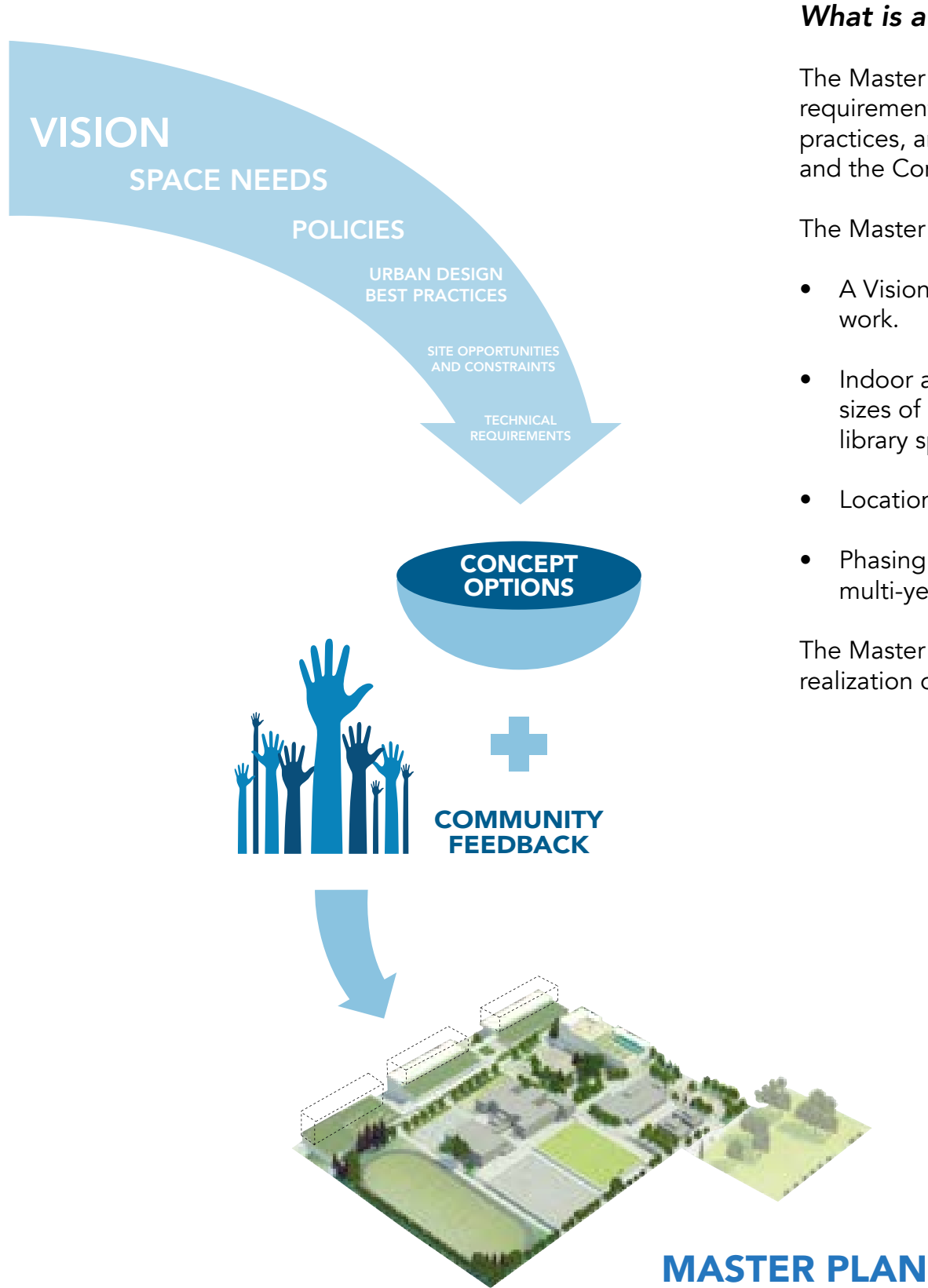




5 MASTER PLAN

5.1 MASTER PLAN OVERVIEW



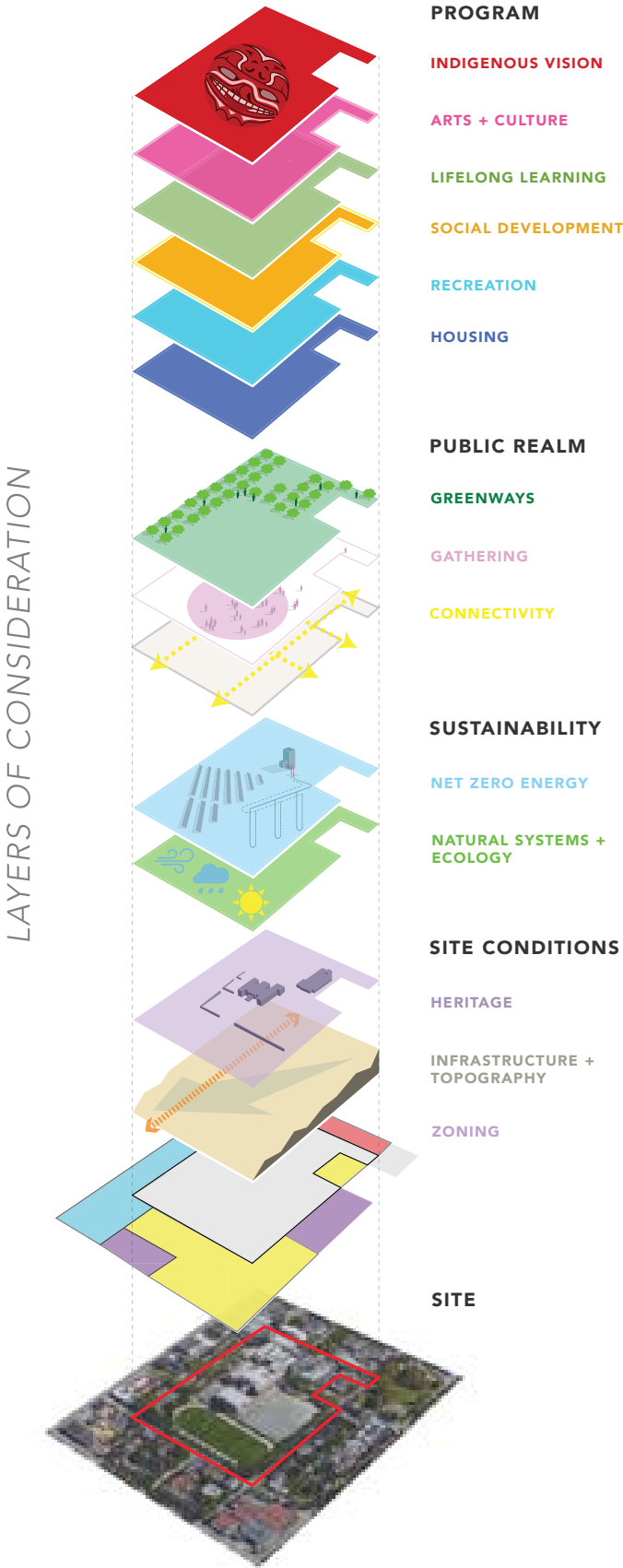
What is a Master Plan?

The Master Plan has evolved from a combination of technical requirements, space needs, policies, good urban design best practices, and incorporates community input from the Visioning and the Concept Options consultations.

The Master Plan includes:

- A Vision to inform both the Master Plan and future design work.
- Indoor and outdoor space needs that outlines the types and sizes of recreation, social development, arts & culture, and library spaces to meet future needs at Britannia.
- Location of all the spaces and places on the site.
- Phasing of the spaces and places to be developed over the multi-year Britannia Renewal project.

The Master Plan will be used as the basis for site rezoning and the realization of Britannia's renewal.



