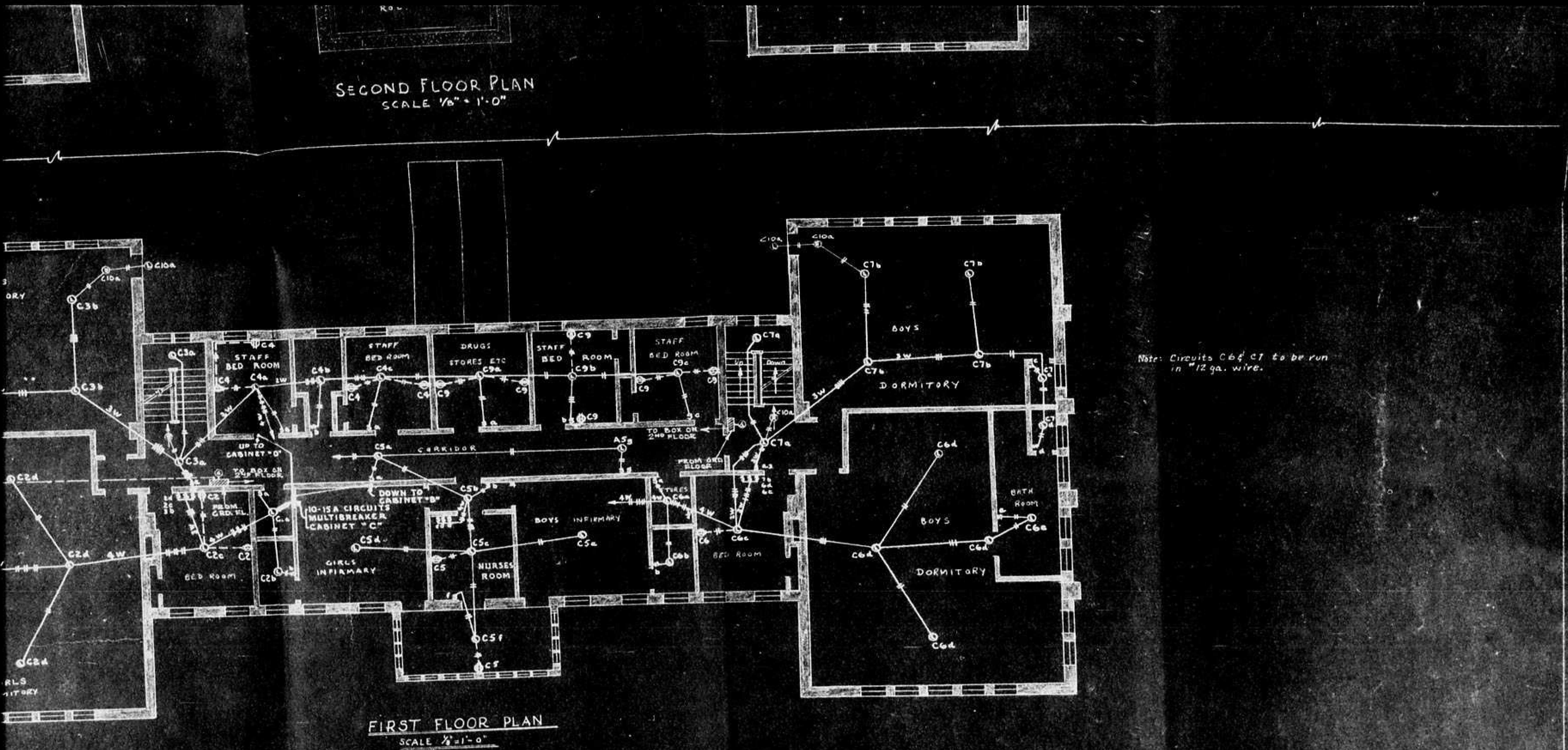
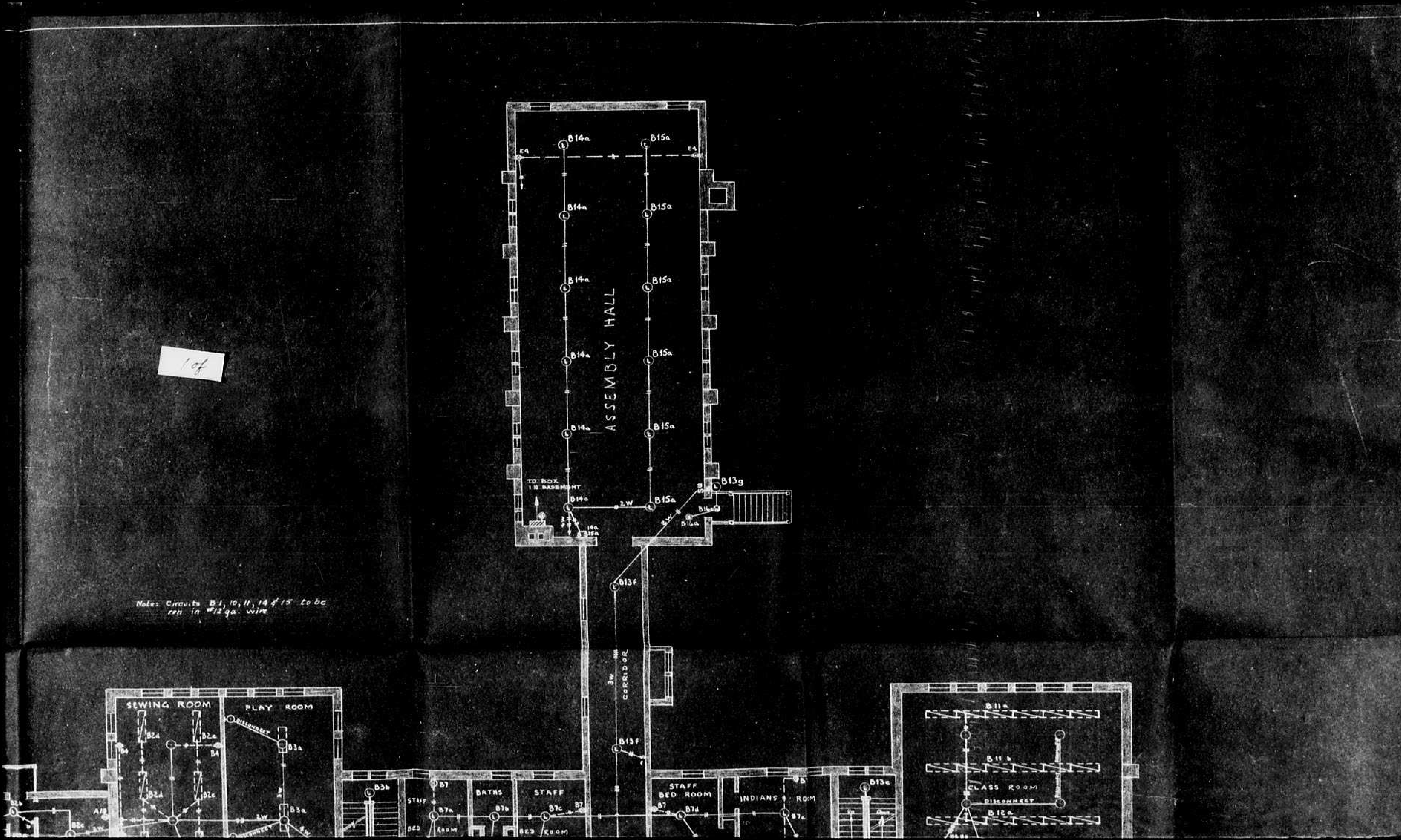


4 of 4

DEPARTMENT OF CITIZENSHIP & IMMIGRATION - INDIAN AFFAIRS BRANCH
VANCOUVER, B.C.

Surveys	PROPOSED MODIFICATION & RENEWAL of	Approp No. 1127
Plan J.A.G. Beeching	ELECTRICAL SYSTEM	Corres. File 24708220
Checked	ST. GEORGE'S	Date June 1, 1950
Traced A.R. Smith	INDIAN RESIDENTIAL SCHOOL	Scale 1/8" = 1'-0"
Approved	LYTTON AGENCY	PLAN No. 106

