DESIGN BRIEF - MIFO

MIFO Cultural Center
Mouvement d'Implication Francophone d'Orléans

6600, rue Carrière, Orléans
ON, K1C 1J4

30-09-2022

PROVENCHER_ROY X MIFO

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SECTION 01 - COMPLIANCE TO OFFICIAL PLAN AND CONTEXT

01. APPLICATION SUBMISSION

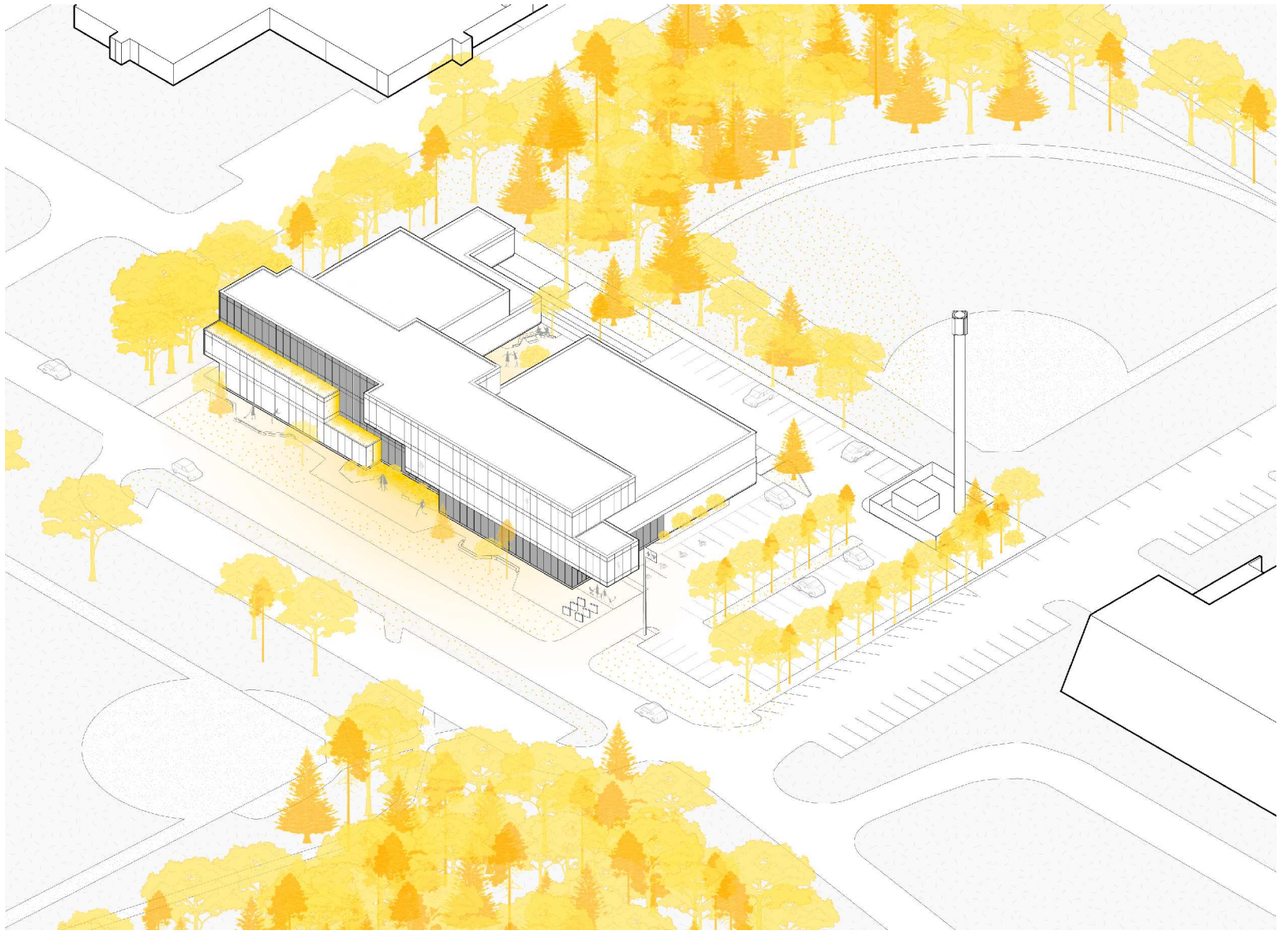
1.1 APPLICATION DATAS

Type of application : Site Plan Control

Legal description : RC PLAN 906 PT LOT 38 RP; 5R-8061 PARTS 1 & 2

Municipal address : 6600 Carrière St, Ottawa, ON K1C 1J4

Purpose of the application : Building permit



1.2 VISION AND GOALS OF THE PROPOSAL

Portrait of the organisation :

MIFO - *Mouvement d'Implication Francophone d'Orléans* - is a multidisciplinary cultural center that has been offering various services in French in the artistic, cultural and community fields since 1979. Their mission is to promote francophone culture and contribute to its development by offering educational, artistic and community activities and services to the population of Orléans and its surroundings. The community organization currently occupies a 1500m² building built in 1985. Due to the growth of MIFO in recent years, the current cultural center no longer meets the demands and needs of the francophone community of Orléans. This is why MIFO is undertaking the construction of a new building that can meet current and future needs while ensuring the sustainability of the organization.

Overall vision of the proposal :

For over 37 years MIFO has occupied an efficient, introverted, shy building that met the need of the time. Now the organization has grown in experience and maturity, it is stronger, more open and demands elegance. Its architecture must be extroverted, bold, and, while continuing to respond to current needs, must exude a strength linked to its convictions. The new MIFO building must be at one with its site, in terms of spatial composition, aesthetics and landscape. It is not a separate building, but one that is open to the neighborhood and accessible to the greatest number. Its attractiveness must allow it to welcome any public without exception, but also to have the capacity to «retain» its users and to enlarge its clientele.

Goals of the proposal :

- Build, occupy and operate a new centre that fosters the vitality of the MIFO and its community, that ensure an active presence in the community and provide Francophone teens with an opportunity to use their imaginations, create and bring life to the community.

- To offer a wider range of cultural, sports and artistic activities to the francophone community of Orléans within the same building.

- To create a building that is attractive, neighbourhood-oriented and a catalyst for the Francophile community of Orléans to meet.

- To create a sustainable and eco-responsible building that aims to reduce its carbon footprint by obtaining the Zero Carbon Building - Design V3 certification.

- To respectfully insert the building into its natural and built environment through its spatial composition, aesthetics and location, while ensuring landscape continuity within the neighborhood.

02. RESPONSE TO CITY DOCUMENTS

2.1 OFFICAL PLAN - SECTION 2.5.1

DESIGN OBJECTIVES (P.2-48):

1. To enhance the sense of community by creating and maintaining places with their own distinct identity.

The concept of the new MIFO offers the Franco-Ontarian community an open, inviting and extravagant building with a bold stepped massing, a transparent street façade and a design that respects the Orleans context.

2. To define quality public and private spaces through development.

The building's setback from Carrière Street creates an inviting public space in front of the main glazed façade and creates a transition between the exterior and interior, as well as a protected garden in the rear courtyard.

3. To create places that are safe, accessible and are easy to get to, and move through.

Facilities around the site are designed to provide safe pedestrian and cyclist access to the building by providing a drop-off area upon entering the parking lot, bike racks near the entrance and a protected courtyard.

4. To ensure that new development respects the character of existing areas.

The project respects the landscape and built context through its form and landscaping. The stepped massing allows for the integration of vegetation into the building and ensures landscape continuity between the two wooded areas located to the north and south of the site. The 3-storey building is in continuity with the neighbouring school by its characteristic volumetry and height.

5. To consider adaptability and diversity by creating places that can adapt and evolve easily over time and that are characterized by variety and choice.

The program of the new MIFO includes a varied and inclusive service offering. The building can accommodate all types of sports, cultural and artistic activities for all age groups and meets universal accessibility standards. Functions such as multi-purpose rooms, a gymnasium, a studio and a main hall can accommodate many types of activities.

6. To understand and respect natural processes and features in development design.

The design of the site and the building takes into account the management of rainwater on the site by integrating a rain garden in the parking lot. As for the building itself, the integration of vegetated roofs allows the retention of rainwater and the reduction of heat islands. The use of white reflective roofs also contributes to reduce overheating on the site.

7. To maximize energy-efficiency and promote sustainable design to reduce the resource consumption, energy use, and carbon footprint of the built environment.

The new MIFO aims to be a green and inclusive community building. In this sense, it aims to meet the requirements of the Zero Carbon Building - Design v3 (BCZ-Design) standard. The building is strictly electrically powered, with photovoltaic panels integrated into the façade and a geothermal heating/cooling system.

02. RESPONSE TO CITY DOCUMENTS

2.2 OFFICAL PLAN - SECTION 4.11

BUILDING DESIGN POLICIES :

5 (P.4-53). Compatibility of new buildings with their surroundings (height, setback, transition, materials, windows, etc.)
The form of the building ensures a transition in height with the large green spaces surrounding the site as well as with the schools on either side of the site (maximum 3 floors). The materials and the bold volumetry are in continuity with the architecture of the Garneau Catholic High School, which stands out in the neighbourhood. The main glass façade allows the MIFO to open up to the neighbourhood, while reflecting its immediate natural environment.

6 (P.4-53). Building façades and entrances design.
The main façade of the building is oriented towards and parallel to Carrière Street. This façade is mostly glazed to expose the interior activities and its architectural elements (architectural staircase in the main entrance). The entrance is marked by a cantilevered volume that acts as a signal from the public space.

8 (P.4-53). Servicing, loading dock and mechanical equipments location and design in relation with the public realm.
In order to maintain a safe pedestrian environment, a first drop-off is provided directly in front of the building entrance to reduce the number of pedestrians inside the parking lot. A second drop-off, dedicated to deliveries, is concealed and integrated into the massing at the rear of the building. Most of the utilities and mechanical services are integrated into the interior of the building, or concealed in the backyard. Where they are exterior, visual screens conceal them. Sidewalks around the building allow for safe circulation around the building.

9 (P.4-53). Roof-top mechanical equipment, signage, and amenity spaces.
Most of the mechanical equipment is integrated into the interior of the building. One piece of equipment is located on the lowest roof at the rear of the building near the delivery dock and is integrated into the design with visual screens. Signage is integrated into the building design using the same colors.

MASSING AND SCALE POLICIES :

10 (P.4-54). Massing, scale and neighbourhood building typology.
The project respects the landscape and built context through its dynamic form and landscaping that integrates the natural features of the area. The 3-storey building is in continuity with the neighbouring school by its characteristic volumetry, its height and its setback from the street.

12 & 13 (P.4-54). Building height and massing transitions.
The form of the building provides a transition in height to the large green spaces surrounding the site and to the schools on either side of the site (maximum 3 stories) by adopting a stepped massing. The height of the building gradually decreases from 3 stories to the unbuilt green spaces.

PUBLIC ART POLICIES :

21 (P.4-55). Integration of public art.
The integration of public art on the site is achieved through the presence of the Franco-Ontarian flag which will be relocated on the site as well as the commemorative steles (memorial plaques) which will be reintegrated into the front of the site. These elements represent MIFO's pride in the French language and serve as a commemorative space for the history and founders of MIFO.

03. CONTEXT PLAN

3.1 EXISTING NEIGHBORHOOD CONTEXTUAL ANALYSIS

The project site contains the existing MIFO building which will be demolished. The site is located in an institutional neighborhood that is surrounded by single-family residential neighborhoods. Several pedestrian connections to and from these neighborhoods are provided by the parks located to the north and south of the site. These parks also connect to the schools located to the east and west of MIFO. Bicycle access to the site is also provided through these pedestrian accesses as well as through Carrière Street. The site is accessible by public transit from the two boulevards located at the end of Carrière Street (Belcourt and Orleans Boulevards). Garneau Catholic High School, located to the west of the site, distinguishes the area with its bold architecture. Finally, the site offers views to and from the surrounding green parks and has a relatively flat topography.

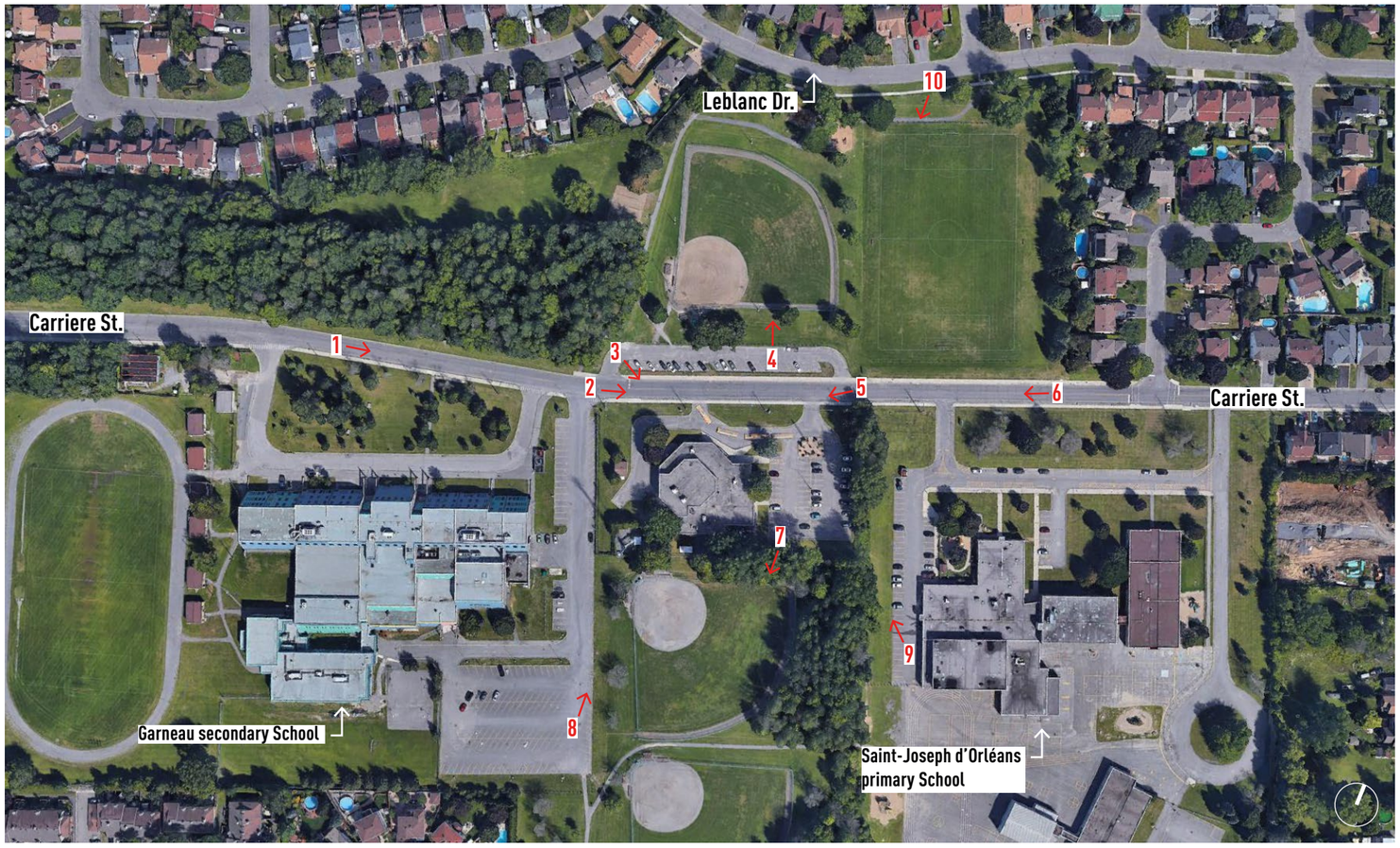
LEGEND :