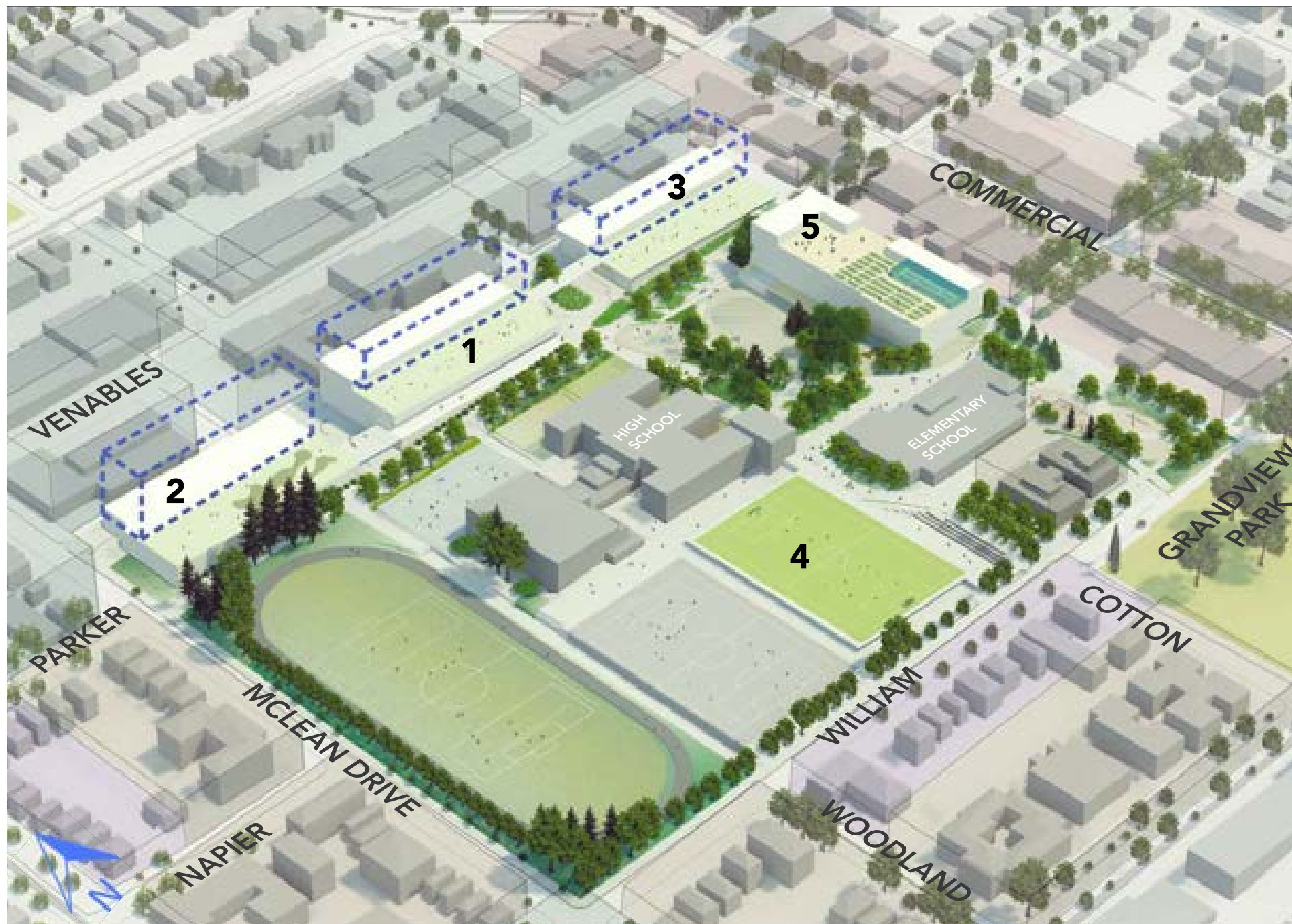
5.2 MASTER PLAN



SITE PLANNING

Key planning elements include:

- A central **Common** gathering and event space
- A greenspace connection or **Play Way** connecting the site to Grandview Park
- Extending street right of ways into the site as fully accessible **Pedestrian Promenades**
- Framing and maintaining the **"grand" views** of the city and mountains from key places.
- Locating **šxwqeləwən ct Carving Centre** as a gateway to site
- Adding **significant green space** to the site through greenways and intensive native plants and trees
- Incorporating **water play** in central gathering space
- Consolidating social and cultural services to **create a sharing and caring place**
- Building community and resilience through a **central food hub**
- Locating **Childcare** on lower roof tops with large outdoor play decks
- Including **affordable non-market housing** above community facilities



Building 1
 Aquatics
 Fitness + Gym C
 Childcare
 Non-market housing

Building 2
 Rink
 Rooftop Sport Park
 Non-market housing

Building 3
 Library
 Art Gallery
 Childcare
 Non-market housing

Building 4
 High School Shops
 + Classrooms
 All Weather Field above

Building 5
 Event Spaces + Food Hub
 Social Hub + Art Studios
 Meeting Rooms + Gym D
 Social + Cultural Non Profit Hub
 Street Front School + Urban
 Farm

** The uses indicated above are listed on a floor by floor basis starting from the ground up

BRITANNIA MASTER PLAN

Focused on the east side of the site along the Parker Street right-of-way, the proposed facilities cascade down the length of the site to McLean Drive.

FEATURES

- The majority of the community facilities are located along the Parker Promenade
- 11 % increase in total public realm / green space
- Easily achievable phasing - Phases 1, 2 & 3 do not interrupt operations or impact VSB spaces and allows the majority of the Renewal to be undertaken immediately
- Higher buildings are located on the north minimizing shadowing on the site and transitioning to adjacent allowable Industrial Zone height
- All development above community facilities, including Childcare and housing, is stepped back from the face of community facilities to minimize visual impact
- Field on top of VSB Shops/Classroom roof provides an accessible sports field for Elementary school and opens clear sight lines from Grandview Park
- Significant improvement to Venables Lane and Commercial Mews with active public spaces spilling out
- Vehicular access concentrated on Venables Lane
- Pool and Rink adjacent - optimal for energy and operations efficiency
- Topography utilized to provide level access to a new Sport Park above the Rink
- Non-market, mid-rise housing above up to three community centre buildings provides much-needed affordable housing, while maximizing access to daylight and key view corridors

USES

Note: This diagram illustrates the general arrangement of buildings and spaces on the site. Dashed lines show the envelope within with non-market housing could be developed and are not intended to represent building form or design. Building forms will be developed at future phases with partner and community input.

5.3 ORGANIZATION

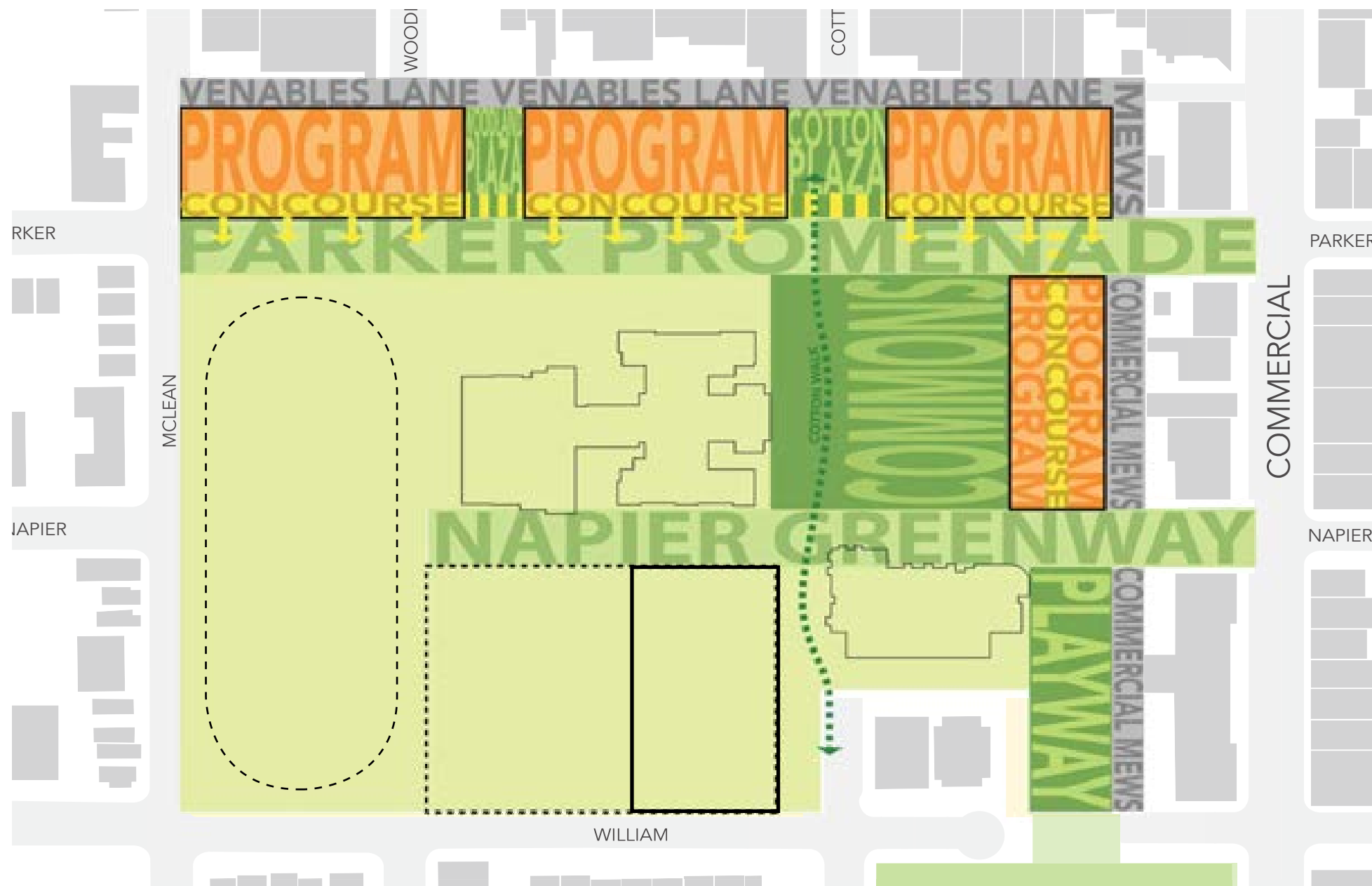
LOCATIONS + ADJACENCIES

The community facilities are located on the site to reinforce community **connectivity and activation**.

The organization of key spaces on the site prioritizes the following:

- **Activate the Common** with community gathering and event spaces.
- Design the **laneways to accommodate increase in traffic and improve safety**
- **Create a mews** activated with community spaces - particularly Arts Studios and Gallery.
- **Create a greenway connector** (Parker Promenade) to link all key community centre facilities.
- **Concentrate access to VSB facilities** along the Napier Greenway, consolidating school addresses and enhancing security.
- **Maximize usable open space** by:
 - Raising Field 3 to level of the Elementary School and relocating specialty classrooms and trades shops for the High School below in Building 4.
 - Locating all parking underground.
 - Stacking community facility spaces up on more than one floor where feasible.
- **Create energy and service efficiencies** by linking mechanical services between the rink and pool.
- Where possible, orient long face of buildings to south to **maximize passive design opportunities**.
- **Locate non-market housing above community spaces** in Buildings 1, 2 and 3, in a mid-rise form of development. This will prioritize use of ground plane for public use and provide eyes on the public open spaces after hours.





