

**ALBERTA GOVERNMENT SERVICES
LAND TITLES OFFICE**

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BETWEEN:

THE CITY OF CALGARY

and

THE CITY OF CALGARY

THIS RESTRICTIVE COVENANT AGREEMENT WITNESSES THAT, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, THE PARTIES AGREE AS FOLLOWS:

1. DEFINITIONS AND INTERPRETATION

1.01. In this Agreement the following words and phrases when capitalized shall have the following meanings:

- (a) "Agreement" means this restrictive covenant agreement, all attached schedules and any subsequent amendments hereto;
- (b) "City" means The City of Calgary;
- (c) "Consultant" means an architect, engineer or other consultant registered to practice in Alberta retained by an Owner of the Servient Lands;
- (d) "Design Review Committee" means the design review committee for Midfield Heights which shall be comprised of individuals selected by RE&DS from time to time;
- (e) "Development" means constructing, placing or erecting upon the Servient Lands any buildings, structures, landscaping or improvements;
- (f) "Dominant Lands" means the lands legally described in Schedule "A" attached to this Agreement;
- (g) "Government Authority" means any federal, provincial, municipal or other governmental body, agency, tribunal, or authority having jurisdiction and lawfully empowered to make or impose laws, bylaws, rules or regulations

with respect to the Dominant Lands or the Servient Lands and the parties' obligations hereunder;

- (h) "Guidelines" means the Architectural Design Guidelines for Midfield Heights, a copy of which is attached hereto as Schedule "B";
- (i) "Owner of the Dominant Lands" means a registered owner from time to time of any of the Dominant Lands;
- (j) "Owner of the Servient Lands" means a registered owner from time to time of any of the Servient Lands;
- (k) "Proponent(s)" means such party proposing any development on the Servient Lands;
- (l) "Restrictions" means the provisions, restrictions and stipulations contained in Section 2.01;
- (m) "RE&DS" means The City of Calgary, Real Estate & Development Services business unit or its equivalent; and
- (n) "Servient Lands" means the lands legally described in Schedule "C" attached to this Agreement.

2. RESTRICTIVE COVENANT

2.01. The City, as owner of the Servient Lands and the Dominant Lands, annexes to the Dominant Lands the benefit of the Restrictions, and burdens the Servient Lands with the Restrictions; namely that no Development shall be permitted on the Servient Lands unless it conforms to and complies with the Guidelines for a period of TWENTY (20) YEARS commencing on January 1, 2023. As part of complying with the Guidelines, an Owner of the Servient Lands shall follow the approval process set out in Article 3.

3. APPROVAL PROCESS

3.01. At least TWENTY (20) BUSINESS DAYS prior to submission of a development permit application to the applicable Government Authority, the Proponent(s) or its Consultant shall submit to the Design Review Committee, for pre-development permit approval, all documents as set out in Section 2.07 of the Guidelines and such other

documents, plans and information as may reasonably be required by the Design Review Committee (the "Pre-DP Application"). The Design Review Committee shall review the Pre-DP Application and either approve or reject it. If rejected, the process set out in this section shall be repeated until the Pre-DP Application is approved.

3.02. Upon the Design Review Committee's written approval of the Pre-DP Application, the Owner of the Servient Lands shall submit this written approval along with the development permit application to the applicable Government Authority.

3.03. During the development permit review and approval process, the Owner of the Servient Lands shall advise the Design Review Committee if the changes requested by the applicable Government Authority deviates in substance and in spirit from the Guidelines and/or the plans approved by the Design Review Committee.

4. GENERAL PROVISIONS

4.01. The provisions of this Agreement are enforceable by any one or more Owner(s) of the Dominant Lands. Any abrogation or waiver from strict compliance with any provision of this Agreement shall not of itself constitute an abrogation or a waiver from strict compliance with:

- (a) any other provision of this Agreement;
- (b) the same provision in the future; or
- (c) any provision of this Agreement by any other owner.

4.02. Nothing herein shall require the City or the Design Review Committee to enforce the Restrictions contained in this Agreement or render the City or the Design Review Committee responsible or liable for the failure of any owner to adhere to or comply with the Restrictions contained in this Agreement, it being the intention that the obligation to comply with the Restrictions runs with the Servient Lands and the benefits of the Restrictions run with the Dominant Lands. No action shall lie against the City or the Design Review Committee for any breach of any of the Restrictions unless one or more of these

parties are the then registered Owner(s) of the Servient Lands. This provision shall constitute an absolute defence to any such action and may be pleaded as such.

4.03. If any one of the provisions or the application thereof shall be held by any Court of competent jurisdiction to be invalid or unenforceable to any extent, then such provision shall be severed from this Agreement and the remainder of this Agreement shall be valid and enforceable to the fullest extent permitted by the law.

4.04. The Restrictions are in addition to any requirements of the applicable Government Authority in respect of the development and use of the Servient Lands and nothing contained herein shall be construed as modifying or superseding anything which is required by any applicable Government Authority.

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4.05. In the event of any conflict between the provisions contained in the body of this Agreement and the provisions contained in the schedules to this Agreement, the provisions contained in the body of this Agreement shall prevail.

IN WITNESS WHEREOF the parties hereto have duly executed this Agreement.

APPROVED	
As to Content RE&DS	AD
As to Form Law	BZ
Corporate Approval: SB2021-0144 File No: RE4075 (LKYUC-A. Beswick)	

As per email from

L K Y L

Dated

JANUARY 30, 2023

7000118
THE CITY OF CALGARY

Per:



Manager, Land & Asset
Management
Real Estate & Development Services

Per:

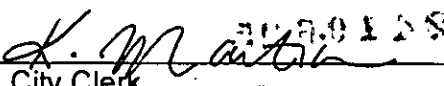

City Clerk (seal)
Katarzyna Martin
City Clerk

JAN 30 2023
THE CITY OF CALGARY

Per:


Manager, Land & Asset
Management
Real Estate & Development Services

Per:


City Clerk (seal)
Katarzyna Martin
City Clerk

JAN 30 2023

SCHEDULE "A"

DOMINANT LANDS

1. PLAN 2410605
BLOCK 8
LOT 1
EXCEPTING THEREOUT ALL MINES AND MINERALS
2. PLAN 2410605
BLOCK 8
LOT 2
EXCEPTING THEREOUT ALL MINES AND MINERALS
3. PLAN 2410605
BLOCK 8
LOT 3
EXCEPTING THEREOUT ALL MINES AND MINERALS
4. PLAN 2410605
BLOCK 8
LOT 4
EXCEPTING THEREOUT ALL MINES AND MINERALS
5. PLAN 2410605
BLOCK 8
LOT 5
EXCEPTING THEREOUT ALL MINES AND MINERALS
6. PLAN 2410605
BLOCK 8
LOT 6MR
EXCEPTING THEREOUT ALL MINES AND MINERALS
7. PLAN 2410605
BLOCK 9
LOT 1
EXCEPTING THEREOUT ALL MINES AND MINERALS

not same as 2A

Col & G

8. PLAN **2410605**
BLOCK 10
LOT 1
EXCEPTING THEREOUT ALL MINES AND MINERALS

9. PLAN **2410605**
BLOCK 11
LOT 1
EXCEPTING THEREOUT ALL MINES AND MINERALS

SCHEDULE "B"

GUIDELINES AND CHECKLIST

GUIDELINES

The following Process and Design Guidelines
have been prepared for the use of:



for the
Midfield Heights

REAL ESTATE & DEVELOPMENT SERVICES

2023.01.01

INTRODUCTION

The Developer, through RE&DS, has established the Guidelines (being those lands as shown on Map 1) to develop higher levels of design, architectural design, landscape design, and sustainability design guidelines, to create and maintain the vision for Midfield Heights. These will provide future occupants with long term benefits that sustain and support social, economic, and environmental vitality. This document describes the Process and the Guidelines.

The Guidelines are described in Attachment "B". The Guidelines are mandatory and provide a rationale and framework for achieving the overall vision and includes architectural, landscape and sustainability targets. Targets in the Guidelines targets denoted with a 'keynote'. All of the keynotes throughout the Guidelines are summarized in the Checklist as action items. A keynote description in the Guidelines provides detailed information regarding the topic that influences the action item in the Checklist. Refer back and forth between the Guidelines and Checklist to understand what is required on all sites, required on specific sites and optional.

The Checklist is also described in Attachment "B". The Checklist provides action items for the targets described in the Guidelines. Action items are categorized as (1) required on all sites, (2) required on specific sites, and (3) optional. Each Checklist action item is scored as either being achieved (yes) or not achieved (no). Required items must be achieved ONE HUNDRED (100%) PERCENT. Optional items may be added, or they may be substituted for a required item at the discretion of RE&DS.

The Midfield Heights Development Land Use Background is available upon request. This document compiles the results of the research conducted into the Midfield Heights site to formulate the Outline Plan and vision. It contains information ranging from site history and context to relevant policies, community engagement, land use rationale, connectivity, outdoor amenities, and site servicing. It is not intended to be a standalone document, but serves as a starting point for research, with references to the many other applicable policies to be consulted through the planning and development phases for each parcel.

Overall, the Guidelines aim to define good design, inspire its achievement, and provide a framework to review the success of future proposals.

The implementation of the Guidelines will ensure that Design Review Committee (DRC-MIDFIELD) decisions are transparent, predictable, fair, and cost-effective.

1.01 DEFINITIONS:

- (a) "Architect" means a registered professional architect, licensed to practice in the Province of Alberta;
- (b) "Checklist" means the Guidelines Checklist as described in Attachment "B", and will be used by the DRC-MIDFIELD to evaluate pre-DP submissions;
- (c) "Climate Resiliency Strategy" means The City of Calgary's 2018 *Climate Resilience Strategy*, which aims to maximize the resilience of Calgary in the context of a

changing climate, as may be amended or replaced from time to time;

- (d) "Consultant" means the Architect, Engineer, or consultant retained by a Proponent(s);
- (e) "Development Authority" means the municipal approving authority having jurisdiction and lawfully empowered to make or impose bylaws, rules or regulations with respect to planning and development within Midfield Heights;
- (f) "Developer" means The City of Calgary;
- (g) "DP" means the development permit to be obtained by the owner(s) of the Lot(s) or any Proponent(s), for any development on the Lot(s);
- (h) "DRC-MIDFIELD" means the design review committee for Midfield Heights which shall be comprised of individuals selected by RE&DS from time to time;
- (i) "Engineer" means a registered professional engineer, licensed to practice in the Province of Alberta;
- (j) "Guidelines" means these architectural, landscape and sustainability design guidelines for Midfield Heights (Attachment "B"), which are mandatory, and the associated Checklist (Attachment "B");
- (k) "Lot(s)" means one or more of the lots in Midfield Heights and are legally described in Attachment "A" attached hereto;
- (l) "LUB 1P2007" means the *Land Use Bylaw 1P2007*, as may be amended or replaced from time to time;
- (m) "RE&DS" means The City of Calgary, Real Estate & Development Services business unit or its equivalent;
- (n) "Proponent(s)" means such party proposing any development on the Lot(s);
- (o) "Midfield Heights" means The City of Calgary's Midfield Heights mixed-use development; and
- (p) "Restrictive Covenant" means this restrictive covenant, which incorporates the Guidelines.

2. ROLE OF DESIGN GUIDELINES

- 2.01 The Guidelines apply to building and site design of all developments Midfield Heights as set within the boundaries show on Map 1. The Guidelines are to be adhered to by the Proponent(s). No development shall occur or improvement shall be constructed, placed, altered, erected, maintained or permitted on any Lot(s) unless it complies with the

Guidelines, and only if and when it has been approved by the DRC-MIDFIELD.

- 2.02 In addition to compliance with LUB 1P2007, the Proponent(s) shall be required to comply with the Guidelines, even if the Guidelines are more restrictive.
- 2.03 Notwithstanding Sections 3.01 and 3.02, all municipal, provincial or federal developments, including but not limited to developments for fire, police, emergency medical services, shall not be subject to the requirements of the Guidelines.
- 2.04 The Developer is the registered owner of an estate in fee simple of the Lot(s). The Developer is acting solely as the land developer of Midfield Heights and not in the capacity as the Development Authority.
- 2.05 The Developer has assigned the reviewing authority to the DRC-MIDFIELD. Any notice, request or communication shall be in writing and delivered to the DRC-MIDFIELD at the following address:

P.O. Box 2100, Stn. M, #195,
Calgary, AB T2P 2M5
or, by facsimile at 403-537-3099.

The principal contact is the Development and Planning Advisor, who may be reached directly at 403-268-8979.

- 2.06 The DRC-MIDFIELD will monitor the Proponent(s)' adherence to the Guidelines by reviewing and approving documentation required for development within Midfield Heights. The intent of the review(s) is to ensure compliance with the Guidelines' requirements and apply the Checklist (Attachment "B"). The DRC-MIDFIELD shall, at its sole discretion, interpret the Guidelines, with the fundamental purpose of upholding the intent of the Guidelines.
- 2.07 A copy of, or access to, the Guidelines shall be made available to any Proponent(s) seeking approval for a development on the Lot(s). This information is to be read in conjunction with the information related to engineering matters that is provided as part of the agreement of purchase and sale for the Lot(s).
- 2.08 The Proponent(s) shall also provide a copy of the Guidelines to its Consultants and construction team prior to constructing any improvement on the Lot(s).
- 2.09 The Consultants and/or construction team are encouraged to contact the DRC-MIDFIELD to discuss the Guidelines and the review process.
- 2.10 Review and approval by the DRC-MIDFIELD will be based upon requirements as stipulated within the Guidelines. Submissions will be assessed not only for the quality of the specific proposal, but also for the development's effect and impact upon its neighbours and surroundings. Concern for spatial relationships between buildings and other adjacent elements, and careful consideration of location and treatment of utility and service facilities will be given. Lot ingress and egress may be limited in the interests of efficient traffic flow

onto abutting streets.

