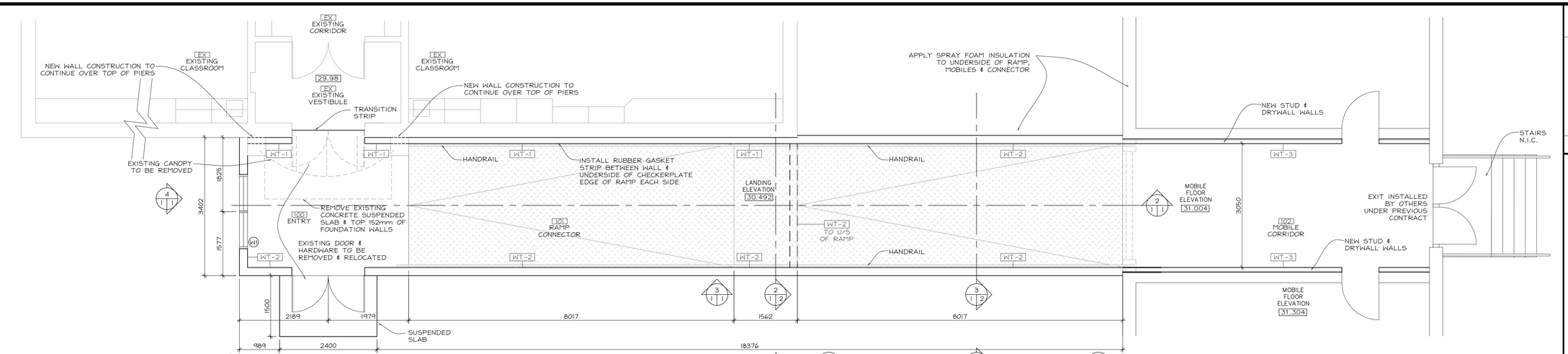
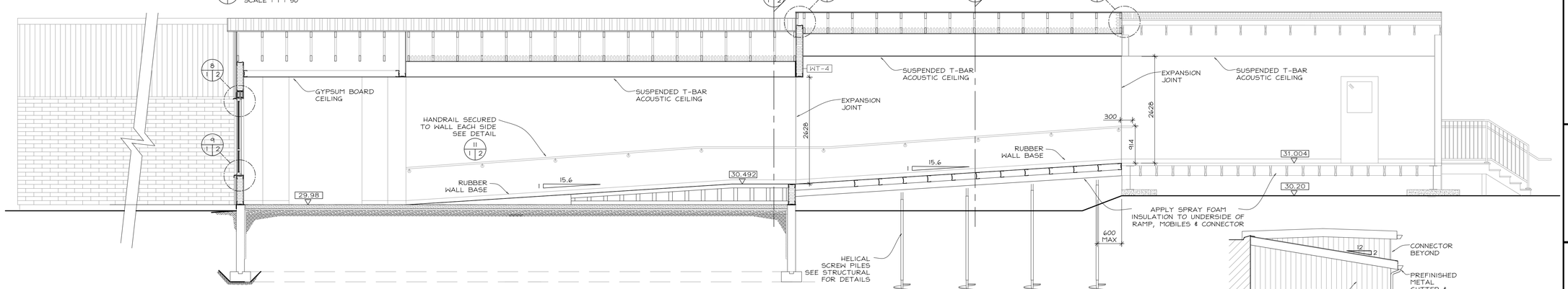
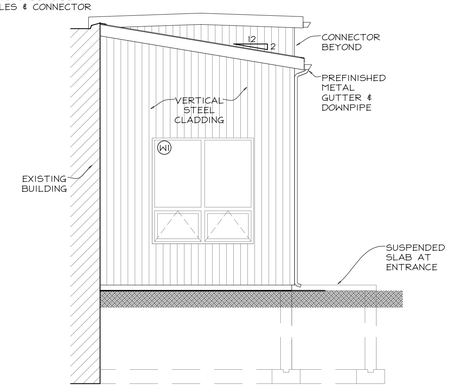


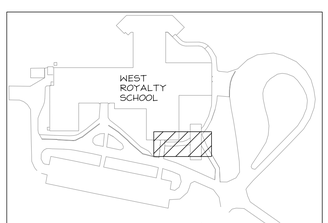

## CONNECTOR PLAN
SCALE : 1 : 50




## CONNECTOR SECTION
SCALE : 1 : 50



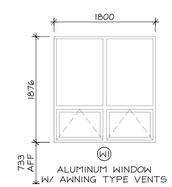

## ELEVATION
SCALE : 1 : 50




## KEY PLAN
SCALE : NTS

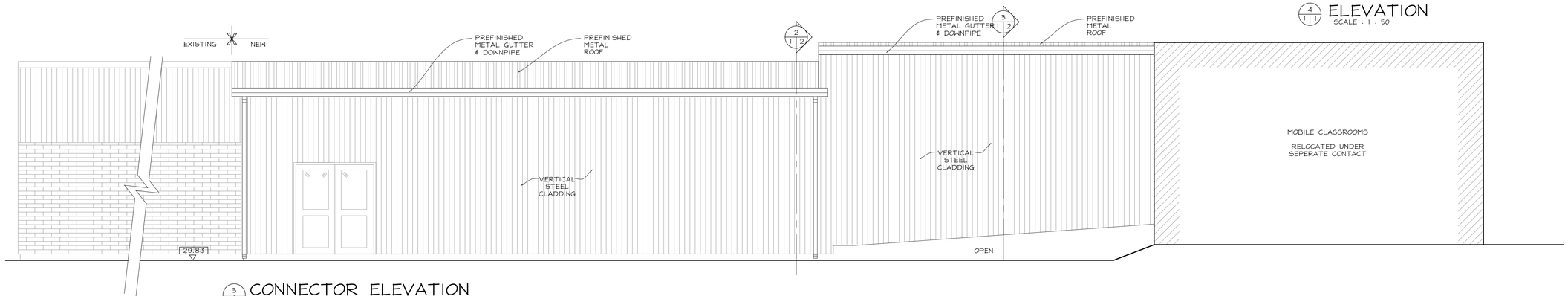
| | |
|---|---|
| WT-1 | EXISTING BRICK MASONRY/SIDING<br>FIBREBOARD<br>152mm STEEL STUD FRAMING<br>BATT INSULATION<br>6 MIL POLY V.B.<br>15.9mm ABUSE RESISTANT G.B. |
| WT-2 | STEEL CLADDING<br>METAL FURRING CHANNELS<br>VAPER PERM AIR BARRIER<br>19mm FIBRE SHEATHING<br>152mm STEEL STUD FRAMING<br>R27 BATT INSULATION<br>6 MIL POLY V.B.<br>15.9mm ABUSE RESISTANT G.B. |
| WT-3 | EXISTING MOBILE END WALL<br>102mm STEEL STUD FRAMING<br>15.9mm ABUSE RESISTANT G.B. |
| WT-4 | 102mm STEEL STUD FRAMING<br>15.9mm ABUSE RESISTANT G.B. |

## WALL TYPES




## WINDOW TYPE

| FINISH SCHEDULE | | | | | |
|---|---|---|---|---|---|
| NO. | NAME | FLOOR | BASE | WALLS | CEILING |
| 100 | ENTRY | CERAMIC TILE | CERAMIC TILE | ABUSE-RESISTANT GYPSUM BOARD, PAINTED | SUSPENDED GYPSUM BOARD, PAINTED |
| 101 | RAMP | 5mm CHECKERPLATE STEEL | RUBBER COVE | ABUSE-RESISTANT GYPSUM BOARD, PAINTED | 2436 SUSPENDED ACOUSTIC TILE |
| 102 | MOBILE CONNECTOR | VCT | RUBBER COVE | ABUSE-RESISTANT GYPSUM BOARD, PAINTED | 2436 SUSPENDED ACOUSTIC TILE |




## CONNECTOR ELEVATION
SCALE : 1 : 50

| Rev | Description | Date |
|---|---|---|
| 0 | - | 00/00/00 |

All measurements must be checked on site prior to construction or fabrication.

This drawing is the property of Chandler Architecture and shall not be used or reproduced in any manner or to this project except by agreement in writing from the Architect.

This drawing is not to be used for construction unless stamped by the Architect.

ARCHITECTS ASSOCIATION OF PRINCE EDWARD ISLAND
CERTIFICATE of PRACTICE 12-16
Darren Dunsford
Chandler Architecture
AAPEI

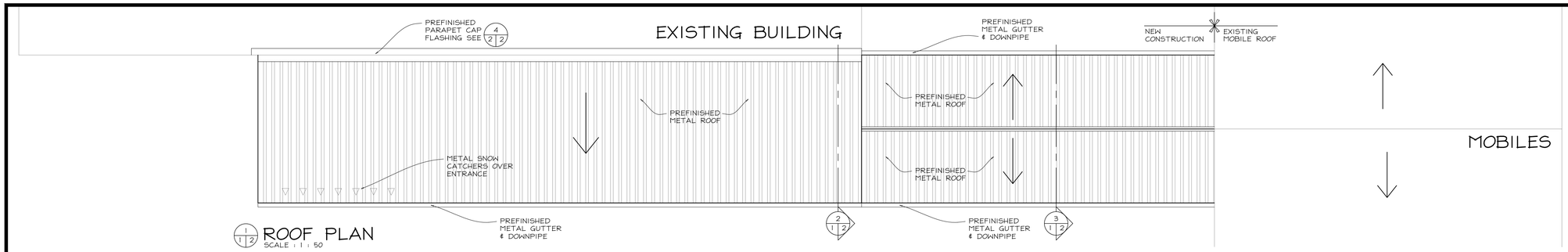
CHANDLER ARCHITECTURE
DESIGN MATTERS
90 Queen Street PO Box 550 Charlottetown
Prince Edward Island, Canada C1A 7L1
Tel: 902 628 6656
Fax: 902 566 5234 www.chandlerarchitecture.ca

Scale: AS NOTED
Date: MAY 21, 2020
Drn BY: AJW
Dwg No: WWKC19-048 PH2

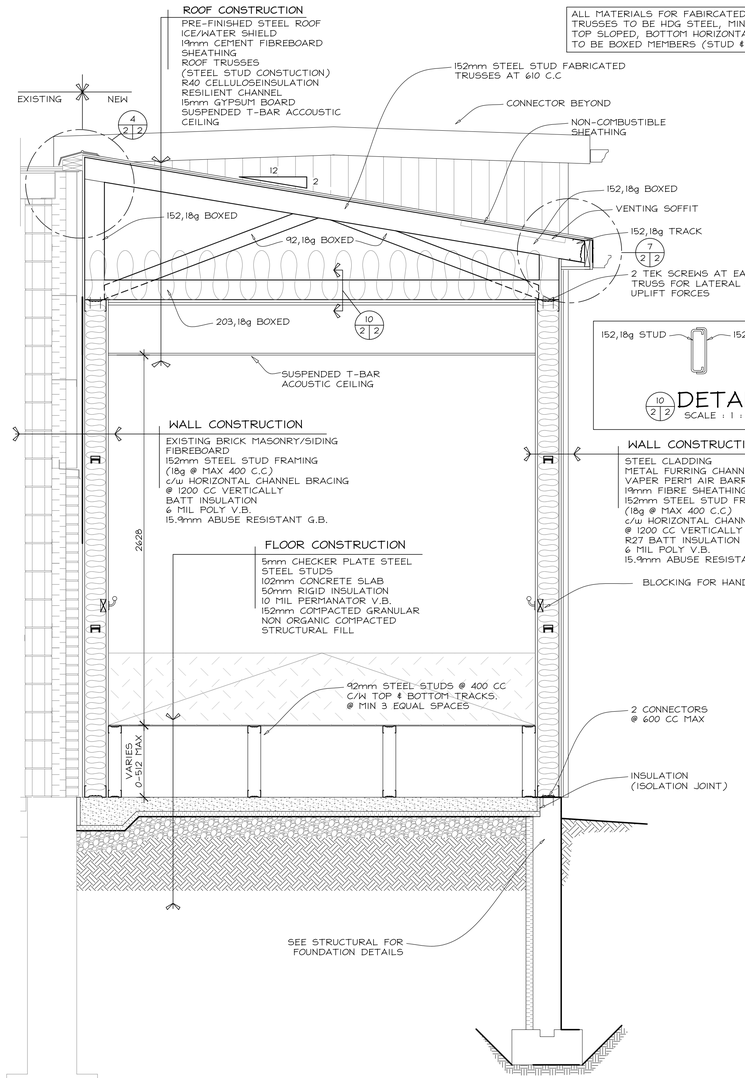
Project: WEST ROYALTY ELEMENTARY SCHOOL MOBILE CLASSROOMS CONNECTOR

