

**SIGNATURE PAGE**

**P-46-2021**

To the Monmouth County Board of County Commissioners:

**THE UNDERSIGNED HEREBY DECLARES THAT  
I (WE) HAVE CAREFULLY EXAMINED THE SPECIFICATIONS.  
I (WE) HEREBY CERTIFY PRICES QUOTED ARE IN ACCORDANCE  
WITH YOUR REQUIREMENTS.**

Company Name: Traffic Planning and Design, Inc.

Gregory Bitsko, PE, PP, (PRINT)

Preparer's Name: New Jersey Regional Office Manager/Structures Leader

(PRINT)

Signature:  April 8, 2022

(DATE)

Address: 303 West Main Street, Suite 330

Freehold, NJ 07728

Telephone No.: Office: 848.444.6105 Direct: 848.208.3428 Cell: 908.596.0858

Fax No.: 610.326.9410

E-Mail Address: GBitsko@TrafficPD.com

**\*\*\*(This should be the email where Contracts would be sent)\*\*\***

Contact Person: Gregory Bitsko, PE, PP

FEIN: 

(Federal Employee ID)

BRC: 

(Business Registration Cert)

(Revised 2/2017)





PROJECT COST AND WORK HOUR PROPOSAL FORM  
**DETAILED BREAKDOWN OF TASKS AND HOURS**



PROFESSIONAL ENGINEERING SERVICES REGARDING THE DESIGN FOR THE REPLACEMENT OF BRIDGE U-73  
 ON IMLAYSTOWN-HIGHTSTOWN ROAD OVER NEW SHARON BROOK IN THE TOWNSHIP OF UPPER FREEHOLD, MONMOUTH COUNTY, NEW JERSEY

Task	Description	PVII (Sr. Project Manager)	PVI (Project Manager)	PV (Technical Manager)	PIV (Project Engineer)	PIII (Engineer)	PII (Junior Engineer)	ETS (Senior Technician)	ET4 (Technician)	ET3 (Junior Technician)	Tech Sec (Admin.)		Labor Cost By Task
1	Field Survey (Banc3)	0	0	0	0	0	0	0	0	0	0	0	\$0.00
2	Deed Research & ROW Documents (Banc3)	0	0	0	0	0	0	0	0	0	0	0	\$0.00
3	Geotechnical Services (FPA)	0	0	0	0	0	0	0	0	0	0	0	\$0.00
4	Hydrologic and Hydraulic Analysis (SWM)	0	0	0	0	0	0	0	0	0	0	0	\$0.00
5	<b>Environmental Study &amp; Permits</b>	0	8	0	0	24	168	0	0	0	0	200	\$22,401.60
	1. Wetland delineation		1				24					25	\$2,776.80
	2. Individual Freshwater Wetland and Open Water Permit		1				60					61	\$6,708.00
	3. Individual Flood Hazard Permit		2				80					82	\$9,048.00
	4. Permit Plans		2			24						26	\$3,120.00
	5. Coordination with County		2				4					6	\$748.80
6	<b>Alternatives Analysis</b>	0	3	0	30	0	0	0	0	0	0	33	\$4,446.00
	Concept Roadway Design												
	1. Roadway Design Alternatives				6							6	\$795.60
	2. Cost Estimates & Narrative Report		1		6							7	\$951.60
	Concept Bridge Design												
	1. Bridge Alternatives Analysis & Narrative Report		1		6							7	\$951.60
	2. Bridge Geometric Sketches				6							6	\$795.60
	3. Bridge Cost Estimates		1		6							7	\$951.60



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PROFESSIONAL ENGINEERING SERVICES REGARDING THE DESIGN FOR THE REPLACEMENT OF BRIDGE U-73  
 ON IMLAYSTOWN-HIGHTSTOWN ROAD OVER NEW SHARON BROOK IN THE TOWNSHIP OF UPPER FREEHOLD, MONMOUTH COUNTY, NEW JERSEY