PLATE No. IV of IV

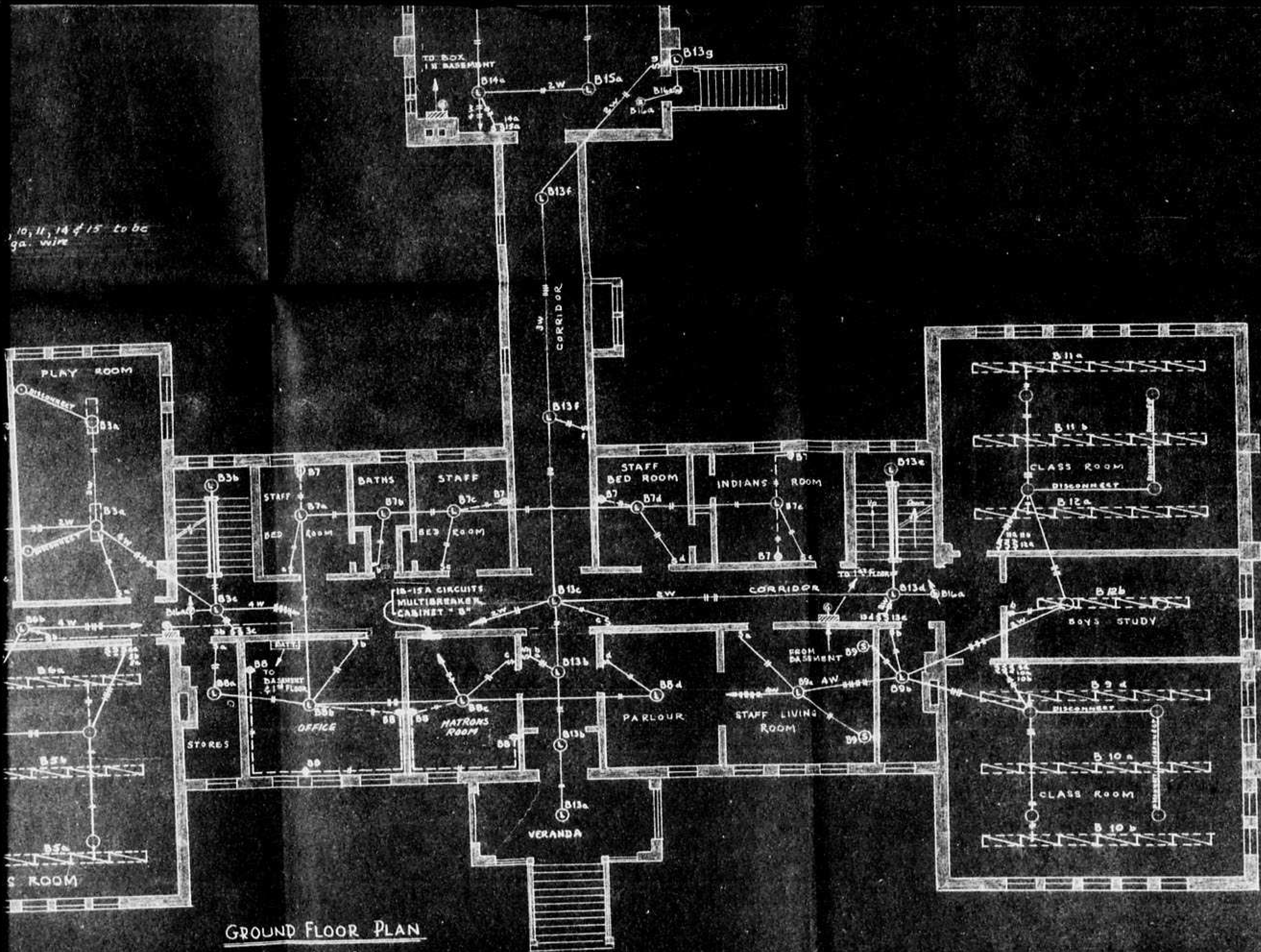


Note: Circuits B1, 10, 11, 14 & 15 to be run in #12 ga. wire

18 - #4060 1/40 CURTIS FORTY-SIXTY I.S. FIXTURES to be installed in each classroom
1 - #4060 1/40 CURTIS FORTY-SIXTY I.S. FIXTURES to be installed in BOYS STUDY
6 - #4901E 1/40 DAWN I.S. FIXTURES to be installed in SEWING ROOM
2 - #4901E 1/40 DAWN I.S. FIXTURES to be installed in PLAY ROOM

GROUND FLOOR PLAN

Scale 1/8" = 1'-0"



GROUND FLOOR PLAN

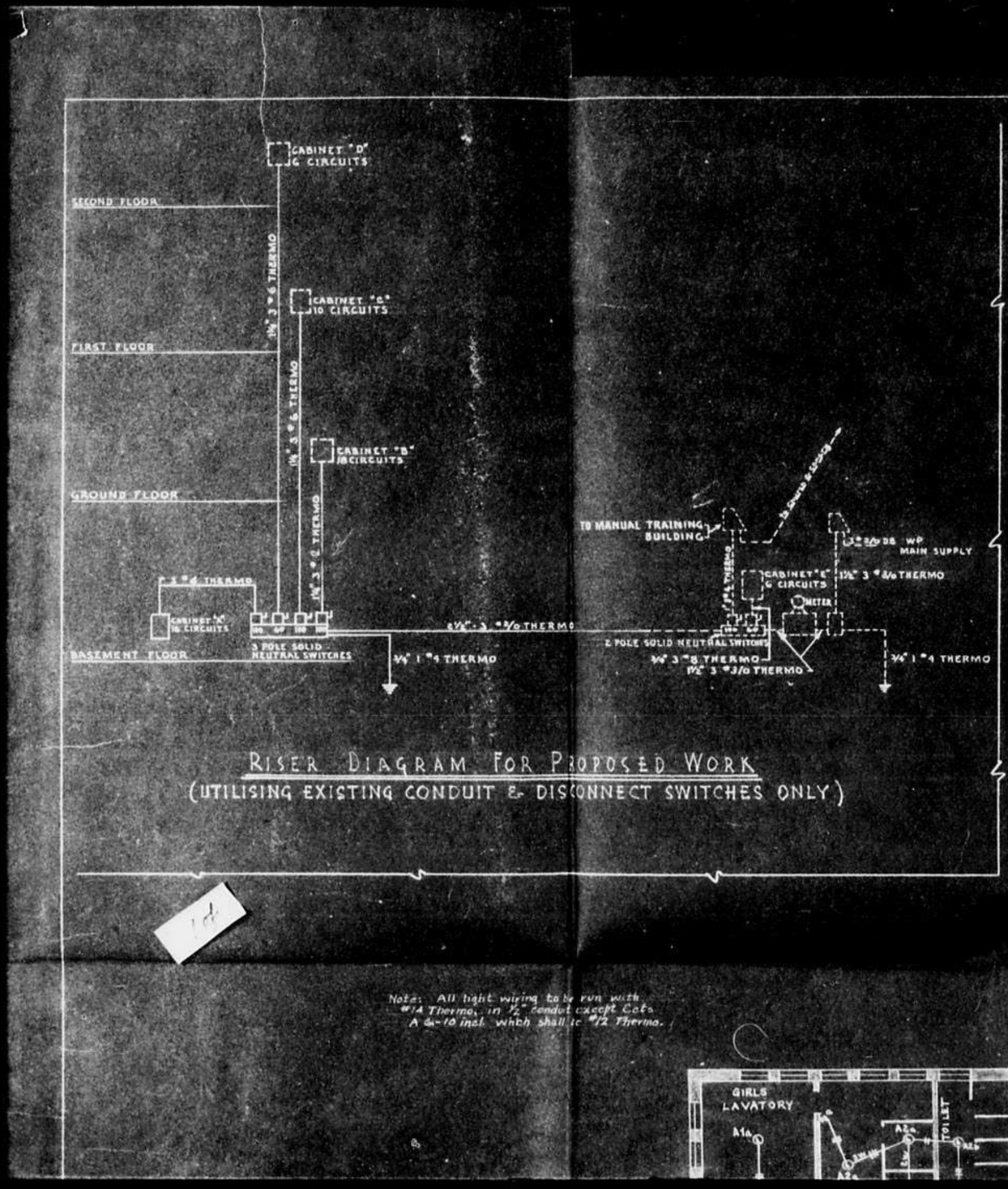
Scale 1/8" = 1'-0"

10, 11, 14 & 15 to be
ga. wire

DEPARTMENT OF CITIZENSHIP & IMMIGRATION - INDIAN AFFAIRS BRANCH
VANCOUVER, B.C.

Survey's Plan J.A.G. Beaching Checked Traced A.R. Smith Approved	PROPOSED MODIFICATION & RENEWAL of ELECTRICAL SYSTEM ST. GEORGE'S INDIAN RESIDENTIAL SCHOOL LYTTON AGENCY	Report No. U87 Corres. file 24700-22 B Date June 14 1950 Scale 1/8" = 1'-0" PLAN No. 106