- 2.11 Fulfillment of the Guidelines and approval of pre-DP submissions by the DRC-MIDFIELD does not guarantee approval of DP applications by the Development Authority. The Proponent(s) may wish to engage the Development Authority in a pre-application meeting to identify potential issues of the proposed development.

3. RESTRICTIVE COVENANT

- 3.01 The Developer is the registered owner of an estate in fee simple of the Lot(s). The Developer is acting solely as the land developer of Midfield Heights and not in the capacity as the Development Authority.
- 3.02 The Developer is developing a planned mixed use development described as Midfield Heights and will be registering the Restrictive Covenant against all the Lot(s) for the purpose of establishing and maintaining the general development and individual character of the Lot(s).
- 3.03 It is the intention of the Developer to control the development of Midfield Heights by means of the restrictions and conditions in the Guidelines and to set these forth as the covenants registered against the Lot(s), which covenants are intended to be common to all the Lot(s) to enhance and protect the value, market desirability, and aesthetic attractiveness of all the Lot(s), to their mutual benefit.

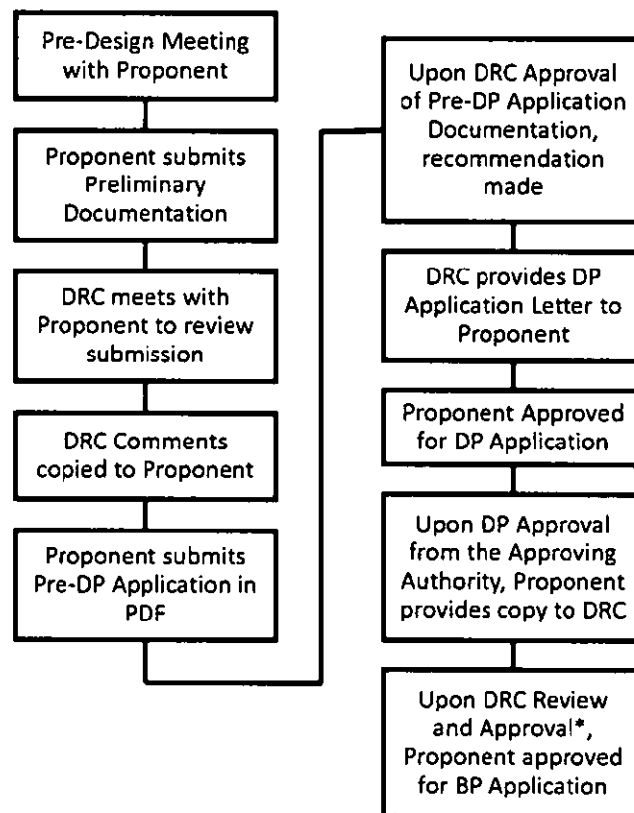
4. BASIC REQUIREMENTS AND REVIEW PROCESS

- 4.01 The following provides an overview of the DRC-MIDFIELD's review process:
- (a) a pre-design meeting with the Proponent(s) and the DRC-MIDFIELD to discuss the purpose, intent, design programme, and vision of the proposed development;
 - (b) the Proponent(s) will submit the pre-DP application to the DRC-MIDFIELD – submission requirements are outlined in Section 4.07;
 - (c) the DRC-MIDFIELD will review the pre-DP application and will provide comments to the Proponent(s);
 - (d) upon the DRC-MIDFIELD's approval of the pre-DP application, the DRC-MIDFIELD will provide an approval letter to the Proponent(s);
 - (e) the Proponent(s) will submit their DP application to the Development Authority which is to include the DRC-MIDFIELD's approval letter;
 - (f) the Development Authority will review the DP application and approve or refuse same; and
 - (g) if the Development Authority approves the DP, the Proponent(s) will provide a copy

of the approval to the DRC-MIDFIELD. If the Development Authority refuses the DP, the Proponent(s) must inform the DRC-MIDFIELD and the Developer.

- 4.02 Proponent(s) shall retain the services of the Consultant to prepare the submissions required for the review process.
- 4.03 Each required submission shall be submitted in legible 11" x 17" format for architectural drawings, and supporting documentation, including a design rationale for the proposed development and project intent. The last submission prior to the DP submission may be in portable document format (PDF).
- 4.04 Each initially submitted set shall be accompanied by a letter of approval or an authorized signature of either the legal owner or occupant of the Lot(s) or the authorized agent thereof.
- 4.05 Application to the Development Authority for the DP may not be made prior to receiving approval in writing from the DRC-MIDFIELD nor prior to commencing any improvements on the Lot(s) including, but not limited to any construction or installation, clearing, grading, paving, landscaping, buildings, building additions or alterations, and signage.

Chart 1: DRC-MIDFIELD Review Process Model



* stamped development permit set will be returned to proponent after review

Pre-Design Meeting

- 4.06 A pre-design meeting is strongly recommended to provide an overview of the Guidelines' requirements and processes prior to the pre-DP application review. This meeting will help clarify any questions, comments, or concerns a Proponent(s) may have. It is the Proponent(s)' responsibility to make a request in writing to set up a pre-design meeting. The DRC-MIDFIELD will be available on a limited basis after the pre-design meeting if the Proponent(s) have further questions regarding the Guidelines.

Pre-DP Application Review

- 4.07 For the pre-DP application review, the following shall be prepared and submitted by the Consultant:
- (a) cover letter describing the purpose and intent of the proposed development. The letter shall also:
 - (i) identify any aspects of the proposed development that do not comply with the design guidelines, and, where such non-compliance is proposed, provide a rationale for the non-compliance; and
 - (ii) summarise the key design elements of the site and the building(s);
 - (b) all correspondence and all documentation shall reference both the legal description (plan, block and lot) and municipal address of the Lot(s);
 - (c) if the development is phased, a master plan for phased development will be required for review. It may be submitted prior to or concurrent to submission of the pre-DP application drawings. The extent of phasing and the requirements for the development proposed for each phase shall be clearly identified. Parking and planting ratio requirements shall be met for each phase of the staged development; and
 - (d) submitted drawings must be sufficient to completely convey the full design intent of the development. The submission will be of a quality and completeness equal to that required by the Development Authority for submitting an application for a DP, including the resolution of all outstanding issues identified in the preliminary review(s). The submission set for this review shall include the following:
 - (i) site development plans, including identification and location of all components existing and proposed pertinent to the development –i.e. building(s), parking areas, access and egress points, existing features (hydrants, power poles, light standards, boulevard trees), service and storage areas, rights-of-way, required yard setbacks, waste and recycling enclosure location(s) and design details, transformer location and screening, location of municipal address signage, future trees requiring line assignments within City boulevards, a key plan locating the Lot(s) in the context of adjacent Lot(s) and streets, and all relevant project data with respect to the Guidelines and the LUB 1P2007

requirements;

- (ii) a coloured landscaping plan and legend including a detailed plant list, planting material sizes and count requirements, berming, amenity space details, fencing details, signage, and lighting;
- (iii) a rendering which accurately conveys the massing, materials, finishes, colours, and context, and which aids in a more complete understanding of the project. This shall include the primary building, all secondary buildings, and the outdoor amenity structure;
- (iv) a true colour image / photo of a material and finish sample board with exterior building finishes. (An actual sample board will not be accepted);
- (v) a shadow study, if applicable;
- (vi) preliminary grading plan demonstrating grading and storm water retention areas;
- (vii) a draft development site servicing plan ("DSSP") prepared by an Engineer, actively engaged in land development or storm water management engineering. This DSSP will be commented on by the DRC-MIDFIELD only with a view to encouraging adherence to the lot grading conditions of the engineering design and suggest revisions that reduce the cost of the installation of utilities in the street. The Proponent(s) is obligated to work with RE&DS for the "off-site" portion of the service connection installation and the driveways/service connection trench rehabilitation. This review is not part of the Development Authority's process. The Proponent(s) shall still be required to submit the proposed DSSP for approval in accordance with the Development Authority's standard process. It is also important to note that the DSSP Consultant responsible for the design remains responsible for all the details on the plan and any conflicts with other infrastructure that is installed prior to DSSP approval will be the responsibility of the Proponent(s) to resolve;
- (viii) building plan(s) identifying overall dimensions, principal entrance, windows and doors; roof plans including, if applicable, roof-to-equipment; and, if applicable, parkade plans;
- (ix) building elevations identifying all exterior materials, finishes, colours, building heights, screening of mechanical equipment, finished grades, and building-mounted lighting;
- (x) building sections shall only be required if site grade conditions are FIVE (5.0%) PERCENT or greater or if there are floor slab elevation changes, which will dictate building sections of a complexity, without which a proper understanding of the project intent would not be possible;
- (xi) proposed outdoor storage areas and screening identifying exterior materials,

finishes, colours, building heights, finished grades and building-mounted lighting;

- (xii) The City of Calgary's Climate Resilience Inventory for the proposed development;
- (xiii) an indication of proposed signage details as required by the Guidelines and as required by Part 3 Division 5, Signs of the LUB1 P2007, as such Part and Division may be amended or replaced from time to time; and
- (xiv) any additional information which the Proponent(s) may deem helpful in demonstrating compliance with the Guidelines.

- 4.08 The DRC-MIDFIELD shall complete its final review and provide its comments to the Proponent(s) upon receipt of a complete application as described above.
- 4.09 If approval is not granted, the same provisions as contained herein shall again apply, and the Proponent(s) will revise the documentation and make the modifications or changes required for granting of written approval. Upon approval by the DRC-MIDFIELD, a copy of such approval shall be submitted with the Proponent(s)' DP application to the Development Authority.
- 4.10 All subsequent revisions to the approved pre-DP drawings during the DP approval process shall be sent to the DRC-MIDFIELD prior to re-submission to the Development Authority to confirm compliance with the Guidelines.
- 4.11 All subsequent revisions to the approved DP shall be sent to the DRC-MIDFIELD prior to a re-submission to the Development Authority for additional comments. Changes from the originally approved DP shall be highlighted and identified to the DRC-MIDFIELD.

Construction Documentation

- 4.12 Construction documentation shall conform to the approved DP drawings.

Interpretation and Variance

- 4.13 Proponent(s) are required to meet or exceed the standards of the Guidelines. Any exceptions are to be approved by the DRC-MIDFIELD.
- 4.14 The DRC-MIDFIELD's interest in reviewing submissions is to ensure that compatible development of a quality described within the Guidelines is consistently achieved. When questions of judgment or interpretation arise, the decision of DRC-MIDFIELD is final.
- 4.15 The DRC-MIDFIELD, in its discretion, may allow variances/relaxations of specific requirements. Any such variance/relaxation granted is so granted mindful of the collective benefit within the overall development of Midfield Heights and is not to be construed as precedent setting. Any such variance/relaxation by the DRC-MIDFIELD shall not be

construed as a variance/relaxation in favour of any other development on any other Lot(s), nor a variance/relaxation of any other restrictions or conditions contained within the Guidelines.

- 4.16 The DRC-MIDFIELD reserves the right to amend the Guidelines if economic indicators, market conditions, environmental standards, and building technologies warrant the amendment. Any amendments made will be mindful of the collective benefit within the overall development of Midfield Heights.

DRC-MIDFIELD and Developer not Liable for Approval

- 4.17 The DRC-MIDFIELD and the Developer shall not be liable for any loss, expense, damage, action, claim or proceeding suffered, incurred or brought against any person on account of:
- (a) non-compliance with the basic requirements and review process identified in the Guidelines;
 - (b) the approval or disapproval of any plans, drawings and documentation, whether or not in any way defective;
 - (c) the development of any Lot(s); or
 - (d) the construction of any improvement, or performance of any work, whether or not pursuant to approved plans, drawings and any other documentation.
- 4.18 Any approval(s) given by the DRC-MIDFIELD for any plans, drawings, and documentation submitted during the DRC-MIDFIELD's review process, shall not be evidence of approval or confirm compliance with any bylaws, codes, laws, or requirements of the Development Authority.
- 4.19 Prior to development, each Proponent(s) shall ensure compliance with current applicable bylaws, codes, or laws, and is responsible for acquiring such required approvals from the Development Authority.

No Action Against DRC-MIDFIELD

- 4.20 No action shall lie against the DRC-MIDFIELD or the Developer for any damages for breach of any one or more of the requirements of the Guidelines or of the covenants contained within the Guidelines, and this shall constitute an absolute defense to any such action and may be pleaded as such.

5. DEVELOPMENT PERMIT REQUIREMENTS

- 5.01 The Proponent(s) must apply for and obtain a DP from the Development Authority prior to obtaining a building permit. The Development Authority may set out further conditions for the development which may be in addition to the requirements in LUB 1P2007 and the Guidelines.

- 5.02 All new construction, any additions visible to the public and all major exterior alterations shall comply with the applicable design criteria stipulated within the Guidelines. Minor changes to the exterior of buildings such as door or window additions, temporary construction buildings, and modifications to existing landscaped areas or parking lots, where no additional enclosed area is added, are exempt from the Guidelines. For partial modifications to buildings and Lot(s), the Guidelines shall only apply to those modified areas.