Task	Description	PVII (Sr. Project Manager)	PVI (Project Manager)	PV (Technical Manager)	PIV (Project Engineer)	PIII (Engineer)	PII (Junior Engineer)	ETS (Senior Technician)	ET4 (Technician)	ET3 (Junior Technician)	Tech Sec (Admin.)		Labor Cost By Task
<b>7</b>	<b>Bridge Design &amp; Contract Documents</b>	<b>8</b>	<b>0</b>	<b>76</b>	<b>0</b>	<b>0</b>	<b>180</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>264</b>	<b>\$32,260.80</b>
	<b>Interim Design</b>												
	1. General Plan and Elevation			4			10					14	\$1,674.40
	2. Demolition Plan			2			4					6	\$728.00
	3. Bridge Section and Working Points			2			8					10	\$1,164.80
	4. Pile Design			4			8					12	\$1,456.00
	5. Pile Plans			3			10					13	\$1,528.80
	6. Footing Design			4			8					12	\$1,456.00
	7. Footing Plans			3			10					13	\$1,528.80
	8. 3-Sided Rigid Frame Design			4			14					18	\$2,111.20
	9. 3-Sided Rigid Frame Plan and Details			4			10					14	\$1,674.40
	10. Wingwall and Headwal Design			4			10					14	\$1,674.40
	11. Wingwall and Headwall Plans and Sections			4			8					12	\$1,456.00
	12. Parapet / Railing Details			4			8					12	\$1,456.00
	13. Miscellaneous Details			2			6					8	\$946.40
	14. Quantities			4			8					12	\$1,456.00
	22. Sheeting Wall Design			4			8					12	\$1,456.00
	23. Sheeting Wall Plans			2			8					10	\$1,164.80
	<b>Final Design</b>												
	1. General Plan and Elevation			2			4					6	\$728.00
	2. Demolition Plan			2			2					4	\$509.60
	3. Bridge Section and Working Points			2			4					6	\$728.00
	4. Pile Plans			2			4					6	\$728.00
	5. Footing Plans			2			4					6	\$728.00
	6. 3-Sided Rigid Frame Details			2			4					6	\$728.00
	7. Wingwall and Headwall Plans and Sections			2			4					6	\$728.00
	8. Parapet / Railing Details			2			4					6	\$728.00
	9. Miscellaneous Details			2			4					6	\$728.00
	10. Quantities			2			4					6	\$728.00
	11. Sheeting Wall Plans			2			4					6	\$728.00
	12. Quality Assurance	8										8	\$1,539.20

PROJECT COST AND WORK HOUR PROPOSAL FORM  
**DETAILED BREAKDOWN OF TASKS AND HOURS**



PROFESSIONAL ENGINEERING SERVICES REGARDING THE DESIGN FOR THE REPLACEMENT OF BRIDGE U-73  
 ON IMLAYSTOWN-HIGHTSTOWN ROAD OVER NEW SHARON BROOK IN THE TOWNSHIP OF UPPER FREEHOLD, MONMOUTH COUNTY, NEW JERSEY



Task	Description	PVII (Sr. Project Manager)	PVI (Project Manager)	PV (Technical Manager)	PIV (Project Engineer)	PIII (Engineer)	PII (Junior Engineer)	ETS (Senior Technician)	ET4 (Technician)	ET3 (Junior Technician)	Tech Sec (Admin.)		Labor Cost By Task
<b>8</b>	<b>Highway Design &amp; Contract Documents</b>	<b>8</b>	<b>17</b>	<b>38</b>	<b>0</b>	<b>159</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>222</b>	<b>\$28,327.00</b>
	<b>Interim Design</b>												
	1. Key Sheet			1		2						3	\$379.60
	2. Typical Section (1" = 5")			1		10						11	\$1,315.60
	3. Plan Sheet Layout - Including Survey ties			3		8						11	\$1,372.80
	4. Construction Plan			3		14						17	\$2,074.80
	5. Profile			3		10						13	\$1,606.80
	6. Guide Rail Design			2		8						10	\$1,227.20
	7. Grading Plans			2		8						10	\$1,227.20
	8. Signing & Striping Plan			2		6						8	\$993.20
	9. Detour Plans			3		8						11	\$1,372.80
	10. SESC Plans			3		10						13	\$1,606.80
	11. Cross Sections			3		16						19	\$2,308.80
	12. Construction Details			2		8						10	\$1,227.20
	13. Quantities			3		8						11	\$1,372.80
	14. Engineer's Estimate			3		6						9	\$1,138.80
	15. Specifications			4								4	\$582.40
	<b>Final Design</b>												
	1. Key Sheet		1			1						2	\$273.00
	2. Typical Section (1" = 5")		1			1						2	\$273.00
	3. Plan Sheet Layout - Including Survey ties		1			2						3	\$390.00
	4. Construction Plan		1			4						5	\$624.00
	5. Profile		1			3						4	\$507.00
	6. Grading Plan		1			3						4	\$507.00
	7. Signing & Striping Plan		1			3						4	\$507.00
	8. Detour Plan		1			3						4	\$507.00
	9. SESC Plans		1			4						5	\$624.00
	10. Cross Sections		1			4						5	\$624.00
	11. Construction Details		1			2						3	\$390.00
	12. Quantities		1			4						5	\$624.00
	13. Engineer's Estimate		1			3						4	\$507.00
	14. Specifications		4									4	\$624.00
	15. Quality Assurance	8										8	\$1,539.20

