

5001 49 Avenue. Vermilion, Alberta. T9X 1B8 780-853-4288 --- librarian@vplibrary.ca

INVITATION TO BID

TO: All Bidders DATE: August 24th 2021

FROM: Stuart Pauls (<u>librarian@vplibrary.ca</u>) PAGES: 2 RE: Vermilion Public Library – Entry pad

PROJECT DESCRIPTION:

This project involves the extension of an existing concrete entry pad and modification of existing railing. Scope of work: Provide materials and labour to construct an extension of the main entrance door landing, related support structure and new landing handrail around the extension pad. Create extension as per the attach drawings. Modify existing hand railing posts and balusters to allow the installation of new sections to match. Include all permit (construction) and inspection fees.

SPECIAL CONSIDERATIONS:

- Move the rose bush and any plants to an area for better light conditions and out from under the proposed extension
- Provide physical barriers to all plants to prevent damage during construction
- Provide signs in place to protect and assist patrons and passersby
- Clean up will occur during the renovation with temporary barriers and signs
- · All railing posts and components will be painted 2 coats rust resistant paint

ITEMS TO NOTE:

 A pre-bid meeting is scheduled for Tuesday September 7th at 3:00 pm at the Vermilion Public Library to explain the project scope

This bid is due September 20th 2021 at 2:00 p.m.*

REQUEST FOR INFORMATION:

- By submitting a bid, the bidder agrees that they will be responsible for conducting due diligence on data and information upon which the bid is based.
- To hold harmless the Library, its trustees, employees and all of their successors from all claims, liability and costs related to all aspects of the invitation to bid.

DISCRETION OF THE LIBRARY:

- The Library is not bound to accept any proposal. At any time prior to the execution of the
 contract, the library may, in its own and unfettered discretion, or for its own convenience,
 terminate this selection process, cancel the project and proceed with the project on
 different terms. All of this may be done with no compensation to the bidder.
- The Library reserves the right to accept or reject all bids, all without giving reasons.
 Selection of the successful bidder, if any, is at the sole unfettered discretion of the library.

SELECTION PROCESS:

- The selection process is a tendering process. It is also part of an overall selection
 process that enables the library to identify a potential successful bidder. The submission
 of a bid does not constitute a legally binding agreement between the library and any
 bidder.
- The library will engage in a contractual agreement with the successful proponent upon formal acceptance by the library board.

PROJECT SCHEDULE:

This project must be completed by December 31, 2021.

BID REQUIREMENTS:

For proper assessment of each bid, the following information should be included in the proposal:

- List of similar projects completed in the area in the past 3-5 years
- Proposed project schedule
- Detailed fee schedule

GENERAL AND DESIGN NOTES:

- Designed by ALLIED CONSULTANTS ENGINEERING INC. (ACE)

Design based on: - National Building Code - 2019 Alberta Edition

- CAN/CSA S16-14 Design of Steel Structures

- Canadian Foundation Engineering Manual - 2006

- Climatic Data for Vermilion, AB assigned for this project:

Ground Snow Load, Ss = 1.7 kPa; Associated Rain Load, Sr = 0.1 kPa (Both values 1 in 50 Years) Hourly Wind Pressure, que = 0.36 kPa (1 in 50 Years)

Specified Design Loads:

Concrete Unit Weight

= 149.5 pcf = 23.5 kN/m³

Entrance extension Live Load = 100 psf = 4.8 kPa

- Existing Entrance/Landing details measured and provided by client.
- Contractor shall verify all dimensions, elevations, and scope of work with the project drawings prior to commencing construction. All dimensions are to be confirmed On site before starting any work.
- All work to be carried out with good materials and workmanship to ensure the quality and serviceability of the structure, Contractor hold complete liability for claim of damages sustained from the use of poor material and workmanship.
- Construction Safety requirements shall be the responsibility of the General Contractor.
- Supply, design, and installation of all temporary bracing is the contractors responsibility and shall meet all applicable standards and laws.
- The General Contractor shall locate all existing site services prior to construction.
- The Structural drawings are to be read in conjunction with all other relevant drawings.
- Written information and dimensions shall take precedence over graphic information. Do not scale drawings.
- Report any discrepancies from the assumed site condition to the Structural Engineer of Records (SEOR).
- Field reviews are required to observe the work general conformity with the intent of the plans and specifications. Contact the SEOR a minimum of 2 days in advance of any

CONCRETE NOTES:

- 1. All materials and construction procedures shall conform to the latest edition of CSA A23.1, A23.2, A23.3, A5, and G30.18.
- 2. Concrete testing to CAN/CSA A23.1. Concrete compressive strength (Minimum at 28 days):

Grade Beam and Piles

: 30 MPa, Type 50 (HS / sulphate resistant cement);

Structural Slab on grade : 25 MPa, Type 10 (GU cement) with Entrained Air.