MIDFIELD HEIGHTS ATTACHMENT "A" LOT(S)

LEGAL DESCRIPTIONS:

1. PLAN _____
BLOCK 8
LOT 1
EXCEPTING THEREOUT ALL MINES AND MINERALS
2. PLAN _____
BLOCK 8
LOT 2
EXCEPTING THEREOUT ALL MINES AND MINERALS
3. PLAN _____
BLOCK 8
LOT 3
EXCEPTING THEREOUT ALL MINES AND MINERALS
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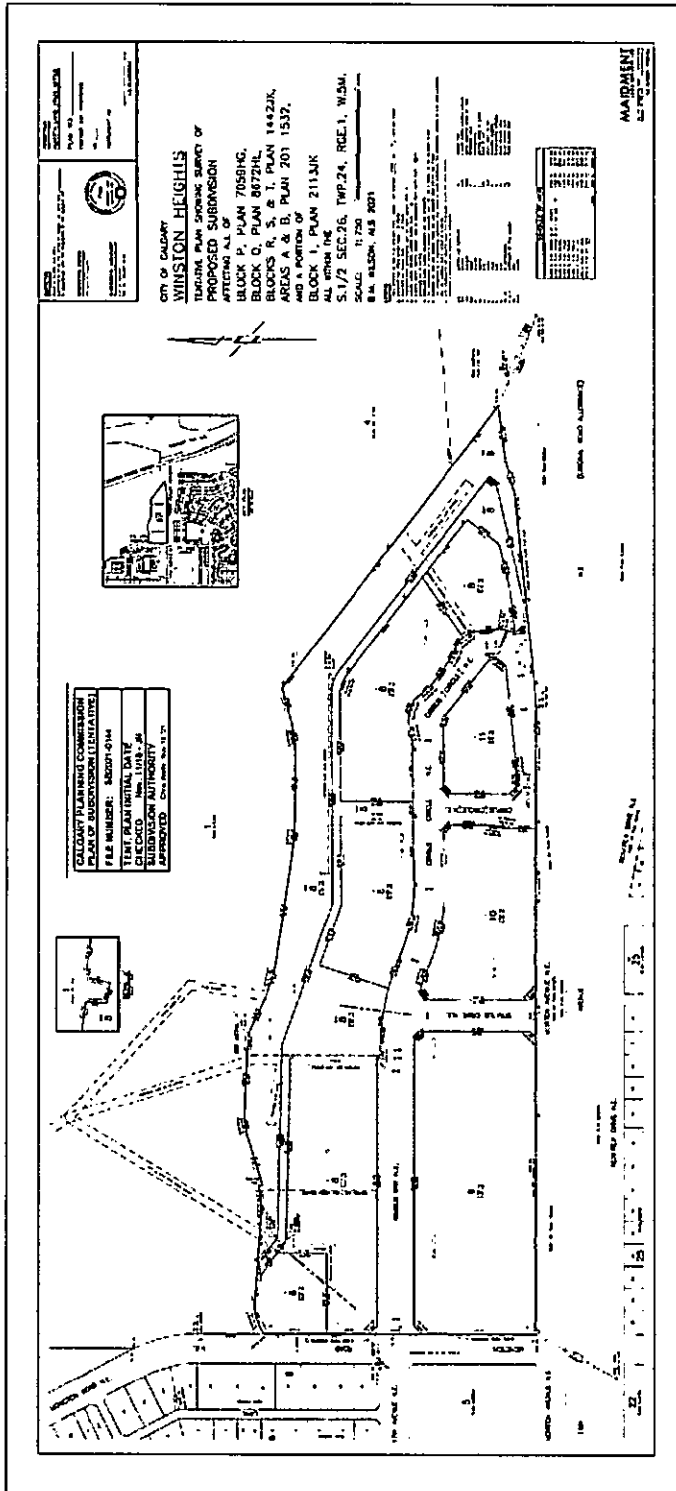
9. PLAN _____

BLOCK 11

LOT 1

EXCEPTING THEREOUT ALL MINES AND MINERALS

MAP 1



MIDFIELD HEIGHTS ATTACHMENT "B" DESIGN GUIDELINES



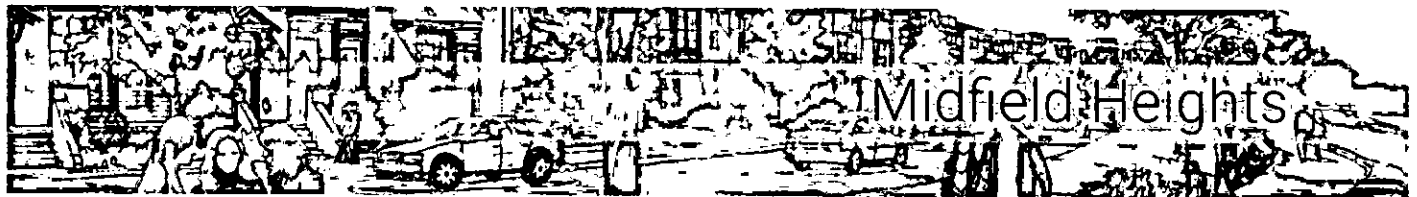
Midfield Heights

Development Guideline

March 2021



Land Use Plan . Design Guidelines
Architecture . Landscape . Sustainability



SITUATED 

UDA URBAN DESIGN ASSOCIATES

NORR

 GLOBAL RETAIL STRATEGIES INC.

Calgary 

 Russell Public Relations

 **Scheffer Andrew Ltd.**
Planners & Engineers

CARSON • McCULLOCH ASSOCIATES LTD.


MAIDMENT

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Executive Summary 0.0

How to Use the Guideline, Checklist, and Land Use Background Documents 0.1

The Midfield Heights Guideline is comprised of three documents: The Guideline, the Checklist, and the Land Use Background document. Each serves a separate function and are intended to be reviewed together in the following order:

1. Land Use Background

This document compiles the results of all of the research conducted into the Midfield Heights site to formulate the Outline Plan and Vision. It contains information ranging from site history and context, to relevant policies, community engagement, land use rationale, connectivity, outdoor amenities, and site servicing. It is not intended to be a standalone document, but serves as a starting point for research, with references to the many other applicable policies to be consulted through the planning and development phases for each parcel.

2. Guideline

The Guideline provides a rationale and framework for achieving the overall Vision and includes architectural, landscape, and sustainability targets.

Guideline targets are denoted with a **keynote**, as illustrated below. All of the keynotes throughout the Guideline are summarized in the Checklist as action items. So, keep in mind that you can refer back and forth between the Guideline and Checklist to gain further understand about each keynote.

3. Checklist

The Checklist provides action items for all of the Guideline targets. Action items are categorized as:

1. Required on all sites
2. Required on specific sites
3. Optional

Each checklist action item is scored as either being achieved (yes), or not achieved (no).

- Required Items: 100% must be achieved.
- Optional Items: may be added, or they may be substituted for a required item at the discretion of RE&DS.

Keynotes in the Guideline:
Blue keynotes in the Guideline correspond with checklist action items.

A 1 The keynote description in the Guideline provides detailed information regarding the topic that influences the action item in the checklist.

Keynotes in the Checklist:

Score Design Element

Yes . No **A 1** Action item

←-----→
Refer back and forth between the Guideline and the Checklist to gain further understanding.

?

Design Quality 1.0

Overview 1.1

This guideline aims to define good design, inspire its achievement, and provide a framework to review the success of future proposals.

The success of Midfield Heights (MH) is a collaborative effort amongst all parties involved in the conceptualization, design, and implementation of projects. For that reason, the design guidelines are included to provide a framework for that collective involvement.

The guideline intends to define the success of MH as "good design." The following pages outline reasons why good design should be the goal, what makes good design, and a checklist to measure the achievement of good design.

What is Good Design?

The development of Midfield Heights is considered successful when the people who live, work, and play in the community feel a sense of wellness and pride for their neighbourhood. The positive impact that the built environment can have on the inhabitants is a very real and tangible thing, supported by mounting research. Furthermore, the benefits that grow from this foundation are endless. Good design is not only meant to be aesthetically pleasing, but it also contributes solutions to solve problems, innovates for a higher quality of life, achieves economic success, and is environmentally conscious. As such, good design must also align with the City of Calgary Climate and Resilience Strategy.



Design Quality 1.0

Design Guideline Resources 1.2



The following are a few references of particular interest to address in conjunction with the overall design vision communicated here:

The Guidebook for Great Communities - Creating Great Communities for Everyone.
The City of Calgary, 2021.

This resource is a primary source of information for the design and implementation of all aspects of this community.

The Canadian Architecture Policy (currently being developed).
Working Group Member, Lisa Landrum interviewed by Canadian Architect Editor Elsa Lam.
An Architecture Policy for Canada. May 8, 2019.

This is a policy that began development in 2016 with a declaration expected prior to the 2023 phase of MH, when the sale of fully serviced and zoned parcels is underway. Accompanying the design and construction of the MH built environment, this document will provide a framework for quality architecture in relation to place, people, prosperity, and potential.

According to Working Group Member, Lisa Landrum, the Canadian Architecture Policy will help to shape a culture of design excellence, enhance government support, and public appreciation for great design. The key to note is that the initiative evolved from evidence showing the connection between design and improved social, cultural, and economic well-being. This clearly supports the MH design vision for success, as it addresses the positive social, cultural, economic, and environmental impact that the built form can have.

The following entities are participating in the development of this Policy:

- CALA (Canadian Architectural Licensing Authorities)
- CCUSA (Canadian Council of University Schools of Architecture)
- RAIC (Royal Architectural Institute of Canada)
- RAIC Indigenous Task Force
- Canadian Architecture Students Association
- Allied design and planning professionals
- Industry leaders
- Community activists
- Public officials

Design Quality 1.0

The Benefits of Good Design 1.3

The information available on the development of the Canadian Architecture Policy references inspiration taken globally. This highlights the value in learning about how other countries achieve great design and how we can implement those findings in solutions that are contextually appropriate. The journey continues to define what makes our built environment uniquely Canadian, while being open to pushing for better quality design and learning new perspectives.

To continue the discussion of how good design improves social, cultural, and economic well-being, and in the spirit of global inspiration, consider the following reference:

"Good Design - it all adds up" by the Royal Institute of British Architects (RIBA, 2011).

This report provides an overview of the benefits of good design, backed by research and case-studies enabling the quantification of the impact. A summary of the findings indicates good design achieves the following:

In general

- Investment in good design up front reduces costs over the life time of the building.
- Low quality design relates to poor health through exposure to harmful chemicals and materials.
- The social cost of poor health is immense as it over-burdens the health care system and leads to work and school absenteeism.
- Reduced maintenance expenditures through the use of more durable building materials.

Residential

- Improved mental health and sense of security for inhabitants.
- Good design positively impacts housing market values

Educational

- Poor air quality and overheating leads to drowsiness and impacts concentration.
- Over-reliance on electric lighting increases headaches, eyestrain, and fatigue.
- Good acoustics support the communication that is fundamental for education.
- Variable types of spaces support variable types of learning.
- Increases student motivation and effective learning time.
- Improved recruitment and retention of staff.
- Improved supervision of students, reducing bullying and vandalism.
- A noticeable drop in challenging behaviour.

Healthcare

- Reduces the time of a patient's stay
- Day light and outdoor views shown to lead to faster recovery.
- Single-occupancy rooms reduce medical errors and infection rates while increasing visiting by friends and family.
- Quiet environments support sleep.
- Good design impacts staff wellbeing and retention, impacting patient wellbeing.
- Reduces the spread of infection
- Increases work efficiency.

Work Places

- Creates places where employees want to work.
- User-centred workplaces contribute to employee recruitment, retention, and reduced absenteeism.
- Consideration of layouts, planning, acoustics, air-quality, humidity, temperature, lighting and glare leads to improved productivity and profitability.
- Inspires innovation and creativity.
- Considerable impact on how a business or brand is perceived.
- Higher quality design correlates with a higher return of investment.

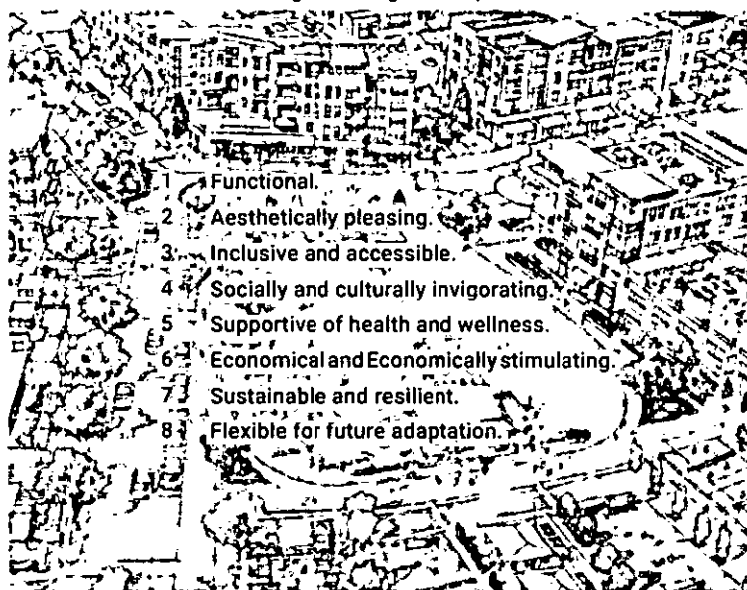
Public Spaces

- Impacts feelings of identity, personal belonging, and safety.
- Good design attracts inhabitants while poor design can leave spaces deserted and gravely impact economies.
- Active communities deter crime and unsocial behaviour.
- Greater biodiversity and better air quality lead to better health.
- Increased use of alternate forms of transportation also improves health.
- Increased property values and economic activity.
- Revitalise run-down neighbourhoods.

Design Quality 1.0

The Elements of Good Design 1.4

The vision of the Midfield Heights is one of a neighbourhood that residents are proud of and is a destination for visitors to enjoy. Achievement of this vision means all of the **elements of good design** are in place.

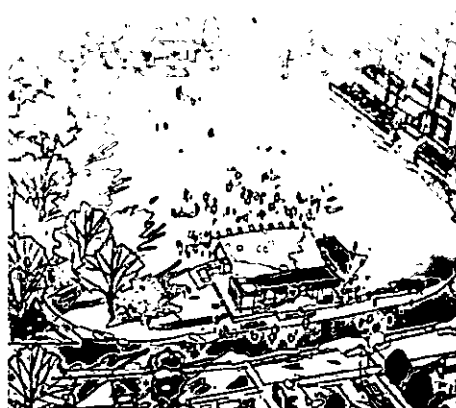


An important key to enable the success of this guideline, is the level of planning and commitment initiated right from the beginning of the project. In the case of Midfield Heights, given the development is entirely new construction, conversations around great and sustainable design must begin right at the start of each project. Defining the team's values that contribute to great design and desired strategies for sustainability may be costly or impossible if attempts are made to retroactively implement them. Design teams will save time, money, and other resources by establishing a cohesive plan right from the beginning. This is a sentiment that will be echoed in the sustainability guideline as well.

