



REQUEST FOR QUOTATIONS

Title: Street Sign Reflective Sheeting

Reference No.: 1220-040-2020-034

FOR THE SUPPLY OF GOODS

(General Services)

Issue Date: April 28th, 2020

TABLE OF CONTENTS

1. INTRODUCTION 3

2. ADDRESS FOR DELIVERY..... 3

3. DATE 3

4. INQUIRIES 3

5. ADDENDA 3

6. NO CONTRACT..... 4

7. ACCEPTANCE 4

8. CONTRACTOR'S EXPENSES..... 4

9. CONTRACTOR'S QUALIFICATIONS 4

10. CONFLICT OF INTEREST 4

11. SOLICITATION OF COUNCIL MEMBERS AND CITY STAFF 5

12. CONFIDENTIALITY 5

13. SIGNATURE..... 5

14. EQUIVALENTS, SUBSTITUTIONS, ALTERNATIVES 5

Attachment No. 1 – DRAFT QUOTATION AGREEMENT – GOODS 7

SCHEDULE A – SPECIFICATION OF GOODS15

SCHEDULE A-1 – TECHNICAL SPECIFICATIONS.....17

SCHEDULE B – FORM OF QUOTATION23

REQUEST FOR QUOTATIONS

1. INTRODUCTION

The City of Surrey (the "City") invites contractors to provide a quotation on the form attached as Schedule B to Attachment 1 (the "Quotation") for the supply of the goods described in Schedule A to Attachment 1 (the "Goods"). The description of the Goods sets out the minimum requirements of the City. A person that submits a Quotation (the "Contractor") should prepare a Quotation that meets the minimum requirements, and may as it may choose, in addition, also include goods, or terms that exceed the minimum requirements.

2. ADDRESS FOR DELIVERY

A Quotation should be labelled with the Contractor's name, RFQ title and number. A Quotation should be submitted in the form attached to this RFQ as Schedule B – Form of Quotation.

The Contractor may submit a Quotation by email, as follows:

(a) Email

If the Contractor chooses to submit by email, the Contractor should submit the Quotation electronically in a single pdf file which must be delivered to the City by email at: purchasing@surrey.ca

PDF emailed Quotations are preferred and the City will confirm receipt of emails. Note that the maximum file size the City can receive is 10Mb. If sending large email attachments, Contractors should phone [604-590-7274] to confirm receipt. A Contractor bears all risk that the City's computer equipment functions properly so that the City receives the Quotation.

3. DATE

The City would prefer to receive Quotations on or before May 14, 2020. The City's office hours are 8:30 a.m. to 4:00 p.m., Monday to Friday, except statutory holidays.

4. INQUIRIES

All inquiries related to this Request for Quotations ("RFQ") should be directed in writing to:

Name: Richard D. Oppelt, Manager, Procurement Services
Email: purchasing@surrey.ca

Reference: 1220-040-2020-034

5. ADDENDA

If the City determines that an amendment is required to this RFQ, the City Representative will issue a written addendum by posting it on the BC Bid Website at www.bcbid.gov.bc.ca (the "BC Bid Website") and the City Website at www.surrey.ca (the "City Website") that will form part of this RFQ. It is the responsibility of Contractors to check the BC Bid Website and

the City Website for addenda. The only way this RFQ may be added to, or amended in any way, is by a formal written addendum. No other communication, whether written or oral, from any person will affect or modify the terms of this RFQ or may be relied upon by any Contractor. By delivery of a Quotation, the Contractor is deemed to have received, accepted and understood the entire RFQ, including any and all addenda.

6. NO CONTRACT

This RFQ is simply an invitation for quotations (including prices and terms) for the convenience of all parties. It is not a tender or a request for proposals and no obligations of any kind will arise from this RFQ or the submission of Quotations. The City may negotiate changes to any terms of a Quotation, including negotiation of amendments to Contractors' prices in Schedule B to a Quotation, and may negotiate with one or more Contractors or may at any time invite or permit the submission of quotations (including prices and terms) from other parties who have not submitted Quotations. This RFQ does not commit the City in any way to select a Contractor or to proceed to negotiations for a contract, or to award any contract, and the City reserves the complete right to at any time reject all Quotations and to terminate this RFQ process.

7. ACCEPTANCE

A Quotation will be an offer to the City which the City may accept at any time by signing the copy of the Quotation and delivering it to the Contractor. A Quotation is not accepted by the City unless and until both the authorized signatory of the Contractor and the authorized signatory of the City have signed. Delivery of the signed Agreement by the City may be by fax, pdf e-mail or hard copy. In that event, the contract will be comprised of the documents included in the definition of Agreement in Attachment No. 1 – Quotation Agreement – Goods.

