ABBREVIATIONS

&	AND
∠	ANGLE
@	AT
℄	CENTERLINE
~	DIAMETER OR ROUND
#	POUND OR NUMBER
(E)	EXISTING
ACOUS	ACOUSTICAL
A.D.	AREA DRAIN
ADJ.	ADJUSTABLE
AGGR.	AGGREGATE
AL.	ALUMINUM
APPROX.	APPROXIMATE
ARCH.	ARCHITECTURAL
ASB.	ASBESTOS
ASPH.	ASPHALT
BD.	BOARD
BITUM.	BITUMINOUS
BLDG.	BUILDING
BLK.	BLOCK
BLKG.	BLOCKING
BM.	BEAM
B.O.P.	BOTTOM OF PANEL
B.O.R.	BOTTOM OF REVEAL
BOT.	BOTTOM
CAB.	CABINET
C.B.	CATCH BASIN
CEM.	CEMENT
CER.	CERAMIC
C.I.	CAST IRON
C.G.	CORNER GUARD
CLG.	CEILING
CLKG.	CAULKING
CLO.	CLOSET
CLR.	CLEAR
C.O.	CASED OPENING
COL.	COLUMN
C.O.M.	CENTER OF MULLION
CONC.	CONCRETE
CONN.	CONNECTION
CONSTR.	CONSTRUCTION
CONT.	CONTINUOUS
C.O.R.	CENTRE OF RADIUS
CORR.	CORRIDOR
CTSK.	COUNTERSUNK
CNTR.	COUNTER
CTR.	CENTRE
DBL.	DOUBLE
DEPT.	DEPARTMENT
D.F.	DRINKING FOUNTAIN
DET.	DETAIL
DIA.	DIAMETER
DIM.	DIMENSION
DISP.	DISPENSER
DN.	DOWN
D.O.	DOOR OPENING
DR.	DOOR
DWR.	DRAWER
DS.	DOWNSPOUT
D.S.P.	DRY STANDPIPE
DWG	DRAWING
E.	EAST
EA.	EACH
E.J.	EXPANSION JOINT
EL.	ELEVATION
ELEC.	ELECTRICAL
ELEV.	ELEVATOR
EMER.	EMERGENCY
ENCL.	ENCLOSURE
E.P.	ELECTRICAL PANELBOARD
EQ.	EQUAL
EQPT.	EQUIPMENT
E.W.C.	ELECTRIC WATER COOLER
EXST.	EXISTING
EXPO.	EXPOSED
EXP.	EXPANSION
EXT.	EXTERIOR
F.A.	FIRE ALARM
F.B.	FLAT BAR
F.D.	FLOOR DRAIN
FDN.	FOUNDATION
F.E.	FIRE EXTINGUISHER
F.E.C.	FIRE EXTINGUISHER CAB
F.H.C.	FIRE HOSE CABINET
FIN.	FINISH
FL.	FLOOR
FLASH.	FLASHING
FLUOR.	FLUORESCENT
F.O.C.	FACE OF CONCRETE
F.O.F.	FACE OF FINISH
F.O.S.	FACE OF STUD
FPRF.	FIREPROOF
F.S.	FULL SIZE
FT.	FOOT OR FEET
FTG.	FOOTING
FURR.	FURRING
FUT.	FUTURE
GA.	GAUGE
GALV.	GALVANIZED
G.B.	GRAB BAR
GL.	GLASS
GND.	GROUND
GR.	GRADE
GYP.	GYPSUM
H.B.	HOSE BIBB
H.C.	HOLLOW CORE
HDWD.	HARDWOOD
HDWE.	HARDWARE
H.M.	HOLLOW METAL
HORIZ.	HORIZONTAL
HR.	HOUR
HGT.	HEIGHT
I.D.	INSIDE DIAMETER (DIM.)
INSUL.	INSULATION
INT.	INTERIOR

JAN.	JANITOR
JT.	JOINT
KIT.	KITCHEN
LAB.	LABORATORY
LAM.	LAMINATE
LAV.	LAVATORY
LKR.	LOCKER
LT.	LIGHT
MAX.	MAXIMUM
M.C.	MEDICINE
MECH.	MECHANICAL
MEMB.	MEMBRANE
MET.	METAL
MFR.	MANUFACTURER
MH.	MANHOLE
MIN.	MINIMUM
MIR.	MIRROR
MISC.	MISCELLANEOUS
M.O.	MASONRY OPENING
MTD.	MOUNTED
MUL.	MULLION
N.	NORTH
N.I.C.	NOT IN CONTRACT
NO. OR #	NUMBER
NOM.	NOMINAL
N.T.S.	NOT TO SCALE
O.A.	OVERALL
OBS.	OBSCURE
O.C.	ON CENTER
O.D.	OUTSIDE DIAMETER (DIM.)
OFF.	OFFICE
OPNG.	OPENING
OPP.	OPPOSITE
PRCST.	PRE-CAST
PL.	PLATE
P.LAM.	PLASTIC LAMINATE
PLAS.	PLASTER
PLYWD.	PLYWOOD
PNL	PANEL
PT	PAINT
PR.	PAIR
P.T.D.	PAPER TOWEL DISPENSER
P.T.D/R	COMBINATION PAPER TOWEL
PTN.	PARTITION
P.T.R.	PAPER TOWEL RECEPTACLE
Q.T.	QUARRY TILE
R.	RISER
RAD.	RADIUS
R.D.	ROOF DRAIN
REF.	REFERENCE
REFR.	REFRIGERATOR
RGTR.	REGISTER
REINF.	REINFORCED
REQ.	REQUIRED
RESIL.	RESILIENT
RM.	ROOM
R.O.	ROUGH OPENING
RWD.	REDWOOD
R.W.L.	RAIN WATER LEADER
S.	SOUTH
S.C.	SOLID CORE
S.C.D.	SEAT COVER DISPENSER
SCHED.	SCHEDULE
S.D.	SOAP DISPENSER
SECT.	SECTION
SH.	SHELF
SHR.	SHOWER
SHT.	SHEET
SIM.	SIMILAR
S.N.D.	SANITARY NAPKIN DISPENSER
S.N.R.	SANITARY NAPKIN RECEPTACLE
SPEC.	SPECIFICATION
SQ.	SQUARE
S.ST.	STAINLESS STEEL
S.SK.	SERVICE SINK
STA.	STATION
STD.	STANDARD
STL.	STEEL
STOR.	STORAGE
STRL.	STRUCTURAL
SUSP.	SUSPENDED
SYS.	SYMMETRICAL
TRD.	TREAD
T.B.	TOWEL BAR
T.C.	TOP OF CURB
TEL.	TELEPHONE
TER.	TERRAZZO
T. & G.	TONGUE AND GROOVE
TGL	TEMPERED GLASS
THK.	THICK
T.O.P.	TOP OF PANEL
T.O.R.	TOP OF REVEAL
T.P.	TOP OF PAVEMENT
T.P.D.	TOILET PAPER DISPENSER
T.V.	TELEVISION
T.W.	TOP OF WALL
TYP.	TYPICAL
UNF.	UNFINISHED
U.O.N.	UNLESS OTHERWISE NOTED
UR.	URINAL
VERT.	VERTICAL
VEST.	VESTIBULE
V.I.F	VERIFY IN FIELD
W.	WEST
W/	WITH
W.C.	WATER CLOSET
WD.	WOOD
W/O	WITHOUT
WP	WATERPROOF
WSCT.	WAINSCOT
WT.	WEIGHT

BUILDING CODE ANALYSIS

Item	Ontario Building Code Data Matrix Parts 3 & 9		OBC Reference	
1	Project Description: WASHROOMS BUILDING ☐ Change of Use	[✓ New] ☐ Addition ☐ Alteration ☐ Part 11	[✓ Part 3]	☐ Part 9 2.1.1 9.10.1.3
2	Major Occupancy(s) A2		3.1.2.1.(1)	9.10.2
3	Building Area (m²) Existing 0.00 New 95.10 Total 95.10		1.1.3.2	1.1.3.2
4	Gross Area Existing 0.00 New 95.10 Total 95.10		1.1.3.2	1.1.3.2
5	Number of Storeys Above grade 1 Below grade 0		3.2.1.1 & 1.1.3.2	2.1.1.3
6	Height of Building (m) 3.35 m			2.1.1.3
7	Number of Streets/Access Routes 1		3.2.2.10 & 3.2.5.5	
8	Building Classification 3.2.2.28		3.2.2.20-.83	9.10.4
9	Sprinkler System Proposed	☐ entire building ☐ basement only ☐ in lieu of roof rating [✓ not required]	 3.2.2.20-.83 3.2.1.5 3.2.2.17	9.10.8
10	Standpipe required	☐ Yes [✓ No]	3.2.9	
11	Fire Alarm required	☐ Yes [✓ No]	3.2.4	9.10.7.2
12	Water Service/Supply is Adequate	☐ Yes ☐ No TO BE VERIFIED		
13	High Building	☐ Yes [✓ No]	3.2.6	
14	Permitted Construction [✓ Combustible] ☐ Non-combustible Actual Construction [✓ Combustible] ☐ Non-combustible		3.2.2.20-.83	9.10.6
15	Mezzanine(s) Area m² 0.00		3.2.1.1.(3)-(8)	9.10.4.1
16	Occupant load based on ☐ m²/person [✓ design of building] Basement: Occupancy N/A Load N/A persons 1st Floor Occupancy A2 Load 20 persons 1st Floor Occupancy N/A Load N/A persons Mezzanine Occupancy N/A Load N/A persons		3.1.1.6	9.9.1.3
17	Barrier-free Design [✓ Yes] ☐ No (Explain)		3.8	9.5.2
18	Hazardous Substances [✓ Yes] ☐ No		3.3.1.2.(1) & 3.3.1.19(1)	9.10.1.3
19	Required Fire Resistance Rating (FRR) Horizontal Assemblies FRR (Hours): Floors 0 Hours; Roof 0 Hours; Mezzanine 0 Hours FRR of Supporting Members: Floors 0 Hours; Roof 0 Hours; Mezzanine 0 Hours	Listed Design No. or Description (SG-2): 0; 0; 0 Listed Design No. Or Description (SG-2): 0; 0; 0	3.2.2.20-.83 & 3.2.1.4	9.10.8 9.10.9
20	Spatial Separation – Construction of Exterior Walls		3.2.3	9.10.14
21	Other – Describe			

Wall	Area of EBF (m²)	L.D. (m)	L/H or H/L	Permitted Max. % of Openings	Proposed % of Openings	FRR (Hours)	Listed Design or Description	Comb Const	Comb. Constr. Nonc. Cladding	Non-comb. Constr.
North	29	NA	.34	100	4	0		NO		
South	29	NA	.34	100	3	0		NO		
East	36.2	NA	.28	100	4	0		NO		
West	36.2	NA	.28	100	4	0		NO		

DRAWING LEGEND:

TITLE
SCALE

GRID LINE & COLUMN DESIGNATION

ELECTION / SECTION MARKERS

SECTION MARKERS

DETAIL REFERENCE

INTERIOR ELEVATION MARKERS

P- WALL TYPE / PARTITION ASSEMBLY TYPE (DENOTED "P" FOLLOWED BY A NUMBER)

D00 DOOR IDENTIFICATION

SCHEDULE REFERENCE

ROOM NAME --- ROOM NAME AND NUMBER IDENTIFICATION

CONSTRUCTION NOTE REFERENCE

CT- DENOTES FLOOR FINISH

PT- DENOTES WALL FINISH

NEW WALL (REFER TO WALL TYPES)

EXISTING PARTITION TO BE REMOVED

LINE OR BULKHEAD CEILING ABOVE

The City of Windsor

ELIZABETH K. PARK WASHROOM BUILDING

SUPPOSED TO BE XX?

TENDER NO. xx - 21

OWNER

THE CORPORATION OF THE CITY OF WINDSOR

350 City Hall Square West   Windsor, Ontario, N9A 6S1

ARCHITECT

M BASILIOUS ARCHITECT

1605 OTTAWA ST.   WINDSOR, ONTARIO N8Y 1R2
209 FORTYORK BLVD   TORONTO, ONTARIO M5V 4A1
PHONE 519-969-0086   FAX 519-969-9317

CONSULTANTS

STRUCTURAL & CIVIL ENGINEER

ALEO ASSOCIATES INC.   325 Devonshire Rd Suite 500, Windsor, ON N8Y 2L3
PHONE (519) 254-7926

MECHANICAL ENGINEER

TM ENGINEERING   46 SUNDROP CRT. ANCASTER, ON L9K 1G5
PHONE (905) 520 9575

ELECTRICAL ENGINEER

DAR ENGINEERING & DESIGN   148 COASTLINE DRIVE, BRAMPTON ON N9A 3Y4
PHONE (548) 882 9382

BUILDING LOCATION
KEY PLAN

DRAWINGS LIST

ARCHITECTURAL

CIVIL

STRUCTURAL

MECHANICAL

ELECTRICAL

Maged Basilious Architect
www.mbarchitect.ca

Maged Basilious Architect
1605 Ottawa St., Suite 101
Windsor, Ontario N8Y 1R2
Phone: 519-969-0086
Fax: 519-969-9317
e-mail: mbasilious@mbarchitect.ca

No.	Description	Date
1	ISSUED FOR TENDER	FEB 05 2021

WASHROOM BUILDING ELIZABETH K PARK

Title Sheet

Project number	2104
Date	JULY 2021
Drawn by	A. B.
Checked by	M. B.

A 001

Scale 12" = 1'-0"

2022-03-03 4:33:04 PM

SPECIFICATIONS

04200 UNIT MASONRY

2.0 STANDARD CONCRETE BLOCK:
.1 STANDARD CONCRETE BLOCK TO CONFORM TO CSA A165.1 SERIES - 14, WITH FOUNDATION AND EXTERIOR EXPOSED WALLS TO BE IN CONFORMANCE WITH CLASSIFICATION H / 15 / A / M AND INTERIOR WALLS TO H / 15 / B / M AS SHOWN ON THE DRAWINGS. WHERE NECESSARY FIRE RATED OR OTHER DESIGNATED WALLS TO CONFORM TO H / 15 / C OR D / M IF INDICATED AND SO REQUIRED.
.2 SIZE TO BE 8"X16"X8" MODULAR AS INDICATED ON THE DRAWINGS.
.3 SPECIAL SHAPES ARE TO BE MACHINE FORMED BY SUPPLIER WITH BULLNOSE UNITS FOR EXPOSED CORNERS (HORIZONTAL AND VERTICAL), AS WELL AS ALL OTHER COMMON UNITS WHICH INCLUDE JAMBS, MASONRY LINTELS...
.4 ALL BLOCK TO BE FREE FROM SURFACE STAINS, SPOILS, IMPERFECTIONS AND EDGE DEFECTS.

2.1 ARCHITECTURAL BLOCK
.1 ARCHITECTURAL CONCRETE BLOCK TO CONFORM TO CSA A165.1 SERIES - 14 AND CONFORM TO CLASSIFICATION OF H/15/A/M.
.2 SIZE TO BE 8"X16"X8" MODULAR AS INDICATED ON THE DRAWINGS.
.3 TYPE 1 - MANUFACTURER: SANTERRA STONECRAFT OR APPROVED ALTERNATE
COLOUR: T.B.D. FROM STANDARD RANGE
PROFILE: AS SHOWN ON DRAWINGS

2.2 MASONRY CEMENT
.1 MASONRY CEMENT FOR LOAD BEARING AND NON-LOAD BEARING WALLS AND RELATED DETAILS TO CONFORM TO CSA A179-14 TYPE S
.2 AGGREGATE FOR USE IN MASONRY CEMENT SHALL BE FINE SAND ONLY AND SHALL BE GRADED WITHIN THE LIMITS AS SPECIFIED IN TABLE 1 OF CSA A179-14.
.3 WATER ADDED SHALL BE CLEAN AND POTABLE AND FREE OF DELETERIOUS SUBSTANCES.
.4 MASONRY CEMENT TO BE COLOURED AS SELECTED BY THE ARCHITECT.

2.3 MASONRY WALL FLASHING AND WEEPING
.1 BLOCK FLASHING AND WEEPING WILL BE INSTALLED ON ALL EXTERIOR WALLS IN CONFORMANCE TO MANUFACTURER'S INSTRUCTIONS AS SUPPLIED BY BLOK FLASH AND PRODUCED BY MORTAR NET INC.
.2 BLOCK COURSING ABOVE EACH WINDOW AND DOOR OPENING SHALL BE FILLED SOLID WITH BLOCK FLASH INSTALLED ABOVE EACH IN ACCORDANCE TO MANUFACTURER'S INSTRUCTION AS SUPPLIED BY BLOK FLASH.
.3 SIZE OF BLOK FLASH TO CORRESPOND TO THE BLOCK WIDTH INDICATED ON DRAWINGS.
.4 MORTAR NET TO BE INSTALLED AT EACH OPEN CORE TO PREVENT BLOCKAGE OF THE BUILT IN WEEPER AND SO INSTRUCTED BY MANUFACTURER.
.5 OPTION TO THE USE OF MORTAR NET IS THE USE OF CLEAR STONE IN EACH OPEN CAVITY TO A DEPTH OF ½ THAT OF THE BLOCK ABOVE THE BLOK FLASH.

2.4 MASONRY REINFORCEMENT
.1 BLOK-LOK BL-30 TRUSS-TYPE REINFORCEMENT CONSISTS OF 2 SIDE-RODS WELDED TO A CONTINUOUS DIAGONALLY SHAPED CROSS-ROD FORMING A TRUSS DESIGN WITH ALTERNATING WELDS NOT EXCEEDING 8" (200 MM) O.C. OVERALL.
.2 COMPLIES WITH ASTM C951, ACI 530 FOR JOINT REINFORCEMENT, CSA STANDARD A370.
.3 HOT DIPPED GALVANIZED AFTER FABRICATION TO CSA A370-14 AND ASTM A153 Class B2.

04230 GLASS UNIT MASONRY

ACCEPTABLE MANUFACTURERS
A. THE DRAWINGS AND SPECIFICATIONS ARE BASED ON CATALOG DATA, SPECIFICATIONS AND PRODUCTS OF PITTSBURGH CORNING CORPORATION AND DESIGNATE THE TYPE AND QUALITY OF WORK INTENDED UNDER THIS SECTION.

GLASS BLOCK UNITS
A. GLASS UNITS, NOMINALLY 8 INCH X 8 INCH X 3 INCH THICK MADE OF CLEAR COLORLESS GLASS WITH A POLYVINYL BUTYRAL EDGE COATING.

ACCESSORIES

A. PANEL REINFORCING: TWO PARALLEL 9 GAUGE WIRES EITHER 15/8 INCH OR 2 INCH ON CENTER WITH ELECTRICALLY BUTT-WELDED CROSSWIRES SPACED AT REGULAR INTERVALS, HOT DIPPED GALVANIZED AFTER WELDING OR TYPE 304 STAINLESS STEEL, BY PITTSBURGH CORNING CORPORATION.
B. PANEL ANCHORS: 20 GAUGE PERFORATED STEEL STRIPS 24 INCHES LONG BY 1¾ INCHES WIDE, HOT DIPPED GALVANIZED AFTER PERFORATION OR 22 GAUGE BY 16 INCHES LONG BY 1¾ INCHES WIDE OF TYPE 304 STAINLESS STEEL, BY PITTSBURGH CORNING CORPORATION.
C. EXPANSION STRIPS: MADE OF POLYETHYLENE FOAM WITH A THICKNESS OF 3/8 INCH, BY PITTSBURGH CORNING CORPORATION.
D. ASPHALT EMULSION: A WATER-BASED ASPHALT EMULSION, BY KARNAK CHEMICAL CORP. (KARNAK 100, 1-800-526-4236), OR EQUAL.
E. SEALANT (CAULK): NON-STAINING, WATERPROOF MASTIC, SILICONE TYPE. SEALANT APPROVED MANUFACTURERS: DOW CORNING CORPORATION, GENERAL ELECTRIC, SONNEBORN BUILDING PRODUCTS, TREMCO INCORPORATED, 06 IN
F. PACKING (BACKER RODS): POLYETHYLENE FOAM, NEOPRENE, FIBROUS GLASS OR EQUAL AS APPROVED BY SEALANT MANUFACTURER.
G. CHANNELS (ALUMINUM): AVAILABLE FROM JULIUS BLUM & COMPANY, INC., 1-800-526-6293 IN CARLSTADT, NJ.
VISTABRIK® AND THINLINE® SERIES (3" GLASS BLOCK), USE: 4" X 1½" X 1/8" SIZE.

MORTAR MATERIALS

A. MORTAR: LIMIT CEMENTITIOUS MATERIALS IN MORTAR TO PORTLAND CEMENT AND LIME. TYPE S IN ACCORDANCE WITH ASTM C270. MORTAR SHALL BE 1 PART PORTLAND CEMENT, ½ PART LIME, AND SAND EQUAL TO 2¼ TO 3 TIMES THE AMOUNT OF CEMENTITIOUS MATERIAL (CEMENT PLUS LIME), ALL MEASURED BY VOLUME. (FOR EXTERIOR GLASS BLOCK PANELS, AN INTEGRAL TYPE WATERPROOFER SHOULD BE ADDED TO THE MORTAR MIX.) NO ANTIFREEZE COMPOUNDS OR ACCELERATORS ALLOWED.
B. PORTLAND CEMENT: TYPE I IN ACCORDANCE WITH ASTM C150. IF A WATERPROOF PORTLAND CEMENT IS USED, THE INTEGRAL TYPE WATERPROOFER SHALL BE OMITTED. (MASONRY CEMENT IS NOT RECOMMENDED.) COLOR: WHITE
C. LIME: SHALL BE A DOLOMITIC PRESSURE-HYDRATED LIME, SPECIAL HYDRATE, TYPE S, IN ACCORDANCE WITH ASTM C207.
D. SAND: A CLEAN, WHITE QUARTZITE OR SILICA TYPE, ESSENTIALLY FREE OF IRON COMPOUNDS, IN ACCORDANCE WITH ASTM C144, NOT LESS THAN 100% PASSING A NO. 8 SIEVE.
E. INTEGRAL TYPE WATER-REPELLENT: STEARATE TYPE BY THE EUCLID CHEMICAL COMPANY (INTEGRAL WATERPELLER® POWDER, **NOT LIQUID**, 1-800-321-7628), OR APPROVED EQUAL. NOTE: ADD INTEGRAL WATERPELLER® POWDER TO DRY MORTAR MIX. DO NOT ADD POWDER TO WET MORTAR MIX.
F. EXTERNAL TYPE WATER PROOFER: WATER BASED SILANE SEALER TYPE BY BASF CORPORATION (HYDROZO ENVIROSEALTM 40, 1-800-243-6739).
NOTE: REMOVE EXCESS SEALER FROM GLASS SURFACES SOON AFTER APPLICATION.

05500 METAL WORK (GALVANIZE LINTELS)

1. ALL EXPOSED WELDED JOINTS SHALL BE CHIPPED AND GROUND SMOOTH. ALL MECHANICAL JOINTS SHALL HAVE A BUTT JOINT WITH A HAIRLINE SEAM.
2. ALL ATTACHMENTS REQUIRED FOR METAL FRAMEWORK SHALL BE INCONSPICUOUS AND/OR INVISIBLE - UNLESS NOTED OTHERWISE.
3. ALL METAL WORK SHALL BE FITTED AND FABRICATED IN THE METAL SHOP, PROVIDING FOR MINIMAL ASSEMBLY ON SITE.
4. ALL ANCHORING DEVICES REQUIRED FOR THE COMPLETE INSTALLATION OF METALWORK SHALL BE PROVIDED BY THIS CONTRACTOR.
5. ALL EXPOSED ENDS OF METAL TUBING SHALL BE CAPPED, WELDED AND GROUND SMOOTH.
6. PREPARATION OF METAL SURFACES SHALL BE IN ACCORDANCE WITH FINISH MANUFACTURER INSTRUCTION IN REGARD TO SANDBLASTING, PRIMING, ELECTROPLATING AND SPRAY APPLICATION OF ANY APPLIED FINISH.
7. THE METAL FABRICATOR SHALL SUBMIT SHOP DRAWINGS SHOWING LOCATIONS OF ALL CONNECTIONS, ANCHORAGE METHODS, SIZES, FINISHES ETC., OF ALL METALWORK, FOR APPROVAL BY THE DESIGNER PRIOR TO ANY FABRICATION.
8. ALL METAL COMPONENTS WITH EXPOSED EDGES SHALL HAVE SMOOTH EDGES.
9. ALL EXPOSED SCREWS BOLTS AND WASHERS SHALL BE FINISHED TO MATCH THE ADJACENT METAL FINISH. SUBMIT SAMPLES FOR APPROVAL PRIOR TO THE START OF WORK.

07200 INSULATION

1. EXTERIOR INSULATION:
a. SEMI RIGID INSULATION; RXL 40 MINERAL WOOL, R-4.5/IN. TO CAN/CGSB 51.10-92 TYPE 2 CLASS 2 AS MANUFACTURED BY ROXUL, OR APPROVED EQUAL.
b. RIGID INSULATION; EXTRUDED EXPANDED POLYSTYRENE BOARD CONFORMING TO CAN/CGSB-S1.20-M87 TYPE 4, STYROFOAM SM BY DOW CHEMICAL CANADA OR EQUAL
2. FOUNDATION AND UNDER SLABS INSULATION: EXTRUDED EXPANDED POLYSTYRENE BOARD CONFORMING TO CAN/CGSB-S1.20-M87 TYPE 4, STYROFOAM SM BY DOW CHEMICAL CANADA OR EQUAL.
3. FLEXIBLE BATT INSULATION: ROXUL INSULATION AS PER SPECIFIED THICKNESS
4. SPRAY POLYURETHANE FOAM:
4.1 MATERIAL: TWO-COMPONENT SPRAY POLYURETHANE CELLULAR PLASTIC FOAM, COMPLYING WITH THE FOLLOWING METHODS AND MEETING THE FOLLOWING PHYSICAL PROPERTIES:
a. CORE DENSITY (ASTM D1622): [MINIMUM 2PCF
b. THERMAL RESISTANCE (ASTM C518): 140DEGREEF/90DAY AGED R-VALUE, MEASURED AT 75F MEAN TEMP: MINIMUM R6.0/INCH.
c. FLAME SPREAD (ASTM E84, CLASS A): 25 OR LESS.
d. SMOKE DEVELOPED (ASTM E84, CLASS A): 450 OR LESS.
e. COMPRESSIVE STRENGTH MINIMUM (ASTM D1621, 10% PARALLEL TO RISE): (20 PSI)(182 KPA).
f. CLOSED CELL CONTENT (ASTM D2856): MINIMUM 95 PERCENT.
g. WATER ABSORPTION BY VOLUME MAXIMUM. (ASTM D2842): 2.5 PERCENT.
h. WATER VAPOR PERMEABILITY MAXIMUM. (ASTM E96): [2.5 PERM-INCHES] [3.6 NG/(PA.S.M)].
4.2 MANUFACTURER: DOW CHEMICAL OR EQUAL
4.3 APPLICATION: MUST BE INSTALLED BY DOW CHEMICAL APPROVED APPLICATOR AT TIME OF BIDDING.
5. VAPOUR BARRIER: 6 MIL POLYETHYLENE FILM TO CAN/CGSB 51.34-M86.

07610 METAL ROOFING SYSTEM

1.1 MATERIALS:
.1 ROOF SYSTEM: PRESTIGE: ROOF PROFILE BY VICWEST, COVERAGE 20".
.2 SUBSTRATE: 5/8" PLYWOOD
.3 PEEL AND STICK MEMBRANE SHALL BE LASTOBOND HT BY SOPREMA INC.OR EQUAL
.4 ROOF FASTENERS: AS SPECIFIED BY MANUFACTURER, TO RESIST WIND UPLIFT AND SLIDING SNOW FORCES.
.5 PREFINISHED ROOF SHEET, EXPOSED TO EXTERIOR.
.6 PROFILE: PRESTIGE, 20" (508MM) COVERAGE PANEL: Z275 GALVANIZED (ZINC COATED) SHEET STEEL CONFORMING TO ASTM A653M STRUCTURAL QUALITY GRADE 230 HAVING A NOMINAL CORE THICKNESS 0.61MM (0.024

1.2 PANEL FINISHES:
.1 PREFINISHED ROOF SHEET COATING: PREPAINTED WITH WEATHERXL™

1.3 COLOUR
.1 PREFINISHED ROOF SHEET COLOUR TO BE SELECTED FROM THE MANUFACTURER'S STANDARD COLOUR RANGE.

1.4 ACCESSORIES
.1 FLASHING: FORMED FROM SAME MATERIALS AS THE ROOF SHEET. CUSTOM FABRICATED TO SUIT ARCHITECTURAL DETAILS, AS REQUIRED.
.2 CLOSURES: FOAM AND METAL CLOSURES TO SUIT PROFILES SELECTED, TO MANUFACTURER'S RECOMMENDATIONS.
.3 SEALANTS: IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION AND SECTION [07 92 00].

