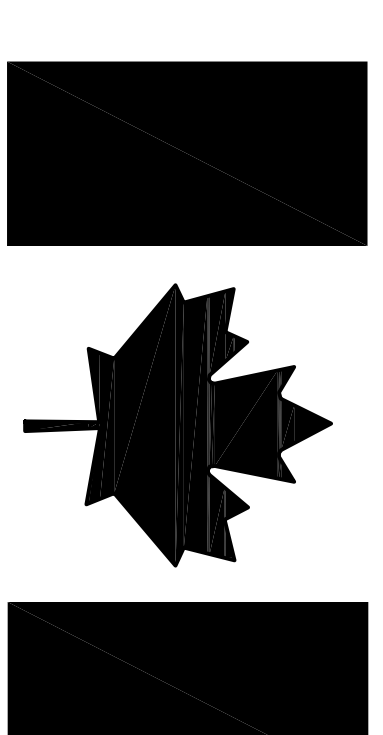


FISHERIES AND OCEANS



Canada

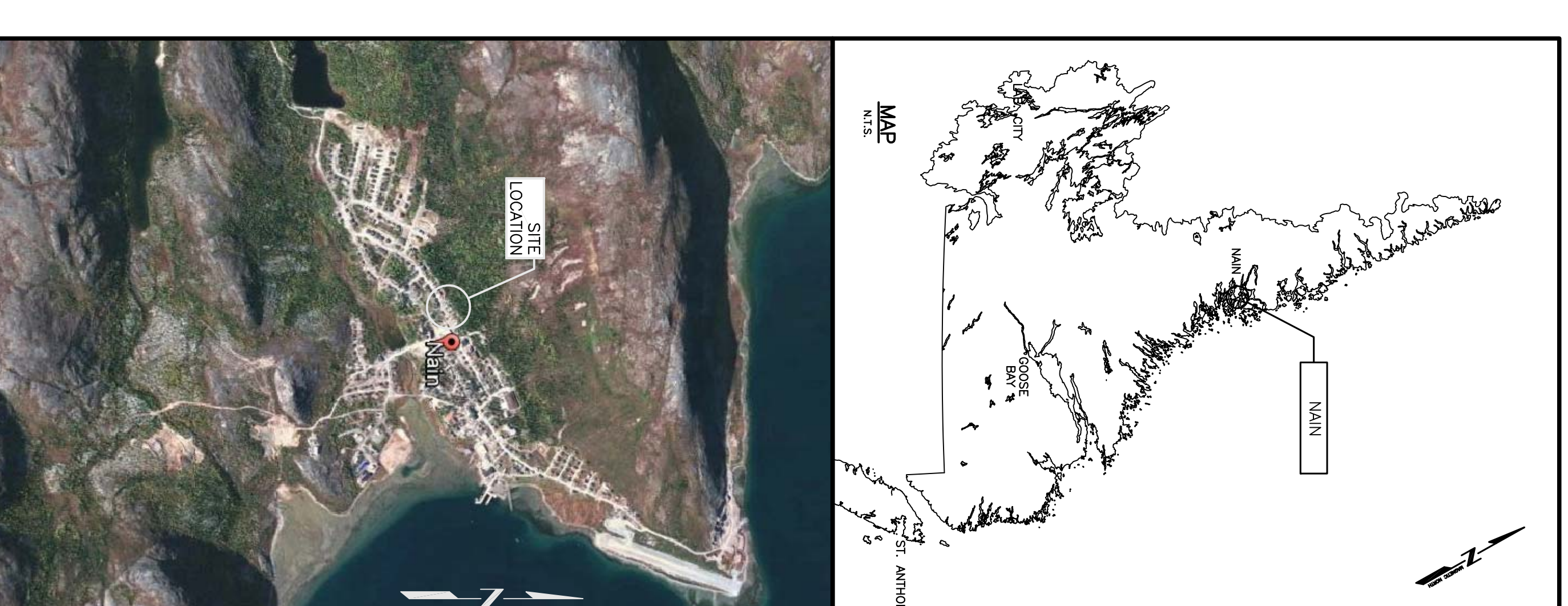
TRAILER IMPROVEMENTS

NAIN, NL

PROJECT NO.: F6879-179214
ISSUED FOR TENDER

DATE: FEBRUARY 26, 2018

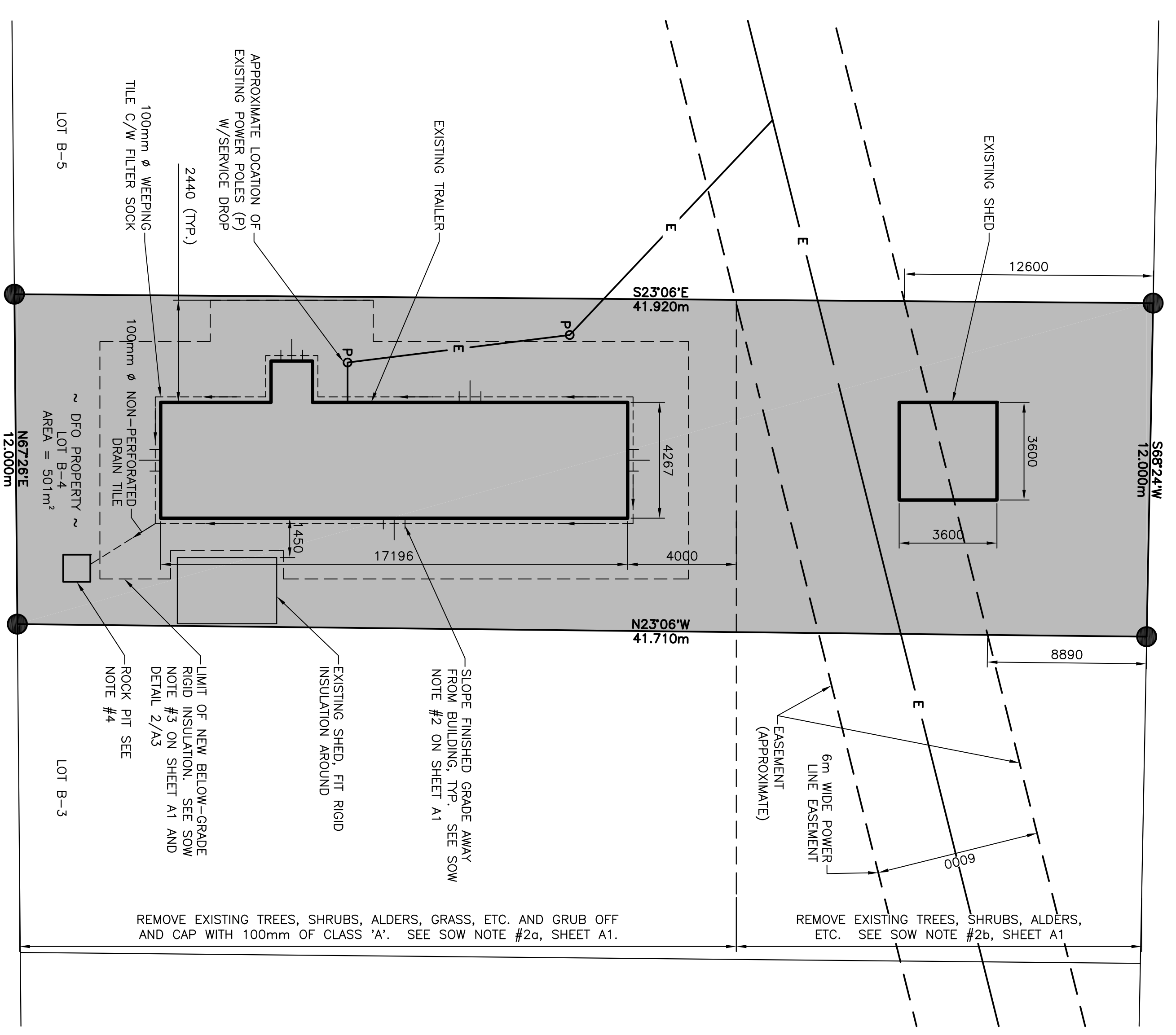
CLIENT/OWNER:
DEPARTMENT OF FISHERIES & OCEANS,
REAL PROPERTY, SAFETY & SECURITY



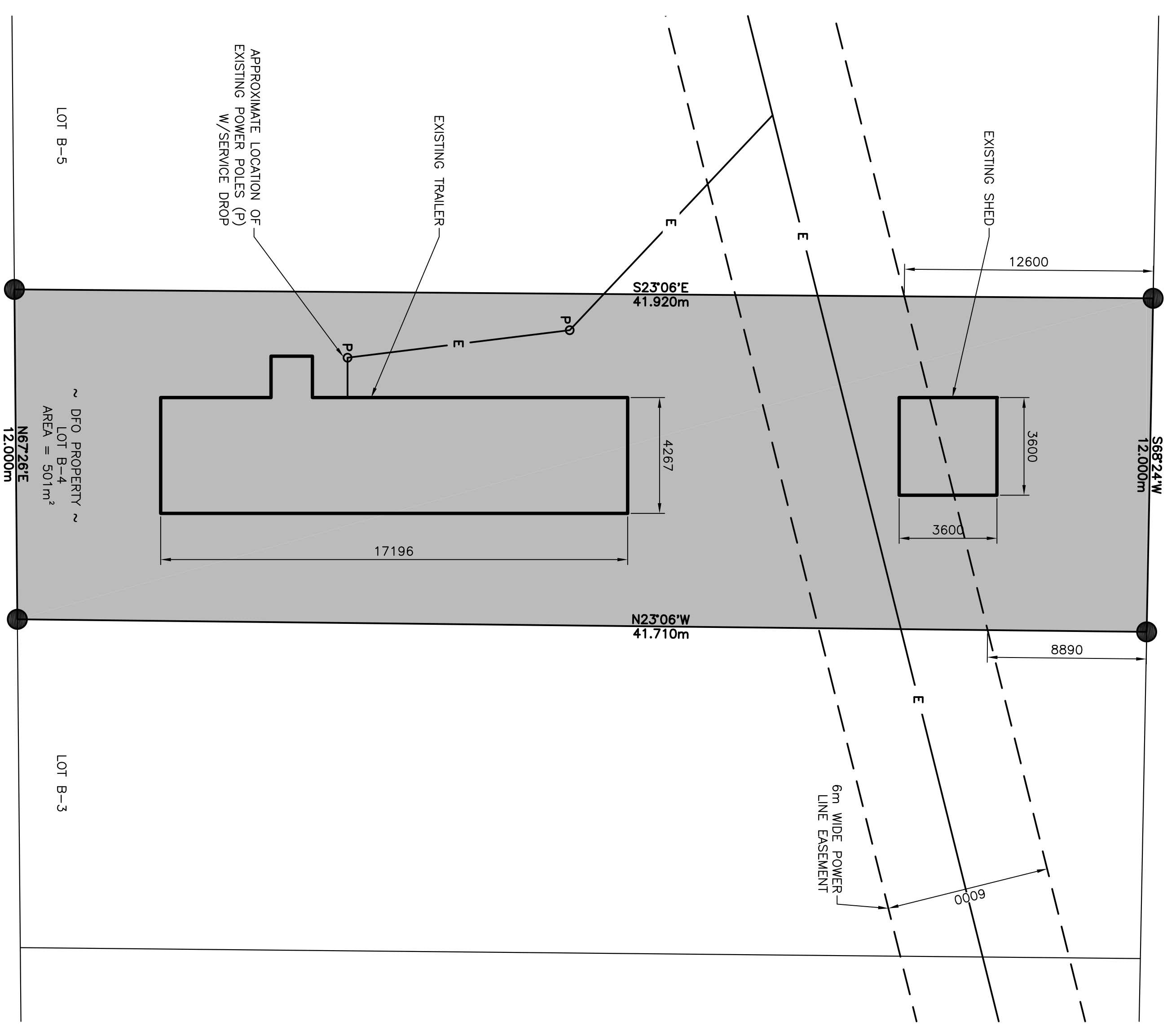


- NOTES:**
1. VERIFY ALL DIMENSIONS AND CONDITIONS ON SITE BEFORE PROCEEDING WITH WORK.
 2. DO NOT SCALE FROM DRAWINGS.
 3. LOCATION OF TRAILER AND SHED ON PROPERTY ARE APPROXIMATE. THE EXACT LOCATION OF TRAILER AND SHED ON PROPERTY ARE TO BE DETERMINED BY THE CLIENT PRIOR TO START OF WORK. APPROXIMATE LOCATION OF ROCK PIT. LOCATE IN FIELD AS REQUIRED.
 4. APPROXIMATE LOCATION OF UNDERGROUND SERVICES. HAND DIG AS REQUIRED.
 5. FOR STATEMENT OF WORK (SOW) NOTES SEE A1.
 6. FINISHED GRADES TO PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDING ON ALL SIDES.

LEGEND:
 INDICATES PROPERTY LIMITS



NEW SITE PLAN
 SCALE: N.T.S. **2**



EXISTING SITE PLAN
 SCALE: N.T.S. **1**

TRAILER IMPROVEMENTS
 NAIN, NL

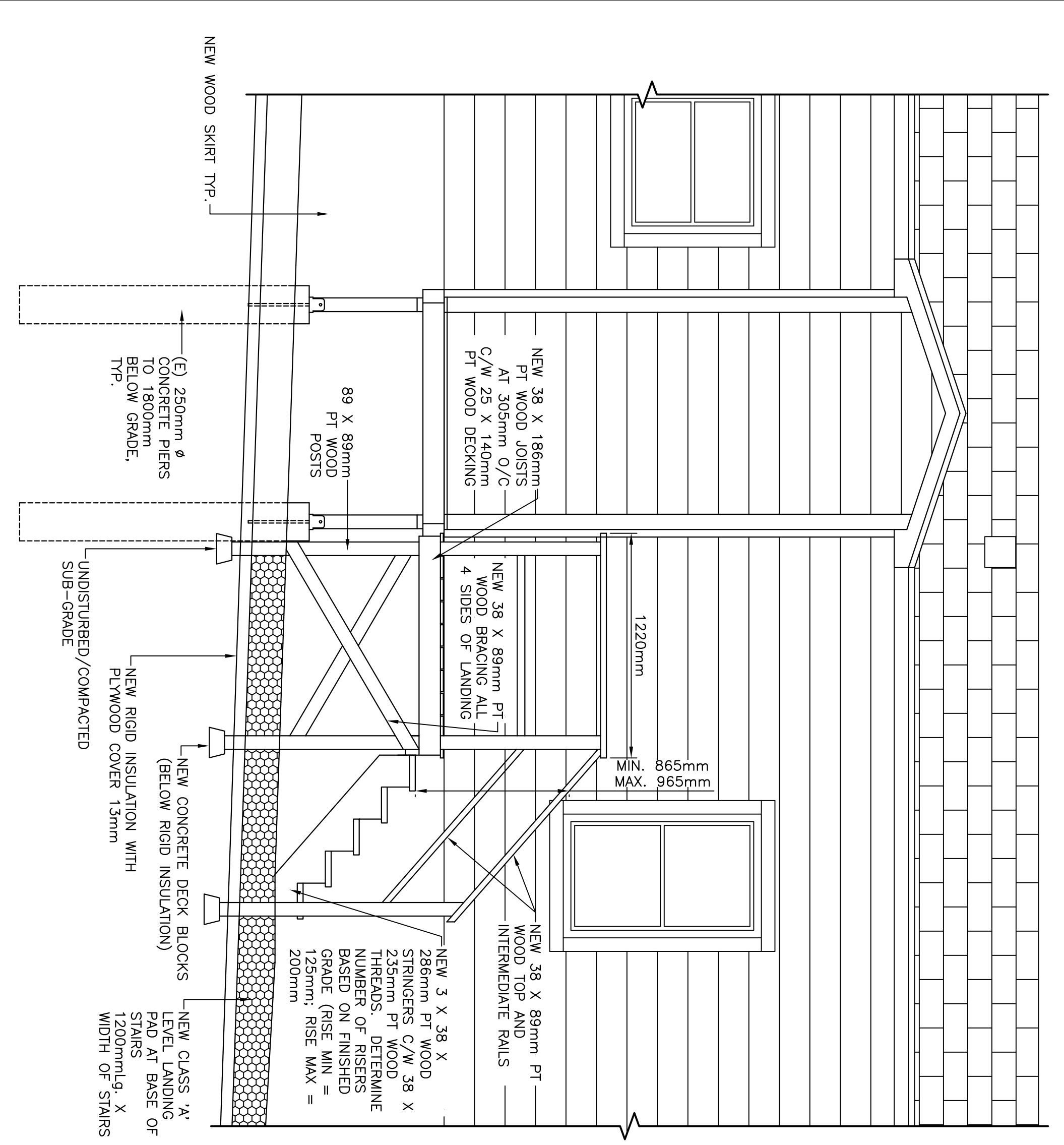
no.	revision	date	by	approved by
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A	ISSUED FOR TENDER	7/15/17	P.H.	N.H.

