

Purchasing Division Finance Department

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## Addendum 2 Solicitation 20-99512 Fiber Optic Connection along Lake Avenue

This addendum serves to notify all bidders of the following changes to the solicitation documents:

- 1. Changes have been made to sheets 2, 9 and 10 of the planset and are identified by revision bubbles. The revised sheets are attached and are hereby included in the bid documents. Changes include:
  - a. Updated plans to clarify location and lengths of slack fiber service loops
  - b. Updated plans with conduit size (varies) and type (changed to RSC)
  - c. Added note to plans to require approval prior to any drilling into the lift bridge
  - d. Updated plans to include new cabinets on bridge towers. See new "Cabinet" section of special provisions Division SZ for detailed requirements (power connection, mounting, drainage, etc.)
  - e. Updated plans to include new cabinet in south tower office. See new "Cabinet" section of special provisions Division SZ for detailed requirements (power connection, etc.)
- 2. The attached special provisions section SZ-19 is hereby included in the bid documents.
- Changes to item number 5 of Addendum 1 (the questions, answers and additional information provided from the pre-bid meeting) are listed below. All other information provided in addendum 1 is unchanged. The information below is different from Addendum 1 by striking out old language and underlining new language.

Following are questions, answers and additional information from the pre-bid meeting: Q1. How long is the current umbilical on the bridge?

A1. Considerations should be made for the height of the bridge and the distance to the pilot house. The current moveable umbilical (festoon) is 125 ft. Padding and consideration for connection to the pilot house should be included.

Q2. The plan indicated a 70ft service loop in each hand hole – is this correct or is a service loop only needed in the vaults?

A2. A 70ft coiled service loop is only required in the new vaults, in the MN Power vault at the base of the bridge, and the base office in the south tower. Existing hand holes do not need a service loop. Please see revised plans.

Q3. Do you want the fiber covered on the way up the bridge?

A3. The fiber should be protected as much as possible. Please see revised plans.

Q4. Are there any specifications for the enclosures within the dog houses at the top of the bridge?

A4. City will provide enclosures after bid is awarded in cooperation with vendor suggestions. Please see revised plans.

Q5. How thick are the concrete walls that require core drilling?

A5. Concrete walls are 14 inches thick.

Additional information provided during pre-bid:

- A lift may be used on the bridge for 15-minute increments. If bridge closure is properly coordinated and advertised, this may be extended to 30 minutes after midnight.
- Consideration must be given for the weight of ice on conduits and cabling on the bridge.
- Aerial Lift Bridge Tower Heights are 225ft to the top, 180 feet to the bottom of the span, and 390 feet between spans.
- For the section of conduit that is owned by MNPower MNPower will need to pull. MNPower will need to be onsite for any core drilling in the MNPower vault.

Please acknowledge receipt of this Addendum by checking the acknowledgment box within the <u>www.bidexpress.com</u> solicitation.

Posted: October 22, 2020

## SZ-19 (2550) CABINET

Furnish and install Cabinet in accordance with the MnDOT Standard Specifications, MnDOT Standard Plans/Plates, the Plans, and the following:

- SZ-19.1 See <u>**GROUNDING**</u> on page 6-SZ for grounding specifications.
- SZ-19.2 See **LABELING** on page 8-SZ for labeling specifications.
- SZ-19.3 For cabinets located on top of the lift bridge towers furnish and install a Hoffman CSD242412SS enclosure with added lockable handle and DIN rail.
  - (A) Furnish and install cabinets and connecting conduits in a matter to ensure that moisture/condensation/water does not accumulate in the cabinets or conduit. This includes:
    - a. Construct conduit openings in bottom of cabinet.
    - b. Construct weep holes in cabinet (if necessary).
  - (B) Construct a power connection from the in place wooden cabinets to the new cabinets. Furnish and install a 2-gang outlet inside each new cabinet. This includes all necessary materials (conduit, power cables, 2-gang outlet, mounting hardware, etc.) to construct and provide an operational 2-gang outlet inside each new cabinet.
- SZ-19.4 For the cabinet located in the south tower office furnish and install a Hoffman EWMW362825 enclosure.
  - (A) Construct a power connection from the in place south tower office load center to the new cabinet. Furnish and install a 2-gang outlet inside the new cabinet. This includes all necessary materials (conduit, power cables, 2-gang outlet, mounting hardware, etc.) to construct and provide an operational 2-gang outlet inside the new cabinet.

