

May 5, 2023

Rebecca Huang
Capital Project Manager
City of Mississauga
300 City Centre Drive
Mississauga, ON L5B 3C1

Re: PRC0034246 B – Consultant Engineering Services During Construction of Dundas Street West Retaining Wall Project

Rebecca,

HDR provides this submission in response to the City's request for quotation for Consultant Engineering Services During Construction of Dundas Street West Retaining Wall Project. We will provide contract administration and inspection engineering services during construction for two (2) retaining wall replacement project at the north side of Dundas Street West between Erindale Park Entrance and the Credit River, and (2) north side of Dundas Street West between Robinson Street and Dundas Crescent.

HDR is currently completing the detailed design of the project and we believe that our team is the strongest and best suited to provide a successful transition to the construction phase of the project. We understand that construction will require up to 70 weeks and is expected to commence in July 2023 and completion by March 2025 with two winter periods from December to March of each season. Based on the RFQ scope of work and durations identified we have developed a Time-Task Fee Summary Table with a total fee of **\$497,962.50** (excluding HST). Our submission is assumed to be an add on services to on HDR's previous agreement for Procurement # PRC001136 B – RFQ for Consulting Services Roster - Engineering Design Services for the Dundas Street West Retaining Wall.

Our Contract Administrator for this assignment will be **Hamid Mardani, P.Eng.**, and he has over 20 years of experience in civil engineering and construction of major roadways and bridges. HDR's onsite Construction Inspector will be **Essam Elsayed, P.Eng.** and he has over 15 years of civil construction and inspection experience for bridges, roads, and on major civil infrastructure projects. A resume/CV for each are attached for your review.

Our team will work directly with HDR's Design Project Manager, **Marcus De Agazio, P.Eng.**, and with the City of Mississauga's project management team. The relationship between our Contract Administrator and our Design Project Manager will help to ensure that decisions made during design will be implemented during construction and will reduce delays to resolve construction issues. The overall scope of work during construction for our Construction Administration and Inspection team will be:

1. Site review and take pre-construction photos.

2. Prepare Pre-Construction Meeting agenda and minutes.
3. Conduct construction progress meetings on bi-weekly basis and prepare meeting minutes.
4. Monitor construction quality and issues to ensure contract compliance. Maintain communication with the City, HDR's Project Manager and Design Engineer and the Contractor.
5. Keep track of Shop Drawings and maintain communication with the City, HDR's Design Engineer and Contractor, as required.
6. Provide full-time inspection (10 hours a day, 5 days a week) throughout the construction.
7. Prepare Change Orders, Change Directives, Deficiency List and other contract administration documentations as required.
8. Review construction quantities and prepare payment certificates on monthly basis.
9. Review deficiencies and take post-construction photos.
10. Prepare Red-line Drawings to document field changes during construction.
11. Prepare Certificate of Substantial Performance.

We confirm that the HDR team members are committed to successfully delivering the construction phase of this project and continuing to function as a trusted advisor to the City.

Thank you for your consideration.

