



City of Longview

1525 Broadway
Longview, WA 98632
www.ci.longview.wa.us

City Council Workshop

City Council

*Mayor Don Jensen
Council Member Ken Botero
Council Member Chet Makinster
Council Member Steve Moon
Council Member Scott Vydra
Mayor Pro Tem Michael Wallin
Council Member MaryAlice Wallis*

Thursday, June 6, 2019

6:00 PM

2nd Floor, City Hall

NOTICE IS HEREBY GIVEN, in accordance with RCW Chapter 42.30, that the City Council of the City of Longview, Washington, will conduct a special meeting in the Longview City Hall Training Room, 1525 Broadway, Longview, on Thursday, June 6th at 6:00 p.m. The topics of discussion follow. Final disposition shall be taken on no other matter.

The City Hall is accessible for persons with disabilities. Special equipment to assist the hearing impaired is also available. Please contact the City Executive Offices at 360.442.5004 48 hours in advance if you require special accommodations to attend the meeting.

1. **CALL TO ORDER**

2. **ROLL CALL**

3. **WORKSHOP**

19-000190 ROY MORSE ATHLETIC FACILITY COMPLEX MASTER PLAN

4. **ADJOURNMENT**

NEXT REGULAR COUNCIL MEETINGS:
THURSDAY, JUNE 13, 2019 - 7:00 P.M.
THURSDAY, JUNE 27, 2019 - 7:00 P.M.



ROY MORSE PARK

Athletic Facility Complex Master Plan

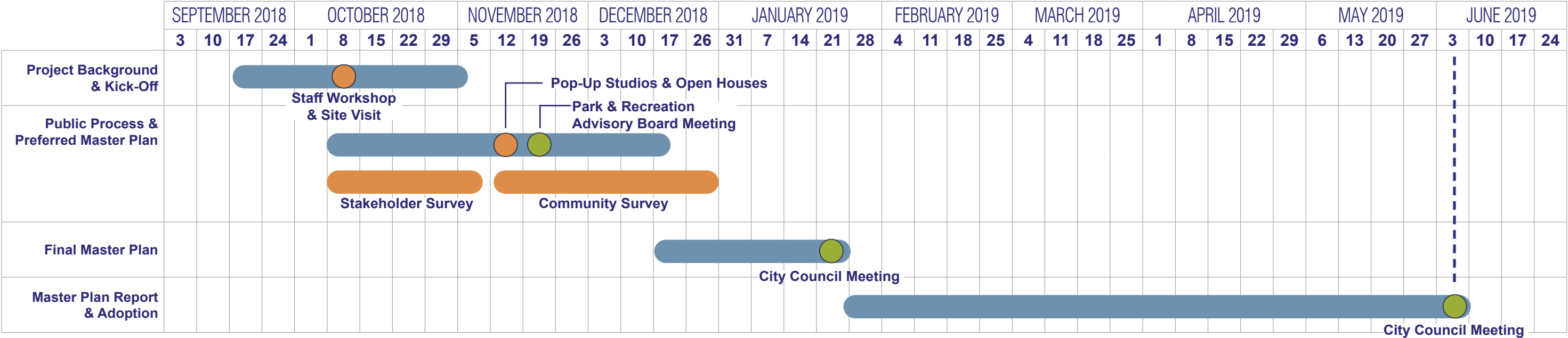
City Council Workshop | 06 June 2019
City of Longview, WA

OVERVIEW

- ① **Timeline**
- ② **Master Plan**
- ③ **Implementation**
- ④ **Discussion**

TIMELINE

YOU ARE HERE!!!





2 MASTER PLAN



- | | |
|---|--------------------------------------|
| 1 recreation building | 5 softball field with soccer overlay |
| 2 baseball field with soccer overlay | 6 playground / picnic / plaza |
| 3 collegiate soccer field with overlays | 7 loop trail |
| 4 disc golf course | 8 maintenance area & tree nursery |

MASTER PLAN ARTIST RENDERING

Overall view of the master plan for Roy Morse Park from the westernmost corner of the site and looking east.

rendering courtesy of Rick Mullen, Presentation Art Studio, LLC

MASTER PLAN

Softball

- Wagon Wheel
 - 5 tournament fields, concessions, restrooms, picnic space, and play area
 - controlled entry
- synthetic turf softball
 - 4 softball fields with 320' outfield
 - 1 softball field with a 300' outfield
 - accommodate adult softball and, with portable outfield fencing, little league, baseball, and fast-pitch
- synthetic turf soccer
 - 4 U12 soccer fields, 150' x 240' fit in the outfields
 - 1 flexible outfield supports regulation full-sized (195' x 330') soccer field, 2 mod fields, tee-ball





SOFTBALL AREA RENDERING

rendering courtesy of Rick Mullen, Presentation Art Studio, LLC

MASTER PLAN

Baseball

- large plaza for picnics & gatherings
- large playground
- pickleball / tennis courts
- synthetic turf baseball
 - 2 babe ruth little league (13-18) 300' foul lines, 375' center field, enclosed bullpens/batting cages
 - 2 soccer fields can accommodate 180' x300' U12 or short-sided adult recreation
 - fields can be modified for adult softball, little league, or fast pitch
 - single, elevated announcer's booth with concessions, restrooms, and storage at ground level





BASEBALL AREA RENDERING

View of the large playground near the baseball plaza looking toward the baseball concessions and restroom building and plaza area.

rendering courtesy of Rick Mullen, Presentation Art Studio, LLC

MASTER PLAN

Recreation Center

- 2 large picnic areas for community events
- neighborhood park amenities
- recreation building
 - indoor field / court
 - restrooms
 - batting cages
- flexible open lawn
 - can accommodate all ages of youth soccer including 2 fields up to U9
 - not adult due to lack of fence and proximity to other uses





RECREATION CENTER RENDERING

rendering courtesy of Rick Mullen, Presentation Art Studio, LLC

MASTER PLAN

Disc Golf and Soccer

- 9-holes disc golf
 - flexible expansion of course around loop trail
 - increased challenge level per PDGA guidelines
 - flexible tees for varying challenge levels
- synthetic turf soccer fields
 - Full-sized Soccer field 195' x330' or (2) 180' x300 U12 fields
 - 4 Full-sized Ultimate Frisbee fields
 - multiple Youth “mod” field configurations
 - portable bleacher units can accommodate about 200-225 spectator/users and any of the field configurations





3 IMPLEMENTATION

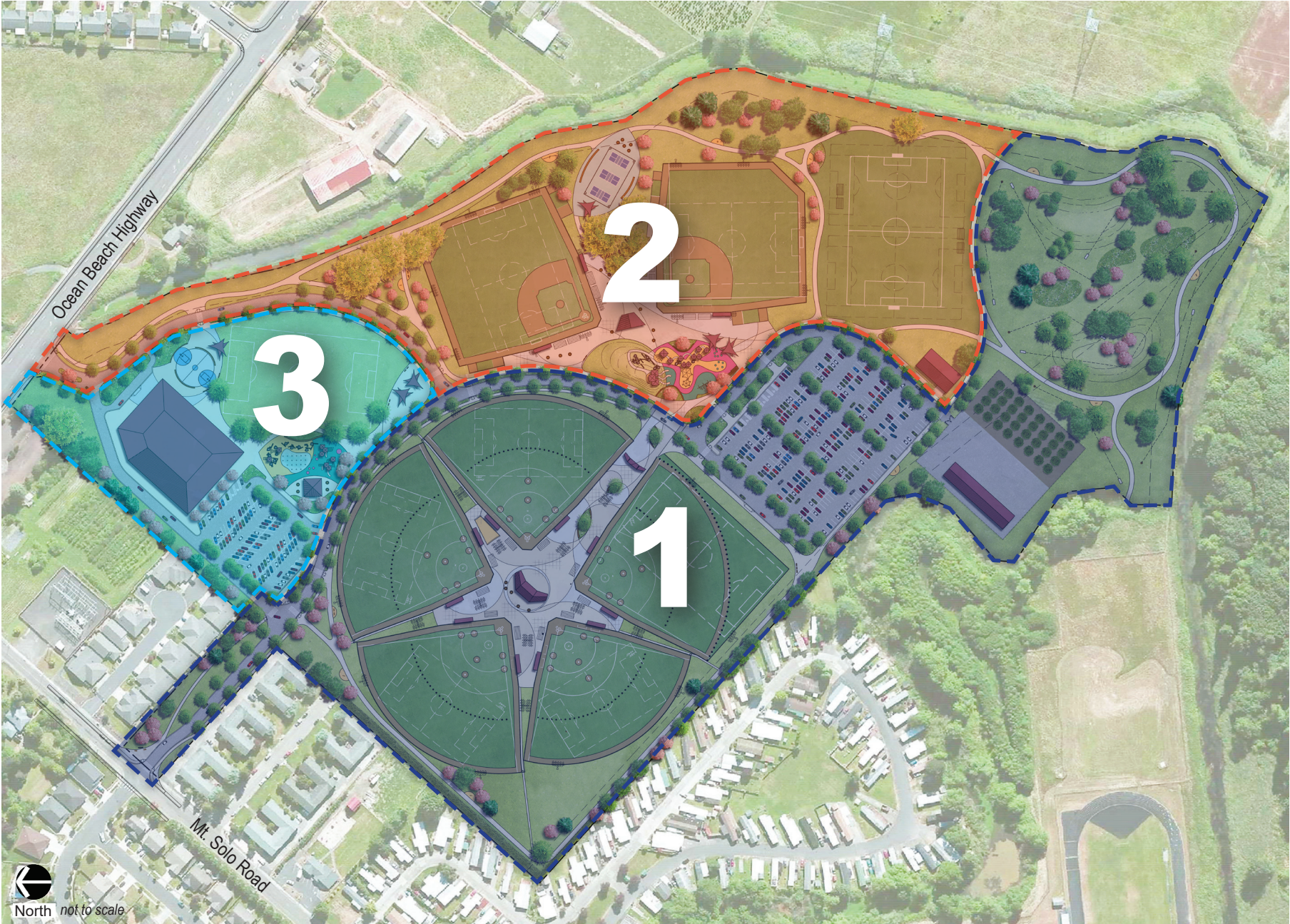
COST ESTIMATE

Overall / Single Phase	
ITEM	TOTAL
Paving	\$3,660,000.00
Planting	\$4,723,000.00
Site Improvements	\$2,308,000.00
Site Electrical & Lighting	\$922,000.00
Buildings	\$18,910,000.00
Ballfields	\$14,886,000.00
Civil Site Improvements	\$7,350,000.00
Construction Total with Sales Tax, Contingency, and Contractor Mark-ups	\$77,722,000.00
Total with Design and Permitting costs	\$87,099,000.00



COST ESTIMATE

Phased Cost Estimate	
ITEM	TOTAL
Phase I Construction Total	\$30,391,000.00
Phase II Construction Total	\$17,770,000.00
Phase III Construction Total	\$29,860,000.00
Construction Total with Sales Tax, Contingency, and Contractor Mark-ups	\$78,021,000.00
Total with Design and Permitting costs	\$87,453,000.00



COST ESTIMATE

Athletic Facility Improvements Only <i>(not including park improvements)</i>	
ITEM	TOTAL
Paving	\$2,574,000.00
Planting	\$4,204,000.00
Site Improvements	\$698,000.00
Site Electrical & Lighting	\$922,000.00
Buildings	\$1,860,000.00
Ballfields	\$14,886,000.00
Civil Site Improvements	\$7,350,000.00
Construction Total with Sales Tax, Contingency, and Contractor Mark-ups	\$47,870,000.00
Total with Design and Permitting costs	\$53,664,000.00



FUNDING SOURCES



potential funding

60% - 80%

Sponsorship funding has a greater potential in a sports complex than in other types of recreation facilities, and can come in the form of single donations of goods, dollars, or services or annual donations. Recognition of sponsors and donors needs to be considered and can affect how successful this funding source is - from “buy a brick” programs to naming rights of individual park features including the recreation building.

potential funding

\$25,000.00 - \$1,000,000.00 (multiple grants)

The largest source for recreation grants are available through the Washington State Recreation and Conservation Office (RCO). RCO provides funding through a number of different programs including the Land and Water conservation Fund, the Washington Wildlife and Recreation Program, and the Youth Athletic Facilities program. Applications can be submitted annually or biennially, in whole or on a per-phase basis.



Grants

potential funding

100%

State appropriation, or a ‘legislative ask’, are funds applied to a project directly from the State legislature as part of the annual State budget process, generally through lobbying activities and community support.



State
Appropriation



potential funding

\$250,000.00

Partnerships can be a great resource for funding, and can contribute to a lasting relationship between organizations within the partnership. Partnerships can be used to help support construction or operations and maintenance of park improvements. Examples include the Longview School District for high-school sized fields, the Lower Columbia College for collegiate-sized facilities, and the various sports leagues and organizations for their related fields.

potential funding

100%

Bonds can be a councilmanic bond, a limited capacity bond approved by City Council without a public vote, or general obligation bonds that are approved by public vote. General obligation bonds used for park improvements are limited to capitol improvements. Levy’s are similar, but with the added benefit of being used to also fund maintenance as well as capitol improvements and only requires a simple majority of the public vote.



Bond



potential funding

\$500,000.00 - \$1,000,000.00

Volunteer support for a park this size can often be difficult to manage. However, when considering the sheer number of potential volunteers through the various sports organizations and leagues that will use this park, it could have a positive impact on the park, as well as help maintain a sense of ownership by the local community. Volunteers are generally used most to support maintenance in the form of vegetation management,

potential funding

100% phase 1

100% phase 2

100% phase 3

Local Capital Improvement Program dollars can come from a variety of sources, generally through city funding resources. They can be any combination of taxes and fees assigned to the Parks Department to support capital improvements, operations and maintenance of parks and recreation facilities.



Local CIP

GRANTS

Grant Matrix

Grant / Agency	Grant Cap (per project / phase)	Match	Schedule	Funded Element	PROS Plan Required
Youth Athletic Facilities / Washington State Recreation & Conservation Office	\$25,000 - \$350,000	40% (under-served population)	Available in even years / 5 month evaluation process	Develop or renovate athletic facilities	No
Land & Water Conservation Fund / Washington State Recreation & Conservation Office	\$ 500,000 (state projects)	50%	Available in even years / 13 month evaluation process	Develop or renovate recreation areas including athletic fields	Yes
Local Parks / Washington State Recreation and Conservation Office (WWRP)	\$ 500,000 (development)	50%	Available in even years / 18 month evaluation process	Develop or renovate recreation areas and support facilities	Yes
Community Development Block Grant / Washington State Department of Commerce	\$ 750,000.00 (development)	none required	Available annually	Projects must principally benefit low- and moderate-income persons, aid prevention or elimination of slums or blight	No
Recreational Trails / Washington State Recreation and Conservation Office (WWRP)	\$ 500,000.00 (development)	50%	Available in even years / 18 month evaluation process	Develop or renovate trails and support facilities	Yes
Land & Water Conservation Fund / Washington State Recreation & Conservation Office / Legacy Program	\$ 250,000.00 - \$720,000.00	50%	Available annually / 12 month evaluation process	Develop recreation areas in urban areas with over 50,000 population	Yes

OPERATIONS & MAINTENANCE

- FTE Hours for O&M
- Life Cycle Cost of Turf
 - \$7.00 - \$10.00 per square foot
- Maintenance of Synthetic Turf
 - Inspections
 - surface brushing & raking
 - aerating
 - sweeping / litter removal
 - infill topdressing
 - maintenance equipment

O&M FTE Hours	
Athletic fields	4,160 hours (2 FTEs)
Landscape, lawns, and open spaces	1,040 hours (0.5 FTEs)
Recreation building maintenance	2,080 hours (1 FTEs)
Other buildings and support facilities	3,120 (1.5 FTEs)
Playgrounds / play areas	60 hours (.03 FTEs)
Parking and driveways	80 hours (.04 FTEs)
Utilities	60 hours (.03 FTEs)
Trails & plazas	60 hours (.03 FTEs)
Concessions staff during games / tournaments	volunteers
Other staff during games / tournaments	volunteers

An aerial photograph of a sports complex. In the center, there are several baseball diamonds with reddish-brown bases and green grass. To the right of the diamonds is a large, paved parking lot. The area is surrounded by green trees and grass. In the bottom left corner, the text "4 DISCUSSION" is overlaid in white. The number "4" is inside a white circle, and the word "DISCUSSION" is in a bold, sans-serif font.

4 DISCUSSION

DISCUSSION



ROY MORSE PARK

Athletic Facility Complex Master Plan

Roy Morse Park is a 60-acre park in Longview and is currently home to various ballfields, a 9-hole disc golf course, and other recreation activities. While it is a well-used park, the facilities are aging, no longer attract regional tournaments, and aren't flexible enough to respond to changing community interests and needs. This master plan report defines the community's long-term vision, and illustrates the park's transformation into an exciting athletic facility complex and multi-use park.

The master planning process included a community-based design process through which it became clear that including a variety of active and passive park amenities were a priority to the community. The long-term vision shown within this report focuses on a multi-use approach to the fields as well as the other park spaces - maximizing use of the park for a variety of interests and ages throughout the day and year-round.

A focus of the master plan is improving the athletic fields to create an athletic complex which will facilitate league games and regional sports tournaments, that could create a economic driver for the community. The variety of sports facilities provided in the park focuses on all age groups and should be developed not only for large regional tournaments but also for use by local community groups, schools, and athletic leagues.



MASTER PLAN ARTIST RENDERING

rendering courtesy of Rick Mullen, Presentation Art Studio, LLC

- | | | |
|---|--------------------------------------|-----------------------------------|
| 1 recreation building | 4 disc golf course | 7 loop trail |
| 2 baseball field with soccer overlay | 5 softball field with soccer overlay | 8 maintenance area & tree nursery |
| 3 collegiate soccer field with overlays | 6 playground / picnic / plaza | |



SOFTBALL AREA RENDERING

View of the softball area from the eastern entrance and ticketing area and looking down the main corridor toward the concessions and plaza area.

rendering courtesy of Rick Mullen, Presentation Art Studio, LLC



BASEBALL AREA RENDERING

View of the large playground near the baseball plaza looking toward the baseball concessions and restroom building and plaza area. 5/19

rendering courtesy of Rick Mullen, Presentation Art Studio, LLC



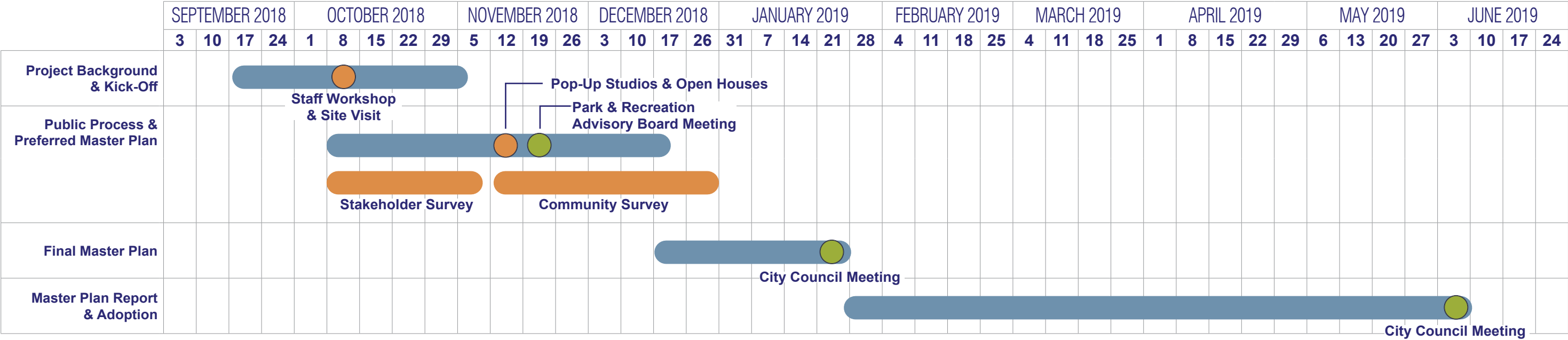
RECREATION CENTER RENDERING

View of the indoor recreation center building and to the playground, splash park, and picnic area.

rendering courtesy of Rick Mullen, Presentation Art Studio, LLC



TIMELINE



COMMUNITY OUTREACH PROCESS

The goal of the community outreach process was to integrate the community throughout the design process and to provide opportunities for community input on current park conditions, desired amenities, and activities. The process included a stakeholder workshop and site walk, stakeholder interviews and an online survey, a 2-day community-based design event with pop-up studios and open houses, and a community online survey.

Through the survey, the community provided feedback on their top guiding principles for the master plan - the top ten are listed below. These became the launching point for the development of conceptual designs in the pop-up studios and community open houses.







ROY MORSE PARK

Athletic Facility Complex Master Plan

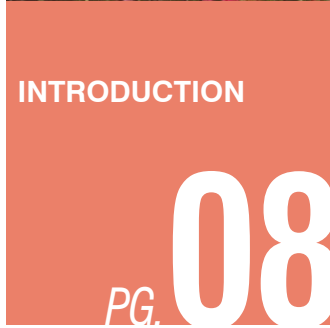
CITY OF LONGVIEW, WASHINGTON | PARKS & RECREATION | JUNE 2019

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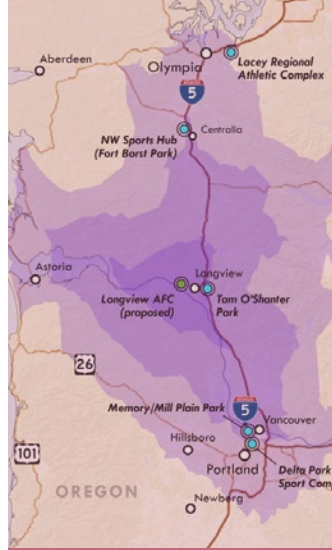
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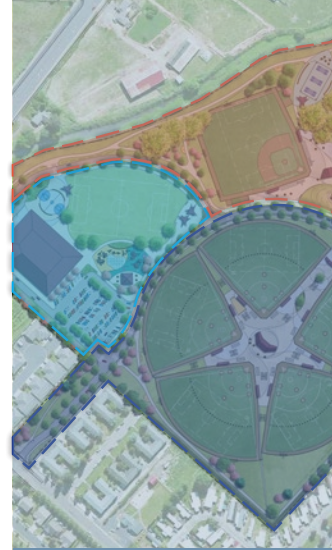


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EXECUTIVE SUMMARY

Roy Morse Park is a 60-acre park in Longview and is currently home to various ballfields, a 9-hole disc golf course, and other recreation activities. While it is a well-used park, the facilities are aging, no longer attract regional tournaments, and aren't flexible enough to respond to changing community interests and needs. This master plan report defines the community's long-term vision, and illustrates the park's transformation into an exciting athletic facility complex and multi-use park.

The master planning process began in the summer of 2018 and included a community-based design process - the heart of which were open design workshops, or "pop-up studios". These pop-up studios were opportunities for everyone - residents, visitors, and stakeholders - to brainstorm ideas, develop and review design concepts for the park with city staff and the design team, and to see those ideas take shape on the plans.

Emerging from the community process, it became clear that including a variety of active and passive park amenities were a priority to the community. The long-term vision shown within this report focuses on a multi-use approach to the fields as well as the other park spaces - maximizing use of the park for a variety of interests and ages throughout the day and year-round.

A focus of the master plan is improving the athletic fields to create an athletic complex which will facilitate league games and regional sports tournaments, that could create an economic driver for the community. The variety of sports facilities provided in the park focuses on all age groups and should be developed not only for large regional tournaments but also for use by local community groups, schools, and athletic leagues.

The master plan report serves as a foundation for project development and a guide to future implementation. Included within is an economic development study, a phased construction approach, detailed costs estimates, and a list of potential funding sources.

While this milestone is the conclusion of the master planning process, it is also the beginning of the implementation phase. This athletic facility complex has the potential to shape the growth and quality of life in Longview for decades to come. With continued dedication and collaboration from multiple public agencies, the athletic complex can be memorable park and a valuable asset for the community and the region.

ACKNOWLEDGMENTS

CITY OF LONGVIEW | CITY COUNCIL

Don Jensen, Mayor

Ken Botero, Council Member

Chet Makinster, Council Member

Steve Moon, Council Member

Scott Vydra, Council Member

Mike Wallin, Council Member

MaryAlice Wallis, Council Member

CITY OF LONGVIEW | PARKS & RECREATION ADVISORY BOARD

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STAKEHOLDERS

Disc Golfers

Babe Ruth

USSSA

Longview Girls' Softball Association

Youth Baseball

Lower Columbia College

Longview School District

Cowlitz Youth Soccer Association

Cowlitz Black Bears

Cowlitz Cobras

CITY OF LONGVIEW | CITY MANAGER

Kurt Sacha, City Manager

CITY OF LONGVIEW | PARKS & RECREATION

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Curt Nedved, Parks Supervisor

CONSULTANT TEAM

HBB Landscape Architecture

D.A. Hogan & Associates, Inc

Skillings Connolly, Inc

Berk Consulting

Presentation Art Studio, LLC



INTRODUCTION

HISTORY

A brief history of the development of Roy Morse Park and a history of this Master Plan project.

SITE CONTEXT

An overview of the site context within the region and within the West Longview Neighborhood.

EXISTING CONDITIONS

General observations of the site's existing conditions, facilities, and natural features.

HISTORY

SITE HISTORY

Roy Morse Park is a 60-acre park in the West Longview Neighborhood. Originally developed in the early 1970's, this park was once a state-of-the-art sports facility and hosted numerous athletic leagues as well as local and regional tournaments. As the park has aged, the fields and support facilities are no longer of the quality necessary to host tournaments and leagues. The park's current facilities and recreation opportunities include:

- 2 Practice soccer fields
- 2 Baseball fields
- Babe Ruth batting cage building
- 4 Softball fields
- Concessions building
- Basketball 1/2 court
- 9-Basket disc golf course
- Horseshoe pits
- Playground
- Restrooms
- 3 Large parking areas with approximately 420 spaces
- Park's maintenance facilities
- Tree nursery

PROJECT HISTORY

Once a major tourism hub for youth and adult sports, the City of Longview has a rich history of investing in quality park facilities. Recently, the community has shown interest in improving Longview's sports and athletic facilities as a means of improving local economic conditions, once again drawing regional sports tournaments, and improving athletic opportunities for local youth and adults. A 2018 presentation to City Council provided information that a regional athletic complex may improve the City of Longview's economy. This began the park master plan process to help define the long-term vision, guide future improvements, and evaluate the feasibility of a regional athletic facility complex. A few important goals for the park and the design process include:

- Create a regional athletic facility complex that can serve local youth and adults.
- Create a facility that can host regional athletic tournaments.
- Provide multiple sports opportunities for both youth and adults.
- Provide athletic facilities for year-round use in pacific northwest weather.
- Provide additional recreation opportunities for the neighborhood and Longview residents.
- Improve the existing facilities and recreation opportunities at the site.



1951

Prior to the development of the park, the Roy Morse site and surrounding neighborhood of West Longview was largely undeveloped.



1971

The park was originally developed in the early 1970's and included the softball fields, baseball fields, and parking lots.



2011

Apart from maintenance and routine upgrades, the only major addition to the park since it's original development was the addition/relocation of the entrance off of Mt. Solo Road in the early 2000's and the Babe Ruth building constructed.



2019

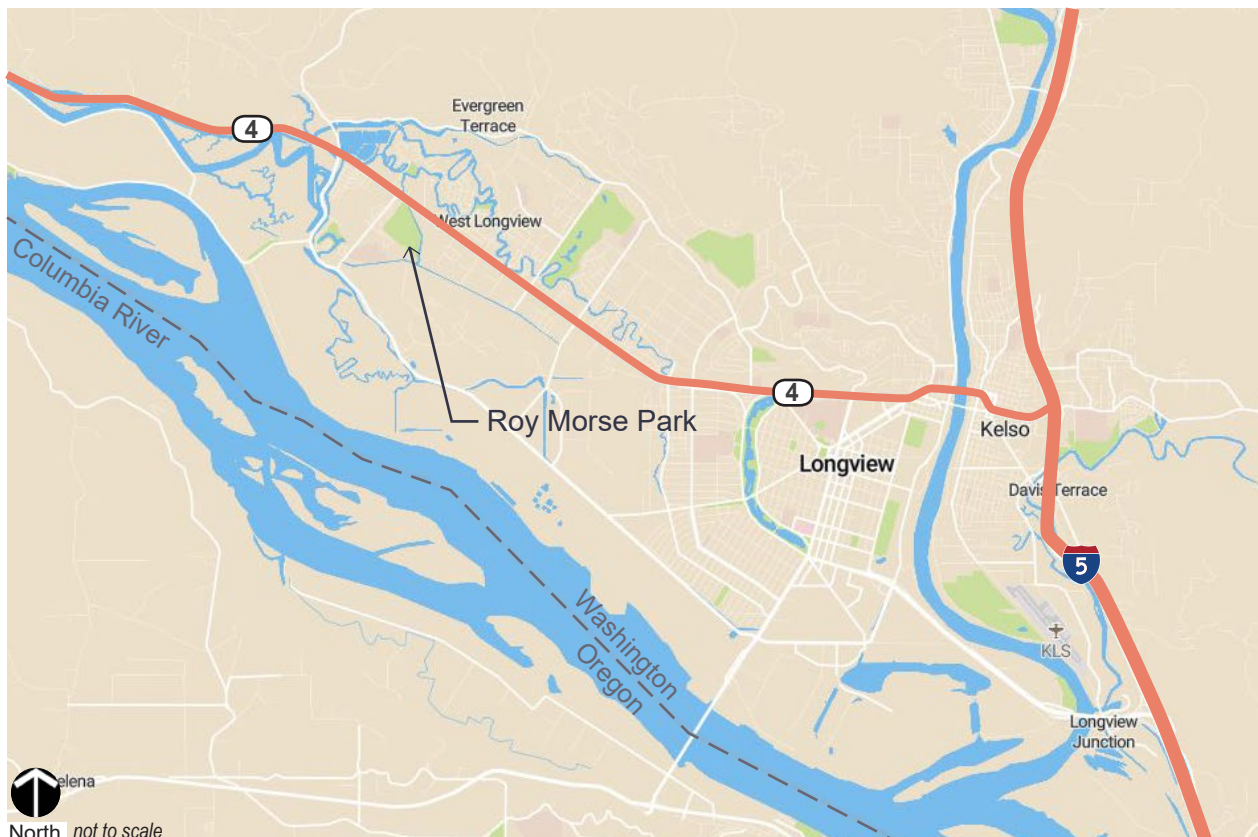
Today, the park is similar to the original plans and is well maintained and used regularly. However the fields and other amenities are showing their age and are in need of upgrades.

SITE CONTEXT

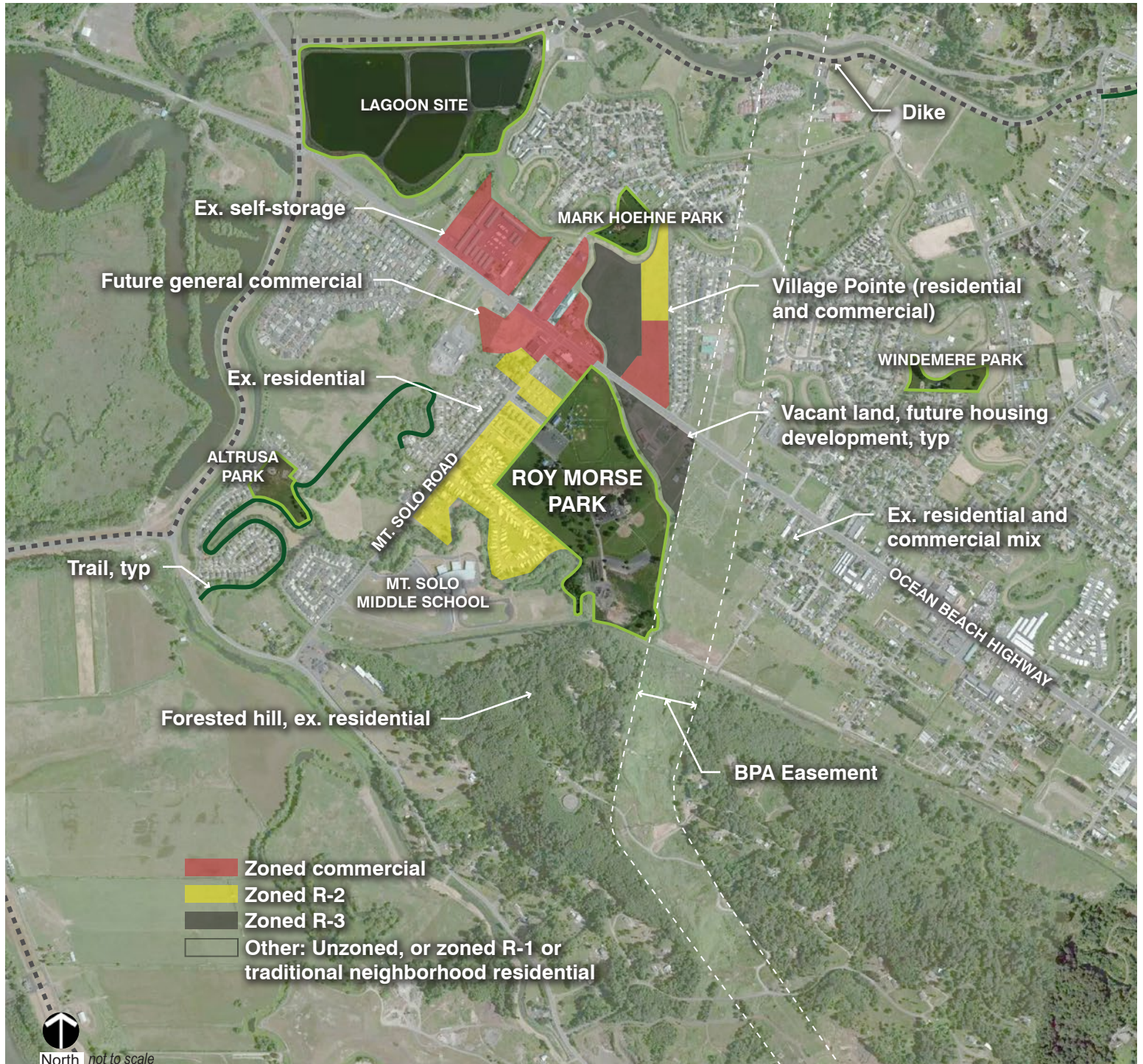
The park is located in the West Longview Neighborhood - approximately 5 miles outside of Downtown Longview and a 20 minute drive from I-5. The neighborhood is primarily residential use with a small amount of commercial businesses. While the site is in close proximity to two local bus lines, the primary form of transportation to the site is by vehicle. The site is bordered by Mt. Solo Middle School to the southwest, a large natural open space to the south, a Bonneville Power Easement to the east, and residential neighborhoods or future residential development sites to the north and west. Cowlitz County Dike District bypass ditches border the eastern and southern edges of the site so the park's primary access is to the west off of Mt. Solo Road.

Two trail corridors and three other City parks are located within a 1-mile radius of the park with Roy Morse being the largest in area. With these parks nearby, in addition to the recreation opportunities at Roy Morse Park, the recreation opportunities within the neighborhood include:

- 3 Playgrounds
- Trails
- 2 Picnic shelters
- 1 Full basketball court



Regional Context Map



Site Context Map

EXISTING CONDITIONS



1

Restrooms

Restrooms near the baseball fields are a security concern.



2

Open Field

Northwest open field is used for soccer practice and disc golf.



3

Disc Golf

The 9-basket disc golf course uses the trees as obstacles.



4

Baseball

Two natural turf baseball fields are used for Babe Ruth.



5

Park Entrance

The main entrance is located off of Mt. Solo Road.



6

Parking

Three large parking lots serve the site.



7

Babe Ruth Building

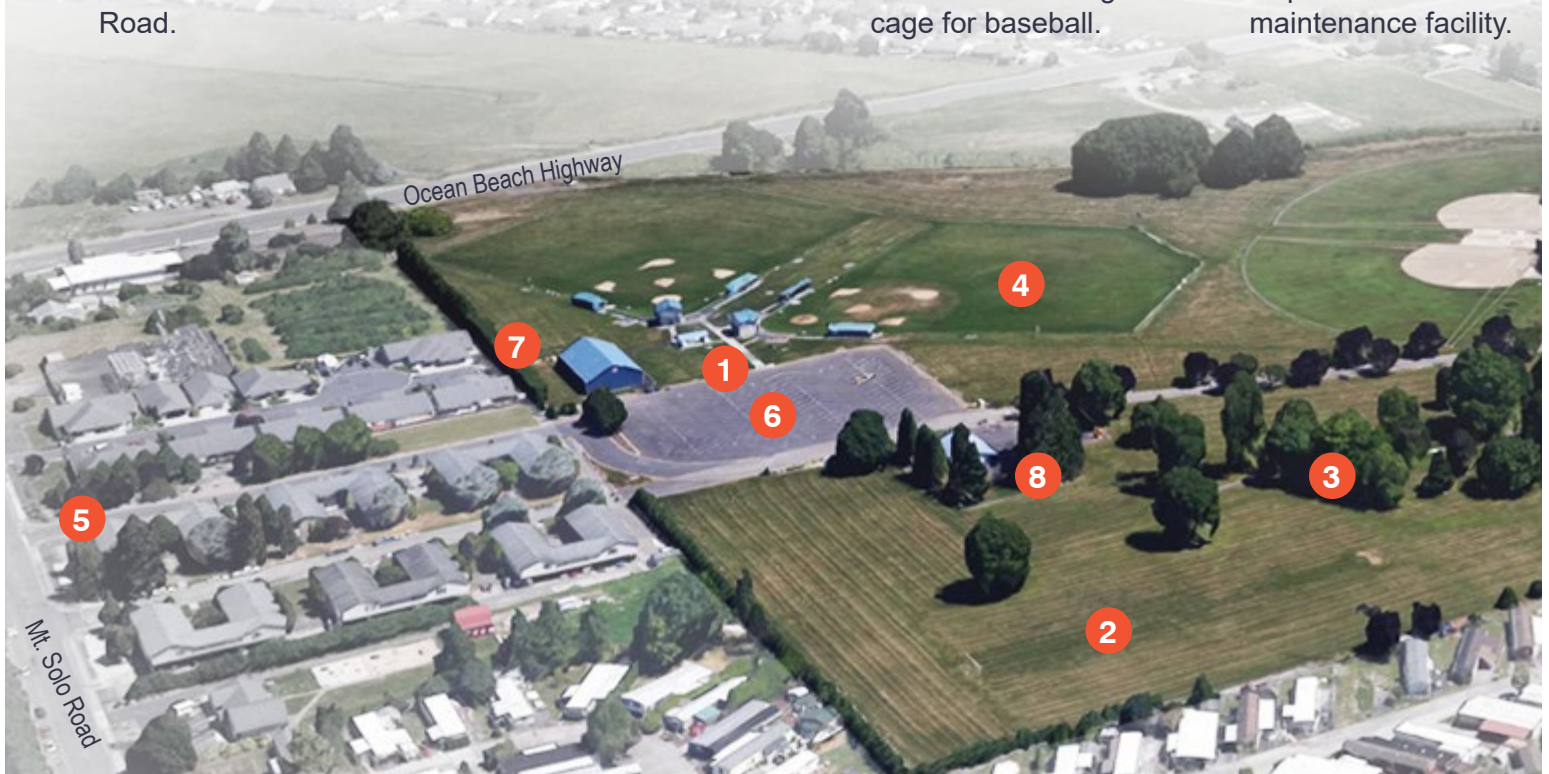
This large building serves as a batting cage for baseball.



8

Maintenance

The Parks & Recreation Department's maintenance facility.





Trees

Large, non-native, deciduous trees provide shade.



Bypass Ditches

Dike District ditches bordering the east and south of the site.



Vegetated Area

Large vegetated / storage area is not utilized for recreation.



Tree Nursery

Serves as the main tree nursery for parks trees.



Softball

4 Softball fields primarily serve the adult softball league.



Playground

With equipment for ages 2-5 and 5-12.



Concessions

The main concessions building also contains public restrooms and storage.





SITE ANALYSIS

ENVIRONMENTAL ASSESSMENT

A summary of the full Environmental Assessment conducted for sensitive areas in and around the site.

ATHLETIC PROGRAMMING

An inventory of the existing athletic fields and facilities and how they are currently being utilized.

RECREATION

An inventory of the additional recreation facilities and passive opportunities at the site.

FACILITIES

An overview of the buildings, structures and other infrastructure at the site and how these facilities are used.

UTILITY INFRASTRUCTURE

An introduction to the various utilities and recent upgrades at the site.

ENVIRONMENTAL ASSESSMENT

The existing natural site features were evaluated as part of an environmental assessment. Potential environmental constraints were evaluated and mitigation requirements were identified. For the full Environmental Assessment, refer for Appendix B.

TREES

Groupings of exceptional oak trees were identified throughout the site. With protection during construction, continued maintenance, and preservation of the existing growing space, these trees can be expected to survive for decades. Healthy, mature trees exist throughout the site and include Ash, Elm, Douglas Fir, Maple, and Spruce trees. Many of these trees are located on the west side of the site and are planted at the edge of the on-site stream which has provided an unstable condition for the larger trees. A high percentage of these trees exhibit defects such as included bark, conks, severe leans and decay within the canopy branches. Numerous newly planted trees are still young enough for preservation and transplanting. In addition to young trees, many mature rhododendron shrubs were observed to be suitable for preservation and transplanting.

TOPOGRAPHY & SOILS

The site is relatively flat with a steep incline to the south and west at the adjacent bypass ditches. These bypass ditches are considered fish bearing streams according to the Forest Application Mapping Tool. The bypass ditches serve a dual function, they transport stormwater to the pumping stations and they act as storage reservoirs for intense rainfall exceeding the capacity of the pumps. Each bypass ditch has a 50' wide buffer from the top of the slope to allow for maintenance access. Based on the Natural Resource Conservation Services Soil Map, the site consists of one main soil type: Caples silty clay loam, 0%-3% slopes. The Caples series consists of very deep, somewhat poorly drained soils.

LIVING RESOURCES

No evidence of threatened or endangered wildlife or plant species, or critical habitats, have been found on-site. Critical areas identified include a stream on-site and a wetland to the south of the site.

WETLANDS

One wetland is located on the south side of the bypass ditch south of the site and a possible wetland is located in the forested area to the west of the site. A formal wetland delineation is needed to categorize the wetlands and to establish appropriate buffers. Based on a preliminary review, buffers may range from 60' - 150' depending on the wetland category rating.



A photograph of a grassy field with a small stream or ditch running through it. In the background, there are hills and a clear blue sky.

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ATHLETIC PROGRAMMING

The current athletic fields at Roy Morse Park include 2 baseball fields, 4 softball fields, and a large open space used for field sports like youth soccer. The 2 baseball fields accommodate youth baseball age 13-18 (Babe Ruth little league) with 300' foul lines, 375' center field. A minimum of two fields are required to meet the typical game schedule and maintain the status quo for Babe Ruth baseball. The 4 softball fields meet ASA requirements for tournament play with 200' outfields with portable fencing. They can accommodate adult recreational league softball although they are smaller than desired, little league (U-12) with the addition of temporary outfield fencing, or fast pitch softball tournaments. The primary use of the large open space is for youth soccer practice.

CONDITION & ORIENTATION

All of the ballfields are well maintained natural turf fields with skinned infields. The fields throughout the site have poor drainage conditions and fields remain wet and unplayable for long periods of time after rainfall. The two baseball fields include scoreboards and all 6 fields include lighting. The backstops, dugouts, lighting, fencing, spectator seating, and access paths are visibly aging and are in need of upgrades to support league and tournament use. The softball fields are shorter than the ideal 300' outfield and fields #3 and #4 have unfavorable exposure/orientation.

SUPPORT FACILITIES

The baseball fields include better-than-typical support facilities including a batting facility (Babe Ruth building), announcer's booth, concessions building, and storage space. The softball fields are also well served, with restrooms, concessions, and storage, although these are all aging and are in need of upgrades. There are approximately 390 existing parking spaces at the site which is sufficient for tournaments.



1 Softball Field



1 Softball Field



2 Softball Plaza



A photograph of a sports field. In the foreground, a paved path leads towards a red-roofed shelter. A person in a white shirt and dark trousers stands near the shelter. To the right, there are tall stadium lights and a glass-enclosed structure. The background shows a green field, a fence, and distant hills under a blue sky with scattered clouds.

A wide-angle photograph of a golf course green. In the foreground, there are clusters of bright pink azalea flowers. The green is a vibrant, well-maintained grass. In the background, a dark, dense hedge runs across the frame. Behind the hedge, there are several trees, including a tall, thin evergreen and some deciduous trees with green leaves. A tall, thin tower or light structure is visible in the distance. The sky is overcast with grey clouds.

RECREATION

Recreation opportunities, aside from athletics, at the park include a playground, 9-basket disc golf course, basketball, horseshoes, and walking/jogging.

