Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary, Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 With Backplate) Install Pull Box (Type A) Electrical Service Connection Signal Cable - 7 Conductor Interconnect Cable (Copper-Twisted Pair) Conduit 3' Diameter (Lack and Bore) Conduit 3' Diameter (Lack and Bore) Signal Cable - 7 Conductor Signal Cable - 7 Conductor Signal Cable - 7 Conductor Conduit 3' Diameter (Lack and Bore) Conduit 3' Diameter (Back and Bore) Conduit 2' Conduit Schedule 80) VEHICLE LOOP DETECTOR (SHELF MOUNT) Shielded Detector Cable Eight Phase Actuated Controller Cantilever Signal Support (1 ARM @ 45') Cantilever Signal Support (1 ARM @ 50')	LF EA LF EA LF EA LF EA LF EA LF EA LF EA EA LF EA EA EA EA EA EA EA	4	1 250 4 500 3 3 3 3 1 1 2 100 2 4 4 4 2 800 1000 1000 400 200 400 200 4 350 2000 2 2 2 3 3 3	1 250 4 500 3 3 3 1 1 2 10 2 4 4 200 400 200 400 200 400 200 400 200 40 200 40 200 40 200 4 350 10 10 200 4 4 350 10 10 10 10 10 10 10 10 10 1	\$ \$ \$ \$	9,743.29 \$ 6.67 \$ 6.62 \$ 6.62 \$ 1.05 \$ 3,722.6 \$ 1,384.42 \$ 2,046.75 \$ 472.73 \$ 599.06 \$ 6,825.00 \$ 1,957.79 \$ 807.65 \$ 6,825.00 \$ 1,957.79 \$ 807.65 \$ 1,313.83 \$ 385.67 \$ 1,313.83 \$ 385.67 \$ 2,023.65 \$ 1,65 \$ 2,023.65 \$ 1,65 \$ 1,65 \$ 2,023.65 \$ 1,65 \$ 1,65 \$ 2,023.65 \$ 1,65 \$ 1,338 \$ 178.62 \$ 1,27 \$ 2,38 \$ 13,544.50 \$ 1,354.50 \$ 14,116.19 \$ 19,551.62 \$ 14,116.19 \$ 19,551.62 \$ 14,116.19 \$ 19,551.62 \$ 14,116.19 \$ 19,551.62 \$ 173.64 \$ 2,352.59 \$ 1,234.80 \$	1,666.42 2,481.49 5,25.00 11,166.78 4,153.26 6,140.25 1,418.19 5,99.06 6,825.00 3,915.58 8,076.53 2,627.67 1,528.67 1,926.47 4,047.30 1,926.47 4,047.30 1,926.47 4,047.30 1,0,296.16 2,760.38 7,14.49 44.465 5,779.41 27,089.00 9,473.13 42,348.57 58,654.85 2,28,500 7,364.49 9,410.38 5,179.21
714-01.32 714-03.01 714-05.04 714-06.05 714-08.01 714-08.28 714-08.28 714-08.30 714-08.30 714-25 714-26.05 730-01.02 730-02.17 730-03.20 730-03.21 730-03.20 730-03.21 730-03.20 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-048.30 730-12.14 730-14.01 730-14.02 730-15.32 730-15.32 730-23.88 730-23.96 Stardrail 705-01.01 705-04.07	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards. Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary, Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 With Backplate) Install Pull Box (Type A) Electrical Service Connection Signal Cable - 7 Conductor Interconnect Cable (Copper-Twisted Pair) Conduit 3' Diameter (Lack and Bore) Conduit 3' Diameter (Lack and Bore) Signal Cable - 7 Conductor Signal Cable - 7 Conductor Signal Cable - 7 Conductor Conduit 3' Diameter (Lack and Bore) Conduit 3' Diameter (Back and Bore) Conduit 2' Conduit Schedule 80) VEHICLE LOOP DETECTOR (SHELF MOUNT) Shielded Detector Cable Eight Phase Actuated Controller Cantilever Signal Support (1 ARM @ 45') Cantilever Signal Support (1 ARM @ 50')	LF EA LF EA LF EA LF EA LF EA LF EA LF EA EA LF EA EA EA EA EA EA EA	4	1 250 4 500 3 3 3 3 1 1 2 100 2 4 4 4 2 800 1000 1000 400 200 400 200 4 350 2000 2 2 2 3 3 3	1 250 4 500 3 3 3 1 1 2 10 2 4 4 2 800 400 400 400 200 4 350 200 4 350 200 4 350 100 4 350 200 4 350 200 4 350 200 4 350 200 4 350 200 200 4 350 200 200 4 350 200 200 4 4 350 200 200 4 4 200 200 4 4 200 200	\$ \$	9,743.29 \$ 6.67 \$ 6.67 \$ 6.60 \$ 7.00 \$ 7.22.6 \$ 1.1384.42 \$ 2.046.75 \$ 7.47.73 \$ 7.47.73 \$ 7.47.73 \$ 7.47.73 \$ 7.48.162 \$ 7.47.75 \$ 7.48.162 \$ 7.48.162 \$ 7.46.5 \$ 7.48.162 \$ 7.48.162 \$ 7.48.162 \$ 7.48.162 \$ 7.48.162 \$ 7.48.161 \$ 1.27 \$ 1.28 \$ 7.13.80 \$ 7.78.62 \$ 7.14.161 \$ 1.27 \$ 7.364 \$ 7.3655 \$ 7.364 \$ 7.3655 \$ 7.3654 \$ 7.3654 \$ 7.3655 \$ 7.3654 \$ 7.3654 \$ 7.3655 \$ 7.3654 \$ 7.3655 \$ 7.3	1,666.42 2,481.49 5,25.00 11,166.78 4,153.26 6,140.25 1,418.19 5,99.06 6,825.00 3,915.58 8,076.53 2,627.67 1,528.67 1,926.47 4,047.30 1,926.47 4,047.30 1,926.47 4,047.30 1,0,296.16 2,760.38 7,14.49 44.465 5,779.41 27,089.00 9,473.13 42,348.57 58,654.85 2,28,500 7,364.49 9,410.38 5,179.21
714-01.32 714-03.01 714-05.04 714-05.04 714-06.05 714-08.01 714-08.28 714-08.28 714-08.28 714-09.03 714-25 730-01.02 730-02.09 730-02.09 730-02.09 730-03.21 730-08.30 730-08.03 730-12.14 730-12.16 730-13.01 730-14.02 730-13.01 730-14.02 730-23.88 730-23.96	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards. Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary, Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 With Backplate) Install Pull Box (Type A) Electrical Service Connection Signal Cable - 7 Conductor Interconnect Cable (Copper-Twisted Pair) Conduit 3' Diameter (Lack and Bore) Conduit 3' Diameter (Lack and Bore) Signal Cable - 7 Conductor Signal Cable - 7 Conductor Signal Cable - 7 Conductor Conduit 3' Diameter (Lack and Bore) Conduit 3' Diameter (Back and Bore) Conduit 2' Conduit Schedule 80) VEHICLE LOOP DETECTOR (SHELF MOUNT) Shielded Detector Cable Eight Phase Actuated Controller Cantilever Signal Support (1 ARM @ 45') Cantilever Signal Support (1 ARM @ 50')	LF EA LF EA LF EA LF EA LF EA LF EA LF EA EA LF EA EA EA EA EA EA EA	4	1 250 4 500 3 3 3 3 1 1 2 100 2 4 4 4 2 800 1000 1000 400 200 400 200 4 350 2000 2 2 2 3 3 3	1 250 4 500 3 3 3 1 1 2 10 2 4 4 2 800 400 400 400 200 4 350 200 4 350 200 4 350 100 4 350 200 4 350 200 4 350 200 4 350 200 4 350 200 200 4 4 350 200 200 4 4 200 200 4 4 200 200	\$ \$	9,743.29 \$ 6.67 \$ 6.62 \$ 6.62 \$ 1.05 \$ 3,722.6 \$ 1,384.42 \$ 2,046.75 \$ 472.73 \$ 599.06 \$ 6,825.00 \$ 1,957.79 \$ 807.65 \$ 6,825.00 \$ 1,957.79 \$ 807.65 \$ 1,313.83 \$ 385.67 \$ 1,313.83 \$ 385.67 \$ 2,023.65 \$ 1,65 \$ 2,023.65 \$ 1,65 \$ 1,65 \$ 2,023.65 \$ 1,65 \$ 1,65 \$ 2,023.65 \$ 1,65 \$ 1,338 \$ 178.62 \$ 1,27 \$ 2,38 \$ 13,544.50 \$ 1,354.50 \$ 14,116.19 \$ 19,551.62 \$ 14,116.19 \$ 19,551.62 \$ 14,116.19 \$ 19,551.62 \$ 14,116.19 \$ 19,551.62 \$ 173.64 \$ 2,352.59 \$ 1,234.80 \$	1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,418.19 599.06 6,825.00 3,915.58 8,076.53 2,627.67 1,524.67 4,047.30 1,926.47 4,047.30 1,026.16 2,760.39 7,14.49 44.466 5,779.41 27,869.00 9,473.13 42,348.57 58,654.85 2,285.00
714-03.01 714-03.01 714-03.01 714-06.05 714-08.01 714-08.28 714-08.28 714-08.28 714-08.28 714-08.28 714-08.28 714-08.28 714-25 714-25 714-26.05 730-01.02 730-02.09 730-02.09 730-02.17 730-03.20 730-03.21 730-05.01 730-05.01 730-13.01 730-13.01 730-13.01 730-13.04 730-13.05 730-13.04 730-13.05 730-13.04 730-13.05 730-13.04 730-13.05 730-13.04 730-13.05 730-23.96	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards. Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary, Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 With Backplate) Install Pull Box (Type A) Electrical Service Connection Signal Cable - 7 Conductor Interconnect Cable (Copper-Twisted Pair) Conduit 3' Diameter (Lack and Bore) Conduit 3' Diameter (Lack and Bore) Signal Cable - 7 Conductor Signal Cable - 7 Conductor Signal Cable - 7 Conductor Conduit 3' Diameter (Lack and Bore) Conduit 3' Diameter (Back and Bore) Conduit 2' Conduit Schedule 80) VEHICLE LOOP DETECTOR (SHELF MOUNT) Shielded Detector Cable Eight Phase Actuated Controller Cantilever Signal Support (1 ARM @ 45') Cantilever Signal Support (1 ARM @ 50')	LF EA LF EA LF EA LF EA LF EA LF EA LF EA EA LF EA EA EA EA EA EA EA	4	1 250 4 500 3 3 3 3 1 1 2 100 2 4 4 4 2 800 1000 400 200 400 200 4 350 2000 2 2 2 3 3 3	1 250 4 500 3 3 3 1 1 2 10 2 4 4 2 800 400 400 400 200 4 350 200 4 350 200 4 350 100 4 350 200 4 350 200 4 350 200 4 350 200 4 350 200 200 4 4 350 200 200 4 4 200 200 4 4 200 200	\$ \$	9,743.29 \$ 6.67 \$ 6.67 \$ 6.60 \$ 7.00 \$ 7.22.6 \$ 1.1384.42 \$ 2.046.75 \$ 7.47.73 \$ 7.47.73 \$ 7.47.73 \$ 7.47.73 \$ 7.48.162 \$ 7.47.75 \$ 7.48.162 \$ 7.48.162 \$ 7.46.5 \$ 7.48.162 \$ 7.48.162 \$ 7.48.162 \$ 7.48.162 \$ 7.48.162 \$ 7.48.161 \$ 1.27 \$ 1.28 \$ 7.13.80 \$ 7.78.62 \$ 7.14.161 \$ 1.27 \$ 7.364 \$ 7.3655 \$ 7.364 \$ 7.3655 \$ 7.3654 \$ 7.3654 \$ 7.3655 \$ 7.3654 \$ 7.3654 \$ 7.3655 \$ 7.3654 \$ 7.3655 \$ 7.3	1,666.42 2,481.49 525.00 11,166.78 4,153.26 6,140.25 1,418.19 599.06 6,825.00 3,915.58 8,076.53 2,627.67 1,524.67 4,047.30 1,926.47 4,047.30 1,026.16 2,760.39 7,14.49 44.466 5,779.41 27,869.00 9,473.13 42,348.57 58,654.85 2,285.00
714-01.32 714-03.01 714-05.04 714-05.04 714-06.05 714-08.01 714-08.28 714-08.28 714-08.28 714-09.03 714-25 730-01.02 730-02.09 730-02.09 730-02.09 730-03.21 730-08.30 730-08.03 730-12.14 730-12.16 730-13.01 730-14.02 730-13.01 730-14.02 730-23.88 730-23.96	Direct Brl Conduit (2" PVC, Schedule 40) Puil Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards. Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 With Backplate) Install Puil Box (Type A) Electrical Service Connection Signal Ated Assembly (150 A2H With Backplate) Install Puil Box (Type A) Electrical Service Connection Signal Cable - 7 Conductor Interconnect Cable (Copper -Twisted Pair) Conduit 3" Diameter (Jack and Bore) Conduit 3" Diameter (Jack and Bore) Conduit 3" Diameter (Jack and Bore) Conduit Scheidelue 80) VEHICLE LOOP DETECTOR SHELF MOLUTY Shielded Detector Cable Saw Stot Cabinet (Eight Phase Base Mounted) Eight Phase Actuated Controller Cantilever Signal Support (1 ARM @ 50') Cantilever Signal Support (1 ARM @ 50') Cantilever Signal Support (1 ARM @ 50') Cantilever Signal Gapper A Base Actuated Tan Energy Absg Term (NCHRP, 350, TL3) Earth Pad for Type 38 GR End Treatment	LF EA LF EA LF EA LF LF EA EA EA LF EA	4	1 250 4 500 3 3 3 3 1 1 2 100 2 4 4 4 2 800 1000 400 200 400 200 4 350 2000 2 2 2 3 3 3	1 250 4 500 3 3 3 1 1 2 10 2 4 4 2 800 400 400 400 200 4 350 200 4 350 200 4 350 100 4 350 200 4 350 200 4 350 200 4 350 200 4 350 200 200 4 4 350 200 200 4 4 200 200 4 4 200 200	\$ \$	9,743.29 \$ 6.67 \$ 6.67 \$ 6.60 \$ 7.00 \$ 7.22.6 \$ 1.1384.42 \$ 2.046.75 \$ 7.47.73 \$ 7.47.73 \$ 7.47.73 \$ 7.47.73 \$ 7.48.162 \$ 7.47.75 \$ 7.48.162 \$ 7.48.162 \$ 7.46.5 \$ 7.48.162 \$ 7.48.162 \$ 7.48.162 \$ 7.48.162 \$ 7.48.162 \$ 7.48.161 \$ 1.27 \$ 1.28 \$ 7.13.80 \$ 7.78.62 \$ 7.14.161 \$ 1.27 \$ 7.364 \$ 7.3655 \$ 7.364 \$ 7.3655 \$ 7.3654 \$ 7.3654 \$ 7.3655 \$ 7.3654 \$ 7.3654 \$ 7.3655 \$ 7.3654 \$ 7.3655 \$ 7.3	1,666.42 2,481.49 5,25.00 11,166.78 4,153.26 6,140.25 1,418.19 5,99.66 6,825.00 3,315.58 8,076.53 2,627.67 1,542.67 1,542.67 1,542.67 2,670.00 10,296.16 2,760.38 7,14.49 4,44.66 5,779.41 27,089.00 9,9473.13 42,348.57 5,856.4,85 2,23,500 7,364.49 9,440.38 5,179.21 2,2,000
714-03.01 714-03.01 714-05.04 714-06.05 714-08.01 714-08.28 714-08.28 714-08.28 714-08.28 714-08.28 714-25 714-26.05 730-01.02 730-01.02 730-03.20 730-03.20 730-03.21 730-05.01 730-05.01 730-05.01 730-05.01 730-05.01 730-12.14 730-13.01 730-13.01 730-13.01 730-15.32 730-23.96 Guardrail 705-04.07 705-04.09 Seeding and Sodding Maintenace of Traffic N/A N/A	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Found for Light Standards (45' MH, 15' ARM) Found for Light Standards. Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 With Backplate) Install Pull Box (Type A) Electrical Service Connection Signal Cable - 7 Conductor Interconnect Cable (Copper-Twisted Pair) Conduit 3" Diameter (Jack and Bore) Conduit 2" Conduit Schedule 80) VEHICLE LOP DETECTOR (SHELF MOLUT) Shielded Detector Cable Saw Stot Cabinet (Eight Phase Base Mounted) Eight Phase Actuated Controller Cantilever Signal Support (1 ARM @ 50') Cantilever Signal Sup	LF EA LF EA LF EA EA EA LF EA LF EA EA EA EA EA LF EA EA EA	4 4	1 250 4 500 3 3 1 1 2 4 4 2 800 200 400 200 400 200 400 200 2	1 250 4 500 3 3 3 1 1 2 10 2 4 4 2 800 400 400 400 200 4 350 200 4 350 200 4 350 200 4 350 200 4 350 200 4 350 200 4 350 200 4 350 200 4 350 350 350 350 350 350 350 350	\$ \$	9,743.29 \$ 6.67 \$ 6.67 \$ 100 \$	1,666.42 2,481.49 5,25.00 11,166.78 4,153.26 6,140.25 1,418.19 5,99.06 6,825.00 3,315.58 8,076.53 2,627.67 1,526.47 4,047.30 1,226.47 4,047.30 1,226.47 4,047.30 1,226.47 4,047.30 2,670.00 10,296.16 2,760.38 7,14.49 444.66 5,779.41 2,7,089.00 9,473.13 42,348.57 5,8,654.85 2,23,500 7,364.49 9,9410.38 5,179.21 22,000
714-01.32 714-03.01 714-05.04 714-06.05 714-08.01 714-08.28 714-08.28 714-08.30 714-25 714-08.28 714-25.05 714-25.05 730-01.02 730-02.17 730-03.20 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-12.14 730-12.16 730-13.01 730-14.02 730-13.01 730-14.02 730-23.96 Guardrail 705-04.07 705-04.09 Seeding and Sodding Maintenace of Traffic N/A 712-04.50	Direct Brl Conduit (2" PVC, Schedule 40) Puil Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards. Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary, Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 With Backplate) Install Puil Box (Type A) Electrical Service Connection Signal Cable - 7 Conductor Literconnect Cable (Copper-Twisted Pair) Conduit 3' Diameter (lack and Bore) Conduit 3' Diameter (Base Mounced) Elept Phase Actuated Controller Eight Phase Actuated Controller Cantilever Signal Support (1 ARM @ 45') Cantilever Signal Support (1 ARM @ 45') Cantilever Signal Support (1 ARM @ 50') Cantilever Signal Support (1 ARM @ 50') Cartilever Signal Support (1 ARM	LF EA LF EA LF EA LF EA EA LF EA	4 4	1 250 4 500 3 3 1 1 2 4 4 2 4 4 2 800 1000 400 200 400 200 400 200 200	1 250 4 300 3 3 1 1 2 10 2 4 4 2 800 1000 400 200 400 200 400 200 200	\$ \$	9,743.29 \$ 6.67 \$ 520.37 \$ 1.05 \$ 3,722.26 \$ 1,384.42 \$ 2,046.75 \$ 472.73 \$ 599.06 \$ 6,825.00 \$ 6,825.00 \$ 1,957.79 \$ 807.65 \$ 1,957.79 \$ 807.65 \$ 1,957.79 \$ 2,67 \$ 1,313.8 \$ 385.67 \$ 481.62 \$ 1,65 \$ 2,67 \$ 2,67 \$ 2,67 \$ 2,67 \$ 2,67 \$ 2,67 \$ 2,67 \$ 1,26 \$ 7,78.62 \$ 1,78.64 \$ 1,78.55 \$ 1,24.80 \$	1,666.42 2,481.49 5,25.00 11,166.78 4,153.26 6,140.25 1,418.19 5,99.06 6,825.00 3,3915.58 8,076.53 2,627.67 1,542.67 1,542.67 1,542.67 1,542.67 2,760.03 1,323.59 2,670.00 10,296.16 2,760.38 7,74.49 4,44.66 5,779.41 2,769.39 9,473.13 42,248.57 5,8,654.85 2,28,500 7,364.49 9,410.38 5,179.21 2,2,000
714-03.01 714-03.01 714-05.04 714-06.05 714-08.01 714-08.28 714-08.28 714-08.28 714-08.28 714-08.28 714-25 714-26.05 730-01.02 730-01.02 730-03.20 730-03.20 730-03.21 730-05.01 730-05.01 730-05.01 730-05.01 730-05.01 730-12.14 730-13.01 730-13.01 730-13.01 730-15.32 730-23.96 Guardrail 705-04.07 705-04.09 Seeding and Sodding Maintenace of Traffic N/A N/A	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Found for Light Standards (45' MH, 15' ARM) Found for Light Standards. Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 With Backplate) Install Pull Box (Type A) Electrical Service Connection Signal Cable - 7 Conductor Interconnect Cable (Copper-Twisted Pair) Conduit 3" Diameter (Jack and Bore) Conduit 2" Conduit Schedule 80) VEHICLE LOP DETECTOR (SHELF MOLUT) Shielded Detector Cable Saw Stot Cabinet (Eight Phase Base Mounted) Eight Phase Actuated Controller Cantilever Signal Support (1 ARM @ 50') Cantilever Signal Sup	LF EA LF EA LF EA LF EA EA LF EA	4 4	1 250 4 500 3 3 3 1 1 2 10 2 4 4 2 800 1000 400 200 4 350 2000 2 2 3 3 3 3 3 4 2 800 1000 400 200 4 350 200 200 4 350 200 200 4 350 200 200 2 2 3 3 3 3 3 4 4 2 2 3 3 3 3 3 4 4 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3	1 250 4 500 3 3 3 1 1 2 10 2 4 4 2 800 200 4 200 4 200 4 350 200 4 350 200 4 350 200 4 350 200 4 350 200 4 350 200 4 350 200 4 350 200 4 350 200 4 350 200 4 350 300 200 4 350 300 200 4 350 300 200 4 350 300 200 4 350 300 200 4 350 200 4 350 200 350 200 4 350 200 350 200 350 200 350 200 350 200 350 200 350 200 350 200 350 300 200 350 300 200 350 300 200 350 300 200 350 300 200 300 200 350 300 350 300 300 200 300 200 300 200 300 200 300 3	\$ \$ \$ \$	9,743.29 \$ 6.67 \$ 6.62 \$ 6.62 \$ 1.005 \$ 3.722 \$ 1.05 \$ 3.7222 \$ 1.384.42 \$ 2.046.75 \$ 4.72.73 \$ 599.06 \$ 6.825.00 \$ 1.457.79 \$ 807.65 \$ 1.451.83 \$ 385.67 \$ 807.65 \$ 1.461 \$ 2.023.65 \$ 1.461 \$ 2.023.65 \$ 1.65 \$ 2.67 \$ 2.574 \$ 2.574 \$ 2.574 \$ 2.574 \$ 1.380 \$ 1.78.62 \$ 1.380 \$ 1.78.62 \$ 1.385 \$ 1.4716.19 \$ 13.544.50 \$ 14,116.19 \$ 19,551.62 \$ 14,116.19 \$ 19,551.62 \$ 14,116.19 \$ 19,551.62 \$ 14,116.19 \$ 19,551.62 \$ 14,116.19 \$ 19,551.62 \$ 14,116.19 \$ 19,551.62 \$ 14,116.19 \$ 19,551.62 \$ 14,116.19 \$ 13,544.80 \$ 73.64 \$ 2.352.59 \$ 14,116.19 \$ 1,294.80 \$ 73.64 \$ 2,352.59 \$ 77AL (ROUNDED) \$ 73.64 \$ 2,352.59 \$ 77AL (ROUNDED) \$ 73.64 \$ 2,352.59 \$ 1,294.80 \$ 73.64 \$ 2,352.59 \$ 1,294.80 \$ 73.64 \$ 2,352.59 \$ 77AL (ROUNDED) \$ 73.64 \$ 2,352.59 \$ 77AL (ROUNDED) \$ 73.64 \$ 1,294.80 \$ 77AL (ROUNDED) \$ 73.64 \$ 1,294.80 \$ 77AL (ROUNDED) \$ 77AL (ROUNDE	1,666.42 2,481.49 5,25.00 11,166.78 4,153.26 6,140.25 1,418.19 5,99.06 8,825.00 3,915.58 8,076.53 2,627.67 1,526.67 1,526.67 1,526.67 2,760.00 10,296.16 2,760.38 714.49 4,047.30 1,223.59 2,670.00 10,296.16 2,760.38 714.49 444.66 5,779.41 27,089.00 9,473.13 42,348.57 58,654.85 2,28,500 7,364.49 9,410.38 5,179.21 2,2,000
714-01.32 714-03.01 714-05.04 714-06.05 714-08.01 714-08.28 714-08.28 714-08.30 714-25 714-08.28 714-25.05 714-25.05 730-01.02 730-02.17 730-03.20 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-12.14 730-12.16 730-13.01 730-14.02 730-13.01 730-14.02 730-23.96 Guardrail 705-04.07 705-04.09 Seeding and Sodding Maintenace of Traffic N/A 712-04.50	Direct Brl Conduit (2" PVC, Schedule 40) Puil Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards. Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary, Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 With Backplate) Install Puil Box (Type A) Electrical Service Connection Signal Cable - 7 Conductor Literconnect Cable (Copper-Twisted Pair) Conduit 3' Diameter (lack and Bore) Conduit 3' Diameter (Base Mounced) Elept Phase Actuated Controller Eight Phase Actuated Controller Cantilever Signal Support (1 ARM @ 45') Cantilever Signal Support (1 ARM @ 45') Cantilever Signal Support (1 ARM @ 50') Cantilever Signal Support (1 ARM @ 50') Cartilever Signal Support (1 ARM	LF EA LF EA LF EA LF EA EA LF EA	4 4	1 250 4 500 3 3 3 1 1 2 10 2 4 4 2 800 1000 400 200 4 350 2000 2 2 3 3 3 3 3 4 2 800 1000 400 200 4 350 200 200 4 350 200 200 4 350 200 200 2 2 3 3 3 3 3 4 4 2 2 3 3 3 3 3 4 4 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3	1 250 4 300 3 3 1 1 2 10 2 4 4 2 800 1000 400 200 400 200 400 200 200	\$ \$ \$ \$	9,743.29 \$ 6.67 \$ 6.62 \$ 6.62 \$ 1.005 \$ 3.722 \$ 1.05 \$ 3.7222 \$ 1.384.42 \$ 2.046.75 \$ 4.72.73 \$ 599.06 \$ 6.825.00 \$ 1.457.79 \$ 807.65 \$ 1.451.83 \$ 385.67 \$ 807.65 \$ 1.461 \$ 2.023.65 \$ 1.461 \$ 2.023.65 \$ 1.65 \$ 2.67 \$ 2.574 \$ 2.574 \$ 2.574 \$ 2.574 \$ 1.380 \$ 1.78.62 \$ 1.380 \$ 1.78.62 \$ 1.385 \$ 1.4716.19 \$ 13.544.50 \$ 14,116.19 \$ 19,551.62 \$ 14,116.19 \$ 19,551.62 \$ 14,116.19 \$ 19,551.62 \$ 14,116.19 \$ 19,551.62 \$ 14,116.19 \$ 19,551.62 \$ 14,116.19 \$ 19,551.62 \$ 14,116.19 \$ 19,551.62 \$ 14,116.19 \$ 13,544.80 \$ 73.64 \$ 2.352.59 \$ 14,116.19 \$ 1,294.80 \$ 73.64 \$ 2,352.59 \$ 77AL (ROUNDED) \$ 73.64 \$ 2,352.59 \$ 77AL (ROUNDED) \$ 73.64 \$ 2,352.59 \$ 1,294.80 \$ 73.64 \$ 2,352.59 \$ 1,294.80 \$ 73.64 \$ 2,352.59 \$ 77AL (ROUNDED) \$ 73.64 \$ 2,352.59 \$ 77AL (ROUNDED) \$ 73.64 \$ 1,294.80 \$ 77AL (ROUNDED) \$ 73.64 \$ 1,294.80 \$ 77AL (ROUNDED) \$ 77AL (ROUNDE	1,666.42 2,481.49 5,25.00 11,166.78 4,153.26 6,140.25 1,418.19 5,99.06 6,825.00 3,3915.58 8,076.53 2,627.67 1,542.67 1,542.67 1,542.67 1,542.67 2,760.03 1,323.59 2,670.00 10,296.16 2,760.38 7,74.49 4,44.66 5,779.41 2,769.39 9,473.13 42,248.57 5,8,654.85 2,28,500 7,364.49 9,410.38 5,179.21 2,2,000
714-01.32 714-03.01 714-05.04 714-05.04 714-06.05 714-08.01 714-08.28 714-08.28 714-08.28 714-08.28 714-08.28 714-08.28 714-25 714-25 730-01.02 730-02.09 730-02.09 730-02.09 730-02.17 730-03.20 730-03.21 730-03.21 730-03.21 730-08.30 730-12.14 730-12.16 730-13.01 730-14.02 730-14.02 730-13.01 730-13.28 730-23.86 730-23.96 Seeding and Sodding Maintenace of Traffic N/A 712-04.50 712-09.01	Direct Brl Conduit (2" PVC, Schedule 40) Puil Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards. Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary, Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 With Backplate) Install Puil Box (Type A) Electrical Service Connection Signal Cable - 7 Conductor Literconnect Cable (Copper-Twisted Pair) Conduit 3' Diameter (lack and Bore) Conduit 3' Diameter (Base Mounced) Elept Phase Actuated Controller Eight Phase Actuated Controller Cantilever Signal Support (1 ARM @ 45') Cantilever Signal Support (1 ARM @ 45') Cantilever Signal Support (1 ARM @ 50') Cantilever Signal Support (1 ARM @ 50') Cartilever Signal Support (1 ARM	LF EA LF EA LF EA LF EA EA LF EA	4 4	1 250 4 500 3 3 3 1 1 2 10 2 4 4 2 800 1000 400 200 4 350 2000 2 2 3 3 3 3 3 4 2 800 1000 400 200 4 350 200 200 4 350 200 200 4 350 200 200 2 2 3 3 3 3 3 4 4 2 2 3 3 3 3 3 4 4 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3	1 250 4 500 3 3 3 1 1 2 10 2 4 4 2 800 200 4 200 4 200 4 350 200 4 350 200 4 350 200 4 350 200 4 350 200 4 350 200 4 350 200 4 350 200 4 350 200 4 350 200 4 350 300 200 4 350 300 200 4 350 300 200 4 350 300 200 4 350 300 200 4 350 200 4 350 200 350 200 4 350 200 350 200 350 200 350 200 350 200 350 200 350 200 350 200 350 300 200 350 300 200 350 300 200 350 300 200 350 300 200 300 200 350 300 350 300 300 200 300 200 300 200 300 200 300 3	\$ \$ \$ \$	9,743.29 \$ 6.67 \$ 6.62 \$ 6.62 \$ 1.005 \$ 3.722 \$ 1.05 \$ 3.7222 \$ 1.384.42 \$ 2.046.75 \$ 4.72.73 \$ 599.06 \$ 6.825.00 \$ 1.457.79 \$ 807.65 \$ 1.451.83 \$ 385.67 \$ 807.65 \$ 1.461 \$ 2.023.65 \$ 1.461 \$ 2.023.65 \$ 1.65 \$ 2.67 \$ 2.574 \$ 2.574 \$ 2.574 \$ 2.574 \$ 1.380 \$ 1.78.62 \$ 1.380 \$ 1.78.62 \$ 1.385 \$ 1.4716.19 \$ 13.544.50 \$ 14,116.19 \$ 19,551.62 \$ 14,116.19 \$ 19,551.62 \$ 14,116.19 \$ 19,551.62 \$ 14,116.19 \$ 19,551.62 \$ 14,116.19 \$ 19,551.62 \$ 14,116.19 \$ 19,551.62 \$ 14,116.19 \$ 19,551.62 \$ 14,116.19 \$ 13,544.80 \$ 73.64 \$ 2.352.59 \$ 14,116.19 \$ 1,294.80 \$ 73.64 \$ 2,352.59 \$ 77AL (ROUNDED) \$ 73.64 \$ 2,352.59 \$ 77AL (ROUNDED) \$ 73.64 \$ 2,352.59 \$ 1,294.80 \$ 73.64 \$ 2,352.59 \$ 1,294.80 \$ 73.64 \$ 2,352.59 \$ 77AL (ROUNDED) \$ 73.64 \$ 2,352.59 \$ 77AL (ROUNDED) \$ 73.64 \$ 1,294.80 \$ 77AL (ROUNDED) \$ 73.64 \$ 1,294.80 \$ 77AL (ROUNDED) \$ 77AL (ROUNDE	1,666.42 2,481.49 5,25.00 11,1,166.78 4,153.26 6,140.25 1,418.19 5,99.06 6,825.00 3,915.58 8,076.53 2,627.67 1,526.67 1,526.67 1,526.67 2,760.00 10,296.16 2,760.03 7,14.49 4,4047.30 1,223.59 2,670.00 10,296.15 2,760.03 7,14.49 444.66 5,779.41 27,090 9,473.13 42,348.57 5,8,654.85 2,28,500 7,364.49 9,410.38 5,179.21 2,2,000
714-01.32 714-03.01 714-05.04 714-06.05 714-08.01 714-08.28 714-08.28 714-08.30 714-25 714-08.28 714-25.05 714-25.05 730-01.02 730-02.17 730-03.20 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-03.21 730-12.14 730-12.16 730-13.01 730-14.02 730-13.01 730-14.02 730-23.96 Guardrail 705-04.07 705-04.09 Seeding and Sodding Maintenace of Traffic N/A 712-04.50	Direct Brl Conduit (2" PVC, Schedule 40) Puil Boxes (Type C) Cable (1/C # 6 AWG) Light Standards (45' MH, 15' ARM) Found for Light Standards. Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary, Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 With Backplate) Install Puil Box (Type A) Electrical Service Connection Signal Cable - 7 Conductor Literconnect Cable (Copper-Twisted Pair) Conduit 3' Diameter (lack and Bore) Conduit 3' Diameter (Base Mounced) Elept Phase Actuated Controller Eight Phase Actuated Controller Cantilever Signal Support (1 ARM @ 45') Cantilever Signal Support (1 ARM @ 45') Cantilever Signal Support (1 ARM @ 50') Cantilever Signal Support (1 ARM @ 50') Cartilever Signal Support (1 ARM	LF EA LF EA LF EA LF EA LF EA LF EA EA	4 4	1 250 4 500 3 3 3 1 1 2 10 2 4 4 2 800 1000 400 200 4 350 2000 2 2 3 3 3 3 3 4 2 800 1000 400 200 4 350 200 200 4 350 200 200 4 350 200 200 2 2 3 3 3 3 3 4 4 2 2 3 3 3 3 3 4 4 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3	1 250 4 500 3 3 3 1 1 2 10 2 4 4 2 800 200 4 200 4 200 4 350 200 4 350 200 4 350 200 4 350 200 4 350 200 4 350 200 4 350 200 4 350 200 4 350 200 4 350 200 4 350 300 200 4 350 300 200 4 350 300 200 4 350 300 200 4 350 300 200 4 350 200 4 350 200 350 200 4 350 200 350 200 350 200 350 200 350 200 350 200 350 200 350 200 350 300 200 350 300 200 350 300 200 350 300 200 350 300 200 300 200 350 300 350 300 300 200 300 200 300 200 300 200 300 3	\$ \$ \$ \$	9,743.29 \$ 6.67 \$ 6.62 \$ 6.62 \$ 1.005 \$ 3.722 \$ 1.05 \$ 3.7222 \$ 1.384.42 \$ 2.046.75 \$ 4.72.73 \$ 599.06 \$ 6.825.00 \$ 1.457.79 \$ 807.65 \$ 1.451.83 \$ 385.67 \$ 807.65 \$ 1.461 \$ 2.023.65 \$ 1.461 \$ 2.023.65 \$ 1.65 \$ 2.67 \$ 2.574 \$ 2.574 \$ 2.574 \$ 2.574 \$ 1.380 \$ 1.78.62 \$ 1.380 \$ 1.78.62 \$ 1.385 \$ 1.4716.19 \$ 13.544.50 \$ 14,116.19 \$ 19,551.62 \$ 14,116.19 \$ 19,551.62 \$ 14,116.19 \$ 19,551.62 \$ 14,116.19 \$ 19,551.62 \$ 14,116.19 \$ 19,551.62 \$ 14,116.19 \$ 19,551.62 \$ 14,116.19 \$ 19,551.62 \$ 14,116.19 \$ 13,544.80 \$ 73.64 \$ 2.352.59 \$ 14,116.19 \$ 1,294.80 \$ 73.64 \$ 2,352.59 \$ 77AL (ROUNDED) \$ 73.64 \$ 2,352.59 \$ 77AL (ROUNDED) \$ 73.64 \$ 2,352.59 \$ 1,294.80 \$ 73.64 \$ 2,352.59 \$ 1,294.80 \$ 73.64 \$ 2,352.59 \$ 77AL (ROUNDED) \$ 73.64 \$ 2,352.59 \$ 77AL (ROUNDED) \$ 73.64 \$ 1,294.80 \$ 77AL (ROUNDED) \$ 73.64 \$ 1,294.80 \$ 77AL (ROUNDED) \$ 77AL (ROUNDE	1,666.42 2,481.49 5,25.00 11,1,166.78 4,153.26 6,140.25 1,418.19 5,99.06 6,825.00 3,915.58 8,076.53 2,627.67 1,526.67 1,526.67 1,526.67 2,760.00 10,296.16 2,760.03 7,14.49 4,4047.30 1,223.59 2,670.00 10,296.15 2,760.03 7,14.49 444.66 5,779.41 27,090 9,473.13 42,348.57 5,8,654.85 2,28,500 7,364.49 9,410.38 5,179.21 2,2,000
714-03.01 714-03.01 714-05.04 714-06.05 714-08.01 714-08.28 714-08.28 714-08.28 714-08.28 714-08.28 714-25 714-25.05 730-01.02 730-02.09 730-02.07 730-03.20 730-03.21 730-05.01 730-05.01 730-05.01 730-05.01 730-05.01 730-12.14 730-13.01 730-13.01 730-13.01 730-13.01 730-13.24 730-13.25 730-13.20 730-23.88 730-23.96 Guardrail 705-04.07 705-04.09 0 712-02.02 712-04.02 712-04.03 712-04.01 712-04.02 712-04.03 712-04.01 712-04.02 712-04.03 712-04.00	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C) Cable (1/C # 6 AWG) Found for Light Standards (45' MH, 15' ARM) Found for Light Standards. Roadway Remove and Relocate Light Standard Luminaires (250 WATT) Electrical Connection Temporary Roadway Lighting Removal of Signal Equipment Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 With Backplate) Install Pull Box (Type A) Install Pull Box (Type A) Electrical Service Connection Signal Cable - 7 Conductor Interconnect Cable (Copper-Twisted Par) Conduit 3" Diameter (Jack and Bore) Conduit 3" Diameter (Jack and Bore) Conduit 5" Diameter (Jack And Bore) Conduit Schedule 80) VEHICLE LOP DETECTOR (SHEIF MOLIT) Shielded Detector Cable Saw Slot Cabinet (Eight Phase Base Mounted) Eight Phase Actuated Controller Cantilever Signal Support (1 ARM @ 50') Cantilever Signal Support (LF EA LF EA LF EA LF EA LF EA LF EA EA	4 4 1 0	1 250 4 500 3 3 3 1 1 2 10 2 4 4 2 800 1000 400 200 4 350 2000 2 2 3 3 3 3 3 4 2 800 1000 400 200 4 350 200 200 4 350 200 200 4 350 200 200 2 2 3 3 3 3 3 4 4 2 2 3 3 3 3 3 4 4 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3	1 250 4 3 3 3 1 1 2 10 2 4 4 2 800 200 400 200 400 200 400 200 2	\$ \$ \$ \$	9,743.29 \$ 6.67 \$ 5 620.37 \$ 1.05 \$ 3,772.26 \$ 1,1384.42 \$ 2,046.75 \$ 472.73 \$ 599.06 \$ 472.73 \$ 599.06 \$ 1,957.79 \$ 807.65 \$ 1,957.79 \$ 807.65 \$ 1,313.83 \$ 385.67 \$ 385.67 \$ 1,65 \$ 2,023.65 \$ 1,65 \$ 2,202.65 \$ 1,65 \$ 2,202.65 \$ 1,65 \$ 1,26 \$ 1,27 \$ 2,38 \$ 13,544.50 \$ 178.62 \$ 13,544.50 \$ 14,116.19 \$ 19,551.62 \$ 14,116.19 \$ 19,551.62 \$ 14,116.19 \$ 19,551.62 \$ 14,116.19 \$ 173.64 \$ 2,352.59 \$ 73.64 \$ 2,352.59 \$ 73.64 \$ 2,352.59 \$ 73.64 \$ 2,352.59 \$ 73.64 \$ 2,352.59 \$ 73.64 \$ 2,352.59 \$ 73.64 \$ 2,352.59 \$ 73.179 \$ 11.17 \$ \$ 2,09 \$ 73.64 \$ 2,20 \$ 2,31.79 \$ 11.17 \$ 2,09 \$ 73.64 \$ 2,20 \$ 73.64 \$ 2,00 \$ 74.1000000000000000000000000000000000000	1,666.42 2,481.49 5,25.00 11,166.78 4,153.26 6,140.25 1,418.19 5,99.66 6,825.00 3,315.58 8,076.53 2,627.67 1,542.67 1,542.67 1,542.67 1,542.67 1,542.67 2,670.00 10,296.16 2,760.38 7,14.49 444.66 5,779.41 2,760.38 7,14.49 444.65 5,779.41 2,769.30 9,473.13 4,248.57 5,8,654.85 2,23,500 7,364.49 9,941.38 5,179.21 2,2,000