Sheet Title: PLAN

A1



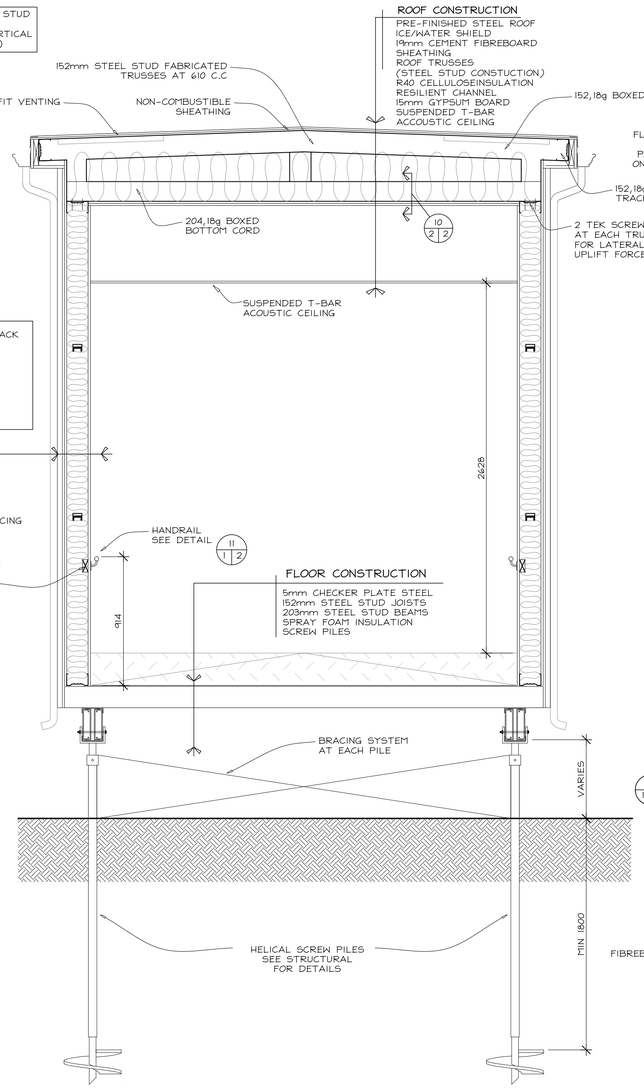

1/1/2 ROOF PLAN
SCALE : 1 : 50



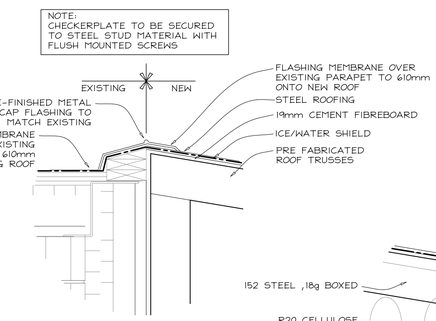

2/1/2 CONNECTOR SECTION 1
SCALE : 1 : 20



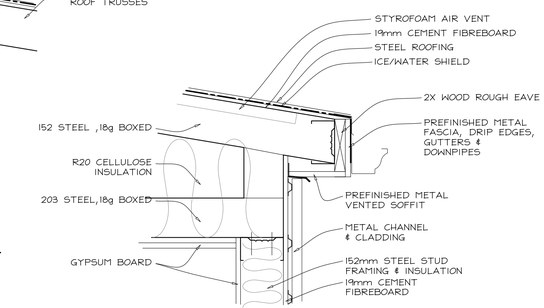

10/2/2 DETAIL
SCALE : 1 : 10



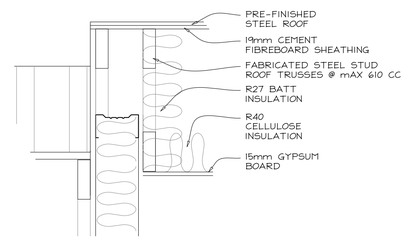

3/1/2 CONNECTOR SECTION 2
SCALE : 1 : 20



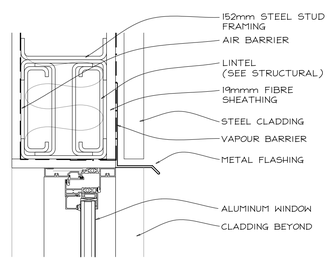

4/2/2 ROOF DETAIL
SCALE : 1 : 10



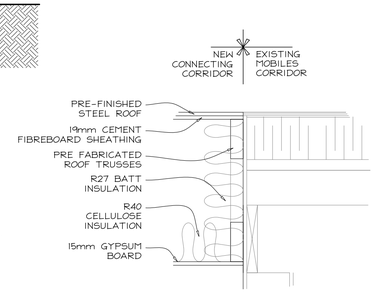

7/2/2 ROOF DETAIL
SCALE : 1 : 10



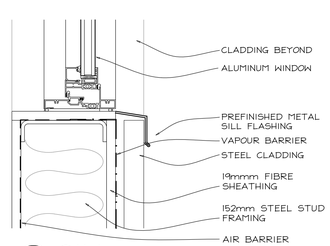

5/1/2 ROOF DETAIL
SCALE : 1 : 10



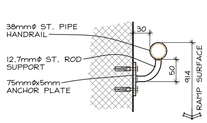

8/1/2 HEAD
SCALE : 1 : 5




6/1/2 ROOF DETAIL @ CLASS
SCALE : 1 : 10




9/1/2 SILL
SCALE : 1 : 5




11/1/2 RAMP HANDRAIL
SCALE : 1 : 5

NOTE :
SUPPORT BRACKETS SECURELY FASTENED TO NEW OR EXISTING WALL (PROVIDE BLOCKING AS REQUIRED)
WELDS ALL AROUND AT CONNECTIONS
ALL WELDS GROUND SMOOTH
RAILING PRIMED AND FINISH PAINTED

| Rev | Description | Date |
|---|---|---|
| 0 | - | 00/00/00 |

All measurements must be checked on site prior to construction or fabrication.

This drawing is the property of Chandler Architecture and shall not be used or reproduced in any manner or to this project except by agreement in writing from the Architect.

This drawing is not to be used for construction unless stamped by the Architect.

ARCHITECTS ASSOCIATION OF PRINCE EDWARD ISLAND
CERTIFICATE of PRACTICE
12-16
Darren Dunsford
Chandler Architecture
AAPEI

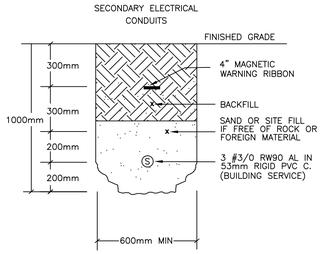
CHANDLER ARCHITECTURE
DESIGN MATTERS
90 Queen Street PO Box 550 Charlottetown
Prince Edward Island, Canada C1A 7L1
Tel: 902 628 6556
Fax: 902 566 5034 www.chandlerarchitecture.ca

Scale AS NOTED
Date MAY 21, 2020
Drn BY AJW
Dwg No. WWC19-048 PH2

Project : WEST ROYALTY ELEMENTARY SCHOOL MOBILE CLASSROOMS CONNECTOR

Sheet Title : DETAILS

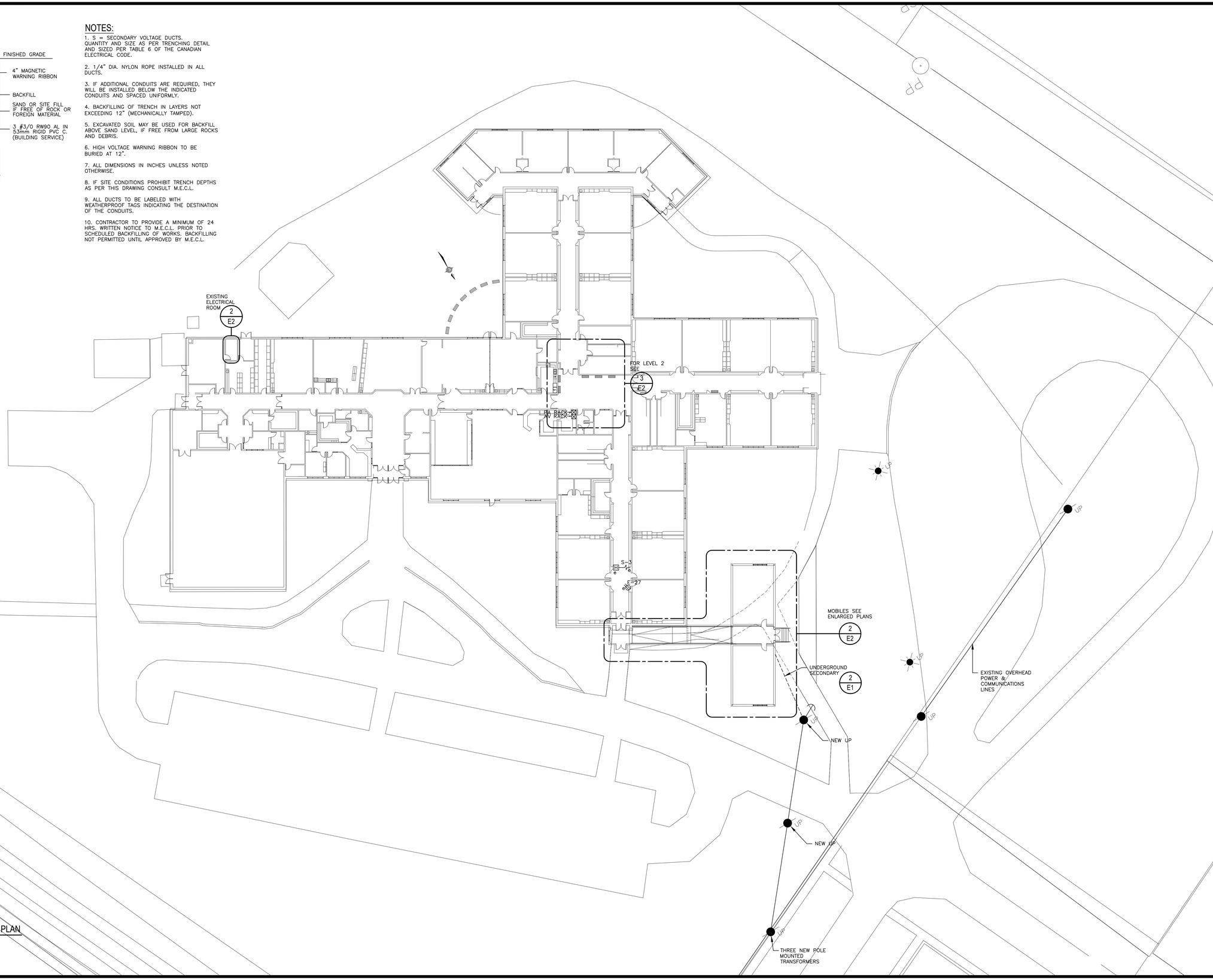
A2 OF 2




2 / E1 TRENCH DETAIL
SCALE: N.T.S.

## NOTES:

1. S = SECONDARY VOLTAGE DUCTS. QUANTITY AND SIZE AS PER TRENCHING DETAIL AND SIZED PER TABLE 6 OF THE CANADIAN ELECTRICAL CODE.
2. 1/4" DIA. NYLON ROPE INSTALLED IN ALL DUCTS.
3. IF ADDITIONAL CONDUITS ARE REQUIRED, THEY WILL BE INSTALLED BELOW THE INDICATED CONDUITS AND SPACED UNIFORMLY.
4. BACKFILLING OF TRENCH IN LAYERS NOT EXCEEDING 12" (MECHANICALLY TAMPED).
5. EXCAVATED SOIL MAY BE USED FOR BACKFILL ABOVE SAND LEVEL, IF FREE FROM LARGE ROCKS AND DEBRIS.
6. HIGH VOLTAGE WARNING RIBBON TO BE BURIED AT 12".
7. ALL DIMENSIONS IN INCHES UNLESS NOTED OTHERWISE.
8. IF SITE CONDITIONS PROHIBIT TRENCH DEPTHS AS PER THIS DRAWING CONSULT M.E.C.L.
9. ALL DUCTS TO BE LABELED WITH WEATHERPROOF TAGS INDICATING THE DESTINATION OF THE CONDUITS.
10. CONTRACTOR TO PROVIDE A MINIMUM OF 24 HRS. WRITTEN NOTICE TO M.E.C.L. PRIOR TO SCHEDULED BACKFILLING OF WORKS. BACKFILLING NOT PERMITTED UNTIL APPROVED BY M.E.C.L.




1 / E1 ELECTRICAL SITE PLAN
SCALE : 1:300

| Rev | Description | Date |
|---|---|---|
| 1 | ISSUED FOR TENDER | 05/14/20 |


RICHARDSON ASSOCIATES (1993) Limited
Engineering Consultants
Telephone 902 566 4044
Facsimile 902 566 4089
E-mail beae@rai93.com
P.O. Box 1057
565 North River Road, Suite 1
Charlottetown, Prince Edward Island
Canada C1A 7M4



All measurements must be checked on the project prior to construction or fabrication.

This drawing is the property of William W. Chandler Architects Inc. and shall not be used on other projects or extensions to this project without agreement in writing from the Architect.

This drawing is not to be used for construction unless stamped by the Architect.


PROFESSIONAL ENGINEER
JOHN P. GREENAN
No. 383
PRINCE EDWARD ISLAND
May 14, 2020


CHANDLER ARCHITECTURE
DESIGN MATTERS
92 Queen Street PO Box 550 Charlottetown
Prince Edward Island, Canada C1A 7L1
Tel: 902 628 6508
Fax: 902 566 5214 www.chandlerarchitecture.ca


Scale: AS NOTED
Date: MAY 14, 2020
Drn BY: AJW
Dwg No. 2019094-E1

Project: WEST ROYALTY SCHOOL

Sheet Title: MOBILES RELOCATION - ELECTRICAL SITE PLAN

1 OF 2

## NOTES:

.1 ELECTRICAL CONTRACTOR RESPONSIBLE TO DISCONNECT AND REMOVE ALL FIRE ALARM AND COMMUNICATIONS WIRING BETWEEN MOBILE AND EXISTING LUCY MAUD MONTGOMERY SCHOOL. DISCONNECT EXISTING OVERHEAD POWER SERVICE. DISCONNECT, REMOVE AND REINSTALL LIGHT FIXTURES, EMERGENCY LIGHTS, LIGHT SWITCHES, RECEPTACLES, ETC. IN CONNECTOR CORRIDOR AND REINSTALL IN THE NEW CONNECTOR CORRIDOR.

.2 EXISTING PANEL "P1" IS RATED 200 AMP, 120/240V, 1ø, 30 CIRCUIT C/W A 200A-2P MAIN BREAKER AND THE FOLLOWING BRANCH BREAKERS: 1-125A, 2P; 2-60A, 2P; 2-15A, 2P; 11-15A, 1P; 1-20A, 2P.

.3 EXISTING PANELS "P2" AND "P3" ARE PIONEER #NBLP-12B-3L.