1.5 FABRICATION
.1 FABRICATE ROOF COMPONENTS TO COMPLY WITH DIMENSIONS, PROFILES, GAUGES AND DETAILS AS SHOWN ON THE SHOP DRAWINGS, NCLUDING FASCIA AND SOFFIT PANELS AND ALL COMPANION FLASHING.
.2 FABRICATE ALL COMPONENTS OF THE SYSTEM IN THE FACTORY, READY FOR FIELD INSTALLATION.
.3 PROVIDE ROOF SHEET AND ALL ACCESSORIES IN LONGEST PRACTICABLE LENGTH TO MINIMIZE FIELD LAPPING OF JOINTS.

2.1 GUARANTEE
.1 FOR WORK IN THIS SECTION, WARRANTY BY INSTALLER AGAINST DEFECTS OR DEFICIENCIES IN MATERIALS OR WORKMANSHIP SHALL BE FOR A PERIOD OF ONE YEAR FROM DATE OF SUBSTANTIAL COMPLETION.

2.2 WARRANTY
.1 PROVIDE A MANUFACTURER'S WRITTEN WARRANTY: FURNISH PANEL MANUFACTURER'S WRITTEN WARRANTY COVERING FAILURE OF FACTORY- APPLIED EXTERIOR FINISH WITHIN THE WARRANTY PERIOD. WARRANTY PERIOD FOR FINISH: {40 YEARS} AFTER THE DATE OF SUBSTANTIAL COMPLETION. THE VALUES BELOW ARE BASED ON NORMAL ENVIRONMENTS AND EXCLUDE ANY AGGRESSIVE ATMOSPHERIC CONDITIONS.

.1 {WEATHERXL™ (SILICONIZED POLYESTER - SMP) WILL NOT CRACK, CHIP, OR PEEL (LOSE ADHESION) FOR FORTY (40) YEARS FROM DATE OF INSTALLATION (40.5 YRS FROM APPLICATION). THIS DOES NOT INCLUDE MINUTE FRACTURING THAT MAY OCCUR DURING THE NORMAL FABRICATION PROCESS. WEATHERXL™ (SILICONIZED POLYESTER - SMP) WILL NOT CHALK IN EXCESS OF A NUMBER SIX (6) RATING, IN ACCORDANCE WITH ASTM D-4214-98 METHOD D659 AT ANY TIME FOR THIRTY (30) YEARS FROM DATE OF INSTALLATION (30.5 YRS FROM APPLICATION); WILL NOT CHANGE COLOUR MORE THAN EIGHT (8.0) HUNTER ΔE UNITS AS DETERMINED BY ASTM METHOD D-2244-02.}

07270 FIRESTOPPING

1. SERVICE PENETRATION FIRESTOP SYSTEMS AND JOINT FIRESTOP SYSTEMS AS MANUFACTURED BY HILTI, TREMCO, A/D FIRE PROTECTION.
2. CONTRACTOR SHALL FOLLOW DETAILS ON DRAWINGS.

07460 FIBRE CEMENT SIDING

1. ACCEPTABLE MANUFACTURER: JAMES HARDIE BUILDING PRODUCTS, INC., WHICH IS LOCATED AT: 231 S. LA SALLE ST. SUITE 2000; CHICAGO, IL 60604;
2. SUBSTITUTIONS: NOT PERMITTED.
3. HARDIE TEXTURED PANELS AS MANUFACTURED BY JAMES HARDIE BUILDING PRODUCTS, INC. A NON-COMBUSTIBLE FIBER-CEMENT PANEL.
4.
5.
6.
7.

07900 CAULKING AND SEALANTS

1. EXTERIOR SEALANT: MULTI-COMPONENT CHEMICALLY CURING SEALING TO MEET CAN/CGSB -19.24-M.
2. INTERIOR SEALANT: AROUND WINDOWS AND DOORS TO MEET CGSB-19.13-M.
3. SILICONE SEALANT: FOR PLUMBING FIXTURES AND VANITY TOPS, MILDEW RESISTANT TO MEET CGSB -19.13-M.
4. PAINTABLE INTERIOR SEALANT: ONE PART ACRYLIC-LATEX TO MEET CAN/CGSB 19.17-M.
5. **APPLY SEALANT OR CAULKING BETWEEN ALL DISSIMILAR MATERIALS**

08100 METAL DOORS AND FRAMES

1. HOLLOW METAL DOORS AND FRAMES SHALL BE AS MANUFACTURED BY DAYBAR, ARTEK DOOR OR APPROVED EQUAL.
2. FRONT DOUBLE DOOR SHALL BE FLAT HOLLOW METAL AS MANUFACTURED BY CECO DOOR (ASSA ABLOY) MADERA STYLE OR EQUAL
3. EXTERIOR HOLLOW METAL DOORS SHALL HAVE SEAMLESS EDGES, FOAM- FILLED CORES, REINFORCED FOR HARDWARE, FULLY WEATHER STRIPPED. FACE SHEETS SHALL BE 16 GAUGE.
4. INTERIOR HOLLOW METAL DOORS SHALL HAVE 18 GAUGE FACE SHEETS.
5. HOLLOW METAL FRAMES SHALL BE 16 GAUGE, SHALL HAVE INTERNAL STOPS AND SILENCERS.
6. ALL DOORS AND FRAMES SHALL BE PREFINISHED AND PAINTED PRIOR TO INSTALLATION. (INSIDE AND OUT FOR FRAMES)
7. SUBMIT SHOP DRAWINGS FOR APPROVAL.

08740 FINISHING HARDWARE

1. HARDWARE SHALL BE ACCORDING TO SCHEDULE IN THE DRAWINGS. HARDWARE TO BE HEAVY DUTY COMMERCIAL QUALITY.
2. CONTRACTOR SHALL SUPPLY A COMPLETE HARDWARE SCHEDULE PREPARED BY THE SUPPLIER.
3. LOCKS FOR EQUIPMENT AND ELECTRICAL ROOMS WILL BE SUPPLIED BY THE CITY.
4. ALL DOORS TO HAVE ROTON HINGES. (CAPABLE OF 180° OPENING)
5. SUBMIT SHOP DRAWINGS FOR APPROVAL.

09670 FLUID APPLIED FLOORING FOR CONCRETE

1. MATERIAL: EPOXY PRIMER / SELF-LEVELING EPOXY SYSTEM AS MANUFACTURED BY SHERWIN WILLIAMS
1ST COAT: ARMORSEAL 33 EPOXY PRIMER/SEALER, B58-33 SERIES
(7.0 - 9.0 MILS DRY)
2ND COAT: ARMORSEAL 650 SL/RC SELF-LEVELING EPOXY, B58-650 SERIES
(10.0 - 30.0 MILS DRY PER COAT)

2. INSTALLATION:
a. DO NOT BEGIN APPLICATION OF COATINGS UNTIL SUBSTRATES HAVE BEEN PROPERLY EXAMINED AND PREPARED.
b. PREPARATION AND ACCEPTANCE OF THE SUBSTRATE IS THE RESPONSIBILITY OF THE FLOORING INSTALLER.
c. POURED CONCRETE SURFACE PREPARATION: REFER TO SSPC-SP13/NACE 6/ICRI # 03732. SURFACES MUST BE CLEAN, DRY, SOUND AND OFFER SUFFICIENT PROFILE TO ACHIEVE ADEQUATE ADHESION. MINIMUM SUBSTRATE CURE IS 28 DAYS AT 75°F. REMOVE ALL FORM RELEASE AGENTS, CURING COMPOUNDS, SALTS, EFFLORESCENCE, LAITANCE, AND OTHER FOREIGN MATTER BY SANDBLASTING, SHOTBLASTING, MECHANICAL SCARIFICATION, OR SUITABLE CHEMICAL MEANS. REFER TO ASTM D4260. RINSE THOROUGHLY TO ACHIEVE A FINAL PH BETWEEN 8.0 AND 10.0. ALLOW TO DRY THOROUGHLY PRIOR TO COATING.
d. FILL ALL CRACKS, VOIDS, BUG HOLES AND JOINTS WITH APPROPRIATE FILLER OR ARMORSEAL CRACK FILLER, ARMORSEAL JOINT SEALANT, OR ARMORSEAL EXPRESSPATCH.
e. APPLY ALL COATINGS AND MATERIALS WITH THE MANUFACTURER'S SPECIFICATIONS IN MIND. MIX AND THIN COATINGS ACCORDING TO MANUFACTURER'S RECOMMENDATION.
f. DO NOT APPLY TO WET OR DAMP SURFACES.
g. WAIT AT LEAST 28 DAYS BEFORE APPLYING TO NEW CONCRETE OR MASONRY. OR FOLLOW MANUFACTURER'S PROCEDURES TO APPLY APPROPRIATE COATINGS PRIOR TO 28 DAYS. TEST NEW CONCRETE FOR MOISTURE CONTENT.
h. APPLY COATINGS USING METHODS RECOMMENDED BY MANUFACTURER.
i. UNIFORMLY APPLY COATINGS WITHOUT RUNS, OR SAGS, WITHOUT BRUSH MARKS, AND WITH CONSISTENT SHEEN.
j. APPLY COATINGS AT SPREADING RATE REQUIRED TO ACHIEVE THE MANUFACTURER'S RECOMMENDED DRY FILM THICKNESS.

09900 PAINTING AND FINISHING

PAINTING:
1. APPROVED PAINT MANUFACTURERS ARE DULUX, ICI CANADA, GLIDDEN, SANSIN AND BENJAMIN MOORE.
2. ALL WORK IN THIS SECTION TO COMPLY WITH MPI ARCHITECTURAL PAINTING MANUAL. INSURE THAT SURFACES AND SUBSTRATE MATERIALS MEET PAINTING MANUFACTURER MINIMUM REQUIREMENTS.
3. VOLATILE ORGANIC COMPOUNDS (VOC) SHALL MEET THE REQUIREMENTS OF MPI GREEN PERFORMANCE® STANDARDS (GPS-1-12) AND (GPS-2.12).
4. SCHEDULE PAINTING WORK WITH OTHER TRADES.
5. SUBMIT PAINT SAMPLES FOR ARCHITECT AND OWNER APPROVAL BEFORE STARTING WORK. THE CONTRACTOR SHALL PREPARE A PAINT SCHEDULE AND COORDINATE COLOURS WITH THE OWNER.
6. PRELIMINARY COLOUR SCHEDULE IS SHOWN ON DRAWINGS.
7. EXTERIOR METAL SHALL HAVE ONE (1) COAT OF ZINC CHROMATE PRIMER PLUS TWO (2) COATS OF EXTERIOR ALKYD OIL PAINT.
8. EXTERIOR GALVANIZED STEEL SHALL HAVE ONE (1) COAT OF GALVANIZED METAL PRIMER PLUS TWO (2) COATS OF EXTERIOR OIL PAINT.
9. INTERIOR METAL SHALL HAVE ONE (1) COAT OF CHROMATE PRIMER PLUS TWO (2) COATS OF INTERIOR ALKYD ENAMEL.
10. CONCRETE BLOCK SHALL HAVE ONE (1) COAT OF BLOCK FILLER, ONE (1) COAT OF UNDERCOATER AND ONE (1) COAT OF ALKYD ENAMEL.
11. WOODWORK SHALL HAVE ONE (1) OF COAT NON-BLEEDING ALKYD WIPING STAIN, ONE (1) COAT OF SANDING SEALER AND TWO (2) COATS OF URETHANE INTERIOR SATIN VARNISH. USE EXTERIOR GRADE STAIN AND VARNISH FOR WOOD SOFFIT.
12. INSPECT SURFACES BEFORE PAINTING AND REPORT ANY DEFECTS IN EXISTING WORK.
13. CLEAN ALL SURFACES BEFORE PAINTING AND PROVIDE PROTECTION FOR OTHER WORK.
14. SCOPE OF WORK TO INCLUDE ALL UNFINISHED AND PRIMED SURFACES AND ELEMENTS IN THE PROJECT.
15. PROVIDE ONE GALLON OF EACH COLOUR TO THE OWNER AT HE COMPLETION OF THE PROJECT.

09962 ANTI-GRAFFITI COATING

1. REFERENCES:
a. MPI # 205: ANTI - GRAFFITI COATING
B. RG (OTC OR EC), ENVIRONMENT CANADA VOC'S REQUIREMENTS
2. WORK: APPLY ANTI-GRAFFITI COATING FOR THE FOLLOWING:
a. EXTERIOR ARRISCRAFT STONE
b. EXTERIOR STONE SILL
c. EXTERIOR EIFS
d. INTERIOR EPOXY PAINTED CMU
3. MATERIAL: PRO INDUSTRIAL ANTI-GRAFFITI COATINGS MANUFACTURED BY SHERWIN WILLIAMS
1ST COAT: 1K SILOXANE (12.0 MILS WET, 9.0 MILS DRY PER COAT) - REDUCED WITH 10% MINERAL SPIRITS
2ND COAT: 1K SILOXANE (12.0 MILS WET, 9.0 MILS DRY PER COAT)
4. INSTALLATION:
a. DO NOT BEGIN APPLICATION OF COATINGS UNTIL SUBSTRATES HAVE BEEN PROPERLY EXAMINED AND PREPARED.
b. PREPARATION AND ACCEPTANCE OF THE SUBSTRATE IS THE RESPONSIBILITY OF THE PAINT INSTALLER.
c. SURFACE MUST BE CLEAN, DRY, AND IN SOUND CONDITION. REMOVE ALL OIL, DUST, GREASE, DIRT, LOOSE RUST, AND OTHER FOREIGN MATERIAL. ANY PAINT THAT IS PEELING, FLAKING, CRACKING, BLISTERING OR LIFTING MUST BE REMOVED TO ENSURE ADEQUATE ADHESION.
IF PREVIOUSLY PAINTED SURFACE IS IN SOUND CONDITION, CLEAN SURFACE OF ALL FOREIGN MATERIAL. SMOOTH, HARD OR GLOSSY COATINGS SHOULD BE DULLED BY ABRADING THE SURFACE. APPLY A TEST AREA, ALLOWING TO DRY ONE WEEK BEFORE TESTING ADHESION. IF ADHESION IS POOR, OR IF THIS PRODUCT ATTACKS THE PREVIOUS FINISH, REMOVAL OF THE PREVIOUS COATING MAY BE NECESSARY. FOR SURFACES PREPARED BY WATER JETTING/BLASTING, THE SSPC-VIS 4(1)/NACE NO.7 STANDARDS FOR SURFACE CLEANLINESS SHOULD BE FOLLOWED. THE VISUAL SURFACE CLEANLINESS MUST CONFORM, AT MINIMUM, TO SSSP-SP WJ4 (NACE WJ4) CONDITION DIRECTLY AFTER WATER JETTING/BLASTING.
d. PROVIDE ADEQUATE MOCK UP AREA FOR EACH SUBSTRATE APPLICATION.
e.COVER OR MASK ALL ADJACENT SERVICES TO RECEIVE COATING TO PROTECT OTHER WORK.
f. APPLY COATINGS AS PER MANUFACTURER INSTRUCTIONS.
d. MAINTAIN ENVIRONMENTAL CONDITIONS (TEMPERATURE, VENTILATION & RH) DURING THE APPLICATION AS PER THE MANUFACTURER RECOMMENDATIONS.
e. PROVIDE ONE GALLON OF THE MATERIAL TO THE OWNER AT THE COMPLETION OF THE PROJECT.

09960 INTERIOR HIGH PERFORMANCE COATINGS

1. MATERIAL: PRO INDUSTRIAL PRECATALYZED WATERBASED EPOXY EG-SHEL AS MANUFACTURED BY SHERWIN WILLIAMS
1ST COAT: S-W HEAVY DUTY BLOCK FILLER, B42W46 (18.0 MILS WET, 10.0 MILS WET)
2ND COAT: S-W PRO INDUSTRIAL PRE-CATALYZED WATERBASED EPOXY EG-SHEL, K45 SERIES
3RD COAT: S-W PRO INDUSTRIAL PRE-CATALYZED WATERBASED EPOXY EG-SHEL, K45 SERIES (4.0 MILS WET, 1.5 MILS DRY PER COAT)1.
2. INSTALLATION:
a. DO NOT BEGIN APPLICATION OF COATINGS UNTIL SUBSTRATES HAVE BEEN PROPERLY EXAMINED AND PREPARED.
b. PREPARATION AND ACCEPTANCE OF THE SUBSTRATE IS THE RESPONSIBILITY OF THE PAINT INSTALLER.
c.C THE SURFACE MUST BE DRY AND IN SOUND CONDITION. REMOVE OIL, DUST, DIRT, LOOSE RUST, PEELING PAINT OR OTHER CONTAMINATION TO ENSURE GOOD ADHESION.
d. REMOVE MILDEW BEFORE PAINTING BY WASHING WITH A SOLUTION OF 1 PART LIQUID HOUSEHOLD BLEACH AND 3 PARTS OF WARM WATER. APPLY THE SOLUTION AND SCRUB THE MILDEWED AREA. ALLOW THE SOLUTION TO REMAIN ON THE SURFACE FOR 10 MINUTES. RINSE THOROUGHLY WITH CLEAN WATER AND ALLOW THE SURFACE TO DRY A MINIMUM OF 48 HOURS BEFORE PAINTING. WEAR PROTECTIVE GLASSES OR GOGGLES, WATERPROOF GLOVES, AND PROTECTIVE CLOTHING. QUICKLY WASH OFF ANY OF THE MIXTURE THAT COMES IN CONTACT WITH
YOUR SKIN. DO NOT ADD DETERGENTS OR AMMONIA TO THE BLEACH/WATER SOLUTION.
e. REMOVE ALL LOOSE MORTAR AND FOREIGN MATERIAL. SURFACE MUST BE FREE OF LAITANCE, CONCRETE DUST, DIRT, FORM RELEASE AGENTS, MOISTURE CURING MEMBRANES, LOOSE CEMENT, AND HARDENERS. CONCRETE AND MORTAR MUST BE CURED AT LEAST 30 DAYS AT 75°F, UNLESS THE MANUFACTURES PRODUCTS ARE DESIGNED FOR APPLICATION PRIOR TO THE 30-DAY PERIOD. THE PH OF THE SURFACE SHOULD BE BETWEEN 6 AND 9,UNLESS THE PRODUCTS TO BE USED ARE DESIGNED TO BE USED IN HIGH PH ENVIRONMENTS SUCH AS LOXON. ON TILT-UP AND POURED-IN-PLACE CONCRETE, COMMERCIAL DETERGENTS AND ABRASIVE BLASTING MAY BE NECESSARY TO PREPARE THE SURFACE. FILL BUG HOLES, AIR POCKETS, AND OTHER VOIDS WITH A CEMENT PATCHING COMPOUND.
f. PROVIDE ONE GALLON OF EACH COLOUR TO THE OWNER AT HE COMPLETION OF THE PROJECT.

09050 LINER PANEL CEILING

A. LINER PANEL CEILING
1. MURALEX LINER PANEL
a. SURFACE TEXTURE: SMOOTH
b. COMPOSITION: PVC
c. COLOR: WHITE
d. SIZE: 12IN X 240IN
e. DIMENSIONAL STABILITY: STANDARD
o. ACCEPTABLE PRODUCT: **MURALEX INTERLOCKING LINER PANELS**, AS MANUFACTURED BY **VICWEST BUILDING PRODUCTS**

B. INSTALLATION

a. FOLLOW MANUFACTURER INSTRUCTIONS FOR STORAGE AND ENVIRONMENTAL CONDITIONS
b. INSTALL PANELS IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS.
c. INSTALL WALL MOLDINGS AT INTERSECTION OF SUSPENDED CEILING AND VERTICAL SURFACES. MITER CORNERS WHERE WALL MOLDINGS INTERSECT OR INSTALL CORNER CAPS.
e. INSTALL PANELS IN COORDINATION WITH SUSPENDED SYSTEM, WITH EDGES RESTING ON FLANGES OF TRIM . CUT AND FIT PANELS NEATLY AGAINST ABUTTING SURFACES. SUPPORT EDGES BY WALL MOLDINGS.

10123 CEILING HUNG TOILET PARTITION SPECIFICATIONS (ANTI-GRAFFITI POWDER COATED - STANDARD)

1. CONSTRUCTION: DOORS, PANELS AND PILASTERS SHALL BE CONSTRUCTED OF TWO SHEETS OF PANEL FLATNESS ZINC-COATED STEEL, GALVANNEAL ASTM A653 GR33, LAMINATED UNDER PRESSURE TO A HONEYCOMB CORE FOR SOUND DEADENING AND RIGIDITY. FORMED EDGES TO BE WELDED TOGETHER AND INTER-LOCKED UNDER TENSION WITH A ROLL-FORMED OVAL CROWN LOCKING BAR, MITRED, WELDED AND GROUND SMOOTH AT THE CORNERS. HONEYCOMB TO HAVE A MAXIMUM 25MM (1") CELL SIZE.
2. DOORS: SHALL BE 25MM (1") THICK WITH COVER SHEETS NOT LESS THAN 22-GAUGE (0.8MM).
3. PANELS: SHALL BE 25MM (1") THICK WITH COVER SHEETS NOT LESS THAN 22-GAUGE (0.8MM).
4. PILASTERS: SHALL BE 32MM (1.25") THICK WITH COVER SHEETS NOT LESS THAN 20-GAUGE (0.9MM). PILASTER TOPS SHALL BE REINFORCED WITH A 20-GAUGE CHANNEL TO CREATE EXTRA STRENGTH AND TWIST-FREE RIGIDITY ALONG WITH MINIMIZING DAMAGE BY HANDLING AND/OR SHIPPING.
5. HARDWARE AND FITTINGS: ALL PANEL AND PILASTER BRACKETS AND ALL DOOR HARDWARE SHALL BE CHROME PLATED ZINC DIE CASTINGS. FASTENERS ARE ZINC PLATED 12 X 1-3/4" AND 12 X 5/8" TR-27 6-LOBE SECURITY SCREWS. DOORS SHALL BE EQUIPPED WITH A CONTINUOUS AND FULLY CONCEALED HINGE WITHIN THE THICKNESS OF THE DOOR AND ADJUSTABLE TO PERMIT THE DOOR TO COME TO REST AT ANY POSITION WHEN NOT LATCHED. EACH DOOR TO BE FITTED WITH A COMBINED COAT HOOK AND BUMPER AND A CONCEALED LATCH, WITH FACE MORTISED FLUSH WITH EDGE STRIP OF DOOR. BARRIER-FREE DOORS SHALL INCLUDE THUMBTURN LEVER TO ACTIVATE LATCH WITHOUT FINGERTIP GRIP APPLICATION. BOTH STANDARD AND BARRIER-FREE LATCHES SHALL HAVE A TURN SLOT DESIGNED TO ALLOW EMERGENCY ACCESS FROM EXTERIOR. THE COMBINED STOP AND KEEPER SHALL HAVE A 19MM (0.75") DIAMETER BUMPER LOCKED IN PLACE. THREADED UPPER HINGE PIN SHALL HAVE A METAL CORE AND SELF-LUBRICATING NYLON SLEEVE TO ENSURE SMOOTH, QUIET OPERATION. PILASTER SHOES SHALL BE A WELDED ONE-PIECE DESIGN MADE FROM POLISHED STAINLESS STEEL. TWO-PIECE SHOES THAT CAN DISASSEMBLE WHEN KICKED ARE UNACCEPTABLE.
6. FURNISH, DELIVER AND INSTALL ALL TOILET PARTITIONS AS INDICATED ON THE DRAWINGS AND AS REQUIRED BY ACTUAL CONDITIONS AT THE BUILDING. THE TOILET PARTITIONS SHALL INCLUDE THE FURNISHING OF ALL NECESSARY SCREWS, SPECIAL SCREWS, BOLTS, SPECIAL BOLTS, EXPANSION SHIELDS AND ALL OTHER DEVICES NECESSARY FOR THE PROPER INSTALLATION AND APPLICATION OF THE TOILET PARTITIONS.
7. MANUFACTURER: HADRIAN MANUFACTURING INC.

Maged Basilious Architect
www.mbarchitect.ca

Maged Basilious Architect
1605 Ottawa St., Suite 101
Windsor, Ontario N8Y 1R2
Phone: 519-969-0086
Fax: 519-969-9317
e-mail: mbasilious@mbarchitect.ca

No.	Description	Date
1	ISSUED FOR TENDER	JAN X, 2022

WASHROOM BUILDING
ELIZABETH K PARK

Specifications

Project number	2104
Date	JULY 2021
Drawn by	M. B.
Checked by	M. B.

A 002

Scale

2022-03-03 4:33:04 PM

GENERAL NOTES:

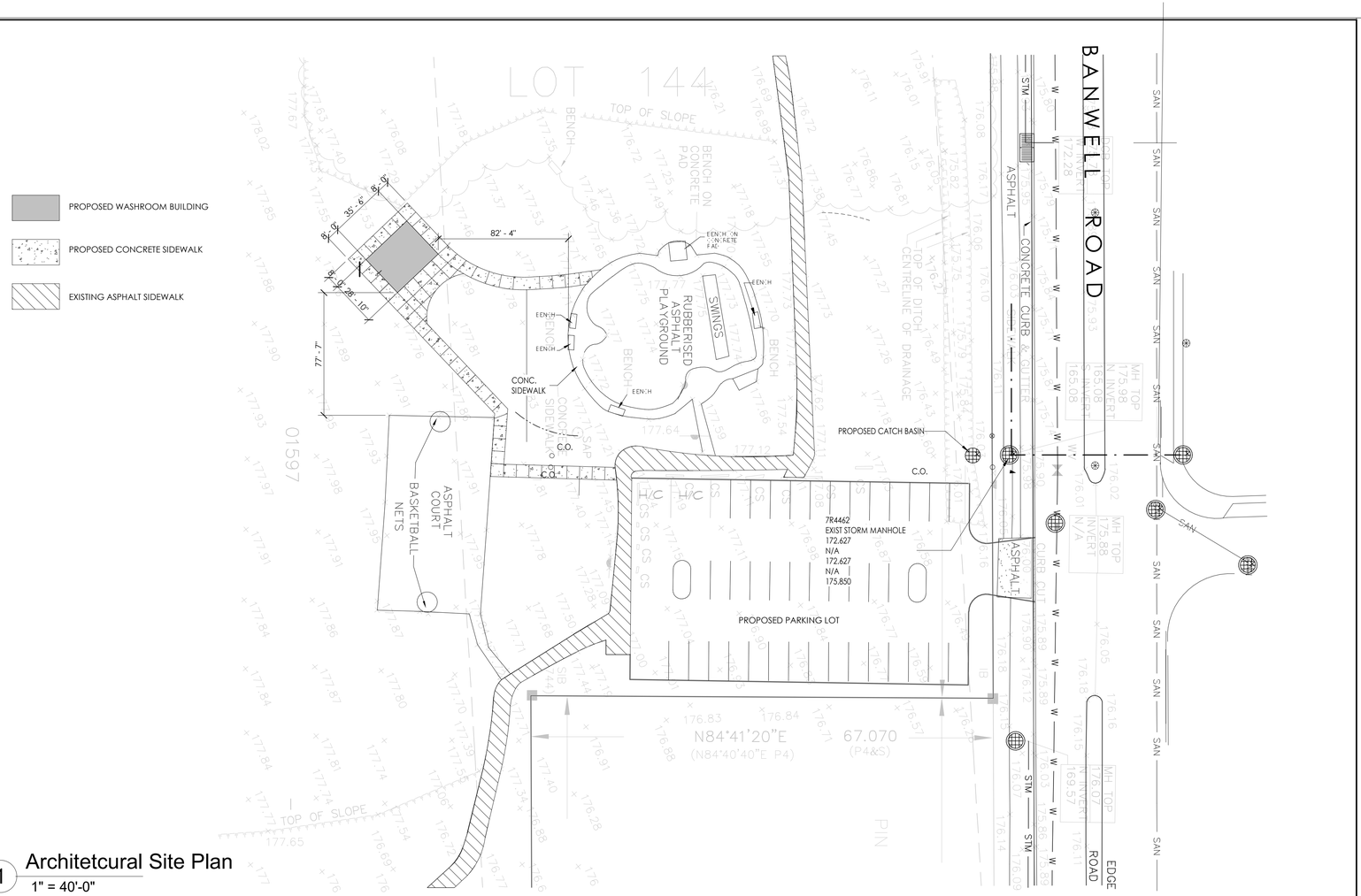
1. ALL WORK IN THIS PROJECT SHALL BE ACCORDING TO THE CITY OF WINDSOR STANDARDS.
2. REFER TO SITE GRADING & SERVICING SITE PLANS FOR ALL EXISTING & NEW LOCATIONS OF SERVICES AND ENTRY OF SERVICES INTO THE BUILDING ENVELOPE. ALL MECHANICAL & ELECTRICAL INFORMATION INDICATED ON ARCHITECTURAL SITE DWG IS FOR GENERAL REFERENCE AND CO-ORDINATION ONLY.
3. REFER TO SITE GRADING PLAN FOR PROPOSED FINAL FINISH GRADE ELEVATIONS AND DRAINAGE SLOPES.
4. **EXISTING TREES TO REMAIN TO BE PROTECTED DURING CONSTRUCTION. REFER TO LANDSCAPE SPECIFICATIONS AND DRAWINGS.**
5. ALL WORK INVOLVED IN THE CONSTRUCTION, RELOCATION, REPAIR OF MUNICIPAL SERVICES FOR THE PROJECT SHALL BE TO THE SATISFACTION OF THE CITY OF WINDSOR.
6. THE APPROVAL OF THIS PLAN DOES NOT EXEMPT THE OWNER'S BONDED CONTRACTOR FORM THE REQUIREMENTS TO OBTAIN THE VARIOUS PERMITS/APPROVALS NORMALLY REQUIRED TO COMPLETE A CONSTRUCTION PROJECT, SUCH AS, BUT NOT LIMITED TO THE FOLLOWING: BUILDING PERMIT, ROAD CUT PERMITS, APPROACH APPROVAL PERMITS, COMMITTEE OF ADJUSTMENTS, SEWER AND WATER PERMITS, RELOCATION OF SERVICES, ENCROACHMENT AGREEMENTS (IF REQUIRED).
7. THE APPLICANT IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE ENGINEERING SERVICES DEPARTMENT, CITY OF WINDSOR, FOR THE PURPOSES OF VEHICULAR ACCESS TO THE PROPERTY, (ENTRANCE PERMIT), AND SERVICING EXCAVATIONS WITHIN THE MUNICIPAL ROAD ALLOWANCE, (ROAD OCCUPANCY PERMIT).
8. PRIOR TO THE COMMENCEMENT OF ANY WORKS ON THIS SITE, HOARDING SHALL BE INSTALLED AROUND THE PERIMETER AS PER GOOD CONSTRUCTION AND SITE SAFETY PRACTICE OR AS DETERMINED BY THE MANAGER, DEVELOPMENT ENGINEERING, UNTIL SUCH TIME AS OTHERWISE DIRECTED BY THE MANAGER, DEVELOPMENT ENGINEERING.
9. SITE SILTATION CONTROL MEASURES/FENCING SHALL BE ERECTED FROM COMMENCEMENT OF THE PROJECT THROUGHOUT THE DURATION OF THE PROJECT AS PER OPSD 219.110.

