BUILDING CODE ANALYSIS

BUILDING CHARACTERISTICS
TYPE OF CONSTRUCTION: NEW CONSTRUCTION
OCCUPANCY PER FLOOR
GROUND FLOOR (LOBBY): 992
SECOND FLOOR (RESTAURANT): 620
THIRD FLOOR (LIBRARY): 80
FOURTH FLOOR (STUDY LOUNGE): 403
BUILDING AREA: 744 M²
BUILDING HEIGHT: 4 STOREYS
NUMBER OF STREETS: 2 STREETS
BUILDING CATEGORY: PART 3

SECTION 3.2.2. REQUIREMENTS
3.2.2. CLASSIFICATION: 3.2.2.24 GROUP A, DIVISION 2, UP TO 6 STOREYS, ANY AREA, SPRINKLERED
TYPE OF CONSTRUCTION REQUIRED /3.2.2.24.(2). : NON COMBUSTIBLE CONSTRUCTION
MAXIMUM GROSS BUILDING AREA ALLOWED /3.2.2.24.(1). : NOT LIMITED BY BUILDING AREA
MAXIMUM BUILDING HEIGHT /3.2.2.24.(1).(B). : 6 STOREYS
SPRINKLER SYSTEM REQUIRED /3.2.2.24.(1).(A). : YES

COMPARTMENTALIZATION
REQUIRED FIRE RESISTANCE RATING OF FLOORS 3.2.2.24.(2).(A).: 1 H
REQUIRED FIRE RESISTANCE RATING OF ROOF: 0 H

SANITARY FACILITIES

- GROUND FLOOR (LOBBY)

NUMBER OF OCCUPANTS /TABLE 3.1.7.1.: 992
MINIMUM NUMBER OF MEN'S TOILETS REQUIRED /TABLE 3.7.2.2.-A : 2
MINIMUM NUMBER OF MEN'S URINALS REQUIRED /3.7.2.2.(5).: 5
MINIMUM NUMBER OF MEN'S LAVATORIES REQUIRED /3.7.2.3.(1).: 4
MINIMUM NUMBER OF WOMEN'S TOILETS REQUIRED /TABLE 3.7.2.2.-A : 13
MINIMUM NUMBER OF WOMEN'S LAVATORIES REQUIRED /3.7.2.3.(1).: 7

- SECOND FLOOR (RESTAURANT)

NUMBER OF OCCUPANTS /TABLE 3.1.7.1.: 620
MINIMUM NUMBER OF MEN'S TOILETS REQUIRED /TABLE 3.7.2.2.-A : 2
MINIMUM NUMBER OF MEN'S URINALS REQUIRED /3.7.2.2.(5).: 4
MINIMUM NUMBER OF MEN'S LAVATORIES REQUIRED /3.7.2.3.(1).: 3
MINIMUM NUMBER OF WOMEN'S TOILETS REQUIRED /TABLE 3.7.2.2.-A : 11
MINIMUM NUMBER OF WOMEN'S LAVATORIES REQUIRED /3.7.2.3.(1).: 6

- THIRD FLOOR (LIBRARY)

NUMBER OF OCCUPANTS /TABLE 3.1.7.1.: 80
MINIMUM NUMBER OF MEN'S TOILETS REQUIRED /TABLE 3.7.2.2.-A : 1
MINIMUM NUMBER OF MEN'S URINALS REQUIRED /3.7.2.2.(5).: 0
MINIMUM NUMBER OF MEN'S LAVATORIES REQUIRED /3.7.2.3.(1).: 1
MINIMUM NUMBER OF WOMEN'S TOILETS REQUIRED /TABLE 3.7.2.2.-A : 2
MINIMUM NUMBER OF WOMEN'S LAVATORIES REQUIRED /3.7.2.3.(1).: 1

- FOURTH FLOOR (STUDY LOUNGE)

NUMBER OF OCCUPANTS /TABLE 3.1.7.1.: 403
MINIMUM NUMBER OF MEN'S TOILETS REQUIRED /TABLE 3.7.2.2.-A : 2
MINIMUM NUMBER OF MEN'S URINALS REQUIRED /3.7.2.2.(5).: 3
MINIMUM NUMBER OF MEN'S LAVATORIES REQUIRED /3.7.2.3.(1).: 3
MINIMUM NUMBER OF WOMEN'S TOILETS REQUIRED /TABLE 3.7.2.2.-A : 9
MINIMUM NUMBER OF WOMEN'S LAVATORIES REQUIRED /3.7.2.3.(1).: 5

VANIER COLLEGE
ARCHITECTURAL TECHNOLOGY

PROJECT 3
221-520-VA SECT 00001

TEACHERS
MICHAEL LANCIONE
SAUL ARONOVITCH

Lumion

GILMORE ACADEMY STUDENT CENTER

PROJECT DESCRIPTION

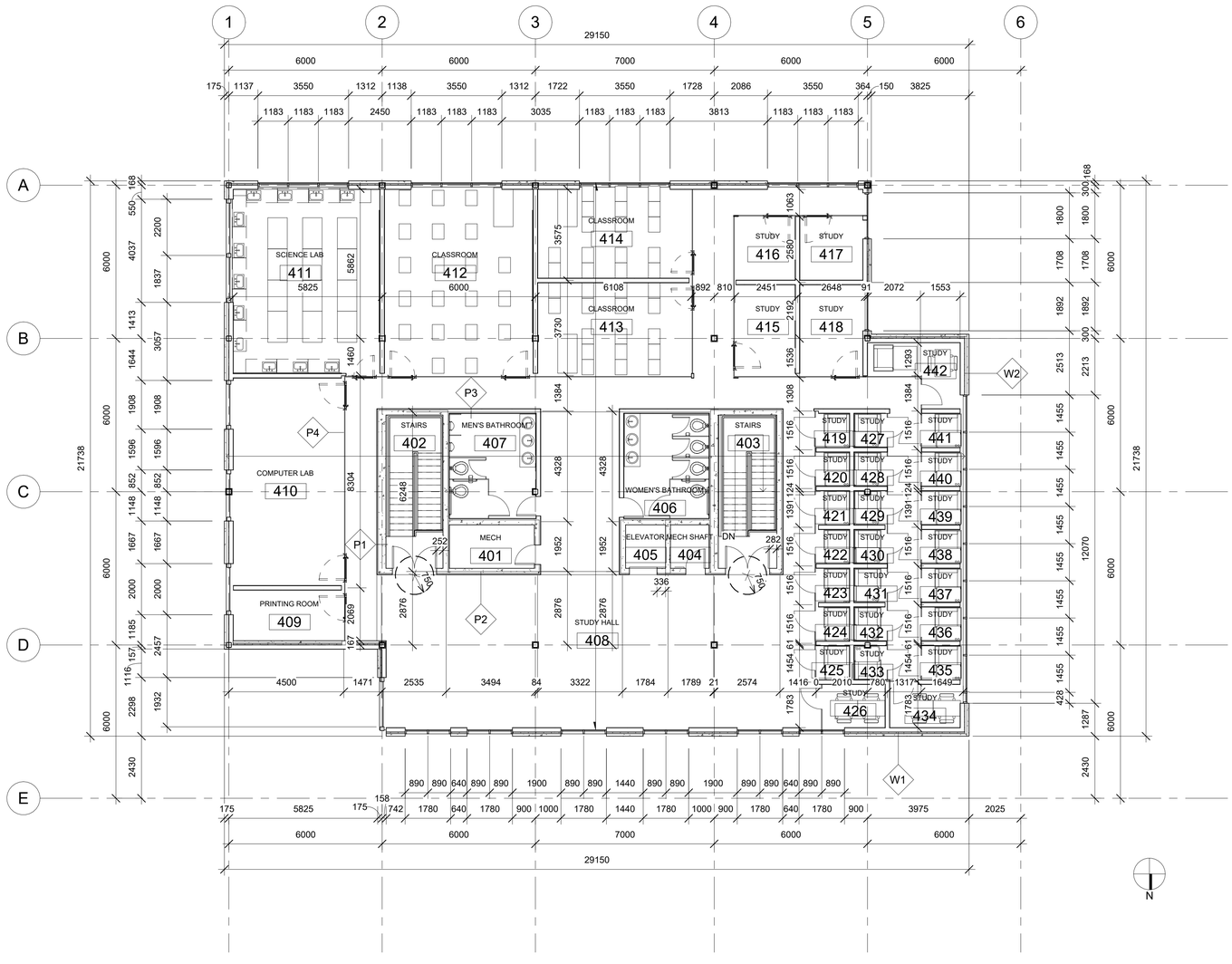
This is a four story Student Center for the high school Gilmore Academy built on the corner of Wolf Street and Bane street in downtown Montreal. The first floor consists of the lobby that has a self serve coffee counter and an area with table top games. There's a library on the second floor with a variety of reading material. If you are feeling hungry, you can swing by the third floor which is a restaurant. At the top floor, there is a quiet study space with ample space for group and solo studies.

