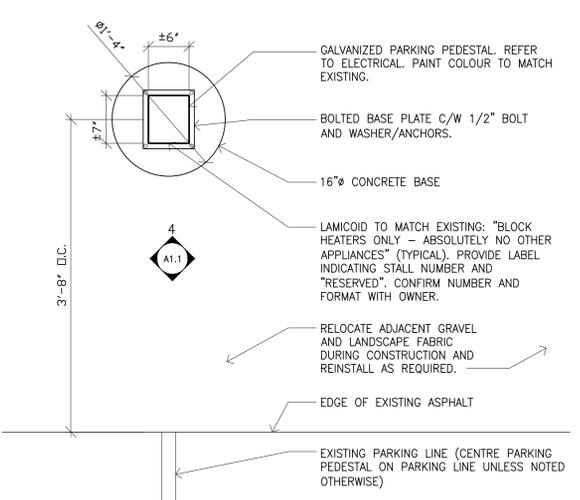
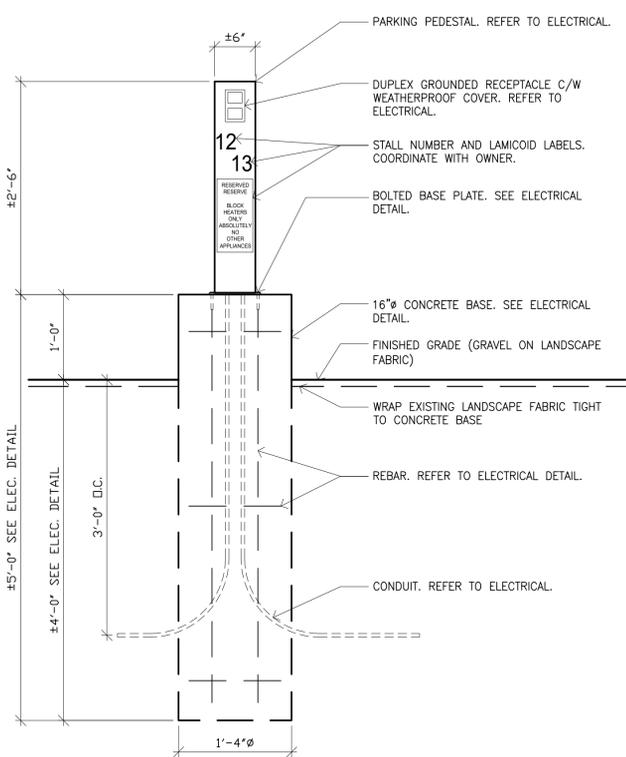


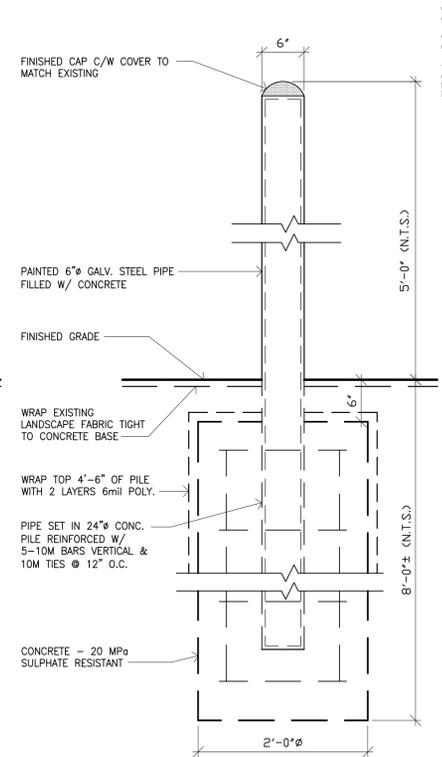
1 KEY PLAN
A1.1 SCALE: 1" = 100'-0"