PROJECT COST AND WORK HOUR PROPOSAL FORM  
**DETAILED BREAKDOWN OF TASKS AND HOURS**



PROFESSIONAL ENGINEERING SERVICES REGARDING THE DESIGN FOR THE REPLACEMENT OF BRIDGE U-73  
 ON IMLAYSTOWN-HIGHTSTOWN ROAD OVER NEW SHARON BROOK IN THE TOWNSHIP OF UPPER FREEHOLD, MONMOUTH COUNTY, NEW JERSEY



Task	Description	PVII (Sr. Project Manager)	PVI (Project Manager)	PV (Technical Manager)	PIV (Project Engineer)	PIII (Engineer)	PII (Junior Engineer)	ETS (Senior Technician)	ET4 (Technician)	ET3 (Junior Technician)	Tech Sec (Admin.)		Labor Cost By Task
<b>9</b>	<b>Traffic Design &amp; Contract Documents</b>	0	4	0	0	0	4	0	0	0	0	8	\$1,060.80
	1. Coordination with Local Authorities		2				2					4	\$530.40
	2. Evaluate traffic detour alternatives		2				2					4	\$530.40
<b>10</b>	<b>Utility Coordination &amp; Contract Documents</b>	0	0	12	0	0	18	0	0	0	0	30	\$3,712.80
	1. Prepare and Maintain Contact List			2			3					5	\$618.80
	2. Verify Existing Facilities			2			3					5	\$618.80
	3. Utility Coordination & Field Meeting (2)			2			3					5	\$618.80
	4. Evaluate Utility Relocations			2			3					5	\$618.80
	5. Prepare Utility Relocation Plans			2			3					5	\$618.80
	6. Document Utility Relocation/Coordination			2			3					5	\$618.80
<b>11</b>	<b>Meetings &amp; Community Involvement</b>	0	12	4	12	0	0	0	0	0	2	30	\$4,175.60
	1. Kick-off Meeting		2	2								4	\$603.20
	2. Meeting with Municipal Traffic Safety Officer			2	2							4	\$556.40
	3. Meetings w/ Local Authorities (assume 2)		4		4						2	10	\$1,284.40
	4. Pre-Application Meeting		2		2							4	\$577.20
	5. Project Status/Submission Meetings		4		4							8	\$1,154.40
<b>12</b>	<b>Project Management</b>	4	26	0	0	0	0	0	0	0	0	30	\$4,825.60
	1. Progress Reports (12)		6									6	\$936.00
	2. Project Coordination		14									14	\$2,184.00
	3. Organize Correspondence		6									6	\$936.00
	4. Quality Assurance	4										4	\$769.60
<b>13</b>	<b>Construction Support</b>	0	0	14	0	0	24	0	0	0	0	38	\$4,659.20
	1. Shop Drawings			6			24					30	\$3,494.40
	2. Requests for Information (RFIs)			6								6	\$873.60
	3. Substitutions			2								2	\$291.20
	Man-Hours	20	70	144	42	183	394	0	0	0	2	855	
	Direct Salary Rate (See Note 1)	\$74.00	\$60.00	\$56.00	\$51.00	\$45.00	\$42.00	\$32.00	\$30.00	\$28.00	\$25.00		
	Multiplier (See Note 2)	2.60											
	<b>TOTAL LABOR COST</b>	<b>\$3,848.00</b>	<b>\$10,920.00</b>	<b>\$20,966.40</b>	<b>\$5,569.20</b>	<b>\$21,411.00</b>	<b>\$43,024.80</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$130.00</b>		<b>\$105,869.40</b>