8. CONTRACTOR'S EXPENSES

Contractors are solely responsible for their own expenses in preparing and submitting Quotations, and for any meetings, negotiations or discussions with the City or its representatives and consultants, relating to or arising from the RFQ. The City will not be liable to any Contractor for any claims, whether for costs, expenses, losses or damages, or loss of anticipated profits, incurred by the Contractor in preparing and submitting a Quotation, or participating in negotiations for a contract, or other activity related to or arising out of this RFQ.

9. CONTRACTOR'S QUALIFICATIONS

By submitting a Quotation, a Contractor represents that it has the expertise, qualifications, resources, and relevant experience to supply the Goods.

10. CONFLICT OF INTEREST

A Contractor should disclose in its Quotation any actual or potential conflicts of interest and existing business relationships it may have with the City, its elected or appointed officials or employees. The City may rely on such disclosure.

11. SOLICITATION OF COUNCIL MEMBERS AND CITY STAFF

Contractors and their agents will not contact any member of the City Council and City staff with respect to this RFQ, other than the contact person named in Section 4, at any time prior to the award of a contract or the cancellation of this RFQ.

12. CONFIDENTIALITY

All Quotations become the property of the City and will not be returned to the Contractor. All Quotations will be held in confidence by the City unless otherwise required by law. Contractors should be aware the City is a "public body" defined by and subject to the *Freedom of Information and Protection of Privacy Act* of British Columbia.

13. SIGNATURE

The legal name of the person or firm submitting the Quotation should be inserted in the Quotation. The Quotation should be signed by a person authorized to sign on behalf of the Contractor and include the following:

- (a) If the Contractor is a corporation then the full name of the corporation should be included, together with the names of authorized signatories. The Quotation should be executed by all of the authorized signatories or by one or more of them provided that a copy of the corporate resolution authorizing those persons to execute the Quotation on behalf of the corporation is submitted;
- (b) If the Contractor is a partnership or joint venture then the name of the partnership or joint venture and the name of each partner or joint venturer should be included, and each partner or joint venturer should sign personally (or, if one or more person(s) have signing authority for the partnership or joint venture, the partnership or joint venture should provide evidence to the satisfaction of the City that the person(s) signing have signing authority for the partnership or joint venture). If a partner or joint venturer is a corporation then such corporation should sign as indicated in subsection (a) above; or
- (c) If the Contractor is an individual, including a sole proprietorship, the name of the individual should be included.

14. EQUIVALENTS, SUBSTITUTIONS, ALTERNATIVES

Unless otherwise expressly stated, if and wherever the specifications set out in Schedule A Specification of Goods to Attachment 1 – Agreement Goods, use a brand name of a manufacturer, make, trade name, or catalogue designation in specifying an item, it does not restrict Contractors to the identified manufacturer, make, trade name, or catalogue designation. The usage of such identification is simply to indicate the character, quality and/or performance equivalence of the commodity identified.

Prior to the Date, a Contractor may request, pursuant to Section 4 the City to approve a commodity(ies) (each, an "Equivalency") to be included in a Quotation in substitution for a commodity(ies), indicated in Schedule A Specification of Goods to Attachment 1 –

Agreement Goods, on the basis that the substitution of the same or better character, quality and/or performance as the commodity(ies) indicated in Schedule A Specification of Goods to Attachment 1 – Agreement Goods, such that that the proposed Equivalency will serve the purpose for which it is intended to be used equally as well. Applications for an Equivalency should be in writing delivered to the City Representative, accompanied by appropriate supporting information, data, specifications and documentation. The City may request any additional supporting information, data, specifications and documentation it considers necessary to make a decision with respect to the application. If the City decides in its sole discretion to accept an Equivalency, then the City will provide written confirmation of such acceptance to the Contractor, without notification to other Contractors (subject to the City's discretion under Section 4). The City is not obligated to review or accept any application for an Equivalency. Without limiting the City's discretion as set out in this Section 14, the City may specifically refuse to approve an application for an Equivalency with which there may be an associated increase to a Quotation Price or a delay to the supply and delivery of the Goods.

The Contractor should clearly identify in its Quotation any Equivalencies approved by the City under this Section 14.

If the Contractor does not in its Quotation indicate any Equivalencies, the Contractor will be deemed to accept the commodity(ies) described in Schedule A Specification of Goods to Attachment 1 – Agreement Goods.