BY
HORIZON DESIGNS

STUDENTS
ALSTON ALWINAPPAR
JOHANNA SONOKPON

DEC 01, 2025

A000



1 FOURTH FL.

1 : 100

WALL LEGEND		
	W1	STONE ON METAL STUD
	W2	STUCCO ON METAL STUD
	P1	GYPSUM ON 300MM CONCRETE PARTITION
	P2	GYPSUM ON 190MM CONCRETE PARTITION
	P3	GYPSUM PARTITION
	P4	CURTAIN WALL PARTITION

HORIZON DESIGNS

No.	DESCRIPTION	DATE

GILMORE ACADEMY

STUDENT CENTER

FOURTH FL.

Project number	0001
Date	10/17/2025
Drawn by	J. SONOKPON
Checked by	S.A.
	A104
Scale	As indicated

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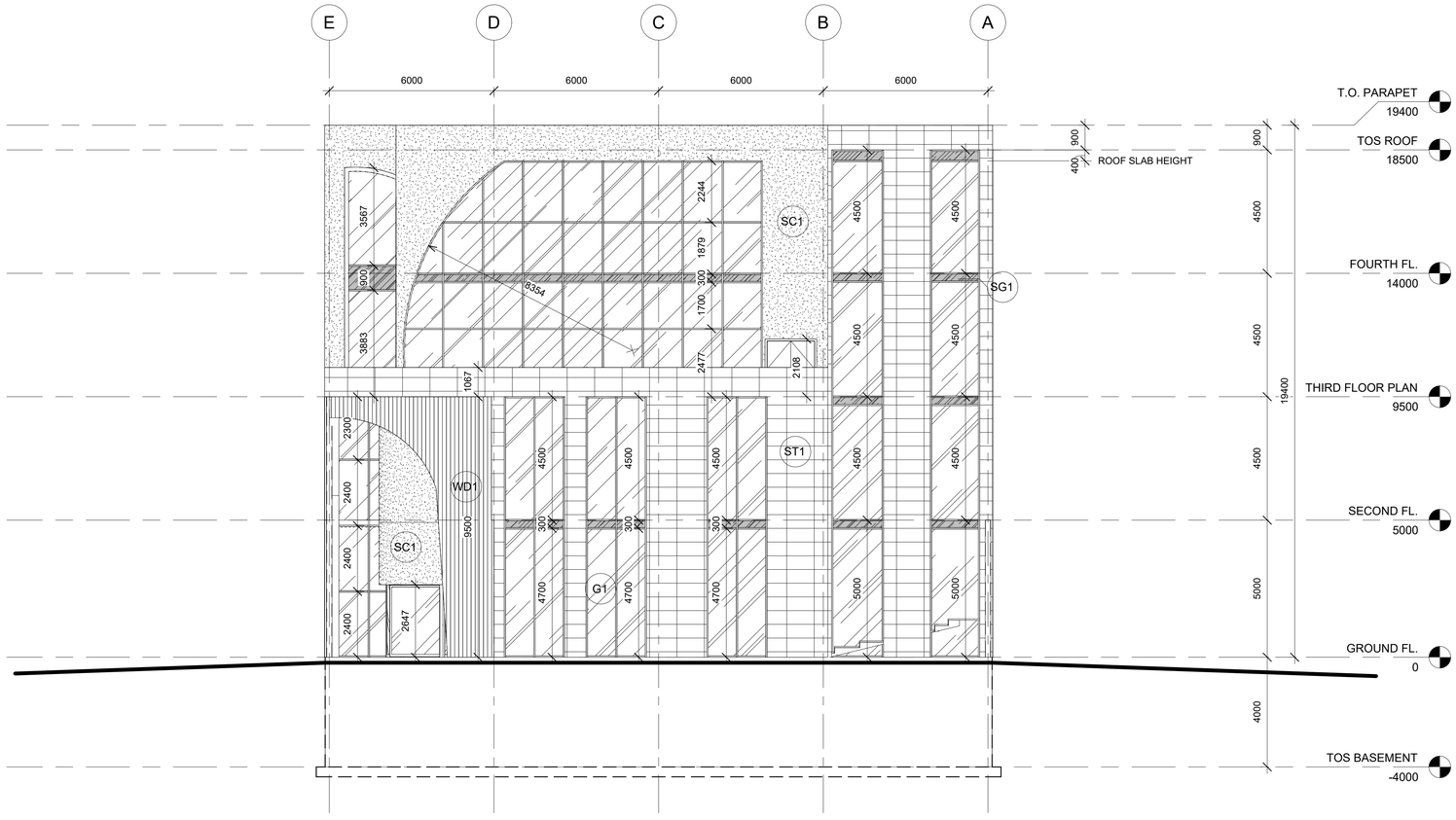

1 / A204 WEST ELEVATION

1 : 100

EXTERIOR WALL MATERIALS		
	WD1	WOOD CLADDING
	SC1	STUCCO
	ST1	STONE CLADDING
	G1	GLAZING
	SG1	SPANDREL GLAZING

HORIZON DESIGNS

No.	DESCRIPTION	DATE

GILMORE ACADEMY

STUDENT CENTER

WEST ELEVATION

Project number	0001
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	A204
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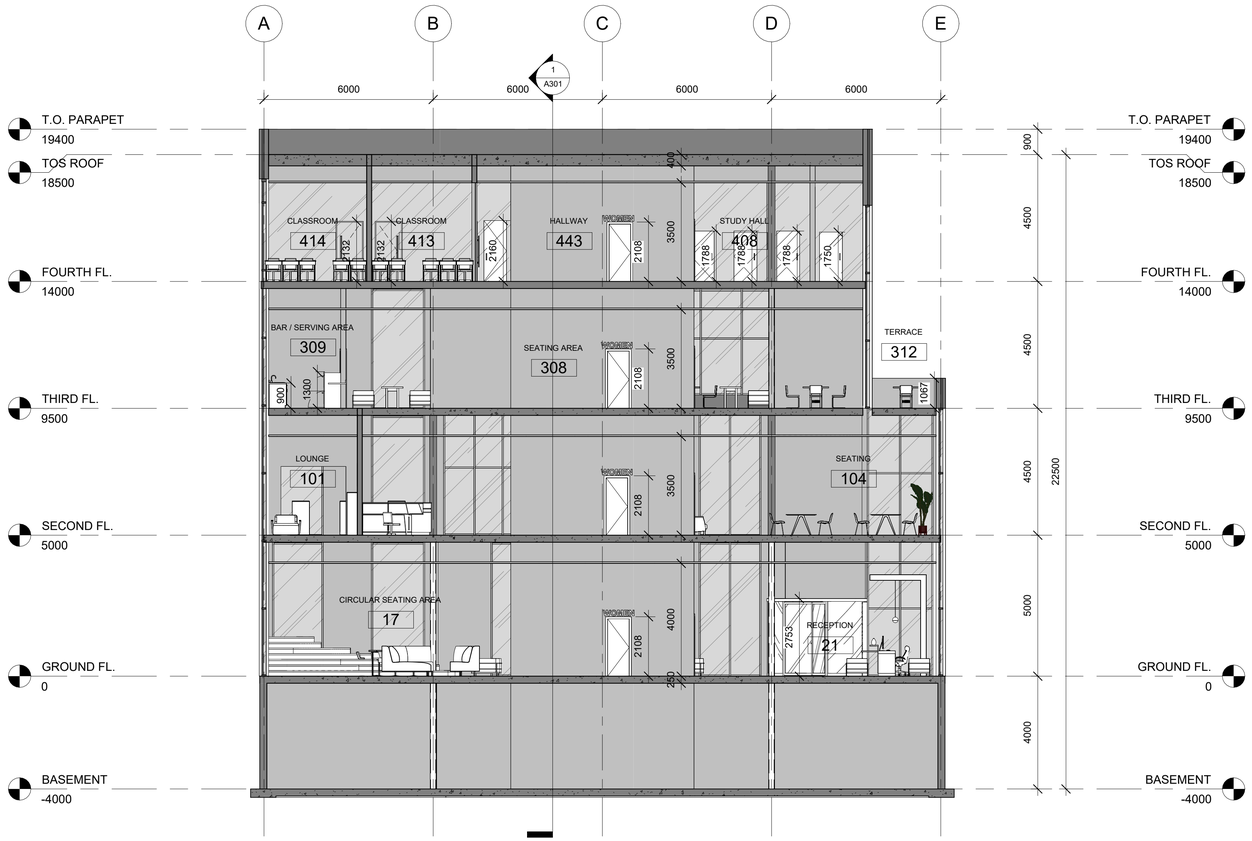

1 A302 LATITUDINAL SECTION

1 : 100

HORIZON DESIGNS

No.	DESCRIPTION	DATE

GILMORE ACADEMY

STUDENT CENTER

LATITUDINAL SECTION

Project number	0001
Date	05/11/25
Drawn by	J. SONOKPON
Checked by	S.A.