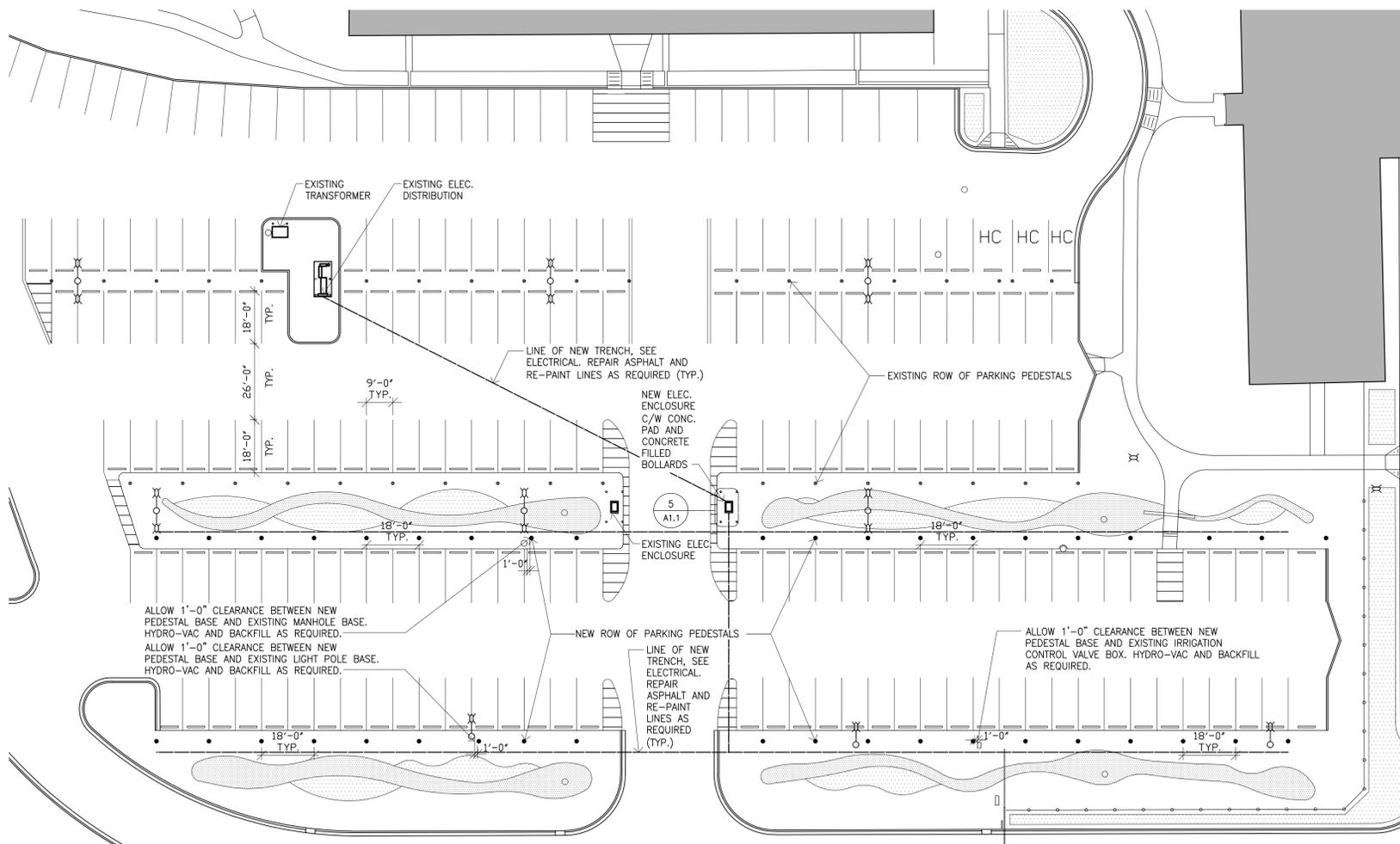
3 TYPICAL PEDISTAL PLAN DETAIL
A1.1 SCALE: 1" = 1'-0"



4 TYPICAL PEDESTAL ELEVATION DETAIL
A1.1 SCALE: 1" = 1'-0"



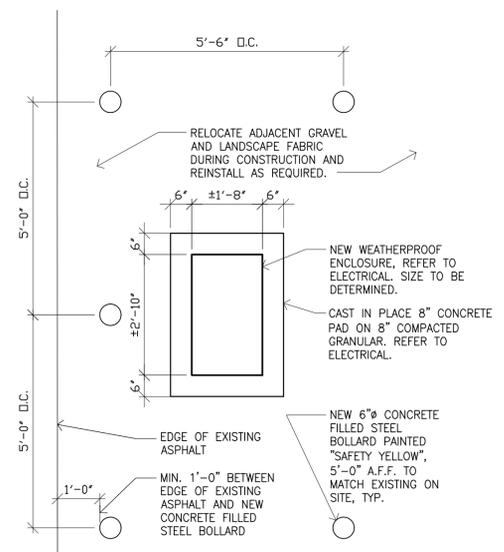
7 TYPICAL BOLLARD DETAIL
A1.1 SCALE: 1" = 1'-0"



2 SITE PLAN
A1.1 SCALE: 1" = 25'-0"

GENERAL NOTES:

- PATCH AND MAKE GOOD SURFACES AFFECTED BY DEMOLITION AND/OR NEW CONSTRUCTION TO MATCH ADJACENT SURFACES UNLESS NOTED OTHERWISE.
- WRAP LANDSCAPE FABRIC TIGHT TO LANDSCAPE PENETRATIONS
- COORDINATE ALL DEMOLITION AND NEW CONSTRUCTION WITH ELECTRICAL.
- CONTRACTOR RESPONSIBLE TO IDENTIFY EXISTING UNDERGROUND CABLES AND UTILITIES THAT MAY CONFLICT WITH NEW WORK. REFER TO OWNER SUPPLIED INFORMATION FOR APPROXIMATE LOCATIONS OF UNDERGROUND SERVICES.
- REMOVE AND REPLACE CONCRETE CURB AND ASPHALT AND RESTORE LANDSCAPING WHERE ELECTRICAL TRENCHING IS REQUIRED, SHOWN AS THIS:
 - NEW CONCRETE AND NEW ASPHALT TO MATCH EXISTING.
 - PUSH/TUNNEL UNDER EXISTING CONCRETE CURBS WHERE POSSIBLE.
 - LIGHT DUTY ASPHALT STRUCTURE:
 - 50mm AC
 - 150mm BASE
 - 150mm SUBBASE
 - NON-WOVEN GEOTEXTILE
- REPAINT PARKING LINES AFFECTED BY TRENCHING TO MATCH EXISTING.



