

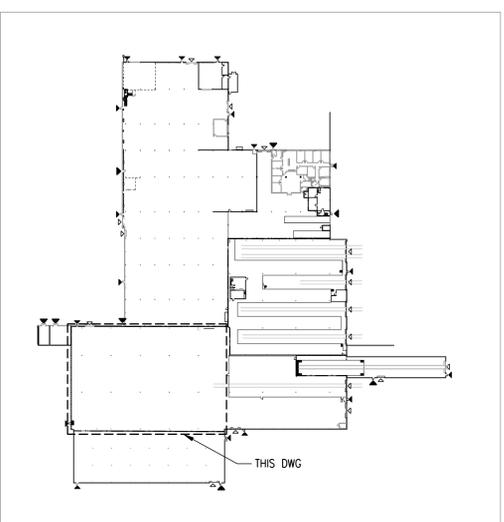
FLOOR PLAN - WEST
 SCALE: 3/32"=1'-0"
 NORTH

NOTE: ELEVATION IN METRIC
 x 78.58 EXIST.
 78.59 NEW

- GENERAL NOTES:**
- DO ALL WORK SHOWN ON DRAWINGS AND SPECIFIED HEREIN TO CONSTRUCT NEW FLOOR INCLUDING NEW CONCRETE AND PAVING BRICK SYSTEM.
 - FIELD MEASURE AND MAKE ADJUSTMENTS TO SUIT EXISTING CONDITIONS.
 - DO NOT SCALE DRAWINGS.
 - PROVIDE PROTECTION FROM EXISTING EQUIPMENT AND ANY OTHER WORK REQUIRED TO ENSURE SAFE CONDITIONS FOR WORKERS.
 - PROTECT ALL EXISTING EQUIPMENT AND CONDITIONS FROM DAMAGE DURING CONSTRUCTION.

- NEW BRICK PAVER SYSTEM:**
- NEW FLOOR SYSTEM DESIGN BY HOPA, PROJECT SPECIFICATIONS AND COORDINATE MATERIALS REMOVALS, EXISTING SOIL REVIEW AND BACKFILL COMPACTION TESTING WITH OWNERS GEOTECHNICAL ENGINEER.
 - GEOTECHNICAL ENGINEER IS CHUNG AND VANDERDOELEN ENGINEERING LTD. 311 VICTORIA STREET NORTH KITCHENER, ON N2H 5E1 519-742-8979
 - CONSTRUCT PAVING BRICK SYSTEM INCLUDING PROOF ROLLING OF EXPOSED BASE COURSE, AND NEW BEDDING. SEE SPECIFICATIONS FOR ALL PRODUCTS AND MATERIALS.
 - BACKFILL FOR SLAB ON GRADE BASE COURSE SOFT SPOTS SHALL BE GRANULAR "A" MATERIAL PLACED IN MAXIMUM 6" LIFTS AND COMPACTED TO 100% S.P.M.D.D. SUB-EXCAVATE AS REQUIRED.
 - EXISTING GRANULAR MAY BE REUSED UNDER DIRECTION AND APPROVAL OF OWNERS GEOTECHNICAL ENGINEER.

- CONCRETE:**
- ALL CONCRETE WORK TO CSA-A23.1- CONCRETE MATERIALS AND METHODS OF CONCRETE CONSTRUCTION.
 - INTERIOR SLAB ON GROUND CONCRETE TO BE TYPE C-1, 35 MPa 28 DAY STRENGTH, 75± SLUMP, 5-8% AIR. COMPOSITE SLAB CONCRETE TO BE TYPE N, 25 MPa 28 DAY STRENGTH, 75± SLUMP. EXTERIOR CONCRETE TO BE C-2, 32MPa, 5-8% AIR. NO CALCIUM CHLORIDE OR OTHER SALTS TO BE ADDED. SUBMIT MIX DESIGN FOR APPROVAL.
 - SUBMIT MIX DESIGN FOR APPROVAL.
 - REBAR TO BE GRADE 400 DEFORMED BARS TO CAN/CSA-C30.18-M92-BILLET STEEL BARS FOR CONCRETE REINFORCEMENT. SUBMIT SHOP DRAWINGS FOR REVIEW AND APPROVAL PRIOR TO FABRICATION.
 - CONTACT ATKINSON ENGINEERING INC. FOR REVIEW OF REINFORCING STEEL A MINIMUM OF 24 HRS. BEFORE PLACEMENT SO ANY DEFICIENCIES CAN BE CORRECTED.
 - PROVIDE A STEEL TROWEL FINISH TO CONCRETE SLAB.
 - CURE SLAB FOR A MINIMUM OF 7 DAYS BY COVERING WITH WET BURLAP AND POLY SHEETING.