CONDITION

The disc-golf course is relatively new and in good condition. The playground is in good condition and includes swings, spinning equipment, and composite play structures for ages 2-5 and 5-12. Two horseshoe pits are located near the softball fields and are not often used and are in fair condition. Additionally, there is no accessible path to access the horseshoe pits. The basketball area is located within the main parking area, the court is not striped, and the hoop is in poor condition.

SUPPORT FACILITIES

The playground is in close proximity to the concessions building restroom and parking but there are no sidewalk access ramps from the accessible parking spaces. The disc golf course is located far from the restrooms which is a concern for disc-golf players. The park is often used for walking and jogging, including dog walking, however there are no accessible trails outside of the plaza areas and driveways. The trails are primarily soft surface or non-accessible surface such as lawn.



1 Playground



2 Disc Golf Course Map



3 Disc Golf Course



4 Horseshoe Pits



5 Informal Trail / Driveway



6 Basketball

FACILITIES

The existing building infrastructure on-site includes the following:

- Restroom building
- Babe Ruth batting cage building
- 2 Storage / concessions buildings at the baseball fields
- Large concessions building at the softball fields which includes restrooms and storage
- Storage shed in the tree nursery
- 2 maintenance garages

TREE NURSERY

The tree nursery is located in the southern portion of the site and includes a large space for trees and a storage facility in poor condition. This tree nursery space is not enclosed and is accessible by the public while the storage facility is inside of a chain-link fenced area.

MAINTENANCE

The Parks & Recreation maintenance facility is located just off of the north parking lot. It is fully enclosed by a chain-link fence and includes two maintenance garages and large outdoor storage space.

RESTROOMS

The existing restroom building that primarily serves the baseball field area is in poor condition and is only open seasonally. This restroom building is a common security concern at the park.

PARKING & CIRCULATION

The main entrance to the park is located off of Mt. Solo Road and is somewhat difficult to find. The park has three main parking lots which are adequate but the furthest south parking lot is not apparent to many visitors who ultimately park along the driveway which causes congestion.



1 Main Entrance



2 Parking Lot



3 Restroom Building



4 Concessions Building



5 Babe Ruth Batting Cage



6 Baseball Building



7 Storage Area / Shed



8 Tree Nursery



9 Maintenance Area

UTILITY INFRASTRUCTURE

STORM DRAINAGE

An existing storm drainage system on the site provides drainage for the existing fields, parking, and access areas and open spaces. The system consists of a series of catch basins and pipes that convey the drainage from the site to the ditch located along the east side of the site or to the potential wetland located adjacent to the southwest corner of the site. Based on the City's GIS, there are three pipes that discharge to the ditch to the east of the site and one that discharges to the potential wetland. The elevation difference between the existing ground and the discharge points to the ditch is approximately 4-5 feet. In addition to the pipes that convey drainage from the site, it appears that a drainage system from the neighborhood to the northwest of the site may discharge drainage to the site along the existing flat soccer area. The existing system does not provide adequate drainage resulting in areas of standing water, soggy fields, and in some cases mud. Because of the lack of adequate drainage, the existing fields are not being utilized to their full potential. Any redevelopment at the park will be required to mitigate the stormwater impacts resulting from the redevelopment. This mitigation will include providing stormwater treatment and or retention or detention as required under the City of Longview's Stormwater Manual and Chapter 17.80 of the City's Municipal Code.

LIGHTING

Site lighting consists of parking lot lighting and softball field lighting. The softball lighting poles are visibly aging and their locations preclude the expansion of the existing outfields. Both the softball lighting and the parking lot lighting appear to provide adequate lighting levels.

OVERHEAD UTILITIES

Currently there are two electrical systems, owned by the Cowlitz County Public Utilities District, running through the site. The system along the north and west edge of the site is a high voltage transmission line. A second system begins near the southern edge of the site and is a much lower voltage distribution line.

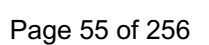
SANITARY SEWER

The existing restrooms, concessions building, and maintenance buildings on site are served by an existing sanitary sewer system that is located near the central portion of the site. The system is a combination gravity and pressure system that serves both the park and some of the surrounding neighborhood. There is an existing pump station located near the proposed location for the five-field wagon wheel complex. Longview is currently working on upgrading this station or has recently completed the upgrades to the station.

WATER

Currently there is an existing water main through the central portion of the park site. This main serves both existing facilities on the site as well as provides looping of the water main from the school site to the water main located in Mt. Solo Road. As part of the redevelopment of the park, portions of the existing water main will likely be removed and relocated to avoid conflicts with proposed improvements as well as to serve proposed improvements; however, the looping of the main will need to remain. This looping provides redundancy as well as improved pressure in the water mains and must remain after the new facilities have been constructed.





DESIGN PROCESS

PUBLIC OUTREACH PROCESS

A brief overview of the full design process for this master plan project.

STAFF WORKSHOP & SITE VISIT

A summary of feedback received and results of a half-day staff and stakeholder workshop and site visit.

STAKEHOLDER INTERVIEWS & SURVEY

A summary of comments received and results of telephone interviews with stakeholders and the on-line survey.

COMMUNITY SURVEY

A summary of comments received and results of the community on-line survey.

POP-UP STUDIOS & OPEN HOUSES

An evaluation of the design concepts produced by the community and design team during the two-day pop-up studio and open house event.

PREFERRED MASTER PLAN

Description of meetings leading to the development of the preferred master plan.

PUBLIC OUTREACH PROCESS

The design process was part of an extensive community outreach process which educated the community about the master plan vision and objectives and about the results of initial findings from the site analysis. The process also provide opportunities for community input on current park conditions, desired amenities and activities. With a goal of integrating the community throughout the design process, public outreach occurred in the 4 major steps listed below:

1



Staff Workshop & Site Visit

October 10, 2018

The staff workshop included a site walk-through with City staff and other stakeholders to kick-off the design process.

2

- ☐ parking
- ☐ restrooms
- ☐ benches/seating
- ☐ picnic areas/shelters
- ☐ water fountains
- ☐ concessions
- ☐ paths
- ☐ tech (announcers booth, wifi, electrical outlets, etc.)
- ☐ Other (please specify)
- ☐ lighting
- ☐ spectator seating
- ☐ storage
- ☐ ball fields
- ☒ playground
- ☐ disc golf
- ☐ horseshoes

Stakeholder Interviews & Survey

October - November 2018

Once stakeholders were identified, phone interviews were conducted to gather feedback. This process also included an on-line survey.

3

Improved fields and sports facilities	☐	☐	☐	☐	☐
Improved restrooms	☐	☐	☐	☐	☐
Improved parking and vehicular circulation	☐	☐	☐	☐	☐
Improved paths, trails, and pedestrian circulation	☐	☐	☐	☐	☐
Improved/expanded disc golf course	☐	☐	☐	☐	☐

Community Survey

November - December 2018

An on-line survey was used to gather more detailed information from the community about what is working at the site and what is not as well as their desired park improvements.

4

**Pop-Up Studios & Open Houses**

November 13 & 14, 2018

At the heart of the design process, was a two-day community event working with the City and design team to design concepts and then choose a preferred master plan.

STAFF WORKSHOP & SITE VISIT

To kick-off the design process, an initial workshop was held at the site. The design team led a site walk through to gather input from staff and stakeholders, to identify existing site challenges, how the site and the existing athletic fields are currently being used, and environmental constraints.

Following the site walk-through, a workshop was held so the design team could hear staff and stakeholders desired site and park improvements, and their preferred future vision for the master plan.

Attendees at the workshop included representatives from Longview Parks and Recreation, Public Works, Planning, Economic Development, and Parks & Recreation Advisory Board, Longview School District, and Lower Columbia College.

WISH LIST

Staff and stakeholders were asked what improvements they would like to see at the site based on feedback they've heard from the community and their athletic program needed. The desired improvements included:

- Large, inclusive, centrally located playground
- Storage for canoes & kayaks and maintenance equipment
- Lockable and secure restrooms and concessions buildings
- Vendor electrical hook-up with utility service
- 8' wide minimum walking loop trail
- Off-leash dog area
- Wider entrance for truck deliveries and pick-ups
- Reconfigured parking areas
- Shade near the picnic areas
- Open lawn between athletic fields
- Connections to nearby trails and sidewalks
- RV parking
- Flexible ballfield fencing
- WiFi connection
- PA system for announcing games
- Accessible, hard surface paving
- Bleachers & Stadium seating
- Vantage point and ease of access to the fields / crowd's nest

What we heard...

- The existing ballfields need to be improved to meet current standards and to host tournaments, 4-5 ballfields is considered the minimum.
- Site circulation is in need of improvement and a new park entrance off of Ocean Beach Highway could dramatically improve way-finding to the site.
- Softball Field #3 is in a poor orientation for playability.
- There is an informal connection to the middle school but a formalized connection is not necessary.
- The existing trees at the concessions building should remain. The trees at the disc golf course may be removed.
- The disc golf course is well used and could increase to 18 baskets.
- Park improvements should maximize year-round use of the park and fields.
- Signage and way-finding at the northern entrance off of Mt. Solo Road need to be improved.
- Poor drainage is a problem throughout the site and negatively effects playability in the fields. A consistent low spot off of the main driveway near the disc-golf course leads to Mud Day in the park!
- Full-size soccer and other athletic fields are desired.
- Crime prevention is a factor to consider for the 3rd and southernmost parking lot which is somewhat hidden from the rest of the site.
- Maintenance at the site typically includes mowing, weeding, edging, tree maintenance, trash pick-up, playground inspections, and field maintenance. Maintenance is a full-time job during softball season.

STAKEHOLDER INTERVIEWS & SURVEY

The public outreach process continued with stakeholder interviews and an online survey. Overall, the survey was open for 3 weeks and 73 people submitted responses. The questions focused on developing the athletic program at the site. Overall, respondents said the current facilities are not working well for their team or league use. This included parking, restrooms, fields and support facilities. In order to get specific feedback about athletics, the following stakeholder groups were asked to participate:

- Disc Golfers
- Babe Ruth
- USSSA
- Longview Girls' Softball Association
- Youth Baseball
- Lower Columbia College
- Longview School District
- Cowlitz Youth Soccer Association
- Cowlitz Black Bears
- Cowlitz Cobras

What is missing from this park?

The top 5 requested new improvements, in order of priority, are:

- #1. Park and community activities (play, picnicking, sport courts).
- #2. Neighborhood amenities (restaurants, hotels).
- #3. Parking.
- #4. Camping / RV parking.
- #5. Indoor sports facility.

What is needed for leagues and tournaments?

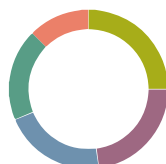
Top 5 requested improvements, in order of priority, are:

- #1. Synthetic turf fields for year-round use.
- #2. Upgraded support facilities (concessions, restrooms, seating).
- #3. Field improvements or more fields, including fencing, netting, covered dugouts.
- #4. Fully lit fields.
- #5. 18-basket disc golf course.

What would you like the top guiding principles for this master plan to be?

- #1. Improve existing sports fields
- #2. Improve existing park amenities and recreation
- #3. Add new sports fields
- #4. Enhance ability to host events and tournaments
- #5. Add new park and recreation opportunities
- #6. Improve ease of maintenance
- #7. Improve environmental sustainability
- #8. Improve safety and security
- #9. Improve wayfinding
- #10. Improve parking

What are your sport improvement priorities?



- #1. Softball
- #2. Baseball
- #3. Little League
- #4. Soccer
- #5. Basketball

What are your park improvement priorities?

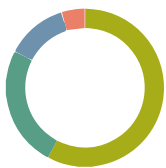


- #1. Restrooms
- #2. Lighting
- #3. Safety
- #4. Parking
- #5. Paths/trails

COMMUNITY SURVEY

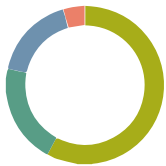
Following the stakeholder interviews and an online survey, an on-line survey was opened for all community members. Overall, the survey was open for 3 weeks and 416 people submitted responses. The questions focused on what is working and what is not working at the site, what improvements people would like to see for both athletics and for community use. Some of the main concerns people have for the site include athletic field improvements as well as site safety and security - especially related to the existing restrooms, lighting for the paths and parking.

How often do you use the park?

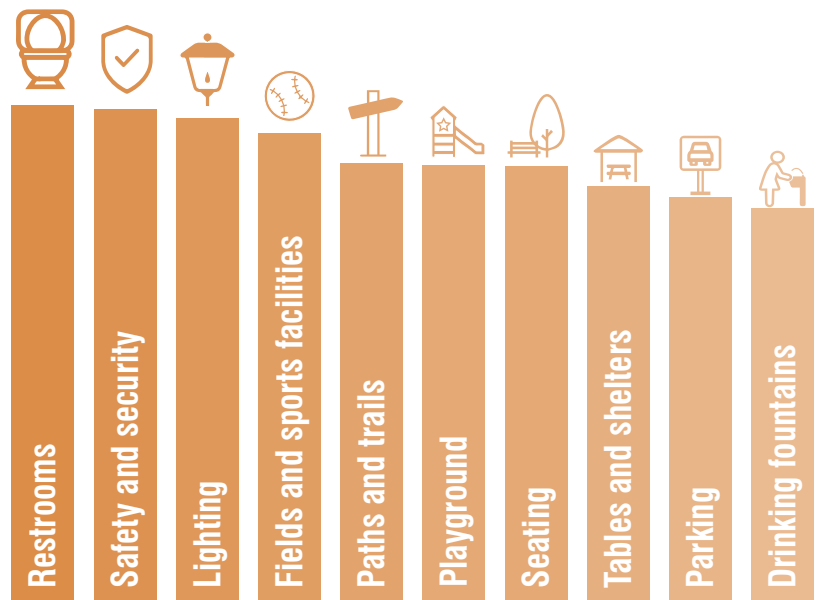


Never/rarely
1-2 /month
1-2 /week
Every day

How often do you use the park for sports?



Never/rarely
1-2 /month
1-2 /week
Every day



What improvements are important to you?

Top activities in the park:

- #1. Baseball / softball
- #2. Disc golf
- #3. Walking / running
- #4. Dog walking
- #5. Soccer

What should be improved?

- #1. Restrooms
- #2. Fields / drainage
- #3. Lighting / concessions
- #4. Seating
- #5. Picnic areas

What are your sport priorities?

- #1. Softball
- #2. Baseball
- #3. Little league
- #4. Soccer
- #5. Basketball

Something new to include?

- #1. Basketball
- #2. Spray park / fountain
- #3. Dog park
- #4. Flexible open lawn
- #5. Other...

What are your sport facility priorities?

- #1. Youth sports
- #2. Year-round use
- #3. Multi-use fields/courts
- #4. Adult sports
- #5. Diversity of sports

COMMUNITY SURVEY *continued*

Prior to the pop-up studios and open houses, both the community and stakeholder surveys were evaluated to determine the community's overall priorities for the future of the park. Throughout the survey and interview process, a variety of park improvements were requested with the following being some of the most often requested:

- Park Entry at Ocean Beach Highway
- Storage
- Loop Trail
- Large Playground
- Spray Park
- New Restrooms
- New Concessions
- Picnic Shelters
- Tournament Disc Golf
- Dog Park
- Site Safety and Security
- Athletics & Support Facilities
- Tournament Quality Athletic Infrastructure
- Year-Round Athletic Facilities
- Court Sports
- Improved Circulation and Access
- Indoor Recreation Facility

Through the survey, the community also provided feedback on their top guiding principles for the master plan - the top ten are listed below. These, along with the park improvements listed above, became the launching point for the development of conceptual designs in the pop-up studios and community open houses.

Community top guiding principles for the master plan...



It would be great to see the park really become a multi use facility... this community could really thrive by allowing other sports such as soccer to play host to tournaments and allow local youth to thrive in their own community. Multi-use, not just one sport. A baseball field, a soccer field, a softball field, basketball courts, pickle ball courts... then large indoor recreation center, playground... make it a place people want to go! Longview has so little!!! Let's get the community aspect of this park to actually be community, not outsiders coming for tournaments. Pack in as many fields as possible...get other sports leagues from surrounding areas in on the project to get funds quicker. Undercover or inside area for winter use and more areas for family gatherings. A full scale disc golf course capable of hosting tournaments would bring in a fair amount of tourism dollars, could be used year round, and could utilize land that most other sports aren't able to. A good walking path at least a mile long that circles. Keep the big trees if possible. Greenery... grass, trees, plants, flowers. More events for kids. Natural play for children. Spray park for hot summer days away from sports sits to prevent wandering children. Pickleball courts with nearby restrooms. I think getting it to a point of hosting events and marketing its use could be great. Maybe a rental facility for events? The more softball fields the better. The players will make sure we get teams there for tourneys. "If you build it, they will come"!



POP-UP STUDIOS & OPEN HOUSES

The Community Pop-Up Studios and Open Houses were held over a two day event at the Elks War Memorial Building in Longview. Pop-Up studios were held in the daytime to develop and refine design concepts and those concepts were then reviewed in Open Houses in the evening of each day. This community-based design approach allowed the community, City staff, and stakeholders to be a part of the design process and offer feedback while the designs were being created. The events were well attended with nearly 100 community members and stakeholders attending throughout the two days.

Day 1 started with a community based design workshop. Ideas were brainstormed with the community, city staff, and stakeholders to develop 8 initial design concepts. The concepts considered the existing ballfields, circulation, parking, support facilities (concessions, seating, restrooms), and other recreational opportunities such as playgrounds, trails, off-leash area, picnicking, and disc golf.



The 8 design concepts created in the pop-up studio were combined and refined into three overall design alternatives representing a range of recreational interests for the park. These were then displayed at the evening open house. The open house was an opportunity for the community and stakeholders to review and discuss each concept and offer additional new ideas.



Using comments and feedback received in the Day 1 Pop-Up Studio and Open House, the concepts were into a single preferred park concept plan. Additional considerations included existing site conditions and constraints, constructability requirements, site accessibility, flexibility of use and events, maintenance requirements, and ongoing community feedback as the plan was refined throughout the day.

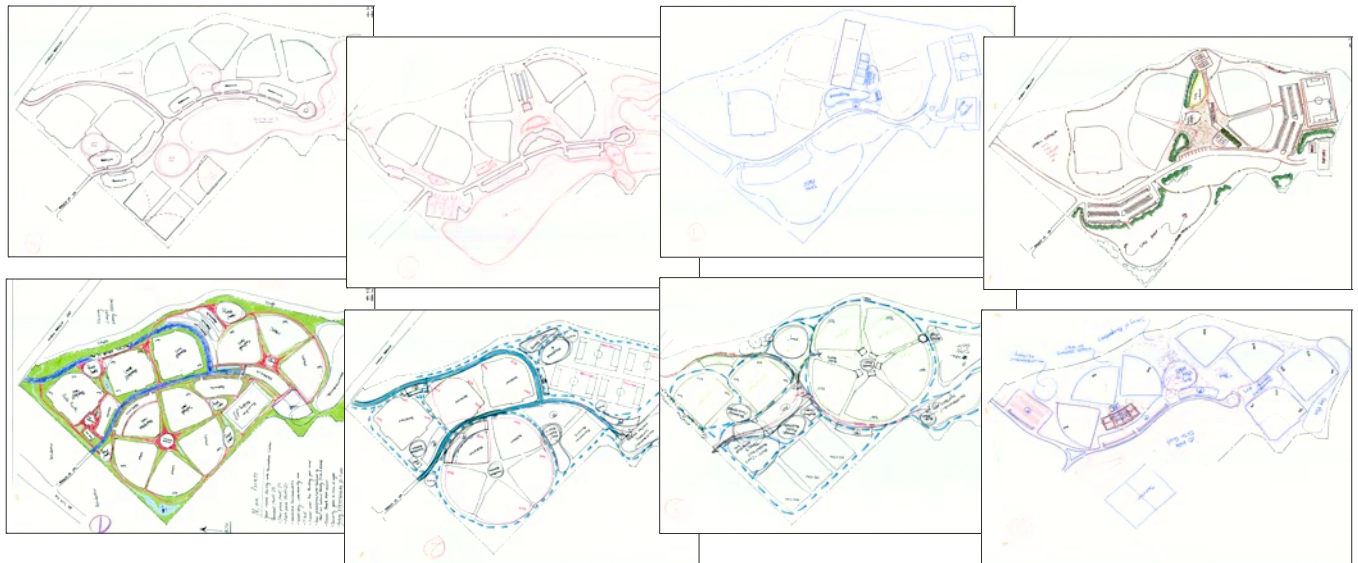


Day 2 concluded with a community Open House to provide additional feedback and comments on a preferred park concept. Participants placed dots on various design alternatives to vote for their preferred improvements.

POP-UP STUDIOS & OPEN HOUSES *continued*

DAY 1 POP-UP STUDIO & OPEN HOUSE

Working with city staff and the community, the following 8 Alternatives were designed during the Day 1 Pop-Up Studio. For ease of comparison, they have been arranged to show the athletic focused alternatives first and the alternative that focused on other recreation opportunities on the following page. The most requested park improvements are common to all of the alternatives including loop trails, athletics, and a new park entrance at Ocean Beach Highway.



DESIRED ATHLETIC PROGRAMMING

Throughout the “pop-up” workshops, it became clear that the numbers of fields described below is preferred by stakeholders and require a creative approach to shared use. The program below describes 16-18 different field configurations adapted to specific activities. The accompanying layout plans on the following page show how the requirements of Fast-Pitch and Co-Rec Softball could share a five-field “wagon wheel” complex and how the various athletics are programmed on 9 multi-use fields.

- Youth Baseball. Maintain a minimum of 2 primary fields. Meet minimum requirements for Babe Ruth Little League Baseball – 300’ foul lines, 375’ center field.
- Fast-Pitch Softball. Meet ASA requirements for Fast-Pitch tournament play – 200’ outfield. Minimum of 5 fields is necessary to draw the desired participation for regional and national tournament play.
- Adult Co-Ed Recreational Softball. Meeting ASA standards for Adult Co-Ed Recreational tournament play and as modified in workshop discussions – 320’ outfield. Consensus is that a minimum of 5 fields is necessary to meet local league requirements, up to 7 fields are preferred.
- Youth & Recreational Soccer. Accommodate adult recreation, U10 and multiple fields for U9 and below – approximately 65 yards x110 yards plus safety clearances. 3 fields are desired. One of the Recreational Soccer fields should be accommodated in a flexible lawn, not routinely scheduled for heavy use.
- Collegiate Soccer. Suitable for collegiate play – typically no less than 70 yards x115 yards, with considerable space required for team and official areas and spectators. 1 field is required.

DESIGN CONCEPTS

Having heard feedback throughout the day, the design alternatives were refined into 3 concepts to eliminate redundancies and allow efficient comparison of the concepts. They were also refined to include site circulation, parking, improved drainage, support facilities (concessions, seating, restrooms), and other recreational opportunities in more detail. These concepts, shown on the following page, were presented at the evening open house.



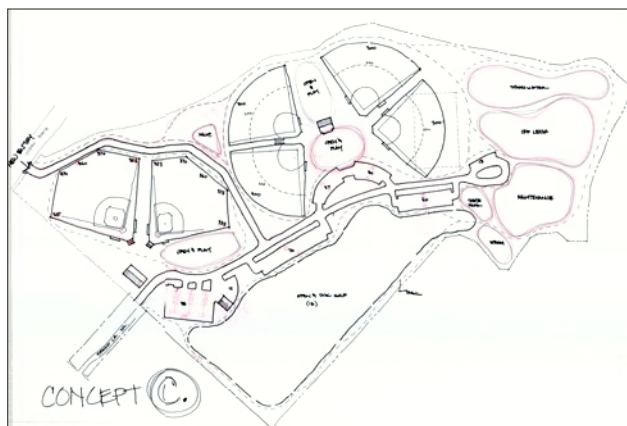
Concept A

This concept maximizes athletics including 5 softball fields and 2 baseball fields. An indoor recreation center is located near the new entrance to Ocean Beach Highway and two large parking areas for tournaments. Loop trails, maintenance and tree nursery, t-ball space, 3 large play and picnic/gathering spaces, and multi-sport courts are also included. 3 alternatives were included and compared adding soccer, softball, or disc-golf.



Concept B

This concept also maximizes athletic and includes a centralized softball wagon wheel design, and 2 baseball fields. Other park elements include loop trails, 2 large play and picnic/gathering spaces, and a large natural open space to the south for natural drainage. This concept also proposes that the existing Babe Ruth building remains in it's current location. 1 alternative was included and compared adding an 18 basket disc golf course or 3 full size soccer fields.



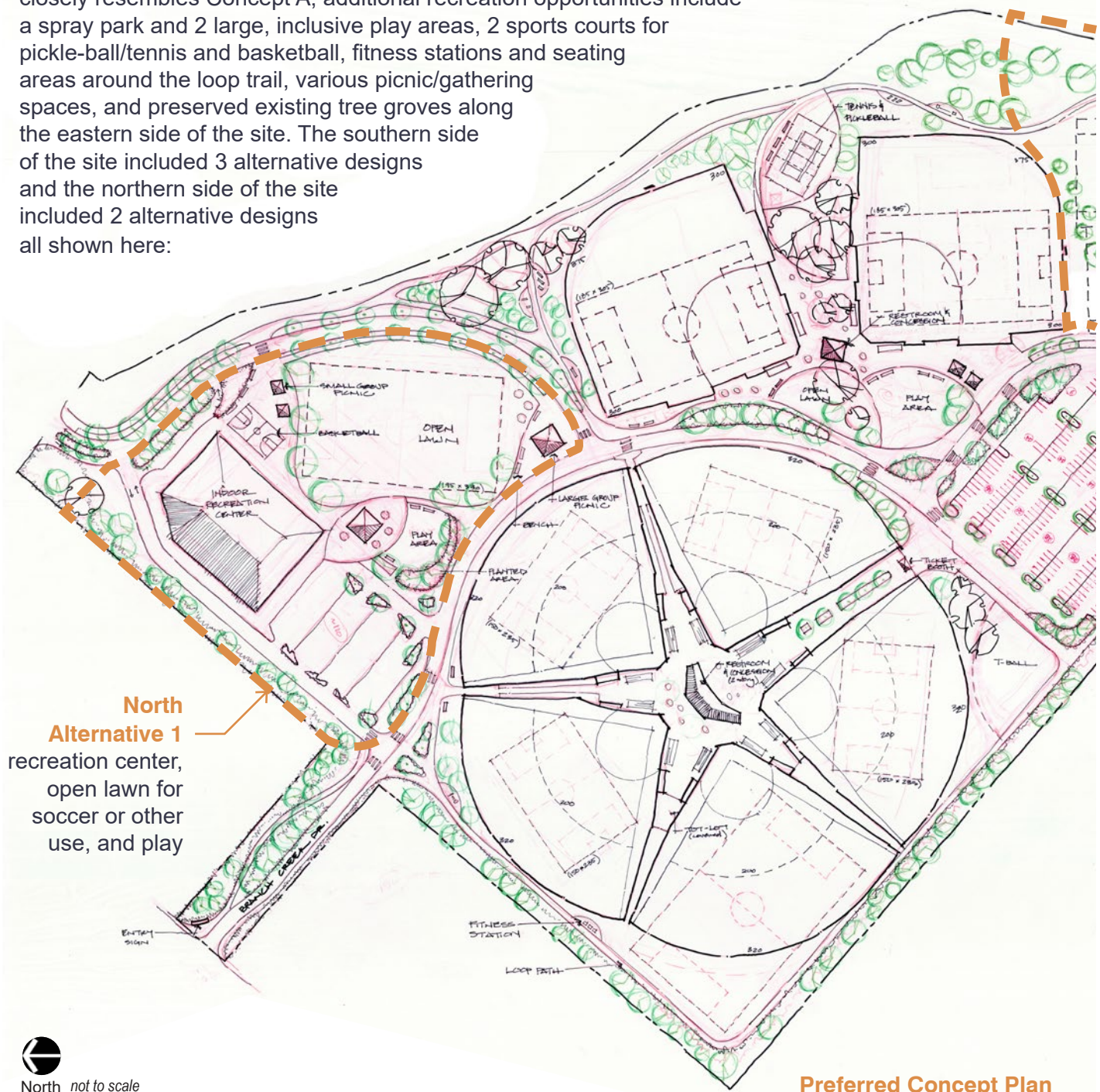
Concept C

This concept proposed improvements to the existing facilities to allow for year-round, tournament use of the fields. It also maximizes non-athletic recreation opportunities and includes an off-leash dog area, loop trails, a skate park, open space, play and picnic areas, and an 18 basket disc golf course. This concept also includes a large natural space to the south for natural drainage. Because the park configuration is similar to the existing park, the vast majority of the existing trees would remain in this concept.

POP-UP STUDIOS & OPEN HOUSES *continued*

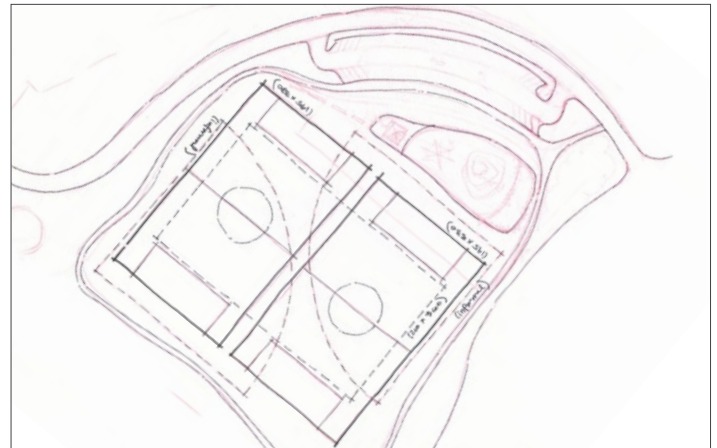
DAY 2 POP-UP STUDIO & OPEN HOUSE

After the comments, feedback, and votes from Day 1 were compiled, it became clear that Concept A was the preferred concept and that it was important to integrate other recreation opportunities for the community. A single preferred concept plan was developed, along with a rough-order-of-magnitude cost estimate, during the Day 2 Pop-Up Studio. Various edits, tweaks, and changes were made to the concept as the community and stakeholders provided additional comments. While the concept below closely resembles Concept A, additional recreation opportunities include a spray park and 2 large, inclusive play areas, 2 sports courts for pickle-ball/tennis and basketball, fitness stations and seating areas around the loop trail, various picnic/gathering spaces, and preserved existing tree groves along the eastern side of the site. The southern side of the site included 3 alternative designs and the northern side of the site included 2 alternative designs all shown here:





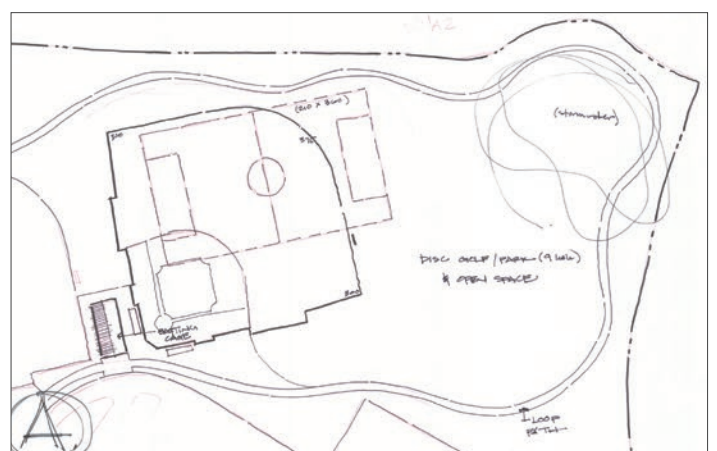
South Alternative 1
collegiate soccer,
9-basket disc golf



North Alternative 2
soccer and mixed-use ballfields fields, and play



South Alternative 2
natural turf soccer, 18 basket disc golf



South Alternative 3
baseball field, soccer overlay, 9 basket disc golf

PREFERRED MASTER PLAN

PARK & RECREATION ADVISORY BOARD MEETING

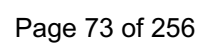
Following the design process, the preferred concept plan (shown on page 41 - 42) and its alternatives were presented to the Park and Recreation Advisory Board. The Board gave direction to include the following in the preferred master plan:

- North Alternative 1 - the recreation building with parking, open lawn for soccer or other use, plaza, playground, and spray park.
- South Alternative 1 - with synthetic turf collegiate soccer field and 9 basket disc golf course.

The design process overall showed that developing athletic programming and providing the infrastructure necessary for sports tournaments was important to the community, as was developing other community park recreation opportunities for people of all ages and abilities to enjoy on a day-to-day basis.

CITY COUNCIL MEETING

The preferred master plan was presented at a City Council workshop on January 24, 2019. The purpose was to present the design process including the site analysis, economic development analysis, and the public process. Elements of the preferred master plan that were presented included an initial phased development plan, park program and plan elements, and a construction cost estimate. The City Council reviewed the preferred master plan and provided comments for continued development into the final master plan (shown in the following chapter).



MASTER PLAN

MASTER PLAN

A plan view rendering and narrative of the final master plan for Roy Morse Park and artist rendering.

PLAN ENLARGEMENT AREAS

Enlarged plan renderings with descriptions highlighting the various areas and activities in the master plan.

BALLFIELDS

A description of the baseball and softball fields in the master plan, their uses, function, and components of their design.

CIRCULATION

An overview of the pedestrian, vehicular, and emergency vehicle circulation in and around the site.

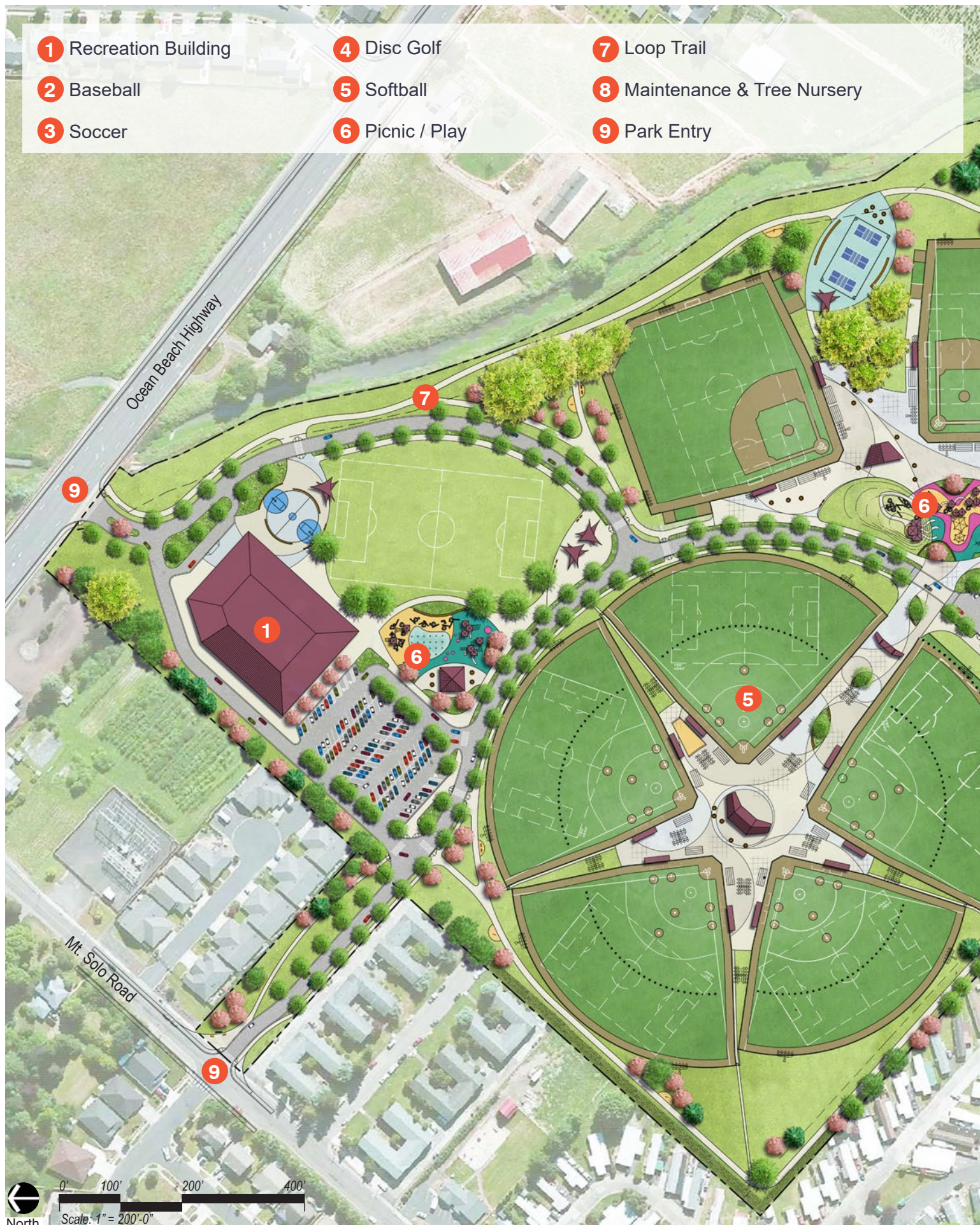
OTHER RECREATION & EVENTS

Plan and narrative highlighting the variety of other recreation and passive opportunities in the master plan.

UTILITIES INFRASTRUCTURE & FACILITIES

Plan and narrative describing the new buildings and infrastructure, stormwater, drainage, and utility approach for the master plan design

- | | | |
|-----------------------|-----------------|------------------------------|
| 1 Recreation Building | 4 Disc Golf | 7 Loop Trail |
| 2 Baseball | 5 Softball | 8 Maintenance & Tree Nursery |
| 3 Soccer | 6 Picnic / Play | 9 Park Entry |





MASTER PLAN

Following the design process, the final master plan for Roy Morse Park was developed. Detailed descriptions are included in the following pages.





MASTER PLAN ARTIST RENDERING

Overall view of the master plan for Roy Morse Park from the westernmost corner of the site and looking east.

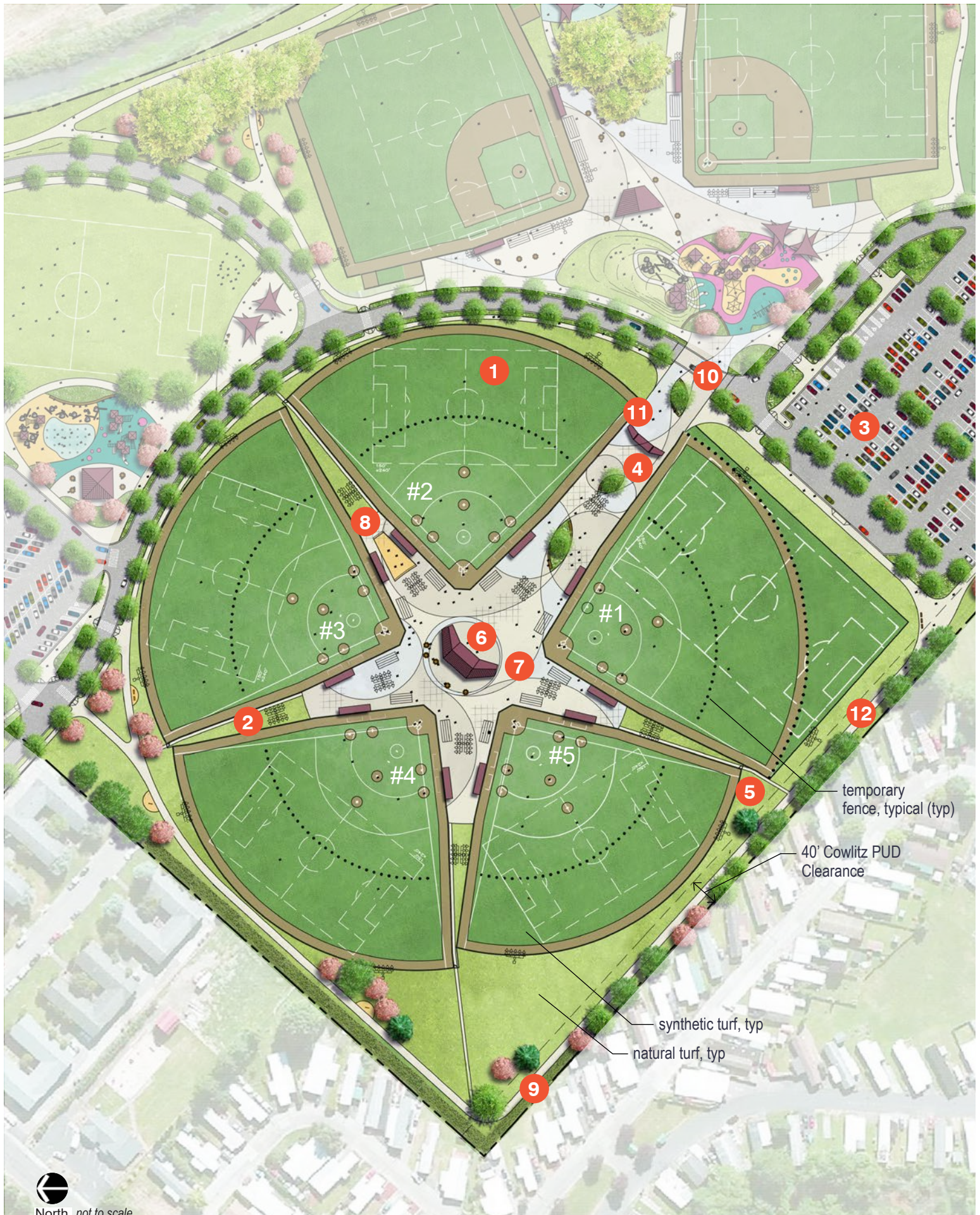
rendering courtesy of Rick Mullen, Presentation Art Studio, LLC

PLAN ENLARGEMENT AREAS

SOFTBALL

The softball area features a “wagon-wheel” field configuration which surrounded by fencing and gates and allows for a controlled main entrance where tickets can be purchased for tournaments. Each of the ballfields is synthetic turf and fully lit to allow for year round and evening games. The ballfields are multi-use and can accommodate adult softball, little league, and tee ball. Fields 1-4 each have a 220’ outfield and field 5 has a 200’ outfield due to clearance requirements from the Cowlitz County PUD overhead utility lines along the western property line. Fields 2-5 each have a U-12 size soccer field overlay and field 1 has a soccer field overlay sized to accommodate all ages so soccer tournaments are also feasible.

- 1 Softball Field with Soccer Overlay.**
Each of the fields includes striping for softball, soccer, and little league. For additional information about the fields, refer to page 68.
- 2 Field Lighting.**
Includes infield and outfield lighting for uniform lighting throughout the field and to minimize glare on the fields and to adjacent sites.
- 3 Parking and Drop-Off.**
The main parking lot will accommodate parking for tournaments at the softball wheel and the baseball fields; overflow parking can occur near the recreation center. A drop-off is located just outside the main entrance.
- 4 Main Entry & Ticketing.**
Located just off the parking lot, this area is a covered plaza with a controlled entrance to allow for easy ticketing four tournaments. This area can also support vendors and food trucks.
- 5 Emergency Exits.**
Accessible paths lead to gates that are located between each of the fields for emergency egress or secondary / informal entrances.
- 6 Concessions / Restroom / Storage.**
A large concessions building at the center of this space can accommodate full food service, announcers booths, storage, and restrooms.
- 7 Picnic / Plaza.**
This central space includes covered picnic tables and seating, and other amenities for such as signage and drinking fountains.
- 8 Tot Lot.**
Small, accessible play area with seating to allow younger spectators to play while games are happening. This area will be covered with netting for safety in case of foul balls.
- 9 Enhanced Buffer.**
The large conifer hedge bordering the park at the north and east edges is preserved as a buffer between the softball area and adjacent residences. This established hedge could take up to 20 years for replacement vegetation to provide the same buffering benefits as currently exist so it was enhanced with additional trees to provide a full buffer.
- 10 Raised Crossing.**
A raised walkway across the main driveway connects the softball area to the baseball area. This feature creates a traffic calming effect for safety as this is anticipated to be a heavily used crossing during tournaments.
- 11 Pump Station.**
The recently improved pump station can remain in it’s current location which is near the main entrance to the softball area. It will be out of the fields and easily accessible by maintenance vehicles.
- 12 Loop Trail.**
This space includes a 1/2 mile accessible, paved loop trail with fitness stations, signage, and seating that also connects into the trail network around the site.







SOFTBALL AREA RENDERING

View of the softball area from the eastern entrance and ticketing area and looking down the main corridor toward the concessions and plaza area.

rendering courtesy of Rick Mullen, Presentation Art Studio, LLC

PLAN ENLARGEMENT AREAS *continued*

BASEBALL

The baseball area is an open space integrating both community spaces and 2 fenced ballfields that can be used during tournaments. Each of the ballfields is synthetic turf and fully lit to allow for year round and evening games. The ballfields are multi-use and can accommodate Babe Ruth baseball, little league, and softball. Each of the fields has a 300'-375' outfield and batting cages off of the outfield fences. Both fields also have a soccer field overlay sized to accommodate all ages so soccer tournaments are also feasible. This space also includes a concessions building and large plaza, an inclusive playground, and multiple sports courts. These community uses will allow this space to be a very active even when it is not being used for ballgames.