PAY ITEM SUMMARY (ABC 3 - SPMT)

Pavement Markings									
716-09.31	STOP LINE	LF		200	200	\$	16.65	\$	3,330.00
716-13.06	Spray Thermo P.M. (40 mil 4")	LM	0.0	2	2.0	\$	2,878.11	\$	5,756.23
716-13.07	Spray Thermo P.M. (40 mil 6")	LM		2	2	\$	1,237.50	\$	2,475.00
					PAVEMENT MA	RKINGS TC	DTAL (ROUNDED)	\$	11,600
Fencing									
					F	ENCE TOT	AL (ROUNDED)	\$	-
Rip-Rap									
				RIP	-RAP & SLOPE PROT	ECTION TO	DTAL (ROUNDED	\$	-
Clearing and Grubing									
					CLEAK AND GR	JEEING IC	DTAL (ROUNDED)	ş	
					CLEAK AND GR	JEBING TC	JTAL (KOONDED)	Ş	
Railroad At-Grade Crossing									
Railroad At-Grade Crossing				RAILROAD	CROSSING OR SEPA				
÷				RAILROAD					
Utilties				RAILROAD	CROSSING OR SEPA	RATION TO	DTAL (ROUNDED	\$	
Utilties N/A	Overhead Distribution	LM	0.25	RAILROAD	CROSSING OR SEPA	RATION TO	0TAL (ROUNDED 375,000	\$	
Utilties N/A N/A	Overhead Transmission	LM	0.25	RAILROAD	CROSSING OR SEPA 0.25 0.25	RATION TO \$ \$	0TAL (ROUNDED 375,000 750,000	\$ \$ \$	187,50
Utilties N/A N/A N/A	Overhead Transmission Underground Power	LM	0.25 0.25	RAILROAD	0.25 0.25 0.25 0.25	S S S	375,000 750,000 500,000	\$ \$ \$ \$	187,50 125,00
Utilities N/A N/A N/A N/A N/A N/A	Overhead Transmission Underground Power Underground Communication	LM LM LM	0.25 0.25 0.25	RAILROAD	0.25 0.25 0.25 0.25 0.25	S S S S S	375,000 750,000 500,000 500,000	\$ \$ \$ \$ \$	187,50 125,00 125,00
Utilies N/A N/A N/A N/A N/A	Overhead Transmission Underground Power Underground Communication Underground Gas	LM LM LM	0.25 0.25 0.25 0.25	RAILROAD	0.25 0.25 0.25 0.25 0.25 0.25	RATION TO \$ \$ \$ \$ \$ \$ \$ \$	375,000 750,000 500,000 500,000 250,000	\$ \$ \$ \$ \$ \$	187,50 125,00 125,00 62,50
Utilities N/A N/A N/A N/A N/A N/A	Overhead Transmission Underground Power Underground Communication Underground Gas Underground Water	LM LM LM LM	0.25 0.25 0.25 0.25 0.25 0.25	RAILROAD	0.25 0.25 0.25 0.25 0.25 0.25 0.25	RATION TO \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	375,000 750,000 500,000 500,000 250,000 237,600	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$	187,500 125,000 125,000 62,500 59,400
Utilies N/A N/A N/A N/A N/A	Overhead Transmission Underground Power Underground Communication Underground Gas	LM LM LM	0.25 0.25 0.25 0.25	RAILROAD	0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25	S S S S S S S S S S	375,000 750,000 500,000 500,000 250,000 237,600 310,200	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$	187,500 125,000 125,000 62,500 59,400 77,550
Utilities N/A N/A N/A N/A N/A N/A	Overhead Transmission Underground Power Underground Communication Underground Gas Underground Water	LM LM LM LM	0.25 0.25 0.25 0.25 0.25 0.25	RAILROAD	0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25	S S S S S S S S S S	375,000 750,000 500,000 500,000 250,000 237,600	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$	187,500 125,000 125,000 62,500 59,400 77,550
Utilities N/A N/A N/A N/A N/A N/A N/A N/A N/A	Overhead Transmission Underground Power Underground Communication Underground Gas Underground Water	LM LM LM LM	0.25 0.25 0.25 0.25 0.25 0.25	RAILROAD	0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25	S S S S S S S S S S	375,000 750,000 500,000 500,000 250,000 237,600 310,200	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$	187,500 125,000 125,000 62,500 59,400 77,550
Utilities N/A N/A N/A N/A N/A N/A	Overhead Transmission Underground Power Underground Communication Underground Gas Underground Water	LM LM LM LM LM	0.25 0.25 0.25 0.25 0.25 0.25	RAILROAD	0.25 0.25 0.25 0.25 0.25 0.25 0.25 0.25	S S S S S S S S S S	375,000 750,000 500,000 500,000 250,000 237,600 310,200	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$	93,755 187,500 125,000 125,000 59,400 77,555 730,700.00

ATTACHMENT 1-C

Projected Traffic

PIN 124069.00

Bridge ID: 33100240055



TENNESSEE DEPARTMENT OF TRANSPORTATION STRATEGIC TRANSPORTATION INVESTMENTS DIVISION

PROJECT NO.:	BR-I-24-3(97): 33003-0166-44	ROUTE:	I-24 & BELVOIR AVE. BRIDGES
COUNTY:	HAMILTON	CITY:	CHATTANOOGA
PROJECT PIN NU	JMBER: 124069.00		
PROJECT DESCR	RIPTION: [1] I-24 BRIDGE OVER GER	MANTOW	NRD @ L.M. <u>1</u> 2.08 TRAFFIC DATA

[2] BELVOIR AVE. BRIDGE OVER I-24 @ L.M. 1.01 TRAFFIC DATA.

DAVEMENT DESIGN

DIVISION REQUESTING:

		FAVEIVIE		
MAINTENANCE		STRUCT	URES	
S.T.I.D.		SURVEY	& ROADWAY DESIGN	
PROG. DEVELOPMENT & ADM.		TRAFFIC	C SIGNAL DESIGN	
PUBLIC TRANS. & AERO.		OTHER	CONSULTANT	\boxtimes
YEAR PROJECT PROGRAMMED FOR	R CONSTRUCTION	N:		
PROJECTED LETTING DATE:				

TRAFFIC ASSIGNMENT:

									SIGN DWAY	DES AVEI		
	BASE Y	EAR		DESIGN YEAR						DAILY LOADS		
	AADT	YEAR	AADT	DHV	%	YEAR	DIR.DIST.	DHV	AADT	FLEX	RIGID	
[1]	114,670	2022	142,650	12,830	9	2042	65-35	15	23	8,840	13,414	
[2]	9,300	2022	10,230	1,125	11	2042	70-30	2	3	88	112	
	REQUEST	ED BY:	NAME DIVISION ADDRESS	DIVISIONBARGE DESIGN SOLUTIONSADDRESS615 3rd AVE. S. SUITE 700								
	REVIEWE		TRANSPOR	ONY ARMSTRONG Tony American DATE 2.15.18 RANSPORTATION MANAGER 1 UITE 1000, JAMES K. POLK BUILDING								
	APPROVE		JIM WATE	rs Far	St	na	L_		DAT	E 2.15-	18	

COMMENTS:

THIS TRAFFIC WAS TAKEN FROM TWO PREVIOUS PROJECTS PREPARED FOR S.T.I.D. DATED 11/28/2017 AND 1/3/2018 WITH THE ADDITION OF ADL'S FOR PAVEMENT DESIGN.

DHV'S ARE NOT REQUIRED FOR SIDE ROADS LESS THAN 1000 AADT. NOTE: FOR BRIDGE REPLACEMENT PROJECTS, ADLS ARE NOT REQUIRED FOR ADTS OF 1000 OR LESS AND PERCENTAGE OF TRUCKS OF 7% OR LESS. SEE ATTACHMENTS FOR TURNING MOVEMENTS AND/OR OTHER DETAILS.

ASSISTANT DIRECTOR

SUITE 1000, JAMES K. POLK BUILDING

TENNESSEE DEPARTMENT OF TRANSPORTATION STRATEGIC TRANSPORTATION INVESTMENTS DIVISION

 PROJECT NO.: BR-I-24-3(97) : 33003-0166-44
 ROUTE NO.: I-24 [1]

 COUNTY: HAMILTON
 CITY: CHATTANOOGA

 PROJECT DESCRIPTION: BRIDGE OVER GERMANTOWN ROAD @ L.M. 12.08.

Interstate

Pavement Structural Design

Calculation of Equivalent Daily 18 Kip Single Axle Loads

		ADT		Flexible		Rigid	
Ту	pe Vehicle	(No. Counted)		18-kip Factor	ADL	18-kip Factor	ADL.
Pass. c	ars and						
motorc	ycles (1-2)	59,183		0.001	59	0.001	59
Pick-up	o, Panel,						
Van	(3)	39,885		0.004	160	0.005	199
	Buses (4)	579		0.300	174	0.300	174
Sing.	2-axle,						
	6-tire (5)	3,409		0.170	580	0.170	580
Unit	3-axle or		7				
	more (6-7)	1,351		0.700	946	1.000	1,351
	4-axle (8)	820		0.700	574	0.780	640
Comb.	5-axle or						
	more (9-13)	23,433		1.100	25,776	1.780	41,711
	Totals						
(20	2 AADT)	128,660			28,268		44,713

Suggested Percentage	es of Trucks in D	esign Lane						
	4 Lane	6 Lane		8 Lane				
5,000 or less ADT	90%	75%		70%				
5,000 - 10,000 ADT	80%	70%		65%				
10,000 - 15,000 ADT	75%	65%		60%		1.2		
15,000 - 20,000 ADT	75%	65%		55%				
20,000 - 30,000 ADT	70%	60%		50%				
30,000 Plus ADT	65%	60%		50%				
	No. of Lanes:			6				
	% Trucks in Des	ign Lane:		60%				
	ADL in Design La	ane:						
	FLEX:	0.5	X	0.60	Х	28268.0	=	8,480
	RIGID:	0.5	X	0.60	Х	44713.2	=	13,414
ADL Calculations By:	RANDY BOGUS	ĶIE				Date		2/14/2018
Reviewed By:	my Aunth	3		1 au ²		Date	2	(5.(8
	6							

ATTACHMENT 1-D

Bridge TIR Tables

PIN 124069.00

Bridge ID: 33100240055



LOCATION								
Bridge #:	33100240055	Feature Crossed:	S. Germantown Road (FAU3577)					
Road Name:	I-24	Log mile:	12.08					
Route ID:	10024	System:	NHS Route					
City:	Chattanooga	Functional Class:	Urban Interstate					
County:	Hamilton	State Project Number	BR-I-24-3(97)					
PIN:	124069.00							

ROADWAY				
	Existing	Proposed (Preliminary Design Estimate)		
Design Standard		RD01-TS-5B		
Route Characteristics				
AADT:	114,670	142,650		
AADT Year:	2022	2042		
Terrain:	Rolling	Rolling		
No. Lanes:	6 total (3 in each direction)	6 total (3 in each direction)		
Speed(Posted):	55	55		
Speed (Design):		55		
Approach Character.				
Lane Width (ft):	12	12		
Shoulder Width (ft):	3 (outside) 8 (inside)	12 (outside) 8 (inside)		
ROW Width (ft):	300	300		
ROW Tracts Affected		0		
ROW Required (acre)		n/a		
Cross Section Width (ft):	94	112		
Approach Length (ft):		24 - Each Approach		
Alignment:	1° Curve, Vertical Curve	1° Curve, Vertical Curve		
Grade:		Vertical Curve		
Surface Material:	Asphalt	Asphalt		
Sidewalks (R/L):	No	No		
App. Lower Than Structure	No	No		
	OH: Distribution & Transmission;	OH: Distribution & Transmission;		
Utilities (list)	UG: Communication, Electric, Gas, & Water;	UG: Communication, Gas, & Water;		
		OH: Distribution & Transmission;		
Utilities to be Relocated		UG: Communication & Water;		
Comments				

STRUCTURE (BASELINE: TRADITIONAL CONSTRUCTION)				
	Existing	Proposed (Preliminary Design Estimate)		
Bridge Characteristics				
Year Built	1965			
Load Limit	20 tons			
Sufficiency Rating	30.9			
Skew	79°	79°		
Structure Type	Span Concrete Bridge	Span Concrete Bridge		
Structures in Channel	n/a	n/a		
Length (ft)	166	166		
No. Spans (App./Main)	0 4	0 4		
Width (curb to curb) (ft)	94.1	121.58		
Width (o to o) (ft)	100.33	124.08		
Sidewalks on Structure	No	No		
Vert. Clearance (ft)	14.44	TBD		
Superstructure Depth (in)	51.5	28		
Girder Depth (in)	38	18		
Finish Grade-Low Girder (in)	51.5	28		
High Water Marks	n/a			
Bridge Rail Type	STD-1-1	STD-1-1		
Bridge Rail Height (ft)	2.67	3		
Indication Overtopping	n/a			
Local Scour	No			
Obstructions	n/a			
Other Structures		stream running in pipe under Interstate 24; not anticipated to be impacted by this project.		
Comments		Construction Manager/General Contractor (CM/GC) Project		

STRUCTURE (ALTERNATE #1: ABC PRE-CAST BOX BEAMS)				
	Existing	Proposed (Preliminary Design Estimate)		
Bridge Characteristics				
Year Built	1965			
Load Limit	20 tons			
Sufficiency Rating	30.9			
Skew	79°	79°		
Structure Type	Span Concrete Bridge	Span Concrete Bridge		
Structures in Channel	n/a	n/a		
Length (ft)	166	166		
No. Spans (App./Main)	0 4	0 4		
Width (curb to curb) (ft)	94.1	110.75		
Width (o to o) (ft)	100.33	113.25		
Sidewalks on Structure	No	No		
Vert. Clearance (ft)	14.44	TBD		
Superstructure Depth (in)	51.5	28		
Girder Depth (in)	38	18		
Finish Grade-Low Girder (in)	51.5	28		
High Water Marks	n/a			
Bridge Rail Type	STD-1-1	STD-1-1		
Bridge Rail Height (ft)	2.67	3		
Indication Overtopping	n/a			
Local Scour	No			
Obstructions	n/a			
Other Structures		stream running in pipe under Interstate 24; not anticipated to be impacted by this project.		
Comments		Construction Manager/General Contractor (CM/GC) Project		

STRUCTURE (ALTERNATE #2: LATERAL SLIDE CONSTRUCTION)				
	Existing	Proposed (Preliminary Design Estimate)		
Bridge Characteristics				
Year Built	1965			
Load Limit	20 tons			
Sufficiency Rating	30.9			
Skew	79°	79°		
Structure Type	Span Concrete Bridge	Span Steel (WPG) Bridge		
Structures in Channel	n/a	n/a		
Length (ft)	166	166		
No. Spans (App./Main)	0 4	0 2		
Width (curb to curb) (ft)	94.1	112		
Width (o to o) (ft)	100.33	113.25		
Sidewalks on Structure	No	No		
Vert. Clearance (ft)	14.44	TBD		
Superstructure Depth (in)	51.5	46		
Girder Depth (in)	38	36		
Finish Grade-Low Girder (in)	51.5	46		
High Water Marks	n/a			
Bridge Rail Type	STD-1-1	STD-1-1		
Bridge Rail Height (ft)	2.67	3		
Indication Overtopping	n/a			
Local Scour	No			
Obstructions	n/a			
Other Structures		stream running in pipe under Interstate 24; not anticipated to be impacted by this project.		
Comments		Construction Manager/General Contractor (CM/GC) Project		

STRUCTURE (ALTERNATE #3: SPMT CONSTRUCTION)				
	Existing	Proposed (Preliminary Design Estimate)		
Bridge Characteristics				
Year Built	1965			
Load Limit	20 tons			
Sufficiency Rating	30.9			
Skew	79°	79°		
Structure Type	Span Concrete Bridge	Span Steel (WPG) Bridge		
Structures in Channel	n/a	n/a		
Length (ft)	166	166		
No. Spans (App./Main)	0 4	0 2		
Width (curb to curb) (ft)	94.1	112		
Width (o to o) (ft)	100.33	113.25		
Sidewalks on Structure	No	No		
Vert. Clearance (ft)	14.44	TBD		
Superstructure Depth (in)	51.5	46		
Girder Depth (in)	38	36		
Finish Grade-Low Girder (in)	51.5	46		
High Water Marks	n/a			
Bridge Rail Type	STD-1-1	STD-1-1		
Bridge Rail Height (ft)	2.67	3		
Indication Overtopping	n/a			
Local Scour	No			
Obstructions	n/a			
Other Structures		stream running in pipe under Interstate 24; not anticipated to be impacted by this project.		
Comments		Construction Manager/General Contractor (CM/GC) Project		

FLOW RATES (from USGS StreamStats Program Version 3)Drainage Area (sq. miles)0.3810 Year Discharge Rate (Q10) cfs15450 Year Discharge Rate (Q50) cfs240100 Year Discharge Rate (Q100) cfs284

CHANNEL

Depth (ft)	n/a
Width of Normal Flow (ft)	n/a
Depth of Normal Flow (ft)	n/a
Skew of Channel with Roadway	n/a
Type of Material in Stream Bed	n/a
Type of Vegetation on Banks	n/a
Are Channel Banks Stable	n/a
Signs of Stream Aggradation	n/a
Signs of Stream Degradation	n/a
Drift or Drift Potential	n/a
Comments	

FLOODPLAIN

Skew Same as Channel	n/a
Symmetrical About Channel	n/a
Approx. Floor Elevations	n/a
Type of Vegetation in Floodplain	n/a
Any Buildings in Floodplain	n/a
Flood Information From Locals	n/a
Comments	According to the FEMA Map, there is not a floodplain in the area of the site.

MAINTENANCE OF TRAFFIC

Method of Maintaining Traffic	temporary detour
Description	<u>Temporary detour/On site detour/Shift centerline</u> : there are currently 4 various options for construction phasing. Two (2) options include types of road closures, and two (2) other options include shifting traffic in different stages. The official traffic control will be decided once a CM (construction manager) is on board.
Comments	Construction Manager/General Contractor (CM/GC) Project

SITE VISIT ATTENDEES DATE: 4/5/2018				
Name	Organization	Phone	Email	
Mike Gilbert	TDOT STID	615.741.0772	michael.gilbert@tn.gov	
Jeremy Sims	TDOT Region 2	423.510.1227	jeremy.sims@tn.gov	
Alan Wolfe	TDOT Region 2 Traffic	423.510.1139	<u>alan.wolfe@tn.gov</u>	
Zach Johnson	TDOT Region 2 Traffic	423.510.6914	zach.johnson@tn.gov	
Robert Rodgers	TDOT Region 2 Design	423.510.1138	<u>robert.rodger@tn.gov</u>	
Michael Cloud	TDOT Region 2	615.532.1676	michael.cloud@tn.gov	
Garris Bugg	TDOT Region 2		garris.bugg@tn.gov	
Wade Goss	TDOT Region 2		wade.goss@tn.gov	
Ben Taylor	City of Chattanooga	423.643.5557	<u>bgtaylor@chattanooga.gov</u>	
Wes Hughen	TDOT Region 2	423.510.1133	wesley.hughen@tn.gov	
Adam Casteel	TDOT R2 Operations	423.208.6113	adam.casteel@tn.gov	
Jamie Fitzpatrick	TDOT HQ Construction	615.741.0781	jamie.fitzpatrick@tn.gov	
Robert LeFevre	TDOT Structures	615.741.0798	robert.lefevre@tn.gov	
Nitaya Chayangkura	TDOT HQ Construction	615.532.8848	<u>nitaya.chayangkura@tn.gov</u>	
Joe Deering	TDOT Region 2	423.892.3430	joe.deering@tn.gov	
Gary Chapman	TDOT Region 2 Survey	423.510.1144	gary.chapman@tn.gov	
Ken Flynn	TDOT R2 Operations	423.510.1217	<u>ken.flynn@tn.gov</u>	
Scott Medlin	TDOT R2 Environmental	423.570.1118	scott.medlin@tn.gov	
Doug Ford	TDOT Region 2 Survey	423.298.3279	douglas.ford@tn.gov	
Jonathan Haycraft	Barge Design	615.252.4242	jonathan.haycraft@bargedesign.com	
Kevin McAlister	Barge Design	615.252.4294	kevin.mcalister@bargedesign.com	
Lauren Gaines	Barge Design	615.252.4243	lauren.gaines@bargedesign.com	
Patrick Leap	Barge Design	615.252.4260	patrick.leap@bargedesign.com	

ATTACHMENT 1-E

Stream Stats

PIN 124069.00

Bridge ID: 33100240055



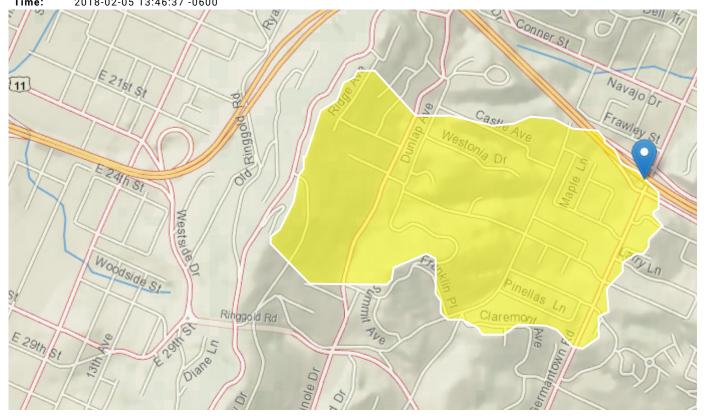
StreamStats Report

 Region ID:
 TN

 Workspace ID:
 TN20180205194623319000

 Clicked Point (Latitude, Longitude):
 35.01425, -85.25202

 Time:
 2018-02-05 13:46:37 -0600



Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
CONTDA	Area that contributes flow to a point on a stream	0.38	square miles
CSL10_85	Change in elevation divided by length between points 10 and 85 percent of distance along main channel to basin divide - main channel method not known	209.22	feet per mi
CLIMFAC2YR	Two-year climate factor from Lichy and Karlinger (1990)	2.351	dimensionless
DRNAREA	Area that drains to a point on a stream	0.38	square miles
RECESS	Number of days required for streamflow to recede one order of magnitude when hydrograph is plotted on logarithmic scale	112	days per log cycle
SOILPERM	Average Soil Permeability	1.97	inches per hour
PERMGTE2IN	Percent of area underlain by soils with permeability greater than or equal to 2 inches per hour	100.005	percent

