



June 09, 2021

PUBLIC

Christine Cameron, Project Manager  
City of Flagstaff  
211 West Aspen Avenue  
Flagstaff, Arizona 86001

Subject: City of Flagstaff Scope and Fee for Milton Road Feasibility Study - Phase 2

Dear Ms. Cameron:

We are pleased to submit our proposed Scope and Fee for the City of Milton Road Feasibility Study Project, Phase 2. The enclosed scope and fee are for Phase 2 Services. Work under this task will be performed as continued work under the previously executed contract, Contract No. 2021-95.

Please feel free to contact me at 520-838-3430 or at [Jason.Carlaftes@wsp.com](mailto:Jason.Carlaftes@wsp.com) if there are any items you wish to discuss.

Kind regards,

A handwritten signature in black ink, appearing to read 'Jason Carlaftes'. The signature is stylized and somewhat cursive.

Jason Carlaftes  
Design Manager

Encl. Scope and Fee for Phase 2 Services  
cc: Joy Melita, File



WSP USA  
Contract No. 2021-95  
Contract Modification #1  
MILTON ROAD BNSF OVERPASS  
Project No. 30900974

Scope of Work  
For  
Feasibility Study – Phase 2

May 2021

Scope of Services

## GENERAL DESCRIPTION OF WORK:

WSP USA (WSP) will provide Design Services for a feasibility study for the proposed realignment of the Burlington-Northern Santa Fe (BNSF) double track mainline over Milton Road / US-66 (BNSF Bridge 344.5) in order to support the construction of the Rio de Flag project culvert crossing under BNSF. The reconstruction of this overpass would involve realigning the existing BNSF Seligman Subdivision mainline tracks 1 (Main 1) and 2 (Main 2), relocating them in a permanent condition. This requires reconstruction of the existing Milton Rd Overpass structure (BNSF Bridge 344.5), rail work to realign the mainline tracks, and reconstruction of Milton Road and the intersection with Sitgreaves and Santa Fe to the north of the Milton Rd Overpass. Construction phasing of this concept will be a key feature as it is being proposed to supplement the construction of the Rio de Flag box culvert and associated pedestrian underpass being constructed by the United States Army Corp of Engineers (USACE), approximately 500ft east of the Milton Rd Overpass. This project would also help facilitate construction of pedestrian underpass at the culvert crossing and a proposed crossing approximately 750ft west of the Milton Rd Overpass.

This Scope of Work covers Phase 2 for the development of a Feasibility Study in order to evaluate the project constraints, determine the potential area of impact for the project, to coordinate the proposed project with BNSF and the Arizona Department of Transportation (ADOT), to develop a preliminary 10% Level Design Engineer's Estimate of the cost, and to develop a Preliminary Construction Schedule for the work. The specific scope of work will be to determine a potential rail alignment for Main 1 and Main 2, Impacts to Milton Road / US-66, impacts to identified utilities in the

WSP USA  
Suite 405  
1230 West Washington Street  
Tempe, AZ 85281

Tel.: +1 480 966-8295  
Fax: +1 480 966-9234  
wsp.com





## PHASE 2 - CONCEPT DEVELOPMENT AND FEASIBILITY REPORT

This phase will further develop the concepts developed during Phase 1 to determine the limits of impact for the project. Evaluations will extend to the impacts to Sitgreaves Street, Santa Fe Avenue, utilities, potential right-of-way requirements, storm drain impacts (including the pump station under the existing bridge), and intersection alternatives. Conceptual Engineer's Cost Estimates will be developed to evaluate a preliminary cost for this project for the City. Phasing concepts will also be developed to coordinate this project with the nearby Rio de Flag project to the east and the pedestrian underpass project to the west.

### TASK 1.0 - PROJECT MANAGEMENT

The work under this task will provide general project management and coordination activities during Phase 2. This task includes meetings, project documentation, and development of meeting agendas, minutes, and action item logs.

