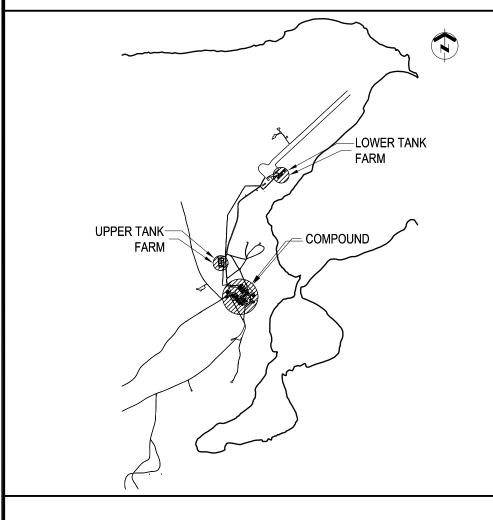


WING CONSTRUCTION ENGINEERING SQUADRON 8 WING, TRENTON, ONTARIO



KEY PLAN N.T.S.

GENERAL NOTES

— L55 x 55 x 6 (TYP.)

L90 x 90 x 6 (TYP.)

— M30 STEEL BOLT

NUTS & WASHERS (TYP.)

- PRODUCT PIPE SEE NOTE 1

U-BOLTS TO BE INSTALLED ON ALTERNATING PIPES ON EVERY THIRD SUPPORT SEE NOTE 4

STD. U-BOLT (SEE NOTE 4) C/W 4 HEX. NUTS 7/16"Ø FOR 2"Ø PIPE; 1/2"Ø FOR 3"Ø & 4"Ø PIPES AND 5/8"Ø FOR 6"Ø PIPE. (TYP.)

300 MIN. TYP. UPHILL SIDE (LEVEL AREA) OF GRAN. PAD FINISH GRADE

ALL AROUND) 4 (TYP.) NOTE 3

C150 x 12 (TYP.)

1. PIPE SIZES SHOWN IN NPS (INCHES). 2. DIMENSION SHOWN IN MILLIMETERS UNLESS OTHERWISE NOTED. 3. FIELD VERIFY ALL MEASUREMENTS.

4. PIPE SUPPORTS TYPE 6, 7 AND 8 ARE NEW PIPE SUPPORTS. 5. U-BOLTS TO BE INSTALLED (ON ALTERNATING PIPE IF APPLICABLE) ON EVERY THIRD SUPPORT TYPICAL FOR ALL.

6. ALL STEEL PIPE SUPPORT STEEL SHALL BE GALVANIZED.

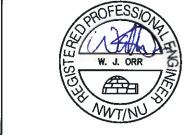
GALVANIZING TO CONFORM TO CSA-G164-M.

LEGEND

DO NOT SCALE DRAWINGS

	02	13/09/2013	RECORD DRAWING	WC
	01	17/02/2012	ISSUED FOR CONSTRUCTION	WC
	NO.	DATE	REVISION	APPI
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PERMIT TO PRACTICE Date 10 SEPT 2013 PERMIT NUMBER: P 800



