

TO BE NOTED:
44KV SUPPLY PREFERRED LINE IS 205-M25 SET AUTOMATICALLY VIA TRANSFER RELAY SYSTEM IN CELL #11

*CT'S PART OF OB (OCB) BUSHING

NOTE

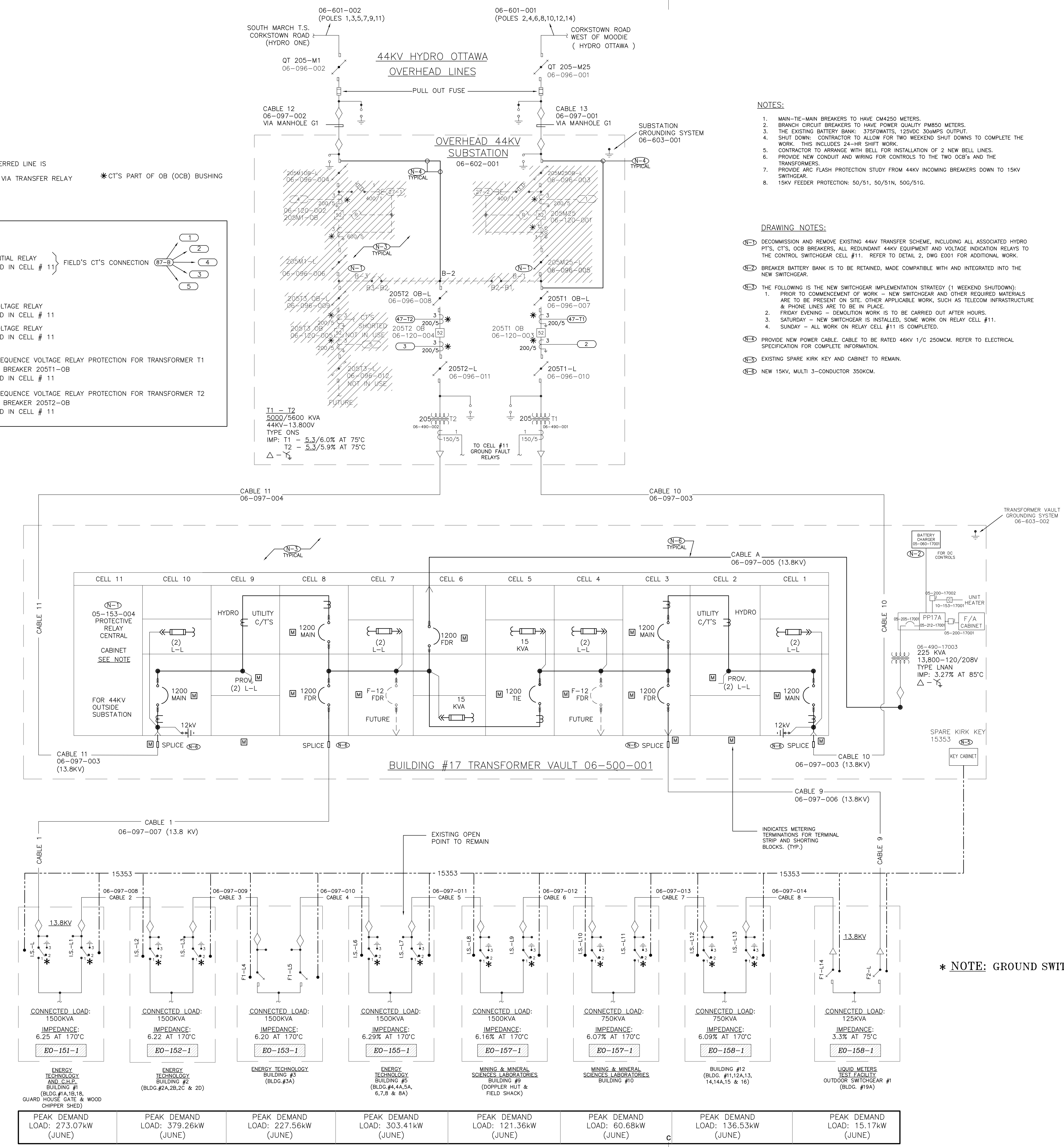
(87-B) DIFFERENTIAL RELAY INSTALLED IN CELL # 11 } FIELD'S CT'S CONNECTION

(27-1) UNDERVOLTAGE RELAY INSTALLED IN CELL # 11

(27-2) UNDERVOLTAGE RELAY INSTALLED IN CELL # 11

(47-T1) PHASE SEQUENCE VOLTAGE RELAY PROTECTION FOR TRANSFORMER T1 OPERATE BREAKER 205T1-OB INSTALLED IN CELL # 11

(47-T2) PHASE SEQUENCE VOLTAGE RELAY PROTECTION FOR TRANSFORMER T2 OPERATE BREAKER 205T2-OB INSTALLED IN CELL # 11



- NOTES:**
- MAIN-TIE-MAN BREAKERS TO HAVE CM4250 METERS.
 - BRANCH CIRCUIT BREAKERS TO HAVE POWER QUALITY PM850 METERS.
 - THE EXISTING BATTERY BANK: 375FOWATTS, 125VDC 300MPS OUTPUT.
 - SHUT DOWN: CONTRACTOR TO ALLOW FOR TWO WEEKEND SHUT DOWNS TO COMPLETE THE WORK. THIS INCLUDES 24-HR SHIFT WORK.
 - CONTRACTOR TO ARRANGE WITH BELL FOR INSTALLATION OF 2 NEW BELL LINES.
 - PROVIDE NEW CONDUIT AND WIRING FOR CONTROLS TO THE TWO OCB'S AND THE TRANSFORMERS.
 - PROVIDE ARC FLASH PROTECTION STUDY FROM 44KV INCOMING BREAKERS DOWN TO 15KV SWITCHGEAR.
 - 15KV FEEDER PROTECTION: 50/51, 50/51N, 50G/51G.

