

CONSTRUCTION NORTH

TRUE NORTH

No.	Date	Description
3	07.27.16	ISSUED FOR TENDER/PERMIT
2	06.30.16	ISSUED FOR FINAL REVIEW
1	06.01.16	ISSUED FOR CLIENT REVIEW
REVISIONS		PLOT SCALE: 1=1

CONTRACTOR WILL CHECK AND VERIFY ALL DIMENSIONS AND CHECK ALL JOB CONDITIONS ON THE JOB BEFORE PROCEEDING WITH THE WORK.

STAMP

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Toronto
CITY OF TORONTO

PROJECT

FRED HAMILTON PARK FIELD HOUSE

LOCATION

155 ROXTON ROAD
TORONTO, ONTARIO

SITE PLAN

SCALE

AS NOTED

DRAWN BY

B.L.

CHECKED BY

H.X.

DATE

JUNE, 2016

CAD FILE

5074A

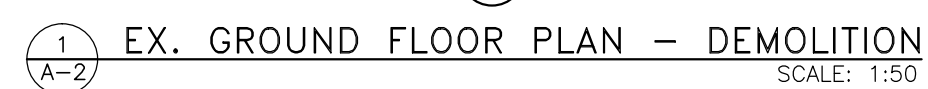
JOB No.

5074

DRAWING NO.

A-1

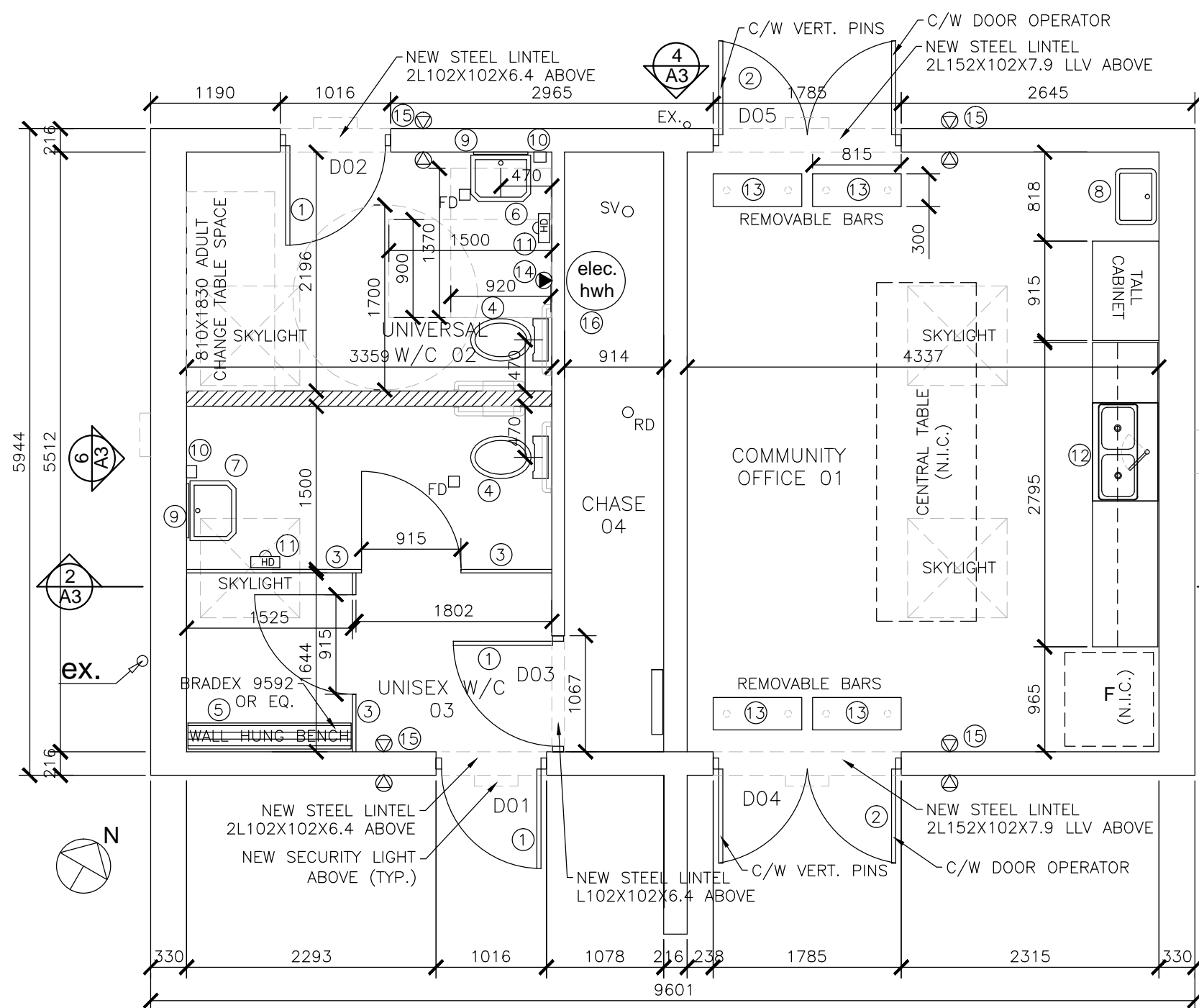
OF 4



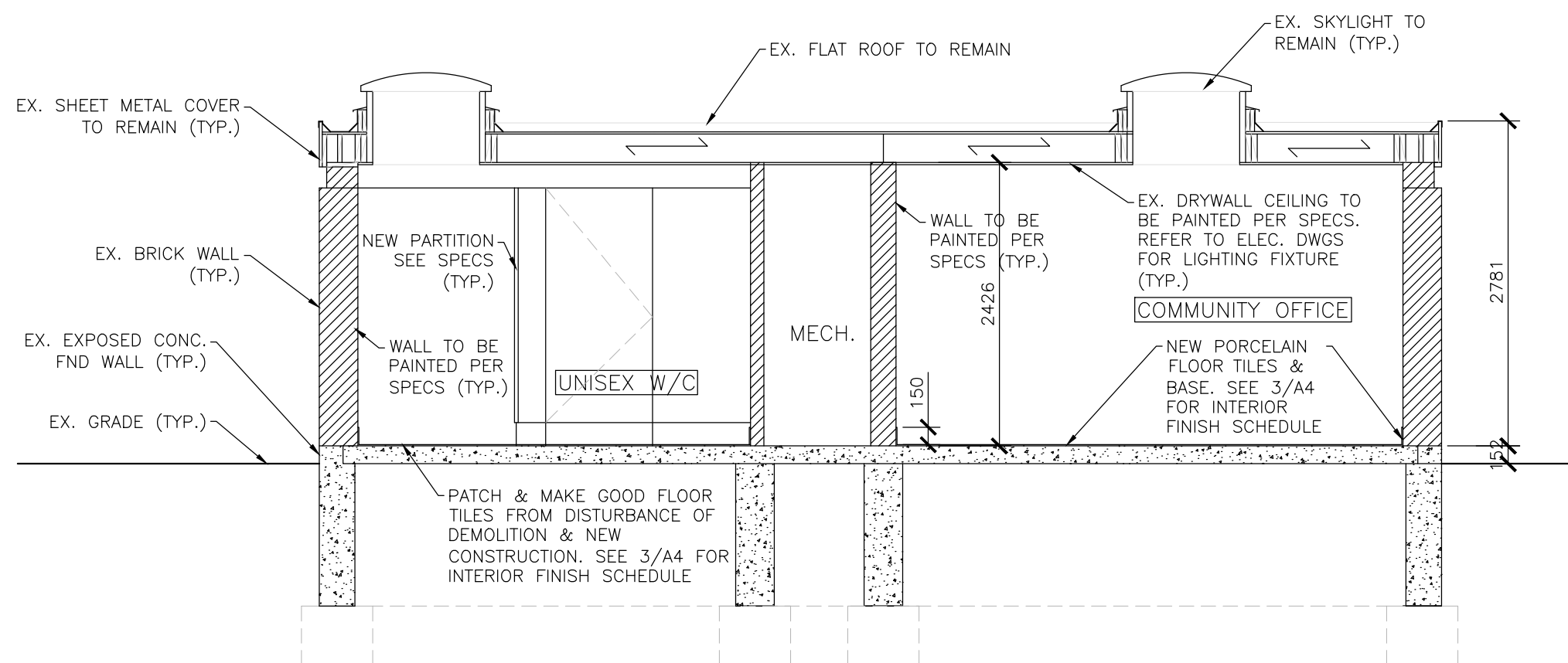
2 EX. BUILDING SECTION
A-2 SCALE: 1:50



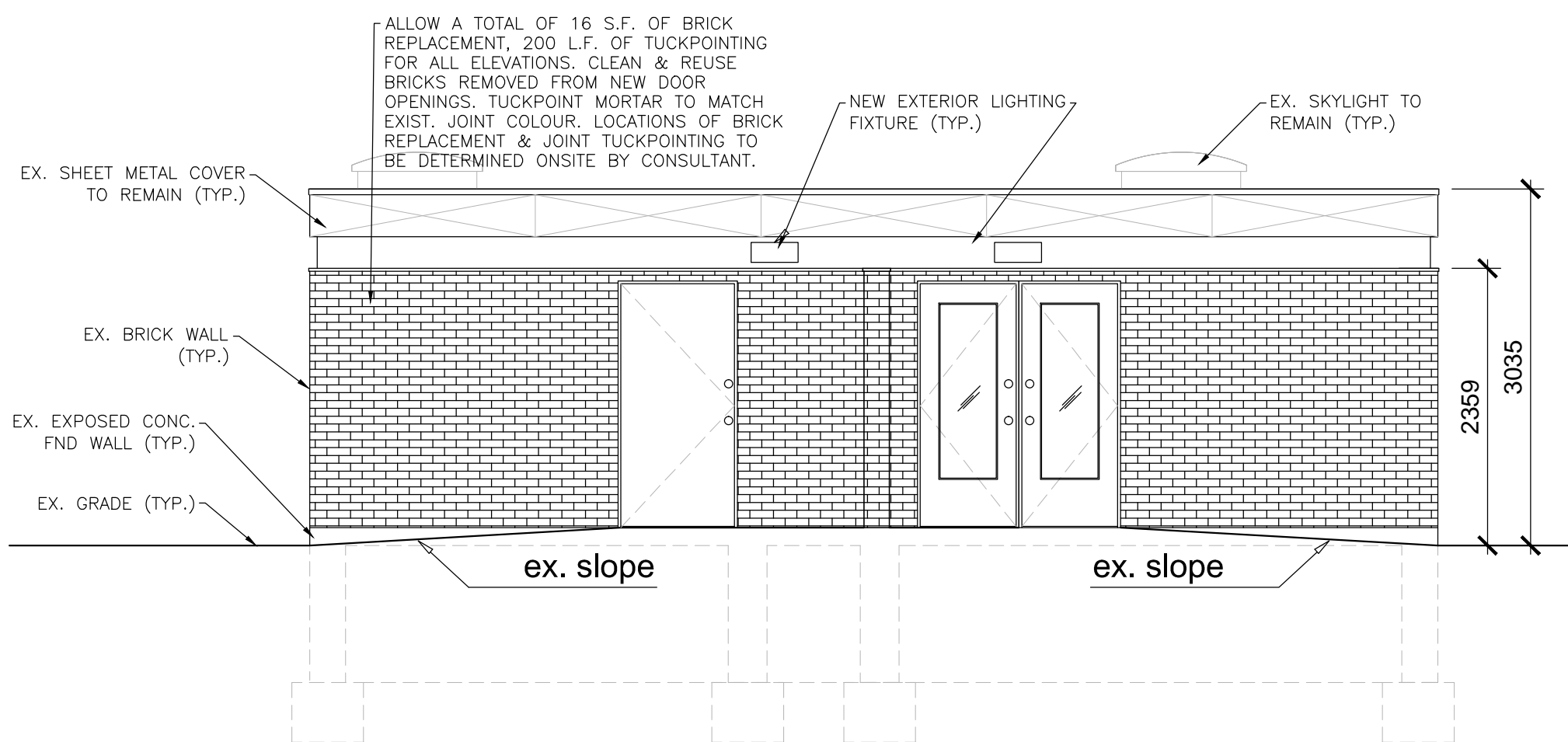
SCALE	AS NOTED	JOB No.	5074
DRAWN BY	B.L		
CHECKED BY	H.X.	DRAWING NO.	
DATE	JUNE, 2016	A-2	OF 4
CAD FILE	5074A		



