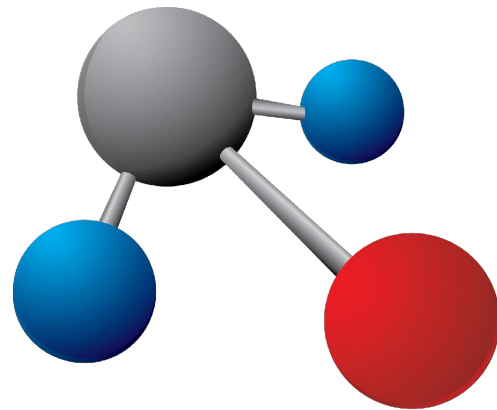


SHAKOPEE 2020 SCADA SYSTEM IMPROVEMENTS

SHAKOPEE, MINNESOTA



PREPARED FOR:
CITY OF SHAKOPEE



City Project No.: SAN19-005
AE2S Project No.: 05475-2020-007

MARCH
2021

PROJECT DRAWINGS

Advanced Engineering and Environmental Services, Inc.
Water Tower Pl Business Ctr
6901 E Fish Lake Rd Ste 184 Maple Grove, MN 55369
(t) 763-463-5036 (f) 763-463-5037 www.ae2s.com

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ENGINEERING TEAM

ELECTRICAL ENGINEER
Advanced Engineering and
Environmental Services, Inc.

CERTIFICATION

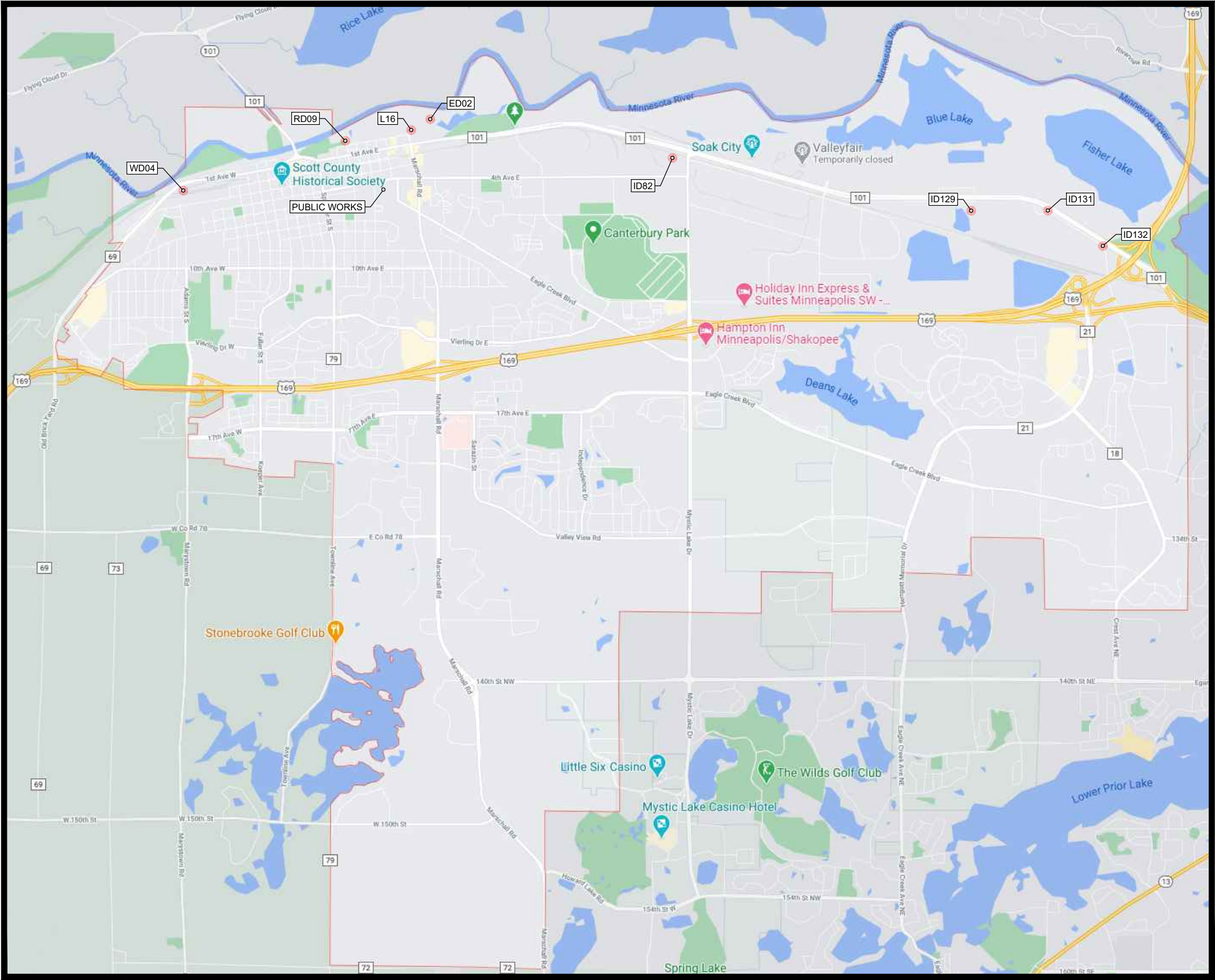
ELECTRICAL ENGINEER
Advanced Engineering and
Environmental Services, Inc.