#### SUBTASKS:

**TASK 1.1:** Project management work will include project set-up, monthly invoicing, and project tracking.

**TASK 1.2:** Project Coordination includes meetings throughout this scope of work to coordinate disciplines and provide updates to the City of Flagstaff, utilities, and key 3<sup>rd</sup> party stakeholders such as ADOT and BNSF. No public involvement is included with this task. Monthly progress/coordination meetings will be used to keep the City and selected stakeholders updated with the project. These meetings will discuss the project footprint, make design decisions for the project, and allow for City and stakeholder input during the development of the Feasibility Study. Decisions that impact the project will be tracked on a decision tracking log with open decisions to be closed when direction is determined. It is assumed that key task leads will participate in all of these meetings (WSP Personnel - Project Manager/Structures, Roadway, Rail) and that other disciplines will attend as needed for specific action items and discussions (WSP Personnel - Drainage, Utilities, Traffic/MOT). These meetings are assumed at one-hour duration plus time for agenda preparation and meeting minutes.

Also included in this task is coordination with Project Stakeholders such as ADOT and BNSF. Up to 2 additional meetings are anticipated for this coordination each assumed at one-hour duration plus time for agenda preparation and meeting minutes. These stakeholder meetings are in addition to the monthly meetings and will be attended by the appropriate Task Lead and the Project Manager.

A meeting agenda, meeting minutes, action item list, and decision tracking log will be developed for each meeting to document progress. Five meetings total are assumed under this task.

#### ASSUMPTIONS:

1. It is assumed that meetings will be virtual and do not require travel.
2. It is assumed that Phase 2 Design services will take up to six months to allow for coordination with BNSF, including one formal concept review that may take up to four weeks per BNSF Guidelines.



**DELIVERABLES:** Meeting Agenda (Electronic PDF), Meeting Minutes (Electronic PDF), Decision Tracking Log (Provided with Meeting Minutes), Action Items Log (Provided with Meeting Minutes)

## TASK 2.0 - ROADWAY DESIGN

The work under this task will develop preliminary roadway and intersection design to the level of detail necessary (Approximately 10% Design) to evaluate the structure and roadway modifications to the City of Flagstaff and ADOT facilities as a result of the work. Preliminary roadway design will be developed to identify the project footprint, construction phasing, preliminary quantities, impacts to existing storm drain facilities, including the pumphouse at the existing structure, and estimated construction costs for all roadway, ROW, and associated utility modifications.

### SUBTASKS:

**TASK 2.1:** WSP Roadway Design staff will develop a feasibility concept for the preferred alternative from Phase 1. Development of this concept will be based on direction from the City regarding the preferred vertical profile of Milton Road based on the Phase 1 evaluation. It is assumed based on conversations with the City that an ultimate minimum vertical clearance of 16'-6" will be required for this concept. This concept will be tied into existing roadway to determine the limits of improvements. It is assumed that the intersection immediately north of the existing Milton overpass will be impacted by the change in grade and will need to be redeveloped as part of this project. Per discussions with the City, the intersection type may be changed so up to three alternatives for this intersection will be considered. The alternatives to be considered will be determined during a monthly meeting and then evaluated under this task. Once a preferred intersection type is selected, WSP will incorporate the preferred intersection into the preferred roadway concept. The final roadway will match the existing roadway in number of lanes, lane width, lane type, shoulder/bicycle lane width. Pedestrian movements at the redeveloped intersection will be considered. Development of preliminary driveway design, curb returns, intersection details are not included in this task. Plans will provide horizontal alignment information, vertical profile information, typical section information, and a preliminary area of impact and Right-of-Way (ROW) impacts. This work will not identify work areas, staging, or easements required to complete the work.

