KAWARTHA PINE RIDGE
DISTRICT SCHOOL BOARD

Kawartha Pine Ridge District School Board

Murray Centennial Public School Addition

Architectural · Grading/Site Servicing · Structural · Mechanical · Electrical · Septic · Sprinkler

Moffet & Duncan Architects Inc.

CIMA+
Grading & Site Servicing,
Mechanical, Electrical

DVM Engineering Inc.
Structural

Cambium
Septic

Troy Life & Fire Safety Ltd.
Sprinkler

ARCHITECTURAL DRAWINGS

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A1.2	SITE DETAILS
A1.3	DEMO SITE PLAN & SITE PHASING PLANS
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A2.3	ROOF PLAN
A2.4	ROOF DETAILS
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A4.0	WALL SECTIONS
A4.1	WALL SECTIONS
A4.2	WALL SECTION DETAILS
A4.3	WALL SECTION DETAILS
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A5.1	FLOOR FINISH PLAN & ROLLER BLINDS PLAN
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A6.1	INTERIOR ELEVATIONS
A6.2	INTERIOR ELEVATIONS

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C105	PROPOSED SITE GRADING PLAN
C106	PROPOSED SITE DRAINAGE PLAN
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C108	PROPOSED PHASING PLAN

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2	TREATMENT TANK AREA AND LEACHING BED LAYOUT
3	CROSS SECTION DETAILS
4	TANK DETAILS AND NOTES

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S2.1	ROOF FRAMING SECTION DETAILS
S2.2	ROOF FRAMING SECTION DETAILS
S3.0	UPPER ROOF FRAMING PLAN AND SECTION DETAILS
STD-01	GENERAL NOTES AND DETAILS
STD-02	GENERAL NOTES AND DETAILS

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M102	PARTIAL FIRST FLOOR PHASE 1 HVAC LAYOUT
M201	FIRST FLOOR ADDITION NEW PLUMBING & DRAINAGE LAYOUT
M202	FIRST FLOOR ADDITION NEW WATER ROOM LAYOUT
M301	FIRST FLOOR ADDITION NEW HVAC LAYOUT
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M802	SCHEDULES
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E101	DEMO & NEW SITE POWER
E102	PARTIAL GROUND FLOOR PLAN TEMPORARY EXITS
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E201	FIRST FLOOR ADDITION NEW POWER LAYOUT
E202	FIRST FLOOR ADDITION NEW ROOF POWER LAYOUT
E301	FIRST FLOOR ADDITION NEW LIGHTING LAYOUT
E801	LEGENDS
E802	NOTES
E901	DETAILS & SCHEDULES

SPRINKLER DRAWINGS

SP-01	ADDITION FIRE SPRINKLER PLAN

Murray Centennial Public School Addition
654 County Rd 40, Trenton, ON K8V 5P4
Architectural - Grading/Site Servicing - Structural - Mechanical - Electrical - Septic - Sprinkler

OCCUPANT LOADING & PLUMBING FIXTURES CALCULATIONS

ITEM 1.0 — OCCUPANT LOADING

TOTAL LOADING FOR EXISTING SCHOOL:

.1 FIRST FLOOR:		
.1 KINDERGARTENS	= 4 X 26	= 104
.2 STANDARD CLASSROOMS	= 16 X 23	= 368
.3 SPEC. ED	= 1 X 9	= 9
.4 TEACHERS	= 16 X 1	= 16
.5 SPEC. ED SUPERVISORS	= 1 X 2	= 2
.6 ADMIN. & CUSTODIAL	= 9	= 9
.7 KIND. SUPERVISORS	= 4 X 2	= 8
SUB–TOTAL		= 516
.2 EXISTING PORTABLES:		
.1 PORTABLES	= 6 X 23	= 138
.2 TEACHERS	= 6 X 1	= 6
SUB–TOTAL		= 144
.3 NEW ADDITION:		
.1 STANDARD CLASSROOMS	= 4 X 23	= 92
.2 KINDERGARTENS	= 3 X 26	= 78
.3 TEACHERS	= 4 X 1	= 4
.4 KIND. SUPERVISORS	= 3 X 2	= 6
SUB–TOTAL		= 180
.4 PROVISION FOR FUTURE PORTABLE EXPANSION:		
.1 PORTABLES	= 6 X 23	= 138
.2 TEACHERS	= 6 X 1	= 6
SUB–TOTAL		= 144

TOTAL STUDENTS = 481+138+170+138 = 927
TOTAL TEACHERS/STAFF = 57+6+10+6 = + 57
TOTAL OCCUPANTS = 984

ITEM 2.0 — PLUMBING FIXTURE REQUIREMENTS OBC 3.7.4.3

STUDENTS

OBC 3.7.4.3.(14) REQUIRES 1 WC FOR EACH 30 MALES AND 1 WC FOR EACH 26 FEMALES IN A2 OCCUPANCY (927 / 2 = 464 EACH SEX)

FROM OBC 3.7.4.2 (6), WASH FOUNTAINS SUBSTITUTED FOR LAV'S; 1168mm WIDE BY 650mm DEEP = 4 LAV'S

		EXISTING	NEW	TOTAL	OBC REQ.
BOYS 464 / 30 = 16	WC	6+2 KIND. WC	4+1 KIND. WC	13	6
	URINALS	8	0	8	10
	LAVATORIES	10+2 KIND. LAV.	4+1 KIND. LAV.	17	8
GIRLS 464 / 26 = 18	WC	12+2 KIND. WC	4+2 KIND. WC	20	18
	LAVATORIES	10+2 KIND. LAV.	4+2 KIND. LAV.	18	9

NOTE: ALL NEW WC STALLS ARE GENDER NEUTRAL.

STAFF

STAFF WASHROOMS SHALL CONFORM TO OBC 3.7.4.3 (1) = (57/2 = 29 EACH SEX)

		EXISTING	NEW	TOTAL	OBC REQ.
STAFF – MALE	WC	2	0	2	1
	LAVATORIES	2	0	2	1
STAFF – FEMALE	WC	3	1	4	2
	LAVATORIES	3	1	4	1

NOTE: ALL EXISTING STAFF WASHROOMS ARE GENDER NEUTRAL.
NEW GENDER NEUTRAL STAFF WASHROOM ATTRIBUTED TO FEMALE WASHROOM COUNT.

Ontario's 2012 Building Code Data Matrix Parts 3

			Building Code Reference
3.00	BUILDING CODE VERSION:	O. Reg 332/12 — LAST AMENDMENT O. Reg 191/14	
3.01	PROJECT TYPE:	☐ NEW ☐ ADDITION ☐ RENOVATION ☐ CHANGE OF USE ■ ADDITION AND RENOVATION; DESCRIPTION: ELEMENTARY SCHOOL	[A]1.1.2.
3.02	MAJOR OCCUPANCY CLASSIFICATION:	Occupancy: A2– ASSEMBLY; Use: SCHOOL	3.1.2.1.(1)
3.03	SUPERIMPOSED MAJOR OCCUPANCIES:	■ NO ☐ YES; Description	3.2.2.7.
3.04	BUILDING AREA (m²)	Description: ELEMENTARY SCHOOL; Existing 3971 m²; New 1316 m²; Total 5287 m²	[A]1.4.1.2
3.05	GROSS AREA (m²)	Description: ELEMENTARY SCHOOL; Existing 3971 m²; New 1316 m²; Total 5287 m²	[A]1.4.1.2
3.07	BUILDING HEIGHT	ONE Storeys above grade; 0 Storeys below grade; 7.2 m (m) Above grade	[A]1.4.1.2 & 3.2.1.1
3.08	HIGH BUILDING	■ NO ☐ YES	
3.09	NUMBER OF STREETS/ FIREFIGHTER ACCESS	2 Streets	3.2.2.10 & 3.2.5
3.10	BUILDING CLASSIFICATION	3.2.2.24 Group/Div GROUP A / DIV 2.	3.2.2.20.–.83
3.11	SPRINKLER SYSTEM	■ REQUIRED PROPOSED; ☐ NOT REQUIRED ☐ ENTIRE BUILDING ☐ SELECTED FLOOR AREAS ☐ IN LIEU OF ROOF RATING; ■ SELECTED COMPARTMENTS ☐ BASEMENT ONLY ☐ NONE	3.2.1.5. & 3.2.2.17.
3.12	STANDPIPE SYSTEM	☐ REQUIRED ■ NOT REQUIRED	3.2.9.
3.13	FIRE ALARM REQUIRED	■ REQUIRED PROPOSED; ☐ NOT REQUIRED ■ SINGLE STAGE ☐ TWO STAGE ☐ NONE	3.2.4.
3.14	WATER SERIVCE/SUPPLY IS ADEQUATE	☐ NO ■ YES	
3.15	CONSTRUCTION TYPE	RESTRICTION: ☐ Combustible permitted ■ Non–combustible required; ACTUAL: ☐ Combustible ■ Non–combustible required ☐ Combination; HEAVY TIMBER CONSTRUCTION ■ NO ☐ YES	3.2.2.20.–.83 & 3.2.1.4.
3.16	IMPORTANCE CATEGORY	☐ Low ☐ Low human occupancy ☐ Post–disaster shelter ☐ Normal ■ High ☐ Minor storage building ☐ Explosive or hazardous substances ☐ Post–disaster	4.1.2.1.(3) & T4.1.2.1.B
3.17	SEISMIC HAZARD INDEX:	(Ie Fa Sa (0.2)) = CLASS 'C'; SEISMIC DESIGN REQUIRED FOR TABLE 4.1.1.18. ITEMS 6 TO 21: (Ie Fa Sa (0.2)) ≥ 0.35 or Post–disaster) ■ NO ☐ YES	4.1.2.1.(3) 4.1.8.18.(2)
3.18	OCCUPANT LOAD	see table below	3.1.17
3.19	BARRIER–FREE DESIGN	■ YES ☐ NO	3.8.
3.20	HAZARDOUS SUBSTANCES	☐ YES ■ NO	3.3.1.2. & 3.3.1.19.
3.21	REQUIRED FIRE RESISTANCE RATINGS	see table below	3.2.2.20.–83. 3.2.1.4.
3.22	SPATIAL SEPARATION	see table below	3.2.3.
3.24	ENERGY EFFICIENCY	Compliance Path: PRESCRIPTIVE; Climatic Zone: 6	
3.25	NOTES	--	

3.18 Occupant Load

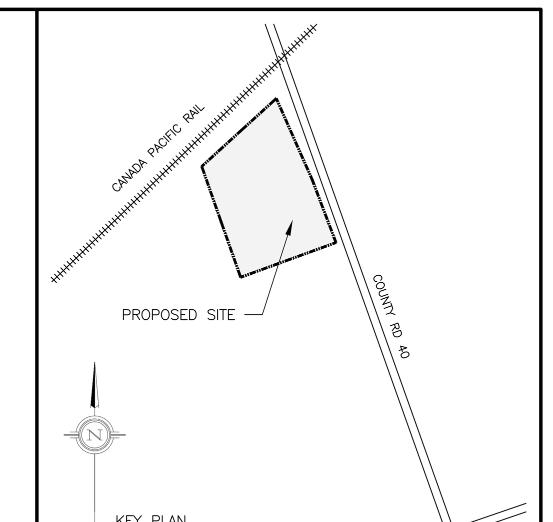
Floor Level/Area	Occupancy Type	Based On	Occupant Load (Persons)
1ST FLOOR EXISTING	A2	BUILDING DESIGN	660
1ST FLOOR ADDITION	A2	BUILDING DESIGN	180
TOTAL			840

3.21 Required Fire Resistance Ratings

Horizontal Assembly	Rating	Support Assembly (H)	Noncumbustible in lieu of rating?
Floors over basement	N/A	N/A	☐ NO ☐ YES ■ N/A
Floors	N/A	N/A	☐ NO ☐ YES ■ N/A
Mezzanine	N/A	N/A	☐ NO ☐ YES ■ N/A
Roof	N/A	N/A	☐ NO ☐ YES ■ N/A

3.22 Spatial Separation

Wall	EBF Area (m²)	L.D. (m)	L/H or H/L	Permitted Max. % of Openings	Proposed % of Openings	Required FRR (H)	Construction Type Required	Cladding Type Required
North	67	9	N/A	100%	19%	0	■ Noncomb.	■ Noncomb.
South	34	22	N/A	100%	8%	0	■ Noncomb.	■ Noncomb.
West	161	6	N/A	52%	40%	0	■ Noncomb.	■ Noncomb.



KEY PLAN
1:10,000

SITE INFORMATION

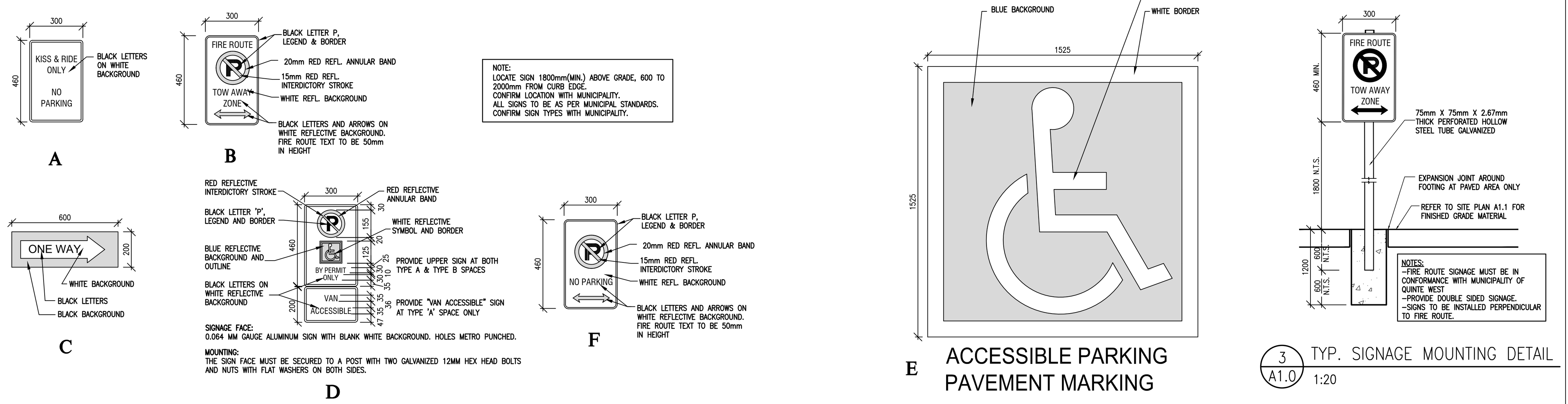
LEGAL DESCRIPTION	LOT 9, CONCESSION 1, TOWNSHIP OF MURRAY, COUNTY OF NORTHUMBERLAND
OWNER	KAWARTHA PINE RIDGE DISTRICT SCHOOL BOARD
PROJECT ADDRESS	654 COUNTY RD 40, TRENTON, ON K8V 5P4
ZONING	"CF" COMMUNITY FACILITY
SURVEYOR'S INFORMATION	SURVEY INFORMATION TAKEN FROM PLAN OF TOPOGRAPHIC SURVEY PREPARED BY ACADIA ENGINEERING DATED MAY 18, 2023

LOT AREA	4.959 HECTARES (49,590 M2)	
	PROPOSED	
MAX. LOT COVERAGE (50%)	11.5% (5,737 M2)	
MIN. LANDSCAPE OPEN SPACE (30%)	77% (38,344 M2)	
SETBACKS	REQUIRED	PROVIDED
MIN. FRONT YARD	12M	49.8M
MIN. INTERIOR SIDE YARD SOUTH (RESIDENTIAL ZONE)	10.5M	19M
MIN. INTERIOR SIDE YARD NORTH (NON–RESIDENTIAL)	7.5M	154M
MIN. REAR YARD DEPTH	7.5M	8M

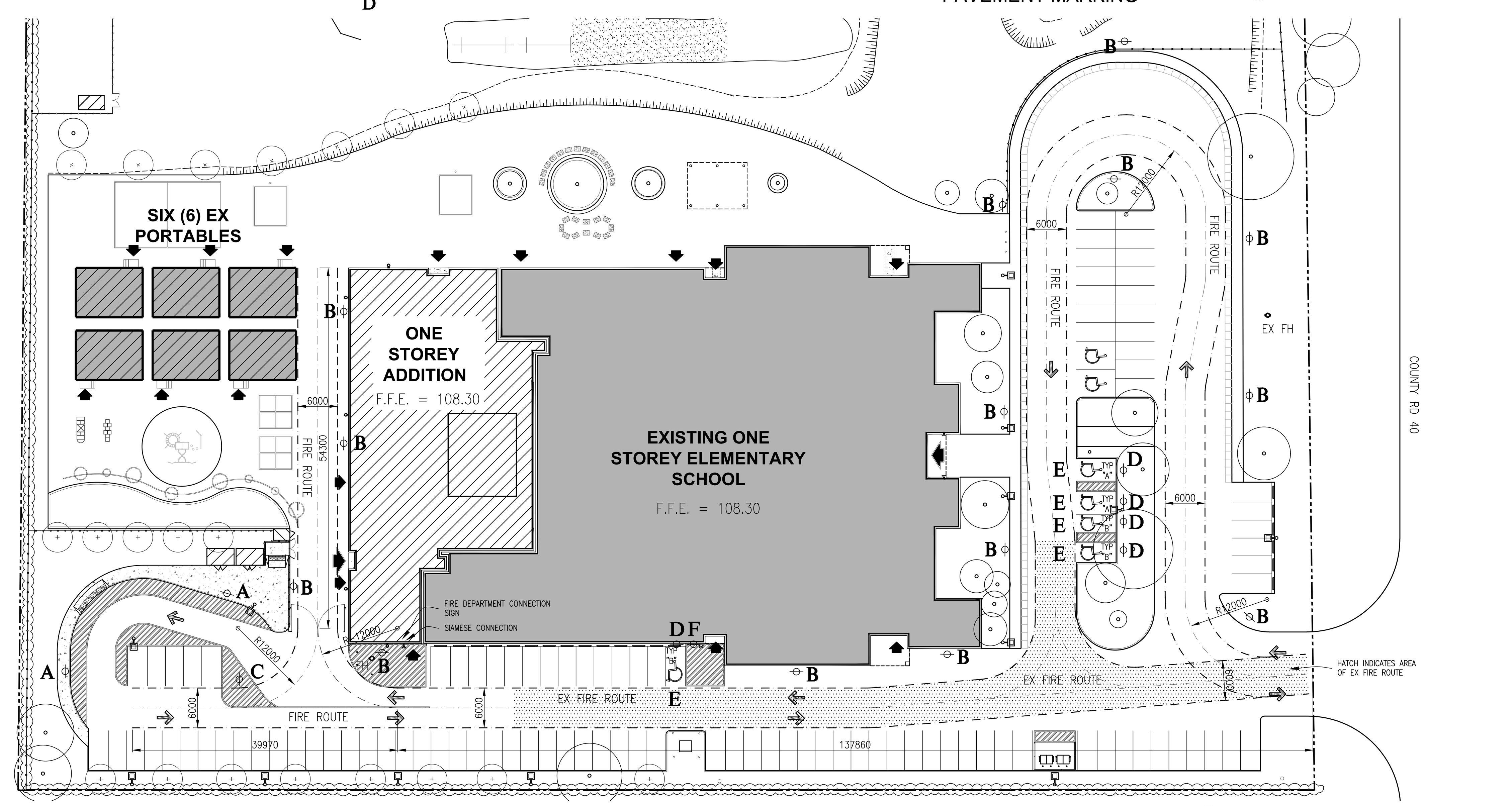
PARKING CALCULATIONS

EXISTING PARKING: (1.5 SPOTS/CLASSROOM)	56 SPACES
PROPOSED ADDITION PARKING: 3 NEW KINDERGARTEN + 4 NEW CLASSROOM + 6 FUTURE PORTABLES = 13 X 4 = 52 SPACE	52 SPACES
TOTAL PARKING:	108 SPACE
BF PARKING:	108 X 3% = 4 BF SPACES + 1 SPACE (2 TYPE 'A' & 3 TYPE 'B')

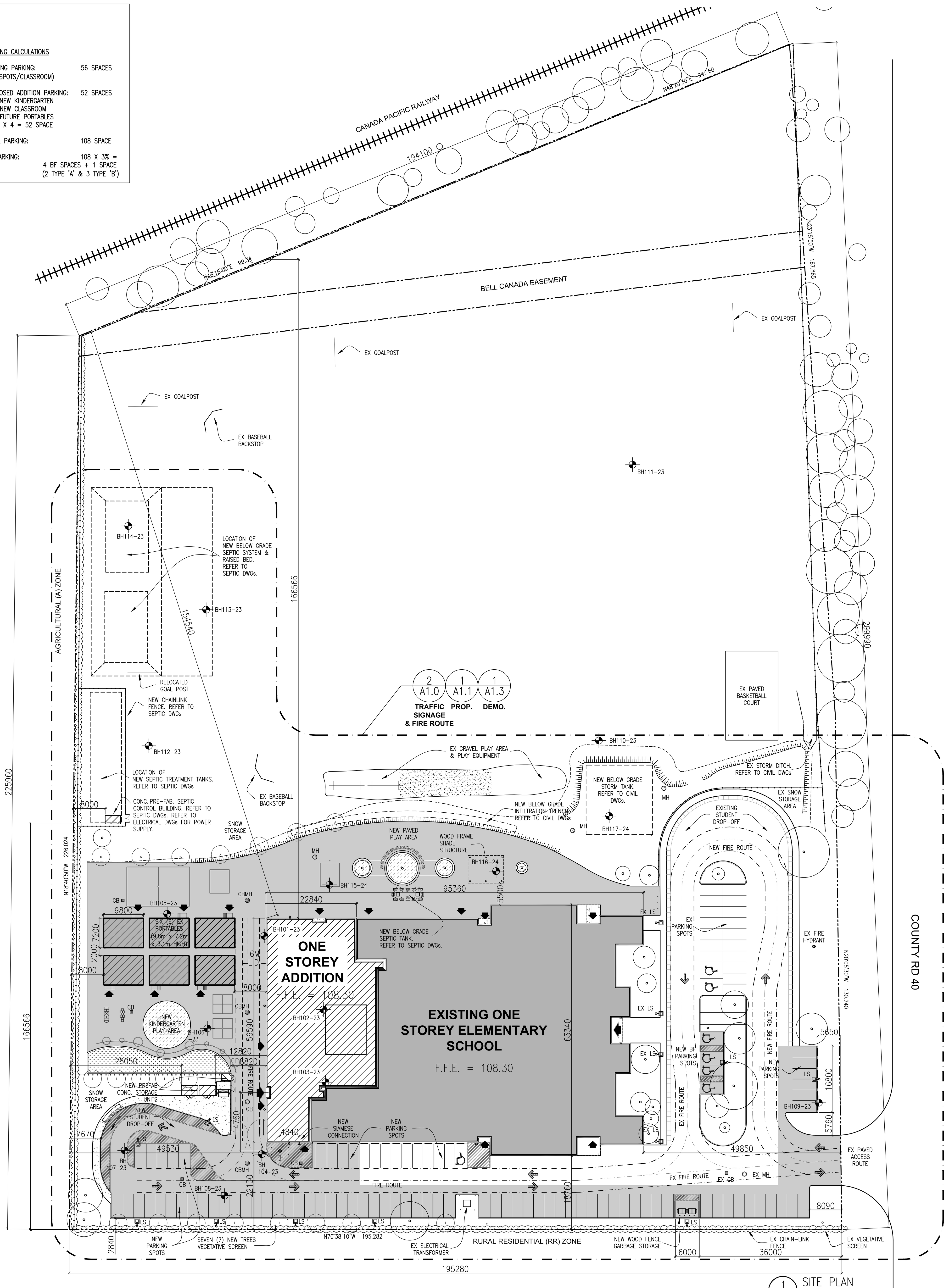
TRAFFIC AND FIRE ROUTE SIGNAGE



3 A1.0 TYP. SIGNAGE MOUNTING DETAIL 1:20



2 A1.0 TRAFFIC SIGNAGE & FIRE ROUTE 1:500



1 A1.0 SITE PLAN 1:600

LEGEND

- PROPERTY LINE
- EX CHAIN LINK FENCE
- NEW CHAIN LINK FENCE
- NEW WEEPING TILE
- FIRE ROUTE / TRUCK ACCESS
- MAIN ENTRANCE
- ENTRANCE
- BARRIER–FREE PARKING LOGO
- PAINTED TRAFFIC DIRECTION
- +112.40 FINISHED GRADES. REFER TO SITE GRADING DRAWING.
- +112.40 EXISTING GRADES. REFER TO SITE GRADING DRAWING.
- PAINTED LINES
- SIAMESE CONNECTION
- LS LIGHT STANDARD
- EXTERIOR WALL MOUNTED LIGHTING
- FH FIRE HYDRANT
- CBMH CATCH BASIN MANHOLE
- MH MANHOLE
- CB CATCH BASIN
- B BOLLARD
- NEW TREES
- EX TREES
- NEW SOD
- NEW HEAVY DUTY ASPHALT. REFER TO CIVIL DWGs FOR AREAS OF FULL/PARTIAL DEPTH PAVING.
- NEW CONCRETE SIDEWALK
- NEW MULCH
- NEW SYNTHETIC TURF
- NEW GRAVEL PLAY AREA

	DATE	REVISIONS
8.	–	–
7.	JULY 24 2024	ISSUED FOR TENDER/PERMIT
6.	JUNE 11 2024	SITE PLAN REVIEW (4th SUBMISSION)
5.	MAY 03 2024	SITE PLAN REVIEW (3rd SUBMISSION)
4.	FEB 12 2024	COSTING
3.	FEB 12 2024	SITE PLAN REVIEW (2nd SUBMISSION)
2.	NOV 13 2023	SITE PLAN REVIEW (PRELIMINARY)
1.	FEB 28 2023	PRELIMINARY SITE PLAN REVIEW

MURRAY CENTENNIAL PUBLIC SCHOOL ADDITION

654 County Road 40,
TRENTON ONTARIO K8V 5P4

KAWARTHA PINE RIDGE DISTRICT SCHOOL BOARD
1994 Fisher Drive, Peterborough, Ontario K9J 6X6

DRAWING: SITE PLAN, OBC DATA MATRIX, TRAFFIC SIGNAGE

ONTARIO ASSOCIATION OF ARCHITECTS — JULY 24/24 — ROBERT F. FERKUL LICENCE 4695

TRUE NORTH | DWG. NORTH

JOB NO. 2304
SCALE AS NOTED
DATE FEB 2024
PRINTED

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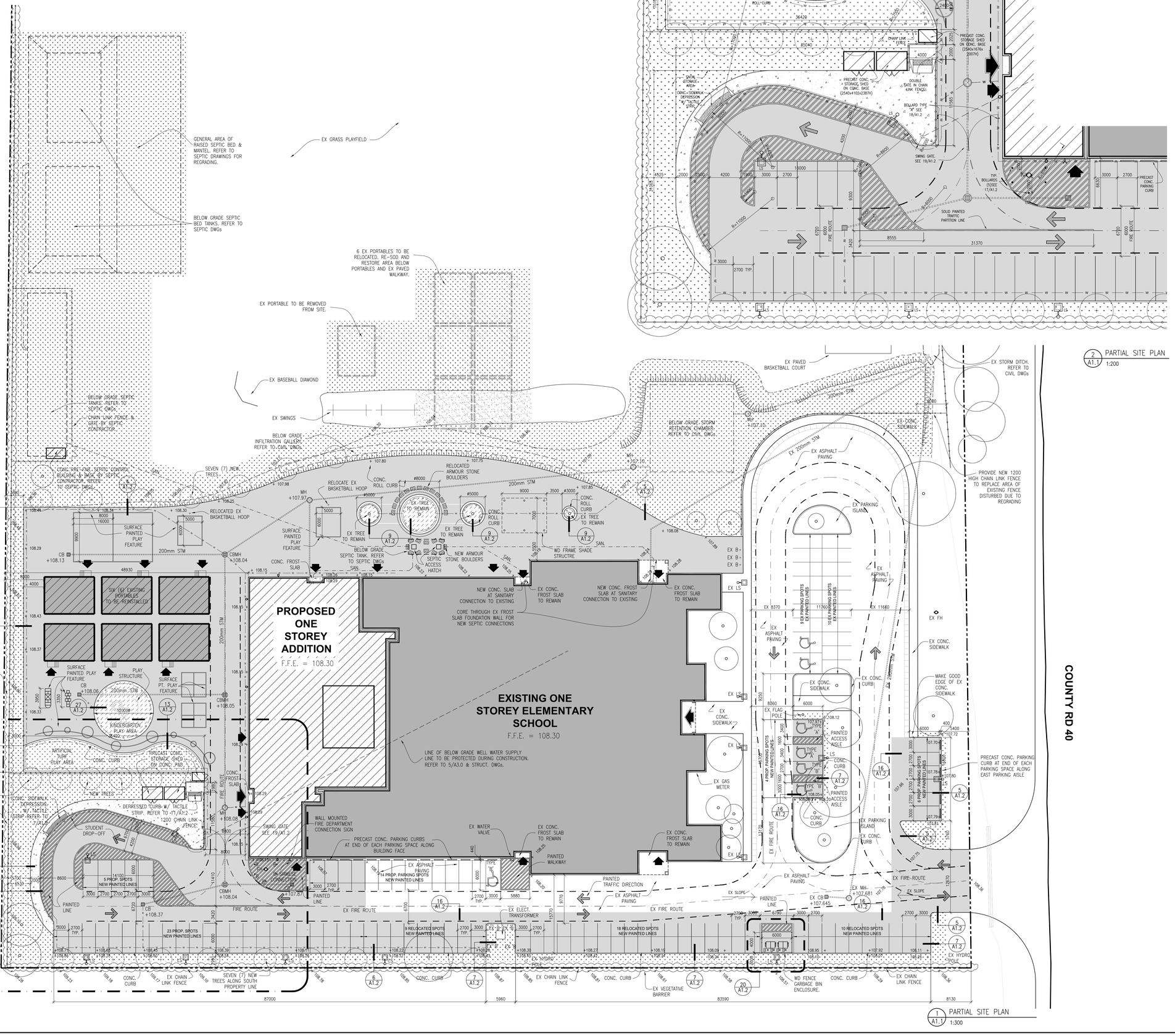
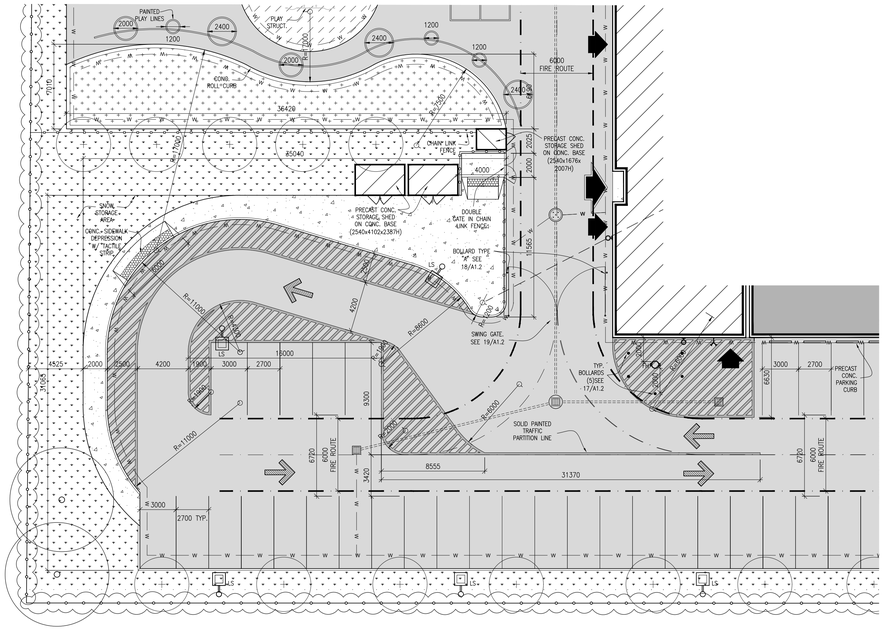
DWG. NO. A1.0





2 A1.1 PARTIAL SITE PLAN
1:200

1 A1.1 PARTIAL SITE PLAN
1:300

LEGEND

- PROPERTY LINE
- EX CHAIN LINK FENCE
- NEW CHAIN LINK FENCE
- W — NEW WEEPING TILE
- FIRE ROUTE / TRUCK ACCESS
- MAIN ENTRANCE
- ENTRANCE
- BARRIER-FREE PARKING LOGO
- PAINTED TRAFFIC DIRECTION
- +112.40 FINISHED GRADES. REFER TO SITE GRADING DRAWING.
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DATE		REVISIONS

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1994 Fisher Drive, Peterborough, Ontario K9J 6X6

DRAWING

PARTIAL SITE PLAN

ONTARIO ASSOCIATION OF ARCHITECTS
JULY 24/24
ROBERT F. FERKUL
LICENCE 4695

TRUE NORTH | DWG. NORTH

JOB NO. 2304

SCALE AS NOTED

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DWG. NO. A1.1

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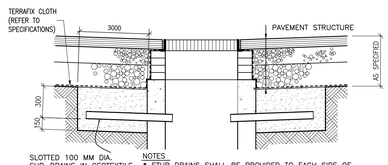
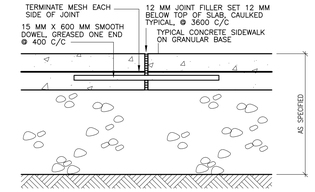


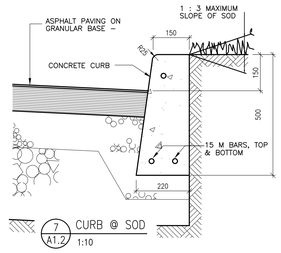
NOTES

- STUB DRAINS SHALL BE PROVIDED TO EACH SIDE OF CATCHBASIN WHERE PAVEMENT SLOPES TO CATCHBASIN
- THIS DWG. IS NOT TO SCALE AND IS SCHEMATIC ONLY
- SEE CIVIL PART FOR TYPICAL CATCH BASIN CONSTRUCTION

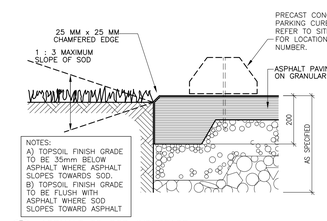
10 A1.2 STUB DRAIN AT CATCH BASINS
NTS



8 A1.2 TYPICAL CONCRETE EXPANSION JOINT
1:10

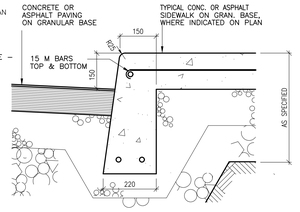


7 A1.2 CURB @ SOD
1:10

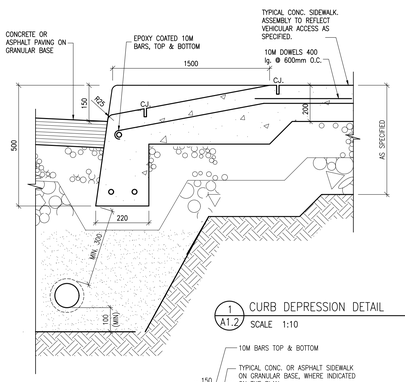


NOTES:
A) TOPSOIL FINISH GRADE TO BE 35mm BELOW ASPHALT WHERE ASPHALT SLOPES TOWARDS SOD.
B) TOPSOIL FINISH GRADE TO BE FLUSH WITH ASPHALT WHERE SOD SLOPES TOWARD ASPHALT

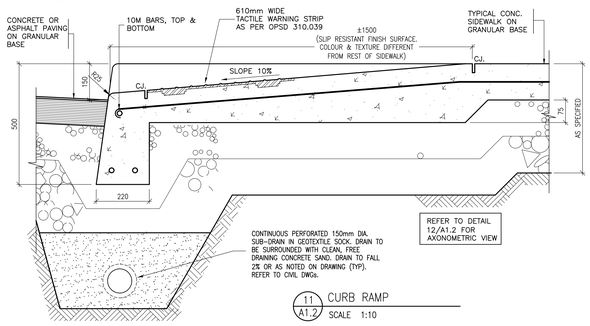
5 A1.2 ASPHALT TO SOD INTERFACE
1:10



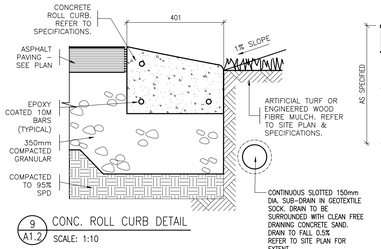
3 A1.2 CURB DETAIL @ SIDEWALK
1:10



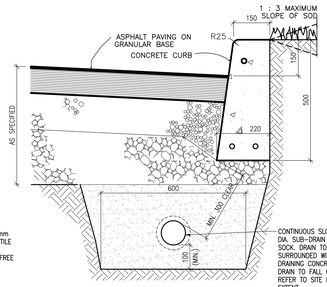
1 A1.2 CURB DEPRESSION DETAIL
SCALE 1:10



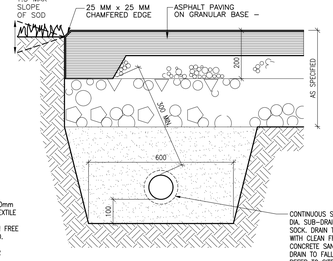
11 A1.2 CURB RAMP
SCALE 1:10



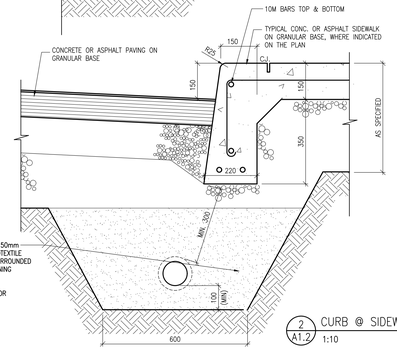
9 A1.2 CONC. ROLL CURB DETAIL
SCALE: 1:10



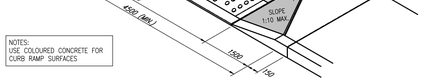
6 A1.2 CURB @ SOD W/ WEEPER
1:10



4 A1.2 ASPHALT TO SOD INTERFACE W/WEEPER
1:10



2 A1.2 CURB @ SIDEWALK W/WEEPER
1:10



NOTES:
USE COLOURED CONCRETE FOR CURB RAMP SURFACES

12 A1.2 CURB RAMP (AXONOMETRIC VIEW)
NTS

13 A1.2 CONCRETE CURB DETAIL
SCALE 1:10

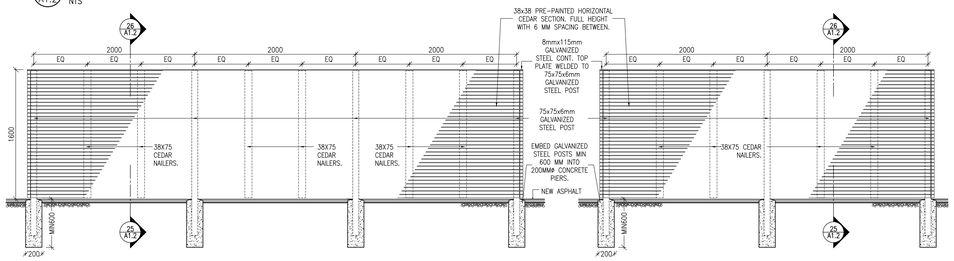
14 A1.2 CONTROL JOINT
1:10

15 A1.2 CONC. TO SOD
1:10

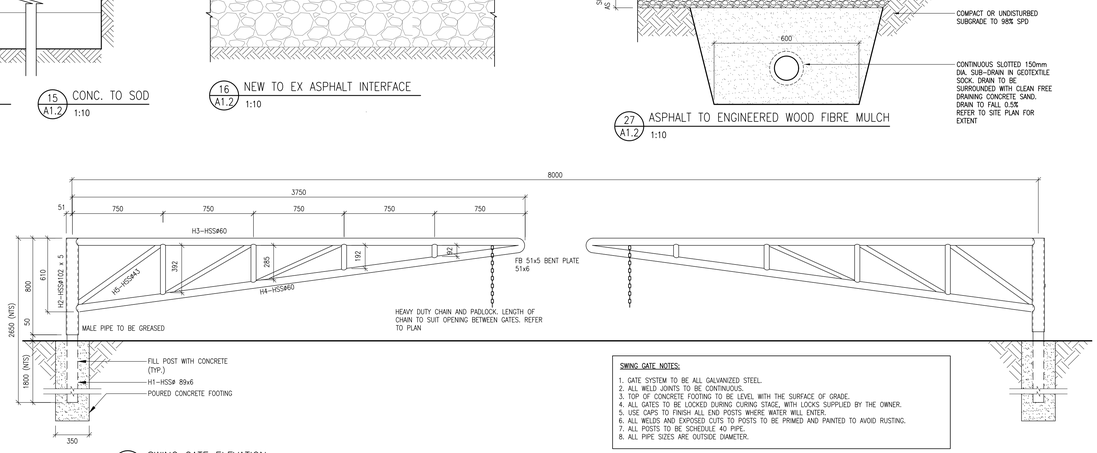
16 A1.2 NEW TO EX ASPHALT INTERFACE
1:10

NOTES:
A) DEPTH OF FIBAR TO MEET CSA STANDARDS FOR PLAY AREAS. MIN 308MM
B) SUPPLY SHOP DRAWINGS FOR DRAINAGE LAYOUT.

27 A1.2 ASPHALT TO ENGINEERED WOOD FIBRE MULCH
1:10



22 A1.2 GARBAGE STORAGE ENCLOSURE – EAST (WEST REVERSE) ELEVATION
1:30

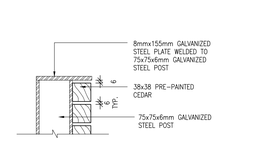


SWING GATE NOTES:

1. GATE SYSTEM TO BE ALL GALVANIZED STEEL.
2. ALL WELD JOINTS TO BE CONTINUOUS.
3. TOP OF CONCRETE FOOTING TO BE LEVEL WITH THE SURFACE OF GRADE.
4. ALL GATES TO BE LOCKED DURING CURING STAGE, WITH LOCKS SUPPLIED BY THE OWNER.
5. USE CAPS TO FINISH ALL END POSTS WHERE WATER WILL ENTER.
6. ALL WELDS AND EXPOSED CUTS TO POSTS TO BE PRIMED AND PAINTED TO AVOID RUSTING.
7. ALL POSTS TO BE SCHEDULE 40 PIPE.
8. ALL PIPE SIZES ARE OUTSIDE DIAMETER.

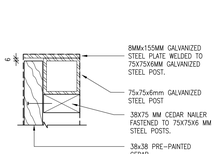
19 A1.2 SWING GATE ELEVATION
1:20

21 A1.2 GARBAGE STORAGE ENCLOSURE – SOUTH ELEVATION
1:20



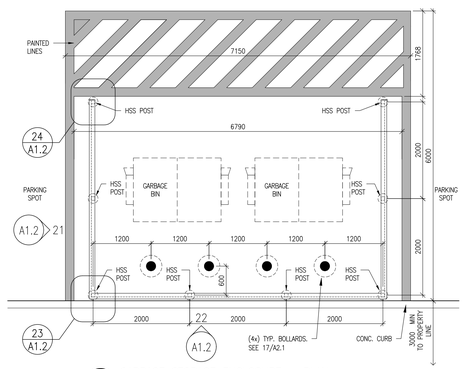
26 A1.2 SECTION DETAIL
1:5

25 A1.2 SECTION DETAIL
1:5



24 A1.2 PLAN DETAIL
1:5

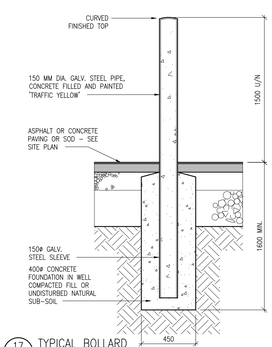
23 A1.2 PLAN DETAIL
1:5



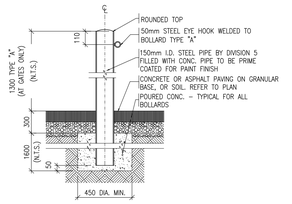
20 A1.2 GARBAGE STORAGE ENCLOSURE – PLAN
1:20

GARBAGE STORAGE ENCLOSURE NOTES:

1. STEEL FRAMING TO BE ALL GALVANIZED STEEL.
2. ALL WELD JOINTS TO BE CONTINUOUS.
3. TOP OF CONCRETE FOOTING TO BE LEVEL WITH THE SURFACE OF GRADE.
4. ALL WELDS AND EXPOSED CUTS TO POSTS TO BE PRIMED AND PAINTED TO AVOID RUSTING.



17 A1.2 TYPICAL BOLLARD
1:20



18 A1.2 BOLLARD TYPE "A" DETAIL @ SWING GATE
1:20

DATE	REVISIONS
8.	–
7. JULY 24 2024	ISSUED FOR TENDER/PERMIT
6. JUNE 11 2024	SITE PLAN REVIEW (4th SUBMISSION)
5. MAY 03 2024	SITE PLAN REVIEW (3rd SUBMISSION)
4. FEB 12 2024	COSTING
3. FEB 12 2024	SITE PLAN REVIEW (2nd SUBMISSION)
2. NOV 13 2023	SITE PLAN REVIEW (PRELIMINARY)
1. FEB 28 2023	PRELIMINARY SITE PLAN REVIEW

MURRAY CENTENNIAL PUBLIC SCHOOL ADDITION

654 County Road 40,
TRENTON ONTARIO K8V 5P4

KAWARTHA PINE RIDGE DISTRICT SCHOOL BOARD

1994 Fisher Drive, Peterborough, Ontario K9J 6X6

DRAWING

SITE DETAILS

ONTARIO ASSOCIATION OF ARCHITECTS — JULY 24/24 — ROBERT F. FERKUL LICENCE 4695

TRUE NORTH | DWG. NORTH

JOB NO. 2304

SCALE AS NOTED

DATE FEB 2024

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DWG. NO. A1.2

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Construction Phasing

Preamble

As the school (Murray Centennial Public School) will be occupied during the construction period, the work within the contract will be phased to mutually accommodate and segregate school use and construction activities. The phasing sequence intent is as follows:

Phase 1

Below work will be completed between **October 1, 2024 & October 31, 2024**.

Phase 1 period work is to primarily prepare the school site by providing specific renovations to facilitate school functions during course of work. These are to include the following, but are not limited to:

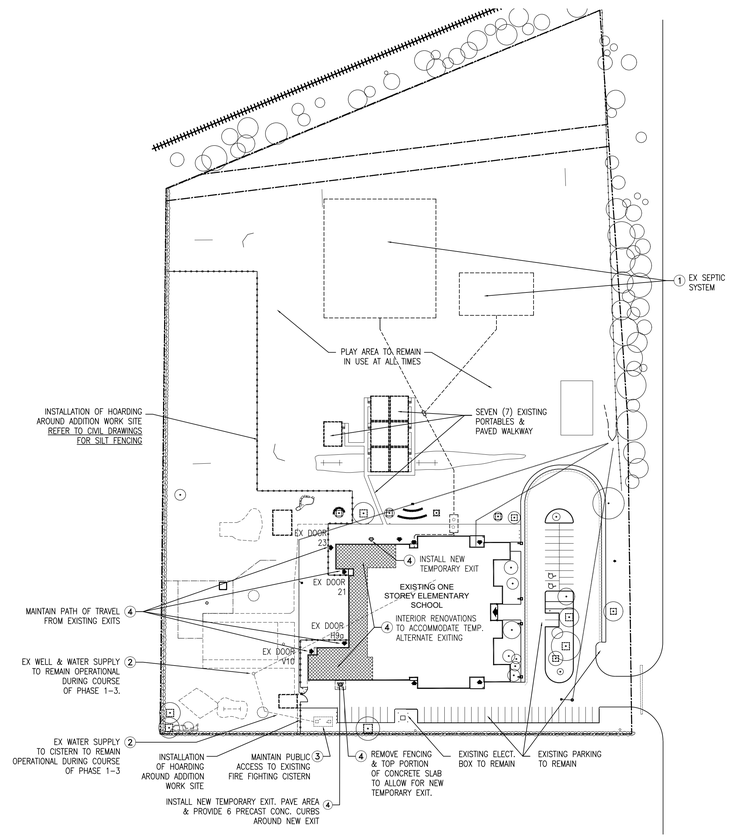
(1) Existing Septic system to remain operational during course of Phase 1 & 3

(2) Existing water supply to the school and fire fighting cistern is fed from a well located at the south-west of the school property. The existing water supply line to the building is to run below the proposed addition. This existing water supply line is to be protected and remain operational through Phase 1-3. This well is only to be decommissioned when the new water supply to the building, sprinkler system, and on-site fire hydrants are commissioned.

(3) Maintain vehicular public access to the existing fire fighting cistern along the south side of the property. Access to the cistern is to be maintained throughout course of construction.

(4) Interior renovations to existing classrooms and kindergarten rooms to accommodate alternate exiting strategy during course of construction. Refer to drawings on sheet A2.0 for interior renovation phasing scope. Provide construction hoarding to maintain path of travel from existing exit doors 23, 21, H9a, and V10. Remove chain link ex fence & concrete pad at south side of school to accommodate new temporary exit. Locally re-pave area.

Work in this phase is a priority to ensure the existing school can be occupied and used for the remainder of the school year while construction of the addition continues. Refer to Civil, Electrical, Mechanical, and architectural demolition drawings for full scope of removals.



2 / A1.3 PHASE 1 DIAGRAM
1:1000

Phase 2 the intermediary phase, will commence **November 1, 2024** and be complete **June 30, 2025**. Phase 2 comprises the completion of the majority of building and site upgrades, including:

(0) Remove ex storm system along west end of site. Refer to Civil drawings.

Provide new temporary 150ø weeping tile from ex CB to outfall at ex north slope. Remove upon completion of new storm system. In lieu of weeping tile, provide pumps to remove storm water to north of school.

(1) Revise location of construction hoarding

(2) Complete majority of addition building

(3) Install septic bed and biofilter system at west end of site

Phase 3 the final phase, will commence **July 1, 2025** and be complete **August 29, 2025**. Phase 3 comprises the substantial completion of the remaining work, along with commissioning of new services, and decommissioning of existing services, including:

(4) New septic system to be completed and commissioned. Existing septic system to be decommissioned. Refer to Septic Drawings.

(5) Relocate portables from temporary location north of the school building to the west play area. Remove temporary foundations and re-sod area.

(6) Decommission existing fire fighting cistern upon completion of new water supply hook-up, new on-site fire hydrant, and new sprinkler system located within the addition.

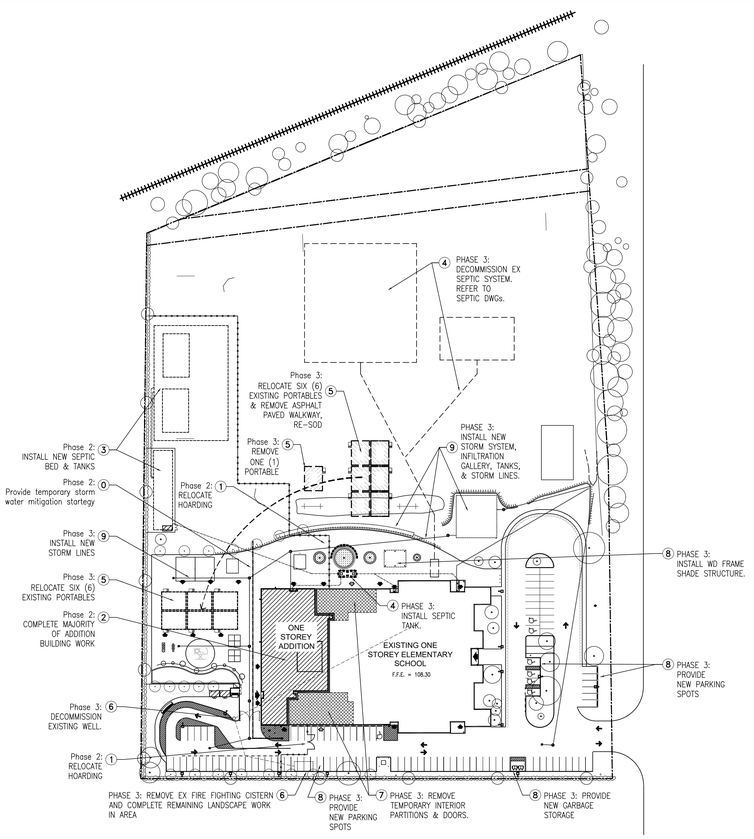
(6) Decommission existing well upon commissioning of new domestic water supply, sprinkler system, & on site fire hydrant

(7) Remove temporary interior partitions and doors as part of alternate exiting strategy. Perform interior renovations. Refer to drawing 1/A2.1 & RCP drawing 1/A5.0 for final layout.

(8) Complete remainder of site work.

(9) Install new storm system. Refer to Civil Drawings.

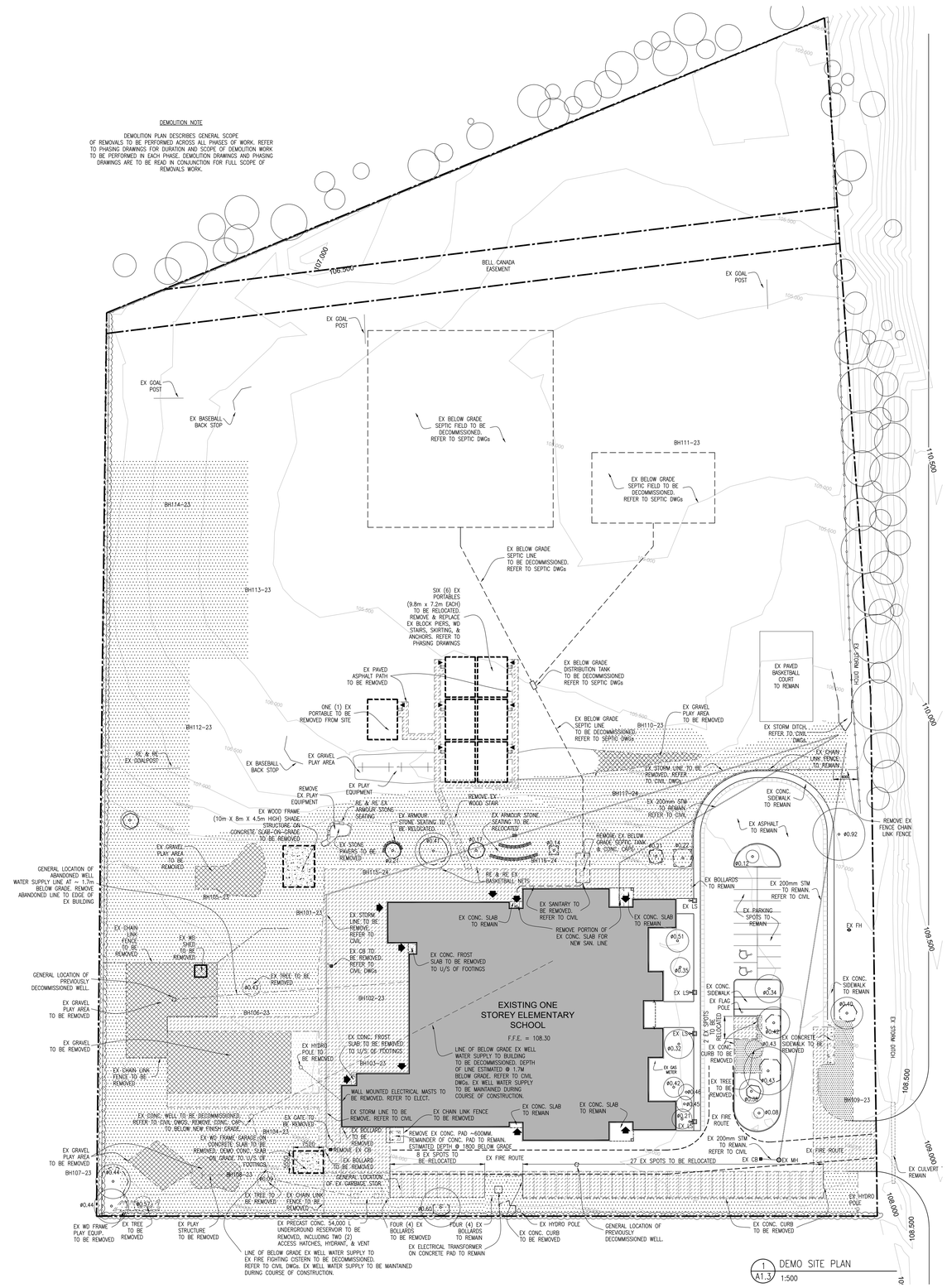
In this period the building is to be readied for full occupancy along with all asphalt areas (for vehicle and pedestrian) prior to **AUGUST, 2025**



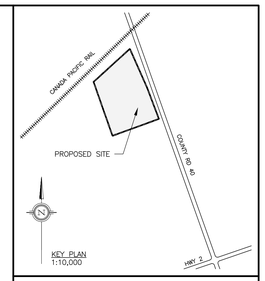
3 / A1.3 PHASE 2 & 3 DIAGRAM
1:1000

DEMOLITION NOTE

DEMOLITION PLAN DESCRIBES GENERAL SCOPE OF REMOVALS TO BE PERFORMED ACROSS ALL PHASES OF WORK. REFER TO PHASING DRAWINGS FOR DURATION AND SCOPE OF DEMOLITION WORK TO BE PERFORMED IN EACH PHASE. DEMOLITION DRAWINGS AND PHASING DRAWINGS ARE TO BE READ IN CONJUNCTION FOR FULL SCOPE OF REMOVALS WORK.



1 / A1.3 DEMO SITE PLAN
1:500



LEGEND

- PROPERTY LINE
- EXISTING CHAIN LINK FENCE
- EXISTING CHAIN LINK FENCE TO BE REMOVED
- FIRE ROUTE / TRUCK ACCESS
- EXISTING TO BE REMOVED UNLESS OTHERWISE NOTED
- MAIN ENTRANCE
- ENTRANCE
- NEW TEMPORARY EXIT
- BARRIER-FREE PARKING LOGO
- TREE PROTECTION ZONE. REFER TO CIVIL DWGs.
- EXISTING SIAMESE CONNECTION
- EX LS — EXISTING LIGHT STANDARD
- EX MH — EXISTING MANHOLE
- EX CB — EXISTING CATCH BASIN
- EX B — EXISTING BOLLARD
- EXISTING TREE TO BE REMOVED
- EXISTING TREES
- EXISTING SOD TO BE REMOVED
- EXISTING ASPHALT TO BE REMOVED
- EXISTING GRAVEL TO BE REMOVED
- EXISTING CONCRETE TO BE REMOVED

DATE	REVISIONS
8.	–
7. JULY 24 2024	ISSUED FOR TENDER/PERMIT
6. JUNE 11 2024	SITE PLAN REVIEW (4th SUBMISSION)
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MURRAY CENTENNIAL PUBLIC SCHOOL ADDITION

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KAWARTHA PINE RIDGE DISTRICT SCHOOL BOARD

1994 Fisher Drive, Peterborough, Ontario K9J 6X8

DRAWING

DEMO SITE PLAN & SITE PHASING PLAN

ONTARIO ASSOCIATION OF ARCHITECTS JULY 24/24 ROBERT F. FERKUL LICENCE 4695

TRUE NORTH | DWG. NORTH

JOB NO. 2304

SCALE AS NOTED

DATE FEB 2024

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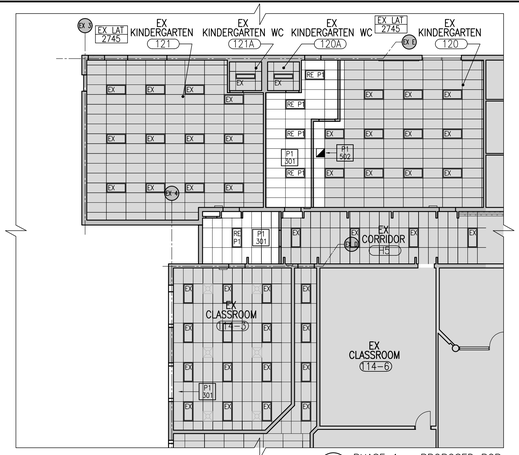
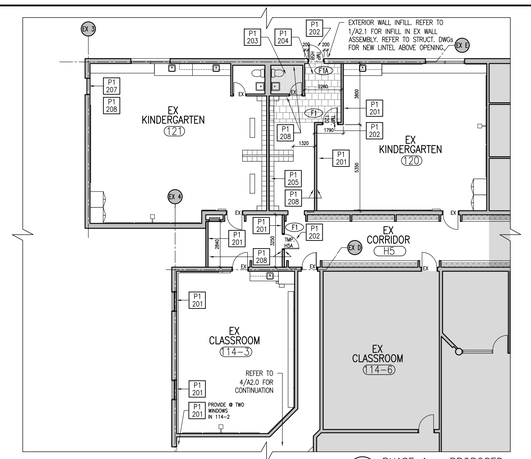
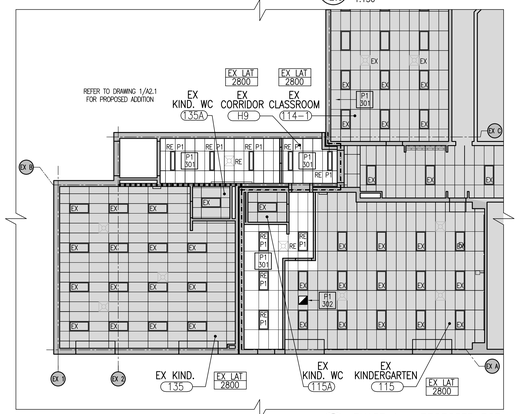


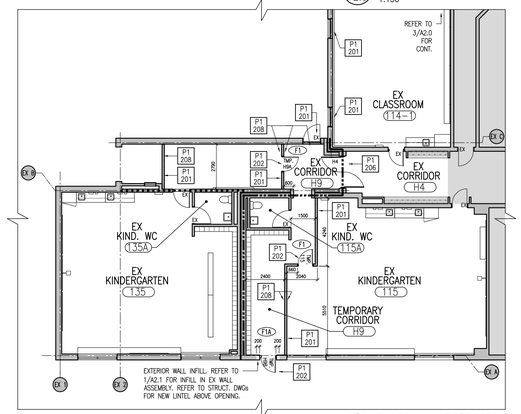
5 A2.0 PHASE 1 – PROPOSED RCP 1:150



3 A2.0 PHASE 1 – PROPOSED 1:150



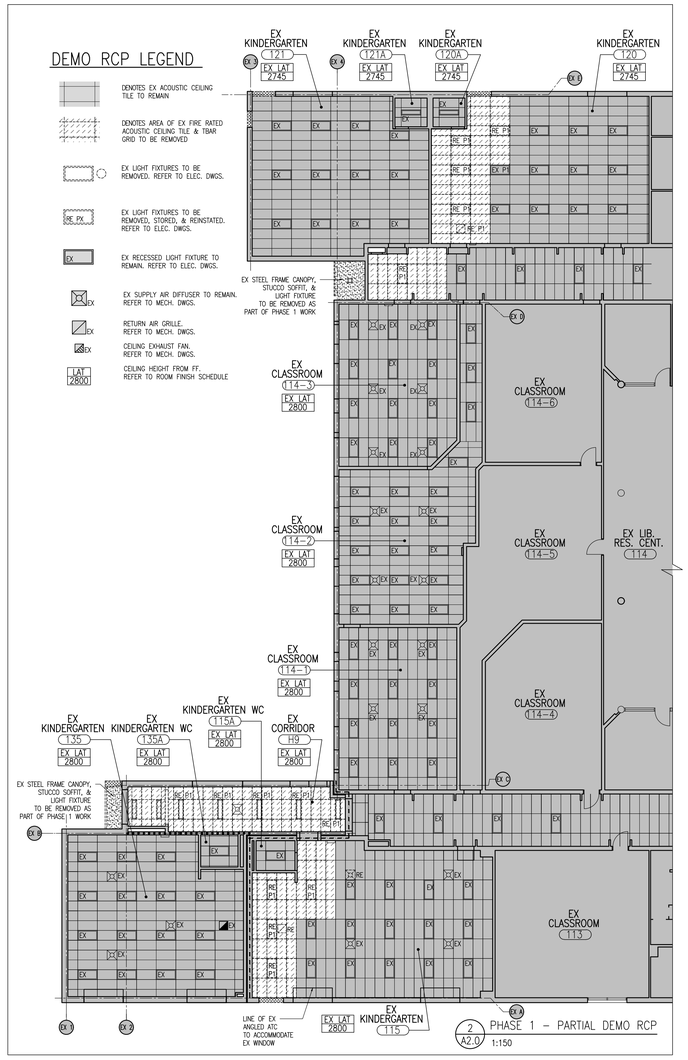
6 A2.0 PHASE 1 – PROPOSED RCP 1:150



4 A2.0 PHASE 1 – PROPOSED 1:150

DEMO RCP LEGEND

- DENOTES EX ACOUSTIC CEILING TILE TO REMAIN
- DENOTES AREA OF EX FIRE RATED ACOUSTIC CEILING TILE & TBAR GRID TO BE REMOVED
- EX LIGHT FIXTURES TO BE REMOVED. REFER TO ELEC. DWGS.
- RE PX — EX LIGHT FIXTURES TO BE REMOVED, STORED, & REINSTATED. REFER TO ELEC. DWGS.
- EX — EX RECESSED LIGHT FIXTURE TO REMAIN. REFER TO ELEC. DWGS.
- RD EX — EX SUPPLY AIR DIFFUSER TO REMAIN. REFER TO MECH. DWGS.
- RG EX — RETURN AIR GRILLE. REFER TO MECH. DWGS.
- CF EX — CEILING EXHAUST FAN. REFER TO MECH. DWGS.
- LAT 2800 — CEILING HEIGHT FROM FF. REFER TO ROOM FINISH SCHEDULE



2 A2.0 PHASE 1 – PARTIAL DEMO RCP 1:150

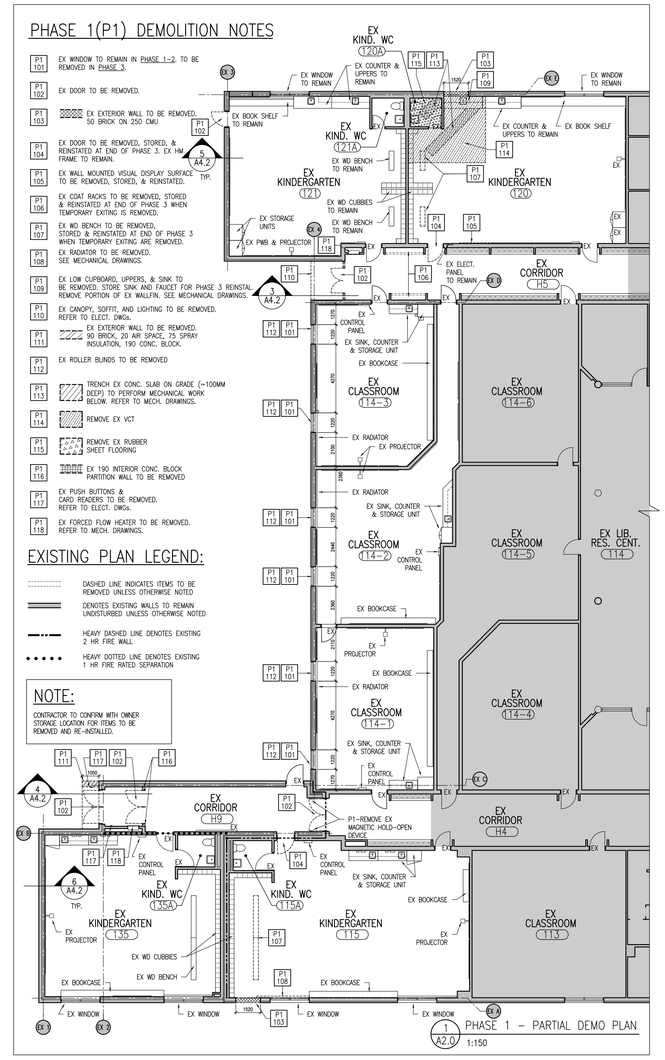
PHASE 1(P1) DEMOLITION NOTES

- P1 101 — EX WINDOW TO REMAIN IN PHASE 1-2. TO BE REMOVED IN PHASE 3.
- P1 102 — EX DOOR TO BE REMOVED.
- P1 103 — EX EXTERIOR WALL TO BE REMOVED. 50 BRICK ON 250 CMU
- P1 104 — EX DOOR TO BE REMOVED, STORED, & REINSTATED AT END OF PHASE 3. EX HM FRAME TO REMAIN.
- P1 105 — EX WALL MOUNTED VISUAL DISPLAY SURFACE TO BE REMOVED, STORED, & REINSTATED. TYP.
- P1 106 — EX COAT RACKS TO BE REMOVED, STORED & REINSTATED AT END OF PHASE 3 WHEN TEMPORARY EXITING IS REMOVED.
- P1 107 — EX WD BENCH TO BE REMOVED, STORED & REINSTATED AT END OF PHASE 3 WHEN TEMPORARY EXITING ARE REMOVED.
- P1 108 — EX RADIATOR TO BE REMOVED. SEE MECHANICAL DRAWINGS.
- P1 109 — EX LOW CUPBOARD, UPPERS, & SINK TO BE REMOVED. STORE SINK AND FAUCET FOR PHASE 3 REINSTAL. REMOVE PORTION OF EX WALLFIN. SEE MECHANICAL DRAWINGS.
- P1 110 — EX CANOPY, SOFFIT, AND LIGHTING TO BE REMOVED. REFER TO ELECT. DWGs.
- P1 111 — EX EXTERIOR WALL TO BE REMOVED. 90 BRICK, 20 AIR SPACE, 75 SPRAY INSULATION, 190 CONC. BLOCK.
- P1 112 — EX ROLLER BLINDS TO BE REMOVED
- P1 113 — TRENCH EX CONC. SLAB ON GRADE (~100MM DEEP) TO PERFORM MECHANICAL WORK BELOW. REFER TO MECH. DRAWINGS.
- P1 114 — REMOVE EX VCT
- P1 115 — REMOVE EX RUBBER SHEET FLOORING
- P1 116 — EX 190 INTERIOR CONC. BLOCK PARTITION WALL TO BE REMOVED
- P1 117 — EX PUSH BUTTONS & CARD READERS TO BE REMOVED. REFER TO ELECT. DWGs.
- P1 118 — EX FORCED FLOW HEATER TO BE REMOVED. REFER TO MECH. DRAWINGS.

EXISTING PLAN LEGEND:

- DASHED LINE INDICATES ITEMS TO BE REMOVED UNLESS OTHERWISE NOTED
- DENOTES EXISTING WALLS TO REMAIN UNDISTURBED UNLESS OTHERWISE NOTED
- HEAVY DASHED LINE DENOTES EXISTING 2 HR FIRE WALL
- HEAVY DOTTED LINE DENOTES EXISTING 1 HR FIRE RATED SEPARATION

NOTE:
CONTRACTOR TO CONFIRM WITH OWNER STORAGE LOCATION FOR ITEMS TO BE REMOVED AND RE-INSTALLED.



1 A2.0 PHASE 1 – PARTIAL DEMO PLAN 1:150

PHASE 1 GENERAL RCP CONSTRUCTION NOTE:

1. REFER TO ELECTRICAL DRAWINGS FOR EXACT TYPE, LOCATION, AND NUMBER OF LIGHT FIXTURES, SPEAKERS, SMOKE DETECTOR, ETC.
2. REFER TO MECHANICAL DRAWINGS FOR EXACT NUMBER OF PENETRATIONS IN CEILING FOR DIFFUSERS, GRILLES, ACCESS OPENINGS, ETC. PROVIDE HANGERS & FRAMING TO SUIT MECHANICAL OPENINGS AND BULKHEADS.
3. PROVIDE OPENINGS THRU WALLS TO ACCOMMODATE INSTALLATION OF DUCTWORK. FOR FIRE DAMPERS AND EXACT NUMBER, SIZE & LOCATION OF DUCTWORK PENETRATION THRU WALLS, REFER TO MECHANICAL DRAWINGS. REFER TO STRUCTURAL DRAWING FOR LINTEL TYPE.

PHASE 1 (P1) RCP CONSTRUCTION NOTES:

- P1 301 — AREA OF NEW FIRE RATED ATC TILE & GRID
- P1 302 — REINSTALL RETURN AIR GRILLE. REFER TO MECH.

PHASE 1 (P1) CONSTRUCTION NOTES:

- P1 201 — NEW RATED PARTITION (1 HR FRR – ULC W407) TO UNDERSIDE OF EX METAL DECK. 16 TYPE "X" GYPSUM BOARD TO UNDERSIDE OF EX METAL DECK 92 MTAL STUDS @ 400 O.C. 75 ROCK WOOL ACOUSTIC INSULATION 16 TYPE "X" GYPSUM BOARD TO UNDERSIDE OF DECK PAINT DRYWALL
- P1 202 — NEW TEMPORARY DOOR (TMP. = TEMPORARY)
- P1 203 — NEW RUBBER SHEET FLOORING. REFER TO RFS.
- P1 204 — NEW VCT TO MATCH EXISTING
- P1 205 — PROVIDE FIRE STOPPING AT ANY EXISTING WALL PENETRATIONS. FILL IN ANY EXPOSED FLUES AT ROOF LEVEL TO CREATE CONTINUOUS FIRE SEPARATION. REFER TO DETAIL 8/A4.1
- P1 206 — NEW DOUBLE EGRESS DOOR C/W MAGNETIC HOLD-OPEN DEVICE
- P1 207 — NEW 190 INFILL BLOCK WALL. TOOTH NEW BLOCK INTO EXISTING. PAINT.
- P1 208 — RUBBER BASE TRIM.

PHASE 1 & 3 – EXISTING SCHOOL RENOVATIONS GENERAL SCOPE OF WORK:

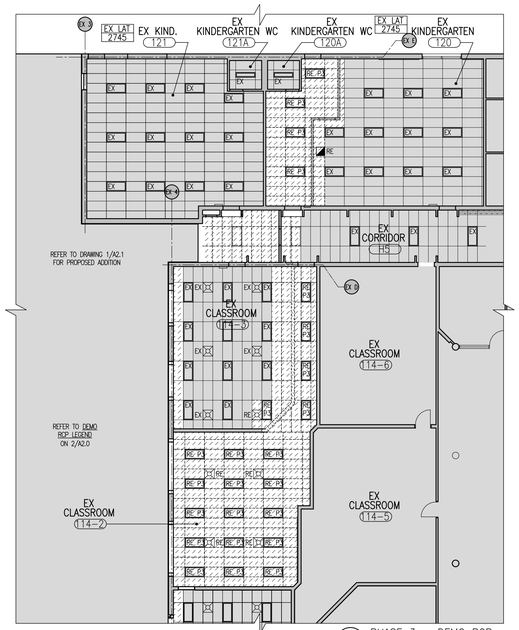
PHASE 1 (WORK TO BE PERFORMED IN PHASE 1 IS GENERALLY INDICATED ON DRAWINGS BY "P1"). REFER TO SPECIFICATIONS FOR PHASING DATES.

AS THE NEW ADDITION WILL IMPACT EXISTING EXITING, RENOVATIONS TO THE EXISTING SCHOOL WILL BE REQUIRED TO ACCOMMODATE ALTERNATE TEMPORARY EXITING PLANS. IT IS CRITICAL ALL WORK IN PHASE 1 BE COMPLETE BY OCTOBER 31, 2024 TO ALLOW FOR SCHOOL ACTIVITIES TO FUNCTION. GENERALLY THE ALTERNATE EXITING STRATEGY WILL REQUIRE THE REMOVAL OF, BUT IS NOT LIMITED TO, EXISTING DOORS, NEW OPENING IN EXISTING EXTERIOR WALLS TO ACCOMMODATE NEW DOORS, AND REMOVAL OF MILLWORK AND FINISHES. RENOVATIONS ARE TO INCLUDE, BUT ARE NOT LIMITED TO, NEW TEMPORARY 1HR RATED PARTITIONS, NEW DOORS, REVISED LIGHTING, HVAC, AND PLUMBING, AND REPAIRED FINISHES.

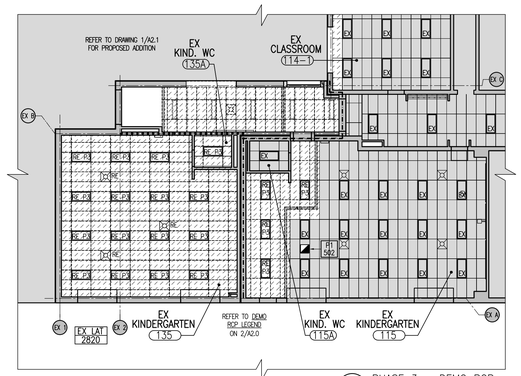
PHASE 2 INCLUDES THE MAJORITY OF CONSTRUCTION TO THE NEW ADDITION BETWEEN NOVEMBER 1, 2024 TO JUNE 30, 2025. WORK TO BE PERFORMED DURING PHASE 2 MAY OVERLAP WITH PHASE 1 AND PHASE 3 CONSTRUCTION.

PHASE 3 (DEMO WORK TO BE PERFORMED IN PHASE 3 IS GENERALLY INDICATED ON DRAWINGS BY "P3") IS TO COMMENCE JULY 01, 2025 AND BE COMPLETE BY AUGUST 29, 2025.

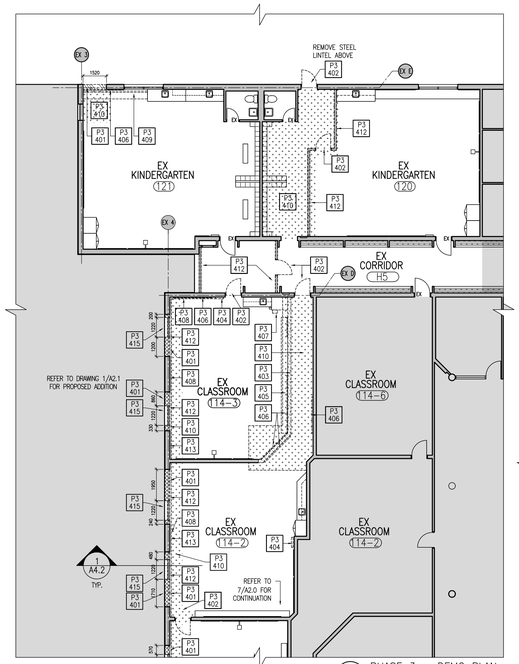
GENERALLY, WORK IN PHASE 3 IS TO REMOVE DOORS, WALLS, ETC INSTALLED IN PHASE 1 TO FACILITATE TEMPORARY EXITING STRATEGY. DEMOLITION WORK TO BE PERFORMED IN PHASE 3 ARE SHOWN ON DRAWING 7,8,9,10/A2.0. NEW WORK TO BE PERFORMED IN PHASE 3, IS SHOWN ON DRAWING 1/A2.1. ANY NEW WORK DESCRIBED IN PHASE 1 DRAWINGS LABELLED AS "TEMPORARY" IS TO BE REMOVED IN PHASE 3 AND ANY FINISHES DISTURBED ARE TO BE RESTORED.



10 A2.0 PHASE 3 – DEMO RCP 1:150



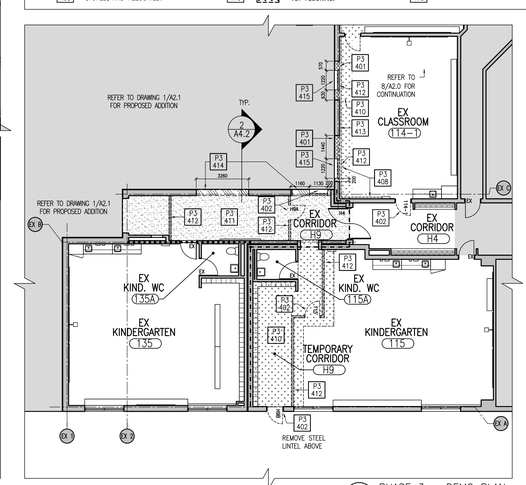
9 A2.0 PHASE 3 – DEMO RCP 1:150



8 A2.0 PHASE 3 – DEMO PLAN 1:150

PHASE 3(P3) DEMOLITION NOTES

- P3 401 — EX EXTERIOR WALL TO BE REMOVED. 50 BRICK ON 250 CMU
- P3 402 — EX DOOR TO BE REMOVED.
- P3 403 — EX INTERIOR 190 BLOCK WALL TO BE REMOVED.
- P3 404 — EX CP TO BE REMOVED.
- P3 405 — EX BOOKSHELF TO BE REMOVED, STORED, AND RELOCATED.
- P3 406 — EX WALL MOUNTED VISUAL DISPLAY SURFACE/COAT HOOK TO BE REMOVED, STORED, & REINSTATED.
- P3 407 — EX TEACHER'S CLOSET TO BE REMOVED.
- P3 408 — EX RADIATOR TO BE REMOVED. REFER TO MECH. DWGS.
- P3 409 — EX BOOK SHELF AND INTEGRATED WALL FIN RADIATOR TO BE REMOVED. REFER TO MECH.
- P3 410 — REMOVE EX VCT FLOORING.
- P3 411 — REMOVE EX TERRAZZO FLOORING & COVE.
- P3 412 — EX TEMPORARY PARTITION TO BE REMOVED
- P3 413 — REMOVE COMPLETELY EX DRYWALL ON METAL FURRING CHANNEL & INSULATION TO UNDERSIDE OF EX METAL DECK
- P3 414 — EX EXTERIOR WALL TO BE REMOVED. 90 BRICK, 20 AIR SPACE, 75 SPRAY INSULATION, 190 CONC. BLOCK.
- P3 415 — REMOVE EX WINDOW



7 A2.0 PHASE 3 – DEMO PLAN 1:150

8.	–	–
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DATE		REVISIONS

MURRAY CENTENNIAL PUBLIC SCHOOL ADDITION

654 County Road 40,
TRENTON ONTARIO K8V 5P4

KAWARTHA PINE RIDGE DISTRICT SCHOOL BOARD

1994 Fisher Drive, Peterborough, Ontario K9J 6X8

DRAWING

INTERIOR PHASING PLAN & RCP

ONTARIO ASSOCIATION OF ARCHITECTS JULY 24/24 ROBERT F. FERKUL LICENCE 4695

TRUE NORTH | DWG. NORTH

JOB NO. 2304

SCALE AS NOTED

DATE FEB 2024

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DWG. NO. A2.0

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5052 DUNDAS ST. WEST
TORONTO, ONT. M9A 1B9
TEL: (416) 239-2775
FAX: (416) 239-6729
EMAIL: mdarch@mdarch.ca

FIRE RESISTANCE RATED CONCRETE BLOCK PARTITIONS				
	Normal Weight (N or S concrete)		Light Weight (L"20s concrete)	
Required Rating	Min. Equivalent Thickness Required *	Min. Concrete Block size and Rating provided †	Min. Equivalent Thickness Required *	Min. Concrete Block size and Rating provided †
1/2 hour	44 mm	90 Block 66 mm - 45 min	42 mm	90 Block 66 mm - 1.1 hr
1 hour	73 mm	140 Block 81 mm - 1.1 hr	64 mm	90 Block 66 mm - 1.1 hr
2 hour	113 mm	240 Block 127 mm - 2.4 hr	94 mm	190 Block 106 mm - 2.5 hr
3 hour	142 mm	290 Block 148 mm - 3.2 hr	116 mm	240 Block 127 mm - 3.2 hr

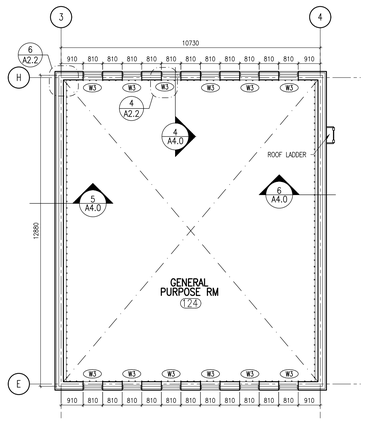
** As required by Table 2.1.1. SB-2 OBC 2006 or OBC 2012*
† As calculated and provided by the Canadian Concrete Masonry Producers, Technical Manual, Chapter 5

PHASING NOTE:

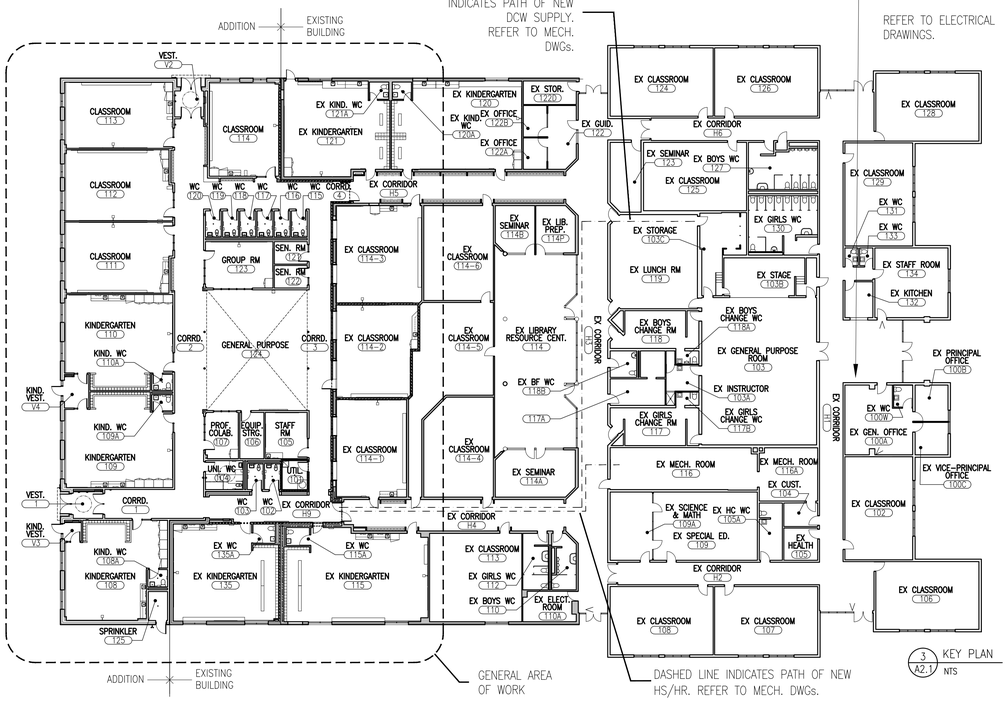
DRAWING 1/A2.1 SHOWS PROPOSED PHASE 3 WORK TO BE COMPLETE IN EXISTING BUILDING. REFER TO DRAWING 1/A5.0 FOR PHASE 3 RCP WORK IN EXISTING BUILDING.

REFER TO DRAWING 7&8/A2.0 FOR PHASE 3 DEMOLITION PLAN & 9&10/A2.0 FOR PHASE 3 DEMOLITION RCP.

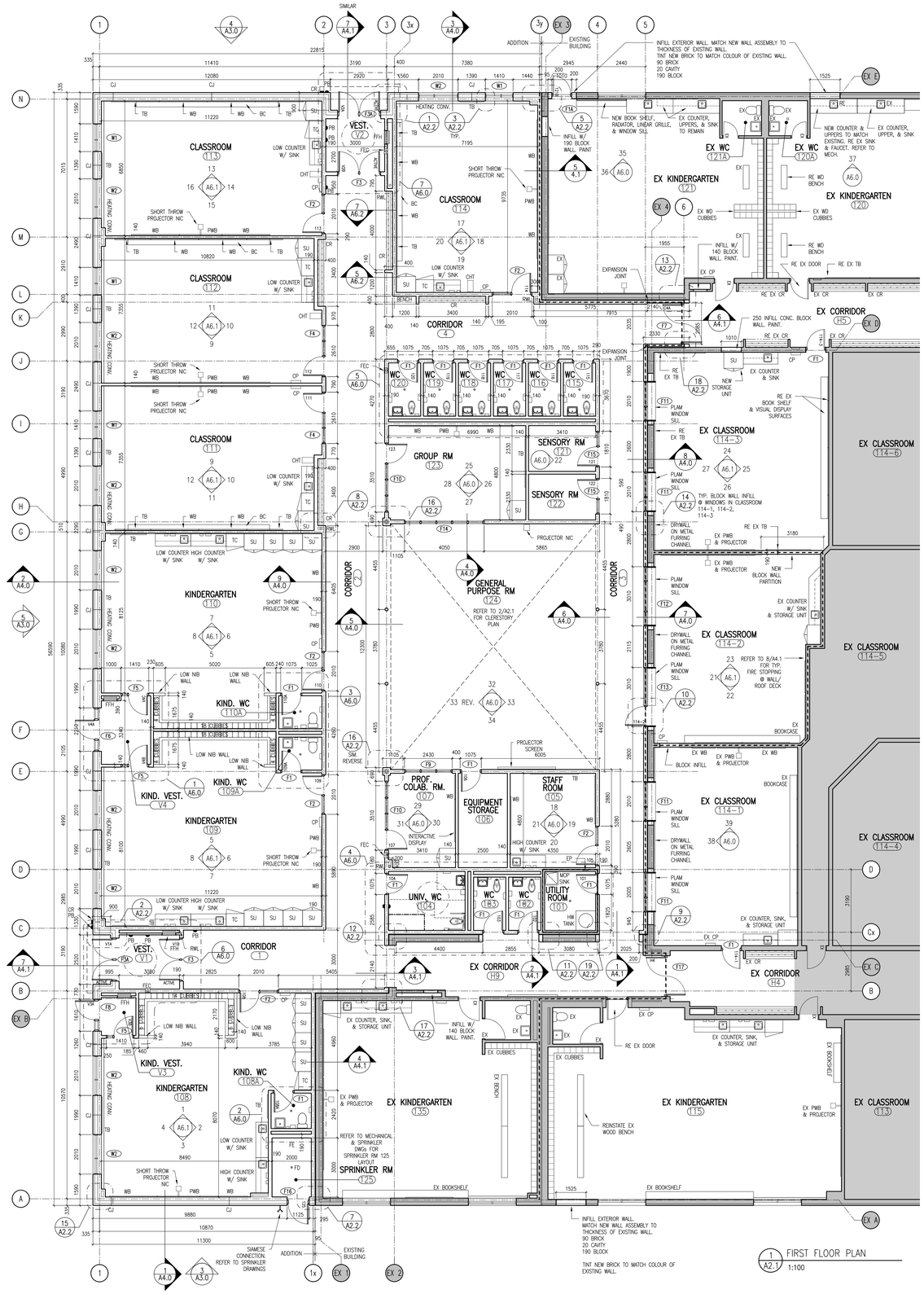
REFER TO DRAWING 1/A2.0 FOR PHASE 1 DEMOLITION PLAN.
REFER TO DRAWING 2/A2.0 FOR PHASE 1 DEMOLITION RCP.
REFER TO DRAWING 3&4/A2.0 FOR PHASE 1 PROPOSED PLAN.
REFER TO DRAWING 5&6/2.0 FOR PHASE 1 PROPOSED RCP.



2 A2.1 CLERESTORY LEVEL PLAN @ GENERAL PURPOSE RM 124
1:100



3 A2.1 KEY PLAN
NTS



CONSTRUCTION NOTES

1. ALL INTERIOR WALLS SHALL EXTEND TO UNDER-SIDE OF STEEL DECK FOR FIRE AND SOUND REASONS. WHERE WALLS RUN PARALLEL AND UNDER OWSJ'S AND BEAMS, THE OWSJ'S AND BEAMS SHALL BE ENCLOSED ALL-AROUND. REFER TO DETAILS 17 & 18/A4.2.

2. FIRE STOPPING SHALL BE PROVIDED AS SPECIFIED AND DETAILED, AT TOPS OF ALL WALLS FORMING FIRE SEPARATIONS AND AROUND ALL PIPE, CONDUIT, AND DUCT PENETRATIONS OF FIRE SEPARATIONS.

3. ALL EXPOSED CONCRETE BLOCK CORNERS SHALL BE BULLNOSED. ALL INTERIOR BLOCK WINDOW SILLS SHALL BE BULLNOSED BLOCK 200MM X 200MM TURNED ON – EDGE.

4. ALL INTERIOR WALLS SHALL BE CONCRETE BLOCK TO THICKNESS INDICATED.

5. OPENINGS IN WALLS AND CEILING SPACES WILL BE REQUIRED FOR AIR MOVEMENT. REFER TO MECHANICAL DRAWINGS FOR EXACT DIMENSIONS AND LOCATIONS.

6. CONFIRM LOCATIONS OF TACK BOARDS AND WHITE BOARDS WITH OWNER PRIOR TO INSTALLATION.

7. GENERAL CONTRACTOR TO COORDINATE MASONRY WALL RECESS REQUIREMENTS WITH ELECTRICAL CONTRACTOR. CONFIRM EXACT LOCATION OF EQUIPMENT WITH ARCHITECT (TYPICAL).

8. FOR WINDOW BLIND LOCATIONS REFER TO DRAWING 2/A5.1.

9. FOR FLOOR FINISH PLAN REFER TO DRAWING 1/A5.1.

10. ALL EXPOSED STEEL COLUMNS PAINTED W/ INTUMESCENT PAINT. TYP.

11. ASSUME FIRE SEPARATIONS IN EXISTING BUILDING ARE COMPROMISED. PROVIDE NEW CONTINUOUS FIRE STOPPING AT LOCATIONS WHERE WORK TO EXISTING BUILDING ARE BEING PERFORMED.

