

**STAFF REPORT:        Engineering and Public Works**



**REPORT TO:            Infrastructure and Recreation Committee**  
**MEETING DATE:      August 11, 2009**  
**REPORT NO.:          EPW.09.074**  
**SUBJECT:              Beaver River Bridge Resurfacing Schedule**  
**PREPARED BY:        Tom Gray, Engineering Design Technologist**

**A.    Recommendations**

THAT Infrastructure and Recreation Committee receives Report EPW.09.074 entitled “Beaver River Bridge Resurfacing Schedule” for their information.

**B.    Background**

The Town is undertaking the rehabilitation of the Beaver River Bridge and has employed Ainley & Associates as the Consulting Engineers working on the design for these works. Ainley & Associates conducted a thorough inspection of the Bridge and identified the need to perform the following tasks which are beyond the original scope of work for resurfacing the deck:

- Replacement of bearing pads
- Abrasive blast cleaning and re-coating of steel girders and piers
- Repairs to concrete on abutments

An application for Connecting Link top up funding was submitted to the MTO in October, 2008 requesting funding to completely rehabilitate the bridge as identified in Ainley & Associates inspection report. Town Staff were in constant communication with the MTO, inquiring if the additional funding was approved. Referencing the Consultants construction schedule, it was determined that the Town would need confirmation of funding approval by May 2009 in order to proceed with tendering the works for the 2009 construction season. As of May 2009, Staff chose to hold off on completing the design component as the Town had not been notified of additional funding.

On July 2, 2009, via the MTO web site, the Provincial Government announced The Blue Mountains was receiving \$1.29 mil for the Beaver River Bridge Resurfacing project. A letter dated July 14, 2009 was written to Mr. Paul Graham, CAO confirming the funding and stipulating a condition that all invoices must be submitted by February 1, 2010. Any money spent after that date will not be reimbursed.

Upon notification of funding, staff met with Ainley & Associates to consider the timeline constraints. It is not feasible to start any construction works on the bridge deck prior to the February 2010 cut-off date as there is not enough time to complete the works far enough to apply waterproofing and to seal the surface with asphalt prior to winter conditions. It is however possible to complete all the underside work prior to the cut-off date as the underside work needs to be completed in the winter months to avoid fish migration and fish ladder being in service.

The most viable option available to the Town at this time is as follows:

Complete Design and Award Tender - Fall 2009

Award contract in two phases:

Phase 1 – Underside work, to be started in Winter 2009 and to be completed prior to February 1, 2010.

Phase 2 – Top side deck work, to start construction in Spring 2010 and to be completed by August 1, 2010.

The contract will be written in a manner so that Phase 2 can be deleted with no financial implications to the Town if we do not receive commitment for funding to continue the works after February 1, 2010. Mayor Anderson will be issuing a letter to The Honourable Jim Bradley, explaining the issues and requesting their consideration in the matter of timing of the works. The Town will be requesting that the MTO carryover the funding to next year as the work will be awarded and therefore finalizing the cost and guaranteeing the money will be spent.

Ainley & Associates presented a conceptual design to the Engineering and Recreation Committee at the May 45, 2009 meeting. The MTO has indicated that they will not support the design of a traffic barrier between the travel portion of the bridge and the pedestrian walkway as was presented at that time. The end treatment of the traffic barrier for the proposed design is expensive and the MTO will not pay for it. The end treatment for this design would cost the Town an estimated \$120,000 if we wanted to continue with this plan. The other option to the Town is to provide the vehicle barrier to the outside of the bridge and a removable handrail system between the vehicles and the pedestrians. A removable system is preferred as it is difficult to construct a hand rail that can withstand snowplowing operations. Attachment #1 presents a railing system preferred by the MTO and may be incorporated into the design. Attachment #2 is the original concept the Town had presented to Committee. At that time, it was believed the bridge would not support such a massive guiderail system cantilevered on the outer edge of the bridge deck. The Engineers have completed calculations on the existing structure and now feel that an external barrier system is feasible.