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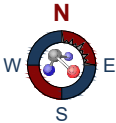
SIGNATURE: 

TYPED NAME: CHARLES HAUPERT
MARCH 03, 2021 REG. NO. 50464

Certification Of Individual
Project Design Disciplines Are
Included On Their Individual
Drawings, Respectively.



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TYPED NAME: CHARLES HAUPELT
REG. NO. 50484

SHAKOPEE 2020 SCADA SYSTEM IMPROVEMENTS
CITY OF SHAKOPEE
SHAKOPEE, MINNESOTA
LOCATION AND VICINITY MAP

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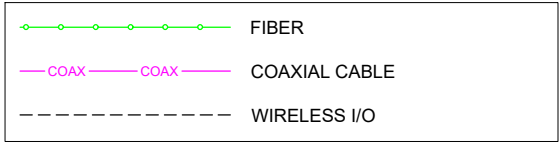
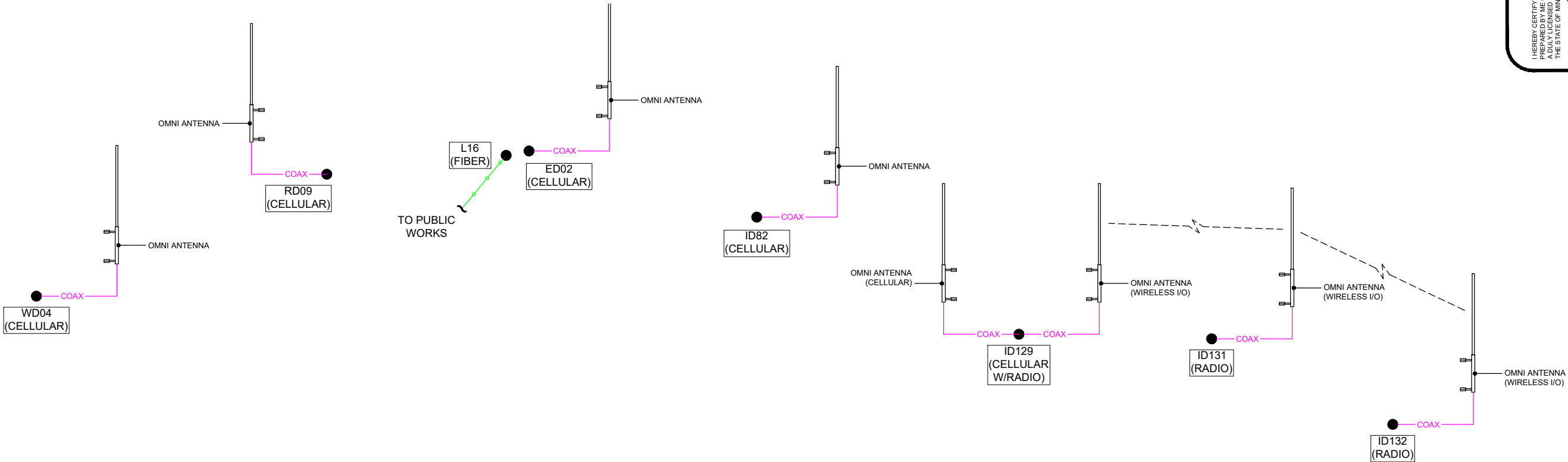
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G002