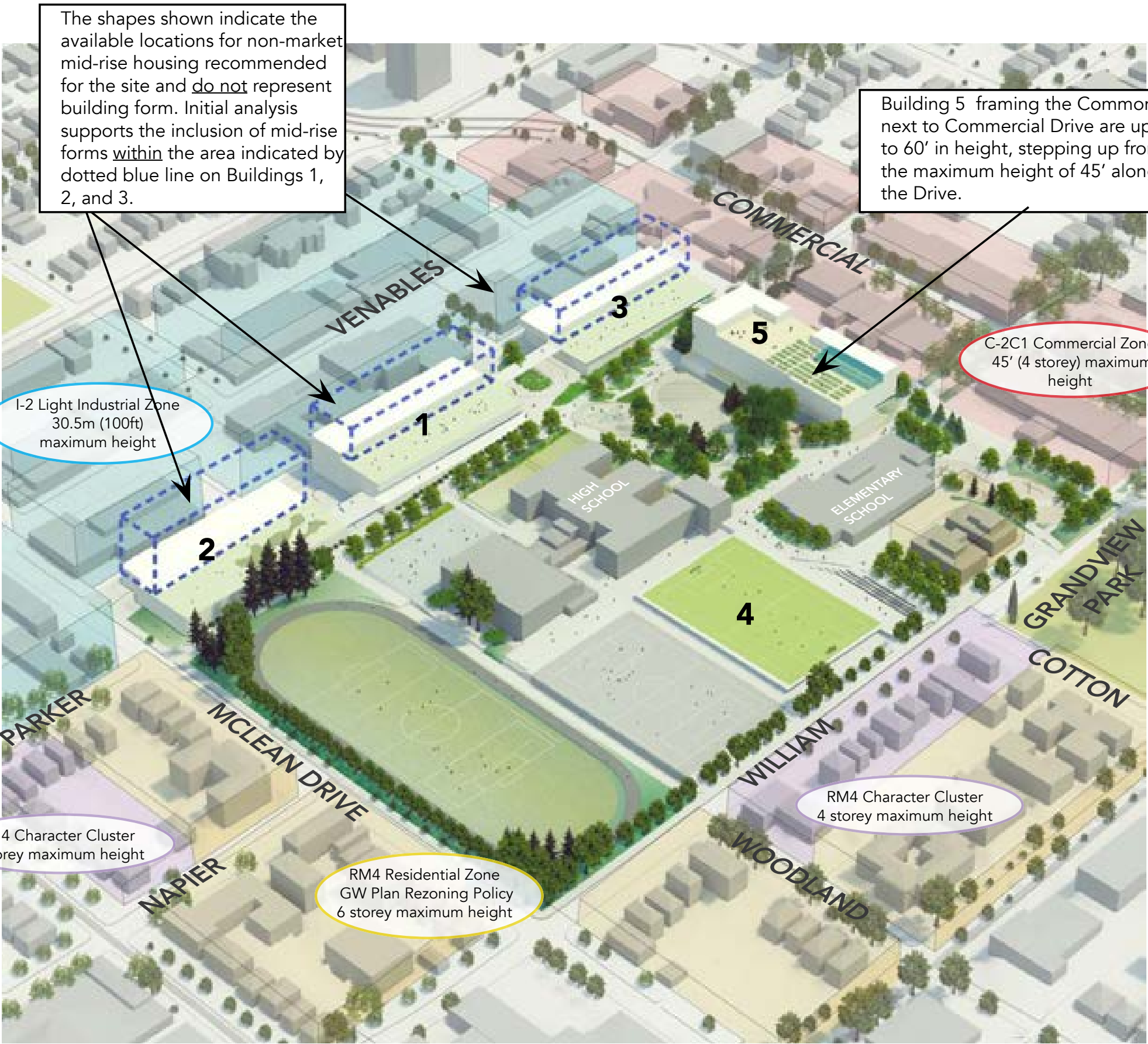
ORGANIZATIONAL STRATEGIES DIAGRAM

ORGANIZATIONAL STRATEGY

The site is proposed to be organized by extending the street ROW's (Cotton, Woodland, Parker and Napier) into the site as pedestrian pathways and adding a large Common to tie programmatic elements together and provide a central gathering space and greenspace for the community. In order to connect the site to the adjacent Grandview Park, a Playway is proposed to provide a continuous linkage of greenspace across the site.

The main BCSC buildings are accessed via the Parker Promenade. Buildings 1,2, and 3 are organized with a public concourse mediating between the larger program spaces (pool, library, rink) and the Parker Promenade. Building 5 housing the Community Centre functions is located between the Common and Commercial Mews. Carefully selected program spaces support the Common and activate the Commercial Mews. The building has an internal Public Concourse which organizes all the social and arts + culture spaces while also providing an interior connection between the Napier Greenway and the Parker Promenade.

5.4 MASSING + BUILDING HEIGHT



MASSING OVERVIEW

Facilities are stacked up to free up open space, frame the significant gathering space of the Common and maximize access to light and views. Massing has been located to fit with the future development context of the neighbourhood. **Height and density on the site is subject to rezoning.**

HEIGHTS

Urban design analysis supports the inclusion of non-market housing above community facilities on the Britannia site. Preliminary analysis supports mid-rise - not slab-form, with building heights calibrated to the adjacent I-2 maximum building heights of 30.5m (100 feet).

The opportunities identified for locating non-market housing on the site are indicated with dotted blue lines - - - on the drawing.

Buildings 1, 2 and 3 lining Parker will be calibrated to fit with the adjacent 100' zoning context, while meeting best practices for urban design including access to daylight and views.

Housing would be included in keeping with the principles outlined in the Non-Market Housing section.



View from the roof of building 5 looking west down Parker Promenade. Dotted outlines indicate a height envelope for non-market housing that corresponds with the adjacent I-2 zoned height allowance. Future mid-rise non-market housing will be calibrated to this height.



Aerial view from Grandview Park looking North across the site



View from Cotton Walk looking out over the raised Elementary School playfield

5.5 PUBLIC REALM

VISION

Britannia’s public realm is envisioned as an attractive and dynamic space that reflects the importance of community, diversity, and ecology. People of all ages will gather here to socialize, create, work out or just hang out. Restorative green spaces will be balanced with active areas that are vibrant with art, culture, sports and play. Creating a safe, vibrant and well used public place is a key priority in the Vision.

KEY THEMES

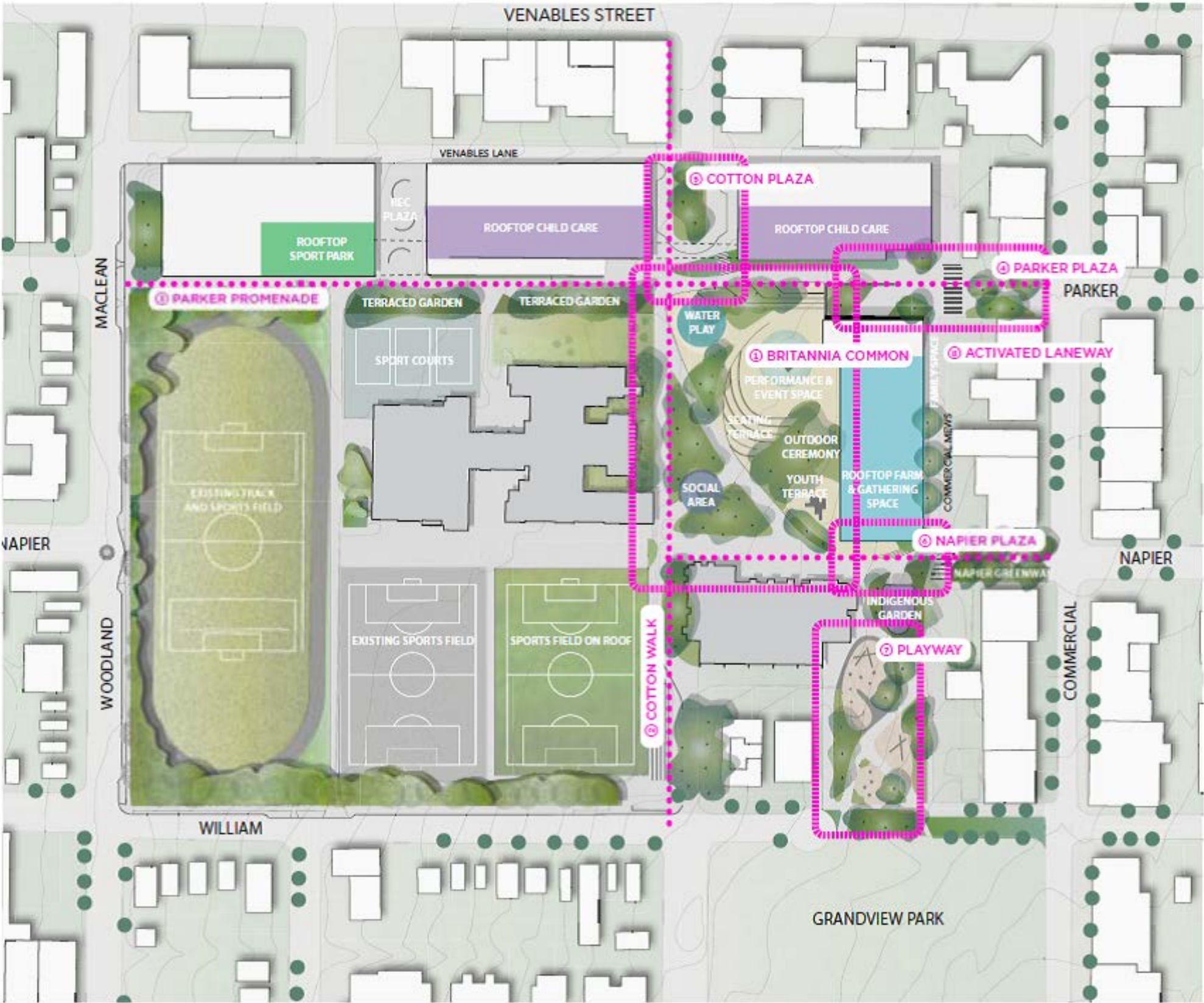
The following key themes for Britannia’s outdoor public realm were generated through the consultation process:

- Social Gathering and Outdoor Programming
- Arts, Culture and Food
- Green space and Ecology
- Outdoor Play and Recreation
- Views, Site Circulation and Safety

KEY PRINCIPLES

The following key principles for Britannia’s outdoor public realm emerged from the consultation process:

- Establish a focal heart that is vibrant with activity
- Cultivate an oasis of green space
- Provide a variety of gathering spaces, both large and small
- Celebrate the pedestrian character of the site
- Foster greater connectivity within and beyond the site
- Highlight long views to the mountains/downtown
- Create fun spaces
- Create multi-generational spaces
- Overlay uses for maximum flexibility



PUBLIC REALM SITE PLAN

PUBLIC REALM COMPONENTS

Vancouver's Grandview Woodlands neighbourhood has some of the lowest amounts of greenspace per resident in the city. The Britannia Renewal project aims to create opportunities to increase greenspace on the site, while also connecting to Vancouver's photogenic edges through long views with a goal to create a vibrant public space in the heart of the Grandview Woodlands neighbourhood. The character and design of the physical environment is important in developing a memory of place, and points of orientation as they move through Britannia. The Master Plan stresses the importance of enhancing physical, visual and cognitive connections to the adjacent public spaces and between components on the Britannia site. The flow of activity will be enhanced by providing a hierarchy of spaces to link site features and orchestrate movement through the site. Primary circulation routes through the site will accommodate various modes of mobility and larger groups of users, while secondary circulation paths will offer opportunities for refuge.