- 3. Cold weather concreting shall be in conformance with the latest edition of CSA A23.1 "Concrete Materials and Methods of Concrete Construction".
- 4. Concrete placement and curing shall be in conformance with CAN/CSA A23,1 requirements.
- 5. GRANULAR MATERIAL shall consist of clean crushed stone or clean gravel which will pass through a 40mm (1 $\frac{1}{2}$ in) sieve and contain not more than 10% of fine material that will pass a 4 mm (0.15 in) sieve.

CONCRETE REBAR NOTES:

- 1. Perform concrete reinforcing work and fabrication in accordance with the latest edition of CAN/CSA A23.1/A23.2, unless noted otherwise.
- 2. Reinforcing bars should be grade 400MPa confirming to G30.18 and free of rust, oil or any other deleterious material.
- 3. Corner bars shall be cold bent at mid point, unless noted otherwise.
- 4. All bending details, dimensions, anchorage, cut-off lengths, bar supports, spacers and location of reinforcing splices shall be in accordance with the latest edition of CSA A23.3, unless noted otherwise.
- 5. Welded wire mesh shall conform to ASTM A185 and A496.
- 6. Minimum concrete cover for reinforcement shall be as follows:

A- Cast against and permanently exposed to earth

3" (75mm) Earth/Weather Exposed

Earth/Weather Unexposed 1.5" (38mm)

1- Beams, columns and walls (<35M rebar)

2" (50mm)

2- Slabs (<20M rebar)

4" (19mm) 1 4" (32mm)

7. LAP SPLICE REQUIREMENT FOR CONTINUITY OF REINFORCEMENT (CSA A23.3-14)

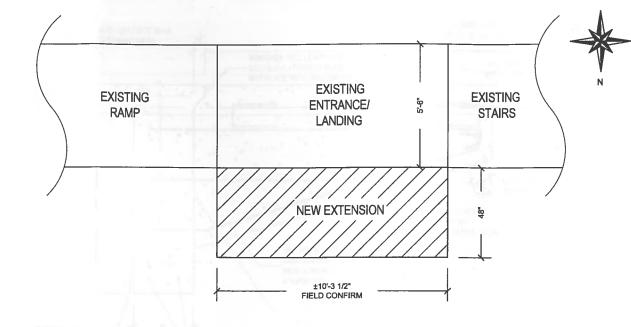
15M

MIN. LAP SPLICE 1'-4" (400mm) 2'-0" (600mm)

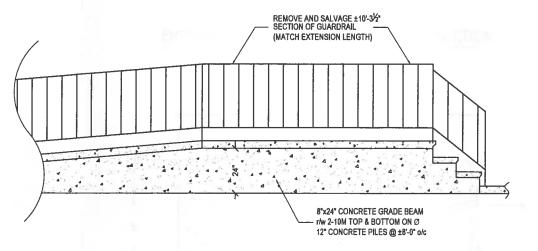
CORNER BAR LEG LENGTH 2' (600mm), Each 2'-8" (813mm), Each

INSPECTION / CERTIFICATE OF COMPLIANCE REQUIREMENTS:

- 1. One copy of the project sealed drawings must be available on site during construction.
- 2. If Foundation Certificate of Compliance is required by the Authority Having Jurisdiction / Building Inspector then:
 - Contact Engineer of Records for field review before pouring Concrete.



LIBRARY ENTRANCE/LANDING PLAN



EXISTING LIBRARY ENTRANCE/LANDING ELEVATION

CONSTRUCTION NOTES:

- 1- Verify existing Entrance/landing dimensions before starting.
- 2- Since landing extension construction is on the outside of existing landing foundation, proceed with construction without removing existing landing guardrail, otherwise remove and salvage Entrance/landing guardrail if temporary entrance is arranged during landing extension construction.
- 3- Interface of Extension brackets and Slab with existing landing Grade beam and slab to be roughened with a wire brush to a minimum of 1/4" depth.
- 4- Provide Concrete forms with chamfer strips to create chamfers, as required (see details and sections).
- 5- IT IS RECOMMENDED TO USE "GLASS FIBER REINFORCED POLYMER" (GFRP) REBARS IN SLAB AND BRACKETS CONSTRUCTION AS THEY ARE NOT SUSCEPTIBLE TO CORROSION AND EXTEND EXPOSED CONCRETE LIFE EXPECTANCY. GFRP is comparable in price to Epoxy Coated Steel Rebars (ECR) but have Ultimate corrosion resistance and higher capacity than standard Steel rebars.
- 6- Slope top surface of Extension slab to North edge of slab for drainage, or use drainage pipes through Extension slab depth at interface with Existing Entrance slab.
- 7- After completion of Extension Concrete slab and proper curing fabricate and install new and salvaged Guardrail. New Guardrail sections to match existing Guardrail in terms of material, layout, dimensions, desired color and anchorage.