Peak-Flow Statistics Parameters [MultiVariable Area 1]					
Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
CONTDA	Contributing Drainage Area	0.38	square miles	0.2	9000
CSL10_85	Stream Slope 10 and 85 Method	209.22	feet per mi	3.29	950
CLIMFAC2YR	Tennessee Climate Factor 2 Year	2.351	dimensionless	2.06	2.32

Peak-Flow Statistics Disclaimers [MultiVariable Area 1]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

Peak-Flow Statistics Flow Report [MultiVariable Area 1]

Statistic	Value	Unit
2 Year Peak Flood	72.6	ft^3/s
5 Year Peak Flood	119	ft^3/s
10 Year Peak Flood	154	ft^3/s
25 Year Peak Flood	203	ft^3/s
50 Year Peak Flood	240	ft^3/s
100 Year Peak Flood	284	ft^3/s
500 Year Peak Flood	388	ft^3/s

Peak-Flow Statistics Citations

Law, G.S., and Tasker G.D.,2003, Flood-Frequency Prediction Methods for Unregulated Streams of Tennessee, 2000: U.S. Geological Survey Water-Resources Investigations Report 03-4176, 79p. (http://pubs.usgs.gov/wri/wri034176/)

Low-Flow Statistics Parameters [Low Flow Central and East Reg	gions 2009 5159]
---	------------------

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.38	square miles	1.3	14441
RECESS	Recession Index	112	days per log cycle	32	175
CLIMFAC2YR	Tennessee Climate Factor 2 Year	2.351	dimensionless	2.056	2.46
SOILPERM	Average Soil Permeability	1.97	inches per hour	0.45	9.72
PERMGTE2IN	Percent permeability gte 2 in per hr	100.005	percent	2	100

Low-Flow Statistics Disclaimers [Low Flow Central and East Regions 2009 5159]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

Low-Flow Statistics Flow Report [Low Flow Central and East Regions 2009 5159]

StreamStats

Statistic	Value	Unit
7 Day 10 Year Low Flow	0.0555	ft^3/s
30 Day 5 Year Low Flow	0.0746	ft^3/s

Low-Flow Statistics Citations

Law, G.S., Tasker, G.D., and Ladd, D.E.,2009, Streamflow-characteristic estimation methods for unregulated streams of Tennessee: U.S. Geological Survey Scientific Investigations Report 2009–5159, 212 p., 1 pl. (http://pubs.usgs.gov/sir/2009/5159/)

Annual Flow Statistics Parameters [Low Flow Central and East Regions 2009 5159]					
Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.38	square miles	1.3	14441
CLIMFAC2YR	Tennessee Climate Factor 2 Year	2.351	dimensionless	2.056	2.46
SOILPERM	Average Soil Permeability	1.97	inches per hour	0.45	9.72

Annual Flow Statistics Disclaimers [Low Flow Central and East Regions 2009 5159]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

Annual Flow Statistics Flow Report [Low Flow Central and East Regions 2009 5159]

Statistic	Value	Unit
Mean Annual Flow	0.62	ft^3/s

Annual Flow Statistics Citations

Law, G.S., Tasker, G.D., and Ladd, D.E.,2009, Streamflow-characteristic estimation methods for unregulated streams of Tennessee: U.S. Geological Survey Scientific Investigations Report 2009–5159, 212 p., 1 pl. (http://pubs.usgs.gov/sir/2009/5159/)

Seasonal Flow Statistics Parameters [Low Flow Central and East Regions 2009 5159]					
Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.38	square miles	1.3	14441
RECESS	Recession Index	112	days per log cycle	32	175
CLIMFAC2YR	Tennessee Climate Factor 2 Year	2.351	dimensionless	2.056	2.46
SOILPERM	Average Soil Permeability	1.97	inches per hour	0.45	9.72

Seasonal Flow Statistics Disclaimers [Low Flow Central and East Regions 2009 5159]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with	
unknown errors	

Seasonal Flow Statistics Flow Report [Low Flow Central and East Regions 2009 5159]

Statistic	Value	Unit
Summer Mean Flow	0.241	ft^3/s

Seasonal Flow Statistics Citations

Law, G.S., Tasker, G.D., and Ladd, D.E.,2009, Streamflow-characteristic estimation methods for unregulated streams of Tennessee: U.S. Geological Survey Scientific Investigations Report 2009–5159, 212 p., 1 pl. (http://pubs.usgs.gov/sir/2009/5159/)

Flow-Duration Statistics Parameters [Low Flow Central and East Regions 2009 5159]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.38	square miles	1.3	14441
RECESS	Recession Index	112	days per log cycle	32	175
CLIMFAC2YR	Tennessee Climate Factor 2 Year	2.351	dimensionless	2.056	2.46
SOILPERM	Average Soil Permeability	1.97	inches per hour	0.45	9.72
PERMGTE2IN	Percent permeability gte 2 in per hr	100.005	percent	2	100

Flow-Duration Statistics Disclaimers [Low Flow Central and East Regions 2009 5159]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

Flow-Duration Statistics Flow Report [Low Flow Central and East Regions 2009 5159]

Statistic	Value	Unit
99.5 Percent Duration	0.0533	ft^3/s
99 Percent Duration	0.0571	ft^3/s
98 Percent Duration	0.0648	ft^3/s
95 Percent Duration	0.0745	ft^3/s
90 Percent Duration	0.0876	ft^3/s
80 Percent Duration	0.104	ft^3/s
70 Percent Duration	0.133	ft^3/s
60 Percent Duration	0.174	ft^3/s
50 Percent Duration	0.242	ft^3/s
40 Percent Duration	0.35	ft^3/s
30 Percent Duration	0.509	ft^3/s

StreamStats

Statistic	Value	Unit
20 Percent Duration	0.756	ft^3/s
10 Percent Duration	1.23	ft^3/s

Flow-Duration Statistics Citations

Law, G.S., Tasker, G.D., and Ladd, D.E.,2009, Streamflow-characteristic estimation methods for unregulated streams of Tennessee: U.S. Geological Survey Scientific Investigations Report 2009–5159, 212 p., 1 pl. (http://pubs.usgs.gov/sir/2009/5159/)

ATTACHMENT 1-F

FEMA Map

PIN 124069.00

Bridge ID: 33100240055



NOTES TO USERS

This map is for use in administaring the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The community map repository should be consulted for possible updated or additional flood hazard information.

Contenting of product space of an advance in non-indice in contrastic to classis more space below the space of the spac

Casalar serie Hood eleveritiens drove on ms rap pays only landwork of 0.0° North Amesian Versial Journ of 1988 (MVV) 881. Uses of this FIRM evaluate a sware that casatal flood alconations, and subjects the summery of Solution Elevations. Make in the Einer Maximum Staty report took endote Elevations table in the Single Journeys. Staty report took endote build be used for construction endors floodplan areagoment purpress when they are higher than the elevations shows flood be FAR.

Rearderice of the **Readways** were computed at arous sections and interpoleted between cross sections. The final arous the based an hydrautic considerations with regard to realizations of the National Find Interance Program. Readway widths and other pertinent loodway data are provided in the Flood Insurance Stody report for this jumaticus.

Certain areas not in Special Flood Hazerd Areas may be protected by flood control structures. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insulance Study resort for internation on flood control structures for the junce(control structures).

The properties used in the presentation of this map was before a Transverse sector of the spheroid Tallamonas in dating spheroid projection of TITS space used in the production of FIRMs for address lunidations may result in salishin bacificial officences in map features across jurisdiction boundaries. These differences on oil alled the acrusticy of this FIRM.

The experimental of the second second

NGS Information Services NGS Information Services NDAA, N/NGS12 National Geodetic Survey SSMC-3, #9202 1019 Eost=West Highway Bilver Spring, MD 20010-3282

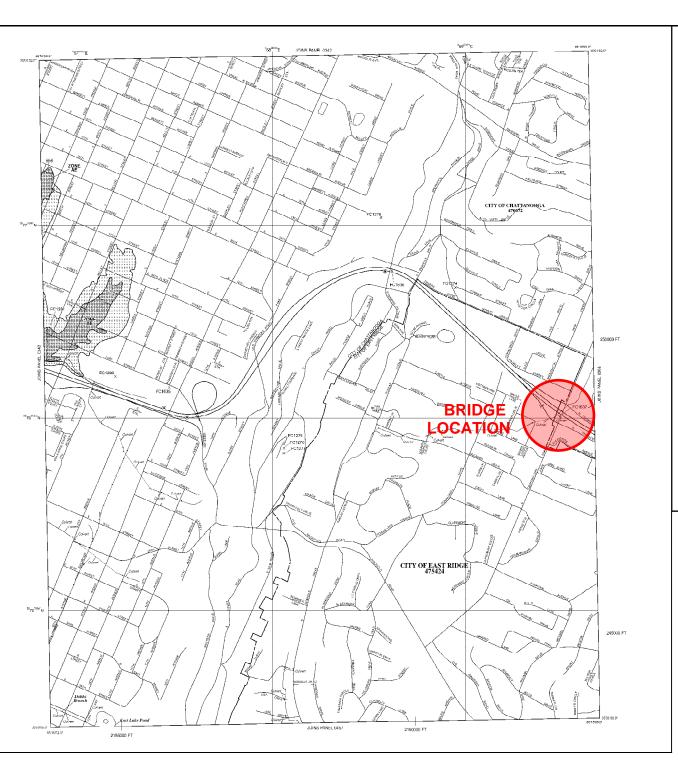
To obtain current elevation, descripcion, and/or location information for bench marks shown on this map, please contact the information Services Branch of the National Geodetic Survey at (301) 713-3242, or visit its website at http://www.ngs.mgau.guv/.

Imp.-Intelligible Testaguetti. Bases meny ratios approximating the Hamilton Churchy CIIS. Nanu marker indemnistration was compliable in 2020 – 218 by Hamilton Churchy CIIS. Some effective basemus and approximation of the Hamilton Churchy CIIS. Some effective basemus and a certical 11-1200 monitor photographic approximations were compliant and a certical 11-1200 monitor photographic approximation manufacture to the photographic approximation and the test result and the photographic approximation and the photographic data. The parties and the field approximation and improved photographic data. The parties and the field approximation and improved photographic data. The parties and the field approximation and improved photographic data. The parties and the field approximation and improved photographic data. The parties and the field approximation and approximation and approximation and the field approximation and approximation and approximations and the field approximation and approximation and approximation approximation approximation approximation and approximation approxi

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have obcurred after this map was published, may users schaud contact appropriate community officials to veritly current corporate limit locations.

Please refer to the expansibly printed Map Index for an overview map of the county thereing the layout of map panelia: community map restrictly addresses: and a Listing of Communities table containing National Flood Instrance Program dates for each community as well as a listing of the panels on which each community. Is located.

For information and questions about this map, available products associated with this FIRM including, historic versions of this FIRM, how to order products or the National Proof Insurance Program in general, please act the FERM Aloga Information eXchange at 1477-FERM-AN4F (1477-03-8;227) or tell the FERM tags Service Center velables at the prime, terms gor, Available products may include memorials invariant. at http:/mas.tema.gov/evaluable.products may include previously issued Letters of Maps Ohmange, e. Flood Neuronce Outory Report, and/or digital ensities of this maps. Many of these products can be ordered or obtained. *directly* from the website, Users may determine the current map rate for each HNM panel by visiting the FEMA Map Service Center weakter or by celling the FEMA Map Information extrange.





ATTACHMENT 1-G

Site Photos

PIN 124069.00

Bridge ID: 33100240055





Looking East over Bridge



Looking East over Bridge



Looking South under Bridge



Looking at Abutment No. 1



Looking at Abutment No. 2



Looking at Abutment No. 2



Looking at Bents No. 1 and No. 2



Underside of Bent Cap



Widened Bent Caps



Abutment No. 2



Abutment No. 2



Abutment No. 1



Looking North under the Bridge



Drain at Southwest side of Bridge



Looking East at On-Ramp



Looking at Bent No. 1



Overhead Utilities



Utilities Mounted to Bridge



Abutment No. 1



Looking under Bridge at Bents



Concrete Slope Paving



Looking at Underside of Deck



Looking at Bent and Beam Supports



Sidewalk Under Bridge

Interstate 24 over South Germantown Road



Looking at North at Bent No. 3



Looking North at Bent No. 2

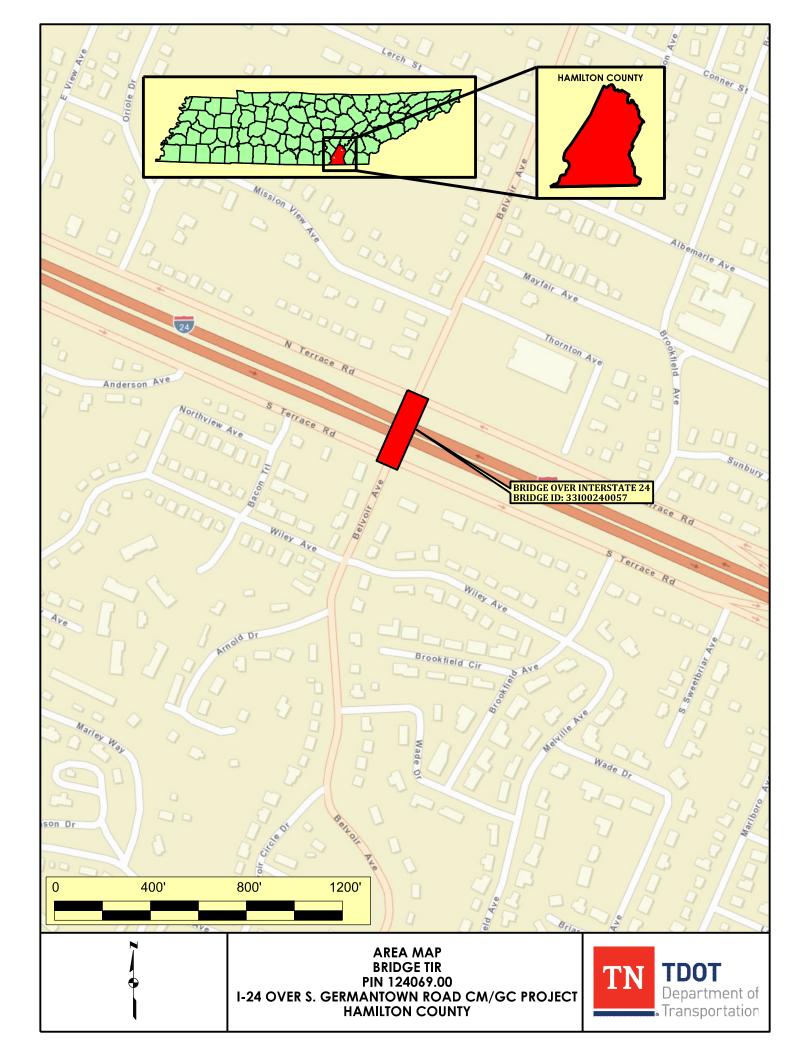
SECTION 2

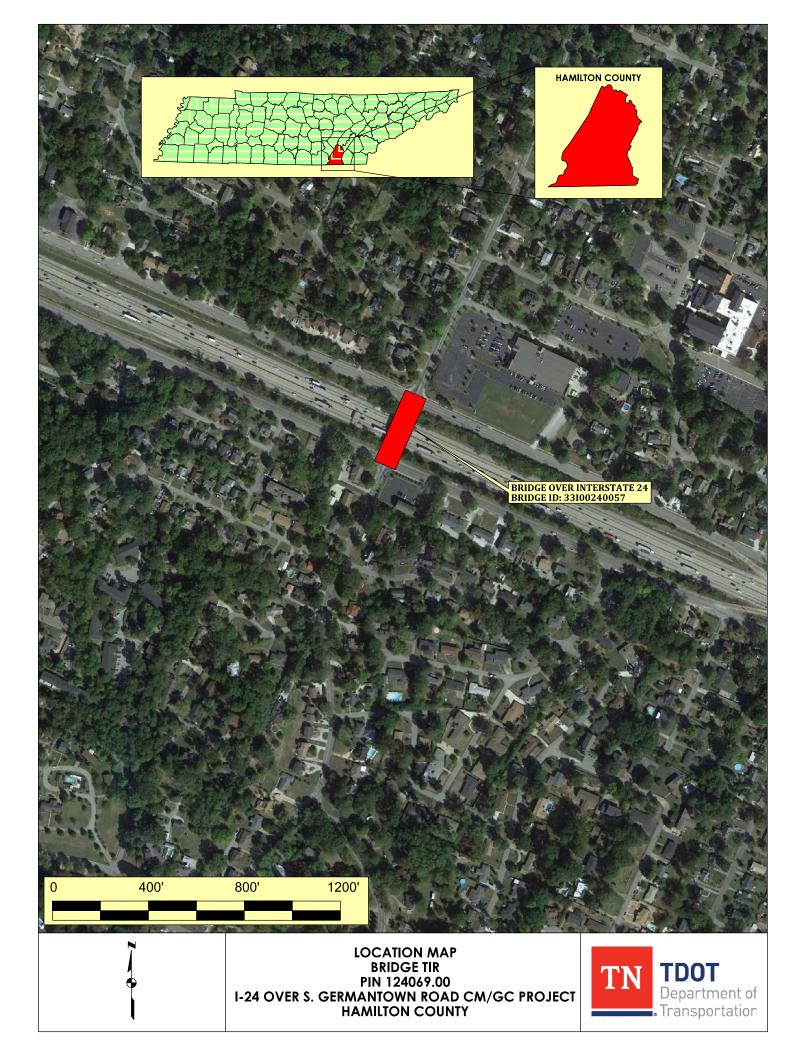
Belvoir Avenue Bridge

over Interstate 24

PIN 124069.00











STATE OF TENNESSEE DEPARTMENT OF TRANSPORTATION

STRATEGIC TRANSPORTATION INVESTMENTS DIVISION

SUITE 1000, JAMES K. POLK BUILDING 505 DEADERICK STREET NASHVILLE, TN 37243 (615) 741-2208

JOHN C. SCHROER COMMISSIONER BILL HASLAM GOVERNOR

MEMORANDUM

- **TO:**Steve Allen, Transportation DirectorStrategic Transportation Investments Division
- **FROM:** Lia Obaid, Asst. Director of Construction Construction Division
- **DATE:** June 11, 2018
- SUBJECT: TIR Field Review (Special Bridge Replacement Program) Belvoir Avenue Bridge over Interstate 24 Log Mile 1.01 Bridge ID: 33I00240057 Hamilton County PIN 124069.00

A field review was held for the above-mentioned project on Thursday, April 5, 2018.

The existing structure is a four (4) span prestressed concrete bridge that is 190.5 feet long at a 90 degree skew with four (4), twelve (12) foot lanes, ten (10) foot shoulders, and five (5) foot sidewalks. The current right of way (R.O.W.) is 80 feet. The current posted speed on Belvoir Avenue is 30 miles per hour. This structure crosses Interstate 24 in Hamilton County and is within Chattanooga city limits. The existing structure has an out-to-out width of 79.5 feet. The sufficiency rating of this bridge is 86.6.

The proposed bridge will be designed to meet TDOT standard RD01-TS-6A. The proposed centerline will remain the same. The bridge will be closed during construction and traffic will be detoured to local streets. See the functional plans in the executive summary for a detour map. The route has a 2022 base year AADT of 9,300 vehicles per day and a 2042 design year AADT of 10,230 vehicles per day. The proposed structure will be a two (2) span bridge that is 152 feet long at a 90° skew. The proposed typical section consists of four (4) eleven (11) foot lanes, two (2) foot outside shoulders, six (6) inch curbs, and six (6) foot sidewalks. At the request of

TDOT's Region 2 office, the proposed substructure will be designed and built to accommodate future road widening along Interstate 24 below the Belvoir Avenue bridge. The proposed structure is narrower than the existing structure. This is due to the ten (10) foot shoulders being removed from the bridge and the lanes being narrowed from twelve (12) to eleven (11) feet. The proposed structure is also shorter than the existing structure. This is due to a retaining wall being placed under the bridge. It is the opinion of the TDOT and the City of Chattanooga that narrower lanes will slow down traffic through this area which is residential in nature thereby increasing safety along the route. No additional R.O.W. is anticipated and utilities will be relocated as necessary. An overhead message sign may also need to be replaced along Interstate 24 as part of this project (and has been included in the cost estimate). The posted speed is anticipated to remain 30 mph. The project will tie into Belvoir Avenue by mill and overlay.

Both intersections on either side of the bridge will be updated to meet current signal and American with Disabilities Act (ADA) design standards.