1 PROPOSED GROUND FLOOR PLAN
SCALE: 1:50



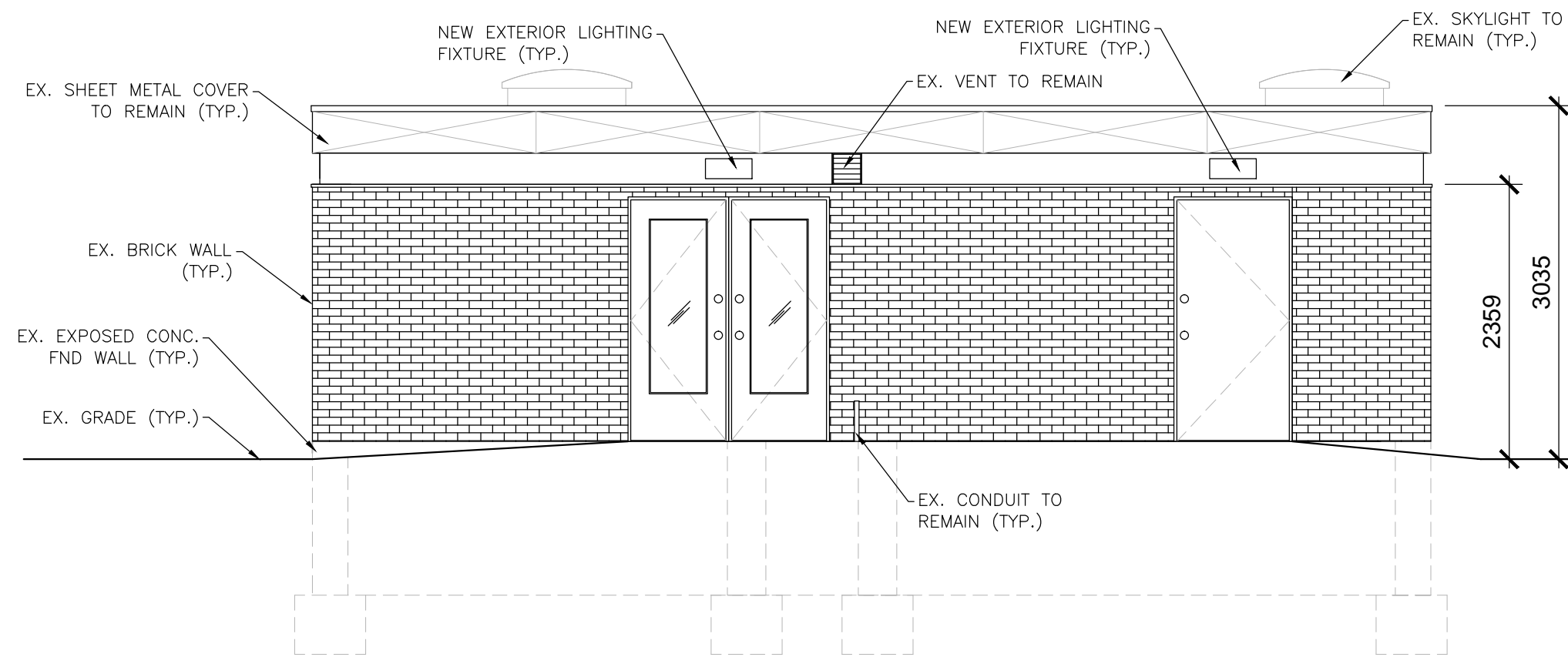
2 PROPOSED BUILDING SECTION
SCALE: 1:50



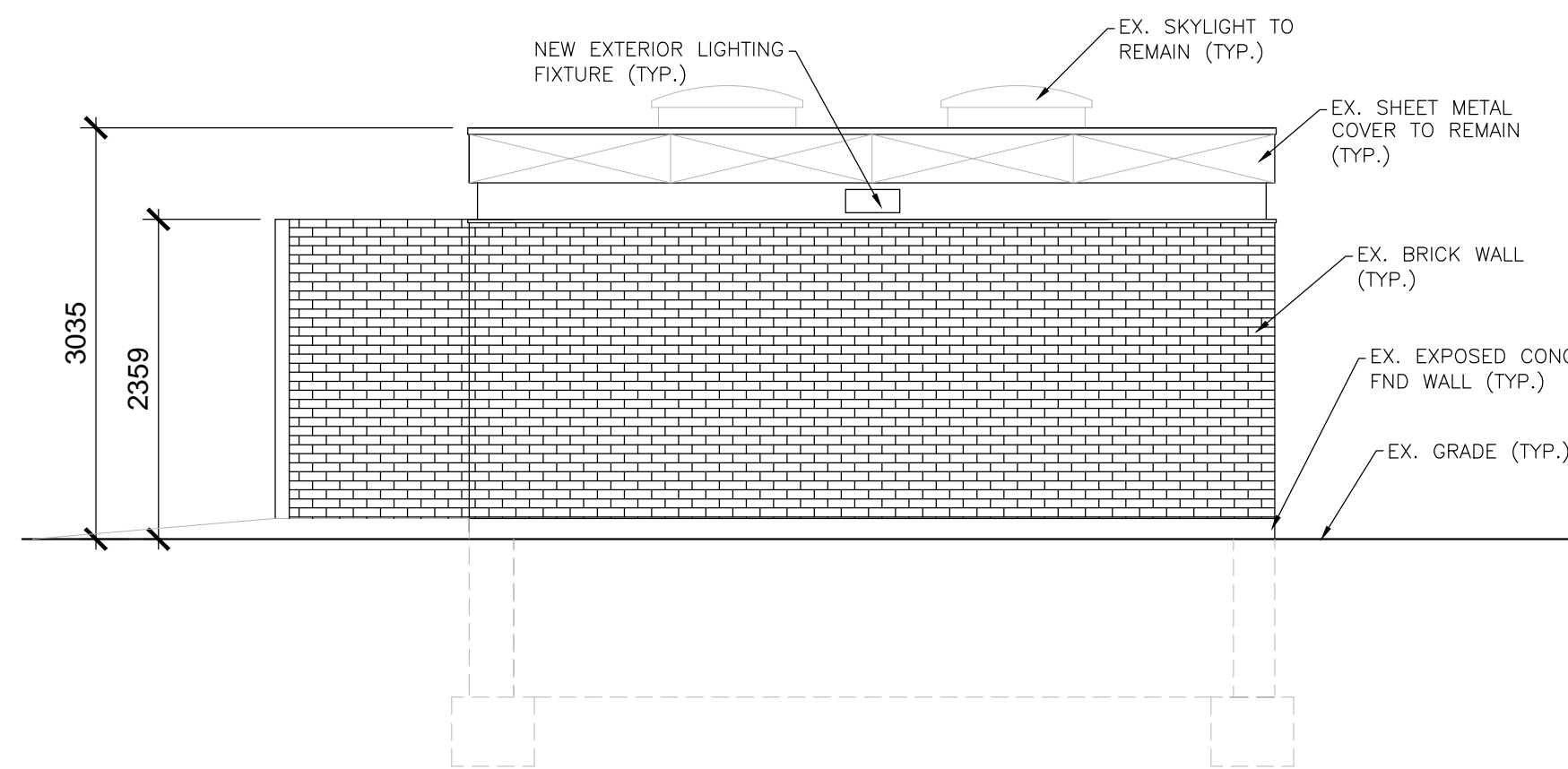
3 PROPOSED SOUTH ELEVATION
SCALE: 1:50

DESIGN NOTES: (TO BE REVISED)

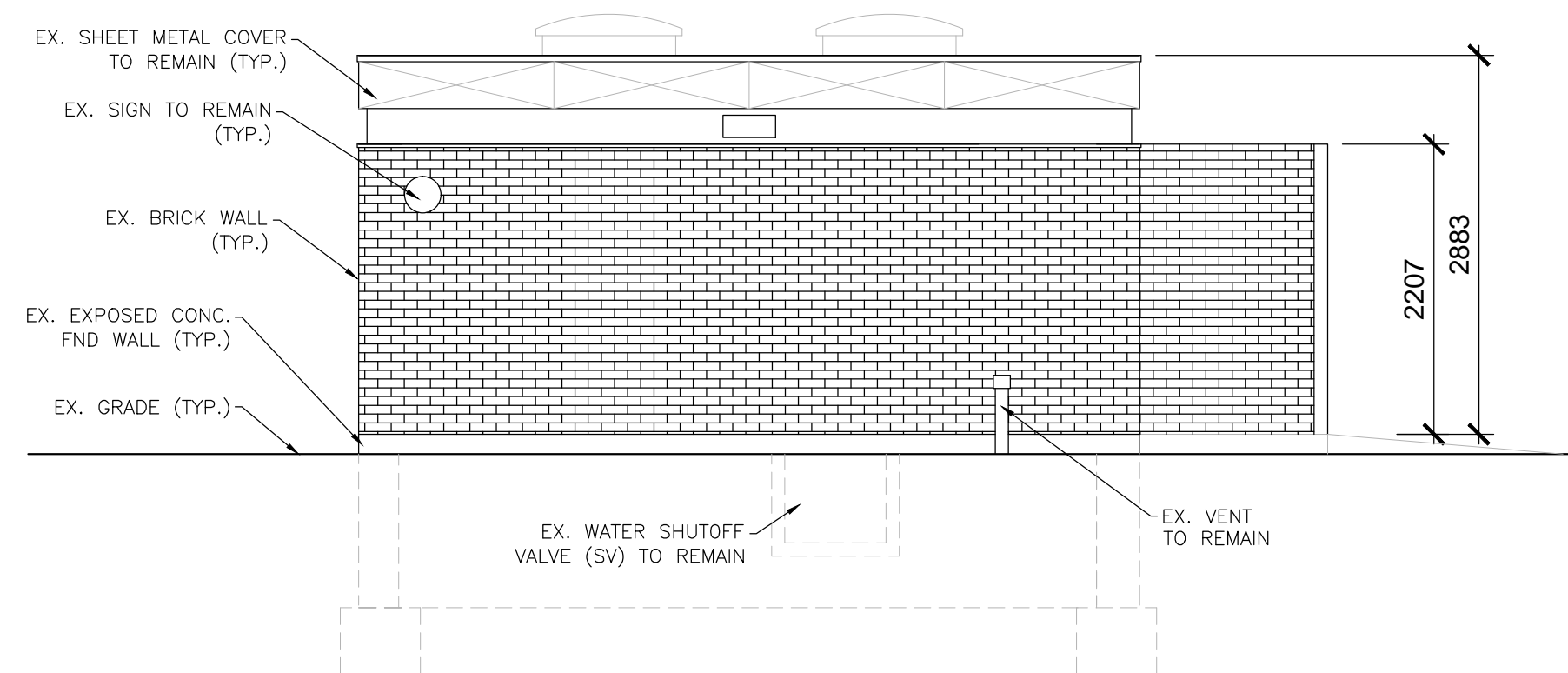
- NEW HOLLOW METAL DOOR AND FRAME. REFER TO 2/A4 FOR DETAIL.
- NEW HOLLOW METAL DOOR AND FRAME, C/W LAMINATED SAFETY GLASS LITE. REFER TO 2/A4 FOR DETAIL.
- NEW HIGH DENSITY POLYETHYLENE (HDPE) SOLID PLASTIC TOILET/SCREEN PARTITIONS (INCLUDING LOCK HARDWARE, COAT HOOKS, AND MOUNTING HARDWARE) TO MATCH EXISTING MOUNTING DETAILS. PARTITION TO BE HOMOGENEOUS COLOUR, 225 MOCHA AS MANUFACTURED BY HADRIAN OR EQ. THICKNESS TO BE 25mm. C/W EXTRUDED ALUMINUM HEAT SINK STRIP ATTACHED TO THE LOWER EDGE WITH COLOUR TO MATCH PARTITIONS. SUBMIT SHOP DRAWINGS TO CONSULTANT FOR APPROVAL BEFORE INSTALLATION.
- NEW BARRIER-FREE TOILET. REFER TO MECHANICAL DRAWINGS AND SPECIFICATIONS FOR PLUMBING NOTES AND PRODUCT SPECIFICATIONS.
- NEW WALL HUNG CHANGE SEAT BRADEX 9592 OR EQ. SUBMIT SHOP DWGS FOR CONSULTANT FOR REVIEW.
- NEW BARRIER-FREE WALL MOUNTED LAVATORY. REFER TO MECHANICAL DRAWINGS FOR PLUMBING NOTES AND PRODUCT SPECIFICATIONS.
- RECLAIMED WALL MOUNTED LAVATORY.
- EXISTING MOP SINK TO REMAIN.
- NEW MIRROR. REFER TO DRAWING 1/A4 FOR DETAIL.
- NEW SOAP DISPENSER. REFER TO 1/A4 FOR DETAIL.
- NEW HAND DRYER. REFER TO 1/A4 FOR DETAIL.
- NEW DOUBLE SINK. REFER TO MECHANICAL DRAWINGS FOR PRODUCT SPECIFICATION.
- PROVIDE NEW REMOVABLE SERVICE BAR C/W SOLID HARD WOOD COUNTERTOP, METAL POSTS, FLOOR LEVEL BASE SLEEVES EMBEDDED IN THE FLOOR SLAB, AND SCREWED SLEEVE COVERS (TO PREVENT TRIP HAZARD WHEN THE SERVICE BAR IS REMOVED). THE SERVICE BAR SHALL BE PAINTED WITH ONE COAT OF PRIMER AND TWO COATS OF FINISH AS PER OWNER'S REQUIREMENT. REFER TO PICTURE 4/A4 FOR A SAMPLE PRODUCT FOR SIMILAR CONSTRUCTION. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR CONSULTANT TO REVIEW.
- NEW EMERGENCY CALL BUTTON.
- NEW DOOR OPERATOR.
- NEW 5 GAL ELEC. WATER HEATER. SEE MECH. DWGS FOR PRODUCT REQUIREMENT.



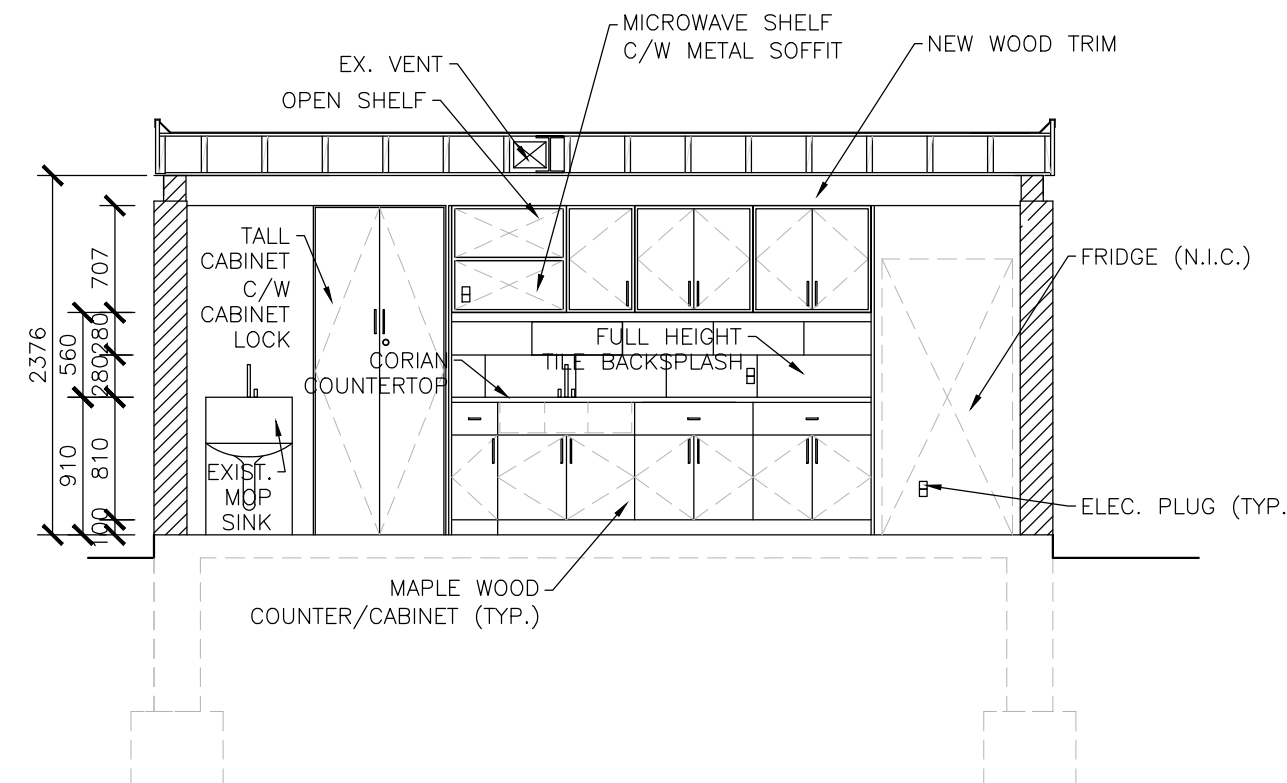
4 PROPOSED NORTH ELEVATION
SCALE: 1:50



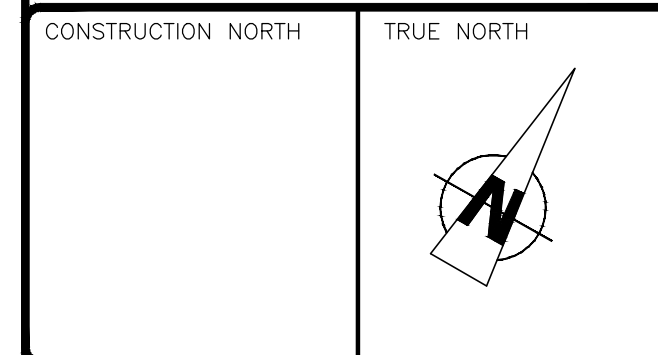
5 PROPOSED EAST ELEVATION
SCALE: 1:50



6 PROPOSED WEST ELEVATION
SCALE: 1:50

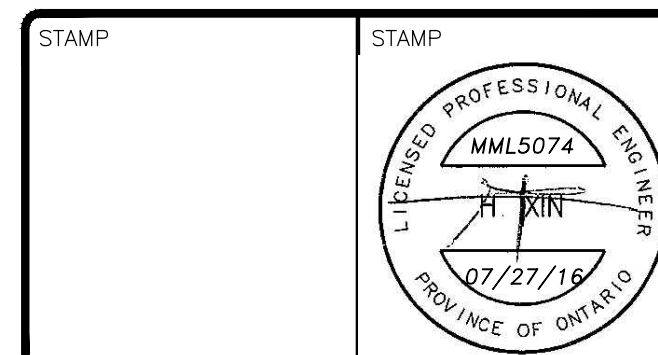


7 PROPOSED MILLWORK ELEVATION
SCALE: 1:50



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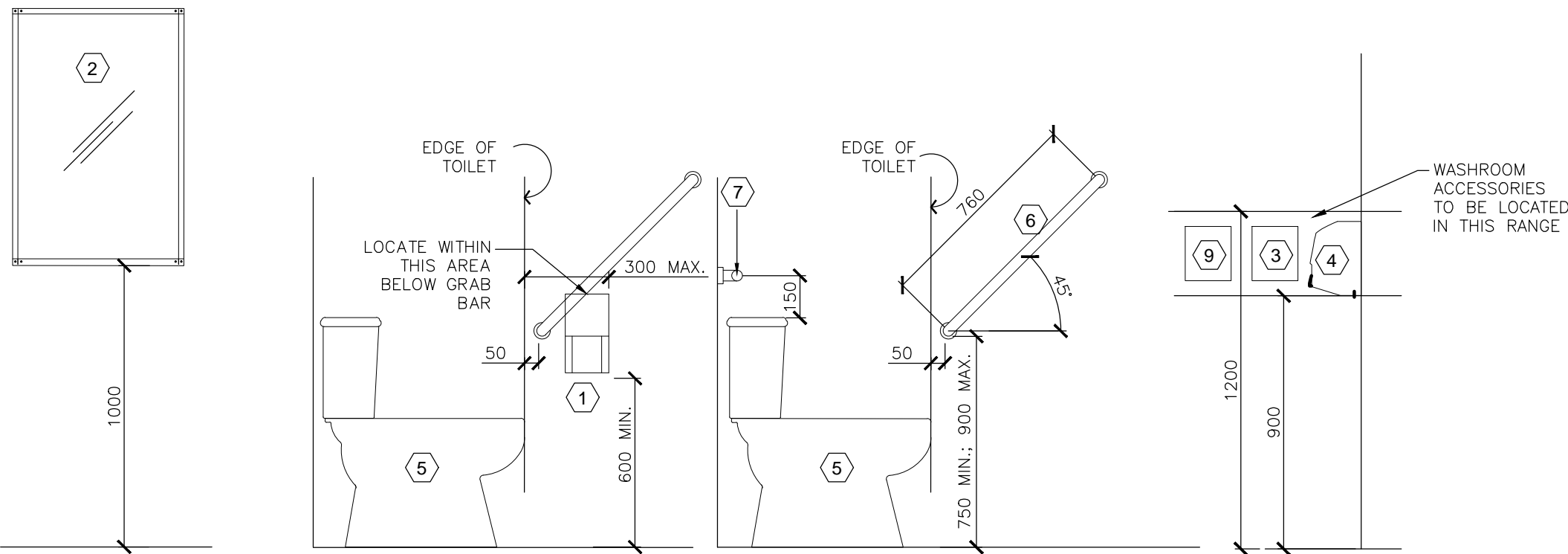
PROJECT
FRED HAMILTON PARK FIELD HOUSE
LOCATION
155 ROXTON ROAD
TORONTO, ONTARIO