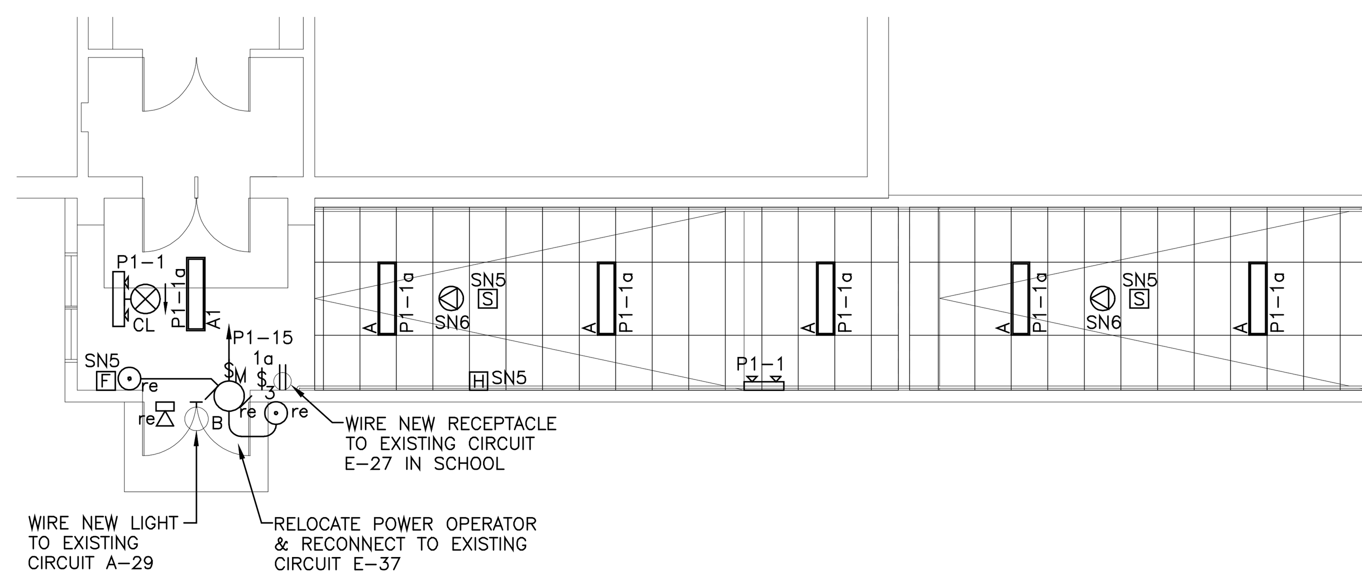
.4 USE SURFACE MOUNT NON-METALLIC RACEWAY TO FEED ANY NEW DEVICES IN THE EXISTING MOBILES, LEGRAND 800 SERIES OR EQUAL.

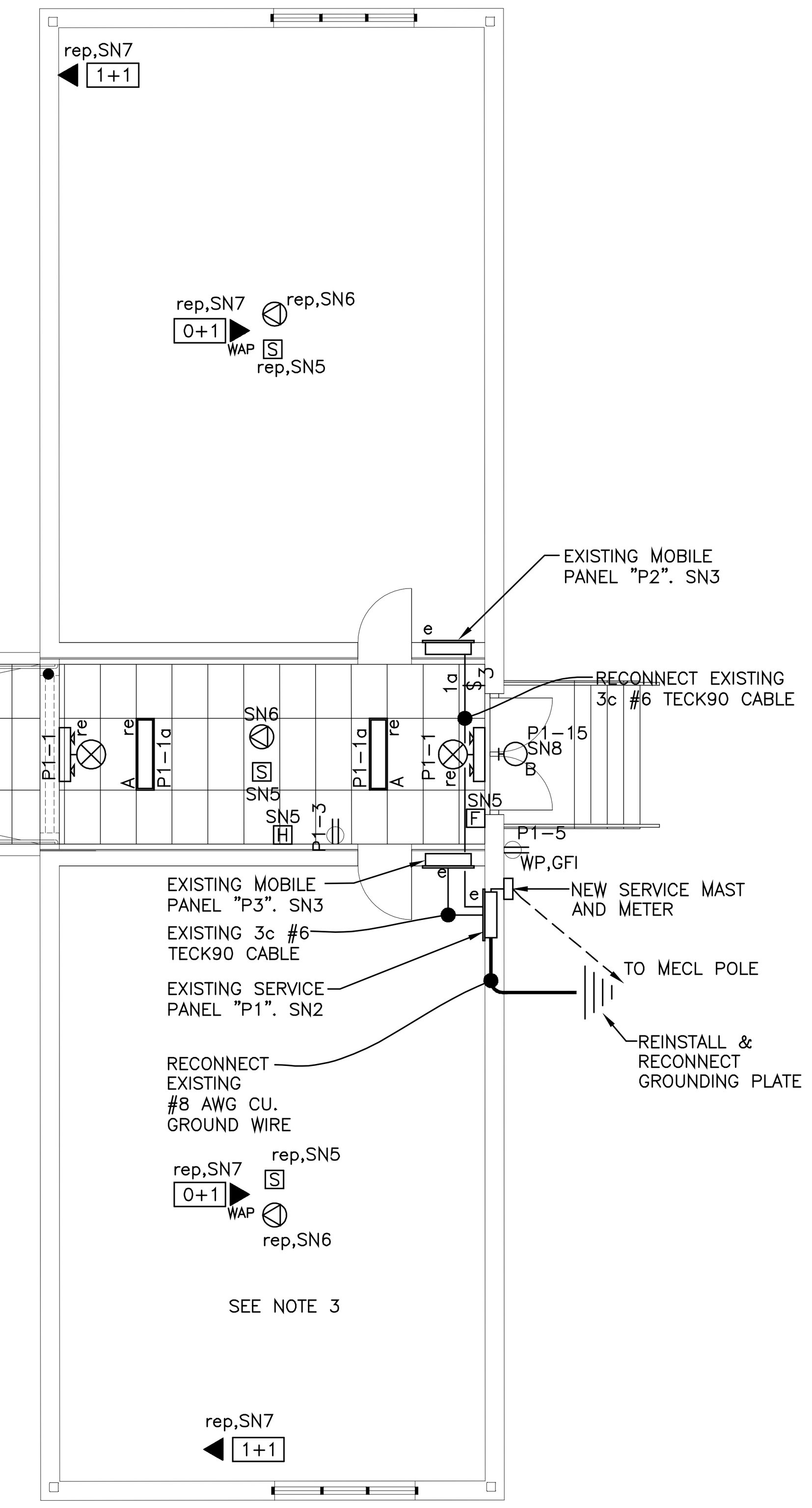
.5 NEW FIRE ALARM DEVICES TO BE COMPATIBLE WITH EXISTING FIRE ALARM PANEL, NOTIFIER AFP-400. CONNECT NEW DEVICES TO EXISTING ALARM AND SIGNALING CIRCUITS IN THE EXISTING BUILDING.

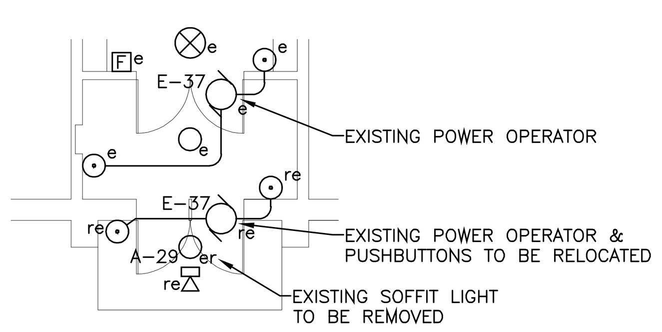
.6 NEW SPEAKERS TO BE COMPATIBLE WITH THE EXISTING PA SYSTEM, BOGEN MULTICOM 2000. MOBILE CLASSROOM SPEAKERS SHALL BE WIRED BACK TO PA RACK AND BE ON THEIR OWN ZONE. CONNECT CORRIDOR SPEAKERS TO THE EXISTING CORRIDOR SPEAKER ZONE WIRING IN THE SCHOOL.

.7 VOICE OUTLETS TO BE WIRED BACK TO AND TERMINATED IN THE MAIN ELECTRICAL ROOM. DATA OUTLETS TO BE WIRED BACK TO AND TERMINATED IN THE SECOND FLOOR TELECOMMUNICATIONS ROOM. ALL VOICE AND DATA WIRING TO BE DONE IN ACCORDANCE WITH THE "GOVERNMENT OF PRINCE EDWARD ISLAND STRUCTURED CABLING" STANDARD.

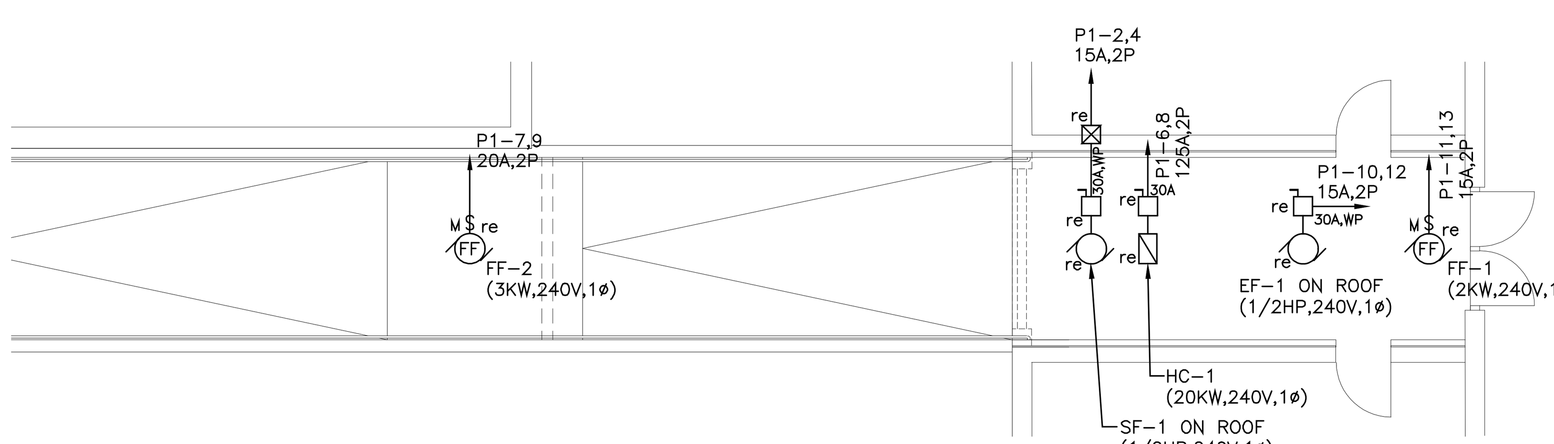
.8 WIRE EXTERIOR LIGHT THRU LOCAL PHOTOCELL.



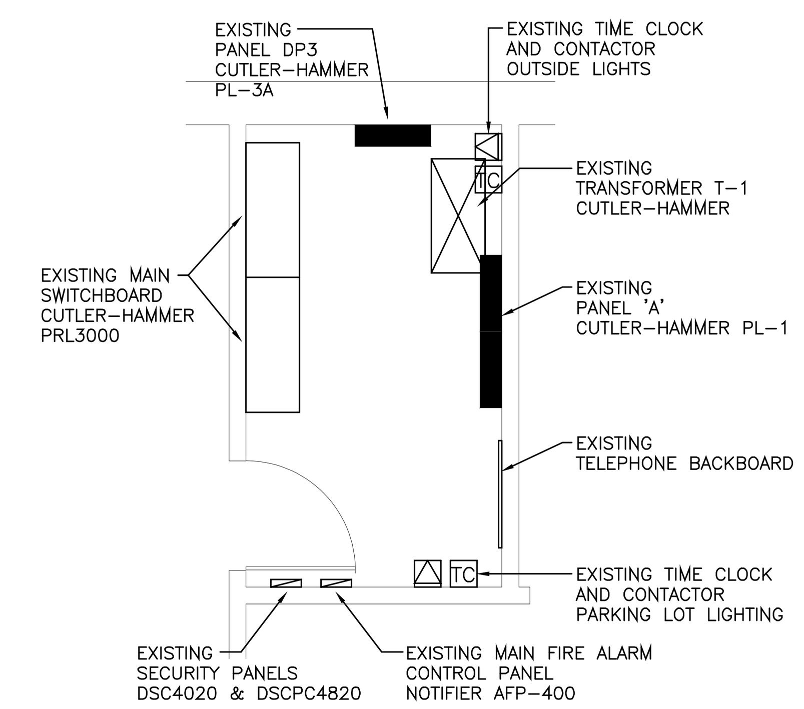




EXISTING VESTIBULE DEMO

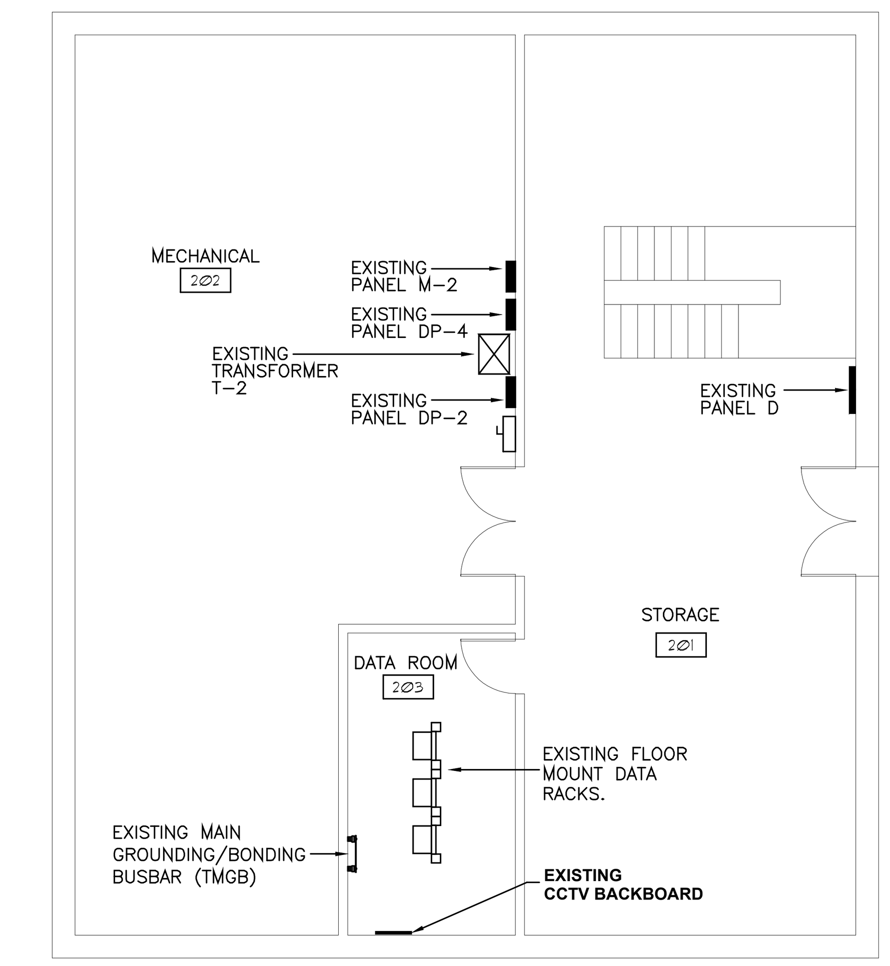



CONNECTOR MECHANICAL EQUIPMENT CONNECTIONS

### 1/E2 MOBILES - ELECTRICAL PLAN
SCALE : 1:100




### 2/E2 REVISED MAIN ELECTRICAL ROOM
SCALE : 1:50




### 3/E2 REVISED MECHANICAL MEZZANINE PLAN
SCALE : 1:100

### LIGHTING

- A — 305x1219mm LED FIXTURE LITHONIA #EPANL-1X4-4000LM-80CRI-35K-MIN10-ZT-120 OR EQUAL
- A1 — 305x1219mm LED FIXTURE LITHONIA #EPANL-1X4-4000LM-80CRI-35K-MIN10-ZT-120-DGA14 OR EQUAL
- B — EXTERIOR WALL MOUNT LED FIXTURE LITHONIA #OLWX1LED-20W-40K OR EQUAL