Design Quality 1.0

Fundamental Strategies of Good Design 1.5

The goal of this guideline is to ensure Midfield Heights sustainably encompasses excellent design quality across all facets, from urban to architectural. Design quality is discussed and examples of design elements to incorporate are shared in the following pages. All of this information is captured in a checklist to assist design teams and reviewers in determining the success of a development application. Given the location of the site in an established neighbourhood with a diverse character, Midfield Heights is envisioned as a **contemporary** development. The emphasis must be put on high-quality design and materials ensuring each development is a valuable contribution to the overall societal fabric. With that said, a summary of good design elements to incorporate follows:



Responsive to the surrounding community.

- Designs will pay homage to the existing neighbourhood and history.
- This does not mean a literal interpretation, but a subtle gesture while remaining autonomous to explore current and future design innovations and styles.

High quality materials.

- Increased durability, lowered maintenance costs, building longevity
- High quality materials can facilitate great design whether complex, or simple in form.

Strong connection to the natural environment.

- A high priority on natural light and views to the outside.
- Even the simplest of spaces and forms can be incredible spaces with this connection.
- Glazing in amenity spaces and corridors allow the outdoors to permeate inside.

A variety of spaces to encourage varied social interactions.

- Variable sizes, programming, flexibility, acoustics, locations, views, and lighting.
- Always with a connection to the natural environment outside.

Strategic visibility and lighting to inspire safety and security.

- Facilitate passive and active observation.
- Empower the community through ownership of their neighbourhood.
- Integrate functional, beautiful, and creative lighting that is contextually appropriate.
- Incorporate clear and creative way-finding strategies.

Careful consideration of acoustic qualities.

- Healing, rest, concentration, communication, comfort, performance.
- Feature acoustic treatments with unique textural and/or sculptural qualities.

Engagement of all user groups for comprehensive solutions.

- Balance the diverse array of needs to optimize the outcome.

Collaboration across all design disciplines.

- Engage design team members as early in the process as possible.
- Incorporate, celebrate, or conceal engineering systems deliberately.
- Enmesh the urban, landscape, architectural, and interior design fabrics.
- The community becomes a place of exploration and discovery.
- Buildings and interiors respond to landscaping through the design of threshold and views.

Architectural Design Guidelines 2.0

Overview 2.1

Midfield Heights Design Inspiration

Contemporary . Iconic

Clean, simple, and striking form created using high-quality materials.

Contrasting colour and texture - Carefully placed volumes and voids.

The urban forest - Architecture and Landscape Integration.

With the elements of good design in mind, the design guideline displays a number of projects from Calgary and around the world that exhibit the desired qualities. The projects and diagrams included in this section represent urban and architectural design that is considered contemporary, iconic, and creative. The qualities that make each of these projects successful is discussed in detail, with the aim to inspire the design direction for Midfield Heights.



(A/F) Carson McCulloch (B) Sturgess . 2006 (C) MODA 2019 (D) K M Cheng Architects Bosa 2014 (E) ArchitectureVictoria . 2019 (G) GEC . Batistella . 2013 (H) Bolduc . 2020

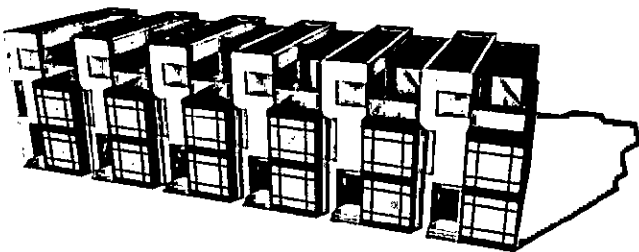
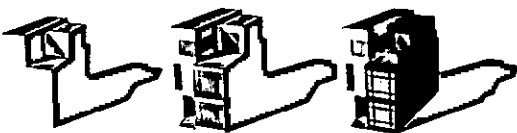
Architectural Design Guideline 2.0

Overview 2.1

The architectural guideline is structured such that key principles are applied at any building scale and typology. Contemporary buildings are composed of simple forms assembled into one cohesive design. High quality materials and strategic incorporation of voids become the most important elements that will breathe life into the building design.

Fundamental Points:

1. Massing Assembled into One Cohesive Design.
2. Placement of Voids for Entry and Views.
3. Prioritization of High Quality Materials.
4. Large Massings Composed of Distinct Forms.



Key elements discussed in the Guideline:

- Contemporary Roof Types
- Townhouse Design
- Mid Rise Residential and Mixed Use
- Architecture and Urban Fabric
- Materiality

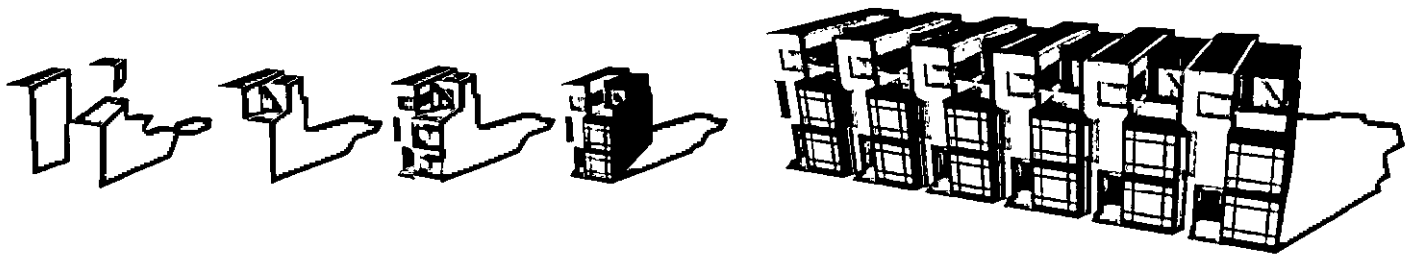
Architectural Design Guidelines 2.0

The Flat Roof 2.2

The Flat Roof

Clean Lines

While the flat roof is often seen as inherently contemporary, care must be taken to ensure the design remains refined, rather than becoming overly complex, or cluttered. Focus on simple massing, overall sculptural quality, and the creation of rhythm.



(A) Hindle Architects Brookfield Residential . 2018

(B) RNDSQL . 2019

(C) Sturgess Architecture . 2006

(D) Samuel Delmas

Architectural Design Guidelines 2.0

The Contemporary Pitched Roof 2.3

Note: Blue keynotes correspond with checklist items



(A) T.W. Ryan Architecture . 2018

(B) ArchitectureVictoria . 2019

(C) Studio North . 2017

(D) Studio North . 2016

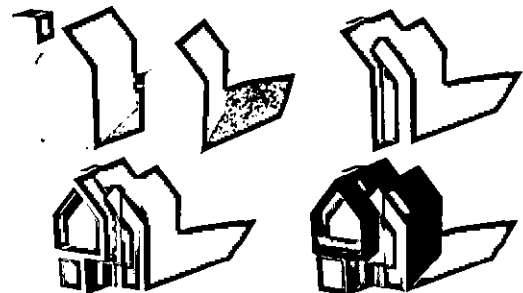
The Contemporary Pitched Roof

Symmetrical or Asymmetrical

The use of the contemporary pitched roof is contextually appropriate, providing a nod to the many suburban homes of the surrounding community. This option draws inspiration from Scandinavian architecture, lending well to our colder northern climate.

Items A1 to A6 are general elements to be considered for all contemporary design and apply to both pitched and flat roofs.

- A 1 **Sculptural Quality:** The contemporary style appears as a single simple volume, or a collection of simple volumes arranged together to create the overall building form.
- A 2 **Roof to Wall Transitions:** A seamless transition of the roof to the walls contributes to the clarity of each massing. The roof line is sharp, simple, and distinct.
- A 3 **VOIDS for Entry, Views and Articulation:** Voids in each mass contribute to building articulation and establish entry or view points. Voids may be used to create different types of outdoor spaces such as roof-top or grade-level patios, balconies, or courtyards.



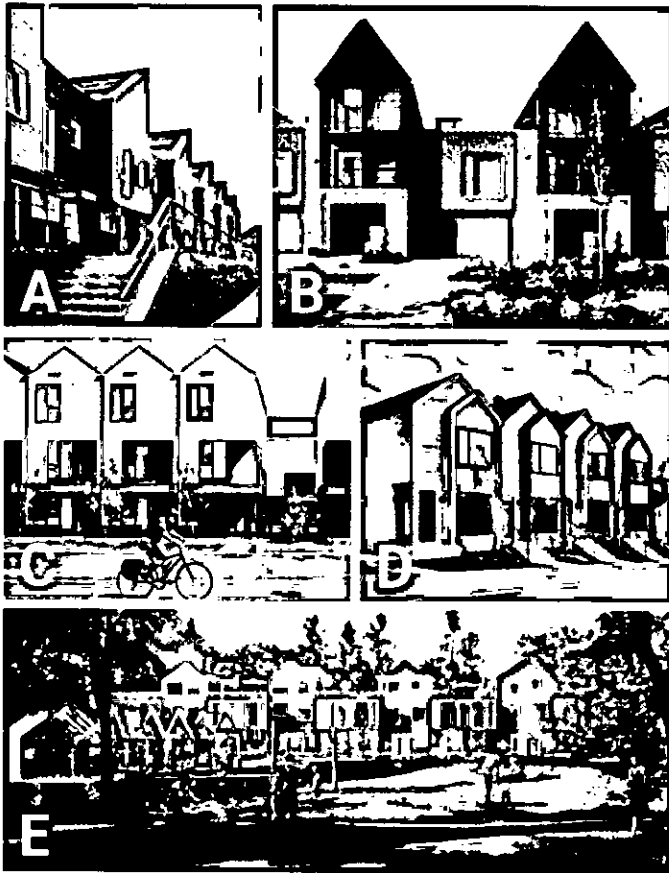
Architectural Design Guideline 2.0

Townhouse Design 2.4

The Contemporary Townhouse

Rhythm

The principles of contemporary design are introduced as repeated volumes to create townhouses. Facades are divided into distinct dwelling units. Interactions between units are considered on a larger scale. Maintain simplicity through clarity of volume and quality of material while creating interest through articulation.



- A 4 Townhouses Divided Into Dwelling Units: Massing and materiality are used to divide the overall townhouse structure into individual dwelling units.
- A 5 Functional Spaces are Legible from the Exterior: Interior program defines the exterior volumes (form follows function). This includes well-defined entrances.
- A 6 Interactions Between Units and Buildings: Curate and deter views and sound transmission to create private and public spaces.



(A) Sheppard Robson . 2016 (B) Proctor and Matthews Architects . 2019 (C) Hindle Architects . Attainable Homes . 2017 (D) RNDSQL . 2017 (E) KAAN Architecture

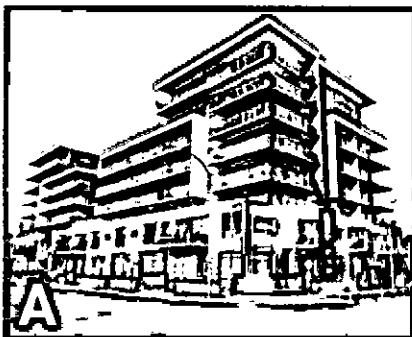
Architectural Design Guidelines 2.0

Mid Rise Residential and Mixed Use 2.5

Mid Rise Residential and Mixed-Use

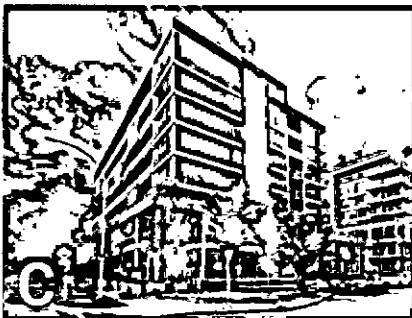
Principals of Contemporary Design Scaled Up

The overall design of mid rise buildings reflects many of the principles already discussed. The assembly of simple forms in to a sculptural and cohesive design applies. Given the increased scale, it becomes even more important to create spaces that are intimate.



A 7 A Well-Defined Podium: This will ground the building and provide a welcoming pedestrian experience. It will support residential or retail at grade where the building interlaces with the urban realm.

A 8 Distinct Building Entrance Design: Entrances are clearly defined.



(A) NORR AEP . Birchwood . 2017

(B) Raw Design. FRAM + Slokker . 2015

(C) GEC . Battistella Developments . 2014

(D) KM Cheng Architects . Bosa Development . 2014

Architectural Design Guidelines 2.0

Architecture and Urban Fabric 2.6

Interaction with Urban Fabric

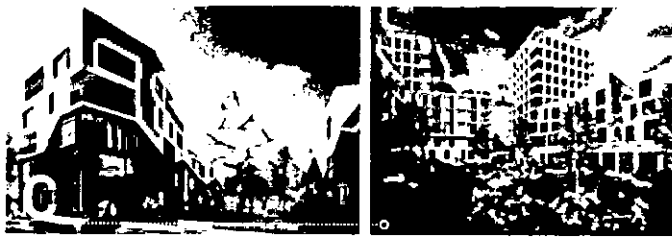
Community Integration

The building design must emphasize the interaction between the architecture and the urban realm. This can be imagined as the interlacing of the landscaping with the building, including the blurring of threshold from inside to out.

The best architecture is like a symphony, it works with everything around it to create beautiful music. Part of that music is the spaces in between buildings, because that's where people meet in a city or town... That's the public realm.

Architecture has a duty to make the public realm better.