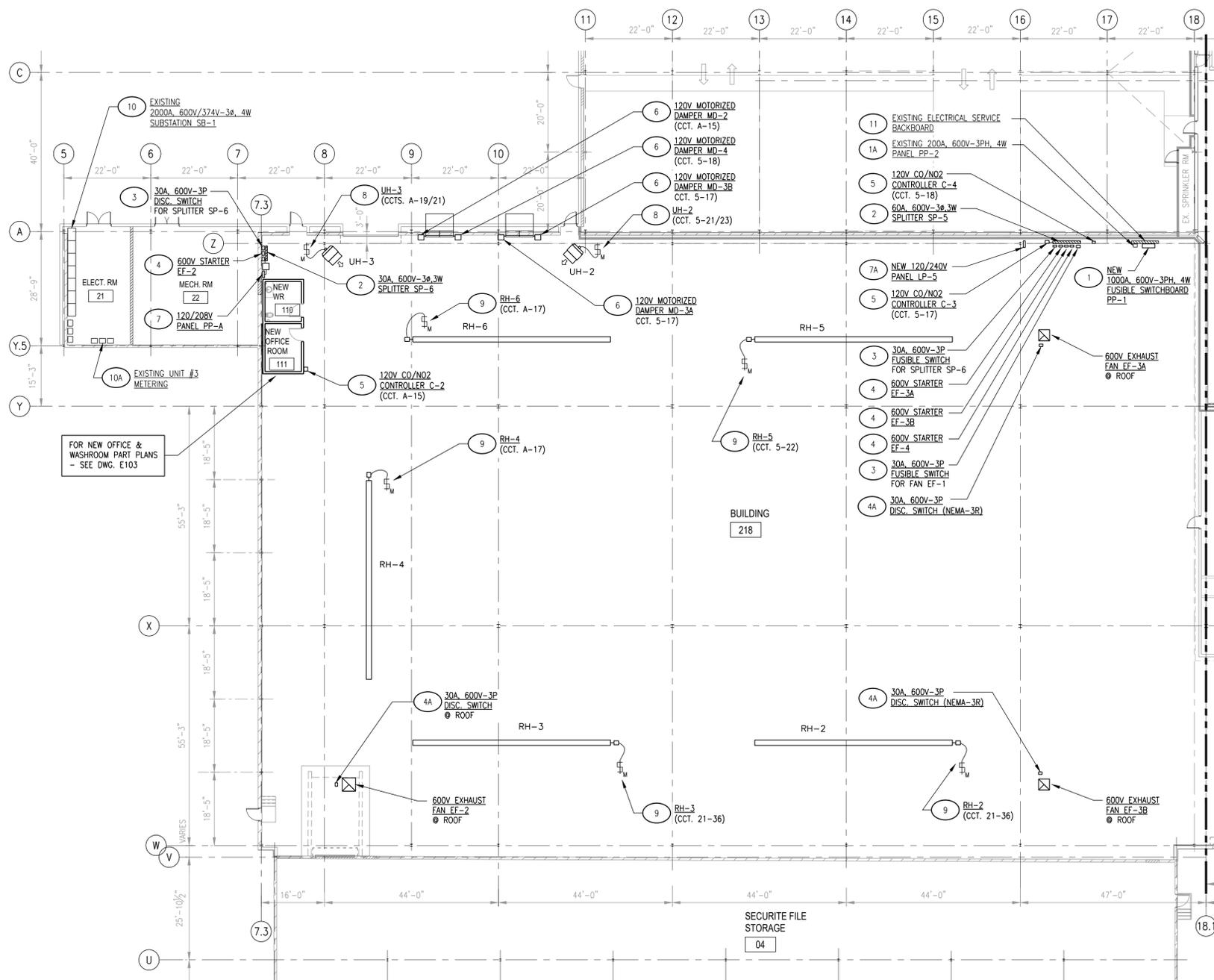
KEY PLAN
 SCALE: N.T.S.
 NORTH

no.	description	date
1	ISSUED FOR TENDER	SEPT 5, 2025
2	REVISED CONC. SLAB AND ELEVATION NOTE	NOV 11, 2025
3	ADDED NEW	NOV 11, 2025