### POWER DEVICES

- 15A, 125V, DUPLEX RECEPTACLE, HUBBELL #CRF15WHI
- WP — 15A, 125V, DUPLEX RECEPTACLE WITH WEATHERPROOF COVERPLATE
- GFI — 15A, 125V, GROUND FAULT RECEPTACLE, CLASS 'A' INTERRUPTER, HUBBELL #GF15WLA
- SURFACE MOUNTED PANEL AS NOTED
- FLUSH MOUNTED PANEL AS NOTED

### SWITCHING / LIGHTING CONTROL

- $ — 15A,120V SINGLE POLE TOGGLE SWITCH, HUBBELL #CSB115W
- $3 — 15A 120V, 3 WAY TOGGLE SWITCH, HUBBELL #CSB315W
- $M — HORSEPOWER RATED TOGGLE SWITCH, HUBBELL #HBL1372D (2 POLE), #HBL1379D (3 POLE)

### SOUND/PA SYSTEM

- CEILING SPEAKER

### LIFE SAFETY SYSTEM

- COMBINATION EMERGENCY LIGHTING BATTERY UNIT/EXIT LIGHT READY-LITE #12L50-2-LD7-ULT2-3-W-ADN
- EXIT LIGHT READY-LITE #RP-3-W-SP
- EMERGENCY LIGHTING BATTERY UNIT READY-LITE #ULT12-80-ADN-2-LD7-W OR EQUAL

### MECHANICAL

- EQUIPMENT AS NOTED
- MAGNETIC STARTER
- 00 — DISCONNECT SWITCH NUMBER DENOTES SIZE
- FF — WALL MOUNTED FLUSH FORCE FLOW HEATER, SUPPLIED AND INSTALLED BY MECHANICAL CONTRACTOR, WIRED BY ELECTRICAL CONTRACTOR.
- MOTOR AS NOTED
- ELECTRIC BASEBOARD HEATER SUPPLIED BY MECHANICAL CONTRACTOR, INSTALLED AND WIRED BY ELECTRICAL CONTRACTOR.
- PUSHBUTTON FOR POWER OPERATED DOORS.

### WIRING/CABLING

- JUNCTION/PULLBOX - FLUSH MOUNTED IN FINISHED AREAS OR WHERE INDICATED
- WIRING IN CEILING OR WALLS 3 #12 IN 16mm EMT C. UNLESS NOTED OTHERWISE
- WIRING IN CEILING SPACE FROM JUNCTION BOX TO FIXTURE 3C #12 AC90 INDICATED
- UNDERGROUND WIRING
- HOME RUN TO DESIGNATED SERVICE

### FIRE ALARM SYSTEM

- F — FIRE ALARM MANUAL PULL STATION, NOTIFIER
- S — SMOKE DETECTOR, NOTIFIER
- HOME RUN TO FIRE ALARM CONTROL PANEL FIRE ALARM WIRING IN CONDUIT. ALARM CIRCUITS 2 #18AWG, SIGNAL CIRCUITS 2 #14AWG
- FIRE ALARM CONTROL PANEL
- H — FIRE ALARM BELL, NOTIFIER

### COMMUNICATION/DATA SYSTEM

- 0+1 — DATA/VOICE CABLING IN 19mm CONDUIT TO ACCESSIBLE CEILING SPACE 1ST # - VOICE 2ND # - DATA
- WAP — WIRELESS ACCESS POINT

### ABBREVIATIONS

| | |
|---|---|
| 123 | ROOM NUMBER |
| AFF | ABOVE FINISHED FLOOR |
| C/W | COMPLETE WITH |
| C. | CONDUIT |
| WP | WEATHER PROOF |
| CL | CEILING MOUNTED |
| SN | SEE NOTE |
| e | EXISTING |
| er | REMOVED |
| re | RELOCATED |

### 4/E2 ELECTRICAL SYMBOL LEGEND
SCALE : N.T.S.

1.1 EXAMINATION OF SITE AND CONDITIONS

.1 EXAMINE THE SITE AND LOCAL CONDITIONS AFFECTING THE WORK WITH ALL TENDER DOCUMENTS TO ENSURE THE WORK CAN BE SATISFACTORILY PERFORMED AS SHOWN. PRIOR TO COMMENCING WORK, EXAMINE THE WORK OF OTHER DIVISIONS AND REPORT AT ONCE ANY DEFECT OR INTERFERENCE AFFECTING THE WORK OF THIS CONTRACTOR. NO ALLOWANCE WILL BE MADE LATER FOR ANY EXPENSES INCURRED THROUGH FAILURE TO MAKE THIS EXAMINATION OR REPORT ANY DISCREPANCIES IN WRITING.
.2 THIS CONTRACTOR IS TO ATTEND ALL SITE MEETINGS PRIOR TO CLOSE OF TENDER TO CONFIRM SCOPE OF WORK.

1.2 WORKMANSHIP

.1 WORKMANSHIP AND METHOD OF INSTALLATION SHALL CONFORM TO BEST STANDARDS AND PRACTICE AND BE PERFORMED TO THE ENGINEERS APPROVAL BY LICENSED TRADESMEN ONLY SKILLED IN THE WORK OF THIS DIVISION.

1.3 COOPERATION AND RESPONSIBILITY

.1 INCLUDE FULL RESPONSIBILITY FOR LAYOUT OF ELECTRICAL WORK, FOR DAMAGE CAUSED TO OTHER DIVISIONS OF WORK BY REASON OF IMPROPER LOCATION OR INSTALLATION OF WORK IN ADVANCE OF CONCRETE POURING OR SIMILAR WORK FOR CONDITIONS OF ALL MATERIAL AND EQUIPMENT SUPPLIED UNDER THIS DIVISION AND FOR PROTECTION AND MAINTENANCE OF WORK COMPLETED AND ACCEPTED UNTIL TERMINATION.
.2 COOPERATE WITH OTHER DIVISIONS TO ENSURE THAT ITEMS INSTALLED UNDER THIS DIVISION ARE LOCATED IN PROPER RELATION WITH BUILDING CONSTRUCTION, ARCHITECTURAL FINISHES AND WITH OTHER EQUIPMENT OR APPARATUS.

1.4 COMPLETION

.1 LEAVE ALL NEW AND RELOCATED EQUIPMENT CLEAN, FREE OF CONSTRUCTION DEBRIS AND OTHER FOREIGN MATTER.
.2 PROVIDE "AS BUILT DRAWINGS", LETTER OF WARRANTY, OWNERS MANUAL AND WORKER'S COMPENSATION CLEARANCE CERTIFICATE.

1.5 BY-LAWS AND REGULATIONS

.1 CONFORM WITH LATEST RULES, REGULATIONS, AND DEFINITIONS OF THE CANADIAN ELECTRICAL CODE, APPLICABLE MUNICIPAL AND PROVINCIAL CODES AND REGULATIONS AND WITH REQUIREMENTS OF OTHER AUTHORITIES HAVING JURISDICTION IN THE AREA WHERE WORK IS TO BE PERFORMED.
.2 STANDARDS ESTABLISHED BY DRAWINGS AND SPECIFICATIONS SHALL NOT BE REDUCED BY ANY CODES REFERRED TO ABOVE AND MINOR CHANGE TO CONTRACT AMOUNT.

1.6 CONDUIT AND WIRE

.1 BRANCH FEEDERS FROM THE SERVICE DISTRIBUTION AND SUBDISTRIBUTION EQUIPMENT TO PANELS, MAJOR EQUIPMENT, ETC. SHALL BE SIZED AS INDICATED ON THE DRAWINGS. CONDUCTORS IN CONDUIT, TECK OR MINERAL INSULATED CABLE MAY BE USED.
.2 BRANCH CIRCUIT WIRING SHALL BE CONDUCTORS IN CONDUIT: WHERE EXPOSED; WHERE SUBJECT TO MECHANICAL DAMAGE; IN CONCRETE; UNDERGROUND; IN CONCRETE BLOCK WALLS; IN WET LOCATIONS; IN HAZARDOUS LOCATIONS AND WHERE INDICATED. ARMOURED CABLE TYPE AC90 (BX) MAY BE USED FOR LIGHT FIXTURE DROPS AND FOR WIRING IN STUD WALLS. FIXTURE DROP LENGTH NOT TO EXCEED 3 METERS IN LENGTH.
.3 GROUND ALL ELECTRICAL EQUIPMENT TO CSA STANDARDS AND AS REQUIRED BY LOCAL INSPECTION AUTHORITY.
.4 ALL WIRING TO COPPER UNLESS OTHERWISE NOTED ON THE DRAWINGS.

1.7 OUTLET, JUNCTION AND PULL BOXES

.1 PROVIDE STEEL BOXES FOR ALL DEVICES OF A SUITABLE SIZE TO PERMIT INSTALLATION OF CONDUCTORS AND DEVICE.
.2 INSTALL JUNCTION BOXES IN CONDUIT RUNS AT 100FT. INTERVALS, SIZED TO SUIT NUMBER AND SIZE OF CONDUCTORS.

1.8 SAFETY REQUIREMENTS

.1 CLEAN SITE OF REGULARLY SCHEDULED TIMES. LEAVE WORK CLEAN BEFORE INSPECTION PROCESS COMMENCES.
.2 DO NOT LEAVE THE SITE IN DANGEROUS CONDITIONS UNDER ANY CIRCUMSTANCE DURING THE PROGRESS OF WORK.

1.9 EQUIPMENT LOCATIONS

.1 APPROXIMATE LOCATIONS OF ELECTRICAL EQUIPMENT, LIGHTING FIXTURES, SWITCHES, OUTLETS AND THE LIKE ARE SHOWN ON THE DRAWINGS. REFER TO ARCHITECTURAL DRAWINGS AND ROOM ELEVATIONS FOR APPLICATION. IN THE ABSENCE OF DEFINITE DETAILS, THE EXACT LOCATIONS OF OUTLETS SHALL BE DETERMINED ON SITE BY THE ENGINEER AS WORK PROGRESSES WITH ALL OUTLETS ALIGNED VERTICALLY OR HORIZONTALLY AS REQUIRED IN A SYMMETRICAL PATTERN.
.2 THE RIGHT IS RESERVED TO ALTER THE LOCATIONS OF EQUIPMENT AND OUTLETS AT DISTANCE OF UP TO 10 FEET (3 METERS) WITHOUT INVOLVING A CHANGE TO THE CONTRACT AMOUNT PROVIDED NOTICE IS GIVEN PRIOR TO INSTALLATIONS OF SAME.
.3 OUTLETS AND FIXTURES SHALL BE LOCATED CENTERED IN WALL PANELS, CEILING PANELS, TILES OR COLUMNS, BETWEEN OR ABOVE DOORS AND THE LIKE. LOCAL SWITCHES FOR CONTROL OF LIGHTING SHALL GENERALLY BE INSTALLED ON THE LOCK SIDE OF DOORS UNLESS OTHERWISE NOTED, WITH LOCATIONS VERIFIED ON THE SITE PRIOR TO INSTALLATION.

1.10 GUARANTEE

.1 GUARANTEE MATERIAL AND WORKMANSHIP FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL ACCEPTANCE BY ENGINEER, EXCEPT FOR INCANDESCENT LAMPS WHICH SHALL BE GUARANTEED FOR A PERIOD OF 90 DAYS FROM DATE OF FINAL ACCEPTANCE. ALL DEFECTS SHALL BE CORRECTED AND MADE GOOD DURING THIS PERIOD EXCEPT DEFECTS OCCURRING FROM MISUSE BY OWNER.

1.11 CUTTING, CORING, PATCHING AND SEALING

.1 PROVIDE ALL OPENINGS AND SLEEVES IN WALLS, CEILINGS, AND FLOORS AND PERFORM ALL CUTTING AND PATCHING AS REQUIRED FOR THE WORK OF THIS DIVISION.
.2 SEAL HOLES AND SLEEVES THROUGH FLOORS TO SERVE AS A WATER DAM AND COMPLY WITH REQUIREMENTS OF CSA NO. A23.3 PARAGRAPH 5-17.
.3 CONTRACTOR RESPONSIBLE TO MAKE GOOD ALL AREAS AFFECTED UNDER THIS CONTRACT BACK TO ITS ORIGINAL CONDITION (MATCH EXISTING).

1.12 AS BUILT DRAWINGS

.1 CONTRACTOR MUST MAINTAIN ON SITE ONE SET OF UP TO DATE AS BUILT DRAWINGS AND HAVE THEM AVAILABLE FOR REVIEW AT ALL TIMES. AT THE END OF THIS CONTRACT, THIS CONTRACTOR SHALL SUPPLY TO THE OWNER THREE COMPLETE SETS OF AS BUILT DRAWINGS FOR HIS/HER REVIEW AND ACCEPTANCE.
.2 CONTRACTOR TO SUPPLY TO THE OWNER THREE COPIES OF OPERATIONAL AND MAINTENANCE MANUALS FOR REVIEW AND ACCEPTANCE.