The bridge has been selected for replacement utilizing the CM/GC (Construction Manager/General Contractor) Method for design phase and the ABC (Accelerated Bridge Construction) technique for the construction phase in an effort to minimize negative long-term traffic impacts during construction. At this time the design team is anticipating closing the Belvoir Avenue bridge to local traffic during the construction phase, but this is subject to change as the design phase continues. A preliminary detour map is attached. It is not the intention of the design team to have simultaneous lane closures and detours for both bridges. However, this analysis is also subject to change during the CM/GC design process. Once a CM (Construction Manager) has been selected, the formal design process will begin and a final traffic control plan will be determined.

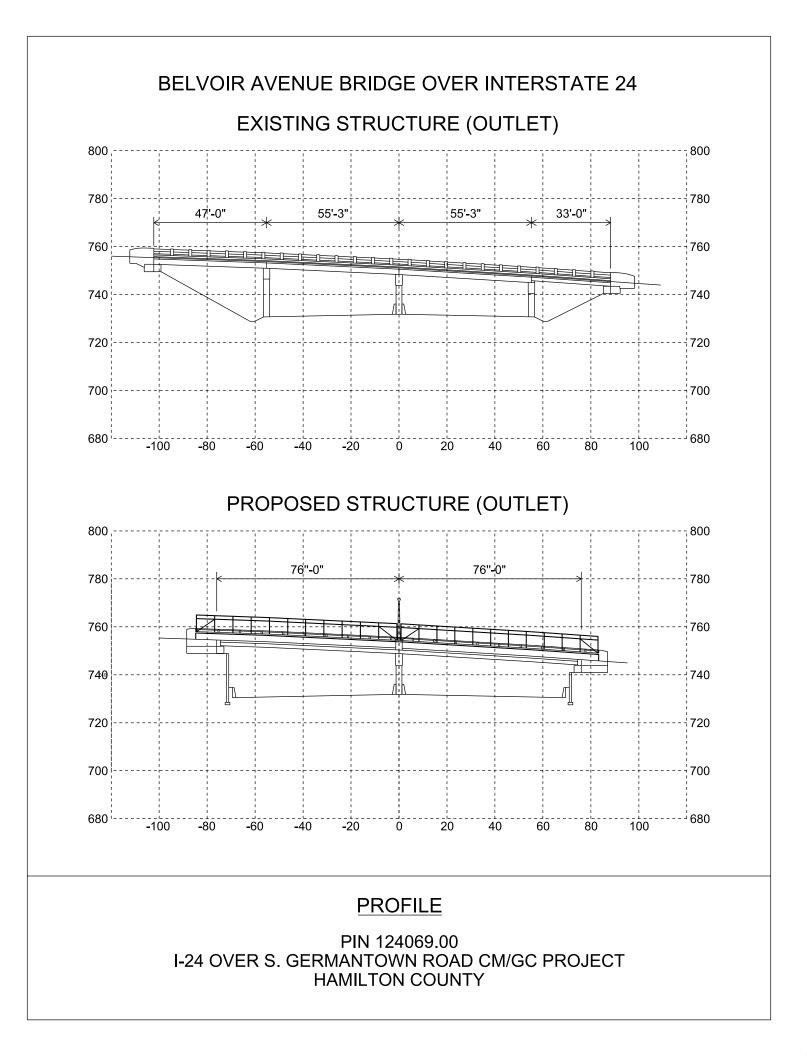
The total cost for this bridge replacement, including approach work, estimated replacement, and preliminary engineering, is approximately \$5,125,000. A man day estimate cannot be conducted until the CM (Construction Manager) is selected for the project.

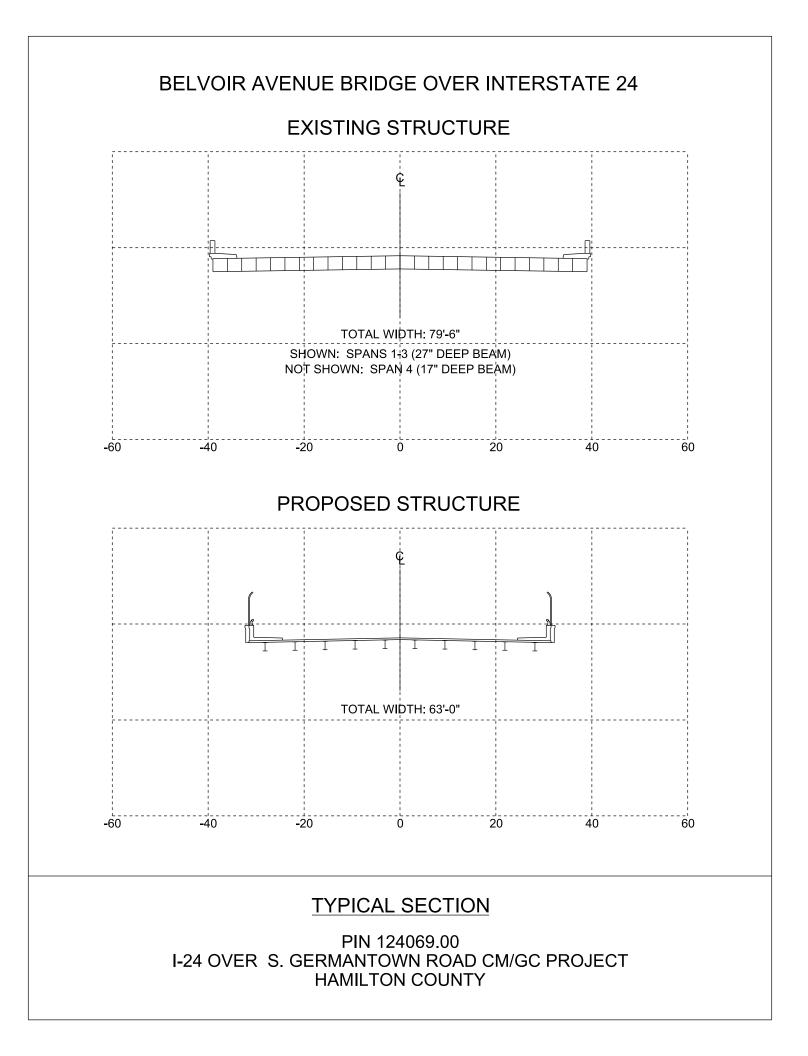
ATTACHMENT 2-A

Bridge Figures

PIN 124069.00







ATTACHMENT 2-B

Preliminary Cost Estimate

PIN 124069.00



COST ESTIMATE SUMMARY (BELVOIR AVE - TRADITIONAL CONSTRUCTION)

0 - Interstate 24	24 over Germantov STATE 0%		TN Department of Transportation
8 -OCAL 			Department of
-OCAL 0%			Department of
-OCAL 0%			Department of
-OCAL 0%			
0%			
0%			
	0%	FEDERAL	TOTAL
\$0	070	100%	TOTAL
\$0			
	\$0	\$85,100	\$85,100
\$0	\$0	\$108,600	\$108,600
\$0	\$0	\$0	\$0
\$0	\$0	\$1,500	\$1,500
\$0	\$0	\$25,300	\$25,300
\$0	\$0	\$2,456,700	\$2,456,700
\$0	\$0	\$72,600	\$72,600
\$0	\$0	\$430,900	\$430,900
\$0	\$0	\$0	\$0
\$0	\$0	\$33,100	\$33,100
\$0	\$0	\$0	\$0
\$0	\$0	\$0	\$0
\$0	\$0	\$0	\$0
\$0	\$0	\$22,000	\$22,000
\$0	\$0	\$3,200	\$3,200
\$0	\$0	\$9,100	\$9,100
\$0	\$0	\$85,400	\$85,400
\$0	\$0	\$166,700	\$166,700
\$0	\$0	\$350,000	\$350,000
\$0	\$0	\$209,000	\$209,000
\$0	\$0	\$4,059,200	\$4,059,200
\$0	\$0	\$0	\$0
\$0	\$0	\$0	\$0
LOCAL	STATE	FEDERAL	TOTAL
0%	0%	100%	TOTAL
\$0	\$0	\$0	\$0
\$0	\$0		\$211,300
		, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	, , ,
	\$0	\$427.100	\$427,100
\$0	\$0	\$427,100	\$427,100
\$0 \$0			
g	\$0 g and Inspection \$0 \$0	\$0 \$0 g and Inspection \$0 \$0 \$0 \$0	\$0 \$0 \$211,300 g and Inspection \$0 \$0 \$0 \$427,100

⁽¹⁾ Additional quantities were added to the 'Pavement Markings' pay item to account for temporary traffic control.

⁽²⁾ 'Other Items' and 'Const. Contingency' were not increased to account for CM/GC method. There is no plan at this time to build the Belvoir

PAY ITEM SUMMARY (BELVOIR AVE - TRADITIONAL CONSTRUCTION)

