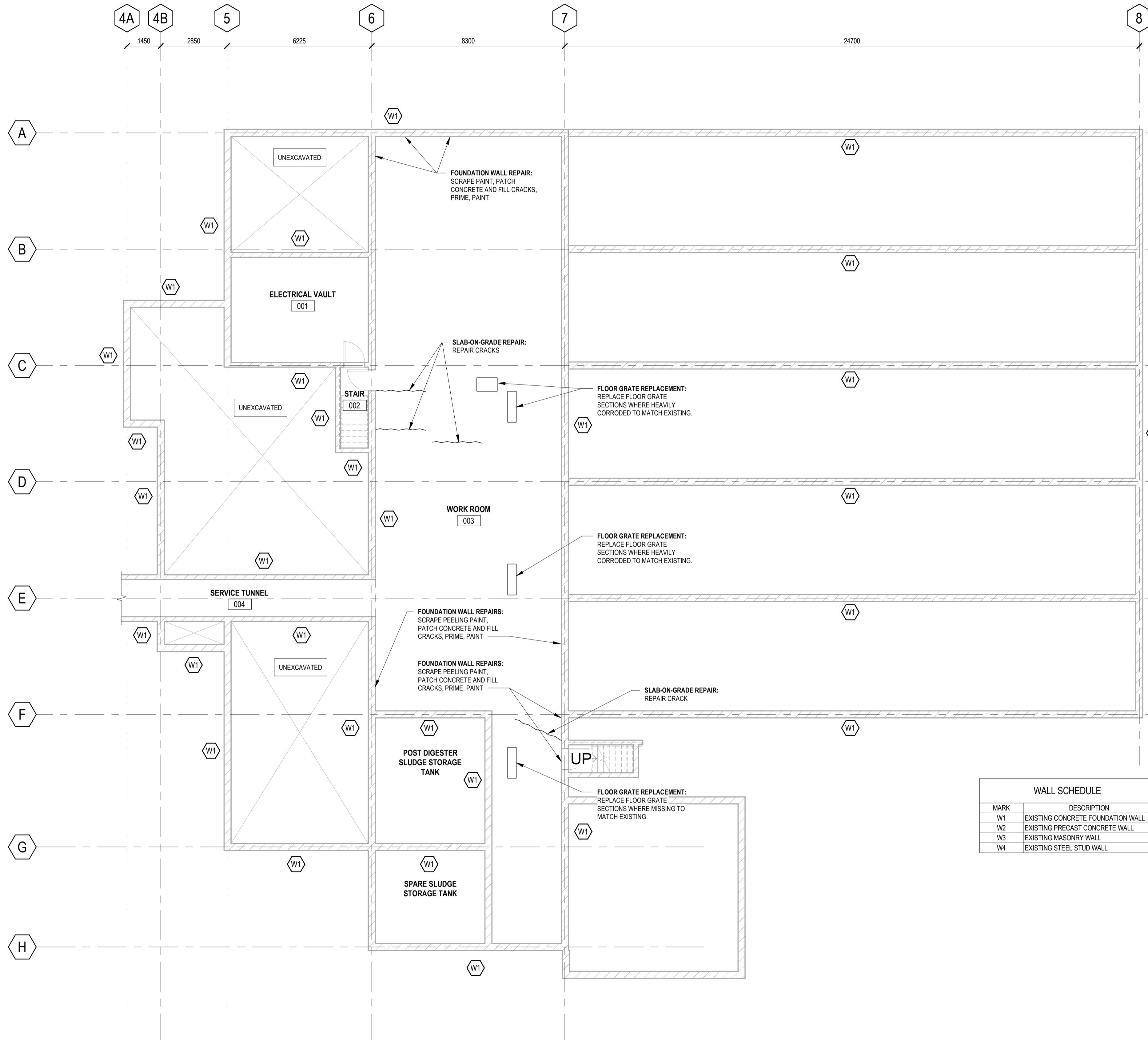


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WALL SCHEDULE	
MARK	DESCRIPTION
W1	EXISTING CONCRETE FOUNDATION WALL
W2	EXISTING PRECAST CONCRETE WALL
W3	EXISTING MASONRY WALL
W4	EXISTING STEEL STUD WALL

STRUCTURAL ABBREVIATIONS			
A.F.F.	ABOVE FINISH FLOOR	A.C.	ABOVE FINISH FLOOR
ALT.	ALTERNATE	ARCH.	ARCHITECTURAL
ARCH.	ARCHITECTURAL	J.P.	JACK POST
BLL	BOTTOM LOWER LAYER	(L)	LOWER
BUL	BOTTOM UPPER LAYER	LBMB	LOAD BEARING MASONRY BLOCK
BOT.	BOTTOM	LBWS	LOAD BEARING WOOD STUD
¢	CENTRE LINE	LL	LEVEL LOAD
c/c	CENTER TO CENTER	LLH	LONG LEG HORIZONTAL
CIP	CAST-IN-PLACE	LLV	LONG LEG VERTICAL
C.O.	CLEANOUT	MAX.	MAXIMUM
CONC.	CONCRETE	MECH.	MECHANICAL
CONT.	CONTINUOUS	MIN.	MINIMUM
CL	CLEAR	ML	MASONRY LINTEL
C.J.	CONTROL JOINT	NOM.	NOMINAL
dw	COMPLETE WITH	N.T.S.	NOT TO SCALE
ø	DIAMETER	O.C.	ON CENTRES
DIA.	DIAMETER	O.H.	OVERHEAD
D.L.	DEAD LOAD	PROP.	PROPOSED
DN	DOWN (ARROW POINTS TO LOWER ELEVATION)	REF.	REFER TO
DP	DEEP	REINF.	REINFORCEMENT
E.E.	EACH END	RD	ROOF DRAIN
E.F.	EACH FACE	S.D.L.	SUPERIMPOSED DEAD LOAD
ELEC.	ELECTRICAL	SIM.	SIMILAR
EL.	ELEVATION	S.J.	SAWCUT JOINT
EQ.	EQUAL	S.O.G.	SLAB-ON-GRADE
E.S.	EACH SIDE	SP	SPACING
EXIST.	EXISTING	SPMDD	STANDARD PROCTOR
EXT.	EXTERIOR	SST	MAXIMUM DRY DENSITY
E.W.	EACH WAY	S.W.	SIMPSON STRONG TIE
E.W.B.	EACH WAY BOTTOM	T & B	TOP AND BOTTOM
E.W.E.F.	EACH WAY EACH FACE	THK.	THICK
E.W.T.	EACH WAY TOP	(TYP.)	TYPICAL
FD	FLOOR DRAIN	U.N.O.	UNLESS NOTED OTHERWISE
FOUND.	FOUNDATION	U/S	UNDER SIDE
FTG.	FOOTING	V.B.	VAPOUR BARRIER
F.P.	FIRE PROTECTION	VERT.	VERTICAL
GALV.	GALVANIZED	W	WITH
(H)	HIGHER	w/o	WITHOUT
H & V	HORIZONTAL AND VERTICAL	WL	WOOD LINTEL
HD	HOLD DOWN		

**GENERAL NOTES:**

- ALL WORK AND MATERIALS SHALL CONFORM TO THE 2020 EDITION OF THE NATIONAL BUILDING CODE OF CANADA.
- WHERE REFERENCES TO CODES/STANDARDS ARE MADE IN THESE DOCUMENTS, THE LATEST EDITION SHALL BE REFERENCED.
- ALL LOADS INDICATED ON DRAWINGS ARE SERVICE (UNFACTORED) LOADS UNLESS NOTED OTHERWISE.
- THE CONTRACTOR SHALL EXAMINE ALL DRAWINGS AND CHECK ALL DIMENSIONS AGAINST SITE CONDITIONS AND REPORT ANY DISCREPANCIES BEFORE PROCEEDING WITH WORK.
- CONTRACTOR SHALL DESIGN, INSTALL AND MAINTAIN ADEQUATE TEMPORARY BRACING AND SHORING OF ALL STRUCTURAL ELEMENTS FOR STABILITY AND SAFETY WHERE REQUIRED DURING CONSTRUCTION, (THE ABOVE WORK IS BEYOND THE SCOPE OF THE STRUCTURAL ENGINEER).
- CRACKS IN CONCRETE ELEMENTS TO BE FILLED WITH HIGH QUALITY CRACK REPAIR COMPOUND. SUBMIT CUT SHEET FOR APPROVAL PRIOR TO INSTALLATION. INSTALL IN STRICT ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.
- REPAIRS TO EXISTING CONCRETE ELEMENTS TO BE COMPLETED WITH SUITABLE MATERIAL SPECIFICALLY DESIGNED FOR CONCRETE REPAIR PATCHING. CONCRETE TO BE PREPARED AND PATCHING MATERIAL TO BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS.

**STRUCTURAL STEEL NOTES:**

- ALL STRUCTURAL STEEL SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH CSA S16.
- ALL STRUCTURAL STEEL SHALL BE NEW STOCK AND CONFORM TO THE FOLLOWING GRADES AND STANDARDS:
  - STRUCTURAL STEEL FRAMING: CSA-G40.21 TYPE 350W
  - HOLLOW STRUCTURAL SECTIONS: ASTM A500 GRADE C
  - COLD FORMED SECTIONS: CSA S136, 350 MPa MINIMUM YIELD STRENGTH
  - CHANNELS, ANGLES, PLATES, AND RODS: CSA-G40.21 TYPE 300W
- ALL WELDING SHALL BE CARRIED OUT IN ACCORDANCE WITH CSA W59 AND W55.3 BY A FABRICATOR FULLY APPROVED UNDER CSA W47.1 DIVISION No.1 OR No.2.
- ALL BOLTS, NUTS AND WASHERS FOR STRUCTURAL STEEL CONNECTIONS SHALL CONFORM TO ASTM A325.
- ALL ANCHOR BOLTS, NUTS AND WASHERS SHALL CONFORM TO CSA-G40.21 TYPE 300W.
- STEEL TO BE PAINTED WITH HIGH QUALITY COATING TO MATCH EXISTING. TOUCH UP SCRATCHES, BOLTS, AND WELDS AFTER ALL STEEL IS ERECTED.
- ALL FABRICATORS SHALL SUBMIT SHOP DRAWINGS STAMPED BY A PROFESSIONAL ENGINEER REGISTERED IN NOVA SCOTIA PRIOR TO COMMENCEMENT OF FABRICATION.
- BOLTS IN SLOTTED HOLE CONNECTIONS MUST BE INSTALLED CONCENTRIC WITH SLOTTED HOLES IN PLATES.
- AT SLOTTED HOLE CONNECTIONS, BOLTS MUST BE INSTALLED SO AS TO ALLOW FREE MOVEMENT IN THE CONNECTION. SET NUT WITH A COLD CHISEL OR OTHER MEANS.
- DESIGN ALL BEAM-TO-BEAM AND BEAM-TO-COLUMN CONNECTIONS FOR SHEAR CALCULATED FROM BEAM LOADED TO FLEXURAL CAPACITY WITH UDL LOAD BASED ON SPAN OF BEAM, UNLESS NOTED OTHERWISE. BEAMS WITH SIGNIFICANT CONCENTRATED LOADS SHALL BE DESIGNED FOR ADDITIONAL SHEAR CONNECTIONS AS REQUIRED.
- ALL STEEL (INCLUDING HARDWARE) EXPOSED TO WEATHER TO BE HOT-DIP GALVANIZED IN ACCORDANCE WITH CSA G164.
- REPLACEMENT FLOOR GRATING TO MATCH EXISTING FLOOR GRATING AND BE SUITABLE FOR LIVE LOADS UP TO 4.8 kPa (100 psf). REPLACEMENT FLOOR GRATING SECTIONS TO BE HOT-DIP GALVANIZED STEEL.