- 1 Baseball Field with Soccer Overlay.**
Each of the fields includes striping for baseball, soccer, and little league. For additional information about the fields, refer to page 68.
- 2 Field Lighting.**
Includes infield and outfield lighting for uniform lighting throughout the field and to minimize glare on the fields and to adjacent sites.
- 3 Parking.**
The main parking lot will accommodate parking for tournaments at the softball wheel and the baseball fields; overflow parking can occur near the recreation center.
- 4 Existing Trees.**
The baseball fields and other activities have been oriented in a way that allows the groves of large oak trees to remain and provide shade to the improved park spaces.
- 5 Concessions / Restroom / Storage.**
A large concessions building at the center of this space can accommodate full food service, announcers booths, storage, and restrooms.
- 6 Picnic / Plaza.**
This central space includes covered picnic tables and seating, and other amenities for such as signage and drinking fountains. Shelters throughout this space can also be rented for events or used for informal gatherings.
- 7 Playground.**
The playground in this space would be the largest of the site's three playgrounds. With rubberized play surfacing, and a variety of different zones and play opportunities, it is an inclusive place for people of all ages and abilities to play.
- 8 Hillside.**
The hillside can be built up from on-site excavations during construction and can be a casual place for spectators to sit and relax during and between games. This space can also be an extension to the playground with nature-based play elements and hillside slides.
- 9 Pickleball & Tennis Courts.**
This area includes 3 pickleball courts with a tennis court overlay inside a fenced area just off the loop trail. The space includes seating, picnic areas, and a covered shelter.
- 10 Fitness Stations.**
Ten total fitness stations are located along the trail network around the site. These can be used as stand-alone workouts or as a total circuit. These spaces will include seating, signage, and safety surfacing as well as a variety of targeted workouts.
- 11 Loop Trail.**
This space includes a 1/2 mile accessible, paved loop trail with fitness stations, signage, and seating that also connects into the trail network around the site.







BASEBALL AREA RENDERING

View of the large playground near the baseball plaza looking toward the baseball concessions and restroom building and plaza area.

rendering courtesy of Rick Mullen, Presentation Art Studio, LLC

PLAN ENLARGEMENT AREAS *continued*

RECREATION CENTER

The northeast corner of the park is dedicated for both a new indoor recreation center and community park uses. The recreation center is located at the new main entrance to the site off of Ocean Beach Highway which will increase visibility to the building and help with wayfinding to the park's main entrance. This space also includes a large natural turf open space for flexible community use, events, and soccer games or other sports. Multiple covered picnic shelters are located throughout this area which can be used informally or for event rentals. Other park amenities include a multi-sport court, a play area, spray park, and loop trail. While community park activities are located throughout the whole park, this area is the hub of community activity, acting as a community park in and of itself.

- 1 Recreation Building.**
This facility is approximately 44,000 square feet and could accommodate indoor sports courts, fields, soccer rooms, restrooms, or additional storage space.
- 2 Flexible Open Lawn.**
This large natural turf open space can be used for flexible community use, pick-up games, large events, and can accommodate soccer games with a full-size striped field.
- 3 Parking.**
This parking lot is sized to accommodate parking for the recreation building and surrounding community park amenities. It can also be used as overflow parking for tournaments.
- 4 Playground.**
The playground in this area is a medium sized playground with rubberized play surfacing and a large covered picnic shelter nearby.
- 5 Spray Park.**
This area can include a variety of off-the shelf or customized, interpretive spray features such as raised water tables for inclusive and sensory play. The spray park is located near the recreation building which can house the pump room. To ensure this space is usable in all seasons, it could also include a basketball "training court" with adjustable goal heights, temporary funnel ball and tetherball poles, or striping for games or mazes when the spray
- 6 Multi-Sport Court.**
This area includes a full size basketball court and can accommodate multiple other open courts striped into the paving such as tetherball, half-court basketball courts, or funnel ball. The space includes seating, picnic areas, and a covered shelter.
- 7 Entrance at Ocean Beach Highway.**
This new entrance would be the park's main entrance. With the addition of park signage and sidewalks, the entrance will improve wayfinding and access to the park.
- 8 Drop-off.**
Located just off the park's main entry drive, the accessible drop-off would allow simplified access to the recreation center.
- 9 Picnic Shelter / Gathering Space.**
Three to four large picnic shelters are located in this space and have water and electrical hook-ups, seating, and other amenities for events, vendors, and gatherings.
- 10 Loop Trail.**
This space includes a 1/4 mile accessible, paved loop trail with seating that weaves nearby the other activities in this space and also connects into the trail network around the site.







RECREATION CENTER RENDERING

View of the indoor recreation center building and to the playground, splash park, and picnic area.

rendering courtesy of Rick Mullen, Presentation Art Studio, LLC

RICK MULLEN '19

PLAN ENLARGEMENT AREAS *continued*

SOCCER

The multi-use soccer field area is designed to accommodate a large, collegiate soccer field and is also striped for two full-sized recreational soccer fields. The collegiate field should be marked in white and the underlying recreational layouts marked in a much less contrasting color. This is typically yellow, however it could be gray or black depending on preferences. The area is entirely synthetic turf and will have portable bleachers for spectator seating. This space is not fully fenced and will allow flexibility of use. For example, the space can be used as flexible lawn and open space while practices and games are not happening, or the portable bleachers could be turned toward the disc-golf area to allow spectator seating for disc-golf tournaments.

1 Collegiate Soccer Field with Overlays.

The collegiate soccer field is 210' x 330', and also includes striping for unified lacrosse and 2 soccer fields sized to accommodate all ages (180' x 300').

2 Portable Seating.

Portable bleachers offer spectator seating for these fields while allowing flexibility for the different field uses. These can be located on the synthetic turf or could be stored if they are not in use.

3 Parking.

4 Loop Trail.

This space includes a 1/3 mile accessible, paved loop trail with fitness stations, signage, and seating that also connects into the trail network around the site.

5 Fencing.

Arranged behind the goals of the collegiate soccer field are two 90'-120' length sections of ball control fencing. This is 10' high chain link fence with 15' high ball control netting (25' height combined), to contain stray shots.



Soccer Field Overlays

The key plan to the left shows the various soccer fields and soccer overlays within the baseball and softball fields. Combined, there are 11 soccer fields including:

- 1 collegiate soccer (210' x 330') or unified lacrosse field (180' x 360')
- 4 all ages soccer fields (180' x 300', not striped)
- 4 U-12 soccer fields (150' x 240')
- 1 all ages soccer field (195' x 330')
- 1 all ages soccer field (195' x 330', natural turf, not striped)



PLAN ENLARGEMENT AREAS *continued*

DISC GOLF

The disc golf course contains 9 permanent tees and baskets which matches the existing 9-basket course at the site. The additional space in the southern end of the site will allow the course to have an increased challenge level based on PDGA design standards. This space is also designed as one of the only active spaces on-site to have natural drainage with raingardens. This is partially to add challenges to the disc-golf course along with the berms and variety of deciduous and evergreen trees. There are additional opportunities to install temporary tees and baskets along the loop trail to expand the course to 18-baskets for tournaments. This area also contains the park maintenance and tree nursery area.

1 Disc Golf Course.

The course shown here ranges from 2 to 4 par at each basket. The course includes concrete tees that may have signage and bag holders and it also includes disc-golf baskets.

2 Babe Ruth Batting Cage Building.

The building shown here is similar in size to the existing Babe Ruth building located near the park's existing entrance. It is located near the parking lot to allow ease of vehicular access.

3 Seating.

Spectator seating can occur along the loop path or be shared with the portable bleachers at the collegiate soccer field.

4 Loop Trail.

This space includes a 1/2 mile accessible, paved loop trail with fitness stations, signage, and seating that also connects into the trail network around the site.

5 Restrooms.

The restrooms closest to this area are at the baseball area concessions building but could also be located near or within the Babe Ruth batting cage building.

6 Raingardens

The raingardens are designed as part of the natural drainage strategy for this open space area. They will help to define the course and the additional grading and planting will help to add challenges.

7 Berms

Multiple berms can be created from on-site excavations during construction as a way to balance cut and fill and add challenges to the disc-golf course.

8 Maintenance Area.

This area is fully fenced and accessed by gates just off of the main parking lot area. The building and yard are expanded to allow room for storage of temporary fencing, synthetic turf power brooms and other items required for maintenance of the athletic complex.

9 Tree Nursery.

The tree nursery is approximately the same size and function as the existing tree nursery.

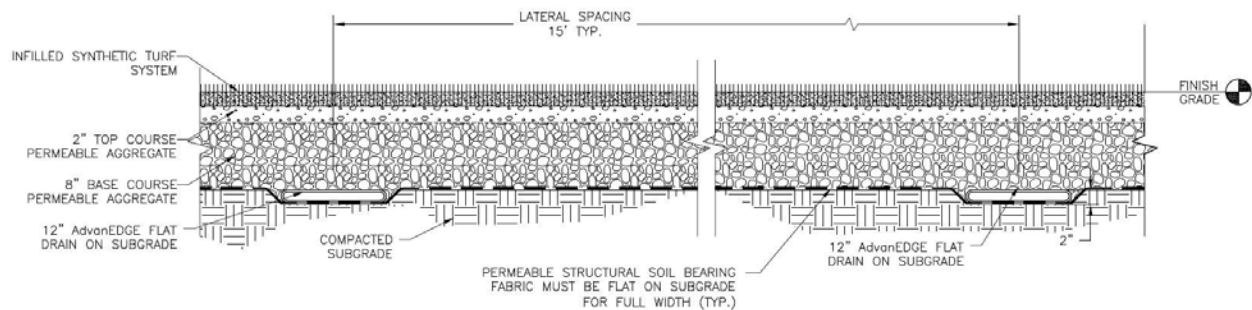
BALLFIELDS

Synthetic Turf

Ballfield playing surfaces, with the exception of the 'flexible' natural grass field, are expected to be resilient in-filled synthetic turf, with the surfacing fiber selected for the highest degree of reliability and durability. The materials should be sourced through a vendor with a lengthy documented history of successful installations and low failure or call-back rate. Ideally, the vendor will have a regional labor force capable of a timely response to service calls. Although the turf industry produces great bargain products, the Longview Athletic Complex is not the ideal investment to try a new product or procurement method.

Field Drainage

Beneath each field, a stable foundation of fractured aggregate that is engineered to infiltrate stormwater at very high rates is required - typically 20" and 40" per hour. These high rates address the need for lateral movement over the prepared subgrade and through the permeable aggregate base. The section design shown below is engineered to allow for a high degree of resistance to compressive loading, some "bridging" of subgrade soils, and the necessary high degree of lateral water movement.



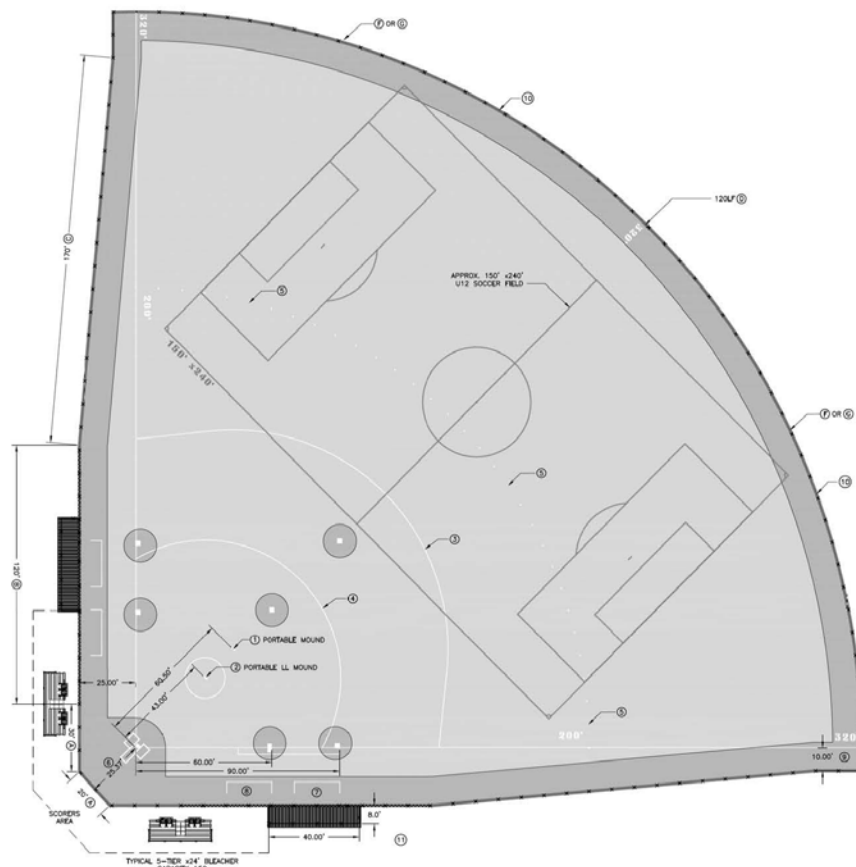
This assembly is contained within a concrete curb with a depth sufficient to be set on prepared subgrade, and wide enough to be durable and also contain up to 6" diameter fence posts.

Fencing

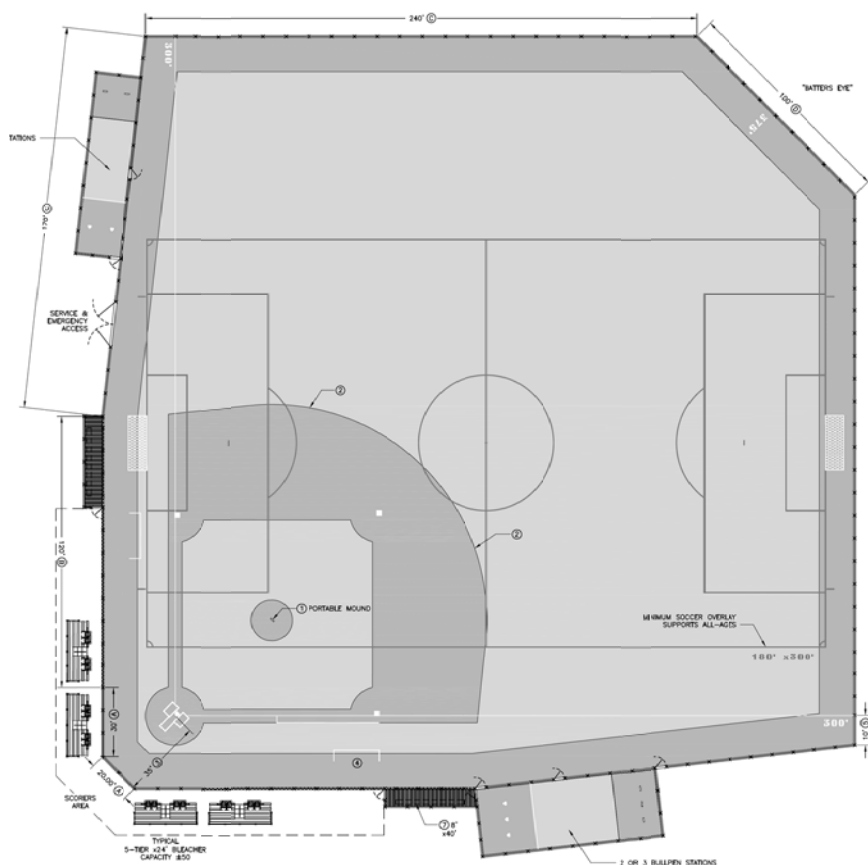
Ballfield backstops include an 80' length of 30' high chain link fencing behind home plate, and 120' length (or more depending on the adjacent use) of 10' high chain link fence and 15' high ball control netting (25' combined) down each base line. Fully enclosed bullpen stations which range from 1 - 3 stations each are also provided and could be upgraded to double as batting cages. In addition, each team area will feature a covered, 8' x 40' dugout with team seating. Fitting Fast-Pitch into the Co-Rec footprint will require the use of a portable outfield fence system. These are available in a wide variety of styles and qualities. Nearby storage space is desirable.

Support Facilities

Each field has 2 - 4 sets of bleachers for spectator seating. Each ballfield includes a scoreboard located near the outfield fence. Minimum requirements for these scoreboards includes digital LED numerical readouts for balls, strikes, outs, and inning, along with runs, hits, and errors for home and away teams. Additional support facilities can include drinking fountains, concessions building, restrooms, and community-friendly features such as the picnic shelters and plazas adjacent to each field.



Softball Field



Baseball Field

MULTI-SPORT FIELD TEMPLATES

Key (both fields)

1. Baseball pitcher's slab, 90' base path
 2. Softball pitcher's slab, 60' base path, and baseball pitcher's mound location, little league, 60' base path
 3. Infield arc, baseball, 90' base path
 4. Infield arc, softball, 60' base path
 5. Outfield fence location (temporary, portable), fast-pitch softball, little league baseball, 60' base path
 6. Clear space behind home plate, minimum distance shown
 7. Coaches box, 90' base path
 8. Coaches box, 60' base path
 9. Foul territory at outfield fence, 10' preferred
 10. Outfield fence, adult slow-pitch softball 60' base path, little league baseball 90' base path (8' ht. @ 320')
 11. Dugout dimensions 8'x40' to insure accessibility
- A. 30' total height chain-link fence
 - B. 25' total height; 10' chain-link fence, 15' nylon ball control netting above
 - C. 10' total height chain-link fence with safety cap
 - C. 10' total height chain-link fence with safety cap and visual/windscreen
 - D. 9' total height chain-link fence with visual/windscreen at dugout
 - E. 8' total height chain-link fence with safety cap
 - F. 4' total height chain-link fence with safety cap

CIRCULATION

Ocean Beach Highway is a state highway and the new entrance would be within City of Longview limits. As such, the City of Longview would be the permitting agency for this new access, coordination with WSDOT would be necessary. Per city staff, it appears this access would be possible. In order to obtain access to the highway, an application to perform work on public-right-of-way will need to be submitted. Below is a diagram showing the extents of pedestrian, vehicular, and emergency vehicle circulation throughout the site.



SITE SAFETY AND SECURITY

In addition to accommodating emergency vehicle access to each major event and space throughout the park plan, and using a CCTV security camera system, there are other considerations given to site safety and security. These include increasing recreation opportunities for visitors throughout the day, evening, and year-round which will

ensure natural surveillance and detract unwanted activities. Paired with keeping vegetation low and views throughout the site open, the driveways and parking lot allow security vehicles to patrol the site as needed. The location of the new maintenance facility will also ensure parks staff are driving through the site regularly.

OTHER RECREATION & EVENTS

The community expressed the need for additional recreation opportunities in the West Longview neighborhood and the desire for this park to be a place for the whole community to enjoy; not just for sports or one group. The graphic below illustrates the variety of non-sport recreation opportunities available to people of all ages and abilities. These activities are spread throughout the entire site as a means of activating and utilizing the whole park space.



Loop Trail with Fitness Nodes

In total, the plan includes over 3 miles of trails with various smaller looped trails, seating, and fitness nodes integrated throughout.

Playgrounds

The site also includes 3 playgrounds (a large community playground, a neighborhood size, and one tot lot in the softball area) and one spray park.

Sport Courts

Sport courts are located near the recreation building and near the baseball fields including a variety of courts such as basketball, pickleball, and tennis.

Picnic & Gathering Areas

Picnic and gathering spaces include seating and other amenities and will integrate small and large covered shelters with water and electrical hookups for events.

UTILITY INFRASTRUCTURE & FACILITIES

OVERHEAD UTILITIES

The transmission / distribution lines to the west of the site have a 15' horizontal clearance requirement from buildings and light poles which is accommodated in this plan. Softball field #5 was originally designed to have a 320' outfield distance but was reduced to 300' to avoid conflicts with the outfield lighting and the utility clearance zone. Options to underground the lines were explored but, per Cowlitz County PUD, under-grounding the high voltage transmission lines (the upper set of lines) would be cost prohibitive and therefore, not likely be feasible at this site. However, it may be possible, if desired, to underground the lower voltage distribution lines.

SANITARY SEWER

Based on the current sewer information available through the County's GIS database, there is an existing sanitary sewer system located in the park. Portions of this existing system will interfere with future development of the park and will need to be removed. In addition, new sanitary sewer lines will need to be constructed to serve the new buildings and facilities at the park. Based on current information it appears to be feasible to extend the existing system as necessary. The new pump station will remain in place near the entrance to the softball area to avoid a cost prohibitive relocation. In addition to leaving the station in its current location, much of its associated control systems, and gravity and force mains will need to remain in their current location.

WATER

As part of the redevelopment of the park, portions of the existing water main will likely be removed and relocated to avoid conflicts with proposed improvements as well as to serve proposed improvements including providing the required fire flow; however, the looping of the main will need to remain. This looping provides redundancy as well as improved pressure in the water mains and must remain after the new facilities have been constructed.

STORM DRAINAGE

Infiltrating stormwater runoff is the preferred method of providing stormwater detention/retention but the existing soils are not suitable for infiltration or retention. Therefore, an underground storage system such as vaults or oversize pipes is provided to meet the detention requirements. Alternatively, the City may purchase storage from the Consolidated Diking Improvement District #1 depending on the volume of detention needed. The cost of the storage will be based on the volume required.

To reduce the amount and cost of required stormwater treatment, the conceptual design includes a StormFilter® System which allows runoff from pollution-generating surfaces to be treated before it is combined with runoff from non-pollution-generating surfaces. This includes shallow, underground chambers located under the athletic fields. A new storm system can be designed to provide the necessary water quality treatment and detention depending on the final design, phasing, and topography. Portions of the new system may need a pump in order to convey the stormwater to the bypass ditches. The disc-golf course area is one of the only spaces on-site that is designed to allow natural drainage to bioretention cells (or raingardens). This space will not utilize the underground storage chambers. It is also important to maintain the hydro-period for wetlands so the design also includes a discharge to the possible wetland from the new maintenance area.



Utility Connections *

These include electrical, water, and sanitary sewer for improvements such as CCTV security cameras, PA system, drinking fountains, restrooms, and outlets for vendors and events.

Underground Chambers

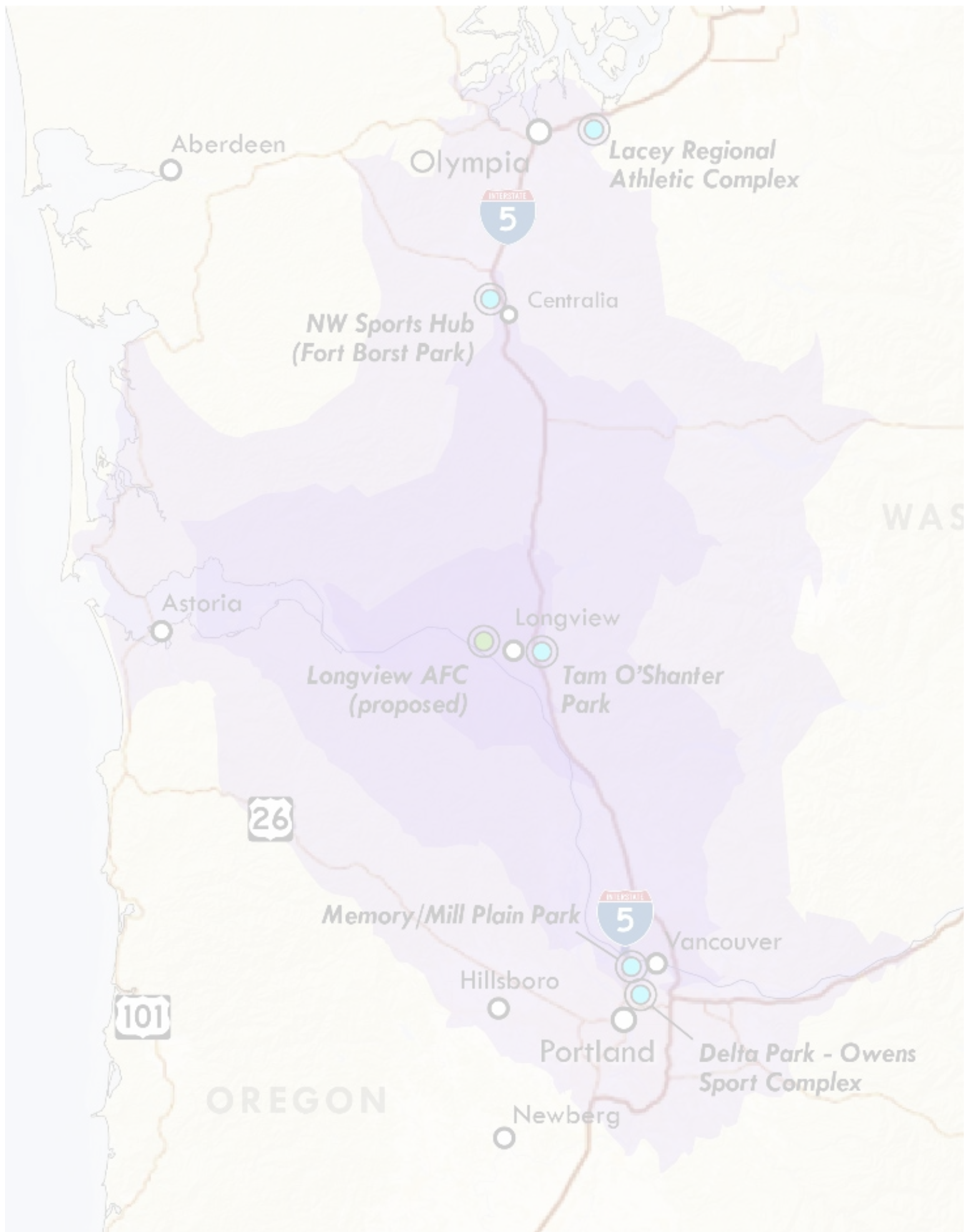
Approximate location and size of the underground stormwater chambers described below.

Buildings

LIGHTING

Proposed site lighting includes field lighting at each of the ballfields. A detailed lighting design and lighting load calculations are included in Appendix D. Other lighting at the site includes pedestrian and vehicular lights in the parking lots, driveways, and main pedestrian walkways. The trails, collegiate soccer field, and disc-golf area do not include lighting.

The field lighting design includes general field lighting at 30 foot-candles (fc) and infields at 50fc. Around the perimeter walkways and seating areas, a lower lighting level of 5-10fc is desired. To achieve the various light levels and maintain uniformity, LED fixtures of three different types are dispersed among 2 pole types, which are 80' tall and selected poles are shared between adjacent fields. Obtrusive effects of the field lighting system will be well-managed as the LED fixtures attain a nearly full "cutoff" allowing little or no spill light at the property line, and vastly reduced glare.



ECONOMIC DEVELOPMENT

POTENTIAL ECONOMIC BENEFITS

Summary of economic analysis of proposed improvements in relation to neighborhood impacts, regional impact, and tourism potential.

QUANTITATIVE IMPACTS

Potential outcome of proposed improvements on the economic climate of Longview.

POTENTIAL ECONOMIC BENEFITS

POTENTIAL ECONOMIC BENEFITS OF PARK IMPROVEMENT

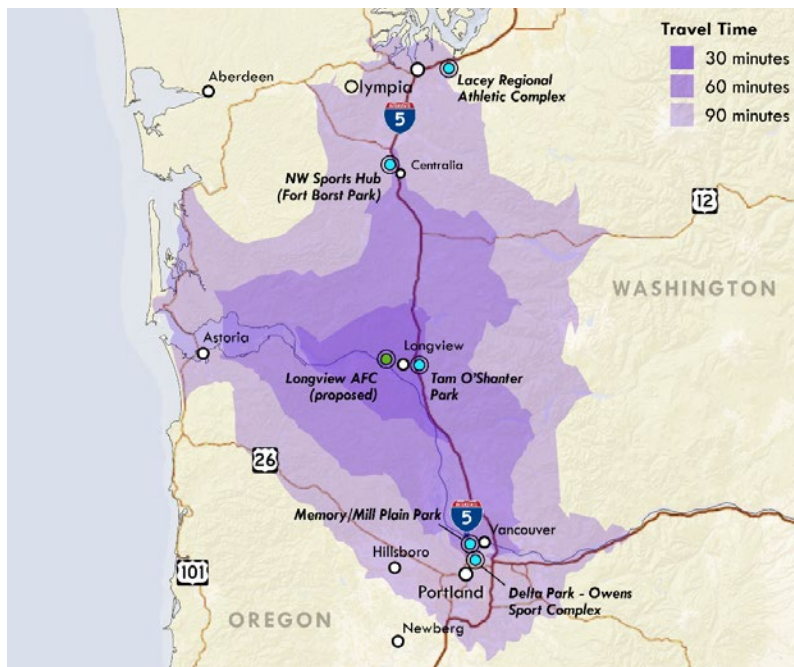
Park improvements can offer a number of economic benefits to the local, city-wide, and regional communities in which they are developed. These can include:

- Improved quality of life and access to recreation often increases residential property values.
- Improved ability to attract and retain talent and businesses.
- Promotes community as a place to live, work, and play - resulting in a greater business market.
- Increased access to the community - increased spending for local businesses.
- Increased construction spending.

The park already provides some local economic benefit to property values and nearby businesses. The expansion of activities to attract more users and the new activities that will attract a greater number of new users to the park both contribute to an increase in economic benefits at the local neighborhood level. However, these benefits are limited to the duration of use, so it may not be enough to support a business without additional volume from other sources, such as neighborhood customers. Pedestrian connectivity outside of the park is also limited. Improvements to local amenities can also spur residential development, especially if these facilities are desirable for home buyers, including the higher-density residential development proposed directly adjacent to the park.

YOUTH SPORTS TOURISM

The local economic impact from increased youth sports tourism includes increases in local spending by out-of-town visitors on lodging, meals, entertainment, shopping / incidentals, and gas. There is sufficient local capacity to accommodate increases in traffic due to new events coming into the community. However, there are a substantive number of area hotels located within Kelso as well. This means that while attendees may be going to the new park in Longview, Kelso hotels will likely receive a significant amount of business from Longview events.



Other Regional Facilities

Similar youth sports complexes within a 90-minute drive of Roy Morse Park:

- NW Sports Hub; Centralia, Washington
- Lacey Regional Athletic Complex; Lacey, Washington
- Memory / Mill Plain Park; Vancouver, Washington
- Owens Sports Complex; Portland, Oregon

Of these, only Lacey's Regional Athletic Complex offers the same capacity and type of use as proposed improvements for Roy Morse Park.

QUANTITATIVE IMPACTS

While there are a number of other facilities that create regional competition for youth sports tourism spending, Longview is a 90-minute drive to 1 million households and 580,000 children under the age of 18.

CAPACITY IN LONGVIEW TO SUPPORT ADDITIONAL SPORTS TOURISM

Economic benefits will leak into Kelso due to its proximity to I-5 and the greater number of available hotel rooms:

- Kelso = 553 rooms
- Longview = 216 rooms

Ultimately, the net economic impact of improvements to Roy Morse Park depends on how much of the funding to support the park comes from the City or through other partnerships and resources. It also depends on how many of the park users, construction workers, and suppliers are from the local area versus the larger region. The major changes in spending for this facility will occur predominantly from youth baseball, softball, and soccer tournaments. A smaller benefit could also occur from increased league use.

Estimated final impact will depend on marketing efforts and success in capturing larger events over what is currently available at the park. As a baseline, for every 6 additional events, there is an expected \$2,100,000.00 to \$2,900,000.00 direct increase in economic development per year (based on 2019 dollars). Of that, Longview's share is equal to about half at \$1,200,000.00 to \$1,700,000.00 per year, with the remaining economic benefit going to Kelso and other nearby areas. There is also an additional \$0.30 for each dollar spent of indirect benefit to the local economy, up to about \$500,000.00 per year. These dollars are estimates only, more detailed survey research would be able to identify changes to spending patterns with greater clarity.

Refer to Appendix C for the full Economic Report.



IMPLEMENTATION

PHASING PLAN

A detailed plan for park construction in 3 different phases.

COST ESTIMATE

A simplified version of the detailed cost estimate of design and construction.

OPERATIONS & MAINTENANCE

A brief overview of the operations and maintenance requirements of the athletic fields.

PERMITTING

A matrix of potential permits that will be required for park development.

FUNDING

An overview of potential funding sources for implementation.

PHASING PLAN

This diagram shows the overall phased development plan with 3 different phases of construction. The cost estimate for each phase of construction is included in the following pages.

PHASE 1

estimated construction cost: \$30,391,000.00

New softball “wagon-wheel”, parking lot, relocated disc golf course, and revised maintenance and tree nursery area. The access drive off of Mt. Solo Road would be improved for wayfinding into the park and visibility of the park in the community. A portion of the proposed loop path around the new improvements would also be included. One of the existing baseball fields would remain, along with the batting cage building and its associated parking. One baseball field would be removed but field space could be shared with the new softball fields until phase 2, or the new baseball fields are constructed. The 4 existing softball fields would also remain.

PHASE 2

estimated construction cost: \$17,770,000.00

Phase II improvements would replace the existing softball fields with two new baseball fields and a new soccer field (one collegiate field and two high-school size overlays). The central playground and picnic area would also be included with this phase, along with additional trails and a multi-sport court. A new entrance off Ocean Beach Highway would be included in this phase, along with the relocated batting cage building.

PHASE 3

estimated construction cost: \$29,860,000.00

New recreation center, associated parking and outdoor improvements, including a playground, picnic area, spray park, multi-sports court and informal lawn.



COST ESTIMATE

The estimated construction costs for Roy Morse Park have been broken into 3 separate options listed below and are based on a planning level conceptual design only. Construction costs will vary over time and will need to be refined as design progresses and a greater level of detail is defined. A detailed cost estimate is included in Appendix A.

Option 1: Overall / Single Phase

This cost estimate reflects the cost of construction if the park improvements are constructed in one phase. This estimate reflects 2019 dollars.

Option 2: Phased Implementation

This detailed cost estimate reflects the three different phases shown on pages 89 - 90. This estimate does not take into account the cost of escalation which would increase the cost of each phase by approximately 3% each year beyond 2019.

Option 3: Athletic Facility Improvements Only

This third cost estimate reflects the total cost for constructing only the improvements necessary for an athletic facility and not the park improvements or recreation center. Overall, the softball fields, baseball fields, and support facilities / parking are included. This estimate assumes the collegiate soccer field is natural turf and the remaining site area is natural turf restoration area.



Overall / Single Phase

ITEM	TOTAL
Paving	\$3,660,000.00
Planting	\$4,723,000.00
Site Improvements	\$2,308,000.00
Site Electrical & Lighting	\$922,000.00
Buildings	\$18,910,000.00
Ballfields	\$14,886,000.00
Civil Site Improvements	\$7,350,000.00
Construction Total with Sales Tax, Contingency, and Contractor Mark-ups	\$77,722,000.00
Total with Design and Permitting costs	\$87,099,000.00

Phased Implementation

ITEM	TOTAL
Phase I Construction Total	\$30,391,000.00
Phase II Construction Total	\$17,770,000.00
Phase III Construction Total	\$29,860,000.00
Construction Total with Sales Tax, Contingency, and Contractor Mark-ups	\$78,021,000.00
Total with Design and Permitting costs	\$87,453,000.00

Athletic Facility Improvements Only *(not including park improvements)*

ITEM	TOTAL
Paving	\$2,574,000.00
Planting	\$4,204,000.00
Site Improvements	\$698,000.00
Site Electrical & Lighting	\$922,000.00
Buildings	\$1,860,000.00
Ballfields	\$14,886,000.00
Civil Site Improvements	\$7,350,000.00
Construction Total with Sales Tax, Contingency, and Contractor Mark-ups	\$47,870,000.00
Total with Design and Permitting costs	\$53,664,000.00

OPERATIONS & MAINTENANCE

OPERATIONS & MAINTENANCE COSTS

The estimated full time equivalent (FTE) hours shown below are based on similar types of parks and facilities. This cost covers maintenance for the improved landscape areas, structures, trails and plazas, play areas, ballfields and support facilities, and the open spaces. Because the scope of the Recreation Building is somewhat undefined, the hours do not include full-time employees for operations and programming within the Recreation Building.

Area	FTE Hours Per Year <i>(2,080 total hours/year)</i>
Athletic fields	4,160 hours (2 FTEs)
Landscape, lawns, and open spaces	1,040 hours (0.5 FTEs)
Recreation building maintenance	2,080 hours (1 FTEs)
Other buildings and support facilities	3,120 (1.5 FTEs)
Playgrounds / play areas	60 hours (.03 FTEs)
Parking and driveways	80 hours (.04 FTEs)
Utilities	60 hours (.03 FTEs)
Trails & plazas	60 hours (.03 FTEs)
Concessions staff during games / tournaments	volunteers
Other staff during games / tournaments	volunteers

LIFE-CYCLE COSTS FOR SYNTHETIC TURF FIELDS

A typical synthetic turf field will need to be replaced every 10-years. This costs approximately \$7.00 - \$10.00 per square foot which includes:

- Removal and disposal of synthetic turf and infill.
- Replacement of the synthetic turf and infill.
- Remediation of the base course.
- Contractor mobilization and installation.

MAINTENANCE FOR SYNTHETIC TURF FIELDS

Beyond typical maintenance equipment that would be anticipated in a park, the following is a general list of maintenance practices that are anticipated for a large sports complex with synthetic turf fields. The specific maintenance recommendations will vary depending on the synthetic turf manufacturer and the specific type of infill used. This equipment needed would account for approximately 200 - 400 square feet of the overall covered storage space shown in the master plan.

Maintenance recommendations:

- Field inspection: This will ensure the fields are in safe, playable condition and also determine if and when maintenance is needed. Done on a weekly basis or before/after each game.
- Surface Brushing and Raking: levels the infill, refreshes the synthetic turf blades, and removes static from the surface. Monthly or every-other month.
- Aerating: loosen the infill to prevent it from becoming compacted. Approximately 2-3 times per year.
- Sweeping: keeps the field clean and debris-free. Done on an as-needed basis.
- Infill Topdressing: Adding infill to maintain the recommended depth, especially in high traffic areas such as the bases. Done on an as-needed basis.

Equipment:

- Mechanical groomer - a nearly all-in-one tractor-style maintenance vehicle with attachments for brushing, raking, aerating, sweeping and litter removal, as well as infill topdressing.
- Pull-behind groomers - separate groomers for each of the various maintenance practices that can be pulled behind small tractors or trucks with tires equipped for driving on synthetic turf.

PERMITTING

The following matrix summarizes potential permits that will be required for the project including triggers and associated time-lines for permit submittal and approval. Permit time-lines listed in the matrix are estimates. Actual permit receipt time-lines vary depending on the permitting agency, project complexity, and requests for additional information. These permits are all submitted to the City of Longview for review and approval with the exception of the NOI which is filed with the Department of Ecology.

Permitting Matrix		
Potential Permit	Improvement	Permit Trigger
Permit / Plan Review Application	any proposed site improvements	required for all projects
SEPA Environmental Checklist	requirement of project	proposed improvements
Public Improvement Permit Application	stormwater, paving, landscaping, curb, building demolition	proposed site improvements
Permit for Utility Service	domestic water meter/line, storm/sanitary sewer	proposed domestic water meter/line, storm/sanitary sewer
Permit for Utility Service	fire hydrants and fire flow supply	proposed fire supply / hydrant improvements to site
Permit for Utility Service	proposed water main connection to ex water main in hwy R.O.W.	connection to a water main in hwy right-of-way
Application for Excavation and Grading	excavation and grading activities	site grading for the proposed improvements exceeds 5,000sf
Application to Perform Work on Public Right-of-Way	Mt. Solo Rd paving, curb, gutter, sidewalk	proposed improvements in City right-of-way
Application to Perform Work on Public Right-of-Way	Ocean Beach Hwy paving, curb, gutter, sidewalk, and driveway access	proposed driveway access on Ocean Beach Hwy
Demolition Permits - utility options, ex. utility service lines	demolition of water, storm sewer, and sanitary sewer	proposed demolition of existing utilities
Electronic Notice of Intent	all	disturbance of land greater to or equal to one acre

Review Time-line	Comments
N/A	considered a “master application” and is required to be filled out for all projects
3-5 weeks	checklist is required to be submitted for an environmental review of the proposed improvements
3-5 weeks	permit encompasses most civil related site improvements; the fee or this permit is 6% of the engineer’s estimate for the proposed improvements
1-2 weeks	
1-2 weeks	
up to 5 months	application will be made out to City of Longview; City staff will forward the application to WSDOT for review
3-5 weeks	
3-5 weeks	required to perform work in the City right-of-way
up to 5 months	Longview Municipal Code 12.60.030(4)(a): all requests for new or modified access on state highways shall be requested through the city, which will coordinate the review and approval process with WSDOT
3-5 weeks	for water, sanitary sewer, and storm sewer utilities which are demolished or temporarily taken out of service to be used at a later date
60 days	certifies that the operator will comply with permit conditions and effluent limitations from stormwater runoff. Needs to be transferred to the general contractor prior to any soil disturbing activities may begin

FUNDING

POTENTIAL FUNDING SOURCES

The following graph summarizes the potential funding sources for an Athletic Facility Complex in Longview. This does not include all of the potential funding sources which could be expanded to include fundraising / donations or even sources on a national level. However, this shows typical local and state options often used for similar parks and facilities to Roy Morse Park.



potential funding

\$25,000.00 - \$1,000,000.00 (multiple grants)

The largest source for recreation grants are available through the Washington State Recreation and Conservation Office (RCO). RCO provides funding through a number of different programs including the Land and Water conservation Fund, the Washington Wildlife and Recreation Program, and the Youth Athletic Facilities program. Applications can be submitted annually or biennially, in whole or on a per-phase basis.

*potential funding*

100%

State appropriation, or a 'legislative ask', are funds applied to a project directly from the State legislature as part of the annual State budget process, generally through lobbying activities and community support.

*potential funding*

100%

Bonds can be a councilmanic bond, a limited capacity bond approved by City Council without a public vote, or general obligation bonds that are approved by public vote. General obligation bonds used for park improvements are limited to capital improvements. Levies are similar, but with the added benefit of being used to also fund maintenance as well as capital improvements and only requires a simple majority of the public vote.

*potential funding*

100% phase 1

100% phase 2

100% phase 3

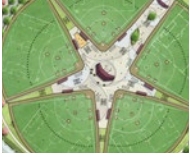
Local Capital Improvement Program dollars can come from a variety of sources, generally through city funding resources. They can be any combination of taxes and fees assigned to the Parks Department to support capital improvements, operations and maintenance of parks and recreation facilities.



FUNDING *(continued)*

GRANT OPTIONS

Below is a chart listing a selection of grant opportunities available to this park development. This is not a list of all of the options, as there are many grants for smaller items such as the playground equipment but this shows some of the larger grants that could help fund the major components of the park and athletic complex.

Grant Matrix			
	Grant / Agency	Grant Cap (per project / phase)	Match
	Youth Athletic Facilities / Washington State Recreation & Conservation Office	\$25,000 - \$350,000	40% (under-served population)
	Land & Water Conservation Fund / Washington State Recreation & Conservation Office	\$ 500,000 (state projects)	50%
	Local Parks / Washington State Recreation and Conservation Office (WWRP)	\$ 500,000 (development)	50%
	Community Development Block Grant / Washington State Department of Commerce	\$ 750,000.00 (development)	none required
	Recreational Trails / Washington State Recreation and Conservation Office (WWRP)	\$ 500,000.00 (development)	50%
	Land & Water Conservation Fund / Washington State Recreation & Conservation Office / Legacy Program	\$ 250,000.00 - \$720,000.00	50%

Schedule	Funded Element	PROS Plan Required
Available in even years / 5 month evaluation process	Develop or renovate athletic facilities	No
Available in even years / 13 month evaluation process	Develop or renovate recreation areas including athletic fields	Yes
Available in even years / 18 month evaluation process	Develop or renovate recreation areas and support facilities	Yes
Available annually	Projects must principally benefit low- and moderate-income persons, or aid in the prevention or elimination of slums or blight	No
Available in even years / 18 month evaluation process	Develop or renovate trails and support facilities	Yes
Available annually / 12 month evaluation process	Develop recreation areas in urban areas with over 50,000 population	Yes



rendering courtesy of Rick Mullen, Presentation Art Studio, LLC

APPENDICES

A. COST ESTIMATE

A full construction cost estimate including phased development costs.

B. ENVIRONMENTAL REPORT

The Environmental Report prepared for the Roy Morse Park site.

C. ECONOMIC REPORT

The Economic Report prepared for the Athletic Facility Complex project.

D. FIELD LIGHTING & LOAD CALCULATIONS

Field lighting and load calculations prepared for the softball and baseball field areas.