PROPOSED FLOOR PLAN,
SECTION, ELEVATIONS AND
DESIGN NOTES

SCALE AS NOTED	JOB No. 5074
DRAWN BY B.L.	DRAWING NO. A-3
CHECKED BY H.X.	OF 4
DATE JUNE, 2016	
CAD FILE 5074A	

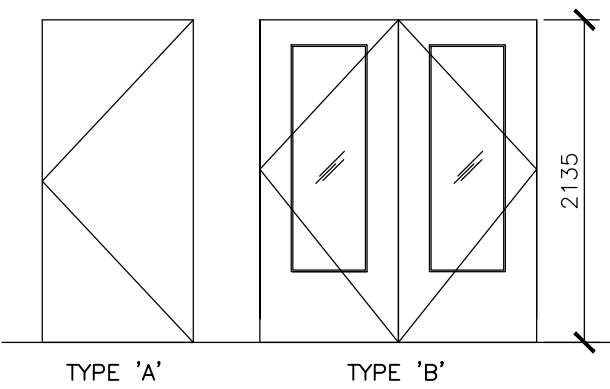
GENERAL NOTES:

01. THE DRAWINGS AND SPECIFICATIONS SHALL BE READ IN CONJUNCTION WITH OTHER ARCHITECTURAL DRAWINGS, CONTRACT REQUIREMENTS, THE LEGEND AND SPECIFICATIONS OF THE DRAWINGS. MAXIMUM CONDITIONS WILL GOVERN.
02. ACCURATE DIMENSIONS FOR THE WORK MUST BE OBTAINED FROM ACTUAL MEASUREMENT ON SITE.
03. VERIFY ALL CONDITIONS AND DIMENSIONS DURING THE MANDATORY SITE VISIT, INCLUDING LOCATIONS OF EXISTING CAPPED SERVICES, AND ALLOW FOR ANY REROUTING OF EXISTING AND/OR NEW SERVICES AND EQUIPMENT IN TENDER PRICE. FAILURE TO DO SO SHALL NOT RELIEVE THE CONTRACTOR FROM RESPONSIBILITY.
04. REPORT TO THE CONSULTANT ALL AMBIGUITIES (INCLUDING CONSTRUCTION STAGES), DISCREPANCIES, OMISSIONS, ERRORS, DEPARTURES FROM BUILDING BYLAWS AND/OR FROM GOOD PRACTICE PRIOR TO TENDER CLOSING.
05. PROVIDE ALL WORK IN ACCORDANCE WITH THE REQUIREMENTS OF ALL GOVERNING AUTHORITIES, AND LOCAL BY-LAWS.
06. APPLY FOR, OBTAIN AND PAY FOR ALL PERMITS, EXCEPT FOR BUILDING PERMIT, AND INSPECTIONS REQUIRED PRIOR TO COMMENCEMENT OF CONSTRUCTION INCLUDING PROVINCIAL AND FEDERAL SALES TAXES.
07. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE APPROVED SCHEDULE TO MEET THE PROJECT COMPLETION DATE AND ALL SPECIFIED INTERIM SCHEDULES AS PROVIDED BY THE OWNER.
08. COMPLY WITH OWNER'S OVERALL CONSTRUCTION SCHEDULE.
09. MAKE GOOD ALL DAMAGES OR AFFECTED AREA TO ADJACENT WORK, PROVIDE ALL CUTTING, PATCHING, FLASHING WORK AND CLEANUP OF FLOORS, WALLS, CEILINGS, WINDOWS, DOORS, ETC.
10. PROVIDE PROPER SHOP DRAWINGS OF ALL SPECIFIED PRODUCTS AND SUBMIT FOR APPROVAL TO THE CONSULTANT.
11. DURING PROGRESS OF WORK, SUBSTITUTE PRODUCTS WILL ONLY BE CONSIDERED WHEN TENDERED PRODUCTS BECOME UNOBTAINABLE AND WRITTEN PROOF IS SUBMITTED.
12. THE QUALITY AND PERFORMANCE CHARACTERISTICS OF SUBSTITUTE PRODUCTS SHALL BE EQUAL TO THE SPECIFIED PRODUCTS. IMPLEMENTATION OF SUBSTITUTE PRODUCTS IS SUBJECT TO THE REVIEW OF PROPERLY SUBMITTED SHOP DRAWINGS TO THE CONSULTANT.
13. ASSUME RESPONSIBILITY AND PAY FOR ANY ADDITIONAL INSTALLATION COSTS INCURRED BY ALL DIVISIONS RESULTING FROM THE ALTERNATES AND/OR SUBSTITUTIONS. MAKE REVISIONS TO RECORD DRAWINGS INCORPORATING ALL ALTERNATES AND/OR SUBSTITUTIONS AND ALL RELATED CHANGES.
14. PROVIDE THE OWNER WITH A WRITTEN WARRANTY, FOR ALL LABOUR, MATERIALS, AND EQUIPMENT IN THIS CONTRACT, FOR A PERIOD OF TWO YEARS OR LONGER TIME AS OTHERWISE SPECIFIED BY THE CONSULTANT, COMMENCING AT SUCH TIME AS THE OWNER, OR THE CONSULTANT DEEMS THE WORK ACCEPTABLE.
15. PROVIDE A COMPLETE COST BREAKDOWN OF ALL MATERIALS, EQUIPMENT AND LABOUR COSTS ASSOCIATED WITH EACH SUBMISSION FOR EXTRA OR DELETED WORK.
16. CONFER WITH ALL TRADES INSTALLING EQUIPMENT WHICH MAY AFFECT THE CONSTRUCTION WORK AND ARRANGE THE WORK IN PROPER RELATION WITH EQUIPMENT INSTALLED UNDER ALL DIVISIONS OF THE CONTRACT.
17. INSTALL ALL MATERIAL IN THE BEST WORKMANLIKE MANNER AND IN ACCORDANCE WITH THE BEST PRACTICES OF THE TRADE.
18. REUSE EXISTING MATERIALS AND/OR EQUIPMENT ONLY WITH WRITTEN PERMISSION FROM THE CONSULTANT. ALL EQUIPMENT, MATERIALS AND ASSOCIATED CONTROLS NOT USED IN THIS CONTRACT SHALL BE RETURNED TO OWNER OR PROPERLY DISPOSED OF OFF SITE AS DIRECTED BY OWNER OR CONSULTANT.
19. ALL DEFICIENCIES MUST BE COMPLETED WITHIN 2 WEEKS UPON NOTICE ISSUED BY THE OWNER. THE OWNER MAY HAVE THE DEFICIENCIES COMPLETED BY OTHERS AT THE CONTRACTOR'S EXPENSE, IF THE DEFICIENCIES ARE NOT CORRECTED WITHIN THIS TIME LIMITED.
20. UNDER NO CIRCUMSTANCES SHALL THE CONSTRUCTION WORK WILL INTERFERE WITH OWNER'S OPERATION SCHEDULE.
21. THE CONTRACTOR IS TO SUBMIT VALID WORKER COMPENSATION COVERAGE LETTER AND PROOF OF LIABILITY INSURANCE FOR ALL OF THE WORK.
22. THE CONSTRUCTION OF THIS PROJECT SHALL COMPLY WITH THE CURRENT ONTARIO BUILDING CODE, AND ALL OTHER LEGISLATION HAVING JURISDICTION.



1
A4
TYPICAL BARRIER-FREE WASHROOM ACCESSORIES
SCALE: 1:20

LOCATION			DOOR										FRAME		HARDWARE				REMARKS			
DOOR NO.			TYPE	WIDTH	HEIGHT	THICKNESS	MATERIAL				FINISHES		ALUMINUM THRESHOLD	MATERIAL		FINISHES		DOOR HAND	SETS OF HINGES REQ'D	DOOR OPERATOR	EXIT DEVICE	LOCKSET REQUIRED
	FROM	TO					FIRE RATING(HOURS)	SOLID CORE WOOD	EXTRUDED ALUMINUM	HOLLOW METAL	THERMALLY INSULATED	ANODIZED ALUMINUM		PAINT	STAIN	EXTRUDED ALUMINUM	HOLLOW METAL					
D1	EXTERIOR	UNISEX W/C	A	965	2135	45																
D2	EXTERIOR	UNIVERSAL W/C	A	965	2135	45																
D3	UNISEX W/C	CHASE	A	1015	2135	45																
D4	EXTERIOR	COMMUNITY OFFICE	B	865X2	2135	45																
D5	EXTERIOR	COMMUNITY OFFICE	B	865X2	2135	45																500X1500X6mm LAMINATED GLASS. COLOUR PER OWNER



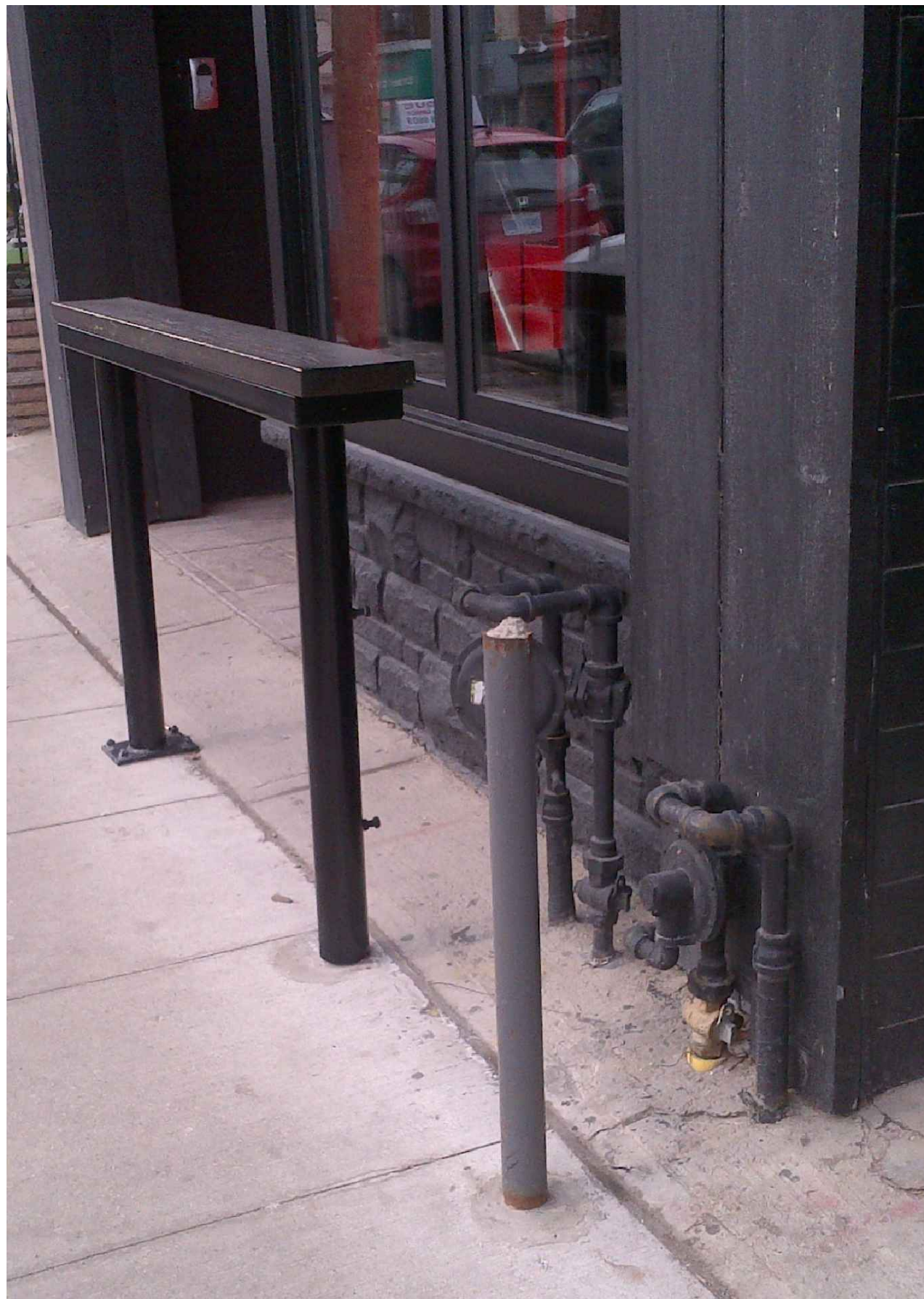
2
A4
DOOR SCHEDULE
SCALE: N.T.S.

