CHAPTER 3

SUSTAINABLE LANDSCAPE DESIGN AND MAINTENANCE STANDARDS

SUSTAINABLE MAINTENANCE OVERVIEW

PRINCIPLES AND RESPONSIBILITIES

CLIMATE READY AND NATIVE PLANTING APPRROACH

In adopting sustainable planting approaches for landscapes like the Capitol Mall Area, the focus lies on utilizing native plants suited to the site's specific climate and conditions. Local and regional native plant producers offer a range of options, from seeds to plugs, allowing for cost-effective installations. Plugs provide immediate impact and perform well under stress, making them ideal for areas requiring instant effect. For naturalistic meadows, successful seed mix installations necessitate meticulous planning, taking into account species traits and environmental factors affecting germination. Dormancy-breaking techniques, such as scarification, aid in seed germination, with timing crucial for different plant species. Cool and warm-season plants respond differently to seasonal changes, and including a mix of both can enhance resilience and competition against invasive species.

UPFRONT MAINTENANCE INVESTMENT LEADS TO LONG-TERM COST SAVINGS

Investing in upfront maintenance, like early weed detection and trimming, leads to long-term cost savings. By addressing issues early, such as weed encroachment and seedling establishment, the need for expensive treatments later on is minimized. Practices like late winter vegetation removal also preserve habitat and soil health. Prioritizing proactive maintenance upfront ensures healthier ecosystems and reduces long-term expenses.

GEARING TOWARDS CARBON EFFICIENCY

Prioritizing low-carbon materials and sustainable practices in hardscape design and maintenance is crucial for reducing the Capitol Mall's carbon footprint. Life cycle analysis (LCA) guides the selection of materials with lower environmental impacts, such as recycled aggregates and locally sourced options. By integrating these practices early in the design phase, the project can contribute to carbon sequestration efforts and promote environmental sustainability in urban landscapes. Different landscape typologies offer varying opportunities for carbon storage, emphasizing the importance of strategic vegetation management to maximize sequestration potential.

CLIMATE RESILIENT STORMWATER SYSTEM

Stormwater system maintenance involves cleaning green infrastructure, inspecting filtration systems, and managing vegetation in biofiltration basins. Prioritizing proactive upkeep ensures the resilience and longevity of these systems, effectively mitigating climate change impacts and promoting sustainability. Other climate resilience strategies should also be pursued across the campus.

LANDSCAPE STANDARDS AND MAINTENANCE

BY LANDSCAPE TYPOLOGIES

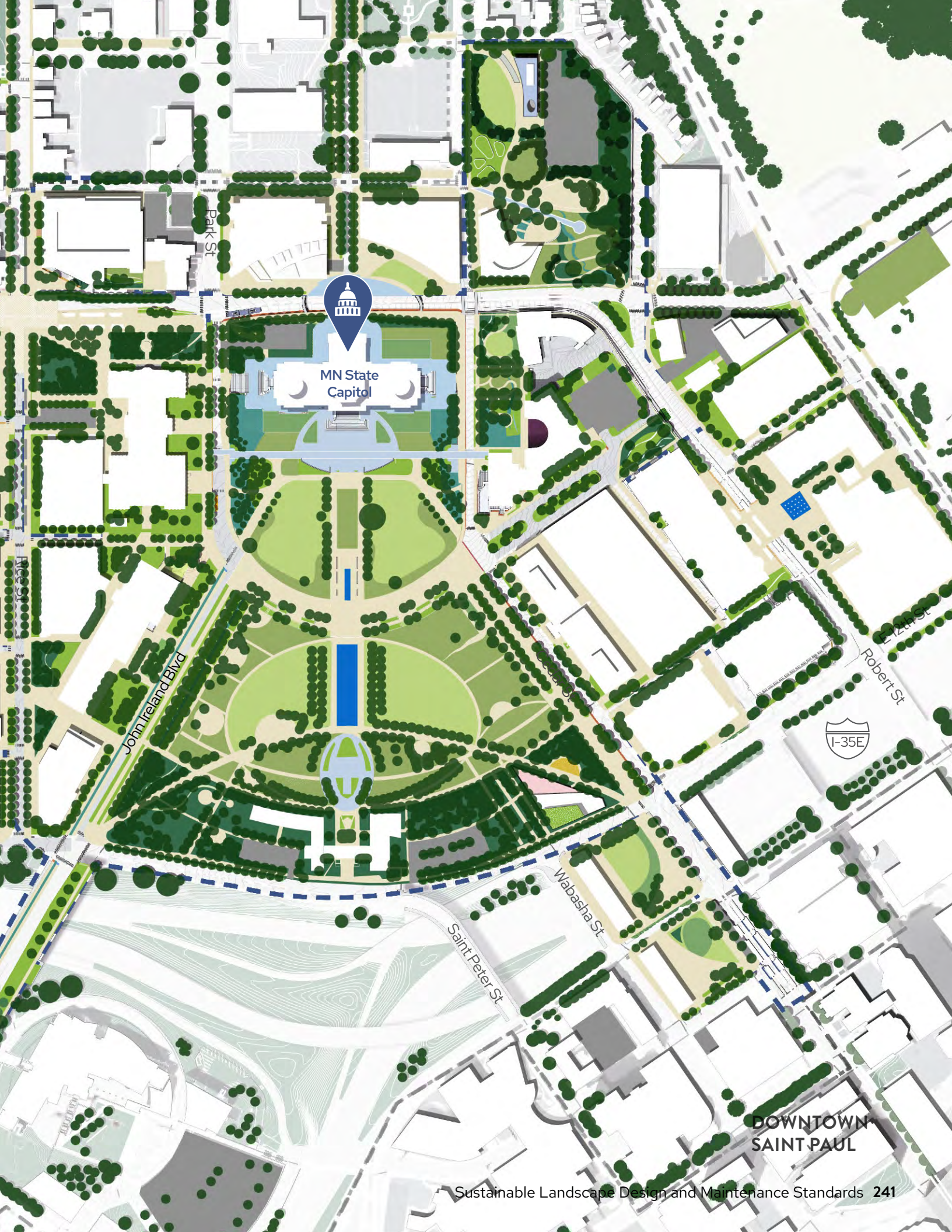
CREATING A UNIFIED APPROACH IS THE KEY

The key to effective maintenance in the Capitol Mall area lies in consolidating disparate maintenance standards and practices from various jurisdictions into a unified approach. Treating the area as a cohesive whole is essential to ensure consistency and efficiency in upkeep. Whether it's the maintenance of county-owned roads or city-owned roads, or the care of the Capitol Mall lawn and new public realm park spaces, adhering to an overarching standard is crucial. By streamlining maintenance practices across state, county, and city boundaries, we can optimize resources, enhance coordination, and preserve the integrity and attractiveness of this important civic space for residents and visitors alike. A critical next step includes developing a maintenance agreement between the State and City to ensure effective future enhancement and the overall longevity of the Capitol Campus.

