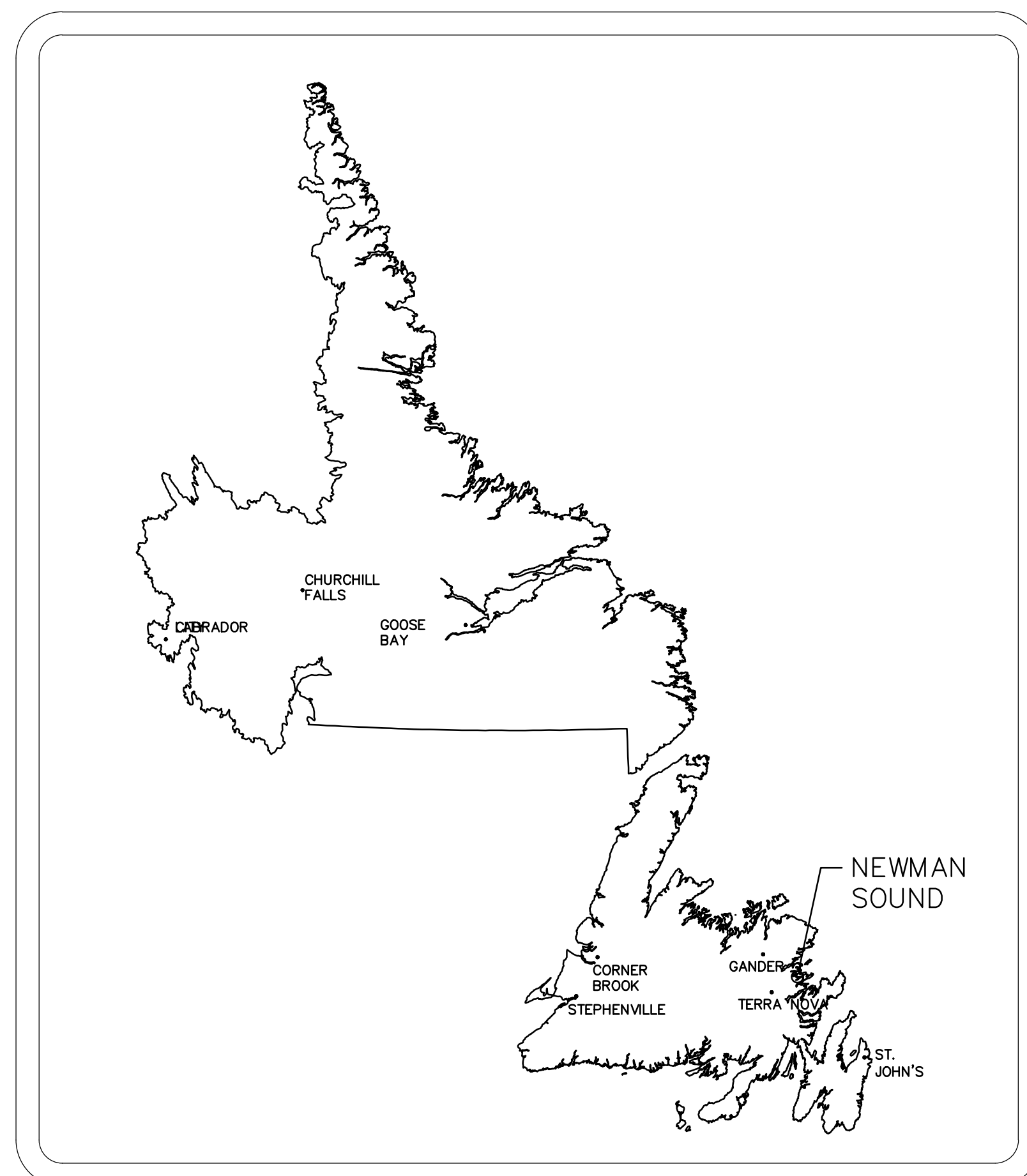


TERRA NOVA NATIONAL PARK NEWMAN SOUND CAMPGROUND ACTIVITY CENTER - EXTENSION PROJECT # 000268



DRAWING LIST

CIVIL

C-1.01 SITE PLAN
A-1.01 EXISTING FLOOR & ROOF SHOWING DEMOLITION PLAN
A-1.02 EXISTING ELEVATIONS SHOWING DEMOLITION
A-2.01 NEW FLOOR PLAN
A-2.02 NEW FLOOR LAYOUT
A-2.03 SECTIONS & DETAILS
A-2.04 DETAILS
A-2.05 DETAILS & SCHEDULES
A-2.06 ROOF PLAN
F-1.01 FOUNDATION PLAN
S-1.01 FRAMING PLAN

MECHANICAL

MS-1 MECHANICAL SPECIFICATION
MV-1 VENTILATION LAYOUT AND SCHEDULES
MV-3 VENTILATION DETAILS

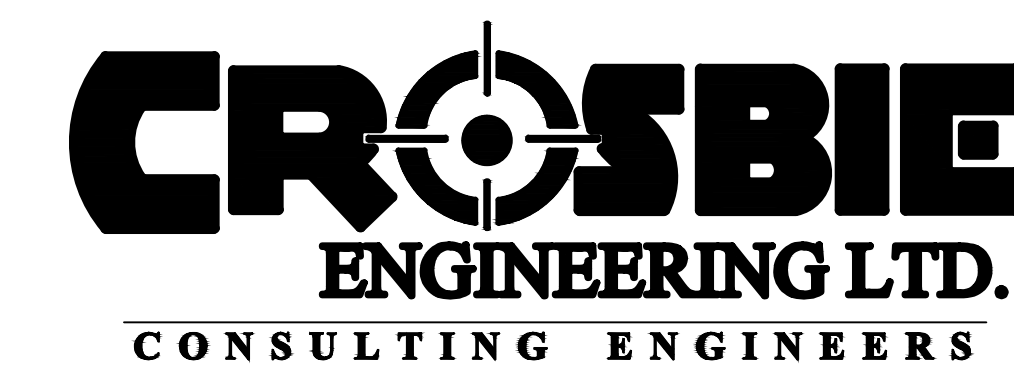
ELECTRICAL

E1 - LEGEND & GENERAL NOTES
E2 - DEMOLITION PLAN
E3 - FLOOR PLAN - ELECTRICAL LAYOUT
E4 - ELECTRICAL SPECIFICATION

CIVIL CONSULTANT



M & E CONSULTANT

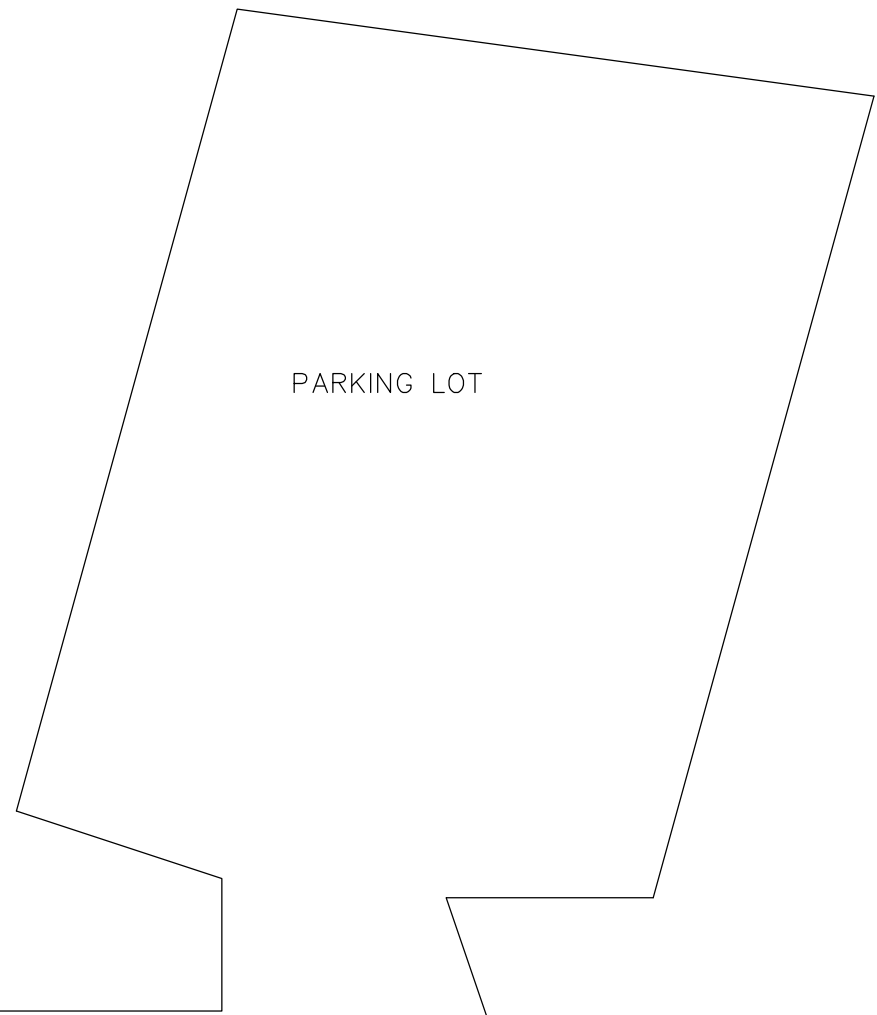
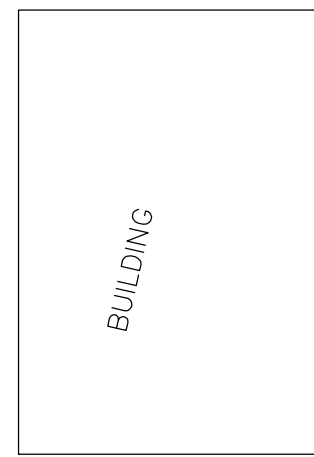
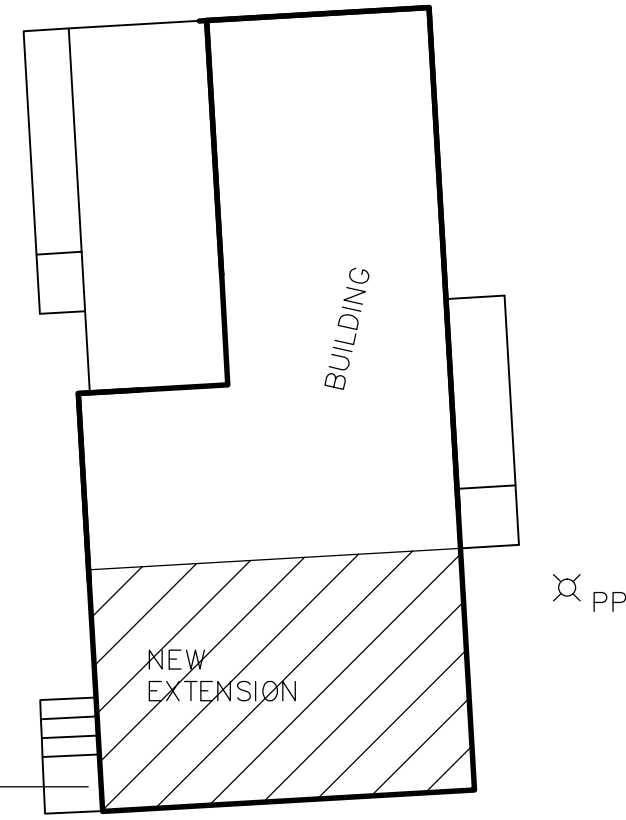


21 Mews Place, 2nd Floor
P.O. Box 13295, Station "A"
St. John's, NL A1B 4A5

Tel: (709) 754-1911
Fax: (709) 754-1960
admin@crosbieeng.com

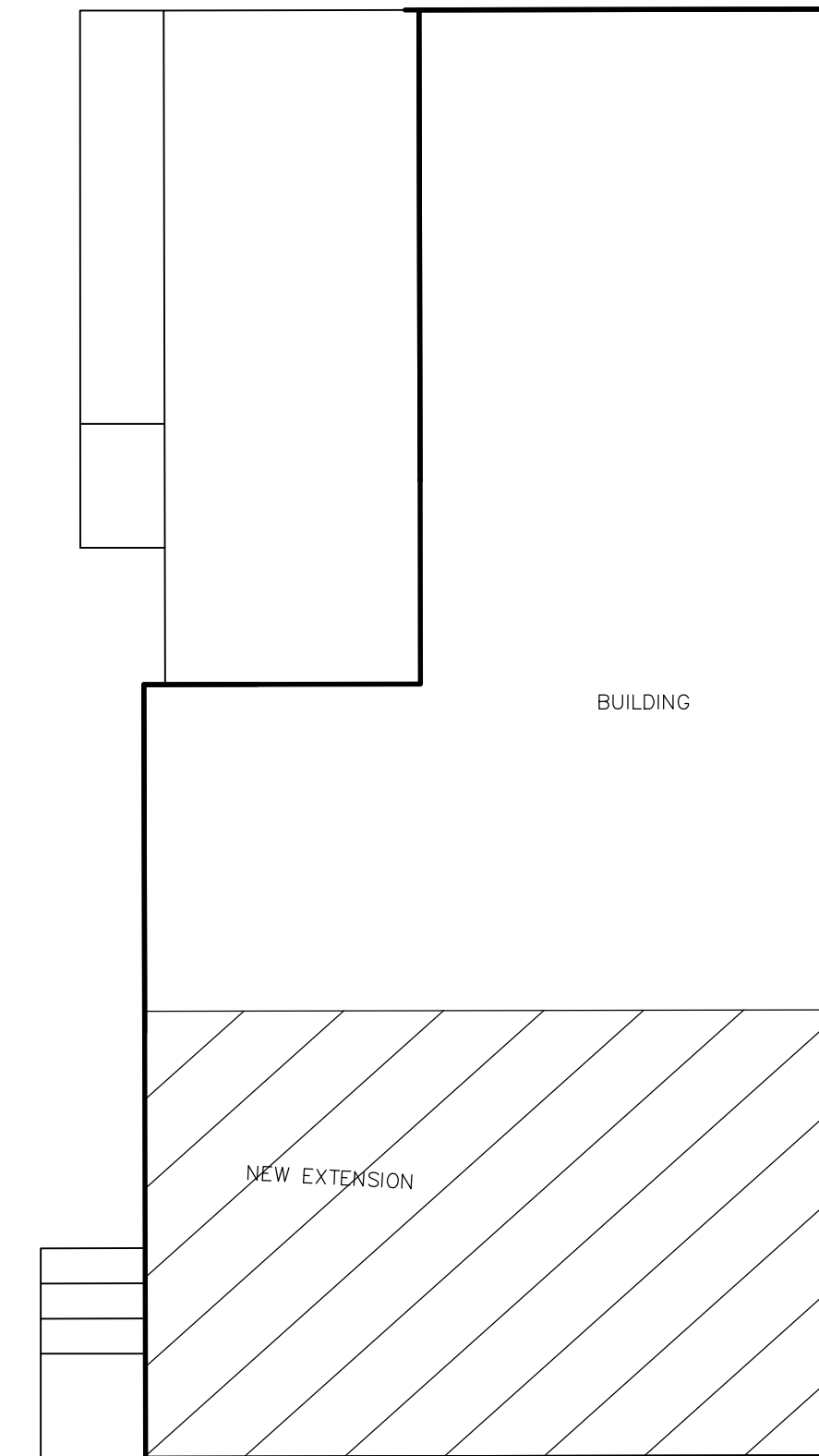
ISSUED FOR TENDER AUGUST 7TH, 2015

6
A2.05 + C1.01



TCH ->

SCALE: 1:500
0m 10m 20m 30m 40m 50m



REMOVE EXISTING P/T WOOD RAMP & PLATFORM
INSTALL NEW P/T WOOD RAMP & PLATFORM ACCESSIBILITY RAMP AND PLATFORM TO MEET CODE REGULATIONS (SEE A-2.07)

PP

SCALE : 1:100
0m 1m 2m 3m 4m 5m 6m 7m 8m 9m 10m

NOTES

1. CONTRACTOR IS RESPONSIBLE TO ENSURE ALL WORK ADHERES TO SAFETY REGULATIONS, BUILDING CODES & CONSTRUCTION BEST PRACTICES; MUNICIPAL REGULATIONS, AND MATERIAL MANUFACTURER INSTALLATION SPECIFICATIONS.
2. DO NOT SCALE DRAWINGS.
3. CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE BEFORE PROCEEDING WITH THIS WORK.

No.	Description	Date	By
2	ISSUED FOR TENDER	08.07.15	RT
1	ISSUED FOR REVIEW	03.27.15	RT

REVISIONS

	PROVINCE OF Nfld. PERMIT HOLDER CLASS "A" This Permit Allows DMG CONSULTING LTD To practice Professional Engineering in this Province Permit No. <u>N0588</u> Year <u>2015</u>
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Consulting Engineering • Project Management
185 Rose Avenue, P.O. Box 184, Gander, NL, Canada, A1V 1W6

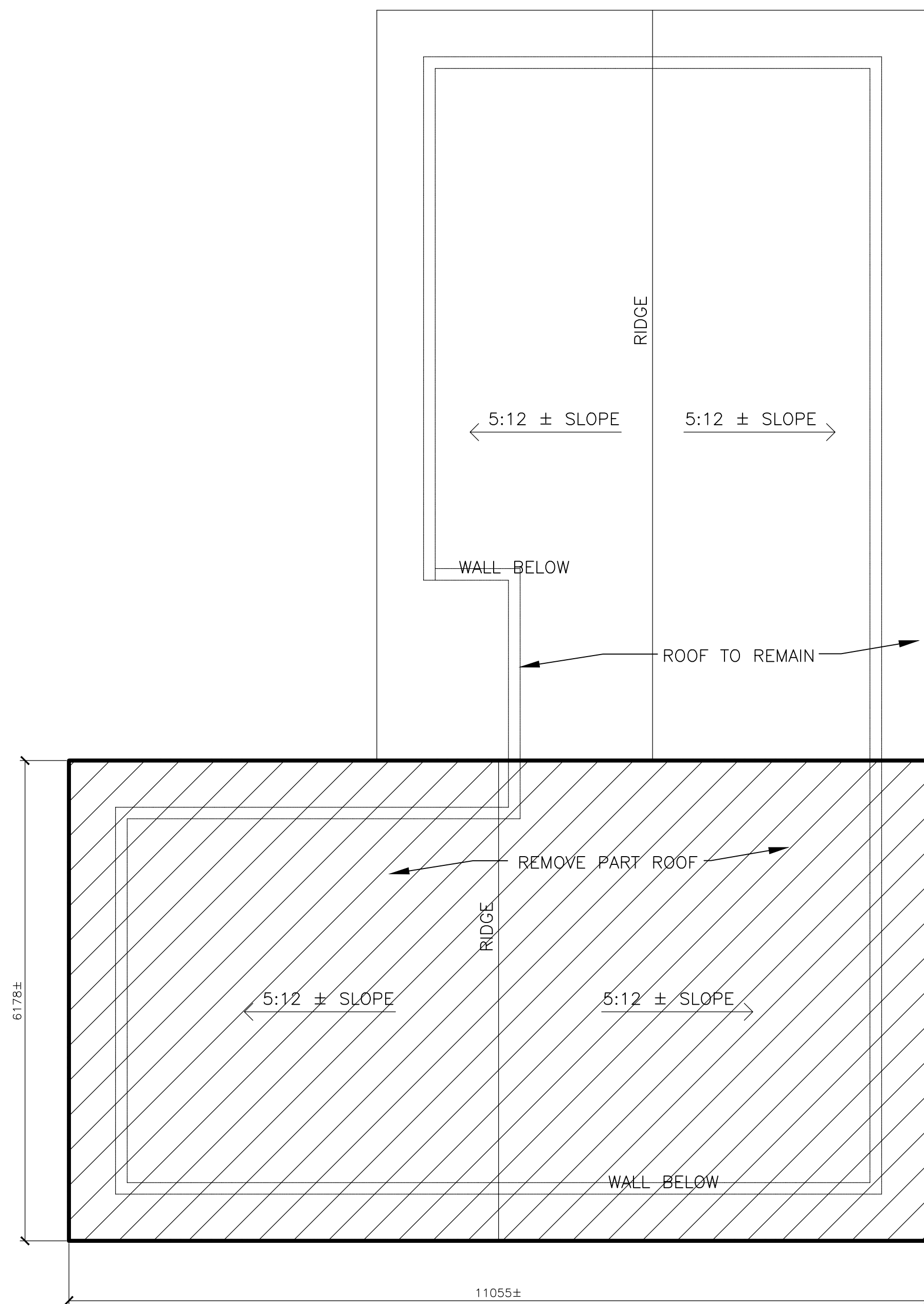
Consultants

CONSULTING ENGINEERS
21 Main Floor, 2nd Floor, P.O. Box 13295, Station "A", St. John's, NL, A1B 4A5
Tel: (709) 754-1911 Fax: (709) 754-1980 admin@crossbie.com

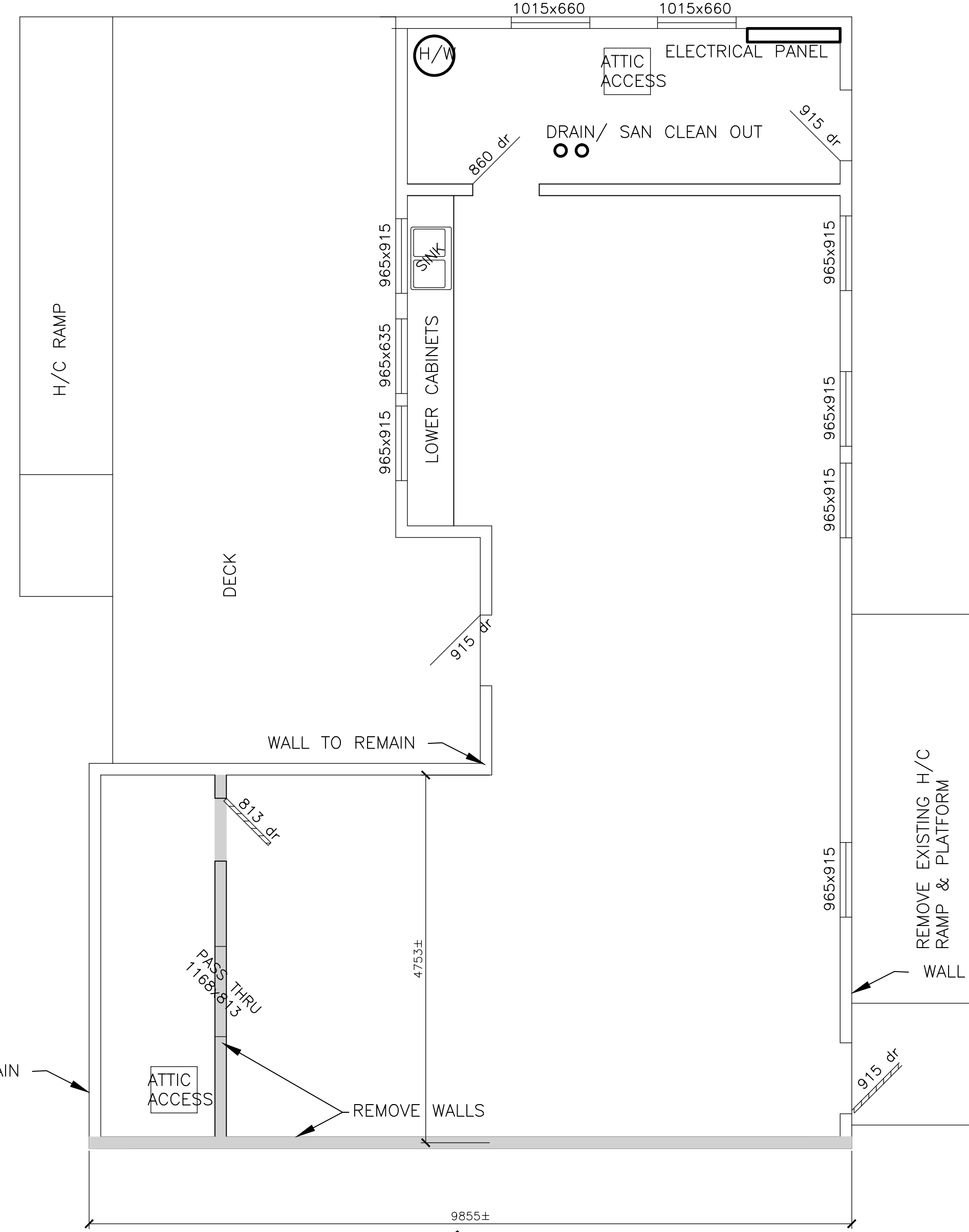
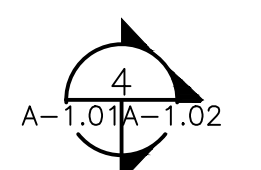
Project Title
TERRA NOVA NATIONAL PARK
NEWMAN SOUND CAMPGROUND
ACTIVITY CENTER – EXTENSION
PRO# 000268

Drawing Title
SITE PLAN

Dwn. By R.T	Chk. By E.H
Date MARCH 23 2015	Scale AS NOTED
Proj. No. 338-14	Sheet No. C-1.01
Rev. No. 0	



EXISTING ROOF PLAN
SCALE 1:50
A-1.01A-1.01



EXISTING FLOOR PLAN
SCALE 1:50
A-1.01A-1.01

NOTES

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DEMOLITION LEGEND

- REMOVE WALL
- REMOVE PART ROOF
- REMOVE DOOR

DEMOLITION NOTES:

- CONTRACTOR RESPONSIBLE FOR DISPOSAL OF ALL DEMOLITION MATERIALS OFF SITE EXCEPT FOR ITEMS NOTED TO BE TURNED OVER TO THE OWNER.
- CONTRACTOR TO TURN OVER ALL DOORS, DOOR FRAMES AND DOOR HARDWARE THAT ARE NOT RE-USED OR RELOCATED TO THE OWNER.
- FOR DETAILS REGARDING MECH./ELECT. DEMOLITION SEE MECH./ELECT. DRAWINGS.
- CONTRACTOR TO REPAIR, REINSTATE AND TO MATCH EXISTING FINISHES IN ANY ADJACENT AREAS THAT ARE AFFECTED OR DAMAGE DURING THE DEMOLITION.