SEDIMENT CONTROL NOTES:

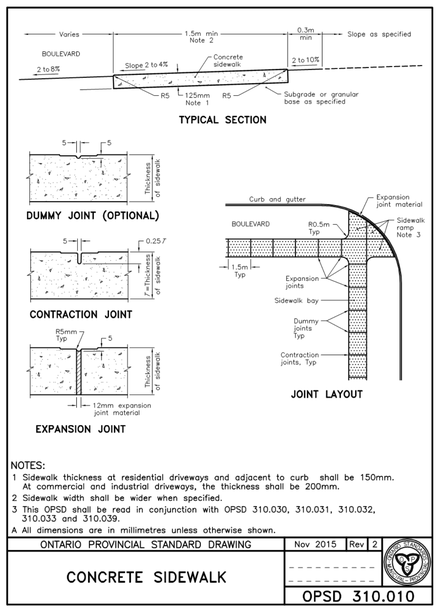
1. PROTECT ALL EXPOSED SURFACES AND CONTROL RUNOFF DURING CONSTRUCTION.
2. ALL EROSION CONTROL MEASURES ARE TO BE IN PLACE BEFORE STARTING CONSTRUCTION AND REMAIN IN PLACE UNTIL RESTORATION IS COMPLETE.
3. MAINTAIN EROSION CONTROL MEASURES DURING CONSTRUCTION.
4. ALL COLLECTED SEDIMENT MUST BE DISPOSED OFF AT AN APPROVED LOCATION.
5. MINIMIZE THE AREA DISTURBED DURING CONSTRUCTION.
6. ALL DEWATERING MUST BE DISPOSED OF IN AN APPROVED SEDIMENTATION BASIN.
7. PROTECT ALL CATCH BASINS, MAINTENANCE HOLES AND PIPE ENDS FROM SEDIMENT INTRUSION WITH GEOTEXTILE (TERRAFIX 270R OR EQUAL).
8. KEEP ALL SUMPS CLEAN DURING CONSTRUCTION.
9. PREVENT WIND-BLOWN DUST.
10. STRAW BALES TO BE USED IN LOCALIZED AREAS AS SHOWN AND AS DIRECTED BY THE ENGINEER DURING CONSTRUCTION FOR WORKS WHICH ARE IN, OR ADJACENT TO FLOODLINES, FILL LINES AND HAZARDOUS SLOPES.
11. STRAW BALES TO BE TERMINATED USING ROUNDING BALES TO CONTAIN AND FILTER RUNOFF.
12. OBTAIN APPROVAL FROM UTRCA (UPPER THAMES RIVER CONSERVATION AUTHORITY) PRIOR TO CONSTRUCTION FOR WORKS WHICH ARE IN, OR ADJACENT TO FLOODLINES, FILL LINES AND HAZARDOUS SLOPES.
13. ALL SILT FENCING AND DETAILS ARE AT THE MINIMUM TO BE CONSTRUCTED IN ACCORDANCE WITH THE MINISTRY OF NATURAL RESOURCES GUIDELINES ON EROSION AND SEDIMENT CONTROL FOR URBAN CONSTRUCTION SITES.
14. ALL OF THE ABOVE NOTES AND ANY SEDIMENT AND EROSION CONTROL MEASURES ARE AT THE MINIMUM TO BE IN ACCORDANCE WITH THE MINISTRY OF NATURAL RESOURCES GUIDELINES ON EROSION AND SEDIMENT CONTROL FOR URBAN CONSTRUCTION SITES.

GRADING AND DRAINAGE:

1. APPROVED FILL MATERIAL SHALL BE COMPACTED TO 98% SPMDD MIN. TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER, UNLESS OTHERWISE NOTED. ALL SERVICES AND APPURTENANCES SHALL BE PLACED ON UNDISTURBED GROUND AND BACKFILLED WITH APPROVED MATERIAL.
2. BACKFILL FOR ALL SERVICES AND APPURTENANCES SHALL BE IN ACCARDANCE WITH OPSD 802.10.
3. ALL GRASSED AND PAVED SURFACES SHALL BE GRADED PER CITY OF WINDSOR SPECIFICATIONS:
4. GRASSED AREAS: 2.0% MIN. FOR PLAY FIELDS, 1.5% MIN FOR ALL OTHER AREAS; 5%MAX.



1 Architetcural Site Plan
1" = 40'-0"



NOTES:
1 Sidewalk thickness at residential driveways and adjacent to curb shall be 150mm. At commercial and industrial driveways, the thickness shall be 200mm.
2 Sidewalk width shall be wider when specified.
3 This OPSD shall be read in conjunction with OPSD 310.030, 310.031, 310.032, 310.033 and 310.039.
A All dimensions are in millimetres unless otherwise shown.

ONTARIO PROVINCIAL STANDARD DRAWING	Nov 2015	Rev 2
CONCRETE SIDEWALK		OPSD 310.010

Maged Basilious Architect
www.mbarchitect.ca

Maged Basilious Architect
1605 Ottawa St., Suite 101
Windsor, Ontario N8Y 1R2
Phone: 519-969-0086
Fax: 519-969-9317
e-mail: mbasilious@mbarchitect.ca

No.	Description	Date
1	ISSUED FOR TENDER	JAN X, 2022

WASHROOM BUILDING ELIZABETH K PARK

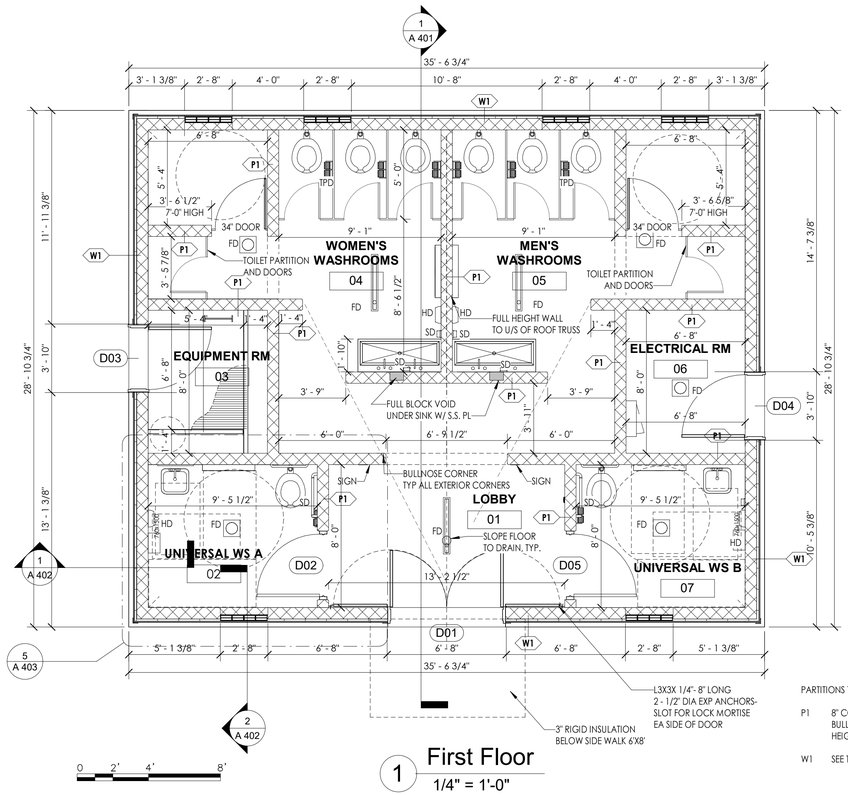
Architectural Site Plan

Project number	2104
Date	JULY 2021
Drawn by	M. M.
Checked by	M. B.

A 102

Scale 1" = 40'-0"

2022-03-03 4:33:05 PM

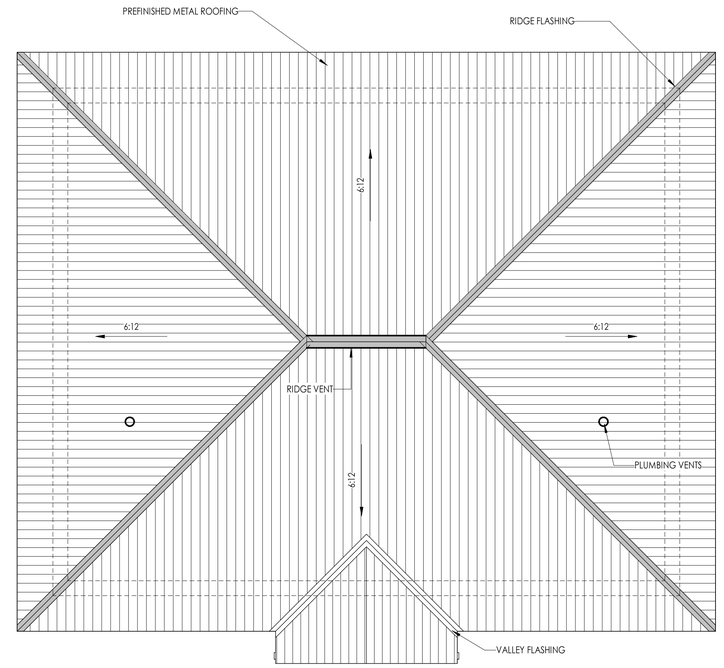


1 First Floor
1/4" = 1'-0"

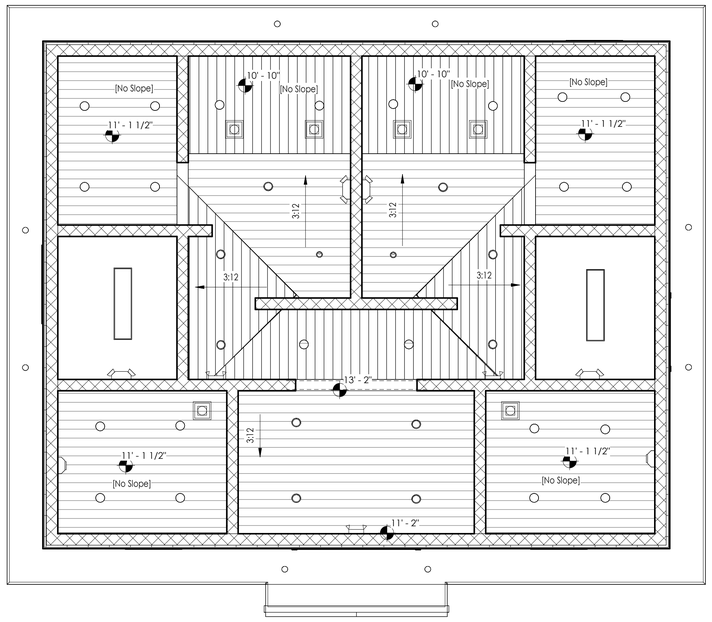
PARTITIONS TYPE:

P1 8" CONCRETE MASONRY UNITS WITH BULLNOSE EXTERIOR CORNERS HEIGHT: 8" ABOVE TRUSS BOTTOM CORD U.O.N

W1 SEE TYPICAL WALL SECTION



2 Roof Plan
1/4" = 1'-0"



3 First Floor - RCP
1/4" = 1'-0"

LEGEND:

- A — POT LIGHT ON OCCUPANCY SENSOR
- EXHAUST FAN OR REGISTER
- VINYL CEILING
- 10'-4" — CEILING ELEVATION
- EMERGENCY LIGHT
- EMERGENCY LIGHT / EXIT COMBO

CEILING GENERAL NOTES:

1. COORDINATE CEILING HEIGHT WITH OTHER DISCIPLINES.
2. CEILING HEIGHTS ARE MEASURED FROM FINISHED FLOOR LINE., U.O.N.
3. REFER TO REFLECTED CEILING PLANS FOR CEILING LAYOUTS AND FIXTURE LOCATIONS & COORDINATE WITH M.E.P. IN CASE OF CONFLICT, RCPS TAKE PRECEDENCE. SEE ELECTRICAL FOR SPECIFIC LIGHT FIXTURE TYPE DESIGNATION.
4. PAINT ALL SURFACES, PIPES AND EQUIPMENT IN EXPOSED CEILINGS - COLOUR: WHITE. U.O.N.
5. LOCATE M.E.P. COMPONENTS REQUIRING ACCESS AT ACCESSIBLE CEILING AREAS TO THE GREATEST EXTENT POSSIBLE. WHERE CEILINGS ARE INACCESSIBLE, PROVIDE ACCESS PANELS AS REQUIRED.
6. SOME M.E.P. COMPONENTS, ELECTRICAL DEVICES AND PLUMBING DEVICES MAY NOT BE SHOWN. REFER TO M.E.P. DRAWINGS.
7. INSTALL FIRE RATED ACCESS PANELS/ DOORS AT FIRE RATED CEILINGS. COORDINATE W/ M.E.P. DRAWINGS.
8. PROVIDE VERTICAL CEMENT BOARD AT ALL CEILING TRANSITIONS, U.O.N.
9. RETURN AIR PLENUMS THROUGHOUT; ALL MATERIALS SHALL BE NONCOMBUSTIBLE OR HAVE A FLAME SPREAD INDEX OF NO MORE THAN 25 AND A SMOKE-DEVELOPED INDEX OF NO MORE THAN 50.

GENERAL NOTES:

1. THIS PROJECT AND ALL WORK ASSOCIATED WITH PROJECT SHALL CONFORM TO THE LATEST REVISIONS OF ONTARIO BUILDING CODE.
2. ALL WORK IN THIS PROJECT TO COMPLY WITH THE CITY OF WINDSOR STANDARDS.
3. THE DESIGN ADEQUACY AND SAFETY OF REACTION BRACING, SHORING, TEMPORARY SUPPORTS, ETC. DURING DEMOLITION AND/ OR CONSTRUCTION IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR, AND HAS NOT BEEN CONSIDERED BY THE STRUCTURAL ENGINEER OR ARCHITECT.
4. THE ARCHITECT ASSUMES NO RESPONSIBILITY FOR THE COMPLETENESS OF PLANS FOR BID PURPOSES PRIOR TO THE ISSUANCE OF THE BUILDING PERMIT.
5. ALL WORK NOTED "N.I.C." OR "NOT IN CONTRACT" IS TO BE ACCOMPLISHED BY A CONTRACTOR OTHER THAN THE GENERAL CONTRACTOR AND IS NOT TO BE PART OF THE CONSTRUCTION AGREEMENT. THE GENERAL CONTRACTOR SHALL COORDINATE WITH "OTHER" CONTRACTORS PER REQUIREMENTS ESTABLISHED BY OWNER AND TENANT.
6. THE GENERAL CONTRACTOR AND ALL SUBCONTRACTORS ARE RESPONSIBLE FOR EXAMINING CONTRACT DOCUMENTS, FIELD CONDITIONS AND CONFIRMING THAT WORK CAN BE PERFORMED AS SHOWN BEFORE PROCEEDING WITH CONSTRUCTION. IF THERE ARE ANY QUESTIONS REGARDING THESE OR OTHER COORDINATION ITEMS, THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING CLARIFICATION FROM THE ARCHITECT BEFORE PROCEEDING WITH WORK IN QUESTION OR RELATED WORK.
7. THE GENERAL CONTRACTOR IS SOLELY RESPONSIBLE TO COORDINATE WITH ALL SUBCONTRACTORS PER REQUIREMENTS ESTABLISHED BY OWNER, TENANT, OR BOTH.
8. THE STRUCTURAL, MECHANICAL, ELECTRICAL, PLUMBING, OTHER DRAWINGS AND JOB SPECIFICATIONS ARE SUPPLEMENTARY TO ARCHITECTURAL CONSTRUCTION DRAWINGS.
9. THE INTENT OF DRAWINGS AND SPECIFICATIONS IS TO INCLUDE ALL LABOUR, MATERIALS AND SERVICES NECESSARY FOR THE COMPLETION OF ALL WORK SHOWN, DESCRIBED, OR REASONABLY IMPLIED, BUT NOT LIMITED TO THAT EXPLICITLY INDICATED IN THE CONTRACT DOCUMENTS.
10. INSTALL ALL MANUFACTURED ITEMS, MATERIALS, AND EQUIPMENTS IN STRICT ACCORDANCE WITH THE MANUFACTURERS, UNLESS NOTED OTHERWISE.
11. ANY WORK INSTALLED IN CONFLICT WITH THE CONSTRUCTION DRAWINGS, WITHOUT THE PRIOR APPROVAL OF THE OWNER AND THE ARCHITECT, SHALL BE CORRECTED AT THE CONTRACTOR'S EXPENSE.
12. THE GENERAL CONTRACTOR SHALL NOTIFY THE ARCHITECT IMMEDIATELY OF ANY SPECIFIED MATERIALS OR EQUIPMENT WHICH ARE EITHER UNAVAILABLE OR THAT WILL CAUSE A DELAY IN THE CONSTRUCTION COMPLETION SCHEDULE. THE CONTRACTOR SHALL SUBMIT CONFIRMATIONS OF DELIVERY DATES FOR ORDERS OF MATERIALS AND EQUIPMENTS HAVING LONG LEAD TIMES.

Maged Basilious Architect

www.mbarchitect.ca

Maged Basilious Architect
1605 Ottawa St., Suite 101
Windsor, Ontario N8Y 1R2
Phone: 519-969-0086
Fax: 519-969-9317
e-mail: mbasilious@mbarchitect.ca

No.	Description	Date
1	ISSUED FOR TENDER	JAN X, 2022

WASHROOM BUILDING ELIZABETH K PARK

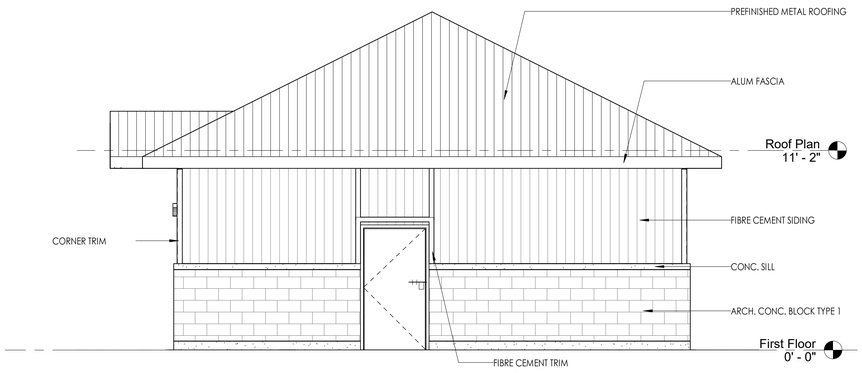
First Floor, Roof Plan & RCP

Project number	2104
Date	JULY 2021
Drawn by	A.B
Checked by	M.B

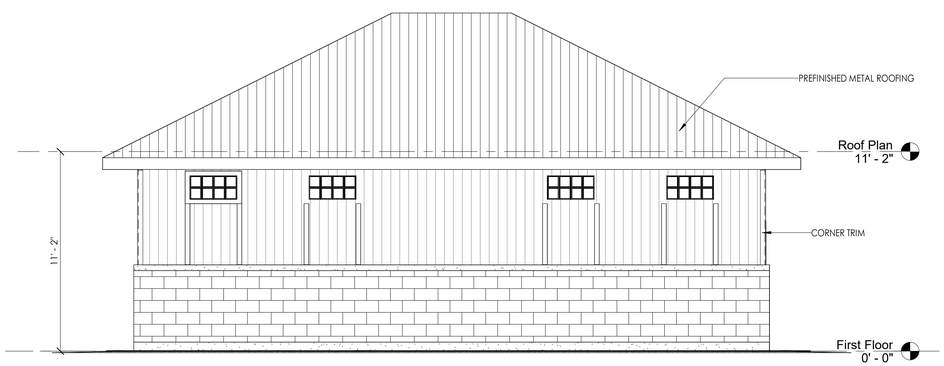
A 202

Scale 1/4" = 1'-0"

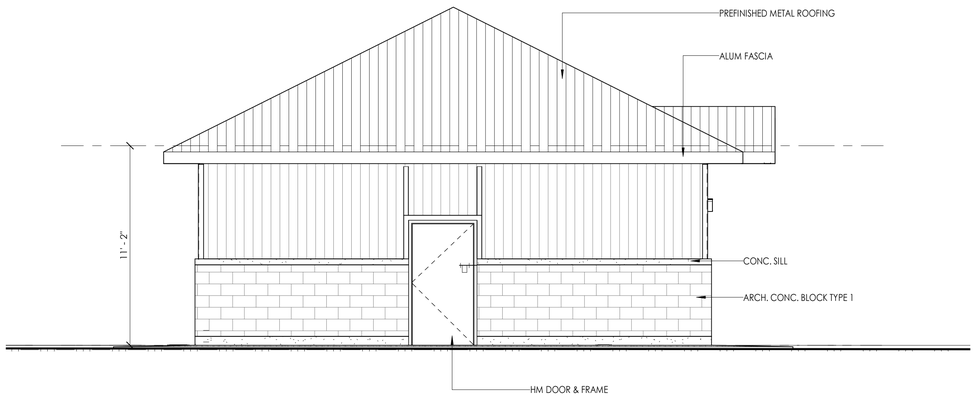
2022-03-03 4:33:06 PM



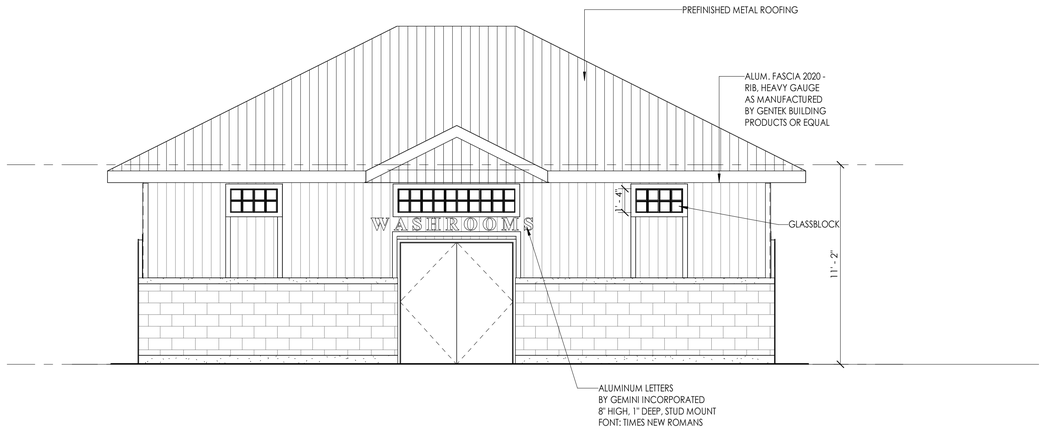
1 East Elevation
1/4" = 1'-0"



2 North Elevation
1/4" = 1'-0"



3 West Elevation
1/4" = 1'-0"



4 South Elevation
1/4" = 1'-0"

Maged Basilious Architect
www.mbarchitect.ca

Maged Basilious Architect
1605 Ottawa St., Suite 101
Windsor, Ontario N8Y 1R2
Phone: 519-969-0086
Fax: 519-969-9317
e-mail: mbasilious@mbarchitect.ca

No.	Description	Date
1	ISSUED FOR TENDER	JAN X, 2022

WASHROOM BUILDING
ELIZABETH K PARK

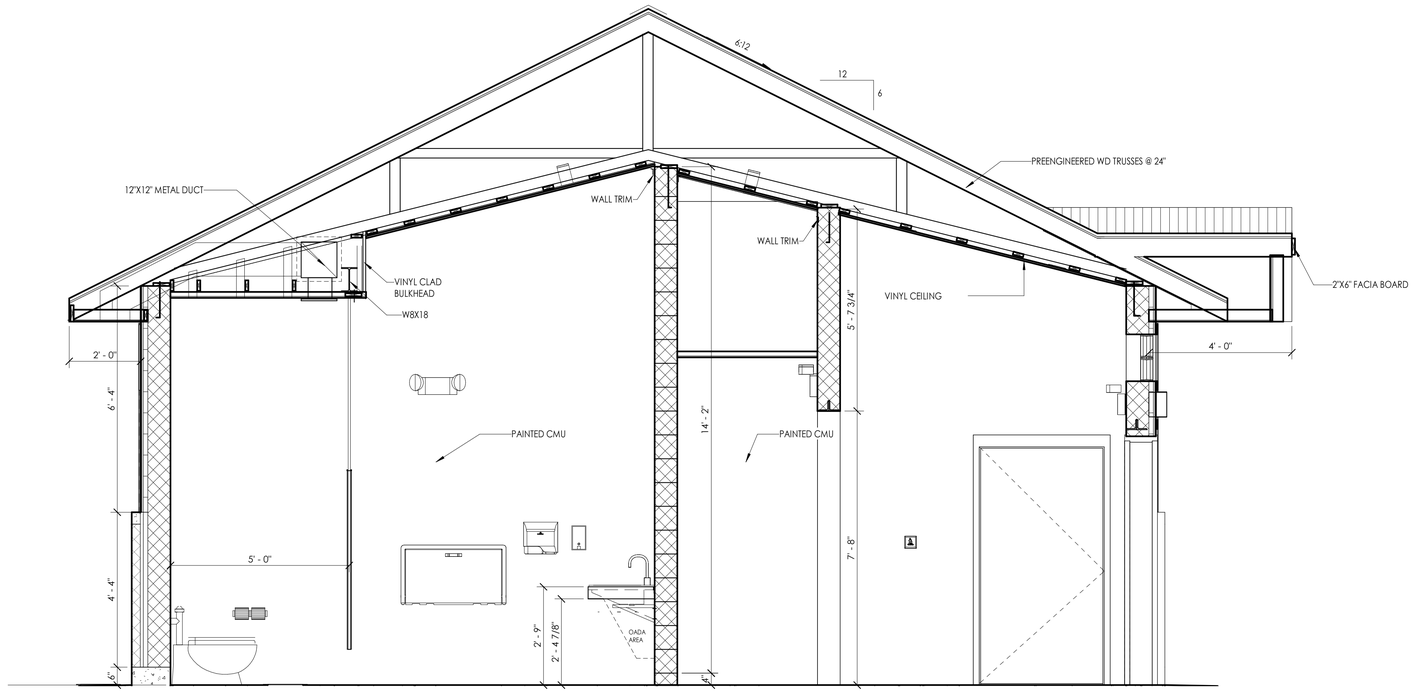
Elevations

Project number	2104
Date	JULY 2021
Drawn by	A. B.
Checked by	M. B.