Robert Steuterville



(A) Oyapock Architects

(B) OPEAA Architects

(C) MFR Architects

(D) why Architects

(E) NL Architects

(F) La Shed, 2017

(G) Hecker Guthrie

A 9 Varied Outdoor Spaces: The spaces between buildings, on roof tops, and in other architectural voids can all be programmed in creative ways to support community.

A 10 Interlaced Interior and Exterior: Architectural voids invite the urban landscape to interlace. Finishes flow from inside to outside. Flooring becomes paving, which becomes planting. Facades may be opened in the warmer months.

A 11 Emphasize Frontage: On all sites, create welcoming building frontages in correlation with the landscape design. This encompasses frontages on streets and green spaces, including frontage onto the escarpment.

A 12 Daylight Penetrates Internal Occupied Spaces: Corridors and Internal Rooms have glazing and light wells to bring in natural light.

A 13 Landscaping Coordinated with Building Views: Landscaping interacts with glazing, doorways, and patios, so it is visible from within.



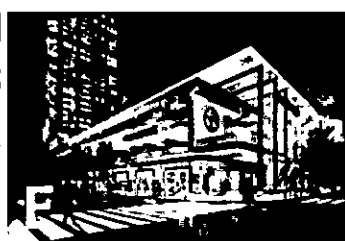
Architectural Design Guidelines 2.0

Service and Retail 2.7

Service and Retail

Iconic

Service and retail design is an opportunity to create unique and memorable landmarks within a community.



- A 14 Creative and Iconic:** Fun, quirky, and creative small-scale retail that may be either temporary or permanent. Innovative use of materiality and simple yet provocative formal gestures create memorable neighbourhood icons.
- A 15 Welcoming Storefronts:** Created using beautiful and durable materials, transparent glazing, and strategically placed canopies overhead.
- A 16 Distinct Retail Bays:** Massing and materiality divides the retail podium into distinct sculptural volumes (bays) that contribute logic and interest to the pedestrian experience.

(A) Springboard Performance . CMLC . 2017 (B/F) NORR AEP (C) MODA . 2019 (D) KM Cheng Architects . Bosa Development . 2014 (E) Abugov Kaspar . Bosa . First Capital . 2019

Architectural Design Guidelines 2.0

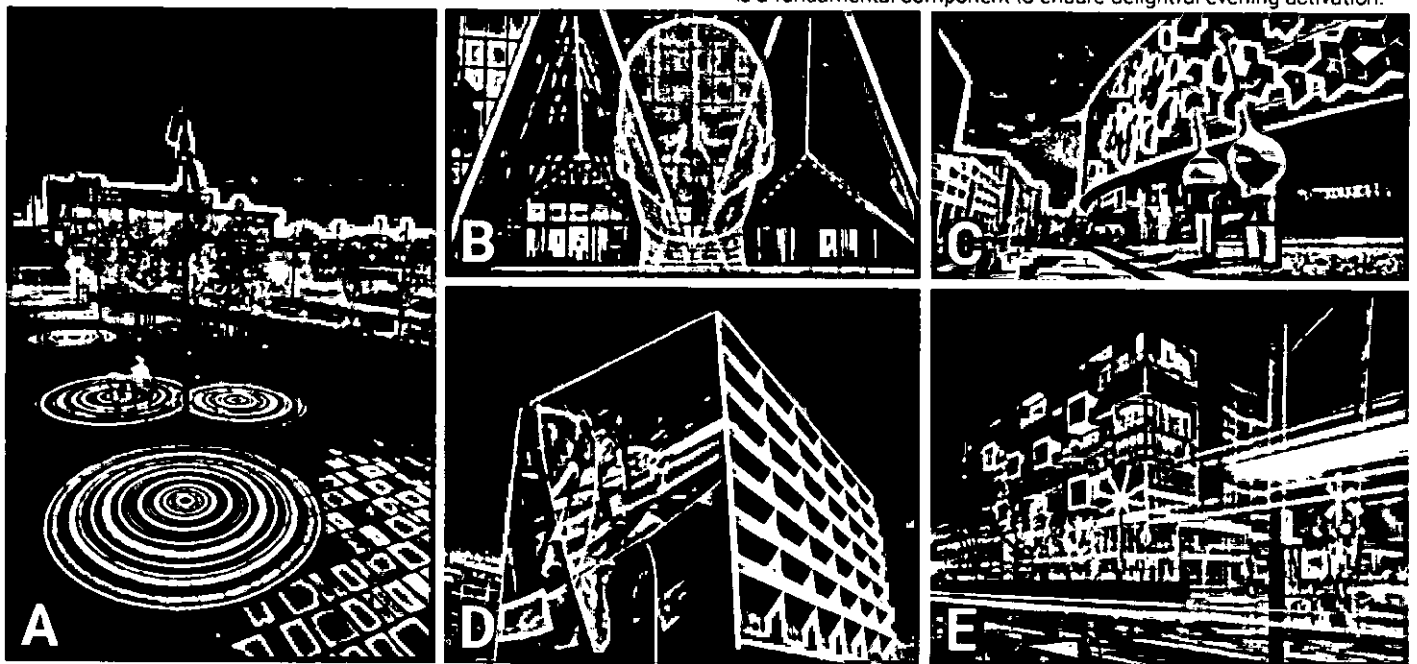
Public Art and Creative Lighting Design 2.8

Art and Light

Vibrant Culture

A 17 Public Art: Feature at least one installation of public art. This can include, but is not limited to: a mural, sculpture, pavilion, digital, or mixed media.

A 18 Creative Lighting Design: Incorporation of creative and colourful lighting is a fundamental component to ensure delightful evening activation.



(A) AF Consult Et al . 2012 (B) Juame Plensa . 2012 (C) Christian Moeller . 2018 (D) Fluke . 2019 (E) GEC . Battistella . 2013

Architectural Design Guideline 2.0

Materiality . Overview 2.9

Midfield Heights is a community where iconic architecture is created through the use of beautiful materials that are skillfully detailed and crafted. This Guideline lists a wide variety of materials that may be incorporated into design proposals.

It is important to ensure that even the most common materials are specified to a high degree of quality. There are many incredible projects around Calgary that exhibit familiar materials that have been incorporated in skillful and contemporary ways.

The following pages provide further information about each material, alongside precedent images that display their skillful implementation.

A 19 Staple Materials

- Wood
- Masonry
- Metal Lap or Panel
- Composite Lap or Panel
- Corrugated Metal
- Standing Seam Metal
- Fibre Cement
- EIFS

* Vinyl Siding Prohibited

A 20 Simple Primary Material Palette: Consisting of two to three main materials.

A 21 Raw Material Celebrated: The material design of a project is enhanced by the celebration of raw materials. For example, alongside a more traditional material product or finish typically seen in Calgary, the project may feature concrete, terra-cotta, brick, stone, wood, or metal displaying natural colours and textures.

A 22 Enhanced Durability at Building Base: Focus highly durable materials within the first one to two storeys of the building.

(A) Sturgess . 2006 (B) MODA . 2019 (C) Hindle Architects . Attainable Homes . 2017



(D) Studio North . 2016/2017

Architectural Design Guidelines 2.0

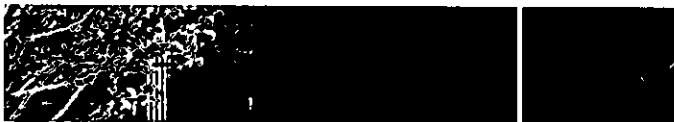
Materiality . Overview 2.9

A 23 Cladding Panel - Frame and Fastener Requirements: The use of a cladding panel with an exposed trim and fastener system is discouraged. If contemporary design and detailing is exhibited, then the maximum allowable area of the panel and exposed trim system is 60% of the building facade. Trims *must* be colour-matched to the adjacent cladding colour. Fasteners *must* be concealed within the system or sunken flush and concealed with the appropriate material (paint or other). Consult the manufacturers specification for appropriate detailing.

A 24 Intentional Exploration of Texture: Use the natural quality of the material to create unique design through texture. Juxtaposition smooth materials next to rough. Create patterns through the variable configuration of a single material. However, use this strategy selectively to ensure the design remains clean and simple and does not appear cluttered.



A 25 Strategic and Refined Use of Colour: The incorporation of colour is optional and should be done so with careful consideration. Colour may be introduced as a simple highlight, ensuring it complements surrounding raw materials, or it may be introduced in a provocative manner drawing inspiration from graphic design.



(A) Proctor and Matthews Architects . 2019

(B) Sheppard Robson . 2016

A 26 Creation of Depth Through Layering: Consider layering materials to create depth and interest. Allow materials to project and inset to animate the building form and facade.

A 27 Material and Light: Incorporate light as a material. Play with the ways light may interact with translucent materials and different textures.

A 28 Material Innovation: Innovative use of materials is strongly encouraged. Design teams are permitted to propose materials that are not on this list. Proposed materials must be accompanied by rationale supporting the contemporary use and high standard of quality. The proposal must also reference existing projects where the material is used in environmental conditions similar to that of the Albertan climate.

Innovative Material Examples

- Glassfibre Reinforced Concrete
- Corten Steel
- Cement Wood Board
- Metal Design

Features + Interaction with Light

- Inset Concrete
- Translucent Concrete
- Fibreglass Reinforced Polymer
- Stabilized Aluminum Foam

Architectural Design Guidelines 2.0

Materiality . Innovative Material Precedents 2.10

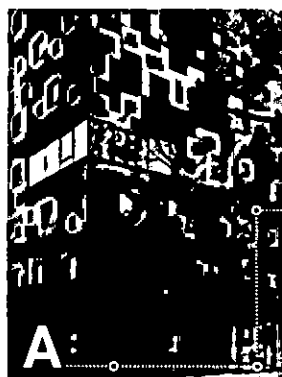
Innovative Exterior Materials

Glassfibre Reinforced Concrete

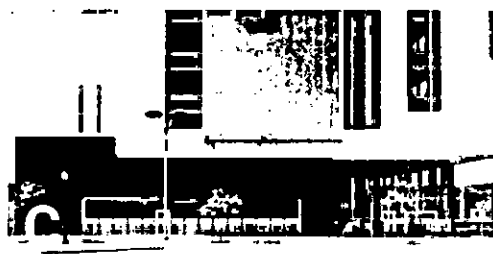
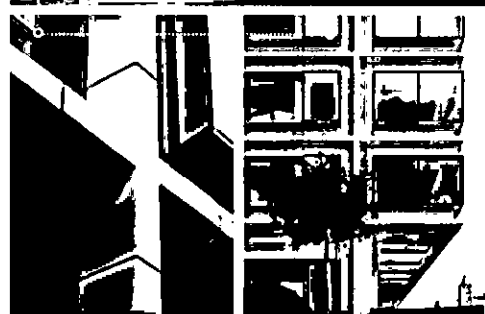
Shapes, Colours, Surfaces and Perforations for a Customized Design.

Ventilated Facade Systems.

Concealed Fasteners.



Glassfibre reinforced concrete
Panel format . Strip format



(A) Group A , Architects . 2009

(B) Diamond + Schmitt Architects Inc . 2015

(C) Demonica Kemper Architects . 2014

Architectural Design Guidelines 2.0

Materiality . Innovative Material Precedents 2.10

Innovative Exterior Materials

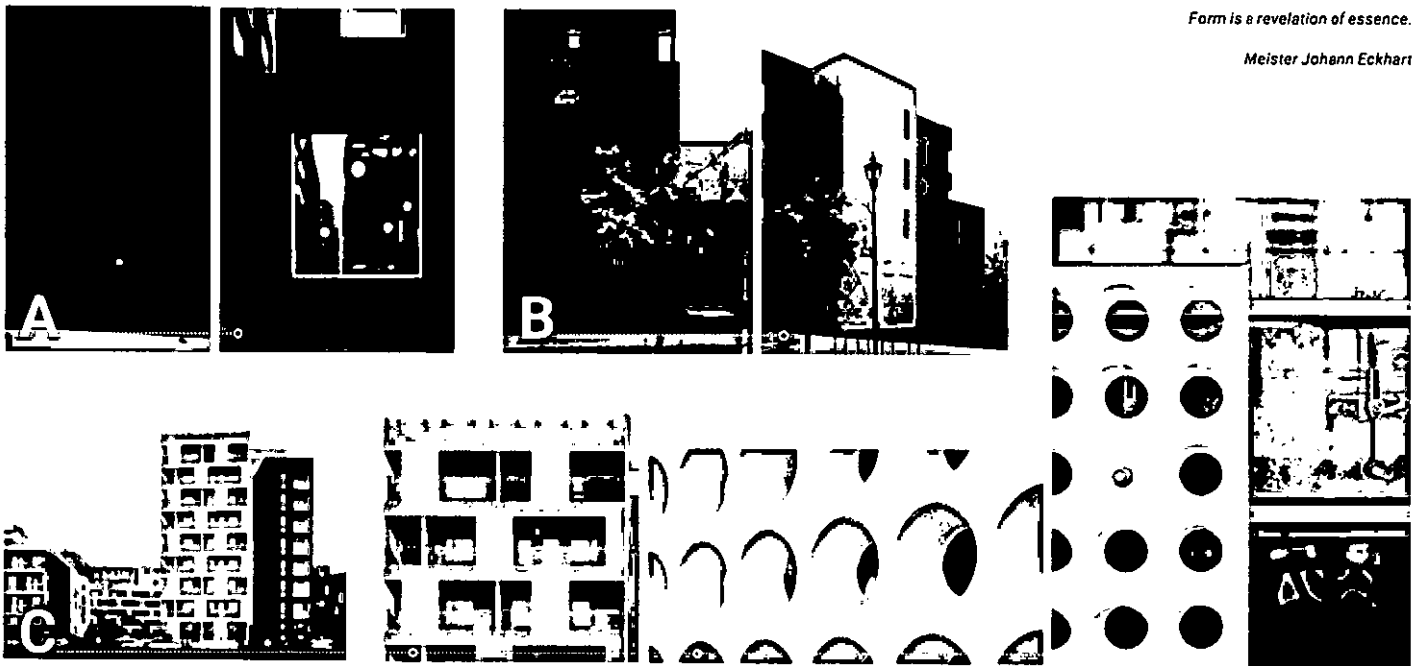
Glassfibre Reinforced Concrete

Combination of Colours and Textures.