SCALE-ÉCHELLE AS NOTED

NT/NU Association of Professional Engineers and Geoscientists

PROJECT-PROJET PF#: 68352

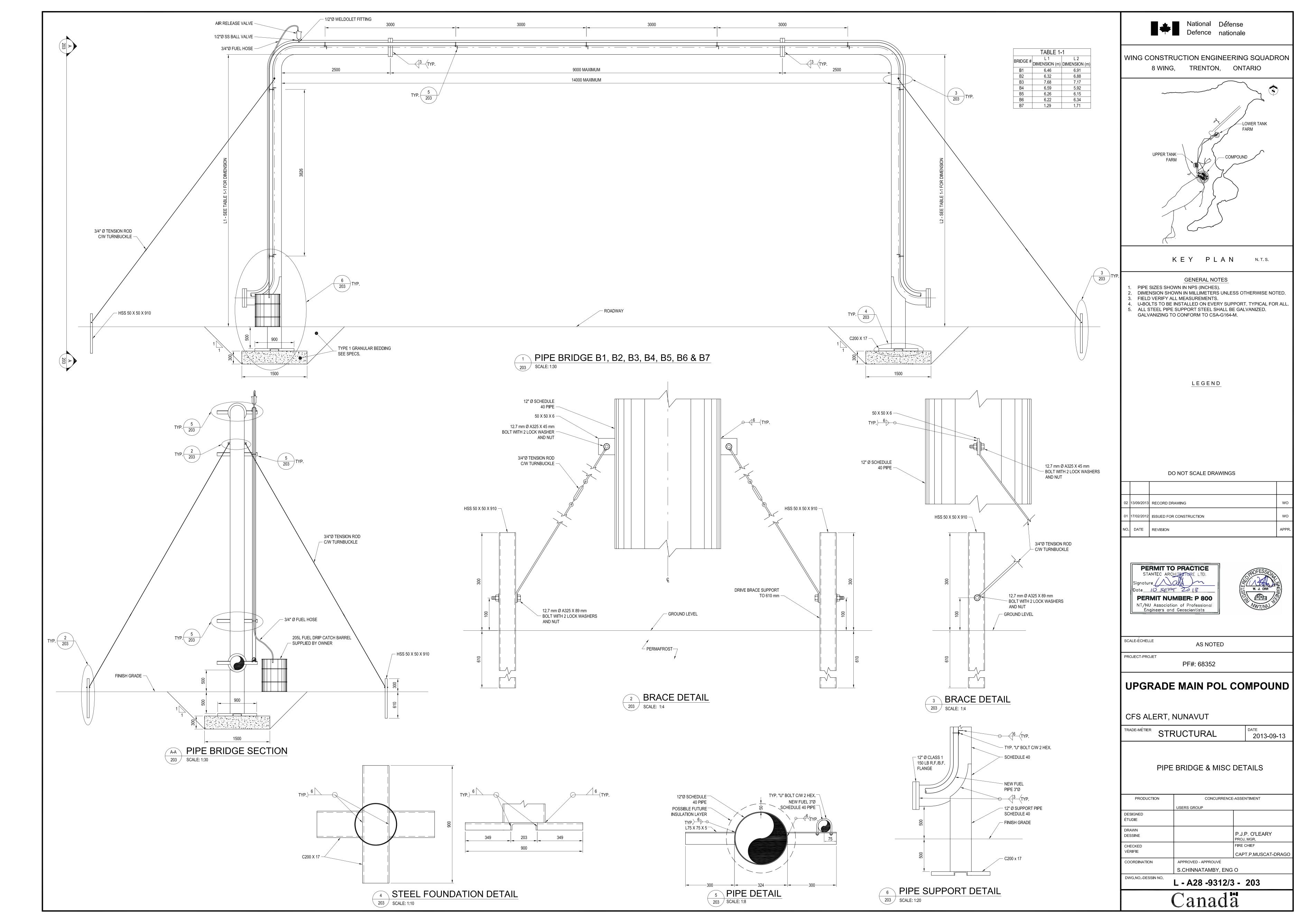
## UPGRADE MAIN POL COMPOUND

CFS ALERT, NUNAVUT

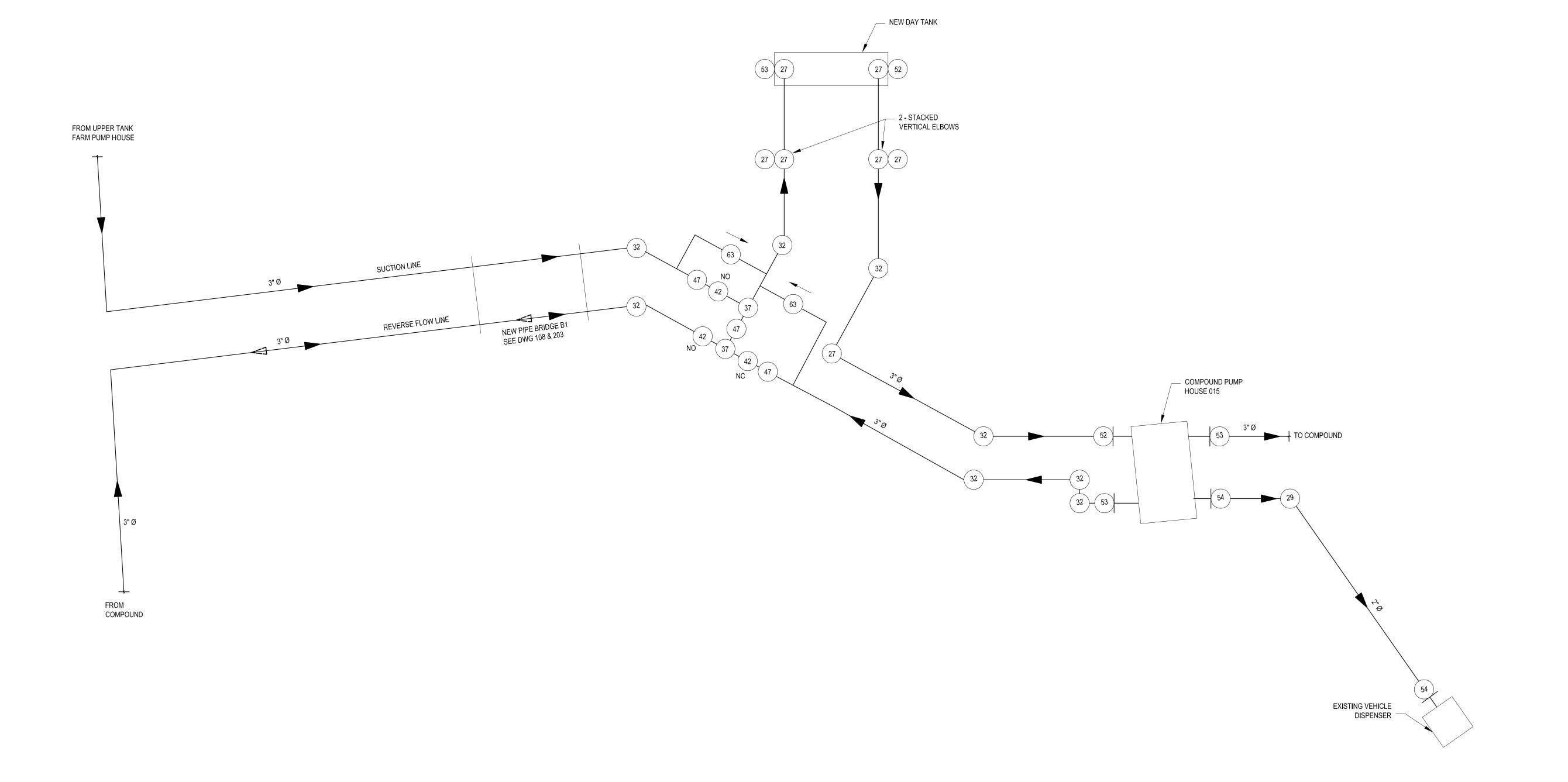
TRADE-MÉTIER CIVIL/STRUCTURAL 2013-09-13

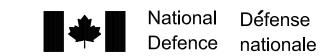
PIPE SUPPORT, BERM & MISC DETAILS

Canadä		
DWG.NODESSIN NO.	L - A28 -9312/3	3 - 202
COORDINATION	APPROVED - APPROUVÉ S.CHINNATAMBY, ENG	0
CHECKED VÉRIFIE		FIRE CHIEF  CAPT.P.MUSCAT-DRAG
DRAWN DESSINE		P.J.P. O'LEARY PROJ. MGR.
DESIGNED ÉTUDIE		
	USERS GROUP	
PRODUCTION	CONCURRENCE	-ASSENTIMENT

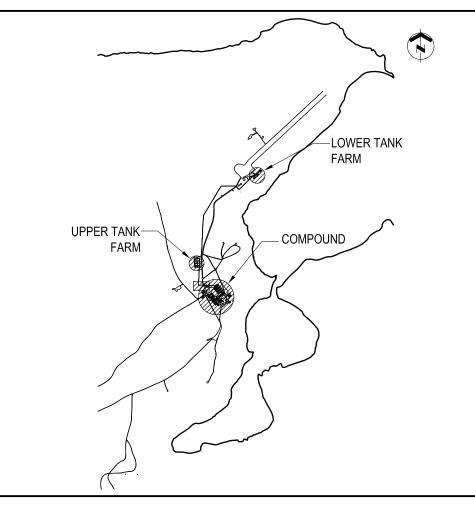


SCHEDULE	E OF MATERIALS - N	NEW DAY TANK
No.	Nom. Size	Description
27	3" Ø	ELBOW, 90 deg., SCH. 40
29	2" Ø	ELBOW, 90 deg., SCH. 40
32	3" Ø	ELBOW, 45 deg., B.W., SCH. 40
37	3" Ø	STRAIGHT TEE, SCH. 40
42	3" Ø	GATE VALVE, (SEE SPECS)
47	3" Ø	CHECK VALVE (SEE SPECS)
52	3" Ø	FLEXIBLE CONNECTOR, 610 LG
53	3" Ø	FLEXIBLE CONNECTOR, 406 LG
54	2" Ø	FLEXIBLE CONNECTOR, 309 LG
63	1" Ø	THERMAL PRESSURE RELIEF VALVE THREADED ENDS, PRESET AT 172 kPa (25 P.S.I.)





WING CONSTRUCTION ENGINEERING SQUADRON 8 WING, TRENTON, ONTARIO



KEY PLAN N.T.S.

#### GENERAL NOTES

- 1. ALL PIPE SIZES SHOWN IN NPS (INCHES). 2. PRESSURE RELIEF ASSEMBLIES NOT SHOWN FOR CLARITY. ALL GATE VALVES TO RELIEVE TO THE TANK.
- 4. ALL FUEL PIPING, FITTINGS AND ALL OTHER APPURTENANCES TO
- 5. FIELD VERIFY ALL MEASUREMENTS.
- 5. REFER TO DRAWING 501 FOR STATIC ELECTRICITY GROUNDING CONNECTION DETAILS. PROVIDE AND WELD ALL GROUND LUG PLATES TO PIPING ETC. AT ALL LOCATIONS AS REQUIRED.

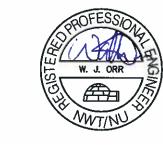
#### LEGEND

- NO: NORMALLY OPEN NC: NORMALLY CLOSED
- ▶ DIRECTION OF FLOW▶ PRESSURE RELIEF DIRECTION

#### DO NOT SCALE DRAWINGS

02	13/09/2013	RECORD DRAWING	WO
01	17/02/2012	ISSUED FOR CONSTRUCTION	WO
NO	. DATE	REVISION	APPR.

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STANTEC ARCHITECTORE LTD. PERMIT NUMBER: P 800 NT/NU Association of Professional Engineers and Geoscientists