Staff has directed Ainley & Associates to complete the design and prepare a Tender for the Works. Also, a letter will be prepared and sent to MTO staff, detailing the proposed work plan and presenting a revised work schedule. The Town will also be proceeding with having the Bell line, which is currently in a conduit inside the bridge deck, relocated off the bridge in order to facilitate jacking of the bridge for replacement of the bearing pads. This line will remain suspended across the River until such time as the bridge deck has been refurbished.

With the construction of the new municipal offices happening at the same time and the need for material and equipment staging areas, the entrance to Town Hall will be realigned through the former “Diane’s Attic” property. This will allow the front parking lot as a staging area for the bridge construction and the entrance will provide a physical separation between the two projects.

### **C. The Blue Mountains' Strategic Plan**

The generation of this report furthers the Town's Strategic Goal #2 "Addressing the Town's municipal infrastructure needs".

### **D. Environmental Impacts**

Construction on the bridge may have a negative impact on the downtown sector for the construction season but will ensure a viable link for many years to come.

### **E. Budget Impact**

The Town will only be going ahead with the extra work if top up funding is received sufficient to cover the cost of the works.

### **F. Attached**

Respectfully submitted,

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Tom Gray  
Engineering Design Technologist

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Reg Russwurm  
Director of Engineering & Public Works

For more information, please contact:  
Tom Gray  
[tgray@thebluemountains.ca](mailto:tgray@thebluemountains.ca)  
519-599-3131 ext. 277



## Town of The Blue Mountains

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July 30, 2009

Honourable Jim Bradley  
Minister of Transportation  
77 Wellesley Street West  
Ferguson Block, 3rd Floor  
Toronto, ON M7A 1Z8

Dear Minister Bradley:

Re: 2009-10 Highway Connecting Link Allocation  
Beaver River Bridge – The Blue Mountains

I wish to thank you for your Ministry's allocation of \$1.294 million to refurbish the Beaver River Bridge in the Town of The Blue Mountains. This is indeed an important project for the residents of the Town and for the long term viability of the structure.

We officially received confirmation of this financial support by your letter dated July 14, 2009. I attach a copy of your letter for your convenience. The challenge is that all invoices for approved work on our connecting link must be submitted to the Ministry for payment by February 1, 2010. The Town must still complete the design and tender the Project. We could not complete the design until the scope was known and the scope could not be confirmed without the funding.

Mr. Minister, this short timeframe is extremely difficult to meet and will force a significant amount of winter construction. Winter construction has an adverse impact on quality control particularly on the concrete works on the bridge deck and certainly will increase construction costs. We have met with our consultant and believe that the timeframe is impracticable.

And so Mr. Minister, we are asking you and your staff to find a creative way to extend the completion date for this important project to August 1, 2010.

The Town will tender the project this fall, doing repair work on the under deck this winter and then commencing the deck work next spring when weather permits. Since a tender will have been awarded, the Ministry will be assured the work is proceeding at a known cost. This will help the Ministry to manage its funds in a way that will help our Town.

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Honourable Jim Bradley  
Minister of Transportation

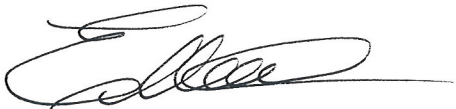
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July 30, 2009

We know that these special arrangements add complications and that they are sometimes necessary. I would be pleased to discuss this proposal at your convenience.

Sincerely,

**Town of The Blue Mountains**



Mayor Ellen Anderson  
Mayor

Attachment

cc: Council  
CAO, Paul Graham  
Director of Engineering & Public Works, Reg Russwurm

**Ministry of  
Transportation**

Office of the Minister

Ferguson Block, 3rd Floor  
77 Wellesley St. West  
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www.mto.gov.on.ca

**Ministère des  
Transports**

Bureau du ministre

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www.mto.gov.on.ca



RECEIVED  
JUL 20 2009

JUL 14 2009

Mr. Paul Graham  
CAO  
Town of The Blue Mountains  
PO Box 310  
26 Bridge Street East  
Thornbury, Ontario  
N0H 2P0

Dear Mr. Graham:

**Re: 2009-10 Highway Connecting Link Allocation**

I am pleased to advise you that I have approved a 2009-10 allocation of \$1,294,000 towards your connecting link project, the rehabilitation of the Beaver River Bridge.