Reference the CAAPB *Zoning and Design Rules for the Minnesota State Capitol Area* for more information. In general, all installed surfaces must support their intended purpose. Ground cover in assembly areas such as the Upper Mall should be able to withstand heavy traffic (thousands of event participants) on a high frequency basis.

LEGEND

- Tree Canopy
- Lawn
- Botanic / Arboreta Gardens
- Street Landscape
- Naturalized Landscape, forest
- Stormwater Landscape
- Hardscape
- Parking Space
- Water Features


MN State Capitol
Park St
Rice St
John Ireland Blvd
Cedar St
Robert St
I-35E
Wabasha St
Saint Peter St
DOWNTOWN SAINT PAUL

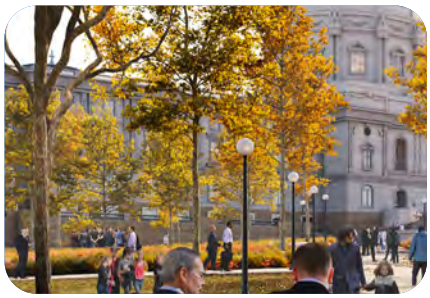
LANDSCAPE STANDARDS AND MAINTENANCE

BY LANDSCAPE TYPOLOGIES

TREE CANOPY

MAINTENANCE LEVEL ●●○

Implementing sustainable tree maintenance is crucial for their long-term health, especially in urban areas. Street trees need regular pruning to maintain clearance for pedestrians and vehicles and reduce the risk of falling branches. Trees on lawns benefit from watering, mulching, and fertilization to combat drought and soil compaction. Trees on slopes require erosion control measures like retaining walls or erosion blankets to prevent soil erosion. Choosing tree species resistant to winter conditions and extreme weather also enhances their resilience.



LAWN

MAINTENANCE LEVEL ●●○

Lawn maintenance strategies should be consistent across all lawns and differentiate by uses. Efficient irrigation, including utilizing stormwater reuse systems, along with mowing at lower frequencies and reducing fertilizer application, maintains health while conserving resources. Lawns designated for events need additional care, like aeration and overseeding, to withstand foot traffic. Conversely, those for passive use thrive with minimal intervention, supporting biodiversity.

BOTANIC / ARBORETA GARDENS

MAINTENANCE LEVEL ●●○

The maintenance of botanic/arboreta gardens begins with careful selection of native species that can thrive together, fostering local pollinators and ecosystems. Expert guidance from arborists ensures proper care, which, if done right, can significantly reduces maintenance efforts - limiting cutting and fertilizing, and allowing plants to dictate their growth. By letting nature take its course, these gardens not only require less maintenance but also flourish as harmonious and resilient ecosystems.

STREET LANDSCAPE

MAINTENANCE LEVEL ●○○

With careful planning, the street landscape should ensure proper sizing of street trees and plants, and select species with compatible light and water requirements. Consideration of extreme weather conditions and harsh winters, including salt tolerance and water/drought resistance, is paramount. Additionally, promoting biodiversity throughout the district by incorporating a variety of street plant selections enhances ecological resilience. Treating the entire area as a cohesive unit facilitates coordinated maintenance efforts, fostering healthier and more resilient street landscapes.

NATURALIZED LANDSCAPE, FOREST

MAINTENANCE LEVEL ●○○

The naturalized landscape involves careful selection of native species adapted to the local environment, minimizing the need for ongoing interventions such as watering, fertilizing, and pruning. By mimicking natural ecosystems, these landscapes can largely sustain themselves, relying on natural processes like decomposition and self-regulation to thrive. Initial efforts may include site preparation, such as soil amendments and weed control, to establish a resilient ecosystem. Once established, minimal ongoing maintenance is required.

STORMWATER LANDSCAPE

MAINTENANCE LEVEL ●●○

Stormwater landscapes maintenance includes meticulous planning to ensure proper water level management and easy access for maintenance while preventing mosquito breeding. Careful consideration of water flow patterns and drainage systems promoting healthy plant growth and minimizing stagnant water. Additionally, integrating educational components into stormwater landscape designs raises awareness about the importance of these green infrastructure systems and fosters community engagement in their care and maintenance.

Figure 189: RetrofittingwithGreenInfrastructure, https://dirt.asla.org/2018/06/12/retrofitting-with-green-infrastructure/

HARDSCAPE

MAINTENANCE LEVEL ●○○

The hardscape should consider carbon efficiency alongside other factors. This includes selecting materials with lower embodied carbon footprints, such as recycled aggregates or locally sourced materials, to reduce environmental impact during construction and maintenance. Incorporating sustainable maintenance practices, such as utilizing electric or low-emission equipment for cleaning and repair tasks, helps minimize carbon emissions during upkeep.

PARKING SPACE

MAINTENANCE LEVEL ●○○

Parking space's maintenance approach should focus on stormwater management, solar panel integration, and carbon reduction. Incorporating permeable pavement and bioswales in parking lot whenever is possible. Installing solar panels on parking structures not only generates renewable energy but also provides shade for vehicles, reducing heat island effects and improving comfort. Additionally, implementing electric vehicle charging stations and promoting carpooling and alternative transportation options further reduces carbon emissions.

Figure 190: Solar Panel Parking Lot at Walden Pond, MA, https://www.mass.gov/locations/walden-pond-state-reservation

WATER FEATURES

MAINTENANCE LEVEL ●●●

Implementing sustainable maintenance strategies for water features in the Capitol Mall District emphasizes water conservation, holistic maintenance, ease of cleaning and management, and year-round operational simplicity. Incorporating water-saving technologies and a district-wide maintenance approach ensures efficiency and effectiveness. By prioritizing these practices, water features can thrive while conserving resources and promoting environmental stewardship.

CLIMATE READY AND NATIVE PLANTING APPROACH

PLANTING INSTALLATION STRATEGIES

PLANTING APPROACHES

A broad variety of native plants are available in formats ranging from seed, plugs, and large containers. For large landscape installations, it's usually more economical to utilize a combination of plug and seed mix applications to achieve a balance between instant effect, landscape success, and a balanced budget. All of these options are offered by local and regional native plant producers. These local and regional growers specialize in native plants with diverse and localized genotypes better suited to various site and climate conditions.