Attachment No. 1 – DRAFT QUOTATION AGREEMENT – GOODS

Reference RFQ Title: Street Sign Reflective Sheeting

RFQ No.: 1220-040-2020-034

BETWEEN:

CITY OF SURREY
13450 - 104 Avenue
Surrey B.C. V3T 1V8

(the "City")

AND:

(the "Contractor")

[Insert The Full Legal Name And Address Of Contractor]

WHEREAS the City wishes to engage the Contractor to provide the Goods and the Contractor agrees to provide the Goods.

THEREFORE in consideration of the payment of one (\$1.00) dollar and other good and valuable consideration paid by each of the parties to the other (the receipt and sufficiency of which is hereby acknowledged) the City and the Contractor agree as follows:

DEFINITIONS AND INTERPRETATION

1. In these General Terms and Conditions:
 - (a) "Agreement" means this agreement and all schedules attached hereto;
 - (b) "City" means the City of Surrey;
 - (c) "Contractor" means a contractor whose Quotation has been accepted by the City and who is supplying the Goods under this Agreement;
 - (d) "Goods" means the equipment or materials that are the subject of this Agreement;
 - (e) "Purchase Price" means the price quoted by the Contractor and accepted by the City, unless otherwise agreed by the parties in writing, and includes all taxes, duties, freight charges and other charges except GST; and
 - (f) "RFQ" means the Request for Quotations.

2. This Agreement may be modified only by express and specific written agreement. In the event of a conflict between the provisions of any documents listed below, then the documents shall govern and take precedence in the following order:
 - (a) this Agreement;
 - (b) the RFQ;
 - (c) the Quotation; and
 - (d) other terms, if any, that are agreed to by the parties in writing.

3. The following attached Schedules are a part of this Agreement:

Schedule A – Specifications of Goods; and
Schedule B – Quotation Extracts.

GOODS

4. The Contractor will supply the Goods in accordance with this Agreement. The Goods supplied will meet the specifications set out in Schedule A of this Agreement.
5. The Contractor will deliver the Goods free and clear of all liens and encumbrances in the manner and to the destination stipulated. In the event of the Contractor's failure to meet this condition, the Contractor will, on written notice from the City, forthwith return all monies paid by the City on account of the Goods and in addition the City may by written notice terminate this Agreement without liability, and in such event, in addition to the above, the Contractor will be liable for any and all expenses or losses incurred by the City resulting from such failure.

PURCHASE PRICE

6. The City will pay the Purchase Price to the Contractor in accordance with this Agreement. The Purchase Price shall also include without limitation all costs of boxing, packing, crating, and loading and unloading the Goods at the prescribed destination.
7. Time is of the essence.

PAYMENT

8. Invoices should include the Contractor's name, address and telephone number, the City's purchase order number, the Contractor's invoice number, the Contractor's GST registration number or an indication that it is not applicable if the Contractor is a small trader, the quantity, tax (if any) and the complete Purchase Price calculations, including extensions and discounts.
9. The City will pay the invoice, in the amount as the City determines is correct less any deductions for setoffs or holdbacks permitted by this Agreement including, without limitation, those described in Sections 11, 12 and 13, within 30 days of the receipt of the invoice, unless the parties have agreed in writing to other payment terms. The payment by the City of any invoice will not bind the City with respect to any subsequent payment or final payment and will not mean that the City has accepted that the Goods are in accordance with the requirements of this Agreement, or that the Contractor is in any manner released from its obligation to comply with this Agreement.
10. Unless otherwise provided, all dollar amounts referred to in this Agreement are in lawful money of Canada.

Please send your hard copy invoices by mail to:

Name: Matthew Brown
Streets Manager – Central and Traffic Operations, Operations Division

Address: 6651 148th street
Surrey, British Columbia
V3S 3C7

DEFICIENCIES

11. The City shall have a reasonable time to inspect and to accept the Goods. The City may reject any Goods not in accordance with this Agreement, whether due to damage resulting from improper packing, loading, unloading or otherwise. The City shall notify the Contractor of rejection of the Goods whereupon the Goods will be held subject to the disposition by the Contractor. Any costs or expenses incurred by the City as a result of the rejection of the Goods are, immediately upon written demand by the City, payable by the Contractor, and may be set off against any payments owing by the City to the Contractor.
12. The City may hold back from payments otherwise due to the Contractor up to 150% of a reasonable estimate, as determined by the City, on account of deficient or defective materials. This holdback may be held, without interest, until replacement Goods are received or such deficiency or defect is remedied.