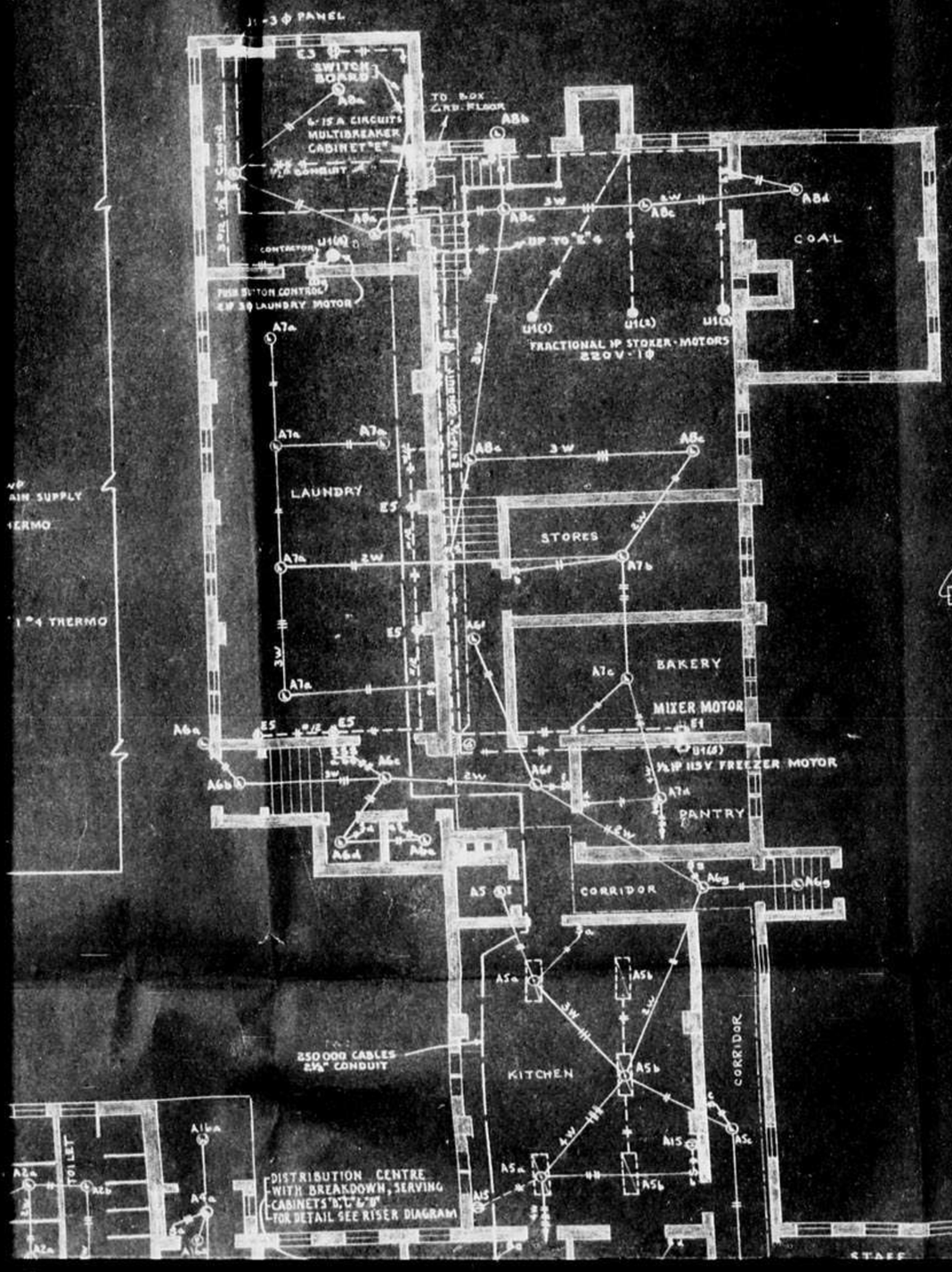
PLATE No. III of IX



RISER DIAGRAM FOR PROPOSED WORK

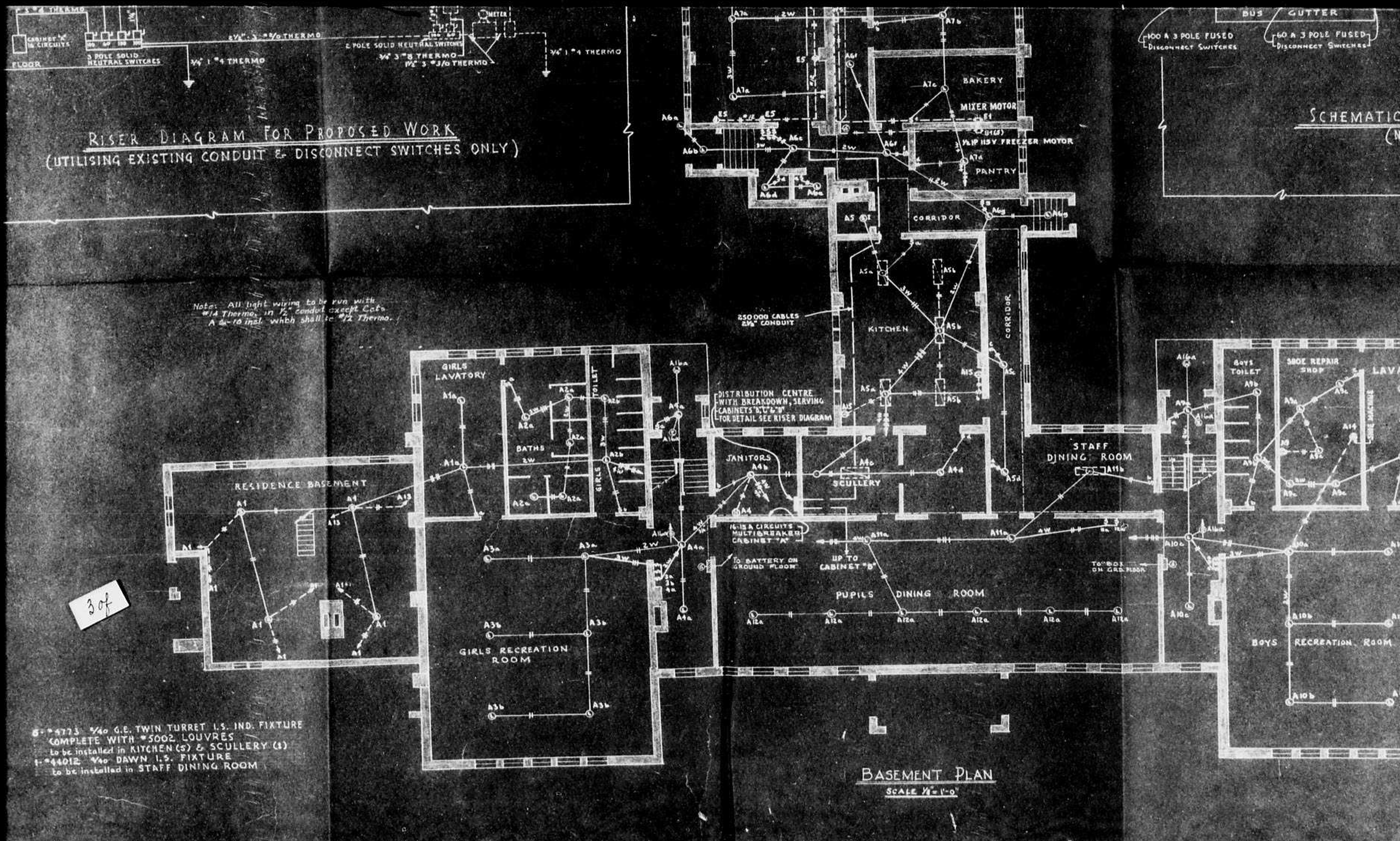
(UTILISING EXISTING CONDUIT & DISCONNECT SWITCHES ONLY)

Notes: All light wiring to be run with #14 Thermo, in ½" conduit except Cots A 6-10 inch which shall be #12 Thermo.



SCHEMATIC DIAGRAM OF 3 Φ CONNECTIONS
(NEW INSTALLATION)

2 of



SCHEMATIC DIAGRAM OF 3 Φ CONNECTIONS
(NEW INSTALLATION)

4 of 4

BASEMENT PLAN
SCALE 1/8" = 1'-0"

BAKERY
MIXER MOTOR
PANTRY
CORRIDOR
KITCHEN
250000 CABLES 2½" CONDUIT
DISTRIBUTION CENTRE WITH BREAKDOWN, SERVING CABINETS "A", "B" & "C" FOR DETAIL SEE RISER DIAGRAM
JANITORS
SCULLERY
STAFF DINING ROOM
PUPILS DINING ROOM
BOYS TOILET
GIRLS TOILET
SHOE REPAIR SHOP
LAVATORY
BOYS RECREATION ROOM
16-15A CIRCUITS MULTI-BREAKER CABINET "A"
To BATTERY ON GROUND FLOOR
UP TO CABINET "B"
TO BOX ON GRD. FLOOR

LEGEND BOX

Gong	
Break Glass Switch	
Weatherproof Exit Light	
Exit Light	
Directional Exit Light	
Duplex Receptacle	
Special Receptacle for Motors	
Switch	S
Junction Box	
Feeder Conduit	
Existing Conduit, runs or wiring	
Proposed Conduit, runs or wiring	
Number of existing wires	3W
Number of proposed wires	3W####
Ceiling Outlet	
Ceiling Outlet with Light	
Switched Lighting Fixture	
Switched Lighting Fixture (made of insulating material)	
Proposed Fluorescent Fixture	
Distribution Panel or Switch	

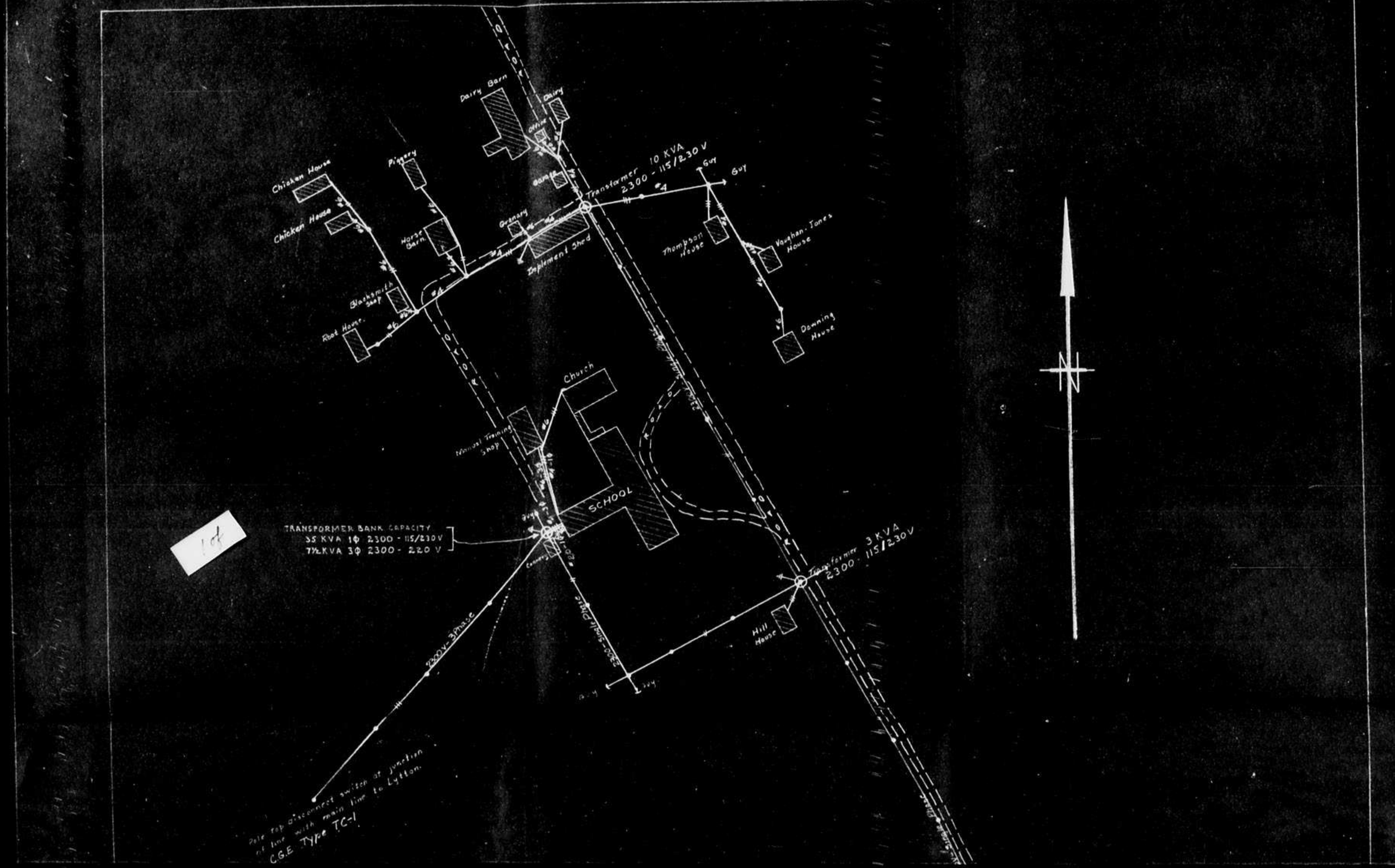
DEPARTMENT OF CITIZENSHIP & IMMIGRATION · INDIAN AFFAIRS BRANCH
VANCOUVER, B.C.