SCALE-ÉCHELLE NTS

PROJECT-PROJET PF#: 68352

## UPGRADE MAIN POL COMPOUND

## CFS ALERT, NUNAVUT

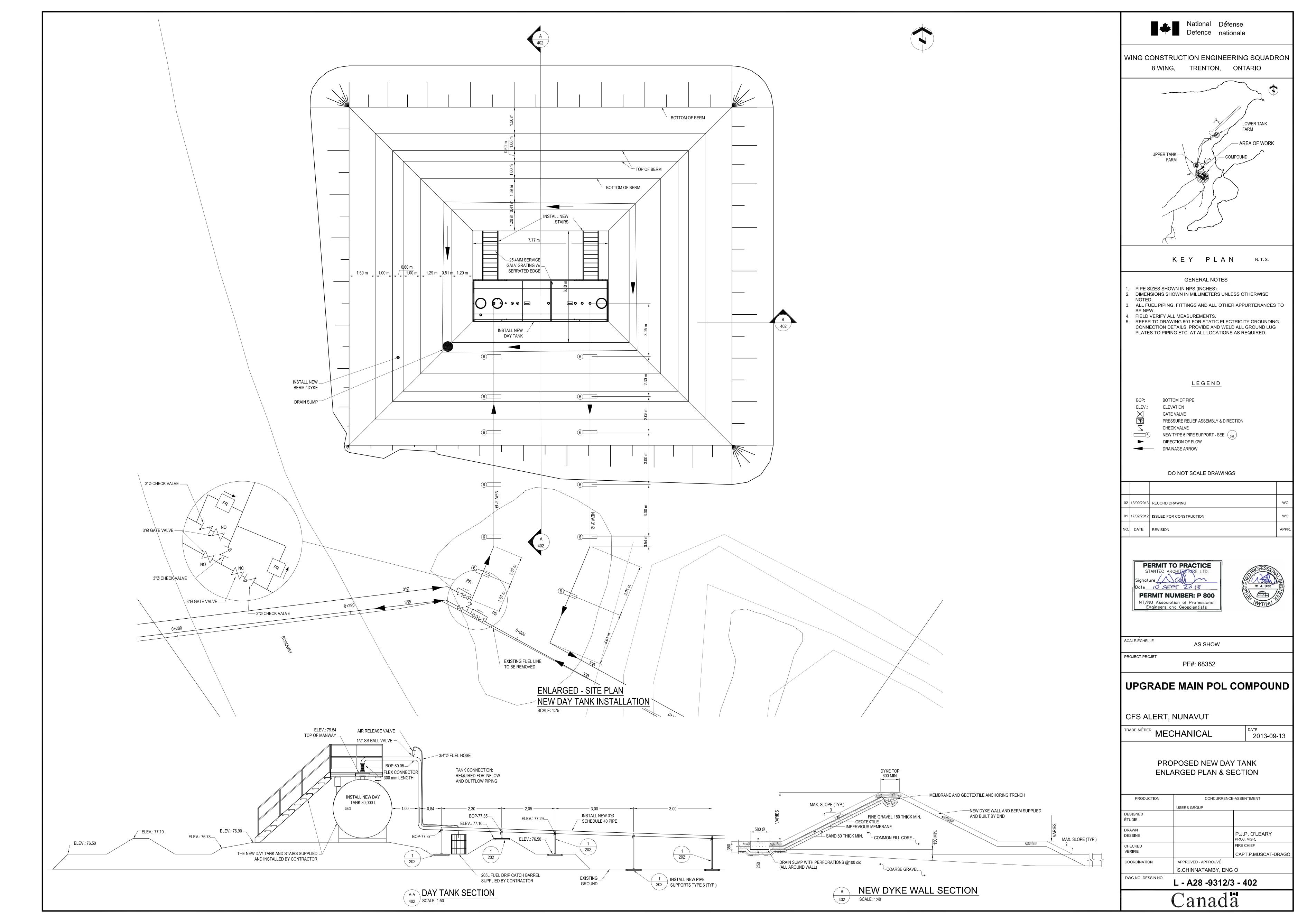
TRADE-MÉTIER MECHANICAL 2013-09-13

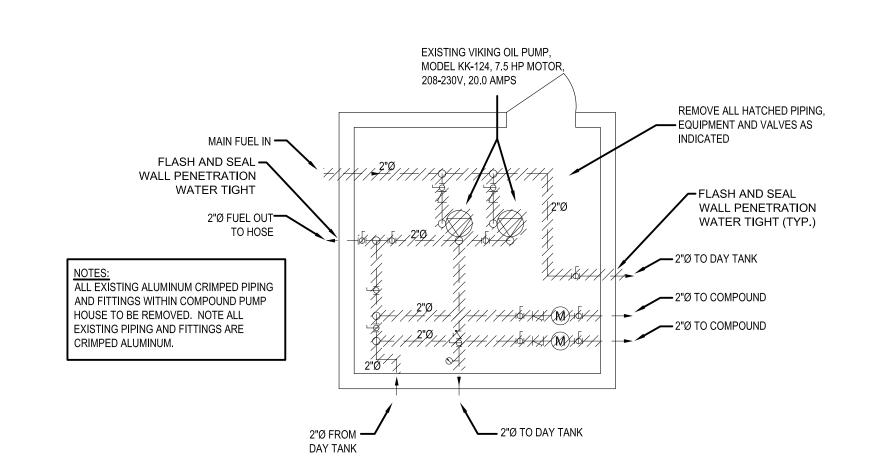
### SCHEMATIC DESIGN **NEW DAY TANK**

PRODUCTION	CONCURRENCE-ASSENTIMENT	
	USERS GROUP	
DESIGNED ÉTUDIE		
DRAWN DESSINE		P.J.P. O'LEARY PROJ. MGR.
CHECKED		FIRE CHIEF
VERIFIE		CAPT.P.MUSCAT-DRAC
COORDINATION	APPROVED - APPROUVÉ	
	S.CHINNATAMBY, ENG	0
DWG.NODESSIN NO.	L - A28 -9312/3	3 - 401

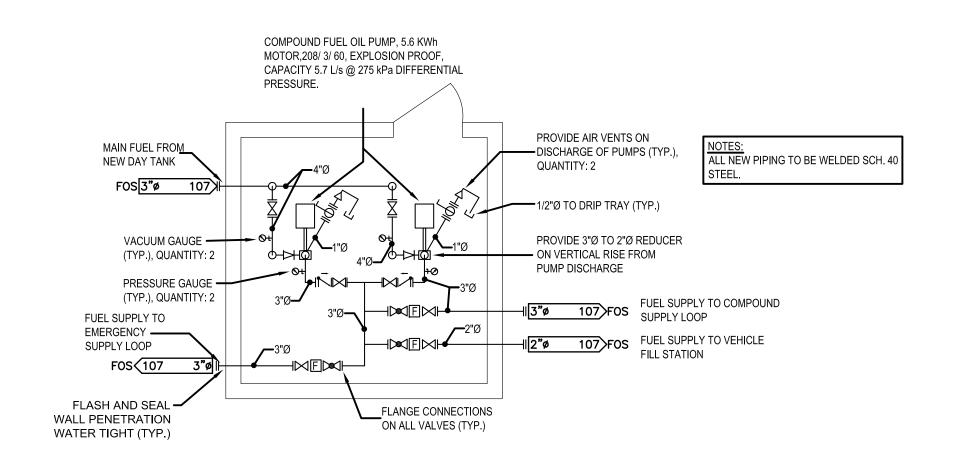
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PIPING SCHEMATIC FOR NEW DAY TANK & FUEL DISPENSING N.T.S.