APPENDIX A: COST ESTIMATE

APPENDIX B: ENVIRONMENTAL REPORT

APPENDIX C: ECONOMIC REPORT

APPENDIX D: FIELD LIGHTING & LOAD CALCULATIONS

Estimate of Probable Cost of Construction

HBB Landscape Architecture

Date: 05/21/19

Project Name: Longview Athletic Facility Complex Master Plan
 Project Number: 2018-30
 Project Phase: 200
 Prepared By: B. Haddox / R. Dotson
 Checked By: D. Koonts

A. Overall Single Phase

	Construction Total	Overall Single Phase Total
Estimated Total Single Phase Cost	\$ 77,722,312.78	\$ 87,098,990.32

B. Phased Implementation

	Construction Total	Overall Phase Total	Escalation (3%) (2020)	Escalation (3%) (2021)	Escalation (3%) (2022)
1. Phase 1	\$ 30,391,167	\$ 34,088,106.87	\$ 35,110,750.08	\$ 36,164,072.58	\$ 37,248,994.76
2. Phase 2	\$ 17,769,763	\$ 19,917,134.65	\$ 20,514,648.69	\$ 21,130,088.15	\$ 21,763,990.80
3. Phase 3	\$ 29,859,735	\$ 33,447,902.93	\$ 34,451,340.02	\$ 35,484,880.22	\$ 36,549,426.63
Estimated Total Phased Project Cost	\$ 78,020,664.70	\$ 87,453,144.46	\$ 90,076,738.79	\$ 92,779,040.96	\$ 95,562,412.18

C. Athletic Complex Only / Single Phase

	Construction Total	Overall Athletic Complex Total
Estimated Total Single Phase Cost	\$ 47,869,880.79	\$ 53,664,266.49

Note: Costs for Overall/Single Phase construction and Phase 1 construction are in 2019 dollars. Escalation for Additional Phases is included in the detailed cost estimate for each phase.

Estimate of Probable Cost of Construction

HBB Landscape Architecture

Date: 5/21/2019

Project Name: Longview Athletic Facility Complex Master Plan
Project Number: 2018-30
Project Phase: 200
Prepared By: B. Haddox / R. Dotson
Checked By: D. Koonts

Overall / Single Phase Total: \$77,722,312.78

Overall / Single Phase

Item	Description	Qty	Unit	Unit Cost	Item Total
1.00	Paving				
1.01	Pedestrian Concrete Paving (4" thick with 4" base)	151,956	SF	\$8.00	\$1,215,648.00
1.02	Vehicular Concrete Paving (6" thick with 8" base)	14,439	SF	\$14.00	\$202,146.00
1.03	Color Pedestrian Concrete Paving	53,340	SF	\$16.00	\$853,440.00
1.04	Color Vehicular Concrete Paving (6" thick with 8" base)	44,760	SF	\$20.00	\$895,200.00
1.05	Pedestrian Asphalt Paving (3" thick with 4" thick base)	116,021	SF	\$4.25	\$493,089.25
2.00	Planting				
2.01	Tree (deciduous)	353	EA	\$400.00	\$141,200.00
2.02	Tree (coniferous)	14	EA	\$350.00	\$4,900.00
2.03	Accent Planting (with soil prep and irrigation)	91,662	SF	\$18.00	\$1,649,916.00
2.04	Raingarden Planting (with soil prep and irrigation)	19,800	SF	\$20.00	\$396,000.00
2.05	Seed Lawn (with soil prep and irrigation)	505,000	SF	\$4.00	\$2,020,000.00
2.06	Seed mix (reduced soil prep and irrigation rotors)	198,000	SF	\$2.50	\$495,000.00
2.07	Tree Nursery (1" compost, 3" mulch topping)	31,200	SF	\$0.50	\$15,600.00
4.00	Site Improvements				
4.01	Disc Golf - 9 Holes (salvaged baskets, signs, paved tees)	1	LS	\$20,000.00	\$20,000.00
4.02	Tennis / Pickleball Court	1	LS	\$17,500.00	\$17,500.00
4.03	Basketball (goals and court striping)	1	LS	\$8,500.00	\$8,500.00
4.04	Trash/Recycle Receptacle	28	EA	\$2,000.00	\$56,000.00
4.05	Drinking Fountain	7	EA	\$17,000.00	\$119,000.00
4.06	Bench	36	EA	\$1,800.00	\$64,800.00
4.07	Seat Wall	722	LF	\$125.00	\$90,250.00
4.08	Picnic Table	28	EA	\$3,300.00	\$92,400.00
4.09	Bike Rack	4	EA	\$1,000.00	\$4,000.00
4.10	Flag Pole & Flag (25' Aluminum Pole)	2	EA	\$4,000.00	\$8,000.00
4.11	Signs-Miscellaneous (Wayfinding, Rules)	9	EA	\$2,000.00	\$18,000.00
4.12	Signs-Traffic	14	EA	\$500.00	\$7,000.00
4.13	Entry Sign (monument style)	2	EA	\$10,000.00	\$20,000.00
4.14	Play Area (tot-lot, includes unitary surfacing)	1	EA	\$200,000.00	\$200,000.00
4.15	Play Area (medium, with spray park, includes surfacing)	1	EA	\$600,000.00	\$600,000.00
4.16	Play Area (large, includes unitary surfacing)	1	EA	\$700,000.00	\$700,000.00
4.17	Fitness Station (with play chip surfacing)	11	EA	\$10,000.00	\$110,000.00
4.18	Fencing (6' height black vinyl chainlink with gate)	1,100	LF	\$30.00	\$33,000.00
4.19	Scoreboards	7	EA	\$20,000.00	\$140,000.00
5.00	Site Electrical & Lighting (see section 7 for ballfield lighting)				
5.01	Parking and Vehicular Lighting	44	EA	\$17,000.00	\$748,000.00
5.02	Pedestrian Lighting	10	EA	\$9,000.00	\$90,000.00
5.03	Electrical (fiber/telecom/cctv/wiring/j-boxes/conduit/controllers)	1	LS	\$83,800.00	\$83,800.00

6.00 Buildings				
6.01 Recreation Center	1	LS	\$15,000,000.00	\$15,000,000.00
6.02 Maintenance overhead structure (50'x100' prefab. steel)	2	EA	\$130,000.00	\$260,000.00
6.03 Picnic Shelter (large)	3	EA	\$250,000.00	\$750,000.00
6.04 Picnic Shelter (small)	5	EA	\$60,000.00	\$300,000.00
6.05 Batting Cage Building	1	EA	\$1,000,000.00	\$1,000,000.00
6.06 Concessions/Restroom Buildings	2	EA	\$800,000.00	\$1,600,000.00
7.00 Ballfield Improvements (see Attachment A)				
7.01 Multi-Purpose Baseball Field with Synthetic Turf	2	EA	\$1,533,330.00	\$3,066,660.00
7.02 Multi-Purpose Baseball Field Lighting	2	EA	\$469,500.00	\$939,000.00
7.03 Multi-Purpose Softball Field with Synthetic Turf	5	EA	\$1,320,000.00	\$6,600,000.00
7.04 Multi-Purpose Softball Field Lighting	5	EA	\$360,000.00	\$1,800,000.00
7.05 Multi-Purpose Field 1 (grass)	1	EA	\$893,300.00	\$893,300.00
7.06 Multi-Purpose Field 2 (synthetic turf)	1	LS	\$1,587,500.00	\$1,587,500.00
8.00 Civil Site Improvements (see Attachment B)				
8.01 Civil Site Improvements	1	LS	\$7,350,416.80	\$7,350,416.80
9.00 Temporary Restoration				
9.01 Seed restoration (minimal soil prep, no irrigation)	0	SY	\$2.50	\$0.00
9.02 Gravel or asphalt paving restoration	0	SF	\$4.00	\$0.00
			<i>Construction Subtotal (1)</i>	<i>\$52,759,266.05</i>
			Contractor Mobilization & Overhead (20%)	\$ 10,551,853.21
			Sales Tax (8.1%)	\$ 4,273,500.55
			<i>Subtotal (2)</i>	<i>\$ 67,584,619.81</i>
			Contingency (15%)	\$ 10,137,692.97
			Construction Total	\$ 77,722,312.78
			Site Survey	\$ 25,000.00
			Wetland Delineation / Biological Assessment	\$ 15,000.00
			SEPA	\$ 10,000.00
			A&E Fees (7%)	\$ 5,440,561.89
			Admin / Permitting (5%)	\$ 3,886,115.64
			Overall / Single Phase Total	\$ 87,098,990.32

Assumptions:

1. Items listed are for the entire project. Where they do not occur within a phase, the quantity and unit costs are "0". This allows comparison across phases and with the overall / single phase project cost.

Estimate of Probable Cost of Construction

HBB Landscape Architecture

Date: 5/21/2019

Project Name: Longview Athletic Facility Complex Master Plan
Project Number: 2018-30
Project Phase: 200
Prepared By: B. Haddox / R. Dotson
Checked By: D. Koonts

Phase 1 Total: \$34,088,106.87

Phase 1

Item	Description	Qty	Unit	Unit Cost	Item Total
1.00	Paving				
1.01	Pedestrian Concrete Paving (4" thick with 4" base)	36,448	SF	\$8.00	\$291,584.00
1.02	Vehicular Concrete Paving (6" thick with 8" base)	3,960	SF	\$14.00	\$55,440.00
1.03	Color Pedestrian Concrete Paving	35,575	SF	\$16.00	\$569,200.00
1.04	Color Vehicular Concrete Paving (6" thick with 8" base)	44,760	SF	\$20.00	\$895,200.00
1.05	Pedestrian Asphalt Paving (3" thick with 4" thick base)	75,208	SF	\$4.25	\$319,634.00
2.00	Planting				
2.01	Tree (deciduous)	201	EA	\$400.00	\$80,400.00
2.02	Tree (coniferous)	7	EA	\$350.00	\$2,450.00
2.03	Accent Planting (with soil prep and irrigation)	42,300	SF	\$18.00	\$761,400.00
2.04	Raingarden Planting (with soil prep and irrigation)	19,800	SF	\$20.00	\$396,000.00
2.05	Seed Lawn (with soil prep and irrigation)	275,000	SF	\$4.00	\$1,100,000.00
2.06	Seed mix (reduced soil prep and irrigation rotors)	198,000	SF	\$2.50	\$495,000.00
2.07	Tree Nursery (1" compost, 3" mulch topping)	31,200	SF	\$0.50	\$15,600.00
4.00	Site Improvements				
4.01	Disc Golf - 9 Holes (salvaged baskets, signs, paved tees)	1	LS	\$20,000.00	\$20,000.00
4.02	Tennis / Pickleball Court	0	LS	\$17,500.00	\$0.00
4.03	Basketball (goals and court striping)	0	LS	\$8,500.00	\$0.00
4.04	Trash/Recycle Receptacle	10	EA	\$2,000.00	\$20,000.00
4.05	Drinking Fountain	2	EA	\$17,000.00	\$34,000.00
4.06	Bench	11	EA	\$1,800.00	\$19,800.00
4.07	Seat Wall	200	LF	\$125.00	\$25,000.00
4.08	Picnic Table	5	EA	\$3,300.00	\$16,500.00
4.09	Bike Rack	1	EA	\$1,000.00	\$1,000.00
4.10	Flag Pole & Flag (25' Aluminum Pole)	1	EA	\$4,000.00	\$4,000.00
4.11	Signs-Miscellaneous (Wayfinding, Rules)	3	EA	\$2,000.00	\$6,000.00
4.12	Signs-Traffic	6	EA	\$500.00	\$3,000.00
4.13	Entry Sign (monument style)	1	EA	\$10,000.00	\$10,000.00
4.14	Play Area (tot-lot, includes unitary surfacing)	1	EA	\$200,000.00	\$200,000.00
4.15	Play Area (medium, with spray park, includes surfacing)	0	EA	\$600,000.00	\$0.00
4.16	Play Area (large, includes unitary surfacing)	0	EA	\$700,000.00	\$0.00
4.17	Fitness Station (with play chip surfacing)	7	EA	\$10,000.00	\$70,000.00
4.18	Fencing (6' height black vinyl chainlink with gate)	1,100	LF	\$30.00	\$33,000.00
4.19	Scoreboards	5	EA	\$20,000.00	\$100,000.00
5.00	Site Electrical & Lighting (see section 7 for ballfield lighting)				
5.01	Parking and Vehicular Lighting	30	EA	17000.00	\$510,000.00
5.02	Pedestrian Lighting	4	EA	9000.00	\$36,000.00
5.03	Electrical (fiber/telecom/cctv/wiring/j-boxes/conduit/controllers)	1	LS	\$54,600.00	\$54,600.00

6.00 Buildings				
6.01 Recreation Center	0	LS	\$15,000,000.00	\$0.00
6.02 Maintenance overhead structure (50'x100' prefab. steel)	2	EA	\$130,000.00	\$260,000.00
6.03 Picnic Shelter (large)	1	EA	\$250,000.00	\$250,000.00
6.04 Picnic Shelter (small)	0	EA	\$60,000.00	\$0.00
6.05 Batting Cage Building	0	EA	\$1,000,000.00	\$0.00
6.06 Concessions/Restroom Buildings	1	EA	\$800,000.00	\$800,000.00
7.00 Ballfield Improvements (see Attachment A)				
7.01 Multi-Purpose Baseball Field with Synthetic Turf	0	EA	\$1,533,330.00	\$0.00
7.02 Multi-Purpose Baseball Field Lighting	0	EA	\$469,500.00	\$0.00
7.03 Multi-Purpose Softball Field with Synthetic Turf	5	EA	\$1,320,000.00	\$6,600,000.00
7.04 Multi-Purpose Softball Field Lighting	5	EA	\$360,000.00	\$1,800,000.00
7.05 Multi-Purpose Field 1 (grass)	0	EA	\$893,300.00	\$0.00
7.06 Multi-Purpose Field 2 (synthetic turf)	0	LS	\$1,587,500.00	\$0.00
8.00 Civil Site Improvements (see Attachment B)				
8.01 Civil Site Improvements	1	LS	\$4,712,747.90	\$4,712,747.90
9.00 Temporary Restoration				
9.01 Seed restoration (minimal soil prep, no irrigation)	25,000	SY	\$2.50	\$62,500.00
9.02 Gravel or asphalt paving restoration	0	SF	\$4.00	\$0.00
			<i>Construction Subtotal (1)</i>	<i>\$20,630,055.90</i>
			Contractor Mobilization & Overhead (20%)	\$ 4,126,011.18
			Sales Tax (8.1%)	\$ 1,671,034.53
			<i>Subtotal (2)</i>	<i>\$ 26,427,101.61</i>
			Contingency (15%)	\$ 3,964,065.24
			Construction Total	\$ 30,391,166.85
			Site Survey	\$ 25,000.00
			Wetland Delineation / Biological Assessment	\$ 15,000.00
			SEPA	\$ 10,000.00
			A&E Fees (7%)	\$ 2,127,381.68
			Admin / Permitting (5%)	\$ 1,519,558.34
			Phase 1 Total	\$ 34,088,106.87
			<i>Escalation to 2020 dollars (est. 3%)</i>	<i>\$ 35,110,750</i>
			<i>Escalation to 2021 dollars (est. 3%)</i>	<i>\$ 36,164,073</i>
			<i>Escalation to 2022 dollars (est. 3%)</i>	<i>\$ 37,248,995</i>

Assumptions:

- Items listed are for the entire project. Where they do not occur within a phase, the quantity and unit costs are "0". This allows comparison across phases and with the overall / single phase project cost.

Estimate of Probable Cost of Construction

HBB Landscape Architecture

Date: 5/21/2019

Project Name: Longview Athletic Facility Complex Master Plan
Project Number: 2018-30
Project Phase: 200
Prepared By: B. Haddox / R. Dotson
Checked By: D. Koonts

Phase 2 Total: \$19,917,134.65

Phase 2

Item	Description	Qty	Unit	Unit Cost	Item Total
1.00	Paving				
1.01	Pedestrian Concrete Paving (4" thick with 4" base)	53,403	SF	\$8.00	\$427,224.00
1.02	Vehicular Concrete Paving (6" thick with 8" base)	10,479	SF	\$14.00	\$146,706.00
1.03	Color Pedestrian Concrete Paving	12,723	SF	\$16.00	\$203,568.00
1.04	Color Vehicular Concrete Paving (6" thick with 8" base)	0	SF	\$20.00	\$0.00
1.05	Pedestrian Asphalt Paving (3" thick with 4" thick base)	40,813	SF	\$4.25	\$173,455.25
2.00	Planting				
2.01	Tree (deciduous)	84	EA	\$400.00	\$33,600.00
2.02	Tree (coniferous)	3	EA	\$350.00	\$1,050.00
2.03	Accent Planting (with soil prep and irrigation)	20,962	SF	\$18.00	\$377,316.00
2.04	Raingarden Planting (with soil prep and irrigation)	0	SF	\$20.00	\$0.00
2.05	Seed Lawn (with soil prep and irrigation)	230,000	SF	\$4.00	\$920,000.00
2.06	Seed mix (reduced soil prep and irrigation rotors)	0	SF	\$2.50	\$0.00
2.07	Tree Nursery (1" compost, 3" mulch topping)	0	SF	\$0.50	\$0.00
4.00	Site Improvements				
4.01	Disc Golf - 9 Holes (salvaged baskets, signs, paved tees)	0	LS	\$20,000.00	\$0.00
4.02	Tennis / Pickleball Court	1	LS	\$17,500.00	\$17,500.00
4.03	Basketball (goals and court striping)	0	LS	\$8,500.00	\$0.00
4.04	Trash/Recycle Receptacle	10	EA	\$2,000.00	\$20,000.00
4.05	Drinking Fountain	3	EA	\$17,000.00	\$51,000.00
4.06	Bench	10	EA	\$1,800.00	\$18,000.00
4.07	Seat Wall	272	LF	\$125.00	\$34,000.00
4.08	Picnic Table	16	EA	\$3,300.00	\$52,800.00
4.09	Bike Rack	1	EA	\$1,000.00	\$1,000.00
4.10	Flag Pole & Flag (25' Aluminum Pole)	0	EA	\$4,000.00	\$0.00
4.11	Signs-Miscellaneous (Wayfinding, Rules)	3	EA	\$2,000.00	\$6,000.00
4.12	Signs-Traffic	2	EA	\$500.00	\$1,000.00
4.13	Entry Sign (monument style)	1	EA	\$10,000.00	\$10,000.00
4.14	Play Area (tot-lot, includes unitary surfacing)	0	EA	\$200,000.00	\$0.00
4.15	Play Area (medium, with spray park, includes surfacing)	0	EA	\$600,000.00	\$0.00
4.16	Play Area (large, includes unitary surfacing)	1	EA	\$700,000.00	\$700,000.00
4.17	Fitness Station (with play chip surfacing)	4	EA	\$10,000.00	\$40,000.00
4.18	Fencing (6' height black vinyl chainlink with gate)	0	LF	\$30.00	\$0.00
4.19	Scoreboards	2	EA	\$20,000.00	\$40,000.00
5.00	Site Electrical & Lighting (see section 7 for ballfield lighting)				
5.01	Parking and Vehicular Lighting	10	EA	17000.00	\$170,000.00
5.02	Pedestrian Lighting	4	EA	9000.00	\$36,000.00
5.03	Electrical (fiber/telecom/cctv/wiring/j-boxes/conduit/controllers)	1	LS	\$20,600.00	\$20,600.00

6.00 Buildings				
6.01 Recreation Center	0	LS	\$15,000,000.00	\$0.00
6.02 Maintenance overhead structure (50'x100' prefab. steel)	0	EA	\$130,000.00	\$0.00
6.03 Picnic Shelter (large)	1	EA	\$250,000.00	\$250,000.00
6.04 Picnic Shelter (small)	2	EA	\$60,000.00	\$120,000.00
6.05 Batting Cage Building	1	EA	\$1,000,000.00	\$1,000,000.00
6.06 Concessions/Restroom Buildings	1	EA	\$800,000.00	\$800,000.00
7.00 Ballfield Improvements (see Attachment A)				
7.01 Multi-Purpose Baseball Field with Synthetic Turf	2	EA	\$1,533,330.00	\$3,066,660.00
7.02 Multi-Purpose Baseball Field Lighting	2	EA	\$469,500.00	\$939,000.00
7.03 Multi-Purpose Softball Field with Synthetic Turf	0	EA	\$1,320,000.00	\$0.00
7.04 Multi-Purpose Softball Field Lighting	0	EA	\$360,000.00	\$0.00
7.05 Multi-Purpose Field 1 (grass)	1	EA	\$893,300.00	\$893,300.00
7.06 Multi-Purpose Field 2 (synthetic turf)	0	LS	\$1,587,500.00	\$0.00
8.00 Civil Site Improvements (see Attachment B)				
8.01 Civil Site Improvements	1	LS	\$1,352,620.40	\$1,352,620.40
9.00 Temporary Restoration				
9.01 Seed restoration (minimal soil prep, no irrigation)	29,553	SY	\$2.50	\$73,882.50
9.02 Gravel or asphalt paving restoration	16,536	SF	\$4.00	\$66,144.00
			<i>Construction Subtotal (1)</i>	<i>\$12,062,426.15</i>
			Contractor Mobilization & Overhead (20%)	\$ 2,412,485.23
			Sales Tax (8.1%)	\$ 977,056.52
			<i>Subtotal (2)</i>	<i>\$ 15,451,967.90</i>
			Contingency (15%)	\$ 2,317,795.18
			Construction Total	\$ 17,769,763.08
			Site Survey	\$ 15,000.00
			Wetland Delineation / Biological Assessment	\$ -
			SEPA	\$ -
			A&E Fees (7%)	\$ 1,243,883.42
			Admin / Permitting (5%)	\$ 888,488.15
			Phase 2 Total	\$ 19,917,134.65
			<i>Escalation to 2020 dollars (est. 3%)</i>	<i>\$ 20,514,649</i>
			<i>Escalation to 2021 dollars (est. 3%)</i>	<i>\$ 21,130,088</i>
			<i>Escalation to 2022 dollars (est. 3%)</i>	<i>\$ 21,763,991</i>

Assumptions:

1. Items listed are for the entire project. Where they do not occur within a phase, the quantity and unit costs are "0". This allows comparison across phases and with the overall / single phase project cost.

Estimate of Probable Cost of Construction

HBB Landscape Architecture

Date: 5/21/2019

Project Name: Longview Athletic Facility Complex Master Plan
Project Number: 2018-30
Project Phase: 200
Prepared By: B. Haddox / R. Dotson
Checked By: D. Koonts

Phase 3 Total: \$33,447,902.93

Phase 3

Item	Description	Qty	Unit	Unit Cost	Item Total
1.00	Paving				
1.01	Pedestrian Concrete Paving (4" thick with 4" base)	62,105	SF	\$8.00	\$496,840.00
1.02	Vehicular Concrete Paving (6" thick with 8" base)	0	SF	\$14.00	\$0.00
1.03	Color Pedestrian Concrete Paving	5,042	SF	\$16.00	\$80,672.00
1.04	Color Vehicular Concrete Paving (6" thick with 8" base)	0	SF	\$20.00	\$0.00
1.05	Pedestrian Asphalt Paving (3" thick with 4" thick base)	0	SF	\$4.25	\$0.00
2.00	Planting				
2.01	Tree (deciduous)	68	EA	\$400.00	\$27,200.00
2.02	Tree (coniferous)	4	EA	\$350.00	\$1,400.00
2.03	Accent Planting (with soil prep and irrigation)	28,400	SF	\$18.00	\$511,200.00
2.04	Raingarden Planting (with soil prep and irrigation)	0	SF	\$20.00	\$0.00
2.05	Seed Lawn (with soil prep and irrigation)	0	SF	\$4.00	\$0.00
2.06	Seed mix (reduced soil prep and irrigation rotors)	0	SF	\$2.50	\$0.00
2.07	Tree Nursery (1" compost, 3" mulch topping)	0	SF	\$0.50	\$0.00
4.00	Site Improvements				
4.01	Disc Golf - 9 Holes (salvaged baskets, signs, paved tees)	0	LS	\$20,000.00	\$0.00
4.02	Tennis / Pickleball Court	0	LS	\$17,500.00	\$0.00
4.03	Basketball (goals and court striping)	1	LS	\$8,500.00	\$8,500.00
4.04	Trash/Recycle Receptacle	8	EA	\$2,000.00	\$16,000.00
4.05	Drinking Fountain	2	EA	\$17,000.00	\$34,000.00
4.06	Bench	15	EA	\$1,800.00	\$27,000.00
4.07	Seat Wall	250	LF	\$125.00	\$31,250.00
4.08	Picnic Table	7	EA	\$3,300.00	\$23,100.00
4.09	Bike Rack	2	EA	\$1,000.00	\$2,000.00
4.10	Flag Pole & Flag (25' Aluminum Pole)	1	EA	\$4,000.00	\$4,000.00
4.11	Signs-Miscellaneous (Wayfinding, Rules)	3	EA	\$2,000.00	\$6,000.00
4.12	Signs-Traffic	6	EA	\$500.00	\$3,000.00
4.13	Entry Sign (monument style)	0	EA	\$10,000.00	\$0.00
4.14	Play Area (tot-lot, includes unitary surfacing)	0	EA	\$200,000.00	\$0.00
4.15	Play Area (medium, with spray park, includes surfacing)	1	EA	\$600,000.00	\$600,000.00
4.16	Play Area (large, includes unitary surfacing)	0	EA	\$700,000.00	\$0.00
4.17	Fitness Station (with play chip surfacing)	0	EA	\$10,000.00	\$0.00
4.18	Fencing (6' height black vinyl chainlink with gate)	0	LF	\$30.00	\$0.00
5.00	Site Electrical & Lighting (see section 7 for ballfield lighting)				
5.01	Parking and Vehicular Lighting	4	EA	17000.00	\$68,000.00
5.02	Pedestrian Lighting	2	EA	9000.00	\$18,000.00
5.03	Electrical (fiber/telecom/cctv/wiring/j-boxes/conduit/controllers)	1	LS	\$8,600.00	\$8,600.00

6.00 Buildings				
6.01 Recreation Center	1	LS	\$15,000,000.00	\$15,000,000.00
6.02 Maintenance overhead structure (50'x100' prefab. steel)	0	EA	\$130,000.00	\$0.00
6.03 Picnic Shelter (large)	1	EA	\$250,000.00	\$250,000.00
6.04 Picnic Shelter (small)	3	EA	\$60,000.00	\$180,000.00
6.05 Batting Cage Building	0	EA	\$1,000,000.00	\$0.00
6.06 Concessions/Restroom Buildings	0	EA	\$800,000.00	\$0.00
7.00 Ballfield Improvements (see Attachment A)				
7.01 Multi-Purpose Baseball Field with Synthetic Turf	0	EA	\$1,533,330.00	\$0.00
7.02 Multi-Purpose Baseball Field Lighting	0	EA	\$469,500.00	\$0.00
7.03 Multi-Purpose Softball Field with Synthetic Turf	0	EA	\$1,320,000.00	\$0.00
7.04 Multi-Purpose Softball Field Lighting	0	EA	\$360,000.00	\$0.00
7.05 Multi-Purpose Field 1 (grass)	0	EA	\$893,300.00	\$0.00
7.06 Multi-Purpose Field 2 (synthetic turf)	1	LS	\$1,587,500.00	\$1,587,500.00
8.00 Civil Site Improvements (see Attachment B)				
8.01 Civil Site Improvements	1	LS	\$1,285,048.50	\$1,285,048.50
9.00 Temporary Restoration				
9.01 Seed restoration (minimal soil prep, no irrigation)	0	SY	\$2.50	\$0.00
9.02 Gravel or asphalt paving restoration	0	SF	\$4.00	\$0.00
			<i>Construction Subtotal (1)</i>	<i>\$20,269,310.50</i>
			Contractor Mobilization & Overhead (20%)	\$ 4,053,862.10
			Sales Tax (8.1%)	\$ 1,641,814.15
			<i>Subtotal (2)</i>	<i>\$ 25,964,986.75</i>
			Contingency (15%)	\$ 3,894,748.01
			Construction Total	\$ 29,859,734.76
			Site Survey	\$ 5,000.00
			Wetland Delineation / Biological Assessment	\$ -
			SEPA	\$ -
			A&E Fees (7%)	\$ 2,090,181.43
			Admin / Permitting (5%)	\$ 1,492,986.74
			Phase 3 Total	\$ 33,447,902.93
			<i>Escalation to 2020 dollars (est. 3%)</i>	<i>\$ 34,451,340</i>
			<i>Escalation to 2021 dollars (est. 3%)</i>	<i>\$ 35,484,880</i>
			<i>Escalation to 2022 dollars (est. 3%)</i>	<i>\$ 36,549,427</i>

Assumptions:

1. Items listed are for the entire project. Where they do not occur within a phase, the quantity and unit costs are "0". This allows comparison across phases and with the overall / single phase project cost.

Estimate of Probable Cost of Construction

HBB Landscape Architecture

Date: 5/21/2019

Project Name: Longview Athletic Facility Complex Master Plan
Project Number: 2018-30
Project Phase: 200
Prepared By: B. Haddox / R. Dotson
Checked By: D. Koonts

Athletic Complex Only Total: \$47,869,880.79

Athletic Complex Only / Single Phase

Item	Description	Qty	Unit	Unit Cost	Item Total
1.00	Paving				
1.01	Pedestrian Concrete Paving (4" thick with 4" base)	192,600	SF	\$8.00	\$1,540,800.00
1.02	Vehicular Concrete Paving (6" thick with 8" base)	59,199	SF	\$14.00	\$828,786.00
1.03	Pedestrian Asphalt Paving (3" thick with 4" thick base)	48,000	SF	\$4.25	\$204,000.00
2.00	Planting				
2.01	Tree (deciduous)	175	EA	\$400.00	\$70,000.00
2.02	Tree (coniferous)	14	EA	\$350.00	\$4,900.00
2.03	Accent Planting (with soil prep and irrigation)	45,000	SF	\$18.00	\$810,000.00
2.04	Seed Lawn (with soil prep and irrigation)	826,000	SF	\$4.00	\$3,304,000.00
2.05	Tree Nursery (1" compost, 3" mulch topping)	31,200	SF	\$0.50	\$15,600.00
4.00	Site Improvements				
4.01	Trash/Recycle Receptacle	16	EA	\$2,000.00	\$32,000.00
4.02	Drinking Fountain	4	EA	\$17,000.00	\$68,000.00
4.03	Bench	20	EA	\$1,800.00	\$36,000.00
4.04	Seat Wall	350	LF	\$125.00	\$43,750.00
4.05	Picnic Table	28	EA	\$3,300.00	\$92,400.00
4.06	Flag Pole & Flag (25' Aluminum Pole)	2	EA	\$4,000.00	\$8,000.00
4.07	Signs-Miscellaneous (Wayfinding, Rules)	9	EA	\$2,000.00	\$18,000.00
4.08	Signs-Traffic	14	EA	\$500.00	\$7,000.00
4.09	Entry Sign (monument style)	2	EA	\$10,000.00	\$20,000.00
4.10	Play Area (tot-lot, includes unitary surfacing)	1	EA	\$200,000.00	\$200,000.00
4.11	Fencing (6' height black vinyl chainlink with gate)	1,100	LF	\$30.00	\$33,000.00
4.12	Scoreboards	7	EA	\$20,000.00	\$140,000.00
5.00	Site Electrical & Lighting (see section 7 for ballfield lighting)				
5.01	Parking and Vehicular Lighting	44	EA	\$17,000.00	\$748,000.00
5.02	Pedestrian Lighting	10	EA	\$9,000.00	\$90,000.00
5.03	Electrical (fiber/telecom/cctv/wiring/j-boxes/conduit/controllers)	1	LS	\$83,800.00	\$83,800.00

6.00 Buildings				
6.01 Maintenance overhead structure (50'x100' prefab. steel)	2	EA	\$130,000.00	\$260,000.00
6.02 Concessions/Restroom Buildings	2	EA	\$800,000.00	\$1,600,000.00
7.00 Ballfield Improvements (see Attachment A)				
7.01 Multi-Purpose Baseball Field with Synthetic Turf	2	EA	\$1,533,330.00	\$3,066,660.00
7.02 Multi-Purpose Baseball Field Lighting	2	EA	\$469,500.00	\$939,000.00
7.03 Multi-Purpose Softball Field with Synthetic Turf	5	EA	\$1,320,000.00	\$6,600,000.00
7.04 Multi-Purpose Softball Field Lighting	5	EA	\$360,000.00	\$1,800,000.00
7.05 Multi-Purpose Field 1 (grass)	1	EA	\$893,300.00	\$893,300.00
7.06 Multi-Purpose Field 2 (synthetic turf)	1	LS	\$1,587,500.00	\$1,587,500.00
8.00 Civil Site Improvements (see Attachment B)				
8.01 Civil Site Improvements	1	LS	\$7,350,416.80	\$7,350,416.80
			<i>Construction Subtotal (1)</i>	<i>\$32,494,912.80</i>
			Contractor Mobilization & Overhead (20%)	\$ 6,498,982.56
			Sales Tax (8.1%)	\$ 2,632,087.94
			<i>Subtotal (2)</i>	<i>\$ 41,625,983.30</i>
			Contingency (15%)	\$ 6,243,897.49
			Construction Total	\$ 47,869,880.79
			Site Survey	\$ 25,000.00
			Wetland Delineation / Biological Assessment	\$ 15,000.00
			SEPA	\$ 10,000.00
			A&E Fees (7%)	\$ 3,350,891.66
			Admin / Permitting (5%)	\$ 2,393,494.04
			Athletic Complex Only Total	\$ 53,664,266.49

Assumptions:

1. Items listed are for the entire project. Where they do not occur within a phase, the quantity and unit costs are "0". This allows comparison across phases and with the overall / single phase project cost.
2. Batting cage building stays in place.

1 **Longview Athletic Complex**
2 **Recreational Athletic Facilities**
3 **Construction Cost Estimate Summary**



4 Prepared for: HBB Landscape Architecture
5 rev. 1-21-19 ejg

Description / Item	Quantity	Unit	Unit Cost	Est. Cost	Total	Detail
Multi-Purpose Baseball Field with Synthetic Turf	2.00	ea	\$ 1,533,330.00	3,066,660.00		See Key Plan Page 2
Multi-Purpose Baseball Field Alternative Infills	2.00	ea	\$ 310,700.00	621,400.00		Page 3
Multi-Purpose Baseball Field Lighting	2.00	ea	\$ 469,500.00	939,000.00		Page 4
Multi-Purpose Softball Field with Synthetic Turf	5.00	ea	\$ 1,320,000.00	6,600,000.00		Page 9
Multi-Purpose Softball Field Alternative Infills	5.00	ea	\$ 270,000.00	1,350,000.00		Page 5
Multi Purpose Softball Field Lighting	5.00	ea	\$ 360,000.00	1,800,000.00		Page 6
Multi-Purpose Field 1 (Grass)	1.00	ea	\$ 893,300.00	893,300.00		Page 10
Multi-Purpose Field 2 (Synthetic Turf)	1.00	ea	\$ 1,587,500.00	1,587,500.00		Page 7
MULTI-PURPOSE BASEBALL FIELD CONSTRUCTION CONTRACT AMOUNT					16,857,860.00	Complete including Contractor Markups(see note)

17 *Note: Markups shown assume this work is contracted independently. If the work is Contracted as a part of a larger Phase the markups shown should remain as-is, and any any other General Contractor markup applied on top of the estimate. Does not include*
18 *WSST, Permit Fees except OTC plumbing and electrical, Construction Materials Testing and Special Inspections, Design & Professional Services fees, or Construction Management.*



1 **Longview Athletic Complex**
2 **Recreational Athletic Facilities**
3 **Construction Cost Estimates**

4 Prepared for: HBB Landscape Architecture

5 rev. 1-21-19 ejg



Description / Item	Quantity	Unit	Unit Cost	Est. Cost	Total	Note
Multi-Purpose Baseball Field	114,700.00	sf	\$ 13.37	per sf		
<i>Description: Primarily Babe Ruth Little League Baseball (ages 13-18) using a 90' base path and portable pitching mound to accommodate other program elements. Secondary program includes Youth & Adult recreational soccer, and with minimal conversion including "throw-down" bases, Adult softball. All vertically-draining synthetic turf surfaces constructed on a 10"-12" base of permeable crushed aggregate (depending on designed slope), subsurface drainage spaced 15' o.c. to a single point-of-discharge collector pipe. Manual quick-coupler system for washdown, field conditioning, and limited evaporative cooling. Rough subgrade, irrigation water supply, and storm drainage point of connection by others. Cost detail is "per field".</i>						
Site Preparation & TESC	114,700.00	sf	\$ 0.11			Total footprint
Construction Survey & Staking	1.00	ls	2,250.00	2,250.00		Laser vertical control
Temporary Erosion Control Facilities	-	ls	-	-		See Site Civil
TESC Maintenance & SWPPP Compliance	-	mo	2,500.00	-		See Site Civil
Verification of Subgrade, All competition areas	107,665.00	sf	0.05	5,383.25		Laser Topo Model
Soil Recovery Volume, Import or Export 0.05', Allow	200.00	bcy	25.00	5,000.00		Adjust from Site Civil Rough Grade
Section Total					12,633.25	
Baseball Field Construction	107,665.00	sf	6.48			
Fine Grading for Subgrade Establishment, Soil	107,665.00	sf	0.10	10,766.50		Laser Grading
Irrigation Main Line, 2" Sch. 40 PVC	1,570.00	lf	10.50	16,485.00		Connect at Landscape
Quick Couplers / Turf Boxes	6.00	ea	800.00	4,800.00		Specialty in-ground handhole for turf
30' Chain Link Fence	80.00	lf	225.00	18,000.00		Straight Posts
10' Chain Link Fencing / 15' Ball Control Netting (B)	380.00	lf	180.00	68,400.00		Nylon Ball Control
10' Chain Link Fence w/ Top Middle & Bottom Rail (C)	1,110.00	lf	70.00	77,700.00		Foul territory, outfield, and bullpens
9' Chain Link Fence w/ Top Middle & Bottom Rails-D	120.00	lf	70.00	8,400.00		Dugouts
Dugout Roof Assembly	2.00	ea	7,500.00	15,000.00		
Wind Screen @ 10' Fence	100.00	lf	27.00	2,700.00		Batters Eye @ centerfield fence
Fence Safety Cap	850.00	lf	6.00	5,100.00		Outfield, Foul Territory
Transomed Chain Link Gates, Single Leaf, 5' width	6.00	ea	600.00	3,600.00		Allowance
Double Swing Gate 10' (2 x5')	1.00	ea	1,200.00	1,200.00		Allowance
Concrete Curbing, Main Field	1,310.00	lf	22.50	29,475.00		
Concrete Curbing, Bullpens	260.00	lf	22.50	5,850.00		
Type 1 Catch Basin	1.00	ea	1,000.00	1,000.00		Control Structure in turf @ point of discharge
8" CPEP Drainage Piping	400.00	lf	40.00	16,000.00		
Subsurface Drainage (4" Perf CPEP Drainage)	7,180.00	lf	9.50	68,210.00		15' on-center spacing @ vertically draining surfaces
Structural Fabric	11,965.00	sy	2.00	23,930.00		
Base Course Permeable Aggregate (8.25", 1.6ton/cy)	4,255.00	ton	50.00	212,750.00		Specialty aggregate specification
Top Course Permeable Aggregate (2", 1.6 ton/cy)	1,065.00	ton	60.00	63,900.00		Specialty aggregate specification
Perimeter Turf Edge Anchor (on Curb, Field & Pens)	1,570.00	lf	6.00	9,420.00		Recycled Plastic 2x4, ram-set
Backboard Padding, 20' x3.5'	1.00	ls	1,800.00	1,800.00		2" closed-cell foal, 18oz vinyl clad
Bases & Anchors	3.00	ea	400.00	1,200.00		
Home Plate	1.00	ea	325.00	325.00		Game field only
Outfield Distance Signage	5.00	ea	160.00	800.00		
10' Aluminum Player Benches	6.00	each	600.00	3,600.00		
On Deck Circle, Portable	2.00	each	400.00	800.00		
Catchers Mat	5.00	each	625.00	3,125.00		(1) Game Field, (4) Bullpens
BP Hitting Mat	1.00	ea	325.00	325.00		

1 Longview Athletic Complex
2 Recreational Athletic Facilities
3 Construction Cost Estimates

4 Prepared for: HBB Landscape Architecture
5 rev. 1-21-19 ejg



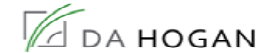
Description / Item	Quantity	Unit	Unit Cost	Est. Cost	Total	Note
Spectator Bleachers, 5-row x24', cap. 50, accessible	4.00	ea	5,750.00	23,000.00		
Subtotal Multi-Purpose Baseball Field					697,661.50	
Baseball Field Synthetic Turf Surfacing	107,665.00	sf	5.01			
Synthetic Turf: 2.5" Monofilament, Green	76,350.00	sf	4.85	370,297.50		Competitively Bid high-wear product, SBR infill
Synthetic Turf, 2.25" Tape/Slit-Film, Brown	31,315.00	sf	4.55	142,483.25		Competitively Bid high-wear product, SBR infill
Baseball Markings Complete	1.00	ea	7,500.00	7,500.00		White
Soccer Markings Complete	1.00	ea	12,500.00	12,500.00		Blue or TBD
Synthetic Turf Materials - Surplus	1.00	ls	750.00	750.00		Reduced from typical qty. assuming multiple fields
Pre-shipment Testing	1.00	ls	1,620.00	1,620.00		
G-Max Testing	5.00	ea	800.00	4,000.00		Over 8-year warranty, reduced for multiple fields
Synthetic Turf Subtotal					539,150.75	
Multi-Purpose Baseball Field Construction Subtotal					1,249,445.50	
SubContractor Markup & General Conditions	0.227	of	1,249,445.50			See "Markup" Notes below.
Insurance (1%)	0.010	ls	1,249,445.50	12,494.46		
Bonding (1.5%)	0.015	ls	1,249,445.50	18,741.68		
Mobilization (5%)	0.050	ls	1,249,445.50	62,472.28		
Overhead & Profit (12.5%)	0.125	ls	1,249,445.50	156,180.69		
Construction Superintendence & Project Management	4.00	mo	8,000.00	32,000.00		
Temporary Facilities (Sanitation, Security, Admin.)	4.00	mo	500.00	2,000.00		
Section Total					283,889.10	
MULTI-PURPOSE BASEBALL FIELD CONSTRUCTION CONTRACT AMOUNT					1,533,334.60	Per Field, Priced assuming 2 are built together
Alternate Bid Item 1 Alternative Turf Infills at Baseball	107,665.00	sf	\$ 2.89			Alternative to SBRCrumb Rubber
Baseball Alternative Infill, i.e., Granular Cork	107,665.00	sf	0.60	64,599.00		Cost covers most options
Baseball Supplemental Pad	107,665.00	sf	1.75	188,413.75		Requires supplemental resilient underlayment
Contractor Markups	0.228	of	253,012.75	57,686.91		
Total Additive Alternate Per Field					310,699.66	

Note: Markups shown assume this work is contracted independently. If the work is Contracted as a part of a larger Phase the markups shown should remain as-is, and any any other General Contractor markup applied on top of the estimate. Does not include WSST, Permit Fees except OTC plumbing and electrical, Construction Materials Testing and Special Inspections, Design & Professional Services fees, or Construction Management.