Surveys
Plan T.A.G. Reaching
Checked J. Davis
Traced A.R. Smith
Approved

PROPOSED MODIFICATION & RENEWAL
of
ELECTRICAL SYSTEM
ST. GEORGE'S
INDIAN RESIDENTIAL SCHOOL
LYTTON AGENCY

Report No. 1133
Correspondence 247/23-2
Date June 1, 1960
Scale 1/8" = 1'-0"
PLAN N° 106

PLATE N° X of XI


Dairy Barn
Dairy
Office
Chicken House
Chicken House
Piggery
Horse Barn
Granary
Implement Shed
Transformer 10 KVA
2300 - 115/230 V
Guy
Guy
Thompson House
Vaughan-Jones House
Blacksmith Shop
Root House
Deming House
Church
Manual Training Shop
SCHOOL
TRANSFORMER BANK CAPACITY
35 KVA 1φ 2300 - 115/230V
7½ KVA 3φ 2300 - 220 V
Transformer 3 KVA
2300 - 115/230V
Hill House
2300V-3Phase
Pole top disconnect switch at junction of line with main line to Lytton.
C.G.E. TYPE TC-1
N

TRANSFORMER BANK CAPACITY
35 KVA 1φ 2300 - 115/230V
7½ KVA 3φ 2300 - 220 V

Pole top disconnect switch at junction of line with main line to Lytton.
C.G.E. Type TC-1

2300V - 3Phase

2300V - single phase

Hill House

Transformer 3 KVA 2300 - 115/230V

2300V - single phase

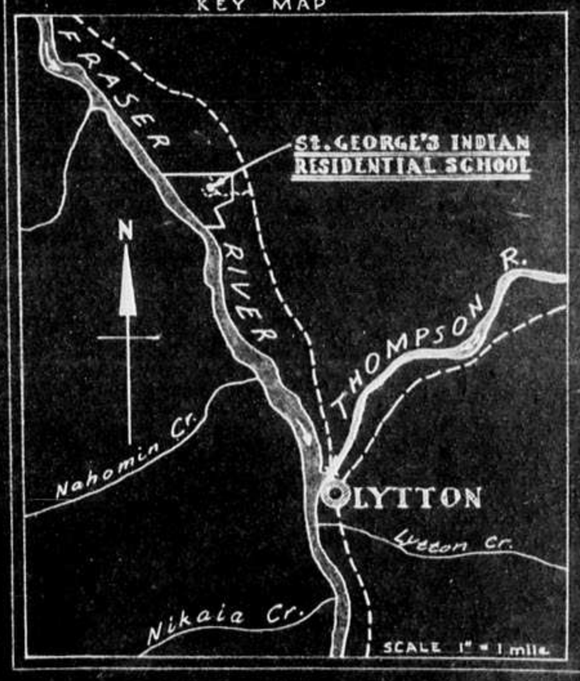
Transformer 3 KVA 2300 - 115/230V

Indian Supt. House

NOTE

1-Poles carrying primary lines to be 40' long.
2-Poles only carrying secondary lines to be 35' long.
3-Existing wires can be used for primary lines.
4-Remainder of system to be rebuilt with new materials.

KEY MAP



DEPARTMENT OF CITIZENSHIP & IMMIGRATION - INDIAN AFFAIRS BRANCH
VANCOUVER, B.C.

Surveys
Plan: R.A.G. Beaching
Checked
Traced M. Williams
Approved
Lawrence Robinson

PROPOSED MODIFICATION & RENEWAL of ELECTRICAL SYSTEM
ST. GEORGE'S INDIAN RESIDENTIAL SCHOOL
LYTTON AGENCY

Report No. 1127
Corres. file 24708-220
Date: June 1, 1950
Scale: 1" = 100'
PLAN No. 106

PLATE I of IX

CONNECT SWITCHES AND MULTIBREAKER PANELS

These shall be installed in an approved manner and located as shown on the drawings, or as noted.

CONDUIT SYSTEM

All service drop wires and ground wires shall be run in galvanized rigid steel conduits. All wires in the main school building, manual training building, Church and other buildings as shown on the drawings are to be run in rigid steel conduits, except for surface wiring in the class rooms, and staff quarters which is to be run in surface metal-raceway.

Conduit runs which are exposed shall be run to right angle bends and parallel with adjacent walls.

INSTALLATION OF CONDUIT

All conduit must be securely fastened in place by means of approved supports and fastenings.

The conduits shall be installed in the floors and ceilings or in the walls and partitions in such a manner as not to weaken or interfere with the structure of the building.

All conduit shall be cut with a hacksaw, the ends being reamed before installing and after threading

CONDUIT ENDS

In installing the conduit, particular care should be taken in cutting it to length so that the ends will project into the outlet and distribution boxes a uniform distance and shall be firmly attached by the use of bushings and lock nuts.

SURFACE METAL RACEWAY

The metal raceway must be of an approved type It must be continuous from outlet to outlet, junction box, or approved fittings designed especially for use with the metal raceway. All outlets must be provided with approved terminal fittings which will protect the insulation, unless such protection is afforded by the construction of the boxes or fittings. All metal raceways and terminal fittings must be securely fastened in place by means of approved supports and fastenings. Metal raceways must not be used in damp places.

GROUNDING

All conduit systems and distribution panels shall be thoroughly and efficiently grounded in an approved manner.

CUTTING AND PATCHING

The contractor shall be responsible for all cutting of holes through walls, floors and ceilings incident to his work and shall be required to patch to match existing wall, floor, and ceiling finishes in the area affected. Skilled workmen shall be employed for this work and it shall be carried out to the satisfaction of the representative of the Engineer.

WIRES

Non-metallic sheathed cable shall be used in wiring the adjacent buildings and residences as called for on the plans and shall be supported and terminated at the boxes and distribution panels in an approved manner.

Thermoplastic wires shall be used in the conduit runs and surface metal raceways.

/

PULLING WIRES

No wires shall be pulled in until the conduit system is completed and all plastering finished. No oil, grease or compound other than soapstone shall be used to facilitate the pulling of the wires.

JOINTS IN WIRES

All wire shall be continuous between outlets or from the panel to the first outlet.

All joints shall be properly soldered using non-corrosive flux and shall be carefully taped with rubber tape and covered with friction tape, both of approved brands.

FIXTURE LOOPS

At each fixture outlet, the contractor shall leave a loop or end of wire not less than 8" for connection of fixtures.

DISCONNECT SWITCHES AND FEEDERS

Disconnect switches and feeders shall be installed as outlined on the relative drawings.

DISTRIBUTION PANELS

Furnish and install where shown on plans. Panel boards shall be of the multibreaker type with 15 ampere circuits unless otherwise specified, the number of circuits required being shown on the plans.

Each circuit shall be numbered at its switch and a typewritten circuit directory cemented to the panel box.

BRANCH LIGHTING CIRCUITS

All branch lighting circuits, as shown on plans, that are to be installed or modified by the contractor unless otherwise shown shall be of No. 14B & S. gauge thermoplastic wire. Utility outlets in all cases shall be of No. 12 B. & S. Thermoplastic wire.

Each circuit must feed the outlets as indicated and if it becomes necessary to connect any outlets to a circuit other than the one shown on the plan, this shall be done without extra charge upon written instructions from the Engineer.

Location of Outlets

The approximate location of the fixtures and outlets to be installed, modified or repairs are given on the drawings. The exact locations of the outlets are to be determined on the site. All switches are to be installed to suit the doors.

The right is reserved to change the exact location of any switch, bracket, ceiling or other outlet in any room before same is installed, said changes to be at the option of the Engineer.

If an outlet is installed by the contractor in such a location as to be out of proper relation to beams, walls or other details of the building construction, its location shall be corrected by and at the expense of the contractor under the direction of the Engineer.

Unless otherwise indicated, outlet boxes, etc., shall be located with their center lines at the following elevations:-

Switch outlets in all rooms:	4' 0" above floor.
Convenience Receptacle Outlets:	0' 3" above baseboard.
Utility outlets in kitchen and laundry to be located to suit.	

/

NOTE: (Utility outlet boxes in basements must be grounded).

Outlet Boxes

Provide and install at all outlets for electric lights and switches, pressed steel outlet boxes. Boxes are to be of approved design and construction and of such form and dimensions as required to serve the kind of fixture to be used and the number, size and arrangements of conduits or non-metallic cables connected thereto. The boxes and covers shall be of 1/16" stock and protected with a galvanized finish. Only such holes in boxes as are to be used for entering conduits or non-metallic cables shall be open: all other holes must be closed.

All outlet boxes shall be firmly anchored in place, and any unused boxes on the ceilings or walls shall be fitted with covers.

Toggle Switches

At each switch outlet, as indicated on plans, install a C.G.E. 484M or equal flush single pole, 10 ampere toggle switch with a plastic face plate, C.G.E. 4941 or equal. It is required that the switch plates shall entirely cover the opening left for the outlet box and that the switch plates be attached to the outlet boxes in an approved manner.

Where more than one flush switch occurs in any one location, same shall be arranged in gangs and covered with one face plate, all switches shall be so connected and installed that when the lever is up, the switch shall be in the "on" position.

WALL PLUG RECEPTACLES

At each wall plug receptacle outlet, as indicated on plans, install a flush duplex receptacle of the C.G.E. 454M or equal. Plastic face plates of the C.G.E. 4142 or equal shall be provided with each plug receptacle which shall be of the same form and finish as the face plates for switches.

CEILING OUTLETS

Each ceiling outlet, where marked on plans, is to be fitted with an outlet box receptacle of the approved type and correct diameter to cover the box on which it is installed.

FIXTURE SUPPORTS

At all fixture outlets, where ceiling or bracket, the contractor shall install an approved form of fixture support.

Where ceiling outlets occur between joists, the contractor shall provide frame work between joints.

FIXTURES AND FITTINGS WHERE EXCESSIVE MOISTURE, CORROSIVE LIQUIDS, OR VAPOURS ARE LIKELY TO BE PRESENT

These shall be all installed in accordance with Rule 3401, Section 34 of the B.C. Electrical Code.

FIXTURES

All existing fixtures shall be overhauled or replaced and erected by the contractor if necessary. The contractor shall erect all new fixtures and arrange his outlets to best advantage and provide ample fixture loops as specified elsewhere.

The new fixtures shall be of the type or equivalent as called up on the drawings.

FIRE ESCAPE LIGHTING

(1) A V-series, vapour proof wall bracket type conduit, Crouse-Hinds type VF, or equivalent approved by the engineer, shall be mounted at a minimum height of 8'-0" above the level of the riser vertically below the unit.

EXIT LIGHTING

(1) A chain pendant with close up canopy and 6" diameter ruby exit globe, C.G.E. #5460, or equivalent approved by the engineer, shall be mounted on the ceiling over all fire exit doors or windows.

(2) A surface mounted exit indicating light, C.G.E. 3481 or similar approved by the engineer, shall be mounted on the wall in positions indicated on the accompanying plans.

Fire escape and exit lighting shall be on circuits used solely for these outlets. Wires shall be run in ½" rigid conduit, which may carry wiring for other circuits. These lights shall be supplied from the panels located on the respective floors as shown on the accompanying plans.

FIRE ALARM SYSTEM

(1) The fire alarm system shall be installed in accordance with the regulations governing the installation of fire alarm systems of the Fire Marshal Act and the B.C. Electrical Code.

(2) Edwards #227 Break glass switches and Edwards #340 fire alarm bells or equivalent approved by the engineer, shall be installed in positions as indicated on the plans.

