FIRM NAME:	LOCATION:		
WORKSHOP ARCHITECTURE INC. 6 Sousa Mendes Street Toronto, ON M6H 0A8 tel. 416-901-8055	École élémentaire Renaissance 1226 Lockhart Road Burlington, ON L7S 1H1		
NAME OF PROJECT: CSV Renaissance Child Care Addition	Project Area: 536 m²	OBC REFERENCE References are to Division B unless noted [A] for Division A or [C] for Division C	

ITEM	ONTARIO'S 2012 BUILDING CODE DATA MATRIX PARTS 3 & 9	☑ PART 3	☐ PART 9
1	PROJECT DESCRIPTION: ☐ NEW ☑ ADDITION ☐ CHANGE OF USE ☑ ALTERATION ; ☑ PART 11 11.1 TO 11.4	1.1.2. [A]	1.1.2 [A] & 9.10.1.3
2	MAJOR OCCUPANCY(S): A2 - Elementary School	3.1.2.1(1)	9.10.2
3	BUILDING AREA (m²) EXISTING: 1282 NEW: 536 TOTAL: 1818	1.4.1.2.[A]	1.4.1.2.[A]
4	GROSS AREA (m²) EXISTING: 2347 NEW: 536 TOTAL: 2883	1.4.1.2.[A]	1.4.1.2.[A]
5	NUMBER OF STOREYS ABOVE GRADE: 2 BELOW GRADE: 0	1.4.1.2 [A] & 3.2.1.1.	1.4.1.2 [A]&9.10.4
6	NUMBER OF STREETS / FIRE FIGHTER ACCESS: 2	3.2.2.10 & 3.2.5	9.10.20
7	BUILDING CLASSIFICATION 3.2.2.25 (EXISITING NON-CONFORMING)	3.2.2.20-.83	9.10.2.
8	SPRINKLER SYSTEM (PROPOSED) ☐ ENTIRE BUILDING ☐ BASEMENT ☐ SELECTED FLOOR AREAS ☐ NOT REQUIRED ☑ SELECTED COMPARTMENTS ☐ IN LIEU OF ROOF RATING	3.2.2.20-.83 3.2.1.5 3.2.2.17 INDEX	9.10.8.2. INDEX
9	STANDPIPE REQUIRED ☐ YES ☑ NO	3.2.9	N/A
10	FIRE ALARM REQUIRED ☑ YES ☐ NO	3.2.4	9.10.18
11	WATER/SERVICE/SUPPLY IS ADEQUATE ☑ YES ☐ NO	3.2.5.7	N/A
12	HIGH BUILDING ☐ YES ☑ NO	3.2.6	N/A
13	CONSTRUCTION RESTRICTIONS ☑ COMBUSTIBLE PERMITTED ☐ NON-COMBUSTIBLE REQUIRED ☐ BOTH ACTUAL CONSTRUCTION ☐ COMBUSTIBLE ☐ NON-COMBUSTIBLE ☑ BOTH	3.2.2.20-.83	9.10.6
14	MEZZANINE(S) AREA (m²) NA	3.2.1.1.(3)-(8)	9.10.4.1
15	OCCUPANT LOAD BASED ON ☐ M.SQ./PERSON ☑ DESIGN OF BUILDING OCCUPANCY: A2 LOAD (EXISTING, UNCHANGED): 238 PERSONS (25 STAFF + 213 STUDENTS) LOAD (NEW, CHILD CARE): 59 PERSONS (10 STAFF + 49 STUDENTS) TOTAL: 297 PERSONS	3.1.17	9.9.1.3
16	BARRIER-FREE DESIGN ☑ YES ☐ NO	3.8	9.5.2
17	HAZARDOUS SUBSTANCES ☐ YES ☑ NO	3.3.1.2. & 3.3.1.19	9.10.1.3(4)
18	REQUIRED FIRE RESISTANCE RATING (FRR) (see below)	3.2.2.20-.83 & 3.2.1.4 NO CHANGE	9.10.8 9.10.9
19	SPATIAL SEPARATION - CONSTRUCTION OF EXTERIOR WALLS (see below)	3.2.3	9.10.14
20	PLUMBING FIXTURE REQUIREMENTS Ratio: Male:Female = 50/50 unless noted otherwise (see below)	3.7.4	
21	OTHER-DESCRIBE EXISTING NON-CONFORMING ITEM: Existing building area is greater than allowed by building classification 3.2.2.25		

Item 18 – Required Fire Resistance Rating (FRR):

HORIZONTAL ASSEMBLIES	FRR (HOURS)		LISTED DESIGN NO. OR DESCRIPTION (SG-2)
FLOORS	no change	HOURS	
ROOF	no change	HOURS	
MEZZANINE	NA		NA
FRR OF SUPPORTING MEMBERS			LISTED DESIGN NO. OR DESCRIPTION (SG-2)
FLOORS	no change	HOURS	
ROOF	no change	HOURS	
MEZZANINE	NA		

Item 19 – Spatial Separation - Construction of Exterior Walls:

WALL	AREA OF EBF (m^2)	LD (m)	PERMITTED MAX % OF OPENINGS	PROPOSED % OF OPENINGS	WALL + CLADDING CONSTRUCTION
NORTH	7.2m^2	3.0m	100%	0%	NON-COMBUSTIBLE provided
SOUTH	72.3m^2	32.2m	100%	22%	NON-COMBUSTIBLE provided
EAST	90.4m^2	100m+	100%	20%	NON-COMBUSTIBLE provided
WEST	102.9m^2	25.0m	100%	18%	NON-COMBUSTIBLE provided

Item 20 – Plumbing Fixture Requirements:

Floor Level/Area	Occupant Load	OBC Ref.	WCs Req'd	WCs Provided
Child Care Addition	49 children	Table 3.7.4.3.I.	5	5
Child Care Addition & Existing School	35 staff (10 child care staff + 25 existing school staff)	Table 3.7.4.3.A.	1 male 1 female	3 non-gendered, single occupant WCs (2 existing in existing school + 1 new universal WC)

General Notes

1. Site visit is required by General Contractor to verify site conditions. Contact Architect for clarification if required.

2. Make good all surfaces/areas/finishes damaged during demolition.

3. All dimensions are to face of partition unless noted otherwise.

4. Angles are 90 degrees unless noted otherwise.

5. Contractor to provide adequate blocking for all millwork, signage, grab bars, equipment, etc mounted to walls/ceilings.

6. Patch, repair and make good all existing partitions, bulkheads, and ceilings within area of work. Prepare existing surfaces as required to receive new finishes as scheduled.

7. The General Contractor shall be responsible for all mechanical, electrical and plumbing work. The General Contractor shall be responsible for all chases, openings (including scanning/x-ray where required for coring /trenching) and patching as required by mechanical, electrical, plumbing and IT cabling trades. Review requirements with these trades.

8. The General Contractor shall be responsible for keeping areas clean (e.g. access to exit corriors, etc). Remove garbage and clean daily and as required. At the completion of the job, the General Contractor shall remove all protective materials and arrange for a professional cleaning service to clean/wipe down all surfaces, including walls, windows/glazing, sills, blinds and fixtures/fittings.

9. Site access, including working hours, for material delivery, work forces and for refuse removal is to be coordinated with the Owner.

10. General Contractor is to co-ordinate and co-operate with trades retained directly by Owner as applicable (eg. furniture installers, IT sub-trades etc.)

11. The General Contractor shall be responsile for scheduling the trades identified in item 10, where such work affects the progress of the job.

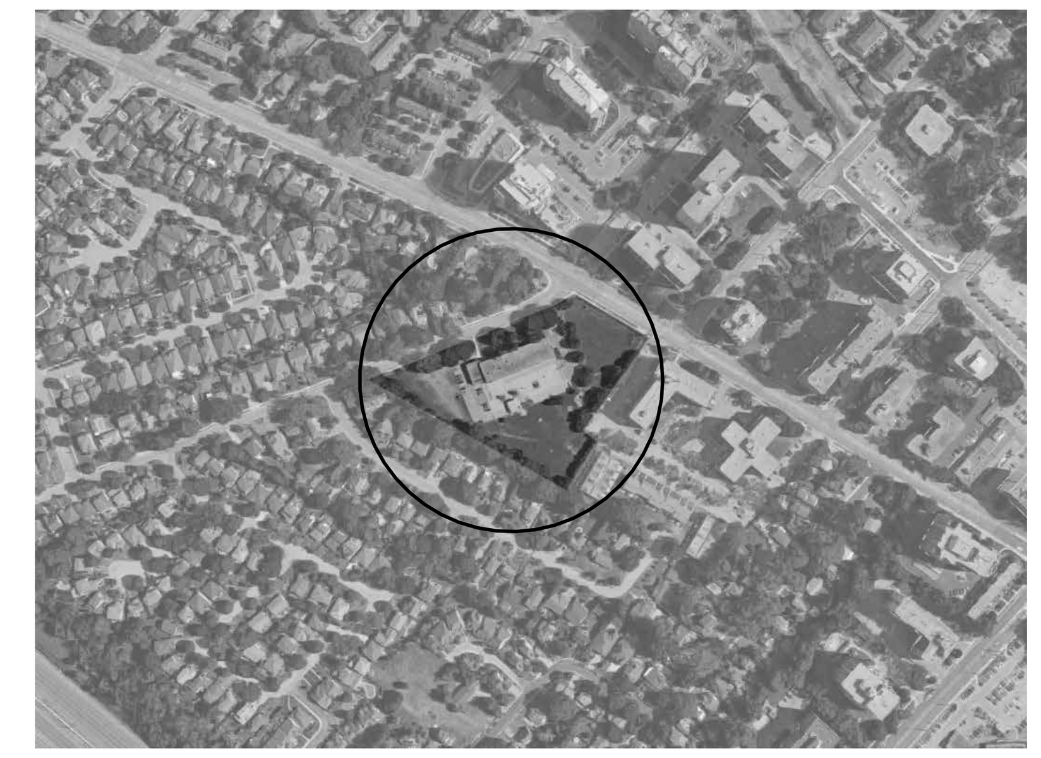
12. The General Contractor shall comply with all applicable Building and Fire Codes, including measures for temporary exiting during construction.

13. General Contractor to provide stainless steel transition strips where differing new floor materials abut each other and existing floors.

14. Refer to Mechanical and Electrical drawings for mechanical and electrical scope of work.

15. General Contractor to chalk-out new partition layout for review/approval by Architect before proceeding with installation of partition framing.

16. All temporary shoring/support is the responsibilty of the Contractor.



1 **Context Plan**
N.T.S.

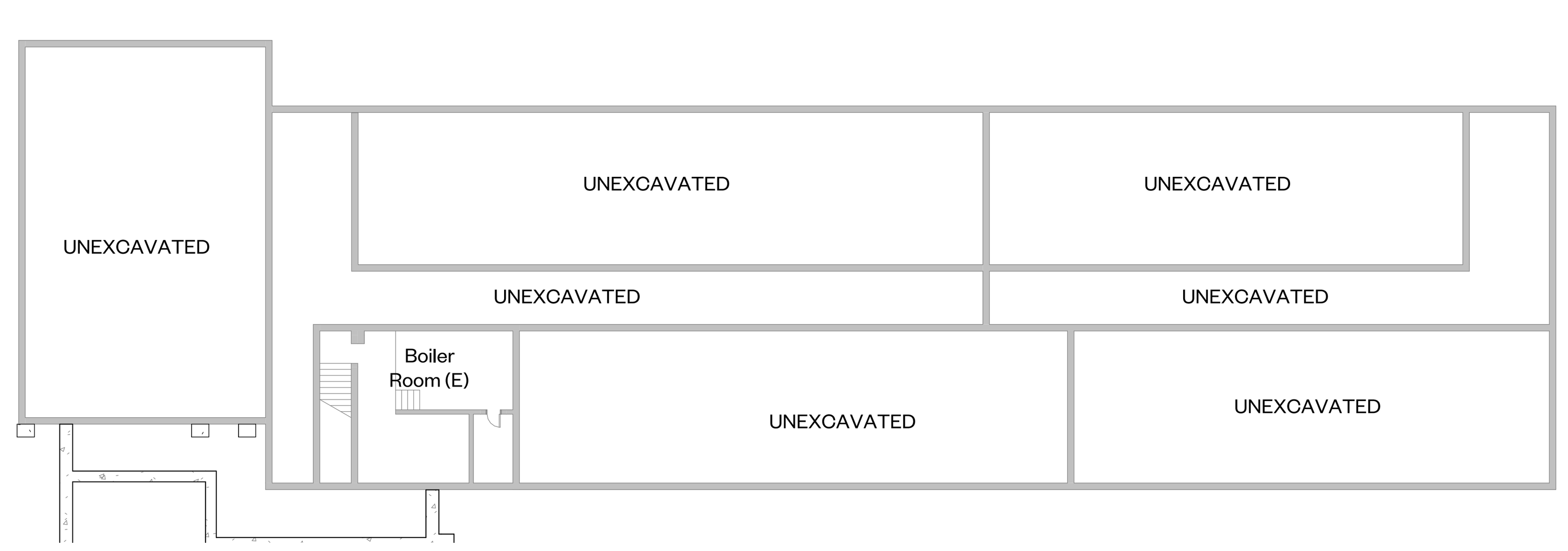
Sheet List

Sheet Number	Sheet Name
ARCHITECTURAL	
A0.0	OBC Matrix, Life Safety Plan, Key Plan
A0.1	Schedules
A0.5	Site Plan
A1.0	Demolition & Proposed in Existing School
A2.0	Foundation Plan, Exterior Details
A2.1	Proposed Plans
A2.2	RCP, Roof Plan, Roof Details
A3.0	Building Sections & Exterior Elevations
A3.1	Wall Sections, Window Details
A3.2	Wall Sections
A4.0	Interior Elevations
A4.1	Detail Plans & Interior Elevations
A5.0	Millwork Details
A5.1	Millwork Details
CIVIL	
C.01	Existing Condition, Removal and Erosion and Sediment Control Plan
C.02	Site Grading and Servicing Plan
STRUCTURAL	
S-1	Foundation Plan, Key Plan, Notes and Details
S-2	Foundation Sections and Details
S-3	Roof Framing Plan, Notes and Details
S-4	Roof Framing Sections and Details
S-5	Specifications and Schedules
MECHANICAL	
M0.1	Mechanical Legend & Drawings List
M1.0	Mechanical Key Plan
M2.0	Plumbing - Foundation Plan
M2.1	Plumbing - Ground & Roof Plan - New Work
M3.1	HVAC Piping- Ground Floor New Work
M4.1	HVAC - Ventilation Ground Floor New Work
M5.1	Fire Protection - Ground Floor New Work
M6.0	Mechanical Control Sequences
M7.0	Mechanical Schedules
M8.0	Mechanical Details 1
M8.1	Mechanical Details 2
M8.2	Mechanical Details 3
ELECTRICAL	
E0.0	Electrical Legend & Sheet List
E0.1	Demolition Site Plan - Electrical
E0.2	New Work Site Plan - Electrical
E2.1	Electrical Ground Floor New Work Plans
E2.2	Electrical Roof New Work Plan
E3.1	Electrical Schedules
E3.2	Electrical Details
E3.3	Electrical Details
LANDSCAPE	
L1.1	Landscape Plan Overview
L1.2	Landscape Plan Enlargement
L1.3	Proposed Landscape Plan Details I
L1.4	Proposed Landscape Plan Details II
L1.5	Proposed Landscape Plan Details III

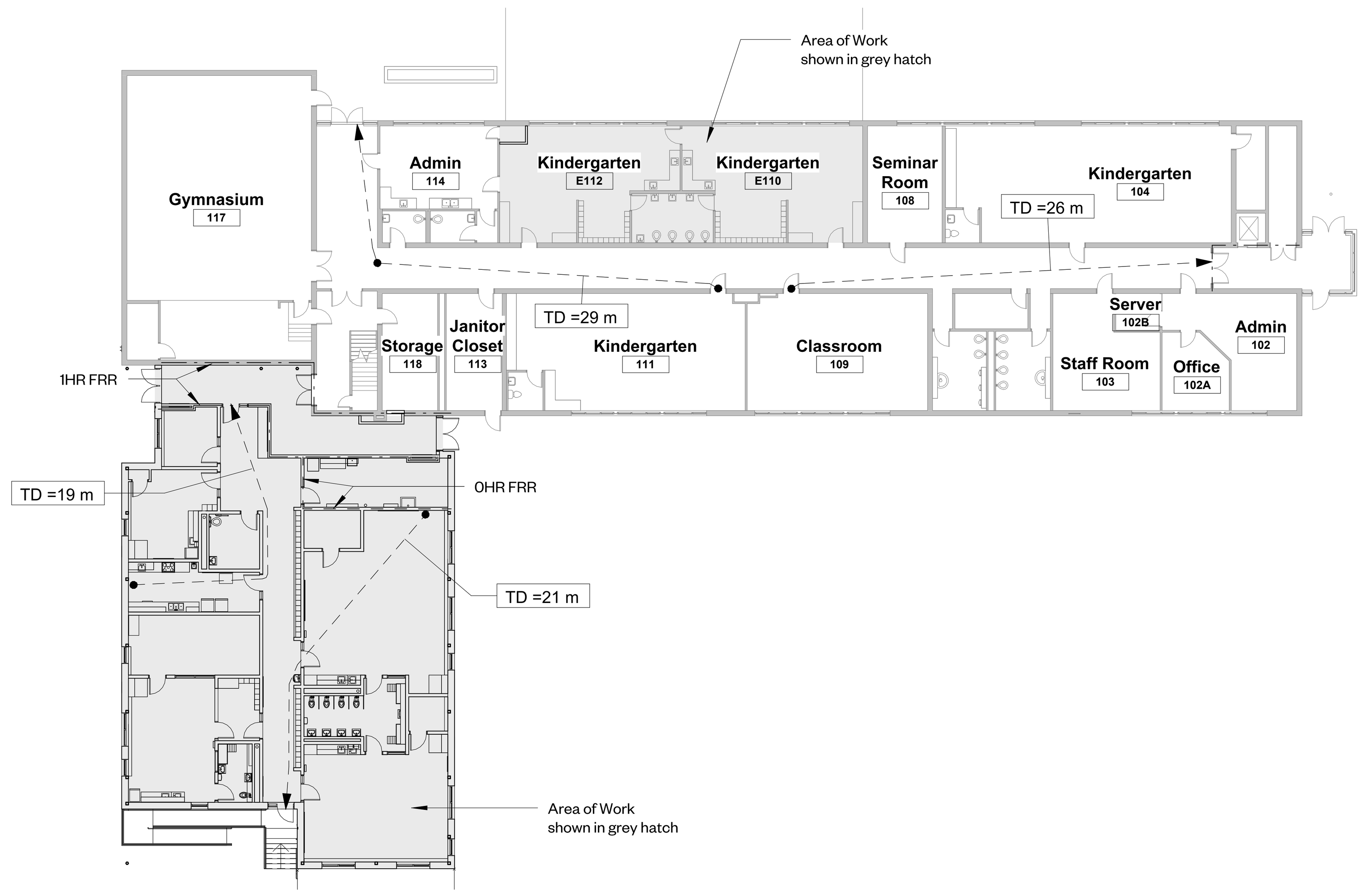
Rev	Description	Date
4	60% Client Review	2022-11-11
5	Reisssued for 60% Client Review	2023-01-25
6	Issued for 80% Costing	2023-02-27
14	Issued for 90% Client Review	2024-10-02
15	Issued for Permit	2024-12-11
16	Issued for Tender	2025-01-14

Life Safety Plan Legend

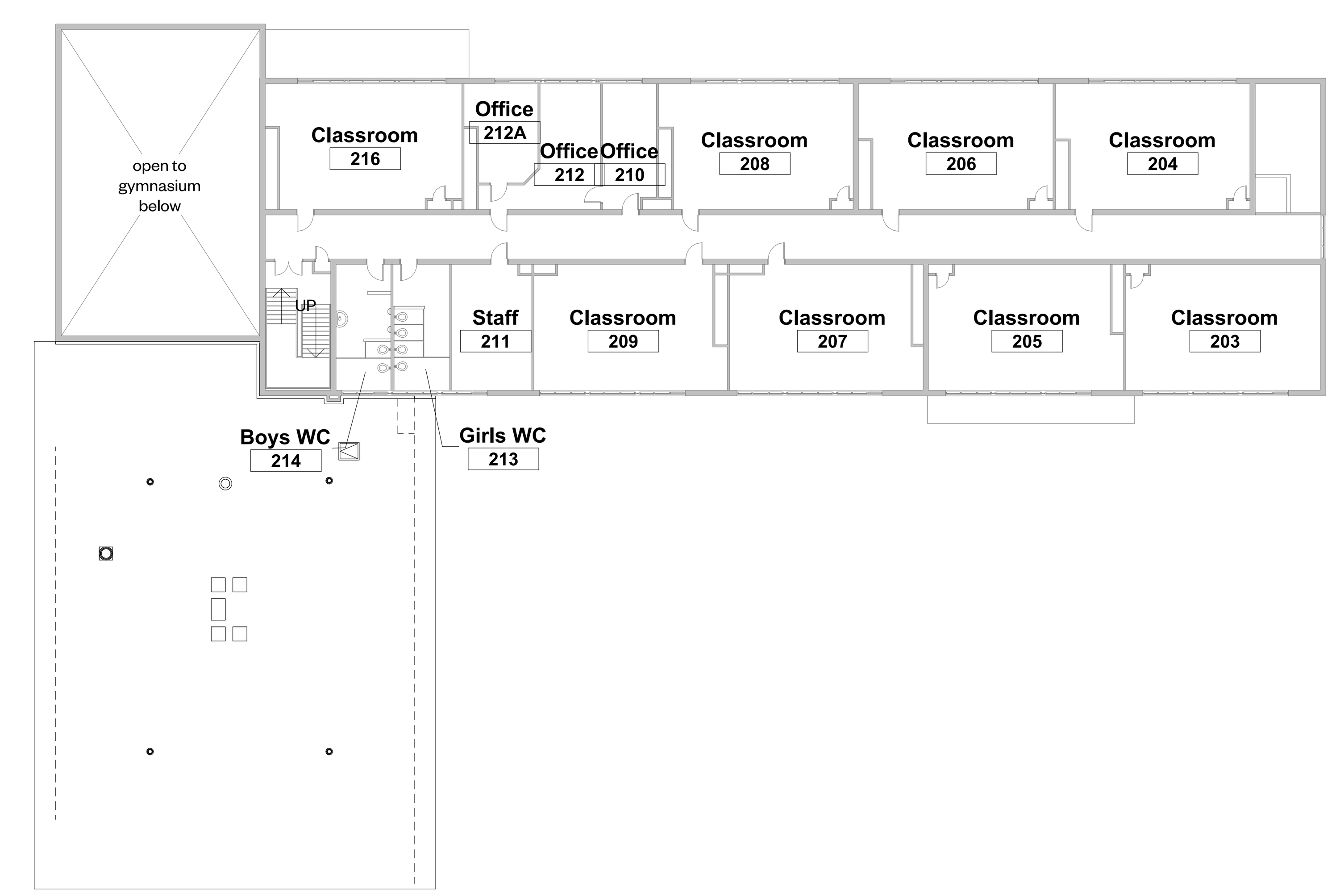
- Travel Distance (TD) Max allowable in existing non-sprinklered school = 30m Max allowable in addition = 45m
- Shaded area indicates scope of work
- 0HR FRR
- 1HR FRR



4 Boiler Room Key Plan
1 : 300



2 Level 1 Key Plan
1 : 300



3 Level 2 Key Plan
1 : 300

WORKSHOP

Workshop Architecture Inc.
6 Sousa Mendes Street
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416.901.8055
info@workshopto.ca
workshopto.ca

CSV Renaissance Child Care Addition

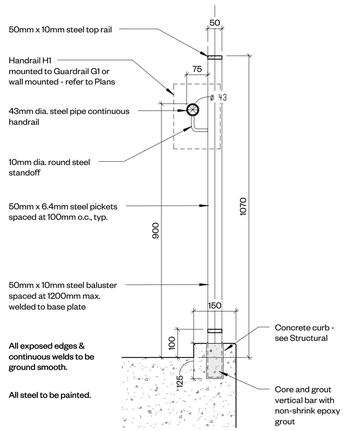
1226 Lockhart Rd
Burlington, ON L7S 1H1

PROJECT CODE:	SCALE:
2205	As indicated
DATE:	STATUS:
2025-01-16	Issued for Tender

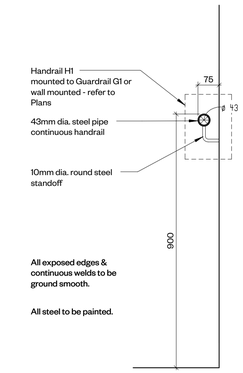
OBC Matrix, Life Safety Plan, Key Plan

Project North

drawing number
A0.0



1 Guardrail G1
1 : 10



2 Handrail H1
1 : 10

ASSEMBLY SCHEDULE

1. USE WATER RESISTANT DRYWALL IN ALL WET AREAS - REFER TO SPECIFICATION 09 21 00, 2.1.3

2. PROVIDE CONTINUOUS PLYWOOD BLOCKING BEHIND ALL MILLWORK CABINETS, SUSPENDED ITEMS, TELEVISIONS ETC (TYP)

3. ALL INTERNAL PARTITIONS EXTEND TO U/S DECK ABOVE UNLESS NOTED OTHERWISE.

4. PROVIDE FIRE RESISTANCE RATINGS AS INDICATED ON DRAWINGS

FLOOR ASSEMBLY

Floor F1 (min R-15 value)
FLOOR FINISH AS SCHEUDLED
125mm POURED IN PLACE CONCRETE SLAB
CONTINUOUS BELOW GRADE VAPOUR BARRIER (VB-01)
100mm CONTINUOUS BELOW SLAB RIGID INSULATION (INS-01)
ENGINEERED BASE/GRANULAR FILL

ROOF ASSEMBLY

R1

Roof R1 (min R-35ci)
MODIFIED BITUMEN CAP & BASE SHEET (RM-01)
ASPHALT IMPREGNATED OVERLAY BOARD
TAPERED MINERAL WOOL INSULATION TO MAKE UP SLOPE (INS-04b)
75mm DUAL DENSITY MINERAL WOOL INSULATION (INS-04b)
100mm CONTINUOUS POLYISO INSULATION (INS-04a)
CONTINUOUS SELF ADHERED VAPOUR BARRIER (VB-02)
STEEL ROOF DECK & SUPPORT STRUCTURE (see structural)

Underside of roof deck is exposed - no fasteners permitted through roof deck

FIRE-RATED BULKHEAD ASSEMBLY

B1

ROOF ASSEMBLY AS SCHEDULE AS SCHEDULED
DRYWALL SUSPENSION SYSTEM
3 LAYERS 15.9 Type X GYPSUM WALL BOARD
12.5mm RESILIENT CHANNELS
1 LAYER 15.9mm Type X GYPSUM WALL BOARD

(ULC Design No. K504)

INTERIOR PARTITIONS

IW1 — 190mm CMU PARTITION (CMU-01)
Capable of achieving 1HR FRR where scheduled

IW2 — 1 LAYER 15.9mm TYPE X GYPSUM WALLBOARD
92mm STEEL STUDS
ACOUSTICAL FIRE BATT INSULATION
1 LAYER 15.9mm TYPE X GYPSUM WALLBOARD
TO U/S OF DECK
Capable of achieving 1HR FRR where scheduled per (ULC Design No. W407)

IW3 — 140mm CMU PARTITION (CMU-01)
Capable of achieving 1HR FRR where scheduled

IW4 — SHAFT WALL
Capable of achieving 2HR FRR where scheduled
25mm Type X GYPSUM WALL BOARD
C-H CHANNELS
2 LAYERS 15.9mm Type X GYPSUM WALL BOARD
(ULC Design No. K504)

IW1 — 1 LAYER 15.9mm TYPE X GYPSUM WALLBOARD
92mm STEEL STUDS
TO U/S OF DECK UNLESS NOTED OTHERWISE

EXTERIOR PARTITIONS

405
EW1 — **EW1 Min** R-Value R17ci
190mm CONCRETE BLOCK (CMU-01)
CONTINUOUS AIR/VAPOUR BARRIER (AVB-01)
100mm MINERAL WOOL CAVITY INSULATION (INS-03)
25mm AIRSPACE
90mm BRICK CLADDING (BRK-01)
or CERAMIC GLAZED CLAY MASONRY (GLB)
as per drawings

325
EW2 — **EW2 Min** R-Value R17ci
190mm CONCRETE BLOCK (CMU-01)
CONTINUOUS AIR/VAPOUR BARRIER (AVB-01)
100mm MINERAL WOOL CAVITY INSULATION (INS-03)
25mm AIRSPACE
10mm FIBRE-CEMENT CLADDING (GFRC-01)

FD1 — **Foundation Wall FD1** Min R-Value R15
190mm CAST-IN-PLACE CONCRETE
DAMPROOFING (RWP-01)
130mm GPS RIGID INSULATION
90mm CONCRETE BLOCK

FD1a — **Foundation Wall FD1** Min R-Value R15
same as FD1 with no block ledge

190
FD2 — **Foundation Wall FD2**
190mm CAST-IN-PLACE CONCRETE

240
FD3 — **Foundation Wall FD3**
240mm CAST-IN-PLACE CONCRETE

560
FD4 — **Foundation Wall FD4**
560mm CAST-IN-PLACE CONCRETE

Rev	Description	Date
14	Issued for 90% Client Review	2024-10-02
15	Issued for Permit	2024-12-11
16	Issued for Tender	2025-01-14

Membrane Legend

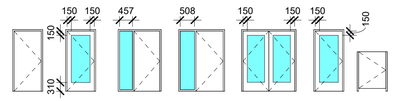
- AVB-01 - Vapour permeable air/weather barrier (at above-grade walls)
- AVB-02 - Transition membrane (at openings/transitions)
- VB-01 - Vapour barrier (at slab-on-grade)
- VB-02 - Vapour barrier (at roof)
- WRB-01 - Weather resistant barrier (at rainscreen cladding)
- WRB-02 - Weather resistant roofing underlayment
- RWP-01 - Fluid Applied Dampproofing (exterior below-grade walls)

Room Finish Schedule

Room No.	Room Name	Wall Finish	Floor Finish	Base Finish	Ceiling Finish	Comments
A1-101	Link	PT	POR/RES	POR/RES	ACT	
A1-102	Corridor	PT	POR/RES	POR/RES	ACT/GWB	
A1-103	Office	PT	RES1	RB	ACT	
A1-104	Universal WC	PT	POR	POR	ACT	
A1-105	Staff	PT	RES1	RB	ACT	
A1-106	Servery	PT	POR	-	ACT	
A1-107	Laundry/Utility	PT	POR	POR	EXP	
A1-108	Preschool	PT	RES1	RB	ACT/GWB	
A1-109	Preschool Storage	PT	RES1	RB	ACT	
A1-110	Shared Children's WC	PT	RES2	RB	ACT	
A1-111	Toddler	PT	RES1	RB	ACT/GWB	
A1-112	Toddler Storage	PT	RES1	RB	ACT	
A1-113	Infant	PT	RES1	RB	ACT/GWB	
A1-114	Infant Cubbies	PT	RES1	RB	ACT	
A1-115	Infant Change/WC	PT	RES2	RB	ACT	
A1-116	Infant Sleep Area	PT	RES1	RB	ACT	
A1-117	Vestibule	PT	POR	-	ACT	
A1-118	Mech. Closet	PT	RES1	RB	EXP	
E110	Kindergarten	PT	RES1	RB	ACT	Separate Price
E112	Kindergarten	PT	RES1	RB	ACT	Separate Price

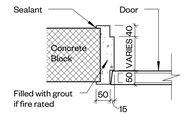
Door Schedule

Door No.	Room	Type Mark	Height	Width	Door Mat'l	Finish	Frame Material	Frame Fin.	Fire Rating	Card Reader	Intercom	Lockdown Blind	Comments
DA1-101a	Link 101	E	2134	965	ALUM/TGL	-	ALUM	-				No	
DA1-101b	Link 101	E	2134	965	ALUM/TGL	-	ALUM	-		Yes	Yes	No	auto operator
DA1-102	Corridor 102	C	2134	965	HM	PT	HM	PT	45 min	Yes	Yes	No	auto operator
DA1-103	Office 103	D	2134	965	HM	PT	HM	PT		Yes		Yes	
DA1-104	Universal WC 104	A	2134	965	HM	PT	HM	PT				No	auto operator
DA1-105	Staff 105	C	2134	965	HM	PT	HM	PT				Yes	
DA1-106	Kitchen 106	C	2134	965	HM	PT	HM	PT				Yes	
DA1-107	Utility/Laundry 107	A	2134	965	HM	PT	HM	PT	45 min			No	
DA1-108	Preschool 108	C	2134	965	HM	PT	HM	PT				Yes	
DA1-109	Preschool Storage	A	2134	965	HM	PT	HM	PT				No	
DA1-110a	Shared WC 110	B	2134	965	HM	PT	HM	PT	-			No	
DA1-110b	Shared WC 110	B	2134	965	HM	PT	HM	PT	-			No	
DA1-111	Toddler 111	C	2134	965	HM	PT	HM	PT				Yes	
DA1-112	Toddler Storage 112	A	2134	965	HM	PT	HM	PT	45 min			No	
DA1-114	Infant Cubbies/Dressing	C	2134	965	HM	PT	HM	PT				Yes	
DA1-115	Infant Change/WC	B	2134	965	HM	PT	HM	PT	-			No	
DA1-116	Infant Sleep Area	B	2134	965	HM	PT	HM	PT	-			No	
DA1-118	Mech. Closet 118	A	2134	914	HM	PT	HM	PT				No	louvred panel in door
DA1-122	Link 101	E	2134	1829	HM	PT	HM	PT	45 min	Yes		No	
DA1-123	Corridor 102	F	2134	965	ALUM/TGL	-	ALUM	-		Yes	Yes	No	auto operator
DA1-125	Link 101	E	2134	1930	ALUM/TGL	-	ALUM	-		Yes		No	auto operator
GA1-113	Infant Cubbies/Dressing	G	1400	965	HM	PT	HM	PT				No	gate



Door A Door B Door C Door D Door E Door F Gate G

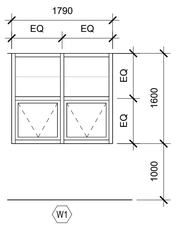
NOTE: All glazing to be tempered
NOTE: All fire rated assemblies to be fire rated glass
NOTE: All HM frames to be 2" profile



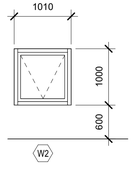
3 Typical Interior Door Frame Detail
1 : 10

EXTERIOR ALUMINUM WINDOW SCHEDULE
All exterior window glazing to have bird-friendly Ceramic Frit (CF) pattern - refer to Specification

All exterior glazing to be IGU-01, refer to specification for make-up



W1



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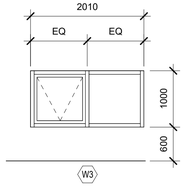

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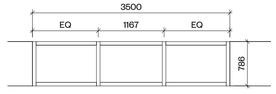

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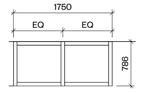

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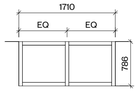
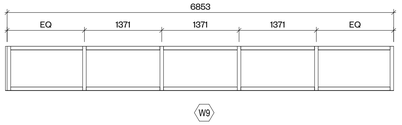


W6

W7



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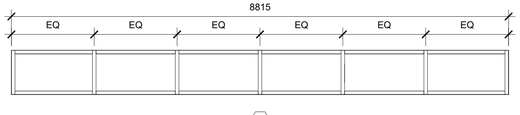

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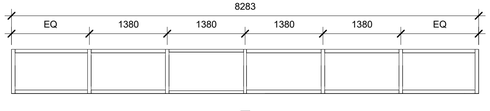
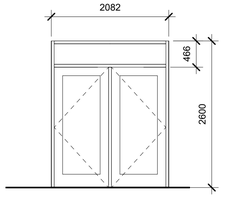
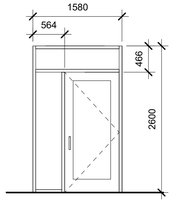


W8

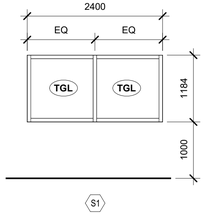
EXTERIOR ALUMINUM SCREEN SCHEDULE
All exterior window glazing to have bird-friendly Ceramic Frit (CF) pattern - refer to Specification

All exterior glazing to be IGU-01, refer to specification for make-up

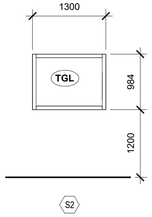




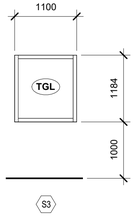
INTERIOR HOLLOW METAL SCREEN SCHEDULE



S1



S2



S3

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CSV Renaissance Child Care Addition

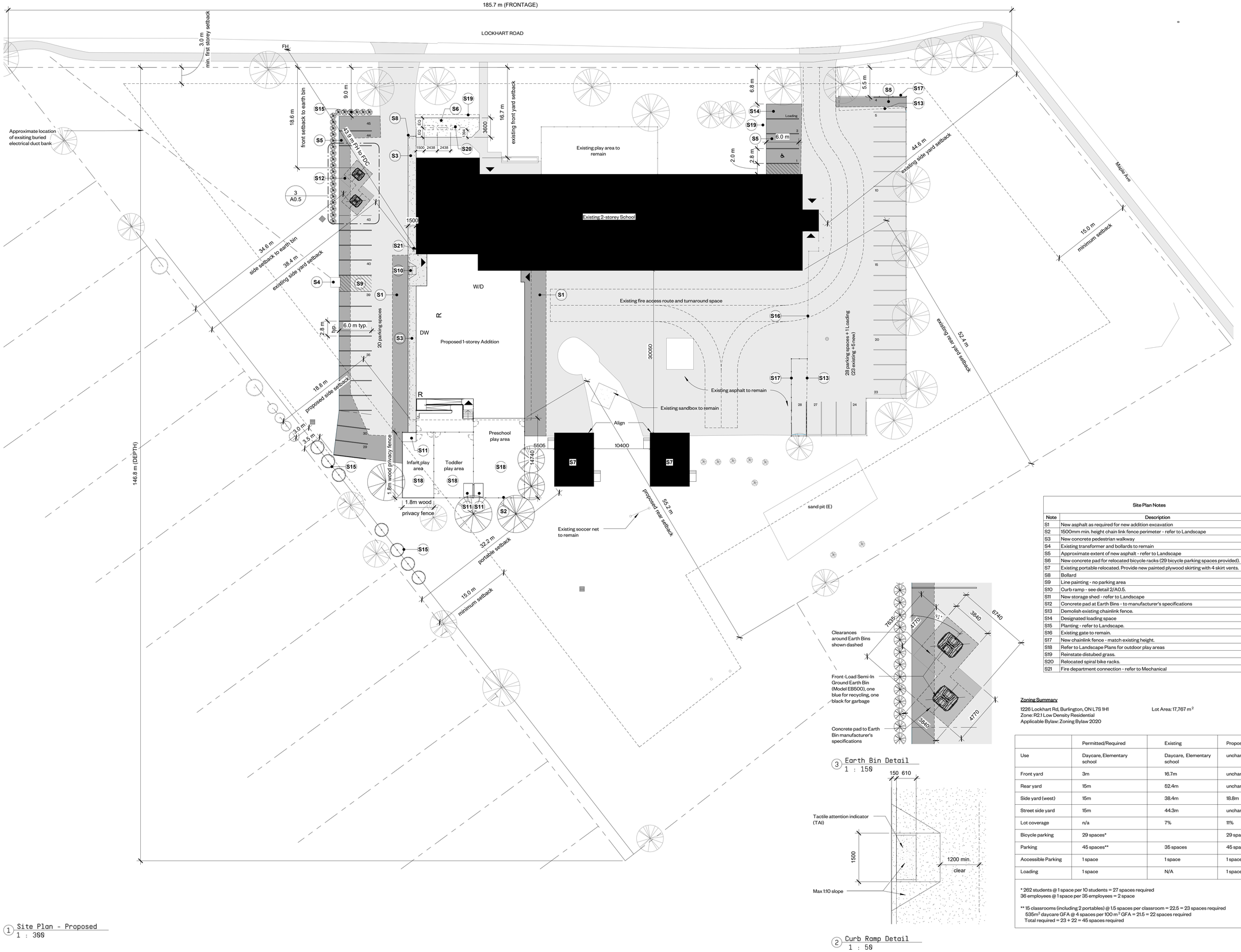
1226 Lockhart Rd
Burlington, ON L7S 1H1

PROJECT CODE:	SCALE:
2205	As indicated
DATE:	STATUS:
2025-01-16	Issued for Tender

Schedules

Project North

drawing number
A0.1



1 Site Plan - Proposed
1 : 300

3 Earth Bin Detail
1 : 150

2 Curb Ramp Detail
1 : 50

Site Plan Notes

Note	Description
S1	New asphalt as required for new addition excavation
S2	1500mm min. height chain link fence perimeter - refer to Landscape
S3	New concrete pedestrian walkway
S4	Existing transformer and bollards to remain
S5	Approximate extent of new asphalt - refer to Landscape
S6	New concrete pad for relocated bicycle racks (29 bicycle parking spaces provided).
S7	Existing portable relocated. Provide new painted plywood skirting with 4 skirt vents.
S8	Bollard
S9	Line painting - no parking area
S10	Curb ramp - see detail 2/A0.5.
S11	New storage shed - refer to Landscape
S12	Concrete pad at Earth Bins - to manufacturer's specifications
S13	Demolish existing chainlink fence.
S14	Designated loading space
S15	Planting - refer to Landscape.
S16	Existing gate to remain.
S17	New chainlink fence - match existing height.
S18	Refer to Landscape Plans for outdoor play areas
S19	Reinstate distubed grass.
S20	Relocated spiral bike racks.
S21	Fire department connection - refer to Mechanical

Zoning Summary

1226 Lockhart Rd, Burlington, ON L7S 1H1
Zone: R2.1 Low Density Residential
Applicable Bylaw: Zoning Bylaw 2020

Lot Area: 17,767 m²

	Permitted/Required	Existing	Proposed
Use	Daycare, Elementary school	Daycare, Elementary school	unchanged
Front yard	3m	16.7m	unchanged
Rear yard	15m	52.4m	unchanged
Side yard (west)	15m	38.4m	18.8m
Street side yard	15m	44.3m	unchanged
Lot coverage	n/a	7%	11%
Bicycle parking	29 spaces*		29 spaces
Parking	45 spaces**	35 spaces	45 spaces
Accessible Parking	1 space	1 space	1 space
Loading	1 space	N/A	1 space

* 262 students @ 1 space per 10 students = 27 spaces required
36 employees @ 1 space per 35 employees = 2 space

** 15 classrooms (including 2 portables) @ 1.5 spaces per classroom = 22.5 = 23 spaces required
535m² daycare GFA @ 4 spaces per 100 m² GFA = 21.5 = 22 spaces required
Total required = 23 + 22 = 45 spaces required

Rev	Description	Date
1	Issued for Class C Costing	2022-07-27
4	60% Client Review	2022-11-11
5	Reisssued for 60% Client Review	2023-01-25
6	Issued for 80% Costing	2023-02-27
7	Issued for SPA	2023-03-13
10	Issued for Minor Variance	2024-03-14
11	SPA Response	2024-05-08
12	Minor Variance Revision	2024-05-28
13	Site Plan Revision	2024-08-28
14	Issued for 90% Client Review	2024-10-02
15	Issued for Permit	2024-12-11
16	Issued for Tender	2025-01-14

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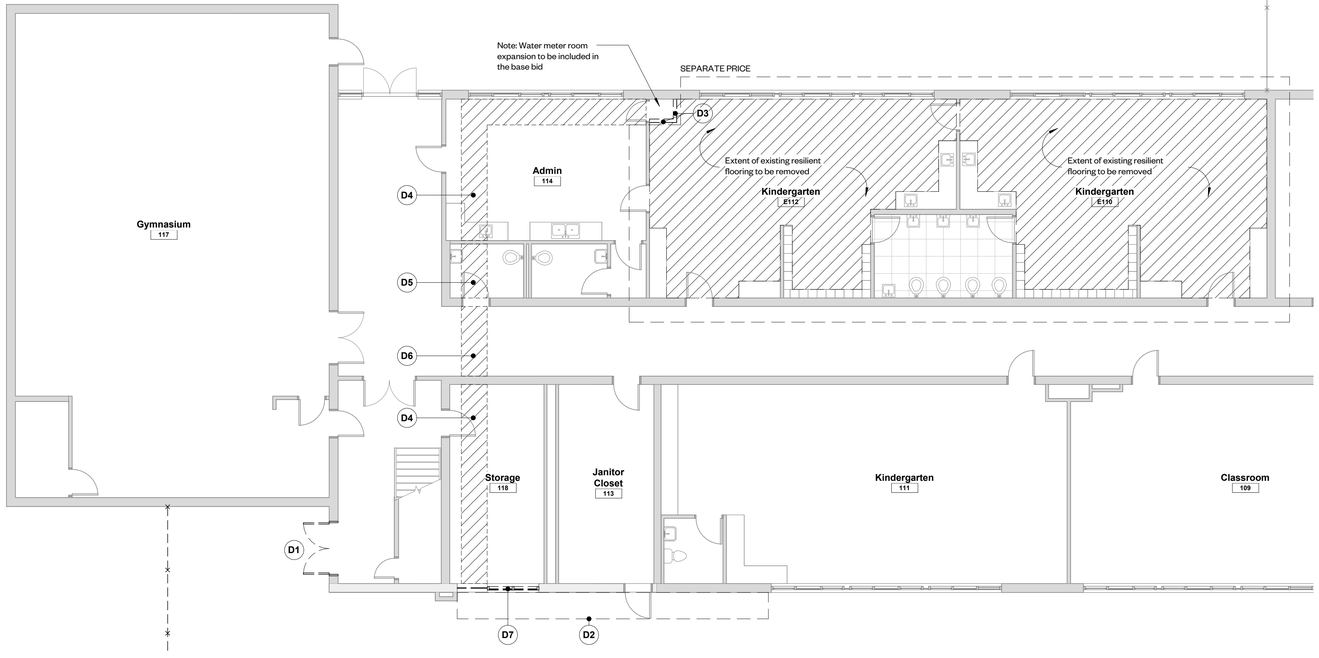
Site Plan

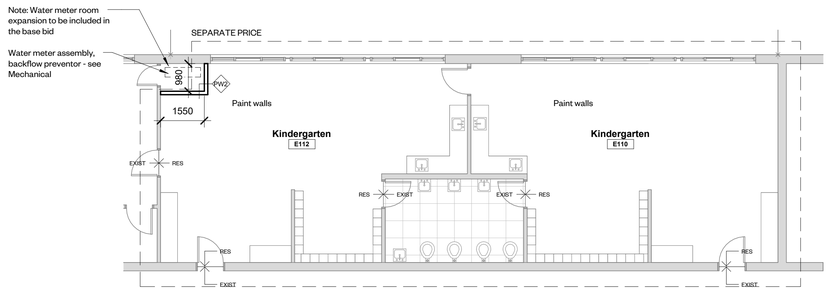
Project North

drawing number
A0.5

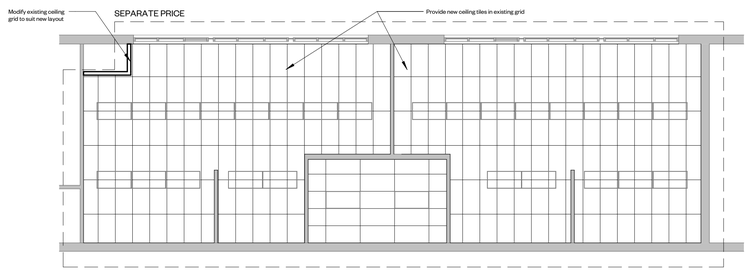
Demolition Notes	
Note	Description
D1	Demolish existing door and frame
D2	Demolish existing overhang. Patch brick as required to match existing.
D3	Demolish existing partition.
D4	Approximate extent of resilient floor finish repair to facilitate below-slab pipe replacement
D5	Approximate extent of porcelain tile floor finish repair to facilitate below-slab pipe replacement
D6	Approximate extent of terrazzo floor finish repair to facilitate below-slab pipe replacement
D7	Demolish existing window, infill door panel, and louvre (see Mechanical). Wall to be infilled to match existing.



1 Demolition Plan - Level 1
1 : 100



2 Proposed Plan - Existing Classrooms
1 : 100



3 Proposed RCP - Existing Classrooms
1 : 100

Rev	Description	Date
4	60% Client Review	2022-11-11
5	Reisssued for 60% Client Review	2023-01-25
6	Issued for 80% Costing	2023-02-27
14	Issued for 90% Client Review	2024-10-02
15	Issued for Permit	2024-12-11
16	Issued for Tender	2025-01-14

Demolition Legend

- Existing CMU partition to be demolished
- Existing wall partition system to be demolished
- Existing element to be demolished
- Approximate extent of flooring to be removed
- Approximate extent of ceiling to be removed
- Existing door leaf and frame to be demolished

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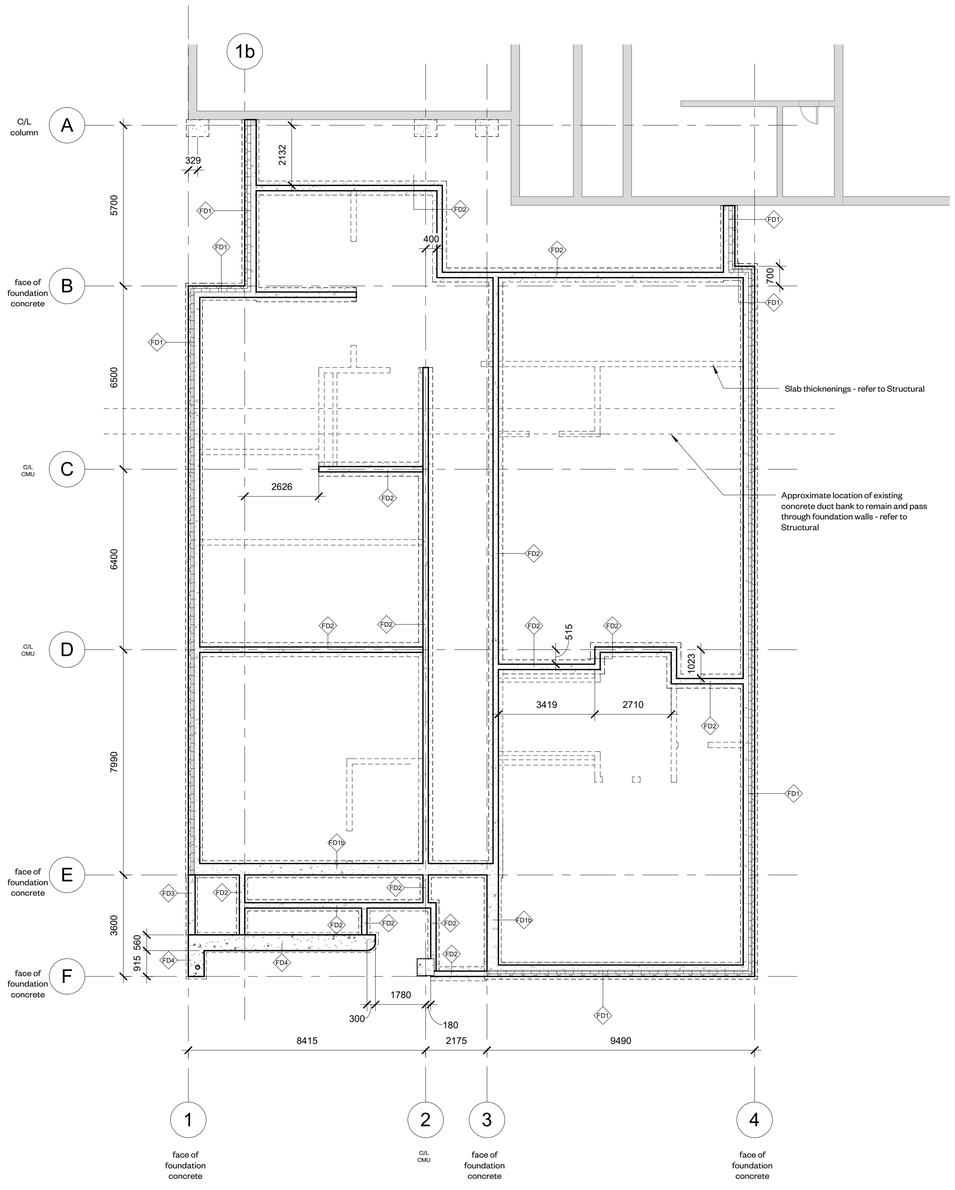
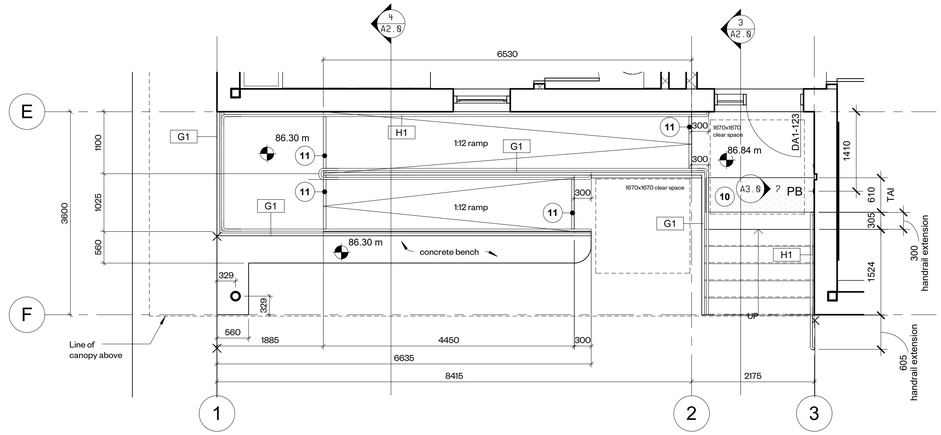
Demolition & Proposed in Existing School

Project North

drawing number
A1.0

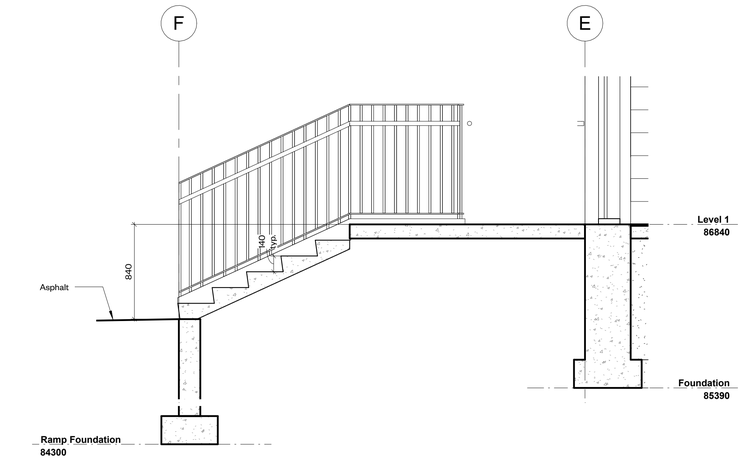


1 Foundation Plan
1 : 100

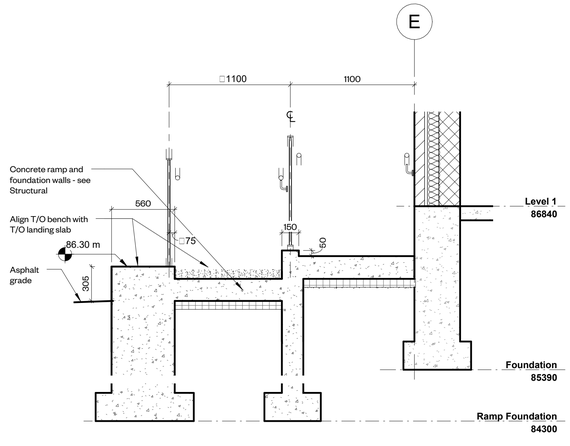


2 Detail Plan - South Ramp & Stairs
1 : 50

General Notes	
Note	Description
1	Line of canopy above
2	1400mm wall - refer to detail 11/A4.1 for sill detail
3	Stroller parking area
4	Roof hatch & access ladder
5	Water meter and vertical backflow preventor - see Mechanical
6	Mop sink
7	Utility shelf with hooks and mop holders
8	Drinking fountain/bottle filler - refer to Mechanical
9	Relocated gas meter assembly. Provide new painted steel protective enclosure.
10	Tactile attention indicator
11	50mm painted contrast strip
12	Recessed forced flow heater - see Mechanical
13	Oribs (N.I.C)
14	CMU infill wall with brick cladding to match existing brick at location of demolished window and door opening.
15	Exhaust and intake ducts - refer to Mechanical



3 Section through Stairs
1 : 25



4 Section through Ramp
1 : 25

Rev	Description	Date
15	Issued for Permit	2024-12-11
16	Issued for Tender	2025-01-14

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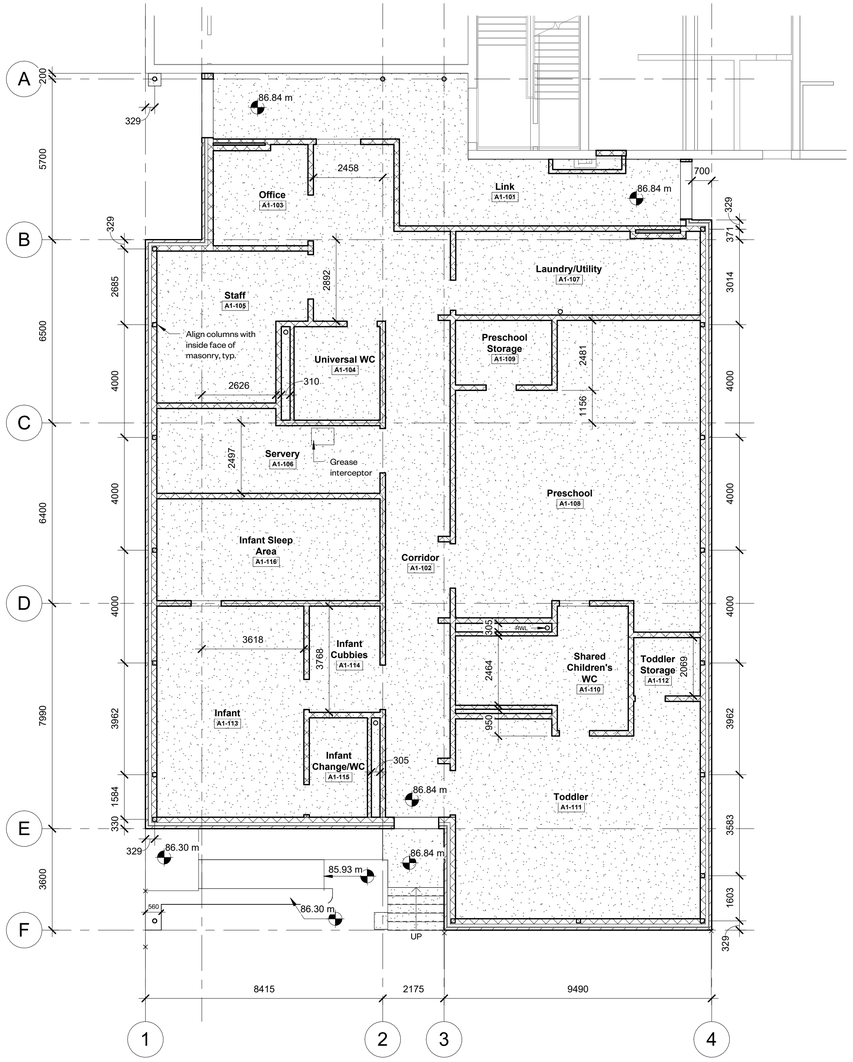
Foundation Plan, Exterior Details

Project North

drawing number
A2.0



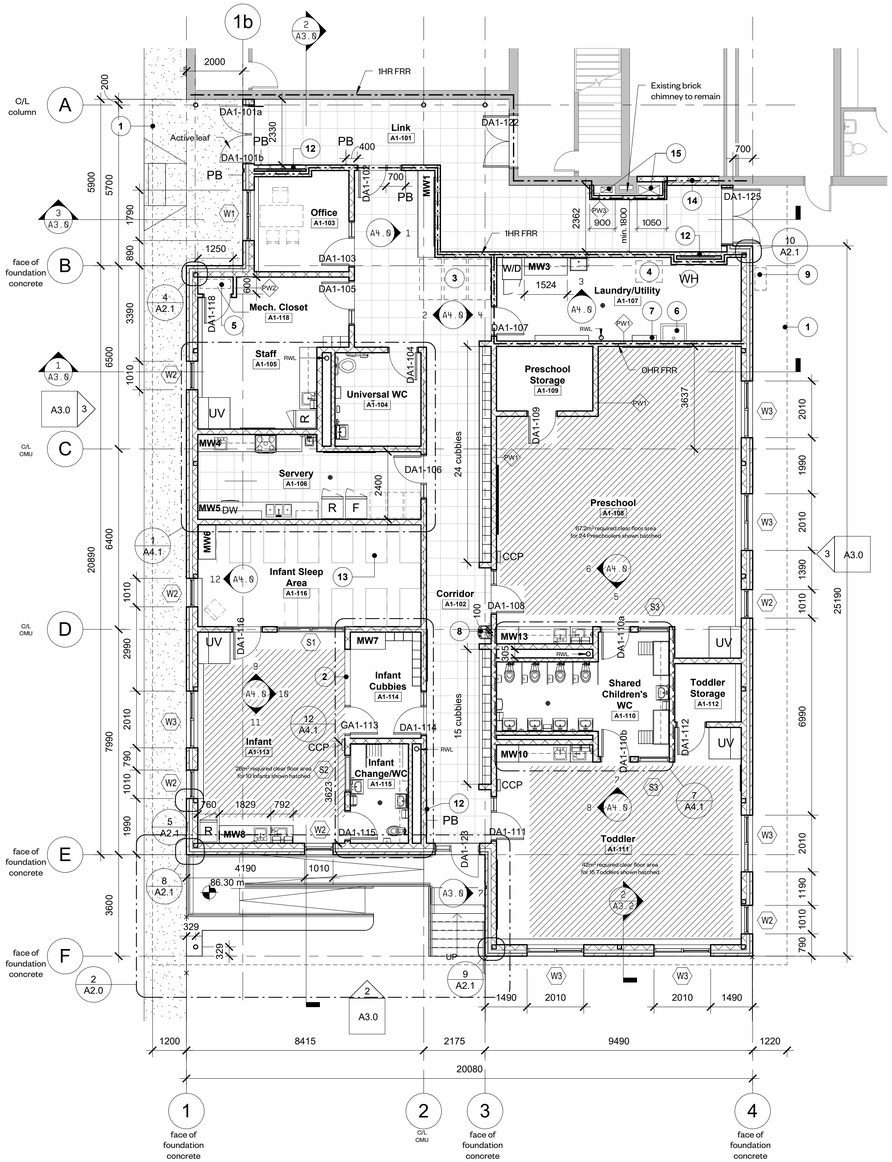
2 Proposed Slab Plan
1 : 100

Windows Areas

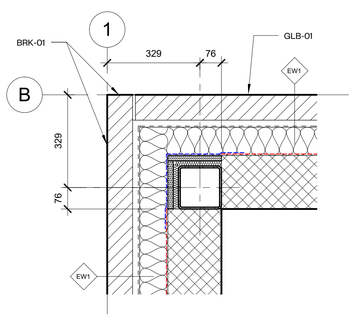
	Required	Provided
Infant	3.9m² (10% of 39m² room area)	6.2m²
Infant Rest	1.4m² (5% of 28.5m² room area)	1.8m²
Toddler	6.2m² (10% of 61.5m² room area)	15.4m²
Preschool	8.1m² (10% of 80.5m² room area)	9.8m²

General Notes

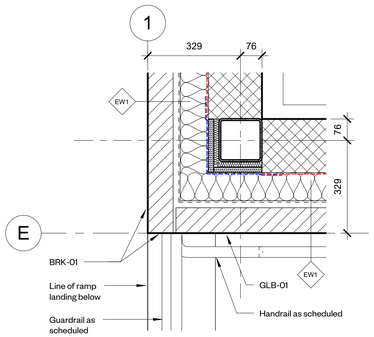
Note	Description
1	Line of canopy above
2	1400mm wall - refer to detail 11/A4.1 for sill detail
3	Stroller parking area
4	Roof hatch & access ladder
5	Water meter and vertical backflow preventor - see Mechanical
6	Mop sink
7	Utility shelf with hooks and mop holders
8	Drinking fountain/bottle filler - refer to Mechanical
9	Relocated gas meter assembly. Provide new painted steel protective enclosure.
10	Tactile attention indicator
11	50mm painted contrast strip
12	Recessed forced flow heater - see Mechanical
13	Cribs (N.I.C)
14	CMU infill wall with brick cladding to match existing brick at location of demolished window and door opening.
15	Exhaust and intake ducts - refer to Mechanical



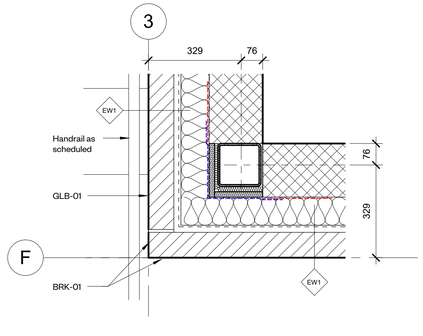
1 Proposed Plan - Level 1
1 : 100



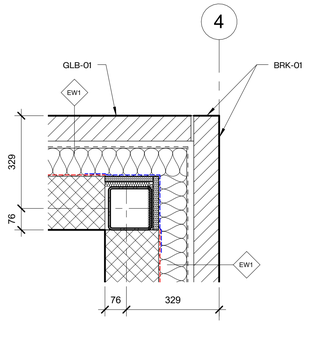
4 Plan Detail - NW Corner - BRK to GLB
1 : 10



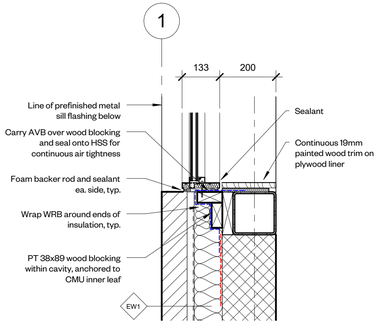
8 Plan Detail - SW Corner - BRK to GLB
1 : 10



9 Plan Detail - S Entrance - BRK to GLB
1 : 10



10 Plan Detail - NE Entrance - BRK to GLB
1 : 10



5 Plan Detail - Window Jamb at Column
1 : 10

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Rev	Description	Date
1	Issued for Class C Costing	2022-07-27
4	60% Client Review	2022-11-11
5	Reisssued for 60% Client Review	2023-01-25
6	Issued for 80% Costing	2023-02-27
10	Issued for Minor Variance	2024-03-14
14	Issued for 90% Client Review	2024-10-02
15	Issued for Permit	2024-12-11
16	Issued for Tender	2025-01-14

Legend

- Existing partition to remain
- New partition as scheduled

Symbols Legend

- PWX — Partition Tag - refer to partition schedule
- EWX — Exterior Wall Tag - refer to partition schedule
- WX — Window tag - refer to schedule
- SX — Glazed Screen tag - refer to schedule
- DXXX — New Door tag - refer to schedule
- MW1 — Millwork Tag
- GWB 1' - 0" — Ceiling Material Height above Finished Floor
- (E) Existing
- N.I.C. Not in Contract
- PB Push Button - see Electrical
- RD Roof Drain - see Mechanical
- UV Unit Ventilator - see Mechanical

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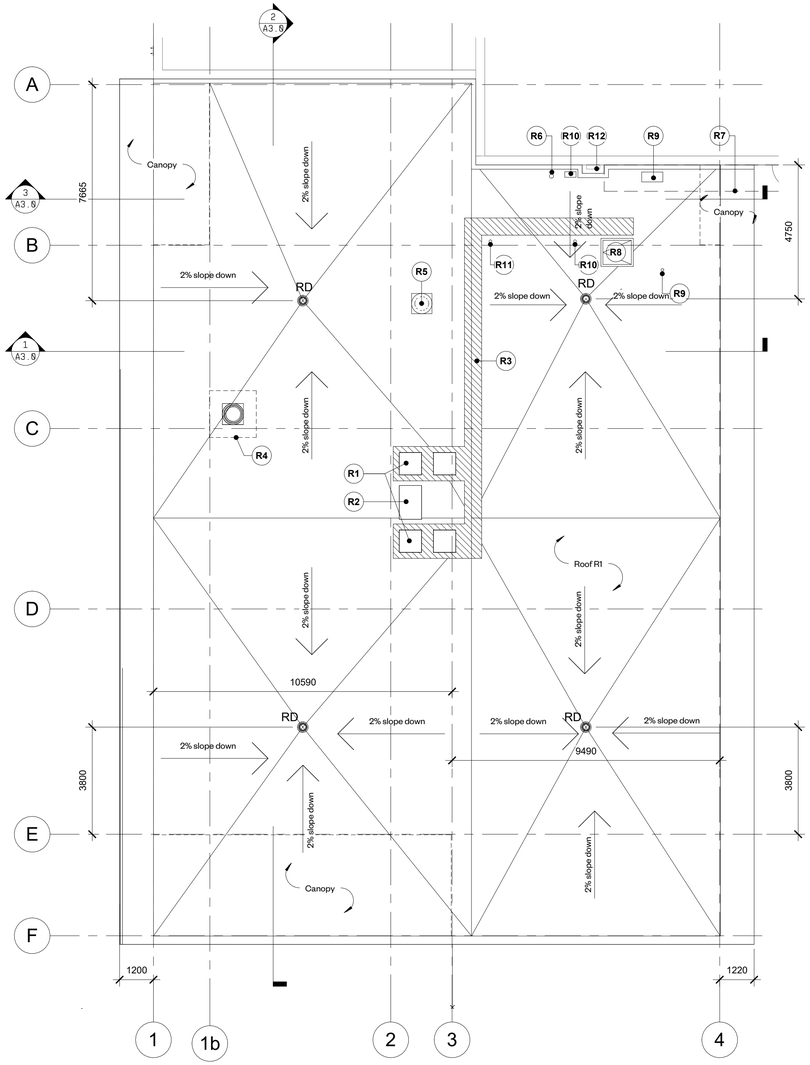
Proposed Plans

Project North

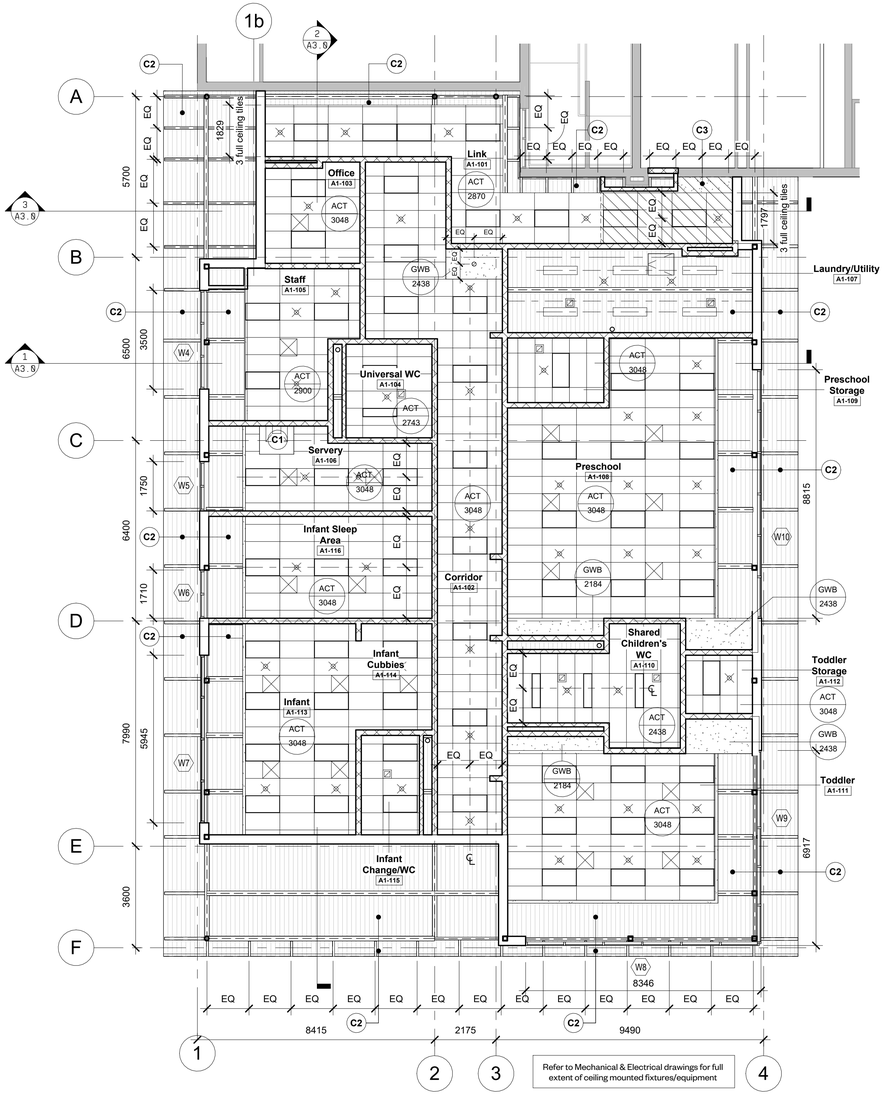
drawing number
A2.1



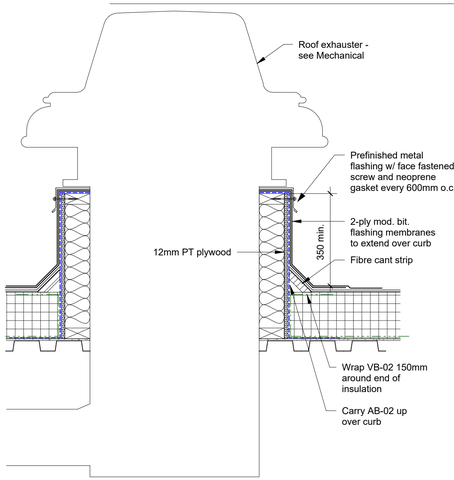
2 Proposed Roof Plan
1 : 100

Roof Notes	
Note	Description
R1	Condensing units (4) - see Mechanical
R2	Rooftop piping doghouse - see also Mechanical and Electrical
R3	600 x 600 x 50mm pavers on 50mm rigid insulation - Refer also to Mechanical detail 23 23 00.02
R4	Non-combustible insulation to 457mm around the kitchen exhaust penetration
R5	WC exhaust fan and roof curb
R6	Termination of gas vent piping - see Mechanical
R7	Line of existing, demolished canopy
R8	Roof access hatch
R9	Intake duct c/w gooseneck - see Mechanical. Locate required distance from exhausts.
R10	Exhaust duct c/w gooseneck - see Mechanical
R11	Dryer exhaust duct c/w gooseneck - see Mechanical
R12	Existing chimney to remain

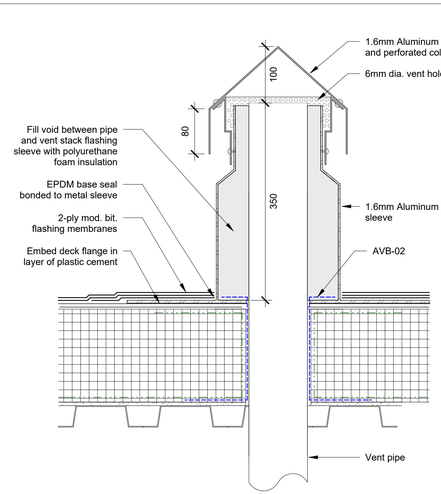
Ceiling Notes	
Note	Description
C1	Fire supression / exhaust hood - see Mechanical
C2	Exposed u/s roof deck
C3	Diagonal crosshatch indicates extent of fire-rated bulkhead. Refer to Assembly schedule and B/A3.0.