LEGEND:

AP	ACOUSTIC PANEL
BC	BOOKCASE
BF	BARRIER FREE
BN	BULLNOSE BLOCK
CJ	CONTROL JOINT
CP	CONTROL PANEL
CR	COAT RACK
CHT	CHARGING TOWER
CT	CERAMIC TILE
CWT	CERAMIC WALL TILE
EC	EMERGENCY CALL
ECS	EMERGENCY CALL SIGNAL
EP	ELECTRICAL PANEL
EX	EXISTING
FD	FLOOR DRAIN
FEC	FIRE EXTINGUISHER CABINET
FEX	FIRE EXTINGUISHER
FFH	FORCED FLOW HEATER
FGB	FOLD-DOWN GRAB BAR
MIR	MIRROR
TMIR	TILT DOWN MIRROR
NIC	NOT IN CONTRACT (SUPPLIED BY OWNER)
PB	DOOR OPERATOR PUSH BUTTON
PT	PORCELAIN TILE
PTD	PAPER TOWEL DISPENSER
PWB	PROJECTOR WHITE BOARD
RE	REINSTATE
RWL	RAIN WATER LEADER
SCH	SAFETY COAT HOOK
SD	SOAP DISPENSER
SNR	SANITARY NAPKIN RECEPTACLE
SNV	SANITARY NAPKIN VENDOR
SU	STORAGE UNIT
TB	TACK BOARD
TPD	TOILET PAPER DISPENSER
WB	WRITING BOARD (MARKERBOARD)

FLOOR PLAN LEGEND:

- DASHED LINE INDICATES ITEMS TO BE REMOVED UNLESS OTHERWISE NOTED
- DENOTES EXISTING WALLS TO REMAIN UNDISTURBED UNLESS OTHERWISE NOTED
- DENOTES NEW CONCRETE BLOCK WALL TO U/S OF DECK
- HEAVY DASHED LINE DENOTES 1 HR FIRE RATED SEPARATION
- HEAVY DASHED LINE DENOTES EXISTING 0 HR FIRE SEPARATION

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DRAWING
KEY PLAN, FIRST FLOOR PLAN & CLERESTORY PLAN

ONTARIO ASSOCIATION OF ARCHITECTS JULY 24/25 ROBERT F. FERNUL LICENCE 4095

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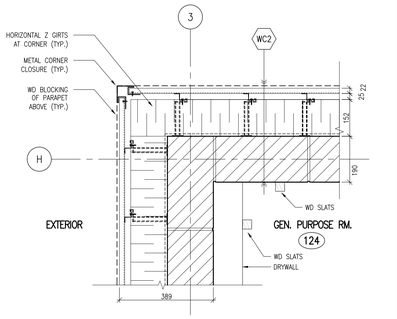
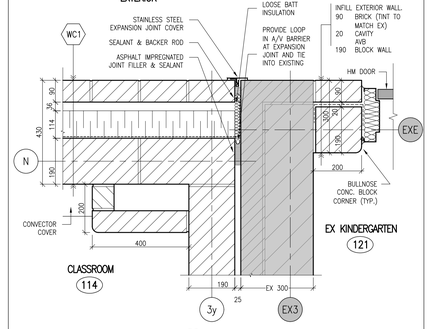
DWG. NO. A2.1



6 A2.2 PLAN DETAIL @ GRIDLINE H & 3 1:10



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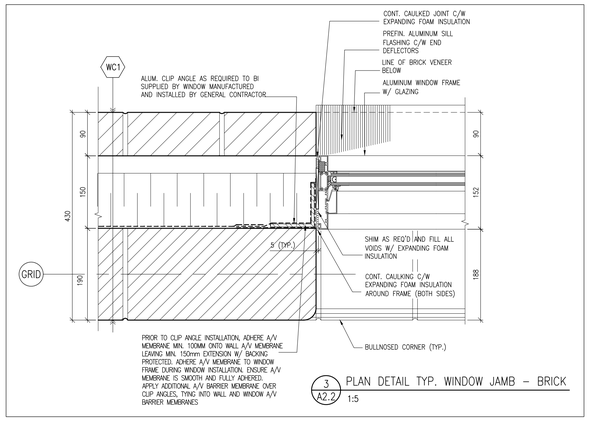
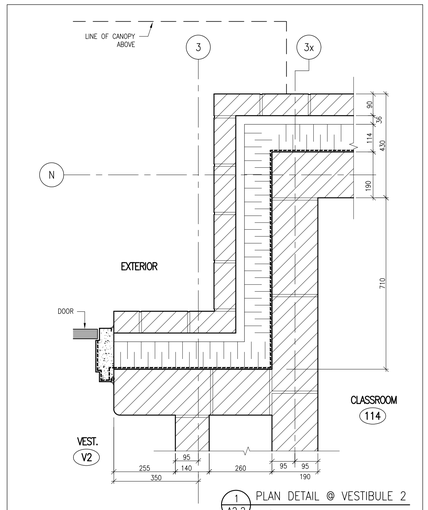


3 A2.2 PLAN DETAIL TYP. WINDOW JAMB – BRICK 1:5



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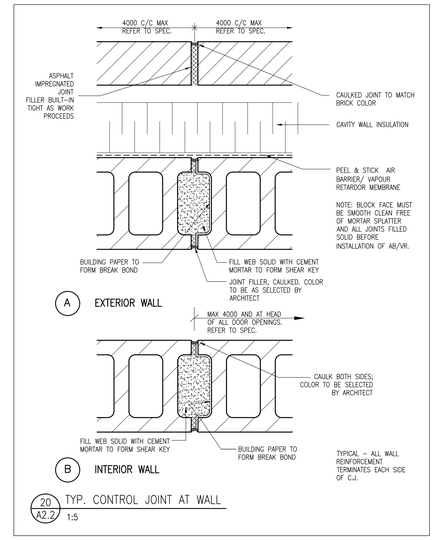

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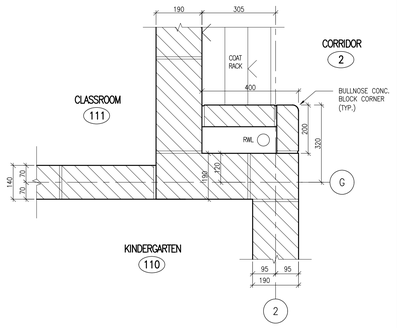

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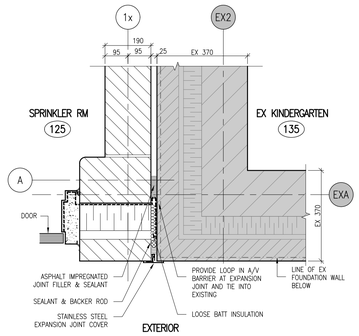
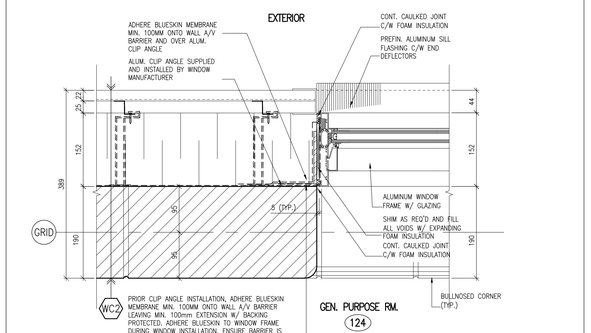


7 A2.2 PLAN DETAIL @ GRIDLINE A & 1x 1:10



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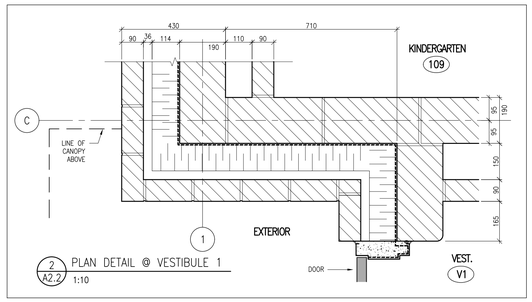

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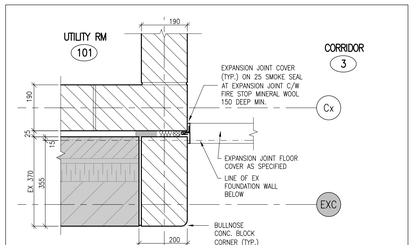
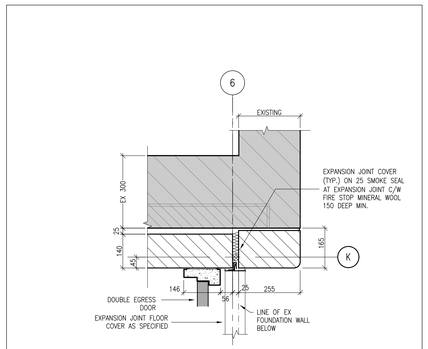


4 19 A2.2 PLAN DETAIL @ GRIDLINE Cx & 4 1:10



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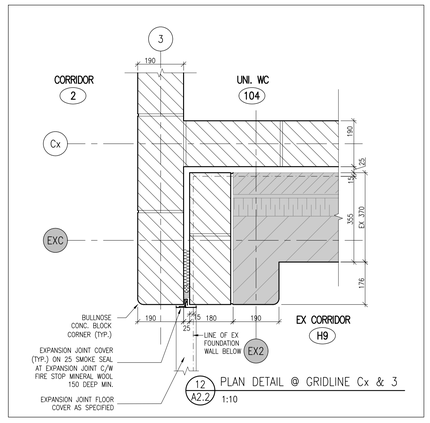

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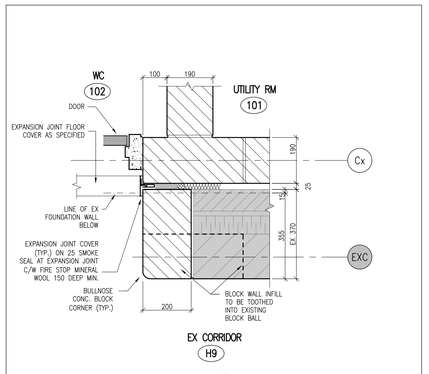

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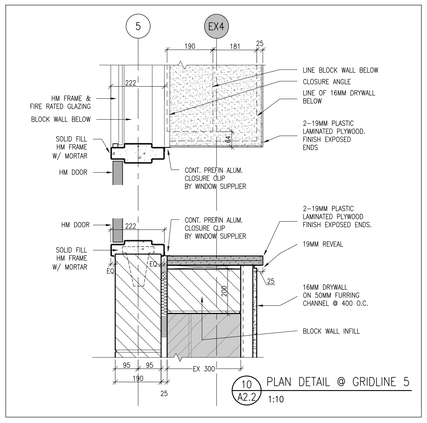

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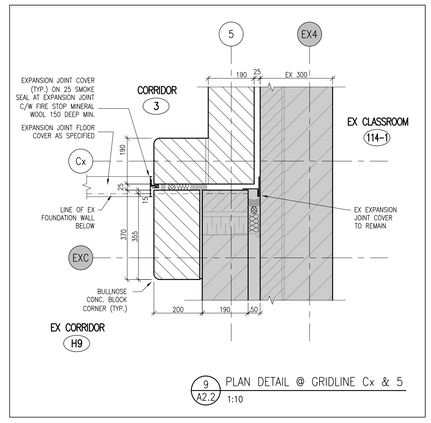

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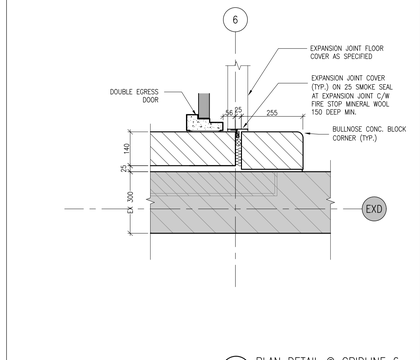

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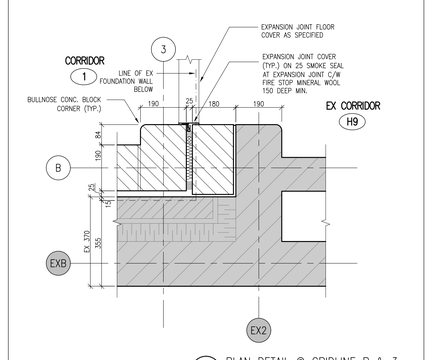

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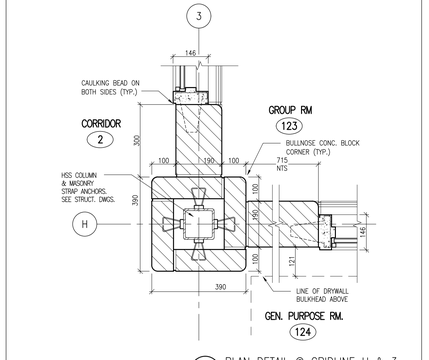

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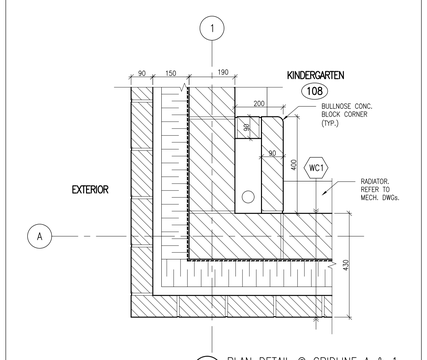

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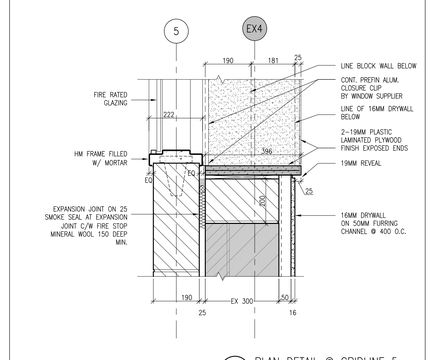

14 A2.2 PLAN DETAIL @ GRIDLINE 5 1:10

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KAWARTHA PINE RIDGE DISTRICT SCHOOL BOARD

1994 Fisher Drive, Peterborough, Ontario K9J 6X6

DRAWING

PLAN DETAILS

ONTARIO ASSOCIATION OF ARCHITECTS
JULY 24/2024
ROBERT F. FERKUL
LICENCE 4695

TRUE NORTH | DWG. NORTH

JOB NO. 2304

SCALE AS NOTED

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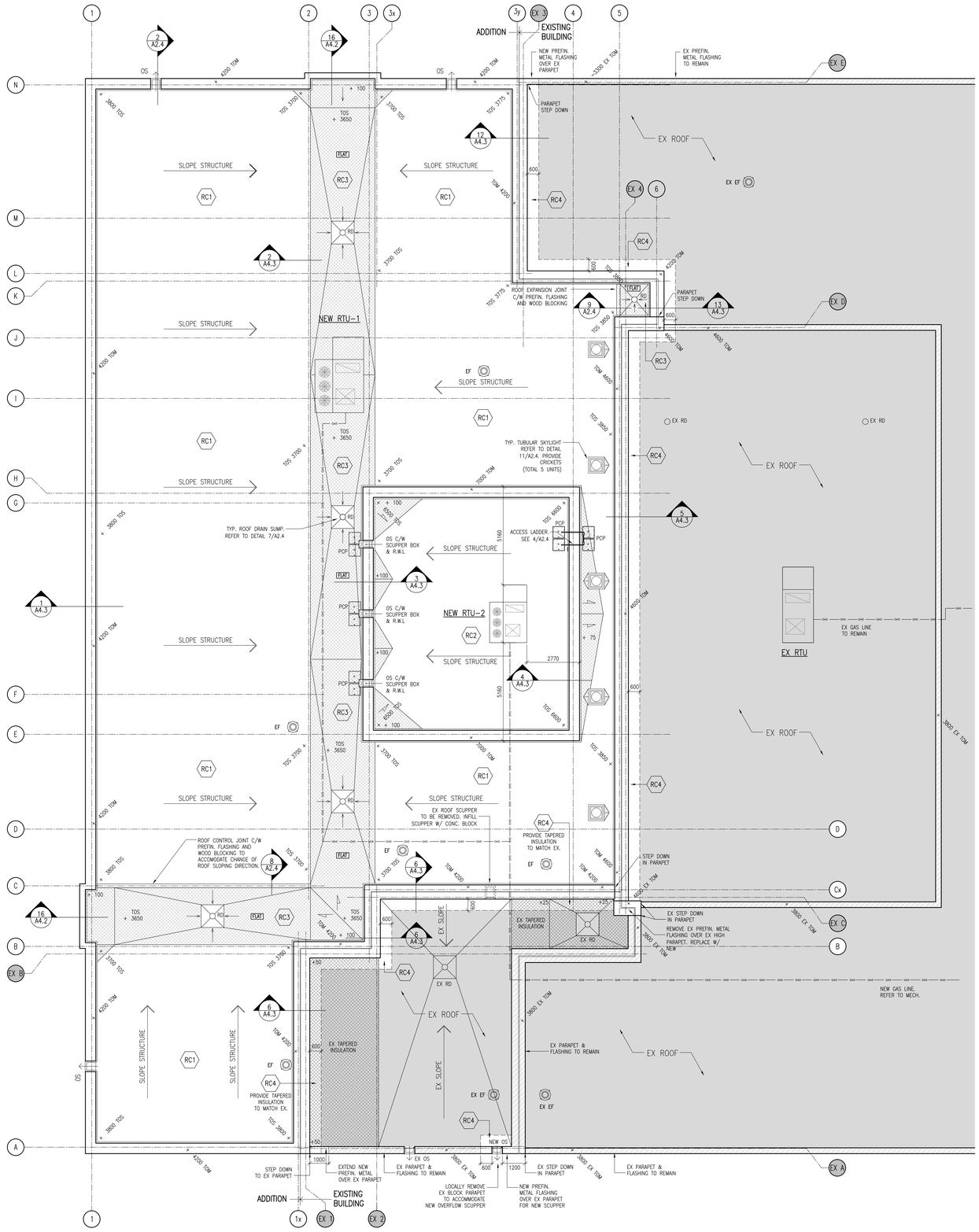
EMAIL: mdarch@mdarch.co



1 A2.3 PARTIAL ROOF PLAN
1:100

ROOF CONSTRUCTION ASSEMBLIES

RC1 TYP. BUILT UP ROOF ASSEMBLY
ROOF TO ACHIEVE R-35

SNOW WHITE CALCITE BALAST IN POLYMER-MOD. ASPHALT
4 PLY BUILT UP ROOF SYSTEM
1 LAYER 13MM COVERBOARD
TAPERED ISOCYANURATE INSULATION (VARIES)
2 LAYER OF 75 POLYISOCYANURATE INSULATION
ROOF VAPOUR RETARDER MEMBRANE
13MM UNDERLAYMENT BOARD -MECHANICALLY FASTENED
38 STEEL DECK (SEE STRUCT. DWGs)
OWSJ/STRUCTURAL STEEL (SEE STRUCT. DWGs)
CEILING PLENUM SPACE (VARIES)
FINISH CEILING (REFER TO R.F.S.)

RC2 BUILT UP ROOF ASSEMBLY
ROOF TO ACHIEVE R-35

SNOW WHITE CALCITE BALAST IN POLYMER-MOD. ASPHALT
4 PLY BUILT UP ROOF SYSTEM
1 LAYER 13MM COVERBOARD
TAPERED ISOCYANURATE INSULATION (VARIES)
2 LAYER OF 75 POLYISOCYANURATE INSULATION
ROOF VAPOUR RETARDER MEMBRANE
13MM UNDERLAYMENT BOARD -ADHERED
76 ACOUSTIC STEEL DECK (SEE STRUCT. DWGs) W/ STONE WOOL FLUTE FILLER
EXPOSED OWSJ/STRUCTURAL STEEL (SEE STRUCT. DWGs)

RC3 BUILT UP ROOF ASSEMBLY
ROOF TO ACHIEVE R-35

SNOW WHITE CALCITE BALAST IN POLYMER-MOD. ASPHALT
4 PLY BUILT UP ROOF SYSTEM
1 LAYER 13MM COVERBOARD
50 MAX CRICKETS TO SLOPE TO DRAIN
2 LAYER OF 75 POLYISOCYANURATE INSULATION
ROOF VAPOUR RETARDER MEMBRANE
13MM UNDERLAYMENT BOARD -MECHANICALLY FASTENED
38 STEEL DECK (SEE STRUCT. DWGs)
OWSJ/STRUCTURAL STEEL (SEE STRUCT. DWGs)
CEILING PLENUM SPACE (VARIES)
FINISH CEILING (REFER TO R.F.S.)

RC4 RE-ROOFING EXISTING ROOF
ROOF TO ACHIEVE R-35
45 MIN FRR - ULC RC01

REMOVE EXISTING GRAVEL, BUR, INSULATION, AVB, & GYPSUM BOARD DOWN TO EXISTING STEEL DECK.
PROVIDE NEW 13MM DENS-DECK SHEATHING, AVB, INSULATION, & SLOPED INSULATION TO MATCH EX THICKNESS. PROVIDE NEW SEBS BUR. OVERLAP EX ROOF MEMBRANE 600mm. TIE NEW AVB INTO EXISTING.

LEGEND

- EX ROOF TO REMAIN
- SLOPE — SLOPED ROOF STRUCTURE
- OS — OVERFLOW SCUPPER. REFER TO DETAILS
- RD — ROOF DRAIN. REFER TO DETAIL
- EF — EXHAUST FAN (SEE MECH. DWGs)
- TOS + 0000 — REFERENCE ROOF ELEVATION (TOP OF STEEL STRUCTURE)
- TOM + 0000 — REFERENCE ROOF ELEVATION (TOP OF MASONRY)
- INDICATES TAPERED INSULATION IN ADDITION TO ROOF INSULATION PROVIDING MIN. 2% SLOPE.
- INDICATES SLOPE OF TAPERED INSULATION
- +75 — INDICATES THICKNESS OF TAPERED INSULATION
- PCP — PRECAST CONCRETE PAVER (PCP) (600x600)
- EX PREFIN. METAL FLASHING PARAPET TO REMAIN

DATE		REVISIONS
8.	–	–
7.	JULY 24 2024	ISSUED FOR TENDER/PERMIT
6.	JUNE 11 2024	SITE PLAN REVIEW (4th SUBMISSION)
5.	MAY 03 2024	SITE PLAN REVIEW (3rd SUBMISSION)
4.	FEB 12 2024	COSTING
3.	FEB 12 2024	SITE PLAN REVIEW (2nd SUBMISSION)
2.	NOV 13 2023	SITE PLAN REVIEW (PRELIMINARY)
1.	FEB 28 2023	PRELIMINARY SITE PLAN REVIEW

MURRAY CENTENNIAL PUBLIC SCHOOL ADDITION
654 County Road 40,
TRENTON ONTARIO K8V 5P4

KAWARTHA PINE RIDGE DISTRICT SCHOOL BOARD
1994 Fisher Drive, Peterborough, Ontario K9J 6X6

DRAWING: ROOF PLAN

ONTARIO ASSOCIATION OF ARCHITECTS
JULY 24/2024
ROBERT F. FERKUL
LICENCE 4695

TRUE NORTH | DWG. NORTH
JOB NO. 2304
SCALE: AS NOTED
DATE: FEB 2024
PRINTED

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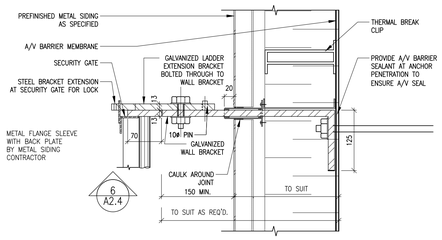
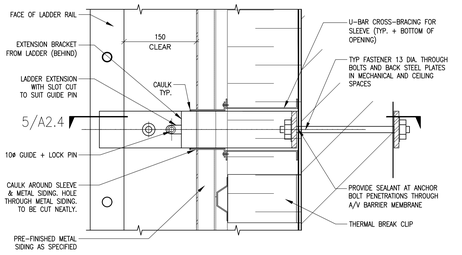
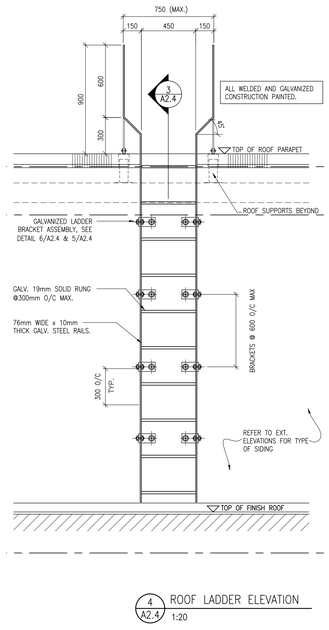
DWG. NO. A2.3



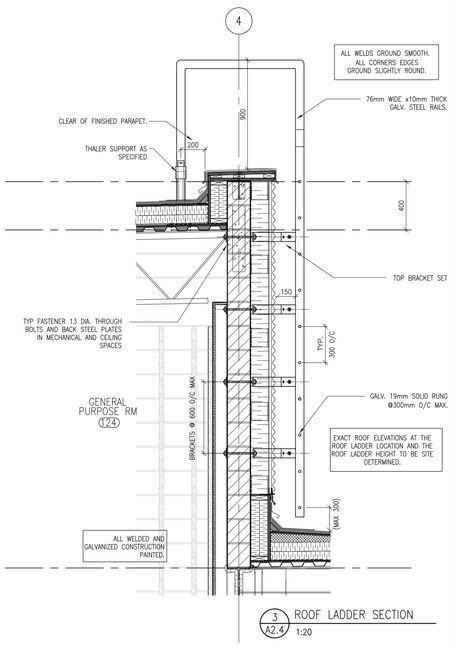
5 A2.4 ROOF LADDER PLAN DETAIL 1:5



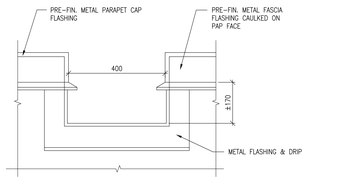
6 A2.4 ROOF LADDER SECTION DETAIL 1:5



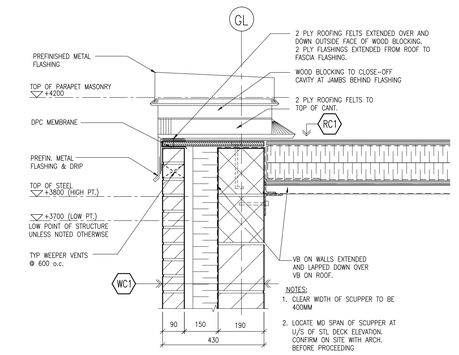
4 A2.4 ROOF LADDER ELEVATION 1:20



3 A2.4 ROOF LADDER SECTION 1:20



1 A2.4 SCUPPER ELEVATION 1:10



2 A2.4 SCUPPER DETAIL @ BRICK VENEER 1:10

ROOF CONSTRUCTION ASSEMBLIES

RC1 TYP. BUILT UP ROOF ASSEMBLY
ROOF TO ACHIEVE R-35

SNOW WHITE CALCITE BALAST IN POLYMER-MOD. ASPHALT
4 PLY BUILT UP ROOF SYSTEM
1 LAYER 13MM COVERBOARD
TAPERED ISOCYANURATE INSULATION (VARIES)
2 LAYER OF 75 POLYISOCYANURATE INSULATION
ROOF VAPOUR RETARDER MEMBRANE
13MM UNDERLAYEMNT BOARD –MECHANICALLY FASTENED
38 STEEL DECK (SEE STRUCT. DWGs)
OWSJ/STRUCTURAL STEEL (SEE STRUCT. DWGs)
CEILING PLENUM SPACE (VARIES)
FINISH CEILING (REFER TO R.F.S.)

RC2 BUILT UP ROOF ASSEMBLY
ROOF TO ACHIEVE R-35

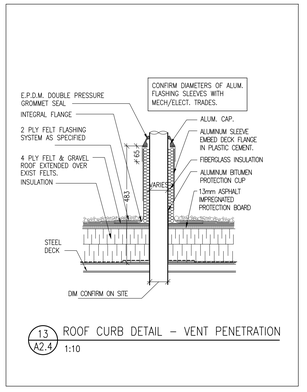
SNOW WHITE CALCITE BALAST IN POLYMER-MOD. ASPHALT
4 PLY BUILT UP ROOF SYSTEM
1 LAYER 13MM COVERBOARD
TAPERED ISOCYANURATE INSULATION (VARIES)
2 LAYER OF 75 POLYISOCYANURATE INSULATION
ROOF VAPOUR RETARDER MEMBRANE
13MM UNDERLAYEMNT BOARD –ADHERED
76 ACOUSTIC STEEL DECK (SEE STRUCT. DWGs) W/ STONE WOOL FLUTE FILLER
EXPOSED OWSJ/STRUCTURAL STEEL (SEE STRUCT. DWGs)

RC3 BUILT UP ROOF ASSEMBLY
ROOF TO ACHIEVE R-35

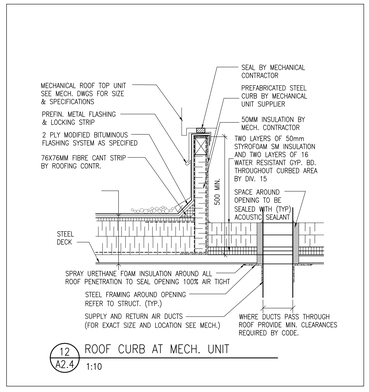
SNOW WHITE CALCITE BALAST IN POLYMER-MOD. ASPHALT
4 PLY BUILT UP ROOF SYSTEM
1 LAYER 13MM COVERBOARD
50 MAX CRICKETS TO SLOPE TO DRAIN
2 LAYER OF 75 POLYISOCYANURATE INSULATION
ROOF VAPOUR RETARDER MEMBRANE
13MM UNDERLAYEMNT BOARD –MECHANICALLY FASTENED
38 STEEL DECK (SEE STRUCT. DWGs)
OWSJ/STRUCTURAL STEEL (SEE STRUCT. DWGs)
CEILING PLENUM SPACE (VARIES)
FINISH CEILING (REFER TO R.F.S.)

RC4 RE-ROOFING EXISTING ROOF
ROOF TO ACHIEVE R-35
45 MIN FRR – ULC R201

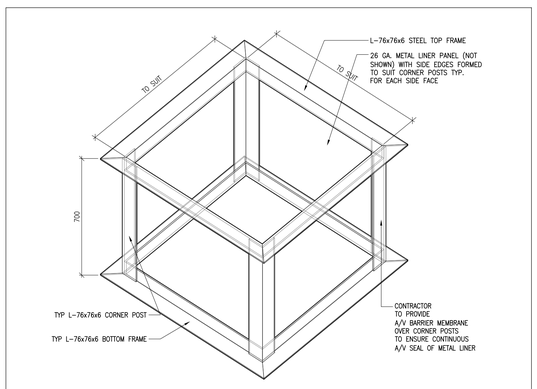
REMOVE EXISTING GRAVEL, BUR, INSULATION, AVB, & GYPSUM BOARD DOWN TO EXISTING STEEL DECK.
PROVIDE NEW 13MM DENS-DECK SHEATHING, AVB, INSULATION, & SLOPED INSULATION TO MATCH EX THICKNESS. PROVIDE NEW SEBS BUR, OVERLAP EX ROOF MEMBRANE 600mm. TIE NEW AVB INTO EXISTING.



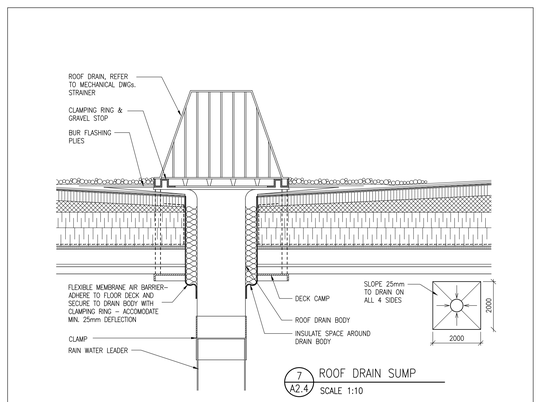
13 A2.4 ROOF CURB DETAIL – VENT PENETRATION 1:10



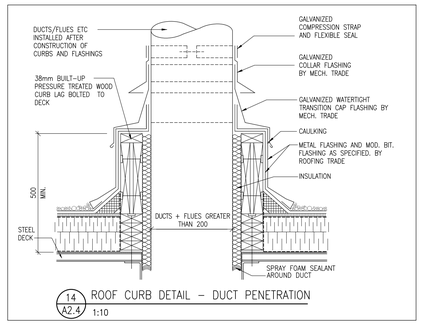
12 A2.4 ROOF CURB AT MECH. UNIT 1:10



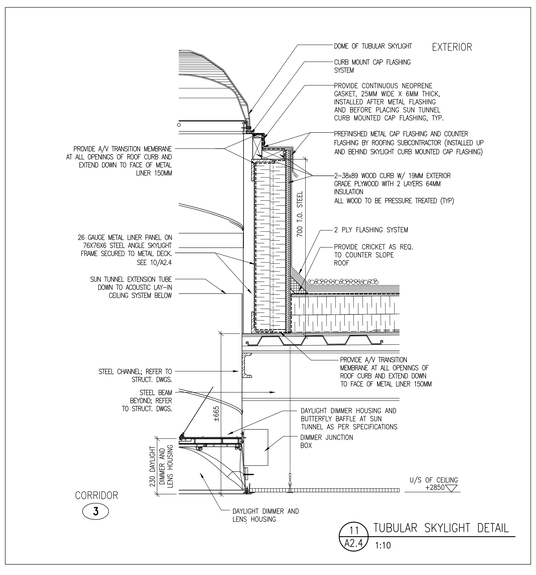
10 A2.4 TUBULAR SKYLIGHT CURB FRAME SCHEMATIC 1:5



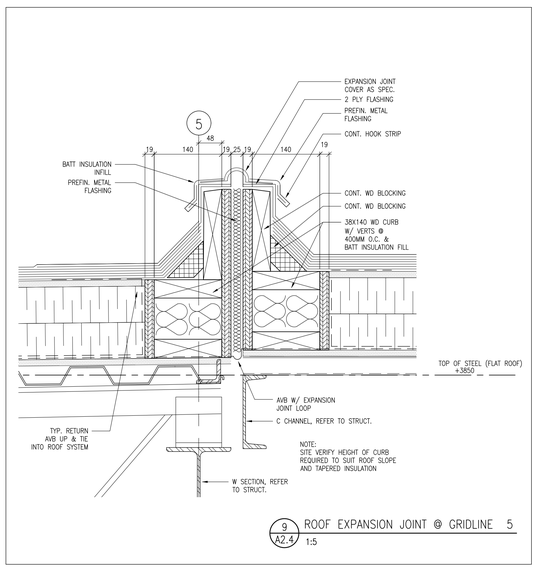
7 A2.4 ROOF DRAIN SUMP SCALE 1:10



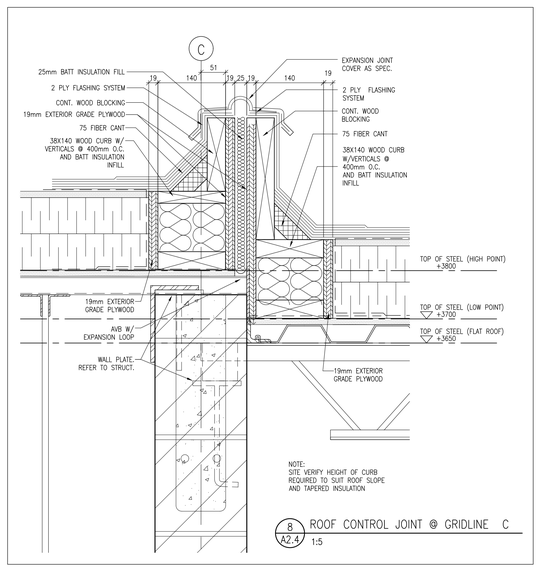
14 A2.4 ROOF CURB DETAIL – DUCT PENETRATION 1:10



11 A2.4 TUBULAR SKYLIGHT DETAIL 1:10



9 A2.4 ROOF EXPANSION JOINT @ GRIDLINE 5 1:5



8 A2.4 ROOF CONTROL JOINT @ GRIDLINE C 1:5

8.	–	–
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DATE		REVISIONS

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TRENTON ONTARIO K8V 5P4

KAWARTHA PINE RIDGE DISTRICT SCHOOL BOARD

1994 Fisher Drive, Peterborough, Ontario K9J 6X6

DRAWING
ROOF DETAILS

ONTARIO ASSOCIATION OF ARCHITECTS
JULY 24/24
ROBERT F. FERKUL
LICENCE 4695

TRUE NORTH | DWG. NORTH

JOB NO. 2304

SCALE AS NOTED

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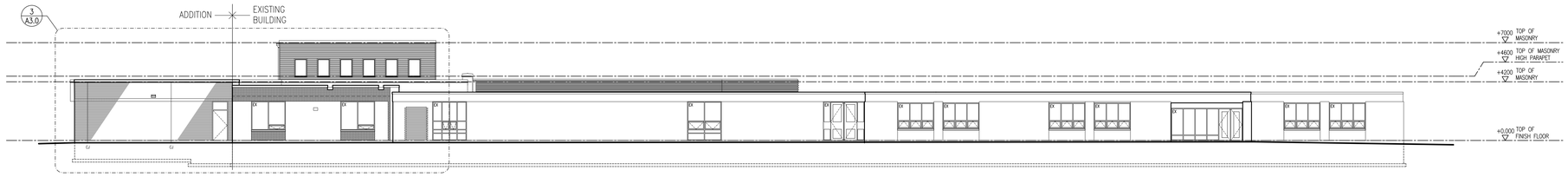
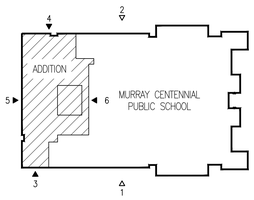
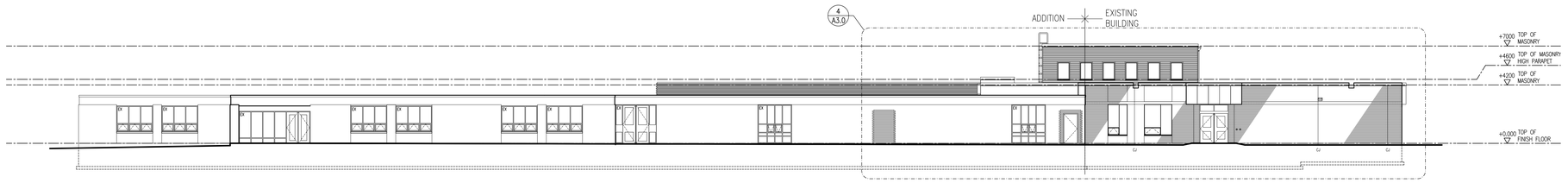
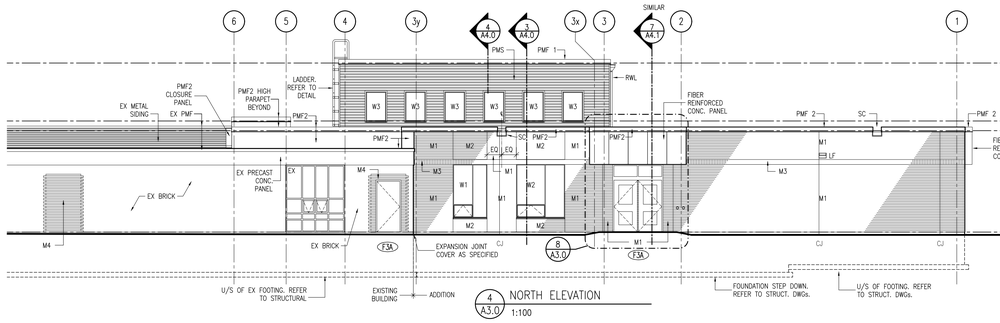


1 A3.0 OVERALL SOUTH ELEVATION
1:150

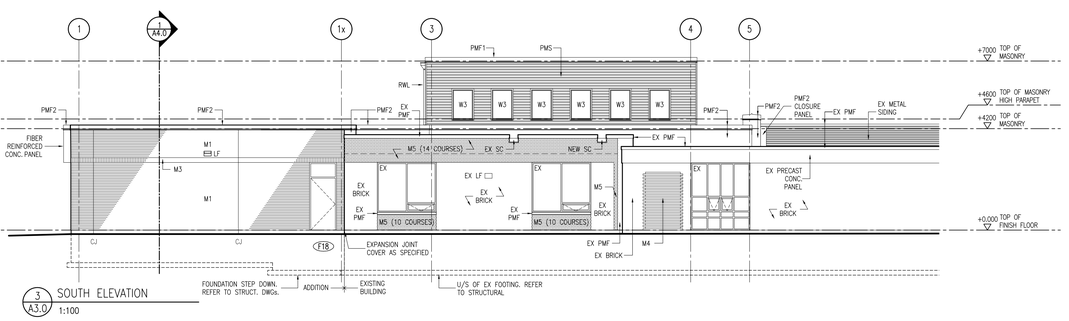




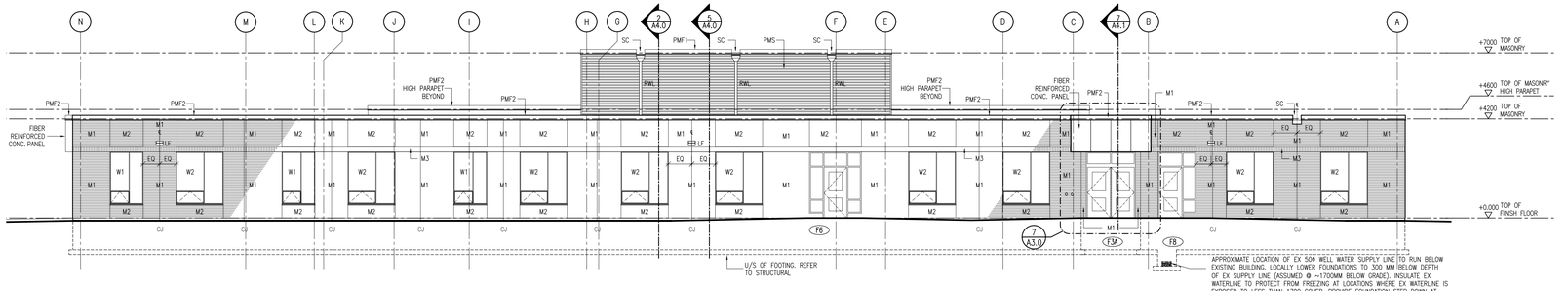
2 A3.0 OVERALL NORTH ELEVATION
1:150



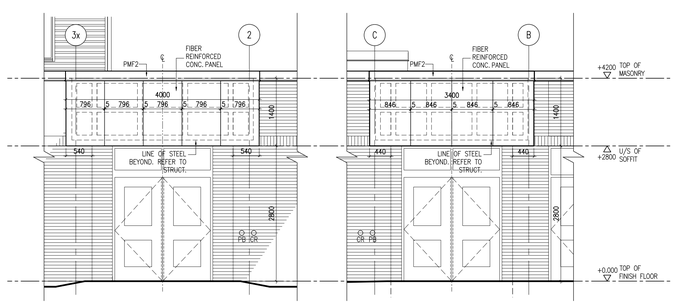
4 A3.0 NORTH ELEVATION
1:100



3 A3.0 SOUTH ELEVATION
1:100

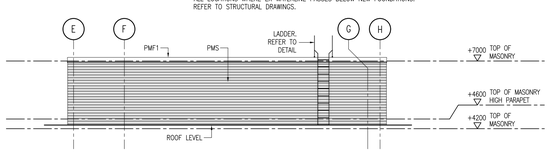


5 A3.0 WEST ELEVATION
1:100



8 A3.0 CANOPY ELEVATION
1:50

7 A3.0 CANOPY ELEVATION
1:50



6 A3.0 EAST ELEVATION
1:100

LEGEND

MASONRY TYPES:

- M1 COMMON BOND, FULL HEADERS EVERY 6TH COURSE – 90x57x190
- M2 COMMON BOND, FULL HEADERS EVERY 6TH COURSE (–10 INSET) – 90x57x190
- M3 SOLDIER COURSE – 90x57x190
- M4 COMMON BOND, FULL HEADERS EVERY 6TH COURSE – TINTED TO MATCH EX
- M5 EX MASONRY TO BE TINTED

ABBREVIATIONS:

- EX EXISTING
- CJ CONTROL JOINT
- CR CARD READER
- HS HORN SPEAKER
- LF LIGHT FIXTURE
- PB PUSH BUTTON
- PMF PREFIN. METAL FLASHING
- PMS PREFIN. METAL SIDING
- RWL RAIN WATER LEADER
- SC SCUPPER
- Wx WINDOW TYPE
- ALUMINUM WINDOW FINISH: CLEAR ANODIZED ALUMINUM
- Fx FRAME TYPE

DATE	REVISIONS
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DRAWING

EXTERIOR ELEVATIONS

ONTARIO ASSOCIATION OF ARCHITECTS
JULY 24/24
ROBERT F. FERKUL
LICENCE 4055

TRUE NORTH | DWG. NORTH

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EMAIL: mdarch@mdarch.ca

DOOR AND FRAME SCHEDULE

RM NO.	ROOM NAME	DOOR								FRAME					REQUIRED F.R.R.	REMARKS
		DOOR NO.	WIDTH	HEIGHT	THICKNESS	TYPE	MATERIAL	FINISH	GLASS	TYPE	HEAD / JAMB	MATERIAL	FINISH	WIDTH		
V1	VESTIBULE	V1A	(2X)1040	2150	45	C	HM	PAINT	LAM	F3A	–	HM	PAINT	222	–	REMOVABLE MULLION, BF DOOR OPERATOR, CARD READER, ELECTRIC STRIKE, PANIC SETS (TOP ROD ONLY), CLOSER, WEATHER STRIPPING, THRESHOLD, REFER TO DETAIL 16/A4.2
V1	VESTIBULE	V1B	(2X)1040	2150	45	C	HM	PAINT	LAM	F3	H1/J1	HM	PAINT	146	–	REMOVABLE MULLION, BF DOOR OPERATOR, PANIC SETS (TOP ROD ONLY), CLOSER
V2	VESTIBULE	V2A	(2X)1040	2150	45	C	HM	PAINT	LAM	F3A	–	HM	PAINT	222	–	REMOVABLE MULLION, BF DOOR OPERATOR, CARD READER, ELECTRIC STRIKE, PANIC SETS (TOP ROD ONLY), CLOSER, WEATHER STRIPPING, THRESHOLD, REFER TO DETAIL 16/A4.2
V2	VESTIBULE	V2B	(2X)1040	2150	45	C	HM	PAINT	LAM	F3	H1/J1	HM	PAINT	146	–	REMOVABLE MULLION, BF DOOR OPERATOR, PANIC SETS (TOP ROD ONLY), CLOSER
101	UTILITY ROOM	101	965	2150	45	A	HM	PAINT	–	F1	H1/J1	HM	PAINT	146	–	CLOSER
102	WC	102	965	2150	45	A	WD	PLAM	–	F1	J1	HM	PAINT	146	–	REFER TO SECTION FOR HEAD DETAIL, CLOSER, UNDERCUT 25MM
103	WC	103	965	2150	45	A	WD	PLAM	–	F1	J1	HM	PAINT	146	–	REFER TO SECTION FOR HEAD DETAIL, CLOSER, UNDERCUT 25MM
104	UNIVERSAL WC	104	965	2150	45	A	WD	PLAM	–	F1	H1/J1	HM	PAINT	146	–	BF DOOR OPERATOR, EMERGENCY CALL KIT, ELECTRIC STRIKE, UNDERCUT 25MM
105	STAFF ROOM	105	965	2150	45	B	WD	PLAM	LAM	F2	H/J1	HM	PAINT	146	–	
106	EQUIPMENT STORAGE ROOM	106	965	2150	45	A	WD	PLAM	–	F1	H/J1	HM	PAINT	146	–	
107	PROFESSIONAL COLLABORATION ROOM	107	965	2150	45	B	WD	PLAM	LAM	F10	H/J1	HM	PAINT	146	–	
108	KINDERGARTEN	108	965	2150	45	B	WD	PLAM	LAM	F2	H/J1	HM	PAINT	146	–	FINGER GUARDS
108A	KINDERGARTEN WC	108A	965	2150	45	A	WD	PLAM	–	F1	H2/J2	HM	PAINT	172	–	FINGER GUARDS
V3	KINDERGARTEN VESTIBULE	V3A	1015	2150	45	C	HM	PAINT	LAM	F8	H3/J3	HM	PAINT	222	–	PANIC SETS (TOP ROD ONLY), CLOSER, WEATHER STRIPPING, THRESHOLD, FINGER GUARDS
V3	KINDERGARTEN VESTIBULE	V3B	965	2150	45	C	HM	PAINT	LAM	F5	H2/J2	HM	PAINT	172	–	CLOSER, FINGER GUARDS
109	KINDERGARTEN	109	965	2150	45	B	WD	PLAM	LAM	F2	H1/J1	HM	PAINT	146	–	FINGER GUARDS
109A	KINDERGARTEN WC	109A	965	2150	45	A	WD	PLAM	–	F1	H2/J2	HM	PAINT	172	–	FINGER GUARDS
V4	KINDERGARTEN VESTIBULE	V4A	1015	2150	45	C	HM	PAINT	LAM	F6	H3/J3	HM	PAINT	222	–	PANIC SETS (TOP ROD ONLY), CLOSER, WEATHER STRIPPING, THRESHOLD, FINGER GUARDS
V4	KINDERGARTEN VESTIBULE	V4B	965	2150	45	C	HM	PAINT	LAM	F5	H2/J2	HM	PAINT	172	–	CLOSER, FINGER GUARDS
V4	KINDERGARTEN VESTIBULE	V4C	965	2150	45	C	HM	PAINT	LAM	F5	H2/J2	HM	PAINT	172	–	CLOSER, FINGER GUARDS
110	KINDERGARTEN	110	965	2150	45	B	WD	PLAM	LAM	F2	H1/J1	HM	PAINT	146	–	FINGER GUARDS
110A	KINDERGARTEN WC	110A	965	2150	45	A	WD	PLAM	–	F1	H2/J2	HM	PAINT	172	–	FINGER GUARDS
111	CLASSROOM	111	965	2150	45	B	WD	PLAM	LAM	F4	H1/J1	HM	PAINT	146	–	
112	CLASSROOM	112	965	2150	45	B	WD	PLAM	LAM	F4	H1/J1	HM	PAINT	146	–	
113	CLASSROOM	113	965	2150	45	B	WD	PLAM	LAM	F2	H1/J1	HM	PAINT	146	–	
114	CLASSROOM	114	965	2150	45	B	WD	PLAM	LAM	F2	H1/J1	HM	PAINT	146	–	
115– 120	WC	115, 116, 117, 118, 119, 120	(6x) 965	2150	45	A	WD	PLAM	–	F1	H1/J1	HM	PAINT	146	–	UNDERCUT 25MM
121	SENSORY ROOM	121	965	2150	45	B	WD	PLAM	LAM	F15	H1/J1	HM	PAINT	146	–	
122	SENSORY ROOM	122	965	2150	45	B	WD	PLAM	LAM	F15	H1/J1	HM	PAINT	146	–	
123	GROUP ROOM	123	965	2150	45	B	WD	PLAM	LAM	F10	H1/J1	HM	PAINT	146	–	
125	SPRINKLER ROOM	125	1015	2150	45	A	HM	PAINT	–	F16	H3/J3	HM	PAINT	222	–	LATCH PROTECTOR, WEATHER STRIPPING, THRESHOLD, CLOSER
C4	CORRIDOR 4	C4A	(2X)965	2150	45	C	HM	PAINT	FRG	F7	–	HM	PAINT	146	45 MIN	DOUBLE EGRESS, ULC CLOSER, PANIC HARDWARE (TOP ROD ONLY), WALL STOPS, REFER TO SECTION FOR HEAD, HOLD OPEN DEVICE.
EX 114–1	EX CLASSROOM	114–1	965	2150	45	B	WD	PLAM	FRG	F1	–	HM	PAINT	146	45 MIN	ULC CLOSER
EX 114–2	EX CLASSROOM	114–2	965	2150	45	B	WD	PLAM	FRG	F13	–	HM	PAINT	222	45 MIN	ULC CLOSER
EX 114–3	EX CLASSROOM	114–3	965	2150	45	B	WD	PLAM	FRG	F1	–	HM	PAINT	146	45 MIN	ULC CLOSER
EX H4	EX CORRIDOR H4	H4	2X(965)	2150	45	C	HM	PAINT	FRG	F17	–	HM	PAINT	146	45 MIN	DOUBLE EGRESS, ULC CLOSER, PANIC HARDWARE (TOP ROD ONLY), WALL STOPS, REFER TO SECTION FOR HEAD, HOLD OPEN DEVICE. TO BE INSTALLED IN PHASE 1
EX H5	EX CORRIDOR	TMP. H5A	965	2150	45	B	HM	PAINT	FRG	F1	H4/J4	HM	PAINT	146	45 MIN	TEMPORARY DOOR TO BE INSTALLED PHASE 1 & REMOVE AT THE END OF PHASE 3. ULC CLOSER
EX H5	TEMPORARY CORRIDOR	TMP. H5B	1015	2150	45	C	HM	PAINT	LAM	F1A	–	HM	PAINT	222	–	TEMPORARY DOOR TO BE INSTALLED PHASE 1 & REMOVE AT THE END OF PHASE 3. PANIC HARDWARE (TOP ROD ONLY), CLOSER, WEATHER STRIPPING, THRESHOLD
EX 120	EX KINDERGARTEN	TMP. 120	965	2150	45	B	HM	PAINT	FRG	F1	H4/J4	HM	PAINT	146	45 MIN	TEMPORARY DOOR TO BE INSTALLED PHASE 1 & REMOVE AT THE END OF PHASE 3. ULC CLOSER
EX H9	EX CORRIDOR	TMP. H9A	965	2150	45	B	HM	PAINT	FRG	F1	H4/J4	HM	PAINT	146	45 MIN	TEMPORARY DOOR TO BE INSTALLED PHASE 1 & REMOVE AT THE END OF PHASE 3. ULC CLOSER
EX H9	EX CORRIDOR	TMP. H9B	1015	2150	45	C	HM	PAINT	LAM	F1A	–	HM	PAINT	222	–	TEMPORARY DOOR TO BE INSTALLED PHASE 1 & REMOVE AT THE END OF PHASE 3. PANIC HARDWARE (TOP ROD ONLY), CLOSER, WEATHER STRIPPING, THRESHOLD
EX 115	EX KINDERGARTEN	TMP. 115	965	2150	45	B	HM	PAINT	FRG	F1	H4/J4	HM	PAINT	146	45 MIN	TEMPORARY DOOR TO BE INSTALLED PHASE 1 & REMOVE AT THE END OF PHASE 3. ULC CLOSER
EX 121	EX KINDERGARTEN	121B	1015	2150	45	A	HM	PAINT	–	F1A	–	HM	PAINT	222	–	PANIC HARDWARE (TOP ROD ONLY), CLOSER, WEATHER STRIPPING, THRESHOLD

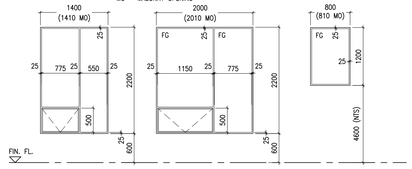
NOTES:
1. ALL EXTERIOR HM FRAMES SHALL HAVE HEAVY DUTY "T" ANCHORS AND FRAMES SHALL BE FILLED SOLID WITH INSULATION.
2. ALL HM FRAMES CAULKED ALL AROUND BOTH SIDES.
3. ALL EXTERIOR DOORS AND FRAMES THERMALLY BROKEN WITH WEATHERSTRIPPING AND THRESHOLD.
4. NOTE EXT. = EXTERIOR
5. NOTE TMP. = TEMPORARY DOOR TO BE INSTALLED IN PHASE 1 AND REMOVED AT END OF PHASE 3.

WD = WOOD
HM = HOLLOW METAL
EX = EXISTING
LAM = LAMINATED GLASS
FRG = FIRE RATED GLASS

ROOM FINISH SCHEDULE

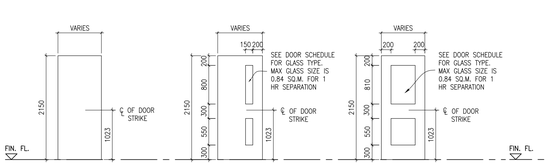
ROOM		FLOORS			WALLS		CEILING				REMARKS
NO.	NAME	MATL.	FINISH	BASE	MATL.	FINISH	MATL.	FINISH	HEIGHT (MM)	RATING	
V1	VESTIBULE	CONC.	RUBBER SHEET	RUB	BLK	PAINT	GWB	PAINT	2850	–	RUBBER SHEET FIELD COLOUR & ACCENT COLOUR
V2	VESTIBULE	CONC.	RUBBER SHEET	RUB	BLK	PAINT	GWB	PAINT	2850	–	RUBBER SHEET FIELD COLOUR & ACCENT COLOUR
V3	KINDERGARTEN VESTIBULE	CONC.	RUBBER SHEET	RUB	BLK	PAINT	GWB	PAINT	2850	–	RUBBER SHEET FIELD COLOUR & ACCENT COLOUR
V4	KINDERGARTEN VESTIBULE	CONC.	RUBBER SHEET	RUB	BLK	PAINT	GWB	PAINT	2850	–	RUBBER SHEET FIELD COLOUR & ACCENT COLOUR
101	UTILITY ROOM	CONC.	RUBBER SHEET	RUB	BLK	PAINT	LAT	–	2850	–	
102 – 103	WC	CONC.	RUBBER SHEET	RUB	BLK	CWT	LAT	–	2850	–	
104	UNIVERSAL WC	CONC.	RUBBER SHEET	RUB	BLK	CWT	LAT	–	2850	–	
105	STAFF ROOM	CONC.	LVT	RUB	BLK	PAINT	LAT	–	2850	–	
106	EQUIPMENT STORAGE	CONC.	RUBBER SHEET	RUB	BLK	PAINT	LAT	–	2850	–	
107	PROFESSIONAL COLLABORATION	CONC.	CARPET TILE	RUB	BLK	PAINT	LAT	–	2850	–	
108	KINDERGARTEN	CONC.	LVT	RUB	BLK	PAINT	LAT	–	2850	–	LVT FIELD COLOUR & TWO ACCENT COLOURS
108A	KINDERGARTEN WC	CONC.	RUBBER SHEET	RUB	BLK	CWT	LAT	–	2850	–	
109	KINDERGARTEN	CONC.	LVT	RUB	BLK	PAINT	LAT	–	2850	–	LVT FIELD COLOUR & TWO ACCENT COLOURS
109A	KINDERGARTEN WC	CONC.	RUBBER SHEET	RUB	BLK	CWT	LAT	–	2850	–	
110	KINDERGARTEN	CONC.	LVT	RUB	BLK	PAINT	LAT	–	2850	–	LVT FIELD COLOUR & TWO ACCENT COLOURS
110A	KINDERGARTEN WC	CONC.	RUBBER SHEET	RUB	BLK	CWT	LAT	–	2850	–	
111	CLASSROOM	CONC.	LVT	RUB	BLK	PAINT	LAT	–	2850	–	LVT FIELD COLOUR & TWO ACCENT COLOURS
112	CLASSROOM	CONC.	LVT	RUB	BLK	PAINT	LAT	–	2850	–	LVT FIELD COLOUR & TWO ACCENT COLOURS
113	CLASSROOM	CONC.	LVT	RUB	BLK	PAINT	LAT	–	2850	–	LVT FIELD COLOUR & TWO ACCENT COLOURS
114	CLASSROOM	CONC.	LVT	RUB	BLK	PAINT	LAT	–	2850	–	LVT FIELD COLOUR & TWO ACCENT COLOURS
115 – 120	WC	CONC.	RUBBER SHEET	RUB	BLK	CWT	LAT	–	2850	–	
121–122	SENSORY RM	CONC.	LVT	RUB	BLK	PAINT	LAT	–	2850	–	
123	GROUP ROOM	CONC.	RUBBER SHEET	RUB	BLK	PAINT	LAT	–	2850	–	
124	GENERAL PURPOSE ROOM	CONC.	LVT	RUB	BLK/GWB	PAINT	–	–	6600	–	PAINT EXPOSED ACOUSTIC STEEL DECK, OWSJ & EXPOSED MECHANICAL EQUIPMENT. LVT FIELD COLOUR & ACCENT COLOUR
125	SPRINKLER ROOM	CONC.	–	–	BLK	PAINT	–	–	–	–	EXPOSED STEEL DECK CEILING
1	CORRIDOR	CONC.	RUBBER SHEET	RUB	BLK/GWB	PAINT	LAT/GWB	PAINT	2850	–	RUBBER SHEET FIELD COLOUR & ACCENT COLOUR
2	CORRIDOR	CONC.	RUBBER SHEET	RUB	BLK/GWB	PAINT	LAT/GWB	PAINT	2850	–	RUBBER SHEET FIELD COLOUR & ACCENT COLOUR
3	CORRIDOR	CONC.	RUBBER SHEET	RUB	BLK/GWB	PAINT	LAT/GWB	PAINT	2850	–	RUBBER SHEET FIELD COLOUR & ACCENT COLOUR
4	CORRIDOR	CONC.	RUBBER SHEET	RUB	BLK/GWB	PAINT	LAT/GWB	PAINT	2850	–	RUBBER SHEET FIELD COLOUR & ACCENT COLOUR
H9	EX CORRIDOR	CONC.	RUBBER SHEET	RUB	BLK/GWB	PAINT	LAT/GWB	PAINT	2800	–	RUBBER SHEET FIELD COLOUR & ACCENT COLOUR
H5	EX CORRIDOR	CONC.	EX TERRAZZO	EX	EX BLK	PAINT	LAT	–	2745	45 MIN	PATCH & REPAIR EXISTING TERRAZZO FLOOR. CEILING ASSEMBLY TO CONFORM TO ULC DESIGN NO. R201
114–1	EX CLASSROOM	CONC.	EX VCT/VCT	RUB	BLK/GWB	PAINT	LAT	–	2745	45 MIN	CEILING ASSEMBLY TO CONFORM TO ULC DESIGN NO. R201
114–2	EX CLASSROOM	CONC.	EX VCT/VCT	RUB	BLK/GWB	PAINT	LAT	–	2745	45 MIN	CEILING ASSEMBLY TO CONFORM TO ULC DESIGN NO. R201
114–3	EX CLASSROOM	CONC.	EX VCT/VCT	RUB	BLK/GWB	PAINT	LAT	–	2745	45 MIN	CEILING ASSEMBLY TO CONFORM TO ULC DESIGN NO. R201
115	EX KINDERGARTEN	CONC.	EX VCT/VCT	RUB	BLK	PAINT	LAT	–	2745	45 MIN	CEILING ASSEMBLY TO CONFORM TO ULC DESIGN NO. R201
120	EX KINDERGARTEN	CONC.	EX VCT/VCT	RUB	BLK	PAINT	LAT	–	2745	45 MIN	CEILING ASSEMBLY TO CONFORM TO ULC DESIGN NO. R201
120A	EX KINDERGARTEN WC	CONC.	RUBBER SHEET	RUB	BLK	PAINT	–	–	–	–	
121	EX KINDERGARTEN	CONC.	EX VCT	RUB	BLK	PAINT	LAT	–	2745	–	
135	EX KINDERGARTEN	CONC.	–	–	–	–	LAT	–	2850	–	

WINDOW FRAME TYPES
SCALE 1:50
FG = FIXED GLASS
MO = MASONRY OPENING

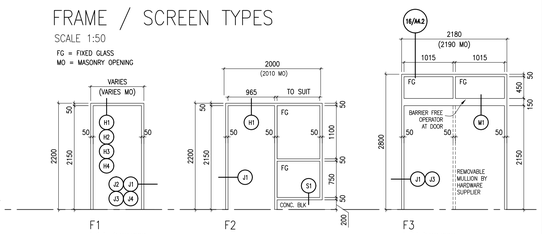


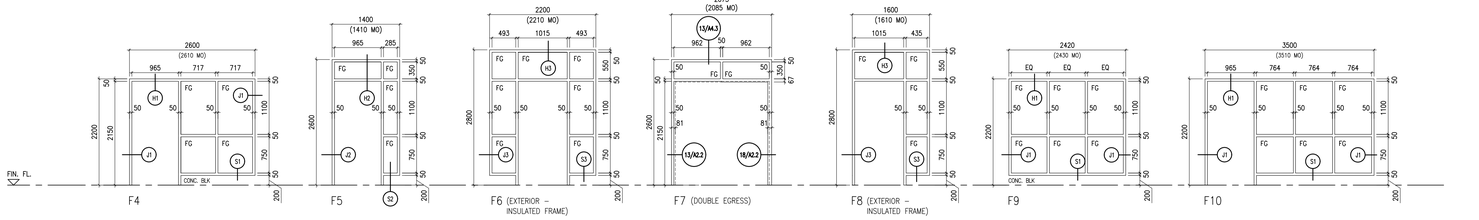
DOOR TYPES
SCALE 1:50

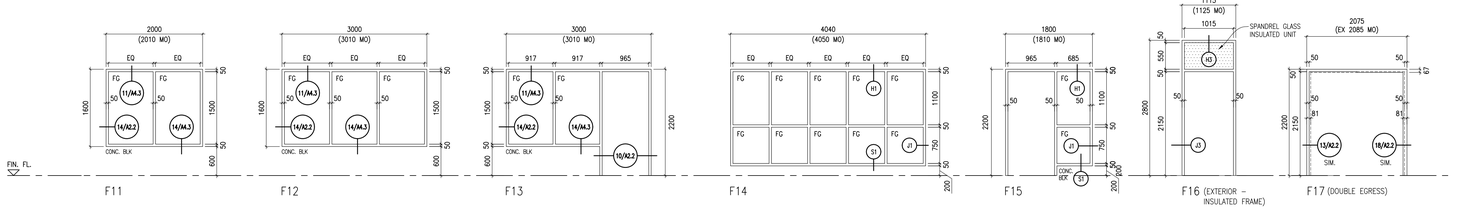
NOTE: REFER TO THE DOOR SCHEDULE FOR THE EXACT DOOR WIDTHS, HEIGHTS AND THICKNESS.

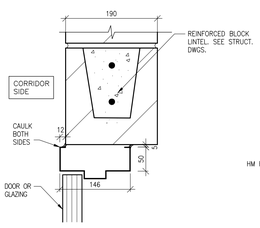


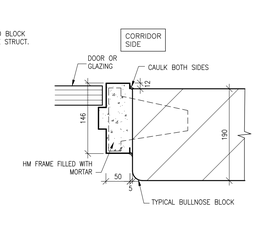
FRAME / SCREEN TYPES
SCALE 1:50
FG = FIXED GLASS
MO = MASONRY OPENING

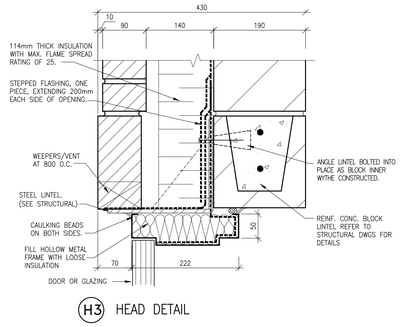


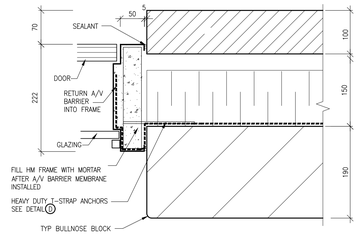


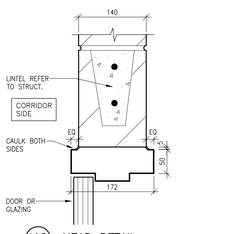


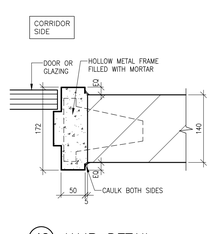


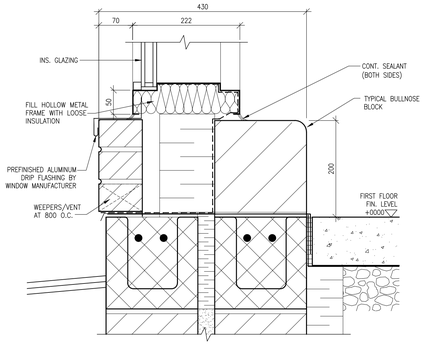




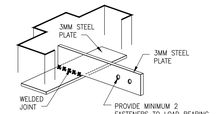




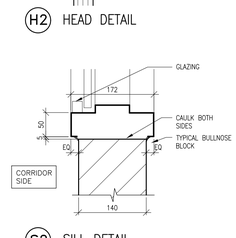


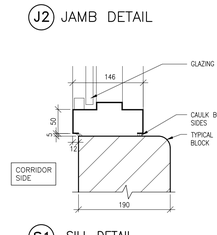


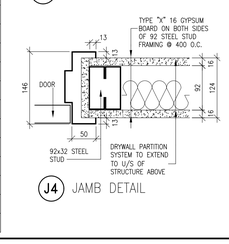
NOTES:
1. ALL EXTERIOR FRAMES ARE TO BE INSULATED, OTHERWISE THEY ARE TO BE FILLED WITH MORTAR. (HORIZONTAL AND VERTICAL MULLIONS)
2. REFER TO THE DOOR SCHEDULE FOR THE DEPTH OF THE FRAME PER DOOR.
3. ALL EXTERIOR DOORS & FRAMES ARE TO BE GALVANIZED.

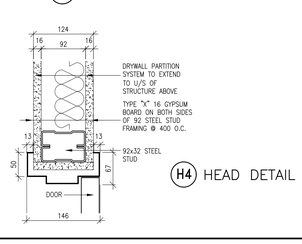


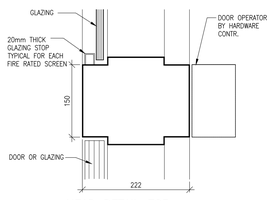
NOTE:
T-STRAP ANCHORS ARE TO BE INSTALLED ON JAMBS ONLY. PRVIDE THREE (3) STRAP ANCHORS PER JAMS.











8.	–	–
7.	JULY 24 2024	ISSUED FOR TENDER/PERMIT
6.	JUNE 11 2024	SITE PLAN REVIEW (4th SUBMISSION)
5.	MAY 03 2024	SITE PLAN REVIEW (3rd SUBMISSION)
4.	FEB 12 2024	COSTING
3.	FEB 12 2024	SITE PLAN REVIEW (2nd SUBMISSION)
2.	NOV 13 2023	SITE PLAN REVIEW (PRELIMINARY)
1.	FEB 28 2023	PRELIMINARY SITE PLAN REVIEW
DATE		REVISIONS

MURRAY CENTENNIAL PUBLIC SCHOOL ADDITION
654 County Road 40,
TRENTON ONTARIO K8V 5P4

KAWARTHA PINE RIDGE DISTRICT SCHOOL BOARD
1994 Fisher Drive, Peterborough, Ontario K9J 6X6

DRAWING
DOOR, FRAME, WINDOW, & ROOM FINISH SCHEDULE

ONTARIO ASSOCIATION OF ARCHITECTS JULY 24/2024 ROBERT F. FERKUL LICENCE 4695

TRUE NORTH | DWG. NORTH

JOB NO. 2304
SCALE AS NOTED
DATE FEB 2024
PRINTED

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TEL: (416) 239-2775
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DWG. NO. A3.1

LEGEND:

- REFER TO STRUCTURAL DRAWINGS FOR ALL STRUCTURAL ELEMENTS

WALL CONSTRUCTION ASSEMBLIES

WC1 TYP. MASONRY VENEER WALL

90 MASONRY BRICK VENEER
38(VARIES) AIR SPACE
114 MINERAL WOOL INSULATION
AIR/VAPOUR BARRIER MEMBRANE SYSTEM
190 MIN. CONCRETE BLOCK
FINISH (REFER TO RFS)

WC2 TYP. METAL SIDING WALL ASSEMBLY

22 PREFINISHED METAL SIDING (PMS)
25 Z-GIRTS OR 25MM FURRING CHANNEL
152 MINERAL WOOL INSULATION (R-25.8)
152 THERMAL SPACER SYSTEM @ 610 O/C MAX
AIR/VAPOUR BARRIER MEMBRANE SYSTEM
190 CONCRETE BLOCK
FINISH (REFER TO RFS)

FLOOR CONSTRUCTION ASSEMBLIES

FC1 TYP. SLAB ON GRADE ASSEMBLY

FINISH FLOOR (REFER TO RFS)
100 (MIN) CONCRETE SLAB ON GRADE C/W REINFORCING (SEE STRUCTURAL DRAWINGS)
15 MIL POLYOLEFIN VAPOUR BARRIER
200 THK COMPACTED STONE BASE (AS SPECIFIED)

ROOF CONSTRUCTION ASSEMBLIES

RC1 TYP. BUILT UP ROOF ASSEMBLY
ROOF TO ACHIEVE R-35

SNOW WHITE CALCITE BALAST IN POLYMER-MOD. ASPHALT
4 PLY BUILT UP ROOF SYSTEM
1 LAYER 13MM COVERBOARD
TAPERED ISOCYANURATE INSULATION (VARIES)
2 LAYER OF 75 POLYISOCYANURATE INSULATION
ROOF VAPOUR RETARDER MEMBRANE
13MM UNDERLAYEMNT BOARD -MECHANICALLY FASTENED
38 STEEL DECK (SEE STRUCT. DWGs)
OWSJ/STRUCTURAL STEEL (SEE STRUCT. DWGs)
CEILING PLENUM SPACE (VARIES)
FINISH CEILING (REFER TO R.F.S.)

RC2 BUILT UP ROOF ASSEMBLY
ROOF TO ACHIEVE R-35

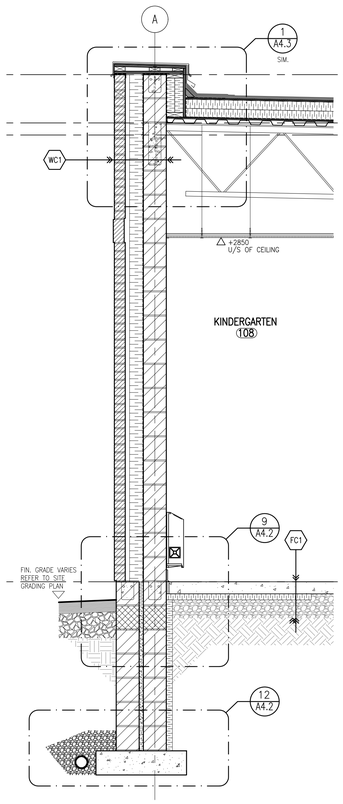
SNOW WHITE CALCITE BALAST IN POLYMER-MOD. ASPHALT
4 PLY BUILT UP ROOF SYSTEM
1 LAYER 13MM COVERBOARD
TAPERED ISOCYANURATE INSULATION (VARIES)
2 LAYER OF 75 POLYISOCYANURATE INSULATION
ROOF VAPOUR RETARDER MEMBRANE
13MM UNDERLAYEMNT BOARD -ADHERED
76 ACOUSTIC STEEL DECK (SEE STRUCT. DWGs) W/ STONE WOOL FLUTE FILLER
EXPOSED OWSJ/STRUCTURAL STEEL (SEE STRUCT. DWGs)

RC3 BUILT UP ROOF ASSEMBLY
ROOF TO ACHIEVE R-35

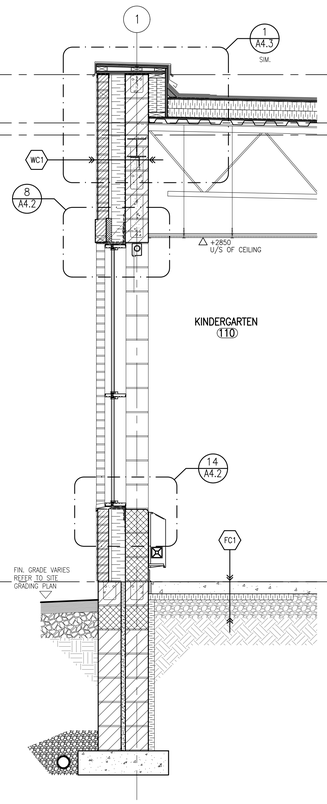
SNOW WHITE CALCITE BALAST IN POLYMER-MOD. ASPHALT
4 PLY BUILT UP ROOF SYSTEM
1 LAYER 13MM COVERBOARD
50 MAX CRICKETS TO SLOPE TO DRAIN
2 LAYER OF 75 POLYISOCYANURATE INSULATION
ROOF VAPOUR RETARDER MEMBRANE
13MM UNDERLAYEMNT BOARD -MECHANICALLY FASTENED
38 STEEL DECK (SEE STRUCT. DWGs)
OWSJ/STRUCTURAL STEEL (SEE STRUCT. DWGs)
CEILING PLENUM SPACE (VARIES)
FINISH CEILING (REFER TO R.F.S.)

RC4 RE-ROOFING EXISTING ROOF
ROOF TO ACHIEVE R-35
45 MIN FRR - ULC R201

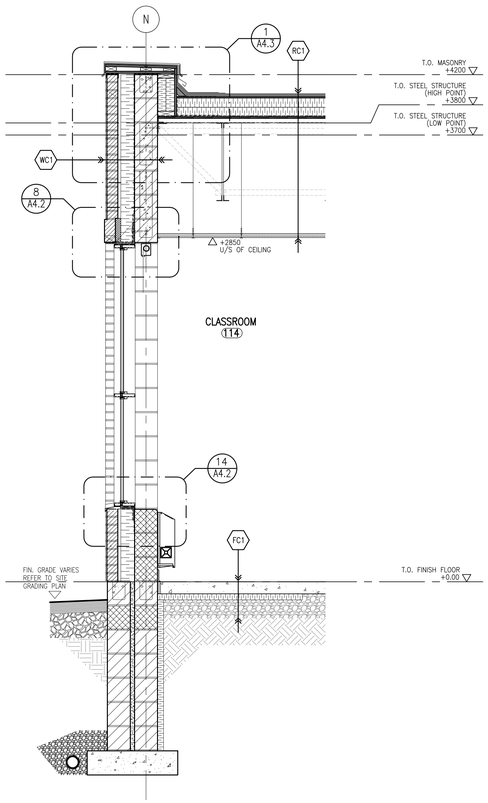
REMOVE EXISTING GRAVEL, BUR, INSULATION, AVB, & GYPSUM BOARD DOWN TO EXISTING STEEL DECK.
PROVIDE NEW 13MM DENS-DECK SHEATHING, AVB, INSULATION, & SLOPED INSULATION TO MATCH EX THICKNESS. PROVIDE NEW SEBS BUR. OVERLAP EX ROOF MEMBRANE 600mm. TIE NEW AVB INTO EXISTING.



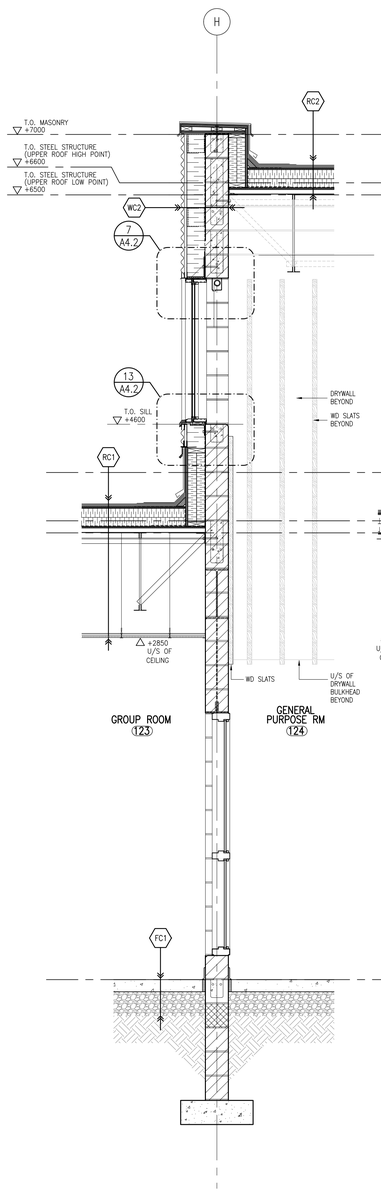
1 A4.0 WALL SECTION 1:20



2 A4.0 WALL SECTION 1:20



3 A4.0 WALL SECTION 1:20



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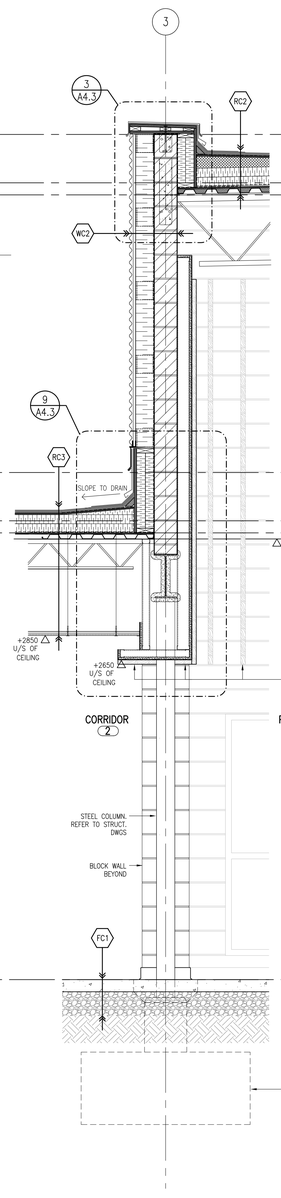

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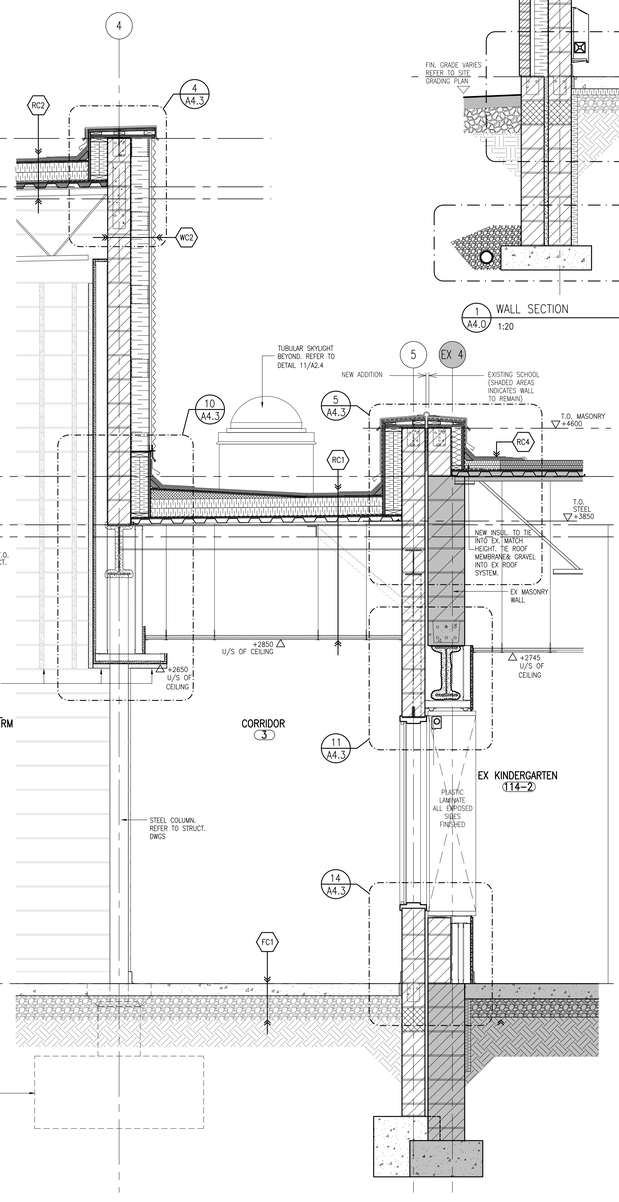
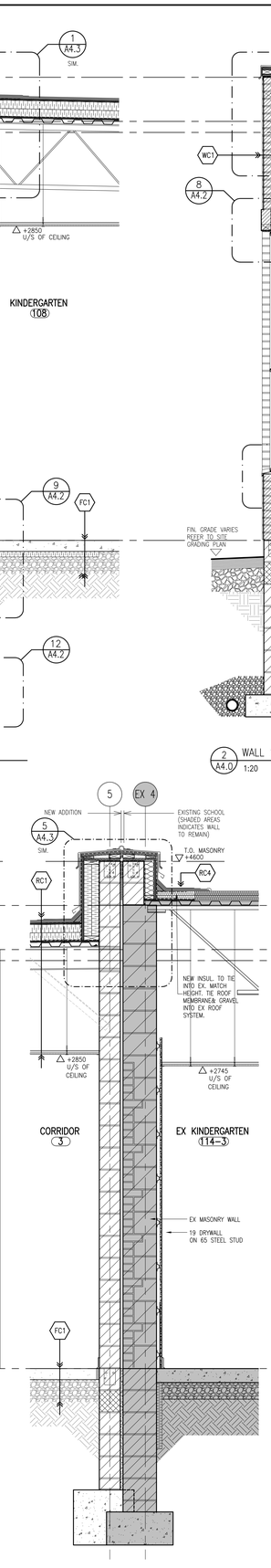
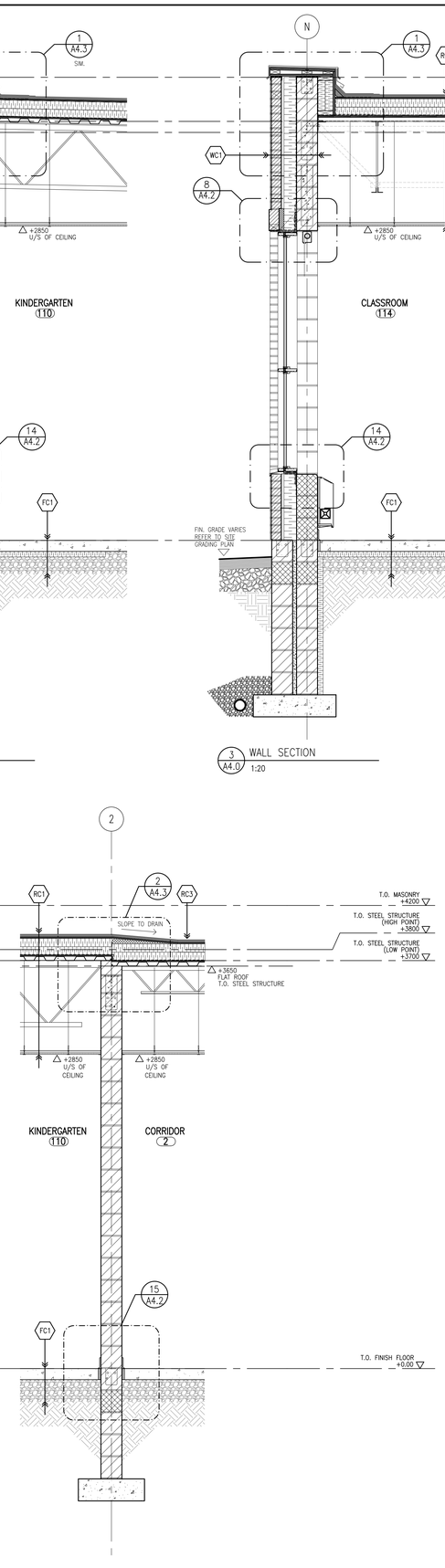


6 A4.0 WALL SECTION 1:20

7 A4.0 WALL SECTION 1:20



8 A4.0 WALL SECTION 1:20



9 A4.0 WALL SECTION 1:20

8.	–	–
7.	JULY 24 2024	ISSUED FOR TENDER/PERMIT
6.	JUNE 11 2024	SITE PLAN REVIEW (4th SUBMISSION)
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MURRAY CENTENNIAL PUBLIC SCHOOL ADDITION

654 County Road 40,
TRENTON ONTARIO K8V 5P4

KAWARTHA PINE RIDGE DISTRICT SCHOOL BOARD

1994 Fisher Drive, Peterborough, Ontario K9J 6X6

DRAWING

WALL SECTIONS

ONTARIO ASSOCIATION OF ARCHITECTS
JULY 24/24
ROBERT F. FERKUL
LICENCE
4055

TRUE NORTH | DWG. NORTH

JOB NO. 2304

SCALE 1:20

DATE FEB 2024

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DWG. NO. A4.0

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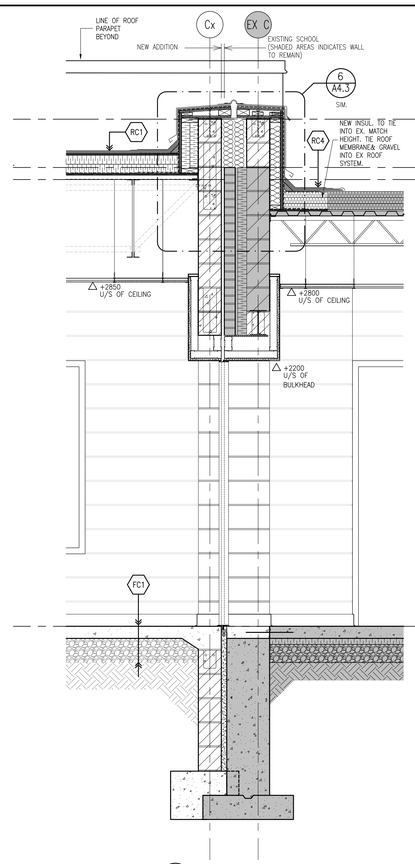
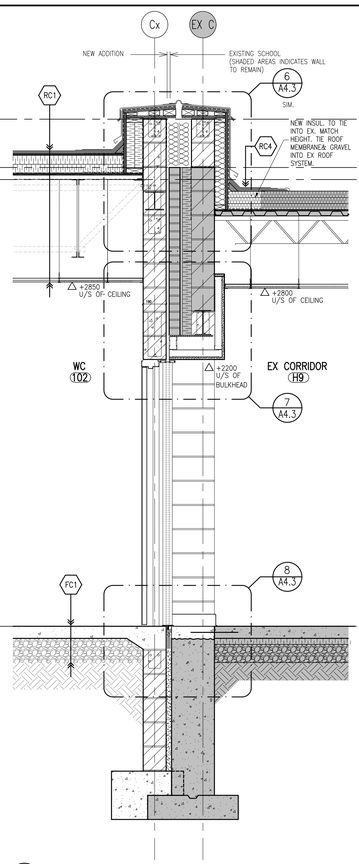


1 A4.1 WALL SECTION 1:20



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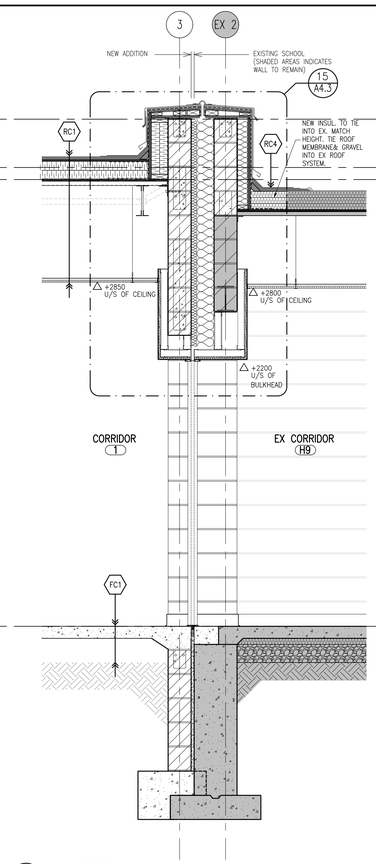

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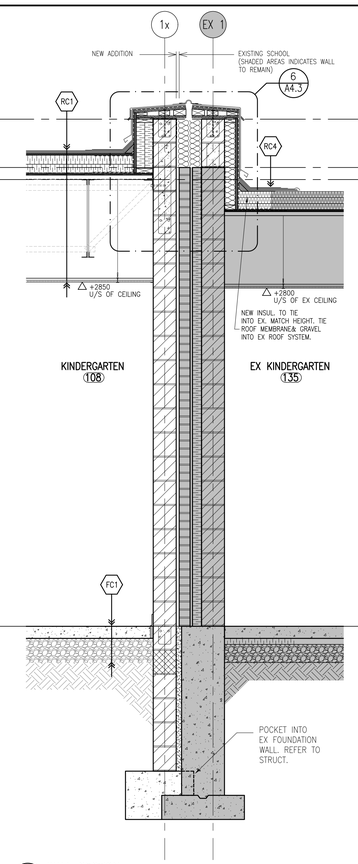

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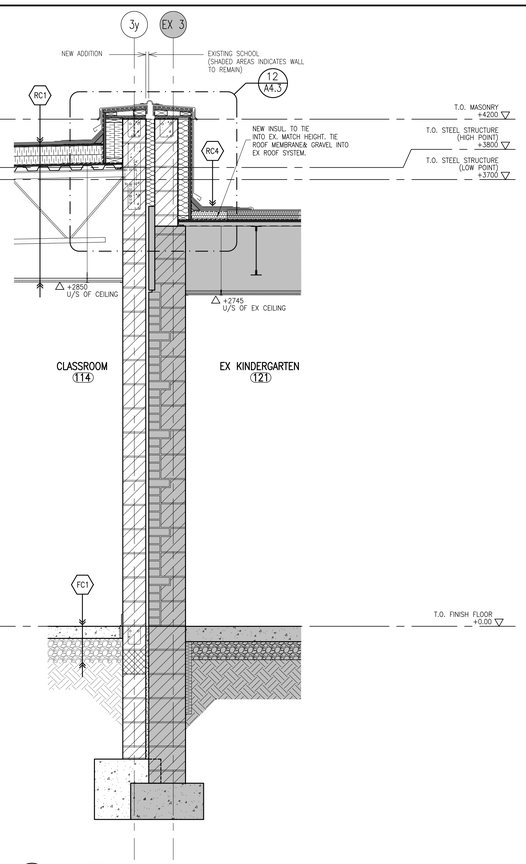

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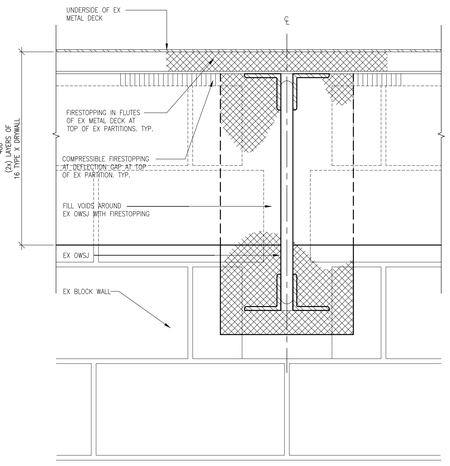
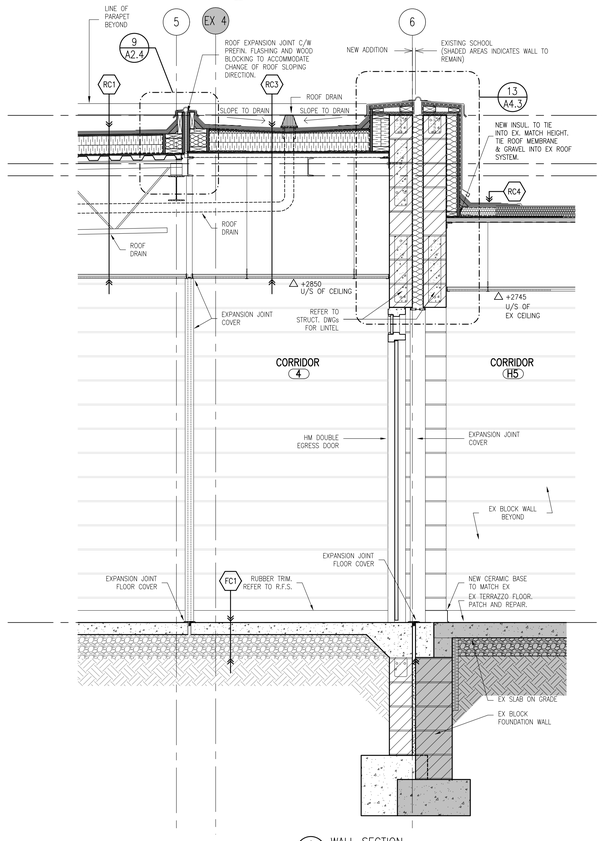
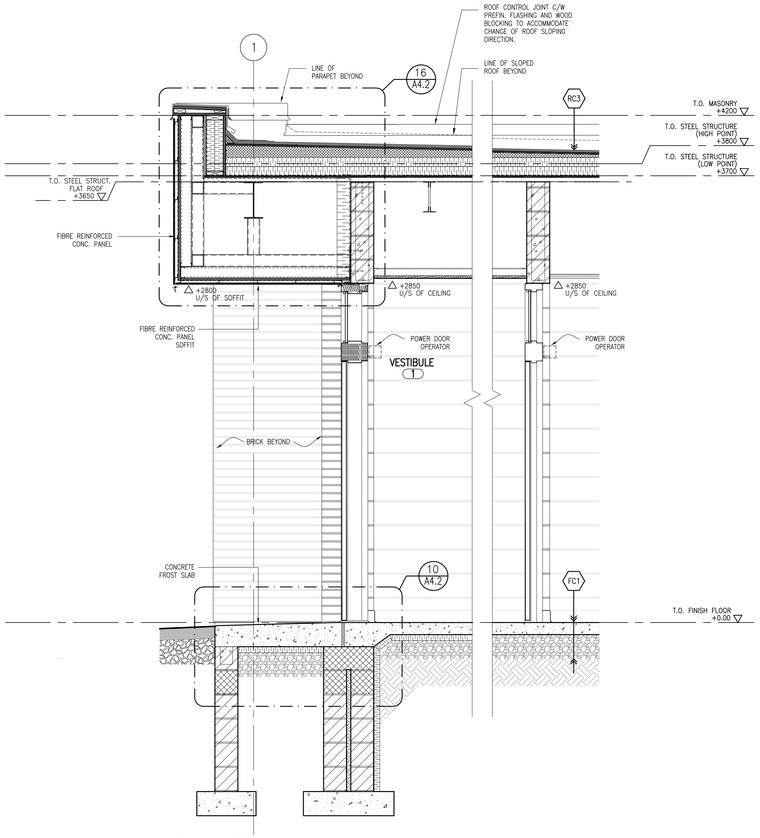


8 A4.1 TYP. FIRESTOPPING@ EX OWSJ & MASONRY PARTITION 1:5



6 A4.1 WALL SECTION 1:20



7 A4.1 WALL SECTION 1:20

LEGEND:

- REFER TO STRUCTURAL DRAWINGS FOR ALL STRUCTURAL ELEMENTS

WALL CONSTRUCTION ASSEMBLIES

WC1 TYP. MASONRY VENEER WALL

90 MASONRY BRICK VENEER
36(VARIES) AIR SPACE
114 MINERAL WOOL INSULATION
AIR/VAPOUR BARRIER MEMBRANE SYSTEM
190 MIN. CONCRETE BLOCK
FINISH (REFER TO RFS)

WC2 TYP. METAL SIDING WALL ASSEMBLY

22 PREFINISHED METAL SIDING (PMS)
25 Z-GIRTS OR 25MM FURRING CHANNEL
152 MINERAL WOOL INSULATION (R-25.6)
152 THERMAL SPACER SYSTEM @ 610 O/C MAX
AIR/VAPOUR BARRIER MEMBRANE SYSTEM
190 CONCRETE BLOCK
FINISH (REFER TO RFS)

FLOOR CONSTRUCTION ASSEMBLIES

FC1 TYP. SLAB ON GRADE ASSEMBLY

FINISH FLOOR (REFER TO RFS)
100 (MIN) CONCRETE SLAB ON GRADE C/W REINFORCING (SEE STRUCTURAL DRAWINGS)
15 MIL POLYOLEFIN VAPOUR BARRIER
200 THK COMPACTED STONE BASE (AS SPECIFIED)

ROOF CONSTRUCTION ASSEMBLIES

RC1 TYP. BUILT UP ROOF ASSEMBLY
ROOF TO ACHIEVE R-35

SNOW WHITE CALCITE BALAST IN POLYMER-MOD. ASPHALT
4 PLY BUILT UP ROOF SYSTEM
1 LAYER 13MM COVERBOARD
TAPERED ISOCYANURATE INSULATION (VARIES)
2 LAYER OF 75 POLYISOCYANURATE INSULATION
ROOF VAPOUR RETARDER MEMBRANE
13MM UNDERLAYMENT BOARD - MECHANICALLY FASTENED
38 STEEL DECK (SEE STRUCT. DWGs)
OWSJ/STRUCTURAL STEEL (SEE STRUCT. DWGs)
CEILING PLENUM SPACE (VARIES)
FINISH CEILING (REFER TO R.F.S.)

RC2 BUILT UP ROOF ASSEMBLY
ROOF TO ACHIEVE R-35

SNOW WHITE CALCITE BALAST IN POLYMER-MOD. ASPHALT
4 PLY BUILT UP ROOF SYSTEM
1 LAYER 13MM COVERBOARD
TAPERED ISOCYANURATE INSULATION (VARIES)
2 LAYER OF 75 POLYISOCYANURATE INSULATION
ROOF VAPOUR RETARDER MEMBRANE
13MM UNDERLAYMENT BOARD - ADHERED
76 ACOUSTIC STEEL DECK (SEE STRUCT. DWGs) W/ STONE WOOL FLUTE FILLER
EXPOSED OWSJ/STRUCTURAL STEEL (SEE STRUCT. DWGs)

RC3 BUILT UP ROOF ASSEMBLY
ROOF TO ACHIEVE R-35

SNOW WHITE CALCITE BALAST IN POLYMER-MOD. ASPHALT
4 PLY BUILT UP ROOF SYSTEM
1 LAYER 13MM COVERBOARD
50 MAX CRICKETS TO SLOPE TO DRAIN
2 LAYER OF 75 POLYISOCYANURATE INSULATION
ROOF VAPOUR RETARDER MEMBRANE
13MM UNDERLAYMENT BOARD - MECHANICALLY FASTENED
38 STEEL DECK (SEE STRUCT. DWGs)
OWSJ/STRUCTURAL STEEL (SEE STRUCT. DWGs)
CEILING PLENUM SPACE (VARIES)
FINISH CEILING (REFER TO R.F.S.)

RC4 RE-ROOFING EXISTING ROOF
ROOF TO ACHIEVE R-35
45 MIN FRR - ULC R201

REMOVE EXISTING GRAVEL, BUR, INSULATION, AVB, & GYPSUM BOARD DOWN TO EXISTING STEEL DECK.
PROVIDE NEW 13MM DENS-DECK SHEATHING, AVB, INSULATION, & SLOPED INSULATION TO MATCH EX THICKNESS. PROVIDE NEW SEBS BUR, OVERLAP EX ROOF MEMBRANE 600mm. TIE NEW AVB INTO EXISTING.