				ADDITIONAL	TOOL QUANTITIE	5+ 9	Statewide	
TDOT PAY ITEM	TDOT DESCRIPTION	UNIT	TOOL QUANTITIES	QUANTITIES	QUANTITIES	l	JNIT COST	TOTAL COST
Pavment Removal 415-01.02	Cold Planning Bituminous Pavement	SY	0	11568	11568	s	7.35 \$	85,064.
413-01.02		31	U	11508			TAL (ROUNDED) \$	85,1
Asphalt Roads								
403-01	Bituminous Material For Tack Coat (TC)	TON	0	5	5	\$	778.44 \$	3,892.
411-02.10	ACS Mix(PG70-22) Grading D	TON	0	920	920	\$ PAVING TO	113.78 \$ TAL (ROUNDED) \$	104,678. 108,6
Concrete Roads				CONCRE	TE RAMPS AND ROA	DWAYS TO	TAL (ROUNDED) \$	-
Drainage 611-09.01	ADJUSTMENT OF EXISTING CATCHBASIN	EA		2	2	\$	736.91 \$	1,473.
					DR	AINAGE TC	TAL (ROUNDED) \$	1,5
Appurtenances								
202-03 701-01.01	Removal of Rigid Pvmt, Sidewalk, Etc Concrete Sidewalk (4")	SY SF	0	240 240	240 240	\$ \$	9.53 \$ 7.41 \$	2,286. 1,778.
701-02.03	Concrete Handicap Ramp	SF	0	890	890	\$	17.74 \$	15,790.
702-01	Concrete Curb	CY		16	16	\$	334.36 \$	5,349.
				ROADWAY AND P	AVEMENT APPURTE	NANCES TO	TAL (ROUNDED) \$	25,3
Earthwork & Mineral	1							
203-01 203-03	Road & Drainage Excavation (Unclassified) Borrow Excavation (Unclassified)	CY CY	0	918.667 1169.106	919 1169	\$ \$	16.79 \$ 15.04 \$	15,428
			-		EARTHWORK & N	INERAL TO		33,1
Structures								
604-07.01	Retaining Wall	SF		4000	4000	\$	95.00 \$	380,000
N/A N/A	Removal of Bridge New Bridge (Steel):	SF SF	0	15145 9424	15145 9424	\$ \$	50.00 \$ 140.00 \$	757,250 1,319,360
N/A	New Bruge (Steer).	3F	0	5424			TAL (ROUNDED) \$	2,456,7
changes and Unique Intersections				INTERCHANGES A	ND UNIQUE INTERSI		TAL (ROUNDED) \$	
Lighting & Signalization								
714-01.32	Structural Lighting	LS		1	1	\$	9,743.29 \$	9,743
714-03.01 714-05.04	Direct Brl Conduit (2" PVC, Schedule 40) Pull Boxes (Type C)	LF EA		250 4	250 4	\$ \$	6.67 \$ 620.37 \$	1,666 2,481
714-06.05	Cable (1/C # 6 AWG)	LF		500	500	\$	1.05 \$	525
714-08.01 714-08.28	Light Standards (45' MH, 15' ARM) Found for Light Standards - Roadway	EA EA		3	3	\$ \$	3,722.26 \$ 1,384.42 \$	4,153
714-08.30	Remove and Relocate Light Standard	EA		3	3	\$	2,046.75 \$	6,140
714-09.03 714-25	Luminaires (250 WATT) Electrical Connection	EA EA		3	3	\$ \$	472.73 \$ 599.06 \$	1,418
714-26.05	Temporary Roadway Lighting	LS		1	1	\$	6,825.00 \$	6,825
725-20.24	Steel Overhead Sign Structure (Spans 91ft to 110ft)	EA EA		1	1	\$ \$	80,000.00 \$ 1,400.00 \$	80,000
725-20.44 725-20.45	Pull Box (Type D) Pull Box (Type E)	EA		2	2	\$	1,700.00 \$	1,400
725-20.75	Communication Connection (Temp Comm Connections)	LS		1	1	\$	3,000.00 \$	3,000
725-21.01 725-21.04	Dynamic Messaging Sign Dynamic Messaging Sign Removal	EA		1	1	\$ \$	80,000.00 \$ 10,000.00 \$	80,000
725-21.11	Network Switch (Type A)	EA		1	1	\$	3,000.00 \$	3,000
725-21.49 725-22.24	Modify Electrical Demarcation Point Conduit Bank (Type 4)	EA LF		1 50	1 50	\$ \$	1,500.00 \$ 7.00 \$	1,500
725-22.34	Conduit Bank Bored (Type 4)	LF		150	150	\$	25.00 \$	3,750
725-22.50 725-22.74	DMS Conduit Bank 2in Conduit w/ Bank	LF LF		150		\$	15.00 \$	2,250
725-23.10				150	150			274
705 00 04	Fiber Optic Cable (72 F)	LF		150 200	150 150 200	\$	2.50 \$ 10.00 \$	
725-23.21	Fiber Optic Cable (72 F) Fiber Optic Drop Cable (12ft)	LF LF		200 100	150 200 100	\$ \$ \$	2.50 \$ 10.00 \$ 3.00 \$	2,000
725-23.21 725-23.25 725-23.28	Fiber Optic Cable (72 F)	LF		200	150 200	\$ \$	2.50 \$ 10.00 \$	2,000 300 750
725-23.25 725-23.28 725-24.51	Fiber Optic Cable (72 F) Fiber Optic Drop Cable (12ft) Fiber Optic Closure (72 F) Fiber Optic Closure (72 F) Fiber Optic Splice Fusion System Integration	LF LF EA EA LS		200 100 1 148 1	150 200 100 1 148 1	\$ \$ \$ \$ \$	2.50 \$ 10.00 \$ 3.00 \$ 750.00 \$ 50.00 \$ 3,000.00 \$	2,000 300 750 7,400 3,000
725-23.25 725-23.28	Fiber Optic Cable (72 F) Fiber Optic Cable (12 f) Fiber Optic Closure (72 F) Fiber Optic Closure (72 F) Fiber Optic Splice Fusion System Integration Removal of Signal Equipment	LF LF EA EA		200 100 1 148 1 2	150 200 100 1 148 1 2 2	\$ \$ \$ \$	2.50 \$ 10.00 \$ 3.00 \$ 750.00 \$ 50.00 \$ 3,000.00 \$ 1,957.79 \$	2,000 300 750 7,400 3,000 3,911
725-23.25 725-23.28 725-24.51 730-01.02 730-02.09 730-02.17	Fiber Optic Cable (2 ± 7) Fiber Optic Cable (12 ft) Fiber Optic Closure (72 ± 7) Fiber Optic Splice Fusion System Integration Bernoval of Signal Equipment Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 A2H With Backplate)	LF EA EA LS EA EA EA		200 100 1 148 1 2 10 2	150 200 100 1 148 1 2 10 2	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	2.50 \$ 10.00 \$ 3.00 \$ 750.00 \$ 3,000.00 \$ 1,957.79 \$ 807.65 \$ 1,313.83 \$	2,000 300 755 7,400 3,000 3,915 8,077 2,623
725-23.25 725-23.28 725-24.51 730-01.02 730-02.09 730-02.17 730-03.20	Fiber Optic Cable (72 F) Fiber Optic Drog Cable (12 f) Fiber Optic Drog Cable (12 f) Fiber Optic Splice Fusion System Integration Removal of Signal Equipment Signal Head Assembly (130 With Backplate) Signal Head Assembly (150 A2H With Backplate) Install Pull Box (Type A)	LF EA EA LS EA EA EA EA		200 100 1 148 1 2 10 2 4	150 200 100 1 148 1 2 10 2 4	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	2.50 \$ 10.00 \$ 3.00 \$ 750.00 \$ 3,000 \$ 3,000.00 \$ 1,957.79 \$ 807.65 \$ 1,313.83 \$ 385.67 \$	2,000 300 755 7,400 3,900 3,919 8,077 2,621 1,542
725-23.25 725-23.28 725-24.51 730-01.02 730-02.09 730-02.17	Fiber Optic Cable (72 F) Fiber Optic Cable (12 f) Fiber Optic Closure (72 F) Fiber Optic Closure (72 F) Fiber Optic Spiler Fusion System Integration Removal of Signal Equipment Signal Head Assembly (130 Otth Backplate) Signal Head Assembly (130 Ozth With Backplate) Install Pull Box (Type A) Install Pull Box (Type A) Electrical Service Connection	LF EA EA LS EA EA EA		200 100 1 148 1 2 10 2	150 200 100 1 148 1 2 10 2	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	2.50 \$ 10.00 \$ 3.00 \$ 750.00 \$ 3,000.00 \$ 1,957.79 \$ 807.65 \$ 1,313.83 \$	2,000 300 755 7,400 3,000 3,911 8,070 2,620 1,541 1,920
725-23.25 725-23.28 725-24.51 730-01.02 730-02.09 730-02.17 730-03.20 730-03.21 730-05.01 730-06.03	Fiber Optic Cable (72 F) Fiber Optic Drop Cable (12 f) Fiber Optic Drop Cable (12 f) Fiber Optic Cosure (72 F) Fiber Optic Splice Fusion System Integration Removal of Signal Equipment Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 AUH With Backplate) Install Pull Box (Type A) Install Pull Box (Type A) Electrical Service Connection Signal Cable - 7 Conductor	LF LF EA EA EA EA EA EA EA EA EA LF		200 100 1 148 1 2 10 2 4 4 4 2 800	150 200 100 1 1 148 1 2 2 10 2 2 4 4 4 2 800	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	2.50 \$ 10.00 \$ 3.000 \$ 3.000 \$ 50.00 \$ 3.0000 \$ 1,957.79 \$ 807.65 \$ 1,313.83 \$ 385.67 \$ 481.62 \$ 2,023.65 \$ 1.65 \$	2,000 300 756 7,400 3,000 3,911 8,077 2,622 1,544 1,920 4,044 1,322
725-23.25 725-23.28 735-24.51 730-01.02 730-02.09 730-02.17 730-03.20 730-03.21 730-03.21 730-03.01	Fiber Optic Cable (2 ±) Fiber Optic Cable (1 ± ft) Fiber Optic Closure (7 ± f) Fiber Optic Closure (7 ± f) Fiber Optic Splice Fusion System Integration Removal of Signal Equipment Signal Head Assembly (130 A2H With Backplate) Signal Head Assembly (130 A2H With Backplate) Signal Head Assembly (130 A2H With Backplate) Install Pull Box (Type A) Electrical Service Connection Signal Cable - 7 Conductor Interconnect Cable (Copper-Twisted Pair)	LF EA EA EA EA EA EA EA EA EA		200 100 1 1 148 2 10 2 2 4 4 4 2	150 200 100 1 1 2 2 10 2 4 4 4 2	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	2.50 \$ 10.00 \$ 3.00 \$ 5.000 \$ 3.000 \$ 3.000.00 \$ 1.957.79 \$ 8.07.65 \$ 1.313.83 \$ 3.85.67 \$ 4.81.62 \$ 2.023.65 \$	2,000 300 755 7,400 3,000 3,911 8,077 2,652 1,554 1,920 4,044 1,322 2,677
725-23.25 725-23.28 725-24.51 730-01.02 730-02.09 730-03.20 730-03.20 730-03.21 730-03.21 730-08.30 730-08.30 730-08.30 730-08.30 730-12.14 730-12.16	Fiber Optic Cable (72 F) Fiber Optic Drop Cable (12 f) Fiber Optic Drop Cable (12 f) Fiber Optic Cosure (72 F) Fiber Optic Splice Fusion System Integration Removal of Signal Equipment Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 With Backplate) Install Pull Box (Type B) Electrical Service Connection Signal Cable - 7 Conductor Interconnect Cable (Copper-Twistel Pair) Conduit 3" Diameter (Jack and Bore) Conduit 2" Conduit Schedule 80)	LF LF EA EA EA EA EA EA EA EA LF LF LF		200 100 1 148 1 2 10 2 4 4 2 800 1000 400 200	150 200 100 1 1 48 1 2 2 4 4 2 800 1000 400 200	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	2.50 \$ 10.00 \$ 3.00 \$ 50.00 \$ 1,957.79 \$ 807.65 \$ 1,313.83 \$ 385.67 \$ 481.62 \$ 2,023.65 \$ 1.65 \$ 2,67 \$ 2,574 \$ 13.80 \$	2,000 300 755 7,400 3,911 8,077 2,662 1,541 1,542 1,54
725-23.25 725-23.28 735-24.51 730-01.02 730-02.09 730-02.17 730-03.20 730-03.21 730-03.21 730-08.03 730-08.03 730-08.30 730-12.14	Fiber Optic Cable (2 ± 7) Fiber Optic Cable (1 ± ft) Fiber Optic Closure (7 ± 7) Fiber Optic Closure (7 ± 7) Fiber Optic Spilice Fusion System Integration Removal of Signal Equipment Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 A2H With Backplate) Install Pull Box (Type A) Install Pull Box (Type A) Electrical Service Connection Signal Cable - 7 Conductor Interconnect Cable (Copper-Twisted Pair) Conduit 3" Diameter (Jack and Bore) Conduit 2" Conduit 2" Conduit Schedule 80) VEHICLE LOOP DETECTOR (SHELF MOUNT)	LF LF EA EA EA EA EA EA EA LF LF LF		200 100 1 148 1 2 10 2 4 4 2 800 1000 400	150 200 100 1 1 148 1 2 10 2 4 4 4 2 800 1000 400	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	2.50 \$ 10.00 \$ 3.00 \$ 50.00 \$ 50.00 \$ 3,000.00 \$ 1,157.79 \$ 807.65 \$ 1,313.83 \$ 385.67 \$ 2,023.65 \$ 1.65 \$ 2,023.65 \$ 2,67 \$ 2,574 \$ 13.80 \$ 13.80 \$ 178.62 \$	2,000 300 755 7,740 3,000 3,911 8,077 2,652 4,04 1,524 4,04 1,522 2,677 10,29 2,767 7,11
725-23.25 725-23.28 735-24.51 730-01.02 730-02.17 730-02.17 730-03.20 730-03.20 730-05.01 730-06.03 730-06.03 730-06.30 730-12.14 730-12.16 730-13.01 730-14.01 730-14.02	Fiber Optic Cable (2 ±) Fiber Optic Cable (1 ± ft) Fiber Optic Closure (7 ± F) Fiber Optic Closure (7 ± F) Fiber Optic Splice Fusion System Integration Removal of Signal Requipment Signal Head Assembly (130 A2H Wirth Backplate) Ostal Pull Box (Type A) Install Pull Box (Type A) Electrical Service Connection Signal Cable - 7 Conductor Interconnect Cable (Copper-Twisted Pair) Conduit 3" Diameter (Jack and Bore) Conduit 3" Conduit Schedule B0) VEHICLE LOOP DETECTOR (SHELF MOUNT) Shielded Detector Cable	IF IF EA IF IF IF IF IF IF IF IF IF		200 100 1 1 148 1 2 10 2 4 4 2 800 1000 400 200 4 350 2000	150 200 100 1 1 48 1 2 10 2 4 4 2 800 1000 400 200 4 350 2000	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	2.50 \$ 10.00 \$ 3.00 \$ 50.00 \$ 1,957.79 \$ 807.65 \$ 1,313.83 \$ 385.67 \$ 481.62 \$ 2,023.65 \$ 1,65 \$ 2,023.65 \$ 1,65 \$ 2,67 \$ 2,574 \$ 13.80 \$ 13.80 \$ 178.62 \$ 2,27 \$ 1.27 \$ 2,88 \$	2,00 30 75 7,40 3,00 3,91 8,07 2,62 4,154 1,58 4,04 1,32 2,67 10,29 2,76 7,1 4,4 4,577 7,1
725-23.25 725-23.28 735-24.51 730-01.02 730-02.09 730-02.17 730-03.20 730-03.21 730-05.01 730-05.01 730-06.30 730-05.01 730-06.30 730-12.14 730-12.16 730-13.01 730-14.01 730-14.02 730-15.32	Fiber Optic Cable (72 F) Fiber Optic Cable (12 ft) Fiber Optic Closure (72 F) Fiber Optic Closure (72 F) Fiber Optic Splice Fusion System Integration Removal of Signal Equipment Signal Head Assembly (130 Otth Backplate) Signal Head Assembly (130 OztH With Backplate) Install Pull Box (Type A) Install Pull Box (Type A) Electrical Service Connection Signal Cable - 7 Conductor Interconnect Cable (Copper-Twisted Pair) Conduit 3° Diameter (Jack and Bore) Conduit 2° Conduit (2° Conduit Chedule A) VEHICLE LOOP DETECTOR (SHELT MOUNT) Shielded Detector Cable Say Sigt Cabinet (Eight Phase Base Mounted)	LF LF EA EA EA EA EA EA LF LF LF LF LF EA LF LF EA LF LF EA LF LF EA LF EA EA EA EA EA EA EA EA EA EA		200 100 1 148 1 2 10 2 4 4 2 800 1000 400 200 4 350 2000 2	150 200 100 1 148 1 2 4 2 800 1000 400 200 400 200 2 2000 2	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	2.50 § 10.00 § 3.00 § 50.00 § 50.00 § 3,000.00 § 1,957.79 § 807.65 § 1,131.83 § 185.67 § 481.62 § 2,623.65 § 2,627 § 2,627 § 13.80 § 1.354 § 2,574 § 13.80 § 1.275 § 2,88 § 13.544.50 §	2,000 300 755 7,400 3,911 8,077 2,622 4,04 1,922 2,67 7,154 1,922 2,67 7,16 7,17 4,44 5,777 2,7,08
725-23.25 725-23.28 735-24.51 730-01.02 730-02.17 730-02.17 730-03.20 730-03.21 730-05.01 730-06.03 730-06.03 730-06.30 730-12.14 730-12.16 730-13.01 730-14.01 730-14.02	Fiber Optic Cable (2 ±) Fiber Optic Cable (1 ± ft) Fiber Optic Closure (7 ± F) Fiber Optic Closure (7 ± F) Fiber Optic Splice Fusion System Integration Removal of Signal Requipment Signal Head Assembly (130 A2H Wirth Backplate) Ostal Pull Box (Type A) Install Pull Box (Type A) Electrical Service Connection Signal Cable - 7 Conductor Interconnect Cable (Copper-Twisted Pair) Conduit 3" Diameter (Jack and Bore) Conduit 3" Conduit Schedule B0) VEHICLE LOOP DETECTOR (SHELF MOUNT) Shielded Detector Cable	IF IF EA IF IF IF IF IF IF IF IF IF		200 100 1 1 148 1 2 10 2 4 4 2 800 1000 400 200 4 350 2000	150 200 100 1 1 48 1 2 10 2 4 4 2 800 1000 400 200 4 350 2000	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	2.50 \$ 10.00 \$ 3.00 \$ 50.00 \$ 1,957.79 \$ 807.65 \$ 1,313.83 \$ 385.67 \$ 481.62 \$ 2,023.65 \$ 1,65 \$ 2,023.65 \$ 1,65 \$ 2,67 \$ 2,574 \$ 13.80 \$ 13.80 \$ 178.62 \$ 2,27 \$ 1.27 \$ 2,88 \$	2,000 300 755 7,400 3,000 3,911 8,077 2,627 1,544 1,522 2,677 10,299 2,276 711 444 5,777 2,708 9,477
725-23.25 725-23.28 735-24.51 730-01.02 730-02.09 730-02.17 730-03.20 730-03.21 730-06.30 730-06.30 730-06.30 730-06.30 730-12.14 730-13.01 730-14.01 730-14.01 730-14.02 730-15.32 730-16.02	Fiber Optic Cable (72 F) Fiber Optic Cable (12 ft) Fiber Optic Cosure (72 F) Fiber Optic Cosure (72 F) Fiber Optic Cosure (72 F) Fiber Optic Splice Fusion Removal of Signal Regatoria Signal Head Assembly (130 A2H With Backplate) Signal Head Assembly (130 A2H With Backplate) Instail Pull Box (Type A) Instail Pull Box (Type A) Electrical Service Connection Signal Cable - 7 Conductor Interconnect Cable (Copper-Twisted Pair) Conduit 3" Diameter (Jack and Bore) Conduit 2" Conduit Schedule 80) VEHICLE LOOP DETECTOR (SHELF MOUNT) Shielded Detector Cable Saw Slot Cabinet (Eight Phase Rase Mounted) Eight Phase Actuated Controller	IF LF EA IS EA IF IF IF EA IF EA EA EA EA EA EA EA EA		200 100 1 1 148 1 2 10 2 4 4 2 800 1000 400 200 4 350 2000 2 2 2 3 3	150 200 100 1 148 1 2 4 2 800 1000 200 4 2 800 1000 200 4 2 350 2 3 3	\$ \$	2.50 § 10.00 \$ 3.00 \$ 5.000 \$ 5.000 \$ 1,957.79 \$ 807.65 \$ 1,131.83 \$ 807.65 \$ 1,131.83 \$ 2,023.65 \$ 1,65 \$ 2,274 \$ 1,358 \$ 1,65 \$ 2,274 \$ 1,380 \$ 1,78.62 \$ 1,27 \$ 2,289 \$ 1,27 \$ 2,289 \$ 1,27 \$ 2,289 \$ 1,27 \$ 2,289 \$ 1,344.50 \$ 4,736.56 \$ 1,4116.19 \$ 1,955.62 \$	2,000 300 755 7,400 3,911 8,077 2,622 4,044 1,522 2,677 10,292 2,766 7,166 7,166 7,176 444 5,777 2,7088 9,477 42,345 58,655