A302

Scale 1 : 100

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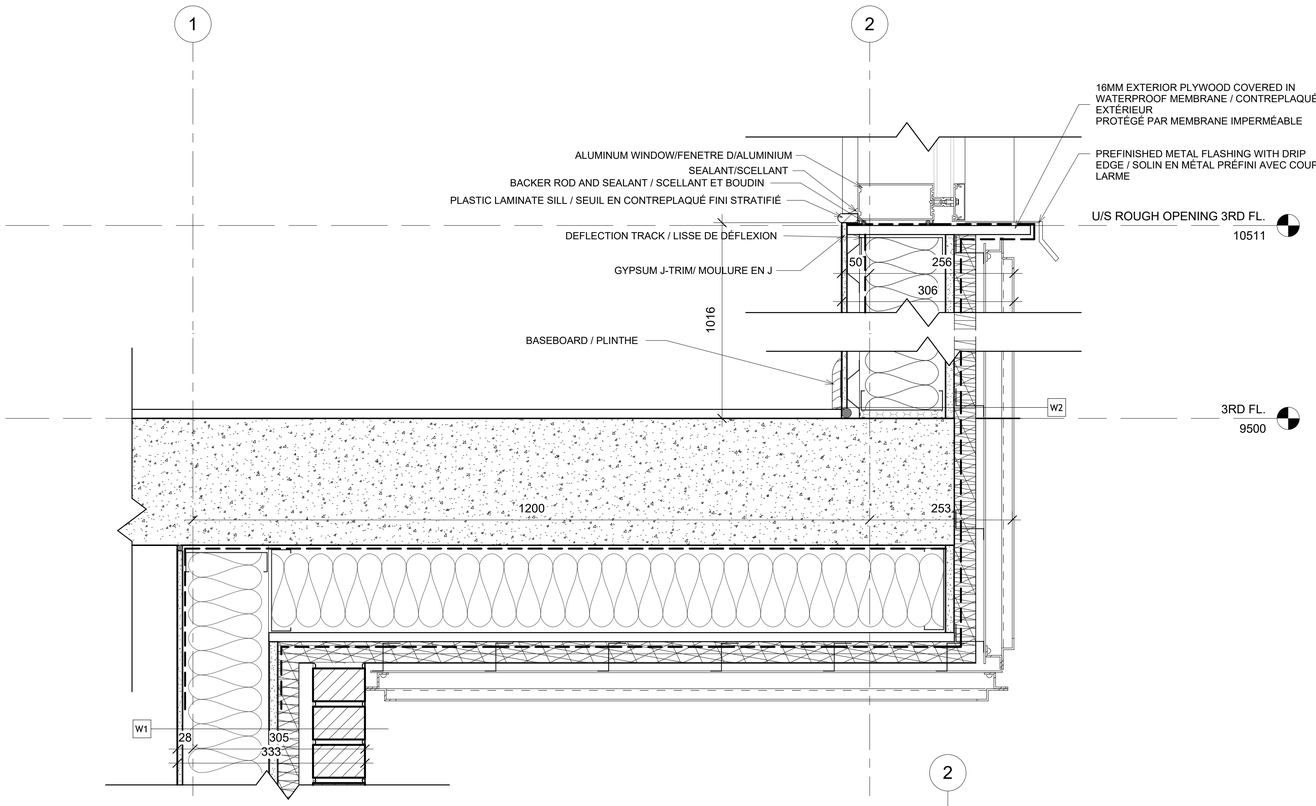
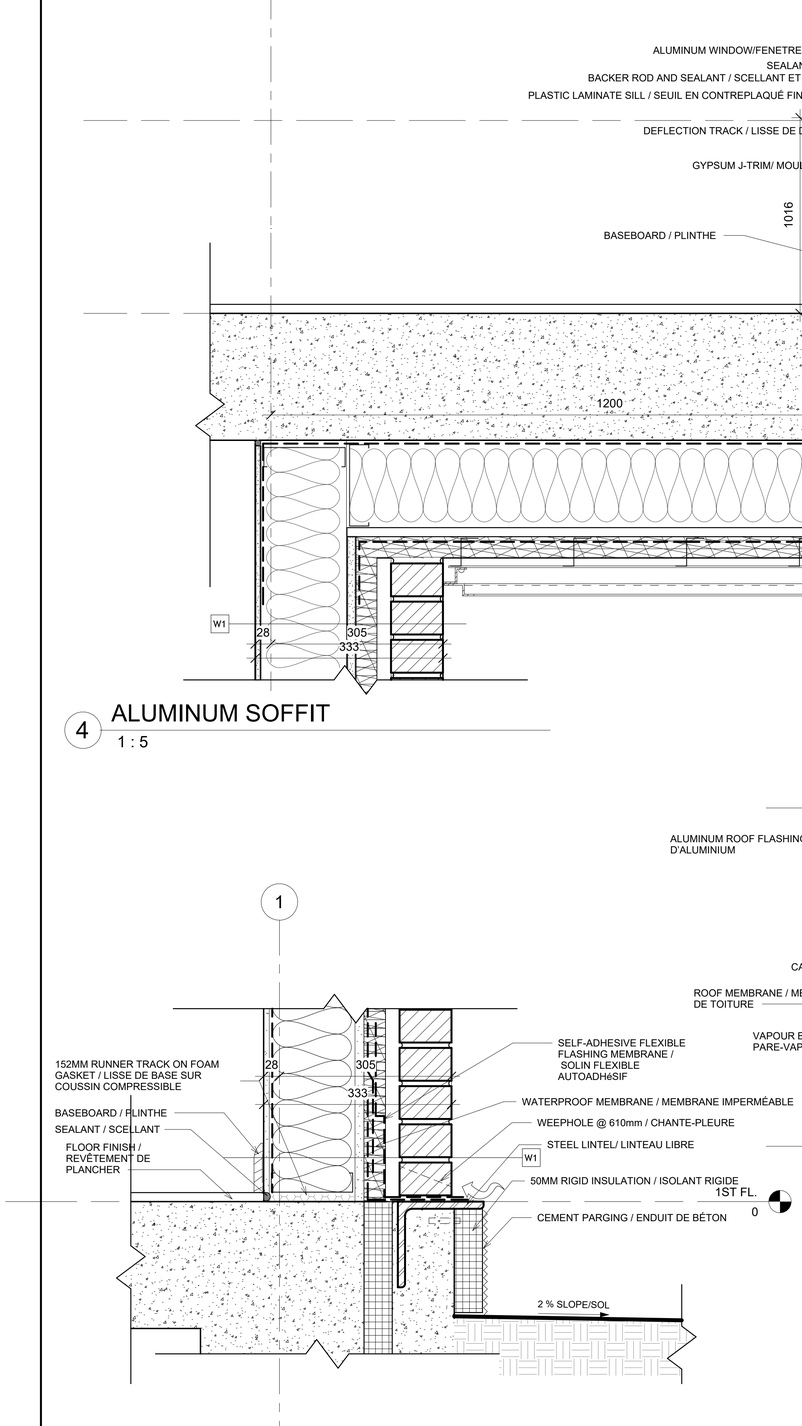