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1994 Fisher Drive, Peterborough, Ontario K9J 6X6

DRAWING: WALL SECTIONS

ONTARIO ASSOCIATION OF ARCHITECTS
JULY 24/24
ROBERT F. FERKUL
LICENCE 4095

TRUE NORTH | DWG. NORTH

JOB NO. 2304

SCALE 1:20

DATE FEB 2024

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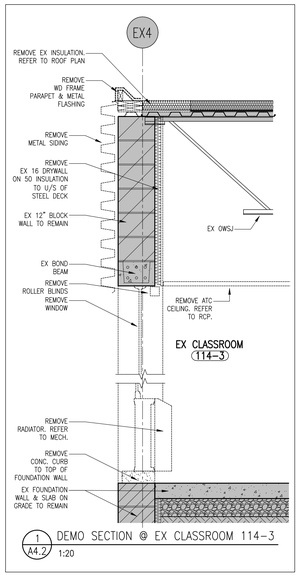
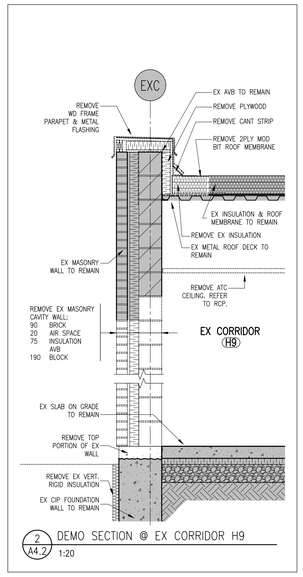
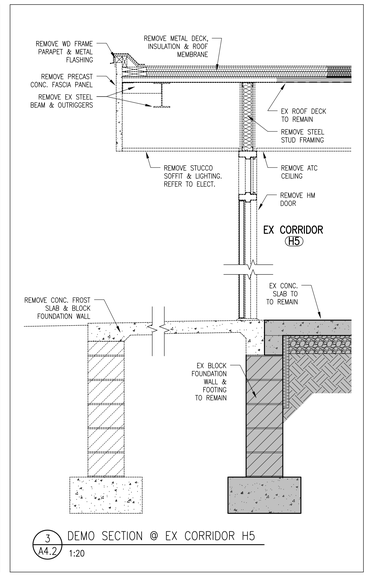


1 A4.2 DEMO SECTION @ EX CLASSROOM 114-3
1:20



2 A4.2 DEMO SECTION @ EX CORRIDOR H9
1:20



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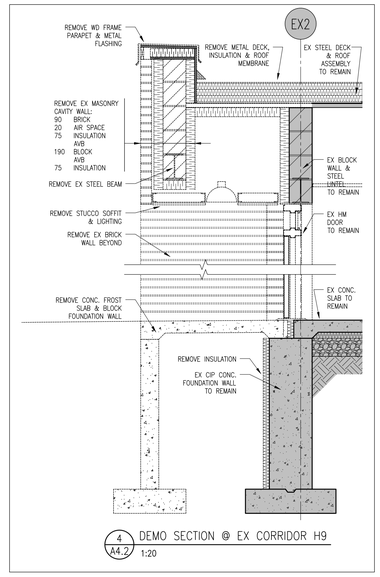
1:20



4 A4.2 DEMO SECTION @ EX CORRIDOR H9
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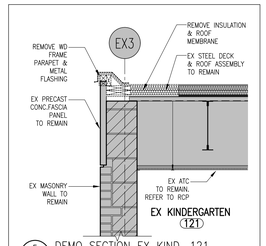

5 A4.2 DEMO SECTION EX KIND. 121
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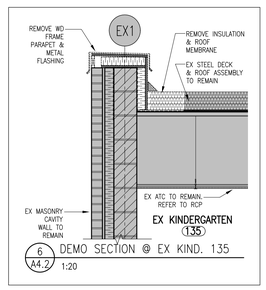
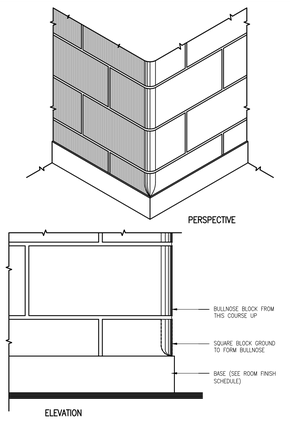


6 A4.2 DEMO SECTION @ EX KIND. 135
1:20

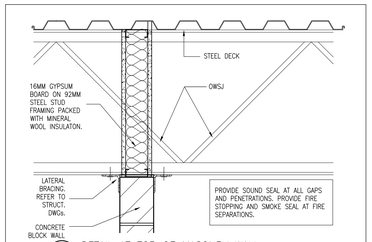
REFER TO A2.0 FOR GENERAL DEMOLITION NOTES

HATCH DENOTES EX TO REMAIN UNDISTURBED

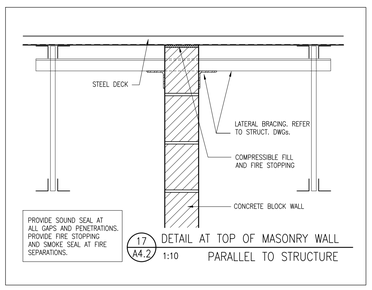
DASHED LINE INDICATES ITEMS TO BE REMOVED UNLESS OTHERWISE NOTED



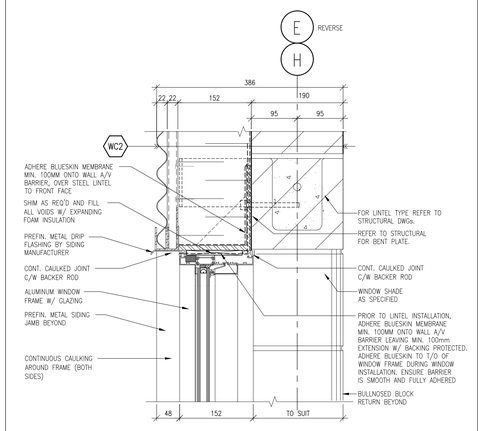
19 A4.2 TYP. INTERIOR WALL AT CORNER
NTS



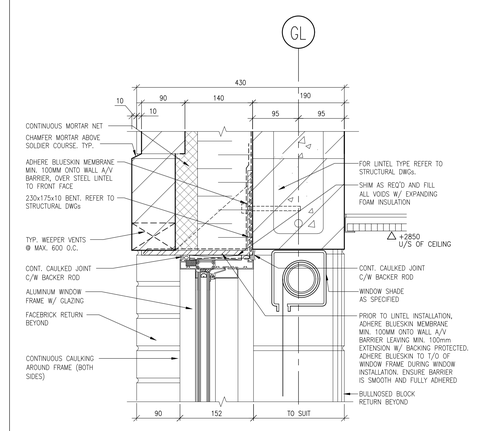
18 A4.2 DETAIL AT TOP OF MASONRY WALL
1:10 PERPENDICULAR TO STRUCTURE



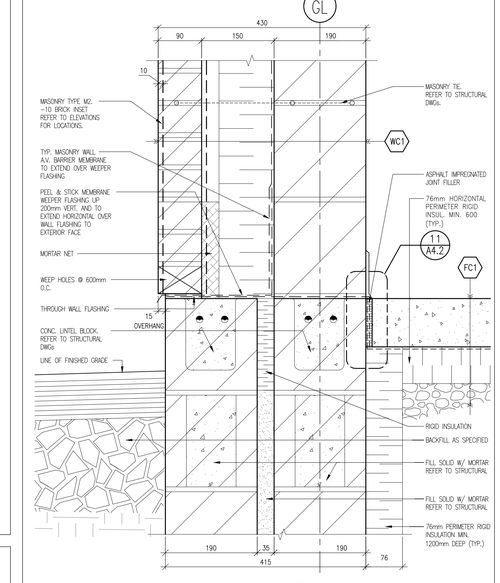
17 A4.2 DETAIL AT TOP OF MASONRY WALL
1:10 PARALLEL TO STRUCTURE



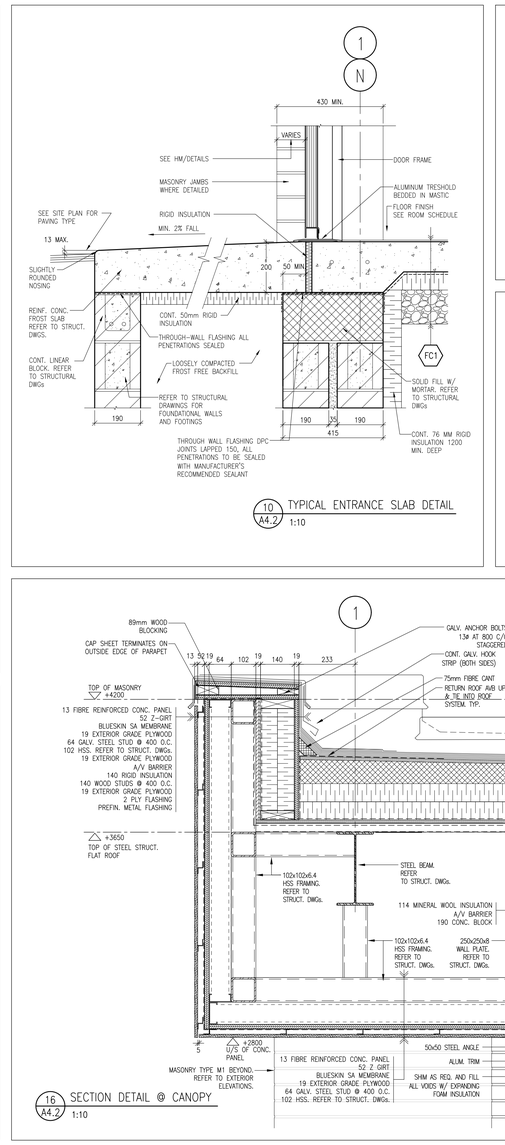
7 A4.2 TYPICAL WINDOW HEAD DETAIL @ PMS
1:5



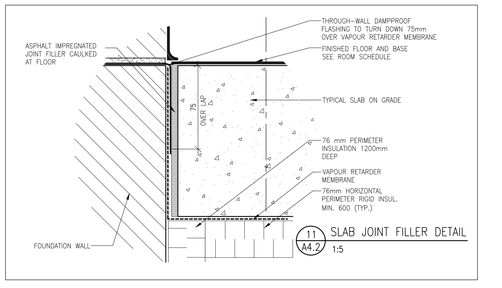
8 A4.2 TYPICAL WINDOW HEAD DETAIL @ BRICK
1:5



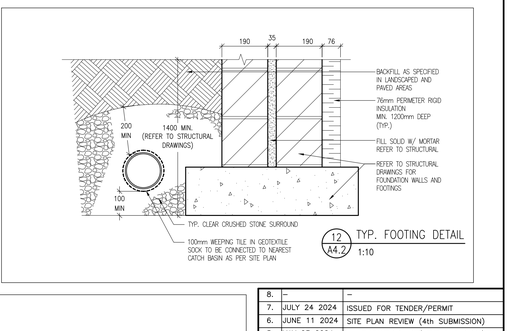
9 A4.2 TYP. FOUNDATION WALL DETAIL
1:5



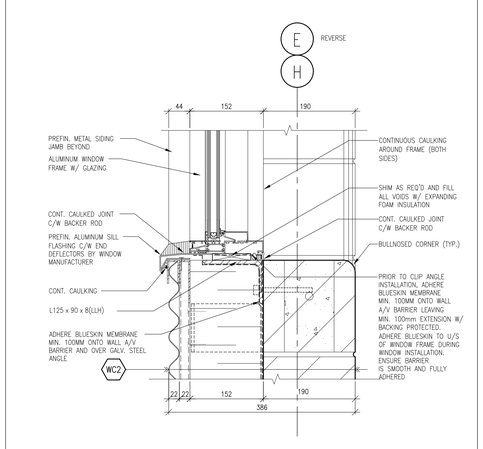
10 A4.2 TYPICAL ENTRANCE SLAB DETAIL
1:10



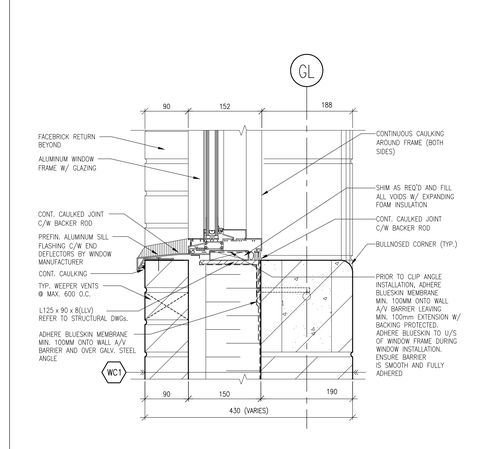
11 A4.2 SLAB JOINT FILLER DETAIL
1:5



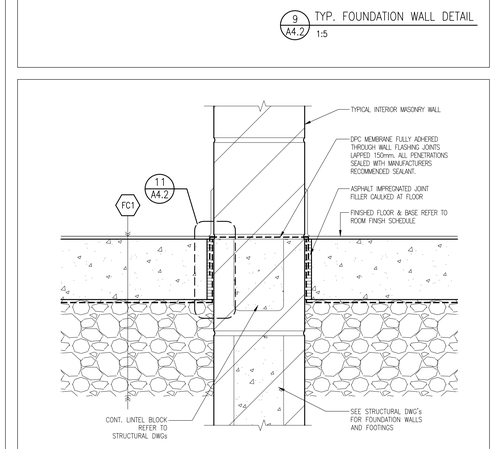
12 A4.2 TYP. FOOTING DETAIL
1:10



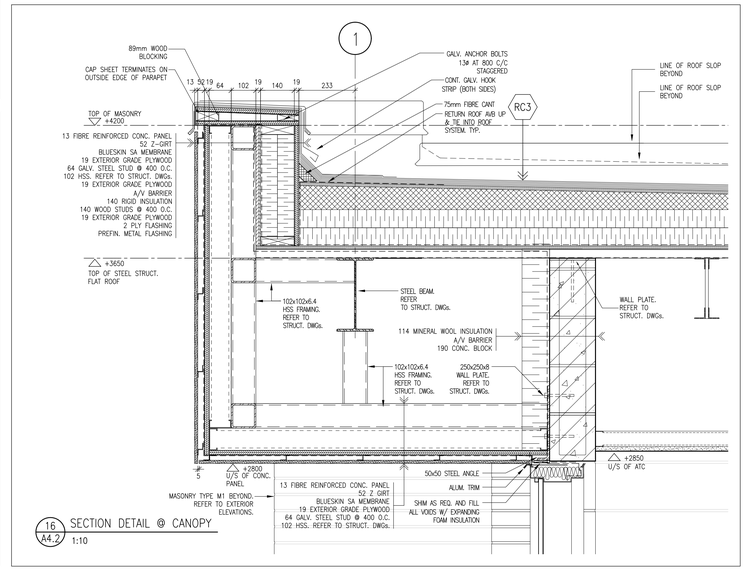
13 A4.2 TYPICAL WINDOW SILL DETAIL @ PMS
1:5



14 A4.2 TYPICAL WINDOW SILL DETAIL @ BRICK
1:5



15 A4.2 TYP INTERIOR FOUNDATION WALL
1:5



16 A4.2 SECTION DETAIL @ CANOPY
1:10

8.	–	–
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MURRAY CENTENNIAL PUBLIC SCHOOL ADDITION

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KAWARTHA PINE RIDGE DISTRICT SCHOOL BOARD

1994 Fisher Drive, Peterborough, Ontario K9J 6X6

DRAWING

WALL SECTION DETAILS

ONTARIO ASSOCIATION OF ARCHITECTS JULY 24/24 ROBERT F. FERKUL LICENCE 4695

TRUE NORTH | DWG. NORTH

JOB NO. 2304

SCALE AS NOTED

DATE FEB 2024

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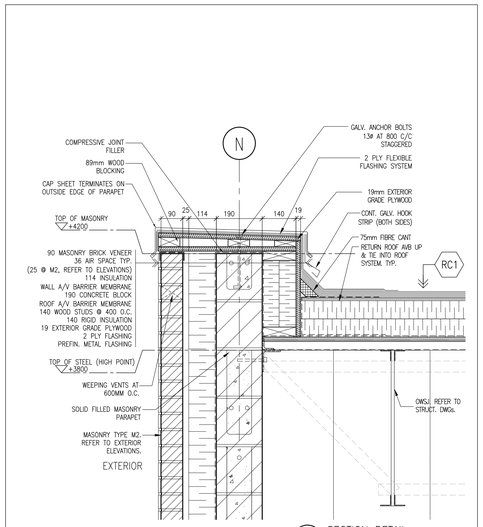
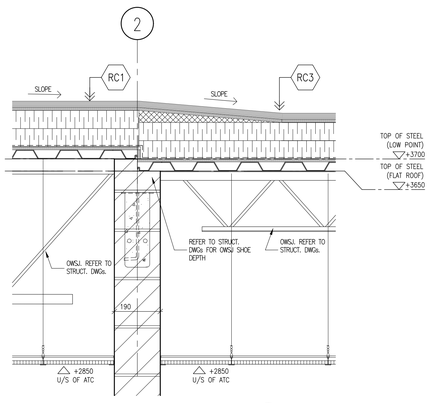
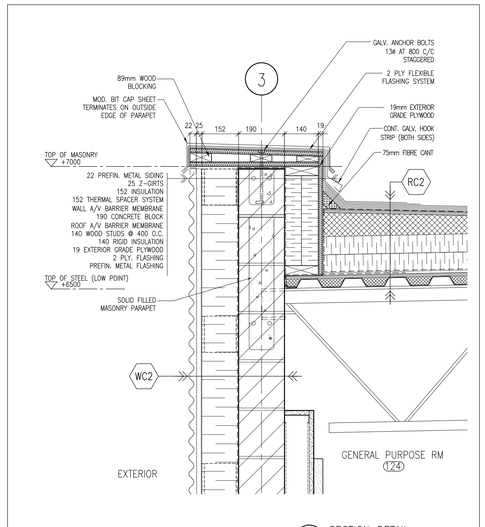


1 A4.3 SECTION DETAIL 1:10



2 A4.3 SECTION DETAIL 1:10



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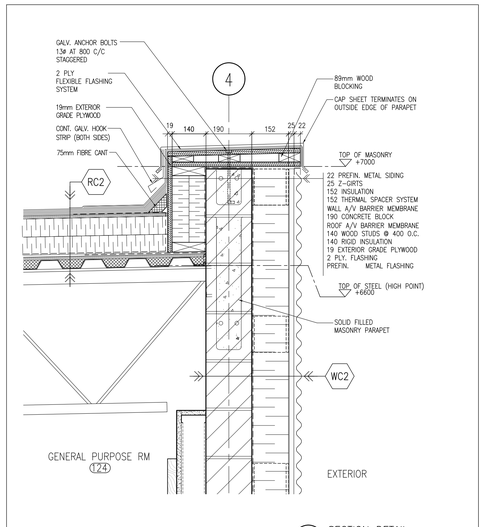

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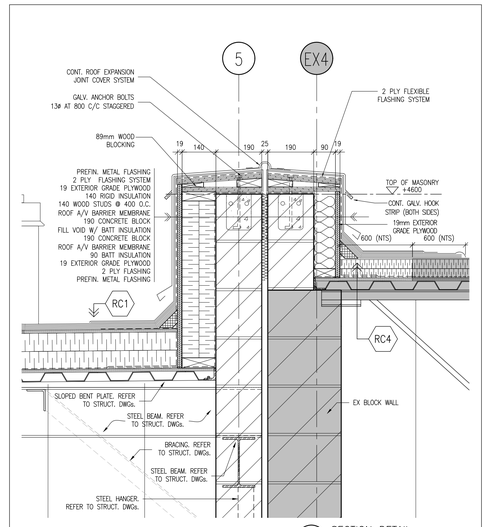

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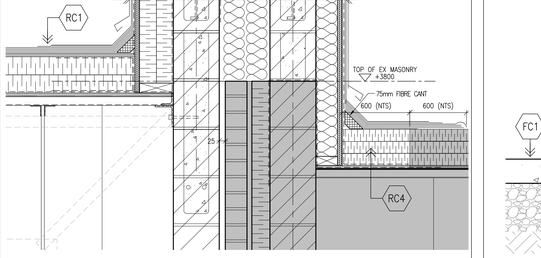

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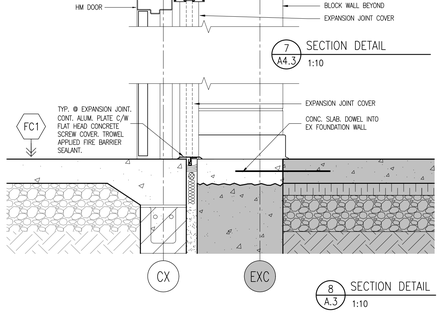

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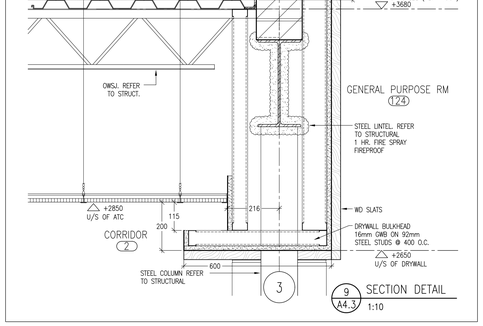
8 A.3 SECTION DETAIL 1:10



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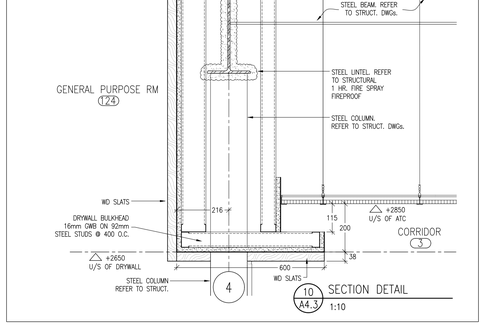

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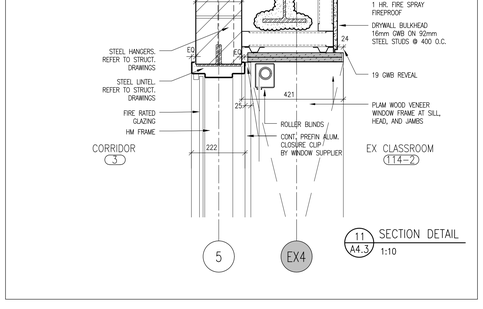

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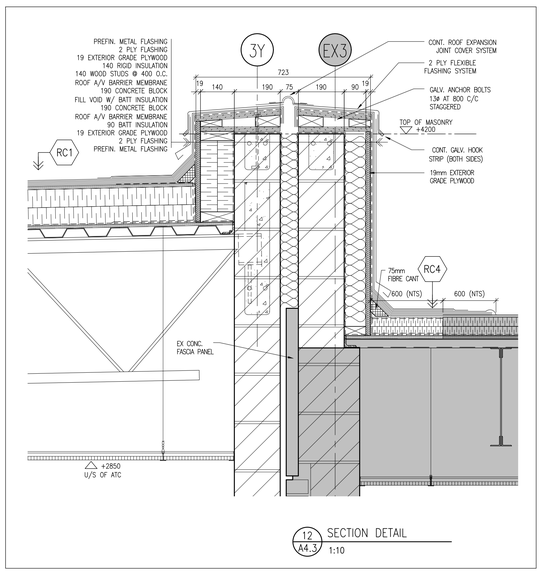

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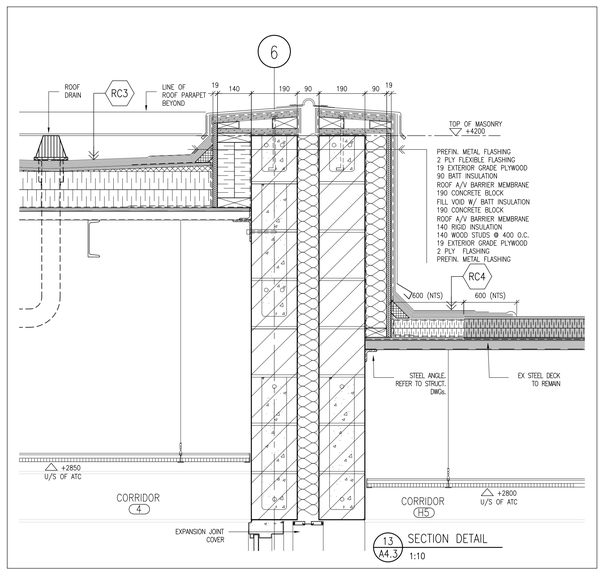

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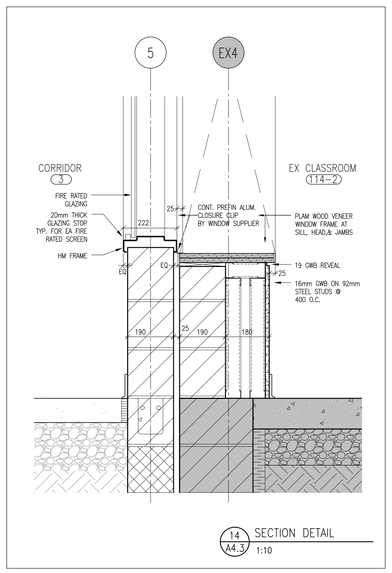

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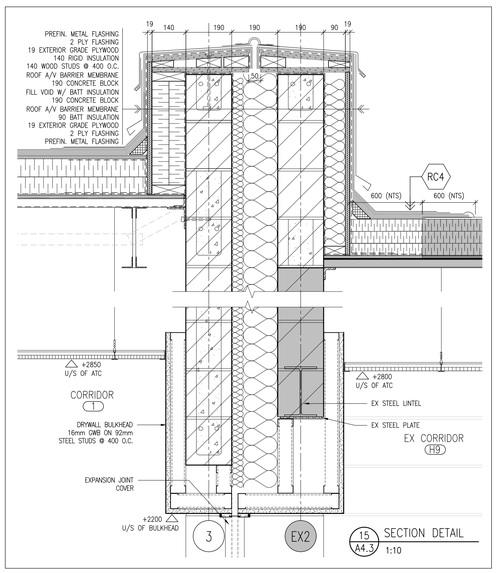

15 A4.3 SECTION DETAIL 1:10

GENERAL NOTES:

1. ALL PENETRATIONS OF FLASHING & AVB TO BE SEALED WITH MASTIC
2. PROVIDE PERIMETER TAPERED INSULATION WHERE SHOWN ON ROOF PLAN.
3. OVERLAP OF WALL AND ROOF AVB TO OCCUR AT TOP OF PARAPET WALL

8.	–	–
7.	JULY 24 2024	ISSUED FOR TENDER/PERMIT
6.	JUNE 11 2024	SITE PLAN REVIEW (4th SUBMISSION)
5.	MAY 03 2024	SITE PLAN REVIEW (3rd SUBMISSION)
4.	FEB 12 2024	COSTING
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2.	NOV 13 2023	SITE PLAN REVIEW (PRELIMINARY)
1.	FEB 28 2023	PRELIMINARY SITE PLAN REVIEW
DATE		REVISIONS

MURRAY CENTENNIAL PUBLIC SCHOOL ADDITION

654 County Road 40,
TRENTON ONTARIO K8V 5P4

KAWARTHA PINE RIDGE DISTRICT SCHOOL BOARD

1994 Fisher Drive, Peterborough, Ontario K9J 6X6

DRAWING

WALL SECTIONS DETAILS

ONTARIO ASSOCIATION OF ARCHITECTS JULY 24/24 ROBERT F. FERRUL LICENCE 4695

TRUE NORTH | DWG. NORTH

JOB NO. 2304

SCALE AS NOTED

DATE FEB 2024

PRINTED

DWG. NO. A4.3

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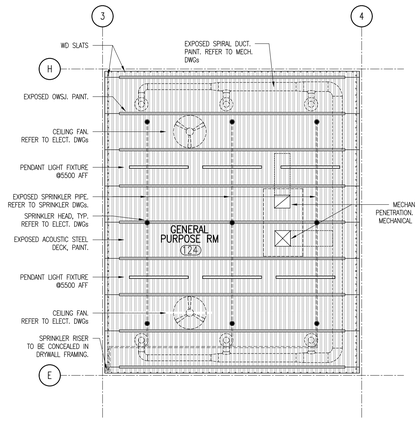
EMAIL: mdarch@mdarch.ca



2 A5.0 GENERAL PURPOSE RM 124 RCP
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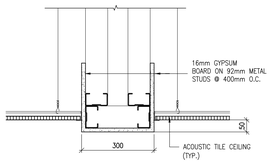

3 A5.0 TYP. BULKHEAD DETAIL
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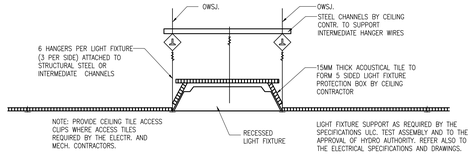

4 A5.0 TYP. LIGHT FIXTURE PROTECTION IN FIRE RATED CEILING ASSEMBLIES
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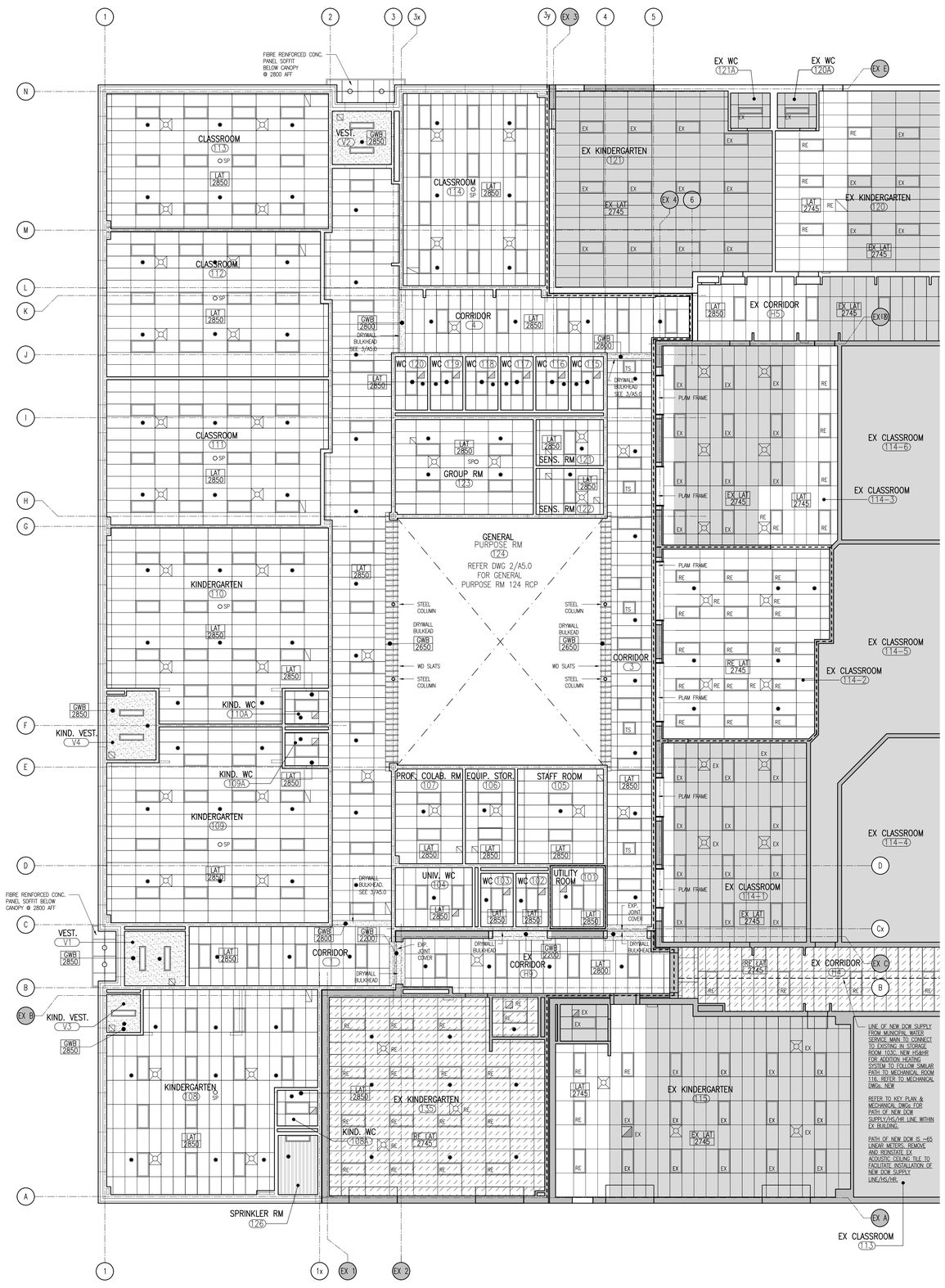

1 A5.0 PARTIAL RCP
1:100

REFLECTED CEILING LEGEND

- ACOUSTIC CEILING
- REINSTATE EX ACOUSTIC CEILING
- EXISTING ACOUSTIC CEILING
- EXPOSED METAL DECK.
- GYPSUM BOARD
- 1220 X 610 RECESSED FLUORESCENT LIGHT. REFER TO ELEC. DWGS.
- 1220 X 305 RECESSED FLUORESCENT LIGHT. REFER TO ELEC. DWGS.
- RE — EX LIGHTING TO BE REINSTATED AS PART OF PHASE 3 (P3) WORK. REFER TO ELEC. DWGS.
- EX — EXISTING LIGHT FIXTURE
- SPRINKLER HEAD. REFER TO SPRINKLER DRAWINGS.
- EX — EXISTING SUPPLY AIR DIFFUSER. REFER TO MECH. DWGS.
- SUPPLY AIR DIFFUSER. REFER TO MECH. DWGS.
- RETURN AIR GRILLE. REFER TO MECH. DWGS.
- CEILING EXHAUST FAN. REFER TO MECH. DWGS.
- LAT 2800 — CEILING HEIGHT FROM FINISHED FLOOR. REFER TO ROOM FINISH SCHEDULE
- CEILING FAN. REFER TO ELECT. DWGS.
- SP — CEILING MOUNTED SPEAKER. REFER TO ELECT. DWGs
- TS — TUBULAR SKYLIGHT

NOTES

1. REFER TO ELECTRICAL DRAWINGS FOR EXACT TYPE, LOCATION, AND NUMBER OF LIGHT FIXTURES, SPEAKERS, SMOKE DETECTOR, ETC.
2. REFER TO MECHANICAL DRAWINGS FOR EXACT NUMBER OF PENETRATIONS IN CEILING FOR DIFFUSERS, GRILLES, ACCESS OPENINGS, ETC. PROVIDE HANGERS & FRAMING TO SUIT MECHANICAL OPENINGS AND BULKHEADS.
3. PROVIDE OPENINGS THRU WALLS TO ACCOMMODATE INSTALLATION OF DUCTWORK. FOR FIRE DAMPERS AND EXACT NUMBER, SIZE & LOCATION OF DUCTWORK PENETRATION THRU WALLS, REFER TO MECHANICAL DRAWINGS. REFER TO STRUCTURAL DRAWING FOR LINTEL TYPE.
4. REFER TO SPRINKLER DRAWINGS FOR EXACT NUMBER & TYPE OF SPRINKLER HEADS, HANGERS.

DATE	REVISIONS
8.	–
7. JULY 24 2024	ISSUED FOR TENDER/PERMIT
6. JUNE 11 2024	SITE PLAN REVIEW (4th SUBMISSION)
5. MAY 03 2024	SITE PLAN REVIEW (3rd SUBMISSION)
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MURRAY CENTENNIAL PUBLIC SCHOOL ADDITION

654 County Road 40,
TRENTON ONTARIO K8V 5P4

KAWARTHA PINE RIDGE DISTRICT SCHOOL BOARD

1994 Fisher Drive, Peterborough, Ontario K9J 6X6

DRAWING

REFLECTED CEILING PLAN

ONTARIO ASSOCIATION OF ARCHITECTS
JULY. 24/24
ROBERT F. FERKUL
LICENCE 4095

TRUE NORTH | DWG. NORTH

JOB NO. 2304

SCALE 1:100

DATE FEB 2024

PRINTED

DWG. NO. A5.0

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EMAIL: mdarch@mdarch.ca

BLINDS SCHEDULE NOTES

1. REFER TO SPECIFICATIONS
2. SITE MEASURE ALL SHADES BEFORE FABRICATION.
3. DO NOT FASTEN SHADES TO ALUMINUM EXTERIOR WINDOW FRAMES.
4. MINIMIZE GAPS BETWEEN ADJACENT SHADES AND ENSURE ANY GAPS ARE LOCATED AT A WINDOW FRAME MEMBER TO MINIMIZE LIGHT SPILLAGE.
5. SHADES B5 ARE MOTORIZED

BLIND LEGEND:

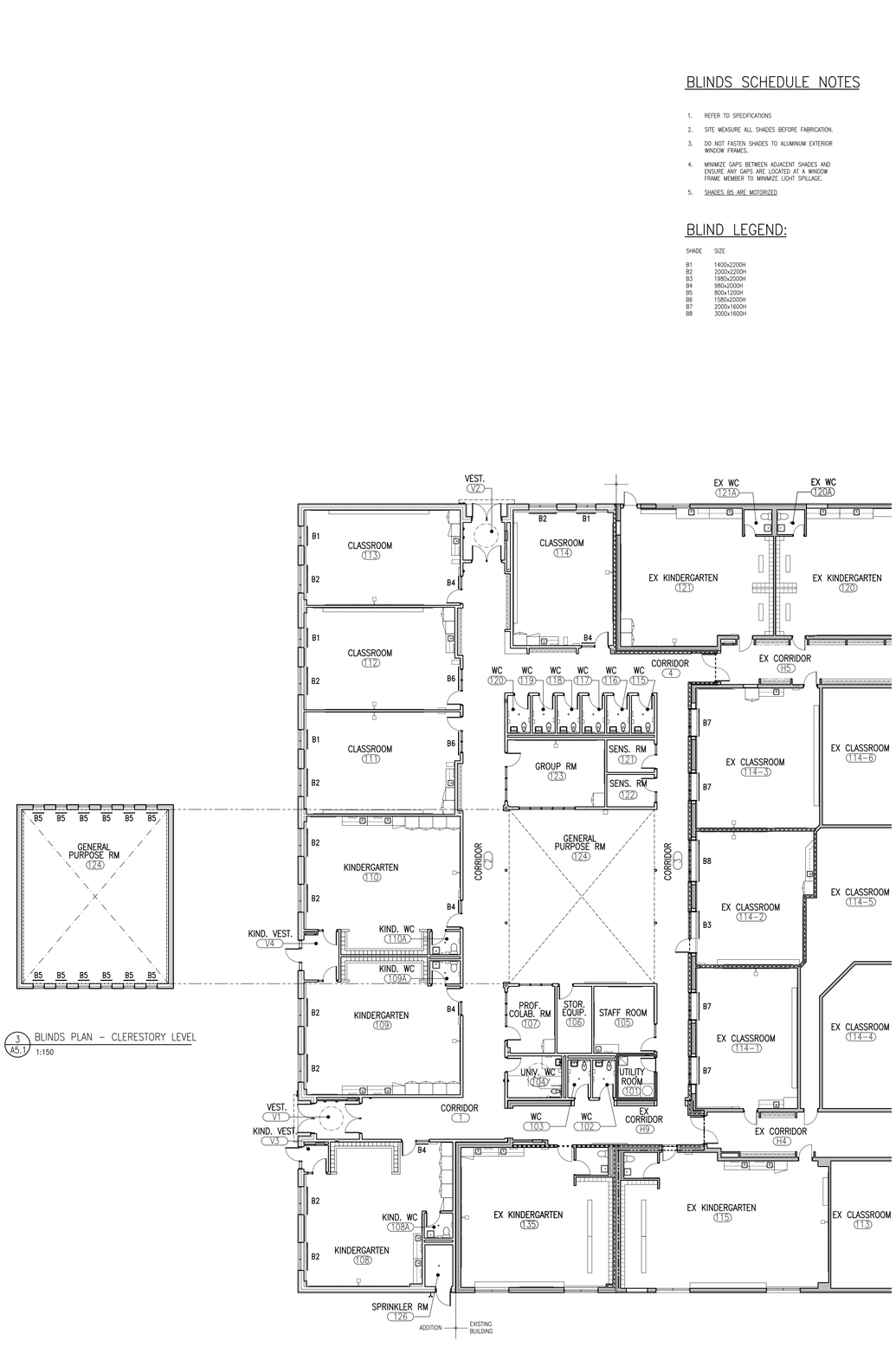
SHADE	SIZE
B1	1400x2200H
B2	2000x2200H
B3	1980x2000H
B4	980x2000H
B5	800x1200H
B6	1580x2000H
B7	2000x1600H
B8	3000x1600H

FLOOR FINISH LEGEND

NOTE:
1. THIS DRAWING SHOWS TILE/SHEET FLOORING ONLY. REFER TO ROOM FINISH SCHEDULE AND SPECIFICATIONS FOR DETAILS ON FLOORING IN OTHER AREAS.

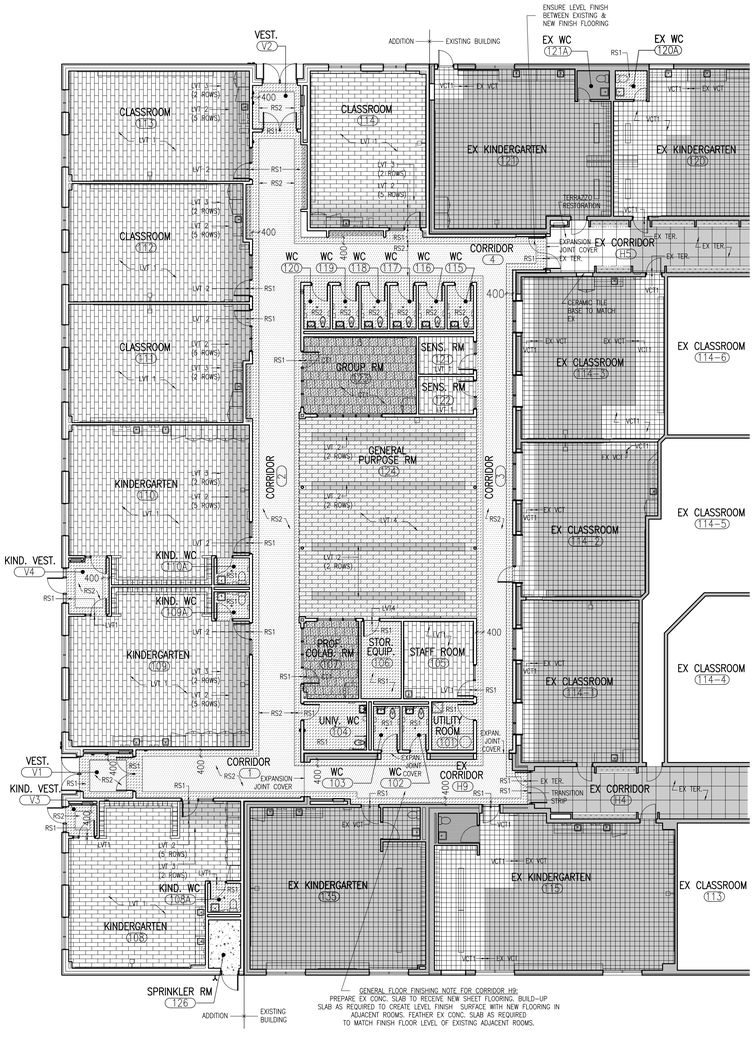
2. FEATHER OUT RESILIENT FLOORING MINIMUM 1800 MM BEYOND TRANSITION POINT TO CREATE EVEN SURFACE BETWEEN DISSIMILAR MATERIALS, INCLUDING ALL TRANSITIONS BETWEEN LVT, CARPET TILE, RUBBER SHEETING FLOORING, VCT, AND ALL AREAS WHERE NEW FLOORING MEETS WITH EXISTING FLOORING

- RS 1 = RUBBER SHEET ACCENT COLOUR — REFER TO COLOUR SCHEDULE
- RS 2 = RUBBER SHEET FIELD COLOUR — REFER TO COLOUR SCHEDULE
- LVT 1 (250mm x 1000mm) = FIELD COLOUR — REFER TO COLOUR SCHEDULE
- LVT 2 (250mm x 1000mm) = ACCENT COLOUR — REFER TO COLOUR SCHEDULE
- LVT 3 (250mm x 1000mm) = ACCENT COLOUR — REFER TO COLOUR SCHEDULE
- LVT 4 (250mm x 1000mm) = ACCENT COLOUR — REFER TO COLOUR SCHEDULE
- CT 1 = CARPET TILE (500mm x 500mm) — REFER TO COLOUR SCHEDULE
- CONCRETE
- VCT 1 = NEW TILE TO MATCH EXISTING
- EX VCT = EX VCT TO REMAIN
- EX TER. = EX TERRAZZO TO REMAIN
- TERRAZZO RESTORATION — LOCALLY REPAIR EXISTING TERRAZZO FLOORING WHERE DISTURBED BY TEMPORARY PARTITIONS.



3 / A5.1 BLINDS PLAN – CLERESTORY LEVEL
1:150

2 / A5.1 BLINDS PLAN
1:150



1 / A5.1 FLOOR FINISH PLAN
1:150

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MURRAY CENTENNIAL PUBLIC SCHOOL ADDITION

654 County Road 40,
TRENTON ONTARIO K8V 5P4

KAWARTHA PINE RIDGE DISTRICT SCHOOL BOARD

1994 Fisher Drive, Peterborough, Ontario K9J 6X6

DRAWING
FLOOR FINISH PLAN & ROLLER BLINDS PLAN

ONTARIO ASSOCIATION OF ARCHITECTS — JULY 24/24 — ROBERT F. FERKUL — LICENCE 4695

TRUE NORTH | DWG. NORTH

JOB NO. 2304

SCALE 1:100

DATE FEB 2024

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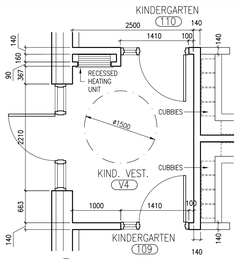
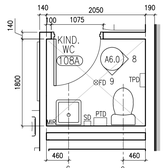
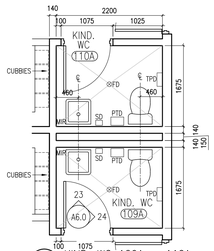


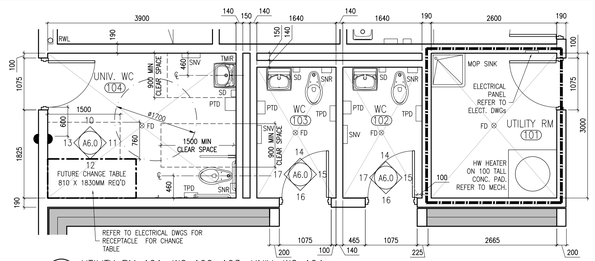
1 A6.0 VESTIBULE 4 1:50



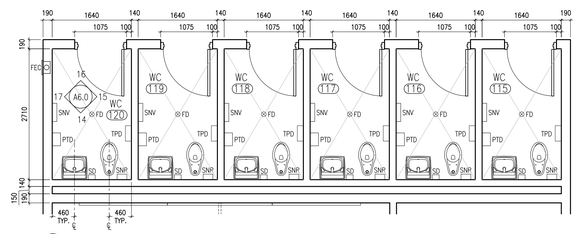
2 A6.0 KIND. WC 108A 1:50



3 A6.0 KIND. WC 109A – 110A 1:50



4 A6.0 UTILITY RM 101, WC 102–103, UNIV. WC 104 1:50



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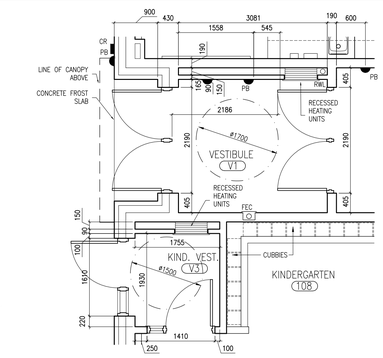
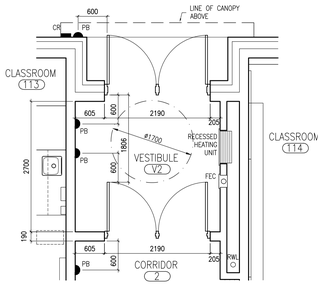
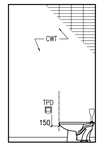


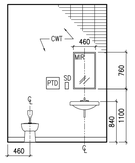
6 A6.0 VESTIBULE V1 & KIND. VEST. V3 1:50



7 A6.0 VESTIBULE V2 1:50



8 A6.0 KIND. WC 108A 1:50



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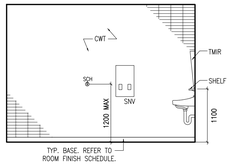

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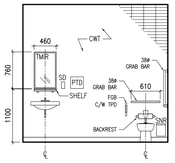

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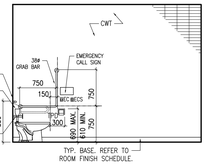

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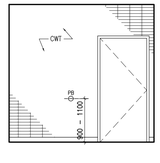

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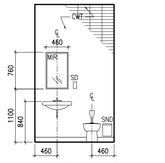
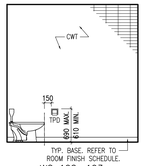


14 A6.0 WC 102, 103, & 115–120 (REV) 1:50



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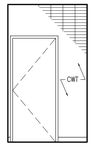
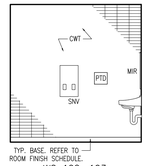
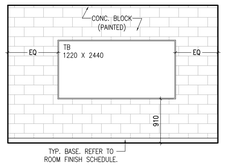


16 A6.0 WC 102, 103, & 115–120 (REV) 1:50



17 A6.0 WC 102, 103, & 115–120 (REV) 1:50



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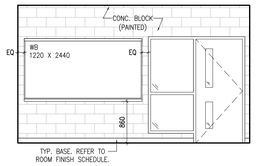
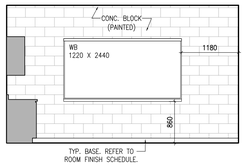


19 A6.0 STAFF RM 105 1:50



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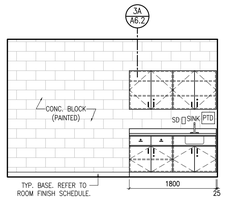

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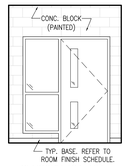
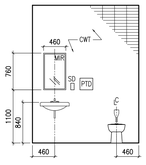
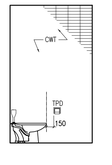


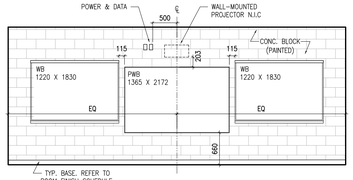
22 A6.0 SENSORY RM 121 SENSORY RM 122 REV. 1:50



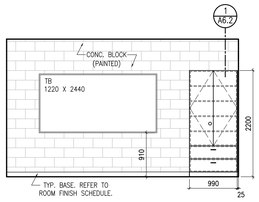
23 A6.0 KIND. WC 109A (110A REV.) 1:50



24 A6.0 KIND. WC 109A (110A REV.) 1:50



25 A6.0 GROUP RM 123 1:50



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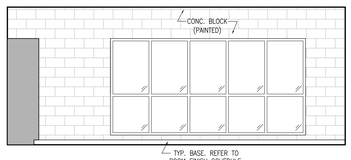

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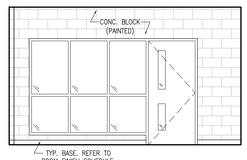

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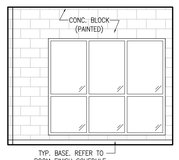
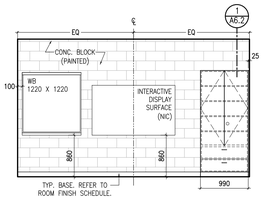


29 A6.0 PROF. COLAB. RM 107 1:50



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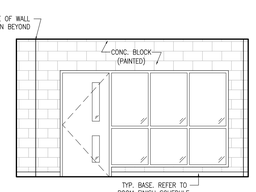

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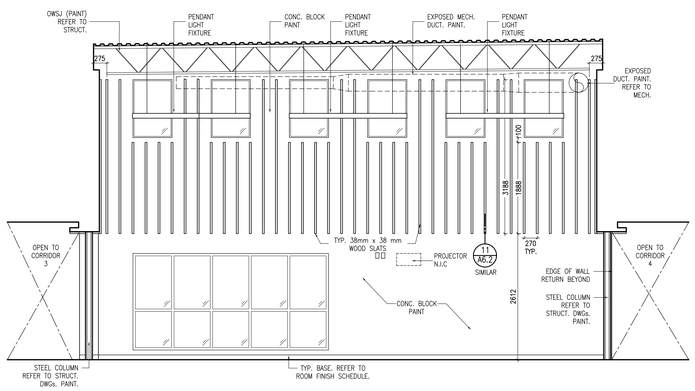
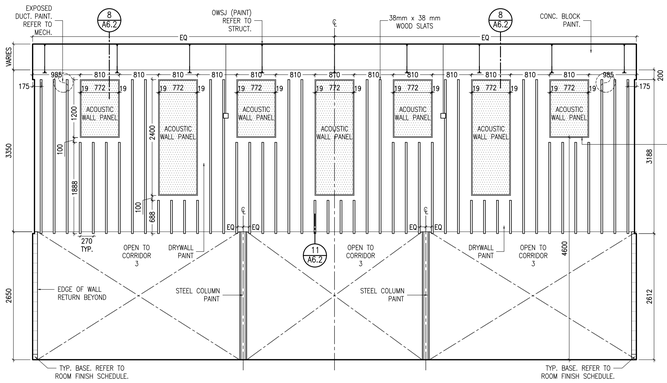


32 A6.0 GENERAL PURPOSE RM 124 1:50



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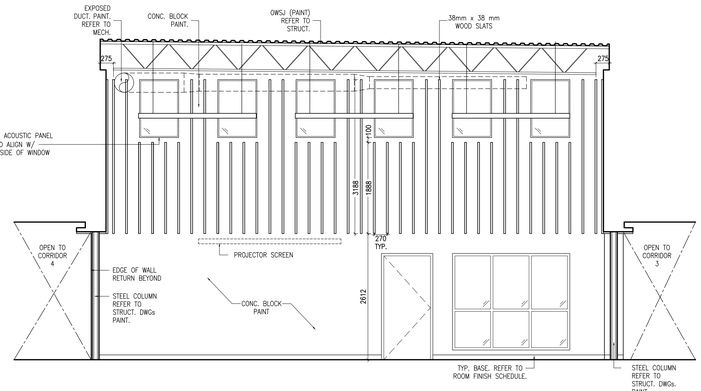

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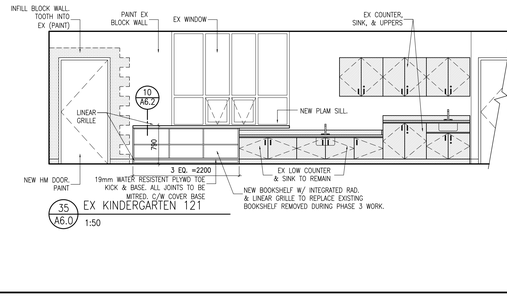
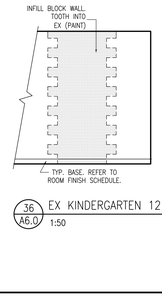


35 A6.0 EX KINDERGARTEN 121 1:50



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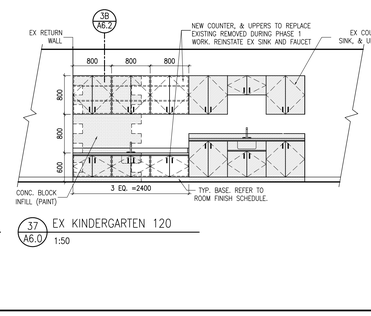

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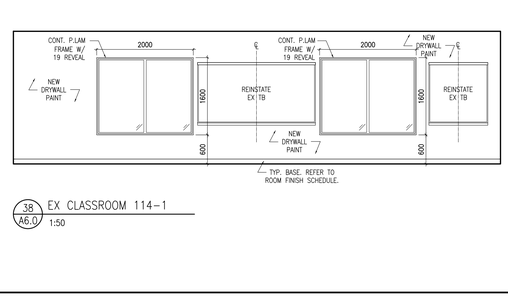
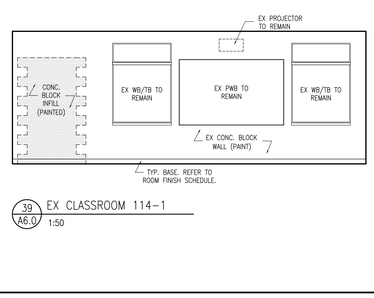


38 A6.0 EX CLASSROOM 114–1 1:50



39 A6.0 EX CLASSROOM 114–1 1:50

LEGEND:

AP	ACOUSTIC PANEL
BC	BOOKCASE
BF	BARRIER FREE
BN	BULLNOSE BLOCK
CJ	CONTROL JOINT
CP	CONTROL PANEL
CR	COAT RACK
CHT	CHARGING TOWER
CT	CERAMIC TILE
CWT	CERAMIC WALL TILE
EC	EMERGENCY CALL
ECS	EMERGENCY CALL SIGNAL
EP	ELECTRICAL PANEL
EX	EXISTING
FD	FLOOR DRAIN
FEC	FIRE EXTINGUISHER CABINET
FEX	FIRE EXTINGUISHER
FFH	FORCED FLOW HEATER
FGB	FOLD–DOWN GRAB BAR
MIR	MIRROR
TMIR	TILT DOWN MIRROR
NIC	NOT IN CONTRACT (SUPPLIED BY OWNER)
PB	DOOR OPERATOR PUSH BUTTON
PT	PORCELAIN TILE
PTD	PAPER TOWEL DISPENSER
PWB	PROJECTOR WHITE BOARD
RE	REINSTATE
RWL	RAIN WATER LEADER
SCH	SAFETY COAT HOOK
SD	SOAP DISPENSER
SNR	SANITARY NAPKIN RECEPTACLE
SNV	SANITARY NAPKIN VENDOR
SU	STORAGE UNIT
TB	TACK BOARD
TPD	TOILET PAPER DISPENSER
WB	WRITING BOARD (MARKERBOARD)

DATE		REVISIONS
8.	–	–
7.	JULY 24 2024	ISSUED FOR TENDER/PERMIT
6.	JUNE 11 2024	SITE PLAN REVIEW (4th SUBMISSION)
5.	MAY 03 2024	SITE PLAN REVIEW (3rd SUBMISSION)
4.	FEB 12 2024	COSTING
3.	FEB 12 2024	SITE PLAN REVIEW (2nd SUBMISSION)
2.	NOV 13 2023	SITE PLAN REVIEW (PRELIMINARY)
1.	FEB 28 2023	PRELIMINARY SITE PLAN REVIEW

MURRAY CENTENNIAL PUBLIC SCHOOL ADDITION

654 County Road 40,
TRENTON ONTARIO K8V 5P4

KAWARTHA PINE RIDGE DISTRICT SCHOOL BOARD

1994 Fisher Drive, Peterborough, Ontario K9J 6X6

DRAWING

INTERIOR ELEVATIONS

ONTARIO ASSOCIATION OF ARCHITECTS
JULY 24/24
ROBERT F. FERKUL
LICENCE
4695

TRUE NORTH | DWG. NORTH

JOB NO. 2304

SCALE AS NOTED

DATE FEB 2024

PRINTED

DWG. NO. A6.0

MOFFET & DUNCAN
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5052 DUNDAS ST. WEST
TORONTO, ONT. M9A 1B9
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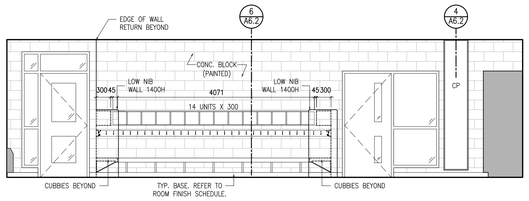
EMAIL: mdarch@mdarch.ca



1 A6.1 KINDERGARTEN 108
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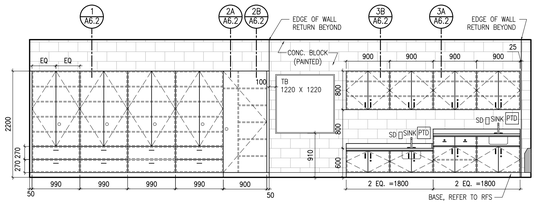

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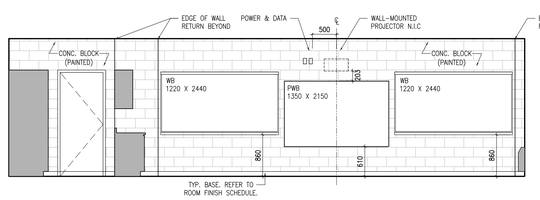

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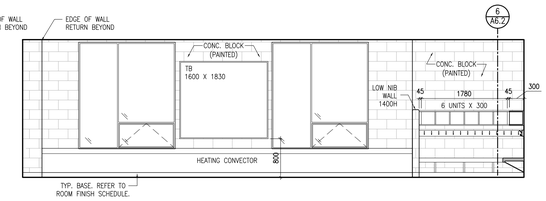

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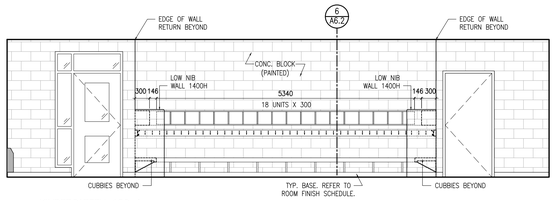

5 A6.1 KINDERGARTEN 109 & KINDERGARTEN 110 REV.
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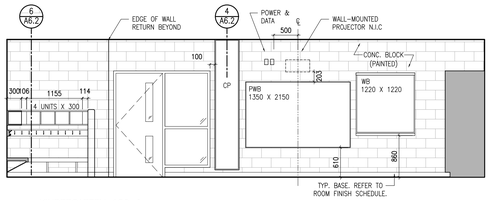

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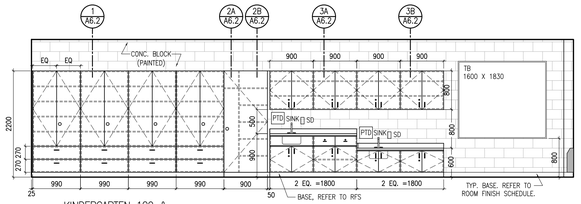

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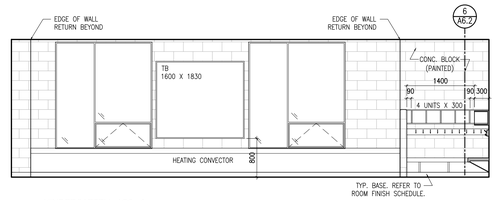

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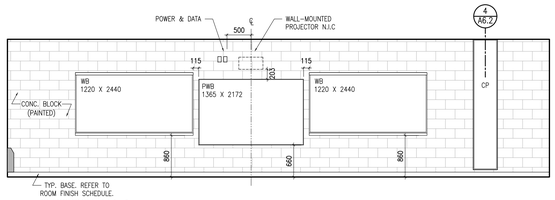

9 A6.1 CLASSROOM 111 & CLASSROOM 112 REV.
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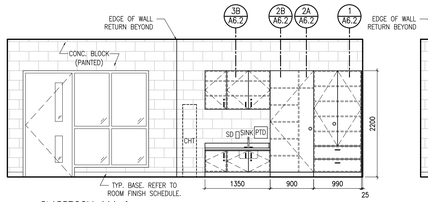

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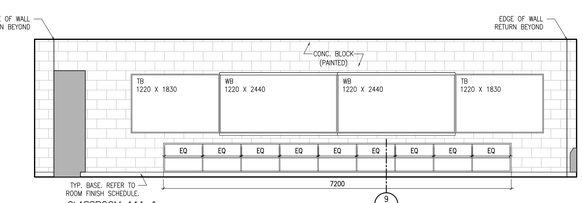
1:50



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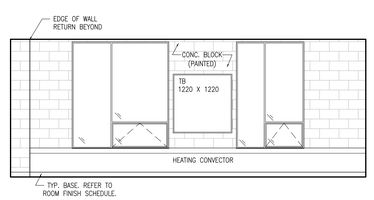

12 A6.1 CLASSROOM 111 & CLASSROOM 112 REV.
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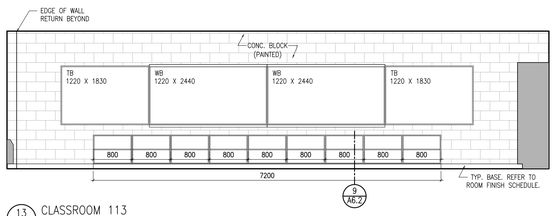

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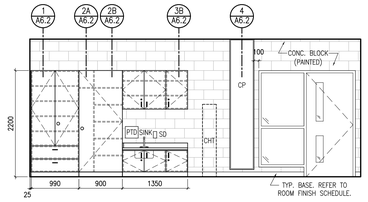

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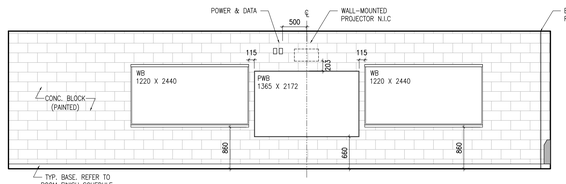

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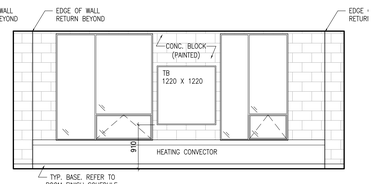

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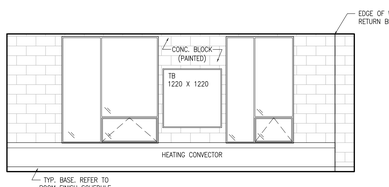

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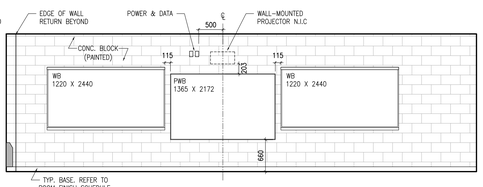

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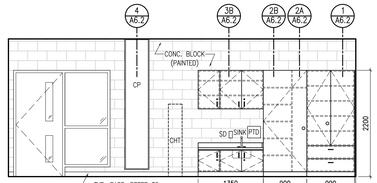

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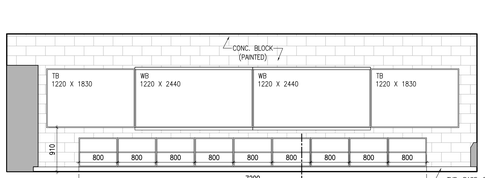

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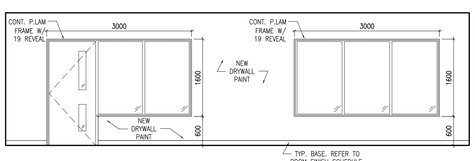

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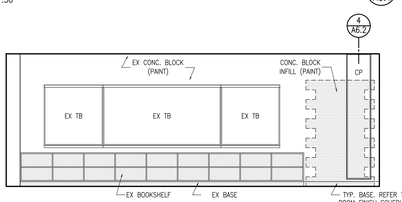

22 A6.1 EX CLASSROOM 114-2
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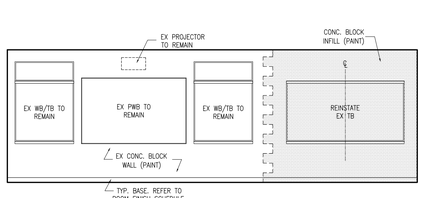

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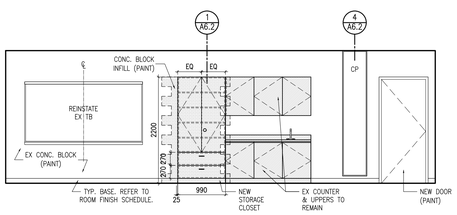

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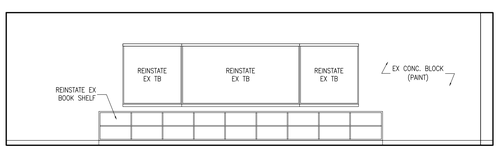

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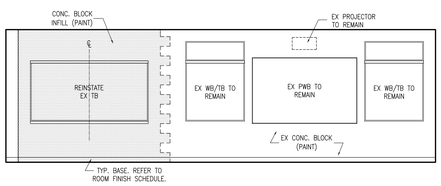

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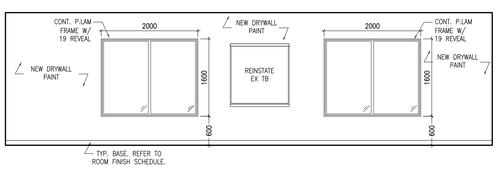

27 A6.1 EX CLASSROOM 114-3
1:50

LEGEND:

AP	ACOUSTIC PANEL
BC	BOOKCASE
BF	BARRIER FREE
BN	BULLNOSE BLOCK
CJ	CONTROL JOINT
CP	CONTROL PANEL
CR	COAT RACK
CHT	CHARGING TOWER
CT	CERAMIC TILE
CWT	CERAMIC WALL TILE
EC	EMERGENCY CALL
ECS	EMERGENCY CALL SIGNAL
EP	ELECTRICAL PANEL
EX	EXISTING
FD	FLOOR DRAIN
FEC	FIRE EXTINGUISHER CABINET
FEX	FIRE EXTINGUISHER
FFH	FORCED FLOW HEATER
FGB	FOLD-DOWN GRAB BAR
MIR	MIRROR
TMR	TILT DOWN MIRROR
NIC	NOT IN CONTRACT (SUPPLIED BY OWNER)
PB	DOOR OPERATOR PUSH BUTTON
PT	PORCELAIN TILE
PTD	PAPER TOWEL DISPENSER
PWB	PROJECTOR WHITE BOARD
RE	REINSTATE
RWL	RAIN WATER LEADER
SCH	SAFETY COAT HOOK
SD	SOAP DISPENSER
SNR	SANITARY NAPKIN RECEPTACLE
SNV	SANITARY NAPKIN VENDOR
SU	STORAGE UNIT
TB	TACK BOARD
TPD	TOILET PAPER DISPENSER
WB	WRITING BOARD (MARKERBOARD)

DATE		REVISIONS
8.	–	–
7.	JULY 24 2024	ISSUED FOR TENDER/PERMIT
6.	JUNE 11 2024	SITE PLAN REVIEW (4th SUBMISSION)
5.	MAY 03 2024	SITE PLAN REVIEW (3rd SUBMISSION)
4.	FEB 12 2024	COSTING
3.	FEB 12 2024	SITE PLAN REVIEW (2nd SUBMISSION)
2.	NOV 13 2023	SITE PLAN REVIEW (PRELIMINARY)
1.	FEB 28 2023	PRELIMINARY SITE PLAN REVIEW

MURRAY CENTENNIAL PUBLIC SCHOOL ADDITION

654 County Road 40,
TRENTON ONTARIO K8V 5P4

KAWARTHA PINE RIDGE DISTRICT SCHOOL BOARD

1994 Fisher Drive, Peterborough, Ontario K9J 6X6

DRAWING
INTERIOR ELEVATIONS

ONTARIO ASSOCIATION OF ARCHITECTS
JULY 24/24
ROBERT F. FERKUL
LICENCE 4695

TRUE NORTH | DWG. NORTH

JOB NO. 2304

SCALE AS NOTED

DATE FEB 2024

PRINTED

DWG. NO. A6.1

MOFFET & DUNCAN
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5052 DUNDAS ST. WEST
TORONTO, ONT. M9A 1B9
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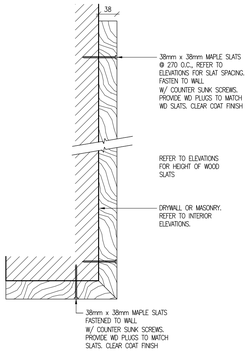
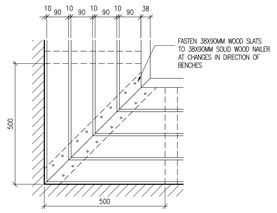
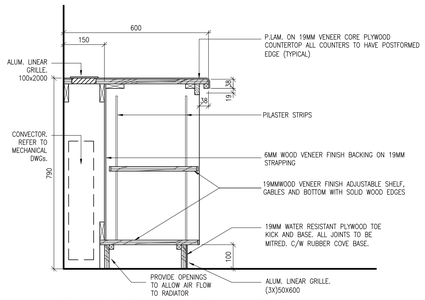
EMAIL: mdarch@mdarch.ca



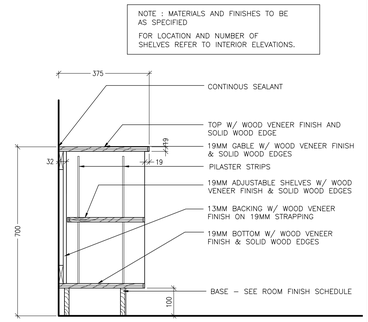
11 A6.2 WOOD SLATS – SECTION DETAILS 1:5



6A A6.2 BENCH – PLAN DETAIL 1:10



10 A6.2 BOOKCASE SECTION DETAIL W/ GRILLE 1:10



9 A6.2 TYP. BOOKCASE SECTION DETAIL 1:10

MILLWORK NOTE

1) WHERE BASE CABINETS ARE SET TO ACCOMMODATE SLOPE IN FLOOR, THE DISTANCE BETWEEN BOTTOM OF SUPPORT FRAMING AND FLOOR WHEN GREATER THAN 10MM MUST BE PROVIDED WITH CONTINUOUS WOOD BACKING SUPPORT TO ACCOMMODATE FULL SUPPORT OF CONTINUOUS APPLIED BASE MATERIAL (TYP.)

2) WHERE MILLWORK COUNTERTOPS ABUT MASONRY WALL CONDITIONS OR MILLWORK GABLE CONDITIONS AND HAVE A SINK, PROVIDE SIDESPLASH FOR FULL EXTENT OF COUNTER DEPTH (TYP)

3) ALL COUNTERTOPS WITH SINKS TO HAVE DRIPLESS COUNTER EDGE

4) AT OPEN ENDED CABINET COUNTERTOPS, EXTEND COUNTER BY 25MM UNLESS DIMENSIONED OTHERWISE

5) MILLWORK CONTRACTOR TO PROVIDE 25MM FILLER TRIM BETWEEN EDGES OF MILLWORK AND FACE OF MASONRY WALL. FINISH TO MATCH ADJACENT MILLWORK. AT CORNER CONDITIONS WHERE CABINET DOORS OPEN PARALLEL TO ADJACENT SURFACES, (E.G. CONC. BLK. WALL & OTHER MILLWORK), PROVIDE ADEQUATE SPACE, (MORE THAN 25MM IF REQUIRED), SO THAT DOOR CAN OPEN TO FULL 90° POSITION WITHOUT INTERFERENCE WITH THOSE SURFACES.

6) PROVIDE FILLER PANELS BETWEEN FACE OF WALL AND ALL MILLWORK CABINET DOORS PROVIDING SUFFICIENT SPACING TO ALLOW DOOR TO FULLY OPEN. FINISH TO MATCH ADJACENT MILLWORK

7) PROVIDE LOCKS ON ALL MILLWORK UNITS

8) MILLWORK SHOP DRAWINGS ARE TO SHOW REQUIRED FILLER PANELS

LEGEND:

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BC	BOOKCASE
BF	BARRIER FREE
BN	BULLNOSE BLOCK
CJ	CONTROL JOINT
CP	CONTROL PANEL
CR	COAT RACK
CHT	CHARGING TOWER
CT	CERAMIC TILE
CWT	CERAMIC WALL TILE
EC	EMERGENCY CALL
ECS	EMERGENCY CALL SIGNAL
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RWL	RAIN WATER LEADER
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SD	SOAP DISPENSER
SNR	SANITARY NAPKIN RECEPTACLE
SNV	SANITARY NAPKIN VENDOR
SU	STORAGE UNIT
TB	TACK BOARD
TPD	TOILET PAPER DISPENSER
WB	WRITING BOARD (MARKERBOARD)

8 A6.2 ACOUSTIC PANEL – SECTION DETAIL 1:5

7 A6.2 COAT RACK – SECTION DETAIL 1:10

6 A6.2 CUBBIES & BENCH – SECTION 1:10

5 A6.2 BENCH SECTION DETAIL 1:10

4B A6.2 CONTROL PANEL – SECTION DETAIL 1:5

4A A6.2 CONTROL PANEL – PLAN DETAIL 1:5

4 A6.2 CONTROL PANEL ELEVATION DETAIL SCALE 1:15

3B A6.2 TYPICAL LOW COUNTER AND CUPBOARD SCALE 1:10

3A A6.2 TYPICAL COUNTER AND CUPBOARD SCALE 1:10

2B A6.2 TEACHERS CLOSET SCALE 1:10

2A A6.2 TEACHERS CLOSET–COAT HANGER SCALE 1:10

1 A6.2 STORAGE CLOSET SCALE 1:10

DATE	REVISIONS
8.	–
7.	JULY 24 2024 ISSUED FOR TENDER/PERMIT
6.	JUNE 11 2024 SITE PLAN REVIEW (4th SUBMISSION)
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1.	FEB 28 2023 PRELIMINARY SITE PLAN REVIEW

MURRAY CENTENNIAL PUBLIC SCHOOL ADDITION

654 County Road 40, TRENTON ONTARIO K8V 5P4

KAWARTHA PINE RIDGE DISTRICT SCHOOL BOARD

1994 Fisher Drive, Peterborough, Ontario K9J 6X6

DRAWING: INTERIOR ELEVATIONS

ONTARIO ASSOCIATION OF ARCHITECTS JULY 24/2024 ROBERT F. FERKUL LICENCE 4095

TRUE NORTH | DWG. NORTH

JOB NO. 2304

SCALE: AS NOTED

DATE: FEB 2024

PRINTED

DWG. NO. A6.2

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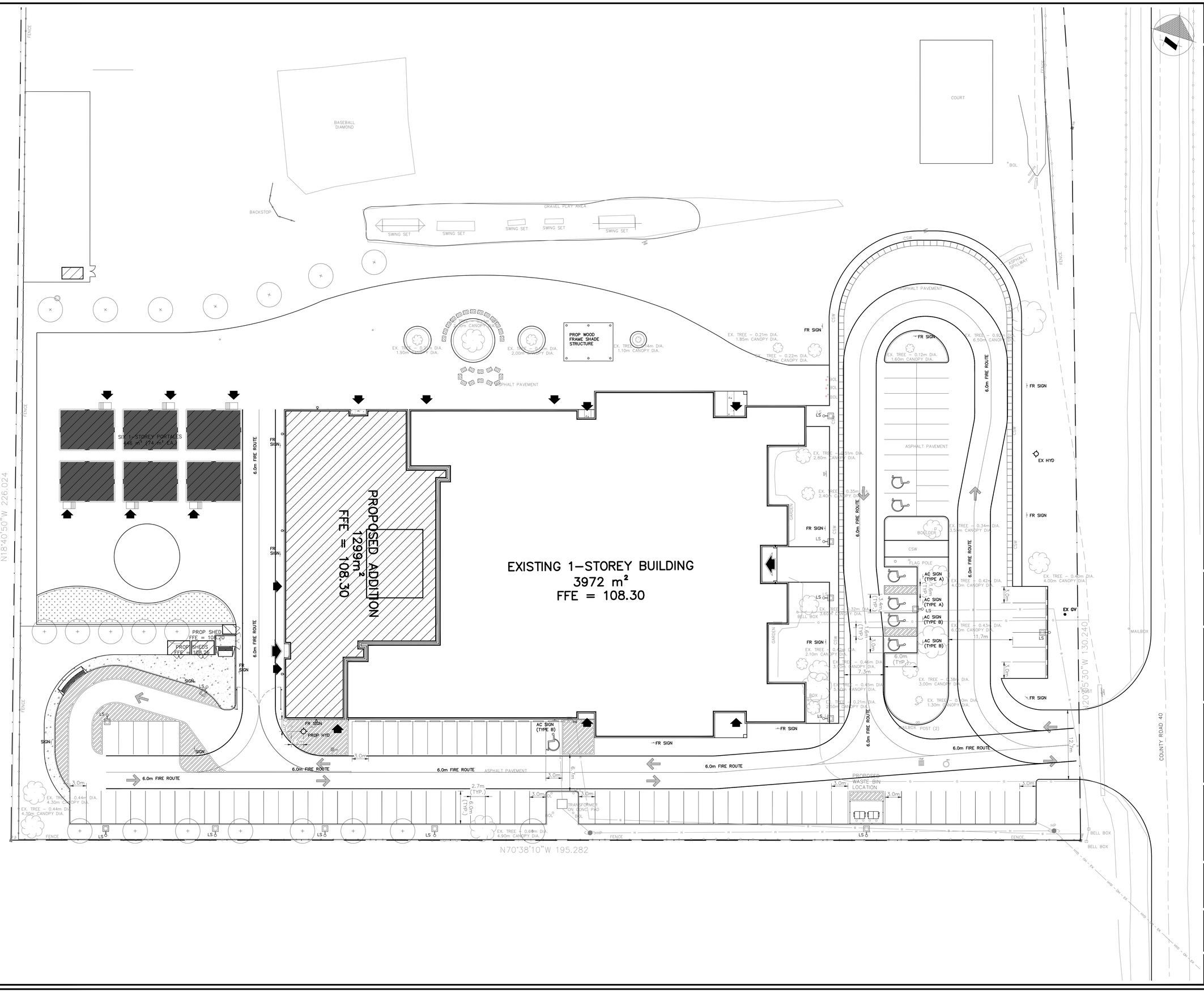
EMAIL: mdarch@mdarch.ca



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THE CONTRACTOR MUST CHECK AND BE RESPONSIBLE FOR SITE CONDITIONS THAT MAY DIFFER FROM THESE PLANS AND NOTIFY CIMA+ OF SAME.

ISSUES/REVISIONS

No.	DESCRIPTION	DATE
1	ISSUED FOR SITE PLAN APPLICATION	11/23
2	REVISED AS PER CLIENT COMMENTS	12/23
3	REVISED AS PER CLIENT COMMENTS	01/24
4	ISSUED FOR COSTING	02/24
5	ISSUED FOR TENDER AND SITE PLAN APPROVAL	04/24
6	ISSUED FOR TENDER	07/24

EXISTING BASE PLAN TOPOGRAPHIC INFORMATION PROVIDED BY ACADIA ENGINEERING, DATED MAY 18, 2023 (REF. 23-245)

BENCHMARKS:

BM: 1085(X MARK) N: 4885858.702 E: 290586.725 Z: 108.425m
BM: 965(X MARK) N: 4885925.853 E: 290516.044 Z: 108.089m

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INFORM THEMSELVES OF THE EXACT LOCATION OF, AND ASSUME ALL LIABILITY FOR DAMAGE TO ALL UTILITIES SERVICES AND STRUCTURES WHETHER ABOVE GROUND OR BELOW GRADE BEFORE COMMENCING THE WORK. SUCH INFORMATION IS NOT NECESSARILY SHOWN ON THE DRAWING, AND WHERE SHOWN, THE ACCURACY CANNOT BE GUARANTEED.

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CIMA+ DES
415 BASELINE ROAD WEST
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www.cima.ca

REGISTERED PROFESSIONAL ENGINEER
R.J.J. ALBRIGHT
July 29, 2024
PROVINCE OF ONTARIO

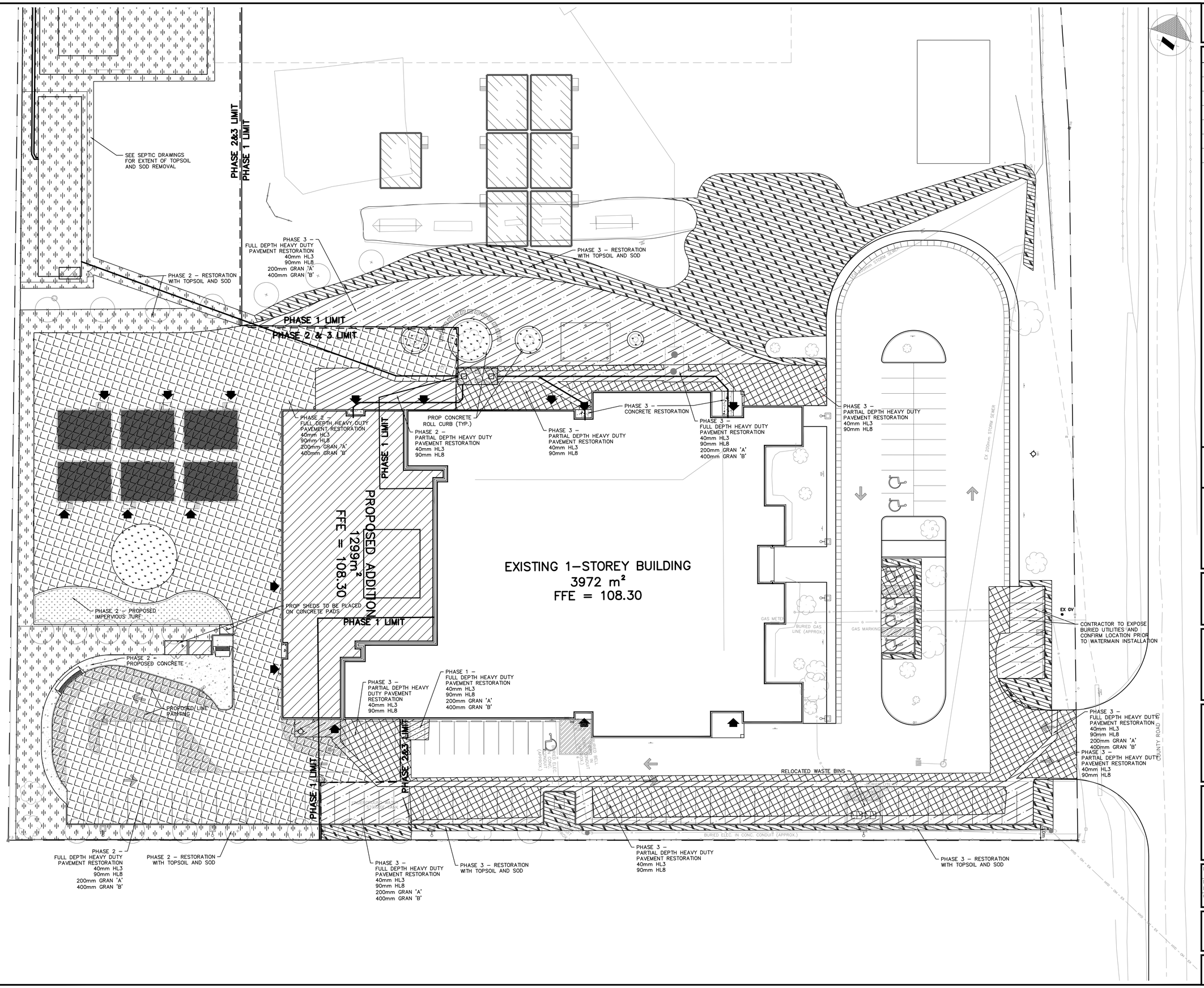
MURRAY CENTENIAL PS ADDITION

654 COUNTY ROAD 40, R.R.#1
TRENTON ON

DATE:	AUGUST 2023	SCALE:	1:250
DRAWN BY:	BC	CHECKED BY:	RA
DESIGN BY:	BC	APPROVED BY:	RA
CIMA+ PROJECT NUMBER:	C14-0588	SHEET SIZE:	E1

PROPOSED
SITE PLAN

C101



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3	REVISED AS PER CLIENT COMMENTS	01/24
4	ISSUED FOR COSTING	02/12
5	ISSUED FOR TENDER AND SITE PLAN APPROVAL	04/24
6	ISSUED FOR TENDER	07/24

LEGEND

- FULL DEPTH HEAVY DUTY PAVEMENT RESTORATION (PHASE 1)
  - 40mm HL3
  - 90mm HL8
  - 200mm GRAN 'A'
  - 400mm GRAN 'B'
- PARTIAL DEPTH HEAVY DUTY PAVEMENT RESTORATION (PH.2)
  - 40mm HL3
  - 90mm HL8
- FULL DEPTH HEAVY DUTY PAVEMENT (PHASE 2)
  - 40mm HL3
  - 90mm HL8
  - 200mm GRAN 'A'
  - 400mm GRAN 'B'
- PROPOSED RESTORATION WITH TOPSOIL AND SOD (PHASE 2)
- PARTIAL DEPTH HEAVY DUTY PAVEMENT RESTORATION (PH.3)
  - 40mm HL3
  - 90mm HL8
- FULL DEPTH HEAVY DUTY PAVEMENT RESTORATION (PHASE 3)
  - 40mm HL3
  - 90mm HL8
  - 200mm GRAN 'A'
  - 400mm GRAN 'B'
- PROPOSED RESTORATION WITH TOPSOIL AND SOD (PHASE 3)
- PROPOSED CONCRETE
- PROPOSED IMPERVIOUS TURF
- PROPOSED MULCH

EXISTING BASE PLAN TOPOGRAPHIC INFORMATION PROVIDED BY ACADIA ENGINEERING, DATED MAY 18, 2023 (REF. 23–245)

BENCHMARKS:

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KAWARTHA PINE RIDGE DISTRICT SCHOOL BOARD
1994 Fisher Drive, Peterborough, Ontario K9J 6X6

CIMA+
415 BASELINE ROAD WEST
BOWMANVILLE, ON L1C 5M2
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www.cima.ca

REGISTERED PROFESSIONAL ENGINEER
R.J.J. ALBRIGHT
July 29, 2024
PROVINCE OF ONTARIO

MURRAY CENTENIAL PS ADDITION

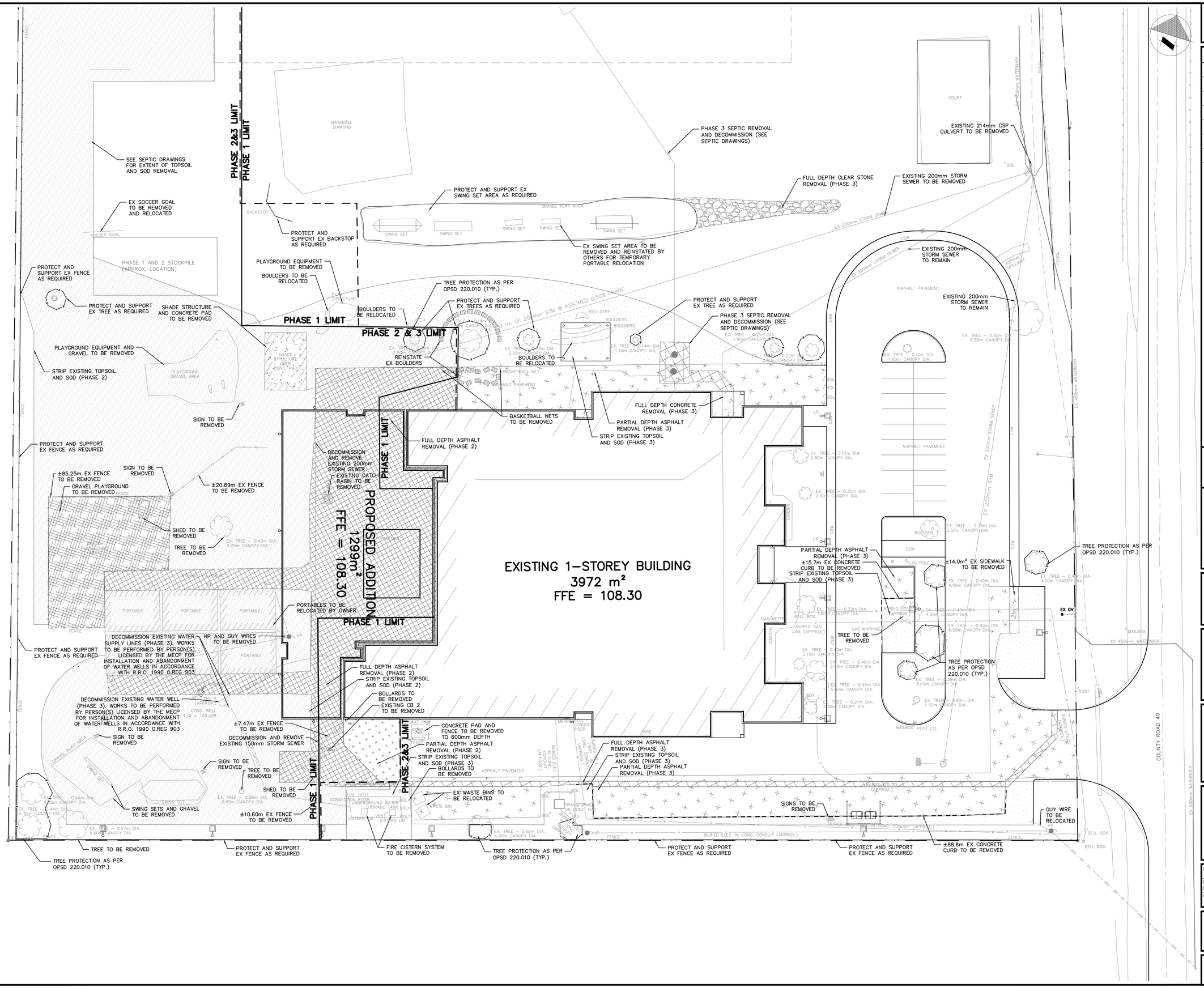
654 COUNTY ROAD 40, R.R.#1
TRENTON ON

DATE:	AUGUST 2023	SCALE:	1:250
DRAWN BY:	BC	CHECKED BY:	RA
DESIGN BY:	BC	APPROVED BY:	RA
CIMA+ PROJECT NUMBER:	C14–0588	SHEET SIZE:	E1

PROPOSED ASPHALT RESTORATION PLAN

C102

Plotted: July 29, 2024 File: P:\Cima AS\Projects\C14\0588 KPRDSB Murray Cent PS Addition\INDIVIDUAL DESIGN\100 Dwg\Index\DWG\C14-0588 Murray Centennial SHEETS.dwg



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5	ISSUED FOR TENDER AND SITE PLAN APPROVAL	04/24
6	ISSUED FOR TENDER	07/24

LEGEND

- PARTIAL DEPTH ASPHALT REMOVAL (PHASE 2)
- FULL DEPTH ASPHALT REMOVAL (PHASE 2)
- TOPSOIL AND SOD REMOVAL (PHASE 2)
- GRAVEL REMOVAL (PHASE 2)
- PARTIAL DEPTH ASPHALT REMOVAL (PHASE 3)
- FULL DEPTH ASPHALT REMOVAL (PHASE 3)
- TOPSOIL AND SOD REMOVAL (PHASE 3)
- GRAVEL REMOVAL (PHASE 3)
- CONCRETE REMOVAL (PHASE 3)
- CONCRETE CURB REMOVAL (PHASE 3)

EXISTING BASE PLAN TOPOGRAPHIC INFORMATION PROVIDED BY ACADIA ENGINEERING, DATED MAY 18, 2023 (REF. 23-245)

BENCHMARKS:

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July 29, 2024
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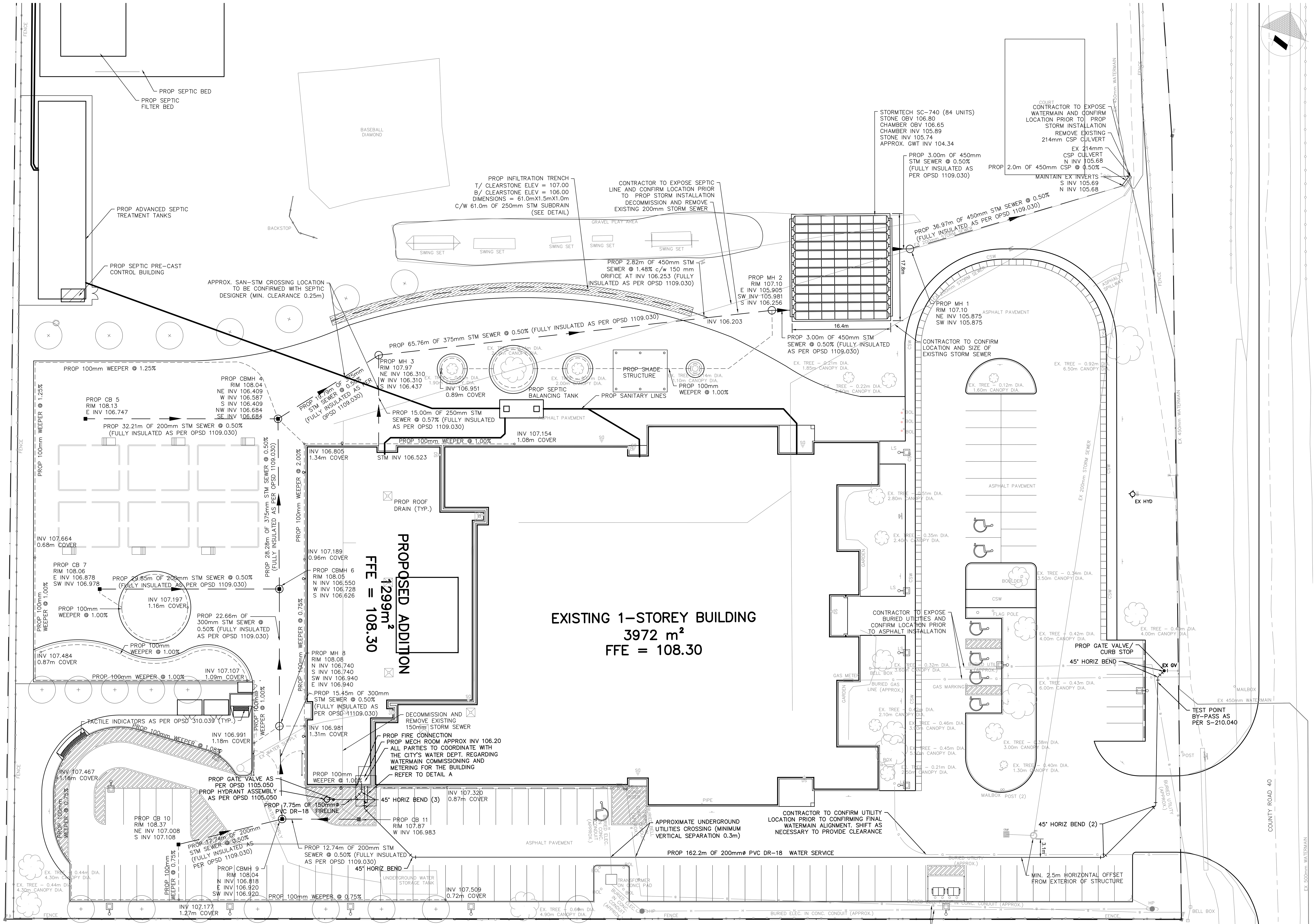
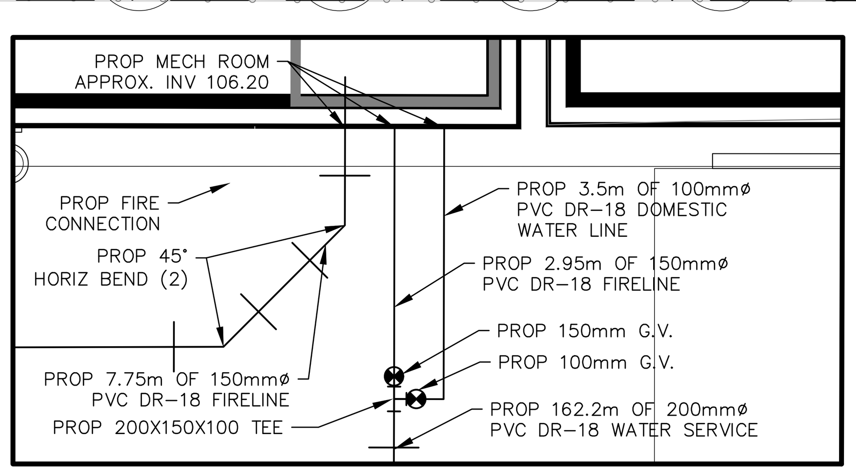
DATE: AUGUST 2023		SCALE:	1:250
DRAWN BY:	BC	CHECKED BY:	RA
DESIGN BY:	BC	APPROVED BY:	RA
CIMA+ PROJECT NUMBER:	C14-0588	SHEET SIZE:	E1

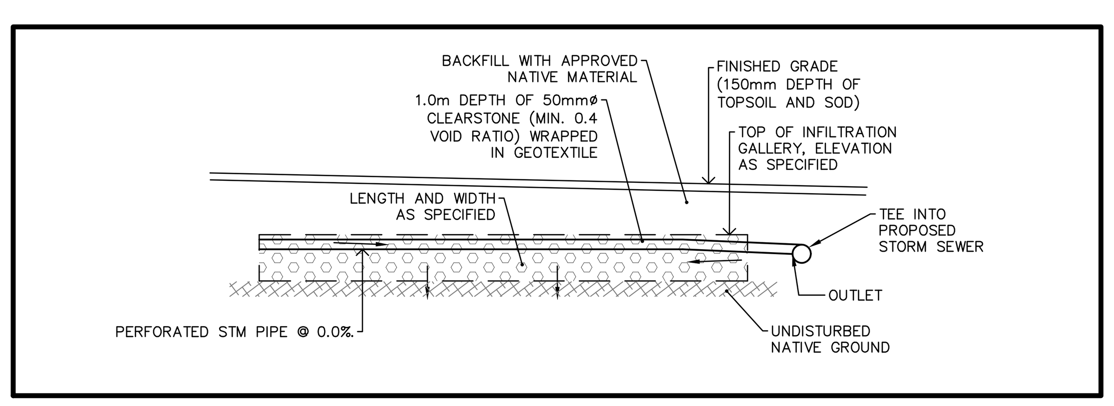
PROPOSED REMOVALS PLAN

C103





DETAIL A



INFILTRATION GALLERY

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5	ISSUED FOR TENDER AND SITE PLAN APPROVAL	04/24
6	ISSUED FOR TENDER	07/24

LEGEND
PROPOSED DIRECTION OF FLOW PIPE ARROW

NOTE:
ALL PARTIES ARE TO COORDINATE WITH THE CITY'S WATER DEPARTMENT REGARDING WATERMAIN COMMISSIONING AND METERING FOR THE BUILDING.