5 PAD MOUNTED ENCLOSURE DETAIL
A1.1 SCALE: 1/2" = 1'-0"

THIS DRAWING MUST NOT BE SCALED.
THE GENERAL CONTRACTOR SHALL VERIFY ALL DIMENSIONS, DATINGS, AND LEVELS PRIOR TO COMMENCEMENT OF WORK. ALL ERRORS AND OMISSIONS TO BE REPORTED TO NUMBER TEN ARCHITECTURAL GROUP BEFORE PROCEEDING.
VARIATIONS AND MODIFICATIONS TO WORK SHOWN ON THESE DRAWINGS SHALL NOT BE CARRIED OUT WITHOUT WRITTEN PERMISSION OF NUMBER TEN ARCHITECTURAL GROUP.
THIS DRAWING IS THE EXCLUSIVE PROPERTY OF NUMBER TEN ARCHITECTURAL GROUP AND THE COPYRIGHT IN THE SAME BEING RESERVED TO THEM. IT MAY BE REPRODUCED ONLY WITH THE PERMISSION OF NUMBER TEN ARCHITECTURAL GROUP, IN WHICH CASE THE REPRODUCTION MUST BEAR THEIR NAME.

REVISED / ISSUED / PLOTTED	DATE
ISSUED FOR CONSTRUCTION	NOV.16/17
ISSUED FOR 80% REVIEW	OCT.26/17

number TEN architectural group number 10
 Winnipeg Office 204.942.0981 Victoria Office 250.360.2106
 architecture • interior design • planning

GOVERNMENT OF CANADA
 DRILL HALL PARKING LOT
 ELECTRICAL UPGRADES

project SITE PLANS + DETAILS

sheet title

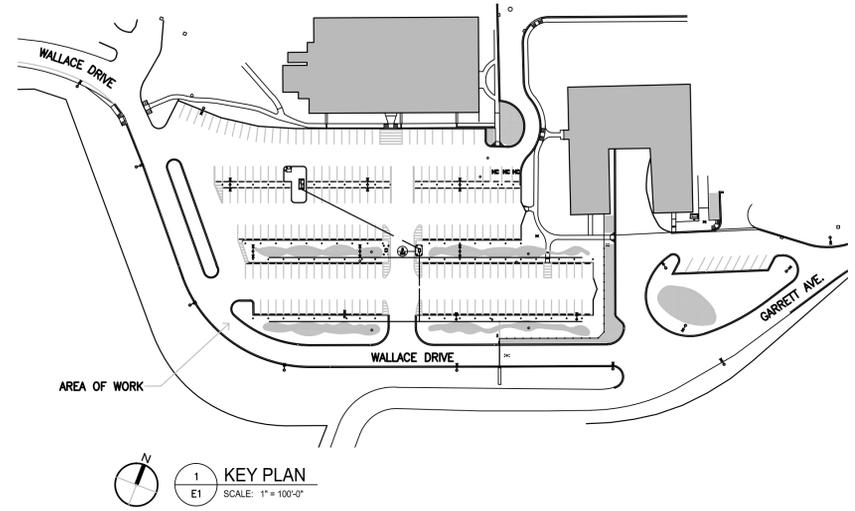
consultant

 Barrie Ottenbrott
 SAA # 823 Winnipeg MB

scale: as shown
 drawn by: DR date: NOVEMBER 16, 2017
 checked by: BO
 project no. 2017071 sheet no. A1.1

THIS DRAWING MUST NOT BE SCALED.
 THE GENERAL CONTRACTOR SHALL VERIFY ALL DIMENSIONS, DETAILS, AND LEVELS PRIOR TO COMMENCEMENT OF WORK. ALL ERRORS AND OMISSIONS TO BE REPORTED TO NUMBER TEN ARCHITECTURAL GROUP BEFORE PROCEEDING.
 VARIATIONS AND MODIFICATIONS TO WORK SHOWN ON THESE DRAWINGS SHALL NOT BE CARRIED OUT WITHOUT WRITTEN PERMISSION OF NUMBER TEN ARCHITECTURAL GROUP.
 THIS DRAWING IS THE EXCLUSIVE PROPERTY OF NUMBER TEN ARCHITECTURAL GROUP AND THE COPYRIGHT IN THE SAME BEING RESERVED TO THEM. IT MAY BE REPRODUCED ONLY WITH THE PERMISSION OF NUMBER TEN ARCHITECTURAL GROUP, IN WHICH CASE THE REPRODUCTION MUST BEAR THEIR NAME.