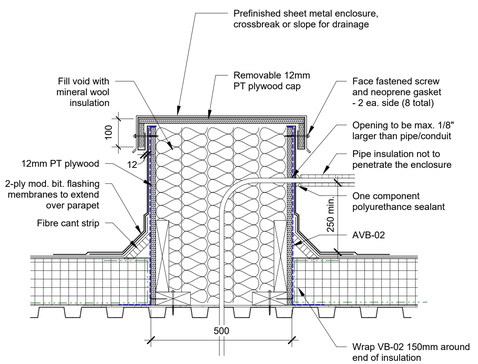
1 Proposed RCP
1 : 100



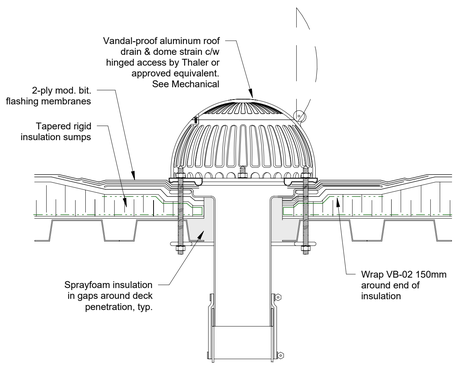
3 Roof Exaust, typ
1 : 10



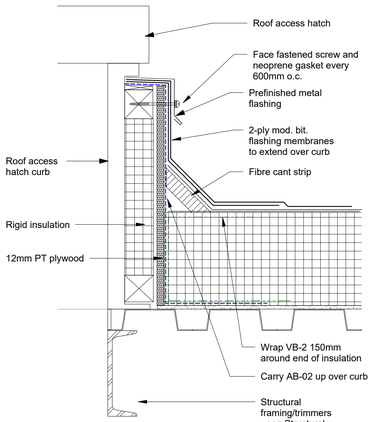
5 Vent through roof, typ
1 : 5



6 Pipe/Conduit through Roof, typ
1 : 10



7 Roof Drain, typ
1 : 5



4 Roof Access Hatch
1 : 5

Rev	Description	Date
4	60% Client Review	2022-11-11
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6	Issued for 80% Costing	2023-02-27
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16	Issued for Tender	2025-01-14

Legend

- Existing partition to remain
- New partition as scheduled

Symbols Legend

- PWX — Partition Tag - refer to partition schedule
- EWX — Exterior Wall Tag - refer to partition schedule
- WX — Window tag - refer to schedule
- SX — Glazed Screen tag - refer to schedule
- DXXX — New Door tag - refer to schedule
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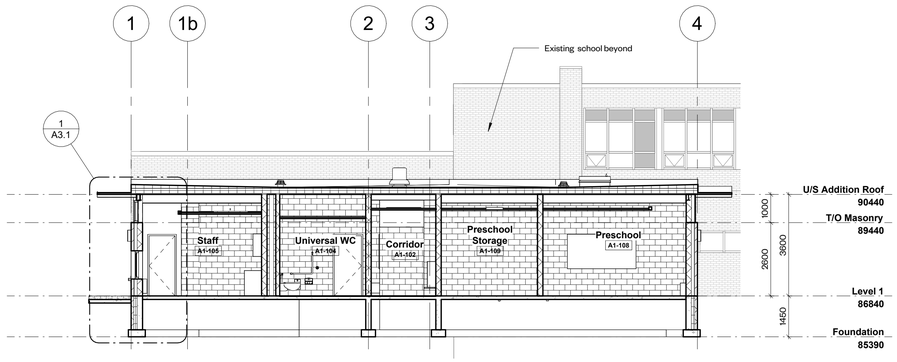
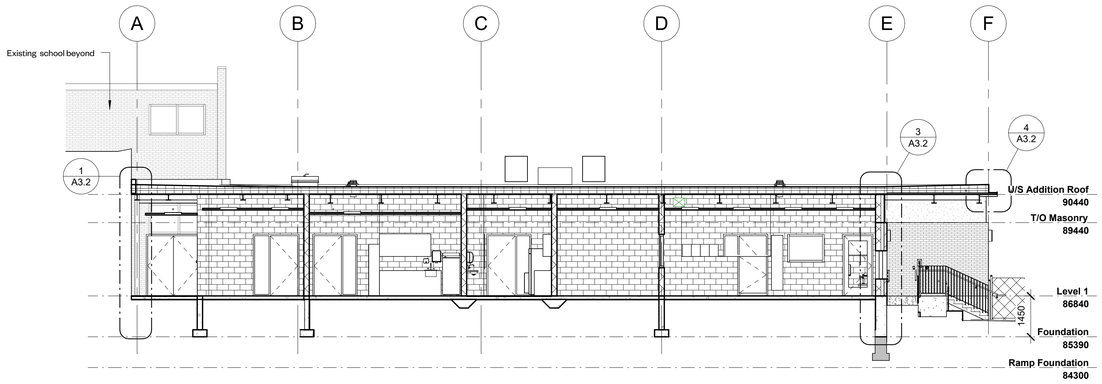
RCP, Roof Plan, Roof Details

Project North

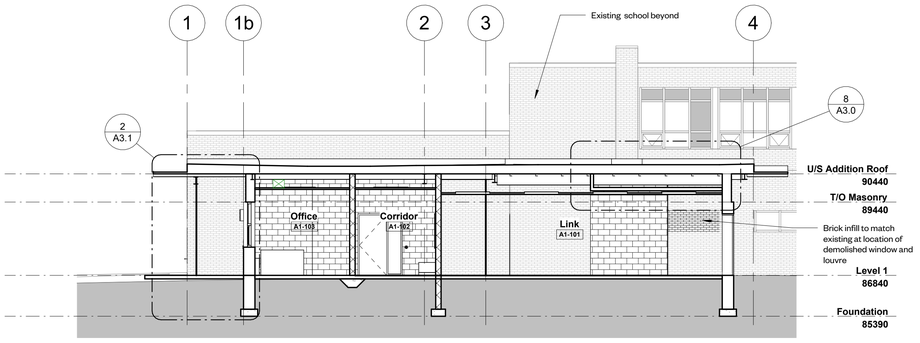
drawing number
A2.2



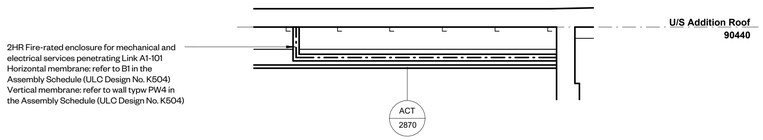
1 Building Section - East/West
1 : 100



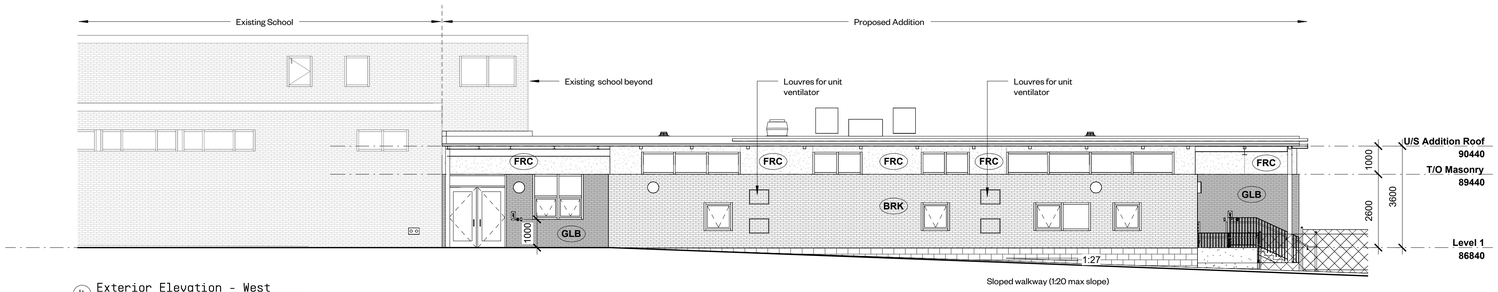
2 Building Section - North/South
1 : 100



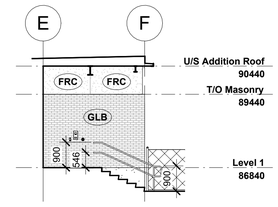
3 Building Section - East/West @ Link
1 : 100



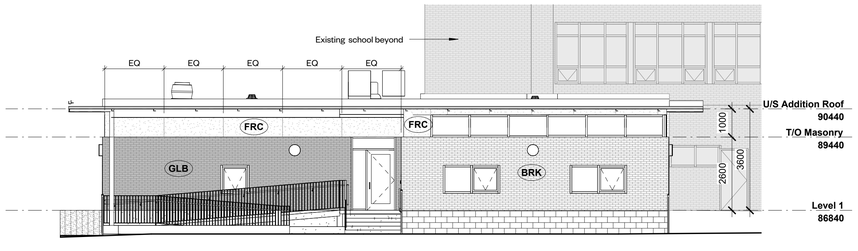
8 Section - Fire-Rated Bulkhead
1 : 50



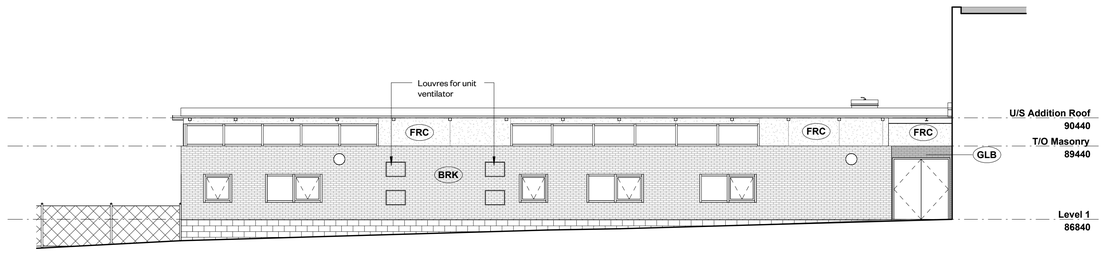
4 Exterior Elevation - West
1 : 100



7 Exterior Stair - Elevation
1 : 100



5 Exterior Elevation - South
1 : 100



6 Exterior Elevation - East
1 : 100

Rev	Description	Date
1	Issued for Class C Costing	2022-07-27
4	60% Client Review	2022-11-11
5	Reisssued for 60% Client Review	2023-01-25
6	Issued for 80% Costing	2023-02-27
14	Issued for 90% Client Review	2024-10-02
15	Issued for Permit	2024-12-11
16	Issued for Tender	2025-01-14

Materials Legend

ACT	Acoustic Ceiling Tile
BB	Bulletin Board
BRK	Brick
CER	Ceramic Tile
EXIST	Existing
EXP	Exposed
FGL	Frosted Glass
FRC	Fibre-reinforced Cement
FT	Glazing Surface Film
GLB	Ceramic Glazed Clay Masonry
GWB	Gypsum Wallboard
PLY	Fire Rated Plywood
POR	Porcelain Tile
PLAM	Plastic Laminate
PT	Paint Finish
RB	Rubber Base
RES	Resilient Sheet Flooring
SS	Stainless Steel
TGL	Tempered Glass
WD	Solid Wood
WB	Whiteboard
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CSV Renaissance Child Care Addition

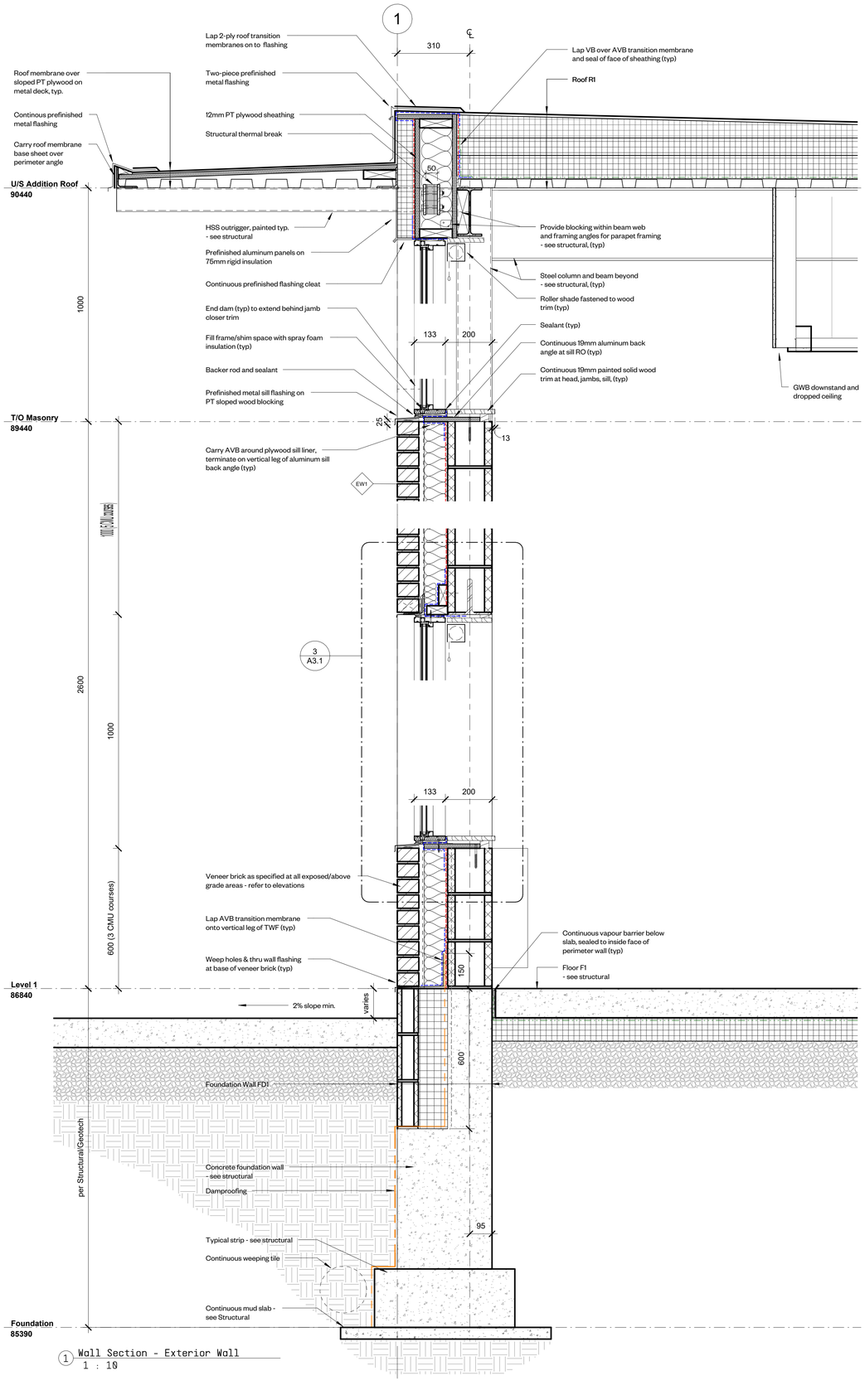
1226 Lockhart Rd
Burlington, ON L7S 1H1

PROJECT CODE:	SCALE:
2205	As indicated
DATE:	STATUS:
2025-01-16	Issued for Tender

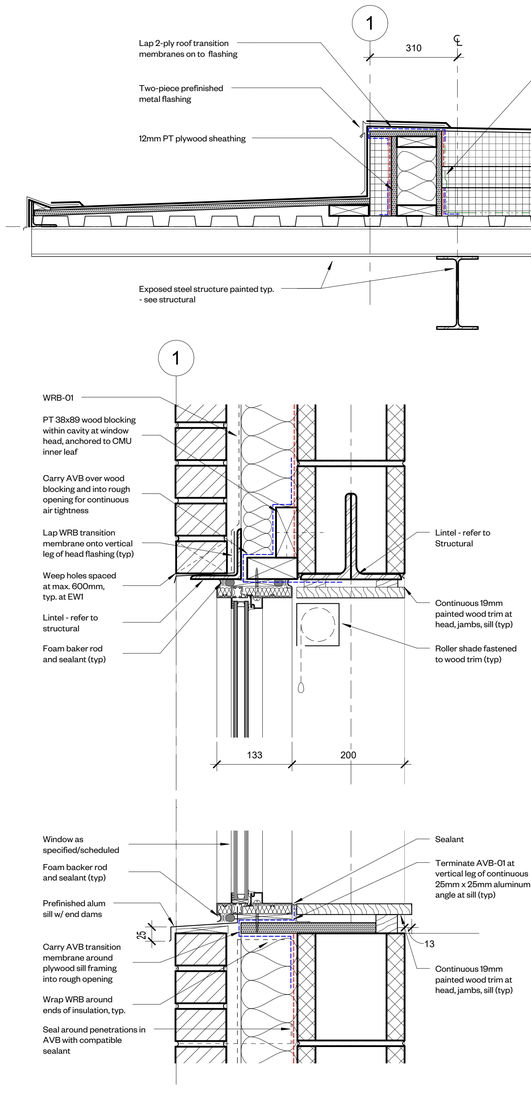
Building Sections & Exterior Elevations

Project North

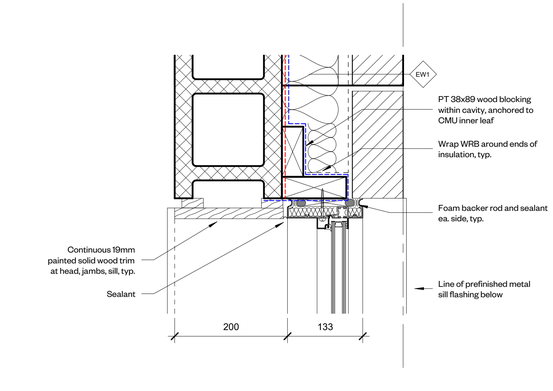
drawing number
A3.0



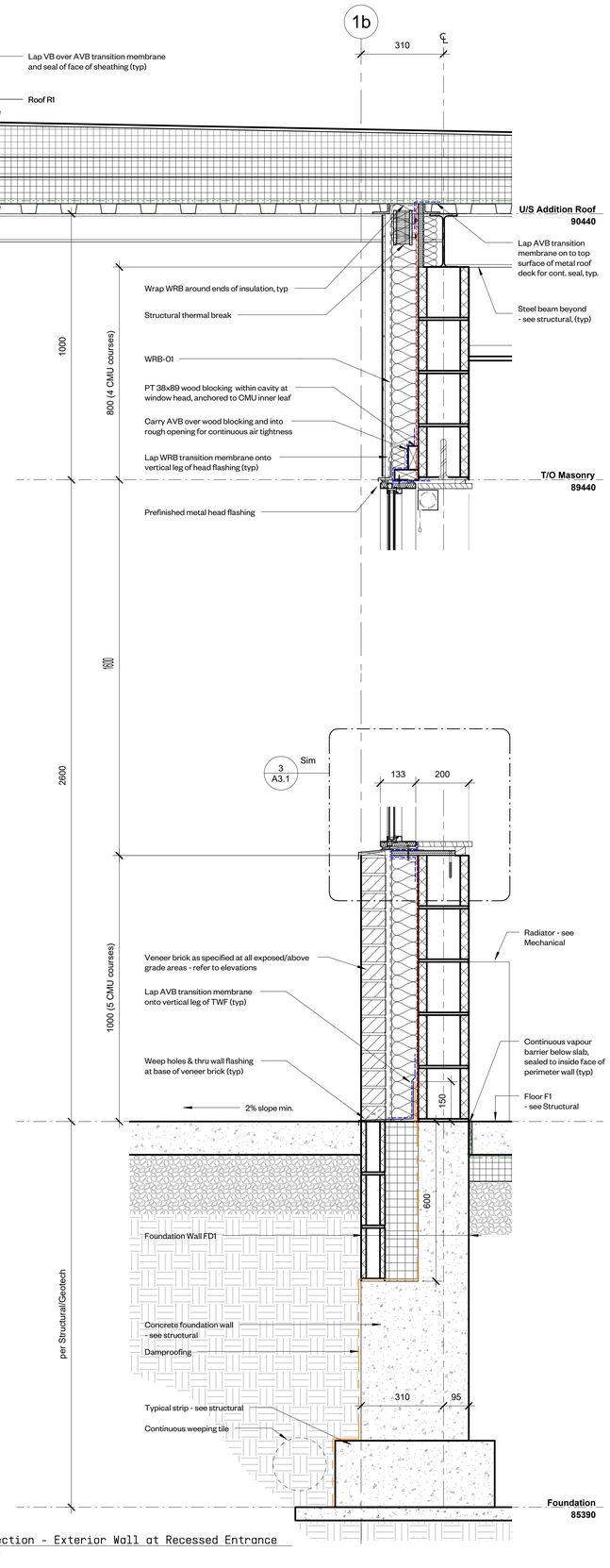
1 Wall Section - Exterior Wall
1 : 10



3 Detail Section - Typ Window Head & Sill @ Brick Cladding
1 : 5



4 Detail Plan - Typ Window Jamb
1 : 5



2 Wall Section - Exterior Wall at Recessed Entrance
1 : 10

Rev	Description	Date
6	Issued for 80% Costing	2023-02-27
14	Issued for 90% Client Review	2024-10-02
15	Issued for Permit	2024-12-11
16	Issued for Tender	2025-01-14

Membrane Legend

- AVB-01 - Vapour permeable air/weather barrier (at above-grade walls)
- AVB-02 - Transition membrane (at openings/transitions)
- VB-01 - Vapour barrier (at slab-on-grade)
- VB-02 - Vapour barrier (at roof)
- WRB-01 - Weather resistant barrier (at rainscreen cladding)
- WRB-02 - Weather resistant roofing underlayment
- RWP-01 - Fluid Applied Dampproofing (exterior below-grade walls)

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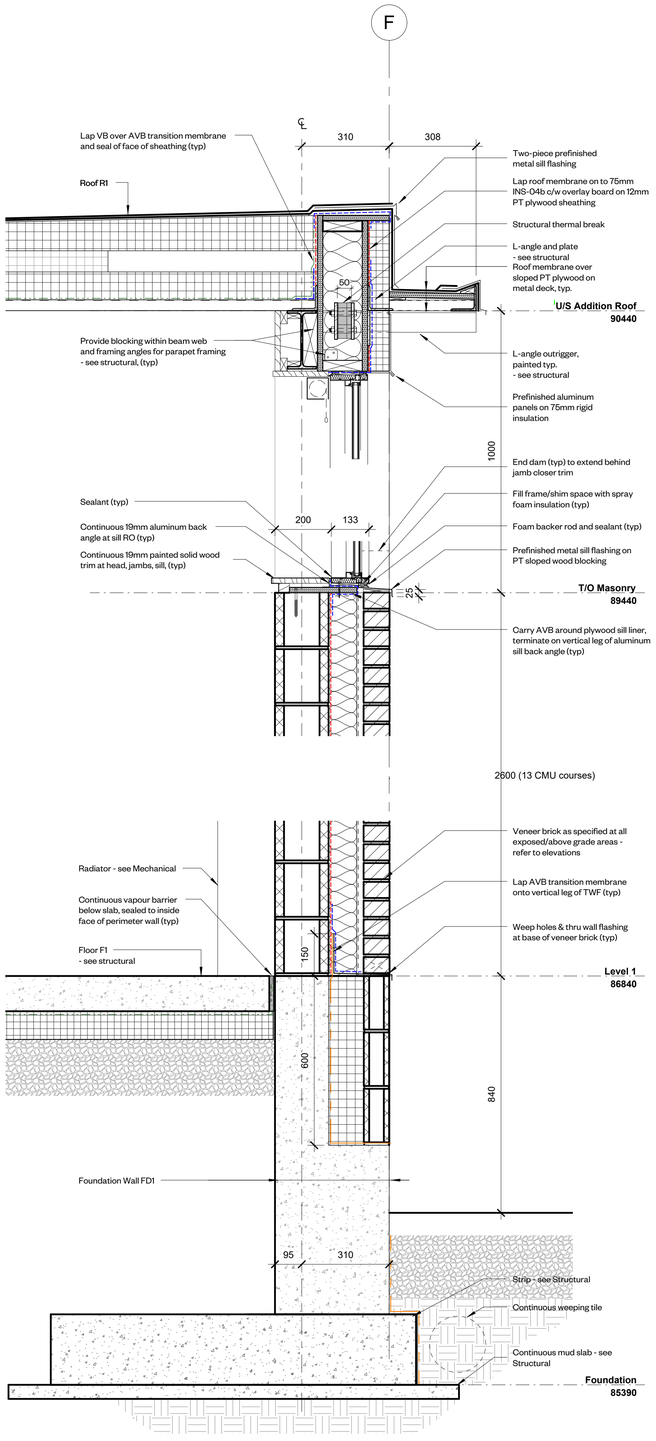
Burlington, ON L7S 1H1

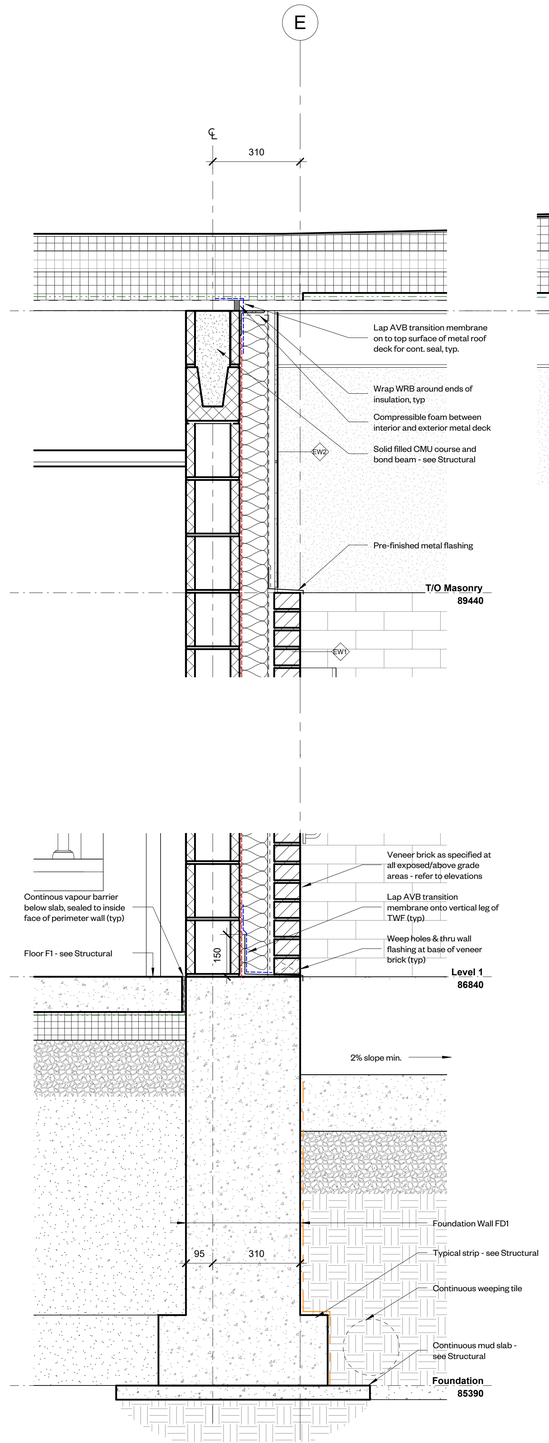
PROJECT CODE:	SCALE:
2205	As indicated
DATE:	STATUS:
2025-01-16	Issued for Tender

Wall Sections, Window Details

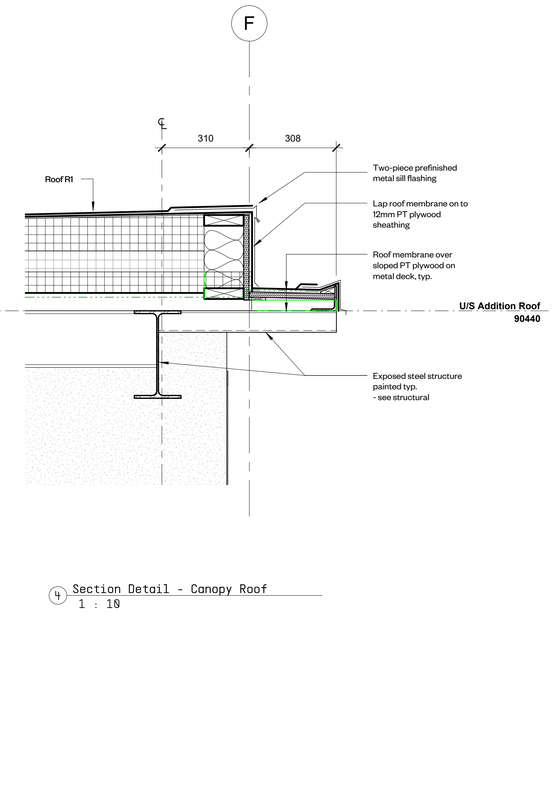
drawing number
A3.1



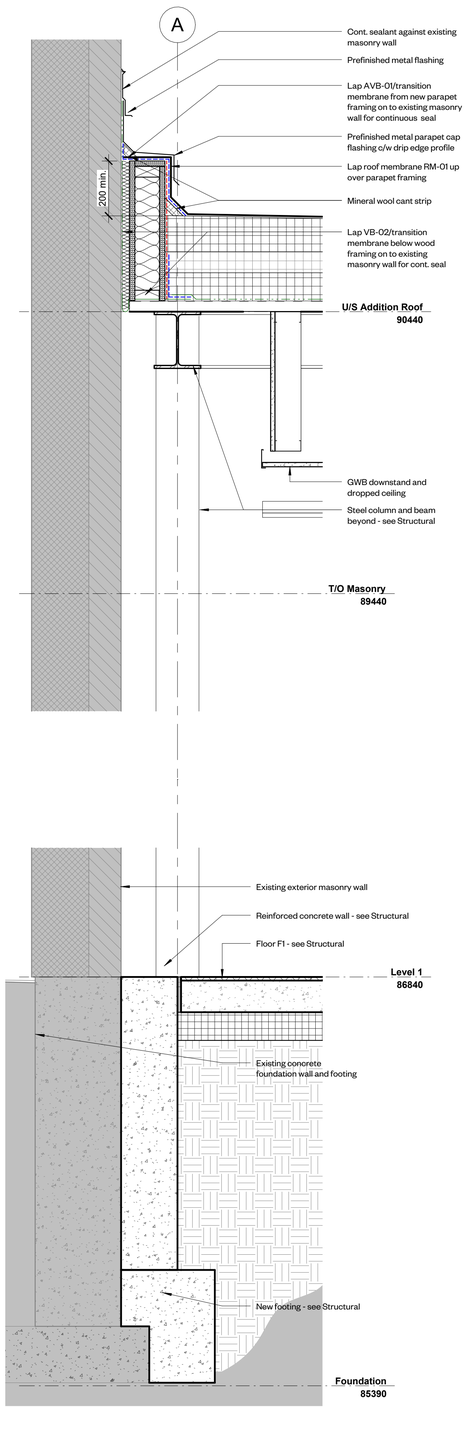
2 Wall Section - Exterior Wall, South
1 : 10



3 Wall Section @ EW2 Upper
1 : 10



4 Section Detail - Canopy Roof
1 : 10



1 Wall Section - North/South @ Junction w/Exist. Building
1 : 10

Rev	Description	Date
14	Issued for 90% Client Review	2024-10-02
15	Issued for Permit	2024-12-11
16	Issued for Tender	2025-01-14

Membrane Legend

- AVB-01 - Vapour permeable air/weather barrier (at above-grade walls)
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PROJECT CODE:	SCALE:
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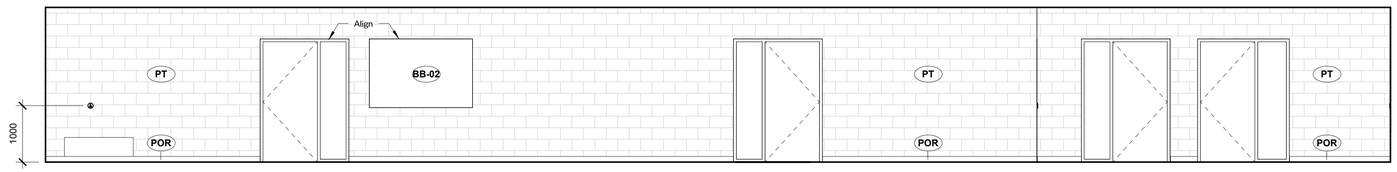
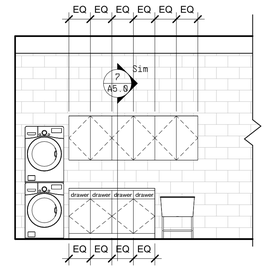
DATE:	STATUS:
2025-01-16	Issued for Tender

Wall Sections

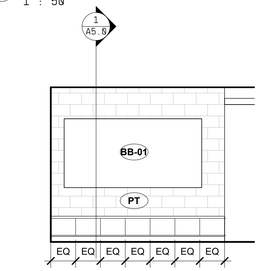
drawing number
A3.2



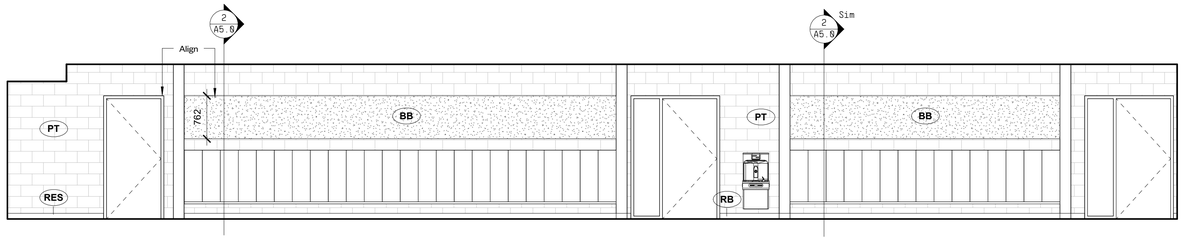
2 Interior Elevation - Corridor 102 West
1 : 50



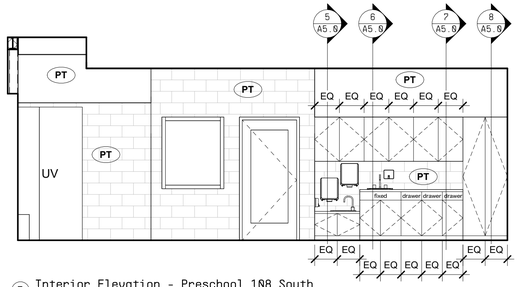
3 Elevation - Laundry North
1 : 50



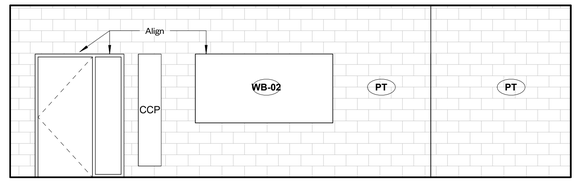
1 Interior Elevation - Corridor 102 East Partial
1 : 50



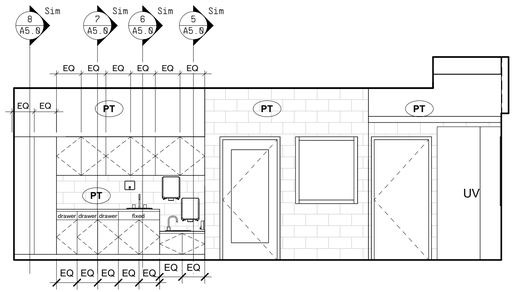
4 Interior Elevation - Corridor 102 East
1 : 50



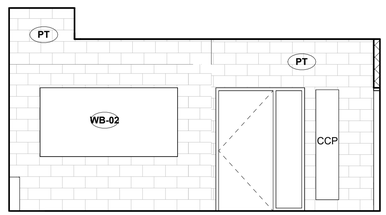
5 Interior Elevation - Preschool 108 South
1 : 50



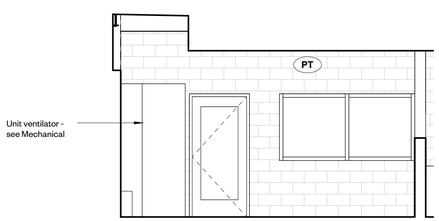
6 Interior Elevation - Preschool 108 West
1 : 50



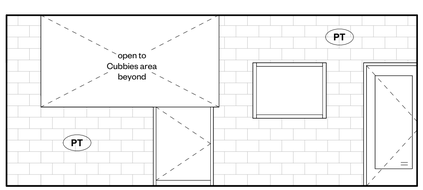
7 Interior Elevation - Toddler 111 North
1 : 50



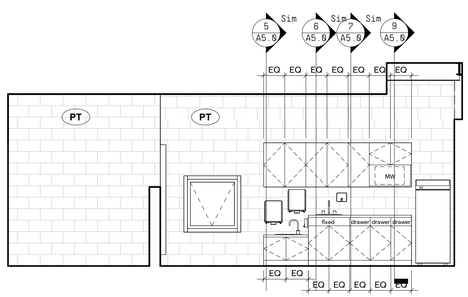
8 Interior Elevation - Toddler 111 West
1 : 50



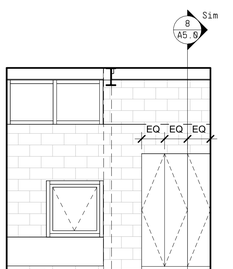
9 Interior Elevation - Infant 113 North
1 : 50



10 Interior Elevation - Infant 113 East
1 : 50



11 Interior Elevation - Infant A1-113 South
1 : 50



12 Interior Elevation - Infant Sleep 116 West
1 : 50

Rev	Description	Date
4	60% Client Review	2022-11-11
5	Reisssued for 60% Client Review	2023-01-25
6	Issued for 80% Costing	2023-02-27
14	Issued for 90% Client Review	2024-10-02
15	Issued for Permit	2024-12-11
16	Issued for Tender	2025-01-14

Materials Legend

ACT	Acoustic Ceiling Tile
BB	Bulletin Board
BRK	Brick
CER	Ceramic Tile
EXIST	Existing
EXP	Exposed
FGL	Frosted Glass
FRC	Fibre-reinforced Cement
FT	Glazing Surface Film
GLB	Ceramic Glazed Clay Masonry
GWB	Gypsum Wallboard
PLY	Fire Rated Plywood
POR	Porcelain Tile
PLAM	Plastic Laminate
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CSV Renaissance Child Care Addition

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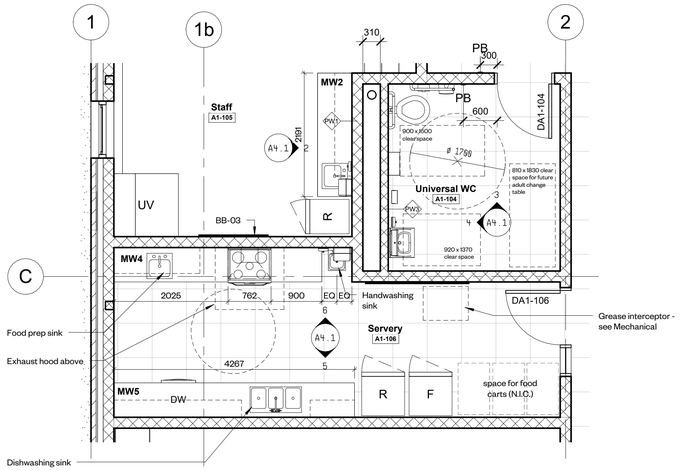
PROJECT CODE:	SCALE:
2205	As indicated
DATE:	STATUS:
2025-01-16	Issued for Tender

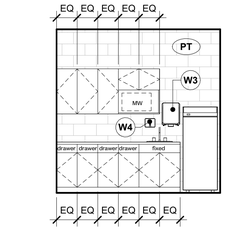
Interior Elevations

Project North

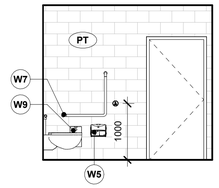
drawing number
A4.0



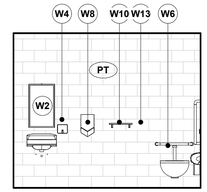
1 Detail Plan - Kitchen 106
1 : 50



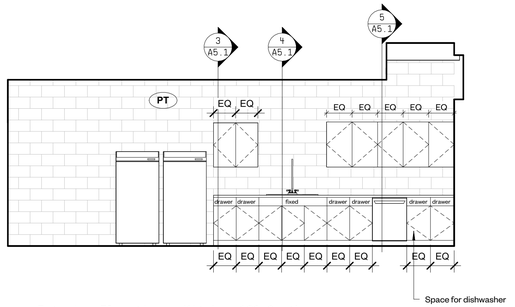
2 Elevation - Staff 105 East
1 : 50



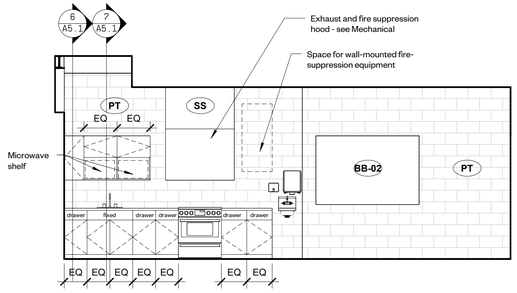
3 Elevation - WC 104 North
1 : 50



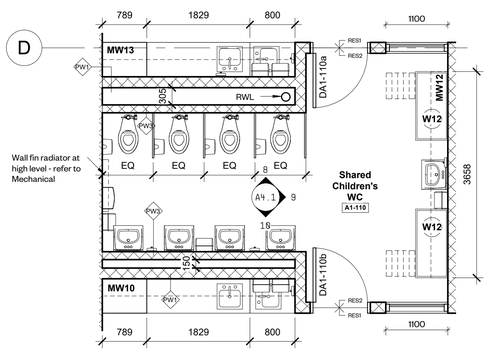
4 Elevation - WC 104 West
1 : 50



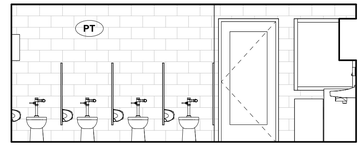
5 Interior Elevation - Kitchen 106 South
1 : 50



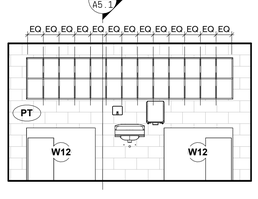
6 Interior Elevation - Servery 106 North
1 : 50



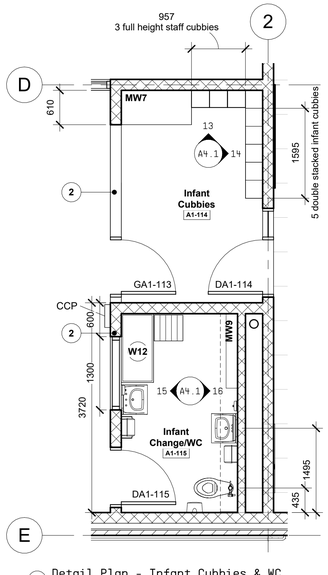
7 Detail Plan - Shared WC 110
1 : 50



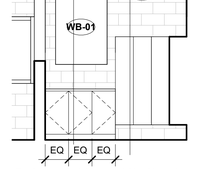
8 Interior Elevation - Shared WVC 110 North
1 : 50



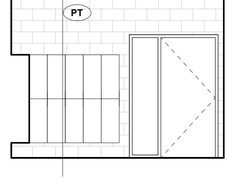
9 Interior Elevation - Shared WC 110 East
1 : 50



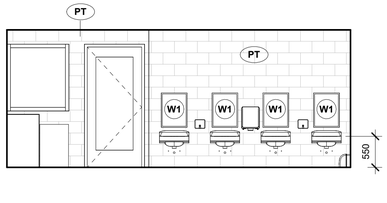
12 Detail Plan - Infant Cubbies & WC
1 : 50



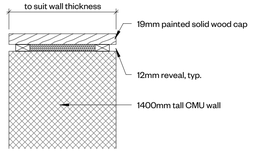
13 Infant Cubbies 114 North
1 : 50



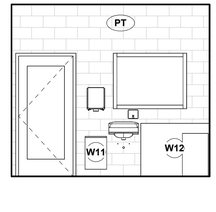
14 Infant Cubbies 114 East
1 : 50



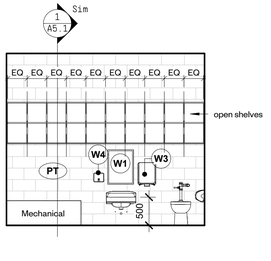
10 Interior Elevation - Shared WC 110 South
1 : 50



11 1400mm Height Wall Sill Detail
1 : 5

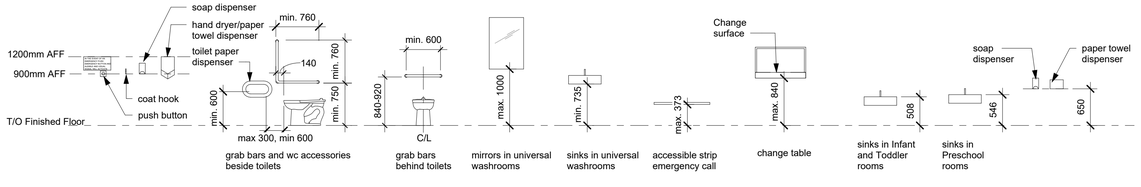


15 Infant WC 115 West
1 : 50



16 Infant WC 115 East
1 : 50

Mounting Schedule



Child-height Mounting Schedule

Notes:

1. All controls (power door operator, elevator call buttons, fire alarms, switches, emergency call button and fire extinguishers, coat hooks etc.) to be between 900mm and 1200mm AFF.

2. Locations of all accessories and controls to be marked on site prior to installation for final sign off.

17 Typical Child WC Partition
1 : 50

Washroom Accessories

Note	Description
W1	Mirror - 18" x 24"
W2	Tilted mirror
W3	Paper towel dispenser
W4	Soap dispenser
W5	Toilet paper dispenser
W6	Horizontal grab bar
W7	L-shaped grab bar
W8	Automatic hand dryer
W9	Sanitary napkin disposal
W10	Stainless steel shelf
W11	Wall-mounted waste receptacle
W12	Pre-fabricated change table with roll-out stairs
W13	Coat hook

General Notes

Note	Description
1	Line of canopy above
2	1400mm wall - refer to detail 11/A4.1 for sill detail
3	Stroller parking area
4	Roof hatch & access ladder
5	Water meter and vertical backflow preventor - see Mechanical
6	Mop sink
7	Utility shelf with hooks and mop holders
8	Drinking fountain/bottle filler - refer to Mechanical
9	Relocated gas meter assembly. Provide new painted steel protective enclosure.
10	Tactile attention indicator
11	50mm painted contrast strip
12	Recessed forced flow heater - see Mechanical
13	Cribs (N.I.C)
14	CMU infill wall with brick cladding to match existing brick at location of demolished window and door opening.
15	Exhaust and intake ducts - refer to Mechanical

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4	60% Client Review	2022-11-11
5	Reisssued for 60% Client Review	2023-01-25
6	Issued for 80% Costing	2023-02-27
14	Issued for 90% Client Review	2024-10-02
15	Issued for Permit	2024-12-11
16	Issued for Tender	2025-01-14

Legend

Existing partition to remain

New partition as scheduled

Symbols Legend

- PWX — Partition Tag - refer to partition schedule
- EWX — Exterior Wall Tag - refer to partition schedule
- WX — Window tag - refer to schedule
- SX — Glazed Screen tag - refer to schedule
- DXXX — New Door tag - refer to schedule
- MW1 — Millwork Tag
- GWB 1' - 0" — Ceiling Material Height above Finished Floor
- (E) — Existing
- N.I.C. — Not in Contract
- PB — Push Button - see Electrical
- RD — Roof Drain - see Mechanical
- UV — Unit Ventilator - see Mechanical

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CSV Renaissance Child Care Addition

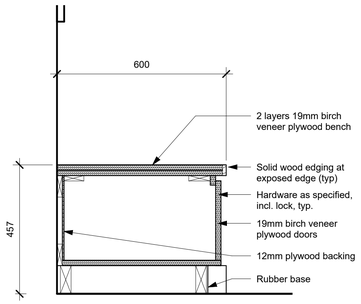
1226 Lockhart Rd
Burlington, ON L7S 1H1

PROJECT CODE:	SCALE:
2205	As indicated
DATE:	STATUS:
2025-01-16	Issued for Tender

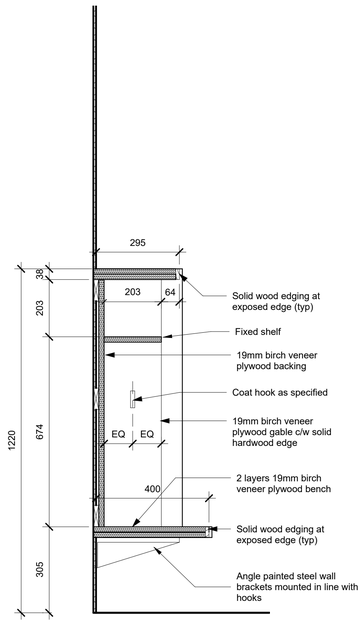
Detail Plans & Interior Elevations

Project North

drawing number
A4.1



1 MW1 - Section
1 : 10



2 Typical Cubby - Section
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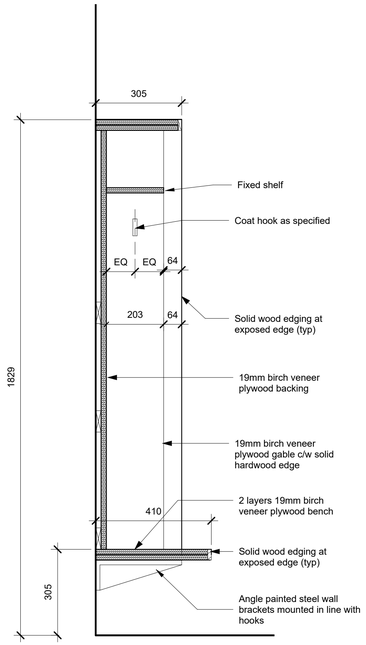
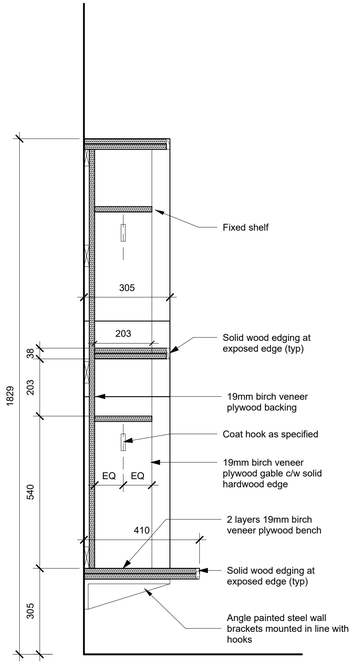


3 Teacher Cubby - Section
1 : 10



4 Infant Stacked Cubbies - Section
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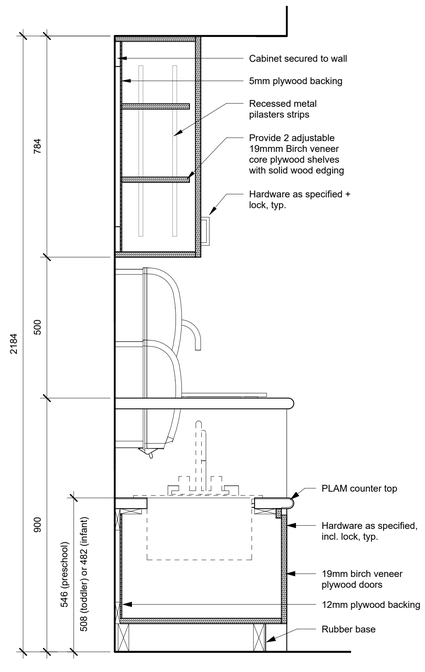

5 Child-height Sink - Section 1
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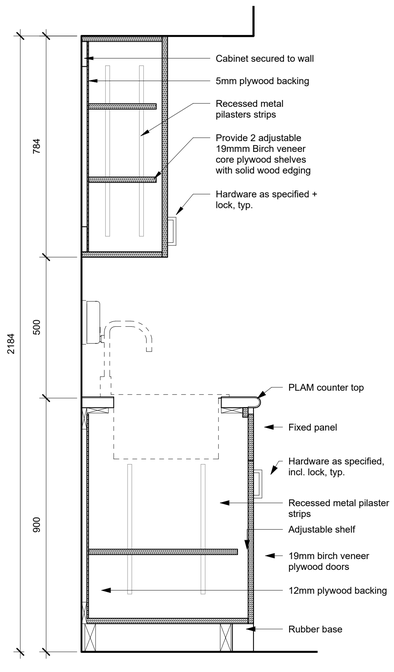

6 Adult Sink - Section
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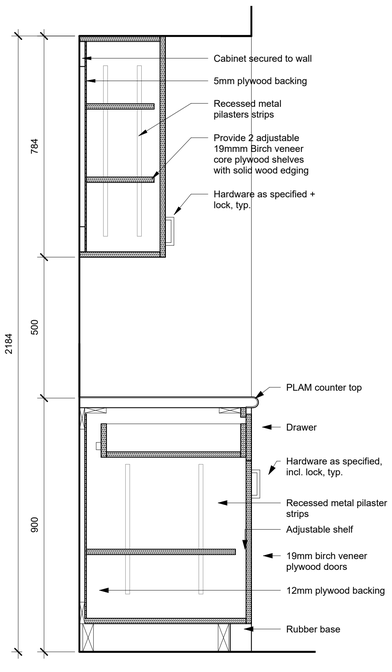
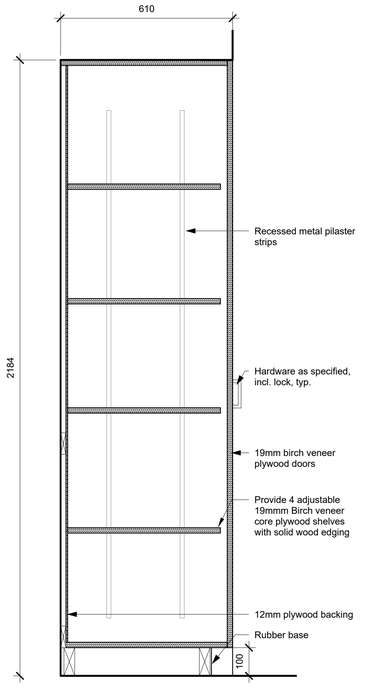
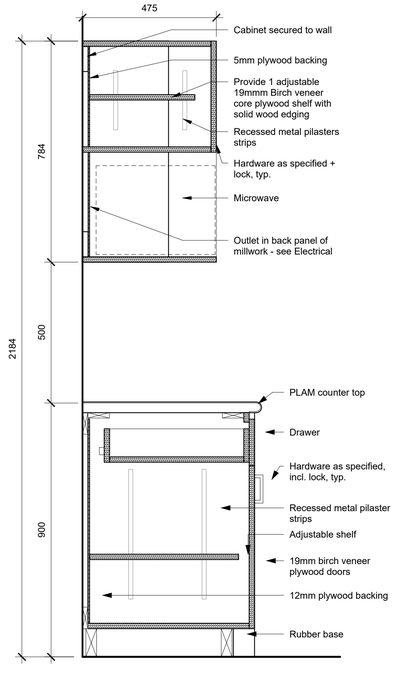


7 Section 6
1 : 10



8 Full-height Storage
1 : 10



9 Section @ Microwave Shelf
1 : 10

Rev	Description	Date
6	Issued for 80% Costing	2023-02-27
14	Issued for 90% Client Review	2024-10-02
15	Issued for Permit	2024-12-11
16	Issued for Tender	2025-01-14

Millwork Hardware Legend

Bumpers (2 each per door): Richelieu 3M (Peel & Stick)

Cabinet/Drawer Pulls: Richelieu Catalogue 6211 (BP6211128195)

Cam lock for all cabinet doors & drawers: National NCL-C8060-4GKA413A (keyed alike except as noted on shop drawing review)

Coat Hook (cubbies): Richelieu Safety Hook - HD (HDB0011P), colour to be selected by the Consultant

Concealed hinges: Blum Blumotion 110 degrees

Concealed shelf support brackets: Richelieu 1621712G

Recessed metal pilaster strips: Richelieu Heavy Duty Metal Pilaster 2332G -length to suit, flush installation

Steel Roller Glides at 150mm drawers: Accuride #2037 Full Extension

Soft close mechanism at all drawers: Richelieu BP9730991O

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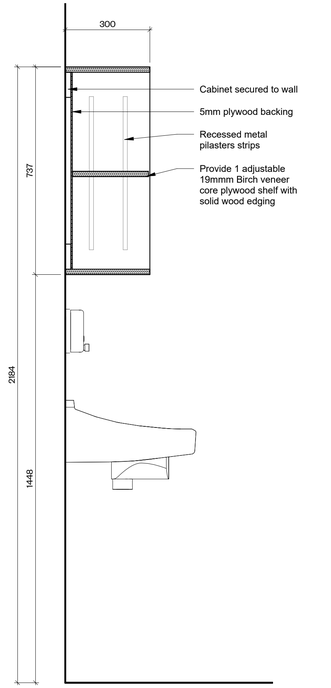
PROJECT CODE:	SCALE:
2205	As indicated
DATE:	STATUS:
2025-01-16	Issued for Tender

Millwork Details

Project North

drawing number
A5.0



1 Open Upper Shelves - Section
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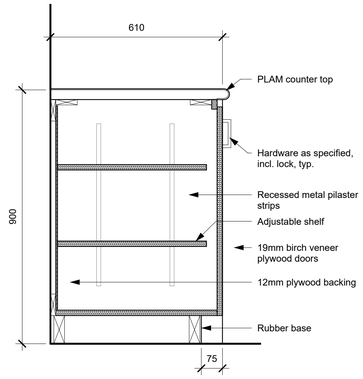
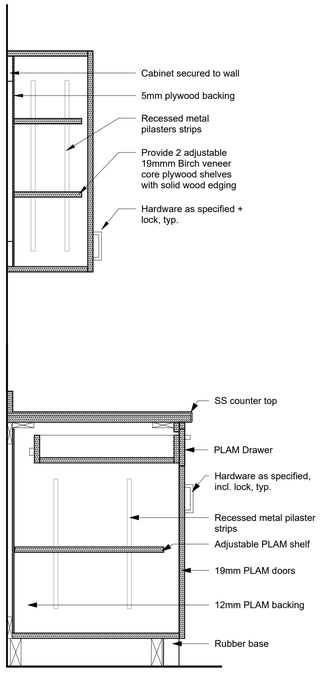
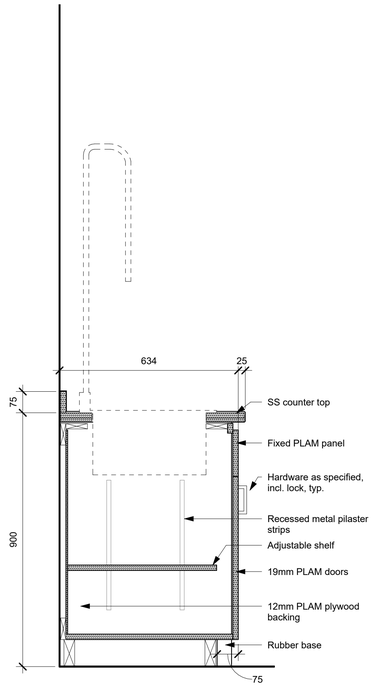


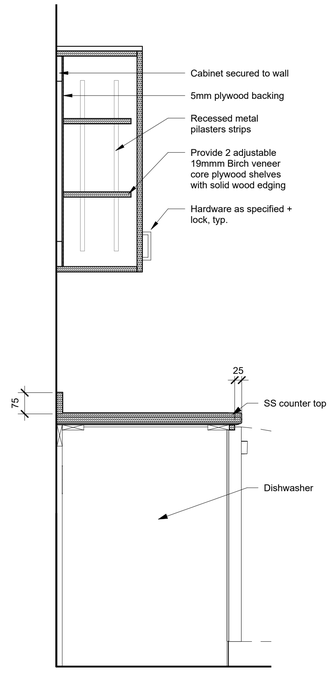
2 MW7 [Dressing Table] - Section
1 : 10



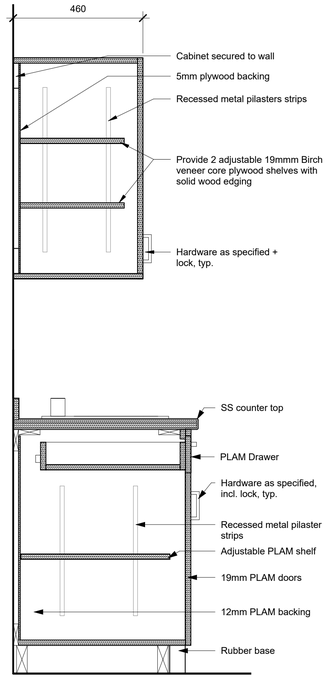
3 MW5 - Section 1
1 : 10



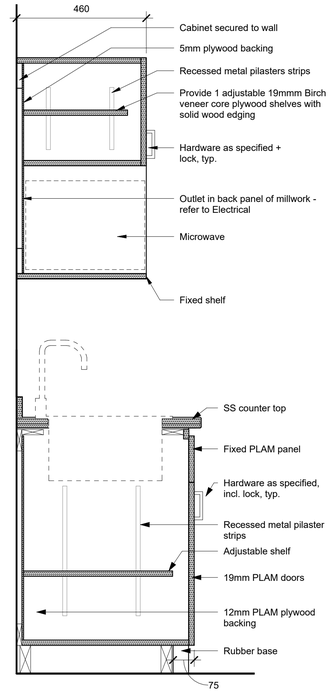
4 MW5 - Section 2 through sink
1 : 10



5 MW5 - Section 3 through dishwasher
1 : 10



6 MW4 - Section 1
1 : 10



7 MW4 - Section 2
1 : 10

Rev	Description	Date
14	Issued for 90% Client Review	2024-10-02
15	Issued for Permit	2024-12-11
16	Issued for Tender	2025-01-14

Millwork Hardware Legend

Bumpers (2 each per door): Richelieu 3M (Peel & Stick)

Cabinet/Drawer Pulls: Richelieu Catalogue 6211 (BP6211128195)

Cam lock for all cabinet doors & drawers: National NCL-C8060-4GKA413A (keyed alike except as noted on shop drawing review)

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Steel Roller Glides at 150mm drawers: Accuride #2037 Full Extension

Soft close mechanism at all drawers: Richelieu BP97309910

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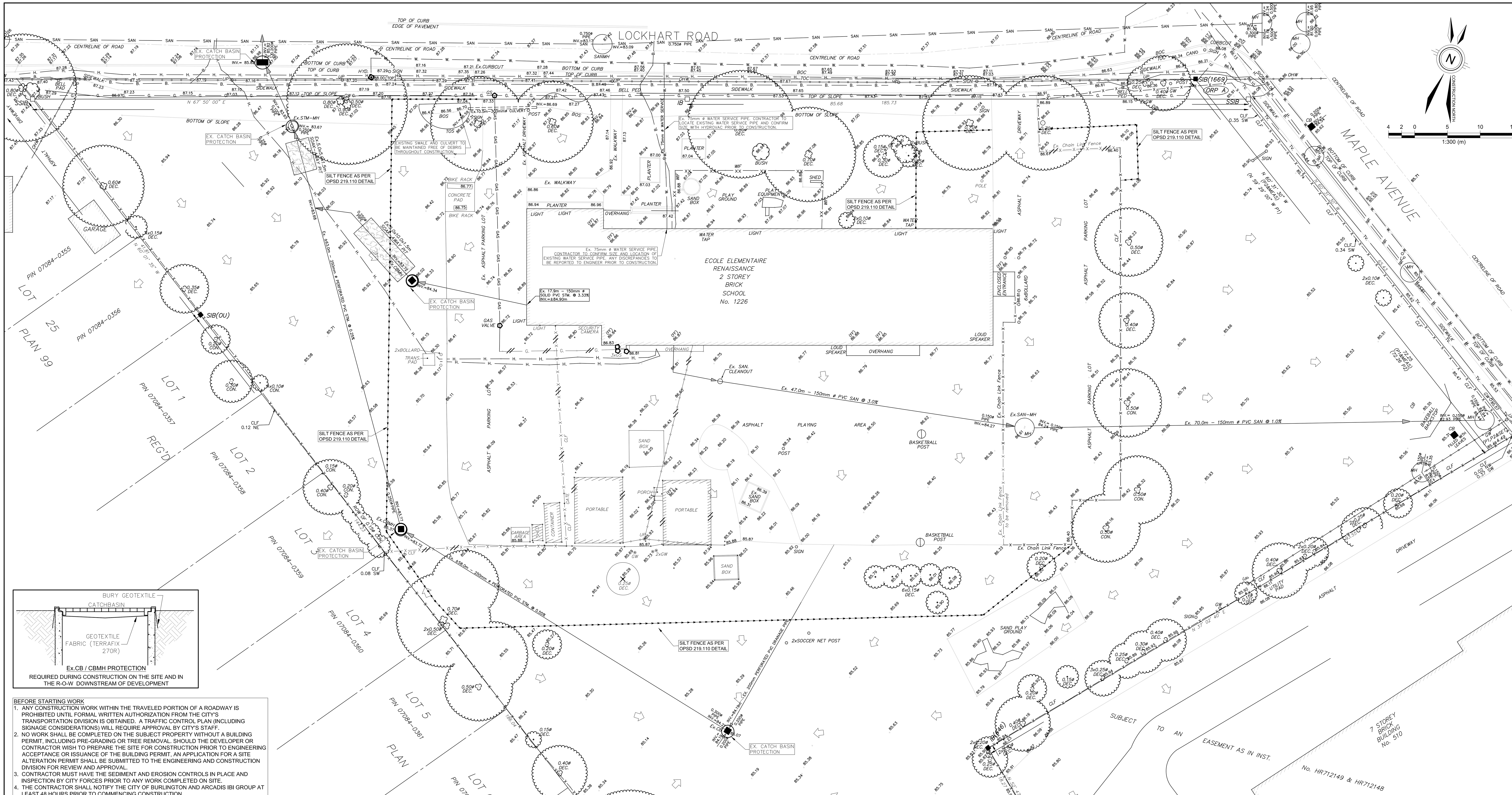
Millwork Details

Project North

drawing number
A5.1



BURY GEOTEXTILE
CATCHBASIN
GEOTEXTILE FABRIC (TERRAFIX 270R)

Ex.CB / CBMH PROTECTION

REQUIRED DURING CONSTRUCTION ON THE SITE AND IN THE R-O-W DOWNSTREAM OF DEVELOPMENT

BEFORE STARTING WORK

1. ANY CONSTRUCTION WORK WITHIN THE TRAVELED PORTION OF A ROADWAY IS PROHIBITED UNTIL FORMAL WRITTEN AUTHORIZATION FROM THE CITY'S TRANSPORTATION DIVISION IS OBTAINED. A TRAFFIC CONTROL PLAN (INCLUDING SIGNAGE CONSIDERATIONS) WILL REQUIRE APPROVAL BY CITY'S STAFF.
2. NO WORK SHALL BE COMPLETED ON THE SUBJECT PROPERTY WITHOUT A BUILDING PERMIT, INCLUDING PRE-GRADING OR TREE REMOVAL. SHOULD THE DEVELOPER OR CONTRACTOR WISH TO PREPARE THE SITE FOR CONSTRUCTION PRIOR TO ENGINEERING ACCEPTANCE OR ISSUANCE OF THE BUILDING PERMIT, AN APPLICATION FOR A SITE ALTERATION PERMIT SHALL BE SUBMITTED TO THE ENGINEERING AND CONSTRUCTION DIVISION FOR REVIEW AND APPROVAL.
3. CONTRACTOR MUST HAVE THE SEDIMENT AND EROSION CONTROLS IN PLACE AND INSPECTION BY CITY FORCES PRIOR TO ANY WORK COMPLETED ON SITE.
4. THE CONTRACTOR SHALL NOTIFY THE CITY OF BURLINGTON AND ARCADIS IBI GROUP AT LEAST 48 HOURS PRIOR TO COMMENCING CONSTRUCTION.
5. THE POSITION OF THE POLE LINES, CONDUITS, WATERMAINS, SEWERS, AND OTHER UTILITIES AND STRUCTURES ARE NOT NECESSARILY SHOWN ON THE CONTRACT DRAWINGS, AND WHERE SHOWN, THE ACCURACY OF THE POSITION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED.
6. PRIOR TO THE COMMENCEMENT OF CONSTRUCTION, ALL BENCHMARKS, ELEVATIONS, DIMENSIONS, AND GRADES MUST BE CHECKED BY THE CONTRACTOR AND ANY DISCREPANCIES REPORTED TO THE ENGINEER.
7. ALL EXISTING UNDERGROUND UTILITIES WITHIN THE LIMITS OF CONSTRUCTION SHALL BE LOCATED, MARKED AND PROTECTED. ANY UTILITIES DAMAGED OR DISTURBED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.
8. ALL WORK WITHIN CITY RIGHT-OF-WAY TO BE DONE BY CITY FORCES OR APPROVED CONTRACTOR TO CITY STANDARDS AT THE EXPENSE OF THE OWNER.
9. ALL MUDTRACKING/SEDIMENT LEAVING SITE IS THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE CLEANED DAILY.
10. CONTRACTOR/OWNER IS RESPONSIBLE TO RESTORE ANY DOWNSTREAM STORMWATER DAMAGE CAUSED BY CONSTRUCTION AND/OR DISTURBED PROPERTY WITHIN THE MUNICIPAL RIGHT-OF-WAY TO THE CITY OF BURLINGTON STANDARDS.
11. PRIOR OF CONSTRUCTION OWNER OF THE SITE TO INSTALL A PROJECT SIGN CLEARLY VISIBLE TO THE PUBLIC INDICATING:
   a. THE NAME OF THE REGISTERED OWNER OR DEVELOPER;
   b. THE NAME OF THE CONSULTING ENGINEER
   c. THE NAME OF THE GENERAL CONTRACTOR

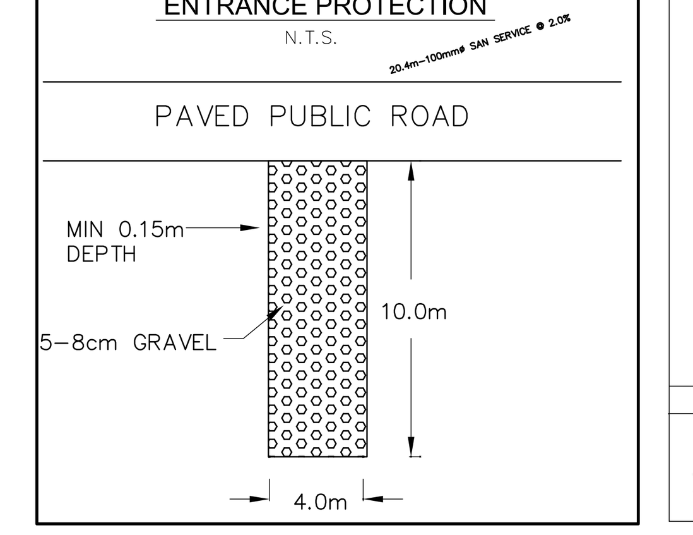
   A TELEPHONE CONTACT NUMBER FOR EACH OF THE ABOVE TO BE CLEARLY MARKED ON THE SIGN. AT LEAST ONE OF THE TELEPHONE NUMBERS TO BE DESIGNATED AS A 24 HOUR EMERGENCY CONTACT NUMBER. SIGN TO BE MAINTAINED IN GOOD ORDER UNTIL PROJECT IS COMPLETED
12. ALL HEALTH AND SAFETY RELATED SIGNAGE MUST BE POSTED AT THE SITE REQUIRED BY THE APPLICABLE LAW AND BEST MANAGEMENT PRACTICES.
13. CONTRACTOR TO ENSURE ALL CATCHBASINS ALONG ROADS BORDERING AND DOWNSTREAM OF CONSTRUCTION MUST BE PROTECTED WITH FILTER FABRIC;
14. EXISTING PROPERTY LINE MUST BE SURVEYED AND IDENTIFIED PRIOR TO CONSTRUCTION AND ALL FENCING MUST BE PLACED INSIDE THE PROPERTY LINE;
15. CONTRACTOR MUST NOTIFY ALL NEIGHBORING RESIDENCE PRIOR OF PROPOSED WORKS ON THE ROAD RIGHT-OF-WAY. CLEAR ACCESS TO ADJACENT PROPERTIES MUST BE MAINTAINED AT ALL TIMES;
16. CONTRACTOR TO PROVIDE LOCATION OF EMERGENCY ACCESS TO THE CITY FOR APPROVAL PRIOR OF CONSTRUCTION. EMERGENCY ENTRANCE TO HAVE CLEAR ACCESS AT ALL TIME FOR EMERGENCY.
17. IF REQUIRED GENERAL CONTRACTOR IS RESPONSIBLE TO SCHEDULE PRE-CONSTRUCTION MEETING WITH THE CITY OF BURLINGTON ENGINEERING SERVICE REPRESENTATIVE AND ARCADIS IBI GROUP PRIOR OF CONSTRUCTION.
18. TRAFFIC PLAN BASED ON ONTARIO TRAFFIC MANUAL (OTM) BOOK 7 IS REQUIRED AND MUST BE APPROVED BY THE CITY OF BURLINGTON. CONTRACTOR TO PROVIDE THE TRAFFIC PLAN TO THE CITY PRIOR OF CONSTRUCTION. COPY OF TRAFFIC PLAN TO BE ON THE SITE AT ALL TIMES.