EXISTING BASE PLAN TOPOGRAPHIC INFORMATION PROVIDED BY ACADIA ENGINEERING, DATED MAY 18, 2023 (REF. 23-245)

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415 BASELINE ROAD WEST
BOWMANVILLE, ON L1C 5M2
T 905.697.4464
www.cima.ca

REGISTERED PROFESSIONAL ENGINEER
R.J.J. ALBRIGHT
July 29, 2024
PROVINCE OF ONTARIO

MURRAY CENTENIAL PS ADDITION

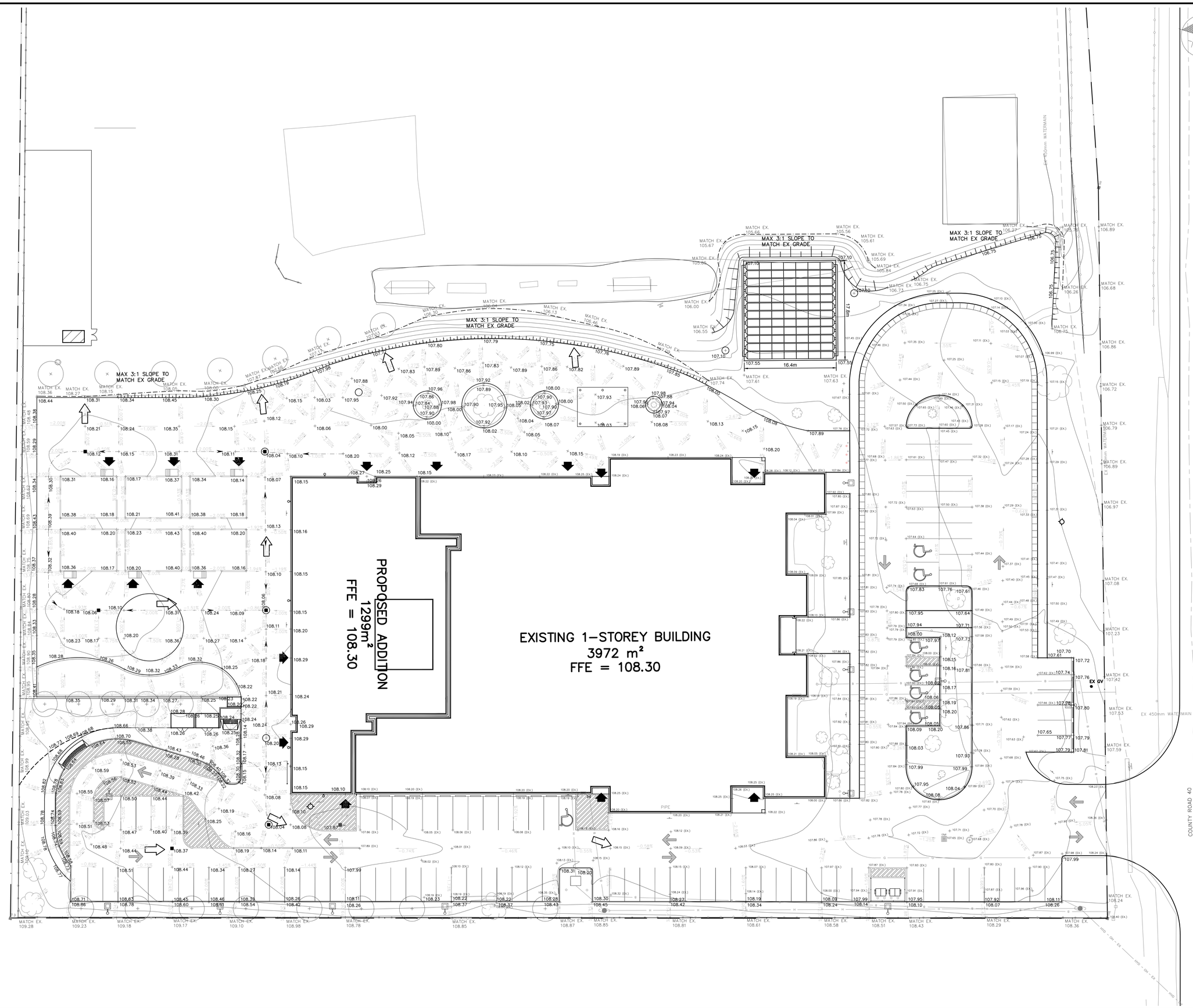
654 COUNTY ROAD 40, R.R.#1
TRENTON ON

DATE: AUGUST 2023	SCALE: 1:250
DRAWN BY: BC	CHECKED BY: RA
DESIGN BY: BC	APPROVED BY: RA
CIMA+ PROJECT NUMBER: C14-0588	SHEET SIZE: E1

PROPOSED SERVICING PLAN

C104

Plotted - July 30, 2024 File: Z:\Cima-C14\Projects\C14-0588-KPRDSB Murray Cent PS Addition (MDA)\300_DESIGN\310_Dwg\AutoCAD\Civil\C14-0588-MurrayCentennial-SHEETS.dwg



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ISSUES/REVISIONS

No.	DESCRIPTION	DATE
1	ISSUED FOR SITE PLAN APPLICATION	11/23
2	REVISED AS PER CLIENT COMMENTS	12/23
3	REVISED AS PER CLIENT COMMENTS	01/24
4	ISSUED FOR COSTING	02/12
5	ISSUED FOR TENDER AND SITE PLAN APPROVAL	04/24
6	ISSUED FOR TENDER	07/24

LEGEND

PROPOSED SPILL POINT FOR OVERLAND FLOW

PROPOSED DIRECTION OF OVERLAND FLOW IN ASPHALT DRAINAGE DRAWS

EXISTING BASE PLAN TOPOGRAPHIC INFORMATION PROVIDED BY ACADIA ENGINEERING, DATED MAY 18, 2023 (REF. 23-245)

BENCHMARKS:

BM: 1085(X MARK) N: 4885858.702 E: 290586.725 Z: 108.425m
BM: 965(X MARK) N: 4885925.853 E: 290516.044 Z: 108.089m

IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INFORM THEMSELVES OF THE EXACT LOCATION OF, AND ASSUME ALL LIABILITY FOR DAMAGE TO ALL UTILITIES SERVICES AND STRUCTURES WHETHER ABOVE GROUND OR BELOW GRADE BEFORE COMMENCING THE WORK. SUCH INFORMATION IS NOT NECESSARILY SHOWN ON THE DRAWING, AND WHERE SHOWN, THE ACCURACY CANNOT BE GUARANTEED.

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KAWARTHA PINE RIDGE DISTRICT SCHOOL BOARD
1994 Fisher Drive, Peterborough, Ontario K9J 6X8

CIMA+ DBS
415 BASELINE ROAD WEST
BOWMANVILLE, ON L1C 5M2
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REGISTERED PROFESSIONAL ENGINEER
R.J.J. ALBRIGHT
July 29, 2024
PROVINCE OF ONTARIO

MURRAY CENTENIAL PS ADDITION

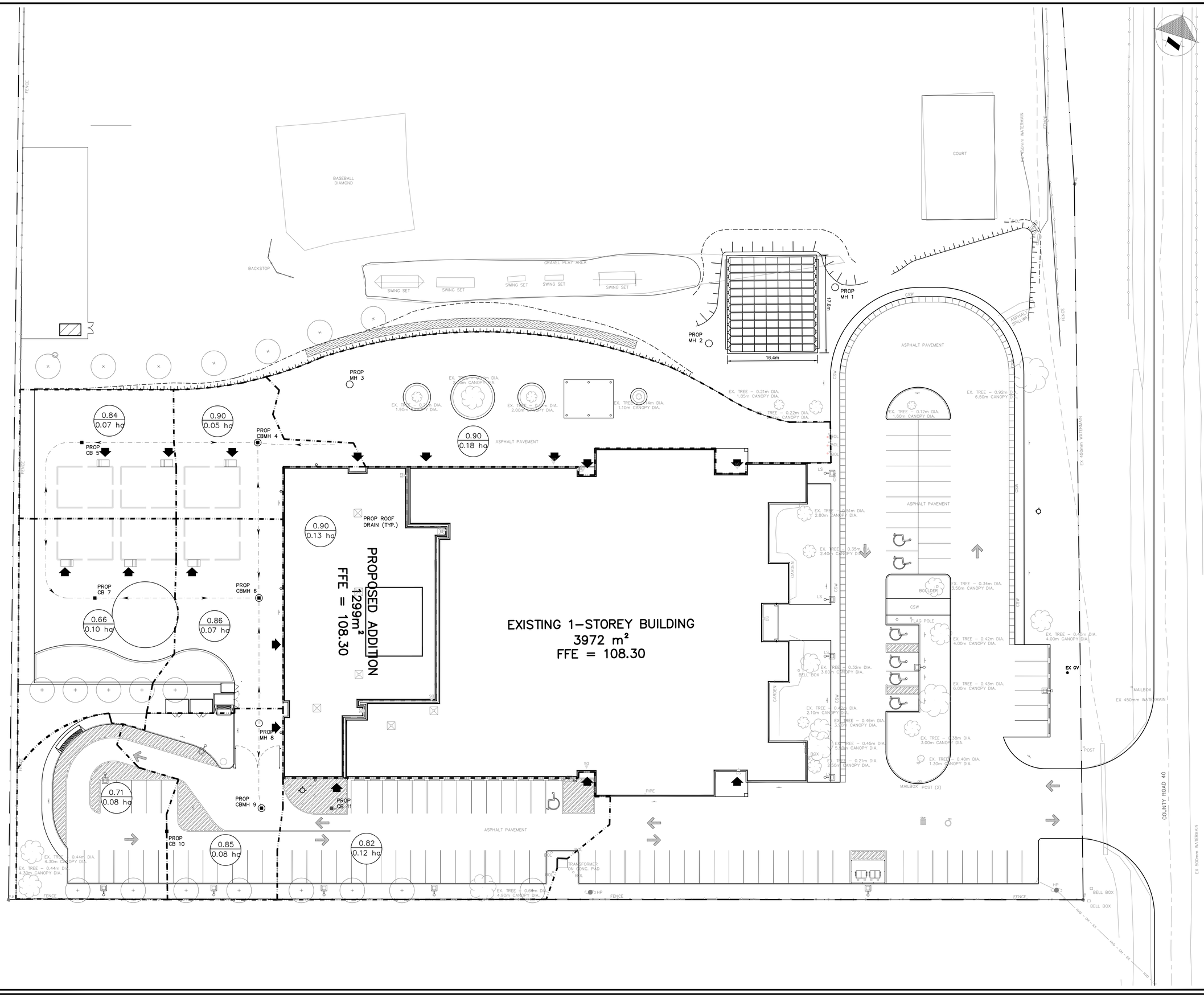
654 COUNTY ROAD 40, R.R.#1
TRENTON ON

DATE:	AUGUST 2023	SCALE:	1:250
DRAWN BY:	BC	CHECKED BY:	RA
DESIGN BY:	BC	APPROVED BY:	RA
CIMA+ PROJECT NUMBER:	C14-0588	SHEET SIZE:	E1

PROPOSED SITE GRADING PLAN

C105

Plotted: July 30, 2024 Plot By: Z:\Cima-C\Projects\C14 0588 #7800 Murray Cent PS Addition (MOU)\3D_DESIGN\13D_Dwg\Auto\Civil\C14 0588 Murray Centennial SWM.dwg



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No.	DESCRIPTION	DATE
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4	ISSUED FOR COSTING	02/12
5	ISSUED FOR TENDER AND SITE PLAN APPROVAL	04/24
6	ISSUED FOR TENDER	07/24

LEGEND

- PROPOSED SPILL POINT FOR OVERLAND FLOW
- PROPOSED DIRECTION OF OVERLAND FLOW IN ASPHALT DRAINAGE DRAWS
- 0.90 / 0.77 ha — RUNOFF COEFFICIENT / DRAINAGE AREA (ha)
- DRAINAGE BOUNDARY

EXISTING BASE PLAN TOPOGRAPHIC INFORMATION PROVIDED BY ACADIA ENGINEERING, DATED MAY 18, 2023 (REF. 23-245)

BENCHMARKS:

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KAWARTHA PINE RIDGE DISTRICT SCHOOL BOARD
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REGISTERED PROFESSIONAL ENGINEER R.J.J. ALBRIGHT July 29, 2024 PROVINCE OF ONTARIO

MURRAY CENTENIAL PS ADDITION

654 COUNTY ROAD 40, R.R.#1
TRENTON ON

DATE:	AUGUST 2023	SCALE:	1:250
DRAWN BY:	BC	CHECKED BY:	RA
DESIGN BY:	BC	APPROVED BY:	RA
CIMA+ PROJECT NUMBER:	C14-0588	SHEET SIZE:	E1

PROPOSED SITE DRAINAGE PLAN

C106

Plotted: July 29, 2024 File: J:\Cima+ C14\Projects\C14-0588 KPRDSB Murray Cent PS Addition (NEW)\300 DESIGN\310 Dwg Mxmt\CAD\Civil\C14-0588-MurrayCentennial-SHEETS.dwg

ALL DIMENSIONS IN MILLIMETRES AND/OR METRES, DRAWING NOT TO SCALE

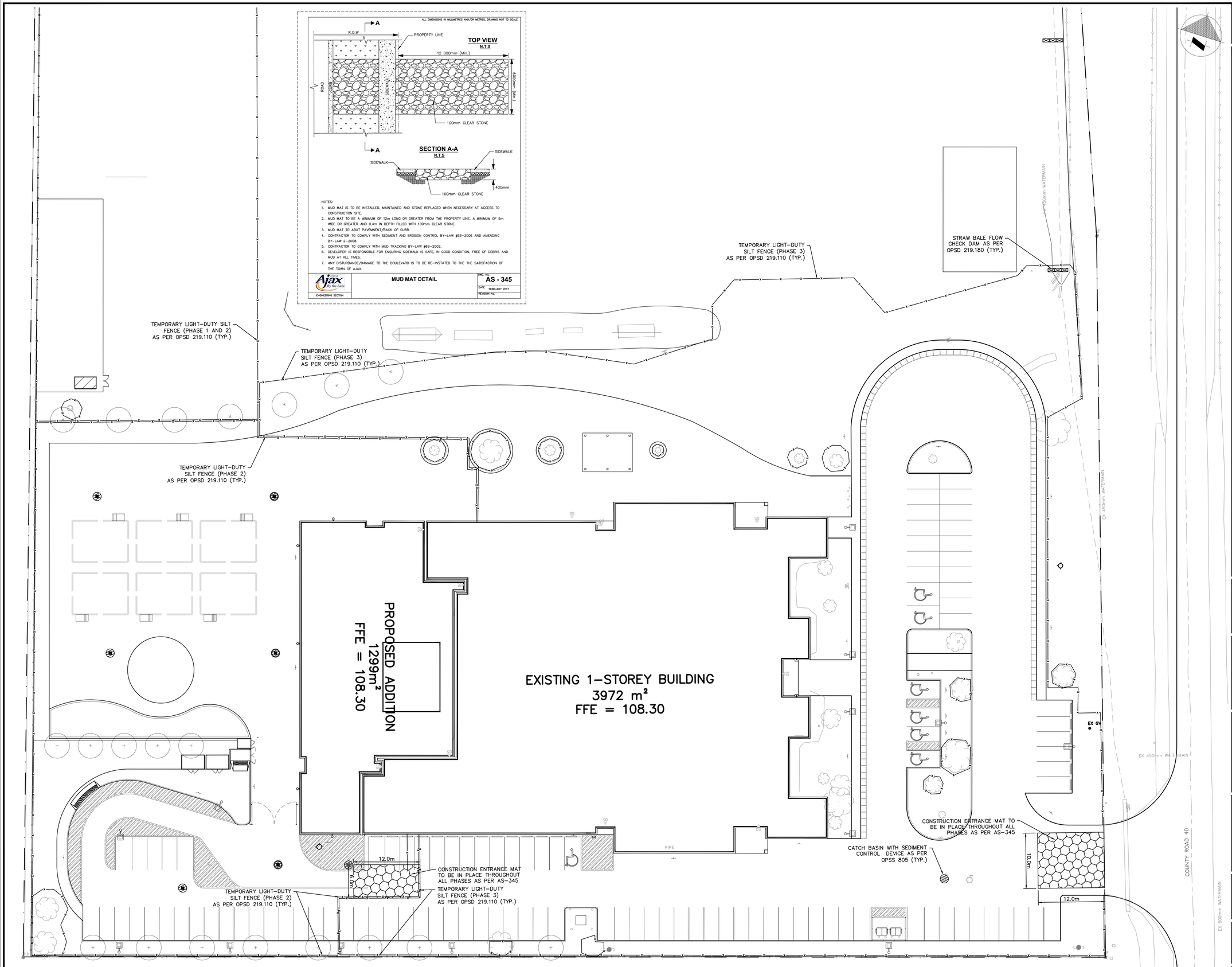
NOTES:

1. MUD MAT IS TO BE INSTALLED, MAINTAINED AND STONE REPLACED WHEN NECESSARY AT ACCESS TO CONSTRUCTION SITE.
2. MUD MAT TO BE A MINIMUM OF 12m LONG OR GREATER FROM THE PROPERTY LINE, A MINIMUM OF 6m WIDE OR GREATER AND 0.4m IN DEPTH FILLED WITH 100mm CLEAR STONE.
3. MUD MAT TO ABUT PAVEMENT/BACK OF CURB.
4. CONTRACTOR TO COMPLY WITH SEDIMENT AND EROSION CONTROL BY-LAW #53-2006 AND AMENDING BY-LAW 2-2008.
5. CONTRACTOR TO COMPLY WITH MUD TRACKING BY-LAW #69-2002.
6. DEVELOPER IS RESPONSIBLE FOR ENSURING SIDEWALK IS SAFE, IN GOOD CONDITION, FREE OF DEBRIS AND MUD AT ALL TIMES.
7. ANY DISTURBANCE/DAMAGE TO THE BOULEVARD IS TO BE RE-INSTATED TO THE THE SATISFACTION OF THE TOWN OF AJAX.

Town of Ajax By the Lake
ENGINEERING SECTION

MUD MAT DETAIL

DWG. No. **AS - 345**
DATE FEBRUARY 2017
REVISION No.



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6	ISSUED FOR TENDER	07/24

LEGEND:

- PROPOSED SEDIMENT FLOW CONTROL DEVICE
- PROPOSED STRAW BALE FLOW CHECK DAM
- PROPOSED TEMPORARY LIGHT DUTY SILT FENCE
- PROPOSED ENTRANCE MAT

MUDMAT NOTES:

1. CLEARSTONE IS TO BE PLACED ON A NON-WOVEN GEOTEXTILE.
2. ALL ESC ELEMENTS IN EACH PHASE SHALL BE INSTALLED PRIOR TO CONSTRUCTION, AND SHALL NOT BE REMOVED UNTIL VEGETATION IS ESTABLISHED.

EXISTING BASE PLAN TOPOGRAPHIC INFORMATION PROVIDED BY ACADIA ENGINEERING, DATED MAY 18, 2023 (REF. 23-245)

BENCHMARKS:

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REGISTERED PROFESSIONAL ENGINEER
R.J.J. ALBRIGHT
July 29, 2024
PROVINCE OF ONTARIO

MURRAY CENTENIAL PS ADDITION

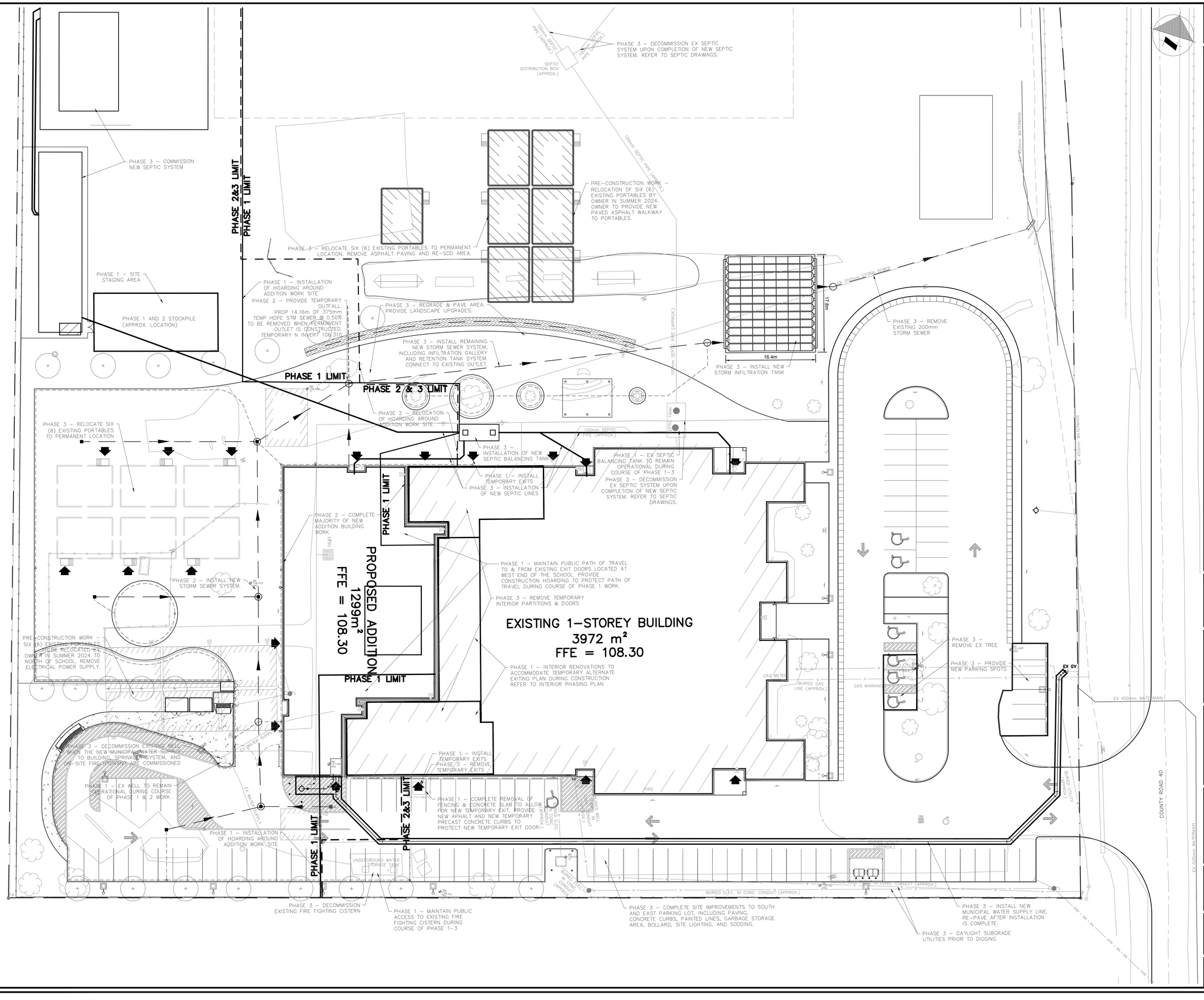
654 COUNTY ROAD 40, R.R.#1
TRENTON ON

DATE:	AUGUST 2023	SCALE:	1:250
DRAWN BY:	BC	CHECKED BY:	RA
DESIGN BY:	BC	APPROVED BY:	RA
CIMA+ PROJECT NUMBER:	C14-0588	SHEET SIZE:	E1

PROPOSED EROSION AND SEDIMENT CONTROL PLAN

C107

Printed: July 30, 2024 File: Z:\Cima-CA\Projects\C14-0588 Whitby\Murray Centennial PS Addition\MODULE\3D_DESIGN\3D_Drawings\ADP\C14-0588-MurrayCentennial-SHEET.dwg



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1994 Fisher Drive, Peterborough, Ontario K9J 6Z5

CIMA+ IDES
415 BASELINE ROAD WEST
BOWMANVILLE, ON L1C 5M2
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www.cima.ca

REGISTERED PROFESSIONAL ENGINEER
R.J.J. ALBRIGHT
July 29, 2024
PROVINCE OF ONTARIO

MURRAY CENTENIAL PS ADDITION

654 COUNTY ROAD 40, R.R.#1
TRENTON ON

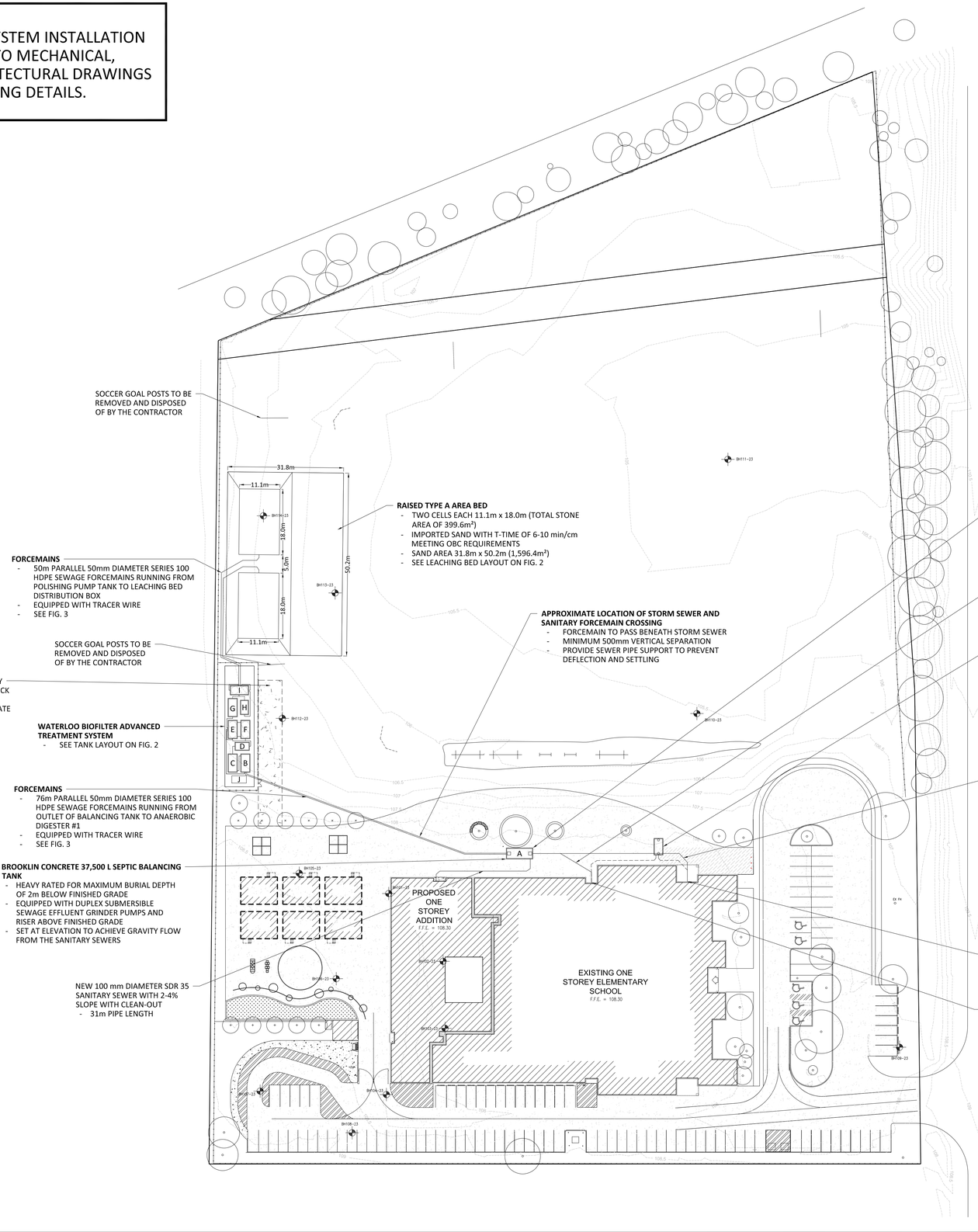
DATE:	AUGUST 2023	SCALE:	1:250
DRAWN BY:	BC	CHECKED BY:	RA
DESIGN BY:	BC	APPROVED BY:	RA
CIMA+ PROJECT NUMBER:	C14–0588	SHEET SIZE:	E1

PROPOSED PHASING PLAN

C108

Plotted: July 29, 2024 9:41pm by ZhiCong Cai C:\Users\zcai\C14\0588-BP\2019 Murray Cen PS Addition\INDIVIDUAL DESIGN\110 Dwg\Mural\ADD\C14-0588 Murray Centennial Sheet E1.dwg

NOTE:
PORTIONS OF SEWAGE SYSTEM INSTALLATION WILL BE PHASED. REFER TO MECHANICAL, ELECTRICAL, CIVIL, ARCHITECTURAL DRAWINGS FOR INSTALLATION PHASING DETAILS.



MURRAY CENTENNIAL PS - SEWAGE SYSTEM DESIGN

654 County Road 40
Trenton, Ontario

KAWARTHA PINE RIDGE DISTRICT SCHOOL BOARD

SEWAGE SYSTEM LEGEND

A - 37,500 L Balancing Tank
B - 22,000 L Anaerobic Digester Tank #1
C - 22,000 L Anaerobic Digester Tank #2
D - 9,000 L Pump Tank
E - 30,000 L Biofilter Tank #1
F - 30,000 L Biofilter Tank #2
G - 22,000 L WaterNox-LS Tank
H - 9,000 L WaterNo-LS Tank
I - 22,000 L Polishing Biofilter and Pump Tank
J - Pre-fab Control Building

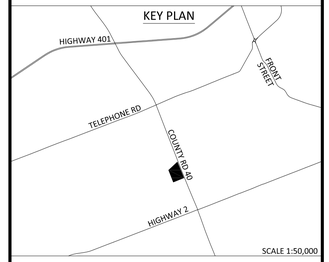
SEWAGE SYSTEM DESIGN CRITERIA

12,450 L/day Average Balanced Flow
18,000 L/day Peak Flow

TREATED EFFLUENT OBJECTIVES

10 mg/L Total Suspended Solids
10 mg/L Carbonaceous Biochemical Oxygen Demand
20 mg/L Total Inorganic Nitrogen

KEY PLAN



Notes:
1. Plan details are based on a Context Plan for Murray Centennial Public School Addition by Moffet and Duncan Architects Inc, Job no. 2304, drawing no. A1.0, dated July, 2023.
2. Distances on this plan are in metres and can be converted to feet by dividing by 0.3048.
3. This plan is for illustrative purposes only.

REVISION	REVISED BY	DATE
FOR SITE PLAN APPROVAL	MAT	2023-11-09
REVISIONS TO TARMAC	MAT	2024-02-07
FOR SITE PLAN APPROVAL	MAT	2024-02-13
FOR COORDINATION	MAT	2024-03-08
ISSUED FOR TENDER	MAT	2024-03-22
RELOCATED PORTABLES REMOVED	MAT	2024-08-01

LICENSED PROFESSIONAL ENGINEER
August 1, 2024
J. P. TRACEY
100226672
PROVINCE OF ONTARIO

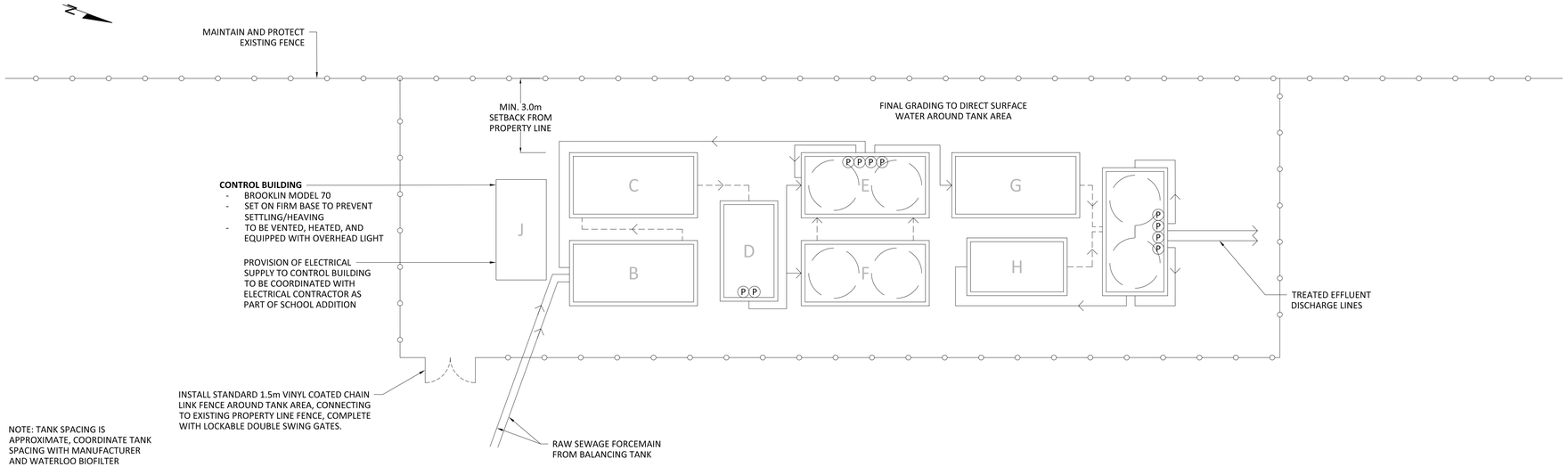
CAMBIUM
194 Sophia Street
Peterborough, Ontario, K9H 1E5
Tel: 705-742-7900 Fax: 705-742-7907
www.cambium-inc.com

SEWAGE SYSTEM PROPERTY PLAN

Project No.: 17462-002	Date: August 2024
	Rev.:
Horizontal Scale: 1:600	Vertical Scale:
Drawn By: MAT	Checked By: SD
	Figure: 1

P:\17400 to 17499\17462\02 WORK & Drawings - Drawings & ECA - Murray Cent PS\Drawings\Drawings\17462SEW-01.DWT Sep 06, 2024 By jtracey

TREATMENT TANK LAYOUT PLAN



Scale 1:100

P Pump

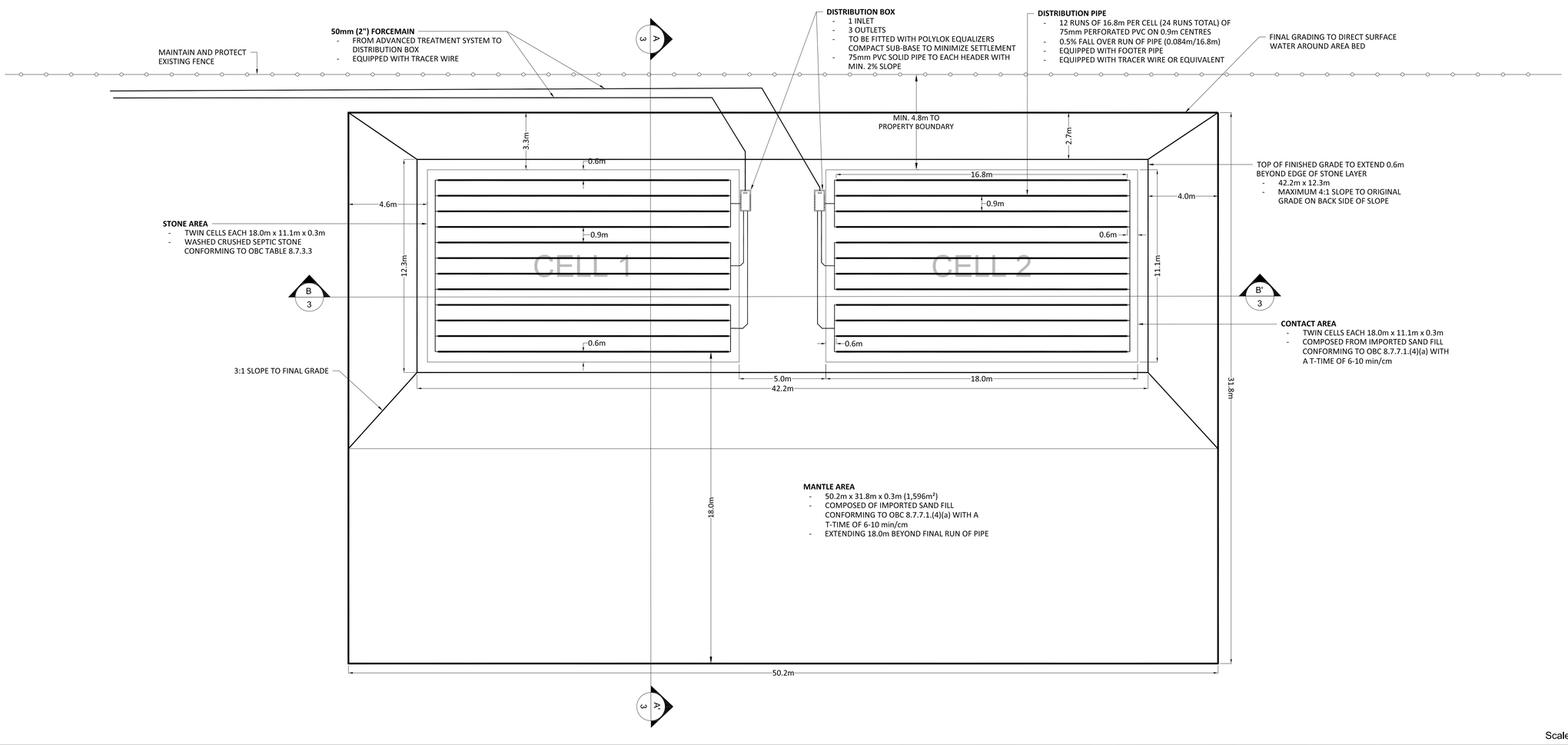
Pumped Line

Gravity Line

A - MINIMUM 37,500 L BALANCING TANK (SEE FIG. 1)
B - 22,000 L ANAEROBIC DIGESTER TANK #1
C - 22,000 L ANAEROBIC DIGESTER TANK #2
D - 9,000 L PUMP TANK
E - 30,000 L BASKET BIOFILTER TANK #1
F - 30,000 L BASKET BIOFILTER TANK #2
G - 22,000 L WATERNOx-LS TANK
H - 9,000 L CLOSED LOOP WATERNO-LS TANK
I - 22,000 L POLISHING BASKET BIOFILTER TANK
J - CONTROL BUILDING

Waterloo Biofilter Project Reference No. SQ-012537
- Contractor to coordinate installation and tank order specifications with Waterloo Biofilter
- Tanks and Control Building to be supplied by Brooklin Concrete
- All tanks to be equipped with access riser extending above final grade
- All InnerTubes, effluent filters, pumps, interior tank plumbing, float trees, baskets, manifolds, air fans, LS medium, Smart Panels, metering pumps to be supplied by Waterlo Biofilter
- Contractor to supply all sewer and forcemain piping
- All treatment tank to tank gravity piping to be 100mm dia. Sch. 40
- All treatment tank to tank forcemains to be 50mm dia. Series 100 HDPE
- Contractor to provide crane to offload tanks
- Tanks to be installed on prepared granular base meeting manufacturer requirements
- Each treatment tank base elevation depends on tank size
- Contractor to coordinate with Waterloo Biofilter to ensure gravity flow between tanks is achieved and no tank is placed with final cover deeper than 1000mm
- For all disturbed areas, restore to pre-construction condition

AREA BED LAYOUT PLAN



Scale 1:125

MURRAY CENTENNIAL PS - SEWAGE SYSTEM DESIGN

654 County Road 40
Trenton, Ontario

KAWARTHA PINE RIDGE DISTRICT SCHOOL BOARD

Portions of sewage system installation will be phased. Refer to mechanical, electrical, civil, architectural drawings for installation phasing details.

REVISION	REVISED BY	DATE
ISSUED FOR TENDER	MAT	2024-03-22

LICENSED PROFESSIONAL ENGINEER
Mar 22, 2024
J. P. TRACEY
100226672
PROVINCE OF ONTARIO

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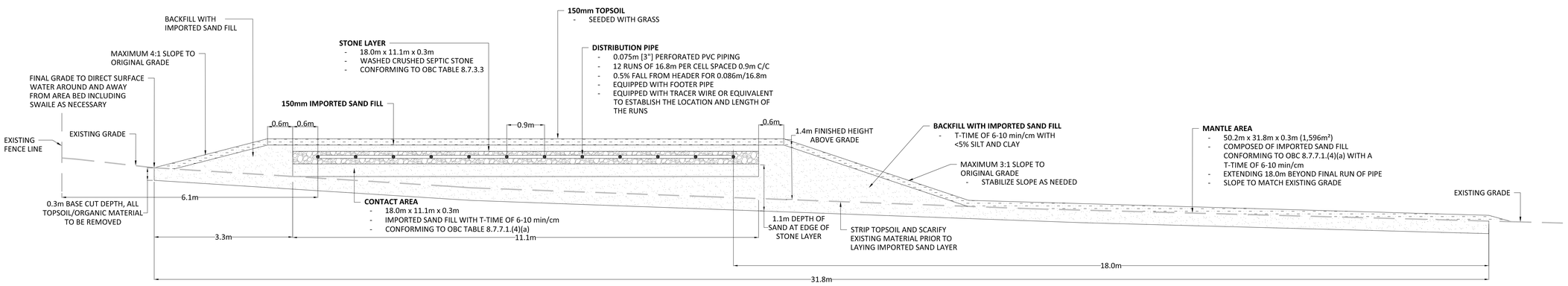
194 Sophia Street
Peterborough, Ontario, K9H 1E5
Tel: 705-742-7900 Fax: 705-742-7907
www.cambium-inc.com

TREATMENT TANK AREA AND LEACHING BED LAYOUT

Project No.: 17462-002	Date: March 2024	
	Rev.:	
Horizontal Scale: See Layout	Vertical Scale:	
Drawn By: MAT	Checked By: SD	Figure: 2

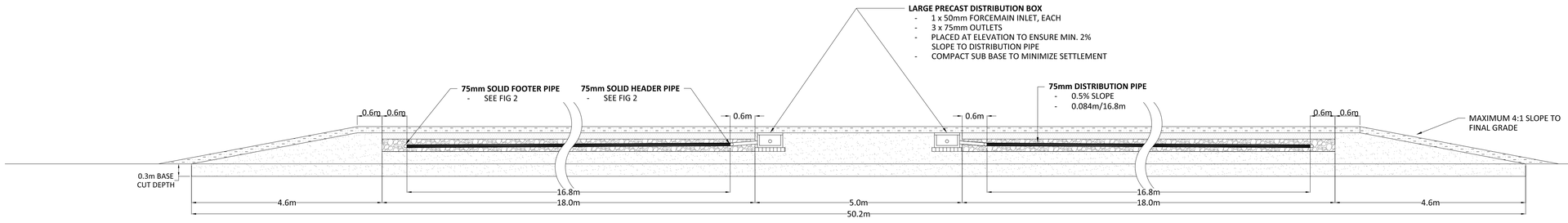
E:\17462s-1 TRENTON\02 DWG & Drawings\Drawings\[17462S02-02.dwg]Plot Date: 2024/03/22 09:27 Plotted By: Mat Tracey

DETAIL 1: CROSS SECTION A - A'



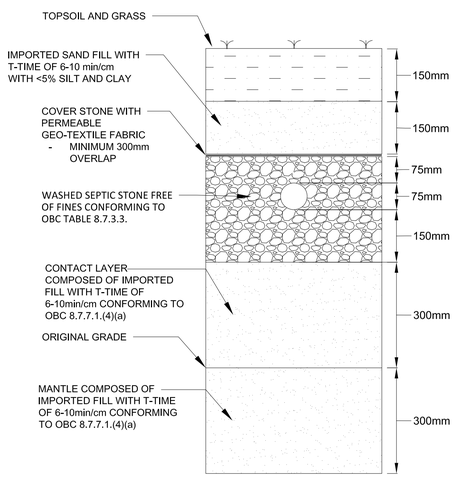
Scale 1:50

DETAIL 2: CROSS SECTION B - B'

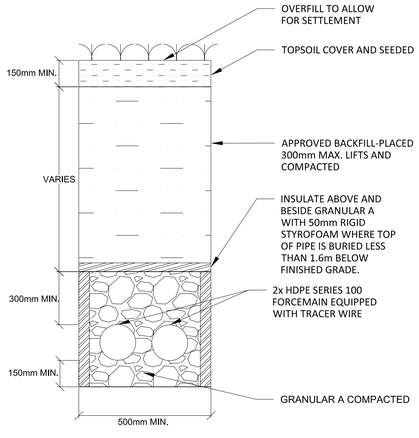


Scale 1:50

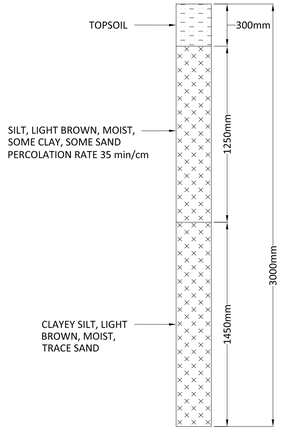
DETAIL 3: TYPE A ADVANCED TREATMENT BED SECTION PROFILE



DETAIL 4: TYPICAL FORCEMAIN SECTION PROFILE

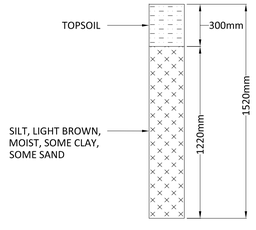


DETAIL 5: BOREHOLE BH112-23



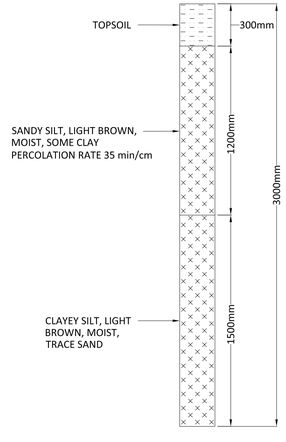
ADVANCED AUGUST 18, 2023

DETAIL 6: BOREHOLE BH113-23



ADVANCED AUGUST 18, 2023

DETAIL 7: BOREHOLE BH114-23



ADVANCED AUGUST 18, 2023

MURRAY CENTENNIAL PS - SEWAGE SYSTEM DESIGN

654 County Road 40
Trenton, Ontario

KAWARTHA PINE RIDGE DISTRICT SCHOOL BOARD

Portions of sewage system installation will be phased. Refer to mechanical, electrical, civil, architectural drawings for installation phasing details.

REVISION	REVISED BY	DATE
ISSUED FOR TENDER	MAT	2024-03-22

LICENSED PROFESSIONAL ENGINEER
Mar. 22, 2024
J. P. TRACEY
100226672
PROVINCE OF ONTARIO

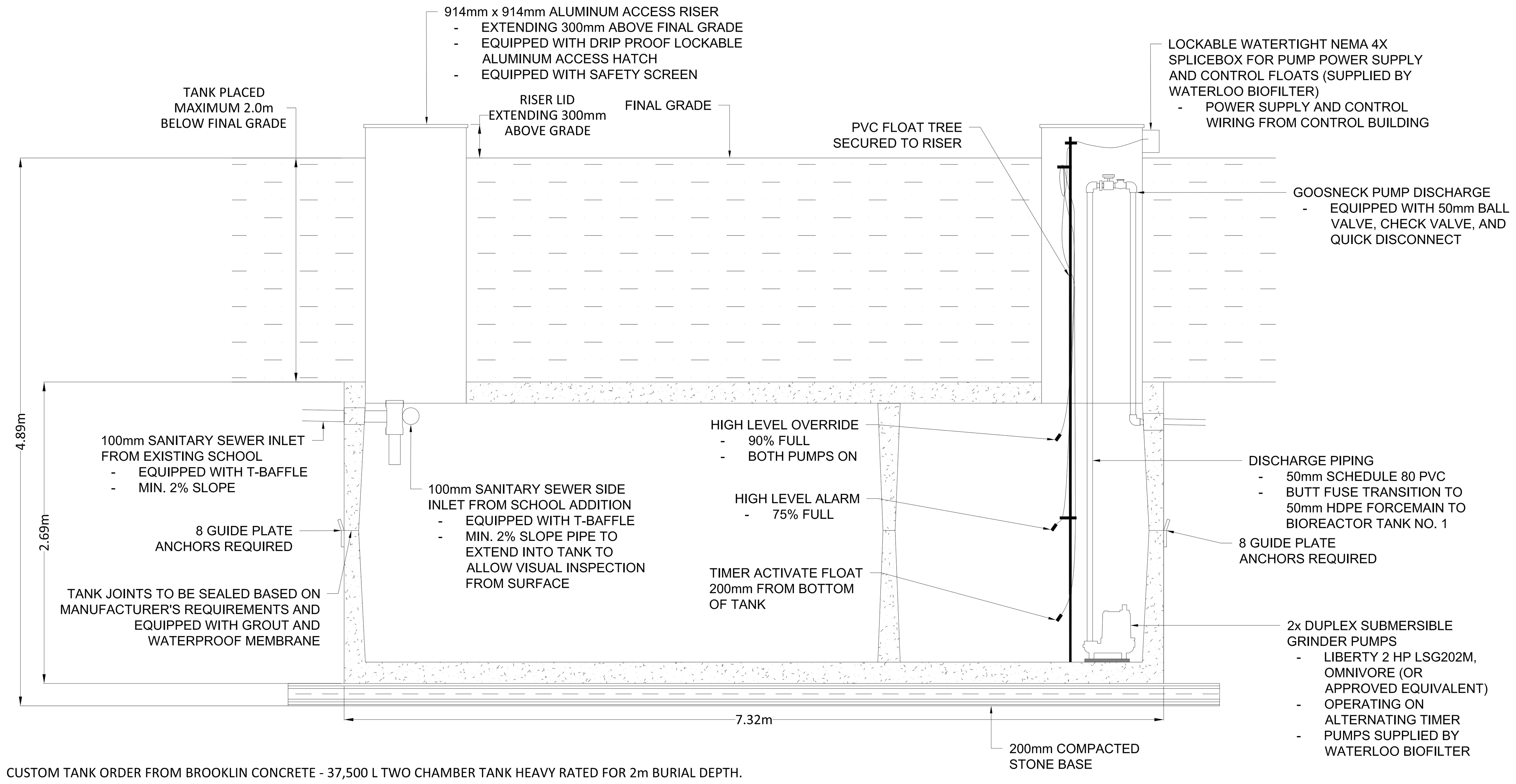
CAMBIUM
194 Sophia Street
Peterborough, Ontario, K9H 1E5
Tel: 705-742-7900 Fax: 705-742-7907
www.cambium-inc.com

CROSS SECTION DETAILS

Project No.: 17462-002	Date: March 2024	
	Rev.:	
Horizontal Scale: See Layout	Vertical Scale:	
Drawn By: MAT	Checked By: SD	Figure: 3

P:\17400 to 17499\17462-002 Stella & Charon - Design & Eval - Murray Cent PS\Cad\Plot\Drawings\CROSSSECS.DWG, 2024-03-22 10:47:39, Matthew.Tracey

DETAIL 8: 37,500 L BALANCING TANK A

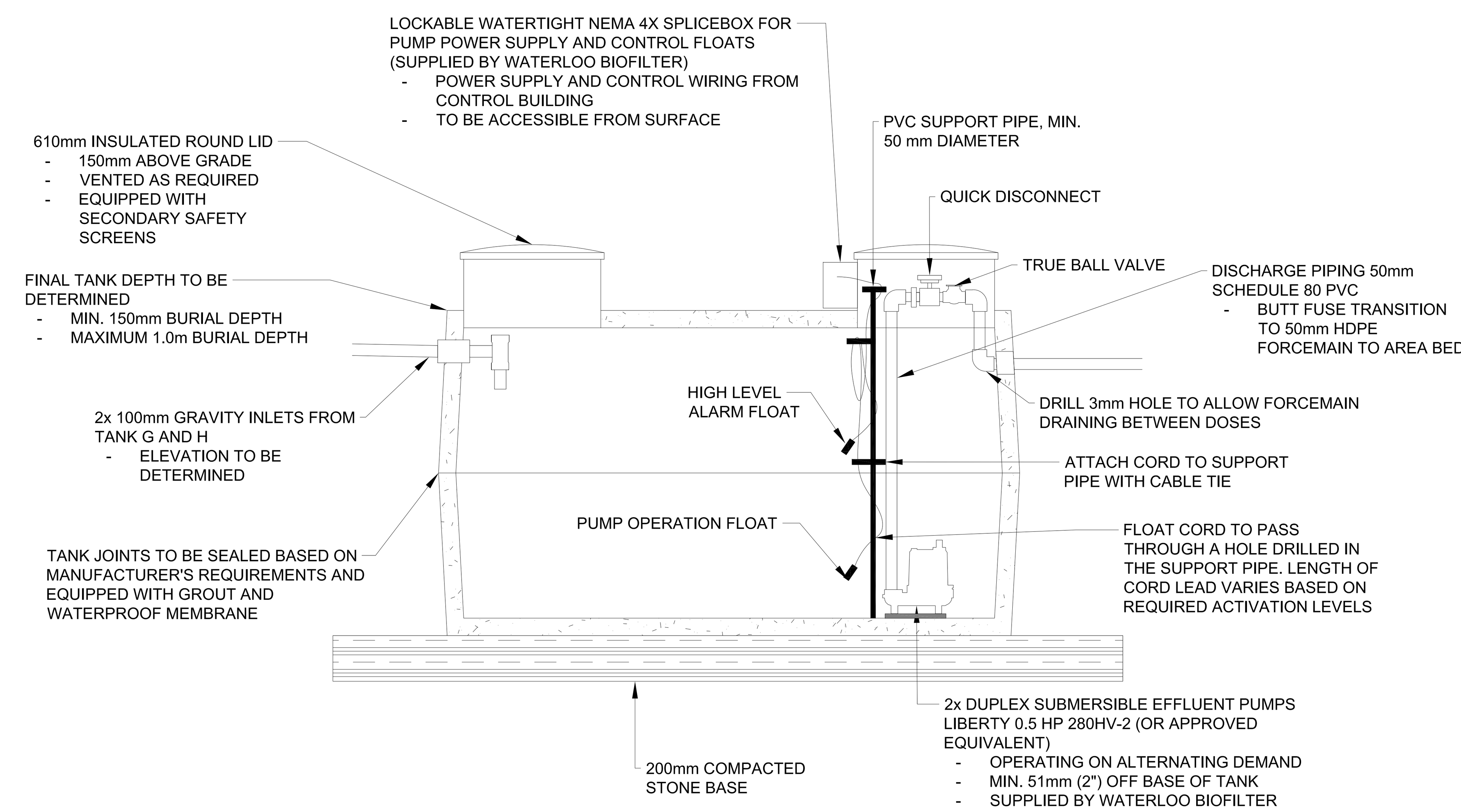


CUSTOM TANK ORDER FROM BROOKLIN CONCRETE - 37,500 L TWO CHAMBER TANK HEAVY RATED FOR 2m BURIAL DEPTH.

TANK TO BE INSTALLED ON FIRM BASE AND CONSISTENT WITH MANUFACTURER REQUIREMENTS.

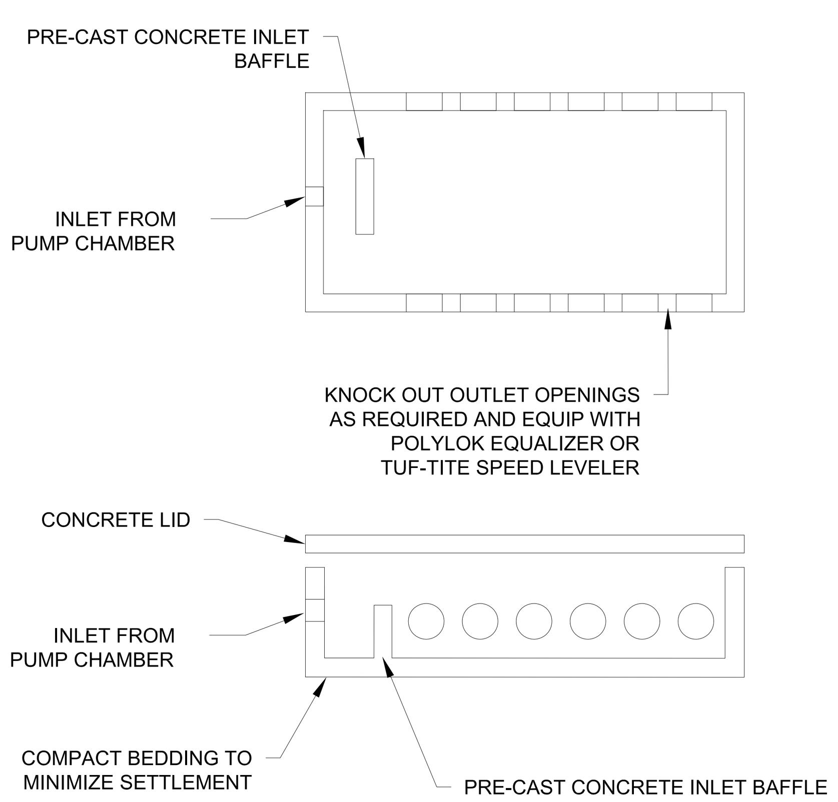
GROUNDWATER APPROXIMATELY 3.0m BELOW GROUND SURFACE. DEWATERING FOR INSTALLATION TO BE COMPLETED CONSISTENT WITH BEST PRACTICE AND REGULATORY REQUIREMENTS.

DETAIL 9: FINAL PUMP TANK WITH DUPLEX EFFLUENT PUMPS



NOT TO SCALE

DETAIL 10: LARGE DISTRIBUTION BOX



- USE STANDARD LARGE DISTRIBUTION BOX ONLY; DO NOT USE STANDARD SMALL BOX.
- COORDINATE FLOW LEVELER WITH PIPE SIZE. FOR 100mm [4"] DISTRIBUTION PIPE, USE EITHER POLYLOK EQUALIZER OR TUF-TITE SPEED LEVELER SL-4. FOR 75mm [3"] DISTRIBUTION PIPE, USE EITHER POLYLOCK EQUALIZER WITH 100mm [4"] TO 75mm [3"] PIPE REDUCER OR USE TUF-TITE SPEED LEVELER SL-3.

NOTES:

General Requirements

1. Provide all labour, materials, equipment and temporary works to complete all work indicated.
2. Provide own temporary water & sewage services for workers; school facilities shall not be used.
3. Enclose all work areas containing equipment, materials, open excavations and/or potential exposure to sewage contamination with wire panel temporary construction fencing and signage warning of danger.
4. Dispose of all garbage and excess materials in accordance with applicable regulations. The school's garbage bins shall not be used.
5. Installer shall be licensed by the Ministry of Municipal Affairs and Housing (MMAH) under Part 8 of the Ontario Building Code (OBC).
6. Installer shall be authorized and trained by Waterloo Biofilter Systems Inc.
7. Where standards or codes are referenced, the most recent shall apply.
8. Where changes to the design or contract requirements are proposed, follow the procedures as outlined in the contract to obtain Owner approval prior to implementing any such changes.
9. Attend the site for a coordination meeting prior to mobilization to allow inspecting the property, assessing restrictions, and clarifying all specified requirements including finalizing installation locations of the tanks, control panel, and leaching bed. Verify extent of the Contractor's controlled work area per Ministry of Labour requirements. Coordinate with Owner regarding impacts to school operation.
10. Provide at least 2 working days' notice prior to desired day of inspection by Engineer for the following milestones:
    a. Leaching bed subgrade prepared, after scarification but prior to placement of any sand.
    b. Leaching bed after completion of all sand, stone and piping installation but prior to backfilling with topsoil.
    c. Placement of tanks on prepared bases
    d. After treatment system installation and plumbing completed, but prior to backfilling (all piping must still be exposed)
    e. Commissioning of pumping, distribution and treatment systems. Contractor shall be present to facilitate all necessary testing to the Engineer's satisfaction including water for dose/pump testing as applicable.
12. Notify Engineer at least one (1) week prior to commissioning of the wastewater system. This is a requirement of the Environmental Compliance Approval so that the Engineer can inform the Ministry of the commencement of start-up.
13. Prior to commissioning, provide draft and final Operations & Maintenance manuals from Waterloo Biofilter including as a minimum:
    a. Operating procedures for routine operation.
    b. Inspection programs, including frequency of inspection, and the methods or tests employed to detect when maintenance is necessary.
    c. Approved shop drawings.
    d. As-constructed drawings of the treatment process/technology.
    e. Equipment maintenance information for all components, such as pumps, floats, inline filters, flow meters, and control panel.
14. Provide to Engineer one set of drawing markups indicating as-constructed conditions where they differ from the design.
15. Provide a one (1) year warranty on all labour, materials and equipment in accordance with the contract terms and conditions.

Construction

16. Locate and protect all utilities prior to construction.
17. Check and verify all dimensions before proceeding with work and be responsible for the same.
18. All work must be completed in accordance with relevant codes and guidelines.
19. The project specifications shall be read in conjunction with design drawings.
20. All equipment and materials shall be installed as specified or approved equivalent and meet all relevant codes and guidelines.
21. Tracer wire and/or other means of subsurface detection must be tested prior to backfill.
22. On-site flow testing shall be completed prior to start-up of the wastewater system in order to allow for adjustments to the pump run cycle/floats if necessary.
23. As needed based on topography, grade leaching beds such that each bed is level from side to side and sloped down in the direction of groundwater flow at 4 horizontal: 1 vertical or less.

24. Wastewater System

25. No traffic of any kind on the tanks or leaching bed.
26. No structures of any kind are to be built over the wastewater system.
27. Backfill to be completed immediately following construction and review/inspection.
28. Final grading and/or swale construction to be such that surface water is directed away from the leaching bed.
29. Topsoil and grass must be established and maintained following construction of the wastewater treatment system.

Tanks

30. Material: precast concrete in accordance with CAN/CSA B66, unless otherwise noted.
31. Coordinate all risers, openings and connection locations with wastewater treatment system manufacturer, as applicable.
32. Install on suitable base in accordance with tank manufacturer's installation instructions.
33. If groundwater is encountered during excavation, anchor tanks to prevent uplift/heave.
34. Equip with 610 mm access risers extending at least 150mm above finished grade to allow access from grade to service any inlets, outlets and/or treatment components.

Pump Tanks

35. Shall meet all requirements for Tanks noted above
36. All pumps, pump discharge piping assemblies and float controls to be provided by Waterloo Biofilter Systems Inc.
37. Furnish access riser covers for septic tank and pump chamber with lids that contain activated charcoal odour filters.
38. Attach nylon rope to each pump and hook coil at top of riser to allow pump to be easily pulled out.
39. Drill 3 mm hole at lowest point of forcemain after the gooseneck to allow forcemain draining following each pump cycle.

Forcemains

40. Protect forcemains from vehicular traffic.
41. Forcemains to be HDPE series 100 pressure-rated for sewage conveyance.
42. All forcemains to be sloped either to the leaching bed or back to the pump tank to avoid low spots prone to freezing.
43. Where forcemains or sewer lines cannot be installed below frost level appropriate insulation must be installed.
44. Install tracer wire over all forcemains.

Leaching Beds

45. Install in accordance with OBC Part 8 requirements.
46. Soil shall not be worked when wet.
47. Scarify native soil at bottom of leaching bed prior to placing sand or stone.
48. Septic stone shall meet OBC Table 8.7.3.3 and shall be washed and free of fine material.
49. Sand for Type A Dispersal Beds shall meet OBC 8.7.7.1.(4)(a).
50. A footer shall be installed on the end of the distribution pipe runs.

51. Distribution Boxes

52. Place on a firm compacted base not affected by shifting, frost, heaving, or settlement, such as compacted gravel or sand.
53. Equip distribution box outlets with Polylok Equalizers Model 3049 or equivalent.

Control Panels

54. Furnish Waterloo Smart Panel by Waterloo Biofilter Systems Inc.
55. Include the following features as a minimum:
    - Lockable NEMA 4X enclosure.
    - Hand/Off/Auto for each pump.
    - Alarm float will activate an audible and visual alarm.
    - Alarm horn external test/normal/silence switch.
    - Separate circuit breakers for each pump.
    - Separate circuit breaker for alarm float.
    - Elapsed time meter for each pump.
    - Event counter for each pump.
    - Remote monitoring capability.
57. All electrical circuit breakers and pump control panels to be installed in control building.

Electrical

58. All electrical work to be completed by licensed electrician.
59. Electrician to obtain ESA permit and submit copy to the Engineer.
60. Provide wire type protective enclosures for any components, such as audible/visual alarms or external antennas, that may be damaged by soccer balls and other activities typical of a school environment.

Security Fence

61. Chain link, hot dipped galvanized after fabrication and black vinyl-coated in accordance with ASTM A392, as follows:
    - Fabric: 1500 mm high, 38 mm non-climbable mesh x 9-gauge
    - Top & bottom selvage: knuckled safety finish
    - Posts: Terminal and corner - 88.9 mm, Line - 60.3 mm, black gloss enamel by powder coat application, set in 20 MPa concrete minimum 1200 mm deep extended 25 mm above grade and shaped to drain water away from post, maximum 3.0 m apart
    - Rails: top rail 33.4 mm tubing, shall pass through line post tops, bottom tension wire 6-gauge
    - Gates: double wide matching fence, 42.2 mm tubing, complete with heavy-duty self-closing hinges that permit opening 180 degrees minimum, lockable latch
    - Adjust ground undulations along fence line to obtain smooth uniform gradient between posts. Provide clearance between bottom of fence and ground surface not less than 30 mm or more than 50 mm.

MURRAY CENTENNIAL PS - SEWAGE SYSTEM DESIGN

654 County Road 40
Trenton, Ontario

KAWARTHA PINE RIDGE DISTRICT SCHOOL BOARD

Portions of sewage system installation will be phased. Refer to mechanical, electrical, civil, architectural drawings for installation phasing details.

REVISION	REVISED BY	DATE
ISSUED FOR TENDER	MAT	2024-03-22

CAMBIUM
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TANK DETAILS AND NOTES

Project No.: 17462-002	Date: March 2024 Rev.:
Horizontal Scale: See Layout	Vertical Scale:
Drawn By: MAT / Checked By: SD	Figure: 4

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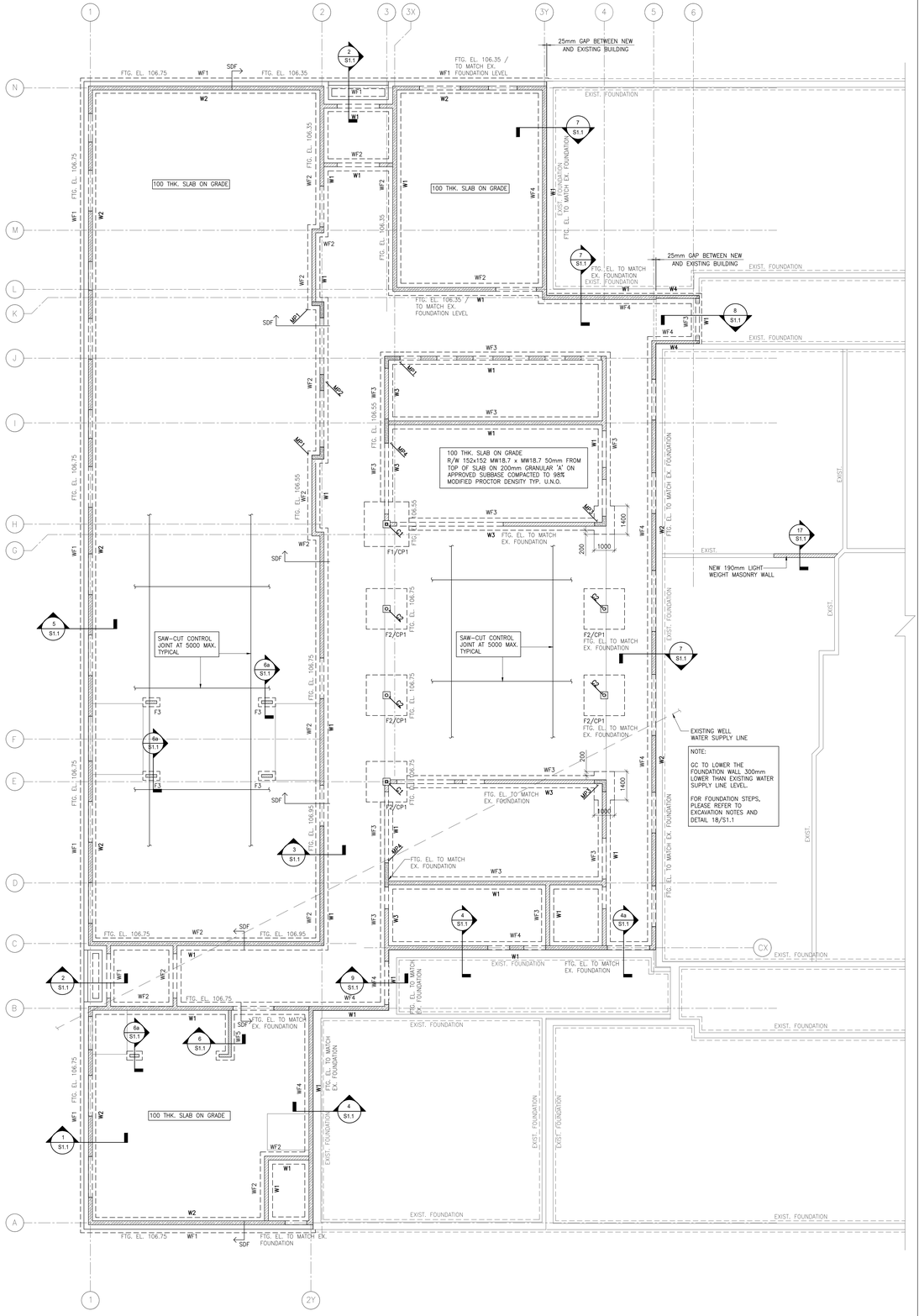

1 FOUNDATION PLAN
S1.0 SCALE 1:100

NOTES:
- COORDINATE ALL DIMENSIONS, ELEVATIONS AND SLOPES WITH ARCHITECTURE DRAWINGS.
- GC TO PROVIDE SHORING TO EXISTING STRUCTURES AS REQUIRED.
- GC TO CONTACT DVM IF THE EXISTING WELL WATER SUPPLY LINE LEVEL IS BELOW THE WALL FOUNDATION LEVEL AS SHOW IN DRAWINGS.
- GC TO CONSULT DVM FOR ANY DISCREPANCY.
- DO NOT CUT OR REMOVE ANY EXISTING STRUCTURAL MEMBER U.N.O.
- SDF – STEP DOWN FOOTING.

COLUMN SCHEDULE		
MARK	SIZE & TYPE	REMARK
C1	HSS 127x127x9.5	350x350x19mm THK BASE PLATE + 4–M16x300 LONG ANCHOR BOLT.
C2	HSS 152# x 9.5	350x350x19mm THK BASE PLATE + 4–M16x300 LONG ANCHOR BOLT.

NOTES:
- PROVIDE 44mm DRYPACK GROUT AND 6mm LEVELLING PLATE UNDER BASE PLATES.

TYPICAL MASONRY WALL SCHEDULE				
MARK	THICKNESS	VERT. REIN.	HOR. REIN.	BLOCK STRENGTH
W1	190mm	15M @ 1200 o/c	EXTRA HEAVY DUTY REINF. IN JOINTS AT 400 C/C	15 MPa
W2	190mm	15M @ 800 o/c	EXTRA HEAVY DUTY REINF. IN JOINTS AT 400 C/C	15 MPa
W3	190mm	15M @ 800 o/c	EXTRA HEAVY DUTY REINF. IN JOINTS AT 400 C/C	20 MPa
W4	140mm	15M @ 400 o/c	EXTRA HEAVY DUTY REINF. IN JOINTS AT 400 C/C	15 MPa

WALL FOOTING SCHEDULE			
MARK	FOOTING SIZE	REINFORCEMENT	DETAIL
WF1	750x200mm THK.	3–15M CONTINUOUS	–
WF2	600x200mm THK.	2–15M CONTINUOUS	–
WF3	750x300mm THK.	3–15M CONTINUOUS	–
WF4	SEE SECTION	2–15M CONTINUOUS	–
WF5	450x200mm THK.	2–15M CONTINUOUS	–

SPREAD FOOTING SCHEDULE			
MARK	FOOTING SIZE	REINFORCEMENT	DETAIL
F1	2200x2200x600mm THK.	15M AT 150 O/C E.W. AT BOTTOM	–
F2	2000x2000x600mm THK.	15M AT 150 O/C E.W. AT BOTTOM	–
F3	450x850x200mm THK.	15M AT 150 O/C E.W. AT BOTTOM	–

CONCRETE PIER SCHEDULE	
MARK	CP1
SIZE	350 x 350
VERTICAL R/F	8–15M
STIRRUPS	10M @ 150 O/C

S/N	DATE	ISSUE
6.	JUL. 24, 2024	ISSUED FOR TENDER & PERMIT
5.	APR. 04, 2024	ISSUED FOR COORDINATION
4.	MAR. 20, 2024	ISSUED FOR COORDINATION
3.	FEB. 16, 2024	ISSUED FOR COORDINATION
2.	DEC. 08, 2023	ISSUED FOR COORDINATION
1.	JULY 20, 2023	ISSUED FOR COORDINATION

DVM ENGINEERING
6820 KITIMAT RD., SUITE #8
MISSISSAUGA, ON L5N 5M3
PH: (416) 451-5114
info@dvmeng.com

MURRAY CENTENNIAL PUBLIC SCHOOL ADDITION

654 County Road 40, R.R.#1
TRENTON ONTARIO K8V 5P4

KAWARTHA PINE RIDGE DISTRICT SCHOOL BOARD

1994 Fisher Drive, Peterborough, Ontario K9J 6X6

DRAWING

FOUNDATION LAYOUT

LICENCED PROFESSIONAL ENGINEER
M.B.MAVANI
100178008
2024-07-25
PROVINCE OF ONTARIO

TRUE NORTH	DWG. NORTH
JOB NO.	2304
SCALE	1:100
DATE	DEC 2023
PRINTED	
DWG. NO.	S1.0

MOFFET & DUNCAN architects inc.
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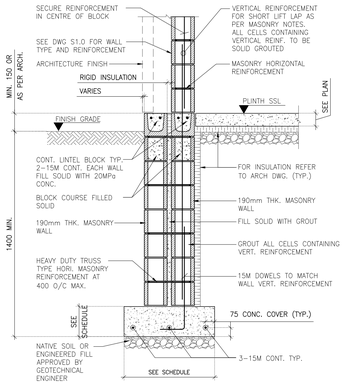
FAX: (416) 239-6729
EMAIL: mdarch@mdarch.ca



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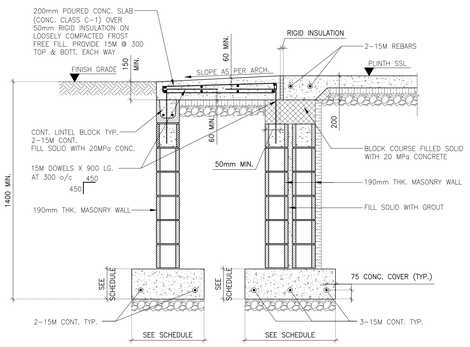

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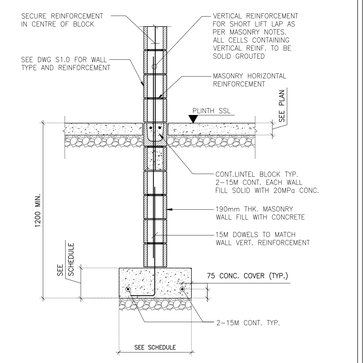

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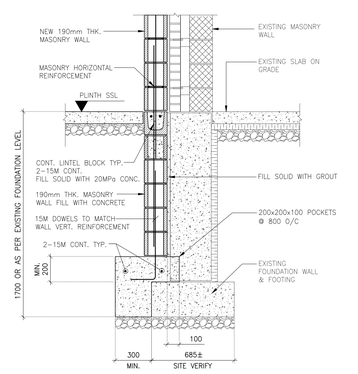

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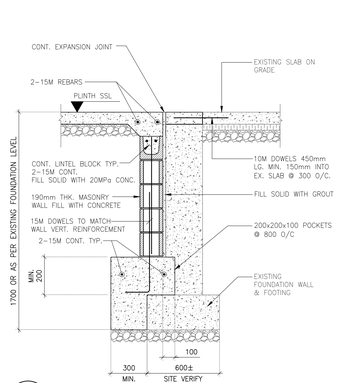

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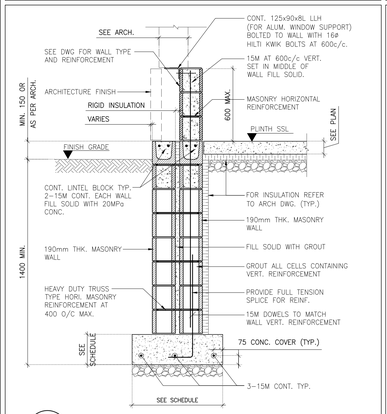

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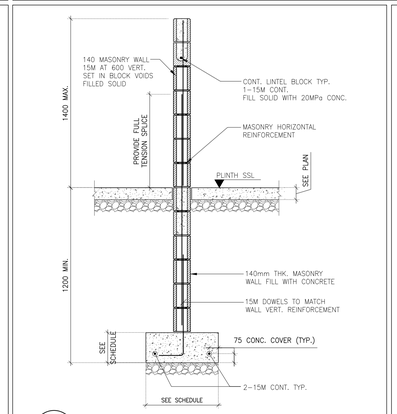

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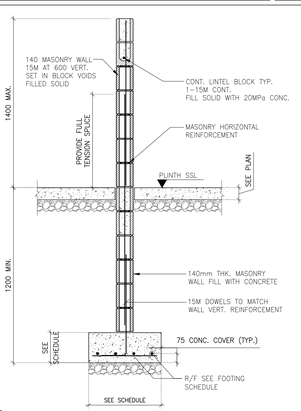

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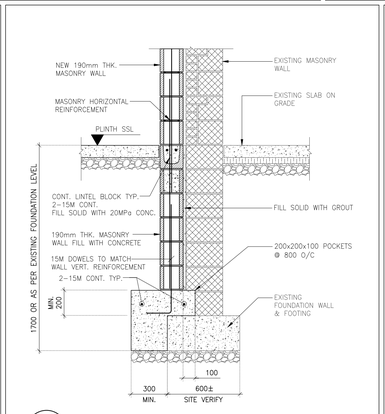

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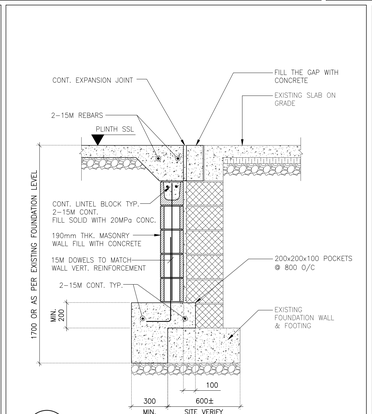

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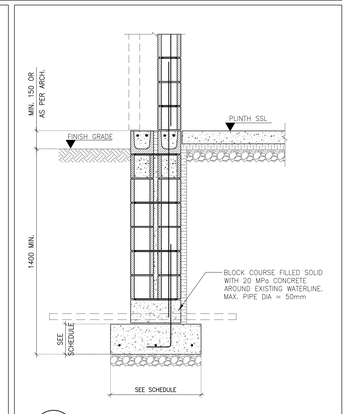

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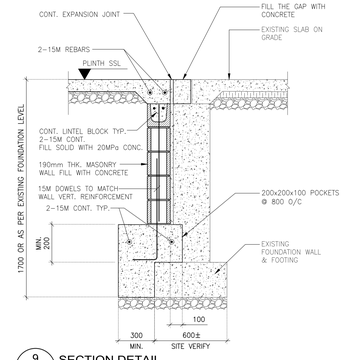

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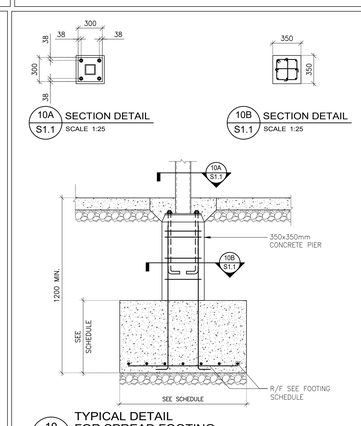
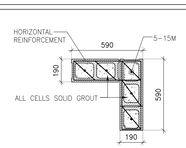


10A S1.1 SECTION DETAIL
SCALE 1:25

10B S1.1 SECTION DETAIL
SCALE 1:25

10 S1.1 TYPICAL DETAIL FOR SPREAD FOOTING
SCALE 1:20



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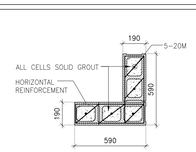

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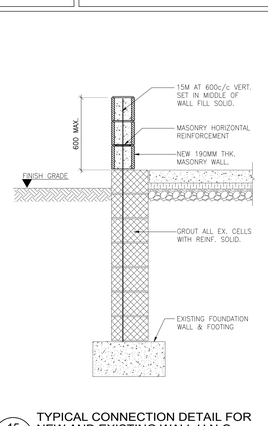

15 S1.1 TYPICAL CONNECTION DETAIL FOR NEW AND EXISTING WALL U.N.O
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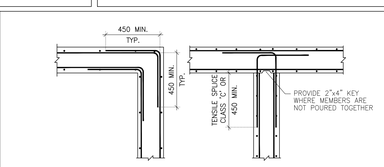

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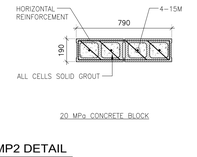

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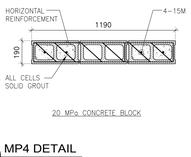

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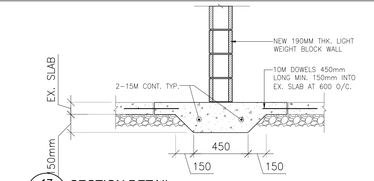

17 S1.1 SECTION DETAIL
SCALE 1:20

6.	JUL. 24, 2024	ISSUED FOR TENDER & PERMIT
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MURRAY CENTENNIAL PUBLIC SCHOOL ADDITION

654 County Road 40, R.R.#1
TRENTON ONTARIO K8V 5P4

KAWARTHA PINE RIDGE DISTRICT SCHOOL BOARD

1994 Fisher Drive, Peterborough, Ontario K9J 6X6

DRAWING
FOUNDATION SECTION DETAILS

LICENSED PROFESSIONAL ENGINEER
M.B.MAVANI
100178008
2024-07-25
PROVINCE OF ONTARIO

TRUE NORTH	DWG. NORTH
JOB NO.	2304
SCALE	1:125
DATE	DEC 2023
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DWG. NO.	S1.1

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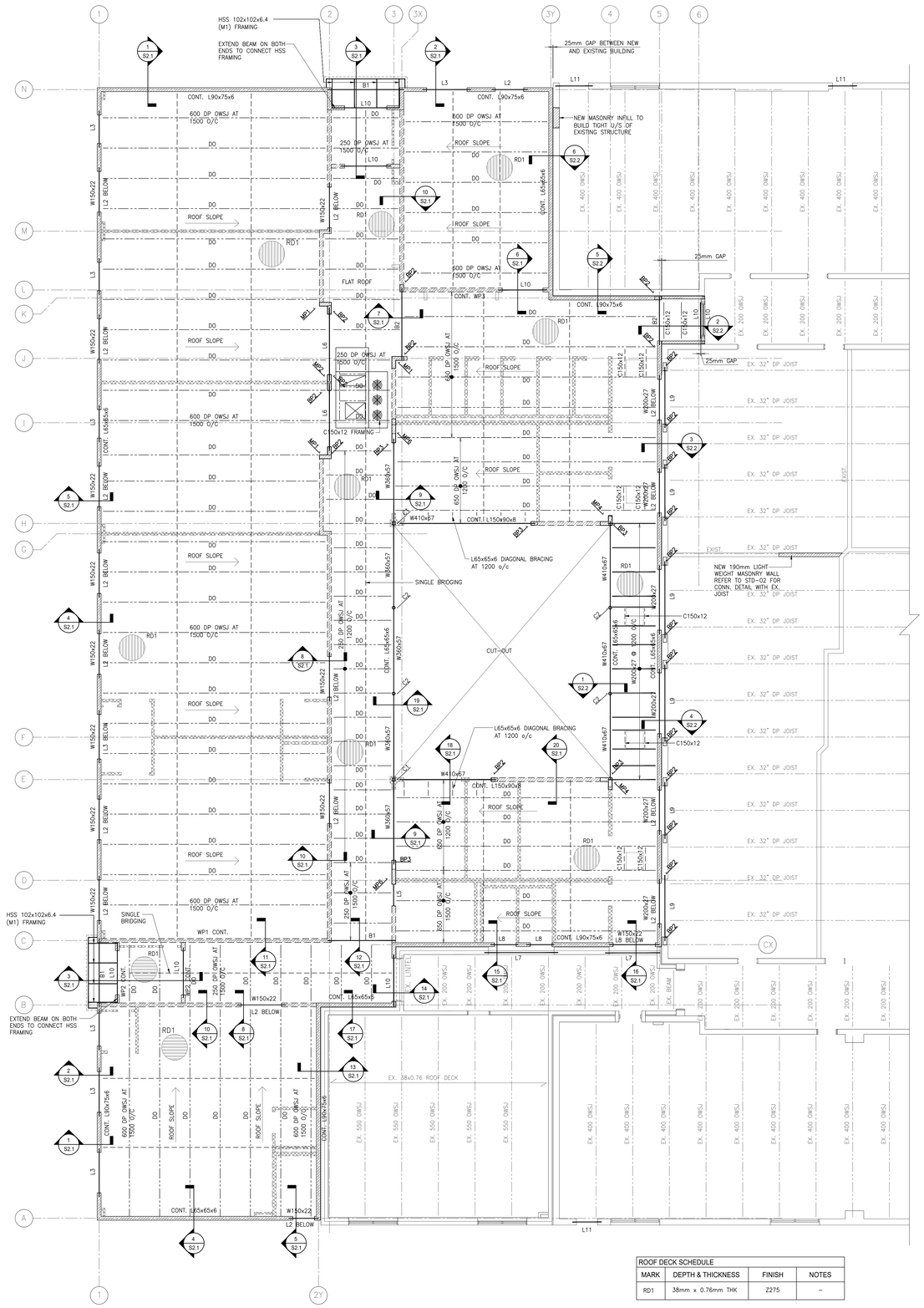


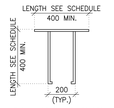
COLUMN SCHEDULE		
MARK	SIZE & TYPE	REMARK
C1	HSS 127x127x9.5	350x350x19mm THK BASE PLATE + 4–M16x300 LONG ANCHOR BOLT.
C2	HSS 152ø x 9.5	350x350x19mm THK BASE PLATE + 4–M16x300 LONG ANCHOR BOLT.

BEAM SCHEDULE		
MARK	SIZE & TYPE	REMARK
B1	W200x27	
B2	W200x42	

WALL PLATE SCHEDULE		
MARK	SIZE	REMARK
WP1	75x6	CONTINUOUS STEEL PLATE WITH 12mmø x 200 LONG STUDS AT 800 o/c. SET IN BLOCKS FILLED WITH 20 MPa CONCRETE
WP2	100x6	CONTINUOUS STEEL PLATE WITH 12mmø x 200 LONG STUDS AT 800 o/c. SET IN BLOCKS FILLED WITH 20 MPa CONCRETE
WP3	170x6	CONTINUOUS STEEL PLATE WITH 12mmø x 200 LONG STUDS AT 800 o/c. SET IN BLOCKS FILLED WITH 20 MPa CONCRETE
WP4	250x250x8	STEEL PLATE WITH 4–16mmø HILTI KWIK BOLTS SET IN BLOCKS FILLED WITH 20 MPa CONCRETE

BEARING PLATE SCHEDULE			
MARK	PLATE SIZE	ANCHOR BOLTS	BEARING PAD
BP1	170x200x12	2–15M x 400 LONG	400 LONG
BP2	170x350x16	2–15M x 400 LONG	400 LONG
BP3	170x450x16	2–15M x 400 LONG	600 LONG

NOTES:
- ANCHOR BOLT LENGTH INCLUDE 50mm HOOK. (TYPICAL).
- BEARING PADS SHALL BEE GROUTED SOLID WITH 20 MPa GROUT FOR MIN. 2 COURSES DEPTH. INCREASE DEPTH TO SUIT ANCHOR BOLT LENGTH AND SITE CONDITION AS REQUIRED.



TYPICAL BEARING PLATE DETAIL

LINTEL SCHEDULE				
MARK	MATERIAL & SIZE	TYPE	REMARKS	DETAILS
L1	190x390 DP BOND BEAM + 150x150x10 BENT PL WITH 6mm STIFF'S AT 600 o/c AND AT ENDS		• 1–10M TOP R/F 1–10M BOTTOM R/F. • FILL SOLID WITH 20 MPa CONCRETE. • CONN. BENT PLATE TO BOND BEAM WITH 16ø HILTI KWIK BOLTS AT 600 o/c AND AT ENDS.	7/S2.2
L2	190x390 DP BOND BEAM + 230x175x10 BENT PL LLH WITH 6mm STIFF'S AT 400 o/c AND AT ENDS		• 1–10M TOP R/F 1–10M BOTTOM R/F. • FILL SOLID WITH 20 MPa CONCRETE. • CONT. BENT PLATE TO BOND BEAM WITH 16ø HILTI KWIK BOLTS AT 400 o/c AND AT ENDS. • CARRY PLATE MIN. 150mm INTO BRICK VENEER EACH END.	8/S2.2
L3	190x590 DP BOND BEAM + 230x175x10 BENT PL LLH WITH 6mm STIFF'S AT 400 o/c AND AT ENDS		• 2–10M TOP R/F 2–10M BOTTOM R/F. • FILL SOLID WITH 20 MPa CONCRETE. • CONT. BENT PLATE TO BOND BEAM WITH 16ø HILTI KWIK BOLTS AT 400 o/c AND AT ENDS. • CARRY PLATE MIN 150mm INTO BRICK VENEER EACH END.	9/S2.2
L4	W200x27 + 325x8 BOTTOM PLATE + L127x89x7.9 LLV WITH 6mm KNIFE PLATE AT 600 o/c AND AT ENDS		• PROVIDE 15M x 400 LONG WELDED DOWELS AT 600 o/c. • PROVIDE BP1–170x200x12 EACH END	10/S2.2
L5	W200x27 + 170x8 BOTTOM PLATE		• PROVIDE 15M x 400 LONG WELDED DOWELS AT 600 o/c. • PROVIDE BP1–170x200x12 EACH END	11/S2.2
L6	W200x36 + 170x8 BOTTOM PLATE		• PROVIDE 15M x 400 LONG WELDED DOWELS AT 600 o/c.	12/S2.2
L7	W200x27 + 350x8 BOTTOM PLATE WITH 6mm KNIFE PLATE AT 600 o/c AND AT ENDS		• PROVIDE BP1–170x200x12 EACH END	13/S2.2
L8	190x390 DP BOND BEAM		• 2–10M TOP R/F 2–10M BOTTOM R/F. • FILL SOLID WITH 20 MPa CONCRETE.	14/S2.2
L9	W410x67 + 270x8 TOP PLATE		• STEEL MASONRY TIES AT 600 c/c 25x4x150 LG. LENGTH TO SUIT WALL THICKNESS. • STEEL "EYE" WELDED TO BEAM WEB TO ACCOMMODATE STEEL TIE.	15/S2.2
L10	190x590 DP BOND BEAM		• 2–10M TOP R/F 2–10M BOTTOM R/F. • FILL SOLID WITH 20 MPa CONCRETE.	16/S2.2
L11	2L's 150x90x8 + L150x90x8		• PROVIDE MIN. 150mm BEARING EACH END	

NOTES:
- ALL EXTERIOR STEEL LINTELS, PLATES AND ANGLES SHALL BE HOT DIPPED GALVANIZED/COATED WITH INORGANIC ZINC RICH PAINT AS PER SPECIFICATIONS.
- SEE FOR NON-LOAD BEARING WALL LINTELS REFER TYPICAL LINTEL SCHEDULE.
- ALL REINFORCEMENT TO BE WELDED SHALL BE IN ACCORDANCE WITH CSA G30.18 AND W59 STANDARDS AND CAPABLE OF FULL STRENGTH DEVELOPMENT.
- MINIMUM BEARING LENGTH 200mm U.N.O.
- GC SHALL PROVIDE 38x5x150 MASONRY TIES WELDED TO BEAM AT 600 O/C TYPICAL FOR ALL BEAM LINTELS AND BEAMS IN MASONRY HIGHER THAN 200mm.

ROOF DECK SCHEDULE			
MARK	DEPTH & THICKNESS	FINISH	NOTES
RD1	38mm x 0.76mm THK	Z275	–

NOTES:
- COORDINATE ALL DIMENSIONS, ELEVATIONS AND SLOPES WITH ARCHITECTURE DRAWINGS.
- GC TO PROVIDE SHORING TO EXISTING STRUCTURES AS REQUIRED.
- GC TO CONSULT DVM FOR ANY DISCREPANCY.
- DO NOT CUT OR REMOVE ANY EXISTING STRUCTURAL MEMBER U.N.O.
- GC TO ENSURE NEW WALL TO BUILT TIGHT TO U/S OF EXISTING STRUCTURE.
- PROVIDE BP1 AT ENDS OF BEAM AND LINTELS U.N.O. ON PLAN.
- PROVIDE SEPARATE BEARING PLATE FOR BEAM WHICH CAN NOT SHARE THE SAME PLATE.
- DECK TO BE WELDED TO SUPPORT ANGLE.
- GC TO PROVIDE SHOP DRAWINGS FOR SEISMIC RESTRAINT DETAILS.