REVISED/ ISSUED/ PLOTTED	DATE
ISSUED FOR CONSTRUCTION	NOV.16/17
ISSUED FOR 80% REVIEW	OCT.26/17

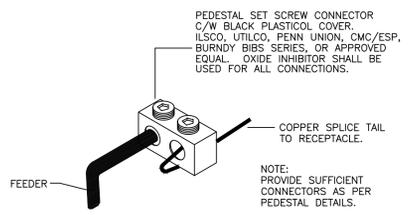
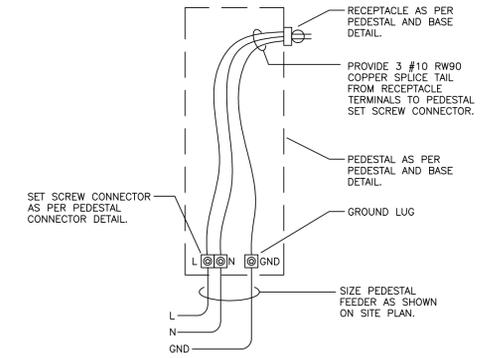
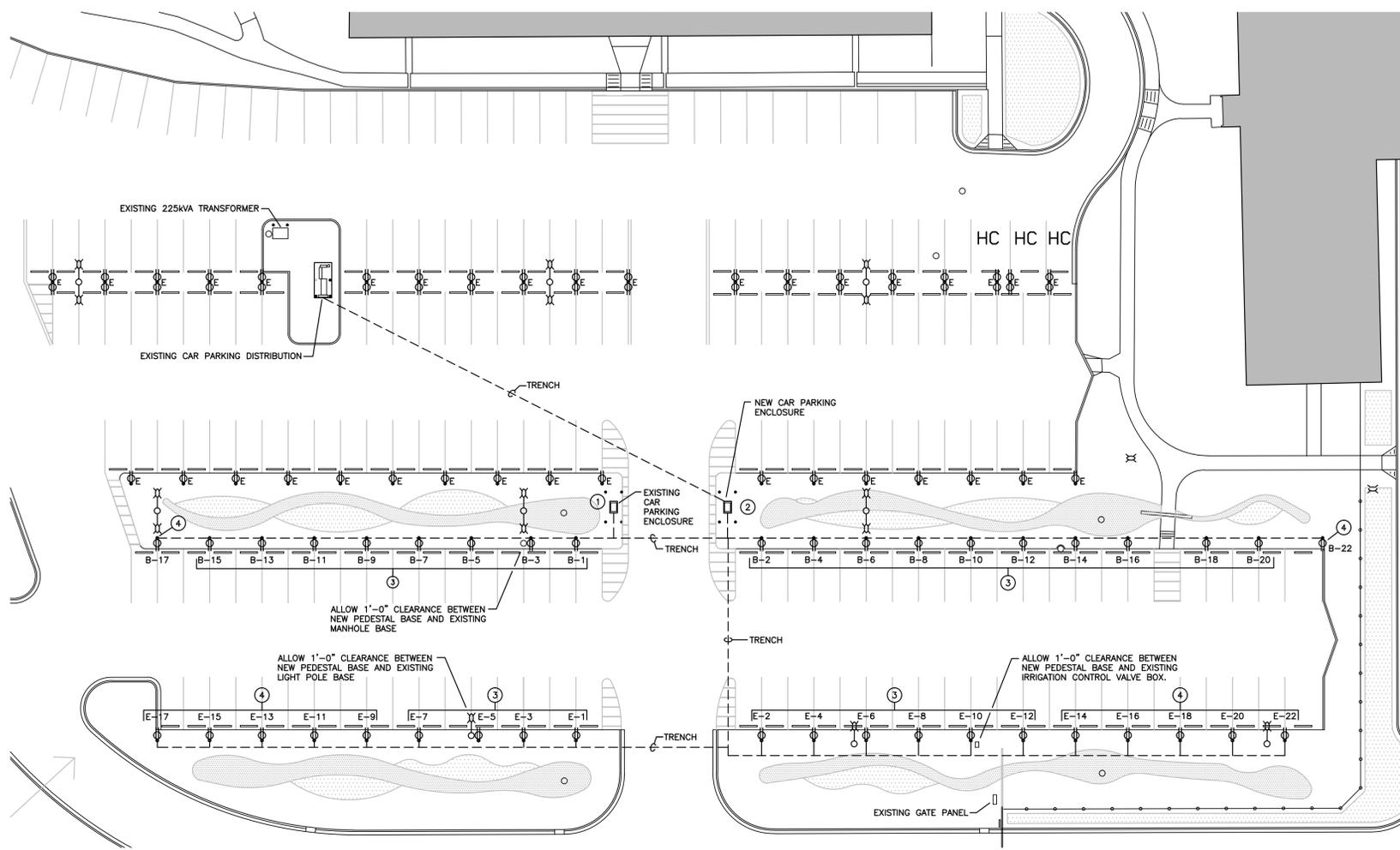
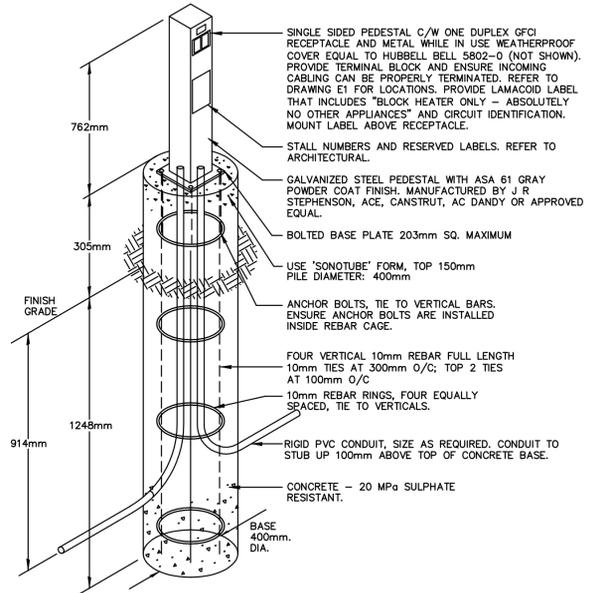