- TRANSPORT NETWORK - PEDESTRIANS
- TRANSPORT NETWORK - CYCLISTS
- TRANSPORT NETWORK - CARS
- PEDESTRIAN WALKPATH FROM BUS STATION
- BUS TRANSIT STATION
- ARTERIAL BOULEVARD
- RESIDENTIAL USE
- INTITUTIONAL USE
- PUBLIC USE
- PARKS
- GREENFIELDS
- WOODLANDS
- LOT LINES
- VIEWS TOWARD OPEN GREENFIELDS

0 5 10 20 30 50 100 m

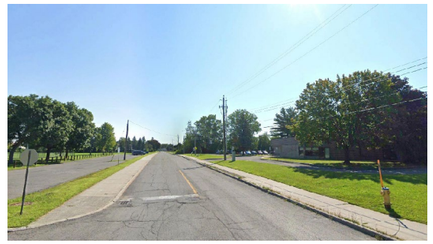
03. CONTEXT PLAN

3.2 EXISTING SITE - PHOTOGRAPHS



0 - Overall view of the site and surroundings

1 - Carriere St. - East side view



2 - Carriere St. - Site arrival (West)

3 - Site view from the parking lot of Carriere Park

4 - View of Carriere Park from Carriere St.

5 - Carriere St. - Site arrival (East)

6 - Carriere St. - West side view

7 - View from site towards Garneau Park

8 - View of the site from the parking lot of Garneau High School

9 - View of the site from the parking lot of Saint-Joseph d'Orléans primary school

10 - View of the site from Leblanc Dr.

SECTION 02 - DESIGN PROPOSAL

01. MASSING AND SCALE

1.1 BUILDING MASSING - AXONOMETRIC VIEW IN CONTEXT

The new MIFO building is at one with its site, in terms of spatial composition and landscape.

It is not a separate building, but one that is open to the neighborhood and accessible to the greatest number. Its attractiveness must allow it to welcome any public without exception, but also to be able to «retain» its users and expand its clientele.

For these reasons, the composition was quickly oriented towards a large active facade on Carriere street and a generous accessible garden to the south.

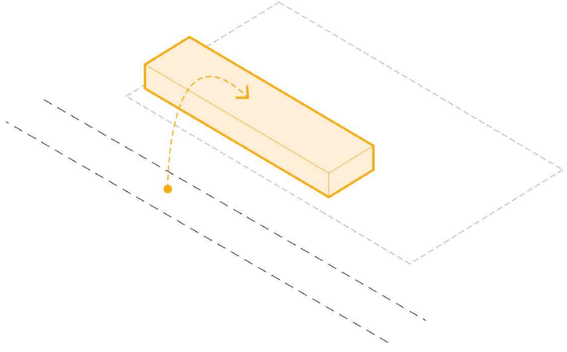
The stepped volumetry energizes the main facade and marks the breakthrough in the building towards the garden that it delimits in its center. It also ensures the landscape continuity of the site by allowing the vegetation to climb up the building.

This stepped volumetry is also applied to the south facing part of the building allowing a smooth transition towards the green fields. As the building goes from 3 storeys to one, it fades away to make way for the vegetated landscape.

Thus, the building fits respectfully into its environment by its scale, its volumetry and its integration of the vegetation.

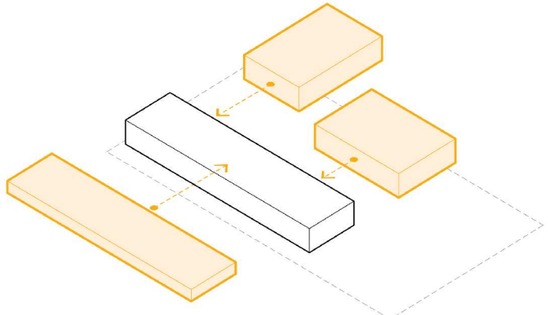
01. MASSING AND SCALE

1.2 BUILDING MASSING - RELATIONSHIP BETWEEN THE BUILDING AND THE SITE



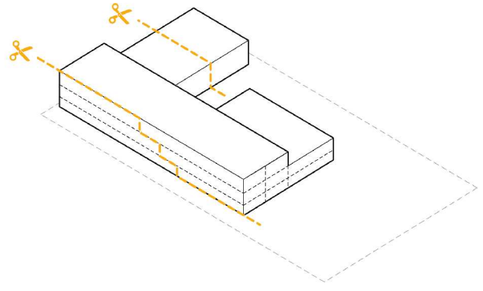
1. Transfer the street to the site to create a «showcase».

The general concept is to provide MIFO with a window on the street in order to externalize and expose their activities to the general public.



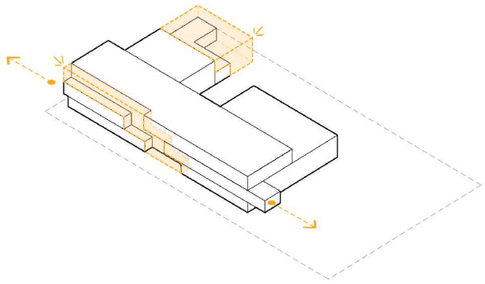
2. Grafting functions to the building's circulation

To this «showcase», which constitutes the main circulation of the building, are grafted the main functional blocks.



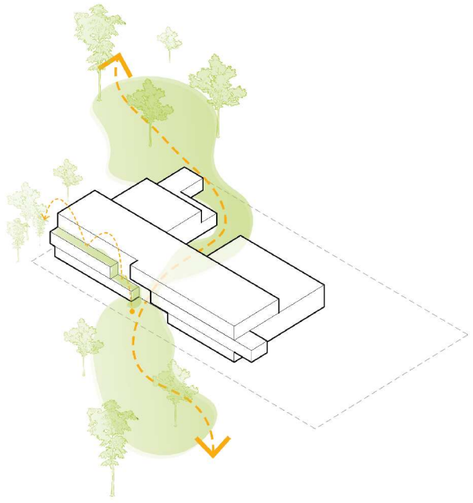
3. Cutting out the volumes/masses

In order to establish connections with the site, the masses are cut out on the main facade and back of the building



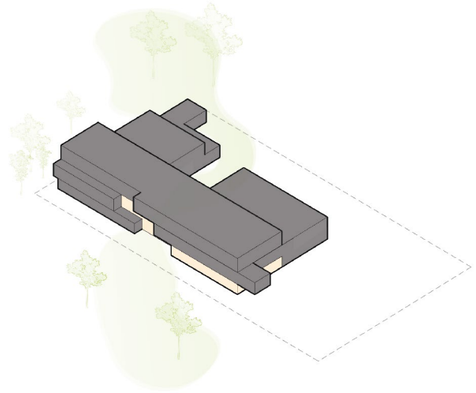
4. Shifting volumes : expression of the «staircase» in the front facade

In the front facade, the blocks slide on either side to open up the volume at its center and establish a connection with the backyard.



5. Ensure landscape continuity

The site and the building establish the connection between the two wooden areas on either side of Carrière Street. Thus, the «staircase» and the openings in the facade ensure the vegetal transition.

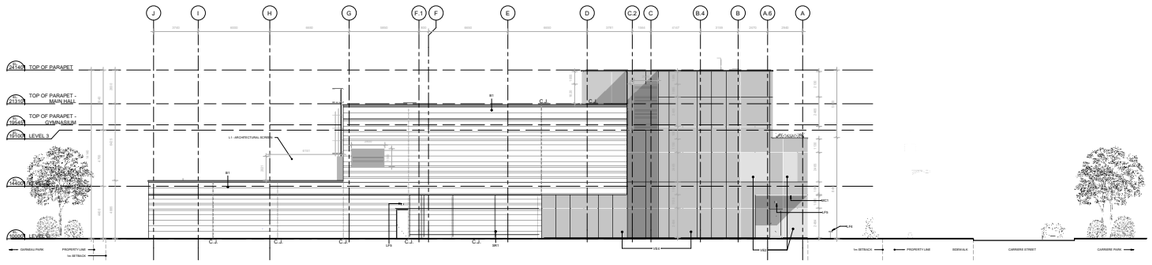


6. Materiality and openings : expression of the masses and the «showcase» area

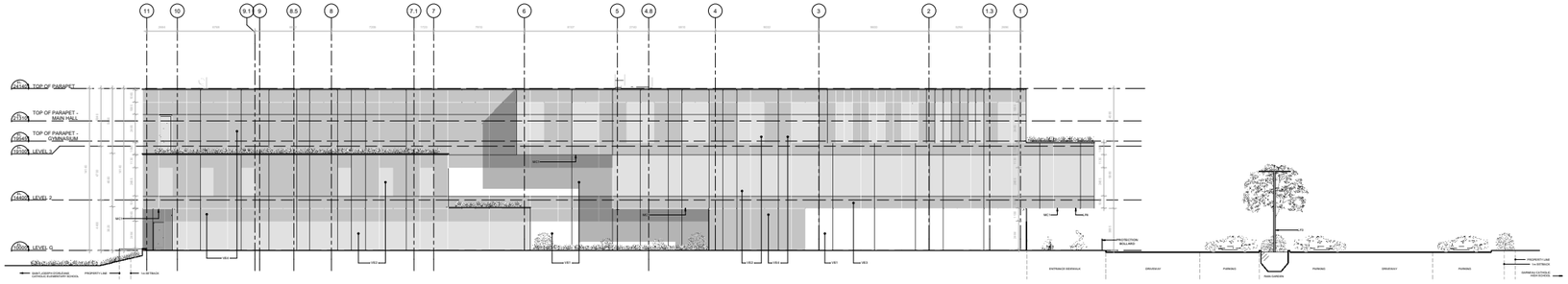
The treatment of materials and openings in large sections allows the expression of the transparent «showcase» and the masses that slide over one another, while allowing the greeneries to shine by contrast with the darker materials.

01. MASSING AND SCALE

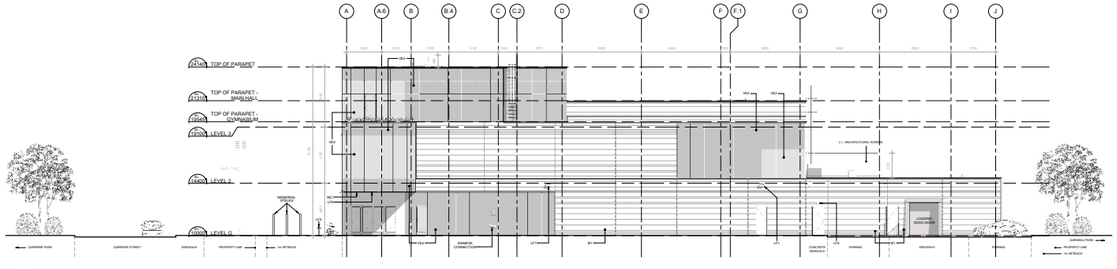
1.3 BUILDING ELEVATIONS



EAST ELEVATION_1:500



NORTH ELEVATION_1:500



WEST ELEVATION_1:500

SOUTH ELEVATION_1:500

MIFO

The MIFO site is part of a 3-storey institutional building framework surrounded by residential buildings of up to 2 storeys and green spaces.

Thus, the building fits respectfully into the built and landscape framework by offering a 3-storey height like the Garneau high school and by reducing this height using a stepped volumetry. The building joins the landscape scale by its cut-out form which allows the integration of green roofs.

The rear yard benefits from a pleasant sunny aspect due to its southern orientation and the elevation of the building which is limited to two floors on its eastern and western limits.

The building's setback from the street provides a safe buffer between automobile traffic and users inside the building

LEGEND :

- B1 - BRICK CLADDING
- VE1 - CLEAR TRIPLE GLAZING
- VE2 - SMOKED TRIPLE GLAZING
- VE3 - OPAQUE BLACK TRIPLE GLAZING
- VE4 - BLACK SPANDREL MONOLITHIC GLASS
- PV1 - BUILDING INTEGRATED PHOTOVOLTAICS
- SR1 - STEEL ROPES + VINES
- MC1 - METAL CLADDING

01. MASSING AND SCALE

1.4 PROJECT PERSPECTIVE - MAIN ENTRANCE

The entrance is marked by an overhang and constitutes the head of the building as a «signal» on the public space, under which a generous forecourt affirms the presence of the pedestrian (drop-off). Vehicles enter briefly in front of the building to go to the parking lot. A multi-purpose room with windows onto the city, occupying the cantilevered space on the second floor, energizes and protects the entrance, inviting the user to stroll through the interior «street» of MIFO.

