Public Works and Government Services Canada | Travaux publics et Services gouvernementaux Canada

RETURN BIDS TO:
RETOURNER LES SOUMISSIONS À:

PWGSC/TPSGC Acquisitions
1045 Main Street
1st Floor, Lobby C
Unit 108
Moncton, NB E1C 1H1
Bid Fax: (506) 851-6759

Revision to a Request for a Standing Offer
Révision à une demande d'offre à commandes

Regional Individual Standing Offer (RISO)

Offre à commandes individuelle régionale (OCIR)

The referenced document is hereby revised; unless otherwise indicated, all other terms and conditions of the Offer remain the same.

Ce document est par la présente révisé; sauf indication contraire, les modalités de l'offre demeurent les mêmes.

Comments - Commentaires

Vendor/Firm Name and Address
Raison sociale et adresse du fournisseur/de l'entrepreneur

Issuing Office - Bureau de distribution
NB / PEI Division - Moncton Acquisitions Office
1045 Main Street
1st Floor, Lobby C
Unit 108
Moncton, NB E1C 1H1

Title - Sujet RISO - Hardware Supplies	
Solicitation No. - N° de l'invitation W6837-175318/A	**Date** 2017-04-18
Client Reference No. - N° de référence du client W6837-175318	**Amendment No. - N° modif.** 004
File No. - N° de dossier MCT-6-39096 (011)	**CCC No./N° CCC - FMS No./N° VME**
GETS Reference No. - N° de référence de SEAG PW-$MCT-011-5279	
Date of Original Request for Standing Offer **Date de la demande de l'offre à commandes originale**	2017-03-10
Solicitation Closes - L'invitation prend fin **at - à 02:00 PM** **on - le 2017-04-24**	**Time Zone** **Fuseau horaire** Atlantic Daylight Saving Time ADT
Address Enquiries to: - Adresser toutes questions à: Sharpe, Charlene A.	**Buyer Id - Id de l'acheteur** mct011
Telephone No. - N° de téléphone (506) 851-3467 ( )	**FAX No. - N° de FAX** (506) 851-6759
Delivery Required - Livraison exigée	
Destination - of Goods, Services, and Construction: **Destination - des biens, services et construction:**	
Security - Sécurité This revision does not change the security requirements of the Offer. Cette révision ne change pas les besoins en matière de sécurité de la présente offre.	

Instructions: See Herein

Instructions: Voir aux présentes

Acknowledgement copy required **Accusé de réception requis**	**Yes - Oui** ☐	**No - Non** ☐

The Offeror hereby acknowledges this revision to its Offer.
Le proposant constate, par la présente, cette révision à son offre.

Signature **Date**

Name and title of person authorized to sign on behalf of offeror. (type or print)
Nom et titre de la personne autorisée à signer au nom du proposant.
(taper ou écrire en caractères d'imprimerie)

For the Minister - Pour le Ministre

Canada

Solicitation No. - N° de l'invitation	Amd. No. - N° de la modif.	Buyer ID - Id de l'acheteur
W6837-175318/A	004	mct011
Client Ref. No. - N° de réf. du client	File No. - N° du dossier	CCC No./N° CCC - FMS No./N° VME
W6837-175318	MCT-6-39096	

Solicitation Amendment

Title: Hardware Supplies

Solicitation Amendment No. **004**

This solicitation is hereby amended to provide the following questions and answers:

Q9. Please see the attached product information for the Terrafix 360R on page 3 of the attached document. Would this be considered an equivalent to the MX225S and Fabric 501 in line 36.

A9. I have reviewed specs for Terrafix and it is equivalent to MX225.

If your bid has already been forwarded and you wish to revise same, this revision should be sent either in a sealed envelope and mailed to the above address or by facsimile (506) 851-6759 and reach the undersigned before the appropriate closing date. The solicitation number and the closing date are to be shown on the outside of the sealed envelope or on the facsimile transmission.

All other terms and conditions of the solicitation document remain unchanged.

