# Montague Center: A Culture of Celebration

*David Kaynor, lead fiddler at Montague May Day, 2008. Greenfield Recorder. Photo by Peter MacDonald*

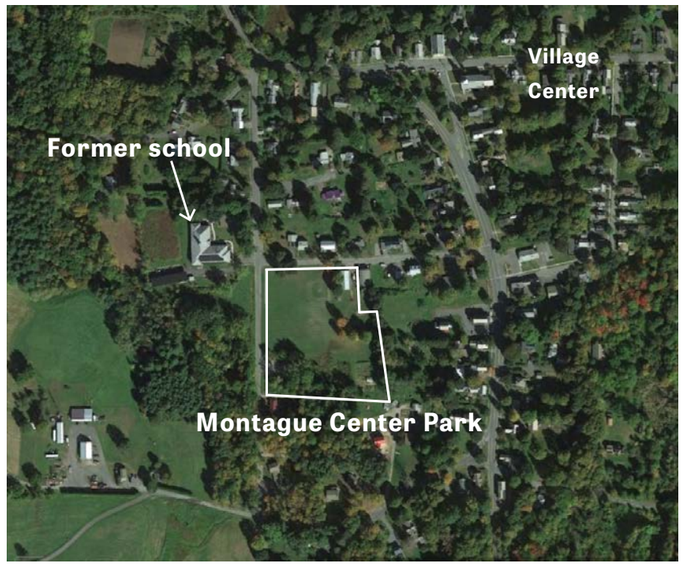
Montague Center, a village in the town of Montague, is framed by sweeping farmland and an eclectic mix of nineteenth-century buildings, forming a riverside landscape with a strong sense of self. Local traditions here take the form of parades led by fiddlers, neighborhood festivals, summertime road races, craft traditions, and bonfires.

**The community of Montague Center seeks to incorporate the eclectic character, celebratory spirit, and historical setting into designs for the community's future, refocusing the role of Montague Center Park within the everyday experience of life in the village.**

Montague Center has a central Main Street and town common, where trails crossing small bridges over rivers are common, and farmland abounds. Pastoral views and walking trails fulfill different community needs from park spaces, however, and in Montague Center, there is only one public park. In rural settings, just as much as in urban environments, public open space is vital.

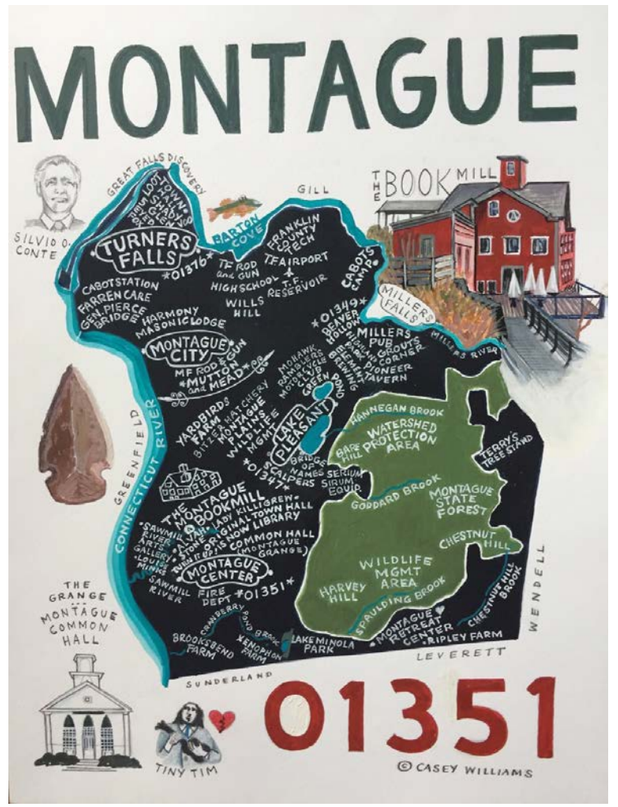
*Graphic courtesy of Montague First Congregational Church*

*Montague Center is the oldest village in Montague and has the best-preserved examples of the diverse building styles popular here in the nineteenth century.*




## Project intro

Montague Center Park sits across from a former elementary school. Before the school closed in 2009, kids would cross the road to play in the park after class. With kids now busing out of Montague Center village, park usership is down and some areas of the park have fallen into disrepair. Located near the village center, Montague Center Park is a place that is well positioned to serve the needs of a variety of ages and functions. While some annual town celebrations are held here, and local children and their caregivers still visit the playground in the park, the space sits empty much of the time, even on beautiful sunny days when other parks in the region are bustling with activity. Community members would like to see Montague Center Park become a more inviting space that better reflects the vibrancy of their village.




*Artist Casey Williams' hand-painted map of Montague's natural and cultural resources.*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A Culture of Celebration

# The Role of Parks

## Why Parks?

Public parks are truly democratic spaces: when effective they cost nothing to enter, are accessible to all, and provide opportunities for interaction between people from all walks of life, as well as serendipitous encounters between friends, acquaintances and colleagues, ultimately helping to form more connected societies. Parks uphold an essential role in civic life as places to play, learn and relax (Klinenberg, 2018). One small park can accommodate a vast number of uses, allowing community members a space to participate in sports or Tai Chi, to read, garden, sunbathe, barbecue with friends, make art, and encounter nature.

In a small-town park, communities can decide how space should be dedicated. What activities could park redesign activate within the park? What uses are the most desired? For Montague Center, that discussion has focused on what to do with the only building on site, a former blacksmith shop, as well as ideas of how a reimagined playground might better serve the community and how the current baseball field might provide multi-purpose athletic opportunities.

## Parks and Recreation Department

The Parks Department oversees five main parks distributed throughout Montague (see map at right from the Montague Open Space and Recreation Plan, 2018): Unity Park in Turners Falls, Highland Park in Millers Falls, Rutter's Park, Norma's Park in Lake Pleasant, and Montague Center Park in Montague Center. Montague City is the only village currently lacking a park, although park development is in the works. With recent improvements to Unity Park and Highland Park, the Parks Department has turned its focus to Montague Center. Montague Center Park is well loved within the community, and the Parks Department facilitated the formation of the Montague Center Park Improvement Project Committee around its revitalization. The park currently hosts large-scale community celebrations including an annual Independence Day bonfire, and the committee is eager to see the park serve more community members on a daily basis, as a multigenerational setting for picnics, sports, play and organized events, where habitat gardens that are reflective of the region allow parkgoers to come together in an outdoor space that celebrates the nature of the Montague region.

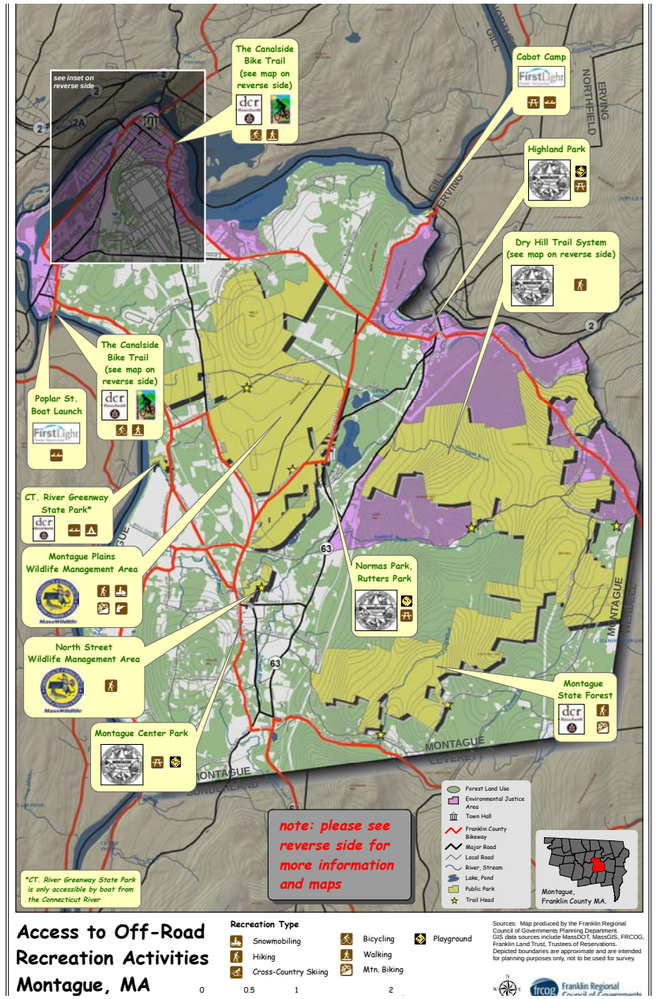
**Updates to the park must be in line with a low maintenance strategy that takes into account the Town's limited parks staff and budget.**

*"Social infrastructure is crucially important, because local, face-to-face interactions—at the school, the playground, and the corner diner—are the building blocks of all public life. People forge bonds in places that have healthy social infrastructures—not because they set out to build community, but because when people engage in sustained, recurrent interaction, particularly while doing things they enjoy, relationships inevitably grow."*

*-Palaces for the People, 2018*

*Montague Center Park, empty on a sunny Sunday afternoon in late spring 2019*

*A view across the rain garden at Unity Park in the village of Turner's Falls. Unity Park serves as the Montague Parks and Recreation Department headquarters. Turner's Falls is a more densely populated village and park usership is much higher than in Montague Center Park.*

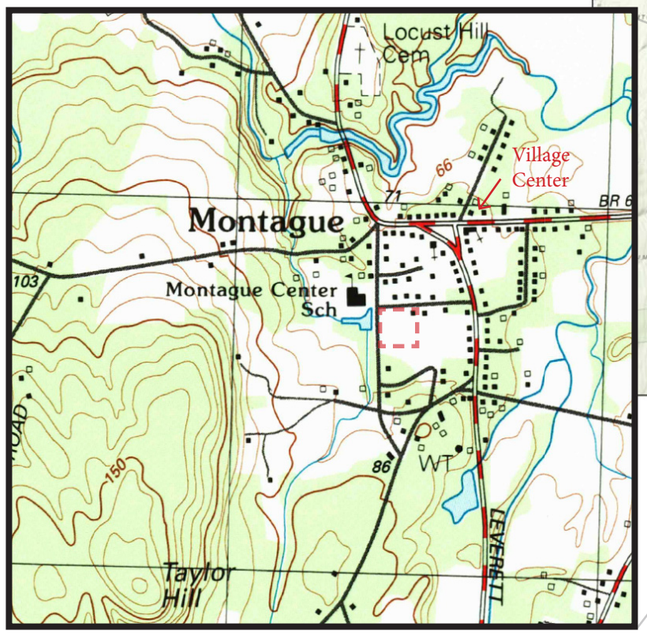



*Within Montague Center, Montague Center Park is the only public playground available with an open field. (Note that Unity Park in Turners Falls is not sited on the map.)*

# Montague: Historic, Progressive


*The 1905 graduating class at Montague Center School donated Montague Center Park to the village, "...to be used for athletic purposes, by the schools in Montague Centre" (deed held at Town Office).*

*First and second grades of Montague Center School in 1909. (Courtesy of Montague Historical Society.)*



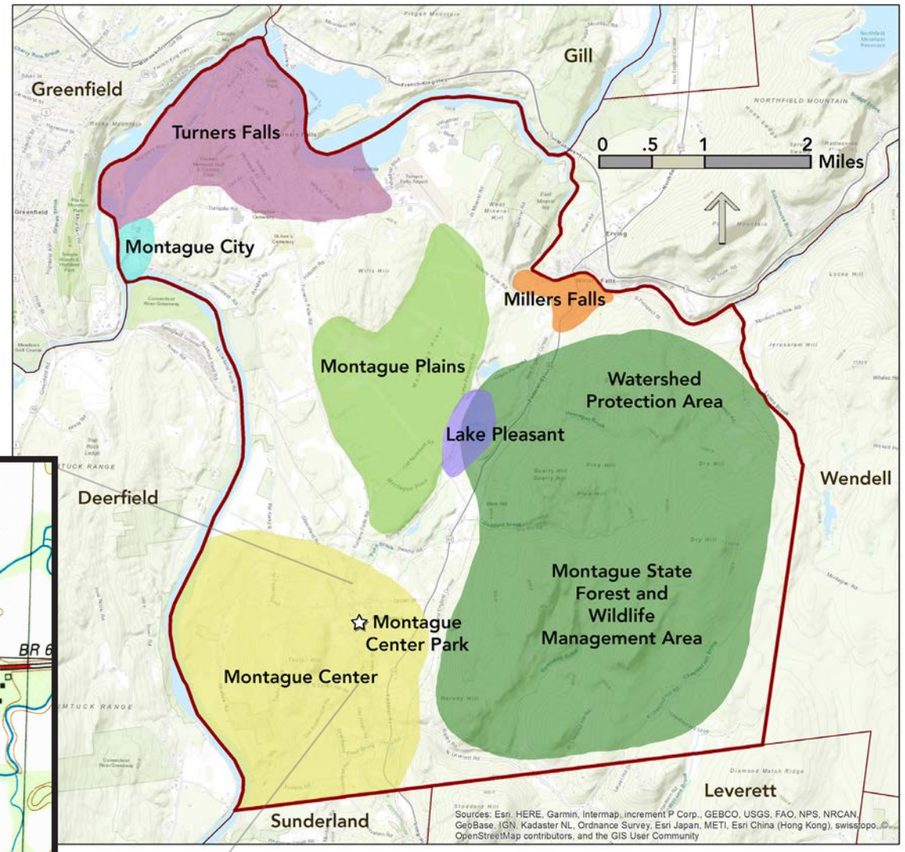

*A 1990 map showing the school. The park border and village center location have been added for context.*

**Montague** contains five distinct villages, each with its own character and village center and ranging in size and density. Montague Center is the largest village in terms of area, and Turner's Falls is the most densely settled. At a wide bend in the Connecticut River, the falls here were called Peskeomskut, an area of great importance to the Nipmuc people, particularly in the spring during the running of shad and salmon. Turner's Falls prospered as a planned industrial city in the late nineteenth century. If Turner's Falls has long been a hub of activity locally, Montague Center is an industrious and serene outpost, where sawmills and tobacco fields once defined primary livelihoods and the tradition of farming the fertile floodplain soils is currently experiencing a resurgence (buylocalfood.org).