A 301

Scale 1/4" = 1'-0"

2022-03-03 4:33:06 PM



GENERAL NOTES:

1- RUN ALL CONDUITS, PIPES AND SERVICES INSIDE WALLS
2- RUN ALL DUCTWORK ABOVE CEILINGS

1 Cross Section
1/2" = 1'-0"

Maged Basilious Architect

www.mbarchitect.ca

Maged Basilious Architect
1605 Ottawa St., Suite 101
Windsor, Ontario N8Y 1R2
Phone: 519-969-0086
Fax: 519-969-9317
e-mail: mbasilious@mbarchitect.ca

No.	Description	Date
1	ISSUED FOR TENDER	JAN X, 2022

WASHROOM BUILDING ELIZABETH K PARK

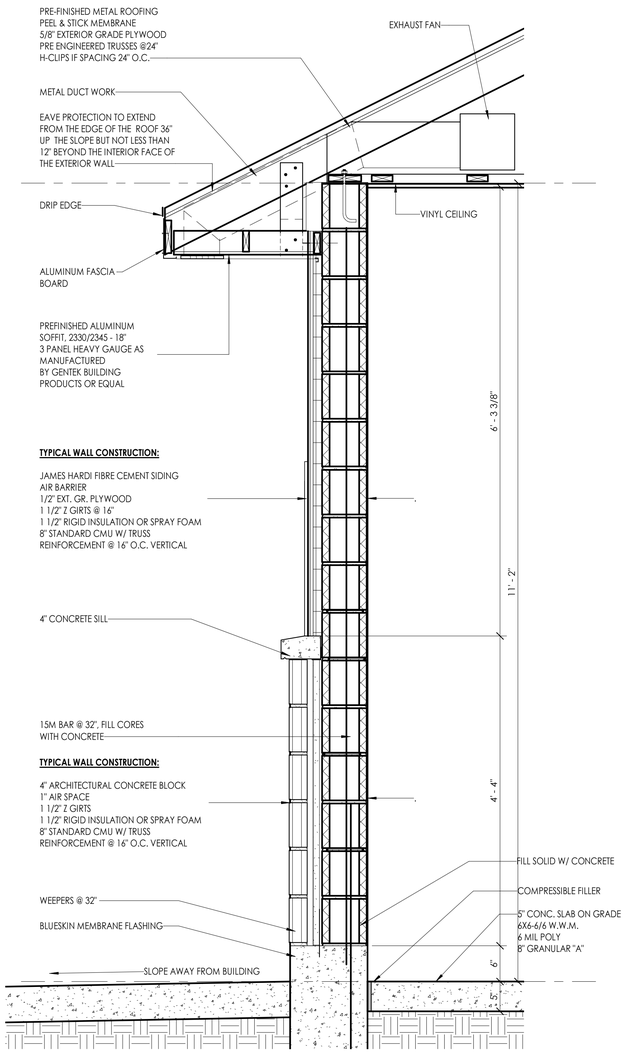
Cross Section

Project number	2104
Date	JULY 2021
Drawn by	A. B.
Checked by	M. B.

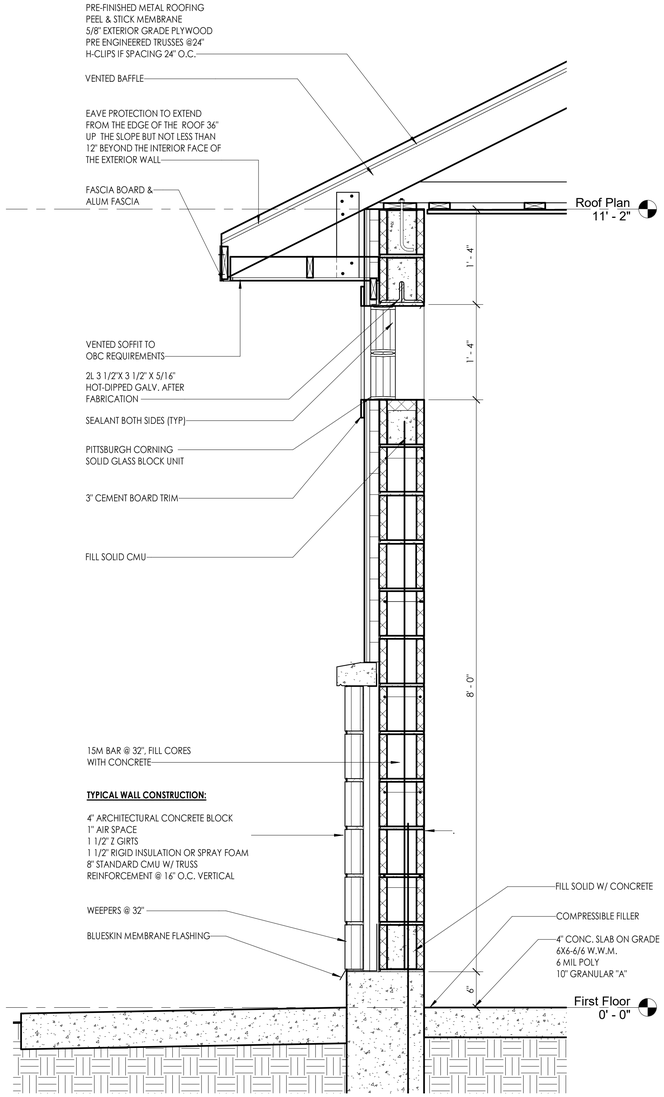
A 401

Scale 1/2" = 1'-0"

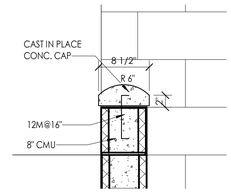
2022-03-03 4:33:06 PM



1 Section -1
1" = 1'-0"



2 Section - 2
1" = 1'-0"



3 Cap Detail
1" = 1'-0"

Maged Basilious Architect
www.mbarchitect.ca

Maged Basilious Architect
1605 Ottawa St., Suite 101
Windsor, Ontario N8Y 1R2
Phone: 519-969-0086
Fax: 519-969-9317
e-mail: mbasilious@mbarchitect.ca

No.	Description	Date
1	ISSUED FOR TENDER	JAN X, 2022

WASHROOM BUILDING
ELIZABETH K PARK

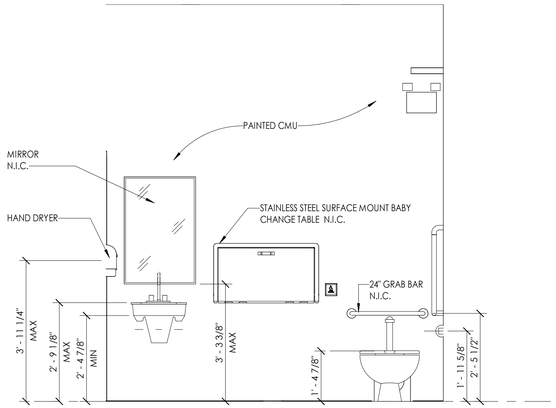
Wall Sections

Project number	2104
Date	JULY 2021
Drawn by	A. B.
Checked by	M. B.

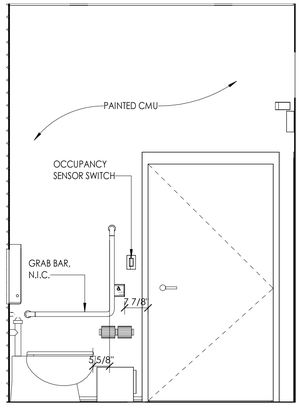
A 402

Scale 1" = 1'-0"

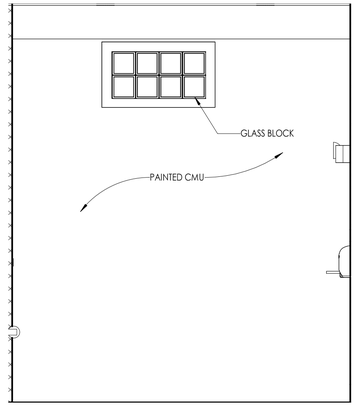
2022-03-03 4:33:07 PM



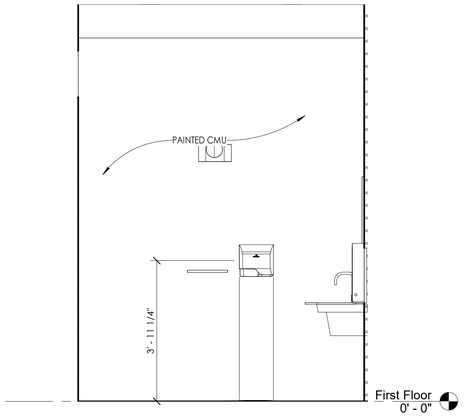
1 Elevation A
1/2" = 1'-0"



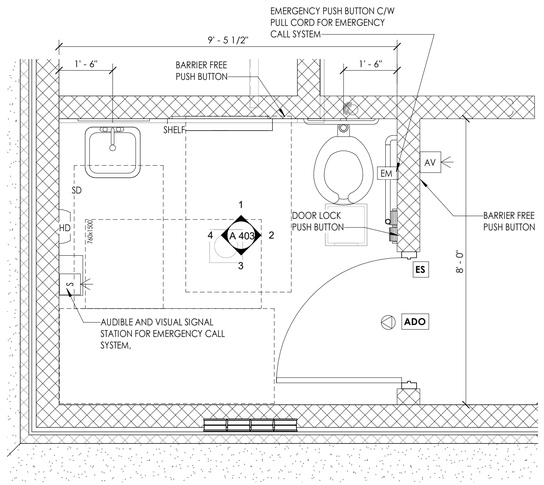
2 Elevation B
1/2" = 1'-0"



3 Elevation C
1/2" = 1'-0"

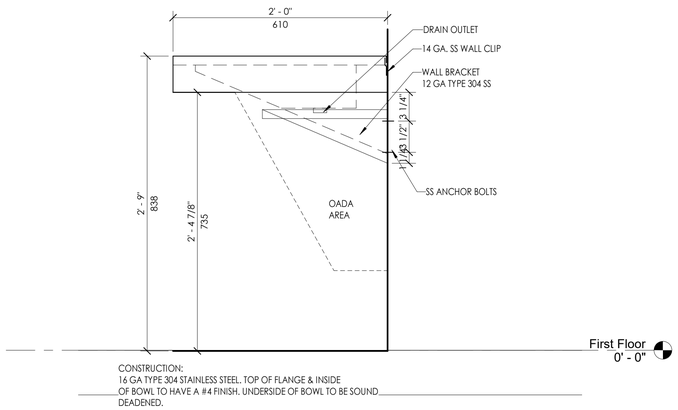


4 Elevation D
1/2" = 1'-0"

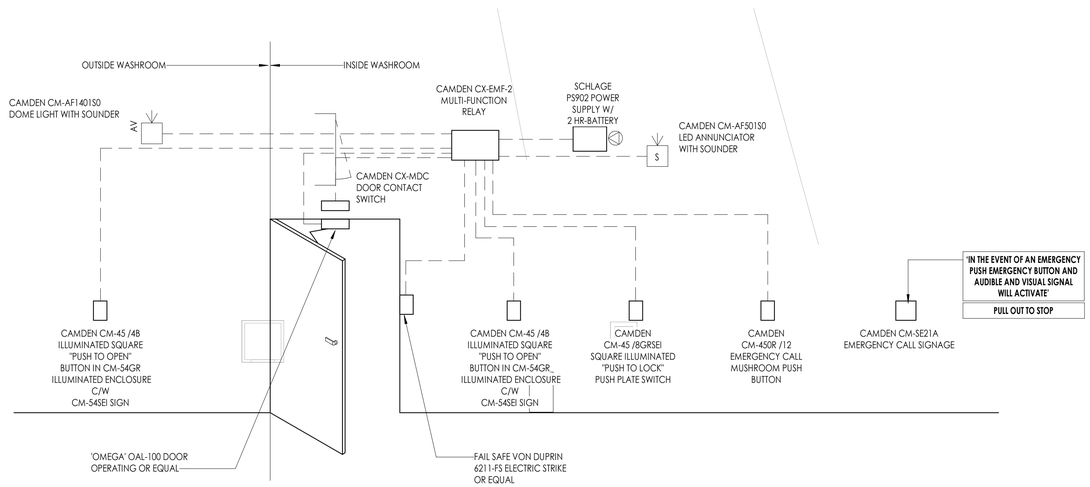


5 Enlarged Washroom
1/2" = 1'-0"

ALL WASHROOM ACCESSORIES MARKED N.I.C. WILL BE SUPPLIED AND INSTALLED BY THE CITY OF WINDSOR
COORDINATE THE FINAL LOCATION OF ACCESSIBLE PUSH BUTTONS WITH THE CITY OF WINDSOR



7 Through Sink Detail
1 1/2" = 1'-0"



OPERATION OF AUTOMATIC DOOR CONTROL SYSTEM

THE WASHROOM DOOR IS NORMALLY CLOSED AND UNLOCKED. THE EXTERIOR "PUSH TO OPEN" ILLUMINATED PUSH PLATE SWITCH OUTER RING IS GREEN INDICATING THE WASHROOM IS VACANT. PRESSING THE "PUSH TO OPEN" SWITCH WILL OPEN THE DOOR. ONCE THE DOOR IS CLOSED, PRESSING THE "PUSH TO LOCK" ILLUMINATED PUSH PLATE SWITCH WILL LOCK THE DOOR. THIS DISABLES THE EXTERIOR PUSH BUTTON, OUTSIDE LEVER IS ALWAYS IN LOCKED POSITION. THE "PUSH TO LOCK" OUTER RING WILL GLOW RED INDICATING THE DOOR IS LOCKED. ALSO, THE EXTERIOR ILLUMINATED PUSH PLATE RING WILL GLOW RED INDICATING THE WASHROOM IS OCCUPIED. TO EXIT PUSHING THE LEVER DOWN OR PRESSING INTERIOR PUSH PLATE SWITCH WILL OPEN THE DOOR AUTOMATICALLY AND RESET THE SYSTEM. THE ILLUMINATED PUSH PLATE SWITCHES WILL GLOW GREEN INDICATING THE WASHROOM IS VACANT. IF THE DOOR IS OPENED MANUALLY TO EXIT THE WASHROOM, THE OVERHEAD MAGNETIC CONTACT WILL RESET THE SYSTEM.

OPERATION OF EMERGENCY CALL SYSTEM

WHILE THE WASHROOM DOOR IS OCCUPIED, PRESSING "PRESS FOR EMERGENCY ASSISTANCE" MUSHROOM PUSH BUTTON WILL DE-ENERGIZE THE ELECTRICAL STRIKE AND UNLOCK THE DOOR. IN ADDITION, THIS ENERGIZES THE LED ANNUNCIATOR WITH "ASSISTANCE REQUIRED" MESSAGE TEXT AND SOUNDER WITHIN THE WASHROOM AS WELL AS THE DOME LIGHT WITH "ASSISTANCE REQUIRED" MESSAGE TEXT AND PIEZO SOUNDER OUTSIDE THE WASHROOM. BOTH ANNOUNCIATORS WILL BE ENERGIZED UNTIL THE LATCH OF "PRESS FOR EMERGENCY ASSISTANCE" MUSHROOM PUSH BUTTON IS PULLED OUT. PROVIDE A SIGN INDICATING 'IN THE EVENT OF AN EMERGENCY PUSH EMERGENCY BUTTON INDUCIBLE AND VISUAL SIGNAL WILL ACTIVATE' ABOVE THE MUSHROOM ACTIVATION SWITCH.

INSTALL THE DOOR CONTROL SYSTEM AND EMEGENCY CALL SYSTEM AS PER MANUFACTURER INSTRUCTIONS

AUTOMATIC DOOR OPENING AND EMERGENCY CALL SYSTEMS FOR UNIVERSAL WASHROOM

6 Univ. Wash. - Door Control
1/2" = 1'-0"

Maged Basilious Architect
www.mbarchitect.ca

Maged Basilious Architect
1605 Ottawa St., Suite 101
Windsor, Ontario N8Y 1R2
Phone: 519-969-0086
Fax: 519-969-9317
e-mail: mbasilious@mbarchitect.ca

No.	Description	Date
1	ISSUED FOR TENDER	JAN X, 2022

WASHROOM BUILDING
ELIZABETH K PARK

Enlarged Plan, Elevations & Details

Project number	2104
Date	JULY 2021
Drawn by	M. B.
Checked by	M. B.

A 403

Scale: As indicated

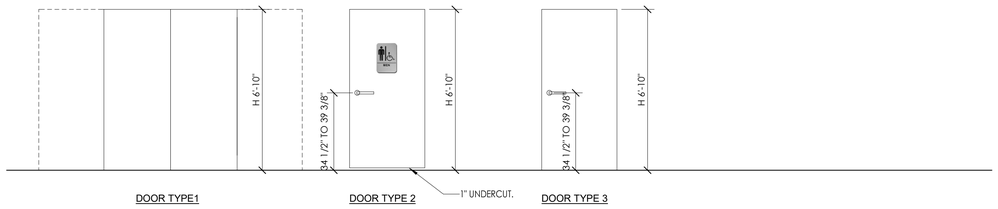
2022-03-03 4:33:06 PM

Room Finish Schedule								
Room Number	Room Name	Floor Finish	Wall Finish / Colour				Ceiling	Comments
			North Wall	West Wall	South Wall	East Wall		
01	LOBBY	EPOXY COATING	EPOXY COATING / ANTIGRAFFITI	EPOXY COATING / ANTIGRAFFITY	EPOXY COATING / ANTIGRAFFITI	EPOXY COATING / ANTIGRAFFITI	PVC PANES	
02	UNIVERSAL WS A	EPOXY COATING	EPOXY COATING / ANTIGRAFFITI	EPOXY COATING / ANTIGRAFFITY	EPOXY COATING / ANTIGRAFFITI	EPOXY COATING / ANTIGRAFFITI	PVC PANES	
03	EQUIPMENT RM	UNFINISHED	UNFINISHED	UNFINISHED	UNFINISHED	UNFINISHED	EXPOSED TRUSSES	
04	WOMEN'S WASHROOMS	EPOXY COATING	EPOXY COATING / ANTIGRAFFITI	EPOXY COATING / ANTIGRAFFITY	EPOXY COATING / ANTIGRAFFITI	EPOXY COATING / ANTIGRAFFITI	PVC PANES	
05	MEN'S WASHROOMS	EPOXY COATING	EPOXY COATING / ANTIGRAFFITI	EPOXY COATING / ANTIGRAFFITY	EPOXY COATING / ANTIGRAFFITI	EPOXY COATING / ANTIGRAFFITI	PVC PANES	
06	ELECTRICAL RM	UNFINISHED	UNFINISHED	UNFINISHED	UNFINISHED	UNFINISHED	EXPOSED TRUSSES	
07	UNIVERSAL WS B	EPOXY COATING	EPOXY COATING / ANTIGRAFFITI	EPOXY COATING / ANTIGRAFFITY	EPOXY COATING / ANTIGRAFFITI	EPOXY COATING / ANTIGRAFFITI	PVC PANES	

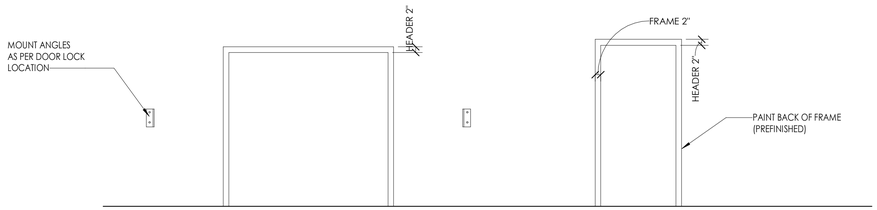
GENERAL NOTES:

1- ALL MATERIALS AND WORKMANSHIP TO BE PREMIUM QUALITY.
2- ALL FINISHES TO MEET FLAME-SPREAD RATING AND SMOKE CLASSIFICATION OF ONTARIO BUILDING CODE.

Door Schedule								
Door Number	Door Size	Door			Frame			Hardware
		Door Type	Material	Finish	Frame Material	Finish	Frame Type	
D01	6'-4" x 6'-10"	6		PREFINISHED	HM	PREFINISHED	1	1
D02	3'-6" x 6'-10"	5	HM	PREFINISHED	HM	PREFINISHED	2	2
D03	3'-6" x 6'-10"	4	HM	PREFINISHED	HM	PREFINISHED	2	3
D04	3'-6" x 6'-10"	4	HM	PREFINISHED	HM	PREFINISHED	2	3
D05	3'-6" x 6'-10"	5	HM	PREFINISHED	HM	PREFINISHED	2	2



DOOR TYPE1 DOOR TYPE 2 DOOR TYPE 3



FRAME TYPE 1 FRAME TYPE 2

HARDWARE SCHEDULE

HEADING 1			HEADING 2			HEADING 3		
2	ROTON HINGE 780-210HD 82" 180° OPENING	628	1 ROTON HINGE 180° OPENING	780-210HD 82" -	628	1 ROTON HINGE 180° OPENING	780-210HD 82"	628
2	SURFACE BOLT	8031 UNK	1 STOREROOM LOCK	ND80PD RHO -	626	1 PADBOLT	2205	UNK
2	DEADBOLT B660P MOUNT @ 54" A.F.F.	626 SCH	1AUTO OPERATOR	'OMEGA' OAL-100		1 PASSAGE SET	D10S ORB	626
1	SET - WEATHERSTRIP W-2 X 21'0	628 KNC	1ELECTRIC STRIKE	6211-FS		1 SURFACE CLOSER	4040XP HCUSH	689
2	DOOR SWEEP W-24S 42"	628 KNC	1KICKPLATE	CBH903 10 X 44 X .050 TEK -	630	1 KICKPLATE	CBH903 10 X 36 X .050 TEK	630
1	THRESHOLD CT-10 X 84"	628 KNC	1WALL STOP	145 15		1 BLOCKER PLATE	16A	
Z METAL ASTRAGAL BY DOOR SUPPLIER			1SIGN	AKLP-63 SYMBOL	UNK	1 WEATHERSTRIP	W-2 X 180	628
MOUNT SECOND DEADBOLT ON INACTIVE LEAF 48" A.F.F.						1 DOOR SWEEP	W-24S 42"	628
TO LOCK OPEN DOOR AT 180°			* REFER TO ELECTRICAL DRAWINGS FOR COORDINATION AND ADDITIONAL REQUIREMENTS			1 THRESHOLD	CT-9 X 42"	628
						PADLOCK IS SUPPLIED BY OWNER		

HARDWARE MANUFACTURERS:

1. HINGES: HAGER
2. LATCH SETS: SCHLAGE LOCK COMPANY
3. CYLINDER LOCKS: MEDICO CO. LTD
4. CLOSERS: LCN DOOR CLOSERS.
5. AUTOMATIC OPENER: OMEGA
6. ELECTRIC STRIKE VON DUPRIN
7. KICK PLATES: CANADIAN BUILDERS HARDWARE
8. WALL/ FLOOR STOP: CANADIAN BUILDERS HARDWARE
9. OVERHEAD STOP: GLYNN-JOHNSON MFG. CO.
10. WEATHERSTRIP: K.N.CROWDER MFG. INC.
11. THRESHOLD: K.N.CROWDER MFG. INC.
12. DOOR SWEEP: K.N.CROWDER MFG. INC.
13. DOOR SIGN: UNK

LIST OF FINISHES:

AL	EXTRUDED ALUMINUM
15 (619)	DULL NICKEL PLATED
26D (626)	DULL CHROME (BRUSHED)
32D (630)	DULL STAINLESS STEEL
689	POWDER COATED ENAMEL
28 (628)	ANODIZED ALUMINUM

DOOR SIGN TYPES:

TYPE 1	UNIVERSAL WASHROOM WITH ACCESSIBLE SYMBOL
TYPE 2	MALE OR FEMALE WITH ACCESSIBLE SYMBOL

GENERAL NOTES:

1- COORDINATE ROUGH OPENING DIMENSIONS WITH DOOR MANUFACTURERS BEFORE FRAMING WALLS.
2- PROVIDE WALL REINFORCEMENT AS REQUIRED BY DOOR SUPPLIERS.

TYPE 1

TYPE 2

SIZE 8.5" HX 7" W. 1/4" THICK ALUMINUM PLAQUE WITH PAINTED EDGES AND SINGLE LINE BORDER. BRAILLE AND TACTILE. SAND BACKGROUND. BACKGROUND COLOUR BLACK - RAISED INFORMATION BRUSHED ALUMINUM. BLIND MOUNT STANDARD. FOR INDOOR APPLICATION. DOUBLE SIDED TAPE.

Maged Basilious Architect

www.mbarchitect.ca

Maged Basilious Architect
1605 Ottawa St., Suite 101
Windsor, Ontario N8Y 1R2
Phone: 519-969-0086
Fax: 519-969-9317
e-mail: mbasilious@mbarchitect.ca

No.	Description	Date
1	ISSUED FOR TENDER	JAN X, 2022

WASHROOM BUILDING ELIZABETH K PARK

Schedules

Project number	2104
Date	JULY 2021
Drawn by	J. R.
Checked by	M. B.
Scale	

A 501

2022-03-03 4:33:08 PM

GRAY OWL

EPOXY FLOOR - W/FLAKES

BENJAMINE MOORE
GRAY OWL
OR
MATCHING SHERWIN WILLIAMS

EPOXY WALL

SHERWIN WILLIAMS
COLOUR: CASA BLANCASW 7571

PREFINISHED METAL ROOFING

TBD

ARCHITECTURAL CONCRETE BLOCK:

TYPE 1: SPLIT FACE COLOUR SANDSTONE

FIBRE CEMENT SIDING

TBD

DOORS AND FRAMES

SHERWIN WILLIAMS
COLOUR: POPCORN SW 7674

TOILET PARTITIONS

833 TRICON BLACK
ANTI GRAFFITI

VINYL CEILING

WHITE OR LIGHT GREY

SOFFIT AND FASCIA COLOUR

TBD

THIS IS A PROPOSED COLOUR SCHEME
COORDINATE FINAL COLOURS WITH OWNER
BEFORE ORDERING ANY MATERIALS

Maged Basilious Architect

www.mbarchitect.ca

Maged Basilious Architect
1605 Ottawa St., Suite 101
Windsor, Ontario N8Y 1R2
Phone: 519-969-0086
Fax: 519-969-9317
e-mail: mbasilious@mbarchitect.ca

No.	Description	Date
1	ISSUED FOR TENDER	JAN X, 2022

WASHROOM BUILDING
ELIZABETH K PARK

Colour Scheme

Project number	2104
Date	JULY 2021
Drawn by	A. B.
Checked by	M. B.

A 502

Scale

2022-03-03 4:33:08 PM

GENERAL NOTES:

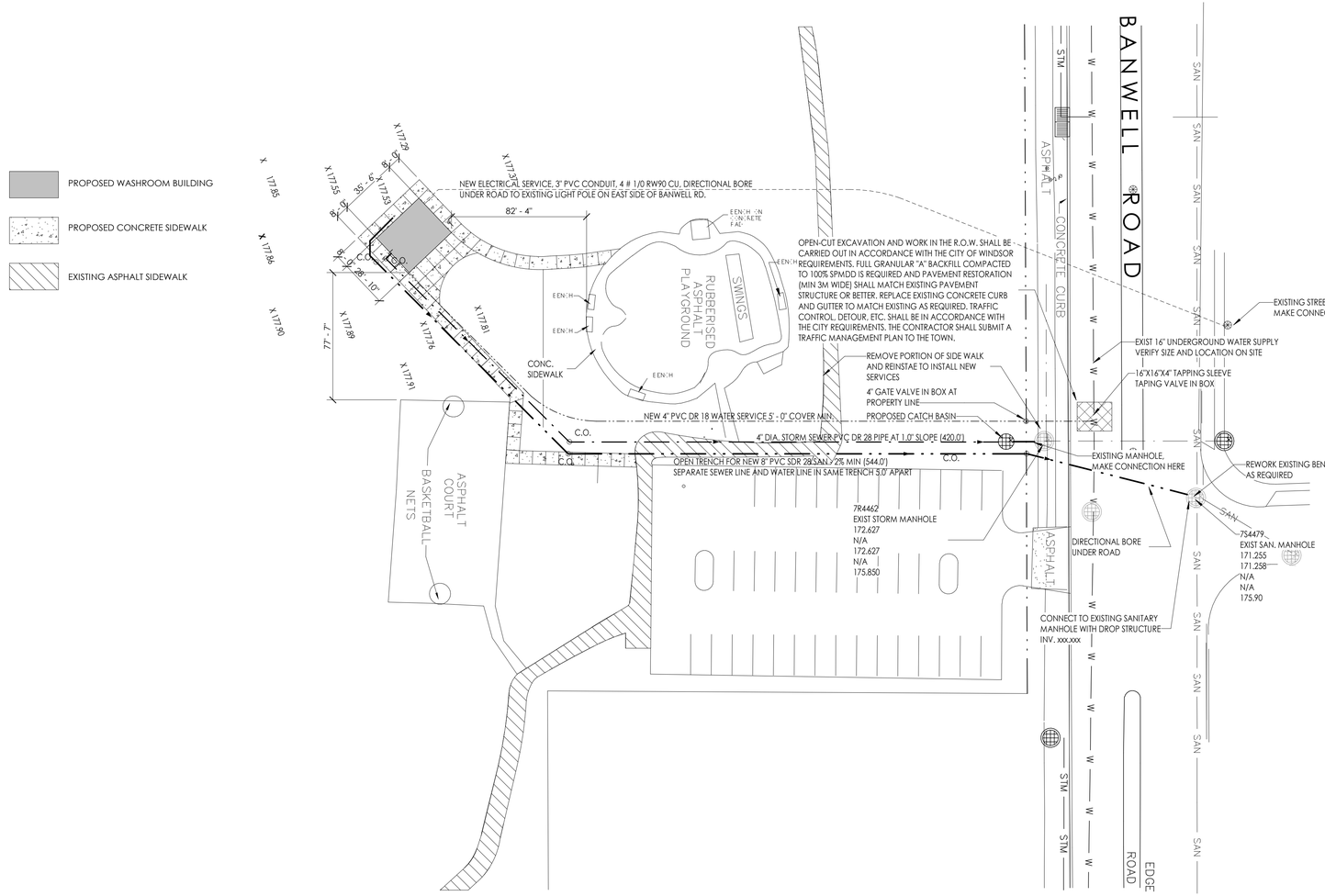
1. ALL WORK IN THIS PROJECT SHALL BE ACCORDING TO THE CITY OF WINDSOR STANDARDS.
2. REFER TO SITE GRADING & SERVICING SITE PLANS FOR ALL EXISTING & NEW LOCATIONS OF SERVICES AND ENTRY OF SERVICES INTO THE BUILDING ENVELOPE. ALL MECHANICAL & ELECTRICAL INFORMATION INDICATED ON ARCHITECTURAL SITE DWG IS FOR GENERAL REFERENCE AND CO-ORDINATION ONLY.
3. REFER TO SITE GRADING PLAN FOR PROPOSED FINAL FINISH GRADE ELEVATIONS AND DRAINAGE SLOPES.
4. **EXISTING TREES TO REMAIN TO BE PROTECTED DURING CONSTRUCTION. REFER TO LANDSCAPE SPECIFICATIONS AND DRAWINGS.**
5. ALL WORK INVOLVED IN THE CONSTRUCTION, RELOCATION, REPAIR OF MUNICIPAL SERVICES FOR THE PROJECT SHALL BE TO THE SATISFACTION OF THE CITY OF WINDSOR.
6. THE APPROVAL OF THIS PLAN DOES NOT EXEMPT THE OWNER'S BONDED CONTRACTOR FORM THE REQUIREMENTS TO OBTAIN THE VARIOUS PERMITS/APPROVALS NORMALLY REQUIRED TO COMPLETE A CONSTRUCTION PROJECT, SUCH AS, BUT NOT LIMITED TO THE FOLLOWING; BUILDING PERMIT, ROAD CUT PERMITS, APPROACH APPROVAL PERMITS, COMMITTEE OF ADJUSTMENTS, SEWER AND WATER PERMITS, RELOCATION OF SERVICES, ENCROACHMENT AGREEMENTS (IF REQUIRED).
7. THE APPLICANT IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS FROM THE ENGINEERING SERVICES DEPARTMENT, CITY OF WINDSOR, FOR THE PURPOSES OF VEHICULAR ACCESS TO THE PROPERTY, (ENTRANCE PERMIT), AND SERVICING EXCAVATIONS WITHIN THE MUNICIPAL ROAD ALLOWANCE, (ROAD OCCUPANCY PERMIT).
8. PRIOR TO THE COMMENCEMENT OF ANY WORKS ON THIS SITE, HOARDING SHALL BE INSTALLED AROUND THE PERIMETER AS PER GOOD CONSTRUCTION AND SITE SAFETY PRACTICE OR AS DETERMINED BY THE MANAGER, DEVELOPMENT ENGINEERING, UNTIL SUCH TIME AS OTHERWISE DIRECTED BY THE MANAGER, DEVELOPMENT ENGINEERING.
9. SITE SILTATION CONTROL MEASURES/FENCING SHALL BE ERECTED FROM COMMENCEMENT OF THE PROJECT THROUGHOUT THE DURATION OF THE PROJECT AS PER OPSD 219.110.