Concrete Skin . Visual Layers.

Form is a revelation of essence.

Meister Johann Eckhart



(A) Architects consortium: Vilhelm Lauritzen Architects, Christensen & Co Architects a/s, COBE, NORD Architects and Effekt 2015 (B) Solomon Cordwell Buenz SCB MI . 2018 (C) Oberlin, USA

Architectural Design Guidelines 2.0

Materiality . Innovative Material Precedents 2.10

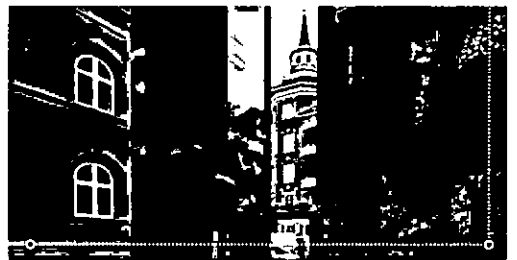
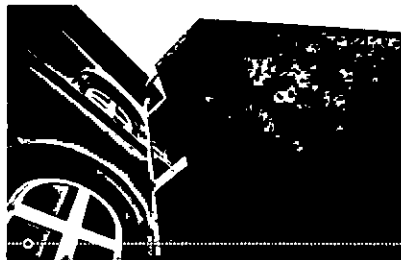
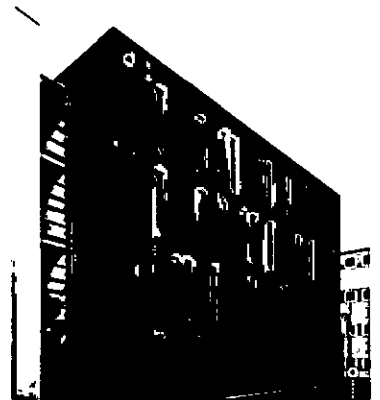
Innovative Exterior Materials

Corten Steel

Feature Element.

Patina . Evolution Over Time.

Opaque . Perforated . Textures.



(A) Visloarq Arquitectos (B) Vigsnaes Architects . Jarmund . 2016 (C) Østergaard Arkitekter A/S

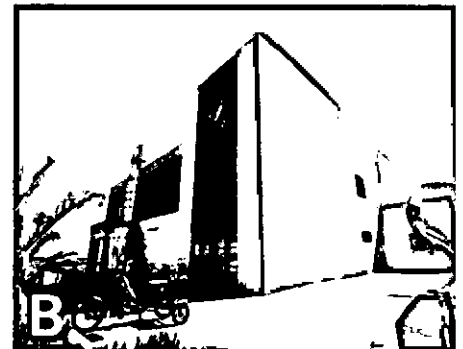
Architectural Design Guidelines 2.0

Materiality . Innovative Material Precedents 2.10

Innovative Exterior Materials

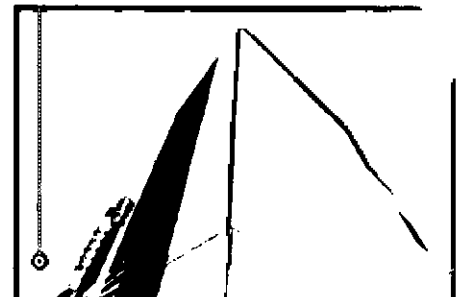
Cement Wood Board

Integration with the Natural Environment.



(...) an envelope and background for life which goes on in and around it, a sensitive container for the rhythm of footsteps on the floor, the concentration of work, for the silence of sleep.

Peter Zumthor



(A) Jeb Thornburg, Indigo Architecture & Interiors

(B) Miguel Caetano

(C) Hugo Gonçalves | H5 architecture . 2018

(D) Miguel Caetano

Architectural Design Guidelines 2.0

Materiality . Innovative Material Precedents 2.10

Innovative Exterior Materials

Metal Panel

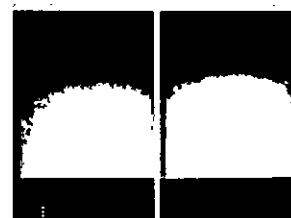
Metal Panel . Artistic Expression Through Design . Living Design

Architecture is Invention .

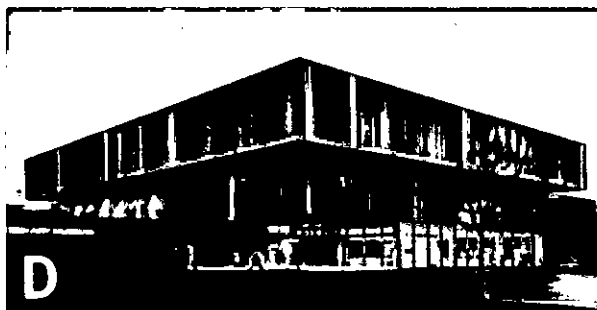
Oscar Niemeyer



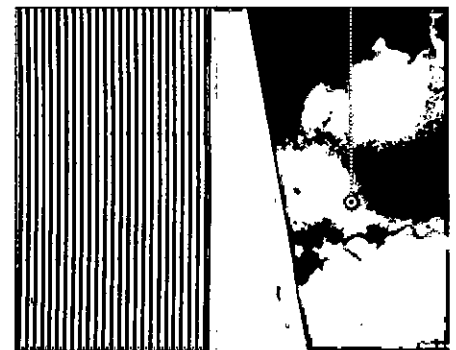
(A) Element Architects



(B)



(D)



(B) KAAAN Architecture

(C) Samuel Delmas

(D) wHY Architects

Architectural Design Guidelines 2.0

Materiality . Innovative Material Precedents 2.10

Innovative Feature Materials

Interior and Exterior

Day and Night Activation . Enhanced Envelope Performance

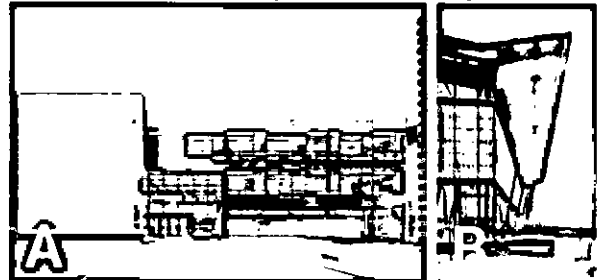
Translucent Material . Concrete



No design is possible until the materials with which you design are completely understood.

Ludwig Mies van der Rohe

Translucent Material . Fibreglass Reinforced Polymer



Stabilized Aluminum Foam



Inset Concrete Design



(A) Gruzen Samton IBI Group . 2011

(B) Perkins & Will . 2017

Architectural Design Guidelines 2.0

Details 2.11

Architectural Details

Consideration of the Finest Detail Level

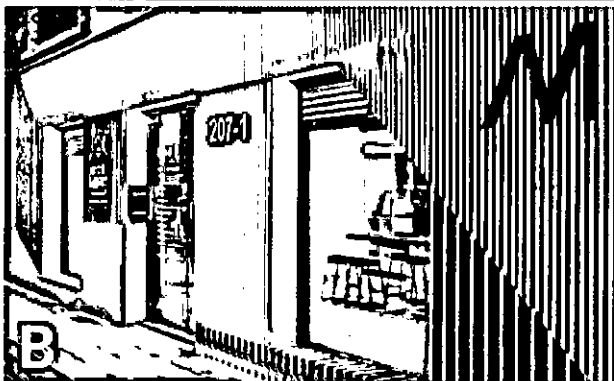


A 29 Structural Details: Creative celebration of structural details.

A 30 Building Services: Creative concealment or deliberate celebration of mechanical and electrical systems.

A 31 Building Facade: Unique implementation of details at material transitions or to create feature elements. Demonstration of intentional planning and implementation of facade design at not just the large, but also the small scale.

A 32 Doors and Windows: Select doors and windows are chosen to implement feature design solutions.



(A) Gensler . CLB Architects . 2010

(B) Fatourechiani

(C) GEOM Design . 2019

Landscape Design Guidelines 3.0

Overview 3.1

Landscape Design

Key Elements:

- Connectivity
- Courtyard, Patio and Plaza Design
- Frontage Landscape
- Laneways and Surface Parking



(A) Hewitt . 2019

(B) ADM Architects . 2014

(C) Braaksma & Roos Architectenbureau . 2013

(D) Proctor and Matthews Architects . 2014

(E) Bolduc . 2020

Landscape Design Guidelines 3.0

Connectivity 3.2

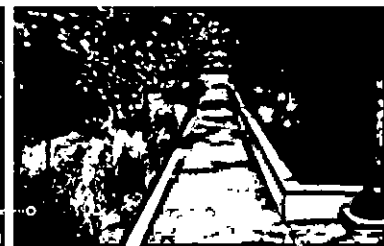
Midfield Heights includes off-street multi-use and regional paths connecting to the city wide network, as well as local pathways providing secondary routes within the village and linking the residential areas to the neighbourhood parks.

- L 1 Comprehensive Connectivity:** Where private property fronts onto parks, open spaces, or pathways, incorporate additional hard landscape connections. Internal pathways should be designed to promote accessibility, connectivity and enjoyment of natural areas, parks, and communities.
- L 2 Hard Landscape Materiality:** Broom finish, light sandblast concrete, or concrete unit pavers are acceptable finishes.
- L 3 Placemaking:** Incorporation of public art, raised planters, trellises, arbors, and / or shade structures aid in placemaking, creating comfortable and attractive destinations.
- L 4 Contemporary Urban Furniture and Structures:** Incorporate contemporary furnishings, unique lighting and bollards to create a safe and pleasant experience.
- L 5 Facilitate Views:** Consider framing view corridors. Incorporate windows, patios, and porches that overlook public spaces for added "eyes on the street" or park. Visually connect private outdoor spaces to public parks.
- L 6 Enhance "Rear" Connections:** Where rear entries occur, provide well-lit walkways, which connect the rear of the site to public sidewalks. Enhance these walkways with soft landscaping.



(A) Bolduc . 2020

(B) Kirkor Architects . 2017



Landscape Design Guidelines 3.0

Courtyard, Patio, and Plaza Design 3.3



(A) LADesign

(B) Runberg Architecture Group . 2020

(C) Novakovic

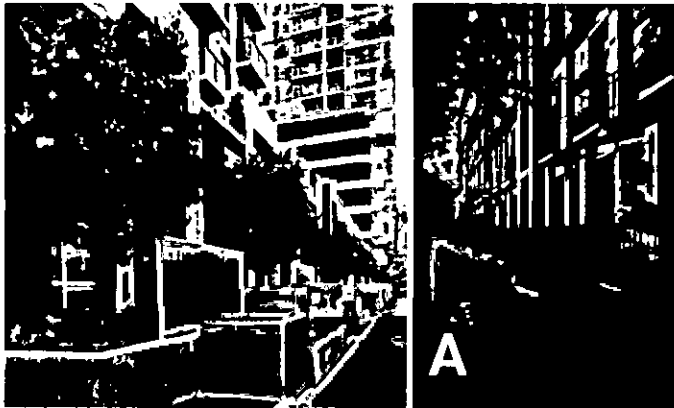
L 7 Courtyard, Patio, and Plaza Design: Design elements should include legible paths, pedestrian scale lighting, fixed seating, bicycle parking, and optional site amenities such as trellises, arbours, and/or shade structures, water features, BBQ stations, or fire pits. Locate amenity spaces where there is access to sunlight.

L 8 Nimbus Way Activation: Designs that are geared toward commercial, retail, and restaurant uses along the north property line of Site 1 are highlight recommended. For example, awnings, retail entries, and added seating. The generous 4.7 meter wide sidewalk in this location is intended to allow for patio space, pop-up markets, etc. No landscape setback is required.



Landscape Design Guidelines 3.0

Frontage Landscape 3.4



(A) ADM Architects . 2014

(B) Trinity Bellwoods 2013

L 9 Private and Public Space Delineation: The transition between public and private spaces within the development should be made clear through the use of low retaining walls and/or fences and soft landscaping – ie: 'Street Gardens'. Where a ground floor use is residential or a below-grade residential entry exists, provide soft landscaping between the building and the public walks. Emphasize main entries with high quality materials.

L 10 Frontage Landscape: Trees and other plant material should be planted on private property fronting the street where possible creating an attractive "green" street. Retain and protect existing trees.

L 11 Integrated Seating: Allow for convenient respite.

L 12 Community Identity: Reinforced by good lighting design, site furniture, bike racks, annual planting, legible addressing, and public art. Distinguishing features improve wayfinding.

L 13 Equipment Screening: Where possible, located meters, vents, grates, transformers, and utility boxes away from public walkways and open spaces (preferably within a building or at the rear of the site / back of house). Otherwise, screen such elements with high quality architectural or landscape elements (building insets, low walls, or planting).

Landscape Design Guidelines 3.0

Laneways and Surface Parking 3.5

- L 14 Laneways and Unique Paving Design:** Rolled or flat curbs and specialty paving blurs sidewalks with the roadway, cueing users to view the lane as shared space.
- L 15 Laneway Planting:** Where space permits and visibility is assured, provide for plant material within the laneways and private driveways in order to soften the space.
- L 16 Laneway Lighting:** Consideration for wall mount, catenary lighting, bollards, or shorter pole lighting is encouraged. Use high-quality, efficient, and durable fixtures, which minimize overlighting, glare, or spillage.
- L 17 Surface Parking Landscaping:** Include soft landscape planting (islands, medians, and edge treatments) for all surface parking lots to soften hardscape, maximize shading and to provide stormwater benefits.