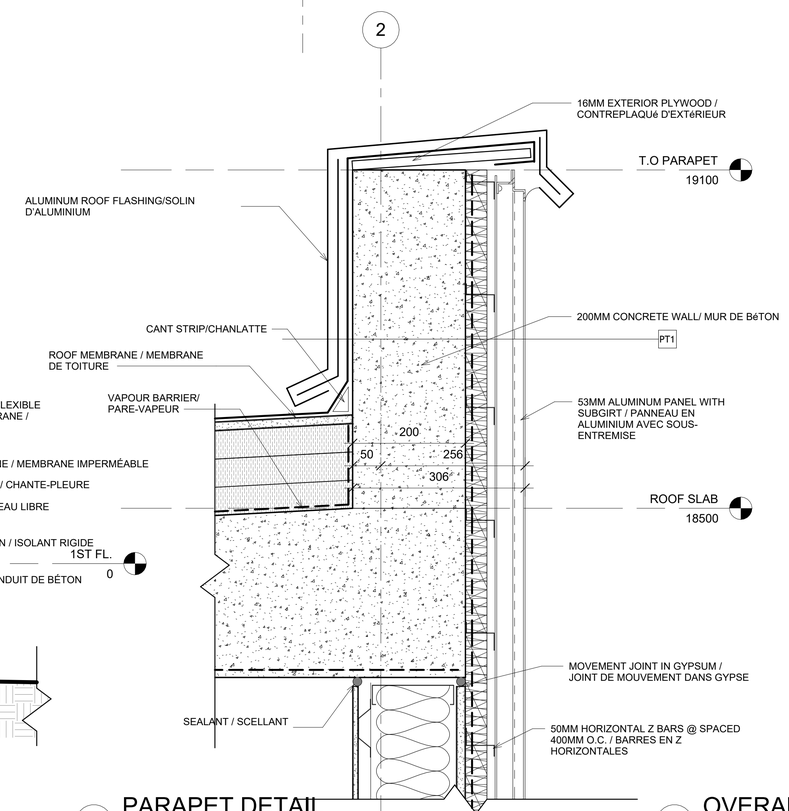
4 ALUMINUM SOFFIT

1 : 5



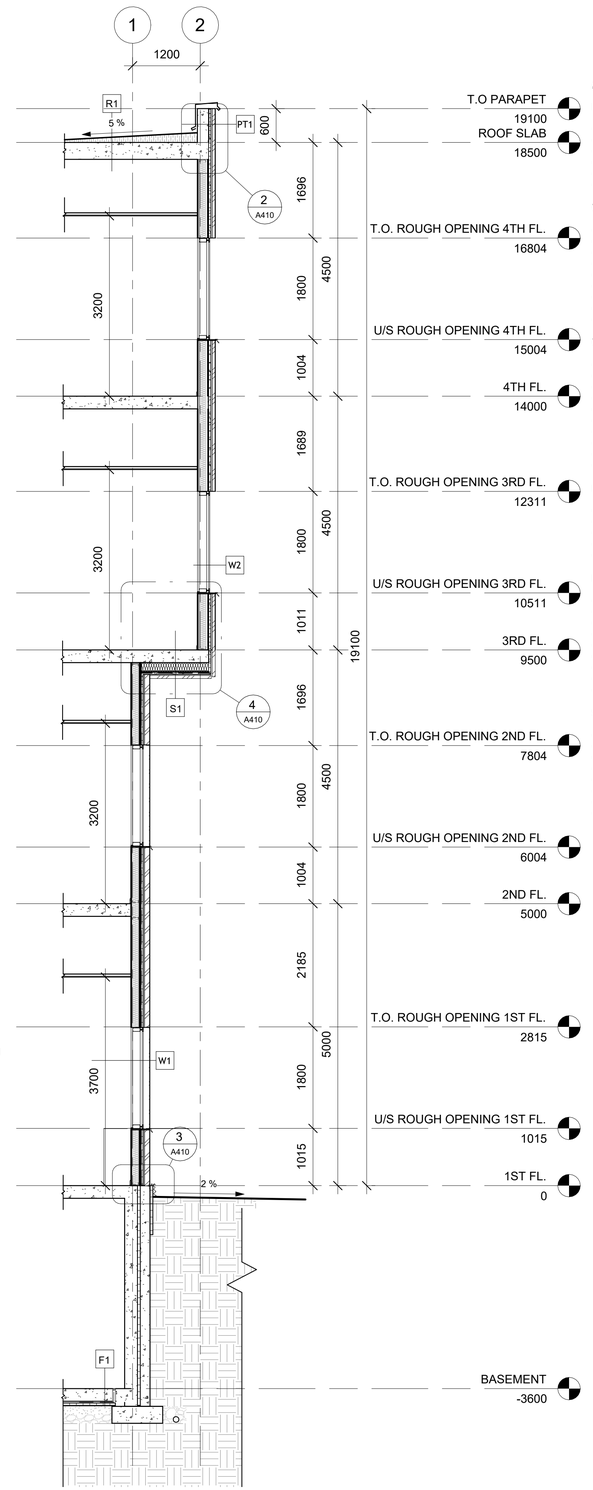
3 MASONRY AT FOUNDATION WALL

1 : 5



2 PARAPET DETAIL

1 : 5



1 OVERALL WALL SECTION

1 : 50

ASSEMBLIES LEGEND

F1 SLAB-ON-GRADE ASSEMBLY

- CONCRETE SEALANT / SCELLANT POUR BéTON
- 225 MM STRUCTURAL CONCRETE SLAB / DALLE DE BéTON STRUCTURAL
- VAPOUR BARRIER / PARE-VAPEUR
- 50MM X 1220MM RIGID INSULATION AT PERIMETER / ISOLANT RIGIDE AU PéRIMèTRE
- SAND / SABLE CRUSHED GRAVEL / PIERRE CONCASSéE
- SOIL COMPACTED TO 95% PROCTOR DENSITY / SOL COMPACTé à 95% DENSITé PROCTOR

W1 MASONRY WALL ASSEMBLY

- 90MM BRICK / BRIQUE 25MM
- AIR SPACE / ESPACE D'AIR
- 38MM SEMI-RIGID INSULATION / ISOLANT SEMI-RIGIDE
- AIR BARRIER / PARE-AIR 16MM
- EXTERIOR GYPSUM BOARD / PANNEAU DE GYPSE EXTéRIEUR
- 152MM METAL STUDS @ 400MM O.C. / MONTANTS MéTALLIQUE
- BATT INSULATION / ISOLANT EN NATTES
- VAPOUR BARRIER / PARE-VAPEUR
- 10MM GYPSUM BOARD / PANNEAU DE GYPSE

W2 ALUMINUM PANEL WALL ASSEMBLY

- 53MM ALUMINUM PANEL WITH SUBGIRT / PANNEAU EN ALUMINIUM AVEC SOUS-ENTREMISE
- 50MM HORIZONTAL Z BARS @ SPACED 400MM O.C. / BARRES EN Z HORIZONTALES
- 38MM SEMI-RIGID INSULATION / ISOLANT SEMI-RIGIDE
- AIR BARRIER / PARE-AIR 16MM
- EXTERIOR GYPSUM BOARD / PANNEAU DE GYPSE EXTéRIEUR
- 152MM METAL STUDS @ 400MM O.C. / MONTANTS MéTALLIQUE
- BATT INSULATION / ISOLANT EN NATTES
- VAPOUR BARRIER / PARE-VAPEUR
- 22MM HORIZONTAL METAL FURRING SPACED AT 400MM / FOURRURE MéTALLIQUE
- 10MM GYPSUM BOARD / PANNEAU DE GYPSE

R1 TPO ROOF ASSEMBLY

- STRUCTURAL CONCRETE SLAB/DALLE DE BéTON STRUCTURAL
- VAPOUR BARRIER/PARE VAPEUR
- 3 LAYERS OF 50MM RIGID INSULATION/3 COUCHES D'ISOLANT RIGIDE DE 50MM
- 16MM GYPSUM/ PANNEAU DE GYPSE EXTERIEUR
- ROOF MEMBRANE/ MEMBRANE DE TOITURE

PT1 PARAPET ASSEMBLY AT ALUMINUM WALL

- 53MM ALUMINUM PANEL WITH SUBGIRT / PANNEAU EN ALUMINIUM AVEC SOUS-ENTREMISE
- 38MM AIR SPACE / ESPACE D'AIR
- 50MM HORIZONTAL Z BARS @ SPACED 400MM O.C. / BARRES EN Z HORIZONTALES
- 38MM SEMI-RIGID INSULATION / ISOLANT SEMI-RIGIDE
- VAPOUR BARRIER / PARE-VAPEUR
- 200MM CONCRETE WALL/ MUR DE BéTON
- 16MM EXTERIOR PLYWOOD / CONTREPLAQUé D'EXTéRIEUR
- ROOF MEMBRANE / MEMBRANE DE TOITURE
- ALUMINUM ROOF FLASHING/SOLIN DALUMINIUM

S1 SOFFIT ASSEMBLY

- 53MM ALUMINUM PANEL WITH SUBGIRT / PANNEAU EN ALUMINIUM AVEC SOUS-ENTREMISE
- 50MM HORIZONTAL Z BARS @ SPACED 200MM O.C. / BARRES EN Z HORIZONTALES
- 38MM SEMI-RIGID INSULATION / ISOLANT SEMI-RIGIDE
- AIR BARRIER / PARE-AIR
- 16MM EXTERIOR GYPSUM BOARD / PANNEAU DE GYPSE EXTéRIEUR
- 152MM METAL STUDS @ 400MM O.C. / MONTANTS MéTALLIQUE
- BATT INSULATION / ISOLANT EN NATTES
- VAPOUR BARRIER / PARE VAPEUR

VANIER COLLEGE

PROJECT 3

MASONRY AND ALUMINUM WALL SECTION AND DETAILS

Project number	0001
Date	10/10/25
Drawn by	J. SONOKPON
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A410