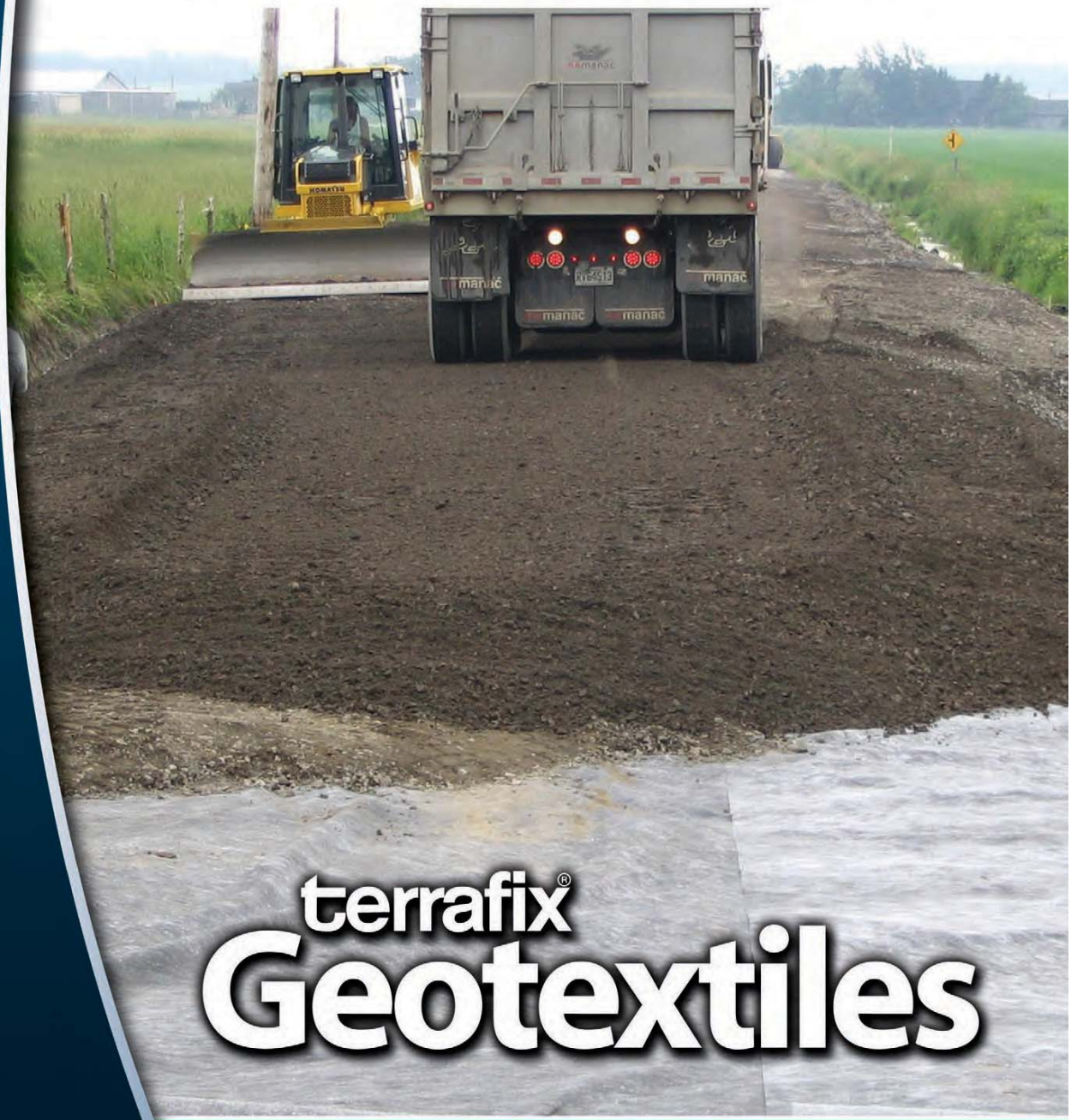
All enquiries concerning this amendment are to be forwarded to:

Name Charlene Sharpe
Telephone No.: (506) 851-3467
Facsimile No: (506) 851-6759

(Derived from - Provenant de: XNB025D, 23/01/2008)

Canada's leader of complete geosynthetic solutions

terrafix®
geosynthetics inc.



terrafix® Geotextiles

To view our complete product line visit us at www.terrafixgeo.com

terrafix® Geotextiles

Four basic functions are defined for the geotextile:

1. **Filtration**
2. **Drainage**
3. **Separation**
4. **Reinforcement**

Filtration

Filtration functions to restrict the migration of fine soil particles from a soil mass while remaining permeable to water movement greater than, or at least equivalent to the permeability of the protected soil.