**Visitors** travel here from around the region to experience the cultural and recreational opportunities in Montague. Small festivals and art walks are a staple of the warmer months here. Although the factories that defined early periods in Montague's recorded history are no longer operational, some mill buildings are experiencing a new life, re-purposed for small-scale commercial and cultural uses. Montague Center's Bookmill building which, in addition to a bookstore, houses cafés and artists' galleries, is a prime example of this transition.

**In addition** to the Connecticut River Greenway (a popular riverside walking and biking path system), which showcases the floodplain's vitality, and large state forests with hiking trails, gems of the area include the Montague Plains, the largest non-coastal pine barren- scrub oak community in Massachusetts (Motzkin et al, 1996). Montague Plains was the planned site for a nuclear power facility in 1973, a plan that sparked local protest, resulting in the project's abandonment (nvdatabase.swarthmore.edu), and later, the conservation of this rare natural community.

## Five Villages
### and Natural Resource Areas




**Within Montague Center, the town common and myriad historic buildings around it are still very much in use by community members, many of whom live within the village center in a mix of colonial and more modern homes. The Montague Center School, across the street from Montague Center Park was at the heart of this historic district. The close ties between the lively village center, the school (now a 22-unit carbon-neutral apartment complex) and the park inform community members' wishes for a park redesign that honors the natural beauty and historical setting of Montague Center, while exploring new ways to express its creative, progressive spirit.**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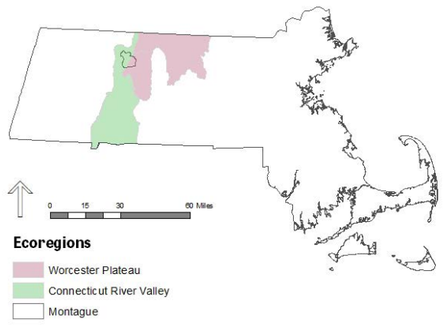
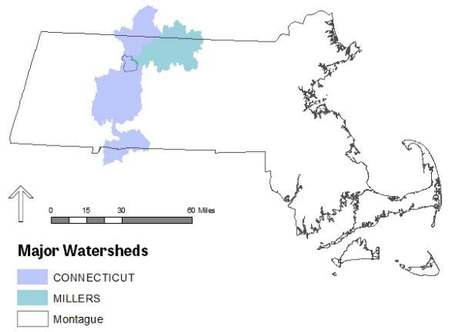
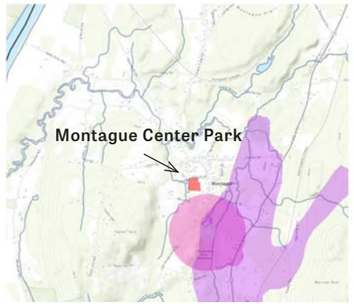
# Confluence of Rivers: An Ecological Context

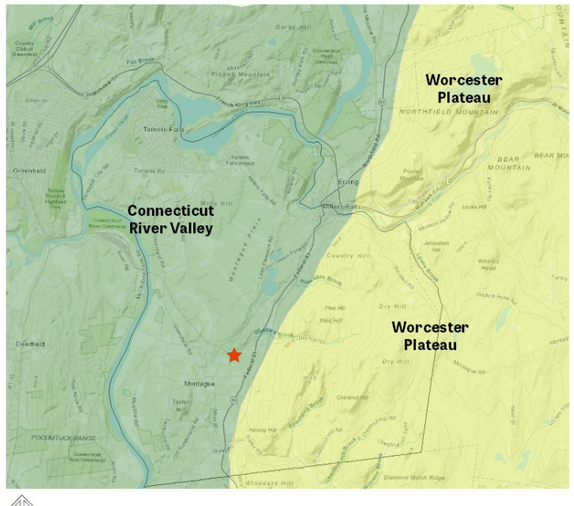
Ecological regions (ecoregions) are areas that share a common geology which influence soil type, vegetation, and climatic conditions. Montague is a town situated at the convergence of two ecoregions. Montague's villages sit within the lowlands of the Connecticut River Valley, home to a relatively mild climate, fertile alluvial soils, and mostly level terrain. This riverside landscape has traditionally supported industry, agriculture, and village settlement, whereas the eastern portion of Montague, within the Worcester Plateau, is a rockier upland region of cooler temperatures and acidic soils, with a northern forest composition (Montague OSRP, 2018). These upland areas are mostly undeveloped and almost entirely conserved as part of the buffer surrounding the Quabbin Reservoir, a major source of drinking water for Boston. Most of the drinking water for Montague itself comes from groundwater sources, one of which is located in the village of Montague Center. In a town defined by the edge of the Connecticut, New England's largest river, Montague Center's floodplain location is intensified by its proximity to the Miller's River Watershed, the Sawmill River subbasin, and a great number of smaller streams. In 2002, The Natural Resources Conservation Service (NRCS) identified the Montague Center well area in the Sawmill River subbasin as one that holds high potential for quality groundwater resources. NRCS expressed concern in the same report that geological factors (mainly the high water table) leave this area sensitive to potential pollution. Although industry and agriculture were once larger contributors to river pollution, today the biggest threat to river health may be stormwater passing through the built environment and entering rivers directly (OSRP, 2018). Stormwater runoff in Montague Center enters the Sawmill River, which joins the Connecticut. The village sits within the portion of Montague most vulnerable to flooding, and in 1996, a storm washed out roadways through much of the village center, clogging the roads with debris from a local junkyard (OSRP, 2018). Storms like these were called hundred- or five-hundred-year storms in the twentieth century and early 2000's. With climatic patterns shifting globally, and large storms arriving more frequently, these terms are being reconsidered.

**As climate change increases the frequency and intensity of rainfall and storm events, the village of Montague Center will not be able to prevent flooding, but rather will have to develop new strategies for living in a floodplain. In an area with so many valuable and vulnerable water resources, making small adjustments in stormwater management, even on a site as small as Montague Center Park, can contribute directly to greater ecosystem health and resource security.**

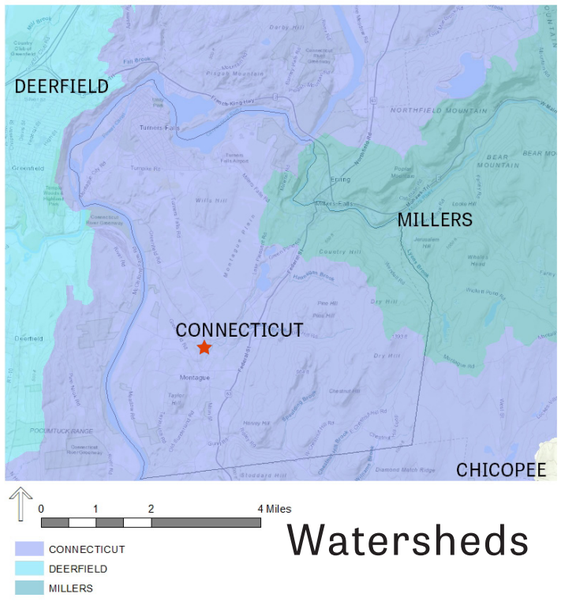


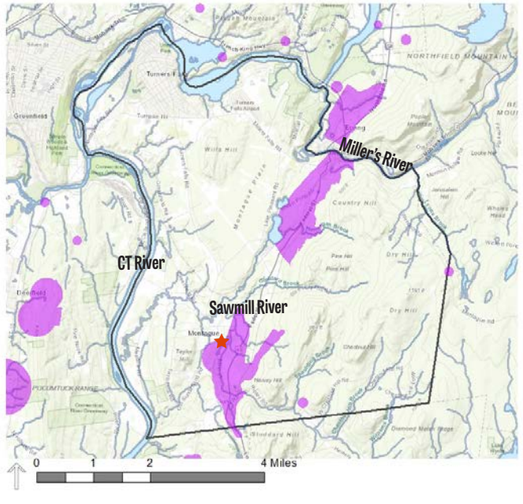



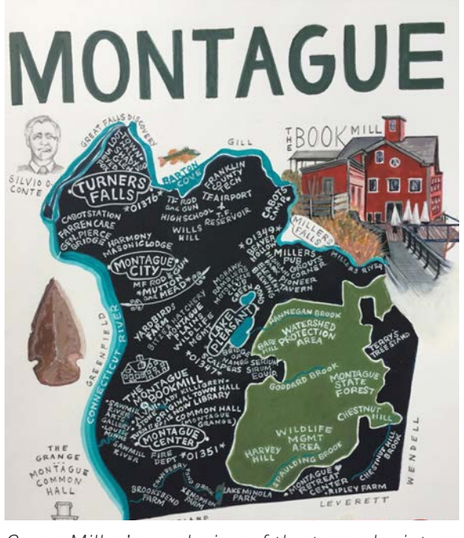

Ecoregions




Watersheds




Water Resources




*Casey Miller's rendering of the town depicts Montague's five floodplain villages to the east and its conservation areas to the west*

# Existing Conditions, Views, and Access

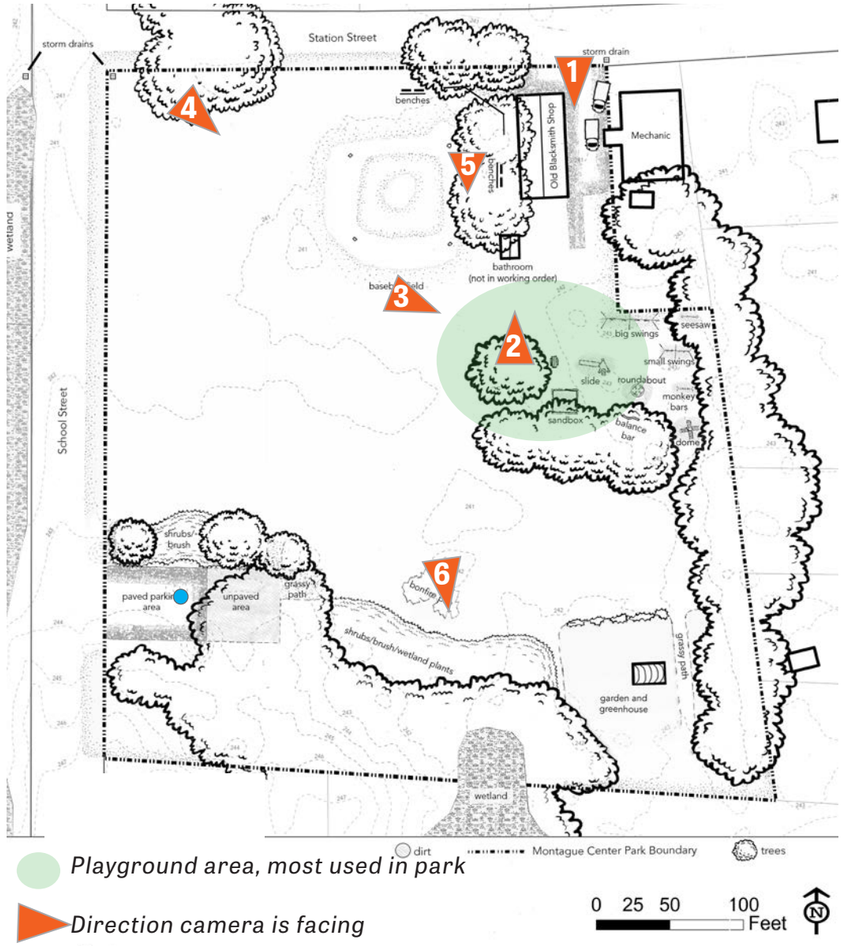

Most visitors access the park via a driveway on Station Street that runs between a former blacksmith shop (the only major structure within Montague Center Park), and the auto repair shop next door. The auto shop uses the driveway for long-term truck parking, creating a conflict of uses and making for an ambiguous, unpleasant entrance. The crumbling asphalt creates obstacles for wheelchairs and strollers, preventing easy access to the park.


Views of equipment and debris behind the auto shop are visible from the playground, and encroaching on play spaces. Some community members have said they would like this area screened off, to separate it both physically and visually, from the park.


The playground is the park's most actively used area. Some residents especially value the vintage qualities of the equipment, and would like the park to retain a few existing structures, while improving or replacing others. There is one bench in the playground area and community members are interested in more seating options that are integrated into the playground and surrounding areas.