The plans will be developed to a 10% design plan level at a scale of 1"=100'. The anticipated plan set will be prepared in anticipation of City and ADOT review and includes:

1. Cover Sheet
2. General Notes
3. Overall Site Plan to include:
  - a. Aerial Imagery from available mapping sources
  - b. Existing contours based on available topographic mapping sources and survey data provided by the City
4. Plan and Profile Sheets to Include:
  - a. Roadway horizontal and vertical alignment with stationing
  - b. ROW Impacts shown with horizontal dimensions from existing. Parcel descriptions and legal descriptions are not included.



5. Typical Sections
6. Phasing plan description and graphic representation

Work includes submittal to the City and to BNSF for review and one round of revisions based on received comments.

**TASK 2.2:** WSP Design staff will develop conceptual construction phasing and maintenance of traffic plans (detours) for the project. The intent of this task is to ensure constructability of the project along with the associated Rio de Flag work and pedestrian underpass work and other projects in the corridor which will need to be coordinated with the BNSF railway work. It is assumed that information regarding the location and type of structure for Rio de Flag and the new pedestrian underpass will be provided by the City and that design of these structures are not included in this scope. It is assumed that the City and ADOT will allow lanes to be reduced to one lane each direction as part of this project to reconstruct the vertical profiles of the roadway. A preliminary construction schedule will also be developed for each phase to evaluate length of user impacts during construction. This information will be provided as a linear phase schedule and map.

**TASK 2.3:** WSP Design staff will evaluate the existing storm drain system and impacts to the existing system due to the modifications of the roadway system. Impacts to the existing pump house will be included in this analysis. It is assumed that there is no increase in run-off volume due to unchanged road widths, limiting the evaluation to impacts to storm drain profiles. Impacts and potential remediation will be evaluated and investigated

**TASK 2.4** Preliminary quantities for the preferred alternative will be developed as part of an Engineer's Cost Estimate. A contingency will be applied to miscellaneous items to be determined in discussions with the City.

#### DESIGN CODES:

1. City of Flagstaff Engineering Design Standard Details, Latest Edition as supplemented by AASHTO Roadway Design Guidelines, Current Edition and other identified criteria will be used to design local roadway facilities.
2. ADOT Roadway Design Guidelines, Current and other identified criteria will be used to design roadway within ADOT ROW.
3. BNSF Guidelines for Grade Separation Projects, Current Edition

#### ASSUMPTIONS:

1. Required Minimum Vertical Clearance of 16'-6" between roadway and bridge soffit
2. Pavement type and depth will be provided to WSP by COF or ADOT for cost estimating purposes.
3. Lane type and width are unchanged from current condition
4. It is assumed that aerial mapping is available or will be provided by the City or Others for use in the concept development.
5. It is assumed that Right-of-Way information is available or will be provided by the City through record drawings, GIS, or other available information.



**DELIVERABLES:** Preliminary Plans (24x36 Sheets, 50 Scale) (Electronic PDF) (Draft and Final)

### TASK 3.0 - RAIL DESIGN

The work under this task will develop the preliminary trackwork design to the level of detail necessary (Approximately 10% Design) to evaluate the structure and roadway modifications to the City of Flagstaff and ADOT facilities as a result of the work. Preliminary trackwork design will be developed to identify the project footprint, construction phasing, preliminary quantities, and estimated construction costs for all trackwork, signalization, and associated roadbed required for track modifications.

#### SUBTASKS:

**TASK 3.1:** WSP Rail Design staff will develop a feasibility concept. The development of the rail layout and grade will determine the location of the structure and ultimate impact to the roads. The trackwork concept is anticipated to tie into the existing Seligman Subdivision mainline alignment on the west end of the study area before the existing signal at MP 344.75 and to the east end of the Beaver Street crossing at MP 344.29. The development of the horizontal alignment and vertical profile will be based on decisions made during Phase 1. It is not anticipated that additional alternatives will be considered during this phase. The concept will focus on the realignment of Main 1 and Main 2 only with the assumption that a new Main 3 alignment will be developed by BNSF under another contract. All track design will be in conformance with BNSF mainline standards to facilitate BNSF review of the conceptual layout. Plans will include horizontal alignment, vertical profiles, and typical sections as needed to illustrate and evaluate the proposed track modifications.