1.13 MATERIAL

.1 MATERIALS SUPPLIED BY THIS CONTRACTOR SHALL BE NEW, OF CANADIAN MANUFACTURE WHERE AVAILABLE AND OF FIRST QUALITY AND UNIFORM THROUGHOUT.
.2 ALL ELECTRICAL MATERIALS SHALL BE CSA APPROVED AND LABELED AND ALL MATERIALS NOT APPROVED SHALL RECEIVE ACCEPTANCE FOR INSTALLATION BY SPECIAL APPLICATION TO CSA PRIOR TO DELIVERY, WITH ALL MODIFICATIONS AND CHANGES REQUIRED FOR SUCH ACCEPTANCE INCLUDED IN THIS DIVISION. MATERIALS SHALL NOT BE INSTALLED OR CONNECTED TO SOURCE OF ELECTRICAL POWER UNTIL APPROVAL IS OBTAINED.

1.14 CONTRACT DRAWINGS

.1 DRAWINGS ARE INTENDED TO SERVE AS A GUIDE SHOWING QUANTITIES AND GENERAL ARRANGEMENTS ARE NOT NECESSARILY WORKING DRAWINGS FROM WHICH MEASUREMENTS CAN BE TAKEN, EXCEPT WHERE DIMENSION FIGURES ARE SPECIFICALLY SHOWN. INFORMATION INVOLVING ACCURATE MEASUREMENTS OF BUILDING SHALL BE TAKEN FROM THE BUILDING DRAWINGS OR AT THE SITE.

1.15 PERMITS, FEES AND CERTIFICATES

.1 FILE CONTRACT DRAWINGS WITH PROPER AUTHORITIES AND OBTAIN APPROVAL OF INSTALLATION AND PERMITS FOR THE SAME PRIOR TO PROCEEDING WITH THE WORK. PREPARE AND SUBMIT NECESSARY DETAIL SHOP DRAWINGS AS REQUIRED BY AUTHORITIES.
.2 PAY ALL FEES IN CONNECTION WITH EXAMINATION OF DRAWINGS, FOR PERMITS, INSPECTIONS AND FINAL CERTIFICATES OF APPROVAL.
.3 SUPPLY NECESSARY CERTIFICATES AS EVIDENCE THAT WORK AS INSTALLED CONFORMS WITH LAWS AND REGULATIONS OF ALL AUTHORITIES HAVING JURISDICTION.

1.16 EQUIPMENT SHOP DRAWINGS

.1 PREPARE AND SUBMIT A MINIMUM OF SIX SHOP DRAWINGS OF ALL MAJOR ITEMS OF EQUIPMENT PRIOR OR EQUIPMENT FABRICATION, DELIVERY OR INSTALLATION. SHOP DRAWINGS SHALL INDICATE MANUFACTURER, CATALOGUE NUMBER, DIMENSIONS, SPECIAL FEATURES OR FINISHES. SUBMIT SHOP DRAWING WITHIN (7) DAYS OF AWARD OF CONTRACT.
.2 DUE TO TIME RESTRAINTS, THE OWNER MAY WAIVE APPROVAL DRAWINGS AND ACCEPT RECORD DRAWINGS, THIS IN NO WAY RELIEVES THE CONTRACTOR FORM SUPPLYING THE SPECIFIC EQUIPMENT.
.3 THIS CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING ALL SHOP DRAWINGS FOR ERRORS OR OMISSIONS TO CONFORM WITH REQUIREMENTS, FOR ACCURACY OF DIMENSIONS TO CONFORM WITH SITE CONDITIONS AND FOR INFORMATION THAT PERTAINS SOLELY TO EQUIPMENT FABRICATION PROCESSES.

### 5/E2 ELECTRICAL SPECIFICATIONS
SCALE : N.T.S.

| Rev | Description | Date |
|---|---|---|
| 1 | ISSUED FOR TENDER | 05/14/20 |

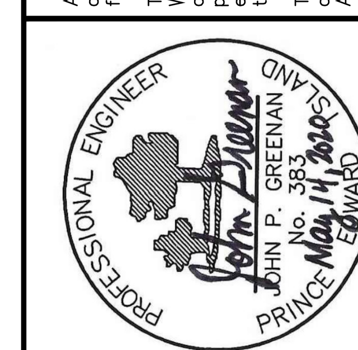

RICHARDSON ASSOCIATES (1993) Limited
Engineering Consultants
Telephone 902 566 4044
Facsimile 902 566 4989
E-mail bsear@ral93.com
P.O. Box 1057
565 North River Road, Suite 1
Charlottetown, Prince Edward Island
Canada C1A 7M4



All measurements must be checked on site prior to construction or fabrication.

This drawing is the property of William W. Chandler Architects Inc. and shall not be used on other projects or extensions to this project except by agreement in writing from the Architect.

This drawing is not to be used for construction unless stamped by the Architect.



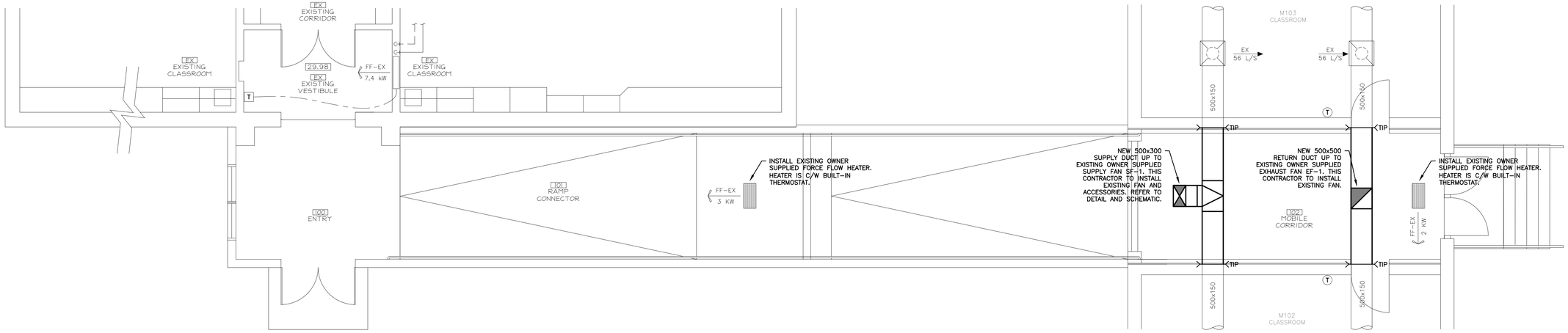
CHANDLER ARCHITECTURE
DESIGN MATTERS
92 Queen Street PO Box 550 Charlottetown
Prince Edward Island, Canada C1A 7L1
Tel: 902 628 6658
Fax: 902 566 9214
www.chandlerarchitecture.ca


Scale: AS NOTED
Date: MAY 14, 2020
Drn BY: AJW
Dwg No.: 2019094-E1

Project : WEST ROYALTY SCHOOL

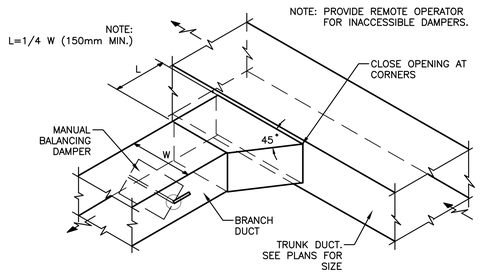
Sheet Title : MOBILES RELOCATION - ELECTRICAL PLANS

E2 OF 2



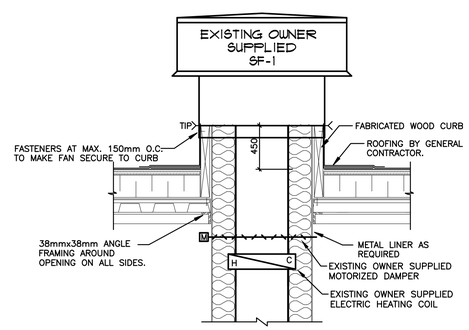

## CONNECTION PLAN - HVAC

SCALE : 1 : 50



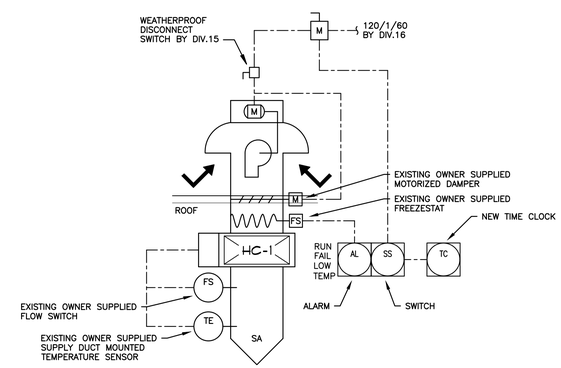

## BRANCH DUCT TAKE-OFF DETAIL

SCALE : N.T.S.



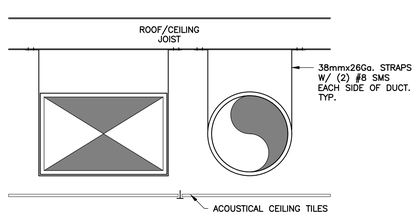

## SUPPLY FAN DETAIL

SCALE : N.T.S.




## SUPPLY FAN SCHEMATIC

SCALE : N.T.S.

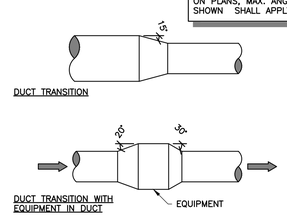



## DUCT HANGER DETAILS

SCALE : N.T.S.

NOTE:

UNLESS OTHERWISE INDICATED ON PLANS, MAX. ANGLES SHOWN SHALL APPLY.

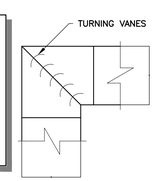



## DUCT TRANSITION DETAIL

SCALE : N.T.S.

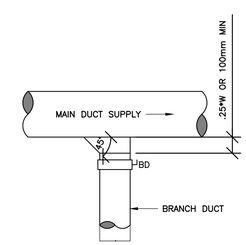
NOTES:

1. ALL VANED ELBOWS SHALL BE CONSTRUCTED AND INSTALLED AS DETAILED BY SMACNA.
2. WHEN W1 DOES NOT EQUAL W2, VANE SHALL BE SINGLE VANE TYPE REGARDLESS OF W DIMENSION.
3. ALL SINGLE VANES SHALL HAVE A 50mm RADIUS, 25mm MAX. SPACE BETWEEN VANES AND A 19mm TRAILING EDGE.
4. WHEN W EQUALS W1 AND W2 IS GREATER THAN 500mm VANES SHALL BE DOUBLE VANE TYPE.




## SQUARE VANED ELBOW DETAIL

SCALE : N.T.S.




## DUCT TAKE-OFF DETAIL

SCALE : N.T.S.

## LEGEND

| | |
|---|---|
| ——— | EXISTING HOT WATER SUPPLY |
| — — — | EXISTING HOT WATER RETURN |
| - - - - | CONTROL WIRING |
| (T) | EXISTING THERMOSTAT – LOW VOLTAGE |
| [T] | EXISTING THERMOSTAT – LINE VOLTAGE |
| >TIP | TIE IN POINT |
| | SUPPLY GRILLE |
| | RETURN GRILLE |

| Rev | Description | Date |
|---|---|---|
| 0 | ISSUED FOR TENDER | 21/05/2020 |
| | | DD/MM/YY |

MCA CONSULTANTS
ENGINEERS · PROJECT MANAGEMENT
902.566.9223 info@mcaconsultants.ca www.mcaconsultants.ca

All measurements must be checked on site prior to construction or fabrication.

This drawing is the property of William W. Chandler Architects Inc. and shall not be used on other projects or extensions to this project except by agreement in writing from the Architect.

This drawing is not to be used for construction unless stamped by the Architect.

PROFESSIONAL ENGINEER
Christine E Pearson
1759
21/05/2020
Date
PROVINCE OF PRINCE EDWARD ISLAND

CHANDLER ARCHITECTURE
DESIGN MATTERS
92 Queen Street PO Box 550 Charlottetown
Prince Edward Island, Canada C1A 7L1
Tel: 902 628 6628
Fax: 902 566 9224 www.chandlerarchitecture.ca

Scale AS NOTED
Date MAY 21, 2020
Drn BY BCJP
Job No. 20-106

Project : WEST ROYALTY ELEMENTARY SCHOOL MOBILE CLASSROOMS CONNECTOR

Sheet Title : CONNECTION PLAN - HVAC

M1

2 OF 2

1.0 GENERAL

1.1 GENERAL CONDITIONS:
ALL CONTRACT GENERAL CONDITIONS APPLY TO THIS SECTION.

1.2 SCOPE OF WORK:
THE WORK INCLUDED SHALL INCLUDE THE FURNISHING OF ALL LABOR, MATERIALS, EQUIPMENT, PLANT TOOLS AND SERVICES NECESSARY FOR THE INSTALLATION OF THE MECHANICAL SYSTEMS AS INDICATED.

1.3 SITE VISITS:
BEFORE COMMENCING WORK VISIT SITE AND VERIFY THAT REQUIREMENTS OF PLANS AND SPECIFICATIONS ARE CONSISTENT WITH SITE CONDITIONS.

ADVISE THE ENGINEER IN WRITING OF ANY DISCREPANCIES OR CONFLICTS.

NO ALLOWANCE SHALL BE MADE FOR FAILURE TO INCLUDE ITEMS WHICH A THOROUGH INVESTIGATION WOULD HAVE SHOWN TO BE REQUIRED.

BIDDERS SHOULD NOTE THAT THIS PROJECT IS A RENOVATION OF AN EXISTING BUILDING AND NO ATTEMPT HAS BEEN MADE TO SHOW ALL EXISTING CONDITIONS. EACH BIDDER IS RESPONSIBLE TO DETERMINE THE EXTENT OF THEIR WORK INVOLVED IN TYING INTO EXISTING SYSTEMS OR RE-ROUTING HIS WORK AROUND OBSTRUCTIONS.

1.4 THE MECHANICAL DRAWINGS ARE DIAGRAMMATIC, INTENDED TO SHOW GENERAL ARRANGEMENT AND SIZES OF SYSTEM COMPONENTS, AND SHALL NOT BE SCALED. THE ARCHITECTURAL AND STRUCTURAL DRAWINGS, AND EXISTING CONDITIONS SHALL GOVERN SPACE CONSTRAINTS, ACTUAL CONNECTION ARRANGEMENTS, DIMENSIONS AND FINISHES.

CONTRACTOR SHALL VISIT THE PROJECT SITE, THOROUGHLY INVESTIGATE AND BE FAMILIAR WITH ALL EXISTING CONDITIONS WHICH WILL AFFECT THEIR WORK.