SEDIMENT CONTROL NOTES:

1. PROTECT ALL EXPOSED SURFACES AND CONTROL RUNOFF DURING CONSTRUCTION.
2. ALL EROSION CONTROL MEASURES ARE TO BE IN PLACE BEFORE STARTING CONSTRUCTION AND REMAIN IN PLACE UNTIL RESTORATION IS COMPLETE.
3. MAINTAIN EROSION CONTROL MEASURES DURING CONSTRUCTION.
4. ALL COLLECTED SEDIMENT MUST BE DISPOSED OFF AT AN APPROVED LOCATION.
5. MINIMIZE THE AREA DISTURBED DURING CONSTRUCTION.
6. ALL DEWATERING MUST BE DISPOSED OF IN AN APPROVED SEDIMENTATION BASIN.
7. PROTECT ALL CATCH BASINS, MAINTENANCE HOLES AND PIPE ENDS FROM SEDIMENT INTRUSION WITH GEOTEXTILE (TERRAFIX 270R OR EQUAL).
8. KEEP ALL SUMPS CLEAN DURING CONSTRUCTION.
9. PREVENT WIND-BLOWN DUST.
10. STRAW BALES TO BE USED IN LOCALIZED AREAS AS SHOWN AND AS DIRECTED BY THE ENGINEER DURING CONSTRUCTION FOR WORKS WHICH ARE IN, OR ADJACENT TO FLOODLINES, FILL LINES AND HAZARDOUS SLOPES.
11. STRAW BALES TO BE TERMINATED USING ROUNDING BALES TO CONTAIN AND FILTER RUNOFF.
12. OBTAIN APPROVAL FROM UTRCA (UPPER THAMES RIVER CONSERVATION AUTHORITY) PRIOR TO CONSTRUCTION FOR WORKS WHICH ARE IN, OR ADJACENT TO FLOODLINES, FILL LINES AND HAZARDOUS SLOPES.
13. ALL SILT FENCING AND DETAILS ARE AT THE MINIMUM TO BE CONSTRUCTED IN ACCORDANCE WITH THE MINISTRY OF NATURAL RESOURCES GUIDELINES ON EROSION AND SEDIMENT CONTROL FOR URBAN CONSTRUCTION SITES.
14. ALL OF THE ABOVE NOTES AND ANY SEDIMENT AND EROSION CONTROL MEASURES ARE AT THE MINIMUM TO BE IN ACCORDANCE WITH THE MINISTRY OF NATURAL RESOURCES GUIDELINES ON EROSION AND SEDIMENT CONTROL FOR URBAN CONSTRUCTION SITES.

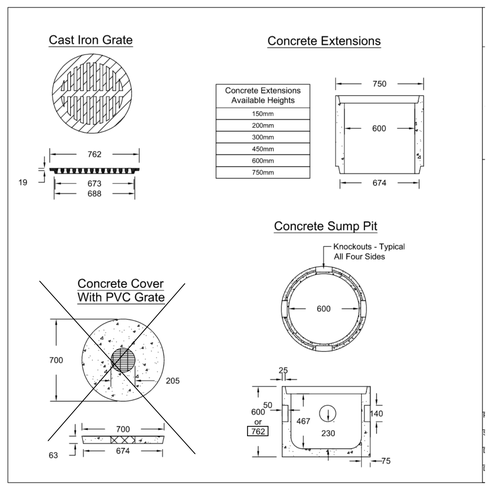
GRADING AND DRAINAGE:

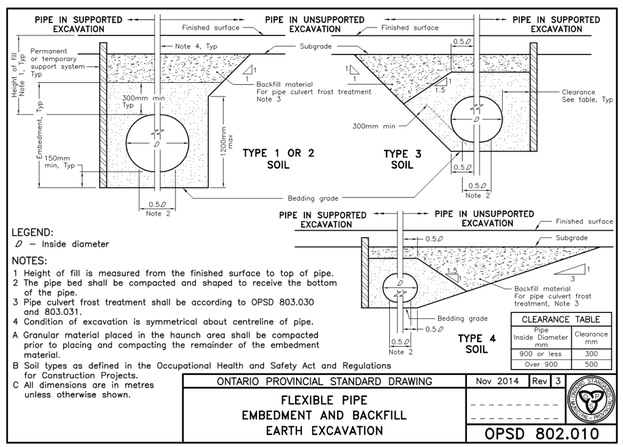
1. APPROVED FILL MATERIAL SHALL BE COMPACTED TO 98% SPMDD MIN. TO THE SATISFACTION OF THE GEOTECHNICAL ENGINEER, UNLESS OTHERWISE NOTED. ALL SERVICES AND APPURTENANCES SHALL BE PLACED ON UNDISTURBED GROUND AND BACKFILLED WITH APPROVED MATERIAL.
2. BACKFILL FOR ALL SERVICES AND APPURTENANCES SHALL BE IN ACCORDANCE WITH OPSD 802.10.
3. ALL GRASSED AND PAVED SURFACES SHALL BE GRADED PER CITY OF WINDSOR SPECIFICATIONS:
4. GRASSED AREAS: 2.0% MIN. FOR PLAY FIELDS, 1.5% MIN FOR ALL OTHER AREAS; 5%MAX.

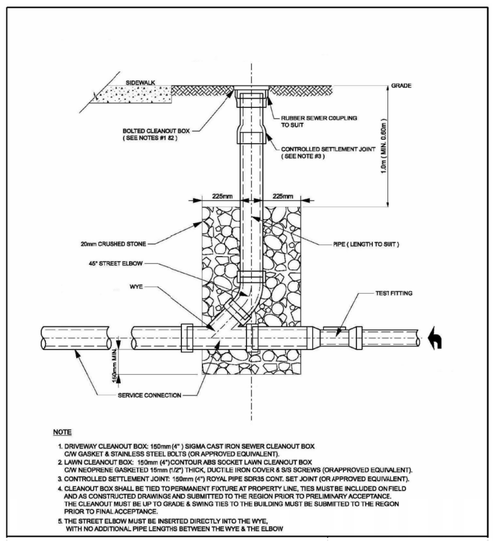


1 Site Services & Grading

1" = 40'-0"







CLEANOUT DETAIL

Maged Basilious Architect

www.mbarchitect.ca

Maged Basilious Architect
1605 Ottawa St., Suite 101
Windsor, Ontario N8Y 1R2
Phone: 519-969-0086
Fax: 519-969-9317
e-mail: mbasilious@mbarchitect.ca

ALEO ASSOCIATES INC.
CONSULTING ENGINEERS
325 Devonshire Rd Suite 500,
Windsor, ON N8Y 2L3
PHONE (519) 254-7926

No.	Description	Date
1	ISSUED FOR TENDER	JAN X, 2022

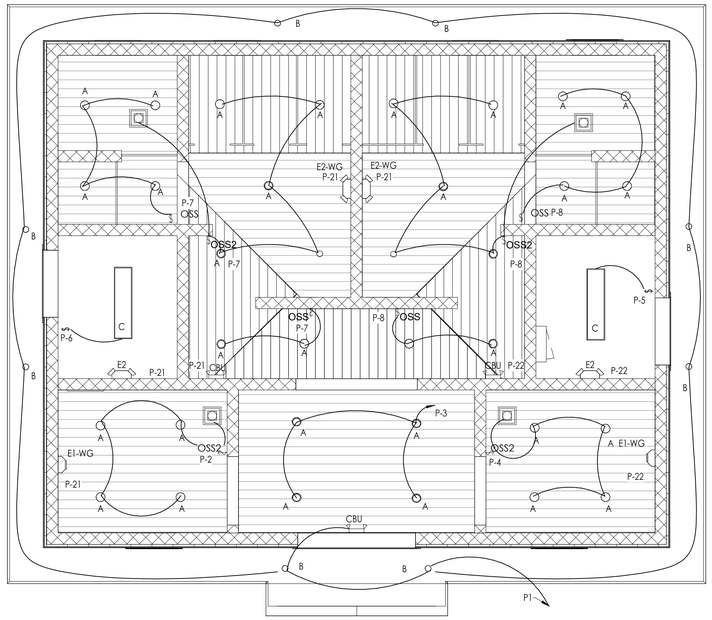
WASHROOM BUILDING ELIZABETH K PARK

Site Plan Services and Grading

Project number	2104
Date	JULY 2021
Drawn by	M. M.
Checked by	P. A.
Scale	1" = 40'-0"

C 101

2022-03-03 4:33:09 PM

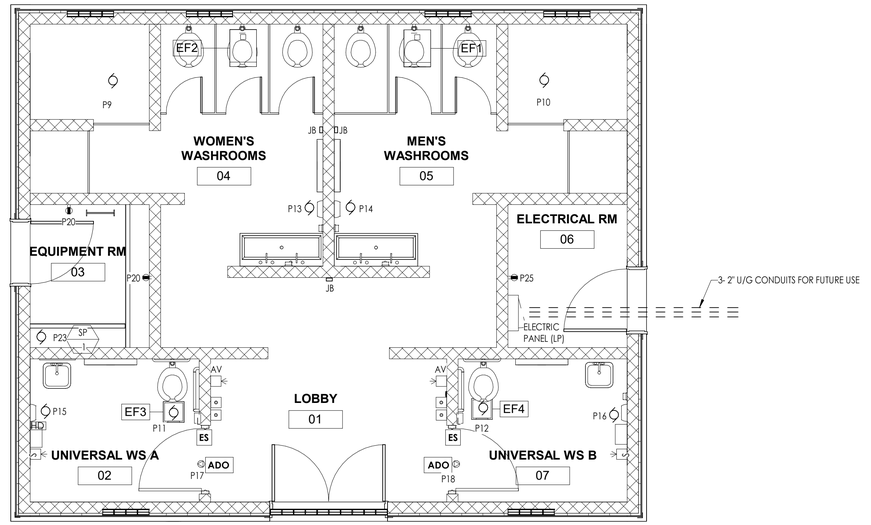


0 2' 4' 8'

1 Lighting Floor Plan
1/4" = 1'-0"

LEGEND

- $OSS — OCCUPANCY SENSOR: SENSORSWITCH, WSD PDT SA WH LT
- $OSS2 — OCCUPANCY SENSOR: SENSORSWITCH, WSD PDT 2P SA WH LT
- OS — OCCUPANSY SENSOR: SENSORSWITCH, CMR PDT 10 LT (NOT USED)
- OS2 — OCCUPANSY SENSOR: SENSORSWITCH, CMR PDT 10 2P LT (NOT USED)
- EXHUST FAN, SEE MECHANICAL
- P/C — PHOTOCELL



LEGEND

- HD — HAND DRYER, XLERATOR - MODEL XL-BW 120V BY EXCEL DRYER
- GFI DUPLEX OUTLET
- ELECTRICAL MOTOR (EXHAUST FAN)
- DEVICE POWER CONNECTION
- JB — 4" OCTAGON JUNJTION BOX 11'-0" A.F.F.L.

2 First Fl. - Power & Systems
1/4" = 1'-0"

Lighting Fixture Schedule							
Type Mark	Count	Manufacturer	Model	Description	Lamp	Wattage	Image
A	38	Lithonia Lighting.....	6BPMW HL LED 40K 90CRIL L7X3LED T24	6" 4000K CCT, 950 lumens. 120v Matte White LED Module, 90CRI	4000K LED	15.26 W	
B	8	Lithonia Lighting.....	4BEMW LED 40K L3LED T24	4" MATTE WHITE BAFFLE LED MODULE 4000KCCT, 80 CRI	LED	10.80 W	
C	2	Lithonia Lighting.....	SBL4 6000LM 80CRI 40K NODIM MLVT		4000K LED	32.00 W	
CBU	3	Stanpro Lighting.....	PRMS-2L-WG	Stanpro Lighting Systems Emerg. 6V 36 Watt Combo Unit Exit Sign/2 heads	3 WHITE LEDS LUMEN OUTPUT = 310 LMS		
E1-WG	2	Stanpro Lighting.....	N1-6-12-3W LJ WH/ WG	Stanpro Lighting Systems Emerg. Remote Heads With LED Lens Optics	3 WHITE LEDS LUMEN OUTPUT = 310 LMS	1.90 W	
E2	2	Stanpro Lighting.....	N2-6-12-3W LJ WH	Stanpro Lighting Systems Emerg. Remote Heads With LED Lens Optics	3 WHITE LEDS LUMEN OUTPUT = 310 LMS	3.80 W	
E2-WG	2	Stanpro Lighting.....	N2-6-12-3W LJ WH	Stanpro Lighting Systems Emerg. Remote Heads With LED Lens Optics	3 WHITE LEDS LUMEN OUTPUT = 310 LMS	3.80 W	

Grand total: 57

VOLTS: 120 / 208 V
PHASES: 3
WIRES: 4
MAINS RATING: 100A

PANELBOARD SCHEDULE

MAIN BREAKER: 100A (BOLT ON)

LOCATION: ELECTRICAL ROOM

LOAD DESCRIPTION	BRKR SIZE		CIR. NO.	BUS ABC.	CIR. NO.		BRKR SIZE	LOAD DESCRIPTION
CORRIDOR LIGHTS								
EXTERIOR SOFFIT LIGHTS	15A		1		2		15A	UNIV. WR A LIGHTS
LOBBY LIGHTS	15A		3		4		15A	UNIV. WR B LIGHTS
ELECTRICAL ROOM LIGHTS	15A		5		6		15A	EQUIPMENT ROOM LIGHTS
MEN WR LIGHTS	15A		7		8		15A	WOMEN WR LIGHTS
EXHAUST FAN EF-1	15A		9		10		15A	EXHAUST FAN EF-2
EXHAUST FAN EF-3	15A		11		12		15A	EXHAUST FAN EF-4
WOMEN HAND DRYER HD	20A		13		14		20A	MEN HAND DRYER HD
UNIV. WR A HAND DRYER	20A		15		16		20A	UNIV. WR B HAND DRYER
UNIV. WR A DOOR OPERATOR SYSTEM	15A		17		18		15A	UNIV. WR B DOOR OPERATOR SYSTEM
EQUIPMENT ROOM RECEPATCLES	15A		19		20		15A	EQUIPMENT ROOM RECEPATCLES
EMERGENCY / EXIT LIGHTS	15A		21		22		15A	EMERGENCY / EXIT LIGHTS
SUMP PUMP	15A		23		24		15A	EXIT LIGHTS
ELECTRICAL ROOM RECEPATCLES	15A		25		26		15A	
SPARE	15A		27		28		15A	
SPARE	15A		29		30		15A	
SPARE	15A		31		32		15A	
SPARE	15A		33		34		15A	
SPARE	15A		35		36		15A	
SPARE	15A		37		38		15A	
SPARE	15A		39		40		15A	
SPARE	15A		41		42		15A	
				TOTALS				

NOTES:

1- CONTRATOR TO BALANCE PANEL LOADS.
2- PANEL DIRECTORY TO BE TYPED NOT HAND WRITTEN
3- ALL LIGHTING CIRCUITS TO BE CONNECTED TO TIMERS IN ELECTRICAL ROOM

Maged Basilious Architect
www.mbarchitect.ca

Maged Basilious Architect
1605 Ottawa St., Suite 101
Windsor, Ontario N8Y 1R2
Phone: 519-969-0086
Fax: 519-969-9317
e-mail: mbasilious@mbarchitect.ca

No.	Description	Date
1	ISSUED FOR TENDER	JAN X, 2022

WASHROOM BUILDING ELIZABETH K PARK

Lighting & Power Plans & Schedules

Project number	2104
Date	JULY 2021
Drawn by	M.B.
Checked by	JDH

E 101

Scale 1/4" = 1'-0"

2022-03-03 4:33:10 PM

ELECTRICAL SPECIFICATIONS

1. SCOPE OF WORK:
THIS CONTRACT SHALL INCLUDE THE SUPPLY OF ALL TOOLS, EQUIPMENT, LABOUR AND MATERIALS EXCEPT AS OTHERWISE NOTED. REQUIRED FOR COMPLETE INSTALLATION, TESTING AND PUTTING INTO PROPER OPERATION ALL WORK AS SHOWN AND DETAILED ON THE PLAN AND AS SPECIFIED HEREIN.

2. GUARANTEE:
CONTRACTOR SHALL GUARANTEE COMPLETE INSTALLATION AGAINST ANY DEFECTS IN WORKMANSHIP AND MATERIALS NOT DUE, IN THE OPINION OF THE OWNERS, FOR A PERIOD OF ONE (1) YEAR FROM DATE OF ACCEPTANCE OF WORK. DEFECTS SHALL BE REPAIRED OR REPLACED AT NO COST TO THE OWNERS.

3. CODES, PERMITS, FEES AND INSPECTIONS:
THE WHOLE OF THE WORK SPECIFIED HEREIN AND ON THE DRAWINGS SHALL COMPLY STRICTLY TO THE REQUIREMENTS OF THE LATEST EDITION OF THE ONTARIO ELECTRICAL CODE AS AMENDED TO DATE. THIS CODE AND ANY ADDITIONAL REQUIREMENTS EXCEEDING THE MINIMUM REQUIREMENTS OF THE CODE, THE DRAWING AND SPECIFICATIONS SHALL BE FOLLOWED.

BEFORE STARTING ANY WORK, SUBMIT THE REQUIRED NUMBER OF COPIES OF THE ELECTRICAL DRAWINGS AND SPECIFICATIONS TO THE ELECTRICAL SAFETY INSPECTION AUTHORITY (ESA), FOR THEIR APPROVAL AND COMMENTS, AND MAKE ANY REQUIRED CHANGES AND ALTERATIONS REQUESTED.

PAY ALL FEES FOR EXAMINATION OF DRAWINGS AND SPECIFICATIONS, PREPARE AND SUBMIT ANY ADDITIONAL DRAWINGS WHICH MAY BE REQUIRED BY THE ESA. OBTAIN ALL PERMITS REQUIRED AND PAY ALL PERMITS AND INSPECTION FEES.

ARRANGE FOR INSPECTION OF ALL WORK BY THE INSPECTION AUTHORITY DEPARTMENT ON COMPLETION OF THE WORK, PRESENT TO THE OWNER THE FINAL UNCONDITIONAL CERTIFICATES OF APPROVAL.

4. ENGLISH/METRIC CONVERSION:
IMPERIAL UNITS ARE USED IN THIS PROJECT. WHERE MEASURED VALUES DEPEND ON MANUFACTURED PRODUCTS OR MATERIALS, THE METRIC CONVERSION FROM IMPERIAL SYSTEM UNITS SHALL BE A CLOSE APPROXIMATION OF THE ENGLISH VALUE. THESE VALUES, OTHERWISE KNOWN AS "SOFT" CONVERSIONS, SHALL BE AS SPECIFIED IN APPROPRIATE TRADE SECTION, OR AS INSTRUCTED.

WHERE PRODUCTS OR MATERIALS ARE IDENTIFIED BY NOMINAL DIMENSIONS, METRIC VALUES SHALL BE CONVERTED TO ENGLISH SYSTEM SIZES AS SPECIFIED IN APPROPRIATE TRADE SECTION, OR AS INSTRUCTED.

5. CO-ORDINATION:
WORK OF EACH TRADE SECTION UNDER THIS DIVISION SHALL BE LAID OUT IN SUCH A MANNER THAT EACH UNIT DOES NOT CONFLICT WITH WORK UNDER OTHER TRADE SECTIONS OR DIVISION OF THIS SPECIFICATION.

PREPARE FILED DRAWINGS SHOWING SIZE AND LOCATION OF INSERTS, SLEEVES AND OPENINGS REQUIRED FOR PASSAGE OF CABLE, MAJOR CONDUITS, THROUGH WALLS, PARTITIONS, ROOFS.

CEILINGS, FLOORS AND STRUCTURAL MEMBERS, CONSULT ARCHITECTURAL AND STRUCTURAL DRAWINGS, IF AVAILABLE, FOR SPECIFIC REQUIREMENTS. OPENINGS SHALL BE LOCATED RELATIVE TO GRID LINES AND ELEVATION DATA.

PREPARE DRAWINGS SHOWING SIZE AND LOCATION OF EQUIPMENT BASES AND ANCHORS PERTAINING TO THE WORK OF THIS DIVISION.

6. PROTECTION OF WORK AND MATERIALS:
PROTECT MATERIALS AND EQUIPMENT FROM DAMAGE, INCLEMENT WEATHER AND/OR EXTREME TEMPERATURES. PROVIDE ENCLOSURE, TARPAULINS, OR SPECIAL PROTECTION AS REQUIRED UNDER THE CIRCUMSTANCES.

7. WARRANTY:
WARRANT ALL EQUIPMENT AND MATERIAL SUPPLIED AND INSTALLED UNDER THIS DIVISION AGAINST DEFECTS, DEFICIENCIES IN EQUIPMENT DESIGN, MATERIALS AND WORKMANSHIP WHICH ARE NOT DETECTED PRIOR TO DATE OF SUBSTANTIAL PERFORMANCE OF THE SYSTEM, BUT WHICH MAY DEVELOP WITHIN (1) ONE YEAR AFTER SUCH ACCEPTANCE. MAKE GOOD ANY SUCH DEFECTS AND DEFICIENCIES AT NO CHARGE TO THE CONTRACT PRICE. PROVIDE EXTENDED WARRANTIES WHERE CALLED FOR.

8. INSERTS AND HANGERS:
PROVIDE AND INSTALL ALL INSERTS, HANGERS, ANCHORS AND SUPPORTS REQUIRED FOR ALL WORK TO BE INSTALLED UNDER THIS DIVISION.

9. ACCESSIBILITY:
INSTALL WORK SO AS TO BE READILY ACCESSIBLE FOR OPERATION, MAINTENANCE AND REPAIRS BY ACCESS PANELS OR OTHER ACCEPTABLE MEANS.

10. GROUNDING:
PROVIDE ALL GROUNDING TO CONFORM WITH THE CANADIAN ELECTRICAL CODE AND THE LATEST GROUNDING INSTRUCTIONS OF THE INSPECTION AUTHORITY, WITH ANY FURTHER REQUIREMENTS AS NOTED HEREIN.

BOND ALL INTERIOR NON-ELECTRICAL METALLIC PIPING SYSTEMS TO THE ELECTRICAL SYSTEM GROUND INCLUDING, BUT NOT LIMITED TO, WATER SUPPLY, WASTE WATER AND GAS SYSTEMS.

GROUND ALL CONDUIT, AND ALL NON-CURRENT CARRYING METAL PARTS, EQUIPMENT CASES, FRAMES, BASES, BRACKETS, ETC.

11. CONDUIT INSTALLATION:
PROVIDE GALVANIZED STEEL ELECTRICAL METALLIC TUBING (EMT) UNLESS OTHERWISE SPECIFIED OR REQUIRED BY CODE.

CONCEAL ALL CONDUIT EXCEPT IN SERVICES SPACES.

INSTALL ALL LOCK NUTS AND BUSHINGS TO ENSURE A SECURE MECHANICAL AND ELECTRICAL BOND. USE ERICKSON COUPLINGS IN LIEU OF RUNNING THREADS.

PROVIDE BUSHINGS ON THE ENDS OF ALL CONDUITS IN ENCLOSURES, BOXES, PANELS AND CABINETS, TO PROTECT THE CONDUCTOR INSTALLATION.

LAY OUT CONDUIT TO DRAIN FREE OF ALL MOISTURE.

KEEP CONDUIT NOT LESS THAN 6" (150MM) CLEAR OF STEAM PIPES, FLUES AND OTHER SUCH WORK.

SUPPORT CONDUITS FROM STRUCTURAL MEMBERS, SUPPORT SPACING TO BE IN ACCORDANCE WITH CODE REQUIREMENTS.

SUPPORT MULTIPLE RUNS OF CONDUIT ON CHANNEL OR ANGLE IRON WITH ROD HANGERS.

SECURE ALL CONDUITS IN PLACE WITH CONDUIT CLAMPS, T. & B.L. OR APPROVED EQUAL. PERFORATED PIPE STRAPS, WIRE LASHINGS, WOOD SCREWS OR NAILS ARE NOT ACCEPTABLE.

MAKE FIELD BENDS AND OFFSETS UNIFORM AND SYMMETRICAL WITHOUT FLATTENING CONDUIT. MINIMUM BENDING RADIUS SHALL BE TEN TIMES THE CONDUIT DIAMETER.

REAM CONDUIT ENDS TO REMOVE BURRS AND SHARP EDGES. FIT CONDUIT STUBS WITH WATERPROOF PLASTIC CAPS DURING INSTALLATION TO PROTECT THREADS AND TO PREVENT ENTRANCE OF MOISTURE INTO CONDUIT.

TEST ALL CONDUITS FOR CLEAR BORE USING BALL MANDREL, BRUSHES AND SNAKE.

INSTALL A CONTINUOUS NYLON CORD 180 KG (400 LB) TEST IN EACH ENCLOSED RACEWAY LEFT EMPTY.

SECURE CONDUITS ABOVE CEILINGS TO STRUCTURAL MEMBERS. CONDUITS SHALL NOT BE SUPPORTED FROM THE CEILING SUSPENSION SYSTEM. CO-ORDINATE INSTALLATION OF CONDUITS WITH MECHANICAL DUCTWORK, PIPING, ETC.

PROVIDE CONDUIT SEALS IN CONDUITS WHICH PASS REFRIGERATED AREAS OR TO THE OUTSIDE.

PROVIDE PULL BOXES, FITTINGS OR JUNCTION BOXES IN CONDUIT RUNS, ON THE BASIS OF NOT MORE THAN 100 (30M), IN STRAIGHT RUNS BETWEEN BOXES.

ALL CONDUIT TO BE CONCEALED IN ALL NEW WALLS. CONDUIT TO BE RECESSED AND CONCEALED IN EXISTING WALLS OR AS DIRECTED BY THE ARCHITECT. PROVIDE ALL NECESSARY CUTTING AND PATCHING TO SUIT.

SIZE CONDUITS TO CODE REQUIREMENTS, PROVIDE LARGER SIZES WHERE NOTED.

12. OUTLET BOXES:
IN INTERIOR DAMP LOCATIONS, OR LOCATIONS EXPOSED TO WEATHER, PROVIDE ALL OUTLET BOXES OF WEATHERPROOF DESIGN WITH GASKET AND WEATHERPROOF COVER PLATE.

IN DRY LOCATIONS OUTLET BOXES USED WITH SURFACE MOUNTED EMT SHALL BE STANDARD SHEET STEEL SURFACE TYPE BOXES.

WHERE STANDARD BOXES ARE NOT SUITABLE, PROVIDE BOXES OF SPECIAL DESIGN TO FIT SPACE AND OTHER REQUIREMENTS.