Black is the color considered to be powerful and strong, and can therefore convey an idea of tenacity, boldness, but also elegance. For more than 37 years MIFO has occupied an efficient, introverted, shy building that met the need of the time. Now the organization has grown in experience, maturity, strength, openness and elegance. Its architecture must be extroverted, daring, which, while continuing to respond to current needs, exudes a strength linked to its convictions.

01. MASSING AND SCALE

1.5 PROJECT PERSPECTIVE - SECONDARY ENTRANCE AND MAIN HALL

The main façade on the street is an active service facade. The arrangements of volumes in levels clinging to each other provide transparency and views on the staggered planted spaces. The recesses allow to multiply the opportunities of exchanges on the thresholds of the stairs for example and a new perception of the building at each crossing. The movements constitute soft limits between the interior and the exterior, transitions towards the great landscape.

1.6 PROJECT PERSPECTIVE - PARKING AREA AND GYMNASIUM

An arrangement of extrusions, recesses and large openings build a rich and dynamic volume. The contrast between the smooth and rough materials allows for the expression of the concept of functions «connected» to the interior street («showcase»), while maintaining continuity in the treatment of the openings in large sections.

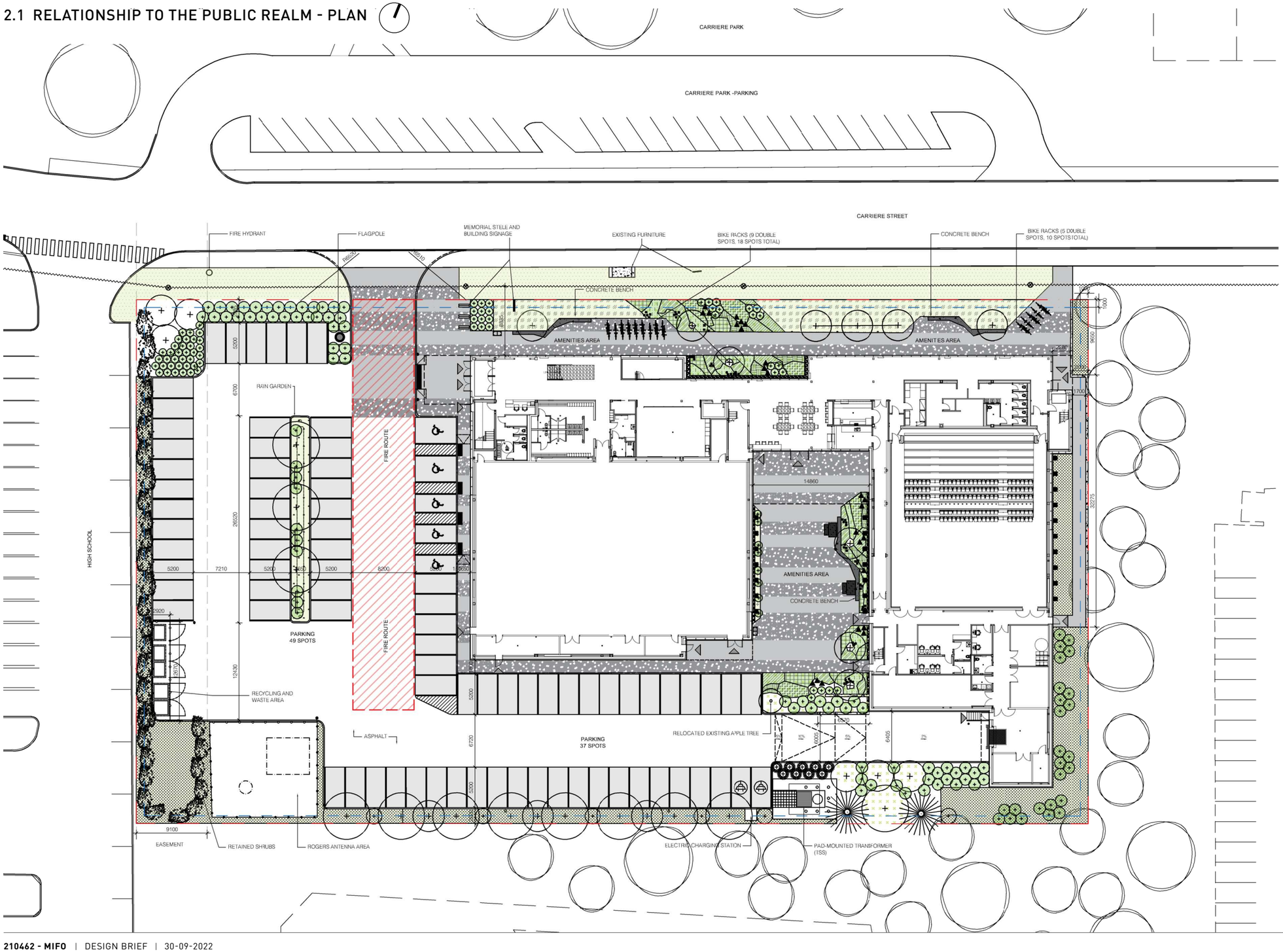
01. MASSING AND SCALE

1.7 PROJECT PERSPECTIVE - GARDEN AREA

Key element of the project, the garden enclosure provides the MIFO community with a protected and friendly space. Connected directly to the interior functions, it acts as an extension of the program into which the activities of the gym, foyer, studio and café can extend to take advantage of the outdoor space.

02. PUBLIC REALM

2.1 RELATIONSHIP TO THE PUBLIC REALM - PLAN



LÉGENDE / LEGEND

- LOT LINE
- SETBACK (1m)
- FIRE ROUTE
- PERRENIALS MIX
  - *Echinacea purpera*
  - *Deschampsia cespisota*
- Sporobulus heterolepis
- *Carex appalachica*
- *Tiarella cordifolia*
- *Trilium grandiflorum*
- *Cornus Canadensis*
- *Verbena stricta*
- *Penstemon hirsutuss*
- *Symphyotrichum cordiiolium*
- *Climbing plant*
- GRASS
- MIX OF PERENNIALS AND SHRUBS
- MIX SOD
- SEEDING
- RAIN GARDEN
- EXPOSED AGGREGATE PORED CONCRETE
- CAST CONCRETE
- REUSED CONCRETE CLADDING
- STONE SCREENING
- PARKING TERMOPLASTIC MATERIAL
- DETECTABLE WARNING PLATES
- PRECAST CONCRETE RETAINING WALL
- CONCRETE BENCH
- PICNIC TABLE
- FLAG POLE
- PROTECTION BOLLARD
- MEMORIAL PLAQUE
- EXISTING ELECTRIC POLE
- LAMP POST
- LIGHTING BOLLARD
- WASTE AND RECYCLING
- FENCE/SCREEN WASTE AND RECYCLING AREA
- BIKE RACK (14X2)
- EXISTING TREES
- EXISTING SHRUBS
- DECIDUOUS TREES
- EVERGREEN TREES
- SHRUBS

2.2 RELATIONSHIP TO THE PUBLIC REALM - AERIAL PERSPECTIVE

Following the city's requirements (section 4.11), the objectives of the MIFO's functional program as well as the architectural concept, the main façade is oriented towards the north, towards Carrière Street. Although this orientation implies that a major part of the openings are to the north, it responds to the constraints of the development of the site, to the requirements in terms of views on the surrounding green spaces (biophilic relationship), to the visibility of the interior activities from the public road, to the demands of indirect solar gain as well as to the image of openness and transparency that the MIFO community wishes to project.

The building program also motivated this choice. Indeed, the large opaque volumes formed by the gymnasium, the auditorium and the backstage area as well as the loading dock offer blind facades that are less suitable for dialogue with the public realm and for the visibility of the interior activities. This is why these volumes are found at the rear of the site and are used to create a protected garden oriented to the south.

Finally, the materials used contribute to activate the public realm, to dialogue with the neighborhood and to integrate the building into the landscape. The materiality of transparent, smoked and black glass on the main volume exposes the interior activities to the public space and allows to reflect the landscape and the animation of the park that faces the site.

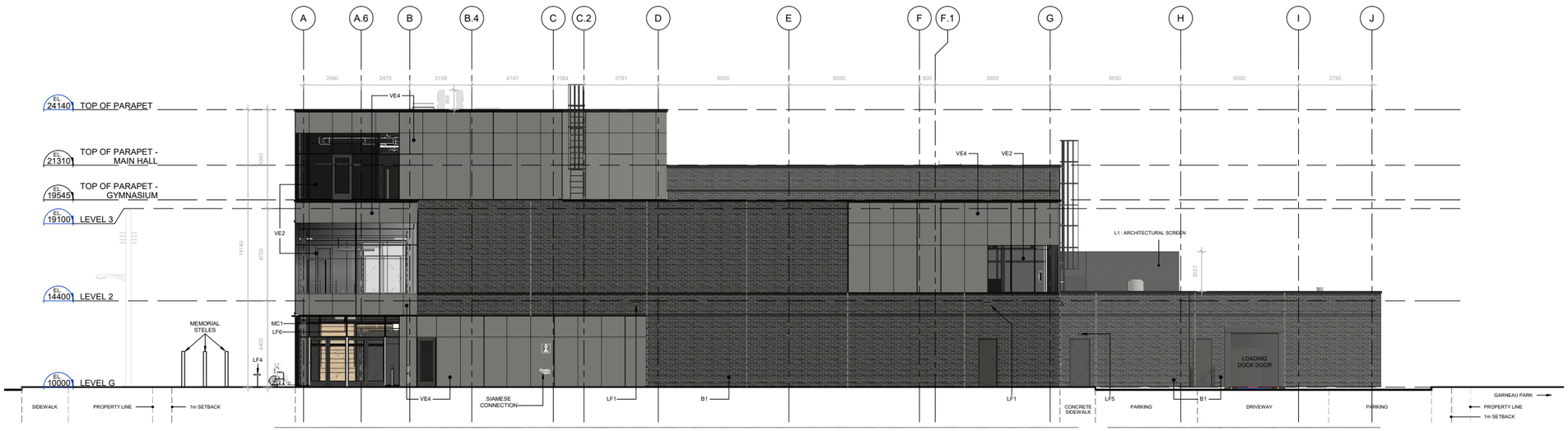
The first floor is organized along a large «street» allowing multiple modes of access to the different functions. A large central visual breakthrough opens views to the garden to the south offering a landscape continuity between the wooded area of Carrière Park and the Garneau Parks' one.

On the main façade, the interior circulation is related to the exterior walkway along the building. This promenade provides amenity areas and waiting areas to the public.

The café and bar, at the center of the building, benefit from a large table area and direct access to the exterior on the garden side.

The Franco-Ontarian flag and the MIFO memorial plaques act as an art installation representing MIFO's sense of ownership and pride in the Franco-Ontarian community.

3.1 BUILDING ELEVATION - WEST_1:250



3.2 BUILDING ELEVATION - NORTH_1:250

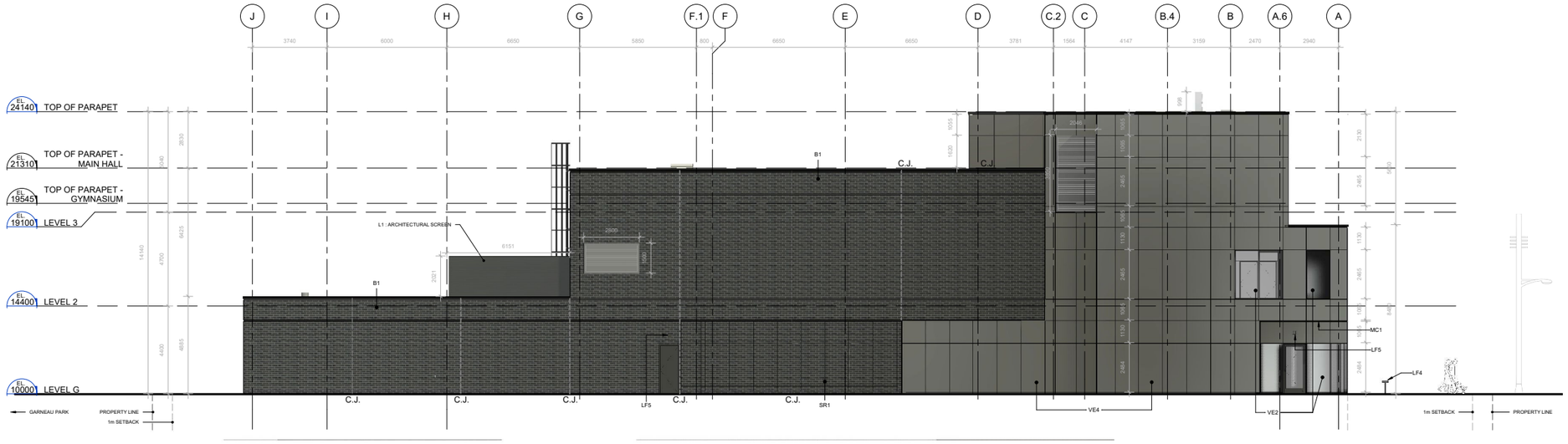
The architectural envelope of the building is made up of two constructive systems : a curtain wall with a steel structure and a brick masonry wall with metallic grey reflections that play with the light in iridescent effects depending on the time of day and the position of the observer.

The curtain wall system is expressed in three forms (clear, smoked (grey) and opaque) to adapt to various spaces. The clear and smoked parts consist of triple glazing and the opaque parts are regular insulated wall with an exterior facing mimicking the aspect of black glass.

Thus, the contrast between the smooth/reflective and the rough, the glass and the brick, enriches the perception of the volumes and the catch of the light is varied. The whole is organized in a research of weighting of the masses, of balance and smoothness.

The black and glossy materiality of the volume exposed to Carriere Street reflects the natural components of the landscape, amplifies the public space features and provides an interaction between the building and the movement of passers-by reflected on it.