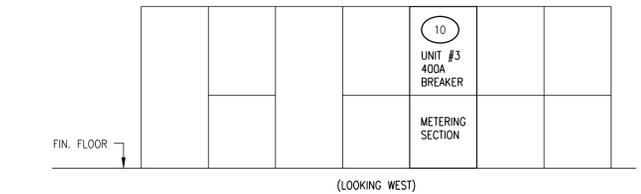
PROJECT TITLE:	HAMILTON-OSHAWA PORT AUTHORITY PIER 15 - 204 HILLYARD ST. BUILDING 218 UPGRADES
DRAWING TITLE:	FLOOR SLAB NEW - WEST
DATE:	JUNE 2025
CHECKED BY:	CB
DATE:	SEPT 2025
SCALE:	AS NOTED
PROJECT NUMBER:	25-38
DRAWING NUMBER:	S103
REVISION:	2



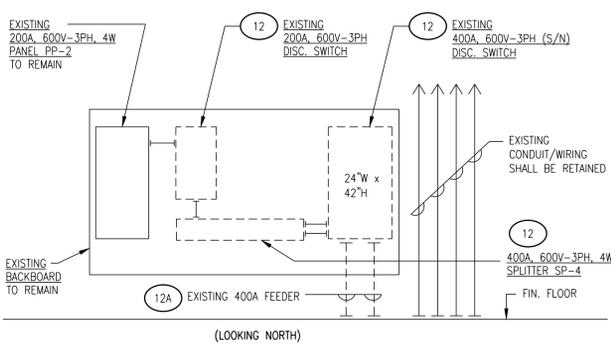
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DRAWING NUMBER:	S103
REVISION:	2



WEST FLOOR PLAN - POWER
SCALE: 1/16"=1'-0"
NORTH



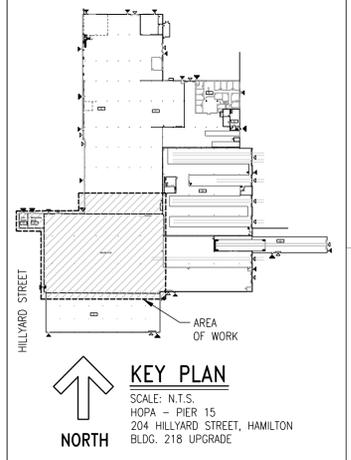
SUBSTATION SB-1 FRONT VIEW
SCALE: 1/4"=1'-0"



EXISTING 400A SERVICE DEMOLITION DETAIL
SCALE: 3/8"=1'-0"

LEGEND:
MANUAL STARTER (M.H. 4'-0" AFF, UNLESS NOTED OTHERWISE)