DEFAULT AND TERMINATION

13. In the event the Contractor does not ship the Goods by the shipping date specified in this Agreement, or does not deliver the Goods by the delivery date specified in this Agreement, or otherwise fails to comply with the requirements of this Agreement, then:
 - (a) the City reserves the right to terminate this Agreement, in whole or in part, and in the event of such termination no payment will be owing by the City on account of this Agreement and the Contractor will be liable for any and all expenses or loss resulting from such failure or delay and will return all monies paid by the City; or
 - (b) if the City does not terminate this Agreement for late shipping or delivery, the City may deduct and setoff from any payments owing to the Contractor all additional costs the City reasonably incurs on account of the late shipping or delivery.
14. The City may by written notice at any time cancel this Agreement with respect to Goods which, as of the date of cancellation, have not been shipped.
15. If the Contractor becomes insolvent or makes an assignment for the benefit of creditors or a receiver or trustee is appointed for the property of the Contractor, then the City may,

at its election, and without prejudice to its rights at law or in equity, terminate this Agreement.

16. The City will not accept nor be responsible for any restocking charges for any Goods shipped to the City and then, for whatever reason, returned to the Contractor pursuant to this Agreement. The Contractor is to bear all costs including shipping and handling of returned Goods.

WARRANTIES AND INDEMNITIES

17. The Contractor warrants that the Goods shall be free from defects in design, materials, workmanship and title, shall conform in all respects to the terms of this Agreement, shall be fit and suitable and perform satisfactorily for the purposes and under the conditions made known to the Contractor by the City or which were reasonably inferable. The Goods shall be at least equal to the higher of national standards or codes (such as, by way of illustration, CSA or ASTM), or standards and codes customarily applicable at the place where the City will use the Goods. The Goods shall be of the best quality, if no quality is specified. This general warranty is independent of and without prejudice to any specific warranty or service guarantee offered by the Contractor or third party manufacturer or supplier of the Goods in connection with the purpose for which the Goods were purchased. The Contractor shall assign to the City any warranty or service guarantee offered by a third party manufacturer or supplier of the Goods. Notwithstanding this assignment, if at any time up to one year from the date of delivery or installation (if applicable) the City determines the Goods or any part do not conform to these warranties, the City shall notify the Contractor within a reasonable time after such discovery, and the Contractor shall then promptly correct such nonconformity at the Contractor's expense. Goods used to correct a nonconformity shall be similarly warranted for one year from the date of installation. The Contractor's liability shall extend to all liabilities, losses, damages, claims and expenses incurred by the City caused by any breach of any of the above warranties.
18. The Contractor warrants and guarantees that Goods delivered under this Agreement do not infringe any valid patent, copyright or trademark, foreign or domestic, owned or controlled by any other corporation, firm or person, and agrees to indemnify and save harmless the City and all of its elected and appointed officials, officers, employees, servants, representatives and agents (collectively the "Indemnitees"), from and against any and all claims, demands, causes of action, suits, losses, damages and costs, liabilities, expenses and judgments (including all actual legal costs) by reason of any claim, action or litigation arising out of any alleged or actual infringement of any patent, copyright or trademark, foreign or domestic, relating to the Goods supplied under this Agreement.
19. The Contractor represents and warrants that all Goods delivered under this Agreement shall comply with all applicable codes, statutes, by-laws, rules and regulations, or any federal, provincial, municipal or other competent authority for the time being in force,

including any environmental laws and that the Goods are not dangerous to the environment or to person or health.

20. The Contractor will indemnify and save harmless the Indemnitees from and against all claims, demands, causes of action, suits, losses, damages and costs, liabilities expenses and judgments (including all actual legal costs) for damage to or destruction or loss of property, including loss of use, and injury to or death of any person or persons which any of the Indemnitees incur, suffer or are put to arising out of or in connection with any failure, breach or non-performance by the Contractor of any obligation of this Agreement, or any wrongful or negligent act or omission of the Contractor or any employee or agent of the Contractor.

CUSTOMS

21. Documentation for shipments of Goods from outside Canada shall be provided by a Contractor by airmail and shall include all documents as required by law or customary practice. All packages shall be marked as follows:

“Upon arrival, please contact customs broker:
Livingston International Inc.
Telephone: 604-685-3555
Fax: 604-605-8231
Email: cst19@livingstonintl.com”

INSPECTIONS

22. If this Agreement pertains to the fabrication, assembly or other processing of the Goods, representatives of the City shall be permitted free access at all reasonable times for the purpose of inspection, testing or obtaining information as to the progress of the fabrication, assembly or processing.