6018 - 17 STREET LLOYDMINSTER, AB, T9V 3S2 PH: 780.572.6072 info@ace-ena.ca

ENGINEER SEAL:



APEGA PERMIT TO PRACTICE: P13753

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	0	JULY 26, 2021	M.T.	ISSUED FOR CONSTRUCTION
	NO.	DATE	BY	DESCRIPTION
	abla		REV	ISIONS

CLIENT:

VERMILION PUBLIC LIBRARY

LOCATION:

5001 - 49 AVENUE **VERMILION** ALBERTA

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NOTES:

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DRAWING TITLE: **STRUCTURAL** SPECIFICATIONS AND DETAILS

SCALE: N.T.S.

DRAWN BY:

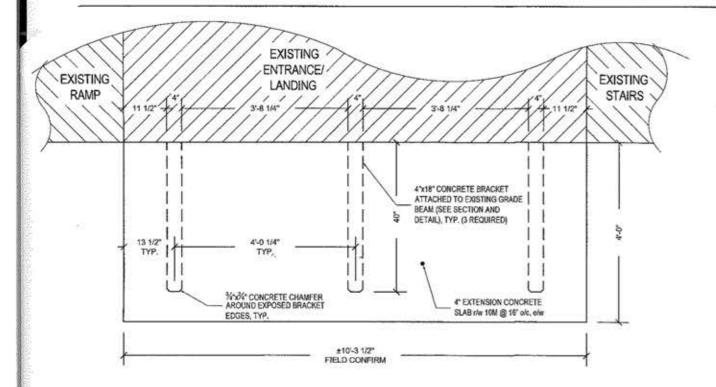
M.T. DESIGNED BY:

M.T.

PROJECT NUMBER:

ACE 21-421

DRAWING NUMBER:



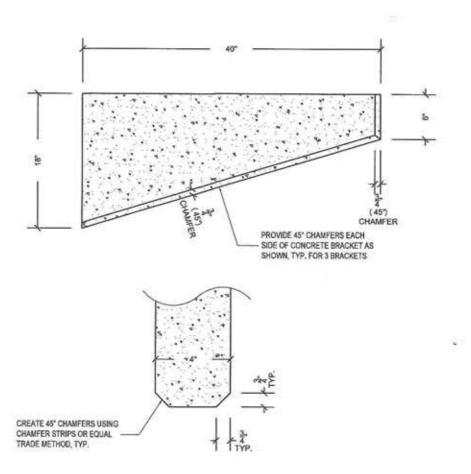
4" CONCRETE SLAB EXISTING CONCRETE SLAB r/w 10M @ 16° o/c, e/w r/w 10M REBARS MESH ROUGHEN FULL LENGTH OF 10M LOOPED REBAR **EXISTING-EXTENSION SLABS** WITH 6" HOOKS, TYP. INTERFACE WITH WIRE BRUSH FINISH SLAB EXPOSED EDGE SIMILAR TO EXISTING SLAB DETAIL (TYP. 3 SIDES) 10M REBAR c/w SIMPSON STRONG-TIE SET-XP HIGH-STRENGTH EPOXY ADHESIVE, 6" EMBEDMENT WITH 6" HOOK 15M TOP & BOTTOM REBARS of SIMPSON STRONG-TIE SET-XP TYP. HIGH-STRENGTH EPOXY ADHESIVE. 6" EMBEDMENT WITH 2.5" 180" HOOK CUT SHEAR LOCK DETAIL IN EXISTING GRADE BEAM, ROUGHEN SURFACE WITH WIRE BRUSH EXISTING 8"x24" CONCRETE 2-10M REBARS SUPPORTED ON GRADE BEAM SNAP TIES, TYP. TOP & BOTTOM

ENTRANCE/LANDING EXTENSION PLAN

TRAPEZOIDAL SHEAR LOCK TO BE 18" LONG MATCHING BRACKET DEPTH EXISTING CONCRETE GISC, CHISEL AND HAMMER TO A CHIEVE REQUIRED SHAPE. ROUGHEN SURFACE WITH WIRE BRUSH EXISTING CONCRETE GRADE BEAM EXTERIOR FACE, TYP. 4" WIDE CONCRETE BRACKET, REINFORCEMENT NOT SHOWN FOR CLARITY

EXTENSION CONCRETE BRACKET SHEAR LOCK DETAIL

ENTRANCE/LANDING EXTENSION BRACKET SECTION



EXTENSION CONCRETE BRACKET CORNER CHAMFERS DETAIL



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EXTENSION
SECTIONS
AND DETAILS

SCALE:

N.T.S.

N.T.S.

DESIGNED BY: M.T.
DRAWN BY: M.T.

S2

PROJECT NUMBER:

ACE 21-421

DRAWING NUMBER: