SECTION I.D – CONSTRUCTION COMPLETION AND FINAL ACCEPTANCE GUIDELINES

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APPENDIX I.D – FINAL ACCEPTANCE GUIDELINES

I.D.I GENERAL

The purpose of these guidelines is to provide a consistent format outlining the requirements, deficiencies, and repair procedures that will constitute the final acceptance inspection.

I.D.I.I PRE-INSPECTION

The appurtenances being inspected must be clean and free of debris. Appurtenances may be inspected ahead of time with the Developer and Engineers agreement. All roads and gutters are to be water flushed, and the Contractor must have a water truck available on site for watering of the roadways.

I.D.I.2 DEFAULT

Failure to comply with any aspect of 1.D.1.1 is sufficient reason to cancel the inspection.

I.D.I.3 DEFICIENCIES

All deficient areas are to be identified by the Engineer and the Consultant. The location of the deficiencies is to be recorded by the Engineer on the reduced overall plans provided by the Consultant.

I.D.2 WATER SYSTEM

I.D.2.I FLOW

The water main is to be under flow condition for the duration of the waterworks inspection.

I.D.2.2 VALVES AND CC'S

All valves will be turned by a qualified representative of the City and checked for:

- Any binding or difficulty as the valve is turned;
- Valve stem is within specified distance from finished surface;
- Valve stem can be easily removed;
- Nelson box is adjusted to finished grade;
- CC operating stem is within acceptable distance from finished surface;
- Curb box is adjusted to finished grade; and
- Key can easily be inserted on CC operating stem.

I.D.2.3 HYDRANTS

All hydrants will be operated by a qualified representative of the City and checked for:

- Binding or difficulty as the hydrant is operated;
- Water leaking past the O-ring seal under the operating nut;
- Water leaking past the compression fitting while the hydrant is in the closed position (to be checked by listening for sound), after the hydrant has been operated;

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- Broken, damaged, or defective nozzle caps;
- Correct orientation of hydrant;
- Correct height above finished grade;
- Paint and colour; and
- Bollards if required installed correctly.

I.D.3 SEWER SYSTEM

I.D.3.I MANHOLES

All manholes will be checked to ensure that:

- Mortar around the pipe inlet and outlet, and benching is intact and free of cracks greater than
 1.5mm in width;
- No cracking or warping has occurred on the frame or cover due to a material deficiency or poor placement by the contractor;
- Infiltration of ground water within the sanitary manhole does not exceed the allowances noted in Section 2.4;
- Placement of rungs provides safe and easy access;
- Multiple rings are not being used where a section of barrel would be more appropriate;
- Frost covers are properly installed with the correct hardware;
- Benching does not affect flow; and
- MH's are clean of any debris.

1.D.3.2 CATCH BASINS

All catch basins are to be checked to ensure that:

- Mortar around the rings, frame and CB lead is intact and free of cracks greater than 1.5mm in width;
- Catch basin frame is aligned properly on catch basin;
- Catch basin lead is installed at correct height above base of catch basin;
- No cracking or warping has occurred on the frame or cover due to a material deficiency or poor placement by the contractor; and
- Edges of catch basin grates are installed flush with surrounding surfaces.

1.D.3.3 STORM DITCH

All storm sewer outlets, culverts, and drainage ditches are to be checked to ensure that riprap is in place, no visible effects of erosion are present and flow in the ditch is unaltered.

I.D.4 ROADS

I.D.4.I GENERAL

All required line marking and signage is to be installed in accordance with design drawings.

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I.D.4.2 ASPHALT ROADS

All asphalt roadways shall be checked to ensure that the road cross-section is within acceptable limits as deemed by the Engineer, lane widths are compliant with design and for the following deficiencies:

- Poor riding quality for vehicles and bicycles as deemed by the Engineer, in consultation with the Consultant;
- Course and open texture;
- Water ponding to a depth greater than 6mm over a 3m length;
- Abnormal cracking, causing poor riding quality or which is detrimental to the road structure;
- Valve casings and manhole covers that are either above or more than 6mm below the surface of the asphalt; and
- Core holes are filled.