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No.	Revision	Date

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Professional Seal(s)

Drawn By:	AJH
Dwg Standards Ckd By:	AJH
Designed By:	MAF
Design Checked By:	MAF
Scale:	As indicated

**YARMOUTH WASTEWATER TREATMENT PLANT STRUCTURAL & ELECTRICAL UPGRADES**

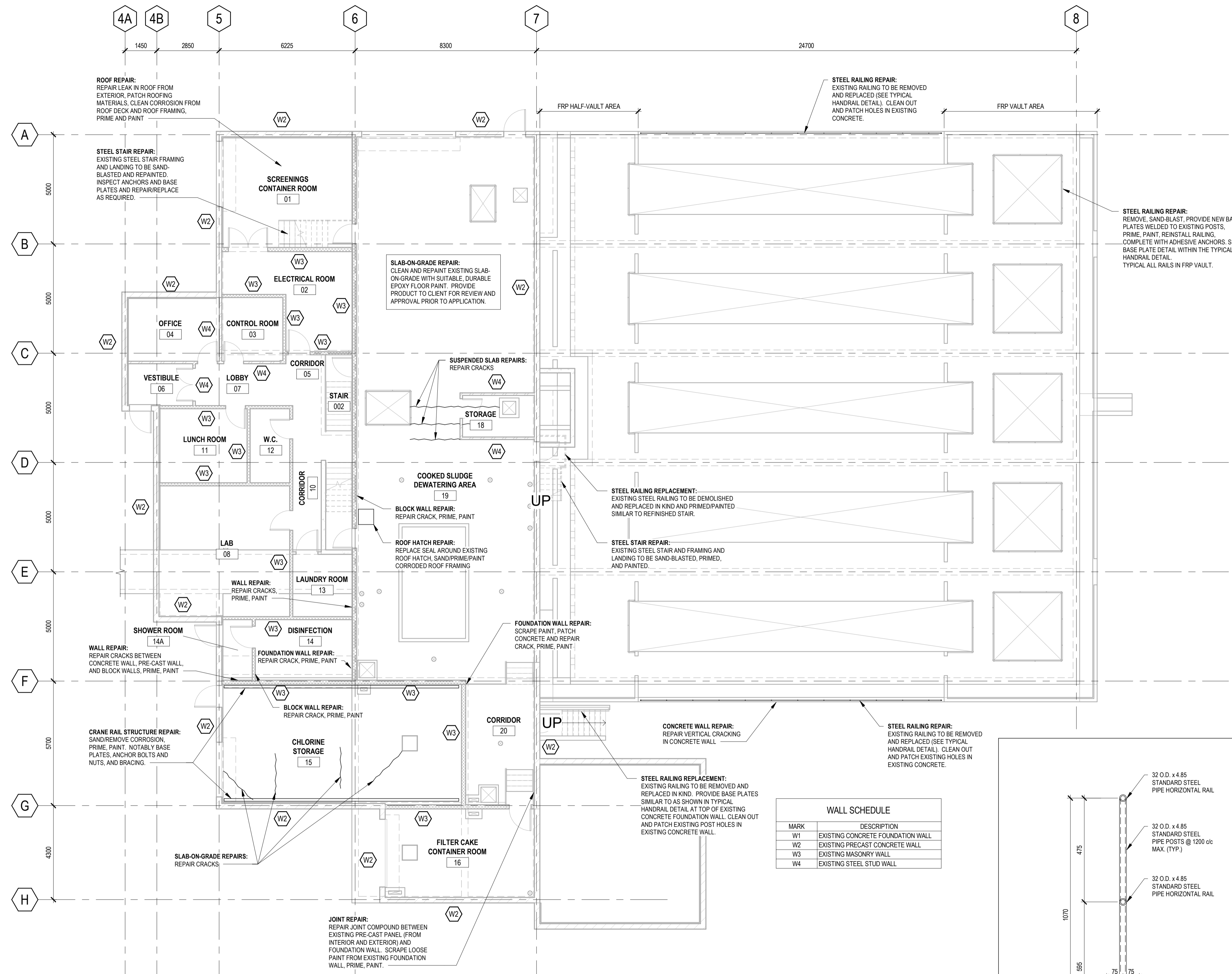
**SLAB-ON-GRADE PLAN**

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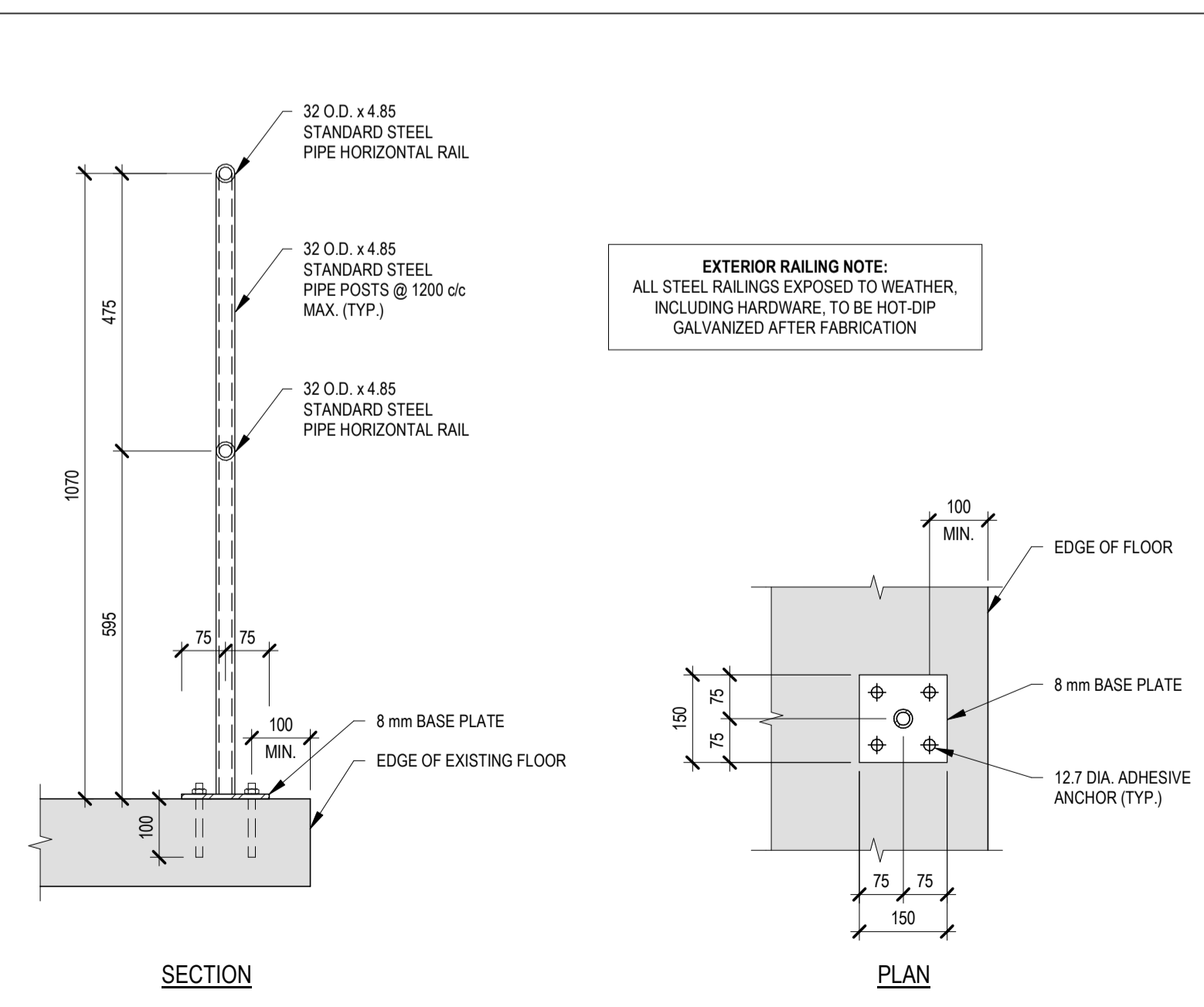
Dwg. No.	<b>S-101</b>	Rev. No.	<b>1</b>
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WALL SCHEDULE	
MARK	DESCRIPTION
W1	EXISTING CONCRETE FOUNDATION WALL
W2	EXISTING PRECAST CONCRETE WALL
W3	EXISTING MASONRY WALL
W4	EXISTING STEEL STUD WALL



**1** LEVEL 1 FLOOR PLAN  
S-102 1:100

**2** TYPICAL HANDRAIL DETAIL  
1:10

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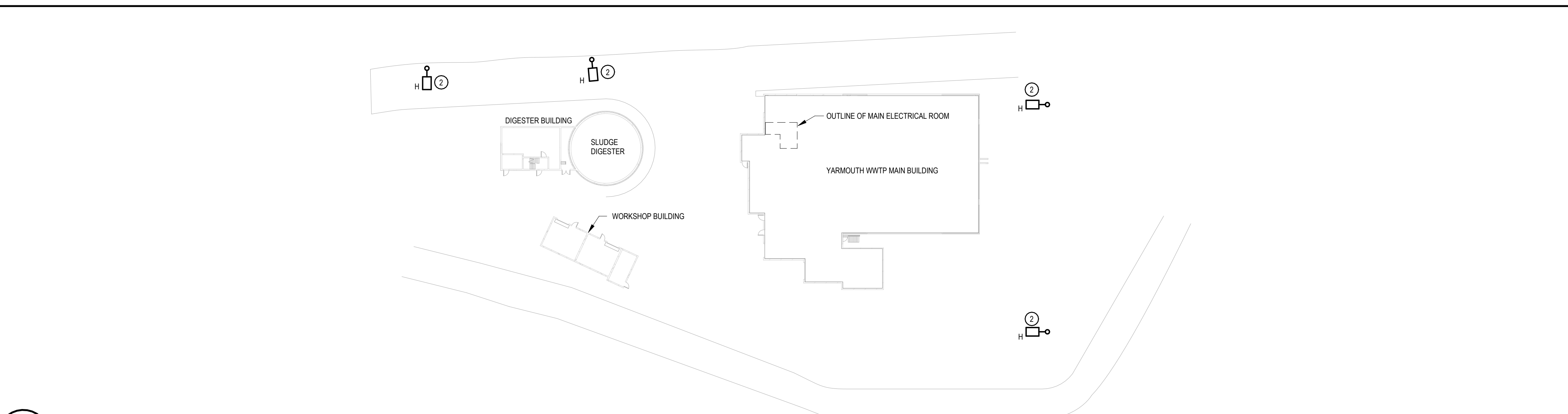
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Designed By:	MAF
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**YARMOUTH WASTEWATER TREATMENT PLANT STRUCTURAL & ELECTRICAL UPGRADES**