SAFETY

23. If this Agreement includes any inspection, installation or other work on the City's premises by the Contractor, or representative or sub-contractor of the Contractor, all such activity shall be performed and undertaken in strict compliance with all applicable health and safety laws and regulations, including, without limitation, the Workers Compensation Act, the Occupational Health & Safety Regulation and the Hazardous Products Act, and also in strict compliance with any published and issued by the City for use at the City's premises. The Contractor shall provide the City with the Contractor's Workers Compensation Board registration number and a letter from the Workers Compensation Board confirming the Contractor is registered in good standing with the Workers Compensation Board and that all assessments have been paid to the date thereof prior to the City having any obligation to pay monies under this Agreement.

WHMIS/MSDS

24. The Contractor covenants and agrees to comply with all the Workers Compensation Board Occupational Health and Safety Regulations for hazardous materials and substances, and in particular with the “Workplace Hazardous Materials Information Systems (WHMIS)” Regulations. All “Material Safety Data Sheets (MSDS)” will be shipped along with the Goods and any future MSDS updates will be forwarded.

SHOP DRAWINGS

25. The City may require that shop drawings be submitted by the Contractor for review prior to the delivery of the Goods. The City may require that a qualified registered professional engineer stamp and approve a shop drawing prior to submission. Any review of shop drawings by the City will not relieve the Contractor from its obligation to deliver Goods in full compliance with all requirements of this Agreement.

WAIVER

26. Any failure of the City at any time or from time to time to enforce or require the strict keeping or performance of any of the terms and conditions contained in this Agreement shall not constitute a waiver of the terms and conditions and shall not affect or impair the terms or conditions in any way or the City's right at any time to avail itself of any remedies as the City may have for any breach or breaches of the terms and conditions.

APPLICABLE LAW

27. This Agreement shall be governed by and construed in accordance with the laws of the Province of British Columbia. The City and the Contractor accept the jurisdiction of the courts of British Columbia and agree that any action under this Agreement shall be brought in such courts.

NOTICES

28. Any notice, report or other document that either party may be required or may wish to give to the other should be in writing, unless otherwise expressly provided for, and will be deemed to be validly given to and received by the addressee:
- (a) by hand, on delivery;
 - (b) by facsimile, on transmission; or
 - (c) by mail, five calendar days after posting.

The addresses for delivery will be as follows:

- (a) The City: The City of Surrey
 Attention: Matthew Brown
 Streets Manager – Central and Traffic Operations, Operations
 Division

Address: 6651 148th street
Surrey, British Columbia
V3S 3C7

(b) The Contractor:
Attention:
Address:

MERGER AND SURVIVAL

29. The representations, agreements, covenants and obligations set out in this Agreement shall survive the delivery of the Goods and payment of the Purchase Price.

ENTIRE AGREEMENT

30. This Agreement, including any other documents expressly included by reference in this Agreement, contains the entire agreement of the parties regarding the provision of the Goods, and no understandings or agreements, oral or otherwise, exist between the parties except as expressly set out in this Agreement. This Agreement supersedes and cancels all previous agreements between the parties relating to the Goods.

31. In the event that the Contractor issues an invoice, packing slip, sales receipt, or any like document to the City, the City accepts the document on the express condition that any terms and conditions in it which constitute terms and conditions which are in addition to or which establish conflicting terms and conditions to those set out in this Agreement are expressly rejected by the City.

SIGNATURE

32. This Agreement may be executed in one or more counterparts all of which when taken together will constitute one and the same Agreement, and one or more of the counterparts may be delivered by fax transmission or as a pdf file.

- END OF PAGE -

ENUREMENT

33. This Agreement shall enure to the benefit of and be binding upon the respective successors and permitted assigns of the City and the Contractor.

This Quotation Agreement is executed by the Contractor this _____ day of _____, 202_.

CONTRACTOR

I/We have the authority to bind the Contractor.

(Legal Name of Contractor)

(Signature of Authorized Signatory)

(Signature of Authorized Signatory)

(Print Name and Position of Authorized Signatory)

(Print Name and Position of Authorized Signatory)

This Quotation Agreement is executed by the City of Surrey this _____ day of _____, 202_.