The subsidy rate for this connecting link construction project in 2009 is 100 per cent.

Invoices for approved work on your connecting link can be submitted to the ministry for payment as usual and all invoices must be forwarded by February 1, 2010.

For questions related to the information provided above, administrative details for the completion of this, or to inform the ministry of any change in the estimated cost or timing of the above noted project, please contact the local Ministry of Transportation office in London, at (519) 873-4730.

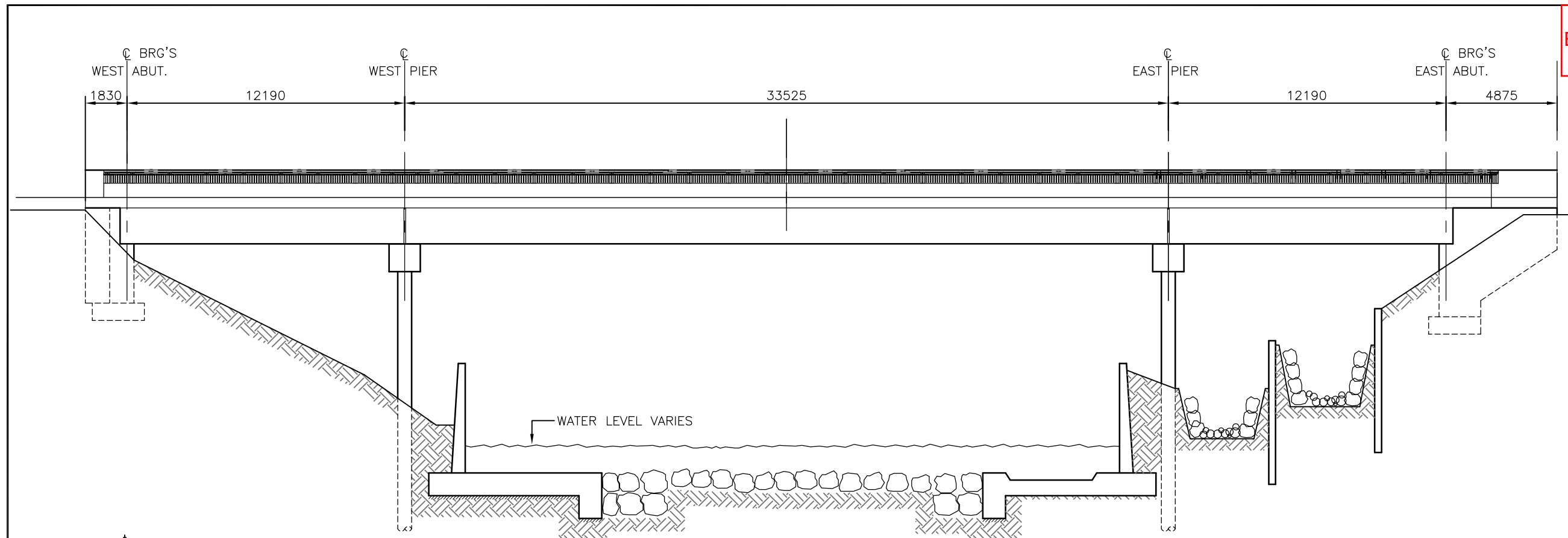
The Ministry of Transportation is pleased to work with your community by funding this important project.