Sincerely,



Tyrone Gan, P.Eng.
Senior Vice President
Region Transportation Director, Canada

Enclosed: Resume/CV for Hamid Mardani & Essam Elsayed

Time-Task Fee Summary						
Procurement No. PRC003246 B						
Consultant Engineering Services During Construction of Dundas Street West Retaining Wall Project						
Task Item No.	Item Description	Contract Administrator	Site Inspector	Drafter	Total Hours	Extended Cost (\$)
		Hamid Mardani	Essam Elsayed	TBC		
		Unit Rate	\$129.50	\$107.00		
1	Site review and take pre-construction photos	2	8		10	\$1,115.00
2	Prepare Pre-Construction Meeting agenda and minutes	8			8	\$1,036.00
3	Conduct construction progress meetings on bi-weekly basis and prepare meeting minutes	140			140	\$18,130.00
4	Monitor construction quality and issues to ensure contract compliance. Maintain communication with the Owner, Design Engineers and Contractor	350			350	\$45,325.00
5	Keep track of Shop Drawings and maintain communication with the Owner, Design Engineers and Contractor as required	280			280	\$36,260.00
6	Provide full-time inspection (10 hours a day, 5 days a week) throughout the construction		3500		3500	\$374,500.00
7	Prepare Change Orders, Change Directives, Deficiency List and other contract administration documentations as required	105	0		105	\$13,597.50
8	Review construction quantities and prepare payment certificates on monthly basis	16	0		16	\$2,072.00
9	Review deficiencies and take post-construction photos	8	16		24	\$2,748.00
10	Prepare As-Constructed Drawings in both .dgn and PDF format	2	6	16	24	\$2,661.00
11	Prepare Certificate of Substantial Performance	4			4	\$518.00
12	Disbursement				0	\$0.00
Total (Hours)		915	3530	16	4461	
Fee (excluding HST)		\$118,492.50	\$377,710.00	\$1,760.00		
Total (excluding HST)						\$497,962.50

Hamid Mardani, M.Sc., P.Eng.

Contract Administrator

EDUCATION

Master of Highway and Transportation Engineering, Tarbiat Modares University, Tehran, Iran, 2001

Bachelor of Civil Engineering, Polytechnique University, Tehran, Iran, 1997

REGISTRATIONS

Professional Engineer, Ontario, 2015

T131A Advanced Claims Dispute Resolution (MTO), June 2020

TLT 127 Critical Structural Construction Issues (MTO), March 2021

PCI Level II Certificate, Feb. 2018

Personal Track Safety PTS (Metrolinx), Oct. 2020

Working at Heights, Feb. 2021

INDUSTRY TENURE

20 Years

Hamid has 20 years' experience in civil construction projects involved with Contract Administration and Project Management on infrastructure projects including roads, bridges, and tunnels. Hamid has experience arranging and chairing all required meetings in a contract such as monthly site meeting, pre-pave meeting, pre-pour meeting, pre-start meeting, and final meetings. He is highly committed to ensure all work is performed in compliance with the contract, relevant standards, legislation and regulations and proven skills in interpreting and applying contract plans, drawings, critical path schedule and specifications. He has developed project management skills and strong negotiating and scheduling abilities, to effectively manage multiple priorities. Hamid has sound analytical, decision making, problem solving, financial control, organizational and leadership skills. His experience includes providing construction administration and inspection for Metrolinx and Ministry of Transportation Ontario (MTO) construction projects including local municipalities.

RELEVANT EXPERIENCE

Region of Peel, Contract 14-4820 – Mississauga Road Bridge Replacement at the Credit River, Caledon.

Caledon, ON

Contract Administrator for the Mississauga Road Bridge Super Structure Replacement over the Credit River in Caledon. The project included bridge super structure replacement including deck, parapet walls, railing, and rehabilitation of existing wing walls, abutments, and girders including bridge jacking with bearing replacement. Responsible for chairing project meetings, coordinating onsite inspection, reviews of contractor RFIs, and issuing change orders, and site instructions. Contract Value of \$2.0 Million. June 2021 to December 2021

Metrolinx, Contract IT-2018-RCDV-254 – Rehabilitation of Four Railway Bridges

Toronto, ON

Contract Administrator for the bridge rehabilitation four bridges at Cherry Street (USRC Sub. M1.20), Rogers Road (Newmarket Sub. M.5.86), Sheridan Creek (Oakville Sub M.16.68), and Eastern Avenue (Kinston Sub. M331.90). Bridge rehabilitation included concrete repairs of abutments, soffit, wings walls, and deck; structural steel repairs; structural steel coating; and, new track and ballast works. Construction Value of \$6.0 Million, Completion July 2020.