The preliminary trackwork plans will be developed to a 10% design plan level at a scale of 1"=100'. The anticipated plan set will be prepared in anticipation of BNSF review and includes:

1. Cover Sheet
2. General Notes
3. Overall Site Plan to include:
  - a. Aerial Imagery from available mapping sources
  - b. Existing contours based on available topographic mapping sources and survey data provided by the City
  - c. Existing mainline track alignment and industry track connections based on available mapping sources and survey data provided by the City
  - d. Propose track alignment and facility improvements
4. Plan and Profile Sheets to Include:
  - a. Track alignment with stationing and mileposts for all proposed track improvements
  - b. Horizontal geometry of proposed track alignment to include special trackwork elements and signal and signage elements
  - c. Top of rail profile, top of existing ground at centerline of track, and track superelevation



5. Typical Sections
6. BNSF Standard Plans for mainline track
7. Trackwork construction phasing and cutover plan description and graphic representation
8. List of track material and quantities summary
9. Trackwork construction cost estimate

Work includes submittal to the City and to BNSF for review and one round of revisions based on received comments. A memorandum of understanding will be prepared as part of this work documenting any deviations from BNSF standards and specifications.

**TASK 3.2:** Preliminary quantities for the preferred alternative will be developed as part of an Engineer's Cost Estimate. A contingency will be applied to miscellaneous items to be determined in discussions with the City.

**DESIGN CODES:**

1. BNSF Mainline Design Standards, Current Edition
2. BNSF Guidelines for Grade Separation Projects, Current Edition
3. AREMA Manual for Rail Engineering, Current Edition

**ASSUMPTIONS:**

1. Design will be for Main 1 and Main 2. Main 3 will be developed at a later date by BNSF.
2. Concept will be based on selected alternative from Phase 1.
3. It is assumed that aerial mapping is available or will be provided by the City or Others for use in the concept development.
4. It is assumed that Right-of-Way information is available or will be provided by the City through record drawings, GIS, or other available information.

**DELIVERABLES:** Preliminary Plans (Electronic PDF) (Draft and Final)

## TASK 4.0 STRUCTURE DESIGN

The Work under this task includes the development of the preliminary structural design to the level of detail necessary to evaluate the structure and roadway modifications to the City of Flagstaff and ADOT facilities as a result of the work. Preliminary coordination with BNSF is anticipated to establish acceptable bridge layouts and to define the structure depth and superstructure type based on realignment of BNSF tracks in their ROW. Preliminary structural design will be developed to identify the anticipated structure type and depth, construction phasing, preliminary quantities, and estimated construction costs for all structural work.



#### SUBTASKS:

**TASK 4.1:** WSP Bridge Design staff will develop a preliminary design concept. The development of the bridge type and layout will determine the soffit of the structure to aid in the evaluation of minimum vertical clearance with roadway. This concept will be based on preferred structure types as defined in BNSF guidelines. Up to two alternatives will be considered to develop comparable structure depths and cost estimates for comparison. Per discussions with the City, the bridge length will accommodate a future third lane of Milton Road in each direction. The structural concept will also consider a future Main 3 alignment to ensure the structure may be modified for this future project.

The plans will be developed to a 10% design plan level at a scale of 1"=40'. The anticipated plan set will be prepared in anticipation of BNSF review and includes:

1. General Plan and elevation
2. Typical Section

**TASK 4.2:** Preliminary quantities for the preferred alternative will be developed as part of an Engineer's Cost Estimate. A contingency will be applied to miscellaneous items to be determined in discussions with the City.

#### DESIGN CODES:

1. BNSF Guidelines for Grade Separation Projects, Current Edition
2. AREMA Manual for Rail Engineering, Current Edition
3. AASHTO LRFD Bridge Design Guidelines, Current Edition

#### ASSUMPTIONS:

1. Design will accommodate Main 1 and Main 2 and will be compatible with a future Main 3.
2. A maximum of 2 alternative superstructure concepts will be considered.