(3) A bank of dry cell batteries sufficient to deliver 12 volts to the alarm system shall be installed in the main office on the ground floor of the main school building.

(4) The alarm system shall be run in ½" rigid conduit surface mounted on walls or ceiling as indicated on the plans.

CLEANING AND PAINTING

During the progress of the work and on completion of same, the contractor shall remove from the premises all dirt, debris, rubbage and waste materials caused by him in performance of his work.

He shall rmove all tools, scaffolding, and surplus materials after completion and acceptance of the work and paint all exposed conduit.

The entire job shall be turned over to the owners in a complete and satisfactory operating condition.

MANUFACTURER'S NAMES

The contractor shall submit with his proposal, a list of the materials on which his proposal is based. The list shall include the manufacturer's names and specific date on the following items:-

1. Multibreaker panel and disconnect switches.
2. Conduit.
3. Surface raceway.
4. Outlet boxes.
5. Wire.
6. Receptacles.
7. Lighting fixtures.

TENDER

The contractor shall submit his tender to show a break down of the cost for the distribution system and individual buildings.

MODIFICATION AND RENEWAL TO THE
ELECTRICAL SYSTEM AT ST. GEORGE'S
INDIAN RESIDENTIAL SCHOOL,
LYTTON, B.C.

- - - - - - - -

General Conditions:

The entire electrical installation shall be made in accordance with the rules and regulations pursuant to the Electrical Energy Inspection Act for the Province of British Columbia. The requirements of this specification and plans are the minimum that will be accepted.

In General:

The contractor shall furnish all materials, labour and equipment for the electrical work on the above-mentioned system, all located on the grounds of the St. George's Residential School at Lytton as shown on the accompanying plans 106 Plates 1 - 9 inclusive and hereinafter specified.

Scope of Contract:

The specifications and accompanying plans are intended to provide for the complete installation of:-

(1) A 2300V three phase supply line, a 2300V single phase primary distribution system and a 115/230V secondary network, all as shown on plan 106 Plate 1.

(2) The power and light service installations for the school and surrounding buildings are to be modified as shown on the relative drawings and as described in this specification.

(3) The electric light and power wiring systems from the thermal trip breaker panels in the buildings are to be modified in order to adequately supply the new fixtures and equipment.

(4) Replace all damaged existing fixtures and make repairs and modifications to conduits and splices in wires and drop cords as necessary to make the existing systems which are to be utilized to conform with the B.C. Electrical Code requirements.

(5) Install fire escape lights, exit lights, and a fire alarm system as hereinafter specified and shown on attached drawings.

(6) Each new system and modification to the existing system is to be installed complete in every respect, including all the necessary fixtures and is to be left in perfect operating condition ready for the owner's use, serving all portions of the buildings as intended.

Permits and Fees:

The contractor shall obtain at his own expense all permits for his work and shall pay any lawful charges for inspection or tests.

Drawings and co-operation:

The plans forming part of this contract cover, together with the specifications, the work that is to be done. In case of discrepancy in drawings, the contractor shall submit same to the E. & C. Service of the Indian Commissioner's Office in Vancouver for adjustment. No deviation from drawings will be permitted without written permission from the Indian Commissioner's office in Vancouver.

Materials and Workmanship:

All materials shall be new and of the quality specified. Where

/more

more than one make or quality is specified, the contractor shall notify the E. & C. Service of the Indian Commissioner's Office in Vancouver which make and kind of material he intends using.

The contractor shall employ men skilled in the work they are to do. All workmanship shall be of the best and all work shall be installed in accordance with the best practices of the trade involved. All apparatus and materials used in this work which are subject to approval by the Canadian Standards Association shall bear the C.S.A. number of approval.

Testing and Inspection:

The contractor shall notify the E. & C. Service of the Indian Commissioner's Office, in writing, that the work is ready for inspection at such time as will permit of inspection being made before any work or portion thereof is liable to be concealed.

When the contractor reports, in writing, that the installation is completed and ready for acceptance, an operation test shall be made by the contractor in the presence of a representative from the E. & C. Service to ascertain whether it complies with the specifications and contract. Should it fail to do so, the contractor shall at once remedy all defects. The contractor shall have a representative present during all tests. Final acceptance by the E. & C. Service will be given within ten days after completion and final tests if the installation is found to comply in all respects with the specification and plan.

A Guarantee:

The contractor shall furnish a guarantee covering all labour and material for a period of one year from the date of final acceptance of his work and shall agree to repair and make good, at his expense, any and all defects which may develop in his work during that time, if, in the judgment of the E. & C. Service such defects arise from defective workmanship or materials.

Electrical Current:

2300V 60 cycle three phase current will be obtained from the local power company at a point about 600' distant from the main school building, where a pole top disconnect switch is to be installed.

Metering:

The contractor is to install the following meters in conjunction with the B.C. Electric Power Company:-

Main School Building, Church, Manual Training Building and Cannery.

The metering of the single phase three wire lighting power and the three phase motor power for the above-mentioned buildings shall be accomplished by two meters, located in the main school building.

Farm Buildings

The metering of the single phase three wire lighting power supplying these buildings shall be accomplished by a meter connected to the secondary side of a pole mounted transformer supplying these buildings.

Staff Residences

The five residences shall be fitted with individual outside mounted meters.

Outside Distributing System:

/General:

General:

The contractor is to erect and install an outside primary distribution system with a secondary network, and service wires as shown on Plate I of Plan 106. The British Columbia Electric Power Company will supply the transformers and make the necessary installation and connections for the transformers at the poles upon which they are mounted. This entire system is to be installed in a manner to conform with the rules for the construction of overhead electric lines in British Columbia, passed by Order in Council under the "Electrical Energy Inspection Act" 1922.

Poles:

The poles are to be winter cut and conform to Class "B" specifications of the B.C. Electric Power Company's Code. Each pole must be given a good brush coat of creosote on the butt, for a distance of seven feet from that end.

Poles supporting both primary and secondary feeders are to have a minimum length of 40 feet and those supporting the secondary feeders alone are to be not shorter than 35 feet.

Setting of Poles:

In normal firm ground the poles must be set to a depth of 6 feet and 5½ feet respectively according to their length.

In digging and excavating pole holes, as little material as possible in excess of that necessary to admit and erect the pole is to be removed or disturbed. The diameter of holes dug in earth must be the same from top to bottom and sufficiently large to permit the use of a tamping bar on all sides of the pole.

Poles are to be set to stand perpendicular when the line is completed so that no pole is more than 2" out of line with the others. Poles at line terminals, angles and other points of abnormal stress are to be given a slight rake against the direction of the stress. Poles with a bend are to be placed with the bend in the direction of the line.

In straight runs alternate poles are to be set facing in opposite directions. Poles next to corner poles are to face the corner. Poles next to end poles are to face the end of the line.

After a pole is in position, only one shovel is to be used in filling the hole, while three tampers continually tamp until the hole is completely filled. When available, small size rocks should be used in the filling.

Guying:

Guys are to be installed wherever the wires tend to pull a pole or cross-arm out of place and when installed are to take up all of the strain so that the pole acts merely as a strut. The only exception to this rule is to be for angles up to ten degrees, when poles which carry not more than 4 No. 6 wires or 3 No. 4 wires are to be raked and the ordinary straight line construction used.

Line Grading:

The length of the poles, if possible, is to be so proportioned to the contour of the ground that the difference between the level of the wires on adjacent poles shall not change by more than 10 feet.

Ground Clearance of Secondary Distribution Lines:

These lines shall have a minimum clearance of 20 feet to ground at the poles and no less than 18 feet to ground at any point over their span lengths.

/Racks:

Racks:

All secondary distribution and service connection wires are to be supported on the poles by racks to give 8" spacing between conductors. The racks should be attached to the poles by means of a 5/8" through bolt at the top and a ½" lag screw at the bottom as long as no service feeders are attached, in which case 5/8" through bolts must be used at both points of attachment.

Primary Distribution Lines:

The existing supply wire is to be utilized for the primary distribution lines which will be carried on crossarms.

Secondary Distribution Lines:

These lines are to be #4 Medium Hard Drawn Double Braided Weather Proof Wire.

Transformers:

The transformers are to be of capacities as shown on Plate 1. Each transformer is to be protected by two expulsion cutouts fused appropriately adequately grounded, and mounted on the poles located on the above-mentioned drawing.

Clearance to Buildings:

The distribution lines are to be not less than five feet in a horizontal direction or eight feet in a vertical direction from any window, balcony or other part of any building.

Service Conductors:

The minimum size for the service conductors to the homes or other buildings is to be #6 Double Braided Weather Proof wire supported at the structure at a distance of not less than 15 feet from the ground level or sidewalk by end connectors.

Service Drops:

The service drops in all the outlying buildings, other than the Manual Training Building are to be No. 8 Thermoplastic-covered single braided wire carried in a ¾" galvanized conduit. Those in the Manual Training Building and Church are to be installed as shown on the plans. The service entrance cables are to be equipped with an approved rain type service head. Drip loops are to be formed on each conductor and a minimum of 30" left for splicing.

Vancouver, B. C.,
1 June 1950

Memorandum to Mr. Arneil:

Re: Modification and Renewal to the Electrical System - St. George's Indian Residential School, Lytton, B. C.

Introduction

In accordance with your instructions, I visited St. George's Indian Residential School on November 2nd, 1949, to inspect the electrical system at the school and obtain sufficient information to draw up plans to improve the lighting in the class rooms and also bring the entire system up to date to meet the requirements of the B. C. Electrical Code.

General Existing Conditions

(1) The illumination in the class rooms, sewing room, manual training shop, kitchen, etc., was entirely inadequate.
(2) The electrical distribution system to the main school and adjacent buildings is in poor condition, since the poles are badly decayed, and should be replaced.
(3) The service entrance panels in all buildings are ungrounded.
(4) The wire and conduit runs in the farm buildings in most cases are partially pulled down and many of the existing fixtures broken.
(5) The wiring runs in the staff homes are in poor condition, the fixtures inadequate and not installed in accordance with B.C. Code requirements.
(6) The staff rooms in the main school building have no utility outlets. At present, drop cords in most cases have been connected to the ceiling fixtures in a precarious manner.

In general, the entire system is in poor condition and requires many modifications. With this in mind, the attached specification and plans have been drawn up to bring the installation up to first class shape.

Proposed Alterations

Main Supply Distribution System

To be rebuilt and modified as shown on the attached plans.

Main School Block

(1) New light and power service boxes and installations to be installed to feed the main school building, manual training building, and Church.