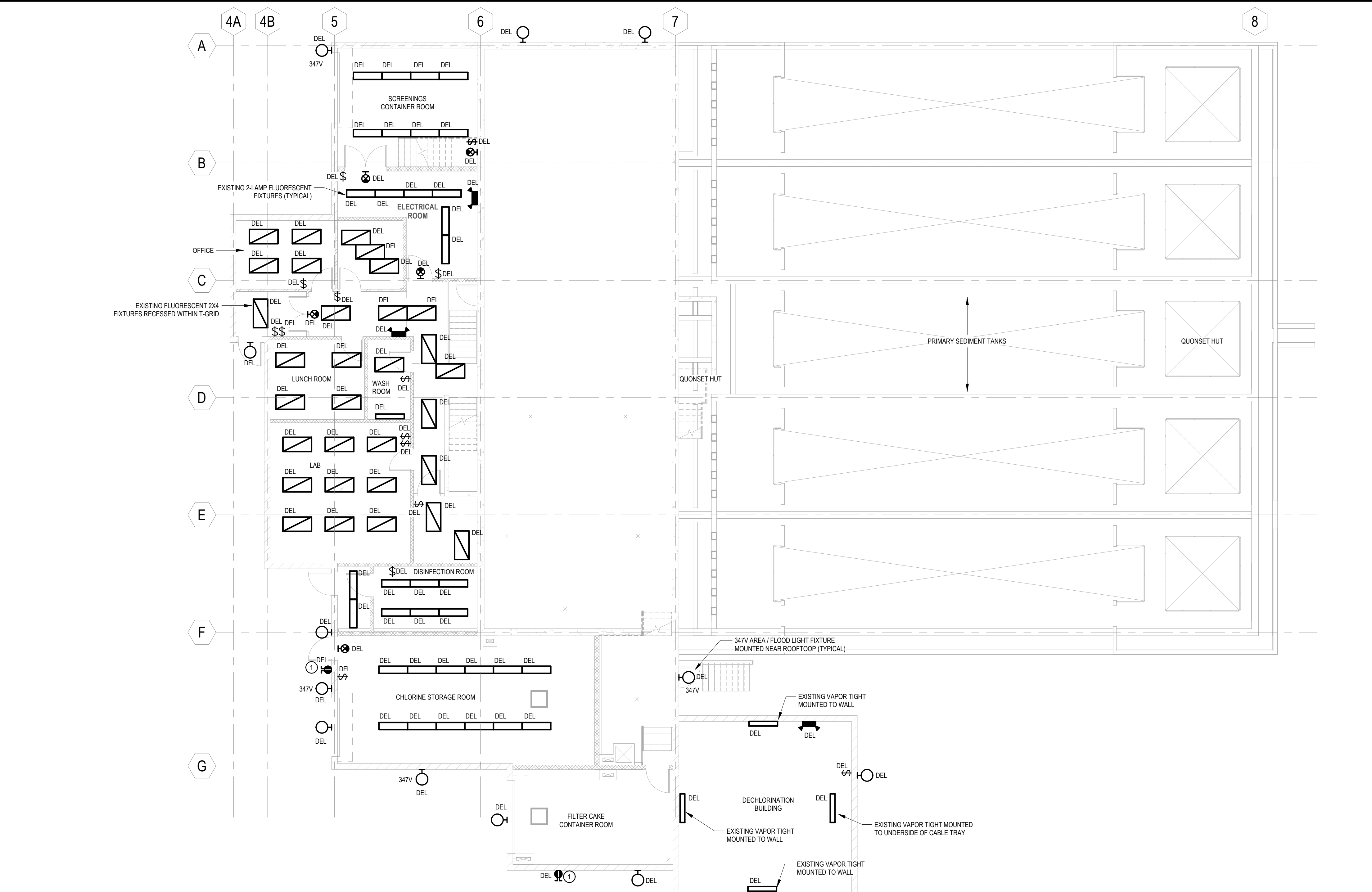
**LEVEL 1 FLOOR PLAN**

Project No.	HFX-24009128-A0
Dwg. No.	<b>S-102</b>
Rev. No.	<b>1</b>

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**1 REFERENCE SITE LAYOUT**  
1:500



**3 EXISTING ELECTRICAL - MAIN BUILDING MAIN LEVEL**  
1:100

**ELECTRICAL LEGEND**

	LINEAR STRIP LUMINAIRE
	LINEAR VAPOUR TIGHT LUMINAIRE
	2x4 RECESSED LUMINAIRE
	EXTERIOR RATED WALL PACK OR FLOOD LIGHT LUMINAIRE
	POLE TOP LUMINAIRE
	EXIT SIGN - CW ARROW AS INDICATED
	EMERGENCY LIGHT BATTERY UNIT
	EMERGENCY LIGHT REMOTE HEAD
	SINGLE POLE LIGHT SWITCH
	SINGLE POLE LIGHT SWITCH - 3-WAY CONFIGURATION
	SINGLE POLE LIGHT SWITCH - 4-WAY CONFIGURATION
	5-15R DUPLEX RECEPTACLE
	5-20R DUPLEX RECEPTACLE GFCI PROTECTED
	INDICATES DEVICE / EQUIPMENT TO BE RATED TYPE 4X
	INDICATES EXISTING DEVICE OR LUMINAIRE TO BE DELETED, DISCONNECT AND REMOVE DEVICE / LUMINAIRE FROM EXISTING CIRCUIT. EXISTING CONDUCTORS TO REMAIN FOR RECONNECTION TO NEW DEVICES / LUMINAIRES.

- GENERAL NOTES:**
- DISCONNECT AND REMOVE EXISTING LUMINAIRES SHOWN. EXISTING CIRCUIT AND CONTROLS WIRING TO REMAIN TO BE RECONNECTED TO NEW LUMINAIRES.
- KEY NOTES:**
- DISCONNECT AND REMOVE EXISTING EXTERIOR RECEPTACLE. EXISTING CIRCUIT TO REMAIN FOR RECONNECTION TO NEW DEVICE.
  - APPROXIMATE LOCATION OF EXISTING SITE LIGHTING POLE. DISCONNECT AND REMOVE EXISTING POLE TOP LUMINAIRES. REPLACE WITH NEW FIXTURE AS INDICATED.

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Dwg Standards Ckd By:	
Designed By:	JDB
Design Checked By:	PGH
Scale:	As indicated

