



EAST TENNESSEE COMMUNITY
DESIGN CENTER

Sharps Ridge Veterans Memorial Park Master Plan





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Prepared for: Veterans Heritage Site Foundation Committee and City of Knoxville Parks and Recreation

Accepted Date: December 2017 ETCDC Project #2082

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Funding for this project is provided by the City of Knoxville Community Development Department, Community Development Block Grant, and Tennessee Arts Commission.





SUMMARY 1

Background:	Develop a Master Plan for Sharps Ridge Veterans Memorial Park
Location:	329 Sharps Ridge Memorial Drive, Knoxville, TN 37917
Client Organizations:	Veterans Heritage Site Foundation Committee and City of Knoxville Parks and Recreation
Client Representatives:	Jessica King-Hodge, Marilyn Childress, & Joe Fee - VHSFC Sheryl Ely and Tim Hester - Knoxville Parks and Recreation
Professional Advisor:	Chris Hall, Landscape Designer - CRJA - IBI Group
Project Coordinator:	Leslie Fawaz, AIA, CSI
Project ETCDC Staff:	Perry Childress and Dustin Durham
ETCDC Executive Director:	L. Duane Grieve, FAIA
Closing Date:	May 7, 2019



PROJECT DESCRIPTION 2

In March 2017 Jessica King-Hodge, representative from Veterans Heritage Site Foundation Committee, requested assistance from the ETCDC to develop concept plans for Sharps Ridge Veterans Memorial Park (SRVMP). ETCDC was asked to focus on an entry sign at Ludlow and Broadway on KUB property. The request was to add a flag court with a new entry sign. Due to power line height limitations this area had to be reconsidered.

In 2018 Sheryl Ely, Director of City of Knoxville Parks and Recreation, hosted a meeting at the Parks and Recreation office to bring all the stakeholders together to discuss the new opportunities for SRVMP. Legacy Parks Foundation had acquired 42 acres adjacent to SRVMP and Knoxville Community Development Corporation (KCDC) property. Legacy Parks would like to use the land to expand the existing 115 acre footprint of SRVMP. This information created the need to develop a strategic master plan for SRVMP. The ETCDC was asked to develop the master plan and was granted the use of Community Development Block Grant funding for the work.

In December 2018, the ETCDC facilitated a programming meeting with stakeholders which included:

- Jessica King-Hodge, Joe Fee, and Marilyn Childress - Veterans Heritage Site Foundation Committee (VHSFC)
- Sheryl Ely and Tim Hester - City of Knoxville Parks & Recreation Department
- Carol Evans - Legacy Parks Foundation
- Mia Wavrek - Masters Student, UT Department of Earth and Planetary Sciences, intern with Legacy Parks
- Brian Hann and Wes Soward - Appalachian Mountain Bike Club (AMBC)

ETCDC then had follow-up meetings with others, including:

- Sean Gilbert - Knoxville Community Development Corporation (KCDC)
- Keith Kirkland - Public Building Authority (PBA)
- Stephanie Cook - City of Knoxville Accessibility Coordinator
- Morton Massey, Tony Headrick and Dr. Bob Collier - local birder representatives

With all of the input gathered, ETCDC design staff and volunteer advisor Chris Hall, landscape designer with CRJA - IBI Group, developed a master plan considering the wants and needs of all the stakeholder organizations.



PROJECT DESCRIPTION, CONTINUED 3

The stakeholders agreed that SRVMP should remain a passive park and limit the development at the original 115 acres. The park is to maintain its dawn-til-dusk use, but may have opportunities for special night-time skyline viewing or birding events after hours. There are existing security concerns in the park that especially occur at night. Due to the shared use with WBIR and others, gating the entrances is not an option. There is a park patrol that may need to be expanded. One goal for the park is that increasing legitimate activity will discourage illegal and inappropriate activities from occurring.