1 **Longview Athletic Complex**
2 **Recreational Athletic Facilities**
3 **Construction Cost Estimates**

4 Prepared for: HBB Landscape Architecture

5 rev. 1-21-19 ejg



Description / Item	Quantity	Unit	Unit Cost	Est. Cost	Total	Note
8 Multi-Purpose Softball Field	98,725.00	sf	\$ 13.37	per sf		
<i>Description: Shared-Use Little League and Fast-Pitch Softball (ages 8-16) and Adult Recreational League Softball using a 60' base path and portable outfield fences. Secondary programs include Babe Ruth Little League Baseball using a 90' base path, and Youth Soccer (U11). All vertically-draining synthetic turf surfaces constructed on a 10"-12" base of permeable crushed aggregate (depending on designed slope), subsurface drainage spaced 15' o.c. to a single point-of-discharge collector pipe. Manual quick-coupler system for washdown, field conditioning, and limited evaporative cooling. Rough subgrade, irrigation water supply, and storm drainage point of connection by others. Cost detail is "per field".</i>						
10 Softball Field Site Preparation & TESC	98,725.00	sf	0.11			Total footprint
11 Construction Survey & Staking	1.00	ls	1,500.00	1,500.00		Laser vertical control
12 Temporary Erosion Control Facilities	-	ls	-	-		See Site Civil
13 TESC Maintenance & SWPPP Compliance	-	mo	1,750.00	-		See Site Civil
14 Verification of Subgrade, All competition areas	93,225.00	sf	0.05	4,661.25		Laser Topo Model
15 Soil Recovery Volume, Import or Export 0.05', Allow	175.00	bcy	25.00	4,375.00		Adjust from Site Civil Rough Grade
16 Section Total					10,536.25	
17						
18 Softball Field Construction	93,225.00	sf	6.37			
19 Fine Grading for Subgrade Establishment, Soil	93,225.00	sf	0.10	9,322.50		Laser Grading
20 Irrigation Main Line, 2" Sch. 40 PVC	1,220.00	lf	10.50	12,810.00		Connect at Landscape
21 Quick Couplers / Turf Boxes	4.00	ea	800.00	3,200.00		Specialty in-ground handhole for turf
22 30' Chain Link Fence	80.00	lf	225.00	18,000.00		Straight Posts
23 10' Chain Link Fencing / 15' Ball Control Netting (B)	220.00	lf	180.00	39,600.00		Nylon Ball Control
24 10' Chain Link Fence w/ Top Middle & Bottom Rail (C)	240.00	lf	70.00	16,800.00		Foul territory
25 8' Chain Link Fence w/ Top Middle & Bottom Rail (C)	560.00	lf	70.00	39,200.00		Outfield
26 9' Chain Link Fence w/ Top Middle & Bottom Rails-D	120.00	lf	70.00	8,400.00		Dugouts
27 4' Portable Outfield Fence, nom. 10' panel	35.00	ea	900.00	31,500.00		Allowance
28 Dugout Roof Assembly	2.00	ea	7,500.00	15,000.00		
29 Wind Screen @ 8' Fence	100.00	lf	23.50	2,350.00		Batters Eye @ centerfield fence
30 Fence Safety Cap	560.00	lf	6.00	3,360.00		Outfield, Foul Territory
31 Transomed Chain Link Gates, Single Leaf, 5' width	6.00	ea	600.00	3,600.00		Allowance
32 Double Swing Gate 10' (2 x5')	1.00	ea	1,200.00	1,200.00		Allowance
33 Concrete Curbing, Main Field	1,220.00	lf	22.50	27,450.00		
34 Type 1 Catch Basin	1.00	ea	1,000.00	1,000.00		Control Structure in turf @ point of discharge
35 8" CPEP Drainage Piping	340.00	lf	40.00	13,600.00		
36 Subsurface Drainage (4" Perf CPEP Drainage)	6,215.00	lf	9.50	59,042.50		15' on-center spacing @ vertically draining surfaces
37 Structural Fabric	10,360.00	sy	2.00	20,720.00		
38 Base Course Permeable Aggregate (8.25", 1.6ton/cy)	3,685.00	ton	50.00	184,250.00		Specialty aggregate specification
39 Top Course Permeable Aggregate (2", 1.6 ton/cy)	925.00	ton	60.00	55,500.00		Specialty aggregate specification
40 Perimeter Turf Edge Anchor (on Curb, Field & Pens)	1,225.00	lf	6.00	7,350.00		Recycled Plastic 2x4, ram-set
41 Backboard Padding, 20' x3.5'	1.00	ls	1,800.00	1,800.00		2" closed-cell foal, 18oz vinyl clad
42 Bases & Anchors	3.00	ea	400.00	1,200.00		
43 Home Plate	1.00	ea	325.00	325.00		Game field only
44 Outfield Distance Signage	3.00	ea	160.00	480.00		
45 10' Aluminum Player Benches	6.00	each	600.00	3,600.00		
46 On Deck Circle, Portable	2.00	each	400.00	800.00		
47 Catchers Mat	1.00	each	625.00	625.00		(1) Game Field, (4) Bullpens

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Description / Item	Quantity	Unit	Unit Cost	Est. Cost	Total	Note
BP Hitting Mat	1.00	ea	325.00	325.00		
Spectator Bleachers, 5-row x24', cap. 50, accessible	2.00	ea	5,750.00	11,500.00		
Softball Field Construction Subtotal					593,910.00	
Softball Field Synthetic Turf	93,225.00	sf	5.01			
Synthetic Turf: 2.5" Monofilament, Green	77,740.00	sf	4.85	377,039.00		Competitively Bid high-wear product, SBR infill
Synthetic Turf, 2.25" Tape/Slit-Film, Brown	14,495.00	sf	4.55	65,952.25		Competitively Bid high-wear product, SBR infill
Softball Markings Complete	1.00	ea	7,500.00	7,500.00		White
Soccer Markings Complete	1.00	ea	10,000.00	10,000.00		Blue or TBD
Synthetic Turf Materials - Surplus	1.00	ls	750.00	750.00		Reduced from typical qty. assuming multiple fields
Pre-shipment Testing	1.00	ls	1,620.00	1,620.00		
G-Max Testing	5.00	ea	800.00	4,000.00		Over 8-year warranty, reduced for multiple fields
Softball Field Synthetic Turf Subtotal					466,861.25	
Multi-Purpose Softball Field Construction Subtotal					1,071,307.50	
Contractor Markup & General Conditions	0.232	of	1,071,307.50			See "Markup" Notes below.
Insurance (1%)	0.010	ls	1,071,307.50	10,713.08		
Bonding (1.5%)	0.015	ls	1,071,307.50	16,069.61		
Mobilization (5%)	0.050	ls	1,071,307.50	53,565.38		
Overhead & Profit (12.5%)	0.125	ls	1,071,307.50	133,913.44		
Construction Superintendence & Project Management	4.00	mo	8,000.00	32,000.00		
Temporary Facilities (Sanitation, Security, Admin.)	4.00	mo	500.00	2,000.00		
Section Total					248,261.50	
MULTI-PURPOSE SOFTBALL FIELD CONSTRUCTION CONTRACT AMOUNT					1,319,569.00	
Alternate Bid Item 2 Alternative Turf Infills at Softball	93,225.00	sf	\$ 2.89			Alternative to SBRCrumb Rubber
Softball Alternative Infill, i.e., Granular Cork	93,225.00	sf	0.60	55,935.00		Cost covers most options
Softball Supplemental Pad	93,225.00	sf	1.75	163,143.75		Requires supplemental resilient underlayment
Contractor Markups	0.228	of	219,078.75	49,949.96		
Total Additive Alternate Per Field					269,028.71	

Note: Markups shown assume this work is contracted independently. If the work is Contracted as a part of a larger Phase the markups shown should remain as-is, and any any other General Contractor markup applied on top of the estimate.
Does not include WSST, Permit Fees except OTC plumbing and electrical, Construction Materials Testing and Special Inspections, Design & Professional Services fees, or Construction Management.

1 Longview Athletic Complex
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Description / Item	Quantity	Unit	Unit Cost	Est. Cost	Total	Note
Field 1 (Grass)	92,900.00	sf	\$ 9.62	per sf		
<i>Description: Associated with the Community Recreation Building, this open grass area is an engineered, vertically draining sand-based sports field disguised as a landscape lawn. Includes automatic rotor irrigation, subsurface drainage, etc. No fencing, site furnishings, or equipment is detailed here.</i>						
MultiPurpose Field 1 Site Preparation & TESC	92,900.00	sf	0.11			Total footprint
Construction Survey & Staking	1.00	ls	1,500.00	1,500.00		Laser vertical control
Temporary Erosion Control Facilities	-	ls	-	-		See Site Civil
TESC Maintenance & SWPPP Compliance	-	mo	1,750.00	-		See Site Civil
Verification of Subgrade, All competition areas	92,900.00	sf	0.05	4,645.00		Laser Topo Model
Soil Recovery Volume, Import or Export 0.05', Allow	175.00	bcy	25.00	4,375.00		Adjust from Site Civil Rough Grade
Section Total					10,520.00	
Grass Field 1 Field Construction	91,700.00	sf	7.77			
Fine Grading for Subgrade Establishment, Soil	91,700.00	sf	0.10	9,170.00		Laser Grading
Irrigation Main Line, 2" Sch. 40 PVC	1,100.00	lf	10.50	11,550.00		Connect at Main Landscape
Automatic Rotor Irrigation Complete	91,700.00	sf	2.00	183,400.00		Controller, Valves, Lateral Piping, Heads
Concrete Containment Curb	1,200.00	lf	22.50	27,000.00		
Type 1 Catch Basin	1.00	ea	1,000.00	1,000.00		Control Structure in turf @ point of discharge
8" CPEP Drainage Piping	355.00	lf	40.00	14,200.00		
Subsurface Drainage (4" Perf CPEP Drainage)	6,115.00	lf	9.50	58,092.50		15' on-center spacing @ vertically draining surfaces
Root Zone Sand (12", 1.6ton/cy)	5,505.00	ton	60.00	330,300.00		Specialty aggregate specification
5/8" Sand-Based Sod 50-50 PRG/KBG, installed	91,700.00	sf	0.85	77,945.00		
MultiPurpose Field Construction Subtotal					712,657.50	
MultiPurpose Field 1 Construction Subtotal					723,177.50	
Contractor Markup & General Conditions	0.235	of	723,177.50			See "Markups" Note below.
Insurance (1%)	0.010	ls	723,177.50	7,231.78		
Bonding (1.5%)	0.015	ls	723,177.50	10,847.66		
Mobilization (5%)	0.050	ls	723,177.50	36,158.88		
Overhead & Profit (12.5%)	0.125	ls	723,177.50	90,397.19		
Construction Superintendence & Project Management	3.00	mo	8,000.00	24,000.00		
Temporary Facilities (Sanitation, Security, Admin.)	3.00	mo	500.00	1,500.00		
Section Total					170,135.50	
MULTIPURPOSE FIELD 1 CONSTRUCTION CONTRACT AMOUNT					893,313.00	
Field 2 (Synthetic Turf)	146,615.00	sf	\$ 10.83	per sf		
<i>Description: A large irregularly shaped synthetic turf area disguised as an open "lawn" with the capacity to support full-sized recreational soccer (1) or modified youth soccer (2). No fencing, site furnishings, or equipment is detailed here.</i>						
MultiPurpose Field 2 Site Preparation & TESC	146,615.00	sf	0.13			Total footprint
Construction Survey & Staking	1.00	ls	1,500.00	1,500.00		Laser vertical control
Temporary Erosion Control Facilities	-	ls	-	-		See Site Civil
TESC Maintenance & SWPPP Compliance	-	mo	1,750.00	-		See Site Civil
Verification of Subgrade, All competition areas	145,075.00	sf	0.05	7,253.75		Laser Topo Model
Soil Recovery Volume, Import or Export 0.05', Allow	430.00	bcy	25.00	10,750.00		Adjust from Site Civil Rough Grade
Section Total					19,503.75	

1 **Longview Athletic Complex**
2 **Recreational Athletic Facilities**
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Description / Item	Quantity	Unit	Unit Cost	Est. Cost	Total	Note
Synthetic Turf Field 2 Field Construction	145,075.00	sf	3.93			
Fine Grading for Subgrade Establishment, Soil	145,075.00	sf	0.10	14,507.50		Laser Grading
Washwater Main Line, 2" Sch. 40 PVC	1,520.00	lf	10.50	15,960.00		Connect at Main Landscape
Quick Coupler Valves in Specialty Access Boxes	5.00	ea	800.00	4,000.00		
Concrete Containment Curb	1,535.00	lf	22.50	34,537.50		
Type 1 Catch Basin	1.00	ea	1,000.00	1,000.00		Control Structure in turf @ point of discharge
Type 1 Catch Basin	2.00	ea	1,000.00	2,000.00		Control Structure @ each drainage zone
8" CPEP Drainage Piping	740.00	lf	40.00	29,600.00		2 zones
Subsurface Drainage (4" Perf CPEP Drainage)	9,675.00	lf	9.50	91,912.50		15' on-center spacing @ vertically draining surfaces
Base Course Permeable Aggregate (8.25", 1.6ton/cy)	5,975.00	ton	45.00	268,875.00		Specialty aggregate specification
Top Course Permeable Aggregate (2", 1.6 ton/cy)	1,450.00	ton	65.00	94,250.00		Specialty growing medium
Portable Spectator/Player Bleacher, 3-row x21' cap. 40	4.00	ea	3,250.00	13,000.00		
MultiPurpose Field Construction Subtotal					569,642.50	
MultiPurpose Field Synthetic Turf Surfacing	145,615.00	sf	4.89			
Synthetic Turf: 2.5" Monofilament, Green	145,615.00	sf	4.85	706,232.75		Competitively Bid high-wear product, SBR infill
Soccer Markings Complete	-	ea	12,500.00	-		No Permanent Markings
Synthetic Turf Materials - Surplus	1.00	ls	750.00	750.00		Reduced from typical qty. assuming multiple fields
Pre-shipment Testing	1.00	ls	1,620.00	1,620.00		
G-Max Testing	5.00	ea	800.00	4,000.00		Over 8-year warranty, reduced for multiple fields
Synthetic Turf Subtotal					712,602.75	
MultiPurpose Field 2 Construction Subtotal					1,301,749.00	
SubContractor Markup & General Conditions	0.220	of	1,301,749.00			See "Markups" Note below.
Insurance (1%)	0.010	ls	1,301,749.00	13,017.49		
Bonding (1.5%)	0.015	ls	1,301,749.00	19,526.24		
Mobilization (5%)	0.050	ls	1,301,749.00	65,087.45		
Overhead & Profit (12.5%)	0.125	ls	1,301,749.00	162,718.63		
Construction Superintendence & Project Management	3.00	mo	8,000.00	24,000.00		
Temporary Facilities (Sanitation, Security, Admin.)	3.00	mo	500.00	1,500.00		
Section Total					285,849.80	
MULTIPURPOSE FIELD 2 CONSTRUCTION CONTRACT AMOUNT					1,587,598.80	

87 Note: Markups shown assume this work is contracted independently. If the work is Contracted as a part of a larger Phase the markups shown should remain as-is, and any other General Contractor markup applied on top of the estimate. Does not
88 include WSST, Permit Fees except OTC plumbing and electrical, Construction Materials Testing and Special Inspections, Design & Professional Services fees, or Construction Management.

1 **Longview Athletic Complex**
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Description / Item	Quantity	Unit	Unit Cost	Est. Cost	Total	Note
Multi-Purpose Baseball Field Lighting	114,700.00	sf	\$ 4.09	per sf		
<i>Description: Electrical infrastructure and control primarily for Baseball use, IESNA Class IV Recreational lighting standard 30fc infield, 20fc outfield, CU 2.5. No special consideration for recreational soccer overlay. Pre-cast concrete foundations, steel poles and bracketry. Sheilded, full cut-off, LED fixtures. Basis of design: MUSCO</i>						
Baseball Field Lighting, Typical	114,700.00	sf	4.09			<i>Cost per SF for total footprint</i>
Primary Electrical & Service Connection	0.5	ls	10,000.00	5,000.00		<i>Assumes split cost between 2 fields</i>
Lighting Control Panel & Cabinet	0.5	ls	7,500.00	3,750.00		<i>Assumes split cost between 2 fields</i>
Outfield Pole, dedicated	4	ea	11,125.00	44,500.00		
Infield Pole, dedicated	4	ea	11,125.00	44,500.00		
Drill dedicated Pole Foundations	8	ea	3,000.00	24,000.00		
Assemble and Set dedicated Poles	8	ea	2,000.00	16,000.00		
LED Flood Lights, inc. Brackets, installed	66	ea	1,850.00	122,100.00		<i>Based on IESNA Class IV design average</i>
Area Lights, Install at 30'	4	ea	750.00	3,000.00		<i>Only occurs at shared infield poles</i>
Trenching, Conduit, & Conductors complete	2200	lf	25.00	55,000.00		<i>Per field</i>
Handholes	18	ea	75.00	1,350.00		
Recepticles, per Location	3	ea	500.00	1,500.00		<i>Only occurs at infield poles</i>
Subtotal, Electrical & Lighting					311,950	
Misc. Labor & Materials @ 5%	5%	of	311,950.00	15,597.50		<i>Electrical Subcontractor costs</i>
Miscellaneous Items	2%	of	311,950.00	6,239.00		<i>Electrical Subcontractor costs</i>
Electrical SubContractor Overhead and Profit 15%	15%	of	311,950.00	46,792.50		<i>Electrical Subcontractor costs</i>
Subtotal, Markups					68,629	<i>Electrical Subcontractor costs</i>
SubTotal for Multi-Purpose Field Lighting SubContract					380,579	
Contractor Markup & General Conditions	0.234	of	380,579.00			
Insurance (1%)	0.010	ls	380,579.00	3,805.79		
Bonding (1.5%)	0.015	ls	380,579.00	5,708.69		
Mobilization (5%)	0.050	ls	380,579.00	19,028.95		
Overhead & Profit (12.5%)	0.125	ls	380,579.00	47,572.38		
Construction Superintendence & Project Management	1.50	mo	8,000.00	12,000.00		
Temporary Facilities (Sanitation, Security, Admin.)	1.50	mo	500.00	750.00		
Section Total					88,866	
BASEBALL FIELD LIGHTING SYSTEM INSTALLATION CONTRACT AMOUNT					469,445	<i>Verified MUSCO quote 1-15-19</i>

1 **Longview Athletic Complex**
2 **Recreational Athletic Facilities**
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4 Prepared for: HBB Landscape Architecture
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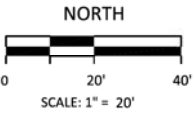
Description / Item	Quantity	Unit	Unit Cost	Est. Cost	Total	Note
Multi-Purpose Softball Field Lighting	98,725.00	sf	\$ 3.64	per sf		
<i>Description: Electrical infrastructure and control primarily for Softball use, IESNA Class IV Recreational lighting standard 30fc infield, 20fc outfield, CU 2.5. No special consideration for recreational soccer overlay. Pre-cast concrete foundations, steel poles and bracketry. Sheilded, full cut-off, LED fixtures. Basis of design: MUSCO</i>						
Softball Field Lighting, Typical	98,725.00	sf	3.64			<i>Cost per SF for total footprint</i>
Primary Electrical & Service Connection	0.2	ls	25,000.00	5,000.00		<i>Assumes split cost between 5 fields</i>
Lighting Control Panel & Cabinet	0.2	ls	7,500.00	1,500.00		<i>Assumes split cost between 5 fields</i>
Outfield Pole, dedicated	2	ea	11,000.00	22,000.00		<i>Pole dedicated to one field only</i>
Infield Pole, Shared	4	ea	6,250.00	25,000.00		<i>Pole supporting fixtures for two or more fields</i>
Drill dedicated Pole Foundations	2	ea	3,500.00	7,000.00		
Drill shared Pole Foundations	4	ea	1,750.00	7,000.00		
Assemble and Set dedicated Poles	2	ea	2,500.00	5,000.00		
Assemble and Set shared Poles	4	ea	1,250.00	5,000.00		
LED Flood Lights, inc. Brackets, installed	52	ea	2,250.00	117,000.00		<i>Based on IESNA Class IV design average</i>
Area Lights, Install at 30'	2	ea	750.00	1,500.00		<i>Only occurs at shared infield poles</i>
Trenching, Conduit, & Conductors complete	1800	lf	25.00	45,000.00		<i>Per field</i>
Handholes	14	ea	75.00	1,050.00		
Recepticles, per Location	2	ea	500.00	1,000.00		<i>Only occurs at infield poles</i>
Subtotal, Electrical & Lighting					236,550	
Misc. Labor & Materials @ 5%	5%	of	236,550.00	11,827.50		<i>Electrical Subcontractor costs</i>
Miscellaneous Items	2%	of	236,550.00	4,731.00		<i>Electrical Subcontractor costs</i>
Electrical SubContractor Overhead and Profit 15%	15%	of	236,550.00	35,482.50		<i>Electrical Subcontractor costs</i>
Subtotal, Markups					52,041	<i>Electrical Subcontractor costs</i>
SubTotal for Multi-Purpose Field Lighting SubContract					288,591	
SubContractor Markup & General Conditions	0.244	of	288,591.00			<i>See "Markup" Note below.</i>
Insurance (1%)	0.010	ls	288,591.00	2,885.91		
Bonding (1.5%)	0.015	ls	288,591.00	4,328.87		
Mobilization (5%)	0.050	ls	288,591.00	14,429.55		
Overhead & Profit (12.5%)	0.125	ls	288,591.00	36,073.88		
Construction Superintendence & Project Management	1.50	mo	8,000.00	12,000.00		
Temporary Facilities (Sanitation, Security, Admin.)	1.50	mo	500.00	750.00		
Section Total					70,468	

SOFTBALL FIELD LIGHTING SYSTEM INSTALLATION CONTRACT AMOUNT **359,059** *Verified MUSCO quote 1-15-19*

Note: Markups shown assume this work is contracted independently. If the work is Contracted as a part of a larger Phase the markups shown should remain as-is, and any any other General Contractor markup applied on top of the estimate. Does not include WSST, Permit Fees except OTC plumbing and electrical, Construction Materials Testing and Special Inspections, Design & Professional Services fees, or Construction Management.

REVISION	DATE

City of Longview
Athletic Complex

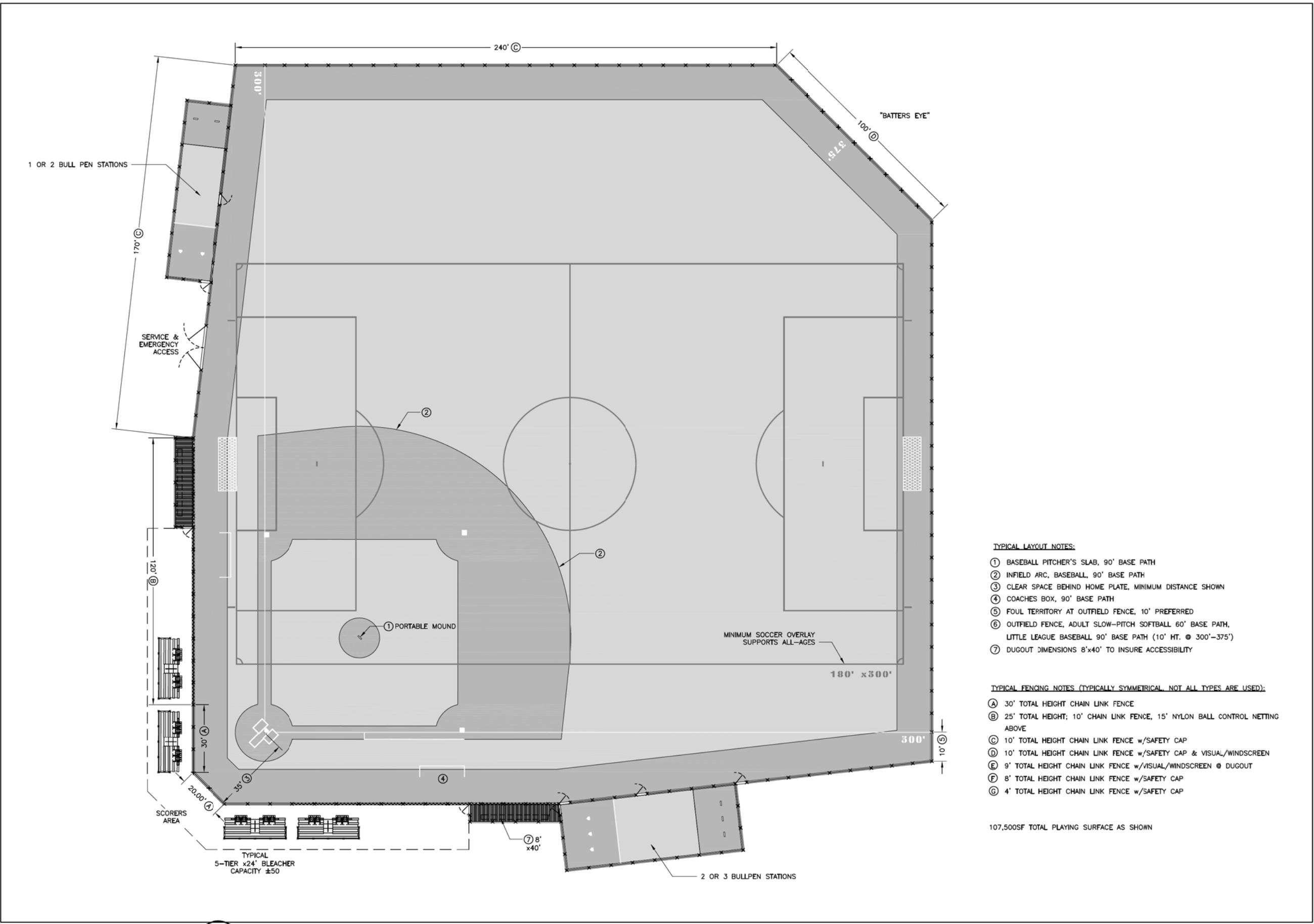


DATE	12-27-18
SCALE	1" = 20'
DRAWN	CPW
CHECKED	EJG
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MULTIPURPOSE
BASEBALL
LAYOUT

SHEET

F-3.1



1

SOFTBALL - LITTLE LEAGUE BASEBALL LAYOUT

F-3.2

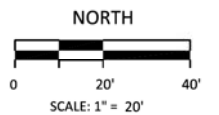
SCALE 1"=20'



TYPICAL LAYOUT NOTES:

- ① BASEBALL PITCHER'S SLAB, 90' BASE PATH
- ② SOFTBALL PITCHER'S SLAB, 60' BASE PATH, AND BASEBALL PITCHERS MOUND LOCATION, LITTLE LEAGUE, 60' BASE PATH
- ③ INFIELD ARC, BASEBALL, 90' BASE PATH
- ④ INFIELD ARC, SOFTBALL, 60' BASE PATH
- ⑤ OUTFIELD FENCE LOCATION (TEMPORARY, PORTABLE), FAST-PITCH SOFTBALL, LITTLE LEAGUE BASEBALL, 60' BASE PATH
- ⑥ CLEAR SPACE BEHIND HOME PLATE, MINIMUM DISTANCE SHOWN
- ⑦ COACHES BOX, 90' BASE PATH
- ⑧ COACHES BOX, 60' BASE PATH
- ⑨ FOUL TERRITORY AT OUTFIELD FENCE, 10' PREFERRED
- ⑩ OUTFIELD FENCE, ADULT SLOW-PITCH SOFTBALL 60' BASE PATH, LITTLE LEAGUE BASEBALL 90' BASE PATH (8' HT. @ 320')
- ⑪ DUGOUT DIMENSIONS 8'x40' TO INSURE ACCESSIBILITY

93,250SF TOTAL PLAYING SURFACE AS SHOWN

[illegible]City of Longview
Athletic Complex

DATE	12-27-18
SCALE	1" = 20'
DRAWN	CPW
CHECKED	EJG

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RECREATIONAL SOFTBALL LAYOUT

SHEET

F-3.2

**City of Longview - HBB Longview Athletic Facility
Engineer's Estimate of Probable Construction Costs**

Skills - Connolly, Inc.		Estimate By:	D. Hall/R. Schultz		1/16/2019
Project Number: 18134		Checked By:	D. Maroon		1/16/2019
BID ITEM NO.	STANDARD ITEM DESCRIPTION	QUANTITY	UNIT OF MEASURE	UNIT PRICE	TOTAL PRICE
PREPARATION/GRADING					
1	UTILITY REMOVAL	1.00	LS	\$254,850.00	\$254,850.00
2	CLEARING AND GRUBBING	60.00	ACRE	\$12,000.00	\$720,000.00
3	SELECT BORROW AND COMPACTION	2,000.00	CY	\$30.00	\$60,000.00
4	ROUGH GRADING (EXC. SPORTSFIELDS)	24.00	ACRE	\$5,000.00	\$120,000.00
5	FINISH GRADING (EXC. SPORTFIELDS)	24.00	ACRE	\$5,000.00	\$120,000.00
STORM SEWER					
6	CATCH BASIN TYPE 1	39.00	EACH	\$2,200.00	\$85,800.00
7	CATCH BASIN TYPE 2	9.00	EACH	\$3,500.00	\$31,500.00
8	STORM SEWER PIPE 8 IN.	633.00	LF	\$55.00	\$34,815.00
9	STORM SEWER PIPE 12 IN.	5,340.00	LF	\$45.00	\$240,300.00
10	STORM SEWER PIPE 18 IN.	1,275.00	LF	\$105.00	\$133,875.00
11	WATER QUALITY TREATMENT	1.00	LS	\$808,000.00	\$808,000.00
12	STORMWATER CONTROL STRUCTURE	6.00	EACH	\$6,000.00	\$36,000.00
13	DETENTION CHAMBERS (34' x 16' x 85.4')	1.00	LS	\$641,000.00	\$641,000.00
14	QUARRY SPALLS	12.00	CY	\$100.00	\$1,200.00
SANITARY SEWER					
15	ADJUST MANHOLE	3	EACH	\$600.00	\$1,800.00
16	MANHOLE 48 IN. DIAM. TYPE 1	1	EACH	\$5,000.00	\$5,000.00
17	PVC SANITARY SEWER PIPE 6 IN. DIAM.	980	LF	\$50.00	\$49,000.00
18	TESTING SEWER PIPE	980	LF	\$2.50	\$2,450.00
19	CONNECT TO EXISTING MANHOLE	3	EACH	\$3,500.00	\$10,500.00
WATER LINES					
20	GATE VALVE 8 IN.	10	EACH	\$2,000.00	\$20,000.00
21	HYDRANT ASSEMBLY	4	EACH	\$5,500.00	\$22,000.00
22	CLASS 50 DI PIPE FOR WATER MAIN 8 IN. DIAM.	4930	LF	\$80.00	\$394,400.00
23	CONNECT TO EXISTING WATER MAIN	3	EACH	\$5,500.00	\$16,500.00
SURFACING					
24	CRUSHED SURFACING BASE COURSE	28,820.00	TON	\$31.50	\$907,830.00
25	CRUSHED SURFACING TOP COURSE	4,609.00	TON	\$31.50	\$145,183.50
HOT MIX ASPHALT					
26	HMA CL. 1/2 IN. PG 64-22	10,340.00	TON	\$110.00	\$1,137,400.00
EROSION CONTROL AND ROADSIDE PLANTING					
27	EROSION/WATER POLLUTION CONTROL	1.00	LS	\$75,000.00	\$75,000.00
28	SILT FENCE	14,700.00	LF	\$7.50	\$110,250.00
29	STABILIZED CONSTRUCTION ENTRANCE	3.00	EA	\$7,500.00	\$22,500.00
30	TIRE WASH	2.00	EACH	\$17,000.00	\$34,000.00
PAVEMENT MARKINGS					
31	PAINT LINE (PARKING LOTS)	11,100.00	LF	\$0.25	\$2,775.00
32	PLASTIC STOP LINE	26.00	LF	\$8.30	\$215.80
33	PLASTIC CROSSWALK LINE	1,680.00	SF	\$8.00	\$13,440.00
34	PAINTED ACCESS PARKING SPACE SYMBOL WITH BACKGROUND	14.00	EA	\$130.00	\$1,820.00
CURB AND GUTTER, ADA RAMPS, SIDEWALKS					
35	CEMENT CONC. TRAFFIC CURB AND GUTTER	12,500.00	LF	\$50.00	\$625,000.00
36	CEMENT CONC. TRAFFIC CURB	2,230.00	LF	\$45.00	\$100,350.00
37	CEMENT CONC. CURB RAMP	26.00	EA	\$2,500.00	\$65,000.00

BID ITEM NO.	STANDARD ITEM DESCRIPTION	QUANTITY	UNIT OF MEASURE	UNIT PRICE	TOTAL PRICE
	BUILDING DEMOLITION				
38	BUILDING DEMOLITIONS	1.00	LS	\$79,662.50	\$79,662.50
	FENCE REMOVAL				
39	FENCE REMOVAL	1.00	LS	\$138,000.00	\$138,000.00
	TREE REMOVAL				
40	TREE REMOVAL	1.00	LS	\$53,000.00	\$53,000.00
	LIGHTING REMOVAL				
41	LIGHTING REMOVAL	1.00	LS	\$30,000.00	\$30,000.00
				Sub-Total	\$7,350,416.80
				Tax (9.9%)	\$727,691.26
				Total	\$8,078,108.06

**City of Longview - HBB Longview Athletic Facility
Engineer's Estimate of Probable Construction Costs - Phase 1**

Skills - Connolly, Inc.		Estimate By:		D. Hall/R. Schultz	1/16/2019
Project Number: 18134		Checked By:		D. Maroon	1/16/2019
BID ITEM NO.	STANDARD ITEM DESCRIPTION	QUANTITY	UNIT OF MEASURE	UNIT PRICE	TOTAL PRICE
PREPARATION/GRADING					
1	UTILITY REMOVAL	1.00	LS	\$145,300.00	\$145,300.00
2	CLEARING AND GRUBBING	33.00	ACRE	\$12,000.00	\$396,000.00
3	SELECT BORROW AND COMPACTION	1,500.00	CY	\$30.00	\$45,000.00
4	ROUGH GRADING (EXC. SPORTSFIELDS)	14.00	ACRE	\$5,000.00	\$70,000.00
5	FINISH GRADING (EXC. SPORTFIELDS)	14.00	ACRE	\$5,000.00	\$70,000.00
STORM SEWER					
6	CATCH BASIN TYPE 1	22.00	EACH	\$2,200.00	\$48,400.00
7	CATCH BASIN TYPE 2	4.00	EACH	\$3,500.00	\$14,000.00
8	STORM SEWER PIPE 8 IN.	510.00	LF	\$55.00	\$28,050.00
9	STORM SEWER PIPE 12 IN.	3,235.00	LF	\$45.00	\$145,575.00
10	STORM SEWER PIPE 18 IN.	1,100.00	LF	\$105.00	\$115,500.00
11	WATER QUALITY TREATMENT	1.00	LS	\$600,000.00	\$600,000.00
12	STORMWATER CONTROL STRUCTURE	2.00	EACH	\$6,000.00	\$12,000.00
13	DETENTION CHAMBERS (34' x 16' x 85.4')	1.00	LS	\$331,000.00	\$331,000.00
14	QUARRY SPALLS	4.00	CY	\$100.00	\$400.00
SANITARY SEWER					
15	ADJUST MANHOLE	3	EACH	\$600.00	\$1,800.00
16	MANHOLE 48 IN. DIAM. TYPE 1	1	EACH	\$5,000.00	\$5,000.00
17	PVC SANITARY SEWER PIPE 6 IN. DIAM.	780	LF	\$50.00	\$39,000.00
18	TESTING SEWER PIPE	780	LF	\$2.50	\$1,950.00
19	CONNECT TO EXISTING MANHOLE	2	EACH	\$3,500.00	\$7,000.00
WATER LINES					
20	GATE VALVE 8 IN.	6	EACH	\$2,000.00	\$12,000.00
21	HYDRANT ASSEMBLY	2	EACH	\$5,500.00	\$11,000.00
22	CLASS 50 DI PIPE FOR WATER MAIN 8 IN. DIAM.	3100	LF	\$80.00	\$248,000.00
23	CONNECT TO EXISTING WATER MAIN	2	EACH	\$5,500.00	\$11,000.00
SURFACING					
24	CRUSHED SURFACING BASE COURSE	21,120.00	TON	\$31.50	\$665,280.00
25	CRUSHED SURFACING TOP COURSE	3,410.00	TON	\$31.50	\$107,415.00
HOT MIX ASPHALT					
26	HMA CL. 1/2 IN. PG 64-22	7,600.00	TON	\$110.00	\$836,000.00
EROSION CONTROL AND ROADSIDE PLANTING					
27	EROSION/WATER POLLUTION CONTROL	1.00	LS	\$25,000.00	\$25,000.00
28	SILT FENCE	6,900.00	LF	\$7.50	\$51,750.00
29	STABILIZED CONSTRUCTION ENTRANCE	1.00	EA	\$7,500.00	\$7,500.00
30	TIRE WASH	1.00	EACH	\$17,000.00	\$17,000.00
PAVEMENT MARKINGS					
31	PAINT LINE (PARKING LOTS)	7,960.00	LF	\$0.25	\$1,990.00
32	PLASTIC STOP LINE	13.00	LF	\$8.30	\$107.90
33	PLASTIC CROSSWALK LINE	1,080.00	SF	\$8.00	\$8,640.00
34	PAINTED ACCESS PARKING SPACE SYMBOL WITH BACKGROUND	8.00	EA	\$130.00	\$1,040.00
CURB AND GUTTER, ADA RAMPS, SIDEWALKS					
35	CEMENT CONC. TRAFFIC CURB AND GUTTER	7,000.00	LF	\$50.00	\$350,000.00
36	CEMENT CONC. TRAFFIC CURB	1,500.00	LF	\$45.00	\$67,500.00
37	CEMENT CONC. CURB RAMP	17.00	EA	\$2,500.00	\$42,500.00
BUILDING DEMOLITION					
38	BUILDING DEMOLITIONS	1.00	LS	\$17,950.00	\$17,950.00

BID ITEM NO.	STANDARD ITEM DESCRIPTION	QUANTITY	UNIT OF MEASURE	UNIT PRICE	TOTAL PRICE
	FENCE REMOVAL				
39	FENCE REMOVAL	1.00	LS	\$93,500.00	\$93,500.00
	TREE REMOVAL				
40	TREE REMOVAL	1.00	LS	\$46,000.00	\$46,000.00
	LIGHTING REMOVAL				
41	LIGHTING REMOVAL	1.00	LS	\$15,600.00	\$15,600.00
				Sub-Total	\$4,712,747.90
				Tax (9.9%)	\$466,562.04
				Total	\$5,179,309.94

City of Longview - HBB Longview Athletic Facility
Engineer's Estimate of Probable Construction Costs - Phase 2

Skills - Connolly, Inc.		Estimate By:		D. Hall/R. Schultz	1/16/2019
Project Number: 18134		Checked By:		D. Maroon	1/16/2019
BID ITEM NO.	STANDARD ITEM DESCRIPTION	QUANTITY	UNIT OF MEASURE	UNIT PRICE	TOTAL PRICE
PREPARATION/GRADING					
1	UTILITY REMOVAL	1.00	LS	\$96,100.00	\$96,100.00
2	CLEARING AND GRUBBING	19.00	ACRE	\$12,000.00	\$228,000.00
3	SELECT BORROW AND COMPACTION	250.00	CY	\$30.00	\$7,500.00
4	ROUGH GRADING (EXC. SPORTSFIELDS)	4.00	ACRE	\$5,000.00	\$20,000.00
5	FINISH GRADING (EXC. SPORTFIELDS)	4.00	ACRE	\$5,000.00	\$20,000.00
STORM SEWER					
6	CATCH BASIN TYPE 1	10.00	EACH	\$2,200.00	\$22,000.00
7	CATCH BASIN TYPE 2	2.00	EACH	\$3,500.00	\$7,000.00
8	STORM SEWER PIPE 8 IN.	75.00	LF	\$55.00	\$4,125.00
9	STORM SEWER PIPE 12 IN.	1,180.00	LF	\$45.00	\$53,100.00
10	STORM SEWER PIPE 18 IN.	0.00	LF	\$105.00	\$0.00
11	WATER QUALITY TREATMENT	1.00	LS	\$72,000.00	\$72,000.00
12	STORMWATER CONTROL STRUCTURE	3.00	EACH	\$6,000.00	\$18,000.00
13	DETENTION CHAMBERS (34' x 16' x 85.4')	1.00	LS	\$200,000.00	\$200,000.00
14	QUARRY SPALLS	6.00	CY	\$100.00	\$600.00
SANITARY SEWER					
15	ADJUST MANHOLE	0	EACH	\$600.00	\$0.00
16	MANHOLE 48 IN. DIAM. TYPE 1	0	EACH	\$5,000.00	\$0.00
17	PVC SANITARY SEWER PIPE 6 IN. DIAM.	150	LF	\$50.00	\$7,500.00
18	TESTING SEWER PIPE	150	LF	\$2.50	\$375.00
19	CONNECT TO EXISTING MANHOLE	1	EACH	\$3,500.00	\$3,500.00
WATER LINES					
20	GATE VALVE 8 IN.	0	EACH	\$2,000.00	\$0.00
21	HYDRANT ASSEMBLY	0	EACH	\$5,500.00	\$0.00
22	CLASS 50 DI PIPE FOR WATER MAIN 8 IN. DIAM.	1080	LF	\$80.00	\$86,400.00
23	CONNECT TO EXISTING WATER MAIN	0	EACH	\$5,500.00	\$0.00
SURFACING					
24	CRUSHED SURFACING BASE COURSE	2,530.00	TON	\$31.50	\$79,695.00
25	CRUSHED SURFACING TOP COURSE	385.00	TON	\$31.50	\$12,127.50
HOT MIX ASPHALT					
26	HMA CL. 1/2 IN. PG 64-22	840.00	TON	\$110.00	\$92,400.00
EROSION CONTROL AND ROADSIDE PLANTING					
27	EROSION/WATER POLLUTION CONTROL	1.00	LS	\$25,000.00	\$25,000.00
28	SILT FENCE	5,200.00	LF	\$7.50	\$39,000.00
29	STABILIZED CONSTRUCTION ENTRANCE	1.00	EA	\$7,500.00	\$7,500.00
30	TIRE WASH	1.00	EACH	\$17,000.00	\$17,000.00
PAVEMENT MARKINGS					
31	PAINT LINE (PARKING LOTS)	0.00	LF	\$0.25	\$0.00
32	PLASTIC STOP LINE	13.00	LF	\$8.30	\$107.90
33	PLASTIC CROSSWALK LINE	480.00	SF	\$8.00	\$3,840.00
34	PAINTED ACCESS PARKING SPACE SYMBOL WITH BACKGROUND	0.00	EA	\$130.00	\$0.00
CURB AND GUTTER, ADA RAMPS, SIDEWALKS					
35	CEMENT CONC. TRAFFIC CURB AND GUTTER	2,500.00	LF	\$50.00	\$125,000.00
36	CEMENT CONC. TRAFFIC CURB	130.00	LF	\$45.00	\$5,850.00
37	CEMENT CONC. CURB RAMP	6.00	EA	\$2,500.00	\$15,000.00
BUILDING DEMOLITION					
38	BUILDING DEMOLITIONS	1.00	LS	\$18,000.00	\$18,000.00

BID ITEM NO.	STANDARD ITEM DESCRIPTION	QUANTITY	UNIT OF MEASURE	UNIT PRICE	TOTAL PRICE
	FENCE REMOVAL				
39	FENCE REMOVAL	1.00	LS	\$44,500.00	\$44,500.00
	TREE REMOVAL				
40	TREE REMOVAL	1.00	LS	\$7,000.00	\$7,000.00
	LIGHTING REMOVAL				
41	LIGHTING REMOVAL	1.00	LS	\$14,400.00	\$14,400.00
				Sub-Total	\$1,352,620.40
				Tax (9.9%)	\$133,909.42
				Total	\$1,486,529.82

City of Longview - HBB Longview Athletic Facility
Engineer's Estimate of Probable Construction Costs - Phase 3

Skills - Connolly, Inc.		Estimate By:		D. Hall/R. Schultz	1/16/2019
Project Number: 18134		Checked By:		D. Maroon	1/16/2019
BID ITEM NO.	STANDARD ITEM DESCRIPTION	QUANTITY	UNIT OF MEASURE	UNIT PRICE	TOTAL PRICE
PREPARATION/GRADING					
1	UTILITY REMOVAL	1.00	LS	\$13,450.00	\$13,450.00
2	CLEARING AND GRUBBING	8.00	ACRE	\$12,000.00	\$96,000.00
3	SELECT BORROW AND COMPACTION	250.00	CY	\$30.00	\$7,500.00
4	ROUGH GRADING (EXC. SPORTSFIELDS)	6.00	ACRE	\$5,000.00	\$30,000.00
5	FINISH GRADING (EXC. SPORTFIELDS)	6.00	ACRE	\$5,000.00	\$30,000.00
STORM SEWER					
6	CATCH BASIN TYPE 1	7.00	EACH	\$2,200.00	\$15,400.00
7	CATCH BASIN TYPE 2	3.00	EACH	\$3,500.00	\$10,500.00
8	STORM SEWER PIPE 8 IN.	48.00	LF	\$55.00	\$2,640.00
9	STORM SEWER PIPE 12 IN.	925.00	LF	\$45.00	\$41,625.00
10	STORM SEWER PIPE 18 IN.	175.00	LF	\$105.00	\$18,375.00
11	WATER QUALITY TREATMENT	1.00	LS	\$136,000.00	\$136,000.00
12	STORMWATER CONTROL STRUCTURE	1.00	EACH	\$6,000.00	\$6,000.00
13	DETENTION CHAMBERS (34' x 16' x 85.4')	1.00	LS	\$110,000.00	\$110,000.00
14	QUARRY SPALLS	2.00	CY	\$100.00	\$200.00
SANITARY SEWER					
15	ADJUST MANHOLE	0	EACH	\$600.00	\$0.00
16	MANHOLE 48 IN. DIAM. TYPE 1	0	EACH	\$5,000.00	\$0.00
17	PVC SANITARY SEWER PIPE 6 IN. DIAM.	50	LF	\$50.00	\$2,500.00
18	TESTING SEWER PIPE	50	LF	\$2.50	\$125.00
19	CONNECT TO EXISTING MANHOLE	0	EACH	\$3,500.00	\$0.00
WATER LINES					
20	GATE VALVE 8 IN.	4	EACH	\$2,000.00	\$8,000.00
21	HYDRANT ASSEMBLY	2	EACH	\$5,500.00	\$11,000.00
22	CLASS 50 DI PIPE FOR WATER MAIN 8 IN. DIAM.	750	LF	\$80.00	\$60,000.00
23	CONNECT TO EXISTING WATER MAIN	1	EACH	\$5,500.00	\$5,500.00
SURFACING					
24	CRUSHED SURFACING BASE COURSE	5,170.00	TON	\$31.50	\$162,855.00
25	CRUSHED SURFACING TOP COURSE	814.00	TON	\$31.50	\$25,641.00
HOT MIX ASPHALT					
26	HMA CL. 1/2 IN. PG 64-22	1,900.00	TON	\$110.00	\$209,000.00
EROSION CONTROL AND ROADSIDE PLANTING					
27	EROSION/WATER POLLUTION CONTROL	1.00	LS	\$25,000.00	\$25,000.00
28	SILT FENCE	2,600.00	LF	\$7.50	\$19,500.00
29	STABILIZED CONSTRUCTION ENTRANCE	1.00	EA	\$7,500.00	\$7,500.00
30	TIRE WASH	0.00	EACH	\$17,000.00	\$0.00
PAVEMENT MARKINGS					
31	PAINT LINE (PARKING LOTS)	3,140.00	LF	\$0.25	\$785.00
32	PLASTIC STOP LINE	0.00	LF	\$8.30	\$0.00
33	PLASTIC CROSSWALK LINE	120.00	SF	\$8.00	\$960.00
34	PAINTED ACCESS PARKING SPACE SYMBOL WITH BACKGROUND	6.00	EA	\$130.00	\$780.00
CURB AND GUTTER, ADA RAMPS, SIDEWALKS					
35	CEMENT CONC. TRAFFIC CURB AND GUTTER	3,000.00	LF	\$50.00	\$150,000.00
36	CEMENT CONC. TRAFFIC CURB	600.00	LF	\$45.00	\$27,000.00
37	CEMENT CONC. CURB RAMP	3.00	EA	\$2,500.00	\$7,500.00
BUILDING DEMOLITION					
38	BUILDING DEMOLITIONS	1.00	LS	\$43,712.50	\$43,712.50