(2) New multi-breaker panels to be installed to feed all circuits.

(3) Fluorescent lights to be installed in class rooms, sewing room, staff dining room, scullery and kitchen.

(4) Utility receptacles to be installed in the staff quarters.

(5) Domestic purpose receptacles to be installed in laundry and sewing room.

(6) Any existing fixtures in disrepair to be repaired or replaced.

(7) Wiring is to be run in ½" conduit using #14 gauge Thermoplastic wire except as shown on plans.

(8) Fire escape and exit lighting, and fire alarm system shall be installed as hereinafter specified.

(9) The entire system to be modified to conform with the B.C. Electrical Code requirements.

Manual Training Building

(1) New light and power service box assemblies to be installed.

(2) New multi-breaker panels to be installed to feed all circuits.

(3) Fluorescent lights to be installed in the class room and manual training room.

(4) Utility outlets and motor outlets to be installed as shown on plan. All permanent motors to be solidly connected.

(5) Any existing fixtures in disrepair to be repaired or replaced.

(6) Single phase circuits to be run with #14 ga. wire except as shown on plans.

(7) The entire system to be modified to conform to the B.C. Electrical Code requirements.

Church Building

(1) Multi-breaker panel to be installed to feed all circuits.

(2) Lamp holders to be replaced in basement outlets.

(3) Any existing fixtures in disrepair to be repaired or replaced.

Farm Buildings and Teachers' Residences

(1) Each of the above-mentioned group of buildings is to be provided with a new service entrance installation with multibreaker panel.

The following is a list of the buildings with a general resume of the work required to bring their electrical installations to satisfactory standards.

For full details see appropriate plans attached to this report.

Cannery

To be completely rewired in conduit with water-tight fixtures. Juicer to be wired with R.W. or T.W. wire.

Blacksmith Shop

To be almost completely rewired in conduit.

Root House

To be completely rewired in conduit using R.W. or T.W. wire.

Dairy Building

(1) Service entrance and multi-breaker panel to be installed.

(2) Water-tight switches and one water-tight receptacle to be installed. R.W. or T.W. wire to be used.

(3) Water-tight lamp holders to be repaired or replaced.

/Dairy Office

Dairy Office

To be completely re-wired in non-metallic sheathed cable.

Pig Barn

To be completely wired in conduit with water-tight fittings, and R.W. or T.W. wire.

Granery

To be completely re-wired:

Horse Barn

(1) Service entrance and multibreaker panel to be installed.

(2) Water-tight switches and light fixtures to be installed. R.W. or T.W. wire to be used.

Dairy Barn

(1) Service entrance and multi-breaker panel to be installed.

(2) Water-tight fixtures installed throughout, and R.W. or T.W. wire to be used.

(3) Existing conduit requires additional supporting brackets.

(4) Compressor motor requires connecting.

No. 1 Chicken House

(1) Service entrance and multibreaker panel to be installed.

(2) Switches and lamp holders to be overhauled.

No. 2 Chicken House

To be completely re-wired in non-metallic sheathed cable.

Staff Residences (4)

(1) Service entrance and multibreaker panels to be installed.

(2) Utility outlets to be installed and wired with #12 ga. wire.

(3) Most of the homes will have to be considered as being entirely re-wired since the fixtures, switches and connections are in such poor condition that it will take as much time to modify the electrical system in these homes as it would to completely re-wire them.

METERING

Main School Building, Church, Manual Training Building, and Cannery

The metering of the single phase three-wire lighting power and the three phase motor power for the above-mentioned buildings will be accomplished by two meters, one for each supply.

Farm Buildings

The meterings of the single phase three-wire lighting power supplying these buildings will be accomplished by a meter connected to the secondary side of a pole mounted transformer supplying these buildings.

Staff Residences

Staff Residences

Each residence will be fitted with an outside mounted meter.

Rates

The Residential School is presently supplied with electric power by the Lytton Electric Company which will be taken over within two months by the B.C. Electric Power Company.

The B.C. Electric Power Company has not definitely set its rates for diesel generated electric power in this territory. However, tentatively it is expected the rates charged to the school will be approximately as given below:-

Lighting and 230V Single Phase Power - Commercial Rate

0 - 1000 K.W. @ 6.5¢ per K.W. Hr.
1000 - 2000 K.W. @ 4.5¢ per K.W. Hr.
2000 - @ 2¢ per K.W. Hr.

Three Phase 220V Power

0 - 300 K.W. @ 5¢ per K.W. Hr.
300 - 0 @ 2¢ per K.W. Hr.

Domestic Rate for Homes with Individual Meters

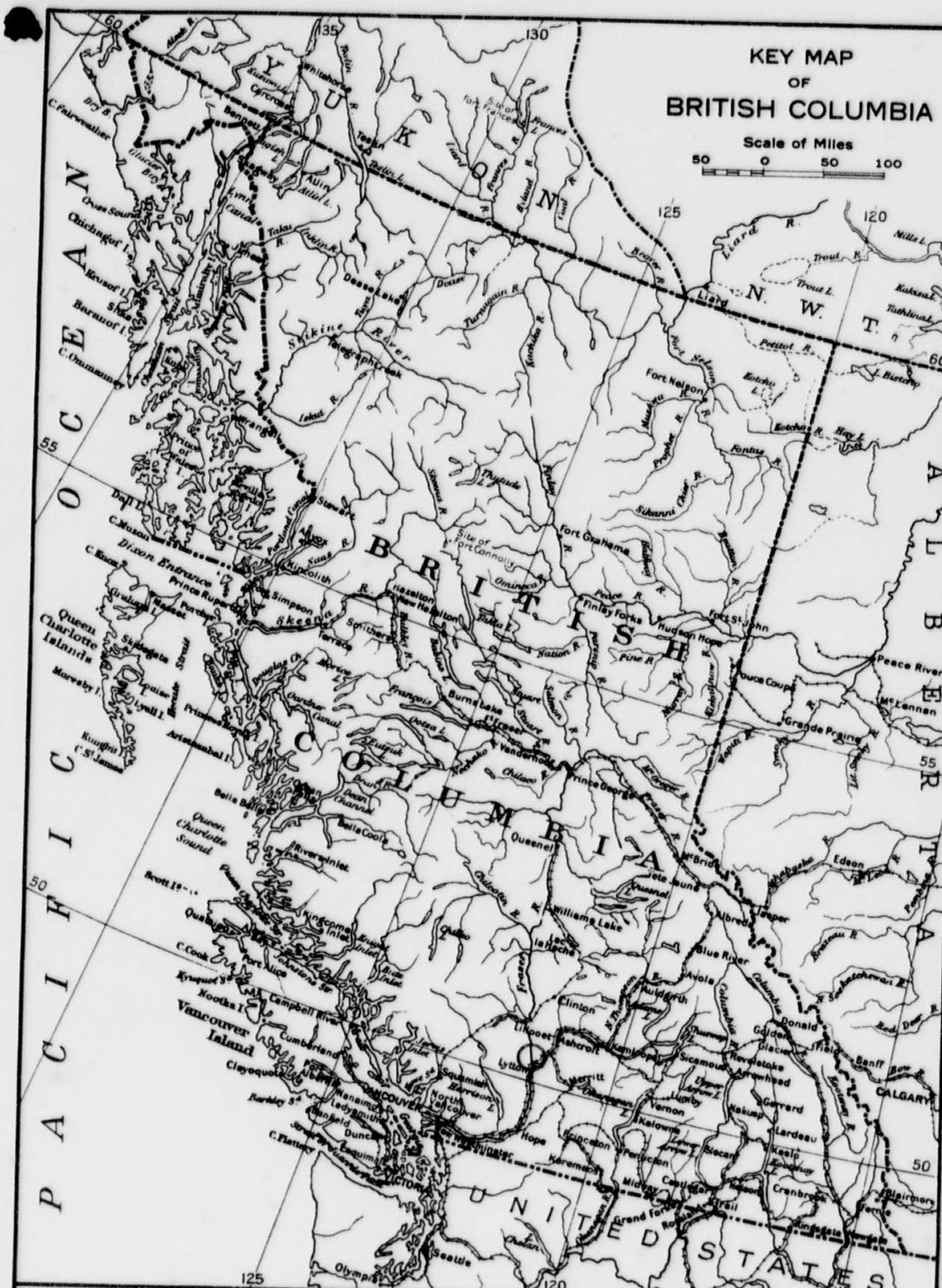
0 - 30 @ 6.5¢ per K.W. Hr.
30 - 230 @ 2¢ per K.W. Hr.

Recommendations

It is recommended that the work suggested above be carried out this summer as outlined in the accompanying plans and specifications to eliminate the fire hazard which presently exists and provide the class rooms and staff accommodation, etc., with modern light and power facilities when the school re-opens in the fall term. To initiate this project, tenders should be obtained in the near future from several reliable electrical contractors.

Thomas A.G. Beeching

Thomas A.G. Beeching, B.A.Sc., P.Eng.



DEPARTMENT OF CITIZENSHIP & IMMIGRATION - INDIAN AFFAIRS BRANCH
VANCOUVER, B.C.

Surveys Plan Checked Traced Approved	Location of St. George's Residential School Lytton, B. C. Lytton Agency	Report No. 1127 Corres. file 24708-22B Date June 1/50 Scale PLAN No.