**DELIVERABLES:** Preliminary Plans as Exhibits (Electronic PDF) (Draft and Final)

### TASK 5.0 - UTILITY COORDINATION

The Work under this task includes research of existing utilities and drainage infrastructure within the Milton Road / US-66 corridor and the BNSF ROW. This task will evaluate existing utilities based on available information and will evaluate impacts to identified utilities. Coordination with BNSF regarding utilities within BNSF ROW is anticipated. ADOT will also be consulted regarding facilities within the US-66 corridor.

#### SUBTASKS:

**TASK 5.1:** Data review will consist of a review of City of Flagstaff data available on the GIS website, information received from Arizona 811, and coordination with BNSF and ADOT. Impacted utilities will be identified, and potential relocation areas will be developed in coordination with the other disciplines. Utility information will be compiled into a Utility Report, providing identified utility, contact information, and disposition of the identified utility. Utilities will be shown on the Roadway preliminary concepts.



**TASK 5.2:** Utility Relocations for the preferred alternative will be identified and included as part of an Engineer's Cost Estimate.

**DELIVERABLES:** Utility Report (Electronic PDF) (Draft and Final)

## TASK 6.0 – FEASIBILITY REPORT AND CONCEPTUAL COST ESTIMATE

The Work under this task includes preparing the Feasibility Report to accompany preliminary plans to provide the City a narrative of design decisions. The narrative will be accompanied by the Key Decision Matrix tracked throughout the project. This task also involves developing the conceptual cost estimate for the project.

### SUBTASKS:

**TASK 6.1:** Task involves preparation of the Feasibility Study (Draft and Final) to establish the project footprint and for describing the design decisions during this phase and provides for a comment resolution meeting for the Feasibility Study. Responses will be developed by the project team, documented, and discussed at the comment resolution. Final responses to comments will be then included with an amended Final Feasibility Study for submittal to the City.

**TASK 6.2:** This task includes development of the Conceptual Cost Estimate based on Quantities developed under other tasks.

**DELIVERABLES:** Feasibility Study (Electronic PDF) (Draft and Final)

### EXCLUSIONS:

Services excluded from this Scope of Work include, but are not limited to:

1. Field Survey and Aerial Mapping – To be provided by the City and its consultants under separate contract
2. Subsurface Utility Evaluation (SUE)
3. Permits and associated fees except as specifically included within this scope of work
4. Field work and/or project travel
5. Environmental and historical evaluations
6. Public Involvement

### OTHER INFORMATION REQUIRED (FROM OTHERS):

Items required for successful completion of the work include:

1. Field Survey upon request and in coordination with the City.

### ATTACHMENTS

1. Fee Proposal



Contract No.: 0

Milton Road BNSF Overpass

New Contract: X

Contract Mod:

DERIVATION OF COST PROPOSAL SUMMARY

ESTIMATED DIRECT LABOR

Classification	Manhours	% of Total Hours	Average Hourly Rate	Estimated Labor Costs
Project Principal	3	0.3%	\$250.00	\$750.00
Project Manager	78	7.3%	\$200.00	\$15,600.00
Sr Project Engineer	58	5.4%	\$236.00	\$13,688.00
Project Engineer	152	14.2%	\$142.00	\$21,584.00
Engineer	353	33.1%	\$100.00	\$35,300.00
Senior Designer	0	0.0%	\$139.00	\$0.00
Designer	10	0.9%	\$90.00	\$900.00
CADD Tech / Graphics	164	15.4%	\$91.00	\$14,924.00
Senior Rail Engineer	16	1.5%	\$381.00	\$6,096.00
Rail Prj Engineer	209	19.6%	\$184.00	\$38,456.00
PI Specialist	0	0.0%	\$0.00	\$0.00
Sr Economist	0	0.0%	\$0.00	\$0.00
Sr Planner	0	0.0%	\$0.00	\$0.00
Planner / GIS	0	0.0%	\$0.00	\$0.00
Accountant	12	1.1%	\$109.00	\$1,308.00
Administration	12	1.1%	\$84.00	\$1,008.00
TOTAL Hours	1,067			