WHEN TO UTILIZE PLUGS

Plugs are juvenile plants with extensive root systems that provide immediate impact. Although small, plugs often perform better than larger container plants with water stress and transplant shock. Depending on species and appropriate spacing, these plants close canopy gaps in usually three months and are fully mature in the next growing season. Sasaki utilizes plugs where instant effect is important, including formal landscapes, edges around areas planted by seed, and islands within seeded zones. Plant development is highly dependent on species, so the team suggests investing in plugs when species have low seed germination rates, grow slower than counterparts, or have an aesthetic quality that brings formality to seeded meadows. In naturalistic areas, plugs of species that spread by rhizome or seed are often sought to help aid establishment over time.

DETAILS IN SEED MIXES

Success in native seed mix installations resembling naturalistic meadows is dependent on vigorous planning and site preparation. Seed mix composition is largely based on each species life cycle traits, germination rate, competitiveness, and factors that affect seed dormancy. A successful seed mix includes a diverse array of flowering perennials and grasses that respond to cool and warm season conditions and have relatively high germination rates. Many of the plants most suited for these applications tend to be prairie or grassland species that rely on wind for seed transport.

Figure 191: Parable of the Sower and the Seed, https://stjamesgettysburg.wordpress.com/2010/05/02/skit-parable-of-the-sower/

SEED DORMANCY & GERMINATION

Most native plants produce seed with an embryonic dormancy to ensure germination does not occur until conditions are optimum for seedling growth. In most cases, a seed shell or coating helps to stop germination until it's broken down by environmental conditions. In northern climates, cold winter temperatures, moisture, sunlight, freeze-thaw cycles, and soil contact often break this dormancy period and allow for seeds to germinate. For seeds that are usually animal-dispersed, scarification or a mechanical / chemical weakening of the seed coat is usually required -- think about a seed passing through a bird's digestive system. A mechanical scarification technique usually requires abrading the seed with sandpaper or tumbling in a blender with dulled blades. In general, seed companies do not pre-treat or stratify their seed mixes to ensure longer shelf-life. Some companies will treat seeds if requested, but caution against it unless a guaranteed installation date is known. In most applications, the best method is to allow natural processes to break seed dormancy in-situ (on-site).

Seeds break dormancy and germinate at different rates depending on species. Most research for the region concludes that flowering perennials and cool season grasses germinate best when planted in mid-late autumn, while warm season grasses germinate at higher rates when sowed in early spring. These seeding conditions and recommendations change in different regions of the U.S. When planted in autumn, warm season grasses have shown to have a higher susceptibility to mold and consumption by local wildlife. An easy compromise is to plan for sowing in late winter and early spring before the last frost, but when snow has generally cleared. This timeframe allows for freeze-thaw action, rain, and increasing sunlight to help seeds germinate at a more even rate.

Seeding can generally be performed throughout the growing season, but moisture stress and competition with unwanted weeds tends to be highest in late spring through early autumn, so seeding during these months is not recommended. Often times, a landscape planted with seed in summer will fail to germinate until the soil temperature cools in autumn.

COOL SEASON AND WARM SEASON PLANTS

Plants respond to seasonal change in different ways. Plants that emerge in cool weather are termed cool-season dependent and those that require the soil to warm for emergence are warm-season dependent. In North American prairies, the vast majority of grass species are warm-season, while many of the flowering perennials start emerging from overwintering basal leaves quite early. In forest and meadow-edge environments, the vast majority of the herbaceous layer includes plants that are cool-season dependent. In forests, the competitive advantage for plants to endure heavy summer shade is to emerge before trees develop mature leaves and/or persist after tree leaves have fallen.

Many common invasive weeds in North America are cool-season adapted and outcompete warm-season grasses and flowering perennials. Including some native cool season plants can help compete with these invaders.

PLUG SUGGESTIONS

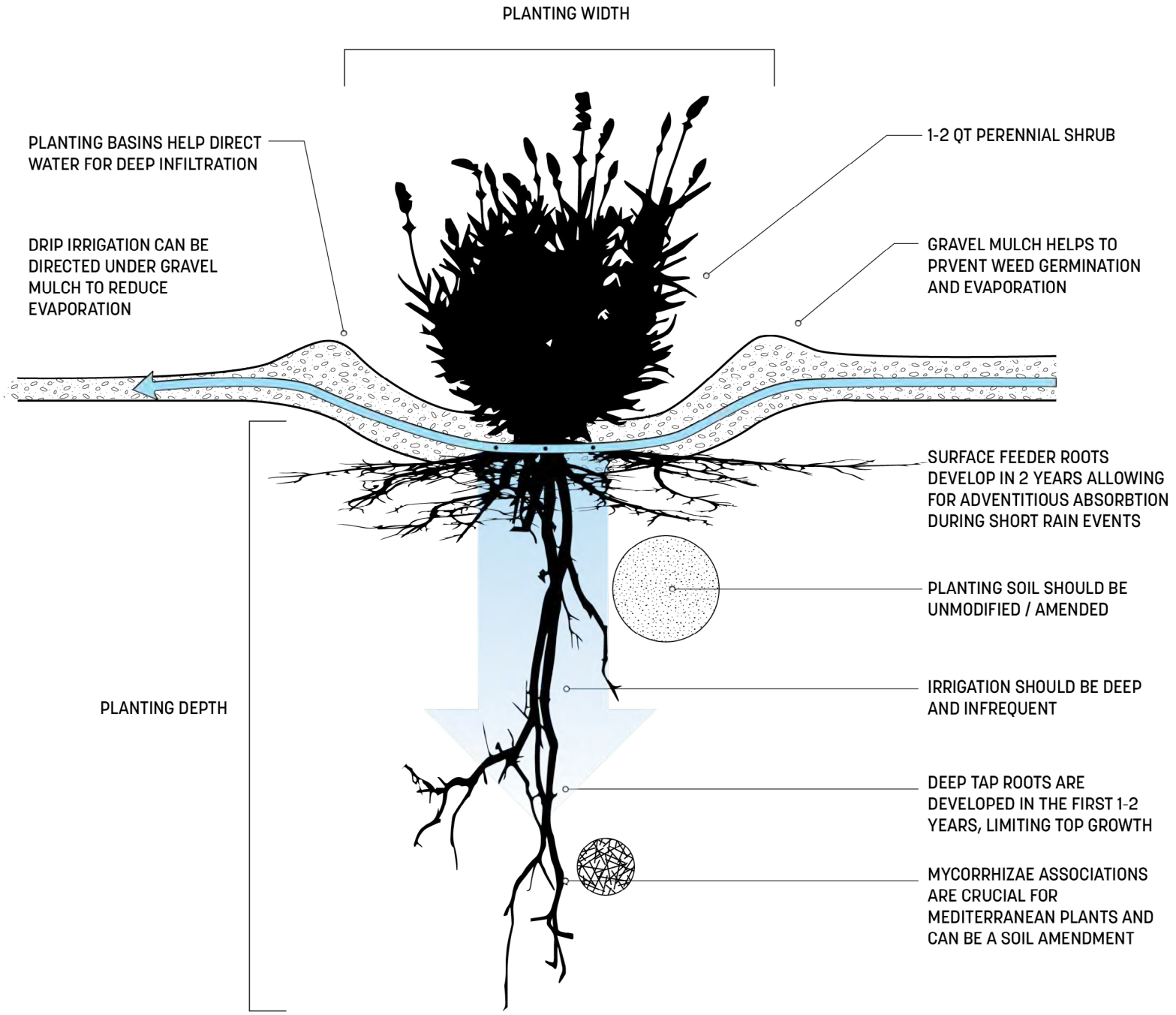
- Economic strategy for large scale formal areas
- Use plugs to pre-establish seeded area boundaries and along pathway edges
- Use plugs for species that are slow to establish or have low germination rates
- Plant generally closer than you would a #1 container to help crowd out weeds
- Use a handheld soil auger to speed installation