2	ISSUED FOR TENDER	08.07.15	RT
1	ISSUED FOR REVIEW	03.27.15	RT

No.	Description	Date	By
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REVISIONS

	PROVINCE OF Nfld. PERMIT HOLDER CLASS "A" This Permit Allows DMG CONSULTING LTD To practice Professional Engineering in this Province N5588 Permit No. _____ Year _____
--	--

Consulting Engineering • Project Management
155 Rose Avenue, P.O. Box 194, Condon, N.L. A1V 1W6

CONSULTING ENGINEERS
21 Meese Place, 2nd Floor, St. John's, NL A1B 4A0
Tel: (709) 754-1911 Fax: (709) 754-1960 admin@crosbieeng.com

Project Title
TERRA NOVA NATIONAL PARK
NEWMAN SOUND CAMPGROUND
ACTIVITY CENTER – EXTENSION
PRO# 000268

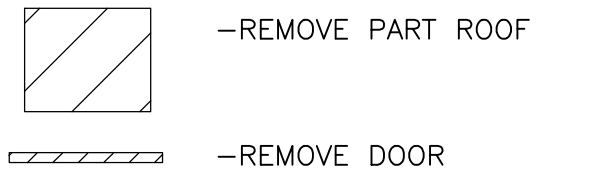
Drawing Title
EXISTING FLOOR & ROOF
SHOWING DEMOLITION PLAN

Dwn. By R.T	Chk. By E.H
Date MARCH 23 2015	Scale 1:50
Proj. No. 338-14	Sheet No. A-1.01
	Rev. No. 0

NOTES

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DEMOLITION LEGEND

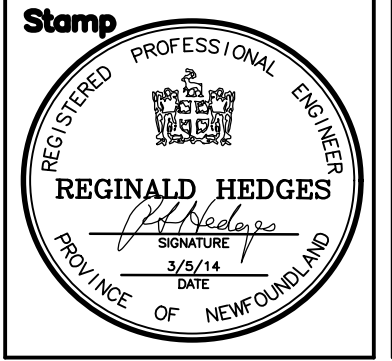


DEMOLITION NOTES:

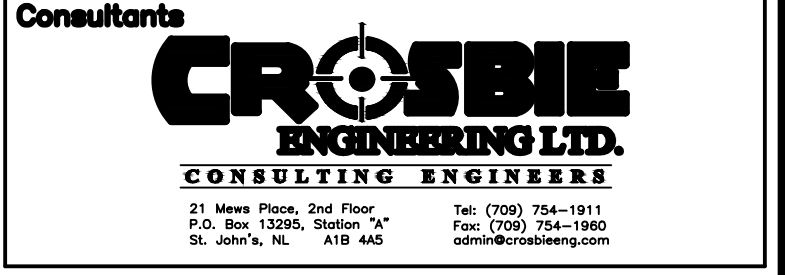
1. CONTRACTOR RESPONSIBLE FOR DISPOSAL OF ALL DEMOLITION MATERIALS OFF SITE EXCEPT FOR ITEMS NOTED TO BE TURNED OVER TO THE OWNER.
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REVISIONS



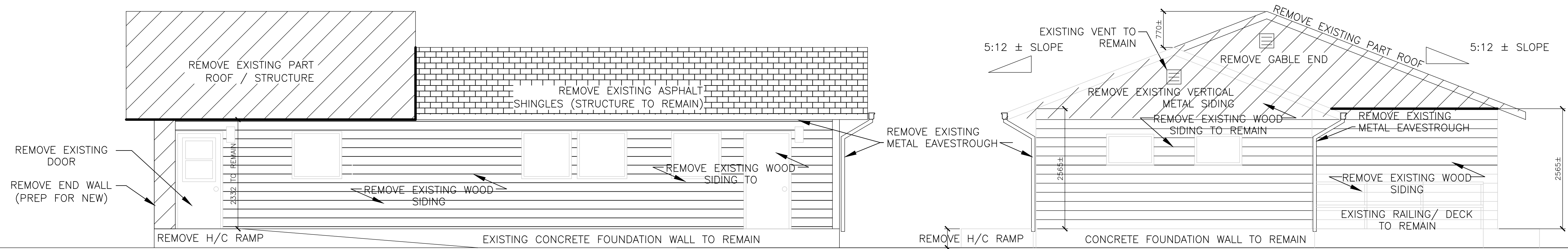
PROVINCE OF Nfld.
PERMIT HOLDER
CLASS "A"
This Permit Allows
DMG CONSULTING LTD
To practice Professional
Engineering in this
Province
2015
Permit No. _____ Year



Project Title
TERRA NOVA NATIONAL PARK
NEWMAN SOUND CAMPGROUND
ACTIVITY CENTER - EXTENSION
PRO# 000268

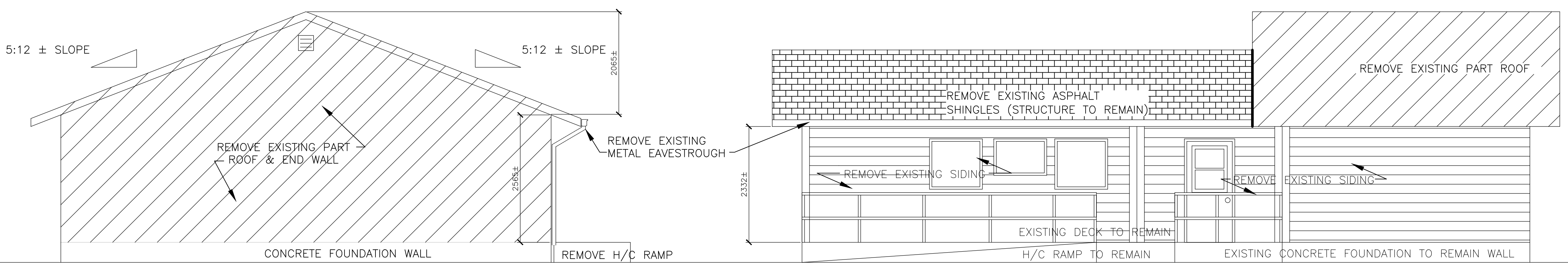
Drawing Title
EXISTING ELEVATIONS
SHOWING DEMOLITION

Dwn. By R.T	Chk. By E.H
Date MARCH 23 2015	Scale 1:50
Proj. No. 338-14	Sheet No. A-1.02
Rev. No. 0	



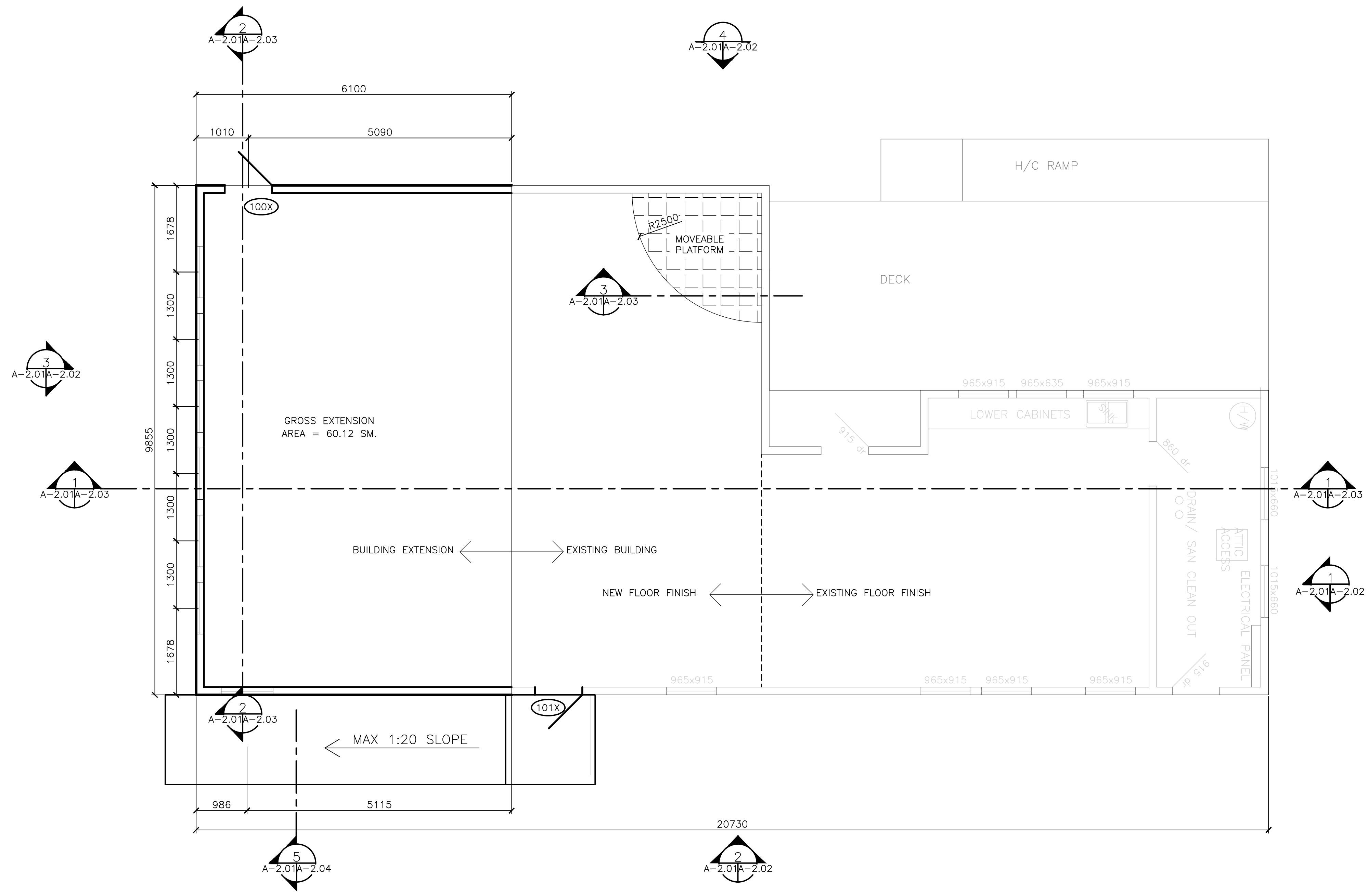
RIGHT ELEVATION
SCALE 1:50
A-1.01A-1.02

BACK ELEVATION
SCALE 1:50
A-1.01A-1.02



FRONT ELEVATION
SCALE 1:50
A-1.01A-1.02

LEFT ELEVATION
SCALE 1:50
A-1.01A-1.02



NEW FLOOR PLAN
SCALE 1:50

NOTES

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No.	Description	Date	By
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Stamp

REGINALD HEDGES
REGISTERED PROFESSIONAL ENGINEER
CLASS "A"
PROVINCE OF NEWFOUNDLAND

PROVINCE OF Nfld.
PERMIT HOLDER
CLASS "A"
This Permit Allows
DMG CONSULTING LTD
To practice Professional
Engineering in this
Province
NO. 888 2015
Permit No. Year

DMG
Consulting Limited

Consulting Engineering • Project Management
185 Roe Avenue, P.O. Box 184, Gander, NL, Canada, A1V 1W6

Consultants

CROSBIE
ENGINEERING LTD.
CONSULTING ENGINEERS

21 Main Floor, 2nd Floor,
P.O. Box 12205, Station "A",
St. John's, NL A1B 4A5

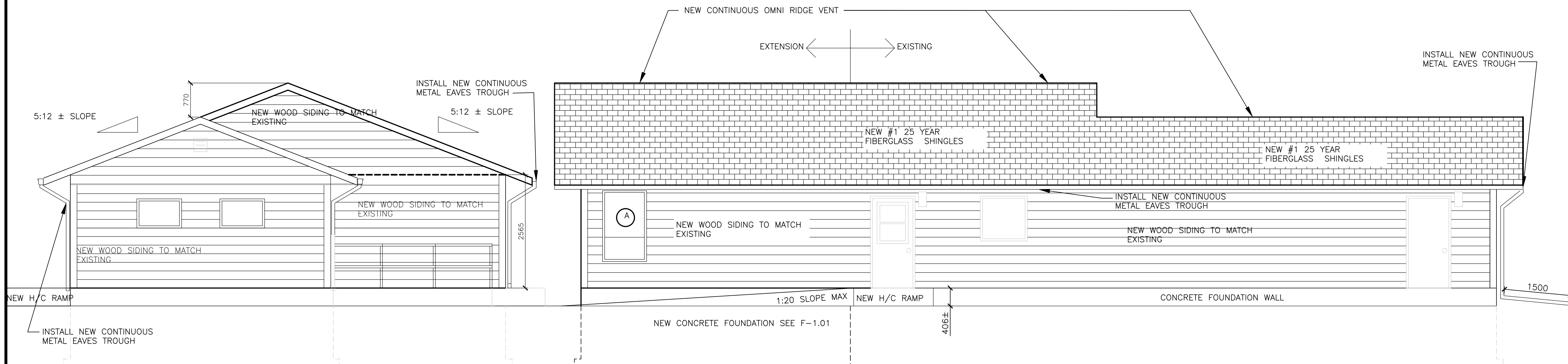
Tel: (709) 754-1911
Fax: (709) 754-1950
admin@crosbieeng.com

Project Title
TERRA NOVA NATIONAL PARK
NEWMAN SOUND CAMPGROUND
ACTIVITY CENTER – EXTENSION
PRO# 000268

Drawing Title
NEW FLOOR PLAN

Dwn. By R.T	Chk. By E.H
Date MARCH 23 2015	Scale 1:50
Proj. No. 338-14	Sheet No. A-2.01
Rev. No. 0	

NOTE:
CAP ALL EXISTING FASCIA WITH PRE
PAINTED METAL (MATCH NEW)



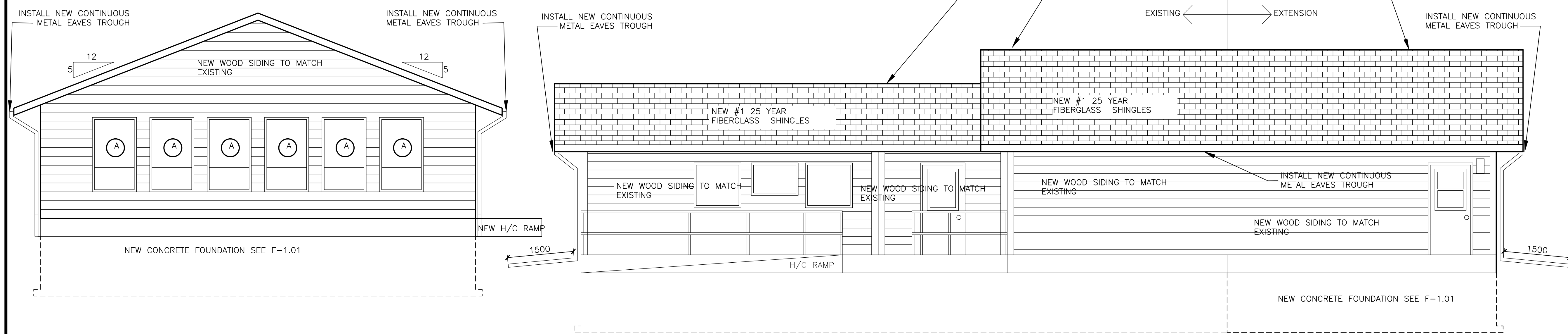
BACK ELEVATION
SCALE 1:50

1
A-2.01A-2.02

RIGHT ELEVATION
SCALE 1:50

2
A-2.01A-2.02

NOTE:
CAP ALL EXISTING FASCIA WITH PRE
PAINTED METAL (MATCH NEW)



FRONT ELEVATION
SCALE 1:50

3
A-2.01A-2.02

LEFT ELEVATION
SCALE 1:50

4
A-2.01A-2.02

NOTES

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REVISIONS

Stamp

PROVINCE OF Nfld.
PERMIT HOLDER
CLASS "A"
This Permit Allows
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To practice Professional
Engineering in this
Province
NCSBB 2015
Permit No. _____ Year

Consulting Engineering • Project Management
185 Rose Avenue, P.O. Box 144, Grand Falls, NL, Canada, A1V 1W6