Sub-Total Labor Expense: \$149,614.00

ESTIMATED DIRECT EXPENSES

Outside Reproduction	\$0.00
Courier/Postage	\$0.00
Mileage	\$0.00
Travel	\$0.00
Miscellaneous Expenses	\$0.00

Sub-Total Direct Expenses: \$0.00

ESTIMATED OUTSIDE SERVICES AND CONSULTANTS

Subconsultant	Method of Compensation	DBE	Fee
-	Hourly	No	\$0.00
-	Hourly	No	\$0.00
-	Hourly	No	\$0.00

Sub-Total Outside Services Expense: \$0.00

ESTIMATED TOTAL

TOTAL ESTIMATED COST: \$149,614.00

CONTRACT TIME: 12 months  
(Phase 1 Design Services Only)

ALLOWANCES (0%) \$0.00

Joy Melita  
Signature

06/09/2021  
Date



Milton Road BNSF Overpass

Contract No. 0

TASK/DISCIPLINE	Project Principal	Project Manager	Sr Project Engineer	Project Engineer	Engineer	Senior Designer	Designer	CADD Tech / Graphics	Senior Rail Engineer	Rail Prj Engineer	Accountant	Administration	Total
1.0 PROJECT MGMT	3	22	8	0	0	0	10	0	0	5	12	12	72.0
2.0 ROADWAY DESIGN	0	10	46	96	200	0	0	88	0	0	0	0	440.0
3.0 RAIL DESIGN	0	18	0	0	0	0	0	40	16	204	0	0	278.0
4.0 STRUCTURE DESIGN	0	10	0	36	91	0	0	24	0	0	0	0	161.0
5.0 UTILITIES	0	6	4	8	30	0	0	12	0	0	0	0	60.0
6.0 FEASIBILITY STUDY	0	12	0	12	32	0	0	0	0	0	0	0	56.0
<b>PROJECT TOTAL HOURS</b>	<b>3</b>	<b>78</b>	<b>58</b>	<b>152</b>	<b>353</b>	<b>0</b>	<b>10</b>	<b>164</b>	<b>16</b>	<b>209</b>	<b>12</b>	<b>12</b>	<b>1067</b>



Milton Road BNSF Overpass  
Contract No. 0

1.0 PROJECT MGMT													
TASK DESCRIPTION	Total Hours	Project Principal	Project Manager	Sr Project Engineer	Project Engineer	Engineer	Senior Designer	Designer	CADD Tech / Graphics	Senior Rail Engineer	Rail Prj Engineer	Accountant	Administration
1.1 Project Management and Coordination (6 Month Duration)	39	3	12									12	12
1.2 Project Coordination and Meetings	0												
1.2A Project Kick-Off and Monthly Meeting (3 Total, 1 hour each)	15		3	6				3			3		
1.2B Stakeholder Coordination Meetings (2 Total)	8		2	2				2			2		
1.2C Meeting Preparation and Minutes (5 Total)	10		5					5					
	0												
<b>SUBTOTAL 1.0 PROJECT MGMT</b>	<b>72</b>	<b>3</b>	<b>22</b>	<b>8</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>10</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>12</b>	<b>12</b>