3.3 BUILDING ELEVATION - EAST_1:250



LEGEND :

- B1 - BRICK CLADDING
- VE1 - CLEAR TRIPLE GLAZING
- VE2 - SMOKED TRIPLE GLAZING
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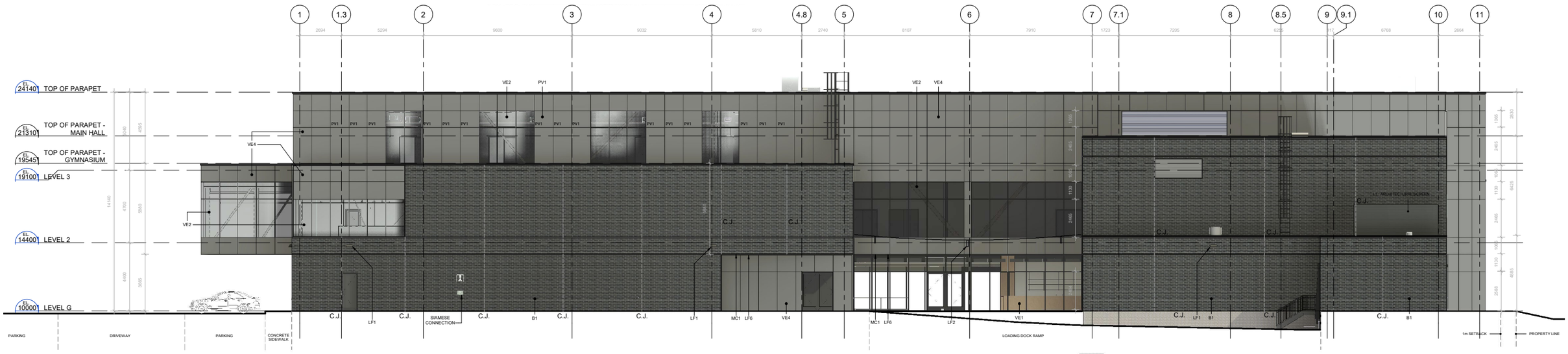
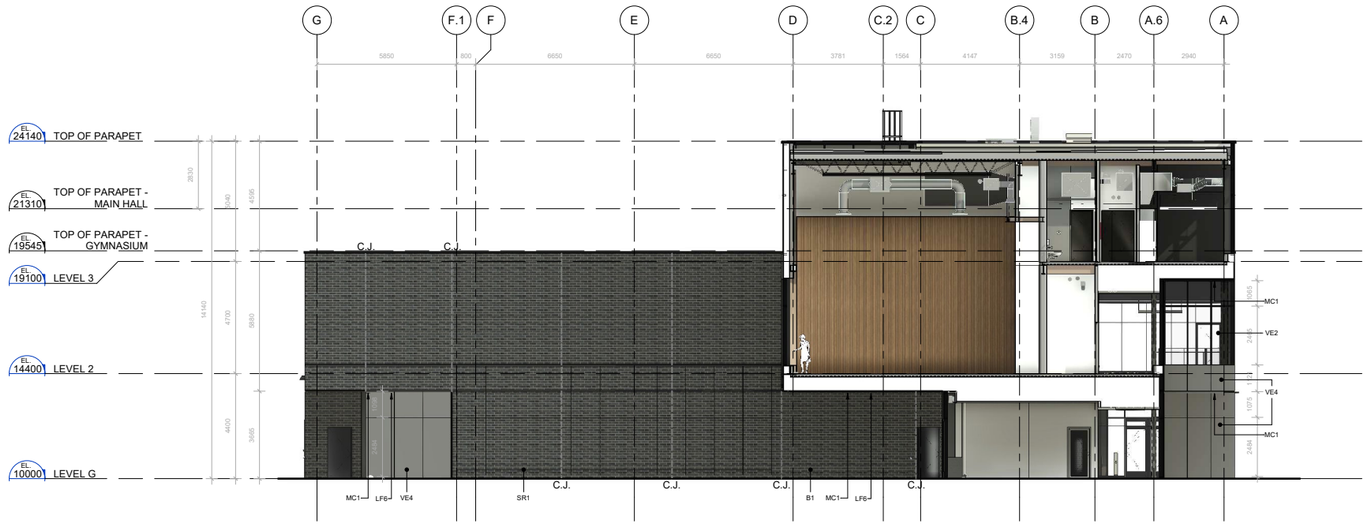
- SR1 - STEEL ROPES + VINES
- MC1 - METAL CLADDING

3.4 BUILDING ELEVATION - SOUTH_1:250

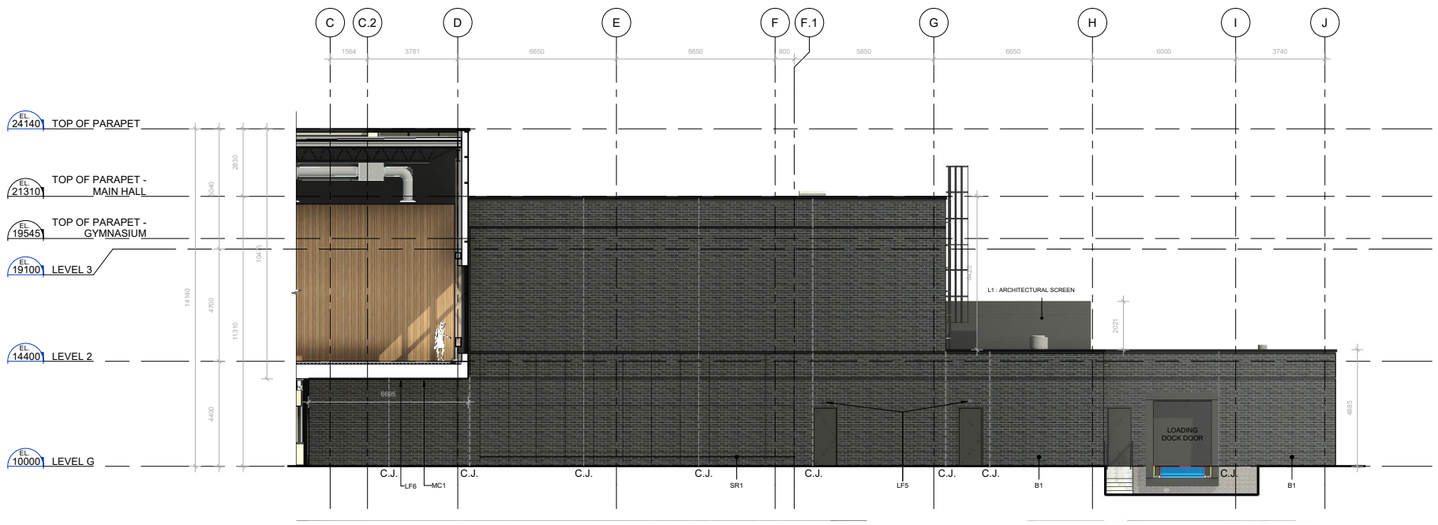


03. BUILDING DESIGN

3.4.1 BUILDING ELEVATION - GARDEN EAST_1:250



3.4.2 BUILDING ELEVATION - GARDEN WEST_1:250



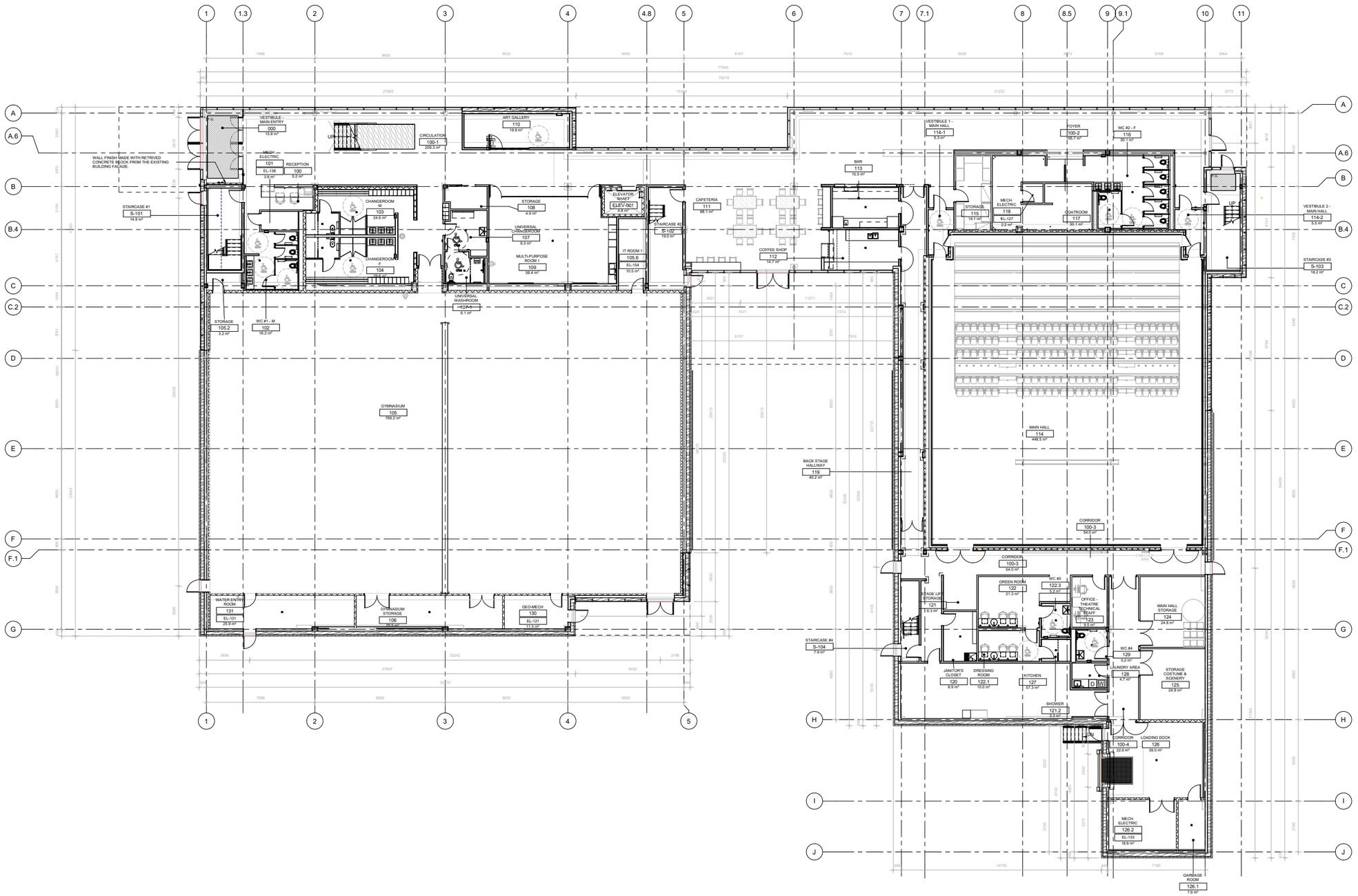
LEGEND :

- B1 - BRICK CLADDING
- VE1 - CLEAR TRIPLE GLAZING
- VE2 - SMOKED TRIPLE GLAZING
- VE3 - OPAQUE BLACK TRIPLE GLAZING
- VE4 - BLACK SPANDREL MONOLITHIC GLASS
- PV1 - BUILDING INTEGRATED PHOTOVOLTAICS
- SR1 - STEEL ROPES + VINES
- MC1 - METAL CLADDING

The rear courtyard (garden) created by the volumes of the gymnasium and the main hall is overlooked by the studio. Stainless steel cables (SR1) clad the facades allowing the vegetation (vines) to climb and integrate with the building, creating a warm and welcoming place for the Franco-Ontarian community. Catenary lights create a canopy of light over the garden.