(A) Proctor and Matthews Architects . 2014

(B) Hewitt . 2019

(C) Braaksma & Roos Architectenbureau . 2013

(D) Alison Brooks Architects . 2015

(E) Bolduc . 2020

Sustainability Design Guidelines 4.0

Overview 4.1

The beginning of the 21st century marked a drastic shift in our understanding of the correlation between human actions and severe environmental consequences. As 2006 yielded warmer-than-average temperatures for the thirtieth consecutive year, the discussion about climate change took center stage. While the Theory of Human-Induced Climate Change gained the support of respected scientific organizations around the world, the modern concept of Sustainability began to take shape (*Statistics Canada, 2018*). Sustainability considers environmental, social, and economic impacts. Sustainability initiatives take into consideration an entity's impact across these three factors. Sustainability policies inspire innovation in operations, processes, services, and products that will address world challenges. Solutions prioritize the well-being of the world first, as a means to simultaneously improve the well-being of the self (*Smith, 2019*).



Environmental

(United Nations, 2019)

2018 reported:

- The fourth warmest on record.
- CO₂ continued an upward trend.
- Ocean acidity is now 26% higher than pre-industrial times. It is expected to increase by 100% to 150% by 2100 at current rate of CO₂ emissions.

(Statistics Canada, 2016)

- Melting glaciers and polar ice caps leads to raising sea levels putting coastal regions at risk.
- Increase in frequency of extreme weather.
- Reduced access to remote areas that would be accessed via ice roads.
- Increased spread of invasive species like the mountain pine beetle resulting in the death of pine trees across millions of hectares.

(Climate Atlas of Canada, 2019)

- Worsening of the key ingredients to destructive wildfires: fuel, ignition, and weather.
- Vicious cycle: Increased wildfires leads to increased greenhouse gas pollution.



Social

(United Nations, 2019)

2018 reported:

- Increasing inequality among / within countries.
- Young people are three times more likely to be unemployed than adults.
- 1/4 of people with severe disabilities collect a disability pension.
- Women and girls still face barriers to achieve equality.
- The number of people living in extreme poverty has declined from 36% in 1990 to 8.6% in 2018. The pace is decelerating as the world struggles to respond to entrenched deprivation, violent conflicts, vulnerabilities, and natural disasters.
- 3/4 of stunted children live in Southern Asia and Sub-Saharan Africa.
- Extreme poverty is three times higher in rural than urban environments.
- Global hunger is on the rise after a prolonged decline.

(CMHC on Affordable Housing Need)

- Spending >30% of income on housing is a core housing need (experienced by 27% of Canadian Households). >50% is severe housing need (10.5% of Canadian Households).



Economic

(Smith, 2019)

Three stakeholders inspire economic sustainability:

- Investors - Look to sustainability as a sign of strong management, governance, and long-term thinking.
- Over \$22 trillion in assets being professionally managed under responsible investment strategies (an increase of 25% since 2014).
- A 2014 research study (CDP) found that corporations that plan for climate change achieve an 18% higher return on investment than companies that aren't planning and a 67% higher return than companies that refuse to disclose emissions.
- Employees - Millennials care and by 2025 they will make up 75% of the work force. Companies must keep this in mind if they want to attract and retain top talent.
- Consumers - Support sustainability via purchases and boycotting.

Sustainability Design Guidelines 4.0

The Sustainability Vision for Midfield Heights 4.2

The intent of Midfield Heights is to express the City of Calgary's commitment to sustainability, resilience, and climate change. This commitment has been the focus of long-term, collaborative planning for many years and contributes toward the imagineCALTARY 100 year vision and beyond. As a part of this commitment, the City has identified a variety of goals, objectives, targets, indicators, and strategies for achieving them. These same principles provide a guiding framework for implementation as Midfield Heights becomes a reality. This reality will mean a balance of environment with recreational and user needs, ensuring short term decisions align with the high quality of life that Calgarians desire now and into the future.

As discussed previously, sustainability is truly a broad term that encompasses many aspects of life, ranging from environmental, to social,

and economic. It is important that all aspects are considered through the planning and development of this new community. Thus, this sustainability guideline seeks to cover the wide range of possibilities and perhaps inspire innovative ideas beyond what is imagined here.

Inherently, the site for MH is positioned well to become a sustainable community that Calgarians can be truly proud of. The efficient use of land and infrastructure is a key component to ensuring sustainability goals are achieved. The development of this site enables the concentration of population density in an area that is built-up with transit connections and services ready to be utilized. Furthermore, the community plan intends to enhance those existing features to ensure a mutually beneficial relationship with the surrounding community - providing more services, opportunities to live and work, and improved connectivity.

RE&DS - Affordable Housing Plan

The City's Real Estate & Development Services (RE&DS) business unit is committed to creating an inclusive development in Midfield Heights, in keeping with the Winston Heights-Mountview Redevelopment Plan and imminent North Hill Communities Local Area Plan. The intent for the Midfield Heights plan is to designate from 5% to 15% of the residential units for non-market and workforce housing. The specific details of the non-market housing is under development between RE&DS and respective business partners, Affordable Housing and Attainable Homes.



Sustainability Design Guidelines 4.0

Sustainability Resources 4.3

A list of resources and building certifications to consider is shared to the right. Given that research around sustainability continues to evolve at an exponential pace, this is not to be considered an exhaustive list of all possible information. All parties involved in the development of MH at any stage must revisit sustainability goals and resources available as we progress into the future. The most current sustainability goals and resources will supersede those referenced in this document at the time of development proposal and review.

Local Resources:

- The City of Calgary Office of Sustainability.
- The City of Calgary Climate and Resilience Strategy.
- The imagineCALGARY Long-Range Urban Sustainability Plan.
- The 2020 City of Calgary Sustainability Direction.
- The Triple Bottom Line Policy Framework (October 2011 Update).

Building Certifications to Consider:

- LEED v4 BD+C (or v4.1 if it is more applicable).
- Built Green High Density (HD).
- Built Green Single Family (SF).
- WELL Building Standard.
- CaGBC Zero Carbon Building - Design (v2) standard.
- International Living Future Institute Living Building Challenge.



Sustainability Design Guidelines 4.0

Sustainability Target Summary 4.4

This sustainability guideline divides the various targets into the two categories summarized below. It is important to note that this list of targets is intended to form the baseline for further exploration by the design team, including a sustainability consultant to advise on the viability of each target and suggest further options that may be available. Implementation that goes above and beyond the content of this guideline is encouraged. Not all targets apply to all sites, as some are site-specific depending upon factors like the permitted and discretionary uses, or slope stability.

Summary of Sustainability Targets to be Achieved	
Building and Building Design Elements	Neighbourhood Design Elements
GHG Reduce Greenhouse Gas Production.	ND1 Design for safe, inclusive, and accessible public spaces.
B1 Create an energy efficient building.	ND2 Emphasize great design of and connectivity to the pathway system.
B2 Reduce energy consumption through monitoring and management.	ND3 Provide four-season, flexible design.
B3 Design adaptable and flexible buildings.	ND4 Provide community gardens and urban agriculture opportunities.
B4 Consider opportunities for shared / co-retailer ground floor spaces.	ND5 Protect the natural ecosystem.

As previously stated in the general design guideline section of this report - The success of this guideline will depend upon the level of planning and commitment initiated right from the beginning of the project. Sustainability options that could be financially and technically reasonable to implement with proper planning, may be impossible to incorporate later in the project. The small amount of time and resources that it takes to properly plan right from the beginning has the potential to save incredible amounts of money throughout design, construction, and the life cycle of the building.

Sustainability Design Guidelines 4.0

Building and Building Design Target Descriptions 4.5

Building and Building Design Elements

- B 1** Create an Energy Efficient Building.
- Target at least NECB Tier 2.
 - Energy Star appliances and fixtures.
 - Implement alternative forms of energy.
 - Engage a building envelope consultant to optimize envelope performance.
 - Prioritize a high standard of air quality.
 - Implement passive design principles such as consideration of:
 - Building positioning and massing
 - Strategic and seasonal sun-shading.
 - Glazing quality, size, and location.
 - Natural lighting and ventilation.
 - Coordination with landscaping to provide an adaptive environmental buffer.
- B 2** Reduce energy consumption through monitoring and management.
- Introduce building automation systems to minimize energy use.
 - Include automatic adjustments of lighting, ventilation, and temperature depending upon the occupancy and time of day or season.
- B 3** Design adaptable and flexible buildings.
- Provide a variety of different types of spaces with different connections.
 - Include spaces with open-ended programming and storage spaces for movable furnishing and equipment.
 - Include implementation strategies for future technology.
 - Balance flexible space with potentially costly structural systems and overuse of construction materials.
- B 4** Where appropriate, provide opportunities for shared / co-retailer ground floor spaces.
- Co-retail space for brands with a similar client base and/or complimentary goods and services.
 - Ensure retail activation for a wide range of hours in the day.
 - Incorporate live-work spaces and micro retail.
 - Provide co-working spaces.
 - Provide event spaces for entrepreneur meet-ups and events.

Sustainability Design Guidelines 4.0

Neighbourhood Design Target Descriptions 4.6

Neighbourhood Design Elements

- ND 1** Design for safe, inclusive, and accessible public spaces.
- Ensure barrier-free design of all public spaces and paths of travel throughout.
 - Create a barrier-free network integrating with surrounding parcels and to the community beyond.
 - Provide above-standard accessible design of amenities and services.
 - High visibility of all spaces from streets and surrounding buildings.
 - Strategic lighting to enhance visibility.
 - Aesthetically pleasing obstacles to prohibit vehicles from entering areas not intended for vehicle use.
- ND 2** Emphasize great design of and connectivity to the pathway system
- Ensure each parcel responds to neighbouring parcels and the community beyond.
 - Ensure enhanced and beautiful overall connectivity to transit (i.e. the MAX Orange BRT station) from every site.
 - Support multi-modal forms of transport (walking, cycling, scooters, etc.)
- ND 3** Provide four-season, flexible design.
- Ensure built environment orientation maximizes sun throughout the year, with seasonal shading options.
 - Submit shadow-studies with all developments.
 - Provide creative lighting strategies - colourful and decorative lighting interventions. This is ideal for operation during long, cold, and dark winter months.
 - Create spaces that allow for varied and active programming throughout the year. This could be ice skating, water activities, roller skating, movie nights, yoga, hot chocolate and bon fires, performances, and the list goes on.
 - Design and build beautiful structures for seasonal activities like pavilions, stages, and warming huts.
 - Position amenities adjacent to retail and services supporting those activities.
 - Ensure built form retail and services evolve with the seasons, in coordination with the outdoor amenities. For example, operable walls, patios, and pop-up structures.
- ND 4** Provide community gardens and urban agricultural opportunities.
- Strategically position community gardens next to other common building amenities to create a multi-generational social hub.
 - Target community gardening and greenhouses as a means to use greywater, compost, implement water treatment, and provide educational programming for the community.
- ND 5** Protect the natural ecosystem.
- Support and enhance the existing ecosystem of the surrounding environment, including the escarpment and the Nose Creek watershed below.

Sustainability Design Guidelines 4.0

Greenhouse Gas (GHG) Guidelines 4.7

GHG Guideline Intent

The intent of this guideline is to provide background information and detail on building energy consumption and efficiency, renewable energy, greenhouse gas emissions reduction, and electrification within the Midfield Heights development.

Midfield Heights GHG Assessment

Also refer to: "Low Carbon Energy Supply Feasibility Screening Study: Final Report for Midfield Heights" Prepared for the City of Calgary by Integral Group (September 28, 2020).

In September of 2020, a study assessing low carbon technologies and greenhouse gas (GHG) emissions reduction strategies was completed for the community of Midfield Heights. This study compared a number of different renewable energy and low carbon technology scenarios to determine their relative impact on building energy use and GHG emissions production. The four low carbon strategies and renewable energy technologies which showed the greatest ability to be developed included:

1. Building Energy Efficiency.
2. Solar Photovoltaic (PV).
3. Ground Source Heat Pumps.
4. Micro Combined Heat and Power.

While these systems and strategies are each very different in application and applicability, their ability to reduce energy usage and GHG emissions can be significant. The varied building types and sites which will be developed within Midfield Heights can also have a large impact on the selected technology and strategy, and additional feasibility studies assessing energy use savings and GHG emissions reductions should be completed for each new development to determine the appropriate low carbon technology strategy.

The study noted that ground source heat pumps would likely not be applicable in the sites bordering the sloped area to the north, as the technology may have an impact on ground slope stability. Additionally, the micro combined heat and power units may have the most success in mixed use buildings which contain commercial spaces, allowing continuous use and higher efficiency of the technology. Solar PV and energy efficiency technology can and should be applied throughout the development on all building types; however, solar PV system effectiveness may be limited by roof space and shadowing by larger buildings to the south within the development.

Energy and Emissions Metrics

To understand how each technology and strategy impacts a development, the following metrics should be utilized in all feasibility study reporting:

1. Energy Use Intensity (EUI), which measures the total annual energy (electricity and thermal) consumed per square meter, in kWh/m².
2. Thermal Energy Demand Intensity (TEDI), which measures the total annual thermal energy consumed per square meter, in kWh/m².
3. Reduction in annual energy consumption from renewable or low carbon technologies, which measures the total annual energy reduced by these technologies from an NECB baseline energy model, in percentage.
4. Reduction in annual GHG emissions production from renewable or low carbon technologies, which measures the total GHG emissions reduced by these technologies from an NECB baseline energy model, in percentage.

Sustainability Design Guidelines 4.0

Greenhouse Gas (GHG) Guidelines 4.7

Methodology to Achieve Design Measures

These noted energy and emissions metrics provide a consistent methodology to understand the impact of all renewable, low carbon, and energy efficiency measures. Additionally, they align with the City of Calgary's Climate Resilience Strategy by reducing energy demand and GHG emissions production, and creating a more resilient community. The greenhouse gas emissions considered in these metrics include emissions produced by the standard operation of a building, and does not include embodied carbon, refrigerants, or other products with high climate change potential.

