

ADDENDUM NUMBER: #3

DATE: December 15, 2023

PROJECT NAME: ᲒᲁᲙᲗ ᲒᲁᲙᲗ Our House Cultural Facility and Traditional Foods Processing Center

PROJECT NO. 1702-TLM

This addendum consists of the following attachments:

- TLM Addendum 3 – L1 - Landscape Plan
- TLM Addendum 3 – Landscape Specs
- TLM Addendum 3 – Civil – C03 - Surface Works – South

This addendum forms part of the Bid and Contract Documents and modifies them as follows:

#### LANDSCAPE

1. Replace Landscape Plan L1 from tender documents with attached Landscape Plan L1. Tree species and additional annotation about hydroseeding and tree planting is provided.
2. Landscape specifications provided:
  - a. Section 32 91 13 – Growing Medium
  - b. Section 32 92 21 – Hydroseeding
  - c. Section 32 93 10 – Trees, Shrubs, and Groundcover

#### CIVIL

1. Replace Civil Drawing C03 from tender documents with attached Civil Drawing C03. Additional information regarding drain rock and concrete pathways provided. All items are as per MMCD spec as covered on Civil Drawing C01.

END OF ADDENDUM No. 3

CLIENT

All drawings, specifications and other documents have been prepared by Mackin Architects Ltd. (MA) for this project and are instruments of the service rendered for one solely with respect to this project and for this project the unless otherwise provided. MA shall be deemed the author of these documents and shall retain all common law, statutory and other reserved rights, including copyright. Copies, digital or otherwise of architectural drawings, specifications and other documents produced by MA for information purposes are prohibited unless expressly authorized by MA in writing. All Rights Reserved © 2021 Mackin Architects Ltd.

The contractor shall verify all dimensions on site according to the contract documents. Notes and dimensions on architectural plans shall be checked and verified with structural, mechanical, plumbing and any other drawings included in the contract documents. Any discrepancies in notes and/or dimensions shall be brought to the immediate attention of the architect prior to commencing work. Do not scale drawings under any circumstances.



NOTE: ALL SMALL PLANTS BY OWNER. ONLY HYDROSEEDING AND TREE PLANTING IN CONTRACT.

- ORNAMENTAL CHERRY
- JAPANESE MAPLE
- DOGWOOD

PROJECT

**TLA'AMIN CULTURAL BUILDING**

SEAL

PROJECT #:  
SCALE: 1" = 30'-0"  
DRAWN BY: Author  
CHECKED BY: Checker

SHEET TITLE

Landscape Plan

L1

**PART 1 - GENERAL**

1.1 SUMMARY OF WORK:

- A. Work of this section includes all landscape fine grading including smoothing out all erosion ruts that may have occurred, topsoil amendments, minor shaping, minor berming, raking, scarifying plant beds to accept backfill, and compaction. Tolerances for this section of work are to be within  $\pm 0.1'$  of finished grading proposed.

1.2 RELATED WORK:

- A. Civil Drawings – Rough Grading
- B. Section 32 91 13 – Growing Medium
- C. Section 32 93 10 – Trees, Shrubs & Groundcover

1.3 QUALITY ASSURANCE:

- A. Protections:
  - 1. Protect reference points, benchmarks and monuments and vertical and horizontal construction control stakes from damage or discoloration. Replace or repair immediately points damaged, destroyed or dislocated.
  - 2. Protect and maintain conduits, drains, inlets, sewers, pipes, wires and all utilities that are to remain on the property.
  - 3. Cover holes and trenches when work is not in progress. Fence or barricade changes of plane more than 45 degrees horizontally and more than 3 feet vertically.
  - 4. Provide dewatering and drainage to keep excavations free of water.
  - 5. Protect from damage adjacent lawn or surface areas outside grading limits. If damage occurs, clean and restore original grades and conditions as approved by the Consultant.
  - 6. Do not allow grading equipment to pass over existing streets, walks, curbing, etc., without proper protection and, if the same are damaged, restore to their original conditions as directed by Consultant. No patching will be accepted.
  - 7. Dust: take all necessary precautions, including watering, to control airborne dust to within reasonable limits. If serious problems and/or complaints arise due to airborne dust, and when directed by Consultant, temporarily discontinue operations causing such problems.
  - 8. Restore all damaged improvements to original conditions at no additional cost to Owner.

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**PART 2 - MATERIALS**

2.1 GROWING MEDIUM:

- A. See Section 32 91 13 Growing Medium

2.2 BACKFILL FOR TREES, SHRUBS AND PLANTING BEDS:

- A. See Civil Drawings for Rough Grading Section

2.3 SURPLUS MATERIALS:

- A. Removal from site and disposal is the responsibility of the Contractor.

**PART 3 - EXECUTION**

3.1 GENERAL:

- A. Grade, Lines, Levels and Compaction: Grade areas to the new contours, cross-sections, spot elevations, or grades as shown per the proposed design. Leave all areas to be site graded smooth and even. Finish shrub and groundcover beds 3" below tops of curbs, walks, concrete mats, etc. or as shown. Provide 85% compaction in general planting areas unless otherwise designated. Compact areas under walls to 95% of maximum density as indicated in Section 03300 – Cast-In-Place Concrete. Maintain the finished surface of the grading plane, at any point, no more than 30mm above or below the grade indicated on the drawings. Reshape surfaces that do not conform to the above requirements to the specified tolerance at the Contractor's expense. Drain all areas 2% minimum and/or as indicated.
- B. Complete layout and establishment of any layout grid or baselines and grade stakes, as indicated on the drawings established by a registered surveyor at the Contractor's expense. Contractor shall be responsible for the accuracy of all construction surveying. Stake surveying controls for all planting beds by a registered surveyor for approval by the Consultant prior to construction.
- C. Establish lines and levels for all layout components and coordinate with other systems to prevent conflicts and maintain proper clearances.
- D. Maintain grade and alignment using suitable surveying instruments operated continuously during construction.
- E. Complete all re-staking necessitated by damage to stakes through the negligence of the Contractor at Contractor's expense.
- F. Should obstructions be found, submit written notification to the Owner's Representative of all discrepancies in the drawing or existing conditions which may interfere with work in this section.
- G. Coordinate work in this section with other subsurface work in this Contract as outlined in these drawings and Specifications.
- H. Survey Notes:

1. Record all survey notes and construction stake notes for submission to Owner if requested.
2. Make all survey data developed by the Contractor in performing the work available for review by the Owner throughout the construction period.

3.2 PREPARATION:

- A. Report encounter of active utilities not indicated by the Contract Documents to the Owner for required modification. Make modifications as directed by the Owner with a clarification in any adjustment in Contract amount. Extra payment will not be authorized for work that could have been foreseen by careful examination of site or contract documents.
- B. Notify respective utility companies of damage caused to active utilities and protect active utilities pending instruction for disposition.
- C. The Contractor is responsible for locating and marking all existing utilities on the site.
- D. In the event that during construction it is determined that any underground utility conduit, including sewer, water mains, gas mains, and microwave/fiber-optic conduit, and any above-ground utility facilities are required to be relocated, notify the utility owner well in advance of his approach to such utility so that arrangements with the agency and/or owner's of the affected utility can be completed without delay of the work.
- E. Warning Signs and Lights: provide barricades, warning signs for open excavations, parked equipment and soil stock piles; illuminate by means of warning lights all barricades and obstructions from sunset to sunrise; comply with applicable statutory requirements.
- F. Provide suitable parking areas for the use of all construction workers and others performing work in furnishing services in connection with the private and public vehicular and pedestrian traffic.