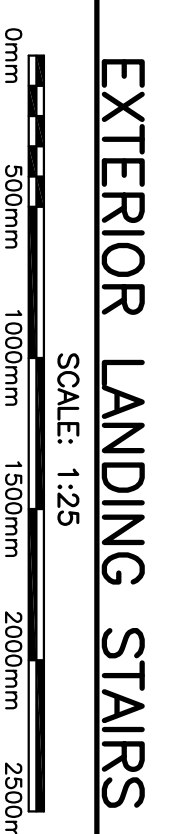
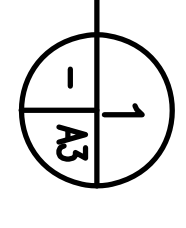
SITE PLANS

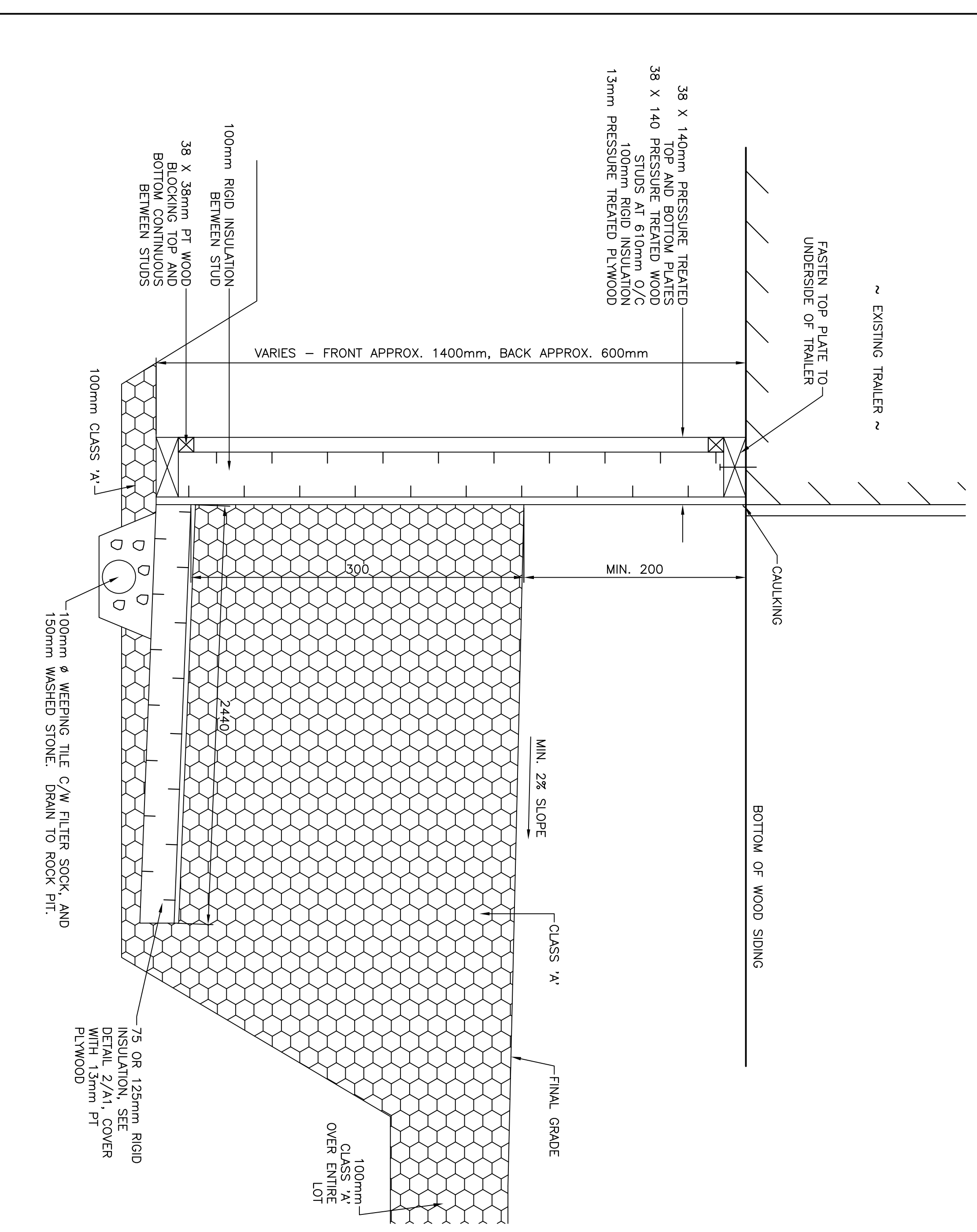
drawn - dessiné	checked - vérifié	date - date	scale - échelle	project no. - projet no.	drawing no. - no. du dessin	sheet - feuille
P. HUNT	N. HUNT	FEBRUARY 26, 2018	AS SHOWN	14C1201B00401C1	14C1201B00401C1	C1

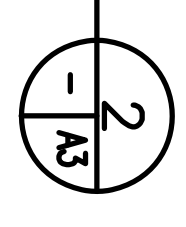


- NOTES:**
1. VERIFY ALL DIMENSIONS AND CONDITIONS ON SITE BEFORE PROCEEDING WITH WORK.
 2. DO NOT SCALE FROM DRAWINGS.
 3. WORK TO BE COMPLETED IN CONFORMANCE WITH NBCC.
 4. REMOVE AND DISPOSE OF ALL EXCESS MATERIALS FROM BENEATH TRAILER. OWNER RESERVES RIGHT OF FIRST REFUSAL TO SALVAGE ANY MATERIALS.



EXTERIOR LANDING STAIRS
 SCALE: 1/25





SKIRT DETAIL
 SCALE: N.T.S.


Project - projet

TRAILER IMPROVEMENTS

NAIN, NL

B	RE-ISSUED FOR TENDER	2/28/18	P.H.	N.H.
A	ISSUED FOR TENDER	7/15/17	P.H.	N.H.
no.	revision	date	by	approved
no.	revision	date	by	approved

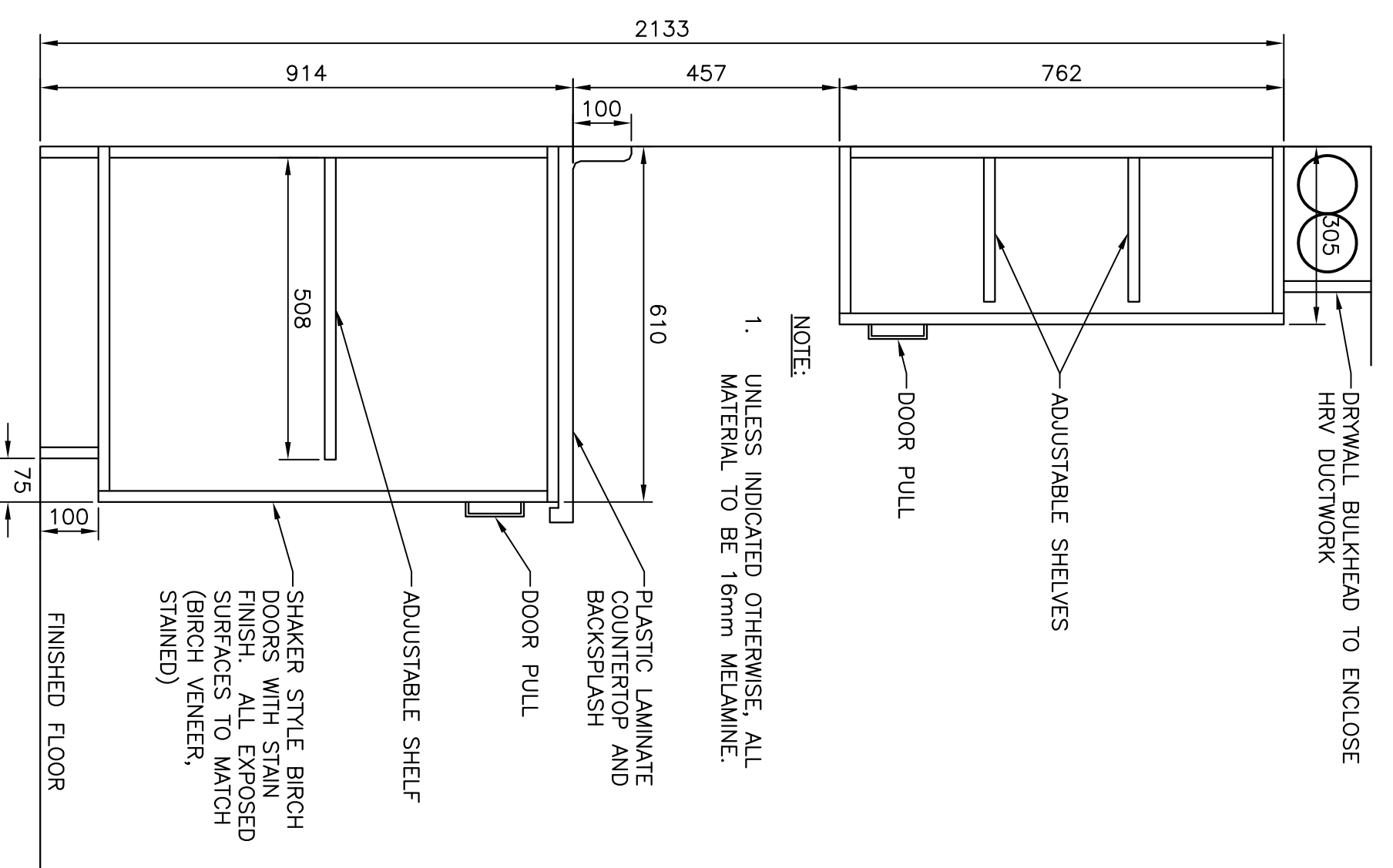
TRAILER DETAILS

Drawing - dessin

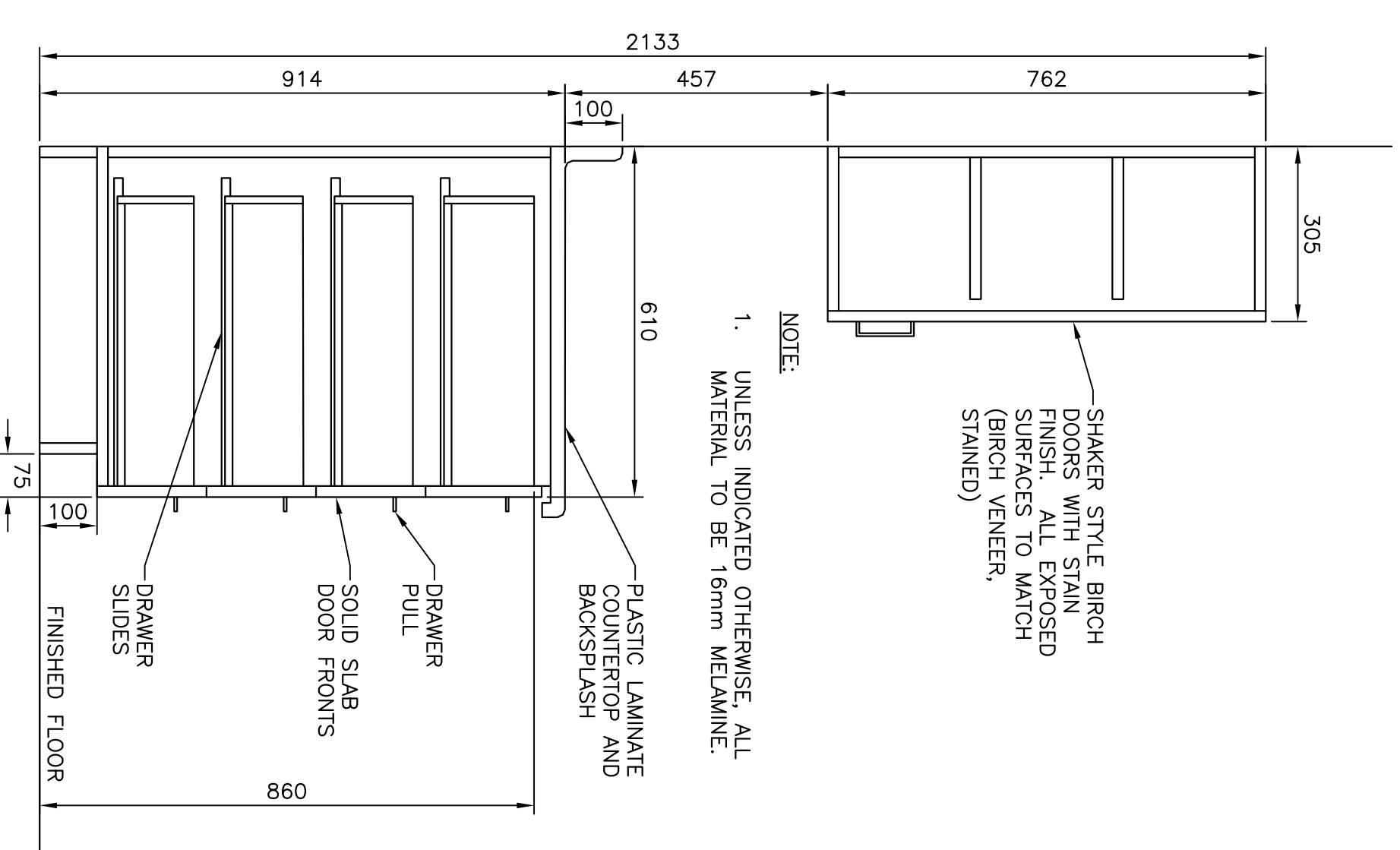
drawn - dessiné	designed - dessiné par
date - date	checked - vérifié
scale - échelle	approved for tender - approuvé pour l'offre
project no. - projet no.	drawing no. - no. du dessin
sheet - feuille	sheet - feuille

NOTES:

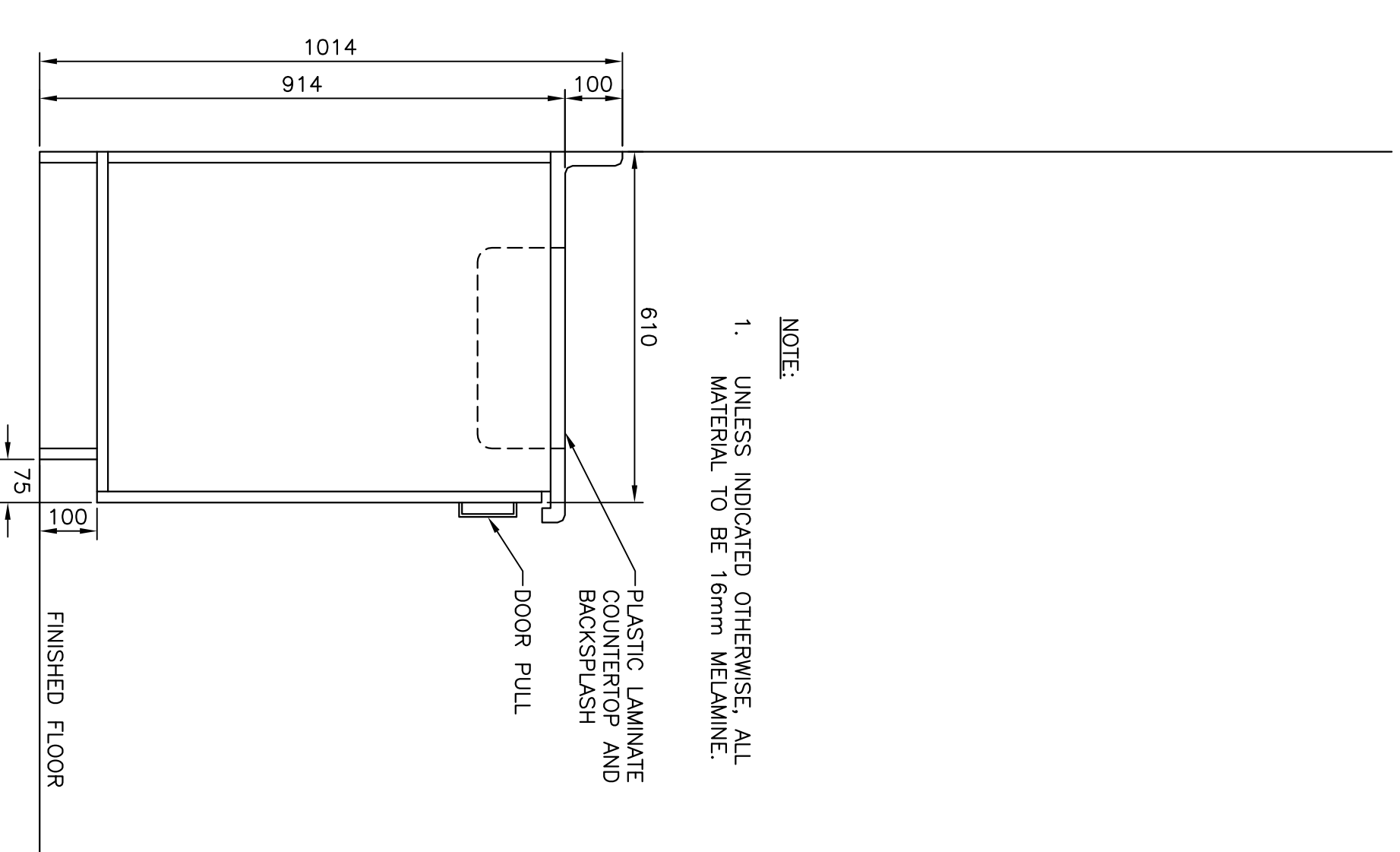
1. VERIFY ALL DIMENSIONS AND CONDITIONS ON SITE BEFORE PROCEEDING WITH WORK.
2. DO NOT SCALE FROM DRAWINGS.
3. WORK TO BE COMPLETED IN CONFORMANCE WITH NBCC.
4. FOR KITCHEN CABINETS ALSO REFER TO SOW NOTE #12a, SHEET A1.
5. FOR BEDROOM CLOSETS ALSO REFER TO SOW NOTE #12e, BATHROOM STORAGE SIMILAR; REFER TO SOW NOTE #12f.



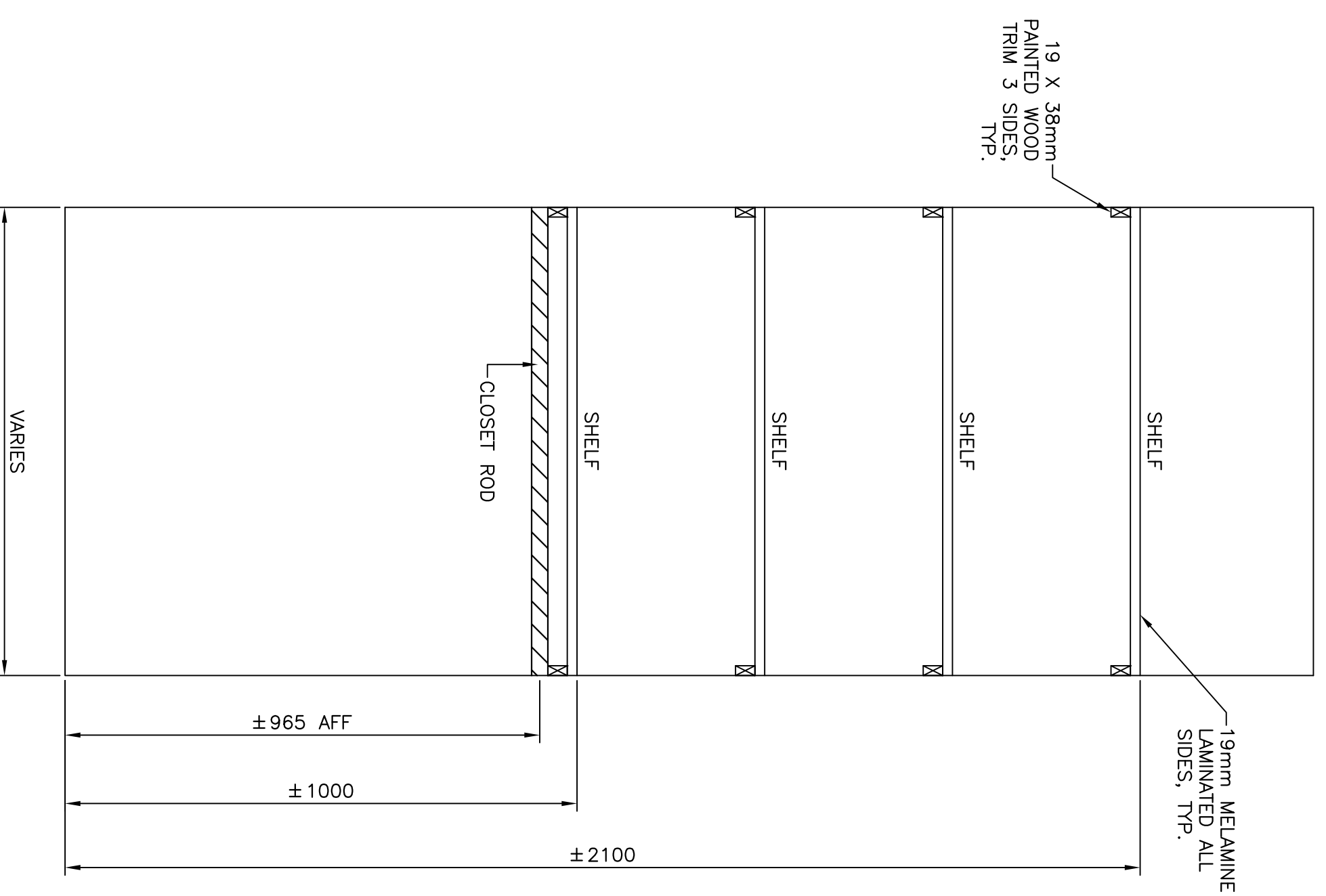
SECTION 1 - KITCHEN CABINETRY
SCALE : N.T.S. 1



SECTION 2 - KITCHEN CABINETRY
SCALE : N.T.S. 2



SECTION 3 - KITCHEN CABINETRY
SCALE : N.T.S. 3



SECTION 4 - BEDROOM CLOSETS - ELEVATION
SCALE : N.T.S. 4

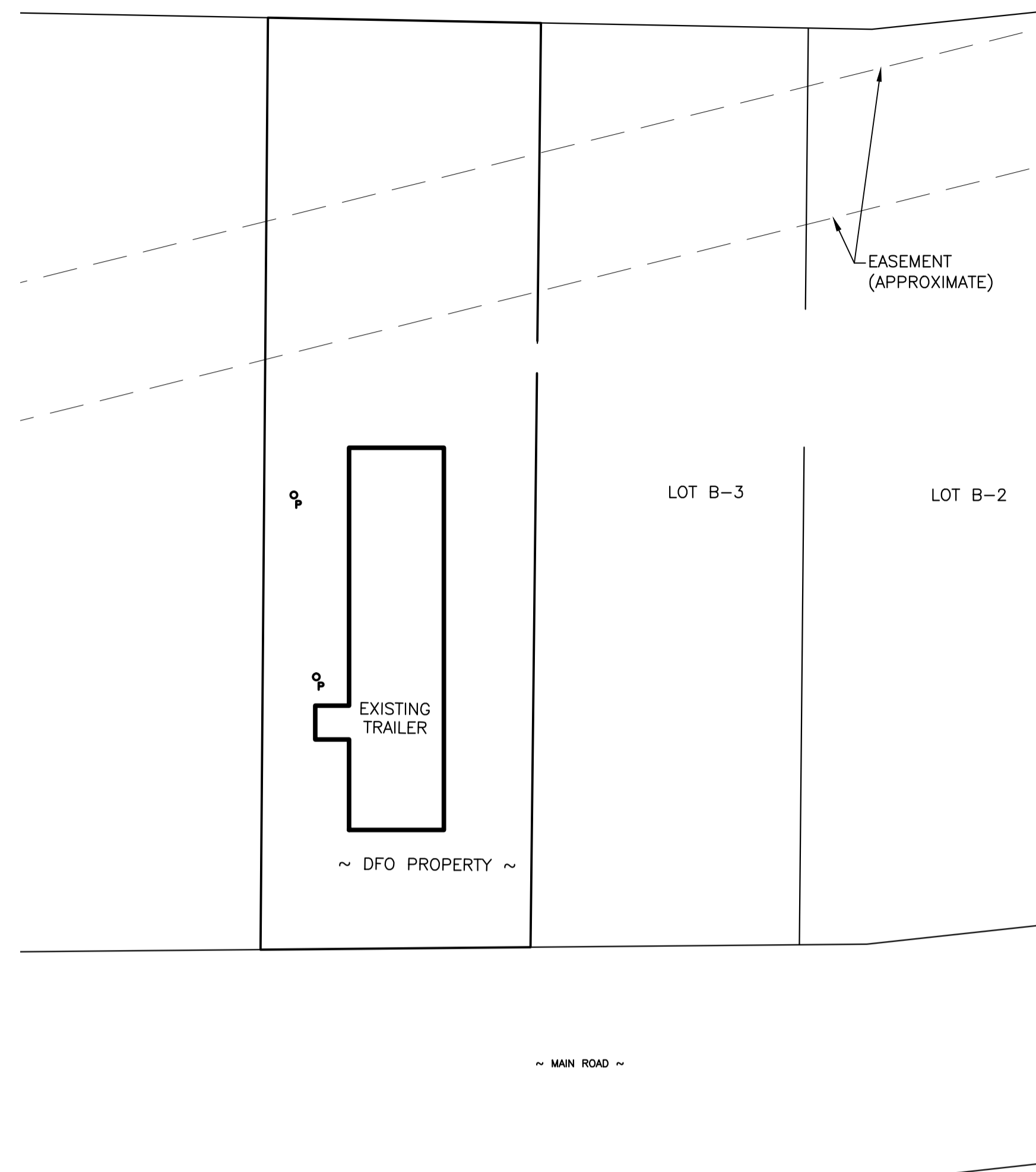
TRAILER IMPROVEMENTS
NAIN, NL

TRAILER MILLWORK DETAILS

Project - projet	TRAILER IMPROVEMENTS NAIN, NL			
Drawing - dessin	TRAILER MILLWORK DETAILS			
drawn - dessiné	F. HUNT	designed - dessiné par	F. HUNT	N.H.
date - date	FEBRUARY 26, 2018	checked - vérifié	F. HUNT	N.H.
scale - échelle	N.T.S.	approved for tender - approuvé pour l'offre		
project no. - projet no.	14C1201B00A01A4	drawing no. - no. du dessin		A4
FSB979-179214				



PROVINCE OF NEWFOUNDLAND
 PERMIT HOLDER
 Class "A"
 This Permit Allows
CROSBIE ENGINEERING LIMITED
 To practice Professional Engineering in Newfoundland and Labrador
 Permit No. as issued by PEG-NL 00123
 which is valid for the year 2018.



SITE PLAN

SCALE: 1:200



GENERAL DEMOLITION NOTES:

- CONTRACTOR TO PROVIDE ALL CUTTING, PATCHING AND PAINTING TO MATCH EXISTING. SEE SPECIFICATION FOR DETAILS. COORDINATE ON SITE.
- CONTRACTOR MUST VERIFY ALL DIMENSIONS AND CONDITIONS ON SITE BEFORE PROCEEDING WITH ANY PORTION OF THIS WORK. DO NOT SCALE FROM DRAWINGS. CONTRACTOR TO ASSESS WORK AREA IN ADVANCE WITH OWNER REPRESENTATIVE FOR COORDINATION OF RELATED DAILY WORK SCHEDULES, PARKING, BUILDING ACCESS, AND STORAGE OF EQUIPMENT.
- ALL WORK SHALL BE SCHEDULED DURING NORMAL WORKING HOURS. CONTRACTOR MAY WORK AFTER NORMAL WORKING HOURS AS COORDINATED BY OWNER REPRESENTATIVE.
- CONTRACTOR SHALL BE RESPONSIBLE FOR CLEAN UP AND DISPOSALS OF WORK AREA ON A DAILY BASIS. AFTER EACH WORKING SHIFT BUILDING TO BE CLEANED AND FREE OF DEBRIS. BUILDING GARBAGE BINS ARE NOT TO BE USED.
- ANY ELECTRICAL SYSTEM SHUTDOWN TO BE SCHEDULED AFTER NORMAL BUSINESS HOURS AND SHALL BE COORDINATED WITH OWNER REPRESENTATIVE. SUFFICIENT NOTICE SHALL BE GIVEN. 5 WORKING DAYS NOTICE IS REQUIRED FOR ANY DISRUPTION.
- WORK TO BE CARRIED OUT IN CONSIDERATION OF CLIENT COMFORT AND OPERATIONS.
- ALL WIRING TO BE INSTALLED IN CONDUIT AS INDICATED.
- ACCESS TO FACILITY TO BE COORDINATED WITH OWNER REPRESENTATIVE.
- PROVIDE TYPED REVISED PANELBOARD DIRECTORIES FOR ALL PANELBOARDS WHERE BRANCH CIRCUITS WERE REMOVED, ADDED OR MODIFIED.
- LABEL ALL EQUIPMENT WITH LAMACOID TAGS AS PER SPECIFICATION.
- ALL EXISTING ELECTRICAL EQUIPMENT REMOVED TO BE TURNED OVER TO OWNER. IF OWNER REFUSES THEN CONTRACTOR TO REMOVE FROM SITE AND DISPOSE.

ELECTRIC HEATER SCHEDULE

TYPE	DESCRIPTION	VOLTS	WATTS	MANUFACTURER	CAT. NO.	MOUNTING	REMARKS
A	BASEBOARD	240V, 1Ø	1500	OUELLET	OFM1500	WALL SURFACE	NOTES 1, 2
B	BASEBOARD	240V, 1Ø	1000	OUELLET	OFM1000	WALL SURFACE	NOTES 1, 2
C	BASEBOARD	240V, 1Ø	2000	OUELLET	OFM2000	WALL SURFACE	NOTES 1, 2
D	BASEBOARD	240V, 1Ø	750	OUELLET	OFM0750	WALL SURFACE	NOTES 1, 2

NOTES

- BOTTOM OF ELECTRIC HEATER TO BE MOUNTED 25mm. ABOVE FINISHED FLOOR.
- ALL HEATERS TO BE WHITE IN COLOR.