The stakeholders also agreed that consistent design of trail markers, signage style, building materials, and amenities such as benches, picnic tables, and garbage / recycling receptacles was important to create a cohesive and over-arching theme throughout the park. PBA is currently renovating the Cotton Jackson East Picnic Area. They are adding parking and accessible amenities. The funding for this project was part of the City of Knoxville's park accessibility project. Stephanie Cook, Keith Kirkland, and Joel Asher worked to develop a standard for amenities to be used at this park and others in the city. The existing wood trail markers and entry arbors are to remain. There will be new uniform signage with trail maps that meet accessibility requirements and that have an area for events. The new design proposes adding fencing and guard rail along the road. The existing guardrail can be adapted to match the new design. This will be consistent at all roads within the park.

There is new entry sign proposed for Ludlow and Broadway located on KUB property. The sign is to be constructed of stacked stone with a concrete cap to match other historic stone markers located at SRVMP. In an earlier study there was a flag court located at the entry, but due to low power lines the flag court is proposed to be relocated to the renovated J.B. Owen Overlook.

The J.B. Owen Overlook structure is deteriorating and its open structure has been allowing homeless camps to develop and areas for crime to occur. The new plan uses concrete and stacked stone and creates a solid wall to the ground below. It will have a concrete cap with lowered sections for accessible viewing. The wall will have a bronze plaque explaining the views, two viewing telescopes, parking (accessible and general), and a lighted Veterans Flag Court. There will also be black and red benches that had previously been donated to the VHSFC for use in the park. These benches will be used at the Overlook and other Veterans Information Kiosks, educational markers with monuments, and memorials located throughout the park. Fifteen of the benches will be used and three left for repair parts when needed. When bench replacement is required, Parks and Rec will use the standard benches. See Master Plan and Rendering Boards.



PROJECT DESCRIPTION, CONTINUED 4

Appalachian Mountain Bike Club (AMBC) has developed heavily-used trails throughout SRVMP. These include the “purpose-built” trail, Knight Fall, which is directional and intended for mountain bikes only. AMBC is paid to manage and maintain this trail. The other trails are “multi-use” which are intended for hiking and biking in either direction. To maintain a consistent theme throughout SRVMP, the new and existing mixed-use trails should be renamed with veteran-related themes such as: wars (Vietnam group would like consideration), battles, military branches or units, individual heroes, women veterans, military dogs, etc. The VHSFC is developing a list of names to be considered.

Accessible pedestrian-only trails can be developed for neighborhood and birding use. There is potential parking at a Knox County owned property at Dill Street that could connect to an accessible trail loop. There are other trails that could be accessed by the neighborhoods via proposed trailheads at Hanover Street, where limited parking could be added.

Scattered parking sites are needed for trailheads, picnic areas, views, overlooks, and other uses. Other potential parking with an added trailhead is possible on City property at southwest corner of the park on Watauga Avenue at Fox Street.

SRVMP is a nationally known Birding site (TN site #85) with over 154 species including migratory birds that have been viewed from the park. Spring and Autumn are popular viewing seasons for migrating species. Over 250 community members are involved in local birding and could provide access to resources such as work days, project funding (including invasive plant replacement) and maintenance grants.

The SRVMP master plan develops a 15 acre designated birding area around the Lee McClain West Picnic Area, which is an important nesting site. This area can have a Birding guide and signage, interpretive exhibits, and accessible pedestrian trails for bird watching. These trails would be designated for birders and signs added that no pets should be allowed in this area of the park. See Enlarged Map on Images board.



PROJECT DESCRIPTION, CONTINUED 5

Environmental restoration and the removal of invasive plant species is important throughout the park, but the efforts could be focused on the Birding area. It is important that when existing plants are removed that they are replaced immediately to prevent disruption of habitat availability. The goals would be to avoid breaking up dense understory areas and focus on native fruiting plants and trees to attract the birds. See a list of non-invasive plants on page 6.

With the new intensity of use proposed at SRVMP - which could be determined by adding trail counters - toilet facilities may become needed. These could be composting vault waterless toilet buildings similar to those at House Mountain State Park. See extinc.com for proprietary information on these structures.

