



ADDENDUM NO. 3

Project:	Whistler Village Lot A 2018 Waterproofing and Asphalt Replacement	Project No.:	VAN.102486.0013
Issued By:	Jonathan Woo, P.Eng.	Date:	2019-01-21
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This Addendum forms part of, and is to be included in, the Contract Drawings and Specifications originally issued for the above-named project and no consideration will be given to any request for extras to this Contract due to the Contractor not being familiar with the Addenda. Please acknowledge receipt of this Addendum on the Bid Form.

This Addendum forms part of the Bid Documents and modifies as stated herein:

1.0 SPECIFICATIONS

- 1.1 Section 32 12 16 – Asphalt Pavement
 - 1.1.1 Delete Section 32 12 16 – Asphalt Pavement R2
 - 1.1.2 Add Section 32 12 16 – Asphalt Pavement R3

2.0 DRAWINGS

- 2.1 No modifications as this time.

3.0 CLARIFICATION(S)

- 3.1 Question:

“I have not been provided a phasing plan yet has there been one approved or is this up to the GC?, it is challenging to bid on an undefined scope of area for each visit.”

Response:

Phasing plans are to be provided by the General Contractor and as approved by the Owner. The Owner has noted general expectations for the phasing (including building access and limits on stall closures) which are summarized in the Specifications and Addendum #1.
- 3.2 Question:

“Is the asphalt to be supplied from Squamish or Whistler plant ? given that we are working for someone else and not the RMOW directly I thought I would ask. Same question for the area that is not an RMOW parking lot and is a separate price?”

Response:

Please refer to specification Section 32 12 16 – Asphalt Pavement R3.

3.3 Question:

"Is tack coat required between lifts?"

Response:

See response in Addendum #2.

3.4 Question:

"Is the paving scope for both areas the same 50mm base 50mm top lift?"

Response:

See response in Addendum #2:

New asphalt is to be installed in two lifts with the thickness to match existing and as outlined in MMCD Section 02512. Note the thickness of the new asphalt is to provide the sloping for drainage unless new drainage lines are to be installed.

3.5 Question:

"Can the paving be compacted with a vibratory roller?"

Response:

See Section 2.3 –Equipment in 'Specification 32 12 16 –R1' as outlined in Addendum #2 for information on Vibratory Rollers.

3.6 Question:

"Is the below equipment list okay for use over the parkade areas given there may be weight restrictions?"

Item	Weight [lbs]	Details and Specs
Caterpillar PS360C Pneumatic Roller	18,739.30	https://www.ritchiespecs.com/model/caterpillar-ps360c-pneumatic-roller
Asphalt rollers BW 161 AC-5	29,500	https://www.bomag.com/machinery/categories/asphalt-rollers/bw-161-ac-5-92156/
Vogele Vision 5100-2 Asphalt Paver	33,000	https://www.ritchiespecs.com/model/vogele-vision-5100-2-asphalt-paver
Tandem single axle truck loaded with mix	33,000	approximately
[Total]	111,239.30	pounds plus crew

Note: the above is unmodified weights and specifications as provided by [the Contractor] via email on January 13, 2019

Response:

The above items have been checked on a high-level area loading review in order to provide some clarity for pricing purposes only. A detailed structural analysis of the equipment impact on the base building structure



has yet not been completed. It is recommended that equipment to be used as part of paving operations is as light as possible.

All equipment to be used on site as part of the work is to be reviewed by RJC as part of a formalized load review, as outlined in the project specifications. The load review will likely include a request for an outline of the proposed equipment travel paths and scheme for the paving operations.

It may be possible to use the proposed equipment given the following restrictions are adhered to:

- **The paving operations using the proposed equipment is to be phased so that the plaza double tees are not loaded by more than one piece of equipment at a time.**
- No other equipment or materials are allowed on the double tees being loaded by the proposed equipment.
- Maintain a minimum 4 foot clear distance in all directions of any materials or equipment. (This means that a minimum clear distance of 8 feet is to be kept between equipment).
- Equipment outriggers are not mobilized on the parkade plaza structure.

3.7 Question:

"Without any dimensions to work from this curb section/profile resembles a MMCD C4 Rollover curb and gutter section; is that the intent or should it be RMO standard drawing C4 with either Type A or Type B?"

Response:

The intention of the curb is to remove and replace the existing locations of 'semi-mountable' curb with a similar section. Dimensions to be taken from MMCD C4 Rollover curb, Type B.

3.8 Question:

"Figure #1 in the addendum does not have any membrane shown between the top of slab and underside of curb?"

Response:

Figure #1 was provided to show the general profile of the 'semi-mountable curb'. Waterproofing to extend below the curb similar to the revised Drawing R-3.2 in Addendum #2.

3.9 Question:

"I'm not sure, because I haven't attempted to figure out the difference between finished grades and top of slab grades for the length of curb, how thick the gutter will be but, if it is too thin, the concrete gutter will crack and separate from the curb. Should we not be considering just a curb profile with the asphalt pavement coming up to the face of the curb?"