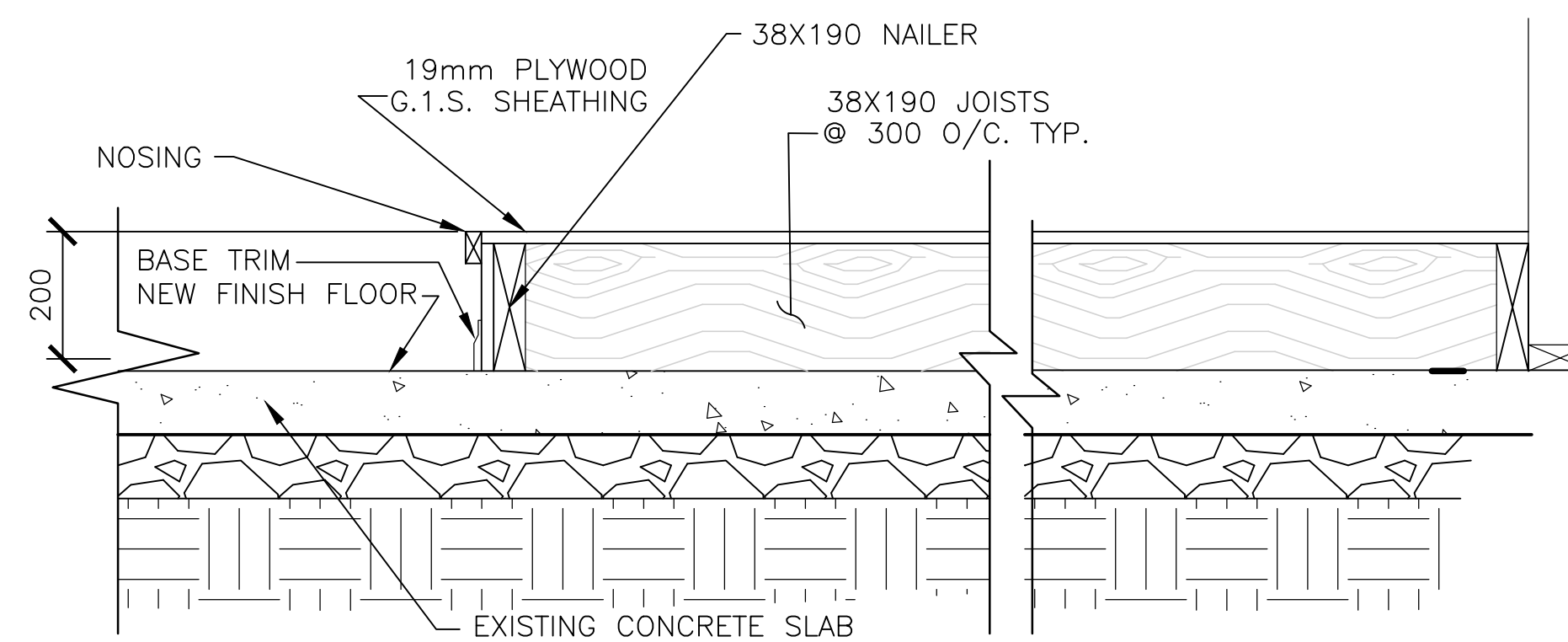
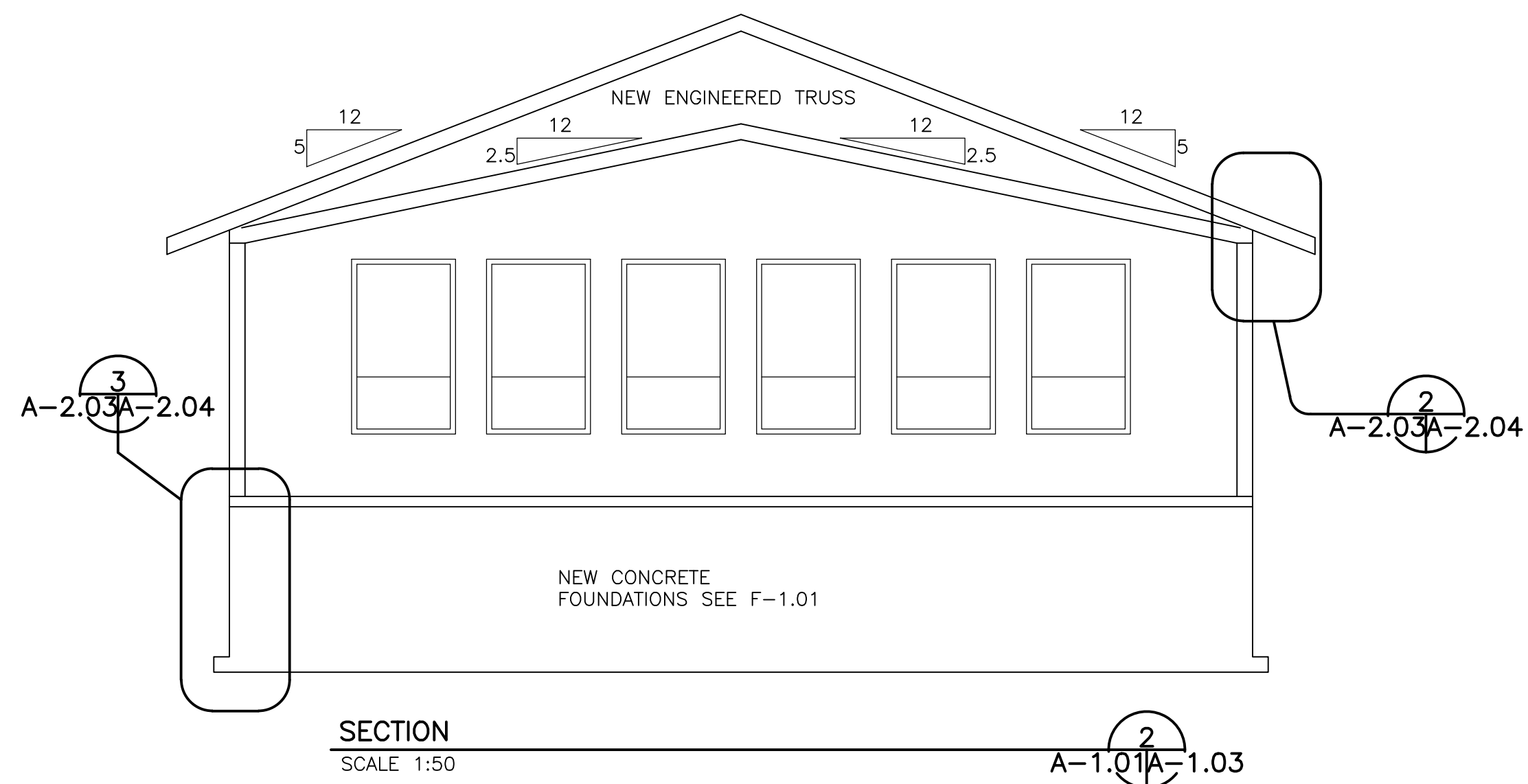
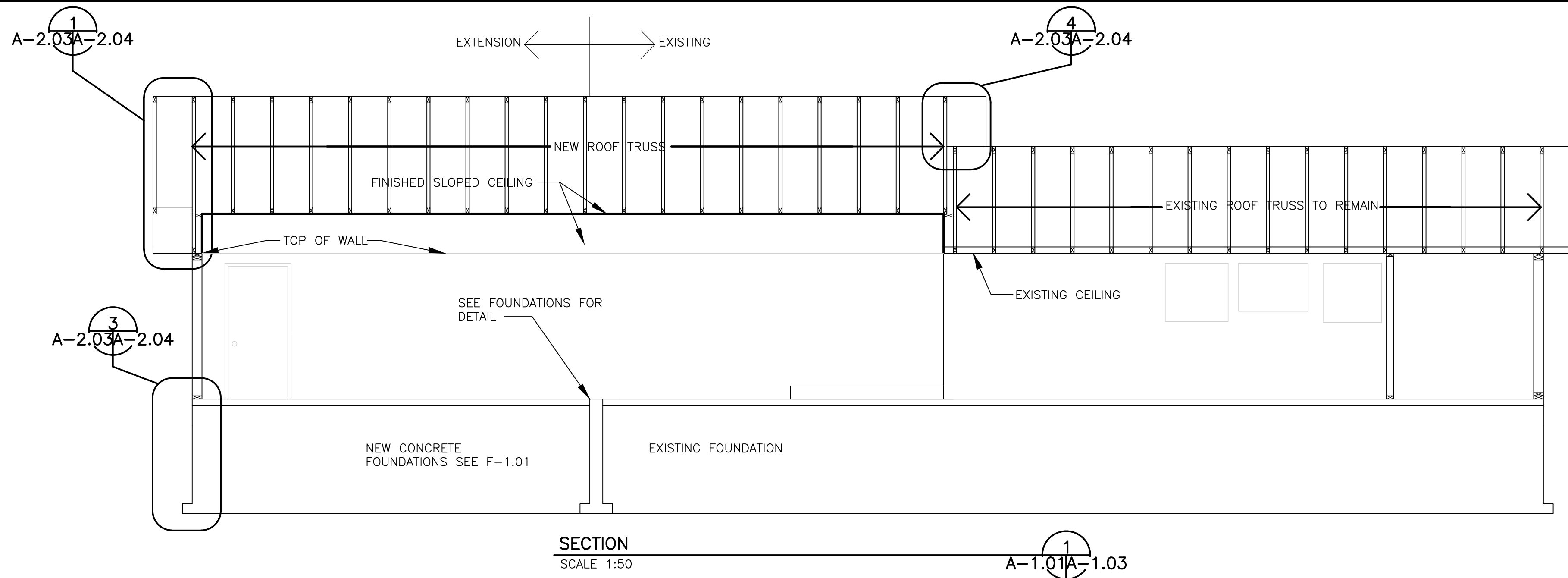
Consultants

CONSULTING ENGINEERS
21 Main Floor, 2nd Floor,
P.O. Box 12205, Station "A"
St. John's, NL A1B 4A5
Tel: (709) 754-1911
Fax: (709) 754-1960
admin@crosbieeng.com

Project Title
TERRA NOVA NATIONAL PARK
NEWMAN SOUND CAMPGROUND
ACTIVITY CENTER - EXTENSION
PRO# 000268

Drawing Title
NEW FLOOR LAYOUT

Dwn. By R.T	Chk. By E.H
Date MARCH 23 2015	Scale 1:50
Proj. No. 338-14	Sheet No. A-2.02
Rev. No. 0	



NOTES

1. CONTRACTOR IS RESPONSIBLE TO ENSURE ALL WORK ADHERES TO SAFETY REGULATIONS, BUILDING CODES & CONSTRUCTION BEST PRACTICES; MUNICIPAL REGULATION'S, AND MATERIAL MANUFACTURER INSTALLATION SPECIFICATIONS.
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2	ISSUED FOR TENDER	08.07.15	RT
1	ISSUED FOR REVIEW	03.27.15	RT

	PROVINCE OF Nfld. PERMIT HOLDER CLASS "A" This Permit Allows DMG CONSULTING LTD To practice Professional Engineering in this Province 10088 2015 Permit No. Year

DMG
Consulting Limited

Consulting Engineering • Project Management
185 Rose Avenue, P.O. Box 194, Gander, NL, Canada, A1V 1W6

CROSBIE
ENGINEERING LTD.
CONSULTING ENGINEERS

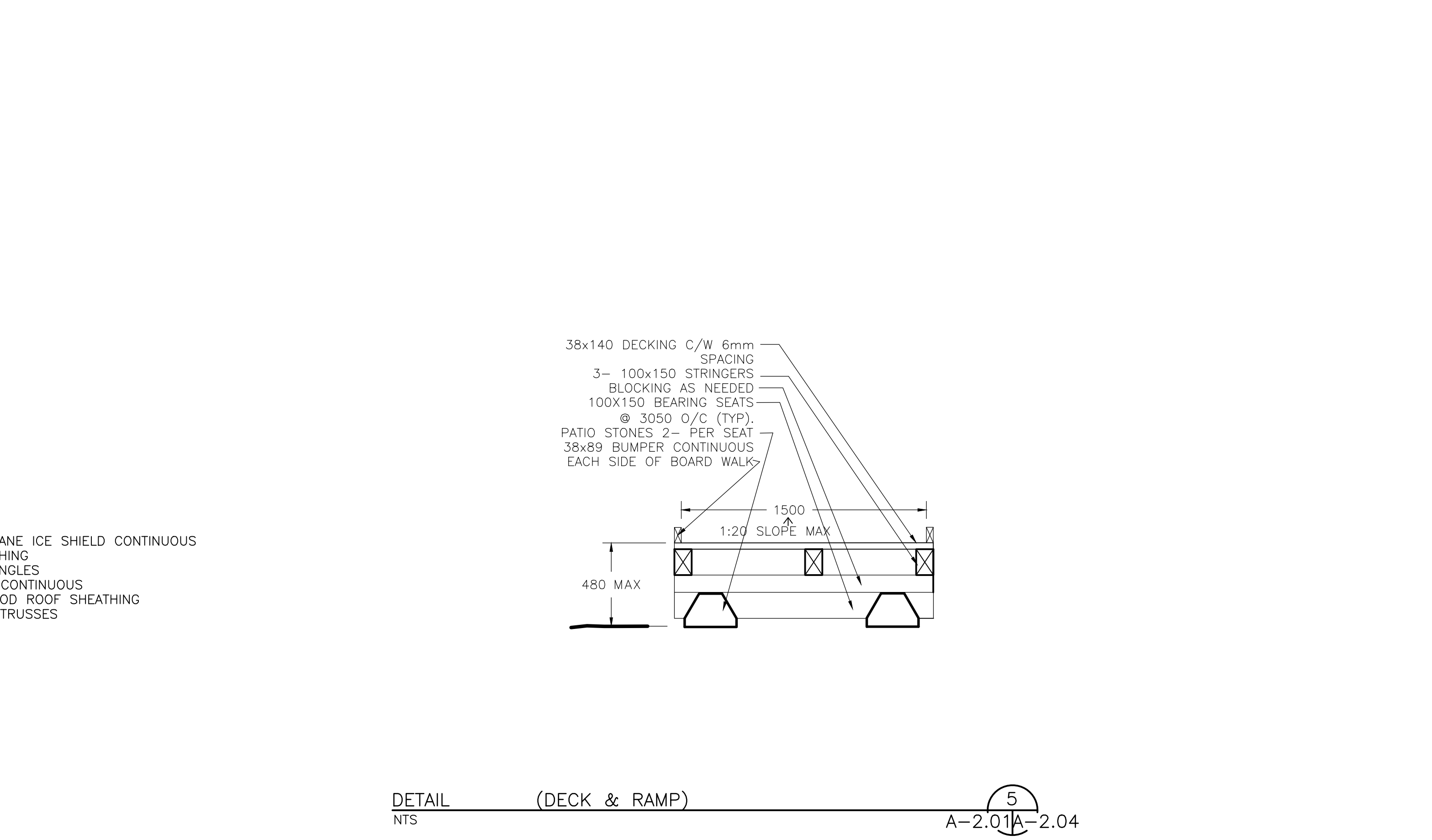
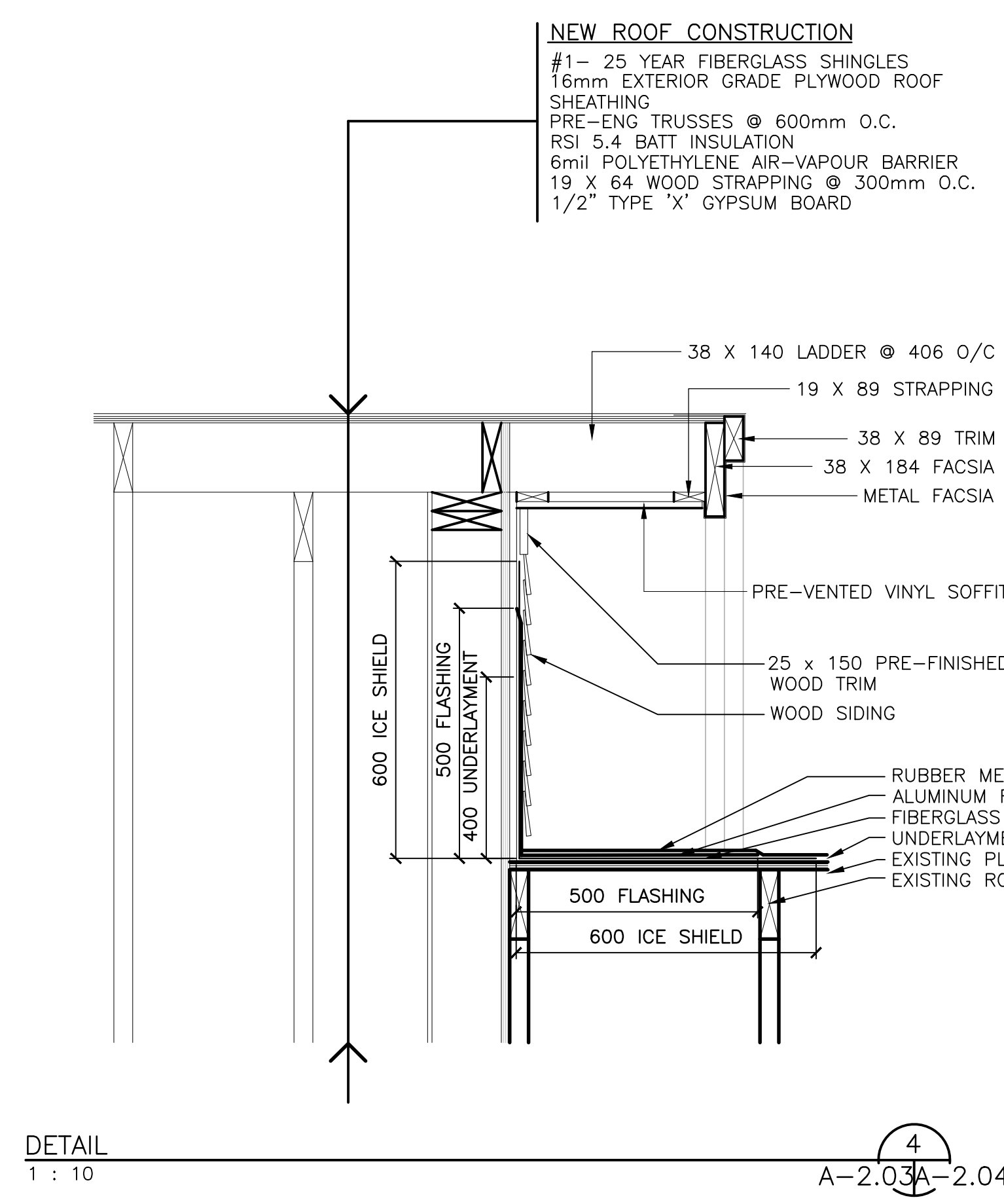
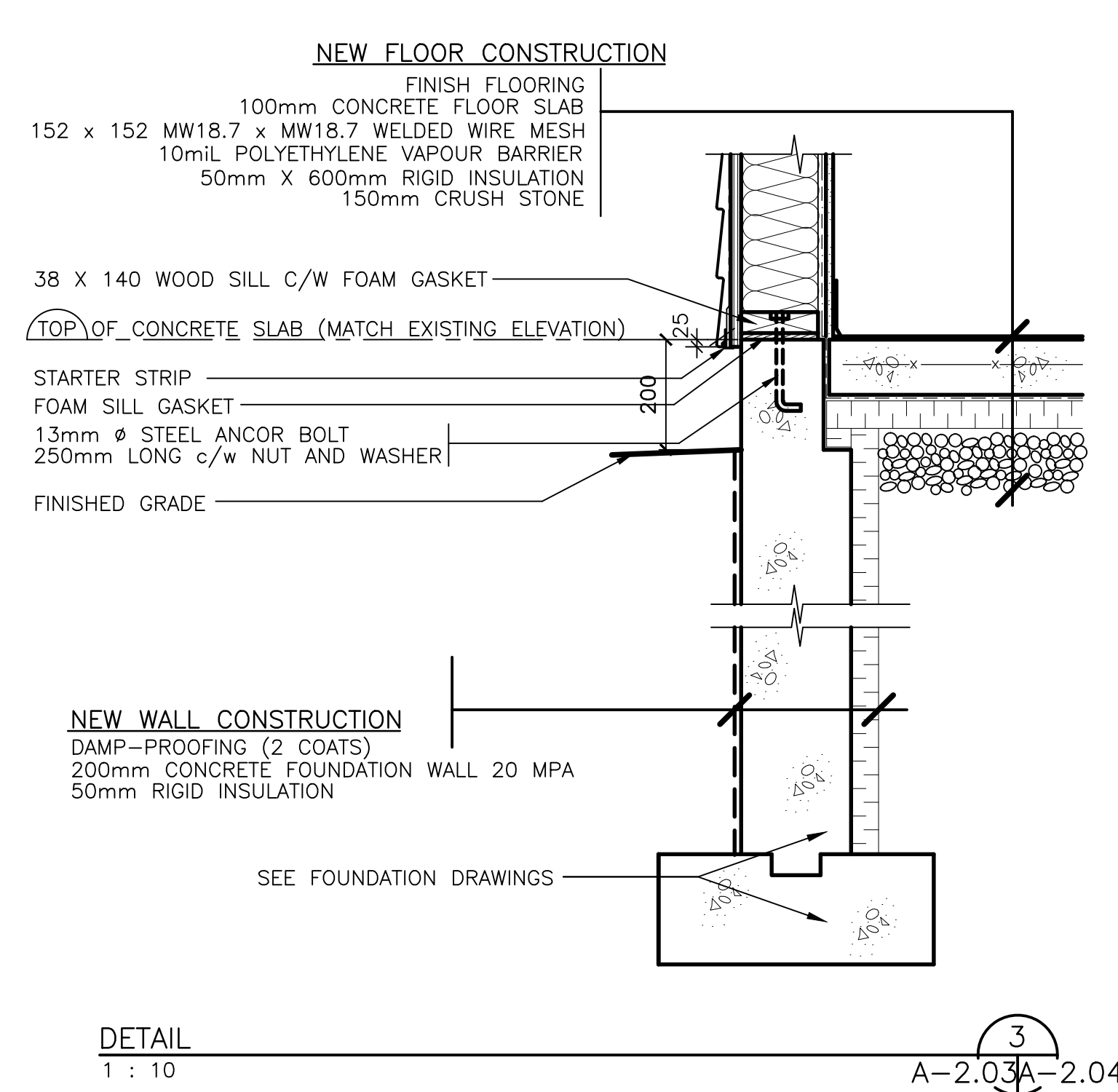
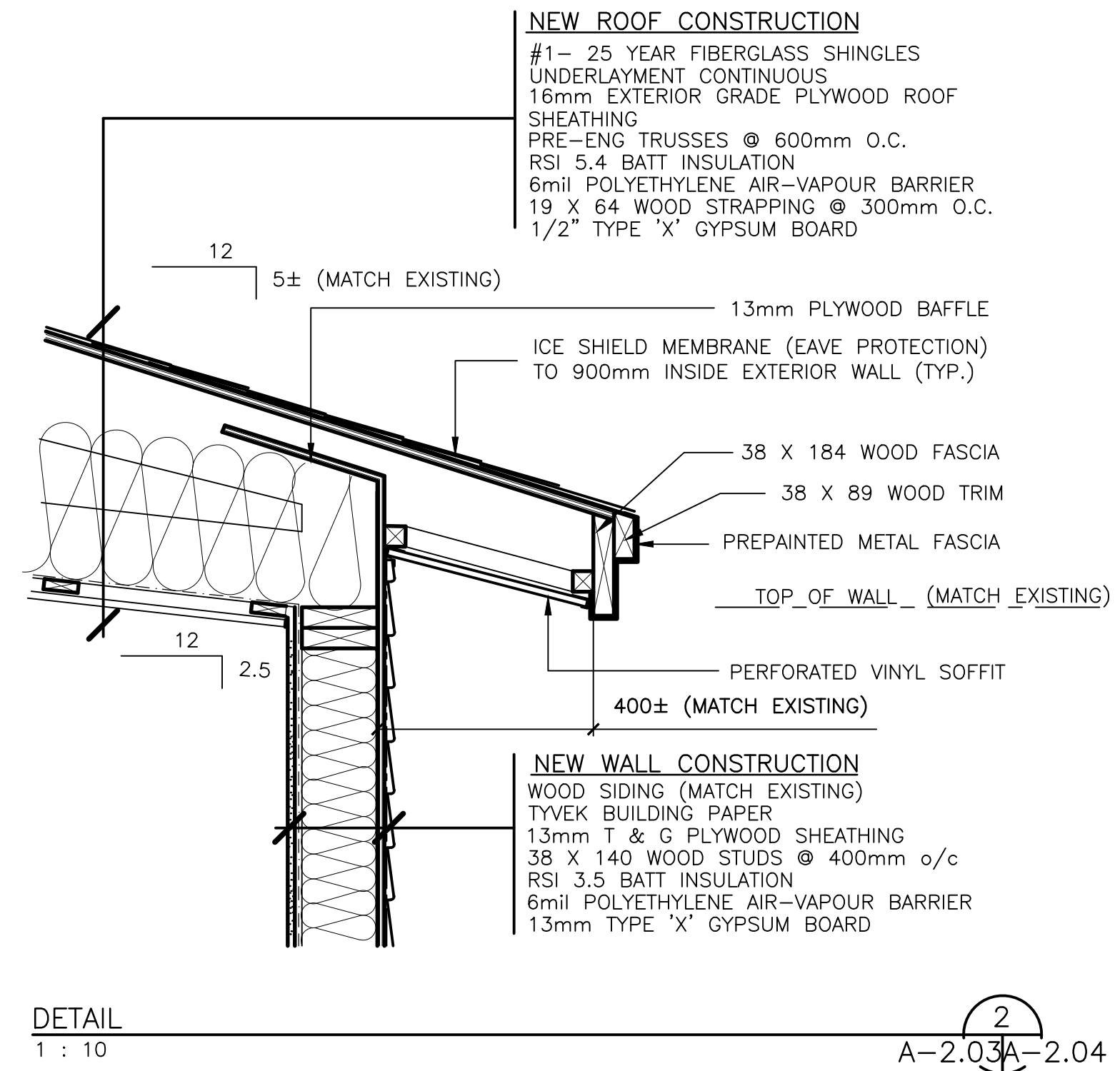
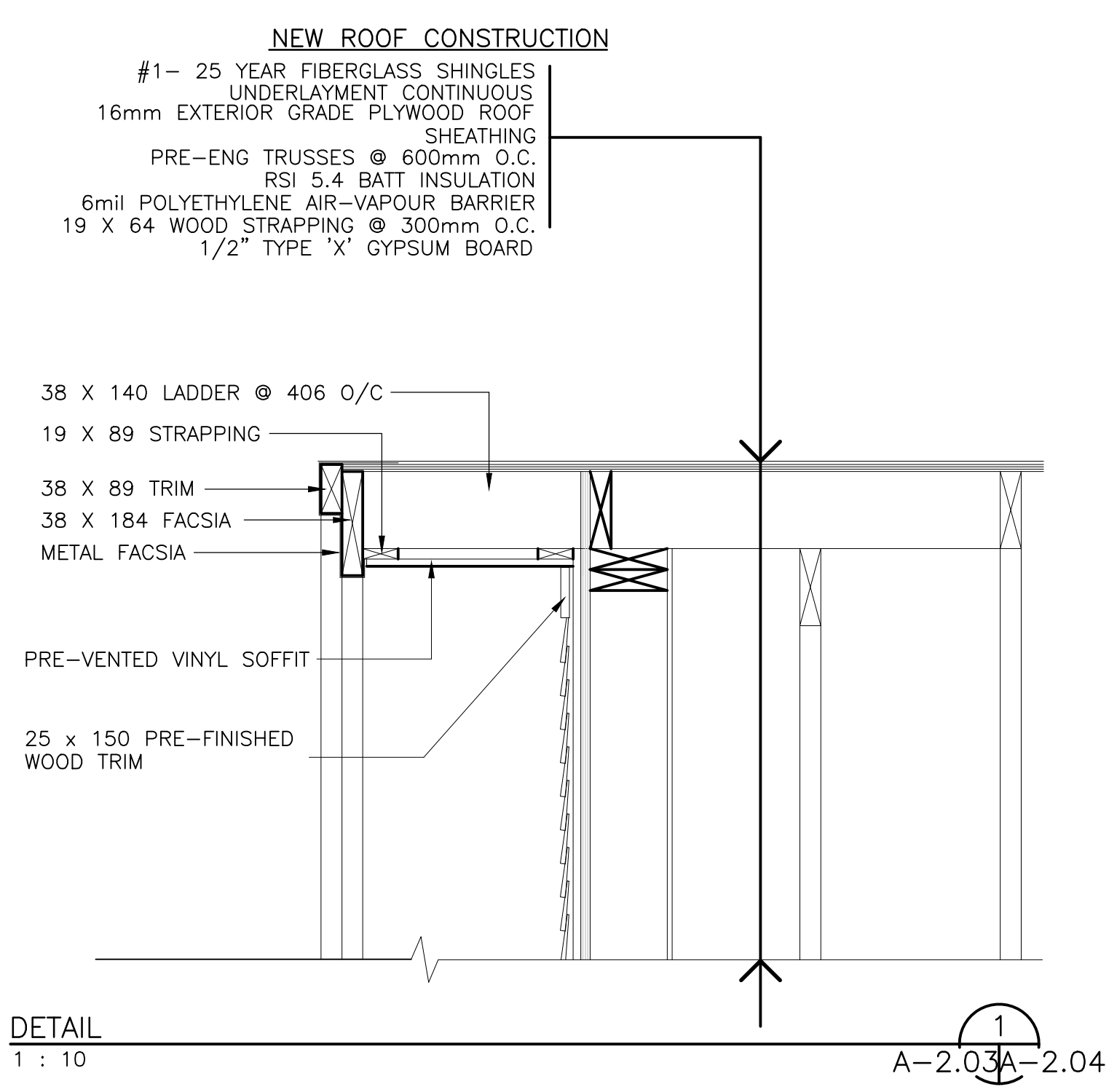
21 Main Floor, 2nd Floor,
P.O. Box 12295, Station 74,
St. John's, NL A1B 4M5

Tel: (709) 754-1915
Fax: (709) 754-1980
odm@crosbieeng.com

Project Title
TERRA NOVA NATIONAL PARK
NEWMAN SOUND CAMPGROUND
ACTIVITY CENTER - EXTENSION
PRO# 000268

Drawing Title
SECTIONS & DETAILS

Dwn. By RT	Chk. By E.H
Date MARCH 23 2015	Scale AS NOTED
Proj. No. 338-14	Rev. No. 0



NOTES

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REVISIONS

Stamp: REGINALD HEDGES, PROFESSIONAL ENGINEER, PROVINCE OF NEWFOUNDLAND

PROVINCE OF Nfld. PERMIT HOLDER CLASS "A" This Permit Allows DMG CONSULTING LTD. To practice Professional Engineering in this Province. Permit No. 10588, Year 2012

DMG Consulting Limited

Consulting Engineering • Project Management
185 Roe Avenue, P.O. Box 194, Gander, NL, Canada, A1V 1W6

CROSBIE ENGINEERING LTD.