A picnic area with bare, uneven ground offers views across the ballfield. This area is not often used and due to the deep shade bare earth, is hard to see, even from a few yards distance. Other ballfields in the area serve organized teams better than this field, which is under regulation size. With few large open spaces in Montague Center, community members enjoy the recreational possibilities afforded by this large field, This residential area is a low traffic zone and some parents bring their young children here to race across the open expanse.

Montague Center Park is a five-acre town-owned open space managed by the Parks and Recreation Dept and maintained by the Department of Public Works. Water and sewer hook-ups are available here, but not in use.




The park currently lacks a defined entrance, comfortable social gathering places or visible destinations.

## Ambiguous Parking

The parking area to the southwest is mostly unused, except by the DPW to store road sand and plowed snow. This could pose a threat to groundwater, as snow melt (which contains road salt and/or sand) leaches into the aquifer. This area is screened from view by trees, shrubs and grasses, further limiting its use because it remains hidden. A clearly defined parking area would make the park more accessible to more people, especially those who are not within walking distance.


The restroom structure and fixtures are damaged and the door is locked at all times. The Parks Department does not have the staff to attend to facilities here, a reality which affects how long visitors can stay at the park.


The wet meadow at the southern edge of the park is the site for the fire department's annual Independence Day bonfire. Residents bring yard waste and household debris to this area over the course of the year, creating a very large pile for the town celebration. Some items deposited here include pressure-treated wood and painted surfaces. These are toxic substances which pose a threat of contamination to drinking water supplies and wetlands. Park goers currently access the wet meadow edge solely to add to the bonfire pile, and yet visitors might respond differently to this vivid green corner of the park if it served as an inviting park destination. East of the bonfire pile, there is a garden in the park that is used by neighbors. Community members support this use and are not seeking community garden space as most have large yards.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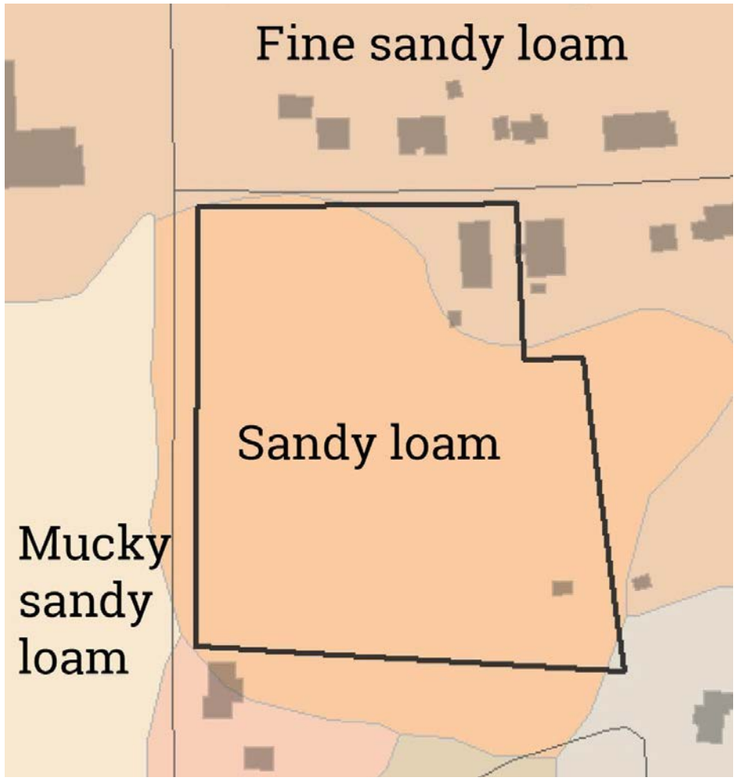
Existing Conditions, Views, and Access

# Soils, Slopes, and Drainage

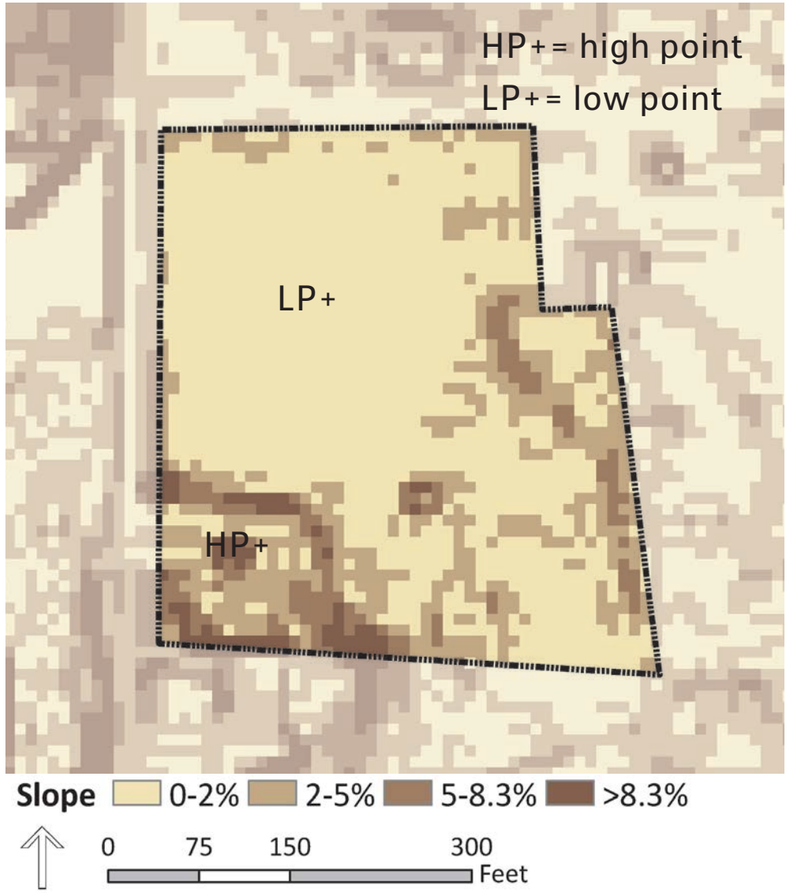
A low, flat site that experiences seasonal flooding

## Soils: Medium-draining soils impeded




Park soils are mainly a fertile Sudbury sandy loam, while the mucky sandy loam west of the park is reflective of the coinciding wetland. Though the Sudbury soil type is moderately well draining, a seasonally high water table contributes to saturated soils during the spring which is exacerbated by seasonal snowmelt and frequent rainstorms. Plants that will thrive here must be able to tolerate sandy soils and periodic inundation.

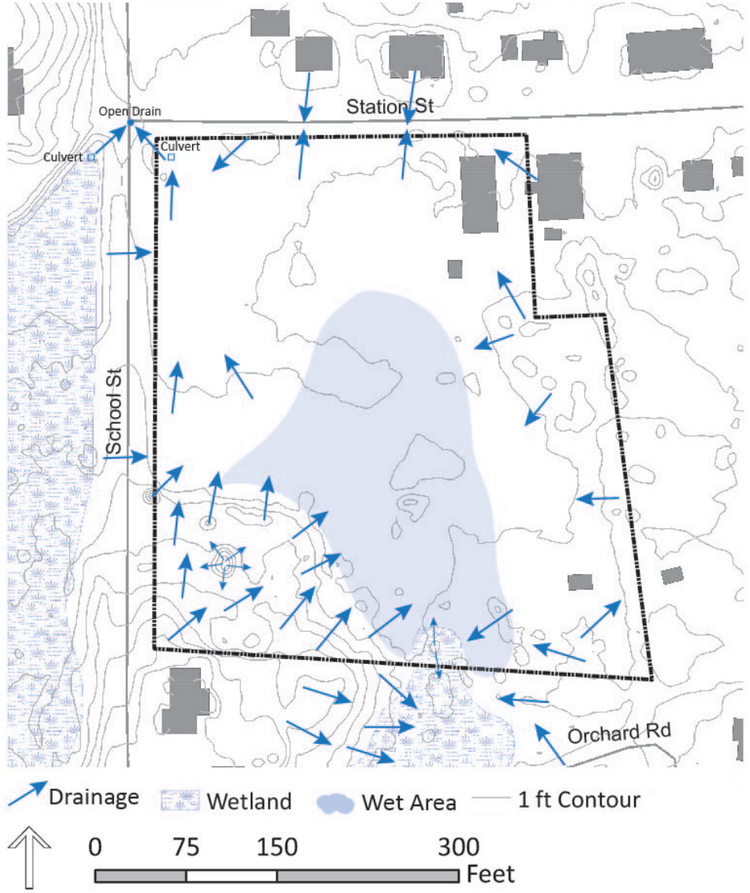
## Slopes: very flat




Much of the park is flat, with a slight two to five percent slope along the western border and the highest point located in the southwest corner. Most of the site has slopes between zero and two percent, which contributes to the lack of on-site drainage. Regrading the field to channel water-flow to exisiting drains would alleviate many wet site conditions, but this would also be costly, intensive, and require extensive reseeding.

The shallow slopes on site do set up a framework for universal accessibility. A universally accessible walkway without a handrail must be between zero to five percent. With much of the park between zero and two percent, there is high potential to develop inclusive and accessible paths to the park's desired destinations.

## Drainage: impaired, pooling in park center




Flat topography and a high water table impair drainage. Water enters the site from the southwestern and northwestern corners and the eastern border, pooling in the lawn at the center of the park. The wet area (highlighted in blue) is periodically inundated, leaving much of the sports field soaked and muddy.

A culvert at the northwestern corner captures water, potentially contaminated with hydrocarbons captured as stormwater flows across paved surfaces. From the culvert system at the intersection of Station and School Streets, stormwater is likely carried north directly into the Sawmill River. Park design should consider how to slow, redirect and filter stormwater at this outflow point, along with addressing how to maintain a large mowed field for athletic purposes, given poorly draining site conditions.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# Vegetation and Wildlife

An adjacent wetland provides opportunities for fostering habitat on site

## Canopy composition

Montague Center Park's canopy trees are not only beautiful, they also perform necessary ecological roles such as purifying the air, taking up stormwater, and providing habitat and food for birds and other small creatures. Birds greatly depend on native plant species (those that they co-evolved with), to provide the insects they need to raise their young (Tallamy 2007).

The prominent mature trees within the park are a mix of native and non-native species. Sugar maples (*Acer saccharum*) and Norway maples (*Acer platanoides*) dominate, while recent additions include small-caliper trees: a basswood (*Tilia americana*), bur oak (*Quercus macrocarpa*), and ginkgo (*Ginkgo biloba*), all recently planted along Station Street, along with three young bald cypress (*Taxodium distichum*) trees, planted along the northern edge of School Street. Of these species, the bur oak, sugar maple, and basswood are native to North America, while only the latter two are native to the region. The non-native species were likely selected for their ability to withstand difficult roadside conditions, such as pavement covering roots, exposure to car exhaust, and road salt. Although Norway maples are durable, they are considered highly invasive. Sugar maples, a native species, are sensitive to roadside conditions and require long winters. Ecologists expect their range to decrease in a warming climate (Iverson et al., 2007).

In contrast, the untended forested edges of the park are spontaneous mixes of species. Black cherry (*Prunus serotina*) proliferates at the western edge. Maples, oaks, quaking aspen (*Populus tremuloides*), and black locust (*Robinia pseudoacacia*) dominate the south side of the parking lot, while two mature butternuts (*Juglans cinerea*) and a large silver maple (*Acer saccharinum*) provide a visual buffer between the park and the asphalt. Butternuts are increasingly uncommon in the Northeast since the arrival of butternut canker (Wisconsin Horticulture). Both trees appear healthy, without any evidence of cankers on tree trunks or branches. Butternuts, like walnuts, strongly inhibit the growth of herbaceous plants, a feature to note when planning garden beds nearby.

*The low-slung road between the park and the wetland complex does little to separate the two. Turtles are often found crossing here.*

## Wet meadows, wildlife, turf

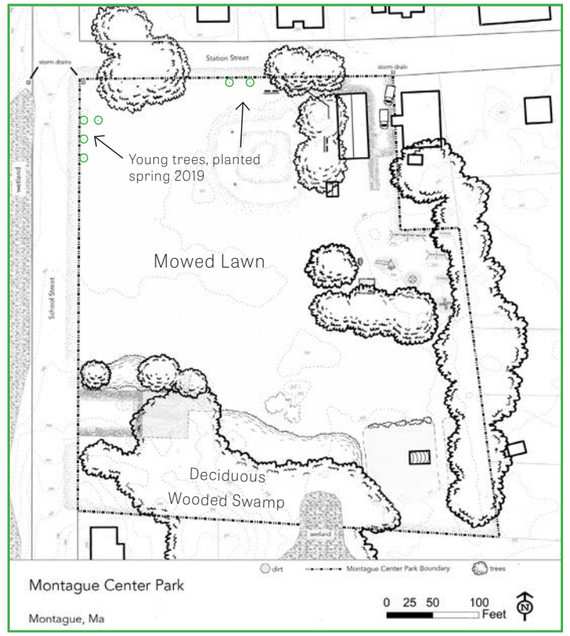
The wetland west of the park is home to peepers and wood frog colonies. Skunk cabbage (*Symplocarpus foetidus*) pokes up through the swamp for much of the year. Hooded mergansers, a species of duck that nests in tree cavities near open water and prefers swampy habitat, has been noted to establish a nesting site at the edge of the pond, according to a local community member. The rich biota of this wetland next door provides frog song and birdsong within the park. Community members have noticed wildlife such as frogs and turtles crossing Station Street, only to arrive at mowed lawn, away from the safety of grass and perennial cover. Bringing in herbaceous native pollinator species at the park's mowed edge would begin to extend this habitat and provide a vegetated edge for wildlife to rest and insects to feed-on.