INSTALL ALL BOXES IN WALLS SO THAT TAPPED HOLES FOR MOUNTING WIRING DEVICES WILL BE ALIGNED VERTICALLY OR HORIZONTALLY, AS REQUIRED. WHERE BOXES ARE GROUPED AT ONE LOCATION WITH COMMON AND VARYING MOUNTING HEIGHTS, ALIGN BOXES HORIZONTALLY AND VERTICALLY FROM CENTRE LINE UNLESS OTHERWISE INDICATED.

ENSURE THAT THE OUTLET BOXES WITHIN A CEILING SPACE ARE MINIMUM 8" (200MM) CLEAR FROM SUPPORT SYSTEM GRID.

OFFSET OUTLET BOX IN SOUND ATTENUATING PARTITIONS TO AVOID UNDUE TRANSMISSION OF SOUND BETWEEN THE PARTITION ELEMENTS. USE FLEXIBLE CONDUIT CONNECTIONS WHERE WIRING IS REQUIRED BETWEEN OUTLET BOXES ON OPPOSITE SIDE OF PARTITIONS.

OFFSET OUTLET BOXES WHERE INSTALLED ON EITHER SIDE OF A FIRE SEPARATION.

13. WIRE AND CABLE UP TO 600 VOLTS:
INSTALL ALL WIRING IN EMT UNLESS OTHERWISE REQUIRED BY CODE. BX WIRES CAN BE USED AS WELL.

WIRE FOR 120 VOLT BRANCH CIRCUITS SHALL BE MIN #12 AWG COPPER FOR RUNS UP TO 100 FEET (30M) AND #10 AWG MINIMUM FOR RUNS OVER 100 FEET (30M). WIRE FOR BRANCH CIRCUITS SHALL BE SIZED FOR PROPER CURRENT-CARRYING CAPACITY AND TO LIMIT THE VOLTAGE DROP AT THE OUTLET TO 2%.

WIRE FOR 120 VOLT CONTROL CIRCUITS SHALL BE #14 AWG MINIMUM. 24 VOLT CONTROL CIRCUITS SHALL BE #12 AWG MINIMUM.

USE SOLID CONDUCTORS FOR #10 AWG AND SMALLER. USE STRANDED CONDUCTORS FOR #8 AWG AND LARGER.

ALL WIRING, EXCEPT AS CLASSIFIED BELOW OR ON DRAWINGS, SHALL BE COPPER WITH TWH INSULATION UNLESS OTHERWISE INDICATED. USE MINIMUM #12 AWG UNLESS OTHERWISE NOTED.

PROVIDE PIGTAILS FOR CONNECTIONS TO DEVICES TO ENSURE THAT LINES AND NEUTRALS ARE NOT OPENED WHEN A FIXTURE OR A DEVICE IS REMOVED FROM THE CIRCUIT.

14. IDENTIFICATION OF EQUIPMENT:
UPDATE EACH LIGHTING AND POWER PANEL DIRECTORY.

ALL EXISTING PANELS TO REMAIN C/W A NEW TYPEWRITTEN CIRCUIT DIRECTORY INDICATING EXISTING AND NEW LOADS.

15. TESTING:
WHEN THE INSTALLATION IS COMPLETED AND READY FOR ACCEPTANCE, CARRY OUT, IN THE PRESENCE OF OWNER, ANY TESTS AS MAY BE DEEMED NECESSARY BY THE OWNER.

16. EMERGENCY LIGHTING:
NEW EXIT SIGN OR EMERGENCY LIGHTING REMOTE HEADS SHALL BE AS NOTED IN THE LIGHTING FIXTURE SCHEDULE AND LEGEND.

WIRING FOR THE SYSTEM SHALL BE NO. 10 AWG MINIMUM OR TO THE MANUFACTURERS RECOMMENDATIONS. D.C. WIRING SHALL BE SEPARATE FROM A.C. WIRING EXCEPT WHEN OTHERWISE PERMITTED BY CODES. PROVIDE WIRING TO THE LED EXIT LIGHTS.

17. LIGHTING FIXTURES:
PROVIDE NEW LIGHTING FIXTURES AS NOTED IN THE LIGHTING FIXTURE SCHEDULE. REMOVE EXISTING LIGHTING FIXTURE SCHEDULE. REMOVE EXISTING LIGHTING INTERFERING WITH THE PROPOSED TENANT IMPROVEMENT TURN OVER TO THE BUILDING OWNER. REFER TO BASE BUILDING LIGHTING PLANS FOR BASE BUILDING DETAILS.

18. DEVICES:
ALL RECEPTACLES SHALL BE SPECIFICATION GRADE STANDARD FACE AND THE FINISH SHALL BE WHITE UNLESS NOTED.

COVER PLATES FOR THE DEVICES SHALL BE BRUSHED ALUMINUM.

ALL SWITCHES TO BE AS SHOWN ON DRAWINGS. ALL DEVICES TO BE FLUSH MOUNTED IN ALL NEW WALLS AND FLUSH IN EXISTING WALLS AS DIRECTED BY THE CONSULTANT.

19. AS-BUILT DRAWINGS:
PROVIDE ELECTRONIC COPY AND TWO COPIES OF AS BUILT DRAWINGS TO THE OWNER FOR FINAL REVIEW AT COMPLETION OF PROJECT BEFORE THE FINAL CERTIFICATE OF ACCEPTANCE WILL BE ISSUED.

THE AS-BUILT DRAWINGS SHALL BE COMPLETE WITH ALL CHANGE NOTICES, SITE INSTRUCTIONS AND SITE DEVIATIONS.

20. COMPLETION OF CONTRACT:
SYSTEMS SHALL BE COMPLETED, TESTED AND READY FOR USE, WITH ALL EQUIPMENT OPERATING SATISFACTORILY. ALL DEBRIS, TOOLS AND OTHER CONSTRUCTION EQUIPMENT SHALL BE CLEARED FROM THE PREMISES.

PROVIDE A CERTIFICATE OR GUARANTEE OF WORKMANSHIP, MATERIALS AND EQUIPMENT FOR ONE YEAR AFTER COMPLETION OF THE CONTRACT. REPAIR OR REPLACE, WITHOUT EXPENSE TO THE OWNER, ALL DEFECTS DUE TO IMPERFECT MATERIALS OR WORKMANSHIP WHICH APPEAR WITHIN ONE YEAR AFTER ACCEPTANCE OF THE WORK.

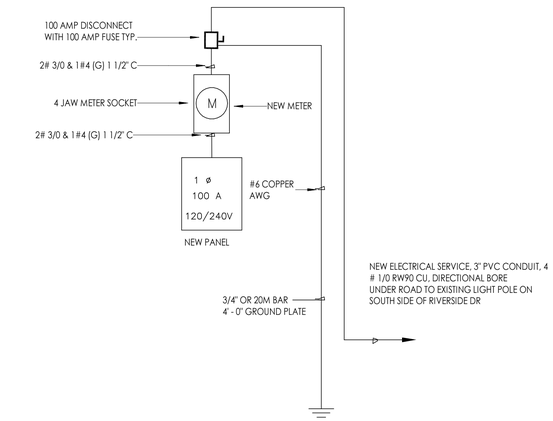
PROVIDE AS-BUILT DRAWINGS AND TWO SETS OF ELECTRICAL DATA MANUALS. DATA MANUALS TO BE COMPLETE WITH THE FOLLOWING:
-ONE SET OF APPROVED SHOP DRAWINGS.
-FIRE ALARM VERIFICATION AND TECHNICIANS REPORT.
-ELECTRICAL INSPECTION AUTHORITY CERTIFICATE.
-LETTER OF GUARANTEE.
-ALL REQUIRED DOCUMENTATION REQUIRED BY THE CITY OF WINDSOR TO CLOSE OUT THE PROJECT.

21. WORK IN EXISTING BUILDING:
DISCONNECT AND REMOVE ALL EXISTING SERVICES WHICH ARE ABANDONED. REMOVE ALL CONDUIT WORK THAT IS ABANDONED EXCEPT WHERE FLUSH EMBEDDED IN THE STRUCTURE.

REMOVE FROM THE SITE ALL MATERIALS WHICH ARE NOT TO BE REUSED, UNLESS NOTED AS REMAINING THE PROPERTY OF THE OWNER.

REFER TO BASE BUILDING PLANS FOR DETAILS WITH RESPECT TO EXISTING LIGHTING, POWER, COMMUNICATIONS, BASE BUILDING FIRE ALARM.

SCHEDULE POWER AND LIGHTING SHUTDOWN AS NOT TO INTERFERE WITH BUILDING OPERATION.



1 Riser Diagram
1" = 20'-0"

Maged Basilious Architect
www.mbarchitect.ca

Maged Basilious Architect
1605 Ottawa St., Suite 101
Windsor, Ontario N8Y 1R2
Phone: 519-969-0086
Fax: 519-969-9317
e-mail: mbasilious@mbarchitect.ca

No.	Description	Date
1	ISSUED FOR TENDER	JAN X, 2022

WASHROOM BUILDING
ELIZABETH K PARK

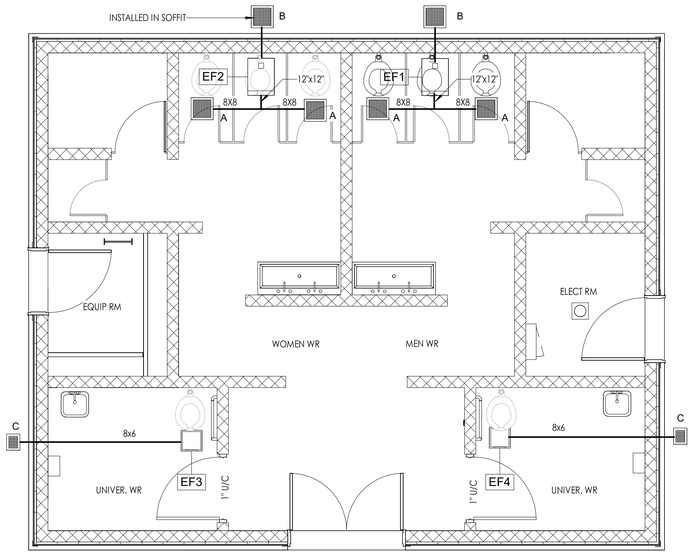
Specifications

Project number	2104
Date	JULY 2021
Drawn by	MB
Checked by	MB

E 102

Scale 1" = 20'-0"

2022-03-03 4:33:10 PM



2 First Floor HVAC Plan

1/4" = 1'-0"

Mechanical Equipment Schedule

Mark	Manufacturer	Count	Description	Service Location.	Fan Data				Electrical Data				OPER WEIGHT (LBS)	MODEL	REMARKS
					CFM	FRPM	TSP (IN. WG.)	BHP	AMP	VOLT	PH	HZ			
EF1	GREENHECK	1	EXHAUST FAN	MEN WASHROOM	400 CFM	1495	0.50 in-wg	.09	3.4 A	120 V	1	60	40	SQ-95-VG	PROVIDE WITH BACKDRAFT DAMPER, GRAVITY OPERATOR, INTERLOCK W/LIGHT
EF2	GREENHECK	1	EXHAUST FAN	WOMEN WASHROOM	400 CFM	1495	0.50 in-wg	.09	3.4 A	120 V	1	60	40	SQ-95-VG	PROVIDE WITH BACKDRAFT DAMPER, GRAVITY OPERATOR, INTERLOCK W/LIGHT
EF3	GREENHECK	1	EXHAUST FAN (CEILING)	UNIVERSAL WR	110 CFM	940	0.25 in-wg	30		120 V	1	60	30	SP-110-VG	PROVIDE WITH BACKDRAFT DAMPER, GRAVITY OPERATOR, INTERLOCK W/LIGHT
EF4	GREENHECK	1	EXHAUST FAN (CEILING)	UNIVERSAL WR	110 CFM	940	0.25 in-wg	30		120 V	1	60	30	SP-110-VG	PROVIDE WITH BACKDRAFT DAMPER, GRAVITY OPERATOR, INTERLOCK W/LIGHT

Grill and Diffuser schedule

Mark	Make	Model	Size	Deflection.	Material.	Count
A	Titus	271FS	12"x12"	Single	Aluminum	4
B	Titus	271FS	12"x12"	Single	Aluminum	2
C	Titus	33RS	8"x6"	Single	Aluminum	2

Plumbing Fixture Schedule

Type Mark	Description	Drain	TRAP	v	CW Supply	HW	REMARKS.
FD-1	FLOOR DRAIN	<varies>	<varies>	2"	1/2"	-	TYPICAL FLOOR DRAIN FOR SLAB ON GRADE. ANCON FD-200-1-7 WITH 6" DIA NICKEL BRONZE STRAINER AND EXTENSION. VERITY SELECTION WITH OWNER.
LVA1	LAVATORY (SLOAN)	2"	2"	1 1/4" X1 1/2"	1/2"	-	WHITE VITREOUS CHINA WALL HUNG SINK AMERICAN STANDARD 0321.026,0321.075, 0321.975 HROME. SINGLE LEVER COMOLETE WITH. DELTA CHROME SINGLE PLATE# 87T105 WITH STRAINER. STOPS & SUPPLIES. TRAP COVER VERIFY SELECTION WITH OWNER.
SS1	TRHOUGH SINK	2"	2"	1 1/2"	1/2"	-	CUSTOM MADE STAINLESS STEEL SINK 18 GUACE-NOVANNI FAUCET: ZURN # Z866CO. DELTA #24T2643 HANDLE WITHOUT SPRAYER. COMPLETE WITH CUP STRAINER. STOPS & SUPPLIES. TRAP COVER. VERIFY SELECTION WITH OWNER
TD-1	TRENCH DRAIN	3"	3"	2"			SHALLOW TRENCH DRAIN ZURN - Z844 - 40" LONG WITH STAINLESS STEEEL GRATE
WC1	WATER CLOSET (FLUSH VALVE) (SLOAN)	<varies>	<varies>	2"	1"	-	FLOOR - MOUNTED, FLUSH VALVE. WHITE. VITREOUS CHINA. ELONGATED FRONT. BOLT COVERS REGAL XL FLUSH 111-1.28XL. VERIFY ESLECTION WITH OWNER.
WC2	WATER CLOSET (FLUSH VALVE) (SLOAN)	3"	INT.	2"	1"	-	FLOOR - MOUNTED, FLUSH VALVE. WHITE. VITREOUS CHINA. ELONGATED FRONT. BOLT COVERS REGAL XL FLUSH 111-1.28XL. VERIFY ESLECTION WITH OWNER MOUNT BETWEEN 17" TO 19".

PLUMBING SPECIFICATIONS

1. MATERIALS AND WORKMANSHIP:

1.1 UNLESS OTHERWISE SPECIFIED, ALL MATERIALS AND APPARATUS REQUIRED FOR WORK SHALL BE NEW, OF FIRST CLASS QUALITY AND SHALL BE FURNISHED, DELIVERED, ERECTED, CONNECTED AND FINISHED IN EVERY DETAIL, AND SHALL BE SELECTED AND ARRANGED SO AS TO FIT PROPERLY INTO THE BUILDING SPACES. WHERE NO SPECIFIC KIND OR QUALITY OF MATERIAL IS GIVEN, A FIRST CLASS STANDARD ARTICLE AS APPROVED BY THE ENGINEER SHALL BE FURNISHED.

1.2. USE SKILLED AND QUALIFIED, FITTERS, PLUMBERS, METAL WORKERS, WELDERS, HELPERS, AND LABOUR REQUIRED TO UNLOAD, TRANSFER, ERECT, CONNECT UP, ADJUST, START, OPERATE AND TEST SUCH SYSTEMS. HELPERS AND UNQUALIFIED WORKERS WILL BE DIRECTLY SUPERVISED AT ALL TIMES WHILE WORKING ON THE SITE BY QUALIFIED TRADES PERSONS.

1.3. UPON REQUEST PRODUCE COPIES OF TRADE QUALIFICATIONS OF ANY SELECTED WORKERS.

1.4. THE ENGINEER SHALL HAVE THE RIGHT TO REJECT ANY ITEM THAT, IN HIS/HER OPINION, DOES NOT CONFORM TO AN ACCEPTABLE STANDARD OF QUALITY, QUIETNESS OF OPERATION, FINISH, APPEARANCE AND ERFORMANCE. UNACCEPTABLE MATERIAL AND/OR WORKMANSHIP MUST BE RECTIFIED TO THE APPROVAL OF THE ENGINEER.

2. PIPING MATERIALS:

2.1 THE FOLLOWING PIPING MATERIAL SHALL BE USED UNLESS OTHERWISE SPECIFIED ON THE DRAWINGS OR APPROVED BY THE ENGINEER.

SERVICE	MATERIAL
SANITARY DRAINAGE ABOVE GRADE INSIDE BUILDING	CAST IRON WITH MECHANICAL JOINTS OR COPPER DWV GRADE. ABS/PVC DWV PIPING IS ACCEPTABLE IF IN COMPLIANCE WITH LOCAL AUTHORITY'S REQUIREMENTS AND PROVIDED FIRE SEPARATIONS ARE NOT PENETRATED.
SANITARY DRAINAGE BELOW GRADE INSIDE BUILDING	CAST IRON WITH MECHANICAL JOINTS, ABS DWV GRADE OR PVC DWV GRADE. CSA B71 ABS SEWER PIPE CSA B72.1-M PVC SEWER PIPE CSA B72.2-M
SANITARY AND STORM SEWERS BELOW GRADE OUTSIDE BUILDING	ABS SEWER PIPE CSA B72.1-M, SDR-35 PVC SEWER PIPE CSA B72.2, CONCRETE SEWER PIPE WITH GASKETS
DOMESTIC HOT AND COLD WATER ABOVE GRADE. INSIDE BUILDING	TYPE L. HARD DRAWN COPPER WITH SOLDER JOINTS TO ASTM B-88
DOMESTIC HOT AND COLD WATER BRANCH LINES BELOW GRADE INSIDE BUILDING	TYPE L SOFT TEMPER COPPER WITH SOLDER JOINTS TO ASTM B-88 OR SCHEDULE 40 CPVC CSA B137-6-M.
WATER MAIN BELOW GRADE OUTSIDE BUILDING	TYPE K SOFT TEMPER COPPER WITH SOLDER JOINTS TO ASTM B-88, SCHED 80 PVC WATER PIPE & FITTINGS CSA B137-3 PVC PRESSURE PIPE AWWA C-900

INDIVIDUAL WATER SERVICE PEX PRESSURE TUBING CSA B137.5-M,
BELOW GRADE TO EACH UNIT POLYETHYLENE TUBING CSA B137.1-M

2.2. NO ALTERATION OR CHANGES TO MATERIALS SPECIFIED IS ACCEPTABLE WITHOUT PRIOR WRITTEN APPROVAL OF MECHANICAL CONSULTANTS.

3. INSTALLATION:

3.1 PROVIDE ANCON "SHOK-GUARDS" ON ALL HOT AND COLD DOMESTIC WATER LINES, AT GROUPS OF PLUMBING FIXTURES,

3.2. PROVIDE CHROME PLATED ESCUTCHEON PLATES WHEREVER PLUMBING LINES PENETRATE A FINISHED WALL.

3.3. PROVIDE SHUT-OFF VALVES AND ACCESSORIES IN ACCESSIBLE LOCATIONS TO APPLIANCE, PIECE OF EQUIPMENT, FIXTURE GROUP OR FIXTURE. PROVIDE VALVES IN ACCORDANCE WITH CODES AND WHERE SHOWN ON THE DRAWINGS.

3.4. INSTALL BALANCING VALVES WHERE SHOWN ON THE DRAWINGS OR AS REQUIRED AND ADJUST THE VALVES FOR BALANCED FLOW ON THE RECIRCULATION SYSTEM. APPROVED PRODUCT: TOUR AND ANDERSON MODEL STA-5

3.5. IDENTIFY EACH PIPING SYSTEM WITH STICK ON DECALS TO INDICATE SERVICE AND DIRECTION OF FLOW.

3.6. DO NOT RUN WATER PIPES IN OUTSIDE WALLS WITHOUT PROTECTION FROM FREEZING TO THE ENGINEER'S APPROVAL.

3.7. CO-ORDINATE WITH GENERAL CONTRACTOR LOCATIONS AND SIZES OF REQUIRED PLUMBING CHASES AND ANY ADDITIONAL BRACING BETWEEN STUDS FOR WALL HUNG FIXTURES.

3.8. CO-ORDINATE WITH GENERAL CONTRACTOR ANY REQUIRED CUTTING OF STRUCTURE TO FACILITATE PASSAGE OF PIPES.

4. EXPANSION AND SETTLEMENT:

4.1. INSTALL PIPES WITH ALLOWANCE FOR EXPANSION, CONTRACTION AND SETTLING. DOMESTIC HOT WATER PIPES SHALL HAVE EXPANSION JOINTS, LOOPS OR OFFSETS AS SHOWN ON THE DRAWINGS AND AT LEAST EVERY 100 FEET OF STRAIGHT RUN. PROVIDE PIPE ANCHORS BETWEEN EXPANSION ELEMENTS.

4.2. PROVIDE CLEARANCE WHERE PIPES PENETRATE STRUCTURES TO ALLOW FOR PIPE MOVEMENT.

4.3. PROVIDE HORIZONTAL OFFSETS AT BRANCHES FROM HOT AND COLD WATER RISERS WITH AT LEAST TWO ELBOWS PRIOR TO A FIXTURE TAKE-OFF.

4.4. ALLOW FOR SETTLEMENT OF WOOD FRAME CONSTRUCTION OF UP TO 1" PER FLOOR. PROVIDE EXTRA SLOPE ON BRANCH DRAINS AND OR EXPANSION COMPENSATORS TO MAINTAIN THE CODE REQUIRED SLOPE AFTER THE BUILDING HAS SETTLED.

5. INSULATION:

5.1. ALL INSULATION WORK SHALL BE IN STRICT ACCORDANCE WITH STANDARDS AND BE CARRIED OUT BY AN EXPERIENCED FIRM WITH AN ESTABLISHED REPUTATION IN THIS FIELD AND TO THE SATISFACTION OF THE ARCHITECT/ENGINEER.

5.2. DOMESTIC WATER PIPING TO BE INSULATED WITH 1/2" FIBREGLASS INSULATION WITH VAPOUR BARRIER. SEAL ALL JOINTS.

5.3. INSULATION TO BE AS MANUFACTURED BY MANSON INSULATION OR KNAUF INDUSTRIES. ONE PIECE MOULDED INSULATION WITH SELF SEALING ADHESIVE. ALL FITTINGS TO BE COMPLETE WITH ONE PIECE PRE MOULDED HIGH IMPACT PVC FITTING COVERS.

5.4. ALL SANITARY P-TRAPS IN AREAS SUBJECT TO FREEZING SHALL BE INSULATED WITH MIN. 1/2" (13 mm) INSULATION C/W VAPOUR BARRIER.

6. HANGERS:

6.1. SUPPORT PIPING ON ADJUSTABLE MALLEABLE IRON OR WROUGHT STEEL HANGERS. GRINNELL No.97, 101, 260, 269 OR APPROVED EQUAL. INSTALLATION AND SPACING SHALL BE AS REQUIRED BY THE PLUMBING CODE.

7. SEISMIC REQUIREMENTS:

7.1. GENERAL
.1 THE CONTRACTOR SHALL PROVIDE SEISMIC RESTRAINTS FOR ALL EQUIPMENT, PIPING, AND DUCTWORK, THAT MEETS THE REQUIREMENTS DEFINED BY THE NATIONAL BUILDING CODE OF CANADA (NBCC) AND "GUIDELINES FOR SEISMIC RESTRAINTS OF MECHANICAL SYSTEMS AND PLUMBING PIPING SYSTEMS" (SMACNA AND PPIC).

.2 THE CONTRACTOR SHALL RETAIN A ONTARIO PROFESSIONAL STRUCTURAL ENGINEER TO REVIEW THE ADEQUACY OF SEISMIC RESTRAINT OF ALL EQUIPMENT, PIPING, AND DUCT WORK AND SHALL ABIDE BY ALL RECOMMENDATIONS OF THE STRUCTURAL ENGINEER.

.3 THE CONTRACTOR SHALL PROVIDE THE ENGINEER OF RECORD WITH THE NECESSARY SHOP DRAWINGS, INCLUDING DETAILS OF SEISMIC RESTRAINT, SEALED BY THE STRUCTURAL ENGINEER.

.4 THE STRUCTURAL ENGINEER SHALL ISSUE LETTERS OF ASSURANCE FOR THE STRUCTURAL CAPACITY OF THE MECHANICAL, PLUMBING, AND FIRE PROTECTION SYSTEMS, INCLUDING ANCHORAGE AND SEISMIC RESTRAINT.

.5 THE EQUIPMENT MANUFACTURER SHALL DESIGN EQUIPMENT SUCH THAT THE STRENGTH AND ANCHORAGE OF INTERNAL COMPONENTS EXCEEDS THE ORCE LEVEL USED TO RESTRAIN AND ANCHOR THE EQUIPMENT TO THE SUPPORTING STRUCTURE.

7.2 SPECIFIC:

1. THE FOLLOWING RULES APPLY TO THE RESTRAINT OF PIPING:
WHERE THE HANGERS ARE MORE THAN 12" (300MM) IN LENGTH FROM THE TOP OF THE PIPE OR DUCT TO THE BOTTOM OF THE STRUCTURAL SUPPORT, SEISMIC RESTRAINTS SHALL BE PROVIDED FOR THE FOLLOWING:
.1 ALL OTHER PIPING IN BOILER AND MECHANICAL EQUIPMENT ROOMS 1 1/4" DIAMETER AND LARGER.
.2 ALL OTHER PIPING 2 1/2" DIAMETER AND LARGER, INCLUDING DOMESTIC WATER AND DRAINAGE PIPING. ALL RECTANGULAR DUCTWORK 6 SQ. FT. (0.5 SQ. M) CROSS SECTIONAL AREA AND LARGER, OR ROUND DUCTWORK 28" (700MM) DIAMETER AND LARGER.

2. THE FOLLOWING RULES APPLY TO THE RESTRAINT OF EQUIPMENT:
.1 ALL RESILIENTLY MOUNTED EQUIPMENT SHALL BE PROVIDED WITH SEISMIC SNUBBERS
.2 ALL FLOOR-MOUNTED EQUIPMENT SHALL BE BOLTED TO THE FLOOR.
.3 VERTICAL TANKS AND WATER HEATERS SHALL BE BOLTED TO THE FLOOR AND FURTHER SECURED WITH AN ENCIRCLING STRAP AT THE MID-POINT, WITH RIGID BRACING TO TH STRUCTURE.

8. CLEANOUTS:

8.1 CLEANOUTS SHALL BE INSTALLED ON ALL INTERIOR AND EXTERIOR SANITARY AND STORM DRAINAGE PIPING IN ACCORDANCE WITH LOCAL PLUMBING CODES.

8.2 CLEANOUTS SHALL BE FULL SIZE FOR PIPES OF 4" DIAMETER AND LESS, AND 4" SIZE FOR ALL LARGER PIPES.

8.3 CLEANOUTS IN SIDEWALKS, CONCRETE OR PAVED AREAS FOR OUTSIDE DRAINAGE PIPING AND FOOTING DRAINS TO BE EXTENDED TO SURFACE IN C.I. PIPE WITH PIPE ANCHORED IN 12" X 12" X 6" COLLAR OF CONCRETE.

8.4 WHERE CLEANOUTS MUST BE INSTALLED IN FINISHED FLOORS USE APPROPRIATE CLEANOUT COVERS.

9. PLUMBING FIXTURE SCHEDULE:

9.1 SUPPLY AND INSTALL THE FOLLOWING FIXTURES MANUFACTURED BY CRANE, AMERICAN STANDARD OR APPROVED EQUAL, IN LOCATIONS INDICATED ON THE DRAWINGS, COMPLETE WITH SUPPLIES, HANGERS, AND ALL ACCESSORIES REQUIRED FOR A COMPLETE INSTALLATION. TOGGLE BOLTS, EXPANSION ANCHORS, OR SIMILAR FASTENERS SHALL BE USED FOR SECURING FIXTURES TO CONCRETE AND CONCRETE BLOCK WALLS. IN FRAME WALLS, INSTALL 50x150mm (2"x6" BRACING BETWEEN STUDS TO ACT AS SUPPORT FOR WALL HUNG FIXTURES. EACH FIXTURE SHALL BE INSTALLED COMPLETE WITH CHROME PLATED ANGLE STOPS, FLEXIBLE SUPPLIES AND ESCUTCHEONS.

PLUMBING FIXTURES ARE SELECTED BY OWNER. SHOP DRAWINGS OF PLUMBING FIXTURE FOR ENGINEER'S AND OWNER'S REVIEW.

HOSE BIBBS
HB-1 WATTS FHB-1 FROST PROOF HOSE BIBB WITH INTEGRAL ANTI-SIPHON DESIGN.
HB-2 WATTS DRAINAGE PRODUCTS HY-500-2-3/4 CONCEALED NON-FREEZE KEY OPERATED DECK HYDRANT WITH NICKEL BRONZE BOX AND DOOR, ALL BRONZE HEAD, SEAT CASTING AND INTERNAL WORKING PARTS, BRONZE CASING, AND LOOSE KEY. PROVIDE 12"(W)x12"(L)x12" (D) ROCK PIT.