3.3 FINISH GRADING:

- A. Grade uniformly with rounded surfaces at tops and bottoms of abrupt changes in plane. Hand-grade steep slopes and areas that are inaccessible for machine work and areas around existing trees.
- B. Protect graded areas from undue erosion. Repair and regrade if required. Refill and compact where settlement occurs.
- C. Coordinate all grading operations with other proposed improvements and specifications include site retaining walls and landscape boulders, etc.
- D. Grade areas to elevations and slopes indicated without depressions causing pocketing of surface water or humps, producing localized run-off and gully. Ponding of water on-site is not allowed, unless specified. Finish surfaces to be not more than 0.10 foot above or below established grade elevation.

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3.4 TEMPORARY CONTROLS:

- A. Noise Control: equip construction machinery and vehicles with practical sound and muffling devices and operate in a manner to minimize noise, consistent with efficient performance of the work.
- B. Dust Control: take reasonable measures to prevent unnecessary dust, including, but not limited to, moistening of dirt roads used for transportation of construction equipment with water or applying a chemical dust suppressant to control dust, and by covering dusty material in transit when necessary to prevent blowing.
- C. Pollution Control: prevent the pollution of drains and water courses by sanitary wastes, sediment, debris and other substances resulting from construction activities; retain all spent oils, hydraulic fluids and other petroleum fluids in containers for disposal off the site. Do not perform equipment maintenance or fueling within 50 feet of any water course.
- D. Erosion Control: comply with all erosion control regulations or requirements and provide any improvements required.

3.5 TRAFFIC REGULATIONS:

- A. Keep traffic areas free of excavated material, construction equipment, pipe, and other materials and equipment unless otherwise stipulated interference with public and private roads. Furnish properly equipped flagmen where necessary to provide for public safety, or where required by jurisdictional authorities.

3.6 CLEANUP:

- A. Remove excess materials and debris from site promptly to prevent large accumulations. Store reusable material neatly in designated locations.
- B. Keep all areas of work clean, neat and orderly at all times.
- C. Finish grades and work areas to facilitate subsequent work.

**END OF SECTION 32 90 01**

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**1507 PART 1 GENERAL**

**1.1 DOCUMENTS**

1.1.1 This section of the specification forms part of the Contract Documents and is to be read, interpreted and coordinated with other parts.

**1.2 DESCRIPTION**

1.2.1 Work included: Supply all labour, services and material necessary to prepare, supply and install growing medium and mulch as specified herein.

1.2.2 Related Work in Other Sections:

- |    |                             |                  |
|----|-----------------------------|------------------|
| .1 | Finish Grading              | Section 32 90 01 |
| .2 | Trees, Shrubs & Groundcover | Section 32 93 10 |

**1.3 APPLICABLE STANDARDS AND LEGISLATION**

1.3.1 Conform to the requirements of the latest editions of the following standards and legislation:

- .1 BCSLA/BCLNA British Columbia Landscape Standard
- .2 Canadian System of Soil Classification
- .3 Canadian National Master Construction Specification, 02260 Topsoil and Finish Grading.

**1.4 DEFINITIONS**

1.4.1 For the purpose of this specification the term "growing medium" shall mean a mixture of mineral particulates, micro organisms and organic matter which provides a suitable medium capable of supporting the intended plant growth.

**1.5 Not Used**

**1.6 INSPECTION**

1.6.1 Verify the size, location and depth of all existing site services and sub-surface utilities prior to commencement of the work. Repair all damage as result of failure to perform adequate inspection at no cost to the Consultant.

1.6.2 Notify Consultant when the site is prepared for growing medium placement. Do not place growing medium until subgrades have been inspected and approved.

1.6.3 Provide at least two days (48 hours) notice in advance of each required inspection.

**1.7 SUBMITTALS**

1.7.1 Submit to the Consultant a typewritten copy of an analysis by an approved independent soil testing laboratory, The analysis shall be of tests done on the proposed growing medium and additives proposed for the work from samples taken at the supply source, within three weeks immediately prior to growing medium placement. Costs of the initial analysis, and subsequent tests to ensure compliance with the specification shall be borne by the Contractor. Failure to submit soils analysis is cause for immediate rejection of any placed growing medium. (The Contractor is responsible for testing the on -site soil to determine its suitability for amendment to meet specifications of this Section to serve as the growing medium).

- 1.7.2 The analysis shall include a breakdown of the following components: total nitrogen by weight, available levels of phosphorous, potassium, calcium, magnesium, soluble salt content, organic matter by weight, % sand, % fines (silt and clay) and pH value. In addition, the analysis shall clearly indicate the Project Name, Date Tested and Contractor's Name.
- 1.7.3 Submit with the above analysis, the testing laboratory's recommendations for amendments, fertilizers and other modifications to make the proposed growing medium meet the requirements of this specification.
- 1.7.4 Submit to the Consultant one composite sample of each type of proposed growing medium for each different application within the project (e.g. lawns, shrubs). Each sample shall be a composite of at least three samples from the proposed source and shall be at least one (1) litre in volume.
- 1.7.5 At the discretion of the Consultant, submit up to two additional samples, including samples of proposed additives to the growing medium from material delivered to the site as required to ascertain compliance with this specification. Results of these tests shall be submitted to the Consultant for approval.
- 1.7.6 After the completion of the soils analysis, a one litre sample of the completed/mixed growing medium, including all amendments shall be submitted at least twenty-one (21) days before placement of growing medium to allow for evaluation of samples and testing for noxious weed content by Consultant.

## **1.8 QUALITY CONTROL**

- 1.8.1 Advise Consultant of sources of growing medium to be utilized on this Project a minimum of thirty days (30) prior to starting work of this Section.
- 1.8.2 Carry out growing medium preparation and placement such that the final product matches the standard set by the samples submitted, within a range of variation that may reasonably be expected with good quality control.
- 1.8.3 The Consultant may appoint an independent testing laboratory to ascertain compliance with this specification and to recommend modifications to make the growing medium meet the requirements of this specification.

## **1.9 PRODUCT HANDLING**

- 1.9.1 **DO NOT MOVE OR WORK GROWING MEDIUM OR ADDITIVES WHEN THEY ARE EXCESSIVELY WET, EXTREMELY DRY, OR FROZEN OR IN ANY MANNER WHICH WILL ADVERSELY AFFECT GROWING MEDIUM STRUCTURE.** Growing medium whose structure has been destroyed by handling under these conditions will be rejected.
- 1.9.2 Protect growing medium and additives against extreme wetting by rain or other agents, and against contamination by weeds and insects.
- 1.9.3 Stockpile materials in bulk form in paved areas and provide protection by storing under roof or tarpaulins. Take all necessary precautions to prevent contamination of component materials from wind blown soils, weed seeds and insects. Contamination of individual components may result in rejection, if used.
- 1.9.4 Deliver and store fertilizers and other chemical ingredients in the manufacturer's original containers. Protect against damage and moisture until incorporated into the work.