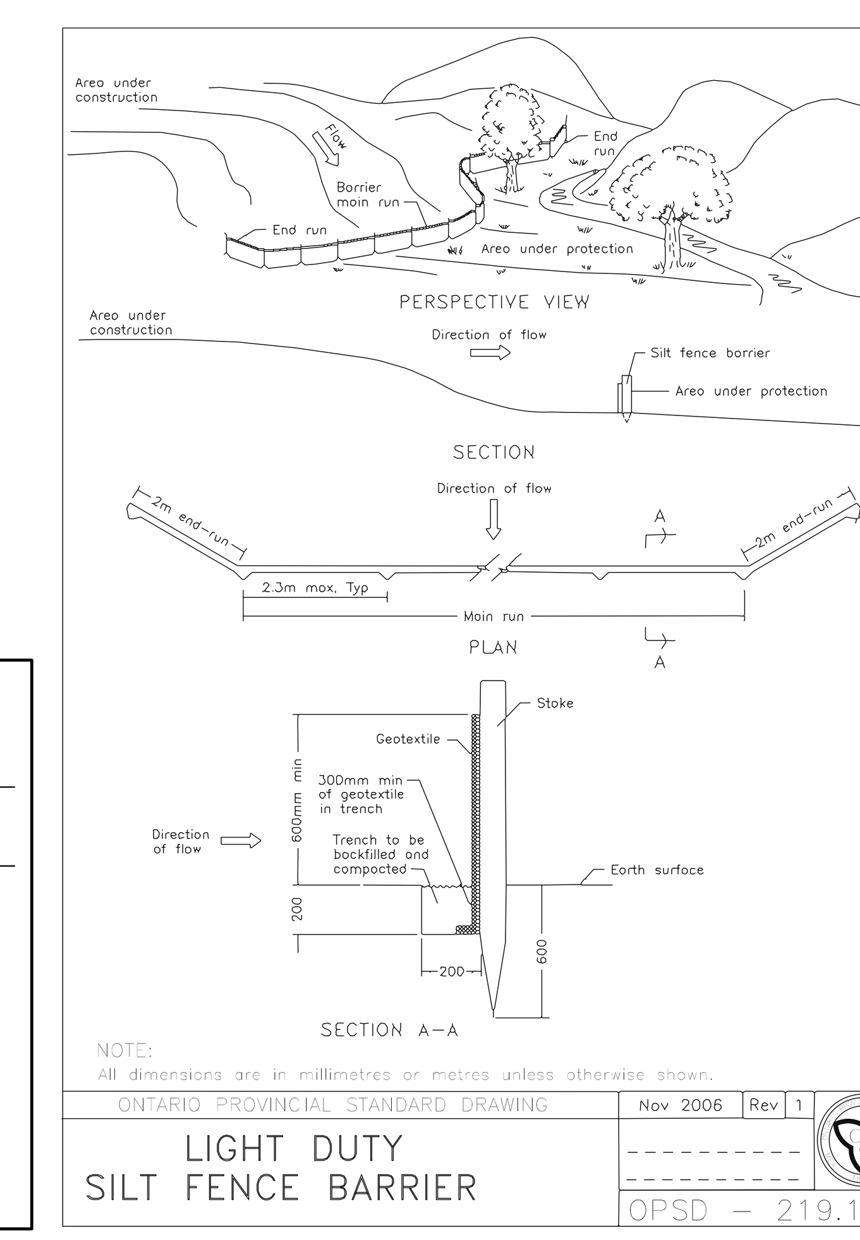
EROSION CONTROL NOTES

1. NO ALTERNATIVE METHODS OF EROSION CONTROL PROTECTION SHALL BE PERMITTED UNLESS APPROVED BY ARCADIS IBI GROUP AND THE CITY OF BURLINGTON'S ENGINEERING SERVICES.
2. SILT FENCING TO BE PER OPSD 219.110 AND REQUIRED TO BE INSTALLED AROUND FULL CONSTRUCTION AREA.
3. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES MUST BE PUT INTO PLACE AT THE CITY'S REQUEST.
4. STOCKPILE LOCATIONS TO BE MINIMUM 2.50m FROM PROPERTY LINE. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED AS SITE DEVELOPMENT PROGRESSES.
5. CONTRACTOR TO PROVIDE ALL ADDITIONAL EROSION CONTROL FEATURES TO PREVENT SEDIMENT FROM LEAVING THE SITE.
6. SEDIMENTS TO BE REMOVED WHEN ACCUMULATIONS REACH A MAXIMUM OF 1/3 THE HEIGHT OF THE STRUCTURE.
7. CONTRACTOR IS RESPONSIBLE FOR REMOVING SEDIMENTS FROM THE MUNICIPAL ROADWAY AND SIDEWALKS AT THE END OF EACH WORK DAY.
8. ALL EROSION CONTROL STRUCTURES TO REMAIN IN PLACE UNTIL ALL DISTURBED GROUND SURFACES HAVE BEEN RE-STABILIZED EITHER BY PAVING OR RESTORATION OF VEGETATIVE GROUND COVER.
9. CONTRACTOR TO MONITOR THE SITE DEVELOPMENT TO ENSURE ALL EROSION CONTROLS ARE INSTALLED AND MAINTAINED TO CITY REQUIREMENTS AND ANY DAMAGE REPAIRED IMMEDIATELY.
10. CONTRACTOR TO COMPLY WITH THE ENGINEER'S INSTRUCTIONS TO INSTALL, MODIFY OR MAINTAIN EROSION CONTROL WORKS.
11. MUNICIPAL ROAD RIGHT-OF-WAY TO BE MAINTAINED FREE OF DEBRIS THROUGHOUT CONSTRUCTION. STREET SWEEPING AND DUST CONTROL SHALL BE COMPLETED DAILY, IF APPLICABLE.

ENTRANCE PROTECTION

N.T.S.





LIGHT DUTY SILT FENCE BARRIER

OPSD – 219.110

CLIENT

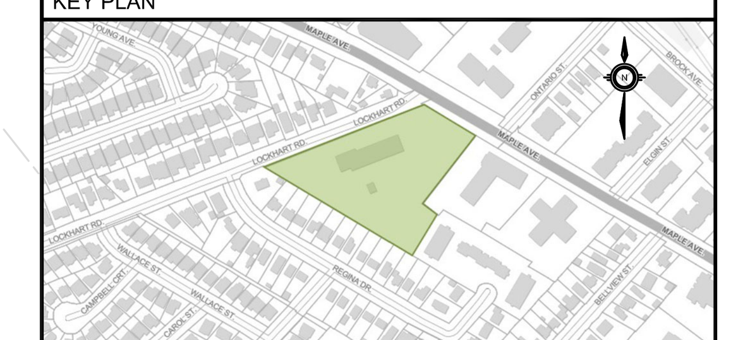
CSV Renaissance c/o WORKSHOP

6 Sousa Mendes Street, Toronto

ISSUES

No.	DESCRIPTION	DATE
1	ISSUED FOR 60% CLIENT REVIEW	2023-01-23
2	ISSUED FOR 80% CLIENT REVIEW	2023-02-24
3	FIRST SPA SUBMISSION	2023-03-10
4	SECOND SPA SUBMISSION	2024-05-22
5	WATER SERVICE REVISION	2024-07-04
6	ISSUED FOR 90% CLIENT REVIEW	2024-08-16
7	REVISIONS AS PER CITY COMMEN.	2024-09-04
8	ISSUED FOR PERMIT/TENDER	2024-12-09
9	ISSUED FOR TENDER	2025-01-17
#	#	#

KEY PLAN



LEGEND

- CB – EXISTING CATCH BASIN
- STM–MH – EXISTING STORM MANHOLE
- CBMH – EXISTING CB MANHOLE
- – EXISTING STORM FLOW DIRECTION
- SAN–MH – EXISTING SANITARY MANHOLE
- – EXISTING SANITARY FLOW DIRECTION
- HYD – EXISTING HYDRANT
- WV – EXISTING WATER VALVE
- – EXISTING WATERMAIN
- – EXISTING DECIDUOUS TREE REMAIN
- – EXISTING CONIFEROUS TREE TO REMAIN
- – TREE TO BE REMOVED
- MH S1 – REMOVE EXISTING STORM, SANITARY SEWER AND WATERMAIN INCLUDING STRUCTURES AND FITTINGS.
- 364.00 – ORIGINAL GROUND CONTOUR
- 340.11 OG – ORIGINAL GROUND ELEVATION
- – EXISTING WOOD BOARD FENCE
- x – EXISTING CHAIN LINK FENCE
- – EXISTING OVERLAND FLOW ROUTE

BENCHMARK INFO

ELEVATIONS ARE REFERRED TO THE CITY OF BURLINGTON BENCHMARK No. 212, HAVING ON ELEVATION OF 85.626 m.

LOCAL BENCHMARK INFO

TOP OF FIRE HYDRANT FRONTING THE SITE, HAVING ON ELEVATION OF 88.00 m.

THIS PLAN TO BE READ IN CONJUNCTION WITH THE SITE AND GRADING PLAN AND THE STORM WATER MANAGEMENT BRIEF / REPORT PREPARED BY IBI GROUP.

THE POSITION OF POLE LINES, CONDUITS, WATERMAINS, SEWERS AND OTHER UNDERGROUND AND ABOVEGROUND UTILITIES AND STRUCTURES IS NOT NECESSARILY SHOWN ON THE CONTRACT DRAWINGS, AND, WHERE SHOWN, THE ACCURACY OF THE POSITION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED. BEFORE STARTING WORK, THE CONTRACTOR SHALL INFORM HIMSELF OF THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES, AND SHALL ASSUME ALL LIABILITY FOR ANY DAMAGE TO THEM.

CERTIFIED ENGINEERING TECHNOLOGIST – JAN. 17, 2025 – OACETT ONTARIO – EMIR CERIC – Nº 826841

LICENSED PROFESSIONAL ENGINEER – M. SHOOSHTARY – 100143111 – JAN. 17, 2025 – PROVINCE OF ONTARIO

ARCADIS

Arcadis Professional Services (Canada) Inc.
Suite 101 - 410 Albert Street Waterloo ON N2L 3V3
Canada. tel 519 585 2255 arcadis.com

PROJECT

ÉCOLE ELEMENTAIRE RENAISSANCE - CHILD CARE BUILDING ADDITION

1226 Lockhart Rd, Burlington

PROJECT NO: 139391	SCALE: 1:300
DRAWN BY: E. CERIC	CHECKED BY: M. SHOOSHTARY
PROJECT MGR: E. CERIC	APPROVED BY: M. SHOOSHTARY

SHEET TITLE

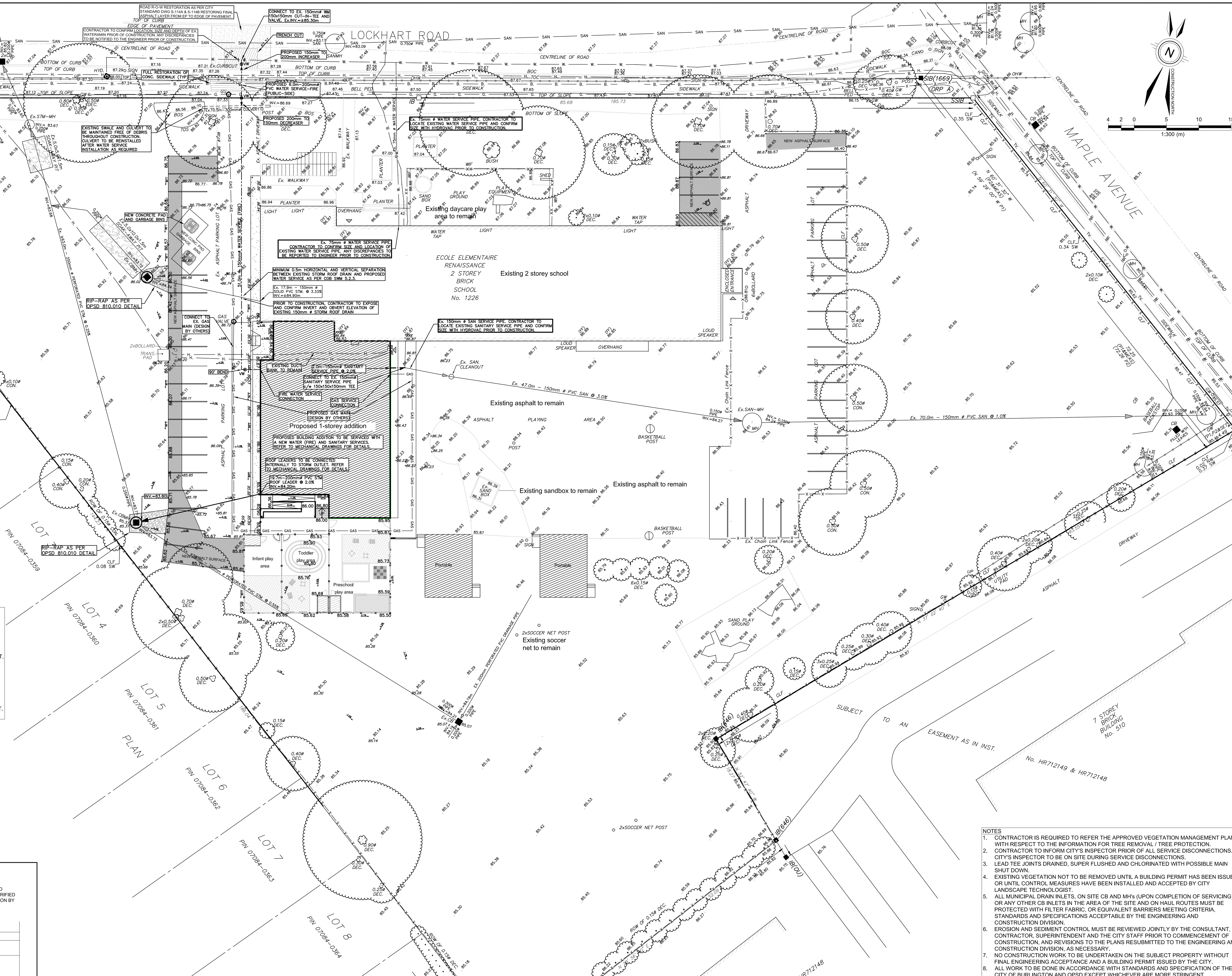
EXISTING CONDITIONS, REMOVALS AND EROSION AND SEDIMENT CONTROL PLAN

SHEET NUMBER 1

ISSUE 9

SCALE CHECK 1 in 10mm

File Location: J:\Waterloo\139391_Three_Child_\7.0_Production\7.03_Design\04_Civil\139391C.dwg Last Saved: January 17, 2025, by cerice2703 Plotted: January 17, 2025 4:27:52 PM by Ceric, Emir



ASPHALT AND CONCRETE RESTORATION NOTES:

1. ASPHALT RESTORATION LIMITS ON THE ROAD RIGHT-OF-WAY DUE TO CONNECTION OF MUNICIPAL SERVICES TO BE ENTIRE ROAD WORK AREA TO CONSIST OF ONE PATCH. WHERE ROAD CUT IS REQUIRED, THE CONTRACTOR TO CUT FROM CURB TO CURB AND REMOVE ASPHALT.
2. PRIOR OF PLACEMENT OF SURFACE ASPHALT ON THE ROAD CUT FOR CONNECTION OF SERVICES, TACK COATING OF JOINTS AND BASE ASPHALT IS REQUIRED.
3. MINIMUM DEPTHS OF ASPHALT AND GRAVEL ON THE ROAD : 40mm HL3 SURFACE ASPHALT, 60mm HL4 BASE ASPHALT, 150mm GRANULAR "A" ROAD BASE AND 400mm GRANULAR "B" ROAD SUB BASE.
4. MINIMUM DEPTHS FOR ASPHALT DRIVEWAY RAMPS: 30mm HL3 SURFACE ASPHALT, 40mm HL4 BASE ASPHALT AND 250mm GRANULAR :A: BASE.
5. CONTRACTOR TO REMOVE AND REPLACE ALL DAMAGED SIDEWALKS DUE TO CONSTRUCTION ACTIVITY RELATED TO THE PROJECT IN ACCORDANCE WITH OPSS 310.010, 301.020 301.030.
6. CONTRACTOR TO REPLACE ALL DAMAGED CURB AND GUTTER RELATED TO THE PROJECT.
7. NO RECYCLED ASPHALT IS ACCEPTABLE IN HL3, VIRGIN HL3 IS REQUIRED.

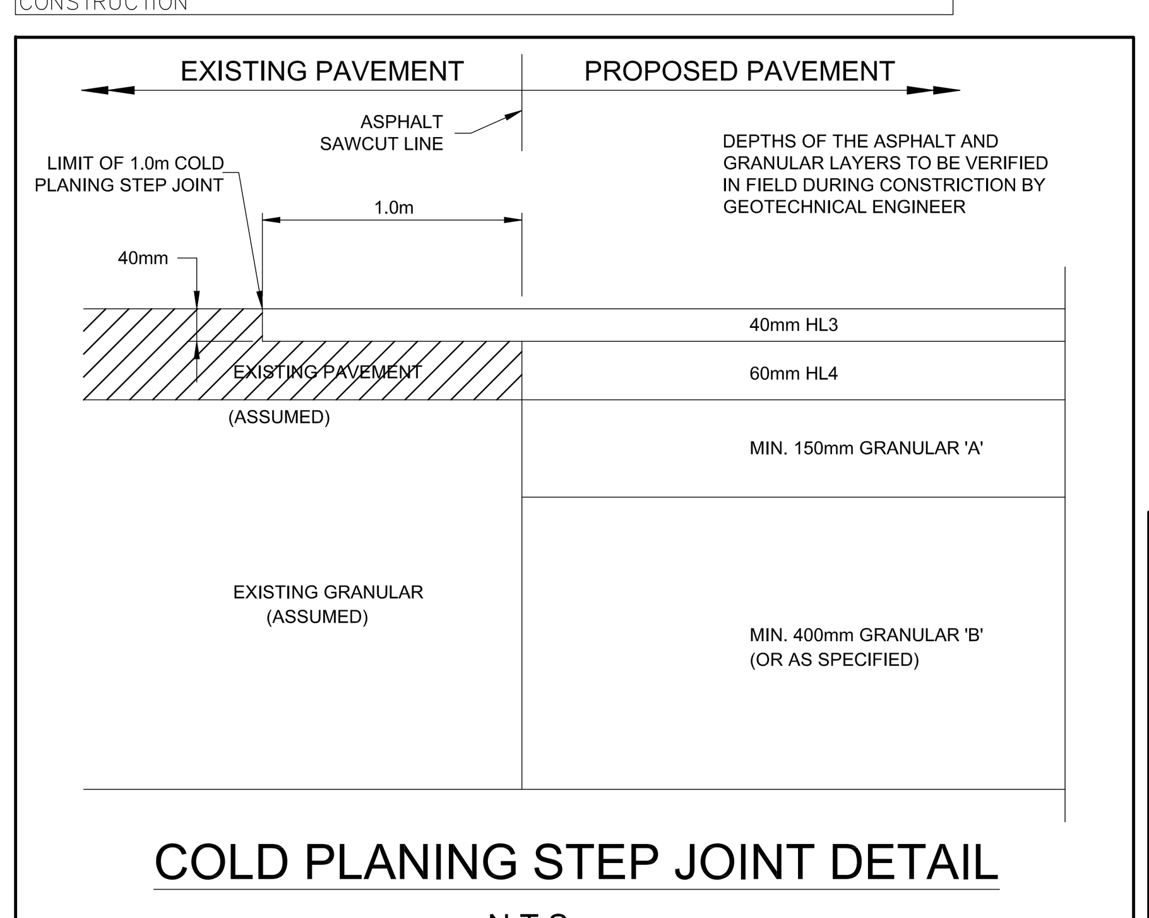
BOULEVARD RESTORATION NOTES:

1. CONTRACTOR TO RESTORE DISTURBED BOULEVARD AREA BETWEEN EDGE OF PAVEMENT AND PROPERTY LINE WITH MINIMUM 150mm TOPSOIL AND SOD

MIN. 0.5m VERTICAL SEPARATION IS REQUIRED BETWEEN EX. STORM AND SANITARY SEWERS AND PROPOSED 150 / 200 mm Ø WATER SERVICE. DEFLECTION OF PROPOSED WATER SERVICE WILL BE REQUIRED IF SEPARATION IS LESS THAN 0.5m. ANY DISCREPANCIES TO BE NOTIFIED TO THE ENGINEER PRIOR OF CONSTRUCTION

NOTE:
PRIOR TO COMMENCING WORK, ALL EXISTING UNDERGROUND UTILITIES SHALL BE LOCATED, MARKED AND PROTECTED. DEPTH OF EXISTING SERVICES SHOULD BE VERIFIED AND NOTIFY DESIGN ENGINEER OF DISCREPANCIES

CONTRACTOR TO CONFIRM LOCATION, SIZE AND DEPTH OF EX. WATERAMIN ON RIGHT-OF-WAY PRIOR OF CONSTRUCTION. MIN. 0.5m VERTICAL SEPARATION IS REQUIRED BETWEEN PROPOSED WATER SERVICE AND EXISTING STORM ROOF DRAIN. ANY DISCREPANCIES TO BE NOTIFIED TO THE ENGINEER PRIOR OF CONSTRUCTION



COLD PLANING STEP JOINT DETAIL

N.T.S.

GENERAL SERVICING NOTES

1. STORM SEWER SYSTEM:
   A. CLASS "B" BEDDING.
   B. 1.5m MINIMUM COVER.
   C. STORM PIPE PVC SDR 35
2. WATERMAIN SYSTEM:
   A. CLASS "B" BEDDING.
   B. 150mm and 200mm Ø (IPEX-BLUE BRUTE B1373) DR18 PVC PIPE
   C. 2.0m MINIMUM COVER.
   D. 8 GAUGE TRACER WIRE TO BE INSTALLED ALONG THE LENGTH OF THE WATER SERVICE
   E. ALL NEW PRIVATE FIRE SERVICE MAINS TO BE TESTED HYDROSTATICALLY AT NOT LESS THAN 200psi PRESSURE FOR TWO HOURS PER BUILDING CODE.
   F. CONCRETE THRUST BLOCK TO BE INSTALLED ON ALL BENDS.

NOTES

1. CONTRACTOR IS REQUIRED TO REFER THE APPROVED VEGETATION MANAGEMENT PLAN WITH RESPECT TO THE INFORMATION FOR TREE REMOVAL / TREE PROTECTION.
2. CONTRACTOR TO INFORM CITY'S INSPECTOR PRIOR OF ALL SERVICE DISCONNECTIONS. CITY'S INSPECTOR TO BE ON SITE DURING SERVICE DISCONNECTIONS.
3. LEAD TEE JOINTS DRAINED, SUPER FLUSHED AND CHLORINATED WITH POSSIBLE MAIN SHUT DOWN.
4. EXISTING VEGETATION NOT TO BE REMOVED UNTIL A BUILDING PERMIT HAS BEEN ISSUED OR UNTIL CONTROL MEASURES HAVE BEEN INSTALLED AND ACCEPTED BY CITY LANDSCAPE TECHNOLOGIST.
5. ALL MUNICIPAL DRAIN INLETS, ON SITE CB AND MH's (UPON COMPLETION OF SERVICING), OR ANY OTHER CB INLETS IN THE AREA OF THE SITE AND ON HAUL ROUTES MUST BE PROTECTED WITH FILTER FABRIC, OR EQUIVALENT BARRIERS MEETING CRITERIA, STANDARDS AND SPECIFICATIONS ACCEPTABLE BY THE ENGINEERING AND CONSTRUCTION DIVISION.
6. EROSION AND SEDIMENT CONTROL MUST BE REVIEWED JOINTLY BY THE CONSULTANT, CONTRACTOR, SUPERINTENDENT AND THE CITY STAFF PRIOR TO COMMENCEMENT OF CONSTRUCTION, AND REVISIONS TO THE PLANS RESUBMITTED TO THE ENGINEERING AND CONSTRUCTION DIVISION, AS NECESSARY.
7. NO CONSTRUCTION WORK TO BE UNDERTAKEN ON THE SUBJECT PROPERTY WITHOUT FINAL ENGINEERING ACCEPTANCE AND A BUILDING PERMIT ISSUED BY THE CITY.
8. ALL WORK TO BE DONE IN ACCORDANCE WITH STANDARDS AND SPECIFICATION OF THE CITY OF BURLINGTON AND OPSD EXCEPT WHICHEVER ARE MORE STRINGENT.
14. NEW CURBS AND SOD TO BE REINSTATED AS REQUIRED. ANY AREAS IN RIGHT OF WAY DISTURBED THROUGH CONSTRUCTION TO BE REPLACED AT THE DEVELOPERS COST.
15. ALL SERVICE CONNECTIONS TO THE PROPERTY LINE MUST BE INSTALLED TO THE CITY'S SATISFACTION PRIOR TO ANY INTERNAL SERVICING WORKS AS PER CITY BY-LAW.
16. CITY OF BURLINGTON, ENGINEERING SERVICES DEPARTMENT MUST BE NOTIFIED OF ANY SIGNIFICANT CHANGES TO THE APPROVED DESIGN THAT MAY OCCUR DURING CONSTRUCTION.
17. CONTRACTOR IS RESPONSIBLE FOR RESTORING ALL AFFECTED PROPERTY TO ORIGINAL CONDITION, AT THE OWNER'S EXPENSE.
18. THE ENGINEERING ACCEPTANCE OF THIS PLAN DOES NOT EXEMPT THE OWNER'S BONDED CONTRACTOR FROM THE REQUIREMENTS TO OBTAIN THE VARIOUS PERMITS AND ADDITIONAL APPROVALS REQUIRED TO COMPLETE CONSTRUCTION PROJECT.
19. WATER SYSTEMS 100mm Ø AND LARGER TO BE ISOLATED FROM THE MUNICIPAL WATER SUPPLY WITH THE CERTIFIED BACKFLOW PREVENTION DEVICE DURING CONSTRUCTION.
20. WATER SERVICE TESTING AND COMMISSIONING TO COMPLY WITH CITY OF BURLINGTON STANDARDS.
21. #8 GAUGE TWU SOLID COPPER PLASTIC COATED TRACER WIRE TO BE ATTACHED TO EVERY NON-METALIC SERVICE TO INSIDE THE BUILDING AND ON FIRE SERVICE LEAD TO ENABLE THE PIPE TO BE LOCATED.

CLIENT

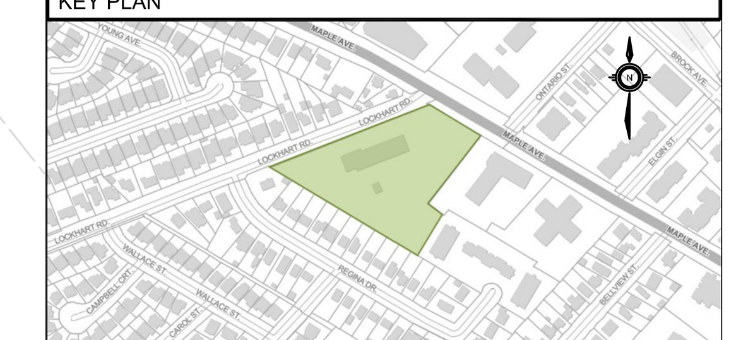
CSV Renaissance c/o WORKSHOP

6 Sousa Mendes Street, Toronto

ISSUES

No.	DESCRIPTION	DATE
1	ISSUED FOR 60% CLIENT REVIEW	2023-01-23
2	ISSUED FOR 80% CLIENT REVIEW	2023-02-24
3	FIRST SPA SUBMISSION	2023-03-10
4	SECOND SPA SUBMISSION	2024-05-22
5	WATER SERVICE REVISION	2024-07-04
6	ISSUED FOR 90% CLIENT REVIEW	2024-08-16
7	REVISIONS AS PER CITY COMMEN.	2024-09-04
8	ISSUED FOR PERMIT/TENDER	2024-12-09
9	ISSUED FOR TENDER	2025-01-17
#	#	#

KEY PLAN



LEGEND

- ×346.00 – PROPOSED GRADE ELEVATION
- ×156.41 – EXISTING ROAD CENTER LINE
- 2.0% – PROPOSED SLOPE
- ■CB – PROPOSED CATCH BASIN
- ■AD – PROPOSED AREA DRAIN
- ○ – PROPOSED CLEAN OUT
- ● MH – PROPOSED STORM MANHOLE
- – PROPOSED STORM SEWER
- ● S–MH – PROPOSED SANITARY MANHOLE
- – PROPOSED SANITARY SEWER
- WV – PROPOSED WATER VALVE
- – PROPOSED WATERMAIN
- □CB – EXISTING CATCH BASIN
- ○ ST–MH – EXISTING STORM MANHOLE
- CBMH – EXISTING CB MANHOLE
- – EXISTING STORM FLOW DIRECTION
- ○ S–MH – EXISTING SANITARY MANHOLE
- – EXISTING SANITARY FLOW DIRECTION
- HYD – EXISTING HYDRANT
- ⊗WV – EXISTING WATER VALVE
- – EXISTING WATERMAIN
- 364.00 – ORIGINAL GROUND CONTOUR
- FULL DEPTH PAVEMENT REMOVAL AND REPLACEMENT
- 40mm ASPHALT MILLING AND REPLACEMENT

BENCHMARK INFO
ELEVATIONS ARE REFERRED TO THE CITY OF BURLINGTON BENCHMARK No. 212, HAVING ON ELEVATION OF 85.626 m.

LOCAL BENCHMARK INFO
TOP OF FIRE HYDRANT FRONTING THE SITE, HAVING ON ELEVATION OF 88.00 m.

THIS PLAN TO BE READ IN CONJUNCTION WITH THE EXISTING CONDITION AND REMOVAL PLAN AND THE STORM WATER MANAGEMENT BRIEF / REPORT PREPARED BY IBI GROUP.

THE POSITION OF POLE LINES, CONDUITS, WATERMAINS, SEWERS AND OTHER UNDERGROUND AND ABOVEGROUND UTILITIES AND STRUCTURES IS NOT NECESSARILY SHOWN ON THE CONTRACT DRAWINGS, AND, WHERE SHOWN, THE ACCURACY OF THE POSITION OF SUCH UTILITIES AND STRUCTURES IS NOT GUARANTEED. BEFORE STARTING WORK, THE CONTRACTOR SHALL INFORM HIMSELF OF THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES, AND SHALL ASSUME ALL LIABILITY FOR ANY DAMAGE TO THEM.

CERTIFIED ENGINEERING TECHNOLOGIST, OACETT, ONTARIO, JAN. 17, 2025, EMIR CERIC, Nº 826841

LICENSED PROFESSIONAL ENGINEER, M. SHOOSHTARY, 100143111, JAN. 17, 2025, PROVINCE OF ONTARIO

ARCADIS
Arcadis Professional Services (Canada) Inc.
Suite 101 - 410 Albert Street Waterloo ON N2L 3V3
Canada. tel 519 585 2255 arcadis.com

PROJECT

ÉCOLE ELEMENTAIRE RENAISSANCE - CHILD CARE BUILDING ADDITION

1226 Lockhart Rd, Burlington

PROJECT NO: 139391	SCALE: 1:300
DRAWN BY: E. CERIC	CHECKED BY: M. SHOOSHTARY
PROJECT MGR: E. CERIC	APPROVED BY: M. SHOOSHTARY

SHEET TITLE

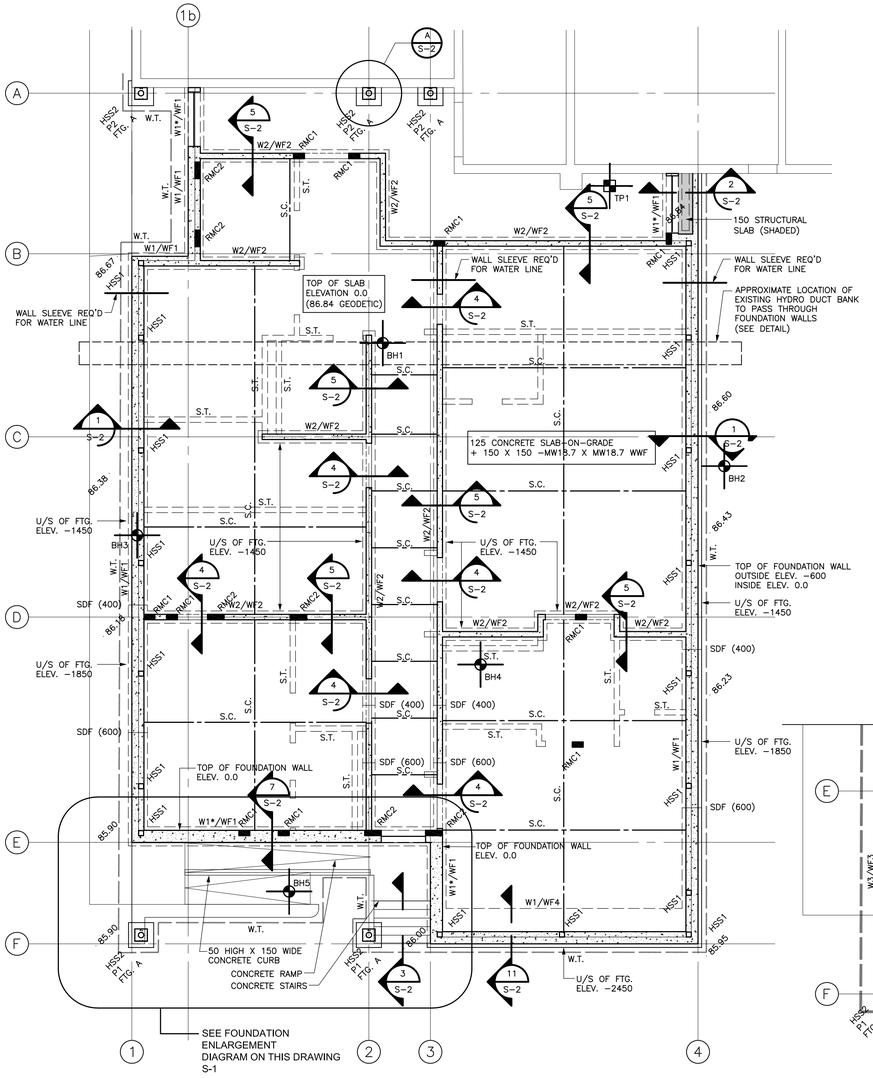
SITE GRADING AND SERVICING PLAN

SHEET NUMBER 2

ISSUE 9

File Location: J:\Waterloo\139391_Three_Child_\7.0_Production\7.03_Design\04_Civil\139391C.dwg Last Saved: January 17, 2025, by cerice2703 Plotted: January 17, 2025 4:46:49 PM by Ceric, Emir

SCALE CHECK 1 in 10mm



FOUNDATION PLAN

SCALE = 1:100

RAMP FOUNDATION PLAN

SCALE = 1:50

NOTE: ALL RAMP FOUNDATIONS AT -2450 FOR UNDERSIDE OF FOOTING.

FOUNDATION NOTES

1 TOP OF CONC. SLAB-ON-GRADE ELEVATION AT 0.0M (86.84M GEODETIC) UNLESS NOTED OTHERWISE ON PLAN.

2 SOIL INFORMATION TAKEN FROM GEOTECHNICAL INVESTIGATION PERFORMED BY PINCHIN, REF. NO. 313698, DATED DECEMBER 15, 2022. APPROXIMATE BOREHOLE LOCATIONS INDICATED ON THIS DRAWING.

3 ALL FOOTINGS TO BE FOUNDED ON UNDISTURBED NATIVE SANDY SILL TILL WITH AN UNFACTORED BEARING RESISTANCE (SLS) OF 150KPA. IN THE EVENT OF POORER BEARING CAPACITIES AT THESE ELEVATIONS, THE CONTRACTOR SHALL NOTIFY THE CONSULTANTS BEFORE PROCEEDING WITH CONSTRUCTION.

4 UNLESS OTHERWISE NOTED, ALL CONCRETE SLAB-ON-GRADE TO BE 125 THICK WITH 152 X 152 X MW18.7 X MW18.7 WWM MID. FOR SLAB-ON-GRADE CONSTRUCTION REMOVE ANY TOPSOIL AND FILL. BUILD UP SLAB SUB-GRADE TO UNDERSIDE OF GRANULAR 'A' LAYER WITH IMPORTED GRANULAR 'B' MATERIAL APPROVED BY GEOTECHNICAL CONSULTANT PLACED IN MAX. 200MM LIFTS AND COMPACTED TO 100% PROCTOR DENSITY. PROVIDE 300MM OF GRANULAR 'A' COMPACTED TO 100% SPMDD AS A MOISTURE BARRIER IN ADDITION TO ARCHITECT SPECIFIED VAPOUR BARRIER. SEE GEOTECHNICAL INVESTIGATION FOR DEPTHS OF APPROVED GRANULAR FILL REQUIRED AT SELECTED BOREHOLE LOCATIONS.

5 ALL FOOTINGS SHALL BE CENTERED UNDER WALLS, UNLESS NOTED.

6 SEE ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS, WALL THICKNESSES, FLOOR SLOPES AND FLOOR FINISHES.

7 SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR ALL BURIED SERVICES, PITS, INSERTS, SLEEVES, ETC.

8 ALL SAW CUTS (S.C.) SHALL BE 38 MM DEEP WHERE SHOWN ON THE PLAN AND CAULKED AS PER ARCHITECTURAL SPECIFICATIONS.

9 BACKFILL AGAINST FOUNDATION WALLS SHALL BE PLACED SUCH THAT THE LEVEL OF BACKFILL ON THE ONE SIDE OF THE WALL IS NEVER MORE THAN 300MM ABOVE THE LEVEL ON THE OTHER SIDE OF THE WALL.

10 SEE STRUCTURAL NOTES AND SCHEDULES ON DRAWING S-5.

11 SEE FOOTING SCHEDULE, THIS DRAWING, FOR ALL WALL FOOTING CONSTRUCTION NOTED, WF1 AND WF2.

12 MINIMUM DEPTH OF ALL FOOTINGS SUBJECT TO FROST ACTION SHALL BE -1200MM BELOW FINISHED GRADE, TO TOP OF FOOTING. NOTIFY CONSULTANTS WHEN THIS IS NOT ATTAINABLE.

13 SEE ARCHITECTURAL DRAWINGS FOR ANY SLAB RECESSES REQUIRED FOR FLOOR FINISHES AND ADJUST TOP OF CONCRETE SLAB ELEVATION TO SUIT.

14 ALL FOOTING ELEVATIONS PROVIDED ON PLAN TAKEN FROM DATUM ELEV. OF 0.0M.

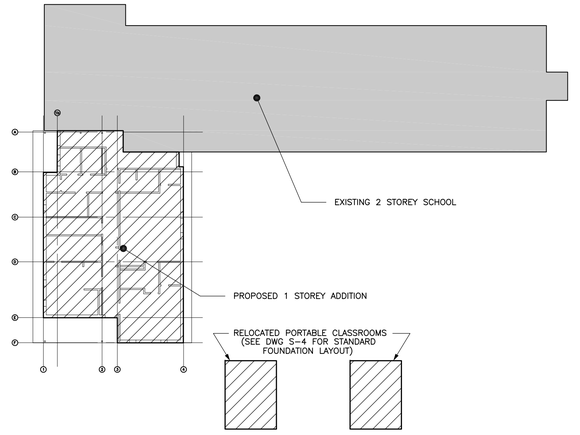
15 PROVIDE MINIMUM 15M DOWELS AT 600 C/C SPACING IN ALL CONCRETE FOOTINGS OR MATCH SPECIFIED WALL REINFORCEMENT. EXTEND DOWELS 15 BAR DIAMETERS INTO FOOTINGS AND 40 BAR DIAMETERS INTO WALL. PROVIDE HOOK IN FOOTINGS.

16 ALL REINFORCED CONCRETE BLOCK WALLS TO BE A MINIMUM OF 190MM THICK, U.N.O.

17 FOR ANY NEW OR EXISTING SERVICES PASSING THROUGH OR UNDER NEW FOUNDATIONS, MAKE PROVISIONS AS FOLLOWS:
- THROUGH FOUNDATION WALL: PROVIDE PIPE SLEEVE AND 50 COMPRESSIBLE INSULATION AROUND PIPE (FOR EXISTING ONLY) PRIOR TO POURING.
- UNDER FOOTING: PROVIDE 10MPA LEAN CONCRETE FILL TO DEPTH OF PIPE(S) UNDER FOOTING, MINIMUM FULL WIDTH OF FOOTING. LEAN CONCRETE FILL TO BEAR ON NATIVE SOIL CAPABLE OF A SLS BEARING CAPACITY OF 150KPA. PROVIDE 50 COMPRESSIBLE INSULATION AROUND PIPE (FOR EXISTING ONLY).

ALL SERVICES TO BE COORDINATED WITH MECHANICAL AND ELECTRICAL DRAWINGS, AND COORDINATED WITH STRUCTURAL ENGINEER PRIOR TO POURING.

18 ALL COLUMN BASE PLATES ARE TO BE RECESSED 200MM FROM TOP OF SLAB.



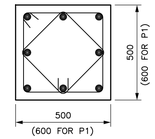
KEY PLAN

N.T.S.

CONCRETE PIER/ COLUMN SCHEDULE

MARK	SIZE	VERT. REINF.	TIES	REMARKS
P1	600 X 600	8-25M VERT.	2-10M @ 300 C/C	
P2	450 X 450	8-25M VERT.	2-10M @ 300 C/C	

NOTES:
1 SEE STRUCTURAL NOTES, DRAWING S-5.
2 SEE PLANS THIS DRAWING, FOR ALL PIER LOCATIONS.
3 WHERE PIER AND FOUNDATION WALL ARE COINCIDENT, CONSTRUCT WALL, PIER AND ASSOCIATED FOOTINGS INTEGRAL WITH EACH OTHER.



P1/P2

CONCRETE WALL SCHEDULE

MARK	THICKNESS	VERT. REINFORCING	HORIZ. REINFORCING	REMARKS
W1/W1*	410	15M @ 300 C/C, EA. FACE	15M @ 300 C/C, EA. FACE	
W2	190	15M @ 300 C/C, MID	15M @ 300 C/C, MID.	
W3	240	15M @ 300 C/C, EA. FACE	15M @ 300 C/C, EA. FACE	
W4	560	15M @ 300 C/C, EA. FACE	15M @ 300 C/C, EA. FACE	

NOTES:
1 SEE STRUCTURAL NOTES, DWG. S-5.
2 SEE PLANS, FOR LOCATION OF ALL CONCRETE WALL TYPES.
3 PROVIDE FOOTING DOWELS TO MATCH VERT. WALL REINF. @ 600 C/C, U/N. EXCEPT FOR FOOTING WF4 DOWELS TO MATCH EACH VERTICAL REBAR, SEE SECTION 11 ON S-2
4 WHERE "W1*" IS SHOWN THE WALL IS SOLID CONCRETE TO TOP OF WALL. THESE WALLS HAVE NO BLOCK LEDGE

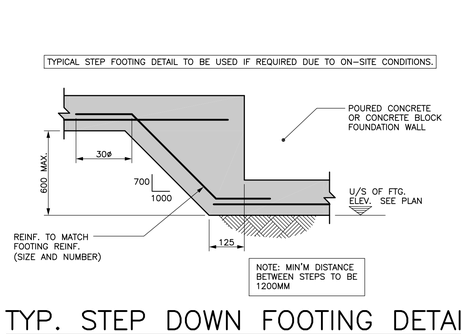
DRAWING LEGEND

RMC — REINFORCED MASONRY COLUMN. SEE SCHEDULE, DWG. S-5.
SDF — STEP DOWN FOOTING. SEE DETAIL DWG. S-2.
S.C. — SAW CUT, 25MM DEEP
C.J. — CONSTRUCTION JOINT IN SLAB. SEE DETAIL DWG. S-2.
CONC. BLK. FOUNDATION WALL
S.T. — TYPICAL SLAB THICKENING. SEE DRAWING S-2
W.T. — WEEPING TILE, SEE MECHANICAL & ARCHITECTURAL DRAWINGS AND COORDINATE
WF2 — CONCRETE FOOTING. SEE SCHEDULE THIS DRAWING.
HP — CONCRETE HOUSE KEEPING PAD 100 THICK (SEE MECHANICAL FOR PAD SIZE)
BH5 — APPROX. BORE HOLE LOCATION AND DEPTH TO BEARING LEVEL. TAKEN FROM GEOTECHNICAL REPORT
(-2050) — UNDERSIDE OF FOOTING ELEVATION FROM 0.0 DATUM (DATUM TAKEN @ 179.45)
HSS1 — HSS152 X 152 X 6.4 COL.
HSS2 — HSS178@ X 6.4 COL.
SSL — SLAB SUPPORT L100 X 100 X 8 WITH 12@ ADHESIVE ANCHORS @ 400 C/C, U/N.

WALL AND PIER FOOTING SCHEDULE

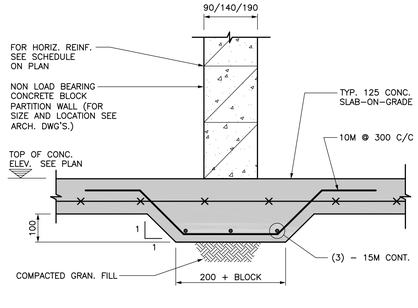
MARK	DIMENSIONS	FOOTING REINFORCEMENT	REMARKS
WF1	710 W X 250 T	3-15M, CONT. BTM. LONG., 10M @ 1200 C/C TRANS., BUL	
WF2	500 W X 250 T	3-15M, CONT. BTM. LONG., 10M @ 1200 C/C TRANS., BUL	
WF3	400 W X 250 T	2-15M, CONT. BTM. LONG., 10M @ 1200 C/C TRANS., BUL	TYP. AT RAMP WALLS
WF4	1500 W X 300 T	15M @ 300 C/C TOP, 15M @ CONT. @ 300 C/C TRANS TLL	SECTION 11 ON S-2
FTG. A	900 X 900 X 250 T	3-15M BTM. EA. WAY	TYP. @ MASONRY PILASTER

NOTES:
1 SEE STRUCTURAL NOTES, DRAWING S-5.
2 SEE PLAN, THIS DRAWING, FOR UNDERSIDE OF FOOTING ELEVATIONS.
3 SEE TYPICAL WALL FOOTING DETAILS, DRAWING S-2.
4 UNLESS OTHERWISE NOTED, PROVIDE WF1 UNDER ALL WALLS.
5 FTG. A AGAINST EXISTING SCHOOL BUILDING WILL HAVE FOOTING THICKNESS INCREASED BY 200MM SO THAT IT CAN BE PLACED OVER EXISTING FOOTING, SEE DETAIL 6 ON S-2.



TYP. STEP DOWN FOOTING DETAIL

SCALE: 1:10



TYP. SLAB THICKENING (S.T.) DETAIL

SCALE: 1:10

01/14/2025	ISSUED FOR TENDER
12/10/2024	ISSUED FOR PERMIT
9/30/2024	90% DRAWINGS ISSUED FOR CLIENT REVIEW
DATE	REVISIONS

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CSV Renaissance Child Care Addition

1226 Lockhart Rd
Burlington, ON L7S 1H1

DRAWING
FOUNDATION PLAN, KEY PLAN, NOTES AND DETAILS

LICENSED PROFESSIONAL ENGINEER O.W. LOTHRINGEN PROVINCE OF ONTARIO
Seal D.L

TRUE NORTH | DWG. NORTH
JOB NO. 22033
SCALE AS NOTED
DATE NOV. 2, 2022
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WORKSHOP
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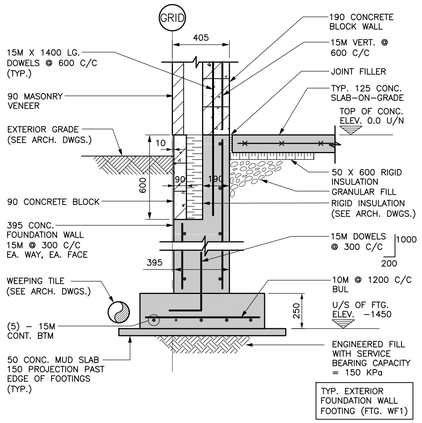
DWG. NO. S-1



SECTION
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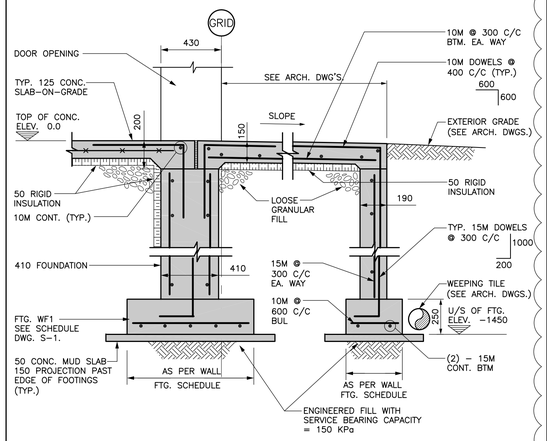
1 S-2



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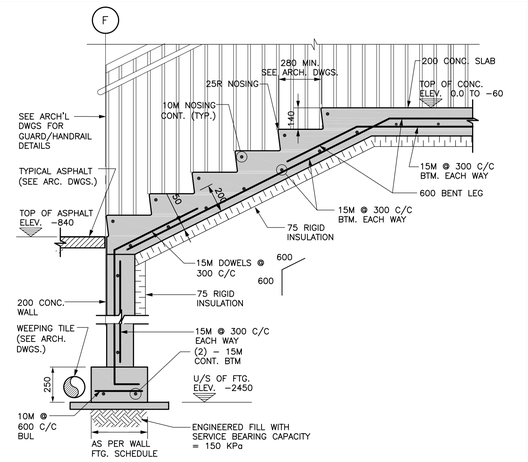

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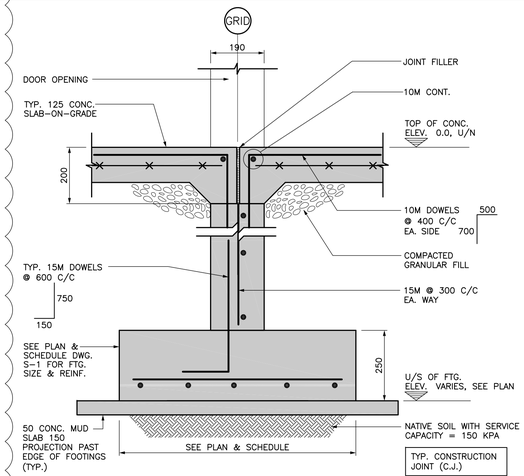
3 S-2



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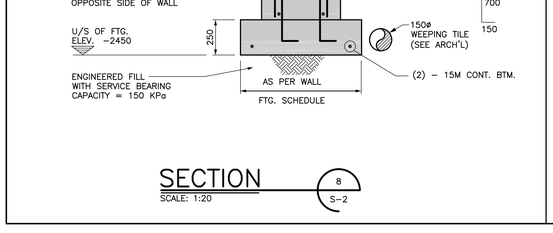

SECTION
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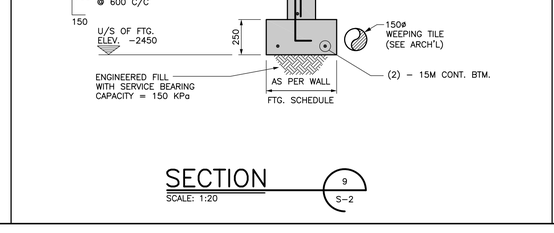
5 S-2



DETAIL
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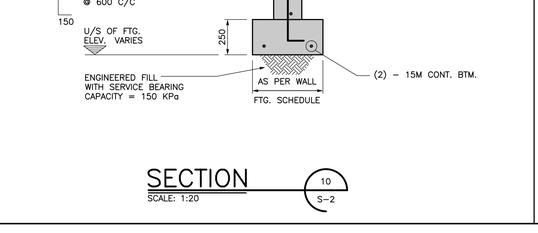
A S-2



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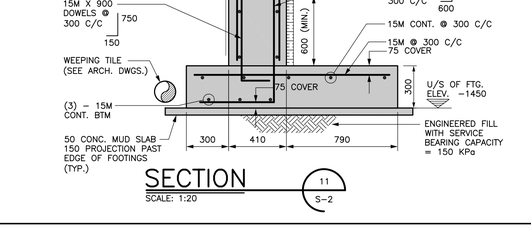
6 S-2



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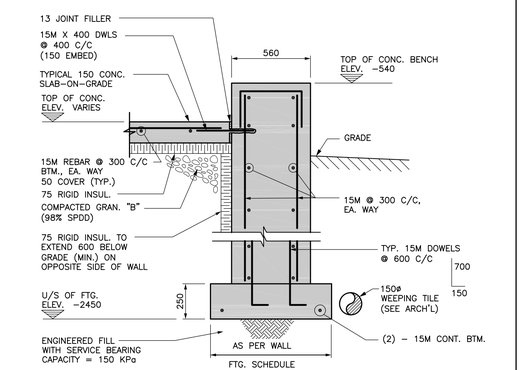
7 S-2



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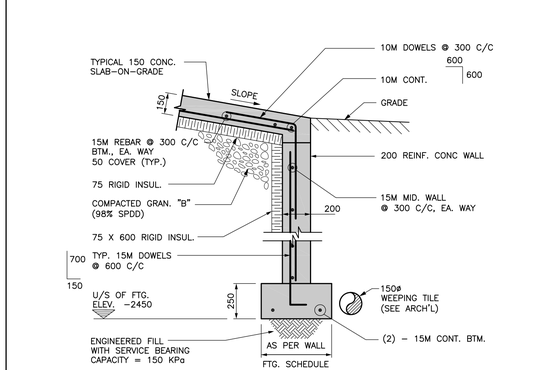
8 S-2



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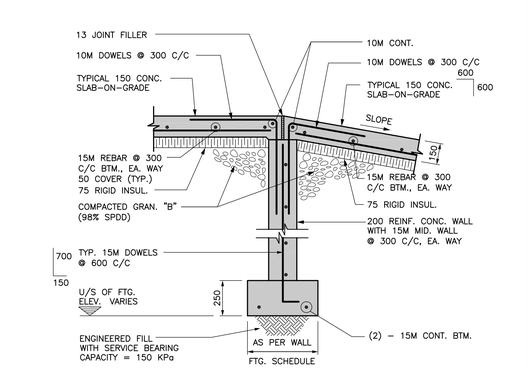
9 S-2



SECTION
SCALE: 1:20
10 S-2

SECTION
SCALE: 1:20
11 S-2

DATE	REVISIONS
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DRAWING
FOUNDATION SECTIONS AND DETAILS

LICENSED PROFESSIONAL ENGINEER
Dec 16/24
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PROVINCE OF ONTARIO
Seal D.L

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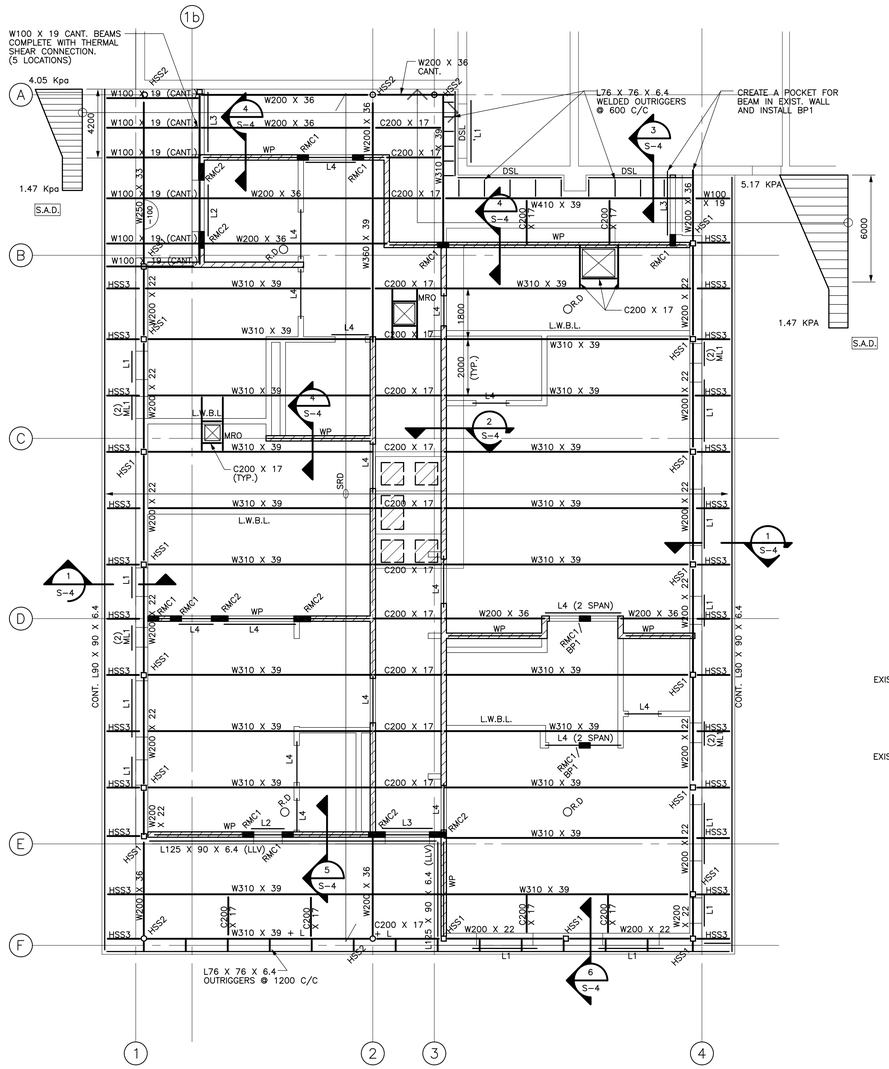


ROOF FRAMING PLAN

SCALE = 1:100

ROOF FRAMING NOTES

1 TOP OF STEEL ELEVATIONS:
– HIGH POINT: TOP OF STEEL AT ELEVATION +3600, UNLESS OTHERWISE NOTED, OR SHOWN ON DETAILS/SECTIONS, THUS +X OR –X

2 SEE STRUCTURAL NOTES AND SCHEDULES, DRAWING S–5.

3 SOLID FILL REINFORCED MASONRY CORES FROM FOOTING TO U/S OF STEEL ROOF WHERE VERTICAL REINFORCEMENT IS INDICATED.

4 ALL LOAD BEARING CONCRETE BLOCK TO BE 190MM THICK UNLESS OTHERWISE NOTED ON PLAN.

5 FOR SNOW ACCUMULATION DIAGRAMS (S.A.D.) ON LOW ROOF AREAS, SEE THIS DRAWING.

6 SEE MECHANICAL DRAWINGS FOR SIZE AND LOCATION OF WALL AND ROOF OPENINGS.

7 PROVIDE TOP OF WALL LATERAL SUPPORT FOR ALL PARTITION WALLS LONGER THAN 4000 AS DETAILED ON DRAWING S–5, AND NOTED AS L.W.B.L. ON PLANS.

8 NEW WALL ENDS TO BE ANCHORED INTO EXISTING ABUTTING WALLS WITH 10M X 300LG. (200 + HOOK) DOWEL SPACED AT 400 C/C (VERT.) IN SOLID FILLED CONCRETE BLOCK. PLACE ONE (1) DOWEL AT THE TOP AND BOTTOM COURSE, EACH SIDE. HORIZONTAL REINFORCING TO BE AS SPECIFIED ON DRAWING S–5, "MASONRY NOTES".

9 AT NEW WALL OPENINGS IN EXISTING SCHOOL WHERE NEW–TO–EXISTING LINTEL INTERFERENCES OCCUR, ENSURE MINIMUM 200MM BEARING AS SPECIFIED. EXISTING LINTELS ARE NOT TO BE CUT OR MODIFIED UNLESS SPECIFIED BY CONSULTANTS.

10 WELDS OF STEEL PLATES TO BEAM FLANGES ARE TO BE 6MM FILLET WELDS, 50MM LONG AND SPACED @ 200MM C/C.

11 PROVIDE MINIMUM BP1 UNDER ALL STRUCTURAL SHAPES BEARING ON CONCRETE OR MASONRY UNLESS OTHERWISE NOTED. SEE BEARING PLATE SCHEDULE, DRAWING S–5.

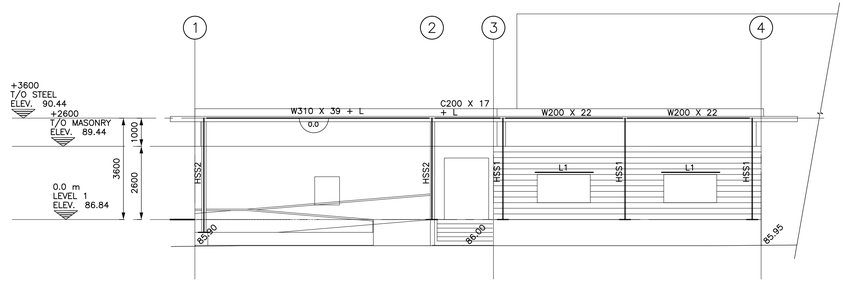
12 ALL ROOF DECK SHALL BE 38 X 0.91 THICK, UNLESS OTHERWISE NOTED.

13 ALL VERTICAL WALL REINFORCEMENT INDICATED ON PLAN TO BE FULL HEIGHT AND MUST BE CONTINUOUS TO THE UNDERSIDE OF ROOF FRAMING UNLESS OTHERWISE NOTED.

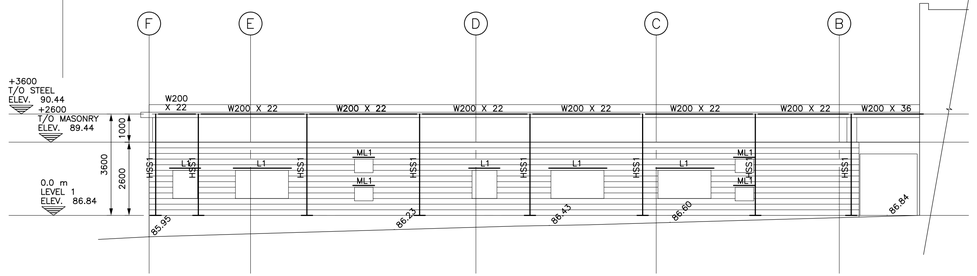
14 ALL MECHANICAL AND ELECTRICAL SERVICES TO BE SUPPORTED FROM STRUCTURAL FRAMING MEMBERS ONLY AND NOT FROM STEEL DECK.

15 SEE DESIGN LOADS ON DRAWING S–5 FOR ADDITIONAL STRUCTURAL LOADING INFORMATION.

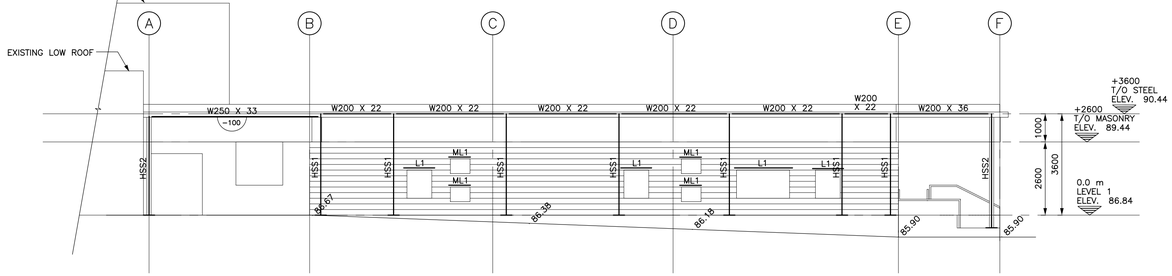
16 UNFACTORED WIND UPLIFT LOAD FOR ROOFING PURPOSES IS:
1.2KPA FOR MAIN ROOF
1.6KPA FOR PERIMETER OF ROOF AND CANOPIES
3.1KPA FOR CORNER AREAS OF ROOF



SOUTH - ALONG GRID LINE F



EAST - ALONG GRID LINE 4



WEST - ALONG GRID LINE 1

FRAMING ELEVATIONS

SCALE = 1:100

DRAWING LEGEND

RMC — REINFORCED MASONRY COLUMN, SEE SCHEDULE ON DWG. S–5.

BP1 — BEARING PLATE. SEE SCHEDULE ON DWG. S–5.

SRD — 38 X 0.91 GALVANIZED STEEL ROOF DECK

ML3 — MECHANICAL LINTEL. SEE SCHEDULE ON DWG. S–5.

DSL — DECK SUPPORT ANGLE, L125 X 90 X 6 LLV

MRO — MECHANICAL ROOF OPENING FRAMED WITH L75 X 75 X 8 ALL AROUND. SEE MECH. DWGS. FOR SIZE AND LOCATION. INCLUDE FOR 1KN DEAD LOAD FROM MECH. EQUIPMENT ABOVE U/N.

DEL — DECK EDGE ANGLE, L50 X 50 X 6

S.A.D. — SNOW ACCUMULATION DIAGRAM

WP — CONT. 100 X 8 WELD PLATE

L.W.B.L. — LATERAL WALL BRACING ANGLES REQ'D. AT PARTITION WALLS. SEE DETAIL ON THIS DWG.

L1 — STEEL LINTEL, SEE LINTEL SCHEDULE ON DRAWING S–5

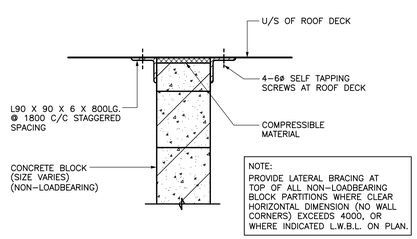
HSS1 — HSS152 X 152 X 6.4 + 19 CAP PLATE COLUMN

HSS2 — HSS178ø X 6.4 COLUMN

HSS3 — HSS102 X 102 x 4.8 OUTRIGGER

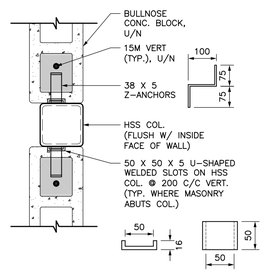
190 CONC. BLOCK LOAD BEARING WALL U/N.