LIGHTING FIXTURE SCHEDULE

SYMBOL	LIGHT SOURCE	MOUNTING	LAMPS	VOLTS	MANUFACTURER	CAT. NO.	REMARKS
A	LED	WALL SURFACE	30W LED	120	LITHONIA	OLWX1 40W 40K	

1	ISSUED FOR TENDER	2/13/18	D.R.	F.E.
0	ISSUED FOR TENDER	8/09/17	D.R.	F.E.
B	ISSUED FOR REVIEW	8/04/17	D.R.	F.E.
A	ISSUED FOR REVIEW	7/31/17	D.R.	F.E.
no.	revision	date	by	approved
no.	revision	date	par	approve

Project - projet

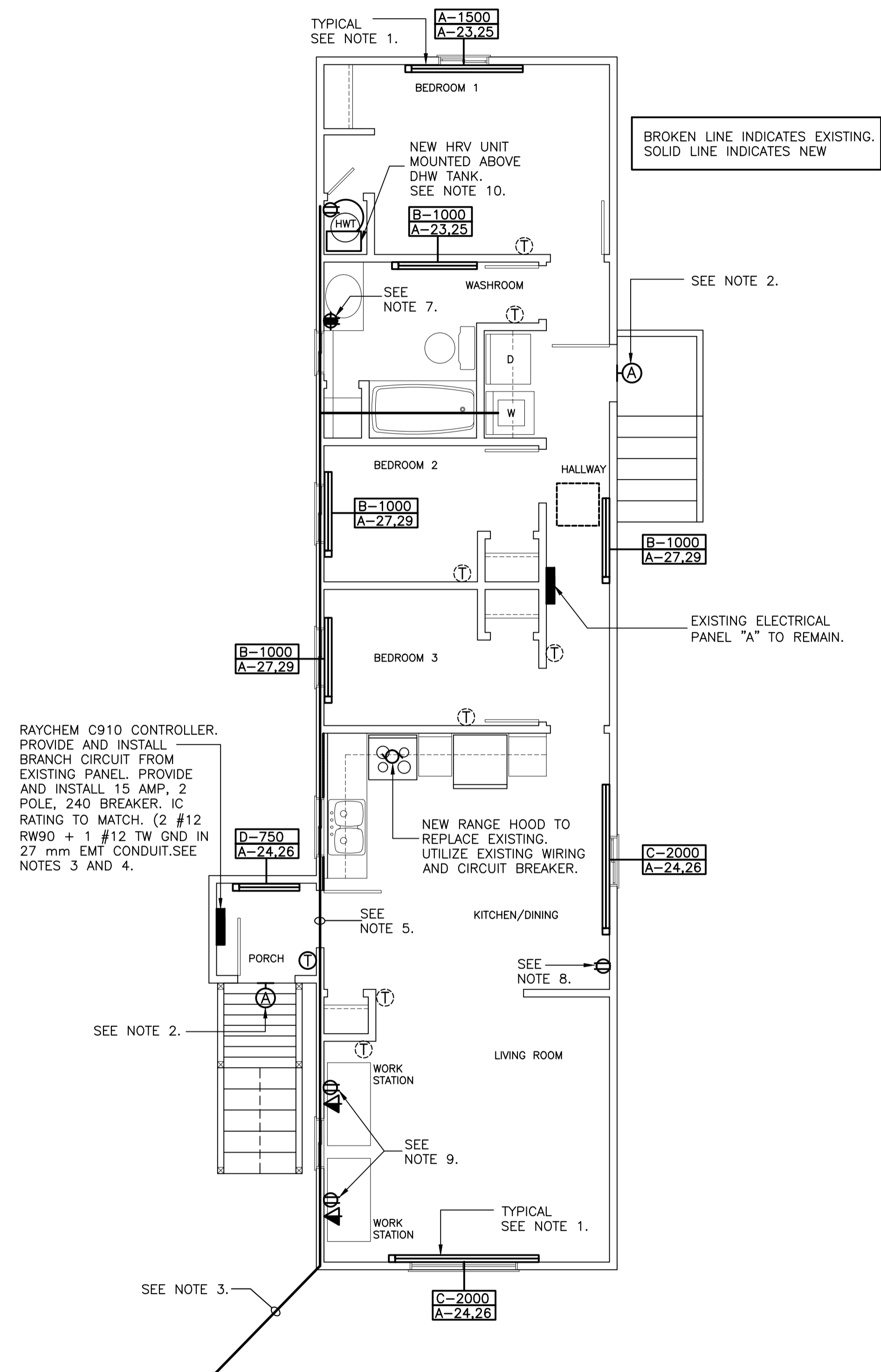
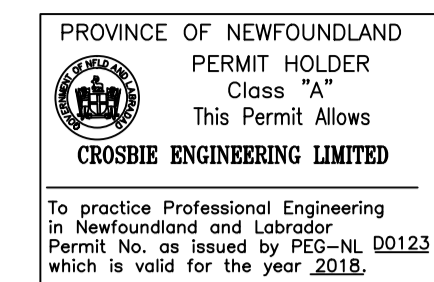
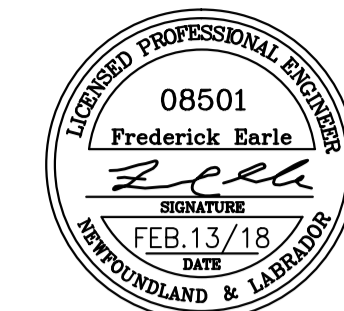
TRAILER IMPROVEMENTS

NAIN, NL

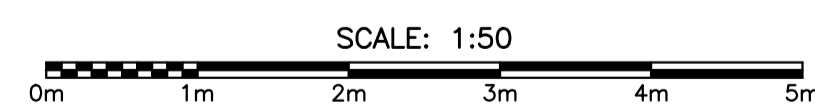
Drawing - dessin

**SITE PLAN AND ELECTRICAL
 PANEL AND SCHEDULES**

drawn - dessine	D.R.	designed - dessine par	F.E.
date - date	FEBRUARY 2018	checked - verifie	F.E.
scale - echelle	AS NOTED	approved for tender - approuve pour l'offre	
project no. - projet no.	F6879-179214	drawing no. - no du dessin	14C1201B00401E1
		sheet - feuille	E1



TRAILER FLOOR PLAN — NEW ELECTRICAL LAYOUT



GENERAL DRAWING NOTES:

- REPLACE ALL EXISTING ELECTRIC BASBOARD HEATERS WITH NEW AS INDICATED ON FLOOR PLAN. SEE HEATER SCHEDULE FOR DETAILS. EXISTING 20 AMP CIRCUIT BREAKERS AND WIRING TO REMAIN FOR HEATING CIRCUITS A-23,25 AND A-27,29. EXTEND WIRING AS REQUIRED. REMOVE EXISTING 20 AMP CIRCUIT BREAKER AND WIRING FOR HEATING CIRCUIT A-24,26. SUPPLY AND INSTALL NEW 30 AMP, 2 POLE CIRCUIT BREAKER C/W MOUNTING HARDWARE AND WIRING (2 #10 NMD90 PLUS GROUND). IC RATING TO MATCH. UTILIZE EXISTING THERMOSTATS WITH THE EXCEPTION OF THE PORCH WHICH WILL BE NEW TO MATCH EXISTING.
- REPLACE EXISTING EXTERIOR LIGHTING FIXTURES WITH NEW AS INDICATED ON FLOOR PLAN. EXISTING WIRING AND CIRCUIT BREAKER TO REMAIN. SEE LIGHTING FIXTURE SCHEDULE FOR DETAILS.
- INSTALL RAYCHEM 5XL1CT HEAT TRACE ON 3/4" WATER PIPING. LOOP HEAT TRACE SUCH THAT BOTH ENDS TERMINATE INSIDE BUILDING. PROVIDE AND INSTALL RAYCHEM RTD10CS TEMPERATURE SENSOR ON WATERLINE AND CONNECT TO C910 CONTROLLER. PROVIDE AND INSTALL RAYCHEM RTD200 AIR TEMPERATURE SENSOR. MOUNT TO EXTERIOR OF BUILDING AND CONNECT TO CONTROLLER. PROVIDE AND INSTALL 240 VOLT, 15 AMP 2 POLE CIRCUIT BREAKER AND MOUNTING HARDWARE. IC RATING TO MATCH. COORDINATE EXACT ELECTRICAL REQUIREMENTS PRIOR TO ORDERING MATERIALS AND ROUGH-IN.
- PROVIDE AND INSTALL RAYCLIC PC POWER CONNECTION KIT. PROVIDE AND INSTALL ALL NECESSARY JUNCTION BOXES, CONDUIT, WIRING AND CLIPS FOR A COMPLETE INSTALLATION. WATER LINE TO BE HEAT TRACED IN CRAWL SPACE AND EXTENDED TO WATER MAIN.
- APPROXIMATE LOCATION OF WATER LINE IN CRAWL SPACE. COORDINATE EXACT LOCATION ON SITE.
- CONTRACTOR TO REMOVE ALL EXISTING ELECTRICAL DEVICES IN TRAILER TO FACILITATE THE INSTALLATION OF NEW DRYWALL AND PAINTING. REINSTALL ELECTRICAL DEVICES WHEN WORK IS COMPLETE.
- SUPPLY AND INSTALL NEW 15 AMP, 1 POLE CIRCUIT BREAKER C/W MOUNTING HARDWARE AND WIRING (2 #14 NMD90 PLUS GROUND) FOR NEW GFCI DUPLEX RECEPTACLE. IC RATING TO MATCH. MOUNT RECEPTACLE 150mm. TO CENTER ABOVE COUNTER.
- SUPPLY AND INSTALL NEW 15 AMP, 1 POLE CIRCUIT BREAKER C/W MOUNTING HARDWARE AND WIRING (2 #14 NMD90 PLUS GROUND) FOR NEW DUPLEX RECEPTACLE (STAND-UP FREEZER). IC RATING TO MATCH.
- SUPPLY AND INSTALL 2 NEW RECEPTACLES AND 2 DUAL VOICE/DATA OUTLETS. SUPPLY AND INSTALL NEW 15 AMP, 1 POLE CIRCUIT BREAKER C/W MOUNTING HARDWARE AND WIRING (2 #14 NMD90 PLUS GROUND) FOR NEW DUPLEX RECEPTACLES (WORK STATIONS). IC RATING TO MATCH.
- SUPPLY AND INSTALL NEW 15 AMP, 1 POLE CIRCUIT BREAKER C/W MOUNTING HARDWARE AND WIRING (2 #14 NMD90 PLUS GROUND) FOR NEW DUPLEX RECEPTACLE. (HRV UNIT). IC RATING TO MATCH.

LEGEND

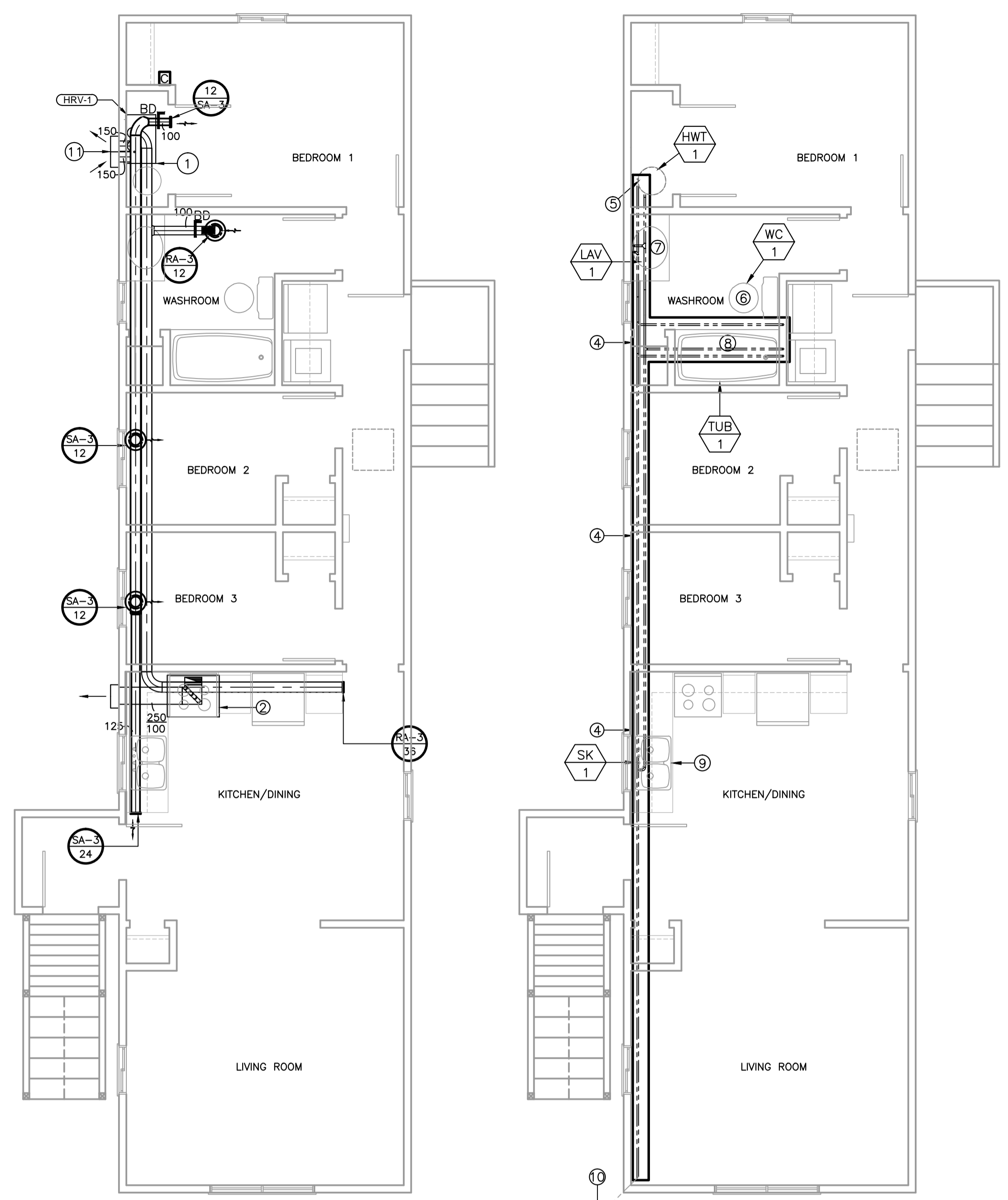
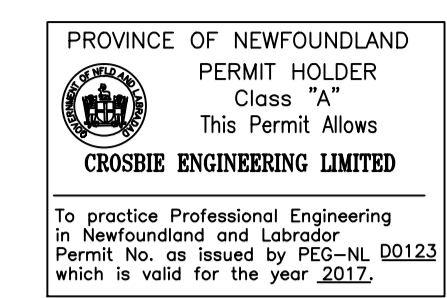
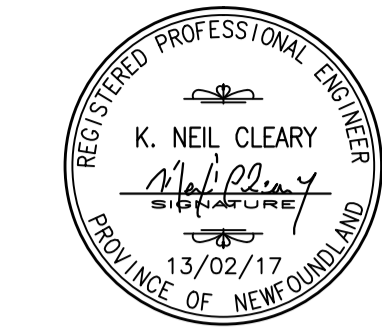
- KA LED LIGHTING FIXTURE, WALL MOUNTED. LETTER DENOTES TYPE. SEE LIGHTING FIXTURE SCHEDULE & SPECIFICATIONS FOR DESCRIPTION.
- B LED FLUORESCENT LIGHTING FIXTURE, CEILING MOUNTED. LETTER DENOTES TYPE. SEE LIGHTING FIXTURE SCHEDULE & SPECIFICATIONS FOR DESCRIPTION.
- S SINGLE POLE TOGGLE SWITCH. 15 AMP, SPECIFICATION GRADE, WHITE C/W STAINLESS STEEL COVERPLATE. SEE SPEC. FOR MORE INFORMATION. MOUNT 1200mm ABOVE FINISHED FLOOR.
- TYPE CIRCUIT ELECTRIC HEATER. SEE HEATER FIXTURE SCHEDULE AND/OR SPECIFICATION FOR DESCRIPTION.
- T LINE VOLTAGE ELECTRONIC THERMOSTAT. MOUNT 1200mm ABOVE FINISH FLOOR. RATED 3600 WATTS AT 240 VOLT.
- WP DUPLEX U-GROUND RECEPTACLE. 120 VOLT, 15 AMP, SPECIFICATION GRADE. WHITE & C/W STAINLESS STEEL COVERPLATE. WALL MOUNT 400mm ABOVE FINISHED FLOOR. "WP" INDICATES WEATHERPROOF COVERPLATE.
- DUPLEX U-GROUND RECEPTACLE. 120 VOLT, 15 AMP, SPECIFICATION GRADE. WHITE & C/W STAINLESS STEEL COVERPLATE. WALL MOUNT 150mm TO CENTER ABOVE COUNTER. "WP" INDICATES WEATHERPROOF COVERPLATE.
- GFCI DUPLEX RECEPTACLE. 120 VOLT, 15 AMP, WHITE, SPECIFICATION GRADE C/W STAINLESS STEEL COVERPLATE. WALL MOUNT 150mm TO CENTER ABOVE COUNTER.