INTERIOR ROOM FINISH SCHEDULE

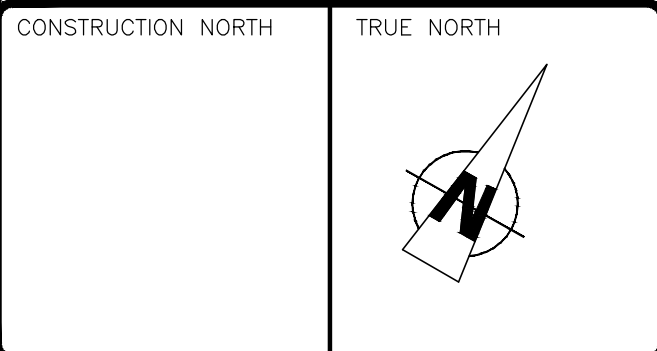
DESCRIPTION		FINISH	COLOUR	COMMENTS
COMMUNITY OFFICE (01)	CEILING	NEW PAINT: 1 COAT PRIMER & 2 COATS FINISH	BY OWNER	PREPARE CEILING TO RECEIVE NEW PAINT. BENJAMIN MOORE OR EQ. SEMI-GLOSS MILDEW RESISTANT. SUBMIT SAMPLE.
	WALLS	NEW PAINT: 1 COAT PRIMER & 2 COATS FINISH	BY OWNER	PREPARE CEILING TO RECEIVE NEW PAINT. BENJAMIN MOORE OR EQ. SEMI-GLOSS MILDEW RESISTANT. SUBMIT SAMPLE.
	FLOOR	NEW PORCELAIN TILES, OLYMPIA, 12"x24"	BY OWNER	CAREFULLY REMOVE EXIST. FLOOR TILES TO BE USED IN THE WASHROOM FLOOR REPAIRS. PREPARE FLOOR TO RECEIVE NEW TILES. SUBMIT SAMPLES TO OWNER FOR SELECTION. PROVIDE 6" HIGH PORCELAIN BASE BOARD TO MATCH FLOOR TILES.
UNIVERSAL W/C (02) UNISEX W/C (03)	CEILING	NEW PAINT: 1 COAT PRIMER & 2 COATS FINISH	BY OWNER	PREPARE CEILING TO RECEIVE NEW PAINT. BENJAMIN MOORE OR EQ. SEMI-GLOSS LATEX. SUBMIT SAMPLE TO OWNER.
	WALLS	NEW PAINT: 1 COAT PRIMER & 2 COATS FINISH	BY OWNER	PREPARE WALLS TO RECEIVE NEW PAINT. BENJAMIN MOORE OR EQ. SEMI-GLOSS LATEX. SUBMIT SAMPLE TO OWNER.
	FLOOR	EXIST. FLOOR TILES TO BE REPAIRED AS REQUIRED.	EXISTING.	REPAIR DISTURBED FLOOR TILES & BASE BOARD. CLEAN AND USE RECLAIMED TILES REMOVED FROM THE COMMUNITY OFFICE.
UTILITY CHASE (04)	CEILING	EXISTING TO REMAIN	EXISTING.	N/A
	WALLS	EXISTING TO REMAIN	EXISTING.	REPAIR DISTURBED WALL AS REQUIRED TO MATCH EXISTING CONDITION.
	FLOOR	EXISTING TO REMAIN	EXISTING.	N/A

3
A4
INTERIOR FINISH SCHEDULE
SCALE: N.T.S.

NO.	DESCRIPTION
1	TOILET PAPER DISPENSER: EXISTING TO REINSTALL. PROTECT DURING CONSTRUCTION.
2	BARRIER FREE MIRROR: STOCK SERIES MIRRORS, FIXED TILT (9416FT), 16X24" HEAVY DUTY MIRRORS, 6mm, BY FROST PRODUCT LTD. OR EQUAL; NON BARRIER FREE MIRROR: STAINLESS STEEL HEAVY DUTY MIRROR (9416MM), 18"x24" HEAVY DUTY MIRRORS, 6mm, BY FROST PRODUCT LTD., OR EQUAL.
3	SURFACE MOUNTED SOAP DISPENSER-BOBRICK MODEL B-2111 CLASSIC SERIES S.S. SURFACE MOUNTED SOAP DISPENSER
4	SURFACE MOUNTED HAND DRIER: GLOBAL GX SERIES CHROME FINISH, MODEL GX1-C BY AMERICAN DRYER OR EQ.
5	HANDICAPPED ACCESSIBLE TOILET, ELONGATED TYPE. SEE PLUMBING SPECS ON MECHANICAL DRAWINGS.
6	H/C 760 mm (ø38mm) STAINLESS STEEL ANGLED GRAB BAR.
7	H/C 610 mm (ø38mm) STAINLESS STEEL GRAB BAR.



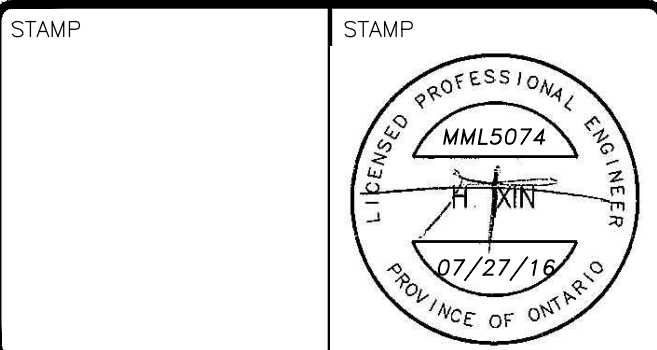
4
A4
SAMPLE SERVICE BAR PICTURE
SCALE: N.T.S.



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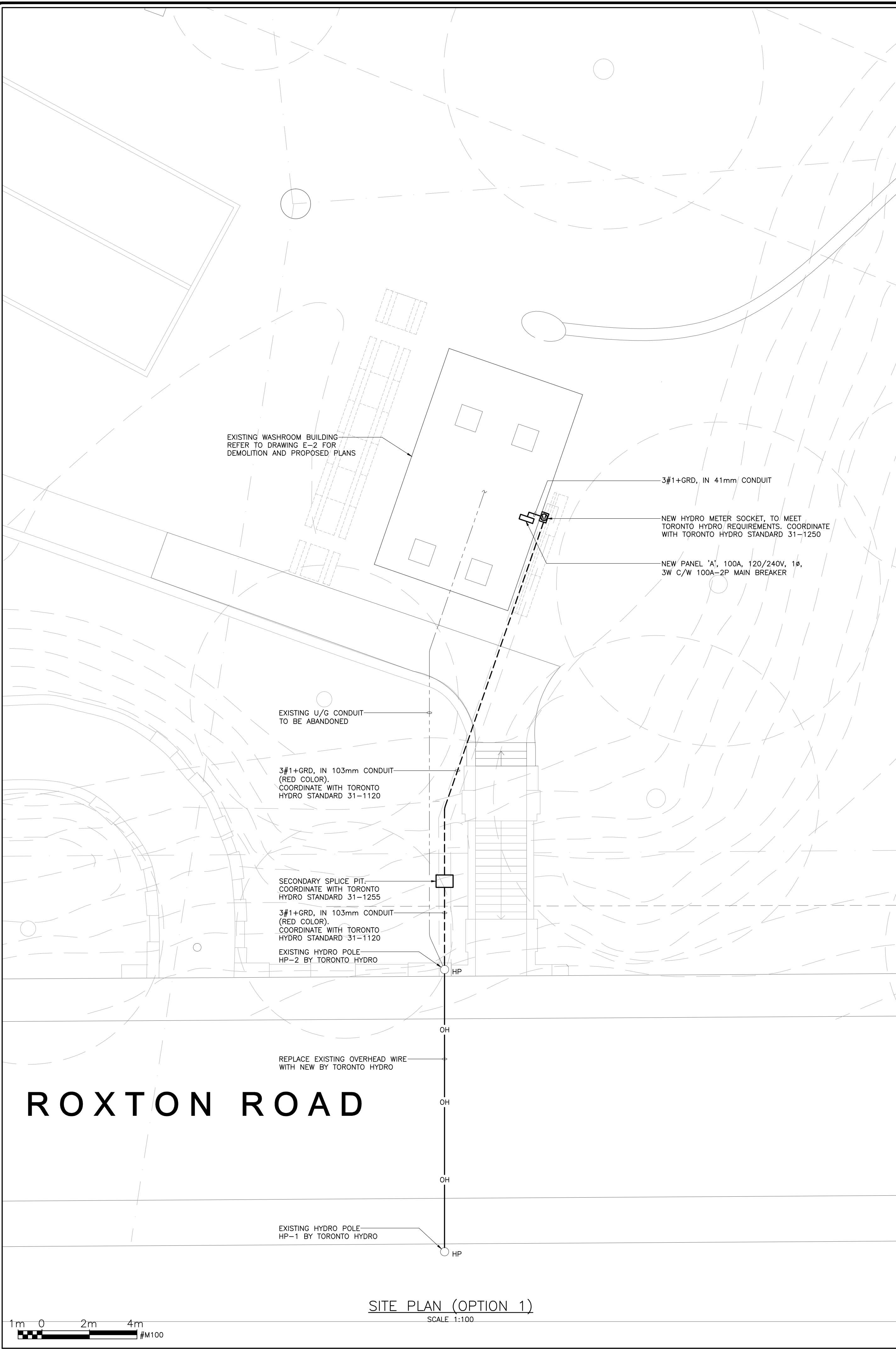


PROJECT
FRED HAMILTON PARK FIELD HOUSE
LOCATION
155 ROXTON ROAD
TORONTO, ONTARIO

GENERAL NOTES, DETAILS AND SCHEDULES

SCALE	AS NOTED	JOB No.	5074
DRAWN BY	B.L.	DRAWING NO.	A-4
CHECKED BY	H.X.		
DATE	JUNE, 2016		
CAD FILE	5074A		OF 4

SCALE	AS NOTED	JOB No.	5074
DRAWN BY	H.X.		
CHECKED BY	Y.S.	DRAWING NO.	M-1
DATE	JUNE, 2016		OF 1
CAD FILE	5074A		



LEGEND:

- LINEAR LIGHT FIXTURE, REFER TO SCHEDULE FOR TYPE.
- WALL MOUNTED LIGHT FIXTURE, REFER TO SCHEDULE FOR TYPE.
- EXIT LIGHT WALL MOUNTED, REFER TO LIGHTING FIXTURE SCHEDULE.
- WALL MOUNTED SWITCH, '3' DENOTES - 3 WAY.
- EMERGENCY BATTERY PACK C/W EMERGENCY HEADS, PLUG, CORD AND MOUNTING BRACKET.
- SINGLE AND TWIN REMOTE HEADS FOR EMERGENCY LIGHTING.
- HYDRO POLE.
- CONDUIT UNDERGROUND, REFER TO PLANS FOR QUANTITY AND SIZING.
- SURFACE CONDUIT, REFER TO PLANS FOR QUANTITY AND SIZING.
- OVERHEAD WIRE.
- #4/0 BARE COPPER GROUND CABLE.
- GROUND ROD 21mm DIA. COPPER CLAD.
- 15A, 120V, 1#, 3W GROUNDED DUPLEX RECEPTACLE, UNLESS OTHERWISE INDICATED. 'GFI' DENOTES - CLASS 'A' GFI TYPE RECEPTACLE.
- 20A, 120V, 1#, 3W GFI DUPLEX RECEPTACLE MOUNTED ABOVE COUNTER, UNLESS OTHERWISE INDICATED. 'GFI' DENOTES - CLASS 'A' GFI TYPE RECEPTACLE.
- 120V, 1# DIRECT CONNECTION FOR USE AS NOTES.
- 240V, 1# DIRECT CONNECTION FOR USE AS NOTED.
- NON FUSED DISCONNECT SWITCH SINGLE PHASE EEMAC 3R ENCLOSURE; WHERE REQUIRED TO WEATHERPROOF PROVIDE CSA TYPE '4X' ENCLOSURE.
- COMBINATION MAGNETIC MOTOR STARTER.
- SINGLE PHASE MOTOR.
- FORCE FLOW HEATER.
- PANELBOARD.
- HAND DRYER, 240V, XLERATOR MODEL #XL-SB OR APPROVED EQUIVALENT.
- PHOTOCELL.
- PUSH BUTTON FOR DOOR OPERATOR.
- POWER DOOR OPERATOR - PROVIDE 120V SUPPLY AND LOW VOLTAGE WIRING IN CONCEALED 13mm CONDUIT FROM OPERATOR TO PUSHBUTTONS.
- RED FLASHING ALARM LIGHT.
- CIRCUIT BREAKER 2 POLE UNLESS OTHERWISE INDICATED.
- LIGHTNING ARRESTER.
- CONTACT NORMALLY OPEN.
- CONTACT NORMALLY CLOSED.

ABBREVIATIONS:

- RPVC RIGID PVC CONDUIT.
- RGS RIGID GALVANIZED STEEL CONDUIT.
- GFI GROUND FAULT INTERRUPTER.
- JB JUNCTION BOX.
- TYP. TYPICAL.
- A/C ABOVE COUNTER.
- W/P WEATHER PROOF.
- C/W COMPLETE WITH.
- PC PHOTOCELL.
- EX EXISTING EQUIPMENT TO REMAIN.
- R EXISTING EQUIPMENT TO BE REMOVED AND DISPOSED OF UNLESS OTHERWISE NOTED.
- FR FRIDGE

LOAD CALCULATION			
EQUIPMENT	CONNECTED	FACTOR	SERVICE (VA)
EXISTING STORAGE BUILDING	5760W	0.4	2304
EXISTING SITE LIGHTING	1200W	1.0	1200
TOTAL EXISTING LOAD			3504VA
INTERIOR LIGHTING	413.5W	1.0	413.5
OUTDOOR LIGHTING	90W	1.0	90
EMERGENCY/EXIT LIGHTING	40W	1.0	40
FRIDGE	500W	1.0	500
MICROWAVE OVEN	1000W	1.0	1000
ELECTRIC HEATERS	4000W	0.8	3200
HAND DRYERS	3000W	0.5	1500
ELECTRIC HOT WATER TANK	3000W	0.8	2400
MISC.	7000W	0.8	5600
MECHANICAL EQUIPMENT	90W	1.0	90
TOTAL PROPOSED LOAD			14833.5VA
TOTAL ELECTRICAL LOAD (EXISTING PLUS PROPOSED) = 18337.5VA			
$AMPS = \frac{18.4KVA \times 1000}{240} = 77A$ THEREFORE 100A SERVICE IS SUFFICIENT			

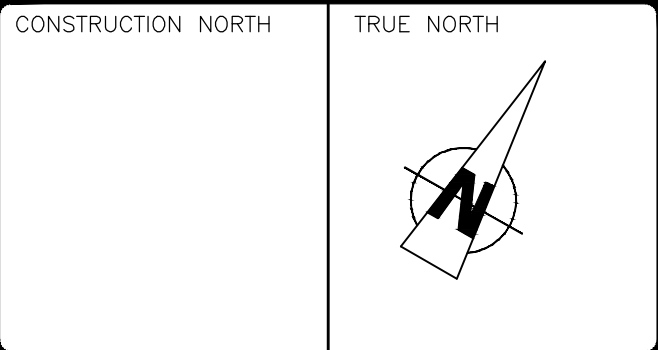
TOTAL LOAD: 19KW				PANEL 'A'				MAIN BRKR: 100A-2P			
TOTAL CIRCUITS: 42				TYPE: 120/240V, 1#, 3W				TYPE: SURFACE MOUNTED			
				MAINS: 100A				LOCATION: COMMUNITY ROOM			
LOAD W. HP.	SERV. REF.	WIRE	BRKR	1	2	3	4	5	6	7	8
RECEPTACLE (2)				1	2	3	4	5	6	7	8
FRIDGE				3	4	5	6	7	8	9	10
3KW HAND DRYER				7	8	9	10	11	12	13	14
413.5W INDOOR LTG				9	10	11	12	13	14	15	16
LTG CNTL PANEL				11	12	13	14	15	16	17	18
(2) DOOR OPERATOR				13	14	15	16	17	18	19	20
(2) DOOR OPERATOR				15	16	17	18	19	20	21	22
(3) RECEPTACLE				17	18	19	20	21	22	23	24
(2) RECEPTACLE				19	20	21	22	23	24	25	26
90W EF-1, EF-2				21	22	23	24	25	26	27	28
SPARE				23	24	25	26	27	28	29	30
5.8KW EX STORAGE BLDG SUB PANEL				25	26	27	28	29	30	31	32
SPARE				27	28	29	30	31	32	33	34
SPARE				29	30	31	32	33	34	35	36
SPARE				31	32	33	34	35	36	37	38
SPACE				33	34	35	36	37	38	39	40
SPACE				35	36	37	38	39	40	41	42

NOTE :

- ALL ESSENTIAL CIRCUITS TO BE LOCKED ON WITH LOCKING BARS.
- ALL BREAKERS TO BE 15A - 1P, UNLESS OTHERWISE SHOWN.
- ALL CIRCUITS TO BE 2 NO. 12 & GRD. UNLESS OTHERWISE SHOWN.