Drainage

Water is conveyed along the plane of the geotextile due to its construction, and then to an outlet. Water may be vertically or horizontally conveyed. Drainage is related to the role of filtration, and is a function of the permeability of a geotextile and its pore opening size or porometry.

Separation

Separation is the function which prevents two distinct soils or different materials from intermixing. The key factors for a geotextile to satisfy this function are porometry, toughness and strength.

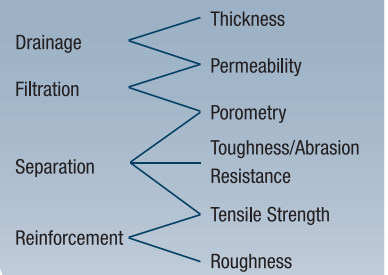
Reinforcement

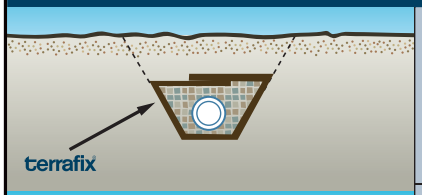
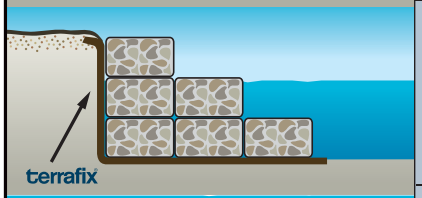
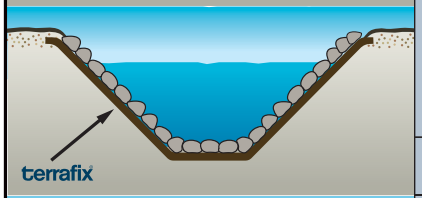
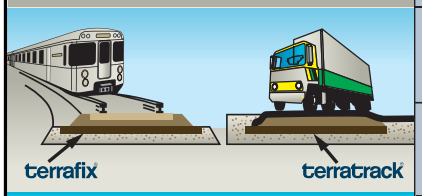
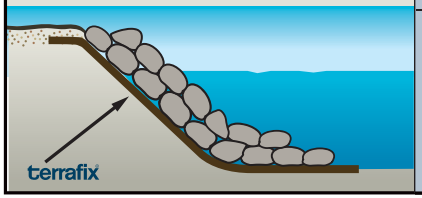
This function involves the stabilization of a soil mass by provision of tensile strength to the soil-fabric system.

Geotextile selection can be expressed as a relationship between these 4 basic functions and the properties required by the design engineer in order to satisfy certain criteria,which would relate to a specific application.

The following diagram demonstrates these various relationships:

Function / Properties Required in Geotextile



Typical Application	Types of Application	Required Geotextile Functions	Recommended Geotextiles	Properties and Characteristics
	• Subdrains • French Drains • Foundation Drains • Trench Drains • Blanket Drains	Filtration Drainage	200R 270R	• Good lateral drainage. • Suitable for wide spectrum of soil permeabilities.
			360R	• Used in weaker soil conditions. • Used in conjunction with coarser drainage materials.
	• Gabion Lining • Retaining Walls • Drop Structure • Ditch Lining	Filtration Drainage	200R 270R	• High permeability. • Medium tensile strength at high elongation. • Good filtration.
			360R	• Medium puncture resistance. • Good lateral drainage. • Withstands more severe hydraulic conditions.
	• Revetments • Channel Linings • Rivers/Creeks	Filtration Drainage Reinforcement	270R	• 12" maximum rip-rap size. • Not to be used under severe hydraulic conditions.
			360R	• 18" maximum rip-rap size. • Medium tensile strength at high elongation.
			420R	• Medium tensile strength at low elongation. • Woven scrim reinforcement. • 24" maximum rip-rap size.
	• Lighter Coastal Applications	Filtration Drainage Reinforcement	420R 600R 800R	• 24" maximum rip-rap size. • Good abrasion resistance. • Medium to high strength at high elongation.
	**Roadways** • Access Routes • Industrial Yards • Logging Roads	Separation Reinforcement	270R 24-15	• Good tensile strength at varied elongations. • Good lateral drainage. • Lateral permeability.
			200W, 400W	• High tensile strength at low elongation.
	Railways • Track Rehabilitation • New Track Construction	Separation Reinforcement Drainage	270R	• Under sub-ballast. • In drainage ditches.
			420R	• High abrasion resistance. • High permeability. • Medium tensile strength at low elongation. • Recommended for track rehabilitation.
	• Heavy Shore-line Protection • Coastal Protection • Scour Areas • Rockfill Structures • Dykes • Energy Dissipators	Filtration Drainage Reinforcement	600R 800R	• Very high strength at high elongation. • Suitable for heavy armour stone to 3 ton maximum. • High level of filtration.
			1000R 1200R	• Highest strength non-woven geotextile manufactured. • Recommended use with armour stone in excess of 3 ton • High level of filtration.