CONSULTING ENGINEERS
21 Main Floor, 2nd Floor, P.O. Box 13290, Station "A", St. John's, NL, A1B 4A5. Tel: (709) 754-1911, Fax: (709) 754-1960, email@crosbieeng.com

Project Title
TERRA NOVA NATIONAL PARK
NEWMAN SOUND CAMPGROUND
ACTIVITY CENTER - EXTENSION
PRO# 000268

Drawing Title
DETAILS

Dwn. By R.T	Chk. By E.H
Date MARCH 23 2015	Scale AS NOTED
Proj. No. 338-14	Sheet No. A-2.04
Rev. No. 0	

DOOR SCHEDULE												
OPENING				DOOR				FRAME (or screen)		Fire Label	HARDWARE	REMARKS
Number	Width	Height	Thick	Type	Material	Finish	Glass	Type	Finish	or Grill		
100X	914	2032	45	-	FG	-	-	FG	FG	-	ENTRANCE LOCKSET SARGENT 6500 OR EQUAL	INSULATED
101X	914	2032	45	-	FG	-	-	FG	FG	-		

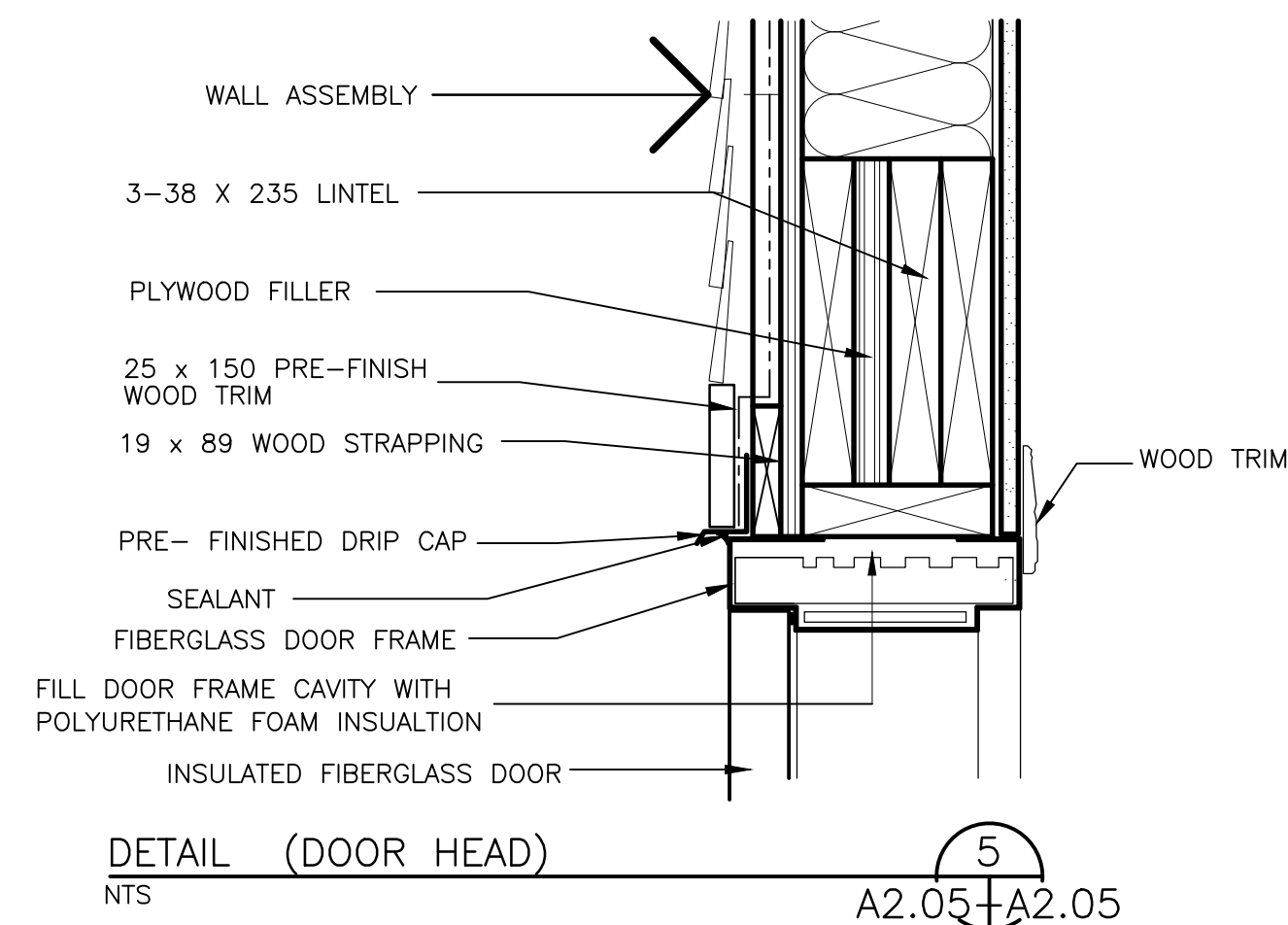
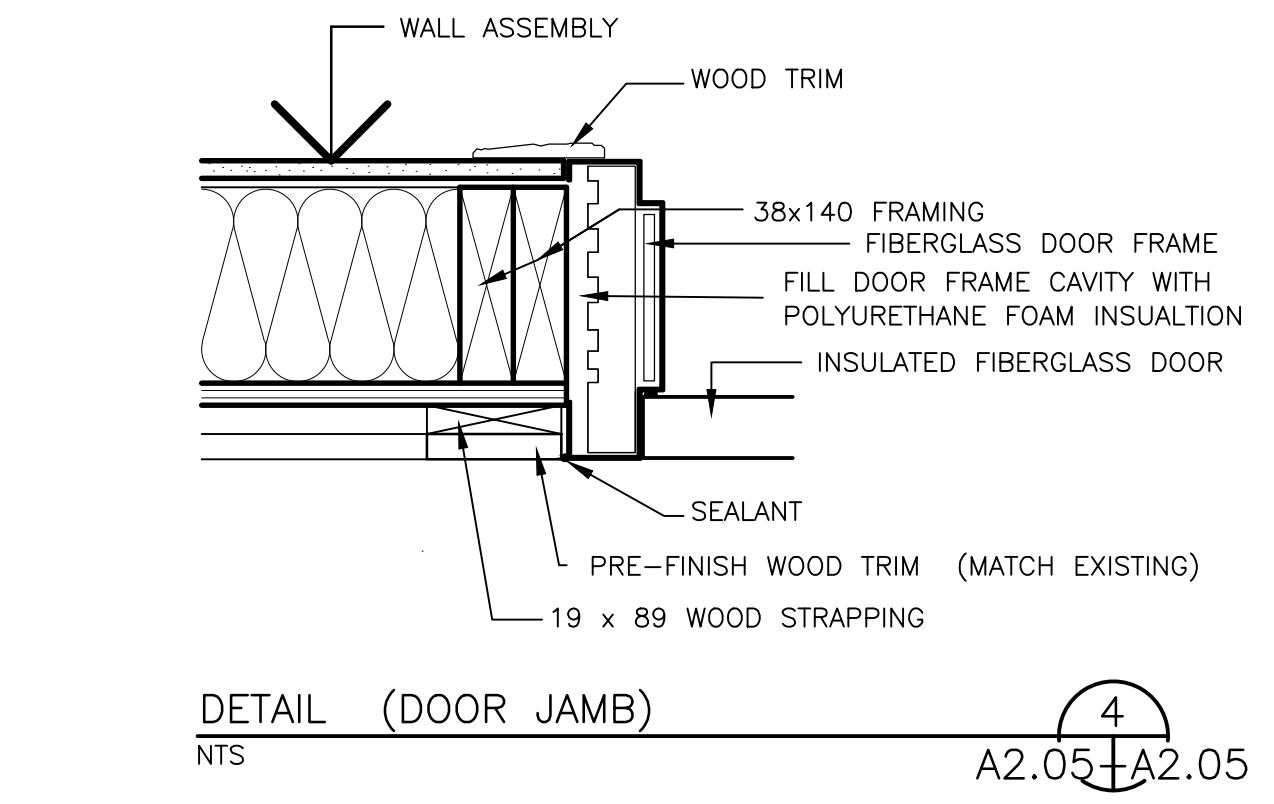
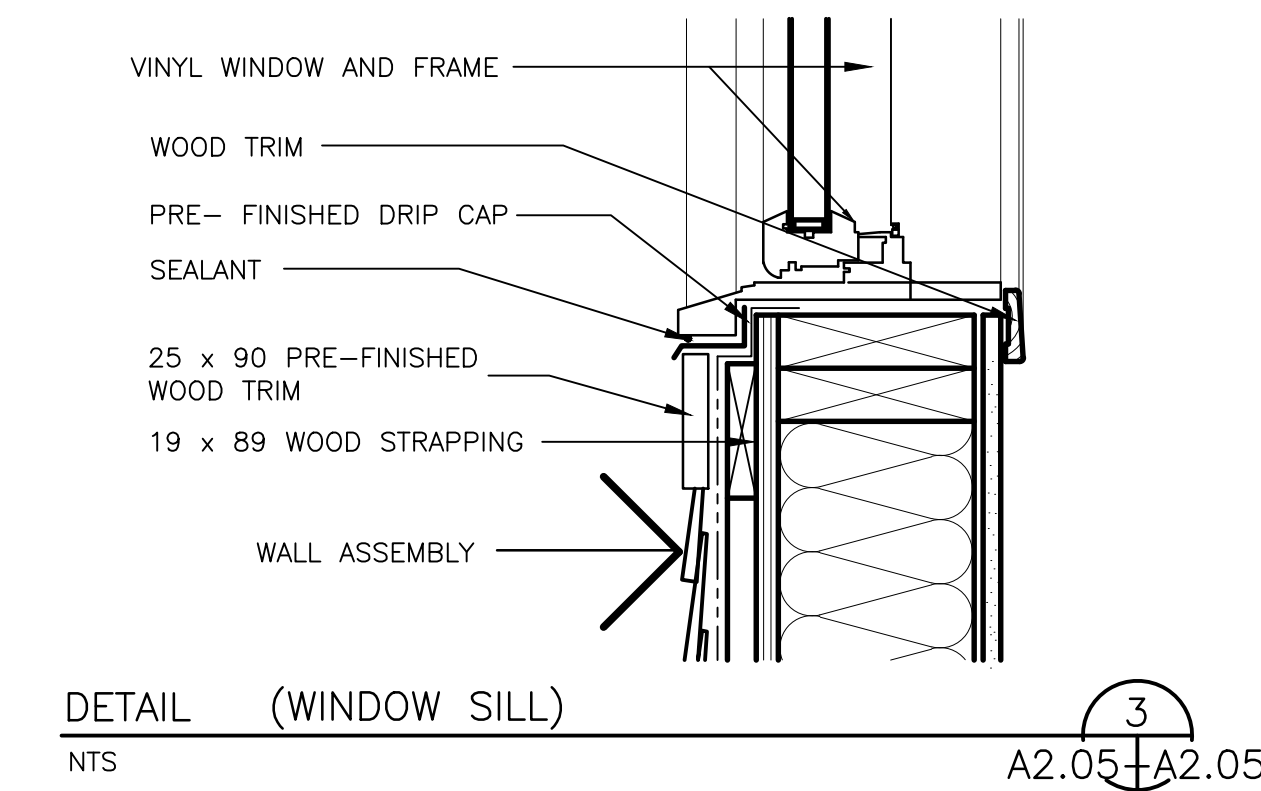
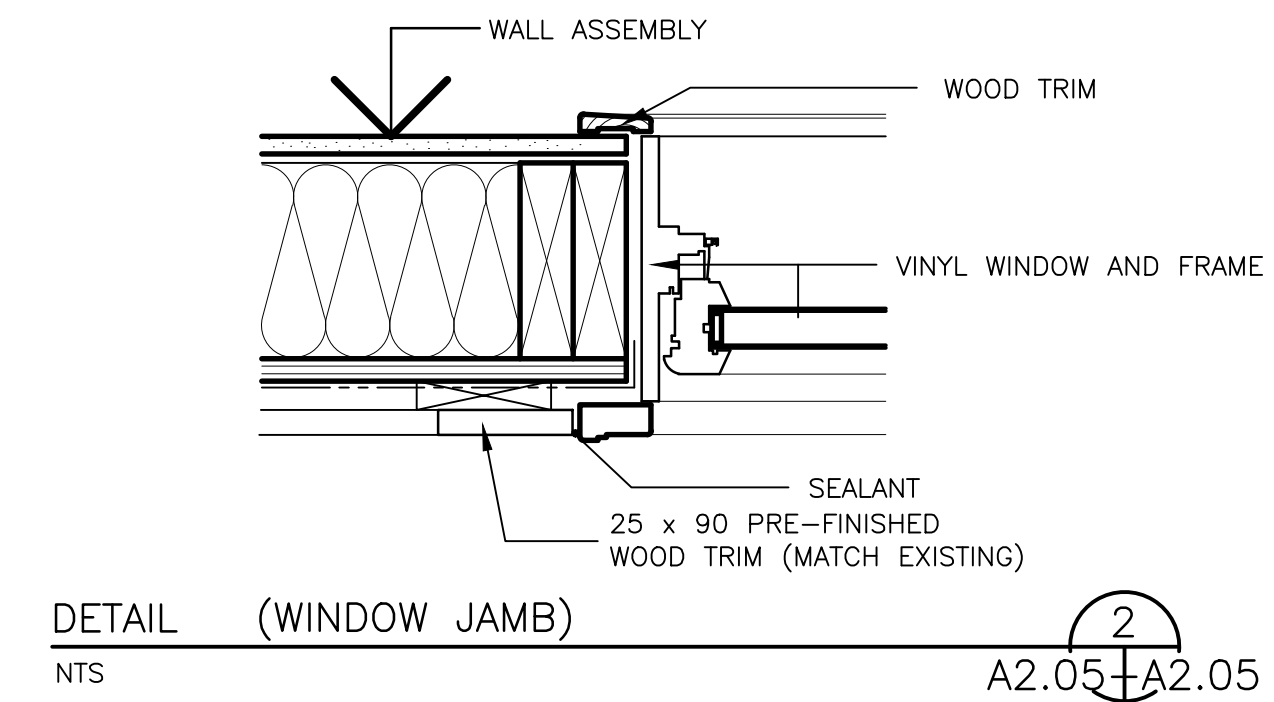
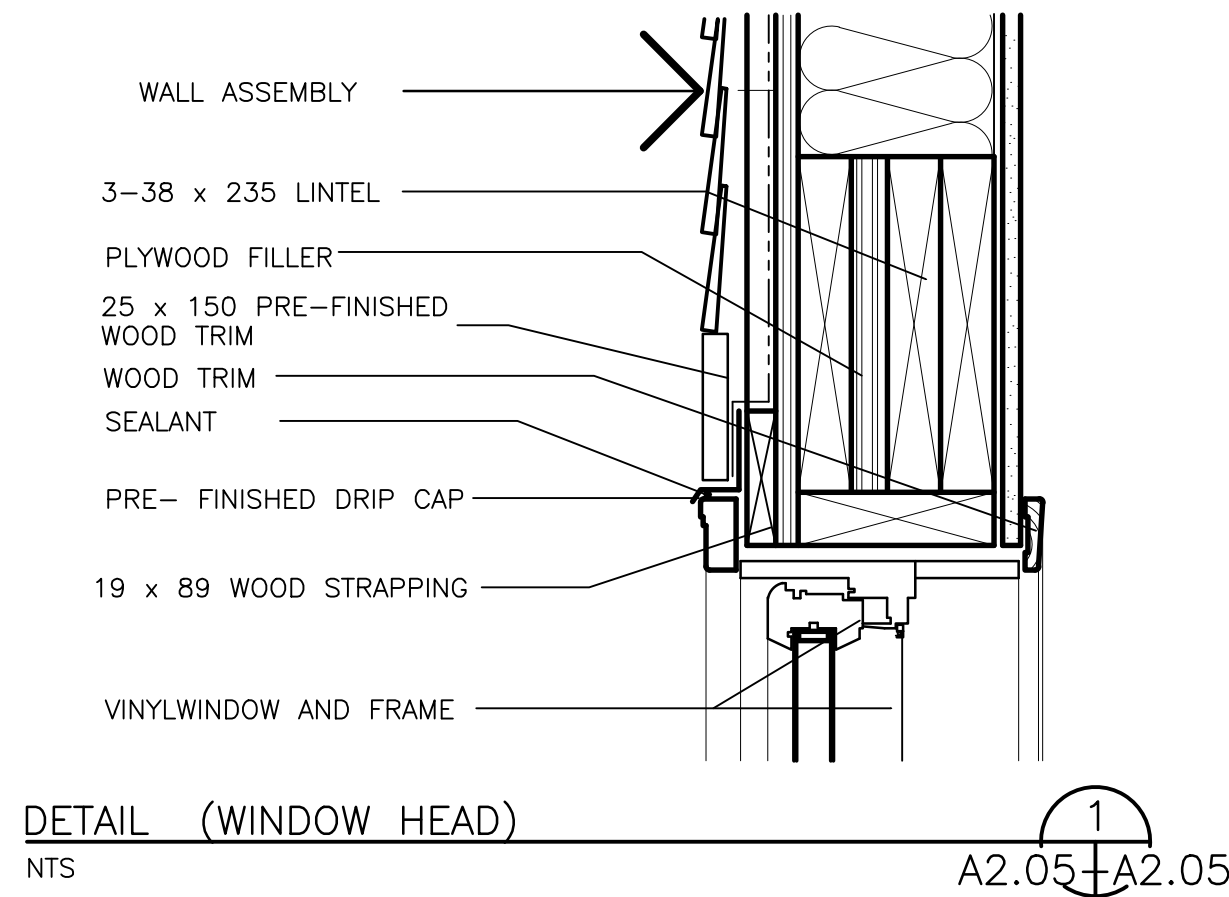
WINDOW SCHEDULE					
LABEL	WIDTH	HEIGHT	TYPE	MATERIAL	REMARKS
A	1000	1680	AWNING	VINYL	-

NOTES:

- WINDOW SUPPLIER TO SUPPLY R.S.O. OPENINGS
- WINDOWS TO MEET THE FOLLOWING STANDARDS:
(B7) WATER RESISTANCE (A3) AIR RESISTANCE
(F2) FORCED ENTRY
(C4) WIND LOAD TO RESIST BLOWOUT
- ALL WINDOWS TO BE SOLID VINYL.