- SYMBOL SCHEDULE**
- ⊕ PARKING PEDESTAL C/W WITH DUPLEX GFCI RECEPTACLE. CONCRETE BASE SHALL BE LOCATED SUCH THAT CENTER OF CONCRETE PILE IS 44" FROM FRONT EDGE OF CURB. REFER TO PARKING PEDESTAL AND BASE DETAIL FOR FURTHER REQUIREMENTS.
 - ⊕ EXISTING CAR PARKING PEDESTAL TO REMAIN.
 - ⊕ EXISTING DOUBLE SIDED CAR PARKING PEDESTAL TO REMAIN.
 - ⊕ EXISTING POLE MOUNTED SITE LIGHT TO REMAIN.
 - - - PROPOSED TRENCH LINE. REFER TO TRENCH DETAIL FOR TRENCHING REQUIREMENTS. SEE ARCHITECTURAL FOR PATCHING AND REPAIR.

THESE DRAWINGS DEPICT UNDERGROUND CABLE INSTALLATION BY MEANS OF TRENCHING. REFER TO FRONT END DOCUMENTS FOR REQUIREMENT TO PROVIDE SEPARATE PRICE OPTION FOR INSTALLATION OF UNDERGROUND CABLES BY MEANS OF BOTH TRENCHING OR THE USE OF DIRECTIONAL BORING.

- GENERAL NOTES**
1. CONTRACTOR RESPONSIBLE TO IDENTIFY EXISTING UNDERGROUND CABLES AND UTILITIES THAT MAY CONFLICT INSTALLATION. FOR APPROXIMATE LOCATIONS OF UNDERGROUND SERVICES REFER TO OWNER SUPPLIED DRAWINGS: 8-4, 10-4, 14-4, AND 15-4 (PROJECT NO. R.069578.001).
 2. CABLE SIZES INDICATED ON DRAWINGS ARE MINIMUM SIZES. CONTRACTOR TO CONFIRM ACTUAL CABLE LENGTHS ON SITE AND CONFIRM VOLTAGE DROP WITH CONSULTANT.

- KEYNOTES**
- ① EXISTING ENCLOSURE FOR PANEL C, PANEL D, AND PARKING LOT CONTROLLER.
 - ② NEW PAD MOUNTED WEATHERPROOF ENCLOSURE FOR NEW PANEL B, NEW PANEL E, AND NEW CAR PARKING CONTROLLER. REFER TO PAD MOUNTED ENCLOSURE DETAIL.
 - ③ PROVIDE #8AWG 2C TECK90 + #10AWG INTEGRAL BOND TO EACH PEDESTAL 915mm BELOW GRADE. CIRCUIT NUMBERS AS SHOWN.
 - ④ PROVIDE #8AWG 2C TECK90 + #8AWG INTEGRAL BOND TO EACH PEDESTAL 915mm BELOW GRADE. CIRCUIT NUMBERS AS SHOWN.



ASSOCIATION OF PROFESSIONAL ENGINEERS OF SASKATCHEWAN
 CERTIFICATE OF AUTHORIZATION
 RITENBURG & ASSOCIATES LTD.
 NUMBER 52
 PERMISSION TO CONSULT HELD BY:
 DISCIPLINE SASK. REG. NO. SIGNATURE
 ELECTRICAL 9273

number TEN architectural group
 Winnipeg Office 204.942.0981
 Victoria Office 250.360.2106
 architecture • interior design • planning

GOVERNMENT OF CANADA
 DRILL HALL PARKING LOT
 ELECTRICAL UPGRADES

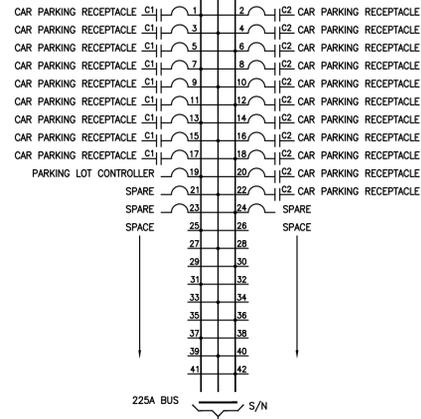
project ELECTRICAL SITE PLAN

sheet title
 consultant **Ritenburg & Associates Ltd.**
 Consulting Electrical Engineers
 2035-2222 46th Street, Regina, SK S4P 0Y2
 P: (306) 966-1033 F: (306) 966-0077
 Email: info@ritenburg.com



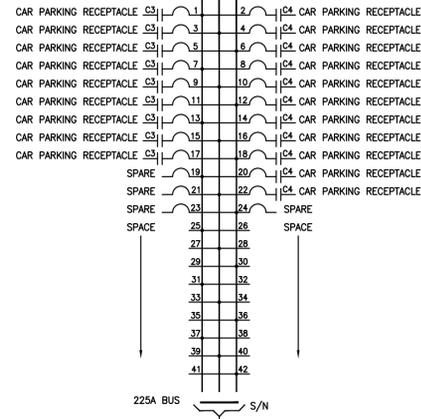
scale: as shown
 date: NOVEMBER 16, 2017
 drawn by: KMS
 checked by: KAD
 project no.: 2017071
 sheet no.: **E1**