- CONSTRUCTION NOTES:**
- PROVIDE NEW 600V FUSIBLE SWITCHBOARD PP-1 & CONNECT TO CONFORM TO PARTIAL ONE-LINE DIAGRAM ON DWG. E102.
 - RESTORE 600V POWER TO EXISTING 600V PANEL PP-2 TO CONFORM TO ONE-LINE DIAGRAM ON DWG. E102.
 - PROVIDE 600V SPLITTER & CONNECT TO CONFORM TO ONE-LINE DIAGRAM ON DWG. E102.
 - PROVIDE 600V DISCONNECT SWITCH & CONNECT TO CONFORM TO ONE-LINE DIAGRAM ON DWG. E102.
 - PROVIDE 600V SIZE 1 FVNR STARTER & CONNECT TO CONFORM TO ONE-LINE DIAGRAM ON DWG. E102. REFER TO TYPICAL EXHAUST FAN STARTER SCHEMATIC ON DWG. E102.
 - NOTE: PROVIDE CONTROL INTERLOCKING BETWEEN STARTER AND PERSPECTIVE, MOTORIZED DAMPER ENDSWITCH TO CONFORM TO WIRING DIAGRAMS ON DWG. M104.
 - PROVIDE 600V DISCONNECT SWITCH & CONNECT TO RESPECTIVE EXHAUST FAN AS REQUIRED. LOCATE TO SUIT FIELD CONDITIONS.
 - PROVIDE 120V POWER TO CONTROLLER & CONNECT AS INDICATED. CONTROLLER SUPPLIED & INSTALLED BY MECHANICAL TRADE.
 - PROVIDE 120V POWER TO MOTORIZED DAMPERS & CONNECT AS INDICATED. DAMPER SUPPLIED & INSTALLED BY MECHANICAL TRADE.
 - NOTE: PROVIDE CONTROL INTERLOCKING BETWEEN STARTER AND PERSPECTIVE, MOTORIZED DAMPER ENDSWITCH TO CONFORM TO WIRING DIAGRAMS ON DWG. M104.
 - REFER TO POWER SCHEDULE ON DWG. E103.
 - REPLACE EXISTING 120/240V PANEL WITH NEW PANEL TO CONFORM TO PANEL SCHEDULE ON DWG. E102. RECONNECT EXISTING POWER FEED & ASSOCIATED BRANCH WIRING AS REQUIRED.
 - PROVIDE 230V MANUAL STARTER & CONNECT AS INDICATED ON PLAN. CONNECT POWER TO UNIT HEATER AS REQUIRED.
 - PROVIDE 120V MANUAL STARTER & CONNECT AS INDICATED. LOCATE ADJACENT TO HEATER TO SUIT FIELD CONDITIONS (APPROX. 20'-0" AFF). CONNECT SWITCH TO HEATER AS REQUIRED.
 - ELECTRICAL CONTRACTOR SHALL ENGAGE THE SERVICES OF EATON TO MODIFY EXISTING SUBSTATION CUBICLE FOR UNIT #3 AS FOLLOWS:
 - REPLACE 400A BREAKER WITH NEW 1200AF/1000AT BREAKER & ASSOCIATED MOUNTING HARDWARE.
 - REVISE RISER BUS IN BREAKER COMPARTMENT COMPLETE WITH PUC & LUG-OUT SECTION.
 - SUPPLY PT'S & CT TO INTERFACE WITH NEW METERING AS REQUIRED.
 - SUPPLY, INSTALL, & CONNECT NEW METERING TO SUIT. COORDINATE METER REQUIREMENTS WITH ALECTRA AS REQUIRED.
 - SERVICE BACKPLATE EQUIPMENT SHALL BE DEMOLISHED TO ACCOMMODATE INSTALLATION OF NEW 600V FUSIBLE SWITCHBOARD PP-1. REFER TO DEMOLITION DETAIL ON THIS DRAWING.
 - DISCONNECT & REMOVE EXISTING SERVICE EQUIPMENT COMPLETE WITH ASSOCIATED CONDUIT/WIRING AS REQUIRED.
 - EXISTING 400A FEEDER FROM SUBSTATION SB-1 FOR UNIT #3 SHALL BE DISCONNECTED COMPLETELY.