BANC3 Engineering Inc. (BANC3)

PROJECT COST AND WORK HOUR PROPOSAL FORM

PROFESSIONAL ENGINEERING SERVICES REGARDING THE DESIGN FOR THE REPLACEMENT OF BRIDGE U-73  
ON IMLAYSTOWN-HIGHTSTOWN ROAD OVER NEW SHARON BROOK IN THE TOWNSHIP OF UPPER FREEHOLD, MONMOUTH COUNTY, NEW JERSEY

Task	Description	PVII (Sr. Project Manager)	PVI (Project Manager)	PV (Technical Manager)	PIV (Project Engineer)	PIII (Engineer)	PII (Junior Engineer)	ETS (Senior Technician)	ET4 (Technician)	ET3 (Junior Technician)	ET2 (Rod Man)	Total Hours	Labor Cost By Task
1	Field Survey	4							88		56	148	\$9,927.36
2	Deed Research & ROW Documents	4							20			24	\$2,199.36
<b>Man-Hours</b>		<b>8</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>108</b>	<b>0</b>	<b>56</b>	<b>172</b>	
Direct Salary Rate (See Note 1)		\$54.10							\$35.00		\$15.00		
Multiplier (See Note 2)		2.40											
<b>TOTAL LABOR COST</b>		<b>\$1,038.72</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$9,072.00</b>	<b>\$0.00</b>	<b>\$2,016.00</b>		<b>\$12,126.72</b>

DIRECT EXPENSES	
Reproduction	\$150.00
Deed Research	\$500.00
Transportation	\$100.00
Out-of-Pocket Expenses	
<b>SUBTOTAL-Misc. Expenses</b>	<b>\$750.00</b>
<b>TOTAL DIRECT EXPENSES</b>	<b>\$750.00</b>

- NOTES: 1. Direct Salary Rate does not include employee benefits.  
 2. Multiplier includes overhead, profit, and employee benefits.  
 3. Labor Cost By Task = (Man-hour) x (Direct Salary Rate) x (Multiplier).  
 4. Direct expenses billed at invoice costs (no profit or overhead).  
 5. Overhead includes communication, lodging, meals, and indirect expenses.

<b>TOTAL LABOR COST</b>	<b>\$12,126.72</b>
<b>TOTAL DIRECT EXPENSES</b>	<b>\$750.00</b>
<b>TOTAL PROJECT COST</b>	<b>\$12,876.72</b>

French & Parrello Associates, PA (FPA)

PROJECT COST AND WORK HOUR PROPOSAL FORM

PROFESSIONAL ENGINEERING SERVICES REGARDING THE DESIGN FOR THE REPLACEMENT OF BRIDGE U-73  
ON IMLAYSTOWN-HIGHTSTOWN ROAD OVER NEW SHARON BROOK IN THE TOWNSHIP OF UPPER FREEHOLD, MONMOUTH COUNTY, NEW JERSEY

Task Description	Project Consultant	Senior Project Manager	Project Engineer	Staff Engineer	Sen. Field Rep.	Admin. Assistant	Total
<b>Geotechnical Services</b>							
A Project Set-Up		2					2
B Subsurface Exploration		2		9		2	13
C Report Preparation & Foundation Design Criteria	2		12			2	16
TOTAL HOURS	2	4	12	9	0	4	31
HOURLY RATES	\$190.00	\$170.00	\$140.00	\$100.00	\$85.00	\$65.00	
TOTAL COST	\$380.00	\$680.00	\$1,680.00	\$900.00	\$0.00	\$260.00	<b>\$3,900.00</b>

Direct Expenses	
Mobilization/Demobilization	\$500.00
Borings w/ Truck Mounted Drill Rig	\$3,000.00
Laboratory Testing	\$750.00
TOTAL DIRECT EXPENSES	<b>\$4,250.00</b>

TOTAL COST	\$3,900.00
DIRECT EXPENSES	\$4,250.00
<b>GRAND TOTAL</b>	<b>\$8,150.00</b>



Storm Water Management Consulting, LLC (SWM)

**PROFESSIONAL ENGINEERING SERVICES REGARDING THE DESIGN FOR THE REPLACEMENT OF BRIDGE U-73  
ON IMLAYSTOWN-HIGHTSTOWN ROAD OVER NEW SHARON BROOK IN THE TOWNSHIP OF UPPER FREEHOLD,  
MONMOUTH COUNTY, NEW JERSEY**