725-23.25 725-23.28 735-24.51 730-01.02 730-02.09 730-02.17 730-03.20 730-03.21 730-05.01 730-08.30 730-08.30 730-08.30 730-12.14 730-12.16 730-13.01 730-14.02 730-15.32 730-16.02 730-15.28	Fiber Optic Cable (2 ±) Fiber Optic Cable (1 ± ft) Fiber Optic Closure (7 ± F) Fiber Optic Closure (7 ± F) Fiber Optic Splice Fusion System Integration Removal of Signal Equipment Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 Ozt With Backplate) Install Pull Box (Type A) Install Pull Box (Type A) Electrical Service Connection Signal Cable - 7 Conductor Interconnect Cable (Copper-Twisted Pair) Conduit 3 [*] Diameter (Jack and Bore) Conduit 3 [*] Diameter (Jack and Bore) VEHICLE LOOP DETECTOR (SHELF MOUNT) Shielded Detector Cable Saw Stot Cabinet (Eight Phase Astuated Controller Eight Phase Actuated Controller Cantilever Signal Support (1 ARM @ 45)	IF LF EA IS EA IF IF IF EA IF EA EA EA EA EA EA EA EA		200 100 1 1 148 1 2 10 2 4 4 2 800 1000 400 200 4 350 2000 2 2 2 3 3	150 200 100 1 148 1 2 4 2 4 2 800 10000 400 2000 4 350 20000 2 3	\$ \$	2.50 § 10.00 \$ 3.00 \$ 5.000 \$ 5.000 \$ 1,957.79 \$ 807.65 \$ 1,131.83 \$ 807.65 \$ 1,131.83 \$ 2,023.65 \$ 1,65 \$ 2,274 \$ 1,358 \$ 1,65 \$ 2,274 \$ 1,380 \$ 1,78.62 \$ 1,27 \$ 2,289 \$ 1,27 \$ 2,289 \$ 1,27 \$ 2,289 \$ 1,27 \$ 2,289 \$ 1,344.50 \$ 4,736.56 \$ 1,4116.19 \$ 1,955.62 \$	2,000 300 755 7,404 3,901 8,077 2,62 4,04 1,92 2,404 1,32 2,667 7,76 7,76 7,76 7,76 7,76 7,76 7,76 7,76 7,76 7,76 7,76 7,76 7,76 7,40 7,57 7,404 5,875 7,404 5,855 5,955 5,95
725-23.25 725-23.28 735-24.51 730-01.02 730-02.09 730-02.17 730-03.20 730-03.21 730-08.30 730-08.30 730-08.30 730-08.30 730-08.30 730-12.14 730-13.01 730-14.01 730-14.01 730-14.02 730-15.32 730-15.32 730-23.88 730-23.96	Fiber Optic Cable (2 ±) Fiber Optic Cable (1 ± ft) Fiber Optic Closure (7 ± f) Fiber Optic Closure (7 ± f) Fiber Optic Splice Fusion System Integration Removal of Signal Equipment Signal Head Assembly (130 A2H With Backplate) Signal Head Assembly (150 A2H With Backplate) Signal Head Assembly (150 A2H With Backplate) Signal Head Assembly (150 A2H With Backplate) Signal Conduct Signal Cable - 7 Conductor Interconnect Cable (Copper-Twisted Pair) Conduit 3" Diameter (Jack and Bore) Conduit 3" Diameter (Jack and Bore) Conduit 3" Conduit Schedule 80) VEHICLE LOOP DETECTOR (SHELF MOUNT) Shielded Detector Cable Saw Slot Cabinet (Eight Phase Base Mounted) Eight Phase Actuated Controller Cantilever Signal Support (1 ARM @ 45') Cantilever Signal Support (1 ARM @ 50')	IF EA IF IF IF IF EA EA IF EA EA		200 100 1 1 148 1 2 10 2 4 4 2 800 1000 400 200 4 350 2000 2 2 2 3 3	150 200 100 1 1 48 1 2 2 4 4 2 4 4 2 800 400 400 400 200 400 200 200 2 2 3 3 3 1 GHING & SIGNAL	\$ \$ \$ \$	2.50 \$ 10.00 \$ 3.00 \$ 5.00.00 \$ 1.957.79 \$ 807.65 \$ 1.313.83 \$ 3.8567 \$ 4.81.62 \$ 2.023.65 \$ 1.65 \$ 2.574 \$ 1.65 \$ 2.574 \$ 1.380 \$ 1.78.62 \$ 1.3.80 \$ 1.3.80 \$ 1.78.62 \$ 1.3.80 \$ 1.78.62 \$ 1.3.80 \$ 1.3.80 \$ 1.78.62 \$ 1.3.80 \$ 1.3.80 \$ 1.3.80 \$ 1.78.62 \$ 1.3.85 \$ 1.3.85 \$ 1.3.85 \$ 1.3.86 \$ 1.3.80	2,00 30 75 7,40 3,00 3,91 8,07 2,62 1,54 1,52 2,67 7,1 0,29 2,76 7,1 4,44 5,77 27,08 9,47 4,2,34 5,855 5,45 4,50 4,
725-23.25 725-23.28 725-24.51 730-01.02 730-02.09 730-02.17 730-03.21 730-03.21 730-06.01 730-08.03 730-12.14 730-13.01 730-14.01 730-15.32 730-16.02 730-23.96 Guardrall 705-01.01	Fiber Optic Cable (2 ± 7) Fiber Optic Cable (12 ft) Fiber Optic Closure (7 ± 7) Fiber Optic Splice Fusion System Integration Removal of Signal Equipment Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 A2H With Backplate) Install Pull Box (Type 8) Electrical Service Connection Signal Cable - 7 Conductor Interconnect Cable (Copper-Twisted Pair) Conduit 3 ⁺ Diameter (Jack and Bore) Conduit 3 ⁺ Diameter (Jack and Bore) Conduit 2 ⁺ Conductor Signal Cable - 7 Conductor Interconnect Cable (Copper-Twisted Pair) Conduit 3 ⁺ Diameter (Jack and Bore) Conduit 2 ⁺ Conductor Signal Cable - 10 ⁻ Saw Slot Cantilever Signal Support (1 ARM @ 45') Cantilever Signal Support (1 ARM @ 50')	LF LF EA EA EA EA EA EA EA EA LF LF LF LF LF LF		200 100 1 1 148 1 2 10 2 4 4 2 800 1000 400 200 4 350 2000 2 2 2 3 3	150 200 100 1 1 2 2 2 4 4 2 2 4 4 2 800 1000 400 200 4 350 2000 2 200 2 2 0 3 3 1 0 2 0 0 10 0 10	\$ \$	2.50 \$ 10.00 \$ 3.00 \$ 750.00 \$ 50.00 \$ 1,957.79 \$ 807.65 \$ 1,131.33 \$ 2,023.65 \$ 1,31.80 \$ 2,023.65 \$ 1,380 \$ 1,380 \$ 1,25.74 \$ 1,380 \$ 1,364.55 \$ 1,35.64.50 \$ 1,35.64.50 \$ 14,116.19 \$ 19,551.62 \$ 73.64 \$	2,000 300 755 7,400 3,010 3,911 3,911 3,912 4,044 1,922 2,657 10,299 2,766 7,11 4,044 5,775 27,088 9,407 2,708 9,407 2,708 9,407 2,708 3,404 5,855 4300 4300 7,366 7,100 7,000
725-23.25 725-23.28 735-24.51 730-01.02 730-02.09 730-02.17 730-03.20 730-03.21 730-08.30 730-08.30 730-08.30 730-08.30 730-08.30 730-12.14 730-13.01 730-14.01 730-14.01 730-14.02 730-15.32 730-15.32 730-23.88 730-23.96	Fiber Optic Cable (2 ±) Fiber Optic Cable (1 ± ft) Fiber Optic Closure (7 ± f) Fiber Optic Closure (7 ± f) Fiber Optic Splice Fusion System Integration Removal of Signal Equipment Signal Head Assembly (130 A2H With Backplate) Signal Head Assembly (150 A2H With Backplate) Signal Head Assembly (150 A2H With Backplate) Signal Head Assembly (150 A2H With Backplate) Signal Conduct Signal Cable - 7 Conductor Interconnect Cable (Copper-Twisted Pair) Conduit 3" Diameter (Jack and Bore) Conduit 3" Diameter (Jack and Bore) Conduit 3" Conduit Schedule 80) VEHICLE LOOP DETECTOR (SHELF MOUNT) Shielded Detector Cable Saw Slot Cabinet (Eight Phase Base Mounted) Eight Phase Actuated Controller Cantilever Signal Support (1 ARM @ 45') Cantilever Signal Support (1 ARM @ 50')	UF LF EA EA EA EA EA EA EA EA LF LF EA EA LF LF EA EA LF EA EA LF EA EA EA LF EA EA		200 100 1 1 148 1 2 10 2 4 4 2 800 1000 400 200 4 350 2000 2 2 2 3 3	150 200 100 1 1 48 1 2 4 4 2 4 4 4 2 800 1000 4 400 200 4 0 200 200 2 2 2 3 3 1 ICHTING & ISTGNAL 4 4 4 4 4	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	2.50 \$ 10.00 \$ 3.00 \$ 5.000 \$ 5.000 \$ 1.957.90 \$ 8.07.65 \$ 1.313.83 \$ 385.67 \$ 4.81.62 \$ 2.023.65 \$ 1.65 \$ 2.67 \$ 1.380 \$ 1.78.62 \$ 1.3.80 \$ 1.78.62 \$ 1.3.55 \$ 2.65 \$ 1.4,116.19 \$ 1.9.551.62 \$ 1.9.551.62 \$ 1.4,116.19 \$ 1.9.551.62 \$ 1.9.551.62 \$ 1.2.65 \$ 1.2.65 \$ 1.2.65 \$ 1.2.65 \$ 1.2.65 \$ 1.2.65 \$ 1.2.65 \$ 1.2.55 \$ 1.2.55 \$ 1.2.55 \$ 1.2.55 \$ 1.2.55 \$ 1.2.55 \$ 1.2.55 \$ 1.2.55 \$ 1.2.64 \$ 2.3.52.59 \$ 1.2.94.80 \$ 1.2.94.9	2,000 300 755 7,400 3,919 8,077 2,622 1,542 1,542 1,542 1,542 2,676 7,14 1,222 2,677 7,2708 3,977 2,708 3,977 2,708 3,977 4,234 4,234 4,577 2,708 3,977 4,234 4,577 2,708 3,775 2,768 3,775 3,775 2,708 3,775
725-23.25 725-23.28 725-24.51 730-01.02 730-02.09 730-02.17 730-03.20 730-03.21 730-03.21 730-08.03 730-08.03 730-08.03 730-01.14 730-12.14 730-12.16 730-13.01 730-14.01 730-14.01 730-14.02 730-15.32 730-16.02 730-23.88 730-23.96	Fiber Optic Cable (72 F) Fiber Optic Cable (12 ft) Fiber Optic Closure (72 F) Fiber Optic Splice Fusion System Integration System Integration Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 A2H With Backplate) Install Pull Box (Type B) Electrical Service Connection Signal Cable - 7 Conductor Interconnect Cable (Copper-Twisted Pair) Conduit 3 ^o Diameter (Jack and Bore) Conduit 2 ^o Conduit Copper-Twisted Pair) Conduit 2 ^o Conduit Copper-Toristed Pair) Conduit 2 ^o Conduit Copper-Toristed Pair) Conduit 2 ^o Conduit Copper-Toristed Pair) Conduit 2 ^o Conduit Conduit Conduit Shielded Detector Cable Cabinet (Eight Phase Base Mounted) Eight Phase Actuated Controller Cantilever Signal Support (1 ARM @ 50) Cantilever Signal Support (1 ARM @ 50)	UF LF EA EA EA EA EA EA EA EA LF LF EA EA LF LF EA EA LF EA EA LF EA EA EA LF EA EA	4	200 100 1 1 148 1 2 10 2 4 4 2 800 1000 400 200 4 350 2000 2 2 2 3 3	150 200 100 1 1 48 1 2 4 4 2 4 4 4 2 800 1000 4 400 200 4 0 200 200 2 2 2 3 3 1 ICHTING & ISTGNAL 4 4 4 4 4	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	2.50 \$ 10.00 \$ 3.00 \$ 5.000 \$ 5.000 \$ 1.957.79 \$ 807.65 \$ 1.131.83 \$ 807.65 \$ 1.451.62 \$ 2.023.65 \$ 1.65 \$ 2.023.65 \$ 1.65 \$ 2.77 \$ 1.380 \$ 1.78 62 \$ 1.3450 \$ 1.27 \$ 2.89 \$ 1.3544.50 \$ 4.736.56 \$ 1.4716.5 \$ 2.551.62 \$ 1.4716.5 \$ 2.4736.5 \$ 1.4716.5 \$ 2.551.62 \$ 1.4716.5 \$ 2.551.62 \$ 7.3.64 \$ 2.352.59 \$	2,000 300 755 7,400 3,919 8,077 2,622 1,542 1,542 1,542 1,542 2,676 7,14 1,222 2,677 7,2708 3,977 2,708 3,977 2,708 3,977 4,234 4,234 4,577 2,708 3,977 4,234 4,577 2,708 3,775 2,768 3,775 3,775 2,708 3,775
725-23.25 725-23.28 725-24.51 730-01.02 730-02.09 730-02.17 730-03.20 730-03.21 730-03.21 730-08.03 730-08.03 730-08.03 730-01.14 730-12.14 730-12.16 730-13.01 730-14.01 730-14.01 730-14.02 730-15.32 730-16.02 730-23.88 730-23.96	Fiber Optic Cable (72 F) Fiber Optic Cable (12 ft) Fiber Optic Closure (72 F) Fiber Optic Splice Fusion System Integration System Integration Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 A2H With Backplate) Install Pull Box (Type B) Electrical Service Connection Signal Cable - 7 Conductor Interconnect Cable (Copper-Twisted Pair) Conduit 3 ^o Diameter (Jack and Bore) Conduit 2 ^o Conduit Copper-Twisted Pair) Conduit 2 ^o Conduit Copper-Toristed Pair) Conduit 2 ^o Conduit Copper-Toristed Pair) Conduit 2 ^o Conduit Copper-Toristed Pair) Conduit 2 ^o Conduit Conduit Conduit Shielded Detector Cable Cabinet (Eight Phase Base Mounted) Eight Phase Actuated Controller Cantilever Signal Support (1 ARM @ 50) Cantilever Signal Support (1 ARM @ 50)	UF LF EA LF EA EA LF EA EA EA LF EA LF EA	4	200 100 1 1 148 1 2 10 2 4 4 2 800 1000 400 200 4 350 2000 2 2 2 3 3	150 200 100 1 1 48 1 2 4 4 2 4 4 4 2 800 1000 4 400 200 4 0 200 200 2 2 2 3 3 1 ICHTING & ISTGNAL 4 4 4 4 4	\$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	2.50 \$ 10.00 \$ 3.00 \$ 5.000 \$ 5.000 \$ 1.957.90 \$ 8.07.65 \$ 1.313.83 \$ 385.67 \$ 4.81.62 \$ 2.023.65 \$ 1.65 \$ 2.67 \$ 1.380 \$ 1.78.62 \$ 1.3.80 \$ 1.78.62 \$ 1.3.55 \$ 2.65 \$ 1.4,116.19 \$ 1.9.551.62 \$ 1.9.551.62 \$ 1.4,116.19 \$ 1.9.551.62 \$ 1.9.551.62 \$ 1.2.65 \$ 1.2.65 \$ 1.2.65 \$ 1.2.65 \$ 1.2.65 \$ 1.2.65 \$ 1.2.65 \$ 1.2.55 \$ 1.2.55 \$ 1.2.55 \$ 1.2.55 \$ 1.2.55 \$ 1.2.55 \$ 1.2.55 \$ 1.2.55 \$ 1.2.64 \$ 2.3.52.59 \$ 1.2.94.80 \$ 1.2.94.9	2,000 300 755 7,400 3,001 8,077 2,62 1,543 1,524 1,524 1,524 1,524 2,67 7,12 2,766 7,77 2,7087 3,947 4,234 4,344 4,234 4,234 4,234 4,234 4,234 4,234 4,234 4,234 4,
725-23.25 725-23.28 725-24.51 730-01.02 730-02.09 730-03.20 730-03.20 730-03.21 730-03.21 730-03.21 730-03.21 730-06.30 730-08.30 730-12.14 730-12.16 730-12.16 730-13.01 730-15.32 730-15.32 730-16.02 730-23.88 730-23.96 Guardrail 705-04.07 705-04.09	Fiber Optic Cable (72 F) Fiber Optic Cable (12 ft) Fiber Optic Closure (72 F) Fiber Optic Splice Fusion System Integration System Integration Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 A2H With Backplate) Install Pull Box (Type B) Electrical Service Connection Signal Cable - 7 Conductor Interconnect Cable (Copper-Twisted Pair) Conduit 3 ^o Diameter (Jack and Bore) Conduit 2 ^o Conduit Copper-Twisted Pair) Conduit 2 ^o Conduit Copper-Toristed Pair) Conduit 2 ^o Conduit Copper-Toristed Pair) Conduit 2 ^o Conduit Copper-Toristed Pair) Conduit 2 ^o Conduit Conduit Conduit Shielded Detector Cable Cabinet (Eight Phase Base Mounted) Eight Phase Actuated Controller Cantilever Signal Support (1 ARM @ 50) Cantilever Signal Support (1 ARM @ 50)	UF LF EA LF EA EA LF EA EA EA LF EA LF EA	4	200 100 1 1 148 1 2 10 2 4 4 2 800 1000 400 200 4 350 2000 2 2 2 3 3	150 200 100 1 1 4 2 4 4 2 4 4 2 4 4 4 2 800 1000 4 4 0 200 4 0 200 200 200 200 2 2 3 3 1 3 10 0 0 200 10 0 10	\$ \$ \$ \$	2.50 \$ 10.00 \$ 3.00 \$ 5.000 \$ 5.000 \$ 1.957.90 \$ 8.07.65 \$ 1.313.83 \$ 385.67 \$ 4.81.62 \$ 2.023.65 \$ 1.65 \$ 2.67 \$ 1.380 \$ 1.78.62 \$ 1.3.80 \$ 1.78.62 \$ 1.3.55 \$ 2.65 \$ 1.4,116.19 \$ 1.9.551.62 \$ 1.9.551.62 \$ 1.4,116.19 \$ 1.9.551.62 \$ 1.9.551.62 \$ 1.2.65 \$ 1.2.65 \$ 1.2.65 \$ 1.2.65 \$ 1.2.65 \$ 1.2.65 \$ 1.2.65 \$ 1.2.55 \$ 1.2.55 \$ 1.2.55 \$ 1.2.55 \$ 1.2.55 \$ 1.2.55 \$ 1.2.55 \$ 1.2.55 \$ 1.2.64 \$ 2.3.52.59 \$ 1.2.94.80 \$ 1.2.94.9	2,000 300 755 7,400 3,001 8,077 2,62 1,543 1,524 1,524 1,524 1,524 2,67 7,12 2,766 7,77 2,7087 3,947 4,234 4,344 4,234 4,234 4,234 4,234 4,234 4,234 4,234 4,234 4,
725-23.25 725-23.28 725-24.51 730-01.02 730-02.09 730-03.20 730-03.20 730-03.21 730-03.21 730-03.21 730-03.21 730-06.30 730-08.30 730-12.14 730-12.16 730-12.16 730-13.01 730-15.32 730-15.32 730-16.02 730-23.88 730-23.96 Guardrail 705-04.07 705-04.09	Fiber Optic Cable (72 F) Fiber Optic Cable (12 ft) Fiber Optic Closure (72 F) Fiber Optic Splice Fusion System Integration System Integration Signal Head Assembly (130 With Backplate) Signal Head Assembly (130 A2H With Backplate) Install Pull Box (Type B) Electrical Service Connection Signal Cable - 7 Conductor Interconnect Cable (Copper-Twisted Pair) Conduit 3 ^o Diameter (Jack and Bore) Conduit 2 ^o Conduit Copper-Twisted Pair) Conduit 2 ^o Conduit Copper-Toristed Pair) Conduit 2 ^o Conduit Copper-Toristed Pair) Conduit 2 ^o Conduit Copper-Toristed Pair) Conduit 2 ^o Conduit Conduit Conduit Shielded Detector Cable Cabinet (Eight Phase Base Mounted) Eight Phase Actuated Controller Cantilever Signal Support (1 ARM @ 50) Cantilever Signal Support (1 ARM @ 50)	UF LF EA LF EA EA LF EA EA EA LF EA LF EA	4	200 100 1 1 148 1 2 10 2 4 4 2 800 1000 400 200 4 350 2000 2 2 2 3 3	150 200 100 1 1 4 2 4 4 2 4 4 2 4 4 4 2 800 1000 4 4 0 200 4 0 200 200 200 200 2 2 3 3 1 3 10 0 0 200 10 0 10	\$ \$ \$ \$	2.50 \$ 10.00 \$ 3.00 \$ 5.000 \$ 1,957.79 \$ 807.65 \$ 1,313.83 \$ 385.67 \$ 481.62 \$ 2,023.65 \$ 1,65 \$ 2,67 \$ 2,574 \$ 1,267 \$ 1,274 \$ 1,289 \$ 1,275 \$ 1,289 \$ 1,354.50 \$ 14,116.19 \$ 19,551.62 \$ 14,116.19 \$ 19,551.62 \$ 7,364 \$ 2,352.59 \$ 1,264 \$ 2,352.59 \$ 1,274 \$ 2,352.59 \$ 1,284 \$ 1,2	377 2,000 300 755 7,400 3,000 3,010 3,010 3,010 3,010 1,522 4,072 1,522 4,072 1,522 4,072 1,522 4,072 1,522 4,072 1,226 7,766 7,174 4,2344 4,2344 4,2344 4,2344 4,2344 4,2344 4,2344 4,23444 4,234444 4,234444444444