140/190 CONC. BLK. NON–LOAD BEARING WALL BELOW



TYP. LATERAL WALL BRACING DETAIL

SCALE 1:10



TYP. HSS COLUMN BRACING DETAIL

SCALE 1:10

01/14/2025	ISSUED FOR TENDER
12/10/2024	ISSUED FOR PERMIT
9/30/2024	90% DRAWINGS ISSUED FOR CLIENT REVIEW
DATE	REVISIONS

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CSV Renaissance Child Care Addition

1226 Lockhart Rd
Burlington, ON L7S 1H1

DRAWING
ROOF FRAMING PLAN, NOTES AND DETAILS

LICENSED PROFESSIONAL ENGINEER
D.W. LOTHRINGEN
PROVINCE OF ONTARIO
Seal D.L

TRUE NORTH | DWG. NORTH

JOB NO. 22033

SCALE AS NOTED

DATE NOV. 2, 2022

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DWG. NO. S–3

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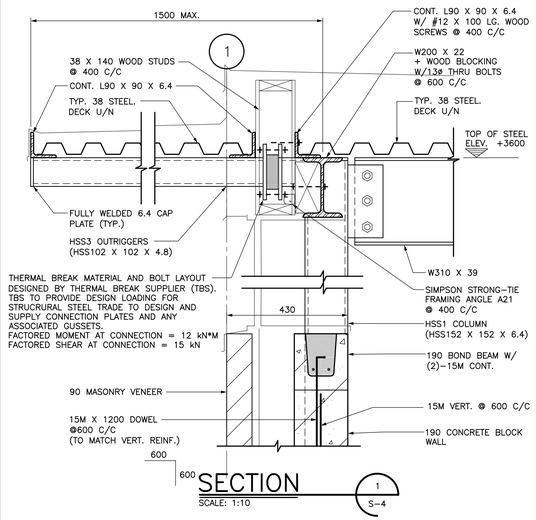
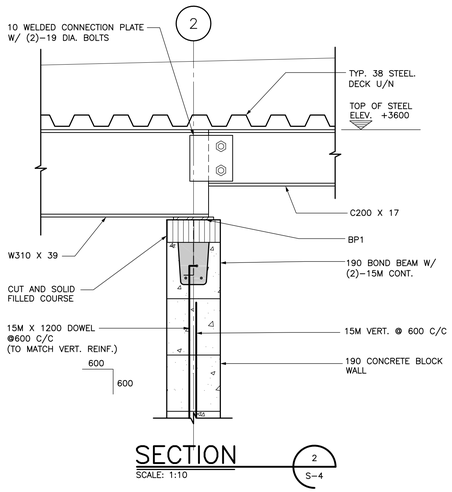
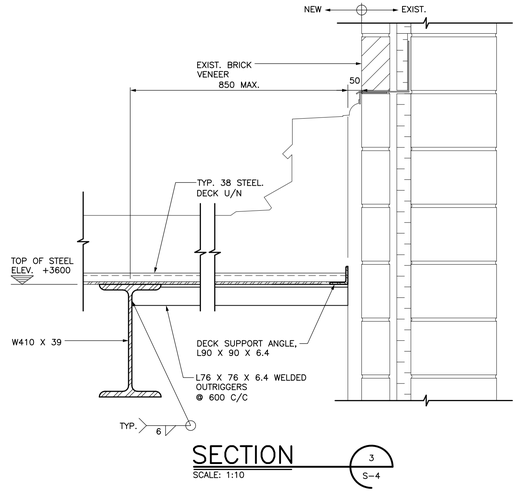
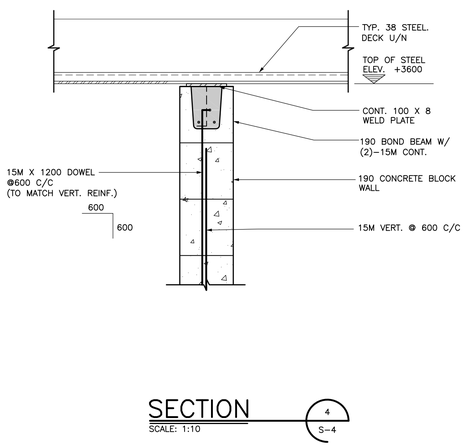
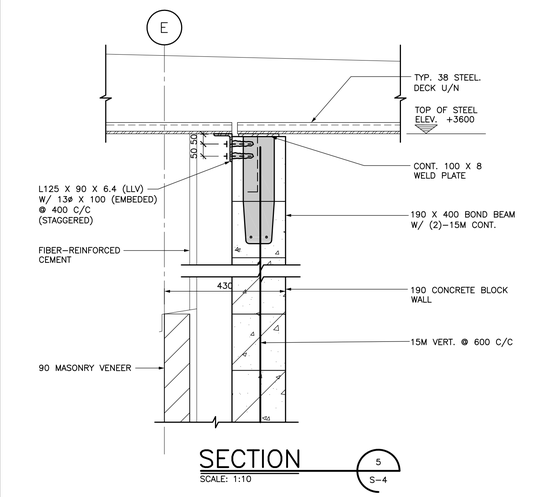
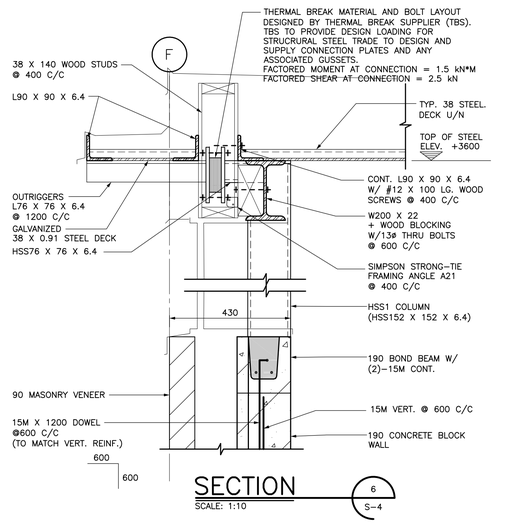


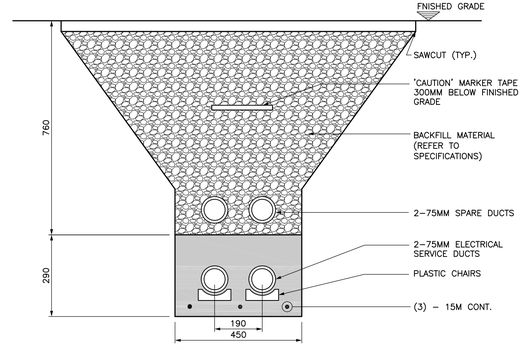








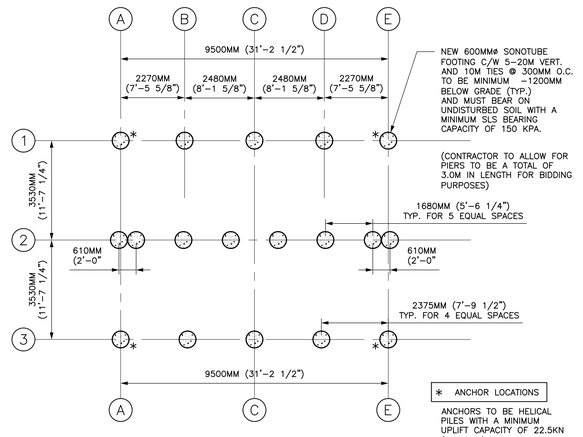




1. ENCASE DUCTS IN 20MPa CONCRETE ON 13MM PEA GRAVEL.
2. SLOPE DUCT BANK A MIN. 75MM PER 30.5M (AWAY FROM THE BUILDING).
3. CONCRETE ENCASED DUCTS SHALL BE CSA APPROVED PVC TYPE II.
4. DUCTS NOT ENCASED IN CONCRETE SHALL BE CSA APPROVED RIGID PVC TYPE.
5. PROVIDE 4.75MM MIN. POLYPROPYLENE FISH ROPE IN EACH CONCRETE ENCASED OR DIRECT BURIED DUCT. DUCT ENDS MUST BE SEALED WITH AN APPROVED DUCT PLUG.
6. PROVIDE MINIMUM 50MM HL3, 50MM HL8 ASPHALT RESTORATION OVER ROADWAY OR MATCH EXISTING CONSTRUCTION WHICHEVER IS GREATER. PROVIDE 150MM TOP SOIL AND SOD STAKED IN PLACE FOR RESTORATION OVER GRASSED AREAS. REPLACE CURBS TO THE REQUIREMENTS OF AUTHORITY HAVING JURISDICTION.

EXISTING DUCTBANK DETAIL

SCALE: 1:10



STANDARD FOUNDATION

SCALE = 1:100

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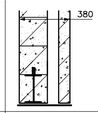
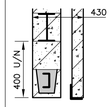
DWG. NO. S-4

LINTEL SCHEDULE

MARK	DESCRIPTION	REMARKS
L1/ ML1	2L'S 125 X 90 X 8 (LLV) + CONT. L125 X 90 X 8 (LLV)	
L2	W200 X 36 + CONT. 400 X 10 WELDED BTM PLATE + 50 X 50 X 6 TOP FLANGE KEY PLATES @ 600 C/C	
L3	W200 X 36 + L125 X 90 X 8 (LLV) + 190 BOND BEAM WITH C130 X 13	
L4	2L'S 90 X 90 X 8	
L5/ ML5	2L'S 90 X 65 X 8 LLV	
L6/ ML6	L125 X 90 X 6 LLV	
L7	W200 X 27	

LINTEL NOTES

1 ALL BACK TO BACK ANGLES OR SECTIONS TO BE STITCH WELDED TOP AND BTM. AT MINIMUM 200 C/C SPACING.

2 ALL STEEL LINTELS IN EXTERIOR BLOCK WALLS TO BE HOT–DIPPED GALVANIZED.

3 MINIMUM LINTEL BEARING LENGTH EQUALS 200 U/N ON THREE (3) COURSES OF SOLID FILLED MASONRY.

4 SEE ARCHITECTURAL AND MECHANICAL DRAWINGS FOR ALL LINTEL SPANS (FIELD CHECK ALL LINTEL SPANS PRIOR TO FABRICATION).

5 SEE ARCHITECTURAL DRAWINGS FOR ANY ADDITIONAL LINTEL OPENINGS NOT SHOWN ON STRUCTURAL DWGS.

6 SEE STRUCTURAL NOTES, THIS DRAWING.

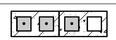
7 ML ⟶ MECHANICAL OPENING LINTEL. SEE MECHANICAL DRAWINGS FOR ALL MECHANICAL OPENINGS NOT SHOWN ON STRUCTURAL DRAWINGS. PROVIDE LINTELS AS PER MECHANICAL LINTEL SCHEDULE AND NOTES AT MECHANICAL OPENINGS NOT SHOWN ON STRUCTURAL DRAWINGS.

8 CONCRETE BLOCK LINTELS TO BE FILLED WITH 20MPA CONCRETE.

9 WHERE BLOCK BEARS ON TOP OF A STEEL BEAM, PROVIDE 50 X 6 X 50 WELDED TOP FLANGE KEY PLATES @ 600 C/C, UNLESS OTHERWISE NOTED. SOLID FILL COURSE DIRECTLY ABOVE BEAM.

10 WHERE A CONTINUOUS WELDED BTM. OR TOP PLATE IS SPECIFIED ON A BEAM, THE PLATE IS TO EXTEND FULLY ONTO BEARING PLATES.

REINFORCED MASONRY COLUMN SCHEDULE (RMC)

MARK	DESCRIPTION	REINF.	REMARKS
RMC1	190 X 390	(2) – 15M VERT.	
RMC2	190 X 590	(3) – 15M VERT.	
RMC3	190 X 790	(4) – 15M VERT.	
RMC4	190 X 990	(5) – 15M VERT.	
RMC5	290 X 790	(4) – 20M VERT.	

RMC NOTES

1 PROVIDE 4.67ø GALV. HEAVY DUTY LADDER–TYP HORIZ. REINF. @ 200 C/C IN ALL REINFORCED MASONRY COLUMNS (RMC).

2 CONCRETE FILL ALL MASONRY CORES WITH REINFORCEMENT.

3 PROVIDE DOWELS IN FOUNDATION TO MATCH ALL MASONRY COLUMN REINFORCEMENT.

4 RMC REINFORCEMENT AND CONCRETE FILL TO BE CONTINUOUS FROM FOUNDATION TO UNDERSIDE OF SUPPORTED STRUCTURE, UNLESS OTHERWISE NOTED.

5 NO WALL OPENINGS TO GO THROUGH RMC'S.

6 NO RECESSED MECHANICAL OR ELECTRICAL EQUIPMENT TO GO INTO RMC'S.

MECHANICAL LINTEL SCHEDULE

WALL THICKNESS	OPENING SIZE	USE
140	400 TO 1400	ML5 (2L'S 90 X 65 X 8 LLV)
190	400 TO 600	ML8 (2L'S 90 X 90 X 8)
190	600 TO 1600	ML9 (2L'S 125 X 90 X 10 LLV)

NOTES

1 SEE LINTEL SCHEDULE, THIS DRAWING.

2 MINIMUM LINTEL BEARING LENGTH EQUALS 200MM U/N ON THREE (3) COURSES OF SOLID FILLED BLOCK.

3 SEE MECHANICAL DRAWINGS FOR SIZE AND LOCATION OF ALL OPENINGS THROUGH WALLS.

4 USE THE ABOVE SPECIFIED LINTELS WHERE SPECIFIC MECHANICAL LINTELS ARE NOT ALREADY SHOWN ON STRUCTURAL DRAWINGS.

5 LINTELS SPECIFIED ABOVE ARE FOR INTERIOR WALLS. SEE LINTEL SCHEDULE FOR EXTERIOR WALL MECHANICAL OPENING LINTELS.

6 REINFORCING IS NOT REQUIRED FOR STEEL DECK MECHANICAL ROOF OPENINGS UNDER 150MM SQ.

7 MECHANICAL OPENINGS FROM 150MM TO 300MM SQ. SHALL BE FRAMED PERPENDICULAR TO THE DECK FLUTES WITH L75 X 75 X 8 SECURED TO THE UNDERSIDE OF THE DECK THROUGH THREE (3) UNCUT FLUTES ON EACH SIDE OF THE OPENING.

8 MECHANICAL OPENINGS OVER 300MM SQ. REQUIRE FRAMING BY THE STRUCTURAL STEEL CONTRACTOR.

9 WHERE TWO OR MORE MECHANICAL LINTELS IN A ROW ARE SEPARATED BY LESS THAN 400MM OF BLOCK, NOTIFY CONSULTANT.

10 WHERE THREE OR MORE LINTELS OCCUR IN A ROW AND ARE SEPARATED BY LESS THAN 600MM OF BLOCK AND HAVE ANGLES AS A LINTEL, NOTIFY CONSULTANT.

TYP. SEISMIC WALL REINF. SCHEDULE

LOAD BEARING CONCRETE BLOCK WIDTH	VERT. REINF.	HORIZ. REINF.	REMARKS
140	15M @ 600 C/C	HD LADDER–TYPE @ 200 C/C	ROD DIAM.: 4.76ø
190	15M @ 600 C/C	HD LADDER–TYPE @ 200 C/C	ROD DIAM.: 4.76ø
240	20M @ 600 C/C	HD LADDER–TYPE @ 200 C/C	ROD DIAM.: 4.76ø
290	20M @ 600 C/C	HD LADDER–TYPE @ 200 C/C	ROD DIAM.: 4.76ø
NON–LOAD BEARING CONCRETE BLOCK WIDTH	**VERT. REINF.**	**HORIZ. REINF.**	**REMARKS**
90	N/A	HD LADDER–TYPE @ 400 C/C	ROD DIAM.: 4.76ø
140	N/A	HD LADDER–TYPE @ 400 C/C	ROD DIAM.: 4.76ø
190	N/A	HD LADDER–TYPE @ 400 C/C	ROD DIAM.: 4.76ø
240	N/A	HD LADDER–TYPE @ 400 C/C	ROD DIAM.: 4.76ø

NOTES:

1 SEE STRUCTURAL NOTES, THIS DRAWING.

2 PROVIDE WALL REINFORCEMENT AS NOTED ABOVE IN ALL LOAD BEARING AND NON–LOAD BEARING CONCRETE BLOCK WALLS, WITH A RUNNING BOND. FOR STACK BOND, NOTIFY CONSULTANT.

3 REINFORCEMENT EQUIVALENT TO AT LEAST 1–15M SHALL BE PROVIDED AROUND EACH MASONRY PANEL AND AROUND EACH OPENING EXCEEDING 1000MM IN WIDTH OR HEIGHT.

4 VERTICAL AND HORIZONTAL REINFORCEMENT SHALL BE CONTINUOUS BETWEEN LATERAL SUPPORTS.

5 HORIZONTAL REINFORCEMENT SHALL BE CONTINUOUS AND SPLICED/LAPPED AT A MINIMUM OF 200MM.

6 PROVIDE HORIZONTAL REINFORCING IN THE TWO (2) TOP AND BTM. COURSES OF AN ABOVE GRADE CONCRETE BLOCK WALL, IN ADDITION TO THE SPECIFIED HORIZONTAL REINFORCEMENT IN THE ABOVE TABLE.

CONCRETE MIX DESIGN SCHEDULE

LOCATION	STRENGTH	CLASS OF EXPOSURE	NORMAL SIZE OF AGGREGATE	SLUMP	AIR CONTENT (MAX.)
FOOTINGS	25 MPA	N	20	50–100	0–3%
INTERIOR FOUNDATION WALLS, INTERIOR SLABS–ON–GRADE, COLUMNS, PIERS,	30 MPA	N	20	60–90	0–3%
CONCRETE IN BLOCK AND LINTELS	20 MPA	N	10 MM (MAX.)	50–100	0–3%
EXTERIOR CONCRETE SLABS & FOUNDATION WALLS	35 MPA	C–1	20	60–90	5–8%
LEAN CONCRETE FILL, MUD SLABS	10 MPA	N	20	100–150	0–3%
ALL OTHER CONCRETE	25 MPA	N	20	50–100	0–3%

READY MIX CONCRETE NOTES:

1 UNLESS OTHERWISE SPECIFIED, CONCRETE SHALL BE PREMIXED, QUALITY CONTROLLED, AND CONFORMING TO CSA STANDARD A23.1, WITH MINIMUM 28 DAY COMPRESSIVE STRENGTHS AS NOTED IN THE ABOVE TABLE.

2 CEMENT SHALL BE PORTLAND CEMENT OF CANADIAN MANUFACTURE CONFORMING TO CSA STANDARD A3000, TYPE GU (10).

3 SUPPLEMENTARY CEMENTING MATERIALS SHALL CONFORM TO THE REQUIREMENTS OF CSA STANDARD A3000.

4 WATER SHALL BE POTABLE FROM A MUNICIPAL SUPPLY.

STRUCTURAL SPECIFICATIONS

GENERAL

1 READ SPECIFICATIONS IN CONJUNCTION WITH DRAWINGS.

2 SEE EXISTING ARCHITECTURAL AND STRUCTURAL DRAWINGS, AND PAST ADDITION DRAWINGS FOR REFERENCE.

3 COORDINATE ALL DIMENSIONS AND HEIGHTS ON STRUCTURAL DWGS. WITH ARCHITECTURAL DRAWINGS AND REPORT ANY DISCREPANCIES.

4 COORDINATE ALL MECHANICAL OPENING SIZES AND LOCATIONS WITH THE MECHANICAL CONTRACTOR PRIOR TO FABRICATION.

5 FIELD CHECK ALL SITE DIMENSIONS PRIOR TO PROCEEDING WITH ANY WORK.

6 CONFIRM ALL MECHANICAL EQUIPMENT SIZES, LOCATIONS, AND WEIGHTS PRIOR TO ANY STRUCTURAL FABRICATION OR CONSTRUCTION.

7 DEMOLITION PROCEDURES SHALL CONFORM TO: CSA–S350–M1980 (R2003), CODE OF PRACTICE FOR SAFETY IN DEMOLITION OF STRUCTURES, AND, OCCUPATIONAL HEALTH AND SAFETY ACT AND REGULATIONS FOR CONSTRUCTION PROJECTS, O. REG. 213/91, AS AMENDED BY ALL SUBSEQUENT ONTARIO REGULATIONS.

8 PROVIDE TEMPORARY SHORING WHERE REQUIRED FOR SAFETY, AND WHERE REQUIRED TO FACILITATE THE INSTALLATION OF STRUCTURAL MEMBERS SHOWN ON THE STRUCTURAL DRAWINGS.

9 READ STRUCTURAL DRAWINGS IN CONJUNCTION WITH ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS AND SPECIFICATIONS. MAKE STRUCTURAL PROVISION FOR ANY WORK NOT SHOWN ON STRUCTURAL DRAWINGS BUT SHOWN ON OTHER DRAWINGS.

10 ALL LOADS INDICATED ON DRAWINGS ARE UNFACTORED UNLESS OTHERWISE NOTED.

DESIGN LOADS (BURLINGTON)

ROOF AREAS

(SNOW LOAD Ss = 1.1KPA, Sr = 0.4KPA)

SNOW LOAD = 1.47 KPA OR ANY GREATER SNOW ACCUMULATION SHOWN ON DRAWINGS.

DEAD LOAD = 1.0 KPA PLUS ANY ADDITIONAL MECHANICAL LOADS INDICATED ON PLANS.

GROUND FLOOR AREAS

LIVE LOAD = 4.8 KPA.

DEAD LOAD = VARIES.

WIND LOADING FACTORS

q = 0.46 KPA (1/50), I_w = 1.15, C_e = 1.0, C_pC_g = AS PER NBC COMMENTARY I

C_{pi} = –0.45 TO 0.3

SEISMIC LOADING FACTORS

SITE CLASS D

$S_a(0.2)$ = 0.266, F_a = 1.3, I_E = 1.3

$I_E(F_a)S_a(0.2)$ = 0.45 > 0.35, THEREFORE SEISMIC RESTRAINTS FOR MECH. AND ELECT. EQUIPMENT ARE REQUIRED.

SEE STRUCTURAL DRAWINGS FOR ADDITIONAL LOADS NOT SPECIFIED.

FOUNDATION NOTES

1 SEE FOUNDATION PLAN ON DRAWING S–1, AND FOUNDATION DETAILS ON DRAWING S–2.

2 SOIL INFORMATION TAKEN FROM GEOTECHNICAL INVESTIGATION PERFORMED BY PINCHIN, REF. NO. 313698 DATED DECEMBER 15, 2022. APPROXIMATE BOREHOLE LOCATIONS INDICATED ON FOUNDATION PLAN, DRAWING S–1.

3 FOR SERVICES UNDER FOOTINGS, SEE MECHANICAL DRAWINGS FOR LOCATION AND CONSTRUCTION OF ALL INSERTS, SLEEVES, DRAINS, ETC. CONSTRUCT FOOTINGS DEEPER AS REQUIRED WHERE MECHANICAL SERVICES PASS UNDER FOOTINGS.

4 ALL FOOTINGS TO BE FOUNDED ON UNDISTURBED NATIVE STIFF SILT TILL OR ENGINEERED FILL WITH AN UNFACTORED BEARING RESISTANCE (SLS) OF 150KPA AND FACTORED BEARING RESISTANCE (ULS) OF 224KPA. IN THE EVENT OF POORER BEARING CAPACITIES AT THESE ELEVATIONS, THE CONTRACTOR SHALL NOTIFY THE CONSULTANTS BEFORE PROCEEDING WITH CONSTRUCTION.

CONCRETE NOTES

1 ALL CONCRETE TO HAVE A MINIMUM TWENTY–EIGHT (28) DAY COMPRESSIVE STRENGTH AS PER CONCRETE MIX DESIGN SCHEDULE, THIS DRAWING.

2 ALL CONCRETE REINFORCEMENT TO BE DEFORMED CONFORMING TO CAN/CSA G30.18 WITH A MINIMUM YIELD STRENGTH OF 400 MPA (58,000 PSI).

3 ALL REBAR SHALL BE DETAILED AND PLACED IN ACCORDANCE WITH CSA A23.1 AND A.C.I. 315 MANUAL.

4 ALL GROUT SHALL BE SIKA CONSTRUCTION M–BED STANDARD OR EQUAL, NON–SHRINK, WITH A MINIMUM 28–DAY COMPRESSIVE STRENGTH OF 40MPA (5,800 PSI).

5 ALL MECHANICAL AND ELECTRICAL FLOOR AND ROOF OPENINGS TO BE COORDINATED WITH DIVISION 15 AND 16. SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR EXTENT OF THE WORK.

6 ALL CONCRETE CONSTRUCTION TO CONFORM TO C.S.A. A23.1–14/A23.2–14.

7 SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR ANY ARCHITECTURAL SURFACE TREATMENT OR AGGREGATE REQUIREMENTS FOR EXPOSED CONCRETE FINISHES.

8 PROVIDE WATER STOPS WHERE INDICATED ON BOTH ARCHITECTURAL AND STRUCTURAL DRAWINGS.

9 PROVIDE WELDED WIRE MESH REINFORCEMENT WHERE INDICATED ON DRAWINGS, AND IN ALL SLAB–ON–GRADE AREAS, UNLESS OTHERWISE NOTED.

10 RECESS SLAB–ON–GRADE AND CONCRETE TOPPING AREAS AS REQUIRED FOR SPECIAL FLOOR FINISH APPLICATIONS. SEE ARCHITECTURAL DRAWINGS FOR FLOOR AREA LOCATIONS AND DEPTH OF RECESS REQUIRED.

11 ALL RIGID INSULATION SHALL BE 'STYROFOAM SM' S MANUFACTURED BY DOW BUILDING SOLUTIONS, OR APPROVED EQUIVALENT. MINIMUM COMPRESSIVE STRENGTH OF INSULATION SHALL BE 210 KPA.

MASONRY NOTES

1 ALL LOAD BEARING CONCRETE BLOCK CONSTRUCTION, EXCEPT FOR FILLING OF REINFORCED MASONRY COLUMNS (RMC'S) AND REINFORCED BLOCK CORES, SHALL USE TYPE 'S' MORTAR FOR JOINTS. 20MPA CONCRETE WITH A MINIMUM 10MM STONE AGGREGATE SHALL BE USED FOR THE FILLING OF REINFORCED BLOCK CORES.

2 ALL CONCRETE BLOCKS TO HAVE MINIMUM NET AREA COMPRESSIVE STRENGTH (f'_c) OF 20MPA (2,900 PSI) AND SHALL BE METRIC SIZE, TWO (2) CORES.

3 UNLESS NOTED OTHERWISE ALL MASONRY AND CONC. EXPANSION ANCHORS TO BE 'HILTI KWIK–BOLT' EXPANSION ANCHORS OR APPROVED EQUIVALENT, AND SHALL BE INSERTED INTO SOLID CONCRETE, OR SOLID FILLED MASONRY CORES. MINIMUM EMBEDMENT DEPTH TO BE 50 MM.

4 WHERE SPECIFIED ON DRAWINGS, CONCRETE ADHESIVE ANCHORS SHALL BE 'HILTI HVA' ADHESIVE OR APPROVED EQUIVALENT INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. SEE SECTIONS FOR SPECIFIC ADHESIVE ANCHOR REQUIREMENTS.

5 ALL CONCRETE BOND BEAMS AND LINTEL BLOCKS SHALL BE FILLED WITH CONCRETE HAVING A TWENTY–EIGHT (28) DAY COMPRESSIVE STRENGTH OF 20MPA.

6 MASONRY CONCRETE BLOCK WALL CONSTRUCTION IS GENERALLY UNREINFORCED EXCEPT AS INDICATED ON DRAWINGS.

7 WHERE EXTERIOR BLOCK VENEER IS CONSTRUCTED WITH A LOAD BEARING MASONRY WYTHE (CAVITY WALL), PROVIDE HEAVY DUTY LADDER–TYPE, GALVANIZED, HORIZONTAL MASONRY REINFORCEMENT WITH THREE (3) LONGITUDINAL RODS OR SUITABLE APPROVED EQUIVALENT CONSTRUCTION. LOAD BEARING WALLS: 400 C/C, NON–LOAD BEARING WALLS: 800 C/C. ALTERNATE BLOCK COURSES PROVIDE HEAVY DUTY LADDER–TYPE, GALVANIZED, HORIZONTAL MASONRY REINFORCEMENT WITH TWO (2) LONGITUDINAL WIRES.

8 HORIZONTAL BLOCK REINFORCEMENT: FOR INTERIOR LOAD BEARING WALLS PROVIDE HEAVY DUTY LADDER–TYPE REINFORCING @ 400 C/C. FOR INTERIOR NON–LOAD BEARING WALLS PROVIDE HEAVY DUTY LADDER–TYPE REINFORCING @ 400 C/C. HORIZONTAL REINFORCING TO OVERLAP A MINIMUM 200MM.

9 IF REQUIRED, TOP OF MASONRY WALLS SHALL BE CUT TO SUIT ROOF SLOPES ONLY.

10 ALL REINFORCED MASONRY COLUMNS (RMC'S) INDICATED ON DRAWINGS SHALL USE 20MPA CONCRETE WITH MAX. 10MM AGGREGATE FOR FILLING OF CORES. VERTICAL REINFORCEMENT TO BE PLACED AND LAPPED IN ACCORDANCE WITH A.C.I. 315 MANUAL.

MASONRY NOTES (CONT.)

11 PROVIDE VERTICAL MASONRY REINFORCEMENT (DOWELS) AT ALL GROUND FLOOR AND ROOF LEVEL WALL TRANSITION AREAS AS INDICATED ON THE DRAWINGS AND SECTIONS.

12 WHERE SPECIFIED ON DRAWINGS, CONCRETE ADHESIVE ANCHORS SHALL BE 'HILTI HVA' ADHESIVE OR APPROVED EQUIVALENT INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

13 SOLID FILL ALL MASONRY CORES WHERE ANCHORAGE IS SPECIFIED FOR SUPPORT OF LADDERS, BENCHES, COAT RACKS, ETC., UNLESS OTHERWISE NOTED. SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS.

14 IN ADDITION TO REINFORCEMENT SPECIFIED ON THE STRUCTURAL DRAWINGS, A MINIMUM OF 1–15M BAR AROUND EACH OPENING EXCEEDING 1000MM IN WIDTH OR HEIGHT, AS WELL AS AT CORNERS, INTERSECTIONS, ENDS OF WALLS AND AT EACH SIDE OF CONTROL JOINTS SHALL BE PROVIDED.

15 IF NOT TOOTHED IN, NON–LOAD BEARING CONCRETE BLOCK WALL ENDS TO BE ANCHORED INTO ABUTTING WALLS WITH 10M X 300LG. (200 + HOOK) DOWEL SPACED AT 400 C/C (VERT.) INTO SOLID FILLED CONCRETE BLOCK. PLACE ONE (1) DOWEL AT THE TOP AND BOTTOM COURSE.

16 CONCRETE BLOCK INFILL AREAS AND NEW WALL ENDS TO BE ANCHORED INTO EXISTING ABUTTING WALLS WITH 10M X 300LG. (200 + HOOK) DOWEL SPACED AT 400 C/C (VERT.) IN SOLID FILLED CONCRETE BLOCK. PLACE ONE (1) DOWEL AT THE TOP AND BOTTOM COURSE, EACH SIDE. HORIZONTAL REINFORCING TO BE AS SPECIFIED ON THIS DRAWING.

17 FOR CONCRETE BLOCK INFILL AROUND STEEL BEAMS IN WALLS, PROVIDE CORRUGATED VENEER TIES, EACH SIDE, FASTENED TO WEB OF BEAM WITH SELF–TAPPING SCREWS, AT ALL HEAD (VERT.) AND BED (HORIZ.) JOINTS PER BLOCK.

STRUCTURAL STEEL NOTES

1 ALL STRUCTURAL STEEL SHALL CONFORM TO C.S.A. G40.21 WITH A MINIMUM YIELD STRENGTH OF 350 MPA (50, 750 PSI).

2 STRUCTURAL STEEL DETAILING AND CONNECTIONS TO CONFORM TO CAN/CSA – S16–14.

3 ALL WELDING SHALL BE IN CONFORMANCE WITH C.S.A. W59–13 AND TO THE REQUIREMENTS OF W47.1 (DIV. 1 OR .1), AND SHALL UTILIZE E49XX ELECTRODES.

4 ALL STRUCTURAL BOLTS AND FASTENERS SHALL CONFORM TO ASTM A–325 BEARING TYPE (F3125/F3125M–15A). ANCHOR BOLTS SHALL CONFORM TO ASTM–307.

5 SEE LINTEL SCHEDULE, THIS DRAWING, FOR CONSTRUCTION OF ALL MARKED LINTELS. MINIMUM BEARING LENGTH FOR LINTELS SHALL BE 200MM UNLESS NOTED OTHERWISE.

6 ALL BEAMS TO HAVE A MINIMUM BEARING LENGTH TO MATCH BEARING PLATE DIMENSIONS. SEE BEARING PLATE SCHEDULE, THIS DRAWING, FOR BEARING PLATE REQUIREMENTS.

7 ALL DIMENSIONS AND ELEVATIONS TO BE VERIFIED IN THE FIELD BY THE STRUCTURAL STEEL CONTRACTOR.

8 ALL LINTELS AND STRUCTURAL SHAPES IN EXTERIOR WALLS OR EXPOSED TO WEATHER SHALL BE HOT DIP GALVANIZED AFTER SHOP FABRICATION UNLESS OTHERWISE NOTED. IF SPRAY FOAM INSULATION IS TO BE USED ON EXTERIOR WALLS, NOTIFY CONSULTANT.

9 ALL COLD ROLLED STRUCTURAL STEEL TO CONFORM TO ASTM A–446 FOR GALVANIZED SHEET STEEL, MINIMUM 50 KSI YIELD. STRUCTURAL PROPERTIES TO BE COMPUTED IN ACCORDANCE WITH C.S.A. S–136–12.

10 CONTRACTOR TO SUBMIT ERECTION AND FABRICATION SHOP DRAWINGS FOR ALL STRUCTURAL STEEL FOR REVIEW BY CONSULTANTS. CONTRACTOR TO FIELD MEASURE ALL BEAM/LINTEL SPANS TO ENSURE ADEQUATE BEAM BEARING LENGTH. SHOP DRAWINGS TO COME COMPLETE WITH PROFESSIONAL ENGINEER'S STAMP FOR CONNECTION DETAILS.

11 SEE ARCHITECTURAL AND MECHANICAL DRAWINGS FOR REQUIRED OPENING SIZES FOR LINTELS AND FOR ANY ADDITIONAL LINTELS NOT SHOWN ON STRUCTURAL DRAWINGS.

12 ALL STRUCTURAL STEEL, UNLESS OTHERWISE NOTED, SHALL BE PRIME PAINTED TO A MINIMUM 3 MIL THICKNESS. ANY EXPOSED STEEL SHALL BE WITHOUT PAINT DRIPS.

13 ALL BEAM AND LINTEL PLATES TO EXTEND INTO FULL DEPTH BEARING WITH BEAM OR LINTELS.

14 UNLESS OTHERWISE NOTED, ALL WELDING TO BE 6MM FILLET WELDS, ALL AROUND.

STEEL DECK NOTES

1 ALL STEEL ROOF AND FLOOR DECK SHALL BE 38 MM DEEP X 152 MM MODULE X 0.91 MM THICKNESS (UNLESS NOTED OTHERWISE ON PLAN) AND SHALL BE MINIMUM 3 SPAN CONTINUOUS WHEREVER POSSIBLE.

2 STEEL DECK SHALL BE MANUFACTURED FROM GALVANIZED SHEET STEEL CONFORMING TO ASTM A653 M, GRADE A OR B. ZINC COATING SHALL BE EACH SIDE AND CONFORMING TO Z–275 DESIGNATION.

3 ALL STEEL DECK TO BE WELDED THROUGH LOW RIBS TO SUPPORTING STEEL WITH 20 DIAMETER FUSION WELDS AND SIDE LAP DECK JOINTS FASTENED MECHANICALLY TO PROVIDE A STRENGTH OF 9.8KN/M AND FLEXIBILITY OF 101 MMX10^–6/N. ALL SHOP DRAWINGS TO BE STAMPED BY A PROFESSIONAL ENGINEER

4 CONTRACTOR SHALL SUBMIT STEEL DECK ERECTION DRAWINGS FOR REVIEW BY CONSULTANTS.

5 REINFORCING IS NOT REQUIRED FOR STEEL DECK MECHANICAL ROOF OPENINGS UNDER 150MM SQ.

6 MECHANICAL OPENINGS FROM 150MM TO 300MM SQ. SHALL BE FRAMED PERPENDICULAR TO THE DECK FLUTES WITH L75 X 75 X 8 SECURED TO THE UNDERSIDE OF THE DECK THROUGH THREE (3) UNCUT FLUTES ON EACH SIDE OF THE OPENING.

7 MECHANICAL OPENINGS OVER 300MM SQ. REQUIRE FRAMING BY THE STRUCTURAL STEEL CONTRACTOR.

8 TOUCH–UP WELDS WITH A COLD GALVANIZING COMPOUND PER MANUFACTURER'S SPECIFICATIONS.

WOOD CONSTRUCTION

1 ALL WOOD FRAMING AND CONSTRUCTION (I,E, NAILING, BLOCKING, BRIDGING, BEARING, ETC.) SHALL COMPLY WITH OBC SECTION 9.23. WOOD FRAMING.

2 ALL STRUCTURAL WOOD FRAMING SHALL BE MINIMUM NO. 02 GRADE, SPRUCE–PINE–FIR MATERIAL, UNLESS NOTED OTHERWISE.

3 PLYWOOD SHALL BE A MINIMUM 12.7MM, GIS, DOUGLAS FIR PLYWOOD CONFORMING TO CSA 0121, OR APPROVED EQUIVALENT.

4 ALL WOOD SHEATHING SHALL BE NAILED TO SUPPORTING FRAMING IN ACCORDANCE WITH CSA 086, CASE 2 SYSTEM.

5 ALL WOOD CONNECTORS SHALL BE MINIMUM 18 GA. GALVANIZED STEEL, PREFABRICATED ELEMENTS AS MANUFACTURED BY SIMPSON STRONG TIE OR APPROVED EQUIVALENT. INSTALL IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS.

BEARING PLATE SCHEDULE

MARK	SIZE	ANCHOR	REMARKS
BP1	175 X 20 X 200	1	TYPICAL AT ALL STRUCTURAL MEMBER BEARING POINTS UNLESS OTHERWISE NOTED ON PLANS.
BP2	180 X 20 X 300	1	
BP3	400 X 20 X 800	2	
BP4	180 X 20 X 400	2	

BEARING PLATE NOTES

1 STRAP ANCHORS TO BE 38 X 6 X 300LG. WELDED TO U/S OF BEARING PLATE.

2 UNLESS NOTED OTHERWISE, ALL STRUCTURAL SHAPES, INCLUDING OWSJ, SHALL BEAR ON BP1.

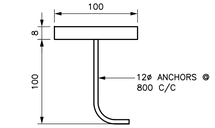
3 FILL MINIMUM THREE (3) MASONRY COURSES SOLID WITH CONCRETE FILL UNDER ALL BEARING PLATES.

4 BEAM BEARING LENGTH TO MATCH CORRESPONDING BASE PLATE DIMENSIONS UNLESS NOTED.

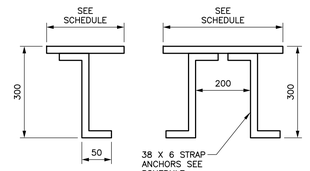
5 FIELD WELD ALL STRUCTURAL SHAPES TO BEARING PLATES WITH MINIMUM TWO (2) – 6 X 38LG. FILLET WELDS EACH SIDE EXCEPT WHERE NOTED OTHERWISE.

6 CONCRETE FILL ALL BEAM BEARING AREA WALL VOIDS AFTER INSTALLATION OF BEAM.

7 WHERE A BP BEARS ON AN RMC, CENTRE BP ON RMC.



TYPICAL WELD PLATE DETAIL (WP)



BEARING PLATE DETAILS

DATE	REVISIONS
01/14/2024	ISSUED FOR TENDER
12/10/2024	ISSUED FOR PERMIT
9/30/2024	90% DRAWINGS ISSUED FOR CLIENT REVIEW

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Sheet List Table

SHEET NUMBER	SHEET TITLE
M0.1	MECHANICAL LEGEND & DRAWING LIST
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M2.0	PLUMBING - FOUNDATION PLAN
M2.1	PLUMBING - GROUND & ROOF PLAN
M3.1	HVAC PIPING - GROUND FLOOR PLAN
M4.1	HVAC - VENTILATION GROUND FLOOR PLAN
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GENERAL NOTES

1. THE MECHANICAL CONTRACTOR SHALL VISIT THE SITE TO VERIFY EXISTING CONDITIONS PRIOR TO SUBMITTING BID. THIS SHALL BE DONE IN ORDER TO CONFIRM THAT EQUIPMENT AND SERVICES CAN BE INSTALLED AS SHOWN ON DRAWINGS AND THAT ADDITIONAL COSTS ARE INCLUDED IN BID TO FACILITATE INSTALLATION. IT IS THE CONTRACTORS RESPONSIBILITY TO NOTIFY THE ENGINEERS OF ANY DISCREPANCIES, OMISSIONS, AND INTERFERENCES. CONTRACTOR SHALL PROVIDE INTERFERENCE DRAWINGS TO CONSULTANT FOR REVIEW AND DIRECTION.

2. ENSURE THAT ALL NEW AND EXISTING MECHANICAL EQUIPMENT REQUIRING MAINTENANCE IS ACCESSIBLE AND THAT ACCESS REQUIREMENTS ARE NOT OBSTRUCTED BY NEW OR EXISTING SERVICES AND STRUCTURE. COORDINATE WITH SCHOOL BOARD AND ALL OTHER TRADES. INSTALL MECHANICAL EQUIPMENT IN SUCH A WAY AS TO PROVIDE ALL ACCESS REQUIREMENTS. REFER TO SHOP DRAWINGS AND/OR MANUFACTURER'S RECOMMENDATIONS FOR ACCESS REQUIREMENTS. REPORT ANY OBSTRUCTIONS TO THE SCHOOLBOARD AND MECHANICAL ENGINEER. PROVIDE ACCESS DOORS/PANELS WITH MINIMUM DIMENSIONS AS NOTED BELOW (UNLESS INDICATED OTHERWISE ON DRAWINGS):
2.1. 24 INCHES BY 24 INCHES FOR PERSONNEL ENTRY.
2.2. 18 INCHES BY 18 INCHES FOR HAND ENTRY.
2.3. 12 INCHES BY 12 INCHES FOR VIEWING ONLY.
2.4. SIZE DOORS TO ALLOW ADEQUATE OPERATING/MAINTENANCE CLEARANCE FOR DEVICES.
2.5. ACCESS DOORS SHALL BE, WHEREVER POSSIBLE, OF A STANDARD SIZE FOR EACH APPLICATION.

3. PROVIDE ALL REQUIRED CUTTING AND PATCHING OF EXISTING CEILINGS AND WALLS TO FACILITATE DEMOLITION AND THE INSTALLATION OF THE MECHANICAL SERVICES OUTLINED FOR THIS SCOPE OF WORK.

4. WELDING TO BE PERFORMED WITH STRINGENT ENVIRONMENTAL CONDITIONS FOR SMOKE AND FUME EVACUATION.

5. THE MECHANICAL DRAWINGS ARE PERFORMANCE DRAWINGS, DIAGRAMMATIC, AND SHOW APPROXIMATE LOCATIONS OF EQUIPMENT AND CONNECTING SERVICES. ANY INFORMATION REGARDING ACCURATE MEASUREMENT OF THE BUILDING ARE TO BE TAKEN AT THE SITE. DO NOT SCALE THE DRAWINGS, AND DO NOT USE THE DRAWINGS FOR PREFABRICATION WORK.

6. FOR CLARITY, NOT ALL EXISTING EQUIPMENT, DUCTWORK, PIPING, ETC. HAS BEEN SHOWN ON THE DRAWINGS. THE EXISTING EQUIPMENT, PIPES, DUCTS AND SERVICES ARE SHOWN FOR REFERENCE ONLY. EXACT LOCATIONS, SIZES AND DIMENSIONS SHALL BE DETERMINED ON SITE. WHERE INTERFERENCES EXIST, CONTRACTOR SHALL REROUTE THE NEW WORK TO SUIT THE EXISTING PIPING.

7. NOT ALL CONNECTIONS TO EQUIPMENT ARE SHOWN. REFER TO THE MANUFACTURERS LITERATURE FOR ALL PIPING CONNECTIONS.

8. CONTRACTOR IS TO BE RESPONSIBLE FOR THE REMOVAL AND DISPOSAL OF ALL DUCTWORK, PIPING AND EQUIPMENT AS SHOWN ON THE DEMOLITION PLAN.

9. SURVEY ALL AFFILIATED WORK AREAS AND REPORT ABNORMALITIES AND DISCREPANCIES TO CONSULTANT.

10. WHERE CEILING, FLOOR, WALL OR ROOF OPENINGS ARE REQUIRED TO RUN MECHANICAL AND ELECTRICAL SERVICES, INCLUDE ALL COSTS FOR REINSTATING THE CEILING, FLOOR,WALL, OR ROOF. SEAL ALL OPENINGS WITH APPROVED FIRE-STOPPING MATERIALS AS REQUIRED. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

11. IF ASBESTOS CONTAINING MATERIAL IS SUSPECTED OR IDENTIFIED IN THE WORK AREA AND REQUIRED TO BE HANDLED AS PART OF THE DEMOLITION PHASE OF THE PROJECT,CONTRACTOR SHALL HALT WORK AND INFORM CONSULTANT OF SUCH CONDITIONS. CONTRACTOR SHALL NOT PROCEED WITH DEMOLITION OF SUCH AREAS WITHOUT AUTHORIZATION BY CONSULTANT. REMOVAL OF SUCH MATERIALS TO ACCOMMODATE THE WORK DESCRIBED AND OUTLINED IN THESE DRAWINGS SHALL BE ARRANGED THROUGH THE OWNER. ASBESTOS ABATEMENT, IF ANY, IS EXCLUDED FROM THIS CONTRACT AND WILL BE HANDLED SEPARATELY BY OWNER.

12. ALL ABANDONED OR OBSOLETE MECHANICAL SERVICES SUCH AS VALVES, PIPING, EQUIPMENT, INSTRUMENTATION, ETC. SHALL BE REMOVED WITHIN THE WORK AREA TO FACILITATE ALL NEW MECHANICAL WORK. CAP AND SEAL ALL REDUNDANT DUCT OPENINGS.

13. INSULATE ALL NEW DUCTWORK AND AND ANY EXISTING DUCTWORK WHERE INSULATION HAS BEEN REMOVED OR DAMAGED BY THIS WORK . REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

14. CONTRACTOR TO ALLOW FOR TEMPORARY REMOVAL OF EXISTING SERVICES LOCATED AT THE EXISTING WALL WHERE THE ADDITION IS BEING INSTALLED.

15. PROVIDE FIRESTOPPING ON MECHANICAL SERVICES PENETRATING FIRE RATED PARTITION AS PER MECHANICAL SPECIFICATIONS.

MECHANICAL LEGEND

SYMBOL	DESCRIPTION
	GENERAL
	EXISTING TO REMAIN
	EXISTING TO BE DEMOLISHED
R	EXISTING TO BE REMOVED FOR RELOCATION
R	EXISTING RELOCATED IN NEW WORK
	NEW WORK
CTE	CONNECT TO EXISTING
	AIRFLOW / PIPE FLOW DIRECTION
DN	PIPE TURNING DOWN
	PIPE TURNING UP
	PRESSURE REDUCING VALVE
T	ROOM THERMOSTAT
H	ROOM HUMIDISTAT
	PUMP
	AUTOMATIC CONTROL VALVE - TWO WAY
	AUTOMATIC CONTROL VALVE - THREE WAY
	ISOLATION VALVE
	BALANCING VALVE
	CHECK VALVE
	STRAINER - OVER 50MM WITH VALVED FLUSHING DRAIN
	PIPE BRANCH OFF TOP
	PIPE BRANCH OFF BOTTOM
	RELIEF VALVE (PIPE TO DRAIN)
	VACUUM BREAKER VALVE
	VENTURI VALVE
	PRESSURE GAUGE
	TEMPERATURE GAUGE
	STAINLESS STEEL BRAIDED FLEXIBLE HOSES
CAP	CAP
	SOLENOID VALVE
	SOLENOID VALVE
	FUSIBLE LINK VALVE
	ELECTRIC HEAT TRACING

THIS LEGEND IS GENERIC. ALL SYMBOLS LISTED MAY NOT BE APPLICABLE FOR THIS PROJECT. REFER TO FLOOR PLANS TO DETERMINE USED DEVICES AND EQUIPMENT.

GENERAL NOTES - HVAC

1. ALL MECHANICAL SERVICES SHOWN IN THIS DRAWING ARE TO REMAIN UNLESS NOTED OTHERWISE.

2. ALL EXISTING DUCTWORK TO REMAIN UNLESS NOTED OTHEWISE. REPLACE BROKEN, CRUSHED, OR DAMAGED DUCTS WITH NEW.

3. REFER TO SPECIFICATIONS FOR RESTRICTED HOURS. RESTRICTED HOURS MAY VARY DEPENDING ON ACTIVITY AND LOCATION.

4. SEQUENCE MECHANICAL AND ELECTICAL WORK TO SUIT EACH PHASE. INCLUDE ALL TEMPORARY SERVICES REQUIRED TO COMPLETE WORK IN EACH PHASE AND TO MAINTAIN EXISTING SERVICES OPERATIONAL IN ADJACENT OCCUPIED AREAS.

5. COORDINATE ALL WORK THAT EXTENDS BEYOND WORK BOUNDARY WITH OWNER AS REQUIRED.

6. CONTRACTOR TO POVIDE MINIMUN 24-HRS SHUT-DOWN NOTICE TO THE SCHOOL BOARD AND OBTAIN SIGN-OFF FROM THE SCHOOL BOARD PRIOR TO THE SHUTDOWN OF ANY SYSTEMS OR SERVICE.

MECHANICAL LEGEND

SYMBOL	DESCRIPTION
	PLUMBING
SAN	SANITARY DRAINAGE - ABOVE GROUND
SAN	SANITARY DRAINAGE - UNDERGROUND
SAN(AR)	SANITARY DRAINAGE (ACID RESISTANT) - ABOVE GROUND
SAN(AR)	SANITARY DRAINAGE (ACID RESISTANT) - UNDERGROUND
STM	STORM DRAINAGE - ABOVE GROUND
STM	STORM DRAINAGE - UNDERGROUND
PD	PUMPED DISCHARGE
	DOMESTIC COLD WATER SUPPLY
	DOMESTIC HOT WATER SUPPLY
	DOMESTIC HOT WATER RECIRC.
TW	TEMPERED WATER
ARV	ACID RESISTANT VENT
V	VENT
G	GAS
RO	REVERSE OSMOSIS PIPING
ISO	RADIO ISOTOPE DRAIN
CA	COMPRESSED AIR
	HEAT TRACING
	RUNNING TRAP
	P-TRAP
ES	EMERGENCY SHOWER
EW	EYE WASH
CO	CLEANOUT IN FLOOR/BELOW GRADE
CO	CLEANOUT IN CEILING
HB	HOSE BIBB
NFHB	NON FREEZE HOSE BIBB
G	SINGLE GAS OUTLET
G	DOUBLE GAS OUTLET
CA	COMPRESSED AIR OUTLET
RD	ROOF DRAIN
CFRD	CONTROL FLOW ROOF DRAIN
VTR	VENT THROUGH ROOF
RWL	RAIN WATER LEADER
TSP	TRAP SEAL PRIME
	SCUPPER DRAIN
MH	MANHOLE
CB	CATCH BASIN
TD	TRENCH GRATE & FRAME
AD	AREA DRAIN
FFD	FUNNEL FLOOR DRAIN
FD	FLOOR DRAIN
HD	HUB DRAIN
FS	FLOOR SINK
TDD	TERRACE DECK DRAIN
FRD	FLOOR DRAIN - FLUSHING RIM
M	WATER METER ASSEMBLY
G	GAS METER
	BACK WATER VALVE
BFP	BACKFLOW PREVENTER
"WC-1"	DENOTES FIXTURE TYPE PER SPECIFICATION

THIS LEGEND IS GENERIC. ALL SYMBOLS LISTED MAY NOT BE APPLICABLE FOR THIS PROJECT. REFER TO FLOOR PLANS TO DETERMINE USED DEVICES AND EQUIPMENT.

GENERAL NOTES - PLUMBING

1. ALL MECHANICAL SERVICES SHOWN IN THIS DRAWING ARE TO REMAIN UNLESS NOTED OTHERWISE.

2. CONTRACTOR TO VERIFY EXACT LOCATION AND SIZES OF EXISTING SERVICES. COORDINATE WITH BASE BUILDING BEFORE COMMENCEMENT OF WORK.

3. CONTRACTOR TO INCLUDE FOR ANY SYSTEM DRAINING OR PIPE FREEZING REQUIRED TO FACILITATE REPLACEMENT OF ISOLATION VALVES.

4. PROVIDE MAIN SHUTOFF FOR PLUMBING IN EACH WASHROOM WITH ACCESS PANEL.

MECHANICAL LEGEND

SYMBOL	DESCRIPTION
	VENTILATION
FD	FUSIBLE LINK FIRE DAMPER
SD	SMOKE DAMPER
SFD	COMBINATION SMOKE/FIRE DAMPER
BDD	BACK DRAFT DAMPER
BD	BALANCING DAMPER
M	MOTORIZED DAMPER
W x H	RECTANGULAR DUCTWORK - DIMENSION AS SHOWN
XXXØ	ROUND DUCTWORK - DIMENSION AS SHOWN
	RECTANGULAR SUPPLY DUCT UP
	RECTANGULAR EXHAUST/RETURN DUCT UP
	CIRCULAR SUPPLY/OUTDOOR AIR DUCT UP
	CIRCULAR EXHAUST/RETURN AIR DUCT UP
	RECTANGULAR SUPPLY DUCT DOWN
	RECTANGULAR EXHAUST/RETURN DUCT DOWN
	CIRCULAR SUPPLY/OUTDOOR AIR DUCT DOWN
	CIRCULAR EXHAUST/RETURN AIR DUCT DOWN
	MITRED ELBOW WITH TURNING VANES
	SUPPLY GRILLE - DIMENSIONS SHOWN ON SCHEDULE
	EXHAUST/RETURN GRILLE - DIMENSIONS SHOWN ON SCHEDULE
	CEILING SUPPLY AIR DIFFUSER - DIMENSIONS SHOWN ON SCHEDULE
	SUPPLY AIR LINEAR SLOT DIFFUSER - DIMENSIONS SHOWN ON SCHEDULE
	CEILING EXHAUST/RETURN GRILLE - DIMENSIONS SHOWN ON SCHEDULE
	SUPPLY AIR ROUND DIFFUSER
	BRANCH TAKE-OFF WITH ADJUSTABLE SPLITTER DAMPER IN SUPPLY DUCT
O.E.D.	OPEN ENDED DUCT WITH BALANCING DAMPER AND BELLMOUTH. DIRECTION AS SHOWN
	FLEXIBLE DUCT CONNECTION
	ACOUSTICALLY LINED DUCTWORK
SL	SILENCER (ATTENUATOR)
	FLEXIBLE DUCT (DOUBLE LINE)
	FLEXIBLE DUCT (SINGLE LINE)
	FLEXIBLE DUCT CONNECTION WITH BALANCING DAMPER ON TAKE-OFF
	DUCT MOUNTED HEATING COIL
	SUPPLY AIR TERMINAL BOX C/W REHEAT COIL AND ATTENUATOR.
	SUPPLY AIR TERMINAL BOX C/W ATTENUATOR.
	RETURN / EXHAUST AIR TERMINAL BOX ATTENUATOR.
	FIRE RATED DUCTWORK (DOUBLE LINE)
	DUCT TRANSITION FROM RECTANGULAR TO ROUND
	RECTANGULAR DUCT BREAK
	ROUND DUCT BREAK
	SINGLE LINE DUCT BREAK
U/C	3/4" DOOR UNDERCUT
	TRANSFER AIR DUCT
	SUPPLY AIR LIGHT TROFFER
U/C	3/4" DOOR UNDERCUT
TYPE, NECK SIZE (mm), A-200Ø-100, AIRFLOW IN L/s	DIFFUSER TAG
TYPE, AIRFLOW IN L/s, A-100, A-WxH-100, AIRFLOW IN L/s, GRILLE SIZE	GRILLE TAG

THIS LEGEND IS GENERIC. ALL SYMBOLS LISTED MAY NOT BE APPLICABLE FOR THIS PROJECT. REFER TO FLOOR PLANS TO DETERMINE USED DEVICES AND EQUIPMENT.

MECHANICAL LEGEND

SYMBOL	DESCRIPTION
	HEATING & COOLING
HWR	HEATING WATER RETURN
HWS	HEATING WATER SUPPLY
HGR	HEATING GLYCOL RETURN
HGS	HEATING GLYCOL SUPPLY
HTWR	HIGH TEMPERATURE HEATING WATER RETURN
HTWS	HIGH TEMPERATURE HEATING WATER SUPPLY
HTGR	HIGH TEMPERATURE HEATING GLYCOL RETURN
HTGS	HIGH TEMPERATURE HEATING GLYCOL SUPPLY
CWR	CONDENSER WATER RETURN
CWS	CONDENSER WATER SUPPLY
CHR	CHILLED WATER RETURN
CHS	CHILLED WATER SUPPLY
CHGR	CHILLED GLYCOL RETURN
CHGS	CHILLED GLYCOL SUPPLY
CNDR	CONDENSATE DRAIN
PC	PUMPED CONDENSATE
REFR	REFRIGERANT GAS
REFS	REFRIGERANT LIQUID
LPS	LOW PRESSURE STEAM
LPC	LOW PRESSURE CONDENSATE
HPS	HIGH PRESSURE STEAM
HPC	HIGH PRESSURE CONDENSATE
V	VENT
ST-V	STEAM VENT
GEOS	GEO-EXCHANGE SUPPLY
GEOR	GEO-EXCHANGE RETURN
FOS	FUEL OIL SUPPLY
FOR	FUEL OIL RETURN
FOV	FUEL OIL VENT
FOO	FUEL OIL OVERFLOW
BB - XXX	ELECTRIC BASEBOARD HEATER OUTPUT AS SHOWN (KW)
ECH	ELECTRIC CABINET HEATER
CUH	CABINET HEATER
UH	UNIT HEATER
CV, 1200-5.6	CONVECTOR - LENGTH - HEAT OUTPUT (KW)
WF, 1200-5.6	WALL FIN - LENGTH - HEAT OUTPUT (KW)
	UNION
	MANUAL AIR VENT
	AUTOMATIC AIR VENT
	EXPANSION COMPENSATOR
	EXPANSION SWING
	PIPE ANCHOR
	PIPE GUIDE
	PIPE SLEEVE
	FLOAT & THERMOSTATIC TRAP
	INVERTED BUCKET TRAP
	ELECTRIC TRACING
8C-600-1100 = 2.1	RADIANT PANEL - 8 DENOTES DEPTH, 600MM DENOTES HEIGHT, 1100MM DENOTES LENGTH & 2.1 HEAT OUTPUT (KW)

THIS LEGEND IS GENERIC. ALL SYMBOLS LISTED MAY NOT BE APPLICABLE FOR THIS PROJECT. REFER TO FLOOR PLANS TO DETERMINE USED DEVICES AND EQUIPMENT.

MECHANICAL LEGEND

SYMBOL	DESCRIPTION
	FIRE PROTECTION
SP	SPRINKLER LINE
FM	FIRE MAIN
F	STANDPIPE
WFA	WATER FLOW ALARM
SV	SUPERVISED VALVE
PS	PRESSURE SWITCH
	TEST CONNECTION
	SPRINKLER FIRE DEPARTMENT CONNECTION
	PENDENT SPRINKLER HEAD
	UPRIGHT SPRINKLER HEAD
	CONCEALED SPRINKLER HEAD
	FIRE SUPPRESSION SPRINKLER HEAD
	SIDEWALL SPRINKLER HEAD
PIV	POST-INDICATOR VALVE
SVC	SPRINKLER VALVE CABINET
FEC	FIRE EXTINGUISHER CABINET
FHC	FIRE HOSE CABINET
F	FIRE EXTINGUISHER C/W WALL BRACKET
	FIRE HYDRANT C/W SHUT-OFF VALVE
	AIR COMPRESSOR
	PRESSURE SWITCH
	WATER FLOW ALARM
	EXCESS PRESSURE PUMP
	WET ALARM CHECK VALVE
	TEST & DRAIN VALVE
	WATER FLOW ALARM
	PRESSURE SWITCH
	DRY ALARM CHECK VALVE
	TEST & DRAIN VALVE

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MECHANICAL LEGEND

SYMBOL	DESCRIPTION
	CONTROLS
SF	SUPPLY FAN
RF	RETURN EXHAUST FAN
EF	EXHAUST FAN
H/C	HEATING COIL
C/C	COOLING COIL
P/C	PRE-HEAT COIL
	FILTERS
SA	SUPPLY AIR
EA	EXHAUST AIR
OA	OUTDOOR AIR
RA	RETURN AIR
MD	MOTORIZED DAMPER
MSP	MOTOR STARTER PANEL
MCC	MOTOR CONTROL CENTER
	HUMIDIFIER
NO	NORMALLY OPEN
NC	NORMALLY CLOSED
VFD	VARIABLE FREQUENCY DRIVE
	ACTUATOR CLOSED END SWITCH
	ACTUATOR OPEN END SWITCH
FS	FLOW SWITCH
LS	LEVEL SWITCH
PS	PRESSURE SWITCH
NC	ACTUATOR NORMALLY CLOSED DE-ENERGIZED POSITION
NO	ACTUATOR NORMALLY OPEN DE-ENERGIZED POSITION
	ACTUATOR FAIL OPEN POSITION
	ACTUATOR FAIL CLOSED POSITION
FL	ACTUATOR FAIL LAST POSITION
	TWO-POSITION ACTUATOR
	MODULATING ACTUATOR
P	PRESSURE SENSOR
DP	DIFFERENTIAL PRESSURE SENSOR
VS	VELOCITY SENSOR
H	HUMIDITY SENSOR
T	TEMPERATURE SENSOR
OS	OCCUPANCY SENSOR
CO	CARBON MONOXIDE SENSOR
NO	NOX SENSOR
O_2	OXYGEN SENSOR
GDP	GAS DETECTION SYSTEM CONTROL PANEL
	VISUAL INDICATOR ALARM
	AUDIBLE INDICATOR ALARM
BAS	BUILDING AUTOMATION SYSTEM
AI	ANALOG INPUT
AO	ANALOG OUTPUT
DI	DIGITAL INPUT
DO	DIGITAL OUTPUT
GP	BAS GRAPHICS POINT
AP	BAS ADJUSTABLE SET POINT
BV	BACNET BINARY VARIABLE
HOA	HAND-OFF-AUTO
	CONTROL WIRING

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7	Issued for Building Permit	2024-12-04
8	Issued for Tender	2025-01-14

QUASAR CONSULTING GROUP
250 ROWNTREE DAIRY RD, WOODBRIDGE, ON
TEL: 905-507-0800
WEB: WWW.QUASARCG.COM

CSV Renaissance Addition

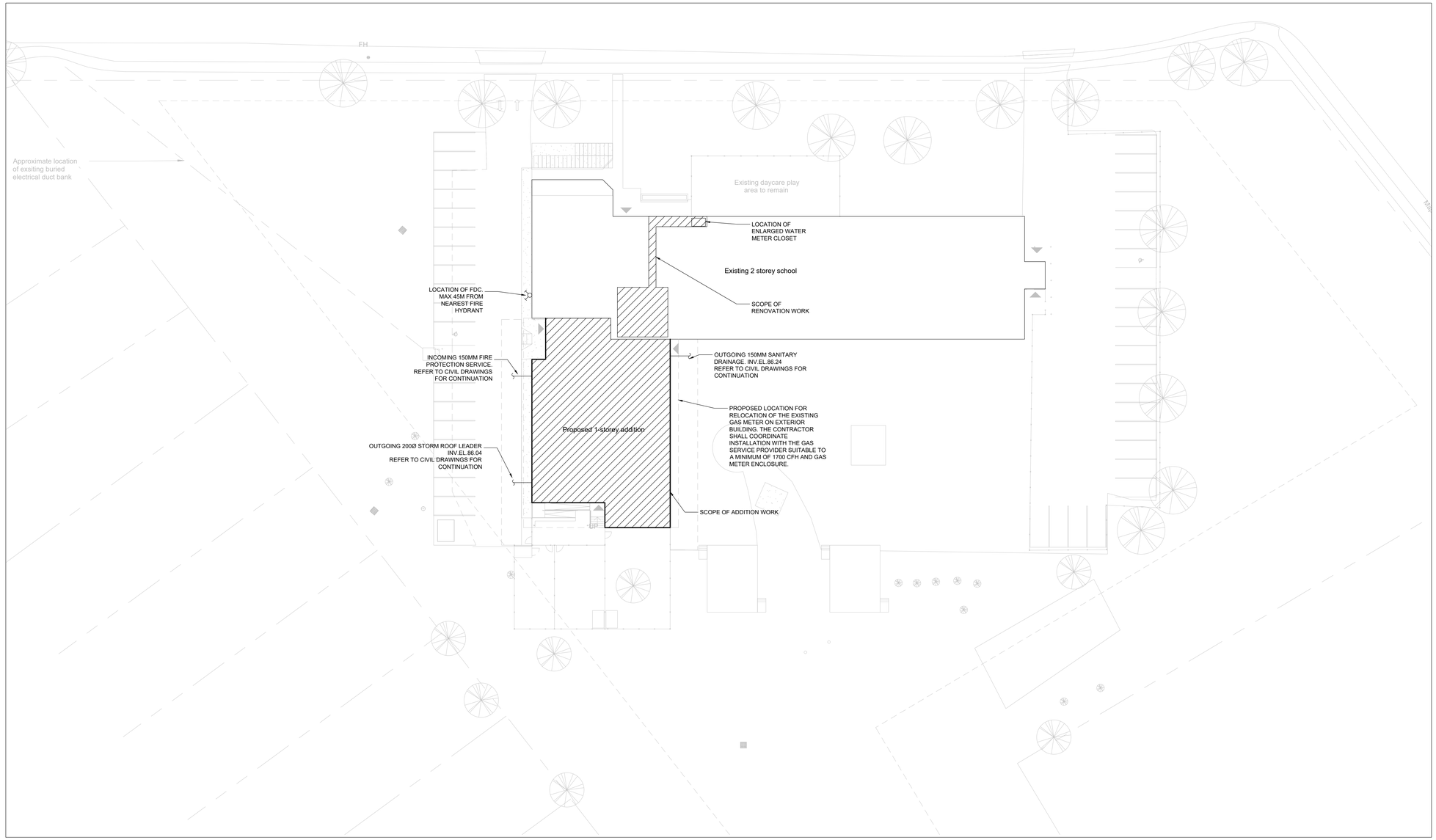
1226 Lockhart Rd
Burlington, ON L7S 1H1

PROJECT CODE: ED-22-018
SCALE: AS SHOWN
DATE: 2022-11-09
STATUS:

MECHANICAL LEGEND & DRAWING LIST

Project North

drawing number
M0.1



1 MECHANICAL SITE PLAN
SCALE: 1:300

Rev	Description	Date
1	Issued for Class C Costing	2022-07-27
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CSV Renaissance Addition

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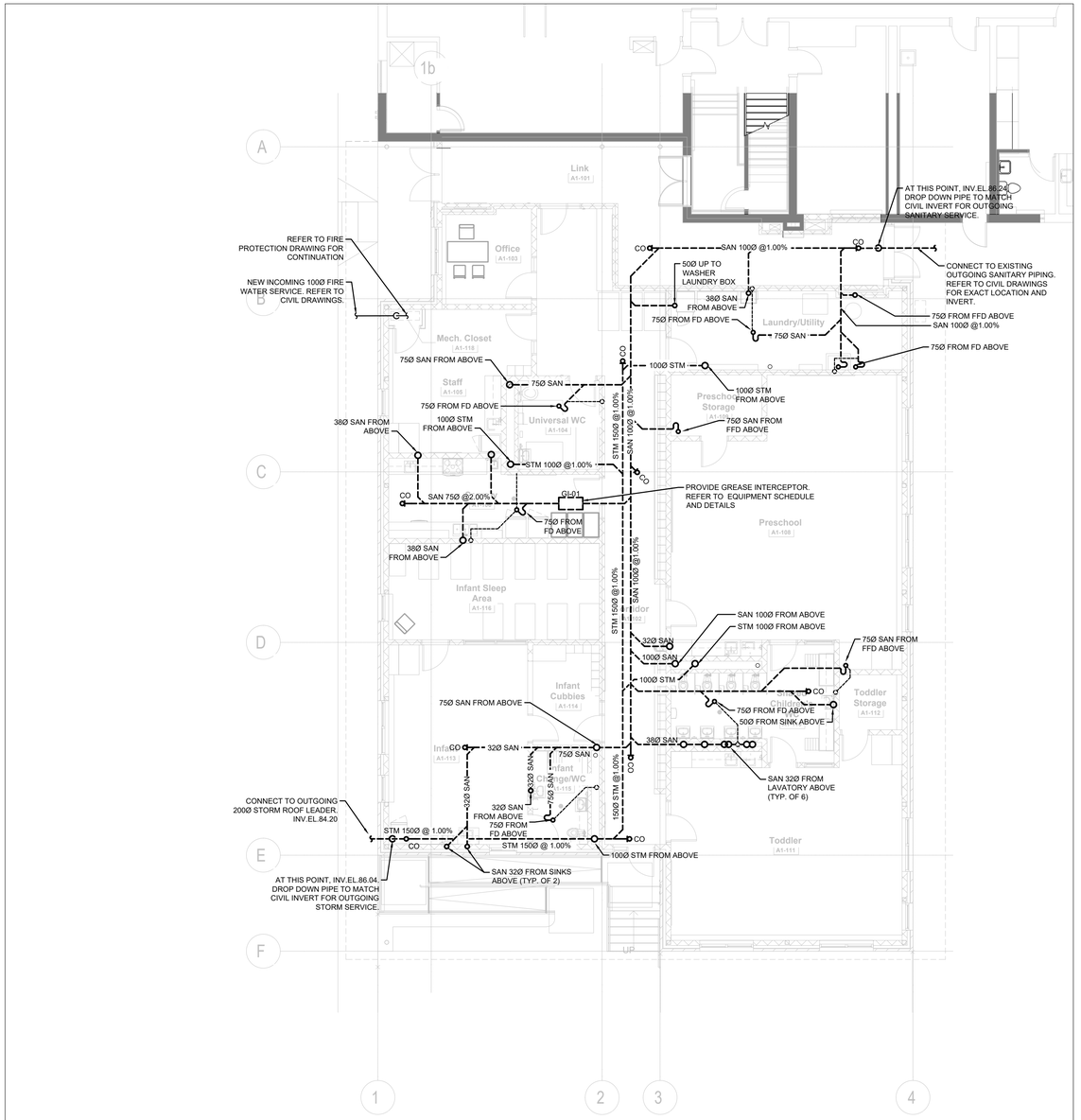
PROJECT CODE: ED-22-018
SCALE: AS SHOWN
DATE: 2022-11-09
STATUS:

MECHANICAL SITE PLAN

Project North

drawing number
M1.0



GENERAL NOTES

1. MECHANICAL CONTRACTOR SHALL REVIEW STRUCTURAL DRAWINGS REGARDING SIZE AND LOCATIONS OF BEAMS AND EXPANSION JOINTS.
2. MECHANICAL CONTRACTOR SHALL COORDINATE ALL PIPING AND DUCTWORK WITH STRUCTURAL BEAMS AND PROVIDE SLEEVING AS NECESSARY TO MAINTAIN MINIMUM HEADROOM AS INDICATED ON ARCHITECTURAL DRAWINGS.
3. MECHANICAL CONTRACTOR SHALL REVIEW ALL ARCHITECTURAL AND INTERIOR DESIGN DRAWINGS AND MAINTAIN MINIMUM HEADROOM AS INDICATED.
4. WALL EQUIPMENT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
5. PROVIDE ISOLATION VALVES FOR ALL RISERS, BRANCH TAKE OFFS, AND AT EACH FIXTURE.
6. ALL DRAINAGE PIPING SHALL BE 100Ø AND SLOPED AT 1% UNLESS NOTED OTHERWISE. ALL DRAINAGE PIPING 75Ø AND LESS TO BE SLOPED AT 2%. MINIMUM PIPE SIZE IS 12Ø UNLESS NOTED OTHERWISE.
7. ALL TRAPPED SANITARY DRAINS LOCATED IN UNHEATED SPACE SHALL BE ELECTRICALLY HEAT TRACES AND INSULATED OVER ENTIRE LENGTH.
8. PROVIDE P-TRAPS, VENT TO OUTDOORS AND PRIMING TO ALL FLOOR DRAINS.
9. PROVIDE FULL VENTING SYSTEM IN ACCORDANCE WITH OBC PART 7. COORDINATE ALL VENTS AND TERMINATION POINTS.
10. ALL MOP SINKS, WALL HYDRANTS, HOSE BIBBS TO BE PROVIDED C/W CSA VACUUM BREAKER PER OBC REQUIREMENTS.
11. REFER TO SCHEMATICS FOR GAS, DOMESTIC WATER, SANITARY, VENTING AND STORM RISER DETAILS AND SIZING.
12. REFER TO MECHANICAL SPECIFICATION FOR PLUMBING FIXTURE REQUIREMENTS.