(NEW)
PANEL B
(120/208 V.-3Ø-4W)



#400MCM 4C TECK90 +
#3AWG INTEGRAL BOND
TO MAIN DISTRIBUTION

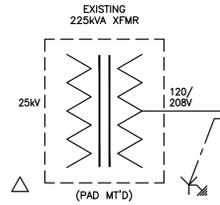
(NEW)
PANEL E
(120/208 V.-3Ø-4W)



#400MCM 4C TECK90 +
#3AWG INTEGRAL BOND
TO MAIN DISTRIBUTION

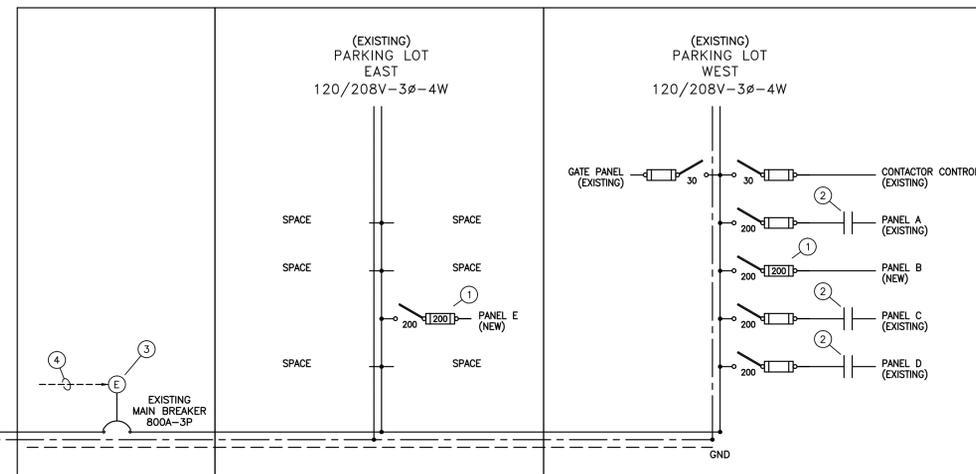
SINGLE LINE KEYNOTES:

- REUSE EXISTING SPARE FUSED DISCONNECT TO FEED NEW PANEL AS SHOWN. PROVIDE NEW 200A FUSE FOR SWITCH.
- EXISTING CAR PARKING CONTROL CONTACTOR SHALL BE REPLACED WITH NEW 200A/208V 3 POLE CONTACTOR BY EATON, SCHNEIDER ELECTRIC, SIEMENS, OR GENERAL ELECTRIC. COIL VOLTAGE SHALL MATCH EXISTING. CONTRACTOR SHALL RE-TERMINATE EXISTING WIRING.
- PROVIDE A NEW MOTOR OPERATOR TO THE EXISTING MAIN BREAKER TO ALLOW THE BREAKER TO BE OPENED CLOSED OR RESET REMOTELY. THE MOTOR OPERATOR SHALL BE OF THE SAME MANUFACTURER AS THE EXISTING BREAKER AND BE COMPATIBLE TO THE STYLE OF BREAKER INSTALLED.
- EXISTING POWER SUPPLY TO THE MOTOR OPERATOR SHALL BE RECONNECTED. TEST TO CONFIRM VOLTAGE AND CONTINUITY OF THE CIRCUIT FROM THE DRILL HALL DIGITAL METERING SYSTEM PRIOR TO RECONNECTING.



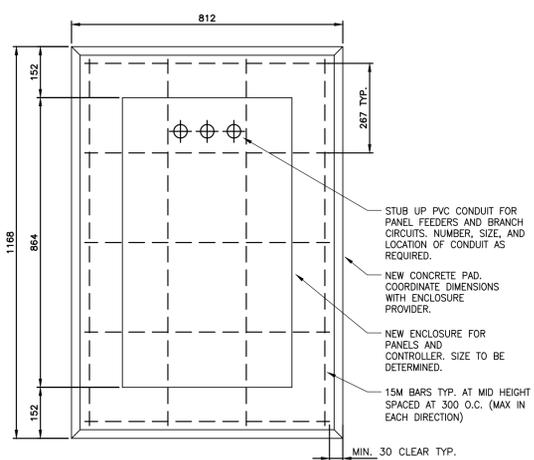
1 PARTIAL PARKING LOT SINGLE LINE
SCALE: N.T.S.