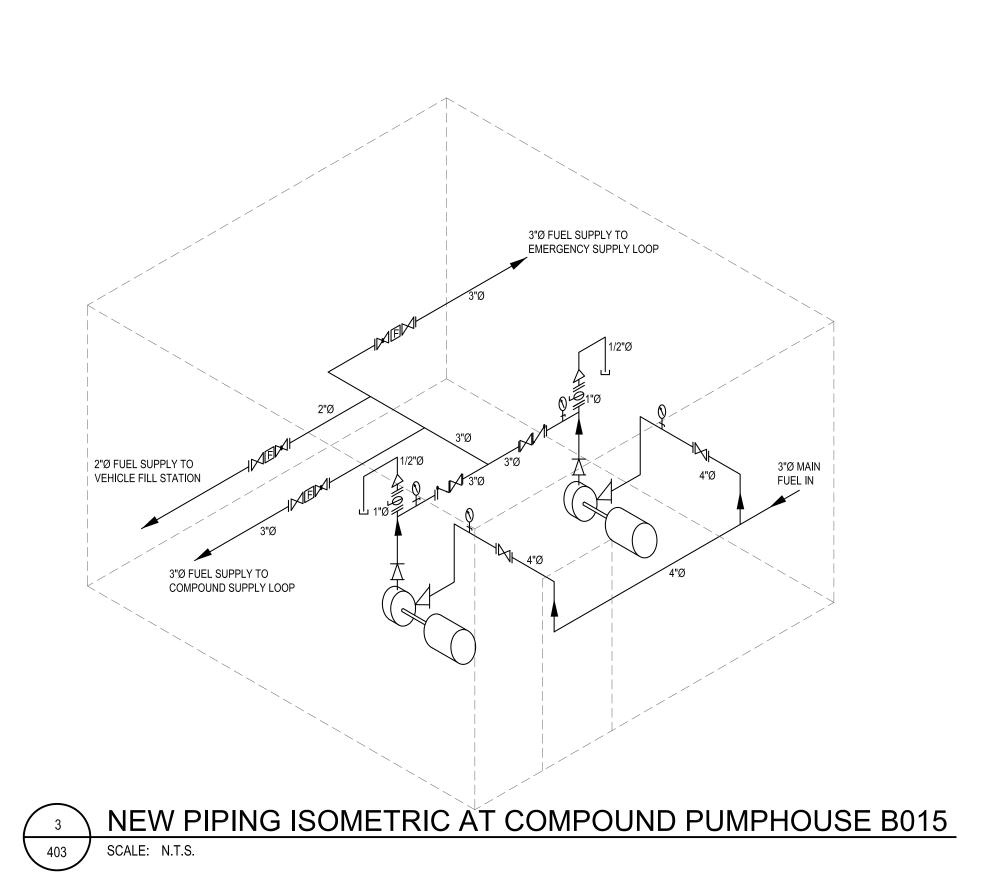


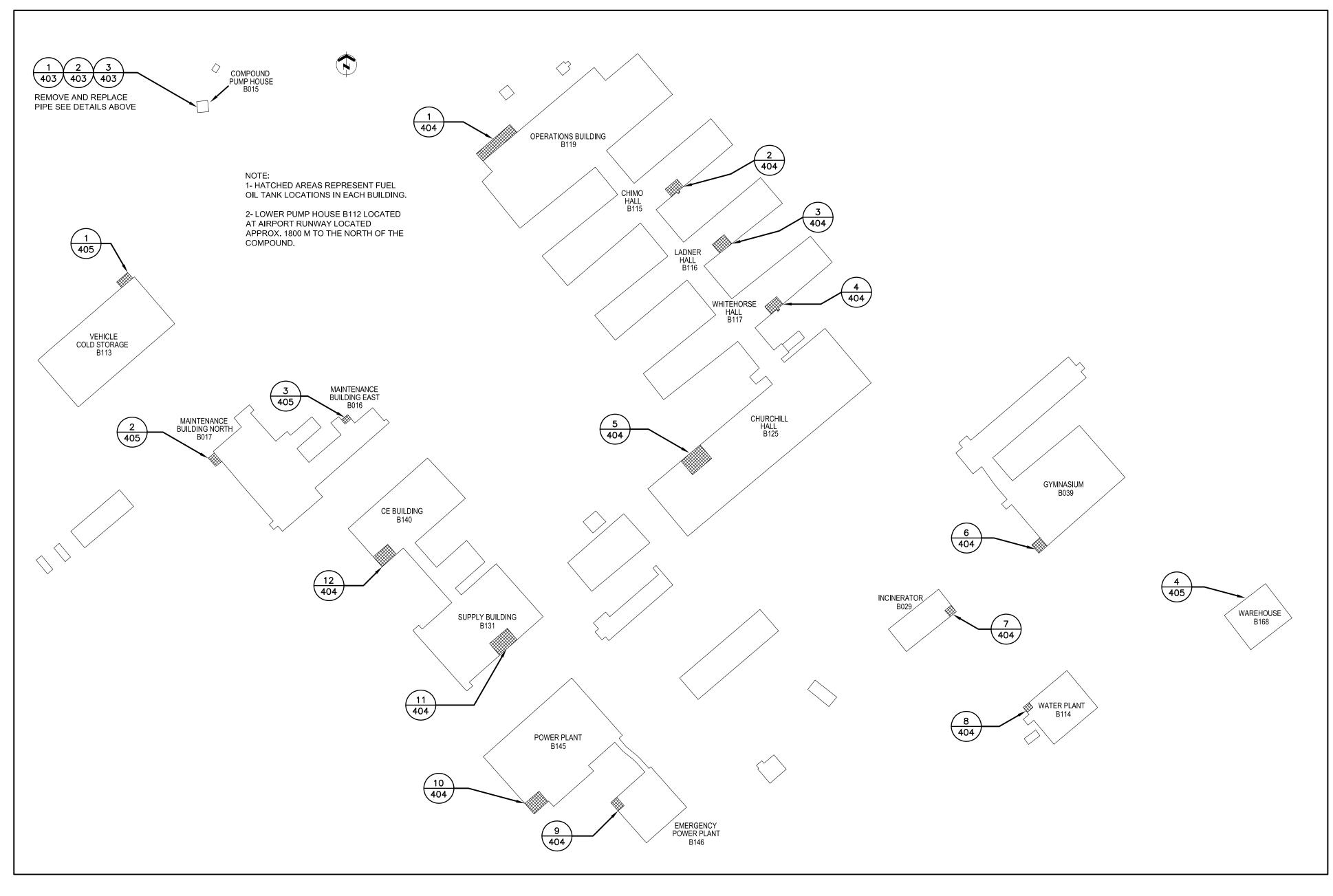


PIPING REMOVALS AT COMPOUND PUMPHOUSE B015 SCALE: 1:50

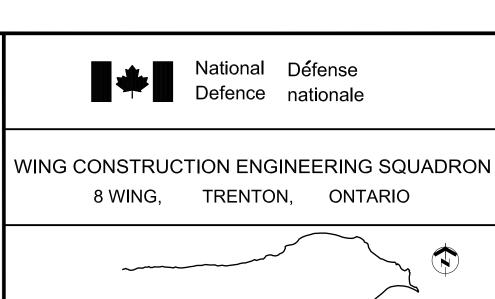


NEW PIPING LAYOUT INSTALLATION AT COMPOUND PUMPHOUSE B015 403 SCALE: 1:50





COMPOUND KEY PLAN SCALE: NTS



UPPER TANK— FARM KEY PLAN N.T.S.

GENERAL NOTES	

- 1. PIPE SIZES SHOWN IN NPS (INCHES). 2. FLASH AND SEAL WALL PENETRATIONS WATER TIGHT 4. ALL FUEL PIPING, FITTINGS AND ALL OTHER APPURTENANCES TO BE NEW.
- 5. FIELD VERIFY ALL MEASUREMENTS. 5. REFER TO DRAWING 501 FOR STATIC ELECTRICITY GROUNDING CONNECTION DETAILS. PROVIDE AND WELD ALL GROUND LUG PLATES TO PIPING ETC. AT ALL LOCATIONS AS REQUIRED.

# LEGEND

SAUGE PRESSURE & VACUUM W/PETCOCK			UNION
O— GAUGE PRESSURE & VACUUM		<u> </u>	CONCENTRIC DEDUC
VALVE BALL	_	1/	CONCENTRIC REDUC
	STRAINER	F	FLOW INDICATOR
VALVE CHECK	STRAINER	ركا ,	
→ VALVE GATE	PUMP	$\triangleleft$	AIR RELEASE VALVE
GLOBE VALVE STRAIGHT M	OIL FLOW METER		
FOSXXØ XXX CONTINUATION	N SYMBOL		
	CALE DRAWING	S	
		-	

PE	OT TIME	PRACTICE
STA	NTEC ARCH	LIGHTORE LTD.
Signatur	$e/\Lambda \subset$	all In
	10 SEPT	2012

02 13/09/2013 RECORD DRAWING

NO. DATE REVISION

01 17/02/2012 ISSUED FOR CONSTRUCTION

NT/NU Association of Professional Engineers and Geoscientists

SCALE-ÉCHELLE AS NOTED PROJECT-PROJET

# UPGRADE MAIN POL COMPOUND

PF#: 68352

CFS ALERT, NUNAVUT

DWG.NO.-DESSIN NO.