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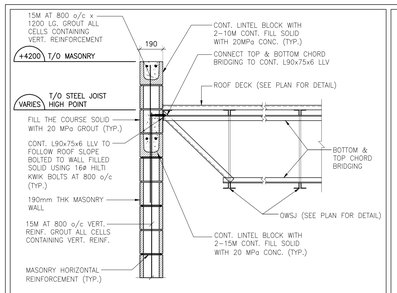

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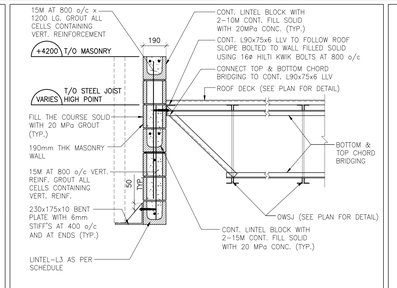

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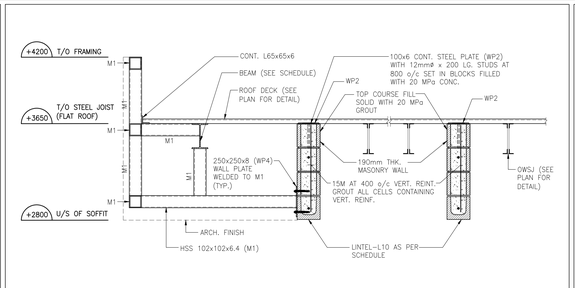

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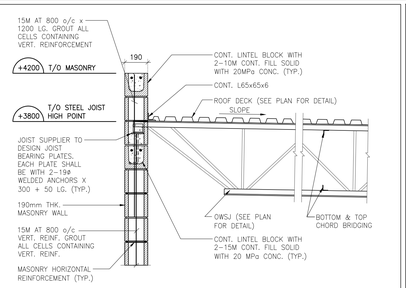

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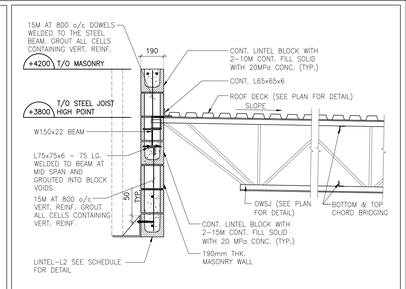

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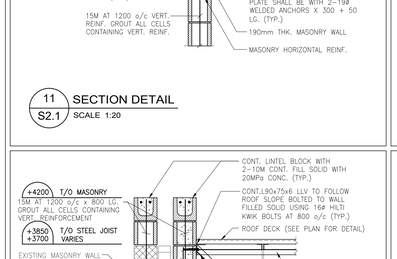

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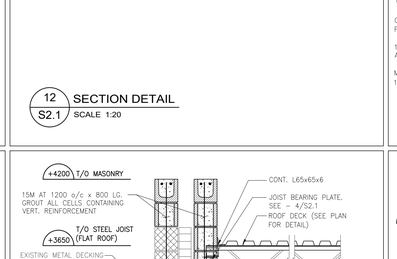

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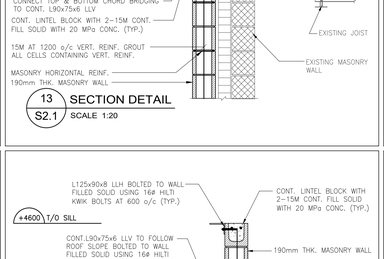

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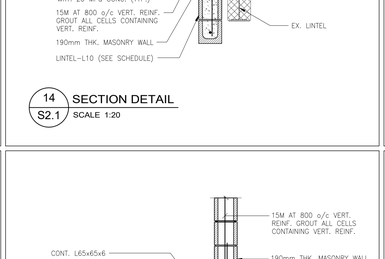

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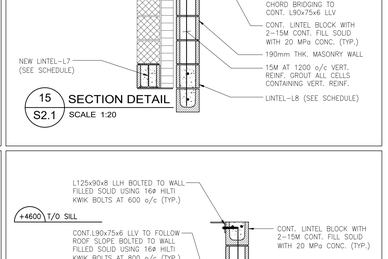

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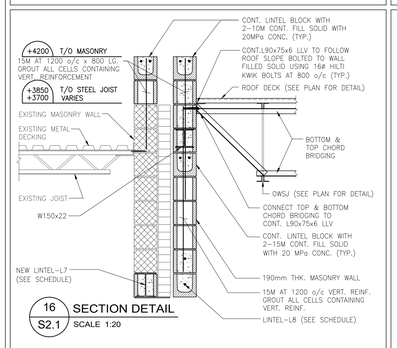

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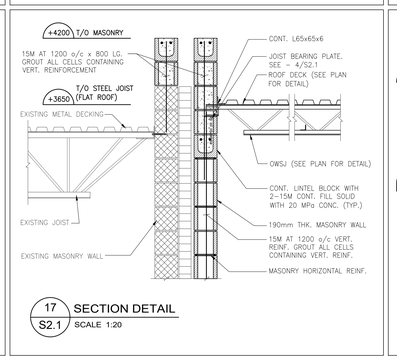

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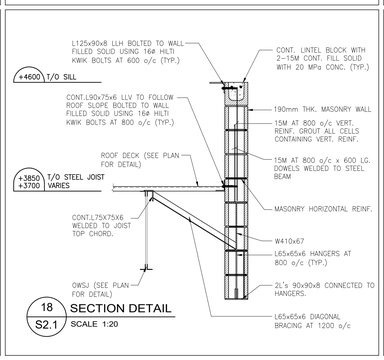

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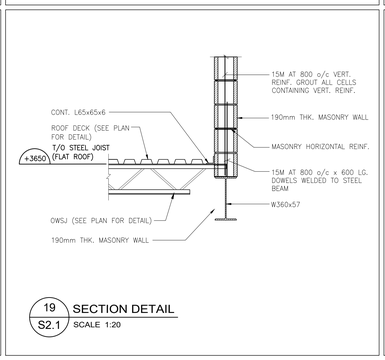

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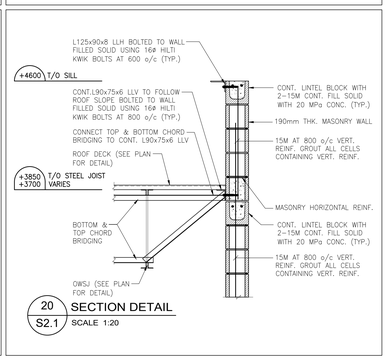

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18 SECTION DETAIL
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19 SECTION DETAIL
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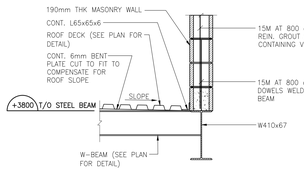

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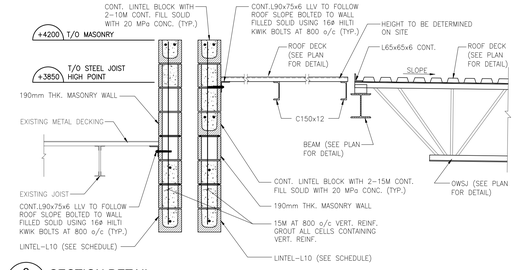

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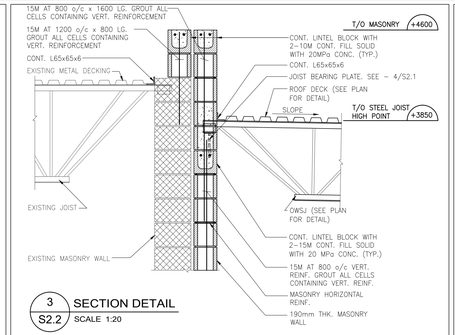

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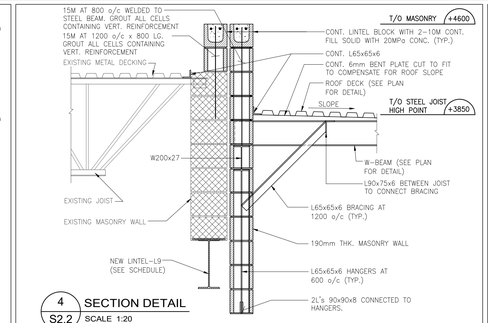

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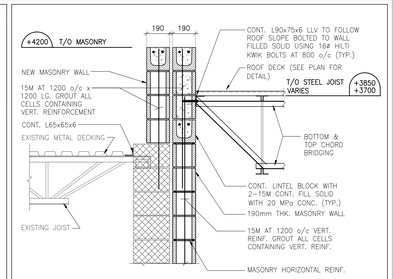

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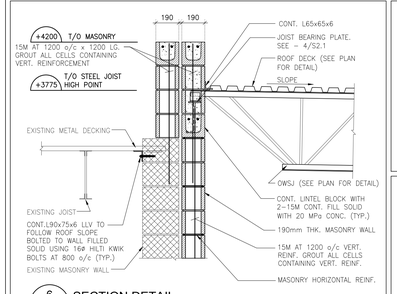

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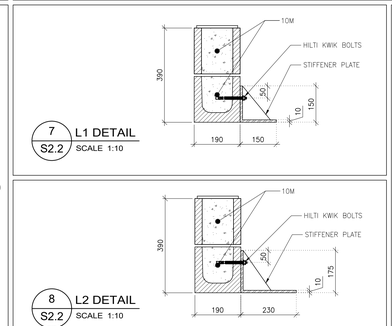

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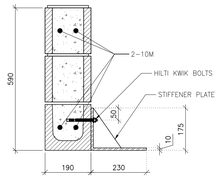

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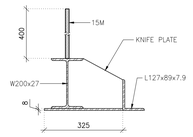

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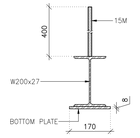

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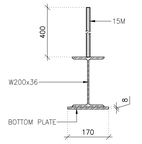

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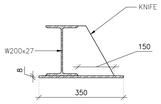

13 L7 DETAIL
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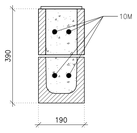
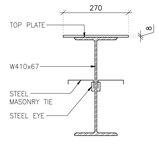


14 L8 DETAIL
S2.2 SCALE 1:10



15 L9 DETAIL
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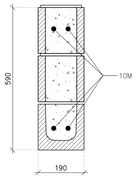
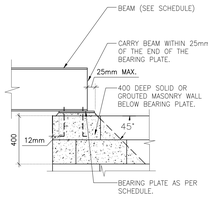


16 L10 DETAIL
S2.2 SCALE 1:10



17 TYPICAL BEAM BEARING DETAIL ON MASONRY
S2.2 SCALE 1:20

S/N	DATE	ISSUE
8.	JUL. 24, 2024	ISSUED FOR TENDER & PERMIT
7.	APR. 04, 2024	ISSUED FOR COORDINATION
6.	MAR. 20, 2024	ISSUED FOR COORDINATION
5.	FEB. 16, 2024	ISSUED FOR COORDINATION
4.	FEB. 01, 2024	ISSUED FOR COORDINATION
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2.	DEC. 08, 2023	ISSUED FOR COORDINATION
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MURRAY CENTENNIAL PUBLIC SCHOOL ADDITION

654 County Road 40, R.R.#1
TRENTON ONTARIO K8V 5P4

KAWARTHA PINE RIDGE DISTRICT SCHOOL BOARD

1994 Fisher Drive, Peterborough, Ontario K9J 6X6

DRAWING
ROOF FRAMING SECTION DETAILS

LICENSED PROFESSIONAL ENGINEER
M.B.MAVANI
100178008
2024-07-25
PROVINCE OF ONTARIO

TRUE NORTH | DWG. NORTH

JOB NO. 2304

SCALE 1:100

DATE DEC 2023

PRINTED

DWG. NO. S2.2

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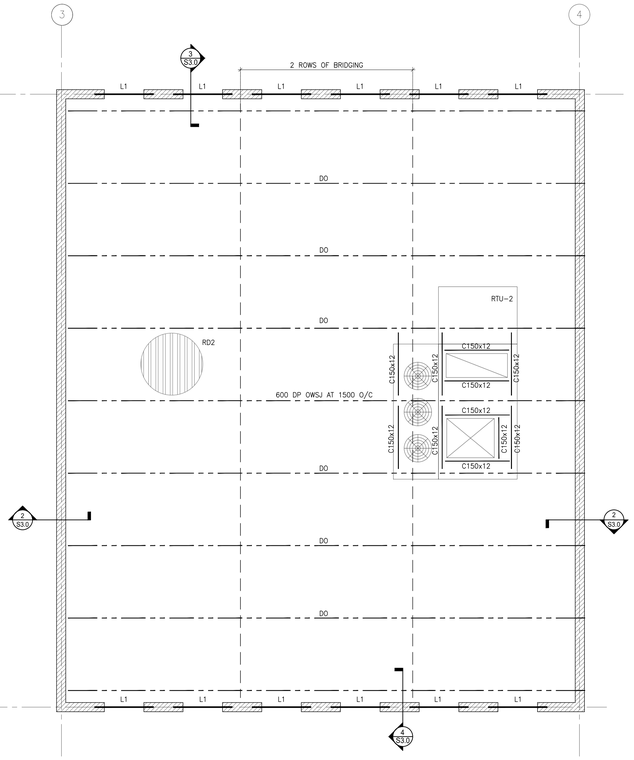
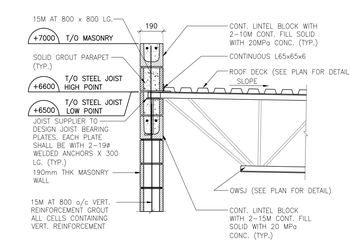
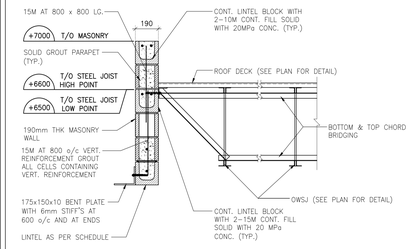


1 S3.0 UPPER ROOF FRAMING PLAN
SCALE 1:50

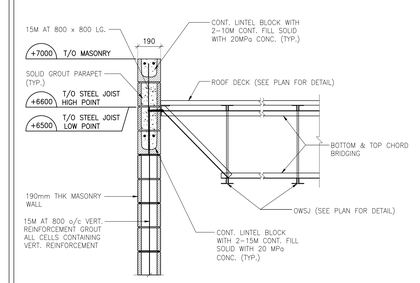
ROOF DECK SCHEDULE			
MARK	DEPTH & THICKNESS	FINISH	NOTES
RD1	38mm x 0.76mm THK	Z275	–
RD2	76mm x 0.91mm THK	Z075	ACOUSTIC DECK WITH SOLID INSULATION



2 S3.0 SECTION DETAIL
SCALE 1:20



3 S3.0 SECTION DETAIL
SCALE 1:20



4 S3.0 SECTION DETAIL
SCALE 1:20

LINTEL SCHEDULE				
MARK	MATERIAL & SIZE	TYPE	REMARKS	DETAILS
L1	190x390 DP BOND BEAM + 150x150x10 BENT PL WITH 6mm STIFF'S AT 600 o/c AND AT ENDS		• 1-10M TOP R/F 1-10M BOTTOM R/F. • FILL SOLID WITH 20 MPa CONCRETE. • CONN. BENT PLATE TO BOND BEAM WITH 16ø HILTI KWIK BOLTS AT 600 o/c AND AT ENDS.	7/S2.2
L2	190x390 DP BOND BEAM + 230x175x10 BENT PL LLH WITH 6mm STIFF'S AT 400 o/c AND AT ENDS		• 1-10M TOP R/F 1-10M BOTTOM R/F. • FILL SOLID WITH 20 MPa CONCRETE. • CONT. BENT PLATE TO BOND BEAM WITH 16ø HILTI KWIK BOLTS AT 400 o/c AND AT ENDS. • CARRY PLATE MIN. 150mm INTO BRICK VENEER EACH END.	8/S2.2
L3	190x590 DP BOND BEAM + 230x175x10 BENT PL LLH WITH 6mm STIFF'S AT 400 o/c AND AT ENDS		• 2-10M TOP R/F 2-10M BOTTOM R/F. • FILL SOLID WITH 20 MPa CONCRETE. • CONT. BENT PLATE TO BOND BEAM WITH 16ø HILTI KWIK BOLTS AT 400 o/c AND AT ENDS. • CARRY PLATE MIN. 150mm INTO BRICK VENEER EACH END.	9/S2.2
L4	W200x27 + 325x8 BOTTOM PLATE + L127x89x7.9 LLV WITH 6mm KNIFE PLATE AT 600 o/c AND AT ENDS		• PROVIDE 15M x 400 LONG WELDED DOWELS AT 600 o/c. • PROVIDE BP1-170x200x12 EACH END	10/S2.2
L5	W200x27 + 170x8 BOTTOM PLATE		• PROVIDE 15M x 400 LONG WELDED DOWELS AT 600 o/c. • PROVIDE BP1-170x200x12 EACH END	11/S2.2
L6	W200x36 + 170x8 BOTTOM PLATE		• PROVIDE 15M x 400 LONG WELDED DOWELS AT 600 o/c.	12/S2.2
L7	W200x27 + 350x8 BOTTOM PLATE WITH 6mm KNIFE PLATE AT 600 o/c AND AT ENDS		• PROVIDE BP1-170x200x12 EACH END	13/S2.2
L8	190x390 DP BOND BEAM		• 2-10M TOP R/F 2-10M BOTTOM R/F. • FILL SOLID WITH 20 MPa CONCRETE.	14/S2.2
L9	W410x67 + 270x8 TOP PLATE		• STEEL MASONRY TIES AT 600 c/c 25x4x150 LG. LENGTH TO SUIT WALL THICKNESS. • STEEL "EYE" WELDED TO BEAM WEB TO ACCOMMODATE STEEL TIE.	15/S2.2
L10	190x590 DP BOND BEAM		• 2-10M TOP R/F 2-10M BOTTOM R/F. • FILL SOLID WITH 20 MPa CONCRETE.	16/S2.2

NOTES:
- ALL EXTERIOR STEEL LINTELS, PLATES AND ANGLES SHALL BE HOT DIPPED GALVANIZED/COATED WITH INORGANIC ZINC RICH PAINT AS PER SPECIFICATIONS.
- SEE FOR NON-LOAD BEARING WALL LINTELS REFER TYPICAL LINTEL SCHEDULE.
- ALL REINFORCEMENT TO BE WELDED SHALL BE IN ACCORDANCE WITH CSA G30.18 AND W59 STANDARDS AND CAPABLE OF FULL STRENGTH DEVELOPMENT.
- MINIMUM BEARING LENGTH 200mm U.N.O.
- GC SHALL PROVIDE 38x5x150 MASONRY TIES WELDED TO BEAM AT 600 O/C TYPICAL FOR ALL BEAM LINTELS AND BEAMS IN MASONRY HIGHER THAN 200mm.

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DRAWING

UPPER ROOF FRAMING PLAN AND SECTION DETAILS

LICENSED PROFESSIONAL ENGINEER
M.B.MAVANI
100178008
2024-07-25
PROVINCE OF ONTARIO

TRUE NORTH | DWG. NORTH

JOB NO. 2304

SCALE 1:125

DATE DEC 2023

PRINTED

DWG. NO. S3.0

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GENERAL NOTES

1. THIS IS A METRIC SYSTEM PROJECT. ALL DIMENSIONS ARE IN MM AND ALL FORCES ARE IN METRIC UNITS UNLESS NOTED OTHERWISE (U.N.O.).
2. "DVM" REFERS TO DVM ENGINEERING INC.
3. ALL REFERENCED CODES AND STANDARDS TO BE LATEST EDITION.
4. READ STRUCTURAL DRAWINGS IN CONJUNCTION WITH SPECIFICATIONS AND OTHER CONTRACT DOCUMENTS.
5. THIS SET OF DRAWINGS SHOWS THE COMPLETED PROJECT. THE DRAWINGS DO NOT SHOW COMPONENTS THAT MAY BE NECESSARY FOR CONSTRUCTION SAFETY. THE CONTRACTOR IS RESPONSIBLE FOR SAFETY IN AND ABOUT THE JOB SITE DURING CONSTRUCTION, AND THE DESIGN AND ERECTION OF ALL TEMPORARY STRUCTURES, FORMWORK, FALSE WORK, SHORING, ETC. REQUIRED TO COMPLETE THE WORK.
6. THE USE OF THESE DRAWINGS IS LIMITED TO THAT IDENTIFIED IN THE REVISIONS COLUMN. DO NOT CONSTRUCT FROM THESE DRAWINGS UNLESS MARKED "ISSUED FOR CONSTRUCTION" IN THE REVISIONS COLUMN, BY DVM ENGINEERING INC. THE DRAWINGS SHALL NOT BE USED FOR PRICING OR TENDER UNLESS SO INDICATED IN THE REVISION COLUMN.
7. SECTION MARK SHOWN THUS 4/S3.1 MEANS SECTION #4 ON DRAWING S3.1.
8. SEE ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR SLEEVES, NAILERS, INSERTS, ETC., TO BE ENCASED IN CONCRETE, AND INSTALLATIONS TO BE PLACED INSIDE BLOCK WALLS.
9. SEE ARCHITECTURAL DRAWINGS FOR FLOOR AND ROOF ELEVATIONS, RECESSES, DRAINAGE SLOPES, ETC.
10. THE GENERAL CONTRACTOR SHALL REVIEW ALL THE DRAWINGS AND CHECK DIMENSIONS BEFORE CONSTRUCTION. REPORT DISCREPANCIES BETWEEN STRUCTURAL AND OTHER DISCIPLINES DRAWINGS FOR CLARIFICATION.
11. CONCRETE WORK – SHALL CONFORM TO CSA – A23.1, 2, 3 AND REFERENCED DOCUMENTS.
12. STRUCTURAL STEEL WORK – SHALL CONFORM TO CSA – S16.1 – AND REFERENCED DOCUMENTS
13. FIRE RESISTANCE RATINGS SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR PRECISE LOCATION OF REQUIRED FIRE RESISTANCE RATINGS.
14. DO NOT CUT OR DRILL ANY OPENINGS IN STRUCTURAL MEMBERS WITHOUT WRITTEN PERMISSION OF DVM ENGINEERING INC.
15. REFER TO ARCHITECTURAL, MECHANICAL, ELECTRICAL, LANDSCAPE DRAWINGS FOR LOCATIONS, CONFIGURATIONS, EXTENT, AND SIZES OF ALL CURBS, UPSTANDS, DOWNTURNS, AND FOR OPENINGS THROUGH FLOORS AND WALLS FOR DUCTS, CONDUIT AND PIPING, PROVIDE FOR SAME.
16. DO NOT USE INFORMATION ON THESE DRAWINGS FOR ANY OTHER PROJECT OR WORKS.
17. DO NOT SCALE THESE DRAWINGS.
18. DRAWINGS SHOW COMPLETED STRUCTURE ONLY. THEY DO NOT SHOW TEMPORARY WORKS FOR WHICH THE CONTRACTOR IS RESPONSIBLE AND WHICH MAY BE REQUIRED FOR EXECUTION OF THE PROJECT, INCLUDING TEMPORARY SHORING, BRACING, GUYS AND TIE DOWNS. THE CONTRACTOR TO ESTABLISH CONSTRUCTION PROCEDURE AND SEQUENCE TO ENSURE SAFETY OF THE WHOLE STRUCTURE AND ALL ITS COMPONENTS DURING ERECTION.
19. EXTENT OF ALL TEMPORARY SHORING FOR EXCAVATION WHICH MAY BE REQUIRED IS NOT NECESSARILY SHOWN ON STRUCTURAL DRAWINGS, CONTRACTOR TO DETERMINE. REFER TO SPECIFICATIONS FOR TEMPORARY SHORING REQUIREMENTS AND GEOTECH REPORT.
20. DESIGN AND CONSTRUCTION REVIEW OF ALL TEMPORARY WORKS TO BE CARRIED OUT BY A PROFESSIONAL ENGINEER RETAINED BY THE CONTRACTOR, LICENSED IN THE PLACE WHERE THE PROJECT IS LOCATED.
21. UNLESS SHOWN ON STRUCTURAL DRAWINGS, DESIGN OF NON STRUCTURAL AND SECONDARY STRUCTURAL ELEMENTS AND THEIR CONNECTIONS TO THE PRIMARY BUILDING STRUCTURE ARE NOT WITHIN THE SCOPE OF SERVICES PROVIDED BY DVM. SUCH ELEMENTS INCLUDE (BUT ARE NOT LIMITED TO) THE FOLLOWING:
    - A. MISCELLANEOUS STEEL ELEMENTS: STAIRS, RAILINGS, GUARDRAILS.
    - B. PARTITIONS: MASONRY, GLASS, WOOD AND STEEL STUDS, PREFABRICATED PANELS.
    - C. BULKHEADS, SUSPENDED CEILINGS, INTERIOR AND EXTERIOR SIGNAGES.
    - D. ARCHITECTURAL PRECAST, PRECAST STAIRS.
    - E. EXTERIOR CLADDING: PRECAST PANELS, METAL WALL SYSTEMS, CURTAIN WALLS AND WINDOWS.
    - F. MASONRY, STONE OR PRECAST VENEER CONNECTIONS TO BACKUP STRUCTURES.
    - G. SKYLIGHTS, SNOW FENCES, GUTTERS, ROOF ANCHORS, WINDOW WASHING SYSTEMS, CHIMNEYS AND STACKS.
    - H. SUPPORT FOR MECHANICAL AND ELECTRICAL EQUIPMENTS: HANGERS, BRACES, POSTS, RACKS, SLEEPERS, SEISMIC RESTRAINTS, SUPPORT PLATFORMS AND PADS, SERVICE PLATFORMS.
    - I. STORAGE RACKS.
    - J. LANDSCAPING ELEMENTS: WALLS, CURBS, BENCHES, PLANTERS, WATER FEATURES.
    - K. LIGHT POLES, FLAG POLES, SIGNS AND THEIR FOUNDATIONS.
    - L. DVM WILL NOT REVIEW DESIGN, DETAILING, AND INSTALLATION OF THESE ELEMENTS, FOR WHICH SUPPLIERS AND / OR SPECIALITY PROFESSIONAL ENGINEERS ARE RESPONSIBLE. THE ONLY REVIEW PROVIDED (WHERE APPLICABLE) WILL BE FOR IMPACT ON THE BASE BUILDING STRUCTURE.
23. UNLESS NOTED OTHERWISE, DESIGN AND DETAIL NON STRUCTURAL ELEMENTS AND THEIR CONNECTIONS TO BE ABLE TO ACCOMMODATE THE MAXIMUM MOVEMENTS OF THE SUPPORTING STRUCTURE. CLADDING SUPPLIER TO DESIGN AND PROVIDE NON STANDARD ELEMENTS AND CONNECTIONS IF REQUIRED TO ACCOMMODATE THESE MOVEMENTS.
24. IN CASE OF DISCREPANCY BETWEEN GENERAL NOTES, DRAWINGS AND SPECIFICATIONS, COMPLY WITH THE MOST STRINGENT REQUIREMENTS.
25. ABBREVIATIONS:

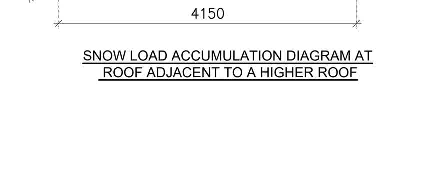
BOT.	BOTTOM
C/W.	CONNECT WITH
D.L.	DEAD LOAD
DP.	DEEP (ei DEPTH OF BEAM)
E.S.	EACH SIDE
E.W.	EACH WAY
H&V	HORIZONTAL AND VERTICAL
VERT.	VERTICAL
HORZ.	HORIZONTAL
L.L.	LOVE LOAD
MAX.	MAXIMUM
MIN.	MINIMUM
N.T.S.	NOT TO SCALE
O/C	ON CENTRE
R/W	REINFORCE WITH
S.D.L.	SUPERIMPOSED DEAD LOAD
S.O.G.	SLAB ON GRADE
TYP.	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
OWSJ	OPEN WEB STEEL JOIST
EX	EXISTING
CONT.	CONTINUOUS
C/C	CENTRE TO CENTRE
SSL	STRUCTURE SLAB LEVEL
THK.	THICK
LG.	LONG
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
R/F	REINFORCEMENT
T/O	TOP OFF
DO	REPEAT SAME

DESIGN DATA AND LOADS

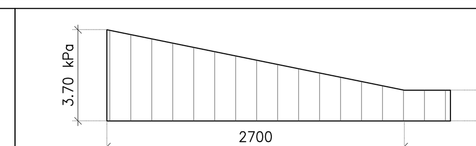
1. THE BUILDING STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH THE ONTARIO BUILDING CODE 2012 AND NATIONAL BUILDING CODE OF CANADA 2015.

BUILDING IMPORTANCE: HIGH

1. DEAD LOAD – ROOF 1.2 kPa
   SNOW LOAD – ROOF 1.93 kPa
   INCLUDING RAIN COMPONENT
2. DEAD LOAD – FLOOR 1.2 kPa
   LIVE LOAD – FLOOR
   - A. CORRIDORS 4.8 kPa
   - B. CLASSROOM 2.4 kPa
   - C. MECHANICAL ROOM 3.6 kPa



SNOW LOAD ACCUMULATION DIAGRAM AT ROOF ADJACENT TO A HIGHER ROOF



SNOW LOAD ACCUMULATION DIAGRAM AROUND ROOF UNITS

CONTRACTORS CONSTRUCTION LOADS MUST NOT EXCEED THE ABOVE DESIGN LOADS.

2.1 WIND UPLIFT LOADS ON STEEL ROOFS SHALL BE 1 KN/m² NET FACTORED UNLESS NOTED OTHERWISE.

2.2 WIND LOADS
q (1/50)= 0.47 kPa

2.3 SEISMIC DATA

SITE CLASS=	D
Sa(0.2)=	0.167
Sa(0.5)=	0.105
Sa(1.0)=	0.060
Sa(2.0)=	0.030
Rd=	1
Ro=	1
Fa=	1.24
Fv=	1.55
S(Ta)=	0.205
Ie=	1.3
Mv=	1
Ie.Fa.Sa(0.2)=	0.26 < 0.35
SFRS=	NOT REQUIRED
ANALYSIS=	STATIC ANALYSIS

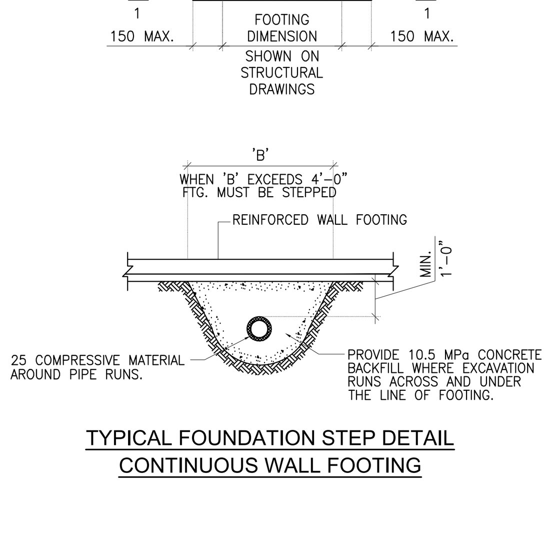
NOTE: GC TO PROVIDE SHOP DRAWINGS FOR SEISMIC RESTRAINT DETAILS.

3. UNLESS OTHERWISE NOTED, DESIGN LOADS SHOWN ON DRAWINGS ARE SPECIFIED (UNFACTORED) LOADS, TO BE USED FOR ULS DESIGN.
4. STRUCTURAL MOVEMENTS
   U.N.O.MAXIMUM EXPECTED MOVEMENT OF THE BUILDING STRUCTURE (AFTER INSTALLATION OF FINISHES) WILL BE AS FOLLOWS:
   - VERTICAL DEFLECTION OF ROOF RAFTER, TRUSS, ROOF JOIST AND ROOF BEAMS:....................L/360
   - VERTICAL DEFLECTION OF CEILING JOISTS, FLOOR BEAMS, FLOOR JOISTS AND FLOOR DECKING, BEAMS, JOIST AND DECKING FOR BALCONIES, OTHER ACCESSIBLE EXTERIOR PLATFORMS:....................L/360
   - INTERSTOREY WIND DRIFT:....................H/500
   - INTERSTOREY SEISMIC DRIFT:....................H/100

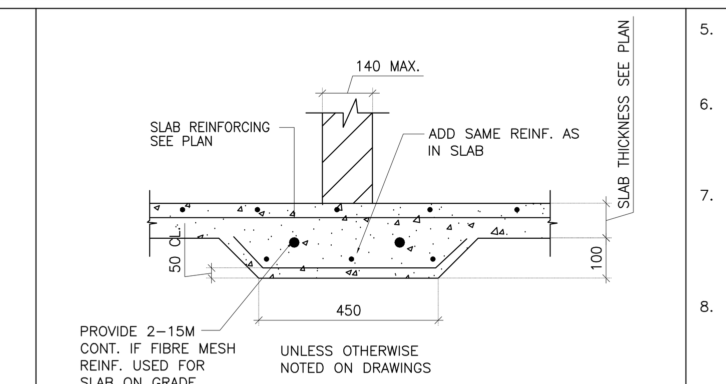
FOUNDATION NOTES

1. FOOTINGS HAVE BEEN DESIGNED FOR THE FOLLOWING SOIL BEARING PRESSURES IN ACCORDANCE WITH GEOTECHNICAL REPORT # 17462-001 PREPARED BY CAMBIUM INC. DATED FEBRUARY 14, 2024.
   - A) STRIP FOOTINGS : 100 kPa (SLS)
   - B) SPREAD FOOTINGS : 100 kPa (SLS)

   ALLOWABLE SOIL BEARING PRESSURE TO BE CONFIRMED BY GEOTECHNICAL CONSULTANT, PRIOR TO CONSTRUCTION.
2. BEARING SURFACES MUST BE APPROVED BY THE SOILS ENGINEER IMMEDIATELY BEFORE FOOTING CONCRETE IS PLACED. DVM IS NOT RESPONSIBLE FOR CONFIRMING BEARING CAPACITIES OF SOILS.
3. REFER TO SOILS REPORT FOR OTHER SPECIFIC DESIGN REQUIREMENTS FOR FOOTINGS, SOIL SLOPES, FROST PROJECTION, MINIMUM COVER, ETC.
4. UNLESS OTHERWISE SHOWN, CENTER FOOTINGS UNDER COLUMNS & WALLS.
5. DOWELS SHALL BE PLACED BEFORE CONCRETE IS PLACED. TEMPLATES SHALL BE USED TO ENSURE CORRECT PLACEMENT OF DOWELS.
6. PROVIDE 50mm GROUND SEAL UNDER FOOTINGS AS REQUIRED BY SOIL CONDITIONS.
7. FOR GROUND ELEVATIONS AND DRAINAGE SLOPES, SEE ARCHITECT'S DRAWINGS.
8. VARY FOOTING ELEVATIONS WHERE REQUIRED IN ACCORDANCE WITH DETAIL FOR "TYPICAL STEPPED FOOTING".
9. FOOTINGS MAY HAVE TO BE LOWERED TO ACCOMMODATE MECHANICAL OR ELECTRICAL SERVICES. SEE MECHANICAL AND ELECTRICAL DRAWINGS FOR ELEVATIONS OF SAME. FOOTINGS ARE NOT TO BE UNDERMINED BY EXCAVATIONS FOR SERVICES, PIT, ETC.
10. FOOTING ELEVATIONS, IF SHOWN, ARE FOR BIDDING PURPOSES ONLY, ARE NOT FINAL, AND MAY VARY ACCORDING TO SITE CONDITIONS. ALL FOOTING MUST BE TAKEN TO A BEARING LAYER APPROVED BY THE SOILS ENGINEER.
11. BEARING SURFACES MUST BE PROTECTED FROM FREEZING BEFORE AND AFTER FOOTINGS ARE POURED.
12. SUB-BASE DESIGN OF SOIL UNDER THE SLAB ON GRADE SHALL BE IN ACCORDANCE WITH THE SOIL REPORT.
13. CONCRETE PLACED UNDER WATER SHALL CONFORM TO CAN3-A23.1
14. FOOTINGS SHALL EXTEND MINIMUM 4'-0" BELOW FINISH GRADE.
15. ALL FOOTINGS SHALL BE FOUNDED ON ORIGINAL UNDISTURBED SOIL OR ENGINEERED FILL. BEFORE POURING FOOTINGS AND SLAB ON GRADE, SOIL QUALITY MUST BE APPROVED BY A GEOTECHNICAL ENGINEER.
16. DO NOT EXCAVATE WITHOUT REFERENCE TO THE GEOTECHNICAL REPORT.
17. IF STAINING AND ROOT INTRUSION ENCOUNTERED DURING EXCAVATION WITHIN THE SUB-SURFACE MINERAL SOILS, GEOTECHNICAL CONSULTANT SHALL INSPECT THE SITE TO VERIFY THE DEPTH OF ORGANIC MATERIAL AND SHALL PROVIDE MEASURES.
18. IF THE ASSUMED BEARING RESISTANCE IS NOT OBTAINED AT THE UNDERSIDE OF FOOTING ELEVATION INDICATED ON DRAWINGS, EXTEND EXCAVATION UNTIL COMPETENT SOIL IS REACHED, AND PROVIDE LEAN CONCRETE FILL (OR CONCRETE SAME AS SPECIFIED FOR THE FOOTING) TO UNDERSIDE OF FOOTING. DO NOT DROP DOWELS; MAINTAIN THE SPECIFIED PROJECTION REQUIRED FOR LAPS.
19. LOCATE ALL EXISTING UNDERGROUND SERVICES PRIOR TO EXCAVATION.
20. KEEP EXCAVATION DRAINED, FREE OF WATER AND LOOSE SOIL AT ALL TIMES.
21. STRIP TOPSOIL, LOOSE SILTY SAND CONTAINING ORGANICS, AND ANY DELETERIOUS MATERIALS OVER AREAS TO BE COVERED BY NEW CONSTRUCTION, OVER AREAS WHERE GRADE CHANGES ARE REQUIRED, AND SO THAT EXCAVATED MATERIAL MAY BE STOCKPILED WITHOUT COVERING SAME.
22. REMOVE SNOW, ICE, CONSTRUCTION DERBIES, ORGANIC SOIL, LOOSE INCOMPETENT NATIVE SOIL, AND STANDING WATER FROM SPACES TO BE FILLED.
23. PROTECT FOOTINGS, PIERS, GRADE BEAMS, FOUNDATION WALLS, SLABS-ON-GRADE AND ADJACENT SOIL AGAINST FREEZING AND FROST ACTION AT ALL TIMES DURING CONSTRUCTION. DO NOT POUR CONCRETE AGAINST FROZEN EARTH.
24. DO NOT USE EARTH FORMS UNLESS APPROVED IN WRITING BY DVM AND GEOTECHNICAL CONSULTANT. FOR ELEMENTS APPROVED TO BE CAST AGAINST SOIL, INCREASE FOOTING SIZE SHOWN ON DRAWINGS AS REQUIRED TO OBTAIN MIN. 75mm CONCRETE COVER AGAINST SOIL.
25. PLACE ANCHOR RODS AND DOWELS BEFORE CONCRETE IS CAST. USE TEMPLATES TO KEEP IN POSITION.
26. FOOTINGS CAST DIRECTLY INTO EXCAVATIONS (WITHOUT SIDE FORMS) SHALL LARGER THAN SHOWN BELOW:



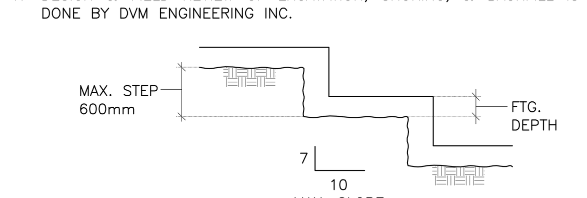
TYPICAL FOUNDATION STEP DETAIL
CONTINUOUS WALL FOOTING



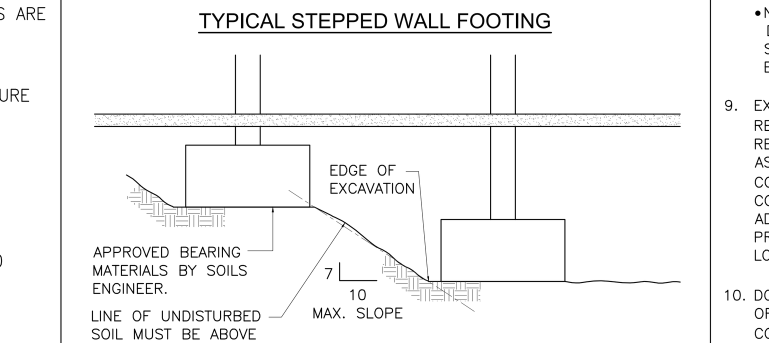
TYPICAL THICKENING OF SLAB ON GRADE UNDER PARTITIONS

EXCAVATION NOTES

1. DESIGN & FIELD REVIEW OF EXCAVATION, SHORING, & BACKFILL IS NOT DONE BY DVM ENGINEERING INC.



TYPICAL STEPPED WALL FOOTING



TYPICAL FTG. ADJACENT TO EXCAVATION

EDGE OF ADJACENT EXCAVATION FOR FOOTINGS, SUMPS, SITE SERVICES, ETC.

MASONRY NOTES

1. FOR ADDITIONAL REQUIREMENTS SEE MASONRY SPECIFICATION AND STRUCTURAL DRAWINGS.
2. MASONRY WORK TO CAN3-S304.1-M94 AND ITS REFERENCED DOCUMENTS, INCLUDING:
   - A. CONCRETE BLOCK TO CSA-A165.1-14 TYPE H/15/A/M UNLESS NOTED OTHERWISE (BASE ON NET AREA) ON SCHEDULE.
   - B. MASONRY WIRE REINFORCEMENT TO CSA-G30.5-R1998
   - C. GROUT PREPARED OFF SITE SHALL BE COURSE PREPARED BY PROPERTY SPECIFICATION IN ACCORDANCE WITH CSA A179-14
     - MINIMUM 28 DAY COMPRESSIVE STRENGTH -20 MPa
     - SLUMP 200mm MINIMUM TO 250mm MAXIMUM
     - GROUT SHALL BE FINE WHERE MAXIMUM GROUT SPACE IS LESS THAN 50mm IN ANY DIRECTION.
     - TESTING SHALL BE IN ACCORDANCE WITH CSA A179-14 AND ITS APPENDIX.
   - D. GROUT PREPARED ON SITE SHALL BE PREPARED BY PROPORTION SPECIFICATION IN ACCORDANCE WITH CSA A179-14
   - E. MORTAR SHALL BE TYPE S PREPARED BY PROPORTION SPECIFICATION IN ACCORDANCE WITH CSA A179-14
     - PORTLAND CEMENT-LIME MIX FORMULATION
     - TYPE 10 PORTLAND CEMENT
     - TYPE S HYDRATED LIME
   - F. CONNECTIONS TO CAN3-A370-M84
   - G. PRACTICE TO CAN3-A371-14
   - H. REINFORCEMENT BARS TO CSA-G30.18-GRADE 400R fy=400 MPa.
3. LAPS: WIRE REINFORCEMENT______200
   10M BARS______________400
   15M BARS______________700
   20M BARS______________1000
4. PROVIDE CLEANOUTS FOR ALL CELLS TO BE REINFORCED AND FILLED WITH GROUT. REPEAT CLEANOUTS ABOVE BOND BEAM. THESE CELLS TO BE KEPT CLEAR AND CLEAN OF MORTAR.
5. FILL BOND BEAMS AND CELLS CONTAINING VERTICAL REINFORCEMENT AND BOLTS WITH GROUT, VIBRATE OR PUDDLE TO COMPLETELY FILL CELLS.
6. FILL CELLS IN 1600mm. LIFTS OR BETWEEN BOND BEAMS, WHICH EVER LESSER.
7. CONTROL JOINTS SHALL BE PLACED AT MAXIMUM SPACING OF 10000mm. UNLESS NOTED OTHERWISE.
8. BOND BEAMS SHALL BE CONTINUOUS AT CONTROL JOINTS UNLESS NOTED OTHERWISE.
9. PROVIDE STARTER DOWELS TO MATCH VERTICAL BARS AT ALL VERTICAL REINFORCEMENT, UNLESS NOTED OTHERWISE. EMBED 300mm MINIMUM, UNLESS NOTED OTHERWISE.
10. NO MASONRY WORK SHALL BE PERMITTED WITH THE TEMPERATURE BELOW 5°C UNLESS PROVISIONS ARE MADE FOR HEATING THE MATERIALS AND THE WORK.
11. CALL THE STRUCTURAL ENGINEER FOR FIELD REVIEW PRIOR TO POURING CONCRETE OR GROUT.
12. U.N.O. FOR TOP CONNECTION DETAILS, SEE STANDARD DETAILS ON STRUCTURAL DRAWINGS.
13. TIE MASONRY UNITS TO ADJACENT CONCRETE WALLS OR COLUMNS WITH DOVETAIL ANCHORS AND EMBEDDED SLOTS.
    ANCHORS TO BE "STANDARD" DOVETAIL-t=1.5mm @ 600 O.C.
14. REINFORCEMENT – GENERAL
    - A VERTICAL REINFORCEMENT
      UNLESS NOTED OTHERWISE-PROVIDE 1-15M FULL HEIGHT AT:
      - UNSUPPORTED ENDS OF WALLS, CORNERS, AND INTERSECTIONS.
      - EACH SIDE OF DOORS AND OTHER OPENINGS.
    - B HORIZONTAL REINFORCEMENT
      - UNLESS NOTED OTHERWISE-PROVIDE CONTINUOUS BOND BEAMS AT U/S OF EACH FLOOR & ROOF.
      - PROVIDE BOND BEAMS AT TOP AND BOTTOM OF OPENINGS AND EXTEND 600 PAST CORNERS.
      - BOND BEAM REINFORCE WITH 2-15M U.N.O.
15. REINFORCEMENT FOR NON-LOAD BEARING WALL– IN ADDITION TO THAT NOTED IN (14-A) PROVIDE REINFORCEMENT AS FOLLOW:
    - A. VERTICAL REINFORCEMENT:

WALL THICKNESS	MAXIMUM HEIGHT	REINFORCEMENT
190mm	5000mm	15M @ 2000
140mm	5000mm	15m @ 2000

    - B. HORIZONTAL REINFORCEMENT – LADDER REINFORCEMENT MW11.1 @ 400 O/C.

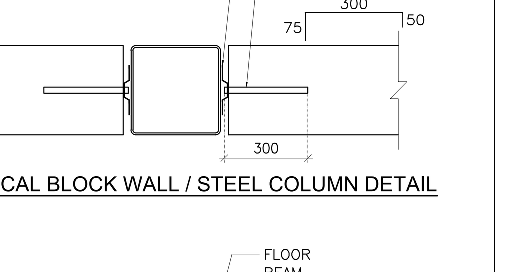
SHOP DRAWINGS

1. REFER SPECIFICATIONS FOR SHOP DRAWINGS WHICH NEED TO BE SUBMITTED FOR REVIEW.
2. IF TOWER CRANE REQUIRED, SUBMIT SIGNED AND SEALED TOWER CRANE SHOP DRAWINGS TO REVIEW IMPACT ON THE BASE BUILDING STRUCTURE.
3. ALL SHOP DRAWINGS SUBMITTED TO THE ARCHITECT AND / OR ENGINEER FOR THEIR REVIEW, MUST FIRST BE REVIEWED BY THE GENERAL CONTRACTOR (GC). SHOP DRAWINGS WILL NOT BE REVIEWED BY THE ARCHITECT AND / OR ENGINEER IF THEY ARE NOT CHECKED AND APPROVED BY THE GC.
4. REVIEW OF SHOP DRAWINGS BY DVM IS ON A SAMPLING BASIS, FOR GENERAL CONFORMITY WITH STRUCTURAL CONTRACT DOCUMENTS. IT IS NOT DETAILED CHECK AND MUST NOT BE CONSTRUCTED AS RELIEVING THE CONTRACTOR OF HIS RESPONSIBILITY TO MAKE THE WORK ACCURATE AND IN CONFORMITY WITH ALL THE CONTRACT DOCUMENTS, TO REVIEW SHOP DRAWINGS AND TO COORDINATE WORK OF INTERFACING TRADES AND MANUFACTURER OF INTERFACING PRODUCTS.
5. REVIEW OF SHOP DRAWING DOES NOT IMPLY ANY CHANGE IN ANY OTHER CONSULTANTS' OR PROFESSIONALS' RESPONSIBILITIES RELATED TO DESIGN OF SPECIFIC ITEMS AS OUTLINED BY THE SPECIFICATIONS.
6. ALLOW A MINIMUM OF 10 WORKING DAYS FOR REVIEW OF EACH SUBMISSION OF SHOP DRAWINGS IN DVM OFFICE. ALLOW MORE TIME WHEN LARGE QUANTITIES OF SHOP DRAWINGS ARE SUBMITTED. SUBMIT IN GENERAL CONFORMITY WITH THE SEQUENCE OF CONSTRUCTION INTENDED.
7. IF REQUIRED, FULL SET OF STRUCTURAL DRAWINGS ARE AVAILABLE FOR USE AS BACKGROUND IN SHOP DRAWING PREPARATION, PROVIDED THAT THE OWNER AND THE OWNER'S CONSULTANTS OR DVM ARE NOT HELD RESPONSIBLE FOR ANY ERRORS OR OMISSIONS ON THE DRAWINGS. THESE DRAWINGS ARE NOT TO BE SCALED.
8. AFTER REVIEW, THE DRAWINGS WILL BE STAMPED AND RETURNED. DO NOT COMMENCE FABRICATION UNTIL RETURNED SHOP DRAWINGS HAVE BEEN EXAMINED. DRAWINGS WILL BE MARKED AS FOLLOWING:
   - REVIEWED:
     DRAWINGS CAN BE USED FOR FABRICATION. DO NOT MAKE ANY CHANGES OR ADDITION TO THESE DRAWINGS WITHOUT NOTIFYING DVM.
   - REVIEWED AS NOTED:
     DRAWINGS CAN BE USED FOR FABRICATION AFTER THE REVISIONS NOTED ARE IMPLEMENTED. DO NOT MAKE ANY FURTHER CHANGES OR ADDITIONS TO THESE DRAWINGS WITHOUT NOTIFYING DVM.
   - REVISE AND RESUBMIT:
     DRAWINGS REQUIRE SUBSTANTIAL REVISIONS AND MUST BE RE-SUBMITTED FOR ADDITIONAL REVIEW PRIOR TO FABRICATION. ALL CHANGES AND ADDITIONS TO THE PREVIOUS SUBMISSION TO BE CLEARLY IDENTIFIED ON THE RE-SUBMITTED DRAWINGS. ONLY IDENTIFIED CHANGES WILL BE REVIEWED ON RE-SUBMISSION.
   - REVIEWED FOR IMPACT ON BASE STRUCTURE ONLY:
     DRAWINGS WHICH ARE NOT WITHIN THE SCOPE OF STRUCTURAL CONSULTING SERVICES BUT AFFECT BEHAVIOR OF THE BASE STRUCTURE. DVM WILL NOT REVIEW DESIGN OF THESE WORKS AND ASSUMES THAT THE INDICATED WEIGHTS AND ALL OTHER LOADS IMPOSED ON THE BASE STRUCTURE ARE CORRECTLY IDENTIFIED BY THE DESIGNER / SUPPLIER OF THESE ELEMENTS.
   - NOT REVIEWED:
     DRAWINGS AND WORKS WHICH ARE NOT WITHIN THE SCOPE OF STRUCTURAL CONSULTING SERVICES AND DO NOT IMPACT THE BASE BUILDING STRUCTURE.
9. EXCEPT FOR TOWER CRANE AND EXCAVATION SHORING (WHICH WILL BE REVIEWED FOR IMPACT ON THE BASE STRUCTURE ONLY), DVM WILL NOT REVIEW DESIGN AND IMPLEMENTATION OF ANY TEMPORARY WORKS, NOR ASSESS IMPACT OF THESE WORKS ON THE BASE STRUCTURE. THE CONTRACTOR AND / OR THE PROFESSIONAL ENGINEER ENGAGED BY THE CONTRACTOR MUST ENSURE THAT THE BASE STRUCTURE IS NOT ADVERSELY AFFECTED BY THE TEMPORARY WORKS AND CONSTRUCTION PROCESS AND THAT TEMPORARY LOADS DO NOT EXCEED THE DESIGN LOADS INDICATED ON STRUCTURAL DRAWINGS.
10. DO NOT USE SHOP DRAWINGS AS A MEANS TO PROPOSE SUBSTITUTIONS OR ALTERNATIVES TO THE MATERIALS, PRODUCTS OR DETAILS INDICATED IN CONTRACT DOCUMENTS. SUCH SHOP DRAWINGS WILL BE MARKED "REVISE AND RESUBMIT".
11. PROVIDE FINAL RECORD DRAWINGS AFTER ALL CORRECTIONS ARE MADE.
12. WHERE NOTED IN THE SHOP DRAWING TABLE, SHOP DRAWINGS SUBMITTED SHALL BEAR THE SEAL AND SIGNATURE OF A PROFESSIONAL ENGINEER, LICENSED AND REGISTERED WHERE THE WORK IS LOCATED.
13. DVM IS NOT RESPONSIBLE FOR ANY ASPECTS OF A SHOP DRAWING SUBMISSION THAT AFFECT OR ARE AFFECTED BY THE MEANS, METHODS, TECHNIQUES, SEQUENCES AND OPERATIONS OF CONSTRUCTION, SAFETY PRECAUTIONS AND PROGRAMS INCIDENTAL THERETO.
14. REPRODUCTION OF THE CONTRACT DOCUMENTS, IN WHOLE OR IN PART, FOR THE PURPOSE OF PREPARATION OF SHOP DRAWINGS IS NOT ACCEPTABLE.

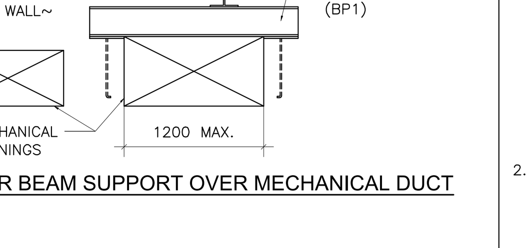
SHOP DRAWINGS	P.ENG SEAL/SIGN
1. REINFORCING STEEL	NO
2. STEEL ROOF SYSTEM	YES
3. STEEL STUD SYSTEM	YES
4. STRUCTURAL STEEL	YES
5. SEISMIC RESTRAINT	YES

SITE REVIEW REPORTS & TESTING

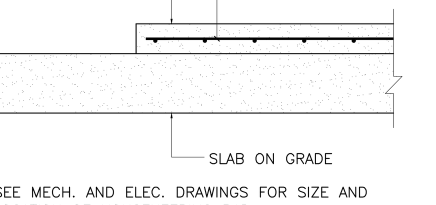
1. THE ONTARIO BUILDING CODE (OBC) 2012 SPECIFIES THAT FIELD REVIEWS OF THE BUILDING BE CARRIED OUT DURING THE COURSE OF CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF THE START OF CONSTRUCTION TO FACILITATE SUCH REVIEWS BY THE STRUCTURAL ENGINEER.
2. THE CONTRACTOR SHALL FURNISH TO THE STRUCTURAL ENGINEER, ON SEPIA AND TWO PRINTS STAMPED BY A PROFESSIONAL ENGINEER PRIOR TO THE POURING OF CONCRETE OR THE ERECTION OF STRUCTURAL ELEMENTS:
   - a. SOIL BEARING TEST REPORTS.
   - b. ROOF JOIST DESIGN AND FABRICATION.
   - c. ANY DESIGN OR REDESIGN OF COMPONENT BY OTHERS.
3. THE CONTRACTOR SHALL ALSO FURNISH THE ENGINEER WITH CONCRETE CYLINDER TEST REPORTS FOR ALL STRUCTURAL CONCRETE USED IN THE BUILDING.
4. DVM WILL PROVIDE PERIODIC FIELD REVIEW OF A REPRESENTATIVE SAMPLE OF THE STRUCTURAL WORKS DETAILED ON THESE DRAWINGS FOR GENERAL CONFORMANCE WITH CONTRACT DOCUMENTS. THESE REVIEWS DO NOT REPLACE THE CONTRACTOR'S RESPONSIBILITY TO IMPLEMENT AND MAINTAIN A QUALITY CONTROL PROGRAM, AND DO NOT MAKE DVM A GUARANTOR OF THE CONTRACTOR'S WORK.
5. CONSTRUCTION REVIEW REPORTS WILL OUTLINE ANY DEFICIENCIES FOUND.
6. ASSIST DVM DURING FIELD REVIEW, AND PROVIDE SAFE ACCESS TO WORK AREAS AS REQUIRED.
7. CHECK THE WORK PRIOR TO FIELD REVIEW TO CONFIRM IT IS COMPLETED AND IN ACCORDANCE WITH CONTRACT DOCUMENTS.
8. BRING TO THE ATTENTION OF DVM ANY DEFICIENCIES FOUND IN THE WORK TOGETHER WITH A PROPOSAL FOR REMEDY. DVM WILL DECIDE WHAT CORRECTIVE ACTION MAY BE TAKEN AND ISSUE THE NECESSARY INSTRUCTIONS.
9. ORGANIZE FOR FIELD REVIEW OF ALL PROPRIETARY PRODUCTS AND OTHER STRUCTURAL WORKS DESIGNED BY SPECIALTY ENGINEERS. THE REVIEW TO BE BY THE ENGINEERS RESPONSIBLE FOR THE DESIGN OR BY OTHER ENGINEERS DESIGNATED BY THE ENGINEERS RESPONSIBLE FOR THE DESIGN AND LICENSED IN THE PLACE WHERE THE PROJECT IS LOCATED. SUBMIT CONSTRUCTION REVIEW REPORTS FOR CONSULTANT'S RECORD.
10. CONTRACTOR SHALL SUBMIT COMPACTION TEST FOR FILL UNDER FLOOR SLABS, AT EXCAVATION FOR WALLS, FOOTING ETC. SIGNED AND SEALED BY THE PROFESSIONAL ENGINEER REGISTERED AND LICENSED WHERE THE WORK IS LOCATED.
11. PROVIDE 24 HOURS ADVANCE NOTICE OF EACH REQUIRED FIELD REVIEW. FIELD REVIEWS SHALL BE SCHEDULED TO BE CARRIED OUT DURING NORMAL BUSINESS HOURS UNLESS SPECIAL ARRANGEMENTS ARE MADE WITH DVM.
12. THE WORK TO BE REVIEWED SHALL BE GENERALLY COMPLETED.



TYPICAL BLOCK WALL / STEEL COLUMN DETAIL



FLOOR BEAM SUPPORT OVER MECHANICAL DUCT



NOTE:
1. SEE MECH. AND ELEC. DRAWINGS FOR SIZE AND LOCATION OF HOUSEKEEPING PAD.
2. CONCRETE STRENGTH TO BE 20 MPa AT 28 DAYS

TYPICAL HOUSEKEEPING PAD

CAST-IN-PLACE CONCRETE

1. CONFORM TO CSA STANDARD A23.1, CONCRETE MATERIALS AND METHODS OF CONCRETE CONSTRUCTION, A23.2, METHODS OF TEST FOR CONCRETE AND A23.3, DESIGN OF CONCRETE STRUCTURES IN DETAILING BENDS, PLACEMENT, SPACING, SPLICING AND PROTECTION OF REINFORCING.
2. CEMENT SHALL BE PORTLAND CEMENT TYPE 10 – U.N.O. CONCRETE SHALL BE STONE CONCRETE WITH A UNIT WEIGHT OF 23.6 kN/m³ (150 PCF)
3. COMPRESSIVE STRENGTH OF CONCRETE AT 28 DAYS U.N.O.

LOCATION	STRENGTH	MAXIMUM AGGREGATE SIZE (mm)
-SLAB ON GRADE (INTERIOR)	25 MPa	20
-FOOTINGS (CLASS F2)	25 MPa	20
-PIERS (CLASS F2)	25 MPa	20
-FOUNDATION WALL (CLASS F2)	30 MPa	20
-SLAB ON GRADE (EXTERIOR)	32 MPa	20
-STEPS AND PAVEMENT, CONCRETE EXPOSED TO DE-ICING SALTS	32 MPa	20

-MAXIMUM SLUMP IS TO BE 4".
-CONCRETE EXPOSED TO WEATHER SHALL HAVE AN AIR-ENTRAINMENT OF 5%.

NOTES:
- PUMP MIX SLUMPS ALSO AS ABOVE.
- WATER CEMENT RATIOS FOR EXPOSURE CLASSES AT TABLE 7, 8, CAN/CSA-A23.1
- AIR CONTENTS FOR EXPOSURE CLASSES AND AGGREGATE SIZES AS TABLE 7, 8, & 9 – CAN/CSA-A23.1
- SLUMP TOLERANCES – 20mm FOR SLUMPS LESS THAT 80mm, OTHERWISE 30mm.
- AGGREGATE SIZES SHOWN ARE MAXIMUMS. SMALLER SIZES MAY BE USED (UNLESS NOTED OTHERWISE).
- LOWER SLUMPS MAY BE USED SUBJECT TO APPROVAL BY DVM MIX DESIGNS SHALL STATE ELEMENT FOR WHICH THEY ARE INTENDED.

4. ALL BOTTOM EDGES OF EXPOSED SLABS AND BEAMS, AND EXPOSED COLUMN AND WALL EDGES TO BE BEVELLED 20mm. x 20mm.
5. ALL TOP EDGES OF SLABS, BEAMS AND STAIRS TO BE TOOLED UNLESS NOTED OTHERWISE. SEE ALSO ARCHITECTURAL DRAWINGS AND SPECIFICATIONS.
6. NO CALCIUM CHLORIDE, IN ANY FORM, IS PERMITTED IN ANY CONCRETE MIX, WITHOUT THE WRITTEN PERMISSION OF DVM ENGINEERING INC. CURING AND PROTECTION OF CONCRETE FOR HOT, COLD OR DRY WEATHER AS PER CAN/CSA-A23.1 – CHAPTER 21, EXCEPT FOR COLD WEATHER, SEE ALSO "COLD WEATHER REQUIREMENTS" ON STRUCTURAL DRAWINGS.
7. ADMIXTURE MAY BE USED IN CONCRETE, BUT ADVICE AS TO TYPE, QUANTITIES AND PURPOSE MUST BE GIVEN TO THE ENGINEER PRIOR TO PLACING ANY CONCRETE. MAX. WATER/CEMENT MATERIAL RATIO = 0.55
8. A VIBRATOR IS TO BE USED FOR ALL STRUCTURAL CONCRETE AND FOR ALL CONCRETE WHICH WILL REMAIN EXPOSED. THIS INCLUDES ALL FOUNDATION AND FOUNDATION WALLS.
9. GROUT UNDER ALL BASE PLATES AND WALL PLATES SHALL BE M-BED STANDARD NON SHRINK, NON METALLIC OR APPROVED EQUAL.

REINFORCEMENT NOTES

1. ALL REINFORCING STEEL SHALL BE DEFORMED BARS FOR CONCRETE REINFORCEMENT IN ACCORDANCE WITH CAN/CSA G30.18, DEFORMED BARS FOR CONCRETE REINFORCEMENT, GRADE 400R fy=400 MPa. STIRRUPS AND TIES TO BE DEFORMED BARS TO CAN/CSA G30.18 GRADE 400
2. CONCRETE COVER OVER REINFORCEMENT SHALL BE:

	FIRE RESISTANCE RATING 0-2 HRS.	3 HRS.
A. SURFACE PLACED IN CONTACT WITH GROUND	75	50
B. COLUMNS (TO VERT. BARS)	50	50
C. BEAMS (TO STIRRUPS)	40	40
D. A) SLABS	25	35
B) PARKING SLABS TOP STEEL (OR SLABS EXPOSED DIRECTLY TO WEATHER FROM WEATHER)	40	40
C) PARKING SLABS BOT. STEEL	25	35

NOTE: SEE ARCHITECTURAL FOR AREAS WHICH MAY REQUIRE 3 HOUR FIRE RATING.

3. DO NOT SUBSTITUTE DEFORMED WIRE FOR REINFORCEMENT BARS WITHOUT PRIOR APPROVAL OF THE STRUCTURAL ENGINEER.
4. TESTING OF REINFORCEMENT STEEL SHALL CONFORM TO THE SPECIFICATIONS.
5. WELDED WIRE FABRIC SHALL CONFORM TO CSA STANDARD G30.5, WELDED STEEL WIRE FABRIC FOR CONCRETE REINFORCEMENT.
6. ALL REINFORCING SHALL BE ACCURATELY PLACED AND SUPPORTED BY CONTINUOUS METAL OR OTHERWISE APPROVED CHAIRS. IF REQUIRED, ADDITIONAL BARS AND STIRRUPS SHALL BE PROVIDED BY THE CONTRACTOR, AT NO COST, TO SECURE MAIN BARS AGAINST DISPLACEMENT.
7. REINFORCING IN FOOTINGS, SLAB ON GRADE AND OTHER CONCRETE MEMBERS EXPOSED TO WEATHER SHALL BE SUPPORTED IN THE DESIGNATED POSITION BY SOLID PRECAST CONCRETE CHAIRS.
8. SPLICES AT POINTS OF MAXIMUM TENSILE STRESS SHALL BE AVOIDED WHEREVER POSSIBLE. SUCH SPLICES WHERE USED, SHALL BE APPROVED BY THE ENGINEER.
9. MINIMUM CLEAR DISTANCE BETWEEN PARALLEL BARS SHALL BE GREATER THAN THE LARGEST OF THE FOLLOWING,
   - a. 1.5 TIMES BAR DIAMETER
   - b. 1.33 TIMES MAXIMUM SIZE OF AGGREGATE
   - c. 25mm MINIMUM

STRUCTURAL STEEL NOTES

1. GENERAL NOTES:
   - A. SEE "DESIGN DATA AND LOADS" FOR VALUES OF LIVE LOAD, DEAD LOAD AND SUPERIMPOSED DEAD LOAD. ALL CONNECTION TO BE DESIGNED BY FABRICATOR UNLESS NOTED OTHERWISE. ALL BEAM CONNECTIONS TO BE STANDARD FRAME BEAM CONNECTIONS OR EQUIVALENT, UNLESS NOTED OTHERWISE.
   - B. SHOP DRAWINGS SHALL BE PREPARED UNDER THE DIRECTION OF A PROFESSIONAL ENGINEER REGISTERED IN ONTARIO FOR THOSE CONNECTIONS AND COMPONENTS DESIGNED BY THE FABRICATOR. THIS ENGINEER OF THEIR REPRESENTATIVE SHALL VISIT THE SITE TO REVIEW IN PLACE THE CONNECTIONS AND COMPONENTS DESIGNED BY THIS ENGINEER TO SATISFY THEMSELVES THAT THIS CONNECTIONS AND COMPONENTS COMPLY WITH THEIR DESIGN ON THE SHOP DRAWINGS. THIS ENGINEER SHALL PROVIDE A LETTER TO THE CONSULTANT TO THIS EFFECT. THIS ENGINEER SHALL ALSO PROVIDE SEALED SKETCHES FOR ALL FIELD MODIFICATION MADE TO HIS DESIGN.
   - C. THE CONTRACTOR SHALL NOTIFY THE CONSULTANTS IN WRITING (AND BEFORE THE SUBMISSION OF SHOP DRAWINGS) AS TO WHO THE ENGINEER WILL BE THAT WILL BE DESIGNING AND PROVIDING FIELD REVIEW FOR THE CONNECTIONS AND COMPONENTS DESIGNED BY THE CONTRACTOR.
   - D. DRAWINGS OF COMPONENTS AND CONNECTIONS DESIGNED BY THE FABRICATOR'S ENGINEER SHALL BE SIGNED & SEALED BY THIS ENGINEER.
   - E. CONNECTIONS AND SPLICES NOT SHOWN ON THE STRUCTURAL DRAWINGS BUT REQUESTED BY THE FABRICATOR MUST BE ACCEPTABLE TO THE ENGINEER AND DETAILED ON THE SHOP DRAWINGS. TESTING OF THESE CONNECTIONS SHALL BE AT THE DISCRETION OF THE ENGINEER AND TO THE CONTRACTORS ACCOUNT.
   - F. ALL WELDED DEFORMED BAR ANCHORS SHALL BE INSTALLED AS PER THE MANUFACTURERS SPECIFICATIONS AND RECOMMENDATIONS OR SHOP FILLET WELDED. ANY FIELD FILLET WELDED DEFORMED BARS WILL BE REJECTED. SEE PLAN, SECTIONS, DETAILS, AND SCHEDULES FOR LOCATIONS ETC., THE CONTRACTOR SHALL CO-ORDINATE THE DESIGN, SUPPLY, AND INSTALLATION OF ALL ANCHORS.
   - G. DESIGN DRAWINGS INCLUDE ARCHITECTURAL, MECHANICAL, & ELECTRICAL DRAWINGS SEE ALSO ARCHITECTURAL DRAWINGS FOR ROOF AND FLOOR ELEVATIONS, ROOF SLOPES, EDGE DETAILS, AND ADDITIONAL DIMENSIONS AND DETAILS. WHERE ELEVATION, ROOF SLOPES, ETC., ARE SHOWN ON THE STRUCTURAL DRAWINGS, THEY MUST BE CONFIRMED WITH THE ARCHITECTURAL DRAWINGS.
   - H. PROVED 6mm. CAP PLATES FOR ALL HSS MEMBERS.
2. JOISTS
   - A. ALL OPEN WEB STEEL JOISTS TO HAVE BUILDING SERVICES PASSING THROUGH THEM. WEB MEMBERS OF ADJACENT JOISTS TO LINE UP TO ACCOMMODATE CONTINUOUS PENETRATION OF SERVICES.
   - B. JOISTS BRIDGING TO CONFORM TO CSA S16.1 AS A MINIMUM.
   - C. JOIST CAMBERS – AS PER CSA S16.1 EXCEPT A MINIMUM OF 13mm.
   - D. JOIST SHALL BE DESIGNED FOR THE LOADS SHOWN ON THE DRAWINGS PLUS A CONCURRENT VERTICAL POINT LOAD OF 3.36 KN FACTORED ACTING ON THE TOP CHORD AT ANY LOCATION, AND THEN ON THE BOTTOM CHORD AT ANY LOCATION.
3. BEAMS
   - A. TOP FLANGES OF BEAMS TO BE FREE OF ALL PAINT, DIRT, HEAVY RUST MILL SCALE, SAND AND OTHER MATERIALS WHICH WILL INTERFERE WITH WELDING OF STEEL DECK TO BEAMS.
4. PRIEMER
   - A. STRUCTURAL STEEL NOT EXPOSED – CAN/CG5B-1.40 OR CISC/CPMA 1-73a OVER NOMINAL CLEANING.
   - B. STRUCTURAL STEEL INTERIOR EXPOSED – TO RECIEVE A TOP COATING – COSC/CPMA 2-75 OVER BRUSH OFF BLAST CLEANING AS PER SSPC 7.
   - C. STRUCTURAL STEEL EXTERIOR EXPOSURE – CISC/8CPMA 2-75 OVER COMMERCIAL BLAST CLEANING AS PER SSPC 6.
   - D. STRUCTURAL STEEL TO RECEIVE SPRAY FIRE PROOFING – NO PAINT.
   - E. REGIONS OF STEEL TO RECEIVE FIELD WELDING INCLUDING SHEAR STUDS TO TOP FLANGE – NO PAINT.
5. CONFORM TO CSA STANDARD CAN/CSA S16-01 LIMIT STATES DESIGN OF STEEL STRUCTURES.
6. CONFORM TO CSA STANDARD W55.3 RESISTANCE WELDING QUALIFICATIONS CODE FOR FABRICATORS OF STRUCTURAL MEMBERS USED IN BUILDINGS.
7. CONFORM TO W59, WELDED STEEL CONSTRUCTIONS (METAL ARC WELDING).
8. WELDING ELECTRODES-CSA STANDARD W48-01, FILLER METALS AND ALLIED MATERIALS FOR METAL ARC WELDING.
9. STRUCTURAL STEEL-CSA STANDARD CAN/CSA G40.20/G40.21, GENERAL REQUIREMENTS FOR ROLLED OR WELDED STRUCTURAL QUALITY STEEL/STRUCTURAL QUALITY STEELS. GRADE 350W FOR GENERAL PURPOSE STRUCTURAL STEELS SHAPES, 300W FOR ANGLES AND PLATES. HOLLOW STRUCTURAL SECTIONS SHALL CONFORM TO CSA STANDARD G40.20 GRADE 350W, HOT FORM WELDED OR HOLLOW STRUCTURAL SECTION, CLASS H.
10. HIGH STRENGTH BOLTS, NUTS AND WASHERS A.S.T.M. STANDARD A325, SPECIFICATION FOR STRUCTURAL BOLTS, STEEL, HEAT TREATED 120/105 ksi MINIMUM TENSILE STRENGTH OR A325M, SPECIFICATION FOR HIGH STRENGTH BOLTS FOR STRUCTURAL STEEL JOINTS (METRIC).

CONCRETE CONSTRUCTION TOLERANCES

1. TOLERANCES AS PER CSA-A23.1 EXCEPT AS NOTED BELOW. CLOSER TOLERANCES SHALL BE MAINTAINED WHERE ARCHITECTURAL DETAILS OR OTHERS REQUIRE.
2. WHERE ANY DEVIATION OCCURS. AND IT IS ACCEPTABLE TO THE ENGINEER AND ARCHITECT, THE CONTRACTOR IS RESPONSIBLE FOR ADJUSTMENT OF OTHER BUILDING ELEMENTS TO ACCOMMODATE SUCH DEVIATION. COSTS FOR REMEDIAL WORK FOR DEVIATIONS NOT ACCEPTED SHALL BE BOURNE BY THE CONTRACTOR.
3. VARIATION FROM THE PLUMB.
   - A. IN THE LINES AND SURFACES OF COLUMNS AND PIERS ARRISES – .25% OF HEIGHT (1 IN 400), MAXIMUM 40mm.
     ONLY ONE CURVATURE ALLOWED PER 3000mm.
     THE TOLERANCE GIVEN IS THE MAXIMUM VARIATION FROM A PLUMB LINE.
     ALL MEASUREMENTS SHALL BE TO THE SAME SIDE OF THE PLUMB LINE.
4. VARIATION FROM THE LEVEL OR FROM THE GRADES OR CAMBERS INDICATED ON THE DRAWINGS:
   - A. UNLESS SPECIFIED ELSEWHERE, FLOOR FINISHES SHALL BE CLASS A "CONVENTIONAL" ±8mm. PER 3000mm.
     ONLY ONE CURVATURE ALLOWED IN 3000mm.

     TOLERANCES GIVEN ARE MAXIMUM DISTANCE FROM SPECIFIED LEVELS.

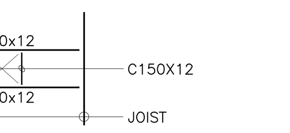
     CLOSER TOLERANCES MAY BE REQUIRED TO GIVE THE QUALITY OF FINISH FLOOR SURFACES CALLED FOR ELSEWHERE IN THE CONTRACT DOCUMENTS.
5. LOCATION OF COLUMNS: AS IN CSA A23.1.
6. VARIATION IN CROSS-SECTIONAL DIMENSIONS OF COLUMNS : AS IN CSA A23.1.
7. FOOTINGS:
   - A. VARIATION IN DIMENSIONS IN PLAN:
     MINUS....................10mm.
     PLUS....................50mm.
   - B. MISPLACE OR ECCENTRICITY:
     TWO (2) PERCENT OF THE FOOTING WIDTH IN THE DIRECTION OF MISPLACEMENT BUT NOT MORE THAN..........50mm.
   - C. REDUCTION IN THICKNESS:
     MINUS..........5% OF SPECIFIED THICKNESS.
8. THE ABOVE REQUIREMENTS DO NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY OF MEETING MORE RIGID REQUIREMENTS SPECIFIED ELSEWHERE IN THE CONSTRUCTION DOCUMENTS OR AS REQUIRED BY EQUIPMENT SHOP DRAWINGS.

STEEL DECK

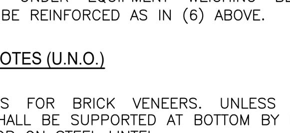
1. STEEL DECK TO BE AS NOTED ON DRAWINGS. U.N.O. ALL STEEL DECK SHALL BE PUDDLE WELDED TO SUPPORTING STEEL AT 300c/c AND TO STEEL PARALLEL TO THE DECK SPAN AT 400 SPACING WITH BOTTOM PUNCH SIDE LAPS AT 400 SPACING.

   INTERIOR EXPOSURE DECK SHALL BE ZINC COATED WIPE COAT Z275 FOR ROOFS.

   EXTERIOR EXPOSURE DECK SHALL BE ZINC COATED U.N.O.
2. SEE DRAWINGS FOR DECK THICKNESS.
3. REMOVE WATER BETWEEN THE DECK AND SUPPORTING STEEL BEFORE WELDING DECK.
4. SEE ALSO MECHANICAL, ELECTRICAL AND ARCHITECTURAL DRAWINGS FOR ALL OPENINGS IN DECK.
5. U.N.O. REINFORCE OPENINGS 400 MAXIMUM DIMENSION WITH L75 X 75 X 6 ANGLES.



6. U.N.O. ALL OPENINGS FROM 400 TO 600 SHALL BE FRAMED WITH AS SHOWN BELOW UNLESS NOTED OTHERWISE ON PLANS.



7. U.N.O. AREAS OR OPENINGS UNDER EQUIPMENT WEIGHING BETWEEN 0.25kN TO 2.5kN MAX. SHALL BE REINFORCED AS IN (6) ABOVE.

ARCHITECTURAL BRICK VENEER NOTES (U.N.O.)

1. SEE ARCHITECTURAL DRAWINGS FOR BRICK VENEERS. UNLESS NOTED OTHERWISE. BRICK VENEERS SHALL BE SUPPORTED AT BOTTOM BY DIRECT BEARING ON CONCRETE SLAB OR ON STEEL LINTEL
   - CORROSION PROTECTION OF LEDGER ANGLES SHALL BE HOT-DIP GALVANIZING. AFTER WELDING GRIND SMOOTH ALL WELDS. AFTER WELDING THE ANGLE IN PLACE, COAT ALL NON-GALVANIZED STEEL (EXPOSED PORTION OF EMBED PLATES, WELDS AND BOLT HEADS) WITH GALVACON.
   - SEE ARCHITECTURAL DRAWINGS FOR BRICK SUPPORT. SHOP DRAWINGS SHOWING ALL STEEL SUPPORTS FOR BRICK VENEER SHALL BE SUBMITTED FOR REVIEW.

COLD WEATHER CONCRETE

1. ALL CONCRETE OPERATIONS DURING COLD WEATHER SHALL BE IN ACCORDANCE WITH SECTION 21 OF CAN/CSA A23.1/A23.2. CAREFULLY PROTECT ALL CORNERS AND EDGES.
2. FORECASTED AIR TEMPERATURE NOT BELOW 2°
   - A. IF CONCRETE TEMPERATURE DROPS BELOW 5° AT POINT OF POURING, THE MIXING WATER SHALL BE HEATED TO MAINTAIN A MINIMUM CONCRETE TEMPERATURE OF 10°C.
   - B. CONCRETE SHALL NOT BE PLACED ON OR AGAINST ANY SURFACE WHICH IS AT A TEMPERATURE LESS THAN 5°C.
   - C. CONTRACTOR SHALL BE PREPARED TO COVER SLAB IF UNEXPECTED DROP IN AIR TEMPERATURE SHOULD OCCUR.
3. FORECASTED AIR TEMPERATURE BELOW 2°C BUT NOT BELOW (-4°C)
   - A. FORMS AND STEEL SHALL BE FREE FROM ICE AND SNOW.
   - B. MIXING WATER SHALL BE HEATED TO GIVE A MINIMUM CONCRETE TEMPERATURE OF 10°C AT POINT OF POUR.
   - C. CONCRETE SHALL NOT BE PLACED ON OR AGAINST ANY SURFACE WHICH IS AT A TEMPERATURE OF LESS THAN 5°C.
   - D. SLABS SHALL BE COVERED WITH CANVAS OR SIMILAR, KEPT A FEW INCHES CLEAR OF SURFACE.
   - E. PROTECTION SHALL BE MAINTAINED FOR AT LEAST 3 DAYS.
   - F. CONCRETE TEMPERATURE SHALL BE MAINTAINED ABOVE 10°C FOR AT LEAST 3 DAYS OR UNTIL THE CONCRETE REACHES 7 MPa.
4. FORECASTED AIR TEMPERATURE BELOW (-4°C)
   - A., B., C., D., AS UNDER POINT 3.
   - E. TEMPERATURE OF THE CONCRETE AT ALL SURFACES SHALL BE KEPT AT A MINIMUM OF 20°C FOR 3 DAYS, OR 10°C FOR 7 DAYS. CONCRETE SHALL BE KEPT ABOVE FREEZING TEMPERATURES UNTIL IT REACHES 7 MPa STRENGTH.
   - F. ENCLOSURE MUST BE CONSTRUCTED SO THAT AIR CAN CIRCULATE OUTSIDE THE OUTER EDGES OR MEMBERS.
5. FOR COLD WEATHER MASONRY CONSTRUCTION REQUIREMENTS SEE CSA A371-94 "MASONRY CONSTRUCTION FOR BUILDINGS"
6. REMOVE AND REPLACE ALL CONCRETE DAMAGES BY FROST OR FREEZING AT THE DIRECTION OF THE CONSULTANT AT NO COST TO THE OWNER.
7. ACCELERATING CHEMICAL ADMIXTURES SHALL NOT BE USED WITHOUT THE WRITTEN APPROVAL OF THE CONSULTANT.

HOT WEATHER CONCRETE

1. ALL CONCRETE OPERATIONS DURING HOT WEATHER SHALL BE IN ACCORDANCE WITH SECTION 21 OF CAN/CSA A23.1/A23.2. CAREFULLY PROTECT ALL CORNERS AND EDGES.
2. EXERCISE PARTICULAR CARE TO PREVENT SURFACE CRAZING OF EXPOSED CONCRETE SURFACES DUE TO COMBINED HIGH TEMPERATURES AND DRYING WINDS.
3. THE USE OF A WATER REDUCING-RETARDING CHEMICAL ADMIXTURES IN THE CONCRETE MIX MAY BE REQUIRED AT THE CONSULTANT'S DISCRETION.

NON-STRUCTURAL ELEMENTS

1. "NON-STRUCTURAL" OR "SECONDARY STRUCTURAL" ELEMENTS ARE NOT THE RESPONSIBILITY OF DVM ENGINEERING INC. THEY ARE DESIGNED, DETAILED AND REVIEWED IN THE FIELD BY OTHERS. THEY APPEAR ON DRAWINGS OTHER THAN THOSE OF DVM ENGINEERING INC. HERE STRUCTURAL ENGINEERING RESPONSIBILITY IS REQUIRED FOR THESE ELEMENTS, WHO SHALL ALSO PROVIDE ANY LETTERS REQUIRED BY BUILDING PERMIT AUTHORITIES.
2. EXAMPLES OF NON-STRUCTURAL ELEMENTS INCLUDE, BUT ARE NOT LIMITED TO:
   - A. ARCHITECTURAL COMPONENTS SUCH AS GUARDRAILS, HANDRAILS, FLAG POSTS, CANOPIES, CEILINGS, MILLWORKS, ETC.
   - B. LANDSCAPE ELEMENTS SUCH AS BENCHES LIGHT POSTS, PLANTERS, ETC.
   - C. CLADDING, GLAZING, WINDOW MULLIONS, INTERIOR STUD WALLS AND EXTERIOR STUD WALLS.
   - D. ARCHITECTURAL PRECAST, PRECAST CLADDING.
   - E. SKYLIGHTS.
   - F. MECHANICAL AND ELECTRICAL EQUIPMENT, COMPONENTS, AND THEIR ATTACHMENT DETAILS.
   - G. WINDOW WASHING EQUIPMENT AND ITS ATTACHMENTS.
   - H. ESCALATORS, ELEVATORS, AND CONVEYING SYSTEMS.
   - I. GLASS BLOCK AND ITS ATTACHMENTS.
   - J. BRING OR BLOCK VENEERS AND THEIR ATTACHMENTS.
   - K. NON-LOAD BEARING MASONRY.
   - L. NON-STRUCTURAL CONCRETE TOPPINGS.
3. SHOP DRAWINGS FOR NON-STRUCTURAL ELEMENTS WHICH MAY AFFECT THE PRIMARY STRUCTURAL SYSTEM SHALL BE SUBMITTED TO DVM ENGINEERING INC. THESE DRAWINGS WILL BE REVIEWED ONLY FOR THE EFFECT OF THE ELEMENT ON THE PRIMARY STRUCTURAL SYSTEM.
4. THE DESIGN WIND LOADS TO BE USED FOR GLAZING, EXTERIOR STUDS AND EXTERIOR CLADDING SHALL CONFIRM TO ONTARIO BUILDING CODE. FOR STONE OR MASONRY CLADDING, SEISMIS FORCES MAY GOVERN.
5. THE MAXIMUM ALLOWABLE DEFLECTIONS FOR GLAZING, STUDS, PARTITIONS AND CLADDING UNDER THE WIND LOADS SHOWN ABOVE SHALL MEET THE ARCHITECTURAL SPECIFICATIONS, THE NATIONAL BUILDING CODE AND THE MANUFACTURER'S SPECIFICATIONS. IN NO CASE SHALL THE DEFLECTIONS EXCEED THE FOLLOWING:
   - ELEMENTS SUPPORTING BRICK VENEER..........L/720, MAX. 25mm.
   - ELEMENTS SUPPORTING PRECAST PANELS OF STUCCO..L/360, MAX. 25mm.
   - ELEMENTS SUPPORTING WOOD SIDING, METAL SIDING OR EXTERIOR INSULATION..........L/180, MAX. 25mm.
   - ELEMENTS SUPPORTING GLAZING..........L/240, MAX. 25mm.

LIST OF DRAWINGS

STD.01	GENERAL NOTES
STD.02	GENERAL NOTES
S1.0	FOUNDATION PLAN
S1.1	FOUNDATION SECTIONS
S2.0	ROOF FRAMING LAYOUT
S2.1	ROOF FRAMING SECTIONS
S2.2	ROOF FRAMING SECTIONS
S3.0	UPPER ROOF FRAMING PLAN

S/N	DATE	ISSUE
3.	JUL. 24, 2024	ISSUED FOR TENDER & PERMIT
2.	APR. 04, 2024	ISSUED FOR COORDINATION
1.	MAR. 20, 2024	ISSUED FOR COORDINATION

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KAWARTHA PINE RIDGE DISTRICT SCHOOL BOARD
1994 Fisher Drive, Peterborough, Ontario K9J 6X6

DRAWING
GENERAL NOTES AND DETAILS

LICENSED PROFESSIONAL ENGINEER M.B.MAVANI 100178008 2024-07-25 PROVINCE OF ONTARIO

TRUE NORTH DWG. NORTH

JOB NO. 2304
SCALE 1:100
DATE DEC 2023
PRINTED

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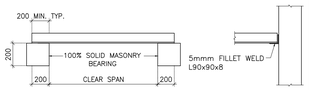
DWG. NO. STD-01

LINTELS

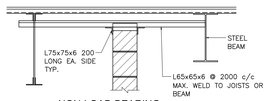
1. WELD BACK TO BACK ANGLES TOGETHER TOP AND BOTTOM WITH 5mm FILLET 50mm LONG AT 450mm MAXIMUM CENTERS.
2. MINIMUM BEARING FOR STEEL AND BLOCK LINTELS SHALL BE 200mm.
3. FOR LINTELS ABUTTING STEEL COLUMNS PROVIDE L90x90x8 STEEL ANGLE.
4. FILL VOIDS OF LINTEL BLOCK WITH 20MPa CONCRETE.
5. USE MASONRY LINTELS IN ALL FIRE RATED MASONRY WALLS – SEE ARCHITECTURAL DRAWINGS FOR WALL RATINGS.
6. ALL STEEL LINTELS AND SHELF ANGLES IN THE EXTERIOR MASONRY SHALL BE HOT DIP GALVANIZED.



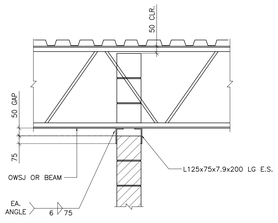
LINTEL BEARING ON MASONRY

LINTEL BEARING ON COLUMN

LINTEL OVER MECHANICAL OPENING DETAIL

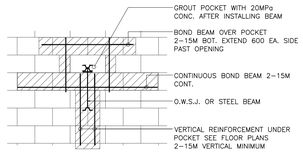


NON-LOAD BEARING BLOCK SUPPORT DETAILS BLOCK WALL PARALLEL TO JOIST

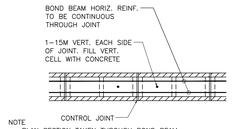


NOTE:
ALL CONNECTIONS TO BE AT 1200 o/c MAX AT FILLED CELLS UNLESS OTHERWISE NOTED.

CONNECTION TO STEEL

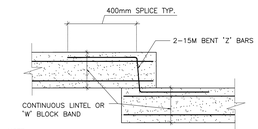


TYPICAL REINFORCEMENT AT LOAD BEARING MASONRY CONNECTIONS



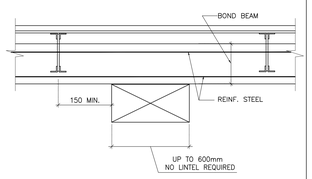
NOTE:
- PLAN SECTION TAKEN THROUGH BOND BEAM.
- SPACE CONTROL JOINTS AT 10000mm. o/c MAX UNLESS NOTED OTHERWISE ON PLAN.
- DISCONTINUE HORIZONTAL REINFORCEMENT EVERY SECOND LAYER.

TYPICAL MASONRY WALL CONTROL JOINT

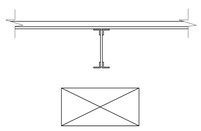


NOTE:
- WHERE CONT. BAND STEPS TO ACCOMMODATE ROOF SLOPES OR MECHANICAL DUCT OPENINGS (UP TO 500mm)

LINTEL BLOCK



LINTELS FOR DUCT OPENINGS THRU WALLS SUPPORTING OWSJ



NOT PERMITTED

NOTE:
- NOT PERMITTED WITHOUT WRITTEN CONSENT OF THE CONSULTANT
- PROVIDE MINIMUM 400mm SOLID MASONRY BETWEEN MECHANICAL OPENINGS.
- UNLESS NOTED OTHERWISE, FOR OPENINGS IN EXTERIOR WALLS PROVIDE LINTEL AS NOTED FOR BACK UP WALL + STEEL ANGLE FOR VENEER. PROVIDE L90 X 90 X 6 FOR SPAN UP TO 1200mm OR L150 X 90 X 8 LLV FOR SPAN UP TO 2000mm.

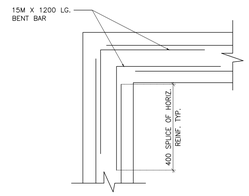
REINFORCEMENT CONCRETE MASONRY LINTEL NOTES

1. FOR LINTELS IN PARTITIONS AND BEARING WALLS, UP TO 1200mm CLEAR SPAN, PROVIDE 1–10M BAR TOP AND BOTTOM FOR EACH 90mm OF WALL THICKNESS.
2. FOR CLEAR SPANS FROM 1200mm TO 1800mm PROVIDE 1–15M HOOKED TOP AND BOTTOM AS CALLED FOR NOTE No.1.
3. LINTEL BEAM UNITS SHALL BE FILLED WITH CONCRETE HAVING AN ULTIMATE COMPRESSIVE STRENGTH OF 20MPa AT 28 DAYS. LENGTH OF BEARING SHALL BE 200mm MIN.
4. WHERE LINTELS FRAME INTO REINFORCED CONCRETE COLUMNS, REINFORCED CONCRETE WALLS OR STEEL COLUMNS, PROVIDE 90 X 90 X 10 SHELF ANGLE. FOR ANCHORAGE, USE WELDING OR 2–19ø INSERT ANCHORS, EXCEPT AS OTHERWISE SPECIFIED ON DRAWINGS.

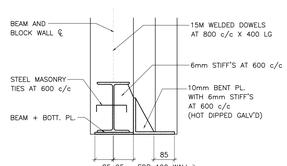
CLEAR SPAN	140mm WALL		190mm WALL		240mm WALL		290mm WALL	
	TYPE	MATERIAL	TYPE	MATERIAL	TYPE	MATERIAL	TYPE	MATERIAL
UP TO 1200mm	JL	2L'S 90X65X8 LLV	JL	2L'S 90X65X8	JL	2L'S 100X100X8	JL L	3L'S 90X90X8
1200mm TO 2000mm	JL	2L'S 90X65X8 LLV	JL	2L'S 150X90X8 LLV	JL	2L'S 150X100X8 LLV	JL L	3L'S 150X90X8 LLV

STEEL LINTEL NOTES

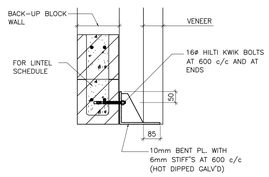
1. DOUBLE ANGLES SHALL BE PLACED BACK TO BACK AND BOLTED TOGETHER WITH 16ø BOLTS AT 600c/c OR EQUIVALENT STITCHWELD TOP AND BOTTOM.
2. MINIMUM BEARING OF LINTELS SHALL BE 150mm UNO.
3. FOR WALLS THICKER THAN 290mm ADD 1 ANGLE OF SIZE SPECIFIED ABOVE FOR EVERY 100 OF MASONRY OR PORTION THEREOF.
4. SEE NOTE No.4 ABOVE
5. FOR LINTELS IN NON–LOAD BEARING 140mm WALLS OVER 2000mm, PROVIDE W200 X 27 BEAM.
6. PROVIDE SINGLE 90 X 90 X 8L FOR OPENINGS IN 90mm BLOCK ENCLOSURES FOR SPAN UP TO 1200mm. FOR LOCATIONS SEE ARCHITECTURAL AND MECHANICAL DRAWINGS.



CONTINUOUS LINTEL BLOCK PLAN AT CORNER



EXTERIOR STEEL LINTEL FOR CAVITY WALL



EXTERIOR MASONRY LINTEL FOR CAVITY WALL

S/N	DATE	ISSUE
3.	JUL. 24, 2024	ISSUED FOR TENDER & PERMIT
2.	APR. 04, 2024	ISSUED FOR COORDINATION
1.	MAR. 20, 2024	ISSUED FOR COORDINATION

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KAWARTHA PINE RIDGE DISTRICT SCHOOL BOARD

1994 Fisher Drive, Peterborough, Ontario K9J 6X6

DRAWING

GENERAL NOTES AND DETAILS

LICENSED PROFESSIONAL ENGINEER
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2024-07-25
PROVINCE OF ONTARIO

TRUE NORTH | DWG. NORTH

JOB NO. 2304

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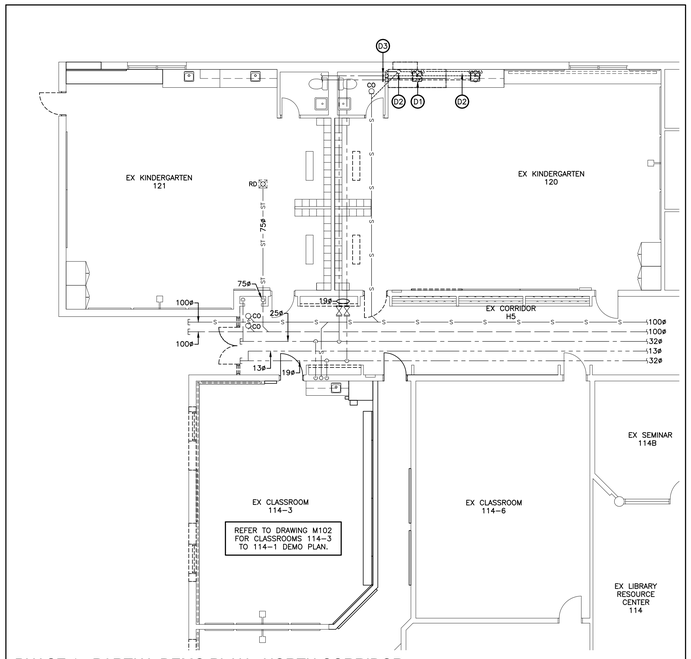
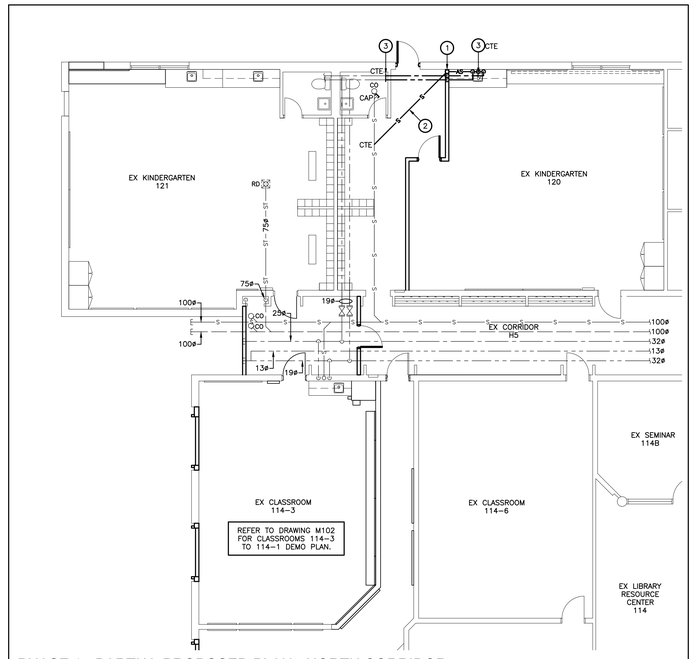


PHASE 1 - PARTIAL DEMO PLAN - NORTH CORRIDOR

1:100



PHASE 1 - PARTIAL PROPOSED PLAN - NORTH CORRIDOR

1:100

DEMO WORKING NOTES:

GENERAL PHASING NOTE: ALL WORK TO BE IN ACCORDANCE WITH PHASING SEQUENCES, SEE ARCHITECT DRAWING FOR PHASING.

01 REMOVE EXISTING SINK. CUT AND CAP THE MAIN. REMOVE ALL PIPING AND CONNECTIONS TO THE SINK. RETAIN SINK AND FAUCET FOR REINSTALLATION.

02 CUT AND CAP SANITARY CONNECTION TO THE EXISTING SINK.

03 DISCONNECT DOMESTIC PIPING WITHIN CEILING SPACE AT DROPS TO CLASSROOM SINKS TO FACILITATE NEW WORK.

NEW WORKING NOTES:

1 PROVIDE NEW SINK DRAIN DOWN AND VENT LINE UP IN NEW WALL. RECONNECT VENT TO EXISTING WITHIN CEILING SPACE.

2 PROVIDE NEW 50ø SANITARY PIPE FROM EXISTING SINK AND CONNECT TO THE EXISTING MAIN SANITARY PIPE.

3 EXTEND DOMESTIC WATER LINES THROUGH CEILING SPACE AND DOWN IN WALL. RUN PIPING THROUGH BACK OF MILLWORK AND RECONNECT TO SINK.

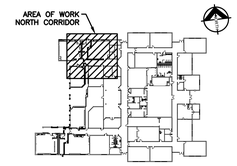
GENERAL NEW PLUMBING NOTES:

1. THE CONTRACTOR SHALL INVESTIGATE AND CONFIRM SERVICES ON SITE PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES TO ENGINEER.
2. SCOPE/CAMERA EXISTING UNDERGROUND SANITARY AND STORM PIPING THROUGH WORK AREA TO CONFIRM CONDITION OF PIPE, ROUTING AND INVERTS. SUBMIT REPORT AND VIDEO ON USB.
3. SCAN FLOOR PRIOR TO FLOOR CUTS AND UNDERGROUND PIPING INSTALLATION.
4. ENSURE ALL SERVICES ARE CONCEALED WITHIN AVAILABLE CEILING SPACE. RUN ALL NEW SERVICES UP IN JOIST SPACE AND BETWEEN LIGHTS AS NOTED OR AS REQUIRED.
5. COVER ALL FLOOR DRAINS DURING CONSTRUCTION TO PREVENT DEBRIS FROM FALLING IN DRAINS OR GROUT BEING POURED DOWN DRAINS.
6. PROVIDE NEW PLUMBING VENTS THROUGH ROOF AS REQUIRED OR TIE INTO EXISTING WHERE POSSIBLE.
7. ALLOW FOR THE INSULATION AND LABELING OF NEW.
8. FIRE STOP ALL PIPING THROUGH RATED WALLS IN AREA OF WORK.
9. THE CONTRACTOR SHALL FLUSH, SCOPE, AND PROVIDE VIDEO INSPECTION OF THE SANITARY SYSTEM AFTER COMPLETION OF WORK AND PRIOR TO SUBSTANTIAL COMPLETION. FLUSHING, SCOPING AND VIDEO SHALL INCLUDE AREA OF WORK TO WHERE IT TIES INTO THE MAIN. SUBMIT REPORT AND VIDEO ON USB.

DESIGN AND DETAILS SHOWN ON THIS DRAWING OR ASSOCIATED DOCUMENTATION ARE PRODUCED BY AND THE PROPERTY OF CIMA+ COPY IN WHOLE OR PART IS PROHIBITED.
THE CONTRACTOR MUST CHECK AND BE RESPONSIBLE FOR SITE CONDITIONS THAT MAY DIFFER FROM THESE PLANS AND NOTIFY CIMA+ OF SAME.

ISSUES/REVISIONS

No.	DESCRIPTION	DATE
1	RE-ISSUED FOR 50% COORDINATION	JAN 26 2024
2	ISSUED FOR 80% COORDINATION	FEB 9 2024
3	ISSUED FOR COSTING	FEB 13 2024
4	ISSUED FOR PERMIT & TENDER	APR 8 2024
5	RE-ISSUED FOR PERMIT & TENDER	JUL 31 2024



KEY PLAN

KAWARTHA PINE RIDGE DISTRICT SCHOOL BOARD
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M. DOVEIRJAVI
100514385
JULY 31/24
PROVINCE OF ONTARIO

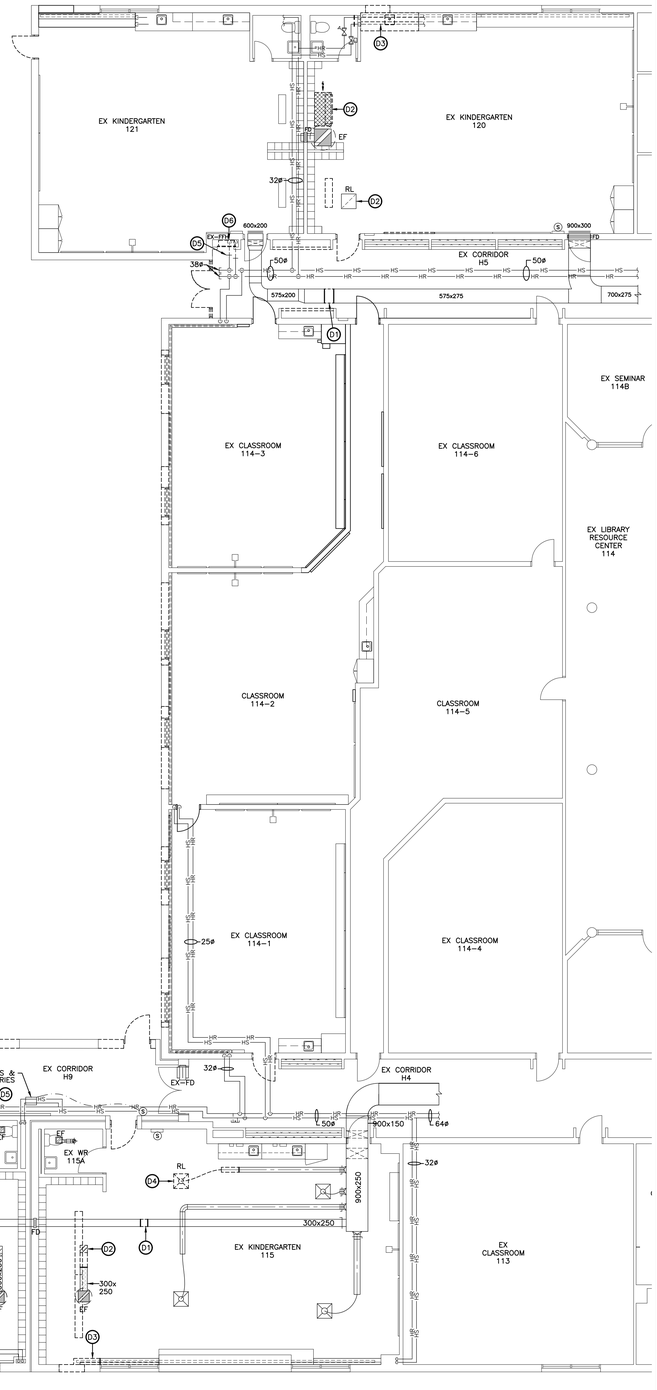
MURRAY CENTENIAL PS ADDITION

654 COUNTY ROAD 40, R.R.#1
TRENTON ON

DATE: AUGUST 2023	SCALE: AS NOTED
DRAWN BY: MRC	CHECKED BY: MD
CIMA+ PROJECT NUMBER: C14-0588	SHEET SIZE: E1

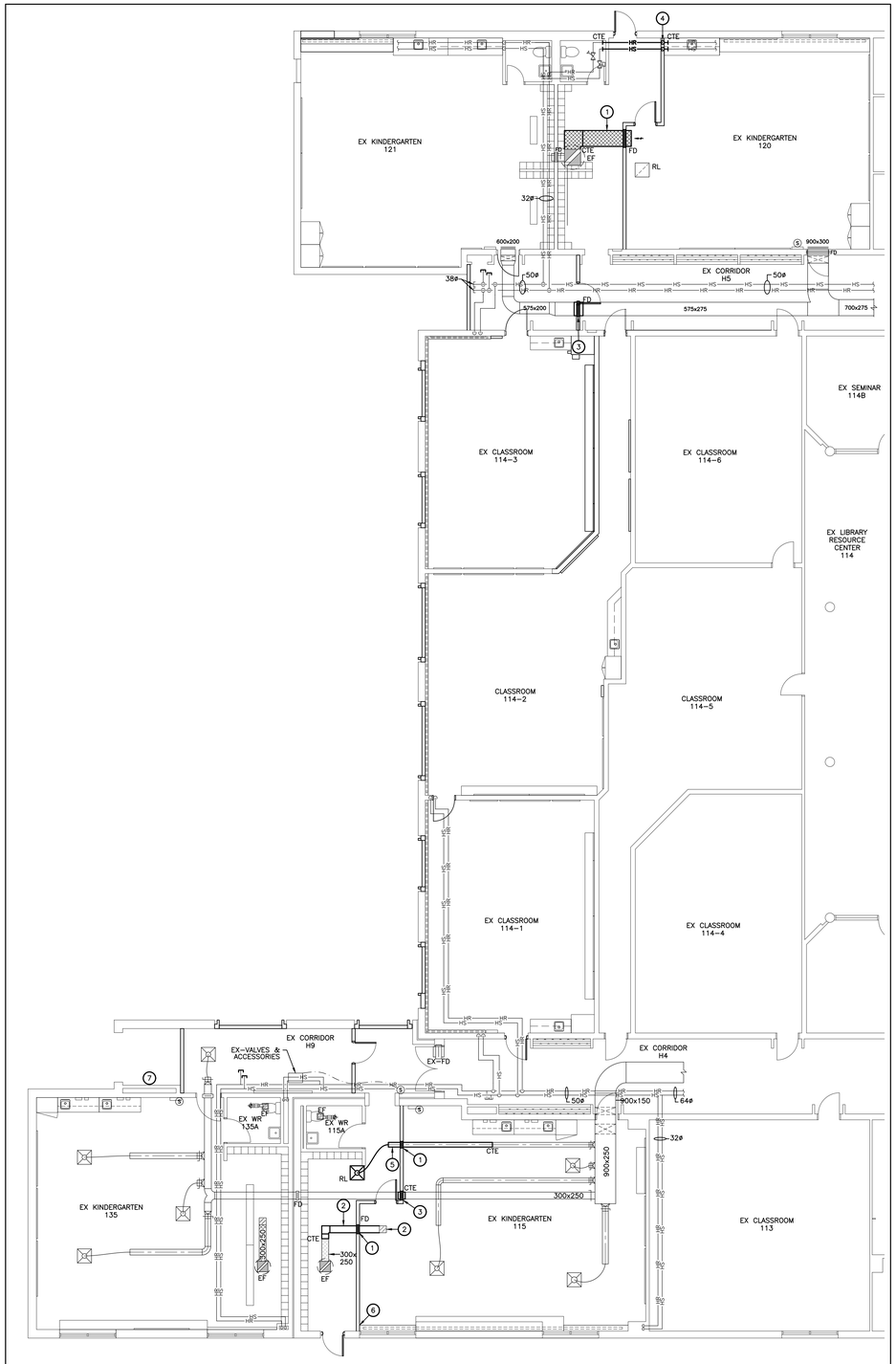
PARTIAL FIRST FLOOR
PHASE 1
PLUMBING LAYOUT

M101



PHASE 1 - PARTIAL DEMO PLAN - TEMPORARY EXITS

1:100



PHASE 1 - PARTIAL NEW PLAN - TEMPORARY EXITS

1:100

DEMO WORKING NOTES:

01 REMOVE SECTION OF DUCT TO FACILITATE INSTALLATION OF NEW FIRE DAMPER.

02 REMOVE GRILLE AND CUT DUCT BACK AS INDICATED. RETAIN EXHAUST GRILLE FOR REINSTALLATION.

03 CUT AND REMOVE ALL OR PORTION OF EXISTING WALLFIN TO FACILITATE INSTALLATION OF NEW TEMPORARY EXIT DOOR.

04 REMOVE DIFFUSER AND CUT BACK DUCT AS INDICATED. RETAIN EXISTING DIFFUSER FOR REINSTALLATION.

05 CUT AND CAP THE HS & HR TO THE EXISTING FORCED FLOW HEATER.

06 REMOVE EXISTING FORCE FLOW HEATER ALONG THE EXISTING WALL.CUT AND CAP ALL HWS/HWR TO THE FFH, REMOVE ALL PIPING CONNECTION AND VALVES.TURN OVER DDC VALVES AND CONTROLS TO OWNER.