KEY PLAN
SCALE: N.T.S.
HOPA - PIER 15
204 HILLYARD STREET, HAMILTON
BLDG. 218 UPGRADE
NORTH

- SPECIFICATIONS:**
- ALL EQUIPMENT SHALL BE AS SPECIFIED ON THIS DRAWING. ANY DEVIATION FROM THESE SPECIFICATIONS MUST BE APPROVED BY ENGINEER.
 - ALL INDOOR CONDUIT SHALL BE ELECTRICAL METALLIC TUBING (EMT) COMPLETE WITH STEEL CONNECTORS AND COUPLINGS (DIECAST NOT ACCEPTABLE). TECK CABLE SHALL BE PERMITTED WHERE INDICATED ON PLANS.
 - ALL CONDUCTORS SHALL BE MIN. #12 AWG RW90 COPPER (RATED 600V).
 - PROVIDE ALL NECESSARY GROUNDING ASSOCIATED WITH NEW WORK.
 - INSTALLATION SHALL CONFORM TO ONTARIO ELECTRICAL SAFETY CODE (LATEST EDITION). PROVIDE COPY OF ALL INSPECTION REPORTS TO ENGINEER.
 - ELECTRICAL CONTRACTOR FEES SHALL INCLUDE FOR ALL ESA INSPECTION COSTS AND/OR REQUIRED PERMITS.
 - PROVIDE EQUIPMENT NAMEPLATES AS REQUIRED. LAMACOID TYPE - WHITE LETTERING ON BLACK BACKGROUND TO SUIT.
 - PRIOR TO SUBMITTING FEES CONTRACTOR SHALL VISIT SITE AND BE AWARE OF FIELD CONDITIONS AFFECTING THE SCOPE OF WORK. ALL NEW CONDUIT/WIRING SHALL BE ROUTED TO SUIT FIELD CONDITIONS.
 - ALL CONDUIT PENETRATIONS IN FLOORS AND WALLS SHALL BE FIREPROOFED AS REQUIRED.
 - CABLE ROUTINGS SHOWN ON PLAN ARE DIAGRAMMATIC. EXACT ROUTING & TERMINATION POINTS SHALL BE FIELD VERIFIED.
 - UPDATE PANEL DIRECTORIES TO CONFORM WITH SCOPE IDENTIFIED ON THIS DRAWING.
 - DISCONNECT SWITCHES SHALL BE RATED AS PER PLANS. ACCEPTABLE MANUFACTURER: EATON OR SCHNEIDER
 - NEW 120/208V POWER DISTRIBUTION PANEL SHALL BE RATED 100A, 120V/208V-3 PHASE, 4 WIRE, COPPER BUS. COMPLETE WITH REQUIRED CIRCUIT BREAKERS. PANEL SHALL BE MINIMUM 30 CCT COMPLETE WITH PANEL DIRECTORY REFLECTING USAGE FOR EACH CIRCUIT UTILIZED.
MANUFACTURER: SCHNEIDER (SQ. 'D'), OR APPROVED EQUIVALENT.
 - NEW STEP-DOWN TRANSFORMER SHALL BE RATED 15 KVA, 600V: 120/208V-3PH, 4 WIRE, COPPER.
MANUFACTURER: HAMMOND, OR APPROVED EQUIVALENT
 - FRACTIONAL HORSEPOWER MANUAL STARTERS SHALL BE RATED 1 HP, 120V OR 230V AS APPLICABLE, EEMAC-1 COMPLETE WITH OVERLOAD PROTECTION AND PILOT LIGHT.
MANUFACTURER: EATON, OR APPROVED EQUIVALENT.
 - COMBINATION MAGNETIC FVNR STARTERS SHALL BE RATED 600V-3P, SIZE 1 COMPLETE WITH HAND-OFF-AUTO SELECTOR SWITCH AND 'RUNNING' PILOT LIGHT. STARTERS SHALL HAVE CONTROL TRANSFORMERS AND BE CAPABLE TO BE INTERLOCKED WHEN IN 'AUTO' MODE. REFER TO SCHEMATICS ON DRAWINGS E102.
MANUFACTURER: SCHNEIDER, EATON, OR APPROVED EQUIVALENT.
 - NEW 120/240V POWER DISTRIBUTION PANEL SHALL BE RATED 225A, 120/240V-1PHASE, 3 WIRE, COPPER BUS, COMPLETE WITH REQUIRED CIRCUIT BREAKERS. PANEL SHALL BE MINIMUM 30 CCT COMPLETE WITH PANEL DIRECTORY REFLECTING USAGE FOR EACH CIRCUIT UTILIZED.
MANUFACTURER: HAMMOND, OR APPROVED EQUIVALENT
 - NEW 600V/347V-3PH, 4W FUSIBLE SWITCHBOARD SHALL BE RATED 1000A, COPPER BUS COMPLETE WITH REQUIRED SWITCHES/FUSING.
MANUFACTURER: EATON PRL4 PANEL (90" x 44"W x 12"D), OR APPROVED EQUIVALENT
 - ALL COSTS ASSOCIATED WITH EATON SERVICES TO UPGRADE EXISTING SUBSTATION SB-1, AS PER SCOPE OUTLINED ON THE DRAWINGS, SHALL BE CARRIED WITHIN ELECTRICAL CONTRACTOR'S TENDERED FEES.
- CONTACT: MOHAMMAD FARROKHI, EATON
PHONE: 905-577-2420