Project Title

**YARMOUTH WASTEWATER TREATMENT PLANT STRUCTURAL & ELECTRICAL UPGRADES**

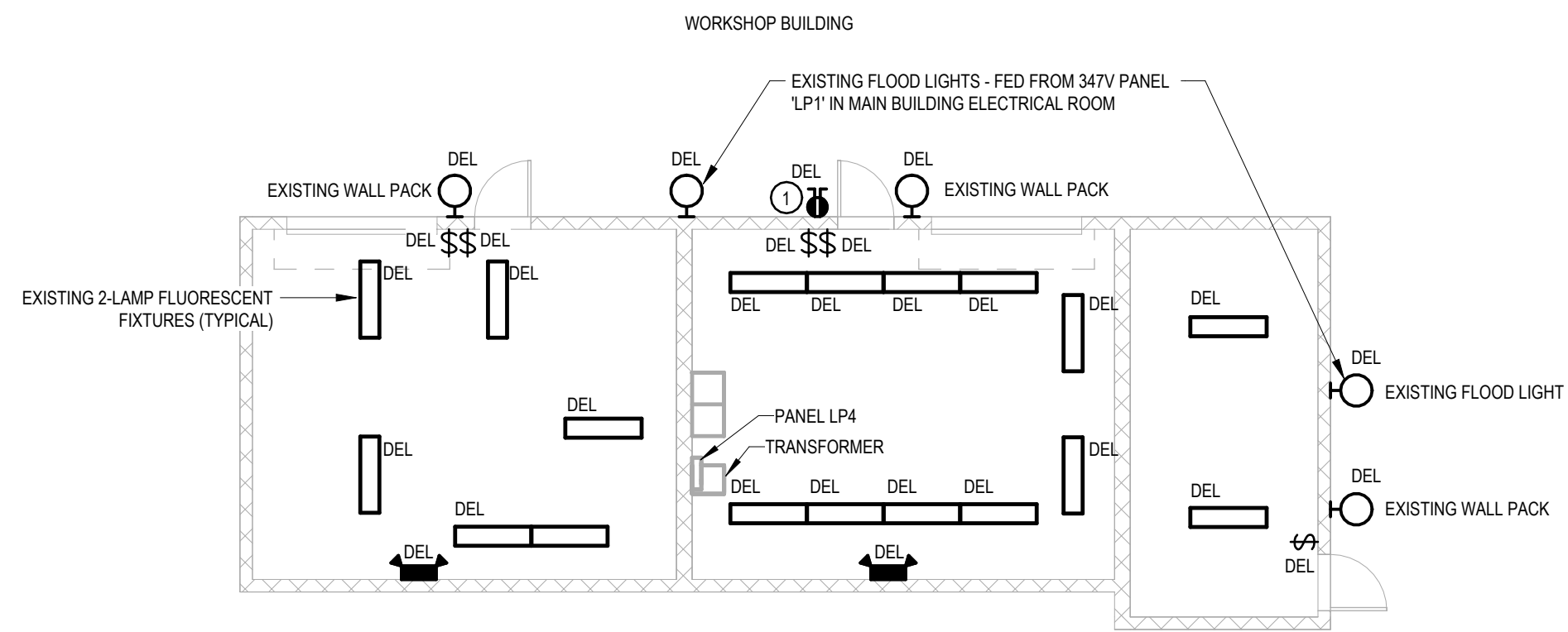
Dwg. Title

**SITE REFERENCE, LEGEND, AND EXISTING ELECTRICAL MAIN BUILDING**

Project No.	HFX-24009128-A0
Dwg. No.	<b>E-101</b>
Rev. No.	0

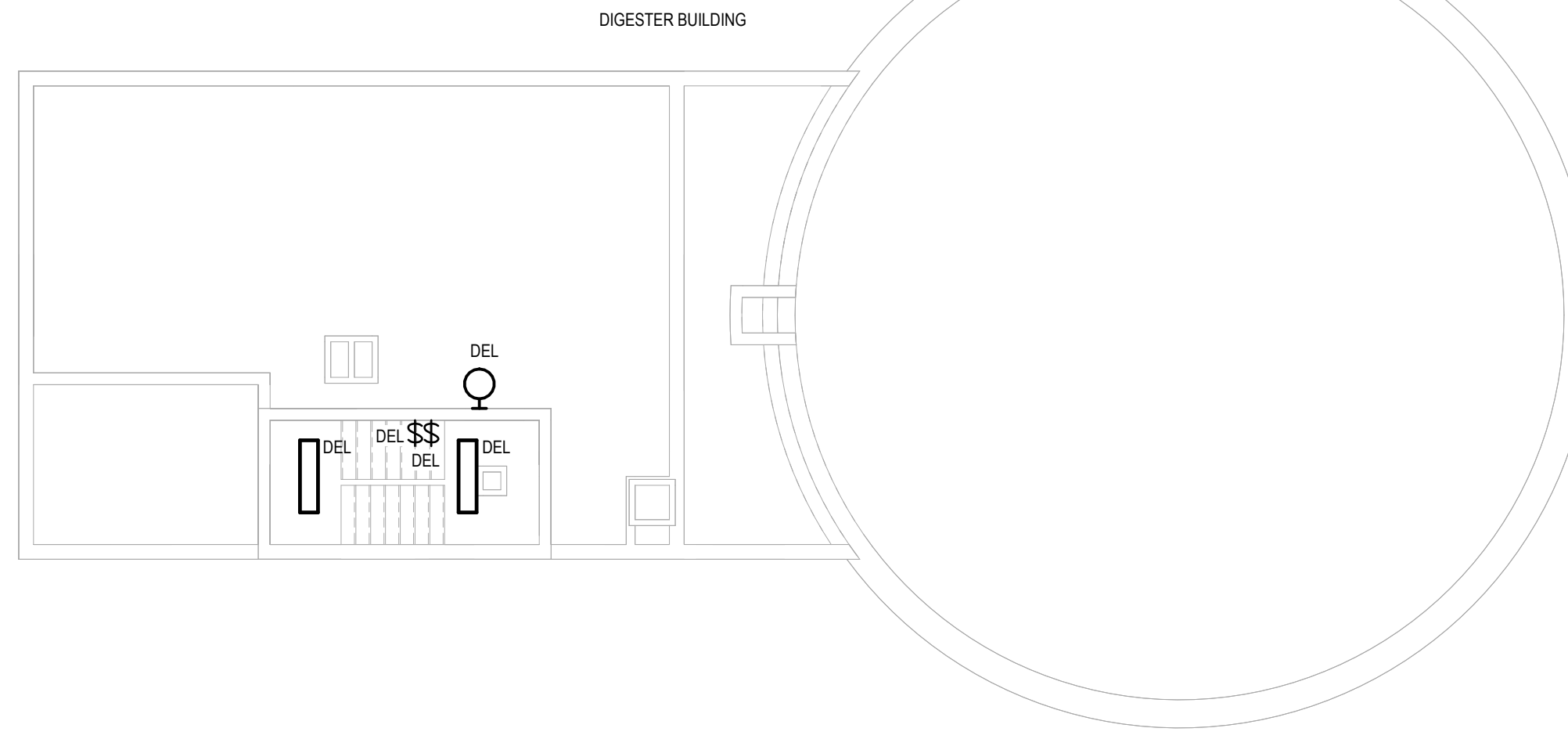
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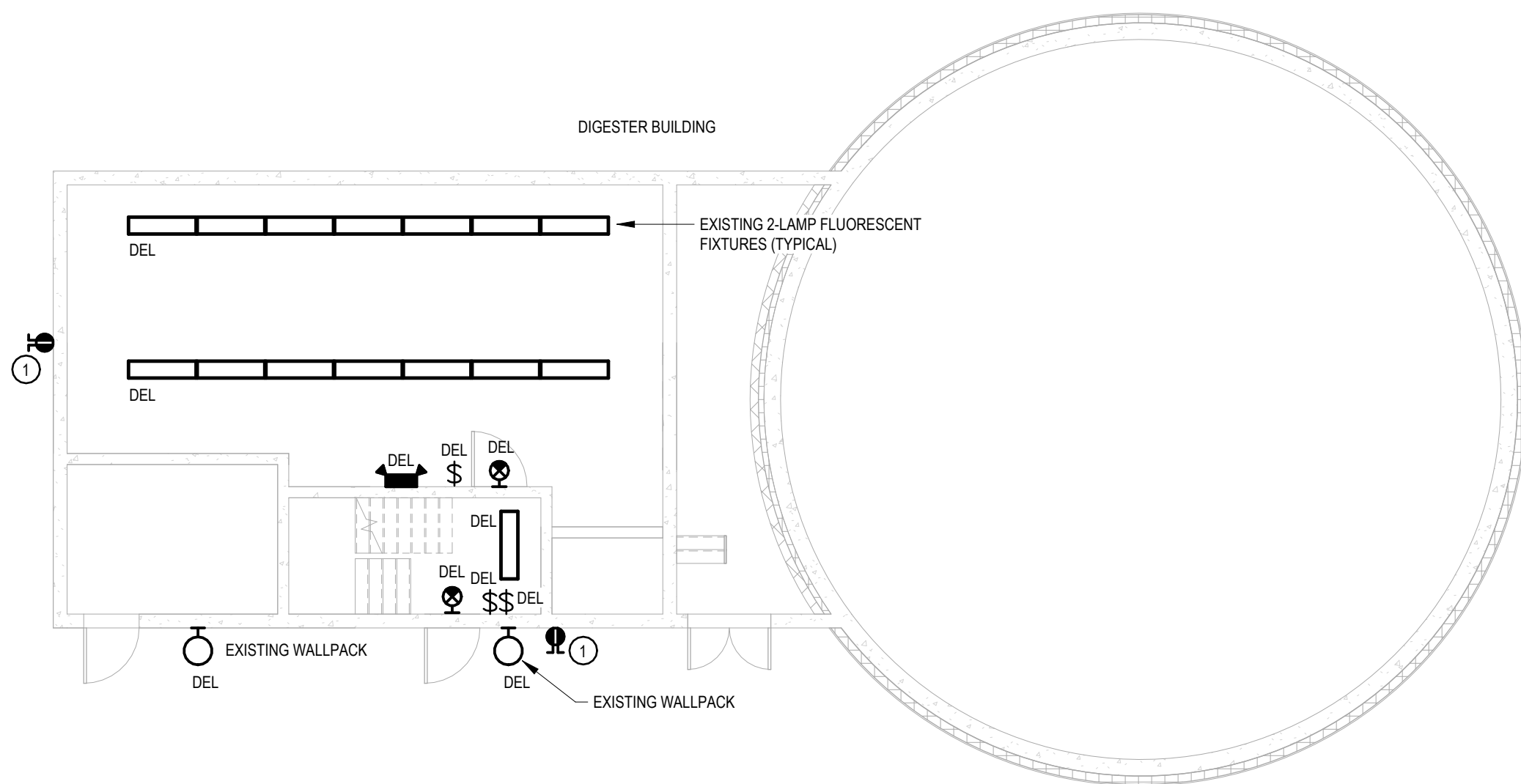
**1** EXISTING ELECTRICAL - WORKSHOP BUILDING

1:100



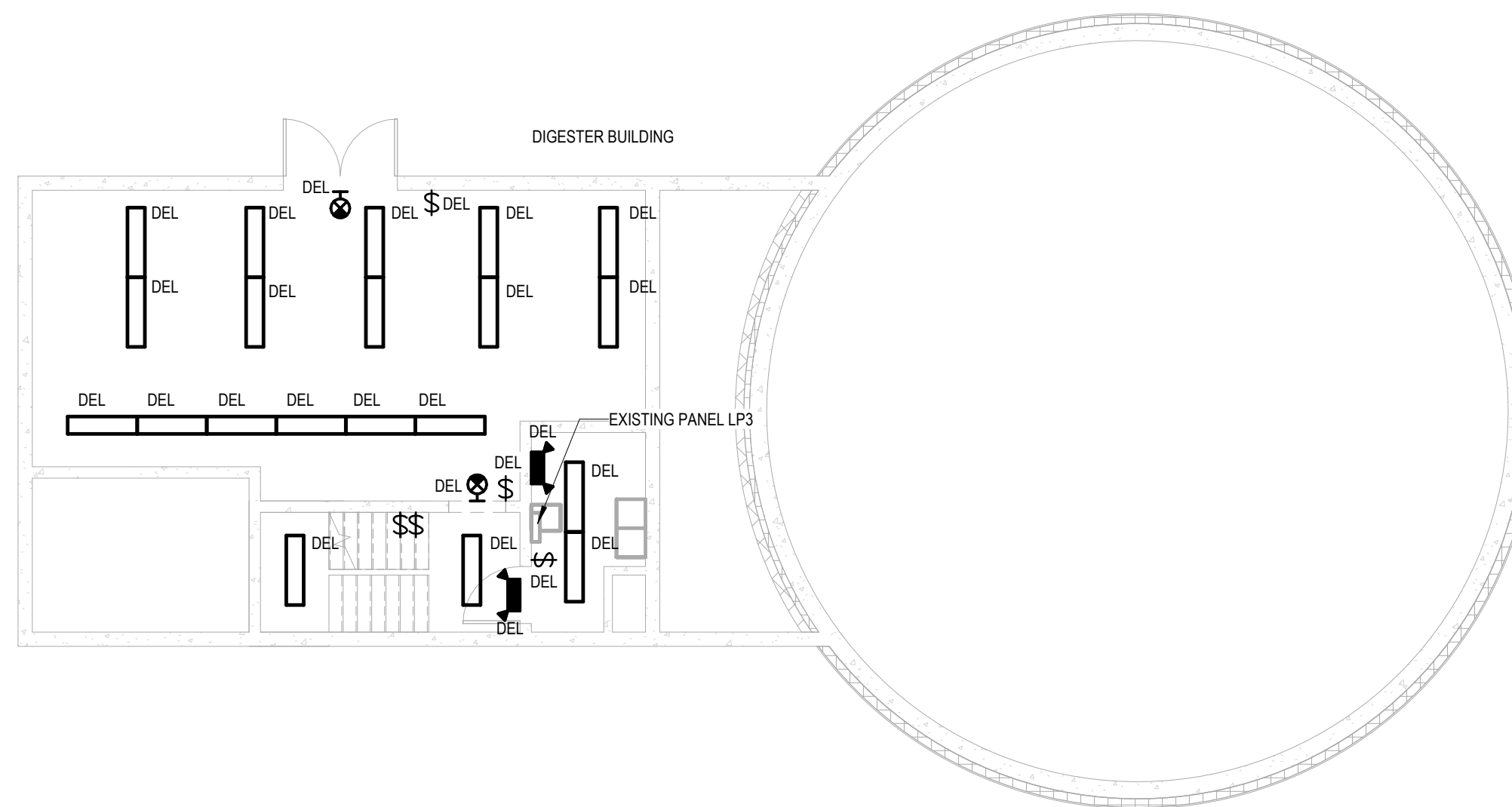
**2** EXISTING ELECTRICAL - DIGESTER BUILDING ROOFTOP LEVEL

1:100



**3** EXISTING ELECTRICAL - DIGESTER BUILDING - MAIN LEVEL

1:100



**4** EXISTING ELECTRICAL - DIGESTER BUILDING LEVEL 2

1:100

**GENERAL NOTES:**

- DISCONNECT AND REMOVE EXISTING LUMINAIRES SHOWN. EXISTING CIRCUIT AND CONTROLS WIRING TO REMAIN TO BE RECONNECTED TO NEW LUMINAIRES.

**KEY NOTES:**

- DISCONNECT AND REMOVE EXISTING EXTERIOR RECEPTACLE. EXISTING CIRCUIT TO REMAIN FOR RECONNECTION TO NEW DEVICE.