NEW WORKING NOTES:

1 EXTENDED EXISTING DUCT C/W NEW FIRE DAMPER AT PARTITION WALL.

2 RELOCATE EXISTING EXHAUST GRILLE AND CONNECT TO EXTENDED EXHAUST DUCT.

3 PROVIDE NEW FIRE DAMPER IN EXISTING DUCT.

4 RE-CONNECT EXISTING HS & HR TO EXISTING WALLFIN UNIT, RE-INSTALL ALL REQUIRED VALVES AND ACCESSORIES.

5 RELOCATED EXISTING SUPPLY DIFFUSER AND CONNECT TO EXTENDED SUPPLY DUCT, PROVIDE FIRE DAMPER AT RATED WALL.

6 RECONNECT SUPPLY & RETURNS AT END OF WALLFIN AND REINSTALL ENCLOSURE WALL CAP AT NEW WALL.

7 WALL TO BE REPAINTED AND RESTORED TO MATCH EXISTING,BY GENERAL CONTRACTOR.

GENERAL NEW HVAC NOTES:

1. THE CONTRACTOR SHALL INVESTIGATE AND CONFIRM SERVICES ON SITE PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES TO ENGINEER.
2. ENSURE ALL SERVICES ARE CONCEALED WITHIN AVAILABLE CEILING SPACE. RUN ALL NEW SERVICES UP IN JOIST SPACE AND BETWEEN LIGHTS AS NOTED OR AS REQUIRED.
3. ALLOW FOR THE INSULATION AND LABELING OF NEW.
4. SUPPLY ACCESS DOORS FOR MECHANICAL DEVICES ABOVE DRYWALL CEILING AND TURN OVER TO GENERAL CONTRACTOR FOR INSTALLATION.
5. ELECTRICAL CONTRACTOR TO PROVIDE BACK BOX, CONDUIT AND PULL STRING FOR WALL SENSORS. COORDINATE WITH ELECTRICAL.
6. LABEL CEILING GRID AT ACCESS TO MECHANICAL EQUIPMENT AND DEVICES WITH LAMACOID NAMEPLATE.
7. TEMPORARILY SEAL ALL OPEN DUCTS THROUGHOUT CONSTRUCTION TO PREVENT DUST AND DIRT FROM ENTERING THE SYSTEM. WHERE THE CONTRACTOR DOES NOT CONFORM THEY ARE RESPONSIBLE FOR CLEANING OF THE SYSTEMS IN A MANNER APPROVED BY THE CONSULTANT.
8. PERFORM DUCT LEAKAGE TESTS (SUPPLY AND RETURN) FOR ALL NEW AIR HANDLING SYSTEMS. ARRANGE FOR ENGINEER TO WITNESS AND SUBMIT REPORT.

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ISSUES/REVISIONS

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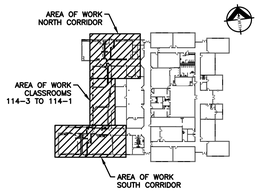
5	RE-ISSUED FOR PERMIT & TENDER	JUL 31 2024



KEY PLAN

KAWARTHA PINE RIDGE DISTRICT SCHOOL BOARD
1994 Fisher Drive, Peterborough, Ontario K9J 6X6

CIMA+ DES
415 BASELINE ROAD WEST
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NORTH

LICENSED PROFESSIONAL ENGINEER
M. DOVEIRJAVI
100514385
JULY 31/24
PROVINCE OF ONTARIO

MURRAY CENTENIAL PS ADDITION

654 COUNTY ROAD 40, R.R.#1
TRENTON ON

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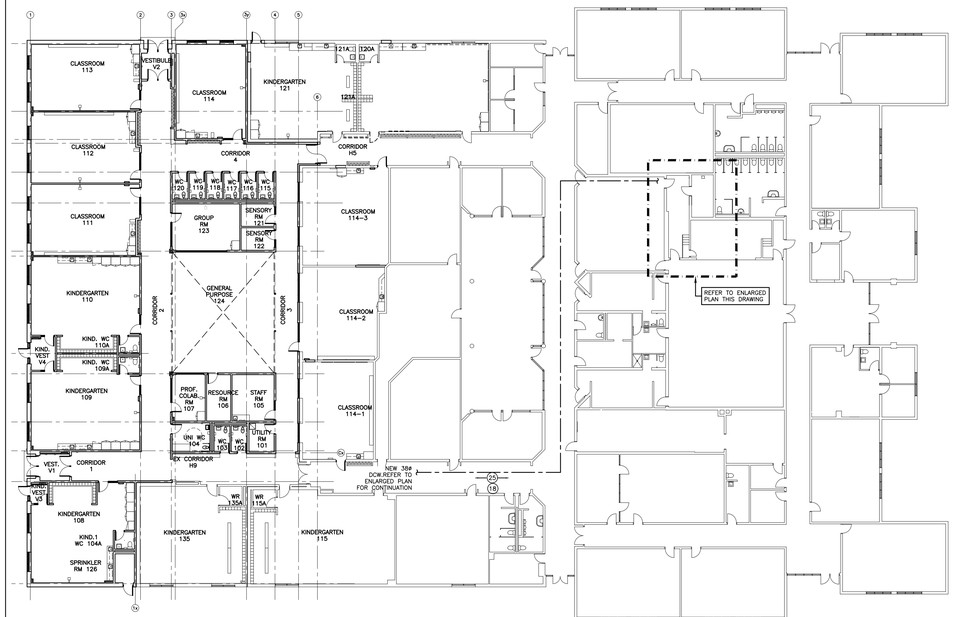
PARTIAL FIRST FLOOR
PHASE 1
HVAC LAYOUT

M102



OVERALL PLAN - NEW DOMESTIC WATER LAYOUT

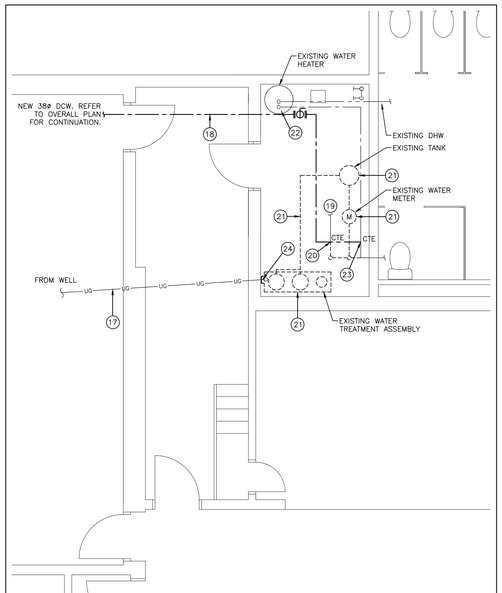
1:250

GENERAL NEW PLUMBING NOTES:

1. THE CONTRACTOR SHALL INVESTIGATE AND CONFIRM SERVICES ON SITE PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES TO ENGINEER.
2. SCOPE/CAMERA EXISTING UNDERGROUND SANITARY AND STORM PIPING THROUGH WORK AREA TO CONFIRM CONDITION OF PIPE, ROUTING AND INVERTS. SUBMIT REPORT AND VIDEO ON USB.
3. SCAN FLOOR PRIOR TO FLOOR CUTS AND UNDERGROUND PIPING INSTALLATION.
4. ENSURE ALL SERVICES ARE CONCEALED WITHIN AVAILABLE CEILING SPACE. RUN ALL NEW SERVICES UP IN JOIST SPACE AND BETWEEN LIGHTS AS NOTED OR AS REQUIRED.
5. COVER ALL FLOOR DRAINS DURING CONSTRUCTION TO PREVENT DEBRIS FROM FALLING IN DRAINS OR GROUT BEING POURED DOWN DRAINS.
6. PROVIDE NEW PLUMBING VENTS THROUGH ROOF AS REQUIRED OR TIE INTO EXISTING WHERE POSSIBLE.
7. ALLOW FOR THE INSULATION AND LABELING OF NEW.
8. FIRE STOP ALL PIPING THROUGH RATED WALLS IN AREA OF WORK.
9. THE CONTRACTOR SHALL FLUSH, SCOPE, AND PROVIDE VIDEO INSPECTION OF THE SANITARY SYSTEM AFTER COMPLETION OF WORK AND PRIOR TO SUBSTANTIAL COMPLETION. FLUSHING, SCOPING AND VIDEO SHALL INCLUDE AREA OF WORK TO WHERE IT TIES INTO THE MAIN. SUBMIT REPORT AND VIDEO ON USB.

WORKING NOTES:

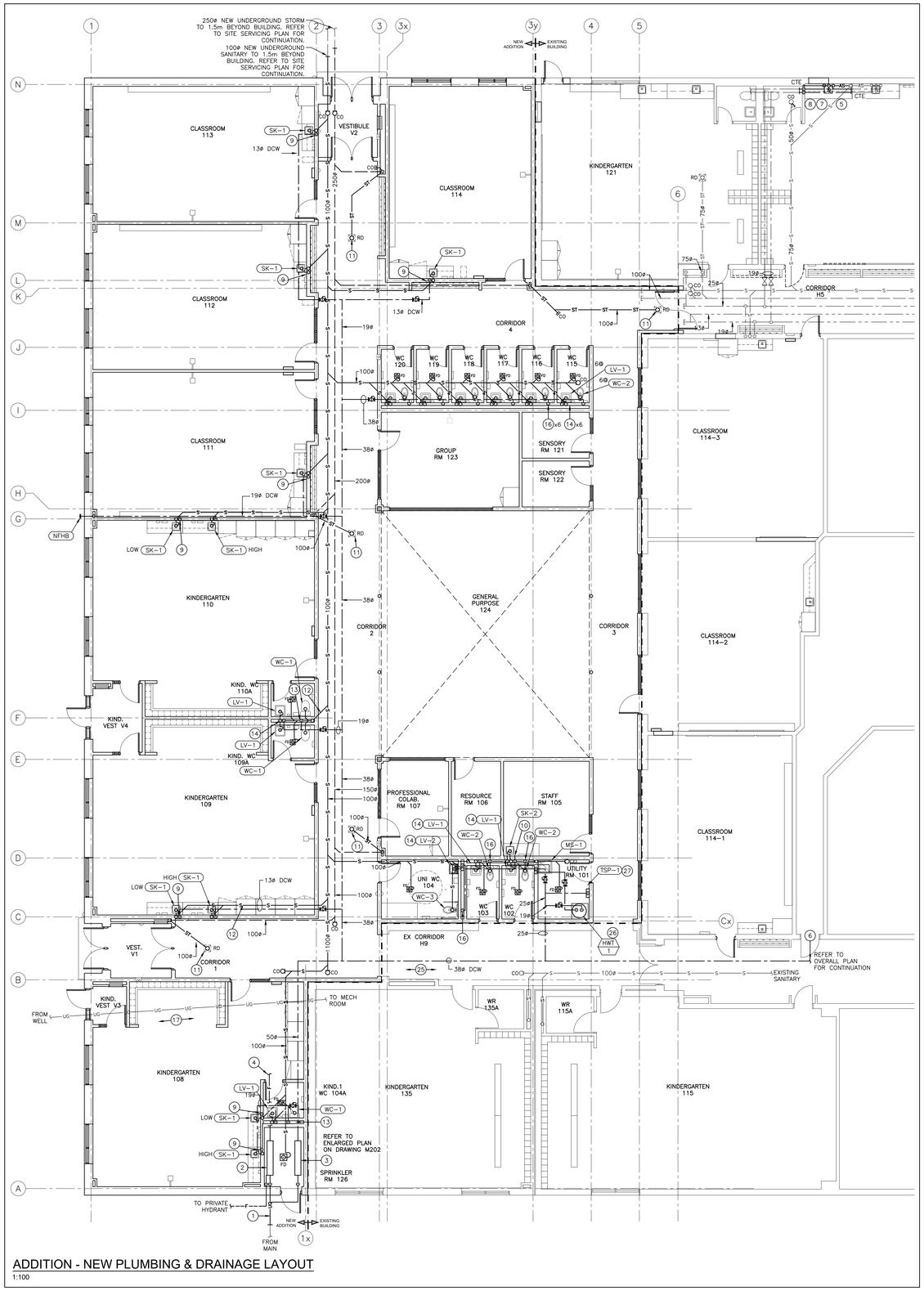
1. NEW COMBINED FIRE/WATER SERVICE. REFER TO SITE SERVICES.
2. NEW FIRE PROTECTION BACKFLOW PREVENTER (BFP) AND SYSTEM HEADER. REFER TO FIRE PROTECTION DRAWINGS.
3. NEW DOMESTIC WATER BACKFLOW PREVENTER (BFP) AND UTILITY WATER METER. REFER TO DETAIL.
4. NEW FIRE MAIN TO ADDITION. REFER TO FIRE PROTECTION DRAWINGS FOR CONTINUATION.
5. RELOCATE DCW/DHW PIPES DROPS FROM PHASE 1 TO THE WASHROOM WALL AS SHOWN ON PLAN, RUN THE PIPES AT AND CONNECT TO NEW LOW SINK AND EXISTING SINK.
6. NEW DCW MAIN TO BE RUN IN CORRIDOR CEILING AND TO BE CONNECTED TO EXISTING BUILDING TIE-IN. SEE MECH ROOM ENLARGED PLAN FOR MORE DETAIL.
7. PROVIDE NEW 50ø SANITARY PIPE FROM NEW LOW SINK AND CONNECT TO THE EXISTING MAIN SANITARY PIPE.RELOCATE VENT RISER TO THE WASHROOM WALL AS PER PLAN.
8. UN-CAP AND RE-CONNECT EXISTING DCW/DHW PIPES TO NEW LOW SINK AT THIS LOCATION,PROVIDE REQUIRED VALVES AND FITTINGS.
9. 13ø DCW DOWN IN WALL AND UNDER COUNTER TO SINKS, TYPICAL. PROVIDE ISOLATION VALVES AT CLASSROOMS ROOM LEVEL.
10. 13ø DCW & DHW DOWN IN WALL AND UNDER COUNTER TO SINKS, TYPICAL. PROVIDE ISOLATION VALVES AT ROOM LEVEL.
11. NEW 100ø RWL FROM NEW ADDITION ROOF DRAIN. REFER TO ROOF PLAN FOR CONTINUATION.
12. 100ø UNDERGROUND SANITARY.
13. 13ø DCW DOWN IN WALL OR CHASE TO WATER CLOSET.
14. 13ø DCW DOWN IN WALL OR CHASE TO LAVATORY.
15. RESERVED.
16. 25ø DCW DOWN IN WALL OR CHASE TO FLUSH VALVE WATER CLOSET.
17. ASSUMED LOCATION OF EXISTING U/G DCW FEED FROM WELL. LINE TO BE MAINTAINED AND PROTECTED DURING CONSTRUCTION UNTIL NEW MUNICIPAL WATER SERVICE IS CONNECTED AND PASSED FOR USE. REMOVE ANY OBSOLETE U/G PIPING FROM BENEATH ADDITION AND CAP REMAINING ABANDONED PIPING.
18. NEW 38ø DCW FROM MUNICIPAL WATER SERVICE MAIN.
19. EXISTING DCW MAIN PIPE TO BUILDING.
20. CONNECT NEW DCW PIPE TO EXISTING PIPE AT THIS LOCATION.
21. REMOVE EXISTING WATER ASSEMBLY, FILTERS, WATER TREATMENT SYSTEM, ALL PIPING & ACCESSORIES AND TURN OVER TO SCHOOL BOARD.
22. EXISTING WATER HEATER TO REMAIN.
23. PROVIDE NEW CONNECTION FROM EXISTING DCW TO THE WATER HEATER TO NEW MAIN DCW PIPE.
24. CAP AND SEAL EXISTING MAIN WATER CONNECTION FROM WELL ONCE NEW MUNICIPAL SERVICE IS ENERGIZED.
25. REMOVE AND RE-INSTALL CEILING TILES AND GRID AS REQUIRED TO SUITE NEW PIPING WORK IN CORRIDOR CEILING. COORDINATE WITH GENERAL CONTRACTOR.
26. PROVIDE CONNECTIONS AND VALVES AS PER DOMESTIC HOT WATER HEATER DETAIL.
27. PROVIDE NEW TSP C/W MANIFOLD TO SUIT NUMBER OF TRAPS SERVED AS PER SPECIFICATIONS, CONNECT TO DCW AS PER DETAILS.COORDINATE WITH ELECTRICAL FOR POWER REQUIREMENT.



ENLARGED MECHANICAL ROOM REVISED DOMESTIC WATER LAYOUT

1:50

TYPICAL PLUMBING PIPE SIZING				
	DCW	DHW	SANITARY	VENT
WC (TANK TYPE)(WC-1)	13ø	--	75ø	38ø
WC (FLUSH VALVE)(WC-2)	25ø	--	75ø	38ø
WC (FLUSH VALVE)(WC-3)	25ø	--	75ø	38ø
LAVATORY(LV-1)	13ø	--	32ø	32ø
LAVATORY(LV-2)	13ø	--	32ø	32ø
SINK (SK-1)	13ø	--	38ø	32ø
SINK (SK-2)	13ø	13ø	38ø	32ø
MOP SINK	13ø	13ø	75ø	38ø
75ø FD	--	--	75ø	38ø
PROVIDE ISOLATION VALVES AT ALL FIXTURES				



ADDITION - NEW PLUMBING & DRAINAGE LAYOUT

1:100

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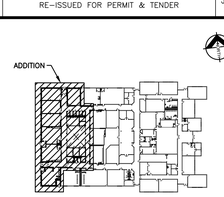

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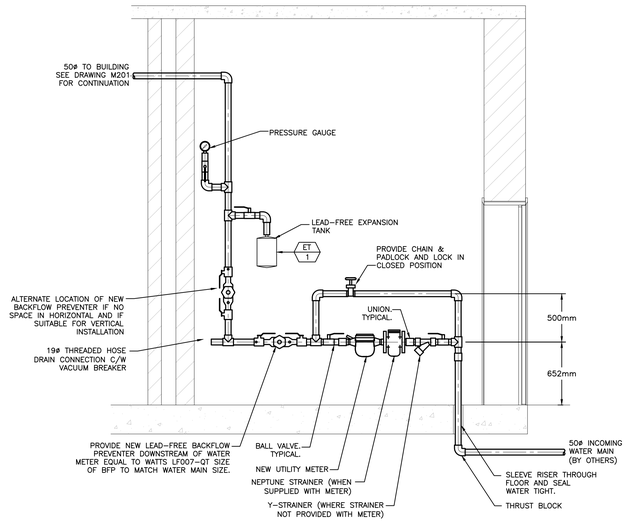
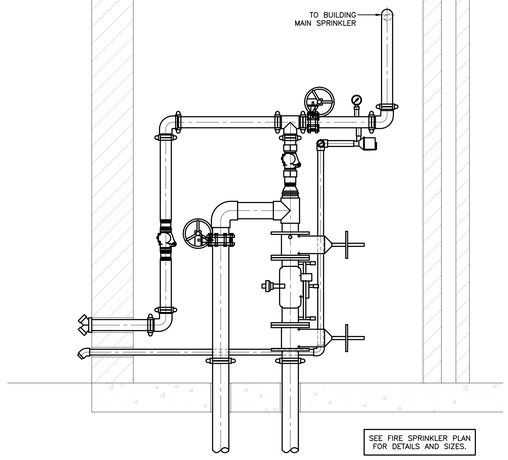
FIRST FLOOR ADDITION
NEW PLUMBING & DRAINAGE LAYOUT

M201



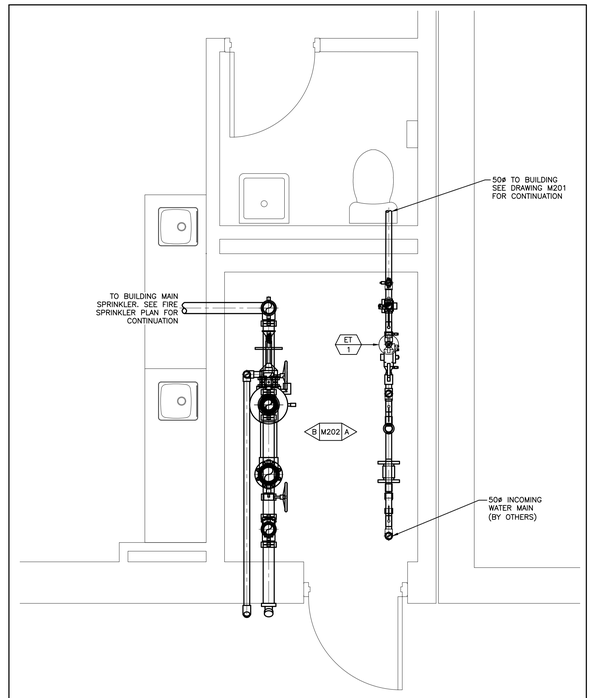
ELEVATION A - DOMESTIC WATER METER HEADER

1:25



ELEVATION B - FIRE HEADER

1:25



PARTIAL FLOOR PLAN - SPRINKLER ROOM PLAN

1:25

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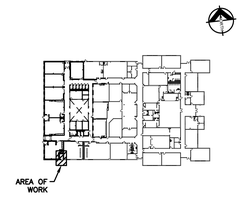

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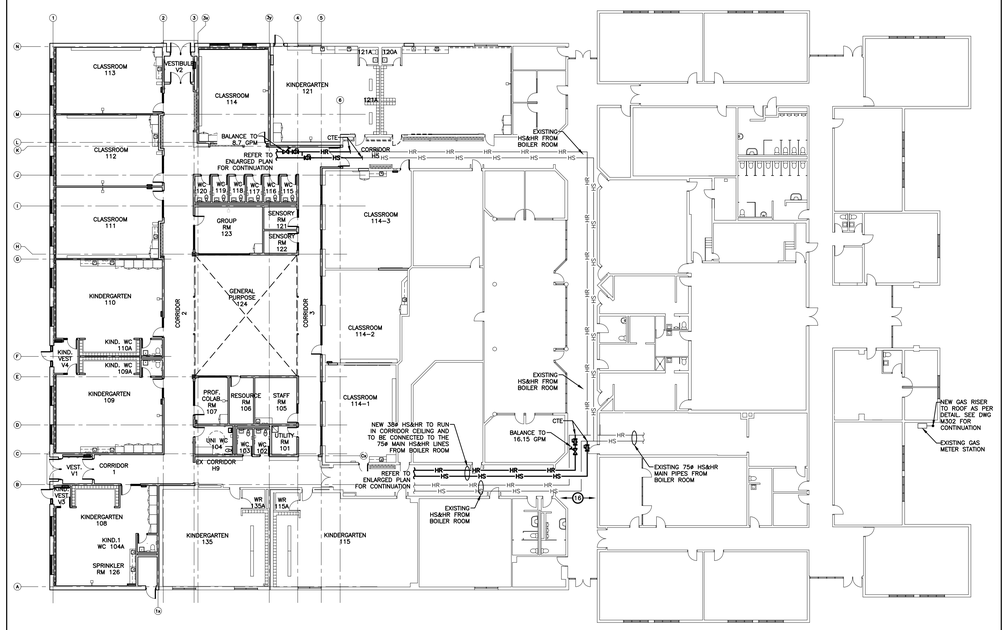
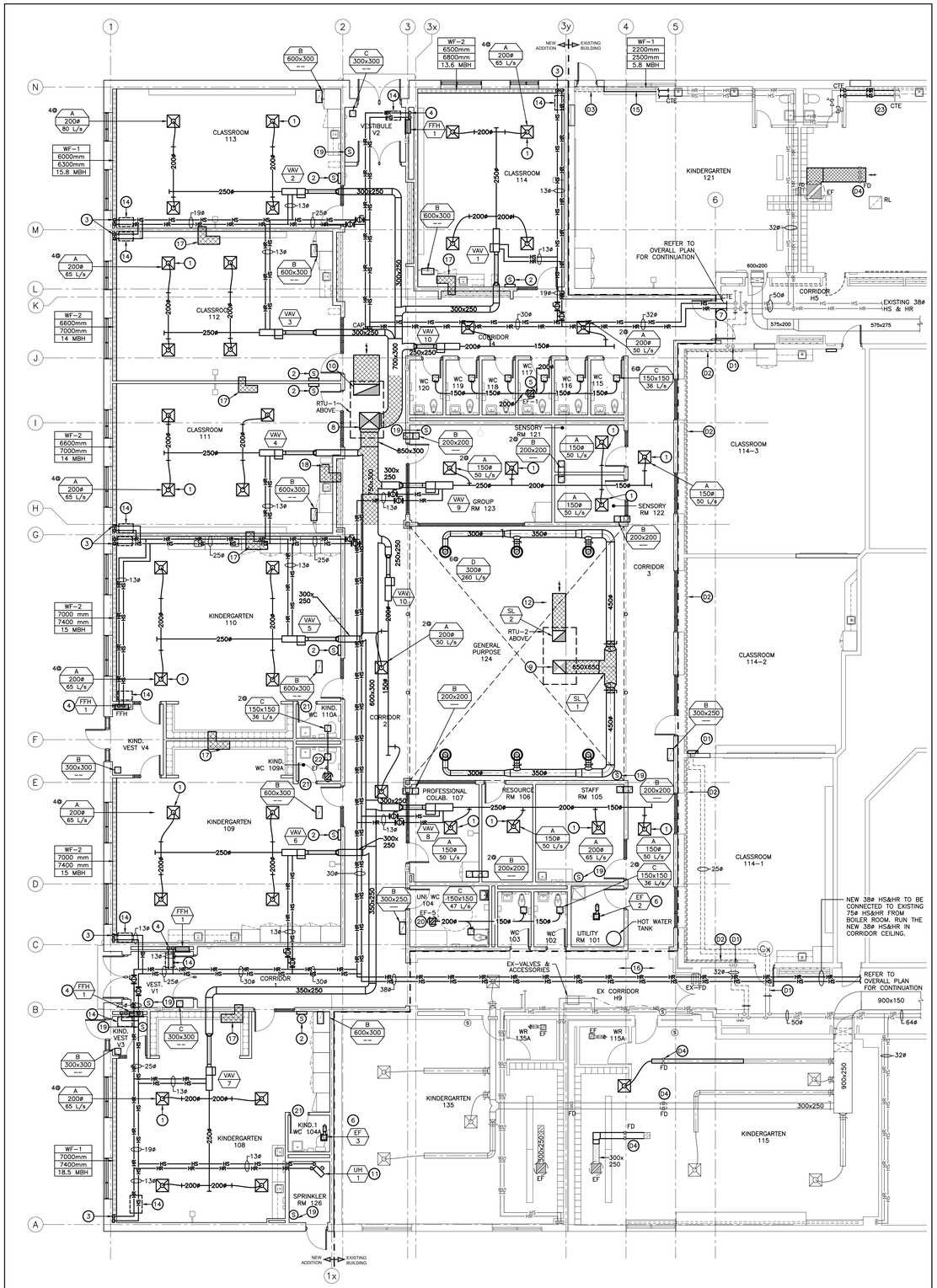
FIRST FLOOR ADDITION
NEW WATER ROOM LAYOUT

M202



OVERALL PLAN - NEW HEATING PIPING LAYOUT

1:250



ADDITION - NEW HVAC LAYOUT

1:100

WORKING NOTES:

1. PROVIDE NEW CEILING DIFFUSER IN NEW T-BAR CEILING, SEE SCHEDULES FOR DETAILS.
2. STAINLESS PLATE STYLE SPACE SENSOR ON FOAM BACKING, MOUNTED IN RUN ALL NEW SERVICES UP IN JOIST SPACE AND BETWEEN LIGHTS AS CLASSROOM CONTROL PANEL.
3. 13ø HS & HR DOWN TO WALLFIN C/W VALVES AND ACCESSORIES AS PER DETAIL.
4. 19ø HS & HR DOWN TO FFH C/W VALVES AND ACCESSORIES AS PER DETAIL.
5. 250X250 EXHAUST DUCT UP TO THE ROOF AND CONNECTED TO NEW ROOF MOUNTED EXHAUST FAN EF-1 AS PER SCHEDULES.REFER TO CONTROL SCOPE OF WORK FOR BAS INTEGRATION.
6. PROVIDE NEW CEILING SUSPENDED EXHAUST FAN. PROVIDE NEW 150ø E/A DUCT UP THROUGH ROOF TO GOOSENECK. THERMALLY INSULATE ALL E/A DUCTWORK.
7. PROVIDE NEW HS & HR CONNECTIONS TO EXISTING PIPING MAINS AS INDICATED AND CONNECT TO NEW HEATING COILS.INSTALL CONTROL VALVES C/W ISOLATION VALVES AND ACCESSORIES AS PER DETAIL.
8. 800X500 S/A DOWN FROM RTU-1 THROUGH ROOF BETWEEN OWSJ FROM RTU ABOVE.COORDINATE ROOF OPENINGS AND TRIMMERS WITH GENERAL CONTRACTOR.
9. 650X650 S/A DOWN FROM RTU-2 THROUGH ROOF BETWEEN OWSJ FROM RTU ABOVE.COORDINATE ROOF OPENINGS AND TRIMMERS WITH GENERAL CONTRACTOR. ELBOW DUCT SHALL BE HTL 10g BY SHEET METAL CONTRACTOR.
10. 850X600 OPEN ENDED R/A DUCT C/W INLET SCREEN. PROVIDE OFFSET AND DUCT UP THROUGH ROOF.
11. PROVIDE NEW SUSPENDED UNIT HEATED C/W VALVES AND ACCESSORIES AS PER DETAIL.
12. 650X500 OPEN ENDED R/A DUCT C/W INLET SCREEN. PROVIDE OFFSET AND DUCT UP THROUGH ROOF.
13. EXISTING WALLFIN TO BE RE-INSTALLED, RE-CONNECT ALL VALVES AND PIPING.
14. VALVES AND ACCESSORIES IN CEILING SPACE.AS PER DETAILS.
15. PROVIDE NEW WALLFIN, RE-CONNECT EXISTING HS & HR TO NEW UNIT, RE-INSTALL ALL REQUIRED VALVES AND ACCESSORIES.
16. REMOVE AND RE-INSTALL CEILING TILES AND GRID AS REQUIRED TO SUITE NEW PIPING WORK IN CORRIDOR CEILING. COORDINATE WITH GENERAL CONTRACTOR.
17. 400x350 ACOUSTICALLY LINED ELBOW.
18. 450x400 ACOUSTICALLY LINED ELBOW.
19. SPACE SENSOR BY CONTROLS. BACK BOX AND CONDUIT BY ELECTRICAL CONTRACTOR. COORDINATE WITH SAME.
20. 250X200 EXHAUST DUCT UP TO THE ROOF AND CONNECTED TO NEW ROOF MOUNTED EXHAUST FAN EF-2 AS PER SCHEDULES.REFER TO CONTROL SCOPE OF WORK FOR BAS INTEGRATION.
21. PROVIDE 13 MM UNDERCUT
22. 200X200 EXHAUST DUCT UP TO THE ROOF AND CONNECTED TO NEW ROOF MOUNTED EXHAUST FAN EF-4 AS PER SCHEDULES.REFER TO CONTROL SCOPE OF WORK FOR BAS INTEGRATION.
23. RELOCATE HS/HR PIPES DROPS FROM PHASE 1 TO THE WASHROOM WALL AS SHOWN ON PLAN, RUN THE PIPES AND CONNECT TO EXISTING WALLFIN AS PER DETAILS,PROVIDE REQUIRED VALVES AND CONNECTIONS. SEE DWG M102 FOR PHASE 1.

GENERAL NEW HVAC NOTES:

1. THE CONTRACTOR SHALL INVESTIGATE AND CONFIRM SERVICES ON SITE PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES TO ENGINEER.
2. ENSURE ALL SERVICES ARE CONCEALED WITHIN AVAILABLE CEILING SPACE. NOTED OR AS REQUIRED.
3. ALLOW FOR THE INSULATION AND LABELING OF NEW.
4. SUPPLY ACCESS DOORS FOR MECHANICAL DEVICES ABOVE DRYWALL CEILING AND TURN OVER TO GENERAL CONTRACTOR FOR INSTALLATION.
5. ELECTRICAL CONTRACTOR TO PROVIDE BACK BOX, CONDUIT AND PULL STRING FOR WALL SENSORS. COORDINATE WITH ELECTRICAL.
6. LABEL CEILING GRID AT ACCESS TO MECHANICAL EQUIPMENT AND DEVICES WITH LAMACOID NAMEPLATE.
7. TEMPORARILY SEAL ALL OPEN DUCTS THROUGHOUT CONSTRUCTION TO PREVENT DUST AND DIRT FROM ENTERING THE SYSTEM. WHERE THE CONTRACTOR DOES NOT CONFORM THEY ARE RESPONSIBLE FOR CLEANING OF THE SYSTEMS IN A MANNER APPROVED BY THE CONSULTANT.
8. PERFORM DUCT LEAKAGE TESTS (SUPPLY AND RETURN) FOR ALL NEW AIR HANDLING SYSTEMS. ARRANGE FOR ENGINEER TO WITNESS AND SUBMIT REPORT.

DEMO WORKING NOTES:

- D1 CUT AND CAP THE HS & HR TO THE EXISTING WALFINS.
- D2 REMOVE EXISTING WALLFINS ALONG THE EXISTING WALLS.CUT AND CAP ALL HWS/HWR TO THE WALLFINS, REMOVE ALL PIPING CONNECTION AND VALVES.TURN OVER DDC VALVES AND CONTROLS TO OWNER.
- D3 CUT AND REMOVE PORTION OF EXISTING WALLFIN TO FACILITATE INSTALLATION OF NEW CABINET AND DOOR. CAP HEATING PIPING AS REQUIRED.HWS/HWR TO BE RE-CONNECT AFTER COMPLETION OF WORK TO NEW WALLFIN UNIT.
- D4 REMOVE EXISTING FIRE DAMPER AND RESTORE DUCT CONNECTION.

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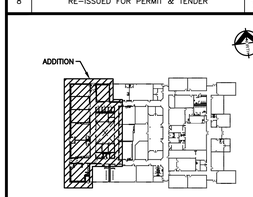

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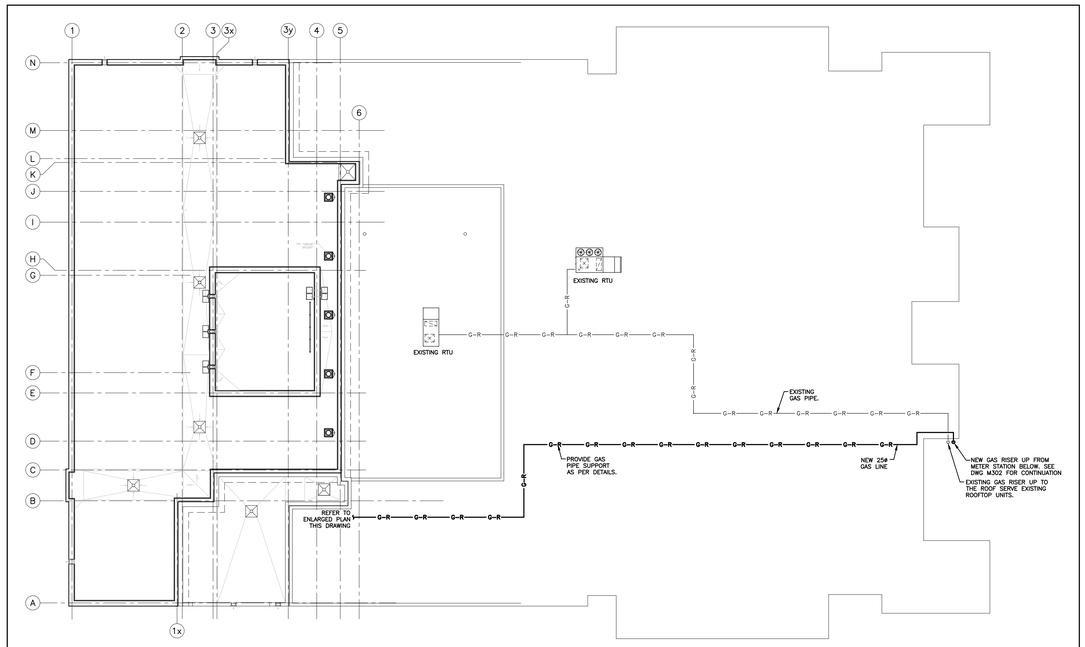
DATE: AUGUST 2023	SCALE: AS NOTED
DRAWN BY: MRC	CHECKED BY: MD
CIMA+ PROJECT NUMBER: C14-0588	SHEET SIZE: E1

FIRST FLOOR ADDITION
NEW HVAC LAYOUT

M301

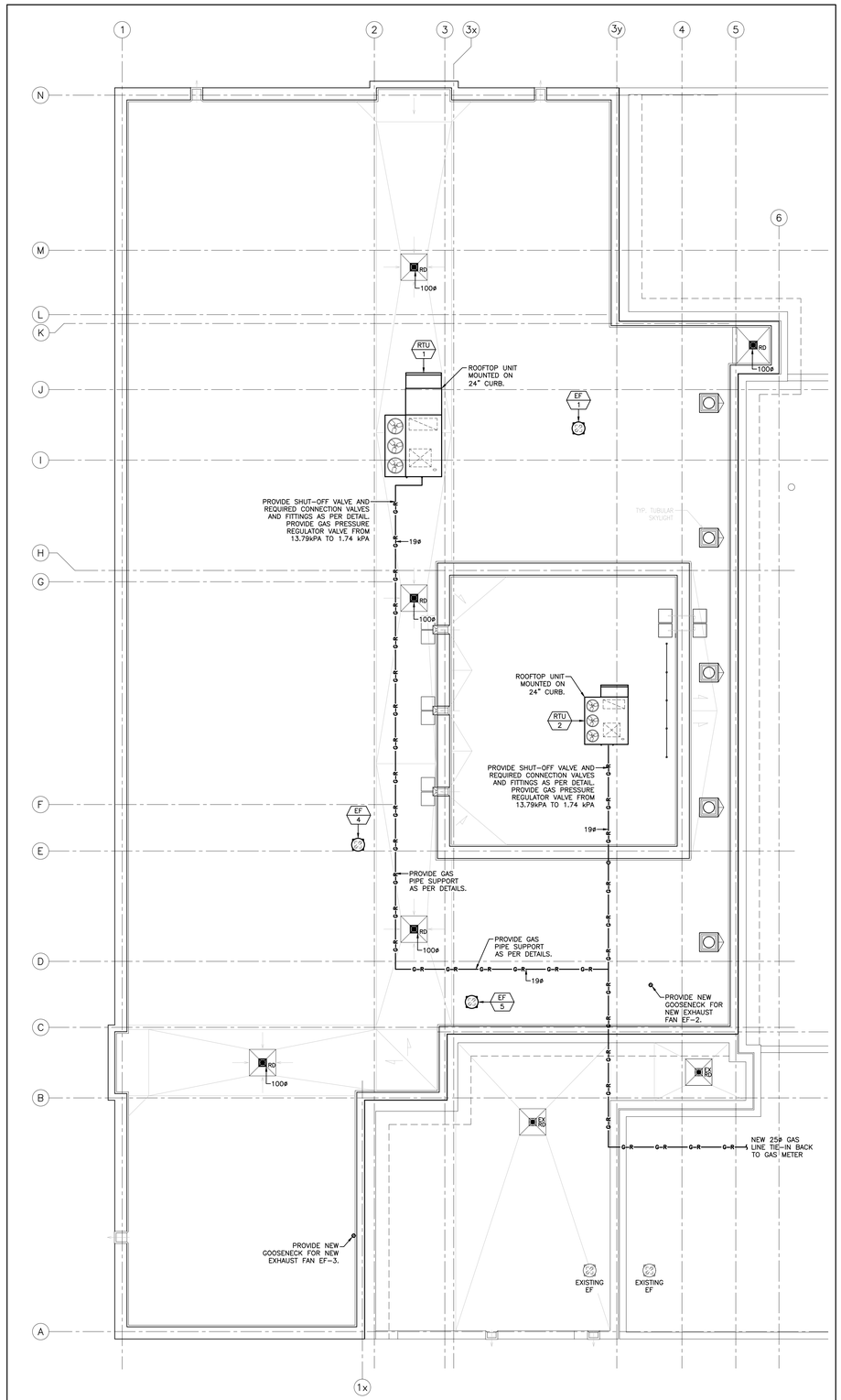


OVERALL ROOF PLAN - NEW GAS PIPING LAYOUT

1:250

GENERAL NEW HVAC NOTES:

1. THE CONTRACTOR SHALL INVESTIGATE AND CONFIRM SERVICES ON SITE PRIOR TO CONSTRUCTION AND REPORT ANY DISCREPANCIES TO ENGINEER.
2. ENSURE ALL SERVICES ARE CONCEALED WITHIN AVAILABLE CEILING SPACE. RUN ALL NEW SERVICES UP IN JOIST SPACE AND BETWEEN LIGHTS AS NOTED OR AS REQUIRED.
3. ALLOW FOR THE INSULATION AND LABELING OF NEW.
4. SUPPLY ACCESS DOORS FOR MECHANICAL DEVICES ABOVE DRYWALL CEILING AND TURN OVER TO GENERAL CONTRACTOR FOR INSTALLATION.
5. ELECTRICAL CONTRACTOR TO PROVIDE BACK BOX, CONDUIT AND PULL STRING FOR WALL SENSORS. COORDINATE WITH ELECTRICAL.
6. LABEL CEILING GRID AT ACCESS TO MECHANICAL EQUIPMENT AND DEVICES WITH LAMACOID NAMEPLATE.
7. TEMPORARILY SEAL ALL OPEN DUCTS THROUGHOUT CONSTRUCTION TO PREVENT DUST AND DIRT FROM ENTERING THE SYSTEM. WHERE THE CONTRACTOR DOES NOT CONFORM THEY ARE RESPONSIBLE FOR CLEANING OF THE SYSTEMS IN A MANNER APPROVED BY THE CONSULTANT.
8. PERFORM DUCT LEAKAGE TESTS (SUPPLY AND RETURN) FOR ALL NEW AIR HANDLING SYSTEMS. ARRANGE FOR ENGINEER TO WITNESS AND SUBMIT REPORT.



ADDITION - NEW ROOF LAYOUT

1:100

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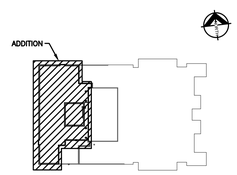
ISSUES/REVISIONS

No.	DESCRIPTION	DATE
1	ISSUED FOR 30% COSTING	AUG 4 2023
2	RE-ISSUED FOR 30% COSTING	NOV 7 2023
3	ISSUED FOR 50% COORDINATION	JAN 18 2024
4	RE-ISSUED FOR 50% COORDINATION	JAN 26 2024
5	ISSUED FOR 80% COORDINATION	FEB 9 2024
6	ISSUED FOR COSTING	FEB 13 2024
7	ISSUED FOR PERMIT & TENDER	APR 8 2024
8	RE-ISSUED FOR PERMIT & TENDER	JUL 31 2024



KEY PLAN

KAWARTHA PINE RIDGE DISTRICT SCHOOL BOARD
1994 Fisher Drive, Peterborough, Ontario K9J 6X6

CIMA+ DES
415 BASELINE ROAD WEST
BOWMANVILLE, ON L1C 5M2
T 905.697.4464
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NORTH

LICENSED PROFESSIONAL ENGINEER
M. DOVEIRIJAVI
100514385
JULY 31/24
PROVINCE OF ONTARIO

MURRAY CENTENIAL PS ADDITION

654 COUNTY ROAD 40, R.R.#1
TRENTON ON

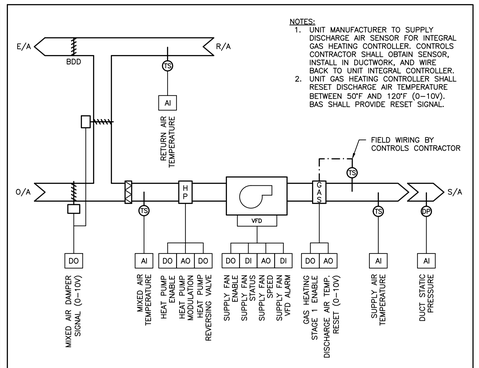
DATE: AUGUST 2023	SCALE: AS NOTED
DRAWN BY: MRC	CHECKED BY: MD
CIMA+ PROJECT NUMBER: C14-0588	SHEET SIZE: E1

FIRST FLOOR ADDITION
NEW ROOF LAYOUT

M302

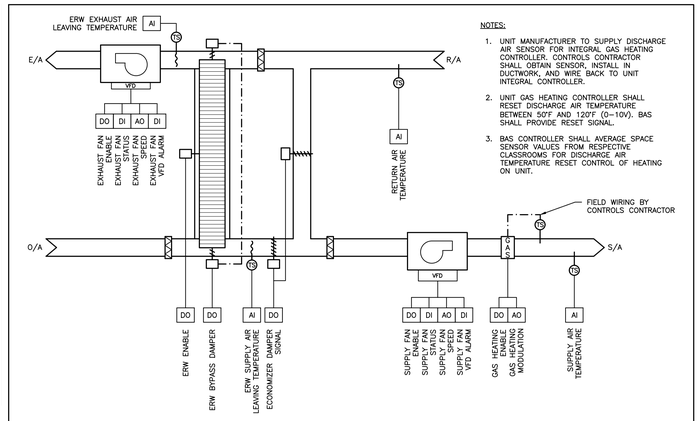
CONTROL SCOPE OF WORK:

1. DISCONNECT AND REMOVE ANY REDUNDANT PNEUMATIC CONTROLS IN AREA OF WORK AS INDICATED ON DRAWINGS. EXISTING PNEUMATIC CONTROLS SERVING OTHER SPACES NOT INCLUDED IN AREA OF WORK SHALL REMAIN. OBTAIN THE SERVICES OF ANALYSTS OF PNEUMATIC SYSTEMS LTD. (CONTACT: DAVE STRAIN, 1-647-289-2700) FOR ALL PNEUMATIC DEMOLITION WORK.
2. EXISTING BAS CONTROL SYSTEM IS RELIABLE CONTROLS THROUGH SETPOINT CONTROLS. OBTAIN THE SERVICES OF SETPOINT CONTROLS FOR ALL NEW CONTROLS WORK.(CONTACT: MATTHEW JEWEL, TELEPHONE: 705-745-1600)
3. WORK SHALL INCLUDE BUT NOT LIMITED TO:
   - .1 DISCONNECT AND REMOVE ALL REDUNDANT ELECTRONIC/BAS CONTROLS IN AREA OF WORK EXCEPT WHERE POSSIBLE FOR REUSE.
   - .2 PROVIDE NEW CONTROLLERS OR REWORK EXISTING TO SUIT NEW CONTROLS SCOPE OF WORK. EXTEND EXISTING BAS COMMUNICATION NETWORK FROM CLOSEST CONTROL PANEL IF NEW CONTROLLERS ARE REQUIRED.
   - .3 PROVIDE CONTROL FOR NEW EXHAUST FANS FOR TIME OF DAY/OCCUPANCY CONTROL.
   - .5 PROVIDE COMPLETE CONTROL OF NEW ROOFTOP UNITS AND ASSOCIATED HEATING COILS.
   - .6 PROVIDE CONTROL FOR NEW FORCE FLOW HEATERS C/W SPACE SENSOR AND ENABLE/DISABLE FOR TEMPERATURE CONTROL.
   - .7 PROVIDE CONTROL FOR NEW UNIT HEATERS C/W SPACE SENSOR AND ENABLE/DISABLE FOR TEMPERATURE CONTROL.
   - .8 PROVIDE CONTROL FOR EXISTING AND NEW WALLFINS & CONVECTORS C/W SPACE SENSORS AND CONTROL VALVES FOR TEMPERATURE CONTROL.
   - .6 PROVIDE CONTROL FOR NEW REHEAT COILS C/W SPACE SENSORS, DISCHARGE AIR TEMPERATURE SENSORS AND CONTROL VALVES FOR TEMPERATURE CONTROL.
4. CONTROL VALVES SHALL BE BELIMO CCV VALVES FOR WALLFINS AND CONVECTORS. VALVES SHALL BE SIZED FOR MAXIMUM 2.0 PSI PRESSURE DROP.
5. SETPOINT SHALL UPDATE ALL PROGRAMMING, GRAPHICS, PANELS, ETC. TO SUIT NEW FLOOR PLANS INCLUDING ROOM NAMES AND NUMBERS.
6. SETPOINT SHALL COORDINATE ALL SEQUENCES OF OPERATION AND ALARMING WITH KPRDSB REPRESENTATIVE AND SHALL COMPLY WITH ALL KPRDSB CONTROLS STANDARDS.
7. PROVIDE CONTROL SHOP DRAWINGS C/W ALL CONTROL COMPONENTS, SCHEMATICS, SEQUENCES, AND WIRING DETAILS AS PER SPECIFICATIONS.
8. PROVIDE ONE(1) YEAR WARRANTY ON ALL CONTROLS MATERIAL AND LABOUR.
9. PROVIDE AS-BUILT CONTROL DRAWINGS FOR INCLUSION IN O&M MANUALS AS PER SPECIFICATIONS.



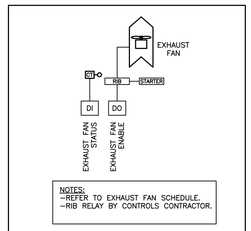
NOTES:
1. UNIT MANUFACTURER TO SUPPLY DISCHARGE AIR SENSOR FOR INTEGRAL GAS HEATING CONTROLLER. CONTROLS CONTRACTOR SHALL OBTAIN SENSOR, INSTALL IN DUCTWORK, AND WIRE BACK TO UNIT INTEGRAL CONTROLLER.
2. UNIT GAS HEATING CONTROLLER SHALL RESET DISCHARGE AIR TEMPERATURE BETWEEN 50°F AND 120°F (0-10V). BAS SHALL PROVIDE RESET SIGNAL.

ROOFTOP UNIT RTU-2 CONTROL SCHEMATIC
NTS



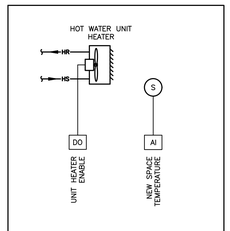
NOTES:
1. UNIT MANUFACTURER TO SUPPLY DISCHARGE AIR SENSOR FOR INTEGRAL GAS HEATING CONTROLLER. CONTROLS CONTRACTOR SHALL OBTAIN SENSOR, INSTALL IN DUCTWORK, AND WIRE BACK TO UNIT INTEGRAL CONTROLLER.
2. UNIT GAS HEATING CONTROLLER SHALL RESET DISCHARGE AIR TEMPERATURE BETWEEN 50°F AND 120°F (0-10V). BAS SHALL PROVIDE RESET SIGNAL.
3. BAS CONTROLLER SHALL AVERAGE SPACE SENSOR VALUES FROM RESPECTIVE CLASSROOMS FOR DISCHARGE AIR TEMPERATURE RESET CONTROL OF HEATING ON UNIT.

ROOFTOP UNIT RTU-1 CONTROL SCHEMATIC
NTS

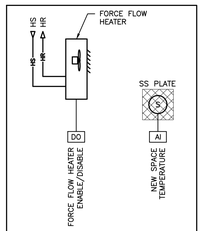


NOTES:
-REFER TO EXHAUST FAN SCHEDULE.
-RIB RELAY BY CONTROLS CONTRACTOR.

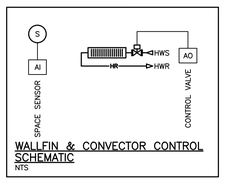
EXHAUST FAN CONTROL SCHEMATIC (TIME-OF-DAY CONTROL)
NTS



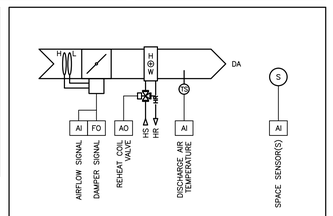
HOT WATER UNIT HEATER CONTROL SCHEMATIC
NTS



FORCE FLOW HEATER CONTROL SCHEMATIC
NTS



WALLFIN & CONVECTOR CONTROL SCHEMATIC
NTS



VARIABLE AIR VOLUME BOX WITH REHEAT CONTROL SCHEMATIC
NTS

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ISSUES/REVISIONS

No.	DESCRIPTION	DATE
1	ISSUED FOR 50% COORDINATION	JAN 18 2024
2	RE-ISSUED FOR 50% COORDINATION	JAN 26 2024
3	ISSUED FOR 80% COORDINATION	FEB 9 2024
4	ISSUED FOR COSTING	FEB 13 2024
5	ISSUED FOR PERMIT & TENDER	APR 8 2024
6	RE-ISSUED FOR PERMIT & TENDER	JUL 31 2024

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MURRAY CENTENIAL PS ADDITION

654 COUNTY ROAD 40, R.R.#1
TRENTON ON

DATE: AUGUST 2023	SCALE: NTS
DRAWN BY: MRC	CHECKED BY: MD
CIMA+ PROJECT NUMBER: C14-0588	SHEET SIZE: E1

CONTROLS

M501

PLUMBING NOTES:

1. PROVIDE CLEANOUTS AS REQUIRED BY CODE. SIZE OF CLEANOUTS TO BE SAME SIZE AS SANITARY LINES.
2. PROVIDE ALL TRENCHING, EXCAVATING AND BACKFILL FOR UNDERGROUND PLUMBING. ALL SAW CUTTING AND RESTORATION OF CONCRETE FLOOR IS BY GENERAL CONTRACTOR. COORDINATE WITH SAME.
3. PROVIDE NEW PLUMBING VENTS THROUGH ROOF AS REQUIRED BY CODE OR TIE INTO EXISTING WHERE POSSIBLE. SUPPLY AND INSTALL ROOF VENTS AS PER SPECIFICATIONS. ALL ROOFING WORK INCLUDING CUTTING, FLASHING AND MODIFICATIONS TO ROOF MEMBRANE SHALL BE BY GENERAL CONTRACTOR. COORDINATE WITH SAME.
4. PROVIDE ISOLATION VALVES AT HOT WATER TANK AND ALL FIXTURES.
5. INSULATE ALL NEW DOMESTIC HOT, COLD AND TEMPERED WATER PIPING WITH 1"(25mm) INSULATION. PROVIDE PVC JACKET OVER INSULATION IN EXPOSED AREAS.
6. INSULATE ALL NEW ABOVE GROUND STORM PIPING WITH 1"(25mm) INSULATION. PROVIDE PVC JACKET OVER INSULATION IN EXPOSED AREAS.
7. PROVIDE BALANCING VALVES AT START OF EACH BRANCH OF ALL HOT OR TEMPERED WATER RECIRCULATION LOOPS.
8. PROVIDE PENCIL TRAPS FOR ALL SINKS (SK-1 & SK-2).
9. PROVIDE SLEEVES FOR PIPES THROUGH ALL NEW BLOCK WALLS. FILL VOIDS AROUND PIPES. ENSURE NO CONTACT BETWEEN DISSIMILAR METALS.
10. PROVIDE FIRE STOPPING AROUND ALL PIPING THROUGH FIRE SEPARATIONS.
11. COORDINATE EXACT LOCATION OF NEW FLOOR DRAINS WITH GENERAL CONTRACTOR TO SUIT FLOOR SLOPE.
12. PROVIDE TRAP SEAL PRIMER FOR ALL FLOOR DRAINS USING PRIMER SPECIFIED IN PLUMBING FIXTURE SCHEDULE. PRIMERS SHALL BE CONCEALED, MOUNT IN CEILING SPACE AND RUN LINE CONCEALED DOWN WALL AND UNDER FLOOR TO DRAIN.
13. LABEL ALL PIPING COMPLETE WITH SERVICE AND FLOW ARROWS. LABELS SHALL BE MAX 3m(10') SPACING AND ON EITHER SIDE OF WALLS.
14. PROVIDE ACCESS DOORS WHERE REQUIRED. REFER TO PLUMBING FIXTURE SCHEDULE.
15. PROVIDE ESCUTCHEONS AROUND WATER AND SANITARY PIPING THROUGH WALL, FLOOR OR MILLWORK AT ALL FIXTURES.
16. LABEL CEILING GRID AT ACCESS TO ALL DEVICES.
17. FLUSH AND PERFORM A VIDEO INSPECTION OF ALL UNDERGROUND PIPING SYSTEMS AFTER CONSTRUCTION AND IMMEDIATELY PRIOR TO APPLYING FOR SUBSTANTIAL COMPLETION.
18. PERFORM DOMESTIC WATER QUALITY TEST AFTER ALL NEW PLUMBING WORK. SUBMIT CERTIFICATE OF ANALYSIS FROM CERTIFIED TESTING AGENCY TO CONSULTANT AND INCLUSION IN CLOSEOUT DOCUMENTATION.

HVAC NOTES:

1. CONCEAL ALL SERVICES IN CEILING SPACES AND FURRED CONSTRUCTION UNLESS INSTALLED IN UNFINISHED OR EXPOSED AREAS OR IF SPECIFICALLY NOTED TO BE EXPOSED.
2. COORDINATE INSTALLATION WITH ALL OTHER TRADES.
3. REFER TO REFLECTED CEILING PLAN TO CONFIRM EXACT LOCATION OF GRILLES AND DIFFUSERS LIGHTING TAKES PRECEDENCE.
4. PROVIDE A CONTINUOUS ANTI-VIBRATION RUBBER GASKET BETWEEN ROOFCURBS AND EQUIPMENT UNIT RAILS.
5. FILL INSIDE OF ROOF CURBS WITH ROXUL INSULATION FOR SOUND ATTENUATION (EXCEPT PLENUM SECTIONS). ENSURE ALL EXPOSED ENDS ARE SEALED. ARRANGE FOR INSPECTION BY CONSULTANT PRIOR TO INSTALLING UNIT ON CURB OR SEND PHOTOS.
6. ALL ROOFTOP EQUIPMENT SHALL BE PROVIDED WITH "LOCKING" ACCESS DOORS USING RECESSED SOCKET OPERATED HANDLES. KEYED PADLOCKS ARE NOT ACCEPTABLE. PROVIDE KEYED PAD LOCK FOR UNIT DISCONNECT.
7. PROVIDE 4" FLEXIBLE CONNECTIONS AT ALL DUCT CONNECTIONS TO AIR HANDLING EQUIPMENT.
8. PROVIDE ACOUSTIC INSULATION IN FIRST 5' (1.5m) OF SUPPLY AND RETURN DUCTS OFF AIR HANDLING UNITS. ALL TRANSFER DUCTS AND AS INDICATED ON DRAWINGS. SEAL ALL EXPOSED ENDS OF INSULATION.
9. PROVIDE TURNING VANES IN ALL SQUARE ELBOWS AND SHORT RADIUS ELBOWS FOR SUPPLY AIR DUCTS.
10. TEMPORARILY SEAL ALL OPEN DUCTS THROUGHOUT CONSTRUCTION TO PREVENT DUST AND DIRT FROM ENTERING THE SYSTEM. WHERE THE CONTRACTOR DOES NOT CONFORM THEY ARE RESPONSIBLE FOR CLEANING OF THE SYSTEMS IN A MANNER APPROVED BY THE CONSULTANT.
11. SEAL ALL JOINTS ON ALL SUPPLY & RETURN AIR DUCTS WITH DURODYNE DUCT SEALER IN CONFORMANCE TO CLASS 'C' ASHRAE 90.1 AND SMACNA STANDARDS. USE CLEAR DUCT SEALER OR SEAL BEHIND JOINTS FOR ALL EXPOSED DUCTWORK.
12. PERFORM DUCT LEAKAGE TEST. REFER TO SPECIFICATIONS.
13. BRANCH DUCTWORK TO DIFFUSERS TO BE SAME SIZE AS DIFFUSER NECK.
14. PROVIDE BALANCE DAMPERS ON ALL BRANCH DUCTS CLOSE TO MAIN TAKE-OFF. REVIEW WITH BALANCING CONTRACTOR TO CONFIRM LOCATIONS OF ALL BALANCE DAMPERS PRIOR TO CONSTRUCTION.
15. INCLUDE FOR THE SUPPLY AND INSTALLATION OF TWO(2) EXTRA BALANCE DAMPERS AFTER CONSTRUCTION AND BALANCING COMPLETION. (PENDING BALANCING RESULTS AND COMMENTS).
16. FLEXIBLE DUCT SHALL ONLY BE USED IN SUPPLY AIR APPLICATIONS FOR CONNECTIONS TO DIFFUSERS IN DROPPED CEILING. FLEXIBLE DUCT SHALL BE MAXIMUM 6' (1.8m) IN LENGTH AND SHALL BE SECURELY FASTENED TO DUCTS AND DIFFUSERS. PROVIDE HANGERS AND FLEXIBLE DUCTWORK WITHOUT SHARP 90°s, SAGGING, OR CRUSHING OF DUCT. FLEXIBLE DUCT IS NOT ACCEPTABLE IN ANY OTHER APPLICATION.
17. PROVIDE EXTERNAL INSULATION ON ALL SUPPLY AIR DUCTS, ALL OUTSIDE AIR DUCTS AND ON ALL EXHAUST DUCTS WITHIN 8' (2.4m) OF OUTSIDE WALL/ROOF INCLUDING RIGID AND FLEXIBLE DUCT. EXCEPTION: SUPPLY AIR DUCTS THAT RUN IN EXPOSED AREAS OR IN R/A PLENUMS DO NOT NEED TO BE INSULATED.
18. CONFIRM EXACT LOCATIONS OF THERMOSTATS/SENSORS WITH ENGINEER AND OWNER. MOUNT THERMOSTATS AT 47" (1200mm) AFF. MOUNT SENSORS AT 59" (1500mm) AFF. ENSURE THAT THERMOSTAT/SENSOR LOCATIONS WILL NOT BE AFFECTED BY DIRECT SUNLIGHT, COLD WALLS OR MILLWORK.
19. REFER TO "EMT (ELECTRICAL METALLIC TUBING) vs. LIQUIDTIGHT vs. FLEXIBLE CABLE" FOR ACCEPTABLE USE OF EACH ALL CONTROL WIRING SHALL RUN PARALLEL TO BUILDING LINES AND TIGHT TO ROOF DECK OR WALLS. ALL CONTROL WIRING PASSING THROUGH WALLS SHALL BE RUN IN EMT CONDUIT C/W BUSHINGS AT EACH END.
20. PROVIDE FIRE DAMPERS AT ALL FIRE SEPARATIONS. FIRE DAMPERS SHALL BE TYPE 'B' C/W LINKAGE OUT OF THE AIR STREAM. FIRE DAMPER RATING TO MATCH THE RATING OF THE SEPARATION CROSSED. INSTALLATION MUST CONFORM TO LATEST NFPA/CUA 90A SPECIFICATIONS. ONLY USE ULC APPROVED EQUIPMENT. PROVIDE DUCT ACCESS DOORS AND BREAK AWAY FLANGES FOR ALL FIRE DAMPERS IN CONFORMANCE WITH CODE AND INSTALLATION INSTRUCTIONS. ACCESS DOORS SHALL BE TWIST LOCK TYPE – SCREWED PANELS ARE NOT ACCEPTABLE.
21. PROVIDE ACCESS DOOR IN DUCTWORK IMMEDIATELY UPSTREAM AND DOWNSTREAM OF REHEAT COILS. ACCESS DOORS SHALL BE TWIST LOCK TYPE – SCREWED PANELS ARE NOT ACCEPTABLE.
22. PROVIDE SLEEVES FOR PIPES THROUGH ALL NEW BLOCK WALLS. FILL VOIDS AROUND PIPES. ENSURE NO CONTACT BETWEEN DISSIMILAR METALS.
23. PROVIDE DRYWALL ACCESS DOORS FOR CONCEALED FIRE AND BALANCE DAMPERS AND ANY OTHER CONCEALED DEVICES [AND TURN OVER TO THE GENERAL CONTRACTOR FOR INSTALLATION. DOORS TO BE GALVANIZED STEEL FOR FIELD PAINTING. DOORS SHALL BE RATED WHERE INSTALLED IN FIRE SEPARATIONS.
24. DRAIN HEATING SYSTEMS AS REQUIRED FOR NEW WORK. FILL, FLUSH, TEST AND TREAT (CHEMICAL TREATMENT SUPPLY BY CONTRACTOR) AFTER WORK IS COMPLETE. PROVIDE ALL PORTS, VALVES AND GAUGES AS REQUIRED. SUBMIT CHEMICAL TREATMENT REPORT TO ENGINEER. FREEZING OF PIPING TO ALLOW ISOLATION OF WORK AREA IS ACCEPTABLE IN LIEU OF DRAINING.
25. ALL CBVs SHALL BE MOUNTED WITH PORTS IN HORIZONTAL (90') POSITION.
26. PROVIDE EXTERNAL INSULATION ON ALL HEATING PIPING EXCEPT IN WALLFIN ENCLOSURES.
27. PROVIDE FIRE STOPPING AROUND ALL PIPING THROUGH FIRE SEPARATIONS.
28. LABEL ALL HEATING PIPING COMPLETE WITH FLOW ARROWS. LABELS SHALL BE MAX 3m(10') SPACING AND ON EITHER SIDE OF WALLS. LABELING MUST BE COMPLETE PRIOR TO NEW CEILING BEING INSTALLED OTHERWISE IT IS THE CONTRACTORS RESPONSIBILITY TO REMOVE CEILING TILES FOR INSPECTION AT THE DIRECTION OF THE CONSULTANT.
29. LABEL CEILING TILE WITH PERMANENT ADHESIVE LABELS OR LAMACOID NAMEPLATES FOR ACCESS TO MECHANICAL ITEMS.
30. PROVIDE TRAP AT OUTLET OF DRAIN FOR ROOFTOP HVAC EQUIPMENT.
31. PROVIDE TESTING AND STARTUP OF ALL NEW EQUIPMENT AND PROVIDE REPORTS TO THE ENGINEER FOR REVIEW.
32. KPRDSB WILL OBTAIN THE SERVICE OF A 3RD PARTY COMMISSIONING AGENT WHO WILL BE RESPONSIBLE FOR PERFORMING COMMISSIONING.PROVIDE TECHNICAL PARTICIPITATION/ASSISTANCE AS REQUIRED.
33. THE KPRDSB COMMISSIONING AGENT WILL OBTAIN THE SERVICE OF A 3RS PARTY ACCREDITED BALANCING COMPANY TO BALANCE THE HVAC SYSTEMS AND MEET WATER AND AIR FLOWS ON DRAWINGS. AGENT TO COORDINATE WITH BAS CONTRACTOR SET POINT AND TO PROVIDE REPORT TO ENGINEER FOR REVIEW AND TO CONTRACTOR FOR INCLUSION INTO MAINTENANCE MANUAL.PROVIDE TECHNICAL PARTICIPATION/ASSISTANCE AS REQUIRED.

GENERAL NOTES:

1. OBTAIN, ARRANGE AND PAY FOR ALL REQUIRED PERMITS AND INSPECTIONS [AND NOTICE OF PROJECT].
2. THE CONTRACTOR AND ITS SUB-TRADES SHALL ATTEND BI-WEEKLY SITE MEETINGS OR AS ARRANGED BY CONSULTANT OR OWNER.
3. OBTAIN AND REVIEW THE DESIGNATED SUBSTANCE REPORT FROM THE CLIENT AND COORDINATE ANY DESIGNATED SUBSTANCE ISSUES WITH THE CLIENT PRIOR TO ANY WORK BEING DONE.
4. PROVIDE SHOP DRAWINGS ELECTRONICALLY IN PDF FORMAT TO CONSULTANT FOR REVIEW. ALL SHOP DRAWINGS MUST BE REVIEWED, STAMPED AND SIGNED BY THE MECHANICAL CONTRACTOR PRIOR TO SUBMITTING TO THE CONSULTANT. REVIEW SHALL INCLUDE BUT NOT BE LIMITED TO: VERIFYING UNIT VOLTAGE WITH ELECTRICIAN AND/OR SITE, EQUIPMENT PERFORMANCE, DIMENSIONS AND CLEARANCES.
5. THOROUGHLY REVIEW AND COORDINATE WITH SITE CONDITIONS AND COMPLETE DRAWING SET PRIOR TO PRICING AND INSTALLATION.
6. INSTALL ALL WORK IN CONFORMANCE WITH MANUFACTURER'S REQUIREMENTS AND RECOMMENDATIONS.
7. MAINTAIN AS-BUILT DRAWINGS ON AN ON-GOING BASIS. DRAWINGS SHALL BE AVAILABLE FOR PERIODIC REVIEW BY THE CONSULTANT DURING CONSTRUCTION.
8. ALL WORK SHALL COMPLY WITH APPLICABLE CODES.
9. REMOVE ALL REDUNDANT EQUIPMENT, MATERIALS AND GARBAGE FROM SITE AND DISPOSE OF IN AN APPROVED MANNER. REDUNDANT EQUIPMENT AND MATERIALS SHALL NOT BE ABANDONED IN PLACE.
10. ALL CUTTING, CORING SHALL BE BY THIS CONTRACTOR. TRENCHING, EXCAVATION AND BACKFILL FOR UNDERGROUND PLUMBING SHALL BE BY THIS CONTRACTOR.
11. COORDINATE ROOFING FOR DUCT AND PIPE ROOF PENETRATIONS WITH GENERAL CONTRACTOR.
12. ANY FEED TO NEW ROOFTOP EQUIPMENT SHALL BE INSTALLED WITH GOOSENECK STYLE PITCH POCKET EQUAL TO THALER METAL MEF-2A OR DOGHOUSE. SIZE AS REQUIRED TO SUIT FEED.
13. MAINTAIN REQUIRED ACCESS AND CLEARANCE TO ALL EQUIPMENT AND SYSTEMS AS REQUIRED BY CODE AND AS PER MANUFACTURER'S REQUIREMENTS.
14. TAG ALL EQUIPMENT WITH LAMACOID NAMEPLATES. TAG ALL VALVES WITH LAMACOID NAMEPLATES OR BRASS TAGS ON CHAINS.
15. LABEL ALL PIPING WITH SERVICE AND FLOW ARROWS EVERY 10'(3m) AND ON EITHER SIDE OF WALLS.
16. THE CONTRACTOR SHALL ARRANGE FOR ROUGH-IN INSPECTIONS BY THE ENGINEER PRIOR TO CEILINGS AND WALLS BEING CLOSED IN. WHERE THIS HAS NOT BEEN ARRANGED IT IS THE CONTRACTOR'S RESPONSIBILITY TO REMOVE CEILING TILES OR ACCESS DOORS FOR INSPECTION AT THE DIRECTION OF THE CONSULTANT.
17. PERFORM TESTING AND START UP [AND COMMISSIONING] OF ALL SYSTEMS AS REQUIRED BY CODE, THE CONSULTANT, MANUFACTURER'S REQUIREMENTS, AND AUTHORITIES HAVING JURISDICTION. SUBMIT REPORTS TO THE CONSULTANT.
18. INSTRUCT AND DEMONSTRATE TO THE OWNER ON PROPER OPERATION OF THE SYSTEM. RECORD AND SUBMIT A LOG DATED AND SIGNED BY ALL ATTENDEES.
19. UPON COMPLETION OF THE PROJECT THE CONSULTANT WILL DO A FINAL REVIEW. UPON RECEIVING THE FINAL INSPECTION REPORT, THE CONTRACTOR MUST CORRECT AND SIGN BACK THE INSPECTION REPORT INDICATING ALL DEFICIENCIES ARE COMPLETED. A RE-INSPECTION WILL ONLY BE DONE ONCE THE CONSULTANT RECEIVES THIS IN WRITING. WHERE THE CONSULTANT PERFORMS THE RE-INSPECTION AND THE WORK IS NOT COMPLETE, THE CONTRACTOR IS RESPONSIBLE FOR REIMBURSING THE CONSULTANT FOR THE FIELD REVIEW. THE FEE FOR ADDITIONAL REVIEWS WILL BE AT THE CONSULTANT'S HOURLY RATES PLUS MILEAGE AND APPLICABLE TAXES TO BE PAID DIRECTLY TO THE CONSULTANT PRIOR TO PERFORMING THE NEXT FIELD REVIEW.
20. PROVIDE ONE (1) YEAR WARRANTY ON ALL MATERIAL AND LABOUR [FROM THE DATE OF SUBSTANTIAL COMPLETION.]
21. PROGRESS DRAWS SHALL INCLUDE MINIMUM $3,500.00 FOR MANUALS AND AS-BUILT DRAWINGS. TOTAL AMOUNT SHALL REMAIN UNBILLED UNTIL MANUALS AND AS-BUILT DRAWINGS HAVE BEEN SUBMITTED AND APPROVED.
22. PROVIDE ONE(1) HARD COPIES OF MAINTENANCE MANUALS IN A 3-RING BINDER LABELED ON SPINE AND FRONT AND ONE(1) ELECTRONIC COPY ON USB. MANUAL SHALL INCLUDE:
    - TABLE OF CONTENTS
    - CONTRACTOR INFORMATION
    - WARRANTY LETTER
    - SHOP DRAWINGS
    - O&Ms
    - INSPECTION & TEST REPORTS
    - AS-BUILT DRAWINGS.

    AS-BUILT DRAWINGS SHALL INCLUDE COMPLETE MECHANICAL DRAWING SET WITH ANY CHANGES MARKED CLEARLY AND NEATLY IN COLOUR. AS-BUILTS SHALL BE STAMPED ACCORDINGLY BY THE CONTRACTOR (ALL DRAWINGS). DRAWINGS SHALL BE SUBMITTED HARD COPY IN FULL SIZE. SUBSTANTIAL COMPLETION WILL NOT BE AWARDED UNTIL THE MANUALS AND AS-BUILTS HAVE BEEN SUBMITTED TO THE CONSULTANT AND THE CONSULTANT HAS APPROVED.
23. REFER TO SPECIFICATIONS.

PLUMBING LEGEND

	NEW
	EXISTING
	DEMOLITION
AS AS	DEMO ABOVEGROUND SANITARY
C C	DOMESTIC COLD WATER (DCW)
HW HW	DOMESTIC HOT WATER (DHW)
HWR HWR	DOMESTIC HOT WATER RECIRC (DRW)
T T	DOMESTIC TEMPERED WATER LINE (DTW)
AS AS	ABOVEGROUND SANITARY LINE
S S	UNDERGROUND SANITARY LINE
ST ST	ABOVEGROUND STORM LINE
	UNDERGROUND STORM LINE
	PLUMBING VENT
FD / FFD	FLOOR DRAIN / FUNNEL FLOOR DRAIN
RD / RD	ROOF DRAIN / ROOF DRAIN ABOVE
CO / CO	STACK / FLOOR CLEANOUT
	HOSEBIBB (HB)
WC-1	FIXTURE TAG
TYPE ID	EQUIPMENT TAG — TYPE OF EQUIPMENT NUMBER DESIGNATION
	ELBOW RISING
	ELBOW DROPPING
	BRANCH RISING FROM TEE
	BRANCH DROPPING FROM TEE
	SHUT-OFF BALL VALVE
	CHECK VALVE
	REDUCER
	STRAINER
	UNION

HVAC LEGEND

	NEW
	EXISTING
	DEMOLITION
SCT	SUPPLY DUCTS (UP / DOWN)
RCT	RETURN DUCTS (UP / DOWN)
ECT	EXHAUST DUCTS (UP / DOWN)
RD	ROUND DUCTS (UP / DOWN)
	FLEXIBLE DUCT
	ACOUSTIC LINED DUCT
	TURNING VANES
BD	BALANCE DAMPER
FD	FIRE DAMPER
SD	SPLITTER DAMPER
	SUPPLY DIFFUSER
	RETURN/EXHAUST CEILING GRILLE
HS HS	HOT WATER HEATING SUPPLY (HS)
HR HR	HOT WATER HEATING RETURN (HR)
	ELBOW RISING
	ELBOW DROPPING
	BRANCH RISING FROM TEE
	BRANCH DROPPING FROM TEE
	BALL SHUT-OFF VALVE
	UNION
	CHECK VALVE
	GLOBE VALVE
	BAS 2-WAY CONTROL VALVE
	CIRCUIT BALANCING VALVE (CBV)
	CONCENTRIC REDUCER
	STRAINER
AV	AUTOMATIC AIR VENT C/W 1/4" BALL VALVE AND NIPPLE/COUPLING (MINI BALL VALVES NOT ACCEPTABLE)
TS	PIPE TEMPERATURE SENSOR C/W WELL
T	DUCT TEMPERATURE SENSOR
	CONTROL/SENSING WIRING
S	BAS SPACE SENSOR
TYPE ID	EQUIPMENT SYMBOLS — TYPE OF EQUIPMENT NUMBER DESIGNATION
QTY TYPE SIZE AIR	GRILLE SYMBOLS — TYPE SIZE (in/mm) AIR FLOW (cfm/l/s)
QTY TYPE SIZE-1 SIZE-2 CAPACITY	RADIATION SYMBOLS — TYPE FIN LENGTH (in/mm) ENCLOSURE LENGTH (in/mm) CAPACITY (MBH)

MECHANICAL ABBREVIATIONS

EX	EXISTING TO REMAIN
AFF	ABOVE FINISHED FLOOR
CTE	CONNECT TO EXISTING
C/W	COMPLETE WITH
S/A	SUPPLY AIR
R/A	RETURN AIR
E/A	EXHAUST AIR
O/A	OUTSIDE AIR
U/G	UNDER GROUND
RWL	RAIN WATER LEADER
TMV	THERMOSTATIC MIXING VALVE
TSP	TRAP SEAL PRIMER

DESIGN AND DETAILS SHOWN ON THIS DRAWING OR ASSOCIATED DOCUMENTATION ARE PRODUCED BY AND THE PROPERTY OF CIMA+ COPY IN WHOLE OR PART IS PROHIBITED. THE CONTRACTOR MUST CHECK AND BE RESPONSIBLE FOR SITE CONDITIONS THAT MAY DIFFER FROM THESE PLANS AND NOTIFY CIMA+ OF SAME.

ISSUES/REVISIONS

No.	DESCRIPTION	DATE
1	ISSUED FOR 50% COORDINATION	JAN 18 2024
2	RE-ISSUED FOR 50% COORDINATION	JAN 26 2024
3	ISSUED FOR 80% COORDINATION	FEB 9 2024
4	ISSUED FOR COSTING	FEB 13 2024
5	ISSUED FOR PERMIT & TENDER	APR 8 2024
6	RE-ISSUED FOR PERMIT & TENDER	JUL 31 2024

KAWARTHA PINE RIDGE DISTRICT SCHOOL BOARD
1994 Fisher Drive, Peterborough, Ontario K9J 6X6

CIMA+ DES
415 BASELINE ROAD WEST
BOWMANVILLE, ON L1C 5M2
T 905.697.4464
www.cima.ca

LICENSED PROFESSIONAL ENGINEER
M. DOVEIRIJAVI
100514385
JULY 31/24
PROVINCE OF ONTARIO

MURRAY CENTENIAL PS ADDITION

654 COUNTY ROAD 40, R.R.#1
TRENTON ON

DATE: AUGUST 2023	SCALE: NTS
DRAWN BY: MRC	CHECKED BY: MD
CIMA+ PROJECT NUMBER: C14-0588	SHEET SIZE: E1

LEGENDS & NOTES

M801

PLUMBING FIXTURE SCHEDULE

WC–1 – TOILET – FLOOR MOUNTED – VITREOUS CHINA – GRAVITY TANK TYPE

American Standard Cadet Pro Round Front 381 mm high #215DA.154 Toilet, vitreous china with EverClean antimicrobial surface, floor mounted, cadet flushing system with Powerwash rim, scrubs bowl with every flush, 4.8 L (1.28 US Gal) per flush, raised sanitary bar and four (4) points tank stabilization, 229 mm x 203 mm (9" x 8"), two piece, 'Speed Connect' tank assembly, lined tank, oversized 76 mm (3") flush valve with flapper, Metal shank fill valve, 305 mm (12") rough–in, 54 mm (2–1/8") fully glazed internal trapway, floor outlet, bolt caps. BEMIS #200SLOWT–047 seat, closed front with cover, round, injection molded solid plastic seat, black. Whisper–Close with Easy–Clean & change hinges. McGuire #H166N3 Toilet Supply, chrome finish polished brass, heavy duty angle stop, 13 mm (1/2") I. P. S. Inlet x 76 mm (3") long rigid horizontal nipple, wheel handle, escutcheon and flexible copper riser. Provide Floor Flange, (same material as the connecting pipe drain), with all brass bolts and with rubber gasket.
Alternates: Kohler, Crane. Seats: Moldex, Olsonite, Beneke

LV–1 – BASIN – WALL HUNG – (GENERAL USE) VITREOUS CHINA – PUSH PRESS FAUCET

American Standard Lucerne #0356.421 Basin, 521mm x 464mm x 308mm (20–1/2" x 18–1/4" x 12–1/8") high, vitreous china, single centre hole, for carrier with concealed arms, front overflow, self–draining faucet ledge, contoured back and side splash shield. Moen Commercial #8894 "M–Press" single mount cast brass metering faucet, extended reach, time preset to 10 seconds at 70 psi (adjustable), 1.9 LPM (0.5 GPM) vandal resistant aerator, 0.95 LPC (0.25 GPC) 1/2" IPS connections. McGuire #155AC open grid drain, chrome plated cast brass one piece top, 1.5mm (1/16") thick tubular 32mm (1–1/4") tailpiece. McGuire #LFH165LKN3 Faucet Supplies, chrome finish polished brass, heavy duty angle stops, 10mm (3/8") I. P. S. Inlet x 76mm (3") long rigid horizontal nipple, V. P. Loose key, escutcheon and flexible copper risers. McGuire #8872C P–Trap, heavy cast brass adjustable body, with slip nut, 32mm (1–1/4") size, shallow wall flange and seamless tubular wall bend. Watts #CA–411 Carrier, mounted on concrete floor, with epoxy coated cast iron concealed arms, heavy gauge steel uprights with integral welded feet. Minimum space required: for one unit: 102mm (4"). Use suffix –M51 to suit wall thickness where required.
Alternates: Kohler, Vortens. Trim: Delta, Sloan

WC–2 – TOILET – FLOOR MOUNTED FLUSH VALVE

American Standard Madera Flowise Elongated #3451.001 HET Toilet, white vitreous china with EverClean antimicrobial surface, floor mounted, 15" rim height, siphon jet flush action, operates in the range of 4.2L to 6L (1.1 US Gal to 1.6 US Gal) per flush, condensate channel, 305mm x 254mm (12" x 10"), 54mm (2–1/8") fully glazed internal trapway, 38mm (1–1/2") dia. Top spud. BEMIS #1055SSC–047 seat, open front, less cover, elongated, heavy duty injection molded solid plastic, black. 300 series S.S. posts & nuts. Self sustaining check hinges. Moen Commercial #8310M16, exposed flush valve. Polished chrome plated finish. Vandal resistant control stop Metal "non hold open" ADA Compliant oscillating handle. Vacuum breaker. Renewable seat. Chloramine resistant seals. Spud flange and concealed spud nut. For Water Closets with 1–1/2" top spud. Maximum 292mm(11 1/2") from centerline of valve inlet to top of water closet, 1" FIP/Copper sweat inlet adaptor for angle check stop with protecting cap.
Alternates: Kohler, Crane. Seats: Moldex, Olsonite, Beneke

WC–3 – TOILET – FLOOR MOUNTED FLUSH VALVE (BARRIER FREE DESIGN)

American Standard 'MADERA ELONGATED 16–1/8" (410mm) HIGH' #2305.100 'Low Consumption' Toilet, floor mounted for flush valve, vitreous china, elongated syphon jet flush action bowl, fully glazed 2" (50mm) ball pass internal trapway, 10" x 12" (254mm x 304mm) large water surface, 1.3 gal. (6L) flush, 1–1/2" (38mm) top spud and bolt caps. Provide floor flange, flange bolts and gasket. Moen Commercial #8310M16, exposed flush valve. Polished chrome plated finish. Vandal resistant control stop Metal "non hold open" ADA Compliant oscillating handle. Vacuum breaker. Renewable seat. Chloramine resistant seals. Spud flange and concealed spud nut. For Water Closets with 1–1/2" top spud. Maximum 292mm(11 1/2") from centerline of valve inlet to top of water closet, 1" FIP/Copper sweat inlet adaptor for angle check stop with protecting cap.
Centoco #820STS Seat, elongated heavy duty solid plastic open front with cover, check hinge and stainless steel posts, washers and nuts.

LV–2 – BASIN WALL HUNG (BARRIER FREE DESIGN)

American Standard 'MURRO' #0955.000 Basin, 4" (102mm) centres, 22" x 21" x 5 – 7–1/2" (559mm x 533mm x 127–191mm) deep, wall hung, vitreous china, Center hole only with overflow, for concealed arm support. Moen Commercial #8894 "M–Press" single mount cast brass metering faucet, extended reach, time preset to 10 seconds at 70 psi (adjustable), 1.9 LPM (0.5 GPM) vandal resistant aerator, 0.95 LPC (0.25 GPC) 1/2" IPS connections. McGuire #155AC open grid drain, chrome plated cast brass one piece top, 1.5mm (1/16") thick tubular 32mm (1–1/4") tailpiece. McGuire #LFH165LKN3 Faucet Supplies, chrome finish polished brass, heavy duty angle stops, 10mm (3/8") I. P. S. Inlet x 76mm (3") long rigid horizontal nipple, V. P. Loose key, escutcheon and flexible copper risers. McGuire #8872C P–Trap, heavy cast brass adjustable body, with slip nut, 32mm (1–1/4") size, shallow wall flange and seamless tubular wall bend. Watts #CA–411 Carrier, mounted on concrete floor, with epoxy coated cast iron concealed arms, heavy gauge steel uprights with integral welded feet. Minimum space required: for one unit: 102mm (4"). Use suffix –M51 to suit wall thickness where required.
Alternates: Kohler, Vortens. Trim: Delta, Sloan

MS–1 – SERVICE/MOP SINK – FLOOR MOUNTED – TWO HANDLE MANUAL FAUCET

Stern Williams #MTB–2424 square service / Mop sink, 610mm (24") x 610mm (24") x 254mm (10") deep, floor mounted, terrazzo composed of pearl gray marble chips and Portland cement ground smooth, sealed to resist stain, tiling flange on two sides, cast brass drain with stainless steel strainer, 3"(75mm) outlet. Moen Commercial #8230 wall mounted Two handle manual faucet, Cast brass, Integral stops. Rough chrome plated finish. Pail hook. Inline vacuum breaker. Hose–end spout. Wall brace. Color indexed metal lever handles, 203mm (8") centers. Stern Williams V–70 Bumper Guard extruded vinyl Stern Williams T–35 Hose and Wall Hook hose 36" (914mm) long with 3/4" (19mm) chrome coupling, stainless steel wall bracket. Stern Williams T–40 Mop Hanger stainless steel #4 finish, 24" (610mm) long with 3 rubber spring loaded drips. Stern Williams BP–224 Back Splash Panel 20 gauge type 304 stainless steel. Stern Williams TC–3 Gasket 3" (76mm) for XHCl, plastic and steel pipe. Provide P–Trap, same material as the connecting pipe drain.

RD – ROOF DRAIN – CONVENTIONAL

Jay R. Smith #1010–E–R–C–CID Roof drain, all duco coated, 15.25" (387mm) diameter cast iron body with under deck clamp, solid extension and sump receiver, flashing clamp with seepage openings and 11" (280mm) diameter secured cast iron dome. (Solid extension height to suit roof construction).
Alternates: Watts, Zurn

FD – FLOOR DRAINS – FINISHED AREA – ADJUSTABLE STRAINER

Watts #FD–200–NH–5–1 Area Drain, epoxy coated cast iron floor drain with anchor flange, weepholes, 1/2"(13) thick reinforced 5x5" (127x127mm) adjustable square nickel bronze strainer, trap primer tapping and no hub (MJ) outlet.

FLOOR CLEANOUTS/ ACCESS COVERS – FLOOR CLEANOUT

Tile / LVT & Rubber Area: Watts #CO–200–NH–S–1–34G Floor Cleanout, epoxy coated cast iron floor cleanout with 5–1/8" (130mm) square nickel bronze top, no hub, abs plug with neoprene gasket.

Terrazzo Area: Watts #CO–200–US–1–34G Terrazzo Recess Floor Cleanout, epoxy coated cast iron body, 5–1/8" (130mm) square adjustable nickel bronze top with terrazzo recess, no hub , ABS plug with neoprene gasket, 5" x 5" (127mm x 127mm) nickel bronze square cover.

SK–1 – SINGLE BOWL SINK – COUNTERTOP WITH LEDGEBACK – STANDARD USE – 302/304 STAINLESS STEEL – SINGLE HANDLE FAUCET

Franke Commercial #LBS6808–1/1 Single bowl countertop mount sink, 1 hole, 20–1/2"(521mm) x 20" (508mm) x 203mm (8") deep, counter mounted, backledge, grade 18–8, 20 GA. (0.9mm) type 302 stainless steel, satin finish rim and bowls, mounting kit provided, fully undercoated to reduce condensation and resonance, factory applied rim seal, 3–1/2" (89mm) crumb cup waste assembly with 1–1/2" (38 mm) tailpiece. Moen Commercial #8103 Deckmount single handle manual faucet, lead free chrome plated solid brass with one piece concealed rough body, ceramic 1/4 turn cartridges, 5.25"(133mm) swing spout. Vandal Resistant 5.7LPM (1.5 GPM) aerator outlet, lever handle with vandal resistant screw. McGuire #LFH165LKN3, Faucet Supplies, chrome plated polished brass, heavy duty angle stops, 3/8" (10mm) I. P. S. Inlet x 3" (76mm) long rigid horizontal nipples, V. P. Loose keys, escutcheons and flexible copper riser. McGuire #8912CB P–Trap , heavy cast brass adjustable body, with slip nut, 1–1/2" (38mm) size, box flange and seamless tubular wall bend.
Alternates: Architectural Metal Products, Trim: Chicago Faucets, Delta

SK–2 – SINGLE BOWL SINK – COUNTERTOP WITH LEDGEBACK – STANDARD USE – 302/304 STAINLESS STEEL – TWO HANDLE FAUCET

Kindred Commercial LBS6808–1/3 S.S. Sink, 3 hole, 8" (203mm) centers, 20–1/2" x 20" x 8" (521mm x 508mm x 203mm) deep, counter mounted, back ledge, grade 18–8 type 302 stainless steel, single compartment, satin finished rim and bowl, self–rimming, sound deadening and mounting kit, 3–1/2" (89mm) crumb cup strainer with 1–1/2" (38mm) tail piece. Moen Commercial #8282 Faucet, C.P. 8" (203mm) C.C., below deck mounted, solid brass lead–free body, 1/4 turn ceramic disc valve cartridges, 9.5" (229mm) long swing spout with Moen #52611 vandal–resistant 5.7 LPM (1.5 GPM) max. pressure compensating aerator outlet and 4" cast brass lever handles. Provide Supplies, C.P. with metal angle stops, adaptors, escutcheons and metal flexible risers. Provide 'p' Trap, cast brass 1–1/2" (38mm) with cleanout, union and escutcheon.
Alternates: Architectural Metal Products. Trim: Delta

TSP–1 – TRAP SEAL PRIMER (TSP)

Sioux Chief ES electronic model, surface mount electronic trap primer, single outlet, solenoid valve, vacuum breaker, configurable electronic primer controller, water hammer arrestor, 120VAC power, 1/2" (13mm) inlet and outlet. Provide manifold as required to suit number of traps.