THE EQUIPMENT LOCATIONS SHOWN ARE APPROXIMATE AND MUST BE SIZED AS PER SITE SPECIFIC REQUIREMENTS AND APPROVED BY OWNER.

ALL OFFSETS AND FITTINGS WHICH WILL BE NECESSARY TO ACCOMPLISH THE FINISHED INSTALLATION SHALL BE PROVIDED AT NO ADDITIONAL COST OR INCREASE IN THE CONTRACT. ALL EQUIPMENT AND MATERIALS SHALL BE NEW UNLESS NOTED OR SPECIFIED OTHERWISE.

PROTECT ALL EQUIPMENT AND MATERIALS FROM DAMAGE. PROVISIONS SHALL BE MADE TO PREVENT NOISE AND VIBRATION.

1.5 SAFETY REQUIREMENTS:

.1 CARRY OUT WORK OF THIS CONTRACT PLACING MAXIMUM EMPHASIS ON SAFETY FOR ALL WORKERS AND OTHER AUTHORIZED PERSONS WORKING OR CIRCULATING ON THE CONSTRUCTION SITE AS WELL AS SAFETY FOR BUILDING TENANTS ON FEDERAL GOVERNMENT PROPERTY. CONTRACTOR TO PREPARE SAFETY PLAN FOR REVIEW AND ACCEPTANCE PRIOR TO WORK PROCEEDING ON SITE.

.2 OBSERVE AND ENFORCE CONSTRUCTION SAFETY MEASURES REQUIRED BY THE NATIONAL BUILDING CODE OF CANADA, THE CANADA LABOR CODE PART 11, THE PROVINCIAL OCCUPATIONAL HEALTH AND SAFETY REGULATIONS, PROVINCIAL WORKER'S COMPENSATION BOARD, MUNICIPAL STATUTES AND AUTHORITIES, AND OWNER'S PLANT SAFETY REQUIREMENTS.

.3 IN EVENT OF CONFLICT BETWEEN ANY PROVISIONS OF ABOVE AUTHORITIES WITH THE MOST STRINGENT PROVISIONS WILL APPLY.

.4 COMPLY WITH REQUIREMENTS OF STANDARD FOR BUILDING CONSTRUCTION OPERATIONS FCC NO. 301 AND STANDARD FOR WELDING AND CUTTING FCC NO. 302 ISSUED BY THE FIRE COMMISSIONER OF CANADA.

.5 ELECTRICAL LOCK-OUT:

ENSURE THAT ELECTRICAL LOCK-OUT PROCEDURES ARE IN PLACE AND THAT A GUARANTEE OF ISOLATION IS OBTAINED BEFORE STARTING WORK ON ANY ELECTRICAL CIRCUIT OR FACILITY. CHECK FOR AND OBTAIN ANY SITE SPECIFIC GUARANTEE OF ELECTRICAL ISOLATION RULES AND PROCEDURES AS MAY BE ESTABLISHED BY CLIENT/BUILDING OWNER.

CLIENT/BUILDING OWNER:
THE ELECTRICAL LOCK-OUT PROCEDURES SHALL BE IN ACCORDANCE WITH SAFETY MEASURES REFERENCED IN .2 ABOVE AND SHALL INCLUDE LOCK-OUT TAGS, A WRITTEN RECORD OF ALL EVENTS (SIGNED OFF), ETC.

.6 WHMIS:

COMPLY WITH REQUIREMENTS OF WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS) REGARDING USE, HANDLING, STORAGE AND DISPOSAL OF HAZARDOUS MATERIALS AND REGARDING LABELING AND PROVISION OF MATERIAL SAFETY DATA SHEETS ACCEPTABLE TO LABOUR CANADA AND HEALTH AND WELFARE CANADA.

DELIVER COPIES OF WHMIS DATA SHEETS TO THE PROJECT MANAGER ON DELIVERY OF MATERIALS.

1.6 REFERENCE STANDARDS AND REGULATIONS:

.1 ALL WORK SHALL BE IN ACCORDANCE WITH THE FOLLOWING STANDARDS AND REGULATIONS IN THE EVENT OF A CONFLICT THE MORE STRINGENT REQUIREMENT SHALL BE MET.

- NATIONAL BUILDING CODE OF CANADA (2010)
- REGULATIONS OF PROVINCIAL DEPARTMENT OF LABOUR
- REGULATIONS OF PROVINCIAL DEPARTMENT OF HEALTH
- REGULATIONS OF PROVINCIAL DEPARTMENT OF THE ENVIRONMENT
- REQUIREMENTS OF PROVINCIAL FIRE MARSHALL
- REQUIREMENTS OF MUNICIPAL FIRE AUTHORITY

1.7 PERMITS AND TESTING:

.1 CONTRACTOR SHALL OBTAIN AND PAY FOR ANY PERMITS REQUIRED BY LOCAL CODES AND REGULATIONS AND ARRANGE FOR INSPECTIONS.

.2 ANY ADDITIONAL MATERIALS OR LABOUR REQUIRED TO CONFORM TO ANY OF THE REGULATIONS OF REFERENCED STANDARDS SHALL BE FURNISHED UNDER THE CONTRACT WITH NO ADDITIONAL COST TO THE OWNER.

.3 TEST SYSTEMS IN ACCORDANCE WITH THE REQUIREMENTS OF THE REFERENCED STANDARDS, REGULATIONS AND AUTHORITIES HAVING JURISDICTION (AHJ).

1.8 QUALIFICATIONS:

.1 EXECUTION OF THE WORK SHALL BE BY LICENSED CONTRACTOR CERTIFIED FOR THE INSTALLATION OF SYSTEMS AND EQUIPMENT IN ACCORDANCE WITH THE REQUIREMENTS OF THE LOCAL CODES AND REGULATIONS.

1.9 SHOP DRAWINGS:

CONTRACTOR TO SUBMIT ELECTRONIC SETS OF SHOP DRAWINGS FOR REVIEW.

1.10 TEMPORARY HEAT:

TEMPORARY HEAT FOR THE PROJECT SHALL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR. THE USE OF ANY EQUIPMENT INSTALLED ON THE JOB WILL ONLY BE PERMITTED AS NOTED IN THE ARCHITECTURAL GENERAL CONDITIONS OR IN THE INSTRUCTIONS TO BIDDERS.

1.11 CUTTING AND PATCHING:

ALL CUTTING AND PATCHING WILL BE THE RESPONSIBILITY OF THE GENERAL CONTRACTOR.

1.12 ACCESS AND ACCESS DOORS:

ALL EQUIPMENT AND SYSTEM COMPONENTS REQUIRING SERVICING, INSPECTION OR ADJUSTING MUST BE EASILY ACCESSIBLE. WHERE EQUIPMENT OR SYSTEM COMPONENTS ARE CONCEALED IN FURRED CEILINGS OR IN WALLS OR PARTITIONS ACCESS DOORS WILL BE SUPPLIED BY THE MECHANICAL CONTRACTOR FOR INSTALLATION BY THE GENERAL CONTRACTOR. ALL OPENINGS SHALL BE SUFFICIENT SIZE FOR BOTH REMOVAL AND MAINTENANCE OF THE CONCEALED EQUIPMENT, AND SHALL BE A MINIMUM SIZE OF 16" X 16". PROVIDE SST DOORS FOR TILE, MARBLE OR TERRAZZO SURFACES.

1.13 INSTALLATION AND COMMISSIONING OF EQUIPMENT:

MANUFACTURER'S INSTRUCTIONS SHALL BE MADE AVAILABLE TO BOTH THE INSTALLING TRADESMEN AND THE ON-SITE INSPECTOR PRIOR TO INSTALLATION OF EQUIPMENT, THESE INSTRUCTIONS ARE TO BE READ, UNDERSTOOD AND CLOSELY FOLLOWED. FAILURE TO ABIDE BY THIS REQUIREMENT WILL PROVIDE JUSTIFICATION FOR THE ENGINEER TO REQUIRE REMOVAL AND RE-INSTALLATION.

ENSURE THAT ALL SAFETY DEVICES AND OTHER SIGNIFICANT ACCESSORIES ARE IN PLACE AND OPERABLE BEFORE STARTING MAJOR PIECES OF EQUIPMENT. AS PART OF THE COMMISSIONING PROCESS ACCESSORIES ARE TO BE CHECKED, CALIBRATED AND ADJUSTED AS NECESSARY TO ENSURE SAFE OPERATION.

FOLLOW MANUFACTURER'S INSTRUCTIONS IN DETAIL IN ESTABLISHING COMMISSIONING PROCEDURE.

1.14 IDENTIFICATION:

MANUFACTURER'S NAMEPLATE:
PROVIDE ON EACH PIECE OF EQUIPMENT A METAL NAMEPLATE, MECHANICALLY FASTENED WITH RAISED OR RECESSED LETTERS.

DUCT IDENTIFICATION:
USE 2" HIGH BLACK STENCILED LETTERS WITH DIRECTIONAL FLOW ARROW. STENCIL OVER FINAL FINISH ONLY.

SYSTEM NAMEPLATE:
PROVIDE LAMINATED PLASTIC PLATE WITH BLACK FACE AND WHITE CENTER. MINIMUM SIZE 6" X 3" X 1/8" NOMINAL THICKNESS, ENGRAVED WITH 1/4" HIGH LETTERING. USE 1" LETTERING FOR MAJOR EQUIPMENT.

1.15 PENETRATION OF FIRE SEPARATIONS:

.1 WHERE DUCTS PASS THROUGH WALLS OR FLOORS WHICH PROVIDE FIRE SEPARATIONS, DIV. 15 SHALL SEAL AROUND OPENINGS WITH ULC CLASSIFIED FIRE STOP MATERIAL IN ACCORDANCE WITH ULC LISTING INSTALLATION DETAILS. MATERIAL SHALL PROVIDE A FIRE RATING EQUAL TO THAT OF THE SEPARATION WHICH HAS BEEN PENETRATED. REFER TO ARCHITECTURAL DRAWINGS FOR FIRE SEPARATIONS.

.2 SUBMIT MATERIAL SHOP DRAWINGS AND ALL ULC LISTED INSTALLATION DETAILS FOR ALL PENETRATIONS APPLICABLE TO PROJECT.

.3 ACCEPTABLE PRODUCTS:

DOW CORNING FIRE STOP SYSTEM 3M FIRE BARRIER PENETRATION SEALING SYSTEM BIO-FIRE BIOTHERM OR BIO-K10 (SUPPLIED BY WORMALD)

1.16 DEMONSTRATION OF COMPLETE SYSTEMS:

AT THE CONCLUSION OF THE JOB, THE CONTRACTOR SHALL REVIEW AND DEMONSTRATE TO THE OWNER ALL EQUIPMENT AND THEIR RESPECTIVE FUNCTIONS AND OPERATION. SUCH DEMONSTRATION SHALL BE PROVIDED FOR SUCH REASONABLE PERIODS OF TIME AS THE COMPLEXITY OF THE JOB WARRANTS, AND AS APPROVED BY THE ENGINEER. SUCH REVIEW AND DEMONSTRATION SHALL BE MADE BY AN AUTHORIZED REPRESENTATIVE OF THE CONTRACTOR, FULLY KNOWLEDGEABLE OF THE PROJECT, ITS INSTALLATION AND OPERATION.

PROVIDE THE ENGINEER WITH A SCHEDULE OF SYSTEM DEMONSTRATION AT LEAST TWO (2) WEEKS PRIOR TO DEMONSTRATION.

1.17 FINAL INSPECTION:

PRIOR TO SUBSTANTIAL COMPLETION AND FINAL INSPECTION OF THE PROJECT, CONTRACTOR WILL INSPECT THE PROJECT, PROVIDE A MECHANICAL DEFICIENCY LIST. PROVIDE CONFIRMATION THAT ALL ITEMS ON THE LIST HAVE BEEN CORRECTED AND PROVIDE THE OPERATION AND MAINTENANCE MANUALS. PROVIDE THE RECORD DRAWINGS AND PROVIDE THE DEMONSTRATION OF THE COMPLETE MECHANICAL SYSTEMS.

ALL OF THE ABOVE MUST BE COMPLETED PRIOR TO THE FINAL INSPECTION BY TH ENGINEER AND SUBSTANTIAL COMPLETION OF THE MECHANICAL SYSTEMS.

1.18 OPERATION AND MAINTENANCE MANUALS:

CONTRACTOR TO PROVIDE MAINTENANCE MANUALS FOR ALL EQUIPMENT INSTALLED. THREE (3) COPIES ORGANIZED IN 8 1/2" X 11" BINDERS TO BE PROVIDED.

1.19 RECORD DRAWINGS:

CONTRACTOR TO PROVIDE AS-BUILT RECORD DRAWINGS.

1.20 GUARANTEE:

THE CONTRACTOR SHALL GUARANTEE ALL HIS WORK FREE FROM DEFECTS FOR A PERIOD OF ONE (1) YEAR (UNLESS SPECIFICALLY NOTED OTHERWISE) FROM THE DATE OF SUBSTANTIAL PERFORMANCE OF THE WORK AS DETERMINED BY THE CONSULTANT AND SHALL MAKE GOOD ALL DEFECTS OTHER THAN NORMAL WEAR AND TEAR DURING THE LIFE OF THE GUARANTEE.

THE CONTRACTOR SHALL GUARANTEE ALL WORK AND EQUIPMENT SUPPLIED BY HIM TO WORK QUIETLY AND SATISFACTORILY AND TO ACCOMPLISH THE WORK FOR WHICH IT WAS INSTALLED DURING THE LIFE OF THE ABOVE GUARANTEE. AT ANY TIME DURING THIS PERIOD, HE SHALL MAKE ANY NECESSARY CHANGES AND ADJUSTMENTS, OR REPLACEMENTS, TO ACCOMPLISH THIS AT HIS OWN EXPENSE.

2.0 INSULATION:

2.1 DEFINITIONS:

UNLESS OTHERWISE SPECIFIED, TERMS "EXPOSED DUCTWORK" AS USED IN THIS SECTION SHALL REFER TO DUCTWORK IN FINISHED SPACES AND SHALL INCLUDE ALL AREAS EXCEPT; FURRED SPACES, DUCT SHAFTS, SPACES ABOVE FURRED CEILINGS, SPACES OVER EXCAVATED AREAS, AND CRAWL SPACES. THESE LATTER AREAS WILL BE REFERRED TO AS "CONCEALED SPACES". WORKING CHASES OR CORES SHALL BE CONSIDERED AS FINISHED SPACES.