1	ISSUED FOR TENDER	2/13/18	D.R.	F.E.
0	ISSUED FOR TENDER	8/09/17	D.R.	F.E.
B	ISSUED FOR REVIEW	8/04/17	D.R.	F.E.
A	ISSUED FOR REVIEW	7/31/17	D.R.	F.E.
no.	revision	date	by	approved
no.	revision	date	par	approve

Project - projet
TRAILER IMPROVEMENTS
 NAIN, NL

Drawing - dessin
FLOOR PLANS — NEW ELECTRICAL LAYOUT AND LEGEND

drawn - dessine	D.R.	designed - dessiné par	F.E.
date - date	FEBRUARY 2018	checked - vérifié	F.E.
scale - échelle	AS NOTED	approved for tender - approuvé pour l'offre	
project no. - projet no.	F6879-179214	drawing no. - no du dessin	14C1201B00401E2
		sheet - feuille	E2



MECHANICAL LEGEND:

- VENTILATION**
- ACUSTIC INSULATED DUCTWORK (DIMENSION = mm/mm)
 - FLEXIBLE DUCTWORK (DIMENSION = mmØ)
 - CIRCULAR DUCTWORK (DIMENSION = mmØ)
 - TYPICAL 90° DUCT ELBOWS; (R/W = 1.0 & w TURNING VANES)
 - TYPE AIRFLOW L/s
 - DIFFUSER/GRILLE TAG
 - TYPICAL SQUARE WALL MTD. SUPPLY AIR GRILLES (ROUND COLLAR)
 - TYPICAL WALL MTD. RETURN AIR GRILLES.
 - BALANCING DAMPER. ARCHITECTURAL TO PROVIDE HAND ACCESS FOR EACH DAMPER.
 - HRV HUMIDISTAT C/W TIME CLOCK
- PLUMBING**
- PLUMBING FIXTURE TAG
 - EXISTING WATER PIPING

DRAWING NOTES:

- ALL HRV UNITS ARE TO BE SUSPENDED FROM CEILING STRUCTURE PROVIDE AND INSTALL WALL MOUNTED CONTROLLER C/W 24 VOLT WIRING. INSTALL 20mmØ CONDENSATE DRAIN. DRAIN TIE INTO NEAREST DRAIN.
- EXISTING RANGE HOOD TO BE REPLACED WITH NEW. EQUAL TO BROAN QT230WVN, 84L/s, 25Pa, 0.2 hP, 120/1/60.
- PROVIDE NEW VENT PIPING FROM STORAGE INCLOSURE TO ROOF. 50mmØ VENT UP, INCREASING TO 75mmØ THRU ROOF
- ALL DOMESTIC HOT AND COLD PIPING BELOW INSULATED FLOOR AND CONTAINED IN CRAWL SPACE SHALL BE HEAT TRACED AND THERMALLY INSULATED. ELECTRICAL TO SUPPLY AND INSTALL HEAT TRACING AND MECHANICAL TO PROVIDE PIPE INSULATION 50mm THICK C/W WEATHERPROOF CASING. COORDINATE ON SITE.
- REPLACE EXISTING HOT WATER TANK WITH NEW DOMESTIC HOT WATER TANK. RE CONNECT HOT AND COLD WATER PIPING. SEE SCHEDULE ON THIS SHEET.
- REMOVE EXISTING WATER CLOSET, DISPOSE OFF SITE. REPLACE WITH NEW FIXTURE AS INDICATED.
- REMOVE EXISTING LAVATORY INCLUDING TRAP, AND HOT AND COLD SUPPLIES AND DISPOSE OFF SITE. REPLACE WITH NEW LAVATORY AS INDICATED. PROVIDE ANY NEW SANITARY PIPING OR HOT AND COLD PIPING TO RECONNECT.
- REMOVE EXISTING TUB UNIT INCLUDING TRAP, AND HOT AND COLD SUPPLIES AND DISPOSE OFF SITE. REPLACE WITH NEW TUB AS INDICATED. PROVIDE ANY NEW SANITARY PIPING OR HOT AND COLD PIPING TO RECONNECT.
- REMOVE EXISTING SINK INCLUDING TRAP, AND HOT AND COLD SUPPLIES AND DISPOSE OFF SITE. REPLACE WITH NEW AS INDICATED, PROVIDE ANY NEW SANITARY PIPING OR HOT AND COLD PIPING TO RECONNECT.
- EXISTING WATER MAIN TO BE HEAT TRACED AND INSULATED. PROVIDE UNDERGROUND CASING TO SUIT UNDER GROUND CONDITIONS. COORDINATE WITH ALL TRADES.
- THERMALLY INSULATED SUPPLY/EXHAUST DUCT TO RUN TO EXTERIOR FROM HRV. INSTALL WALL CAP C/W BIRD SCREEN. TRANSITION TANDAM WALL CAP MODEL VENMAR 14690.

GENERAL NOTES:

- VARIATION IN DUCTWORK ROUTING TO BE COORDINATED & APPROVED BY OWNER.
- CONTRACTOR TO PROVIDE ALL OFFSETS FOR DUCT CROSSOVERS.
- ALL SUPPLY DUCTWORK TO BE THERMALLY INSULATED
- CONDENSATE DRAIN LINES FOR ALL HRV'S TO BE DRAINED TO PLUMBING.
- FOLLOW MANUFACTURE'S RECOMMENDATIONS FOR INSTALLATION, CLEARANCES BALANCING AND ANY OTHER FORESEEN ITEMS FOR ALL EQUIPMENT INSTALLED.

FLOOR PLAN - NEW VENTILATION LAYOUT
SCALE: 1:50

FLOOR PLAN - NEW PLUMBING LAYOUT
SCALE: 1:50

TAG NO.	MODEL NO.	MANUF.	NOMINAL DUCT CONNECTION OR NECK SIZE	NOMINAL PANEL OR FACE SIZE (mm)	DISCHARGE PATTERN	NUMBER OF SLOTS	SURFACE TYPE	ACCESSORIES	FINISH	REMARKS
SA-1	VT0110	IMPERIAL	100mm	-	-	-	WALL MT	-	B-12	ADJUSTABLE AIR DIFFUSER
RA-1	VT0110	IMPERIAL	100mm	-	-	-	WALL MT	-	B-12	ADJUSTABLE AIR DIFFUSER

DWG TAG	MANUFACTURER	MODEL	OUTSIDE AIR PERFORMANCE						EXHAUST AIR PERFORMANCE						ELECTRICAL			REMARKS		
			WINTER(°C) DB	FLOW (l/s)	ESP (Pa)	TOTAL SP (w.g.)	FRPM	FAN (Bhp)	FAN (hp)	WINTER(°C) DB	FLOW (l/s)	ESP (Pa)	TOTAL SP (w.g.)	FRPM	FAN (Bhp)	FAN (hp)	VOLTAGE		FLA	MOC
HRV-1	FANTECH	VHR150R	-	48	100	.187	-	-	0.14	-	48	100	-	-	-	0.14	120/1/60	-	-	C/W 3 PRONG PLUG IN, WALL CAP & BIRDSCREEN.

FIXTURE TAG	MANUF.	MODEL NO.	COLOUR	WATER CLOSET & URINAL TRIM				SINK & LAVATORY TRIM				SHOWER & BATH TRIM			MOUNTING	ROUGHING				REMARKS
				SUPPLY/VALVE	TANK	CARRIER	SEAT	FAUCET	WASTE	TRAP	SUPPLIES	CARRIER	HEAD	FAUCET OR MIXING VALVE		WASTE & OVERFLOW	WASTE	VENT	HOT WATER	
WC-1	AMERICAN STANDARD	CADET FLOWISE 2467.100	WHITE	DELTA 47T1316SD	Y	-	BEMIS 2L2150T	-	-	-	-	-	-	-	FLOOR MTD.	75mm	40mm	-	12mm	BARRIER FREE, ELONGATED 419mm HIGH BOWL.
TUB-1	LONGEVITY	ESSENTIA 2060 (LEFT SIDE)	WHITE	-	-	-	-	-	-	-	-	-	DELTA T13H253-25	Y	FLOOR MTD.	50mm	40mm	12mm	12mm	INSTALL GRAB BARS. C/W INTEGRAL OVERFLOW AND UNIVERSAL BATH DRAIN. & RIO000-UNWS VALVE.
LAV-1	MATRIX DESIGNS	2237RSW	WHITE	-	-	-	-	DELTA 21C134	DELTA 33T290	DELTA 33T311	DELTA 47T2512SD	-	-	-	COUNTER MTD.	32mm	40mm	12mm	12mm	INTEGRAL SINK AND VANITY TOP SUPPLIED BY ARCHITECTURAL. PIPES TO BE INSULATED WHERE EXPOSED.
SK-1	KINDRED FRANKE	LBD6408-1	S.S.	-	-	-	-	DELTA 27C4834	CRUMB CUP STRAINER	DELTA 33T360	DELTA 47T2512SD	-	-	-	COUNTER MTD.	50mm	40mm	12mm	12mm	BARRIER FREE C/W 89mm CRUMB CUP STRAINER, LEDGE BACK DRILLED FOR 203mm O.C. DECK FAUCET. ALL PIPES TO BE INSULATED WHERE EXPOSED & C/W R2570-MIXLF THERMOSTATIC MIXING VALVE.
HWT-1	NEW HWT-1, 40 GALLON RHEEM STAINLESS STEEL HOT WATER TANK. 4500 WATT ELEMENT, 240/1/60 VOLT. DIMENSIONS OF 553mmØ, 1664mm HEIGHT.																			

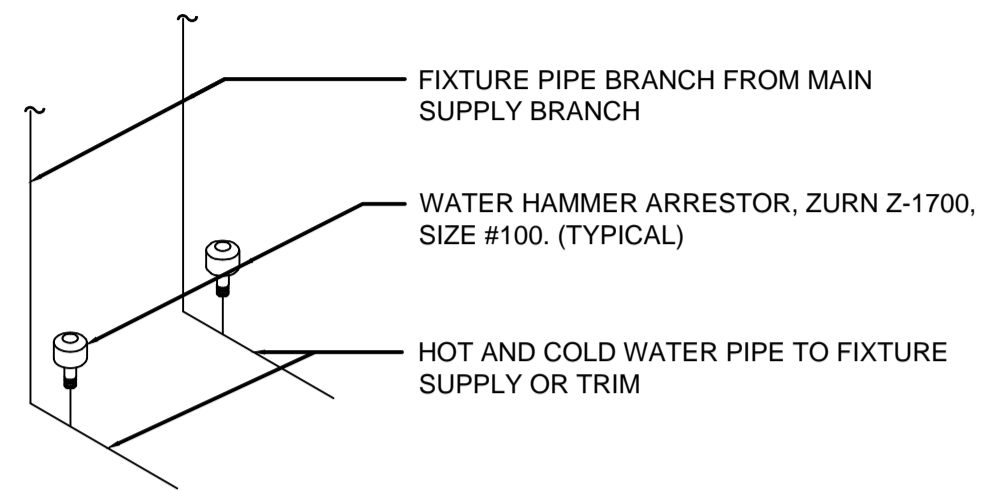
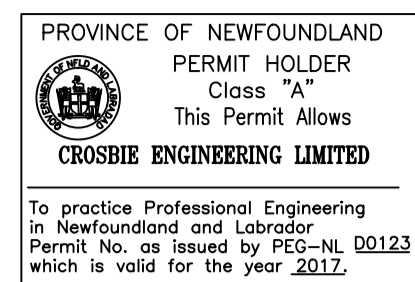
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Project - projet
TRAILER IMPROVEMENTS
 NAIN, NL

Drawing - dessin

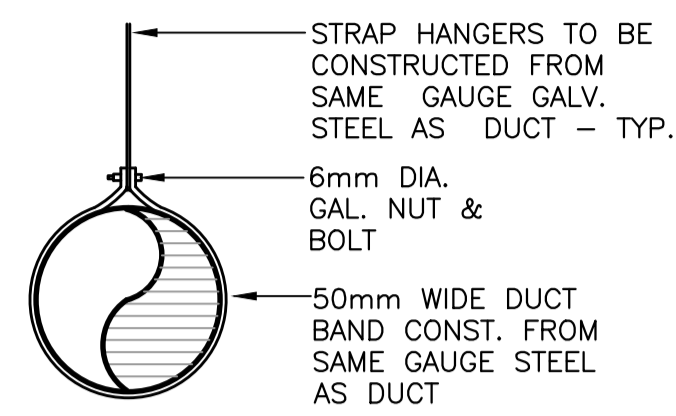
FLOOR PLAN - NEW MECHANICAL LAYOUT AND SCHEDULES

drawn - dessine	B.D.	designed - dessine par	N.C.
date - date	AUGUST 2017	checked - verifie	N.C.
scale - echelle		approved for tender - approuve pour l'offre	
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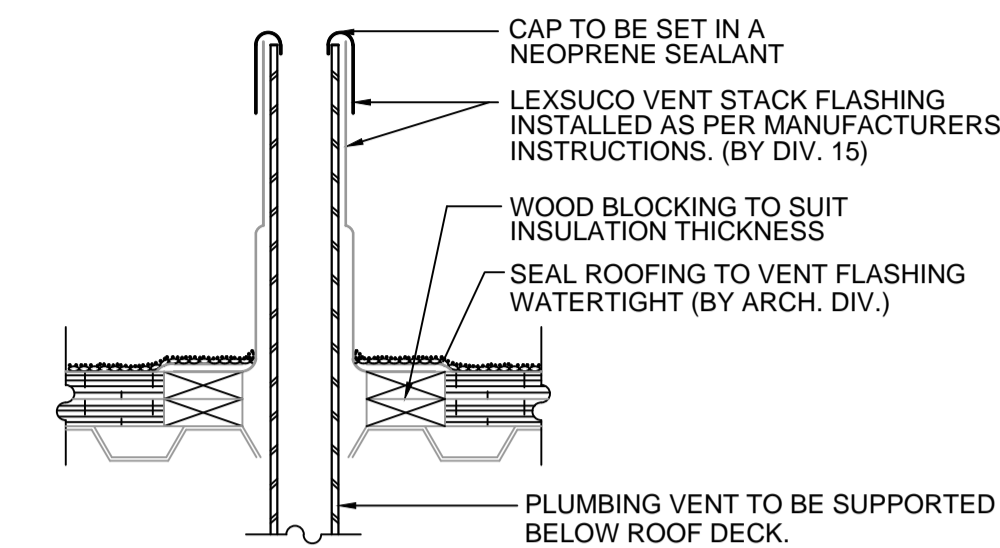