SYM	DATE	DESCRIPTION	APPR





1 SCADA NETWORK OVERVIEW
E002 SCALE: N.T.S.

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MARCH 03, 2021

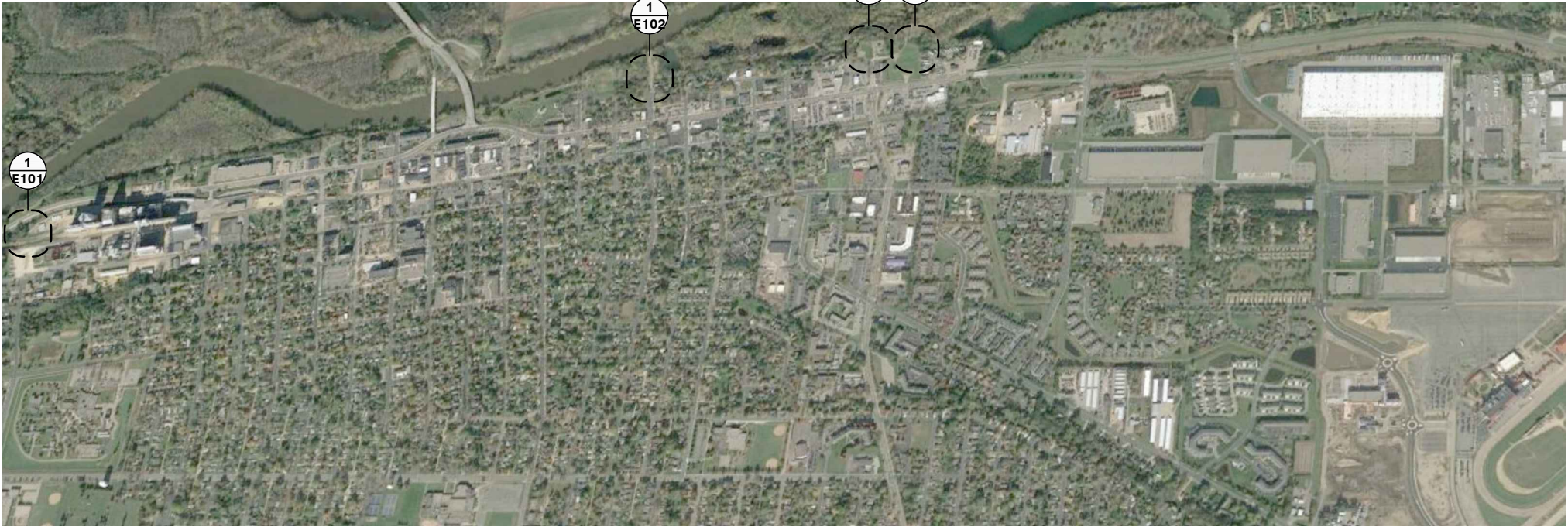
SHAKOPEE 2020 SCADA SYSTEM IMPROVEMENTS
CITY OF SHAKOPEE
SHAKOPEE, MINNESOTA
SCADA NETWORK OVERVIEW

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E002



SYM	DATE	DESCRIPTION	APPR



1 OVERALL LOCATION SITE PLAN
E003 SCALE: N.T.S.



GENERAL NOTES
1. SEE SHEET E001 FOR GENERAL NOTES.

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SIGNATURE: *Charles Hauptert*

TYPED NAME: CHARLES HAUPTERT
MARCH 03, 2021 REG. NO. 50484



SHAKOPEE 2020 SCADA SYSTEM IMPROVEMENTS
CITY OF SHAKOPEE
SHAKOPEE, MINNESOTA
OVERALL LOCATION SITE PLAN

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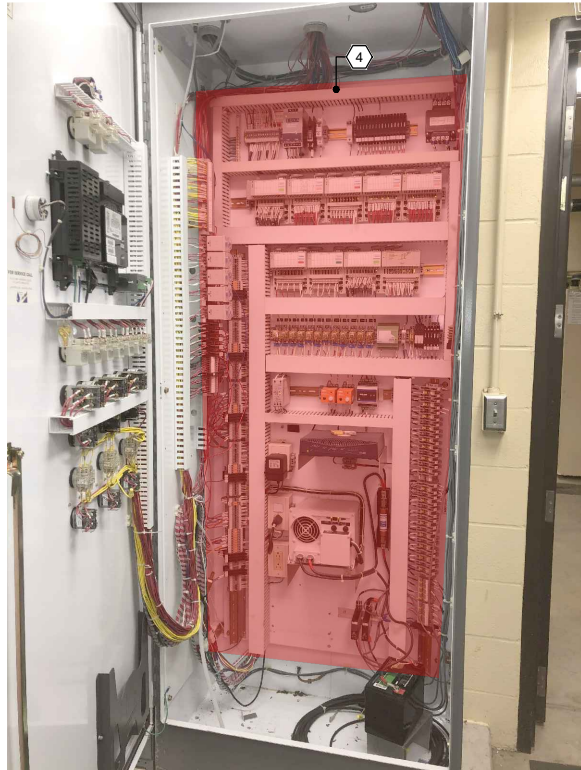
DRAWING
E003