FLOOR DRAINS
FD-1 TYPICAL FLOOR DRAIN FOR SLAB ON GRADE. ANCON FD-100-1-7 WITH 6"∅ NICKEL BRONZE STRAINER AND EXTENSION.

HEATING, VENTILATING AND AIR CONDITIONING

1. GENERAL CONDITIONS

(a) THE GENERAL REQUIREMENT OF THE CONTRACT DOCUMENTS AND THE SUPPLEMENTARY GENERAL REQUIREMENTS FOR MECHANICAL WORK SHALL FORM AN INTEGRAL PART OF THIS SPECIFICATION.

2. WORK INCLUDED

(a) THIS CONTRACTOR SHALL DO ALL HEATING, VENTILATION AND AIR CONDITIONING WORK AS SHOWN ON THE DRAWINGS.

(b) PROVIDE ALL DUCT INSULATION AS SHOWN AND SPECIFIED, AND EXCEPT FOR ACOUSTIC LINING, ALL INSULATION SHALL BE DONE BY A QUALIFIED SUB-CONTRACTOR .

3. WORK NOT INCLUDED

(a) POWER WIRING TO ALL EQUIPMENT AND PROVISION OF SAFETY DISCONNECTS, EXCEPT WHERE THE PIECE OF EQUIPMENT COMES WITH A BUILT-IN DISCONNECT PROVIDED AS A PART OF THE PACKAGE.

4. TESTING, START-UP AND GUARANTEE

(a) START UP ALL SYSTEMS IN CONJUNCTION WITH MANUFACTURER'S REPRESENTATIVE, AND LOG ALL OPERATING CONDITIONS SUCH AS TEMPERATURE RISE, AIR VOLUME AND PRESSURE AND FILE THREE COPIES OF THE REPORT AND

(B) LUBRICATE ALL EQUIPMENT, CHANGE FILTERS AND ANY INDICATOR LAMPS, AND PROVIDE A WARRANTY LETTER TO THE OWNER RECORDING THE DATE OF START AND THE DURATION OF WARRANTY.

(C) WARRANTY ON ALL SYSTEMS IS ONE FULL YEAR PARTS AND LABOR, AND AN ADDITIONAL ONE YEAR ON ALL REFRIGERATION SYSTEMS INCLUDING LABOR.

5. DUCTWORK

(A) PROVIDE DUCTWORK AS SHOWN AND REQUIRED. ALL METAL SHALL BE PRIME COAT GALVANIZED COLD ROLLED STEEL WITH GAUGES AND CONSTRUCTION PER SMACNA AND ASHRAE STANDARDS.

(B) WHERE DUCTS ARE ACOUSTICALLY LINED, DUCTS SIZE SHOWN ARE NET.

(C) DUCTS SHALL BE SUPPORTED USING ANGLE IRON TRAPEZE HANGERS WITH THREADED ROD SUPPORTS. 18 GA. STRIPS ARE ACCEPTABLE FOR DUCTS LESS THAN 18" LONGEST SIDE.

(D) ELBOWS SHALL BE ROUND THROAT WHERE POSSIBLE WITH ONE DUCT WIDTH RADIUS. SQUARE THROAT OR BACK ELBOWS SHALL ONLY BE USED WHERE SPACE DOES NOT PERMIT STANDARD ELBOWS AND TURNING VANES SHALL BE INSTALLED.

(E) ALL TAKE-OFFS SHALL BE FITTED WITH DAMPERS AND SHALL BE EXPANDED THROAT TYPE, EXCEPT SPIN-IN FITTINGS ARE ACCEPTABLE FOR DIFFUSED BRANCHES.

(F) FLEX DUCTS SHALL NOT EXCEED 10' IN LENGTH AND WHERE FLEX DUCTS CONNECT TO A DIFFUSER, A METAL ELBOW SHALL BE MOUNTED ON THE DIFFUSER AND CONNECTED TO THE DUCT, TO PROVIDE EQUAL FLOW OUT OF THE DIFFUSER.

(G) PROVIDE FLEX CONNECTIONS TO ALL PLACES OF EQUIPMENT, AND WHERE THE UNIT. IS OUTSIDE, PROVIDE A RAIN SHIELD OVER THE TOP OF CONNECTION. FOR EXTERIOR DUCTS, BREAK THE DUCT ON TOP TO PROVIDE POSITIVE RAIN SHEDDING, AND BRACE FROM INSIDE IF NECESSARY.

6. DUCT INSULATION

(D) ALL EXHAUST DUCTWORK (WITH THE EXCEPTION OF KITCHEN EXHAUST DUCTWORK) SHALL BE EXTERNALLY WRAP WITH 25MM (1") THICK FIBER GLASS VINYL JACKET INSULATION FOR A MINIMUM OF 6'-0" (1.8M) FROM EXTERIOR WALL OR WITH INSULATION SLEEVE APPROVED FOR APPLICATION.

7. GRILLES, DIFFUSERS AND REGISTERS

(A) PROVIDE UNITS AS SHOWN ON THE PLANS AND LISTED IN THE SCHEDULE.

(B) CALLING DIFFUSERS SHALL BE ADJUSTABLE PATTERN, LAY-IN STYLE OFF-WHITE COLOR TO MATCH CALLING GRID. EACH UNIT SHALL HAVE A VOLUME DAMPER AND WHERE CLOSE TO A WALL PROVIDE ADDITIONAL BLANK-OFF BAFFLES TO PREVENT DOWNDRAFT.

(C) REGISTERS SHALL BE DOUBLE DEFLECTION, WITH FRONT BARS TO SUIT THROW PATTERN AS LISTED ON DRAWINGS, AND BE COMPLETE WITH OB DAMPER. ALL CEILING REGISTERS SHALL HAVE CURVED BLADE, EXCEPT WHERE NOTED OTHERWISE, AND ALL WALL REGISTERS FOR CORRIDOR SUPPLIES SHALL BE CURVED BLADE STYLE.

(D) RETURN GRILLES SHALL BE 1/2" ALUMINUM GRID FOR CEILINGS AND STEEL, FRAMED UNITS WITH FIXED 35 DEG. BARS FOR WALL OR CEILING INSTALLATION WITH DUCTED RETURN, COMPLETE WITH OB DAMPER. EXHAUST GRILLES SAME.

(E) DOOR GRILLES SHALL BE SINGLE V; WITH FRAME ON BOTH SIDES.

8. EXHAUST FAN

(A) PROVIDE EXHAUST FANS AS SHOWN ON THE DRAWINGS COMPLETE WITH BACK DRAFT DAMPER AND CONTROL AS LISTED.

(B) ROOF MOUNTED FANS SHALL BE PROVIDED WITH INTEGRAL DISCONNECT SWITCH, AND SHALL BE MOUNTED ON A PREFABRICATED CURB WITH A NEOPRENE INSULATION STRIP ON TOP OF CURB, UNDER THE FAN. FOR DIRECT DRIVE FANS PROVIDE INTEGRAL ELECTRONIC SPEED CONTROL MOUNTED UNDER THE COVER.

Maged Basilious Architect
www.mbarchitect.ca

TM ENGINEERING
T: (905) 520 9575 F: 905-304-9782
46 Sundrop Crt. Ancaster, ON
L9K 1G5

No.	Description	Date
1	ISSUED FOR TENDER	JAN X, 2022

WASHROOM BUILDING ELIZABETH K PARK

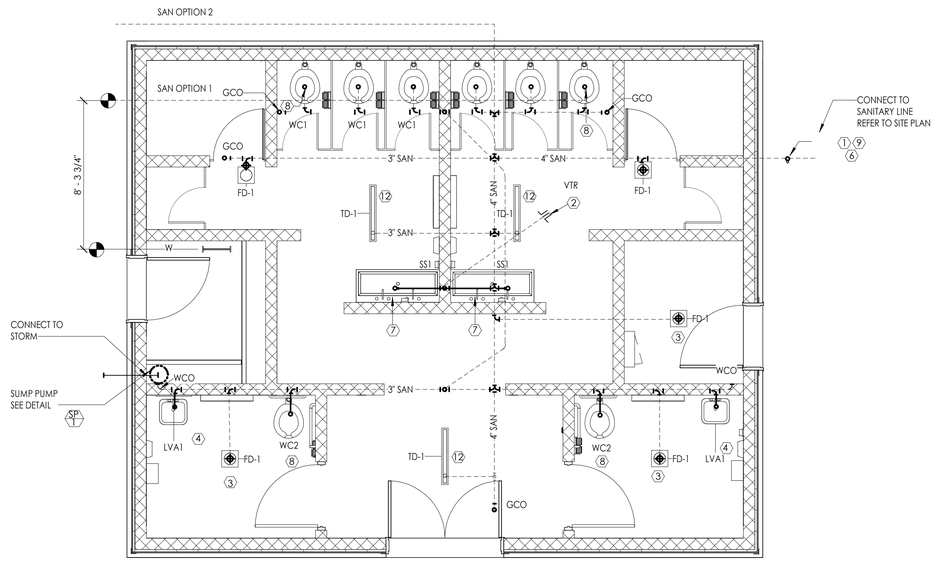
HVAC Pl., Specifications & Schedules

Project number	2104
Date	JULY 2021
Drawn by	M. B.
Checked by	T. M.

M 101

Scale: As indicated

2022-03-03 4:33:11 PM



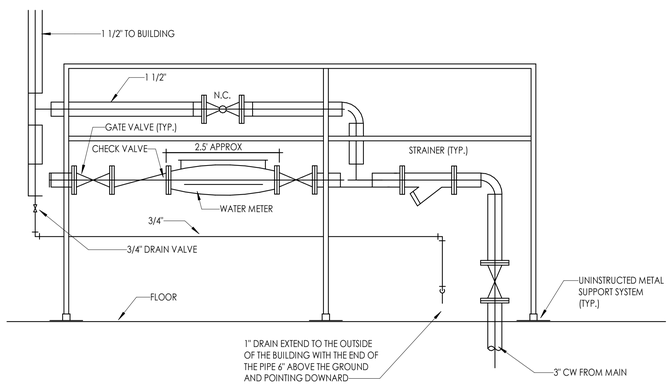
1 First Floor Sanitary & Vent

1/4" = 1'-0"

PLUMBING AND DRAINAGE KEYNOTES	
1	4" Ø SANITARY EXISTING
2	3" Ø NEW VENT THROUGH ROOF
3	NEW FLOOR DRAIN (F.D.)
4	NEW LAVATORY
5	NEW HOSE BIB IN RECESSED BOX WITH LOCK
6	NEW 4" ∅ SAN
7	NEW SINK
8	NEW WATER CLOSET
9	CONNECT NEW 4" Ø TO SANITARY AT THIS APPROXIMATE LOCATION.
10	NEW 3" Ø DOMESTIC COLD WATER
11	BACK FLOW PREVENTER 38" – 42" FROM FLOOR HEIGHT. ALSO TO HAVE A DRAIN POINT BEFORE THE BACKFLOW PREVENTER
12	NEW TRENCH DRAIN

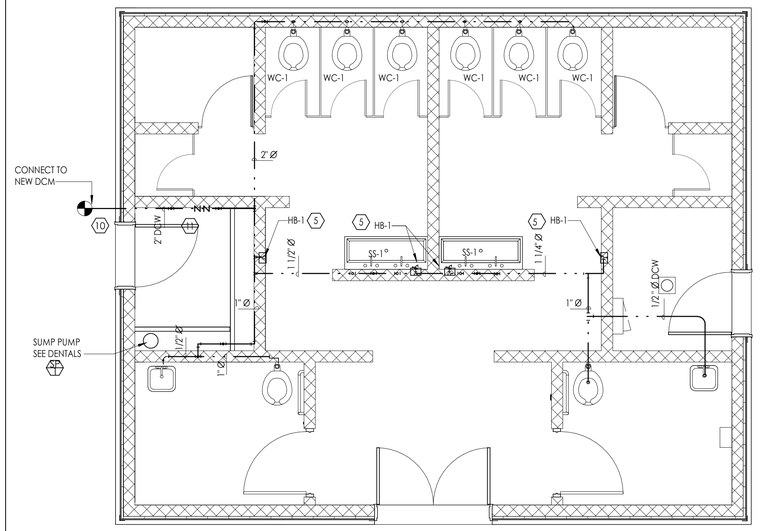
PLUMBING NOTES:
1. BARRIER FREE WATER CLOSET SEAT HEIGHT AND HAND OPERATOR SHALL COMPLY WITH 3.8.3.9 OF OBC.
2. BARRIER FREE LAVATORIES MOUNTING HEIGHT, SIDE CLEARANCE, UNDER - SINK CLEARANCE AND FAUCET TYPE SHALL COMPLY WITH 3.8.3.11 OF OBC.
3. BUILDING WATER SERVICE PIPE SHALL BE EQUIPPED WITH RP-TYPE BACKFLOW PREVENTER PER UTILITY COMPANY REQUIREMENT.
4. TEST AND SUBMIT COMPLETED TEST FORMS FOR ALL INSTALLED TESTABLE BACKFLOW PREVENTION DEVICES.
5. ALL NEW DOMESTIC WATER AND SANITARY SYSTEMS SHALL COMPLY WITH PART 7 OF OBC AND BE TESTED AND INSPECTED PRIOR TO COVERING.

CONTRACTOR RESPONSIBLE FOR 1ST YEAR WINTERIZATION



4 Water Meter Diagram

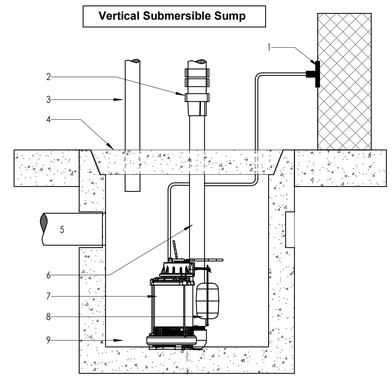
12" = 1'-0"



2 First floor - Water

1/4" = 1'-0"

PROVIDE RP-TYPE BACK FLOW PREVENTER PER UTILITIES COMPANY REQUIREMENT



1. GFCI OUTLET	6. 2" DISCHARGE PIPE
2. CHECK VALVE	7. SUMP PUMP, MYERS 1/2 HP- 115V - 8.6 A
3. VENT PIPE	8. SWITCH
4. GASKET/BASIN LID	9. CONCRETE PIT 24" Ø X 30" DEEP
5 PIPE INLET	

3 Sump Pump

1 1/2" = 1'-0"

MECHANICAL NOTES

GENERAL REQUIREMENTS FOR MECHANICAL WORK

1. SCOPE OF WORK

(A) CONFORM TO THE APPLICABLE PROVISIONS OF THE GENERAL CONDITIONS OF THE CONTRACT.

(B) THIS GENERAL SPECIFICATION SHALL APPLY TO AND FORM A PART OF EACH OF THE SECTIONS COVERING MECHANICAL AND ELECTRICAL TRADES WORK.

2. EXAMINATION OF SITE AND INFORMATION

(A) EACH CONTRACTOR BEFORE TENDERING, SHALL EXAMINE THE SITE, THE ARCHITECTURAL, STRUCTURAL, MECHANICAL, ELECTRICAL AND ANY OTHER RELEVANT DOCUMENTS, AND FULLY FAMILIARIZE HIMSELF WITH THE DESIGNER'S INTENT, SO THAT THE TENDER PRICE WILL INCLUDE EVERYTHING NECESSARY FOR THE PROPER COMPLETION OF THE WORK IN ACCORDANCE WITH THE INTENT OF THE DOCUMENTS. OBTAIN THE APPROVAL OF THE ENGINEER, ARCHITECT AND PROJECT MANAGER BEFORE ANY ALTERATIONS TO THE WORK INDICATED.

(B) ENSURE THAT ALL PRODUCTS AND MATERIALS NECESSARY FOR THE EXECUTION OF THE CONTRACT CAN BE BROUGHT INTO THE SPACES WHERE THEY ARE TO BE LOCATED, EITHER THROUGH SPECIFIED OPENINGS OR PARTIALLY ASSEMBLED. ANY CUTTING OR RESTORATION WORK REQUIRED, DUE TO FAILURE TO ACCOMPLISH THIS, WILL BE THE RESPONSIBILITY OF THIS SUBCONTRACTOR.

3. RELATIONSHIP TO OTHER TRADES

(A) THE CONTRACTOR SHALL CONFER WITH OTHER TRADES WORKING IN THE AREA, TO ENSURE THAT HIS INSTALLATION WILL BE THE RESULT OF CO-OPERATION BETWEEN ALL PARTIES. ALL DEVICES MUST BE ACCESSIBLE FOR SERVICE, AND THE RECOMMENDATIONS OF THE EQUIPMENT SUPPLIERS SHALL GOVERN.

(B) ENSURE THAT ALL WORK WILL BE INSTALLED WITHIN THE PRESCRIBED LIMITED OF THE BUILDING, SUCH AS CEILING HEIGHTS, AND NOTIFY AND GENERAL TRADE OF ANY REQUIREMENTS FOR INSERTS, SLEEVES, OPENINGS, CURBS AND BASES IN SUFFICIENT TIME TO HAVE THE ITEMS COMPLETED IN THE NORMAL COURSE OF CONSTRUCTION.

(C) CONFIRM WITH THE ELECTRICAL TRADE, THE AVAILABLE ELECTRICAL POWER SUPPLY CHARACTERISTICS, BEFORE FINALIZING EQUIPMENT ORDERS. NO COMPENSATION WILL BE ALLOWED TO CHANGE ANY DEVICE DUE TO THIS SUBCONTRACTOR'S FAILURE TO VERIFY THE SUPPLY.

(D) ANY CUTTING OR PATCHING REQUIRED, FOR WHATEVER REASON, SHALL BE DONE BY QUALIFIED TRADES PEOPLE IN THE REQUIRED TRADE.

4. SHOP DRAWINGS AND ALTERNATIVE EQUIPMENT

(A) THIS REVIEW IS FOR GENERAL CONFORMITY ONLY AND DOES NOT RELIEVE THE SUPPLIER AND/OR SUBCONTRACTOR FROM PROVIDING THE NECESSARY PRODUCT (S) TO MEET THE DESIGN INTENT.

(B) PROVIDE 8 COPIES OF SUBMITTAL DRAWINGS FOR EACH PIECE OF EQUIPMENT, INCLUDING PUMPS, AC AND AIR HANDLING UNITS, FIXTURES, ETC., TO THE ENGINEER FOR REVIEW. CERTIFY TO THE ENGINEER THAT THE DRAWINGS CORRECTLY IDENTIFY THE EQUIPMENT THAT WILL BE SUPPLIED, THAT THE EQUIPMENT WILL FIT THE SPACE ALLOTTED, AND PERFORM THE SERVICE INTENDED.

(C) EQUIPMENT DESCRIBED EITHER GENERICALLY OR BY BRAND NAME IS TO ESTABLISH THE MINIMUM STANDARD REQUIRED FOR THE INSTALLATION. ALTERNATIVE EQUIPMENT MAY BE SUGGESTED BY THE BIDDER, BUT THE EQUIVALENCE SHALL BE DETERMINED BY THE ENGINEER. BIDDERS MUST TENDER ON THE BASIS OF THE SPECIFIED EQUIPMENT, AN IF ALTERNATIVES ARE PROPOSED, THEY WILL BE CONSIDERED ON THEIR OWN MERITS, AFTER THE CLOSE OF TENDERS. ANY LOWERING OF THE PRICE BASED ON ALTERNATIVE SUPPLIERS WILL BE PERMITTED WITH THE SAVINGS BEING PASSED TO THE OWNER.

5. REQUIREMENTS OF INSPECTION DEPARTMENTS

(A) ALL WORK SHALL COMPLY WITH THE GOVERNING CODES AND LOCAL REQUIREMENTS. ANY ITEMS REQUIRED TO ACCOMPLISH THIS, WHETHER EXPLICITLY NOTED OR NOT, SHALL BE PROVIDED.

(B) WHERE THE INSPECTING PERSON REQUESTS ITEMS NOT DEEMED TO INCLUDED, THE MATTER SHALL BE IMMEDIATELY REFERRED TO THE ENGINEER FOR A RULING. NO EXTRA WILL BE CONSIDERED IF THE WORK DONE BY THE CONTRACTOR TO SATISFY SUCH A REQUEST, COULD HAVE BEEN AVOIDED BY DISCUSSION BETWEEN THE INSPECTOR AND THE ENGINEER.

(C) PROVIDE NOTICE TO INSPECTORS AS REQUIRED FOR THE PROGRESS OF THE PROJECT, AND ENSURE THAT SUCH INSPECTIONS ARE CARRIED OUT, BEFORE WORK IS COVERED.

6. CERTIFICATES, PERMITS AND FEES

(A) OBTAIN ALL REQUIRED PERMITS, AND PAY ALL INSPECTIONS FEES, EXCEPT WHERE SPECIFICALLY NOTED TO THE CONTRARY.

(B) FURNISH TO THE OWNER ANY CERTIFICATES THAT MAY BE NECESSARY AS EVIDENCE THAT THE WORK AS INSTALLED CONFORMS TO ALL THE LAWS AND REGULATIONS OF THOSE AUTHORITIES HAVING JURISDICTION. BEFORE FINAL CERTIFICATES ARE ISSUED, MAKE THESE ALTERATIONS THAT ARE REQUIRED BY THE AUTHORITY HAVING JURISDICTION, AND ACCEPTED BY THE ENGINEER AS A LAW, OR REGULATION THAT SHOULD HAVE BEEN FOLLOWED BY THE CONTRACTOR.

7. GUARANTEE

(A) GUARANTEE ALL MATERIAL AND WORKMANSHIP FOR TWO FULL YEARS FROM THE DATE OF CERTIFIED SUBSTANTIAL COMPLETION BY THE OWNER, OR HIS AUTHORIZED AGENT. THIS SHALL NOT SUPERCEDE ANY WARRANTIES FOR SPECIFIC ITEMS OF EQUIPMENT, WHICH MAY BE FOR A LONGER TERM.

(B) THE COST OF REPAIR OF DAMAGE TO ANY OTHER WORK, CAUSED BY THE FAILURE OF EITHER MATERIAL OR WORKMANSHIP WITHIN THE PERIOD COVERED BY THE GUARANTEE NOTED IN (A), SHALL BE INCLUDED IN THIS WARRANTY.

(C) WHERE EQUIPMENT IS PUT INTO OPERATION PRIOR TO COMPLETION OF THE WORK THE PERIOD OF GUARANTEE COVERING SUCH EQUIPMENT SHALL STILL COMMENCE AS NOTED IN ITEM 7(A) ABOVE. THE PUTTING INTO OPERATION OF ANY EQUIPMENT PRIOR TO COMPLETION OF THE WORK SHALL ONLY BE WITH WRITTEN APPROVAL OF THE ENGINEER AND OWNER. NO EQUIPMENT SHALL BE STARTED UP WITHOUT FIRST ASCERTAINING THAT ALL SYSTEMS AND SERVICES ASSOCIATED WITH ITS OPERATION ARE FUNCTIONING AND THAT RESPONSIBILITIES FOR EQUIPMENT MAINTENANCE HAVE BEEN ARRANGED.

8. DRAWINGS

(A) THE DRAWINGS PRODUCED BY THE ENGINEER ARE GENERALLY SCHEMATIC IN NATURE AND ARE ISSUED FOR THE EXPRESS PURPOSE OF OBTAINING TENDERS FOR THE WORK AND FOR THE ERECTION OF THE SYSTEMS DESCRIBED IN THE SCOPE OF WORK TO BE DONE. UNLESS SPECIFICALLY SHOWN, THE RESPONSIBILITY FOR THE INSTALLATION AND WORKABILITY OF THE SYSTEM (S) REST WITH THE CONTRACTOR.

(B) WHERE NECESSARY, THE CONTRACTOR SHALL PREPARE INTERFERENCE DRAWINGS TO ENSURE THAT THE INSTALLATION WILL BE COORDINATED WITH ALL SERVICES TO BE INSTALLED IN THE AREA. THE ENGINEER AND OTHER PROFESSIONALS OF RECORD MAY HAVE TO APPROVE OF THESE PROPOSALS.

9. RESPONSIBILITY AND LIABILITY

(A) THIS CONTRACTOR IS RESPONSIBLE FOR THE LAYING-OUT OF HIS WORK, AND IT SHALL BE DONE IN COOPERATION WITH ALL OTHER TRADES WORKING IN THE AREA. THE WORK OF THESE OTHER SUBTRADES SHALL BE PROTECTED FROM DAMAGE BY THIS SUB'S FORCES, OR RESTITUTION MADE FOR ANY DAMAGE.

(B) NOTIFY THE ENGINEER OF ANY DISCREPANCIES FOR INCONSISTENCIES AND ABIDE BY THE DECISION OF THE ENGINEER. FAILURE TO NOTIFY THE ENGINEER WILL NOT RELIEVE THIS CONTRACTOR OF THE RESPONSIBILITY TO PROVIDE A FULLY WORKING SYSTEM.

10. CLEAN-UP AND PROTECTION

(A) MAINTAIN A CLEAN WORKING AREA TO MINIMIZE DANGER TO OTHERS ON SITE, AND PROTECT ALL WORK IN PROGRESS FROM DAMAGE DUE TO CONSTRUCTION WORK, WEATHER, OR FROM UNDUE DIRT ENTRY.

11. OPERATOR TRAINING AND INSTRUCTIONS

(A) PROVIDE COMPLETE OPERATING AND MAINTENANCE INSTRUCTIONS FOR ALL EQUIPMENT SUPPLIED, COMPLETE WITH PARTS LISTS AND THE NAMES OF THE SUPPLIERS.

(B) PROVIDE A WRITTEN DESCRIPTION OF THE SYSTEMS AND THE OPERATING CHARACTERISTICS, FOR USE BY THE SYSTEM OPERATORS/MAINTENANCE PERSONNEL, AND TO INSTRUCT THE USERS HOW TO SET THERMOSTATS, FAN CONTROL SWITCHES, ETC. CONSULT THE ENGINEER WHEN PREPARING THIS INSTRUCTION SHEET, TO ENSURE THAT THE SYSTEM WILL BE OPERATED AS INTENDED.

(C) PROVIDE A BALANCING REPORT FOR ALL AIR AND HYDRONIC SYSTEMS, WHICH HAS BEEN PREPARED BY AN INDEPENDENT TESTING COMPANY APPROVED BY THE ENGINEER.

(D) TOUCH UP OR REPAINT AS NECESSARY, ALL SCRATCHES OR OTHER FINISH DEFECTS, THAT HAVE OCCURRED ON ANY DEVICES SUPPLIED UNDER THIS CONTRACT.

12. EXTRAS AND CREDITS

(A) WHERE EXTRA OR DELETED WORK IS REQUESTED, THIS CONTRACTOR SHALL BE PERMITTED A MARK- UP OF 10% OVERHEAD AND 10% PROFIT BASED ON LABOR COST AND TRADE COST FOR ALL MATERIAL. WHERE EXTRAS AND CREDITS OCCUR SIMULTANEOUSLY, THE CREDIT SHALL BE DEDUCTED FROM THE EXTRA, PRIOR TO THE APPLICATION OF THESE MARK-UPS. CREDITS FOR DELETED WORK WILL NOT BE SUBJECT TO ANY MARK-UP AS IT IS ASSUMED THAT THE OVERHEAD, LABOUR AND PROFIT ON THESE DELETED MATERIALS WAS INCLUDED AT THE TIME THE WORK WAS BID.

13. ELECTRICAL WIRING AND CONTROLS

(A) ALL POWER WIRING FOR ALL MECHANICAL EQUIPMENT SHALL BE DONE BY DIVISION 16 - ELECTRICAL, EXCEPT WHERE SPECIFICALLY NOTED OTHERWISE.

(B) THE MECHANICAL DIVISION SHALL PROVIDE ALL STARTERS, RELAYS, CONTROL DEVICES, AND ANY BUILT-IN SAFETY SWITCHES. THE ELECTRICAL WILL PROVIDE ALL FIELD-MOUNTED SAFETY DISCONNECTS.

(C) THE MECHANICAL DIVISION SHALL PROVIDE ALL CONNECTIONS AND WIRING FOR CONTROLS, AND INTERLOCKS.

(D) ALL ELECTRICAL DEVICES SHALL BE CANADIAN WHERE POSSIBLE AND ALL MOTORS UP TO 1/3 HP SHALL BE SINGLE PHASE, LARGER MOTORS 3 PHASE, EXCEPT AS NOTED. CONFIRM ALL ELECTRICAL CHARACTERISTICS ON SITE.

14. COMPLETION, TESTING, BALANCING AND ADJUSTMENTS

(A) CERTIFY TO THE ENGINEER THAT ALL SYSTEMS HAVE BEEN COMPLETELY INSTALLED PER THE DOCUMENTS, SET IN OPERATION, AND ADJUSTED TO THE REQUIREMENTS OF THE PROJECT.

(B) REPLACE ALL FILTERS, AND ANY INDICATOR LIGHTS THAT HAVE BURNED OUT, AND LUBRICATE ALL ROTATING DEVICES IMMEDIATELY PRIOR TO TURN OVER TO THE OWNER OR HIS AGENT.