Yours sincerely,

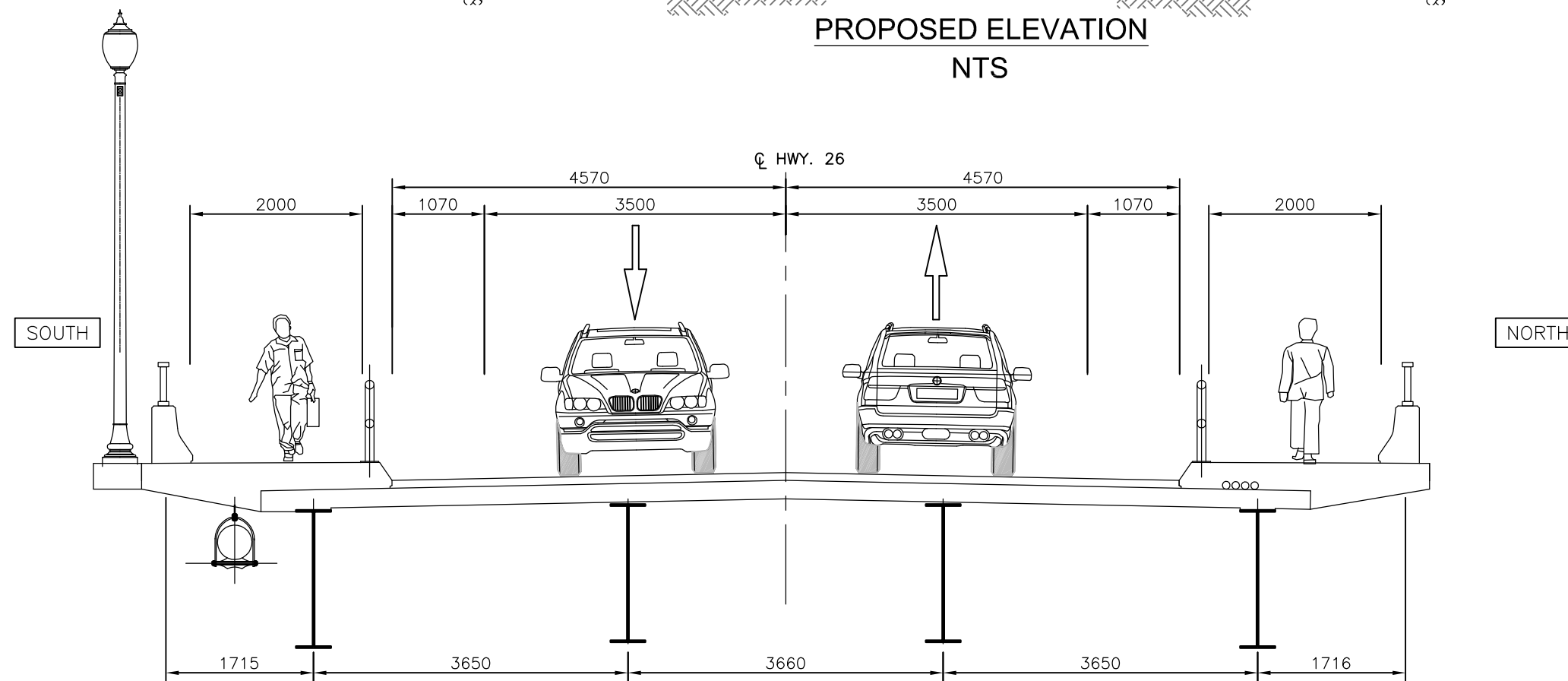
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Jim Bradley  
Minister