**1.10 APPROVED EQUALS**

1.10.1 All items as specified or pre-approved equals.

**PART 2 PRODUCTS**

**2.1 ON SITE /IMPORTED SOIL (TYPE A)**

2.1.1 On site/ imported soil shall be friable "A Horizon" topsoil to the requirements of the B.C. Landscape Standard, stripped and stockpiled on site in an approved location. Stripping and stockpiling work shall be such that the soil is not damaged or contaminated. (refer to 1.9 Product Handling).

2.1.2 Mineral particle sizes shall be within the following ranges by weight:  
100% shall pass a 10 mm (3/8") sieve.  
Maximum of 10% shall pass a #200 sieve. (silt and clay)

Soil shall be of a sandy loam or loamy sand texture containing between 3% and 15% organic matter (dry weight basis). Soil shall be virtually free from subsoil, uncomposted wood parts larger than 12mm in any direction, weeds, stones over 30mm, pests, undesirable grasses or weeds, and seeds or parts thereof and foreign objects. Soil shall be free from crabgrass, couch grass, equisetium, convolvulus or other weeds or seeds or parts thereof.

2.1.3 **Soil shall be suitable for modification by screening and additives to meet the requirements for Screened Growing Medium (Type B as specified).**

**2.2 ADDITIVES**

2.2.1 Manure: Well rotted farm animal manure or compost, to the requirements of the BCSLA/BCLNA B.C. Landscape Standard. Animal manures and compost often have excessive levels of water soluble salts. The growing medium shall be leached via fresh water from the irrigation system or through natural rainfall until an electrical conductivity of 3.0mmho/cm or less is achieved.

2.2.2 Compost: A uniform blend of natural source-separated organic materials, composted such that it is brown-black in colour and has carbon to nitrogen ratio of 25 to 1 or lower. pH 6 to 7. Substantially free from subsoil, pests, roots, **wood pieces larger than 10mm in any direction**, construction debris, undesirable grasses or weeds, and seeds or parts thereof. Free from toxic materials, crabgrass, couchgrass, equisetum, weeds, and seeds or parts thereof. Paper fibre amended compost products are not permitted.

2.2.3 Sand: Approved medium river pump sand, well washed and free of contaminants, chemical and organic matter. Gradation of particle sizes shall fall within the following range ("Percent" to be reported as the mass of the particles whose size is less than the designated sieve opening but greater than the next designated sieve opening):

| USBS Sieve Number | Sieve Size (mm) | Percent Class           |
|-------------------|-----------------|-------------------------|
| 4                 | 4.76            | 0 - 3 Fine gravel       |
| 10                | 2.00            | 0 - 20 Very coarse sand |
| 18                | 1.00            | 0 - 20 Coarse sand      |
| 35                | 0.50            | 60 - 80 Medium sand     |
| 60                | 0.25            | 0 - 40 Fine sand        |
| 140               | 0.105           | 0 - 4 Very fine sand    |
| 270               | 0.063           | 0 - 2 Silt & clay       |

- 2.2.4 Sand shall have a saturated hydraulic conductivity between 100 mm. and 300 mm. per hour. Test conditions shall be for saturated sand, 15 blows compaction.
- 2.2.5 Sand shall have:
- |                            |                   |
|----------------------------|-------------------|
| Organic content            | < 0.5% by weight. |
| Water Soluble Salt content | < 0.5mmhos/cm     |
| Ph of between              | 5.0 and 7.0       |
- 2.2.6 Available copper, zinc and manganese following acid digest test in 0.1N HC1 and shaken for ½ hour shall be less than 25 PPM when analyzed by atomic absorption spectroscopy.
- 2.2.7 Peatmoss: Horticultural grade, to the B.C. Landscape Standard.
- 2.2.8 Wood Residuals: Content of wood residuals such as fir or hemlock sawdust shall not cause a Carbon to Nitrogen ratio higher than 25:1. Cedar or redwood sawdust shall not be present in the growing medium mix.
- 2.2.9 Dolomite Lime: Approved commercial brands for horticultural purposes, coarsely ground; containing not less than 20% calcium by weight.

### **2.3 FERTILIZERS**

- 2.3.1 Standard commercial brands, meeting the requirements of the Canada Fertilizer Act, packed in waterproof containers, clearly marked with the name of the manufacturer, weight and analysis.
- 2.3.2 Generally Fertilizers must be those fertilizers specified in the soils analysis report/ recommendations. Contractor shall not make any substitutions without prior written approval from Consultant Inspector.

### **2.4 SLAB DRAINAGE / FILTER FABRIC**

- 2.4.1 Not used

### **2.5 GROWING MEDIUM (TYPE B)**

- 2.5.1 Growing Medium shall be predominantly sand based and screened with additives and fertilizers as required to make it meet the following specifications:
- .1 Substantially free , **wood pieces larger than 10mm in any direction**, building materials, chemical pollutants and other extraneous materials.
  - .2 Population of plant pathogenic nematodes: maximum 1000 per litre for any single species.
  - .3 Maximum requirement of dolomite lime to required pH: 50kg/100M2.
  - .4 Salinity: maximum saturation extract conductivity of 3.0 mmho/cm @25 deg. C
  - .5 Fertility: Total Nitrogen 0.4-0.8% by weight  
Available Phosphorous 70-80 ppm  
Available Potassium 150-250ppm
  - .6 Cation Exchange Capacity: 30-50 meq.
  - .7 Carbon to Nitrogen Ratio: max. 40:1
  - .8 pH: Lawns, 6.0 to 7.0; Planting Areas, 5.5 to 6.0
  - .9 Boron: the concentration in the saturation extract shall not exceed 1.0 ppm
  - .10 Sodium: the sodium absorption ratio(SAR) as calculated from analysis of the

- saturation extract shall not exceed 8.0
- .11 Total Nitrogen shall be 0.2% to 0.6% by weight.
  - .12 Available phosphorous shall be 20-100 ppm
  - .13 Available potassium shall be 50-250 ppm.
  - .14 Tolerances: Samples of growing medium taken just before planting shall have the specified properties to within the tolerances of plus or minus 20% of the stated values, except for salinity, which shall be less than the stated limit.
  - .15 The textural properties and organic content shall be have the following composition AFTER MIXING (BY DRY WEIGHT):

For PLANTING BEDS growing medium shall consist of the following AFTER MIXING (% BY DRY WEIGHT):

80- 88% round sand (>0.05mm-<2mm)  
3 % max silt (>0.0002mm - <0.05mm)  
2 % max clay (<0.002mm)  
Total fines max 5%  
12-15% organic matter  
pH 5 .0 to 6.0

Nutrient Content :  
Nitrogen 0.2 - 0.6%  
Phosphorus : 50 -150ppm  
Potassium 50 - 300 ppm  
C/N ratio max 25 : 1

For LAWN AREAS growing medium shall consist of the following AFTER MIXING (% BY DRY WEIGHT):

85- 92% round sand (>0.05mm-<2mm)  
3 % max silt (>0.0002mm - <0.05mm)  
2 % max clay (<0.002mm)  
Total fines max 5%  
8- 10% organic matter  
pH 6 .0 to 6.5

Nutrient Content :  
Nitrogen 0.2 - 0.6%  
Phosphorus : 50 -150ppm  
Potassium 50 - 300 ppm  
C/N ratio max 25 : 1

- 2.6.2 Provide a 1 litre sample and a particle size analysis of the sand proposed for use. Provide an additional 1 litre sample and particle size analysis from the third quarter volume of sand delivered to the site.
- 2.6.3 ALL GROWING MEDIUM TO BE PRE MIXED, TESTED AND APPROVED PRIOR TO DELIVERY ON SITE.