1 BRITANNIA COMMON

The Britannia Common is the primary public space within a renewed Britannia. This generous public space is framed by the historic Britannia Secondary School, the Britannia Elementary School, the Community Centre building and the Library building. The intent of the Common is to create a new type of public space in Vancouver that acts as a destination while also providing a seamless connection to the buildings that define it. The Common is defined by the following key elements:

- A large multipurpose gathering space to host performances, celebrations, community events and informal unprogrammed use throughout the year.
- An outdoor dining area and performance event space with stage framed by seat steps to act as amphitheatre for spectators.
- A central pathway which is graded at maximum 5% connects the Napier Plaza with the Cotton Plaza.
- An integrated water play feature anchors the NW corner of the Common. This is proposed as a dry deck fountain that can be turned off to allow for alternative uses of the space when dry. It is anticipated that the interactive fountain will be a draw throughout the summer, bringing life into the heart of the Common.
- Large beds of indigenous plantings to bring a natural

character to the space.

- An Indigenous ceremonial place adjacent to the indoor space for Indigenous activities. This place will be set within indigenous plantings including Western Red Cedar.

2 COTTON WALK

Cotton Walk is a pedestrian priority walkway that restores the North-South Connection through Britannia that was lost with the expansion of the Secondary School. By providing an extension to the existing street grid, Cotton Walk helps to connect the surrounding community to the Britannia campus and improves clarity of movement within the 18 acre site. The walk cuts across the slope of the site and has moderate grades (2-3%) for accessible access.

Cotton Walk will provide emergency vehicle access and the occasional truck traffic (such as food trucks) to support events within the Common. Cotton Walk is designed to feature panoramic views of downtown across a new raised artificial turf field that sits above the relocated secondary school shops and classrooms. This "green corridor" will include plantings and benches to enable rest stops for seniors and other citizens.

3 PARKER PROMENADE

The Parker Promenade extends from Commercial Drive through to McLean Drive while providing a public realm connection to each of the new facility's entry's. The promenade is integrated with Parker Plaza to provide a presence along Commercial Drive drawing people into the Britannia Site. The promenade connects each new building entry with the significant public spaces along the north side of the site. The Promenade has a consistent 5% grade, flattening out where it is intersected by North/South connections.

A significant hydro duct bank below the Parker right-of-way restricts the ability to build structures or modify the grades in this zone and has been the primary driver for the Parker Promenade. This duct bank follows a continuous 5% grade which is capitalized on to provide an accessible route through the site without the need for railings or landings.

Between Cotton Walk and west end of the High School sport courts, a series of terraced rain-gardens will capture stormwater runoff from the site's main paved areas while also providing an

opportunity for education and public realm enhancement.

4 PARKER PLAZA

The Parker Plaza defines the East end of the Parker Promenade and extends from Commercial Drive to the entrance of the Community Centre Facility and the Library. The Plaza will be the main point of arrival to the Britannia site. A key consideration for the Parker Plaza will be to establish a presence on Commercial Drive to increase the visibility of Britannia to the greater community. This may include signage or other design features within the Parker right-of-way where it meets Commercial Drive. The Parker Plaza will be pedestrian priority with the paving treatment extending across the Commercial Mews in order to connect to the spaces on both sides. The Plaza will include tree planting, planting beds, opportunities for small gatherings and seating.

5 COTTON PLAZA

Cotton Plaza is located at the intersection of the Parker Promenade and Cotton Walk. This is one of the most active places on the Britannia site. The plaza is the primary access to the recreation complex that includes the pool and gymnasium, and the point of access to the concourse which connects to a youth sports park situated on the roof of the Rink. An interactive water feature connects the Plaza with the central Common, and provides a focal point for activity and public life in the summer months. The north edge of the Plaza is defined by the vehicular drop off, and a bike parking area.

6 NAPIER PLAZA

Napier Plaza builds on the success of the existing pedestrianized Napier Greenway which connects the Britannia site with Commercial Drive. The Napier Plaza integrates with the Greenway by extending a pedestrian priority treatment across the laneway creating a renewed place of arrival. The Plaza connects the entries to the Community Centre facility with the Elementary School and the new Playway. The Plaza will feature the ʔᓄᓄᓄᓄᓄᓄ ct Carving Centre in a place of prominence on the site. Although indigenous plants are used throughout the site, these plantings and/or gardens should be a particular focus around the ʔᓄᓄᓄᓄᓄᓄ ct Carving Centre.

7 PLAYWAY

The Playway is an important piece of the public realm connecting Grandview Park and the Britannia Common. The Playway will establish a “green link” through the site and an enhanced play experience building on the success of the newly developed playground on the north side of Grandview Park. Children are a key user group of the Britannia public realm, whether during or after school hours or on weekends. Britannia Elementary students clearly emphasized a desire for play and sports in the public outdoor places, particularly an intermediate playground to offer challenging play opportunities for older students.

Adult play is specifically addressed through the inclusion of playful elements that work at a variety of scales. The possibilities will range from creative and engaging site furnishings, to play and recreation features. Opportunities for spontaneous creative activities will be offered through the provision of intimate spaces for music and performance. The needs of more mature and senior citizens will be considered in the design of these playful spaces, whether as spectators or active participants.



Rooftop playscape

8 ACTIVATED LANEWAY

The laneway between the new Community Centre Facility and the existing businesses on Commercial Drive are re-envisioned as the Commercial Mews. The mews will be activated through the provision of outdoor spaces for the family centre and artist studios as well as three passenger drop off areas and pedestrian walkways. Paving materials and plants will create a visually seamless space that will read as public realm rather than street space.

ROOFTOP OUTDOOR SPACE

The Rink building roof presents the opportunity to create a sports park and lounging area for youth that is directly accessible from Parker Promenade via a bridge alongside the walkway. Youth play will be provided in a concentrated manner through the provision of a sports park on the rooftop of the Rink building.

All rooftop spaces will provide public space aimed at specific user groups and long views across downtown to the North Shore Mountains. Both Gym/Pool building and Library building will offer secured outdoor childcare play spaces with a covered portion as weather protection. The new Community Centre facility will provide food gardening opportunities that include winter gardening and gathering space in a rooftop greenhouse.



Monash University Northern Plaza

People watching, meeting and eating

CONNECTION TO NATURE

Opportunities to connect to nature are provided throughout the site. Priority is given to plant species mostly indigenous to British Columbia, making them sustainable, bio-diverse and a contributor to the creation of a place-specific identity for Britannia. The gardens exist as a learning space where people of all ages can come together to learn in a natural and welcoming environment. More intimate social spaces are nestled into planted areas, giving people the experience of being “lost in nature” within a dense urban area.



Keene State Science Centre

Connecting to nature

MAPPING DAILY AND YEARLY PUBLIC REALM ACTIVITIES

Working in small groups, workshop participants were asked to map out Public Realm activities in a typical 'Day in the Life' and 'Year in the Life' at Britannia. Three diagrams reflect input gathered in May 25 and May 27, 2017 Public Realm workshops.

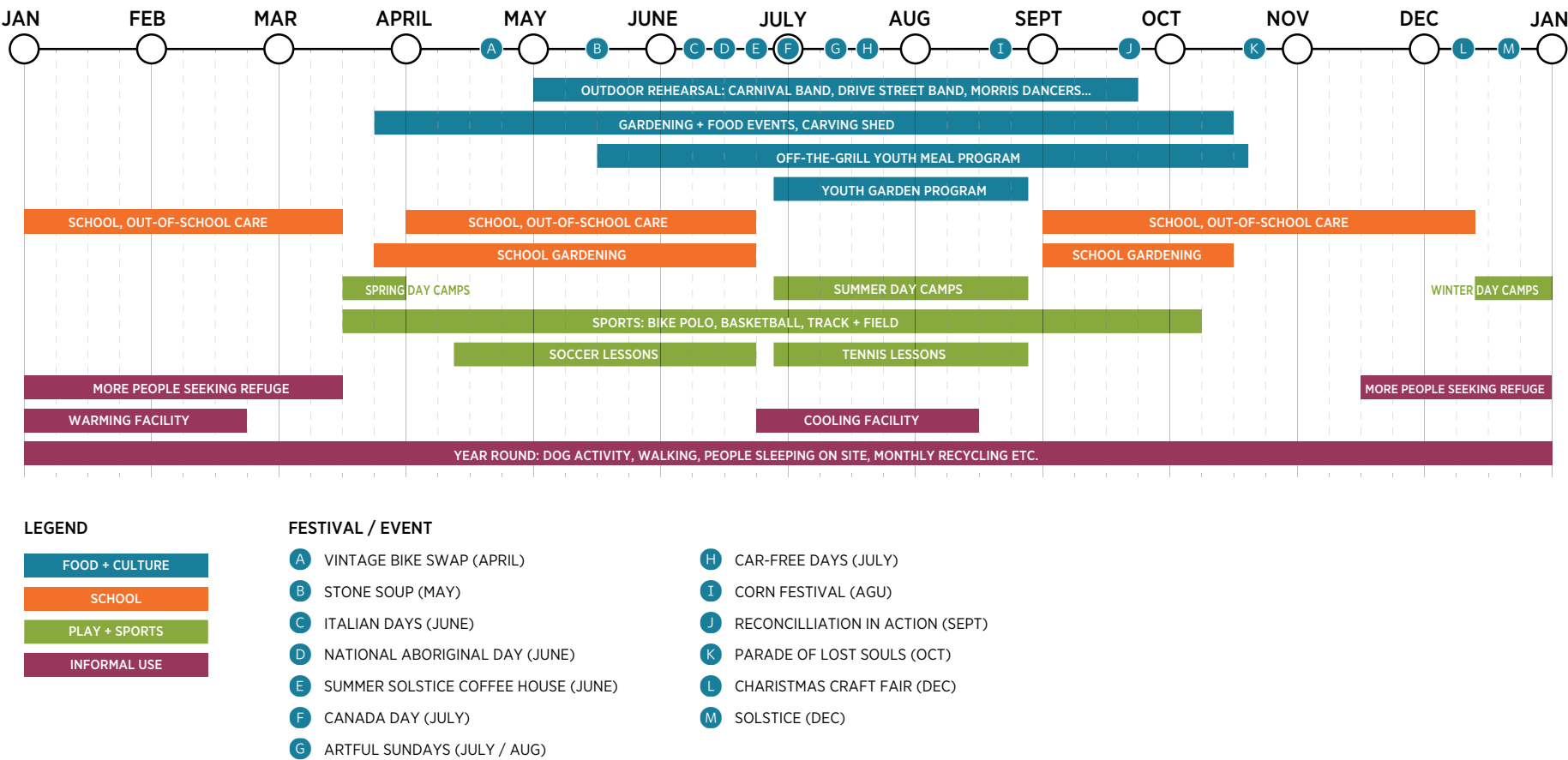
- Day in the Life - Weekday
- Day in the Life – Weekend
- Year in the Life

