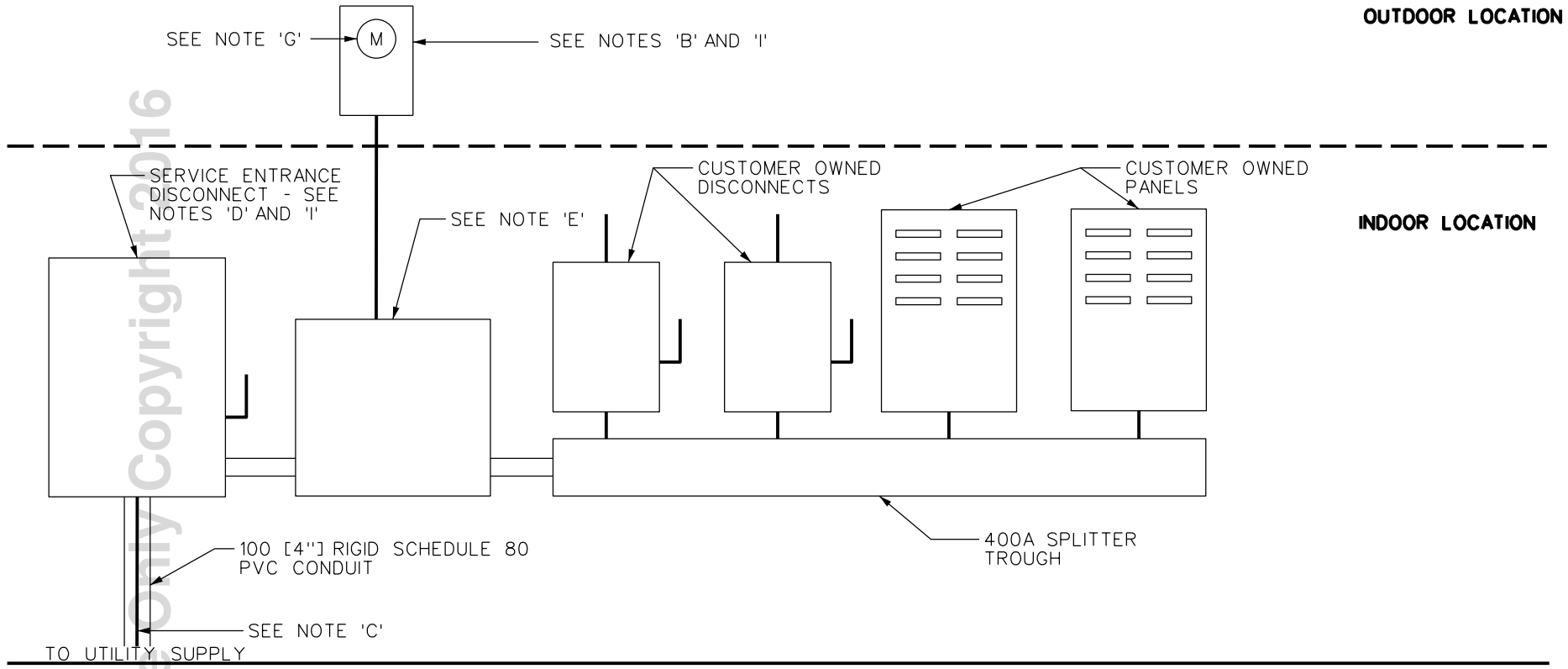
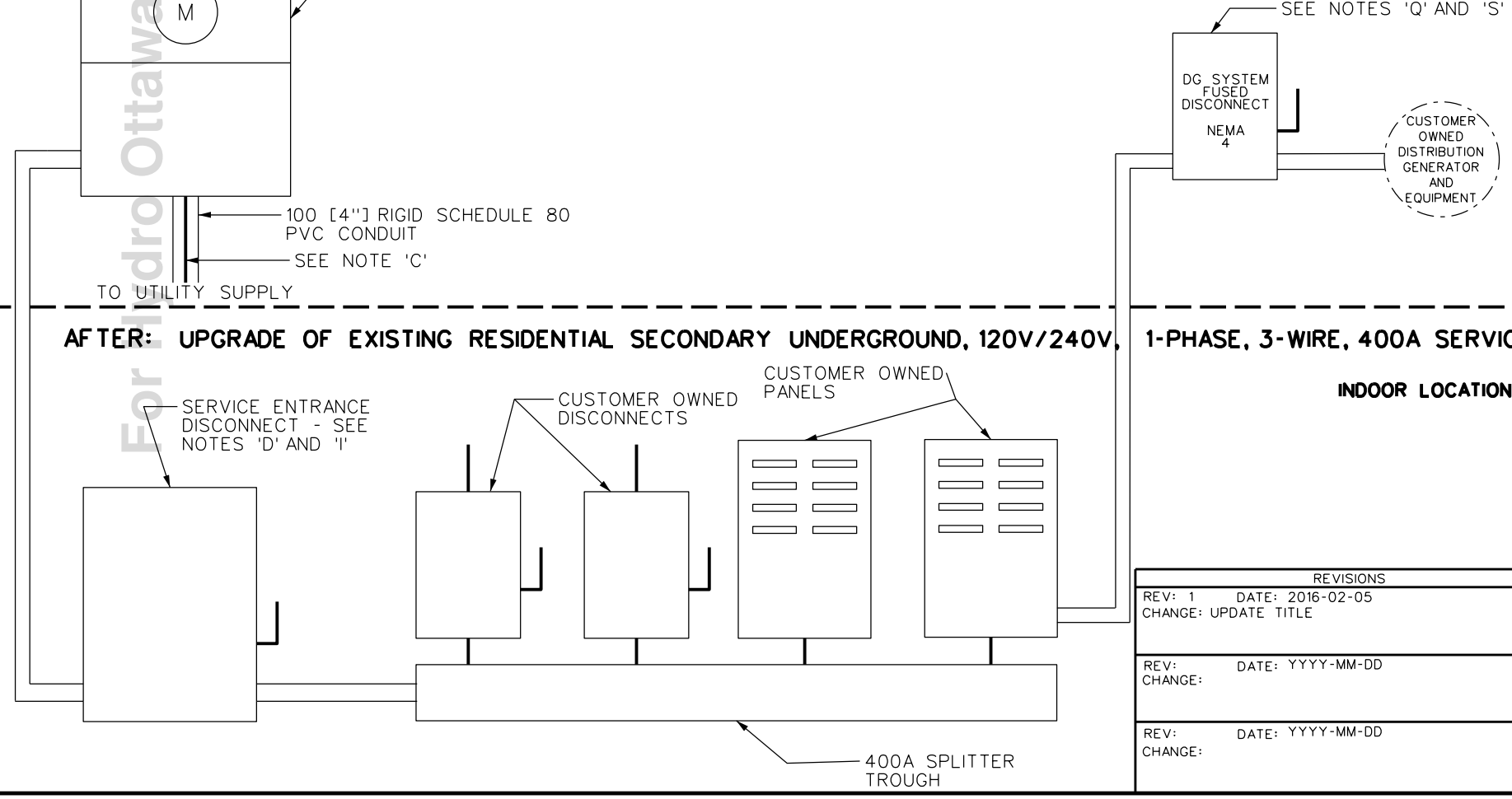
BEFORE: EXISTING RESIDENTIAL SECONDARY UNDERGROUND, 120V/240V, 1-PHASE, 3-WIRE, 400A SERVICE