SEED MIX SUGGESTIONS

- Best applied in large naturalistic areas
- Use simple palettes of fewer species for formal areas to increase legibility and decrease weeding struggles
- Work with seed producers to target specific genotypes and species that best fit the site
- Sow in early spring to allow for some seed stratification

CLIMATE READY AND NATIVE PLANTING APPROACH

IRRIGATION AND LANDSCAPE CARE STRATEGIES

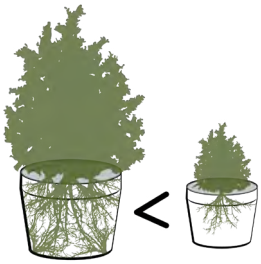


ENSURE PLANT HEATH - VEGETATION AND ROOT SYSTEMS

Care must be taken to inspect all procured container nursery stock for proper vegetation health, density, form, and root systems. All plants must have an equal proportion of vegetation to root density to aid in successful establishment on site.

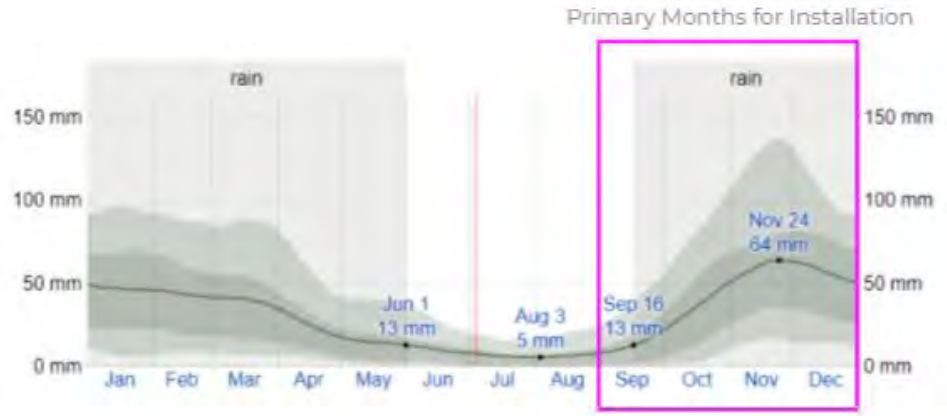
Plants with roots that circle or considered "root-bound" should be avoided as they are unlikely to establish deep tap roots for survival in times of drought.

In many cases, plants in smaller containers or younger specimens will make more successful installations.



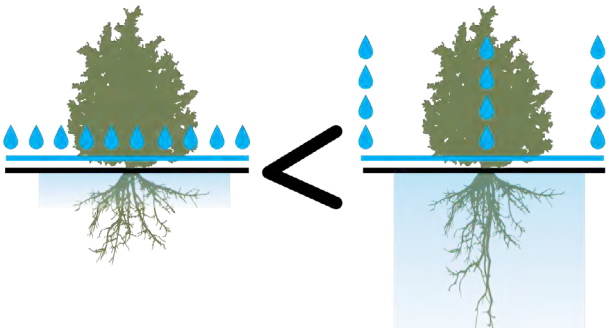
PLAN PLANTING TO SEASONAL CLIMATE PATTERNS

The best time to plant in Minnesota's climate is at the start of fall or rainy season. This ensures plants are relived from excessive drought and intense summer sun.



IRRIGATE DEEPLY AND AT LONGER INTERVALS

Drip irrigation should be designed to provide plants with deep thorough watering to encourage the development of deep tap roots. Deep waterings can be planned at longer intervals to allow the soil to dry before another watering.



UTILIZE MYCORRHIZAL INOCULANTS

Plants adapted to arid environments often rely on networks of fungi-associates to help increase nutrient and water absorption efficiency. Mycorrhizal fungi are naturally occurring, but can be boosted in new plantings through the inclusion of an inoculant.