WATER HAMMER ARRESTOR DETAIL 9
 SCALE = N.T.S. M-2

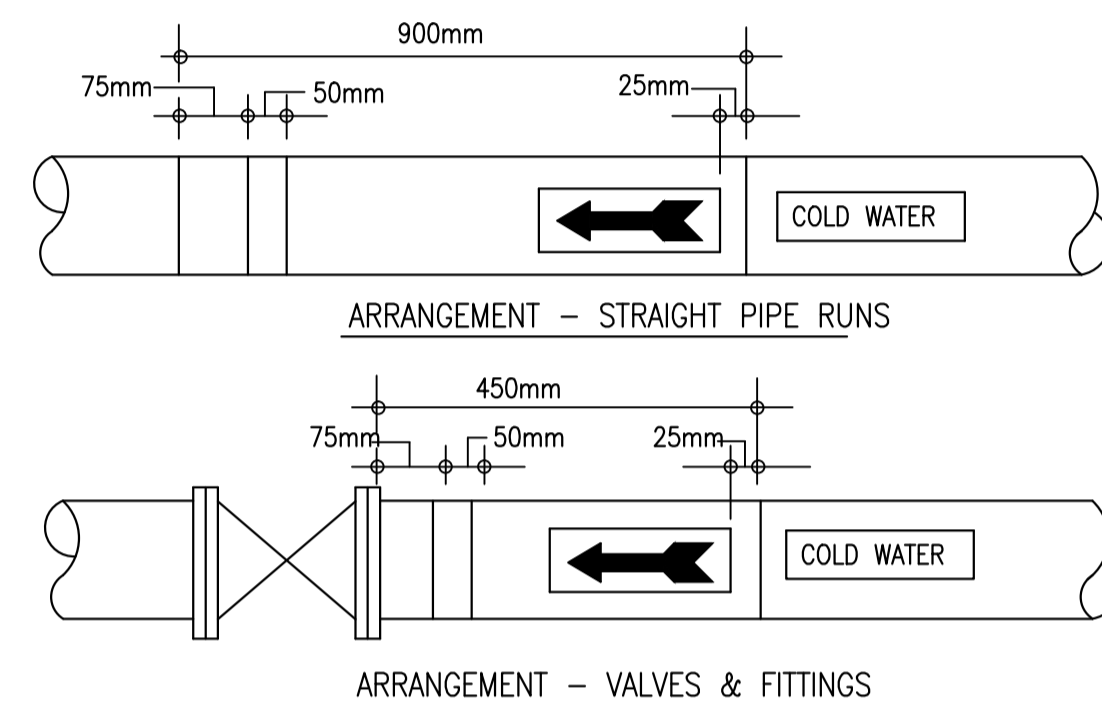
- NOTES:
 1.) ALL HANGER STRAPS & HANGER RODS SHALL BE FIRMLY SUPPORTED FROM THE STRUCTURE.
 2.) DUCT SUPPORT UP TO 1500mm DUCT DIM. SHALL BE INSTALLED @ 1200mm c/c MAX.



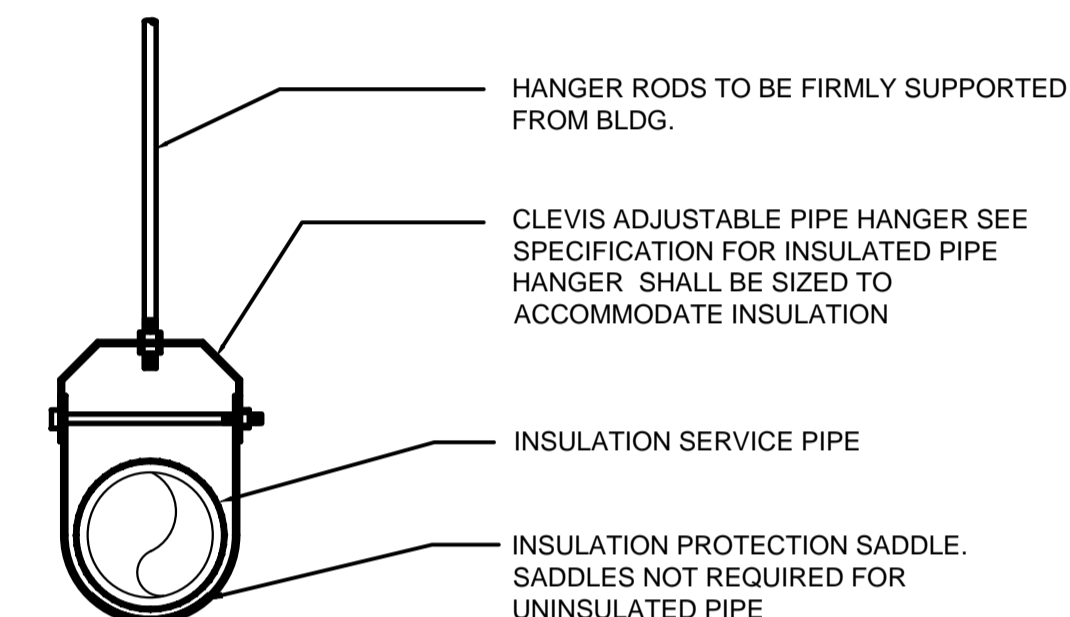
TYPICAL DUCT SUPPORTS DETAIL 5
 SCALE = N.T.S. M-2



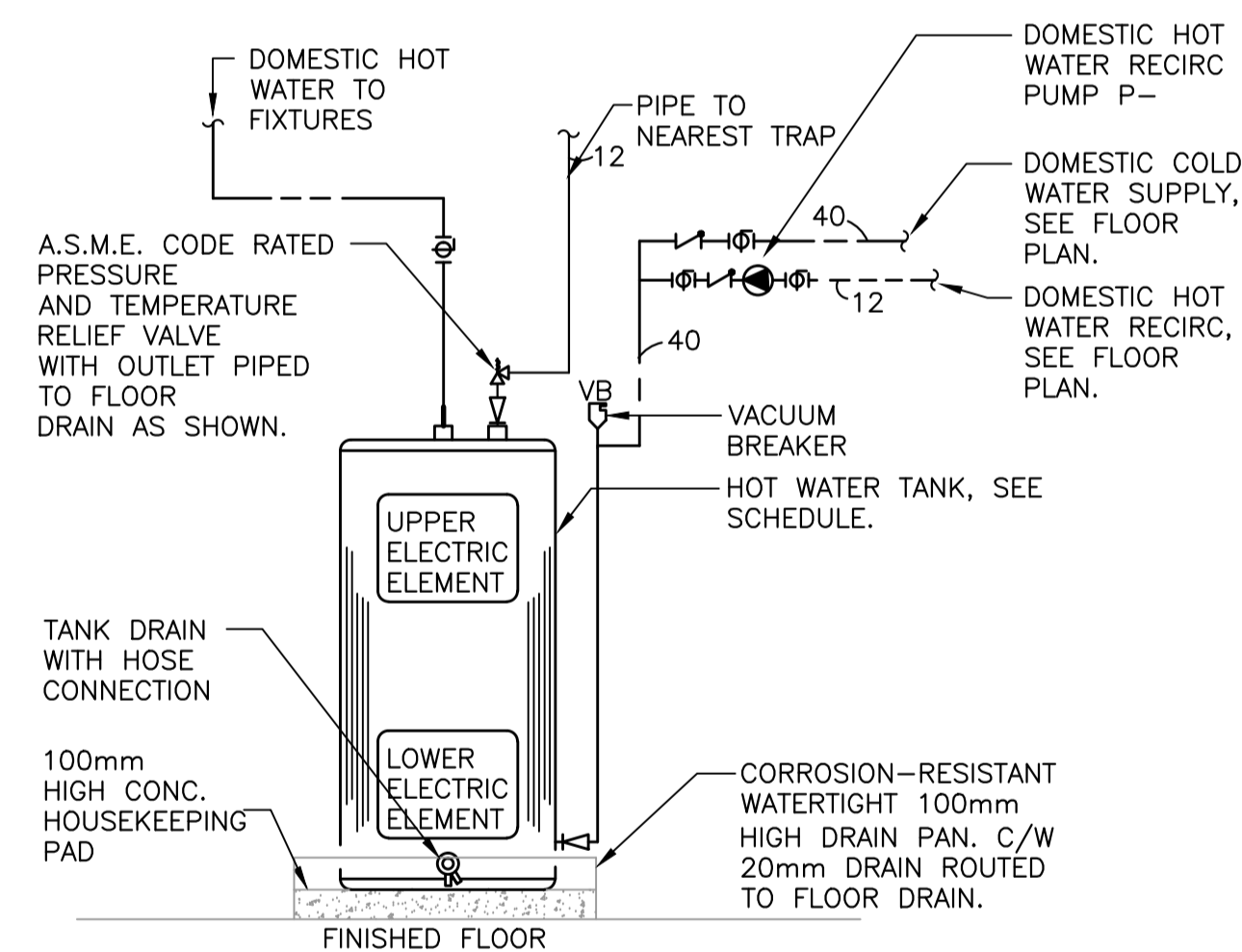
TYPICAL VENT FLASHING 1
 SCALE = N.T.S. M-2



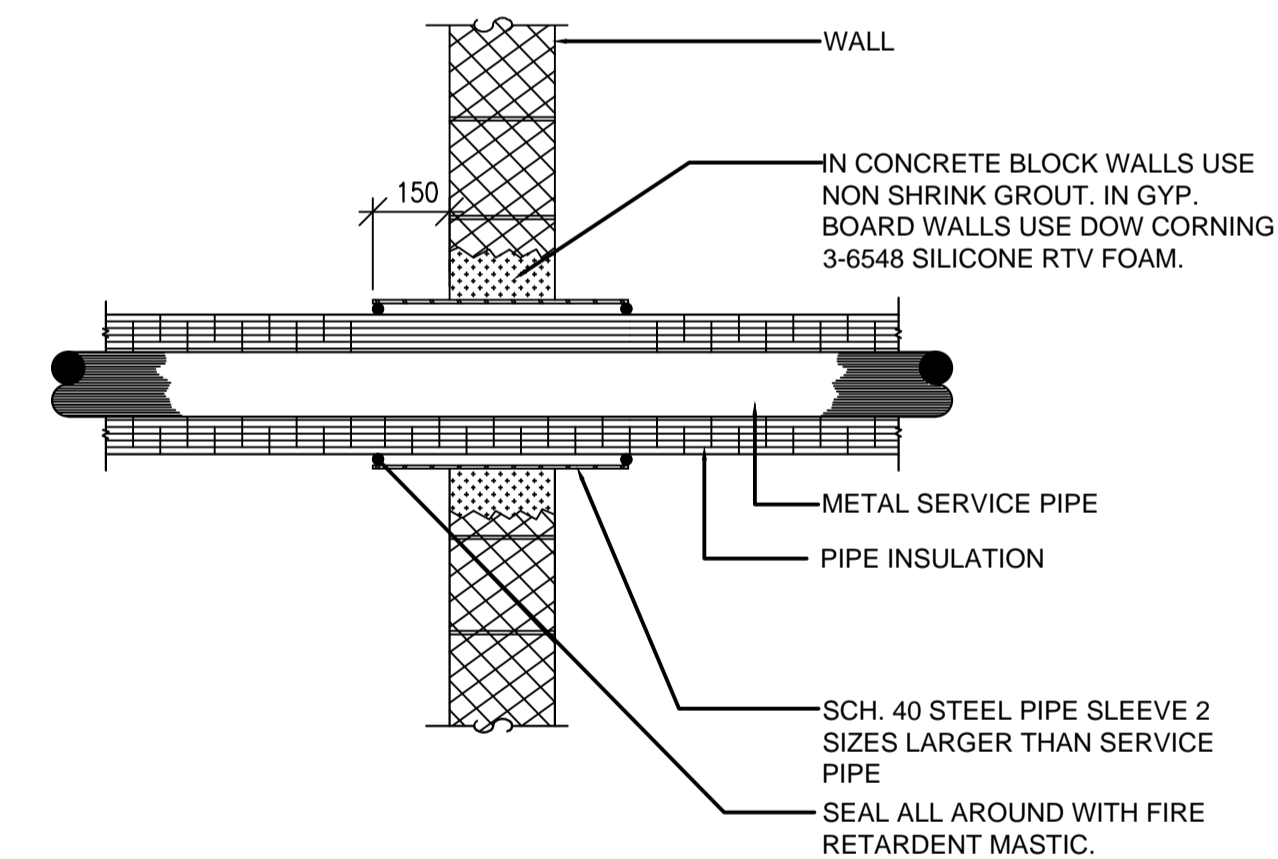
PIPING SYSTEM IDENTIFICATION DETAILS 6
 SCALE = N.T.S. M-2



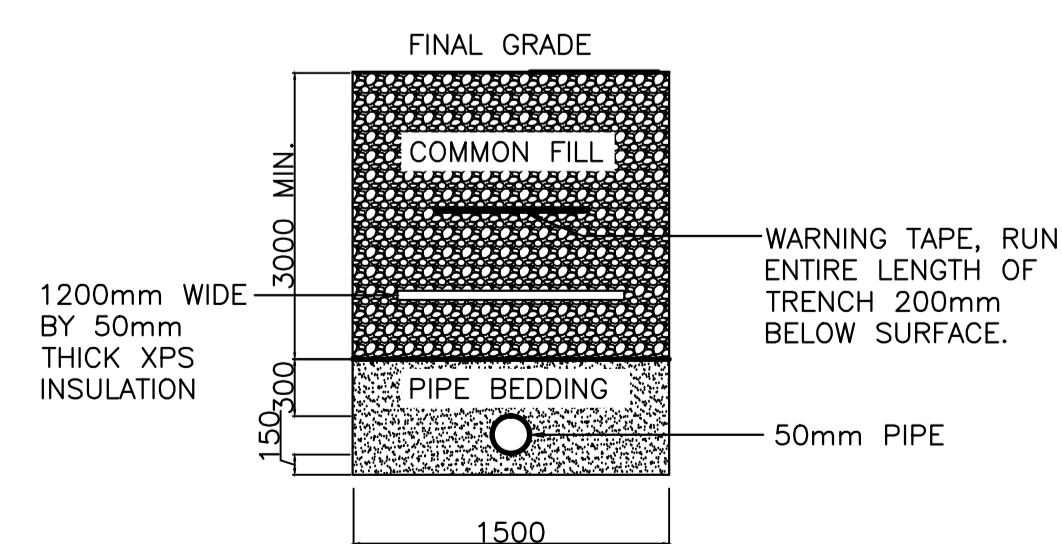
TYPICAL CLEVIS PIPE HANGER 2
 SCALE = N.T.S. M-2