1 PLUMBING - FOUNDATION PLAN
SCALE: 1:100

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CSV Renaissance Addition

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PROJECT CODE: ED-22-018
SCALE: AS SHOWN
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PLUMBING - FOUNDATION PLAN

Project North

drawing number
M2.0

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3. MECHANICAL CONTRACTOR SHALL REVIEW ALL ARCHITECTURAL AND INTERIOR DESIGN DRAWINGS AND MAINTAIN MINIMUM HEADROOM AS INDICATED.

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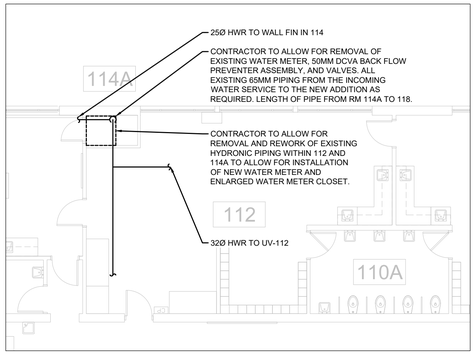
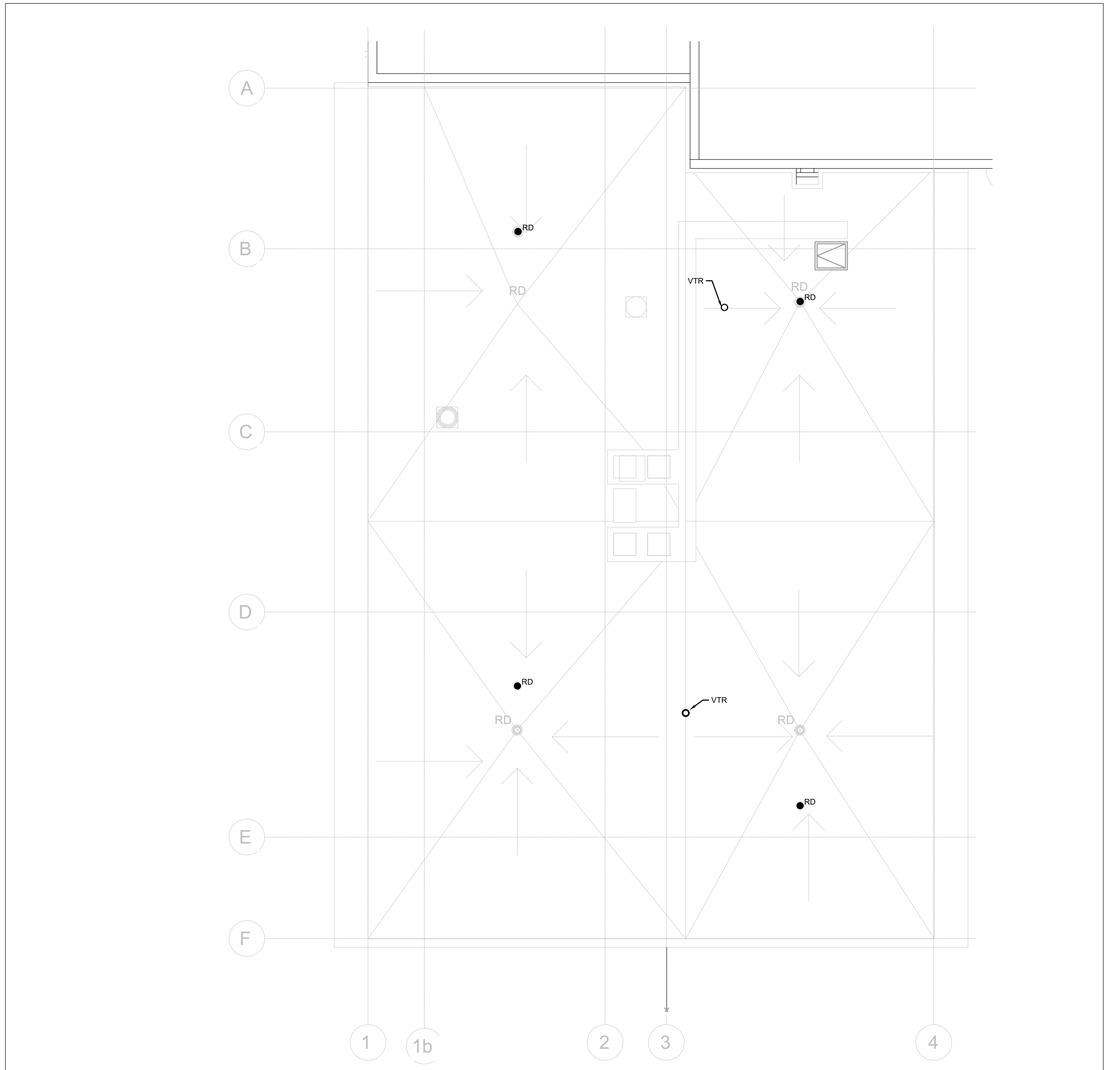
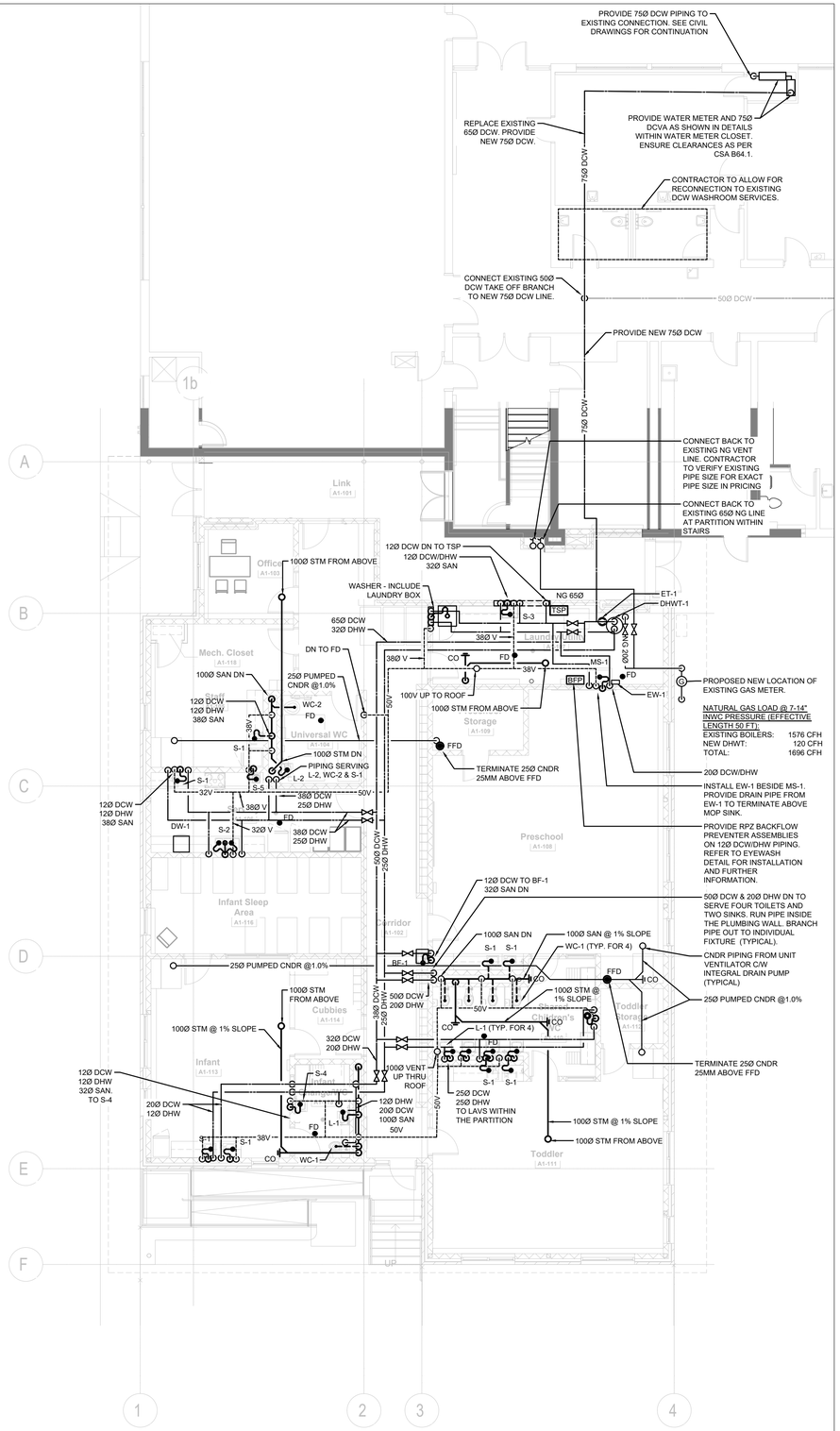


3 WATER METER RM - GROUND FLOOR - DEMO
SCALE: 1:100



2 PLUMBING - ROOF PLAN
SCALE: 1:100



1 PLUMBING - GROUND FLOOR PLAN
SCALE: 1:100

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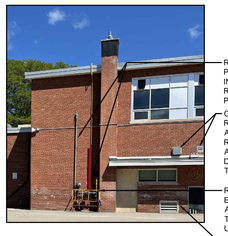
PLUMBING - GROUND & ROOF PLAN

Project North

drawing number
M2.1



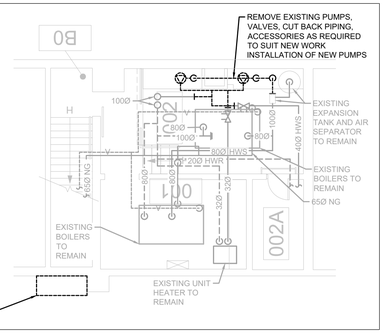
REMOVE EXISTING GAS VENT PIPING AND GAS PIPING AS INDICATED. INCLUDE FOR REMOVAL OF REDUNDANT GAS PIPING ON ROOF.

CONTRACTOR TO INCLUDE FOR REMOVAL OF EXISTING LOUVRE AND EXISTING SERVICES AS REQUIRED. INCLUDE FOR ADDITIONAL DUCT DISTRIBUTION TO ROUTE UP THROUGH THE ADDITION ROOF

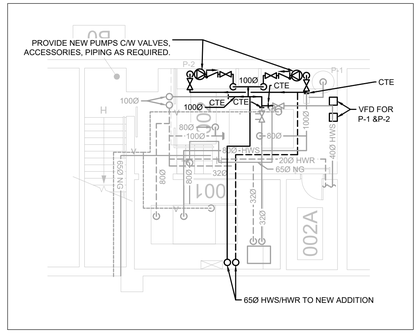
REMOVE AND RELOCATE EXISTING GAS METER, PIPING, ACCESSORIES. CONTRACTOR TO COORDINATE WITH GAS UTILITY AS REQUIRED.

REMOVE EXISTING LOUVRE TO SUIT NEW WORK. REFER TO M4.1 VENTILATION DRAWING.

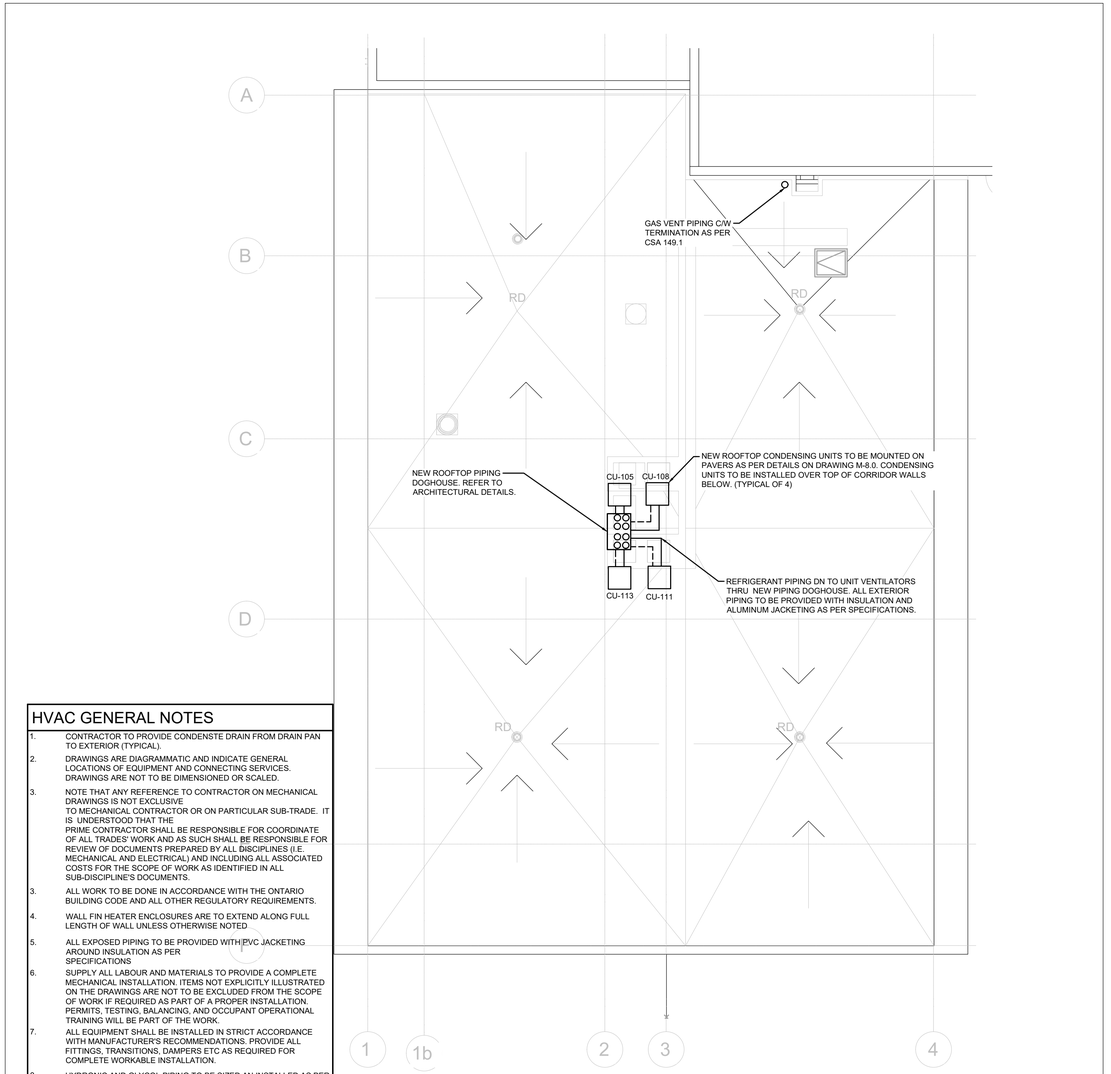
APPROXIMATE LOCATION OF EXISTING GAS METER



4 HVAC PIPING - BOILER ROOM - DEMOLITION
SCALE: 1:100



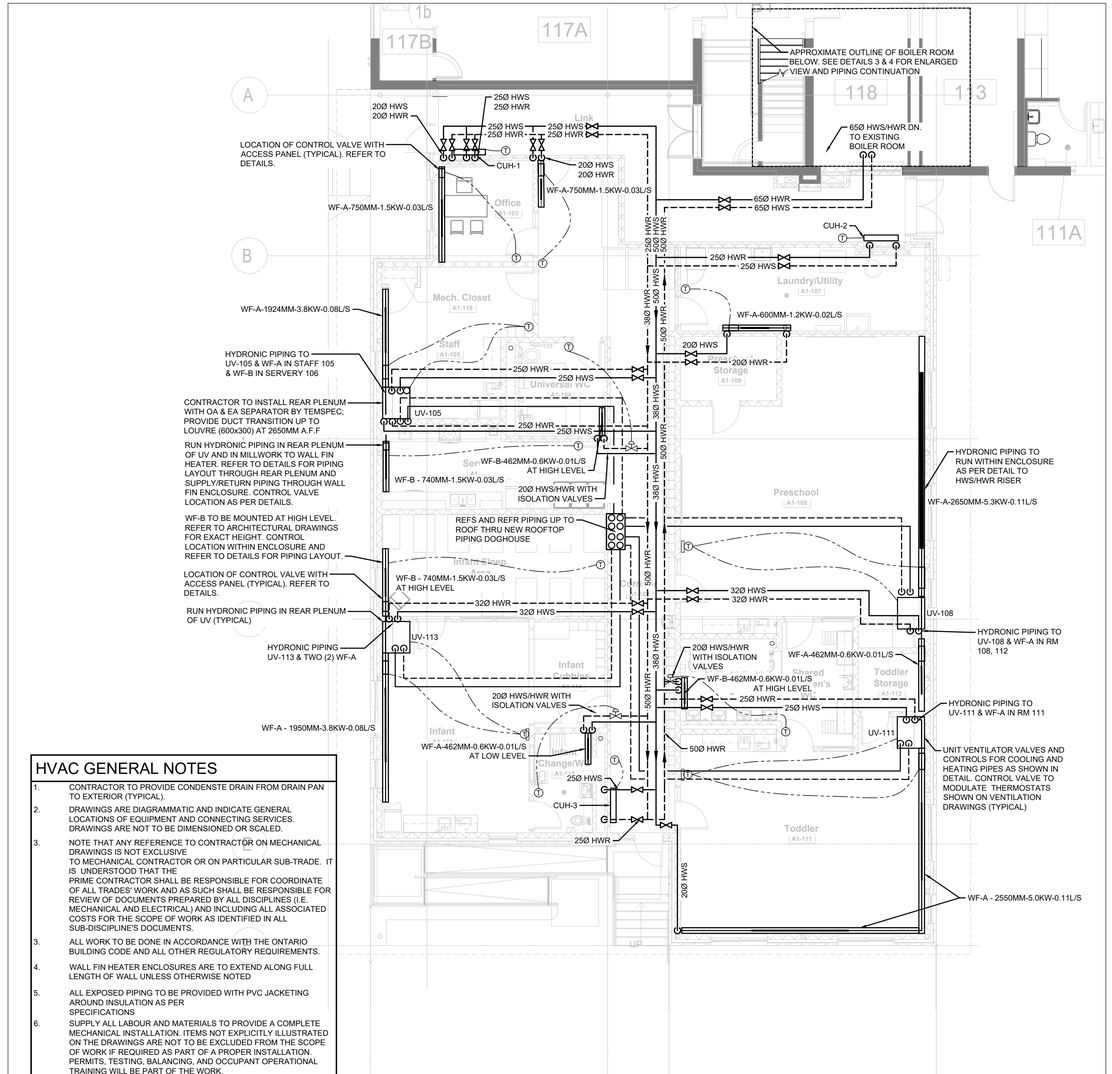
3 HVAC PIPING - BOILER ROOM - NEW WORK
SCALE: 1:100



HVAC GENERAL NOTES

1. CONTRACTOR TO PROVIDE CONDENSTE DRAIN FROM DRAIN PAN TO EXTERIOR (TYPICAL).
2. DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERAL LOCATIONS OF EQUIPMENT AND CONNECTING SERVICES. DRAWINGS ARE NOT TO BE DIMENSIONED OR SCALED.
3. NOTE THAT ANY REFERENCE TO CONTRACTOR ON MECHANICAL DRAWINGS IS NOT EXCLUSIVE TO MECHANICAL CONTRACTOR OR ON PARTICULAR SUB-TRADE. IT IS UNDERSTOOD THAT THE PRIME CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATE OF ALL TRADES' WORK AND AS SUCH SHALL BE RESPONSIBLE FOR REVIEW OF DOCUMENTS PREPARED BY ALL DISCIPLINES (I.E. MECHANICAL AND ELECTRICAL) AND INCLUDING ALL ASSOCIATED COSTS FOR THE SCOPE OF WORK AS IDENTIFIED IN ALL SUB-DISCIPLINE'S DOCUMENTS.
3. ALL WORK TO BE DONE IN ACCORDANCE WITH THE ONTARIO BUILDING CODE AND ALL OTHER REGULATORY REQUIREMENTS.
4. WALL FIN HEATER ENCLOSURES ARE TO EXTEND ALONG FULL LENGTH OF WALL UNLESS OTHERWISE NOTED
5. ALL EXPOSED PIPING TO BE PROVIDED WITH PVC JACKETING AROUND INSULATION AS PER SPECIFICATIONS
6. SUPPLY ALL LABOUR AND MATERIALS TO PROVIDE A COMPLETE MECHANICAL INSTALLATION. ITEMS NOT EXPLICITLY ILLUSTRATED ON THE DRAWINGS ARE NOT TO BE EXCLUDED FROM THE SCOPE OF WORK IF REQUIRED AS PART OF A PROPER INSTALLATION. PERMITS, TESTING, BALANCING, AND OCCUPANT OPERATIONAL TRAINING WILL BE PART OF THE WORK.
7. ALL EQUIPMENT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. PROVIDE ALL FITTINGS, TRANSITIONS, DAMPERS ETC AS REQUIRED FOR COMPLETE WORKABLE INSTALLATION.
8. HYDRONIC AND GLYCOL PIPING TO BE SIZED AN INSTALLED AS PER MANUFACTURER'S RECOMMENDATIONS BASED ON CAPACITY AND ROUTING OF PIPES.
9. EXTERIOR AND INDOOR NATURAL GAS PIPING TO BE SUPPORTED AS PER MECHANICAL DETAILS AND SPECIFICATIONS
10. PROVIDE FIRESTOPPING ON HVAC PIPING SERVICES FOR ALL FIRE RATED WALLS AS PER SPECIFICATIONS. REFER TO ARCHITECTURAL DRAWINGS FOR FIRE RATED WALL AND SLAB LOCATIONS.

2 HVAC PIPING - ROOF PLAN NEW WORK
SCALE: 1:100



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1 HVAC PIPING - GROUND FLOOR PLAN
SCALE: 1:100

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CSV Renaissance Addition

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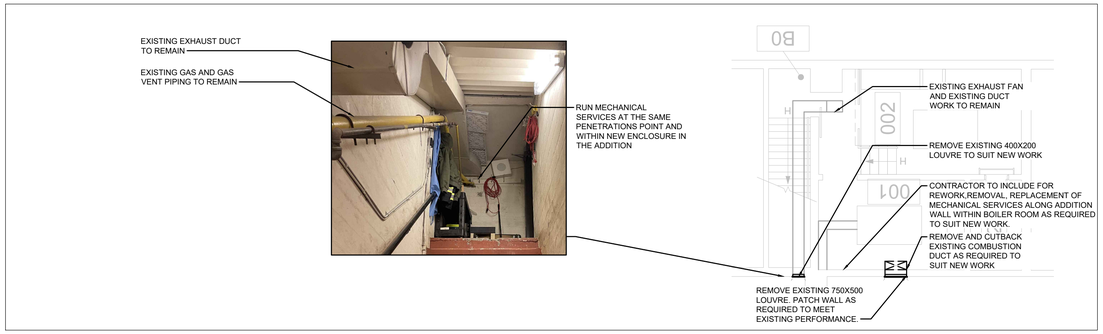
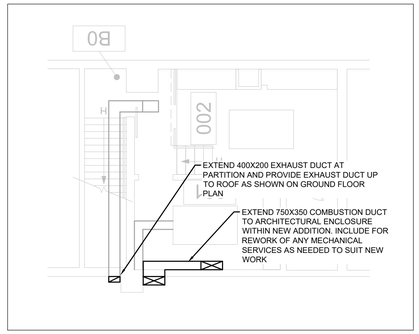
HVAC PIPING - GROUND FLOOR PLAN

Project North

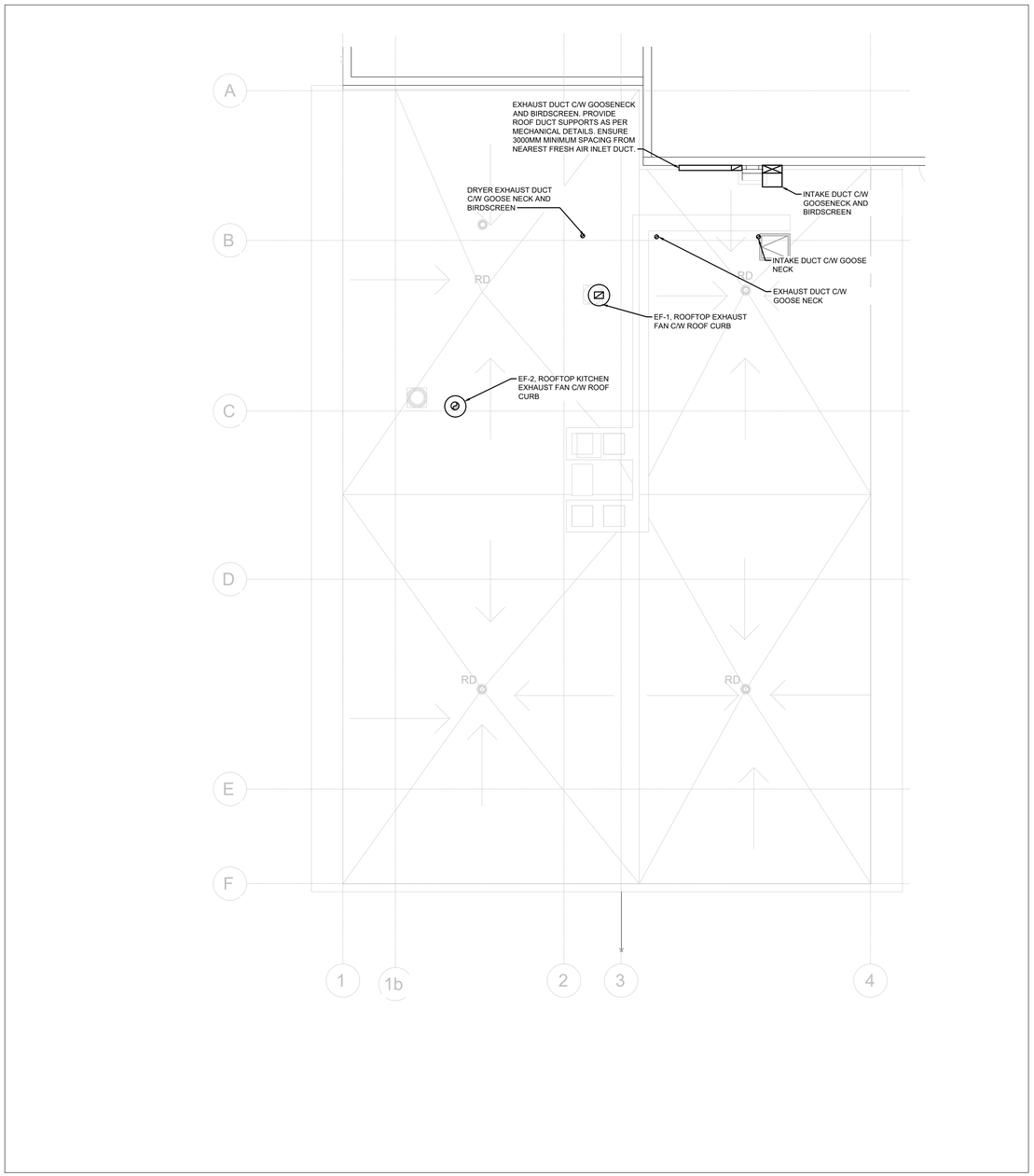
drawing number
M3.1



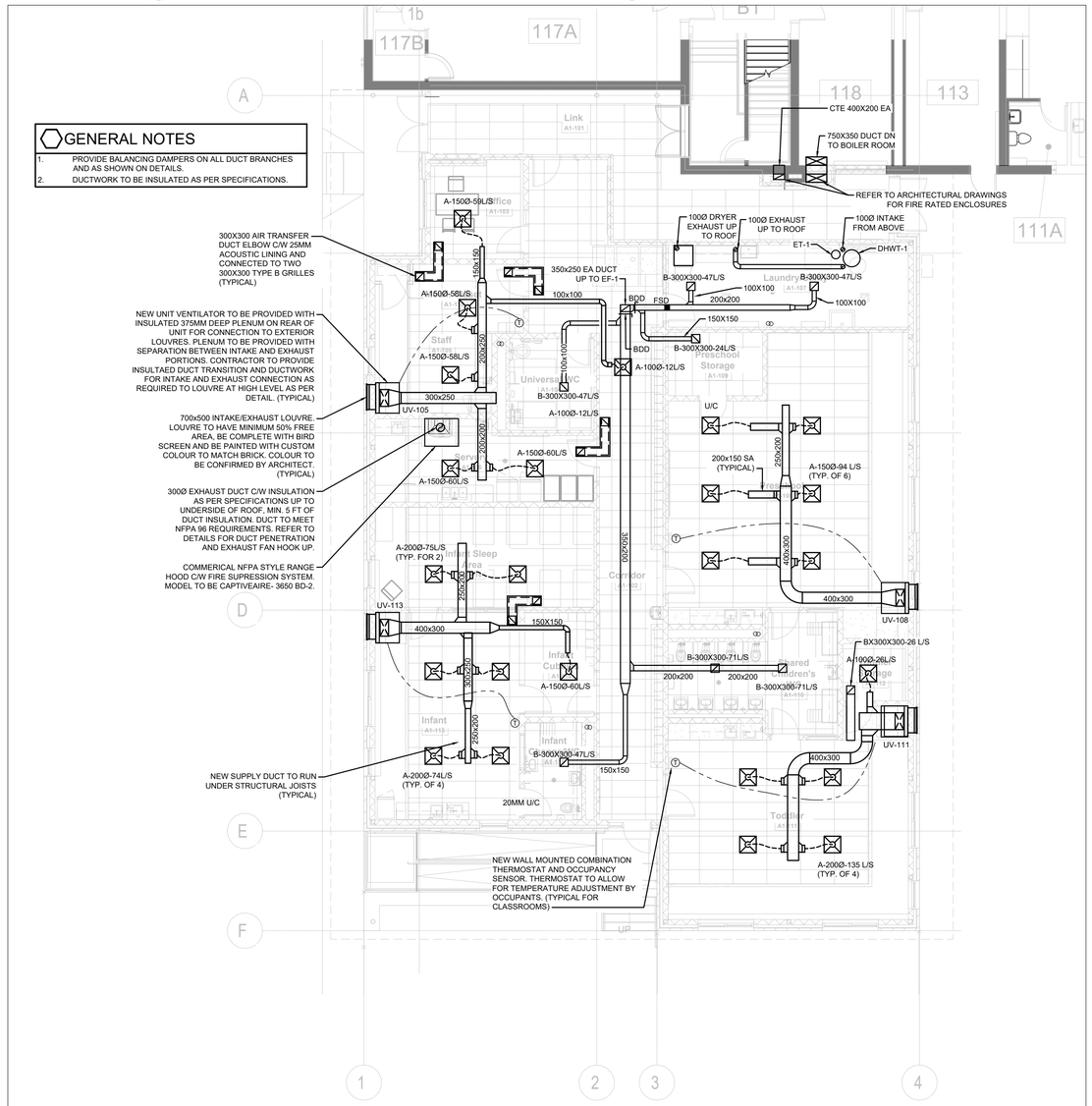
4 VENTILATION - BOILER ROOM - DEMOLITION
SCALE: 1:100



3 VENTILATION - BOILER ROOM - NEW WORK
SCALE: 1:100



2 HVAC - VENTILATION ROOF PLAN NEW WORK
SCALE: 1:100



1 HVAC - VENTILATION GROUND FLOOR PLAN
SCALE: 1:100

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HVAC - VENTILATION GROUND FLOOR PLAN

Project North

drawing number
M4.1

SUPERVISED VALVE SCHEDULE

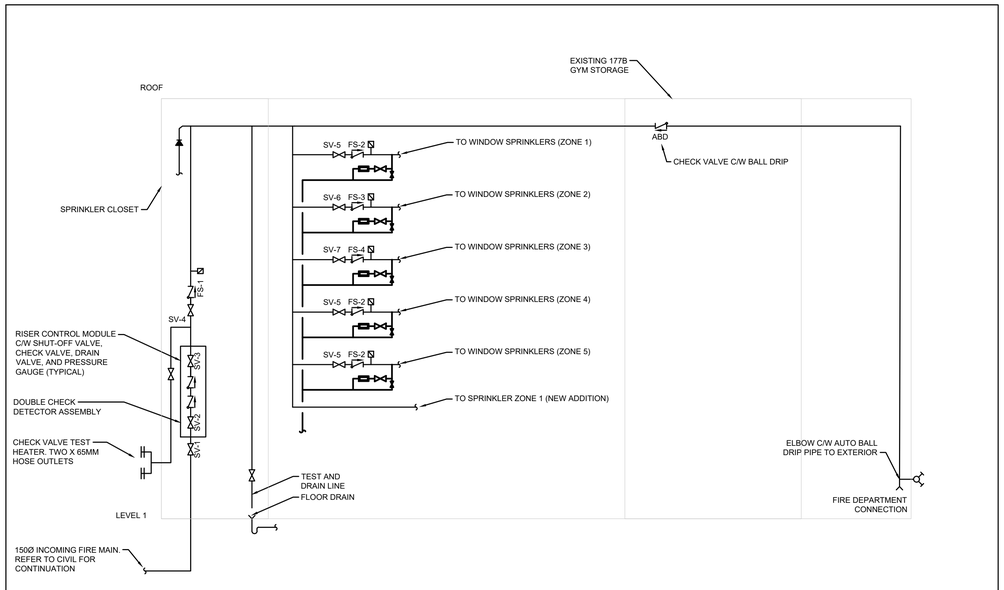
VALVE NO.	VALVE LOCATION	SERVICE
SV-1	INCOMING SPRINKLER CLOSET	SPRINKLER BUILDING ISOLATION
SV-2	INCOMING SPRINKLER CLOSET	SPRINKLER DOUBLE CHECK ISOLATION
SV-3	INCOMING SPRINKLER CLOSET	SPRINKLER DOUBLE CHECK ISOLATION
SV-4	INCOMING SPRINKLER CLOSET	CHECK ISOLATION

NOTES:
1. VERTICAL BACKFLOW PREVENTION ASSEMBLY INSTALLATION ONLY PERMITTED PER LISTING.

2. PIPE UPSTREAM OF BACKFLOW PREVENTION SHALL BE DUCTILE IRON.

3. CONTRACTOR SHALL PROVIDE PROVISIONS FOR TESTING THE DOUBLE CHECK VALVE ASSEMBLY TO ACCOMMODATE THE LARGEST SYSTEM DEMAND

4. FIRE DEPARTMENT DRY PIPE TO EXTERIOR SHALL BE GALVANIZED.
VALVES AND GAUGES SHALL BE INSTALLED WITHIN ACCESSIBLE HEIGHT (MAX 1.8M AFF).



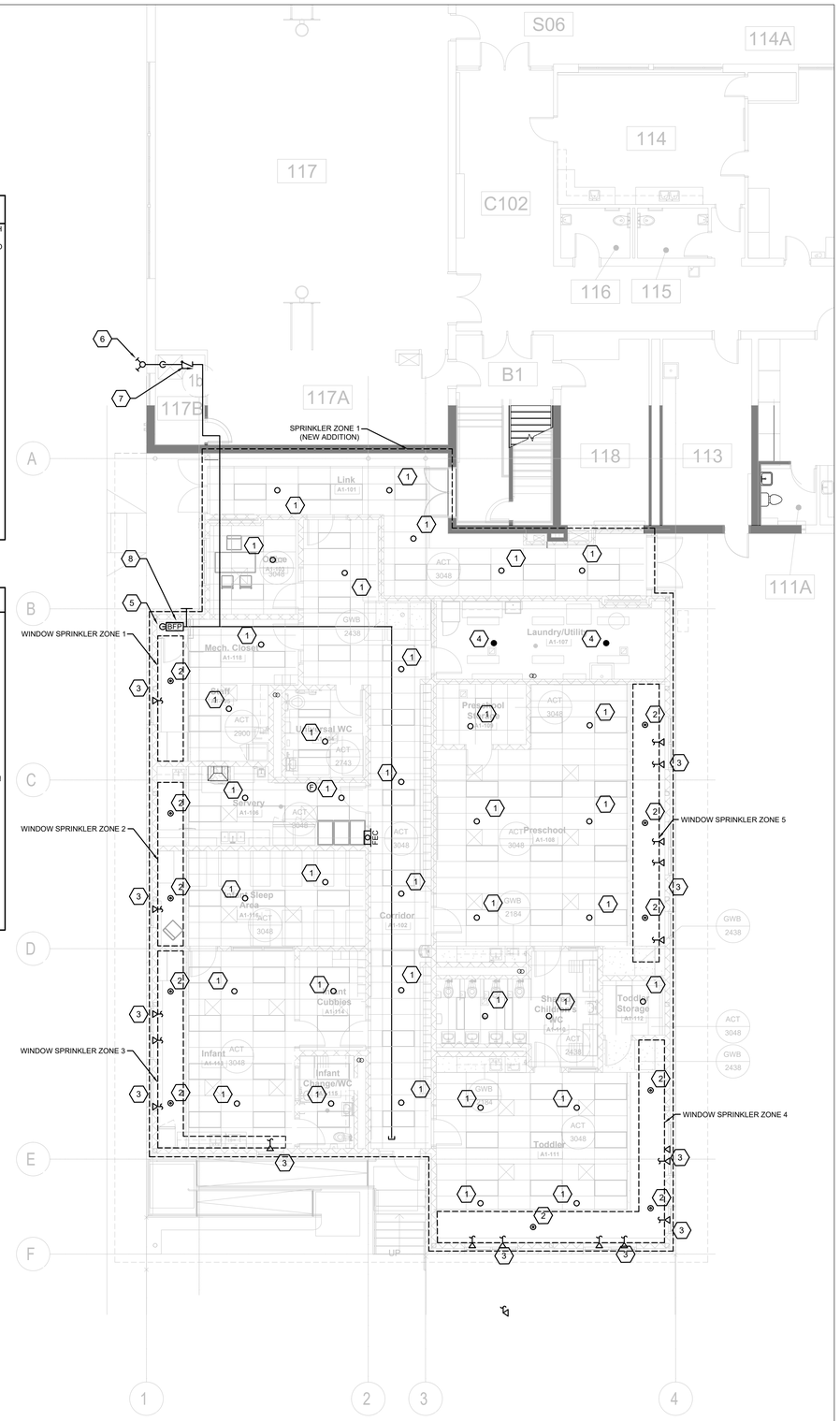
1 FIRE PROTECTION SCHEMATIC
SCALE: N.T.S

SHEET KEYNOTES

1. PROVIDE CONCEALED SPRINKLER HEAD. PROVIDE SHOP DRAWINGS WITH DETAILED SPRINKLER DESIGN INCLUDING HYDRAULIC CALCULATIONS, COMPLETE WITH SPRINKLER HEADS, PIPING, AND SIZING DATA. REFER TO SPECIFICATIONS FOR MORE INFORMATION. (TYPICAL)
2. PROVIDE UPRIGHT SPRINKLER IN 550MM HIGHER CEILING SPACE AT PERIMETER OF CLASSROOM (TYPICAL), PROVIDE SHOP DRAWINGS WITH DETAILED SPRINKLER DESIGN INCLUDING HYDRAULIC CALCULATIONS, PIPING, AND SIZING DATA. REFER TO SPECIFICATIONS FOR MORE INFORMATION. (TYPICAL)
3. PROVIDE WINDOW SPRINKLERS WITHIN EXPOSED CEILINGS TO THE U/S OF ROOF DECK. PROVIDE SHOP DRAWINGS WITH DETAILED SPRINKLER DESIGN INCLUDING HYDRAULIC CALCULATIONS, PIPING, AND SIZING DATA. REFER TO SPECIFICATIONS FOR MORE INFORMATION. WINDOW SPRINKLER ZONE AS INDICATED IN FLOOR PLAN. (TYPICAL)
4. PROVIDE PENDANT TYPE SPRINKLER HEAD. PIPING TO EXTEND FROM CUT BACK LOCATION. PROVIDE SHOP DRAWINGS WITH DETAILED SPRINKLER DESIGN INCLUDING HYDRAULIC CALCULATIONS. PROVIDE PIPING, AND SIZING DATA. REFER TO SPECIFICATIONS FOR MORE INFORMATION. (TYPICAL)
5. PROVIDE NEW FIRE PROTECTION DOUBLE CHECK DETECTOR ASSEMBLY BACKFLOW PREVENTER AT PERIMETER OF BUILDING. CONNECT TO 150Ø INCOMING FIRE SERVICE FROM BELOW. REFER TO M2.0 FOR PIPING LAYOUT. VERTICAL INSTALLATION OF BACKFLOW IS ACCEPTABLE TO FIT IN SPRINKLER CLOSET. REFER TO DETAILS FOR INSTALLATION AND MAINTENANCE CLEARANCES AS PER CSA B64.10.
6. PROVIDE FIRE DEPARTMENT CONNECTION AT NEW SPRINKLER ASSEMBLY ROOM.
7. LOCATION OF CHECK VALVE TO BE ACCESSIBLE WITH ACCESS PANELS
8. REFER TO FIRE PROTECTION SCHEMATIC FOR VALVES, PIPING/VALVING ARRANGEMENTS. REFER TO ARCHITECTURAL DRAWINGS FOR SPRINKLER ROOM CLOSET.

GENERAL SHEET NOTES

1. DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERAL LOCATIONS OF EQUIPMENT AND CONNECTING SERVICES. DRAWINGS ARE NOT TO BE DIMENSIONED OR SCALED.
2. COORDINATE FIRE PROTECTION WITH WORK OF OTHER TRADES PRIOR TO FABRICATION OR INSTALLATION. PROVIDE ALL FITTINGS, OFFSETS AND TRANSITIONS REQUIRED FOR COMPLETE WORKABLE INSTALLATION.
3. THIS SPRINKLER DRAWING IS PREPARED TO GIVE THE CONTRACTOR THE DESIGN INTENT. THE SCOPE OF WORK AND TO ASSIST IN PRICING THE SPRINKLER WORK. THE SUCCESSFUL SPRINKLER CONTRACTOR SHALL PREPARE SHOP DRAWINGS AND HYDRAULIC CALCULATIONS AND SUBMIT TO THE CITY FIRE DEPARTMENT AND TO THE CONSULTANT FOR APPROVAL. CONTRACTOR SHALL OBTAIN COPIES OF CALCULATIONS AND ANY DRAWINGS REQUIRED FROM THE OWNER AND/OR THE ORIGINAL INSTALLING CONTRACTOR IN ORDER TO COMPLETE THIS DESIGN. THE CONTRACTOR SHALL INCLUDE FOR ALL NECESSARY REQUIREMENTS TO COMPLETE THE DESIGN IF THE ABOVE INFORMATION IS NOT AVAILABLE OR ACCEPTABLE.
4. CONTRACTOR SHALL CO-ORDINATE SPRINKLER HEAD LOCATIONS IN AREAS WITH SUSPENDED CEILINGS WITH THE LOCATION OF LIGHTING, GRILLES, DIFFUSERS, AND SIMILAR ITEMS RECESSED IN OR SURFACE MOUNTED ON THE CEILING. IN AREAS WITH LAY-INTILE, CENTRE THE SPRINKLER HEAD BOTH WAYS IN THE LAY-IN TILE.
5. ENSURE DOORS AT CORRIDOR 102, UTILITY/LAUNDRY 107, TODDLER STORAGE 112, LINK 101 TO BE TIED TO FIRE ALARM TO COMPLY WITH NFPA 80. DOOR OPERATOR TO HAVE A SWITCH FOR ON/OFF/HOLD OPEN AS PER ARCHITECTURAL SPECIFICAITONS.



1 FIRE PROTECTION - GROUND FLOOR PLAN
SCALE: 1:100

Rev	Description	Date
1	Issued for Class C Costing	2022-07-27
2	Issued for Client Review	2022-11-10
3	Issued for 80% CD Review	2023-02-15
4	Issued for Site Plan Application	2023-03-15
5	Issued for Site Plan Application	2023-11-22
6	Issued for 90% CD Review	2024-10-01
7	Issued for Building Permit	2024-12-04
8	Issued for Tender	2025-01-14

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PROJECT CODE:	SCALE:
ED-22-018	AS SHOWN
DATE:	STATUS:
2022-11-09	

FIRE PROTECTION - GROUND FLOOR PLAN

Project North

drawing number
M5.1

GENERAL:
1. ALL SETPOINTS SHALL BE ADJUSTABLE.
2. THE UNIT SHALL RECEIVE A HEATING OR COOLING MODE SIGNAL FROM THE BOILER PLANT AND CHILLER PLANTS RESPECTIVELY.
3. THE UNIT SHALL RECEIVE A HEATING FAIL SIGNAL FROM THE BOILER PLANT.

OCCUPANCY MODES
1. OCCUPIED MODE
 1.1. THE UNIT WILL BE IN OCCUPIED MODE BASED ON A TIME OF DAY SCHEDULE CONTROLLED BY THE CARETAKER.
2. NIGHT SETBACK
 2.1. NIGHT SETBACK SHALL BE ENABLED WHEN THE ASSOCIATED SPACE TEMPERATURE DROPS BELOW THE UNOCCUPIED SPACE SETPOINT OF 14 °C. THE BAS SHALL CYCLE THE AHU TO MAINTAIN SPACE TEMPERATURE AT UNOCCUPIED SETPOINT. THE MIXED AIR DAMPERS SHALL REMAIN CLOSED.
3. OPTIMAL HEATING START
 3.1. THE BAS SHALL ENABLE THE AHU UP TO 3 HOURS BEFORE OCCUPANCY TO ACHIEVE OCCUPIED SETPOINT WHEN OCCUPANCY STARTS. THE MIXED AIR DAMPERS SHALL BE CLOSED.

SYSTEM START-UP
1. THE UNIT SHALL BE ENABLED DURING OCCUPIED HOURS, NIGHT SETBACK, OPTIMAL HEATING START OR OCCUPANCY OVERRIDE.
2. IF THE SURVEILLANCE PANEL IS ARMED, THE FAN WILL NOT BE ENABLED DURING OCCUPIED HOURS.
3. THE BAS SHALL COMMAND THE RETURN FAN ON. ONCE STATUS IS CONFIRMED AND FOLLOWING A 1-MINUTE TIME DELAY, THE BAS SHALL START THE SUPPLY FAN.

FAN SHUTDOWN
1. THE BAS SHALL SHUT DOWN THE FAN UNDER THE FOLLOWING CONDITIONS:
 - UNOCCUPIED MODE (NIGHT SETBACK AND OPTIMAL HEATING START ARE INACTIVE)
 - OCCUPANCY MILD SETBACK
 - FREEZESTAT TRIP. SUPPLY FAN SHUTS DOWN, RETURN FAN REMAINS ON.
 - HEATING FAIL SIGNAL FROM BOILER PLANT
 - A LOW SUPPLY AIR TEMPERATURE CONDITION (SEE ALARM CONDITIONS). THE UNIT SHUTS DOWN AND THE HEATING VALVE IS COMMANDED 100% OPEN. AFTER 1 HOUR, THE UNIT RESTARTS AND THE CYCLE IS REPEATED IF THE CONDITION IS STILL PRESENT.

FAN MODULATION
1. FOR VARIABLE VOLUME AIR SYSTEMS THE BAS WILL MODULATE THE FAN TO MAINTAIN THE SUPPLY AIR PRESSURE AT SETPOINT AS DETERMINED BY THE AIR BALANCER.

HEATING AND COOLING MODES
1. HEATING MODE
 1.1. WHEN THE BOILER PLANT IS ENABLED, THE UNIT SHALL BE IN HEATING MODE.
2. FREE COOLING MODE
 2.1. WHEN THE HEATING PLANT IS DISABLED AND THE RETURN AIR TEMPERATURE IS AT LEAST 2 °C BELOW THE OUTDOOR AIR TEMPERATURE, THE UNIT SHALL BE IN FREE COOLING MODE.
3. MECHANICAL COOLING MODE
 3.1. FOR DX COOLING, MECHANICAL COOLING MODE WILL BE ENABLED UNDER THE FOLLOWING CONDITIONS:
 - THE HEATING PLANT IS DISABLED
 - THE OUTDOOR AIR TEMPERATURE IS ABOVE 19 °C.
 - THE SPACE TEMPERATURE IS GREATER THAN THE COOLING SETPOINT.

ZONE TEMPERATURE DEMAND
1. FOR UNITS SERVING SINGLE ZONES, THE ZONE TEMPERATURE DEMAND WILL BE BASED ON THE SPACE TEMPERATURE. FOR UNITS SERVING MULTIPLE ZONES, THE ZONE TEMPERATURE DEMAND WILL BE BASED ON THE RETURN AIR TEMPERATURE. THE BAS SHALL CALCULATE A HEATING DEMAND % AND A COOLING DEMAND % FROM THE ZONE THROUGH A PID ALGORITHM. THE ZONE TEMPERATURE SETPOINTS SHALL BE DETERMINED ACCORDING TO THE FOLLOWING SCHEDULE:

HEATING SETPOINT	21 °C
COOLING SETPOINT	24 °C
FREE COOLING SETPOINT	23 °C

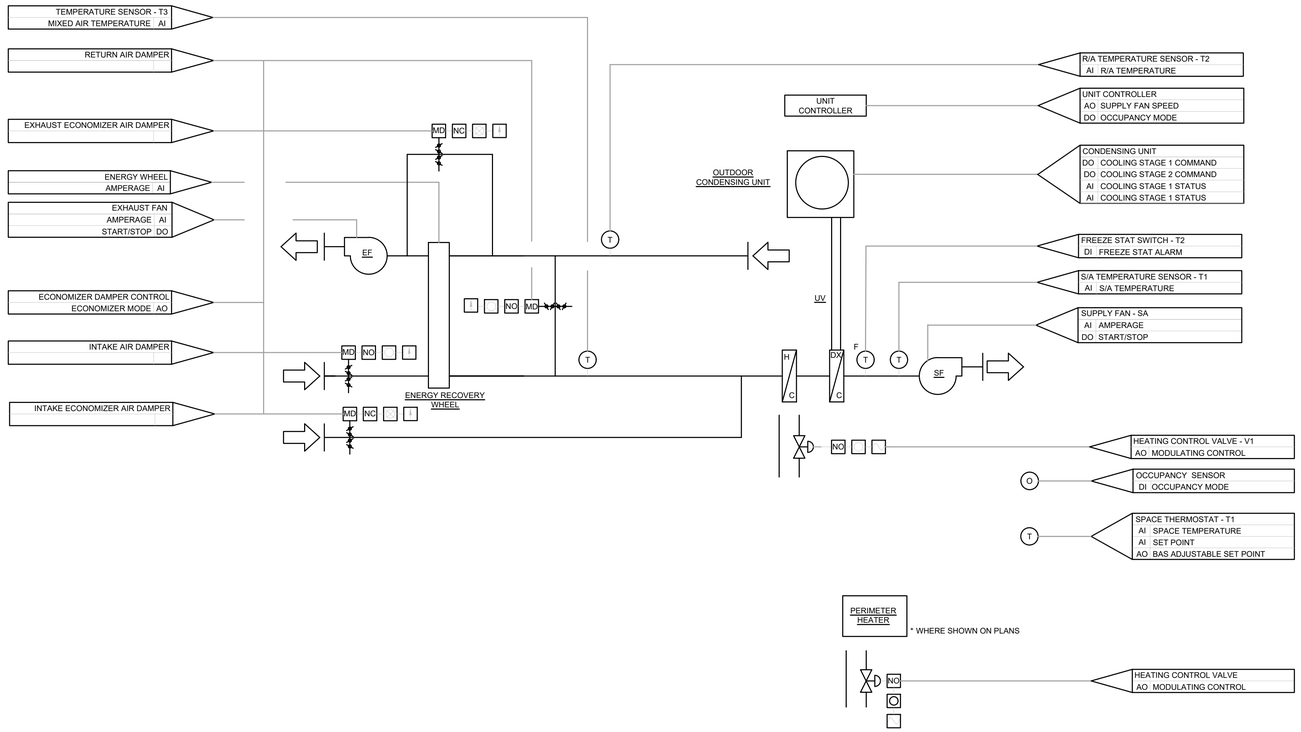
2. LOCAL THERMOSTAT SHALL ALLOW FOR OCCUPANT ADJUSTMENT OF SPACE SETPOINTS BY A MAXIMUM OF +/- 2°C.

HEATING
1. DURING OCCUPIED MODE AND OPTIMAL HEATING START MODE:
 1.1. WHEN THE UNIT IS RUNNING DURING HEATING MODE, THE BAS SHALL MODULATE THE HEATING VALVE TO MAINTAIN SUPPLY AIR TEMPERATURE AT THE SPACE TEMPERATURE SETPOINT.
 1.2. THE PERIMETER HEATER CONTROL VALVE SHALL MODULATE TO MAINTAIN SPACE TEMPERATURE SETPOINT.
 1.3. IF AFTER 1 HOUR (ADJUSTABLE) THE HEATING SETPOINT CANNOT BE MET, THE UNIT VENTILATOR HEATING CONTROL VALVE SHALL MODULATE TO MAINTAIN SPACE TEMPERATURE SETPOINT.
2. DURING NIGHTTIME SETBACK MODE:
 2.1. WHEN THE UNIT IS OFF DURING HEATING MODE, THE BAS SHALL MODULATE THE VALVE TO MAINTAIN THE MIXED AIR TEMPERATURE AT 8 °C.
3. WHEN THERE IS NO HEAT AVAILABLE FROM BOILER PLANT OR DURING LOW SUPPLY AIR TEMPERATURE MODE:
 1.4. UNIT VENTILATOR CONTROL VALVE SHALL BE COMMANDED TO 100% OPEN.

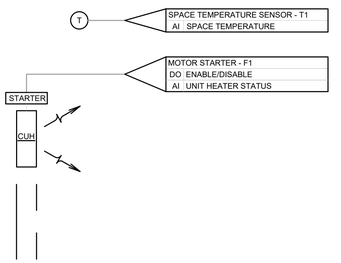
COOLING
1. DX COOLING - THE BAS SHALL CYCLE THE COOLING TO MAINTAIN SPACE TEMPERATURE AT COOLING SETPOINT.

FREEZESTAT
1. IF THE FREEZESTAT TRIPS, THE BAS SHALL COMMAND THE SUPPLY FAN OFF, COMMAND THE HEATING VALVE OPEN 100% AND LEAVE THE RETURN FAN ON.

ALARMS
1. THE BAS SHALL SEND ALARMS FOR THE FOLLOWING CONDITIONS:
 - SUPPLY FAN OR RETURN FAN FAIL.
 - FREEZESTAT TRIP • CO2 LEVELS ARE GREATER THAN 1500 PPM OR LESS THAN 200 PPM
 - TEMPERATURE ALARM – SPACE TEMPERATURE < 10 °C
 - ENERGY COOL ALARM – SPACE TEMPERATURE < 22.5 °C WHEN OAT > 21 °C • ENERGY HEAT ALARM – SPACE TEMPERATURE > 24 °C WHEN OAT < 5 °C
 - SUPPLY AIR TEMPERATURE FAIL – OAT < 10C, SAT < 10 °C FOR A MINIMUM OF 3 MINUTES AND THE SUPPLY FAN RUNNING FOR A MINIMUM OF 5 MINUTES.
 - MIXED AIR TEMPERATURE – MAT < 8°C FOR 3 MINUTES AND THE SUPPLY FAN RUNNING FOR A MINIMUM OF 5 MINUTES.
 - RUNTIME ALARM – FAN STATUS IS ON FOR MORE THAN 72 HOURS PER WEEK.



1 UNIT VENTILATOR C/W INTEGRAL ERV CONTROL SEQUENCE
NOT TO SCALE



OPERATING MODE:
1. THE SYSTEM SHALL BE ENABLED ACCORDING TO THE FOLLOWING MODE:
 - SPACE TEMPERATURE CONTROL MODE
 - OCCUPIED/UNOCCUPIED MODE

INITIAL SET UP:
1. UNIT HEATER SHALL BE NORMALLY DISABLED.
2. T1 SHALL MAINTAIN THE SPACE TEMPERATURE SET POINT.

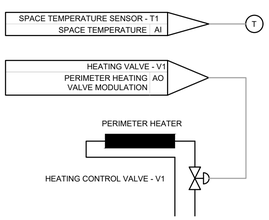
TEMPERATURE CONTROL:
- DURING OCCUPIED MODE, T1 SHALL BE SET TO 21°C.
- DURING UNOCCUPIED MODE, T1 SHALL BE SET TO 14°C.

1. IF THE SPACE TEMPERATURE DROPS BELOW SET POINT, HEATING MODE WILL BE INITIATED AND UNIT HEATER SHALL BE ENABLED.
2. IF THE SPACE TEMPERATURE RISES ABOVE SET POINT, COOLING MODE WILL BE INITIATED AND UNIT HEATER SHALL SHUT DOWN.

SYSTEM ALARMS & PRIORITY AT BAS:
- UNIT HEATER FAILURE: COMMANDED ON/CLOSED FEEDBACK
- SPACE TEMPERATURE OUT OF RANGE (+/- 2°C)

SYSTEM TRENDS AT BAS:
- UNIT HEATER STATUS
- POSITION FEEDBACK
- SPACE TEMPERATURE
- EQUIPMENT OPERATING HOURS

2 TYPICAL CABINET UNIT HEATER CONTROL SEQUENCE
NOT TO SCALE



OPERATING MODE:
1. THE SYSTEM SHALL BE ENABLED ACCORDING TO THE FOLLOWING MODE:
 - SPACE TEMPERATURE CONTROL MODE
 - OCCUPIED/UNOCCUPIED MODE

INITIAL SET UP:
1. T1 SHALL MAINTAIN THE SPACE TEMPERATURE SET POINT.
2. CONTROL VALVE V-1 SHALL MODULATE TO MAINTAIN SETPOINT.

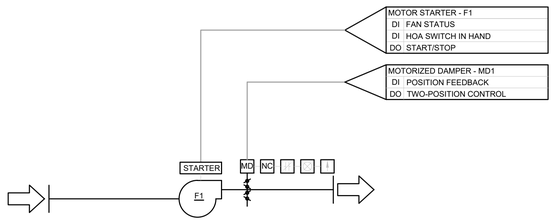
TEMPERATURE CONTROL:
- DURING OCCUPIED MODE, T1 SHALL BE SET TO 21°C.
- DURING UNOCCUPIED MODE, T1 SHALL BE SET TO 14°C.

1. IF THE SPACE TEMPERATURE DROPS BELOW SET POINT, HEATING MODE WILL BE INITIATED, AND V1 SHALL MODULATE OPEN.
2. IF THE SPACE TEMPERATURE RISES ABOVE SET POINT, COOLING MODE WILL BE INITIATED, AND V1 SHALL CLOSE.

SYSTEM ALARMS & PRIORITY AT BAS:
- SPACE TEMPERATURE OUT OF RANGE (+/- 2°C)

SYSTEM TRENDS AT BAS:
- SPACE TEMPERATURE

3 PERIMTER HEATER CONTROL SEQUENCE IN PUBLIC AREAS
NOT TO SCALE



OPERATING MODE:
1. THE SYSTEM SHALL BE ENABLED ACCORDING TO THE FOLLOWING MODE:
 - SCHEDULED RUN TIME MODE

INITIAL SET UP:
1. MD1 SHALL BE NORMALLY CLOSED.
2. FAN SHALL BE BALANCED TO A FIELD DETERMINED AIRFLOW & STATIC PRESSURE AS PER THE VALUES INDICATED ON THE DRAWINGS DURING SYSTEM BALANCING AND COMMISSIONING.
3. SYSTEM SHALL BE ENABLED BASED ON SCHEDULED RUN TIME (MONDAY-SUNDAY - 9AM-5PM)
4. FAN SHALL BE ENABLED/DISABLED LOCALLY AT THE STARTER OR REMOTELY THROUGH THE BAS.

FAN CONTROL:
1. ON COMMAND TO START MD1 SHALL OPEN. UPON PROOF OF MOTORIZED DAMPER POSITION FAN SHALL BE ENABLED. MD1 SHALL BE HARD WIRED INTERLOCKED WITH F1 TO ENSURE CONTROLS OPERATION WHEN FAN IS OPERATING IN "HAND" OR "AUTO" MODE. CONTROLS SIGNAL SHALL BE DUPLICATED AT THE BAS.
2. FAN SHALL OPERATE AT CONSTANT SPEED.

FIRE ALARM MODE:
1. FAN SHALL REMAIN OPERATIONAL DURING FIRE ALARM.

FAN FAILURE:
1. UPON FAN FAILURE MD1 SHALL REMAIN OPEN.

SYSTEM ALARMS & PRIORITY AT BAS:
- FAN FAILURE : COMMANDED ON/STATUS OFF
- FAN IN HAND: HOA SWITCH IN HAND
- DAMPER FAILURE: COMMANDED OPEN/CLOSED FEEDBACK
- DAMPER IN HAND: COMMANDED CLOSED/OPEN FEEDBACK

SYSTEM TRENDS AT BAS:
- FAN STATUS
- EQUIPMENT OPERATING HOURS
- POSITION FEEDBACK

4 TYPICAL EXHAUST FAN CONTROL SEQUENCE
NOT TO SCALE

GENERAL NOTES:
1. THE EXISTING BUILDING AUTOMATION SYSTEM IS BY VIRIDIAN AUTOMATION. THE INTENT FOR THIS PROJECT IS TO EXPAND THE EXISTING BUILDING AUTOMATION SYSTEM TO CONNECT TO ALL NEW DEVICES AND EQUIPMENT. ALL CONTROLS WORK IS TO BE BY VIRIDIAN AUTOMATION.
2. ALL SENSORS AND CONTROLLERS FOR MECHANICAL EQUIPMENT ARE TO BE PROVIDED BY THE CONTROLS CONTRACTOR AND INSTALLED AT THE FACTORY.
3. UNIT IS TO BE HARDWIRED CONTROLLED BY BAS. BACNET INTERFACE FOR MONITORING ONLY.
4. ALL CONTROL VALVES FOR COILS AND PERIMETER HEATERS ARE TO BE NORMALLY OPEN AND FAIL OPEN SPRING RETURN.

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PROJECT CODE: ED-22-018
SCALE: AS SHOWN
DATE: 2022-11-09
STATUS:

MECHANICAL CONTROL SEQUENCES

Project North

drawing number
M6.0

EXPANSION TANK SCHEDULE

UNIT TAG	MANUFACTURER	MODEL	SERVICE	TANK VOLUME (L)	ACCEPTANCE VOLUME (L)	MAX OPERATING PRESSURE (KPa)	RELIEF PRESSURE (KPa)	MAX OPERATING TEMPERATURE (°C)	WEIGHT (KG)	REMARKS
ET-1	AMTROL	EXTROL 50-LBC-125	DHWT-1	50	36	862	414	115	34	

GRILLES, REGISTERS AND DIFFUSERS SCHEDULE

TAG	MANUFACTURER	MODEL	SIZE	FINISH	REMARKS
A	E.H. PRICE	SCD	600X600, REFER TO FLOOR PLAN FOR NECK CONNECTION	B-12	
B	E.H. PRICE	80	REFER TO FLOOR PLANS	B-12	

NOTES:
1. REFER TO SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

GREASE INTERCEPTOR SCHEDULE

TAG	MANUFACTURER	MODEL	TYPE	SIZE (MMXMMXMM)	INLET/OUTLET SIZE (MM)	WATER CAPACITY (L)	GREASE CAPACITY (KG)	FLOW (L/S)	WEIGHT (KG)	REMARKS
GI-1	ZURN	Z1170-E-T	BELOW GRADE	560X375X420	75	38	14	0.946	38	

NOTES:
1. PROVIDE COVER PLATE TYPE THAT CAN RECEIVE TILE FINISH

GAS FIRED HOT WATER STORAGE TANKS

TAG	MANUFACTURER	MODEL	LOCATION	TYPE	GAS INPUT (kW)	STORAGE CAPACITY (L)	RECOVERY RATE LPH @ 37.7 °C RISE	V/PH/HZ	REMARKS
DHWT-1	AO SMITH	BTH-120 MXI	UTILITY ROOM	GAS FIRED	35.2	227	522.4	120/1/60	

PUMP SCHEDULE

TAG	MANUFACTURER	MODEL	LOCATION	TYPE	FLOW (L/s)	HEAD (Pa)	RPM	VFD	V/PH/HZ	REMARKS
P-1	ARMSTRONG	4380-3X3X5L	BOILER ROOM	DUTY/STAND BY	12.6	227	522.4	YES	208/3/60	
P-2	ARMSTRONG	4380-3X3X5L	BOILER ROOM	DUTY/STAND BY	12.6	227	522.4	YES	208/3/60	

EXHAUST FANS

UNIT TAG	MANUFACTURER	MODEL	LOCATION	SERVICE	AIRFLOW (L/s)	E.S.P. (Pa)	FAN (RPM)	MOTOR POWER (kW)	MOTOR (kW)	V/PH/HZ	REMARKS
EF-1	GREENHECK	G-090-VG	ROOF	WASHROOM S/UTILITY ROOM	330	150	1725		0.13	120/1/60	

NOTES:
1. 600MM ROOF CURB C/W DISCONNECT SWITCH
2. BIRD SCREEN

KITCHEN EXHAUST FANS

UNIT TAG	MANUFACTURER	FAN MODEL	HOOD MODEL	LOCATION	SERVICE	AIRFLOW (L/s)	E.S.P. (Pa)	FAN (RPM)	MOTOR POWER (kW)	MOTOR BHP (kW)	V/PH/HZ	REMARKS
EF-2	CAPTIVEAIRE		3650-BD-2	ROOF	KITCHEN	205	186	1300	0.23	0.1	115/1/60	

NOTES:
1. GREASE BOX, ECM WIRING PACKAGE
2. DIRECT DRIVE CONSTRUCTION
3. VARIABLE SPEED CONTROL, HIGH HEAT OPERATION 300F
4. NEMA 3R SAFETY DISCONNECT SWITCH
5. VENTED 600MM HIGH ROOF CURB C/W HINGE KIT AND GREASE CUP
6. FIRE TANK SUPPRESSION SYSTEM

WALL FIN HEATERS

TAG	MANUFACTURER	MODEL	ENCLOSURE HEIGHT (MM)	# OF ROWS	HEAT OUTPUT (kW/M)	FLUID			REMARKS
						TYPE	E.F.T. (°C)	L.F.T. (°C)	
WF-A	ENGINEERED AIR	WF-1A	450	1	1.98	WATER	82.2	71.1	
WF-B	ENGINEERED AIR	WF-1B	450	1	1.27	WATER	82.2	71.1	

NOTES:
1. CAPACITIES BASED ON WATER TEMPERATURE DROP OF 11.1°C AND ENTERING AIR TEMPERATURE OF 18°C.
2. FLUID FLOW OF RADIATORS TO BE DETERMINED BASED ON REQUIRED HEATING CAPACITY.
3. REFER TO FLOORPLANS FOR RADIATOR TYPE, LOCATION, CAPACITY (KW), AND ACTIVE LENGTH (MM).
4. LENGTHS SHOWN ON FLOORPLANS ARE ACTIVE LENGTHS OF RADIATORS. ENCLOSURES ARE TO EXTEND BEYOND ACTIVE LENGTH ACCROSS FULL LENGTH OF WALL. ALL LENGTHS OF RADIANT HEATERS ARE TO BE SITE MEASURED PRIOR TO ORDERING AND COORDINATED WITH UNIT VENTILATORS DIMENSIONS.
5. ROWS TO BE INSTALLED AT 108MM BETWEEN CENTRES.

PLUMBING FIXTURE SCHEDULE

FIXTURE TAG	DESCRIPTION	CONNECTION SIZES				REMARKS
		DCW	DHW	SAN	VENT	
WC-1	FLUSH VALVE WATER CLOSET	25	N/A	100	38	
WC-2	BARRIER FREE WATER CLOSET	25	N/A	100	38	
L-1	CHILDREN WALL HUNG LAVATORY	12	12	32	32	
L-2	BARRIER FREE LAVATORY	12	12	32	32	
S-1	SINGLE BASIN SINK	12	12	32	32	
S-2	TRIPLE COMPARTMENT SINK	12	12	38	38	
S-3	SINGLE LARGE STAINLESS STEEL SINK	12	12	38	38	
S-4	STANDARD SINK WITH SIDE SPRAY FAUCET	12	12	32	32	
S-5	STAINLESS STEEL HAND WASH SINK	12	12	32	32	
FD	75MM FLOOR DRAIN	N/A	N/A	75	38	
MS-1	MOP SINK	20	20	75	38	
EW-1	EYE WASH STATION	12	12	32	32	
DW-1	DISHWASHER	N/A	12	32	32	

OUTDOOR CONDENSING UNIT

TAG	MANUFACTURER	MODEL	LOCATION	SERVICE	REFRIGERANT TYPE	COOLING		MCA (A)	MOCP (A)	V/PH/HZ	REMARKS
						SIZE(TONS)	TOTAL (kW)				
CU-105	KEEPRITE	CCA7	ROOF	STAFF ROOM	R454B	2	7	14.5	20	208/1/60	
CU-108	KEEPRITE	CCA7	ROOF	PRESCHOOL	R454B	2	7	14.5	20	208/1/60	
CU-111	KEEPRITE	CCA7	ROOF	TODDLER	R454B	2	7	14.5	20	208/1/60	
CU-113	KEEPRITE	CCA7	ROOF	INFANT	R454B	2	7	14.5	20	208/1/60	

NOTES:
1. CONDENSING UNITS TO SERVE NEW UNIT VENTILATORS.
2. UNITS TO BE MOUNTED ON NEW PAVERS AS PER DETAILS.