Indian Affairs (RG 10 Volume 6465, file 888-5, part 8)

POOR-COPY

DEPARTMENT OF CITIZENSHIP AND IMMIGRATION
INDIAN AFFAIRS BRANCH

M E M O R A N D U M

re

Modification and Renewal to the Electrical System

St. George's Indian Residential School

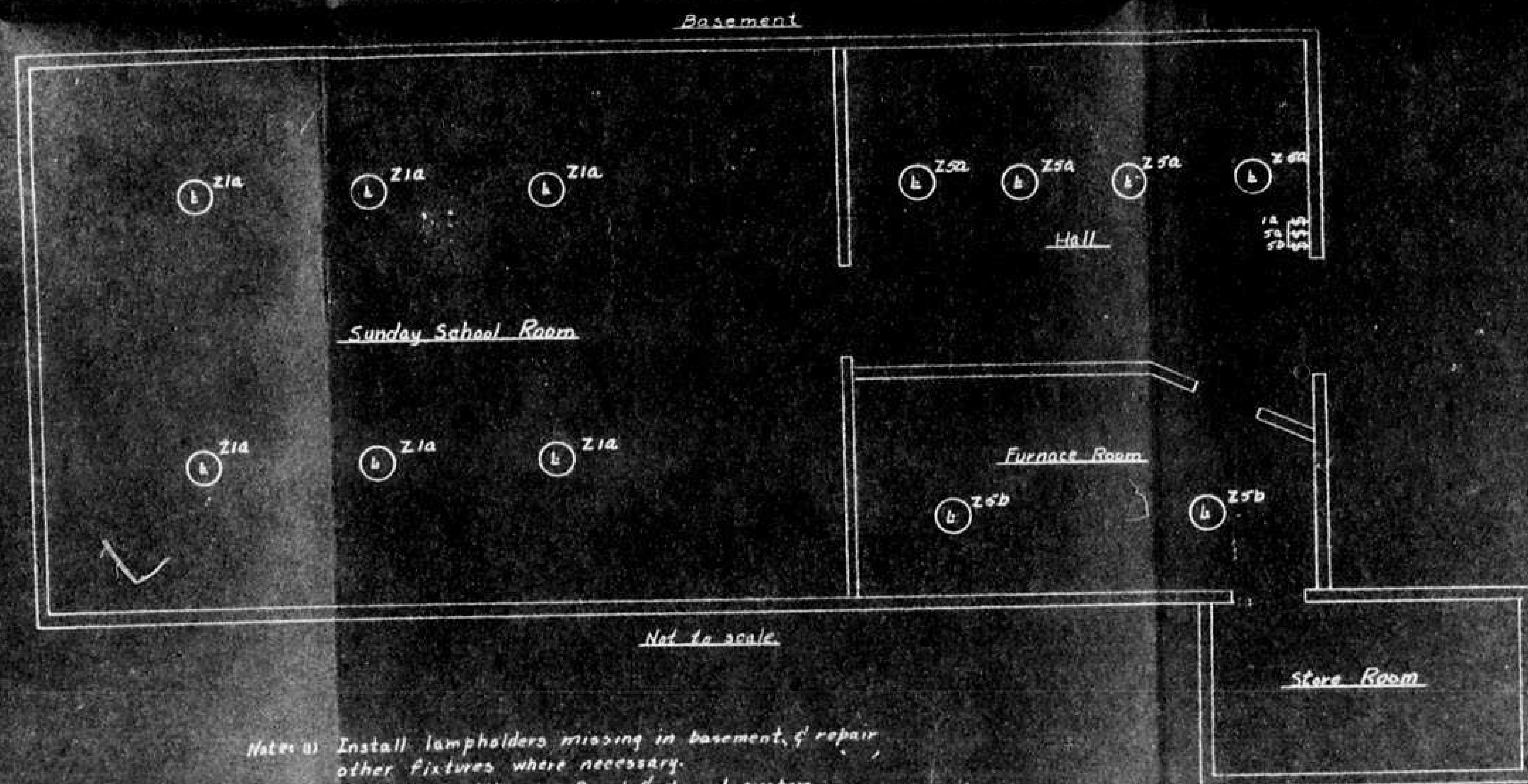
Lytton, B. C.

by

Thomas A. G. Beeching, B.A.Sc.

W. S. Arneil, Esq.,
Indian Commissioner for B.C.,
Vancouver, B. C.

Vancouver, B. C.,
1 June 1950



Not to scale

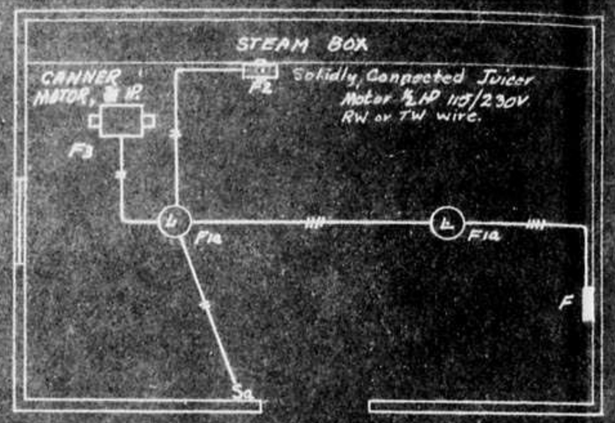
Note: (1) Install lampholders missing in basement, & repair other fixtures where necessary.
(2) Install Multibreaker Panel & ground system
(3) All wiring presently in conduit. Conduit runs were not traced.
(4) For Riser Diagram See Plate VII

DEPARTMENT OF CITIZENSHIP & IMMIGRATION - INDIAN AFFAIRS BRANCH
VANCOUVER, B.C.

Surveys ______	PROPOSED MODIFICATION & RENEWAL of ELECTRICAL SYSTEM ST. GEORGE'S INDIAN RESIDENTIAL SCHOOL LYTTON AGENCY	Report No. 1127
Plan I.A.G. Beeching		Corres. file 24708-22B
Checked [illegible]		Date June 1, 1950
Traced L.M. Williams		Scale Not to Scale
Approved [illegible]		PLAN No. 106

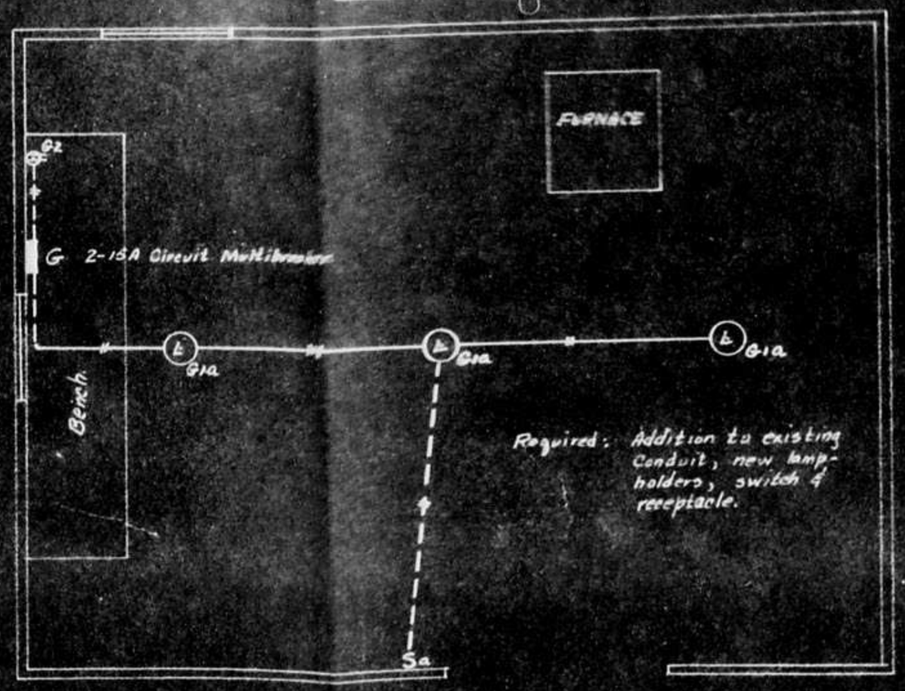
PLATE IX of IX

CANNERY

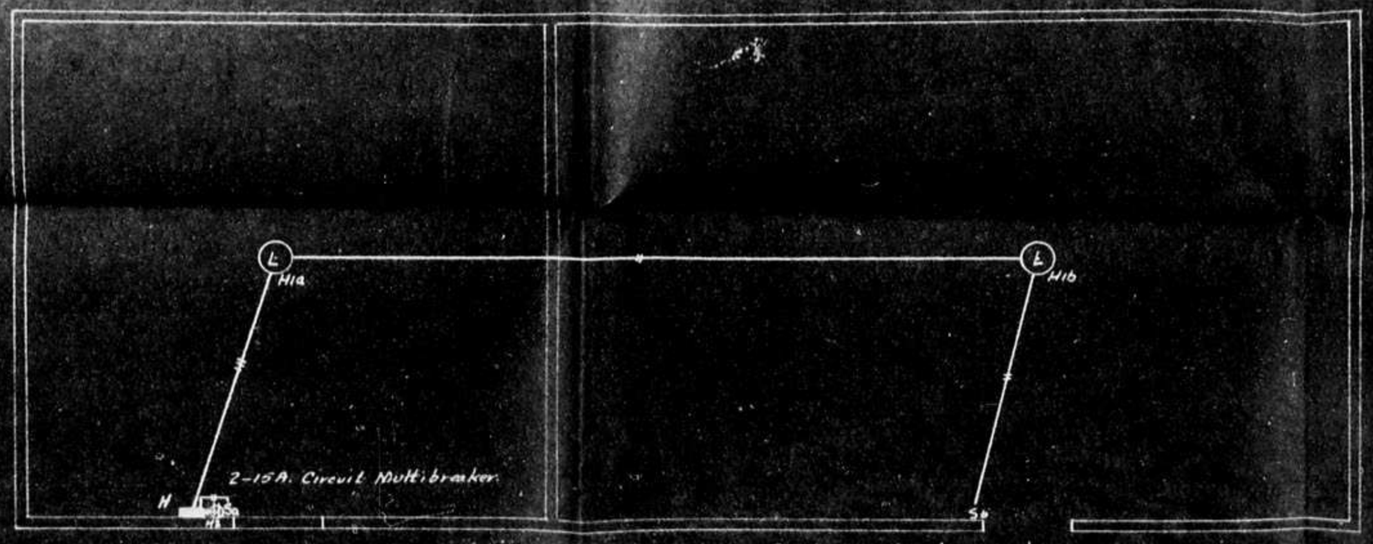


Building to be completely rewired under Section 54 B.C. Electrical Code.