CITY OF SURREY

by its authorized signatory:

(Signature of Authorized Signatory)

(Print Name and Position of Authorized Signatory)

SCHEDULE A – SPECIFICATION OF GOODS

1. PURPOSE

The City invites Quotations from experienced and qualified Contractors for the provision of everything required including all skilled labour, tools, materials, equipment for the supply and delivery of street sign reflective sheeting and any other requirements.

The purpose of these specifications is to describe Street Sign Reflective Sheeting.

2. SPECIFICATIONS OF GOODS AND SCOPE OF SERVICES

The City is seeking to identify and select a qualified supplier that has the knowledge, technical resources, experience, reputation and capacity to supply, deliver and provide continuous support services.

For detailed specifications, refer to the attached Schedule A-1 – Technical Specifications.

Marking Material, Retro Reflective Enclosed Lens, Heat Activated & Pressure Sensitive, Adhesive Backing

A) Durability of Material

1. All materials supplied shall be expected to have a 7 year lifespan period provided material is applied in accordance with manufacturers or suppliers recommendations.
2. Should this marking material fail to give satisfactory performance during this required 7 year lifespan, the manufacturer or supplier shall be liable for all such material deemed defective by the manufacturer or supplier.

B) Material Condition and Packing

1. All marking material supplied shall be of good appearance, current manufacturing date, free from ragged edges, cracks and extraneous materials.
2. All marking material must be packaged in such a manner as to prevent damage while material is in transit.

C) Condition for Final Material Acceptance

All participants reserve the right to inspect all material by a qualified municipal employee prior to offloading from transport vehicle to determine whether material conforms to quality standards acceptable for end use (Traffic Control Signs).

D) Sheeting Brightness (includes angularity & colour)

High Intensity: Reflective material shall conform to the brightness requirements set out in CGSB Standard 62 GP 11M, Reflectivity Level 1.

E) Screen Process Inks

1) Inks shall be supplied free of charge in an amount and colour commensurate with the square footage of sheeting being purchased.

2) Inks shall be manufactured by the sheeting manufacturer.

3) Inks shall be of a “fast dry” nature, which shall cure sufficiently to permit packaging and shipping after three hours air dry (as per the sheeting manufacturer’s air flow recommendations)

4) Inks shall not require a protective clear coating.

5) Inks shall be warranted to be effective for a period of time commensurate with the warranted life of the reflective sheeting (10 – 12 years).

6) Inks shall be a “single part composition” with no requirement to mix catalysts or other components.

SCHEDULE A-1 – TECHNICAL SPECIFICATIONS

A.) PRODUCT SPECIFICATION (TYPE IX ASTM D4956-01)

General Description:

A high brightness retroreflective sheeting of non-metallized prismatic construction. The material has an optical configuration, which preserves a high level of brightness when viewed at close proximity (high divergence/observation angles). Typical applications of this material are signs in high ambient light urban areas and street name/information series signing.

Brightness Requirements:

As per method described in CGSB 62 GP 11M.

Minimum Coefficient of Retroreflection R_A (Candelas per lux per square meter) Values are an average of 0° and 90° Rotation

-4 Entrance Angle

	OBSERVATION ANGLE		
	0.2	0.5	1.0
White	380	275	80
Yellow	300	220	60
Red	98	70	20
Green	45	32	9
Blue	22	17	4.5

30 Entrance Angle

	Observation Angle		
	0.2	0.5	1.0
White	225	135	45
Yellow	180	100	35
Red	65	32	11
Green	28	16	6
Blue	14	8	3

40 Entrance Angle

	Observation Angle		
	0.2	0.5	1.0
White	90	35	10
Yellow	70	27	8.8
Red	26	10	3
Green	9.8	3.5	1.6
Blue	4.5	1.5	0.8

Observation (Divergence) Angle:

The angle between the illumination axis and the observation axis.

Entrance (Incidence Angle):

The angle from the illumination axis to the retroreflective axis. The retroreflective axis is an axis perpendicular to the retroreflective surface.

Colour Requirements:

CIE Chromaticity Coordinate Limits for new sheeting

Color	1		2		3		4		Limit Y (%)	
	x	y	x	y	x	y	x	y	Min	Max
White	.305	.305	.355	.355	.335	.375	.285	.325	40	-
Yellow	.487	.423	.545	.454	.465	.534	.427	.483	24	45
Red	.690	.310	.595	.315	.569	.341	.655	.345	3	15
Green	.030	.398	.166	.364	.286	.446	.201	.794	3	9
Blue	.078	.171	.150	.220	.210	.160	.137	.038	1	10

The four pairs of chromaticity coordinates determine the acceptable colour in terms of the CIE 1931 Standard Colorimetric System measured with Standard Illuminant Source D65.