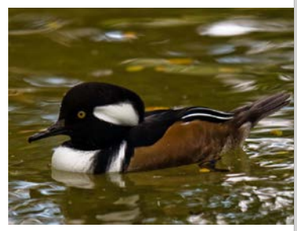
The southern half of the park reflects seasonally wet site conditions in the mix of opportunistic exotic species and native wet meadow species here. In addition to silver maple, which dominates seasonally flooded forests, non-native multiflora rose ***(Rosa multiflora)*** has invaded large areas here, occasionally bordered by native staghorn sumac (*Rhus typhina*). Willows (*Salix spp.*) mark the transition zone to herbaceous species-dominance where native tall goldenrod (*Solidago altissima*) and phragmites (*Phragmites australis subsp. australis*), a non-native tall grass of wet sites, proliferating at the lawn's edge. This portion of the park could be enhanced by a more defined edge showcasing a more diverse range of native wet meadow wildflower species.

The wetlands denoted on the site map (right) is derived from the 2005 wetlands GIS data layer from the Massachusetts Department of Environmental Protection (DEP). The southern wetland is marked by the DEP as a deciduous wooded swamp; however, in June 2019, this area was heavily vegetated, a mixture of vines, brambles and shrubs make it difficult to identify the wetland. A closer look at soils here would be needed to make a definitive wetland determination.

Many of the species along the edge are vines, which typically have aggressive growth habits. Native wild grape vines are pushing out into the playground area from the forested property line, and both native Virginia creeper and invasive bittersweet have a strong presence at the southern edge. Management plans for the park will need to take these dynamic edges with fast-growing species into account in order to create inviting spaces.

Most of the park is open space, however, a mix of exotic turf grasses. These conventional turf grasses require a costly and high-maintenance mowing regime and the exhaust produced when mowing large areas is a major contributor to atmospheric pollution. Less frequent mowing and transitioning to native groundcovers are alternative approaches with high ecological value.



*Hooded mergansers raise their young in tree cavities near open water.*

*Butternut trees in flower, attract pollinators.*

*The southern wet edge contains a blend of staghorn sumac, phragmites, and goldenrod.*

**Plant selection can focus on bolstering biodiversity within the park by siting trees and herbaceous species native to local floodplain habitats to increase resilience in the face of climate change and provide wildlife habitat.**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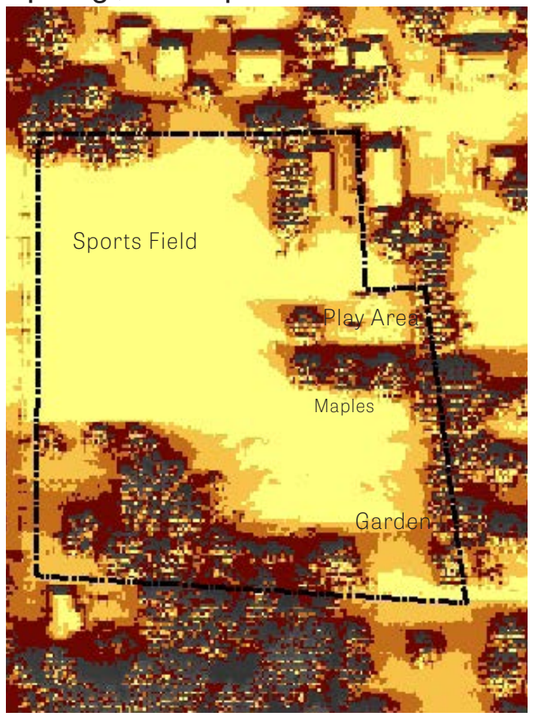
# Sun and Shade

Most of Montague Center Park experiences high levels of sun exposure all-year because the mature trees border the edges of the park, keeping the sports field and play area open. The mature trees provide some shade during hot conditions, allowing users to seek refuge from the sun. The sports field receives eight to fifteen hours of sun during the spring and summer, providing sunny conditions for sports users and keeping the large field clear of large trees during sports activity. However, the play area receives eight to fifteen hours of sun during the summer, which can make the play structures too hot to use. The southern maple trees of the playground provide adequate refuge from the sun, but there are no benches or play structures to draw people into this shady escape. With high levels of sun during the summer, the sports field remains hot and open while the exposed play area may limit the amount of time visitors can spend at the park.

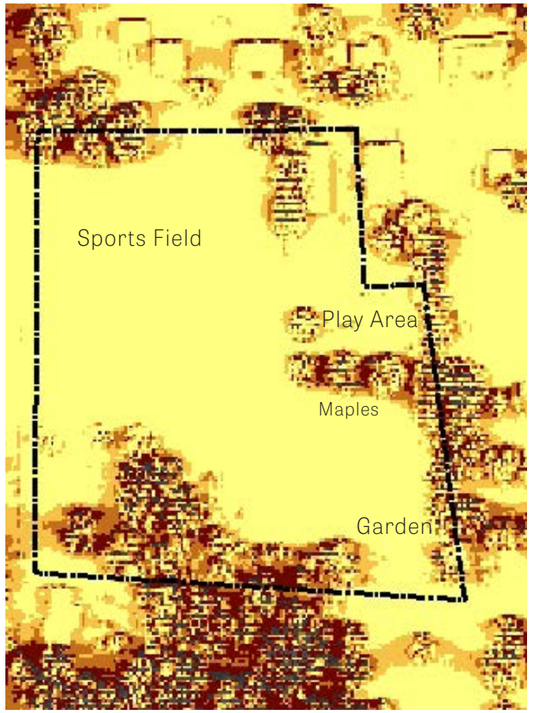
Adding shade trees could lessen the intensity of direct sun in summer but careful placement will be necessary to avoid decreasing the openness of the sports field and creating undesirable shade during the winter and fall seasons. When adding shade trees, a number of different native species should be selected for their climate resilience and ecological value. With a warming climate, trees need to tolerate hotter conditions and wetter seasons. Selecting a variety of tree species makes a place more resilient to disturbance while adding ecological value such as food, shelter, and cover for wildlife.

*Open space throughout the middle of the park provides room to run, a major draw for small children. This lack of cover, however, creates scorching conditions with few places to escape to on hot sunny days.*

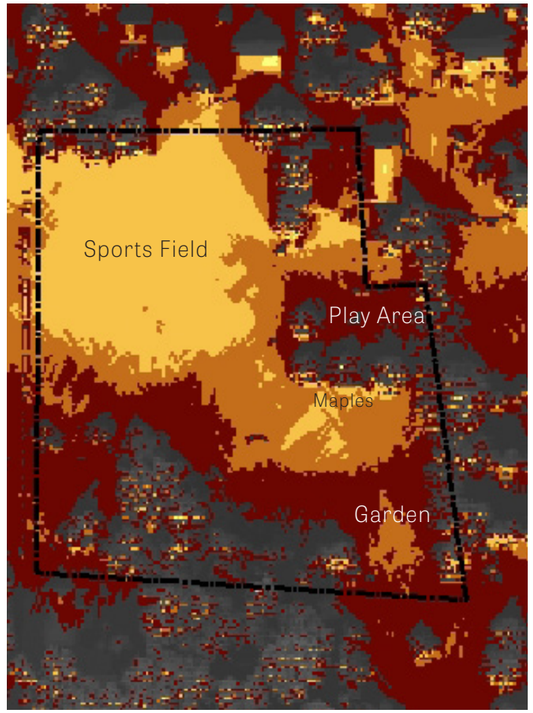
*The only large shade trees within the park, rather than along the edges, are these maples situated behind the playground area. These provide much needed protection from the eight to fifteen hours of sun exposure.*



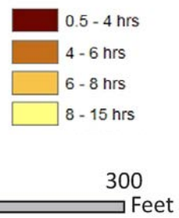

*The sports field and play area are exposed to full sun in the spring and fall, which is likely desirable during chillier weather.*




*Most of the park experiences full sun all day with the mature trees providing very little shade and refuge during the hot, summer weather.*




*Even in the winter, the sports field is still slightly exposed to the sun (ranging from six to eight hours, making the sports field a good place, potentially, for outdoor recreation in winter.*





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# Summary Analysis


The informal entrance of the blacksmith shop coincides with undesirable views of the mechanic shop storage. The bonfire debris pile, as well, is an immediate view from many areas of the park. Creating a welcoming and accessible entrance as well as screening undesirable views could improve visitor experience and increase activity within the park.

The topography of Montague Center Park is very flat and this, in combination with a high water table, contributes to the lack of adequate drainage and resulting seasonal inundation in certain areas. The sports field is the area where this issue is most prominent, due to the fact that standing water can inhibit certain uses of the field in the early spring. To manage water entering the park as stormwater runoff, green infrastructure can be implemented to help infiltrate it. It is notable that Montague Center Village, as a whole, is in a floodplain and villagers are accustomed to living with some seasonally wet conditions.

The park experiences extensive sun throughout the year. This is an asset in the winter, as it warms the park, but during the late spring and summer, when the park sees the most use, it gets very hot in both the sports field and the playground areas, which can make the space less comfortable and the playground equipment, much of which is metal, too hot to use. While the community has said that they love the look and utility of the open sports field, there is opportunity to create more shade in the playground area and along the edges of the park by planting more trees and/or adding a shade structure.

Community members believe there is a lack of adequate seating and other amenities, such as trash and recycling, in the park. Placing seating throughout the park, especially in areas that receive some shade, like under trees, can create a more inviting environment. Adding trees could simultaneously take up some of the excess water on site and provide more comfortable seating and gathering options.


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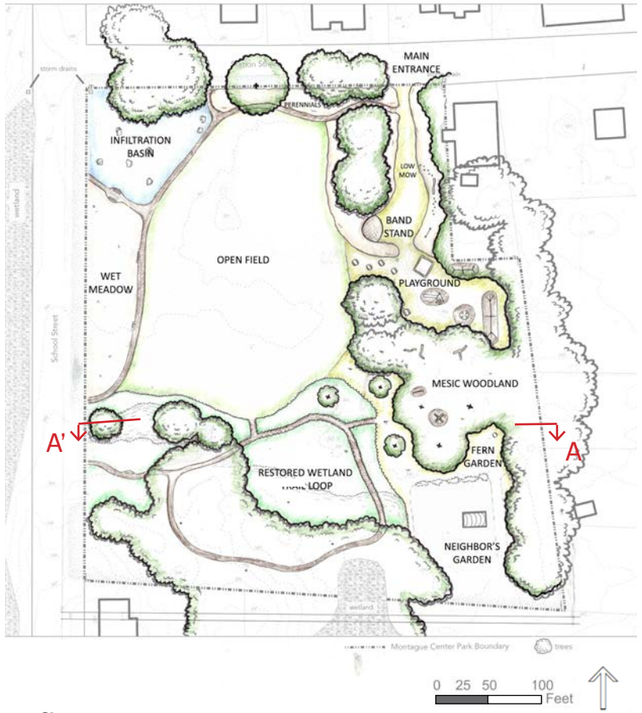
## Habitat Play

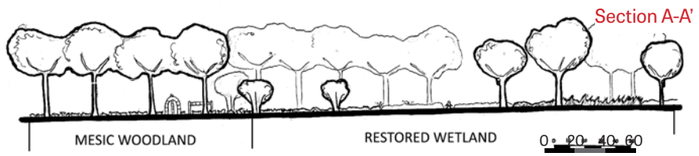



### Benefits

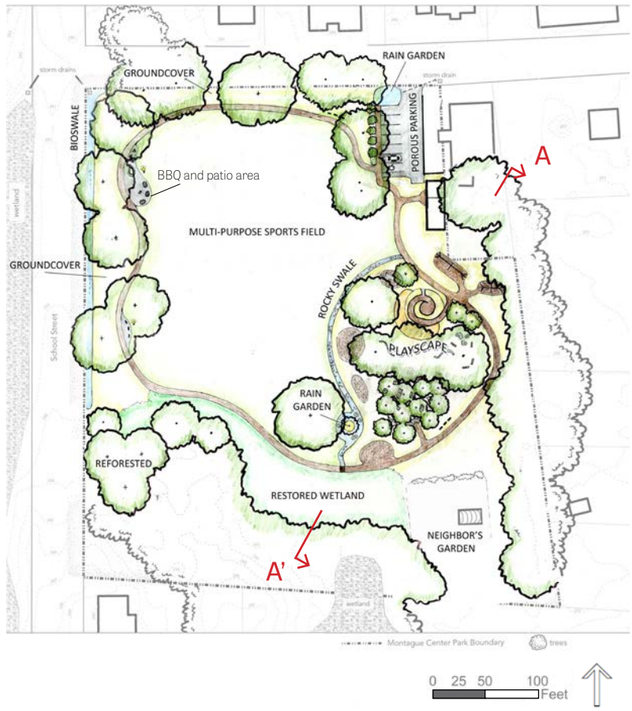
Multiple habitats, including an enhanced forested wetland, mesic woodland, and wet meadow feature in the Habitat Play design. The playscape is integrated into distinct habitats to allow children to freely explore the natural environment. By keeping much of the existing playground equipment and introducing a few natural play items such as stumps and logs, the design keeps the structures that the community loves while incorporating inexpensive new elements. The infiltration basin, which doubles as a play area with climbing boulders, helps to infiltrate stormwater. Stormwater is further managed through an overall increase in vegetation throughout the park. The wetland trail loop is an educational opportunity for the neighborhood to learn about wetland habitat and wetlands' role in maintaining regional water quality. The main gathering space includes a band stand, picnic area, and playground.