LEGEND

- FG FIBERGLASS
- PT PAINT
- PU POLY URETHANE
- IHM INSULATED HOLLOW METAL



NOTES

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PROVINCE OF NFLD. PERMIT HOLDER CLASS "A" This Permit Allows DMG CONSULTING LTD To practice Professional Engineering in this Province 2015 Permit No. _____

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185 Roe Avenue, P.O. Box 194, Corner, NL, Canada, A1V 1W6

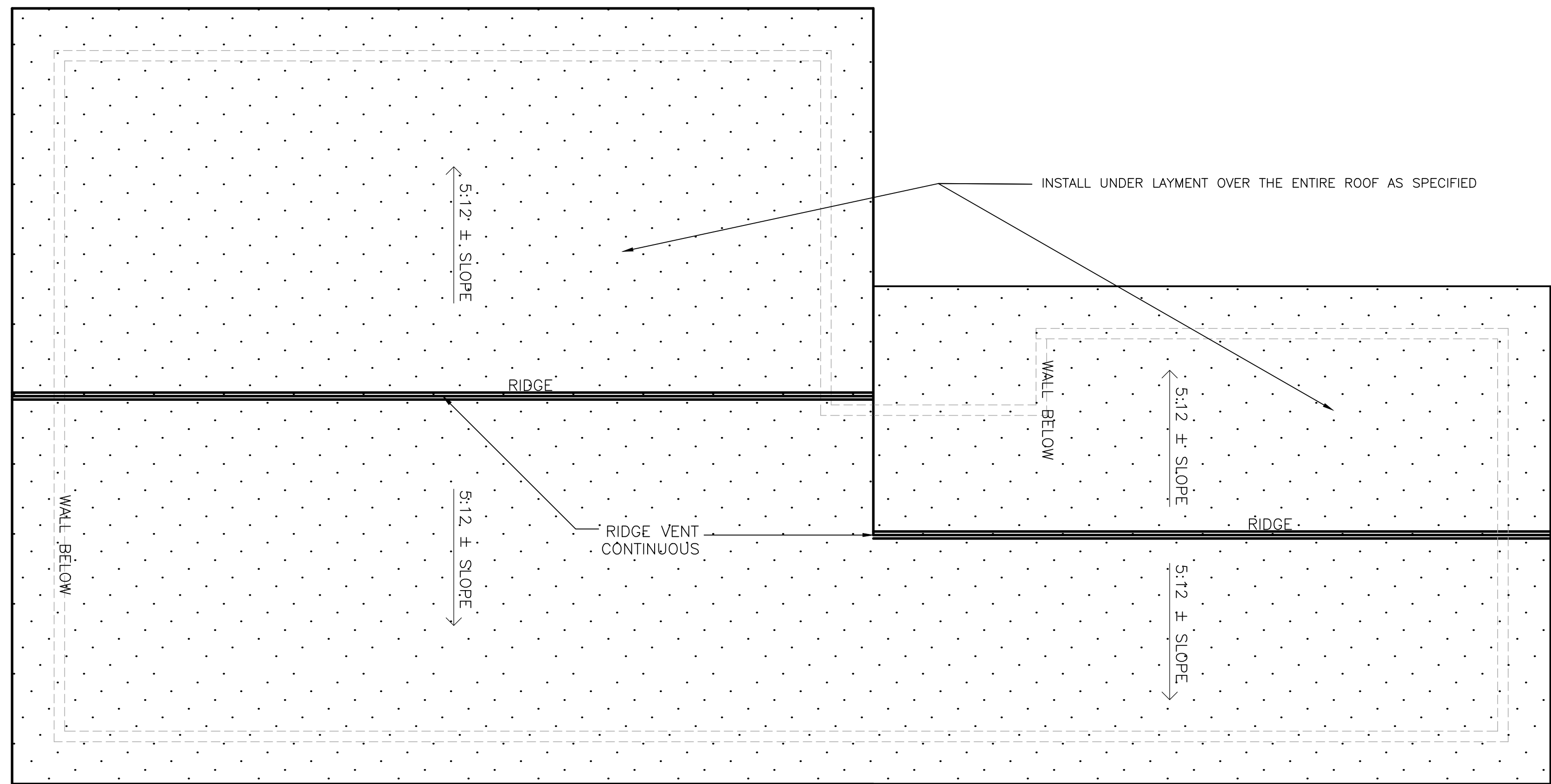
Consultants

CONSULTING ENGINEERS
21 Meads Place, 2nd Floor, P.O. Box 13200, Station 71, St. John's, NL A1B 4A5
Tel: (709) 754-1911 Fax: (709) 754-1900 admin@crosbieeng.com

Project Title
TERRA NOVA NATIONAL PARK
NEWMAN SOUND CAMPGROUND
ACTIVITY CENTER - EXTENSION
PRO# 000268

Drawing Title
DETAILS & SCHEDULES

Dwn. By R.T	Chk. By E.H
Date MARCH 23 2015	Scale AS NOTED
Proj. No. 338-14	Sheet No. A-2.05
Rev. No. 0	



ROOF PLAN
SCALE 1:50

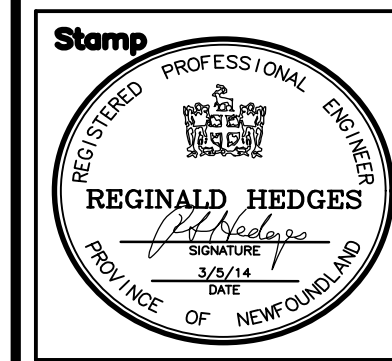
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S-1.01 S-1.01

NOTES

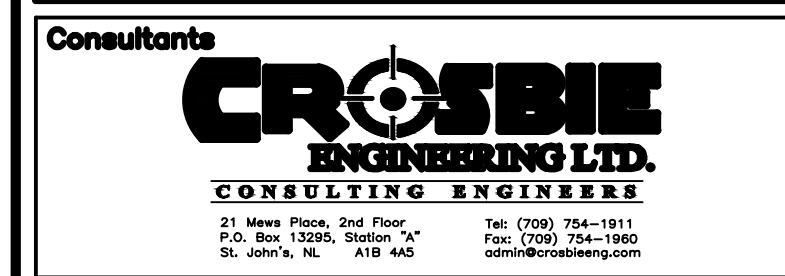
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1	ISSUED FOR REVIEW	03.27.15	RT

REVISIONS



PROVINCE OF N.F.L.D.
PERMIT HOLDER
CLASS "A"
This Permit Allows
DMG CONSULTING LTD.
To practice Professional
Engineering in this
Province
NOSSE 2015
Permit No. Year



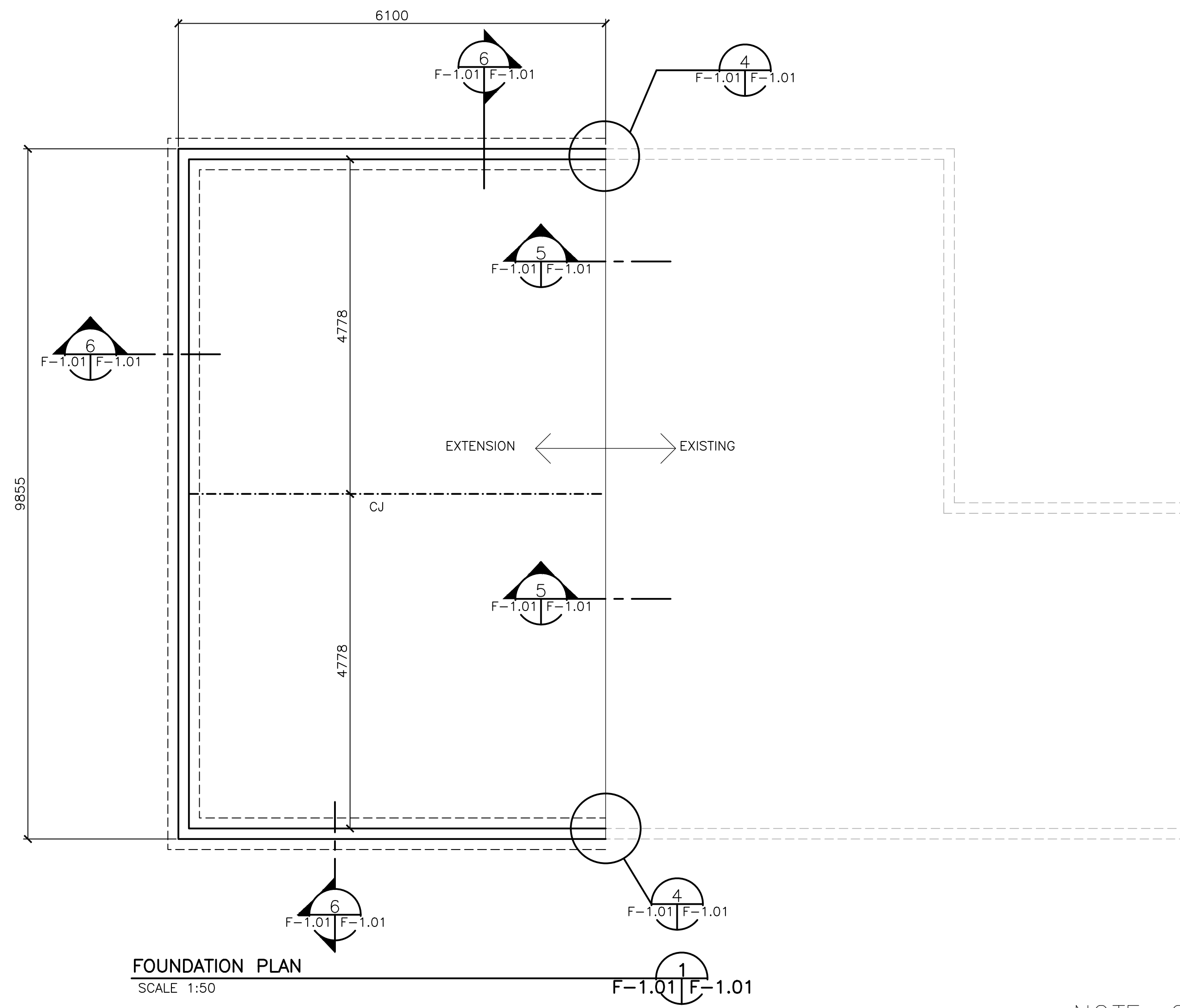
Project Title
TERRA NOVA NATIONAL PARK
NEWMAN SOUND CAMPGROUND
ACTIVITY CENTER – EXTENSION
PRO# 000268

Drawing Title
ROOF PLAN

Dwn. By R.T	Chk. By E.H
Date MARCH 23 2015	Scale AS NOTED
Proj. No. 338-14	Sheet No. A-2,06
Rev. No. 0	

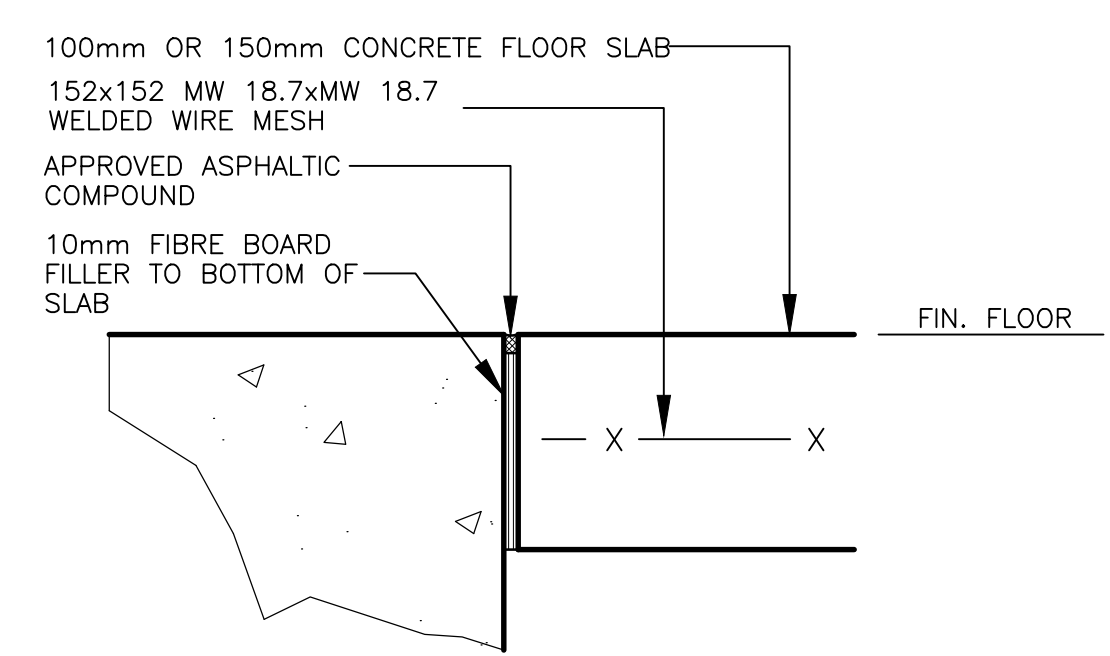
NOTES

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- DO NOT SCALE DRAWINGS.
- CONTRACTOR TO VERIFY ALL DIMENSIONS ON SITE BEFORE PROCEEDING WITH THIS WORK.
- ALL CONCRETE TO BE 20 MPA



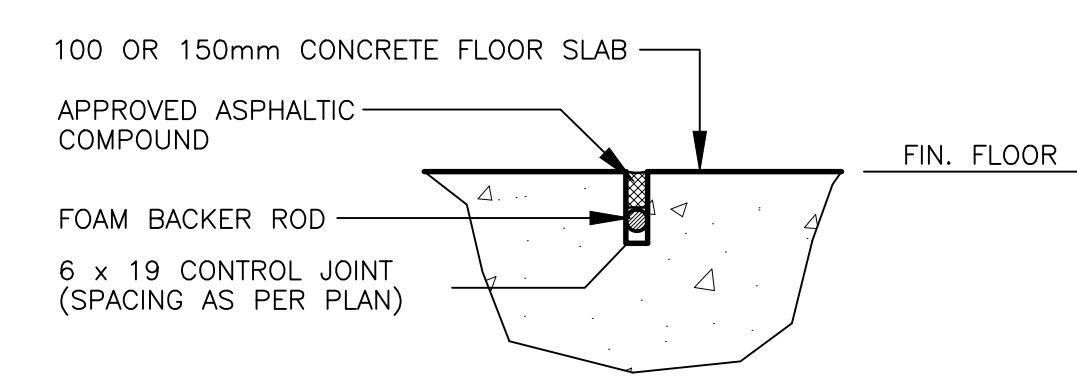
FOUNDATION PLAN
SCALE 1:50

F-1.01 F-1.01



DETAIL - TYP. ISOLATION JOINT

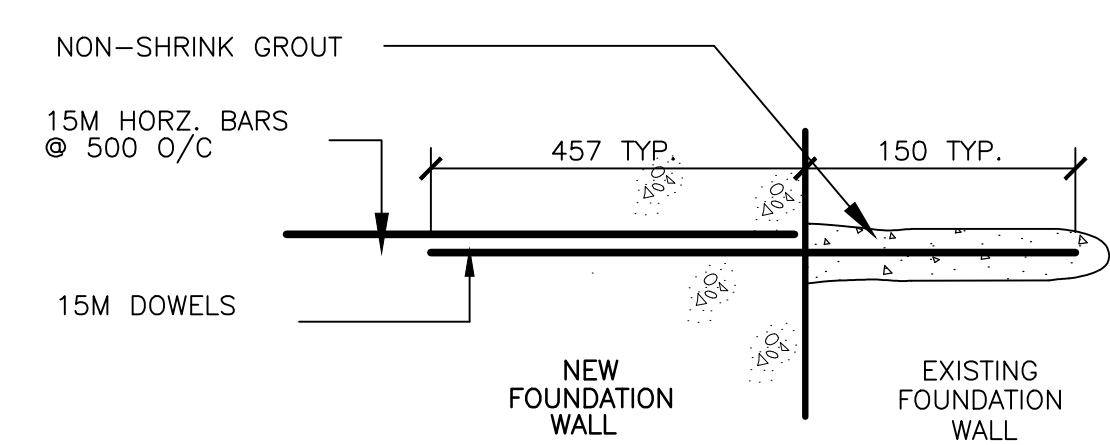
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DETAIL - TYP. CONTROL JOINT

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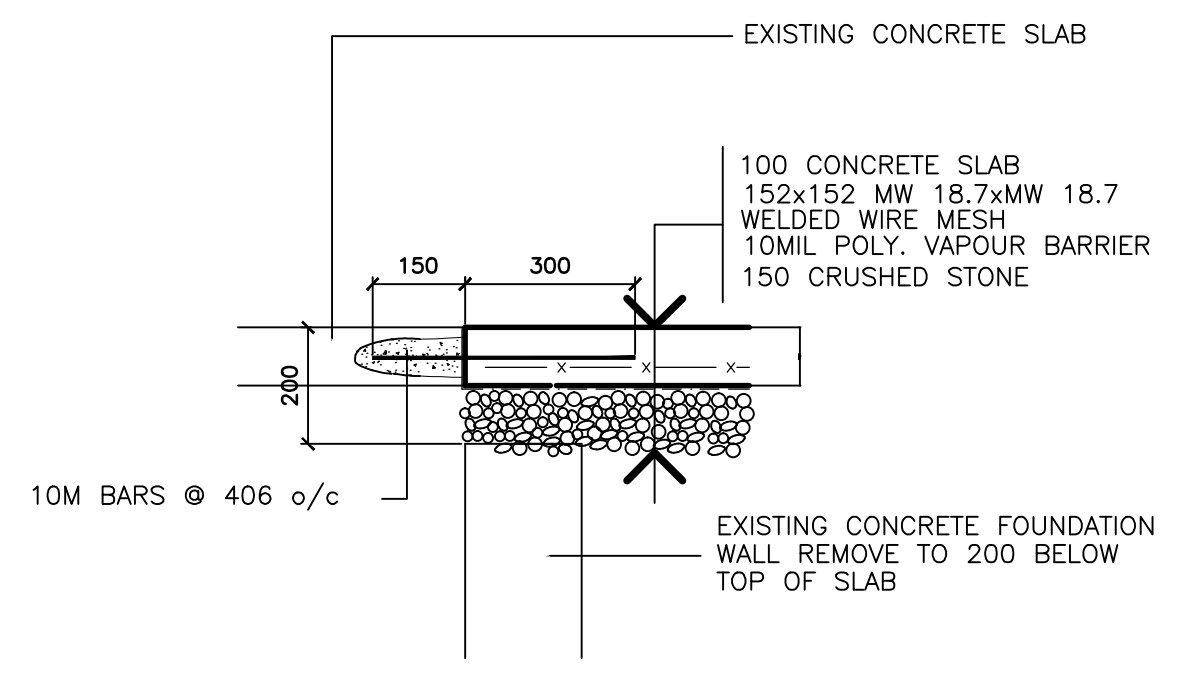
NOTE: CONCRETE 20MPA AS PER SPEC



NOTE
IN ALL LOCATIONS WHERE NEW FOUNDATION WALL AND FOOTING MEETS EXISTING CONCRETE FOUNDATION WALL AND FOOTING CONTRACTOR TO TIE NEW TO EXISTING BY DRILLING INTO EXISTING AND INSTALLING 16M DOWELS AS SHOWN. ALL HORIZONTAL BARS (WALL & FOOTING) TIE TO DOWELS INTO EXISTING FOUNDATION

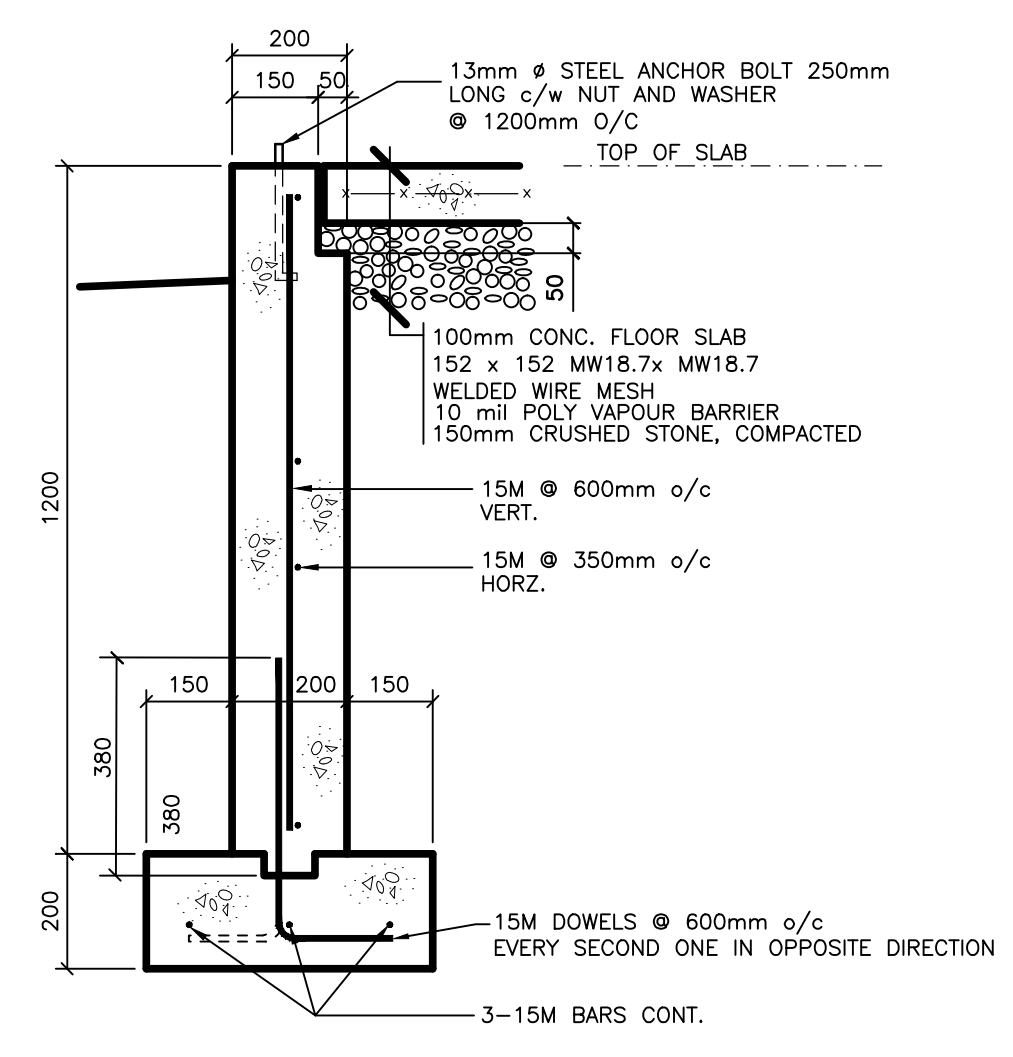
DETAIL FOUNDATION INTO EXISTING

F-1.01 F-1.01



DETAIL SLAB INTO EXISTING

F-1.01 F-1.01



DETAIL FOUNDATION WALL

F-1.01 F-1.01

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REVISIONS

	PROVINCE OF NFLD. PERMIT HOLDER CLASS "A" This Permit Allows DMG CONSULTING LTD To practice Professional Engineering in this Province N0588 Permit No. 2015 Year

DMG Consulting Limited

Consulting Engineering • Project Management
100 Roe Avenue, P.O. Box 194, Grand Falls, NL, Canada, A1V 1W6

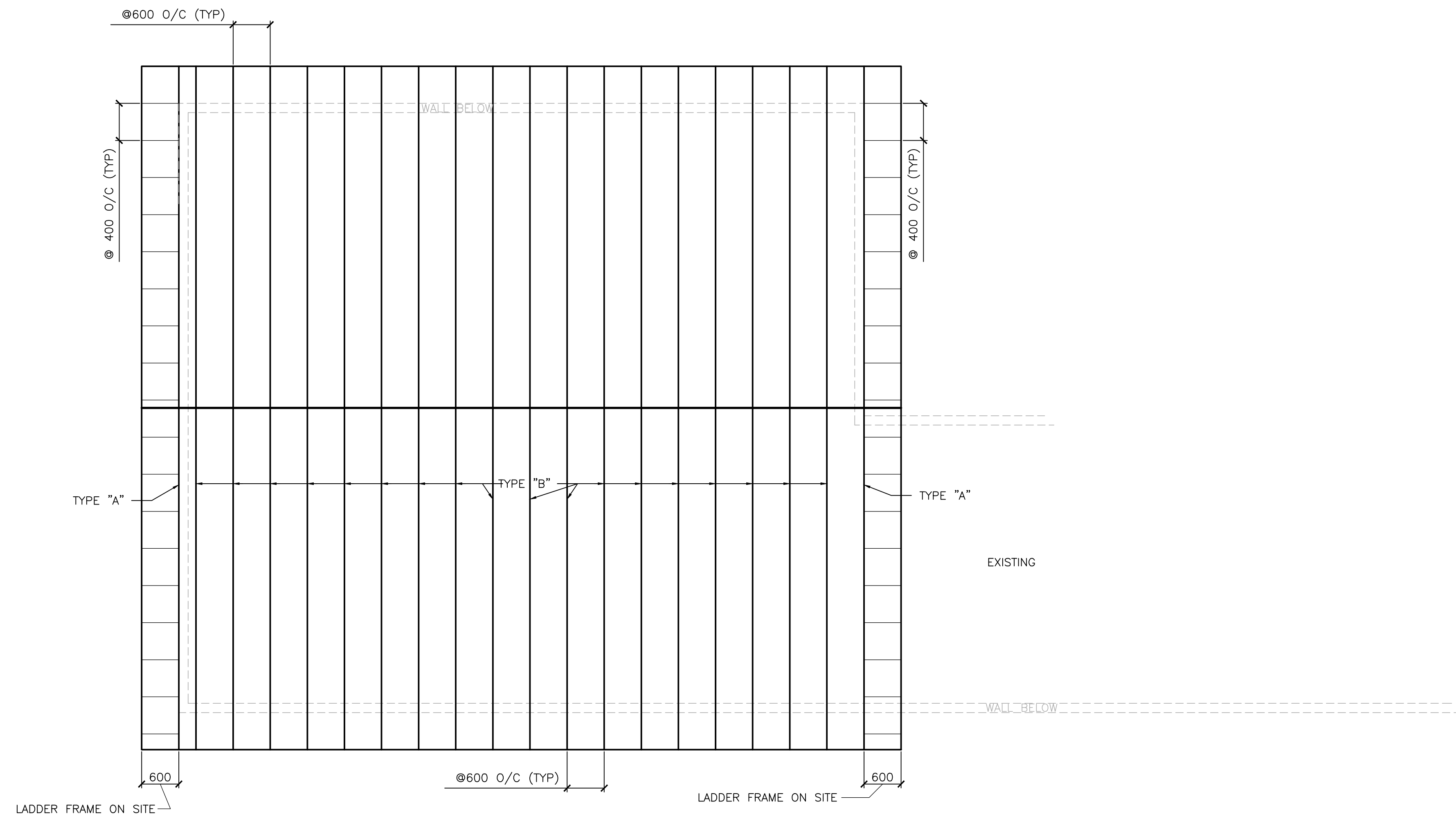
CROSBIE ENGINEERING LTD.