TABLE 1.D.4.2
ACCEPTABLE CROSS-SECTIONAL LIMITS

ROAD WIDTH	STD. CROWN	ALLOWABLE CROWN	
		HIGH	LOW
9.0 m	135 mm	150 mm	100 mm
11.5 m	170 mm	185 mm	125 mm
15.0	225 mm	250 mm	170 mm

I.D.4.3 GRAVEL ROADS

All gravel roadways shall be checked to ensure that the road cross-section is within acceptable limits as deemed by the Engineer.

I.D.4.4 BST ROADS

All bituminous surface treated (BST) roads shall be checked for the following deficiencies:

- Poor riding quality as deemed by the Engineer;
- Uniform edges; and
- Smooth joints and seams.

I.D.5 CONCRETE

All concrete shall be checked for the following deficiencies:

- Any crack greater than 2 mm in width;
- Walk with less than 10 mm per meter of crossfall;
- Walk with greater than 40 mm per meter of crossfall;

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- Curb ramps with less than 40 mm per meter of crossfall;
- Curb ramps with greater than 60 mm per meter of crossfall;
- Vertical displacement;
- Joint separation greater than 12 mm;
- Appurtenances above or more than 6mm below the concrete surface;
- Ponding of water greater than 6 mm in depth over a 3 m length; and
- Diagonal or multiple cracking.

1.D.6 ELECTRICAL, CABLE, TELEVISION, TELEPHONE AND STREET LIGHTING

The City does not issue a CCC for the installation of ATCO Electric Yukon or Northwestel infrastructure but does require a letter of acceptance stating that they are satisfied with the installation of their utilities.

I.D.7 LANDSCAPING

Maintenance guarantees and establishment maintenance requirements vary by project and according to the material in question. The City of Whitehorse will issue an FAC for landscaping when:

- Project-specific maintenance guarantee particulars have been met as laid out in the contract documents; or
- Turf and naturalized areas have reached "second cut" stage or equivalent; and
- Shrubs and trees have reached full leaf-out the season following planting.

I.D.8 REPAIR PROCEDURES

I.D.8.1 WATER AND SEWER

All repairs to the water or sewer infrastructure are to be done according to the procedures in the approved contract specifications and the City of Whitehorse Servicing Standards Manual.

1.D.8.2 ROADS

All areas within the roadway are to be repaired according to the procedures in the approved contract specifications and the City of Whitehorse Servicing Standards Manual. All asphalt patches are to be saw cut in a rectangular or square fashion and the edges are to be flush with the existing surrounding surface.

I.D.8.3 CONCRETE

All concrete repairs are to be in accordance with the approved contract specifications and the City of Whitehorse Servicing Standards Manual. Single concrete cracks may be considered for repair by grouting and sealing as approved by the Engineer. Sections of concrete are to be removed at the contraction: under **NO** circumstances will concrete be removed and repaired by cutting between contraction or dummy joints. Where curb and gutter deficiencies exist on a monowalk, the entire section of walk, curb, and gutter shall be replaced at the expansion joints. Driveways, private walks, and

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curb grades may have to be modified, as directed by the Engineer, in order to provide a tie-in that is compliant with the City of Whitehorse Servicing Standards Manual.

1.D.8.4 ELECTRICAL, CABLE, TELEVISION, TELEPHONE, AND STREET LIGHTING

All electrical, cable television, telephone, and street lighting repairs are to be done to the satisfaction of the Developer and Utility affected.

1.D.8.5 LANDSCAPING

In addition to the field review at the end of the guarantee period, there should be a minimum of 2 other field reviews during the first growing season attended by the Contractor and the Project Manager. The Contractor should maintain a logbook of field reviews.

All landscaping deficiencies at the end of the guarantee period are to be rectified to the satisfaction of the Engineer.

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