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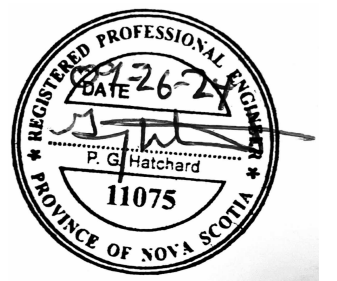
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Dwg Standards Ckd By:

Designed By: JDB

Design Checked By: PGH

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Project Title

**YARMOUTH WASTEWATER  
 TREATMENT PLANT  
 STRUCTURAL &  
 ELECTRICAL UPGRADES**

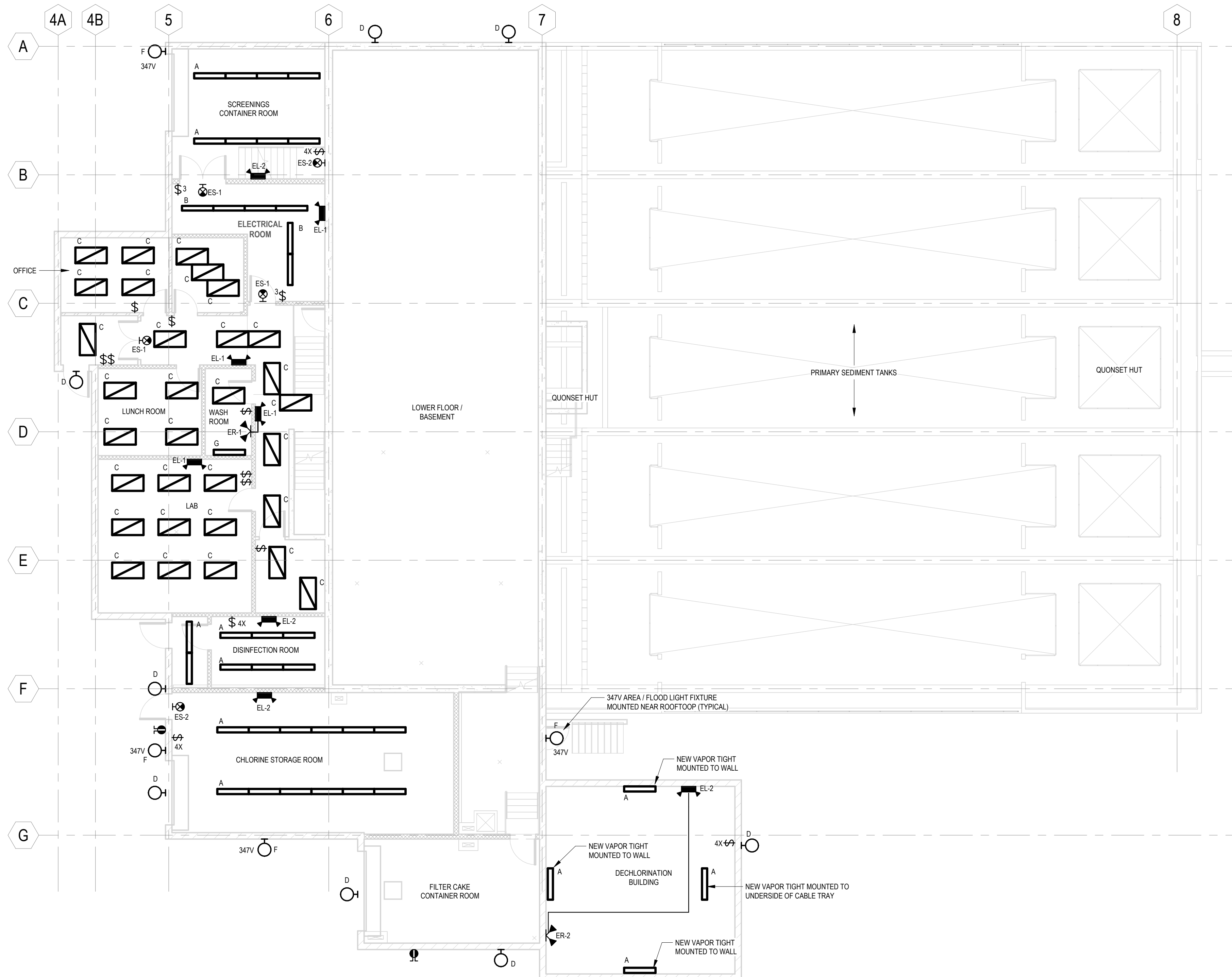
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**EXISTING ELECTRICAL  
 LAYOUTS**

Project No. HFX-24009128-A0

Dwg. No. **E-102** Rev. No. **0**

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**1** NEW ELECTRICAL - MAIN BUILDING MAIN LEVEL  
1:100

**GENERAL NOTE:**

- WHERE NEW RECEPTACLES ARE SHOWN - SUPPLY AND INSTALL NEW 20A RATED WEATHER RESISTANT GFCI RECEPTACLE. INSTALL WITHIN AN EXTRA DUTY WHILE IN USE LISTED COVER. RECONNECT TO EXISTING CIRCUIT.

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Designed By: JDB

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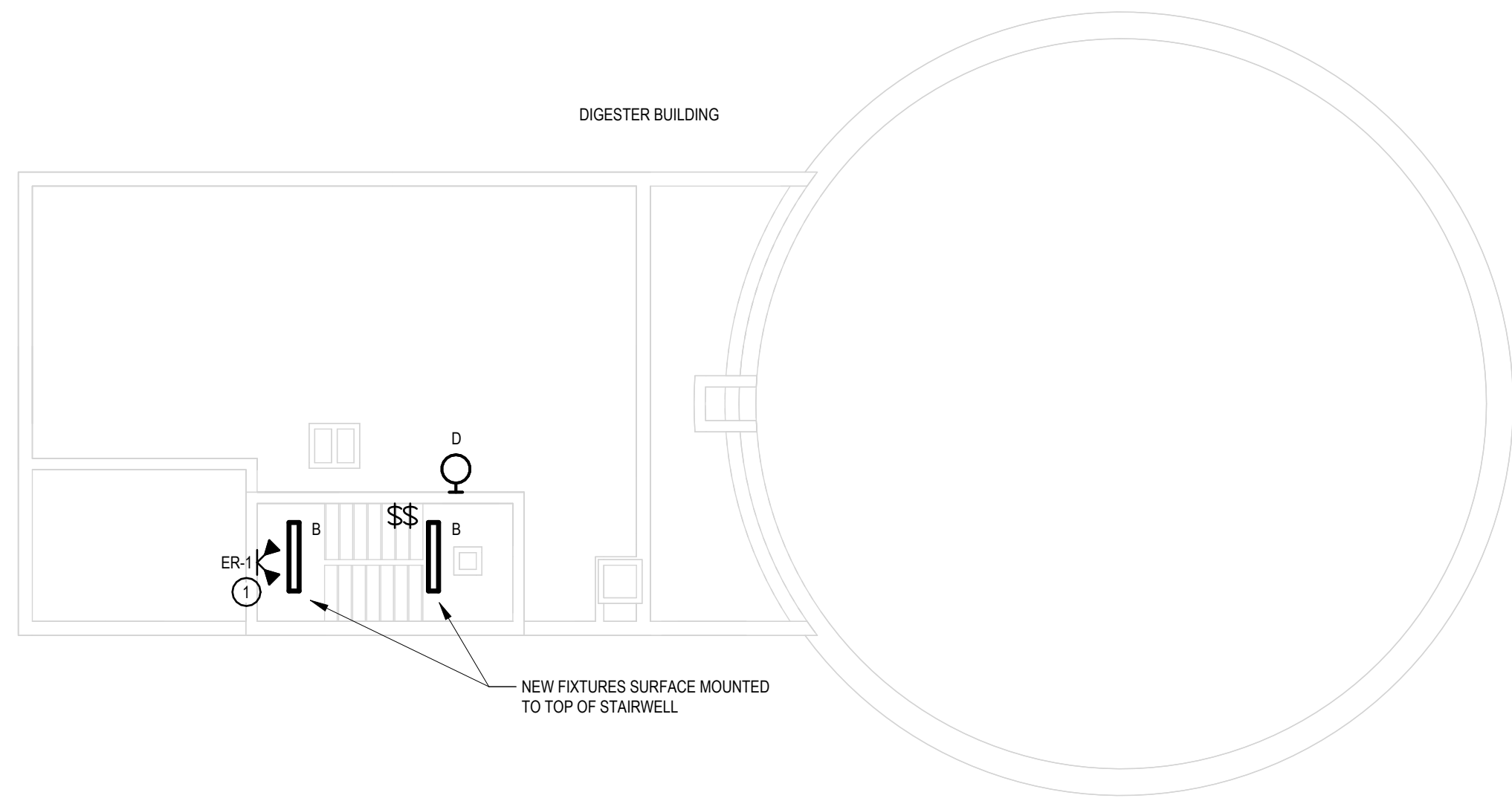
Project Title  
**YARMOUTH WASTEWATER TREATMENT PLANT STRUCTURAL & ELECTRICAL UPGRADES**