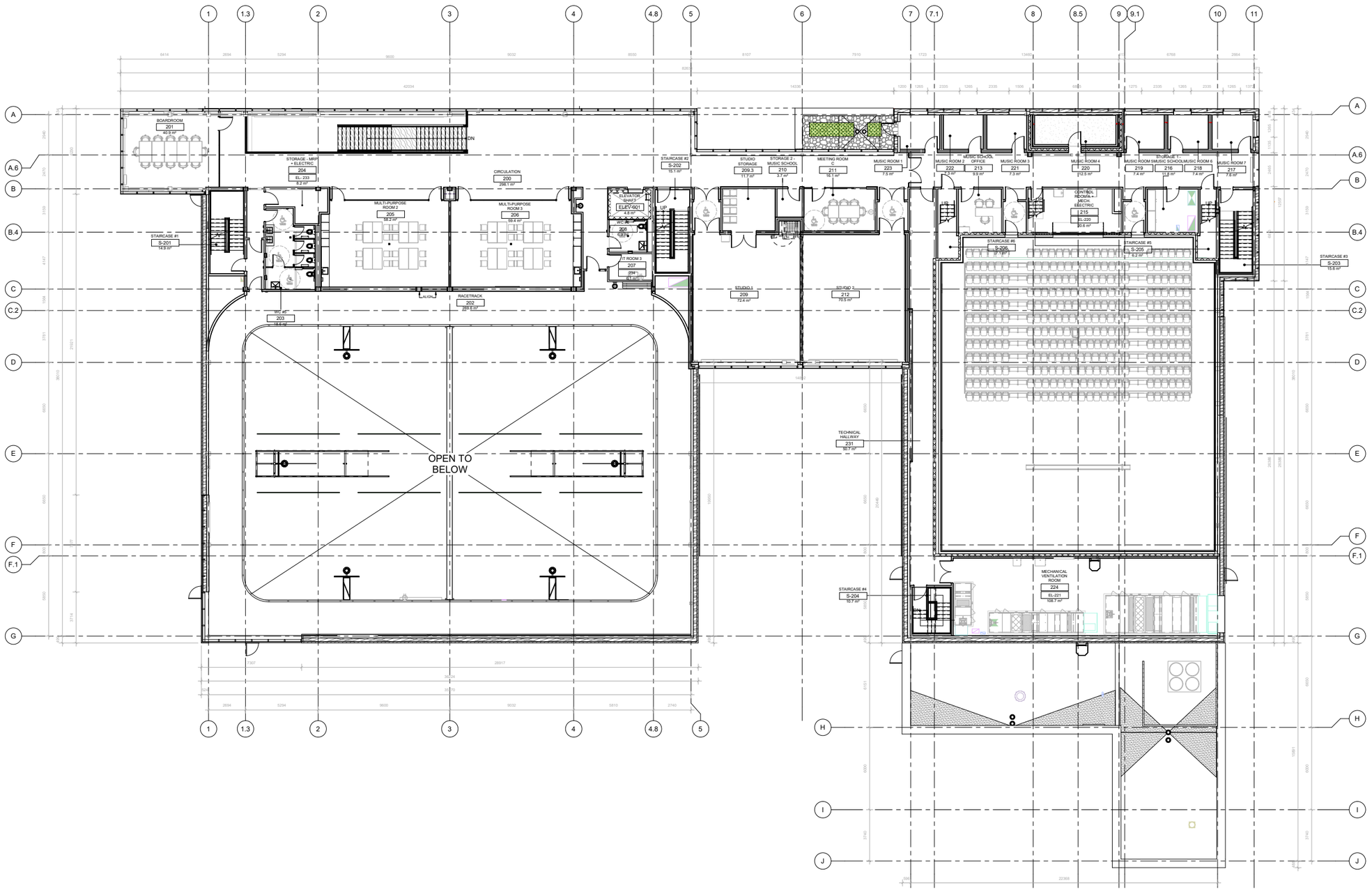
03. BUILDING DESIGN

3.5 BUILDING PLAN - GROUND FLOOR_1:300



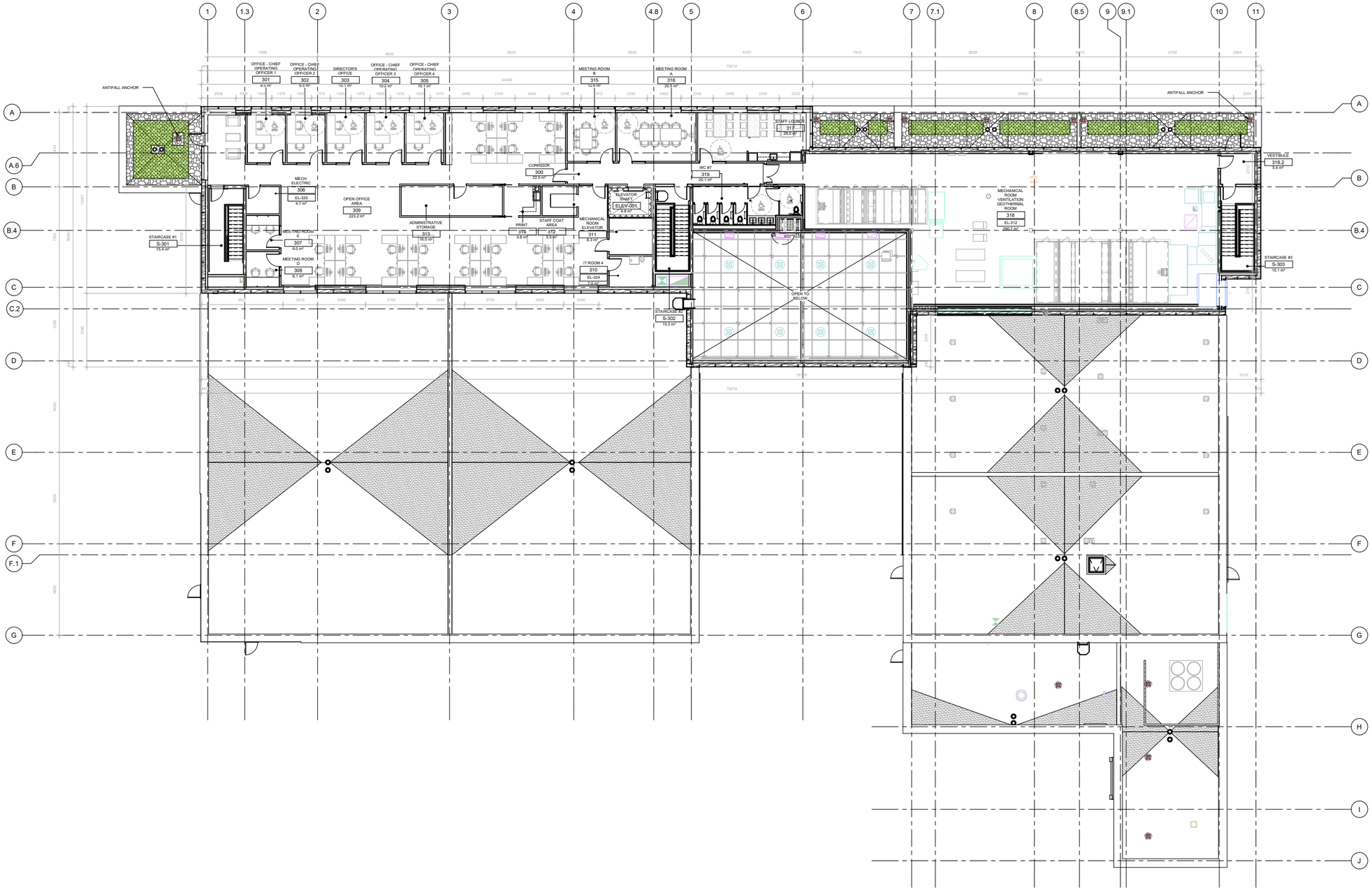
The first floor is organized along a circulation to which are grafted the sports (gymnasium) and artistic (main hall) functional blocks. These two functions are separated by a cafeteria space which is in direct relation with the garden. At the entrance, an architectural staircase is visible from the public space and offers a seatted spot under it.

3.6 BUILDING PLAN - LEVEL 2_1:300



The second floor opens onto the main entrance of the building and features an architectural staircase in a double-height space. Cantilevered over the entrance, the second floor houses the executive room that signals the building's entrance. Near the main staircase are two glass-walled multi-purpose rooms and the access to the running track in the gymnasium. The cantilevered studio over the garden at the rear of the building transitions to the main hall and music school, separating the arts uses from the sports and community uses.

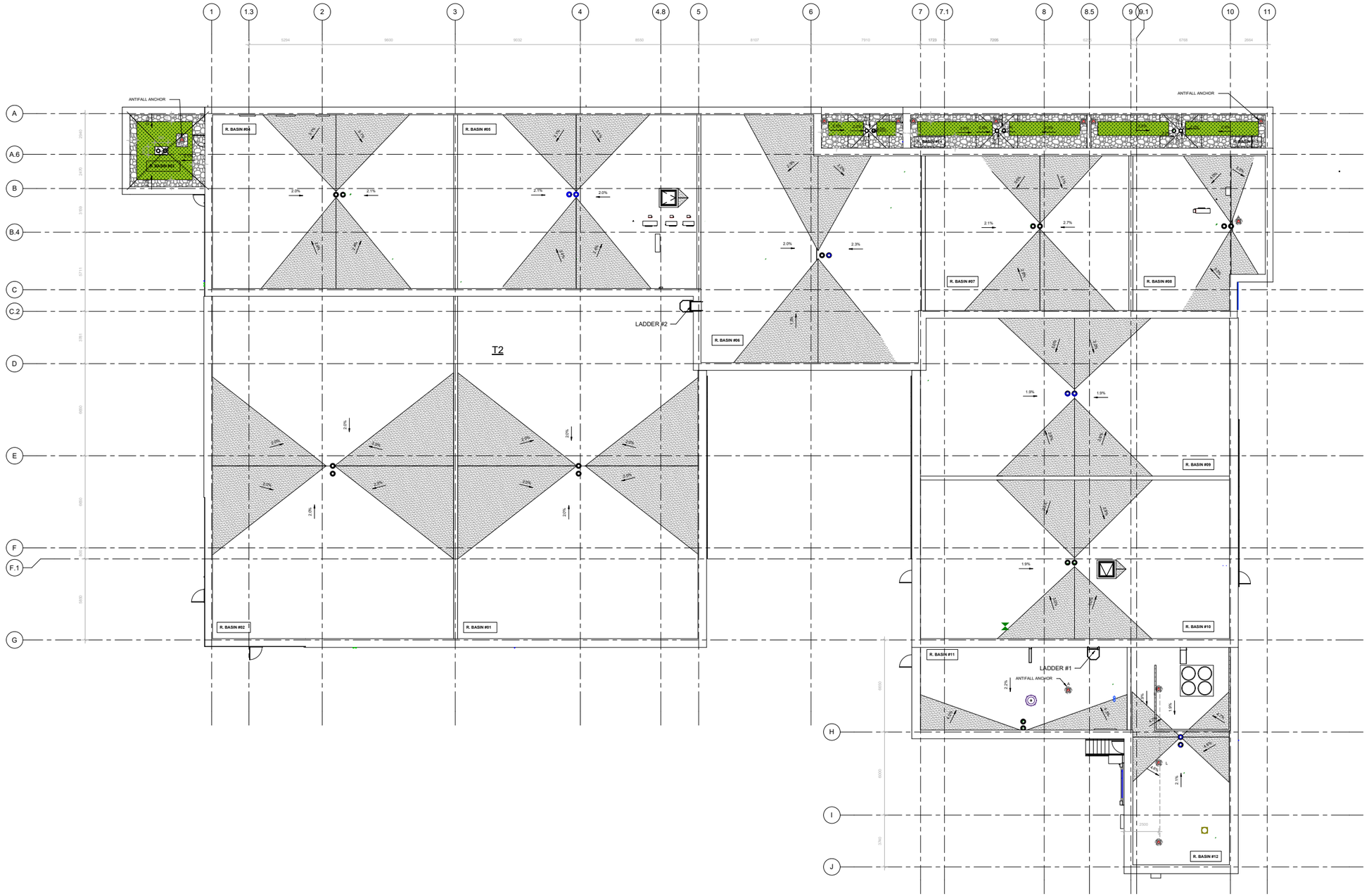
3.7 BUILDING PLAN - LEVEL 3_1:300



The 3rd floor houses the MIFO administrative offices and the building's main mechanical room. Some of the meeting rooms are separated from the offices so that they are accessible to the public.

03. BUILDING DESIGN

3.8 BUILDING PLAN - ROOF_1:300

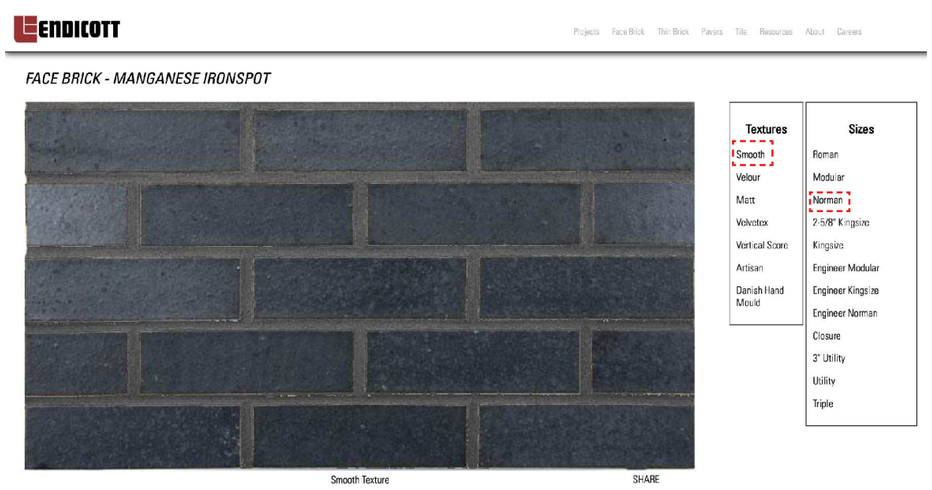


Roofs have lifeline anchors in areas that require maintenance near the perimeter and green roofs are accessible from inside the building for maintenance. Mechanical equipment that are visible from the public space are concealed with architectural louver screens.

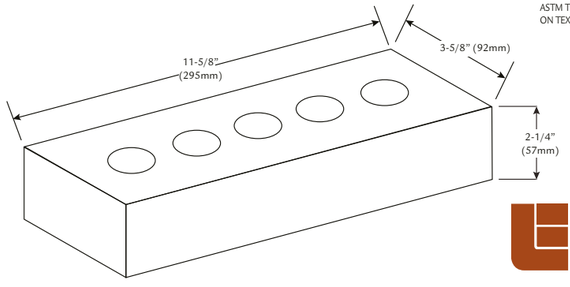
3.9 AERIAL PERSPECTIVE - MATERIALITY AND INTEGRATION TO SITE

3.10 MATERIALITY AND FACADE SYSTEMS

B1
ENDICOTT BRICK
COLOR : MANGANESE IRONSPOT
FINISH : SMOOTH
SIZE : NORMAN



NORMAN BRICK

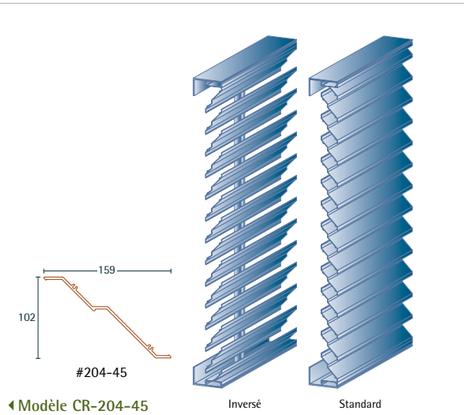


NOT ALL PRODUCTS ARE AVAILABLE IN ALL COLORS AND/OR SIZE. PLEASE CONTACT ENDICOTT FOR AVAILABILITY.

ENDICOTT MODULAR BRICKS CONFORM TO ASTM C216 SPECIFICATIONS. ASTM TYPE AND GRADE ARE DEPENDENT ON TEXTURE AND OTHER FACTORS.

ENDICOTT™

L1
LOUVERS AND SCREENS TO HIDE MECHANICAL EQUIPMENTS ON THE ROOF
COLOR : BLACK



Modèle CR-204-45
Lames : #204-45
Cadres : #4U

Notes : Les lames peuvent être inversées afin de créer un effet visuel différent. Portes d'accès sont aussi disponibles.

3.10 MATERIALITY AND FACADE SYSTEMS

RM1
ROOF MEMBRANE
TYPE : SOPRASTAR GR
SOPRASTAR GR IS A HIGH PERFORMANCE CAP SHEET MEMBRANE COMPOSED OF SBS MODIFIED BITUMEN AND A COMPOSITE REINFORCEMENT. THE SURFACE IS PROTECTED BY **HIGH REFLECTIVE WHITE GRANULES**.