HOT WATER TANK SCHEDULE

TAG		HWT–1
TYPE		ELECTRIC
MANUFACTURER		BRADFORD WHITE
MODEL		LE330S3–3
CAPACITY	usgal	30
HEAT CAPACITY INPUT		4.5 KW
POWER	volts/ph	208/1
RECOVERY	usgal/hr	18@100°F
VENT CONNECTION	inches	N/A
SHIPPING WEIGHT	lbs	100
ALTERNATE MANUFACTURERS		A.O. SMITH

EXPANSION TANK SCHEDULE

TAG		ET–1
SERVICE		DOMESTIC
ORIENTATION		VERTICAL
TYPE		DIAPHRAGM
MANUFACTURER		AMTROL THERM–X–TROL
MODEL		ST–12C–DD
TOTAL VOLUME	usgal	6.4
DIAMETER	in.	12
HEIGHT/LENGTH	in.	18
SYSTEM CONNECTIONS	in.	3/4
FACTORY PRE–CHARGE	psi	55
WORKING PRESSURE	psi	150
SHIPPING WEIGHT	lbs	17
ACCESSORIES		
ALTERNATE MANUFACTURERS		REFER TO SPECIFICATIONS

HOT WATER FORCE FLOW SCHEDULE

TAG		FFH–1
SERVICE		VESTIBULE 180, 187, 195
MANUFACTURER		SIGMA
MODEL		SFF–A–02
ARRANGEMENT		INVERTED (BI)
CONFIGURATION		RECESSED
FLOW MANAGEMENT		FRONT TOP IN FRONT BOTTOM OUT
COLOUR		SNOW WHITE
AIR FLOW	cfm	200
HEATING CAPACITY	btuh	13,000
EAT/LAT	°F	60/115
EWT/LWT	°F	160/140
FLOW	gpm	1.3
WATER PRESSURE DROP	ft	0.4
MOTOR	hp	1/10
ELECTRICAL	volt/ph	120/1
MOTOR AMPS	amps	1.9
FILTERS	in	7.5x18
DIMENSIONS	in	26.0Wx26.0Hx9.5D
WEIGHT	lbs	75
CONTROLS		–UNIT MOUNTED 3–SPEED FAN CONTROL –WALL MOUNTED SPACE SENSOR BY CONTROLS CONTRACTOR –TIE INTO BAS FOR ENABLE/DISABLE
NOTES		HANDING TO BE CONFIRMED BY CONTRACTOR WITH SUPPLIER AS PART OF SHOP DRAWING REVIEW. SHOP DRAWINGS WILL NOT BE ACCEPTED UNLESS HANDING IS INDICATED.
ALTERNATE MANUFACTURERS		ENGINEERED AIR, TRANE

HOT WATER UNIT HEATER SCHEDULE

TAG		UH–1
SERVICE		SPRINKLER ROOM
MANUFACTURER		SIGMA
MODEL		015H
HEATING CAPACITY	btuh	10,000
AIR FLOW	cfm	400
MOTOR	hp	1/20
MOTOR RPM		1050
FLUID		100% WATER
EWT/LWT	°F	160/140 [180/160]
EAT/LAT	°F	60/83.0
WATER FLOW	gpm	1.03
WATER PRESSURE DROP	ft	0.74
WATER CONNECTION	in	1/2" CU SWEAT
ELECTRICAL	volt/ph	120/1
AMPS	amps	1.1
WEIGHT	lbs	27
MAX MOUNTING HEIGHT	ft.	9
CONTROLS		REFER TO CONTROLS DETAILS
ACCESSORIES		–OSHA FAN GUARD –HORIZONTAL LOUVRES
ALTERNATE MANUFACTURERS		ENGINEERED AIR, TRANE

ROOF TOP UNIT SCHEDULE

TAG		RTU–1 ERW		RTU–2	
SERVICE		NEW ADDITION		MULTI–PURPOSE	
LOCATION		NEW ADDITION ROOF		NEW ADDITION ROOF	
MANUFACTURER		AAON		AAON	
MODEL		RN–016–8–0–HA09–38B		RN–013–8–0–HA09–3GB	
ARRANGEMENT		BOTTOM DISCHARGE, BOTTOM RETURN		BOTTOM DISCHARGE, BOTTOM RETURN	
AIR HANDLING		SUPPLY	EXHAUST	SUPPLY	EXHAUST
AIR FLOW	cfm	5,200	5,200	3500	3500
EXTERNAL STATIC	in. WC	1	0.5	1.5	0.5
TOTAL STATIC	in. WC	2.6	1.4	2.6	1.4
FAN MOTOR	hp	5	5	5	5
SPEED	rpm	1,760	1,760	1448	1,760
FILTER		2" (MERV8) 30%, C/W SPARE SUPPLIED		2" (MERV8) 30% , C/W SPARE SUPPLIED	
COOLING COIL					
REFRIGERANT		R410A		R410A	
TOTAL CAPACITY	MBH	191		159	
SENSIBLE CAPACITY	MBH	141		104.5	
EAT DB/WB	°F	76.1/63.53		80/67.4	
LAT DB/WB	°F	52.2/50.9		53.7/52.5	
AMBIENT DB/WB	°F	87/73		87/73	
FACE VELOCITY	fpm	261.8		240	
GAS HEATING COIL					
INPUT	MBH	405		292	
OUTPUT	MBH	328		234	
EAT/LAT	°F	61.4/119.8		37.4/98.8	
ENERGY RECOVERY WHEEL				NA	
EXHAUST FLOW	cfm	2,800			
SUPPLY FLOW	cfm	2,800			
RECOVERY (COOLING)	btuh	72.18 (TOTAL)/23.25 (SENSIBLE)			
RECOVERY (HEATING)	btuh	218.97 (TOTAL)/179.33 (SENSIBLE)			
OCCUPIED MIN. F/A	cfm	2,800 (53%) VIA ERW		1600	
ELECTRICAL (UNIT)	volt/ph	208/3		208/3	
MCA (UNIT)	amps	101		71	
MOCP (UNIT)	amps	125		90	
UNIT DIMENSIONS	inches	156L x 100W x 56H		88 1/8L x 50 1/4W x 50 1/8 H	
APPROX WEIGHT	lbs	3,333		1935	
CONTROLS		REFER TO CONTROLS DETAILS		REFER TO CONTROLS DETAILS	
ACCESSORIES		–24" ROOF CURB –VARIABLE CAPACITY SCROLL COMPRESSOR –ECONOMIZER –MODULATING GAS HEAT C/W DISCHARGE AIR TEMP CONTROL & BAS RESET –PREMIUM EFFICIENCY MOTORS WITH VFD –OUTDOOR INTAKE WEATHERHOOD –LOW LEAKAGE, MOTORIZED INTAKE, RETURN & EXHAUST DAMPERS EQUIVALENT TO TAMCO 9000 –115V/20A GFCI CONVENIENCE RECEPTACLE (FIELD WIRED) –TEST PORTS –STAINLESS STEEL HEAT EXCHANGER & DRAIN PAN –NON–FUSED DISCONNECT –EXTERIOR PREPAINTED GALVANIZED STEEL –R13 FOAM INSULATION & BASE INSULATION –LOCKABLE, HINGED ACCESS DOORS W/ LEVER HANDLES AND FULL GASKETING. LOCKS BY SOCKET (NOT KEYED). –FILTER DIFFERENTIAL PRESSURE GAUGE C/W DISPLAY & ANALOG OUTPUT FOR BAS; SUPPLIED BY MANUFACTURER AND INSTALLED IN CONTROL CABINET		–24" ROOF CURB –VARIABLE CAPACITY SCROLL COMPRESSOR –ECONOMIZER –MODULATING GAS HEAT C/W DISCHARGE AIR TEMP CONTROL & BAS RESET –PREMIUM EFFICIENCY MOTORS WITH VFD –OUTDOOR INTAKE WEATHERHOOD –LOW LEAKAGE, MOTORIZED INTAKE, RETURN & EXHAUST DAMPERS EQUIVALENT TO TAMCO 9000 –115V/20A GFCI CONVENIENCE RECEPTACLE (FIELD WIRED) –TEST PORTS –STAINLESS STEEL HEAT EXCHANGER & DRAIN PAN –NON–FUSED DISCONNECT –EXTERIOR PREPAINTED GALVANIZED STEEL –R13 FOAM INSULATION & BASE INSULATION –LOCKABLE, HINGED ACCESS DOORS W/ LEVER HANDLES AND FULL GASKETING. LOCKS BY SOCKET (NOT KEYED). –FILTER DIFFERENTIAL PRESSURE GAUGE C/W DISPLAY & ANALOG OUTPUT FOR BAS; SUPPLIED BY MANUFACTURER AND INSTALLED IN CONTROL CABINET	
NOTES		–ENERGY EFFICIENCY RATIO SHALL BE EQUAL TO OR GREATER THAN THAT PRESCRIBED BY ASHRAE 90.1 –MANUFACTURER SHALL PROVIDE FACTORY TRAINED TECHNICIAN FOR STARTUP AND TRAINING		–MANUFACTURER SHALL PROVIDE FACTORY TRAINED TECHNICIAN FOR STARTUP AND TRAINING	
ALTERNATE MANUFACTURER		ENGINEERED AIR		ENGINEERED AIR	
SITE REQUIREMENTS		ADDITIONAL WORK AND EXTRA COSTS DUE TO THE SUPPLY OF ALTERNATE EQUIPMENT IS THE CONTRACTOR'S RESPONSIBILITY		ADDITIONAL WORK AND EXTRA COSTS DUE TO THE SUPPLY OF ALTERNATE EQUIPMENT IS THE CONTRACTOR'S RESPONSIBILITY	

HOT WATER WALLFIN SCHEDULE

TAG		WF–1	WF–2
MANUFACTURER		SIGMA	SIGMA
ELEMENT TYPE		ELMT–44C075	ELMT–24C100
ENCLOSURE TYPE		SWE–18S (SLOPE TOP)	SWE–18S (SLOPE TOP)
COLOUR		SNOW WHITE	SNOW WHITE
FLUID		WATER (0% GLYCOL)	WATER (0% GLYCOL)
FIN LENGTH		REFER TO DRAWINGS	REFER TO DRAWINGS
ENCLOSURE LENGTH		REFER TO DRAWINGS	REFER TO DRAWINGS
ENCLOSURE HEIGHT	in.	18	18
HEATING CAPACITY	btuh/ft	808	651
EWT/LWT	°F	160/140	160/140
NO OF TIERS/ROWS		2	1
COPPER TUBING DIAMETER	in.	1"	1"
ALUMINUM FINS	in.	2 3/4"x4"	2 3/4"x4"
CONTROLS		–CONTROL VALVE AND SENSOR. REFER TO DETAILS.	
ACCESSORIES		–CONTINUOUS COVER C/W END PANELS, JOINERS, ETC. –STAMPED LOUVERED BOTTOM INLET, LOUVERED FRONT OUTLET	
ALTERNATE MANUFACTURERS		ENGINEERED AIR, TRANE, RITTLING	

EXHAUST FAN SCHEDULE

TAG		EF–1	EF–2	EF–3	EF–4	EF–5
SERVICE		WASHROOM	UTILITY ROOM	WASHROOM	WASHROOM	WASHROOM
TYPE		ROOF MOUNTED	CEILING MOUNTED ULTRA SILENT	CEILING MOUNTED ULTRA SILENT	ROOF MOUNTED	ROOF MOUNTED
MANUFACTURER		GREENHECK	BROAN	BROAN	GREENHECK	GREENHECK
MODEL		G–090–VG	QTRE090C	QTRE090C	G–070–VG	G–080–VG
AIR FLOW	cfm	460	90/68	90/68	150	252
STATIC	in.w.c.	0.28	0.1/0.25	0.1/0.25	0.25	0.25
SONES		4.9	1.0 @ 0.1"ESP	1.0 @ 0.1"ESP	2.5	5.2
FAN RPM		1115	––	––	1258	1258
FAN MOTOR	hp	1/6	FRACTIONAL	FRACTIONAL	1/15	1/10
FAN TYPE		DIRECT DRIVE	CENTRIFUGAL BLOWER	CENTRIFUGAL BLOWER	DIRECT DRIVE	DIRECT DRIVE
ELECTRICAL	volt/ph	120/1	120/1	120/1	120/1	120/1
FLA	amps		0.3A/29.7W	0.3A/29.7W		
DIMENSIONS	in	17X17x 27H	11.25 x 10.375 x 7.625 HOUSING W/ 14x13 GRILLE	11.25 x 10.375 x 7.625 HOUSING W/ 14x13 GRILLE	17X17x 24H	17X17x 27H
WEIGHT	lbs	29	11.8	11.8	20	28
CONTROLS		–TIE INTO BAS TO RUN DURING OCCUPIED HOURS. REFER TO CONTROLS DETAILS	–LIGHT/FAN SWITCH BY ELECTRICAL	–LIGHT/FAN SWITCH BY ELECTRICAL	–TIE INTO BAS TO RUN DURING OCCUPIED HOURS. REFER TO CONTROLS DETAILS	–TIE INTO BAS TO RUN DURING OCCUPIED HOURS. REFER TO CONTROLS DETAILS
ACCESSORIES/ FEATURES		–BACKDRAFT DAMPER –16" ROOFCURB –MOTOR MOUNTED SPEED CONTROL –NEMA 3R DISCONNECT SWITCH –CURB SEAL	–METAL GRILLE –RESILIENT ANTI–VIBRATION MOTOR MOUNTS –6" DUCT CONNECTER ASSEMBLY WITH DAMPER FOAM –FOUR–POINT MOUNTING CAPABILITY –BACKDRAFT DAMPER	–METAL GRILLE –RESILIENT ANTI–VIBRATION MOTOR MOUNTS –6" DUCT CONNECTER ASSEMBLY WITH DAMPER FOAM –FOUR–POINT MOUNTING CAPABILITY –BACKDRAFT DAMPER	–BACKDRAFT DAMPER –16" ROOFCURB –MOTOR MOUNTED SPEED CONTROL –NEMA 3R DISCONNECT SWITCH –CURB SEAL	–BACKDRAFT DAMPER –16" ROOFCURB –MOTOR MOUNTED SPEED CONTROL –NEMA 3R DISCONNECT SWITCH –CURB SEAL
ALTERNATE MANUFACTURERS		COOK, PENN, ACME, ZONEX, CARNES				

VAV BOX SCHEDULE

TAG		VAV–1	VAV–2	VAV–3	VAV–4	VAV–5	VAV–6	VAV–7	VAV–8	VAV–9	VAV–10
LOCATION		SEE PLAN	SEE PLAN	SEE PLAN	SEE PLAN	SEE PLAN	SEE PLAN	SEE PLAN	SEE PLAN	SEE PLAN	SEE PLAN
SERVICE		–	–	–	–	–	–	–	–	–	–
MANUFACTURER		METALAIRE	METALAIRE	METALAIRE	METALAIRE	METALAIRE	METALAIRE	METALAIRE	METALAIRE	METALAIRE	METALAIRE
MODEL		TH–508	TH–510	TH–508	TH–508	TH–508	TH–508	TH–508	TH–508	TH–508	TH–505
SIZE/INLET		08	10	08	08	08	08	08	08	08	05
AIR FLOW MAX/MIN	cfm	550/165	680/204	550/165	550/165	550/165	550/165	550/165	450/135	530/159	220/66
MIN POSITION	cfm	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%
OPERATING WEIGHT	lbs	35	43	35	35	35	35	35	35	35	29
HEATING COIL											
CAPACITY	btuh	14890	18490	14890	14890	14890	14890	14890	12200	14890	–
FLUID		100% WATER	100% WATER	100% WATER	100% WATER	100% WATER	100% WATER	100% WATER	100% WATER	100% WATER	–
ROWS		2	2	2	2	2	2	2	2	2	–
AIR PRESS. DROP	in.wc.	0.328	0.21	0.328	0.328	0.328	0.328	0.328	0.23	0.3	–
EWT/LWT	°F	160/129.72	160/126.45	160/129.72	160/129.72	160/129.72	160/129.72	160/129.72	160/125.09	160/129.72	–
EAT/LAT	°F	70/94.96	70/95.07	70/94.96	70/94.96	70/94.96	70/94.96	70/94.96	70/94.99	70/94.96	–
FLUID FLOW RATE	usgpm	1	1.12	1	1	1	1	1	0.71	1	–
FLUID PRESS. DROP	ft	0.17	0.15	0.17	0.17	0.17	0.17	0.17	0.17	0.17	–
CBV SIZE	in	–		–	–	–	–	–	–	–	–
TOTAL UNIT DIMS.	inches	47.75x10x12	47.75x12.5x14	47.75x10x12	47.75x10x12	47.75x10x12	47.75x10x12	47.75x10x12	47.75x10x12	47.75x10x12	47.75x8x12
CONTROL BOX DIMS.	inches	13.9Lx8Hx6W	13.9Lx10Hx6W	13.9Lx8Hx6W	13.9Lx8Hx6W	13.9Lx8Hx6W	13.9Lx8Hx6W	13.9Lx8Hx6W	13.9Lx8Hx6W	13.9Lx8Hx6W	13.9Lx8Hx6W
CONTROLS		REFER TO CONTROL DETAILS									
ACCESSORIES		–SILENCER/ATTENUATOR –HOT WATER REHEAT COIL –LESS ACTUATOR (ACTUATORS PROVIDED BY CONTROLS CONTRACTOR) –AIR FLOW PICK–UP SENSOR –SIDE CONTROL ACCESS –BOTTOM ACCESS DOORS									
RHC MATERIALS		–COPPER TUBE –ALUMINUM FIN –CASE MATERIAL: GALVANIZED STEEL									
COMMENTS		–PROVIDE DUCT TRANSITIONS AS REQUIRED –PROVIDE ACCESS DOORS UPSTREAM AND DOWNSTREAM OF COIL									
ACCEPTABLE ALTERNATES		REFER TO SPECIFICATIONS									

SILENCER SCHEDULE

TAG		SL–1								SL–2							
SERVICE/LOCATION		RTU–2 SUPPLY AIR MULTI–PURPOSE ROOM CEILING SPACE								RTU–2 RETURN AIR MULTI–PURPOSE ROOM CEILING SPACE							
MANUFACTURER		KINETICS								KINETICS							
MODEL		TTKCES– CUSTOMIZED TEE–ELBOW–10 GA								500 KCES–F/4.5–2, 700x500x600–1,100/1,100							
MODULE QUANTITY		1								1							
MODULE WIDTH	mm	NOTE 1								500							
MODULE HEIGHT	mm	NOTE 1								600							
MODULE LENGTH	mm	NOTE 1								2700							
MODULE WEIGHT	kg	–								–							
TOTAL AIR CAPACITY	l/s	1652 (3500 cfm)								1652 (3500 cfm)							
FACE VELOCITY	m/s	4								6							
PRESSURE DROP	Pa	32								37							
OCTAVE BAND CENTER FREQUNCY	hz	63	125	250	500	1000	2000	4000	8000	63	125	250	500	1000	2000	4000	8000
MINIMUM DYNAMIC INSERTION LOSS	dB	7	14	24	40	46	44	37	25	7	14	26	43	41	32	28	26
NOTES		–INLET CONNECTION TO BE 650 MM X 650 MM. OUTLET LEGS TO BE 500 MM X 650MM WITH 450MM DIA ROUND CONNECTIONS ON BOTH ENDS –10 GAUGE CASING –22 GAUGE PERFORATED LINER –GALVANIZED STEEL CONSTRUCTION –COTTON FIBER ACOUSTIC MEDIA –2" INLET & OUTLET SLIP CONNECTIONS –SEAMS LOCKED AND CAULKED								–16 GAUGE CASING –22 GAUGE PERFORATED LINER –GALVANIZED STEEL CONSTRUCTION –COTTON FIBER ACOUSTIC MEDIA –2" INLET & OUTLET SLIP CONNECTIONS –SEAMS LOCKED AND CAULKED							
ALTERNATE MANUFACTURER		VIBRO ACCOUSTICS															

AIR OUTLET SCHEDULE

TAG	A	B	C	D
TYPE	SQUARE CONE DIFFUSER	LOUVERED FACE RETURN	EGG CRATE RETURN	ROUND CONE DIFFUSER
MANUFACTURER	PRICE	PRICE	PRICE	PRICE
MODEL	SCD–31–3C	535D–F–L–A	80	RCDA
SIZE	SEE DRAWINGS	SEE DRAWINGS	SEE DRAWINGS	SEE DRAWINGS
COLOUR	B12	B12	B12	B12
NOTES	–24x24 CEILING MODULE FOR T–BAR MOUNTING	–STEEL DAMPER	–NO BORDER FOR T–BAR MOUNTING –C/W BORDER (F) AND SCREWS FOR DRYWALL MOUNTING. COORDINATE WITH ARCH RCP	–FOR DRYWALL OR DUCT MOUNTING
ALTERNATE MANUFACTURERS	NAILOR, TITUS, METALAIRE			

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ISSUES/REVISIONS

No.	DESCRIPTION	DATE
1	ISSUED FOR 30% COSTING	AUG 4 2023
2	RE–ISSUED FOR 30% COSTING	NOV 7 2023
3	ISSUED FOR 50% COORDINATION	JAN 18 2024
4	RE–ISSUED FOR 50% COORDINATION	JAN 26 2024
5	ISSUED FOR 80% COORDINATION	FEB 9 2024
6	ISSUED FOR COSTING	FEB 13 2024
7	ISSUED FOR PERMIT & TENDER	APR 8 2024
8	RE–ISSUED FOR PERMIT & TENDER	JUL 31 2024

KAWARTHA PINE RIDGE DISTRICT SCHOOL BOARD
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T 905.697.4464
www.cima.ca

LICENSED PROFESSIONAL ENGINEER
M. DOVEIRJAVI
100514385
JULY 31/24
PROVINCE OF ONTARIO

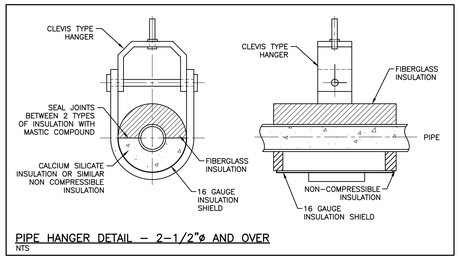
MURRAY CENTENIAL PS ADDITION

654 COUNTY ROAD 40, R.R.#1
TRENTON ON

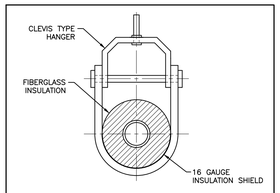
DATE: AUGUST 2023	SCALE: NTS
DRAWN BY: –	CHECKED BY: MD
CIMA+ PROJECT NUMBER: C14–0588	SHEET SIZE: E1

SCHEDULES

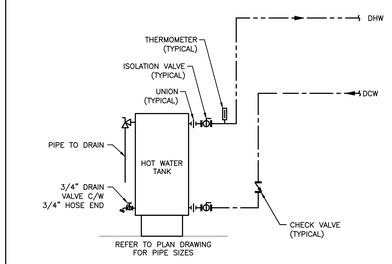
M802



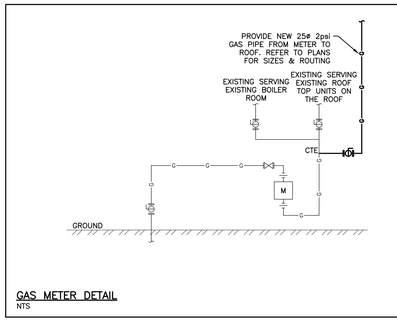
PIPE HANGER DETAIL – 2-1/2"ø AND OVER
NTS



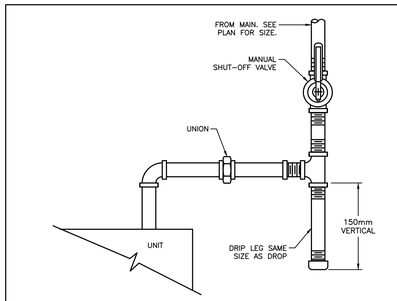
PIPE HANGER DETAIL – 2"ø AND UNDER
NTS



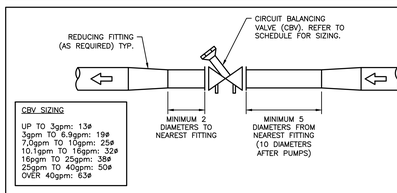
DOMESTIC HOT WATER HEATER PIPING DETAIL
NTS



GAS METER DETAIL
NTS



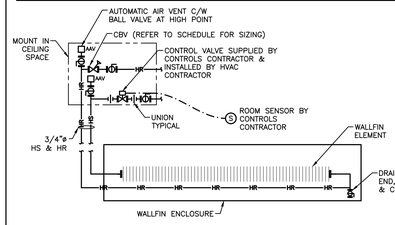
GAS LINE CONNECTION DETAIL
NTS



CIRCUIT BALANCING VALVE INSTALLATION DETAIL
NTS

NOTES:

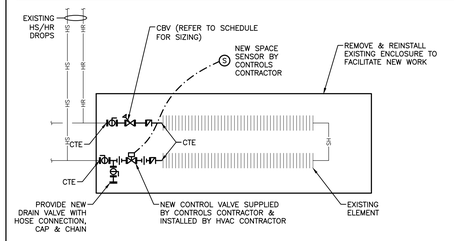
1. PIPE HANGERS SHALL BE EPOXY COATED FOR ALL COPPER PIPING.
2. EXACT PIPING ARRANGEMENT MAY VARY. COORDINATE WITH PIPE RISER LOCATIONS FOR EACH.
3. WHERE RADIATION PIPING IS LARGER THAN SUPPLY AND RETURN USE BRASS ECCENTRIC REDUCING ADAPTERS.
4. WALLFIN ENCLOSURE SHALL BE INSTALLED 4" AFF OR MATCH EXISTING.



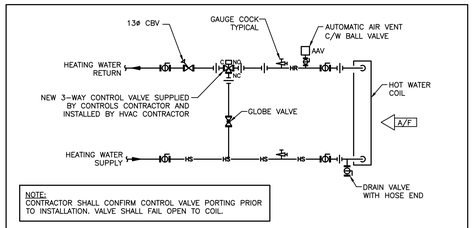
HOT WATER WALLFIN DETAIL (VALVES IN CEILING)
NTS

NOTES:

EXACT PIPING ARRANGEMENT MAY VARY BY ROOM. CONTRACTOR SHALL INVESTIGATE ROOM CONDITIONS FOR EACH SPACE AND COORDINATE WITH PIPE RISER LOCATIONS FOR EACH. REPORT DISCREPANCIES TO ENGINEER.

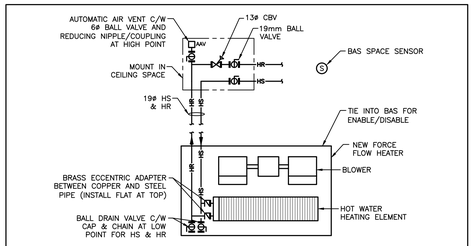


HOT WATER WALLFIN DETAIL (VALVES IN ECLOSURE)
NTS

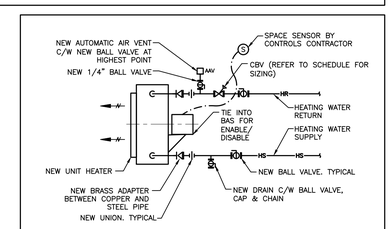


NOTE:
CONTRACTOR SHALL CONFIRM CONTROL VALVE PORTING PRIOR TO INSTALLATION. VALVE SHALL FAIL OPEN TO COIL.

VAV REHEAT COIL DETAIL
NTS



HOT WATER FORCE FLOW HEATER DETAIL
NTS



HOT WATER UNIT HEATER DETAIL
NTS

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ISSUES/REVISIONS

No.	DESCRIPTION	DATE
1	ISSUED FOR 50% COORDINATION	JAN 18 2024
2	RE-ISSUED FOR 50% COORDINATION	JAN 26 2024
3	ISSUED FOR 80% COORDINATION	FEB 9 2024
4	ISSUED FOR COSTING	FEB 13 2024
5	ISSUED FOR PERMIT & TENDER	APR 8 2024
6	RE-ISSUED FOR PERMIT & TENDER	JUL 31 2024

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LICENSED PROFESSIONAL ENGINEER
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JULY 31/24
PROVINCE OF ONTARIO

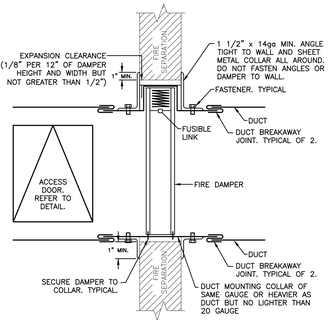
MURRAY CENTENIAL PS ADDITION

654 COUNTY ROAD 40, R.R.#1
TRENTON ON

DATE: AUGUST 2023	SCALE: NTS
DRAWN BY: MRC	CHECKED BY: MD
CIMA+ PROJECT NUMBER: C14-0588	SHEET SIZE: E1

PIPING DETAILS

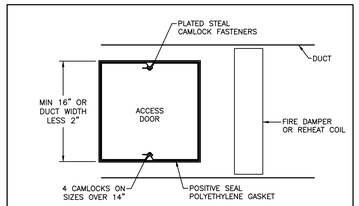
M901



NOTE:

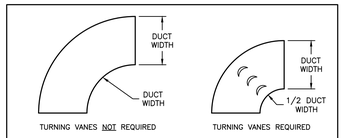
WHERE ACCESS IS BELOW FIRE DAMPERS IN HORIZONTAL INSTALLATIONS, PULL TAB MUST BE SPECIFIED TO ALLOW RESETTING OF LINKAGE FROM BELOW.

FIRE DAMPER DETAIL
NTS



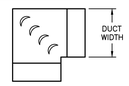
ACCESS DOOR EQUAL TO:
SQUARE/RECTANGLE: NAILOR 0850L
FLAT OVAL: NAILOR 0800
SIZE:
SQUARE/RECTANGLE: 16x16"
FLAT OVAL: 18x10"

DUCT ACCESS DOOR DETAIL
NTS

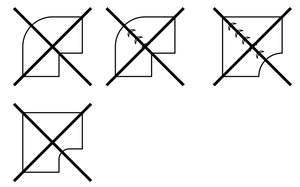


LONG RADIUS

SHORT RADIUS

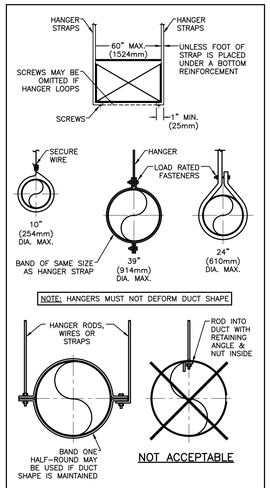


SQUARE ELBOW



NOT ACCEPTABLE

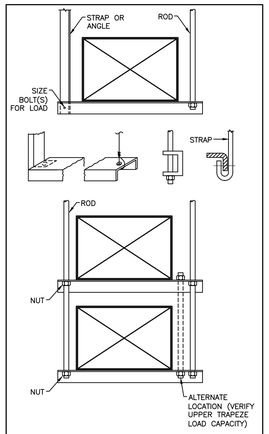
DUCT ELBOW DETAILS
NTS



NOTE: HANGERS MUST NOT DEFORM DUCT SHAPE

NOT ACCEPTABLE

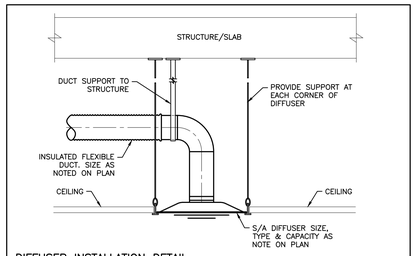
STRAP HANGERS
NTS



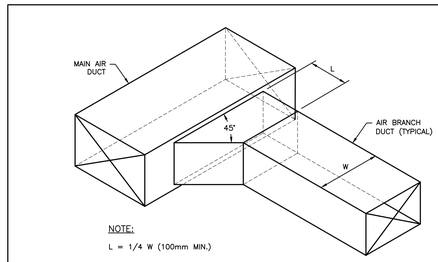
NOTES:

1. REINFORCEMENT MAY BE USED FOR ATTACHMENT IF IT QUALIFIES FOR BOTH DUTIES.
2. DO NOT EXCEED ALLOWABLE LOAD LIMITS.

TRAPEZE HANGERS
NTS



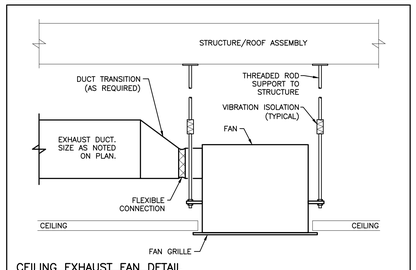
DIFFUSER INSTALLATION DETAIL
NTS



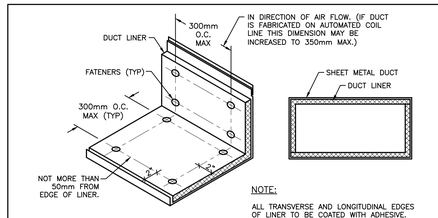
NOTE:

L = 1/4 W (100mm MIN.)

SUPPLY OR RETURN AIR DUCT BRANCH CONNECTION DETAIL
NTS



CEILING EXHAUST FAN DETAIL
NTS

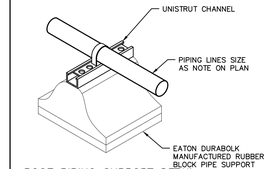


NOTE:

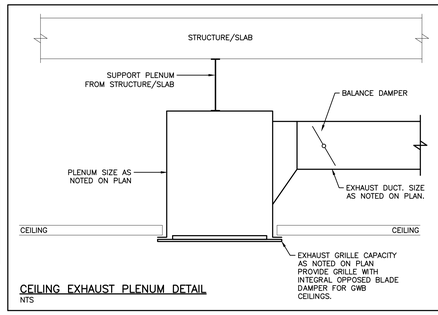
ALL TRANSVERSE AND LONGITUDINAL EDGES OF LINER TO BE COATED WITH ADHESIVE.

DUCT LINER DETAIL
NTS

PIPE SUPPORT SPACING INTERVALS:
LESS THAN 25ø(1"ø) EVERY 1.2m(4')
25ø(1"ø) EVERY 2.5m(8')
32ø TO 63ø(1-1/4"ø TO 2-1/2"ø) EVERY 3m(10')
75ø TO 100ø(3"ø TO 4"ø) EVERY 5m(15')

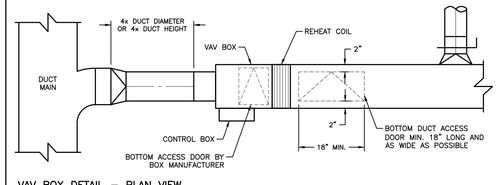


ROOF PIPING SUPPORT DETAIL
NTS



CEILING EXHAUST PLENUM DETAIL
NTS

NOTE:
NOTIFY ENGINEER OF ANY INSTALLATION LOCATIONS WHERE SPACE CONSTRAINTS MAY REQUIRE SMALLER ACCESS DOORS THAN THOSE SPECIFIED.



VAV BOX DETAIL – PLAN VIEW
NTS

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THE CONTRACTOR MUST CHECK AND BE RESPONSIBLE FOR SITE CONDITIONS THAT MAY DIFFER FROM THESE PLANS AND NOTIFY CIMA+ OF SAME.

ISSUES/REVISIONS

No.	DESCRIPTION	DATE
1	ISSUED FOR 50% COORDINATION	JAN 18 2024
2	RE-ISSUED FOR 50% COORDINATION	JAN 26 2024
3	ISSUED FOR 80% COORDINATION	FEB 9 2024
4	ISSUED FOR COSTING	FEB 13 2024
5	ISSUED FOR PERMIT & TENDER	APR 8 2024
6	RE-ISSUED FOR PERMIT & TENDER	JUL 31 2024

KAWARTHA PINE RIDGE DISTRICT SCHOOL BOARD
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LICENSED PROFESSIONAL ENGINEER
M. DOVEIRJAVI
100514385
JULY 31/24
PROVINCE OF ONTARIO

MURRAY CENTENIAL PS ADDITION

654 COUNTY ROAD 40, R.R.#1
TRENTON ON

DATE: AUGUST 2023	SCALE: NTS
DRAWN BY: MRC	CHECKED BY: MD
CIMA+ PROJECT NUMBER: C14-0588	SHEET SIZE: E1

SHEET METAL DETAILS

M902

DESIGN AND DETAILS SHOWN ON THIS DRAWING OR ASSOCIATED DOCUMENTATION ARE PRODUCED BY AND THE PROPERTY OF CIMA+ COPY IN WHOLE OR PART IS PROHIBITED.
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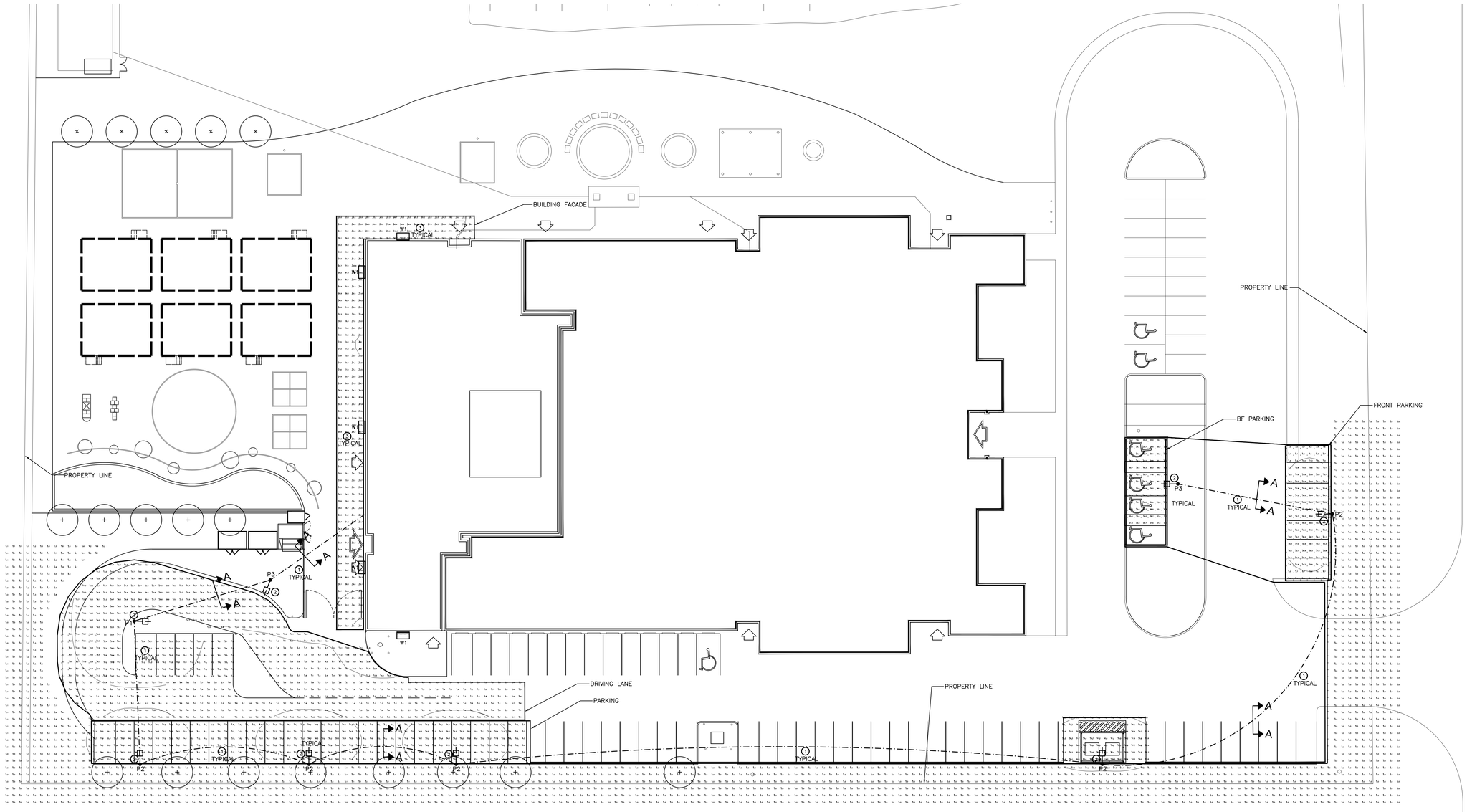
ISSUES/REVISIONS

No.	DESCRIPTION	DATE
1	ISSUED FOR 30% COSTING	AUG 4 2023
2	RE-ISSUED FOR 30% COSTING	NOV 7 2023
3	ISSUED FOR SPA	NOV 10 2023
4	ISSUED FOR 50% COORDINATION	JAN 18 2024
5	ISSUED FOR 80% COORDINATION	FEB 9 2024
6	ISSUED FOR SPA	FEB 9 2024
7	ISSUED FOR COSTING	FEB 13 2024
8	ISSUED FOR PERMIT & TENDER	JUN 13 2024
9	RE-ISSUED FOR PERMIT & TENDER	JUL 31 2024

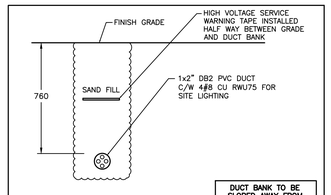


WORKING NOTES:

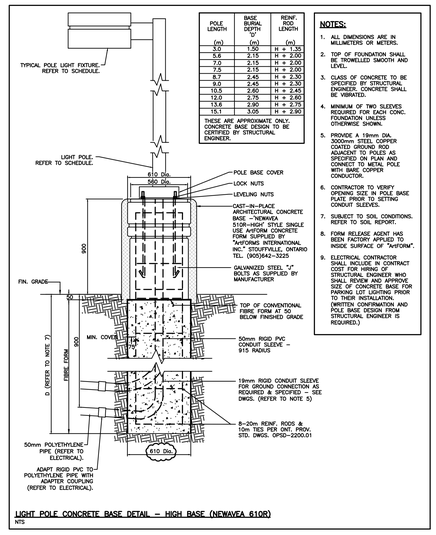
1. PROVIDE 2#8 AWG CU + GND IN UNDERGROUND 2" PVC DB2 DUCT AS SHOWN IN DETAIL A-A FOR EXTERIOR LIGHTING. CONTRACTOR TO VERIFY EXISTING SITE CONDITION FOR IDEAL PATH FOR TRENCHING.
2. PROVIDE AREA LIGHT AS PER TYPE C/W CONCRETE LIGHT POLE BASE AS SHOWN ON DETAIL.TIE INTO NEW EXTERIOR LIGHTING CIRCUIT FROM NEW ADDITION PANEL. REFER TO DETAIL FOR LIGHTING CONTROL.
3. PROVIDE WALL PACK AS PER LUMINAIRE SCHEDULE C/W CIRCUITS AS SHOWN. TIE INTO NEW EXTERIOR LIGHTING CIRCUIT FROM NEW ADDITION PANEL. REFER TO DETAIL FOR LIGHTING CONTROL.

CALCULATION SUMMARY

LABEL	UNITS	AVG	MAX	MIN	AVG/MIN	MAX/MIN
BUILDING FACADE	LUX	42.85	127.1	5.3	8.08	23.98
DRIVING LANE	LUX	10.30	70.2	0.3	34.33	234.00
BF PARKING	LUX	32.87	96.5	17.9	1.83	5.39
FRONT PARKING	LUX	35.87	117.6	1.8	19.93	1.43
PARKING	LUX	22.30	114.2	0.5	44.60	228.40



DUCT BANK FOR SITE LIGHTING SECTION "A-A"
NTS



POLE LENGTH (m)	BASE BURIAL DEPTH "D" (m)	REINF. ROD LENGTH (m)
5.5	2.15	H + 2.00
6.4	2.15	H + 2.00
7.0	2.15	H + 2.00
7.5	2.15	H + 2.00
8.7	2.45	H + 2.30
9.0	2.45	H + 2.30
10.5	2.60	H + 2.45
12.0	2.75	H + 2.60
13.6	2.90	H + 2.75
15.1	3.05	H + 2.90

THESE ARE APPROXIMATE ONLY. CONCRETE BASE DESIGN TO BE PREPARED BY STRUCTURAL ENGINEER.

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETERS OR METERS.
2. TOP OF FOUNDATION SHALL BE TROWELLED SMOOTH AND LEVEL.
3. CLASS OF CONCRETE TO BE SPECIFIED BY STRUCTURAL ENGINEER. CONCRETE SHALL BE VIBRATED.
4. MINIMUM OF TWO SLEEVES REQUIRED FOR EACH CONC. FOUNDATION UNLESS OTHERWISE SHOWN.
5. PROVIDE A 19mm DIA. 3000mm STEEL COPPER CLAD GROUND ROD ADJACENT TO POLES AS SPECIFIED ON PLAN AND CONNECT TO METAL POLE WITH BARE COPPER CONDUCTOR.
6. CONTRACTOR TO VERIFY OPENING SIZE IN POLE BASE PLATE PRIOR TO SETTING CONDUIT SLEEVES.
7. SUBJECT TO SOIL CONDITIONS. REFER TO SOIL REPORT.
8. FORM RELEASE AGENT HAS BEEN FACTORY APPLIED TO INSIDE SURFACE OF "AFFORM".
9. ELECTRICAL CONTRACTOR SHALL INCLUDE IN CONTRACT COST FOR HIRING OF STRUCTURAL ENGINEER WHO SHALL REVIEW AND SEAL DRWG. FOR POLE BASE FOR PARKING LOT LIGHTING PRIOR TO THEIR INSTALLATION. (WRITTEN CONFIRMATION AND POLE BASE DESIGN FROM STRUCTURAL ENGINEER IS REQUIRED.)

LIGHT POLE CONCRETE BASE DETAIL - HIGH BASE (NEWAVEA 610R)
NTS

LUMINARIE SCHEDULE

P1	NEW 4" SQUARE STEEL POLE PLUS (2'9") BASE WITH SINGLE LIGHT FIXTURE BASE: ARTFORMS NEWAVEA 510R-HIGH IT EQUAL POLE: 2.43M (8') 4" BLACK SQUARE STEEL DESIGNED FOR 1 LIGHT @ 36LBS EA, EQUAL TO DYNAPOLE SSS4-8 (OR APPROVED EQUAL) LIGHT FIXTURE: POLE MOUNTED NIGHT FRIENDLY, BLACK, SIGNIFY GARDCO ECOFORM 3000K, 9707LM, 120V, 72WATT, TYPE-5, ECF-S-3L-700-WW-G2-5W (OR APPROVED EQUAL)	
P2	NEW 4" SQUARE STEEL POLE PLUS (2'9") BASE WITH SINGLE LIGHT FIXTURE BASE: ARTFORMS NEWAVEA 510R-HIGH IT EQUAL POLE: 2.43M (8') 4" BLACK SQUARE STEEL DESIGNED FOR 1 LIGHT @ 36LBS EA, EQUAL TO DYNAPOLE SSS4-8 (OR APPROVED EQUAL) LIGHT FIXTURE: POLE MOUNTED NIGHT FRIENDLY, BLACK, SIGNIFY GARDCO ECOFORM 3000K, 5000LM, 120V, 40WATT, BACK LIGHT CONTROL, HOUSE SIDE SHIELD, ECF-S-3L-530-WW-G2-BLC (OR APPROVED EQUAL)	
P3	NEW 4" SQUARE STEEL POLE PLUS (2'9") BASE WITH SINGLE LIGHT FIXTURE BASE: ARTFORMS NEWAVEA 510R-HIGH IT EQUAL POLE: 2.43M (8') 4" BLACK SQUARE STEEL DESIGNED FOR 1 LIGHT @ 36LBS EA, EQUAL TO DYNAPOLE SSS4-8 (OR APPROVED EQUAL) LIGHT FIXTURE: POLE MOUNTED NIGHT FRIENDLY, BLACK, SIGNIFY GARDCO ECOFORM 3000K, 7000LM, 120V, 56WATT, TYPE-3, ECF-S-3L-530-WW-G2-3 (OR APPROVED EQUAL)	
W1	LIGHT FIXTURE: SIGNIFY GARDCO LED WALL SCONCE-121, 3000K, 6061LM, 120V, 52WATT, TYPE-3, 121-32L-530-WW-G4-3 (OR APPROVED EQUAL) MOUNTED 10' ABOVE GRADE. COORDINATE FINAL ELEVATION WITH ARCHITECTURAL ELEVATIONS	

APPROVED ALTERNATES: PHILIPS, LITHONIA, LSI, SPAULDING, STAN PRO. ALTERNATE FIXTURE(S) MUST MATCH SPEC EXACTLY. NO ADDITIONAL COSTS TO PROJECT WILL BE ACCEPTED FOR THE USE OF ALTERNATE FIXTURE EVEN IF ENGINEER REFUSES PROPOSED ALTERNATE.

POWER/CONTROL NOTES:

1. ALL POLES TO BE GROUNDED.
2. ALL EXTERIOR LIGHTING TO BE CONNECTED TO TIMECLOCK AND PHOTOCELL FOR EXTERIOR LIGHTING CONTROL.

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100178622
JUL 31/24
PROVINCE OF ONTARIO

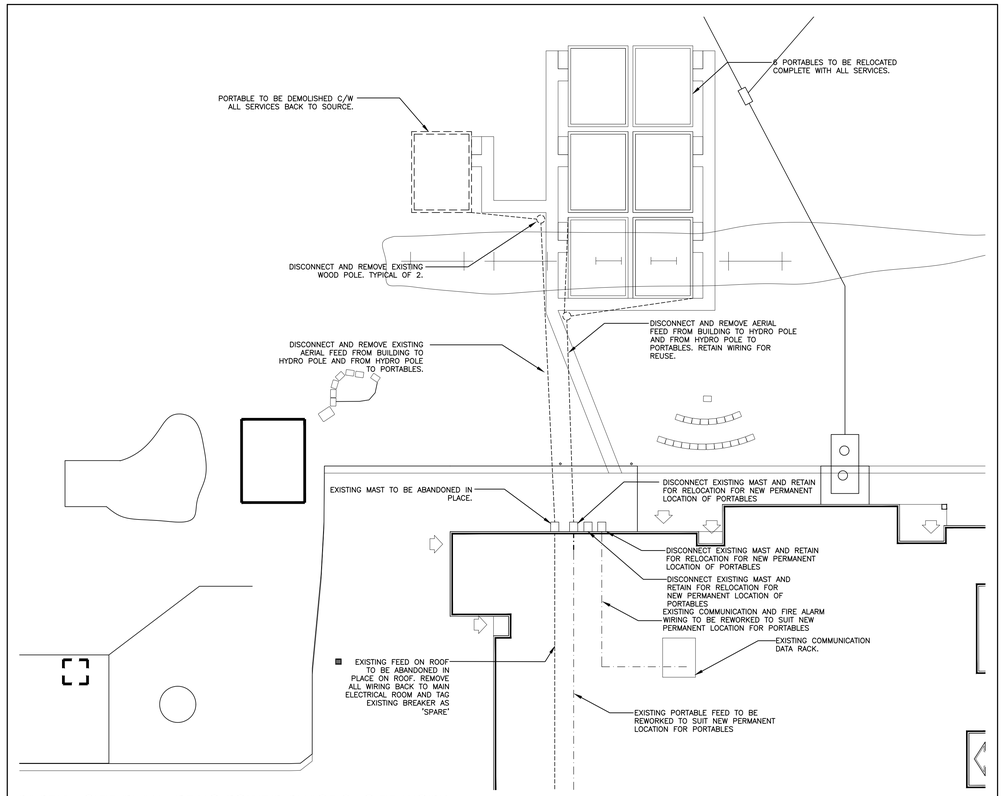
MURRAY CENTENIAL PS ADDITION

654 COUNTY ROAD 40, R.R.#1
TRENTON ON

DATE: JULY 2023	SCALE: 1:250
DRAWN BY: RJC	CHECKED BY: LC/CR
CIMA+ PROJECT NUMBER: C14-0588	SHEET SIZE: E1

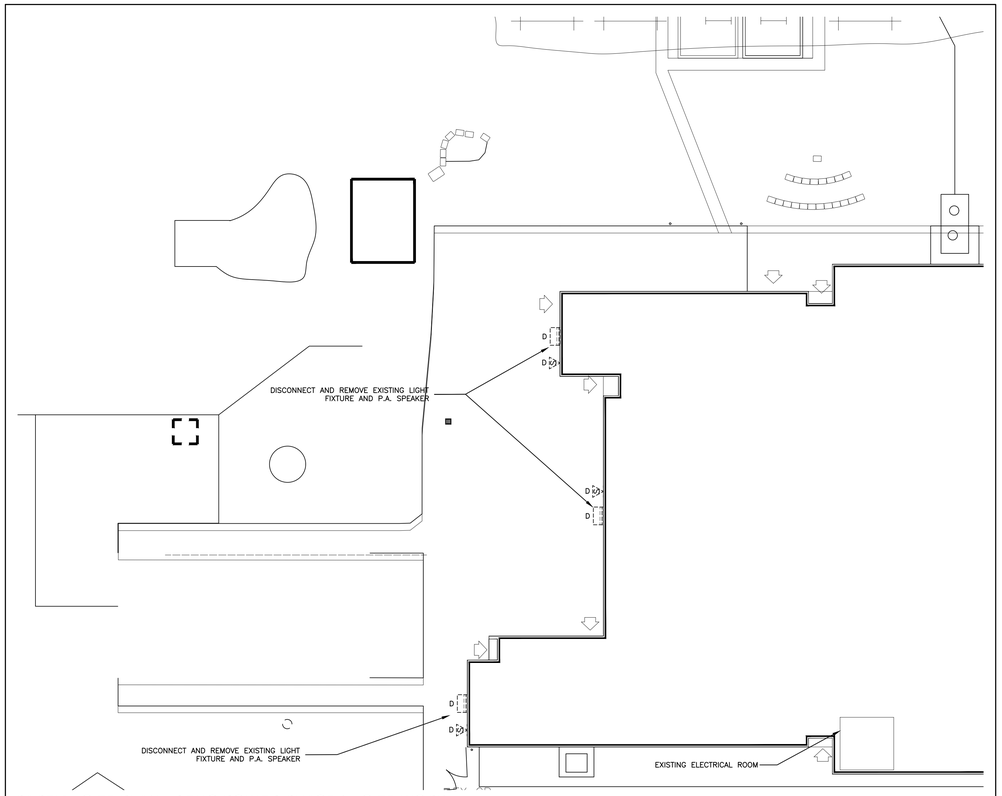
SITE LIGHTING

E100



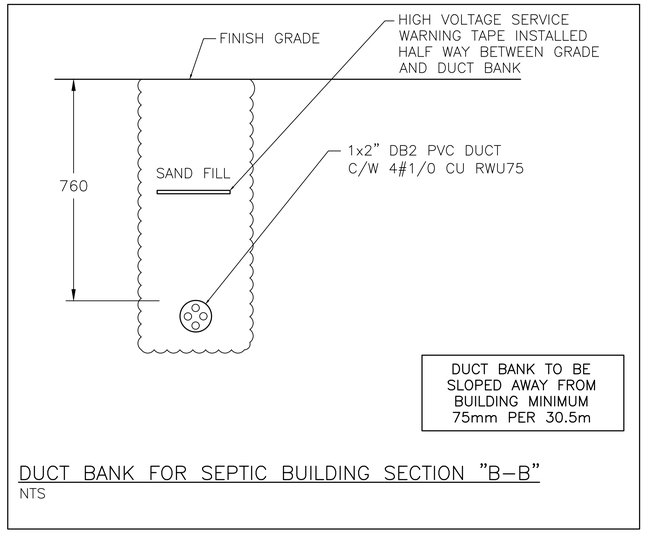
PARTIAL SITE PLAN - DEMO POWER PHASE 3 - SITE WORK

1:300



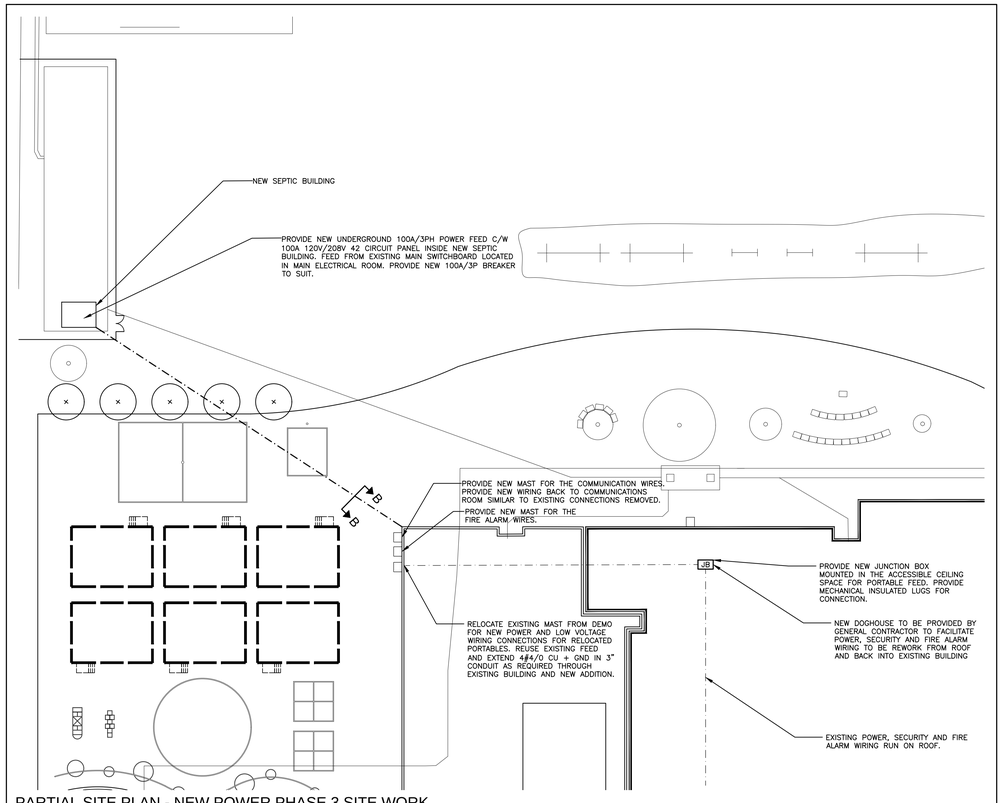
PARTIAL SITE PLAN - DEMO POWER PHASE 1 - SITE WORK

1:300



DUCT BANK FOR SEPTIC BUILDING SECTION "B–B"

NTS



PARTIAL SITE PLAN - NEW POWER PHASE 3 SITE WORK

1:300

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ISSUES/REVISIONS

No.	DESCRIPTION	DATE
1	RE-ISSUED FOR 30% COSTING	NOV 7 2023
2	ISSUED FOR 50% COORDINATION	JAN 18 2024
3	ISSUED FOR 80% COORDINATION	FEB 9 2024
4	ISSUED FOR COSTING	FEB 13 2024
5	ISSUED FOR PERMIT & TENDER	JUN 13 2024
6	RE-ISSUED FOR PERMIT & TENDER	JUL 31 2024

KAWARTHA PINE RIDGE DISTRICT SCHOOL BOARD
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JUL 31/24
PROVINCE OF ONTARIO

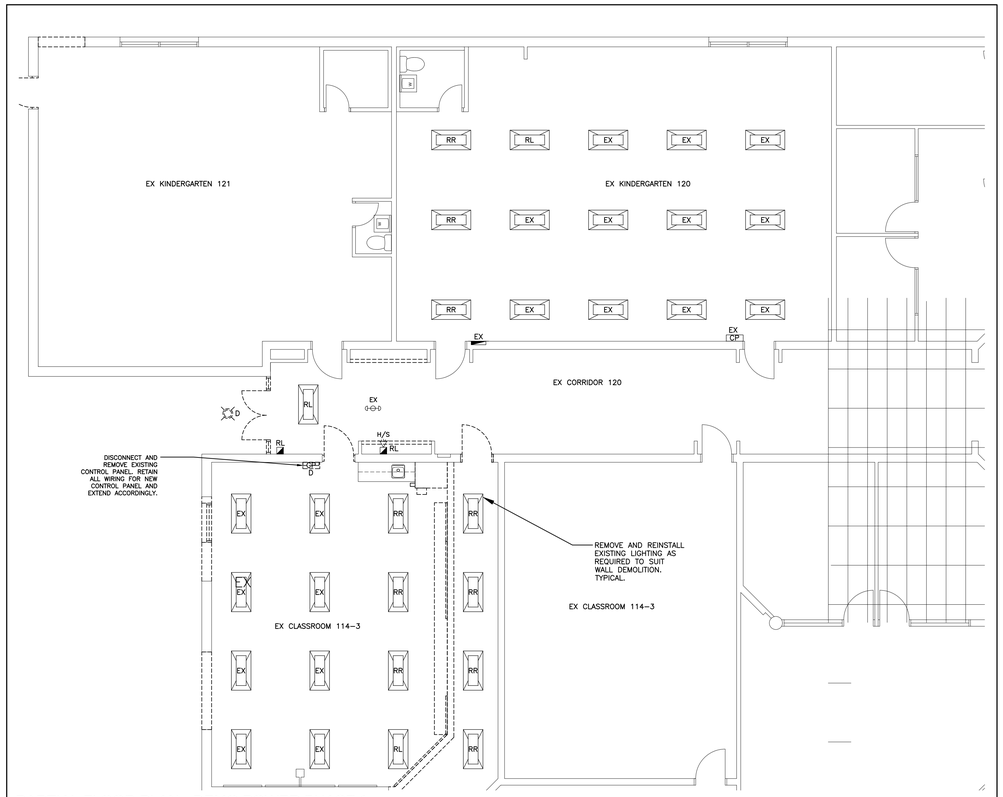
MURRAY CENTENIAL PS ADDITION

654 COUNTY ROAD 40, R.R.#1
TRENTON ON

DATE: JULY 2023	SCALE: AS NOTED
DRAWN BY: RJC	CHECKED BY: LC/CR
CIMA+ PROJECT NUMBER: C14-0588	SHEET SIZE: E1

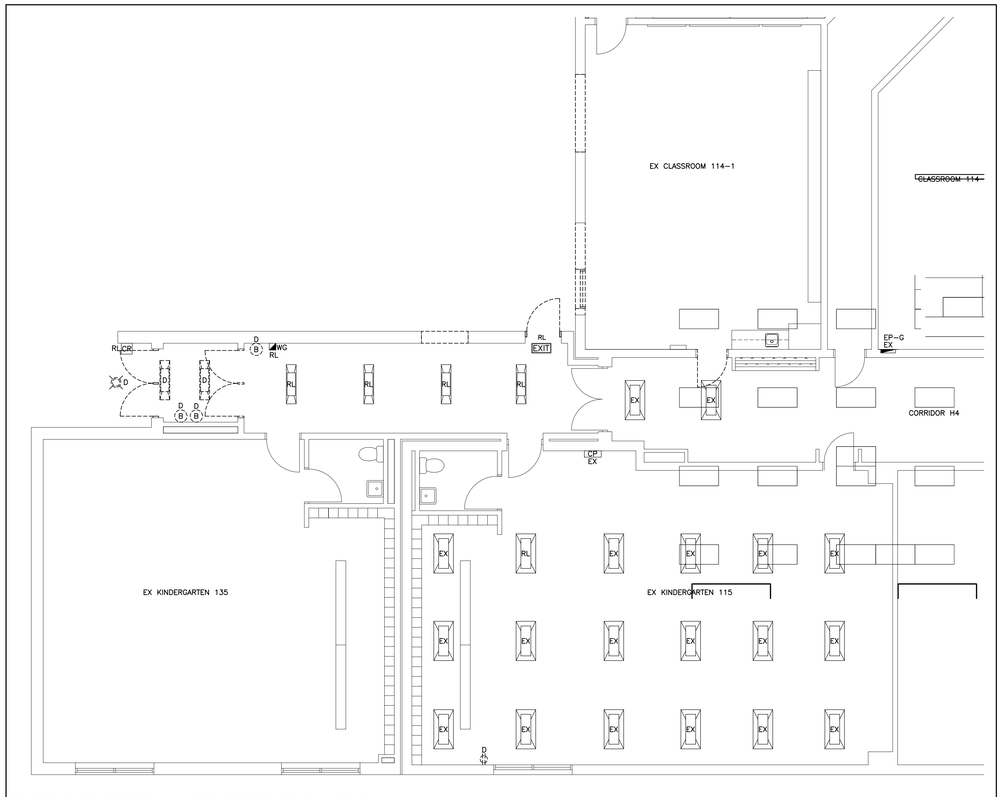
DEMO & NEW SITE POWER

E101



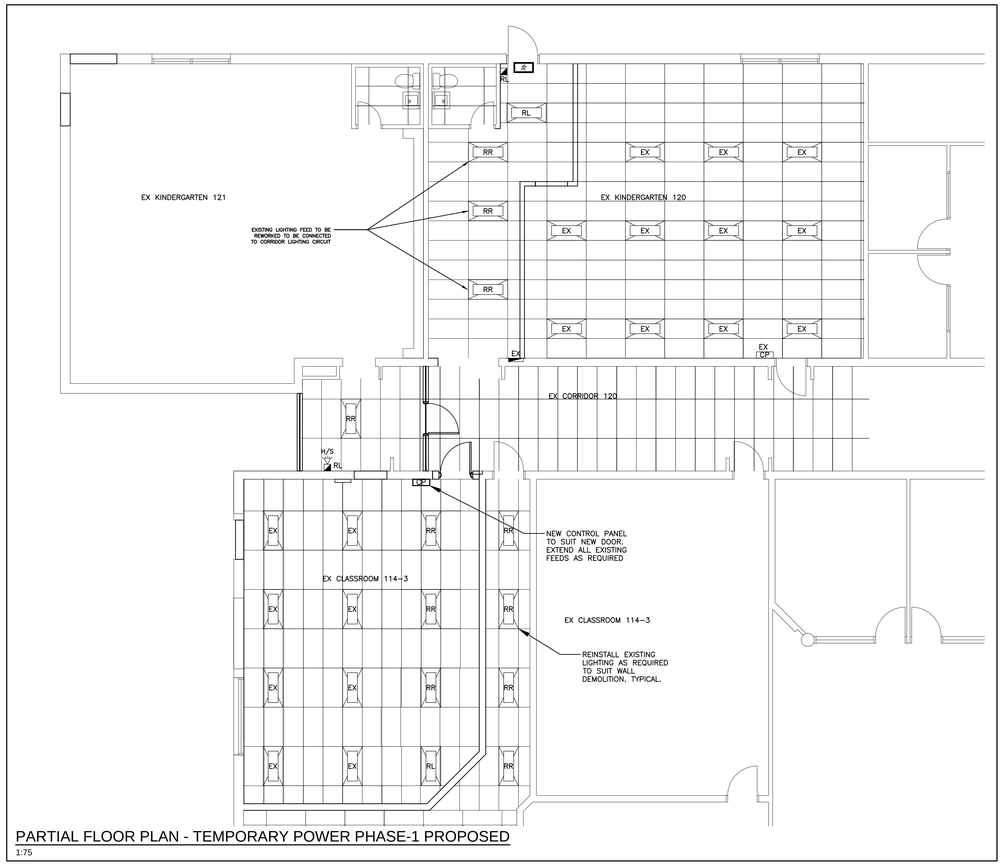
PARTIAL FLOOR PLAN - DEMO POWER PHASE 1

1:75



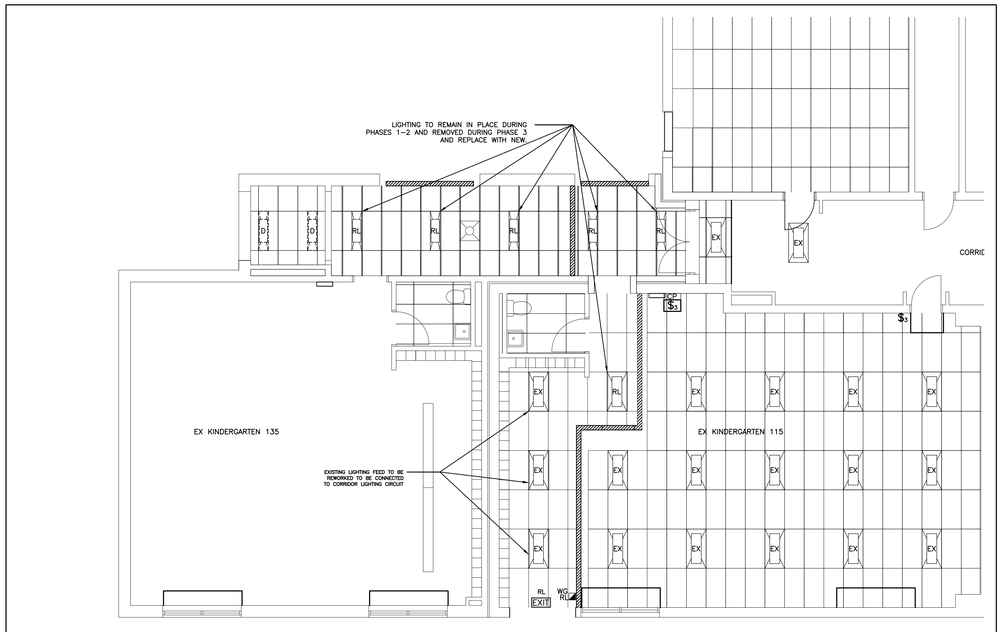
PARTIAL FLOOR PLAN - DEMO POWER PHASE-1

1:75



PARTIAL FLOOR PLAN - TEMPORARY POWER PHASE-1 PROPOSED

1:75



PARTIAL FLOOR PLAN - TEMPORARY POWER PHASE-1 PROPOSED

1:75

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6	RE-ISSUED FOR PERMIT & TENDER	JUL 31 2024

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PROVINCE OF ONTARIO

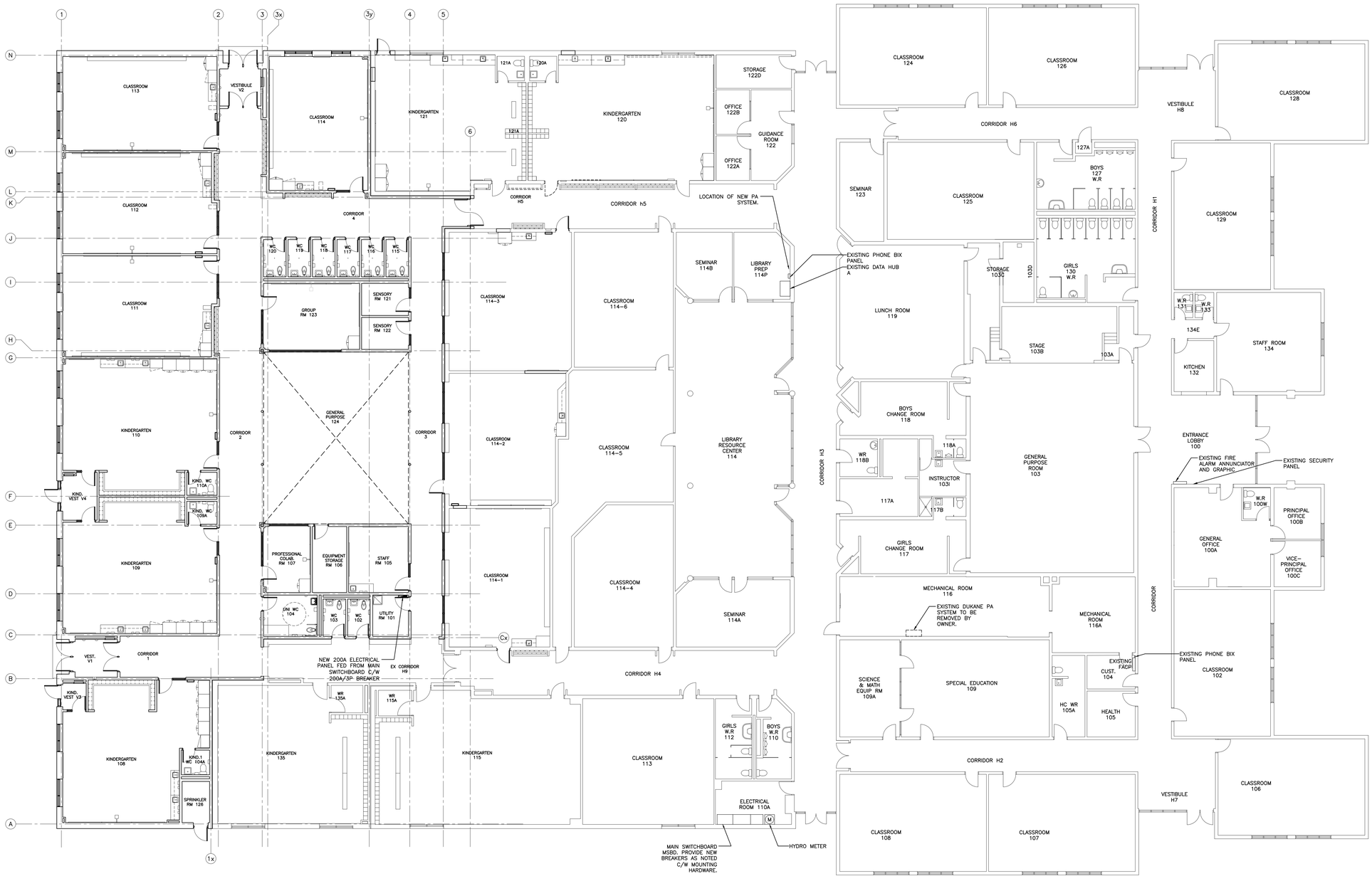
MURRAY CENTENIAL PS ADDITION

654 COUNTY ROAD 40, R.R.#1
TRENTON ON

DATE: OCTOBER 2023	SCALE: AS NOTED
DRAWN BY: RJC	CHECKED BY: LC/CR
CIMA+ PROJECT NUMBER: C14-0588	SHEET SIZE: E1

PARTIAL GROUND FLOOR PLAN
TEMPORARY EXITS

E102



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MURRAY CENTENIAL PS ADDITION

654 COUNTY ROAD 40, R.R.#1
TRENTON ON

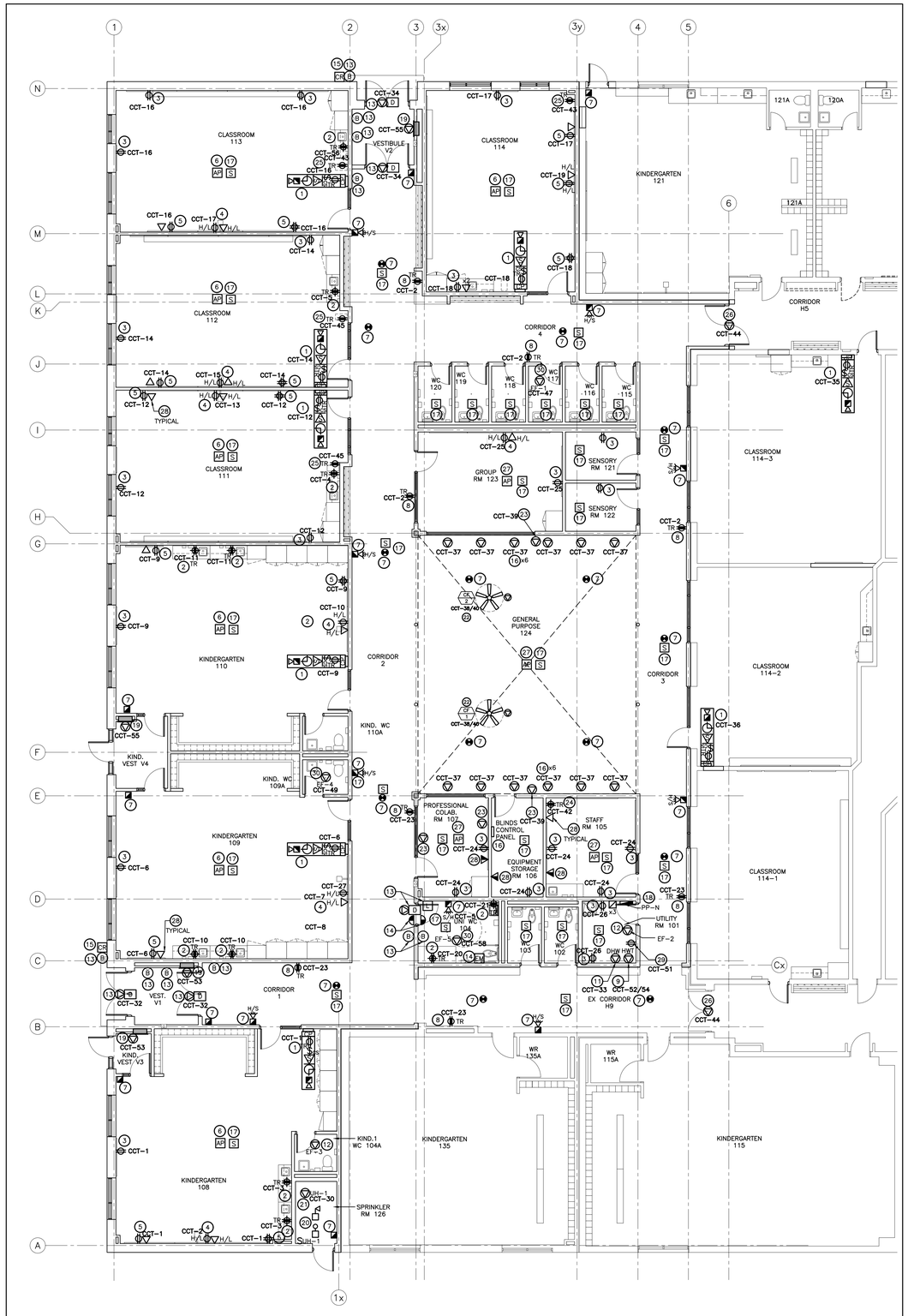
DATE: JULY 2023	SCALE: 1:125
DRAWN BY: RJC	CHECKED BY: LC/CR
CIMA+ PROJECT NUMBER: C14-0588	SHEET SIZE: E1

FIRST FLOOR PLAN
ELECTRICAL SYSTEMS INFO

E200

NEW POWER WORKING NOTES:

1. PROVIDE NEW CONTROL PANEL C/W DEVICES NOTED. REFER TO DETAIL. COORDINATE INSTALLATION WITH GENERAL CONTRACTOR.
2. PROVIDE NEW RECEPTACLE MOUNTED APPROXIMATELY 40" AFF C/W NEW DEDICATED CIRCUIT. COORDINATE HEIGHT WITH GENERAL CONTRACTOR TO SUIT MILLWORK.
3. PROVIDE NEW DEVICE AS NOTED. TIE INTO SAME CIRCUIT AS CONTROL PANEL. COORDINATE WITH ARCHITECTURAL ELEVATIONS AND GENERAL CONTRACTOR TO SUIT LOCATION AND MOUNTING HEIGHT.
4. PROVIDE POWER AND DATA AT HIGH LEVEL FOR INTERACTIVE WHITEBOARD. COORDINATE WITH ARCHITECTURAL ELEVATIONS AND GENERAL CONTRACTOR TO SUIT LOCATION OF INTERACTIVE WHITEBOARD. REFER TO DETAIL.
5. PROVIDE NEW DEVICES AS NOTED. TIE INTO SAME CIRCUIT AS INTERACTIVE WHITEBOARD.
6. PROVIDE NEW ACCESS POINT TO CENTER OF CLASSROOM BELOW NEW CEILING.
7. PROVIDE NEW FIRE ALARM DEVICE AS NOTED. TIE INTO NEW CIRCUIT.
8. PROVIDE NEW DEVICE AS NOTED C/W DEDICATED CIRCUIT.
9. PROVIDE 15A 120V DIRECT CONNECTION TO NEW HOT WATER TANK.
10. NOT USED.
11. PROVIDE 15A 120V DIRECT CONNECTION TO NEW DHW RECIRCULATION PUMP.
12. PROVIDE 120V POWER TO EXHAUST FAN. TIE INTO LIGHTING CIRCUIT. COORDINATE WITH MECHANICAL CONTRACTOR.
13. PROVIDE 120V POWER FOR BARRIER FREE OPERATORS AND PUSH-TO-LOCK WHERE SHOWN C/W BACK BOXES, CONDUIT AND LOW VOLTAGE WIRING FOR ALL BUTTONS AND ELECTRIC STRIKES. CENTER LINE HEIGHT FOR ROUGH-IN WALL BOXES FOR PUSH BUTTON TO BE 900mm(35") AND 1100mm(43") AFF, MINIMUM 600mm(23.7") AND MAXIMUM 1500mm(59") FROM LEADING EDGE OF DOOR (WHEN OPEN). COORDINATE EXACT LOCATION WITH GENERAL CONTRACTOR/ARCHITECTURAL ELEVATIONS AND EXACT BACK BOX REQUIREMENT WITH DOOR MANUFACTURER PRIOR TO ROUGH-IN. PROVIDE NEW 15A/19 BREAKER FROM THE NEW PANEL.
14. EMERGENCY RESPONSE SYSTEM C/W EMERGENCY PUSH BUTTON AND AUDIBLE/VISUAL ALARM MOUNTED INSIDE AND OUTSIDE WASHROOM BY OTHERS. PROVIDE BACK BOX FOR DEVICES AS NOTED COMPLETE WITH CONDUIT AND WIRING TO DOOR CONTROLLER MOUNTED IN CEILING SPACE. PROVIDE 120V FROM DOOR OPERATOR CIRCUIT. COORDINATE EXACT LOCATION WITH GENERAL CONTRACTOR AND BACK BOX REQUIREMENT WITH DOOR MANUFACTURER PRIOR TO ROUGH-IN.
15. PROVIDE ROUGH-IN FOR CARD READER C/W BACKBOX AND CONDUIT THROUGH CEILING.
16. PROVIDE 15A 120V POWER FOR MOTORIZED BLINDS, C/W WIRING THROUGH CONTROL PANEL LOCATED INSIDE EQUIPMENT STORAGE ROOM, REFER TO DETAIL ON E901.
17. PROVIDE NEW P.A. SPEAKER AND TIE INTO NEW CIRCUIT.
18. PROVIDE NEW 200A ELECTRICAL PANEL FROM MAIN SWITCHBOARD C/W 4#3/0 CU AWG + GND IN 3" CONDUIT AND 200A 3-PHASE BREAKER IN SWITCHBOARD. EXISTING SWITCHBOARD IS "EATON PRLC".
19. PROVIDE 120V POWER FOR FORCE FLOOR HEATER. PROVIDE JUNCTION BOX IN CEILING SPACE FOR CONTROLS INTERLOCK. COORDINATE WITH MECHANICAL CONTRACTOR.
20. PROVIDE NEW SUPERVISORY POINTS (X4) AND ALARM POINT (X1) FOR NEW SPRINKLER SYSTEM. TIE INTO FIRE ALARM CONTROL PANEL C/W NEW ZONES. COORDINATE WITH SPRINKLER CONTRACTOR.
21. PROVIDE 120V POWER FOR UNIT HEATER C/W ISOLATION SWITCH FOR UNIT HEATER. PROVIDE JUNCTION BOX IN CEILING SPACE FOR CONTROLS INTERLOCK. COORDINATE WITH MECHANICAL CONTRACTOR.
22. PROVIDE CEILING FANS AND MOUNT USING A CARABINEER OR OTHER METHOD TO ALLOW FAN TO FREE SWING. BOTTOM OF FAN SHALL BE LEVEL WITH BOTTOM OF JOIST. REFER TO SCHEDULE ON E901.
23. PROVIDE 15A 120V POWER TO NEW PROJECTOR AND MOTORIZED SCREEN, COORDINATE LOCATION WITH SCHOOL BOARD.
24. PROVIDE 20A 120V DEDICATED TAMPER RESISTANT RECEPTACLE FOR PRINTER.
25. PROVIDE 20A 120V RECEPTACLE FOR CHARGING TOWER IN EACH CLASSROOM.
26. PROVIDE 15A 120V POWER SUPPLY TO DOOR HOLD OPEN DEVICE. TIE DOOR HOLD OPEN DEVICE INTO FIRE ALARM PANEL FOR RELEASE.
27. PROVIDE NEW CEILING MOUNTED ACCESS POINT AT CENTER OF THE CEILING.
28. PROVIDE DATA/VOICE OUTLET C/W CABLE AND CONDUIT TO MAIN COMMUNICATION PANEL LOCATED AT ROOM 114P.
29. PROVIDE NEW RECEPTACLE FOR TRAP SEAL PRIMER. COORDINATE EXACT LOCATION WITH MECHANICAL CONTRACTOR.
30. PROVIDE 120V POWER TO ROOF MOUNTED EXHAUST FAN C/W WALL MOUNTED STARTER LOCATED IN CUSTODIAL ROOM. REFER TO DETAIL ON DRAWING E901 FOR POWER CONNECTION TO EXHAUST FAN. COORDINATE INSTALLATION WITH MECHANICAL CONTRACTOR.



ADDITION - NEW POWER LAYOUT
1:100

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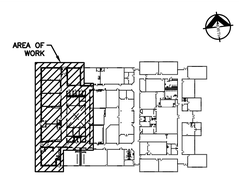


KEY PLAN

KAWARTHA PINE RIDGE DISTRICT SCHOOL BOARD
1994 Fisher Drive, Peterborough, Ontario K9J 6X6

CIMA+ DES
415 BASELINE ROAD WEST
BOWMANVILLE, ON L1C 5M2
T 905.697.4464
www.cima.ca

NORTH

LICENSED PROFESSIONAL ENGINEER
L. CONFORTI
100178622
JUL 31/24
PROVINCE OF ONTARIO

MURRAY CENTENIAL PS ADDITION

654 COUNTY ROAD 40, R.R.#1
TRENTON ON

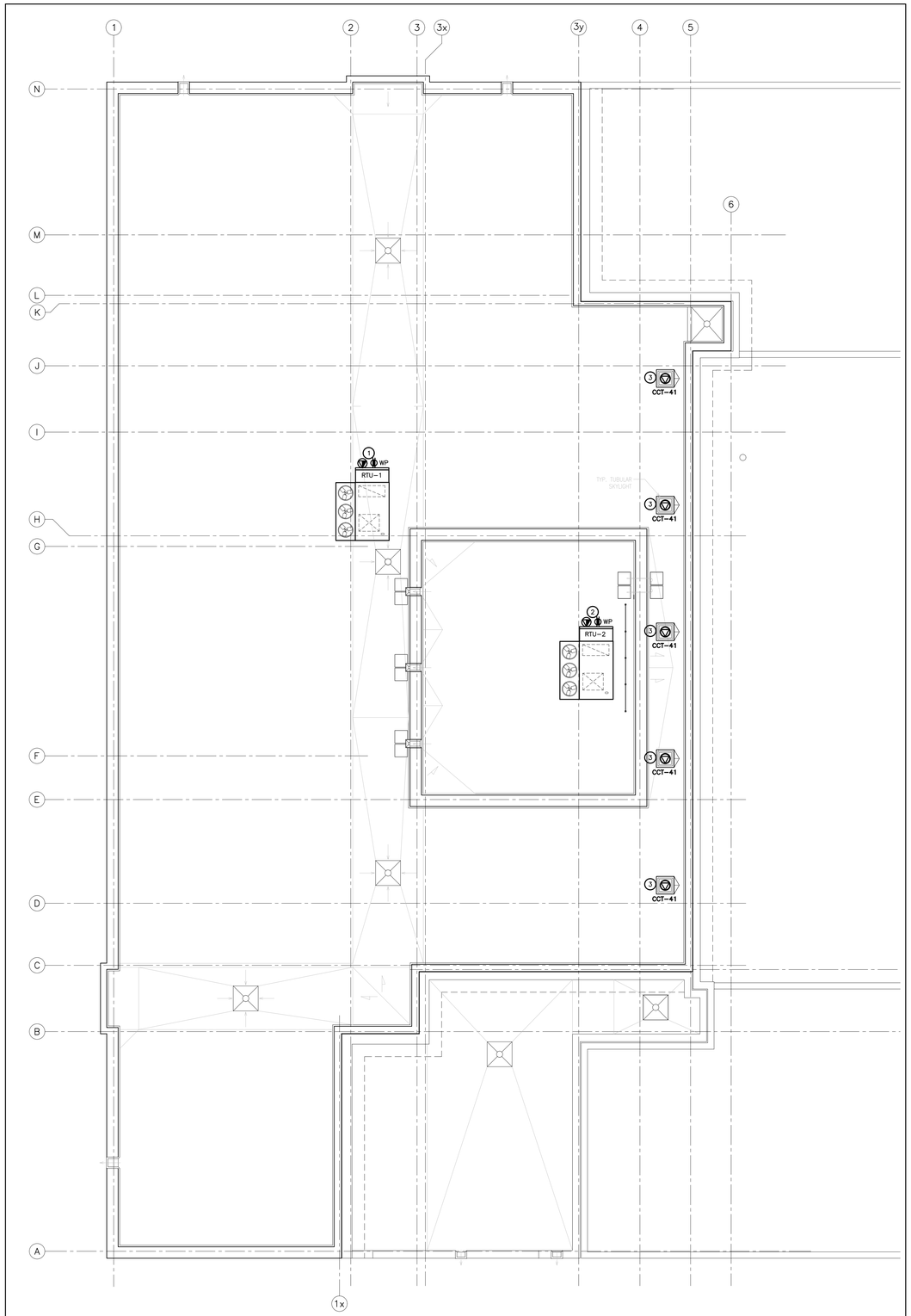
DATE: JULY 2023	SCALE: AS NOTED
DRAWN BY: RJC	CHECKED BY: LC/CR
CIMA+ PROJECT NUMBER: C14-0588	SHEET SIZE: E1

FIRST FLOOR ADDITION
NEW POWER LAYOUT

E201

WORKING NOTES:

1. PROVIDE 208V/3PH 125A POWER FEED TO NEW RTU-1 FROM MAIN SERVICE SWITCHBOARD C/W 4#1 AWG CU + GND IN 2" CONDUIT AND 125A NEW BREAKER IN SWITCHBOARD. PROVIDE 120V 20A MAINTENANCE RECEPTACLE MOUNTED ON UNIT FEED FROM NEW PANEL IN ADDITION. COORDINATE LOCATION WITH MECHANICAL CONTRACTOR. PROVIDE RUBBER PROOF SUPPORTS FOR CABLES AS REQUIRED, REFER TO DETAIL. TIE NEW UNIT INTO FIRE ALARM SYSTEM FOR FAN SHUT DOWN.
2. PROVIDE 208V/3PH 90A POWER FEED TO NEW RTU-2 FROM MAIN SERVICE SWITCHBOARD C/W 4#3 AWG CU + GND IN 1.5" CONDUIT AND 90A NEW BREAKER IN SWITCHBOARD. PROVIDE 120V 20A MAINTENANCE RECEPTACLE MOUNTED ON UNIT FEED FROM NEW PANEL IN ADDITION. COORDINATE LOCATION WITH MECHANICAL CONTRACTOR. PROVIDE RUBBER PROOF SUPPORTS FOR CABLES AS REQUIRED, REFER TO DETAIL. TIE NEW UNIT INTO FIRE ALARM SYSTEM FOR FAN SHUT DOWN.
3. PROVIDE 120V/1PH 15A POWER FROM NEW PANEL FOR SKYLIGHT DIMMING CIRCUIT C/W 120V/24V 20VA STEP DOWN TRANSFORMER APPROVED OR EQUIVALENT TO "SOLAMASTER" MODEL 750 DS-C AND DIMMER SWITCH LOCATED AT GROUND FLOOR EQUIPMENT STORAGE RM 106. COORDINATE INSTALLATION WITH GENERAL CONTRACTOR.



ADDITION - NEW ROOF LAYOUT
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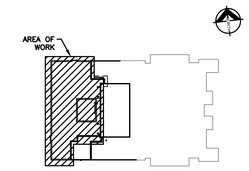

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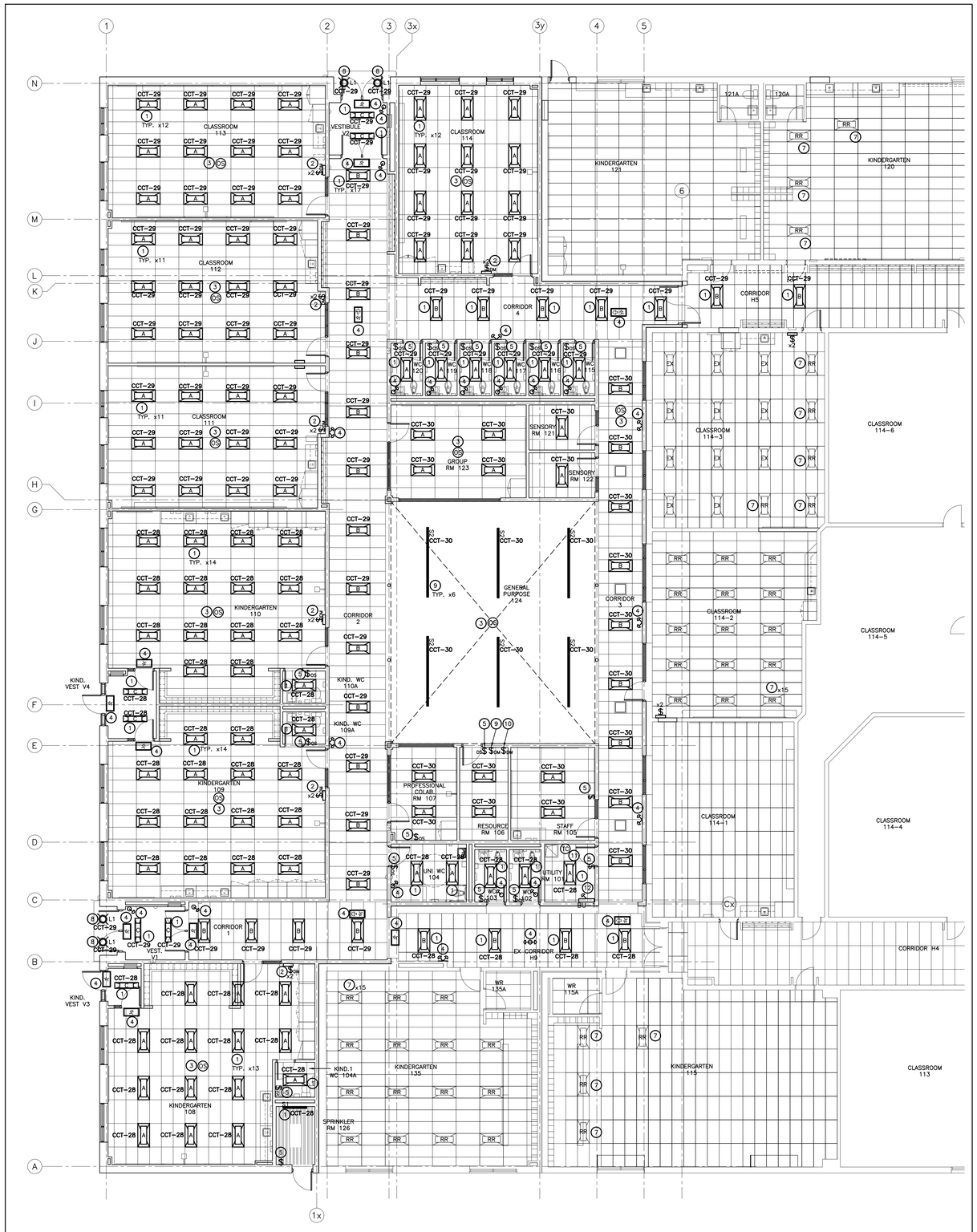
FIRST FLOOR ADDITION
NEW ROOF POWER LAYOUT

E202

NEW LIGHTING WORKING NOTES:

1. PROVIDE NEW LUMINAIRES. PROVIDE NEW WIRING AS PER WIRING DETAIL.
2. PROVIDE NEW 0-10V DIMMER SWITCHES IN CONTROL PANEL. REFER TO CONTROL PANEL DETAIL ON SHEET E901.
3. PROVIDE NEW CEILING MOUNTED SENSOR TO CONTROL LIGHTING. REFER TO OCCUPANCY SENSOR SPECIFICATIONS AND WIRING DETAIL ON SHEET E901.
4. PROVIDE NEW EMERGENCY DEVICE AS NOTED. TIE INTO NEW EMERGENCY LIGHTING CIRCUIT FROM BATTERY UNIT.
5. PROVIDE NEW SWITCHES NOTED.
6. PROVIDE NEW KEY OPERATED SWITCH.
7. REMOVE AND REINSTALL EXISTING LIGHT FIXTURES TO SUIT CEILING MODIFICATION. EXTEND CONDUIT AND WIRING AS REQUIRED.
8. PROVIDE NEW WEATHER PROOF CANOPY MOUNTED LIGHT FIXTURES AND CONNECT WITH CIRCUIT FROM NEW PANEL. REFER TO EXTERIOR LIGHTING CONTROL DETAIL.
9. PROVIDE PENDANT FIXTURES AS NOTED C/W DIMMERS AND DAY LIGHT HARVESTING SENSOR.
10. PROVIDE 0-10V DIMMER SWITCH FOR SKYLIGHT DIMMING CIRCUIT.
11. PROVIDE NEW TIME CLOCK FOR EXTERIOR LIGHTING CONTROL. REFER TO DETAIL.
12. PROVIDE NEW BATTERY UNIT C/W RECEPTACLE AND TIE INTO NEW EMERGENCY LIGHTING CIRCUIT FROM NEW ADDITIONAL PANEL.



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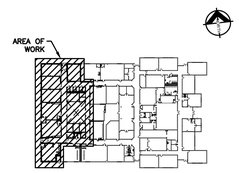

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FIRST FLOOR ADDITION
NEW LIGHTING LAYOUT

E301

ELECTRICAL ABBREVIATIONS

EX	EXISTING TO REMAIN
D	EXISTING TO BE REMOVED C/W CONDUIT/WIRING BACK TO SOURCE
RL	EXISTING TO BE RELOCATED. EXTEND FEED AS REQUIRED.
RR	EXISTING TO BE REMOVED & REINSTALLED IN SAME LOCATION.
x#	QUANTITY OF DEVICES
H/L	HIGH LEVEL
AFF	ABOVE FINISHED FLOOR
C/W	COMPLETE WITH
SM	SURFACE MOUNTED

LIGHT FIXTURE SCHEDULE

TAG	DESCRIPTION	MAKE / MODEL	ALTERNATE
A	RECESSED FLAT PANEL 2x4 LED LUMINAIRE, DIFFUSE LENS, 4200 LUMENS, 4000K, 120V, 0-10V DIMMING DRIVER	PHILIPS T-GRID 2FXP42B840-4-DS-UNV-DIM	LITHONIA PEERLESS-ELECTRIC VISIONEERING
B	RECESSED FLAT PANEL 2x4 LED LUMINAIRE, DIFFUSE LENS, 3200 LUMENS, 4000K, 120V, 0-10V DIMMING DRIVER	PHILIPS T-GRID 2FXP32B840-4-DS-UNV-DIM	LITHONIA PEERLESS-ELECTRIC VISIONEERING
C	DRYWALL RECESSED FLAT PANEL 1x4 LED LUMINAIRE, DIFFUSE LENS, 4200 LUMENS, 4000K, 120V, 0-10V DIMMING DRIVER	PHILIPS T-GRID 1FXP842B840-4-DS-UNV-DIM C/W FMA14	LITHONIA PEERLESS-ELECTRIC VISIONEERING
S1	WALL MOUNTED 4' LED STRIP LIGHT, FROSTED LENS, DIMMABLE DRIVER, 4000 LUMENS, 4000K 120V	PHILIPS FSS440L840UNVDIM	LITHONIA PEERLESS-ELECTRIC VISIONEERING
S2	FREE HANGING 12' LED PENDANT LIGHT, WRAP AROUND CAGE, STEM/CANOPY SUSPENSION, HIGH TRANSMISSION LAY-IN LENS, 120V, 7200LUX, 4000K, 72W	COOPER S23DP-2L40-SCST-120-S92HT	LITHONIA PEERLESS-ELECTRIC VISIONEERING
L1	OUTDOOR RECESSED 4"ø O.D. POT LIGHT, STANDARD LENS, 30W, 3000LM, 3000K LED, 120V	SIGNIFY CALCULITE C4RA30930FLU	LITHONIA PEERLESS-ELECTRIC VISIONEERING
$ $_3$	LIGHT SWITCH - '3' DENOTES 3-WAY	HUBBELL 1200 SERIES (120V)	EATON LEGRAND LEVITON
$_{DIM}$	0-10V DIMMER SWITCH	LEVITON IP710-LFZ	HUBBELL LEGRAND COOPER
$_K$	KEY OPERATED LIGHT SWITCH	HUBBELL HBL120IL	HUBBELL LEGRAND COOPER
$_{OS}$	SWITCH PLATE MOUNTED PASSIVE INFRARED OCCUPANCY SENSOR WITH BUTTON, WHITE, 24V	LEVITON OSS24-IOW	HUBBELL LEGRAND ACUITY CONTROLS
OS	WALL/CORNER MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR, WHITE, 24V	EQUAL TO LEVITON OSW12-MOW	HUBBELL WATTSTOPPER ACUITY CONTROLS
OS	CEILING MOUNTED DUAL TECHNOLOGY LOW PROFILE OCCUPANCY SENSOR 24V, INCLUDE POWER PACKS AS REQUIRED	LEVITON OSC10-MDW	HUBBELL LEGRAND ACUITY CONTROLS
TC	ELECTRONIC 7-DAY PROGRAMMABLE TIME CLOCK	EQUAL TO INTERMATIC ET2100 SERIES	

EMERGENCY LIGHTING SCHEDULE

TAG	DESCRIPTION	MAKE / MODEL
# D.S. / # R / # R.O.	ALL METAL EXIT SIGN, WHITE LED LIGHT SOURCE, FACTORY WHITE, GREEN RUNNING MAN WITH LEGEND PLATE AS NOTED, SINGLE FACE, UNIVERSAL MOUNTING (WALL, END OR CEILING), 120/347V AC INPUT (NORMAL), 6-24V DC INPUT (EMERGENCY).	EQUAL TO LUMACELL LS1WU.
#	WALL MOUNTED REMOTE DUAL HEAD 4W LED EMERGENCY LIGHT, INJECTION MOLDED IMPACT RESISTANT FLAME RETARDANT THERMOPLASTIC, ADJUSTABLE LENSES, SUITABLE FOR INSTALLATION ON 4" OCTAGON BOX.	EQUAL TO LUMACELL MQM2-LD7
BU-1	STEEL BATTERY UNIT COMPLETE 1 4W LED HEAD, CORROSION RESISTANT, FACTORY WHITE, REMOVABLE FRONT ACCESS PANEL, LEAD ACID BATTERY, SOLID STATE PULSE-TYPE CHARGER, TEST SWITCH, LED INDICATOR LIGHTS, 120/347V INPUT WITH LINE CORD KIT, 12V OUTPUT.	EQUAL TO LUMACELL RG12S-200-1-MQM-LD7
#	CEILING MOUNTED REMOTE SINGLE HEAD 12V 4W LED EMERGENCY LIGHT, INJECTION MOLDED IMPACT RESISTANT FLAME RETARDANT THERMOPLASTIC, ADJUSTABLE LENSES, SUITABLE FOR INSTALLATION ON 4" OCTAGON BOX.	EQUAL TO LUMACELL MQM-LD7
#	CEILING MOUNTED REMOTE DUAL HEAD 12V 4W LED EMERGENCY LIGHT, INJECTION MOLDED IMPACT RESISTANT FLAME RETARDANT THERMOPLASTIC, ADJUSTABLE LENSES, SUITABLE FOR INSTALLATION ON 4" OCTAGON BOX.	EQUAL TO LUMACELL MQM2-LD7
APPROVED ALTERNATES: BEGHELLI, EMERGI-LITE, AIMLITE, STAN PRO		

NOTE:
1. # DENOTES BATTERY UNIT.
2. 'DS' DENOTES DOUBLE SIDED.
3. ALLOW 20% SAFETY ON BACK-UP BATTERY PACK SIZING.
4. ALL UNITS TO BE CSA CERTIFIED.
5. EMERGENCY LIGHTING LIGHT LEVELS ARE TO BE TAKEN IN FOOT CANDLES BY THE CONTRACTOR AFTER PROJECT COMPLETION. ADVISE CONSULTANT OF TEST DATE FOR WITNESS AND OWN READINGS.

POWER LEGEND

TAG	DESCRIPTION	MAKE/MODEL
	15A 120V 1PH GROUNDED DUPLEX TAMPER RESISTANT RECEPTACLE C/W STAINLESS STEEL COVER PLATE	HUBBELL BR15WHITR OR EQUAL
	20A 120V 1PH T-SLOT GROUNDED DUPLEX TAMPER RESISTANT RECEPTACLE, C/W STAINLESS STEEL COVER PLATE.	HUBBELL GFTR20W OR EQUAL
WP	20A 120V 1PH GROUNDED DUPLEX TAMPER RESISTANT RECEPTACLE IN WEATHERPROOF ENCLOSURE	HUBBELL GFTR20W OR EQUAL C/W HUBBELL RW57300
	20A 120V 1PH GROUNDED DUPLEX RECEPTACLE TAMPER RESISTANT C/W STAINLESS STEEL COVER PLATE	HUBBELL BR20WHI OR EQUAL
	120V 1PH GROUNDED DIRECT EQUIPMENT CONNECTION	
	208V 3PH GROUNDED DIRECT EQUIPMENT CONNECTION	
	COMMERCIAL POWER PANEL C/W COPPER BUS AND BOLT-ON BREAKERS	
D	POWER DOOR OPERATOR BY GENERAL CONTRACTOR. PROVIDE 120V POWER TO DOOR OPERATOR AND INTERLOCK WIRING BETWEEN OPERATOR AND WALL PUSH BUTTON	
EM	EMERGENCY CALL BUTTON. SUPPLIED AND INSTALLED BY GENERAL WITH DOOR HARDWARE. PROVIDE BACK BOX, CONDUIT C/W PULL STRING TO DOOR CONTROLLER IN CEILING SPACE.	
L	PUSH TO LOCK. SUPPLIED AND INSTALLED BY GENERAL WITH DOOR HARDWARE. PROVIDE BACK BOX CONDUIT C/W PULL STRING TO DOOR CONTROLLER IN CEILING SPACE.	
	EMERGENCY AUDIBLE/VISUAL DEVICE. SUPPLIED AND INSTALLED BY GENERAL WITH DOOR HARDWARE. PROVIDE BACK BOX CONDUIT C/W PULL STRING TO DOOR CONTROLLER IN CEILING SPACE.	
B	"PUSH TO OPEN" FOR BARRIER FREE OR REGULAR DOOR CONTROL BY GENERAL CONTRACTOR. PROVIDE CONCEALED CONDUIT UP WALL TO DOOR OPERATOR C/W INTERLOCK WIRING TO DOOR OPERATOR.	
	MANUAL MOTOR STARTER. RATED TO SUIT LOAD.	EQUAL TO SIEMENS SMFFG71P

COMMUNICATIONS LEGEND

TAG	DESCRIPTION	MAKE/MODEL
	DATA ONLY OUTLET BOX - WALL BOX, OUTLET & 3/4" CONDUIT C/W PULL STRING UP WALL TO CEILING SPACE. CABLING BY COMMUNICATIONS CONTRACTOR.	REFER TO SPECIFICATIONS
S	CEILING MOUNTED P.A. SPEAKER	REFER TO SPECIFICATIONS
	WALL MOUNTED P.A. SPEAKER	REFER TO SPECIFICATIONS
$_{PCS}$	P.A. CALL SWITCH	REFER TO SPECIFICATIONS
AP	ACCESS POINT PROVIDE DATA OUTLET IN CEILING SPACE.	REFER TO SPECIFICATIONS
	BATTERY OPERATED CLOCK AT 7' ABOVE FLOOR	EQUAL TO PRIMEX OR SIMPLEX

FIRE ALARM LEGEND

	SMOKE DETECTOR C/W INDICATION LIGHT
	FIRE ALARM PULL STATION
H/S	COMBINATION HORN/STROBE. '##' DENOTES STROBE CANDELA RATING. PROVIDE 15cd UNLESS OTHERWISE NOTED.
'##' cd	STROBE ONLY. '##' DENOTES STROBE CANDELA RATING. PROVIDE 15cd UNLESS OTHERWISE NOTED.