(EXISTING)
PARKING LOT MAIN DISTRIBUTION
120/208V-3Ø-4W

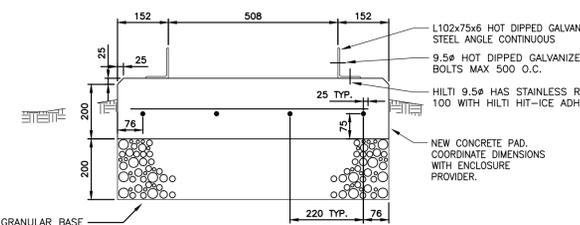


THIS DRAWING MUST NOT BE SCALED.
THE GENERAL CONTRACTOR SHALL VERIFY ALL DIMENSIONS, DATUMS, AND LEVELS PRIOR TO COMMENCEMENT OF WORK. ALL ERRORS AND OMISSIONS TO BE REPORTED TO NUMBER TEN ARCHITECTURAL GROUP BEFORE PROCEEDING.
VARIATIONS AND MODIFICATIONS TO WORK SHOWN ON THESE DRAWINGS SHALL NOT BE CARRIED OUT WITHOUT WRITTEN PERMISSION OF NUMBER TEN ARCHITECTURAL GROUP.
THIS DRAWING IS THE EXCLUSIVE PROPERTY OF NUMBER TEN ARCHITECTURAL GROUP AND THE COPYRIGHT IN THE SAME BEING RESERVED TO THEM. IT MAY BE REPRODUCED ONLY WITH THE PERMISSION OF NUMBER TEN ARCHITECTURAL GROUP, IN WHICH CASE THE REPRODUCTION MUST BEAR THEIR NAME.

REVISED / ISSUED / PLOTTED	DATE
ISSUED FOR CONSTRUCTION	NOV.16/17
ISSUED FOR 80% REVIEW	OCT.26/17



STUB UP PVC CONDUIT FOR PANEL FEEDERS AND BRANCH CIRCUITS. NUMBER, SIZE, AND LOCATION OF CONDUIT AS REQUIRED.
NEW CONCRETE PAD. COORDINATE DIMENSIONS WITH ENCLOSURE PROVIDER.
NEW ENCLOSURE FOR PANELS AND CONTROLLER. SIZE TO BE DETERMINED.
15M BARS TYP. AT MID HEIGHT SPACED AT 300 O.C. (MAX IN EACH DIRECTION)
MIN. 30 CLEAR TYP.



L102x75x6 HOT DIPPED GALVANIZED STEEL ANGLE CONTINUOUS
9.5Ø HOT DIPPED GALVANIZED STEEL BOLTS MAX 500 O.C.
HILTI 9.5Ø HAS STAINLESS ROD EMBED 100 WITH HILTI HIT-ICE ADHESIVE.
NEW CONCRETE PAD. COORDINATE DIMENSIONS WITH ENCLOSURE PROVIDER.

GENERAL NOTES:
CONCRETE: ALL CONCRETE TO BE DESIGNED AND MIXED IN ACCORDANCE WITH CSA A23.1-14 TO MEET THE FOLLOWING:

LOCATIONS	MPa	EXPOSURE CLASS
EXTERIOR SLABS	32	C-2

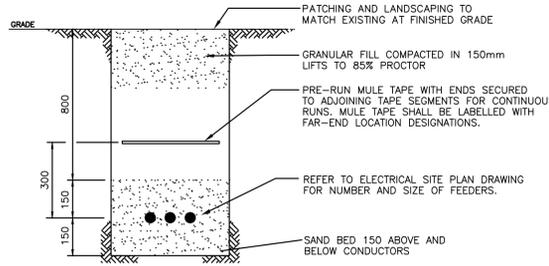
ALL CONCRETE TO BE NORMAL DENSITY 2400kg/m³
MOIST CURE CONCRETE FOR THREE DAYS.
REINFORCING STEEL:
ALL REINFORCING STEEL, UNLESS NOTED OTHERWISE, SHALL BE DEFORMED BARS OF HIGH STRENGTH, NEW BILLET STEEL CONFORMING TO THE CURRENT CSA G30.18 GRADE 400R.
GRANULAR BASE:
TYPE 33 CRUSHED BASE, COMPACTED TO 95% STANDARD PROCTOR DENSITY AT OPTIMUM MOISTURE CONTENT.

3 PAD MOUNTED ENCLOSURE DETAIL
SCALE: N.T.S.

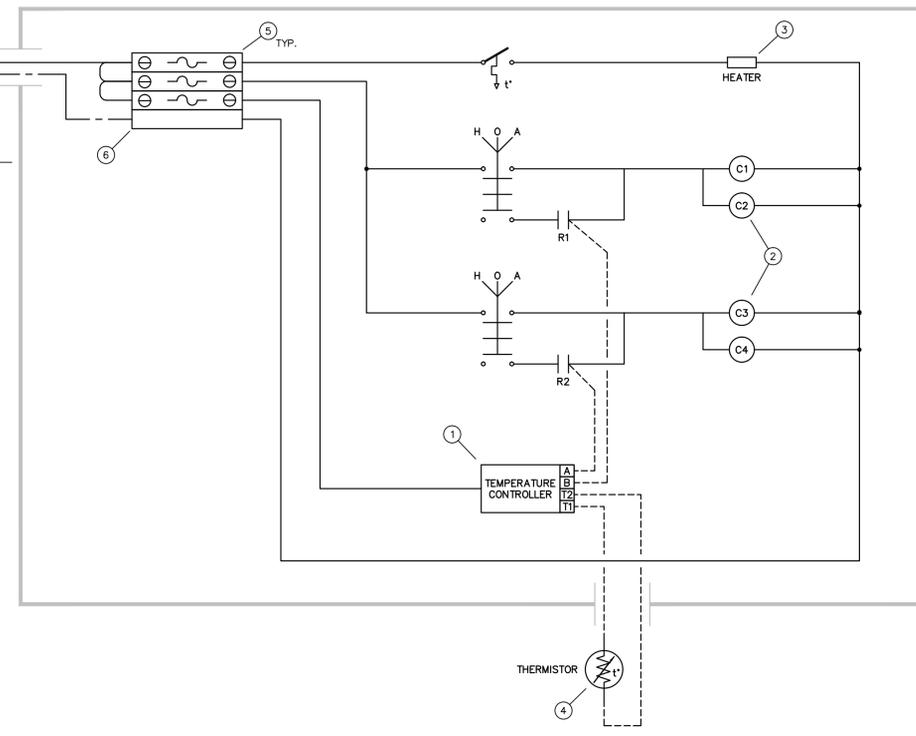
GENERAL NOTES:

- DIRECT BURIED CONDUCTORS OR CABLES SHALL BE INSTALLED SO THAT THEY RUN ADJACENT TO EACH OTHER AND DO NOT CROSS OVER EACH OTHER.