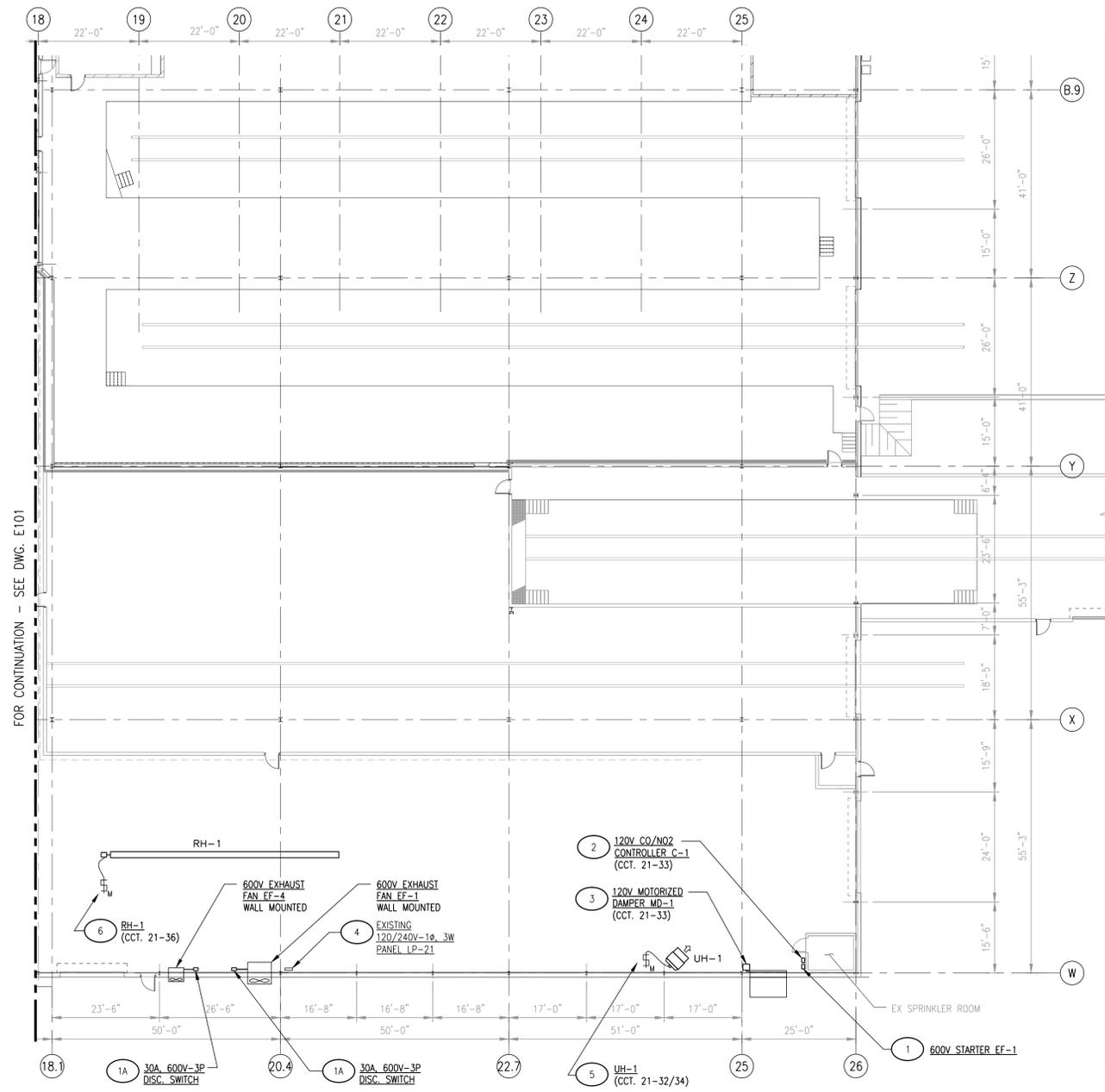
no.	description	date
0	ISSUED FOR TENDER	SEPT. 5, 2025
1	RE-ISSUED FOR TENDER	NOV. 6, 2025