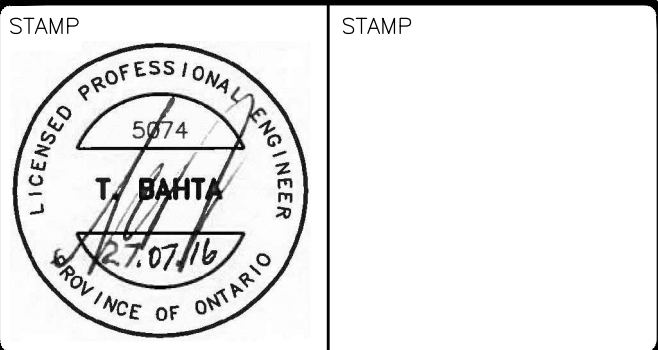
- SPLICE, EXTEND AND RECONNECT EXISTING SITE LIGHTING TO NEW PANEL.
- SPLICE, EXTEND AND RECONNECT EXISTING STORAGE SHED SUB PANEL TO NEW PANEL.

LIGHTING FIXTURE SCHEDULE													
SYMBOLS	BASE MANUFACTURER (AS SPECIFIED)	CATALOGUE NUMBER	CEILING TYPE			WALL TYPE		NO. OF LAMPS	WATTAGE	BALLAST VOLTAGE			REMARKS
			SURFACE	RECESSED	SUSPENDED	SURFACE	RECESSED			120V	347V	ACCEPTABLE ALTERNATE MANUFACTURER	
A	LITHONIA	VAP-4000LM-FST-MD-120-GZ10-40K-80CRI-QMB	●					LED	42W	●		CREE	1x4 FIXTURE VANDAL RESISTANT
B	LITHONIA	OLVTWM				●		LED	15W	●		CREE	VAPOR TIGHT WALL PACK
EM1	EMERGI-LITE	12LSM36-2-LG-CP					●	LED	2x4W	●		LITHONIA	EMERGENCY BATTERY UNIT C/W 2 REMOTE HEADS
RE1	EMERGI-LITE	EF40-LG-T					●	LED	4W	●		LITHONIA	SINGLE HEAD EMERGENCY LIGHT VANDAL RESISTANT
RE2	EMERGI-LITE	W-12SV36M-2-LG-D					●	LED	2x4W	●		LITHONIA	DOUBLE HEAD EMERGENCY LIGHT VANDAL RESISTANT
H-X	EMERGI-LITE	EN-1-W-U00					●	LED	2.5W	●		LITHONIA	EXIT SIGN VANDAL RESISTANT



No.	Date	Description
3	16/07/21	ISSUED FOR TENDER
2	16/06/30	ISSUED FOR FINAL REVIEW
1	16/06/08	ISSUED FOR CLIENT REVIEW
REVISIONS		PLOT SCALE: 1=1

CONTRACTOR WILL CHECK AND VERIFY ALL DIMENSIONS AND CHECK ALL JOB CONDITIONS ON THE JOB BEFORE PROCEEDING WITH THE WORK.



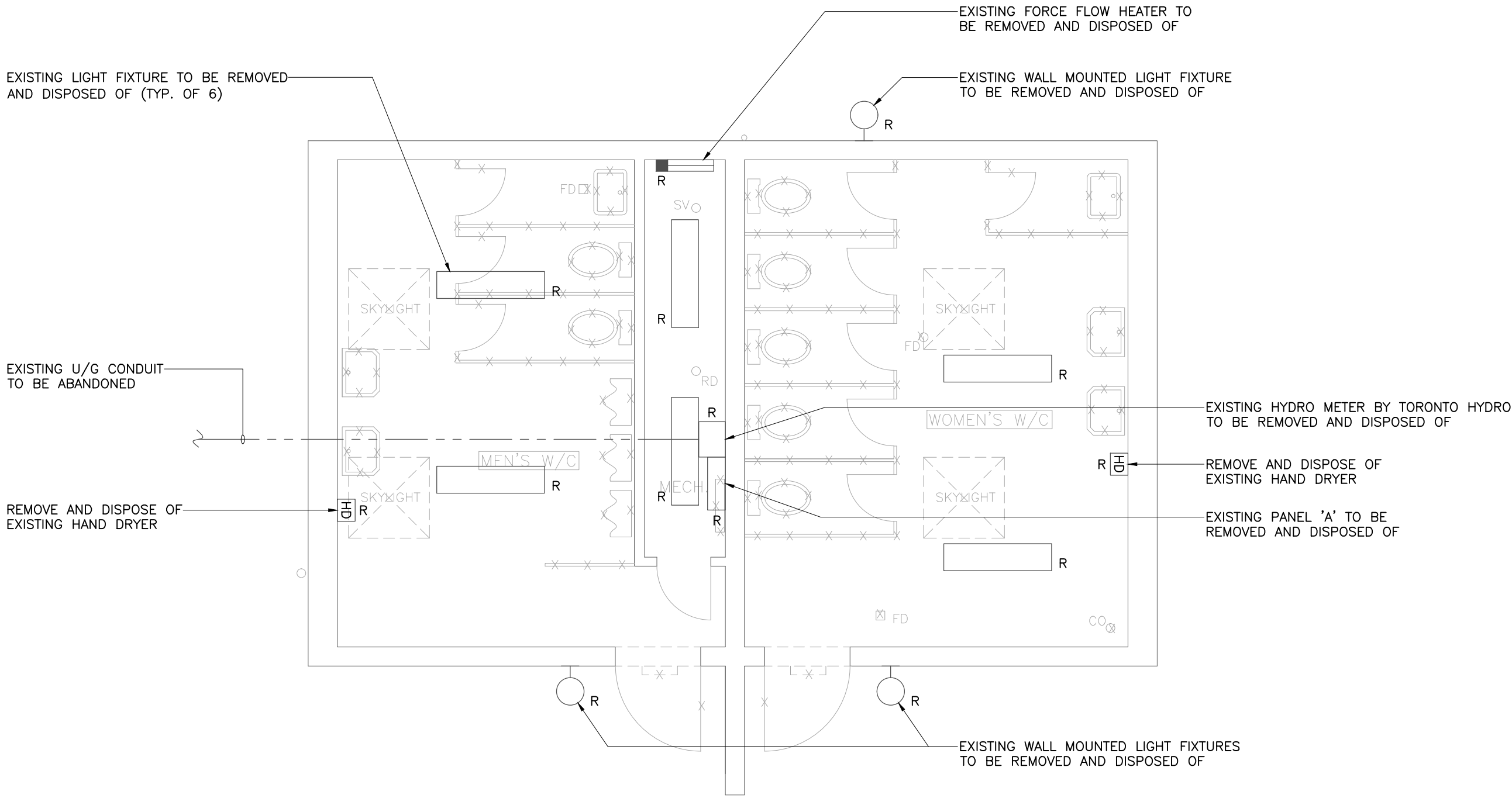
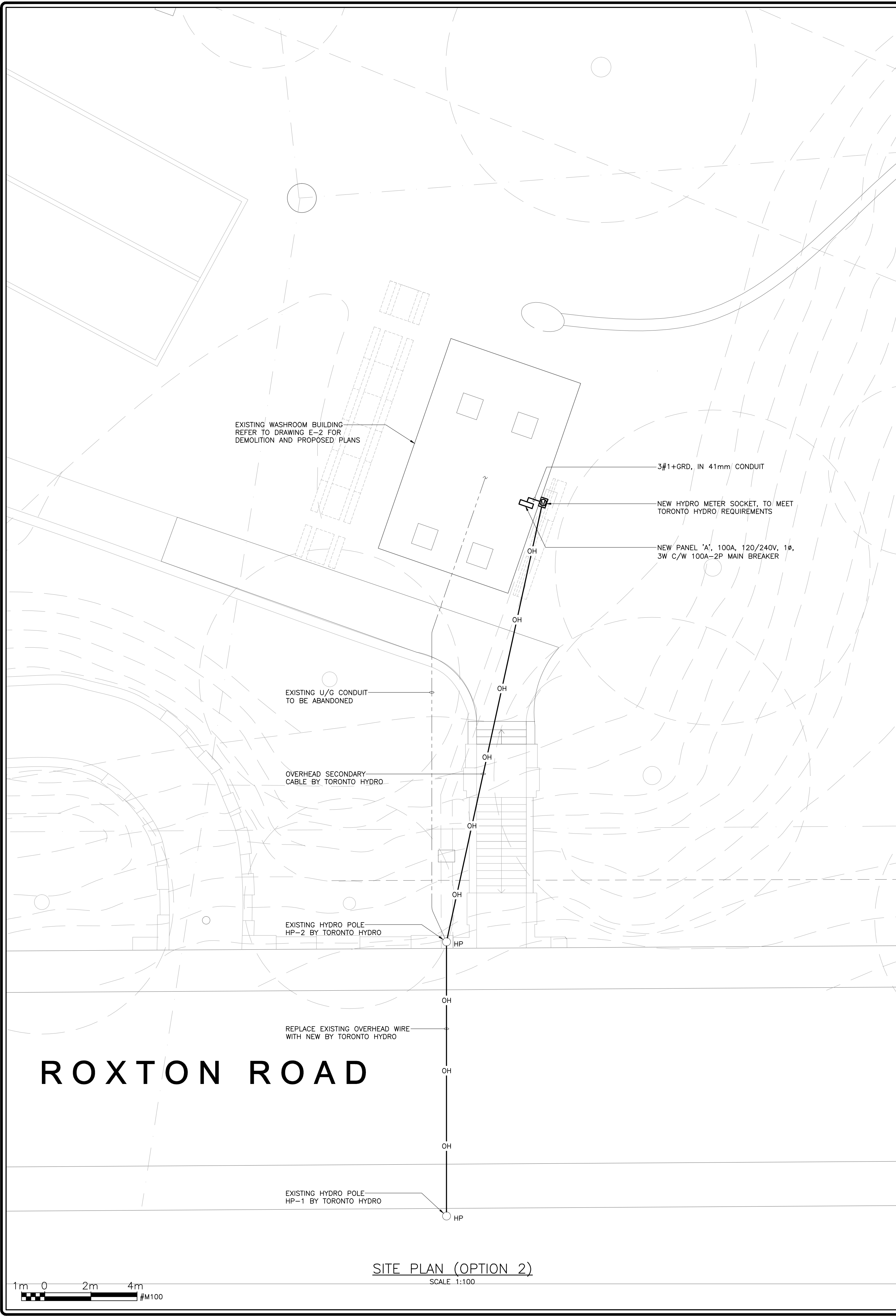
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PROJECT
FRED HAMILTON PARK FIELD HOUSE
LOCATION
155 ROXTON ROAD
TORONTO, ONTARIO

SITEPLAN (OPTION 1),
LEGEND AND SCHEDULES

SCALE 1:100	JOB No. 5074
DRAWN BY V.M.	DRAWING NO.
CHECKED BY T.B.	E-1
DATE JUNE, 2016	OF 3
CAD FILE 5074-E1-E3	



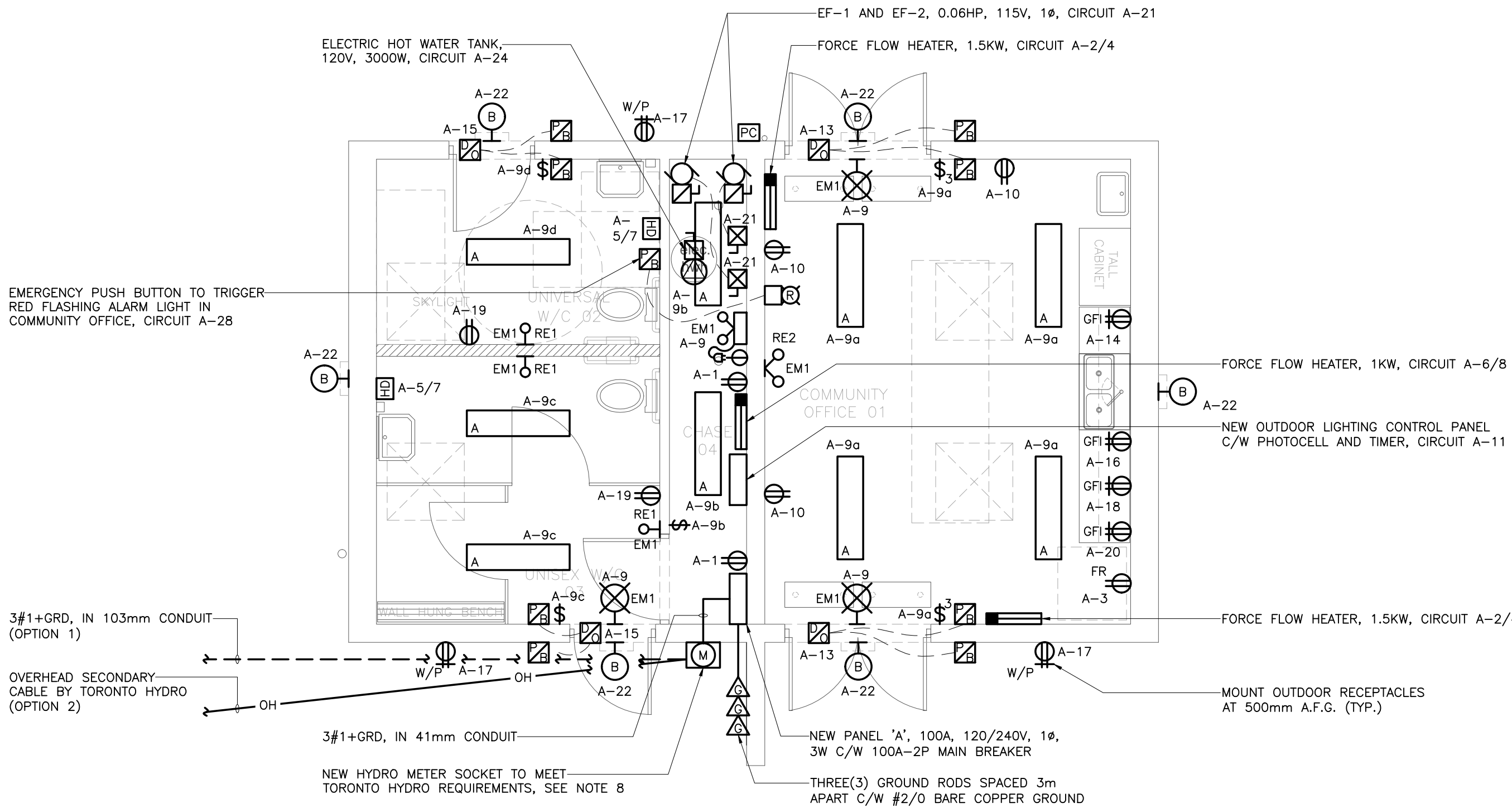
DEMOLITION NOTES:

1. ALL EXISTING INFORMATION TO BE CONFIRMED. CONDUITS AND WIRING ARE SHOWN BASED ON AVAILABLE AS-BUILT INFORMATION ONLY AND CONTRACTOR TO CONFIRM ON SITE AS REQUIRED. INFORMATION IS PROVIDED AS A REFERENCE FOR DEMOLITION AND RE-FEEDING/RE-ROUTING REQUIREMENTS AS DESCRIBED WITHIN THE CONTRACT.
2. ALL DIMENSIONS AND INFORMATION SHALL BE CHECKED AND VERIFIED ON THE JOB SITE AND ANY DISCREPANCIES MUST BE REPORTED BEFORE COMMENCING THE WORK.
3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO BECOME INFORMED OF THE EXACT LOCATION OF, AND ASSUME ALL LIABILITY FOR DAMAGE TO ALL UTILITIES, SERVICES, AND STRUCTURES WHETHER ABOVE GROUND OR BELOW GRADE BEFORE COMMENCING THE WORK. SUCH INFORMATION IS NOT NECESSARILY SHOWN ON THE DRAWINGS AND WHERE SHOWN, THE ACCURACY CANNOT BE GUARANTEED.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING ALL EXISTING SERVICES IN WORKING AREA PRIOR TO CONSTRUCTION AND SHALL PROTECT THESE SERVICES TO THE SATISFACTION OF THE OWNER. DAMAGES BY THE CONTRACTOR SHALL BE RESTORED TO THE SATISFACTION OF THE OWNER.
5. REMOVE ALL UNNECESSARY ELECTRICAL CONDUIT, WIRING AND EQUIPMENT FROM THE EXISTING PROJECT AREA BEING RENOVATED AS INDICATED IN THE SPECIFICATIONS AND DRAWINGS AND AS DIRECTED ON SITE. THE DRAWINGS DO NOT INDICATE ALL ITEMS TO BE REMOVED OR REWORKED.
6. ALL MISCELLANEOUS ELECTRICAL EQUIPMENT BEING REMOVED SHALL REMAIN THE PROPERTY OF THE OWNER AND IF THE OWNER HAS NO USE FOR IT, IT SHALL BE DISPOSED OF.