The newly acquired 42 acres by Legacy Parks Foundation is directly connected to SRVMP and is adjacent to KCDC's North Ridge Crossing Development and the Head Start Campus. Per meetings with Sean Gilbert of KCDC and Carol Evans of Legacy Parks Foundation, the SRVMP master plan has a continuation shown at Tiberius Road with a new parking lot of 35 spaces. This parking will lead to trails connecting to a natural play area with accessible play equipment and a children's bike skills course with an area for renting bicycles. See Enlarged Plan on Images Board.

A proposed one (1) acre fenced Dog Park is shown adjacent to the new parking lot. The Dog Park could be themed to honor "War Dogs." There would be designated areas for large and small dogs. The large dog area is slightly sloped with some trees. The location of the Dog Park is helpful to limiting interaction with birds since dogs could discourage bird activity; with the Dog Park proposed lower on the ridge this helps preserve the prime birding area at the ridge-top. This location also allows residents of North Ridge Crossing Development to use the park, but reduces the noises that may come with it. See Images Board.

To allow use of this area from the neighborhoods to the south of SRVMP, the Master Plan is proposing developing trails through this 42 acres that connect to existing trails. This could also allow for linkage to Bruhin Road at an existing transmission line easement and further connections to future 2nd and 3rd Creek Greenways and Inskip Park. Future trails should be considered in order to link the Legacy Parks property through KCDC property and to East Picnic Area, alongside the northern portion of the ridge. See Master and Enlarged Plans.



Trees and Shrubs

Black Locust
Catalpa
Sycamore
Black Cherry
Flowering Dogwood
Redbud
Eastern Red Cherry
Spicebush
Beauty Berry
Elderberry
Carolina Buckthorn
American Holly
Black Walnut
Hickory
Sugar Maple
Red Maple

Weeds and Flowers

Ironweed
Goldenrod
Cardinal Flower
Impatiens (Touch-me-not)
Coneflower
Joe-Pye weed
Butterfly weed (orange milkweed)- NOT Butterfly bush which is invasive



SUSTAINABLE DESIGN 7

The East Tennessee Community Design Center (ETCDC) has established a policy to promote sustainable design and energy efficiency in all its projects. Sustainable design is sometimes known as green building or environmental building. Green building is the practice of increasing the efficiency of buildings and sites in their use of energy, water, and materials, as well as reducing building impacts on human health and the environment through better siting, design, construction, operation, maintenance, and removal — the complete building life cycle. Green building is increasingly governed and driven by standards, such as the Leadership in Energy and Environmental Design (LEED) rating system developed by the U.S. Green Building Council.

The related concepts of sustainable development and sustainability are integral to green building. Effective green building can lead to 1) reduced operating costs by increasing productivity and using less energy and water, 2) improved public and occupant health due to improved indoor air quality, and 3) reduced environmental impacts by, for example, lessening storm water runoff and the heat island effect. Practitioners of green building often seek to achieve not only ecological, but aesthetic harmony between a structure and its surrounding natural and built environment. Some methods for achieving a more sustainable structure is through the use of improved LED light fixtures, natural lighting, good insulating practices, recycled or renewable building materials, and the use of green roof and wall systems to reduce run-off.

Sustainable design should also be applied to site development. Use of native and noninvasive plant material helps create a sustainable landscape. Reduction of impervious surfaces and the use of porous surfaces for drives and parking lots reduces concentrated runoff and helps limit the migration of automotive related contaminants. Other sustainable landscape practices include use of appropriate plant material to eliminate the need for watering as well as tactics to use roof runoff to benefit planting areas. Runoff Reduction Practices (RRPs) are intended to mimic the natural hydrologic conditions of a site and to facilitate stormwater infiltration, evapotranspiration or capture for reuse. Runoff reduction reduces the need to treat stormwater to remove pollutants prior to discharge to a water body by utilizing a system of site layout practices and small scale, decentralized controls which allow water to infiltrate, evapotranspire, or be used on site. Conservation of open space, reduction of impervious surfaces, and implementation of constructed controls, such as bioretention areas, are a few of the practices that integrate runoff reduction techniques into developed areas.



CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN (CPTED) 8

East Tennessee Community Design Center (ETCDC) has established a policy to promote The National Institute of Crime Prevention's CPTED theory, which is: The proper design and effective use of the built environment can lead to a reduction in the fear and incidence of crime.

Key CPTED concepts:

- Natural surveillance, creating areas where people and their activities can be readily observed. A design concept directed at keeping intruders under observation.
- Natural access control, controlling access to the property and / or building. The primary thrust of an access control strategy is to deny access to a crime target and to create a perception of risk in offenders.
- Territorial reinforcement, establishing a sense of ownership, defining boundaries. Provide transitional zones with clearly defined boundaries; public space, transitional semi-private space, and finally the private space.

GENERAL GUIDELINES:

Landscaping:

- Security landscaping, use material with thorny or spiny growth, open not dense foliage.
- 6 x 2 rule, tree canopies no lower than 6', shrubs etc. no higher than 2'.
- Place "L" shaped brackets on top of low walls, creates pod seating and eliminates skateboarding.
- In brick walls, raise bricks every so often to create pod seating and skateboard control.
- Benches, use narrow rails, benches with bars, and other various controls which result in uncomfortable seating will discourage loitering and eliminates sleeping.
- Artwork, murals with people actually intimidates potential criminals and discourages inappropriate activity.
- Signs, constructed so people can see what's on the other side, i.e., not solid from top to bottom, allow see-thru space.

Buildings:

- Limit the number of access entrance points to the facility.
- Provide clear border of controlled space using fences, hedges, pavers, paving patterns and low walls.
- Building designs with occupied spaces facing the entrance both inside and out, as well as parking areas, including loading and unloading areas.
- Place safe activities in unsafe locations, i.e., place sitting benches to position eyes on areas of concern like parking lots and green spaces.
- 45-degree building entrances, allowing for visibility when leaving the building, no blind spot for predators.



CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN (CPTED) 9

General Guidelines continued:

(buildings continued)

- Control entrance points using built devices and / or landscape material. Clearly define the entrance points, and position those points in plain view.
- Place stairs with clear glass or glass blocks on exterior walls, makes them visible from the outside.
- Occupied spaces placed to provide observance for all point of access.
- Common areas should be used for a purpose, avoid common areas with no specific purpose.
- Consider clear glass at eye level in offices to observe circulation spaces.
- Open stair treads eliminate hiding spaces.

Lighting:

- 90% of all crime happens after dark, between dusk and 4:00 AM.
- Light for human activity, humans protect sites, not lighting.
- Follow the Illuminating Engineering Society (IES) for lighting standards, both illumination levels and uniformity levels.

Fencing:

- Fencing should be transparent to eliminate opportunity for people to conceal themselves and to allow for visual observance.
- Fencing can be accomplished with appropriate landscaping such as thorny or spiny foliage.
- If a chain link type fence is used do so without the pipe along the top, use a cable instead, which is more difficult to climb over.
- Fencing is an effective separator from semi-private to private space. Use fencing that has character such as artwork or other features along the top as a good space divider and has the opportunity to be appropriate for the character of the architectural surroundings.
- Hostile vegetation or vines in front of blank walls discourages graffiti.



DRAWINGS 10

The drawings on the following pages represent design intent only. They are NOT intended for, and should not be used as, construction documents. Further professional assistance may be required to provide those services. The client accepts all liability for the use of these drawings.

Drawing Sheet 1	Master Plan
Drawing Sheet 2	Renderings
Drawing Sheet 3	Enlarged Plan & Images
Supplemental Drawing Sheet 4	Detailed Plans - PBA and ETCDC Proposals
Supplemental Drawing Sheet 5	Detailed Plans for Veteran's Overlook