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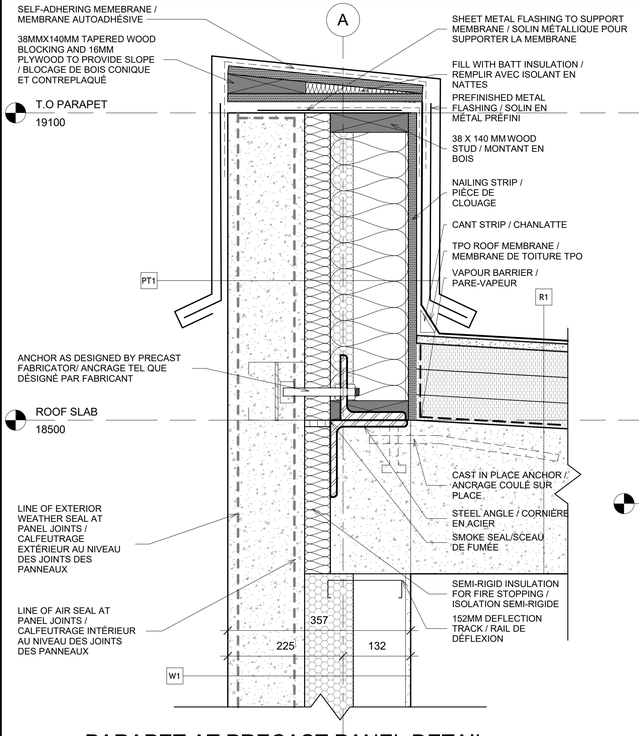
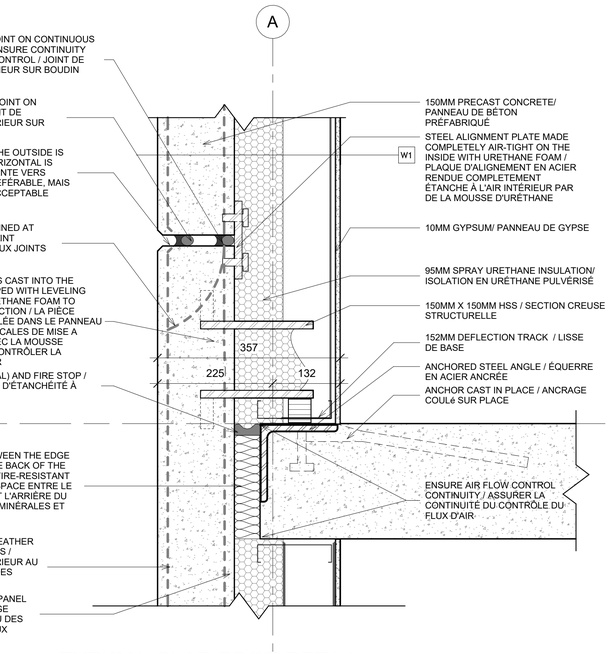


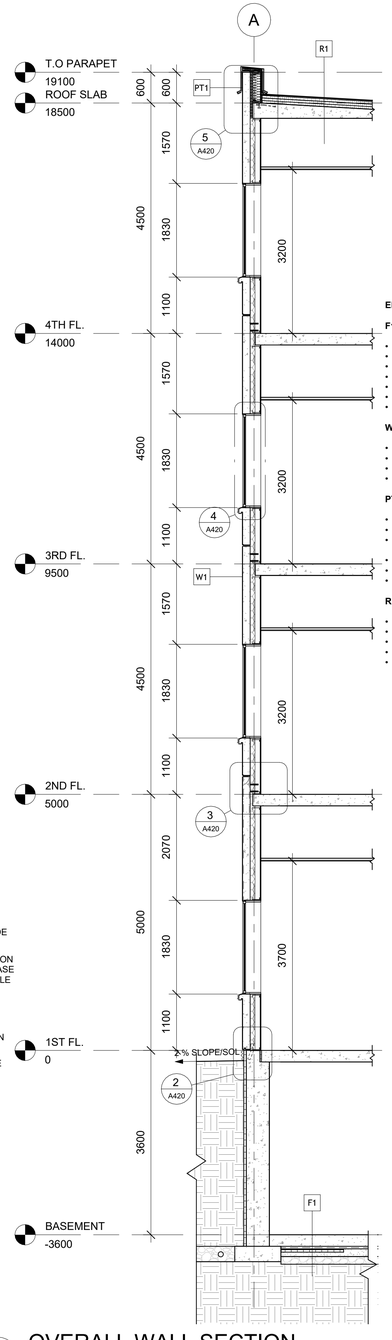
5 A420 PARAPET AT PRECAST PANEL DETAIL

1 : 5



3 A420 TYPICAL SLAB EDGE DETAIL

1 : 5



1 A420 OVERALL WALL SECTION

1 : 50

ENVELOPE ASSEMBLIES / COMPOSITIONS D'ENVELOPPE

F1 SLAB-ON-GRADE ASSEMBLY

- CONCRETE SEALANT / SCELLANT POUR BÉTON
- 225MM STRUCTURAL CONCRETE SLAB / DALLE DE BÉTON STRUCTURAL
- VAPOUR BARRIER / PARE-VAPEUR
- 50MM X 1220MM RIGID INSULATION AT PERIMETER / ISOLANT RIGIDE AU PÉRIMÈTRE
- 150MM SAND / SABLE
- 150MM CRUSHED GRAVEL / PIERRE CONCASSÉE
- SOIL COMPACTED TO 95% PROCTOR DENSITY / SOL COMPACTÉ À 95% DENSITÉ PROCTOR

W1 PRECAST CONCRETE

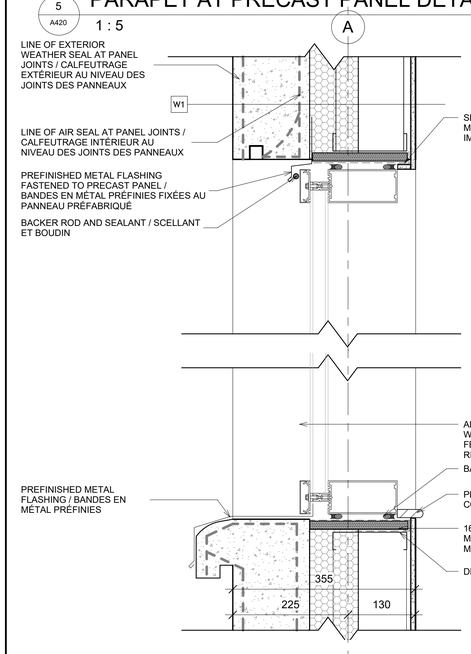
- 150MM PRECAST CONCRETE/ PANNEAU DE BÉTON PRÉFABRIQUÉ
- 95MM SPRAY URETHANE INSULATION/ ISOLATION EN URÉTHANE PULVÉRISÉ
- 152MM METAL STUDS/ MONTANTS MÉTALLIQUES
- 10MM GYPSUM/ PANNEAU DE GYPSE

PT1 PARAPET ASSEMBLY AT PRECAST CONCRETE

- 150MM (PLEASE INDICATE THICKNESS) PRECAST CONCRETE PANEL / PANNEAU DE BÉTON PRÉFABRIQUÉ
- 50MM SEMI-RIGID INSULATION / ISOLANT SEMI-RIGIDE
- 35MM X 140MM WOOD STUDS @ 400MM O.C. FILLED WITH INSULATION / MONTANTS EN BOIS À 400 MM D'ESPACEMENT REMPLIS D'ISOLANT
- 16 MM TREATED PLYWOOD / CONTREPLAQUÉ TRAITÉ
- TPO 60MIL ROOFING MEMBRANE / MEMBRANE DE TOITURE TPO
- METAL FLASHING / SOLIN EN ACIER

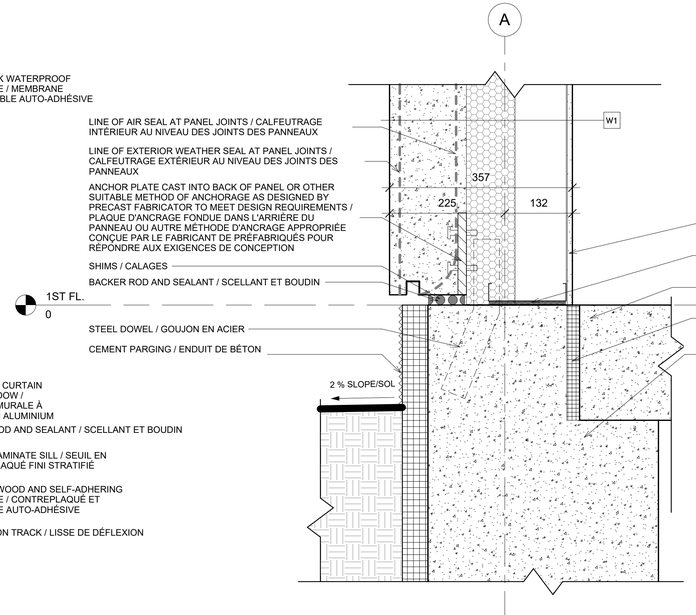
R1 TPO ROOF ASSEMBLY

- 300MM STRUCTURAL CONCRETE SLAB/DALLE DE BÉTON STRUCTURAL
- VAPOUR BARRIER/PARE VAPEUR
- 3 LAYERS OF 50MM RIGID INSULATION/3 COUCHES DISOLANT RIGIDE DE 50MM
- 16MM GYPSUM/ PANNEAU DE GYPSE EXTERIEUR
- TPO ROOF MEMBRANE/ MEMBRANE DE TOITURE TPO