BID ITEM NO.	STANDARD ITEM DESCRIPTION	QUANTITY	UNIT OF MEASURE	UNIT PRICE	TOTAL PRICE
	FENCE REMOVAL				
39	FENCE REMOVAL	1.00	LS	\$0.00	\$0.00
	TREE REMOVAL				
40	TREE REMOVAL	1.00	LS	\$0.00	\$0.00
	LIGHTING REMOVAL				
41	LIGHTING REMOVAL	1.00	LS	\$0.00	\$0.00
				Sub-Total	\$1,285,048.50
				Tax (9.9%)	\$127,219.80
				Total	\$1,412,268.30

City of Longview - HBB Longview Athletic Facility - TOTAL					
Engineer's Estimate of Probable Construction Costs - Removal of Structures and Obstructions					
Skillings - Connolly, Inc.		Estimate By:	D. Hall/R. Schultz		1/16/2019
Project Number: 18134		Checked By:	D. Maroon		1/16/2019
BID ITEM NO.	STANDARD ITEM DESCRIPTION	QUANTITY	UNIT OF MEASURE	UNIT PRICE	TOTAL PRICE
REMOVAL OF STRUCTURES/OBSTRUCTIONS					
1	REMOVING EXISTING ROADWAY	10,000.00	CY	\$20.00	\$200,000.00
2	REMOVE DRAINAGE STRUCTURE	25.00	EA	\$700.00	\$17,500.00
3	REMOVE STORM DRAIN PIPE	3,700.00	LF	\$5.00	\$18,500.00
4	REMOVING SANITARY SEWER STRUCTURE	3.00	EA	\$700.00	\$2,100.00
5	REMOVE SANITARY SEWER PIPE	1,500.00	LF	\$5.00	\$7,500.00
6	REMOVE WATER MAIN	1,850.00	LF	\$5.00	\$9,250.00
				Sub-Total	\$254,850.00

City of Longview - HBB Longview Athletic Facility - PHASE 1					
Engineer's Estimate of Probable Construction Costs - Removal of Structures and Obstructions					
Skillings - Connolly, Inc.		Estimate By:	D. Hall/R. Schultz		1/16/2019
Project Number: 18134		Checked By:	D. Maroon		1/16/2019
BID ITEM NO.	STANDARD ITEM DESCRIPTION	QUANTITY	UNIT OF MEASURE	UNIT PRICE	TOTAL PRICE
REMOVAL OF STRUCTURES/OBSTRUCTIONS					
1	REMOVING EXISTING ROADWAY	5,800.00	CY	\$20.00	\$116,000.00
2	REMOVE DRAINAGE STRUCTURE	11.00	EA	\$700.00	\$7,700.00
3	REMOVE STORM DRAIN PIPE	1,350.00	LF	\$5.00	\$6,750.00
4	REMOVING SANITARY SEWER STRUCTURE	3.00	EA	\$700.00	\$2,100.00
5	REMOVE SANITARY SEWER PIPE	1,000.00	LF	\$5.00	\$5,000.00
6	REMOVE WATER MAIN	1,550.00	LF	\$5.00	\$7,750.00
				Sub-Total	\$145,300.00

City of Longview - HBB Longview Athletic Facility - PHASE 2					
Engineer's Estimate of Probable Construction Costs - Removal of Structures and Obstructions					
Skillings - Connolly, Inc.		Estimate By:	D. Hall/R. Schultz		1/16/2019
Project Number: 18134		Checked By:	D. Maroon		1/16/2019
BID ITEM NO.	STANDARD ITEM DESCRIPTION	QUANTITY	UNIT OF MEASURE	UNIT PRICE	TOTAL PRICE
REMOVAL OF STRUCTURES/OBSTRUCTIONS					
1	REMOVING EXISTING ROADWAY	4,200.00	CY	\$20.00	\$84,000.00
2	REMOVE DRAINAGE STRUCTURE	8.00	EA	\$700.00	\$5,600.00
3	REMOVE STORM DRAIN PIPE	1,100.00	LF	\$5.00	\$5,500.00
4	REMOVING SANITARY SEWER STRUCTURE	0.00	EA	\$700.00	\$0.00
5	REMOVE SANITARY SEWER PIPE	200.00	LF	\$5.00	\$1,000.00
6	REMOVE WATER MAIN	0.00	LF	\$5.00	\$0.00
				Sub-Total	\$96,100.00

City of Longview - HBB Longview Athletic Facility - PHASE 3					
Engineer's Estimate of Probable Construction Costs - Removal of Structures and Obstructions					
Skillings - Connolly, Inc.		Estimate By:	D. Hall/R. Schultz		1/16/2019
Project Number: 18134		Checked By:	D. Maroon		1/16/2019
BID ITEM NO.	STANDARD ITEM DESCRIPTION	QUANTITY	UNIT OF MEASURE	UNIT PRICE	TOTAL PRICE
	<i>REMOVAL OF STRUCTURES/OBSTRUCTIONS</i>				
1	REMOVING EXISTING ROADWAY	0.00	CY	\$20.00	\$0.00
2	REMOVE DRAINAGE STRUCTURE	6.00	EA	\$700.00	\$4,200.00
3	REMOVE STORM DRAIN PIPE	1,250.00	LF	\$5.00	\$6,250.00
4	REMOVING SANITARY SEWER STRUCTURE	0.00	EA	\$700.00	\$0.00
5	REMOVE/CAP SANITARY SEWER PIPE	300.00	LF	\$5.00	\$1,500.00
6	REMOVE WATER MAIN	300.00	LF	\$5.00	\$1,500.00
				Sub-Total	\$13,450.00

City of Longview - HBB Longview Athletic Facility - TOTAL Engineer's Estimate of Probable Construction Costs - Bldg Demolition					
Skills - Connolly, Inc.		Estimate By:		R. Schultz	1/16/2019
Project Number: 18134		Checked By:		D. Maroon	1/16/2019
BID ITEM NO.	STANDARD ITEM DESCRIPTION	QUANTITY	UNIT OF MEASURE	UNIT PRICE	TOTAL PRICE
Building Demolition					
1	Building No. 1 (Roughly 95x55 - metal pole building)	5,000.00	SF	\$5.00	\$25,000.00
2	Building No. 2 (Roughly 30x18 - concrete block)	525.00	SF	\$5.00	\$2,625.00
3	Building No. 3 (Roughly 24x25 - 2 story concrete block/wood)	575.00	SF	\$7.50	\$4,312.50
4	Building No. 4 (Roughly 20x22 - 2 story concrete block/wood)	450.00	SF	\$7.50	\$3,375.00
5	Dugout No. 1 (Roughly 85x15 - Metal Roof/Fence)	560.00	SF	\$5.00	\$2,800.00
6	Dugout No. 2 (Roughly 85x15 - Metal Roof/Fence)	560.00	SF	\$5.00	\$2,800.00
7	Dugout No. 3 (Roughly 85x15 - Metal Roof/Fence)	560.00	SF	\$5.00	\$2,800.00
8	Dugout No. 4 (Roughly 85x15 - Metal Roof/Fence)	560.00	SF	\$5.00	\$2,800.00
9	Building No. 5 (Roughly 57x43)	2,300.00	SF	\$4.50	\$10,350.00
10	Building No. 6 (Roughly 30x40)	1,200.00	SF	\$4.00	\$4,800.00
11	Building No. 7 (Roughly 25' diameter)	1,800.00	SF	\$10.00	\$18,000.00
				Sub-Total	\$79,662.50

City of Longview - HBB Longview Athletic Facility - PHASE 1 Engineer's Estimate of Probable Construction Costs - Bldg Demolition					
Skills - Connolly, Inc.		Estimate By:		R. Schultz	1/16/2019
Project Number: 18134		Checked By:		D. Maroon	1/16/2019
BID ITEM NO.	STANDARD ITEM DESCRIPTION	QUANTITY	UNIT OF MEASURE	UNIT PRICE	TOTAL PRICE
Building Demolition					
1	Dugout No. 4 (Roughly 85x15 - Metal Roof/Fence)	560.00	SF	\$5.00	\$2,800.00
2	Building No. 5 (Roughly 57x43)	2,300.00	SF	\$4.50	\$10,350.00
3	Building No. 6 (Roughly 30x40)	1,200.00	SF	\$4.00	\$4,800.00
				Sub-Total	\$17,950.00

City of Longview - HBB Longview Athletic Facility - PHASE 2 Engineer's Estimate of Probable Construction Costs - Bldg Demolition					
Skills - Connolly, Inc.		Estimate By:		R. Schultz	1/16/2019
Project Number: 18134		Checked By:		D. Maroon	1/16/2019
BID ITEM NO.	STANDARD ITEM DESCRIPTION	QUANTITY	UNIT OF MEASURE	UNIT PRICE	TOTAL PRICE
Building Demolition					
1	Building No. 7 (Roughly 25' diameter)	1,800.00	SF	\$10.00	\$18,000.00
				Sub-Total	\$18,000.00

City of Longview - HBB Longview Athletic Facility - PHASE 3 Engineer's Estimate of Probable Construction Costs - Bldg Demolition					
Skillings - Connolly, Inc.		Estimate By:		R. Schultz	1/16/2019
Project Number: 18134		Checked By:		D. Maroon	1/16/2019
BID ITEM NO.	STANDARD ITEM DESCRIPTION	QUANTITY	UNIT OF MEASURE	UNIT PRICE	TOTAL PRICE
	<i>Building Demolition</i>				
1	Building No. 1 (Roughly 95x55 - metal pole building)	5,000.00	SF	\$5.00	\$25,000.00
2	Building No. 2 (Roughly 30x18 - concrete block)	525.00	SF	\$5.00	\$2,625.00
3	Building No. 3 (Roughly 24x25 - 2 story concrete block/wood)	575.00	SF	\$7.50	\$4,312.50
4	Building No. 4 (Roughly 20x22 - 2 story concrete block/wood)	450.00	SF	\$7.50	\$3,375.00
5	Dugout No. 1 (Roughly 85x15 - Metal Roof/Fence)	560.00	SF	\$5.00	\$2,800.00
6	Dugout No. 2 (Roughly 85x15 - Metal Roof/Fence)	560.00	SF	\$5.00	\$2,800.00
7	Dugout No. 3 (Roughly 85x15 - Metal Roof/Fence)	560.00	SF	\$5.00	\$2,800.00
				Sub-Total	\$43,712.50

City of Longview - HBB Longview Athletic Facility - TOTAL Engineer's Estimate of Probable Construction Costs - Fence Demolition					
Skillings - Connolly, Inc.		Estimate By:		R. Schultz	1/16/2019
Project Number: 18134		Checked By:		D. Maroon	1/16/2019
BID ITEM NO.	STANDARD ITEM DESCRIPTION	QUANTITY	UNIT OF MEASURE	UNIT PRICE	TOTAL PRICE
	<i>Fence Demolition</i>				
1	3-4' High Chain Link	6,200.00	LF	\$10.00	\$62,000.00
2	15-20' High Chain Link	3,800.00	LF	\$20.00	\$76,000.00
				Sub-Total	\$138,000.00

City of Longview - HBB Longview Athletic Facility - PHASE 1 Engineer's Estimate of Probable Construction Costs - Fence Demolition					
Skillings - Connolly, Inc.		Estimate By:		R. Schultz	1/16/2019
Project Number: 18134		Checked By:		D. Maroon	1/16/2019
BID ITEM NO.	STANDARD ITEM DESCRIPTION	QUANTITY	UNIT OF MEASURE	UNIT PRICE	TOTAL PRICE
	<i>Fence Demolition</i>				
1	3-4' High Chain Link	3,350.00	LF	\$10.00	\$33,500.00
2	15-20' High Chain Link	3,000.00	LF	\$20.00	\$60,000.00
				Sub-Total	\$93,500.00

City of Longview - HBB Longview Athletic Facility - PHASE 2 Engineer's Estimate of Probable Construction Costs - Fence Demolition					
Skillings - Connolly, Inc.		Estimate By:		R. Schultz	1/16/2019
Project Number: 18134		Checked By:		D. Maroon	1/16/2019
BID ITEM NO.	STANDARD ITEM DESCRIPTION	QUANTITY	UNIT OF MEASURE	UNIT PRICE	TOTAL PRICE
	<i>Fence Demolition</i>				
1	3-4' High Chain Link	2,850.00	LF	\$10.00	\$28,500.00
2	15-20' High Chain Link	800.00	LF	\$20.00	\$16,000.00
				Sub-Total	\$44,500.00

City of Longview - HBB Longview Athletic Facility - PHASE 3 Engineer's Estimate of Probable Construction Costs - Fence Demolition					
Skillings - Connolly, Inc.		Estimate By:		R. Schultz	1/16/2019
Project Number: 18134		Checked By:		D. Maroon	1/16/2019
BID ITEM NO.	STANDARD ITEM DESCRIPTION	QUANTITY	UNIT OF MEASURE	UNIT PRICE	TOTAL PRICE
	<i>Fence Demolition</i>				
1	3-4' High Chain Link	0.00	LF	\$10.00	\$0.00
2	15-20' High Chain Link	0.00	LF	\$20.00	\$0.00
				Sub-Total	\$0.00

City of Longview - HBB Longview Athletic Facility - TOTAL Engineer's Estimate of Probable Construction Costs - Tree Removal					
Skillings - Connolly, Inc.		Estimate By:	D. Maroon/R. Schultz		1/9/2019
Project Number: 18134		Checked By:	D. Maroon		12/31/2018
BID ITEM NO.	STANDARD ITEM DESCRIPTION	QUANTITY	UNIT OF MEASURE	UNIT PRICE	TOTAL PRICE
	<i>Tree Removal</i>				
1	30' or Higher	85.00	EA	\$500.00	\$42,500.00
2	10-30'	30.00	EA	\$350.00	\$10,500.00
				Sub-Total	\$53,000.00

**Small trees will be removed within clear and grubbing costs.

City of Longview - HBB Longview Athletic Facility - PHASE 1 Engineer's Estimate of Probable Construction Costs - Tree Removal					
Skillings - Connolly, Inc.		Estimate By:	D. Maroon/R. Schultz		1/16/2019
Project Number: 18134		Checked By:	D. Maroon		1/16/2019
BID ITEM NO.	STANDARD ITEM DESCRIPTION	QUANTITY	UNIT OF MEASURE	UNIT PRICE	TOTAL PRICE
	<i>Tree Removal</i>				
1	30' or Higher	78.00	EA	\$500.00	\$39,000.00
2	10-30'	20.00	EA	\$350.00	\$7,000.00
				Sub-Total	\$46,000.00

City of Longview - HBB Longview Athletic Facility - PHASE 2 Engineer's Estimate of Probable Construction Costs - Tree Removal					
Skillings - Connolly, Inc.		Estimate By:	D. Maroon/R. Schultz		1/16/2019
Project Number: 18134		Checked By:	D. Maroon		1/16/2019
BID ITEM NO.	STANDARD ITEM DESCRIPTION	QUANTITY	UNIT OF MEASURE	UNIT PRICE	TOTAL PRICE
	<i>Tree Removal</i>				
1	30' or Higher	7.00	EA	\$500.00	\$3,500.00
2	10-30'	10.00	EA	\$350.00	\$3,500.00
				Sub-Total	\$7,000.00

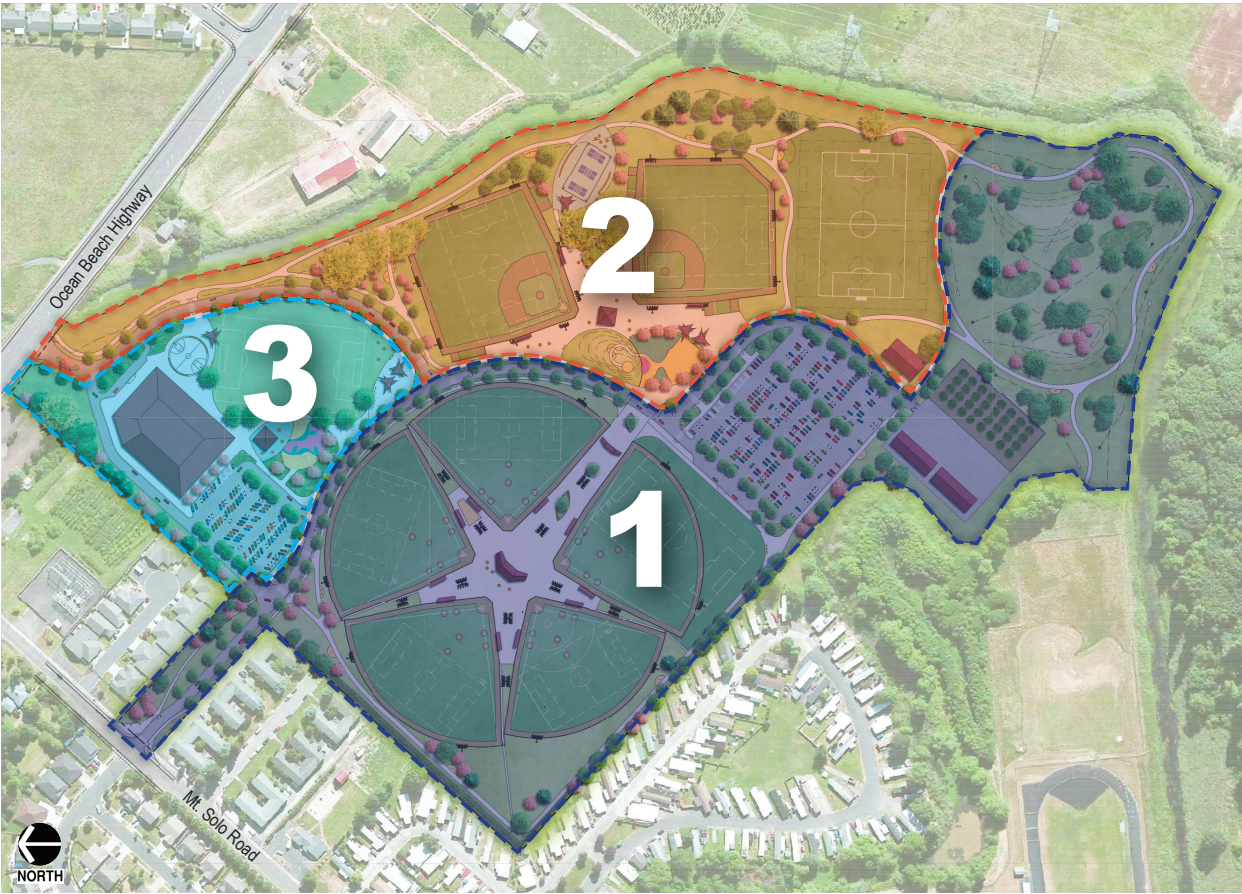
City of Longview - HBB Longview Athletic Facility - PHASE 3 Engineer's Estimate of Probable Construction Costs - Tree Removal					
Skillsings - Connolly, Inc.		Estimate By:	D. Maroon/R. Schultz		1/16/2019
Project Number: 18134		Checked By:	D. Maroon		1/16/2019
BID ITEM NO.	STANDARD ITEM DESCRIPTION	QUANTITY	UNIT OF MEASURE	UNIT PRICE	TOTAL PRICE
	<i>Tree Removal</i>				
1	30' or Higher	0.00	EA	\$500.00	\$0.00
2	10-30'	0.00	EA	\$350.00	\$0.00
				Sub-Total	\$0.00

PHASING

Phase 1 -----

Phase 2 -----

Phase 3 -----



ENVIRONMENTAL ASSESSMENT

Longview Athletic Facility

Prepared for:

City of Longview

Prepared by:

Hannah Belloli, Staff Scientist

Grant Gilmore, Senior Project Scientist

Skillings Connolly, Inc.

PO Box 5080

Lacey, WA 98509

October 2018



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Table 5 – 17.10.110-4. Land Use Intensity Matrix

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Figure 1 – Image of non-native ornamental trees within Roy Morse Park

Figure 2 – Potential Wetland Unit

1.0 Purpose and Need

This environmental assessment was drafted to address the need for the Longview Sports Facility. The area is located in Longview, Washington at the Roy Morse Park, Cowlitz County, Washington. The Roy Morse Park is currently a 60 acre site with playground equipment, softball and baseball fields, soccer fields, a 9-hole disc golf course, open play areas, concession buildings, picnic facilities, horseshoe courts, maintenance garage, parking lots, paved trail, and restrooms. The proposed project could include improvements to the existing facilities or a complete retrofit to a first class sports facility. The proposed project is currently in a feasibility study and the below information is to outline existing habitats and sensitive areas.

2.0 Affected Environment

This section of the EA describes the existing environmental conditions within and around Roy Morse Park. Existing Conditions were identified during a site visit, from available Geographic Information System (GIS) data and from other available resources. A site visit was conducted on 10 October, 2018 by Grant Gilmore, Senior Project Scientist.

2.1 Land Resources

Roy Morse Park is a 60 acre site with an established sports facility and playground. It is located in the City of Longview.

2.1.1 Topography

Topography of the site is relatively flat throughout the park. To the south of the park is a steep incline. The park is surrounded by streams to the east and west. These are fish bearing streams according to Forest Application Mapping Tool (FPARS – Department of Natural Resources) (Appendix C – FPARS Map). In the south corner of the park is a wetland according to NWI (Appendix B – NWI Map).

2.1.2 Soils

Based on Natural Resources Conservation Service Soils Map (NRCS), Roy Morse Park consists of one main soil type. NRCS data (Appendix D – Soils Maps) indicated that 81.6% of the area is classified as Caples silty clay loam, 0-3% slopes.

The Caples series consists of very deep, somewhat poorly drained soils formed in alluvium. Caples soils are on nearly level floodplains and low terraces. The average annual precipitation is about 45 inches and the average annual temperature is about 52 degrees Fahrenheit.

Ap1--0 to 4 inches; dark brown (10YR 3/3) silty clay loam, grayish brown (10YR 5/2) dry; moderate fine granular and subangular blocky structure; hard, friable, slightly sticky and slightly plastic; many fine and medium and few coarse roots; many worm casts; moderately acid; abrupt smooth boundary.

Ap2--4 to 9 inches; dark brown (10YR 3/3) light silty clay loam, grayish brown (10YR 5/2) dry; many moderate distinct strong brown (7.5YR 5/8) and gray (10YR 6/1) redox concentrations and depletions, strong brown (7.5YR 5/8) and light brownish gray (10YR 6/2) dry; strong fine subangular blocky and moderate fine granular structure; slightly hard, friable, slightly sticky and slightly plastic; many fine and medium and few coarse roots; few medium and coarse tubular pores; moderately acid; abrupt smooth boundary. (The A horizon has a combined thickness of 7 to 9 inches.)

Bg1--9 to 25 inches; gray (5Y 5/1) silty clay loam, gray (5Y 6/1) dry; many fine prominent yellowish red (5YR 5/6) and dark reddish brown (2.5YR 3/4) redox concentrations, strong brown (7.5YR 5/6) and dark reddish brown (2.5YR 3/4) dry; moderate coarse prismatic and moderate medium and moderate fine subangular blocky structure; hard, firm, slightly sticky and slightly plastic; many fine and medium roots; common medium tubular pores; moderately acid; clear smooth boundary.

Bg2--25 to 39 inches; grayish brown (2.5Y 5/2) silty clay loam, light brownish gray (2.5Y 6/2) dry; many medium prominent dark reddish brown (5YR 3/2), reddish brown (5YR 4/4) and strong brown (7.5YR 5/6) redox concentrations, dark reddish brown (5YR 2/2), yellowish red (5YR 5/6) and reddish yellow (5YR 6/6) dry; moderate coarse prismatic and weak thick platy structure; very hard, firm, moderately sticky and moderately plastic; common fine and medium roots; few medium, fine and coarse tubular pores; moderately acid; abrupt smooth boundary. (Combined thickness of the Bg horizon is 24 to 35 inches)

Cg1--39 to 44 inches; dark gray (5Y 4/1) silty clay loam, gray (5Y 6/1) dry; few fine prominent brown (7.5YR 4/4) redox concentrations along old root channels, reddish yellow (7.5YR 6/8) dry; massive; very hard, firm, moderately sticky and moderately plastic; few fine roots; common coarse tubular pores; moderately acid; clear smooth boundary. (4 to 7 inches thick)

Cg2--44 to 77 inches; gray (N5/) silty clay loam, gray (5Y 6/1) dry; few fine prominent brown (7.5YR 4/4) redox concentrations along old root channels; strong brown (7.5YR 5/8) dry; massive; very hard, firm, very sticky and moderately plastic; few fine roots; common coarse tubular pores; moderately acid.

Sourced: <https://casoilresource.lawr.ucdavis.edu/gmap/>

2.2 Water Resources

2.2.1 Surface Water and Flooding

The Roy Morse Park is located within the Grays-Elochoman watershed (WRIA 25). The Roy Morse Park has two dikes within the vicinity. One dike is to the south of the park and the other runs along the east side of the park. These dikes are regulated by Consolidated Diking Improvement District Number 1 (CDI D#1). The dike and drainage ditch systems are composed of both man made ditches and improved natural channels. The Diking District is needed because the city of Longview was developed within a natural flood plain (Appendix H – FEMA Flood Maps). The levees in these areas protect the city of Longview from river flood waters as well as capture stormwater. The ditches in the area have a dual function, they transport stormwater to the pumping stations and they act as storage reservoirs for intense rainfalls exceeding the capacity of the pumps. The Columbia River is the ultimate destination of the drainage water. According to the CDID #1 the sloughs, ditches, and drains are maintained on a regular basis. Maintenance work involves cleaning of mud and debris, clearing and removal of vegetation and mowing on the banks and areas above water level, and repairing ditch banks that have eroded or slumped. Inspection intervals are increased during periods of rainy weather and significant storm events. Buffers required for the ditches, dikes, and sloughs include access only for maintenance.

2.2.2 Groundwater

The City of Longview recently switched from providing its residents with water from Cowlitz River to water sourced from the Mint Farm Aquifer. As part of a Wellhead Protection Program, the city collects groundwater samples from deep sentinel wells surrounding the aquifer every six months to look for changes in water quality. The water that infiltrates the ground within Roy Morse Park enters the diking system and ultimately the Columbia River.

2.2.3 Water Quality

According to Washington State Department of Ecology Water Quality Atlas Map, there are no concerns for water quality within the immediate vicinity of Roy Morse Park. There is one 303d listed body of water (Columbia River) to the west and south of the park. The 303d Columbia River is listed for temperature and bacteria. The water bodies within Roy Morse Park are Category 4C waters and have no concern for water quality. The water quality standards found within the park's boundaries include standards for freshwater salmonid spawning, rearing, and migration. Although, after communications with the CDID #1, it was determined that the dikes within their jurisdiction are exempt due to the pumping system and the assumed 100% mortality.

2.3 Living Resources

A site visit conducted on 10 October, 2018 by Grant Gilmore, Senior Project Scientist found no evidence of threatened and/or endangered species on site. In addition, no critical habitats were identified within the project boundary (Appendix E – IPaC Report). Critical areas include the streams as well as the wetland to the south of the park (Appendix F – PHS Report).

2.3.1 Wildlife

A review of the Washington State Department of Fish and Wildlife (WDFW) Priority Habitats and Species Database and SalmonScape indicated no federally listed species present within the project area. There is a stream to the north of the park, outside the proposed project boundary, that is a salmon bearing stream according to SalmonScape (Appendix G – SalmonScape Map). No other federally listed species are present within the project site.

2.3.2 Vegetation

Vegetation within Roy Morse Park consists mainly of playing field grass. There are areas of non-native ornamental trees throughout the entire park (Figure 1). A review of the rare plant database (Washington Department of Natural Resources Natural Heritage Program (DNR-NHP) 2014) indicated that there are no endangered plant species listed under the ESA or the State Priority Species lists occurring within the project vicinity.

Figure 1. Image of non-native ornamental trees within Roy Morse Park



2.3.3 Ecosystems and Biological Communities

In order to develop the baseline environmental review Critical Area Ordinance Chapter 17.10 for the City of Longview was reviewed and is referenced in this summary. Guidelines for maps and data have been utilized to ensure all regulatory guidelines have

been addressed for all critical areas. Table 1 addresses topics associated with habitat and sensitive areas while referencing the mapping resources. Maps are included within in each section of the review and attached in the Appendix items.

Table 1. Per City Code, Table 17.10.100 Summary of Map Sources

Topic	Map and Data Sources
Potential Wetland Indicators	Web Soil Survey, U.S. Department of Agriculture, Natural Resource Conservations Service
	National Wetlands Inventory Maps, Wetland Mapper, U.S. Department of Interior, U.S. Fish and Wildlife Service
Fish and Wildlife Habitat Conservation Areas	Priority Habitat and Species Maps, Washington Department of Fish and Wildlife
	Forest Practice Act Stream Type Maps, Washington Department of Natural Resources
	Washington Natural Heritage Data Set, Washington Department of Natural Resources
	StreamNet™ operated by the Pacific States Marine Fisheries Commission and funded by the Bonneville Power Administration
	SalmonScape, Washington Department of Fish and Wildlife (maps anadromous and resident salmonid distributions from the Salmon and Steelhead Habitat Assessment Program (SSHIAP))
Frequently Flooded Areas	Flood Insurance Rate Maps, Federal Emergency Management Agency, National Flood Insurance Program
Geologically Hazardous Areas	Digital Landslide Inventory for the Cowlitz County Urban Corridor, Washington, Washington Division of Geology and Earth Resources, Washington Department of Natural Resources, May 2006 (Wegmann 2006)
	Liquefaction Susceptibility Map of Cowlitz County, Washington, Division of Geology and Earth Resources, Washington Department of Natural Resources, September 2004 (Palmer 2004)
	2004 USGS Quaternary Fold and Fault Database for the United States, Hoquiam 1° x 2° Sheet (USGS 2004)
	Volcanic-Hazard Zonation for Mount St. Helens, Washington, 1995 (Wolfe and Pierson 1995)
	Interactive Geologic Maps and Geologic Information Portal, Washington Department of Natural Resources

	Web Soil Survey, U.S. Department of Agriculture, Natural Resource Conservations Service
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Wetlands:

Wetlands in and around the Roy Morse Park have been reviewed through online research utilizing the National Wetland Inventory. Currently listed are three classification types:

Description for code PEM1F (NWI Listed):

P System PALUSTRINE: The Palustrine System includes all nontidal wetlands dominated by trees, shrubs, persistent emergent, emergent mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean-derived salts is below 0.5 ppt. It also includes wetlands lacking such vegetation, but with all of the following four characteristics: (1) area less than 8 ha (20 acres); (2) active wave-formed or bedrock shoreline features lacking; (3) water depth in the deepest part of basin less than 2.5 m (8.2 ft) at low water; and (4) salinity due to ocean-derived salts less than 0.5 ppt.

EM Class EMERGENT: Characterized by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years. These wetlands are usually dominated by perennial plants.

1 Subclass Persistent: Dominated by species that normally remain standing at least until the beginning of the next growing season. This subclass is found only in the Estuarine and Palustrine systems.

F Water Regime Semi-permanently Flooded: Surface water persists throughout the growing season in most years. When surface water is absent, the water table is usually at or very near the land surface.

Description code PSSC (NWI Listed):

P System PALUSTRINE: The Palustrine System includes all nontidal wetlands dominated by trees, shrubs, persistent emergent, emergent mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean-derived salts is below 0.5 ppt. It also includes wetlands lacking such vegetation, but with all of the following four characteristics: (1) area less than 8 ha (20 acres); (2) active wave-formed or bedrock shoreline features lacking; (3) water depth in the deepest part of basin less than 2.5 m (8.2 ft) at low water; and (4) salinity due to ocean-derived salts less than 0.5 ppt.

SS Class SCRUB-SHRUB: Includes areas dominated by woody vegetation less than 6 m (20 feet) tall. The species include true shrubs, young trees (saplings), and trees or shrubs that are small or stunted because of environmental conditions.

C Water Regime Seasonally Flooded: Surface water is present for extended periods especially early in the growing season, but is absent by the end of the growing season in most years. The water table after flooding ceases is variable, extending from saturated to the surface to a water table well below the ground surface.

Description code R2ABH (NWI Listed):

R System RIVERINE: The Riverine System includes all wetlands and deep water habitats contained within a channel, with two exceptions: (1) wetlands dominated by trees, shrubs, persistent emergent, emergent mosses, or lichens, and (2) habitats with water containing ocean-derived salts of 0.5 ppt or greater. A channel is an open conduit either naturally or artificially created which periodically or continuously contains moving water, or which forms a connecting link between two bodies of standing water.

2 Subsystem LOWER PERENNIAL: This Subsystem is characterized by a low gradient. There is no tidal influence, and some water flows all year, except during years of extreme drought. The substrate consists mainly of sand and mud. Oxygen deficits may sometimes occur. The fauna is composed mostly of species that reach their maximum abundance in still water, and true planktonic organisms are common. The gradient is lower than that of the Upper Perennial Subsystem and the floodplain is well developed.

AB Class AQUATIC BED: Includes wetlands and deepwater habitats dominated by plants that grow principally on or below the surface of the water for most of the growing season in most years.

H Water Regime Permanently Flooded: Water covers the substrate throughout the year in all years.

Table 2. 17.10.110-1. Wetland Buffers Required to Protect Water Quality Functions

Wetland Rating	Low Intensity Use	Moderate Intensity Use	High Intensity Use
Category I: Bogs and Wetlands of High Conservation Value	150 ft.	225 ft.	300 ft.
Category I:	50 ft.	75 ft.	100 ft.

Based on Total Score			
Category II	50 ft.	75 ft.	100 ft.
Category III	40 ft.	60 ft.	80 ft.
Category IV	25 ft.	40 ft.	50 ft.

Table 3. 17.10.110-2. Wetland Buffers Required to Protect Habitat Functions in Category I and II Wetlands

Habitat Score in the Rating Form	Low Intensity Use	Moderate Intensity Use	High Intensity Use
4 points or less	See Table 17.10.110-1	See Table 17.10.110-1	See Table 17.10.110-1
5 points	70 ft.	105 ft.	140 ft.
6 points	90 ft.	135 ft.	180 ft.
7 points	110 ft.	165 ft.	220 ft.
8 points	130 ft.	195 ft.	260 ft.
9 points	150 ft.	225 ft.	300 ft.

Table 4. 17.10.110-3. Wetland Buffers Required to Protect Habitat Functions in Category III Wetlands

Habitat Score in the Rating Form	Low Intensity Use	Moderate Intensity Use	High Intensity Use
4 points or less	See Table 17.10.110-1	See Table 17.10.110-1	See Table 17.10.110-1
5 points	60 ft.	90 ft.	115 ft.
6 points	65 ft.	95 ft.	120 ft.
7 points	75 ft.	100 ft.	125 ft.

Table 5. 17.10.110-4. Land Use Intensity Matrix

	Low	Moderate	High
Parks and Recreation	Natural fields and grass areas, viewing areas, split rail fencing	Impervious trails, engineered fields, fairways	Greens, tees, structures, parking, lighting, concrete

			or gravel pads, security fencing
Streets and Roads	Does not apply	Residential driveways and access roads	Public and private streets, security fencing, retaining walls
Stormwater Facilities	Outfalls, spreaders, constructed wetlands, bioswales, vegetated detention basins, overflows	Wet ponds	Maintenance access roads, retaining walls, vaults, infiltration basins, sedimentation fore bays and structures, security fencing
Utilities	Does not apply	Maintenance access roads	Paved or concrete surfaces, structures, facilities, pump stations, towers, vaults, security fencing, etc.
Commercial/ Industrial	Underground and overhead utility lines, manholes, power poles (without footings)	Does not apply	All site development
Residential	Density at or lower than 1 unit per 5 acres	Density between 1 unit per acre and higher than 1 unit per 5 acres	Density higher than 1 unit per acre

Based on our review wetland buffers may range from 60-150 feet depending on the Category rating after wetlands have been formally delineated by a professional wetland scientist.

A second potential wetland was identified to the southwest of the park. A formal wetland delineation would need to be conducted to place a category on the wetland to establish the appropriate buffers. The wetland is pictured below.

Figure 2. Potential Wetland Unit



Streams:

Department of Natural Resources' FPARS indicates a fish bearing stream through the center of the Park. During the site visit on 10 October 2018 it was decided that this area is highly unlikely to be considered as such. The area is lacking running water or ponding water, and riparian area indicators. The area is currently used as part of a disc golf course after an in ground drainage system was put in place. At this time it is highly unlikely that any associated stream buffers would be needed for this area. With further research there may be buffers or permitting required, but at this time it is not apparent. Figure 1 shows the area described.

3.0 Conclusion

This environmental assessment is intended for a feasibility study for the Roy Morse Park. Habitats and sensitive areas discussed include the dikes to the east and south of the park, the wetland to the south, the proposed wetland to the southwest, and the stream that runs through the park. At this time, there are no apparent buffers needed for the listed habitats and sensitive areas. A formal wetland delineation is needed for both wetlands to determine wetland categories and associated buffers.

Appendix A

Vicinity Map

DRAFT

Roy Morse

Topo



Appendix B

NWI Map

DRAFT

[BASEMAPS >](#)[MAP LAYERS >](#)

- ☒ Wetlands 1 2
- ☐ Riparian 1 2
- ☐ Riparian Mapping Areas 1 2
- ☒ Data Source 1 2
 - ☐ Source Type
 - ☐ Image Scale
 - ☐ Image Year
- ☐ Areas of Interest 1
- ☐ FWS Managed Lands 1 2
- ☐ Historic Wetland Data 1 2

[Measure](#)[LEGEND](#)[General](#) [* Description](#) [Reports](#) [About](#)

Classification code: R2ABH

System **Riverine (R)** : The Riverine System includes all wetlands and deepwater habitats contained within a channel, with two exceptions: (1) wetlands dominated by trees, shrubs, persistent emergents, emergent mosses, or lichens, and (2) habitats with water containing ocean-derived salts of 0.5 ppt or greater. A channel is an open conduit either naturally or artificially created which periodically or continuously contains moving water, or which forms a connecting link between two bodies of standing water.

Subsystem **Lower Perennial (2)** : This Subsystem is characterized by a low gradient. There is no tidal influence, and some water flows all year, except during years of extreme drought. The substrate consists mainly of sand and mud. Oxygen deficits may sometimes occur. The fauna is composed mostly of species that reach their maximum abundance in still water, and true planktonic organisms are





National Wetlands Inventory

surface waters and wetlands

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MAP LAYERS >

- ☒ Wetlands
- ☐ Riparian
- ☐ Riparian Mapping Areas
- ☒ Data Source
 - Source Type
 - Image Scale
 - Image Year
- ☐ Areas of Interest
- ☐ FWS Managed Lands
- ☐ Historic Wetland Data



Measure



LEGEND

General Description Reports About

Classification code: PSSC

System **Palustrine (P)** : The Palustrine System includes all nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean-derived salts is below 0.5 ppt. It also includes wetlands lacking such vegetation, but with all of the following four characteristics: (1) area less than 8 ha (20 acres); (2) active wave-formed or bedrock shoreline features lacking; (3) water depth in the deepest part of basin less than 2.5 m (8.2 ft) at low water; and (4) salinity due to ocean-derived salts less than 0.5 ppt.

Class **Scrub-Shrub (SS)** : Includes areas dominated by woody vegetation less than 6 m (20 feet) tall. The species include true shrubs, young trees (saplings), and trees or shrubs that are small or stunted because of environmental conditions.

Water Regime **Seasonally Flooded (C)** : Surface water is present for extended



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☐ Riparian Mapping Areas

☒ Data Source

☐ Source Type

☐ Image Scale

☐ Image Year

☐ Areas of Interest

☐ FWS Managed Lands

☐ Historic Wetland Data



Measure

LEGEND

General

Description

Reports

About

Classification code: PEM1F

System **Palustrine (P)** : The Palustrine System includes all nontidal wetlands dominated by trees, shrubs, persistent emergents, emergent mosses or lichens, and all such wetlands that occur in tidal areas where salinity due to ocean-derived salts is below 0.5 ppt. It also includes wetlands lacking such vegetation, but with all of the following four characteristics: (1) area less than 8 ha (20 acres); (2) active wave-formed or bedrock shoreline features lacking; (3) water depth in the deepest part of basin less than 2.5 m (8.2 ft) at low water; and (4) salinity due to ocean-derived salts less than 0.5 ppt.

Class **Emergent (EM)** : Characterized by erect, rooted, herbaceous hydrophytes, excluding mosses and lichens. This vegetation is present for most of the growing season in most years. These wetlands are usually dominated by perennial plants.

Subclass **Persistent (1)** : Dominated by species that normally remain standing at



Appendix C

FPARS Map

DRAFT



Appendix D

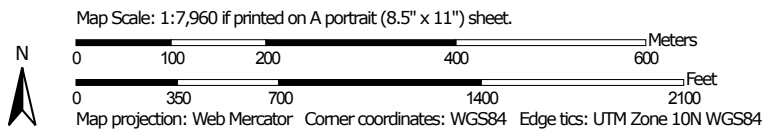
Soils Map

DRAFT

Soil Map—Cowlitz County, Washington



Soil Map may not be valid at this scale.



**Natural Resources
Conservation Service**

Web Soil Survey
National Cooperative Soil Survey

10/9/2018
Page 1 of 3
Page 187 of 256

MAP LEGEND

Area of Interest (AOI)

-  Area of Interest (AOI)

Soils

-  Soil Map Unit Polygons
-  Soil Map Unit Lines
-  Soil Map Unit Points

Special Point Features

-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot

-  Spoil Area
-  Stony Spot
-  Very Stony Spot
-  Wet Spot
-  Other
-  Special Line Features

Water Features

-  Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

Background

-  Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Cowlitz County, Washington

Survey Area Data: Version 19, Sep 10, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 29, 2015—Sep 27, 2016

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
17	Caples silty clay loam, 0 to 3 percent slopes	235.3	81.6%
21	Centralia silt loam, 0 to 8 percent slopes	23.8	8.3%
22	Centralia silt loam, 8 to 20 percent slopes	18.0	6.2%
23	Centralia silt loam, 20 to 30 percent slopes	11.1	3.9%
78	Hazeldell gravelly silt loam, 30 to 65 percent slopes	0.1	0.0%
263	Water	0.0	0.0%
Totals for Area of Interest		288.2	100.0%

DRAFT

Appendix E

IPaC Report

DRAFT



United States Department of the Interior

FISH AND WILDLIFE SERVICE

Washington Fish And Wildlife Office

510 Desmond Drive Se, Suite 102

Lacey, WA 98503-1263

Phone: (360) 753-9440 Fax: (360) 753-9405

<http://www.fws.gov/wafwo/>



In Reply Refer To:

October 19, 2018

Consultation Code: 01EWF00-2019-SLI-0079

Event Code: 01EWF00-2019-E-00185

Project Name: Roy Morse Park - Longview

Subject: List of threatened and endangered species that may occur in your proposed project location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, and proposed species, designated and proposed critical habitat, and candidate species that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 et seq.).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. The species list is currently compiled at the county level. Additional information is available from the Washington Department of Fish and Wildlife, Priority Habitats and Species website: <http://wdfw.wa.gov/mapping/phs/> or at our office website: http://www.fws.gov/wafwo/species_new.html. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 et seq.), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2)(c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether or not the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species, and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

<http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF>

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 et seq.). You may visit our website at <http://www.fws.gov/pacific/eagle/for> information on disturbance or take of the species and information on how to get a permit and what current guidelines and regulations are. Some projects affecting these species may require development of an eagle conservation plan: (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (<http://www.fws.gov/windenergy/>) for minimizing impacts to migratory birds and bats.