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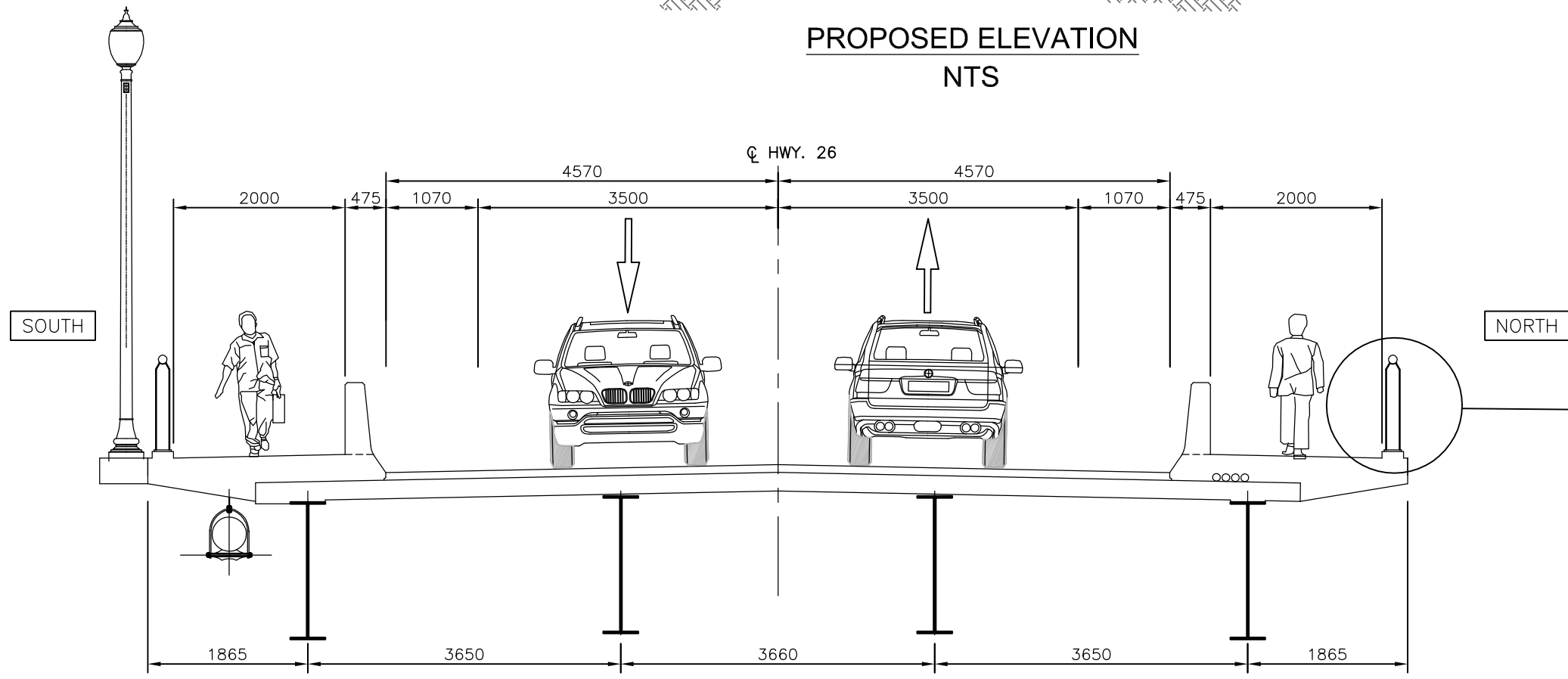
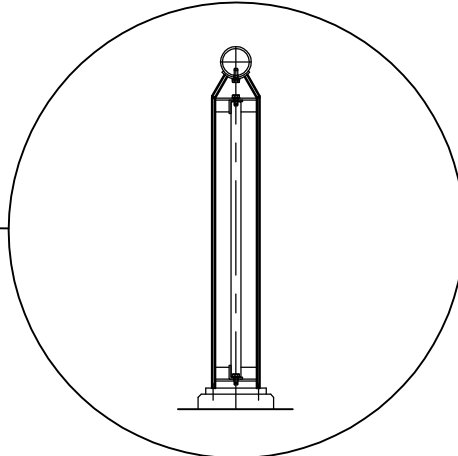
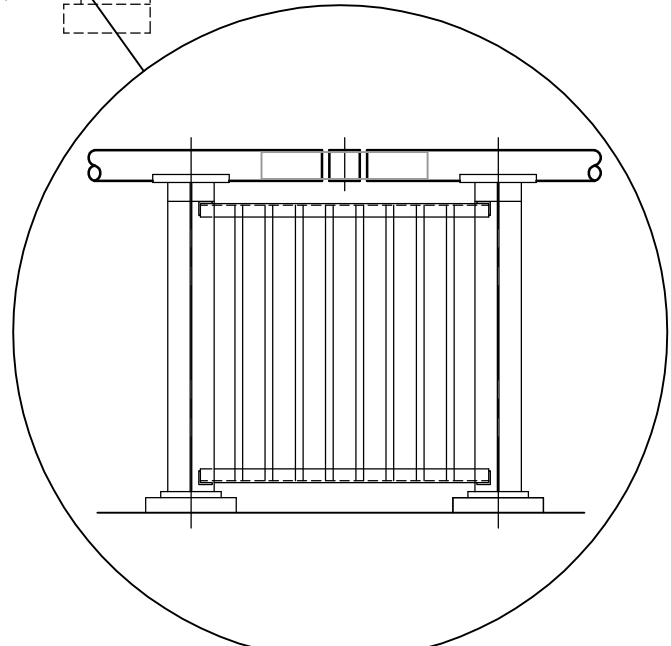