project title:	HAMILTON-OSHAWA PORT AUTHORITY PIER 15 - 204 HILLYARD ST. BUILDING 218 UPGRADES
drawn:	BTD
date:	JUNE 2025
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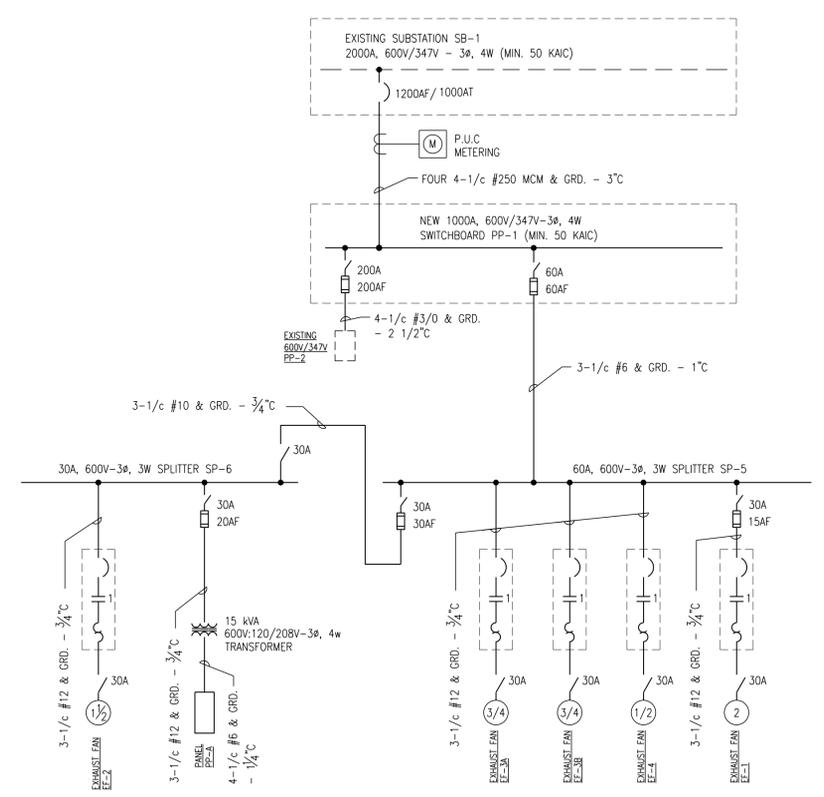
ATKINSON ENGINEERING INC.
786 King Street East
Hamilton ON L8M 1A6
Tel. 905.523.1988
Fax. 905.523.6221
www.atkinsonengineering.com

HOPA PORTS | **HAMILTON OSHAWA PORT AUTHORITY**

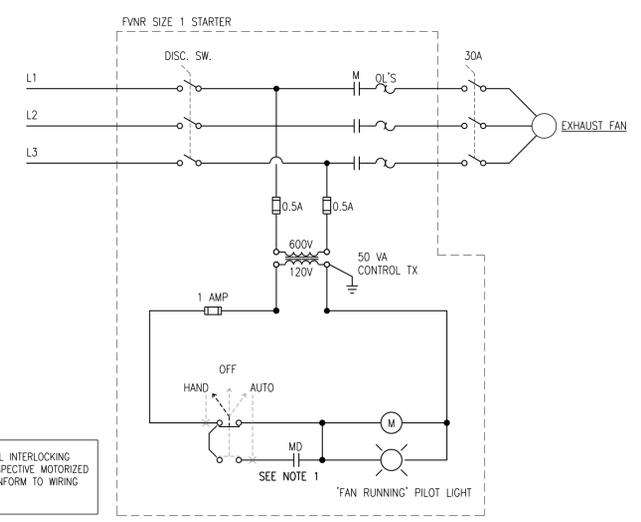
WEST FLOOR PLAN - POWER & SPECIFICATIONS



EAST FLOOR PLAN - POWER
SCALE: 1/16"=1'-0"



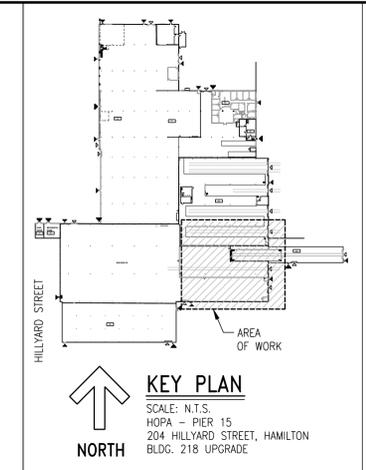
PARTIAL ONE-LINE DIAGRAM



TYPICAL 600V EXHAUST FAN SCHEMATIC
(TYPICAL FOR EF-1, EF-2, EF-3A, EF-3B & EF-4)