The Master Plan responds to, reflects and expands on the diverse range of activities that Britannia’s public realm currently offers. The specific intent of the renewal concept is to provide quality space for existing activities, while also allowing for activities that presently do not have adequate space to become an integral part of the outdoor public realm

YEAR IN THE LIFE

The diagram on the right illustrates the activities that happen throughout the year at the Britannia as it currently functions. It gives a sense of what public life revolves around during over the course of the year and shows longer term activities.

YEAR IN THE LIFE - BRITANNIA'S OUTDOOR PUBLIC REALM



Stone Soup Festival



Car Free Day Commercial Drive

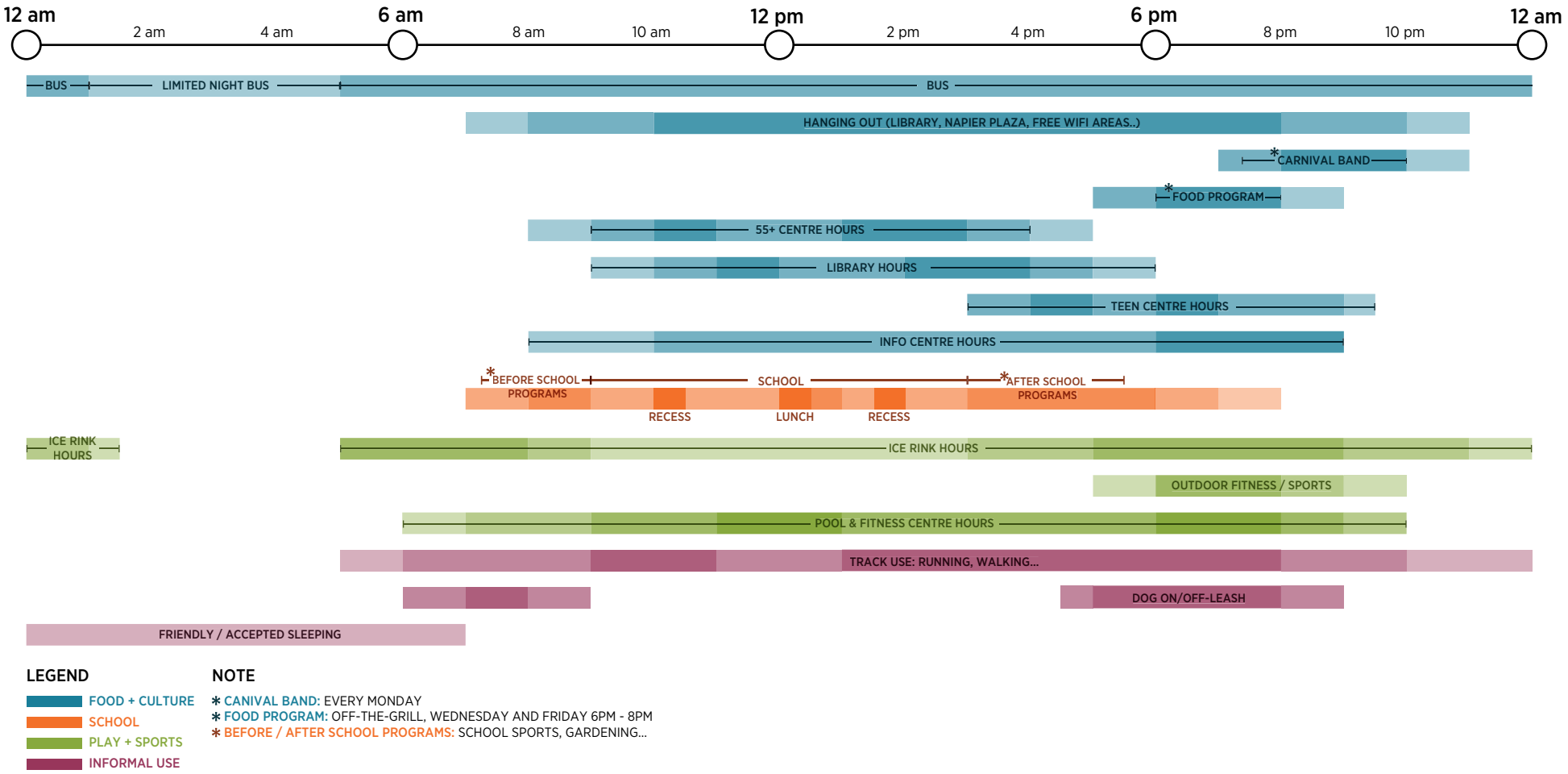


Parade of Lost Souls

DAY IN THE LIFE - WEEKDAY

This diagram illustrates the activities that happen throughout the day at the Britannia as it currently functions. It gives a sense of what public life revolves around during typical weekday.

DAY IN THE LIFE (WEEKDAY) - BRITANNIA'S OUTDOOR PUBLIC REALM



Tokachi Millenium Forest, Japan (Dan Pearson & Fumiachi Takano)

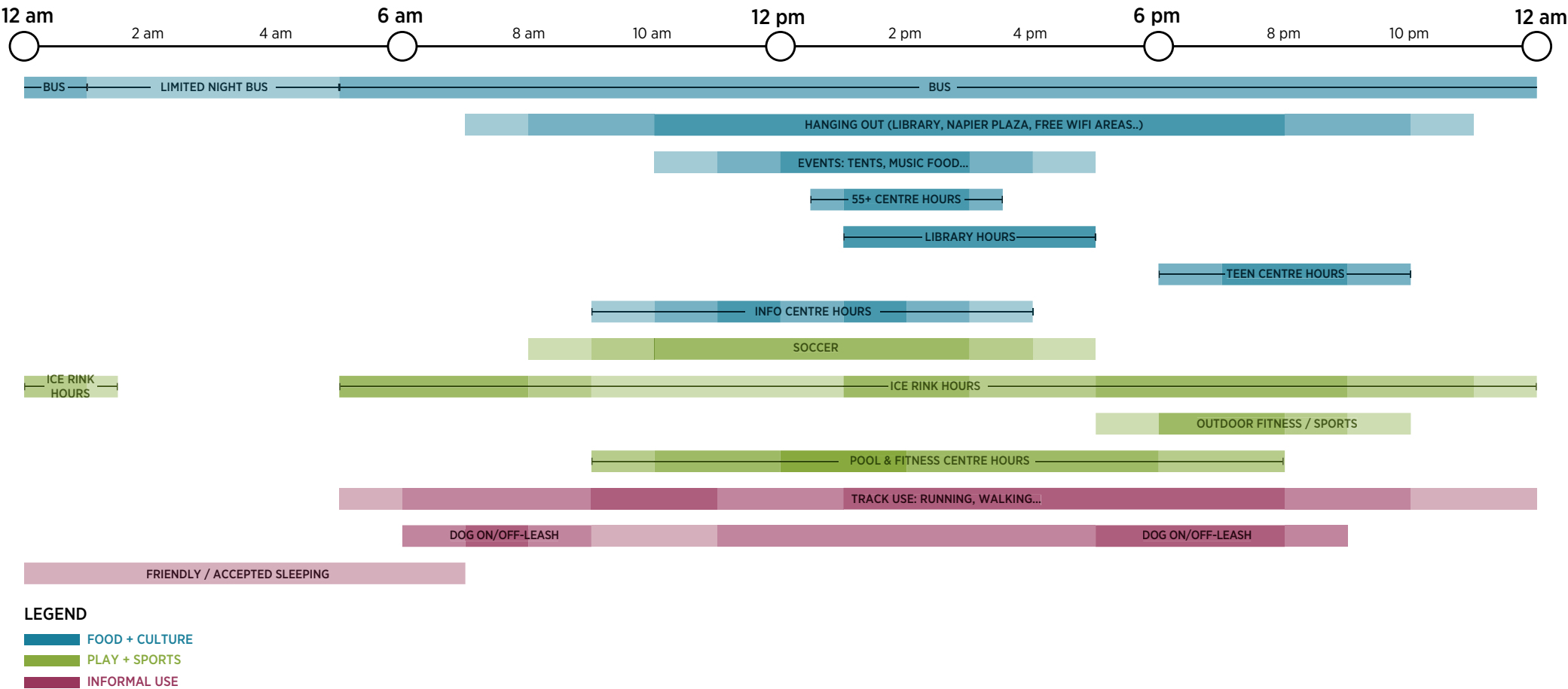


Garden City Playground (Space2Place)



Sky UK Headquarters (Landzine)

DAY IN THE LIFE (WEEKEND) - BRITANNIA'S OUTDOOR PUBLIC REALM



DAY IN THE LIFE - WEEKEND

This diagram illustrates the activities that happen throughout the day at the Britannia as it currently functions. It gives a sense of what public life revolves around during a typical weekend day.