CONSULTING ENGINEERS
21 Meas Place, 2nd Floor, P.O. Box 12290, St. John's, NL, A1B 4A5
Tel: (709) 754-1911 Fax: (709) 754-1990
St. John's, NL, A1B 4A5 dm@crobieeng.com

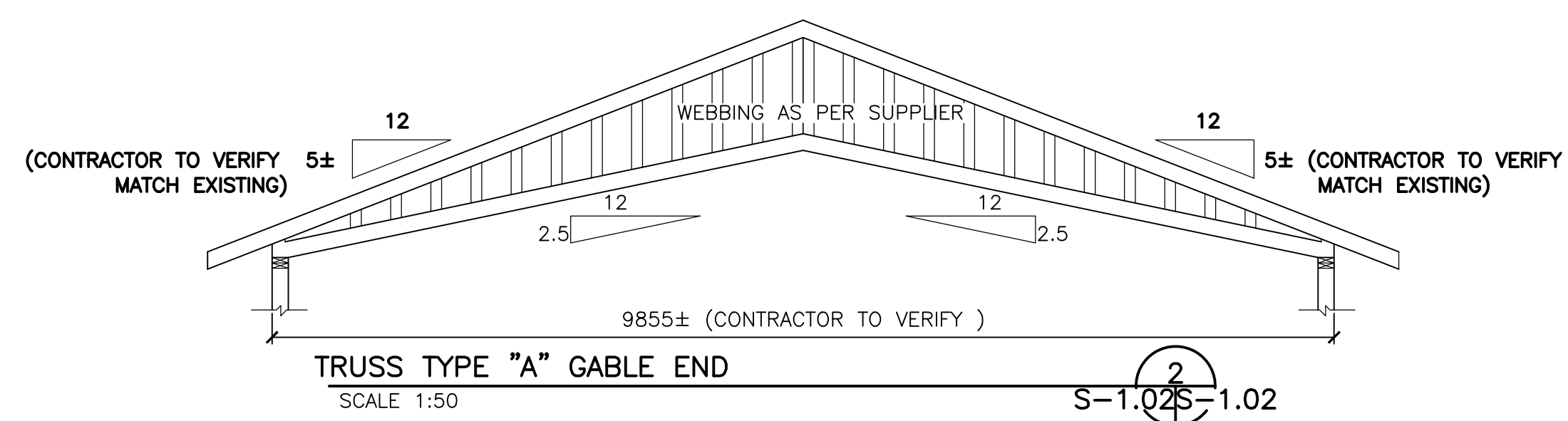
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NEWMAN SOUND CAMPGROUND
ACTIVITY CENTER - EXTENSION
PRO# 000268

Drawing Title
FOUNDATION PLAN

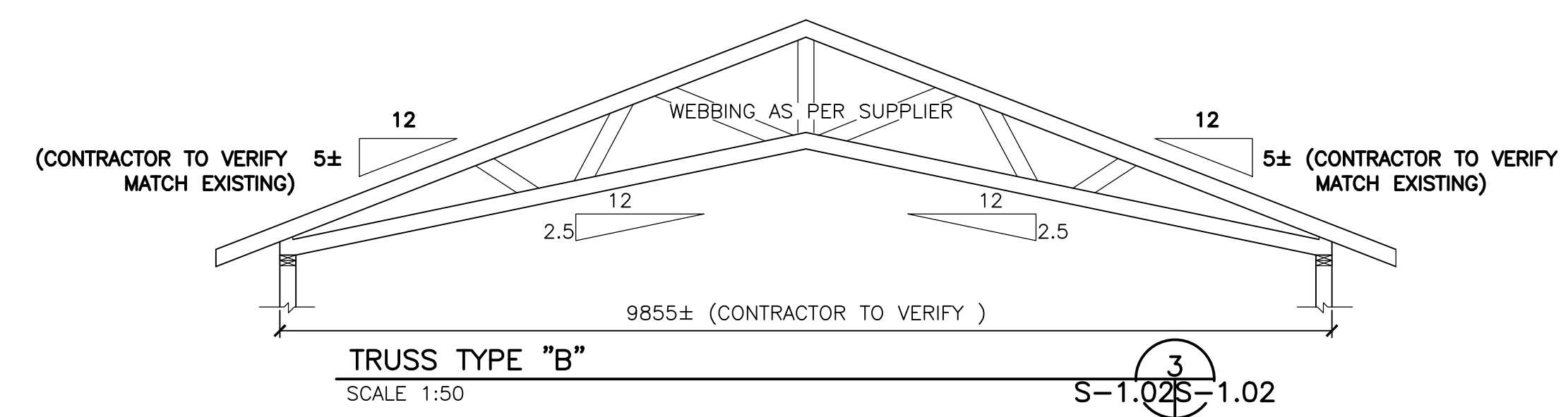
Dwn. By R.T	Chk. By E.H
Date MARCH 23 2015	Scale AS NOTED
Proj. No. 338-14	Sheet No. F-1.01
	Rev. No. 0



FRAMING PLAN
SCALE 1:50
S-1.02S-1.02



TRUSS TYPE "A" GABLE END
SCALE 1:50
S-1.02S-1.02



TRUSS TYPE "B"
SCALE 1:50
S-1.02S-1.02

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Consulting Engineers • Project Management
155 Rose Avenue, P.O. Box 124, Corner, NL, Canada, A1V 1W6

Consultants

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P.O. Box 13295, Station "A", Fax: (709) 754-1980
St. John's, NL, A1B 4A5 admin@crosbieeng.com

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Proj. No. 338-14	Sheet No. S-1.01	Rev. No. 0	

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 180 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. BRADLEY 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.

1. ALL BRANCH TAKE OFFS TO BE 45 DEG. CONICAL LATERALS.
2. 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. THERMAFLEX 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:

1. SUPPLY AIR DUCTWORK.
2. EXHAUST DUCTS WITHIN 1500 MM OF EXTERIOR WALLS.
3. 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 VAPOUR 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 ULC 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.

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.

CONTROLS

SCOPE OF WORK

PROVIDE CONTROL DEVICES; WIRING AND PROGRAMMING FOR ALL EQUIPMENT.

SEQUENCE OF OPERATION

OCCUPIED: 0900 – 2100 DAILY
START HRV-1 AND RUN EQUIPMENT DURING OCCUPIED PERIOD.

UNOCCUPIED: 2100 – 0900 DAILY
ALL HRV-1, EQUIPMENT TO BE OFF.

OUTSIDE AIR VENTILATION

TEMPERATURE CONTROL PROGRAM:

DURING OCCUPIED MODE MAINTAIN TEMPERATURE AT TEMPERATURE SENSOR TO 70°F(21.1°C) BY CONTROL OF HRV-1/HEATING COIL. MAINTAIN 70°F(21.1°C) AT TEMPERATURE SENSOR BY COMMAND TO SCR OF HEATING COIL.

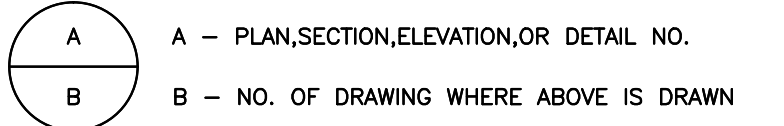
DRAWING NOTES

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0	ISSUED FOR TENDER	24/06/15	B.D.
A	ISSUED FOR REVIEW	08/05/15	B.D.

NO.	DESCRIPTION	DATE	BY
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REVISIONS



- A – PLAN,SECTION,ELEVATION,OR DETAIL NO.
- B – NO. OF DRAWING WHERE ABOVE IS DRAWN

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 2015.

Stamp

PRIME CONSULTANT

DMG Consulting Limited
21 West Plaza, 2nd Floor, P.O. Box 1200, Station "A" St. John's, NL A1B 4E5
Tel: (709) 754-1911 Fax: (709) 754-1900 odm@crosbieeng.com

MECHANICAL & ELECTRICAL

CROSBIE ENGINEERING LTD.
CONSULTING ENGINEERS

PROJECT

NEWMAN SOUND CAMPGROUND
BUILDING EXTENSION
TERRA NOVA NATIONAL PARK

DRAWING

MECHANICAL SPECIFICATION

DRAWN BY	B.D.	CHECKED BY	N.C.	APPROVED BY	N.C.
PROJECT NO.	15-1914	DWG. FILE NO.			
DATE	MAY 2015	SCALE	AS NOTED	DRAWING NO.	MS-1
				REV.	0

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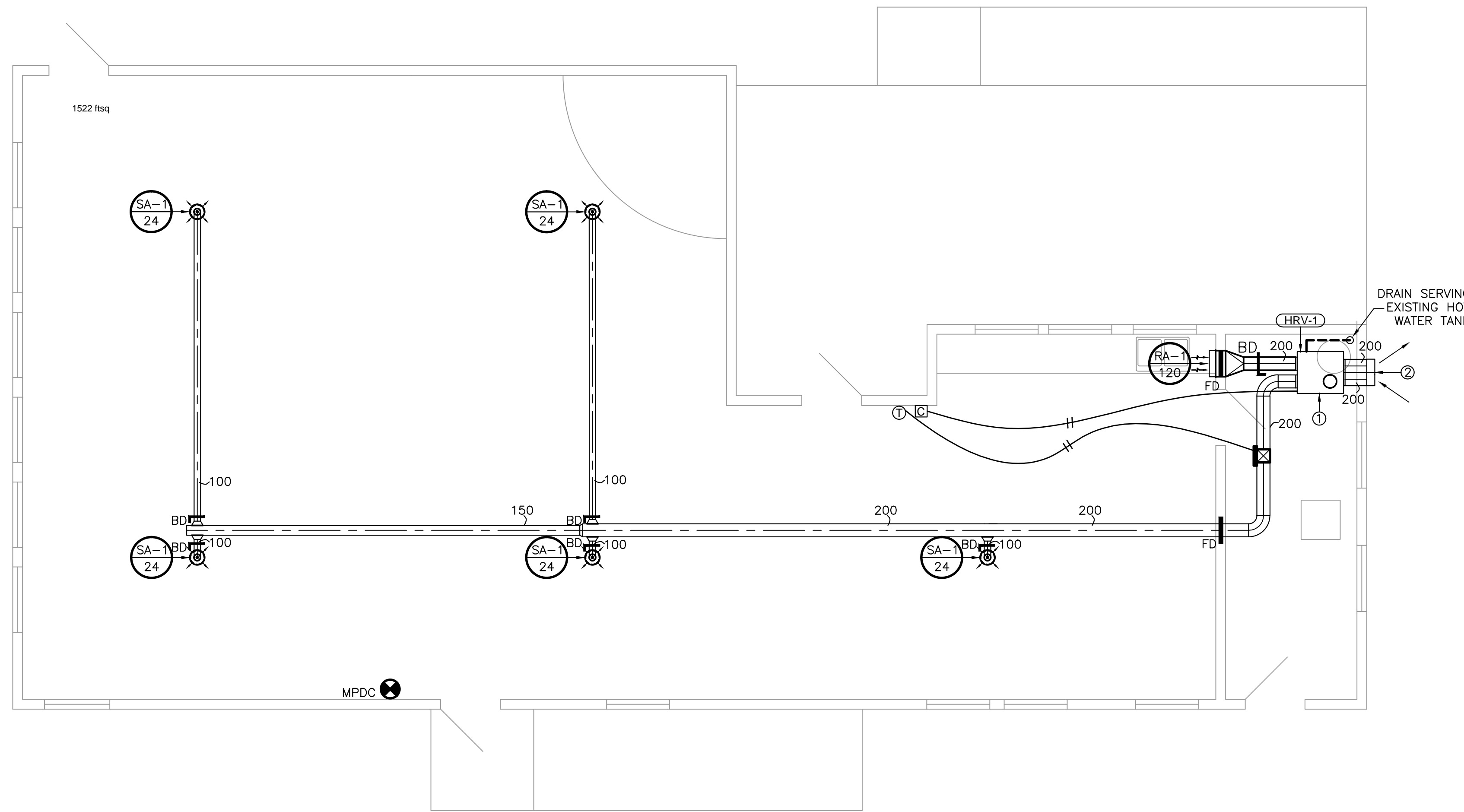
MECHANICAL LEGEND:

FIRE PROTECTION

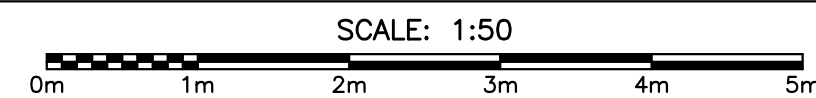
- FIRE EXTINGUISHER WALL MOUNTED C/W VEHICLE BRACKET
- MPDC - MULTI-PURPOSE DRY CHEMICAL

VENTILATION

- CIRCULAR DUCTWORK (DIMENSION = mm ϕ)
- DUCTWORK WITH ACOUSTIC INSULATION
- FLEXIBLE DUCTWORK (DIMENSION = mm ϕ)
- SUPPLY/FRESH AIR DUCTS UP & DOWN
- RETURN/EXHAUST AIR DUCTS UP & DOWN
- TYPICAL 90° DUCT ELBOWS; (R/W = 1.0 & w TURNING VANES)
- TYPICAL SQUARE CEILING MTD. SUPPLY AIR DIFFUSERS (ROUND COLLAR).
- TYPICAL CEILING MTD. FAN
- MD - MOTORIZED DAMPER.
- FD - FIRE DAMPER
- BD - MANUAL BALANCING DAMPER
- DIFFUSER/GRILLE TAG
- TYPICAL ELECTRIC DUCT HEATING COIL; TAG DENOTES COIL No.
- THERMOSTAT SUPPLIED AND INSTALLED BY MECHANICAL HONEYWELL T8775A OR APPROVED EQUAL.
- LOW VOLTAGE WIRING SUPPLIED AND INSTALLED BY MECHANICAL.
- HRV CONTROLLER FANTECH ECO-TOUCH 44007 OR APPROVED EQUAL.
- 20mm TYPE "L" HARD DRAWN COPPER CONDENSATE PIPING.



FLOOR PLAN - VENTILATION LAYOUT



DRAWING NOTES:

- ALL HRV UNITS ARE TO BE SUSPENDED FROM CEILING STRUCTURE PROVIDE AND INSTALL WALL MOUNTED CONTROLLER C/W 24 VOLT WIRING. INSTALL 20mm ϕ CONDENSATE DRAIN, ROOT CONDENSATE PIPING FROM HRV TO DRAIN SERVING DOMESTIC HOT WATER TANK.
- THERMALLY INSULATED SUPPLY/EXHAUST DUCT TO RUN TO EXTERIOR FROM HRV. INSTALL WALL CAP C/W BIRDSCREEN. 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 LINE FOR HRV TO BE DRAINED TO PLUMBING.
- FOLLOW MANUFACTURE'S RECOMMENDATIONS FOR INSTALLATION, CLEARANCES BALANCING AND ANY OTHER FORESEEN ITEMS FOR ALL EQUIPMENT INSTALLED.
- FLEXIBLE DUCTWORK SHALL ONLY BE USED TO CONNECT DUCTWORK TO THE HRV UNIT. FLEXIBLE DUCTWORK SHALL BE NO LONGER THAN 1000mm. ALL OTHER DUCTWORK SHALL BE ROUND SPIRAL RIGID DUCTWORK AS INDICATED ON FLOORPLANS.

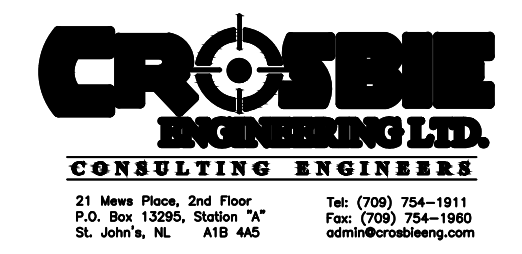
HRV EQUIPMENT SCHEDULE																				
DWG TAG	MANUFACTURER	MODEL	OUTSIDE AIR PERFORMANCE							EXHAUST AIR PERFORMANCE							ELECTRICAL		REMARKS	
			WINTER(C) DB	FLOW (l/s)	ESP (Pa)	TOTAL SP (w.g.)	FRPM	FAN (Bhp)	FAN (watts)	WINTER(C) DB	FLOW (l/s)	ESP (Pa)	TOTAL SP (w.g.)	FRPM	FAN (Bhp)	FAN (watts)	VOLTAGE	FLA		MOC
			HRV-1	FANTECH	SHR3205RD	-	120	250	.4	-	-	300	-	120	250	.4	-	-		300

HEATING COIL SCHEDULE										
TAG	MODEL NO.	REQ. AIRFLOW (L/S)	DUCT DIMENSIONS (mm)	KW.	ELECTRICAL DATA			STAGE DETAILS		REMARKS
					VOLTAGE	PH.	HZ.	# OF STAGES	KW.	
HC-1	NEPTRONIC INSERT	120	200 ϕ	3	240	1	60	1	-	POWERED ELECTRICAL DISCONNECT, AIR FLOW SWITCH, CONTROLS TRANSFORMER 24 VOLT, SCR.

PRIME CONSULTANT



MECHANICAL & ELECTRICAL



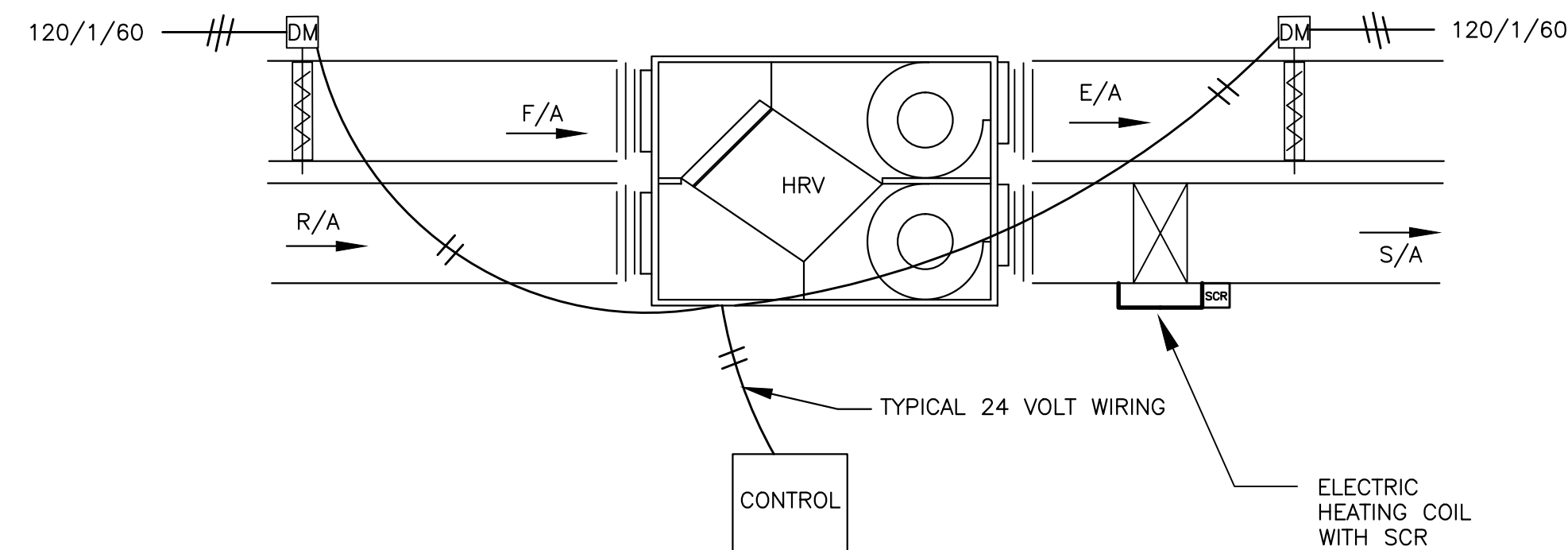
PROJECT

NEWMAN SOUND CAMPGROUND
BUILDING EXTENSION
TERRA NOVA NATIONAL PARK

DRAWING

VENTILATION LAYOUT
AND SCHEDULES

DRAWN BY	B.D.	CHECKED BY	N.C.	APPROVED BY	N.C.
PROJECT NO.	15-1914	DWG. FILE NO.			
DATE	MAY 2015	SCALE	AS NOTED	DRAWING NO.	MV-1
				REV.	0



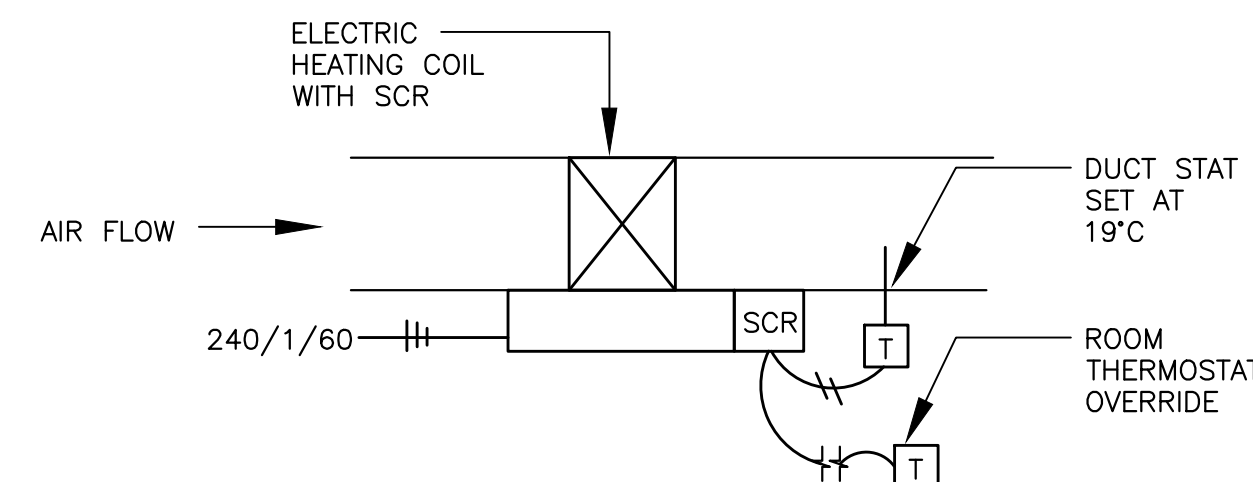
SEQUENCE: 1. TIME OF DAY CONTROL OF HRV. TIME CLOCK
 2. WHEN UNIT STARTS EXHAUST INTAKE DAMPERS OPEN.