2.2 FIRE RATING:

ALL INSULATION TO HAVE MAXIMUM FLAME SPREAD RATING 25. MAXIMUM SMOKE DEVELOPED RATING 50.

2.3 DUCTWORK:

PROVIDE DUCT INSULATION TO THE FOLLOWING:
.1 ALL OUTDOOR AIR INTAKE DUCTWORK (2").
.2 ALL SUPPLY DUCTWORK (1").
.3 ALL EXHAUST DUCTWORK 10 FT IN FROM MD OR BDD (2").

CONCEALED DUCT INSULATION SHALL BE FLEXIBLE FIBERGLASS BLANKET DUCT INSULATION WITH NOMINAL DENSITY OF 12 KG/M3. FLEXIBLE INSULATION VAPOUR JACKET TO BE FACTORY APPLIED FOIL-SCRIM-KRAFT FACING CONSISTING OF ALUMINUM FOIL REINFORCED WITH FIBER GLASS YARN MESH AND LAMINATED TO CHEMICALLY TREATED FIRE RESISTANT KRAFT.

EXPOSED DUCT INSULATION SHALL BE RIGID FIBER GLASS BOARD, HAVING A MINIMUM DENSITY OF 96 KG/M3. USE SEMI-RIGID PIPE AND TANK INSULATION FOR SPIRAL AND ROUND DUCTWORK APPLICATION HAVING A MINIMUM DENSITY OF 40KG/M3. RIGID DUCT INSULATION VAPOUR JACKET SHALL BE FACTORY APPLIED FOIL-SCRIM-KRAFT FACING CONSISTING OF ALUMINUM FOIL REINFORCED WITH FIBER GLASS YARN MESH AND LAMINATED TO 6LB. CHEMICALLY TREATED FIRE RESISTANT KRAFT.

PROVIDE CANVAS JACKET LAGGING SYSTEM ON ALL EXPOSED DUCTWORK. PROVIDE SUFFICIENT COATS OF LAGGING ADJESIVE (3 MINIMUM) TO PROVIDE A SMOOTH FINISH TO THE SATISFACTION OF THE ENGINEER.

2.4 EXECUTION:

INSTALL INSULATION IN ACCORDANCE WITH THE THERMAL INSULATION ASSOCIATION OF CANADA (TIAC) BEST PRACTICES GUIDE. UNLESS SPECIFIC INSULATION DETAILS INDICATED ON DRAWINGS SUBMIT PROPOSED INSULATION DETAILS TO ENGINEER FOR REVIEW PRIOR TO INSTALLATION. INSTALLATION DETAILS SHALL BE IN ACCORDANCE WITH APPLICABLE TIAC STANDARD INSTALLATION DETAILS.

3.0 VENTILATION:

3.1 GENERAL:

.1 DUCTWORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH SMACNA CONSTRUCTION STANDARDS FOR LOW PRESSURE DUCTWORK (2IN. W.C.).

.2 DUCTWORK AND HANGER MATERIALS TO BE GALVANIZED STEEL UNLESS OTHERWISE INDICATED.

.3 ALL DUCTWORK SHALL BE SEALED. ZERO LEAKAGE PERMITTED AT 2IN. W.C. ON DISCHARGE SIDE OF FAN.

3.2 HANGERS AND SUPPORTS:

.1 PROVIDE FABRICATED HANGERS AND SUPPORTS IN ACCORDANCE WITH SMACNA CONSTRUCTION STANDARDS.

3.3 FLEXIBLE DUCTWORK:

.1 INSULATED FLEXIBLE DUCTS ARE PERMITTED FOR FINAL DIFFUSER CONNECTION TO A MAXIMUM LENGTH OF 8 FEET. FLEXIBLE DUCTS SHALL BE UL LISTED FOR CLASS 1 AIR DUCT MATERIAL (UL-181) AND IN ACCORDANCE WITH NFPA STANDARD 90A.

.2 ACCEPTABLE PRODUCTS: THERMAFLEX M-KE OR ATLAS TYPE LD, INSULATED, FOR BOTH INSULATED AND NON-INSULATED DUCTS.

3.4 DUCT SEALERS AND TAPE:

.1 DUCT SEALERS SHALL CONSIST OF WOVEN FABRIC MATERIAL COATED WITH A SEALANT WHICH SHALL BE:
- WATER RESISTANT
- COMPATIBLE WITH DUCT MATERIALS
- SUITABLE FOR THE SERVICE INVOLVED
- MEET ULC S-102 (1975)
- FLAME SPREAD RATINGS OF 25 AND MAXIMUM SMOKE DEVELOPED RATING OF 50
- NON TOXIC

.2 ACCEPTABLE PRODUCT: TRANS CONTINENTAL TOUGH-BOND, DURO DYNE, BAKOR.

3.5 BALANCING:

AIR DISTRIBUTION SYSTEMS:
TEST AND BALANCE ALL AIR SUPPLY, RETURN AND EXHAUST SYSTEMS SPECIFIED. EACH OUTLET SHALL BE ADJUSTED BY A FLOW HOOD. ANEMOMETER READINGS TO PROVIDE AIR QUANTITIES SPECIFIED. UPON COMPLETION OF THE BALANCING, SUPPLY THE ENGINEER WITH THREE (3) COMPLETE RECORDS WHICH SHALL INCLUDE AIR QUANTITIES AT EACH OUTLET, FAN PERFORMANCE AND OPERATING CONDITIONS, AND MOTOR ELECTRICAL DATA.

4.0 AUTOMATIC CONTROLS:

4.1 GENERAL:
ALL CONTROL WIRING REGARDLESS OF VOLTAGE REQUIRED FOR THE OPERATION OF THE MECHANICAL SYSTEMS SHALL BE PROVIDED BY THIS CONTRACTOR UNLESS OTHERWISE INDICATED. WIRING SHALL INSTALLED IN CONDUIT IN ACCORDANCE WITH THE REQUIREMENTS OF DIVISION 16- ELECTRICAL AND INSTALLED IN ACCORDANCE WITH THE CANADIAN ELECTRICAL CODE. GENERALLY, ALL CONTROLS WILL BE LOW VOLTAGE (50V AND BELOW). CONTROLS CONTRACTOR SHALL PROVIDE CONTROL DAMPERS, ACTUATORS, CONTROL VALVES, THERMOSTATS, RELAYS, SWITCHES, TIMERS, TRANSFORMERS, SENSORS, ETC. AS REQUIRED TO COMPLETE CONTROLS SYSTEM AS INDICATED OR REQUIRED.

4.2 TIME CLOCKS:

.1 ELECTRONIC 7 DAY PROGRAMMABLE LOW VOLTAGE TIMECLOCK WITH INTERNAL BATTERY MEMORY BACKUP TO RETAIN PROGRAM UPON POWER FAILURE.

.2 ACCEPTABLE PRODUCT: PARAGON

4.3 SEQUENCE OF OPERATION:

.1 EF-1/SF-1 SYSTEM

.1 SYSTEM SHALL BE START/STOPPED ON A TIME OF DAY SCHEDULE VIA TIME CLOCK.

.2 INTERLOCK EF-1 TO START WHEN SF-1 STARTS.

.3 IN ADDITION TO ABOVE, PROVIDE THE FOLLOWING INFORMATION:
.1 SUPPLY FAN STATUS. INITIATE ALARM IF FAN STOPS.
.2 THE UNIT SHALL SHUT DOWN AND GENERATE AN ALARM UPON RECEIVING A FREEZESTAT STATUS.
.3 INITIATE ALARM IF SUPPLY AIR VARIES FROM TARGET SET POINT BY MORE THAN 15% FOR 10 MINUTES.
.4 INITIATE ALARM IF SUPPLY AIR TEMPERATURE VARIES FROM TARGET SET POINT BY MORE THAN 9°C FOR 10 MINUTES
.5 LOW TEMPERATURE ALARM TO SHUT OFF FANS, AND CLOSE MOTORIZED DAMPERS.

.2 TIMECLOCK

A 7 DAY PROGRAMMABLE LOW VOLTAGE TIMECLOCK SHALL CONTROL THE OPERATION OF SUPPLY FAN SF-1.

DURING OCCUPIED TIMES SF-1 AND EF-1 SHALL OPERATE AND MOTORIZED DAMPERS SHALL OPEN.

DURING UNOCCUPIED TIMES SF-1 AND EF-1 SHALL NOT OPERATE AND MOTORIZED DAMPERS SHALL CLOSE.

4.4 INSTRUCTION AND TRAINING:
TRAINING IN THE OPERATION OF THE SYSTEM SHALL BE PROVIDED.
DETAILED INSTRUCTIONS AND TRAINING SHALL BE PROVIDED TO DESIGNATED TECHNICAL PERSONNEL TO ENABLE THEM TO BECOME FULLY CONVERSANT WITH SYSTEMS.

| Rev | Description | DD/MM/YY |
|---|---|---|
| 0 | ISSUED FOR TENDER | 21/05/2020 |


MCA CONSULTANTS
ENGINEERS · PROJECT MANAGEMENT
902.566.9223 | info@mcaconsultants.ca | www.mcaconsultants.ca



All measurements must be checked on site prior to construction or fabrication.

This drawing is the property of William W. Chandler Architects Inc. and shall not be used on other projects or extensions to this project except by agreement in writing from the Architect.

This drawing is not to be used for construction unless stamped by the Architect.


PROFESSIONAL ENGINEER
Christine E Pearson
1759
21/05/2020
DATE
PROVINCE OF PRINCE EDWARD ISLAND


CHANDLER ARCHITECTURE
DESIGN MATTERS
92 Queen Street PO Box 550 Charlottetown
Prince Edward Island, Canada C1A 7L1
Tel: 902 628 6638
Fax: 902 566 9214 www.chandlerarchitecture.ca

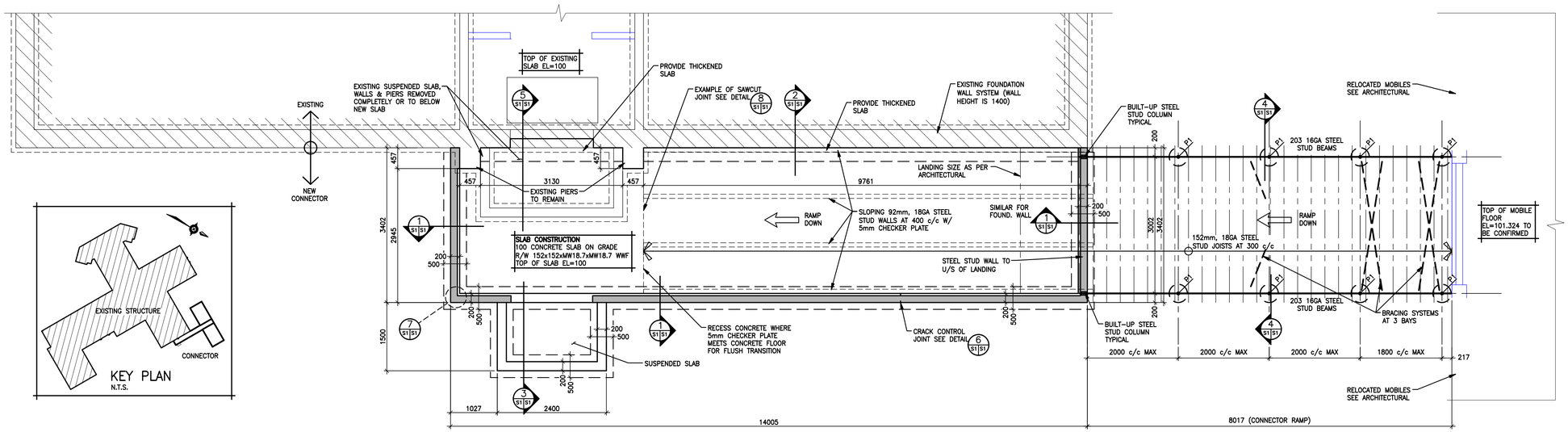

Scale AS NOTED
Date MAY 21, 2020
Drn BY BCJP
Job No. 20-106

Project : WEST ROYALTY ELEMENTARY SCHOOL MOBILE CLASSROOMS CONNECTOR

Sheet Title : SPECIFICATIONS

M2

2 OF 2







KEY PLAN
N.T.S.

# FOUNDATION PLAN

SCALE: 1:50

**NOTE:**
- VAPOUR BARRIER TO BE OVERLAPPED AND CONTINUOUSLY SEALED AT ALL JOINTS.
- VAPOUR BARRIER TO BE CONTINUOUSLY SEALED TO ALL FOUNDATION WALLS W/ MANUFACTURER'S APPROVED TAPE/SEALANT.
- VAPOUR BARRIER TO BE CONTINUOUSLY SEALED AT ALL PENETRATIONS.
- SEALING PRODUCT TO BE SUBMITTED FOR REVIEW/APPROVAL AND MUST CONFORM TO ACCEPTANCE WITH THE VAPOUR BARRIER.

NOTE:
PROVIDE CRACK CONTROL JOINTS EVERY 6m ALONG LENGTH OF PERIMETER FOUNDATION WALL.