Response:

The intention is that paving will be installed to match existing profile, including its existing taper to curbs. RJC may assist in reviewing alignment following the removal of existing plaza finishes, which will determine asphalt thickness adjacent to curbs.

3.10 Question:

"I did not notice any mention of a dowel or reinforcing in either the addenda's written response or on the



detail drawing. The curb profile details shown on drawing 3.2, included in the addendum, have not changed from the drawing issued December 5, 2018; what is the point of figure #1 included in the addendum?"

Response:

As outlined above, the intention of Figure #1 was provided to show the general profile of the 'semi-mountable curb'. Reinforcement and dowels to be similar to detail 2/R-3.2.

3.11 Question:

"After taking a look through the specifications with regard to above mentioned project there are a few spots where we would like to request patching material alternates:

[Photo showing patch repair materials from specification 'Section 03 01 29 – Concrete Restoration Pre-Packaged Material'.]

T1060 = FUTURA 15

S466 = MEADOW-CRETE FNP"

Response:

Approved concrete repair materials to be used as part of this project are outlined in specification 'Section 03 01 29 – Concrete Restoration Pre-Packaged Material'.

3.12 Question:

"Section 00 21 00 - R1 Instruction to Bidders, Sub-Section 1.12 Bid Withdrawal and Acceptance, Sentences 6 & 7 reference a 60 day acceptance period. Section 00 41 00 - R1 Bid Form, Sub-Section 6.0 Acceptance, Sentence 1 references a 90 day acceptance period. Please confirm is the acceptance period 60 or 90 days?"

Response:

Agreed. In Section '00 21 00 - R1 Instruction to Bidders' please revise all sections which reference an acceptance period of 60 days to an acceptance period of 90 days.

3.13 Question:

"Section 01 31 19 Project Meetings, Sub-Section 1.3 Administration of Project Meetings, Sentences 3 references "The Contractor shall provide physical space and arrange for meetings on site". Space on site is very limited, on other projects completed for the RMOW meeting space was provided at the municipal hall, will it be possible to hold project meetings at the municipal hall?"

Response:

It is expected that an office will be available at RMOW Municipal Hall however this will be confirmed once the project is underway.

End of Addendum No. 3

1.0 GENERAL

1.1 WORK INCLUDED

- .1 Provide asphalt concrete pavement at locations outlined on the drawings.

1.2 REFERENCES

- | | | |
|----|------------------|--|
| .1 | ASTM C117-04 | Test Method for Materials Finer than 75 μm (No. 200) Sieve In Mineral Aggregate By Washing. |
| .2 | ASTM C136-06 | Standard Test Method for Sieve Analysis of Fine and Coarse Aggregates. |
| .3 | CAN/CGSB-8.1-88 | Sieves, Testing, Woven Wire, Inch Series. |
| .4 | CAN/CGSB-8.2-M88 | Sieves, Testing, Woven Wire, Metric Series. |

1.3 SUBMITTALS

- .1 Submit mix design for pavement to the Consultant for approval, not less than three weeks prior to commencing paving.
- .2 Submit product information on seal coats and crack fillers.
- .3 Submit proposed equipment weights for review and approval by Consultant.

1.4 QUALITY ASSURANCE

- .1 Conform to requirements of the Resort Municipality of Whistler.

2.0 PRODUCTS

2.1 MATERIALS

- .1 Asphalt cement:
 - .1 Modified asphalt cement to be produced with asphalt cement compatible with latex or polymer modifier used.
 - .2 **The asphalt cement MUST be sourced from a manufacturing plant outside of the Resort Municipality of Whistler.**

- .2 Aggregate:
 - .1 Crushed stone or gravel consisting of hard, durable, angular particles, free from clay lumps, cementitious material, organic material, frozen material and other deleterious materials.
 - .2 Aggregate gradation to be within limits specified when tested to ASTM C136 and ASTM C117 or RMOW requirements, whichever is more stringent. Sieve sizes to CAN/CGSB-8.1 or 8.2.

Sieve Size (mm)	Percent Passing
20.0	
12.5	100
10.0	80 - 95
5.0	60 - 80
2.5	50 - 67
1.25	39 - 55
0.63	27 - 42
0.315	17 - 29
0.160	9 - 14
0.080	4 - 8

- .3 Latex modified mixes to be produced with manufactured fines. Fine aggregate (that fraction of the total aggregate passing the 5-mm sieve) to contain a minimum of 70 percent manufactured fines.
- .4 Mix Design:
 - .1 Design of mix by Marshal method to requirements below and as directed by Consultant. Compaction blows on each face of test specimens: 50
 - .2 Mix design to conform to locally available materials, reference MMCD Master Specification.
- .5 Submit asphalt mix design to the Consultant for approval, not less than three weeks prior to commencing paving.

2.2 TACK COAT

- .1 Tack-coat for asphalt to be all asphalt emulsion SS-1 to suit the intended use.