4 A420 WINDOW SILL AND HEAD IN PRECAST PANEL DETAIL

1 : 5



2 A420 PRECAST PANEL AT GROUND FLOOR DETAIL

1 : 5

HORIZON DESIGNS

VANIER COLLEGE

PROJECT 3

PRECAST CONCRETE

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Date	07/11/2025
Drawn by	J.SONOKPON
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	A420
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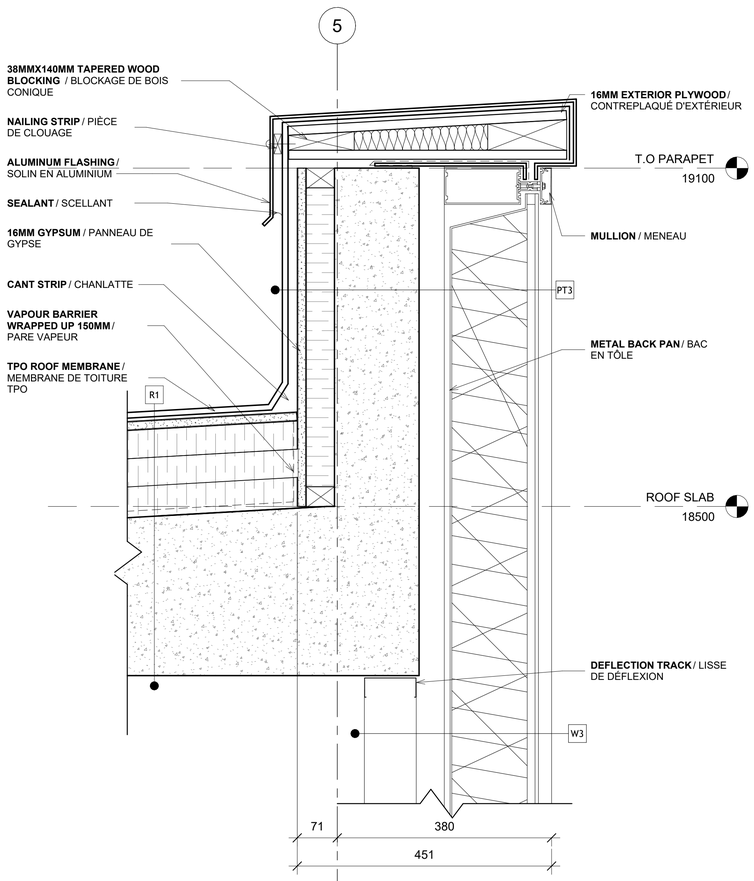
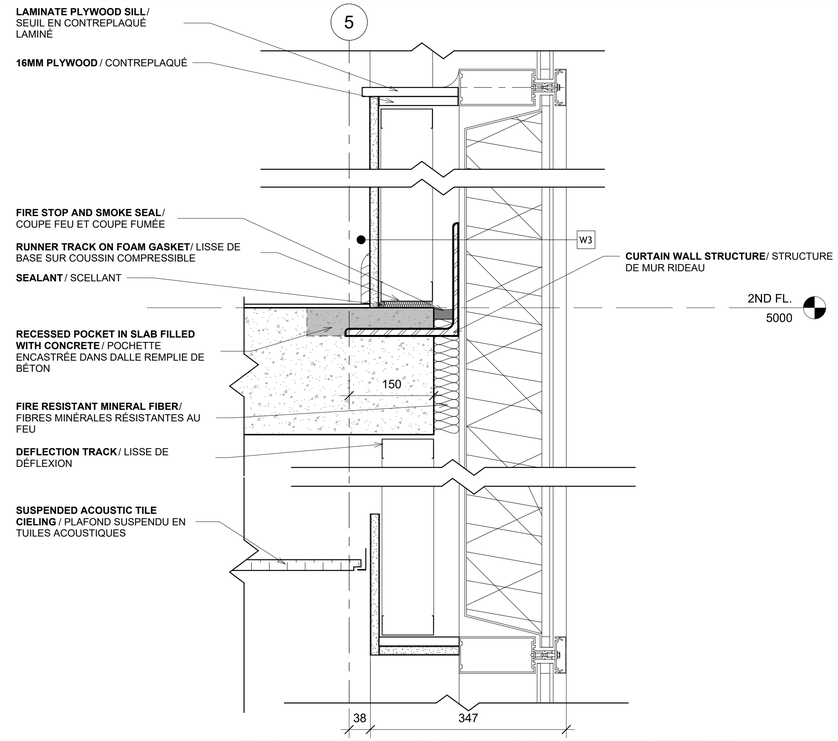


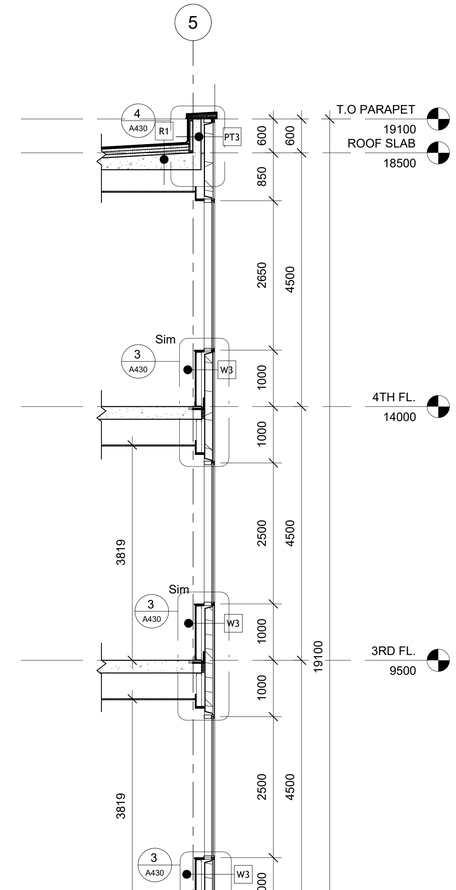
4 A430 PARAPET DETAIL

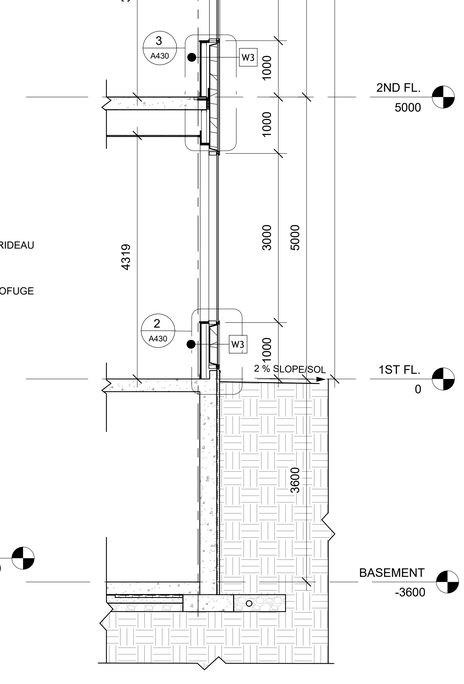
1 : 5



3 A430 TYPICAL FLOOR AT CURTAIN WALL DETAIL

1 : 5





LEGEND, ASSEMBLIES

F1 SLAB-ON-GRADE ASSEMBLY

- CONCRETE SEALANT / SCELLANT POUR BÉTON
- 225MM STRUCTURAL CONCRETE SLAB / DALLE DE BÉTON STRUCTURAL
- VAPOUR BARRIER / PARE-VAPEUR
- 50MM X 1220MM RIGID INSULATION AT PERIMETER / ISOLANT RIGIDE AU PÉRIMÈTRE
- 150MM SAND / SABLE
- 150MM CRUSHED GRAVEL / PIERRE CONCASSÉE
- SOIL COMPACTED TO 95% PROCTOR DENSITY / SOL COMPACTÉ À 95% DENSITÉ PROCTOR