5.6 CIRCULATION + ACCESS

CIRCULATION + ACCESS GOALS

The circulation on and to the site has been organized to support **ease of access, pedestrian priority, and community connectivity**.

In developing the site it will be of particular importance to manage loading, drop off, and pedestrian use of laneways to improve safety and user experience.

Key circulation principles have been identified to facilitate these goals and they are as follows:

PEDESTRIAN

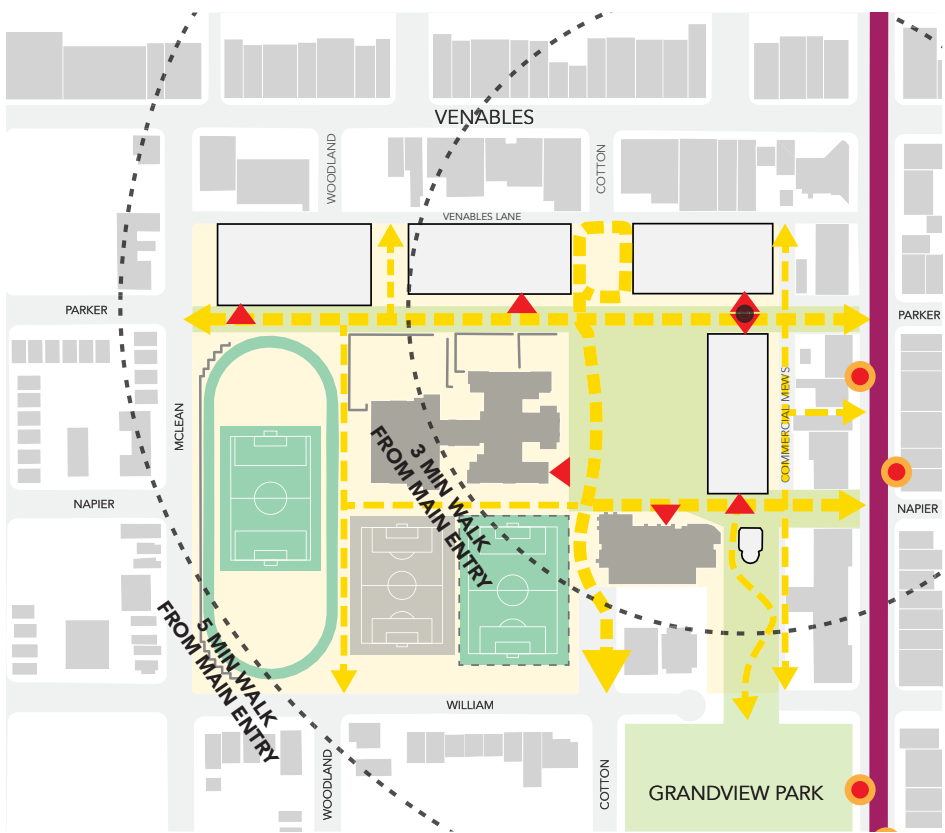
- Locate cultural and community centre facility entries close to transit and Commercial Drive
- All pedestrian circulation routes to have a maximum slope of 5% to facilitate accessibility for all, including those in wheelchairs, on scooters, or pushing strollers or carts.
- All parts of the site are within a 5 minute walk from the main entry to the community services centre facilities.

VEHICULAR

- Limit vehicular circulation to the site from Venables Street along Cotton and Woodland
- Access to underground parking from Venables Lane
- Passenger drop off to be on Cotton Plaza and along Commercial Mews (formerly Commercial Lane)
- Emergency vehicles to access site along Cotton and Woodland

BICYCLE

- The site is framed by bike routes on two sides - an official bike route runs north south along Woodlands and McLean, and an anticipated bike route runs east west along William.



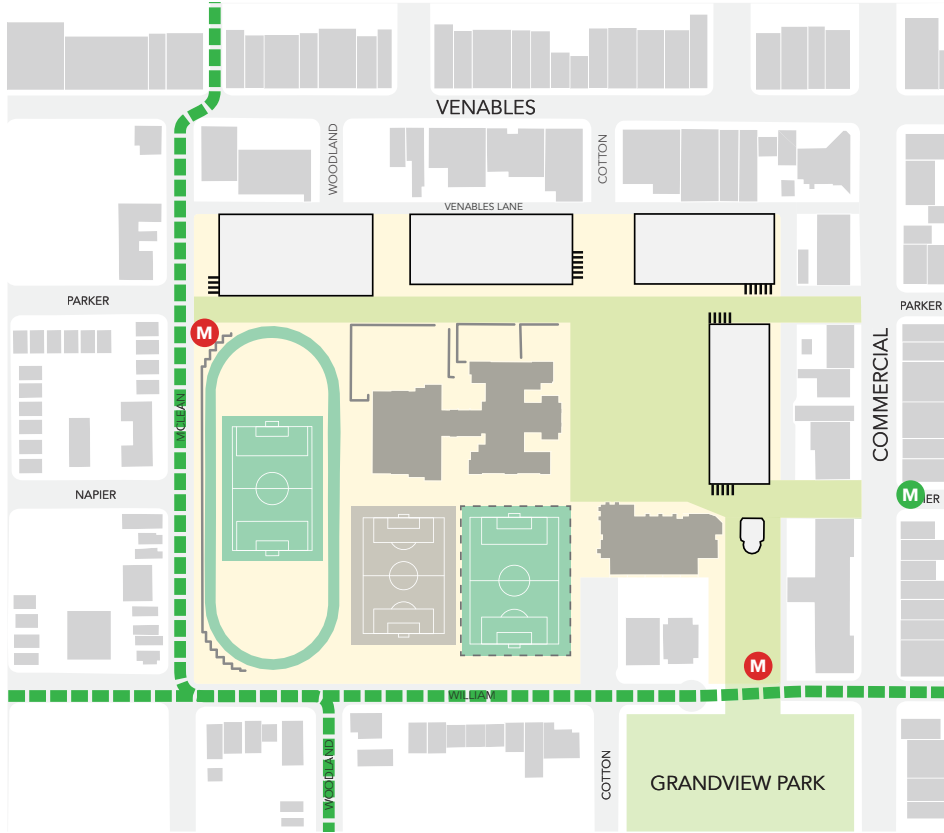
PEDESTRIAN ACCESS + CIRCULATION

The site will be accessed by pedestrian greenways that align with the connecting street right of ways. These pathways will be at a maximum 5% slope to facilitate accessibility for all.

Access to community facilities are concentrated on the Parker Promenade and access to the schools are concentrated on the Napier Greenway. A greenway is proposed for Parker between Commercial Drive and the site to improve connectivity to the site. Other opportunity for improved connection to the Drive is through improvement to the mid-block connector between the Parker and Napier Greenways.

LEGEND

- Yellow dashed arrow: Pedestrian Path
- Purple line: Bus Route
- Red circle: Bus Stops
- Red triangle: Building Access



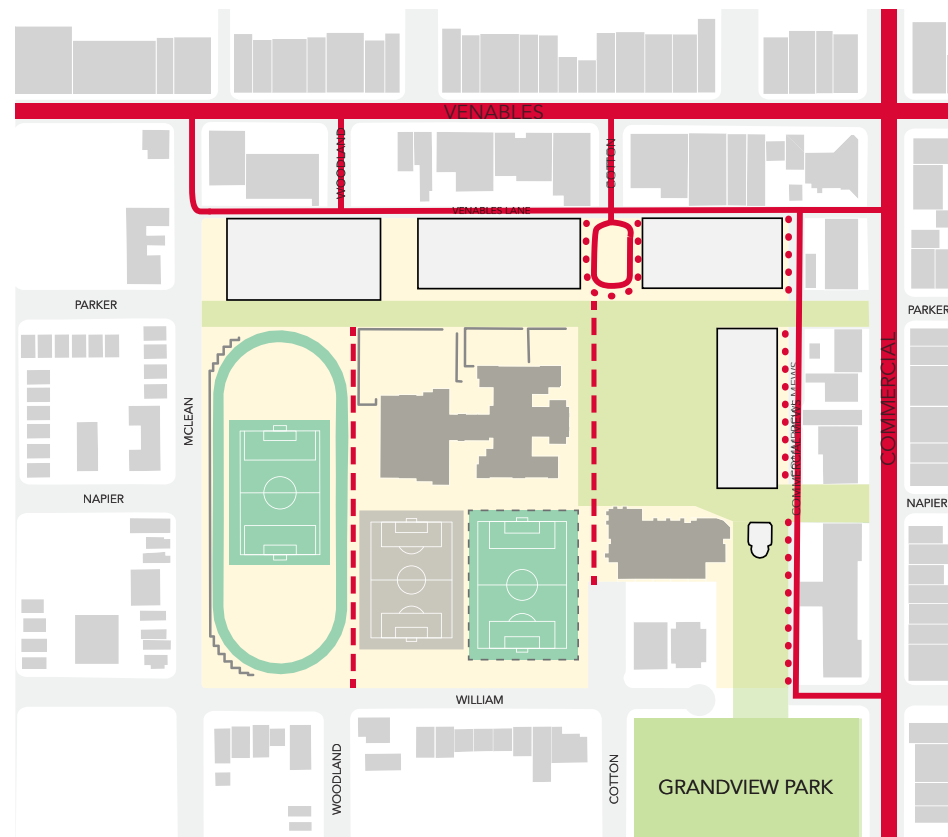
BIKE ROUTES + PARKING

The site is framed by bike routes on two sides - an official bike route runs north south along Woodlands and McLean, and an anticipated bike route runs east west along William Street.

Bike Share stations are to be provided at the entry to the site from Grandview Park and at Parker and Commercial. Covered bike racks to be provided at the entry to each building within site of the doors. Bike lockers and end of trip facilities to be provided for staff.