### Drawbacks

This design does not offer parking or a restroom, resulting in limited accessibility and comfort for visitors. The size of the open field is reduced, with a more limited space for sports. The wetland will require intensive ongoing management to remove invasive species that are crowding out native plants. This investment, however, could improve the overall health of the wetland and reduce the risk of invasive species taking hold and threatening the larger wetland complex across School Street, which would be a sigificant benefit.




## Inclusivity Loop

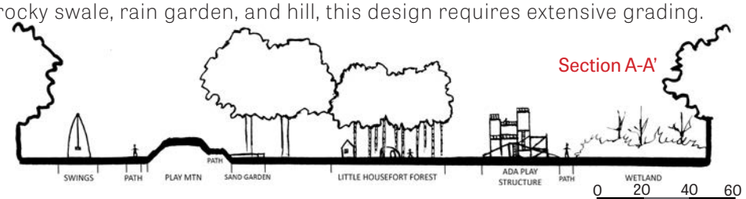



### Benefits

A universally accessible loop path allows for people of many ages and abilities to access the park, its gathering spaces, and multi-use sports field, making Montague Center Park accessible to all members of the community and incorporating lighting for evening enjoyment. The former blacksmith shop is demolished and replaced with porous parking and a rain garden, providing a clear path to the play area through a defined park entrance. The play area incorporates some existing equipment and is enhanced with natural elements, including a shady birch grove with play houses, a small hill with a path to the top, and a rocky swale. The rocky swale has the dual function of collecting stormwater from the sports field while providing play opportunities on different sized rocks and boulders. The sports field is elevated to alleviate areas of seasonal inundation from the high water table, which allows for extended use of the site in spring. The additional shade trees on the western border of the park take up additional water and provide much needed pockets of shade within the sunny site.

### Drawbacks

Elevating the sports field would be both expensive and intensive, requiring a large amount of topsoil and reseeding efforts. The birch grove play area requires a careful succession plan and maintenance regime to remove and weed young saplings and allow older trees to flourish. With an elevated field, rocky swale, rain garden, and hill, this design requires extensive grading.



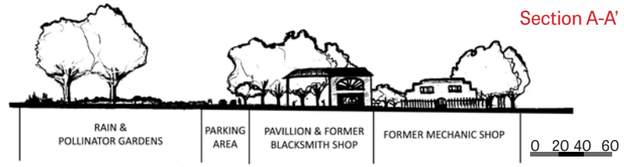

## Adventure and Relaxation


### Benefits

The renovated blacksmith building includes an attached pavilion, shelves to store sports equipment, and a second-floor community hall. This social space anchors the park: the outdoor pavilion provides a shady spot near the play area with cafe tables and grills so caregivers can relax while children play within view. The play area includes a multi-level large wooden structure for all ages, while Tike Town offers an enclosed space for sensory play and smaller playground structures for very young children. The multi-purpose sports field honors the historic use of the park while the wetland trail gives users access to a short boardwalk to learn about the unique wetland habitat. A pollinator rain garden creates habitat along School Street where there is currently turf, forming a living border along the western edge of the park.

### Drawbacks

This is likely the most expensive alternative, with the construction of a new pavilion, the renovation of the former blacksmith shop and the placement of a wetland boardwalk. The second floor community hall may require additional infrastructure to make it ADA accessible, which could be a significant expense, though it would be significant benefit in that it would make the space usable for all community members.



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# Design Alternatives

# Final Design


## Entrance

The main entrance to the park replaces the former blacksmith shop with a small parking area. From the defined entrance with a park sign, a universally accessible crushed gravel path leads into the park, bordered by a painted wooden fence depicting the park's native plants and pollinators. The fence separates the adjacent auto repair shop from the park, and the path continues south into the play area and east to the rain garden.

## Amenities

The visitor experience is improved through the addition of  a bike rack, park lighting along pathways and updated trash and recycling receptacles.

## Playscape

As they enter the park, children are greeted by durable black locust stumps of alternating heights and an existing balance beam carries visitors into the playscape (the stumps could be harvested from black locust trees at the southern end of the park). Tike Town is a shaded play area enclosed by a small picket fence with multiple entrances and exits. Here, the park's youngest visitors explore sensory play and practice tactile skills with water and sand tables and small cedar play structures.

Just past the toddler zone, tables with inlaid chess boards encourage intergenerational gatherings. The heart of the pathway is a space with picnic tables and climbing boulders. Existing metal structures (a round-a-bout, monkey bars, and climbing structure) blend with new elements: a slide nestles between shrubs and benches, just a short distance from a reassembled play structure transferred from the former school across the street. The playscape is rounded out with swing sets for a mix of ages and abilities. Within the playscape benches are shaded from the hot summer sun, including a circular bench that follows the curved base of a sugar maple.

## Pavilion and Bathroom

An open-air pavilion with grills and picnic tables replaces the locked restroom, with capacity for hosting large groups or small parties. The park restroom is newly sited at an accessible park corner near the entrance, at a close distance from the current water and sewer connection, to be constructed when further staff and funds are available.

## Picnic Area

Just south of the play area, a grove of red and silver maple, pin oaks and dogwood trees adds to the genetic diversity of the canopy and provides dappled shade for summer picnics, with views out to the open field and wet meadow edge.

## Wet Meadow

The edge of the wet meadow is extended outward and planted with a border of native perennial wildflowers and shrubs, increasing the natural beauty of this overlooked area and improving wildlife habitat. The bonfire debris pile is relocated to the former parking area. The meadow edge is a scenic backdrop for the park, and the overlooked parking area houses the bonfire debris pile in a designated enclosure, while also serving as a gardening supply storage area with a shed for volunteer park stewardship groups.

## Pollinator Border and Rain Garden

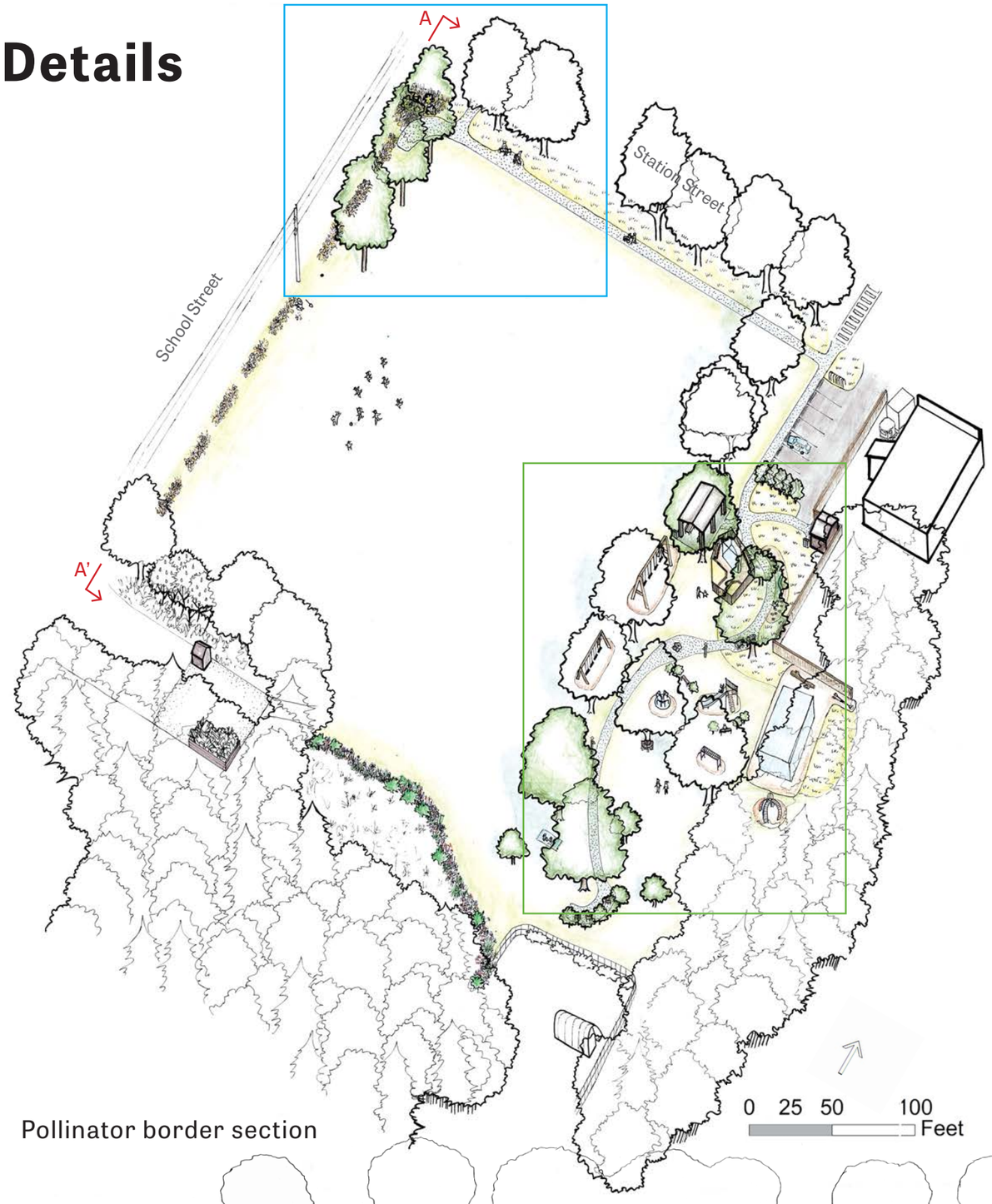
A diverse series of pollinator beds form the western park boundary. Pollinator gardens extend the length of the border, a transition that takes place over the course of several seasons. Vivid native perennials here create vital edge habitat and assist in absorbing water runoff from School Street.

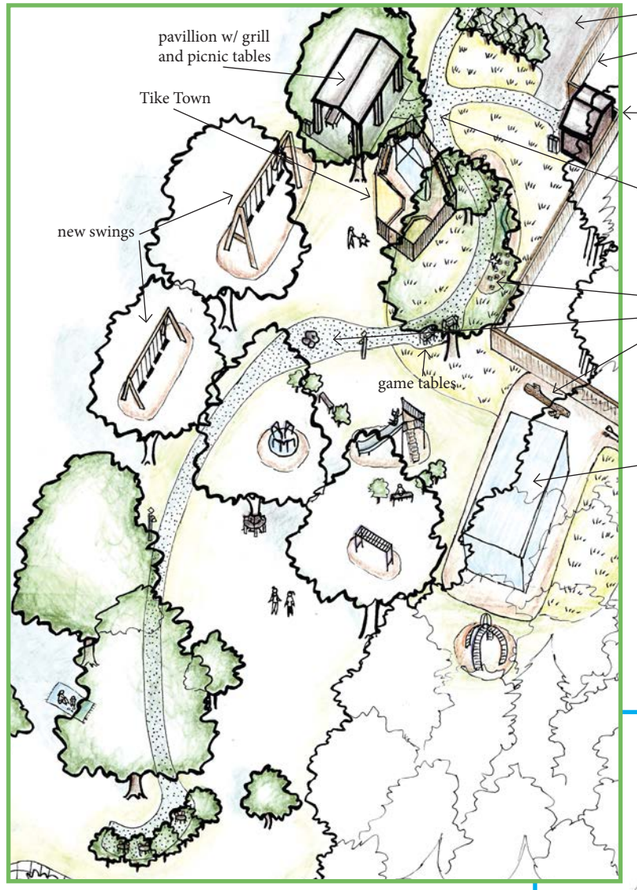
Just north of the pollinator beds, a rain garden captures stormwater, sinking and infiltrating water around the existing culvert, and visually defining this prominent approach to the park. The bald cypresses are replaced with tupelos (*Nyssa sylvatica*), regionally native and adaptable shade trees with multi-season interest.