PAY ITEM SUMMARY (BELVOIR AVE - TRADITIONAL CONSTRUCTION)

Not Listed	Signs (Construction)	LS	1		1	\$	-	\$	3,200
					S	IGNING TOT	AL (ROUNDED)	\$	3,200
Pavement Markings								-	
716-09.31	STOP LINE	LF		200	200	\$	16.65		3,330.00
716-13.06	Spray Thermo P.M. (40 mil 4")	LM	0.0	2	2.0	\$	2,878.11		5,756.23
					PAVEMENT MA	RKINGS TOT	AL (ROUNDED)	\$	9,100
Fencing									
707-07.01	Chain-Link Fence (Bridges)	SF		1728	1728	\$	42.00	Ş	72,576.00
					•	ENCE IUTAL	(ROUNDED)	Ş	72,600.00
2. 2									
Rip-Rap				BID	RAP & SLOPE PROT			ć	
				KIF*	KAP & SLOPE PROT	ECHON TOT	AL (KOONDED)	ş	-
Clearing and Grubing									
clearing and Grubing		_			CLEAR AND GRU	IBBING TOT	AL (ROUNDED)	Ś	
						5551110 101		Ŷ	
Railroad At-Grade Crossing									
				RAILROAD	ROSSING OR SEPAI	RATION TOT	AL (ROUNDED)	Ś	-
Utilties									
N/A	Overhead Distribution	LM	0.1		0.1	\$		ć	
	Overneau Distribution		0.1		0.1	Ş	375,000		37,500
N/A	Overhead Distribution Overhead Transmission	LM	0.1		0.1	ş	375,000		37,500 75,000
								\$	
N/A	Overhead Transmission	LM	0.1		0.1	\$	750,000	\$ \$	75,000
N/A N/A	Overhead Transmission Underground Communication	LM LM	0.1		0.1	\$ \$	750,000	\$ \$ \$	75,000 50,000
N/A N/A N/A	Overhead Transmission Underground Communication Underground Gas	LM LM LM	0.1 0.1 0.1		0.1 0.1 0.1 0.1	\$ \$ \$ \$	750,000 500,000 250,000	\$ \$ \$	75,000 50,000 25,000
N/A N/A N/A	Overhead Transmission Underground Communication Underground Gas	LM LM LM	0.1 0.1 0.1		0.1 0.1 0.1 0.1	\$ \$ \$ \$	750,000 500,000 250,000 237,600	\$ \$ \$	75,000 50,000 25,000 23,760
N/A N/A N/A	Overhead Transmission Underground Communication Underground Gas	LM LM LM	0.1 0.1 0.1		0.1 0.1 0.1 0.1	\$ \$ \$ \$	750,000 500,000 250,000 237,600	\$ \$ \$	75,000 50,000 25,000 23,760
N/A N/A N/A N/A	Overhead Transmission Underground Communication Underground Gas	LM LM LM LM	0.1 0.1 0.1		0.1 0.1 0.1 0.1 UTH	\$ \$ \$ LITIES TOTAL	750,000 500,000 250,000 237,600	\$ \$ \$	75,000 50,000 25,000 23,760

ATTACHMENT 2-C

Projected Traffic

PIN 124069.00



TENNESSEE DEPARTMENT OF TRANSPORTATION STRATEGIC TRANSPORTATION INVESTMENTS DIVISION

				2 A A A A A A A A A A A A A A A A A A A
PROJECT NO .:	BR-I-24-3	(97): 33003-0166-44	ROUTE:	I-24 & BELVOIR AVE. BRIDGES
COUNTY:	HAMILT	NC	CITY:	CHATTANOOGA
PROJECT PIN N	UMBER:	124069.00		
PROJECT DESC	RIPTION:	[1] I-24 BRIDGE OVER GE	RMANTOW	N RD @ L.M. 12.08 TRAFFIC DATA.

[2] BELVOIR AVE. BRIDGE OVER I-24 @ L.M. 1.01 TRAFFIC DATA.

DIVISION REQUESTING:

		PAVEME	NT DESIGN	
MAINTENANCE		STRUCT	URES	
S.T.I.D.		SURVEY	& ROADWAY DESIGN	
PROG. DEVELOPMENT & ADM.		TRAFFIC	SIGNAL DESIGN	
PUBLIC TRANS. & AERO.		OTHER	CONSULTANT	\boxtimes
YEAR PROJECT PROGRAMMED FOR	R CONSTRUCTION	8		
PROJECTED LETTING DATE:				

TRAFFIC ASSIGNMENT:

								DES	SIGN	DES	IGN
								ROAI	OWAY	AVEF	RAGE
	BASE Y	EAR		DES	IGN Y	EAR		% TR	UCKS	DAILY	LOADS
	AADT	YEAR	AADT	DHV	%	YEAR	DIR.DIST.	DHV	AADT	FLEX	RIGID
[1]	114,670	2022	142,650	12,830	9	2042	65-35	15	23	8,840	13,414
[2]	9,300	2022	10,230	1,125	11	2042	70-30	2	3	88	112

		DATE	2/14/18
DIVISION B	BARGE DESIGN SOLUTIONS		
ADDRESS 6	15 3 rd AVE. S. SUITE 700		
N	ASHVILLE TN 37210		
FRANSPORTAT SUITE 1000, JAN IIM WATERS ASSISTANT DIF	FION MANAGER 1 MES K. POLK BUILDING FOR RECTOR		2.15.18
	DIVISION E ADDRESS 6 N ONY ARMSTI RANSPORTA UITE 1000, JA IM WATERS SSISTANT DI	ADDRESS 615 3 rd AVE. S. SUITE 700 NASHVILLE TN 37210 ONY ARMSTRONG Tony American RANSPORTATION MANAGER 1 UITE 1000, JAMES K. POLK BUILDING	DIVISION ADDRESS BARGE DESIGN SOLUTIONS 615 3 rd AVE. S. SUITE 700 NASHVILLE TN 37210 TONY ARMSTRONG RANSPORTATION MANAGER 1 UITE 1000, JAMES K. POLK BUILDING IM WATERS SSISTANT DIRECTOR

COMMENTS:

THIS TRAFFIC WAS TAKEN FROM TWO PREVIOUS PROJECTS PREPARED FOR S.T.I.D. DATED 11/28/2017 AND 1/3/2018 WITH THE ADDITION OF ADL'S FOR PAVEMENT DESIGN.

DHV'S ARE NOT REQUIRED FOR SIDE ROADS LESS THAN 1000 AADT. NOTE: FOR BRIDGE REPLACEMENT PROJECTS, ADLS ARE NOT REQUIRED FOR ADTS OF 1000 OR LESS AND PERCENTAGE OF TRUCKS OF 7% OR LESS. SEE ATTACHMENTS FOR TURNING MOVEMENTS AND/OR OTHER DETAILS.

(REV. 2/22/17)

TENNESSEE DEPARTMENT OF TRANSPORTATION STRATEGIC TRANSPORTATION INVESTMENT DIVISION

PROJECT NO.: <u>BR-I-24-3(97)</u>: 33003-0166-44 COUNTY: <u>HAMILTON</u> PROJECT DESCRIPTION: BRIDGE OVER I-24 @ L.M. 1.01. ROUTE NO.:<u>BELVOIR AVE. [</u>3611] [2] CITY: CHATTANOOGA

FAP Urban

Pavement Structural Design

Calculation of Equivalent Daily 18 Kip Single Axle Loads

		ADT		Flexible		Rigid	
Тур	oe Vehicle	(No. Counted)		18-kip Factor	ADL	18-kip Factor	ADL
Pass. c	ars and						
motorcy	/cles (1-2)	5,566		0.001	6	0.001	6
Pick-up	, Panel,						
Van	(3)	3,906		0.004	16	0.004	16
	Buses (4)	27		0.300	8	0.300	8
Sing.	2-axle,	1)	Ē				
	6-tire (5)	139		0.260	36	0.260	36
Unit	3-axle or						
	more (6-7)	55		1.000	55	1.500	83
	4-axle (8)	56	Ē	0.640	36	0.800	45
Comb.	5-axle or						
	more (9-13)	16		1.200	19	1.900	30
	Totals						
(20	32 AADT)	9,765			175		223

Suggested Percentages of Trucks in Design Lane

5,000 or less ADT 5,000 - 10,000 ADT 10,000 - 15,000 ADT 15,000 - 20,000 ADT 20,000 - 30,000 ADT 30,000 - 40,000 ADT 40,000 Plus	95% 90% 85% 80% 75% 70% 60%							
N	o. of Lanes:			2				
%	Trucks in Desig	n Lane:		100%				
A	DL in Design Lan	e:						
	FLEX:	0.5	X	1.00	X	175.5	-	88
	RIGID:	0.5	X	1.00	Х	223.1	=	112
ADL Calculations By: Reviewed By:	, & d	E				Dat		2/14/2018 • 15 • 18

ATTACHMENT 2-D

Bridge TIR Tables

PIN 124069.00



	LOCA	TION	
Bridge #:	33100240057	Feature Crossed:	Interstate 24 (10024)
Road Name:	Belvoir Avenue	Log mile:	1.01
Route ID:	03611	System:	NOT A NHS ROUTE
City:	Chattanooga	Functional Class:	Urban Minor Arterial
County:	Hamilton	State Project Number	BR-I-24-3(97)
PIN:	124069.00		

	ROADWAY							
	Existing	Proposed (Preliminary Design Estimate)						
Design Standard		RD01-TS-6						
Route Characteristics								
AADT:	9,300	10,230						
AADT Year:	2022	2042						
Terrain:	Rolling	Rolling						
No. Lanes:	4	4						
Speed(Posted):	30	30						
Speed (Design):		30						
Approach Character.								
Lane Width (ft):	12	12						
Shoulder Width (ft):	10	0						
ROW Width (ft):	79.5	79.5						
ROW Tracts Affected		n/a						
ROW Required (acre)		n/a						
Cross Section Width (ft):	79.5	70						
Approach Length (ft):		n/a						
Alignment:	Tangent + Intersection Each End	Same as Existing						
Grade:		???						
Surface Material:	Asphalt	Asphalt						
Sidewalks (R/L):	4'/4'	4'/4'						
App. Lower Than Structure	No	No						
Utilities (list)	OH: distribution, transmission;	OH: distribution, transmission;						
	UG: water, gas, communication;	UG: water, gas, communication;						
Utilities to be Relocated		OH: distribution, transmission;						
		UG: water, gas, communication;						
Comments		Construction Manager/General Contractor (CM/GC) Project						

	STRUCTURE	
	Existing	Proposed (Preliminary Design Estimate)
Bridge Characteristics		
Year Built	1965	
Load Limit	20 tons	
Sufficiency Rating	86.6	
Skew	90°	90°
Structure Type	Prestressed Concrete	Steel (WPG)
Structures in Channel	n/a	n/a
Length (ft)	190.5	152
No. Spans (App./Main)	0 4	0 2
Width (curb to curb) (ft)	67.833	48
Width (o to o) (ft)	79.33	62
Sidewalks on Structure	Yes	Yes
Vert. Clearance (ft)	16.33	16.2
Superstructure Depth (in)	Spans 1-3 = 29 / Span 4 = 19	31
Girder Depth (in)	27/17	21
Finish Grade-Low Girder (in)	29/19	31
High Water Marks	n/a	
Bridge Rail Type	Post-Beam	STD-11-1
Bridge Rail Height (ft)	2.67	3.8
Indication Overtopping	n/a	
Local Scour	No	
Obstructions	No	
Other Structures		Fencing to be added to outside of fence railing at the request of TDOT Region 2
Comments		Construction Manager/General Contractor (CM/GC) Project

FLOW RATES (from USGS StreamStats Program Version 3)			
Drainage Area (sq. miles)	0.14		
10 Year Discharge Rate (Q10) cfs	68.3		
50 Year Discharge Rate (Q50) cfs	108		
100 Year Discharge Rate (Q100) cfs	128		
	CHANNEL		
Depth (ft)	n/a		
Width of Normal Flow (ft)	n/a		
Depth of Normal Flow (ft)	n/a		
Skew of Channel with Roadway	n/a		
Type of Material in Stream Bed	n/a		
Type of Vegetation on Banks	n/a		
Are Channel Banks Stable	n/a		
Signs of Stream Aggradation	n/a		
Signs of Stream Degradation	n/a		
Drift or Drift Potential	n/a		
Comments			

FLOODPLAIN

Skew Same as Channel	n/a
Symmetrical About Channel	n/a
Approx. Floor Elevations	n/a
Type of Vegetation in Floodplain	n/a
Any Buildings in Floodplain	n/a
Flood Information From Locals	n/a
Comments	According to the FEMA Map, there is not a floodplain in the area of the site.