NOTE: 1. ALL 24 VOLT CONTROL WIRING BY MECHANICAL.
 2. ACTUAL UNIT OPENINGS VARY BY MAKE AND MODEL.
 3. CONFIRM ALL VOLTAGES WITH EQUIPMENT SCHEDULES.

TYPICAL HRV CONTROL SYSTEM

SCALE = N.T.S.

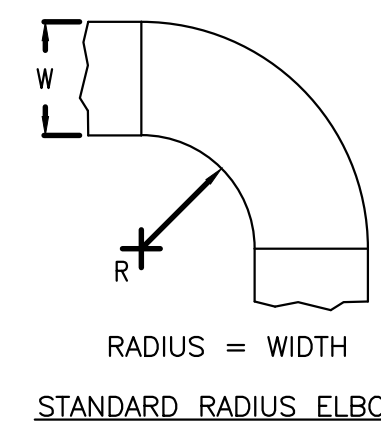
4
MV-2



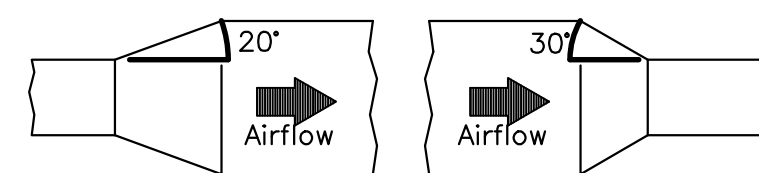
SUPPLY AIR HEATING COIL CONTROL

SCALE = N.T.S.

5
MV-2

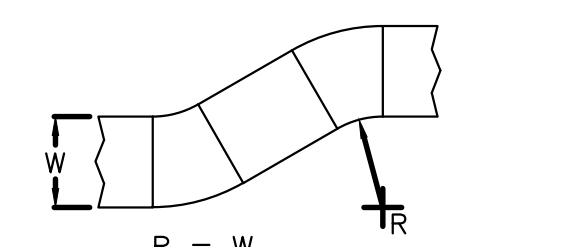


STANDARD RADIUS ELBOW



NOTES
 20° Max. ON DIVERGING AIRFLOW,
 30° Max. ON CONVERGING AIRFLOW.

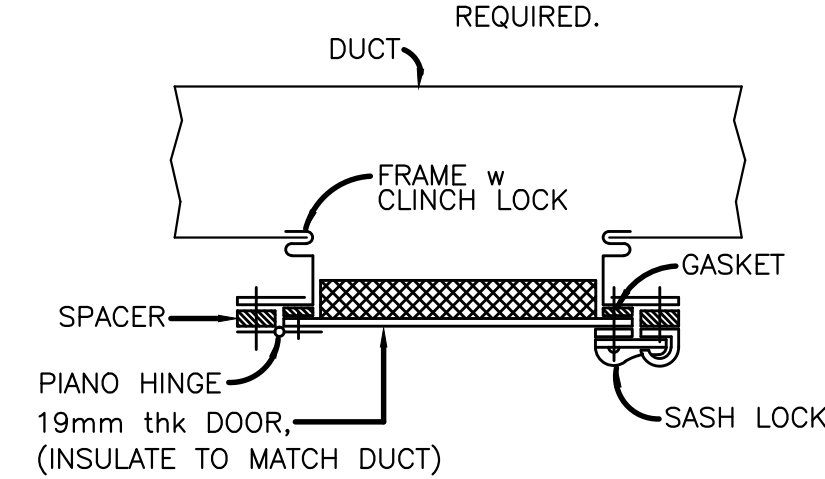
TYPICAL TRANSITIONS



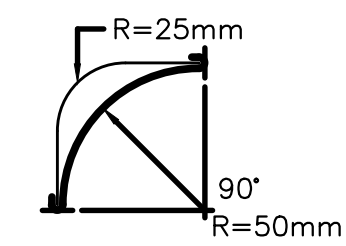
TYPICAL OFFSETS

NOTES:

1. ALL DUCTWORK CONSTRUCTION SHALL CONFORM TO SMACNA LOW AND/OR HIGH VELOCITY DUCT STANDARDS AS REQUIRED.

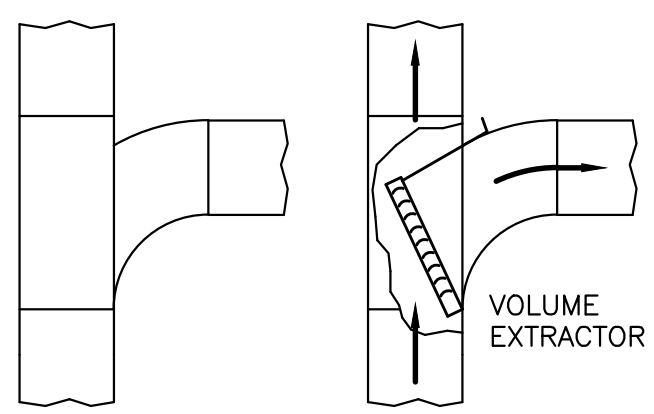


TYP. DUCT MID. ACCESS DOOR



NOTES:
 VANE SPACING,
 30mm (SMALL ELBOW)
 60mm (LARGE ELBOW)

TYPICAL VANED ELBOWS

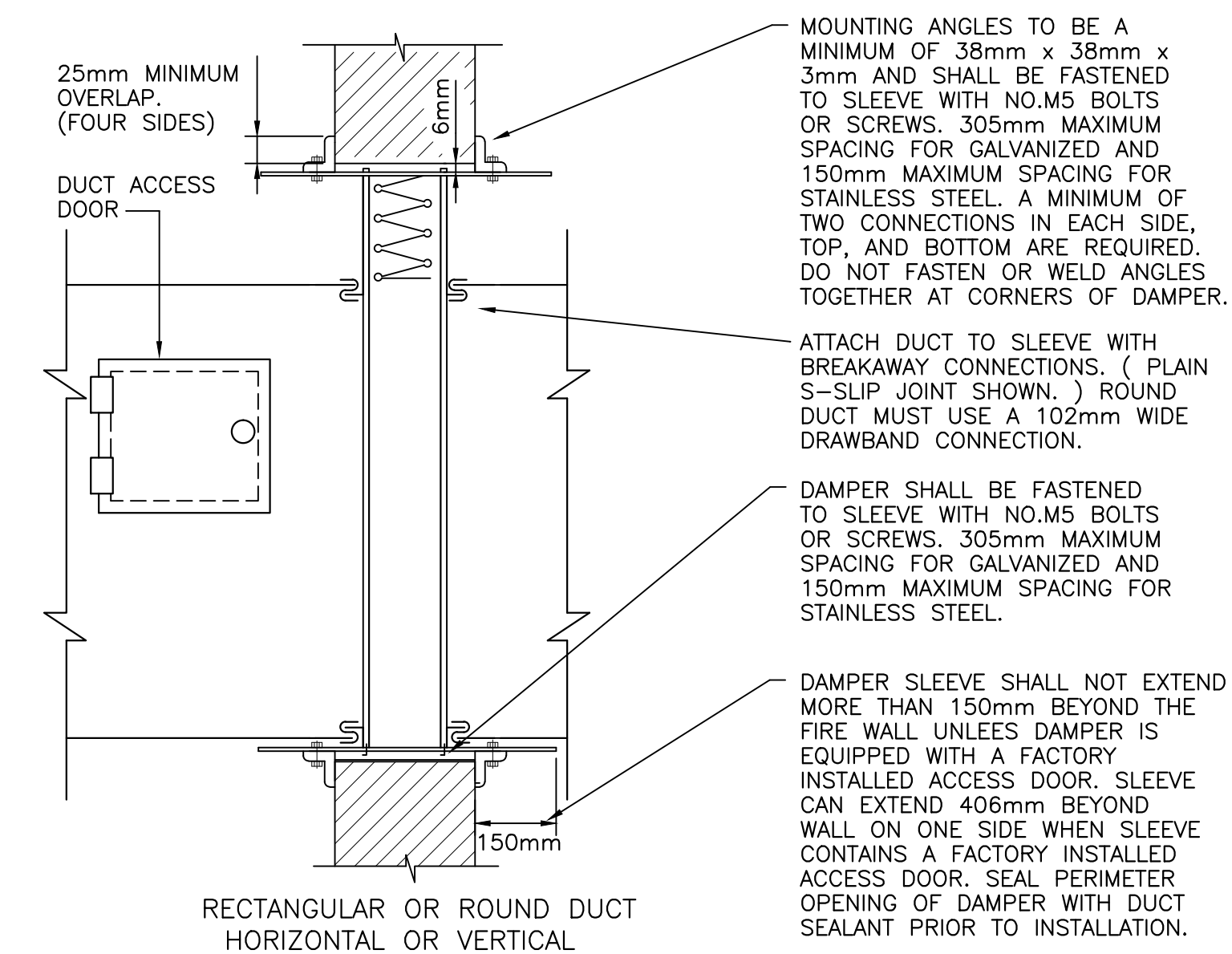


TYPICAL "TEE" CONNECTIONS

TYPICAL DUCT CONSTRUCTION DETAILS

SCALE = N.T.S.

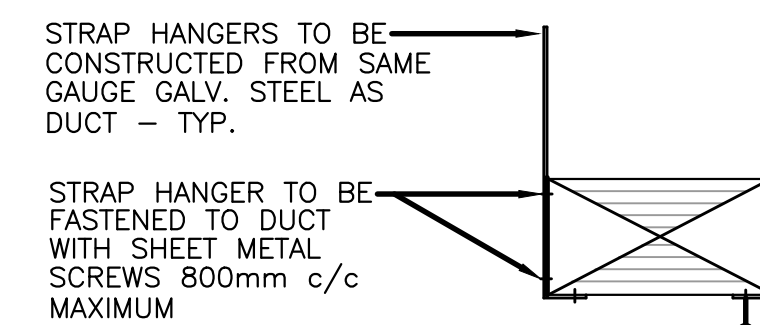
6
MV-2



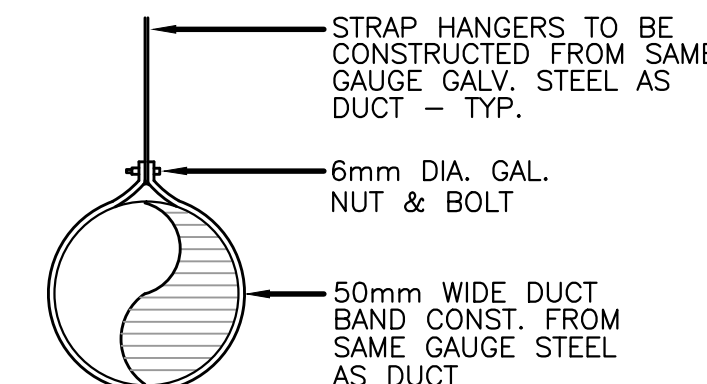
TYPICAL FIRE DAMPER(S) MOUNTING DETAIL

SCALE = N.T.S.

1
MV-2



RECTANGULAR DUCT UP TO 300mm



ROUND DUCT

STRAP HANGERS TO BE CONSTRUCTED FROM SAME GAUGE GALV. STEEL AS DUCT - TYP.

STRAP HANGER TO BE FASTENED TO DUCT WITH SHEET METAL SCREWS 800mm c/c MAXIMUM

STRAP HANGERS TO BE CONSTRUCTED FROM SAME GAUGE GALV. STEEL AS DUCT - TYP.

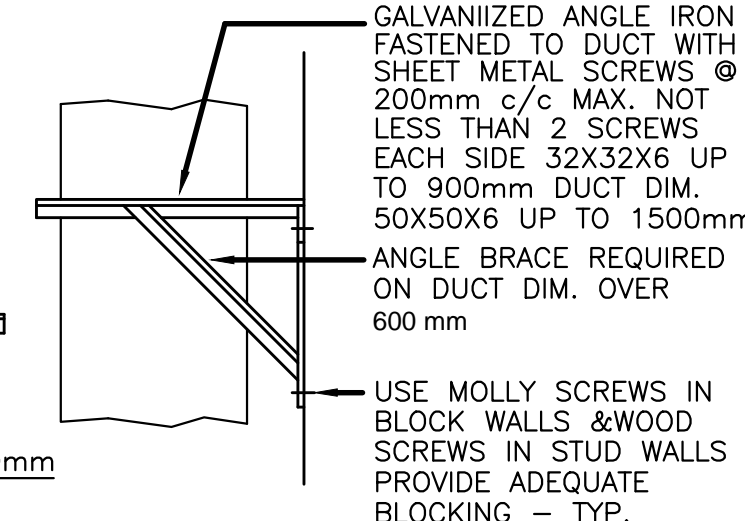
6mm DIA. GAL. NUT & BOLT

50mm WIDE DUCT BAND CONST. FROM SAME GAUGE STEEL AS DUCT

THREADED HANGER RODS 6mm DIA. UP TO 600 DUCT DIM. 10mm DUCT DIM.

GALVANIZED ANGLE IRON 25X25X6 UP TO 600 DUCT DIM. 32X32X6 600 TO 900 DUCT DUCT DIM. 50X50X6 900 TO 1500 DUCT DIM.

RECTANGULAR DUCT UP TO 1500mm



VERTICAL DUCT

GALVANIZED ANGLE IRON FASTENED TO DUCT WITH SHEET METAL SCREWS @ 200mm c/c MAX. NOT LESS THAN 2 SCREWS EACH SIDE 32X32X6 UP TO 900mm DUCT DIM. 50X50X6 UP TO 1500mm.

ANGLE BRACE REQUIRED ON DUCT DIM. OVER 600 mm

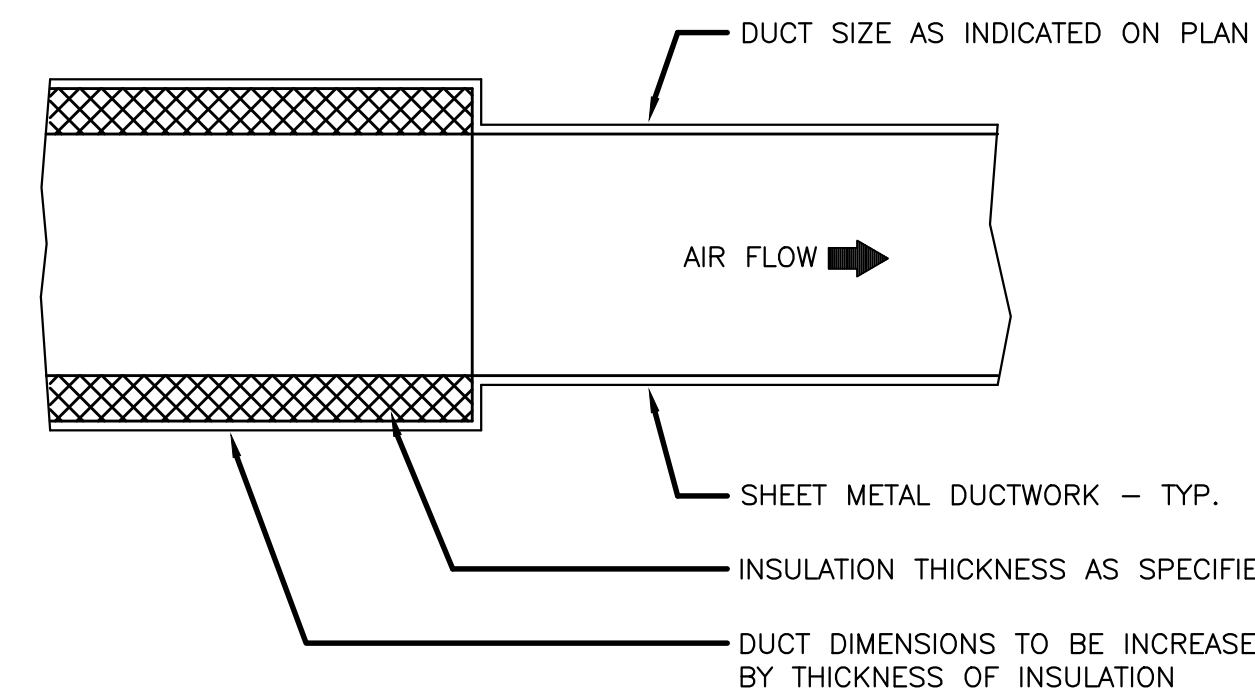
USE MOLLY SCREWS IN BLOCK WALLS & WOOD SCREWS IN STUD WALLS PROVIDE ADEQUATE BLOCKING - TYP.

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

DETAIL - TYP. DUCT SUPPORTS

SCALE = N.T.S.

2
MV-2



DETAIL - TYP. ACOUSTIC LINED DUCTWORK

SCALE = N.T.S.

3
MV-2

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A	ISSUED FOR REVIEW	08/05/15	B.D.

REVISIONS

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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 2015.

Stamp
 REGISTERED PROFESSIONAL ENGINEER
 K. NEIL CLEARY
 Signature
 June 24, 2015
 PROVINCE OF NEWFOUNDLAND

PRIME CONSULTANT

DMG Consulting Limited
 Consulting Engineers & Architects
 200 West Main Street, Suite 100, St. John's, NL, Canada, A1B 1X8

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 CONSULTING ENGINEERS
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 Tel: (709) 754-1911 Fax: (709) 754-1900 email@crosbieeng.com

PROJECT

NEWMAN SOUND CAMPGROUND BUILDING EXTENSION TERRA NOVA NATIONAL PARK

DRAWING

VENTILATION DETAILS

DRAWN BY	CHECKED BY	APPROVED BY
B.D.	N.C.	N.C.
PROJECT NO. 15-1914	DWG. FILE NO.	
DATE MAY 2015	SCALE AS NOTED	DRAWING NO. MV-2
		REV. 0

LEGEND

LIGHTING

- Ⓐ INCANDESCENT/HID/LED/COMPACT FLUORESCENT LIGHTING FIXTURE, CEILING MOUNTED. LETTER DENOTES TYPE. SEE LIGHTING FIXTURE SCHEDULE & SPECIFICATIONS FOR DESCRIPTION.
- ⓐ INCANDESCENT/HID/LED/COMPACT FLUORESCENT LIGHTING FIXTURE, WALL MOUNTED. LETTER DENOTES TYPE. SEE LIGHTING FIXTURE SCHEDULE & SPECIFICATIONS FOR DESCRIPTION.
- Ⓐ FLUORESCENT LIGHTING FIXTURE. LETTER DENOTES TYPE. SEE LIGHTING FIXTURE SCHEDULE & SPECIFICATIONS FOR DESCRIPTION.
- ⒶⒶⒶ FLUORESCENT/HID/LED TRACK LIGHTING. SEE LIGHTING FIXTURE SCHEDULE & SPECIFICATIONS FOR DESCRIPTION.
- Ⓢ_{a,b}
Ⓟ
Ⓚ SINGLE POLE TOGGLE SWITCH. 15 AMP, SPECIFICATION GRADE, WHITE C/W STAINLESS STEEL COVERPLATE. SEE SPEC. FOR MORE INFORMATION. MOUNT 1200mm ABOVE FINISHED FLOOR.
"a" OR "b" INDICATES CIRCUIT TO BE CONTROLLED.
"p" INDICATES PILOT LIGHT
"k" INDICATES KEY OPERATED
- Ⓢ₃
Ⓚ "3" INDICATES THREE WAY SWITCH, SIMILAR TO ABOVE.
"4" INDICATES FOUR WAY SWITCH, SIMILAR TO ABOVE.
- Ⓚ INCANDESCENT DIMMER, RATED 120 VOLT, SPECIFICATION GRADE C/W COVERPLATE. MOUNT 1200mm. ABOVE FINISHED FLOOR.

EMERGENCY/EXIT LIGHTING

- Ⓚ EMERGENCY LIGHTING BATTERY UNIT "LUMACELL" #RG12S200-2LD7 OR EQUAL. 120 VOLT AC, 12 VOLT DC. BATTERY TO MOUNT 300MM BELOW CEILING. BE RATED FOR 200 WATTS (66W FOR 90 MINUTES MINIMUM) C/W TWO 4W MR-16 LED HEADS & COME WITH A 10 YEAR RATED LIFE MINIMUM. #1 INDICATES BATTERY PACK DESIGNATION.
- Ⓚ REMOTE HEAD "LUMACELL" #MQM2LD7 (DOUBLE) OR EQUAL, 12 VOLT, C/W 4 WATT, MR16 LED LAMPS. WALL MOUNT 300mm BELOW FINISHED CEILING. #1 INDICATES CONNECTION TO BATTERY PACK #1
- ⓀⓀ EXIT SIGN. " LUMACELL" LA1WU SERIES (RUNNING MAN) NRCAN/CSA COMPLIANT. UNIVERSAL MOUNT 120 VOLT AC & 12 VOLT DC, C/W 25 YEAR LED TYPE LAMPS. SEE LIGHTING FIXTURE SCHEDULE AND SPECIFICATION. ARROWS INDICATE DIRECTION OF TRAVEL
- Ⓚ COMBO EXIT SIGN COMPLETE WITH TWO HEADS. " LUMACELL" LAC-1-W-1250-2-LD7 SERIES NRCAN/CSA COMPLIANT. UNIVERSAL MOUNT 120 VOLT AC & 12 VOLT DC, C/W EXIT SIGN (RUNNING MAN) AND TWO 4 WATT, MR16, 25 YEAR LED TYPE LAMPS. SELF-POWERED.

WIRING DEVICES

- Ⓚ WP C 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. "C" INDICATES CEILING MOUNTED, COORDINATE EXACT LOCATION ON SITE.
- Ⓚ GFCI DUPLEX RECEPTACLE. 120 VOLT, 15 AMP, WHITE, SPECIFICATION GRADE C/W STAINLESS STEEL COVERPLATE. WALL MOUNT 400mm ABOVE FINISHED FLOOR.
- Ⓚ 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.
- Ⓚ DUPLEX U-GROUND RECEPTACLE. 120 VOLT, 20 AMP, SPECIFICATION GRADE. WHITE & C/W STAINLESS STEEL COVERPLATE. WALL MOUNT 400mm ABOVE FINISHED FLOOR. "WP" INDICATES WEATHERPROOF COVERPLATE.
- Ⓚ GFCI DUPLEX RECEPTACLE. 120 VOLT, 20 AMP, WHITE, SPECIFICATION GRADE C/W STAINLESS STEEL COVERPLATE. WALL MOUNT 400mm ABOVE FINISHED FLOOR.
- Ⓚ DUPLEX U-GROUND RECEPTACLE. 120 VOLT, 20 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, 20 AMP, WHITE, SPECIFICATION GRADE C/W STAINLESS STEEL COVERPLATE. WALL MOUNT 150mm TO CENTER ABOVE COUNTER.
- Ⓚ DUPLEX U-GROUND RECEPTACLE FOR MICROWAVE. 120 VOLT, 15 AMP, SPECIFICATION GRADE WHITE & C/W WHITE NYLON COVERPLATE. COORDINATE EXACT LOCATION AND MOUNTING HEIGHT PRIOR TO ROUGH-IN.