EXISTING WASHROOM BUILDING DEMOLITION LAYOUT

SCALE 1:50

0.5m 0 1m 2.0m
#M50



CONSTRUCTION NOTES:

1. WIRING LOCATED IN AREAS BEING ALTERED OR DEMOLISHED, BUT FEEDING LIGHTING, OUTLETS OR EQUIPMENT REQUIRED TO REMAIN IN SERVICE SHALL BE REROUTED AS REQUIRED TO MAINTAIN THE CONTINUITY OF THESE SERVICES. ALL COSTS SHALL BE INCLUDED IN THE CONTRACT.
2. ALL PENETRATIONS IN WALLS AND CEILING FOR CONDUIT CROSSING TO BE SEALANT AND FIRE STOPPED.
3. ALL CONDUITS AND BOXES TO BE LABELED.
4. A 6.35mm POLYPROPYLENE ROPE SHALL BE LEFT IN ALL NEW AND UPDATED EXISTING CONDUITS.
5. WHEN TRENCHING/HANDWELL ARE INSTALLED ON ASPHALT SURFACES, THE CONTRACTOR SHALL ROUTE AND SEAL ALL JOINTS WITH HOT POURED RUBBERIZED ASPHALT JOINTS.
6. AREAS NEAR UTILITIES SHALL BE HAND DIG OR HYDRO VAC. INCLUDE ALL COSTS.
7. ONCE ALL LOCATES FOR BURIED SERVICES ARE OBTAINED, PREPARE ROUTING PLAN FOR NEW BURIED SERVICES, ADHERING TO ALL MINIMUM HORIZONTAL AND VERTICAL SEPARATION REQUIREMENTS. FOR CROSSING OVER OR PASSING UNDER UTILITIES REFER TO O.P.S.D. STANDARD No. 2103.05.
8. FOR OPTION 2, PROVIDE 53mm DIA. RIGID GALVANIZED STEEL SERVICE MAST C/W WEATHERHEAD TO TORONTO HYDRO REQUIREMENTS.

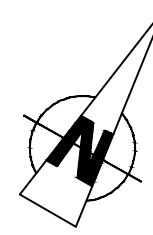
EXISTING WASHROOM BUILDING PROPOSED LAYOUT

SCALE 1:50

0.5m 0 1m 2.0m
#M50

CONSTRUCTION NORTH

TRUE NORTH

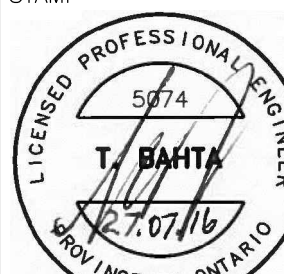


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REVISIONS
PLOT SCALE: 1=1

CONTRACTOR WILL CHECK AND VERIFY ALL DIMENSIONS
AND CHECK ALL JOB CONDITIONS ON THE JOB BEFORE
PROCEEDING WITH THE WORK.

STAMP



STAMP

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Toronto
CITY OF TORONTO

PROJECT

FRED HAMILTON PARK FIELD HOUSE

LOCATION

155 ROXTON ROAD
TORONTO, ONTARIO

SITEPLAN (OPTION 2),
DEMOLITION/PROPOSED LAYOUTS
AND NOTES

SCALE AS SHOWN

DRAWN BY V.M.

CHECKED BY T.B.

DATE JUNE, 2016

CAD FILE 5074-E1-E3

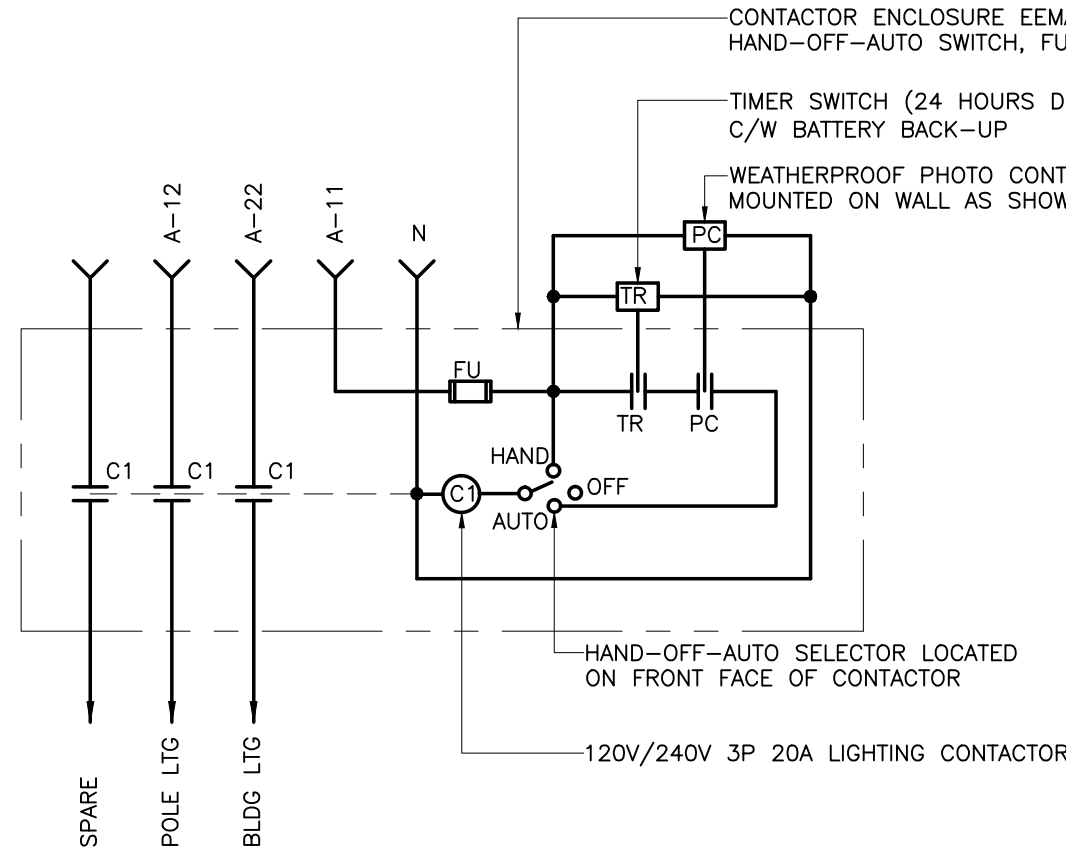
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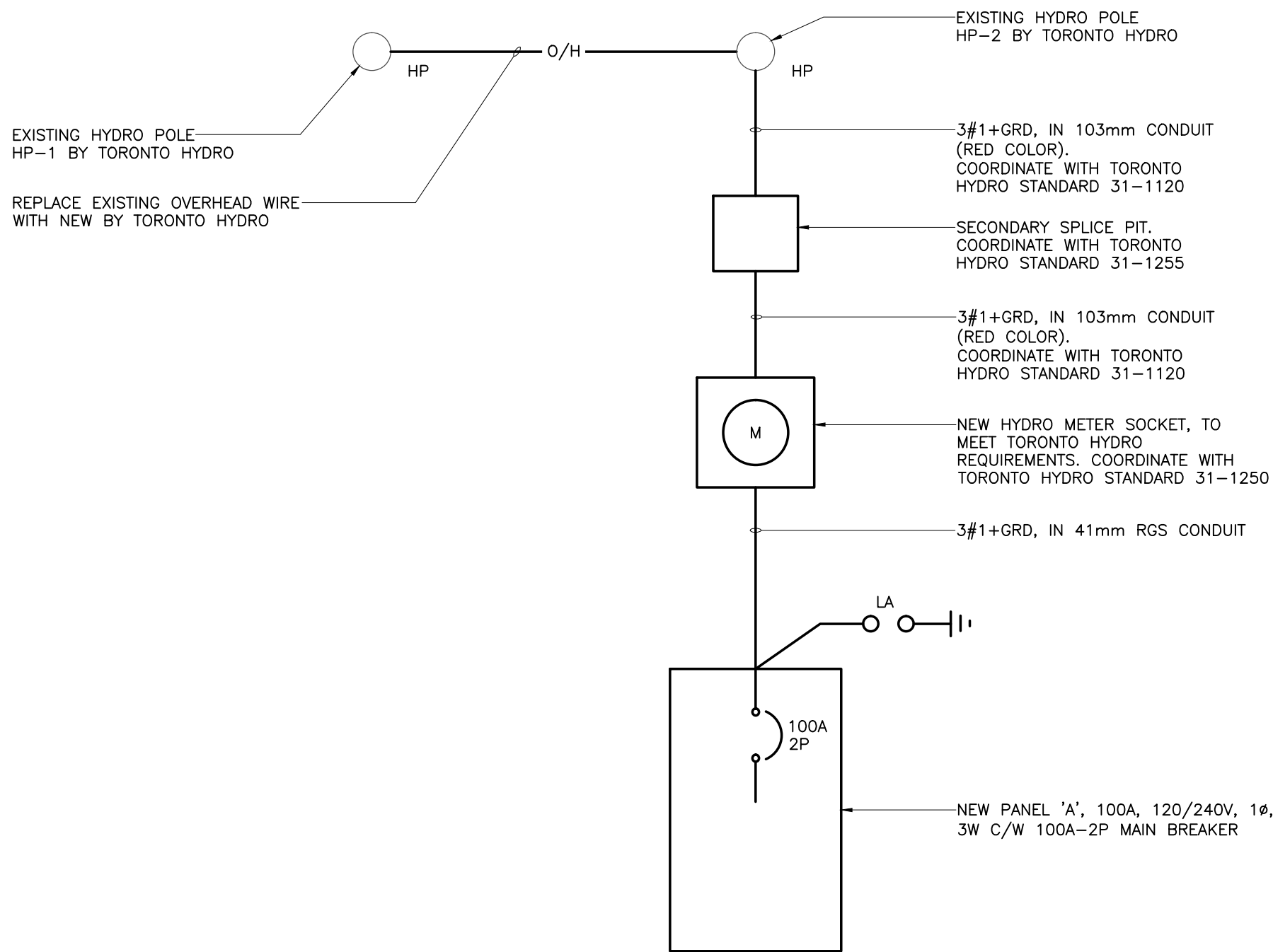
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E-2

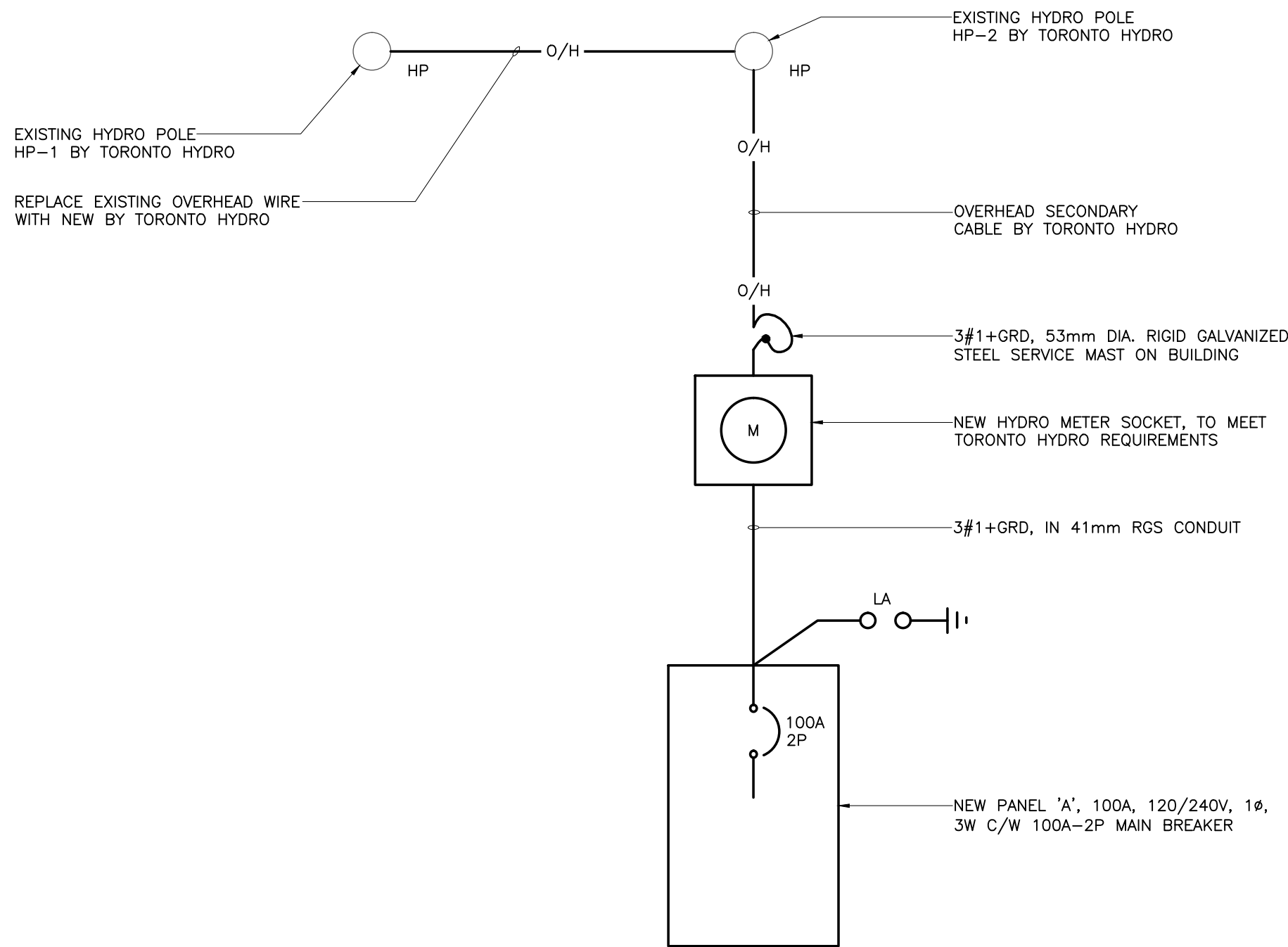
OF 3



LIGHTING CONTROL SCHEMATIC



SINGLE LINE DIAGRAM (OPTION 1)



SINGLE LINE DIAGRAM (OPTION 2)

SPECIFICATION:

1. THIS DIVISION SHALL INCLUDE THE SUPPLY OF ALL MATERIALS, THE REMOVALS, AND THE INSTALLATION OF ALL ELECTRICAL WORK INCLUDING ALL LABOR, EQUIPMENT, TOOLS, NECESSARY TO COMPLETE THE INSTALLATION IN THE BUILDING AND ON THE SITE, AS HEREIN SPECIFIED AND SHOWN ON THE DRAWINGS. PROVIDE A COMPLETE OPERATING SYSTEM.

2. THE WORK SHALL "GENERALLY" CONSIST OF THE FOLLOWING:

REMOVAL OF (AS INDICATED ON DRAWINGS, NOT ALL EQUIPMENT SHOWN ON DRAWINGS):

- ALL EXISTING LIGHTING FIXTURES.
- EXISTING SWITCHES.
- REMOVE WIRING BACK TO SOURCE, PREPARE FOR NEW WORK.
- HAND DRYERS.
- DISTRIBUTION PANEL.
- HYDRO METER.