## **2.7 MULCH**

- 2.7.1 Composted Mulch: Well-composted, stable, and weed-free organic matter, pH range of 5.5 to 8; moisture content 35 to 55 percent by weight; 100 percent passing through 1-inch (25-

mm) sieve; soluble salt content of 5 to 10 decisiemens/m; not exceeding 0.5 percent inert contaminants and free of substances toxic to plantings; and as follows:

2.7.2 Organic Matter Content: 50 to 60 percent of dry weight.

2.7.3 Colour: dark brown to black.

### **PART 3 EXECUTION**

#### **3.1 SUBGRADE PREPARATION**

3.1.1 Scarify compacted subgrade to a minimum depth of 150mm (6") immediately before placing growing medium.

3.1.2 Verify that subgrades are at the proper elevations before placing growing medium. Obtain approval of Consultant prior to placing any growing medium. Placement of growing medium implies acceptance of subgrade conditions.

3.1.3 Remove debris, roots, branches stones in excess of 50mm dia. and other deleterious materials as directed by Consultant Inspector. Remove any soil contaminated with calcium chloride, toxic materials or petroleum products. Remove any materials which protrude 25mm above the surface. Dispose of removed material off site.

#### **3.3 PLACING GROWING MEDIUM - ALL TYPES**

3.3.1 Growing medium shall be moist but not wet when placed (25% of field capacity). It shall not be handled in anyway if it is wet or frozen. Refer to 1.9.

3.3.2 Place all growing medium to the required finished grades. Except where drawings or details show otherwise, place to the following minimum depths and levels (measured after initial settling of growing medium):

Depths:

|                              |  |
|------------------------------|--|
| Tree Planting Areas on grade | 600mm minimum or depth of root ball, whichever is greater. For as large an area as possible around the base of each tree. Recommended 10m <sup>2</sup> or twice the size of the root ball whichever greater. |
|------------------------------|--|

|                                      |                     |
|--------------------------------------|---------------------|
| Shrub and Groundcover Areas on grade | 450mm minimum depth |
|--------------------------------------|---------------------|

Grass

|                |                     |
|----------------|---------------------|
| Areas on grade | 100mm minimum depth |
|----------------|---------------------|

**Notes:** If subgrade/subsoil drains rapidly increase soil depths as directed by Consultant to ensure adequate moisture retention. On slab depth of growing medium to achieve finished grades in all cases. Sand fill or additional growing medium may be used where required build-up over the drainage layer exceeds the required minimum depths stated above.

Levels:

For Lawn Areas

Flush with adjacent surfaces after initial settlement

For Planting Areas

As detailed on drawings. Crown all planting beds.

Refer to drawings for top of slab and finished elevations, as applicable.

- 3.3.3 Growing medium shall be placed over prepared subgrade and shall be allowed to settle or compacted by light rolling such that it is firm against deep footprints to the approval of the Consultant Inspector. Do not compact more than is necessary to meet this requirement.
- 3.3.4 Spread growing medium in uniform layers not exceeding 150mm in depth unless pre-approved by the Consultant Inspector.
- 3.3.5 Crown or slope for positive surface drainage as shown on the drawings.

### **3.4 APPLICATION OF FERTILIZERS**

- 3.4.1 Apply fertilizers as specified and recommended by soils analysis to bring growing medium fertility to required fertility set out in this specification.
- 3.4.2 Spread evenly over the placed growing medium surface by means of a suitable mechanical spreader.
- 3.4.3 Rake fertilizers into top 50mm minimum of the placed growing medium.
- 3.4.4 Ensure minimum 7 days separation time between the application of any lime treatment or fertilizers and plant material installation.

### **3.5 TREE PLANTING**

- 3.5.1 See Section 32 93 10.

### **3.6 FINISH GRADING**

- 3.6.1 See Section 32 90 01.

### **3.7 MULCHING**

- 3.7.1 Place mulch over all growing medium except grass areas. Moisten uniformly and spread to a consistent settled depth of 50mm in tree and shrub planting areas, 25mm in ground cover areas.

### **3.8 ACCEPTANCE**

- 3.8.1 Consultant Inspector will inspect and test growing medium and determine acceptance of material as placed, depth and finish grading prior to any planting or sodding operations commencing.
- 3.8.2 Approval of placed growing medium subject to additional soil test analysis if requested. Costs for additional testing of placed growing medium shall be at the Contractor's expense.

### **3.9 CLEAN UP**

- 3.9.1 All excess materials and other debris resulting from growing medium preparation and placement operations shall be removed from the job site.
- 3.9.2 Flush all walks and paved areas clean to the satisfaction of the Consultant.

**END OF SECTION 32 90 13**

**PART 1      GENERAL**

- .1 Conform to the requirements of the latest editions of the following standards and legislation:
  - CSLA Canadian Landscape Standards
  - British Columbia Standard for Turfgrass Sod
  - British Columbia Weed Control Act
  - Canada Seed and Fertilizer Act
  - Canada Pest Control Products Act
  
- .2 Protect all seeded areas against trespassing and from damage at all times until Acceptance. If any seeded areas are damaged, they shall be repaired as required to satisfaction of Owner's Representative.
  
- .3 The conditions for acceptance of hydroseeded lawn areas and for turning over the hydroseeded areas are:
  - Substantial Performance for the entire project shall have been declared.
  - Hydroseeded lawn areas shall have been maintained as specified for a min. of 55 days. Hydroseeded lawn shall be mown as specified (to a height of 38mm) no more than two days before inspection for Acceptance..
  - The hydroseeded lawn shall be uniformly healthy, in a vigorous growing condition, representative of a dense stand of grass, with all deficiencies corrected to the approval of the Owner's Representative. Lawn shall have no evidence of noxious weeds.
  
- .4 All workmanship and materials covered under Work of this Section shall be warranted for a period of ONE (1) full year from the date of Substantial Performance.

## **PART 2 PRODUCTS**

- .1 All grass seed, hydraulic mulch fertilizers and related materials shall be stored in a dry, weatherproof storage place and shall be protected from damage by heat, moisture, rodents or other causes until time of use. Care shall be taken that labels and other identification(s) are not removed or defaced in any fashion.
- .2 Grass Seed shall be fresh, clean, new crop certified Canada #1 or better seed, in accordance with Government of Canada "Seeds Act", with a minimum germination of 75% and a minimum purity of 97%. Supplied in standard containers with the following information provided: suppliers name and address, lot number/year of production, net weight (mass), names and percentages of individual seed species and percentage of pure seed. Composed of the following varieties in the proportions and testing the minimum percentages of purity and germination indicated:
  - 10% Common Kentucky Bluegrass
  - 25% Common Creeping Red Fescue
  - 25% Common Chewings Fescue
  - 40% Turf Type Perennial Ryegrass
- .3 Hydroseeding solution shall contain a mulch of dry virgin wood cellulose fibre specifically designed for hydraulic seeding, containing no growth or germination inhibiting factors, and dyed green with a water activated non-toxic dye for visual metering during application; "Ecofibre" as manufactured by Canfor or pre-approved equivalent.
- .4 Manual weed control is the preferred method and may be the only permitted methodology. Confirm with Owner's Representative.

## **PART 3 EXECUTION**

### **3.1 Soil Preparation**

- .1 Grades:

- .1 Areas to be seeded shall be at grades shown at the time of seeding, free of “humps and hollows”. Crown or slope for surface drainage and eliminate all low spots or depressions. Ensure that growing medium is placed to required depths and tolerances as specified and detailed in the Contract Documents and spread evenly over the approved subgrade. Ensure the growing medium is firm against footprints, loose in texture and free of all stones, roots, branches etc as required under Section 02920 Growing Medium Preparation and Placement.
  - .2 Restore all areas to be seeded that are misshapen or eroded to specified condition, grade, slope as directed just prior to seeding. Minor adjustment and refinement of finish grade to be made as directed by Owner’s Representative.
  - .3 Obtain Owner’s Representative’s approval of finish grading prior to proceeding.
  - .4 Ensure smooth finish on all surfaces and finished grades as shown on the drawings and as specified herein.
- .2 Clearing: Remove all weeds, briars, debris and other refuse and deleterious materials which may be detrimental to the growth of the grass.
  - .3 Cultivation: as required to minimum depth of 100mm.
  - .4 Moisture: ensure areas to be seeded are moist to minimum depth of 150mm before seeding.

### **3.2 Application**

- .1 Apply with equipment designed for hydraulic seeding, a uniform solution in water of:

|                   |   |
|-------------------|---|
| Seed as specified | 24.4kg/1000 square meters                                     |
| Fertilizer        | Type and Rate as required by soil testing analysis.           |
| Fibre Mulch       | 250kg/1000 square meters                                      |
| Tackifier         | Not required on flat areas or slopes up to 25%                |
|                   | 6 kg/1000 sq. meters on slopes from 26%-35%.                  |
|                   | (increase to 8 kg/1000 sq. meters on slopes greater than 35%) |
- .2 Ensure uniform distribution of the solution over the entire area, with adequate discharge pumps, hoses and gun nozzles.
- .3 Take precautions to protect planting beds, walks, roads, buildings and other site features such as signs, guardrails, fences, and utilities against spraying with the solution. Thoroughly clean any surface which is sprayed with the solution where not intended to the satisfaction of the Owner’s Representative.
- .4 Do not perform work under adverse field conditions such as wind speeds over 5 km/h, frozen ground or ground covered with snow, ice or standing water
- .5 Apply seed in a uniform workmanlike and continuous fashion until completed. Seed which has been in the hydraulic seeder more than 2 hours shall be considered dead and must be replaced.

- .6 Submit completed Schedule A - Application Record to the Owner's Representative on a daily basis.
- .7 No vehicular traffic will be permitted on areas to be seeded. All unreachable work or work under difficult control conditions shall be completed with use of hoses.
- .8 Ensure a minimum overlap of 450mm between applications to form uniform surfaces.

### **3.3 Maintenance**

- .1 Begin maintenance at time of planting and continue for a minimum of fifty-five (55) days after Substantial Performance or until Acceptance, whichever is greater. Perform maintenance of the hydroseeded areas from time of seeding (date of installation) to date of Acceptance by the Board. Work to include: watering, cultivation, fertilizing, cutting, weeding, and all other measures necessary to ensure germination and development of a uniform, dense, healthy stand of grass.
- .2 Begin maintenance immediately after installation and continue until Acceptance of all hydroseeded lawn areas. Maintenance shall consist of all measures necessary to keep lawn healthy, in a vigorous growing condition and all other measures necessary to ensure germination and development of a uniform, dense, healthy stand of grass. Maintenance shall include, but shall not be limited to the following:
  - .1 Mowing shall be carried out at regular intervals as required to maintain grass at a maximum height of 60mm. (2-1/2"). Not more than 1/3 of the blade shall be cut at any one mowing. Edges of lawn areas shall be neatly trimmed. Heavy clippings shall be removed immediately after mowing and trimming.
  - .2 Watering shall be carried out when required and with sufficient quantities to maintain optimum soil moisture level for germination and continued growth of grass. Control watering to prevent washouts.
  - .3 Rolling shall be carried out when required to remove any minor depressions or irregularities.
  - .4 Weed control shall be carried out when the density of weeds reaches 10 broadleaf weeds or 50 annual weedy grasses per 37 sq. M. (400 square feet).
  - .5 Weed control, whether manual or chemical, shall reduce the density of weeds to zero. If chemical, apply in strict accordance with the manufacturer's recommendations and to the standards specified herein.
  - .6 Any seeded areas showing deterioration or bare spots shall be repaired immediately. All areas shall be top dressed and over seeded with a seed mix matching the original seed mix.

- .7 All seeded areas shall be adequately protected with warning signs, temporary wire, twine or mesh fences as dictated by Owner's Representative. Fencing shall be maintained in good condition to provide a continuous barrier until Acceptance. Except as otherwise required by the work of this Contract, the fencing shall be removed from the site upon Acceptance/Assumption by the Owner.

### **3.4 Cleaning**

- .1 Remove from the site all surplus materials and other debris resulting from seeding operations.
- .2 Flush all walks, pavement and any area surface sprayed with solution clean to the satisfaction of the Owner's Representative.

END OF SECTION

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**PART 1 - GENERAL**

**1.1 DOCUMENTS**

- 1.1.1 This section of the specification forms part of the Contract Documents and is to be read, interpreted and coordinated with other parts.

**1.2 DESCRIPTION**

- 1.2.1 Work Included: Furnish all labour, equipment, material and services necessary for complete supply and installation of all plant material as shown on the drawings and herein after specified.

1.2.2 Related Work in Other Sections

- |                          |                  |
|--------------------------|------------------|
| 1. Finish Grading        | Section 32 90 01 |
| 2. Growing Medium        | Section 32 91 13 |
| 3. Landscape Maintenance | Section 32 01 90 |

**1.3 QUALITY ASSURANCE**

- 1.3.1 All materials and work shall conform to the latest edition of the following standards or as otherwise specified:

- .1 CNTA (Landscape Canada) Canadian Standards for Nursery Stock
- .2 BCLNA Standard for Container Grown plants
- .3 BCSLA/BCLNA British Columbia Landscape Standard
- .4 Perennial Plant Association Standards for herbaceous perennial plants

**1.4 AREA OF SEARCH**

- 1.4.1 Area of search for specified plant material shall include the Lower Mainland of British Columbia, Vancouver Island, Washington and Oregon States, except as noted on the plant list.