UPFRONT MAINTENANCE INVESTMENT LEADS TO LONG-TERM COST SAVINGS

COOL SEASON WEED DETECTION & REMOVAL

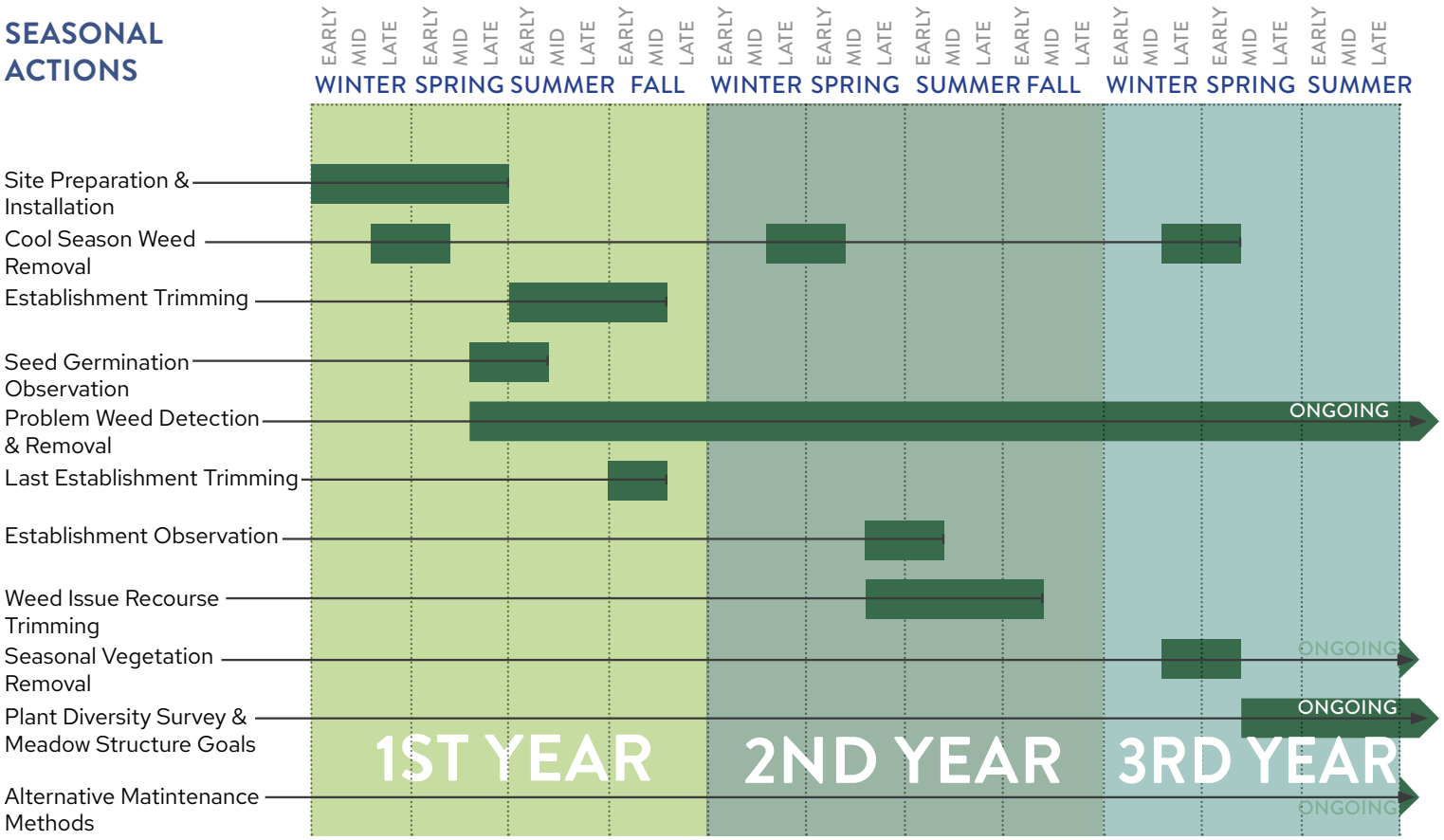
Inspect for cool season weeds in the months of March and April before the intended seed mix germinates. Cool season weeding continues throughout the life of the meadow, but becomes less of a priority as native plants mature. Prioritize problem weeds for manual removal.

ESTABLISHMENT TRIMMING

As seeded areas begin to germinate and emerge, monitor for aggressive or problematic weeds. When the overall vegetation reaches an average height of 18-24," utilize a string trimmer or pull-behind rotary mower to trim the meadows to a height of 8." Continue trimming as needed whenever heights reach over 24" until October. Trimming helps to reduce weed establishment and outcompeting cover crops.

SEED GERMINATION OBSERVATION

June is an excellent time to observe and record seed mix germination rates. A high percentage of germinating seed will be cool-season annual grasses (cover crops) that help reduce soil erosion and creates competition for any encroaching weeds.



Source: Information Compiled From: Ernst Seeds Establishment Guide, 2018-2019. ernstseed.com

PROBLEM WEED DETECTION AND REMOVAL

Throughout the summer, observation and removal of problematic weed species is critical for meadow success. Many of these species are easily eradicated when young. Older, established weeds usually require herbicide applications for successful removal.

SEEDLING ESTABLISHMENT OBSERVATION

Annual trimming should cease in the second year as established native grasses and forbs should be able to compete with any reseeded cover crops and new weeds. Observations of establishing plants to record diversity (intended native plants and non-native weeds) is an important practice to better understand future composition goals and address issues.

WEED ISSUE RECOURSE TRIMMING

If weeds continue to outcompete the intended seed mix, perform periodic trimmings to 8." Trimmings should be conducted if weeds represent a majority of vegetation reaching over 24" in height.

LAST SEASON'S VEGETATION REMOVAL

In late winter when snow has cleared and the ground is still frozen (February-March), remove last seasons vegetation to a height of 2". This can be performed with a mulching mower, handheld string trimmers, or with a pull-behind rotary mower. Mowing helps maintain landscape aesthetics, increases decomposition and soil creation, limits woody plant growth, and encourages earlier plant emergence.

Why Winter? Removing vegetation in late winter provides habitat and food during months when these resources are in demand for local wildlife. This time of year also creates less disturbance to ground-nesting wildlife and resists soil disturbance, compaction, and erosion.

If possible, leave some areas unmown (out of sight or adjacent to natural areas if aesthetics are a concern) to provide cover for over-wintering insects until spring. Old vegetation can be mown or cleared after emergence, usually in April.

Mulching Mower Utilizing a mulching mower ensures nutrients are kept on-site and contributes to soil fertility. In areas where plugs and mature plants have been established, this added layer of mulch helps reduce invading weeds.

ALTERNATIVE MANAGEMENT METHODS

As the plants matures, other management techniques including prescribed burning and goat grazing can be utilized to address specific issues as they arise. If permitted, prescribed burning can greatly enhance meadow health, reduce weed pressure, and contribute to soil nutrients. Goats are currently being utilized with great success to help remove excess weed biomass in inaccessible areas. Contact a local ecological maintenance contractor and the local fire department for more information on these techniques.

