

ADDENDUM NO. 1

CONTRACT NO. 2021-5154

Grading, Drainage, Granular Base, Hot Mix Paving, Electrical and Structural - Highway 101 from Second Street (Matheson) to Highway 572 and the Rehabilitation of the Watabeag River Bridge on Highway 11 - 14.5 km

14.5 km

Northeastern Region

The following will now form part of the Special Provisions of the contract and amends the applicable information contained in the original contract tendering documents.

TENDER

ITEM NO. 13 - Clean Out of Pipe Culvert

The quantity for this item is revised to read 15.

The Contractor shall substitute the attached copies of the tender item list in the tender documents when submitting his bid.

SPECIAL PROVISIONS (NEW)

GEOGRID - Item No. 30

Special Provision

1.0 SCOPE

This specification covers the requirements for the supply and placement of integrally formed biaxial geogrid at the locations specified in the Contract Documents.

2.0 REFERENCES

This specification makes reference to the following standards, specifications or publications:

ASTM International

D4355 - 07 Standard Test Method for Deterioration of Geotextiles by Exposure to Light, Moisture and Heat in a Xenon Arc Type Apparatus

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D4759 - 02(2007)	Standard Practice for Determining the Specification Conformance of Geosynthetics
D5818 - 11	Standard Practice for Exposure and Retrieval of Samples to Evaluate Installation Damage of Geosynthetics
D6637 - 10	Standard Test Method for Determining Tensile Properties of Geogrids by the Single or Multi-Rib Tensile Method

3.0 DEFINITIONS

For the purposes of this specification the following definitions apply:

Aperture means an opening, such as a hole, gap, or slit.

Base Reinforcement means the use of a geosynthetic within the aggregate base course to enhance the performance of a pavement.

Geogrid means a sheet-like woven or non-woven geosynthetic having a regular network of apertures that function as reinforcement by allowing interlocking of soils, rock or similar material. Used to assist in the engineered creation of monolithic structures to resist forces and loads.

Geosynthetic means a synthetic material used in geotechnical engineering applications. Geosynthetics may include such items as geotextiles, geomembranes, geocells, geogrids, geonets, and geocomposites.

MD means machine direction.

Quality Assurance (QA) means a system or series of activities carried out by the Owner to ensure that materials received from the Contractor meet the specified requirements.

Quality Control (QC) means a system or series of activities carried out by the Contractor, Subcontractor, supplier, and manufacturer to ensure that materials supplied to the Owner meet the specified requirements.

XMD means cross-machine direction.

4.0 DESIGN AND SUBMISSION REQUIREMENTS

4.01 Submission Requirements

Prior to the use of geogrid in the Work, a certificate from the manufacturer stating the name of the manufacturer, product name, style number, chemical composition, and other pertinent information to fully describe the geotextile as evaluated under the manufacturer's QC program shall be submitted to the Contract Administrator. The certificate shall identify the name of the supplier of the geogrid. A person having legal authority to bind the manufacturer or supplier shall attest to this certificate.

Upon request, documentation describing the manufacturer's QC program shall be made available to the Contract Administrator.

5.0 MATERIALS

The geogrid shall consist of integrally formed biaxial geogrid and shall meet the following minimum properties and specifications, in accordance with the above referenced testing procedures:

(Tensar© Geogrid BX1200 Equivalent)

Property	MD Specification	XMD Specification
Ultimate Tensile Strength	19.2 kN/m	28.8 kN/m
Tensile Strength at 2% Strain	6.0 kN/m	9.0 kN/m
Tensile Strength at 5% Strain	11.0 kN/m	19.0 kN/m
Flexural Stiffness	750,000 mg-cm	---
Nominal Aperture Dimensions	25 mm	40 mm

6.0 EQUIPMENT - Not Used

7.0 CONSTRUCTION

7.01 General

The geogrid shall be installed as specified in the Contract Documents and as per the manufacturer's specifications.

The area shall be cleared of sharp objects that may damage the geogrid.

The geogrid shall be placed with a minimum overlap longitudinally of 0.3 m, and a minimum overlap of 0.3 m transversely between rolls, or greater as specified by the manufacturer. As part of the installation, the geogrid shall be pulled taut to remove any slack prior to placement of granular fill.

The Contractor shall be responsible for any damage to the geogrid during construction, including on-site storage and installation. If the geogrid is damaged it shall be replaced at no additional cost to the Owner.

Should a discrepancy exists between the Contract Documents and the manufacturer's specifications regarding the installation procedure, then the manufacturer's specifications shall take precedence.

7.02 Operational Constraints

Vehicular or construction equipment shall not be permitted to be directly on the geogrid. A minimum of 150 mm of granular material shall be placed on top of the geogrid prior to allowing any vehicle or construction equipment traffic over the area.

7.03 Management of Excess Materials

Management of excess material shall be according to the Contract Documents.

8.0 QUALITY ASSURANCE - Not Used

9.0 MEASUREMENT FOR PAYMENT

9.01 Actual Measurement

9.01.01 Geogrid

Measurement will be in square metres with no allowance made for overlap.