Also be aware that all marine mammals are protected under the Marine Mammal Protection Act (MMPA). The MMPA prohibits, with certain exceptions, the "take" of marine mammals in U.S. waters and by U.S. citizens on the high seas. The importation of marine mammals and marine mammal products into the U.S. is also prohibited. More information can be found on the MMPA website: <http://www.nmfs.noaa.gov/pr/laws/mmpa/>.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Related website:

National Marine Fisheries Service: http://www.nwr.noaa.gov/protected_species/species_list/species_lists.html

Attachment(s):

- Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

Washington Fish And Wildlife Office
510 Desmond Drive Se, Suite 102
Lacey, WA 98503-1263
(360) 753-9440

DRAFT

Project Summary

Consultation Code: 01EWF00-2019-SLI-0079

Event Code: 01EWF00-2019-E-00185

Project Name: Roy Morse Park - Longview

Project Type: ** OTHER **

Project Description: Longview Facility

Project Location:

Approximate location of the project can be viewed in Google Maps: <https://www.google.com/maps/place/46.16553541050104N123.01481723635027W>



Counties: Cowlitz, WA

Endangered Species Act Species

There is a total of 7 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

-
1. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME	STATUS
Columbian White-tailed Deer <i>Odocoileus virginianus leucurus</i> Population: Columbia River DPS No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/154	Threatened
North American Wolverine <i>Gulo gulo luscus</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/5123	Proposed Threatened

Birds

NAME	STATUS
Marbled Murrelet <i>Brachyramphus marmoratus</i> Population: U.S.A. (CA, OR, WA) There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/4467	Threatened
Streaked Horned Lark <i>Eremophila alpestris strigata</i> There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/7268	Threatened
Yellow-billed Cuckoo <i>Coccyzus americanus</i> Population: Western U.S. DPS There is proposed critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/3911	Threatened

Fishes

NAME	STATUS
Bull Trout <i>Salvelinus confluentus</i> Population: U.S.A., conterminous, lower 48 states There is final critical habitat for this species. Your location is outside the critical habitat. Species profile: https://ecos.fws.gov/ecp/species/8212	Threatened

Flowering Plants

NAME	STATUS
Nelson's Checker-mallow <i>Sidalcea nelsoniana</i> No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/7340	Threatened

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.

Appendix F

PHS Report

DRAFT



WASHINGTON DEPARTMENT OF FISH AND WILDLIFE

PRIORITY HABITATS AND SPECIES REPORT

SOURCE DATASET: PHSPublic
REPORT DATE: 10/09/2018 10.48

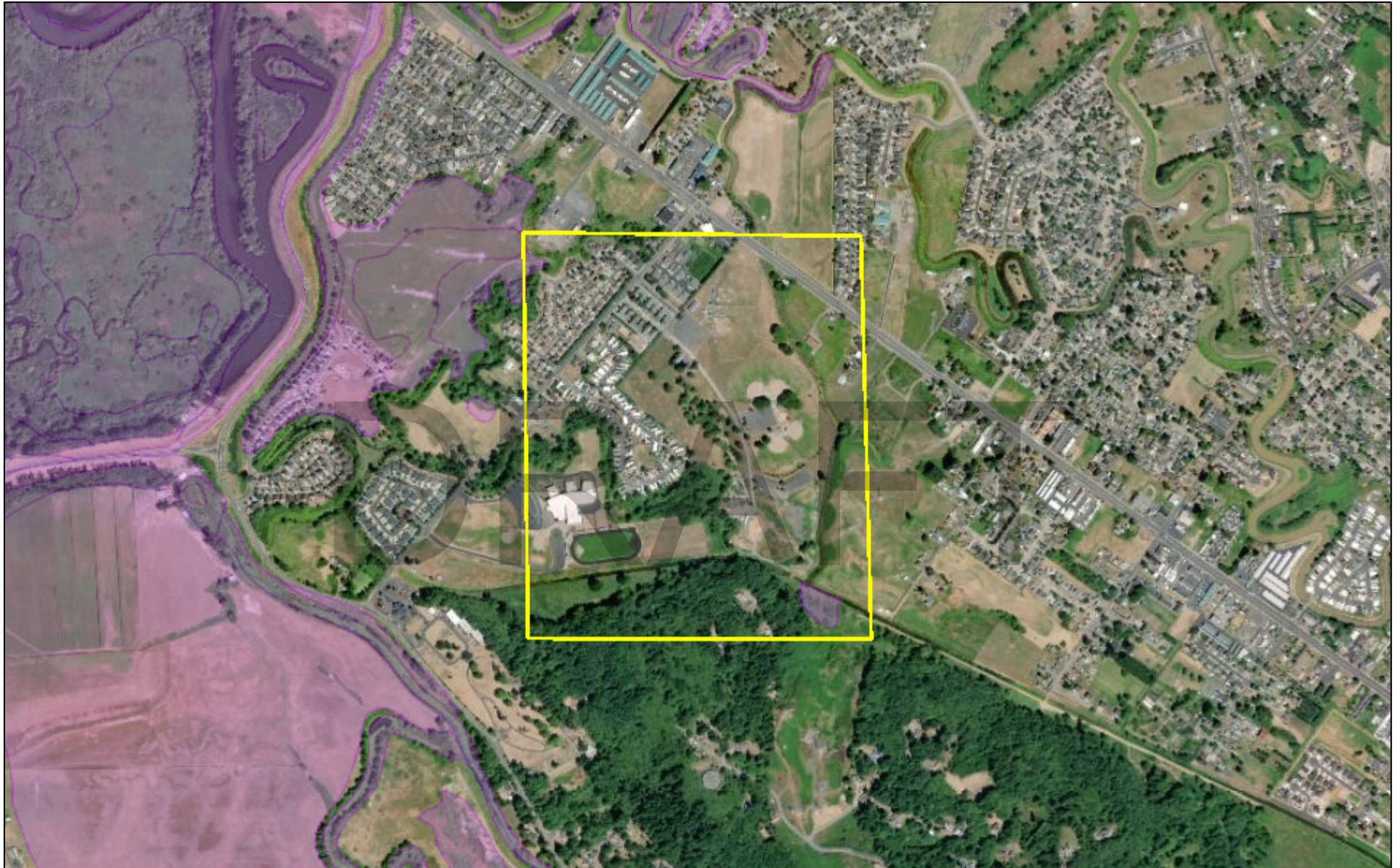
Query ID: P181009104742

Common Name	Site Name	Priority Area	Accuracy	Federal Status	Sensitive Data	Source Entity
Scientific Name	Source Dataset	Occurrence Type		State Status	Resolution	Geometry Type
Notes	Source Date	More Information (URL)		PHS Listing Status		
		Mgmt Recommendations				
Freshwater Forested/Shrub	N/A	Aquatic Habitat	NA	N/A	N	US Fish and Wildlife Service
	NWIWetlands	Aquatic habitat		N/A	AS MAPPED	Polygons
		http://www.ecy.wa.gov		PHS Listed		
Waterfowl Concentrations	BARLOW POINT NORTH AND	Regular Concentration	1/4 mile (Quarter	N/A	N	WA Dept. of Fish and Wildlife
	PHSREGION	Regular concentration		N/A	AS MAPPED	Polygons
	902123	http://wdfw.wa.gov/publications/pub.php?		PHS LISTED		

DRAFT

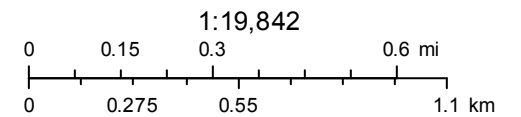
DISCLAIMER. This report includes information that the Washington Department of Fish and Wildlife (WDFW) maintains in a central computer database. It is not an attempt to provide you with an official agency response as to the impacts of your project on fish and wildlife. This information only documents the location of fish and wildlife resources to the best of our knowledge. It is not a complete inventory and it is important to note that fish and wildlife resources may occur in areas not currently known to WDFW biologists, or in areas for which comprehensive surveys have not been conducted. Site specific surveys are frequently necessary to rule out the presence of priority resources. Locations of fish and wildlife resources are subject to variation caused by disturbance, changes in season and weather, and other factors. WDFW does not recommend using reports more than six months old.

WDFW Test Map



October 9, 2018

- | | | |
|--|--|---|
| PHS Report Clip Area | POLY | QTR-TWP |
| • PT | AS MAPPED | TOWNSHIP |
| — LN | SECTION | |



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Appendix G

SalmonScape

DRAFT

Appendix H

FEMA Flood Map

DRAFT

National Flood Hazard Layer FIRMette



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
		Area of Undetermined Flood Hazard Zone D
GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5 Cross Sections with 1% Annual Chance Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
OTHER FEATURES		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped



The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **10/19/2018 at 12:26:57 PM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

46°10'20.54"N



USGS The National Map: Orthoimagery. Data refreshed October 2017.

0 250 500 1,000 1,500 2,000 Feet 1:6,000

46°9'55.62"N

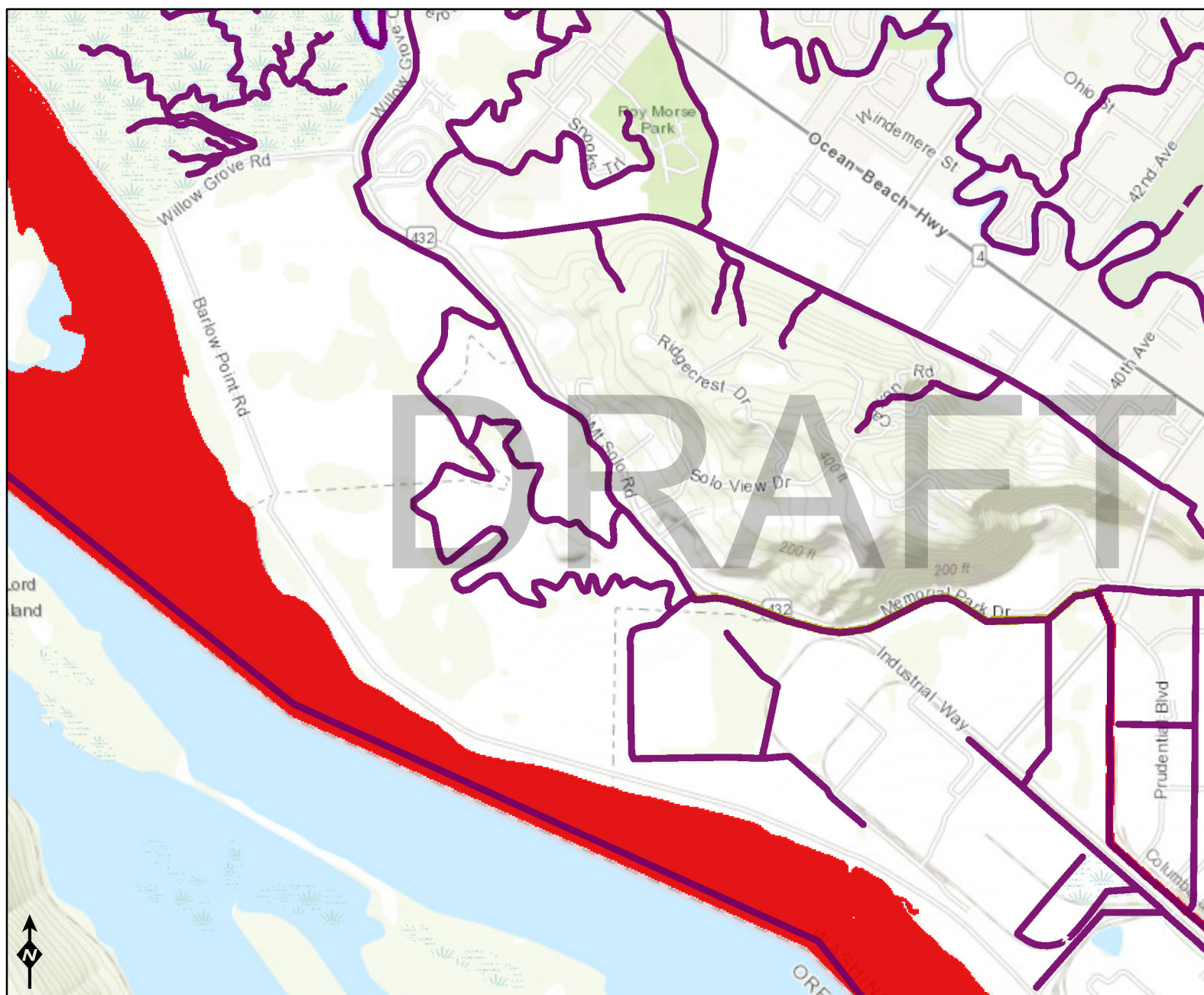
123°0'42.90"W

Appendix I

Ecology 303d Map

DRAFT

Roy Morse Water Quality Map



Assessed Waters/Sediment

Water

- █ Category 5 - 303d
- █ Category 4C
- █ Category 4B
- █ Category 4A
- █ Category 2
- █ Category 1

Sediment

- ▨ Category 5 - 303d
- ▨ Category 4C
- ▨ Category 4B
- ▨ Category 4A
- ▨ Category 2
- ▨ Category 1

█ WQ Standards

City of Longview

LONGVIEW AFC ECONOMIC IMPACT ANALYSIS



FEBRUARY 2019

BERK
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Founded in 1988, we are an interdisciplinary strategy and analysis firm providing integrated, creative and analytically rigorous approaches to complex policy and planning decisions. Our team of strategic planners, policy and financial analysts, economists, cartographers, information designers and facilitators work together to bring new ideas, clarity, and robust frameworks to the development of analytically-based and action-oriented plans.

PROJECT TEAM

Andrew Bjorn, Project Manager
Bryce Anderson, Associate
Brian Murphy, Principal

Summary

Roy Morse Park in the City of Longview is a sports complex that has been a longstanding recreational resource for the City of Longview. As the Park is expected to continue in this role as a regional recreational resource, there are distinct needs for capital improvements to help it meet the future needs of neighborhood residents and the region as a whole. An \$88.6 million park plan has been proposed to upgrade the facilities in the Park, providing for two baseball fields and five softball fields (which can accommodate regulation and practice fields), one full-sized turf soccer field, and new concessions and bathroom buildings.

Although these upgrades to the Park are intended to provide support for growing residential areas in West Longview, there are a range of economic benefits that can be realized. Although many of these benefits can be difficult to define and value in terms of dollars, this report seeks to provide more detail about a general assessment of two types of economic benefits:

- Increased consumer spending resulting from 4–8 new regional youth sporting events (as well as from league play drawing player from teams out-of-town)
- Sourcing of the construction of the Park to local firms

With respect to increased consumer spending, the scenarios tested indicate that up to an additional 8 events at the Park per year could generate **17 FTE jobs** and up to **\$1.7 million** in total economic impacts from the resulting consumer spending. For every dollar brought into Longview from out-of-town, about **\$1.08 of new local economic activity** will be generated. Longview businesses could therefore potentially benefit from this increase in activity in the Park, although this may be somewhat constrained by the distance between Roy Morse Park and businesses in the downtown, as well as the large cluster of hotel/motel rooms in close to I-5 that would divert some spending by tourists to the City of Kelso.

The construction of the Park could potentially provide additional benefits to the local economy. If this project were to be sourced locally, it could provide a maximum of **1,949 FTE-years of employment** and up to an additional **\$38 million** in indirect and induced costs above the \$88.6 million direct costs of the project. Although the City may not look to source this construction completely to local firms, it should be noted that every \$1 spent locally on this project will generate about **\$1.43 in local economic activity**. Coupled with outside grants and private funding for park development, this could provide a distinct economic benefit to the local economy.

Future work in promoting the future Roy Morse Park as an economic resource may involve multiple strategies. Marketing efforts will be required to ensure that the facility can draw in new events and provide opportunities for youth sports tourism. Developing the downtown as a destination for restaurants and retail and entertainment businesses that can be marketed to these out-of-town visitors will also be important. Additional hotel/motel development downtown may be constrained by limited growth in demand, but increasing tourism can help in boosting the need for more rooms in the area.

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1.0 Introduction

Roy Morse Park in the City of Longview is a sports complex that has been a longstanding recreational resource for the community. Located in western part of the city, this 60-acre site serves as a regional park and currently includes space for baseball, softball, soccer, and disc golf, as well as support facilities like parking, concession buildings, and restrooms. The site also accommodates a nursery and other facilities for the Parks & Recreation Department.

As the Park is expected to continue in this role as a regional recreational resource, there are distinct needs for capital improvements to help it meet the future needs of area residents. This is especially important as more residential development projects are expected in the neighborhood in the future, which will increase the demand for recreational facilities. Identified improvements include the installation of artificial turf for sports fields, reconfiguration of the site to include a greater number of sports fields, and upgrades to on-site facilities such as restrooms and concessions.

While fulfilling the future demands in the community is important, the City is also interested in other potential benefits from new capital investment in the Park. In addition to the typical amenity values from parks and recreational facilities, a sports complex with a regional draw would increase the number of visitors and outside spending in the community, primarily through attendance at youth sports events. Understanding the potential economic impacts due to new events at such a facility would help the City coordinate future management strategies and implement recommended improvements to the Park.

To this end, the following report is intended to provide a better understanding about how an improved Roy Morse Park could be an economic resource for the City. This assessment includes:

- A review of how parks and recreational facilities can be **community economic drivers** in general, with a focus on how the impacts of upgrades to Roy Morse Park on the economy of Longview are calculated
- An overview of the **economic context** of the site, neighborhood, city, and region, with a focus on characteristics relevant to the economic role of the Park
- A description of the **assumptions** used in the quantitative analysis of economic impacts from a new athletic field complex in Roy Morse Park
- **Results from the economic analysis** of impacts from a new athletic field complex, including a description of potential limitations of the outcomes

The report concludes with a discussion of the implications of these results, including major considerations for the City as the master plan for the Park is being implemented.

2.0 Overview of the Economic Impacts of Parks

The potential fiscal and economic effects of parks to cities have been highlighted through numerous studies. These effects can differ based on the type of park, the intended activities accommodated on the site, how the park is integrated with the surrounding area, and the management program for the site.

2.1. SUMMARY OF THE ECONOMIC EFFECTS OF PARKS

Economic effects of parks can include changes (typically improvements) to the following:

- **Local amenity value and quality of life.** The presence of a park provides local amenities that improve quality of life in a community, though aesthetic, health, and other benefits. These effects are often difficult to link with specific economic benefits but can assist in boosting the profile and appeal of a community for current and future residents and businesses.
- **Property values.** Improvements in local amenities such as parks can make residential neighborhoods more attractive for homebuyers and can be one factor in increasing housing prices in areas served by these parks. The benefits will vary according to the neighborhood and park but can lead to increased net property taxes from newly constructed communities.
- **Neighborhood business traffic.** For parks located close to retail and restaurant offerings, visitors may decide to shop or dine at the businesses in the immediate area. Area businesses may also decide to tailor offerings to a park, with limited-service restaurants or convenience retail that would meet visitor needs. This provides a boost to commercial property values by increasing the potential customer draw, and can increase retail sales taxes, business & operating taxes, and business licensing fees received from these areas.
- **Citywide business traffic.** Parks with a regional draw that bring in visitors from outside the community will support businesses associated with tourism, including hotel/motel accommodations, restaurants, convenience retail, and other supporting businesses. As with increasing local business traffic, this can boost commercial property values and draw increased taxes and licensing fees.
- **City revenue from facility fees.** Parks with facilities that can be rented or charge an admission fee, such as sports fields, golf courses, and assembly buildings, also provide a revenue stream for the city. This revenue is typically charged to defray regular operations and maintenance costs for the city.
- **Local employment and city expenditures.** Cities expend funds on building, operating, and maintaining parks, much of which goes into the local economy. This includes city staff positions that are supported by activities required to support a park.
- **Construction spending.** The expenditure of funds to build the Park can help to provide local jobs in construction, as well as supporting business to suppliers. This can provide a one-time economic boost for the community, although the net benefits may be lower (or zero) if this would simply displace or delay other capital improvement projects in the community, or if the construction firms and/or related suppliers are not located within the city.
- **Other revenue sources / business opportunities.** Additional municipal revenue and economic activity can result from other sources, such as concessions, food truck permits, and equipment rentals.

These sources will be specific to the individual facility and must be examined on a case-by-case basis.

- **Other environmental and social benefits.** Additional park benefits such as carbon capture, ecological conservation, and environmental protection can be difficult to quantify, but may address other types of spending and economic activity, such as flood mitigation efforts and potential losses.

2.2. EVALUATING THE LOCAL ECONOMIC IMPACTS OF PARK UPGRADES

Understanding and quantifying these economic effects as they relate to upgrading Roy Morse Park can be challenging. Benefits such as improvements in local quality of life, while important, can be difficult to isolate and calculate effectively. Other local benefits may also be a zero-sum calculation for a community overall: increasing local customer traffic in one area could reduce traffic in other locations, resulting in overstated benefits overall if the park's effects alone are calculated.

Because of these uncertainties, the focus of this report is primarily on evaluating and quantifying how upgrades to the park will likely change the net amount of money spent at businesses in the City of Longview. This can be realized in several ways:

- **Direct spending impacts from out-of-town visitors.** Upgrades to Roy Morse Park can position it as a regional recreational facility that could attract larger youth sports events such as tournaments and sports clinics. This has the potential to draw youth athletes and their family members for visits from outside the region, which would provide a significant increase in local spending on lodging, meals, and other related tourism expenses.
- **Direct spending impacts from residents.** Additional local economic activity would be related to retaining the spending from local youth athletes and their families that would have otherwise traveled elsewhere to attend events.
- **Indirect impacts from tourism spending.** Local suppliers of tourism-related businesses would also benefit from increased activity, with multiplier effects related to purchasing across local supply chains.
- **Induced impacts from tourism spending.** Local economic activity supported by increased youth sports tourism would also increase household incomes in the community and promote additional household purchases from businesses in Longview.

In addition to the regular expenditures from youth sports tourism, the construction of the updated facilities at Roy Morse Park can also result in local economic activity. As with tourism spending, overall economic activity can be related to the direct spending by the City on construction, indirect expenditures related to the local supply chain, and increased household incomes from employees of these businesses.

However, the relationships between these costs and the impacts to the local economy are not clear cut. Most of the funding to support the redevelopment of the Park will likely come from the City of Longview, with little of this spending reflecting “new money” from external sources. Similarly, local Longview firms are not guaranteed to be working on the project, meaning that some of the impacts of spending may be realized by firms in other communities. Because of this, these effects are discussed and evaluated with the understanding that the final impacts will be highly variable and dependent on contract awards.

3.0 Context

This section provides the context to evaluate the potential economic effects of the Roy Morse Park upgrades. This assessment is divided across four different scales:

- **Site conditions**, including the current configuration of the Park, the proposed site redesign, and resulting changes in site capacity
- **Neighborhood context**, with descriptions of local land use and development opportunities, and potentially impacted businesses in the immediate area
- **Community context**, including details about citywide parks and the businesses in the Longview area likely to be impacted by increased tourism spending
- **Regional context**, which outlines the regional market for comparable park and athletic facilities.

3.1. SITE CONDITIONS

3.1.1. Existing Facilities

The current site conditions for Roy Morse Park are provided in Exhibit 1, with the proposed plan provided in Exhibit 2. At present, the 60-acre site is close to Ocean Beach Highway (WA-4) to the northeast and Mt. Solo Rd to the northwest, with main access provided at Branch Creek Drive. Facilities on the site include:

- Two baseball fields (grass)
- Four softball fields (grass; two lighted)
- Two practice soccer fields (grass)
- Nine-hole, 27-par disc golf course
- Maintenance facility and plant nursery for Parks Department
- Three parking lots
- Open play areas
- Concession buildings and restrooms
- Picnic facilities
- Playground equipment
- Horseshoe courts
- Paved trails

The 2016 Parks & Recreation Comprehensive Plan notes that Roy Morse Park is designated as a Class IV/V Park (community/regional), intending to serve the population within 2 miles and a 30-minute drive from the park. Surveys conducted as part of the 2016 Plan noted that the Park was the second most-visited park (behind Lake Sacajawea Park), and 21% of residents chose the Park as one of the top three parks that should receive local funding for improvements and enhancement.

Exhibit 1. Existing Conditions, Roy Morse Park.



Sources: Google Earth, 2019; BERK, 2019.

Exhibit 2. Proposed Design, Roy Morse Park.



Source: HBB Architecture, 2019.

The 2016 Parks Plan notes three major improvements as part of its capital improvement planning which had been identified in the previous Plan but not yet completed:

- Additional field lighting (\$500,000)
- Upgrades to the restroom facilities (\$40,000)
- Fence extensions / heightening (\$14,000)

Additionally, four additional improvements are included as additional requests to enhance existing facilities to modernize this infrastructure and expand capacity to meet future demand:

- Artificial turf for athletic fields (\$250,000)
- Shade safety screen (\$60,000)
- Covered picnic shelter (\$25,000)
- Extension to the disc golf course (\$10,000)

Although these items have been incorporated into facilities planning for the Parks & Recreation Department, the Plan does not include a timeline or identified funds for implementation of these improvements within the 2016–2022 planning cycle.

3.1.2. Proposed Site Plan and Additional Capacity

The proposed site plan for improvements shown in Exhibit 2 provides significantly expanded capacity for activities in Roy Morse Park through a more efficient site design. The upgrades to the site include the following:

- Two baseball fields (turf), which can accommodate two practice soccer fields
- Five softball fields (turf), which can accommodate one regulation and four practice soccer fields
- New concession building and restrooms
- One full-sized soccer field (turf)
- Open play area / soccer field (grass)
- Indoor recreation facility
- Two parking lots
- Disc golf course
- Play / picnic areas
- Basketball court
- Tennis / pickleball courts
- Loop trail

The site redesign also includes a redesigned entrance with improved streetscaping via Branch Creek Drive, as well as a new entrance directly on Ocean Beach Highway. Landscape buffers between the Park and surrounding neighborhoods are also redesigned.

The redesign of Roy Morse Park positions the site to better fulfill its role in the City's park and trail network. With respect to the economic impacts of this redesign, these improvements will likely provide the following benefits:

- **Increased capacity for regional athletic events.** Providing a greater number of turf fields for local events allows the City to attract out-of-town visitors, likely to be primarily associated with youth sports activities. This will increase the amount of consumer spending at key businesses in the City, and retain some spending from local residents that would otherwise go elsewhere to attend these events.
- **Increased capacity for local athletic events.** Including an additional softball field in the design and providing artificial turf on the site for the ballfields and soccer field expands the ability for City facilities to meet youth and adult sports needs in the community overall. Enhancing this capacity can maintain this as an amenity that enhances the overall quality-of-life in Longview.
- **Improvements to neighborhood park amenities in the service area.** Within the immediate neighborhood, the facilities on the site will be improved and enhanced to better serve surrounding residents. This includes the expansion of trails on the site, improved casual sports facilities (e.g., basketball, tennis/pickleball), and enhanced pedestrian connections. Providing these improved amenities in the park can help to enhance area-wide property values and enhance the marketability of housing units in the area.
- **Reductions to nuisances in adjacent residential areas.** Although the improvements to the site provide greater amenities to the overall neighborhood, more activity in the Park from both the community and out-of-town visitors can be a nuisance to the adjacent residents. Screening with sufficient landscaping can reduce these effects and minimize the noise and privacy impacts that may have a negative impact on housing prices and rents.

3.2. NEIGHBORHOOD CONTEXT

A map of the neighborhood surrounding Roy Morse Park is provided in Exhibit 3. This area, located in West Longview at the edge of the city, largely includes R-1 residential district lands with a limited amount of higher density R-2 and R-3 areas. It can also be seen here that the capture area for the park includes developed areas outside of the City in Cowlitz County, largely along Ocean Beach Highway.

In addition to the proximity of the Park to single-family residential areas, several features of this neighborhood are important to consider with respect to the interactions between users of the Park and the surrounding neighborhood:

- **Adjacent to Mount Solo Middle School.** Roy Morse Park is directly adjacent to the Mount Solo Middle School. Trail connections between the Middle School and Park have been proposed by the design, which can both expand the use of the park to students of the school and integrate the open space on school grounds with the Park for users.
- **Limited, primarily auto-oriented restaurant / commercial uses.** West Longview includes a limited amount of commercial land located along Ocean Beach Highway. This area includes a self-storage facility, a gas station and convenience store, two restaurants (a pizza restaurant and a Mexican restaurant), espresso stand, and other minor retail and commercial uses. The auto-oriented nature of these uses and challenges to walkability along Ocean Beach Highway may limit the draw of these businesses to Park visitors.

Exhibit 3. Neighborhood Context.



Sources: ESRI, 2019; City of Longview, 2018; Cowlitz County, 2018; BERK, 2019.

- **Proposed Village Pointe development project.** There are significant lands available for development in the area surrounding Roy Morse Park. Most notably, a phased development project has been proposed for a 26.7-acre site to north of the Park under R-2/R-3 residential and General Commercial Zoning. The Village Pointe development proposal includes up to 15 multifamily buildings with 360 residential units; 50 townhomes; a 90,000 SF mini-storage facility; and a 6,000 SF commercial building. Although connections to Mark Hoehne Park are proposed as part of the project, Roy Morse Park will draw residents of this development as well.
- **Additional developable residential lands.** In addition to the Village Pointe site, developable residential parcels are also located along Ocean Beach Highway directly adjacent to Roy Morse Park. This site is currently in agricultural use, but it is within the R-3 residential district and can incorporate developments with townhomes and multifamily apartment buildings (up to 4 stories) as an allowable use. New development could incorporate site designs that integrate with the paved trails in the Park to provide strong pedestrian connections and integrate the park amenities with the residential uses on the site.

From the context of the surrounding neighborhood, improvements to Roy Morse Park have the potential to link into new higher-density residential development in the immediate area, and may be required to address increased demands from new residents. Opportunities for connections with commercial uses, specifically restaurant and retail formats that would benefit from proximity to the Park, may be constrained due to the auto-oriented nature of uses along Ocean Beach Highway and limited pedestrian access between these uses and the Park. Additional commercial uses may be challenging to site in this area as well, given the limited local capture for restaurant and retail uses.

3.3. COMMUNITY CONTEXT

As noted previously, the scale of Roy Morse Park will provide benefits to Longview and surrounding communities given its draw as a regional park. However, what is also important to consider is the role that the Park can play in drawing out-of-town visitors into the area for events, how these visitors will bring new spending into the City, and what other local recreational resources can also present a draw for residents and visitors. For this review, the primary focus is assumed to be youth leagues in softball, baseball, and soccer, based on the facilities available in the new Park design.

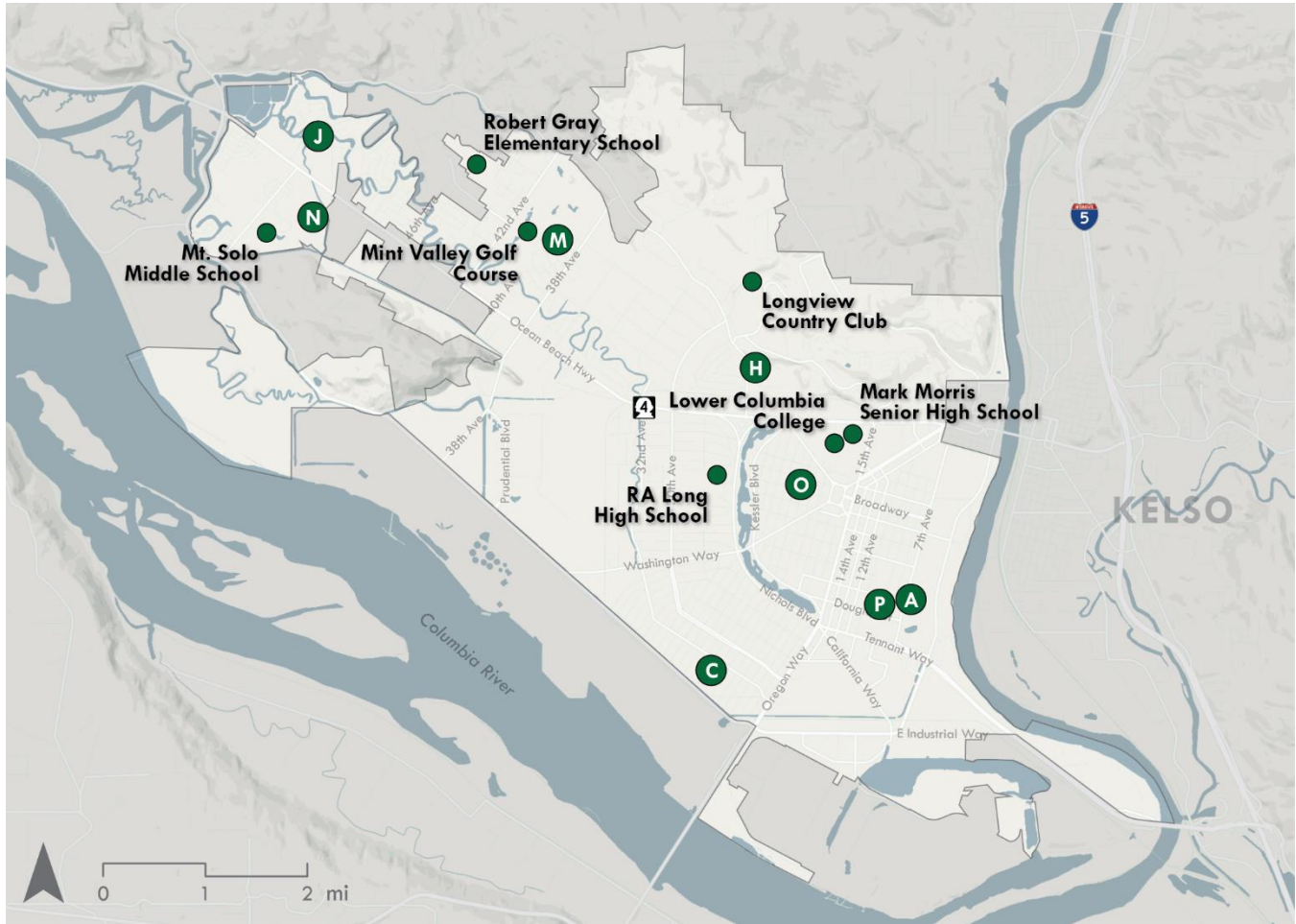
3.3.1. Parks and Outdoor Athletic Resources

The City of Longview currently has several parks and playfields available for sports leagues, casual play, and major events. Major city facilities are listed in Exhibit 4 and located on a map in Exhibit 5 (with lettered designations as provided in the 2016 Parks & Recreation Comprehensive Plan):

Exhibit 4. City-Managed Outdoor Sports Facilities.

PARK	PLAYFIELDS AVAILABLE
A. 7th Avenue Park	■ Tom Hutchinson Soccer Complex: 13 soccer fields sized for U6 to U13+ ■ Softball fields (4)
C. Archie Anderson Park	■ Basketball courts (2) ■ Baseball fields (4); note that plans have proposed removing 1-2 fields and repurposing depreciated fields for other uses
H. John Null Park	■ Baseball fields (5) ■ Batting cages ■ Tennis courts (4)
J. Mark Hoehne Park	(Future tennis and basketball courts)
M. Rotary Park	■ Tennis courts (2)
N. Roy Morse Park	■ Nine-hole disc golf course ■ Softball fields (4) ■ Baseball fields (2) ■ Soccer fields – practice (2)
O. Vandercook Park	■ Tennis courts (2)
P. Victoria Freeman Park	■ Softball field (1) ■ Basketball courts (2)
Mint Valley Golf Course	■ Eighteen-hole golf course ■ Pitch 'n' Putt course (6-hole)

Exhibit 5. Location of Sports Facilities in Longview.



Sources: Mapbox, 2019; Google, 2019; BERK, 2019.

Other facilities are also available in the city, including:

- Longview Country Club (18-hole golf course)
- Mt. Solo Middle School (2 ballfields, track and field facility, multi-use fields)
- Robert Gray Elementary School (1 ballfield)
- R.A. Long High School (1 baseball field, 2 ballfields, 5 tennis courts, Longview Memorial Stadium track facility and football field, multi-use fields)
- Mark Morris Senior High School (2 baseball fields, 1 ballfield, 6 tennis courts, 1 soccer field, track and field facility)
- Lower Columbia College (David Story Field – baseball)

Overall the city is well-served by outdoor sports facilities, with a strong focus on youth baseball, softball, and soccer. In addition to school-related teams, other outdoor sports leagues and teams include:

- Cowlitz Youth Soccer Association (7th Avenue Park)
- Longview Soccer Club (7th Avenue Park)

- Longview Girls' Softball Association (7th Avenue Park)
- Longview Youth Baseball, Cal Ripken League (John Null Park)
- Longview Babe Ruth League
- Lower Columbia Baseball Club (RA Long High School)
- Cowlitz Black Bears (West Coast League, David Story Field)

3.3.2. Lodging

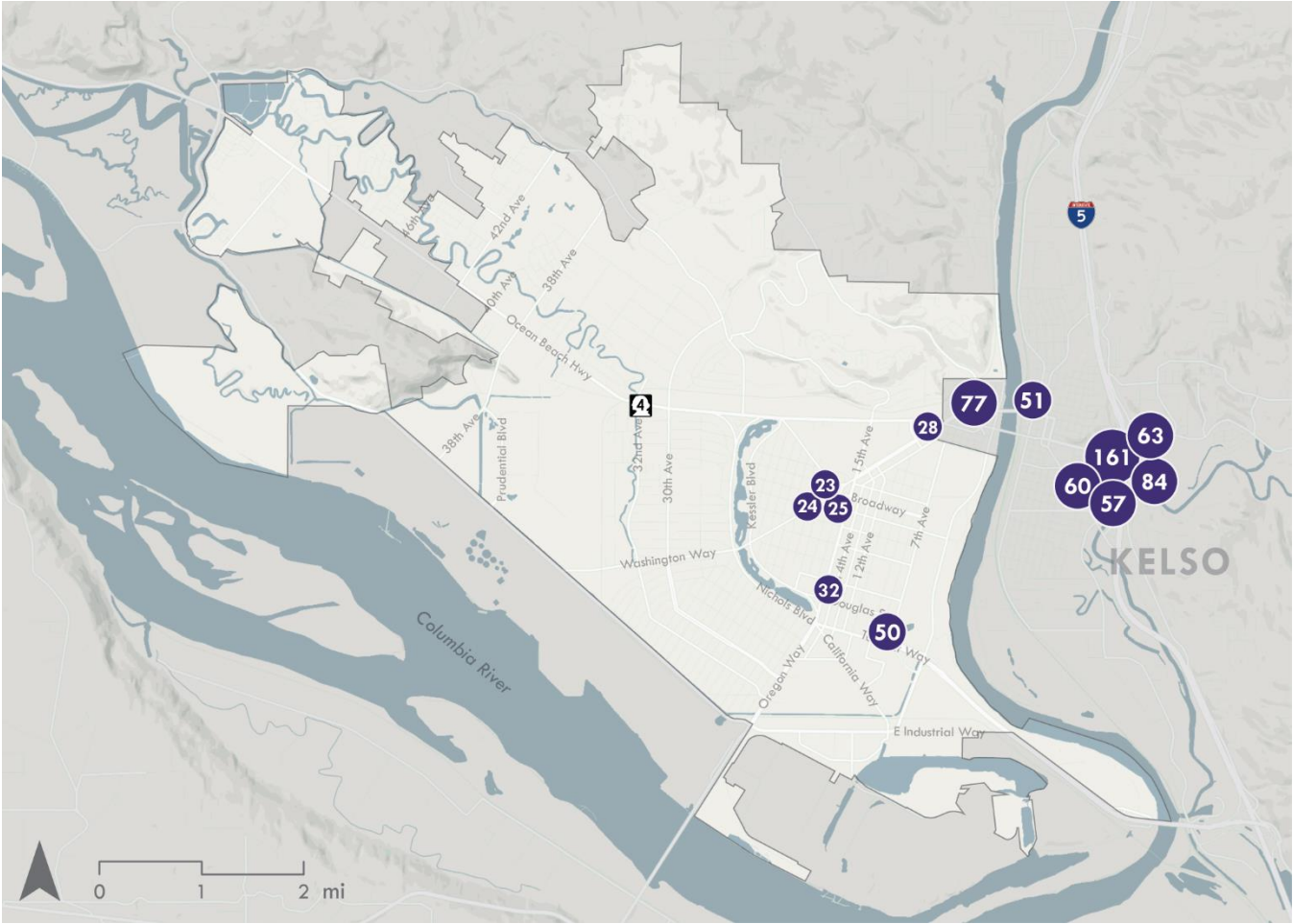
One of the major avenues for spending by out-of-town visitors is with lodging for short stays during a trip. Therefore, understanding the distribution of available hotels and motels in the area can be important to determine how spending will be attracted to Longview.

To characterize the market for lodging in the area, data on available hotels and motels within 30 miles of Longview were evaluated to determine general statistics on distribution, occupancy, and room rates. Exhibit 6 provides the locations of hotels and motels in the Longview area, with room counts by community. Exhibit 7 provides estimates of supply and demand, with the total available and occupied room-nights for lodging in the region by month since 2012. Exhibit 8 includes the average room rates and daily revenue per room, and Exhibit 9 describes average weekend occupancy rates by month.

The available information about the lodging market indicates the following:

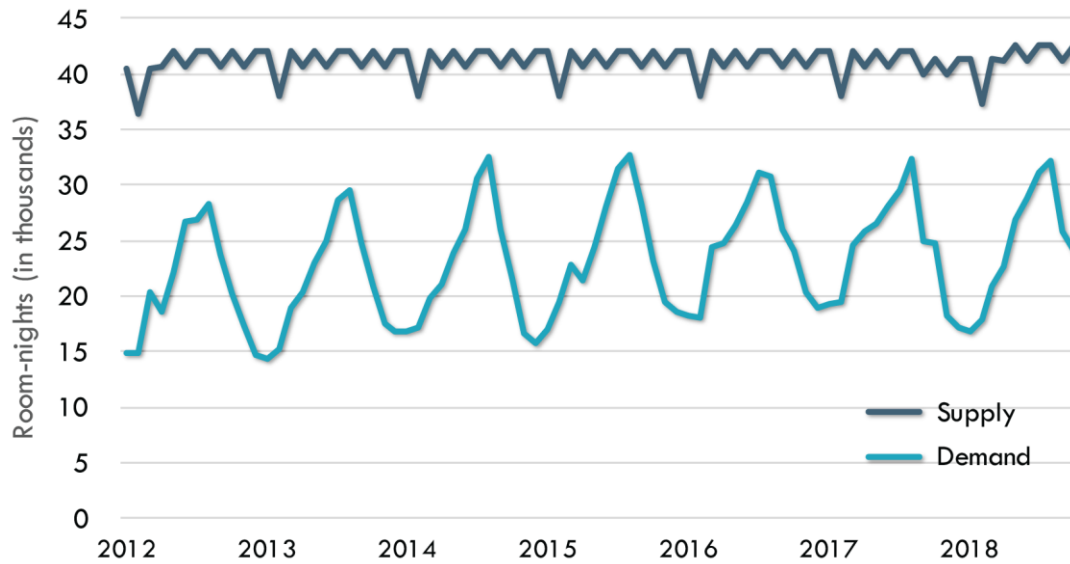
- **Greater availability of lodging outside of Longview.** Although there are several opportunities to find available rooms within Longview, hotels/motels are largely clustered close to I-5 access. Because of this, Kelso has a greater proportion of available rooms in the area. At present, Longview has a total of 216 rooms available, while Kelso has 553 rooms in local hotels/motels. Because of this, increasing draws for tourism in Longview will increase spending on lodging outside of the City as well.
- **Consistent supply and demand of lodging.** Since 2014, the demand for lodging in the area has been relatively constant, with cyclical peaks in occupancy in July/August and minimums in December/January. The supply of rooms has also been relatively constant, with the most recent addition from a 40-room hotel completed in Kalama in 2018. Exhibit 8 indicates that there has been a 4.9% increase in room rates per year between July 2014 and 2018, highlighting that increases in revenue have been related to increases in room rates over time.
- **Weekend capacity to support tourism.** Exhibit 9 provides an indication of the weekend occupancy rates for Friday and Saturday nights to highlight available capacity for additional demand. The highest weekend occupancy rates were in July and August 2018 with 86–87% of rooms occupied. This indicates that if no other growth occurs, available capacity could absorb demand for another 100–160 rooms for weekend visitors in the summer.
- **Additional hotel development would require further growth in demand.** It is unclear from the analysis whether long-term development of additional hotel rooms would be supported by increases in local demand. Locations close to I-5 will be in an advantageous location for future development given customer exposure, but new lodging rooms within Longview could be possible as part of integrated projects that would attract demand.