GEARING TOWARDS CARBON EFFICIENCY

CARBON SEQUESTRATION IN LANDSCAPE

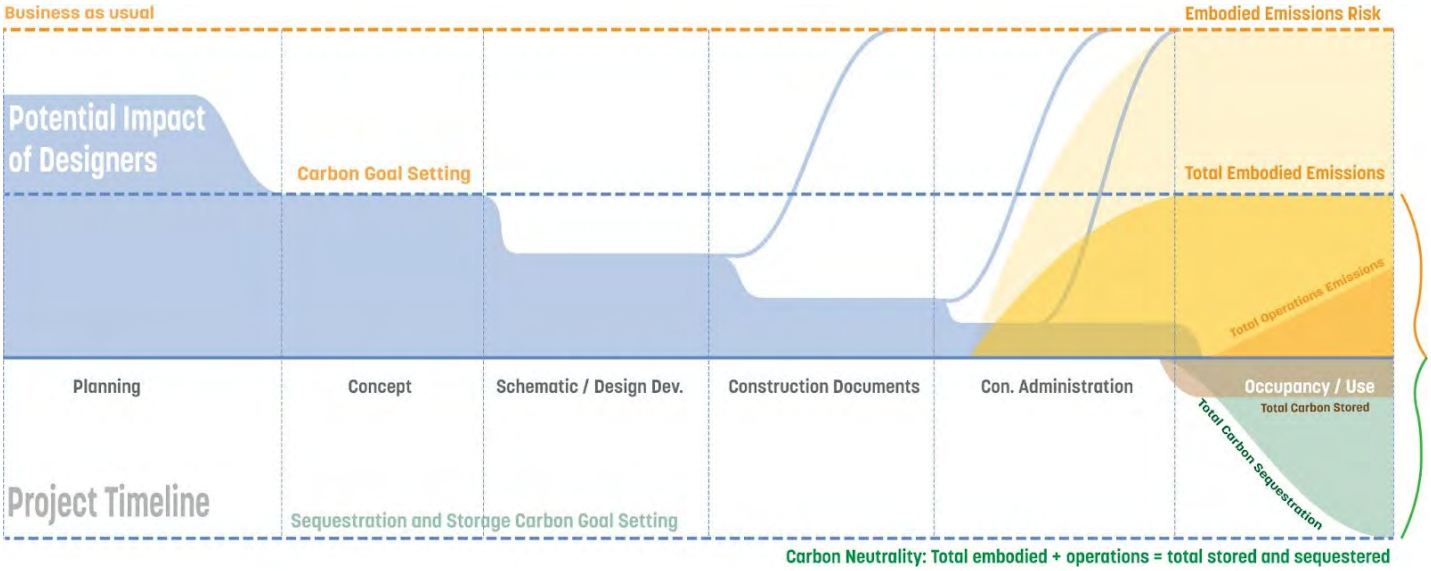
The landscape of the Capitol Mall presents a unique opportunity to contribute to carbon sequestration and emission reduction efforts. By incorporating native plantings, green infrastructure, and sustainable maintenance practices, the Mall can serve as a carbon sink, capturing and storing atmospheric carbon dioxide through photosynthesis. Additionally, features such as permeable pavements, bioswales, and urban forests can help mitigate stormwater runoff and heat island effects, further enhancing the Mall's resilience to climate change while reducing the need for energy-intensive cooling systems. Through thoughtful design and management, the Capitol Mall's landscape has the potential to play a vital role in achieving carbon neutrality and fostering a more sustainable urban environment.

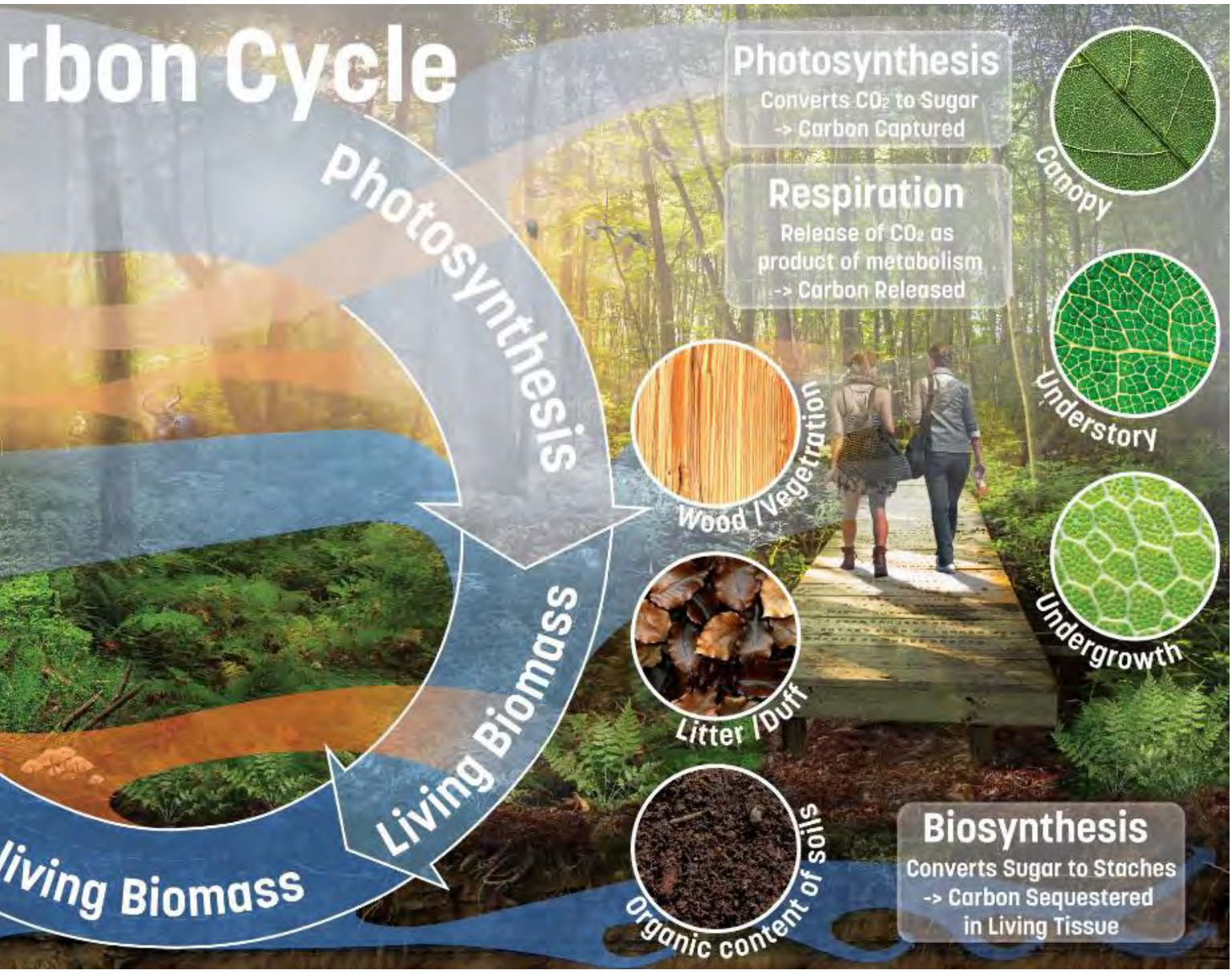
CONSIDER CARBON IN EARLY DESIGN PHASES

Considering carbon in early design phases is crucial for creating sustainable and resilient landscapes like the Capitol Mall. By integrating carbon-conscious strategies from the outset, designers can minimize the project's carbon footprint and maximize its potential for carbon sequestration. This involves evaluating the embodied carbon of materials used in construction and selecting low-carbon alternatives whenever possible. Additionally, prioritizing passive design strategies such as optimizing building orientation and maximizing natural ventilation reduces the need for energy-intensive heating and cooling systems, further lowering carbon emissions. Incorporating green infrastructure features like native plantings, bioswales, and permeable pavements not only enhances the Mall's aesthetic appeal but also contributes to carbon sequestration by capturing and storing atmospheric carbon dioxide. By considering carbon throughout the early design phases, designers can create landscapes that not only mitigate carbon emissions but also enhance overall environmental quality and resilience.

