D The Task

Detailed description of the competition task, guiding principles, and design objectives.
D

The Task

D.I | Fort Garry Campus Plan

D.01 The task is to create a vision and a conceptual Campus Plan for the Fort Garry Campus within the boundaries of the competition area. The University of Manitoba Fort Garry Campus Plan will guide future growth and development of the campus, providing a design framework for the seven designated precincts through the creation of a strong landscape and exterior public realm.

D.02 The goal is to improve the campus experience and become a leader in innovative and sustainable environmental design. This will help the University better attract and retain students and faculty, while supporting its vision to be nationally and internationally recognized for excellence in teaching and research, innovation and creativity.

D.03 The instructions for the Fort Garry Campus Plan are organized around the following urban design components, with emphasis on the design of the exterior public realm and open space. The component instructions apply across the whole campus:

- Component 1 - Exterior Public Realm and Open Space
- Component 2 - Movement and Circulation
- Component 3 - Built Form
- Component 4 - Infrastructure and Utilities

D.04 Instructions and considerations are given for each of the seven precincts. All of the precincts are important.

D.05 However, the most extensive design work is required for the Southwood Precinct. A detailed Southwood Precinct Plan, including phasing, is a key element of the overall Fort Garry Campus Plan. It will have to include a detailed public realm plan, land use program and phasing plan to accommodate up to 4,200 multi-dwelling units and 21,070 square metres (226,800 square feet) of retail and hospitality space, as identified in the November 2012 Market Study Supply and Demand Analysis.

D.06 The Phase One site plan is the first phase development for the Southwood Precinct, and is envisioned to cover approximately 8 hectares (20 acres) in size. This area must include the siting of the Phase One Demonstration Project. The groundbreaking of the Phase One Demonstration Project is anticipated to occur within the first three years following the competition.

D.07 The Demonstration Project will provide an opportunity to illustrate how sustainable practices can be implemented through design of the built environment. There are two key requirements within the context of the competition: a conceptual design scheme for a series of mixed-use multigenerational residential housing structures with ground-floor commercial and community amenities, as well as the public realm surrounding them.
D.08 General instructions are outlined for the following precincts:

- **Core Campus:** Identify areas of potential densification and unite the academic zone with the new Southwood community and the Red River.
- **Smartpark:** Consider the creation of spaces that foster community and encourage informal interactions, along with ways to densify the area, enhance the sense of arrival, and connect to the Core Campus.
- **Sport and Active Living:** Enhance the quality of movement and create an inspiring public realm that facilitates sport and activity on campus.
- **Transition:** Formulate an urban pattern that connects with the adjacent precincts and enhances the quality of movement and thresholds.
- **Point Lands:** Re-shape the landscape and establish an area of recreation and environmental learning for the local community and the citizens of Winnipeg.
- **Community Gardens:** Consider developments along Pembina Highway to enhance the sense of arrival and integrate the area throughout the rest of the campus.

D.09 These general instructions are not as detailed as those for the Southwood Precinct Plan. It is expected that the competition will provide new ideas and possibilities for these precincts. The existing precinct boundaries are not fixed and could be reconsidered within the framework’s proposed vision. The winning design team will be expected to the campus in additional detail during the campus design process that will follow the competition.
D.II | Goals + Guiding Principles

D.10 Five overarching Goals + Guiding Principles have been established through consultation with key stakeholder groups to provide a starting point for the design process.

- **Connected:** Network the Campus, Connect to the City
  
  D.11 Develop an active transportation network to connect all areas within the campus. Create connections from the University's public amenities to adjacent communities. Links should be provided to active transportation routes beyond the boundary of the Fort Garry Campus. The placement of rapid transit stations should be used to encourage the creation of dense nodes of new development.

- **Destination:** Reasons to Come and Reasons to Stay
  
  D.12 Transform the Fort Garry Campus from a commuter campus to a destination by developing a rich diversity of places to live, work, learn, and play. There must be a focus on creating an outstanding public realm that can serve as a strong framework around which the campus can change and grow. The campus experience must be remarkable and unique. By focusing on synergies, distinctiveness, and fundamental differences, the Fort Garry Campus Plan can lead qualitative changes for the University and the communities in which it resides.

- **Sustainable:** Campus as a Living Lab
  
  D.13 Demonstrate best practices in sustainable design that support the University's commitment to sustainability from an ecological, social and economic standpoint. The University views these three dimensions of sustainability as interrelated and mutually supportive. Viewing the campus as a living lab can open up new opportunities to apply innovative design, technology, and research within the campus environment. The landscape, public realm and built form should visibly demonstrate sustainability and provide opportunities for individuals and communities to learn and grow.

- **Community:** Build for Density, Design for People
  
  D.14 Create a vibrant and diverse campus that is a stimulating and inviting place to be. Designs must focus on a compact network of spatially rich public places that encourage social interaction. Universal and inclusive design are key values in fostering an inclusive community. Features and amenities must be provided to meet a broad range of needs for a diverse community, and must be reflective of the University's multicultural population and Manitoba's Indigenous peoples.

- **Transformative:** Research, Learning, Working and Living
  
  D.15 By improving the campus experience and becoming a leader in innovative environmental design, the University can better attract and retain students and faculty, supporting its vision to be nationally and internationally recognized for excellence in teaching and research, innovation and creativity. The University can also further fulfill its role as an open and welcoming community of learning, discovery, and engagement. In particular it can work toward its vision to make Manitoba a centre of excellence in Indigenous education, enhancing its commitment to listening, acknowledging, and affirming Indigenous voices, and becoming a place where the values of Indigenous cultures and communities are included in scholarship and research across the province.
D.III | General Design Objectives

D.16 The Design Objectives, while still broad, provide additional levels of detail to reinforce the Goals + Guiding Principles.

D.17 Design a public realm that is focused on the human scale. Pedestrians must be the primary consideration followed by bicycles, public transit and then single occupancy vehicles. Providing places for people to live in and around campus will allow for reduced car dependency. Design outdoor spaces that encourage people to be outside in the cold winter months, and that are universally accessible and inclusive for people of all ages and abilities. Principles of universal and inclusive design are crucial in ensuring that the campus is accessible to everyone, regardless of age or ability.

D.18 Create opportunities for formal, informal, experiential, intergenerational and enjoyable learning. Provide settings for curiosity and discovery that engage people with built and natural environments. These places should be inclusive, allowing people of different genders, of all ages, abilities and ethnicities to meet and learn. Opportunities to learn about new ways of living sustainably are also of key importance.

D.19 Design should be used to create positive experiences that effect human behaviour. The University strives for excellence in design of the built environment that sets high standards for architecture and exterior spaces. Good design should create positive experiences that increase concern for the environment and for human and non-human processes.

D.20 Plans must envision the campus as a living laboratory to test and apply leading-edge design concepts. This is a research opportunity where the approach should be multidisciplinary and considered at all scales. There is a need to think regionally, but also to act locally at the more detailed scale. Systems are important, but so are innovative approaches that provide unique experiences.

D.21 Design proposals must consider economic realities. Phasing scenarios will need to be considered in order to work within fiscal constraints; results should reflect the need for designs that are tangible, realistic and feasible. This attends to the University’s goal of economic sustainability that is also integrated with ecological and social sustainability.

D.22 Well-considered planning and design will allow the campus to adapt and change as the community evolves. The Fort Garry Campus Plan and the Southwood Precinct Plan should provide a framework for future change.

D.23 Strategies should enhance the health, safety and welfare of human and non-human species. Outdoor spaces can be considered as productive working landscapes or ecological infrastructures containing a hybrid of uses. This includes (but is not limited to) storing and cleaning storm water, creating urban habitat, local food production, community orchards, agroforestry, silviculture, alternative energy sources, land for ecological reserve and consideration for water and nutrient flows. Flows of organisms, materials and energy passing through the site should be considered in a way that supports the biodiversity of a healthy campus, region and planet. These can be viewed as long term opportunities that will create a more sustainable place to live.

Proposals must identify and reflect the site’s unique geographical and socio-cultural contexts. The visibility of the region’s cultural diversity and Indigenous cultures must be explored in the design of the built environment. Climatically responsive design and the creation of microclimates for all seasons must be considered given to the region’s extreme temperature variations between the summer and winter months. Winnipeg’s location within a flood plain is also of key importance for consideration in relation to seasonal flooding risks and overall climate change.
D. IV | Component 1- Exterior Public Realm and Open Spaces

Landscape

D.24 The landscape or exterior spaces make up the main structure of the Fort Garry Campus. As a key component, the overall spatial structure of the landscape must be strengthened and consideration given to the unique existing and desired experiential conditions within each precinct’s exterior spaces.

D.25 This structure should reflect the Goals + Guiding Principles and General Design Objectives through well considered planning and design. The landscape is a vital component of social infrastructure for the creation of a healthy, sustainable campus environment.

D.26 What is the vision for the future of the Fort Garry Campus?

D.27 In what ways can the campus’ exterior environment be used in all seasons, while remaining inclusive to all abilities?

D.28 How can the exterior environment enhance opportunities for formal and informal learning within the Fort Garry Campus? Could the campus help to promote a more ecologically literate society? Are there ways to educate people about the natural history of Manitoba?

D.29 How can the campus’ public realm be enhanced to create a thriving and active environment?

D.30 How can each precinct’s unique identity and character be expressed, while still allowing for a sense of continuity across the entire site?

D.31 Consider the experiential qualities and choreography of space as an aesthetic experience – the senses, movement, pause, gateways, thresholds, accessibility, rhythm, repetition, scale, hierarchy, texture, vistas, materials, light, colors form, time, processes and pattern. The relationship between indoor and outdoor spaces such as views, movement and interior/exterior functional relationships could also be explored.

D.32 Determine the activities and uses which will take place in the area.

D.33 Create spaces that provide opportunities for interpretation of the public realm’s natural, social, and physical heritage, in order to provide users with knowledge of the site, stimulate interest in it, and strengthen emotional connections to the University and landscape. This could include the design of an inclusive space (or spaces) that encourage experiential learning of (and from) the cultures of Manitoba’s diverse Indigenous groups. It could include sacred or ceremonial spaces that foster connections to the natural environment and deeper understandings of traditional Indigenous worldviews and ways of life.

D.34 Instill pride and identity in the University’s culture by providing public realm opportunities that enhance the educational campus experience with opportunities for formal and informal learning.

D.35 Ensure that the design of the public realm is easy to understand and navigate, regardless of the user’s experience, knowledge, language skills, or sensory abilities. Safety and security should also be a consideration.

D.36 Explore sunlight and wind patterns across various seasons and consider the shorter daylight hours in the winter months.

D.37 Maintain and enhance existing significant public realm spaces such as the Duckworth Quadrangle, Curry Place Pedestrian Mall, the University Centre roof deck, Princess Royal Walk, and the historic Avenue of Elms along Chancellor Matheson Road and Curry Place from Pembina Highway through to the Administration Building.
D.38 Envision opportunities associated with the periodic influx of over 33,500 people coming to see an event at Investors Group Field.

D.39 Ensure that public realm and landscape spaces are durable and low maintenance. Consider the removal and storage of snow.

D.40 Provide connections to the river.

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**Ecology**

D.41 Ecology should be a key consideration as a fundamental element of sustainability. Ecological infrastructures, principles of ecology and urban ecology must be considered and applied at a range of scales. Proposals should show an understanding of the regional context, providing conceptual designs for new systems and experiences on the site.

D.42 Design teams should consider the regional flows of fauna (and flora). The riparian corridor is used by *Odocoileus virginianus* (white-tailed deer), one of many species who feed there and use the river for movement in the winter. The Southwood Precinct is also used by *Branta canadensis* (Canada Goose) during times of migration. Considerations for additional wildlife such as *Danaus plexippus* (Monarch Butterfly) and associated habitat(s) beyond what is mentioned should also be explored.

D.43 Conservation and enhancement of the existing natural environment must be a priority within all precincts. The existing urban forest and tree canopies on the campus are an asset and must be enhanced in future designs.

D.44 Planting should be low maintenance and diverse. It could provide wildlife habitat, and when possible create opportunities to grow food for human and non-human species. Considerations for landscape processes, in addition to the formal design of spaces could be considered. Alternatives to traditional lawns should be explored.

D.45 The ecological functions of design elements within the public realm could be made visible to afford better understandings of the interactions between natural and human-made systems.

D.46 Making these processes visible can promote sustainability to a broad group of students, staff and visitors through formal and informal learning. This is an opportunity to celebrate the regional characteristics that make Winnipeg unique, while promoting new ways of living within the local environment through strengthened connections to nature.

D.47 A medicinal garden integrated with traditional Indigenous teachings could offer a unique way to learn, educate, and reach out to the community in a living classroom for students of all ages.
Currently, the campus lacks a strong sense of arrival and identity. There should be a qualitative change associated with the spatial experience of entering the campus. Entrances should be enhanced with landscape thresholds that express the region’s distinctive identity.

Create a new and significant entranceway for multi-modal transportation in conjunction with the new BRT line into the Southwood Precinct.

Provide for unique and beautiful indications of entry onto campus. Important and highly visible entrances include Chancellor Matheson Road at Pembina Highway, and University Crescent near Thatcher Road.

The Avenue of Elms along Chancellor Matheson Road should be maintained and enhanced as a key historic entranceway feature, including consideration of the existing gateway structure at Pembina Highway. Designs may wish to explore alternative ground covers that enhance the experience of arrival.

At entrances bordering residential neighbourhoods (such as King’s Drive and University Crescent at the south end of the Core Campus), enhance the sense of arrival on campus while being sensitive to the context of the surrounding neighbourhoods. There is also an existing entrance along Markham Road that should be re-imagined.

At pedestrian and active transportation entrances (such as Allegheny Drive, Bayridge Avenue, and D’Arcy Drive), provide indications that these are entrances to the campus. These should be distinctive gateways sensitive to their contexts. New campus entranceways for pedestrians and active transportation should be provided where needed.

Pembina Highway is a key vehicular thoroughfare connecting Downtown with the southern portion of the city. It is also defined in *OurWinnipeg* as a “regional mixed-use corridor” and potentially a desirable place for high-density mixed-use development. A long-term goal would be to re-imagine Pembina Highway at the campus’s western boundary, and provide a compelling vision for what it could become.

How can Pembina Highway be transformed? What opportunities exist?

As the Fort Garry Campus’ most visible face to the city, how can the presence of the University along Pembina Highway be enhanced?

Should all of the University’s frontage along Pembina Highway be treated in the same way?

Could future design interventions become models and precedents for other development along major arterial streets within Winnipeg?

Imagine a design capable of making Pembina Highway a better place. Demonstrate what Pembina Highway could become both in the foreseeable future and the long term.

Illustrate what Pembina Highway could look like at a new BRT entrance into the Southwood Precinct.

Increase opportunities along Pembina Highway for clear links between the campus and the city, in addition to enhancing entrances and landmarks.
D.62 The Red River is a major geographical feature and a significant ecosystem. Currently the campus’ built environment does little to engage the Red River as its eastern boundary, and this presents an opportunity to celebrate and acknowledge the river to a greater extent.

D.63 What opportunities exist for public interaction and access to the Red River from the Fort Garry Campus?

D.64 Create a new riverfront park and/or promenade space that provides a significant and important new public space for the city that is inclusive for all; a place to ‘see and be seen’. All of the river must be part of a publicly accessible parkway, but research and student uses could also be part of the University’s future needs.

D.65 Provide access and amenities to support river related activities in all seasons. This could include but is not limited to rowing, canoeing, kayaking, ice skating, cross country skiing, snow shoeing, dog sledding and toboganning.

D.66 Propose connections along the river that provide access to the campus and the surrounding neighbourhoods. The existing gates along the Point Lands will need to be opened to allow for community access in order to achieve this goal.

D.67 Enhance the riparian forest ecosystem along the Red River while addressing riverbank stability. Designs should reflect the seasonal dynamics of changing water levels, freeze/thaw cycles and ice flows in the spring. Consider fragmented patches of habitat along the length of the Red River as stepping stones that form an ecological corridor for species movement/migration. Opportunities could be provided to experience the riparian forest in a way that is educational and enjoyable for all.

D.68 New development along the river front must meet the Primary Line of Flood Defence (PLD) criteria as described in C.182-C.186. Teams must also consider issues surrounding river bank stability.

D.69 As the campus is adjacent to several residential neighbourhoods, sensitivity to this existing context is important. Noise and light pollution, urban form, and landscape are some of the issues that must be taken into consideration.

D.70 As outlined in D.VIII Southwood Precinct Plan: Areas adjacent to existing residential neighbourhoods will need to be sensitive to the built form of these neighbourhoods. Teams should explore the transitions between the Southwood Precinct and the surrounding residential areas. These transitions should not be fences or large walls.

D.71 As outlined in D.V Movement and Circulation, carefully consider the adjacent neighbourhoods in terms of potential noise and vibration issues connected to a BRT route (local residents have expressed concern over these issues).

D.72 Consider the transition between the Smartpark and Core Campus Precincts and the Fort Richmond community to the south.
D.V | Component 2 - Movement and Circulation

D.73 Movement and circulation must be considered both within the Fort Garry Campus and in relation to the surrounding communities. This section includes design instructions for pedestrian movement, active transportation, bus rapid transit (BRT), as well as commercial and private vehicles. Movement and circulation should be addressed as part of creating ‘complete streets’ for multiple modes of transportation where suitable to do so.

D.74 There is also potential to explore the idea of ‘shared spaces’ where the delineation of space between vehicle traffic and pedestrians is reduced in areas where pedestrians should have a higher priority.

D.75 Considerations for movement and circulation must be integrated with the design of the landscape. Spaces must be universally accessible and inclusive.

D.76 How can the Fort Garry Campus shift away from being a car-oriented commuter campus, while still addressing the need for motorized vehicular traffic on the site?

D.77 How can movement and circulation systems best accommodate a wide range of individual preferences and abilities?

D.78 Are there ways to encourage more people to be outside in the cold winter months? (For example, the Core Campus Precinct has an underground tunnel system that people use in the winter months. Should the University continue to build tunnels or are there better ways of living in a winter city)?

D.79 How can better connections be created within the campus, and to the adjacent neighbourhoods?

Active Transportation

D.80 Active transportation (AT) refers to human-powered modes of transportation such as walking, cycling, skateboarding or inline skating. Surfaces should be designed to support all modes of AT including accessibility for wheelchair use.

D.81 Propose a safe, beautiful, fun and efficient AT network for the Fort Garry Campus.

D.82 Create an AT route along the Red River through the Point Lands, connecting St. Vital Park to the north, the university and King’s Park to the south.

D.83 As part of OurWinnipeg, a Sustainable Transportation direction strategy was created that proposes a future AT network for Winnipeg. Consider how an active transportation network within the Fort Garry Campus can connect to the wider Winnipeg AT network.

D.84 Consider how the network could integrate multiple AT modes such as pedestrians, cyclists, and other forms of AT.

D.85 Create an environment that follows the design objective of ‘People First’ (see D.17) by addressing the walking distances within and between different campus precincts and creating connections to other forms of transportation.

D.86 Include design elements and infrastructure for cycling, including dedicated cycle-ways and bicycle storage.

D.87 Consider other forms of AT such as skateboarding and inline skating, fitness/active living trails, and even river uses such as paddling. Consider how AT could be facilitated in all seasons, through modes such as cross-country skiing, snowshoeing, or ice skating on the river.
Southwest Transitway - Bus Rapid Transit (BRT)

D.88 Winnipeg’s Transportation Master Plan states that Stage Two of Winnipeg’s Southwest Rapid Transit Corridor is to be completed by 2016. The City of Winnipeg held two public open houses in September of 2012 as part of preparation of the City’s Southwest Rapid Transit Stage 2 Alignment Report (see City of Winnipeg Public Open House Display Boards for Southwest Rapid Transit Stage 2 in appendices for more information). The final report is not yet available for release.

D.89 Determine the routing of the BRT line through the Southwood Precinct to the rest of campus. The entry into Southwood should occur somewhere north of Markham Road (see City of Winnipeg Public Open House Display Boards for Southwest Rapid Transit Stage 2 in appendices for more information).

D.90 Treat the BRT system as an element of a multi-modal “complete street”, not as a barrier that fragments (or divides) the site. Within the Fort Garry Campus, the BRT system is not about high-speed movement, but rather uninterrupted service with a minimum number of intersections. BRT should be at grade, and part of a pedestrian-friendly corridor. Designs should accommodate a dedicated (but not barricaded) lane for BRT to allow for the possible conversion of the system to light rail (LRT) in the future.

D.91 Illustrate the spatial experience of being adjacent to the BRT line as a pedestrian – specifically in the context of a multi-modal corridor.

D.92 Provide rationale for the number, spacing and location of BRT stations both within the Southwood Precinct and the rest of campus. New stations must provide efficient access and exceptional service that add to the quality of life for everyday users. Stations do not necessarily need to be stand-alone structures, and can be integrated into new buildings.

D.93 The Dafoe Road transit stops next to the quadrangle must remain because of their important location in the heart of the campus. Teams may wish to explore the best routing for transit vehicles going from the Southwood Precinct to the Dafoe Road transit stops in the Core Campus.

D.94 There must be a station that serves the new stadium within an acceptable walking distance, and a strong rationale should be provided for its location. It is necessary to incorporate additional boarding areas on game days when the frequency and volume of buses are higher.

D.95 Carefully consider the adjacent neighbourhoods in terms of potential noise and vibration issues connected to a BRT route (local residents have expressed concern over these issues).
Internal Vehicular Network

D.96 Treat the movement of vehicles along streets as part of a system that integrates transportation and land use, while supporting active, accessible, and healthy lifestyles. This system should accommodate vehicles as well as public and active transportation.

D.97 Consider the existing vehicular network and create new right of ways for vehicular circulation that have a clear hierarchy of streets within the site.

D.98 Consider the need to access buildings for deliveries, goods movement and waste removal as part of the overall movement and circulation system.

D.99 Consider the need to include access routes for emergency vehicles.

D.100 Establish a street system for the Southwood Precinct with a clear hierarchy. These streets should be places for people, that also accommodate vehicles.

D.101 It may be desirable to explore the possibility of accommodating vehicular traffic adjacent to a BRT line. Teams should only do this if it is the best solution for creating a safe, active street that does not fragment (or divide) the site. The BRT line through the Precinct should be considered as a part of a “complete street” that accommodates a mix of uses and modes of transportation.

Parking

D.102 Treat existing surface parking lots as areas of opportunity for campus expansion by reducing the amount of surface parking over time (information on how campus facilities might expand will be available for the campus planning process following the competition). This should mostly occur in the Core Campus and Smartpark Precincts where the majority of surface parking is concentrated. It is anticipated that new parking structures may be needed as part of this.

D.103 Propose ways to make remaining parking lots beautiful not only for people parking in them, but also for people walking through them between points on site. Current surface parking lots do not consider wayfinding, people movement, aesthetics or ecology.

D.104 Filter runoff from impervious surfaces in a climate appropriate way.

D.105 Address snow removal and storage.
D.VI | Component 3 – Built Form

Structure and Built Form

D.106 Proposals for built form are only required for the Southwood Precinct. However, teams are encouraged to use massing and infill to illustrate how density can be achieved within the rest of the campus (Core Campus, Smartpark, Sport and Active Living, Transition). A detailed space plan is currently underway and will specify the amount of new construction needed for academic functions; this will be ready after the competition.

D.107 Built form should be set within the context of consideration for the landscape and public realm. The landscape should be the connecting web and structural framework used to guide growth and change by identifying future building sites. The framework should provide the necessary flexibility for long term change.

D.108 How can building density be increased within the Fort Garry Campus?

D.109 How can built form be used to create opportunities for social interaction?

D.110 What is the relationship between built form, multimodal transportation and the design of public realm spaces?

D.111 How can ecological infrastructures be integrated into both building architecture and the landscape?

D.112 Are there ways to extend and integrate exterior and interior public realm spaces?

D.113 Use built form to enrich and animate public space and identify appropriate sites for built form based on its relationship to the landscape.

D.114 Locate potential new building sites while exploring massing in relation to the public realm. Important considerations include a range of heights and massing that articulates a proposed scale, views, sunlight/shadows and effects on wind patterns.

D.115 Identify possible locations for new parking structures within the Core Campus and Smartpark in relation to the exterior public realm.

Future Projects Under Consideration

D.116 There are a few projects which are in the early discussion phases for future consideration. It is required that teams identify sites for each of the following future projects.

D.117 A new Community Health Access Centre (CHAC) is currently being considered. It will help establish the campus as a destination for the surrounding community. It is anticipated the Faculty of Kinesiology and Recreation Management will provide a strong role in supporting this initiative as one of its core missions is chronic disease prevent and treatment.

D.118 The Southwood Precinct Plan must include consideration for the visibility of local Indigenous cultures in the design of the built environment. This could be demonstrated through the design of an inclusive space (or spaces) that encourages experiential learning of (or from) the cultures of Manitoba’s diverse Indigenous groups. It could include sacred or ceremonial spaces such as a sweat lodge, or public outdoor spaces that foster connections to the natural environment and deeper understandings of traditional worldviews and ways of life. These cultural design considerations align with the University's commitment to partner in making Winnipeg the national centre of excellence in Indigenous education, to build and expand an Indigenous presence and visibility at the University of Manitoba, and to be a place where all Indigenous students have a home.
D.VII | Component 4 - Infrastructure and Utilities

D.119 The University is committed to making the campus a model for sustainability. To achieve this goal, the design concept must maximize opportunities to incorporate leading-edge sustainable technology and methods throughout the infrastructure and utilities planning concept.

D.120 Existing infrastructure and utilities dictate that shifts to more sustainable forms will have to occur in phases. However, the Southwood Precinct offers a unique opportunity to explore innovative sustainability from the development’s first phase and onward.

D.121 Therefore, the instructions listed for each infrastructure sub-topic below will specify the phasing approach by precinct(s) where the system applies. As part of the phasing process, consider methods by which the existing campus can transition from current conventional infrastructure to more sustainable infrastructure over time across all precincts.

D.122 What opportunities or possibilities are there for ecological infrastructure?

D.123 How can localized infrastructural systems contribute to the overall sustainability of the Fort Garry Campus?

D.124 How can new sustainable infrastructure be phased first within the Southwood Precinct and then the rest of campus over time?

D.125 How can natural systems and considerations for nature be integrated into the design of infrastructure?

Renewable Energy

D.126 Sustainable infrastructure development will be achieved through a series of interrelated systems that are required to revolutionize the way that Canadian communities are designed. The development of on-site renewable energy sources is paramount to the overall sustainable infrastructure plan.

D.127 The University currently derives thirty-five percent of its energy used for heat and electricity from renewable sources. The vision is to derive eighty percent of energy use from renewable sources. The strategy will focus on using renewable alternative energy sources. Power from hydroelectricity is already available at low cost in the province.

D.128 Additional strategies could include, but are not limited to: biomass in the form of landfill gas to power the existing district energy heat and cooling system; agricultural residues to power a new biomass district energy system; harvesting of on-site vegetation for energy fuel source; solar energy to supplement buildings or district thermal energy; geothermal energy from heat pumps where the district energy system is not available locally; collection of snow in winter to power the district cooling system in summer; and the capture of methane gas from the Brady Landfill for energy use in the Southwood Precinct that could be phased to other precincts over time.

D.129 The existing district energy plant can be retrofitted to use a renewable energy source such as landfill gas as an initial implementation phase. A new biomass district energy plant can be constructed centrally to service the Core Campus and Southwood Precincts. Distribution to periphery precincts can be considered as a future phase.
Land Drainage/ Stormwater

D.130 The general principle should be reduction and on-site retention of stormwater through innovative technologies such as Water Sensitive Urban Design (WSUD)/Green Technologies and Low Impact Development (LID) (see Sustainable Water and Waste – OurWinnipeg Direction Strategy in appendices for more information).

D.131 Design a stormwater system to service the Southwood Precinct as a first phase of development and incorporate short term phasing considerations to improve stormwater reduction/retention within the Core Campus Precinct, followed by the remaining precincts. There are no existing connections to the City’s Land Drainage System. The plan should incorporate the following guidelines:

D.132 Increase hydrologic stability by designing a system that improves ground water filtration, and storm water infiltration and discharge.

D.133 Reduce pollutant loads and runoff effects by channelling all runoff through integrated stormwater management landscape elements. Incorporate WSUD and LID best management practices using the following potential technologies: vegetated retention cells, vegetated bio-retention/infiltration swales or trenches, modified tree pits with stormwater storage capacity, bio-retention rain gardens, and green roofs.

D.134 Consider that there are a number of context-specific challenges that hinder the feasibility of adopting the types of techniques and technologies mentioned above. The barriers include but are not limited to issues resulting from Winnipeg’s extreme winter climate, clay soil conditions which inhibit natural infiltration into the soil, flat topography which can result in large areas being affected if these technologies fail, and operational/traffic safety requirements such as the application of sand and salt de-icing methods which can affect the long-term operation of these stormwater management technologies.

Wastewater

D.135 The Southwood Lands have access to an available City wastewater interceptor sewer that discharges to the South End Water Pollution Control Centre (SEWPCC). The SEWPCC provides an economical and beneficial recovery of phosphorus from wastewater and biogas energy from bio-solids.

D.136 The plan must also consider ways to reduce wastewater through aggressive water conservation, rainwater harvesting, and grey water reuse to reduce reliance on potable water. A dedicated wastewater system to connect to an on-site treatment facility should be contemplated as an experimental demonstration facility to research new strategies.

D.137 The Southwood Precinct offers an opportunity to develop wastewater technology within the context of sustainable community development where wastewater is considered as a resource, as opposed to the traditional context of “disposal”. Design the wastewater system to service the Southwood Precinct development as a first phase and incorporate future phasing considerations for the remaining campus precincts.
### Waste Management

| D138 | Management of solid waste streams should be in accordance with The City of Winnipeg’s Comprehensive Waste Management Strategy and Sustainable Water and Waste – OurWinnipeg Direction Strategy (see appendices for more information). Strategies include: reduction of waste at source, provision of multiple collection services, diversion of waste from landfill through reuse, recycling and composting, and recovery of products from these waste diverting processes. |
| D139 | As development begins there will be increasing sources of construction waste. These materials should be sorted on site and then hauled to specialized recycling centres in accordance with LEED construction waste management practices. |
| D140 | Propose a more ecologically friendly method and new location(s) for snow removal and storage so that salts, sand, and other road grime are filtered out of snow before it drains into the river and watershed. |
| D141 | Currently snow is collected and stored in the western section of the Sport and Active Living Precinct. A permanent location determined by ecological and recreational opportunities should be explored. Are there ways that snow storage could be phased to provide recreation? |
| D142 | Consider ways to re-use construction fill within the campus, as opposed to transporting it offsite. This could include a variety of earthworks projects to shape, form, and sculpt the existing topography if desired. |
D.143 The Southwood Precinct Plan is a significant component of the overall design competition.

D.144 Show a dense, compact, mixed, and sustainable neighbourhood centered on public transit nodes/stations with significant consideration for the public realm and landscape. With the recent construction of Investors Group Field and over 30,000 students and staff at the Fort Garry Campus, there are exciting possibilities to transform Southwood and the campus into a unique destination area and a model for urban and landscape design in Canada.

Component 1 - Exterior Public Realm and Open Space

D.145 Designs must allow for new urban form while protecting as many of the existing trees as possible as they are important assets that contribute to the unique identity and spatial pattern of the current site. Mature trees, stands of significant vegetation, topography and drainage patterns must be taken into consideration as significant existing features on the site.

D.146 As much land as possible should be dedicated to public space. The goal is to set aside fifty percent of the land for infrastructure of a social and ecological makeup: parks, public realm, ecology and new habitats, tree/habitat preservation and transporation.

D.147 Create a variety of public spaces and the necessary connections between them. Possibilities could include places for performances, outdoor markets, seating, interactions with nature, places to play, opportunities for outdoor eating, local food production (community gardens, greenhouses), outdoor classrooms or amphitheatres and river access. Streets should also be considered and treated as public realm.

D.148 Along with public realm and park spaces, options for sport, active living and adventure should be incorporated into the precinct. Outdoor sports such as skateboarding, bmxing, basketball, volleyball, baseball and/or outdoor hockey could also be considered.

D.149 Designs must consider the adjacency of the Victoria General Hospital to the site. There is the potential to consider green space, medicinal and/or healing gardens for those that are sick or visiting loved ones. The restorative benefits of nature, physical access, views from the hospital and potential light and noise pollution must be considered.

D.150 Land to the east of University Crescent cannot be developed unless the Primary Line of Defence is relocated towards the riverfront to accommodate new structures within the eastern areas of the Southwood Precinct (see C.182-186).

D.151 Provide a connection and access to the Red River. The riverfront space must be tied into the pedestrian and active transportation system.
Component 2 – Built Form

D.152 Plans should show how development could occur in a compact footprint, with a mix of housing options and spaces for retail amenities and services.

D.153 The scale of the new stadium should be viewed as an opportunity to create additional density within its immediate adjacency. This should focus on the creation a dense, vibrant urban village with a variety of commercial and residential opportunities. Commercial amenities could include grocery stores, restaurants, cafes, local pubs, retail and services that will attract visitors and provide services for the local population.

D.154 Areas adjacent to existing residential neighbourhoods will need to be sensitive to the built form of these neighbourhoods. Teams should explore the edge conditions between the Southwood Precinct and the surrounding residential areas.

D.155 Housing must be provided for a range of incomes, ages, cultural groups and lifestyles (including affordable student housing). Mixed-use residential structures, with ground floor retail or office uses, should be explored. The amenities and services that will contribute to making the area an attractive destination spot should also contribute to a neighbourhood that is walkable for the people living there. It is anticipated that the project will include affordable and market rate housing.

D.156 A summary of the development potential for the Southwood Precinct is as follows:

<table>
<thead>
<tr>
<th></th>
<th>2012-2016</th>
<th>2017-2021</th>
<th>2022-2026</th>
<th>Total Demand</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Housing Potential (units)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>432</td>
<td>1,404</td>
<td>1,764</td>
<td>3,600</td>
</tr>
<tr>
<td>High</td>
<td>672</td>
<td>1,680</td>
<td>1,848</td>
<td>4,200</td>
</tr>
<tr>
<td><strong>Retail + Hospitality Potential</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low (m²/ft²)</td>
<td>1,950/20,995</td>
<td>5,782/68,234</td>
<td>7,965/85,730</td>
<td>16,254/174,960</td>
</tr>
<tr>
<td>High (m²/ft²)</td>
<td>3,371/36,288</td>
<td>8,428/90,720</td>
<td>9,288/99,972</td>
<td>21,070/226,800</td>
</tr>
</tbody>
</table>

(See Marketplace Study: Supply and Demand Analysis in appendices for more information).
D.IX | Southwood Phase One

D.157 The Phase One site plan is the first phase development for the Southwood Precinct, and is envisioned to cover approximately 8 hectares (20 acres) in size. This area must include the siting of the Phase One Demonstration Project. The groundbreaking of the Phase One Demonstration Project is anticipated to occur within the first three years following the competition.

D.158 The first phase demonstration project provides the first opportunity for construction within the Southwood Precinct. The competition objective is to select a site for these first phase projects that shows a relationship to a new BRT hub/station. The future projects will provide an opportunity to illustrate how the three interrelated dimensions of sustainability can be implemented through design of the built environment.

D.159 There are two key requirements within the context of the competition: a conceptual design scheme for a series of mixed-use multigenerational residential housing structures with ground-floor commercial and community amenities, as well as the public realm surrounding them.