Metrolinx, Contract No. IT-2017-BS-001 – 8 Rehabilitation of Railway Bridges on the Oakville and Kingston Subdivisions

Toronto, Ontario

Contract Administrator of eight (8) railway bridges on the Oakville Subdivision and Kingston Subdivision. The bridge rehabilitations for the Parkside Drive, Colborne Lodge, Ellis Avenue, Windermere Avenue, South Kingsway, Queen Street, Mississauga Road, and Danforth Avenue structures included bridge jacking to raise existing structures; bearing seat replacement; structural steel rehabilitation of piers, bents, and floor beams; concrete rehabilitation of abutments, wingwalls, bearing seats, and soffits; track works including new track, ballast, grade and profile modifications. Construction Value: \$25.0 Million, Completion Date: April 2021

Ministry of Transportation (Ontario), Contract 2018-2257 – Highway 401 / Leslie Street E/NS Ramp Don River Bridge

Toronto, ON

Contract Administrator for the rehabilitation of the Don River bridges at Highway 401/Leslie Street E/N-S Ramp. The project included concrete rehabilitation of bridge pier and columns, soffit, structural steel repair, and structural steel coating. Construction Value of \$1.2 Million, Completion Date: February 2020

Canadian National Railway, Creditstone Fuel Terminal

Vaughan, Ontario

Contract Administrator for the Transload Terminal to be located on the former CN Creditstone Autoport property. The project involves design and construction for new trackage and associated grading/drainage required to support a Norcan fuel transload facility being developed (by others) on the CN property. HDR scope also included a separate CN food grade oil transload facility on the CN property, including two new tracks complete with mechanical, electrical and process design for a new railcar steaming / product unloading system and a new washbay facility for cleaning the transloading equipment to food grade standards. \$5.0 Million Construction

Ministry of Transportation (Ontario), Contract 2017-3018

Contract Administrator for a contract involving hot mix paving, drainage, and structures (superstructure) on Highway 9 and Highway 21. Completion December 2018

Ministry of Transportation (Ontario), Assignment 3-15-C-0192, Contracts 2015-3024 & 2015-3025

Contract Administrator. This assignment involved grading, hot pavement mixing, and structural rehabilitation at five bridges on Highway 402, and the Highway 402/401 overpass W-E ramp. April 2017 to December 2017

Essam Elsayed, M.Sc., P.ENG.

Construction Inspector

EDUCATION

M.Sc., Civil Engineering, Specialty in Structural Engineering (Design of Reinforced Concrete Structures), Banha University, Cairo, Egypt

Bachelor of Civil Engineering, Zagazig University, Sharkia, Egypt, 2004

Certificate of Project Management, University of Toronto, Canada

REGISTRATION

P.Eng., Professional Engineers of Ontario

ADDITIONAL TRAINING

- Metrolinx Personal Track Safety Program (PTS) Training, November 2020
- Book 7 – Temporary Work Zone Traffic Control
- Basic Pilot Certificate – remote piloted aircraft system at visual line of sight
- Proficiency in Radio, Basic Pilot certificate
- CN Contractor Orientation
- GO Transit Contractor – Railway Orientation
- Subway Contractor Track Level
- Aerial Lift/Platforms
- Working at Heights
- Confined Spaces
- Health & Safety Awareness – Supervisor (5 Steps)
- WHIMS

Essam has 15 years of experience in heavy civil construction including bridges, road, and highway construction. He has a masters in Structural Engineering and a Certificate in Project Management from the University of Toronto. He has a proven ability to meet the needs and expectations of all stakeholders through proper control of project budgets and schedules while considering health, safety, and environmental requirements.