Formerly known as SOPRASTAR HD GR & HD FR GR

SOPRASTAR
GR (FR GR)

TECHNICAL DATA SHEET 210705SCANE (supersedes 200903SCANE)

WATERPROOFING

APPLICATIONS
ROOFS

DESCRIPTION

SOPRASTAR GR is a high performance cap sheet membrane composed of SBS modified bitumen and a composite reinforcement. The surface is protected by high reflective white granules and the underface is sanded.

Fire rated (FR) cap sheet membrane (**SOPRASTAR FR GR**) is available to increase fire resistance. This membrane allows the roofing system to meet the requirements of the CAN/ULC-S107 Class A standard.

INSTALLATION

ADHESIVE
SOPRASTAR GR and **SOPRASTAR FR GR** are unrolled on the adhesive previously applied using a notched squeegee.

Once the membrane is in place, apply pressure over the whole surface using a membrane roller to ensure a complete and uniform adhesion.

Apply adhesive on the first 100 to 125 mm (4 to 5 in) of the end laps with a notched trowel. Complete the installation by welding the last 25 to 50 mm (1 to 2 in) of the end laps, using an electric hot-air welder and a membrane roller.

Welding must also be done on all side laps. The use of **SOPRAMATIC** automatic hot-air welder will increase the speed and quality of the seal.

SEBS HOT BITUMEN
SOPRASTAR GR and **SOPRASTAR FR GR** are unrolled in a bed of SEBS hot bitumen (**SOPRASPHALTE M**) applied with a mop.

LEED® SOLUTION

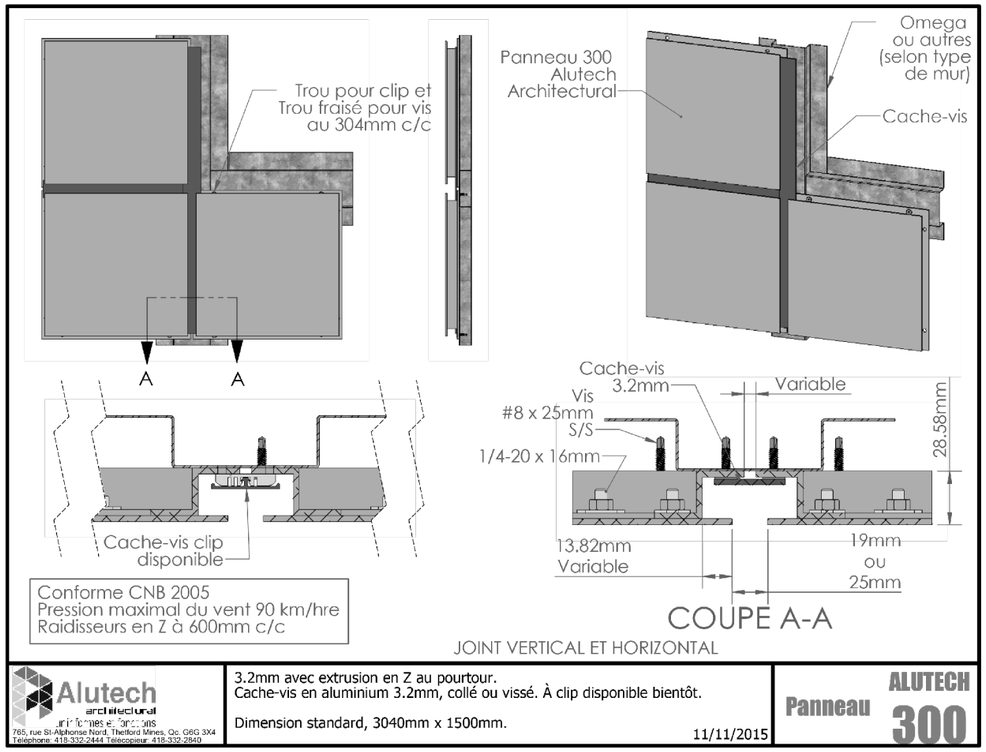
SOPRASTAR GR & **SOPRASTAR FR GR** have a SRI of 90 which meets the requirements of the Sustainable Sites LEED® Credit on Heat Island Reduction.

FOR COMPLETE INFORMATION ON PRODUCT INSTALLATION, PLEASE CONSULT YOUR SOPREMA REPRESENTATIVE.

PACKAGING

Specifications	SOPRASTAR GR & SOPRASTAR FR GR
Thickness	3,5 mm (138 mils)
Reinforcement	Composite
Dimensions	8 x 1 m (26 x 3,3 ft)
Weight	4,6 kg/m² (1,0 lb/ft²)
Selvedge width	100 mm (4 in)
Surface	High reflective white granules
Underface	Sanded

MC1
METAL CLADDING
SOFFIT
COLOR : BLACK RAL 9005



VE1
CLEAR TRIPLE GLAZING

PRELCO

OUTDOORS

Lite	6mm SuperNeutral 68 on Clear tempered pos. #2 Thickness = 1/4"= 6 mm	#1 ----- #2 SunGuard® SuperNeutral 68
Gap	13.5mm R-Max Bk/Argon Thickness = 0.531" =13.5 mm	
Lite	6mm SuperNeutral 68 on Clear tempered pos. #4 Thickness = 1/4"= 6 mm	#3 ----- #4 SunGuard® SuperNeutral 68
Gap	13.5mm R-Max Bk/Argon Thickness = 0.531" =13.5 mm	
Lite	6mm Clear tempered Thickness = 1/4"= 6 mm	#5 ----- #6 -----

INDOORS

Visible Light			Solar Energy		Ultraviolet	Winter	Summer				
	% Reflectance										
% Transmittance	In	Out	% Transmittance	% Reflect out	% Transmittance	U-Value Btu/hr-ft²-F	U-Value Btu/hr-ft²-F	SC	SHGC	RHG Btu/hr-ft²	LSG
51.1	14.3	12.2	21.1	33.1	14.4	0.12	0.12	0.33	0.29	69.0	1.76

VE2 & VE3
VE2 : GREY/SMOKED TRIPLE GLAZING (GREY, CLEAR, CLEAR)
VE3 : GREY/OPAQUE TRIPLE GLAZING (GREY, CLEAR, CLEAR WITH BLACK CERAMIC COATING)

PRELCO

OUTDOORS

Lite	6mm SuperGrey™ tempered Thickness = 1/4"= 6 mm	#1 ----- #2 -----
Gap	13.5mm R-Max Bk/Argon Thickness = 0.531" =13.5 mm	
Lite	6mm SuperNeutral 68 on Clear tempered pos. #3 Thickness = 1/4"= 6 mm	#3 SunGuard® SuperNeutral 68 #4 -----
Gap	13.5mm R-Max Bk/Argon Thickness = 0.531" =13.5 mm	
Lite	6mm SuperNeutral 68 on Clear tempered pos. #5 Thickness = 1/4"= 6 mm	#5 SunGuard® SuperNeutral 68 #6 -----

INDOORS

Visible Light			Solar Energy		Ultraviolet	Winter	Summer				
	% Reflectance										
% Transmittance	In	Out	% Transmittance	% Reflect out	% Transmittance	U-Value Btu/hr-ft²-F	U-Value Btu/hr-ft²-F	SC	SHGC	RHG Btu/hr-ft²	LSG
4.9	10.8	4.0	2.1	4.1	0.4	0.12	0.12	0.08	0.07	18.0	0.70

VE4 (MF)
BLACK SPANDREL GLASS - OPAQUE WALL - MONOLITHIC GLASS

SPANDREL GLASS

GENERAL INFORMATION

INTRODUCTION

Spandrel glass panels are opaque and generally used in the non-vision areas of curtain walls. These types of glass panels are placed between the vision areas and are used to mask the materials or construction that could be seen from the exterior of the building. Spandrel glass is available as monolithic glass, laminated glass or insulating glass units covered with an opaque coating. Depending on the colours used, spandrel glass can harmonize or contrast with the glass in the vision areas.

THERMAL TREATMENT OF GLASS

Monolithic spandrel glass is generally heat-strengthened to make it more resistant to the wind loads and high temperatures normally present in non-vision areas of curtain walls. If breakage occurs, the heat-strengthened glass will break into large sections similar to annealed glass. Heat-strengthened glass is twice as impact resistant as annealed glass of the same thickness, but it cannot be considered as a safety glass.

Tempered glass is usually recommended for more hazardous areas. It is high temperature resistant and is four times as impact resistant as annealed glass of the same thickness. If breakage occurs, fully tempered glass breaks securely in small and dull fragments, thus ensuring public safety. Fully tempered glass meets safety glazing standards.

HARMONIZING GLASS SECTIONS

Usually, vision areas of a curtain wall are made of double insulating glass units, while the panels in non-vision areas are made of monolithic glass. To achieve visual uniformity between the vision and non-vision areas, it is best to use glass with a low percentage of visible light transmission (VLT) in both areas. For instance, vision glass units could either be constructed with an exterior tinted glass ply or of certain types of reflective glass with pyrolithic coating on surface 2. For the spandrel glass, the same type of glass could be used with the opaque coating on surface 2. This will create a more uniformed look between the vision and the non-vision areas of the curtain wall.

If a medium to high VLT percentage glass is preferred, you can attain a uniformed look by using insulating spandrel units. The opaque coating is then applied on surface 4 of the insulating unit. This adds depth to the spandrel glass and attenuates the differences in opacity between the vision and non-vision areas. In insulating spandrel units, the inner glass must be tempered at all times.

DESCRIPTION

Ceramic frit coating is applied to the glass using a horizontal roller-coater and then heated in an oven at approximately 1150 °F (621 °C). Once this treatment is complete, the ceramic frit fuses to the surface of the glass. Ceramic frit is extremely durable and resists to cracks, scratches, discoloration and harsh chemicals. It should be noted that Prelco uses lead-free ceramic frit respectful of people and environmentally friendly.

AVAILABLE COLOURS

Prelco offers various standard colours and a large selection of non-standard colours. Non-standard colours are matched to samples provided by the specifier.

Exact colours can vary from the one illustrated below. Always proceed to the evaluation of a sample placed in its final environment. Please contact us to receive exact colour samples.

Light colours may require two applications of ceramic frit coating in order to obtain the desired level of opacity. Please contact us for more details.

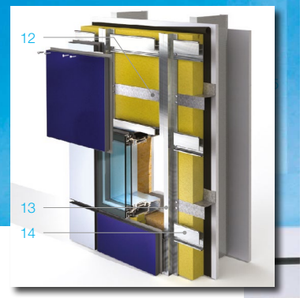
03. BUILDING DESIGN

3.10 MATERIALITY AND FACADE SYSTEMS

ES1
ENVELOPE SYSTEM + CURTAIN WALL
V1 + V2 + V3

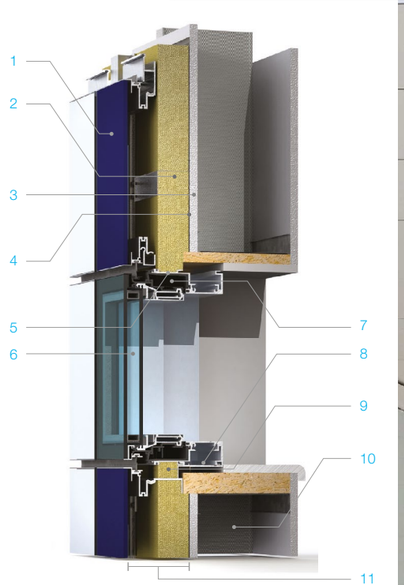
THE STEKAR MULTIFAÇADES™ SYSTEM

MULTI-MATERIAL FACING SYSTEM
PATENTED - UNIQUE TO STEKAR
Enables the installation of glass or concrete panels, aluminum, and/or other materials on a single surface with an impeccable and perfectly rectilinear finish.



System description

1. Stekar Multifaçades™ prefabricated panel for multiple facing
2. Semi-rigid insulation
3. Support panel
4. Air & vapor barrier membrane
5. Membrane flashing
6. Stekar Multifaçades® SM-160 window panels, fixed, or operational
7. Window air pressure equilibrium chamber
8. Anchoring window seat
9. Sprayed urethane
10. Facade framework
11. Air pressure equilibrium chamber
12. Galvanized steel Z-Bar
13. Vertical aluminum rail
14. Horizontal aluminum rail



2 PATENT NO. 2.261.224 AND 2.261.208

ADVANTAGES OF THE MULTIFAÇADES™ SYSTEM

- Ideal for small and medium-scale projects
- Simplifies the integration of a wide variety of materials on a single facade
- Exceeds strictest requirements for air and water tightness
- Provides a high-end curtain wall appearance with the same thermal performance of a conventional envelope design
- Ideal for the renovation of existing facades, installs over any type of wall
- Fenestration of large, frameless, fixed or awning windows up to 35 ft²
- Improved acoustic control
- Reduced maintenance costs
- Satisfies criteria to earn LEED certification points

A WIDE RANGE OF FINISHES
Can be mounted on a single support system

- Wood
- Aluminum
- Glass
- Concrete panels
- Other finishes available

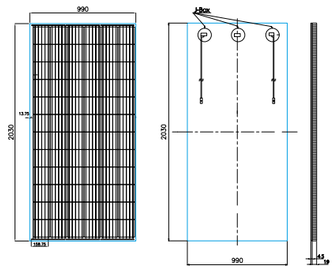
4

PV1
BUILDING INTEGRATED PHOTOVOLTAICS (BIPV)

MITREX
BUILDING-INTEGRATED SOLAR TECHNOLOGY

SOLAR CLADDING
Orbit Facing
High Efficiency Mono Module
360W
1000V

ENGINEERING DRAWING (mm)



ELECTRICAL DATA | STC*

SPECIFICATIONS	SOLAR CLADDING ORBIT
Nominal Max. Power (Pmax)	360W
MPP Operating Voltage (Vmp)	42 V
MPP Operating Current (Imp)	8.57A
Open Circuit Voltage (Voc)	48.8V
Short Circuit Current (Isc)	9.35A
Cell Efficiency	22% - 22.5%
Operating Temperature	-40°C ~ +85°C
Max. System Voltage	1000V (IEC/UL)
Max. Series Fuse Rating	20A
Application Classification	Class A

* Under Standard Test Conditions (STC) of irradiance of 1000 W/m2, spectrum AM 1.5 and cell temperature of 25°C.

