

0

4

8

16

one eighth inch = one foot

0

4

8

one quarter inch = one foot

0

4

three eighths inch = one foot

0

4

one half inch = one foot

0

6

2

three quarters inch = one foot

0

4

one inch = one foot

0

6

1

one and one half inches = one foot

0

6

three inches = one foot

LOAD SUMMARY

LOAD	BASE BID CONNECTED KVA	OUTLINE KVA	NOTES
1	24.9	8.5	FUTURE 2 LEVELS
2	5.9	0.0	
3	6.31	0.0	
4	0.25	0.0	
5	17.28	0.0	
6	12.0	104.0	FUTURE 20 STATIONS
7	18.86	0.0	
8	18.86	108.0	FUTURE 2 LEVELS
9	3.32	0.0	
10	56.44	0.0	
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ONE-LINE DIAGRAM

ES-60 SCALE NOT TO SCALE

GROUNDING RISER DIAGRAM

ES-60 NTS

GROUNDING BAR DETAIL

ES-60 NTS

GENERAL NOTES

1. ROUTE BRANCH CIRCUIT OR FEEDER WIRING BELOW PRECAST CONCRETE SLABS.

2. PROVIDE XHHW INSULATED COPPER CONDUCTORS FOR UNDERGROUND AND EXTERIOR FEEDERS, UNLESS OTHERWISE NOTED.

3. PROVIDE THHN/THANK OR XHHW INSULATED COPPER CONDUCTORS FOR INTERIOR FEEDERS, UNLESS OTHERWISE NOTED.

4. ROUTE HORIZONTAL CONDUITS ABOVE BOTTOM CHORD OF BAR MOUNTED DEVICES VERTICALLY TO JOIST SPACE UNLESS OTHERWISE NOTED.

5. DISTRIBUTION AND PANELEBOARDS ARE TO BE CUTLER-HAMMER, WITH BOLT ON CIRCUIT BREAKERS.

6. ELECTRICAL CONTRACTOR SHALL FINISH AND INSTALL ALL DISCONNECT SWITCHES AND MOTOR CONTROLLERS UNLESS OTHERWISE NOTED.

KEY NOTES

1. PROVIDE SURGE PROTECTION DEVICE (SPD) WITH 1000V RATED DISTRIBUTION BOARD AS SPECIFIED IN SECTION 26 24 13.

2. PROVIDE A DELTA GROUND GRID CONSISTING OF THREE GROUND RODS, 3/4" X 10", SPACED 10' APART.

3. PROVIDE CIRCUIT BREAKER, IN EXISTING HOSPITAL SWITCHGEAR, US-2, EQUAL IN TYPE AND MANUFACTURER.

4. PROVIDE FUSED DISCONNECT SWITCH FOR EACH ELEVATOR, BEFORE INSTALLATION OF FEEDER AND COORDINATE THE INSTALLATION WITH THE EQUIPMENT INSTALLER.

5. BID OPTION NO. 1.

6. PROVIDE PULL BOX IN TUNNEL, SEE DRAWING ES-100, KEYED NOTE #9 FOR LOCATION.

7. WIRE AND CONNECT TO NEW 40A/3P CIRCUIT BREAKER IN EXISTING PANELEBOARD.

8. WIRE AND CONNECT TO ONE (1) OF THE EXISTING CIRCUIT BREAKERS IN THIS PANEL.

9. ELEVATOR CONTROLLER, CONTROL DEVICES, AND CONTROL POWER CONNECTIONS TO EQUIPMENT SHALL BE COORDINATE WITH EQUIPMENT INSTALLER.

10. TWO 2" EMPTY CONDUITS, BETWEEN ELEVATOR EQUIPMENT ROOM AND ELEVATOR PIT, SEE KEYED NOTE #9 ON DRAWING ES-101.

11. PROVIDE (2) 20A-1P CIRCUIT BREAKER IN EXISTING SPACE, MANUFACTURER.

12. PROVIDE AN ASKO 7000 SERIES, 3PHASE, 4 POLE TRANSFER SWITCH, PROVIDE CONTROL AND INDICATION SIGNALS TO POWER INDICATOR LIGHT, RED BACKUP POWER INDICATOR LIGHT, AND NORMAL/TEST SELECTOR SWITCH ON GENERATOR CONTROL.

13. WORK SHOWN IN THIS AREA RELATED TO ELEVATOR BACK UP POWER SHALL BE INCLUDED IN BID OPTION.

14. THIS ELEVATOR FEEDER SHALL BE REMOVED WITH ELEVATOR INFORMATION.

15. SEE SHEET ES-101 FOR LOCATION AND ADDITIONAL INFORMATION.


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Drawing Title: ONE LINE DIAGRAM BID OPTION No. 5

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am duly Licensed Professional Engineer under the laws of the State of Minnesota
Signature: 
Printed Name: Randall A. Jacobs
Date: 02-24-2012
License: 25414

Project Title
CONSTRUCT PARKING
RAMP DESIGN

Location
1 VETERANS DRIVE
MINNEAPOLIS, MN 55417

Date
02-24-2012

Checked
RAJ

Drawn
FPJ

Project Number
618-820

Building Number
78

Drawing Number
ES-601
Drawing 108 of 116

Office of
Construction
and Facilities
Management
Department of
Veterans Affairs

VA FORM 08-6231

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