FIBER OPTIC INTERCONNECT TABULATION - FOR INFORMATION ONLY					
ITEM	NOTE	UNIT	ESTIMATED QUANTITY		
AS BUILT	1	LUMP SUM	1		
MOBILIZATION		LUMP SUM	1		
REMOVE CABLES		LIN FT	1740		
REMOVE CONCRETE WALK	2	SQ FT	24		
AGGREGATE BASE (CV) CLASS 5	2	CU YD	0.3		
6" CONCRETE WALK	2	SQ FT	24		
OUTDOOR FIBER SPLICE ENCLOSURE		EACH	3		
1" RIGID STEEL CONDUIT	3	LIN FT	300		
2" RIGID STEEL CONDUIT	3	LIN FT	700		
2" NON-METALLIC CONDUIT	4	) LIN FT	300		
FIBER OPTIC CABLE TESTING		LUMP SUM	1		
CABINET	5	EACH	3		
FIBER OPTIC SPLICE / PATCH PANEL	6	EACH	1		
FIBER OPTIC TERMINATION	7	<pre>{ EACH</pre>	4		
FIBER OPTIC CABLE SPLICING	8	S EACH	3		
PULL VAULT	9	EACH	3		
PRE-TERMINATED/ARMORED FIBER OPTIC PIGTAIL 6SM	° 10	S LIN FT	2200		
REROUTE CABLE	$\mu$	LIN FT	20		
FIBER OPTIC CABLE 36SM		LIN FT	4500		
TRAFFIC CONTROL	<sup>•</sup> 11	LUMP SUM	1		
TURF ESTABLISHMENT	$\overline{\gamma}$	LUMP SUM	1		

QUANTITIES PROVIDED ARE FOR INFORMATION ONLY. THE PROJECT WILL BE BID AND PAID FOR AS ONE LUMP SUM ITEM. COORDINATE CONSTRUCTION OF FIBER OPTIC CABLE ALONG LAKE AVENUE WITH CITY OF DULUTH SIGNALS: EARL STEWART - (218) 349-1649 (MOBILE)

COMPLETE WORK ACROSS THE TOP OF THE LIFT BRIDGE DURING WINTER MONTHS.

NOTES:

1. FOLLOW THE MNDOT TRAFFIC MANAGEMENT SYSTEM (TMS) AS-BUILT REQUIREMENTS FOR AS BUILTS.

2. REPLACE SIDEWALK IN-KIND AT INTERSECTION OF LAKE AVENUE AND BUCHANAN STREET DUE TO VAULT AND CONDUIT CONSTRUCTION.

3. FOR USE ON LIFT BRIDGE.

4. INCLUDES THREE CONCRETE WALL PENETRATIONS.

5. INCLUDES POWER CONNECTION FROM INPLACE WOODEN CABINET FOR CABINETS ON TOP OF TOWERS.

SEE SPECIAL PROVISIONS DIVISION SZ FOR DETAILED REQUIREMENTS.

6. INCLUDES ONE 72-CT FIBER OPTIC SPLICE / PATCH PANEL.

7. FIBER OPTIC TERMINATION QUANTITY IS BASED ON THE NUMBER OF FIBER OPTIC CABLES TERMIANTED.

 $\langle$  SEE COMMUNICATION SCHEMATICS FOR NUMBER OF INDIVIDUAL FIBER TERMINATIONS.

8. ) FIBER OPTIC CABLE SPLICING QUANITTY IS BASED ON THE NUMBER OF SPLICING LOCATIONS.

 $\langle$  SEE COMMUNICATOIN SCHEMATICS FOR NUMBER OF INDIVIDUAL FIBER SPLICES.

9. ) PULL VAULTS LOCATED IN SIDEWALKS REQUIRE AN ADDITIONAL EXTENSION, LID, AND REINFORCEMENT. SEE DETAIL DRAWINGS.