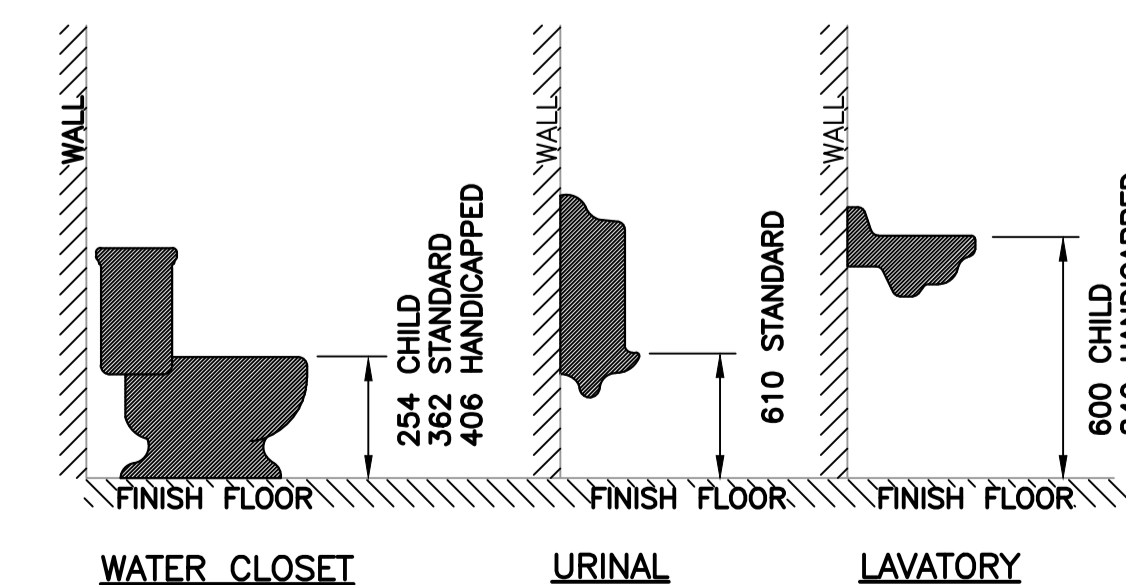
DOMESTIC HOT WATER TANK PIPING DETAIL 7
 SCALE = N.T.S. M-2



SERVICE PIPE PENETRATING NON-RATED WALL 3
 SCALE = N.T.S. M-2



DETAIL - TYP. WATER MAIN TRENCH 8
 SCALE = N.T.S. M-2



PLUMBING FIXTURE MTG. STANDARDS 4
 SCALE = N.T.S. M-2

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Project - projet
TRAILER IMPROVEMENTS
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Drawing - dessin
MECHANICAL DETAILS

drawn - dessine	B.D.	designed - dessine par	N.C.
date - date	AUGUST 2017	checked - verifie	N.C.
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project no. - projet no.	F6879-179214	drawing no. - no du dessin	14C1201B00401M2
		sheet - feuille	2 of 3

GENERAL MECHANICAL SPECIFICATION

SCOPE OF WORK

MECHANICAL DIVISION SHALL FURNISH ALL LABOUR, MATERIALS AND EQUIPMENT NECESSARY FOR THE PROPER AND TIMELY COMPLETION OF THE MECHANICAL SYSTEMS AS SHOWN ON THE DRAWINGS AND/OR AS SPECIFIED. THE SPECIFICATIONS SHALL BE CONSIDERED AS AN INTEGRAL PART OF THE PLANS WHICH ACCOMPANY THEM, NEITHER THE PLANS NOR THE SPECIFICATIONS SHALL BE USED ALONE. ANY ITEMS OR SUBJECT OMITTED FROM ONE BUT WHICH IS MENTIONED OR REASONABLY ADOPTED IN THE OTHER SHALL BE CONSIDERED AS PROPERLY AND SUFFICIENTLY SPECIFIED, AND MUST, THEREFORE, BE PROVIDED. MISINTERPRETATIONS OF EITHER THE PLANS OR THE SPECIFICATIONS SHALL NOT RELIEVE THIS DIVISION OF RESPONSIBILITY.

IT IS THE INTENT THAT THE DRAWINGS AND SPECIFICATIONS TO DESCRIBE COMPLETE MECHANICAL SYSTEMS. ALL MATERIALS AND EQUIPMENT AND THE FURNISHING OF ALL LABOUR REASONABLY IMPLIED BY THESE DRAWINGS AND/OR THE SPECIFICATIONS SHALL BE INCLUDED TO PROVIDE SYSTEMS READY FOR SATISFACTORY OPERATION. REFER TO ALL OTHER TRADE DRAWINGS AND SPECIFICATIONS TO FULLY COORDINATE THE INSTALLATION OF THE WORK.

STANDARD OF ACCEPTANCE

THE ITEM NAMED AND SPECIFIED BY MODEL OR CATALOGUE NUMBER FORMS PART OF SPECIFICATION AND SETS THE STANDARD REGARDING PERFORMANCE QUALITY OF MATERIAL AND WORKMANSHIP.

TENDER PRICES SHALL BE BASED ON THE SPECIFIED EQUIPMENT LISTED AS ACCEPTABLE PRODUCT OR AS BASE BID. ALL ALTERNATES OF LISTED EQUIPMENT MUST BE LISTED SEPARATELY ON THE TENDER FORM WITH COST SAVINGS. THE OWNERS AND THE CONSULTANT HAVE THE OPTION OF ACCEPTING OR REJECTING ALTERNATE EQUIPMENT.

CODES, REGULATIONS AND PERMITS

THE COMPLETE MECHANICAL INSTALLATION SHALL CONFORM TO THE LATEST EDITION OF THE NATIONAL BUILDING CODE, NFPA 13, CANADIAN PLUMBING CODE, ASHRAE AND SMACNA STANDARDS AND LOCAL BY-LAWS CURRENTLY IN FORCE IN THE PROVINCE AND MUNICIPALITY.

ALL MECHANICAL WORK SHALL BE INSTALLED, INSPECTED AND TESTED IN ACCORDANCE WITH GOVERNING CODES, RULES AND REGULATIONS OF THE MUNICIPALITY IN WHICH THE WORK IS PERFORMED AND ALSO OF PROVINCIAL AND FEDERAL AUTHORITIES HAVING JURISDICTION. THE MECHANICAL CONTRACTOR SHALL OBTAIN ALL PERMITS REQUIRED FOR THE INSTALLATION OF MECHANICAL WORK, ARRANGE FOR INSPECTIONS AND TESTS AND PAY ALL FEES AND COSTS FOR THE PERMITS AND INSPECTIONS. ALL NECESSARY PERMITS SHALL BE OBTAINED IMMEDIATELY AFTER NOTIFICATION OF AWARD OF CONTRACT.

IN ADDITION TO THE FOREGOING, THE MECHANICAL CONTRACTOR SHALL PERFORM SUCH OTHER INSPECTIONS AND TESTS AS MAY BE DEEMED NECESSARY BY THE PRIME CONSULTANT.

THE NATIONAL BUILDING CODE AND THE APPLICABLE REQUIREMENTS OF CSA, ASTM, ANSI, ULC, AND NFPA STANDARDS INCLUDING THEIR LATER AMENDMENTS, AS WELL AS PROVINCIAL AND MUNICIPAL BYLAWS AND REGULATIONS SHALL BE CONSIDERED PART OF THIS SPECIFICATION. LACK OF POSSESSION OR KNOWLEDGE OF ANY CODE OR STANDARD REQUIRED FOR PROPER COMPLETION OF THE WORK SHALL NOT CONSTITUTE SUFFICIENT REASON FOR DEVIATION THEREFROM.

RECORD DRAWINGS

CLEARLY RECORD ALL CONTRACT CHANGES AND DEVIATIONS FROM THE CONTRACT DRAWINGS ON A SET OF DRAWINGS AVAILABLE FROM THE GENERAL CONTRACTOR FOR THIS PURPOSE AND FORWARDED TO THE GENERAL CONTRACTOR AT THE COMPLETION OF THE PROJECT.

SITE VISIT

THIS CONTRACTOR SHALL VISIT THE SITE AND EVALUATE ALL EXISTING SITE CONDITIONS AS THEY MAY AFFECT THIS WORK. NO EXTRAS WILL BE ALLOWED FOR ANY EFFECTS FROM FAILING TO COMPLETE A COMPREHENSIVE SITE TOUR TO UNDERSTAND AND ACCOUNT FOR THE IMPACT OF EXISTING SITE CONDITIONS ON THE CONTRACT SCOPE OF WORK.

CUTTING AND PATCHING

THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR AND PAY FOR ALL CUTTING AND PATCHING REQUIRED IN THE SCOPE OF WORK AS DEFINED IN THE GENERAL CONDITIONS. ALL NEW FINISHES SHALL BE EQUAL TO THOSE OF SURROUNDING SURFACES FOR MATERIALS, COLOUR, TEXTURE AND WORKMANSHIP. THIS DIVISION SHALL CLEARLY MARK OUT ALL OPENINGS REQUIRED AND REVIEW WITH THE GENERAL CONTRACTOR BEFORE CUTTING PROCEEDS. THIS DIVISION SHALL INSTALL ALL OPENING FRAMES, SLEEVES, DUCTWORK AND PIPING, LOUVRES, ETC., INTO THE BUILDING STRUCTURE AS CONSTRUCTION PROGRESSES. ANY ITEMS MISSED DURING CONSTRUCTION THAT MUST BE ADDED WILL BE THE RESPONSIBILITY OF THIS DIVISION AND WILL BE COORDINATED WITH THE GENERAL TRADES.

CO-ORDINATION

CONFER AND COOPERATE WITH OTHER TRADES IN ORDER TO ELIMINATE ANY UNNECESSARY DELAYS TO THE CONSTRUCTION SCHEDULE. WHERE DOUBT EXISTS REGARDING OTHER TRADES, CONFER WITH THE SUPERINTENDANT WITHOUT DELAY FOR EXPEDITED INSTRUCTIONS CONCERNING HOW TO PROCEED WITH THE WORK. EXPEDITE DELIVERY OF ALL EQUIPMENT AND MATERIALS TO MEET CONSTRUCTION SCHEDULE. ANY INTERFERENCE ISSUES THAT ARISE SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO DUCTWORK FABRICATION.

COMMISSIONING

ENSURE THAT ALL EQUIPMENT AND SYSTEMS ARE OPERABLE AND SAFE FOR NORMAL OPERATION. ALL TESTING, ADJUSTING, BALANCING WORK AND RECORD KEEPING SHALL BE PERFORMED PRIOR TO COMMISSIONING. OPERATIONAL TESTS ON EQUIPMENT, DUCTWORK, PIPING AND CONTROL SYSTEMS SHALL BE PERFORMED PRIOR TO COMMISSIONING TO VERIFY THAT PRESSURE AND FLOW RATES MEET DESIGN REQUIREMENTS.

SHOP DRAWINGS

SHOP DRAWINGS AND DATA SHEETS FOR EQUIPMENT INTENDED FOR INSTALLATION UNDER THIS CONTRACT SHALL BE SUBMITTED FOR REVIEW. AFTER CHECKING AND WHEN REVIEWED, COPIES WILL BE RETURNED TO THE CONTRACTOR.

ACCESS DOORS

SUPPLY ACCESS DOORS FOR FURRED CEILINGS OR SPACES FOR SERVICING EQUIPMENT AND DUCT ACCESSORIES OR FOR INSPECTION OF LIFE SAFETY OR OPERATING DEVICES. SUPPLY STAINLESS STEEL ACCESS DOORS FOR TILED, MARBLE, TERRAZZO OR SPECIAL SURFACES. STANDARD OF ACCEPTANCE ZURN, ACUDOR, ANCON. ACCESS DOORS SHALL BE FLUSH MOUNTED 600 X 600 MM FOR BODY ENTRY AND 450 X 450 MM FOR SERVICE ENTRY UNLESS OTHERWISE NOTED. DOORS SHALL OPEN 1800 HAVE ROUNDED SAFETY CORNERS, CONCEALED HINGES, SCREWDRIVER LATCHES AND ANCHOR STRAPS. STEEL SHALL BE PRIME COATED. ANY ACCESS DOORS IN FIRE RATED ASSEMBLIES OR SEPARATIONS SHALL BE ULC RATED FOR APPROPRIATE SEPARATION RATING.

MAINTENANCE INSTRUCTIONS

SUPPLY CERTIFIED PERSONNEL TO INSTRUCT OWNERS OPERATING STAFF ON OPERATION OF MECHANICAL EQUIPMENT. SUPPLY MAINTENANCE SPECIALIST PERSONNEL TO INSTRUCT OPERATING STAFF ON MAINTENANCE AND ADJUSTMENT OF MECHANICAL EQUIPMENT AND ANY CHANGES OR MODIFICATIONS IN EQUIPMENT MADE UNDER THE TERMS OF THE GUARANTEE. PROVIDE INSTRUCTION TO OWNERS STAFF DURING REGULAR WORK HOURS PRIOR TO ACCEPTANCE OF THE SYSTEMS FOR REGULAR OPERATION.

BUILDING STRUCTURE

INITIATE NO DRILLING, CUTTING OR WELDING OF THE BUILDING STEEL OR CONCRETE CONSTRUCTION FOR THE PURPOSE OF SUPPORTING MATERIALS OR EQUIPMENT WITHOUT PRIOR APPROVAL OF THE PRIME CONSULTANT.

HVAC AND EQUIPMENT IDENTIFICATION

IDENTIFY ALL HVAC SYSTEMS. INDICATE DUCT SIZE, SERVICE AND DIRECTION OF FLOW. THE LETTERING SHALL BE PROPORTIONAL TO THE OUTSIDE DIAMETER OF THE DUCTWORK. BRADEY TAGS SHALL BE THE STANDARD OF LABELS.

AIR DISTRIBUTION

DUCTWORK SYSTEMS

THE DUCTWORK AND ACCESSORIES SHALL BE GALVANIZED STEEL AND SHALL BE INSTALLED IN STRICT ACCORDANCE WITH A.S.H.R.A.E. AND S.M.A.C.N.A. STANDARDS FOR METHODS OF SUSPENSION, JOINTS, REINFORCEMENT, CROSS BREAKING, INSULATION AND MATERIAL GAUGES FOR THE REQUIRED FAN SYSTEM OPERATING PRESSURES. FITTINGS SHALL BE FABRICATED WITH SMOOTH TRANSITIONS, PROPER SMACNA RADI AND TRANSITION ANGLES AND QUALITY BALANCING DEVICES.

LONGEST SIDE	GAUGE(US)	TYPE OF JOINTS				
		HEIGHT	SLIP	BAR SLIP	LOCK	"T"
UP TO 11"(275mm)	26	25	24	-	24	-
12"(300mm) TO 24"(600mm)	24	25	22	-	22	-
25"(625mm) TO 60"(1500mm)	22	25	-	22	22	22
61"(1525mm) TO 108"(2700mm)	20	37	-	22	22	22

SEAL ALL DUCT SYSTEM JOINTS WITH GREY HIGH PRESSURE DUCT SEALER. CIRCULAR DUCTWORK SHALL BE FACTORY FABRICATED GALVANIZED SPIRAL SEAM WITH FABRICATE FITTINGS.

- ALL BRANCH TAKE OFFS TO BE 45 DEG. CONICAL LATERALS.
- SLEEVE TYPE COUPLING JOINTS ALL SEALED WITH FLEXIBLE MEDIUM PRESSURE DUCT SEALANT AND SCREWS.

FLEXIBLE DUCTWORK SHALL BE U.L.C. LISTED, SOUNDLINED WITH VAPOUR BARRIER. THERMAFLX MAKE OR EQUIVALENT. MAXIMUM LENGTH TO DIFFUSERS 2000 MM UNLESS OTHERWISE INDICATED. FASTEN WITH SCREWS, WASHERS AND FOIL TAPE AT JOINTS. DUCT TAPE SHALL NOT BE USED.