FORCED FLOW HEATERS

TAG	MANUFACTURER	MODEL	LOCATION	CAPACITY (kW)	AIRFLOW (L/S)	FLUID TYPE	FLOW (L/S)	WATER PRESSURE DROP(PA)	ELECTRICAL		REMARKS
									AMPS (A)	V/PH/HZ	
CUH-1	SIGMA	SFF04	LINK 101	10.4	189	WATER	0.27	9.3	1.9	120/1/60	1, 2, 3
CUH-2	SIGMA	SFF04	LINK 101	10.4	189	WATER	0.27	9.3	1.9	120/1/60	1, 2, 3
CUH-3	SIGMA	SFF02	CORRIDOR 102	5.3	189	WATER	0.14	1.8	1.9	120/1/60	1, 2, 3

NOTES:
1. CAPACITIES BASED ON 82 C E.W.T.
2. RECESSED TYPE WITH FRONT SUPPLY AND RETURN ORITENTATION
3. 2 ROW TYPE WITH 15.5 C E.A.T.

UNIT VENTILATOR

UNIT TAG	MANUFACTURER	MODEL	LOCATION	SUPPLY FAN		OUTDOOR AIR			ENERGY RECOVERY WHEEL	HEATING						COOLING				FILTER SUPPLY/RETURN	ELECTRICAL					REMARKS
				AIRFLOW (L/S)	E.S.P. (Pa)	AIRFLOW (L/S)	E.A.T. d.b. (°C)	L.A.T. d.b. (°C)		TOTAL CAPACITY (kW)	E.W.T. (°C)	L.W.T. (°C)	FLOW (L/S)	E.A.T. (°C)	L.A.T. (°C)	TOTAL CAPACITY (kW)	SENSIBLE CAPACITY (kW)	REFRIGERANT	S.A.T. (°C)		MCA (A)	MOTOR (KW)	SUPPLY MOTOR RPM	EXHAUST MOTOR RPM	V/PH/HZ	
UV-105	TEMSPEC	VER1800D	STAFF ROOM	307	125	74	55	52	YES	9.7	82.2	71.7	0.22	17.6	24	6.2	4.4	R-454B	14	MERV-13	10	037	1400	1200	208/3/60	
UV-108	TEMSPEC	VER1800D	PRESCHOOL	576	125	170	61	57	YES	14.1	82.2	71.1	0.32	15.8	24	6.8	5.5	R-454B	14	MERV-13	10	037	1400	1200	208/3/60	
UV-111	TEMSPEC	VER1800D	TODDLER	566	125	189	61	57	YES	14.2	82.2	71.1	0.32	17.6	24	6.8	5.5	R-454B	14	MERV-13	10	037	1400	1200	208/3/60	
UV-113	TEMSPEC	VER1800D	INFANT	506	125	130	60	57	YES	13.2	82.2	70.6	0.28	15.8	24	6.7	5.5	R-454B	14	MERV-13	10	037	1400	1200	208/3/60	

1. PROVIDED WITH ENERGY RECOVERY WHEEL.
2. MERV-13 FILTER.
3. C/W EXTERIOR LOUVRE AS PER ARCHITECTURAL DRAWINGS AT HIGH LEVEL. PROVIDE SEPARATION IN REAR PLENUM TO SEPARATE INTAKE AND EXHAUST AIR DUCTS. DUCT TRANSITION TO BE PROVIDED BY CONTRACTOR.
4. UNIT TO HAVE 375MM DEEP FALSEBACK WITH CAVITY/REAR PLENUM AS PER DETAILS AT BACK OF UNIT WITH SEPARATION FOR INTAKE AND EXHAUST CONNECTIONS TO LOUVRE AT HIGH LEVEL.
5. PROVIDE ENCLOSURE ON TOP OF UNIT TO HIDE PIPING AND DUCT CONNECTIONS BETWEEN TOP OF UNIT AND CEILING.
6. REFER TO DETAILS AND SPECIFICATIONS FOR MORE REQUIREMENTS.
7. COMPLETE WITH 100% ECONOMIZER MODE DAMPERS AND POWER EXHAUST.
8. COMPLETE WITH FACTORY INSTALLED CONDENSATE PUMP.

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8	Issued for Tender	2025-01-14

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CSV Renaissance Addition

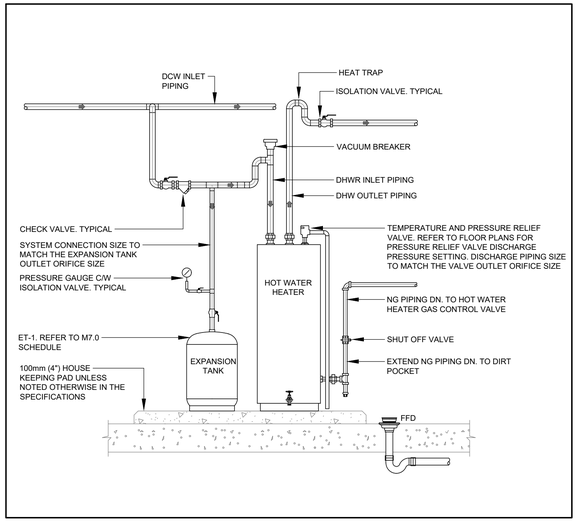
1226 Lockhart Rd
Burlington, ON L7S 1H1

PROJECT CODE: ED-22-018
SCALE: AS SHOWN
DATE: 2022-11-09
STATUS:

MECHANICAL SCHEDULES

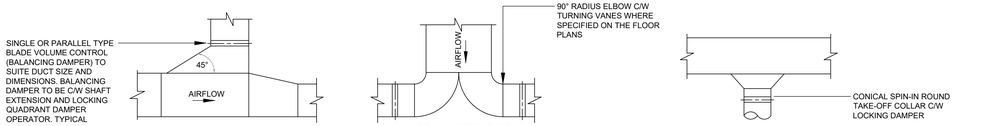
Project North

drawing number
M7.0



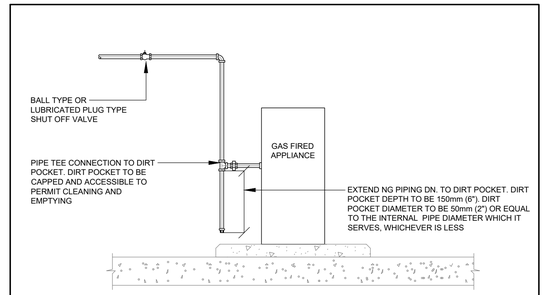
22 30 00.01 SEALED COMBUSTION HOT WATER HEATER

NOT TO SCALE



23 30 00.01 DUCTWORK FITTINGS & TAKE-OFF'S

NOT TO SCALE



23 11 23.01 NATURAL GAS EQUIPMENT CONNECTION

NOT TO SCALE

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1	Issued for Class C Costing	2022-07-27
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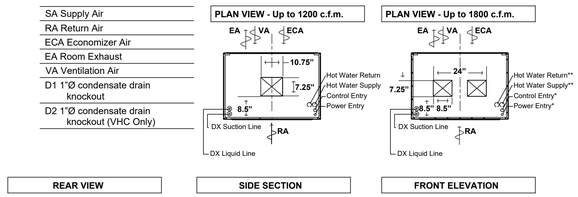
8	Issued for Tender	2025-01-14

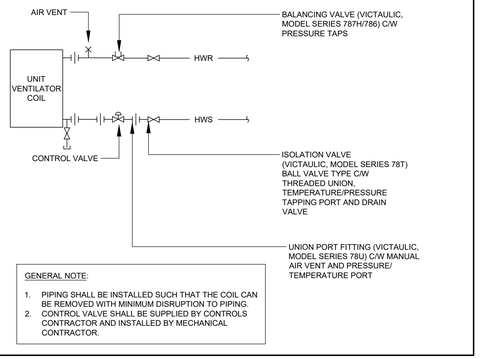
SA	Supply Air
RA	Return Air
ECA	Economizer Air
EA	Room Exhaust
VA	Ventilation Air
D1	1"Ø condensate drain knockout
D2	1"Ø condensate drain knockout (VHC Only)



1. Supply air fan(s)
2. DX split system evaporator coil
3. Hot water reheat coil
4. Drain pan
5. Electrical Box/controls enclosure
6. Mixed air filters
7. 100% Economizer damper and modulating actuator
8. Return air damper two position actuator
9. Return air damper
10. Ventilation air damper and two position actuator
11. Ventilation air intake filter
12. 15" deep rear plenum.
13. Energy recovery/room exhaust air fan
14. Energy recovery wheel
15. 100% powered exhaust damper and two position actuator
16. Ventilation exhaust air filter
17. Top shroud to conceal service connections.
18. Heavy Duty return air grille
19. Hinged coil/filter access panel
20. Removable return air access panel
21. Supply ductwork to ceiling space.
22. HWS/HWR Piping to perimeter radiators to run within plenum.
23. Airflow separator between Intake/Exhaust portions of plenum.
24. Exterior Louvre and wall sleeve.

23 82 19.01 UNIT VENTILATOR DETAILS

NOT TO SCALE

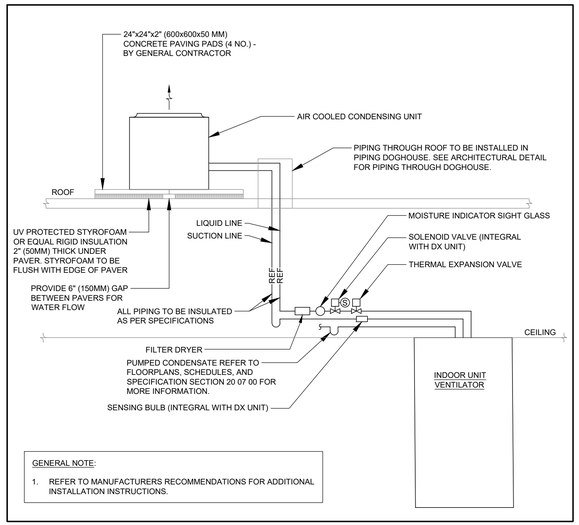


GENERAL NOTE:

1. PIPING SHALL BE INSTALLED SUCH THAT THE COIL CAN BE REMOVED WITH MINIMUM DISRUPTION TO PIPING.
2. CONTROL VALVE SHALL BE SUPPLIED BY CONTROLS CONTRACTOR AND INSTALLED BY MECHANICAL CONTRACTOR.

23 82 36.03 UNIT VENTILATOR HEATING PIPING DETAIL

NOT TO SCALE

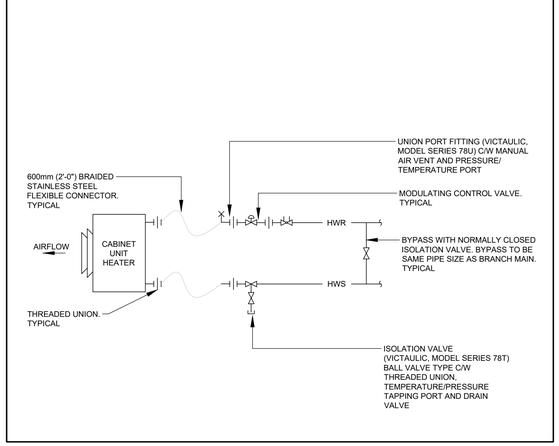


GENERAL NOTE:

1. REFER TO MANUFACTURERS RECOMMENDATIONS FOR ADDITIONAL INSTALLATION INSTRUCTIONS.

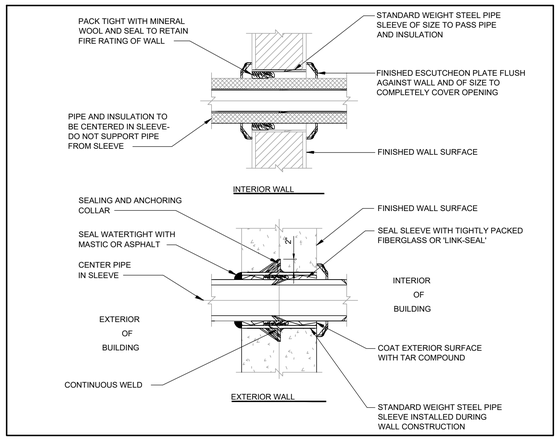
23 23 00.02 CONDENSING UNIT REFRIGERANT PIPING

NOT TO SCALE



23 82 39.01 CABINET UNIT HEATER

NOT TO SCALE



20 05 00.12 DETAIL OF PIPING PENETRATION THROUGH WALL

NOT TO SCALE

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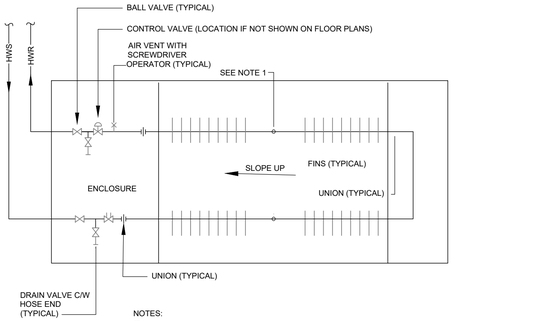
ED-22-018	AS SHOWN
DATE:	STATUS:
2022-11-09	

MECHANICAL DETAILS 1

Project North

drawing number

M8.0

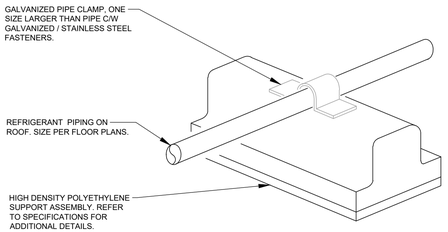


NOTES:

1. PROVIDE FOR EXPANSION & CONTRACTION WHERE MOVEMENT EXCEEDS 25mm (1") PROVIDE EXPANSION COMPENSATIONS
2. LOCATE VALVES AT ACCESS. PROVIDE 300mm REMOVABLE COVERS ON ENCLOSURE.
3. PROVIDE ECCENTRIC REDUCERS AT ELEMENT ASSEMBLY INLET AND OUTLET AS REQUIRED.
4. PROVIDE CRADLE FOR RETURN PIPING WITHIN ENCLOSURE AS PER DETAIL AS REQUIRED.

23 82 36.01 FINNED TUBE RADIATION PIPING DETAIL (UP FEED)

NOT TO SCALE

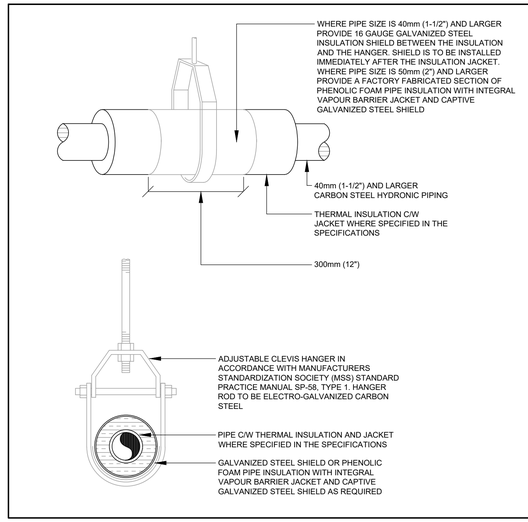


GENERAL NOTE:

1. PROVIDE HEAVY GAUGE GALVANIZED METAL PAN (OR EQUIVALENT) RUNNING BETWEEN POLYETHYLENE SUPPORTS (PAN SHALL BE CONSTRUCTED TO SUPPORT PEDESTRIAN LOADS). THE REFRIGERANT PIPING SHALL BE MOUNTED ON THE PAN FOR CONTINUOUS SUPPORT C/W GALVANIZED PIPE CLAMP FASTENERS.

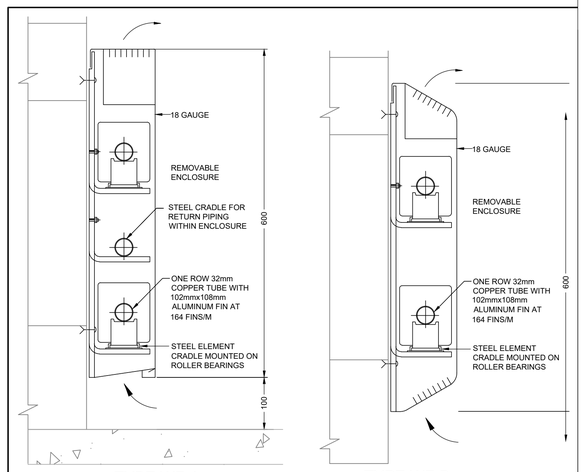
23 23 00.01 REFRIGERANT PIPING SUPPORT ON ROOF

NOT TO SCALE



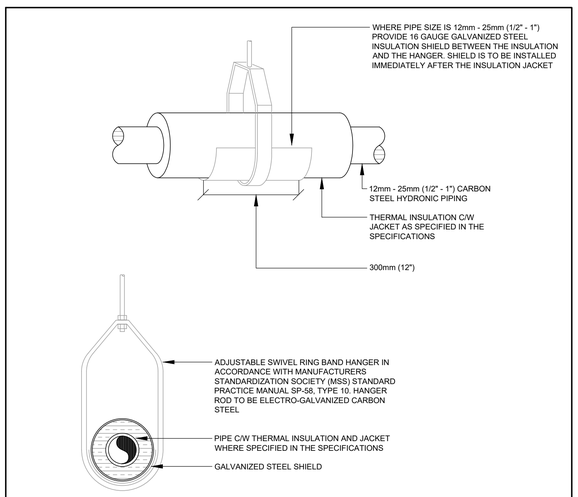
20 05 00.04 PIPING HANGERS AND SUPPORTS

NOT TO SCALE



23 82 36.02 DETAIL OF TYPE (A) WALL FIN HEATER

NOT TO SCALE



20 05 00.03 PIPING HANGERS AND SUPPORTS

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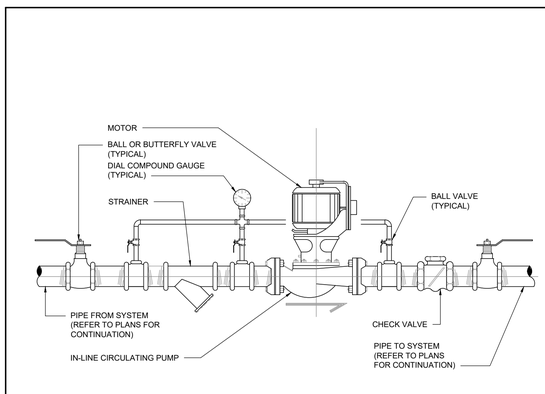
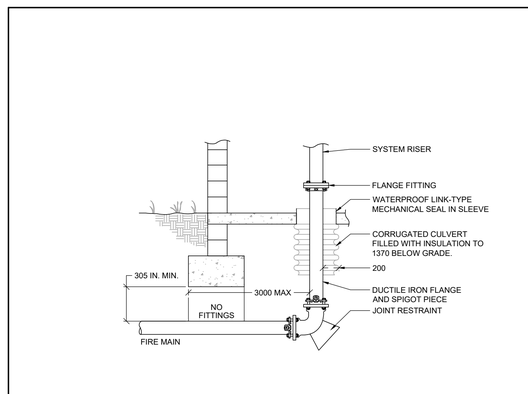


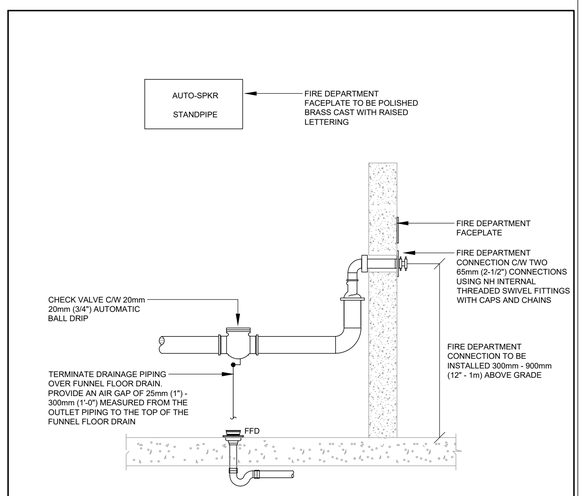
23 21 22.03 INLINE CIRCULATOR PUMP

NOT TO SCALE



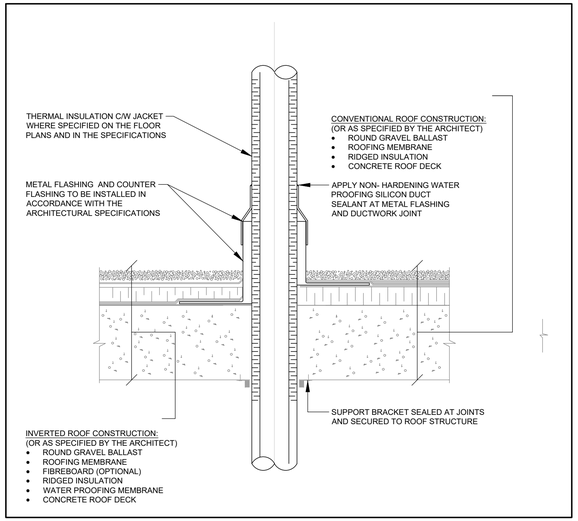
21 13 00.05 UNDERGROUND FIRE MAIN

NOT TO SCALE



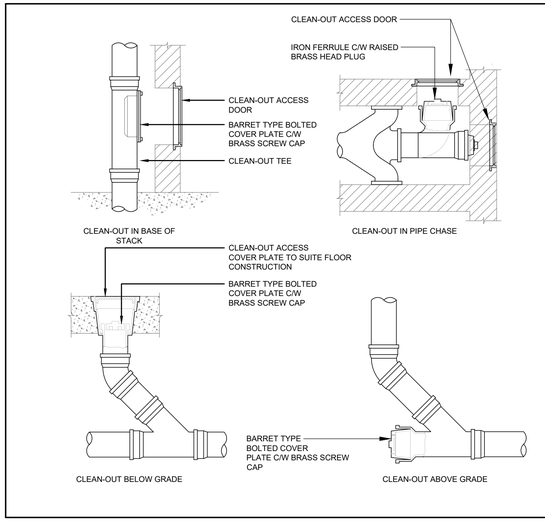
21 13 00.01 FIRE DEPARTMENT CONNECTION

NOT TO SCALE



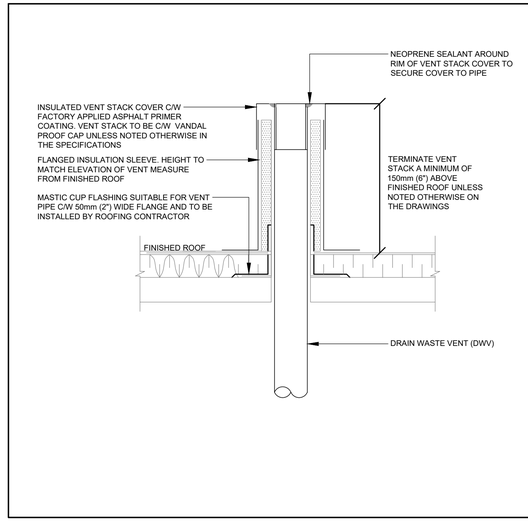
20 05 00.02 HVAC PIPE ROOF PENETRATION & FLASHING

NOT TO SCALE



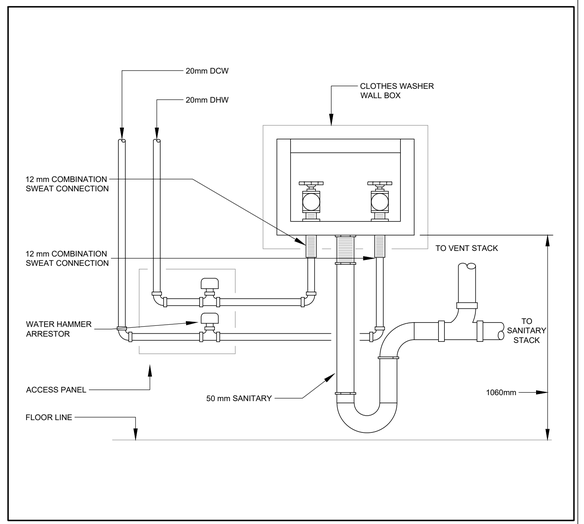
22 13 00.02 SANITARY & STORM WATER CLEANOUTS

NOT TO SCALE



22 13 00.01 DWV ROOF PENETRATION & VENT CAP COVER

NOT TO SCALE



22 30 00.02 LAUNDRY BOX

NOT TO SCALE

Rev	Description	Date
1	Issued for Class C Costing	2022-07-27
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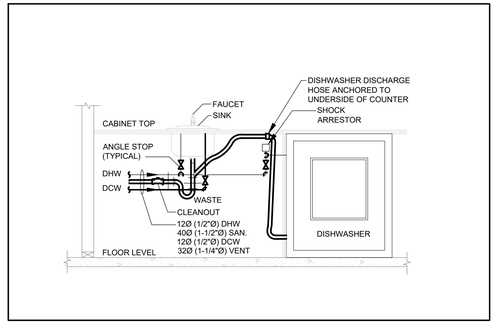
MECHANICAL DETAILS 2

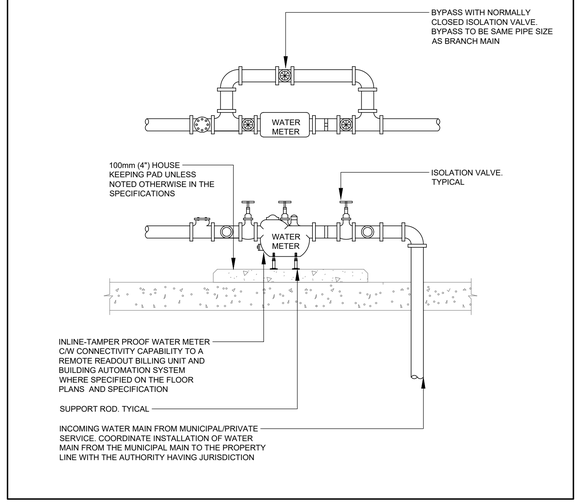
Project North

drawing number
M8.1



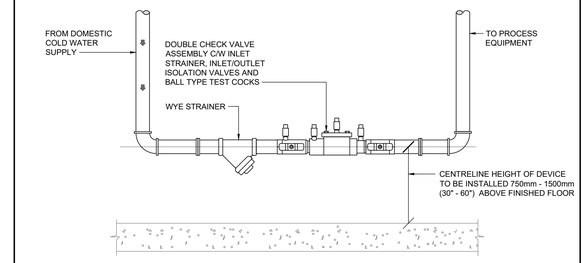
KITCHEN SINK AND DISHWASHER PLUMBING CONNECTIONS

NOT TO SCALE



22 11 00.03 MUNICIPAL/PRIVATE WATER METER

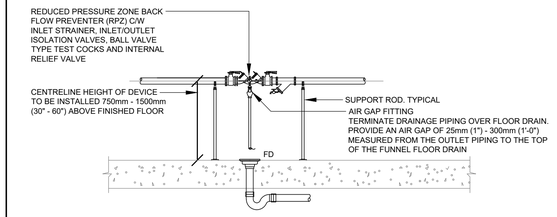
NOT TO SCALE



REQUIRED CLEARANCES FOR DOUBLE CHECK VALVE ASSEMBLY				
CENTRELINE HEIGHT ABOVE FLOOR		MINIMUM CLEARANCE (mm)		
MINIMUM (mm)	MAXIMUM (mm)	ABOVE DEVICE	IN FRONT	BEHIND
750	1500	300	750	20

22 11 00.02 DOUBLE CHECK VALVE ASSEMBLY

NOT TO SCALE



REQUIRED CLEARANCES FOR REDUCED PRESSURE ZONE ASSEMBLY					
CENTRELINE HEIGHT ABOVE FLOOR		MINIMUM CLEARANCE (mm)			
MINIMUM (mm)	MAXIMUM (mm)	RELIEF VALVE TO FLOOR	ABOVE DEVICE	IN FRONT	BEHIND
750	1500	300	300	750	20

22 11 00.01 REDUCED PRESSURE ZONE ASSEMBLY

NOT TO SCALE

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8	Issued for Tender	2025-01-14

ZURN

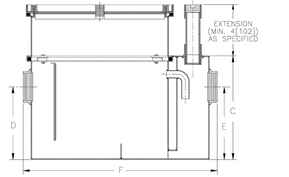
Z1170-E-T

GREASE INTERCEPTOR WITH EXTENSION AND COVER RECESSED FOR TILE/TERRAZZO

SPECIFICATION SHEET

TAG _____

Dimensional Data (inches and [mm]) are Subject to Manufacturing Tolerances and Change Without Notice



Size	Inlet/ Outlet Size	Flow Rate GPM. [L]	Capacity Water Gal. [L]	Capacity Grease Lbs. [kg]	Approx. Wt. Lbs. [kg]	Dimensions in Inches C	D/E	F	G
100	2 [51]	4 [15]	3 [11]	8 [4]	42 [19]	10 [254]	7 1/4 [184]	20 3/8 [518]	9 7/8 [251]
200		7 [26]	5 [19]	14 [6]	53 [24]	11 1/4 [286]	8 1/8 [206]	21 3/4 [552]	11 7/8 [302]
300		10 [38]	6 [23]	20 [9]	68 [30]	11 3/4 [298]	8 1/4 [210]	25 1/8 [638]	14 [356]
400	3 [76]	15 [57]	10 [38]	30 [14]	83 [38]	13 3/8 [340]	9 3/8 [238]	27 1/8 [689]	16 3/4 [425]
500		20 [75]	16 [60]	40 [18]	99 [45]	15 [381]	11 3/4 [298]	30 [762]	17 1/4 [438]
600		25 [94]	21 [79]	50 [23]	124 [56]	17 [432]	12 1/2 [318]	32 1/4 [819]	19 7/8 [505]
700		35 [132]	30 [113]	70 [32]	151 [68]	18 3/4 [476]	14 1/4 [362]	34 1/8 [867]	22 1/2 [572]
800		50 [189]	40 [151]	100 [45]	180 [82]	21 1/2 [546]	16 [406]	36 [914]	24 1/2 [622]

ENGINEERING SPECIFICATION ZURN Z1170-E-T

Acid Resistant Coated interior and exterior fabricated steel grease interceptor, PDI, rated at ____ GPM and ____ Lbs. grease capacity, with internal air relief by-pass, bronze cleanout plug and visible double-wall trap seal with removable combination pressure equalizing/flow diffusing baffle. Gasketed cover recessed for tile/terrazo with 2120E flow control fitting. Acid resistant coated interior and exterior fabricated steel extension section (Specify 'C' Dim. required). Regularly furnished with a high inlet and outlet connection. Note: Location of outlet from bottom of interceptor cannot be changed.

PREFIXES

_____ Z Acid Resistant Coated Fabricated Steel*
_____ ZS All Type 304 Fabricated Stainless Steel

SUFFIXES

_____ -DI Dual High/Low Inlet.
_____ -K Anchor flange 1 3/4 [44] down from top and 2 [51] wide.
_____ -KC Anchor flange 1 3/4 [44] down from top and 2 [51] wide with clamp collar.
_____ -L Angle type (Z1108-L) flow control device.

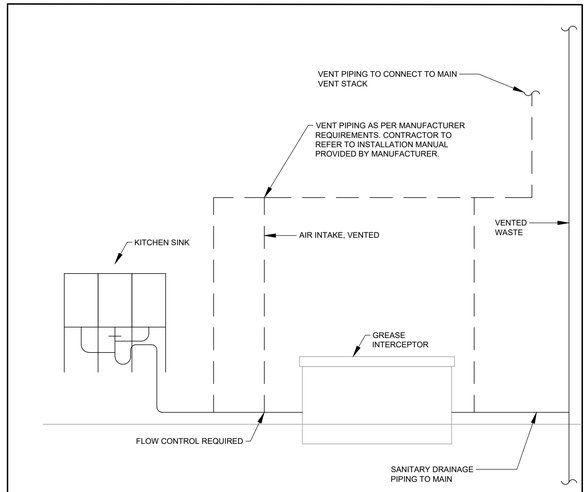
REV.	DATE: 9/2/09	C.N. NO. 110150
DWG. NO. 84331		PRODUCT NO. Z1170-E-T

*REGULARLY FURNISHED UNLESS OTHERWISE SPECIFIED.

ZURN INDUSTRIES, INC. • SPECIFICATION DRAINAGE OPERATION • 1801 Pittsburgh Ave. • Erie, PA 16514
Phone: 814/455-0921 • Fax: 814/454-7929 • World Wide Web: www.zurn.com
In Canada: ZURN INDUSTRIES LIMITED • 2045 Nashua Drive • Mississauga, Ontario L4W1L2 • Phone: 905/405-8272 Fax: 905/405-1292

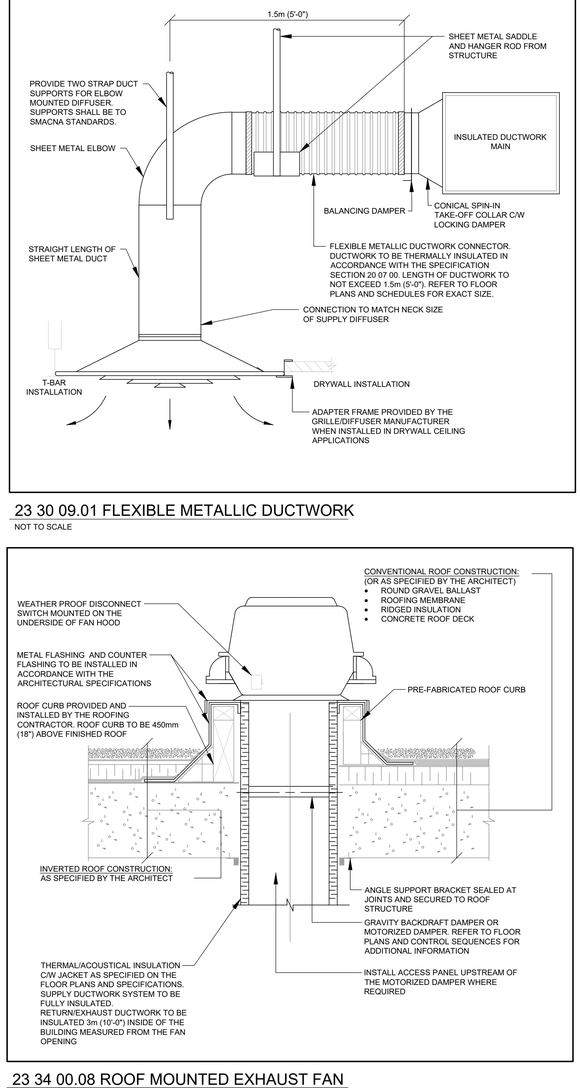
ZURN Z1170-E-T GREASE INTERCEPTOR DETAILS

NOT TO SCALE



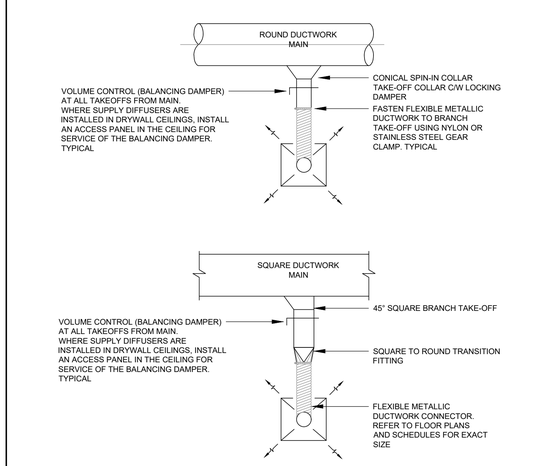
GREASE INTERCEPTOR DRAINAGE/VENT PIPING ARRANGEMENT

NOT TO SCALE



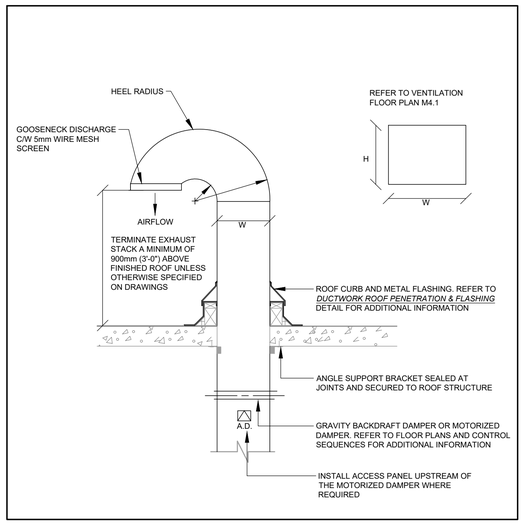
23 30 09.01 FLEXIBLE METALLIC DUCTWORK

NOT TO SCALE



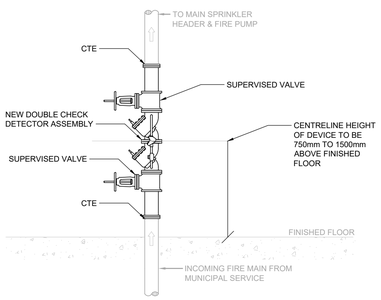
23 30 09.02 FLEXIBLE METALLIC DUCTWORK CONNECTION

NOT TO SCALE



23 30 00.02 DUCT THROUGH ROOF PENETRATION & TERMINATION

NOT TO SCALE



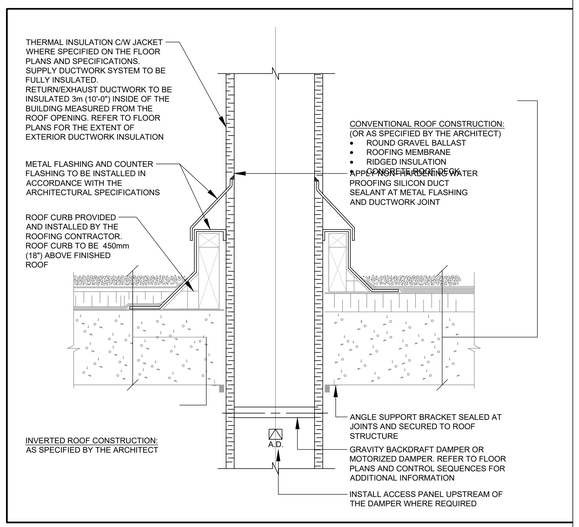
REQUIRED CLEARANCES FOR DOUBLE CHECK VALVE BACKFLOW PREVENTERS				
CENTRELINE HEIGHT ABOVE FLOOR		MINIMUM CLEARANCE (mm)		
MINIMUM (mm)	MAXIMUM (mm)	ABOVE DEVICE	IN FRONT	BEHIND
750	1500	300	750	20

INCOMING FIRE SERVICE DOUBLE CHECK DETECTOR ASSEMBLY DETAIL

NOT TO SCALE

23 34 00.08 ROOF MOUNTED EXHAUST FAN

NOT TO SCALE



20 05 00.01 DUCTWORK ROOF PENETRATION & FLASHING

NOT TO SCALE

QUASAR CONSULTING GROUP

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CSV Renaissance Addition

1226 Lockhart Rd
Burlington, ON L7S 1H1

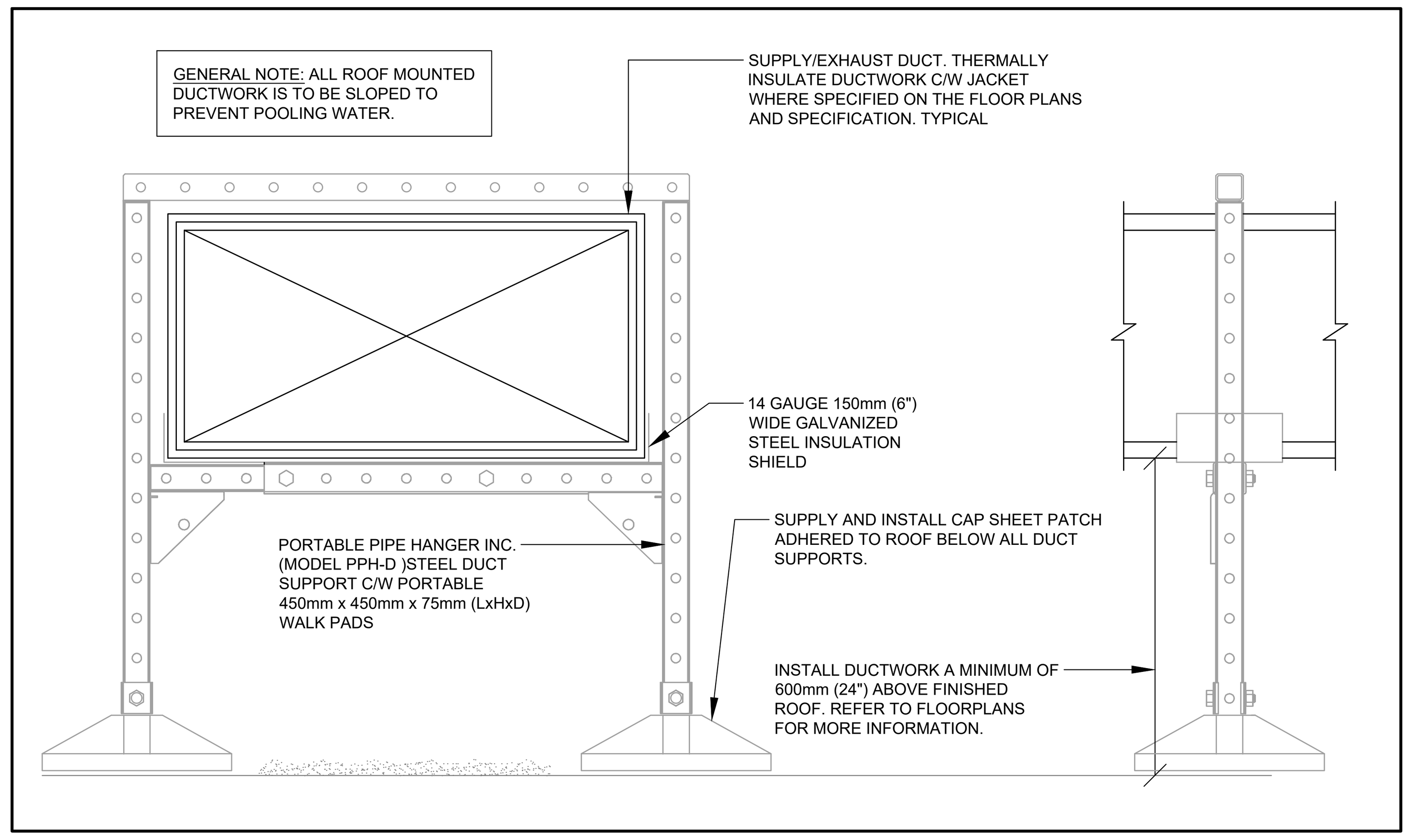
PROJECT CODE:	SCALE:
ED-22-018	AS SHOWN
DATE:	STATUS:
2022-11-09	

MECHANICAL DETAILS 3

Project North

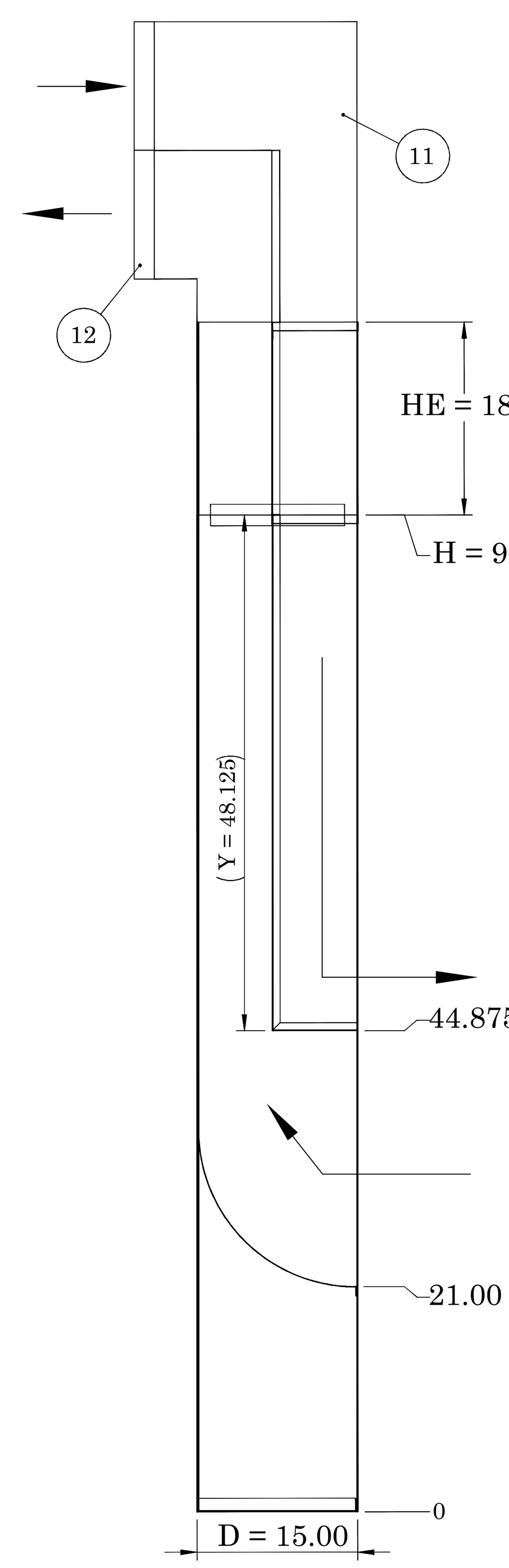
drawing number

M8.2

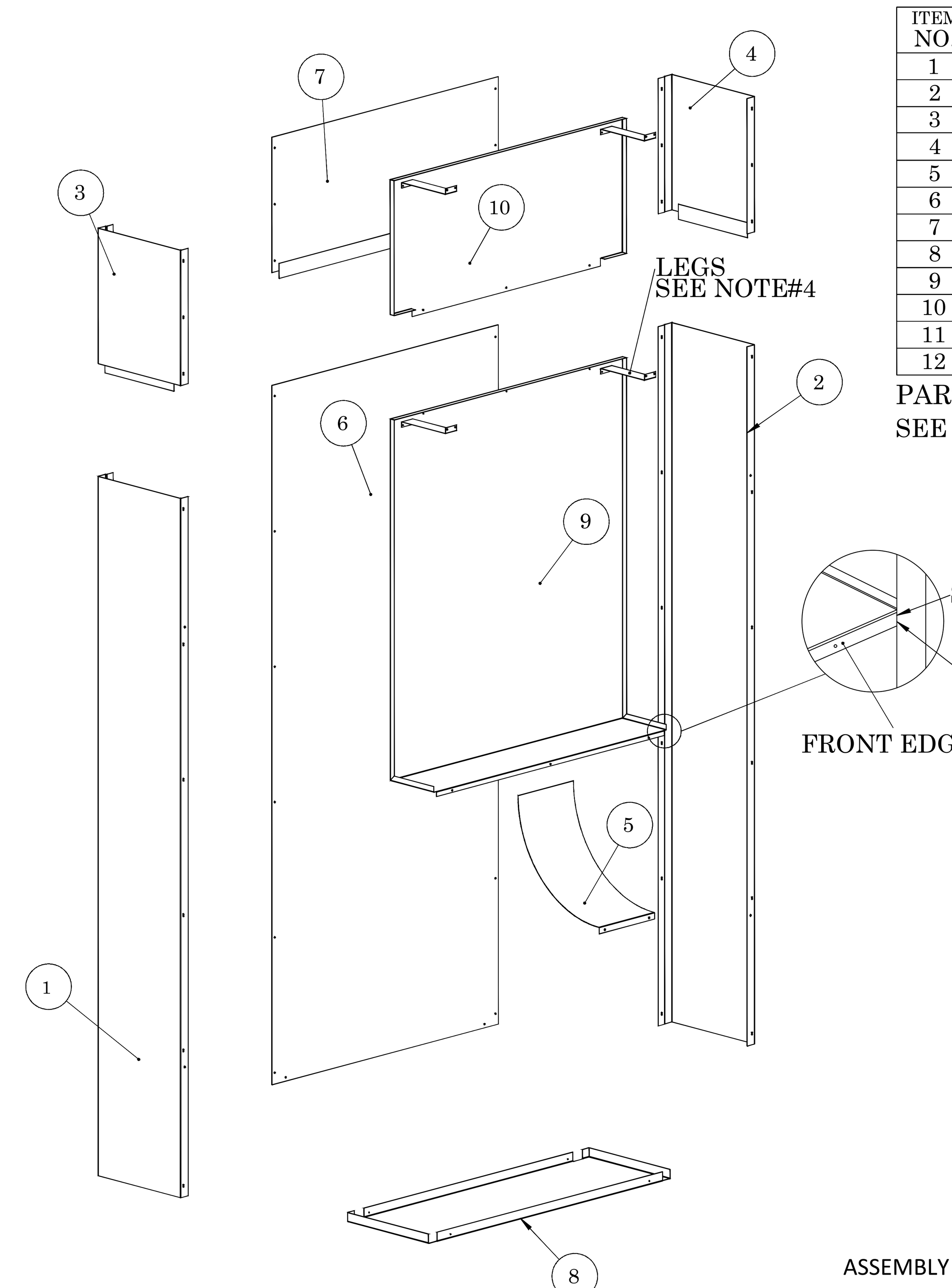


20 05 00.03 ROOF MOUNTED PORTABLE DUCT SUPPORT

NOT TO SCALE



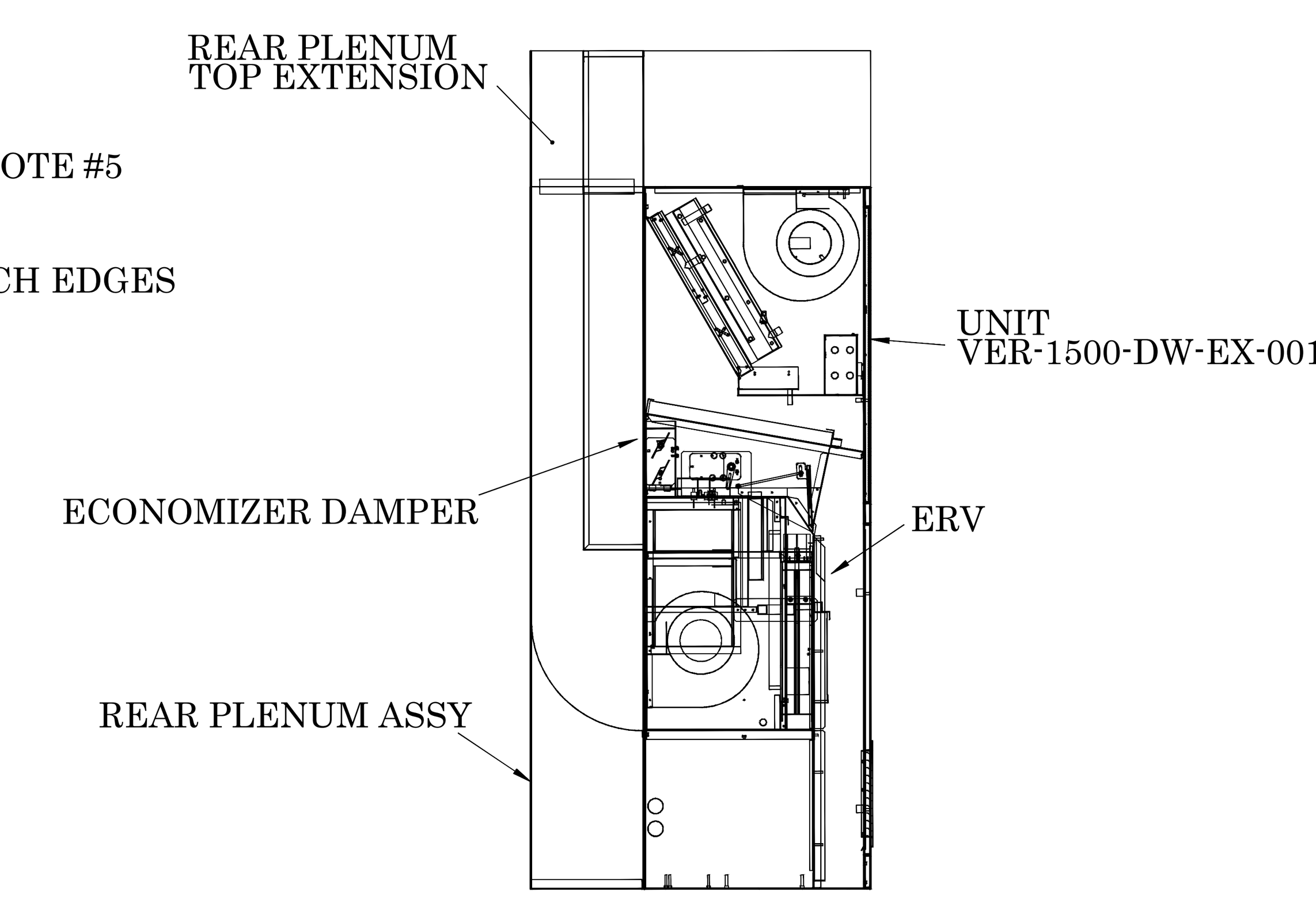
RIGHT SIDE VIEW



EXPLODED VIEW

ITEM NO.	Note NO.	QTY.	PART NUMBER	Description
1		1	VSM 1332 (H93 D15)	REAR PLENUM SIDE PANEL
2		1	VSM 1332	REAR PLENUM SIDE PANEL
3		1	VSM1341L (D=15, H=18)	REAR PLENUM SIDE PANEL - TOP EXTENSION
4		1	VSM1341R (D=15, H=18)	REAR SIDE PANEL - TOP EXTENSION
5		1	VSM 1334-15	DEFLECTOR
6		1	VSM5900	REAR PLENUM BACK PANEL
7		1	VSM5910 (H = 18)	REAR PLENUM BACK PANEL - TOP EXTENSION
8		1	VSM5920 (D=15)	TOP AND BOTTOM PANEL OF REAR PLENUM
9		1	VSM 1333A-483-48.125"Y	OA/EXHAUST SEPARARTOR
10		1	VSM 1335-483-18He	OA & RA SEPARATOR EXTENSION
11		2	N/A	OA & RA CUSTOM ELBOW DUCTWORK TRANSITION
12		1	N/A	OA & RA COMBINATION LOUVRE

PART NUMBERS FOR H = 93, D = 15", W = 44", HE = 18" SHOWN,
SEE W.O. FOR SPECIFIC DETAILS.



ASSEMBLY VIEW

THIS DRAWING IS FOR CSV RENAISSANCE ADDITION JOB ED-22-018 ONLY

ASSEMBLY INSTRUCTIONS

NOTE. SELF-TAPPING # 8 SCREWS AND 3/16" RIVETS ARE REQUIRED FOR ASSEMBLY (NOT PROVIDED BY TEMSPEC) SCREW AND RIVET HOLES ARE PRE-PUNCHED IN THE REAR PLENUM PARTS

1. ALIGN REAR PLENUM RIGHT SIDE PANEL AND UNIT RIGHT SIDE PANEL
2. ATTACH THE FRONT EDGE OF THE BOTTOM PANEL TO THE BACK OF THE UNIT
3. POSITION THE DEFLECTOR AT HE BACK OF THE UNIT BELOW THE EXHAUST OPENING AT THE HEIGHT SHOWN; SECURE DEFLECTOR TO THE BACK PANEL.
4. ATTACH LEGS TO SEPARATOR AS SHOWN.
5. ATTACH THE SEPARATOR TO THE BACK PANEL OF THE UNIT - REFER TO THE DRAWING FOR ELEVATION; MAKE SURE THERE IS NO GAP BETWEEN FRONT EDGE OF THE SEPARATOR AND FRONT BEND OF REA PLENUM SIDE PANEL.
6. ALIGN AND ATTACH REAR PLENUM LEFT SIDE PANEL.
7. ATTACH REAR PLENUM BACK PANEL USING RIVETS
8. INSTALL REAR PLENUM EXTENSIONS - SIDES, SEPARATOR AND BACK - SIMILAR TO PREVIOUS STEPS.
9. MOVE UNIT/REAR PLENUM ASSEMBLY IN PLACE.
10. MECHANICAL CONTRACTOR TO PROVIDE CUSTOM TRANSITION DUCTWORK TRANSITIONS AND BLANK OFF PANELS AS INDICATED FOR NEW LOUVRE.

UNIT VENTILATOR VER-1500-DW-EX-001 DETAIL SHEET

NOT TO SCALE

Rev	Description	Date
1	Issued for Class C Costing	2022-07-27
2	Issued for Client Review	2022-11-10
3	Issued for 80% CD Review	2023-02-15
4	Issued for Site Plan Application	2023-03-15
5	Issued for Site Plan Application	2023-11-22
6	Issued for 90% CD Review	2024-10-01
7	Issued for Building Permit	2024-12-04
8	Issued for Tender	2025-01-14

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CSV Renaissance Addition

1226 Lockhart Rd
Burlington, ON L7S 1H1

PROJECT CODE: ED-22-018
SCALE: AS SHOWN
DATE: 2022-11-09
STATUS:

MECHANICAL DETAILS 4

Project North

drawing number

M8.3

ELECTRICAL LEGEND

SYMBOL	DESCRIPTION
	LINETYPES
	NEW WORK
	WORK TO BE DEMOLISHED, OR REMOVED
	EXISTING MATERIAL/EQUIPMENT/SERVICES TO REMAIN
	FUTURE WORK (NOT IN SCOPE)
	EXTENTS OF FIRE ALARM ZONE, WET LOCATION, OR OTHER AREA AS NOTED ON PLANS
	ABBREVIATIONS
E	EXISTING TO REMAIN
R	EXISTING TO BE DEMOLISHED/REMOVED
ER	EXISTING IN RELOCATED POSITION
RR	REMOVE AND RELOCATE
C	CEILING MOUNTED CONNECTION
W	WALL MOUNTED CONNECTION
F	FLOOR MOUNTED CONNECTION
℄	CENTRE LINE
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
O/C	OVER COUNTER
U/C	UNDER CABINET
U/F	UNDER RAISED FLOOR
CCT	CIRCUIT
CTE	CONNECT TO EXISTING
AFCI	ARC FAULT CIRCUIT INTERRUPTER
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GFI	GROUND FAULT INTERRUPTER
IG	ISOLATED GROUND
TL	TWIST LOCK
TR	TAMPER RESISTANT
WG	WIRE GUARD
WP	WEATHER PROOF
EX	EXPLOSION PROOF
HZ	HAZARDOUS LOCATION
R/I	ROUGH-IN ONLY
NIC	NOT IN CONTRACT
SIM.	SIMILAR TO
TYP.	TYPICAL
	ABBREVIATIONS - CODES AND STANDARDS
OBC	ONTARIO BUILDING CODE
OESC	ONTARIO ELECTRICAL SAFETY CODE
OFC	ONTARIO FIRE CODE
	ABBREVIATIONS - CEILING TYPES
ACT	ACOUSTIC CEILING TILE (T-BAR)
EXP	EXPOSED CEILING
GB	GYPSUM BOARD CEILING
OWSJ	OPEN WEB STEEL JOISTS
PCC	PAINTED OR POPCORN CEILING ON EXPOSED CONCRETE
WD	WOOD CEILING
	ANNOTATIONS
CL	CLOSET
WR	WASHROOM
	PLUMBING
PTP	ELECTRONIC TRAP PRIMER
PSC	PLUMBING SENSOR CONTROL (TOUCHLESS FAUCETS)
	HVAC
	THERMOSTAT OR TEMPERATURE SENSOR
	TIMER CONTROL
BBH	ELECTRIC BASEBOARD HEATER (BBH)
FFH	FORCED FLOW HEATER
ERV	ENERGY RECOVERY VENTILATOR
HRU	HEAT RECOVERY UNIT
MUA	MAKE-UP AIR UNIT
	CONDUIT AND BOXES
	CONDUIT WITH END BUSHING
	CONDUIT UP
	CONDUIT DOWN
	CONDUIT CONTINUES
JB	JUNCTION BOX
PB	PULL BOX
HH	HAND HOLE
	CONNECTIONS TO EQUIPMENT
DW	DISHWASHER
FR	FRIDGE
MW	MICROWAVE
HD	HAND DRYER. ALLOW UP TO 208V-1PH-20A
	1-PHASE DIRECT CONNECTION OUTLET AS NOTED.
	3-PHASE DIRECT CONNECTION OUTLET AS NOTED.
	CONNECTION TO SINGLE PHASE MOTOR, HP (KW) AS NOTED. PROVIDE LOCAL DISCONNECT.
	THREE PHASE MOTOR, HP (KW) AS NOTED. PROVIDE LOCAL DISCONNECT.
	LIGHTING CONTROLS REFER TO SPECIFICATIONS AND RESPECTIVE SCHEDULES FOR EXACT REQUIREMENTS
	SWITCH OR OTHER USER INTERFACE DEVICE AS DESCRIBED ON LIGHTING CONTROLS SCHEDULE.
3W	3-WAY SWITCH
DIM	ADJACENT TO SWITCH, DENOTES DIMMING SWITCH.
K	ADJACENT TO SWITCH, DENOTES KEY SWITCH.
T	ADJACENT TO SWITCH, DENOTES COUNTDOWN TIMER SWITCH
AT	ADJACENT TO SWITCH, DENOTES ASTRONOMICAL TIMER SWITCH
DS	ADJACENT TO SWITCH, DENOTES DOOR SWITCH
PIR	PASSIVE INFRARED SENSOR
DT	DUAL TECHNOLOGY SENSOR
UT	ULTRASONIC SENSOR
OS	SENSOR (TYPE UNKNOWN)
M	ADJACENT TO SWITCH, DENOTES MASTER CONTROL FOR ALL LUMINAIRES IN A ROOM OR SPACE, OR AS NOTED.
	WALL MOUNTED SWITCH/OCCUPANCY SENSOR. PIR DENOTES 'PASSIVE INFRARED', DT DENOTES 'DUAL PASSIVE INFRARED/ULTRASONIC'. LINE VOLTAGE TO SUIT CONTROLLED CIRCUIT, OR AS NOTED.
RP	RELAY PANEL
PP	POWER PACK
BT	CEILING MOUNTED OCCUPANCY SENSOR, PIR DENOTES 'PASSIVE INFRARED', UT DENOTES 'ULTRASONIC' (OR MICROPHONIC), DT DENOTES 'DUAL TECHNOLOGY', 'OS' DENOTES UNKNOWN TECHNOLOGY.
OT	WALL MOUNTED OCCUPANCY SENSOR.

THIS LEGEND IS GENERIC. ALL SYMBOLS LISTED MAY NOT BE APPLICABLE FOR THIS PROJECT. REFER TO FLOOR PLANS TO DETERMINE USED DEVICES AND EQUIPMENT.

ELECTRICAL LEGEND

SYMBOL	DESCRIPTION
	DISTRIBUTION EQUIPMENT
	TRANSFORMER, PLAN VIEW
	SURFACE MOUNTED LIGHTING AND RECEPTACLE PANELBOARD
	RECESSED RECEPTACLE AND LIGHTING PANELBOARD
	DISTRIBUTION PANELBOARD
	DISCONNECT SWITCH
	FUSED DISCONNECT SWITCH
C	CONTACTOR
	LOOSE STARTER. COORDINATE STARTING CHARACTERISTIC WITH EQUIPMENT REQUIREMENTS.
	COMBINATION STARTER.
VFD	ADJACENT TO STARTER, DENOTES VARIABLE FREQUENCY DRIVE
	POWER RECEPTACLES AND BOXES
	120V U-GROUND DUPLEX RECEPTACLE.
	120V U-GROUND DUPLEX RECEPTACLE MOUNTED ABOVE COUNTER TOP OR AS INSTRUCTED ON SITE.
	120V U-GROUND 20A DUPLEX RECEPTACLE.
	120V U-GROUND DUPLEX RECEPTACLE MOUNTED ABOVE COUNTER TOP OR AS INSTRUCTED ON SITE.
	120V U-GROUND DUPLEX RECEPTACLE - AUTOMATICALLY CONTROLLED (ASHRAE 90.1-2013, 8.4.2).
	120V U-GROUND 20A DUPLEX RECEPTACLE - AUTOMATICALLY CONTROLLED (ASHRAE 90.1-2013, 8.4.2).
	120V U-GROUND DUPLEX RECEPTACLE - HALF OF RECEPTACLE AUTOMATICALLY CONTROLLED (ASHRAE 90.1-2013, 8.4.2).
	SPLIT RECEPTACLE. IF MANUALLY CONTROLLED, SHOWN CONNECTED TO SWITCH.
	SPLIT RECEPTACLE MOUNTED ABOVE COUNTER TOP OR AS INSTRUCTED ON SITE.
	120V U-GROUND QUAD RECEPTACLE.
	INDICATES RECEPTACLE COMPLETE WITH ONE TYPE A AND ONE TYPE C USB CHARGING PORTS.
	14-30R RECEPTACLE FOR LAUNDRY DRYER, OR OTHER RECEPTACLE AS NOTED.
	14-50R RECEPTACLE FOR ELECTRIC RANGE, OR OTHER RECEPTACLE AS NOTED. PROVIDE 40A/2P BREAKER TO SUIT. MOUNT AT 130 mm AFF.
	SPECIAL RECEPTACLE. VERIFY OUTLET REQUIREMENTS PRIOR TO ROUGH-IN.
	SPECIAL RECEPTACLE. VERIFY OUTLET REQUIREMENTS PRIOR TO ROUGH-IN.
	FLOOR RECEPTACLE OR RECEPTACLE IN FLOOR BOX (POWER ONLY)
	SERVICE POLE. PROVIDE POWER TO JUNCTION BOX IN CEILING SPACE ABOVE. DEVICES ON POLE AS NOTED ON PLANS.
FB1	ADJACENT TO FLOOR RECEPTACLE, DENOTES FLOOR BOX TYPE
•	ADJACENT TO RECEPTACLE, DENOTES DEVICE CONNECTED TO EMERGENCY POWER
	LIGHTING FIXTURES SYMBOLS IN ACCORDANCE WITH IES DG-3-00 AND IES HB-10-11 WHERE NOT DETAILED OTHERWISE HERE. REFER TO LIGHTING FIXTURE SCHEDULE FOR FURTHER DETAILS AND EXACT FIXTURE REQUIREMENTS.
	LINEAR LUMINAIRE, SURFACE MOUNTED TO CEILING
	LINEAR LUMINAIRE, RECESSED IN CEILING
	LINEAR LUMINAIRE, SUSPENDED: PENDANT, CHAIN, STEM, OR AIRCRAFT CABLE HUNG TO SUIT APPLICATION, OR AS NOTED IN SCHEDULE. "X", WHEN USED DENOTES POWER FEED LOCATION.
	LINEAR LUMINAIRE, WALL MOUNTED
	AS ABOVE, CONNECTED TO EMERGENCY OR NIGHT LIGHTING CIRCUIT AS INDICATED.
	ROUND OR SQUARE DOWNLIGHT, RECESSED
	RECESSED DOWNLIGHTS, CONNECTED TO EMERGENCY OR NIGHT LIGHT CIRCUIT
	ROUND SUSPENDED LUMINAIRE
	WALL SCONCE OR OTHER WALL MOUNTED LUMINAIRES.
EM	CONNECTED TO EMERGENCY NIGHT LIGHT CIRCUIT (24 HOUR)
CE	CONNECTED TO EMERGENCY CIRCUIT. PROVIDE CUL 924 LISTED SHUNT TRIP RELAY OR EQUAL TO PERMIT CONTROL OF LUMINAIRE WITH ZONING BASED ON LOCAL LIGHTING CONTROLS.
NL	LUMINAIRE CONNECTED TO NON-EMERGENCY NIGHT LIGHT CIRCUIT (24 HOUR)
A, B, Z1, Z2, ETC.	DENOTES ZONING/CIRCUITING ASSIGNMENTS FOR LUMINAIRES AND CONTROLS IN THE SAME SPACE.
	EMERGENCY LIGHTING REFER TO EMERGENCY LIGHTING FIXTURE SCHEDULE FOR EXACT FIXTURE REQUIREMENTS.
	CEILING OR WALL MOUNTED ILLUMINATED EXIT SIGN. SHADED AREA INDICATES ILLUMINATED FACE. PROVIDE DIRECTIONAL ARROWS AS INDICATED ON PLANS.
	CEILING OR WALL MOUNTED ILLUMINATED EXIT SIGN. SHADED AREA INDICATES ILLUMINATED FACE. PROVIDE DIRECTIONAL ARROWS AS INDICATED ON PLANS.
SL	DENOTES 'SELF-LUMINOUS' EXIT SIGN
PL	PHOTOLUMINOUS EXIT SIGN
	EMERGENCY LIGHTING BATTERY UNIT, WITH AND WITHOUT HEADS.
	ONE, TWO, AND THREE HEAD WALL MOUNTED EMERGENCY LIGHTING REMOTE UNITS.
	ONE, TWO, AND THREE HEAD CEILING MOUNTED EMERGENCY LIGHTING REMOTE UNITS.
	RECESSED EMERGENCY REMOTE HEAD.
EM	DENOTES "EMERGENCY"
CCT	CORRELATED COLOUR TEMPERATURE
CRI	COLOUR RENDERING INDEX
	EXTERIOR LIGHTING
	ARM MOUNTED LUMINAIRE ON POLE. DIRECTIONAL ARROW, WHERE INDICATED DENOTES PRIMARY LUMEN ORIENTATION.
	LIGHTING BOLLARD. DIRECTIONAL ARROW, WHERE INDICATED DENOTES PRIMARY LUMEN ORIENTATION.
	TELECOMMUNICATIONS
	CABLE TRAY (LADDER TYPE)
	CABLE TRAY (BASKET TYPE)
	WALL MOUNTED DATA (D) OR VOICE (V) OUTLET. PROVIDE 1V AND 1D UNLESS NOTED OTHERWISE.
	WALL MOUNTED VOICE (TELEPHONE) OUTLET. PROVIDE 1V UNLESS NOTED OTHERWISE.
	WALL MOUNTED DATA OUTLET. PROVIDE 1D UNLESS NOTED OTHERWISE.
	WALL MOUNTED TELEVISION OUTLET.
	VOICE, DATA, OR TV OUTLET AS DESCRIBED ABOVE, MOUNTED ABOVE COUNTER TOP OR AS INSTRUCTED ON SITE.
B	ADJACENT TO COMMUNICATIONS OUTLET, INDICATES BLANK-OFF PLATE.
HDMI	HDMI OUTLET.

THIS LEGEND IS GENERIC. ALL SYMBOLS LISTED MAY NOT BE APPLICABLE FOR THIS PROJECT. REFER TO FLOOR PLANS TO DETERMINE USED DEVICES AND EQUIPMENT.