MECHANICAL DATA

SPECIFICATIONS	SOLAR CLADDING ORBIT
Cell Type	Mono-crystalline
Cell Arrangement	72 (12x6)
Dimensions	2030x990mm
Front Cover	7 mm tempered glass
Weigh t	29kg
Back Support	N/A
J-Box	IP68, 3 bypass diodes
Cable	4mm ², 12 AWG (UL)
Cable Length (Including Connector)	500mm, 1000mm, 1200mm
Connector	MC4

TEMPERATURE CHARACTERISTICS

SPECIFICATIONS	SOLAR CLADDING ORBIT
Temperature Coefficient Pmax	-0.36% / °C
Temperature Coefficient Voc	-0.30% / °C
Temperature Coefficient Isc	0.046% / °C
Nominal Module Operating Temperature	42 ± 3 °C

Learn More:
mitrex.com
info@mitrex.com

Headquarters:
41 Racine Rd., Toronto, ON M9W 2Z4, Canada
+1 (416) 497 7120

West USA Location:
10880 Wilshire Blvd Suite 1101, Los Angeles, CA 90024, USA
+1 (323) 301 7978

East USA Location:
1 Rockefeller Plaza Fl 11, New York, NY 10020, USA
+1 (646) 583 4486

LF1
EXTERIOR LIGHTING FIXTURES : WALL PACK
COLOR : BLACK

GARDCO by Signify

Wall Mount

LED Wall Sconce

101L

Gardco 101 LED wall sconces feature a low-profile design that provides wide flexibility in high performance exterior wall illumination. Full cutoff performance, usable illumination patterns, and powerful wattages combine into a compact and architecturally pleasing design. 101L sconces are available in Type 2, 3, and 4 distributions, and provide output of up to 12,000 lumens. Energy saving control options increase energy savings and offer California Title 24 compliance. Emergency Battery Backup option available for path of egress.

Project:
Location:
Cat.No:
Type:
Lamps: Qty:
Notes:

Ordering guide example: 101L-32L-700-NW-G2-3-120-BL-IMRI2-BZ

Prefix	Number of LEDs	Drive Current	LED Color – Generation	Distribution	Emergency	Voltage
101L	16L	200 200mA 400 400mA 530 530mA 700 700mA 1000 1000mA 1200 1200mA	CW-G2 Cool White 5000K, 70 CRI Generation 2 NW-G2 Neutral White 4000K, 70 CRI Generation 2 WW-G2 Warm White 3000K, 70 CRI Generation 2 WY-G2 Warm Yellow 2700K, 80 CRI Generation 2[2] BW-G2 Balanced White 3500K 80CRI Generation 2[2] AM-G2 Direct Amber (590nm) Generation 2[2]	2 Type 2 3 Type 3 4 Type 4	EBPC Emergency Battery Pack Cold Weather[1,3,13] Leave blank to omit an emergency option	UNV 120–277V HVU 347–480V 120 120V 208 208V 240 240V 277 277V 347 347V 480 480V
101L 101L LED Wall Sconce	32L 32 LEDs (2 module)	530 530mA 700 700mA 1000 1000mA				

Options

Dimming Controls	Motion Sensing lens	Photo-sensing	Electrical	Finish
DD 0–10V External dimming (controls by others)[4] DCC Dual Circuit Control[4,5,6,9] FAWS Field Adjustable Wattage [4,5] BL Bi-level functionality with motion sensor[4,7,11] DynaDimmer: Automatic Profile Dimming[4,7,11] CS50 Security 50% Dimming, 7 hours CM50 Median 50% Dimming, 8 hours CS30 Security 30% Dimming, 7 hours CM30 Median 30% Dimming, 8 hours	IMRI2 Integral with #2 lens[10] IMRI3 Integral with #3 lens[10]	PCB Photocontrol Button[7,9] TLRD5 Twist Lock Receptacle 5-Pin[14] TLRD7 Twist Lock Receptacle 7-Pin[14] TLRPC Twist Lock Receptacle w/ Photocell[7,15]	Fusing F1 Single (120, 277, 347VAC)[8] F2 Double (208, 240, 480VAC)[8] F3 Canadian Double Pull (208, 240, 480VAC)[8] Surge Protection (10kA standard) SP2 Increased 20kA	Textured BK Black WH White BZ Bronze DGY Dark Gray MGY Medium Gray Customer specified RAL Specify optional color or RAL (ex: OC-LGP or OC-RAL7024) CC Custom color (Must supply color chip for required factory quote)

1. Only 16L up to 700mA can be used with battery backup (EBPC) configuration.
2. Extended lead times apply. Contact factory for details.
3. Available in 120 or 277V only.
4. Not available with other dimming control options.
5. Not available with motion sensor.
6. Not available with photocontrol.
7. Not available in 347 or 480V.
8. Must specify input voltage.
9. Available with two modules (32L) at 530mA.
10. Not available with DD, DCC, and FAWS dimming control options.
11. Must specify a motion sensor lens. Limited to 30°C ambient if combined with 32L-1000mA (107W).
12. Not available with DCC and FAWS.
13. Not available with DCC.
14. Dimming will not be connected to NEMA receptacle if ordering with other control options.
15. Not available in 480V. Order photocell separately with TLRD5/7.

LF2
EXTERIOR LIGHTING FIXTURES : CATENARY
COLOR : BLACK

Pike Cylindrical LED Luminaire

structura

FIXTURE TYPE: _____
PROJECT NAME: _____

SPECIFICATIONS:

CONSTRUCTION: Housing comprised of machined custom 6005-T61 extrusion with machined 6061-T61 end caps.

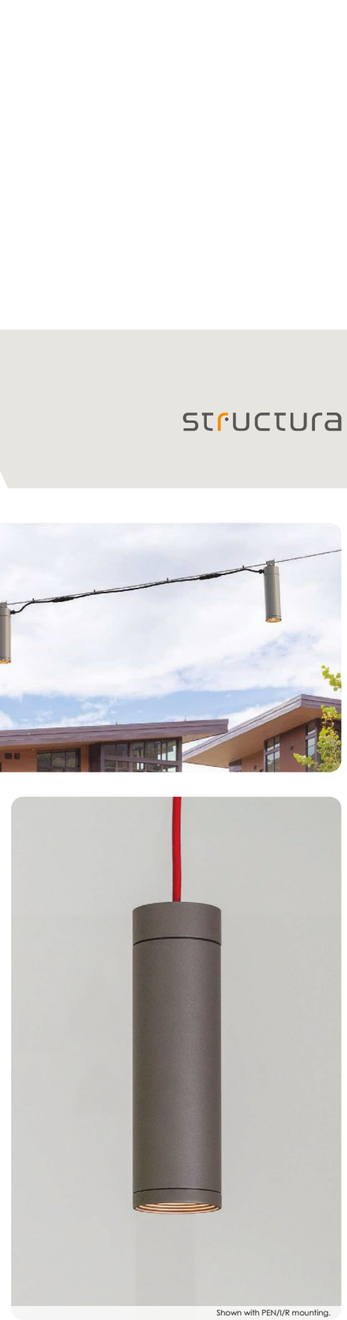
ELECTRICAL: Powered by an intergral Class P, 120-277VAC, 0-10V dimmable constant current driver with built in 6kV surge protection. Operating temperature of -40°F to 112°F for SO, MO, and HO installations and -40°C to 95°F for VHO installations.

OPTICAL SYSTEM: COB LED has solderless connections for field upgradability. Available in color temperature of 2700, 3000, 3500, and 4000K, >80 CRI. Optical reflectors available in 20°, 30°, 40°, and 60° spot distributions. Covered by UV- and scratch-resistant clear acrylic. Consult factory for additional lumen outputs, color temperatures, or CRIs.

FINISHES: All exterior aluminum parts are polyester powder coat painted to meet AAMA-2604 standards. See Structura's finish options for available standard finishes. Care and Maintenance

LISTINGS & RATINGS: Luminaire CSA listed according to CSA C22.2 No. 250.0-18/UL Standard 1598. Suitable for wet locations. LM-80 test reported L70 > 49,500 hours and calculated L70 > 120,000 hours.

WARRANTY: 5-year warranty on LED and drivers.



Shown with PEN/I/R mounting.

C US

LF3
EXTERIOR LIGHTING FIXTURES : PARKING LIGHT POSTS
COLOR : BLACK

Fiche technique

lumenblade
Medium
BLDM

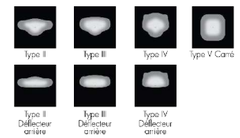
Nom du projet _____ **Qté** _____
Type _____ **N° de catalogue** _____

1 platine DEL montré

Vues de côté et de face

Vue de dessous
XL180 ou XL200 (4 platines DEL) montré

Distributions



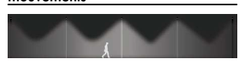
Couleurs et températures de couleur

2200K 2700K 3000K 3500K 4000K 5700K

Control

ON/OFF 0-10V LT

Options de détecteur de mouvements



Classifications

IP66 (chambre optique)

Certifications

3G VIBRATION RATING

Description

Le Lumenblade Medium est un luminaire DEL extérieur utilisant la technologie d'éclairage Lumencentro sous forme rectiligne pour créer une ligne de lumière continue. Son design minimaliste discret et distinct est durable; s'intègre à l'architecture contemporaine et patrimoniale; offre un niveau de sécurité élevé et s'adapte au milieu environnant. Le Lumenblade Medium est disponible en plusieurs longueurs, offre de nombreux flux lumineux et distributions, en plus de fournir une qualité de lumière hors du commun.

Caractéristiques

Montage	Montage de côté
Couleur et température de couleur	2200K, 2700K, 3000K, 3500K, 4000K, 5700K
Distributions	Type II, Type III ou Type IV (avec ou sans déflecteur arrière), Type 5 carré
Norme antivibrations	Conforme à la norme antivibrations 1.5G ANSI C136.31 - 2010 pour applications routières standard
Options	Conforme à la norme antivibrations 3G ANSI C136.31-2010 pour les ponts, Revêtement anticorrosion pour environnements hostiles, Protecteur de surtensions, Fiche à 3 broches avec ou sans couvercle, Fiches à 5 broches avec ou sans couvercle, Fiche à 7 broches avec ou sans couvercle, Détecteur de mouvements
Adaptateur pour montage sur mât	Adaptateur pour Straight pole et Muffler pole (mât rond et carré): 152 mm Adaptateur pour Lumentech pole (mât carré et rond): 152 mm
Garantie	Garantie limitée de 5 ans

Performance

Flux lumineux (lumens nominaux)	Minimum 4000lm (1 platine DEL) / Maximum 20 000lm (4 platines DEL)
Efficacité	Jusqu'à 107 lm/W (Type 5 carré, 4000K, flux lumineux M80)

lumenpulse™ 1220, boul. Marie-Victorin, Longueuil, QC, J4G 2H9, CA **T** United States 617.307.5700 | Canada 1.877.937.3003 | 514.937.3003 **F** 514.937.6289
info@lumenpulse.com **www.lumenpulse.com** **www.lumenpulse.com/fr/produits/2316**

3.10 MATERIALITY AND FACADE SYSTEMS

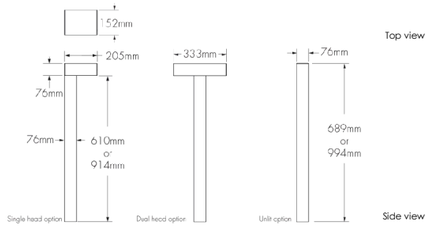
LF4
EXTERIOR LIGHTING FIXTURES : LIGHT BOLLARD
COLOR : BLACK

Specification Sheet — **lumenblade** Bollard BLDB

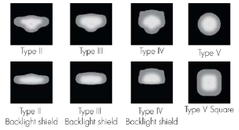
Project Name _____ Qty _____

Type _____ Catalog / Part Number _____

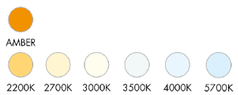

Single head option shown



Distributions



Colours and Colour Temperatures



Control

ON/OFF 0-10V LT

Ratings

IP66(optical chamber) IK06(lens) IK10*(frame)
*IK10 polycarbonate lens option available, consult factory.

Certifications

c UL us — 5 YEARS luminaire — VRBO

Description

The Lumenpulse Lumenblade Bollard is an outdoor LED luminaire that uses a rectilinear version of the Lumencentro light engine to create a continuous line of light. Options include: heights of either two feet or three feet, with a Single or Dual head. Its seen-but-not-seen, minimalist design is sustainable, blends with both contemporary and heritage architectures, provides a high level of security, and is sensitive to the natural environment with low outputs and with a BUG rating of 0.

Features

Mounting	Single head, Dual head, Unlit bollard
Height	0.6 m, 0.9 m
Colour and Colour Temperature	Amber, 2200K, 2700K, 3000K, 3500K, 4000K, 5700K
Distributions	Type II, Type III or Type IV (with or without backlight shield), Type V, Type V square
Optical Option (factory installed)	Louvre
Vibration Rating	Meets ANSI C136.31-2018 vibration rating for Bridge & Overpass applications
Options	Vibration Rated for Bridge and Overpass, Corrosion-resistant coating for hostile environments, Surge protector, Photoelectric Cell Button Type, Ground Fault Duplex Receptacle, Duplex receptacle with USB A and USB C
Warranty	5-year limited warranty

Performance

Output (nominal lumens)	Minimum 200lm (single head)/ Maximum 2000lm (dual head)
Efficacy	Up to 86 lm/W (N10 lumen output, 4000K, CRI 70+, Type III)
Colour Rendering	3 SDCM for CRI 70+, 2 SDCM for CRI 80+ and CRI 90+
Lumen Maintenance	TM-21 L70 > 145,000 hrs (reported, Ta 25 - 50 °C (77 - 122 °F))

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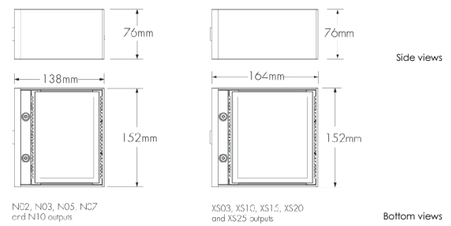
LF5
EXTERIOR LIGHTING FIXTURES : LUMENPULSE NANO
COLOR : BLACK

Specification Sheet — **lumenblade** Nano BLDN

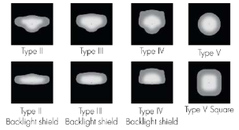
Project Name _____ Qty _____

Type _____ Catalog / Part Number _____

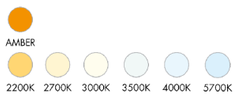

Wall mount option shown



Distributions



Colours and Colour Temperatures



Control

ON/OFF 0-10V

Ratings

IP66(optical chamber) IK06(lens) IK10*(frame)
*IK10 polycarbonate lens option available, consult factory.