10. PIGTAILS INCLUDE FACTORY TERMINATED PATCH BLOCKS. THREE PIGTAILS ARE FOR UNDERGROUND USE (TO SIGNAL CABINETS).

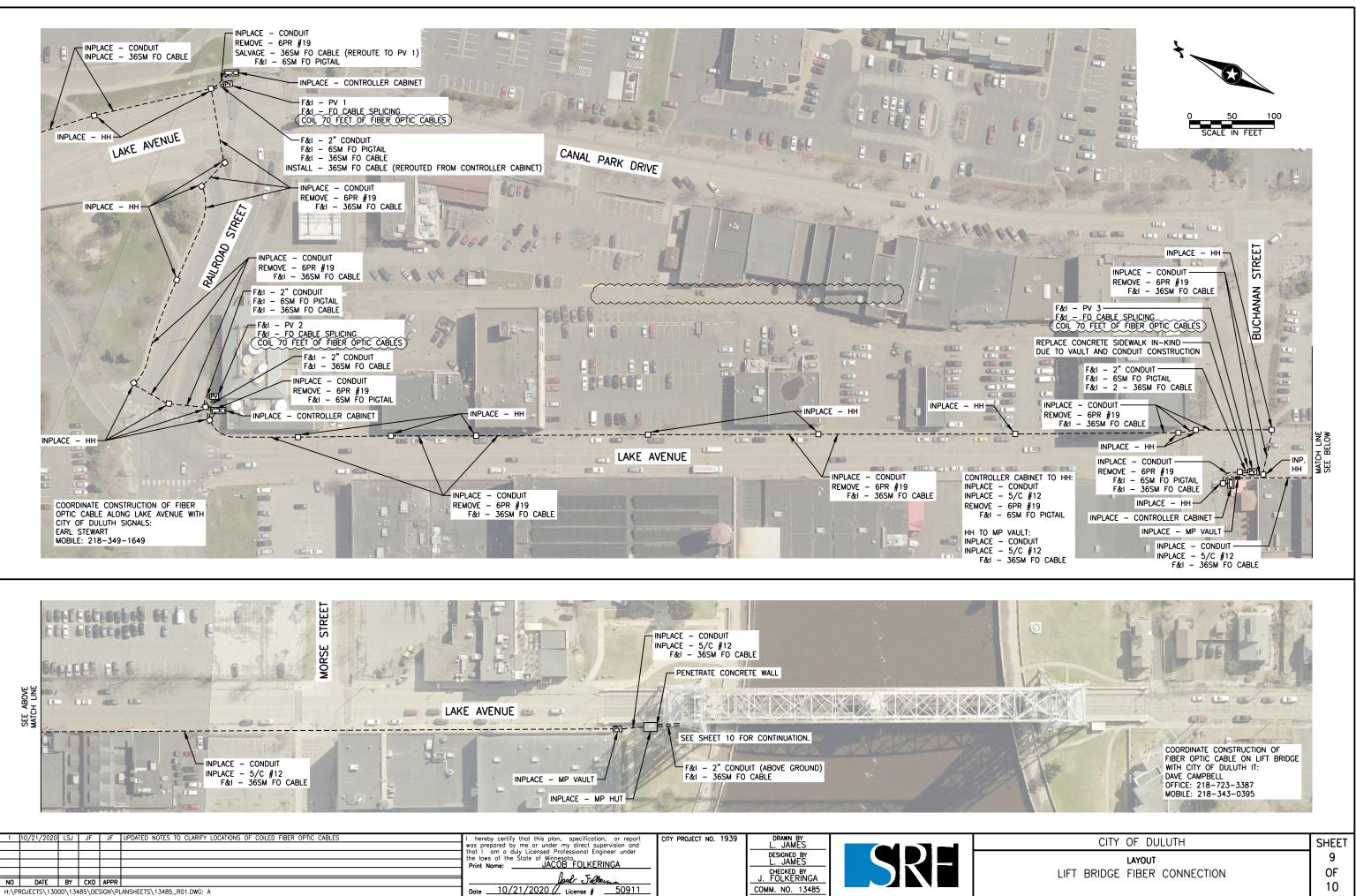
- 2 PIGTAILS ARE FOR AERIAL USE (TO LIFT BRIDGE TOWERS). 1 PIGTAIL IS FOR TRAVELING USE (TO LIFT BRIDGE PILOT HOUSE). MEASURE PROPOSED CABLE ROUTE TO DETERMINE THE LENGTH OF THE CABLE BEFORE ORDERING.
- 11. PROVIDE TRAFFIC CONTROL IN ACCORDANCE WITH THE MOST RECENT EDITION OF THE MINNESOTA MANUAL ON

UNIFORM TRAFFIC CONTROL DEVICES AND THE MINNESOTA TEMPORARY TRAFFIC CONTROL FIELD MANUAL.  $\sim$ 

1	10/21/2020	LSJ	JF	JF	UPDATED ITEMS/QUANTITIES AND NOTES	I hereby certify that this plan, specification, or report	CITY PROJECT NO. 1939	DRAWN BY L. JAMES	
						was prepared by me or under my direct supervision and		L. JAMES	
						that I am a duly Licensed Professional Engineer under		DESIGNED BY L. JAMES	
						the laws of the State of Minnesota. Print Name: JACOB FOLKERINGA		L. JAMES	
						Δ		CHECKED BY	
NO	DATE	BY	CKD	APPR		ford Salkerman		J. FOLKERINGA	
H:∖F	PROJECTS\130	00\13	485\DE	SIGN\P	ANSHEETS\13485_SD01.DWG: A	Date <u>10/21/2020 //</u> License # <u>50911</u>		COMM. NO. 13485	

COORDINATE CONSTRUCTION OF FIBER OPTIC CABLE AT LIFT BRIDGE WITH CITY OF DULUTH IT: DAVE CAMPBELL - (218) 723-3387 (OFFICE) OR (218) 343-0395 (MOBILE).

CITY OF DULUTH	SHEET
QUANTITIES AND GENERAL NOTES	2
LIFT BRIDGE FIBER CONNECTION	OF
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LAYOUT	
LIFT BRIDGE FIBER CONNECTION	(