LEGEND

- Green dashed line: Bike Routes
- Green rectangle: Personal Bike Parking
- Green circle with 'M': Bike Share Existing
- Red circle with 'M': Bike Share Proposed



VEHICULAR ACCESS + CIRCULATION

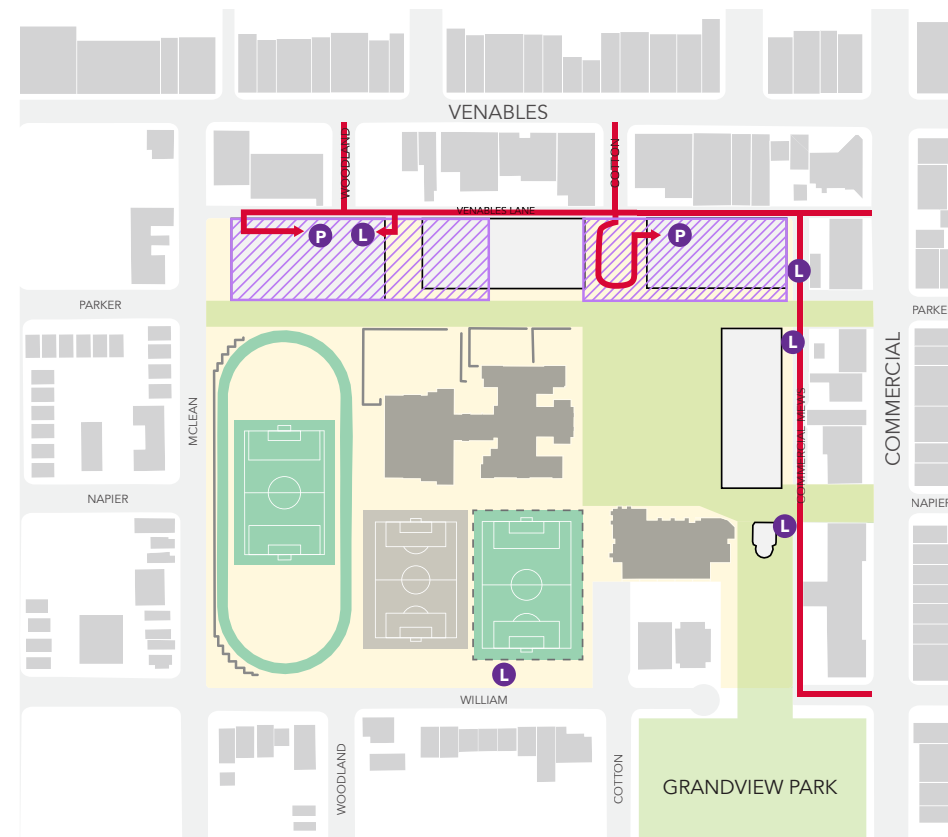
Vehicular access to the site is from Venables Street via Cotton Drive, arriving at a plaza turnaround and drop-off.

The Commercial Mews will provide opportunities for drop off for the Community Centre, Library, and Elementary School.

Emergency vehicle access will be north south through the site along the Cotton ROW and the Woodland ROW.

LEGEND

- Vehicular Access
- - - Emergency Vehicle
- • • Drop Off



PARKING + LOADING

All parking on site is to be located underground, preserving the ground plane for public use. Parking is located under the facilities along the Parker ROW (right of way) and will be accessed via the Venables Lane.

Access to Loading for the Rink and Pool will be off the Venables Lane. Access to Loading for the Library and Community Centre will be off the Commercial Mews and beneath Building 3. Refer to 6.14 Traffic, Parking, and Loading in Detailed Requirements section for further recommendations on these aspects of the Master Plan.

LEGEND

- Underground Parking
- P Parking Entry
- L Loading
- Access Routes

5.7 SUSTAINABILITY + RESILIENCE

SUSTAINABILITY + RESILIENCE GOALS

Through the process of renewal and redevelopment, the new Britannia site will be a leader in regenerative design and resilience.

This ambition reflects the collective community vision that the redevelopment of the Britannia site should not simply reduce its impact on the environment, but restore ecosystem services and provide a net benefit to both local and global ecosystems.

Through the redevelopment of the site, numerous opportunities (illustrated in the combined sustainability measures diagram on the right, and specific diagrams following) arise to:

- Improve the **ecology** of the area through open greenspace and green roofs, natural landscapes, preservation and enhancement of the tree canopy and stormwater management.
- Improve the **building energy efficiency** by designing to Passive House levels of performance wherever possible.
- Explore **community-scale energy infrastructure** to connect to low-carbon, renewable sources of energy, including solar panels, geo-exchange beneath some or all of the playing fields, and waste heat exchange between buildings.
- Improve the neighbourhood's **resilience** to extreme weather events by building social connectivity and designing for "passive survivability" and some form of self-sufficiency with regards to energy generation.
- Build upon Britannia's current programs of social support to create a place of **refuge and support for vulnerable people**.
- Foster diversity, vibrancy, and resilience through inclusion of non-market **housing that supports low-income residents and reflects the diverse character of the community**.

The new buildings on the site will also be designed to be both simple to operate and adaptable over time as the needs of the community change.

STANDARDS/TARGETS FOR BUILDING AND SITE PERFORMANCE

There are a number of policies and plans that the new Britannia site will need to align with, including the City of Vancouver's

Greenest City Action Plan, Zero Emissions Building Plan, Healthy City Strategy, and Climate Adaption Strategy. The site should set the following broad goals:

- All new buildings (except for the ice rink and pool) will be constructed to a Passive House level of performance
- The site as a whole will achieve a net zero carbon level of performance
- Individual buildings across the site should seek the Fitwel certification standard
- As a piece of social infrastructure, the site and its redevelopment should help to build social connectivity and facilitate opportunities to stay active.

COMMUNITY VISION

The public consultation process made it clear that there is a strong desire to "respect and enhance the natural world". This ambition reflects the collective ideal that the redevelopment of the Britannia site should not simply reduce its impact on the environment, but restore ecosystem services and provide a net benefit to both local and global ecosystems.

The community expressly showed interest in:

- Indigenous design principles
- Respect and enhance the natural world
- Caring for and protecting the land - leave it better than when you arrived and use only what you need
- Net Positive – Regenerative Design
- Flexibility and adaptability to change
- Resilient facilities that can act as a hub for disaster relief
- Alternative energy
- Greywater system
- Increasing green spaces - re-wild the site - less paving – more plants and natural life
- Harvesting corridors – Indigenous landscape, plants, food and medicines
- Recycling/re-use hub

SITE + PROGRAM OPPORTUNITIES

The Britannia site is a large contiguous land area spanning roughly three city blocks that slope east to west. This large site provides the opportunity to create open green spaces, improve access to natural landscapes, and improve site permeability. The program also offers the opportunity to share energy between building uses and capture waste heat for re-application across the site.

There is also an opportunity to explore approaches to "hard-wiring" wellness into buildings, such that they contribute to building social as well as environmental well-being. This can be achieved through a variety of methods, from the thoughtful choice of materials to the use of passive ventilation strategies.



SUSTAINABLE SYSTEMS PLAN

ECOLOGY

The site's ecology includes all the natural elements, including greenspace, trees, and water. The new Britannia site will integrate these natural elements across the entire area, and will be designed to:

- Add open greenspace and new trees wherever possible, particularly along the edges of the site
- Create a greenway along Parker Promenade + extend the Napier Greenway
- Retain and enhance tree canopy to the maximum extent possible
- Provide natural habitat for local plants and animals to preserve and enhance existing biodiversity
- Install educational signage to indicate natural species, pollinator species, and drought-tolerant plants
- Explore the possibility of an on-site "Living Machine" to treat wastewater and heat the greenhouse
- Increase the permeability of the site to reduce stormwater runoff by increasing natural areas and using permeable or porous alternatives to traditional paving
- Plant drought-tolerant landscaping to reduce water usage
- Install green roofs to help capture and reuse greywater, and reduce stormwater runoff
- Remove sediment and contaminants from stormwater by installing bioswales and 'Stormceptors'



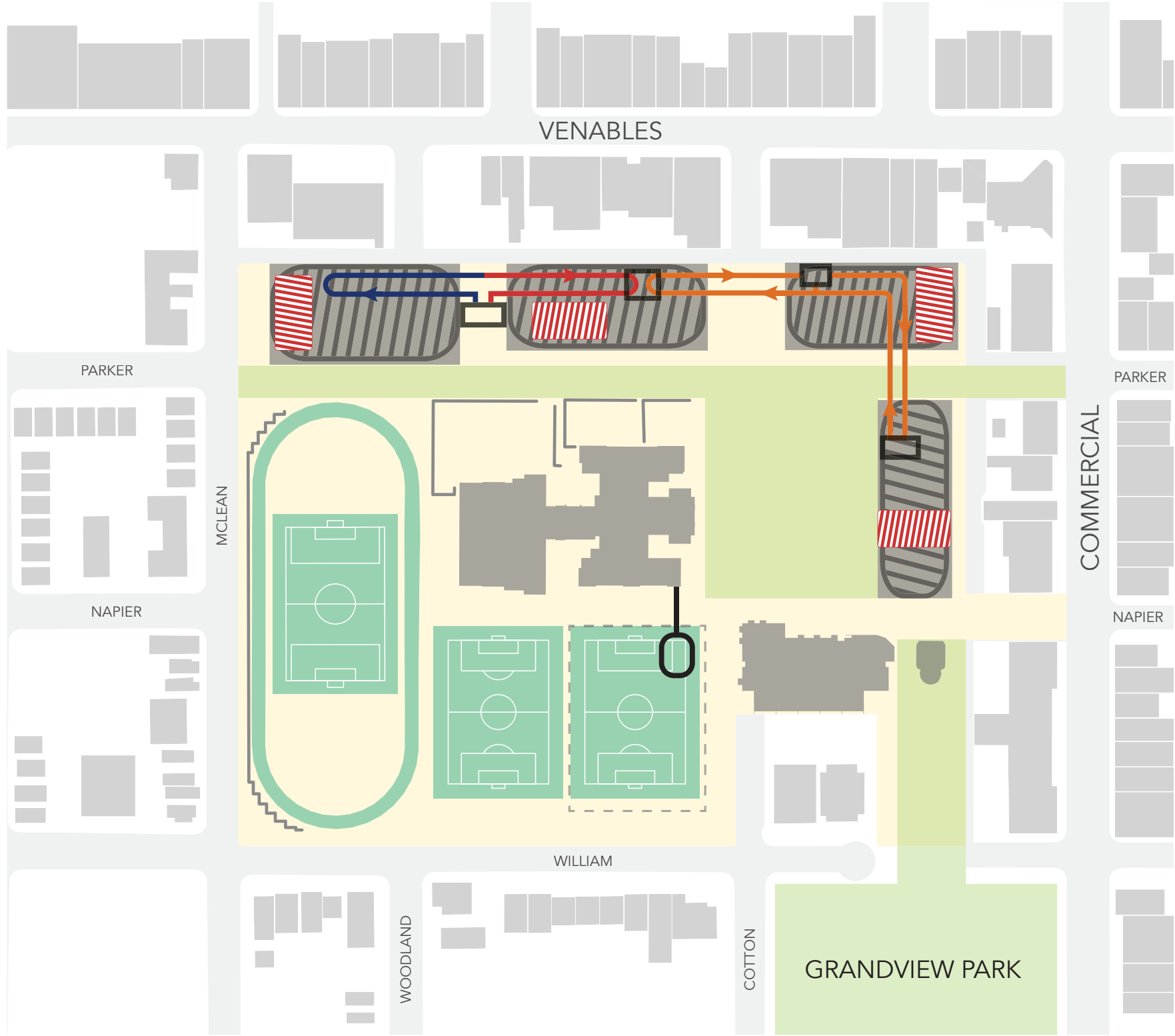
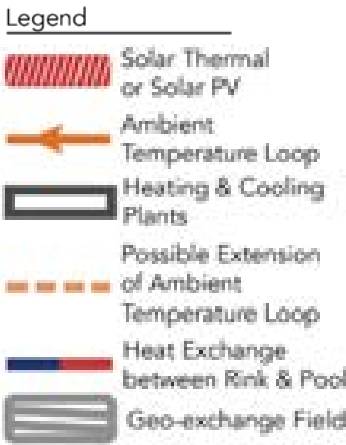
SITE ECOLOGY PLAN