**1.5 PROVENANCE**

- 1.5.1 All plant material used on this project shall be hardy in this climate. Plant types have been selected with this as a criteria. This Contractor shall guarantee that plant material supplied has equal provenance, i.e.: it is developed from cuttings or seeds collected in an area of similar climatic characteristics. Submit proof of equal provenance to Consultant upon request.

**1.6 DELIVERY AND STORAGE**

- 1.6.1 Dig and handle all plant material in a manner suitable for each species to prevent injury to or removal of fibrous roots. All plant material arriving on site with broken or loose root balls or containers will be rejected. Take precautions to prevent roots from frost, avoid burning of plants by sun or wind during handling and shipping.
- 1.6.2 Keep root balls and container soil moist before planting by covering with bark mulch, wet straw or soil, water as required to ensure moist root balls.
- 1.6.3 All plant material shall be acclimatized to the final location before delivery and planting. The Contractor will be held responsible for plant losses caused by inadequate acclimatization.

**1.7 INSPECTION**

- 1.7.1 Notify the Consultant and the City, giving at least 48 hours notice when plants are assembled for inspection in one location ten (10) days prior to scheduled planting time.
- 1.7.2 If inspection in more than one location becomes necessary, the contractor shall reimburse the Consultant for the additional time required at the current hourly rates of the Staff personnel.
- 1.7.3 All plants are subject to inspection and may be rejected for failure to comply with this specification at any time until Acceptance. Replace rejected material and remove from the site at no cost to the Owner.

- 1.7.4 Plants required for the work must be inspected and tagged by the Contractor at the place of growth before being dug. Inspection and tagging at the place of growth shall not affect the right to reject such plants on or after delivery thereof to the site.
- 1.7.5 Plants arriving on site must be inspected by the Consultant prior to off-loading. Provide minimum 48 hours notice to schedule Inspection.
- 1.7.6 The Contractor or his authorized representatives shall be present during all required inspections as specified or as may be required.

**1.8 CONDITIONS FOR ACCEPTANCE**

- 1.8.1 The conditions for Acceptance of landscape areas and for turning over the landscape areas to the Owner for subsequent maintenance are:
  - .1 Growing medium quality, fertility levels, depths and surface grading have been completed to the requirements of Section 32 91 13.
  - .2 Plant quantities, sizes, quality and locations are as shown in the Contract Documents or as otherwise approved by the Consultant.
  - .3 Substantial Performance for the complete project shall have been declared.
  - .4 All plants shall be: installed at the correct elevation relative to finished grade, healthy, in a vigorous growing condition and established to the satisfaction of the Consultant. Trees will be assessed for acceptance only when in leaf, and not when in a dormant state. Include pruning where required.
  - .5 All deficiencies with regard to landscape work shall have been rectified.
  - .6 All trees are staked where required.
  - .7 Landscape areas shall have been maintained for at least 55 days after Substantial Performance. All planted areas are free of all visible weeds and substantially free from underground weed seeds or parts thereof, to the requirements of Section 32 01 90 Landscape Maintenance (as Applicable).
  - .8 Mulch has been placed as required. All areas not to receive mulch are in a cultivated, loose, friable condition where water can freely permeate the surface.
- 1.8.2 The date of Acceptance shall be as determined by Owner based upon the Inspection for Acceptance. Contractor shall request inspection for Acceptance, giving at least 48 hrs. notice.

**1.9 SUBSTITUTIONS**

- 1.9.1 Substitutions in plant material will not be considered unless written proof is submitted thirty (30) days prior to scheduled installation stating a specified plant cannot be obtained within the specified area of search. Upon submission of such proof, a proposal will be considered for using the nearest equivalent size or variety with an equitable adjustment of the Contract price.

**1.10 WARRANTY**

- 1.10.1 Replace for a period of one (1) year after Substantial Performance of the project, all unsatisfactory plant material and continue to replace such plant material until the replacement is acceptable to OWNER, at no cost to the Owner. This warranty will apply to all plant material, whether supplied by Contractor or Owner.
- 1.10.2 This warranty is based on adequate maintenance by OWNER after Acceptance. The Contractor will not be responsible for plant loss due to extreme climatic conditions such as abnormal freezing temperatures or hail which occur after Acceptance. The Contractor shall be responsible for plant loss due to inadequate acclimatization of plants for their planted location.
- 1.10.3 If required, adequacy of acclimatization and existence of extreme climatic conditions shall be as

determined by an independent Consultant on the basis of plant variety, location, recorded temperatures for the locale, time of planting and other factors pertinent to the situation.

**1.11 PERMITS**

- 1.11.1 Obtain and pay for all permits required for the work, including such permits as may be required for planting and related work on municipal property (e.g. street trees).

**PART 2 - PRODUCTS**

**2.1 PLANT MATERIAL**

- 2.1.1 Plant material shall be of the sizes and quantities as shown in plant lists on Landscape Drawings and shall be nursery grown unless specifically described as "collected". All "non-specimen" plantings specified in the Plant List(s) are specified according to the Canadian Nursery Trades Association Canadian Standards for Nursery Stock and the BCLNA Standard for Container Grown Plants.

- 2.1.2 In particular, plant material shall conform with the following CNTA Standards:

- .1 "Nursery stock shall be true to name, type and form and representative of their species or variety. In addition they shall be of the size and grade and quality stated".
- .2 "Quality shall be normal for the species when grown under proper cultural conditions viable, substantially free from pests and disease, and undamaged".
- .3 "Roots shall not be subject to long exposure to drying winds, sun or frost, between digging and delivery".
- .4 Root balls and soil in containers shall be free from pernicious perennial weeds."
- .5 Roots shall be transplanted or root pruned at least once within the year prior to planting.
- .6 Take precautions during digging, handling and shipping of plant material to avoid injury to plants and root systems.
- .7 Plants for use when symmetry is required shall be matched as nearly as possible.
- .8 Plants shall not be pruned prior to delivery.
- .9 All plants shall be measured when the branches are in the normal position. Measurements shall be as set out in the BCLNA Standard for Container Grown Plants. Caliper of trees shall be measured 12 inches above the ground. The height of tree trunks need not be as specified if the required height can be obtained by pruning the lower branches without leaving unsightly scars or otherwise damaging the trunk. No pruning of the branches to achieve the required height shall be done prior to delivery of the material to the site without OWNER's written approval.
- .10 Trees shall have straight trunks with a single leader intact. There shall be no abrasion of the bark and no fresh cuts of limbs over 1-1/4" which have not completely calloused over.
- .11 Where trees are to be in a formal arrangement or occur in consecutive order, they shall be carefully measured as to height and spread and tagged with a number before delivery to the site. These trees shall be correspondingly identified on plan to assure symmetry and expeditious handling.
- .12 Plants larger in size than specified in the itemized plant list may be used if approved; but the use of larger plants shall not increase the Contract price. If the use of larger plants is approved, the ball of earth or spread of roots shall be increased in proportion to the size of the plant.
- .13 The size specified is the size of plant required at the time of delivery to the construction site. Sizes shown are minimum sizes.

- 2.1.3 Container dimensions shall be as defined in the B.C. Landscape Standard, latest edition.