10.0 BASIS OF PAYMENT

10.01 Geogrid - Item

Payment at the Contract price for the above item shall be full compensation for all labour, Equipment, and Material to do the work.

CONTRACT DRAWINGS

The following drawing sheet(s) are cancelled and replaced as indicated:

Cancelled	Replaced By
11	11A

The following drawing sheet(s) are added:

N/A

QUANTITY SHEETS

The following quantity sheet(s) are cancelled and replaced as indicated:

Cancelled	Replaced By
11	11-1

The following quantity sheet(s) are added:

N/A

Ed Marcon
Team Lead
Contract Tendering Section
15 November 2021

TENDER ITEM LIST

Grading

Item	Spec. Code	Item Description	Unit	Quantity	Unit Price	Total
1	0206-0010	Earth Excavation, Grading	m3 (P)	9,575		
2	0299-0015 SP	Earth Ditch Cleanout	m (P)	1,017		
3	0308-0010	Tack Coat	m2 (P)	124,132		
4	0313-1370	Hot Mix Asphalt Miscellaneous	m2 (P)	64		
5	0313-1535	Superpave 12.5 - 40 mm Lift Thickness	m2 (P)	129,941		
6	0313-1536	Superpave 12.5 - 50 mm Lift Thickness	m2 (P)	1,518		
7	0313-1551	Superpave 19.0 - 50 mm Lift Thickness	m2 (P)	124,326		
8	0314-0071	Granular A	t	13,448		
9	0314-0190	Granular B, Type II	t	14,458		
10	0330-0010	In-Place Full-Depth Reclamation of Bituminous Pavement and Underlying Granular	m2 (P)	107,733		
11	0353-0011 SP	Concrete Curb and Gutter	m (P)	16		
12	0399-2020 SP	Temporary Hot Mix Pavement	t	427		
13	0411-0010	Clean Out of Pipe Culvert	each (P)	15		
14	0421-0605	600 mm Pipe Culvert	m (P)	584		
15	0421-0805	800 mm Pipe Culvert	m (P)	56		
16	0510-3133	Removal of Asphalt Pavement	m2 (P)	27,787		
17	0510-3134	Removal of Asphalt Pavement from Concrete Surfaces	m2 (P)	139		
18	0510-3137	Removal of Asphalt Pavement, Partial-Depth	m2 (P)	1,493		
19	0510-3139	Removal of Asphalt Pavement from Concrete Surfaces on Structures	m2 (P)	522		
20	0510-3532	Removal of Concrete Curb and Gutter	m (P)	16		
21	0510-4210	Removal of Pipes and Culverts	m (P)	620		
22	0510-5500	Removal of Energy Attenuators	each (P)	18		
23	0510-5523	Removal of Cable Guide Rail	m (P)	549		
24	0510-5526	Removal of Anchor Blocks	each (P)	10		
25	0510-5528	Removal of Steel Beam Guide Rail	m (P)	58		
26	0511-0145	Rip-Rap	m2 (P)	853		
27	0511-0150	Geotextile	m2 (P)	853		
28	0599-0100 SP	Performance Bond	lump sum	100 %		
29	0599-0110 SP	Labour and Material Payment Bond	lump sum	100 %		
30	0599-5311 SP	Geogrid	m2	5,462		
31	0703-0020	Small Signs, Ground Mounted, New	each (P)	48		
32	0703-0022	Small Signs, Removal	each (P)	40		
33	0706-0015	Temporary Traffic Control Signs	lump sum	100 %		
34	0710-0007 SP	Pavement Marking Obliterating - By Abrasive Blasting	m (P)	2,041		
35	0710-0010 SP	Pavement Marking	m (P)	59,681		
36	0710-0030 SP	Pavement Marking, Durable	m (P)	520		
37	0710-0050 SP	Pavement Marking, Temporary	m (P)	1,262		
38	0721-0037 SP	Adjust Cable Guide Rail	m (P)	1,755		

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Item	Spec. Code	Item Description	Unit	Quantity	Unit Price	Total
39	0721-0038 SP	Cable Guide Rail Post Replacement	each (P)	39		
40	0721-0085 SP	Adjust Steel Beam Guide Rail, Steel Posts	m (P)	1,113		
41	0721-0102 SP	Single Rail Steel Beam Guide Rail with Channel	m (P)	40		
42	0721-0130 SP	Single Rail Steel Beam Guide Rail, TL-3	m (P)	516		
43	0723-4105 SP	Energy Attenuator - Temporary, Narrow	each (P)	2		
44	0723-4110 SP	Energy Attenuator - Relocation, Narrow	each (P)	1		
45	0732-0100 SP	Steel Beam Energy Attenuating Terminal (SBEAT) System	each (P)	23		
46	0741-0022 SP	Temporary Construction Barrier, Freestanding, Category II	m (P)	180		
47	0741-0060 SP	Temporary Construction Barrier, Relocation	m (P)	163		
48	0799-5505 SP	Temporary Transition Connection	each (P)	1		
49	0802-0030	Topsoil, Imported	m3	268		
50	0803-0004	Seed	m2 (P)	5,149		
51	0804-0125 SP	Matrix	m2 (P)	5,149		
52	0805-0036 SP	Fibre Roll Barriers	m (P)	20		
53	0914-0031 SP	Form and Fill Grooves	m (P)	107.40		
54	9999-5324 SP	Temporary Raised Transverse Rumble Strips	m	90		