THESE DRAWINGS DEPICT UNDERGROUND CABLE INSTALLATION BY MEANS OF TRENCHING. REFER TO FRONT END DOCUMENTS FOR REQUIREMENT TO PROVIDE SEPARATE PRICE OPTION FOR INSTALLATION OF UNDERGROUND CABLES BY MEANS OF BOTH TRENCHING OR THE USE OF DIRECTIONAL BORING.



4 TRENCH DETAIL
SCALE: N.T.S.



2 PARKING LOT CONTROL SCHEMATIC
SCALE: N.T.S.

CONTROL SCHEMATIC KEYNOTES:

- NEW PARKING LOT TEMPERATURE CONTROLLER. PROVIDE POWER SUPPLY AS REQUIRED. CONTROLLER SHALL MEASURE OUTDOOR TEMPERATURE WITH EXTERNALLY MOUNTED THERMISTOR AND PROVIDE CONTROL LOGIC AS FOLLOWS:
A. IF TEMPERATURE IS -5°C OR GREATER BOTH OUTPUT A AND OUTPUT B ARE NOT ACTIVE.
B. IF TEMPERATURE IS LESS THAN -5°C AND GREATER THAN -25°C CONTROLLER SHALL ALTERNATE BETWEEN OUTPUT A AND OUTPUT B FOR A VARIABLE AMOUNT OF TIME UP TO 30 MINUTES.
C. IF TEMPERATURE IS -25°C OR LOWER BOTH OUTPUTS A AND B SHALL BE CONTINUOUSLY ACTIVE.
- PROVIDE (4) 12P-20A 120V CONTACTORS BY EATON, SCHNEIDER ELECTRIC, SIEMENS, OR GENERAL ELECTRIC. COIL VOLTAGE TO MATCH TEMPERATURE CONTROLLER OUTPUT. REFER TO PANEL SCHEMATICS FOR CONTACTOR LOADS.
- THERMOSTAT CONTROLLED ENCLOSURE HEATER. MOUNT HEATER AWAY FROM THERMISTOR.
- THERMISTOR MOUNTED ON EXTERIOR OF ENCLOSURE AWAY FROM ENCLOSURE HEATER.
- FUSED FEED THROUGH TERMINAL FUSE SHALL BE EATON BUSSMAN ABC FAST ACTING CERAMIC TUBE OR APPROVED EQUAL. PROVIDE FUSE SIZE AS REQUIRED.
- PROVIDE FEED THROUGH TERMINALS AS REQUIRED.
- NEW CAR PARKING CONTROL ENCLOSURE. REFER TO SITE PLAN FOR LOCATION.

CONTROL SCHEMATIC GENERAL NOTES:

- PARKING LOT CONTROL SYSTEM SHALL QUALIFY FOR THE SASKPOWER PARKING LOT CONTROLLER PROGRAM. CONTRACTOR SHALL APPLY FOR THE PROGRAM INCLUDING COMPLETION OF THE VERIFICATION FORM AND SUBMISSION TO A PARTICIPATING DISTRIBUTOR.
PARKING LOT CONTROLLER SHALL BE:
AC DANDY CARTRIDGE TYPE 5
VALID MANUFACTURING D SERIES
EATON POW-R-COMMAND PLP-25
DOUGLAS LIGHTING CONTROL WTI-4944
OR EQUAL SYSTEM APPROVED BY SASKPOWER PARKING LOT CONTROLLER PROGRAM AND CONSULTANT.

ASSOCIATION OF PROFESSIONAL ENGINEERS OF SASKATCHEWAN
CERTIFICATE OF AUTHORIZATION
RITENBURG & ASSOCIATES LTD.
NUMBER 52
PERMISSION TO CONSULT HELD BY:
DISCIPLINE SASK. REG. NO. SIGNATURE
ELECTRICAL 9273

number TEN architectural group
Winnipeg Office 204 942.0981
Victoria Office 250 360.2106
architecture • interior design • planning

GOVERNMENT OF CANADA
DRILL HALL PARKING LOT
ELECTRICAL UPGRADES

project
sheet title
PARTIAL SINGLE LINE
PANEL SCHEMATICS
ELECTRICAL DETAILS

consultant
Ritenburg & Associates Ltd.
Consulting Electrical Engineers
2025/222 2nd Street, Regina, SK S4P 2Y2
P: (306) 966-0333
E: mail_ra@ritenburg.com



scale: as shown
date: NOVEMBER 16, 2017
checked by: KAD
project no. 2017071
sheet no. E2