Task Cost: \$ 11,174.00



Milton Road BNSF Overpass  
Contract No. 0

2.0 ROADWAY DESIGN													
TASK DESCRIPTION	Total Hours	Project Principal	Project Manager	Sr Project Engineer	Project Engineer	Engineer	Senior Designer	Designer	CADD Tech / Graphics	Senior Rail Engineer	Rail Prj Engineer	Accountant	Administration
2.1 Schematic Design / Intersection Analysis	0												
2.1A Schematic design of Milton Road / US-66	126		2	12	24	56			32				
2.1B Milton/US-66 and Sitgreaves/SantaFe alternatives analysis	88			12	20	48			8				
2.2 Constructibility and Maintenance of Traffic	120		4	16	28	32			40				
2.3 Stormwater / Drainage (including pumphouse)	64		2	6	16	32			8				
2.4 Development of Quantities & Engineer's Estimate	42		2		8	32							
	0												
<b>SUBTOTAL 2.0 ROADWAY DESIGN</b>	<b>440</b>	<b>0</b>	<b>10</b>	<b>46</b>	<b>96</b>	<b>200</b>	<b>0</b>	<b>0</b>	<b>88</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Task Cost: \$ 54,496.00



Milton Road BNSF Overpass  
Contract No. C 0

3.0 RAIL DESIGN													
TASK DESCRIPTION	Total Hours	Project Principal	Project Manager	Sr Project Engineer	Project Engineer	Engineer	Senior Designer	Designer	CADD Tech / Graphics	Senior Rail Engineer	Rail Prj Engineer	Accountant	Administration
3.1 Develop schematic design of BNSF Main 1 and Main 2 (3 Alternatives)	248		16						40	12	180		
3.2 Development of Quantities and Engineer's Cost Estimate	30		2							4	24		
	0												
<b>SUBTOTAL 3.0 RAIL DESIGN</b>	<b>278</b>	<b>0</b>	<b>18</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>40</b>	<b>16</b>	<b>204</b>	<b>0</b>	<b>0</b>

Task Cost: \$ 50,872.00



Milton Road BNSF Overpass  
Contract No. 0

4.0 STRUCTURE DESIGN													
TASK DESCRIPTION	Total Hours	Project Principal	Project Manager	Sr Project Engineer	Project Engineer	Engineer	Senior Designer	Designer	CADD Tech / Graphics	Senior Rail Engineer	Rail Prj Engineer	Accountant	Administration
4.1 Develop schematic bridge concept (2 Alternatives)	139		8		32	75			24				
4.2 Development of Quantities & Engineer's Estimate	22		2		4	16							
	0												
<b>SUBTOTAL 4.0 STRUCTURE DESIGN</b>	<b>161</b>	<b>0</b>	<b>10</b>	<b>0</b>	<b>36</b>	<b>91</b>	<b>0</b>	<b>0</b>	<b>24</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Task Cost: \$ 18,396.00



Milton Road BNSF Overpass

Contract No. C 0

5.0 UTILITIES											
TASK DESCRIPTION	Total Hours	Project Principal	Project Manager	Sr Project Engineer	Project Engineer	Engineer	Senior Designer	Designer	CADD Tech / Graphics	Accountant	Administration
5.1 Data Review	38		4	4		18			12		
5.2 Development of Quantities & Engineer's Cost Estimate	22		2		8	12					
	0										
<b>SUBTOTAL 5.0 UTILITIES</b>	<b>60</b>	<b>0</b>	<b>6</b>	<b>4</b>	<b>8</b>	<b>30</b>	<b>0</b>	<b>0</b>	<b>12</b>	<b>0</b>	<b>0</b>

Task Cost: \$ 7,372.00



Milton Road BNSF Overpass

Contract No. 0

6.0 FEASIBILITY STUDY	Total Hours	Project Principal	Project Manager	Sr Project Engineer	Project Engineer	Engineer	Senior Designer	Designer	CADD Tech / Graphics	Accountant	Administration
TASK DESCRIPTION											
6.1 Feasibility Study	44		8		12	24					
6.2 Conceptual Engineer's Cost Estimate	12		4			8					
	0										
<b>SUBTOTAL 6.0 FEASIBILITY STUDY</b>	56	0	12	0	12	32	0	0	0	0	0
										<b>Task Cost: \$ 7,304.00</b>	