Certifications

c UL us — 5 YEARS luminaire — VRBO

Description

The Lumenpulse Lumenblade Nano is an outdoor LED luminaire that uses a rectilinear version of the Lumencentro light engine to create a continuous line of light. Side Mount or Wall Mount options are available. Its seen-but-not-seen, minimalist design is sustainable, blends with both contemporary and heritage architectures, provides a high level of security, and is sensitive to the natural environment with low outputs and with a BUG rating of 0.

Features

Mounting	Side mounting, Wall Mounting
Colour and Colour Temperature	Amber, 2200K, 2700K, 3000K, 3500K, 4000K, 5700K
Distributions	Type II, Type III or Type IV (with or without backlight shield), Type V, Type V square
Optical Option (factory installed)	Louvre
Vibration Rating	Meets ANSI C136.31-2018 vibration rating for Bridge & Overpass applications
Options	Vibration Rated for Bridge and Overpass, Corrosion-resistant coating for hostile environments
Warranty	5-year limited warranty

Performance

Output (nominal lumens)	Minimum 200lm/ Maximum 2500lm
Efficacy	Up to 127 lm/W (XS10 lumen output, 4000K, CRI 70+, Type VS)
Colour Rendering	3 SDCM for CRI 70+, 2 SDCM for CRI 80+ and CRI 90+
Lumen Maintenance	TM-21 L70 > 145,000 hrs (reported, Ta 25 - 50 °C (77 - 122 °F))
Dark Sky	Dark sky compliant (2200K, 2700K, 3000K and Amber colour temperatures, BUG rating of U0)

Physical

Housing Material	Extruded aluminium 6000 alloy series

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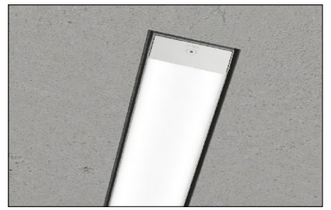
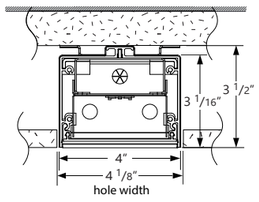
LF6
EXTERIOR LIGHTING FIXTURES : RECESSED LINEAR LIGHTING

wet BEAM4 LED | RECESSED HORIZONTAL MOUNT





Project _____

Type _____

Notes _____

PERFORMANCE PER LINEAR FOOT AT 3500K

NOMINAL LUMEN OUTPUT	INPUT WATTS*	EFFICACY
500 lm/ft	5.5 W/ft	91 lm/W
900 lm/ft	9.9 W/ft	91 lm/W

Please consult factory for custom lumen output and wattage.

IP65 — CONTROL SENSORS — cULus Listed Type I.C. — LED BOARD & DRIVER 5 YEAR LUMINAIRE WARRANTY

Ordering Guide

WBRLED								S			
PRODUCT ID		**NOM.LUMENS/FT**		**CRI**		**COLOR TEMP.**		**SHIELDING**		**LENGTH (FT)**	
WBRLED	Recessed LED	**500**	500 lm/ft - Min.	**80**	80 CRI	**27**	2700 K	**S**	satin lens	**2**	2'
		900	900 lm/ft - Max.	**90**	90 CR	**30**	3000 K			**3**	3'
						35	3500 K			**4**	4'
						40	4000 K			**5**	5'
										8	8'
										S#	system run
		Outputs between listed min and max are available. Consult factory for outputs outside of the listed range.									

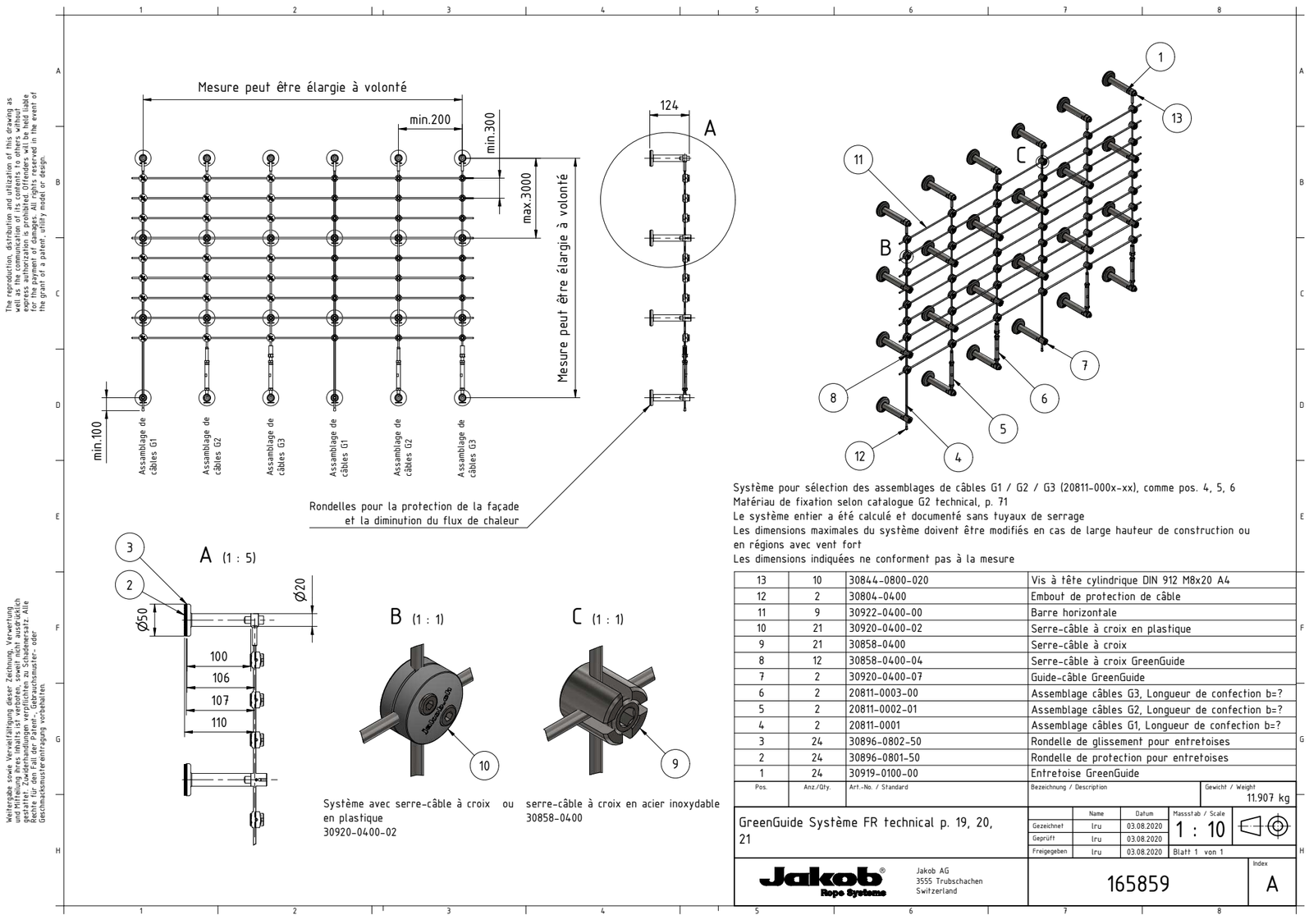
FINISH		VOLTAGE		DRIVER		CIRCUITS		MOUNTINGS	
W	white	**120**	120 V	**DP**	dimming (0-10V) 1%	**1**	1 circuit	**D**	drywall flangeless
BLK	black	**277**	277 V	**LT(#)**	Lutron *	**2**	2 circuits	**DF**	drywall flange
C	custom	**347**	347 V	**BI**	bi-level dimming	**+E(#)**	emergency circuit *	**DS**	drywall spackle flange
		UNV	universal	**O(#)**	other **	**+NL(#)**	night light circuit *		
		DC	low voltage*	**POE(#)**	POE drivers*	**+GTD(#)**	generator transfer device *		
		* Only available with POE drivers.		* Operating up to -20°C; Specify system ** Please consult factory; see page 2		* Specify quantity			

BATTERY (OPTIONAL)		OTHER (OPTIONAL)		IC CONTROLS (OPTIONAL)		CUSTOM (OPTIONAL)	
B#	battery pack (integral)	**+F**	fuse *	**OS(#)**	occupancy sensor	**C**	custom
		+EF	end feed **	**EN(#)**	Enlighted integral		
		+N	natatorium finish	**WC(#)**	wireless control dimming		
Not available with 347V Please consult factory		* Requires 120V or 277V; ** See page 3 for more details.		See integrated controls guide for further details Please consult factory		Please specify	

axis lighting.com

3.10 MATERIALITY AND FACADE SYSTEMS

SR1
STEEL ROPES FIXTURES - GREEN WALL



Système pour sélection des assemblages de câbles G1 / G2 / G3 (20811-000x-xx), comme pos. 4, 5, 6
Matériau de fixation selon catalogue G2 technical, p. 71
Le système entier a été calculé et documenté sans tuyaux de serrage
Les dimensions maximales du système doivent être modifiés en cas de large hauteur de construction ou en régions avec vent fort
Les dimensions indiquées ne conforment pas à la mesure

Pos.	Anz./Qty.	Art.-No. / Standard	Bezeichnung / Description
13	10	30844-0800-020	Vis à tête cylindrique DIN 912 M8x20 A4
12	2	30804-0400	Embout de protection de câble
11	9	30922-0400-00	Barre horizontale
10	21	30920-0400-02	Serre-câble à croix en plastique
9	21	30858-0400	Serre-câble à croix
8	12	30858-0400-04	Serre-câble à croix GreenGuide
7	2	30920-0400-07	Guide-câble GreenGuide
6	2	20811-0003-00	Assemblage câbles G3, Longueur de confection b=?
5	2	20811-0002-01	Assemblage câbles G2, Longueur de confection b=?
4	2	20811-0001	Assemblage câbles G1, Longueur de confection b=?
3	24	30896-0802-50	Rondelle de glissement pour entretoises
2	24	30896-0801-50	Rondelle de protection pour entretoises
1	24	30919-0100-00	Entretoise GreenGuide

Gewicht / Weight 11.907 kg

GreenGuide Système FR technical p. 19, 20, 21

	Name	Datum	Massstab / Scale
Gezeichnet	lru	03.08.2020	1 : 10
Geprüft	lru	03.08.2020	
Freigegeben	lru	03.08.2020	Blatt 1 von 1

Jakob AG
3555 Trubschachen
Switzerland

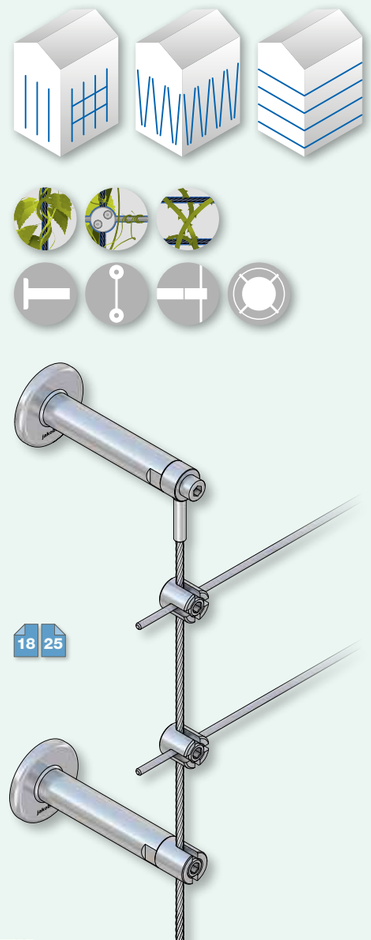
165859 | Index A

Jakob Rope Systems
Technische Änderungen bleiben vorbehalten
Sous réserve de modifications techniques
Technical data subject to change

Auswahl und Planungsgrundlagen Rankgerüst
Principes de sélection et de planification pour treillage
Selection and planning principles for training systems

GreenGuide

Wandabstand:	**100 mm**
Wuchsformen:	**Schlinger** **Ranker** **Spreizklimmer**
Distance au mur:	**100 mm**
Plantes:	**Grimpantes à tiges volubiles** **Grimpantes** **Grimpantes à palisser**
Distance from wall:	**100 mm**
Climbing patterns:	**Vines** **Climbers** **Scrambling plants**



04. SUSTAINABILITY

4.1 SUSTAINABLE FEATURES OF THE PROPOSAL

A geothermal system consisting of 15 wells provides the heating and cooling needs of the building.

The triple glazing and the high-performance envelope used on all facades reduce heat loss and energy needs. Photovoltaic panels allow the production of energy from the building itself. The building is entirely powered by electricity.

White reflective roofs reduce heat absorption by the building. Light reflective materials are applied to the parking areas in order to reduce the heat absoption of the asphalt.

Green roofs contribute to the health of the site and the immediate environment as an incubator for biodiversity. They also contribute to water management within the building.

Trees and green spaces act as filters to purify the air by converting CO2 into oxygen. The use of vegetation on the roof acts as an insulator and helps reduce energy consumption for heating and cooling the building.

The green roofs as well as the rain garden ensure rainwater and runoff management on the project site.

The new MIFO aims to be a green and inclusive community building. In this sense, it aims to meet the requirements of the Zero Carbon Building - Design v3 (BCZ-Design) standard. The building is strictly electrically powered, with photovoltaic panels integrated into the façade and a geothermal heating/cooling system.

PROVENCHER_ROY