**NOTE:**
**EXISTING FOUNDATION WALLS ARE 1400 TALL.**

**RAMP FLOOR LOADING**
LIVE LOAD: 2.4 KPa (50 PSF)
DEAD LOAD: 0.75 KPa (15 PSF)
LIVE LOAD DEFLECTION = L/360

**SCREW PILE SYSTEM NOTES:**

1. LOADS SHOWN ARE UN-FACTORED TOTAL VERTICAL DOWNWARD LOADS IN POUNDS (LBS) PLUS UPLIFT LOADS.
2. PILE SHAFT TO BE 89mmø MINIMUM W/ MIN 200ø BLADE TYPICAL.
3. 1 PILE MINIMUM REQUIRED AT EACH LOCATION SHOWN.
4. DESIGN ENTIRE PILE SYSTEM FOR A LATERAL LOAD OF 40kN UNFACTORED WIND LOAD ANY DIRECTION.
5. ALL PILES, BRACKETS, PLATES, NUTS AND ALL ASSCEORIES TO BE HOT DIPPED GALVANIZED (H.D.G.).
6. ENGINEER'S STAMP REQUIRED FOR DESIGN AND CONFIRMATION OF LOADING AND DRIVING DATA.
7. DRIVING RECORDS REQUIRED TO HELP ENSURE AND DOCUMENT PILE CAPACITY AND DETAILS.
8. ALL PILES TO BE DESIGNED FOR:
   7500 LBS GRAVITY
   3750 LBS UPDIFT
   1500 LBS LATERAL

**GENERAL NOTES:**

1. ALL STRUCTURAL DESIGN AND CONSTRUCTION TO BE IN ACCORDANCE WITH THE NATIONAL BUILDING CODE – 2015 AND ALL ASSOCIATED DOCUMENTS.
2. ALL DIMENSIONAL AND ELEVATIONAL REQUIREMENTS ARE TO BE CONFIRMED IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS AND ONSITE CONDITIONS. ARCHITECTURAL REQUIREMENTS MAY SUPERCEDE ELEVATIONAL AND DIMENSIONAL DETAILS OF THE STRUCTURAL DRAWINGS.
3. THIS SET OF DRAWINGS SHOWS THE COMPLETED PROJECT. IT DOES NOT INCLUDE COMPONENTS THAT MAY BE NECESSARY FOR CONSTRUCTION SAFETY. THE CONTRACTOR IS RESPONSIBLE FOR SAFETY IN AND ABOUT THE JOB SITE DURING CONSTRUCTION, AND FOR THE DESIGN AND ERECTION OF ALL TEMPORARY STRUCTURES, SUCH AS FORMWORK, FALSE WORK AND SHORING, REQUIRED TO COMPLETE THE WORK.
4. THE GENERAL CONTRACTOR SHALL REVIEW ALL THE DRAWINGS AND CHECK DIMENSIONS BEFORE CONSTRUCTION. REPORT DISCREPANCIES BETWEEN STRUCTURAL DRAWINGS AND DRAWINGS OF OTHER DISCIPLINES FOR CLARIFICATION.
5. DO NOT CUT OR DRILL ANY OPENINGS IN STRUCTURAL MEMBERS WITHOUT WRITTEN PERMISSION FROM SCL ENGINEERING INC.

**SITE REVIEW RESPONSIBILITIES:**

THE CONSULTANT WILL PROVIDE GENERAL REVIEW OF CONSTRUCTION IN ACCORDANCE WITH THE PERFORMANCE STANDARDS OF THE ASSOCIATION OF PROFESSIONAL ENGINEERS OF PRINCE EDWARD ISLAND BY MEANS OF A RATIONAL SAMPLING PROCEDURE TO DETERMINE WHETHER THE CONSTRUCTION OF THAT WORK SHOWN ON THE DRAWINGS IS IN GENERAL CONFORMITY WITH THE PLANS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR QUALITY CONTROL AND THE PERFORMANCE OF THE WORK IN ACCORDANCE WITH THE CONTRACT. THE CONSULTANT SHALL NOT BE RESPONSIBLE FOR THE ACTS OR OMISSIONS OF THE CONTRACTOR, SUB-CONTRACTOR OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK OR FOR THE FAILURE OF ANY OF THEM TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

**CONCRETE WORKS:**

1. ALL FOOTINGS TO EXTEND TO UNDISTURBED SOIL OR STRUCTURAL FILL, MINIMUM SOIL CAPACITY OF 150 KPa.
2. ALL FOOTINGS AND FOUNDATION WALLS FORMWORKS TO BE REVIEWED PRIOR TO CONCRETE PLACEMENT.
3. MINIMUM EFFECTIVE COVER FOR FROST PROTECTION TO BOTTOM OF FOOTINGS IS 1500mm.
4. CONCRETE MATERIALS AND METHODS OF CONSTRUCTION (INCLUDES STRENGTH REQUIREMENTS) IN ACCORDANCE WITH CAN3-A23.1-M94. MINIMUM CONCRETE STRENGTH AT 28 DAYS.
   - 25 MPa MEETING CLASS F2 FOR ALL FOOTINGS & FOUNDATION WALLS.
   - 25 MPa MEETING CLASS N FOR ALL INTERIOR SLABS ON GRADE.
   - 32 MPa MEETING CLASS C2 FOR ALL EXTERIOR FLATWORKS, CURBS, SIDEWALKS, GUTTERS, RAMPS & EXTERIOR SUSPENDED SLABS AT GRADE LEVEL.
5. ALL DOOR LOCATIONS AND DIMENSIONS TO BE CONFIRMED WITH THE CONSULTANT, PRIOR TO THE CONCRETE POUR.
6. TYPICAL SLAB ON GRADE IS 100mm R/W 152x152x18.7MWx18.7MW, SUPPLIED IN FLAT SHEETS ONLY.
7. CURING COMPOUNDS OR WET CURING REQUIRED. MATERIALS AND PROCEDURES USED SUBJECT TO APPROVAL OF ENGINEER AND CONFORMANCE WITH FLOOR FINISHES.
8. WHEN ISOLATED SLAB AREAS ARE NOT COMPLETELY PLACED, SLAB CONSTRUCTION JOINT AS DETAILED ARE REQUIRED.
9. OPENINGS RECESSES AND ELEVATION REQUIREMENTS FOR INTERIOR SLABS AS PER ARCHITECTURAL DRAWINGS.
10. AT EXTERIOR DOORWAY LOCATIONS, INTERIOR SLAB EXTENDS INTO FOUNDATION WALL (AS DETAILED).
11. THE CONTRACTOR IS TO VERIFY FLOOR DRAIN LOCATIONS, SLOPES, & DIMENSIONS WITH ARCHITECTURAL AND MECHANICAL DRAWINGS.
12. PROVIDE CRACK CONTROL JOINTS EVERY 6m MAX. ALONG LENGTH OF PERIMETER FOUNDATION WALL.
13. 50mm OF TYPE '4' INSULATION IS TO BE INCLUDED ON THE INSIDE FACE OF ALL EXTERIOR FOUNDATION WALLS AND UNDER SLABS W/ IN-FLOOR HEATING, SEE DETAILS AND MECHANICAL FOR LOCATIONS.

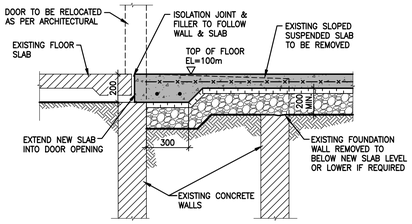
**REINFORCING NOTES:**

1. REINFORCEMENT SHALL BE BILLET STEEL CONFORMING TO THE FOLLOWING STANDARDS.
   a) CSA G30.18 – GRADE 400MPa – 10M AND LARGER
   b) CSA G30.5 – WELDED WIRE MESH.
2. CONCRETE COVER: UNLESS NOTED OTHERWISE ON THE DRAWINGS, CONCRETE COVER IN mm OVER REINFORCEMENT.
   a) SURFACE PLACED IN CONTACT WITH GROUND . . . 75mm
   b) FORMED SURFACE EXPOSED TO GROUND OR WEATHER . . . . . 50mm
   c) SLABS ON GRADE . . . . . MIDDLE OF SLAB
   d) WALLS . . . . . 38mm

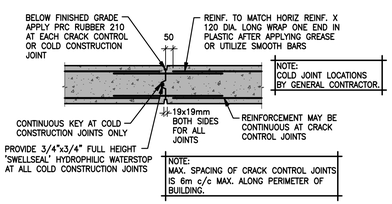
**SAW CUTS:** (SLABS ON GRADE)

1. SAW CUTTING IS TO BEGIN AS SOON AS POSSIBLE AND PRIOR TO EXCESSIVE RAVELING AND IMMEDIATELY AFTER THE SLAB CURING TEMPERATURE HAS PEAKED.
2. SAW CUTTING MAY BE REQUIRED AT NIGHT. OR WEEKENDS AND THE CONTRACTOR IS TO PLAN FOR THIS.
3. JOINT FILLING TO PROCEED AFTER SUITABLE CURING PERIOD (MIN. 28 DAYS). JOINT EDGES TO BE PROTECTED FROM DAMAGE WITH A TEMPORARY BACKER ROD IF NECESSARY, FINAL JOINT FILLER TO BE SEMI RIGID TYPE, SIKADUR OR LOADFLEX BY STERNSON OR AN APPROVED EQUAL.
4. SAW BLADES TO BE 4mm (3/16") DIAMOND TIPPED.
5. SAWCUTS AT 5m c/c MAX. BOTH WAYS (APPROX.) AND UNDER PARTITION WALLS WHERE POSSIBLE, AND AT ALL INTERIOR STRESS POINTS (ie. INTERIOR CORNERS).

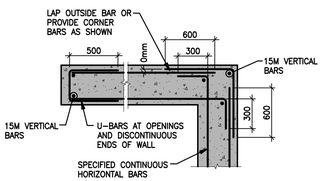
**NOTE:**
**SHOP DRAWINGS FOR STRUCTURAL STEEL AND HELICAL PILE SYSTEMS TO BE REVIEWED BY ENGINEER PRIOR TO FABRICATION OR DELIVERY TO SITE. ALL SHOP DRAWINGS TO BE STAMPED BY AN ENGINEER LICENSED TO PRACTICE ON P.E.I.**



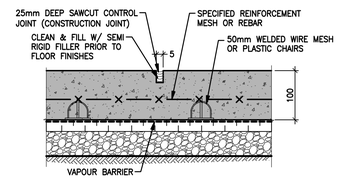

5 S1 S1 SLAB ON EXISTING SUSPENDED SLAB
SCALE N.T.S.



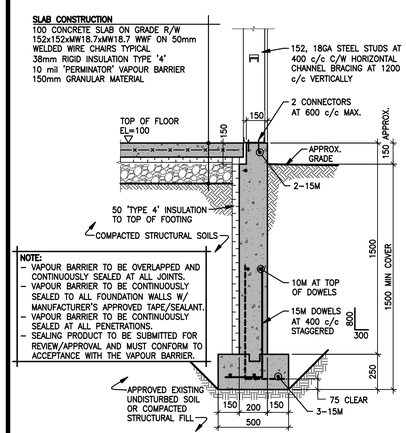

6 S1 S1 VERTICAL WALL COLD CONTROL JOINT (& CRACK CONTROL JOINT)
SCALE N.T.S.



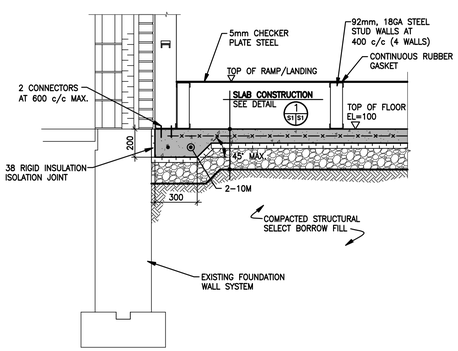

7 S1 S1 HORIZONTAL WALL REINFORCEMENT
SCALE N.T.S.



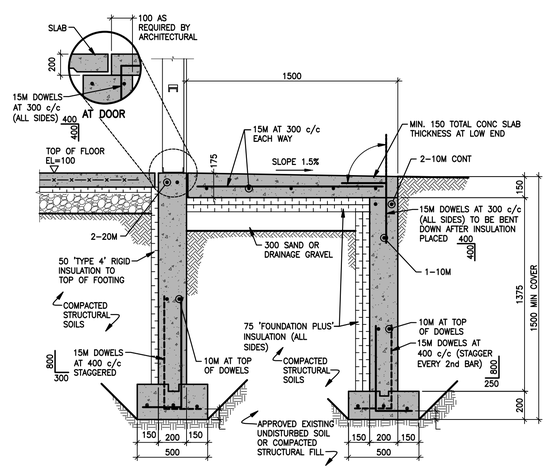

8 S1 S1 SLAB ON GRADE CRACK CONTROL JOINT/ISOLATION POUR
SCALE N.T.S.



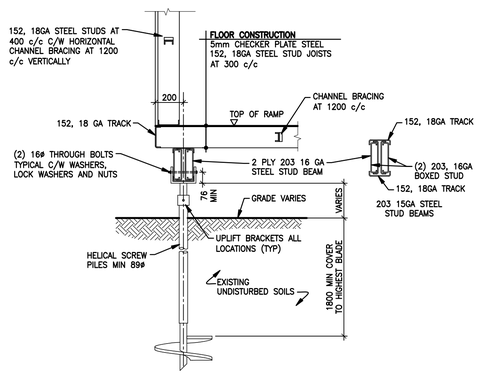

1 S1 S1 SECTION AT FOUNDATION WALL
SCALE N.T.S.



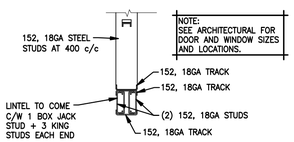

2 S1 S1 SECTION AT FOUNDATION WALL
SCALE N.T.S.




3 S1 S1 SECTION AT SUSPENDED SLAB
SCALE N.T.S.




4 S1 S1 SECTION AT HELICAL PILE/BEAM
SCALE N.T.S.




SECTION AT DOOR/WINDOW LINTEL
SCALE N.T.S.

| Rev | Description | Date |
|---|---|---|
| 0 | - | 00/00/00 |


SCL Engineering (2005) Inc.
Consulting Engineers & Project Managers
16 Great George Street, Landing Place
P.O. Box 731, Charlottetown, P.E.I., C1A 7L3
Phone: (902) 628-8620



All measurements must be checked on site prior to construction or fabrication.

This drawing is the property of SCL Engineering (2005) Inc. and shall not be used on other projects or extensions to this project except by agreement in writing from the Engineer.

This drawing is not to be used for construction unless stamped by the Engineer.


PROFESSIONAL ENGINEER
SHELDON L. TWEEL
REGISTERED
5/21/20
Structural


CHANDLER ARCHITECTURE
DESIGN MATTERS
92 Queen Street PO Box 550 Charlottetown
Prince Edward Island, Canada C1A 7L1
Tel: 902 628 6558
Fax: 902 566 5214 www.chandlerarchitecture.ca


Scale: AS NOTED
Date: MAY 21, 2020
Drn BY: Brian J McLellan CET
Job No. SCL20-013

Project: WEST ROYALTY ELEMENTARY SCHOOL MOBILE CLASSROOMS CONNECTOR

Sheet Title: FOUNDATION PLAN, SECTIONS & DETAILS

S1 OF —