TRADE-MÉT**I**ER MECHANICAL

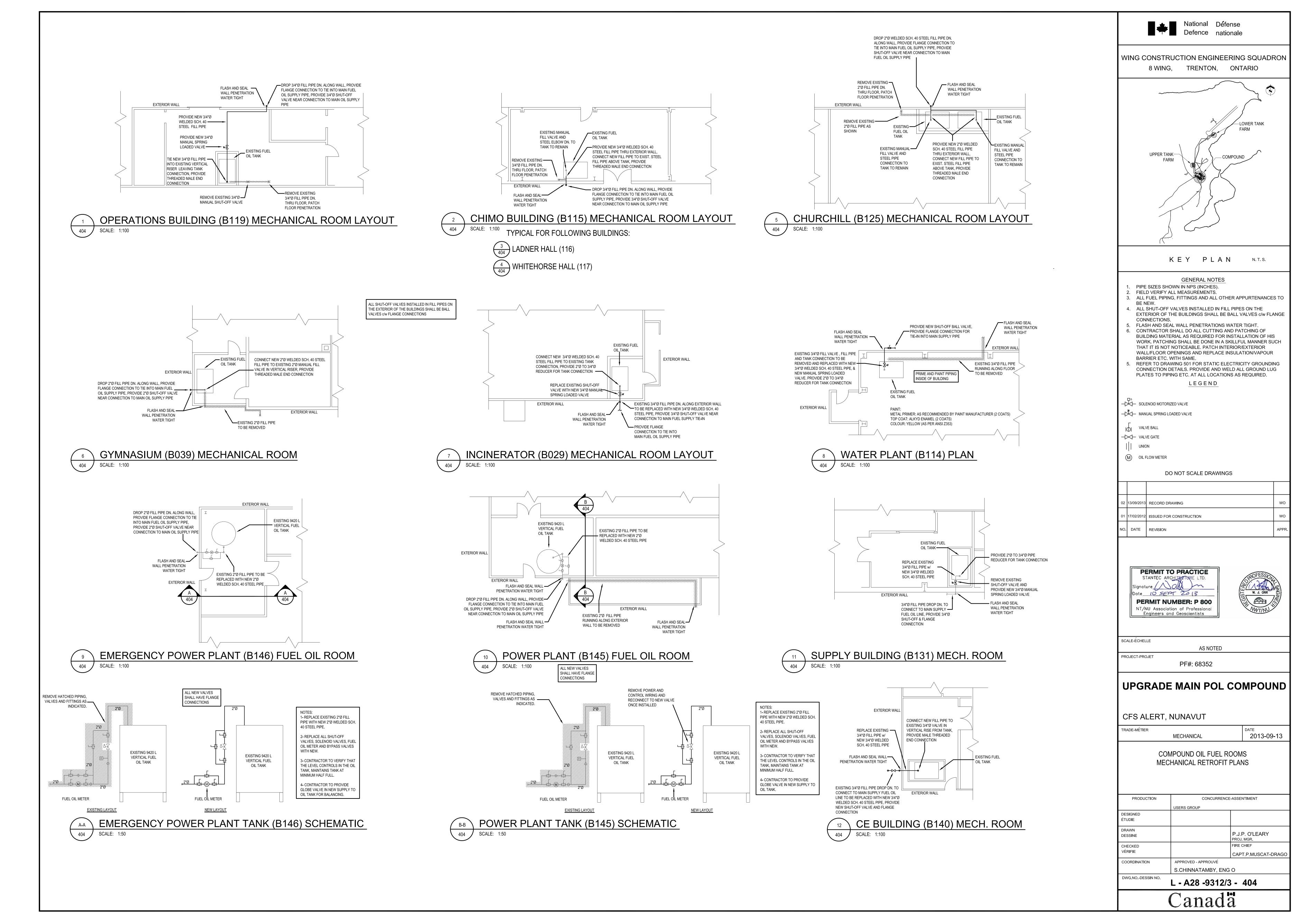
2013-09-13

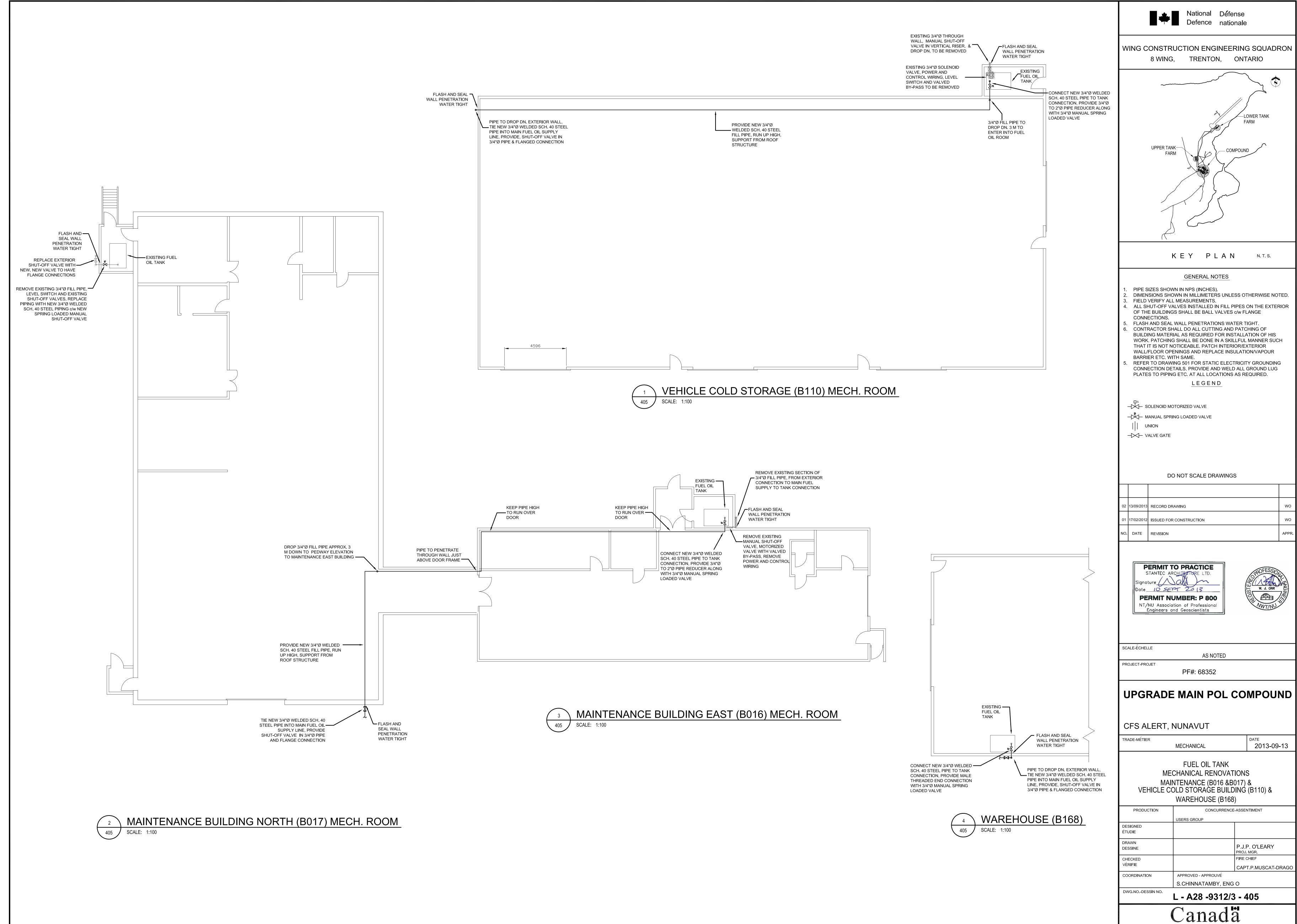
MECHANICAL RENOVATIONS COMPOUND PUMPHOUSE (B015) AND KEY PLAN LAYOUT

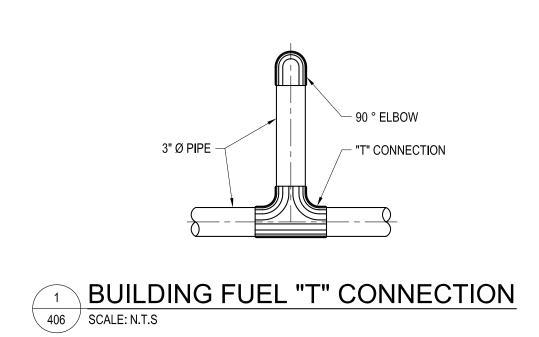
ı	PRODUCTION	CONCURRENCE-ASSENTIMENT		
		USERS GROUP		
	DESIGNED ÉTUDIE			
	DRAWN DESSINE		P.J.P. O'LEARY PROJ. MGR.	
	CHECKED VÉRIFIE		FIRE CHIEF  CAPT.P.MUSCAT-DRAGG	
I	COORDINATION	APPROVED - APPROUVÉ		
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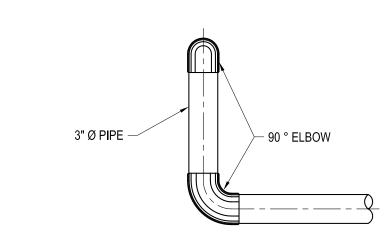
L - A28 -9312/3 - 403