## Multi-Purpose Sports Field

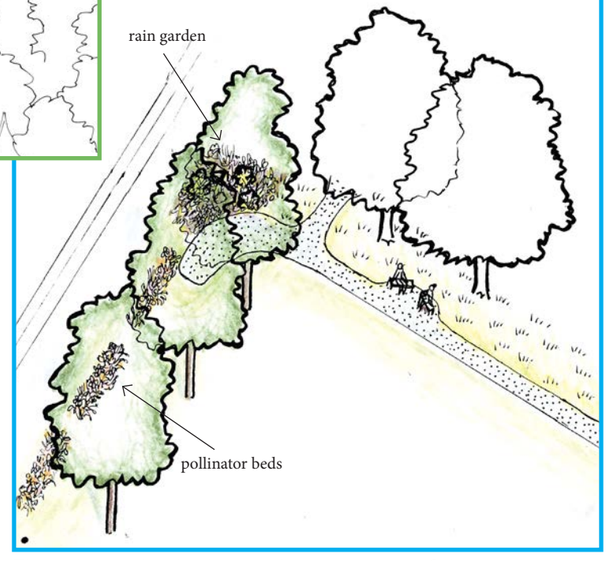
The baseball diamond is converted to a multi-purpose sports field with an expansive open lawn, maintaining local traditions of athletic pursuits and space for town celebrations. With a defined border and entrance and shaded gathering spaces along the edges of the park, the fields are more inviting. With a less intensive mowing regime, the clovers and dandelions within the turf bloom throughout the season, creating more meadow-like conditions, encouraging more visitors to enter the park.

# Details



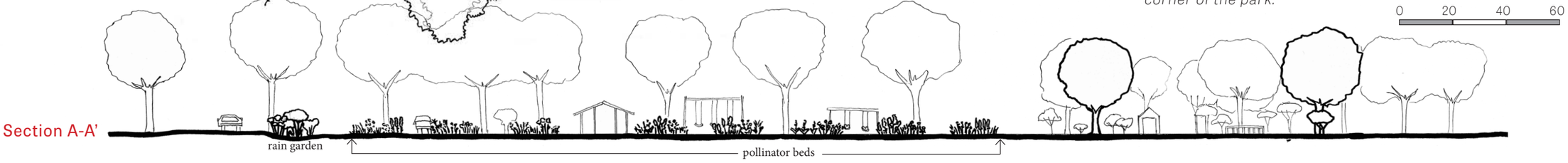




*The playscape, pavillion, bathroom and picnic area with the accessible pathway meandering through.*




*The rain garden in the northwest corner of the park is accessible by the pathway and defines that corner of the park.*

Pollinator border section

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**Final Design Details**

# Evolution of Playground Design

Playgrounds have evolved throughout U.S. history to reflect shifting ideas about childhood recreation, risk-taking, imagination, sensory play, and environmental exploration. Montague Center Park's playground design is inspired by the park committee's desire to accent a mix of historical and contemporary styles.


**Sand gardens ~ 1880's-1900**
Originating in Germany, the first playgrounds were sand boxes known as "sand gardens."


**Model playgrounds ~ 1900's-1920's**
In this Industrial era of concern for children's health, play is organized around isolated steel structures.

**Junk/Adventure playgrounds ~ 1930'-1950's**
Post-war spaces in the UK and Europe, focusing on children's autonomy and tactile exploration influence U.S. thought on playground risk-taking.

**Novelty playgrounds ~ 1950's-1970's**
Artists try their hand at playground design with utilitarian and fantasy-driven metal structures and whimsical shapes. Playgrounds are still a series of isolated objects within the landscape.

**Standardized playgrounds ~ 1980's-1990's**
Safety concerns drive design during this period. As heights of structures decrease, structures lengthen, creating a less structured experience,. Plastic and composite materials prevail.

**Playscapes ~ 2000's- present**
The contemporary style is a free-form blend of standardized, natural, accessible, challenging, and intergenerational structures embedded within the landscape.

Montague Center Park's current playground equipment is a mix of Novelty and Standardized styles, with a large, centralized sand box. The playground at the park is currently limited to several isolated structures, an arrangement that community members consider outdated. In considering ways to expand upon the limited playground offerings at present and to create a more inclusive, naturalistic experience (something that the park committee desires), the design reuses some existing structures, and adds a few elements. Inspired by the contemporary playground movement's emphasis on integrating structures into the surrounding landscape, the park design brings pathways alongside tree stumps and climbing rocks, linking these natural play structures to swings and slides, allowing for an experience of moving through a playscape rather than visiting isolated elements.

## Playground Precedents

A new Montague Center Park will most likely come together in several phases, as resources become available, and a multitude of styles may be considered. Constructing playscapes with natural materials can create ecologically responsible and naturalistic settings. Given the community's desire for inclusivity and multi-generational play, metal and plastic structures might also be considered. As the design reflects the eclectic character of the village, it's only fitting that several styles, including current playground structures, might eventually coexist. The following images are examples of some elements which could be incorporated into the park.

**Natural Playscapes**

*Landscape and play area merge in Discovery Park (Auburn, WA), as water is directed through a rock garden.*

*Landforms provide a free-form playscape at the Children's Nature Center (Boston).*

**All ages and abilities**

*Swings, slides, and structures designed for differing abilities allow for safe, sensory-rich play.*

*Integrating all-ages equipment promotes multigenerational park use.*

**Defined entrances**

*Framed branches define passage into this children's playscape (Garden in the Woods), Framingham, MA.*

*A gate invites entry at Cambridge Common.*

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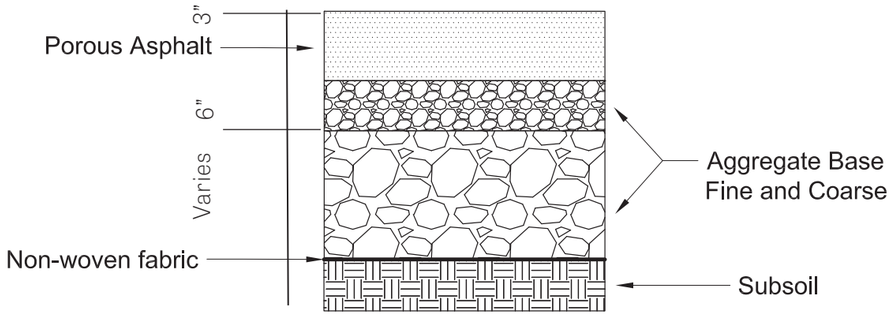
Evolution of

# Construction Details

## Porous Parking

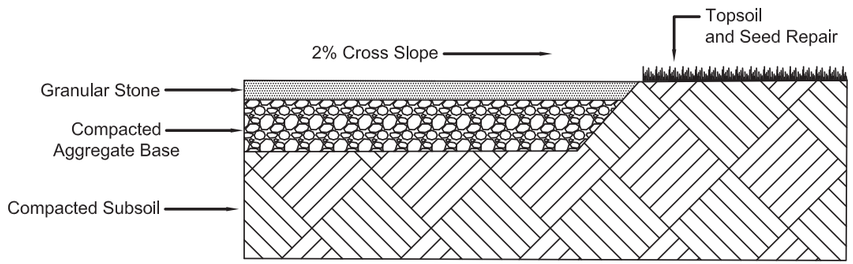
The former blacksmith shop is converted to a porous parking lot that infiltrates stormwater on-site. Porous asphalt is laid out over an aggregate base of fine and coarse open-graded crushed stone. Water percolates through the porous asphalt and infiltrates through the base into the soil below. A non-woven fabric separates the stone and subsoil to prevent subsoil from traveling up to the stone and blocking water movement.




*The final thickness of the coarse aggregate will be determined by others, based on the final grading plan, and the volume of stormwater sequestration needed.*

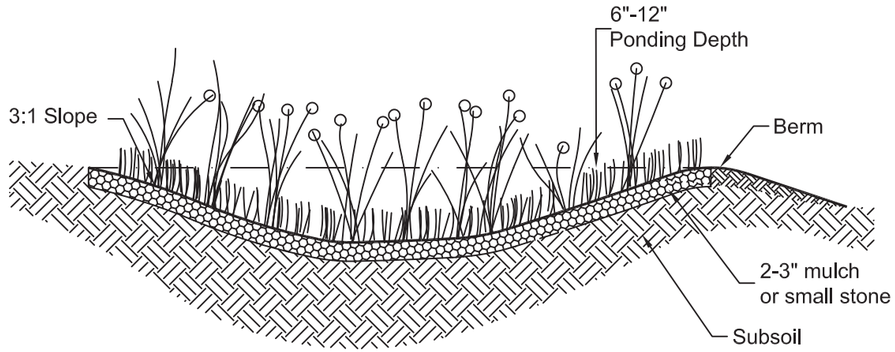
## Granular Path

A five-foot wide universally accessible path brings visitors from the parking lot to the play area and rain garden. A cross slope of 2% lets water drain off the path and a maximum longitudinal 5% slope makes the path accessible to all abilities. A granular topping of 3/8" minus stone dust over a compacted aggregate base and subsoil, stabilizes the path and makes it comfortable for users.

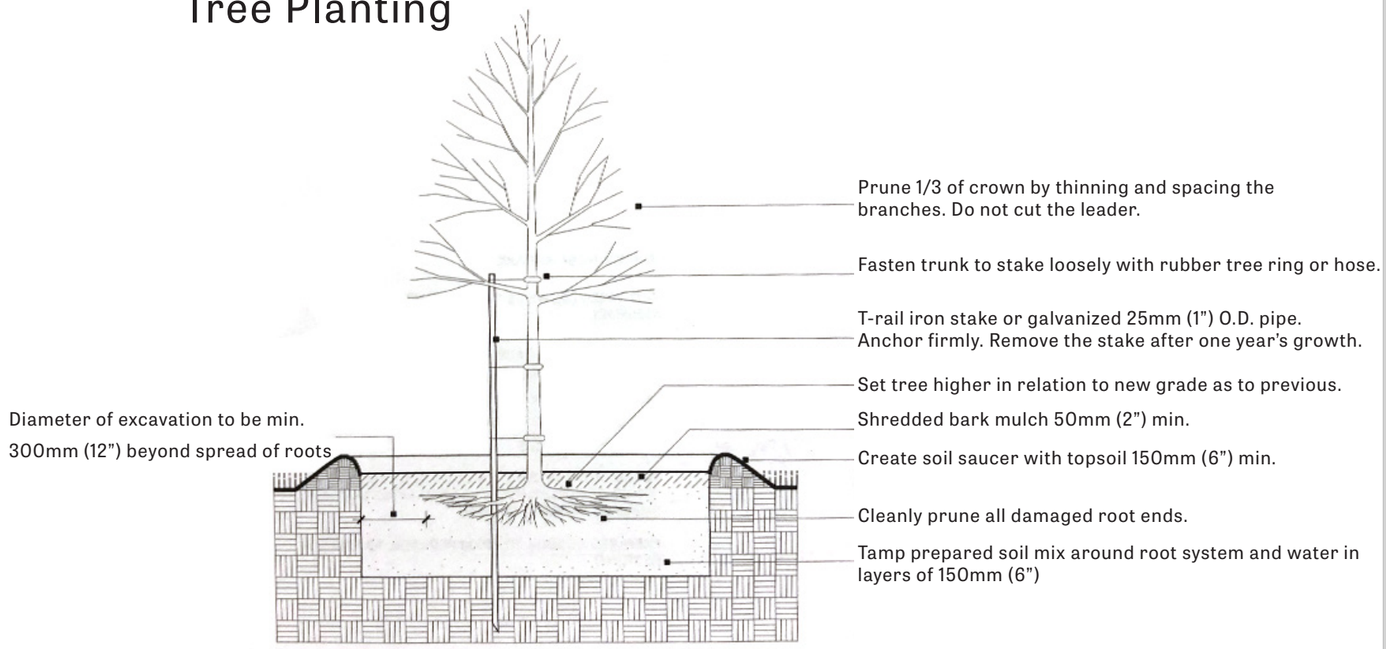



## Rain Garden

To mitigate seasonal flooding, a rain garden is installed near and lower than the existing culvert. A ponding depth of up to 12 inches allows water to collect and infiltrate into the ground before leaving the site. Between the water uptake from , water filtration and absorption occurs on site, decreasing the amount of stormwater that enters the public sewers.