W3 CURTAIN WALL ASSEMBLY

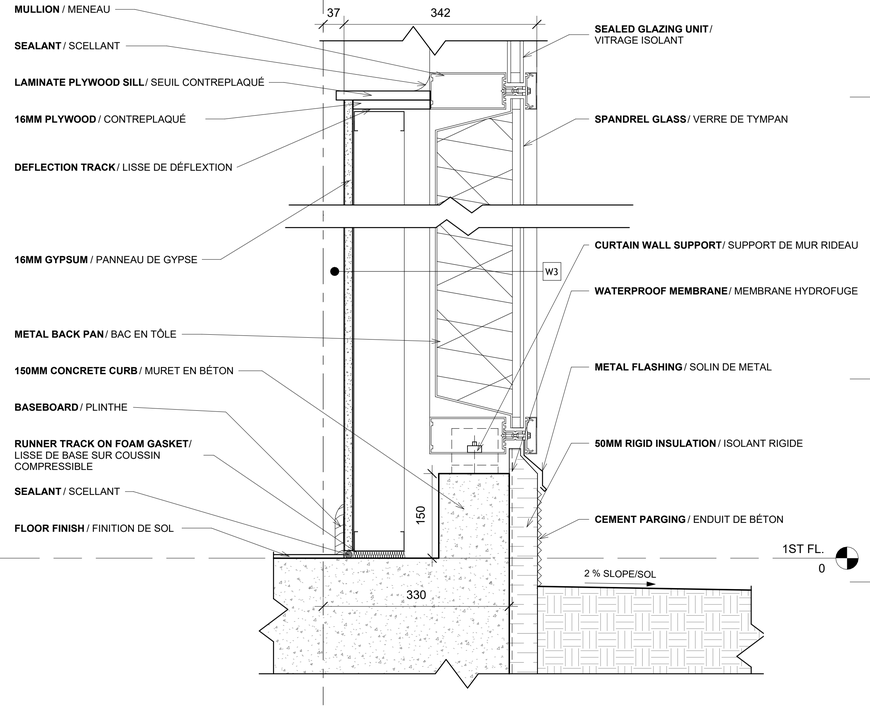
- CURTAIN WALL, KAWNEER 1600 OR EQUIVALENT / MUR RIDEAU
- METAL BACKPAN FILLED WITH SEMI-RIGID INSULATION / BAC EN TÔLE D'ACIER REMPLI D'ISOLANT SEMI-RIGIDE
- 45MM AIR SPACE/ ESPACE DAIR
- 89MM METAL STUDS SPACED AT 400MM C/C / MONTANTS MÉTALLIQUES
- 16MM GYPSUM BOARD / PANNEAU DE GYPSE

PT3 PARAPET ASSEMBLY AT CURTAIN WALL ASSEMBLY

- 16MM GYPSUM BOARD / PANNEAU DE GYPSE
- 50MM RIGID INSULATION / ISOLANT RIGIDE
- 150MM PRECAST CONCRETE / PANNEAU DE BÉTON PRÉFABRIQUÉ
- 45MM AIR SPACE / ESPACE D'AIR
- METAL BACKPAN FILLED WITH SEMI-RIGID INSULATION / BAC EN TÔLE D'ACIER REMPLI D'ISOLANT SEMI-RIGIDE
- CURTAIN WALL, KAWNEER 1600 OR EQUIVALENT / MUR RIDEAU

R1 TPO ROOF ASSEMBLY

- 300MM STRUCTURAL CONCRETE SLAB/DALLE DE BÉTON STRUCTURAL
- VAPOUR BARRIER/PARE VAPEUR
- 3 LAYERS OF 50MM RIGID INSULATION/3 COUCHES D'ISOLANT RIGIDE DE 50MM
- 16MM GYPSUM/ PANNEAU DE GYPSE EXTERIEUR
- TPO ROOF MEMBRANE/ MEMBRANE DE TOITURE TPO



2 A430 CURTAIN WALL GROUND FLOOR DETAIL

1 : 5

1 A430 OVERALL CURTAIN WALL SECTION

1 : 50

HORIZON DESIGNS

VANIER COLLEGE

PROJECT 3

CURTAIN WALL SECTION AND DETAILS

Project number	0001
Date	22/11/25
Drawn by	J. SONOKPON
Checked by	M.L.
	A430
Scale	As indicated

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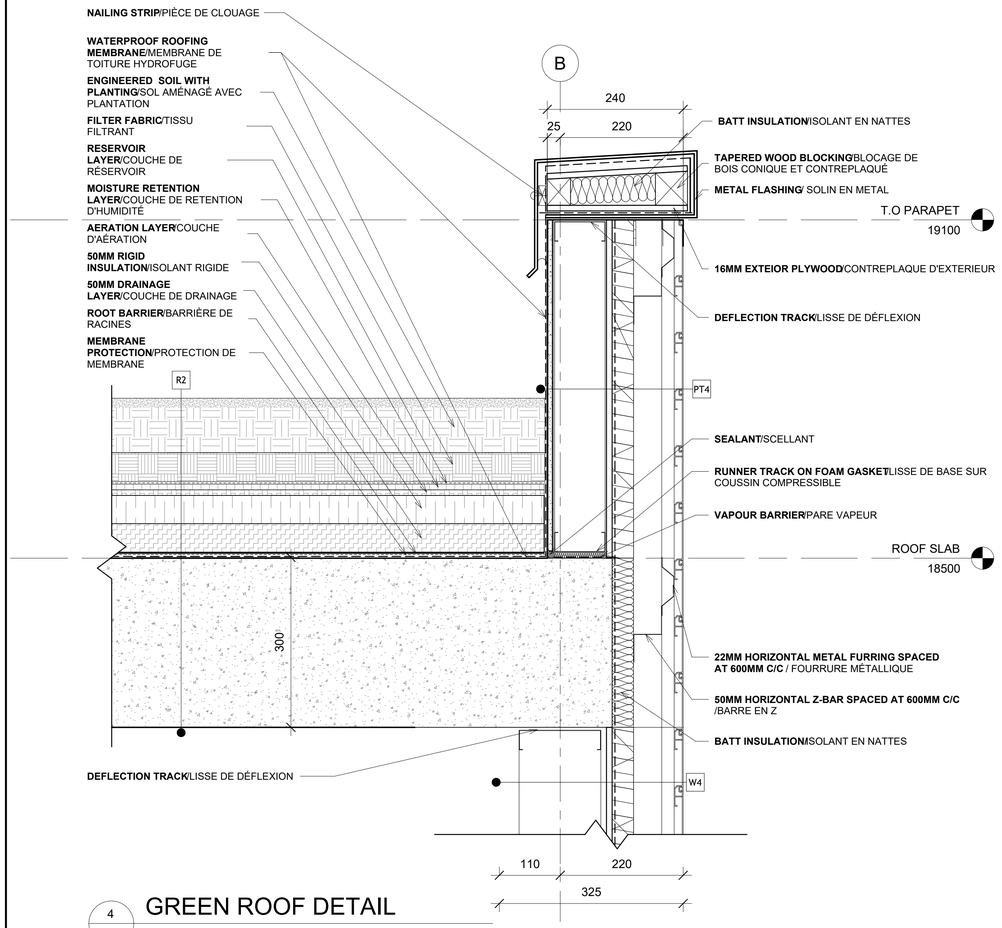


4 A440 GREEN ROOF DETAIL

1 : 5

LEGEND, ASSEMBLIES

F1 SLAB-ON-GRADE ASSEMBLY

- **CONCRETE SEALANT** / SCELLANT POUR BÉTON
- **225MM STRUCTURAL CONCRETE SLAB**/ DALLE DE BÉTON STRUCTURAL
- **VAPOUR BARRIER** / PARE-VAPEUR
- **50MM X 1220MM RIGID INSULATION AT PERIMETER**/ ISOLANT RIGIDE AU PÉRIMÈTRE
- **150MM SAND** / SABLE
- **150MM CRUSHED GRAVEL**/ PIERRE CONCASSÉE
- **SOIL COMPACTED TO 95% PROCTOR DENSITY**/ SOL COMPACTÉ À 95% DENSITÉ PROCTOR