SUPPLY AND INSTALLATION OF:

- COMPLETE LED LIGHTING SYSTEM.
- COMPLETE LIGHTING CONTROL SYSTEM.
- RECEPTACLES.
- DISCONNECT SWITCHES.
- HAND DRYERS.
- ELECTRICAL DISTRIBUTION.
- ALL ASSOCIATED WIRING AND CONDUIT.

3. USE ONLY SPECIFIED MATERIALS AND EQUIPMENT EXCEPT WHERE DESIGNATED "OR APPROVED ALTERNATE".

4. ALL ALTERNATES TO SPECIFIED MATERIALS MUST BE APPROVED BY THE CONSULTANT.

5. ALL MATERIALS SHALL BE OF HIGH QUALITY COMMERCIAL GRADE AND SHALL BE CSA APPROVED.

6. THIS DIVISION SHALL CONSULT ALL CONSTRUCTION DRAWINGS AND BE FAMILIAR WITH ALL CONDITIONS AFFECTING THE WORK.

7. WHEN REQUIRED BY THE CONSULTANT, EQUIPMENT SHALL BE RELOCATED UP TO 3 METERS WITHOUT ADDITIONAL CHARGE PROVIDED IT HAS NOT BEEN INSTALLED.

8. ALL DIMENSIONS MUST BE CHECKED AND VERIFIED ON THE JOB SITE.

9. SUBMIT SHOP DRAWINGS (6 SETS) FOR APPROVAL BEFORE ORDERING THE FOLLOWING MATERIALS:

- SWITCHES.
- LIGHTING FIXTURES.
- BREAKERS.
- RECEPTACLES.
- HAND DRYERS.
- DISCONNECT SWITCHES.
- DISTRIBUTION PANEL.
- LIGHTING CONTROL PANEL.

10. 120 VOLT LIGHT SWITCHES SHALL BE TOGGLE TYPE SPECIFICATION GRADE HUBBELL CAT# HBL-1201 IVORY FINISH. PROVIDE STAINLESS STEEL COVERPLATES.

11. 120V, 15A, U-GROUND RECEPTACLES SHALL BE HUBBELL MODEL #5262. PROVIDE GFI RECEPTACLES WHERE SHOWN ON DRAWING.

12. 120V, 20A, U-GROUND RECEPTACLES SHALL BE HUBBELL MODEL #5392. PROVIDE GFI RECEPTACLES WHERE SHOWN ON DRAWING.

13. PRIOR TO SUBMITTING A TENDER CAREFULLY EXAMINE CONDITIONS AT THE SITE WHICH MAY OR WILL AFFECT THE WORK. REFER TO AND EXAMINE ALL CONTRACT DOCUMENTS TO DETERMINE FINISHED, PARTIALLY FINISHED AND UNFINISHED AREAS OF THE BUILDING.

14. ENSURE THAT MATERIALS AND EQUIPMENT ARE DELIVERED TO THE SITE AT THE PROPER TIME AND IN SUCH ASSEMBLIES AND SIZES SO AS TO ENTER INTO THE BUILDING AND TO BE MOVED INTO THE SPACES WHERE THEY ARE TO BE LOCATED WITHOUT DIFFICULTY. BE RESPONSIBLE FOR CUTTING AND PATCHING INVOLVED IN GETTING ASSEMBLIES INTO PLACE.

15. THE CONTRACTOR SHALL ENSURE HE IS FAMILIAR WITH THE EXTENT OF REMOVALS PRIOR TO SUBMITTING HIS TENDER.

16. COORDINATE DIVISION 16 WORK WITH THE WORK OF ALL TRADES TO ENSURE A PROPER AND COMPLETE INSTALLATION. NOTIFY ALL TRADES CONCERNED OF THE REQUIREMENT FOR OPENINGS, SLEEVES, INSERTS AND OTHER HARDWARE NECESSARY IN THEIR WORK FOR THE ELECTRICAL INSTALLATION, AND, WHERE ELECTRICAL WORK IS TO BE INTEGRATED WITH THE WORK OF OTHER TRADES OR IS TO BE INSTALLED IN CLOSE PROXIMITY WITH THE WORK OF OTHER TRADES, CAREFULLY COORDINATE THE WORK PRIOR TO INSTALLATION.

17. PROVIDE ALL NECESSARY SLEEVES, INSERTS, BEAM CLAMPS AND HANGERS - LOCATE AND SECURELY PLACE SAME. CO-ORDINATE THE INSTALLATION OF THE FIXTURES WITH THE EXISTING STRUCTURE. DETAILS ON DRAWINGS ARE DIAGRAMMATIC. INCLUDE ALL ACCESSORIES REQUIRED.

18. THE WORK SHALL BE EXECUTED IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF ONTARIO ELECTRICAL SAFETY CODE, THE CANADIAN ELECTRICAL CODE, THE ONTARIO BUILDING CODE AND ALL AUTHORITIES HAVING JURISDICTION.

19. IN THE EVENT THAT ANY DEVIATIONS FROM THE ELECTRICAL DRAWINGS ARE NECESSARY, THIS DIVISION SHALL CONSULT WITH THE CONSULTANT AND OBTAIN WRITTEN APPROVAL BEFORE PROCEEDING.

20. SUBMIT THE REQUISITE NUMBER OF SETS OF PLANS AND SPECIFICATIONS, TO THE ELECTRICAL SAFETY AUTHORITY. CONTRACTOR TO GET FINAL APPROVALS FROM ALL AUTHORITIES AND PAY ALL FEES.

21. THIS DIVISION SHALL GIVE ALL NECESSARY NOTICES AND OBTAIN ALL NECESSARY PERMITS AND PAY ALL FEES. FURNISH ALL USUAL CERTIFICATES NEEDED AS EVIDENCE THAT THE WORK INSTALLED CONFORMS WITH THE LAWS AND REGULATIONS OF THE AUTHORITIES HAVING JURISDICTION, BEFORE FINAL PAYMENT OF CONTRACT IS MADE.

22. INSTALL EQUIPMENT, DUCTWORK, CONDUIT AND CABLES IN A WORKMANLIKE MANNER TO BEST SUIT SPACE, TO PRESENT A NEAT APPEARANCE AND TO FUNCTION PROPERLY TO THE SATISFACTION OF THE CONSULTANT. INSTALL EQUIPMENT AND APPARATUS REQUIRING MAINTENANCE, ADJUSTMENT OR EVENTUAL REPLACEMENT WITH DUE ALLOWANCE THEREFORE.

23. REPLACE WORK UNSATISFACTORY TO THE CONSULTANT WITHOUT EXTRA COST.

24. PROTECT FROM DAMAGE ALL EQUIPMENT DELIVERED TO THE SITE AND DURING INSTALLATION. ANY DAMAGE OR MARKING OF FINISHED SURFACES SHALL BE MADE GOOD TO THE SATISFACTION OF THE CONSULTANT.

25. MOUNTING HEIGHT OF EQUIPMENT IS FROM FINISHED FLOOR TO CENTERLINE OF EQUIPMENT UNLESS SPECIFIED OR INDICATED OTHERWISE. IF MOUNTING HEIGHT OF EQUIPMENT IS NOT INDICATED, VERIFY BEFORE PROCEEDING WITH INSTALLATION. INSTALL ELECTRICAL EQUIPMENT AT THE FOLLOWING HEIGHTS UNLESS INDICATED OTHERWISE.

26. FOR WORK BEYOND SCOPE OF THE CONTRACT SUBMIT A QUOTATION WITH A BREAK-DOWN OF MATERIALS, LABOR AND MARK-UPS AND OBTAIN A WRITTEN ORDER FROM THE GENERAL CONTRACTOR BEFORE PROCEEDING. ALL QUOTATIONS TO BE APPROVED BY THE CONSULTANT AND THE OWNER.

27. ALL EQUIPMENT, MATERIALS AND WORKMANSHIP SHALL BE UNCONDITIONALLY GUARANTEED FOR A MINIMUM PERIOD OF ONE YEAR FROM THE DATE OF ACCEPTANCE INCLUDING LAMPS.

28. PURCHASE TWO SETS OF WHITE PRINTS AND AS THE JOB PROGRESSES, MARK THESE PRINTS TO ACCURATELY INDICATE INSTALLED WORK. HAVE THE WHITE PRINTS AVAILABLE FOR INSPECTION AT THE SITE AT ALL TIMES, AND PRESENT FOR SCRUTINY AT EACH JOB MEETING. WHEN THE PROJECT IS COMPLETE AND READY FOR INSPECTION, PURCHASE A SET OF REPRODUCIBLE MYLAR PRINTS OF ALL THE CONTRACT DRAWINGS AND AMEND SAME IN A NEAT FASHION IN ACCORDANCE WITH THE MARKED-UP WHITE PRINT MENTIONED ABOVE. THE CONSULTANT SHALL PROVIDE TO THE CONTRACTOR DIGITAL FILES IN AUTOCAD FORMAT. THE CONTRACTOR SHALL AMEND FILES IN ACCORDANCE WITH MARKED-UP WHITE PRINTS MENTIONED ABOVE. TURN OVER THE AS-BUILT MYLAR PRINTS AND DIGITAL FILES TO THE CONSULTANT FOR CHECKING DURING THE FINAL INSPECTION PERIOD. SHOW ON THE RECORD DRAWINGS AS-BUILT, ALL OUTLETS AND EQUIPMENT.

29. BEFORE ENERGIZING ANY SYSTEMS, INSPECT AND CLEAN THE INSIDE OF PANEL BOARDS, AND CABINETS TO ENSURE THAT THEY ARE COMPLETELY FREE FROM DUST AND DEBRIS. CLEAN ALL POLISHED, PAINTED AND PLATED WORK BRIGHT. CLEAN ALL LIGHTING FIXTURES. REMOVE ALL DEBRIS, SURPLUS MATERIAL AND ALL TOOLS. CARRY OUT ADDITIONAL CLEANING OPERATING OF SYSTEMS AS SPECIFIED IN OTHER SECTIONS OF THIS DIVISION. CLEAN UP ALL DEBRIS ON SITE ON A DAILY BASIS AND REMOVE AND DISPOSE OF OFF SITE BEFORE THE FINAL COMPLETION OF THE CONTRACT.

30. DO ALL CUTTING, PATCHING AND MAKING GOOD TO LEAVE IN A FINISHED CONDITION AND TO MAKE THE SEVERAL PARTS OF THE WORK COME TOGETHER. PROPERLY COORDINATE WORK TO KEEP CUTTING AND PATCHING TO A MINIMUM.

31. THIS DIVISION SHALL CLEARLY IDENTIFY ALL ELECTRICAL EQUIPMENT. ALL EXISTING REVISED PANEL DIRECTORIES SHALL BE TYPED AND ALL OTHER EQUIPMENT SHALL BE PERMANENTLY IDENTIFIED WITH ETCHED LAMCOID PLATES 1/2" ENGRAVED WHITE SECURED TO CLEAN SURFACES.

32. SUPPLY AND INSTALL WIRING DEVICES AS INDICATED ON THE DRAWINGS.

33. RIGID GALVANIZED STEEL CONDUIT, TO C.S.A. C22.2 NO. 45, WITH EXTERIOR ZINC AND INTERIOR ENAMEL COATINGS, GALVANIZED THREADS WHERE FACTORY CUT, RED LEAD COATED THREADS WHERE SITE CUT, FACTORY MADE BENDS WHERE SITE BENDING IS NOT POSSIBLE, FACTORY MADE AND THREADED FITTINGS, AND "TOMIC" JOINTS AND TERMINATIONS MADE WITH RIGID COUPLINGS, CONCRETE TIGHT WHERE REQUIRED. USE RIGID GALVANIZED STEEL CONDUIT WHERE CONDUIT IS EXPOSED TO MECHANICAL INJURY.

34. UNDERGROUND CONDUIT SHALL BE RIGID P.V.C. (R-P.V.C.) CONDUIT UNLESS OTHERWISE SHOWN AND SHALL BE THICK WALL SCHEDULE 40 CONFORMING TO CSA STANDARDS C22.2, NO. 211.2, STANDARD OF ACCEPTANCE EQUAL TO IPX INCORPORATED, ROYAL PIPE SYSTEMS OR REVIEWED EQUIVALENT.

35. EMT (THINWALL) CONDUIT SHALL NOT BE USED.

36. GALVANIZED STEEL FLEXIBLE LIQUID-TIGHT METALLIC CONDUIT, TO C.S.A. C22.2 NO. 56, COMPLETE WITH PROPER AND SUITABLE LIQUID-TIGHT FLEXIBLE CONDUIT CONNECTORS AT TERMINATIONS FOR DROPS TO LIGHTING FIXTURES.

37. INSTALL CONDUIT AND CONDUCTORS CONCEALED IN ALL FINISHED AREAS AND CONCEALED TO THE DEGREE MADE POSSIBLE BY FINISHES IN PARTLY FINISHED AND UNFINISHED AREAS. CONDUIT MAY BE EXPOSED IN UNFINISHED AREAS UNLESS OTHERWISE NOTED ON THE DRAWINGS OR SPECIFIED HEREIN.

38. WHERE CONDUIT AND OR CONDUCTORS ARE EXPOSED ARRANGE SAME TO AVOID INTERFERENCE WITH OTHER WORK AND PARALLEL TO BUILDING LINES, WHERE HORIZONTAL CONDUIT AND CONDUCTORS ARE EXPOSED, INSTALL AS HIGH AS POSSIBLE. DO NOT INSTALL CONDUIT AND/OR CONDUCTORS WITHIN 150mm OF FLUE OR HEATING PIPES OR EQUIPMENT.

39. CONDUCTORS SHALL BE COPPER "RW90" SINGLE CONDUCTOR TO C.S.A. C22.2, COLOR CODED, 75 DEG. C, RATED WITH APPROVED MANUFACTURED CONNECTORS AT JOINTS IN CONDUIT. ALL CONDUIT SHALL BE RIGID GALVANIZED STEEL.

40. CONDUCTORS UNDERGROUND SHALL BE COPPER "RW90" SINGLE CONDUCTOR TO CSA C22.2 COLOR CODED, 90°C RATED WITH APPROVED MANUFACTURED CONNECTOR AT JOINTS IN CONDUIT. UNDERGROUND CONDUIT SHALL BE RIGID PVC THINWALL CONDUIT.

41. BRANCH CIRCUIT CONDUCTORS UP TO AND INCLUDING #10AWG MAY BE SOLID. CONDUCTORS GREATER THAN #10AWG SHALL BE STRANDED. ALL CONDUCTORS SHALL BE CONSTRUCTED OF HIGH CONDUCTIVITY COPPER. MINIMUM POWER CONDUCTOR SIZE SHALL BE #12AWG. MINIMUM CONDUIT SIZE SHALL BE 21mm.

42. SAFETY SWITCHES SHALL BE HEAVY DUTY SERIES SAFETY SWITCHES. EACH SAFETY SWITCH SHALL BE FRONT OPERATED WITH HAND HANDLE SUITABLE FOR PADLOCKING IN THE "OFF" POSITION AND ARRANGED SO THAT THE ENCLOSURE COVER CANNOT BE OPENED WITH THE HANDLE IN THE "ON" POSITION. OPERATING MECHANISMS SHALL BE QUICK-MAKE, QUICK-BREAK, POSITIVE ACTING WITH VISIBLE BLADES, AND A LINE TERMINAL SHIELD. FUSIBLE UNITS SHALL BE COMPLETED WITH FUSE CLIPS SUITABLE FOR H.R.C., CLASS "J" FUSES UNLESS OTHERWISE NOTED. EACH UNIT SHALL ALSO BE EQUIPPED WITH FUSELESS LUGS AND A FRONT COVER NAMEPLATE IDENTIFYING THE CATALOGUE NUMBER AND ELECTRICAL CHARACTERISTICS. ENCLOSURES FOR SAFETY SWITCHES SHALL BE, UNLESS OTHERWISE NOTED, EEMAC 3R RAINIGHT (SPRINKLER-PROOF) ENCLOSURES OR EEMAC 4X FOR OUTDOOR WEATHERPROOF

INSTALLATIONS. THE AMPERE RATING, NUMBER OF POLES, AND FUSE REQUIREMENTS FOR SAFETY SWITCHES SHALL BE AS SPECIFIED ON THE DRAWINGS. ACCEPTABLE MANUFACTURERS, ARE FPE, EATON, SQUARE D OR SIEMENS.