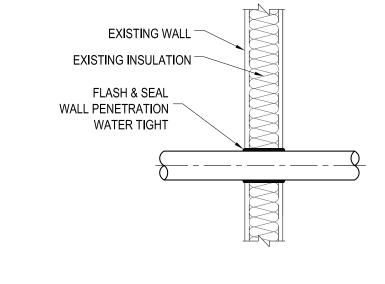
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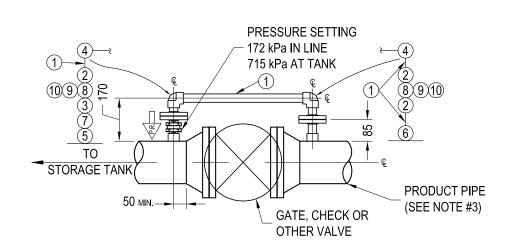












6 PRESSURE RELIEF DETAILS

SCALE: N.T.S.
(BASIC ARRANGEMENT, RIGHT HAND)

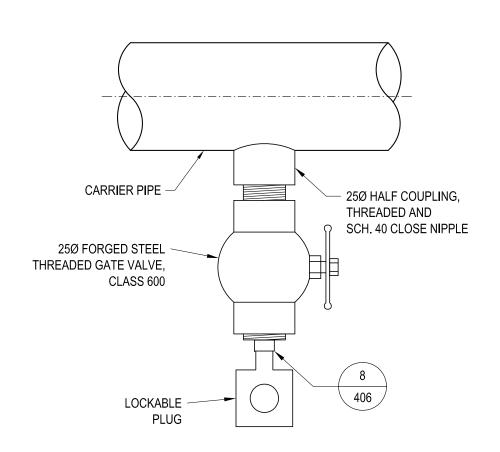
SHOWN, LEFT HAND ON OPPOSITE SIDE)

	SCHEDULE OF MATERIAL					
ITEM	SIZE	DESCRIPTION				
1	1"Ø	PIPE				
2		SLIP-ON FLANGE				
3		THREADED FLANGE				
4		ELBOW 90°, SOCKET WELD				
5		HALF COUPLING, THREADED				
6		HALF COUPLING, SOCKET WELD				
7		THERMAL PRESSURE RELIEF VALVE (SEE NOTES #1, 2, & 3)				
8		GASKET				
9	1/2"Ø x 2.5" LG.	STUD BOLT				
10	1/2"Ø	NUT (2 EACH BOLT)				

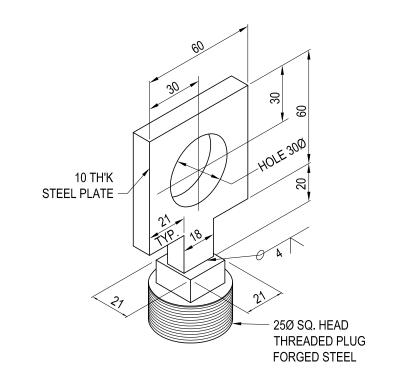
 IN-LINE TYPE PRESSURE RELIEF VALVE WITH ENGRAVED ARROW ON ONE SIDE OF VALVE (TO INDICATE DIRECTION IN WHICH PRESSURE IS TO BE RELIEVED).
 ENSURE THAT NAMEPLATE IS NOT DAMAGED OR PAINTED OVER.

BASIC ARRANGEMENT SHOWN IS APPLICABLE TO PRODUCT PIPE 2" THRU 6" DIAMETER.
 HOLES AT FLANGES TO BE STRADDLED ABOUT HORIZONTAL & VERTICAL AXIS OF PIPE.

5. FOR MORE DESCRIPTION OF ITEMS REFER TO SPECIFICATIONS.6. SEE SPECIFICATIONS, FOR ALTERNATIVE INSTALLATION ON VALVE BODY.



7 WATER DRAIN DETAIL
406 SCALE: 1:4

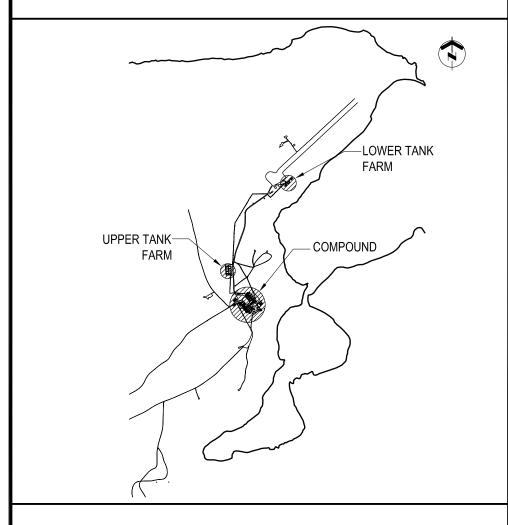


8 LOCKABLE PLUG DETAIL
406 SCALE: 1:2



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WING CONSTRUCTION ENGINEERING SQUADRON 8 WING, TRENTON, ONTARIO



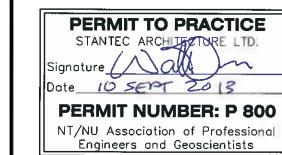
KEY PLAN N. T. S.

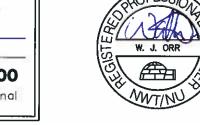
GENERAL NOTES

LEGEND

DO NOT SCALE DRAWINGS

02	13/09/2013	RECORD DRAWING	wo
01	17/02/2012	ISSUED FOR CONSTRUCTION	WO
NO.	DATE	REVISION	APPR.





SCALE-ÉCHELLE

AS NOTED

PROJECT-PROJET

# UPGRADE MAIN POL COMPOUND

PF#: 68352

CFS ALERT, NUNAVUT

TRADE-MÉTIER CIVIL/STRUCTURAL DATE 2013-09-13

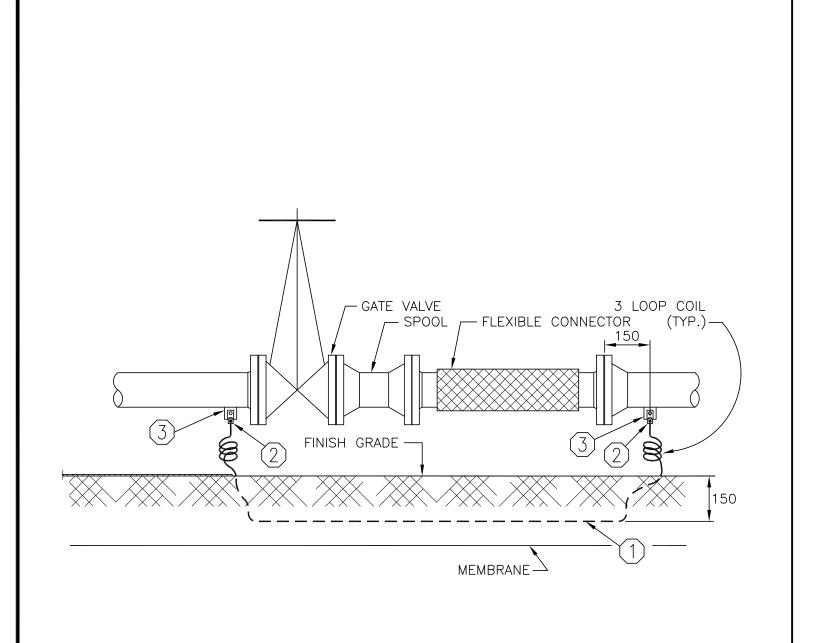
MEGUANIGAL DETAILO

MECHANICAL DETAILS

PRODUCTION	CONCURRENCE-ASSENTIMENT	
	USERS GROUP	
DESIGNED ÉTUDIE		
DRAWN DESSINE		P.J.P. O'LEARY PROJ. MGR.
CHECKED VÉRIFIE		FIRE CHIEF  CAPT.P.MUSCAT-DRAGO
COORDINATION	APPROVED - APPROUVÉ	
	S.CHINNATAMBY, ENG	0
DWG NO -DESSIN NO		