Electrical

Item	Spec. Code	Item Description	Unit	Quantity	Unit Price	Total
55	0601-0010 SP	Maintenance and Operation for Temporary Traffic Signal System Work	lump sum	100 %		
56	0604-0076	Low Voltage Cables, Aerial on Messenger Cable (Temporary)	m (P)	590		
57	0604-0086	Traffic Signal Cables, Aerial on Messenger Cable (Temporary)	m (P)	251		
58	0604-0096	Steel Messenger Cables, Aerial (Temporary)	m (P)	309		
59	0604-0101	ACSR Cables, Aerial (Temporary)	m (P)	30		
60	0609-0021	Ground Wires (Temporary)	m (P)	42		
61	0609-0031	Ground Electrodes (Temporary)	each (P)	6		
62	0610-0010 SP	Removal of Electrical Equipment	lump sum	100 %		
63	0614-0041 SP	Supply Control Cabinet Assemblies (Temporary)	each (P)	1		
64	0615-0041	Wood Poles, Direct Buried in Earth (Temporary)	each (P)	7		
65	0615-0141	Guy Anchors (Temporary)	each (P)	6		
66	0617-0021 SP	Roadway Lighting Luminaires and Bracket Assemblies (Temporary)	each (P)	2		
67	0620-0051	Highway Type Signal Heads (Temporary)	each (P)	4		
68	0621-0031 SP	Flasher Beacons (Temporary)	each (P)	2		
69	0622-0021 SP	Traffic Signal Controllers (Temporary)	each (P)	1		
70	0623-0030	Prefabricated Detector Loops	each (P)	4		
71	0623-0035	Traffic Count Station	each (P)	1		

Item	Spec. Code	Item Description	Unit	Quantity	Unit Price	Total
72	0623-0085 SP	Non-Intrusive Detection System (Temporary)	each (P)	2		

Watabeag River Bridge - Site No. 39E-0141/B0

Item	Spec. Code	Item Description	Unit	Quantity	Unit Price	Total
73	0902-0010	Earth Excavation for Structure	m3 (P)	15		
74	0904-0085	Concrete in Substructure	lump sum	100 %		
75	0904-0115	Concrete in Barrier Walls	lump sum	100 %		
76	0904-0135 SP	Concrete in Approach Slabs	lump sum	100 %		
77	0905-0010	Reinforcing Steel Bar	lump sum	100 %		
78	0905-0025	Stainless Steel Reinforcing Bar	lump sum	100 %		
79	0905-0030	Mechanical Connectors	each (P)	44		
80	0905-0045	Stainless Steel Mechanical Connectors	each (P)	22		
81	0911-0010 SP	Coating Existing Structural Steel	lump sum	100 %		
82	0911-0020	Environmental Protection During Coating of Structural Steel and Steel Railing Systems	lump sum	100 %		
83	0914-0011 SP	Bridge Deck Waterproofing	lump sum	100 %		
84	0914-0031 SP	Form and Fill Grooves	m (P)	23.00		
85	0920-0010 SP	Deck Joint Assemblies, Installation	lump sum	100 %		
86	0928-0055	Access to Work Area, Work Platform and Scaffolding	lump sum	100 %		
87	0928-0060	Concrete Removal - Partial Depth - Type A	m3	0.7		
88	0928-0065	Concrete Removal - Partial Depth - Type B	m3	0.3		
89	0928-0070	Concrete Removal - Partial Depth - Type C	m3	0.1		
90	0928-0078 SP	Concrete Removal - Full Depth	lump sum	100 %		
91	0928-0085	Concrete Removal - Deck Joint Assemblies	lump sum	100 %		
92	0929-0030	Abrasive Blast Cleaning of Reinforcing Steel	m2	30		
93	0930-0136	Concrete Patches, Unformed Surface	m3	0.7		
94	0930-0151 SP	Concrete Patches, Form and Pump	m3	0.4		
95	0930-0175	Drainage Tubes in Deck	each (P)	2		
96	0932-0010	Crack Injection	m	10		
97	0999-0165 SP	Dowels into Concrete	each (P)	336		
98	0999-9100 SP	Concrete Sealer	m2	129		

Matheson Patrol Yard

Item	Spec. Code	Item Description	Unit	Quantity	Unit Price	Total
99	0308-0010	Tack Coat	m2 (P)	9,931		
100	0313-1535	Superpave 12.5 - 40 mm Lift Thickness	m2 (P)	9,931		
101	0313-1551	Superpave 19.0 - 50 mm Lift Thickness	m2 (P)	9,931		
102	0314-0071	Granular A	t	1,142		
103	0510-3133	Removal of Asphalt Pavement	m2 (P)	9,931		
		Grand Total:				