EXISTING PANEL LP-21		MAIN FEEDER TOP ENTRY		200A, 120/240V-1φ, 3W (MIN. 10 KAIC)	
CCT.	DESCRIPTION	BREAKER SIZE	WIRING		
32	UNIT HTR UH-1	(3/4 HP)	15A-2P	2#12	
36	HEATERS RH-1, RH-2, RH-3	(FLA-3A)	15A-1P	2#12	
33	CONTROLLER C-1/1/ MOTORIZED DAMPER MD-1		15A-1P	2#12	
35	SPARE		15A-1P	-	

△ PROVIDE NEW BREAKER & CONNECT AS REQUIRED



CONSTRUCTION NOTES:

- 1 PROVIDE 600V SIZE 1 FVNR STARTER & CONNECT TO CONFORM TO ONE-LINE DIAGRAM ON THIS DRAWING. REFER TO TYPICAL EXHAUST FAN STARTER SCHEMATIC ON THIS DRAWING.
NOTE: PROVIDE CONTROL INTERLOCKING BETWEEN STARTER AND PERSPECTIVE MOTORIZED DAMPER END SWITCH TO CONFORM TO WIRING DIAGRAMS ON DWG. M104.
- 1A PROVIDE 600V DISCONNECT SWITCH & CONNECT TO RESPECTIVE EXHAUST FAN AS REQUIRED. LOCATE TO SUIT FIELD CONDITIONS.
- 2 PROVIDE 120V POWER TO CONTROLLER & CONNECT AS INDICATED. CONTROLLER SUPPLIED & INSTALLED BY MECHANICAL TRADE.
- 3 PROVIDE 120V POWER TO MOTORIZED DAMPER & CONNECT AS INDICATED. DAMPER SUPPLIED & INSTALLED BY MECHANICAL TRADE.
NOTE: PROVIDE CONTROL INTERLOCKING BETWEEN STARTER AND PERSPECTIVE MOTORIZED DAMPER END SWITCH TO CONFORM TO WIRING DIAGRAMS ON DWG. M104.
- 4 PROVIDE NEW BREAKERS IN EXISTING 120/240V PANEL TO CONFORM TO PARTIAL PANEL SCHEDULE ON THIS DRAWING.
- 5 PROVIDE 230V MANUAL STARTER & CONNECT AS INDICATED ON PLAN. CONNECT POWER TO UNIT HEATER AS REQUIRED.
- 6 PROVIDE 120V MANUAL STARTER & CONNECT AS INDICATED. LOCATE ADJACENT TO HEATER TO SUIT FIELD CONDITIONS (APPROX. 20'-0" AFF). CONNECT SWITCH TO HEATER AS REQUIRED.

NEW PANEL LP-5		MAIN FEEDER TOP ENTRY		225A, 120/240V-1φ, 3W (MIN. 10 KAIC)	
CCT.	DESCRIPTION	BREAKER SIZE	WIRING		
1	EXISTING LOAD	20A-1P	EXIST.		
3					
5					
7					
9					
11					
13					
15					
17	CONTROLLER C-3/ MOTORIZED DAMPERS MD-3A & MD-3B	15A-1P	2#10		
19	CONTROLLER C-4/ MOTORIZED DAMPER MD-4	15A-1P	2#10		
21	UNIT HTR UH-2 (3/4 HP)	15A-2P	2#12		
23					
25	SPACE	-	-		
27					
29					
2	EXISTING LOAD	20A-1P	EXIST.		
4					
6					
8					
10				15A-1P	
12				15A-1P	
14				15A-2P	
16					
18				15A-2P	
20					
22	HEATER RH-5 (FLA-1A)	15A-1P	2#12		
24	SPARE	15A-1P	-		
26	SPACE	-	-		
28					
30					

▲ EXISTING BRANCH WIRING SHALL BE CONNECTED TO RESPECTIVE BREAKER AS BEFORE

no.	description	date
0	ISSUED FOR TENDER	SEPT. 5, 2025
1	RE-ISSUED FOR TENDER	OCT. 23, 2025



project title: HAMILTON-OSHAWA PORT AUTHORITY PIER 15 - 204 HILLYARD ST. BUILDING 218 UPGRADES
drawing title: EAST FLOOR PLAN - POWER, ONE-LINE DIAGRAM, SCHEMATIC, PANEL SCHEDULE & NOTES
drawn: BTD
date: JUNE 2025
checked: JAM
date: SEPT. 2025

scale: AS NOTED	project number: 25-38
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