## Tree Planting




Deciduous tree planting- bare root

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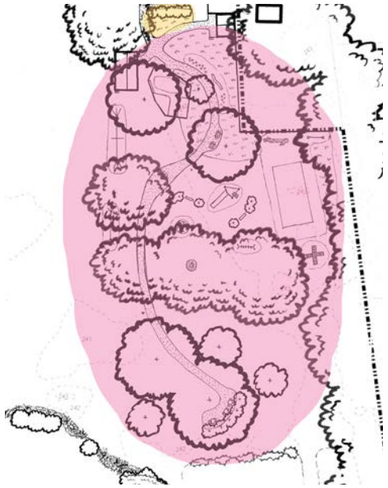
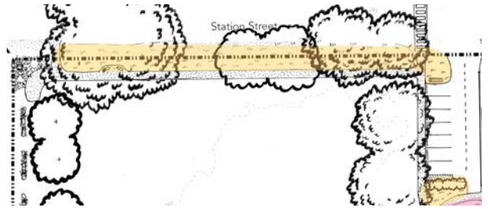
Construction Details

# Plant Palette I: Playscape, Parking Lot Edge, Turf






## Playscape

| | Botanical Name | Common Name | Notes | Height / Spread |
|---|---|---|---|---|
| Trees | *Acer rubrum* | Red maple | highly adaptable | 40 - 70 / 30 -50 ft |
| | *Quercus palustris* | Pin oak | durable, high wildlife value | 50 -70 / 40+ ft |
| | *Cornus kousa* | Kousa dogwood | distinctive flowers, May-June | 15 - 30 ft |
| | *Cercis canadensis* | Eastern redbud | pink blooms in April | 20 - 30 ft |
| Shrubs | *Cephalanthus occidentalis* | Buttonbush | orb-like flower clusters blooms in June | 6 -12 / 12 ft |
| | *Viburnum acerifolium* | Maple leaf viburnum | 3 - 6 / 2 - 4 ft | |
| | *Viburnum prunifolium* | Blackhaw viburnum | large shrub, casts some shade | 12-15 /6-12 ft |
| | *Sambucus canadensis* | Black elderberry | edible berries in late summer | 5 - 12 / 5 -12 ft |
| | *Clethra alnifolia* | Summersweet | white flowers, July-August | 5 - 8 / 4 - 6 ft |
| | *Calycanthus floridus* | Carolina allspice | dark red aromatic flowers | 6 - 10 /" ft |
| | *Hamamelis virginiana* | Witch hazel | yellow flowers bloom Oct-Dec | 10 - 20 ft / ft |

## Parking lot edge

| Botanical Name | Common Name | Notes | Height/ Spread |
|---|---|---|---|
| *Myrica pensylvanica* | Northern bayberry | Semi-evergreen | 9 ft / 8 ft |
| *Rhus aromatica* | Fragrant sumac | Low-growing | 2 - 6 ft / 6 - 10 ft |
| *Clethra alnifolia* | Summersweet | Large white flowers in July and August | 5 - 8 ft / 4 - 6 ft |
| *Ilex verticillata* | Winterberry | Red berries persist through winter. Plant one male for every 3-4 females | 6 - 10 ft / 6 - 10 ft |
| *Diervilla lonicera* | Northern bush honeysuckle | Lovely in front of tall shrubs. Avoid invasive non-natives honeysuckles | 2-4 ft / 2-4 ft |
| *Festuca arundinacea* | Fescue mix | Low-mow lawn alternative | 3 - 6 in |

*Hamamelis virginiana*
Witch hazel

*Cephalanthus occidentalis*
Buttonbush

*Sambucus candensis*
American black elderberry

## Plant care

Plants that are adapted to local soils and weather patterns require infrequent care, little additional water and no fertilizers. All plants in the design for Montague Center Park are native to the region, with exceptions for non-invasive plant species that also provide for pollinators. All plants need attention when getting established.

The plants in each plant palette feature staggered bloom times across the growing season and multi-season interest, such as bright fall foliage, persistent fruits, or colorful bark.

## Turf Maintenance

Mow once every two weeks at 3- 4 inches high, mowing to a half inch at borders of planting beds. Defining a clear border establishes demonstrates the care being taken in the upkeep of the park's gardens

Converting conventional, non-native turf grasses to a low-mow groundcover of native New England fescues, while more labor intensive to establish, could require less long-term maintenance. Certain areas of the Montague Center Park final design are designated for conversion from turf grasses to low-mow groundcover.

## Plugs and seeds

For herbaceous species, purchase wholesale plugs or flats. Small plants with developing root systems are more cost-effective than larger containers and have a higher survival rate in low-maintenance scenarios than seeds.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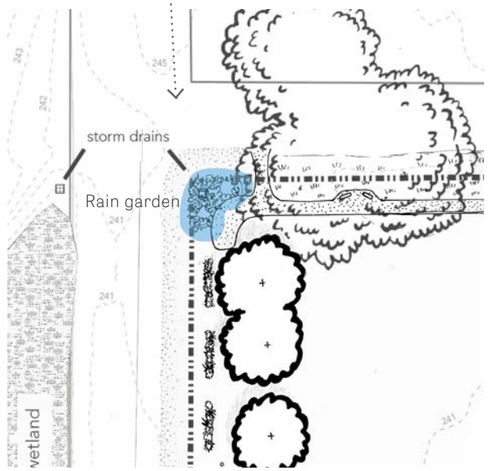
**Plant Palette I**

# Plant Palette II : Rain Garden

These native plants are notable for their capacity to survive periodic flooding and drought

| | Botanical Name | Common Name | Notes |
|---|---|---|---|
| Trees | *Nyssa sylvatica* | Tupelo | slow-growing; scarlet fall foliage |
| Shrubs | *Viburnum cassinoides* | Witherod | fragrant flowers; winter interest |
| | *Aronia melanocarpa* | Black chokeberry | berries in fall provide for wildlife |
| Herbaceous perennials | *Iris cristata* | Dwarf crested iris | showy, low and spreading |
| | *Amsonia tabernaemontana* | Blue star | good cut flower |
| | *Lobelia syphilitica* | Great blue lobelia | divide in spring as needed |
| | *Asclepias incarnata* | Swamp milkweed | does not transplant well seedheads feed birds |
| | *Echinacea purpurea* | Coneflower | divide every 2-3 yrs |
| | *Solidago speciosa* | Showy goldenrod | prefers moist soil |
| | *Symphotrichum novae-angliae* | New England aster | |
| Ferns | *Dennstaedia punctilobula* | Hay scented fern | fragrant, sun-loving |
| Grasses & sedges | *Carex burnea* | Bristle-leaved sedge | grassy green, clump-forming |
| | *Carex stricta* | Tussock sedge | old leaves act as mulch |
| | *Panicum virgatum* | Switchgrass | seeds are winter source for birds |
| | *Schizachyrium scoparium* | Little bluestem | bronze-tinged |


## Role of Rain Gardens

Rain gardens settle out polluted particles from contaminated stormwater as it crosses paved surfaces. The bowl-like shape of the gravel bed within the garden holds water, reducing the volume of stormwater runoff going directly into storm drains, and thus preventing polluted water from entering rivers and streams. In the final design for Montague Center Park, a rain garden is installed lower than the outlet to the storm drainage system. The shape of the garden, the porous nature of the gravel bed and sandy soils, along with the water taken up by the plants themselves, combine to slow, hold, sink and filter water.

*Carex stricta*
Tussock sedge

Grasses and sedges have fibrous roots, helping to stabilize soil, an asset in a frequently flooded environment

*Asclepias incarnata*
Butterfly milkweed

Butterfly milkweed tolerates a range of soil conditions and provides habitat for pollinators

*Viburnum nudum var. cassinoides*
Witherod

Shrubs take up substantially more water than herbaceous species, sequestering stormwater in flooded areas

## Maintenance

Water three times a week during the first month. During the first year, water and weed twice a week from the onset of the growing season until October.

## Installation

Layered plantings are the key to the long-term success of rain gardens. The ground cover layer is a particular essential, as it forms a living layer of mulch, removing the need for further, costly inputs, such as wood bark mulch. Replacing purchased mulch with a living groundcover is especially important in a rain garden. During storm events, the mulch layer can wash away or clog water catchment drains. Of the two groundcover species for this garden, the common blue violet is growing around the culvert

and can be separated from the surrounding turf grasses and redistributed throughout garden.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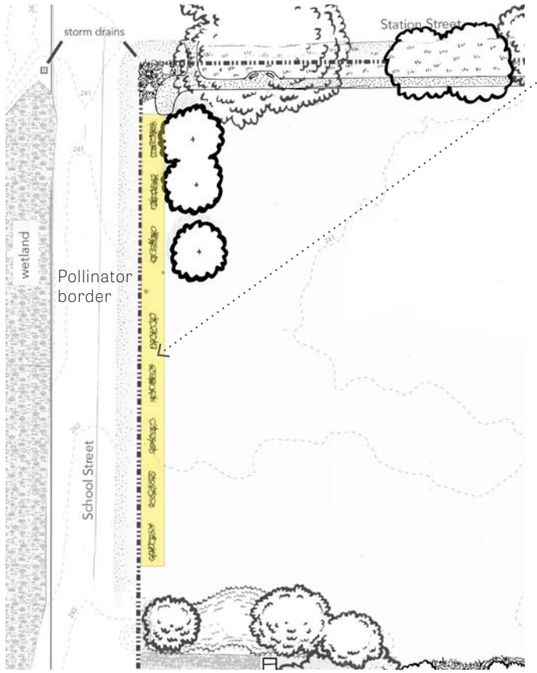
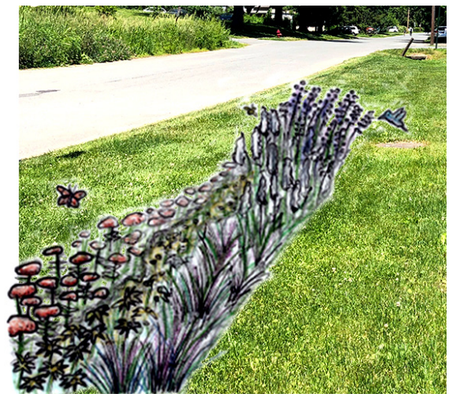
Designed by
Lili Elena · Amanda Hawes · Mallory Rasky

Planting Palette II

# Plant Palette III: Pollinator Border







*The pollinator border welcomes pollinators of all types: butterflies, bees, and hummingbirds.*

## Installation

Converting turf into an herbaceous perennial border garden requires either cutting out sod, and adding topsoil, or sheet mulching and planting into the prepared bed. The method chosen will depend on the resources available to the park's gardening team. Turfgrass can easily outcompete broadleaf plant species, especially before newly planted perennials' root systems are well-established. Either a hard border such as a framed wooden planter or metal edge assists in deterring encroachment from turf. If no barrier is used, removing sod around the garden bed and planting with groundcover species will be necessary.

## Maintenance

Water three times a week during the first month.

During the first year, water and weed twice a week from the growing season through October

## Phasing

As planting the border means covering a three-hundred-foot length, the installation will most likely be phased. Many of the plants selected are easily divided after a couple years' growth and can then be transplanted into border beds as they are created. Other species selected are native plants that either reseed or spread, an asset in a low-maintenance garden with lots of ground to cover.

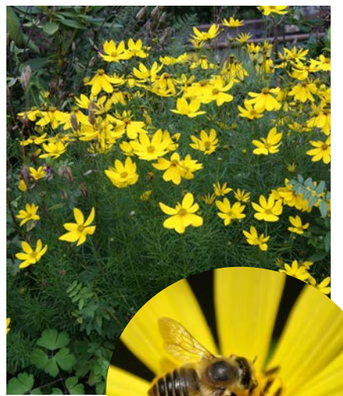
1. Remove sod/ sheet mulch to create planting beds
2. Start planting closest to the rain garden, moving south for greatest visual coherence. Creating new beds as time and resources allow.
3. As plants mature, divide and relocate them to new beds
4. Consider seeking local "pollinator-certified garden" status and signs. Maintain a sharp border through mowing. Informational signs and a strong definitional edge can help visitors "read" a native plant garden, which can often look messier than conventional gardens.

Plants selected attract beneficial insects and hummingbirds and are well-suited to summer heat, sandy soils and roadside conditions

| | Botanical Name | Common Name | Notes | Height |
|---|---|---|---|---|
| **Groundcovers** | *Viola sororia* | Common blue violet | spreads by self-seeding | 6 - 9 inches |
| | *Phlox subulata* | Moss phlox | showy spring flowers | 3 - 6 inches |
| **Herbaceous perennials** | *Coreopsis verticillata* | Threadleaf coreopsis | blooms all summer | 2.5 - 3 ft |
| | *Antennaria neglecta* | Field pussytoes | silvery foliage | 6 in - 1 ft |
| | *Liatris novae-angliae* | Northern blazing star | rare in the wild, nursery avail. | 2 - 4 ft |
| | *Penstemon digitalis* | Beardtongue | white blooms; good cut flower | 3 - 5 ft |
| | *Monarda fistulosa* | Bergamot | fragrant; attracts hummingbirds | 2- 4 ft |
| | *Asclepias tuberosa* | Butterfly weed | slow to establish; self-seeds | 1 - 2.5 ft |
| | *Phacelia tanacetifolia* | Lacy phacelia | unfurls like fiddleheads | up to 2 ft |
| | *Agastache foeniculum* | Anise hyssop | fragrant; good cut flower | 2 - 4 ft |
| | *Verbascum thapsus* | Mullein | non-native biennial; self-seeds | 2- 6 ft |
| **Grasses** | *Schizachyrium scoparium* | Little bluestem | versatile | 2 - 4 ft |
| | *Panicum virgatum* | Switch grass | clump-forming | 3 ft and up |

## Nectar, pollen, refugia

"Insects make up about half of all known living organisms. They play key roles in pollination, nutrient cycling, food chains of birds and other insectivores, and are one of the pillars of our ecosystems. However, the wide use of insecticides, fragmentation of habitats and climate change are placing multiple threats on them, and their populations are under sharp decline" (UN Environment report, 2019). Converting lawn to gardens with a diversity of native plant life is a way for communities to create spaces of beauty and ecological function in villages and urbanized areas.