**2.2 RELATED MATERIALS**

- 2.2.1 Tree Ties: Transmission Type fabric belting 25mm in width. Submit sample for approval. to protect bark or other types approved by the Owner. Generally they shall be of a material that will

not damage the bark. Tree tie material shall be at least 25mm(1") in width and shall remain pliable in all weather conditions. They shall permit a reasonable degree of movement by the tree under normal loading conditions/forces such as wind without detrimental effects. Rubber tree buckles, or galvanized wire with rubber hose will not be accepted.

- 2.2.2 Burlap and Wire Baskets: To Requirements of BC Landscape Standard.
- 2.2.3 Stakes: Fir, standard or better, 75mm x 75mm x 3000mm.
- 2.2.4 Mulch: Per Section 32 93 10.

### **PART 3 - EXECUTION**

#### **3.1 PLANTING SEASON**

- 3.1.1 Plant only during the season or seasons which are normal for such work, as determined by weather conditions and as approved by OWNER. Plants planted before or after any stipulated dates will be rejected. OWNER does not allow tree planting between June 30<sup>th</sup> and September 30<sup>th</sup> regardless of irrigation. OWNER does not allow any shrub planting or sodded/seeded lawn installation between June 30<sup>th</sup> and September 30<sup>th</sup> unless the project is irrigated.
- 3.1.2 Do not plant during freezing, abnormally hot, dry or wet weather or when damaging climatic conditions can be anticipated.
- 3.1.3 The Contractor will be responsible for death or deterioration of plants caused by exposure to damaging climatic conditions, planting under conditions itemized above or inadequate acclimatization of plant material.

#### **3.2 DELIVERY**

- 3.2.1 Dig and handle all plant material in a manner suitable for each species to prevent injury to or removal of fibrous roots. All plant material delivered with broken or loose root balls or containers will be rejected by OWNER and replaced by the Landscape Contractor at no additional cost to the Owner. Take precautions to avoid burning of plants by sun or wind during handling and transporting.
- 3.2.2 Keep root balls and container soil moist prior to delivery by covering with bark mulch, wet straw or soil and water as required to ensure moist root balls.
- 3.2.3 Coordinate the delivery of plant materials with work of other trades and other site activities.
- 3.2.4 Off load the plant materials at the site as designated by Owner.

#### **3.3 PLANT LAYOUT**

- 3.3.1 Locate plants according to the Planting Plan for approval of plant location and orientation. Notify Consultant, giving 48 hours' notice, when plant layout will be ready for review. At this time the Consultant may make adjustments in plant locations and orientation prior to planting.
- 3.3.2 Stake location of all major trees for approval to positioning. Notify Consultant at least 48 hours before planting of major trees.

#### **3.4 TREE PITS**

- 3.4.1 Dimensions per Section 32 91 13.
- 3.4.2 Scarify the sides of tree pits.

- 3.4.3 Check all tree pits for adequate drainage. Advise Consultant if any do not drain adequately. See 3.5.4 below.
- 3.4.4 Fill with growing medium as specified.
- 3.4.5 Remove excavated subsoil material from site, or use on site in an approved manner. Obtain prior approval from Consultant.

### **3.5 PLANTING PROCEDURE**

- 3.5.1 Install all plants at height grown in Nursery. Allow for settling of the growing medium after planting. The soil mark on the stem will be used as the indicator for correct growing medium/planting elevation.
- 3.5.2 Excavate hole in growing medium sufficient to receive root ball. Excavation of the subgrade below the root balls of trees shall be only as necessary to permit the bottom of the root ball to sit on undisturbed material or compacted fill such that the top of the root ball remains at the proper finished grade. Disturbed subgrade or fill below the root ball shall be compacted to prevent settlement of the tree after planting. Remove excess material from the site.
- 3.5.3 Plants shall be set plumb in the planting beds or in the center of the pits, except where the plant's character requires variation. Obtain approval from Consultant.
- 3.5.4 Backfill around root ball with prepared growing medium, tamping and watering to ensure firm support for the plant and eliminating all air pockets around the root ball. Ensure water penetration into the root balls during planting procedures.
- 3.5.5 Remove all string, rope, burlap and other restricting elements out to the perimeter of the root ball. Cut all wire basket handles flush with the top ring or fold back down into the planting hole. Do not remove wire baskets. Ensure no wires from the basket protrude into the top 100mm of the growing medium.
- 3.5.6 Test all tree pits for poor drainage as directed by Consultant. If poor drainage or percolation is encountered report this condition immediately to Consultant for acceptable remedial measures. Measures such as auguring holes through the impervious layers and backfilling with approved clean rounded drain rock or sand, raising the planting grade, or adding dedicated drain lines connected to the subsurface drainage system will be considered.
- 3.5.7 Ensure a 150mm deep saucer around all trees for the full width of the planting pit.

### **3.6 FERTILIZER APPLICATION**

- 3.6.1 Place fertilizer as per recommendations of soil analysis and to requirements of Section 32 91 13.

### **3.7 STAKING AND GUYING**

- 3.7.1 Stake or guy all trees immediately after planting as required. Plant material not guyed immediately shall be replaced if damaged.
- 3.7.2 Trees shall stand plumb on completion of this operation.
- 3.7.3 Guys shall be installed such that injury to bark will not occur.

### **3.8 PRUNING**

- 3.8.1 Each shrub planted shall be pruned to preserve the natural character of the plant and in a manner appropriate to its particular requirements in the landscape design. Pruning in general shall be heavier on collected than on nursery grown plants. All soft wood sucker growth and all broken or

badly bruised branches shall be removed with a clean cut.

- 3.8.2 All pruning shall be done with sharp tools. All pruning cuts to be made flush and clean; especially where lower branches have been removed from collected trees.

**3.9 APPLYING MULCH**

- 3.9.1 Apply mulch to all planting areas (shrub, groundcover etc.) except where shown otherwise.
- 3.9.2 After finish grading is complete and immediately after each area requiring mulch is planted, place mulch in a uniform even layer. Moisten uniformly and spread to a consistent settled depth of 50mm in tree and shrub planting areas, 25mm in all ground cover areas.

**3.10 MAINTENANCE**

- 3.10.1 Refer to Section 32 01 90.
- 3.10.2 Maintain all plants in a healthy growing condition by watering, weeding, cultivating, pruning and any other necessary operations required for first class maintenance.
- 3.10.3 Water all planted areas as necessary to provide optimum conditions for plant growth. Thoroughly soak the growing medium of these areas to its full depth at least twice weekly.

**3.11 FINISH GRADING**


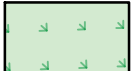
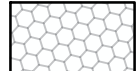
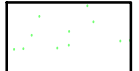
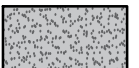

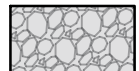
- 3.11.1 All planted areas and all growing medium shall be fine graded after placing to the finished elevations and contours as detailed and specified herein. Surfaces shall be true to intended grades, smooth, uniform, and firm against deep foot printing, with a fine loose surface texture. Ensure all rough spots and low areas are eliminated to ensure positive surface drainage. Adjust grades to accommodate for mulch as specified/detailed.