W4 WOOD SIDING WALL ASSEMBLY

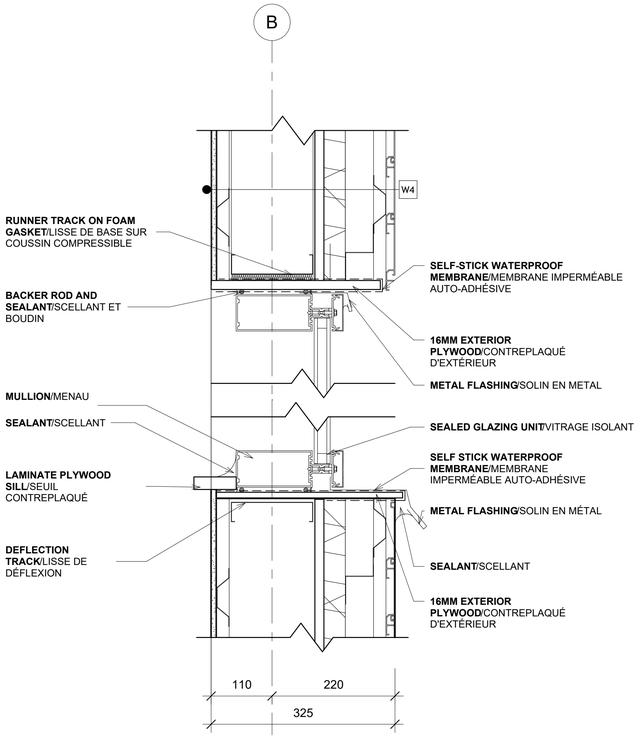
- **KNOTWOOD TRADITIONAL CLADDING KEC100LW OR EQUIVALENT WOOD CLADDING PANEL**/ REVêTEMENT EXTéRIEUR KNOTWOOD TRADITIONNEL KEC100LW OU PANNEAU DE REVêTEMENT EN BOIS éQUIVALENT
- **22MM HORIZONTAL METAL FURRING SPACED AT 600MM C/C**/ FOURRURES MéTALLIQUES HORIZONTALES DE 22 MM ESPACéES à 600 MM C/C
- **50MM HORIZONTAL Z-BARS SPACED AT 600MM C/C**/ LISSES EN Z HORIZONTALES DE 50 MM ESPACéES à 600 MM C/C
- **50MM SEMI-RIGID INSULATION** / ISOLATION SEMI-RIGIDE DE 50 MM
- VAPOUR BARRIER / PARE-VAPEUR
- **10MM PLYWOOD** / CONTREPLAQUé DE 10 MM
- **152MM METAL STUD** / MONTANTS MéTALLIQUES DE 152MM
- **10MM GYPSUM** / PANNEAU DE GYPSE DE 10 MM

PT4 PARAPET ASSEMBLY AT WOOD SIDING WALL

- **KNOTWOOD TRADITIONAL CLADDING KEC100LW OR EQUIVALENT WOOD CLADDING PANEL**/ REVêTEMENT EXTéRIEUR KNOTWOOD TRADITIONNEL KEC100LW OU PANNEAU DE REVêTEMENT EN BOIS éQUIVALENT
- **22MM HORIZONTAL METAL FURRING SPACED AT 600MM C/C**/ FOURRURES MéTALLIQUES HORIZONTALES DE 22 MM ESPACéES à 600 MM C/C
- **50MM HORIZONTAL Z-BARS SPACED AT 600MM C/C**/ LISSES EN Z HORIZONTALES DE 50 MM ESPACéES à 600 MM C/C
- **50MM SEMI-RIGID INSULATION** / ISOLATION SEMI-RIGIDE DE 50 MM
- VAPOUR BARRIER / PARE-VAPEUR
- **10MM PLYWOOD** / CONTREPLAQUé DE 10 MM
- **100MM METAL STUD** / MONTANTS MéTALLIQUES DE 100 MM
- **10MM EXTERIOR GYPSUM** / PANNEAU DE GYPSE EXTéRIEUR DE 10 MM

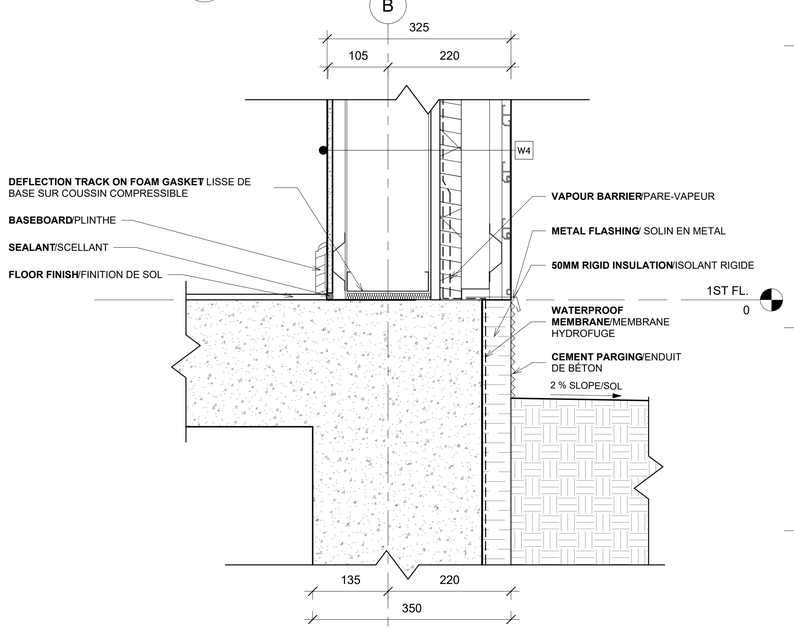
R2 GREEN ROOF ASSEMBLY

- **300MM STRUCTURAL CONCRETE SLAB**DALLE DE BÉTON STRUCTURAL
- **WATERPROOF ROOFING MEMBRANE**MEMBRANE DE TOITURE HYDROFUGE
- **MEMBRANE PROTECTION**PROTECTION DE MEMBRANE
- **ROOT BARRIER**BARRIÈRE DE RACINES
- **50MM DRAINAGE LAYER**COUCHE DE DRAINAGE
- **50MM RIGID INSULATION**ISOLANT RIGIDE
- **AERATION LAYER**COUCHE D'AÉRATION
- **MOISTURE RETENTION LAYER**COUCHE DE RETENTION D'HUMIDITÉ
- **RESERVOIR LAYER**COUCHE DE RÉSERVOIR
- **FILTER FABRIC**TISSU FILTRANT
- **ENGINEERED SOIL WITH PLANTING**SOL AMÉNAGÉ AVEC PLANTATION



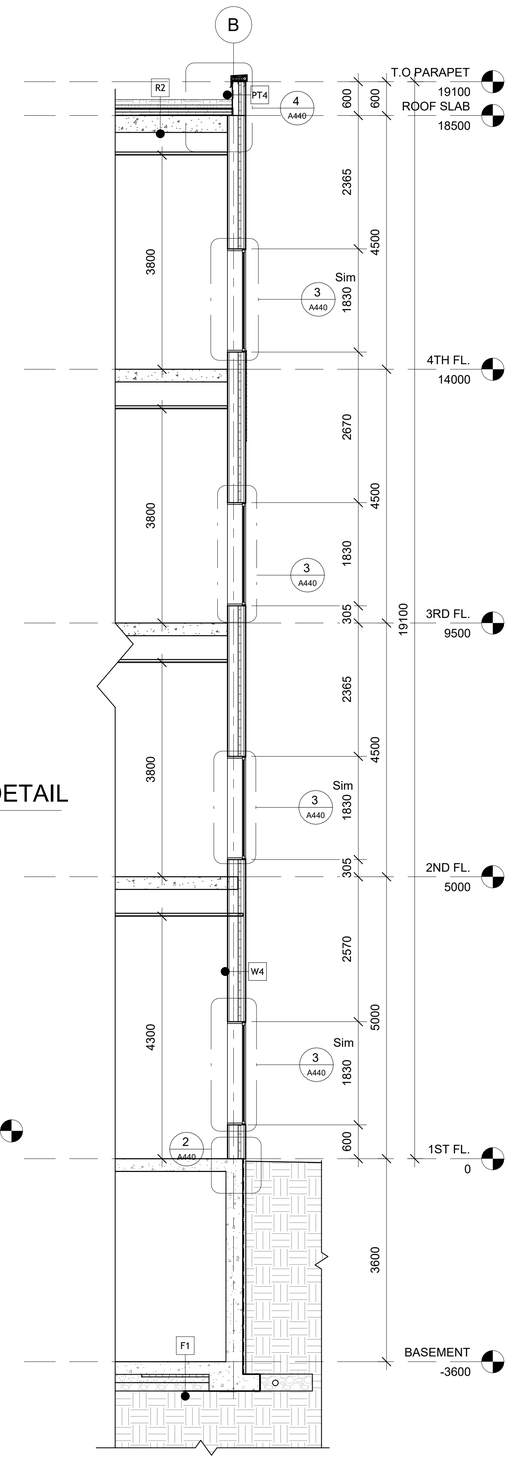
3 A440 WINDOW SILL AND HEAD AT WOOD SIDING DETAIL

1 : 5



2 A440 WOOD SIDING AT GROUND FLOOR DETAIL

1 : 5



1 A440 GREEN ROOF DETAIL

1 : 50

HORIZON DESIGNS

VANIER COLLEGE

PROJECT 3

WOOD SIDING WALL SECTION AND DETAILS

Project number	0001
Date	13/12/2025
Drawn by	J. SONOKPON
Checked by	M.L.

A440

Scale: As indicated

2025-12-13 8:33:12 PM