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LEGENDS

E801

CLASSROOM CONTROL PANELS

.1 PROVIDE SURFACE MOUNTED MODULAR CONTROL PANELS AS DETAILED ON THE DRAWINGS AND SPECIFIED HEREIN AS MANUFACTURED BY INTERSPEC SYSTEM LIMITED, ROSEMONT, ONTARIO (705) 435-0294 AND REPRESENTED BY PP ENTERPRISES (416) 267-8484. SPECIFIED MANUFACTURER'S PRODUCTS ESTABLISH MINIMUM STANDARDS AND SHALL BE BASE BID; OTHER MANUFACTURER'S PRODUCTS SHALL BE BID AS AN ALTERNATIVE PRICE PROPOSAL BY THE CONTRACTOR.

.2 MODULAR CONTROLS PANELS SHALL BE CONSTRUCTED OF STRUCTURALLY SOUND 6063 T5 ALLOY SATIN ANODIZED ALUMINUM FRAME. 0.80 MM (1/32") THICK; WITH HIGH PRESSURE PLASTIC LAMINATE FACED PANELS OF LIGHTWEIGHT PARTICLE CORE AND 0.50 MM (1/64") THICK PLASTIC LAMINATED BACKING SHEET. PLASTIC LAMINATE COLOUR AS SELECTED BY THE ARCHITECT FROM ARBORITE OR FORMICA, FURNITURE FINISH, FROM MANUFACTURER'S STANDARD COLOUR RANGE. COMPLETE ASSEMBLY TO MEET FLAME SPREAD RATINGS IN AREA USED.

.3 UNITS TO BE COMPLETE WITH BACK BOXES FABRICATED FROM HEAVY GAUGE STAIN COAT STEEL WITH SUITABLE BARRIERS AND CONTINUOUS KNOCKOUTS. SATIN ANODIZED FACE PLATES SHALL BE PREPUNCHED TO ACCEPT DETAILED COMPONENTS.

.4 ALL PANELS SHALL BE VANDAL RESISTANT AND REMOVABLE WITH SPECIAL TOOLS FOR SERVICE ACCESS.

.5 FABRICATE UNITS IN ACCORDANCE WITH REVIEWED SHOP DRAWINGS WITH EXTRUDED ALUMINUM FRAMES AND SOLID PLASTICS LAMINATE FACE PANELS.

.6 PANELS TO BE REMOVABLE FROM ALUMINUM FRAMES.

.7 FRONT PANELS TO HAVE COLOUR FINISH SELECTED BY ARCHITECT.

.8 PANELS TO HAVE ALL OPENINGS, MOUNTING HARDWARE, ETC., FOR SERVICES AS REQUIRED FOR INSTALLATION OF MECHANICAL AND ELECTRICAL SERVICES BY DIVISION 15 AND 16.

.9 PANELS TO BE MOUNTED 100MM (4") ABOVE THE FLOOR AND EXTEND 100MM (4") ABOVE THE CEILING. SUBMIT TABLE WITH SHOP DRAWING SUBMISSION CONFIRMING PANEL HEIGHT FOR EACH ROOM. SUBMISSION SHALL ALSO INCLUDE DEVICES FOR EACH INDIVIDUAL PANEL.

.10 ACCEPTABLE EQUAL IS AS FOLLOWS:

- .1 ALSPEC (SISTER COMPANY OF INTERSPEC), 1-705-435-3780
- .2 WOLFE ARCHITECTURAL
  WORKS 587 HANLAN ROAD
  WOODBRIDGE, ONTARIO
  CANADA L4L 4R8
  TEL: 905-266-1010
  FAX: 905-266-1015
  M: 416-458-8895
  INFO@WOLFEWORKS.CA

TELEPHONE AND DATA SYSTEMS

1. ELECTRICAL CONTRACTOR RESPONSIBLE FOR OBTAINING THE SERVICES OF A QUALIFIED COMMUNICATION CONTRACTOR TO CARRY OUT ALL WORK ASSOCIATED WITH TELEPHONE AND DATA SYSTEMS INCLUDING BUT NOT LIMITED TO DEVICES, CONDUIT, WIRING, TESTING AND VERIFICATION. COMMUNICATION CONTRACTOR MUST BE PANDUIT CERTIFIED AND PROVIDE PROOF OF CERTIFICATION WHERE REQUESTED.
2. REFER TO BOOK SPECIFICATIONS FOR ADDITIONAL INFORMATION.
3. ELECTRICAL CONTRACTOR RESPONSIBLE FOR PROVIDING ALL INFRASTRUCTURE FOR COMMUNICATION CABLING INCLUDING BUT NOT LIMITED TO BACK BOXES, CONDUIT UP WALL WITH PULL STRING AND INSULATING BUSHINGS, AND CONDUIT INFRASTRUCTURE IN CEILING SPACE INCLUDING JUNCTION BOXES, CONDUIT STUBS AS REQUIRED.
4. ALL COMMUNICATION CABLING SHALL BE RUN WITHIN EXISTING COMMUNICATIONS CONDUIT/RACEWAYS WHERE POSSIBLE. ALL CABLING SHALL BE RUN IN CONDUIT FROM COMMUNICATION DROPS TO CORRIDOR CABLE MANAGEMENT SYSTEM. EXISTING SYSTEM SHOULD BE BASED ON PANDUIT STRUCTURED CABLING SYSTEM. MAXIMUM HORIZONTAL CABLE RUN LENGTH TO NOT EXCEED 300'. CABLING SHALL HAVE ENOUGH LENGTH TO ALLOW FOR SLACK, VERTICAL RUNS, WASTAGE, AND FUTURE MOVES.
5. ALL COPPER CABLING TO FOLLOW STANDARDS AS DICTATED BY TIA 568.0-D, 568.01-D, 568.02-D. ALL CABLING SHALL BE GROUNDED AND BONDED AS DICTATED BY TIA 607-D. EXISTING TIA STANDARD TO BE MAINTAINED CONSISTENTLY THROUGHOUT SCHOOL.
6. ALL CABLE MUST BE 24AWG CAT6 4 PAIR FT6 RATED. CATEGORY MARKING SHALL BE PRINTED EVERY FOOT. JACKET SHALL BE PRINTED WITH TRU-MARK 1000' TO 0' MARKING SYSTEM WITH DARK BLUE OUTER SHEATH FOR BOTH DATA AND VOICE.
7. FACEPLATES SHALL BE UL LISTED AND CSA CERTIFIED. BE ABLE TO MOUNT ONE/TWO/THREE/FOUR OR SIX JACKS IN A SINGLE GANG AND UP TO TWELVE JACKS IN A DOUBLE GANG.
8. JACKS SHALL BE CAT6 COMPLIANT, 8-POSITIONED UN-KEYED WITH 94 V0 RATING. ALL DROPS MUST BE CLEARLY LABELED ON THE PATCH PANEL AND CABLE BOX. PROVIDE YELLOW FOR VOICE AND GREEN FOR DATA.
9. PROVIDE 4' AND 6' CAT6 PATCH CABLES AT WORK STATION END AS REQUIRED TO SUIT INSTALLATION. COORDINATE WITH KPRDSB.
10. ANY HORIZONTAL EXPOSED CABLE SHALL BE RUN IN WIREMOLD 500/700 SERIES. WHERE BOTH POWER AND DATA IS NOTED IN RACEWAY, RACEWAY SHALL BE PANDUIT T70. PROVIDE TG70 FOR ANY RACEWAY THAT REQUIRES USB RECEPTACLES.
11. ALLOW FOR NEW HOME RUN CABLE BACK TO MAIN HUB FOR EACH ACCESS POINT TO ALLOW FOR RELOCATION BY OWNER. ACCESS POINT TO BE TERMINATED AS A FULLY CONTAINED DATA JACK. PANDUIT CBX1WH-A C/W CJ688TGGBU UTP JACK MODULE.
12. COMMUNICATION CONTRACTOR SHALL INSTALL/REINSTALL ALL ACCESS POINTS. REFER TO MR42 INSTALLATION GUIDE ISSUED BY CISCO. ANY DAMAGED OR NOT RETURNED ACCESS POINT.
13. LABELING
    - .1 PROVIDE LABELS ON ALL OUTLETS. LABELS SHALL BE MECHANICALLY OR DIGITALLY PRINTED.
    - .2 LABELLING AT WORKSTATION END AND PATCH PANEL SHALL BE IN FORMAT 'PATCHPANEL LETTER-ROOM#-DROP#'.
    - .3 PORT NUMBERS WITHIN A ROOM SHALL BE SEQUENTIAL. ATTEMPT TO MAINTAIN SEQUENTIAL NUMBERING ACROSS ADJACENT ROOMS.
14. CONTRACTOR TO ALLOW FOR MEETING ON SITE WITH KPRDSB REPRESENTATIVE AND CONSULTANT TO REVIEW ALL INSTALLATION REQUIREMENTS AT THE BEGINNING OF THE PROJECT.
15. CONTRACTOR TO TEST ALL DATA AND VOICE DROPS AND SUBMIT REPORT TO CONSULTANT AND INCLUDE IN MANUAL.
16. APPROVED SUB-CONTRACTOR:
    - .1 CERTIFIED PANDUIT SYSTEM INSTALLER.

P.A. SYSTEMS

1. ELECTRICAL CONTRACTOR RESPONSIBLE FOR OBTAINING THE SERVICES OF A QUALIFIED PUBLIC ADDRESS SYSTEM CONTRACTOR TO CARRY OUT ALL WORK ASSOCIATED WITH THE P.A. SYSTEM INCLUDING BUT NOT LIMITED TO CONDUIT, WIRING, TESTING AND VERIFICATION.
2. PROVIDE NEW CAREHAWK PA SYSTEM FRONT END COMPLETE WITH ALL NECESSARY COMPONENTS TO CONNECT NEW ADDITION DEVICES AND ALL EXISTING EQUIPMENT WITHIN EXISTING BUILDING. PROVIDE NEW BIX PATCH PANEL AT NEW PA SYSTEM LOCATION TO TERMINATE ALL NEW AND EXISTING WIRING.
3. REFER TO BOOK SPECIFICATIONS FOR ADDITIONAL INFORMATION.
4. ELECTRICAL CONTRACTOR RESPONSIBLE FOR PROVIDING ALL INFRASTRUCTURE FOR COMMUNICATION CABLING INCLUDING BUT NOT LIMITED TO BACK BOXES, CONDUIT UP WALL WITH PULL STRING AND INSULATING BUSHINGS, AND CONDUIT INFRASTRUCTURE IN CEILING SPACE INCLUDING JUNCTION BOXES, CONDUIT STUBS AS REQUIRED.
5. ALL P.A. CABLING SHALL BE RUN WITHIN NEW COMMUNICATIONS CONDUIT/RACEWAYS WHERE POSSIBLE. WHERE NOT POSSIBLE CABLING SHALL BE RUN USING J-HOOKS. SPACING AS PER MANUFACTURERS RECOMMENDATIONS. ALL NEW CABLING SHALL TERMINATE IN ROOM 114P.
6. SPEAKERS SHALL BE MCBRIDE WHITE SQUARE GRILL WITH 25 VOLT TRANSFORMERS. SPEAKERS TO BE TAPPED: 2-4 WATTS IN GYM SHOPS AND BOILER ROOMS; 0.25 WATTS IN OFFICES AND TO 1 WATT IN ALL OTHER APPLICATIONS. SPEAKER WITHOUT GRILL IS 8LS822-19
7. ALL SPEAKERS IN T-BAR CEILINGS SHALL HAVE SPEAKER RAILS SUPPORTED BY CEILING RAILS.
8. ALL WIRING TO BE CAT6 FT4 RATED WITH WHITE OUTER SHEATH AND INSTALLED IN CONDUIT. WHERE IT IS NOT POSSIBLE TO INSTALL IN CONDUIT, PROVIDE J-HOOKS AND RUN FT6 RATED CABLE.
9. ALL P.A. WIRING TO RUN BACK TO MAIN CONTROL PANEL AS NOTED. CONTRACTOR TO USE PROPER PUNCH DOWN TOOLS ON BIX PANEL FOR ALL WIRING. FINAL TERMINATION FROM BIX PATCH PANEL TO NEW PA FRONT END WILL BE BY OWNER. CONTRACTOR TO BE PRESENT AND COORDINATE ACCORDINGLY.
10. PROVIDE AS-BUILT MARKUPS OF ANY NEW DEVICES AND ANY NEW JUNCTION BOXES PROVIDED TO SUIT.
11. CONTRACTOR TO ALLOW FOR MEETING ON SITE WITH KPRDSB REPRESENTATIVE TO REVIEW ALL INSTALLATION REQUIREMENTS AT THE BEGINNING OF THE PROJECT.
12. P.A. CABLING SHALL BE LABELLED WITH ROOM NUMBER ON BOTH ENDS OF CABLE.
13. TESTING:
    - .1 CONTRACTOR MUST PROVIDE INSPECTION, TESTING, REQUIRED ADJUSTMENTS, COMMISSIONING VERIFICATION AND CERTIFICATION OF THE SYSTEM. CONFIRM FINAL ROOM NUMBERS WITH KPRDSB. SUBMIT REPORT TO CONSULTANT AND INCLUDE IN MANUAL. THIS MUST BE COMPLETED PRIOR TO OCCUPANCY GRANTED.
    - .2 ALL LINES SHALL BE TESTED FOR CONTINUITY, GROUND AND SHORTS. IMPENDENCE TEST SHALL BE DONE ON EVERY SPEAKER AND INCLUDED IN REPORT.
    - .3 CONTRACTOR SHALL TEST SYSTEM TO ENSURE PROPER OPERATION AND MAKE ANY CORRECTIONS TO THE SYSTEM AT NO COST TO THE OWNER.
14. APPROVED SUB-CONTRACTOR:
    - .1 CERTIFIED CAREHAWK SYSTEM INSTALLER.

GENERAL NOTES:

1. THOROUGHLY REVIEW AND COORDINATE WITH SITE CONDITIONS AND COMPLETE DRAWING SET PRIOR TO PRICING AND INSTALLATION.
2. OBTAIN, ARRANGE AND PAY FOR ALL REQUIRED PERMITS AND INSPECTIONS.
3. THE ELECTRICAL CONTRACTOR AND SUB-TRADES SHALL ATTEND ALL SITE MEETINGS UNLESS OTHERWISE APPROVED.
4. PROVIDE ELECTRONIC SHOP DRAWINGS IN PDF FORMAT TO CONSULTANT FOR REVIEW. ALL SHOP DRAWINGS MUST BE REVIEWED, STAMPED AND SIGNED BY THE ELECTRICAL CONTRACTOR PRIOR TO SUBMITTING TO THE CONSULTANT. REVIEW SHALL INCLUDE, BUT NOT LIMITED TO, VERIFYING VOLTAGE, RATING, DIMENSIONS AND CLEARANCES.
5. INSTALL ALL WORK IN CONFORMANCE WITH MANUFACTURER'S REQUIREMENTS AND RECOMMENDATIONS.
6. MAINTAIN RECORD DRAWINGS ON AN ON-GOING BASIS. DRAWINGS SHALL BE AVAILABLE FOR PERIODIC REVIEW BY THE CONSULTANT DURING CONSTRUCTION.
7. ALL WORK SHALL COMPLY WITH APPLICABLE CODES.
8. REMOVE ALL REDUNDANT EQUIPMENT AND MATERIALS FROM SITE AND DISPOSE OF IN AN APPROVED MANNER. REDUNDANT EQUIPMENT AND MATERIALS SHALL NOT BE ABANDONED IN PLACE.
9. ALL CUTTING, CORING AND PATCHING SHALL BE BY THIS CONTRACTOR. COORDINATE PATCHING WITH GENERAL CONTRACTOR.
10. ANY FEED TO NEW ROOFTOP EQUIPMENT SHALL BE INSTALLED WITH GOOSENECK STYLE PITCH POCKET EQUAL TO THALER METAL MEF-2A. SIZE AS REQUIRED TO SUIT FEED. COORDINATE ROOFING WORK WITH GENERAL CONTRACTOR OR OWNER AS REQUIRED PRIOR TO INSTALLATION.
11. MAINTAIN REQUIRED ACCESS AND CLEARANCE TO ALL EQUIPMENT AND SYSTEMS AS REQUIRED BY CODE AND AS PER MANUFACTURER'S REQUIREMENTS.
12. PROVIDE ACCESS DOORS WHERE REQUIRED TO MAINTAIN ACCESS TO DEVICES, EQUIPMENT, JUNCTION BOXES ETC. COORDINATE AND TURN OVER TO GENERAL CONTRACTOR FOR INSTALLATION. CONTRACTOR TO INSTALL WHERE NOT COORDINATED PROPERLY WITH GENERAL CONTRACTOR.
13. TAG ALL EQUIPMENT (INCLUDING MECHANICAL EQUIPMENT), EQUIPMENT DISCONNECTS/STARTERS AND PANELS WITH LAMACOID NAMEPLATES. PANEL NAMEPLATE SHALL STATE PANEL DESIGNATION, VOLTAGE, AMPERAGE AND SOURCE OF FEEDER. EQUIPMENT SHALL STATE PANEL AND CIRCUIT NUMBER. PROVIDE TYPED PANEL SCHEDULES IN ALL PANELS. CONFIRM WITH CONSULTANT IF UNCLEAR.
14. LABEL ALL RECEPTACLES AND JUNCTION BOXES WITH PANEL AND CIRCUIT NUMBER. USE BLACK MARKER ON CONCEALED JUNCTION BOXES AND CLEAR ADHESIVE LABELS WITH BLACK WRITING ON RECEPTACLES. PAINT ALL JUNCTION BOXES RED FOR FIRE ALARM.
15. THE CONTRACTOR SHALL ARRANGE FOR FIELD REVIEWS BY THE CONSULTANT PRIOR TO CEILINGS AND WALLS BEING CLOSED IN. WHERE THIS HAS NOT BEEN ARRANGED IT IS THE CONTRACTOR'S RESPONSIBILITY TO REMOVE CEILING TILES OR ACCESS DOORS FOR REVIEW AT THE DIRECTION OF THE CONSULTANT.
16. PERFORM TESTING OF ALL SYSTEMS AS REQUIRED BY CODE AND THE CONSULTANT.
17. ASSIST WITH START-UP AND COMMISSIONING OF ALL SYSTEMS AS REQUIRED.
18. INSTRUCT AND TRAIN THE OWNER ON PROPER OPERATION OF THE SYSTEM.
19. UPON COMPLETION OF THE PROJECT THE CONSULTANT WILL DO A FINAL REVIEW. UPON RECEIVING THE FINAL INSPECTION REPORT, THE CONTRACTOR MUST CORRECT AND SIGN BACK THE INSPECTION REPORT INDICATED ALL DEFICIENCIES ARE COMPLETED. A RE-INSPECTION WILL ONLY BE DONE ONCE THE CONSULTANT RECEIVES THIS IN WRITING. WHERE THE CONSULTANT PERFORMS THE RE-INSPECTION AND THE WORK IS NOT COMPLETE, THE CONTRACTOR IS RESPONSIBLE FOR REIMBURSING THE CONSULTANT FOR THE FIELD REVIEW. THE FEE FOR ADDITIONAL REVIEWS WILL BE AT THE CONSULTANT'S HOURLY RATES PLUS MILEAGE AND APPLICABLE TAXES TO BE PAID DIRECTLY TO THE CONSULTANT PRIOR TO PERFORMING THE NEXT FIELD REVIEW.
20. PROVIDE ONE (1) YEAR WARRANTY ON ALL MATERIAL AND LABOUR FROM THE DATE OF SUBSTANTIAL COMPLETION.
21. PROGRESS DRAWS SHALL INCLUDE MINIMUM $1,500.00 FOR MANUALS AND AS-BUILT DRAWINGS. TOTAL AMOUNT SHALL REMAIN UNBILLED UNTIL MANUALS AND AS-BUILT DRAWINGS HAVE BEEN SUBMITTED AND APPROVED AND UNTIL ALL CONSULTANT FIELD REVIEW REPORTS HAVE BEEN SIGNED AND RETURNED TO CONSULTANT ALONG WITH PICTURES AS REQUESTED BY CONSULTANT.
22. PROVIDE ONE(1) ELECTRONIC COPY OF USB. CLOSE-OUT DOCUMENTATION INCLUDING CONTRACTOR INFORMATION, WARRANTY LETTER, ESA CERTIFICATE, FIRE ALARM VERIFICATION REPORT, EMERGENCY LIGHTING TEST REPORT, SHOP DRAWINGS, O&Ms, ANY OTHER REQUIRED REPORTS AND AS-BUILT DRAWINGS INCLUDING ALL PANEL SCHEDULES. AS-BUILT DRAWINGS SHALL INCLUDE COMPLETE ELECTRICAL DRAWING SET WITH ANY CHANGES MARKED CLEARLY AND NEATLY IN COLOUR.

OCCUPANCY SENSOR SPECIFICATIONS:

1. ALL SENSORS SHALL BE INSTALLED AS PER MANUFACTURERS RECOMMENDATIONS.
2. ALL SENSORS SHALL BE 24V. PROVIDE POWER PACKS FOR ALL SENSORS.
3. SWITCH PLATE SENSORS SHALL BE SINGLE TECHNOLOGY USING INFRARED DETECTION. CEILING MOUNTED OR WALL MOUNTED SENSORS SHALL BE DUAL TECHNOLOGY USING BOTH ULTRASONIC AND INFRARED.
4. CEILING AND WALL MOUNTED SENSORS SHALL UTILIZE BOTH ULTRASONIC AND INFRARED TO VERIFY AND ACTIVATE LIGHTING SYSTEM. UPON VERIFICATION, DETECTION BY EITHER TECHNOLOGY SHALL HOLD LIGHTING ON.
5. CEILING AND WALL MOUNTED SENSORS SHALL HAVE A RE-TRIGGER FEATURE IN WHICH DETECTION BY EITHER TECHNOLOGY SHALL RE-TRIGGER THE LIGHTING SYSTEM ON WITHIN 5 SECONDS OF BEING SWITCHED OFF.
6. CEILING SENSORS SHALL BE FLAT, UNOBTRUSIVE APPEARANCE AND PROVIDE 360° AND UP TO 2000 SQ.FT. OF COVERAGE. WALL MOUNTED SENSORS SHALL PROVIDE MINIMUM 110° FIELD OF VIEW AND 1200 SQ.FT. OF COVERAGE. SWITCH PLATE SENSORS SHALL PROVIDE 180° FIELD OF VIEW AND 900 SQ.FT. OF COVERAGE.
7. CEILING AND WALL MOUNTED SENSORS SHALL HAVE BUILT-IN LIGHT SENSOR THAT OPERATES FROM 10 TO 300 FOOT-CANDLES.
8. ULTRASONIC, INFRARED AND LIGHT SENSOR TECHNOLOGIES SHALL BE ADJUSTABLE.
9. SENSORS SHALL HAVE TIME DELAY THAT IS ADJUSTED AUTOMATICALLY (AUTO MODE) OR SHALL HAVE A FIXED TIME DELAY OF 5 TO 30 MINUTES SET BY DIP SWITCHES. DEFAULT SETTING IS AUTO MODE.
10. SENSORS SHALL HAVE WALK-THROUGH MODE, WHERE LIGHTING TURNS OFF 3 MINUTES AFTER AREA IS INITIALLY OCCUPIED IF NO MOTION IS DETECTED AFTER THE FIRST 30 SECONDS.
11. SENSORS SHALL HAVE MINIMUM EIGHT OCCUPANCY LOGIC OPTIONS THAT GIVE END USER ABILITY TO CUSTOMIZE CONTROL TO MEET APPLICATION NEEDS.
12. SENSORS SHALL HAVE NON-VOLATILE MEMORY SO THAT SETTINGS ARE NOT LOST DURING POWER OUTAGE.
13. EACH SENSING TECHNOLOGY SHALL HAVE LED INDICATOR.
14. ALL CEILING AND WALL MOUNTED SENSORS, MOUNTED IN SPACES OTHER THAN CORRIDORS, SHALL HAVE A 2-POLE BYPASS SWITCH MOUNTED IN CEILING SPACE ABOVE CONTROL SWITCH(ES) AND IDENTIFIED. REFER TO WIRING DIAGRAM.
15. SENSORS SHALL BE MANUFACTURED BY AN ISO 9002 CERTIFIED MANUFACTURING FACILITY AND HAVE A DEFECT RATE OF LESS THAN 1/3 OF 1%.
16. SENSORS SHALL HAVE 5 YEAR WARRANTY AND BE UL AND CUL LISTED.
17. COMMISSIONING:
    CONTRACTOR IS RESPONSIBLE FOR RETAINING THE SERVICES OF OCCUPANCY SENSOR MANUFACTURER TO SETUP AND CALIBRATE ALL NEW OCCUPANCY SENSORS. CONTRACTOR SHALL PARTICIPATE THROUGHOUT THE COMPLETE VERIFICATION PROCESS AND IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH VERIFICATION.
18. ALTERNATE MANUFACTURERS OTHER THAN THOSE LISTED IN THE LUMINAIRE SCHEDULE MUST BE SENT TO THE CONSULTANT FOR REVIEW AND APPROVAL THROUGH ADDENDUM PROCESS.

FIRE ALARM SCOPE OF WORK:

1. EXISTING FIRE ALARM CONTROL PANEL (FACP) IS "MIRCOM 4000 FLEX NET". PROVIDE NEW DETECTORS, AUDIBLE SIGNALS, VISUAL SIGNALS AND ALL OTHER DEVICES AS PER DRAWINGS AND AS REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM IN CONFORMANCE WITH THE ONTARIO BUILDING CODE AND CAN/ULC-S524-M "STANDARD FOR THE INSTALLATION OF FIRE ALARM SYSTEMS".
2. SIGNAL DEVICES SHALL BE WHEELOCK MT-12/24 OR MT-24-LSM SERIES. VISIBLE SIGNAL DEVICES SHALL BE COOPER EXCEEDER SERIES. PROVIDE SYNC MODULES AS REQUIRED TO ENSURE ALL STROBE DEVICES SYNC CORRECTLY.
3. CONCEAL ALL FEEDERS AND RECESS ALL DEVICES UNLESS OTHERWISE NOTED OR PRE-APPROVED BY CONSULTANT AND OWNER.
    - .1 FINISHED AREAS:
      SURFACE SHALLOW PANDUIT BOX WITH NO KNOCKOUTS.
      SURFACE CONDUIT SHALL BE RUN IN PANDUIT. PANDUIT BOX SHALL BE RED IN COLOUR.
    - .2 UNFINISHED AREAS (CARETAKER ROOMS, MECHANICAL ROOMS):
      SURFACE EMT IS ACCEPTABLE.
      STANDARD SURFACE BOXES ARE ACCEPTABLE.
4. ALL DEVICE AND SIGNAL CIRCUITS TO BE WIRED AS CLASS A.
5. INITIATING AND SIGNAL CIRCUITS ARE TO BE RUN IN SEPARATE CONDUITS. CONTRACTOR WILL BE RESPONSIBLE FOR REWIRING IF THIS IS NOT DONE AS PER SPEC.
6. PROVIDE ISOLATOR MODULES AT ALL FIRE SEPARATIONS INCLUDING BUT NOT LIMITED TO STAIRWELLS AND ELEVATOR SHAFTS. LOCATION AND QUANTITY OF ISOLATORS TO BE COORDINATED WITH MANUFACTURER.
7. PRELIMINARY AUDIBILITY TESTING:
    - .1 PERFORM PRELIMINARY TESTS ONCE ALL AUDIBLE DEVICES ARE INSTALLED TO CONFIRM IF ANY PROBLEM AREAS AND REPORT TO CONSULTANT.
8. LABELING:
    - .1 PAINT ALL FIRE ALARM JUNCTION BOXES RED. IDENTIFY EACH JUNCTION BOX AS EITHER SIGNAL OR INITIATING CIRCUIT.
    - .2 LABEL ALL POWER JUNCTION BOXES WITH PANEL AND CIRCUIT NUMBER.
9. CONFIRM SIGNAL TO FIRE ALARM DEPARTMENT WITH MONITORING COMPANY.
10. TEST AND VERIFY THE FIRE ALARM SYSTEM IN CONFORMANCE WITH CAN/ULC-S537-M "STANDARD FOR THE VERIFICATION OF FIRE ALARM SYSTEMS" TO ENSURE SATISFACTORY OPERATION. INCLUDE TESTING AND VERIFICATION OF ALL MAG LOCK RELEASES, DOOR RELEASE MECHANISMS, FAN SHUTDOWNS AND ALL OTHER INTERLOCKS.
11. FINAL AUDIBILITY TESTS:
    - .1 PERFORM FINAL AUDIBILITY TESTS AS PER ONTARIO FIRE CODE (MINIMUM 65DBA, MAXIMUM 100DBA THROUGHOUT) AND PROVIDE REPORT TO THE CONSULTANT. ALL SPACES WITHIN THE BUILDING MUST BE TESTED. DOORS SHALL BE CLOSED DURING TESTING.
12. PROVIDE VERIFICATION REPORT AND AUDIBILITY TESTS TO THE CONSULTANT FOR REVIEW. SUBMIT FINAL COPY OF REPORT TO THE BUILDING DEPARTMENT/FIRE PREVENTION.
13. PROVIDE TWO PASSIVE GRAPHICS TO REFLECT BUILDING LAYOUT. ONE GRAPHIC TO BE LOCATED AT FIRE ALARM CONTROL PANEL AND SECOND GRAPHIC TO BE LOCATED AT ANNUNCIATOR PANEL. BOTH PASSIVE GRAPHICS TO BE INSTALLED IN FRAME COMPLETE WITH GLASS COVER.

FIRE ALARM SPECIFICATIONS:

1. THE CONTRACTOR SHALL RELOCATE OR FURNISH NEW LABOUR, SERVICES AND MATERIALS NECESSARY TO PROVIDE A COMPLETE, FUNCTIONAL LIFE SAFETY FIRE SYSTEM. THE SYSTEM SHALL COMPLY IN ALL RESPECTS WITH ALL PERTINENT CODES, RULES, REGULATIONS AND LAWS OF THE LOCAL JURISDICTION. THE SYSTEM SHALL COMPLY IN ALL RESPECTS WITH THE REQUIREMENTS OF THE SPECIFICATIONS, MANUFACTURER'S RECOMMENDATIONS AND UNDERWRITERS LABORATORIES OF CANADA (ULC) LISTINGS. ALL COMPONENTS SHALL BE ULC LISTED.
2. THE EQUIPMENT AND INSTALLATION SHALL COMPLY WITH THE CURRENT PROVISIONS OF THE FOLLOWING CODES AND STANDARDS:
    - .1 LOCAL AND PROVINCIAL BUILDING CODES
    - .2 LOCAL AND PROVINCIAL FIRE CODES
    - .3 LOCAL, PROVINCIAL AND CANADIAN ELECTRICAL CODES
    - .4 NFPA 72 – NATIONAL FIRE ALARM CODE
    - .5 NFPA 101 – LIFE SAFETY CODE
    - .6 CAN/ULC-S524 AND OTHER APPLICABLE ULC STANDARDS
    - .7 AUTHORITY HAVING JURISDICTION
3. THE FIRE ALARM SYSTEM AS A WHOLE – INCLUDING BUT NOT LIMITED TO ALL INITIATING DEVICES, HORNS, STROBES AND ELECTRONICS, AND FIRE COMMUNICATOR WILL BE UNDER A FULL REPLACEMENT WARRANTY FOR A PERIOD OF TWO(2) YEARS REGARDLESS OF THE NUMBER OF FAILURES THAT ANY ONE DEVICE OR COMPONENT EXPERIENCES. THE WARRANTY WILL INCLUDE THE TOTAL COST OF THE SERVICE VISIT TO RETURN THE SYSTEM TO NORMAL OPERATION. THE TOTAL COST WILL INCLUDE BUT NOT LIMITED TO LABOUR, PARTS, TRUCK TIME, ADMINISTRATION, ETC. THE FIRE ALARM MANUFACTURER/INSTALLER WILL GUARANTEE SAME DAY SERVICE TO ALL CALLS PLACED DURING WARRANTY PERIOD.
4. ALL SIGNAL DEVICES SHALL HAVE FIELD ADJUSTABLE DB SETTINGS VIA DIP SWITCHES OR PROGRAMMING FOR LOW, MEDIUM AND HIGH. PERMANENT MODIFICATION TO DEVICE TO CHANGE AUDIBLE LEVEL IS NOT ACCEPTABLE.
5. FIRE DETECTOR MOUNTING:
    - .1 FIRE DETECTORS SHALL NOT BE LOCATED CLOSER THAN 1000mm HORIZONTALLY FROM TIP OF A CEILING SUSPENDED (PADDLE) FAN OR CEILING MOUNTED UNIT HEATER MEASURED TO THE EDGE OF THE DETECTOR.
    - .2 FIRE DETECTORS SHALL NOT BE LOCATED CLOSER THAN 450mm FROM ANY SUPPLY OUTLET OR EXHAUST OUTLET AS MEASURED TO THE EDGE OF THE DETECTOR.
6. DEVICE MOUNTING HEIGHT:
    - .1 PULL STATION(S) TO BE MOUNTED 45" (1150mm) A.F.F. TO CENTER OF DEVICE
    - .2 WALL MOUNTED AUDIBLE SIGNAL TO BE MOUNTED MINIMUM 6" (150mm) BELOW CEILING AND NO LESS THAN 90"(2300mm) A.F.F. TO THE TOP OF THE DEVICE
    - .3 STROBE(S) TO BE MOUNTED SO THAT ENTIRE LENS IS 78"-94" (2000-2400mm) A.F.F.
    - .4 END OF LINE RESISTORS TO BE MOUNTED LESS THAN 70" (1800mm) A.F.F
7. CONDUIT AND WIRE:
    - .1 WIRING SHALL BE IN ACCORDANCE WITH LOCAL, PROVINCIAL AND NATIONAL CODES, AND AS RECOMMENDED BY THE MANUFACTURER OF THE FIRE ALARM SYSTEM.
    - .2 NUMBER AND SIZE OF CONDUCTORS SHALL BE AS RECOMMENDED BY THE FIRE ALARM SYSTEM MANUFACTURER, BUT NOT LESS THAN 18 AWG (1.02 MM) FOR INITIATING DEVICE CIRCUITS AND SIGNALING LINE CIRCUITS, AND 14 AWG (1.63 MM) FOR NOTIFICATION APPLIANCE CIRCUITS (UNLESS OTHERWISE DIRECTED BY MANUFACTURER).
    - .3 ALL WIRE AND CABLE SHALL BE LISTED AND/OR APPROVED BY A RECOGNIZED TESTING AGENCY FOR USE WITH A PROTECTIVE SIGNALING SYSTEM.
    - .4 ALL FIELD WIRING SHALL BE ELECTRICALLY SUPERVISED FOR OPEN CIRCUIT AND GROUND FAULT.
    - .5 ALL WIRE SHALL BE INSTALLED IN CONDUIT. PROVIDE WIREMOLD FOR ALL WIRING IN EXPOSED AREAS: ALL SURFACE MOUNTED CONDUIT MUST BE APPROVED BY OWNER OR CONSULTANT PRIOR TO INSTALLATION.
    - .6 WIRE AND CABLE NOT INSTALLED IN CONDUIT SHALL HAVE A FIRE RESISTANCE RATING SUITABLE FOR THE INSTALLATION AS INDICATED IN NFPA 70 (E.G., FPLR) AND AS PER OBC.
    - .7 ALL JUNCTION BOXES SHALL BE PAINTED 'RED' AND IDENTIFIED AS SIGNAL OR INITIATING. ALL LBs SHALL BE PAINTED RED. ANY CONDUIT LENGTH EXCEEDING 10'(3m) SHALL HAVE COUPLING PAINTED RED FOR IDENTIFICATION.
8. SURFACE DEVICES AND EXPOSED CONDUIT:
    - .1 ALL SURFACE MOUNTED CONDUIT MUST BE APPROVED BY OWNER OR CONSULTANT PRIOR TO INSTALLATION.
    - .2 PROVIDE WIREMOLD (PANDUIT) FOR ALL WIRING IN EXPOSED AREAS.
    - .3 ANY SURFACE BOXES SHALL BE 'FS' (NO KNOCKOUTS) AND BE PRE-APPROVED BY OWNER OR CONSULTANT.
9. ALL AIR HANDLING EQUIPMENT THAT CAN SUPPLY FRESH AIR SHALL BE TIED INTO FIRE ALARM CONTROL PANEL FOR FAN SHUT DOWN. SHUT DOWN BOTH SUPPLY AND RETURN AIR IF APPLICABLE. EXHAUST FANS DO NOT NEED TO BE SHUT DOWN. PROVIDE ALL COMPONENTS TO FACILITATE INTENT.
10. ALL DUCT SMOKES SHALL BE INTERLOCKED TO UNIT IT SERVES FOR FAN SHUTDOWN. PROVIDE ALL COMPONENTS TO FACILITATE INTENT. DUCT SMOKES TO BE INSTALLED IN LINEAR SECTION APPROXIMATELY 6x DUCT WIDTH FROM ANY BEND OR AIR INLET.
11. FIRE STOP ALL EXISTING AND NEW CONDUIT THROUGH FIRE SEPARATIONS IN ACCORDANCE WITH OBC.

DESIGN AND DETAILS SHOWN ON THIS DRAWING OR ASSOCIATED DOCUMENTATION ARE PRODUCED BY AND THE PROPERTY OF CIMA+ COPY IN WHOLE OR PART IS PROHIBITED.
THE CONTRACTOR MUST CHECK AND BE RESPONSIBLE FOR SITE CONDITIONS THAT MAY DIFFER FROM THESE PLANS AND NOTIFY CIMA+ OF SAME.

ISSUES/REVISIONS

No.	DESCRIPTION	DATE
1	ISSUED FOR 30% COSTING	AUG 4 2023
2	RE-ISSUED FOR 30% COSTING	NOV 7 2023
3	ISSUED FOR 50% COORDINATION	JAN 18 2024
4	ISSUED FOR 80% COORDINATION	FEB 9 2024
5	ISSUED FOR COSTING	FEB 13 2024
6	ISSUED FOR PERMIT & TENDER	JUN 13 2024
7	RE-ISSUED FOR PERMIT & TENDER	JUL 31 2024

KAWARTHA PINE RIDGE DISTRICT SCHOOL BOARD
1994 Fisher Drive, Peterborough, Ontario K9J 6X6

CIMA+ DES
415 BASELINE ROAD WEST
BOWMANVILLE, ON L1C 5M2
T 905.697.4464
www.cima.ca

LICENSED PROFESSIONAL ENGINEER
L. CONFORTI
100178622
JUL 31/24
PROVINCE OF ONTARIO

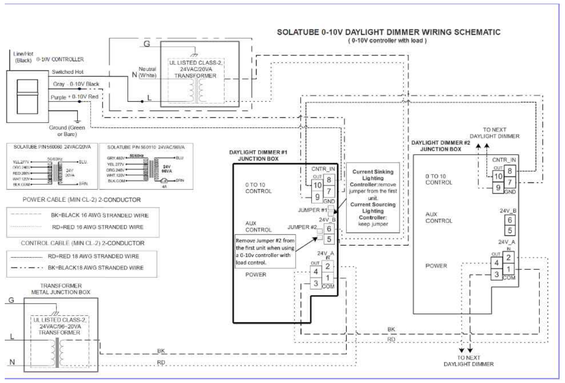
MURRAY CENTENIAL PS ADDITION

654 COUNTY ROAD 40, R.R.#1
TRENTON ON

DATE: JULY 2023	SCALE: NTS
DRAWN BY: RJC	CHECKED BY: LC/CR
CIMA+ PROJECT NUMBER: C14-0588	SHEET SIZE: E1

NOTES

E802



SKYLIGHT DIIMER WIRIGNDIAGRAM
NTS

CEILING FAN SCHEDULE

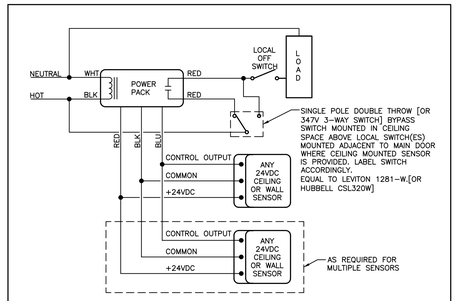
TAG		CF-1 & 2
SERVICE		GENERAL PURPOSE ROOM 124
MANUFACTURER		AIR PEAR THERMAL EQUALIZER (BY AIRUS)
MODEL		45
TYPE		FREE HANGING
COVERAGE	ft	40'-44' DIAMETER
ELECTRICAL	volt	120V (6' CORD WITH 3-PRONG PLUG)
WEIGHT	lbs	14 (ASSUME 60 lbs FOR INSTALLATION)
ACESSORIES		1/4" EYE HOOK/EYEBOLT FOR INSTALLATION, TRIAC SPEED CONTROLLER, POTENTIOMETER

NEW PANEL 'N'

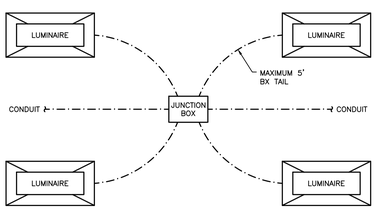
200A, 60 CIRCUIT, 3ϕ, 4W, 120/208 VOLT SURFACE MOUNTED BOLT-ON CIRCUIT BREAKER PANEL BOARD WITH MAIN LUGS ONLY

* DENOTES BREAKER LOCK-ON DEVICE

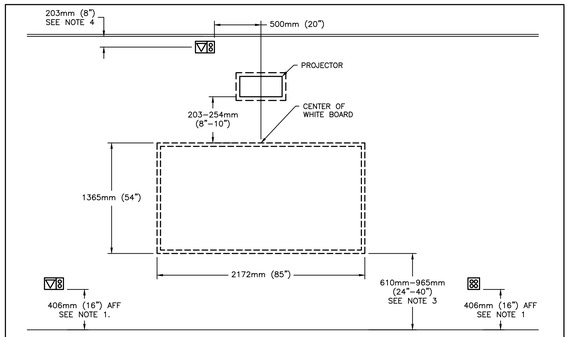
DESCRIPTION	BKR	CCT	S/N	CCT	BKR	DESCRIPTION
KINDERGARTEN 1 141 RECEPS	15A	1		2	20A	CORRIDOR RECEPS
KINDERGARTEN 1 141 GFCI	15A	3		4	20A	CLASSROOM 112 GFCI
CLASSROOM 111 GFCI	20A	5		6	15A	KINDERGARTEN 2 142 RECEPS
KINDERGARTEN 2 142 GFCI	15A	7		8	15A	KINDERGARTEN 2 142 GFCI
KINDERGARTEN 3 143 RECEPS	15A	9		10	20A	KINDERGARTEN 3 143 GFCI
KINDERGARTEN 3 143 GFCI	20A	11		12	15A	CLASSROOM 1 144 RECEPS
CLASSROOM 1 144 WHITEBOARD RECEP	15A	13		14	15A	CLASSROOM 2 145 RECEPS
CLASSROOM 2 145 WHITEBOARD RECEP	15A	15		16	15A	CLASSROOM 3 146 RECEPS
CLASSROOM 3 146 WHITEBOARD RECEP	15A	17		18	15A	CLASSROOM 4 148 NORTH RECEPS
CLASSROOM 4 148 SOUTH RECEPS	15A	19		20	15A	BOYS WC 151 GFCI
UNI WC 150 GFCI	15A	21		22	15A	BOYS WC 149 GFCI
CORRIDOR H10/H11/H12 RECEPS	20A	23		24	15A	STAFF/RESOURCE ROOM RECEPT
GROUP ROOM 123 RECEPS	15A	25		26	15A	UTILITY 136 RECEPTACLES
KINDERGARTEN 2 142 WHITEBOARD RECEP	15A	27		28	20A	LIGHTING
LIGHTING	20A	29		30	20A	LIGHTING
EXT LTG	20A	31		32	15A	DOOR OPENER VESTIBULE 1
DHW PUMP UTILITY ROOM	15A	33		34	15A	DOOR OPENER VESTIBULE 2
CLASS ROOM PANEL 114-3	15A	35		36	15A	CLASS ROOM PANEL 114-2
BLINDS	15A	37		38	15A	CEILING FAN
PROJECTOR & SCREEN 124	15A	39		40		
SKYLIGHT DIMMER	15A	41		42	20A	PRINTER RECEPTACLE
CHARGING TOWER 111/112	15A	43		44	15A	DOOR HOLD OPEN DEVICE
CHARGING TOWER 113/114	15A	45		46	15A	PROJECTOR & SCREEN 107
EF-1	15A	47		48	20A	RTU MAINTENANCE RECEPTACLE
EF-4	15A	49		50	15A	UNIT HEATER UH-1
TSP	15A	51		52	30A	HWT UTILITY ROOM
VESTIBULE V1/V3 FFH-1	15A	53		54		
VESTIBULE V2/V4 FFH-1	15A	55		56	20A	CLASSROOM 113 GFCI
EMERGENCY LIGHTING	*15A	57		58	15A	EF-5
SPARE	15A	59		60	15A	SPARE



TYPICAL OCCUPANCY SENSOR WIRING SCHEMATIC
NTS



LUMINAIRE WIRING DETAIL
NTS



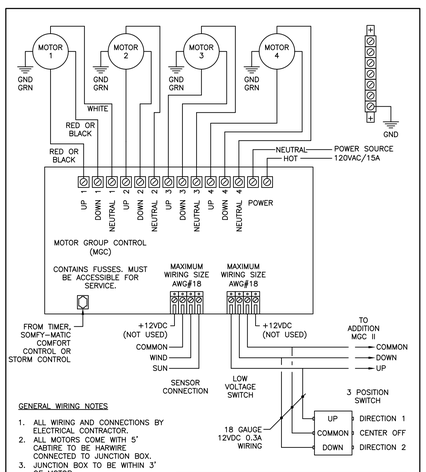
NOTES:

1. RECEPTACLES TO BE INSTALLED AS PER FLOOR PLAN. RECEPTACLE TO BE LOCATED IMMEDIATELY TO THE RIGHT AND BELOW BOARD FOR KINDERGARTEN ROOMS.
2. CENTER LINE OF IDEA BOARD TO BE CONFIRMED WITH GENERAL CONTRACTOR PRIOR TO ROUGH-IN TO SUIT ALL WALL MOUNTED ITEMS AND ARCHITECTURAL ELEVATIONS.
3. CONFIRM MOUNTING HEIGHT OF BOARD ABOVE FINISHED FLOOR WITH ARCHITECTURAL ELEVATIONS AND GENERAL CONTRACTOR TO SUIT CLASSROOM USE. REFER TO NOTED MOUNTING HEIGHTS AS REFERENCE.
4. MOUNTED MAXIMUM 3048mm (120") AFF.
5. SUPPLY AND INSTALLATION OF IDEA BOARD BY GENERAL CONTRACTOR AND PROJECTOR BY OWNER.
6. PROVIDE 2" CONDUIT FROM TEACHERS DESK TO PROJECTOR FOR SCIENCE/SHOP CLASSROOMS. REFER TO FLOOR PLAN FOR ADDITIONAL DETAILS.

MOUNTING HEIGHTS:

KINDERGARTEN @ 610mm AFF
PRIMARY @ 660mm AFF
JUNIOR @ 711mm AFF
INTERMEDIATE @ 762mm AFF
SECONDARY @ 864mm AFF
SCIENCE & SHOPS @ 965mm AFF

INTERACTIVE IDEA SCREEN DETAIL
NTS



GENERAL WIRING NOTES

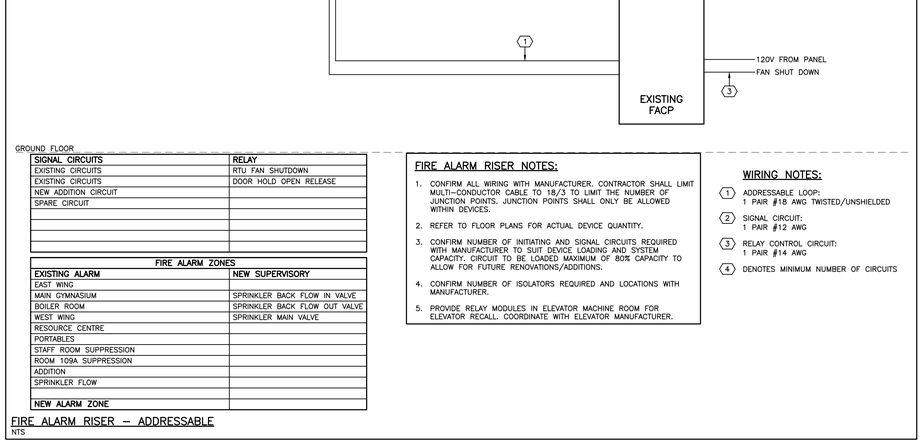
1. ALL WIRING AND CONNECTIONS BY ELECTRICAL CONTRACTOR.
2. ALL MOTORS COME WITH 5' CABTIRE TO BE HARWIRE CONNECTED TO JUNCTION BOX.
3. JUNCTION BOX TO BE WITHIN 3' OF MOTOR.
4. ALL WIRING TO BE MIN. #14 AWG EXCEPT AS NOTED.
5. ALL DIRECTION WIRES (BLACK & RED) MUST BE TOTALLY ISOLATED.
6. COMMON WIRE (WHITE) MAY RUN IN PARALLEL.
7. EACH MGC II REQUIRES 120VAV-15A
8. JUNCTION BOX, GC & SWITCH LOCATIONS TO BE DETERMINED ON SITE.
9. ALL SHADE TESTING TO BE DONE WITH SOLARFECTIVE REPRESENTATIVE ON SITE.
10. MGC PANEL DIMENSION IS 10"x8"x4"DEEP

NOTE:

BLINDS SUPPLIED AND INSTALLED BY GENERAL CONTRACTOR. ELECTRICAL TO COORDINATE WITH GC PRIOR TO ROUGH-IN TO SUIT MANUFACTURER CARRIED DURING TENDER.

COLOUR	MOTOR ON RIGHT	MOTOR ON LEFT	SOURCE
BLACK	DIR 1 UP	DIR 2 DOWN	HOT 120VDC
RED	DIR 2 DOWN	DIR 1 UP	-
WHITE	COMMON	COMMON	NEUTRAL
GREEN	GROUND	GROUND	GROUND

MOTORIZED BLIND WIRING DIAGRAM (BASED ON SOLARFECTIVE BLINDS)
NTS



GROUND FLOOR

SIGNAL CIRCUITS	RELAY
EXISTING CIRCUITS	RTU FAN SHUTDOWN
EXISTING CIRCUITS	DOOR HOLD OPEN RELEASE
NEW ADDITION CIRCUIT	
SPARE CIRCUIT	

FIRE ALARM ZONES	
EXISTING ALARM	**NEW SUPERVISORY**
EAST WING	
MAIN GYMNASIUM	SPRINKLER BACK FLOW IN VALVE
BOILER ROOM	SPRINKLER BACK FLOW OUT VALVE
WEST WING	SPRINKLER MAIN VALVE
RESOURCE CENTRE	
PORTABLES	
STAFF ROOM SUPPRESSION	
ROOM 109A SUPPRESSION	
ADDITION	
SPRINKLER FLOW	
NEW ALARM ZONE	

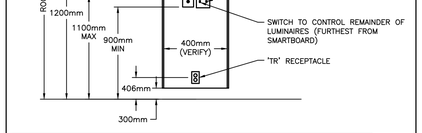
FIRE ALARM RISER - ADDRESSABLE
NTS

FIRE ALARM RISER NOTES:

1. CONFIRM ALL WIRING WITH MANUFACTURER. CONTRACTOR SHALL LIMIT MULTI-CONDUCTOR CABLE TO 18/3 TO LIMIT THE NUMBER OF JUNCTION POINTS. JUNCTION POINTS SHALL ONLY BE ALLOWED WITHIN DEVICES.
2. REFER TO FLOOR PLANS FOR ACTUAL DEVICE QUANTITY.
3. CONFIRM NUMBER OF INITIATING AND SIGNAL CIRCUITS REQUIRED WITH MANUFACTURER TO SUIT DEVICE LOADING AND SYSTEM CAPACITY. CIRCUIT TO BE LOADED MAXIMUM OF 80% CAPACITY TO ALLOW FOR FUTURE RENOVATIONS/ADDITIONS.
4. CONFIRM NUMBER OF ISOLATORS REQUIRED AND LOCATIONS WITH MANUFACTURER.
5. PROVIDE RELAY MODULES IN ELEVATOR MACHINE ROOM FOR ELEVATOR RECALL. COORDINATE WITH ELEVATOR MANUFACTURER.

WIRING NOTES:

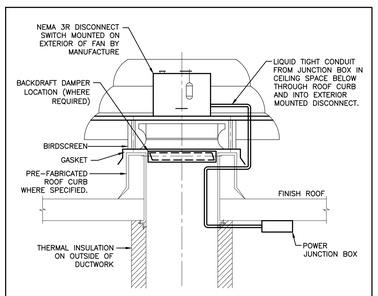
(1) ADDRESSABLE LOOP: 1 PAIR #18 AWG TWISTED/UNSHIELDED
(2) SIGNAL CIRCUIT: 1 PAIR #12 AWG
(3) RELAY CONTROL CIRCUIT: 1 PAIR #14 AWG
(4) DENOTES MINIMUM NUMBER OF CIRCUITS



NOTE:

1. DETAIL IS FOR GENERAL LAYOUT OF ALL DEVICES SHOWN. REFER TO FLOOR PLAN DRAWINGS FOR ACTUAL DEVICES REQUIRED FOR EACH CONTROL PANEL.
2. ALL DEVICES BY ELECTRICAL CONTRACTOR UNLESS SPECIFICALLY NOTED.

CONTROL PANEL DETAIL (SUPPLIED BY ELECTRICAL)
NTS

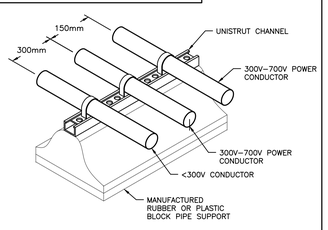


NOTES:

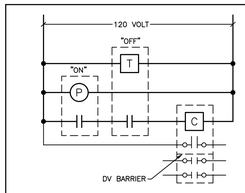
1. DISCONNECT SWITCH FROM FAN MANUFACTURER MAY BE SHIPPED LOOSE. ELECTRICAL CONTRACTOR TO ALLOW FOR INSTALLATION.
2. COORDINATE PENETRATION FOR POWER FEED THROUGH ROOF CURB WITH MECHANICAL CONTRACTOR. PENETRATION TO BE SEALED.

ROOF MOUNTED EXHAUST FAN - ELECTRICAL CONNECTION
NTS

BLOCK SUPPORT SPACING INTERVALS: AS PER SECTION 12 OF DESC. SPACING OF CONDUCTORS LOCATED ON SAME BLOCK SHALL BE AS PER DETAIL.



ROOF ELECTRICAL WIRING SUPPORT DETAIL
NTS



EXTERIOR LIGHTING CONTROL

(P) 1800W SPST 120V PHOTO-ELECTRIC SWITCH

(T) 24-HOUR TIME SWITCH WITH RESERVE POWER FEATURE

(C) 40A 3P 600V A.C. CONTACTOR WITH 120V OPERATING COIL

OUTSIDE LIGHTING DETAIL
NTS

NEW PANEL 'SEPTIC'

100A, 30 CIRCUIT, 3ϕ, 4W, 120/208 VOLT SURFACE MOUNTED BOLT-ON CIRCUIT BREAKER PANEL BOARD WITH MAIN LUGS ONLY

* DENOTES BREAKER LOCK-ON DEVICE

DESCRIPTION	BKR	CCT	S/N	CCT	BKR	DESCRIPTION
BALANCE TANK	20A 2P	1		2	20A	BASKET BIOFILTER TANK#1 FAN
		3		4	20A	BASKET BIOFILTER TANK#2 FAN
PUMP TANK	15A 2P	5		6	15A	POLISHING BASKET TANK FAN
		7		8	15A	LIGHTING
BASKET BIOFILTER TANK#1 PUMP	20A 2P	9		10	20A	GFCI RECEPTACLE
		11		12	15A	METERING PUMP
POLISHING BASKET TANK PUMP	30A 2P	13		14	15A	SPARE
		15		16	20A 2P	BALANCE TANK
HEAT TRACE	15A 2P	17		18		
		19		20	15A 2P	PUMP TANK
HEAT TRACE	15A 2P	21		22		
		23		24		
HEATER	30A 2P	25		26		
		27		28		
		29		30		

DESIGN AND DETAILS SHOWN ON THIS DRAWING OR ASSOCIATED DOCUMENTATION ARE PRODUCED BY AND THE PROPERTY OF CIMA+ COPY IN WHOLE OR PART IS PROHIBITED. THE CONTRACTOR MUST CHECK AND BE RESPONSIBLE FOR SITE CONDITIONS THAT MAY DIFFER FROM THESE PLANS AND NOTIFY CIMA+ OF SAME.

ISSUES/REVISIONS

No.	DESCRIPTION	DATE
1	ISSUED FOR 30% COSTING	AUG 4 2023
2	RE-ISSUED FOR 30% COSTING	NOV 7 2023
3	ISSUED FOR 50% COORDINATION	JAN 18 2024
4	ISSUED FOR 80% COORDINATION	FEB 9 2024
5	ISSUED FOR COSTING	FEB 13 2024
6	ISSUED FOR PERMIT & TENDER	JUN 13 2024
7	RE-ISSUED FOR PERMIT & TENDER	JUL 31 2024

KAWARTHA PINE RIDGE DISTRICT SCHOOL BOARD
1994 Fisher Drive, Peterborough, Ontario K9J 6X6

CIMA+ DES
415 BASELINE ROAD WEST
BOWMANVILLE, ON L1C 5M2
T 905.697.4464
www.cima.ca

LICENSED PROFESSIONAL ENGINEER L. CONFORTI 100178622 JUL 31/24 PROVINCE OF ONTARIO

MURRAY CENTENIAL PS ADDITION

654 COUNTY ROAD 40, R.R.#1
TRENTON ON

DATE: JULY 2023	SCALE: NTS
DRAWN BY: RJC	CHECKED BY: LC/CR
CIMA+ PROJECT NUMBER: C14-0588	SHEET SIZE: E1

DETAILS & SCHEDULES

E901

GENERAL NOTES:

1. OUR WORK CONSISTS OF PROVIDING ENGINEER STAMPED SPRINKLER DRAWINGS FOR THE MURRAY SCHOOL ADDITION. AT THIS TIME NO INSTALLATION WORK IS IN TROY'S CONTRACT AND DRAWINGS, NOTES, AND OTHER ITEMS ARE FOR PERMIT AND TENDERING PURPOSES ONLY. NOT FOR INSTALLATION OR CONSTRUCTION. NEW ENGINEER STAMPED DRAWINGS ARE REQUIRED FOR INSTALLATION BY INSTALLING CONTRACTOR.
2. ALL LAYOUTS ARE CONSIDERED DIAGRAMMATIC AND DO NOT RELIEVE ANY BIDDING CONTRACTOR FROM THEIR OBLIGATION TO PROVIDE A COMPLETE SYSTEM TO ONTARIO BUILDING CODE/ NFPA REQUIREMENTS. THE PROVIDED LAYOUTS AND DETAILS ARE NOT THE BASIS FOR AN EXTRA OR CHANGE ORDER AT THE OWNERSHIPS GROUP EXPENSE. CONTRACTORS SHALL ALLOW FOR ADDITIONAL SPRINKLERS FOR OBSTRUCTIONS, LIGHTS, LOCAL AHJ COORDINATION, AND GENERAL COORDINATION WITH OTHER TRADES.
3. INSTALLATION CONTRACT STARTS IN SPRINKLER ROOM OFF NEW 6" ABOVE GROUND FLANGED OUTLET PROVIDED BY CIVIL/ PLUMBING DIVISION. SITE UTILITIES AND UNDERGROUND PRIVATE FIRE MAIN ARE BY OTHERS AND NOT COVERED UNDER SPRINKLER SCOPE OF WORK. UNDERGROUND PIPING SHALL BE FLUSHED IN ACCORDANCE WITH NFPA 13 AND WITNESSED BY REPRESENTATIVES OF THE OWNER. THIS FLUSHING SHALL BE COMPLETED BY THE UNDERGROUND INSTALLATION CONTRACTOR AND A FLUSHING CERTIFICATE SHALL BE PROVIDED TO INSTALLING SPRINKLER CONTRACTOR PRIOR TO SYSTEM CONNECTION AND FILLING OF SPRINKLER SYSTEMS. FEED TO PRIVATE HYDRANT AND PRIVATE HYDRANT BY OTHERS.
4. THE CITY WATER SUPPLY IS TO BE PROTECTED WITH A NEW DOUBLE CHECK VALVE BACKFLOW PREVENTER TO THE LOCAL AHJ'S REQUIREMENTS.
5. THE NEW AREAS OF SPRINKLER PROTECTION WILL BE SUPPLIED OFF A NEW SPRINKLER ZONE. NEW TAMPER/ SUPERVISION DEVICES WILL BE SUPPLIED BY INSTALLING CONTRACTOR, ALL WIRING IS TO BE ELECTRICAL DIVISION.
6. ALL WORK AND MATERIALS SHALL BE INSTALLED IN ACCORDANCE WITH NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) CODES (NFPA 13), AND THE PROVINCE OF ONTARIO CODE REQUIREMENTS.
7. SPRINKLER SYSTEMS AND HYDRAULIC REQUIREMENTS ARE PER NFPA, CURRENT ONTARIO BUILDING AND FIRE CODE, AND THE AUTHORITIES HAVING JURISDICTIONS. (SEE HYDRAULIC NOTES)
8. SEE THE SPRINKLER LEGEND ON THIS SHEET FOR SPRINKLER CHARACTERISTICS, FINISHES, AND TEMPERATURE RATINGS. ALL HEADS SHALL CONFORM TO THIS LEGEND UNLESS SPECIFICALLY NOTED ON THE PLANS.
9. BRASS UPRIGHT SPRINKLERS ARE TO BE INSTALLED IN ALL AREAS WITH EXPOSED CEILINGS. SPRINKLERS INSTALLED IN FINISHED CEILINGS TO BE CONCEALED TYPE, WHITE FINISH. THE USE OF EXTENDED COVERAGE SPRINKLERS ANYWHERE ON THE PROJECT IS PROHIBITED.
10. SPRINKLERS SHALL BE QUICK-RESPONSE RATED OR AS NOTED IN THE SPRINKLER LEGEND.
11. WIRE GUARDS SHALL BE PROVIDED FOR HEADS IN AREAS SUSCEPTIBLE TO DAMAGE.
12. SPARE SPRINKLERS SHALL BE PROVIDED IN ACCORDANCE WITH NFPA ADJACENT TO THE MAIN RISER. AT LEAST ONE HEAD OF ALL TYPES OF SPRINKLERS IN THE BUILDING SHALL BE FURNISHED FOR THE CABINET(S). **THESE HEAD WRENCHES ARE FOR USE ONLY ON THE SPRINKLER HEADS FOR WHICH THEY ARE MADE AND FOR NO OTHER USE. ANY OTHER TOOL (INCLUDING, BUT NOT LIMITED TO, "CHANNELLOCKS") SHALL NOT BE USED TO REMOVE OR INSTALL SPRINKLER HEADS.**
13. ALL HANGERS SHALL BE SPACED ACCORDING TO NFPA 13 (2013) CHAPTER 9 TABLE 9.2.2.1. SEE GENERIC HANGER DETAILS AND NOTES. CONTRACTOR TO ALLOW FOR REQUIRED SUPPORTS.
14. PIPING IS TO BE HYDROSTATICALLY TESTED IN ACCORDANCE WITH NFPA 13 FOR 2 HOURS AT 200 PSI AT THE SYSTEM RISER. ALL TESTING MUST BE WITNESSED AND SIGNED BY AN AUTHORIZED REPRESENTATIVE OF THE OWNER.
15. NEW TAMPER AND WATER FLOW SWITCHES ARE TO BE PROVIDED BY SPRINKLER CONTRACTOR. WIRING TO FIRE ALARM IS BY OTHERS.
16. A NEW EXPOSED BRASS FIRE DEPARTMENT CONNECTION IS TO BE PROVIDED, AS SHOWN ON THE PLANS.
17. FIRE EXTINGUISHERS PART OF SPRINKLER SCOPE OF WORK.
18. SEISMIC PROVISIONS OF NFPA 13 ARE NOT REQUIRED OR INCLUDED IN SCOPE OF WORK.
19. WHERE SPRINKLERS DO NOT MEET THE MINIMUM DISTANCE SPACING, NON-COMBUSTIBLE BAFFLES SHALL BE INSTALLED IN BETWEEN.
20. FIRESTOPPING SHALL BE PROVIDED ON ALL PIPE PENETRATIONS THROUGH FIRE RATED ASSEMBLIES AND ALL WALLS TO BE SMOKE SEALED.

HYDRAULIC DESIGN CRITERIA:

OFFICES/ CORRIDORS/ CLASS ROOMS
LIGHT HAZARD
DENSITY 0.10 USGPM/SQ. FT. OVER 1500 SQ. FT.
HOSE ALLOWANCE: 100 GPM

STORAGE/ MECHANICAL ROOMS
MISC STORAGE UP TO 10'-0" IN HEIGHT
ORDINARY HAZARD GROUP II
DENSITY 0.20 USGPM/SQ. FT. OVER 1500 SQ. FT.
HOSE ALLOWANCE: 250 GPM

SYSTEM DESIGN AREAS DECREASED TO MIN 900 FT² PER NFPA 13 (2013) 11.2.3.2.3.

SYSTEM PIPING AND FITTINGS:

WET, BLACK STEEL TO NFPA 13 REQUIREMENTS, C=120
1½"- 6" SCHEDULE 10, GROOVED FITTINGS (ORANGE ENAMEL)
1" SCHEDULE 40, THREADED FITTINGS (CAST IRON)

PIPING BEFORE BACKFLOW

6" CEMENT LINED DUCTILE IRON, OR STAINLESS STEEL

WATER FLOW INFORMATION:

STATIC = 72 PSI
RESIDUAL = 70 PSI @ 1277 USGPM

SOURCE: LHS INC HYDRANT FLOW TEST
DATE: NOV 28, 2023

ADDITIONAL SPRINKLER NOTES AND CODE REFERENCES:

REMINDER NOTES TO FITTER:

FITTER TO CONFIRM LIGHTING & CEILINGS TYPES/LOCATION/HEIGHT WITH CONTRACTOR ONSITE AND ENSURE SPRINKLERS ARE INSTALLED APPROPRIATELY AND MEET OBSTRUCTION RULES. (TYPICAL)

HEAD GUARDS SHALL BE INSTALLED IN AREAS SUCH AS MECHANICAL ROOMS, SERVICE ROOMS, ELEVATOR SHAFTS, BELOW LOWER STAIR LANDINGS, EXTERIOR LOCATIONS, ETC, WHERE SPRINKLERS ARE SUSCEPTIBLE TO MECHANICAL DAMAGE OR VANDALISM. (TYPICAL). PER S+A ALSO MECH/ ELEC, COMMS, LOADING & WASTE

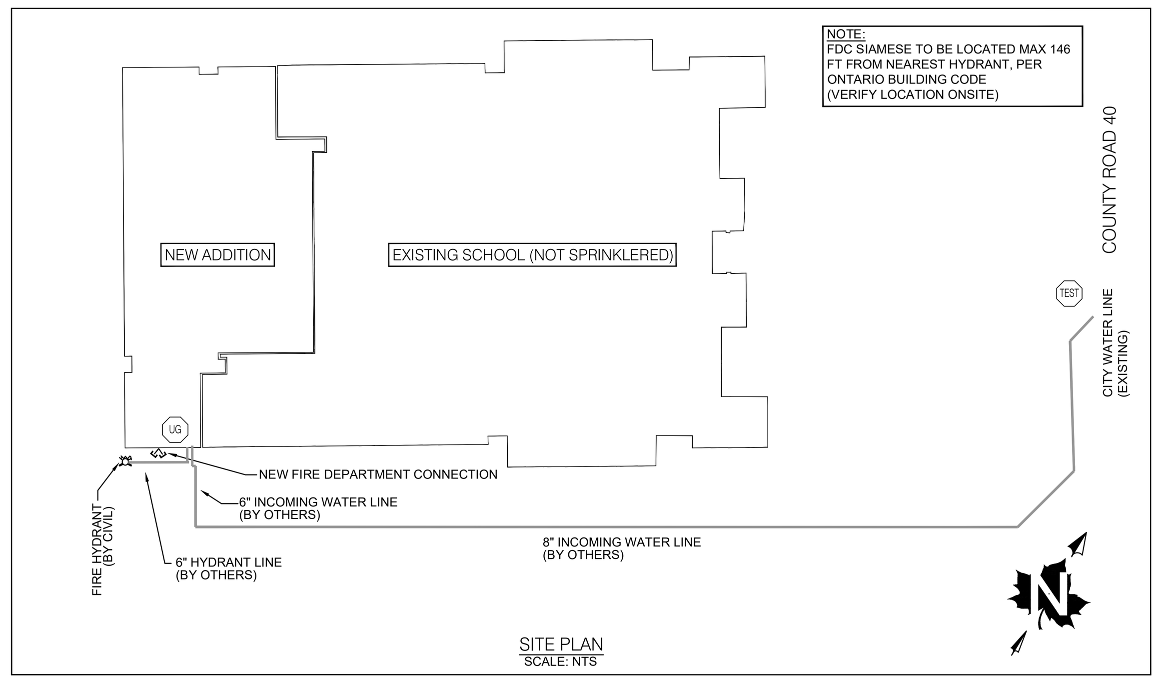
NFPA 13 (13) - 8.15.2.1.1 - SPRINKLERS ARE NOT REQUIRED IN NON & LIMITED COMBUSTIBLE SHAFTS WHICH ARE NOT ACCESSIBLE. (CONFIRM ONSITE)(TYPICAL)

HANGER NOTES:

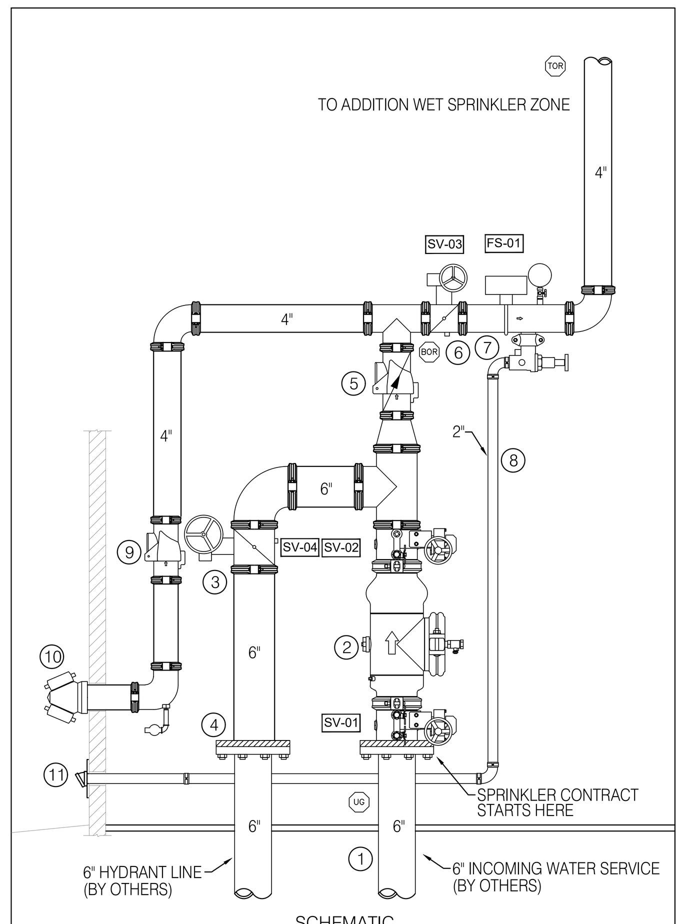
NFPA 13 (2013) - 9.2.3.4 - END OF LINE HANGERS SHALL BE INSTALLED MAXIMUM:
- 36" FROM END HEAD FOR 1" STEEL PIPE
- 48" FOR 1 1/4" STEEL PIPE
- 60" FOR 1 1/2" STEEL PIPE OR LARGER

NOTE: UNSUPPORTED LENGTH BETWEEN END PENDENT SPRINKLER OR DROP AND LAST HANGER ON LINE SHALL NOT BE GREATER THAN **12"** FOR STEEL PIPE.

NFPA 13 (2013) - 9.2.3.5 - MAX DISTANCE OF UNSUPPORTED ARMOVERS FOR STEEL PIPE SHALL NOT BE GREATER THAN 24" (TYPICAL)



SITE PLAN
SCALE: NTS



SCHEMATIC
SCALE: NTS

SUPERVISED VALVE SCHEDULE

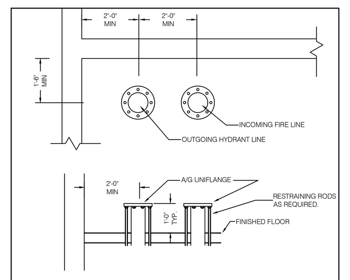
SUPERVISED VALVE No.	SERVICE / DESCRIPTION
SV - 01	BACKFLOW CONTROL VALVE - INLET
SV - 02	BACKFLOW CONTROL VALVE - OUTLET
SV - 03	ADDITION SPRINKLER CONTROL VALVE
SV - 04	PRIVATE HYDRANT CONTROL VALVE

FLOW SWITCH SCHEDULE

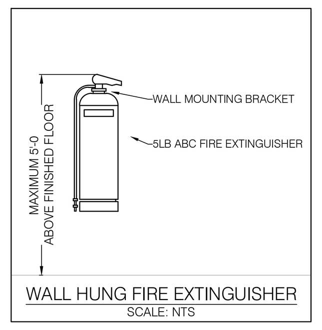
SUPERVISED VALVE No.	SERVICE / DESCRIPTION
FS-01	ADDITION SPRINKLER FLOW

HEADER FITTING LEGEND

1. 6" INCOMING FIRE WATER LINE, C/W ABOVE GRADE UNIFLANGE. BY CIVIL/ PLUMBING TRADE
2. 6" BACKFLOW PREVENTOR -W/ 2 TAMPER SWITCHES
3. 6" HYDRANT LINE BUTTERFLY VALVE -W/ TAMPER SWITCH
4. CONNECT INTO 6" HYDRANT LINE. LINE C/W ABOVE GRADE UNIFLANGE, BY CIVIL/ PLUMBING TRADE
5. 4" CHECK VALVE
6. 4" BUTTERFLY VALVE -W/ TAMPER SWITCH
7. 4" MANIFOLD ASSEMBLY -W/ FLOW SWITCH
8. 2" DRAIN LINE, TO EXTERIOR
9. 4" FDC CHECK VALVE, MINIMUM 5'-0" FROM EXTERIOR
10. EXPOSED BRASS FDC, SEE DETAIL.
11. DRAIN LINE DISCHARGES TO GRADE. ALL MATERIAL ON EXTERIOR TO BE GALVANIZED



INCOMING WATER DETAIL
SCALE: NTS



WALL HUNG FIRE EXTINGUISHER
SCALE: NTS

FIRE EXTINGUISHER NOTES:

FIRE EXTINGUISHERS ARE DESIGNED TO AND TO BE INSTALLED PER NFPA 10 - PORTABLE FIRE EXTINGUISHERS.

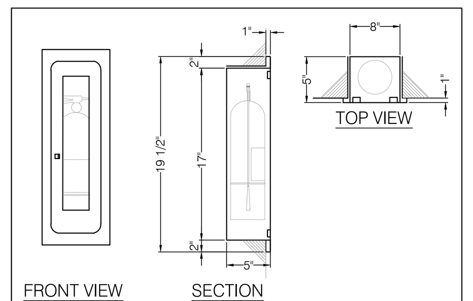
BUILDING DESIGNED TO CLASS A HAZARD (MECH ROOMS CLASS C) THEREFORE 5LB EXTINGUISHERS ARE REQUIRED AT MAX TRAVEL DISTANCE 22.86m (75 FT). PER NFPA 10 - 5.2, 6.2, & 6.4.

IF CLASS B HAZARDS ARE LOCATED ONSITE (FLAMMABLE/COMBUSTIBLE LIQUIDS, FLAMMABLE GASES, ETC.),
10LB FIRE EXTINGUISHERS SHALL BE ADDED & INSTALLED WITH MAX TRAVEL DISTANCE OF 15.24m (50 FT) PER NFPA 10 - 5.2.2 & 6.3.

SEE FIRE EXTINGUISHER LEGENDS.

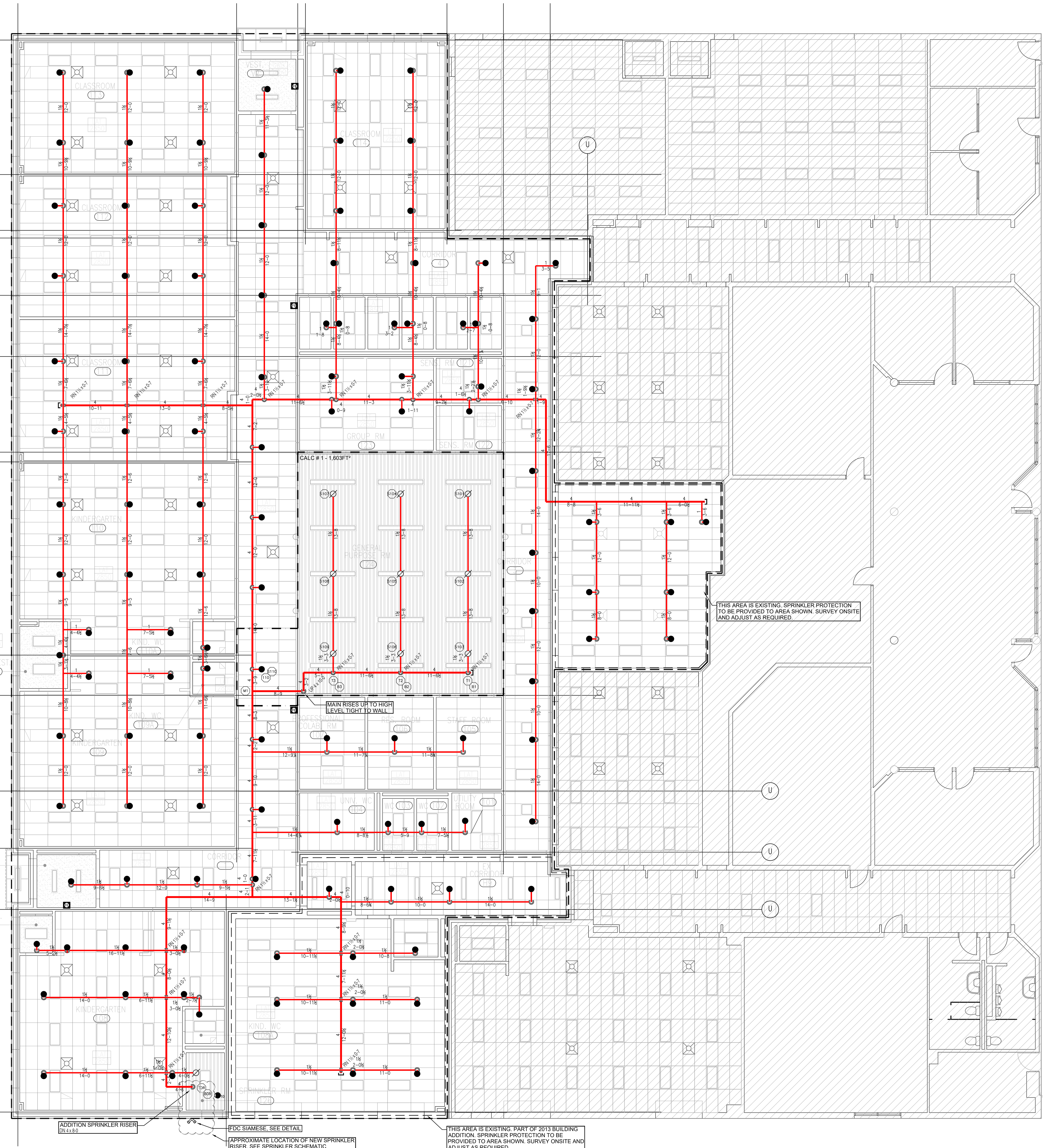
FIRE EXTINGUISHER & CABINET LEGEND

SYM	JOB	F.E. TYPE	CABINET TYPE	CAB. DIM (WxHxD)
FE	4	5LB ABC	NFE 102RS, WHITE	8" X 17" X 5"
●10	1	10LB ABC	NONE	N/A



TYPE OF CABINET: SEMI-RECESSED
DOOR STYLE: GLASS WINDOW
TUB FINISH: PRIME COATED
DOOR FINISH: PRIME COATED
DOOR GLASS: PLATE GLASS
EXTINGUISHER TYPE: 5 LB ABC

NATIONAL FIRE EQUIPMENT
MODEL 102RS FIRE EXTINGUISHER CABINET
SCALE: NTS



ADDITION SPRINKLER ZONE
SCALE: $\frac{1}{8}$" = 1'-0"
TOTAL ZONE SPRINKLERS: 130
TOTAL ZONE SQ FT: 16,918

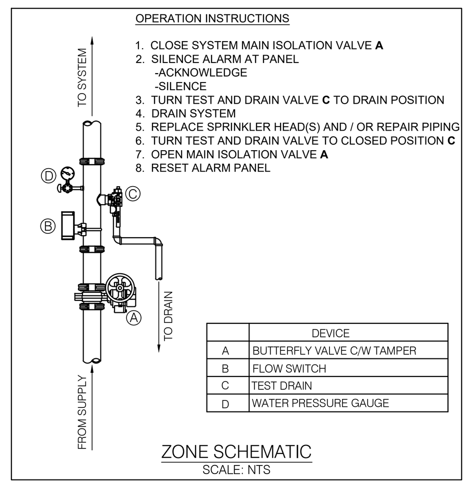
DENOTES EXISTING AREA. NO SPRINKLER PROTECTION. NIC.

DENOTES NEW STEEL PIPING

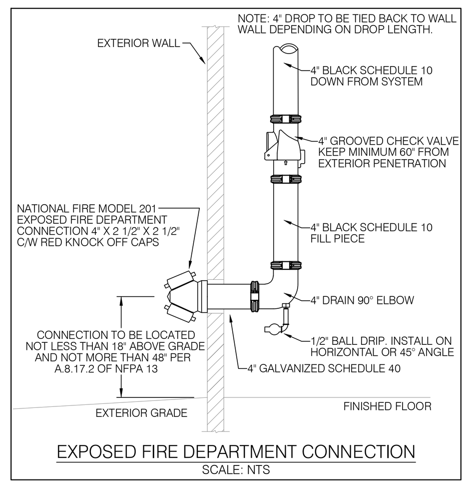
DESIGN AREA # 1	1,603 FT²
CODE	NFPA 13, 2013
HAZARD	LIGHT HAZARD
DENSITY	0.10 USGPM/SQ.FT.
SPRINKLER COVERAGE	VARIES SQ.FT.
K - FACTOR	5.6
C - FACTOR	120
NUMBER OF HEADS	10
SPRINKLER DEMAND	231 USGPM
HOSE ALLOWANCE	100 USGPM
TOTAL DEMAND	331 USGPM
@ PRESSURE	@37 PSI
AVAILABLE WATER	
STATIC PRESSURE	72 PSI
RESIDUAL PRESSURE	70 PSI @ 1277 USGPM
SOURCE	LHS FLOW TEST

SPRINKLER LEGEND

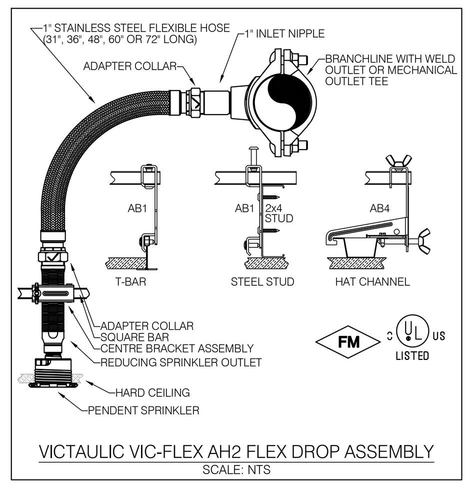
SYM	JOB	POSITION	FINISH	TEMP	QR/SR	K	NPT	SIN	MFG.	MODEL#	WRENCHES	SPARES #
Ø	10	UPRIGHT C/W GUARD	BRASS	200°F	QR	5.6	1/2"	TY313	TYCO	P/N 77-370-1-200	W-TYPE 6	2
●	120	PENDENT - CONC.	WHITE	155°F	QR	5.6	1/2"	TY3531	TYCO	P/N 51-792-1-155	RFII	2



ZONE SCHEMATIC
SCALE: NTS



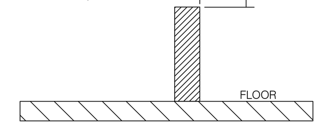
EXPOSED FIRE DEPARTMENT CONNECTION
SCALE: NTS



VICTAULIC VIC-FLEX AH2 FLEX DROP ASSEMBLY
SCALE: NTS

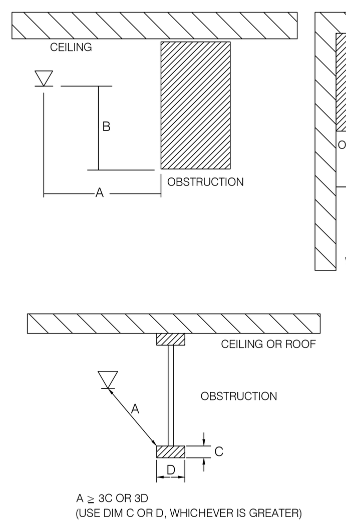
NFPA 13 (2013) TABLE 8.6.5.2.2
SUSPENDED OR FLOOR MOUNTED OBSTRUCTIONS

HORIZONTAL DISTANCE (A)	MINIMUM VERTICAL DISTANCE BELOW DEFLECTOR (IN.) (B)
6 IN OR LESS	3
MORE THAN 6 IN TO 9 IN	4
MORE THAN 9 IN TO 12 IN	6
MORE THAN 12 IN TO 15 IN	8
MORE THAN 15 IN TO 18 IN	9½
MORE THAN 18 IN TO 24 IN	12½
MORE THAN 24 IN TO 30 IN	15½
MORE THAN 30 IN	18

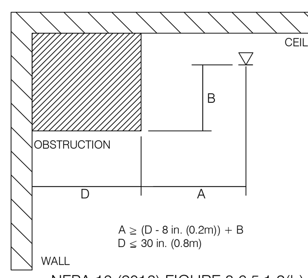


NFPA 13 (2013) TABLE 8.6.5.1.2 & 8.8.5.1.2
POSITIONING TO AVOID OBSTRUCTIONS (SSU/ SSP)

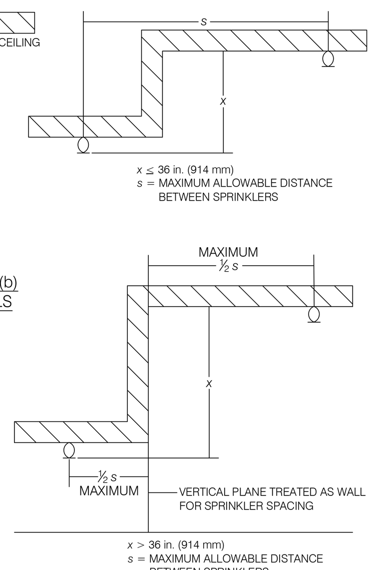
DISTANCE FROM SPRINKLER TO SIDE OF OBSTRUCTION	MAXIMUM ALLOWABLE DISTANCE OF DEFLECTOR ABOVE OBSTRUCTION (B): STANDARD SPRAY	EXTENDED COVERAGE
LESS THAN 1'-0"	0	0
1'-0" TO LESS THAN 1'-6"	2½	0
1'-6" TO LESS THAN 2'-0"	3½	1
2'-0" TO LESS THAN 2'-6"	5½	1
2'-6" TO LESS THAN 3'-0"	7½	1
3'-0" TO LESS THAN 3'-6"	9½	3
3'-6" TO LESS THAN 4'-0"	12	3
4'-0" TO LESS THAN 4'-6"	14	5
4'-6" TO LESS THAN 5'-0"	16½	7
5'-0" TO LESS THAN 5'-6"	18	7
5'-6" TO LESS THAN 6'-0"	20	7
6'-0" TO LESS THAN 6'-6"	24	9
6'-6" TO LESS THAN 7'-0"	30	11
7'-0" TO LESS THAN 7'-6"	35	14

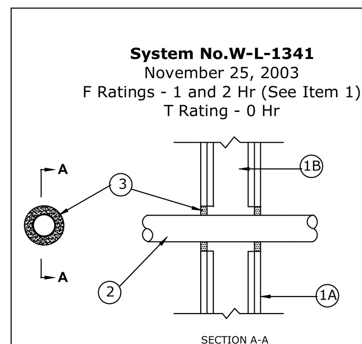


NFPA 13 (2013) FIGURE 8.6.5.2.1.3
MINIMUM DISTANCE FROM OBSTRUCTIONS



NFPA 13 (2013) FIGURE 8.6.5.1.2(b)
OBSTRUCTIONS AGAINST WALLS





1. WALL ASSEMBLY - THE 1 OR 2 HR FIRE RATED GYPSUM BOARD/STUD WALL ASSEMBLY SHALL BE CONSTRUCTED OF THE MATERIALS AND IN THE MANNER DESCRIBED IN THE INDIVIDUAL U300 OR U400 SERIES WALL OR PARTITION DESIGN IN THE UL FIRE RESISTANCE DIRECTORY AND SHALL INCLUDE THE FOLLOWING CONSTRUCTION FEATURES:

A. STUDS - WALL FRAMING MAY CONSIST OF EITHER WOOD STUDS OR STEEL CHANNEL STUDS. WOOD STUDS TO CONSIST OF NOM 2 IN. BY 4 IN. (51 MM BY 102 MM) LUMBER SPACED 16 IN. (406 MM) OC. STEEL STUDS TO BE MIN 3-1/2 IN. (89 MM) WIDE SPACED MAX 24 IN. (610 MM) OC.
B. GYPSUM BOARD* - THE GYPSUM BOARD TYPE, THICKNESS, NUMBER OF LAYERS, FASTENER TYPE AND SHEET ORIENTATION SHALL BE AS SPECIFIED IN THE INDIVIDUAL U300 OR U400 SERIES DESIGN IN THE UL FIRE RESISTANCE DIRECTORY. DIAM OF OPENING TO BE MIN 1/2 IN. (13 MM) TO MAX 4 IN. (102 MM) GREATER THAN OUTSIDE DIAM OF THROUGH-PENETRANT.

THE HOURLY F RATING OF THE FIRESTOP SYSTEM IS EQUAL TO THE HOURLY FIRE RATING OF THE WALL ASSEMBLY IN WHICH IT IS INSTALLED.

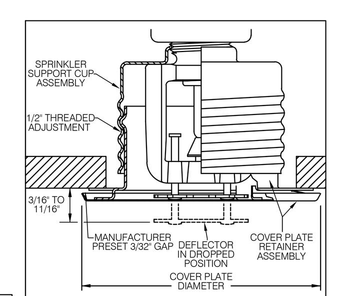
2. THROUGH PENETRANTS - ONE METALLIC PIPE CENTERED WITHIN OPENING. ANNULAR SPACE BETWEEN PENETRANT AND PERIPHERY OF OPENING TO BE MIN 1/4 IN. (6 MM) TO MAX 2 IN. (51 MM). PENETRANT TO BE RIGIDLY SUPPORTED ON BOTH SIDES OF WALL. THE FOLLOWING TYPES AND SIZES OF PENETRANTS MAY BE USED:

A. STEEL PIPE - NOM 6 IN. (152 MM) DIAM (OR SMALLER) SCHEDULE 10 (OR HEAVIER) STEEL PIPE.

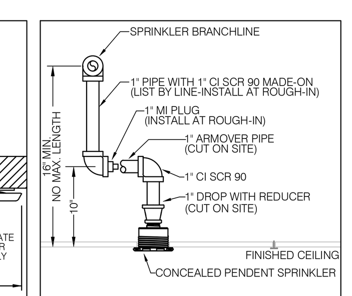
3. FILL,VOID OR CAVITY MATERIAL* - SEALANT - MIN 5/8 IN. (16 MM) THICKNESS OF SEALANT APPLIED WITHIN ANNULUS, FLUSH WITH BOTH SURFACES OF WALL.

3M COMPANY - FB-1000 NS

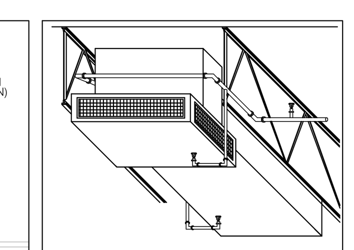
*BEARING THE UL CLASSIFICATION MARKING



CONCEALED PENDENT SPRINKLER
SCALE: NTS

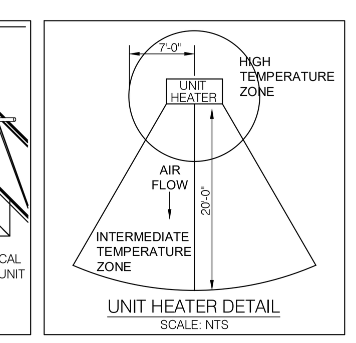


DROP SWING DETAIL
SCALE: NTS



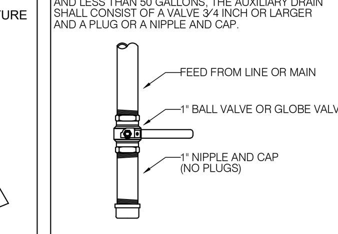
NOTE: UPRIGHT SPRINKLER UNDER MECHANICAL MUST BE INSTALLED 24" FROM THE EDGE OF UNIT

SPRINKLERS UNDER DUCTS
SCALE: NTS

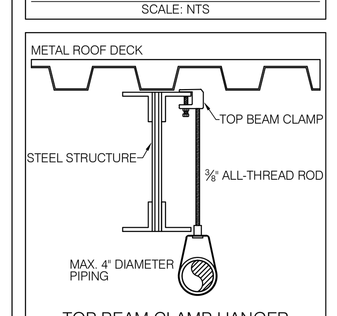


UNIT HEATER DETAIL
SCALE: NTS

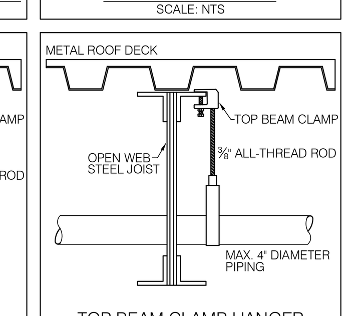
NFPA 13, 2013 EDITION:
8.16.2.5.2.2 WHERE THE CAPACITY OF ISOLATED TRAPPED SECTIONS OF PIPE IS MORE THAN 5 GALLONS AND LESS THAN 50 GALLONS, THE AUXILIARY DRAIN SHALL CONSIST OF A VALVE 3/4 INCH OR LARGER AND A PLUG OR A NIPPLE AND CAP.



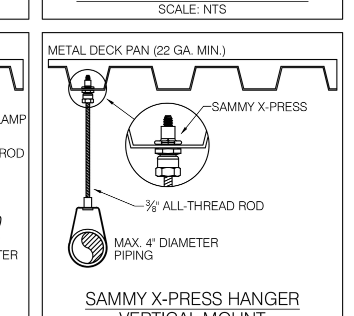
AUXILARY DRAIN VALVE DETAIL
SCALE: NTS



TOP BEAM CLAMP HANGER
SCALE: NTS



TOP BEAM CLAMP HANGER
SCALE: NTS



SAMMY X-PRESS HANGER
VERTICAL MOUNT
SCALE: NTS

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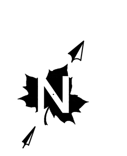

POINT OF COMPASS

DRAWING REVISIONS

NO.	DATE	DESCRIPTION
01	06.FEB.24	ISSUED FOR PLANNING REVIEW
02	05.APR.24	ISSUED FOR PERMIT/ TENDER
03	30.APR.24	REVISED TO INCLUDE CLASSROOM 114-2

ENGINEER STAMP

ENGINEERS STAMP IS FOR PERMIT/ TENDER DRAWINGS ONLY. NOT FOR INSTALLATION.

LICENSED PROFESSIONAL ENGINEER
M. F. WALKER
100100634
2024-04-30
PROVINCE OF ONTARIO

INSTALLING CONTRACTOR - SCOPE OF WORK

ITEM	INCLUDED	EXCLUDED (EXISTING OR N/A)
UNDERGROUND MAIN		X
TEST/FLUSH OF UNDERGROUND		X
BACKFLOW PREVENTER	X	
FIRE DEPARTMENT CONNECTION	X	
DOMESTIC WATER CONNECTION		X
FIRE PUMP (AND COMPONENTS)		X
FIRE EXTINGUISHERS / CABINETS		X
HOSE VALVES / CABINETS		X
SPRINKLER ZONE VALVES	X	
FIRE STOPPING & SEALING	X	
PATCHING, FURRING-IN		X
BOXING OF PIPE		X
HEAT TRACING & INSULATION		X
ESCUTCHEONS FOR WALL PENETRATIONS	X	
HEAD GUARDS (WHERE REQUIRED)	X	
CORING	X	
PAINTING OF PIPE		X
BAFFLES		X
SEISMIC PROVISIONS		X
PIPE IDENTIFICATION	X	

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Oshawa, ON L1H 3V8
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Fax 905 725 4294
www.troylfs.com

PROJECT
MURRAY CENTENNIAL PUBLIC SCHOOL
654 COUNTY ROAD 40, TRENTON, ONTARIO

DESCRIPTION
ADDITION FIRE SPRINKLER PLAN

CONTRACT WITH	TROY LFS CONTRACT #
MOFFET & DUNCAN ARCHITECTS INC	OSHAWA SERVICE

DATE	SCALE	DRAWN BY	CHECKED BY	DRAWING #
FEB 2024	1/8" = 1'-0"	TO	MD	SP-01 PAGE 1 OF 1