ELECTRICAL LEGEND

SYMBOL	DESCRIPTION
AV	AUDIO VIDEO GANG, AS NOTED.
WAP	WIRELESS ACCESS POINT (WIFI)
S	AUDIO VISUAL SYSTEM SPEAKER, CEILING MOUNTED.
S	AUDIO/VISUAL SYSTEM SPEAKER, WALL MOUNTED.
PA	PUBLIC ADDRESS SYSTEM SPEAKER, CEILING MOUNTED.
PA	PUBLIC ADDRESS SYSTEM SPEAKER, WALL MOUNTED.
	PUBLIC ADDRESS HORN SPEAKER WALL MOUNTED.
HS	PUBLIC ADDRESS SYSTEM HANDSET
ACC	PUBLIC ADDRESS SYSTEM ADMIN CONTROL CONSOLE
	INTERCOM
IDS	VIDEO INTERCOM SYSTEM DOOR CALL STATION
IMS	VIDEO INTERCOM SYSTEM MASTER STATION
	CLOCK.
MTX	GPS CLOCK SYSTEM MASTER TRANSMITTER
RX	GPS CLOCK SYSTEM GPS RECEIVER
RTX	GPS CLOCK SYSTEM SATELLITE TRANSMITTER (REPEATER)
RX	GPS CLOCK SYSTEM RECEIVER SWITCH
	ACCESS CONTROL AND DOOR HARDWARE
CR	CARD READER
DA	DOOR ALARM SOUNDER
DC	DOOR CONTACT
OD	OVERHEAD DOOR CONTACT
EL	ELECTRIC LATCH
ES	ELECTRIC STRIKE
PTC	ELECTRIC POWER TRANSFER CABLE
PTH	POWER TRANSFER HINGE
KS	KEY SWITCH
ML	ELECTROMAGNETIC LOCK
MLR	MOTORIZED LATCH RETRACTION. PROVIDE 120 V.
REX	REQUEST TO EXIT SENSOR
	MUSHROOM HEAD PUSH BUTTON FOR 'REQUEST TO EXIT MAGLOCK RELEASE, OR OTHER PUSH BUTTON AS INDICATED
DR	DOOR RELEASE PUSHBUTTON INTEGRATED WITH ELECTRIFIED DOOR HARDWARE DEVICE.
DS	VIDEO INTERCOM SYSTEM EXTERIOR DOOR STATION
MS	VIDEO INTERCOM SYSTEM INTERIOR MASTER STATION
IS	VIDEO INTERCOM SYSTEM INTERIOR SUB-MASTER STATION.
	BARRIER FREE DOOR OPERATOR PUSH BUTTON
WS	TOUCHLESS "WAVE SWITCH" FOR DOOR OPERATOR CONTROL
	DOOR BELL C/W SOUNDER AND STROBE
	DOOR BELL (SOUNDER ONLY)
	INTRUSION DETECTION
	GLASS BREAK (GB)
MD	MOTION DETECTOR (MD)
KP	KEYPAD (KP)
	VIDEO SURVEILLANCE
	CCTV CAMERA
C/P	CCTV CAMERA, CEILING OR POLE MOUNTED
	CCTV CAMERA, WALL MOUNTED
PTZ	PAN-TILT-ZOOM
	FIRE DETECTION AND ALARM - GENERAL
CACF	CENTRAL ALARM AND CONTROL FACILITY
FACP	FIRE ALARM CONTROL PANEL
FAAP	FIRE ALARM ANNUNICIATOR PANEL
FAAG	FIRE ALARM ACTIVE ANNUNCIATOR C/W GRAPHIC
FAPG	FIRE ALARM PASSIVE GRAPHIC
DGP	DATA GATHERING PANEL
FAMP	FIRE ALARM ULC MONITORING PANEL
FAZ	FIRE ALARM ZONE
FSZ	FIRE ALARM SUPERVISORY ZONE
FDSPCP	FIRE DETECTION, SUPPRESSION, AND PRE-ACTION CONTROL PANEL
FDSCP	FIRE DETECTION AND SUPPRESSION CONTROL PANEL
	FIRE ALARM PANEL (FACP, FAAP, FAMP) AS DENOTED ON PLANS.
	FIRE DETECTION - INITIATION DEVICES
	MANUAL PULL STATION (MPS)
LX	WHERE NOTED ADJACENT TO MANUAL PULL STATIONS, DENOTES PULL STATION C/W POLYCARBONATE (LEXAN) COVER.
WG	WHERE NOTED ADJACENT TO MANUAL PULL STATIONS, DENOTES PULL STATION C/W WIRE GUARD COVER.
A	WHERE NOTED ADJACENT TO MANUAL PULL STATIONS OR DETECTOR, DENOTES DEVICE C/W AUXILIARY CONTACT.
	PHOTOELECTRIC SMOKE DETECTOR
	SAME AS ABOVE, WALL MOUNTED
SA	WHEN ADJACENT TO PHOTOELECTRIC SMOKE DETECTOR, INDICATES RESIDENTIAL SMOKE ALARM
	RESIDENTIAL SMOKE ALARM, 120 VOLT, COMPLETE WITH STROBE AND INTEGRAL CARBON MONOXIDE DETECTION.
	SAME AS ABOVE, WALL MOUNTED
	DUCT MOUNTED SMOKE DETECTOR
CO	CARBON MONOXIDE DETECTOR
	HEAT DETECTOR - 58 DEGREES C (135 DEGREES F) FIXED TEMPERATURE AND RATE OF RISE, RESTORABLE
	SAME AS ABOVE, WALL MOUNTED
HT	ADJACENT TO HEAT DETECTOR, DENOTES "HIGH TEMPERATURE", 94 DEGREES C (200 DEGREES F) OR AS NOTED ON PLANS.
LHD	ADJACENT TO HEAT DETECTOR SYMBOL, DENOTES "LINEAR HEAT DETECTION CABLE".
	HEAT DETECTOR - 58 DEGREES C (135 DEGREES F) FIXED TEMPERATURE, NON-RESTORABLE
	HEAT DETECTOR - 94 DEGREES C (200 DEGREES F) FIXED TEMPERATURE, NON-RESTORABLE
	LINEAR HEAT DETECTION CABLE
FS	FLOW SWITCH
	FIRE DETECTION AND ALARM - SUPERVISORY DEVICES
LL	LOW TANK LEVEL
LP	LOSS OF POWER
LT	LOW TEMPERATURE
PS	PRESSURE SWITCH
SV	SUPERVISED VALVE
	FIRE DETECTION AND ALARM - SIGNALLING DEVICES
C	ADJACENT TO BELL OR HORN, DENOTES CEILING MOUNTED.

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ELECTRICAL LEGEND

SYMBOL	DESCRIPTION
	FIRE ALARM HORN
	FIRE ALARM HORN/STROBE, WALL MOUNTED.
	FIRE ALARM WALL MOUNTED STROBE LIGHT
	FIRE DETECTION AND ALARM - OTHER DEVICES
EOL	END OF LINE DEVICE
WG	WIRE GUARD
KS	KEY SWITCH FOR FIREFIGHTER CONTROL OF ELEVATOR RECALL, OR AS NOTED
IM	ISOLATOR MODULE
R	OUTPUT RELAY, FUNCTION AS INDICATED
CM	CONTROL MODULE
MM	MONITOR MODULE
HO	MAGNETIC DOOR HOLDER AND RELEASING DEVICE ("HOLD OPEN")
	SINGLE LINE DIAGRAM
	MOLDED CASE CIRCUIT BREAKER
	DISCONNECT (UNFUSED)
	DISCONNECT (FUSED)
	FUSE
	METERING CABINET
	TRANSFORMER
C	CONTACTOR
DP	DISTRIBUTION PANELBOARD
FTL	FEED THROUGH LUGS
LP	LIGHTING PANELBOARD
MCB	MOBILE CONNECTION BOX
MCC	MOTOR CONTROL CENTRE
RP	RECEPTACLE PANELBOARD
SPD	SURGE PROTECTIVE DEVICE
SWBD	SWITCHBOARD
TX	TRANSFORMER
UPS	UNINTERRUPTIBLE POWER SUPPLY
	DETAIL REFERENCES
1	SHEET KEYNOTE
1 / E101	REFER TO DETAIL. EXAMPLE SHOWN INDICATES REFERENCE TO DETAIL 1 ON DRAWING E101
1	REVISION NUMBER

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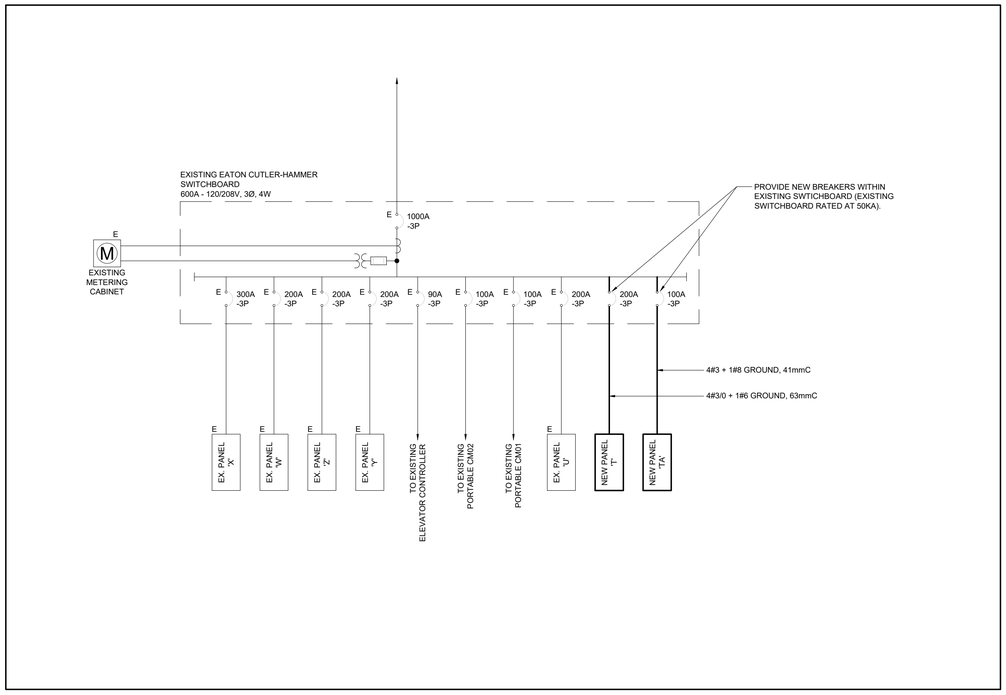
Sheet List Table

Sheet Number	Sheet Title
E0.0	ELECTRICAL LEGEND & SHEET LIST
E0.1	DEMOLITION SITE PLAN - ELECTRICAL
E0.2	NEW WORK SITE PLAN - ELECTRICAL
E2.1	ELECTRICAL GROUND FLOOR NEW WORK PLANS
E2.2	ELECTRICAL ROOF NEW WORK PLAN
E3.1	ELECTRICAL SCHEDULES & DETAILS
E3.2	ELECTRICAL DETAILS SHEET #1
E3.3	ELECTRICAL DETAILS SHEET #2



1 SINGLE LINE DIAGRAM - ELECTRICAL
SCALE: NOT TO SCALE

Rev	Description	Date
1	Issued for Class C Costing	2022-07-27
2	Issued for Client Review	2022-11-10
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6	Issued for 90% CD Review	2024-10-01
7	Issued for Building Permit	2024-12-04
8	Issued for Tender	2025-01-14

QUASAR CONSULTING GROUP
250 ROWNTREE DAIRY RD, WOODBRIDGE, ON
TEL: 905-507-0800
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CSV Renaissance Addition

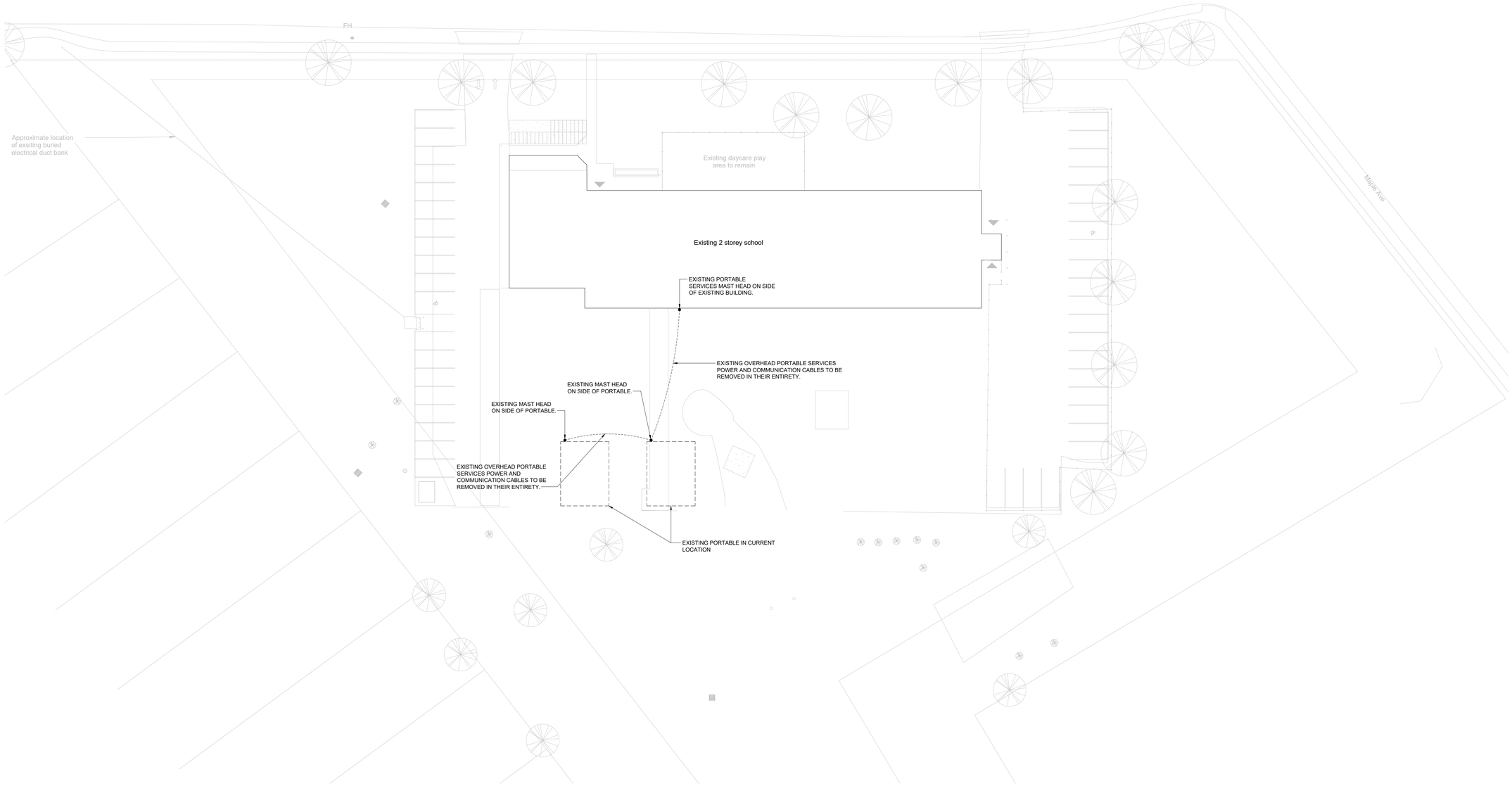
1226 Lockhart Rd
Burlington, ON L7S 1H1

PROJECT CODE:	SCALE:
ED-22-018	Not to Scale
DATE:	STATUS:
2022-10-27	Coordination

Electrical Legend & Sheet List

Project North

drawing number
E0.0



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CSV Renaissance Addition

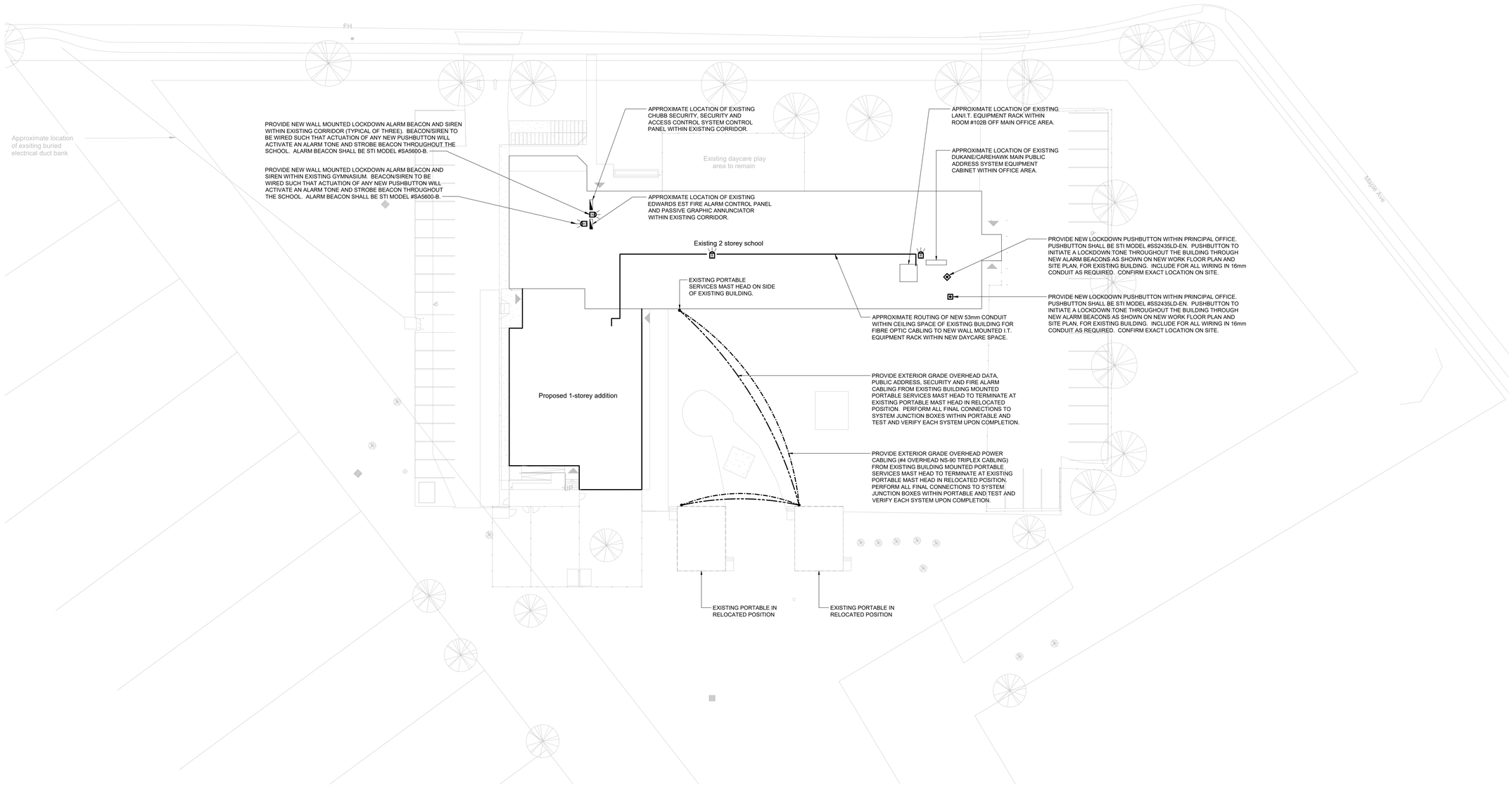
1226 Lockhart Rd
Burlington, ON L7S 1H1

PROJECT CODE: ED-22-018
SCALE: 1:300
DATE: 2022-10-27
STATUS: Coordination

Demolition Site Plan
Electrical

Project North

drawing number
E0.1



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CSV Renaissance Addition

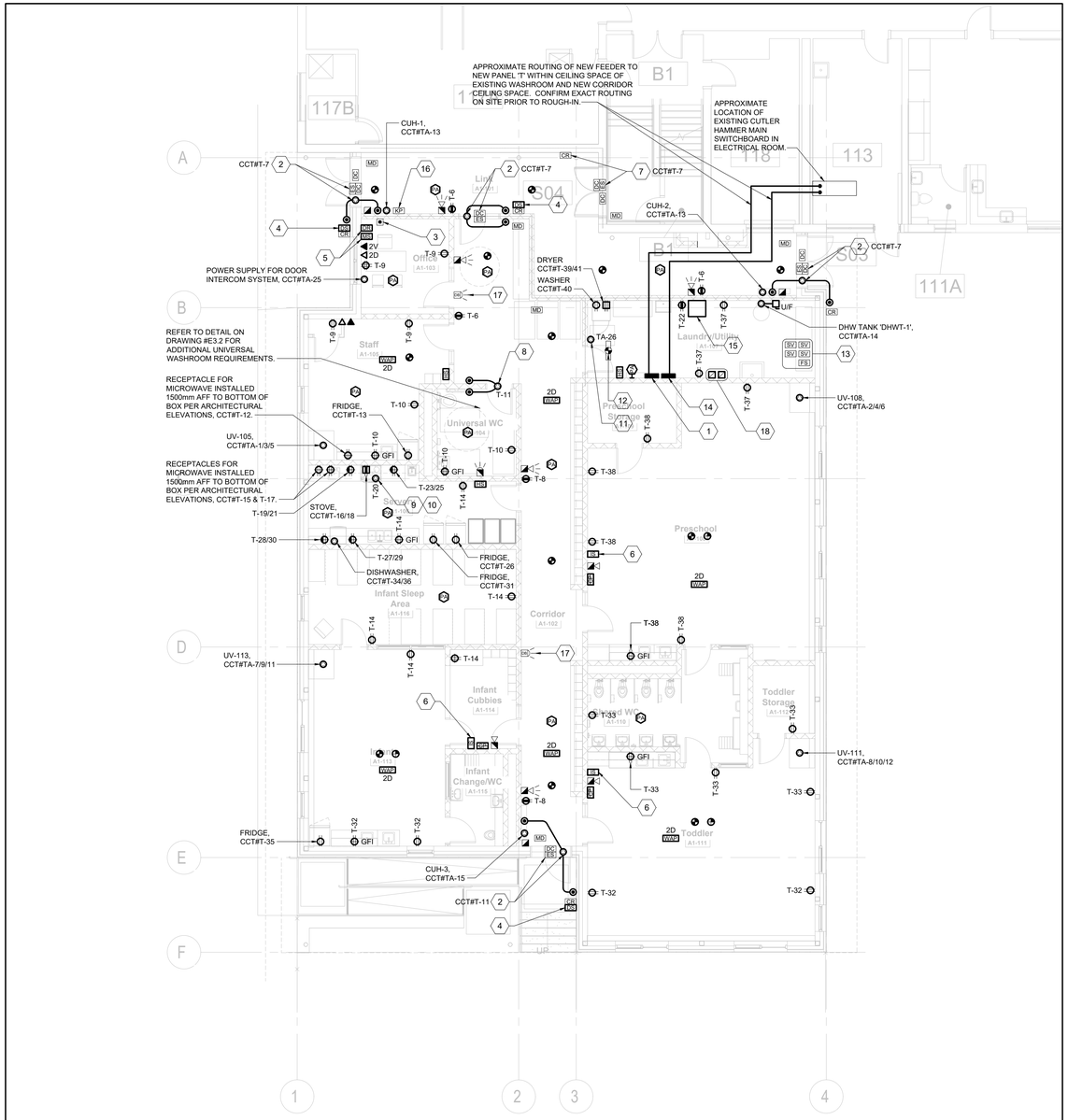
1226 Lockhart Rd
Burlington, ON L7S 1H1

PROJECT CODE:	SCALE:
ED-22-018	1:300
DATE:	STATUS:
2022-10-27	Coordination

New Work Site Plan
Electrical

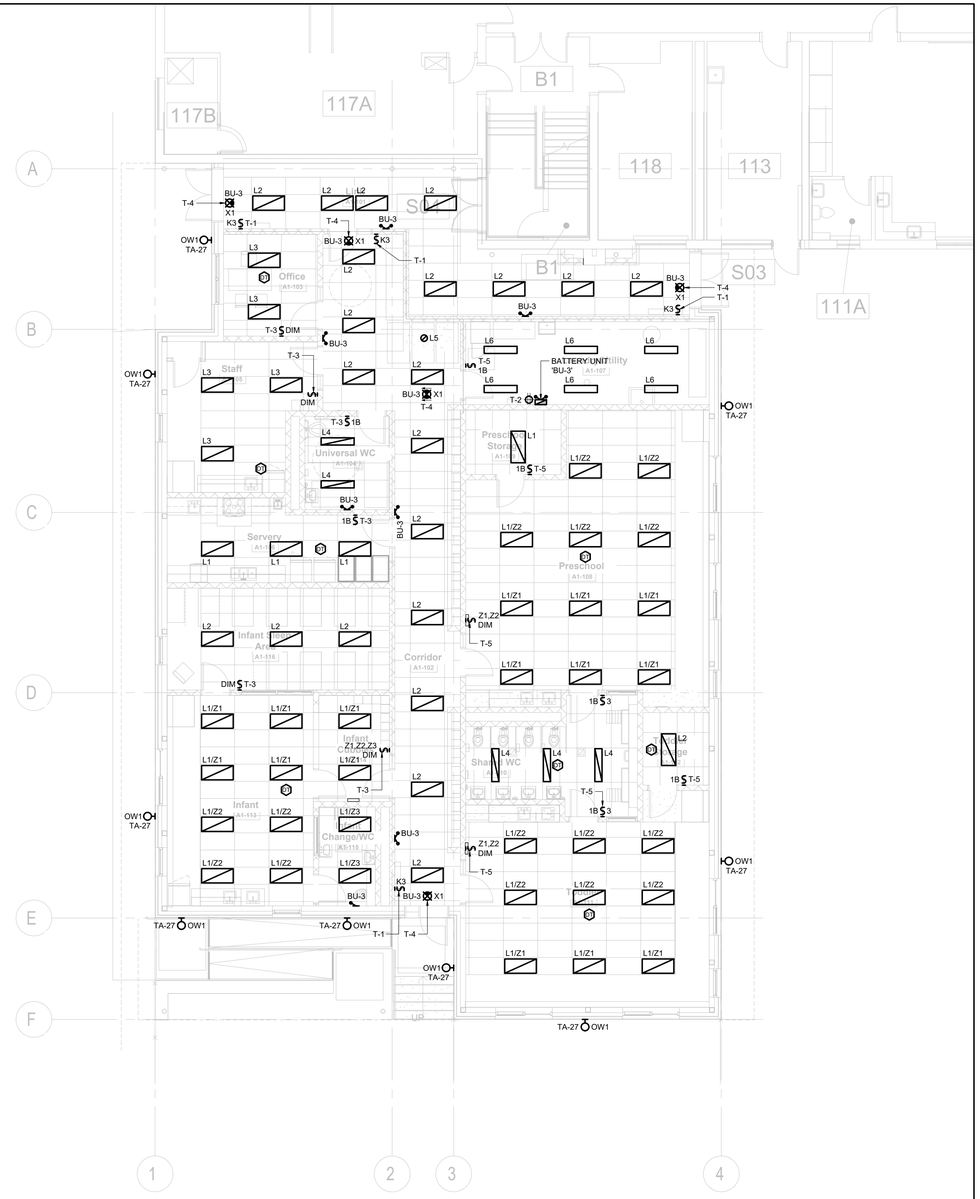
Project North

drawing number
E0.2



2 GROUND FLOOR NEW WORK PLAN - POWER & SYSTEMS

SCALE: 1:100



1 GROUND FLOOR NEW WORK PLAN - LIGHTING

SCALE: 1:100

NEW WORK SHEET KEYNOTES

1. PROVIDE NEW SURFACE MOUNTED PANELBOARD 'RP-7'. PANELBOARD TO BE INSTALLED WITHIN NEW UTILITY ROOM #107. NEW MAIN FEEDER TO BE EXTEND FROM NEW PANELBOARD TO EXISTING SWITCHBOARD LOCATED WITHIN EXISTING MAIN ELECTRICAL ROOM. REFER TO DRAWING #E2.1 FOR APPROXIMATE ROUTING OF NEW FEEDER. REFER TO PANEL SCHEDULE ON DRAWING #E3.1 FOR BREAKER REQUIREMENTS FOR NEW PANEL.
2. PROVIDE CONNECTION TO NEW POWER DOOR OPERATOR AND ELECTRIC STRIKE. INCLUDE FOR REQUIRED LINE AND LOAD CONNECTIONS TO ASSOCIATED WALL ACTUATORS. COORDINATE EXACT LOCATION OF ACTUATORS AND FINAL CONNECTIONS WITH GENERAL CONTRACTOR ON SITE PRIOR TO ROUGH-IN. ALSO INCLUDE FOR ROUGH-INS TO NEW CARD READER. REFER TO DETAIL ON DRAWING #E2.1 FOR FURTHER INFORMATION. INCLUDE FOR FIRE ALARM INTERCONNECTION TO DOOR OPERATOR TO RELEASE DOOR HOLD FUNCTION UPON ACTIVATION OF FIRE ALARM.
3. PROVIDE NEW LOCKDOWN PUSHBUTTON WITHIN CHILDCARE OFFICE. PUSHBUTTON SHALL BE STI MODEL #SS2435LD-EN. PUSHBUTTON TO INITIATE A LOCKDOWN TONE THROUGHOUT THE BUILDING THROUGH NEW ALARM BEACONS AS SHOWN ON NEW WORK FLOOR PLAN AND SITE PLAN, FOR EXISTING BUILDING. INCLUDE FOR ALL WIRING IN 16mm CONDUIT AS REQUIRED.
4. APPROXIMATE LOCATION OF VIDEO INTERCOM SYSTEM DOOR STATION. COORDINATE EXACT LOCATION WITH ARCHITECTURAL ELEVATIONS AND GENERAL CONTRACTOR ON SITE.
5. APPROXIMATE LOCATION OF VIDEO INTERCOM MASTER STATION AND DOOR RELEASE PUSHBUTTON (EITHER INTEGRAL OR REMOTE FROM MASTER STATION). CONFIRM EXACT LOCATION ON SITE PRIOR TO ROUGH-IN.
6. APPROXIMATE LOCATION OF VIDEO INTERCOM SUB-MASTER STATION. CONFIRM EXACT LOCATION ON SITE PRIOR TO ROUGH-IN.
7. PROVIDE CONNECTION TO NEW ELECTRIC STRIKE, ALSO INCLUDE FOR ROUGH-INS TO NEW CARD READER. REFER TO DETAIL ON DRAWING #E2.1 FOR FURTHER INFORMATION.
8. PROVIDE CONNECTION TO NEW POWER DOOR OPERATOR. INCLUDE FOR REQUIRED LINE AND LOAD CONNECTIONS TO ASSOCIATED WALL ACTUATORS. COORDINATE EXACT LOCATION OF ACTUATORS AND FINAL CONNECTIONS WITH GENERAL CONTRACTOR ON SITE PRIOR TO ROUGH-IN. REFER TO DETAIL ON DRAWING #E2.1 FOR FURTHER INFORMATION.
9. PROVIDE FIRE ALARM ZONE CONNECTION TO NEW GUARDIAN G600 EXHAUST HOOD SUPPRESSION SYSTEM. EXTEND WIRING FROM SPARE ALARM ZONE IN EXISTING FIRE ALARM CONTROL PANEL.
10. CONNECTION TO NEW KITCHEN EXHAUST HOOD AND ASSOCIATED GUARDIAN G600 EXHAUST HOOD SUPPRESSION SYSTEM. COORDINATE FINAL CONNECTIONS WITH MECHANICAL CONTRACTOR ON SITE.
11. CONNECTION TO COMBINATION FIRE/SMOKE DAMPER. FOR BRANCH CIRCUIT INDICATED, EXTEND 2#12 + GROUND IN 21mm CONDUIT FROM ASSOCIATED BREAKER TO DAMPER LOCATION AND CONNECT COMPLETE. COORDINATE EXACT LOCATION OF DAMPER AND FINAL CONNECTIONS WITH MECHANICAL CONTRACTOR ON SITE.
12. NEW DUCT MOUNTED SMOKE DETECTOR TO BE INSTALLED WITHIN SUPPLY AIR DUCT AND CONNECTED TO NEW COMBINATION FIRE/SMOKE DAMPER COMPLETE. REFER TO DETAIL ON DRAWING #E3.1 FOR FURTHER REQUIREMENTS.
13. PROVIDE NEW FIRE ALARM ZONE AND SUPERVISORY ZONE WIRING FOR THE FOLLOWING DEVICES. ALL WIRING SHALL BE EXTENDED FROM EXISTING FIRE ALARM CONTROL PANEL TO DEVICE LOCATION AND CONNECT COMPLETE. COORDINATE FINAL CONNECTIONS WITH SPRINKLER CONTRACTOR ON SITE.
    A) FS-1 - CHILD CARE SPRINKLER FLOW (ALARM ZONE);
    B) SV-1 - CHILD CARE BACKFLOW VALVE INLET (SUPERVISORY ZONE);
    C) SV-2 - CHILD CARE BACKFLOW VALVE OUTLET (SUPERVISORY ZONE);
    D) SV-3 - CHILD CARE SPRINKLER MAIN SHUT-OFF (SUPERVISORY ZONE);
    E) SV-4 - CHILD CARE SPRINKLER LOW PRESSURE (SUPERVISORY ZONE).
14. PROVIDE NEW SURFACE MOUNTED PANELBOARD 'RP-TA'. PANELBOARD TO BE INSTALLED WITHIN NEW UTILITY ROOM #107. NEW MAIN FEEDER TO BE EXTEND FROM NEW PANELBOARD TO EXISTING SWITCHBOARD LOCATED WITHIN EXISTING MAIN ELECTRICAL ROOM. REFER TO DRAWING #E2.1 FOR APPROXIMATE ROUTING OF NEW FEEDER. REFER TO PANEL SCHEDULE ON DRAWING #E3.1 FOR BREAKER REQUIREMENTS FOR NEW PANEL.
15. PROVIDE NEW WALL MOUNTED LAN/I.T. EQUIPMENT RACK WITHIN NEW UTILITY ROOM #107. RACK SHALL BE MIDDLE ATLANTIC #CWR-12-26XX OR EQUIVALENT. INCLUDE FOR REQUIRED TERMINATION PANELS, ETC TO ACCOMMODATE QUANTITY OF DATA OUTLETS FOR CHILDCARE SPACE AS SHOWN ON FLOOR PLANS.
16. PROVIDE NEW WALL MOUNTED SECURITY DISARM KEYPAD TO DISARM ALL SECURITY DEVICES FOR THE DAYCARE. NEW DAYCARE ADDITION SHALL BE ADDED TO THE EXISTING SECURITY SYSTEM AS A SEPARATE PARTITION.
17. PROVIDE NEW WALL MOUNTED LOCKDOWN ALARM BEACON AND SIREN. BEACON/SIREN TO BE WIRED SUCH THAT ACTUATION OF ANY NEW PUSHBUTTON WILL ACTIVATE AN ALARM TONE AND STROBE BEACON THROUGHOUT THE SCHOOL. ALARM BEACON SHALL BE STI MODEL #SA5600-B.
18. APPROXIMATE LOCATION OF NEW MOTOR STARTERS FOR EXHAUST FANS 'EF-1' AND 'EF-2' ON ROOF. CONFIRM EXACT LOCATION ON SITE PRIOR TO ROUGH-IN. STARTERS TO BE SUPPLIED BY MECHANICAL CONTRACTOR AND INSTALLED UNDER THIS DIVISION.

GENERAL NEW WORK NOTES

1. REFER TO LUMINAIRE SCHEDULE ON DRAWING #E3.1 FOR LUMINAIRE TYPES AND ACCEPTABLE MANUFACTURERS.
2. PROVIDE CONNECTIONS TO NEW MECHANICAL EQUIPMENT AS INDICATED. CONFIRM FINAL EQUIPMENT LOCATIONS WITH MECHANICAL CONTRACTOR ON SITE, PRIOR TO ROUGH-IN.
3. ALL SHUT-DOWNS OF EXISTING DISTRIBUTION EQUIPMENT TO INSTALL NEW BREAKERS AND/OR STARTERS/DISCONNECT SWITCHES SHALL BE COORDINATED WITH THE OWNER PRIOR TO COMMENCEMENT OF ANY WORK. EXACT DATE AND TIME AND DURATION OF OUTAGE SHALL BE COMMUNICATED TO THE OWNER PRIOR TO COMMENCEMENT OF WORK.
4. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN DRAWINGS FOR DIMENSIONAL PLACEMENT OF NEW LUMINAIRES. ELECTRICAL REFLECTED CEILING PLAN/LIGHTING DRAWINGS ARE MEANT TO CONVEY QUANTITIES ONLY.
5. BRANCH CIRCUIT FEEDERS SHALL BE MINIMUM 2#12 + GROUND IN 16mm CONDUIT, UNLESS NOTED OTHERWISE IN SHEET KEYNOTES BELOW. BRANCH FEEDERS SHALL BE OVERSIZED TO ACCOMMODATE VOLTAGE DROP AS NOTED IN DETAIL ON DRAWING #E3.3.
6. UNLESS NOTED OTHERWISE, FOR NEW DATA OUTLETS NOTED ON THIS DRAWING, PROVIDE EMPTY SINGLE GANG BACKBOX AND EXTEND 21mm EMPTY CONDUIT, COMPLETE WITH PULL STRING, FROM BACKBOX TO TERMINATE WITHIN SATELLITE LAN ROOM, LOCATION SHOWN ON DRAWING #E1.0. INCLUDE FOR ALL REQUIRED CONDUIT OFFSETS TO ACCOMMODATE CEILING HEIGHT CHANGES THROUGH LIBRARY AND CORRIDOR.
7. ALL NEW DATA OUTLETS AND CABLING, ETC. SHALL BE INCLUDED IN THE ELECTRICAL CONTRACTOR'S SCOPE OF WORK. CABLING FROM OUTLETS SHALL TERMINATE AT NEW LAN EQUIPMENT RACK IN UTILITY ROOM. EXTEND 12 STRAND MULTI-MODE FIBRE OPTIC CABLE IN 53mm CONDUIT FROM CHILDCARE LAN EQUIPMENT RACK TO MAIN SCHOOL LAN ROOM AND EQUIPMENT RACK AND TERMINATE COMPLETE.
8. PROVIDE NEW FIRE ALARM ZONE FOR PROPOSED DAYCARE ADDITION. NEW ALARM SIGNALING AND INITIATING CIRCUITS TO BE PROVIDED FROM EXISTING CONTROL PANEL TO NEW ADDITION.
9. PROVIDE NEW SECURITY/ACCESS CONTROL PARTITION WITHIN SECURITY SYSTEM CONTROL PANEL FOR PROPOSED DAYCARE ADDITION. NEW KEYPAD WITHIN DAYCARE ADDITION SHALL DISARM DEVICES ONLY WITHIN THE DAYCARE SPACE. EXISTING DISARM KEYPAD WITHIN SCHOOL SHALL DISARM ENTIRE BUILDING. PROVIDE ALL PROGRAMMING/REPROGRAMMING AS REQUIRED.

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CSV Renaissance Addition

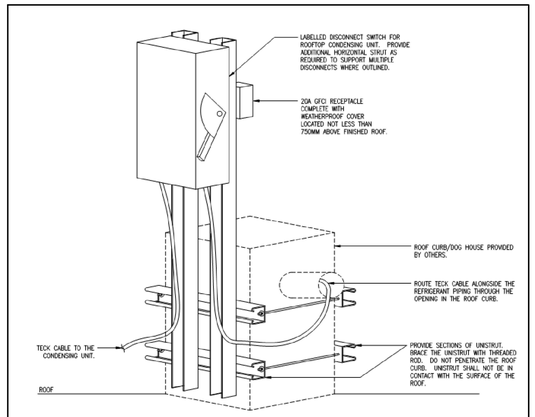
1226 Lockhart Rd
Burlington, ON L7S 1H1

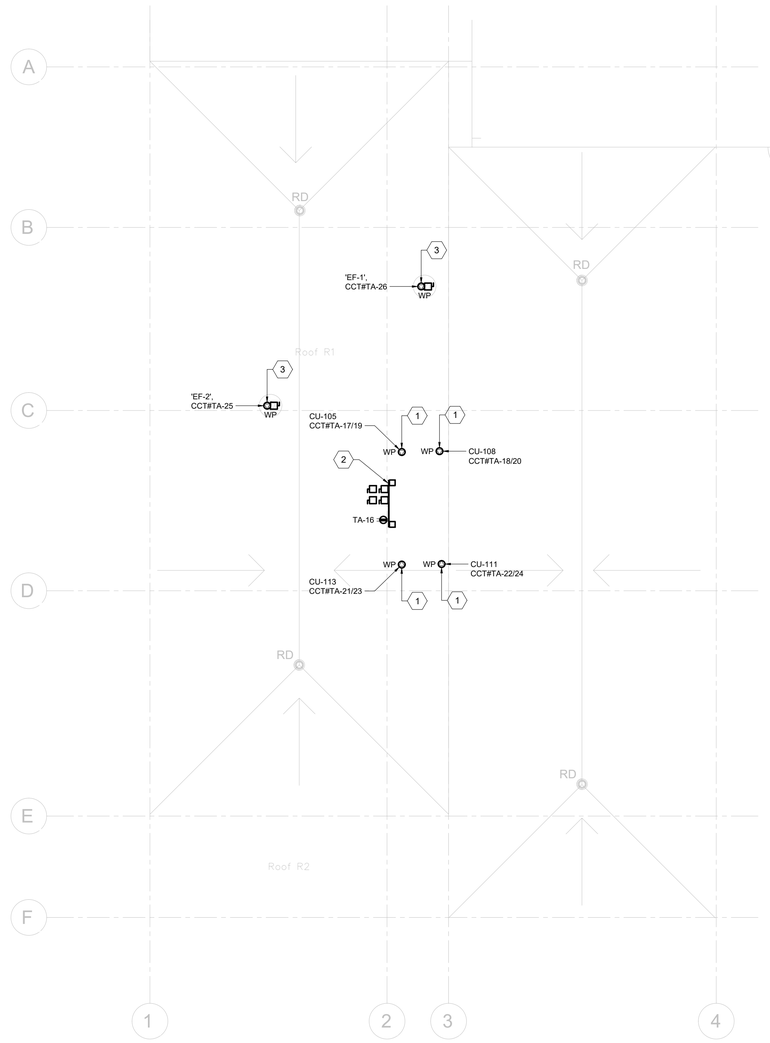
PROJECT CODE:	SCALE:
ED-22-018	As Noted
DATE:	STATUS:
2022-10-27	Coordination

Electrical Ground Floor New Work Plans

Project North

drawing number
E2.1





1 ROOF NEW WORK PLAN - POWER & SYSTEMS

SCALE: 1:100

PROJECT GENERAL NOTES

1. LOCATION OF EQUIPMENT IS NOTED FOR DIAGRAMMATIC PURPOSES, CONTRACTOR SHALL BE RESPONSIBLE TO REVIEW ARCHITECTURAL AND MECHANICAL PLANS AS WELL AS ON-SITE CONDITIONS TO CONFIRM EXACT LOCATION OF EQUIPMENT.
2. ALL NEW BRANCH FEEDERS TO NEW WIRING DEVICES SHALL BE 2#10 + GROUND IN 21mm CONDUIT UNLESS NOTED OTHERWISE.

NEW WORK KEY NOTES:

1. PROVIDE CONNECTION TO NEW ROOF MOUNTED CONDENSING UNIT. EXTEND 2#10 + IN 21mm CONDUIT FROM UNIT TO BREAKER IN NEW PANEL 'RP-TA' AND CONNECT COMPLETE. INCLUDE FOR REQUIRED LINE AND LOAD CONNECTIONS TO ASSOCIATED DISCONNECT SWITCH. ANY NEW ROOF PENETRATIONS SHALL BE PROPERLY SEALED AND MADE WEATHER AND WATER-TIGHT AND MAINTAIN ANY EXISTING FIRE RATING. COORDINATE FINAL CONNECTIONS TO UNIT WITH MECHANICAL CONTRACTOR ON SITE.
2. DISCONNECTS FOR ROOF MOUNTED CONDENSING UNITS AND ROOF MOUNTED SERVICE RECEPTACLE TO BE INSTALLED ON PLYWOOD BACKBOARD MOUNTED TO VERTICAL UNISTRUT SUPPORT MEMBERS AND ATTACHED TO DOGHOUSE. REFER TO DETAIL ON THIS DRAWING. PLYWOOD BACKBOARD TO BE PRESSURE TREATED AND PAINTED WITH WEATHER RESISTANT PAINT. ALL DISCONNECT SWITCHES SHALL BE WEATHERPROOF, NEMA 4X RATED. RECEPTACLE SHALL BE 20A WEATHERPROOF GFI TYPE RECEPTACLE. EXTEND 2#10 + GROUND IN 21mm CONDUIT FROM RECEPTACLE TO BREAKER IN NEW PANELBOARD 'U' AND CONNECT COMPLETE. REFER TO PANEL SCHEDULE FOR BREAKER REQUIREMENTS. ANY NEW ROOF PENETRATIONS SHALL BE PROPERLY SEALED AND MADE WEATHER AND WATER-TIGHT AND MAINTAIN ANY EXISTING FIRE RATING.
3. PROVIDE CONNECTION TO NEW ROOF MOUNTED EXHAUST FAN. EXTEND 2#12 + IN 21mm CONDUIT FROM UNIT TO BREAKER IN NEW PANEL 'RP-TA' AND CONNECT COMPLETE. INCLUDE FOR REQUIRED LINE AND LOAD CONNECTIONS TO ASSOCIATED MOTOR STARTER. MOTOR STARTER SHALL BE SUPPLIED BY MECHANICAL CONTRACTOR AND INSTALLED UNDER THIS DIVISION. ANY NEW ROOF PENETRATIONS SHALL BE PROPERLY SEALED AND MADE WEATHER AND WATER-TIGHT AND MAINTAIN ANY EXISTING FIRE RATING. COORDINATE FINAL CONNECTIONS TO UNIT WITH MECHANICAL CONTRACTOR ON SITE.

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PROJECT CODE:	SCALE:
ED-22-018	1:100
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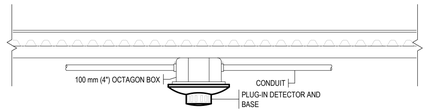
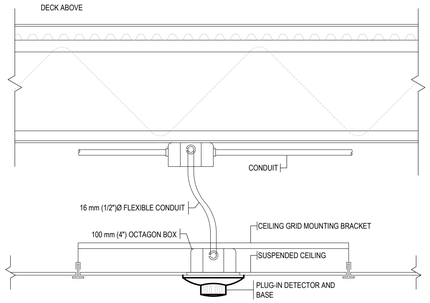
Electrical Roof
New Work Plan

Project North

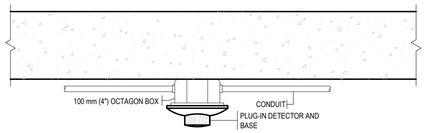
drawing number
E2.2



CEILING MOUNTED (SUFACE DECK)



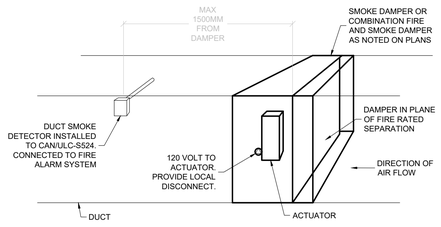
SUSPENDED CEILING MOUNTED



CEILING MOUNTED (SURFACE SLAB)

2 TYPICAL SPOT TYPE SMOKE DETECTOR INSTALLATION DETAIL

SCALE: NOT TO SCALE



NOTES:
1. SEQUENCE OF OPERATION:
   EXCEPT AS REQUIRED BY A SMOKE CONTROL SYSTEM, SMOKE DAMPERS AND COMBINATION SMOKE AND FIRE DAMPERS SHALL BE CONFIGURED SO AS TO CLOSE AUTOMATICALLY UPON A SIGNAL FROM AN ADJACENT SMOKE DETECTOR LOCATED AS DESCRIBED IN CAN/ULC-S524, "INSTALLATION OF FIRE ALARM SYSTEMS", WITHIN 1500 mm HORIZONTALLY OF THE DUCT OR AIR-TRANSFER OPENING IN THE FIRE SEPARATION IN THE DUCT DOWNSTREAM OF THE SMOKE DAMPER OR COMBINATION SMOKE AND FIRE DAMPER. (2012 OBC 3.1.8.9A.(3)(b)).
2. PROVIDE OUTPUT RELAY ON FIRE ALARM SYSTEM TO CLOSE DAMPER UPON DETECTION OF SMOKE BY DUCT SMOKE DETECTOR.

1 SMOKE/FIRE DAMPER CONTROLLED BY DUCT DETECTOR

SCALE: NOT TO SCALE

SCHEDULE 26 06 50.23 - LIGHTING CONTROL DEVICE SCHEDULE

SYMBOL	TYPE	DESCRIPTION	BASIS OF DESIGN MANUFACTURERS AND PRODUCT SERIES	CONTROL WIRING	VOLTAGE OUTPUT	MOUNTING	SPECIFICATION SECTION	SPACES SERVED	REMARKS
S 1B	UI-NV-1B	ONE BUTTON WALL STATION, ONE BUTTON ON-OFF TOGGLE.	ACUITY BRANDS CONTROLS/nLIGHT, nPODM-1SB SERIES LEGRAND/WATTSTOPPER LMSW-101 PHILIPS DYNALITE DPNA SERIES, DPNA914	DIGITAL	-	WALL	26 09 43		SUBMITTAL WITH STANDARD/PROPSED ENGRAVING OPTION. ALLOW FOR CUSTOM LABELLING OPTION AT OWNER'S DISCRETION.
S Z1, Z2	UI-DIM-NV-XB	DIMMING WALL STATION, MULTI-BUTTON WALL INTERFACE CONTROL C/W ENGRAVED BUTTONS. BUTTONS: EACH ZONE CONTROLLED (SEE PLANS), DIM UP, DIM DOWN, ALL OFF, ALL ON 'X' DENOTES NUMBER OF CONTROLLED ZONES	ACUITY BRANDS CONTROLS/nLIGHT NPODM SERIES PHILIPS REVOLUTION SERIES DR2PA	DIGITAL	-	WALL	26 09 43		
OS1	DT-W-2V	WALL MOUNT OCCUPANCY SENSOR, 24 V, DUAL TECHNOLOGY SENSOR, MIN 1200 SQ FT COVERAGE	PHILIPS OCCUSWITCH CLASSIC LRM2265 SERIES WATTSTOPPER DT-200 SERIES		24 V	WALL, +/- 12 FEET AFF	26 09 23		
OS1	DT-C-2V	CEILING MOUNTED OCCUPANCY SENSOR, 24 V, DUAL TECHNOLOGY SENSOR.	LEGRAND/WATTSTOPPER DT-300 SERIES LUTRON LOS-CDT SERIES		24 V		26 09 23		

LIGHTING CONTROLS SCHEDULE NOTES:
1. LIGHTING CONTROLS OF ONE MANUFACTURER THROUGH PROJECT TO ENSURE PRODUCT COMPATIBILITY.
2. ALTERNATE MANUFACTURERS: ACUITY BRANDS LIGHTING (SENSORSWITCH, nLIGHT), COOPER LIGHTING SOLUTIONS, DOUGLAS LIGHTING CONTROLS, LUTRON, SIGNIFY (FORMERLY PHILIPS LIGHTING), WATTSTOPPER-LEGRAND.
3. DUAL TECHNOLOGY SENSORS: PASSIVE INFRARED/ULTRASONIC, OR PASSIVE INFRARED/MICROPHONIC, DEPENDING ON MANUFACTURER. MICROPHONIC SENSORS ACCEPTABLE IN LIEU OF ULTRASONIC.
4. POSITION CEILING MOUNTED OCCUPANCY SENSORS A MINIMUM 1200 mm (4'-0") FROM NEAREST AIR DIFFUSER, HVAC OUTLETS, HEATING BLOWERS, ETC.
5. CONFIRM INSTALLATION REQUIREMENTS, WIRING DIAGRAMS, ETC. WITH MANUFACTURER'S DETAILS.
6. SUBMIT SHOP DRAWINGS FOR CONSULTANT'S REVIEW PRIOR TO PLACING ANY ORDER.
7. CONFIRM FINISH COLOUR WITH CONSULTANT DURING SUBMITTAL REVIEW.

SCHEDULE 26 06 50.19 - EMERGENCY LIGHTING AND EXIT SIGN SCHEDULE

SYMBOL	TYPE	DESCRIPTION	MANUFACTURER AND PRODUCT SERIES	VOLTAGE	LAMPS	MOUNTING	SPEC SECTION	REMARKS
	EM1	MICRO SIZE SINGLE REMOTE HEAD COMPLETE WITH POLYCARBONATE IMPACT RESISTANT LENS.	-LUMACELL MQM1NC-LD14-CSA SERIES -EMERGILITE EF40 SERIES -STANPRO SMC SERIES -BEGHELLI BOLLA REMOTE SERIES	24V	1x6W MR16 LED	WALL SURFACE	26 52 13.13	
	EM2	MICRO SIZE DOUBLE REMOTE HEAD COMPLETE WITH POLYCARBONATE IMPACT RESISTANT LENS.	-LUMACELL MQM-2-24V20W-CSA SERIES -EMERGILITE EF40 SERIES -STANPRO SMC SERIES -BEGHELLI BOLLA REMOTE SERIES	24V	2x6W MR16 LED	WALL SURFACE	26 52 13.13	
	BU-1	24 V EMERGENCY LIGHTING BATTERY UNIT C/W AUTO TEST, WITH DOUBLE HEADS, FACTORY WHITE FINISH, UNIVERSAL 120/347 VAC INPUT. LAMPS: MR16 LED LAMP, 12 V, 6 W, 540 LUMEN, 25 DEGREE BEAM ANGLE.	-LUMACELL RG24S-xxx-2-LD13-AT SERIES -EMERGILITE ESL SERIES -STANPRO SLC SERIES -BEGHELLI NOVA SERIES	120V-347V IN 24V OUT				
	X1	EXTRUDED ALUMINUM PICTOGRAM EXIT SIGN, UNIVERSAL MOUNTING, FACTORY WHITE FINISH.	-LUMACELL LA SERIES -EMERGILITE EA SERIES -STANPRO RMXL SERIES -BEGHELLI QUADRA RM SERIES	SEE NOTE 2	3W LED	CEILING OR WALL, SURFACE	26 52 13.16	REFER TO FLOOR PLANS FOR MOUNTING ARRANGEMENT
	X2	SAME AS X1, DOUBLE FACE	-LUMACELL LA SERIES -EMERGILITE EA SERIES -STANPRO RMXL SERIES -BEGHELLI QUADRA RM SERIES	SEE NOTE 2	3W LED	CEILING OR WALL, SURFACE	26 52 13.16	REFER TO FLOOR PLANS FOR MOUNTING ARRANGEMENT

EMERGENCY LIGHTING FIXTURE & EXIT SIGN SCHEDULE NOTES:
1. WHERE AN INCOMPLETE MODEL/CAT NO. IS LISTED, MANUFACTURERS/SUPPLIES MUST CONFIRM THE PROPOSED FIXTURE WITH THE CONSULTANT A MINIMUM OF ONE WEEK PRIOR TO TENDER CLOSE.
2. EXIT SIGNS SHALL BE CAPABLE OF UNIVERSAL 120/347V AC AND 6 TO 48V DC INPUT. BATTERY UNITS SHALL BE CAPABLE OF UNIVERSAL 120/347V AC INPUT.
3. FOR EXIT SIGNS, REFER TO ARROWS AND NUMBER OF SHADED FACES AS DIRECTED ON LIGHTING LAYOUT. WHERE ARROWS INDICATE TWO DIRECTIONS, PROVIDE TWO PICTOGRAM STYLE EXIT SIGNS.
4. SUBMIT SHOP DRAWINGS FOR CONSULTANT'S REVIEW PRIOR TO PLACING ANY ORDER.
5. ACCEPTABLE MANUFACTURERS AS NOTED IN SECTION 26 52 13.13 AND SECTION 26 52 13.16. [OR]
5. ACCEPTABLE MANUFACTURERS: AIMLITE, BEGHELLI, EMERGILITE, LUMACELL, STANPRO.
6. REMOTE HEADS CERTIFIED TO CSA C22.2 No. 141.
7. CBCB - "CENTRE BEAM CANDLE POWER."
8. CONFIRM RECOMMENDED SPACING WITH EMERGENCY LIGHTING MANUFACTURER PRIOR TO START OF ROUGH-IN.

SCHEDULE 26 06 50.16 - LIGHTING FIXTURE SCHEDULE

SYMBOL	TYPE	DESCRIPTION	BASIS OF DESIGN MANUFACTURER AND CAT NO. SEE NOTE 1	VOLTAGE/ INPUT WATTS	LUMEN PACKAGE (3500 K CCT UNLESS NOTED OTHERWISE) MINIMUM 80 CRI	MOUNTING	REFERENCE	REMARKS
	L1	RECESSED 2' x 4' RECESSED LUMINAIRE COMPLETE WITH WHITE FLUSH STEEL DOOR, AND K12 ACRYLIC LENS.	LITHONIA LIGHTING 2GTL SERIES CAT.#2GTL-4-40L-A12125-GZ10-LP840	120V 30W	4000 LUMEN 4000K	RECESSED T-BAR CEILING		
	L2	RECESSED 2' x 4' RECESSED LUMINAIRE COMPLETE WITH WHITE FLUSH STEEL DOOR, AND K12 ACRYLIC LENS.	LITHONIA LIGHTING 2GTL SERIES CAT.#2GTL-4-30L-A12125-GZ10-LP840	120V 23W	3000 LUMEN 4000K	RECESSED T-BAR CEILING		
	L3	RECESSED 2' x 4' RECESSED LUMINAIRE COMPLETE WITH WHITE FLUSH STEEL DOOR, AND K12 ACRYLIC LENS.	PRESCOLITE LIGHTING (OMNILUMEN) LTR-4RD SERIES CAT.#LTR-4RD-H-10L-DM1/LTR-4RD-T-SL-40K-8-MD-SS-WT	120V 32W	4000 LUMEN 4000K	RECESSED DRYWALL CEILING		
	L4	RECESSED 1' x 4' RECESSED LUMINAIRE COMPLETE WITH WHITE FLUSH STEEL DOOR, FORMED ACRYLIC LENS	LITHONIA LIGHTING 2ALL SERIES CAT.#2ALL4-40L-GZ10-LP840	120V 28W	3300 LUMEN 4000K	RECESSED T-BAR CEILING		
⊘	L5	SPECIFICATION GRADE 100 mm (4 INCH) NOMINAL ROUND APERTURE RECESSED LED DOWNLIGHT	LITHONIA LIGHTING LDN6 SERIES CAT.#LDN6-40/15-L06-AR-LSS-TRW-MVOLT-GZ10	120V 17.5W	1500 LUMEN 4000K	RECESSED DRYWALL CEILING		
	L6	SURFACE OR CHAIN SUSPENSION MOUNTED 4' LONG LED LINEAR LUMINAIRE COMPLETE WITH ROLLED STEEL HOUSING AND DIFFUSE ACRYLIC LENS	LITHONIA LIGHTING CSS SERIES CAT.#CSS-L48-4L03-MVOLT-40K-80CRI	120V 35W	4000 LUMEN 4000K	SURFACE OR SUSPENSION MOUNTED		PRIOR TO INSTALLATION LUMINAIRE TO BE SET AT 4000LM LUMEN OUTPUT
	OW1	11.5" WIDE x 7" DEEP x 9" HIGH WALL MOUNTED EXTERIOR LED WALL PACK COMPLETE WITH ONE PIECE DIE CAST ALUMINUM HOUSING, DIE-CAST GASKETED DOOR FRAME, POWDER COAT PAINT FINISH, FORMED ACRYLIC LENS AND INTEGRAL PHOTOCELL.	LITHONIA LIGHTING WDGE2 LED SERIES CAT.#WDGE2 LED-P2-30K-70CRI-T2M-MVOLT-SRM-PE-XX	120V 19W	2300 LUMENS 3000K	WALL MOUNTED		"XX" WITHIN PRODUCT NUMBER DENOTES STANDARD COLOUR FINISH TO BE CONFIRMED WITH ARCHITECT PRIOR TO ORDERING.

LIGHTING FIXTURE SCHEDULE NOTES:
1. UNLESS NOTED OTHERWISE, ACCEPTED ALTERNATE MANUFACTURES AND SUPPLIERS: ACUITY BRANDS LIGHTING, CREE CANADA, HUBBELL LIGHTING, PEERLESS ELECTRIC, SIGNIFY (FORMERLY PHILIPS LIGHTING), VISCOR/VISIONEERING.
2. WHERE AN INCOMPLETE MODEL/CAT NO. IS LISTED, MANUFACTURERS/SUPPLIERS MUST CONFIRM THE PROPOSED FIXTURE WITH THE CONSULTANT A MINIMUM OF ONE WEEK PRIOR TO TENDER CLOSE.
3. SUBMIT SHOP DRAWINGS FOR CONSULTANT'S REVIEW PRIOR TO PLACING ANY ORDER.

26 06 20.16 - ELECTRICAL PANELBOARD SCHEDULE

PANEL ID: RP-T	VOLTS: 120/208V	LOCATION: LAUNDRY/UTILITY #A1-107
MAIN BUS: 225A	PHASE: 3	FED FROM: MAIN SWITCHBOARD
MAIN BREAKER: NONE	WIRE: 4	FEEDER ENTRY AT: TOP
TYPE:	MOUNTING: RECESSED	FEEDER: REFER TO SINGLE LINE DIAGRAM
INTERRUPTING CAPACITY: 22KA	ENCLOSURE RATING: 1	REMARKS:

CIR NO.	DESCRIPTION	WATTAGE ØA	WATTAGE ØB	WATTAGE ØC	BRK R	Ø	BRK R	WATTAGE ØA	WATTAGE ØB	WATTAGE ØC	DESCRIPTION	CIR NO.
1	101, 102 - LTG	414	-	-	15	A	15*	150	-	-	BATT. UNIT 'BU-3'	2
3	103-106, 113-116 LIGHTING	-	735	-	15	B	15*	-	100	-	EXIT SIGNS	4
5	107-112 - LTG	-	-	947	15	C	20	-	-	1500	101 - RECEPT.	6
7	101, 102 - PDO	900	-	-	15	A	20	1500	-	-	102 - RECEPT.	8
9	103, 105 - RECEPT	-	1200	-	15	B	15	-	1200	-	104, 105 - RECEPT.	10
11	102 - PDO	-	-	300	15	C	15	-	-	1200	105 - MICROWAVE	12
13	105 - FRIDGE	1200	-	-	15	A	15	1200	-	-	106, 113, 114, 116 RECEPT.	14
15	106 - MICROWAVE	-	1200	-	15	B	40	-	2500	-	106 - STOVE	16
17	106 - MICROWAVE	-	-	1200	15	C		-	-	2500		18
19	106 - SPLIT RECEPT.	1200	-	-	15**	A	15	500	-	-	106 - EXH. HOOD	20
21		-	1200	-		B	20	-	1500	-	107 - I.T. RACK	22
23	106 - SPLIT RECEPT.	-	-	1200	15**	C	15	-	-	0	SPARE BREAKER	24
25		1200	-	-		A	15	1200	-	-	106 - FRIDGE	26
27	106 - SPLIT RECEPT.	-	1200	-	15**	B	15**	-	1200	-	106 - SPLIT RECEPT.	28
29		-	-	1200		C		-	-	1200		30
31	106 - FRIDGE	1200	-	-	15	A	15	1200	-	-	111, 113 - RECEPT.	32
33	110, 111, 112 RECEPT.	-	1200	-	15	B	40	-	2800	-	106 - DISHWASHER	34
35	113 - FRIDGE	-	-	1200	15	C		-	-	2800		36
37	107 - RECEPT.	1200	-	-	15	A	15	1200	-	-	108, 109 - RECEPT.	38
39	107 - DRYER	-	2250	-	30	B	15	-	1200	-	107 - WASHER	40
41		-	-	2250		C	15	-	-	1200	SPARE BREAKER	42

TOTAL ØA: 10342W , TOTAL ØB: 13680W , TOTAL ØC: 8702W

NOTES:

* - PROVIDE LOCKABLE BREAKER
** - PROVIDE GFI TYPE BREAKER
*** - COORDINATE EXACT BREAKER SIZE WITH EQUIPMENT SHOP DRAWINGS
R - RECEPTACLE
L - LIGHTING

CIRCUIT NUMBERS ARE GIVEN FOR GROUPING ONLY. SITE VERIFY AVAILABLE CIRCUIT BREAKER SPACES IN PANELS DURING TENDER WALKTHROUGH.

26 06 20.16 - ELECTRICAL PANELBOARD SCHEDULE

PANEL ID: RP-TA	VOLTS: 120/208V	LOCATION: LAUNDRY/UTILITY #A1-107
MAIN BUS: 100A	PHASE: 3	FED FROM: MAIN SWITCHBOARD
MAIN BREAKER: NONE	WIRE: 4	FEEDER ENTRY AT: TOP
TYPE:	MOUNTING: RECESSED	FEEDER: REFER TO SINGLE LINE DIAGRAM
INTERRUPTING CAPACITY: 22KA	ENCLOSURE RATING: 1	REMARKS:

CIR NO.	DESCRIPTION	WATTAGE ØA	WATTAGE ØB	WATTAGE ØC	BRK R	Ø	BRK R	WATTAGE ØA	WATTAGE ØB	WATTAGE ØC	DESCRIPTION	CIR NO.
1	UNIT VENTILATOR 'UV-105'	1081	-	-	15	A	15	1081	-	-	UNIT VENTILATOR 'UV-108'	2
3		-	1081	-		B		-	1081	-		4
5		-	-	1081		C		-	-	1081		6
7	UNIT VENTILATOR 'UV-113'	1081	-	-	15	A	15	1081	-	-	UNIT VENTILATOR 'UV-111'	8
9		-	1081	-		B		-	1081	-		10
11		-	-	1081		C		-	-	1081		12
13	'CUH-1', 'CUH-2'	200	-	-	15	A	15	500	-	-	DHW TANK	14
15	'CUH-3'	-	100	-	15	B	20**	-	1500	-	ROOF RECEPT.	16
17	ROOF TOP CONDENSING UNIT 'CU-105'	-	-	1357	15	C	15	-	-	1357	ROOF TOP CONDENSING UNIT 'CU-108'	18
19		1357	-	-		A		1357	-	-		20
21	ROOF TOP CONDENSING UNIT 'CU-113'	-	1357	-	15	B	15	-	1357	-	ROOF TOP CONDENSING UNIT 'CU-111'	22
23		-	-	1357		C		-	-	1357		24
25	EXH. FAN 'EF-2'	230	-	-	15	A	15	130	-	-	EXH. FAN 'EF-1'	26
27	EXT. LIGHTING	-	171	-	15	B	15	-	0	-	SPARE BREAKER	28
29	SPARE BREAKER	-	-	0	15	C	15	-	-	0	SPARE BREAKER	30
31	SPARE BREAKER	0	-	-	20	A	15	0	-	-	SPARE BREAKER	32
33	SPARE BREAKER	-	0	-	20	B	20	-	0	-	SPARE BREAKER	34
35		-	-	0		C		-	-	0		36
37		0	-	-		A		0	-	-		38
39		-	0	-		B		-	0	-		40
41		-	-	0		C		-	-	0		42

TOTAL ØA: 10342W , TOTAL ØB: 13680W , TOTAL ØC: 8702W

NOTES:

* - PROVIDE LOCKABLE BREAKER
** - PROVIDE GFI TYPE BREAKER
*** - COORDINATE EXACT BREAKER SIZE WITH EQUIPMENT SHOP DRAWINGS
R - RECEPTACLE
L - LIGHTING

CIRCUIT NUMBERS ARE GIVEN FOR GROUPING ONLY. SITE VERIFY AVAILABLE CIRCUIT BREAKER SPACES IN PANELS DURING TENDER WALKTHROUGH.

Rev	Description	Date
1	Issued for Class C Costing	2022-07-27
2	Issued for Client Review	2022-11-10
3	Issued for 80% CD Review	2023-02-15
4	Issued for Site Plan Application	2023-03-15
5	Issued for Site Plan Application	2023-11-22
6	Issued for 90% CD Review	2024-10-01
7	Issued for Building Permit	2024-12-04
8	Issued for Tender	2025-01-14

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CSV Renaissance Addition

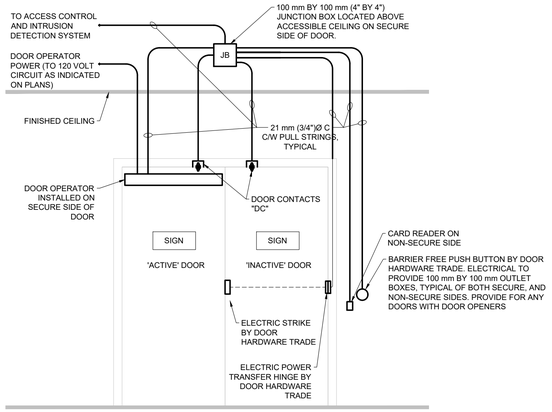
1226 Lockhart Rd
Burlington, ON L7S 1H1

PROJECT CODE: ED-22-018
SCALE: Not to Scale
DATE: ~~2022-10-27~~
STATUS: Coordination

Electrical Schedules

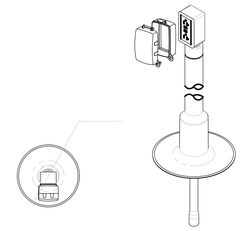
Project North

drawing number
E3.1



NOTES:
1. REFER TO DETAIL "MOUNTING HEIGHTS FOR ACCESSIBLE DESIGN" FOR EXACT MOUNTING HEIGHTS OF DEVICES AND APPLICABLE CODE REFERENCES.
2. REFER TO DOOR HARDWARE SCHEDULE FOR EXACT SCHEDULE OF DEVICES AT DOOR. COORDINATE EXACT ROUGH-IN DETAILS WITH DOOR HARDWARE TRADE.
3. INTERLOCK OPERATION OF DOOR OPERATOR WITH CARD READER ON THE NON-SECURE SIDE.
4. SECURITY CARD ACCESS CONTROL SYSTEM IS TO BE TIED INTO THE BASE BUILDING SYSTEM AS PER THE BASE BUILDING STANDARD. (CONTACT: [ ] FOR REQUIREMENTS.)

4 ACCCESS CONTROL & DOOR OPERATOR ROUGH-IN DETAIL
SCALE: NOT TO SCALE



NOTES:
1. PROVIDE WP GFI 5-20R @ 750 mm (30") ABOVE FINISHED ROOF LEVEL C/W WET LOCATION COVER PLATE, TYPICAL. LOCATE WITHIN 7500 mm (25 FT) OF NEW HVAC EQUIPMENT, AND AT LEAST 1800 mm (6 FEET) AWAY FROM ROOF LINE, COVER PLATE TO BE MARKED "EXTRA DUTY". REFER TO 2018 OESC RULES 2-316, 26-708, AND 26-710, AND OESC BULLETIN 26-27-*, OR LATEST EDITION.
2. LABEL RECEPTACLE WITH PHENOLIC (LAMACOID) NAMEPLATE WITH PANELBOARD ID, CIRCUIT NUMBER, AND PANELBOARD LOCATION.
3. BASIS OF DESIGN FOR ELECTRICAL SOCKET POST: LEXCOR FLASH-TITE EOP SERIES.

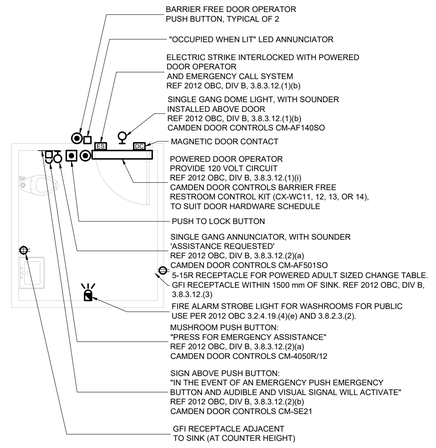
CODE REFERENCES (REFER TO 2018 OESC RULES 2-316, 26-708, AND 26-710, AND OESC BULLETIN 26-27-*), OR LATEST CODE EDITION:
1. HVAC EQUIPMENT MAINTENANCE RECEPTACLE INSTALLED ON ROOF (2018 OESC RULE 2-316).
2. GFCI PROTECTED (2018 OESC 26-710(a)).
3. DEDICATED FOR "HVAC MAINTENANCE" (2018 OESC 26-710(b)).
4. CSA CONFIGURATION 5-20R (2018 OESC 26-710(c)).
5. LOCATED WITHIN 7500 mm OF THE ROOFTOP EQUIPMENT (2018 OESC 26-710(d)).
6. NOT LESS THAN 750 mm (30") ABOVE THE FINISHED ROOF LEVEL (2018 OESC 26-710(e)).
7. PROTECT FROM MECHANICAL DAMAGE (2018 OESC 26-710(f)).
8. LOCATE MINIMUM 1800 mm (6 FEET) AWAY FROM ROOF LINE. REFER TO FALL ARREST LEGISLATION.
9. WET LOCATION COVER PLATE TO BE "WHILE IN USE TYPE", MARKED "EXTRA DUTY" (2018 OESC 26-708(2)).
10. SECURE COVER PLATE TO OUTLET BOX BY FOUR SCREWS OR EQUIVALENT MEANS (2018 OESC 26-708(4)).