5.7 SUSTAINABILITY + RESILIENCE

ENERGY

The renewed portions of the Britannia development will be designed and constructed to achieve ultra-high levels of energy performance, and a net zero carbon emissions target. These goals will be achieved by exploring the following strategies:

- Minimize energy demand by designing new mixed use buildings to target a Passive House level of performance
- Optimize the energy efficiency of the ice rink and pool
- Share energy between buildings through an Ambient Temperature Loop
- Capture waste heat between buildings for re-use across the site
- Produce on-site renewable energy using solar photo-voltaic (PV) or solar thermal systems
- Use geo-exchange fieldS as a low-grade source of heating and cooling.



ENERGY STRATEGIES PLAN

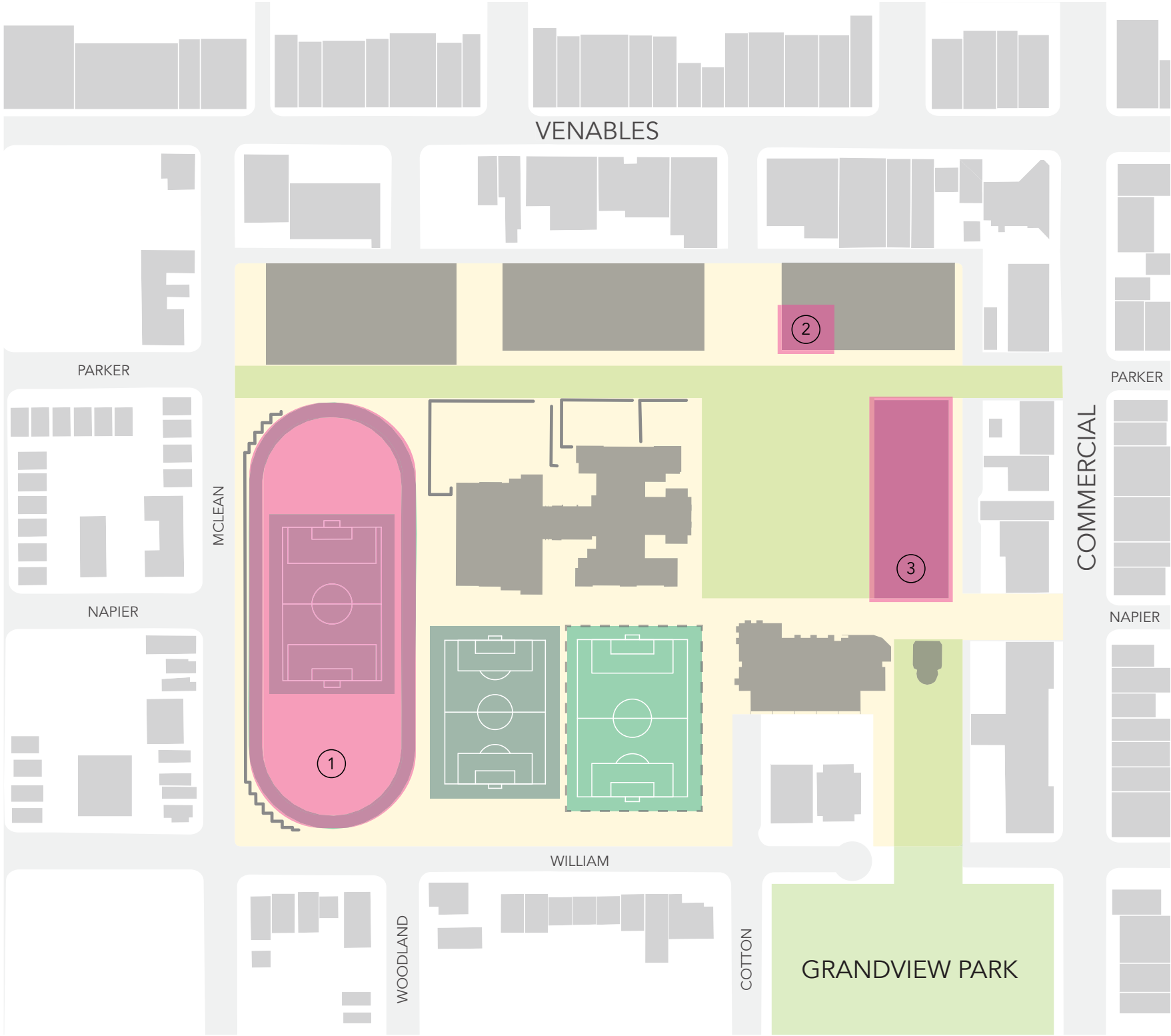
RESILIENCE & REFUGE

The new Britannia site will address several key resilience issues and improve the community’s ability to respond to the shocks and stresses that it experiences. This will be achieved through the following design considerations:

- Provide communal educational space where people can strengthen their community connections
- Provide a flexible refuge space which can function as a warming centre, activist space, social enterprise space, or resilience centre
- Design Gyms D + C to be able to function as emergency shelters in the case of community emergency such as a building fire
- Ensure Britannia can be a place where people can gather, both before and after a disaster
- Create and store energy on-site using solar panels and battery storage to ensure some core functions will be able to stay in operation if power supply is interrupted
- Provide space for a cooling centre in the community centre in times of extreme heat
- Provide shaded areas throughout the site
- Ensure public access to drinking water by installing water fountains on the site, so people can stay hydrated in times of extreme heat

EMERGENCY OPERATION

During emergency situations, people often congregate in large public buildings such as Community Centres. While the buildings will not be built to post disaster standards, the Britannia Community Centre is considered to be a high importance building designed to function as a community mustering place and partially function after a non-seismic disaster. This includes an emergency generator able to provide lighting, heating, ventilation, hot water and power to a portion of the site.



RESILIENCE & REFUGE PLAN








Legend

Resilience & Refuge Spaces

PHASING

The following diagrams illustrate a proposed Renewal phasing priority. Development that impacts Vancouver School Board (VSB) spaces could slow down the development process. Projects that affect VSB spaces will need to align with VSB's seismic upgrade program and priorities. Phases 1, 2 & 3 do not interrupt operations or impact VSB spaces and allows the majority of the Renewal to be undertaken on the basis of available funding only.

LEGEND

-  Phase with no impact on VSB spaces
-  Phase requiring project alignment with Vancouver School Board (VSB) space
-  Phase construction or temporary relocation
-  New building
-  Existing buildings to remain
-  Deconstruction of existing building
-  Boundary of Phase

PHASE 1



PHASE 2



Building 1

Aquatics
Fitness + Gym C
Childcare
Non-market housing
Relocation of carving
centre

Deconstruction

Pool + Fitness Centre

Site Development

U/G Parking
Cotton Plaza
Portion of Parker
Promenade

Interim Renovation

Existing Gym C could be renovated to be interim
Food Hub + Event Space
Access to U/G Parking

Building 2

Rink
Rooftop Sport Park
Non-market housing

Deconstruction

- | Rink
- | Portable

Site Development

U/G Parking
Recreation Plaza
Portion of Parker
Promenade

Interim Renovation

Locate at grade parking in demolished Rink footprint

Relocate VSB Streetfront Portable and Farm to footprint of demolished Pool

PHASE 3



Building 3
Library
Art Galley
Childcare
Non-market housing

Deconstruction
Library
Preteen centre

Site Development
U/G Parking
Parker Promenade + Greenway
Portion of Commercial Mews

PHASE 4



Building 4
High School Shops + Classrooms
All Weather Field above

Deconstruction
High School Shops + Classrooms
VSB portable

Site Development
Portion of Cotton Walk

PHASE 5



Building 5
Event Spaces + Food Hub
Social Hub + Art Studios
Meeting Rooms + Gym D
Social + Cultural Non Profit Hub
Street Front School + Urban Farm

Deconstruction
Gyms C + D
Teen Centre
Info Centre
Senior Centre
Childcare
Family place

Site Development
Common
Portion of Cotton Walk
Playway
Commercial Mews