Dwg. Title  
**NEW ELECTRICAL MAIN BUILDING**

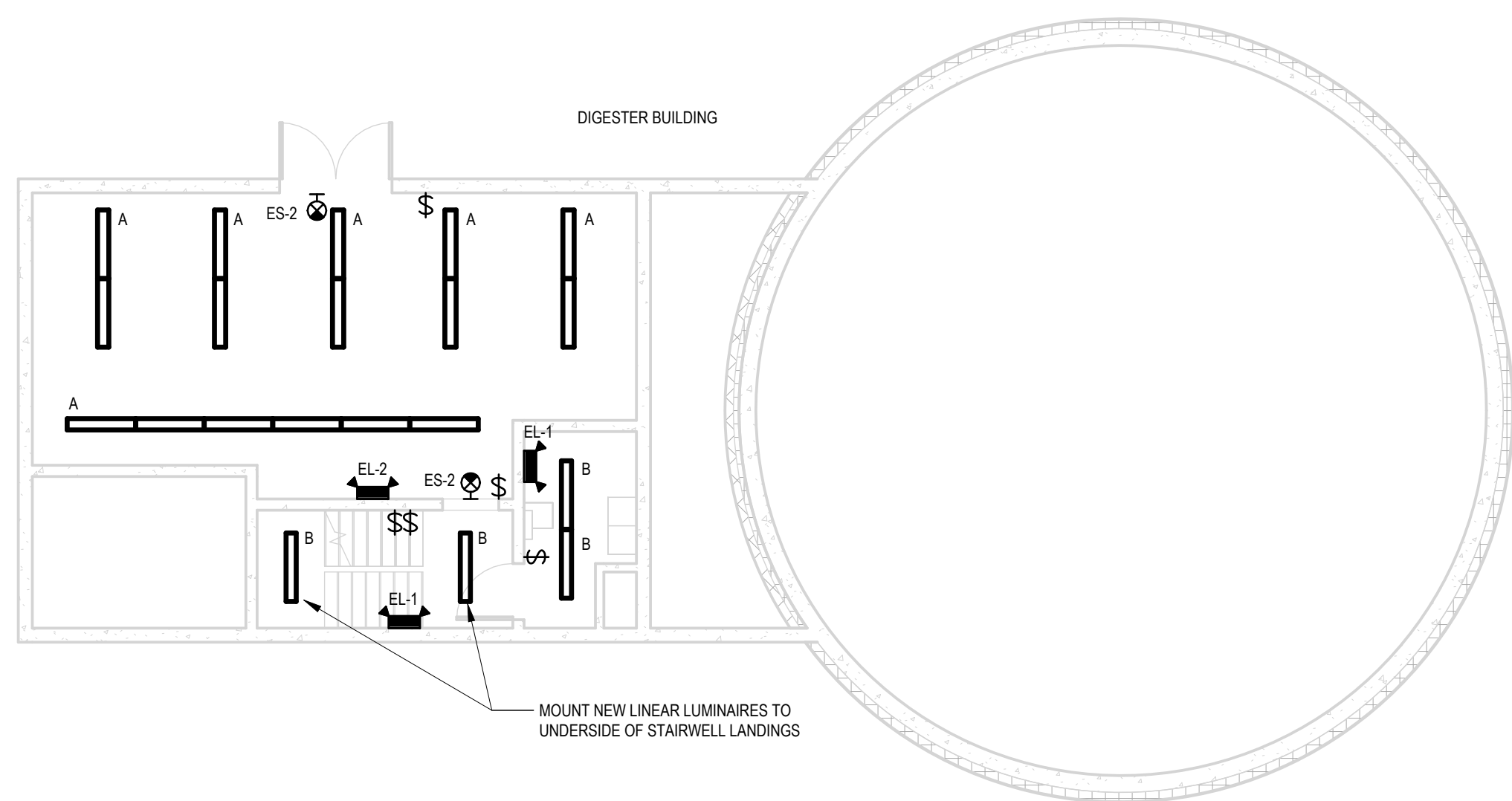
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Dwg. No. <b>E-201</b>	Rev. No. <b>0</b>
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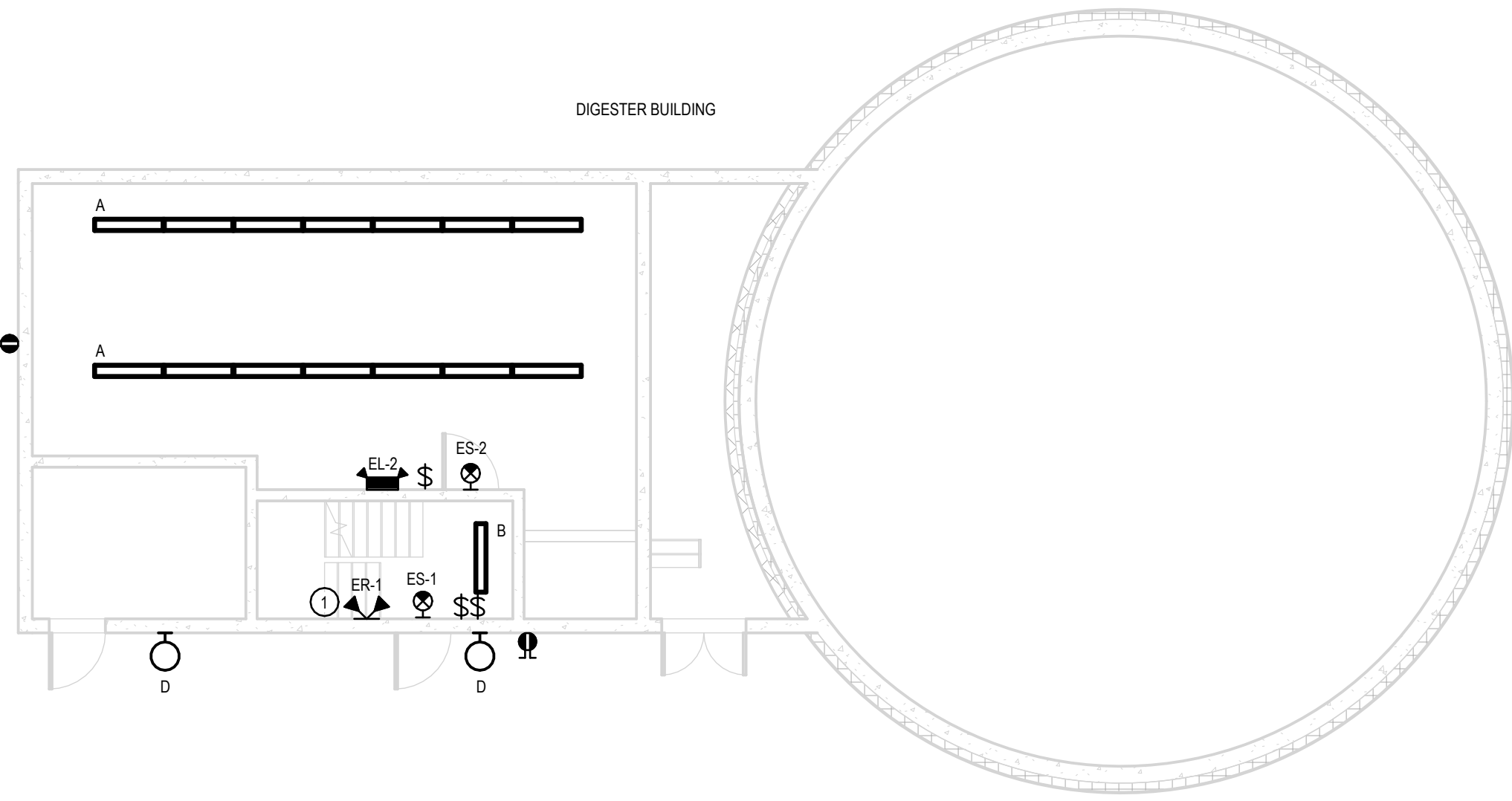
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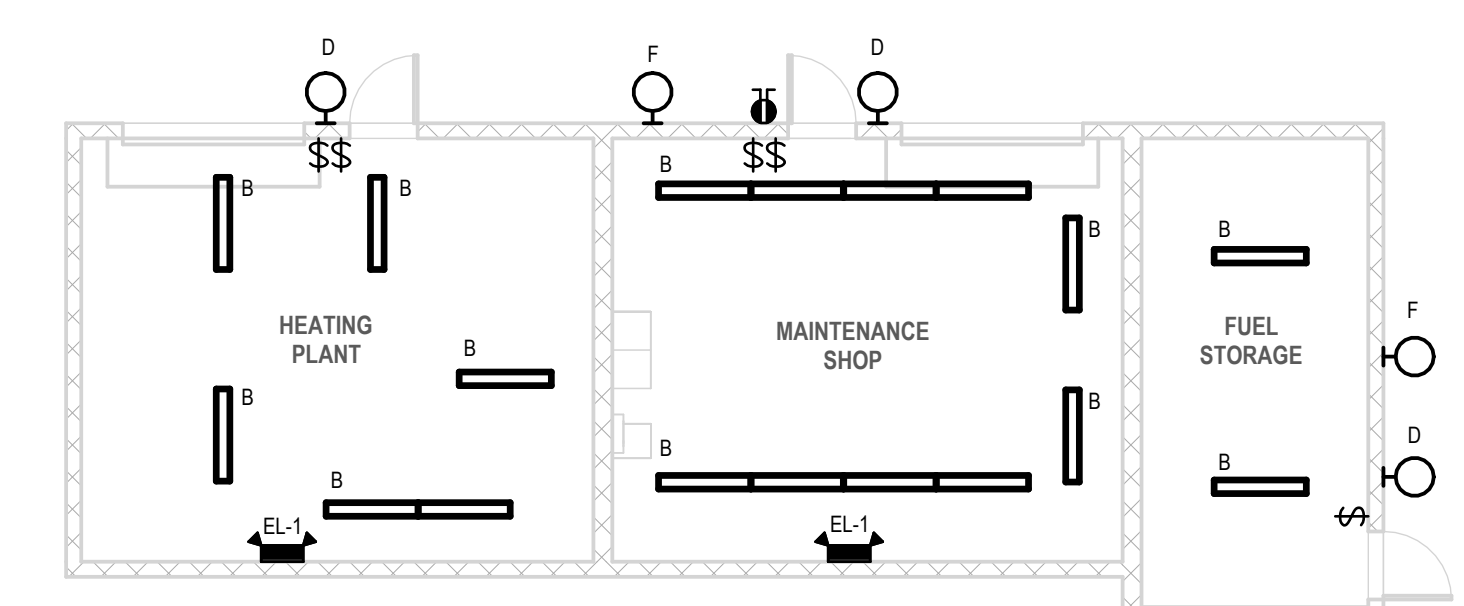
**1 NEW ELECTRICAL - DIGESTER BUILDING ROOFTOP LEVEL**  
1 : 100



**3 NEW ELECTRICAL - DIGESTER BUILDING LEVEL 2**  
1 : 100



**4 NEW ELECTRICAL - DIGESTER BUILDING - MAIN LEVEL**  
1 : 100



**2 NEW ELECTRICAL - WORKSHOP BUILDING**  
1 : 100

**KEYNOTE:**  
1. INTERCONNECT REMOTE HEAD WITH BATTERY UNIT IN STAIRWELL AT LEVEL 2 LANDING.

**GENERAL NOTE:**  
1. WHERE NEW RECEPTACLES ARE SHOWN - SUPPLY AND INSTALL NEW 20A RATED WEATHER RESISTANT GFCI RECEPTACLE. INSTALL WITHIN AN EXTRA DUTY WHILE IN USE LISTED COVER. RECONNECT TO EXISTING CIRCUIT.

NEW LUMINAIRE SCHEDULE									
TYPE ID	MANUFACTURER	MODEL SERIES	MODEL #	LAMP & PERFORMANCE	VOLTAGE	WATTS	MOUNTING	FINISH / LENS	DESCRIPTION / NOTES
A	COOPER LIGHTING	VT3 LED VAPORTITE	4VT3-LD5-6-G-UNV-L840-CD1-U-SSL	5100 LUMENS 4000K	120 V	46 W	SUSPENDED FROM CONCRETE CEILING	WHITE - SMOOTH FROSTED LENS	VAPOR TIGHT INDUSTRIAL 4-FOOT LINEAR, C/W STAINLESS LATCHES
B	COOPER LIGHTING	SNLED LENSED	4SNLED-LD5-50SL-LW-UNV-L840	5000 LUMENS 4000K	120 V	39 W	SURFACE / SUSPENDED BY LOCATION	WHITE - SEMI FROST LENS	4-FOOT LED LINEAR STRIPLIGHT
C	COOPER LIGHTING	CRUZE SB TROFFER 2X4	24CZSB-SCT3-UNV	5200 LUMENS 4000K	120 V	38 W	EXISTING T-GRID CEILING	WHITE	2X4 RECESSED TROFFER, INSTALLED IN EXISTING GRID CEILING
D	COOPER LIGHTING	LUMARK AXCENT SERIES	AXCL8ARL+66W	5200 LUMENS 4000K	120 V	66 W	VERTICAL SURFACE AT HEIGHT TO MATCH EXISTING	BLACK	WALL PACK WITH REFRACTIVE LENS
EL-1	AIMLITE	EBST	EBST	LED 12VDC DUAL 6W HEADS	120 V	200 W	WALL MOUNTED TO MATCH EXISTING	WHITE	STEEL ENCLOSURE EMERGENCY LIGHT BATTERY UNIT
EL-2	AIMLITE	EBNX	EBNX	LED 12VDC DUAL 6W HEADS	120 V	200 W	WALL MOUNTED TO MATCH EXISTING	WHITE - CLEAR LENS	WET LOCATION POLYCARBONATE BATTERY UNIT
ER-1	AIMLITE	RMSM	RMSM	12 VDC 6W DUAL REMOTE HEAD	12 VDC	6 W	WALL MOUNTED	WHITE	REMOTE HEAD, CONNECT TO BATTERY UNIT AS INDICATED.
ER-2	AIMLITE	DELUGE - RMN	DELUGE - RMN	12 VDC 6W DUAL REMOTE HEAD	12 VDC	6 W	WALL MOUNTED	BLACK - CLEAR LENS	TYPE 4X REMOTE HEAD, CONNECT TO BATTERY UNIT AS INDICATED.
ES-1	AIMLITE	RPSC	RPSC	LED WITH 120 MINUTE BATTERY BACKUP	120 V	4 W	WALL OR CEILING BY LOCATION	WHITE	STEEL LOCATION GREEN RUNNING MAN
ES-2	AIMLITE	DELUGE - RPN	DELUGE - RPN	LED WITH 120 MINUTE BATTERY BACKUP	120 V	4 W	WALL OR CEILING BY LOCATION	BLACK	WET LOCATION GREEN RUNNING MAN
F	COOPER LIGHTING	LUMARK NIGHT HARRIER	NHRS50730	19000 LUMENS 4000K	347 V	154 W	VERTICAL SURFACE AT HEIGHT TO MATCH EXISTING	BLACK	LED FLOOD LIGHT
G	AIMLITE	LED CUBE LIGHT C21BS	C21BS-48-L-A1-4-40K	2000 LUMENS 4000K	120 V	25 W	WALL SURFACE ABOVE WASHROOM SINK	WHITE FROSTED LENS	4-FT LED CUBE VANITY LIGHT
H	COOPER LIGHTING	STREET WORKS ARCHEON MEDIUM	ARCH-M-PA2-100-740-9-T3-A15-AP-20K-JR	15000 LUMENS 4000K	347 V	100 W	MOUNT NEW POLE TOP FIXTURE ON EXISTING POLE	GREY FINISH	REPLACEMENT FOR EXISTING POLE TOP FIXTURE. C/W BUILT IN PHOTOCELL ENSURE COMPATIBILITY WITH EXISTING POLE PRIOR TO ORDERING.