BLACKSMITH SHOP

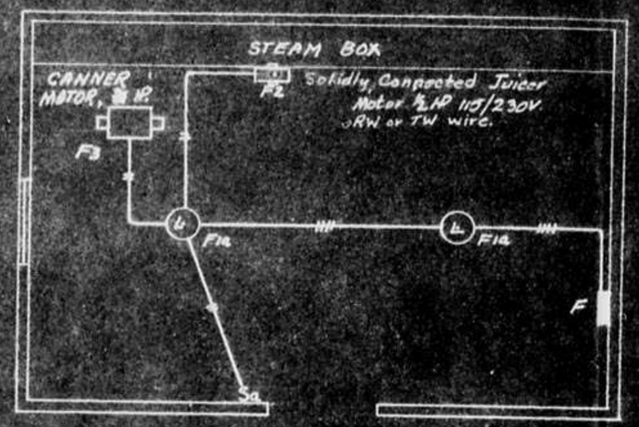


ROOT HOUSE



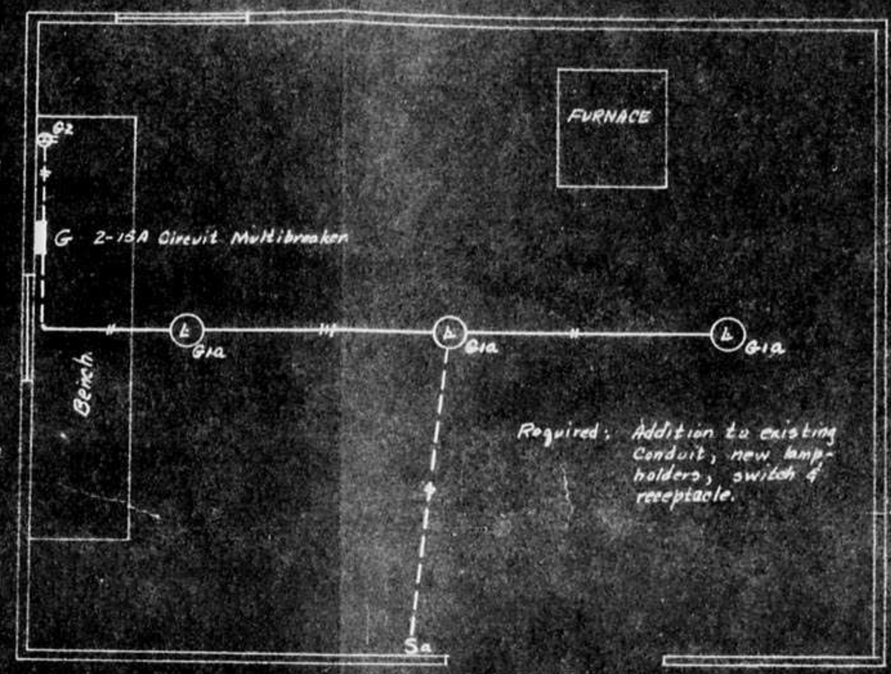
Building to be rewired in Conduit with waterlight fittings. R.W. or T.W. wire to be used.

CANNERY



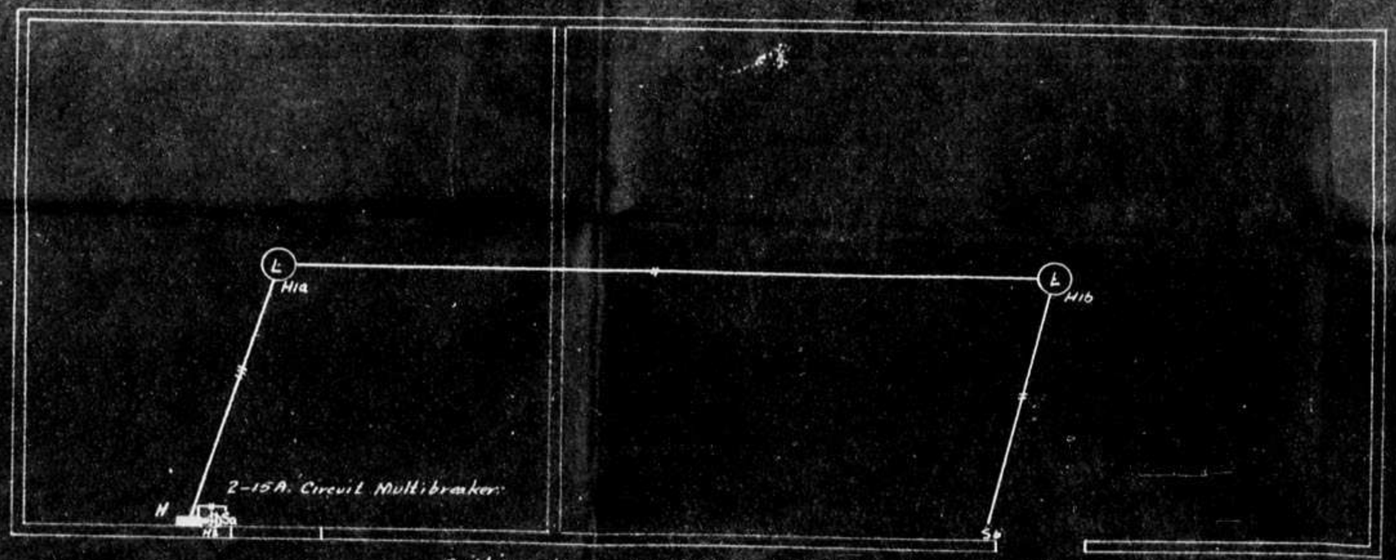
Building to be completely rewired under Section 34 B.C. Electrical Code.

BLACKSMITH SHOP

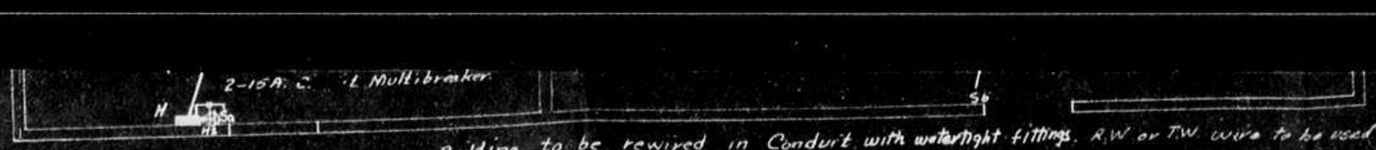


1 of

ROOT HOUSE

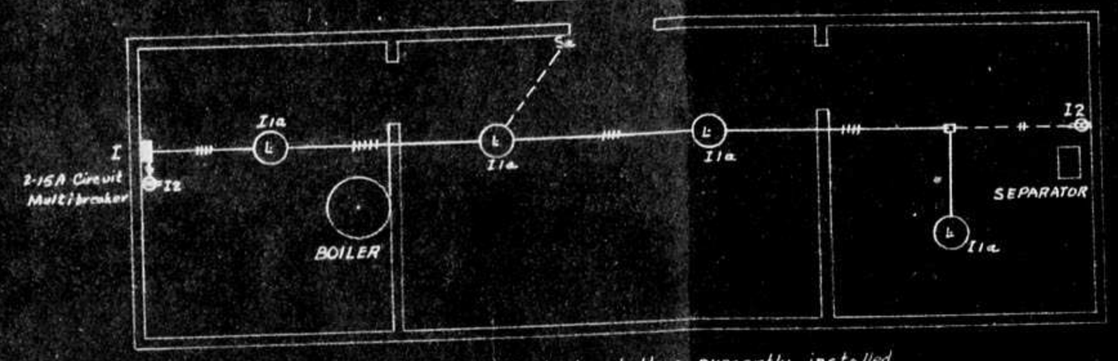


Building to be rewired in Conduit with waterright fittings. R.W or T.W. wire to be used



Building to be rewired in Conduit with watertight fittings. R.W or T.W wire to be used

DAIRY BLDG.

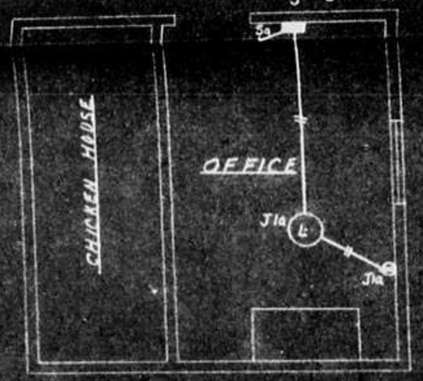


Receptacles to be weatherproof type with approved grounding terminal. Switches to be watertight.

½" Conduit and watertight lampholders presently installed but new glass covers required.

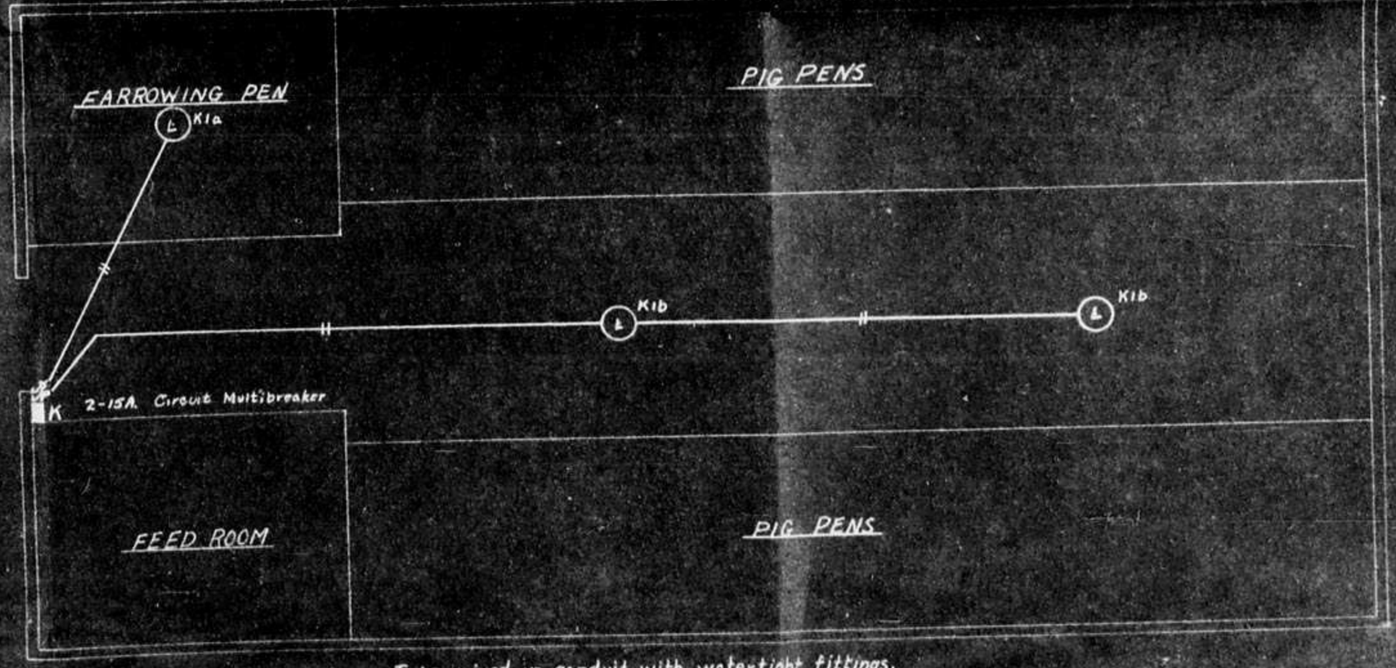
2 of

DAIRY OFFICE



To be rewired with non-metallic sheathed cable.

PIG BARN



To be wired in conduit with watertight fittings.