**3.12 CLEAN UP**

- 3.12.1 All excess materials and other debris resulting from planting operations shall be removed from the job site.
- 3.12.2 Flush all walks and paved areas and rake all lawn areas clean to the satisfaction of OWNER.

**END OF SECTION 32 93 10**

PAVING & SURFACING  
LEGEND

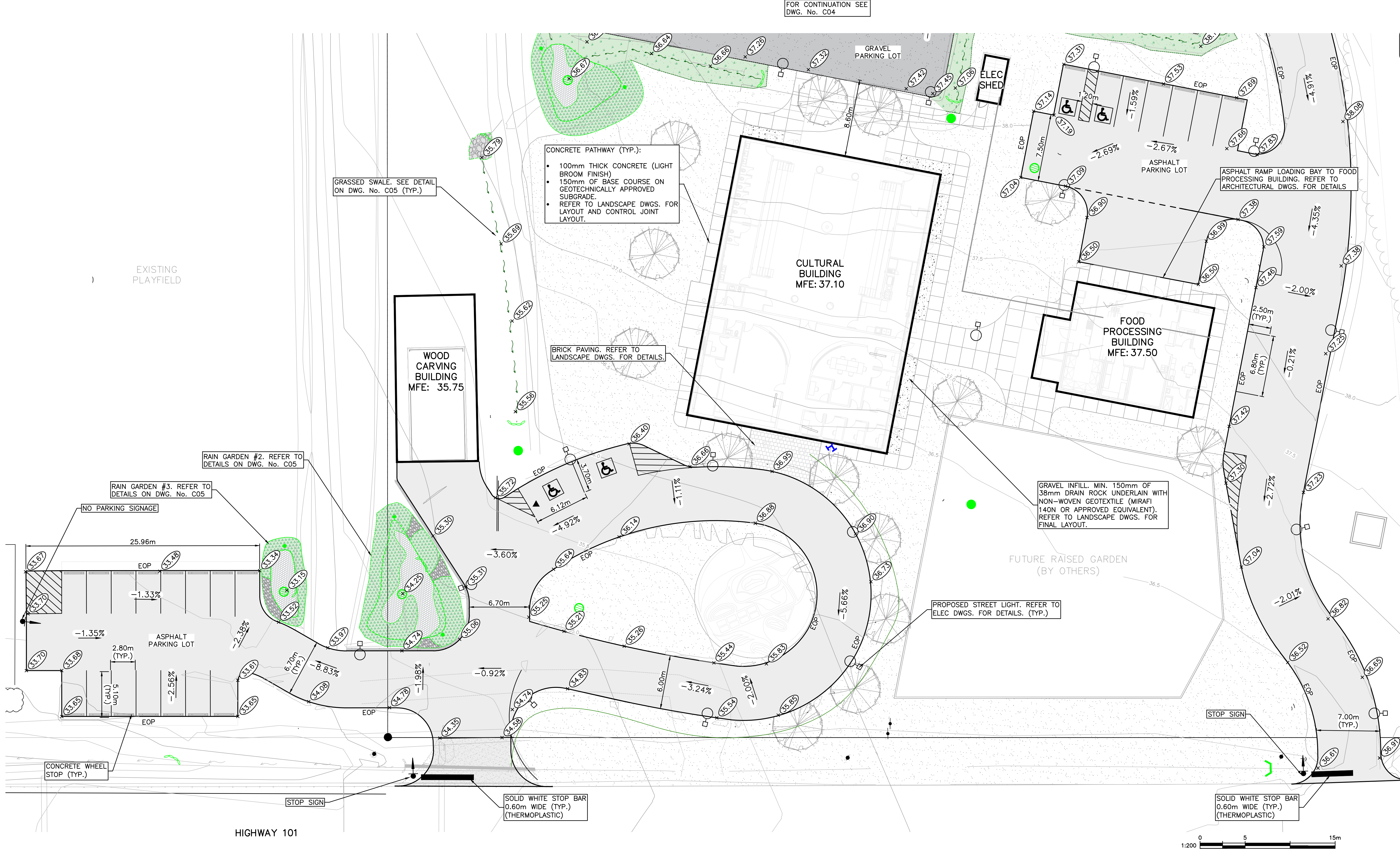
- |   |  |   |  |
|---|--|---|--|
|  ASPHALT DRIVE AISLES & PARKING STALLS<br>- 50mm OF ASPHALT PAVING<br>- 100mm OF GRANULAR BASE<br>- 250mm OF GRANULAR SUBBASE ON GEOTECHNICALLY APPROVED SUBGRADE. |  TOP SOIL<br>- 150mm OF TOP SOIL & SEED                                     |  DRAIN ROCK<br>- 150mm OF 19mm & 38mm DRAIN ROCK         |  HYDRO SEED<br>- REFER TO LANDSCAPE DWGS. FOR DETAILS |
|  GRAVEL PARKING LOT<br>- 150mm OF 15mm MINUS CRUSHER FINES<br>- 250mm OF GRANULAR SUBBASE ON GEOTECHNICALLY APPROVED SUBGRADE.                                     |  GROWING MEDIUM<br>- MIN. 300mm OF GROWING MEDIUM.<br>- PLANTINGS BY OTHERS |  FRACTURED ROCK<br>- 150mm OF 75mm-150mm CLEAR FRACTURED |  |

- NOTES:
- FOR GENERAL NOTES SEE DWG. No. C01.
  - SEE ARCHITECTURAL AND LANDSCAPE DWGS. FOR ADDITIONAL GRADING AND SURFACE WORKS DETAILS.

| ISSUES |            |                     |
|--------|------------|---------------------|
| No.    | DATE       | ISSUED FOR          |
| A      | 2023.02.07 | ISSUED FOR COSTING  |
| B      | 2023.08.31 | REVISED SITE PLAN   |
| C      | 2023.10.27 | ISSUED FOR TENDER   |
| D      | 2023.12.14 | REISSUED FOR TENDER |

CLIENT

ISSUED FOR TENDER



TLA'AMIN NATION CULTURAL BUILDING  
& FOOD PROCESSING BUILDING  
CIVIL WORKS

TLA'AMIN NATION, BC (POWELL RIVER)  
TLA'AMIN NATION

**HEROLD ENGINEERING**

3701 Shenton Rd, Nanaimo, BC V9T 2H1  
Tel: 250-751-8558 Fax: 250-751-8559  
Email: mail@heroldengineering.com

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| SURFACE WORKS - SOUTH         |                           |
|-------------------------------|---------------------------|
| DESIGNED<br>EGAP              | ENGINEER'S SEAL           |
| DESIGN REVIEW<br>PGR          |                           |
| DRAFTED<br>EGAP               |                           |
| DRAFTING REVIEW<br>PGR        |                           |
| PROJECT No.<br>5493-004       | CLIENT DRAWING No.<br>C03 |
| SCALE<br>H: 1:200<br>V: NA    | PERMIT No.                |
| HEL DRAWING No.<br><b>C03</b> | REVISION<br>3 OF 5<br>D   |

File: H:\Projects\5493-004 Tla'amin Nation - Our House\44C Drawings\44C Drawings.dwg Plot Times: Dec. 14, 23 2:38 PM User: Evan Pearce