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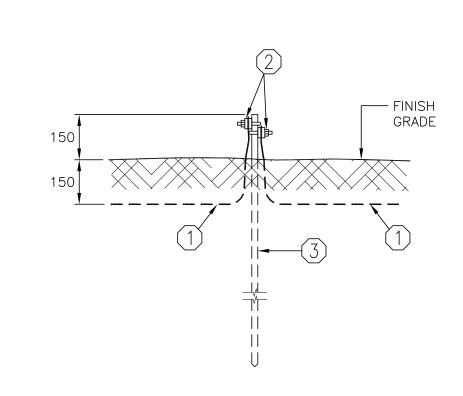
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	LIST OF MATERIAL
ITEM	DESCRIPTION
1	#4 STRANDED BARE COPPER GROUND WIRE
2	COPPER MECHANICAL CONNECTOR ATTACHED WITH BRASS BOLT & NUTS
$\overline{(3)}$	GROUND LUG PLATE 40 x 40 x 6 TH'K

## ELECTRICAL DETAIL 1

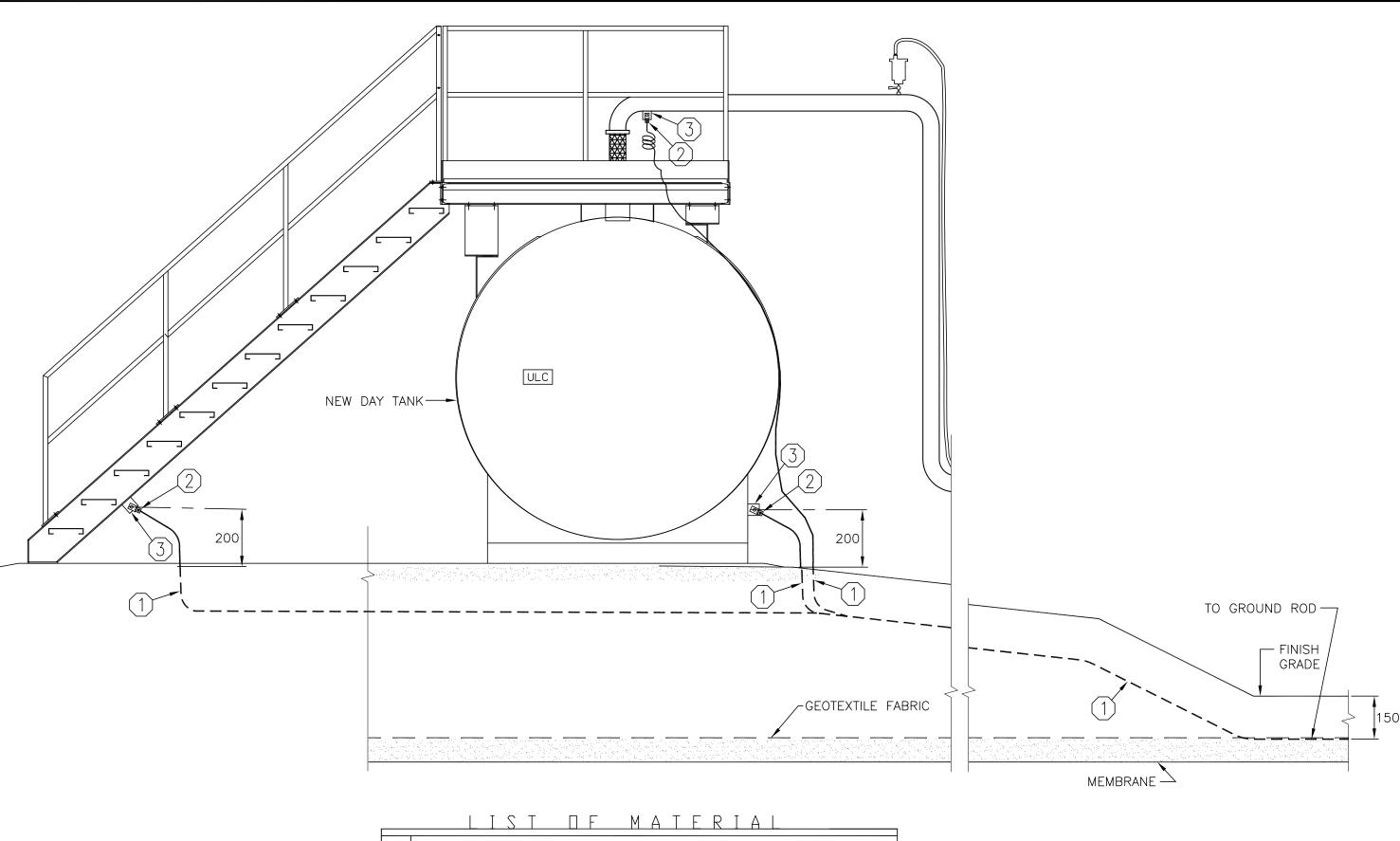
STATIC ELECTRICITY GROUNDING CONNECTIONS ACROSS VALVES SPOOL PIECES & FLEXIBLE CONNECTORS N.T.S.



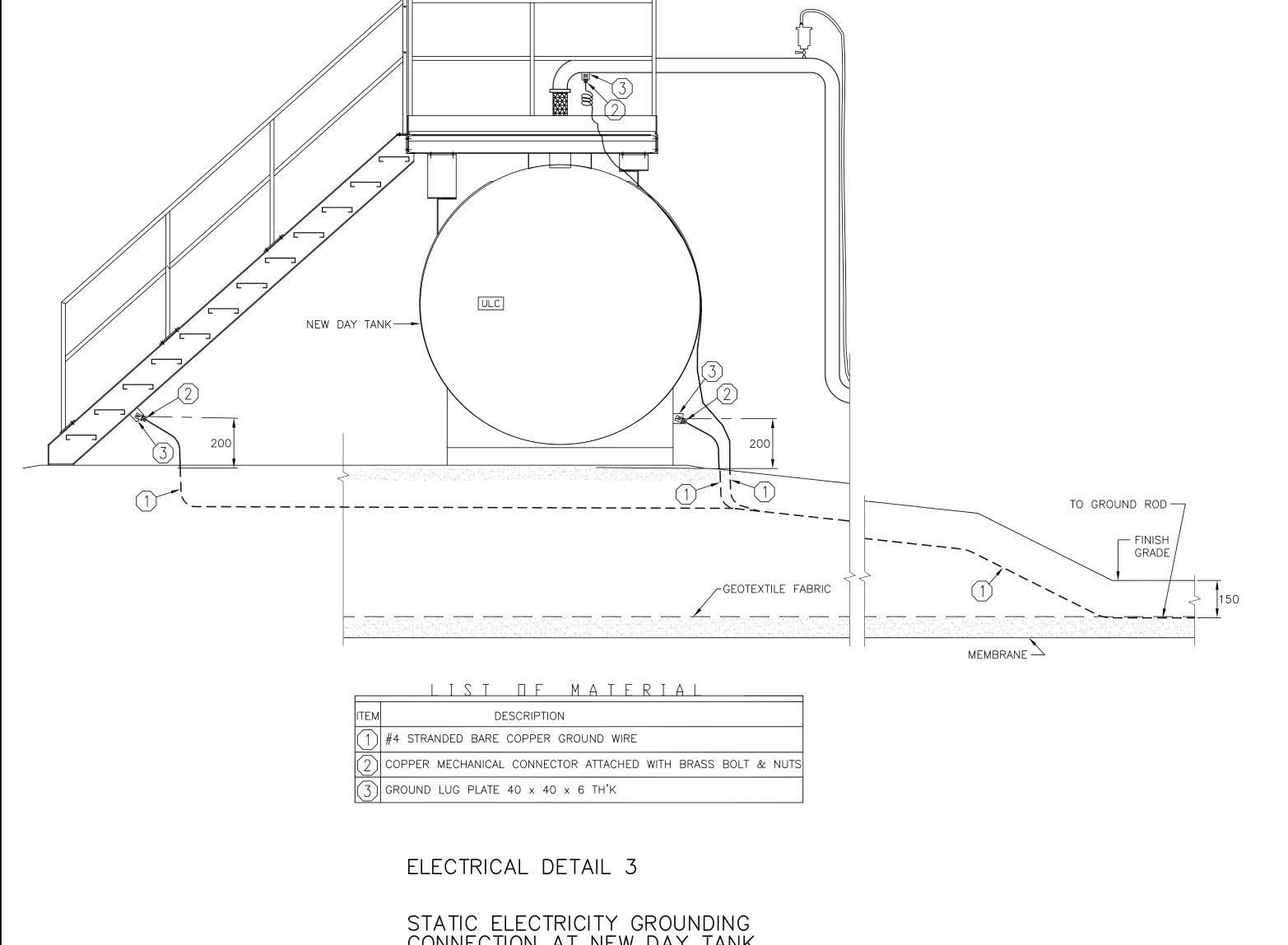
	LIST OF MATERIAL
ITEM	DESCRIPTION
1	#4 STRANDED BARE COPPER GROUND WIRE
2	BRONZE GROUND CONNECTOR
3	GROUND ROD 190 x 3.050 m, COPPER-CLAD STEEL