DIFFERENT LANDSCAPE MATTERS

Different landscape typologies have varying capacities for carbon sequestration. Urban landscapes like the Capitol Mall can enhance carbon storage by strategically planting trees and dense vegetation. Natural landscapes such as forests and wetlands are highly effective at sequestering carbon due to their extensive vegetation and organic soil. Designed landscapes like botanical gardens and green roofs also contribute to carbon sequestration through optimized planting and soil management practices. By understanding the carbon sequestration potential of each typology, designers can maximize their role in mitigating climate change and creating resilient urban environments.

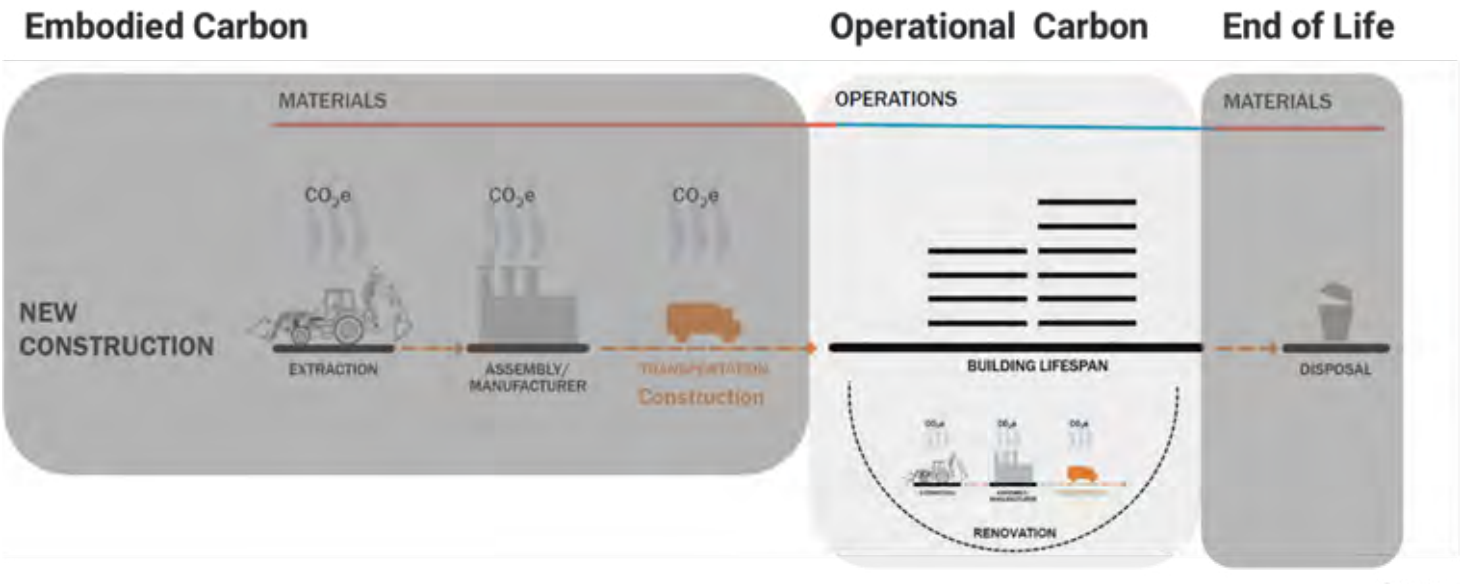




Source: Carbon Conscience Research Project, Sasaki

GEARING TOWARDS CARBON EFFICIENCY

REDUCE EMBODIED CARBON IN HARDSCAPE



Hardscape materials, such as concrete, asphalt, and stone, often have high embodied carbon due to their manufacturing processes and transportation. Therefore, selecting low-carbon alternatives or incorporating carbon-efficient practices can significantly reduce the project's overall carbon footprint. Additionally, integrating sustainable maintenance strategies for hardscapes, such as minimizing water use and reducing energy consumption during upkeep, further contributes to carbon reduction efforts. By prioritizing carbon-conscious design and maintenance practices in hardscape elements, the Capitol Mall project can play a vital role in mitigating climate change and promoting environmental sustainability.

CONSIDER CARBON THROUGH LCA

Life cycle analysis (LCA) is a crucial tool for understanding the carbon footprint of hardscape elements in projects like the Capitol Mall. It involves assessing the environmental impacts of materials and processes throughout their entire life cycle, from extraction and manufacturing to use and disposal. By conducting LCAs for hardscape materials, designers can identify hotspots of carbon emissions and prioritize low-carbon alternatives. For example, traditional concrete production is energy-intensive and emits significant carbon dioxide, whereas alternative materials like recycled aggregates or low-carbon concrete can reduce emissions. Additionally, considering transportation distances and energy consumption during construction further informs decisions to minimize carbon emissions. Moreover, ongoing maintenance practices also

LOCAL STONE

~0.08 MCf (KgCO2e/ Kg Material)

Note: Savings lost if transporting long distances

STABILIZED AGGREGATES

~0.06 MCf (KgCO2e/ Kg Material)

Note: Savings lost if using epoxy or cementitious binder (Psyllid Husk/Bio-binder preferred) OR if transporting aggregates long distances.

AIR-DRIED BRICK

~0.03 MCf (KgCO2e/ Kg Material)

Note: Limited application to weather-protected structures

RECLAIMED MATERIALS

~0.02 MCf (KgCO2e/Kg Material)

ASPHALT

~0.02 MCf (KgCO2e/Kg Material)

Note: Currently low carbon as bitumen is accounted for as a waste product of the oil industry.

contribute to the life cycle carbon footprint of hardscapes. By incorporating sustainable maintenance strategies that reduce energy use and minimize resource consumption, designers can effectively mitigate the carbon impact of hardscape elements over their entire lifespan. Overall, integrating carbon considerations through life cycle analysis ensures that hardscape design and maintenance practices in projects like the Capitol Mall align with climate mitigation goals and promote environmental sustainability.

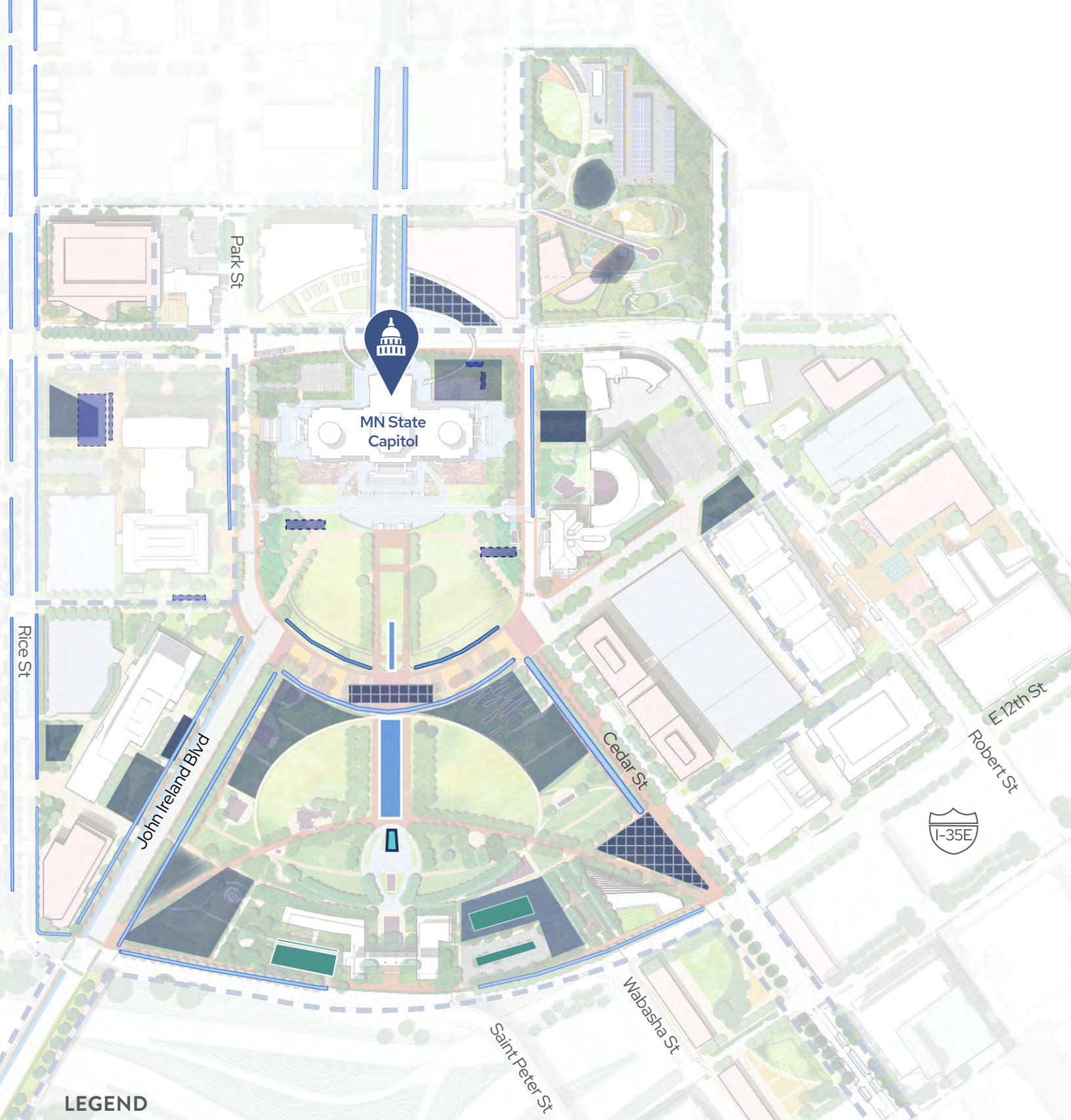
THE LOW CARBON MATERIALS

Low-carbon materials play a crucial role in reducing the environmental impact of hardscape elements and life cycle analysis (LCA) helps identify these options. LCA assesses the entire life cycle of materials, considering factors like extraction, manufacturing, transportation, installation, and end-of-life disposal. Through LCA, we can evaluate the embodied carbon of different materials and prioritize those with lower environmental impacts. For instance, recycled aggregates, reclaimed materials, and low-carbon concrete alternatives have lower embodied carbon compared to traditional materials like virgin concrete or asphalt. Additionally, using locally sourced materials reduces transportation-related emissions, further lowering the overall carbon footprint of hardscape elements. By integrating low-carbon materials identified through LCA into the design and construction of the Capitol Mall, we can significantly reduce the project's carbon emissions while promoting sustainability and resilience in urban landscapes. Here we listed some typical low carbon materials as reference, but what is suitable for the multiple projects in the implementation plan, will need to identify various factors.

CLIMATE RESILIENT STORMWATER SYSTEM

Maintaining climate-resilient stormwater systems requires regular upkeep. This includes cleaning green infrastructure within road profiles, inspecting and cleaning filtration systems for stormwater reuse, and managing vegetation in biofiltration basins to sustain their effectiveness in mitigating climate-related challenges. By prioritizing proactive maintenance measures, communities can ensure the longevity and resilience of their stormwater systems, effectively mitigating the impacts of climate change while promoting environmental sustainability.

STORMWATER SYSTEM	OPERATIONS & MAINTENANCE
Green stormwater infrastructure within the ROW	O Inspect for and clean trash and debris (monthly during growing season) O Inspect for and repair erosion (monthly during growing season) O Inspect vegetation and much; weed basins (monthly during growing season) O Inspect for standing water (after large storms) O Clean pretreatment structures (annually or as needed) O Confirm basins not being used for snow storage (twice per winter)
Stormwater reuse system with filtration	O Clean pretreatment structures (annually or as needed) O Inspection of all structures for sediment, trash, damage (annually) O Spring reuse startup (spring) O Winterization of reuse system (fall)
Stormwater bioinfiltration basins with native vegetation	O Inspect for and clean trash and debris (monthly during growing season) O Inspect for and repair erosion (monthly during growing season) O Inspect vegetation and much; weed basins (monthly during growing season) O Inspect for standing water (after large storms) O Clean pretreatment structures (annually or as needed) O Confirm basins not being used for snow storage (twice per winter)



Source: Capitol Region Watershed District and Barr document
Source: HGA. Minnesota State Capitol Repairs, Restoration & Preservation. 03 May, 2021.