- DRAWING NOTES:**
- (N-1) DECOMMISSION AND REMOVE EXISTING 44KV TRANSFER SCHEME, INCLUDING ALL ASSOCIATED HYDRO PT'S, CT'S, OCB BREAKERS, ALL REDUNDANT 44KV EQUIPMENT AND VOLTAGE INDICATION RELAYS TO THE CONTROL SWITCHGEAR CELL #11. REFER TO DETAIL 2, DWG E001 FOR ADDITIONAL WORK.
 - (N-2) BREAKER BATTERY BANK IS TO BE RETAINED, MADE COMPATIBLE WITH AND INTEGRATED INTO THE NEW SWITCHGEAR.
 - (N-3) THE FOLLOWING IS THE NEW SWITCHGEAR IMPLEMENTATION STRATEGY (1 WEEKEND SHUTDOWN):
1. PRIOR TO COMMENCEMENT OF WORK - NEW SWITCHGEAR AND OTHER REQUIRED MATERIALS ARE TO BE PRESENT ON SITE. OTHER APPLICABLE WORK, SUCH AS TELECOM INFRASTRUCTURE & PHONE LINES ARE TO BE IN PLACE.
2. FRIDAY EVENING - DEMOLITION WORK IS TO BE CARRIED OUT AFTER HOURS.
3. SATURDAY - NEW SWITCHGEAR IS INSTALLED. SOME WORK ON RELAY CELL #11.
4. SUNDAY - ALL WORK ON RELAY CELL #11 IS COMPLETED.
 - (N-4) PROVIDE NEW POWER CABLE, CABLE TO BE RATED 46KV 1/C 250MCM. REFER TO ELECTRICAL SPECIFICATION FOR COMPLETE INFORMATION.
 - (N-5) EXISTING SPARE KIRK KEY AND CABINET TO REMAIN.
 - (N-6) NEW 15KV, MULTI 3-CONDUCTOR 350KCM.

* **NOTE:** GROUND SWITCHES ARE DISABLED

LEGEND	
	AMPERAGE METER
	AMPERAGE METER SWITCH
	CIRCUIT BREAKER
	CURRENT TRANSFORMER
	DIGITAL METER
	FIRE ALARM CABINET
	FUSED DRAW-OUT POTENTIAL TRANSFORMER
	FUSED SWITCH
	FUSE
	GROUND STUD
	HIGH VOLTAGE CIRCUIT BREAKER
	KIRK KEY INTERLOCK - FULL DOT = NORMAL LOCATION OF KEY
	LIGHTNING ARRESTOR
	LOAD BREAK SWITCH
	POTHEAD
	ELECTRICAL PANEL
	OVER CURRENT RELAY 50=INSTANTANEOUS 51=TIME DELAY N=NEUTRAL
	STRESS CONE
	BREAKER MODE POSITION 1. CLOSED 2. ISOLATED 3. GROUNDED
	TRANSFORMER 600-120/208V UNLESS OTHERWISE NOTED
	HIGH VOLTAGE TRANSFORMER
	VOLTAGE METER
	VOLTAGE METER SWITCH
	15KV VOLTAGE TRANSFORMER
	EQUIPMENT TO BE DEMOLISHED
	EQUIPMENT EXISTING TO REMAIN
	NEW EQUIPMENT TO BE PROVIDED
NOTE: ANY ADDITIONAL SYMBOLS TO BE BASED ON ANSI Y32.1-1975 AND SUBSEQUENT REVISIONS	
SCALE N.T.S.	

Public Works and Government Services Canada
Travaux publics et services gouvernementaux Canada
Real Property Branch
Direction générale des biens immobiliers

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Contractor to verify all dimensions & conditions on site and immediately notify the engineer of all discrepancies.

revisions	description	date
1	ISSUED FOR TENDER	2016-04-11

A

C

A detail no.
no. du détail

B location drawing no.
sur dessin no.

C drawing no.
dessin no.

A

B

C

project

SWITCHGEAR UPGRADE, BELLS CORNER COMPLEX

1 HAANEL RD, NEPEAN, ONTARIO

drawing

NEW SWITCHGEAR CONFIGURATION

dessin

Designed By	MM	Conçu par	
Date		(yyyy/mm/dd)	
Drawn By	MM	Dessiné par	
Date		(yyyy/mm/dd)	
Reviewed By	ML	Examiné par	
Date		(yyyy/mm/dd)	
Approved By	CORNEL SOCACI	Approuvé par	
Date		(yyyy/mm/dd)	
Tender		Soumission	
	CORNEL SOCACI		
Project Manager	Administrateur de projets		
Project no.	No. du projet		
	R.080064.002		
Drawing no.	No. du dessin		
	E201		