Durability:

Seventy (70) percent (%) retention of values outlined in the brightness table above, after three (3) years unprotected outdoor exposure conducted according to ASTM G7, and inclined at 45° from the horizontal, facing the equator. Colours shall conform to the above colour chart. Exposed samples shall show no appreciable cracking, blistering, crazing or dimensional change. Samples to be prepared as per the sheeting manufacturer’s recommendations.

B.) DURABLE FLUORESCENT YELLOW-GREEN (VIP)

General Description:

A very high brightness retroreflective sheeting containing a durable fluorescent yellow green colourant. This material is typically used for signing school zones and situations involving pedestrian activity.

Brightness Requirements:

As per method described in CGSB 62 GP 11M. (par 8.2.6.2)

Minimum Coefficient of Retroreflection R_A
(Candelas per lux per square meter)
(Values are an average of 0° and 90° rotation)

Observation Angle



Entrance Angle

-4° 30° 40°

0.2°	325	200	75
0.5°	236	105	23
1.0°	65	35	8

Colour Requirements:

Colour Specifications Limits for New Sheeting * (Daytime)

Color	Chromaticity Coordinate 1		Chromaticity Coordinate 2		Chromaticity Coordinate 3		Chromaticity Coordinate 4		Total Luminance Factor Limit Y_T		Fluorescent Luminance Factor ** Limit Y_F
	x	y	x	y	x	y	x	y	Min	Max	Min
Fluorescent Yellow Green	.390	.610	.460	.540	.421	.486	.368	.539	60%	-	35%

Colour Specifications Limits for New Sheeting * (Nighttime)

Color	Chromaticity Coordinate 1		Chromaticity Coordinate 2		Chromaticity Coordinate 3		Chromaticity Coordinate 4	
	X	y	x	y	x	y	x	y
Fluorescent Yellow Green	.480	.520	.550	.449	.524	.439	.472	.492

* The four pairs of chromaticity coordinates determine the acceptable color in terms of the CIE 1931 Standard Colorimetric System measured with Standard Illuminant D65.

** Separation of the Spectral Radiance Factor Curve of Fluorescent Substances into Reflected and Fluoresced Components” by Eugene Allen in Applied Optics, Volume 12, Number 2 pages 289-293 (1972)

Durability:

Material must remain effective for its intended use, and meet the minimum values stated below for a period of ten (10) years subject to the signs being cleaned as per the sheeting manufacturer's recommendations.

**Minimum Coefficient of Retroreflection
Ten year Performance
(Candelas per lux per square meter)
0 degrees Orientation**

-4° Entrance Angle

Sheeting Colour	Observation Angle	Minimum Fluorescent Luminance Factory Y _F
Fluorescent Yellow	.2	1.0°
Green	225	45
		20%

**Minimum Coefficient of Retroreflection
Ten year Performance
(Candelas per lux per square meter)
0 degrees Orientation**

	Min. Coeff. of Retroreflection (R _A) -4 Entrance Angle	Minimum Fluorescent Luminance Factory Y _F	Minimum Fluorescent Luminance Factory Y _T
0.2 Observation Angle	225	20%	50%
1.0 Observation Angle	45		

Durability:

Material must remain effective for its intended use, and meet the minimum values stated below for a period of ten (10) years subject to the signs being cleaned as per the sheeting manufacturer's recommendations. Colour shall conform to the requirements defined in the colour chart above.

C.) DURABLE FLUORESCENT YELLOW

General Description:

A very high brightness retroreflective sheeting containing a durable fluorescent yellow colourant. The material has an optical configuration, which preserves the high level of brightness when viewed at close proximity (high divergence/observation angles).

Brightness Requirements:

Minimum Coefficient of Retroreflection R_A (Candelas per lux per square meter) (Values are an average of 0° and 90° rotation)

<i>Observation Angle *</i>	<i>Entrance Angle **</i>		
	<i>-4°</i>	<i>30°</i>	<i>40°</i>
0.2°	240	150	55
0.5°	165	75	15
1.0°	45	24	6

* Observation (Divergence) Angle:

The angle between the illumination axis and the observation axis

** Entrance (Incidence Angle):

The angle from the illumination axis to the retroreflective axis. The retroreflective axis is an axis perpendicular to the retroreflective surface.