Essam is knowledgeable in Ontario Structure Inspection Manual (OSIM), Ontario Occupational Health and Safety Act and Regulations (The Green Book), American Standards (ACI and ASTM) and Ontario Provisional Standards and Specifications (OPSS), and AREMA standards

RELEVANT EXPERIENCE

City of Toronto, 20SWM-IRM-008CDU – Disco Transfer Station Site Improvements

Toronto, ON

Resident Engineer for the site improvements for the Disco Waste Transfer Station in the City of Toronto. The project included completing concrete repairs and upgrades to the interior facility drainage and sanitary system, electrical and mechanical upgrades, and exterior pavement rehabilitation and construction of new ramps requiring structural concrete slab supported on helical piles. Capital Cost: \$1.8 Million. October 2021 to December 2022

Metrolinx, Contract No. IT-2019-RCDV-319 – Railway Bridge Rehabilitation of the York, Bay, and Yonge Street Structures at Union Station.

Senior Inspector for the rehabilitation of three railway bridges on the Union Station Rail Corridor. The bridge rehabilitations for the York Street, Bay Street, and Yonge Street included bridge jacking for bearing replacement, structural steel rehabilitation; concrete rehabilitation of piers, bearing seats, and soffits. Construction Value: \$24.0 Million. February 2020 to June 2021

Metrolinx, Ontario Line LRT Technical Advisor

Toronto, ON

Field Surveying Oversight for the subsurface surveying and engineering investigation of existing Enwave utilities along Queen Street, York Street, and Simcoe Street in downtown Toronto. The Ontario Line LRT project is a 16 km LRT that includes construction of surface rail and underground tunneling through the core of downtown Toronto, and construction of major bridges to accommodate crossings at roadways, railways, and the Don River. The project will stretch between Exhibition GO Station, connect to

- Fire Safety, Prevention and Protection
- Spill Response
- Asbestos Awareness
- First Aid – Level 1

INDUSTRY TENURE

15 Years

TTC Line 1 and 2, and terminate at the Ontario Science Centre Station connecting to the Eglinton Crosstown LRT. June 2021 to October 2021

Bridge Check Canada Ltd., Senior Bridge Inspector

Canada

Senior Bridge Inspector responsible for conducting visual field inspections and condition surveys on existing structures (bridges, slab on grades, retaining walls, Embankments, Asphalt, Joints, Bearing and Culverts, ensuring compliance with Ontario Structures Inspection Manuals (OSIM) and MTO Structure Rehabilitation Manual (SRM). Underwater inspections for the detection of scour or deterioration of bridge components that are submerged with engagements of competent licensed divers. Mapping structural elements deteriorations including reinforced concrete, Wood and Steel structures and preparing as built drawings of bridges superstructure, and substructure components. Supervising Conduction of detailed Deck condition Survey, which involves extraction cores and asphalt sawn samples, Cover meter survey, Ground Penetrating Radar (GPR) survey, Potential Corrosion survey and Delamination. Inspecting bridges using drone (UAV) in order to save time, reduce expenditure, reduce life risks.

Essam inspected numerous bridges across Ontario, including but not limited to:

- 77 – Prince Edward Viaduct
- 76 – Bloor St. over Rosedale Valley Rd.
- 5 - Lakeshore Blvd. West, over Mimico Creek Bridge
- 24-203 - Credit River Bridge (QEW)
- 24-325 - Hwy 410 SB to Hwy 401 EB Collector
- 24-393/3&4 - Hwy 401 EB & WB over Hwy 403/410
- Union Bridge over Ottawa River
- SN013320 - St. Patrick Street Bridge over Rideau River
- 46x-0184 - Spanish River Bridge
- 003605 - Muskoka River Bridge

Al-Harbi Trading and Contracting Co. Ltd.

Saudi Arabia

Site Engineer. Coordinated utilities as built drawing with design drawing. Supervised earth work activities. Checked rebar and form work of underpass retaining walls as per shop drawings.

Egypt Contracting Company

Egypt

Junior Structural Engineer. Performed analysis and design of structural elements using applicable building and design codes/standards. Provided design Drawings and calculations. Carried out site inspections and monitoring activities progress for construction of low and mid-rise buildings electrical transformers foundations and fire wall.