*Coreopsis verticillata*
Threadleaf coreopsis

*Liatris novae-angeliae*
Northern Blazing Star

*Penstemon digitalis*
Beardtongue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**Planting Palette III**




*June 21, 2019 4:31 PM*

# Plant Palette IV : Wet Meadow Edge

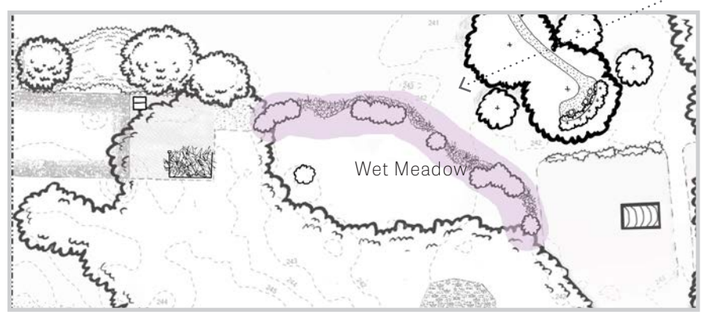
## Wet Meadow Edge

Species selected are aromatic, showy, well-suited to soggier soils, with differing heights

| | Botanical Name | Common Name | Notes | Height |
|---|---|---|---|---|
| **Shrubs** | *Cornus sericea* | Red Osier Dogwood | spreads easily, winter interest | 6 - 9 ft |
| | *Ilex verticillata* | Winterberry | slow-growing, winter interest | 3 - 12 ft |
| **Herbaceous perennials** | *Asclepias tuberosa* | Butterfly Weed | does not transplant well | 1 - 2.5 ft |
| | *Eutrochium purpureum* | Joe Pye-Weed | vanilla-scented, clump-forming | 5 - 7 ft |
| | *Geranium maculatum* | Wild Geranium | spring blooming, no deadheading | 1.5 - 2 ft |
| | *Iris versicolor* | Blue Flag Iris | clump-forming, spreads slowly | 2 - 2.5 ft |
| | *Lobelia cardinalis* | Cardinal Flower | pollinator favorite, clump-forming | 2 - 4 ft |
| | *Pycnanthemum virginianum* | Mountain Mint | sweet minty smell | 2 - 3 ft |
| | *Symphotrichum novae-angliae* | New England Aster | self-seeding, fall blooming | 3 - 6 ft |
| **Grasses** | *Panicum virgatum* | Switch Grass | clump-forming, winter interest | 3 - 6 ft |
| | *Schizacyhrium scoparium* | Little Bluestem | feathery seeds, winter interest | 2 - 4 ft |

Wet meadows occur in low-lying wet areas. They are distinguished by their seasonal dry stretches and mixes of sedges and shrubs. Between the park's mowed turf and the untended wooded park edge, the bordering wet meadow is defined and accentuated in the final design for Montague Center Park.

*The meadow edge, defined with irises and red osier dogwoods.*





## Installation

Plant shrubs and tallest species (Joe Pye Weed and Switch Grass) at the back of the bed, placing shorter species towards the front. Consider planting this garden in the fall so that spring-blooming species are established the first year.

## Maintenance & Phasing

1. Relocate bonfire debris pile
2. Mow at half inch along border to define edge
3. Water new plantings deeply (shrubs especially), three times a week throughout the summer months
4. Mechanically remove invasive species encroaching on new plantings
5. Maintain wet meadow edge by mowing adjacent lawn
6. Allow red osier dogwood to thicket and spread; divide and redistribute irises and mountain mint every 2-3 years
7. As resources allow, conduct an invasive plant assessment of this area and develop a containment and manual removal plan

*Lobelia cardinalis*

A prairie native, this lobelia is an example of a plant from an adjacent region that is adapted to wet sites and provides nectar and pollen for native insects

*Iris versicolor*

Blue flag iris

Blooming for just a few weeks in spring, native irises sword-like foliage and persistent seed pods (pictured at right) provide interest throughout the growing season

*Schizachyrium scoparium*

Little Bluestem

A supremely adaptable eastern native grass

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# Community Investment

Recommendation

**Montague Center Park improvement is strengthened by community involvement in implementing and maintaining the wet meadow edge, pollinator pathway, rain garden, and new trees and shrubs.**

## Friends of Montague Center Park

The final design for Montague Center Park is low-cost and low-maintenance, in keeping with staff and resource constraints for both the Parks Department and the DPW. The Parks Department is interested in exploring grant-funded sources for design installation, although Montague Center has a higher median income than other villages in Montague, and therefore is not first in line to receive need-based funds. Since the budget does not allow for park attention beyond weekly lawn mowing, maintaining the Rain Garden, the Pollinator Border and Wet Meadow Edge will require volunteer inputs from the community. Public spaces require community investment to thrive, and a potential solution is for the Montague Center Park Project Improvement Committee (or other interested Montague residents), to harness local knowledge and structure volunteer inputs by forming a Friends of the Park group.

Precedent

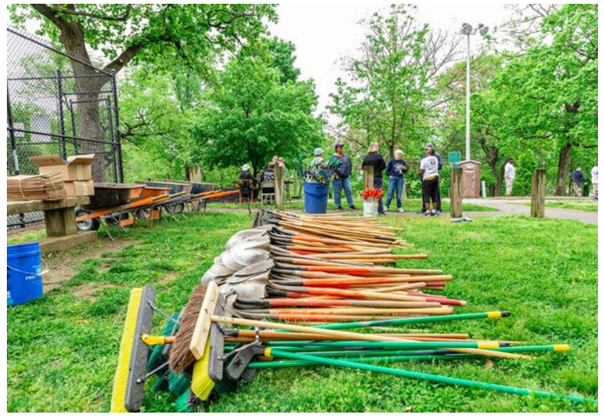
### Park Friends Network

Philadelphia, PA

There is a longstanding tradition of engaged citizens and active park groups within a network of more than a hundred Friends groups in Philadelphia. Volunteer park stewardship there is essential to keeping parks clean and safe. Friends groups invest time and resources to create healthy and welcoming green spaces. In addition to tending to gardens, volunteer groups engage with residents, non-profits, and external partners to advocate for parks. They organize planting days, promote educational and recreational activities, and host plant sales.

Montague Center can look to the Philadelphia Parks Department's "Park Friends Group Toolkit," which describes how to form a Friends group, how to plan community projects, and how to sustain a group after a successful event, and adapt this model for use in a semi-rural setting. According to committee members, many naturalists and experienced gardeners reside in Montague Center, and community members have a wealth of knowledge to share.

*Philly volunteer park stewards engage community members of all ages.*



*Service Days can keep a park beautiful and safe by maintaining landscape features.*

*Friends groups can facilitate recreational and cultural events*

Park projects suitable for volunteer groups

**Greening Greenfield** is a local group that is working with upper Pioneer Valley towns on a pollinator pathway initiative. Wildlife corridors and resources are more effective when connectivity is considered, and the pollinator border within Montague Center Park could prove to be a valuable linkage to nearby pollinator gardens.

**Bee Hotels** are volunteer-built mini-structures at the edge of gardens that incorporate natural materials like reeds and wood blocks that native insects require to complete their life cycles. Assembling bee hotels can be a creative project that requires minimal inputs and provides overwintering habitat for pollinator populations.

# Cost Estimate

This is an estimate of the elements and associated costs that are in the final design, including demolition, site preparation, installation, site improvements, landscape features, and amenities. The costs may be lowered by using materials on site, donated materials from the community, or volunteer labor. Prices will vary depending on the local materials and transportation costs, contractor pricing (if used), and phasing amenities dependent on community importance.

| | ITEM | QTY | UNIT | COST/UNIT | TOTAL COST |
|---|---|---|---|---|---|
| **Demolition** | Blacksmith Shop | 1 | lump sum | $40,000 | $40,000 |
| | Bathroom | 1 | lump sum | $3,000 | $3,000 |
| | lawn removal | 1 | lump sum | $4,000 | $4,000 |
| | | | | | $47,000 |
| **Site Preparation** | Bathroom water line | 100 | lump sum | $1,000 | $1,000 |
| | grading | 8000 | SF | $0.20 | $1,600 |
| | | | | | $2,600 |
| **Site Improvements** | porous asphalt parking lot | 3,000 | SF | $6 | $18,000 |
| | curb stops parking | 7 | EACH | $60 | $560 |
| | stone dust path, 5' width | 700 | LF | $10 | $7,000 |
| | 8' solid wood fence | 230 | LF | $40 | $9,200 |
| | 3' split rail wood fence | 90 | LF | $25 | $2,250 |
| | 6' solid wood fence | 55 | LF | $30 | $1,650 |
| | pavillion, 15' X 25' | 1 | lump sum | $20,000 | $20,000 |
| | bathroom | 1 | lump sum | $12,000 | $12,000 |
| | lighting | 5 | EACH | $1,000 | $5,000 |
| | | | | | $75,660 |
| **Landscaping** | no-mow groundcover | 5,150 | SF | $0.25 | $1,300 |
| | trees 2" caliper | 7 | EACH | $400 | $2,800 |
| | large shrubs, 5-gallon con. | 4 | EACH | $60 | $240 |
| | medium shrubs, 3-gallon con. | 17 | EACH | $45 | $765 |
| | small shrubs, 1-gallon con. | 11 | EACH | $12 | $132 |
| | perennial plugs | 650 | SF | $2 | $1,300 |
| | rain garden | 1 | lump sum | $5,000 | $5,000 |
| | mulch 2" | 40 | CY | $40 | $1,600 |
| | | | | | $13,137 |
| **Amenities** | bike rack | 1 | EACH | $300 | $300 |
| | circular bench | 1 | EACH | $1,000 | $1,000 |
| | game tables w/2 chairs | 2 | EACH | $2,500 | $5,000 |
| | table/chairs | 3 | EACH | $700 | $2,100 |
| | benches | 4 | EACH | $600 | $2,400 |
| | climbing boulders | 3 | EACH | $400 | $1,200 |
| | adult swing | 1 | EACH | $3,200 | $3,200 |
| | child swing | 1 | EACH | $2,500 | $2,500 |
| | sand pit | 1180 | lump sum | $600 | $600 |
| | pre-fab 8X8' garden shed | 1 | EACH | $1,500 | $1,500 |
| | sign | 1 | EACH | $800 | $800 |
| | trash | 1 | EACH | $750 | $750 |
| | | | | | $21,350 |

| | |
|---|---|
| **Subtotal** | $159,747 |
| mobilization @ 1% | $1,558 |
| **Total** | $161,305 |
| taxes @ 6.25% | $9,832 |
| contigency @ 20% | $32,261 |

## Grand Total: $203,398

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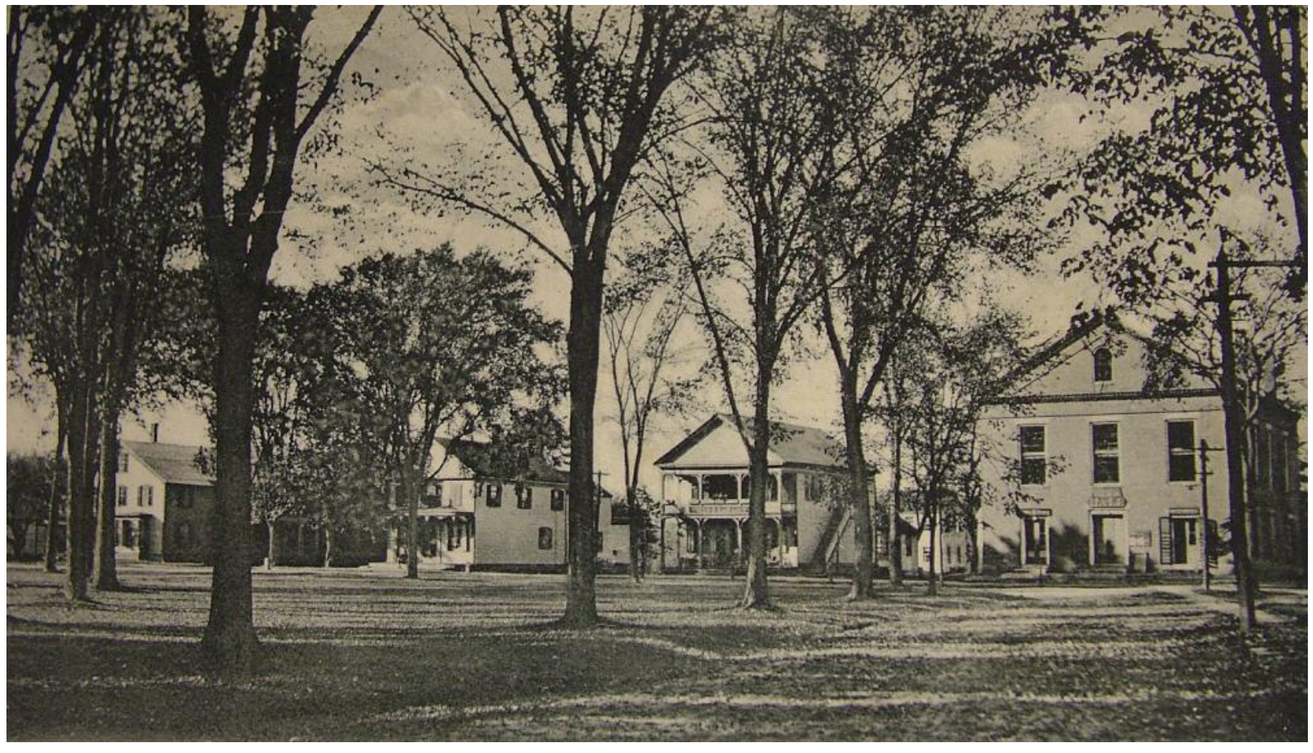

*1906 postcard with views across the Montague Center town common.*