FLEXIBLE CONNECTIONS: PROVIDE AT ALL FANS AND LIKE EQUIPMENT SUBJECT TO VIBRATION. SUITABLE MATERIALS NEOPRENE COATED GLASS FABRIC, DURO-DYNE OR EQUAL, NOT MORE THAN 4" (100mm) LONG BETWEEN METAL PARTS AND INSTALLED WITH SUFFICIENT SLACK TO PREVENT VIBRATION TRANSMISSION.

LEAKAGE TESTING: WITH FANS OPERATING CARRY OUT VISUAL JOINT INSPECTION USING A SMOKE PENCIL; RESEAL ANY JOINTS WITH OBVIOUS LEAKAGE

DUCTWORK INSULATION

RECTANGULAR DUCTWORK DESCRIBED IN THE SCOPE OF WORK BELOW SHALL BE INSULATED WITH 25 MM THICK FIBREGLASS FLEXIBLE, EMBOSSED FOIL FACED VAPOUR SEALED DUCT INSULATION APPLIED OVER SPOT WELDED PINS ON 85 MM CENTRES, WITH INSULATION CAPPED WITH SPRING CLIP WASHERS OF 25 MM DIAMETER. SEAL ALL JOINTS, PUNCTURES AND BREAKS WITH 100 MM WIDE STRIPS OF ALUMINUM FOIL VAPOUR BARRIER TAPE ADHERING WITH SUITABLE FIRE RETARDANT ADHESIVE. ROUND DUCTWORK SHALL BE INSULATED WITH FLEX 40 MM THICK FOIL FACED SEALED DUCT INSULATION WITH ALL JOINTS TAPED VAPOUR TIGHT.

INSULATE THE FOLLOWING:

- SUPPLY AIR DUCTWORK.
- EXHAUST DUCTS WITHIN 1500 MM OF EXTERIOR WALLS.
- EXTERIOR CONNECTIONS TO HVAC UNITS.

GRILLES AND DIFFUSERS

SUPPLY AND INSTALL DIFFUSERS AND GRILLES AS INDICATED ON DRAWINGS. DIFFUSERS IN RATED ASSEMBLIES SHALL BE U.L.C. LISTED OR EQUIPPED WITH U.L.C. FIRE STOP FLAPS. SEE SCHEDULE FOR GRILLE AND DIFFUSER TYPES.

HANGERS

SUPPORT EACH SECTION OF THE DUCTWORK WITH STEEL RODS ANGLE IRON, "C" CLAMPS AND OR CONCRETE INSERTS ALL AS PER SCHEDULE BELOW:

DUCT SIZES	ANGLE DIM.	RODS DIA.	SPACING
UP TO 24" (750)	1"x 1"x 1/8" (24x25x3mm)	1/4"(6mm)	108"(2700mm)
31" TO 48" (755 TO 1200mm)	2"x 2"x 1/8" 37x37x3mm)	1/4"(6mm)	108"(2700mm)
49" TO 72" (1225 TO 1800mm)	2"x 2"x 1/8" 37x37x3mm)	3/8"(9mm)	108"(2700mm)
73" TO 96" (1825 TO 2400mm)	2"x 2"x 1/8" 37x37x3mm)	3/8"(9mm)	108"(2700mm)

DUCTS UP TO 18" (450mm) MAY BE SUPPORTED WITH GALVANIZED STEEL STRAP HANGERS MANUFACTURED TO SMACNA STANDARDS, SCREWED AT THE TOP AND ON THE BOTTOM OF DUCT. DO NOT BREAK CONTINUITY OF INSULATION VAPOR BARRIER BY HANGERS OR RODS.

FIRE SEPARATIONS

SUPPLY AND INSTALL. ALL FIRE DAMPERS AND FIRE STOP FLAPS C/W FUSIBLE LINKS AND ACCESS DOORS AS REQUIRED UNDER THE NATIONAL BUILDING CODE & NATIONAL FIRE CODE. DAMPERS SHALL BE TYPE 'B', 100% FREE AREA UNLESS NOTED AND SHALL BE U.L.C. LISTED FOR THE SPECIFIC APPLICATION AND INSTALLATION ORIENTATION. INSTALL AT OUTLETS OR DUCTS PASSING THROUGH FIRE SEPARATIONS. REFER TO THE ARCHITECTURAL DRAWINGS FOR DESIGNATED FIRE SEPARATIONS. INSTALL FIRE DAMPERS IN ACCORDANCE WITH NFPA 90A AND ULC STANDARDS WITH BACKUP ANGLES AND BREAKAWAY JOINTS. PROVIDE DUCT ACCESS DOORS AS WELL AS DRYWALL ACCESS DOORS FOR COMPLETE ACCESSIBILITY. THE CONTRACTOR SHALL DEMONSTRATE COMPLETE KNOWLEDGE AND ABILITY TO INSTALL THESE DEVICES TO THE U.L.C. INSTRUCTIONS BEFORE PROCEEDING WITH SITE WORK. FIRE DAMPERS THAT HAVE BEEN INSTALLED PRIOR TO THE APPROVAL OF THE SHOP DRAWINGS SHALL BE REMOVED FROM THE MOUNTING POSITION. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE LOCATIONS OF ALL FIRE RATED SEPARATIONS APPARENT FROM MECHANICAL OR ARCHITECTURAL DRAWINGS.

SPARE BELTS AND KEYS

PROVIDE A SPARE SET OF BELTS FOR ALL EQUIPMENT BEING SUPPLIED UNDER THIS CONTRACT. EACH SPARE BELT SHALL BE MARKED WITH SIZE, MODEL ETC... AND WHICH PIECE OF EQUIPMENT IT SERVES. PROVIDE A SET IN DUPLICATE OF KEYS FOR THERMOSTATS, KEY OPERATED SWITCHES ETC... EACH KEY SHALL BE MARKED CONCERNING ITS USE.

PLUMBING

PIPE SYSTEMS

PIPING & VALVES:

- HOT AND COLD WATER: ABOVE GROUND WATER SUPPLY PIPING TO BE TYPE "L" HARD DRAWN COPPER FOR THE WATER ENTRANCE.

ALL PLUMBING SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL PLUMBING CODE. PROVIDE INSERTS, SLEEVES AND ANCHORS WHERE NECESSARY AND COORDINATE WITH OTHER TRADES TO THE FULLEST EXTENT IN THE PROVISION OF OPENINGS, CHASES, ETC. TO ACCOMMODATE THE PIPING SYSTEMS.

PIPE MATERIAL SHALL BE AS SPECIFIED BELOW:

BURIED DWV PIPING: PVC TO CSA B181.1, B181.2, INSTALLED ON A 150 MM BED OF GRANULAR A OR SAND AND BACKFILLED TO 150 MM ABOVE PIPE WITH SAME.
ABOVE GROUND DWV: CAST IRON
COLD, HOT DOMESTIC PIPING: COPPER ASTM B-88 TYPE 'L' HARD FOR EXPOSED PIPING, 95-5 LEAD FREE SOLDER

SEAL OPENING AROUND PIPES PASSING THROUGH FIRE PARTITIONS WITH A FIRE RESISTANT SEALANT.

- PIPE INSTALLATION GENERAL: WITH THE EXCEPTION OF VENTS, PIPING SHALL NOT BE INSTALLED IN EXTERIOR WALLS OR OTHER LOCATIONS WHERE THERE IS A RISK OF FREEZING; INSTALL ALL ABOVE GRADE PIPING TO ALLOW COMPLETE DRAINAGE; CAULK GAPS AROUND PIPING PASSING THROUGH FLOORS, DEMISING WALLS, AND PARTITIONS. AT FLOOR AND ROOF WITH NON SETTING COMPOUND; FIRE RATED WHERE WALLS OR FLOORS ARE FIRE RATED.
- SHUT OFF: GATE OR BALL, PROVIDE ISOLATING MEANS FOR ALL INDIVIDUAL FIXTURES, EQUIPMENT, BATHROOM GROUPS & ON BRANCHES.

PLUMBING SPECIALITIES:

- PRESSURE REGULATOR, VACUUM BREAKERS, CHECK VALVES, & BACKFLOW PREVENTORS: PROVIDE WHERE REQUIRED BY CODES EVEN WHEN NOT INDICATED ON THE DRAWINGS.
- PIPE DRAINS TO NEAREST FLOOR DRAIN OR SERVICE SINK.
- WATER HAMMER PREVENTION: PROVIDE PISTON OR BELLOW TYPE WATER HAMMER PREVENTION DEVICES IN ACCORDANCE WITH PDI-WH201

TESTING AND COMMISSIONING:

- CONFIRM OPERATION OF ALL HOT, COLD AND DRAINAGE FUNCTIONS;
- ADJUST ALL AUTOMATIC FAUCETS / SHOWER VALVES TO PROVIDE SAFE DELIVERY TEMPERATURE,
- ADJUST PRESSURE AS REQUIRED TO PROVIDE ADEQUATE FLOW WITHOUT SPLASHING.

ALL PIPING SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH THE NPC OF CANADA, UNLESS OTHERWISE SPECIFIED HERE. PROVIDE INSERTS, SLEEVES AND ANCHORS WHERE NECESSARY AND COORDINATE WITH OTHER TRADES TO THE FULLEST EXTENT IN THE PROVISION OF OPENINGS, CHASES, ETC. TO ACCOMMODATE THE PIPING SYSTEMS.

IDENTIFICATION

PROVIDE AND INSTALL ON NEW PIPING SYSTEMS, IDENTIFICATION CONSISTING OF FLUID DESCRIPTION AND FLOW SECTION.

LANGUAGE: ENGLISH

COLORS: BLACK ON GREEN

SIZE: 1" (25mm) MIN.

MANUFACTURER: BRADY OR EQUIVALENT

PIPING INSULATION

ALL WATER LINES INDICATED IN THE SCOPE OF WORK ITEM .3 BELOW SHALL BE INSULATED WITH 25 MM THICK DUAL TEMPERATURE GLASS FIBRE PIPE INSULATION. INSULATION SHALL BE MANUFACTURED BY FIBREGLASS OF CANADA.

THIS INSULATION SHALL BE SUPPLIED COMPLETE WITH FLAME RETARDANT VAPOUR BARRIER JACKET CONSISTING OF GLASS FIBRE. REINFORCED LAMINATE OF ALUMINUM FOIL AND KRAFT PAPER. LONGITUDINAL SEAMS OF THE VAPOUR BARRIER JACKET SHALL BE SEALED WITH VAPOUR PROOF ADHESIVE, TYPE 32. INSULATE AND TAPE ALL VALVES AND FITTINGS. EXPOSED PIPING INSULATION TO BE FINISHED WITH 8 OZ. FATTAL U.L.C. LISTED CANVAS AND CHILDERS LAGGING. NON U.L.C. LISTED CANVAS WILL NOT BE ACCEPTED.

INSULATE THE FOLLOWING:

- DOMESTIC COLD WATER PIPING
- DOMESTIC HOT WATER PIPING AND RECIRCULATION
- STORM DRAINAGE AND DWV PIPING ABOVE GRADE

PLUMBING FIXTURES

ALL ROUGH IN SHALL BE ACCURATELY LAID OUT, AND NO OFFSETS WILL BE ACCEPTED. ALL FIXTURES SHALL BE THE BEST OF THEIR RESPECTIVE KIND, FREE FROM ALL DEFECTS AND ANY FIXTURE WHICH IN THE OPINION OF THE ENGINEER IS DAMAGED SHALL BE REMOVED AND REPLACED BY A FIXTURE WHICH IS ACCEPTABLE. THE FIXTURES SHALL INCLUDE ALL TRIM, TRAPS AND WASTE WATER CONNECTIONS, TANKS, ETC., USUALLY CLASSED AS FITTINGS AND REQUIRED TO COMPLETE THE FIXTURE IN EVERY RESPECT. FIXTURES PROVIDED AS PER PLUMBING FIXTURE SCHEDULE.

SUBMITTALS

TESTING AND BALANCING

BALANCE AND TEST AIR AND WATER SYSTEMS AT EACH OUTLET AND AT FAN AND PUMP SYSTEMS. SUPERVISE OPERATING TESTS IN PREPARATION OF THE FINAL EIGHT (8) HOUR OPERATING TEST TO ENSURE THAT ALL SYSTEMS CONFORM TO THE PLAN AND SPECIFICATIONS. PROVIDE THREE TYPED REPORTS OF SYSTEM BALANCE AND OPERATING CONDITIONS, WITH AIR FLOWS AT EACH POINT SHOWN ON THE DRAWINGS.

WATER PRESSURE TEST SHALL BE CONDUCTED ON POTABLE WATER SYSTEM AS PER NATIONAL PLUMBING CODE OF CANADA LATEST EDITION.


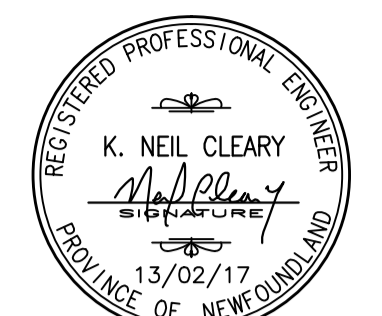
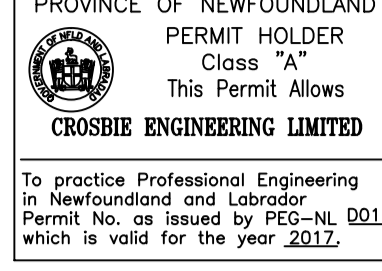
ALL DUCTWORK TO BE LEAKAGE TESTED.

INSTRUCT THE OWNER'S REPRESENTATIVE IN THE STARTUP AND OPERATION OF THE SYSTEMS INCLUDING ALL THE AIR SYSTEMS AND HEATING SYSTEMS FOR A MINIMUM OF ONE EIGHT (8) HOUR DAY.

THE TESTING COMPANY SHALL PREPARE FIVE (5) COMPLETELY BOUND BROCHURES CONTAINING AN OUTLINE OF THE SYSTEMS OPERATIONS AND A RECOMMENDED MAINTENANCE PROCEDURE SCHEDULE WITH THE WRITTEN INSTRUCTIONS AND CONTROL DIAGRAMS OF ALL MECHANICAL SYSTEMS IN THESE BROCHURES. INCLUDE IN THIS THE MANUFACTURER'S OPERATING AND MAINTENANCE INSTRUCTIONS. THE TESTING AND BALANCING FIRM SHALL BE CERTIFIED.

ADDITIONAL TESTING AND WITNESSING

- CONTRACTOR TO PROVIDE TRADE CERTIFICATE IN APPLICABLE DISCIPLINE BEFORE START OF WORK.
- CONTRACTOR REGISTRATION CORE, WHSCC, ETC. PROVIDE PROOF OF CLEAR STANDING.

 Fisheries and Oceans	 Pêches et Océans
Real Property, Safety & Security	Biens immobiliers, protection et sécurité
 REGISTERED PROFESSIONAL ENGINEER K. NEIL CLEARY 13/02/17 PROVINCE OF NEWFOUNDLAND	 PROVINCE OF NEWFOUNDLAND PERMIT HOLDER Class "A" This Permit Allows CROSBIE ENGINEERING LIMITED To practice Professional Engineering in Newfoundland and Labrador Permit No. as issued by PEG-NL 00123 which is valid for the year 2017.

0	ISSUED FOR TENDER	13/02/17	B.D.	N.C.
no.	revision	date	by	approved
	revision	date	par	approve
Project - projet				
TRAILER IMPROVEMENTS NAIN, NL				
Drawing - dessin				
MECHANICAL SPECIFICATION				
drawn - dessine	B.D.	designed - dessine par	N.C.	
date - date	AUGUST 2017	checked - verifie	N.C.	
scale - echelle	approved for tender-approve pour l'offre			
AS NOTED				
project no. - projet no.	drawing no. - no du dessin	sheet - feuille		
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