**SCOPE OF WORK**

- THE WORK COVERED BY THIS SPECIFICATION WILL INCLUDE THE FURNISHING OF ALL LABOUR, MATERIALS, NOT LISTED AS SUPPLIED BY OTHERS, TOOLS AND SERVICES TO CONSTRUCT AND INSTALL A COMPLETE AND WORKING ELECTRICAL SYSTEM AS SHOWN ON THE ACCOMPANYING DRAWINGS, SPECIFIED HEREIN, OR BOTH.
- WITHOUT IN ANY WAY LIMITING THE FOREGOING, THE WORK IN GENERAL WILL INCLUDE BUT NOT BE LIMITED TO THE FOLLOWING:
  - DISCONNECTION AND REMOVAL OF EXISTING LUMINAIRES, CONTROL DEVICES, AND OTHER ELECTRICAL WHERE INDICATED.
  - SUPPLY AND INSTALLATION OF NEW LIGHTING FIXTURES, WIRING DEVICES, AND LIGHTING CONTROLS AS INDICATED ON DRAWINGS.
  - EXTENSION OF EXISTING BRANCH CIRCUITS AND CONTROL WIRING (UTILIZING WIRING TYPES AND FITTINGS TO MATCH EXISTING CONDITIONS) FOR NEW LUMINAIRES, FIXTURES, DEVICES AND OTHER ELECTRICAL.
  - TESTING OF NEW LIGHTING AND ASSOCIATED CONTROLS TO CONFIRM FIXTURES AND CONTROLS FUNCTION AS INTENDED. INCLUDE ALL ASSOCIATED NECESSARY COSTS FOR TESTING.
  - SUBMISSION OF ALL PRODUCT DATA SHEETS FOR REVIEW PRIOR TO ORDERING.

**CODES, PERMITS, CERTIFICATES, FEES & INSPECTION**

- THE WORK WILL BE TENDERED ON AND WILL BE CARRIED OUT IN ACCORDANCE WITH THESE DRAWINGS AND SPECIFICATIONS AND TO REQUIREMENTS OF THE LATEST APPLICABLE EDITION OF THE CANADIAN ELECTRICAL CODE C22.1, NATIONAL BUILDING CODE, ANY SPECIAL REQUIREMENTS OF THE PROVINCIAL ELECTRIC POWER COMMISSION AND THE PROVINCIAL ELECTRICAL INSPECTION DEPARTMENT AND ANY OTHER APPLICABLE CODES. IN NO INSTANCE, HOWEVER, WILL THE STANDARD ESTABLISHED BY THE DRAWINGS AND SPECIFICATIONS BE REDUCED BY ANY OF THE CODES REFERRED TO ABOVE. IN NO INSTANCE WILL A STANDARD BE ACCEPTED LOWER THAN THAT ESTABLISHED BY THE ELECTRICAL CODE.
- THE ELECTRICAL CONTRACTOR WILL OBTAIN AND PAY FOR ALL PERMITS IN ORDER THAT THE WORK HEREIN SPECIFIED WILL BE CARRIED OUT.
- ON OR BEFORE THE COMPLETION OF THIS CONTRACT, THIS CONTRACTOR WILL OBTAIN, AT THEIR OWN EXPENSE, THE NECESSARY CERTIFICATE OF INSPECTION FROM THE ELECTRICAL INSPECTION DEPARTMENT OF THE PROVINCE OF NEW BRUNSWICK AND WILL FORWARD SAME TO THE OWNER'S REPRESENTATIVE.

**DRAWINGS**

- THE ELECTRICAL DRAWINGS, WHICH CONSTITUTE AN INTEGRAL PART OF THIS CONTRACT, WILL SERVE AS THE WORKING DRAWINGS. THEY INDICATE THE GENERAL LAYOUT OF THE COMPLETE SYSTEMS.
- THE FIELD VERIFICATION OF SCALE DIMENSIONS ON PLANS IS DIRECTED SINCE ACTUAL LOCATIONS, DISTANCES AND LEVELS WILL BE GOVERNED BY ACTUAL FIELD CONDITIONS.
- DISCREPANCIES SHOWN BETWEEN DRAWINGS AND ACTUAL FIELD CONDITIONS, OR BETWEEN DRAWINGS AND SPECIFICATIONS WILL PROMPTLY BE BROUGHT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE, FOR CLARIFICATION.
- THE DRAWINGS MAY BE SUPERSEDED BY LATER REVISED OR DETAILED DRAWINGS OR SPECIFICATIONS ADDENDA PROVIDED BY THE OWNER'S REPRESENTATIVE. AND THIS CONTRACTOR WILL CONFORM TO ALL REASONABLE CHANGES WITHOUT EXTRA COST TO THE OWNER.
- ALL ITEMS NOT SPECIFICALLY MENTIONED IN THE SPECIFICATION OR NOTED IN THE DRAWINGS BUT WHICH ARE OBVIOUSLY NECESSARY TO MAKE THE COMPLETE WORKING INSTALLATION SHALL BE INCLUDED.
- FOR ANY EXTRA ELECTRICAL WORK THAT MAY BE PROPOSED, THE ELECTRICAL CONTRACTOR WILL FURNISH TO THE OWNER'S REPRESENTATIVE AN ESTIMATE OF THE COST OF SUCH WORK. THE ELECTRICAL CONTRACTOR WILL PROCEED ONLY AFTER RECEIVING WRITTEN PERMISSION FROM THE OWNER'S REPRESENTATIVE OR HIS AUTHORIZED REPRESENTATIVE, ESTABLISHING THE AGREED PRICE AND DESCRIBING THE WORK TO BE DONE.
- PROVIDE ADEQUATE SUPERVISION AND DIRECTION TO THE WORK AND WILL KEEP A COMPETENT FOREMAN IN CHARGE UNTIL THE JOB IS COMPLETED.
- ALL WORKMANSHIP WILL BE OF THE BEST QUALITY AND SUBJECT TO APPROVAL BY THE OWNER'S REPRESENTATIVE. BEFORE FINAL PAYMENT IS MADE THE ELECTRICAL CONTRACTOR WILL GUARANTEE ALL MATERIALS AND WORKMANSHIP OF THIS CONTRACT FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF ACCEPTANCE BY THE OWNER'S REPRESENTATIVE AND WILL REPLACE WITHIN THAT PERIOD OF TIME, WITHOUT EXTRA COST TO THE OWNER, ALL MATERIALS OR WORKMANSHIP PROVEN DEFECTIVE. HE WILL BEFORE FINAL PAYMENT IS MADE, TEST AND OPERATE ALL EQUIPMENT INSTALLED BY HIM, AND MAKE ALL NECESSARY ADJUSTMENTS AND REPLACEMENTS AND DEMONSTRATE TO THE OWNER'S REPRESENTATIVE THAT ALL EQUIPMENT IS OPERATING AS INTENDED.
- REMOVE ANY DISCARDED ELECTRICAL MATERIALS UPON COMPLETION OF THE WORK AND TURN OVER ANY SPARE PARTS TO THE OWNER.
- UPON COMPLETION OF THE CONTRACT, THE ELECTRICAL CONTRACTOR WILL REMOVE ALL DEBRIS FROM THE CONSTRUCTION SITE CREATED BY HIS WORK, CLEAN AND POLISH ALL EQUIPMENT AND REPAIR ALL DAMAGES TO THE WORK, IN READINESS TO TURN THE BUILDING OVER TO THE OWNER'S REPRESENTATIVE.
- WHERE MANUFACTURERS' NAMES ARE USED, IT IS FOR THE PURPOSE OF ESTABLISHING A STANDARD, AND THAT EQUIPMENT SHALL BE USED IN PREPARING QUOTATIONS. PERMISSION TO USE ALTERNATIVES SHALL BE SECURED BY MEANS OF WRITTEN REQUEST NO LATER THAN 5 DAYS PRIOR TO TENDER CLOSING. ALL EQUIPMENT PART NUMBERS PROVIDED SHALL BE VERIFIED BY THE ELECTRICAL CONTRACTOR FOR ACCURACY.
- VERIFY ALL EXISTING EQUIPMENT LOADS AND CONNECTIONS AND MAKE NECESSARY REVISIONS TO EXISTING CIRCUITRY, WHERE APPLICABLE, TO ACCOMMODATE C.E.C. REQUIREMENTS.
- ALL MATERIALS AND EQUIPMENT REMOVED UNDER WORK OF THIS SECTION BECOMES THE PROPERTY OF THE CONTRACTOR FOR DISPOSAL OFF OF THE PROPERTY, UNLESS DIRECTED FOR FUTURE USE BY OWNER.
- UPON COMPLETION OF PROJECT, CONTRACTOR TO PROVIDE NEW TYPED DIRECTORIES IN EXISTING PANELBOARDS TO REFLECT ANY CHANGES MADE TO LIGHTING CIRCUITS.

**CUTTING, PATCHING AND PAINTING**

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING REQUIRED TO COMPLETE THE WORK SHOWN ON THE DRAWING AND DESCRIBED HEREIN.
- ALL HOLES THROUGH CONCRETE OR MASONRY SHALL BE MADE BY CORE DRILLING. CARE MUST BE TAKEN TO CONTAIN DUST AND DEBRIS.
- THE CONTRACTOR SHALL NEATLY PATCH ALL SURFACES CUT OR DAMAGED AS A RESULT OF THIS CONTRACT.
- ALL PATCHING SHALL BE OF MATCHING MATERIAL AND CARRIED OUT BY TRADESMEN TRAINED AND SKILLED IN THE WORK TO BE DONE.
- THE CONTRACTOR SHALL RE-PAIN ALL SURFACES WHERE CHANGES HAVE OCCURRED RESULTING IN DIFFERENCES BETWEEN EXISTING AND NEW SURFACE FINISHES. ALL PAINTING SHALL BE CARRIED OUT BY SKILLED TRADESMEN.
- ALL PATCHING, PAINTING AND SEALING SHALL BE TO THE SATISFACTION OF THE OWNER AND OWNER'S REPRESENTATIVE.