AFTER: UPGRADE OF EXISTING RESIDENTIAL SECONDARY UNDERGROUND, 120V/240V, 1-PHASE, 3-WIRE, 400A SERVICE



NOTES:

A. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS NOTED OTHERWISE.
B. TRANSFORMER RATED METER SOCKET BASE.
C. INCOMING 120V/240V, 1-PHASE, 400A SERVICE CONDUCTOR FROM UNDERGROUND DISTRIBUTION SYSTEM SUPPLY POINT.
D. SERVICE ENTRANCE DISCONNECT, 1-PHASE, 400A, 3-WIRE, 120V/240V.
E. EXISTING INSTRUMENTATION TRANSFORMER CABINET.
F. NEW UNDERGROUND RATED, 1-PHASE, 400A, 120V/240V, COMBINATION SOCKET BASE METERING ENCLOSURE.
G. SMART METER 1-PHASE, 2-WIRE, 240V, 20A TRANSFORMER RATED.
H. REFER TO HYDRO OTTAWA REVENUE METERING SPECIFICATION GCS0008 FOR SPECIFIC REQUIREMENTS FOR INSTALLATION, METER SOCKET ENCLOSURE, AND CONDUIT.
I. MINIMUM OF 1000 [3' 4"] OF CLEARANCE REQUIRED IN FRONT OF ALL ELECTRICAL AND REVENUE METERING EQUIPMENT IF INSTALLED AT OUTDOOR LOCATION; MINIMUM OF 1500 [5'] IN FRONT OF CLEARANCE REQUIRED IF INSTALLED AT INDOOR LOCATION.
J. THE PROPOSED INSTALLATION SHALL COMPLY WITH THE ONTARIO ELECTRICAL SAFETY CODE (OESC) AND IS SUBJECT TO ELECTRICAL SAFETY AUTHORITY (ESA) INSPECTION AND APPROVAL.
K. METER SOCKET BASE AND DG SYSTEM FUSED DISCONNECT SWITCH SHALL BE INSTALLED IN AN ACCESSIBLE EXTERIOR LOCATION ONLY AND APPROVED BY HYDRO OTTAWA.
L. THE VISIBLE DG SYSTEM FUSED DISCONNECT SWITCH INSTALLED AT A MAXIMUM HORIZONTAL DISTANCE OF 1800 [6'] FROM METER SOCKET BASE.
M. DG SYSTEM FUSED DISCONNECT SWITCH SHALL BE SUITABLE FOR SERVICE ENTRANCE EQUIPMENT AND SHALL PROVIDE VISIBLE ISOLATION: MOLDED CASE BAKERS ARE NOT ACCEPTABLE.
N. CUSTOMER/CONTRACTOR RESPONSIBLE TO ATTACH A LAMACOID PLATED SINGLE-LINE DIAGRAM (SLD) AT THE DG SYSTEM FUSED DISCONNECT SWITCH. THE SLD MUST BE PLAINLY AND PERMANENTLY MARKED, SHOWING THE SWITCHING ARRANGEMENTS, THE LOCATION OF THE DISCONNECT AND THE TYPE AND NAMEPLATE RATING OF THE DISTRIBUTED GENERATOR. CUSTOMER/CONTRACTOR RESPONSIBLE TO ATTACH WARNING LABELS INDICATING 'WARNING POWER FED FROM MORE THAN ONE SOURCE' MUST BE POSTED AT THE METER SOCKET BASE, CUSTOMER OWNED SERVICE PANEL AND DG SYSTEM FUSED DISCONNECT SWITCH.
O. A PERMANENT LABEL INDICATING THE CURRENT AND VOLTAGE RATING OF THE INVERTER SHALL BE ATTACHED TO THE DG SYSTEM FUSED DISCONNECT.
P. THE DG SYSTEM FUSED DISCONNECTION SWITCH SHALL BE EQUIPPED WITH, AT A MINIMUM:
   i. COVER/DOOR INTERLOCKING MECHANISM PREVENTING OPENING OF THE COVER WHILE THE DISCONNECT SWITCH IS IN THE 'ON' POSITION.
   ii. PROVISION FOR DISCONNECT SWITCH HANDLE TO BE LOCKED IN THE 'OFF' POSITION WITH STANDARD HYDRO OTTAWA PADLOCK.
   iii. PAD-LOCKING PROVISIONS FOR DISCONNECTION SWITCH COVER TO ALLOW FOR INSTALLATION OF TAMPER PREVENTION SEAL.
Q. THE DG SYSTEM FUSED DISCONNECTION SWITCH SHALL BE INSTALLED WITHIN THE FOLLOWING HEIGHTS ABOVE FINISHED GRADE:
   i. MINIMUM- 1200 [4']
   ii. MAXIMUM- 1800 [6']
R. BI-DIRECTIONAL SMART METER 1-PHASE, 2-WIRE, 240V, 20A TRANSFORMER RATED.
S. DG SYSTEM FUSED DISCONNECT SWITCH TO BE LOCATED OUTSIDE AND INSTALLED AT MAXIMUM DISTANCE OF 1800 [6'] FROM THE UNDERGROUND RATED, 1-PHASE, 400A, 120V/240V COMBINATION SOCKET BASE METERING ENCLOSURE. ENCLOSURE OF OUTDOOR MOUNTED DISCONNECTS SHALL BE MINIMUM NEMA-4/NEMA-4X RATED.

DEFINITIONS:

"DG SYSTEM FUSED DISCONNECT" MEANS AN ELECTRICAL SAFETY AUTHORITY (ESA) APPROVED DEVICE WITH FACTORY INSTALLED OVER-CURRENT PROTECTION RATED AT EITHER 100% FULL-LOAD AMPS (FLA) OR 80% OF THE AVAILABLE FAULT AMPS OF THE CUSTOMER'S GENERATION OR ENERGY STORAGE EQUIPMENT, WHICHEVER IS GREATER; MOULDED CASE BREAKERS ARE NOT ACCEPTABLE. IT SHALL PROVIDE AN OBVIOUS VISIBLE OPEN POINT. THIS DEVICE IS USED TO ISOLATE THE CUSTOMER'S DISTRIBUTED GENERATION (DG) EQUIPMENT, OR ENERGY RESOURCE FACILITY (ERF) EQUIPMENT, FROM THE UTILITY DISTRIBUTION SYSTEM.

REVISIONS	PREP	CHKD	APPD
REV: 1 DATE: 2016-02-05 CHANGE: UPDATE TITLE	JD	SMC	CSM
REV: DATE: YYYY-MM-DD CHANGE:			
REV: DATE: YYYY-MM-DD CHANGE:			

Hydro Ottawa
WWW.HYDROOTTAWA.COM

PREP:	S. KUMARASAMY
CHKD:	S. McNALLY (E.I.T.)
APPD:	C. MALONE P.Eng.
DATE:	2014-09-03
SCALE:	N.T.S. @ ANSI B

TITLE
ENGINEERING SPECIFICATION
ERF/RES 120V/240V, 1PH, 3W, 400A TRANSFORMER RATED SERVICE UPGRADE TO COMBINATION METER SOCKET BASE WITH LOAD DISPL. (NET-METERING)
CONSTRUCTION DETAIL

NO: MCS0088

1 OF 1

REV: 1

$DATE$ $TIME$ $FILE$