2.3 EQUIPMENT

.1 **Contractor to notify the Owner and Consultant of all heavy equipment to be used as part of the work. Specifications of vehicles or equipment are to be provided to the Consultant who will complete a load review for the parking structures. The Contractor is not to use the equipment on suspended structures without written approval provided by the Consultant.**

.2 Pavers: Mechanical, grade controlled, self-powered pavers capable of spreading mix within specified tolerances, true to line, grade and crown indicated.

.3 Roller, General: Sufficient number of roller of type and weight to obtain specified density of compacted mix.

.4 Vibratory Rollers:



.1 Minimum drum diameter 1200 mm (48"). Review all equipment weights and loading procedures with Consultant prior to commencing work.

.2 Maximum amplitude of vibration (machine setting) 0.5 mm (0.019") for lifts less than 40 mm (1-1/2") thick.

.5 Haul Vehicles: Of adequate size, speed and condition to ensure orderly and continuous operation and as follows:

.1 Boxes with tight metal bottoms.

.2 Covers of sufficient size and weight to completely cover and protect asphalt mix when vehicle fully loaded.

.3 In cool weather or long hauls, insulate entire contact area of each vehicle box.

2.4 ACCESSORIES

.1 Adjustment Rims: as required to adjust elevation of manhole rims.

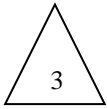
3.0 EXECUTION

3.1 SURFACE PREPARATION



.1 All surfaces to be clean and dry. Note Contractor to prepare newly installed waterproofing membranes for installation of asphalt paving in accordance with

product manufacturer recommendations. Preparation of on-grade installations to be as outlined in MMCD.



- .2 Following cleaning and prepping, apply tack-coat at the rate of 0.6 to 0.9 litres per sq. m (0.1 to 0.15 gallons per square yard) to vertical and horizontal surfaces of substrate.

3.2 ASPHALT PLACEMENT

- .1 Do not carry out paving work when the air temperature is lower than 4 °C (39 °F)
- .2 Deliver hot mix to the paver continuously at a constant temperature. Maintain temperature within the specified range.

	Regular Mix	Latex Modified
Temperature, °C (°F)	125 – 150 (257 – 302)	140 – 160 (284 – 320)

- .3 Lay mixtures within the specified ranges.
- .4 Place asphalt concrete wherever possible by a self-propelled machine using a full 3,650 mm (12' 0") width. Where this is impractical or in confined areas, use small pavers or spread by hand.
- .5 Unless otherwise shown, lay asphalt concrete over prepared substrate to provide 50 mm (2") minimum thickness after compaction.
- .6 Adjust manhole and catch basin rims and valve boxes to accommodate increased pavement depth. Do not pave over manholes and water valves.
- .7 During paving operations, maintain positive surface drainage to catch basins and catch basin manholes.
- .8 Reasonable efforts shall be made to prevent surface runoff from draining into sanitary sewer manholes.
- .9 Clean out catch basins and manholes and ensure free operation of valves after completion of paving operation.

3.3 COMPACTING

- .1 Compact asphalt paving in accordance with the Resort Municipality of Whistler specifications, using proper equipment to achieve the specified density.

- .2 Compact to a minimum of 96% of standard fifty blow Marshall Compactor Test.
 - .1 Where coring for density measurement is not permitted, density may be measured using a nuclear density gauge. Compact to a minimum of 96% of the 90th percentile density based on a minimum of 20 test locations.
- .3 Compact at curbs and inaccessible locations by hand tamping, or other approved means. Avoid damage to curbs, edgings and other adjacent work.
- .4 Finished surfaces to be to finished grades indicated, to slope to drains, catch basins. Finished surfaces to be uniform, smooth, even, dense, free from shallow areas, protrusions and surplus asphalt. Correct any irregularities that vary more than 6 mm in 3,050 mm (1/4" in 10'-0").
- .5 Apply sealer to finished asphalt surface in accordance to manufacturers recommendations.
- .6 Do not allow traffic onto surface until seal coat adequately cured.

3.4 INSPECTION AND TESTING

- .1 Testing to be conducted by a testing agency designated by the Consultant. Unless otherwise noted, the Owner will pay costs of inspection and testing described in this Section.
- .2 Inform Consultant and testing agency 24 hours in advance of work to be performed under this Section.
- .3 Prior to paving samples of plant produced mix will be obtained at the discretion of the Consultant by the testing agency. Samples will be tested in the laboratory for:
 - .1 Stability @ 60 C
 - .2 Density (will be used to correlate nuclear gauge/core extraction where required)
 - .3 Percent (%) Air Voids
 - .4 Percent (%) Asphalt Cement
- .4 During paving operations, material temperatures and compaction tests to be performed in accordance with Paragraph 3.2.2 and 3.3.2.
- .5 Tests may be performed, including coring at the discretion of the Consultant to confirm in-situ material thickness. Contractor to repair test locations at no extra cost.

END OF SECTION