ELECTRIC HEATING

- Ⓚ ELECTRIC HEATER. SEE HEATER FIXTURE SCHEDULE AND/OR SPECIFICATION FOR DESCRIPTION.
- Ⓚ ELECTRIC HORIZONTAL UNIT HEATER. SEE HEATER FIXTURE SCHEDULE AND/OR SPECIFICATION FOR DESCRIPTION.
- Ⓚ LOW VOLTAGE ELECTRONIC THERMOSTAT. MOUNT 1200mm ABOVE FINISH FLOOR.

CONTROLS & MISCELLANEOUS

- Ⓚ DISCONNECT SWITCH SUPPLIED AND INSTALLED BY ELECTRICAL DIVISION UNLESS NOTED OTHERWISE, EEMAC 2 (SPRINKLER PROOF) FOR INTERIOR AND EEMAC 4X FOR EXTERIOR.
- Ⓚ ELECTRIC MOTOR, SUPPLIED BY MECHANICAL DIVISION, WIRED BY ELECTRICAL DIVISION.
- Ⓚ INDICATES LOW VOLTAGE WIRING
- Ⓚ INDICATES LINE VOLTAGE WIRING. SHORT LINE INDICATES LINE CONDUCTOR, LONG LINE INDICATES NEUTRAL CONDUCTOR AND DASHED LINE INDICATES GROUND CONDUCTOR.
- Ⓚ JUNCTION BOX

DASHED LINE INDICATES EXISTING
SOLID LINE INDICATES NEW

GENERAL NOTES:

1. CONTRACTOR TO PROVIDE ALL CUTTING, PATCHING AND PAINTING TO MATCH EXISTING. SEE SPECIFICATION FOR DETAILS. COORDINATE ON SITE.
2. 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.
3. WORK SHALL BE SCHEDULED AND COORDINATED WITH OWNER REPRESENTATIVE. BUILDING TO REMAIN OPERATIONAL DURING CONSTRUCTION.
4. 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.
5. 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.
6. WORK TO BE CARRIED OUT IN CONSIDERATION OF CLIENT COMFORT AND OPERATIONS.
7. ALL WIRING TO BE INSTALLED IN CONDUIT AS INDICATED.
8. ACCESS TO FACILITY TO BE COORDINATED WITH OWNER REPRESENTATIVE.
9. RE-LABEL CIRCUITS IN EXISTING PANEL BOARD DIRECTORIES IF APPLICABLE.
10. LABEL ALL EQUIPMENT WITH LAMACOID TAGS.
11. ALL EXISTING ELECTRICAL EQUIPMENT REMOVED TO BE TURNED OVER TO OWNER. IF OWNER REFUSES THEN CONTRACTOR TO REMOVE FROM SITE AND DISPOSE.

DRAWING NOTES

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0	ISSUED FOR TENDER	24/06/15	D.R.
A	ISSUED FOR REVIEW	08/05/15	D.R.

REVISIONS

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<p style="text-align: center;">Stamp</p> <p>PROVINCE OF NEWFOUNDLAND PERMIT HOLDER Class "A" This Permit Allows CROSBIE ENGINEERING LIMITED</p> <p><small>To practice Professional Engineering in Newfoundland and Labrador Permit No. as issued by PEG-NL 02123 which is valid for the year 2015.</small></p>	<p style="text-align: center;">Stamp</p> <p>REGISTERED PROFESSIONAL ENGINEER PEG KENNETH R.P. NEIL SIGNATURE June 24, 2015 DATE NEWFOUNDLAND & LABRADOR</p>
---	--

PRIME CONSULTANT

DMG
Consulting Limited

Consulting Engineers & Project Managers
107 New Market Park, Unit 104, Grand Falls, NL, Canada, A0A 0A0

MECHANICAL & ELECTRICAL

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Fax: (709) 754-1990
dmeg@crosbieeng.com

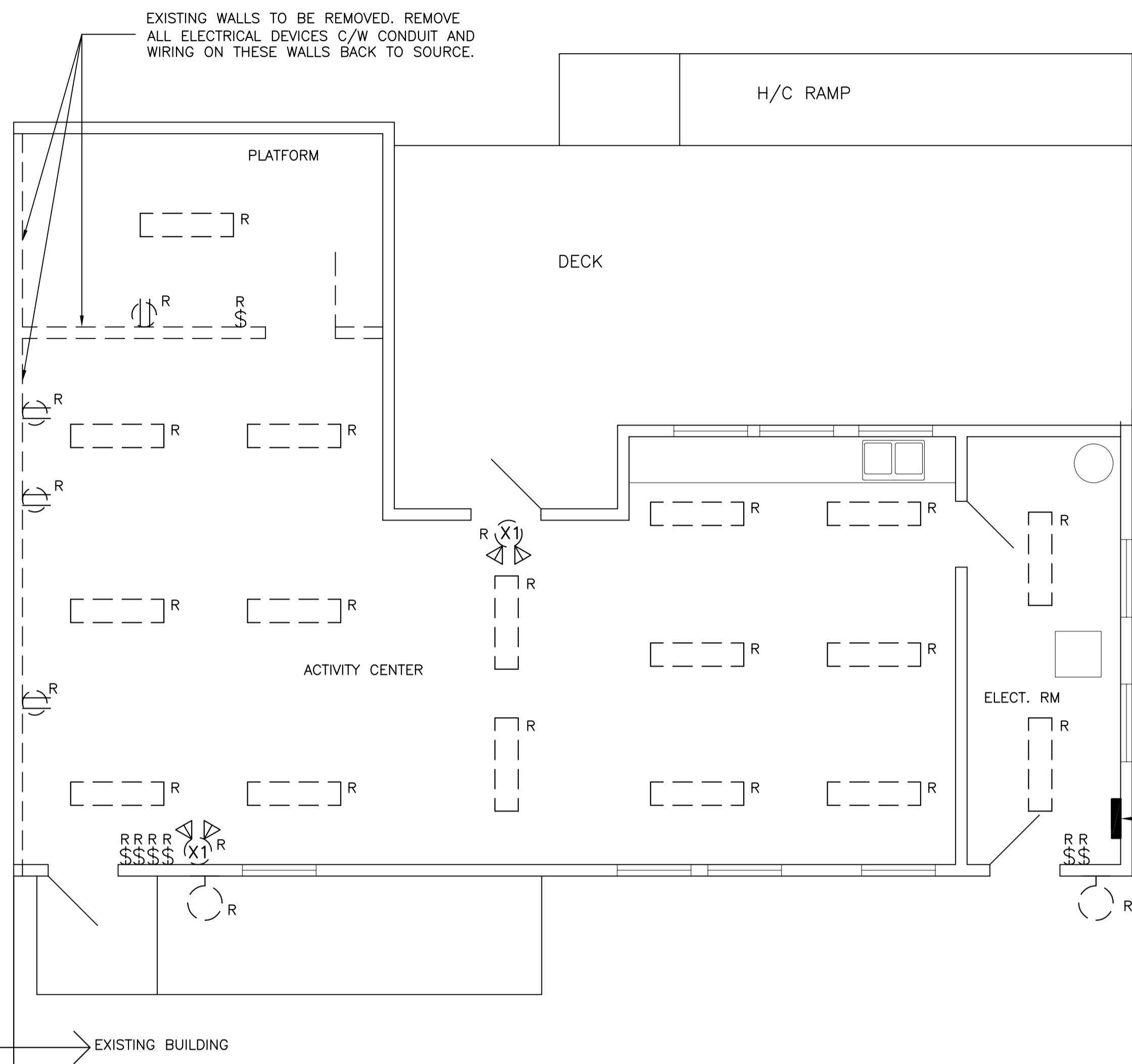
PROJECT

NEWMAN SOUND CAMPGROUND
BUILDING EXTENSION
TERRA NOVA NATIONAL PARK

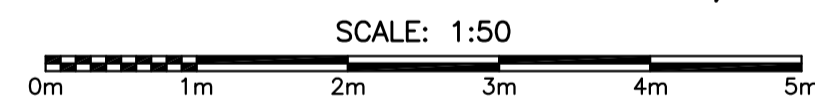
DRAWING

LEGEND & GENERAL NOTES

DRAWN BY D.R.	CHECKED BY K.N.	APPROVED BY K.N.	
PROJECT NO. 15-1914	DWG. FILE NO.		
DATE MAY 2015	SCALE AS NOTED	DRAWING NO. E1	REV. 0



FLOOR PLAN – LIGHTING AND EMERGENCY/EXIT LIGHTING LAYOUT



NOTE:

1. ALL EXISTING LIGHTING FIXTURES IN EXISTING BUILDING TO BE REMOVED AND BE REPLACED WITH NEW AS INDICATED ON DRAWING E3. ALL EXISTING TOGGLE SWITCHES TO BE REMOVED AND REPLACED WITH NEW. CONTRACTOR TO RE-USE EXISTING BRANCH CIRCUITS FOR NEW LIGHTING LAYOUT. COORDINATE ON SITE. EXTEND CONDUIT AND WIRING AS REQUIRED.
2. ALL EXISTING EXIT AND EMERGENCY LIGHTING TO BE REMOVED. CONTRACTOR TO RE-USE EXISTING BRANCH CIRCUITS FOR NEW EXIT AND EMERGENCY LIGHTING LAYOUT. PROVIDE NEW CONDUIT AND WIRING FOR EMERGENCY LIGHTING IN NEW LOCATIONS AS REQUIRED. COORDINATE ON SITE.
3. CONTRACTOR TO RE-USE EXISTING BRANCH CIRCUITS FOR NEW LIGHTING LAYOUT. EXTEND AND PROVIDE NEW WIRING AND CONDUIT AS REQUIRED. BRANCH CIRCUIT LOADING NOT TO EXCEED 80%. UPDATE PANEL DIRECTORIES AS REQUIRED. COORDINATE ON SITE. ALL NEW CONDUIT AND WIRING TO BE CONCEALED, CUT, PATCH AND PAINT TO MATCH EXISTING CONDITIONS.
4. EXISTING DUPLEX RECEPTACLES SHOWN ON DEMOLITION PLAN TO BE REMOVED. REMOVE CONDUIT AND WIRING BACK TO SOURCE.

DASHED LINE INDICATES EXISTING
SOLID LINE INDICATES NEW

"R" INDICATES EXISTING ELECTRICAL DEVICE TO BE REMOVED. WIRING AND CONDUIT TO REMAIN TO BE RE-USED WHERE POSSIBLE IN NEW LAYOUT UNLESS NOTED OTHERWISE. EXTEND CONDUIT AND WIRING AS REQUIRED.

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---	---

PRIME CONSULTANT

DMG Consulting Limited
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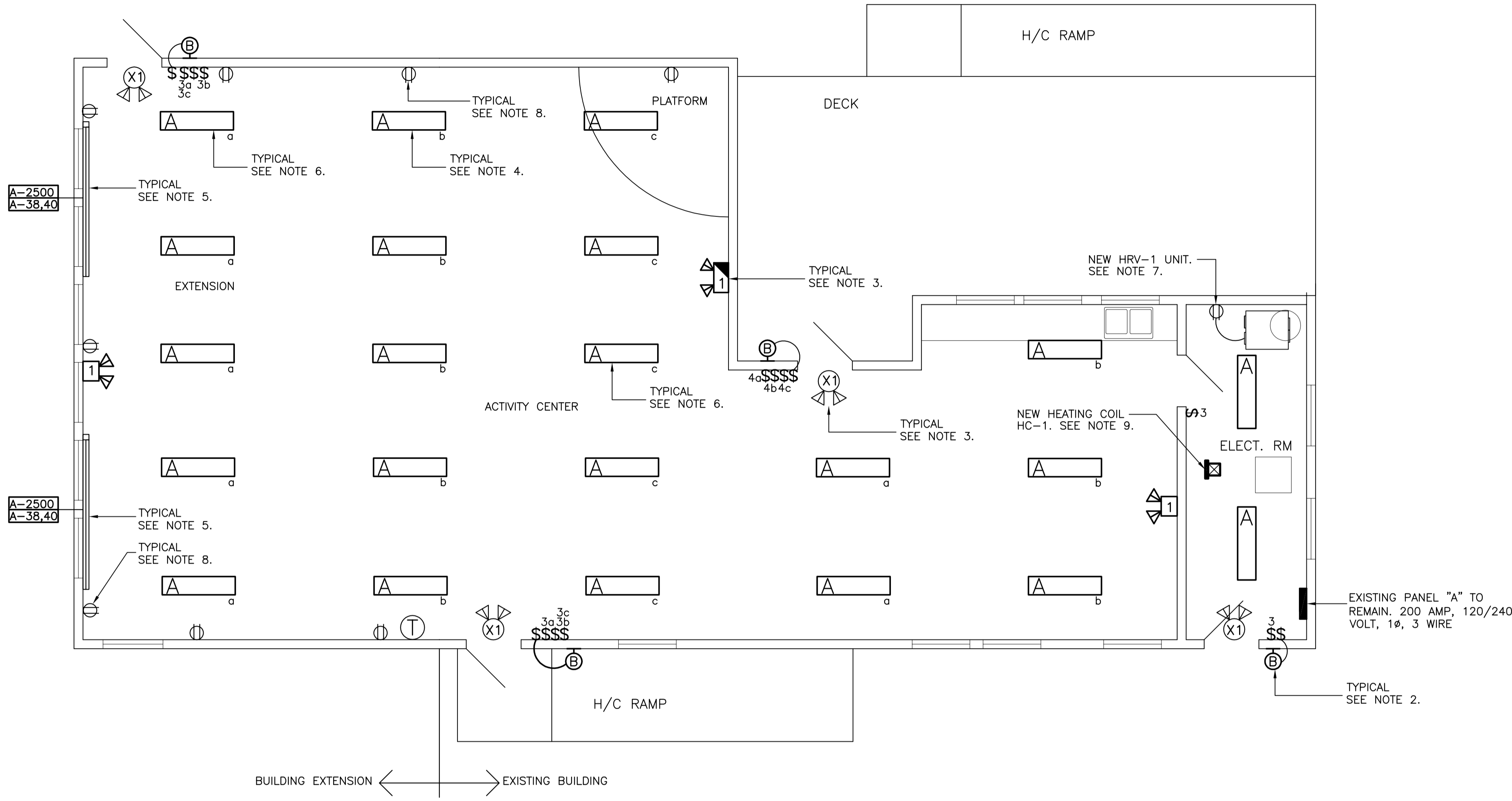
PROJECT

NEWMAN SOUND CAMPGROUND
BUILDING EXTENSION
TERRA NOVA NATIONAL PARK

DRAWING

DEMOLITION PLAN

DRAWN BY D.R.	CHECKED BY K.N.	APPROVED BY K.N.
PROJECT NO. 15-1914	DWG. FILE NO.	
DATE MAY 2015	SCALE AS NOTED	DRAWING NO. E2 REV. 0



FLOOR PLAN – ELECTRICAL LAYOUT
SCALE: 1:50

ELECTRIC HEATER SCHEDULE							
TYPE	DESCRIPTION	VOLTS	WATTS	MANUFACTURER	CAT. NO.	MOUNTING	REMARKS
A	BASEBOARD	240V, 1Ø	2500	OUELLET	OFM2500	WALL SURFACE	

- NOTES (ELECTRIC HEATER SCHEDULE):
- BOTTOM OF ELECTRIC HEATER TO BE MOUNTED 25mm. ABOVE FINISHED FLOOR.
 - ALL HEATERS TO BE WHITE IN COLOR.
 - ALL HEATERS TO BE C/W LOW VOLTAGE RELAY AND TRANSFORMER KIT.

LIGHTING FIXTURE SCHEDULE							
SYMBOL	LIGHT SOURCE	MOUNTING	LAMPS	VOLTS	MANUFACTURER	CAT. NO.	REMARKS
A	FLUORESCENT	CEILING SURFACE	3 x 32 T8	120	CFI	TX348	
B	LED	EXTERIOR WALL	1 x 7 W LED	120	COOPER	XTOR1A-N	

- NOTES (LIGHTING FIXTURE SCHEDULE):
- RECESSED FIXTURES INSTALLED IN FIRE RATED CEILINGS SHALL BE COMPLETE WITH A FIRE RATED METAL CAN OR GYPROC BOX TO MAINTAIN THE FIRE RATING INTEGRAL OF THE CEILING. COORDINATE WITH GENERAL CONTRACTOR.
 - ALL FLUORESCENT LIGHTING FIXTURE LENSES SHALL BE ACRYLIC TYPE 19 PATTERN (0.156") UNLESS NOTED OTHERWISE.

- NOTES:
- ALL EXISTING LIGHTING FIXTURES IN EXISTING BUILDING TO BE REMOVED. ALL EXISTING TOGGLE SWITCHES TO BE REMOVED AND REPLACED WITH NEW. CONTRACTOR TO RE-USE EXISTING BRANCH CIRCUITS FOR NEW LIGHTING LAYOUT. COORDINATE ON SITE.
 - ALL EXISTING EXTERIOR LIGHTING FIXTURES TO BE REMOVED AND REPLACED WITH NEW. CONTRACTOR TO RE-USE EXISTING BRANCH CIRCUITS FOR NEW LIGHTING LAYOUT. EXTEND WIRING AND CONDUIT AS REQUIRED. COORDINATE ON SITE.
 - ALL EXISTING EXIT AND EMERGENCY LIGHTING DEVICES TO BE REMOVED. CONTRACTOR TO RE-USE EXISTING BRANCH CIRCUITS FOR NEW EXIT AND EMERGENCY LIGHTING LAYOUT. PROVIDE NEW CONDUIT AND WIRING FOR EMERGENCY LIGHTING IN NEW LOCATIONS AS REQUIRED. COORDINATE ON SITE.
 - CONTRACTOR TO RE-USE EXISTING BRANCH CIRCUITS FOR NEW LIGHTING LAYOUT. EXTEND AND PROVIDE NEW WIRING AND CONDUIT AS REQUIRED. BRANCH CIRCUIT LOADING NOT TO EXCEED 80%. UPDATE PANEL DIRECTORIES AS REQUIRED. COORDINATE ON SITE. ALL NEW CONDUIT AND WIRING TO BE CONCEALED, CUT, PATCH AND PAINT TO MATCH EXISTING CONDITIONS.
 - SUPPLY AND INSTALL NEW 30 AMP, 240 VOLT CIRCUIT FROM PANEL "A" FOR NEW ELECTRIC HEATING LAYOUT. SUPPLY AND INSTALL NEW 30 AMP 2 POLE CIRCUIT BREAKER WITHIN PANEL "A" C/W MOUNTING HARDWARE (3 #10 RW90 + 1 #12 GRD IN 21mm. EMT CONDUIT). IC RATING TO MATCH. COORDINATE ON SITE.
 - SUPPLY AND INSTALL NEW 15 AMP, 120 VOLT CIRCUIT FROM PANEL "A" FOR NEW LIGHTING LAYOUT (SWITCHING CIRCUITS "a" AND "c". LIGHTING SWITCHING CIRCUIT "b" SHALL BE FED FROM EXISTING LIGHTING CIRCUIT, SEE NOTE 4). SUPPLY AND INSTALL NEW 15 AMP, 1 POLE CIRCUIT BREAKER WITHIN PANEL "A" C/W MOUNTING HARDWARE. (2 #12 RW90 + 1 #12 TW GROUND IN 21mm. EMT CONDUIT). IC RATING TO MATCH. COORDINATE ON SITE.
 - SUPPLY AND INSTALL NEW 15 AMP, 120 VOLT BRANCH CIRCUIT FROM PANEL "A" FOR NEW HRV-1 UNIT. SUPPLY AND INSTALL NEW 15 AMP 1 POLE CIRCUIT BREAKER WITHIN PANEL "A" C/W MOUNTING HARDWARE (2 #12 RW90 + 1 #12 GRD IN 21mm. EMT CONDUIT). IC RATING TO MATCH. COORDINATE ON SITE. COORDINATE EXACT MOUNTING HEIGHT OF RECEPTACLE WITH MECHANICAL ON SITE PRIOR TO ROUGH-IN.
 - SUPPLY AND INSTALL NEW 15 AMP, 120 VOLT BRANCH CIRCUITS (2 SUCH) FOR NEW RECEPTACLES (MAX 4 RECEPTACLES PER CIRCUIT). SUPPLY AND INSTALL NEW 15 AMP 1 POLE CIRCUIT BREAKERS (2 SUCH) WITHIN PANEL "A" C/W MOUNTING HARDWARE (2 #12 RW90 + 1 #12 GRD IN 21mm. EMT CONDUIT FOR EACH CIRCUIT). IC RATING TO MATCH. COORDINATE ON SITE.
 - SUPPLY AND INSTALL NEW 20 AMP, 240 VOLT BRANCH CIRCUIT FOR NEW HEATING COIL HC-1. SUPPLY AND INSTALL NEW 20 AMP 2 POLE CIRCUIT BREAKER WITHIN PANEL "A" C/W MOUNTING HARDWARE (3 #12 RW90 + 1 #12 GRD IN 21mm. EMT CONDUIT). IC RATING TO MATCH. COORDINATE ON SITE.

DRAWING NOTES

- DO NOT SCALE FROM THIS DRAWING.
- ALL WORK TO BE IN ACCORDANCE WITH THE LATEST REQUIREMENTS OF: THE NATIONAL BUILDING CODE OF CANADA, LATEST EDITION; CANADIAN ELECTRICAL CODE, CURRENT EDITION; ANY OTHER AUTHORITIES HAVING JURISDICTION.
- THIS DRAWING IS NOT TO BE USED FOR CONSTRUCTION UNLESS IT IS ISSUED FOR CONSTRUCTION AND STAMPED AND SIGNED BY THE PROJECT ENGINEER.

NO.	DESCRIPTION	DATE	BY
0	ISSUED FOR TENDER	24/06/15	D.R.
A	ISSUED FOR REVIEW	08/05/15	D.R.

REVISIONS

- A - PLAN, SECTION, ELEVATION, OR DETAIL NO.
- B - NO. OF DRAWING WHERE ABOVE IS DRAWN

Stamp

PROVINCE OF NEWFOUNDLAND
PERMIT HOLDER
Class "A"
This Permit Allows
CROSBIE ENGINEERING LIMITED

REGISTERED PROFESSIONAL ENGINEER
KENNETH R.P. NEIL
June 24, 2015
DATE

PRIME CONSULTANT

DMG
Consulting Limited

Consulting Engineers & Project Managers
100 St. John's Rd., St. John's, NL, Canada, A1B 4X6

MECHANICAL & ELECTRICAL

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BUILDING EXTENSION
TERRA NOVA NATIONAL PARK

DRAWING

FLOOR PLAN – ELECTRICAL
LAYOUT

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