(c) CONTRACTOR TO PROVIDE AN ELECTRONIC COPIES OF AS BUILT DRAWINGS UPON THE PROJECT COMPLETION

15. ACCESS DOORS AND FIRE STOPPING

(A) PROVIDE ADEQUATELY SIZED ACCESS DOORS TO PERMIT SERVICING OF ANY MECHANICAL DEVICE, CLEANOUT, CHECK VALVE, ETC. THE DOORS WILL BE INSTALLED BY THE TRADE PROVIDING THE SURFACE WHERE THE DOOR IS TO BE LOCATED. THIS CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ACCURATELY LOCATING THE DOOR, CONSIDERING ALL OBSTRUCTIONS.

PROVIDE SLEEVES FOR PIPES PASSING THROUGH WALLS AND FLOORS WHERE PIPE MOVEMENT IS POSSIBLE. USE SCHEDULE 40 PIPE SECTIONS FOR MASONRY WALLS, LARGE ENOUGH TO ACCOMMODATE PIPE INSULATION. FLOOR SLEEVES THROUGH DRAINABLE FLOORS SHALL EXTEND UP ABOVE THE FINISHED FLOOR

(C) FIRE STOP ALL SLEEVES PASSING THROUGH FIRE SEPARATIONS WITH AN APPROVED FIRE STOPPING MATERIAL, AND MAKE WATERPROOF. PROVIDE ESCUTCHEONS FOR ALL EXPOSED PENETRATIONS THROUGH WALLS, AND FLOORS AS DIRECTED.

16. WORKMANSHIP

(A) ONLY FIRST CLASS WORKMANSHIP WILL BE ACCEPTED, NOT ONLY WITH REGARDS TO SAFETY, EFFICIENCY, DURABILITY, ETC., BUT ALSO WITH REGARDS TO THE NEATNESS OF DETAIL. ALL PIPE WORK SHALL BE LINED UP PARALLEL, OR AT RIGHT ANGLES TO THE BUILDING WALLS WHERE POSSIBLE. EQUIPMENT MUST BE ACCURATELY SET, PLUMB AND LEVEL, AND ALL HANGERS MUST BE IN TRUE VERTICAL ALIGNMENT. IN GENERAL, THE ENTIRE WORK SHALL BE FIRST CLASS AND WORKMAN LIKE AND PRESENT A NEAT CLEAN APPEARANCE UPON COMPLETION.

Maged Basilious Architect
www.mbarchitect.ca

TM ENGINEERING
T: (905) 520 9575 F: 905-304-9782
46 Sundrop Crt. Ancaster, ON
L9K 1G5

No.	Description	Date
1	ISSUED FOR TENDER	JAN X, 2022

WASHROOM BUILDING ELIZABETH K PARK

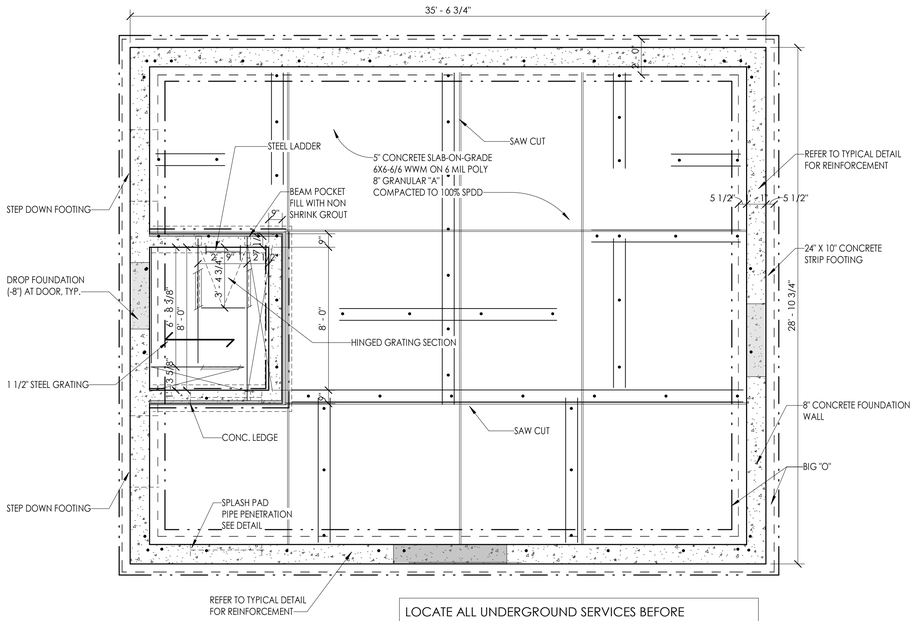
First Floor - Plumbing & Drainage

Project number	2104
Date	JULY 2021
Drawn by	M. B.
Checked by	T. M.

M-102

Scale: As indicated

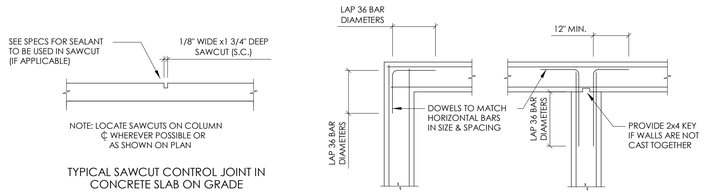
2022-03-03 4:33:12 PM



LOCATE ALL UNDERGROUND SERVICES BEFORE EXCAVATION
RELOCATE SERVICES AS REQUIRED FOR NEW CONSTRUCTION

0 2' 4' 8'

1 Footing & Foundation
1/4" = 1'-0"



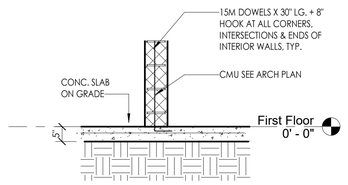
TYPICAL SAWCUT CONTROL JOINT IN CONCRETE SLAB ON GRADE

TYPICAL CORNER DETAIL

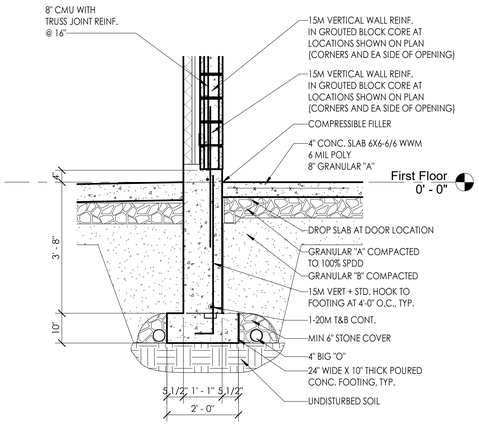
TYPICAL INTERSECTION DETAIL

TYPICAL DOWEL BAR REINFORCING AT CONCRETE WALL INTERSECTIONS

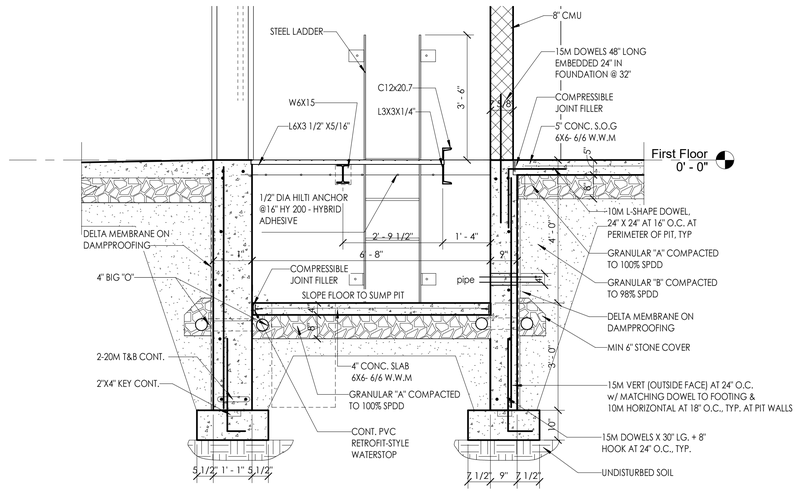
2 Typical Details
1/2" = 1'-0"



3 Thickened Slab
1/2" = 1'-0"

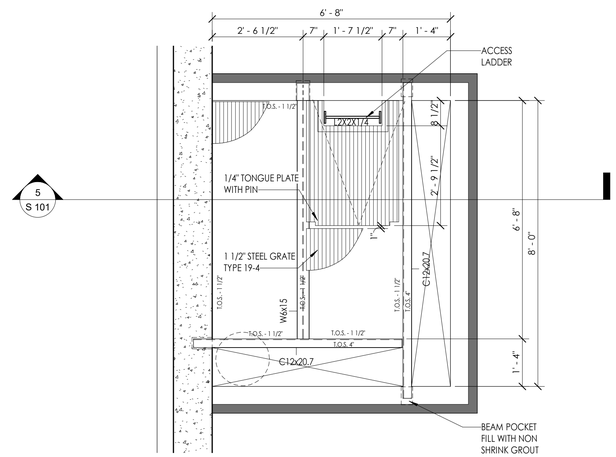


4 Typ. Foundation Detail
1/2" = 1'-0"

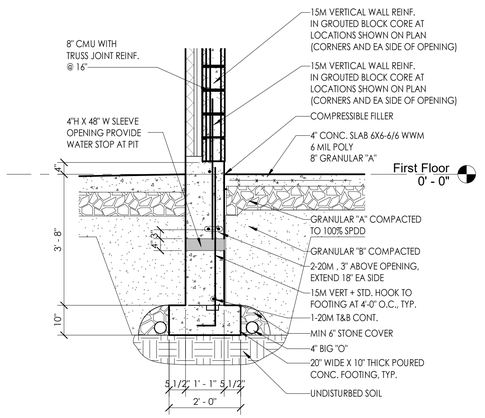


NOTE: PROVIDE (4) 15M X 4'-0" LG. SLAB REINFORCING BARS AT SUMP PIT, TYP.

5 Pit Section
1/2" = 1'-0"



6 Pit Framing
1/2" = 1'-0"



7 Section @ Pipe Penetration
1/2" = 1'-0"

Maged Basilious Architect
www.mbarchitect.ca

Maged Basilious Architect
1605 Ottawa St., Suite 101
Windsor, Ontario N8Y 1R2
Phone: 519-969-0086
Fax: 519-969-9317
e-mail: mbasilious@mbarchitect.ca

ALEO ASSOCIATES INC.
CONSULTING ENGINEERS
325 Devonshire Rd Suite 500,
Windsor, ON N8Y 2L3
PHONE (519) 254-7926

No.	Description	Date
1	ISSUED FOR TENDER	JAN X, 2022

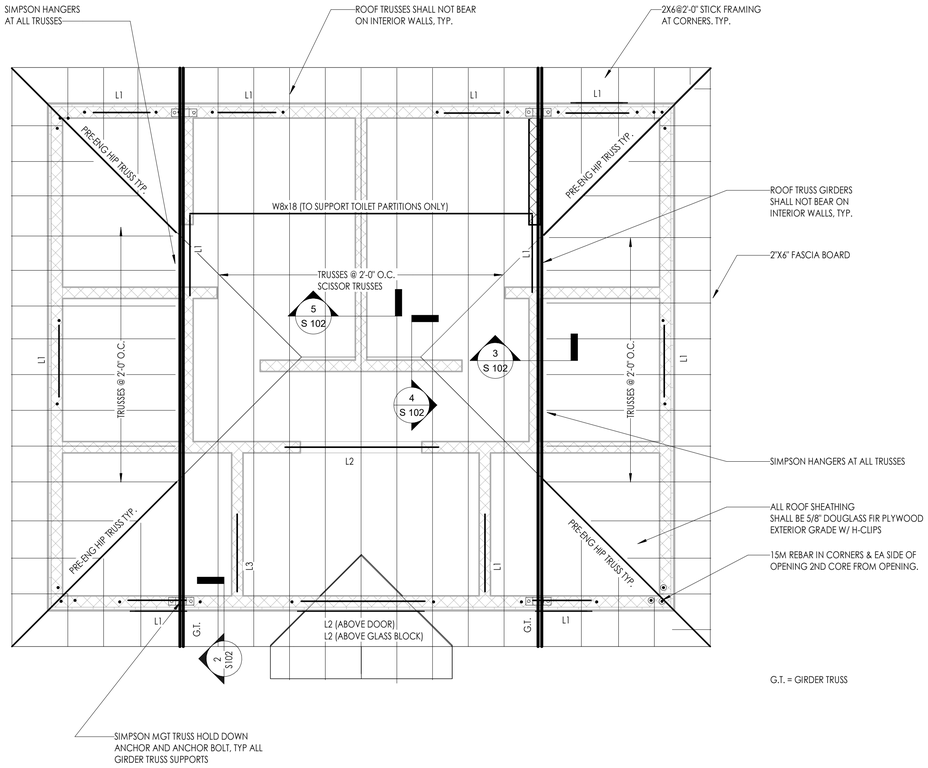
WASHROOM BUILDING ELIZABETH K PARK

Foundation Plan & Details

Project number	2104
Date	JULY 2021
Drawn by	M. B.
Checked by	P. A.
Scale	As indicated

S 101

2022-03-03 4:33:13 PM



Roofing Framing Plan

1/4" = 1' - 0"

LINTEL SCHEDULE THIS SHEET:

L1 2 - L3 1/2" X 3 1/2" X 1/4"
L2 2 - L5 X 3 1/2" X 5/16" LLV

LINTEL SCHEDULE:

1) REFER TO MECHANICAL AND ARCHITECTURAL DRAWINGS FOR ALL WALL OPENINGS AND PENETRATIONS THAT ARE NOT IDENTIFIED ON THE STRUCTURAL LINTEL PLANS. THE STEEL CONTRACTOR SHALL SUPPLY LINTELS FOR SUCH OPENINGS ACCORDING TO THE INFORMATION BELOW.

i) 8" CONCRETE BLOCK

MASONRY OPENING: SECTION:
UP TO 30" 2-3 1/2" X 3 1/2" X 1/4" L'S
30" TO 72" 2-5" X 3 1/2" X 5/16" L's (LLV)

2) ALL LOOSE LINTELS, BEARING PLATES, ETC. SHALL BE INSTALLED BY THE MASONRY CONTRACTOR.

3)ALL L's TO BE LONG LEG VERTICAL U.N.O.

4)ALL LINTELS TO HAVE 8" BEARING U.N.O.

5) ALL LINTELS TO BEAR ON SOLID COURSING (TWO COURSES GROUTED SOLID) WHERE BEARING PLATES ARE NOT REQUIRED U.N.O.

6) REFER TO ARCHITECTURAL DRAWINGS FOR ALL LINTEL ELEVATIONS, LOCATIONS AND GALVANIZING REQUIREMENTS.

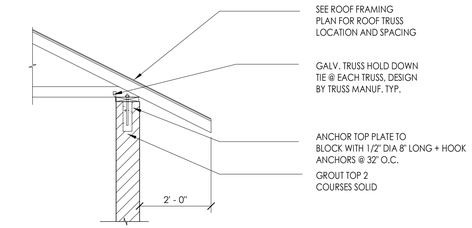
SPECIFIED ROOF LOADING TABLE

ITEM	–
TRUSS LOADING:	
TOP CHORD (INCLUDES: 5/8" SHEATHING, TRUSS, ASPHALT SHINGLES)	14 psf
BOTTOM CHORD (INCLUDES: INSULATION, CEILING, MECH. + ELEC.)	10 psf
TOTAL DEAD LOAD	24 psf
LIVE LOADS:	
TOP CHORD - SNOW	22 psf
BOTTOM CHORD	10 psf
TOTAL LIVE LOAD	32 psf
TOTAL LOAD	56 psf

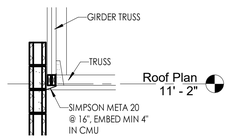
- ALL LOADS ARE UNFACTORED SPECIFIED LOADS
- MIN. CONCENTRATED LIVE LOAD APPLIED OVER 2'-6" X 2'-6" AREA = 300 LBS
- CONCENTRATED LIVE LOAD APPLIED AT ANY POINT ON THE BOTTOM CHORD = 300LBS

DESIGN PARAMETERS:
UNFACTORED WIND UPLIFT = 20 psf
UNFACTORED MIN. DEAD LOAD = 14 psf
LIVE LOAD DEFLECTION = L/300
Is=1.0; ULS=1.0; SLS=0.90; Ss=0.80; Sr=0.4

WIND AND EARTHQUAKE PARAMETERS FOR DESIGN SHALL BE IN ACCORDANCE WITH OBC '12 USING PARAMETERS FOR WINDSOR: ASSUMED SITE CLASS D - STIFF SOIL

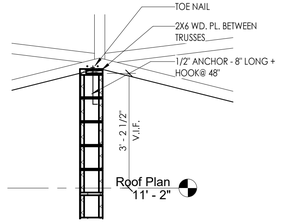


2 Typical Roof Detail



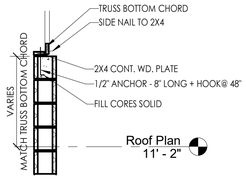
3 Section 3

1/2" = 1'-0"



4 Section 4

1/2" = 1'-0"



5 Section 5

1/2" = 1'-0"

FOUNDATIONS

1. All footings are designed for an assumed maximum soil pressure of SLS = 2000 psf; ULS = 3000 psf on approved undisturbed native soil. Geotechnical Consultant to review initial founding elevations and verify bearing capacity prior to the contractor proceeding with excavation or foundation construction.
2. All footing excavations are to be inspected by the Soils Consultant prior to placing of concrete. Notify the geotechnical consultant a minimum of 24 hours in advance of time of inspection.
3. Excavate first for those footings shown at the deepest elevations, working up to the highest elevations.
4. Protect existing foundations from loss of support during construction of new footings.
5. All footings subject to frost action shall be carried down a minimum of 4'-0" below finished grade.
6. If soil conditions or special job conditions require lowering of footings advise the Soils Consultant before proceeding.
7. Soil supporting footings and slabs shall be protected from freezing before and after concrete is placed.
8. Backfill exterior walls with free draining granular material. Interior material shall be as noted on the drawings.
9. Backfill and compact walls below grade shall be done in 12" lifts and compacted with water.
10. For all interior slab on grade areas, proof-roll existing sub-grade to identify soft spots. Remove soft material and replace with compacted Granular A or B compacted to 98% SPDD.
11. Place 8" Granular "A" compacted to 100% SPMDD on Granular "B" compacted to 98% SPMDD on proof rolled and approved subgrade under all slabs on grade. Place rigid insulation on compacted granular material prior to placing slab on grade. All reinforcement and mesh shall be chaired using plastic reinforcement chairs.

STRUCTURAL STEEL

1. Submit one PDF copy of all shop drawings to the Consultants for review.
2. Fabrication and erection of structural steel shall be in accordance with CAN/CSA-S16.1-09.
3. All structural steel shall conform to CAN/CSA-G40.21-04 type 350W except as noted.
4. Hollow structural sections shall conform to CAN/CSA-G40.21-04 type 350W, Class C.
5. Base plates for columns and bearing plates for beams shall conform to CAN/CSA-G40.21-04 type 300W or better unless noted.
6. All welding shall be done by an organization fully approved by the Canadian Welding Bureau under CSA-W47.1-03 in Division 1 or 2 **AT THE TIME OF TENDERING**. Welding and welding materials shall conform to CSA-W59-03.
7. Sections not rolled in CAN/CSA-G40.21-04 type 350W shall conform to or exceed the requirements of ASTM Standard A36.
8. The fabricator shall note the size and type of bolts and welds used in structural connections on the shop drawings.
9. All structural steel connections other than simple shear connections shall be designed and sealed by a Professional Engineer licensed in the province of Ontario.
10. All structural steel shall be sufficiently straight that variations cannot be determined with the unaided eye. All structural steel shall be thoroughly cleaned of all loose mill scale, dirt, oil, or other foreign matter before shop painting. Shop paint shall conform to CAN/CGSB 1.40-97.
11. Steel directly exposed to weather or as noted on the drawings shall be Hot Dip Galvanized (HDG).
12. Where Hot Dip Galvanizing (HDG) is specified it shall be in accordance with CAN/CSA-G164-M92 (minimum zinc coating 600 gsm).
13. Structural steel to be encased in concrete, faying surfaces of slip-resistant connections and adjacent to areas to be field welded, shall not be painted.
14. Where it is necessary to provide holes for pipes, conduits, etc. in the webs of beams or columns in the field, the contractor whose trade requires the openings shall be responsible for reinforcing these members to the approval of the Consultants. Flanges of steel beams or columns shall not be cut unless approved by the Consultants.
15. Steel lintels shall have a minimum bearing length of 8". Lintels made up of two angles shall be welded together with a minimum 3/16"x2" weld top and bottom at 24" c.c. Glavinised steel shall be painted brown colour.
16. Where the edges of suspended concrete slabs bear on steel beams, anchors shall be welded to the beams at 24" intervals and embedded in the concrete. Anchor size shall be ¼"x1.5"x12" long with a 2" hook.
17. Where block or brick masonry passes a steel beam or abuts or passes a steel column, provide hot dip galvanized or stainless steel (type 304) masonry anchors as detailed on the drawings.

CONCRETE

1. Submit one pdf copy of all shop drawings to the Consultants for review.
2. All concrete work has been designed in accordance with CAN3-A23.3-04.
3. Concrete requirements are as follows:

Mix Location	Min. Strength @ 28 Days	Slump (mm)	Air Content
Footings	25 MPa	80 +/- 10	-
Foundation Walls & Piers	25 MPa	100 +/- 20	3% - 6%
Interior S.O.G.*	30 MPa	100 +/- 20	-
Exterior Concrete	32 MPa	100 +/- 20	5% - 8%
Ext. Concrete at Grade	32 MPa	100 +/- 20	5% - 8%

* Finish shall be as per architectural drawings or machine troweled finish if not otherwise specified on the architectural drawings.

4. Reinforcing steel requirements are as follows:

Location or Size	Min. Yield Strength	Lap Length	Remarks
All	400 MPa	Class B	

5. Detailing and placing of all reinforcing steel shall be in accordance with The Reinforcing Steel Institute of Canada (RSIC) "Manual of Standard Practice".
6. All concrete materials and methods of concrete construction shall be in accordance with CAN/CSA-A23.1-09.
7. Testing of concrete shall comply with the requirements of CAN/CSA-A23.2-09. Notify materials consultant and structural engineer a minimum of 24 hours prior to concrete placement for concrete testing and reinforcement review.
8. Lap all temperature reinforcing with Class B splice lengths.
9. Concrete protection to reinforcement unless noted otherwise (in.):
   Concrete deposited against earth _____ 3"
   Formed concrete exposed to weather or in contact with earth _____ 2"
   SOG Concrete deposited against vapour barrier _____ 2"
10. Provide sufficient support bars on high chairs, slab bolsters, and other accessories to maintain the reinforcing steel in the required positions with proper clearances before and during placing of concrete. Tie bars at all intersections. All slab-on grade concrete reinforcement shall be chaired. See architectural and mechanical details for placement of heating tubing.
11. All openings for mechanical and electrical trades shall be approved by the Consultants for size and location before placement of concrete.
12. Add 2-15 bars top and bottom at perimeter of all openings in concrete slabs and extend bars 24" past opening each side, unless otherwise noted.
13. Add 1-15 bar each face at perimeter of all openings in concrete walls and extend bars 24" past opening each side, unless otherwise noted.
14. Embedment of conduits and pipes shall be in accordance with the requirements of CAN3-A23.3-09.
15. Masonry anchors shall be Hot Dip Galvanized after fabrication or stainless steel (type 304).

MASONRY

1. All masonry has been designed in accordance with CSA-S304.1-09.
2. The owner or builder shall obtain engineering inspection of the masonry construction and testing of mortar cubes in accordance with CSA-A179-04 (R2009), as a condition of the structural design.
3. Materials used in masonry construction shall conform to Section 5 of CAN3-S304.1-09.
4. Connectors for masonry shall conform to CAN3-A370-04 (R2009) and be Hot Dip Galvanized after fabrication or stainless steel (type 304). Masonry anchors shall meet all seismic requirements of the OBC.
5. Construction of masonry shall conform to the appropriate requirements of CAN3-A371-04 (R2009).
6. All clay brick masonry units shall comply with the requirements of CAN/CSA-A82-06 (R2011).
7. All concrete block masonry units shall comply with the requirements of CAN3-A165-04(R2009). Refer to the drawings for block classifications. Unless noted otherwise the minimum compressive strength of concrete block masonry units shall be 15 MPa on the net area.
8. All physical properties of concrete block masonry units shall be in accordance with Ontario Concrete Block Association standard metric size block.
9. The contractor shall supply the Consultants with certification from the brick and block suppliers indicating conformance to the drawings and specifications.
10. Mortar types as referred to on the structural drawings shall be in accordance with CSA-A179-04 and as follows:

Type of Mortar	Min. Avg. Comp. Field Strength @ 28 Days
M	14.0 MPa Block Fill
S	10.0 MPa Loadbearing Masonry
N	4.0 MPa Masonry Veneer

11. Build all walls simultaneously, unless detailed otherwise on the structural drawings.
12. All brick masonry units shall be laid with full head and bed joints.
13. All block masonry units shall be laid with full head joints, and full bed joints under the full bearing areas of the face shells, and under webs surrounding those cells to be filled with grout.
14. The maximum thickness of a mortar joint in load-bearing masonry shall be ½".
15. The intersection of all loadbearing masonry walls shall be bonded using true masonry bond. See structural drawings for bonding details other than true masonry bond.
16. Block masonry units supporting steel beams or joists shall have their voids filled with "M" type mortar or equivalent strength concrete. Fill voids of two supporting courses by a minimum of two block widths.
17. To ensure proper drainage, the cavity in a cavity wall or a veneer wall shall be kept free of mortar droppings.
18. Frozen materials or materials containing ice shall not be used in masonry.
19. Masonry shall not be laid when the temperature of the outside air is below 4 degrees Celcius, unless means approved by the Consultants are provided to heat the masonry materials, and protect the completed work.
20. Calcium chloride or any admixture containing calcium chloride shall not be used in any mortar for this project.
21. Uncompleted masonry exposed to the weather shall be covered on the top surface with a waterproof material except when construction is in progress.
22. The contractor shall be responsible for providing adequate temporary bracing for all loads to which the masonry work may be subjected, including wind, until such time as the permanent supports are in place and the masonry work can safely support the design loads.
23. All beams to have 8" minimum bearing unless noted on plans. Provide full beam bearing on bearing plates.
24. All lintels shown on plans are located in walls immediately below that framing level. All lintels shall be hot-dipped galvanized.
25. Unless noted otherwise, minimum beam bearing plates to be 5.5"x1/2"x8" on 6" walls or 7.5"x1/2"x8" on 8" or thicker walls. Set in grout bed on solid or filled masonry minimum 16" deep x 32" wide.
26. Minimum column base plates 10"x5/8" x 10" unless noted otherwise.
27. Infill solid around all beam bearings with solid masonry to maintain full wall section.

WOOD FRAMING

1. The structural design of the building is in conformance with the Ontario Building Code (OBC), latest edition.
2. All wood and wood components have been designed in accordance with CSA-086-09.
3. All construction to comply with applicable sections of the current Ontario Building Code. For timber framing and connections not specifically noted, refer to OBC Part 9 requirements.
4. Joists and built-up beams (lintels) shall be No. 2 grade S-P-F or better.
5. Studs and built-up columns shall be construction grade S-P-F or better.

PREFABRICATED WOOD TRUSSES

1. Truss supplier to be responsible for truss design including layout and connections to structure..
2. Design to resist all loads indicated on the drawings including net wind uplift where applicable, for the specified service condition.
3. Submit shop drawings (for each truss type including a framing plan) per layout on roof plan for review by the Consultant prior to fabrication.
4. Shop drawings to show location and number of lateral braces.
5. All drawings to be sealed by a Professional Engineer including framing plan.
6. Roof truss design to comply with Part 4 of the current OBC and CAN3-086-09 commercial quality.
7. Every wood roof truss shall be anchored with 18 ga. galvanized rafter ties to resist wind uplift loads as calculated by the truss designer.
8. Every Girder truss(GT) must be anchored to solid grouted and reinforced masonry reinforced to the top of foundation wall. The girder truss(GT) designer must specify this anchor to match his/her design uplift loading.
8. Design all timber in accordance with CAN3-086-09.
9. The contractor shall provide all necessary bridging, bracing, supplementary framing and truss anchors as required to satisfy all design requirements.
10. The contractor shall also supply and install adequate bracing to trusses and the building frame to resist all wind and lateral loads during and after the erection, until such time as the permanent bracing and sheathing is in place.

Maged Basilious Architect

www.mbarchitect.ca

Maged Basilious Architect
1605 Ottawa St., Suite 101
Windsor, Ontario N8Y 1R2
Phone: 519-969-0086
Fax: 519-969-9317
e-mail: mbasilious@mbarchitect.ca

ALEO ASSOCIATES INC.
CONSULTING ENGINEERS
325 Devonshire Rd Suite 500,
Windsor, ON N8Y 2L3
PHONE (519) 254-7926

No.	Description	Date
1	ISSUED FOR TENDER	JAN X, 2022

WASHROOM BUILDING ELIZABETH K PARK

Roof Framing, Sections & Details

Project number	2104
Date	JULY 2021
Drawn by	M. B.
Checked by	P. A

S 102

Scale As indicated

2022-03-03 4:33:13 PM