MAINTENANCE OF TRAFFIC

Method of Maintaining Traffic	temporary detour
Description	The current plan is to close the Belvoir Avenue bridge over Interstate 24 and detour the traffic along South Terrace and North Terrace. A detour map is shown in the functional plans in the preface of this study. This plan is subject to change once a CM (construction manager) is on board.
Comments	Construction Manager/General Contractor (CM/GC)

SITE VISIT ATTENDEES DATE: 4/5/2018					
Name	Organization	Phone	Email		
Mike Gilbert	TDOT STID	615.741.0772	michael.gilbert@tn.gov		
Jeremy Sims	TDOT Region 2	423.510.1227	jeremy.sims@tn.gov		
Alan Wolfe	TDOT Region 2 Traffic	423.510.1139	<u>alan.wolfe@tn.gov</u>		
Zach Johnson	TDOT Region 2 Traffic	423.510.6914	zach.johnson@tn.gov		
Robert Rodgers	TDOT Region 2 Design	423.510.1138	<u>robert.rodger@tn.gov</u>		
Michael Cloud	TDOT Region 2	615.532.1676	michael.cloud@tn.gov		
Garris Bugg	TDOT Region 2		garris.bugg@tn.gov		
Wade Goss	TDOT Region 2		wade.goss@tn.gov		
Ben Taylor	City of Chattanooga	423.643.5557	<u>bgtaylor@chattanooga.gov</u>		
Wes Hughen	TDOT Region 2	423.510.1133	wesley.hughen@tn.gov		
Adam Casteel	TDOT R2 Operations	423.208.6113	adam.casteel@tn.gov		
Jamie Fitzpatrick	TDOT HQ Construction	615.741.0781	jamie.fitzpatrick@tn.gov		
Robert LeFevre	TDOT Structures	615.741.0798	robert.lefevre@tn.gov		
Nitaya Chayangkura	TDOT HQ Construction	615.532.8848	nitaya.chayangkura@tn.gov		
Joe Deering	TDOT Region 2	423.892.3430	joe.deering@tn.gov		
Gary Chapman	TDOT Region 2 Survey	423.510.1144	gary.chapman@tn.gov		
Ken Flynn	TDOT R2 Operations	423.510.1217	<u>ken.flynn@tn.gov</u>		
Scott Medlin	TDOT R2 Environmental	423.570.1118	<u>scott.medlin@tn.gov</u>		
Doug Ford	TDOT Region 2 Survey	423.298.3279	douglas.ford@tn.gov		
Jonathan Haycraft	Barge Design	615.252.4242	jonathan.haycraft@bargedesign.com		
Kevin McAlister	Barge Design	615.252.4294	kevin.mcalister@bargedesign.com		
Lauren Gaines	Barge Design	615.252.4243	lauren.gaines@bargedesign.com		
Patrick Leap	Barge Design	615.252.4260	patrick.leap@bargedesign.com		

ATTACHMENT 2-E

Stream Stats

PIN 124069.00



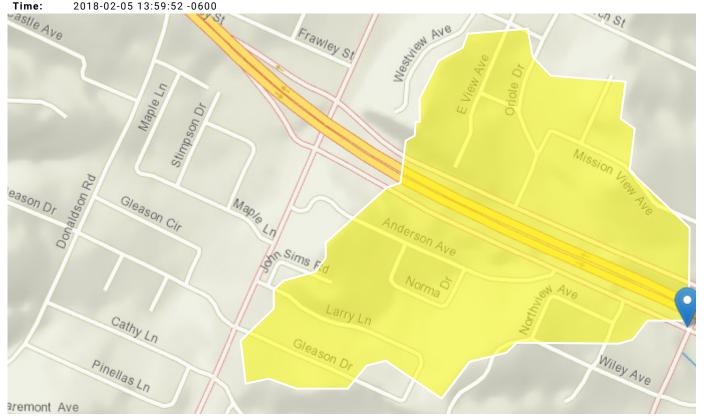
StreamStats Report

 Region ID:
 TN

 Workspace ID:
 TN20180205195938744000

 Clicked Point (Latitude, Longitude):
 35.01075, -85.24395

 Time:
 2018-02-05 13:59:52 -0600



Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
CONTDA	Area that contributes flow to a point on a stream	0.14	square miles
CSL10_85	Change in elevation divided by length between points 10 and 85 percent of distance along main channel to basin divide - main channel method not known	147.46	feet per mi
CLIMFAC2YR	Two-year climate factor from Lichy and Karlinger (1990)	2.351	dimensionless
DRNAREA	Area that drains to a point on a stream	0.14	square miles
RECESS	Number of days required for streamflow to recede one order of magnitude when hydrograph is plotted on logarithmic scale	80	days per log cycle
SOILPERM	Average Soil Permeability	1.97	inches per hour
PERMGTE2IN	Percent of area underlain by soils with permeability greater than or equal to 2 inches per hour	100.005	percent
TNCLFACT2	Tennessee climate factor, 2-year interval	2.351	
TNSOILFAC	Tennessee soil factor, percentage of area underlain by a soil permeability greater than or equal to 2 inches per hour	100	

Peak-Flow Statistics Parameters [MultiVariable Area 1]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
CONTDA	Contributing Drainage Area	0.14	square miles	0.2	9000
CSL10_85	Stream Slope 10 and 85 Method	147.46	feet per mi	3.29	950
CLIMFAC2YR	Tennessee Climate Factor 2 Year	2.351	dimensionless	2.06	2.32

Peak-Flow Statistics Disclaimers [MultiVariable Area 1]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

Peak-Flow Statistics Flow Report [MultiVariable Area 1]

Statistic	Value	Unit
2 Year Peak Flood	31.5	ft^3/s
5 Year Peak Flood	52.4	ft^3/s
10 Year Peak Flood	68.3	ft^3/s
25 Year Peak Flood	90.5	ft^3/s
50 Year Peak Flood	108	ft^3/s
100 Year Peak Flood	128	ft^3/s
500 Year Peak Flood	178	ft^3/s

Peak-Flow Statistics Citations

Law, G.S., and Tasker G.D.,2003, Flood-Frequency Prediction Methods for Unregulated Streams of Tennessee, 2000: U.S. Geological Survey Water-Resources Investigations Report 03-4176, 79p. (http://pubs.usgs.gov/wri/wri034176/)

Low-Flow Statistics Parameters [Low Flow Central and East Regions 2009 5159]					
Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.14	square miles	1.3	14441
RECESS	Recession Index	80	days per log cycle	32	175
CLIMFAC2YR	Tennessee Climate Factor 2 Year	2.351	dimensionless	2.056	2.46
SOILPERM	Average Soil Permeability	1.97	inches per hour	0.45	9.72
PERMGTE2IN	Percent permeability gte 2 in per hr	100.005	percent	2	100

Low-Flow Statistics Disclaimers [Low Flow Central and East Regions 2009 5159]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

Low-Flow Statistics Flow Report [Low Flow Central and East Regions 2009 5159]

Statistic	Value	Unit
7 Day 10 Year Low Flow	0.0116	ft^3/s
30 Day 5 Year Low Flow	0.0173	ft^3/s

Low-Flow Statistics Citations

Law, G.S., Tasker, G.D., and Ladd, D.E.,2009, Streamflow-characteristic estimation methods for unregulated streams of Tennessee: U.S. Geological Survey Scientific Investigations Report 2009–5159, 212 p., 1 pl. (http://pubs.usgs.gov/sir/2009/5159/)

Annual Flow Statistics Parameters [Low Flow Central and East Regions 2009 5159]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.14	square miles	1.3	14441
CLIMFAC2YR	Tennessee Climate Factor 2 Year	2.351	dimensionless	2.056	2.46
SOILPERM	Average Soil Permeability	1.97	inches per hour	0.45	9.72

Annual Flow Statistics Disclaimers [Low Flow Central and East Regions 2009 5159]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

Annual Flow Statistics Flow Report [Low Flow Central and East Regions 2009 5159]

Statistic	Value	Unit
Mean Annual Flow	0.225	ft^3/s

Annual Flow Statistics Citations

Law, G.S., Tasker, G.D., and Ladd, D.E.,2009, Streamflow-characteristic estimation methods for unregulated streams of Tennessee: U.S. Geological Survey Scientific Investigations Report 2009–5159, 212 p., 1 pl. (http://pubs.usgs.gov/sir/2009/5159/)

Seasonal Flow Statistics Parameters [Low Flow Central and East Regions 2009 5159]					
Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.14	square miles	1.3	14441
RECESS	Recession Index	80	days per log cycle	32	175
CLIMFAC2YR	Tennessee Climate Factor 2 Year	2.351	dimensionless	2.056	2.46

StreamStats						
Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit	
SOILPERM	Average Soil Permeability	1.97	inches per hour	0.45	9.72	
Seasonal Flow Statistics Disclaimers [Low Flow Central and East Regions 2009 5159]						
One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors						
Seasonal Flow Statistics Flow Report [Low Flow Central and East Regions 2009 5159]						
Statistic			Value	Unit		
Summer Mean Flow			0.0765	ft^3/s		

Seasonal Flow Statistics Citations

Law, G.S., Tasker, G.D., and Ladd, D.E.,2009, Streamflow-characteristic estimation methods for unregulated streams of Tennessee: U.S. Geological Survey Scientific Investigations Report 2009–5159, 212 p., 1 pl. (http://pubs.usgs.gov/sir/2009/5159/)

Flow-Duration Statistics Parameters [Low Flow Central and East Regions 2009 5159]						
Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit	
DRNAREA	Drainage Area	0.14	square miles	1.3	14441	
RECESS	Recession Index	80	days per log cycle	32	175	
CLIMFAC2YR	Tennessee Climate Factor 2 Year	2.351	dimensionless	2.056	2.46	
SOILPERM	Average Soil Permeability	1.97	inches per hour	0.45	9.72	
PERMGTE2IN	Percent permeability gte 2 in per hr	100.005	percent	2	100	

Flow-Duration Statistics Disclaimers [Low Flow Central and East Regions 2009 5159]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

Flow-Duration Statistics Flow Report [Low Flow Central and East Regions 2009 5159]

Statistic	Value	Unit
99.5 Percent Duration	0.0113	ft^3/s
99 Percent Duration	0.0125	ft^3/s
98 Percent Duration	0.0146	ft^3/s
95 Percent Duration	0.0175	ft^3/s
90 Percent Duration	0.0215	ft^3/s
80 Percent Duration	0.0274	ft^3/s
70 Percent Duration	0.0373	ft^3/s

StreamStats

Statistic	Value	Unit
60 Percent Duration	0.0521	ft^3/s
50 Percent Duration	0.0764	ft^3/s
40 Percent Duration	0.117	ft^3/s
30 Percent Duration	0.176	ft^3/s
20 Percent Duration	0.274	ft^3/s
10 Percent Duration	0.455	ft^3/s

Flow-Duration Statistics Citations

Law, G.S., Tasker, G.D., and Ladd, D.E.,2009, Streamflow-characteristic estimation methods for unregulated streams of Tennessee: U.S. Geological Survey Scientific Investigations Report 2009–5159, 212 p., 1 pl. (http://pubs.usgs.gov/sir/2009/5159/)

ATTACHMENT 2-F

FEMA Map

PIN 124069.00



NOTES TO USERS

This map is for use in administaring the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size. The community map repository should be consulted for possible updated or additional flood hazard information.

Contenting of product space of an advance in non-indice in contrastic to classis more space below the space of the spac

Costal Base Hood Herotoms shown on this nep apply only landward of 0.0 North American Vertical Datum of 1998 (NAVO 98), Users of the FINM evalue to work that costal food storables are also provided in the Summary of Stillwater Envadams table in this Forel Isuamons Shuth years for this justification. Liberations shown in the Summary of Stillwater Envadors table should be used for construction endors floot/bein rearragement purpress what they are injustifications shown on the Holl.

Rearderice of the **Readways** were computed at arous sections and interpoleted between cross sections. The final arous the based an hydrautic considerations with regard to realizations of the National Find Interance Program. Readway widths and other pertinent loodway data are provided in the Flood Insurance Stody report for this jumaticus.

Certain areas not in Special Flood Hazerd Areas may be protected by flood control structures. Refer to Section 2.4 "Flood Protection Measures" of the Flood Insulance Study resort for internation on flood control structures for the junce(control structures).

The projection used in the properties of the rate was University for the properties of PRMs for educer initializations are real in solar and effects and eff

The experimental of the second second

NGS Information Services NGS Information Services NDAA, N/NGS12 National Geodetic Survey SSMU-3, #9202 1315 Epst: West Highway Silver Spring, MD 20010-3282

To obtain current elevation, descripcion, and/or location information for bench marks shown on this map, please contact the information Services Branch of the National Geodetic Survey at (301) 713-3242, or visit its website at http://www.ngs.mgau.guv/.

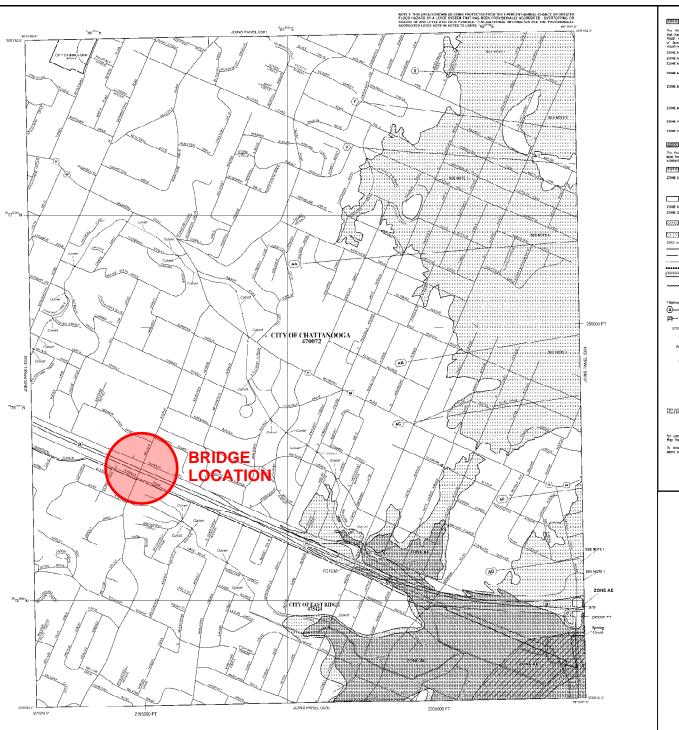
Imp.-Intelligent Residued.

Corporate limits shown on this map are based on the best data available at the time of publication. Because changes due to annexations or de-annexations may have obcurred after this map was published, map users should contact appropriate community officials to verify current corporate limit locations.

Please refer to the expansibly printed Map Index for an overview map of the county thereing the layout of map panelia: community map restrictly addresses: and a Listing of Communities table containing National Flood Instrance Program dates for each community as well as a listing of the panels on which each community. Is located.

For information and questions about this map, available products associated with this FIRM including, historic versions of this FIRM. how to order products or the National Prood Insurance Program in general, please act the FERM Aloga Information eXchange at 1477-FERM-AN4F (1477-03-8;2027) or tell the FERM Map Service Center velobile at the prime. Energy or Available products may include removal at ease of energy or Available products may include tensorial transmit at http://msi.tema.gov/available.products.msi include previously issued Letters of Map O Marging, a Fload I ware not GudAr Reput, a while fulgible receivers of this maps. May of these products can be ordered or obtained. *disortly* from the website. Users may determine the current map faits for each FINM panel by visiting the FEMA Map Service Center vestors of ty celling the FEMA Map Information schemarge.

Previously According I area Rotes to 19ars, ("Neck al" year local community in draw the second second second second second second second second second the 1 second second



LEGEND SPECIAL FLOOD HAZARD AREAS (SFHAs) SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD The 164 annual chance fixed (1014,year fixed), also known as the base fixed, is the fixed that has a 1% chance of being equated or exceeded in any given year. The Special Hood Hazard Area is the area subject to flooding by the 1% annual chance flood. Areas Include Zumb A, AZ, Art, AO, AR inface elevation of the 1% annual cha ZONE A No Date Flood Develops determined. See that food therein a detailment See that Develop detailment Road depts of 1 to 3 feet (usually areas of panding); Base Road Develop detailmined. ZONE AS Road depths of 1 to 3 feet (vexety sheet flow on sleping termin); average depths determined. For areas of alluvial fan floodino, velocities also determined. ZONE AG ZONE AR ZONE A99 Area to be protected from 1% annual chance flood by a Federal flood pratection system under construction; no Base Flood Elevations Guastal read are with velocity hazard (wave action); no base fiload Beating dotarmined. Coastal flood zone with velocity hazard (wowe action); Base Road Bitvations determined. ZONE VE ------FLOODWAY AREAS IN ZONE AE way is the channel of a stream plus any edjacent floodplain areas that must be of encreachment so that the 1% annual chance flood can be carried without increases in flood heights. The floads kept free substantial **** OTHER FLOOD AREAS Areas of 0.2% enruel choice flood: areas of 1% annual choice flood with average depts of less then 1 fox or with drainage areas less then 1 square milit; and areas protected by levels from 1% enruel chance flood. ZONE X OTHER AREAS ZONE X ZONE D Areas determined to be outside the 0.2% annual chance floodplain. Areas in which flood heatrds are undetermined, but possible. 611115 COASTAL BARRIER RESOURCES SYSTEM (CBRS) AREAS OTHERWISE PROTECTED AREAS (OPAs) CDRS areas and OPAs are normally located within or adjacent to Special Flood Hazard Areas - Hoodplain boundary ----- Roodway boundary Zone D boundary **** Cars and One box soundary dividing special ricod rezard setus of difference Base Flood Elevations, flood depits or fixed velocities. Base Flood Elevation line and value; elevation in feet* Base Flood Elevation value where uniform within zone; slevation in feet* (EL 967) rican Vertical Decum of 1988 (NAVD 88) * Referenced to the North Ar ____@ Cross section in (23)----(23) Transect line Geographic coordinates referenced to the North American Datum of 1963 (NAD 83) 576730, 322230 /275³³⁰⁰N 1856 meter Universal Transverse Horealer grid values, zere 16 SUBD foot grid ticks: Tennessee Skale Plane coordinate system; [Eli-Scuttle 4100], Lampert Concernation 6000000 FT Banch mark (see explanation in Nobes to Users section of this MIRM (2016) DX5510 M1.5 River Mile MAP REPOSITORIES Potor to Map Repeationica list on Map Index EFERDING TATE OF CONSTYNITE 1. COUNSUMACE MV B VAN Vender 7. 200 EFFORTE OF Vender 7. 200 February 3. 2005 or def coped and management February 3. 2005 or def coped and management Construction of the second second second second second February 3. 2005 or def coped and management Second Elevisions. For community map revision history prior to countywide mapping, refer to the Community Map History table located in the Plood Insurance Study report for this juriscicition. To determine T fload incurance is available in this conversity, contact year incur exent or call the National Read Insurance Program at 1-800-638-6620. 4 1900 METERS NFIF PANEL 0363G FIRM Seal M FLOOD INSURANCE RATE MAP HAMILTON COUNTY, R TENNESSEE WANGE PI AND INCORPORATED AREAS PANEL 363 OF 530 ISEE MAP INDEX FOR FIRM CONTAINS: COMMUNITY NUMBER PANEL SUFFIX **JOCODE N SUFF** 4/00/7 (383 G 4/5424 (303 G 4/C08 (393 G CITAT TANDOGA, CITY OF EAST RIDGE, CITY OF NZAHONVALLEI Notice to User. The Map Number shows below should be used when placing map enders. It's Community Number shows above should be used on insurance approaches for the subject MAP NUMBER 47065C0363G MAP REVISED FEBRUARY 3, 2016

Federal Emergency Management Agency

ATTACHMENT 2-G

Site Photos

PIN 124069.00





No. 1 Right Side



Top of Deck - Northbound



Bottom of Deck / Clearance - Eastbound



Top of Deck - Southbound



Bottom of Deck / Clearance – Westbound



Bottom of Deck / Clearance – Westbound (Right Side)



Bottom of Deck / Clearance – Westbound (Left Side)



Abutment No. 2



Span No. 3 / Bent No. 2



Bent No. 1



Bent No. 1



Approach No. 1



Bridge Surface



Bridge Rail



Approach No. 2



Approach No. 2



Bent No. 3



Bent No. 2