Design Criteria

For most geotextile applications involving primary functions of filtration, drainage and/or reinforcement, the required design criteria in selection are soil permeability, soil gradation and where applicable hydraulic gradient, earth pressure, and/or weight and method of placement of materials in surface protection applications. For applications where separation is the primary geotextile function, required criteria to consider are: Subgrade gradation, subgrade strength, loading size and frequency (on soil mass), base materials – size and type. Other criteria may apply in certain circumstances where upon request.

GEOTEXTILES PROPERTIES

Geotextiles • Non-Wovens

Property	Test Method	Unit	200R	270R	360R	420R
Weight	ASTM D5261	g/m²	119	140	210	271
Grab Tensile Strength	ASTM D4632	N	401	445	712	911
Grab Elongation	ASTM D4632	%	50-105	50-105	50-105	50-105
Tear Resistance	ASTM D4533	N	170	200	267	356
Puncture CBR[1]	ASTM D6241	N	1180	1320	1820	2380
Permittivity	ASTM D4491	sec⁻¹	2.00	2.00	1.50	1.35
Water Flow	ASTM D4491	l/min/m²	6095	5689	4480	3657
Apparent Opening Size (A.O.S.)	ASTM D4751	mm	0.300	0.300	0.212	0.212
U.V. Resistance	ASTM D4355	% @ 500h	70	70	70	70

Property	Test Method	Unit	600R	800R	1200R	370RS
Weight	ASTM D5261	g/m²	340	395	542	445
Grab Tensile Strength	ASTM D4632	N	1110	1330	1690	1000
Grab Elongation	ASTM D4632	%	50-105	50-105	50-105	50
Tear Resistance	ASTM D4533	N	444	511	644	425
Puncture CBR[1]	ASTM D6241	N	3110	3780	4820	n/a
Permittivity	ASTM D4491	sec⁻¹	1.20	1.00	0.70	1.00
Water Flow	ASTM D4491	l/min/m²	3251	3055	2035	3055
Apparent Opening Size (A.O.S.)	ASTM D4751	mm	0.180	0.150	0.150	n/a
U.V. Resistance	ASTM D4355	% @ 500h	70	70	70	70

Note:
1. Burst strength (Mullen ASTM-D3786) and Puncture ¼" (ASTM-D4833) are both replaced by Puncture CBR (ASTM-D6241).

Please contact Terrafix for higher Grab Tensile Strength geotextiles.

Geotextiles • Wovens

Property	Test Method	Unit	24-15	200W	400W
Weight	ASTM D5261	g/m²	136	170	214
Grab Tensile Strength	ASTM D4632	N	889	1100	1400
Grab Elongation	ASTM D4632	%	15	15	15
Tear Resistance	ASTM D4533	N	333	400	533
Puncture CBR[1]	ASTM D4833	N	400	444	533
Permittivity	ASTM D4491	sec⁻¹	0.05	0.05	0.05
Water Flow	ASTM D4491	l/min/m²	203	203	163
Apparent Opening Size (A.O.S.)	ASTM D4751	mm	0.300	0.425	0.425
U.V. Resistance	ASTM D4355	% @ 500h	70	70	70

DISTRIBUTED BY

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September 2013