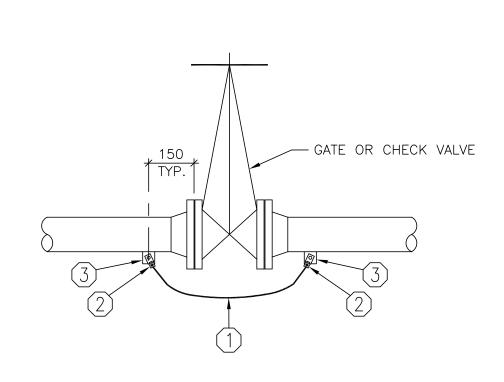
## ELECTRICAL DETAIL 2

STATIC ELECTRICITY GROUNDING CONNECTIONS AT GROUND ROD N.T.S.



CONNECTION AT NEW DAY TANK

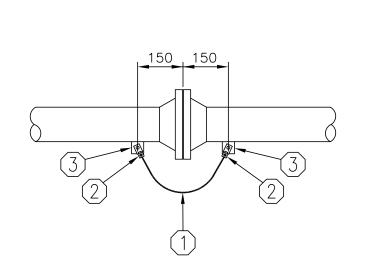




	LIST OF MATERIAL
ITEM	DESCRIPTION
1	#4 STRANDED BARE COPPER GROUND WIRE
2	COPPER MECHANICAL CONNECTOR ATTACHED WITH BRASS BOLT & NUTS
(3)	GROUND LUG PLATE 40 x 40 x 6 TH'K

### ELECTRICAL DETAIL 4

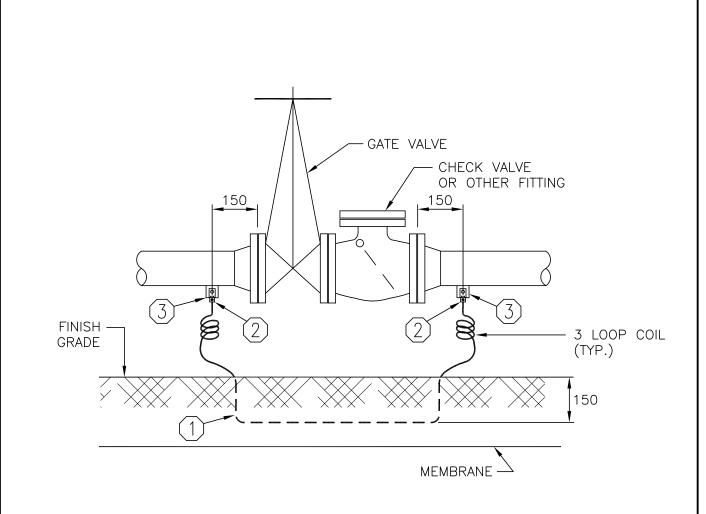
STATIC ELECTRICITY GROUNDING CONNECTIONS ACROSS GATE OR CHECK VALVES N.T.S.



	LIST OF MATERIAL
ITEM	DESCRIPTION
1	#4 STRANDED BARE COPPER GROUND WIRE
2	COPPER MECHANICAL CONNECTOR ATTACHED WITH BRASS BOLT & NUTS
(3)	GROUND LUG PLATE 40 x 40 x 6 TH'K

## ELECTRICAL DETAIL 5

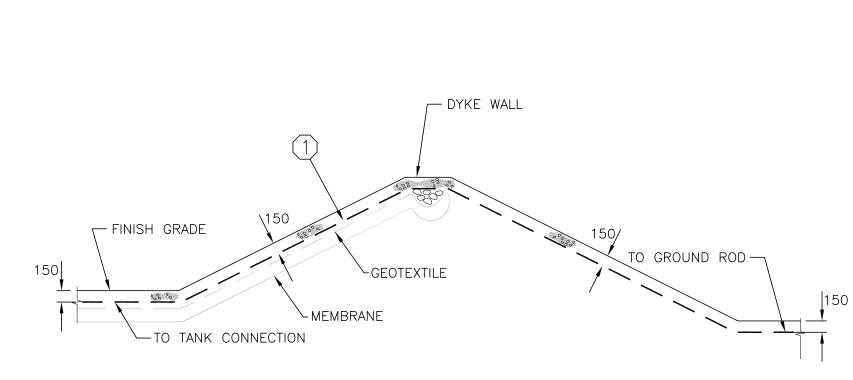
STATIC ELECTRICITY GROUNDING CONNECTIONS AT FLANGED CONNECTIONS N.T.S.



	LIST OF MATERIAL
ITEM	DESCRIPTION
1	#4 STRANDED BARE COPPER GROUND WIRE
2	COPPER MECHANICAL CONNECTOR ATTACHED WITH BRASS BOLT & NUTS
(3)	GROUND LUG PLATE 40 x 40 x 6 TH'K

## ELECTRICAL DETAIL 6

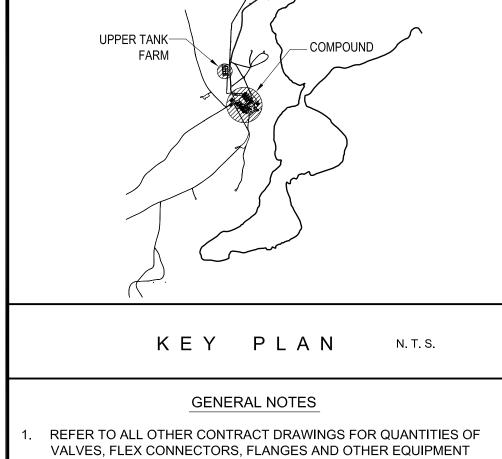
STATIC ELECTRICITY GROUNDING CONNECTIONS ACROSS GATE AND CHECK VALVES N.T.S.



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ITEM			D	ESCRIPTIO	Ν								
1) #4	STRAND	ΞD	BARE	COPPER	GROU	۷D ۱	WIRE	=					

# ELECTRICAL DETAIL 7

STATIC ELECTRICITY GROUND WIRE INSTALLATION OVER DYKE WALL N.T.S.



REQUIRING STATIC ELECTRICITY BONDING JUMPERS AS DETAILED

ON THIS DRAWING.

National Défense
Defence nationale

WING CONSTRUCTION ENGINEERING SQUADRON

8 WING, TRENTON, ONTARIO

DO NOT SCALE DRAWINGS

LEGEND

′2013	RECORD DRAWING	wo
2012	ISSUED FOR CONSTRUCTION	wo

PERMIT TO PRACTICE
STANTEC ARCHITECTURE LTD. PERMIT NUMBER: P 800 NT/NU Association of Professional Engineers and Geoscientists

D. DATE REVISION

SCALE-ÉCHELLE



SCALE-ECHELLE	AS NOTED	
PROJECT-PROJET		
	PF#: 68352	

# UPGRADE MAIN POL COMPOUND

CFS ALERT, NUNAVUT

ELECTRICAL	DATE 2013-09-13

LECTRICAL	DETAILS

PRODUCTION	CONCURRENCE-ASSENTIMENT			
	USERS GROUP			
DESIGNED ÉTUDIE				
DRAWN DESSINE		P.J.P. O'LEARY PROJ. MGR.		
CHECKED VÉRIFIE		FIRE CHIEF CAPT.P.MUSCAT-DRAGO		
COORDINATION	APPROVED - APPROUVÉ			
	S.CHINNATAMBY, ENG	0		
DWG.NODESSIN NO.	L - A28 -9312/3	3 - 501		

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