Component 1 - Exterior Public Realm and Open Space

D.160 Teams must provide a more detailed design of a significant public realm space within their overall scheme. Considerations for planting, site furnishing concept(s), and how the site can be programmed and used are important.

D.161 Teams are also expected to illustrate how lighting can be used to create positive public realm experiences that are also safe. Lighting could be used to provide areas of emphasis and points of interest. It should attract people, and stimulate activity. The quality of light is far more important than the quantity.

Component 2 – Built Form

D.162 Designers must select a site and provide general massing for a series of mixed-use buildings with residential and commercial components. Sufficient design is required to understand the interface between building massing and the landscape.

D.163 The concept of multigenerational housing should be wide-ranging and include considerations for members of the university community as well as people from the wider city – for example students, new Canadians, older adults, and families. This should also address the current shortage of housing for students who may not wish to live in dorm-style units on campus, such as Indigenous, international, and graduate students; as well as students with families.

D.164 The final program(s) will be determined after the competition is complete, however it is anticipated that the projects will include both affordable and market rate housing for a variety of occupants, and a range of commercial retail options.
### D.XI | General Precincts

<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>D.165</td>
<td>Although each campus precinct possesses a relatively distinct character, opportunities should also be sought that build increased synergies and connections between and across precincts.</td>
</tr>
<tr>
<td>D.166</td>
<td>Enhance the existing public realm and landscape while providing better opportunities and infrastructure for active transportation and pedestrian activity within the Core Campus.</td>
</tr>
<tr>
<td>D.167</td>
<td>Explore future scenarios for densifying the Core Campus, including the treatment of existing surface parking lots as areas of opportunity. This should include consideration of new student dormitory-style residences, as there is currently a demand for additional units. Hubs or concentrations of dormitory-style housing should be considered along with new commercial amenities that add vibrancy and life to the campus. Marketplace housing should not be considered within the Core Campus.</td>
</tr>
<tr>
<td>D.168</td>
<td>Reimagine Dafoe Road as an example of how density and an enhanced public realm could be conceived within the Core Campus. This could include the quadrangle and outdoor spaces around the Administration Building.</td>
</tr>
<tr>
<td>D.169</td>
<td>The future Active Living Centre and Taché Hall (currently under construction) represent the first steps towards a redefined corridor on Dafoe Road. Once Taché Hall is completed, the Music Building and Music Annex will be vacated; this becomes an opportunity for further densification.</td>
</tr>
<tr>
<td>D.170</td>
<td>Current uses in Smartpark will stay in effect for the foreseeable future. Its existing vision is to “Build a Community of Innovators” by developing land and space for lease to research and technology companies and organizations that coincide with the research and expertise at the university. In the long-term, a greater mix of uses should be contemplated, along with a more compact, dense, and walkable urban form for the precinct.</td>
</tr>
<tr>
<td>D.171</td>
<td>Designs should create spaces that foster community and encourage informal interactions. The existing massing and orientation of buildings in relation to the public realm creates few opportunities for this.</td>
</tr>
<tr>
<td>D.172</td>
<td>Explore the creation of better connections to the wider campus as Smartpark is currently spread out and spatially fragmented in relation to other areas.</td>
</tr>
</tbody>
</table>
Sport and Active Living

D.173 The existing buildings and facilities within this precinct are all of recent construction and will remain for the long term. These include Investors Group Field, University Stadium, the Winnipeg Indoor Soccer Complex, and the two new sports fields.

D.174 Consider ways to integrate and enhance this precinct with adjacent areas.

D.175 There are opportunities to explore moving the existing Physical Plant Compound in the long term to a larger, more consolidated location. Additionally, alternative site(s) to store snow in the winter should be proposed.

D.176 Future considerations could include: the creation of two artificial turf fields, and a building to house two new indoor ice-rinks in addition to volleyball, basketball and badminton courts.

Transition

D.177 Teams may see this precinct as an area of opportunity to create a stronger sense of community and better connections to adjacent precincts.

D.178 There is an existing provincial/federal land lease in the precinct; however, design teams could still contemplate what might occur within this area.

Point Lands

D.179 Future scenarios for the Point Lands Precinct will likely have to occur in the longer term as these lands are currently used by the Faculty of Agricultural and Food Sciences, and are not accessible to the public. Public accessibility should be contemplated as a possible eventual outcome while existing research continues.

D.180 Envision the riverfront area of the Point Lands as a component of a continuous pedestrian and active transportation system along the Red River.

D.181 Designs must be considered within the context of its current flood plain condition. Depending on what potential ideas are envisioned for this land, it may be desirable to create a new Primary Line of Defence (see C.182-C.186).

D.182 New ideas and ways of thinking about what the Point Lands could become are encouraged. Possibilities could include considerations for new ecologies, local food production, medicinal gardens, riverbank stability, habitat quality along the riparian corridor, or possibilities for growing renewable energy. Designs could explore new processes for the site.

D.183 Are there ways that the Point Lands can become a multi-generational educational opportunity to learn about nature, forests and our flood-plain condition? Should the existing dike along the Red River be raised? Are there ways of living with water in a way that is process driven over a longer-timescales? 

Community Gardens

D.184 There is the potential to move the Community Gardens so that they are better integrated throughout the rest of campus, giving better access for everyday use. New ideas for what could occur within this precinct and along Pembina Highway are encouraged.