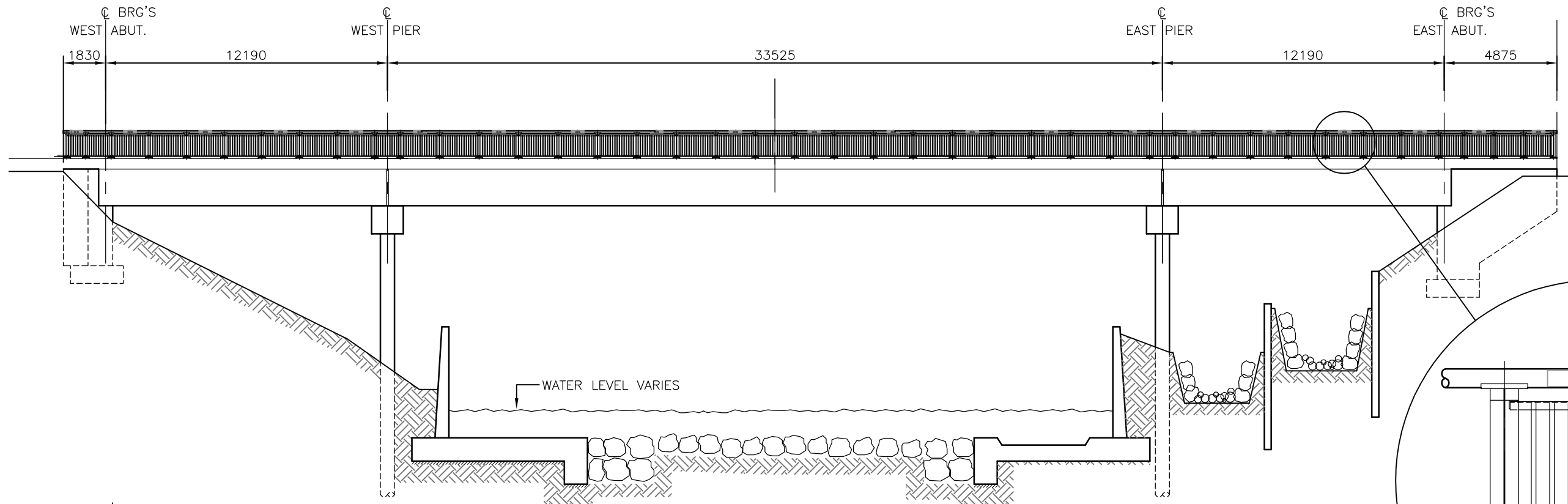
PROPOSED ELEVATION  
NTS



PROPOSED SECTION  
NTS

OPTION #1 PREFERRED BY MTO

EPW.09.074  
Attachment #3



OPTION #2 PREFERRED BY TOWN