**SHOP DRAWINGS, MAINTENANCE MANUALS AND AS-BUILTS**

- ONCE TENDER HAS BEEN AWARDED, CONTRACTOR TO PROVIDE SHOP DRAWINGS ON ALL SPECIFIED EQUIPMENT PRIOR TO ORDERING EQUIPMENT. PROVIDE ANY ADDITIONAL SHOP DRAWINGS AS REQUESTED BY OWNER'S REPRESENTATIVE.
- PRESERVE ALL OPERATION, MAINTENANCE AND INSTALLATION INSTRUCTIONS SUPPLIED WITH EQUIPMENT AND WILL SECURE FURTHER INFORMATION ABOUT ALL OR ANY OF THE EQUIPMENT, IF DESIRED BY THE OWNERS. THE INSTRUCTIONS WILL BE NEATLY BOUND IN A BINDER AND PRESENTED TO THE OWNERS AT THE TIME OF SUBSTANTIAL COMPLETION OF THE WORK. IN ADDITION, THE ELECTRICAL CONTRACTOR WILL INSTRUCT THE CUSTODIAN OR OTHER OWNERS REPRESENTATIVE IN THE PROPER OPERATION AND MAINTENANCE OF THE VARIOUS PIECES OF EQUIPMENT INSTALLED BY HIM.
- OBTAIN ONE SET OF WHITE PRINTS AND KEEP THEM ON THE JOB FOR THE EXCLUSIVE PURPOSE OF RECORDING CHANGES OF THE TRENCHES, CONDUIT, EQUIPMENT AND DEVICES, ETC. THESE DRAWINGS WILL BE KEPT UP TO DATE AND TURNED OVER TO THE OWNER'S REPRESENTATIVE AT THE COMPLETION OF THE CONTRACT. DRAWINGS SHALL BE STAMPED WITH THE CONTRACTOR'S SIGNATURE AND BE LABELED CLEARLY AS 'AS-BUILTS'.

**CONDUIT AND SHEATHED CABLE**

- ALL NEW WIRING SHALL MATCH EXISTING.
- USE ELECTRICAL METALLIC TUBING (EMT) FOR CONCEALED CONDUIT IN OFFICE AREAS ONLY, AND ONLY IF IT MATCHES EXISTING.
- USE SET-SCREW TYPE CONNECTORS FOR EMT.
- RUN CONDUITS PARALLEL OR PERPENDICULAR TO BUILDING LINES. PLAN CONDUIT ROUTING FOR ALL CIRCUITS PRIOR TO INSTALLATION.
- SUPPORT CONDUITS AND TECK CABLE IN ACCORDANCE WITH THE REQUIREMENTS OF THE CANADIAN ELECTRICAL CODE. DO NOT USE WIRE LASHING OR PERFORATED STRAP TO SUPPORT OR SECURE CONDUITS.

**OUTLET BOXES**

- SUPPORT BOXES INDEPENDENTLY OF CONNECTING CONDUITS.
- 4" SQUARE OR OCTAGONAL OUTLET BOXES FOR LIGHTING FIXTURE OUTLETS.
- EXTENSION AND PLASTER RINGS FOR FLUSH MOUNTING DEVICES IN FINISHED GYPSUM WALLS.

**CONDUCTORS**

- USE COPPER CONDUCTORS WITH 600 V INSULATION OF CHEMICALLY CROSS-LINKED THERMOSETTING POLYETHYLENE MATERIAL. RATED RW90 XLPE FOR ALL WIRING INSTALLED IN CONDUIT.
- USE TECK90 CABLE 600V INSULATION FOR EXPOSED AREAS AND WHERE SURFACE WIRING IS IN USE.
- ALL CONDUCTORS SHALL BE SIZED FOR THE AMPACITY OF THE BRANCH CIRCUIT IN ACCORDANCE WITH THE CANADIAN ELECTRICAL CODE AND PER THE FOLLOWING SPECIFICATIONS:
  - USE STRANDED CONDUCTORS FOR 8 AWG AND LARGER.
  - MINIMUM SIZE OF CONDUCTORS FOR LIGHTING AND POWER: 12 AWG.

**LIGHTING**

- SUPPLY AND INSTALL LUMINAIRES AS INDICATED ON DRAWINGS LUMINAIRE SCHEDULE.
- SUBMIT SHOP DRAWINGS AND COMPLETE PRODUCT DATA PRIOR TO ORDERING. SHOP DRAWINGS TO INCLUDE ELECTRICAL CHARACTERISTICS AND SYSTEM WATTAGES.
- LOCATE AND INSTALL LUMINAIRES COMPLETE WITH ACCESSORIES AS INDICATED.
- CONNECT LUMINAIRES TO EXISTING LIGHTING CIRCUITS, RECONNECT NEW LIGHTING TO EXISTING LIGHTING CONTROL SYSTEM. EXTEND POWER AND CONTROL WIRING TO SUIT NEW LUMINAIRES/ DEVICES AND NEW LOCATIONS.
- LUMINAIRE SUPPORTS: FOR SUSPENDED CEILING INSTALLATIONS SUPPORT LUMINAIRES FROM CEILING GRID IN ACCORDANCE WITH LOCAL INSPECTION REQUIREMENTS.
- ALIGN LUMINAIRES MOUNTED IN CONTINUOUS ROWS TO FORM STRAIGHT UNINTERRUPTED LINE. ALIGN LUMINAIRES MOUNTED INDIVIDUALLY PARALLEL OR PERPENDICULAR TO BUILDING GRID LINES.
- COORDINATE EXACT LOCATIONS OF ALL LUMINAIRES WITH EXISTING EQUIPMENT LAYOUTS, DUCTS, PIPING ETC. PRIOR TO INSTALLATION. RELOCATE AND RE-ALIGN LUMINAIRES TO SUIT AS NECESSARY.
- WHERE APPLICABLE, DEMOLISH AND REPLACE ALL EXISTING VERTICAL FIXTURE DROPS. NEW WIRING AND CONDUIT TO MATCH EXISTING. UTILIZE TECK CABLE IN EXPOSED AREAS, CONDUIT AND WIRE IN CONCEALED AREAS. REUSE HORIZONTAL WIRING SYSTEMS WHERE POSSIBLE.

**LIGHTING CONTROL DEVICES**

- SUPPLY AND INSTALL NEW LIGHTING CONTROL DEVICES FOR SPACES WHERE LUMINAIRES ARE REPLACED AND AS INDICATED ON DRAWINGS.
- SUBMIT SHOP DRAWINGS FOR CONTROL DEVICES FOR REVIEW PRIOR TO ORDERING.
- 120V OR 347V IN ACCORDANCE WITH CONTROLLED LIGHTING CIRCUIT AND EXISTING CONDITIONS.
- INDUSTRIAL GRADE.
- CONTROL CONFIGURATION (3-WAY, 4-WAY ETC.) TO MATCH EXISTING DEVICES AND CIRCUITING.
- DEMOLISH AND REPLACE ALL EXISTING VERTICAL DEVICE DROPS. NEW WIRING AND CONDUIT TO MATCH EXISTING.
- UNLESS OTHERWISE NOTED ON DRAWINGS, ALL LIGHTING CONTROL DEVICES, AS WELL AS ASSOCIATED BOXES AND COVER PLATES, TO MATCH EXISTING.
- HIGH IMPACT DEVICE BOXES IN LOCATIONS WHERE SURFACE MOUNTED.
- TYPE 4X DEVICES IN AREAS WHERE LIQUID / VAPOUR TIGHT FIXTURES ARE SPECIFIED.
- SMOOTH HIGH IMPACT STEEL WALL PLATES ON RECESSED DEVICES.
- ACCEPTABLE MATERIAL: LEVITON, HUBBEL, EATON OR APPROVED EQUAL.

**UNIT EQUIPMENT AND REMOTE HEADS FOR EMERGENCY LIGHTING**

- EMERGENCY LIGHTS TO CSA C22.2 NO. 141.
- SUPPLY VOLTAGE: TO MATCH EXISTING CIRCUIT.
- BATTERY SIZED WITH OPERATING TIME OF 60 MINUTES MINIMUM AND C/W AUTOMATIC SELF-DIAGNOSTIC.
- BATTERY IS TO BE SEALED AND MAINTENANCE FREE.
- LAMP HEADS: TWO HEAD, LED MR16 LAMPS, INTEGRAL ON FIXTURE, HORIZONTAL AND VERTICAL ADJUSTMENT.
- COORDINATE EXACT LOCATION, AND MOUNTING HEIGHT OF EMERGENCY LIGHTING FIXTURES WITH EXISTING SITE CONDITIONS.
- ADJUST LAMP HEADS ON SITE TO SUIT MAXIMUM ILLUMINANCE ON PATH OF EGRESS.
- EXTEND EXISTING LIGHTING CIRCUITS TO NEW EMERGENCY LIGHTING BATTERY UNITS.
- ACCEPTABLE MATERIALS: AS INDICATED ON SCHEDULE OR APPROVED EQUAL.

**EXIT SIGNS**

- EXIT LIGHTS TO CSA C22.2 NO. 141 AND CSA C860.
- STYLE AND LAMPING: "LED PHOTOGRAM" WITH "GREEN RUNNING MAN" SHOWN, 3.5W LED.
- MOUNTING: SURFACE OR CEILING MOUNTED AS INDICATED ON DRAWINGS.
- FACEPLATES: SINGLE OR DOUBLE FACED WITH INDICATIVE CHEVRONS AS INDICATED BY DRAWINGS.
- SUPPLY VOLTAGE TO MATCH EXISTING CIRCUIT, WITH DC VOLTAGE OUTPUT.
- OPERATION TIME TO 90 MINUTE MINIMUM AND C/W AUTOMATIC SELF-DIAGNOSTIC.
- ACCEPTABLE MATERIALS: AS INDICATED ON SCHEDULE OR APPROVED EQUAL.

**RECEPTACLES**

- 15A/20A, 125V, DUPLEX RECEPTACLES WITH WHITE FACE.
- COMMERCIAL GRADE.
- EXTERIOR RECEPTACLES: LISTED AS WR WEATHER RESISTANT AND GFCI PROTECTED.
- SMOOTH HIGH IMPACT STEEL WALL PLATES FOR DEVICE BOXES
- COVERPLATES EXTERIOR - WHILE IN USE EXTRA DUTY COVER.
- ACCEPTABLE MATERIAL: LEVITON, HUBBEL, EATON OR APPROVED EQUAL.

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Professional Seal(s)

Drawn By: **JDB**

Dwg Standards Ckd By:

Designed By: **JDB**

Design Checked By: **PGH**

Scale: **1 : 100**

Project Title

**YARMOUTH WASTEWATER TREATMENT PLANT STRUCTURAL & ELECTRICAL UPGRADES**

Dwg Title

**NEW ELECTRICAL WORKSHOP, DIGESTER BUILDING, AND LUMINAIRE SCHEDULE**

Project No. **HFX-24009128-A0**

Dwg. No. **E-202** Rev. No. **0**

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