Colour Requirements:

Colour Specification Limits for new sheeting*** (Daytime)

Colour	Chromaticity Coordinate 1		Chromaticity Coordinate 2		Chromaticity Coordinate 3		Chromaticity Coordinate 4		Total Luminance Factor Limit Y_T (%)		Fluorescent Luminance Factor**** Minimum Y_F
	x	y	x	y	x	y	x	y	Min	Max	
Fluorescent Yellow	.521	.424	.557	.442	.479	.520	.454	.491	45	-	25%

Colour Specification Limits for New Sheeting*** (Nighttime)

Colour	Chromaticity Coordinate 1		Chromaticity Coordinate 2		Chromaticity Coordinate 3		Chromaticity Coordinate 4	
	x	y	x	y	x	y	x	y
Fluorescent Yellow	.554	.445	.610	.390	.596	.394	.527	.436

*** The four pairs of chromaticity coordinates determine the acceptable color in terms of the CIE 1931 Standard Colorimetric System measured with Standard Illuminant D65.

**** Separation of the Spectral Radiance Factor Curve of Fluorescent Substances into reflected and Fluoresced Components” by Eugene Allen in Applied Optics, Volume 12, Number 2 pages 289-293 (1972)

Durability:

Material must remain effective for its intended use, and meet the minimum values stated below for a period of ten (10) years subject to the signs being cleaned as per the sheeting manufacturer’s recommendations.

**Minimum Coefficient of Retroreflection
Ten year Performance
(Candelas per lux per square meter)
0 degrees Orientation**

Sheeting Colour	Observation Angle		Minimum Fluorescent Luminance Factory Y _F
Yellow	.2	1.0°	20%
	165	30	



SCHEDULE B – FORM OF QUOTATION

RFQ Title: Street Sign Reflective Sheeting

RFQ No: 1220-040-2020-034

CONTRACTOR

Legal Name: _____

Contact Person and Title: _____

Business Address: _____

Business Telephone: _____

Business Fax: _____

Business E-Mail Address: _____

CITY OF SURREY

TO:

City Representative: Richard D. Oppelt, Manager, Procurement Services

Address: City of Surrey, Surrey City Hall
Finance Department – Procurement Services Section
Reception Counter, 5th Floor West
13450 – 104th Avenue, Surrey, B.C., V3T 1V8

Telephone: 604-590-7274

Email: purchasing@surrey.ca

1. The Contractor offers to supply to the City of Surrey the Goods for the prices plus applicable taxes as follows – please complete the Microsoft Excel pricing spreadsheet, “**Schedule B – Quotation_2020-034 – CoS 2020 Street Sign Reflective Sheeting**”.



Schedule B -
Quotation 2020-034

F.O.B. Destination Freight Prepaid	Payment Terms: A cash discount of ____% will be allowed if invoices are paid within ____ days, or the ____ day of the month following, or net 30 days, on a best effort basis.	Ship Via:
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2. In addition to the warranties provided in the Draft Quotation Agreement, this Quotation includes the following warranties:

3. I/We have reviewed the RFQ Attachment 1, Schedule A – Specifications of Goods and if requested by the City, I/we would be prepared to meet those requirements, amended by the following departures and additions (list, if any):

Requested Departure(s) / Alternative(s) / Addition(s)

The City is not obligated to accept any alternatives. The City will determine what constitutes acceptable deviations and overall best value.

4. If this Quotation is accepted by the City, a contract will be created as described in:
 - (a) the Agreement;
 - (b) the RFQ; and
 - (c) other terms, if any, that are agreed to by the parties in writing.

5. Capitalized terms used and not defined in this Quotation will have the meanings given to them in the RFQ. Except as specifically modified by this Quotation, all terms, conditions, representations, warranties and covenants as set out in the RFQ will remain in full force and effect.

6. I/We have reviewed the RFQ Attachment 1 – Draft Quotation Agreement. If requested by the City, I/we would be prepared to enter into that Agreement, amended by the following departures (list, if any):

Section

Requested Departure(s) / Alternative(s)

7. I/We the undersigned duly authorized representatives of the Contractor, having received and carefully reviewed the RFQ including without limitation the specifications and the General Terms and Conditions, submit this Quotation in response to the RFQ.

This Quotation is offered by the Contractor this _____ day of _____, 202_.

CONTRACTOR

I/We have the authority to bind the Contractor

(Legal Name of Contractor)

(Signature of Authorized Signatory)

(Signature of Authorized Signatory)

(Print Name and Position of Authorized Signatory)

(Print Name and Position of Authorized Signatory)