Preliminary Scope of Work and Cost Estimate  
Hydrologic and Hydraulic Design and NJDEP Flood Hazard Area Permitting  
March 29, 2022

Note: Proposed Based Upon Need for Individual NJDEP FHA Permits

Task No.	Description	Estimated Hours
1	Conduct Structure, Waterway, and Flood Plain Reconnaissance	6
2	Provide Required Field Survey Locations and Details to TPD	2
3	Develop Existing Condition HydroCAD Hydrologic Model	16
4	Develop Existing Condition HEC-RAS Hydraulic Model	12
5	Analyze and Evaluate Existing Condition Capacities and Road Overtoppings	4
6	Develop Preliminary Proposed Condition HEC-RAS Hydraulic Models	8
7	Analyze and Evaluate Pproposed Condition Capacities and Road Overtoppings	4
8	Review Preliminary Results with TPD and Monmouth County	6
9	Develop Proposed Condition HydroCAD Hydrologic Model	4
10	Develop Final Proposed Condition HEC-RAS Models	4
11	Review Final Results with TPD and Monmouth County	5
12	Provide Hydraulic Design Assistance to TPD	8
13	Attend NJDEP Pre-Application Meeting	4
14	Prepare Hydrologic and Hydraulic Design Report	30
15	Provide Design Data for Permit Applications	4
16	Address NJDEP Technical Questions	8
	<b>Subtotal Estimated Hours =</b>	<b>125</b>
	+ 20% Contingencies	25
	<b>Total Estimated Hours =</b>	<b>150</b>
	Hourly Rate for Engineering Services =	\$200
	<b>Total Estimated Engineering Services =</b>	<b>\$30,000</b>
	Estimated Expenses =	\$500
	<b>Total Estimated Charge =</b>	<b>\$30,500</b>

Hunter Research, Inc. (HRI)

PROJECT COST AND WORK HOUR PROPOSAL FORM

Professional Engineering Services Regarding the Design for the Replacement of Bridge U-73 on Imlaystown-Hightstown Road over New Sharon Brook in the Township Upper of Freehold, Monmouth County, New Jersey.

Task Description	PIX (Principal)	PV (Principal Investigator)	PIII (Sr. Arch. Historian)	PIII (Historian/ Arch. Historian)	ETIII (Sr. Archaeologist)	ETII (Graphics Specialist)	ETI (Field/Lab Assistant)	Total Hours	Labor Cost By Task
Cultural Resources		14	4	32	2	16	20	88	\$6,679.68
<b>Man-Hours</b>	<b>0</b>	<b>14</b>	<b>4</b>	<b>32</b>	<b>2</b>	<b>16</b>	<b>20</b>	<b>88</b>	
Direct Salary Rate (See Note 1)	\$52.00	\$40.00	\$40.00	\$23.50	\$28.00	\$24.00	\$22.00		
Multiplier (See Note 2)	2.84								
<b>TOTAL LABOR COST</b>	<b>\$0.00</b>	<b>\$1,590.40</b>	<b>\$454.40</b>	<b>\$2,135.68</b>	<b>\$159.04</b>	<b>\$1,090.56</b>	<b>\$1,249.60</b>		<b>\$6,679.68</b>

DIRECT EXPENSES	
Reproduction	\$140.00
Postage/Delivery	
Transportation	
Out-of-Pocket Expenses	
<b>SUBTOTAL-Misc. Expenses</b>	<b>\$140.00</b>
<b>TOTAL DIRECT EXPENSES</b>	<b>\$140.00</b>

- NOTES: 1. Direct Salary Rate does not include employee benefits.  
 2. Multiplier includes overhead, profit, and employee benefits.  
 3. Labor Cost By Task = (Man-hour) x (Direct Salary Rate) x (Multiplier).  
 4. Direct expenses billed at invoice costs (no profit or overhead).  
 5. Overhead includes communication, lodging, meals, and indirect expenses.

<b>TOTAL LABOR COST</b>	<b>\$6,679.68</b>
<b>TOTAL DIRECT EXPENSES</b>	<b>\$140.00</b>
<b>TOTAL PROJECT COST</b>	<b>\$6,819.68</b>