To develop an energy efficient building, there are three typical stages of design:

1. Passive design.
2. Active design.
3. Renewable energy.

1. Passive Design

Energy conservation measures (ECMs) that deal with architectural design aspects are known to be "passive measures", which can include building orientation, massing, articulation, and envelope design. These passive ECMs typically have longer lifespans than mechanical and electrical systems and can have significant influence on a development achieving its energy efficiency goals.

Passive Design: Building Envelope Efficiency

A building's envelope is one of the key "passive" contributors to a successful energy efficient design. This system physically separates a building's interior conditioned space from the exterior unconditioned environment and is influenced by insulation type and thickness, window and frame type, air tightness (or infiltration), and thermal bridging, among other elements.

A Note on Air Tightness

Careful attention should be paid to air tightness, which determines the amount of air that can enter or leave a building through the envelope, typically through wall penetrations and connections. This measure is important as its success is contingent on the due diligence of the construction team, and can have lasting impacts on building energy performance if not completed correctly.

2. Active Design

Passive design is followed by "Active Measures," which are ECMs that fall under mechanical and electrical design, and can include high efficiency mechanical systems, system controls and sensors, and optimized lighting design.

3. Renewable and Low Carbon Energy

Renewable energy is then integrated into building design, which can supply low or zero emissions energy to the building, reducing operational emissions.

Building Future Proofing: Electrification

When further considering the reduction of greenhouse gas emissions in building operations, the practice of fully electrifying all buildings has become prevalent. While this practice is extremely important to reduce building emissions in regions that are powered by electric grids which have a low emissions factor, this is not necessarily the case in Alberta.

In 2020, the Alberta electric grid has an emissions factor about four times higher than natural gas (*Energy Star 2020*), which means that building electricity consumption is particularly emissions-intensive compared to natural gas usage. While natural gas emissions are not projected to significantly change over time, electricity emissions will undergo a large shift over the next 20 years and foreseeable future. This is significantly influenced by how the Alberta electric grid is projected to decarbonize due to the decrease in coal power generation, increase in renewable energy, and efficiency improvements in natural gas-based power generation, as noted in the 2019 Alberta Electric System Operator (AESO) Long-term Outlook's baseline scenario.

Sustainability Design Guidelines 4.0

Greenhouse Gas (GHG) Guidelines 4.7

GHG Targets to be Achieved

Renewable Energy and Carbon Reduction

- GHG 1** Complete an energy feasibility study which assesses the renewable energy potential and associated emissions savings of at least solar photovoltaics, ground source heat pumps and microcombined heat and power.
- GHG 2** Utilize low carbon technologies and/or renewable energy systems to produce 20% of the buildings annual energy use, while ensuring that 20% of greenhouse gas emissions produced by the buildings annual energy use are offset.

Energy Efficiency

- GHG 3** Complete a greenhouse gas emissions feasibility study to determine the emissions savings related to energy efficient energy conservation measures and design strategies.
- GHG 4** Complete a building electrification plan, which outlines the steps and features which are necessary to fully electrify the building, by each discipline (e.g. architectural, mechanical, electrical, structural, etc.).
- GHG 5** Integrate the building electrification plan into building design, making it electrification "ready" in the future
- GHG 6** Implement electric vehicle (EV) charging stations in the development.

To prepare for this scenario, increase resilience, and help to future-proof against an evolving electric grid, developments could construct their buildings to be electrification "ready". Similar to the concept of solar "ready", developing a building to be electrification "ready" would require the inclusion of all elements which a fully electrified version of the same building would require, including architectural, structural, electrical, and mechanical measures, without actually electrifying all building systems.

Embodied Carbon

To comprehensively understand the greenhouse gas emissions associated with a new development, embodied carbon of the building must be considered. Embodied carbon is known as the GHG emissions associated with the full life cycle of a building material, including its extraction, manufacturing, transportation, installation, and end of life. By selecting materials which have a lower embodied carbon than other materials, a building can decrease the amount of total GHG emissions associated with its development.

Embodied Carbon - Mass Timber

Concrete and steel, two of the most common structural materials in building construction, are also two materials with the highest embodied carbon. An alternative structural material with lower embodied carbon which is growing in usage is mass timber. It is composed of multiple

layers of dried wood that is glued together and pressed to create an extremely strong structural element. Mass timber construction could be integrated into building development, as it significantly reduces the amount of concrete and steel necessary within the building structure and has a number of other benefits including faster structural construction, lighter weight, and can reduce thermal bridging. Additionally, as of February 2020, the Alberta Government has announced the allowance of building mass timber structures up to 12 storeys (*Open Alberta 2020*).

Sustainability Design Guidelines 4.0

Greenhouse Gas (GHG) Guidelines 4.7

	Energy and Greenhouse Gas Emissions			Resilience and Future Proofing	
	Reduce Energy Demand	Clean Energy Supply	Reduce Embodied Carbon	Building Electrification	EV Charging
Priority	1	2	3	3	3
What is the Goal?	Reduce the amount of energy required to operate the building.	Ensure the energy supplying the building is clean.	Reduce the amount of energy and carbon required to construct the building.	Ensure building electrification coincides with evolving electric grid (towards green tech).	Ensure electric vehicles have access to charging stations and infrastructure.
How is it Achieved?	Employ passive and active design strategies to improve energy efficiency.	Install low carbon energy supply and renewable energy technologies.	Utilize materials which have a low embodied carbon.	Design and implement a building electrification plan for the future.	Implement EV Charging stations in a variety of locations.
How is it Measured?	Energy Model.	Energy Model. Clean Energy Supply Assessment.	Life-Cycle Assessment Report (software analyzed).	Building Electrification Feasibility Report.	Construction Documents denoting / specifying EV Stations.
What is the Metric?	% better than NECB. EUI (kWh/m ²) TEDI (kWh/m ²)	% reduction of annual energy consumption and greenhouse gas production.	% reduction from a Life-Cycle Assessment baseline.	N/A	Number of EV Charging Stations.
What is Required by this Guideline?	Achieve NECB 2020 Tier 2	N/A	N/A	N/A	N/A
What is Optional in this Guideline?	N/A	Produce 20% of energy using clean energy supply.	Implement mass timber of other low embodied carbon measures.	Building Electrification Report and Implementation.	Implement EV Charging Stations and Infrastructure.
Example Strategies	Improved air tightness. Energy and heat recovery. Increased window and wall R-Value.	Solar PV. Ground source heat pumps. Micro CHP.	Mass timber.	Building electrification design charrette.	EV charging stations. EV charging infrastructure.

Appendix B

Development Guideline and Land Use References

March 2021

Development Guideline References B-1.0

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ERS
S
PUB

Midfield Heights

Development Guideline Checklist

March 2021



Design Guidelines . Checklist
Architecture . Landscape . Sustainability



SITUATED 

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MAIDMENT

Development Guideline Checklist

Overview

Purpose

The key targets of the Design Guideline have been formatted into the following checklist, which is used as a tool to gauge the degree to which a proposed development meets the vision of Midfield Heights. More specifically, the checklist will be used by the Applicant during the early project planning and design phase to assess the requirements that must be included. The checklist will then be used as a formal part of the review process, enabling RE&DS to evaluate the success of the proposed design.

The checklist is composed of three sections:

- Architectural Design Elements
- Landscape Design Elements
- Sustainability Design Elements

The Checklist provides action items for all of the Guideline targets. Action items are categorized as:

1. Required on all sites
2. Required on specific sites or building types
3. Optional

Each checklist action item is scored as either being achieved (yes), or not achieved (no).

- Required Items: 100% must be achieved.
- Optional Items: may be added, or they may be substituted for a required item at the discretion of RE&DS.



(A/F) Carson McCulloch (B) Sturgess . 2006 (C) MODA 2019 (D) K M Cheng Architects . Bosa . 2014 (E) ArchitectureVictoria 2019 (G) GEC . Batistella . 2013 (H) Bolduc . 2020

Development Guideline Checklist

Architectural Design Targets

Architectural Form					
1. Required on All Sites		2. Required on Specific Sites or Building Type		3. Optional	
Score	Design Element	Score	Design Element	Score	Design Element
Yes . No	A 1 Contemporary Massing	Yes . No	A 4 Townhouses Divided Into Dwelling Units	Yes . No	A 1 Incorporation of Public Art
Yes . No	A 2 Contemporary Roof to Wall Transitions	Yes . No	A 7 Well-Defined Podium	Yes . No	A 2 Creative Lighting Design
Yes . No	A 3 Voids for Entry, Views, and Articulation	Yes . No	A 14 Creative and Iconic Retail		
Yes . No	A 5 Functional Spaces Legible on the Exterior	Yes . No	A 15 Welcoming Storefronts		
Yes . No	A 6 Consideration of Unit and Building Interactions	Yes . No	A 16 Distinct Retail Bays		
Yes . No	A 8 Distinct Building Entrances				
Yes . No	A 9 Incorporation of Varied Outdoor Spaces				
Yes . No	A 10 Interlaced Interior and Exterior Spaces				
Yes . No	A 11 Emphasize frontages on to streets and green spaces, including the escarpment.				
Yes . No	A 12 Daylight Penetrates Internal Occupied Spaces				
Yes . No	A 13 Landscaping Coordinated with Building Views				

Development Guideline Checklist

Architectural Design Targets

Architectural Materiality and Details

1. Required on All Sites		2. Required on Specific Sites or Building Type		3. Optional	
Score	Design Element	Score	Design Element	Score	Design Element
Yes . No	A 19 Staple Materials Used			Yes . No	A 25 Strategic and Refined Use of Colour
Yes . No	A 20 Simple Primary Material Palette (two or three materials)			Yes . No	A 28 Material Innovation
Yes . No	A 21 Raw Material Celebrated				
Yes . No	A 22 Durable Building Base				
Yes . No	A 23 Cladding Panel Requirements Met (if used in the project)				
Yes . No	A 24 Exploration of Texture				
Yes . No	A 26 Depth Through Layering				
Yes . No	A 27 Use of Light as Material				
Yes . No	A 29 Creative Structural Details				
Yes . No	A 30 Thoughtful Incorporation of Mechanical and Electrical				
Yes . No	A 31 Thoughtful Building Facade Details				
Yes . No	A 32 Feature Doors and/or Windows				

Development Guideline Checklist

Landscape Design Targets

Landscape Design		
1. Required on All Sites	2. Required on Specific Sites or Building Type	3. Optional
Score _____ Design Element _____	Score _____ Design Element _____	Score _____ Design Element _____
Yes . No L 1 Comprehensive Connectivity	Yes . No L 8 Nimbus Way Activation	
Yes . No L 2 Hard Landscape Materiality		
Yes . No L 3 Placemaking		
Yes . No L 4 Contemporary Urban Furniture and Structures		
Yes . No L 5 Facilitate Views		
Yes . No L 6 Enhanced "Rear" Connections		
Yes . No L 7 Courtyard, Patio, and Plaza Design		
Yes . No L 9 Private and Public Space Delineation		
Yes . No L 10 Implement Frontage Landscape		
Yes . No L 11 Provide Integrated Seating		
Yes . No L 12 Contribute to the Overall Community Identity		
Yes . No L 13 Screen Equipment		
Yes . No L 14 Laneways and Unique Paving Design		
Yes . No L 15 Laneway Planting		
Yes . No L 16 Laneway Lighting		
Yes . No L 17 Surface Parking Landscaping		

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Development Guideline Checklist

Sustainability Design Targets

Overall Building, Neighbourhood, and Greenhouse Gas

1. Required on All Sites		2. Required on Specific Sites or Building Type		3. Optional	
Score	Design Element	Score	Design Element	Score	Design Element
Yes . No	B 1 Achieve at minimum NECB 2020 Tier 2	3.000	Yes . No	B 4 Consider shared or co-retail programming	
Yes . No	B 2 Implement automated building management systems		Yes . No	ND 4 Community gardens / urban agriculture	
Yes . No	B 3 Design adaptable / flexible spaces / systems		Yes . No	GHG 1 Complete an energy feasibility study	
Yes . No	ND 1 Design safe, inclusive, and accessible public spaces		Yes . No	GHG 2 Implement low carbon and/or renewable energy to produce 20% of building annual energy use while offsetting 20% GHG emissions.	
Yes . No	ND 2 Great design of and connectivity to the pathway system		Yes . No	GHG 3 Complete GHG emissions feasibility study	
Yes . No	ND 3 Provide four-season design (include shadow study)		3.000	Yes . No	GHG 4 Complete a building electrification plan study
Yes . No	ND 5 Protect the natural ecosystem		Yes . No	GHG 5 Integrate the electrification plan into the building design	
			Yes . No	GHG 6 Implement EV charging stations	

2000118

SCHEDULE "C"

SERVIENT LANDS

1. PLAN 2410605
BLOCK 8
LOT 1
EXCEPTING THEREOUT ALL MINES AND MINERALS
2. PLAN 2410605
BLOCK 8
LOT 2
EXCEPTING THEREOUT ALL MINES AND MINERALS
3. PLAN 2410605
BLOCK 8
LOT 3
EXCEPTING THEREOUT ALL MINES AND MINERALS
4. PLAN 2410605
BLOCK 8
LOT 4
EXCEPTING THEREOUT ALL MINES AND MINERALS
5. PLAN 2410605
BLOCK 8
LOT 5
EXCEPTING THEREOUT ALL MINES AND MINERALS
6. PLAN 2410605
BLOCK 9
LOT 1
EXCEPTING THEREOUT ALL MINES AND MINERALS
7. PLAN 2410605
BLOCK 10
LOT 1
EXCEPTING THEREOUT ALL MINES AND MINERALS

8. PLAN **2410605**

BLOCK 11

LOT 1

EXCEPTING THEREOUT ALL MINES AND MINERALS



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