43. PROVIDE STARTERS FOR MOTORIZED MECHANICAL EQUIPMENT, IN ACCORDANCE WITH THE FOLLOWING SPECIFICATION AND THE MOTOR CONTROL REQUIREMENTS INDICATED ON THE DRAWINGS. UNLESS OTHERWISE INDICATED, STARTERS SHALL BE COMBINATION, TYPE ADJUSTABLE INSTANTANEOUS TRIP CIRCUIT BREAKER WITH FULL VOLTAGE NON-REVERSING MAGNETIC TYPE FOR ACROSS-THE-LINE STARTING. FULL PROTECTION OF EACH PHASE SHALL BE PROVIDED IN THE STARTERS BY MEANS OF ONE (1) OVERLOAD RELAY IN EACH PHASE. ALL STARTERS SHALL BE PROVIDED WITH SELECTOR SWITCH HAND/OFF/AUTOMATIC, "ON" PILOT LIGHT (RED OR GREEN) AND 2 NO AND 2 NC ELECTRICAL INTERLOCKS. THESE REQUIREMENTS ARE A MINIMUM FOR ALL STARTERS. EXTRA ACCESSORIES SHALL BE PROVIDED AS SHOWN ON THE DRAWINGS.

44. PROVIDE ALL REQUIRED STEEL PULL AND JUNCTION BOXES OF SUFFICIENT SIZE TO TAKE RACEWAY ENTERING THEM, CONDUCTORS, AND CONNECTIONS THERE TO WITHOUT CROWDING. PULL BOXES AND JUNCTION BOXES SHALL BE CONSTRUCTED OF GALVANIZED OR PRIME COATED STEEL. EACH SHALL BE SUITABLE IN ALL RESPECTS FOR THE APPLICATIONS, AND COMPLETE WITH SCREW-ON HINGED COVERS AS REQUIRED. THE PHYSICAL SIZE OF PULL BOXES SHALL BE AS REQUIRED BY THE "CODE" TO SUIT THE NUMBER AND SIZE OF CONDUITS AND CONDUCTORS. PROVIDE PULL BOXES IN CONDUIT SYSTEMS WHEREVER NECESSARY TO FACILITATE CONDUCTOR INSTALLATIONS. GENERALLY, CONDUIT RUNS EXCEEDING 30m IN LENGTH, OR WITH MORE THAN TWO (2) 90 DEGREE BENDS SHALL BE EQUIPPED WITH A PULL BOX INSTALLED AT A CONVENIENT AND SUITABLE INTERMEDIATE LOCATION. PROVIDE BOXES WITH SCREWED COVERS UNLESS OTHERWISE INDICATED.

45. INSTALL BOXES FOR EXPOSED WORK IN FS AND FD CAST GALVANIZED STEEL BOXES OR ALUMINUM FITTINGS.

46. THE PANELBOARDS SHALL BE AS SCHEDULED ON DRAWINGS AND AS SPECIFIED HEREIN AFTER. DISTRIBUTION PANELBOARDS 120/240V, 1 PHASE 3W. PANELBOARDS FOR DISTRIBUTION OF POWER AND LIGHTING CIRCUITS SHALL BE SUITABLE FOR, 120/240V 1 PHASE 3W OPERATION AS INDICATED, WITH AMPACITY AND CIRCUITS AS SHOWN AND WITH BOLT-ON CIRCUIT BREAKERS HAVING AN INTERRUPTING CAPACITY AT RATED VOLTAGE TO MEET AVAILABLE FAULT CURRENT AS INDICATED ON DRAWINGS. SERIES RATING OF BREAKERS WILL NOT BE ACCEPTABLE TO ACHIEVE FAULT CURRENT INDICATED ON DRAWINGS. CABINETS SHALL "CODE" QUALITY, GALVANIZED STEEL WITH ALL REQUIRED KNOCK-OUTS, MINIMUM 100mm GUTTERS ON ALL FOUR SIDES, AND REMOVABLE BOX ENDS. TRIMS SHALL INCLUDE ADJUSTABLE CONCEALED FASTENERS, CONCEALED, HINGED, LOCKABLE DOORS AND SUITABLE DIRECTORY. TRIM REQUIREMENTS SHALL SUIT THE PANEL LOCATION. PANELS SHALL BE IN EEMAC 3R ENCLOSURE (STAINLESS STEEL), PANELBOARD BUSSING SHALL BE COPPER FLAT BARS. BUS: COPPER, HALF CAPACITY GROUND BAR AND FULL (200%) CAPACITY NEUTRAL BAR, BRAGED FOR INTERRUPTING CAPACITY AS INDICATED. CIRCUIT BREAKERS: BOLT-ON, QUICK-MAKE, QUICK-BREAK, THERMAL AND MAGNETIC TRIPS, TRIP INDICATING, TRIP FREE HANDLE. COMMON OPERATING HANDLE ON MULTIPLE BREAKER. ACCEPTABLE MANUFACTURERS ARE SCHNEIDER GROUP (FPE LTD., SQUARE D), EATON AND SIEMENS LTD. MOUNTING PANEL ON CONTINUOUS SLOTTED STAINLESS STEEL CHANNEL STRUT WITH 75mm CLEAR BETWEEN BACK OF PANEL AND WALL.

47. LIGHTNING ARRESTER SHALL BE SUITABLE FOR 240/120V SINGLE-PHASE SYSTEM BY STANDARD OF ACCEPTANCE SHALL BE EQUAL TO INTERMATIC AG2401 OR REVIEWED EQUIVALENT.

48. PROVIDE NEW BREAKERS FOR ALL CIRCUITS TO SUIT PANEL AS REQUIRED. THE BREAKERS SHALL FEATURE BOLT-ON CONSTRUCTION AND A QUICK-MAKE, QUICK-BREAK ACTION, BE PROVIDED WITH AN ARC QUENCHING DEVICE AND HAVE TRIP-FREE HANDLES. THEY SHALL PROVIDE INVERSE TIME THERMAL OVERLOAD PROTECTION COMBINED WITH INSTANTANEOUS MAGNETIC TRIP HAVING AN INTERRUPTING RATING OF NOT LESS THAN 18,000 AMPS FOR 120/240V. BREAKERS, PANEL SHALL BE EATON, SIEMENS, SCHNEIDER CANADA OR APPROVED EQUAL.

49. PROVIDE COMPLETE SYSTEMS OF ELECTRIC SERVICE GROUNDING AS OUTLINED HEREIN AS SPECIFIED AND DETAILED ON THE DRAWINGS. GROUNDING SHALL COMPLY WITH THE REQUIREMENTS OF ALL GROUNDING REGULATIONS REQUIRED BUT NOT SPECIFIED HEREIN OR DETAILED ON THE DRAWINGS. WHERE CONDUIT SYSTEMS ARE USED FOR GROUNDS, PROVIDE ALL NECESSARY BUSHINGS, STUDS AND JUMPERS AS MAY BE REQUIRED TO MAINTAIN EFFECTIVE CONTINUITY OF GROUND. PROVIDE SEPARATE GROUNDS CONDUCTORS IN ALL CONDUITS. BOND THE GROUND WIRE TO ALL BOXES AND LUMINAIRES.

50. A COMPLETE LIGHTING CONTROL SYSTEM SHALL BE INCLUDED IN THE CONTRACT AS INDICATED ON THE DRAWINGS. THE CONTACTOR SHALL PROVIDE ALL THE NECESSARY RELAYS AND LIGHTING CONTACTORS. SEVEN-DAY TIMER SHALL BE 120V, SPOT CONTACT, EEMAC 1 ENCLOSURE. INTERMATIC CAT. NO. ET1105C C/W BATTERY BACKUP OR EQUAL. SET TIMER CLOCK FOR 7:00PM TO 11:00PM PROVIDE HEAVY DUTY LIGHTING CONTACTORS, FOR LIGHTING LOADS SUITABLE IN ALL RESPECTS FOR THE APPLICATION. MOUNT EACH CONTACTORS IN A SUITABLE EEMAC 4X ENCLOSURE, COMPLETE WITH THE NECESSARY ACCESSORIES AS INDICATED ON THE DRAWINGS. THE CURRENT RATING, NUMBER OF POLES ETC., FOR CONTACTORS SHALL BE AS NOTED ON THE DRAWINGS. THE CONTRACTORS SHALL BE SELECTED SO THAT THEY CAN FIT INTO THE SPACE AVAILABLE IN THE ENCLOSURE AND SHALL MEET THE REQUIREMENTS OF THE ONTARIO ELECTRICAL SAFETY CODE. LIGHTING CONTACTORS SHALL BE PROVIDED WITH CONTROL TRANSFORMER FOR 120V CONTROL OPERATION. INCLUDE H-O-A SWITCH ON FRONT FACE OF THE ENCLOSURE. CONTACTOR SHALL BE SUITABLE FOR HID SWITCHING. FOR AMPACITIES SEE DRAWINGS. ACCEPTABLE MANUFACTURERS ARE, ALLEN-BRADLEY, SIEMENS, EATON ELECTRICAL AND SCHNEIDER GROUP (SQUARE D). CONTROL RELAYS - ALL CONTROL, TIME DELAY OR DOUBLE VOLTAGE RELAYS SHALL BE SUPPLIED AND CONNECTED INTO THEIR RESPECTIVE CONTROL CIRCUITS AS INDICATED ON THE DRAWINGS. ALL RELAYS SHALL BE OF ROBUST CONSTRUCTION, HEAVY DUTY HARDENED STEEL MAGNET FACES FOR LONG LIFE, SILVER TO SILVER CONTACTS, AND SHALL HAVE REVERSELY REVERSIBLE CONTACT ARRANGEMENTS, TIME DELAY AND CURRENT RATINGS TO SUIT THE CONTROL REQUIREMENTS. THE CONTRACTOR SHALL SUBMIT FOR APPROVAL A LIST SHOWING MANUFACTURER AND TYPE OF ALL RELAYS HE INTENDS TO USE.

51. PHOTOELECTRIC RELAYS IN WEATHERPROOF ENCLOSURE FOR CONDUIT MOUNTING, WITH ADJUSTABLE LIGHT SHIELD. TEMPERATURE RANGE -40C TO +70C. SWITCHING TIME DELAY ADJUSTABLE UP TO 30 SECONDS. ACCEPTABLE MANUFACTURERS ARE: INTERMATIC, TORK AND PARAGON.

52. SUPPLY AND INSTALL ALL LIGHTING FIXTURES AND ELECTRICAL HEATERS AS INDICATED ON THE DRAWINGS.

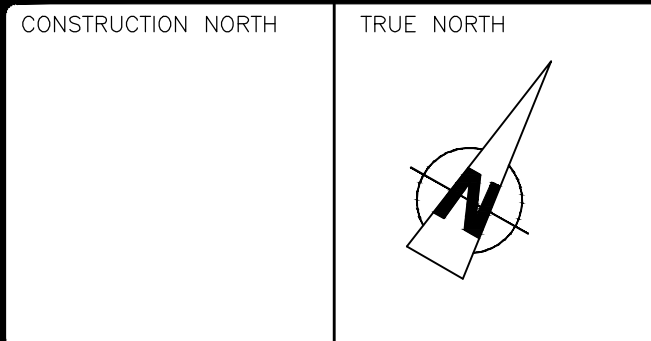
53. TEST ALL SYSTEMS TO THE SATISFACTION OF THE OWNER.

54. UPON COMPLETION OF WORK ALL EQUIPMENT SHALL BE THOROUGHLY CLEANED, CONNECTIONS TIGHTENED, COVERS SECURED, AND IN SATISFACTORY OPERATING CONDITION, WITH CORRECT PHASE ROTATION. CARRY OUT INSULATION RESISTANCE (MEGGER) TESTS, GROUND CONTINUITY AND RESISTANCE TESTS SATISFACTORY TO THE CONSULTANT. BALANCE ALL 1 PHASE LOADS ON EXISTING PANEL BEING USED FOR NEW CONNECTIONS, AND IMBALANCE SHALL NOT EXCEED 5% AT ANY LOAD. PERFORM ADDITIONAL TESTING AS REQUIRED BY THE CONSULTANT TO CONFIRM THAT ALL EQUIPMENT IS CONNECTED AND OPERATING IN ACCORDANCE WITH THE CONTRACT REQUIREMENTS.

55. CLEAN ALL EQUIPMENT, VACUUM THE INSIDES OF THE EQUIPMENT, TOUCH UP ANY SCRATCHES OR CHIPS IN THE PAINT OF ELECTRICAL EQUIPMENT, FIXTURES OR DEVICES, CLEAN AND WIPE DOWN THE SURFACE OF ELECTRICAL EQUIPMENT FIXTURES, DEVICES AND LIGHTING FIXTURE LENSES.

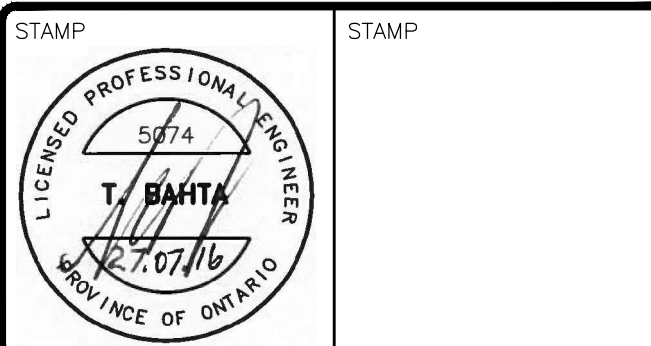
56. CONTRACTOR TO PROVIDE TYPED PANEL SCHEDULE UPDATED WITH NEW CIRCUITS AND INFORMATION LABELED WHEN PROJECT IS COMPLETE.

57. UNLESS INDICATED OTHERWISE IN THE GENERAL CONDITIONS, THE ELECTRICAL CONTRACTOR SHALL SUBMIT MARKED UP SETS OF RECORD DRAWINGS AS "AS BUILT" DRAWINGS AND THREE MAINTENANCE MANUAL LOOSE LEAF BINDERS. EACH MAINTENANCE MANUAL SHALL INCLUDE, AS A MINIMUM, A COPY OF THE WARRANTY, THE SHOP DRAWINGS FOR THE EQUIPMENT AND FIXTURES, THE ELECTRICAL SAFETY AUTHORITY INSPECTION REPORT, AN INDEX OF CONTENTS AND TAB DIVIDERS.



REVISIONS	No.	Date	Description
	3	16/07/21	ISSUED FOR TENDER
	2	16/06/30	ISSUED FOR FINAL REVIEW
	1	16/06/08	ISSUED FOR CLIENT REVIEW
PLOT SCALE: 1=1			

CONTRACTOR WILL CHECK AND VERIFY ALL DIMENSIONS AND CHECK ALL JOB CONDITIONS ON THE JOB BEFORE PROCEEDING WITH THE WORK.



PROJECT
FRED HAMILTON PARK FIELD HOUSE

LOCATION
155 ROXTON ROAD
TORONTO, ONTARIO

SINGLE LINE DIAGRAMS,
SCHEMATICS AND SPECIFICATION

SCALE	NONE	JOB No.	5074
DRAWN BY	V.M.	DRAWING NO.	
CHECKED BY	T.B.		
DATE	JUNE, 2016		
CAD FILE	5074-E1-E3		