3 ROOF MOUNTED MAINTENANCE RECEPTACLE DETAIL
SCALE: NOT TO SCALE

UNIVERSAL RESTROOM "EMERGENCY ASSISTANCE" SIGNAL ACTIVATION, ANNUNCIATION AND SUPPORTING SIGNAGE SHALL BE CAMDEN DOOR CONTROLS MODEL CX/WEC10/CX-WEC-11 UNIVERSAL RESTROOM CONTROL KIT.

KIT SHALL INCLUDE:
1. CM-4050R/12 SINGLE GANG MUSHROOM PUSH BUTTON, 1/4" THICK BRUSHED ALUMINUM FACEPLATE AND RED BUTTON, MAINTAINED PUSH/PULL OPERATION WITH "PRESS FOR EMERGENCY ASSISTANCE" PERMANENTLY LASER ETCHED ON THE FACEPLATE.
2. CM-AF50SO SINGLE GANG LED ANNUNCIATOR WITH SOUNDER, RATED 85 dB AT 100 mm, WEATHER AND VANDAL RESISTANT CONSTRUCTION, BRUSHED STAINLESS STEEL FACEPLATE, WITH "ASSISTANCE REQUIRED" MESSAGE TEXT, THAT IS NOT LEGIBLE UNLESS THE ANNUNCIATOR IS ENERGIZED.
3. CM-AF140SO SINGLE GANG DOME LIGHT WITH PIEZO SOUNDER, RATED 93 dB AT 1 METRE, BRUSHED STAINLESS STEEL FACEPLATE AND 24 V INCANDESCENT BULB.
4. CM-SE21 SIGN, TO BE LOCATED ABOVE THE ACTIVATION SWITCH, 1.6 mm (1/16"), 381 mm BY 381 mm (15" BY 15"), FIRE RATED EXPANDED PVC WHITE, WITH 25 mm BLACK LETTERING. TEXT SHALL BE: "IN THE EVENT OF AN EMERGENCY PUSH EMERGENCY BUTTON AND AUDIBLE AND VISUAL SIGNAL WILL ACTIVATE".
5. INTERCONNECTED WITH DOOR HARDWARE, INCLUDING DOOR OPERATOR, PUSH TO LOCK BUTTON, ELECTRIC STRIKE, DOOR CONTACT.

NOTES:
1. CONFIRM EXACT HARDWARE AND ROUGH-IN REQUIREMENTS WITH EMERGENCY CALL SYSTEM VENDOR.
2. CONFIRM EXACT EQUIPMENT LOCATIONS WITH ARCHITECTURAL DRAWINGS PRIOR TO ROUGH-IN.

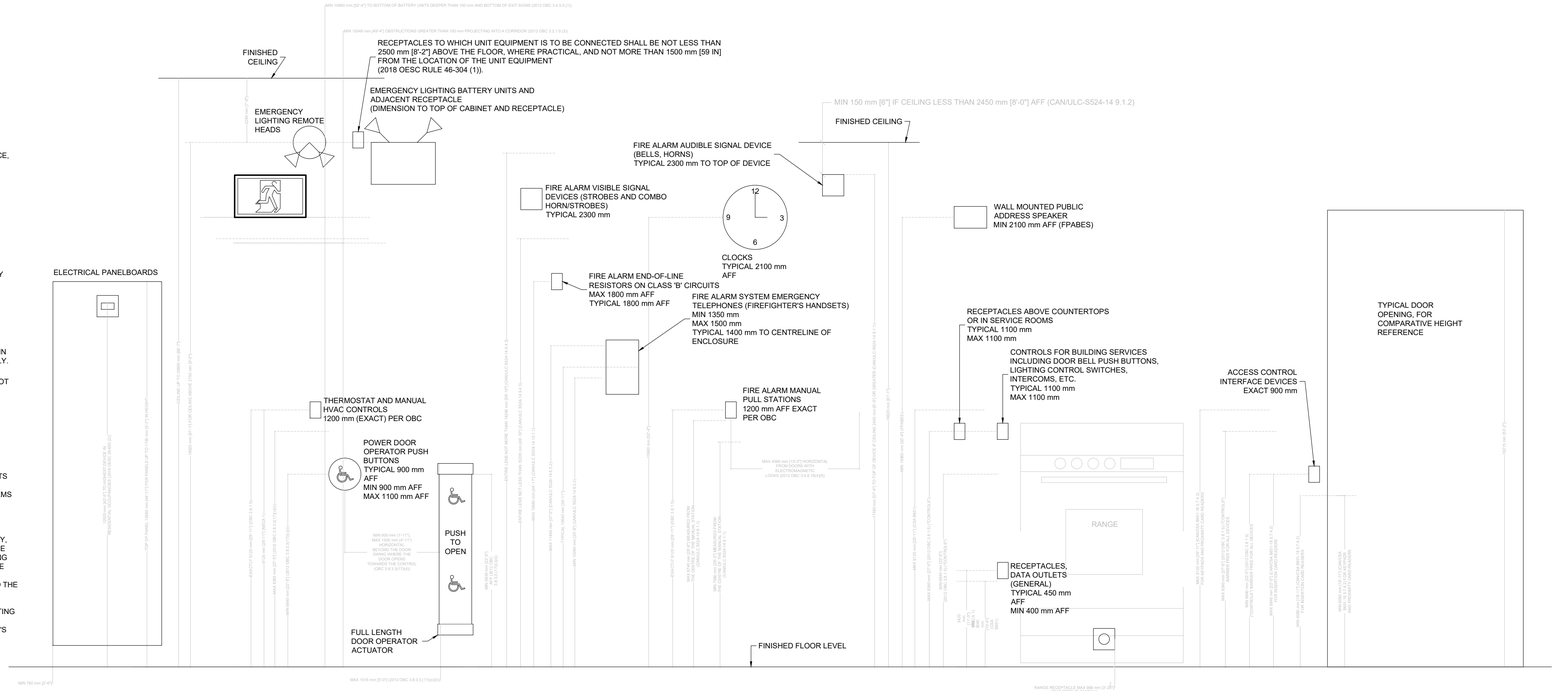


2 UNIVERSAL WASHROOM EMERGENCY CALL SYSTEM DETAIL
SCALE: NOT TO SCALE

GENERAL NOTES:
1. DEVICE DIMENSIONS TO THE CENTRELINE OF THE DEVICE, UNLESS NOTED OTHERWISE. METRIC DIMENSIONS GOVERN.
2. DEVICES, INCLUDING ACCESS CONTROL INTERFACE DEVICES, DOOR OPERATOR PUSH BUTTONS, AND FIRE ALARM MANUAL PULL STATIONS ARE NOT TO BE INSTALLED ON HOLLOW METAL DOOR FRAMES UNLESS OTHERWISE NOTED.
3. DEVICE MOUNTING HEIGHT RULES:
   - 3.1. EXACT DIMENSIONS, WHERE INDICATED, MUST BE FOLLOWED, AND NO DEVIANCE IS PERMITTED.
   - 3.2. TYPICAL DIMENSIONS, WHERE INDICATED, ARE A PREFERENCE OF THE DESIGNER FOR CONSISTENCY OF INSTALLATION.
   - 3.3. WHERE CIRCUMSTANCES PREVENT A TYPICAL DIMENSION FROM BEING MET, DEVICES MAY BE INSTALLED WITHIN THE RANGE OF MINIMUM AND MAXIMUM THAT MEETS ALL THE REFERENCED DOCUMENTS. CONFIRM EXACT MOUNTING HEIGHT WITH THE CONSULTANT.
4. METRIC DIMENSIONS GOVERN. DIMENSIONS PROVIDED IN OTHER UNITS PROVIDED FOR EASE OF REFERENCE ONLY.
5. REFER TO ARCHITECT OR INTERIOR DESIGNER'S DRAWINGS FOR ELEVATIONS OR MOUNTING HEIGHTS NOT DETAILED HERE.

THIS DETAIL IS SPECIFIC TO INSTALLATIONS IN ONTARIO. OWNER'S ACCESSIBILITY DESIGN GUIDELINES MAY BE MORE STRINGENT.

REFERENCES AND DOCUMENT ORDER OF PRECEDENCE FOR ACCESSIBLE DESIGN:
1. 2012 ONTARIO BUILDING CODE (OBC), WITH AMENDMENTS EFFECTIVE JAN 1, 2015 (MANDATORY)
2. CAN/ULC S524-06 - INSTALLATION OF FIRE ALARM SYSTEMS (MANDATORY)
3. 2018 ONTARIO ELECTRICAL SAFETY CODE (OESC).
4. CAN/CSA B651-18 - ACCESSIBLE DESIGN FOR THE BUILT ENVIRONMENT (VOLUNTARY STANDARD).
5. FINAL PROPOSED ACCESSIBLE DESIGN STANDARD - JULY, 2010 (FPABES). THIS DOCUMENT WAS SUBMITTED TO THE ONTARIO MINISTRY OF MUNICIPAL AFFAIRS AND HOUSING FOR CONSIDERATION IN AN UPCOMING REVISION TO THE ONTARIO BUILDING CODE. TO DATE, THE RECOMMENDATIONS HAVE NOT BEEN ACTED UPON AND THE FPABES IS THEREFORE NOT MANDATORY.
6. NECA 1-2010: STANDARD FOR GOOD WORKMANSHIP IN ELECTRICAL CONSTRUCTION (TABLE 3 - TYPICAL MOUNTING HEIGHTS).
7. GOOD ENGINEERING JUDGEMENT AND MANUFACTURER'S RECOMMENDATIONS.



1 TYPICAL MOUNTING HEIGHTS OF WALL MOUNTED DEVICES
SCALE: NOT TO SCALE

Rev	Description	Date
1	Issued for Class C Costing	2022-07-27
2	Issued for Client Review	2022-11-10
3	Issued for 80% CD Review	2023-02-15
4	Issued for Site Plan Application	2023-03-15
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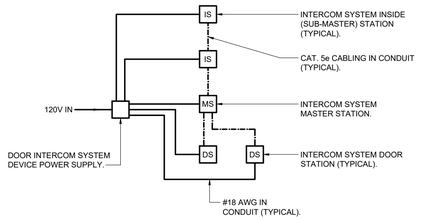
PROJECT CODE:	SCALE:
ED-22-018	Not to Scale
DATE:	STATUS:
~~2022-10-27~~	Coordination

Electrical Details
Sheet #1

Project North

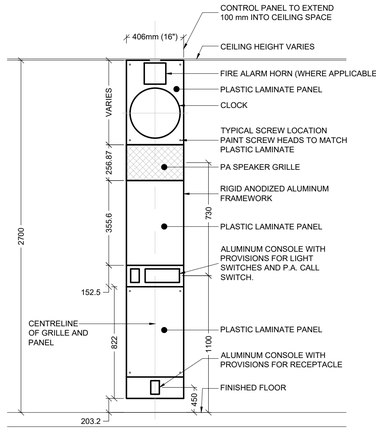
drawing number
E3.2



INTERCOM SYSTEM NOTES:

1. REFER TO SPECIFICATION FOR FURTHER DETAILS.
2. LOCATE MASTER STATION WITHIN THE OFFICE;
3. LOCATE THE INSIDE STATIONS (SUB-MASTER) WITHIN PLAYROOMS AS NOTED ON THE DRAWINGS;
4. PROVIDE DOOR STATIONS AT SCHOOL ENTRANCE AND DAYCARE ENTRANCE DOORS AS NOTED ON PLANS;
5. PROVIDE POWER SUPPLY FOR INTERCOM SYSTEM DEVICES AND CONNECT TO A DEDICATED 15A CIRCUIT;
6. PROVIDE INTEGRATION TO EXISTING CARD ACCESS SYSTEM AS FOLLOWS:
   - .1 CALL FOR ENTRY CAN BE ANSWERED AT EVERY STATION;
   - .2 AUTHORIZATION FOR ENTRY SHALL BE FORWARDED TO THE EXISTING CARD ACCESS SYSTEM;
   - .3 CARD ACCESS SYSTEM SHALL ACTIVATE THE DOOR ELECTRIC STRIKE.

8 VIDEO INTERCOM SYSTEM RISER DIAGRAM
SCALE: NOT TO SCALE

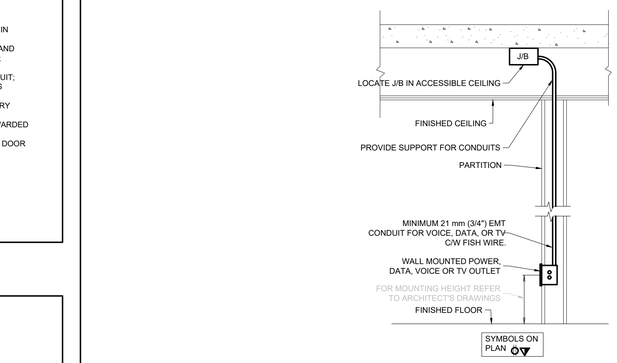


REFER TO SPECIFICATION SECTION 10 25 19 FOR REQUIREMENTS.

NOTES:

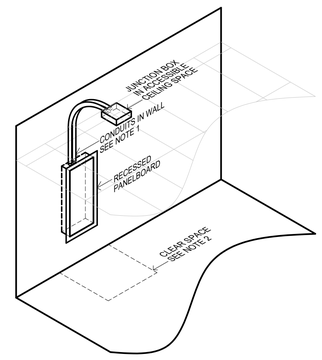
1. REFER TO FLOOR PLANS FOR EXACT NUMBER AND CONFIGURATION OF CONTROL MODULES DEPENDING ON ITS LOCATION.
2. COORDINATE ALL DEVICE LOCATIONS WITH ARCHITECTURAL.
3. MODULAR CONTROL PANELS ARE SUPPLIED AND INSTALLED BY THE ELECTRICAL CONTRACTOR, INCLUDING PROVISION OF ALL DEVICES, WIRING, ETC.

7 MODULAR CLASSROOM CONTROL PANEL DETAIL
SCALE: NOT TO SCALE

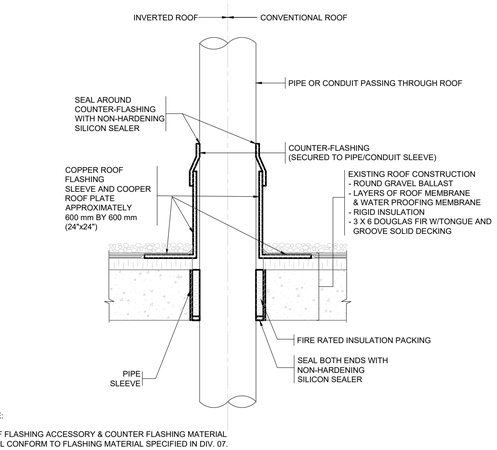


6 DETAIL OF WALL MOUNTED OUTLET BOX
SCALE: NOT TO SCALE

NOTES:
1. TYPICAL DIMENSIONS FOR A RECESSED SINGLE TUB RECEPTACLE PANELBOARD WITH MAX 100A FRAME SIZE BRANCH BREAKERS:
   - 1.1. TUB DEPTH: 146.1 mm (5.75"). ARCHITECTURAL TO ALLOW PARTITION DEPTH MINIMUM 150 mm (6") FROM FACE TO INSIDE CLEAR.
   - 1.2. TUB WIDTH: 508 mm (20")
   - 1.3. TUB HEIGHT: VARIES BASED ON NUMBER OF BRANCH BREAKERS, TYPICALLY RANGES BETWEEN 48 INCH (30 POLE), AND 72 INCH (42 POLE), BUT CAN ALSO BE TALLER.
   - 1.4. RECESSED PANELBOARD TRIM PLATE: TYPICALLY TUB DIMENSIONS PLUS 38.2 mm (1.5").
2. CLEAR SPACE: MINIMUM 1000 mm BY 1000 mm SQUARE BY 2000 mm HIGH. PANEL NEED NOT BE CENTRED IN THE CLEAR SPACE (ONTARIO ELECTRICAL SAFETY CODE RULE 2-308(1)).
3. BRANCH CIRCUIT CONDUIT QUANTITY AND SIZE TO ACCOMMODATE CIRCUITS AS FOLLOWS:
   - 3.1. UP TO 100A, 42 CIRCUIT PANELBOARD: 2 x 41 mm (1-1/2") Ø
   - 3.2. UP TO 225A, 42 CIRCUIT PANELBOARD: 2 x 41 mm (1-1/2") Ø
   - 3.3. UP TO 400A, 42 CIRCUIT PANELBOARD: 2 x 53 mm (2") Ø
   - 3.4. UP TO 600A, 42 CIRCUIT PANELBOARD: 3 x 53 mm (2") Ø
4. MINIMUM JUNCTION BOX SIZE: 600 mm BY 600 mm BY 75 mm.
5. WHEN INSTALLING NEW RECESSED PANELBOARD IN EXISTING PARTITION OR WALL, REINSTATE WALL AND CEILING.



5 INSTALLATIOIN DETAIL OF TYPICAL PANELBOARD
SCALE: NOT TO SCALE



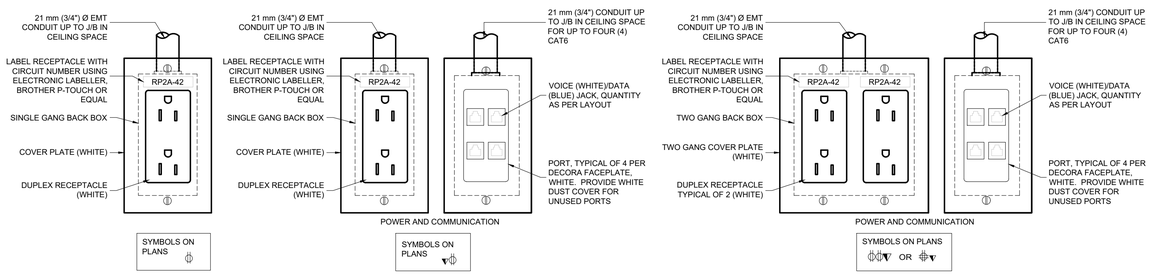
NOTE:

ROOF FLASHING ACCESSORY & COUNTER FLASHING MATERIAL SHALL CONFORM TO FLASHING MATERIAL SPECIFIED IN DIV. 07.

3 DETAIL OF CONDUIT PENETRATION THROUGH ROOF
SCALE: NOT TO SCALE

EMERGENCY LIGHTING WIRING MAX VOLTAGE DROP

WIRE SIZE \ LOAD (WATTS)		LENGTH OF WIRE RUN (FEET)												
		13	18	25	30	35	50	60	75	100	150	200	250	300	400
6	12	41	30	21	18	15	11	9	8	6	4	-	-	-	-
	10	65	47	32	28	24	17	14	11	9	6	-	-	-	-
VOLT	8	110	75	54	45	39	27	22	18	14	9	7	-	-	-
12	12	165	110	85	71	61	42	35	29	21	14	10	8	-	-
	10	260	190	136	112	97	68	52	45	34	23	17	14	11	-
VOLT	8	415	300	215	180	154	108	90	72	54	36	27	21	18	-
24	12	660	440	340	284	244	168	140	116	84	56	40	32	26	21
	10	1040	760	544	448	388	272	208	180	136	92	68	52	44	34
VOLT	8	1668	1200	860	720	616	432	360	288	216	44	108	84	72	54



NOTES:

1. CONFIRM WITH ARCHITECTURAL DRAWINGS/GENERAL CONTRACTOR FOR APPLICABLE LOCATIONS PRIOR TO ROUGH-IN.
2. MOUNTING PLATES & JACKS SUPPLIED & INSTALLED BY COMMUNICATIONS CONTRACTOR.

4 DETAIL OF UNGANGED POWER AND COMMUNICATION DEVICES
SCALE: NOT TO SCALE

MAXIMUM BRANCH WIRING DISTANCE FOR 120 V SYSTEM AT 3% VOLTAGE DROP

WIRE SIZE	BREAKER SIZE (AMPERES)	15	20	30	40	50	60	70	80	100
	MAX. LOAD AT 80% (AMPERES)	12	16	24	32	40	48	56	68	80
NO.12	-----	24.4	18.3	-----	-----	-----	-----	-----	-----	-----
NO.10	-----	38.1	29.0	19.1	-----	-----	-----	-----	-----	-----
NO.8	-----	59.4	44.2	30.5	22.9	-----	-----	-----	-----	-----
NO. 6	-----	91.4	70.1	47.2	35.1	28.2	23.6	-----	-----	-----
NO. 4	-----	-----	109.7	73.2	54.9	42.7	38.1	32.0	27.4	-----
NO. 2	-----	-----	-----	114.3	85.3	68.6	57.9	50.3	41.1	35.0
NO. 1	-----	-----	-----	-----	103.6	85.3	73.2	61.0	54.9	43.4
NO.1/0	-----	-----	-----	-----	128.0	102.9	85.3	73.2	64.0	48.8
NO.2/0	-----	-----	-----	-----	-----	121.9	100.6	86.9	74.7	60.9
NO.3/0	-----	-----	-----	-----	-----	-----	118.1	102.1	88.4	70.1
NO.4/0	-----	-----	-----	-----	-----	-----	-----	120.4	102.9	83.8
250 MCM	-----	-----	-----	-----	-----	-----	-----	-----	114.3	91.4
300 MCM	-----	-----	-----	-----	-----	-----	-----	-----	-----	103.6

NOTE: DISTANCES INDICATED IN METRES FROM PANEL TO LOAD FOR SINGLE PHASE.

1 MAXIMUM BRANCH WIRING DISTANCE FOR 3% VOLTAGE DROP
SCALE: NOT TO SCALE

Rev	Description	Date
1	Issued for Class C Costing	2022-07-27
2	Issued for Client Review	2022-11-10
3	Issued for 80% CD Review	2023-02-15
4	Issued for Site Plan Application	2023-03-15
5	Issued for Site Plan Application	2023-11-22
6	Issued for 90% CD Review	2024-10-01
7	Issued for Building Permit	2024-12-04
8	Issued for Tender	2025-01-14

QUASAR CONSULTING GROUP
250 ROWNTREE DAIRY RD, WOODBRIDGE, ON
TEL: 905-507-0800
WEB: WWW.QUASARCG.COM

CSV Renaissance Addition

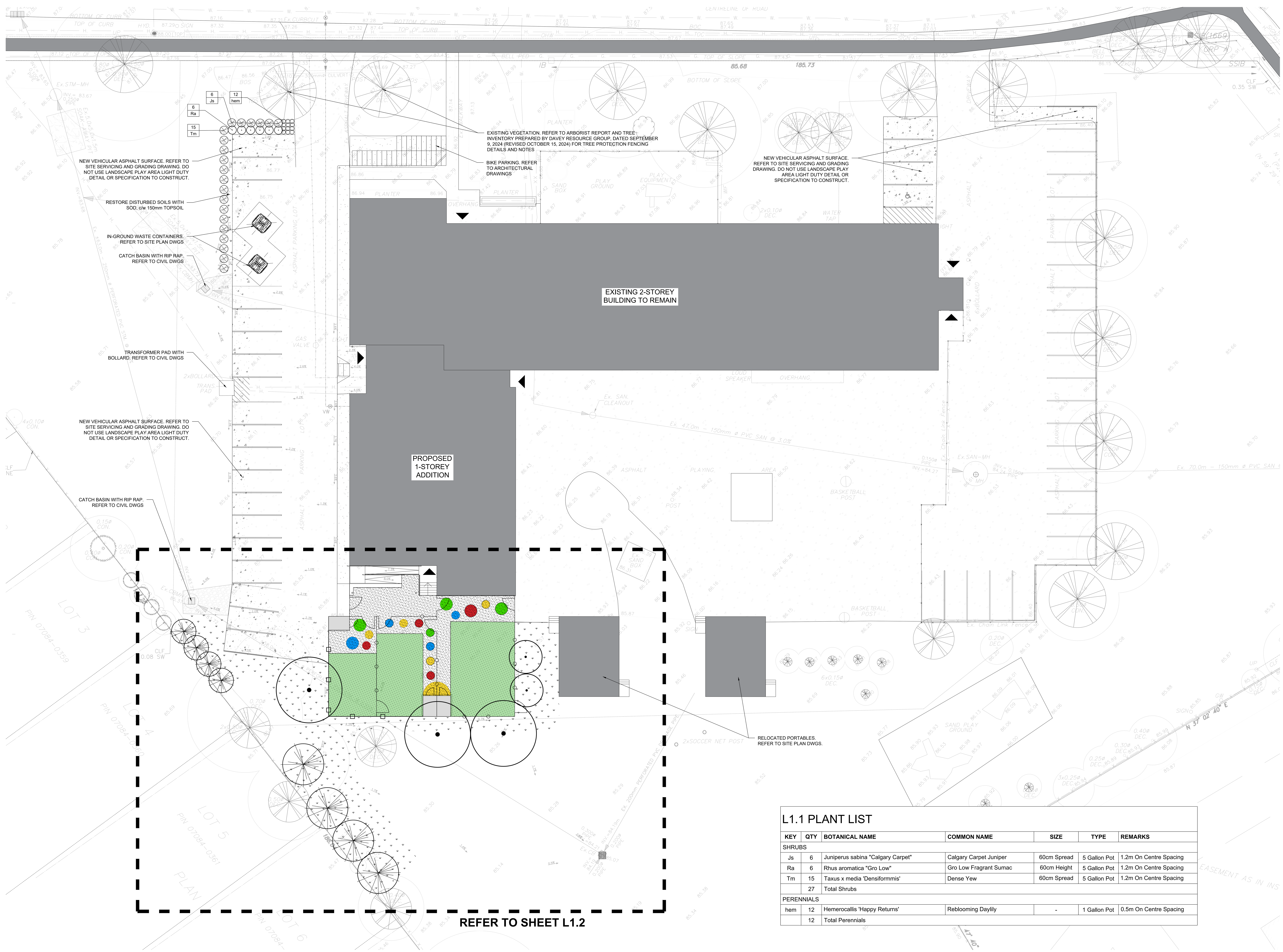
1226 Lockhart Rd
Burlington, ON L7S 1H1

PROJECT CODE: ED-22-018
SCALE: Not to Scale
DATE: ~~2022-10-27~~
STATUS: Coordination

Electrical Details
Sheet #2

Project North

drawing number
E3.3



L1.1 PLANT LIST

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	TYPE	REMARKS
SHRUBS						
Js	6	Juniperus sabina "Calgary Carpet"	Calgary Carpet Juniper	60cm Spread	5 Gallon Pot	1.2m On Centre Spacing
Ra	6	Rhus aromatica "Gro Low"	Gro Low Fragrant Sumac	60cm Height	5 Gallon Pot	1.2m On Centre Spacing
Tm	15	Taxus x media 'Densiformmis'	Dense Yew	60cm Spread	5 Gallon Pot	1.2m On Centre Spacing
	27	Total Shrubs				
PERENNIALS						
hem	12	Hemerocallis 'Happy Returns'	Reblooming Daylily	-	1 Gallon Pot	0.5m On Centre Spacing
	12	Total Perennials				

Rev	Description	Date
1	Issued for Internal Review	20 Jan, 2023
2	Issued for 80% Review	24 Feb, 2023
3	Issued for 90% Review	19 Sep, 2024
4	Issued for Site Plan Approval	07 Oct, 2024
5	Reissued for Site Plan Approval	22 Oct, 2024
6	Issued for Building Permit	18 Nov, 2024
7	Issued for Tender	09 Jan, 2025

LEGEND:

- EXISTING TREE
- PROPOSED DECIDUOUS TREE
- PROPOSED CONIFEROUS TREE
- PROPOSED ARTIFICIAL TURF
- PROPOSED SOD
- PROPOSED ASPHALT SURFACE
- PROPOSED 1524mm HEIGHT CHAIN LINK FENCE
- PROPOSED 1800mm HEIGHT BOARD FENCE
- QTY / SPE — PLANT KEY

ABOUD & ASSOCIATES INC.
Consulting Arborists • Ecologists • Landscape Architects

CSV Renaissance Daycare Addition

1226 Lockhart Road
Burlington

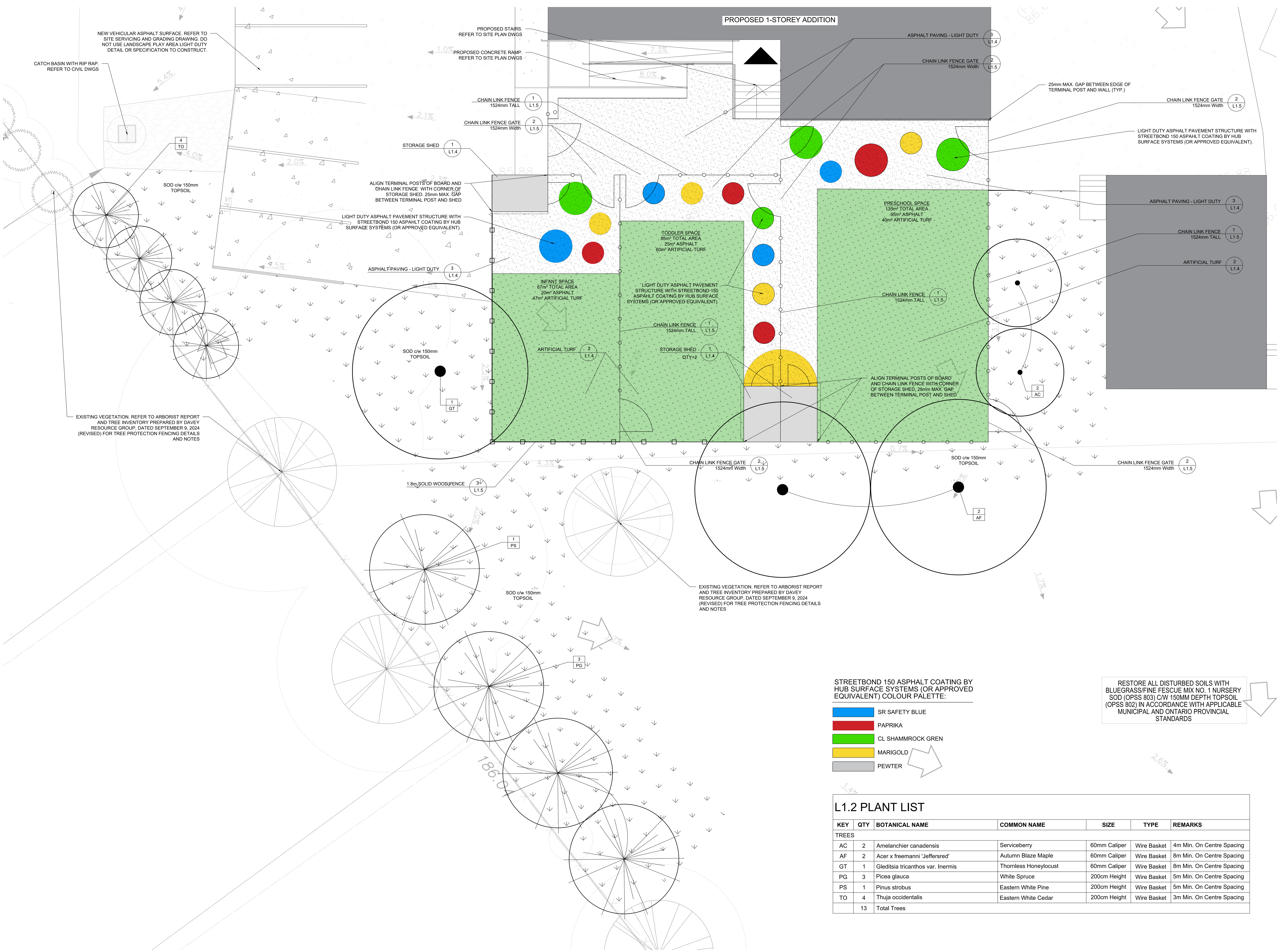
NOT FOR CONSTRUCTION

PROJECT CODE: 22_05
SCALE: 1 : 200
DATE: 20 Jan, 2023
STATUS: Design Development

Landscape Plan Overview

drawing number

L1.1



STREETBOND 150 ASPHALT COATING BY HUB SURFACE SYSTEMS (OR APPROVED EQUIVALENT) COLOUR PALETTE:

- SR SAFETY BLUE
- PAPRIKA
- CL SHAMMROCK GREN
- MARIGOLD
- PEWTER

L1.2 PLANT LIST

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	TYPE	REMARKS
TREES						
AC	2	Amelanchier canadensis	Serviceberry	60mm Caliper	Wire Basket	4m Min. On Centre Spacing
AF	2	Acer x freemanni 'Jeffersred'	Autumn Blaze Maple	60mm Caliper	Wire Basket	8m Min. On Centre Spacing
GT	1	Gleditsia tricanthos var. Inermis	Thornless Honeylocust	60mm Caliper	Wire Basket	8m Min. On Centre Spacing
PG	3	Picea glauca	White Spruce	200cm Height	Wire Basket	5m Min. On Centre Spacing
PS	1	Pinus strobus	Eastern White Pine	200cm Height	Wire Basket	5m Min. On Centre Spacing
TO	4	Thuja occidentalis	Eastern White Cedar	200cm Height	Wire Basket	3m Min. On Centre Spacing
	13	Total Trees				

Rev	Description	Date
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7	Issued for Tender	09 Jan, 2025

LEGEND:

- EXISTING TREE
- PROPOSED DECIDUOUS TREE
- PROPOSED CONIFEROUS TREE
- PROPOSED ARTIFICIAL TURF
- PROPOSED SOD
- PROPOSED LIGHT DUTY ASPHALT SURFACE
- PROPOSED 1524mm HEIGHT CHAIN LINK FENCE
- PROPOSED 1800mm HEIGHT BOARD FENCE
- QTY SPE PLANT KEY

ABOUD & ASSOCIATES INC.
Consulting Arborists • Ecologists • Landscape Architects

CSV Renaissance Daycare Addition

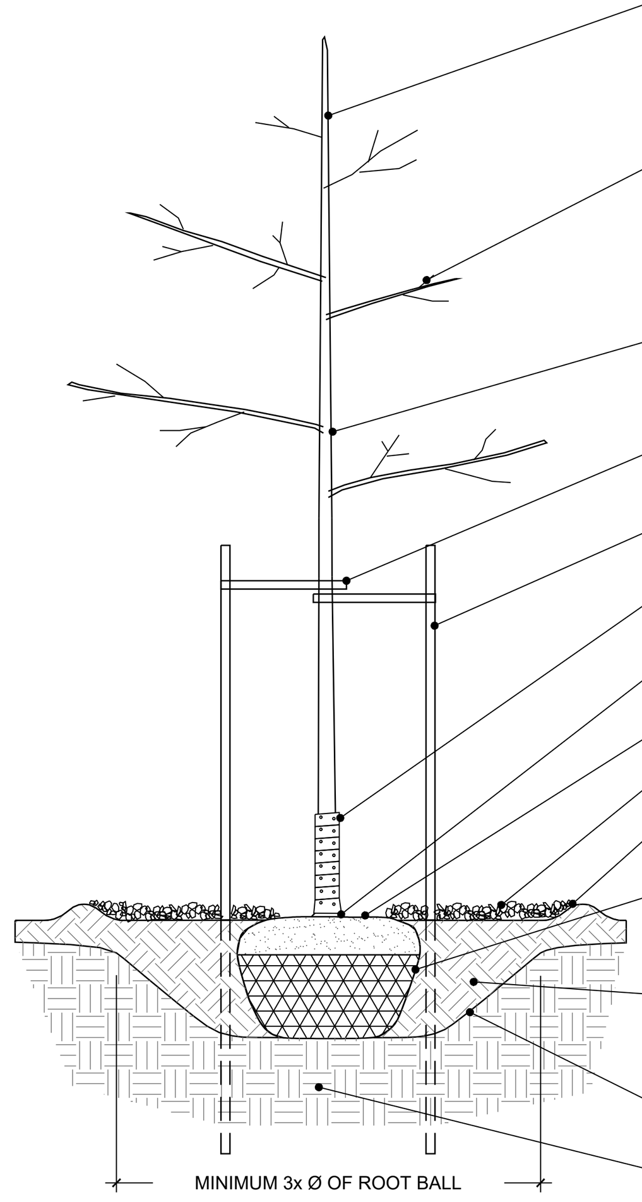
1226 Lockhart Road
Burlington

PROJECT CODE: 22_05
SCALE: 1 : 75
DATE: 20 Jan, 2023
STATUS: Design Development

Landscape Plan Enlargement

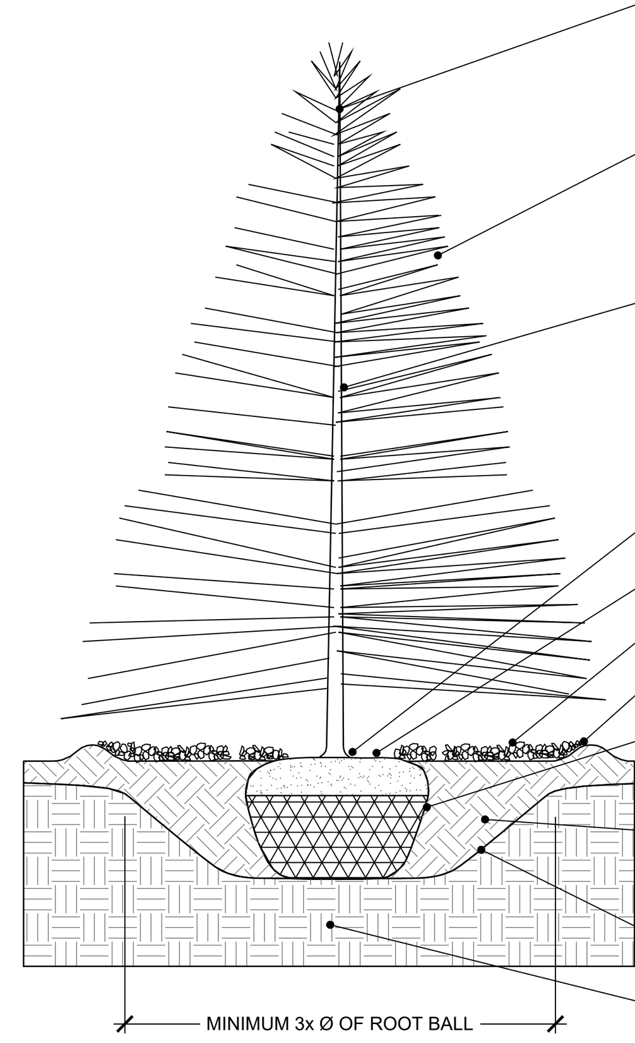
drawing number
L1.2

Plant Characteristics, Rootballs, Rootball Standards *including minimum rootball diameters*, Harvesting Practices, Transporting, Unloading, Handling/Protection, Scheduling, Water/Irrigation, Digging of Plants and Preparing Roots prior to planting in accordance with the Section 9 of the Canadian Landscape Standard. Do not perform work under adverse field conditions such as frozen soil, excessively wet soil or soil covered with snow, ice, or standing water. Contractor to supply all required water during planting and maintenance work.



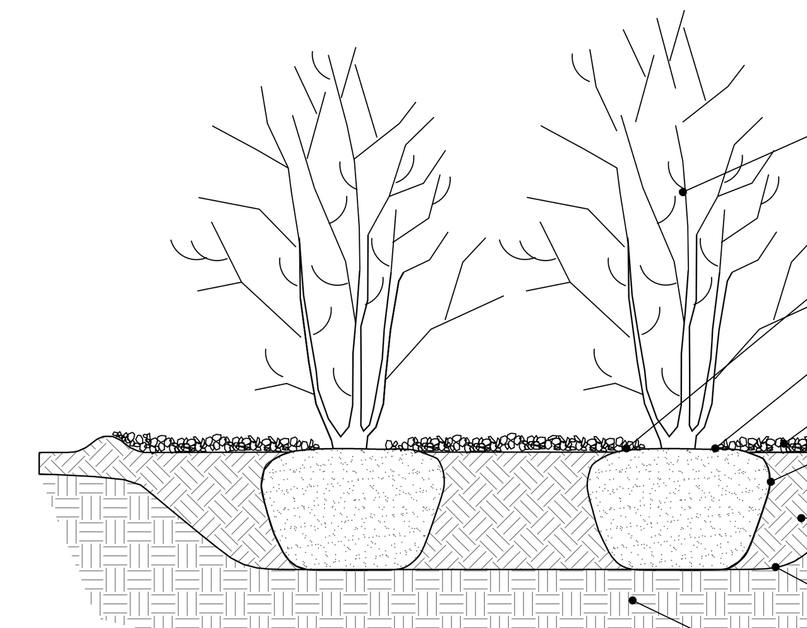
1 / L1.3 TYPICAL DECIDUOUS TREE PLANTING DETAIL
N.T.S.

Plant Characteristics, Rootballs, Rootball Standards *including minimum rootball diameters*, Harvesting Practices, Transporting, Unloading, Handling/Protection, Scheduling, Water/Irrigation, Digging of Plants and Preparing Roots prior to planting in accordance with the Section 9 of the Canadian Landscape Standard. Do not perform work under adverse field conditions such as frozen soil, excessively wet soil or soil covered with snow, ice, or standing water. Contractor to supply all required water during planting and maintenance work.



2 / L1.3 TYPICAL CONIFEROUS TREE PLANTING DETAIL
N.T.S.

Plant Characteristics, Rootballs, Rootball Standards *including minimum rootball diameters*, Harvesting Practices, Transporting, Unloading, Handling/Protection, Scheduling, Water/Irrigation, Digging of Plants and Preparing Roots prior to planting in accordance with the Section 9 of the Canadian Landscape Standard. Do not perform work under adverse field conditions such as frozen soil, excessively wet soil or soil covered with snow, ice, or standing water. Contractor to supply required water, free from any organic or chemical contaminants detrimental to humans, animals or healthy plant growth, during planting work and, if required, maintenance work during warranty period.



3 / L1.3 TYPICAL SHRUB PLANTING DETAIL - CONTINUOUS BED
N.T.S.

GENERAL LANDSCAPE NOTES

1. Base information sources:
   1.1. Site Plan prepared by Workshop Architects Ltd, dated December 9, 2024.
   1.2. Survey prepared by J.H.Glebloom Surveying Limited dated December 14, 2022.
   1.3. Grading and Servicing Plan prepared by Arcadis Professional Services Inc., dated December 9, 2024.
2. All dimensions are in metric unless otherwise noted.
3. Do not scale drawings. Dimensions are to be verified on site by Contractor prior to commencement of the work.
4. These plans shall be read in conjunction with all details, notes, reports, written specifications, general conditions, any supplemental conditions and agreement which form the contract documents.
5. These drawings shall not be used for construction purposes unless noted as "Issued for Construction" and signed by the Landscape Architect or Professional Engineer.
6. Contractor shall review all drawings and verify actual field conditions to determine the total scope of work and all required coordination prior to submission of bids and commencement of the work. Report any discrepancies to the Landscape Architect, for action to the satisfaction of the Owner.
7. Contractor shall locate all underground, at grade and overhead utilities prior to commencement of the work. All utilities not necessarily shown on these drawings. Aboud & Associates assumes no responsibility for the accuracy of any utilities shown in these drawings.
8. Contractor shall perform all work in accordance with the most current Ontario Building Code, CAN/CSA-Z614:20, Occupational Health and Safety Act and it's regulations, as well as local municipal codes, regulations and by-laws.
9. Contractor shall identify the location of all internal/external construction access routes, parking and storage of materials in conformance with project erosion and sediment control plans for acceptance by the Owner. Construction, maintenance and removal/restoration of access, parking and storage facilities shall be included in the Contractor's bid price.
10. Contractor shall submit shop drawings where indicated in these drawings. Shop drawings shall be certified by a Professional Engineer licensed to practice in Ontario and reviewed by the contractor for dimensional correlation with the drawings and field conditions. Fabrication of elements on shop drawings shall not proceed until drawings have been reviewed and approved by a Professional Engineer and have been accepted for general design conformance by the Landscape Architect in writing. The cost of preparing shop drawings, as well as the services of a Professional Engineer, shall be included in the Contractor's bid price.
11. Contractor proposed substitution of materials and products shall be submitted in writing for review by Landscape Architect and acceptance by Owner and Municipality.
12. Material quantities on drawings shall take precedent over those in lists and schedules.
13. Where traffic control is necessary, Contractor shall use the guideline of the Construction Safety Association of Ontario, municipal by-laws, the Highway Traffic Act and the Ontario Traffic Manual (Book 7). The cost of preparing, obtaining approvals and implementing traffic control plans shall be included in the Contractor's bid price, unless otherwise noted.
14. Contractor shall erect temporary barriers, as required, to secure the work area. Contractor shall maintain temporary barriers in good repair and remove at the end of the work.
15. Contractor shall provide layout and staking services, for general review for design conformance by Landscape Architect and acceptance by Owner. The cost of layout and staking shall be included in the Contractor's bid price, unless otherwise noted.
16. Contractor is responsible for protecting and/or reinstating site elements indicated in these drawings.
17. Contractor is responsible for restoration of adjacent surfaces and existing site elements damaged by the Contractor in the performance of the work, including but not limited to roads, driveways, playground equipment, utilities, buildings, curbs, sidewalks, retaining walls, fencing, turf, flowers and woody vegetation. Restoration work shall be performed by the Contractor at no cost to the Owner and be completed in conformance with applicable Provincial, Municipal or Agency standards and requirements, to the satisfaction of the Owner/Agency of the damaged element.
18. Where new paving or earthwork meets existing, smoothly blend line and grade of existing with new.
19. Test existing topsoil to be reused as growing medium on site in accordance with:
    19.1. Top Soil Basic Package (by SGS Laboratories or approved equal testing facility) Testing the following properties: Texture (%sand, %silt ,%clay), total salts, pH, buffer pH, phosphorus, potassium, magnesium, calcium, cation exchange capacity, chloride, sodium, sodium absorption ratio, organic matter. Written recommendations for amendments.
    19.2. The cost to amend existing topsoil to be reused shall be paid for by the Owner.
20. Contractor shall provide imported topsoil test results (using analysis requirements for existing topoil) prior to delivery to place of work, for each source.
21. Plants specified on these plans are to be in accordance with the Canadian Nursery Landscape Association Canadian Standards for Nursery Stock from the Canadian Landscape Standard, current edition.
    - Only nursery grown plants will be accepted.
    - Landscape Architect reserves the right to reject any plant material not in conformance with the standard, displaying life-threatening, poor growth habits, injury, disease or not true to name. Contractor shall remove rejected plants from the site immediately and replace at no additional cost to the Owner.
22. Proposed plants which come over or under any utility shall be relocated by the Contractor for review by the Landscape Architect, to the satisfaction of the utility provider.
23. All work and materials are to be warrantied by the Contractor for twenty-four (24) months from date of initial acceptance of all items by Municipal Staff and Project Landscape Architect.
    23.1. The Contractor shall perform maintenance, as described in these drawings for all the installed trees, shrubs, grasses and seeding during the warranty period.
    OR
    23.2. The Owner shall provide maintenance as described in these drawings for all installed trees, shrubs, grasses and seeding during the warranty period.
24. Upon completion of the site landscape surface works, the Landscape Architect will review and certify for compliance with approved landscape plans.
    24.1. The Landscape Architect will provide written certification to the City at substantial completion to initiate the 2-year warranty/maintenance period.
    24.2. City will inspect, and if acceptable and upon written request, would consider the reduction of the Letter of Credit. After a full year, the LA can provide further written certification and following City inspection, if acceptable and upon written request, the Letter of Credit can be released.
    24.3. Due to unfavorable environmental conditions, landscape compliance inspections will be completed between May 1st and October 31st of a calendar year.

LANDSCAPE MAINTENANCE NOTES

1. Perform following maintenance operations from time of planting to end of warranty period two (2) years following substantial performance of the work.
   1.1. Water to maintain soil moisture conditions for optimum establishment, growth and health of plant material without causing erosion. In a typical loam soil, optimum soil moisture in planting beds at root depth is 65% of field capacity. Guidelines during a typical growing season are as follows:
      1.1.1. Deep root water newly planted plants once per week for the first three weeks, such that the water penetrates to a minimum depth of 300mm.
      1.1.2. Deep root or surface water trees and shrubs a minimum of every ten (10) days between May 15 and September 15.
      1.1.3. Deep root or surface water trees and shrubs a minimum of every twenty-one (21) days between September 15 and freeze up.
      1.1.4. Water evergreen plants thoroughly in late fall prior to freeze-up to saturate soil around root system.
   1.2. Soil moisture to be monitored throughout the growing season:
      1.2.1. Watering schedule to be increased when plant materials are reaching the permanent wilting point.
      1.2.2. Watering schedule to be reduced when a sufficient volume of rainfall has penetrated the soil fully as required.
   1.3. Replace or respread damaged, missing or disturbed mulch.
   1.4. If required to control insects, fungus and disease, use appropriate control methods in accordance with Federal, Provincial and Municipal regulations. Obtain product approval from Consultant prior to application.
   1.5. Control outbreaks of perennial weeds as directed by Consultant, and annual weeds by mechanical or chemical means utilizing acceptable integrated pest management practices to meet acceptance/success targets
      1.5.1. If chemical means are used, comply with all municipal, provincial, and federal legislation and regulations.
   1.6. Remove dead or broken branches from plant material using clean sharp horticultural tools using current arboricultural practices.
   1.7. Keep trunk protection and guy wires in proper repair and adjustment.
   1.8. Provide adequate protection from winter, wind and rodent damage.
   1.9. Remove and replace dead plants and plants not in healthy growing condition. Make replacements in same manner as specified for original plantings, unless otherwise directed by Consultant.
   1.10. Remove trunk protection, tree supports and level watering saucers at end of warranty period, unless otherwise directed by Consultant.
   1.11. Submit monthly written reports in during the growing season (April - September) to Consultant identifying:
      1.11.1. Maintenance work carried out.
      1.11.2. Watering method, quantity of water used, water source.
      1.11.3. General development and condition of plant material.
      1.11.4. Preventative or corrective measures required which are outside Contractor's responsibility.
2. The Contractor is to ensure that any trees with tree roots impacted by the work, both on site as well as on neighbouring properties shall be maintained and watered in accordance with all above maintenance requirements similar to any newly planted vegetation.

Rev	Description	Date
1	Issued for Internal Review	20 Jan, 2023
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ABOUD & ASSOCIATES INC.
Consulting Arborists • Ecologists • Landscape Architects
3-5 Edinburgh Road South . Guelph . Ontario . N1H 5N8 . 519.822.6839 . www.aboudtng.com

CSV Renaissance
Daycare Addition

1226 Lockhart Road
Burlington

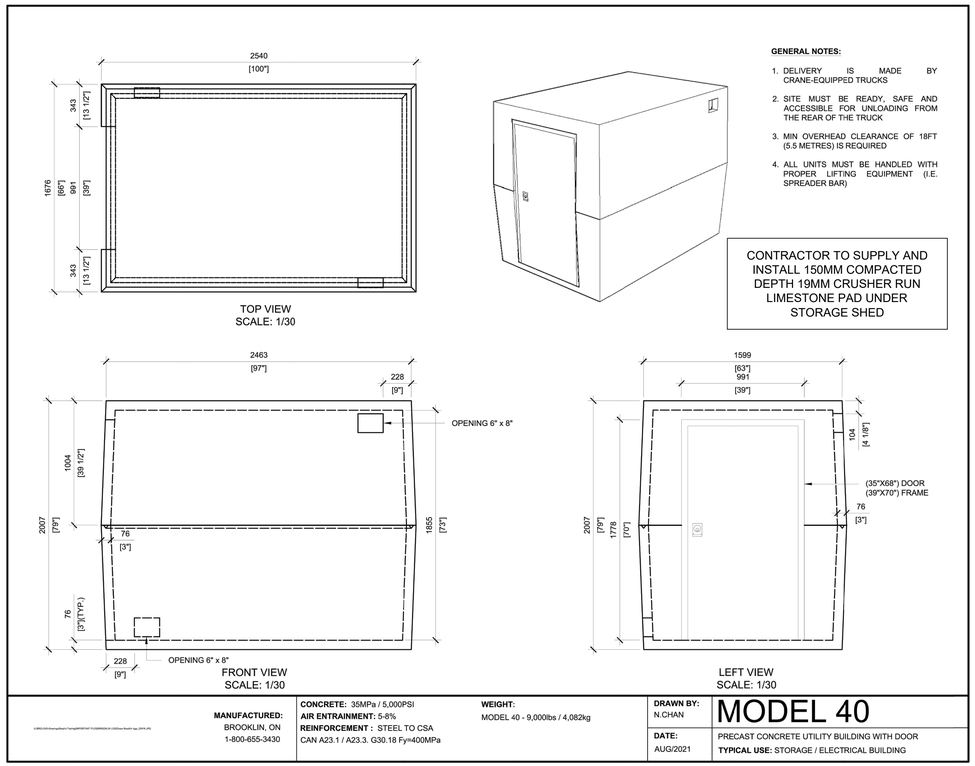
NOT FOR CONSTRUCTION

PROJECT CODE: 22_05
SCALE: AS SHOWN
DATE: 20 Jan, 2023
STATUS: **Design Development**

Proposed Landscape Plan Details I

Project North

drawing number
L1.3

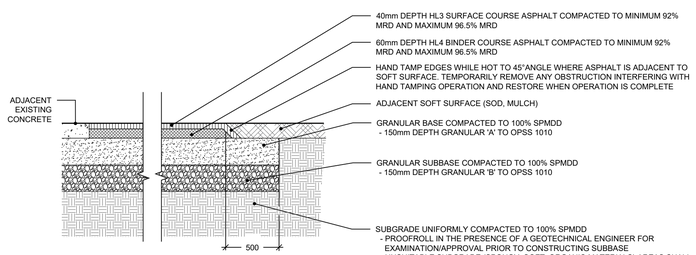


CONCEPT DRAWING FOR INFORMATION TO CONVEY DESIGN INTENT ONLY
CONTRACTOR TO PROVIDE SITE SPECIFIC DETAILED SHOP DRAWINGS INDICATING MATERIALS, DIMENSIONS, SIZES, REINFORCING, AND FINISHES DESIGN FOR REVIEW BY THE ARCHITECT, LANDSCAPE ARCHITECT AND CLIENT PRIOR TO FABRICATION AND INSTALLATION CONTRACTOR TO INCLUDE COST OF SHOP DRAWINGS, MATERIALS, FABRICATION AND INSTALLATION AS PART OF BID.

1 L1.4 STORAGE SHED
N.T.S.

NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETERS. DO NOT SCALE DRAWING.
2. EXISTING GRANULAR BASE MATERIAL ON SITE MAY BE REUSED FOR NEW PAVING INSTALLATIONS, PROVIDED THAT MATERIAL IS INSPECTED AND APPROVED IN WRITING BY A GEOTECHICAL ENGINEER.
3. AGGREGATE MATERIALS SHALL CONFORM TO OPSS 1001, OPSS 1003 AND OPSS 1010.
4. ASPHALT MATERIALS SHALL CONFORM TO OPSS 1150.
5. TACK COAT SHALL BE AN ASPHALTIC EMULSION SS-1, DILUTED WITH AN EQUAL VOLUME OF WATER, CONFORMING TO OPSS 1103.
6. MIX, HANDLE, PLACE AND COMPACT ASPHALT IN ACCORDANCE WITH OPSS 310.
7. SPECIFIED DEPTHS OF MULCH, SAFETY SURFACE AND TOPSOIL ARE DEPTHS AFTER SETTLEMENT. SPECIFIED DEPTH OF ASPHALT AND GRANULAR BASES IS COMPACTED DEPTH.
8. ENSURE THAT THERE IS A SMOOTH TRANSITION BETWEEN HARD AND SOFT SURFACES (ASPHALT TO SOD AND ASPHALT TO MULCH).
9. CONTRACTOR SHALL PROVIDE GEOTECHNICAL ENGINEER'S WRITTEN APPROVAL OF MATERIALS, COMPACTION AND DENSITY TESTING RESULTS, AS WELL AS VERIFICATION OF DEPTHS, FOR FILL, SUBGRADE, GRANULAR SUBBASE, GRANULAR BASE, ASPHALT BINDER COURSE, AND ASPHALT SURFACE COURSE PRIOR TO PROCEEDING TO EACH SUBSEQUENT COURSE.

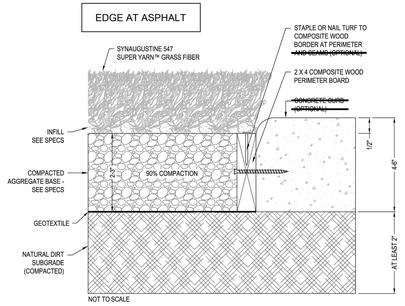
ASPHALT PATCHING AND SEAMS AT EXISTING ASPHALT NOTES
1. SAW CUT EXISTING PAVEMENT AND CREATE 300MM STEP JOINT.
2. EXISTING PAVEMENT SHALL BE REMOVED OVER ANY UNDERMINING. ALL VERTICAL EDGES TO BE TACK COATED WITH SS-1 EMULSIFIED ASPHALT TO OPSS 310. SURFACE OF ALL EDGES TO BE SEALED WITH A BEAD OF HOT RUBBERIZED ASPHALT.



3 L1.4 ASPHALT PAVING - LIGHT DUTY
N.T.S.

SYNLAWN
2680 ABUTMENT ROAD SE
DALTON, GA 30721
TOLL FREE: 1-866-SYNLAWN
FAX: (706) 277-1128
www.synlawn.com

EDGE AT ASPHALT



NOT TO SCALE

SECTION

MANUFACTURER NOTES:
1. THE GRASS MUST BE INSTALLED AND SEAMED WITH ADJACENT PIECES RUNNING IN THE SAME DIRECTION. SEAMS SHOULD BE GLUED WITH SUITABLE SEAMING GLUE AND SEAMING CLOTH, NOT ADHESIVE TAPE.

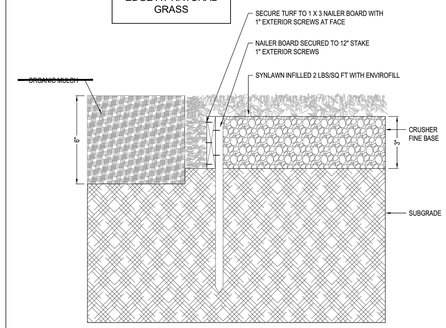
NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. DO NOT SCALE DRAWING.
3. THIS DRAWING IS INTENDED FOR USE BY ARCHITECTS, ENGINEERS, CONTRACTORS, CONSULTANTS AND DESIGN PROFESSIONALS FOR PLANNING PURPOSES ONLY. THIS DRAWING MAY NOT BE USED FOR CONSTRUCTION.
4. ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT BUT MUST BE REVIEWED AND APPROVED BY THE PRODUCT MANUFACTURER TO BE CONSIDERED ACCURATE.
5. CONTRACTOR'S NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT www.CADdetails.com/info AND ENTER REFERENCE NUMBER 1437-452A.

LAWN AND LANDSCAPE SYSTEM
SYNAUGUSTINE 547 - INSTALLED OVER AGGREGATE BASE W/ BENDER BOARD

1437-452A REVISION DATE 06/30/2021

SYNLAWN
2680 ABUTMENT ROAD SE
DALTON, GA 30721
TOLL FREE: 1-866-SYNLAWN
FAX: (706) 277-1128
www.synlawn.com

EDGE AT NATURAL GRASS



SECTION

NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. DO NOT SCALE DRAWING.
3. THIS DRAWING IS INTENDED FOR USE BY ARCHITECTS, ENGINEERS, CONTRACTORS, CONSULTANTS AND DESIGN PROFESSIONALS FOR PLANNING PURPOSES ONLY. THIS DRAWING MAY NOT BE USED FOR CONSTRUCTION.
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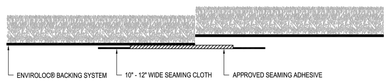
5. CONTRACTOR'S NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT www.CADdetails.com/info AND ENTER REFERENCE NUMBER 1437-624.

LAWN AND LANDSCAPE SYSTEMS
SYNLAWN - WRAPPED EDGING DETAIL

1437-624 REVISION DATE 07/09/2024

SYNLAWN
2680 ABUTMENT ROAD SE
DALTON, GA 30721
TOLL FREE: 1-866-SYNLAWN
FAX: (706) 277-1128
www.synlawn.com



SECTION

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5. CONTRACTOR'S NOTE: FOR PRODUCT AND COMPANY INFORMATION VISIT www.CADdetails.com/info AND ENTER REFERENCE NUMBER 1437-270.

SYNLAWN SEAMING DETAIL
SYNLAWN SEAMED W/ APPROVED SEAMING CLOTH & ADHESIVE

1437-270 REVISION DATE 06/30/2021

2 L1.4 ARTIFICAL TURF
N.T.S.

Rev	Description	Date
1	Issued for Internal Review	20 Jan, 2023
2	Issued for Site Plan Approval	24 Feb, 2023
3	Issued for 90% Review	19 Sep, 2024
4	Issued for Site Plan Approval	07 Oct, 2024
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6	Issued for Building Permit	18 Nov, 2024
7	Issued for Tender	09 Jan, 2025

ABOUD & ASSOCIATES INC.
Consulting Arborists • Ecologists • Landscape Architects
3-5 Edinburgh Road South , Guelph , Ontario , N1H 5N8 , 519.822.4839 , www.aboud.ing.com

CSV Renaissance
Daycare Addition

1226 Lockhart Road
Burlington

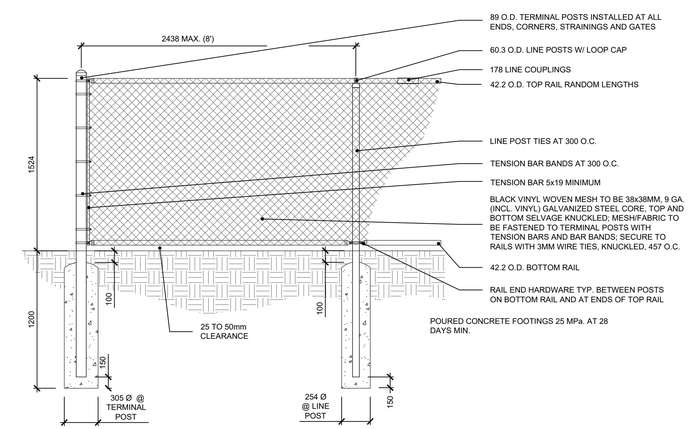
PROJECT CODE: 22_05
SCALE: AS SHOWN
DATE: 20 Jan, 2023
STATUS: **Design Development**

Proposed Landscape Plan Details II

Project North

drawing number
L1.4

NOTES:
1. ALL FENCE POSTS AND RAILS TO BE GALVANIZED SCHEDULE 40 PIPE TO ASTM A53/A53M-12 AND ASTM A123/A123M - 17.
2. FINISH ON POSTS, RAILS, AND FITTINGS TO BE BLACK GLOSS ENAMEL BY POWDER COAT APPLICATION. ALL SURFACES TO BE CHEMICALLY CLEANED AND TREATED PRIOR TO COATING WITH PARKER BONDERITE AND CHLOROTHENE SOLVENT OR APPROVED EQUALS. POWDER COATING MUST BE A POLYESTER 2000 SERIES, THICKNESS OF 4-5 MILS BY ELECTROSTATIC PROCESS, OVEN-CURED TO A SMOOTH AND EVEN SURFACE.
3. PLASTIC COUPLINGS, FITTINGS OR ANY OTHER PLASTIC COMPONENTS WILL NOT BE ACCEPTED.

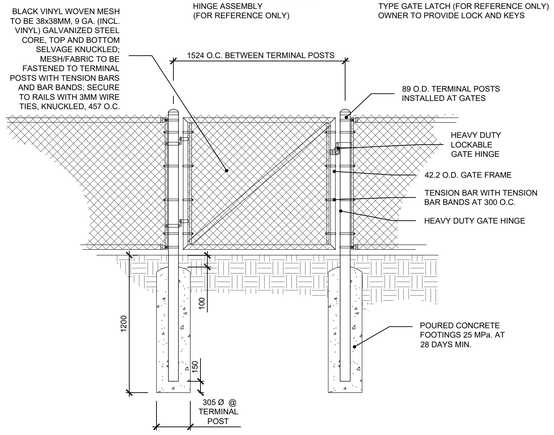


1 L1.5 CHAIN LINK FENCE
N.T.S.

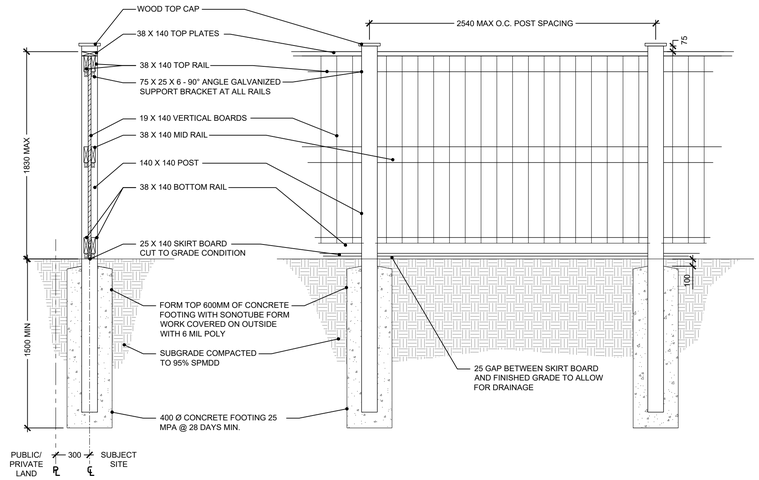
NOTES:
1. ALL GATE FRAME TO BE SHOP BENT AND GROUND SMOOTH GALVANIZED 42.2mm O.D. SCHEDULE 40 PIPE TO ASTM A53/A53M-12 AND ASTM A123/A123M - 17.
2. FINISH ON POSTS, RAILS, AND FITTINGS TO BE BLACK GLOSS ENAMEL BY POWDER COAT APPLICATION. ALL SURFACES TO BE CHEMICALLY CLEANED AND TREATED PRIOR TO COATING WITH PARKER BONDERITE AND CHLOROTHENE SOLVENT OR APPROVED EQUALS. POWDER COATING MUST BE A POLYESTER 2000 SERIES, THICKNESS OF 4-5 MILS BY ELECTROSTATIC PROCESS, OVEN-CURED TO A SMOOTH AND EVEN SURFACE.
3. PLASTIC COUPLINGS, FITTINGS OR ANY OTHER PLASTIC COMPONENTS WILL NOT BE ACCEPTED.

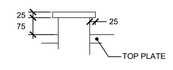

ENLARGEMENT OF HEAVY DUTY HINGE ASSEMBLY (FOR REFERENCE ONLY)


ENLARGEMENT OF HEAVY DUTY LOCKABLE TYPE GATE LATCH (FOR REFERENCE ONLY) OWNER TO PROVIDE LOCK AND KEYS



2 L1.5 CHAIN LINK SINGLE SWING GATE
N.T.S.





POST TOP ENLARGEMENT


PLAN

3 L1.5 1.8m SOLID WOOD PRIVACY FENCE
N.T.S.

NOTES:
1. ALL DIMENSIONS SHOWN ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.
2. STEP FENCING PANELS 50mm MIN AND 150mm MAX AT POSTS AS REQUIRED BY GRADE CONDITIONS.
3. ALL MATERIALS, COMPONENTS AND WORKMANSHIP TO CONFORM TO OBC AND LOCAL BY-LAWS.
4. ALL LUMBER SIZES ARE ACTUAL RATHER THAN NOMINAL.
5. ALL WOOD SHALL BEAR GRADING STAMP OF C.L.S. CERTIFIED AGENCY.
6. WARRANTY: THE FENCE SHALL BE GUARANTEED FOR THREE YEARS AS FOLLOWS: 5mm/m ON PLUMB OF POSTS AND LEVEL OF VERTICAL BOARDS. GAPS BETWEEN VERTICAL BOARDS SHALL NOT EXCEED 6mm, VERTICAL BOARDS SHALL BE TIGHT AND FREE OF RATTLING.
7. WOOD:
   - 7.1. ALL WOOD SHALL BE PRESSURE TREATED SELECTED FOR GOOD APPEARANCE AND FREE OF WANE AND BARK POCKETS.
   - 7.2. ALL TORN GRAIN AND SURFACE STAIN SHALL BE ELIMINATED BY SANDING OR PLANING
   - 7.3. MEMBERS WITH HEAVY KNOTS AND/OR SAP STAIN SHALL BE WELL DISTRIBUTED THROUGHOUT THE INSTALLATION
   - 7.4. MOISTURE CONTENT OF WOOD SHALL NOT EXCEED 20% AT TIME OF CONSTRUCTION
   - 7.5. VERTICAL/HORIZONTAL BOARDS:
     - 7.5.1. TO NLGA 204A OR BETTER "SELECT KNOTTY" GRADE
   - 7.6. POSTS
     - 7.6.1. TO NLGA 131B#1 STRUCTURAL POST AND TIMBER
     - 7.6.2. SHALL BE PLUMB WITHIN 5mm/m ABOVE GRADE
8. FASTENERS
   - 8.1. ALL FASTENERS INCLUDING ARDOX NAILS, LAG SCREWS, BOLTS, NUTS, WASHERS AND BRACKETS SHALL BE HOT DIPPED GALVANIZED IN ACCORDANCE TO CSA STANDARD G164. LAG SCREWS AND BOLTS SHALL CONFORM TO ASTM A307
   - 8.2. COUNTER-SINK ALL LAG SCREWS AND BOLTS AND DRIVE ALL NAIL HEADS BELOW SURFACE OF WOOD.
   - 8.3. ALL ARDOX NAILS TO BE EVENLY SPACED AND SET NOT LESS THAN 25mm FROM EDGE OF ANY WOODED MEMBER.
   - 8.4. USE SUFFICIENT SIZE AND QUANTITY OF FASTENERS TO ENSURE A STABLE AND SECURE STRUCTURE.

MASTER PLANT LIST

KEY	QTY	BOTANICAL NAME	COMMON NAME	SIZE	TYPE	REMARKS
TREES						
AC	2	Amelanchier canadensis	Serviceberry	60mm Caliper	Wire Basket	4m Min. On Centre Spacing
AF	2	Acer x freemanni 'Jeffersred'	Autumn Blaze Maple	60mm Caliper	Wire Basket	8m Min. On Centre Spacing
GT	1	Gleditsia tricanthos var. Inermis	Thornless Honeylocust	60mm Caliper	Wire Basket	8m Min. On Centre Spacing
PG	3	Picea glauca	White Spruce	200cm Height	Wire Basket	5m Min. On Centre Spacing
PS	1	Pinus strobus	Eastern White Pine	200cm Height	Wire Basket	5m Min. On Centre Spacing
TO	4	Thuja occidentalis	Eastern White Cedar	225cm Height	Wire Basket	2.5m Min. On Centre Spacing
	13	Total Trees				
SHRUBS						
Js	6	Juniperus sabina "Calgary Carpet"	Calgary Carpet Juniper	60cm Spread	5 Gallon Pot	1.2m On Centre Spacing
Ra	6	Rhus aromatica "Gro Low"	Gro Low Fragrant Sumac	60cm Height	5 Gallon Pot	1.2m On Centre Spacing
Tm	15	Taxus x media 'Densiformis'	Dense Yew	60cm Spread	5 Gallon Pot	1.2m On Centre Spacing
	27	Total Shrubs				
PERENNIALS						
hem	12	Hemerocallis 'Happy Returns'	Reblooming Daylily	-	1 Gallon Pot	0.5m On Centre Spacing
	12	Total Perennials				

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CSV Renaissance Daycare Addition

1226 Lockhart Road
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NOT FOR CONSTRUCTION

PROJECT CODE: 22_05
SCALE: AS SHOWN
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STATUS: Design Development

Proposed Landscape Plan Details III

drawing number
L1.5