1
E104 VFD 3 PUMP MODULE INSTALLATION IMAGE



2
E104 L16 CONTROL PANEL FRONT DOOR



3
E104 L16 BACKPANEL REPLACEMENT IMAGE



4
E104 L16 OMNI MONITORING SYSTEM REMOVAL



5
E104 L16 MCC AND CONTROL PANEL LAYOUT

DEMOLITION LEGEND

- ITEMS TO BE REMOVED
- ITEMS TO BE REUSED

GENERAL NOTES

- SEE SHEET E001 FOR GENERAL NOTES.
- ALL EQUIPMENT REMOVED SHALL BE OFFERED TO CITY BEFORE DISPOSAL.

DEMOLITION NOTES

- REMOVE EXISTING OMNI MONITORING ENCLOSURES AND UNUSED CIRCUITRY, CONDUIT, AND MOUNTING EQUIPMENT TO SOURCE. PATCH ANY HOLES AFTER REMOVAL. EXISTING SIGNALS FOR "GRINDER RUNNING" AND "GRINDER ALARM" TO BE INTERCEPTED IN CONDUIT ABOVE L16 CONTROL PANEL AND ROUTED INTO L16 CONTROL PANEL WITH NEW SECTION CONDUIT, TERMINATING SIGNALS IN CONTROL PANEL. EXISTING GRINDER SIGNALS CONDUIT ROUTED IN CONDUIT ABOUT 3 FEET ABOVE L16 CONTROL PANEL AS IT GOES TO OMNI ENCLOSURES. ANTICIPATE ENOUGH WIRE TO PULL SIGNALS BACK INTO CONTROL PANEL FROM OMNI ENCLOSURE LOCATIONS.

CONSTRUCTION NOTES

- INSTALL OWNER PROVIDED SULZER CA441 MOISTURE MONITORING MODULE AND SULZER CA442 TEMPERATURE MONITORING MODULE AND WIRE MONITORING SIGNALS BACK TO OWNER PROVIDED (CONTRACTOR INSTALLED) SULZER PC441 PUMP CONTROLLER IN CONTROL PANEL. INTERCEPT EXISTING MONITORING CIRCUITS FROM PUMP AND WIRE TO NEW MONITORING MODULES. CONFIRM EXACT INSTALL LOCATION WITH OWNER IN FIELD.
- INSTALL OWNER PROVIDED SULZER CA511 GRAPHICAL OPERATOR INTERFACE AND WIRE TO OWNER PROVIDED SULZER PC441 PUMP CONTROLLER IN CONTROL PANEL.
- REMOVE AND REPLACE OIT (SECTION 409513). PROVIDE IN-LINE FUSE ON POSITIVE CIRCUIT. REMOVE DIGITAL DISPLAY. PROVIDE COLOR-MATCHING BEZEL FOR OIT AND SULZER CA511 INSTALLATION.
- REMOVE EXISTING BACK PANEL (INCLUSIVE OF PLC, I/O MODULES, BATTERY-BASED BACKUP POWER SYSTEM, RELAYS, TERMINALS) AND EXISTING SIDE BACK PANEL (INCLUSIVE OF TERMINALS, RELAYS). DISCONNECT FIELD WIRES IN PANEL. REPLACE WITH NEW COMPLETE BACKPANEL INCLUDING PLC, I/O MODULES AND OTHER EQUIPMENT AS NOTED ON E105. CONTRACTOR RESPONSIBLE FOR RE-TERMINATING I/O AND OTHER MISCELLANEOUS CIRCUITRY.

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CITY OF SHAKOPEE
SHAKOPEE, MINNESOTA
L16 VARIOUS IMAGES

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E104