Exhibit 6. Lodging Locations and Room Counts, Longview Area.



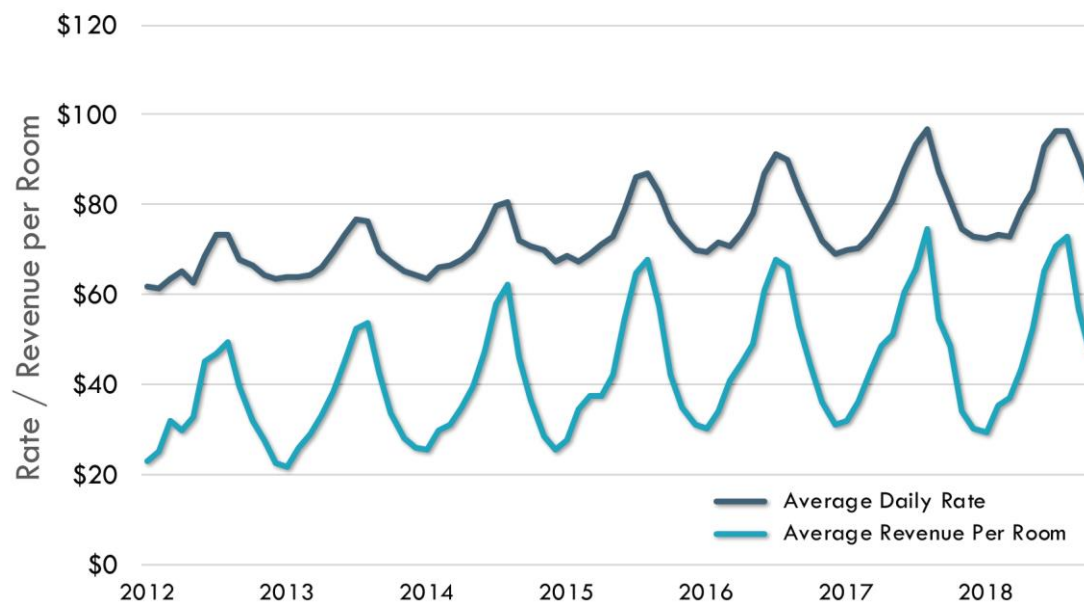
Sources: Mapbox, 2019; STR, 2018; BERK, 2019.

Exhibit 7. Supply and Demand for Lodging, Longview Area.



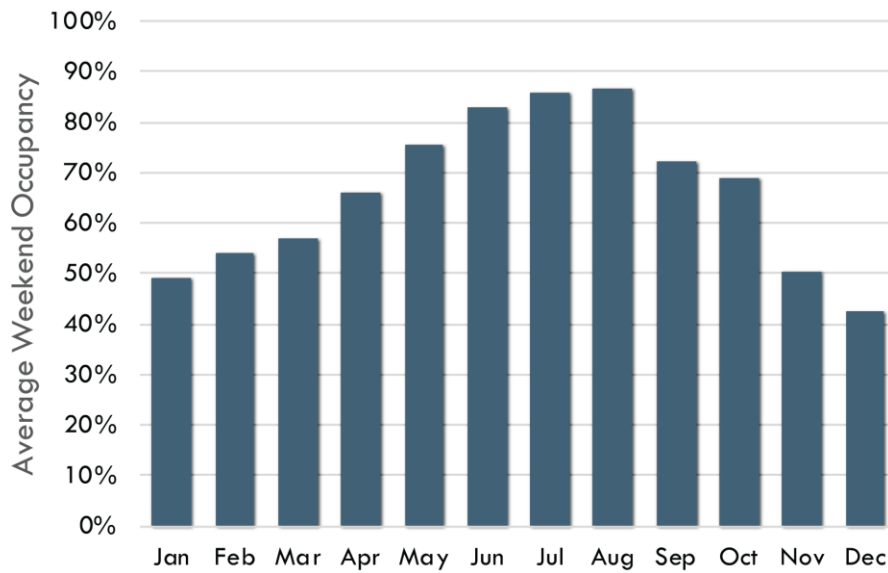
Sources: STR, 2018; BERK, 2019.

Exhibit 8. Average Daily Room Rates and Revenue Per Room, Longview Area.



Sources: STR, 2018; BERK, 2019.

Exhibit 9. Average Weekend Hotel Occupancy Rates (Fri-Sat), Longview Area.



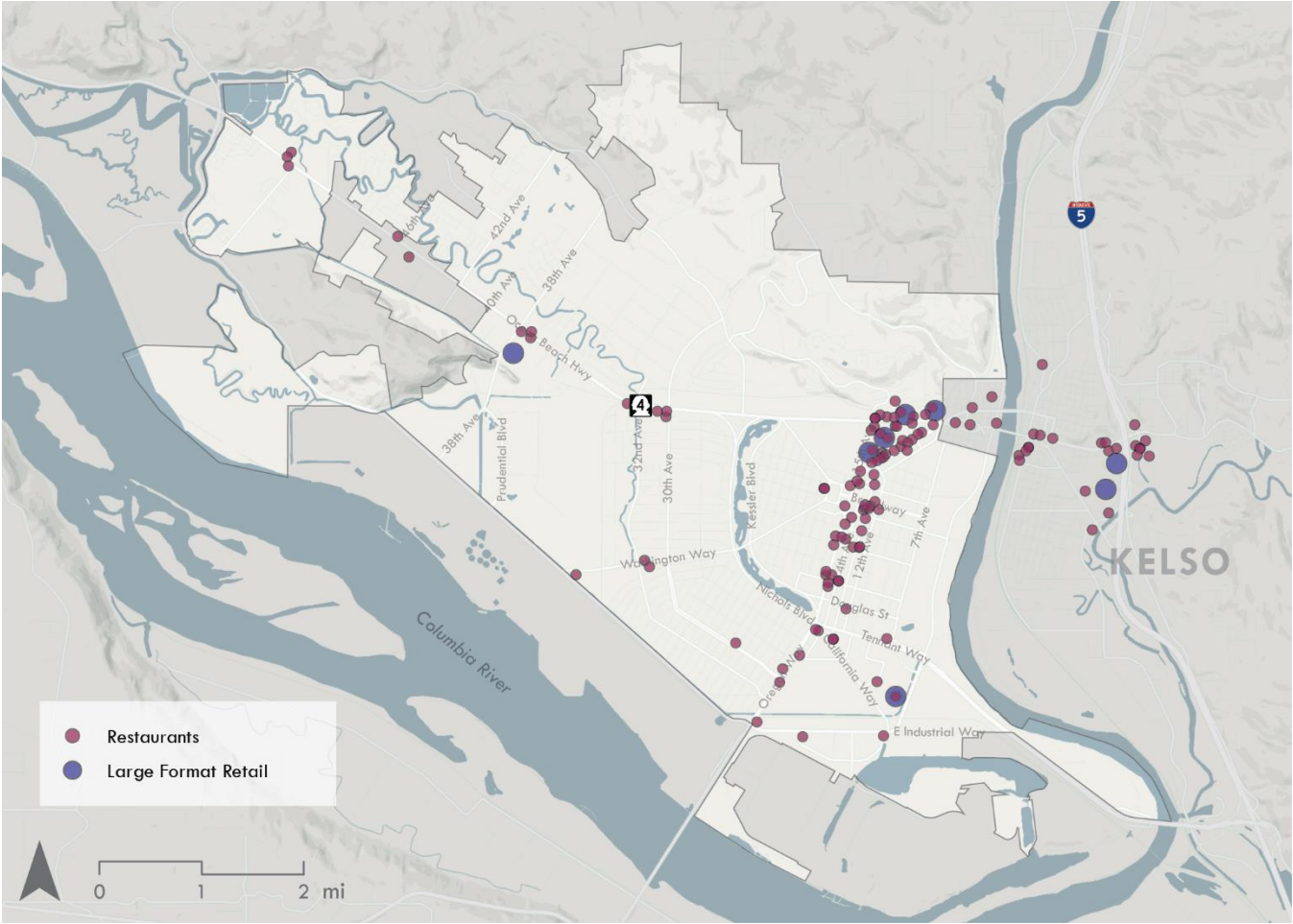
Sources: STR, 2018; BERK, 2019.

3.3.3. Restaurants and Retail

In addition to spending on hotel rooms, other visitor spending will occur at retail businesses and restaurants during visits. Exhibit 10 shows the locations of restaurants in the Longview area, as well as large-format retail (e.g., supermarkets, malls, and department stores). A review of this information demonstrates the following:

- **Limited opportunities in the West Longview area.** The distribution of businesses in Longview indicates that the West Longview neighborhood is not served by a significant number of restaurants or larger retail establishments. This suggests that demand associated with out-of-town visitors to the Park will be linked with increased retail spending in other neighborhoods.
- **Focus in Longview downtown and near I-5.** Retail businesses and restaurants in the area are focused on downtown Longview and areas in Kelso close to I-5. This concentration suggests that spending will be spread between Kelso and Longview; drawing in economic benefits into will depend on attracting visitors into major areas in the downtown, versus areas close to I-5 and the concentration of lodging in the area.

Exhibit 10. Restaurant and Large-Format Retail Locations, Longview Area.



Sources: Mapbox, 2019; STR, 2018; BERK, 2019.

3.4. REGIONAL CONTEXT

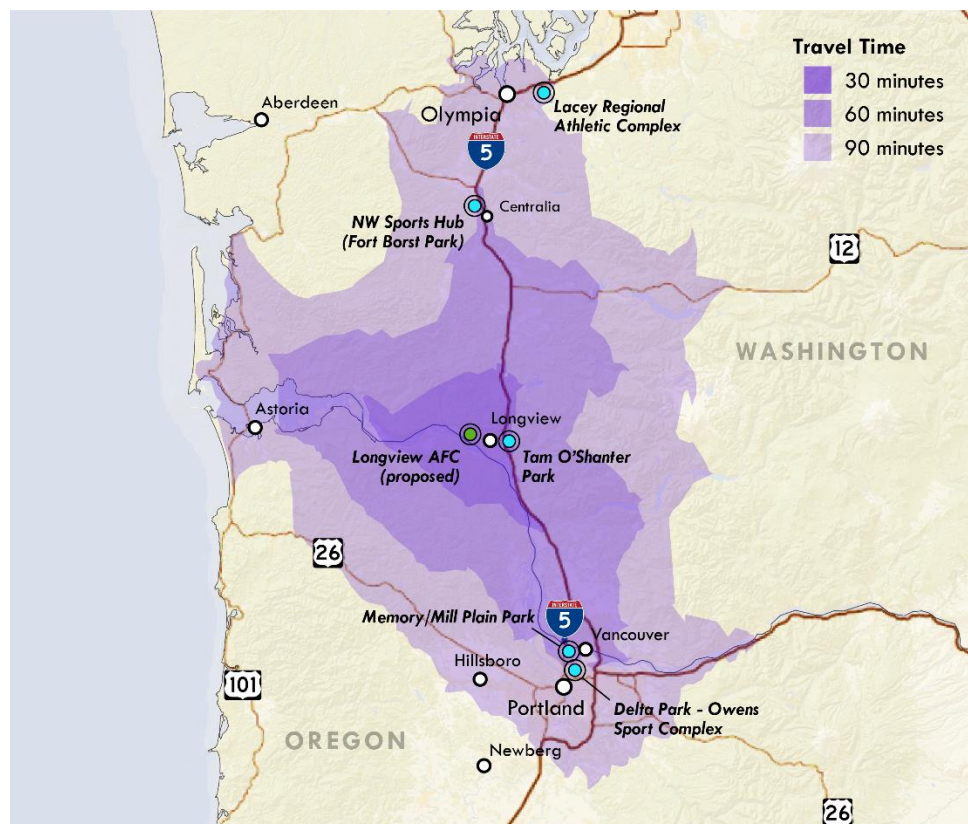
The primary driver for economic benefits is by increasing the number of new visitors spending money in Longview. For sports fields, one attractive and popular way to do this is to promote new sports fields for tournaments where out-of-town teams would come to participate.

In the state of Washington, there are several facilities that have been established that have statewide draws, such as the 60 Acres facility in Redmond and the Starfire Sports Complex in Tukwila.

Exhibit 11 provides the 30-, 60-, and 90-minute drivesheds from the Park, which highlights the primary regional market extending across the southwest Washington / northwest Oregon region. Characteristics of the market within these drivesheds are provided in Exhibit 12. Major elements which impact the marketability of the Park for future regional events (and out-of-town visitors) include the following:

- Longview is situated strategically along the I-5 corridor, between facilities in Centralia and Portland/Vancouver. An expanded facility would be very accessible and would be competitive for participants and spectators from the west.
- Within a 90-minute drive of Roy Morse Park, there are about 303,000 households with children under 18, and over 566,000 children under 18 in total. This can be a significant potential market for youth sports.
- According to the calculated Market Potential Index (MPI), participation in sports and activities relevant to the available park space tends to be somewhat less than the national average within a 30-minute driveshed of Roy Morse Park, although purchases of sports and recreation equipment seems to be equivalent to the national average. For most activities identified in the data, these activities tend to be more common over broader market areas, with participation in activities equivalent or higher than the US average for most activities (excluding softball).
- There are several existing facilities in the area within the capture area identified that would be competition as a draw for future regional sporting events:
 - **NW Sports Hub** in Centralia, WA includes multi-use turf fields and can accommodate four Little League / softball fields in the indoor facility, as well as the Wheeler Field baseball stadium, five additional full-sized baseball fields, two Little League fields, and eight softball fields, in addition to spaces for soccer, tennis, basketball, and track.
 - **Lacey Regional Athletic Complex** in Lacey, WA includes five synthetic turf ballfields and six regulation-size soccer/football/rugby fields in one area.
 - **Memory/Mill Plain Park** in Vancouver, WA has three little league fields and two softball fields, and is located close to Hudson's Bay High School and Clark College.
 - The **Owens Sport Complex** in Portland, OR has seven softball fields and nine soccer fields (four with artificial turf).

Exhibit 11. Regional Market Capture Area and Major Competing Facilities.



Sources: Mapbox, 2019; ESRI, 2019; BERK, 2019.

For the purposes of marketing Roy Morse Park, it is important to note that the facilities available in the Park are not the only fields available in the Longview area. Competition with these other regional facilities can be improved if these Park facilities were used in tandem with other athletic fields available for larger events. Within the City of Longview, facilities such as the soccer fields at 7th Avenue Park and the David Story baseball field at Lower Columbia College could be used as additional facilities for larger events. In addition to facilities within the City of Longview, Tam O'Shanter Park in Kelso is also a larger regional park that includes:

- Rister Stadium (baseball, grass)
- Heerensperger Field (softball)
- five additional baseball fields (two lighted)
- three softball fields
- a multipurpose field for soccer

Exhibit 12. Regional Market Characteristics.

CHARACTERISTIC	DRIVESHED		
	30 MIN	60 MIN	90 MIN
Total Population	89,661	639,194	2,538,814
Total Population Under 18	19,789	152,058	566,063
Total Households	35,356	239,914	978,312
Total Households with Children Under 18	9,860	76,390	302,635
Average Household Size	2.48	2.62	2.53
Median Household Age	42.1	39.1	38.4
Market Potential Index (MPI)¹			
Participated in baseball in last 12 months	97	97	101
Participated in basketball in last 12 months	86	97	103
Participated in hiking in last 12 months	87	104	119
Participated in soccer in last 12 months	75	89	100
Participated in softball in last 12 months	92	96	94
Participated in tennis in last 12 months	78	88	105
Participated in walking for exercise in last 12 months	97	105	109
Spent on sports/rec equip in last 12 months: \$1-99	98	103	103
Spent on sports/rec equip in last 12 months: \$100-\$249	96	98	99
Spent on sports/rec equip in last 12 months: \$250+	100	107	106
Attend sports events: high school sports	111	113	104

Sources: ESRI Business Analyst, 2019; BERK, 2019.

¹ An MPI (Market Potential Index) measures the relative likelihood of the adults or households in the specified trade area to exhibit certain consumer behavior or purchasing patterns compared to the U.S. An MPI of 100 represents the U.S. average.

4.0 Assumptions

For the purposes of this analysis, it is assumed that the two major elements of economic activity to be quantified would include the following:

- Ongoing changes in out-of-town consumer spending related to increased marketing of expanded facilities at Roy Morse Park for youth sports tourism
- One-time cost impacts from new out-of-town spending on the construction of new Park facilities

As noted previously, new economic activity is related to specific categories:

- **Direct impacts from out-of-town sources of spending**
- **Direct impacts from local sources of spending** which would otherwise be spend outside Longview
- **Indirect impacts** from increases in activity amongst suppliers
- **Induced impacts** due to increases in local household income

The relationships between spending and the impacts to the local economy are not clear cut, as the estimates of impacts are intended to isolate those effects that would not otherwise happen within the community without this project. For example, existing local teams that would continue to use the sports fields at the Park would not be considered an economic impact, as their local spending would likely occur whether the Park is upgraded or now. Also, the impacts of spending on construction would only be relevant if the funds were directed to firms within the City, and if the funding was not otherwise expected to be spent within the community on comparable projects if this project did not go forward.

4.1. CHANGES IN OUT-OF-TOWN CONSUMER SPENDING

For the purposes of this analysis, the primary impacts due to increases in ongoing consumer spending are related to expenditures from youth sports activities. These activities are related to two distinct types of events attracted by the new facilities:

- **Tournaments and other major events**, such as regional events, clinics, and invitationals, which would involve a significant number of visitors coming in from outside the City.
- **Regular league play**, representing additional games which could be played on the site due to the expansion/modernization of facilities, which would attract local players from other facilities found elsewhere outside of the City.

Estimates of spending are based on three categories of participants (which include players, staff, coaches, and spectators):

- Participants from the Longview area using the Park that would otherwise travel outside the area for activities (e.g., tournaments, practice)
- Participants from outside the area but not likely to stay overnight (e.g., within a short driving distance to home)
- Participants from outside the area that are staying over in the area for an event

High and low scenarios are estimated for this analysis to provide a general understanding of what the potential spread would be for economic impacts.

Attendance numbers by event are calculated as follows:

- **Tournaments and Special Events.** For calculating attendance at tournaments and special events beyond what can currently be attracted, it is assumed that an additional 8 events (High scenario) or 4 events (Low scenario) can be attracted through the improved park facilities. Basic data about capacities and the likely schedules for these events is provided in Exhibit 13, which can be used to calculate the estimated attendance for this increased schedule.
- **Diverted Players for League Play.** To represent the attraction of players diverted from leagues out-of-town, Exhibit 14 provides estimates of the number of players from Longview and the broader area that would be diverted by team and league, for the total number of leagues impacted. Note that these diversion rates are not assumed to change between the High and Low scenarios.

From these attendance numbers, general assumptions were made about the proportion of attendees by whether they would be from **within Longview** (and diverted from spending outside the City), outside of Longview but **within the region** and likely not staying in the City for the event, and from **outside of the region** and likely staying in the City for the event. Exhibit 15 shows the breakdown of each of these attendee types according to the two categories of events specified above, for both the High and Low scenarios.

From this analysis, spending is calculated based on an estimated profile. These breakdowns of spending are allocated according to five distinct categories:

- Lodging
- Meals (including concessions)
- Entertainment
- Shopping
- Gas
- Other

Estimated spending within these categories for tournaments and special events per person-event are provided in Exhibit 16, with the estimates per person-event for regular league play provided in Exhibit 17. These estimates are drawn from comparable studies, inflated to 2019 dollars for use in this analysis. These are multiplied by the total attendance numbers for each type of event to estimate the direct spending for each type of attendee.

Finally, the IMPLAN package is used to calculate overall economy-wide effects, both indirect via suppliers and induced through increased household spending. These calculations are conducted over the 98632 area code, and it is assumed that the local consumer spending calculated is allocated to Longview versus Kelso based on the proportions provided in Exhibit 18.

Exhibit 13. Parameters for Calculating Attendance at Additional Tournaments and Special Events by Scenario.

PARAMETER	SCENARIO	
	HIGH	LOW
Number of Events	8	4
Days of Event	2.5	
Number of Fields	7	
Players per team	11	
Games per team	4	
Games / field / day	6	
Spectators per player	2.5	

Exhibit 14. Parameters for Calculating Attendance From Diverted Players for League Play.

PARAMETER	
Games per League	8
Teams per League	10
Diverted Players per Team	2
Total Leagues Impacted	4

Exhibit 15. Proportion of Attendee Types by Event and Scenario

EVENT	IN-CITY	IN-REGION	OUT-OF-REGION
Tournament Play			
High Scenario	10%	80%	10%
Low Scenario	15%	75%	5%
League / Practice			
High Scenario	90%	10%	-
Low Scenario	95%	5%	-

Exhibit 16. Spending per Person-Event in 2019 Dollars, Tournaments and Special Events.

EXPENDITURE TYPE	HIGH SCENARIO			LOW SCENARIO		
	IN-CITY	IN-REGION	OUT-OF-REGION	IN-CITY	IN-REGION	OUT-OF-REGION
Lodging	-	45	220	-	40	200
Meals	20	80	160	10	70	140
Entertainment	-	90	90	-	80	80
Shopping	-	50	50	-	40	40
Gas	-	35	35	-	30	30
TOTAL	20	335	590	10	290	520

Exhibit 17. Spending per Person-Event in 2019 Dollars, League Play.

EXPENDITURE TYPE	HIGH SCENARIO			LOW SCENARIO		
	IN-CITY	IN-REGION	OUT-OF-REGION	IN-CITY	IN-REGION	OUT-OF-REGION
Meals	20	20	-	10	10	-
Shopping	-	20	-	-	10	-
Gas	-	35	-	-	25	-
TOTAL	20	75	-	10	45	-

Exhibit 18. Allocation of Direct Spending to the City of Longview.

EXPENDITURE	ALLOCATION
Lodging	35%
Meals	70%
Entertainment	70%
Shopping	70%
Gas	50%

4.2. ONE-TIME IMPACTS FROM CONSTRUCTION

Estimates of the total impacts from construction of the Park improvements are based on the estimated \$88.6 million costs of construction, divided between three phases (Phase 1: \$35 million, Phase 2: \$20.6 million, Phase 3: \$33 million). The challenge of evaluating the actual economic impacts of these improvements is related to two factors:

- **Sources of funding.** Funding for the project will likely be through a combination of private funding, grant programs, and City funds. However, not only is it unclear what the mix of local and out-of-town funding will be represented, it is also uncertain whether the funds contributed by the City constitute “new money”, or if other similar projects would have been constructed if this project did not move forwards.
- **Targets for spending.** The economic effects of construction spending will also depend on the businesses contracted to do the work for the community. Companies from outside Longview that are involved with the project do not reflect spending within the City, and will not have a significant impact on the local economy unless businesses in Longview form part of their supply chain.

Because these impacts are unclear, the full value of the project by phase is calculated for this analysis and represents the maximum possible impact that the project could have if only local contractors were used. This assessment of total economic impacts will change, however, depending on the overall pattern of contracting for this project.

5.0 Results

5.1. IMPACTS FROM OUT-OF-TOWN CONSUMER SPENDING

Based on the assumptions provided in Section 4, direct consumer spending resulting from new activities at Roy Morse Park was calculated to be approximately **\$1.1–2.9 million per year** based on the Low and High scenarios assessed (assuming 4–8 additional sporting events per year). A detailed breakdown of new spending by category is provided in Exhibit 19. Overall, this provides a general range for the money attracted into the community due to the completion of the project based on a realistic range of final outcomes from the project.

The IMPLAN results provide a greater understanding of how the local economy is impacted generally by this infusion of new spending. Exhibit 20 provides a description of the total effects of this spending across the entire economy. Due to a significant portion of the spending resulting from retail sales, some of the spending is reflected in the costs of retail goods sold in the community.

These results indicate the following:

- The total economic impacts per year due to increased activity in the Park range from \$0.6–1.7 million per year. Note that adding the wholesale cost of retail goods increases this activity to \$1.2–3.2 million per year in total.
- For every \$1 spent by out-of-town from visitors and residents because of this project, **\$1.08 of local economic activity will be generated**. This will primarily support retail, restaurant, and lodging businesses in the City.
- An increase in employment of **6.7–17.4 FTE/year** would be expected to accompany this increase in economic activity. These impacts would primarily be in restaurants (3.6 FTE), hotels and motels (0.9 FTE), and general retail (0.9 FTE).

The level of benefits received by Longview will be dependent on several factors:

- These scenarios assume an additional 4–8 events per year with a regional draw. The total impacts will be dependent on whether marketing activities will be successful, and may vary based on the number of new events attracted, event attendance, and the proportion of out-of-town visitors attracted by events.
- This assessment is limited to an evaluation of the full use of the turfed baseball/softball/soccer fields on the site. Alternate uses, such as festivals, concerts, markets, and so forth, may also provide a means to attract new spending from visitors. Note, however, that the site design does not generally incorporate new features designed to attract other types of larger events.
- The local economic benefit is also related to the shared local market with Kelso. In desired, promoting additional lodging, retail, entertainment, and restaurant options targeted to visitors to Roy Morse Park could retain more spending within the City. Although lodging options may not be as viable away from I-5, the City could work to develop destination locations for other types of businesses that are specifically marketed to attendees of events at Roy Morse Park.

Exhibit 19. Total Estimated Change in Consumer Spending per Year.

EXPENDITURE	SCENARIO	
	HIGH	LOW
Lodging	\$298,457	\$102,886
Meals	\$852,908	\$318,346
Entertainment	\$833,679	\$329,336
Shopping	\$464,051	\$164,892
Gas	\$232,698	\$88,615
Other	\$231,578	\$88,215
TOTAL	\$2,913,370	\$1,092,290

Exhibit 20. Economic Impact Analysis Results, Increased Consumer Spending (per year).

	EMPLOYMENT	LABOR INCOME (\$)	VALUE ADDED (\$)	OUTPUT (\$)
High Scenario				
Wholesale Costs				\$1,572,304
Direct Effect	14.8	\$306,954	\$810,435	\$1,341,066
Indirect Effect	1.3	\$61,452	\$111,854	\$199,528
Induced Effect	1.3	\$52,371	\$96,515	\$163,710
Total	17.4	\$420,777	\$1,018,805	\$3,276,608
Low Scenario				
Wholesale Costs				\$600,818
Direct Effect	5.4	\$112,544	\$297,075	\$491,472
Indirect Effect	0.5	\$22,372	\$40,876	\$72,896
Induced Effect	0.5	\$19,174	\$35,335	\$59,936
Total	6.4	\$154,090	\$373,286	\$1,225,122

5.2. IMPACTS FROM CONSTRUCTION

The construction of improvements to Roy Morse Park are envisioned to have a one-time impact on the local and regional economies. As mentioned above, however, accruing economic benefits from this \$88.6 million estimated outlay can be challenging based on where and how this funding is spent.

For the purposes of this analysis, the economic impacts of the construction of the park are assessed based on if the entire project is sourced to companies within Longview. Exhibit 21 provides the estimated overall impacts over the length of the full project, including the direct, indirect, and induced economic effects and estimated employment. While the full allocation of \$88.6 million for construction to businesses within Longview may be challenging, especially given competition from businesses in Portland and other cities, this analysis highlights several key points for consideration:

- Local spending for the project can be an effective means to support the local economy, as the full project would create **about \$1.43 of economic activity** for every \$1 spent in the community, resulting in a total impact of \$126 million in activity (in 2019 dollars).
- The full project would result in **1,949 FTE-years of jobs** across the entire economy over the lifetime of the project. Total employment would be dependent generally on the phasing of the project.
- In addition to sourcing the construction of the Park to local firms if possible, the other means to achieve a net economic benefit is to ensure that funding devoted to improving the Park does not replace other parks projects that would have otherwise been pursued, such as infrastructure and facilities improvements.

Exhibit 21. Maximum Economic Impacts from Park Construction.

	EMPLOYMENT	LABOR INCOME (\$)	VALUE ADDED (\$)	OUTPUT (\$)
Direct Effect	1,675	\$40,298,211	\$51,922,386	\$88,007,181
Indirect Effect	78	\$3,604,647	\$6,755,705	\$12,007,228
Induced Effect	195	\$7,922,289	\$15,002,029	\$25,806,728
Total	1,949	\$51,825,147	\$73,680,120	\$125,821,136

6.0 Conclusions

Based on the context and assumptions provided, the following conclusions can be made:

- **There are a range of potential impacts associated with improvements to the Park.** The improvement of Roy Morse Park can have a range of potential economic benefits, ranging from enhancing local quality-of-life and property values in the West Longview neighborhood due to increased access to recreational amenities, to attracting out-of-town visitors and increased local spending, to increasing spending in the local economy on construction of the Park. While many of these effects may be important to a neighborhood, however, they may also be challenging to quantify.
- **Residential development in the local neighborhood near the Park may be supported by improved amenities.** Opportunities for increased commercial development supported by the Park are likely to be limited, as a small number of highway-oriented commercial uses are currently in the immediate area. However, the proposed Village Pointe development, as well as additional opportunities for higher-density residential development in the area, provide options to develop onsite amenities that can support the value and marketability of new residential offerings.
- **Lodging options in Longview are limited, and demand in the market is stable.** Although a focus on youth sports tourism would allow for additional out-of-town spending on local lodging, there is significant competition from locations close to I-5. The City of Kelso includes more than twice the number of hotel/motel rooms than Longview, and is in a position to take better advantage of an increase in tourism traffic. The ability for Longview to compete may be constrained by limited growth in the local market and less visible locations for development, but an increase in demand from sports tourism could support new development in the market.
- **Restaurant and retail options in Longview are competitive.** The distribution of restaurant and retail business indicates that the downtown core of Longview and areas close to I-5 includes significant options for out-of-town visitors. Focusing on the downtown as an opportunity for increased consumer spending on restaurants, entertainment, and shopping marketed to youth sports tourists may help to capture more of the benefits from an increase in visitors.
- **Regional competition is significant, but the Park is well-positioned geographically.** The 90-minute driveshed for Roy Morse Park extends as far as Olympia, Astoria, and Portland, encompassing over 2.5 million people (566,000 under 18) along the I-5 corridor and to the west. Although other comparable facilities are located in the broader region, the all-weather turf fields that will be available in the Park, potentially used in tandem during events with other athletic field facilities in Longview and Kelso, can offer facilities to support major events.
- **Improvements to the Park will have ongoing economic benefits from increased consumer spending.** From the scenarios tested, it is indicated that up to an additional 8 events at the Park per year could generate 17 FTE jobs and up to \$1.7 million in total economic impacts from the resulting consumer spending. For every dollar brought in from out-of-town, about \$1.08 of local economic activity will be generated.
- **Total impacts from consumer spending will depend on regional marketing of the new facilities.** The scenarios outlined in this report are based on attracting an additional 4–8 events with a regional

draw to the Park, with a focus on those events likely to draw visitors that would stay for weekend visits in local lodging. The final impacts of these improvements will be strongly dependent on the events that will use these facilities, and successful recruitment should be a main focus for action after the improvements are completed.

- **The construction of the Park may also provide benefits if locally sourced.** The construction of the Park could potentially provide additional benefits to the local economy. If this project were to be sourced locally, it could provide up to 1,949 FTE-years of employment and an additional \$38 million in indirect and induced costs. Although this may not be feasible to completely source locally, every \$1 spent locally on this project will generate about \$1.43 in local economic activity.



Budget Estimate

**Longview Athletic Complex
Longview, WA
Date: January 15th, 2019**

Musco Equipment: All Fields

\$1,500,000.00 - \$1,600,000.00

Light-Structure Green™ System delivered to your site in Five Easy Pieces™

- 36 - pre-cast concrete foundations
- 36 – 70' & 80' Galvanized steel poles
- UL Listed remote electrical component enclosures
- 190 - Factory-aimed and assembled TLC - LED 1150 field lighting luminaries
- 56 - Factory-aimed and assembled TLC - LED BT 575 luminaires
- 18 – LED Security Luminaires
- Control Link (wireless control system)

Light Levels: Infield - 30 footcandles, Outfield - 20 footcandles, Soccer - 20 Footcandles

Uniformities: Infield - 2.0:1, Outfield - 3.0:1, Soccer - 5.0:1

Total Electrical Load: 270 kW

The above also includes:

- Musco Constant 25™ warranty and maintenance program that eliminates 100% of your maintenance costs for 25 years, including labor and materials
- Guaranteed constant light levels for 25 years, per IESNA RP-06-15
- Control Link® Control & Monitoring System for control and management of your lighting system

Notes:

- Pricing includes a detailed foundation design, signed and sealed by a licensed structural engineer, registered in the State of Washington.
- Light Levels and uniformities are guaranteed by MUSCO, any additional aiming required to meet the specified requirements shall be done by MUSCO.

Installation: All Fields

\$1,000,000.00 - \$1,200,000.00

- Foundations
- Poles and Light Fixtures
- Trenching, Backfill, Conduit and Wire
- Electrical distribution equipment

Note: Installation price **DOES NOT** include the site electrical service

COST BREAKDOWN

Prices are per field and include installation

Softball Fields - \$350,000.00 - \$360,000.00 each

Baseball Fields - \$450,000.00 - \$475,000.00 each

Thank you for considering Musco for your sports lighting needs. Please contact me with any questions.

Tim Butz
Musco Sales Representative
Phone: 503/720-6625
Email: tim.butz@musco.com

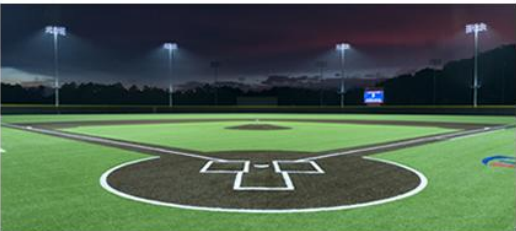
Longview Athletic Complex

Longview,WA

Lighting System

Pole / Fixture Summary						
Pole ID	Pole Height	Mtg Height	Fixture Qty	Luminaire Type	Load	Circuit
A1	80'	35'	1	CREE OSQ	0.13 kW	H
		15'	1	TLC-BT-575	0.58 kW	A
		15'	1	TLC-BT-575	0.58 kW	E
		80'	4	TLC-LED-1150	4.60 kW	A
		80'	4	TLC-LED-1150	4.60 kW	E
A2	80'	35'	1	CREE OSQ	0.13 kW	H
		15'	1	TLC-BT-575	0.58 kW	A
		15'	1	TLC-BT-575	0.58 kW	B
		80'	4	TLC-LED-1150	4.60 kW	A
		80'	4	TLC-LED-1150	4.60 kW	B
A3	80'	35'	1	CREE OSQ	0.13 kW	H
		15'	1	TLC-BT-575	0.58 kW	C
		15'	1	TLC-BT-575	0.58 kW	B
		80'	4	TLC-LED-1150	4.60 kW	C
		80'	4	TLC-LED-1150	4.60 kW	B
A4	80'	35'	1	CREE OSQ	0.13 kW	H
		15'	1	TLC-BT-575	0.58 kW	C
		15'	1	TLC-BT-575	0.58 kW	D
		80'	4	TLC-LED-1150	4.60 kW	C
		80'	4	TLC-LED-1150	4.60 kW	D
A5	80'	35'	1	CREE OSQ	0.13 kW	H
		15'	1	TLC-BT-575	0.58 kW	E
		15'	1	TLC-BT-575	0.58 kW	D
		80'	4	TLC-LED-1150	4.60 kW	E
		80'	4	TLC-LED-1150	4.60 kW	D
A6-A7	70'	35'	1	CREE OSQ	0.13 kW	H
		15'	1	TLC-BT-575	0.58 kW	F
		70'	3	TLC-LED-1150	3.45 kW	F
A8-A9	70'	35'	1	CREE OSQ	0.13 kW	H
		15'	1	TLC-BT-575	0.58 kW	G
		70'	3	TLC-LED-1150	3.45 kW	G
B1	70'	35'	1	CREE OSQ	0.13 kW	H
		15'	1	TLC-BT-575	0.58 kW	A
		15'	1	TLC-BT-575	0.58 kW	E
		70'	5	TLC-LED-1150	5.75 kW	A
		70'	5	TLC-LED-1150	5.75 kW	E
B2	70'	35'	1	CREE OSQ	0.13 kW	H
		15'	1	TLC-BT-575	0.58 kW	A
		15'	1	TLC-BT-575	0.58 kW	B
		70'	5	TLC-LED-1150	5.75 kW	A
		70'	5	TLC-LED-1150	5.75 kW	B
B3	70'	35'	1	CREE OSQ	0.13 kW	H
		15'	1	TLC-BT-575	0.58 kW	C
		15'	1	TLC-BT-575	0.58 kW	B
		70'	5	TLC-LED-1150	5.75 kW	C
		70'	5	TLC-LED-1150	5.75 kW	B
B4	70'	35'	1	CREE OSQ	0.13 kW	H
		15'	1	TLC-BT-575	0.58 kW	C
		15'	1	TLC-BT-575	0.58 kW	D
		70'	5	TLC-LED-1150	5.75 kW	C
		70'	5	TLC-LED-1150	5.75 kW	D
B5	70'	35'	1	CREE OSQ	0.13 kW	H
		15'	1	TLC-BT-575	0.58 kW	E
		15'	1	TLC-BT-575	0.58 kW	D
		70'	5	TLC-LED-1150	5.75 kW	E

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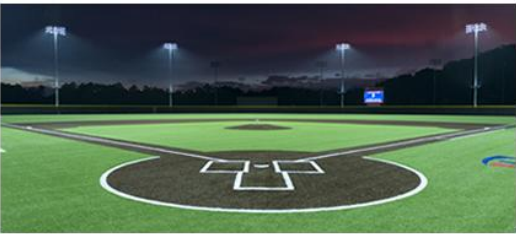
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Longview Athletic Complex

Longview,WA

Pole / Fixture Summary						
Pole ID	Pole Height	Mtg Height	Fixture Qty	Luminaire Type	Load	Circuit
B6-B7	70'	70'	5	TLC-LED-1150	5.75 kW	D
		35'	1	CREE OSQ	0.13 kW	H
		15'	1	TLC-BT-575	0.58 kW	F
B8-B9	70'	70'	5	TLC-LED-1150	5.75 kW	F
		35'	1	CREE OSQ	0.13 kW	H
		15'	1	TLC-BT-575	0.58 kW	G
C1-C2	70'	70'	6	TLC-LED-1150	6.90 kW	G
		15'	2	TLC-BT-575	1.15 kW	A
		70'	4	TLC-LED-1150	4.60 kW	A
C3-C4	70'	15'	2	TLC-BT-575	1.15 kW	B
		70'	4	TLC-LED-1150	4.60 kW	B
		15'	2	TLC-BT-575	1.15 kW	C
C5-C6	70'	70'	4	TLC-LED-1150	4.60 kW	C
		15'	2	TLC-BT-575	1.15 kW	C
		70'	4	TLC-LED-1150	4.60 kW	D
C7-C8	70'	15'	2	TLC-BT-575	1.15 kW	D
		70'	4	TLC-LED-1150	4.60 kW	D
		15'	2	TLC-BT-575	1.15 kW	E
C9-C10	70'	70'	4	TLC-LED-1150	4.60 kW	E
		15'	2	TLC-BT-575	1.15 kW	E
		70'	4	TLC-LED-1150	4.60 kW	F
C11-C12	70'	15'	1	TLC-BT-575	0.58 kW	F
		70'	4	TLC-LED-1150	4.60 kW	F
		15'	1	TLC-BT-575	0.58 kW	G
C13-C14, D3-D4	70'	70'	3	TLC-LED-1150	3.45 kW	G
		15'	1	TLC-BT-575	0.58 kW	F
		70'	3	TLC-LED-1150	3.45 kW	F
36			264		253.04 kW	

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Longview Athletic Complex

Longview,WA

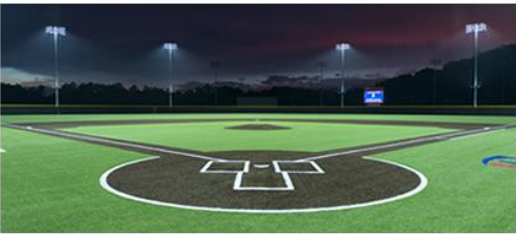
Circuit Summary			
Circuit	Description	Load	Fixture Qty
A	Baseball 1	34.5 kW	34
B	Baseball 2	34.5 kW	34
C	Baseball 3	34.5 kW	34
D	Baseball 4	34.5 kW	34
E	Baseball 5	34.5 kW	34
F	Baseball 6	39.1 kW	38
G	Baseball 7	39.1 kW	38
H	Security	2.34 kW	18

Fixture Type Summary							
Type	Source	Wattage	Lumens	L90	L80	L70	Quantity
TLC-LED-1150	LED 5700K - 75 CRI	1150W	121,000	>81,000	>81,000	>81,000	190
TLC-BT-575	LED 5700K - 75 CRI	575W	52,000	>81,000	>81,000	>81,000	56

Light Level Summary

Calculation Grid Summary								
Grid Name	Calculation Metric	Illumination					Circuits	Fixture Qty
		Ave	Min	Max	Max/Min	Ave/Min		
Baseball 1 (Infield)	Horizontal Illuminance	34.9	23	42	1.85	1.52	A	34
Baseball 1 (Outfield)	Horizontal Illuminance	22.1	13	32	2.37	1.70	A	34
Baseball 2 (Infield)	Horizontal Illuminance	33.1	22	39	1.78	1.50	B	34
Baseball 2 (Outfield)	Horizontal Illuminance	22.5	14	33	2.35	1.61	B	34
Baseball 3 (Infield)	Horizontal Illuminance	33.7	22	42	1.91	1.53	C	34
Baseball 3 (Outfield)	Horizontal Illuminance	22.5	14	32	2.38	1.61	C	34
Baseball 4 (Infield)	Horizontal Illuminance	34.4	23	43	1.83	1.50	D	34
Baseball 4 (Outfield)	Horizontal Illuminance	23.2	14	32	2.24	1.66	D	34
Baseball 5 (Infield)	Horizontal Illuminance	33.1	24	43	1.79	1.38	E	34
Baseball 5 (Outfield)	Horizontal Illuminance	23.1	13	31	2.33	1.78	E	34
Baseball 6 (Infield)	Horizontal Illuminance	31.6	25	37	1.47	1.26	F	38
Baseball 6 (Outfield)	Horizontal Illuminance	26.8	19	35	1.87	1.41	F	38
Baseball 7 (Infield)	Horizontal Illuminance	30.9	21	37	1.75	1.47	G	38
Baseball 7 (Outfield)	Horizontal Illuminance	27	16	39	2.42	1.69	G	38
Blanket Grid	Horizontal	7.80	0	44	0.00		A,B,C,D,E, F,G	246

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EQUIPMENT LIST FOR AREAS SHOWN

Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
2	A1-A2	80'	-	15'	TLC-BT-575	1/1*	1	1
				35'	CREE OSQ	1	0	1
				80'	TLC-LED-1150	4/4*	4	4
2	B1-B2	70'	-	15'	TLC-BT-575	1/1*	1	1
				35'	CREE OSQ	1	0	1
				70'	TLC-LED-1150	5/5*	5	5
2	C1-C2	70'	-	15'	TLC-BT-575	2	2	0
				70'	TLC-LED-1150	4	4	0
6	TOTALS					60	34	26

* This structure utilizes a back-to-back mounting configuration

Longview Athletic Complex

Longview,WA

GRID SUMMARY

Name:	Baseball 1
Size:	320'/320'/320' - basepath 90'
Spacing:	30.0' x 30.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY

MAINTAINED HORIZONTAL FOOTCANDLES

	Infield	Outfield
Guaranteed Average:	30	20
Scan Average:	34.9	22.1
Maximum:	42	32
Minimum:	23	13
Avg / Min:	1.55	1.66
Guaranteed Max / Min:	2.5	3
Max / Min:	1.85	2.37
UG (adjacent pts):	1.31	1.43
CU:	0.71	
No. of Points:	25	86

LUMINAIRE INFORMATION

Color / CRI:	5700K - 75 CRI
Luminaire Output:	121,000 / 52,000 lumens
No. of Luminaires:	34
Total Load:	34.5 kW

Luminaire Type	Lumen Maintenance		
	L90 hrs	L80 hrs	L70 hrs
TLC-LED-1150	>81,000	>81,000	>81,000
TLC-BT-575	>81,000	>81,000	>81,000

Reported per TM-21-11. See luminaire datasheet for details.

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.



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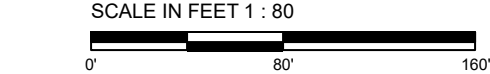
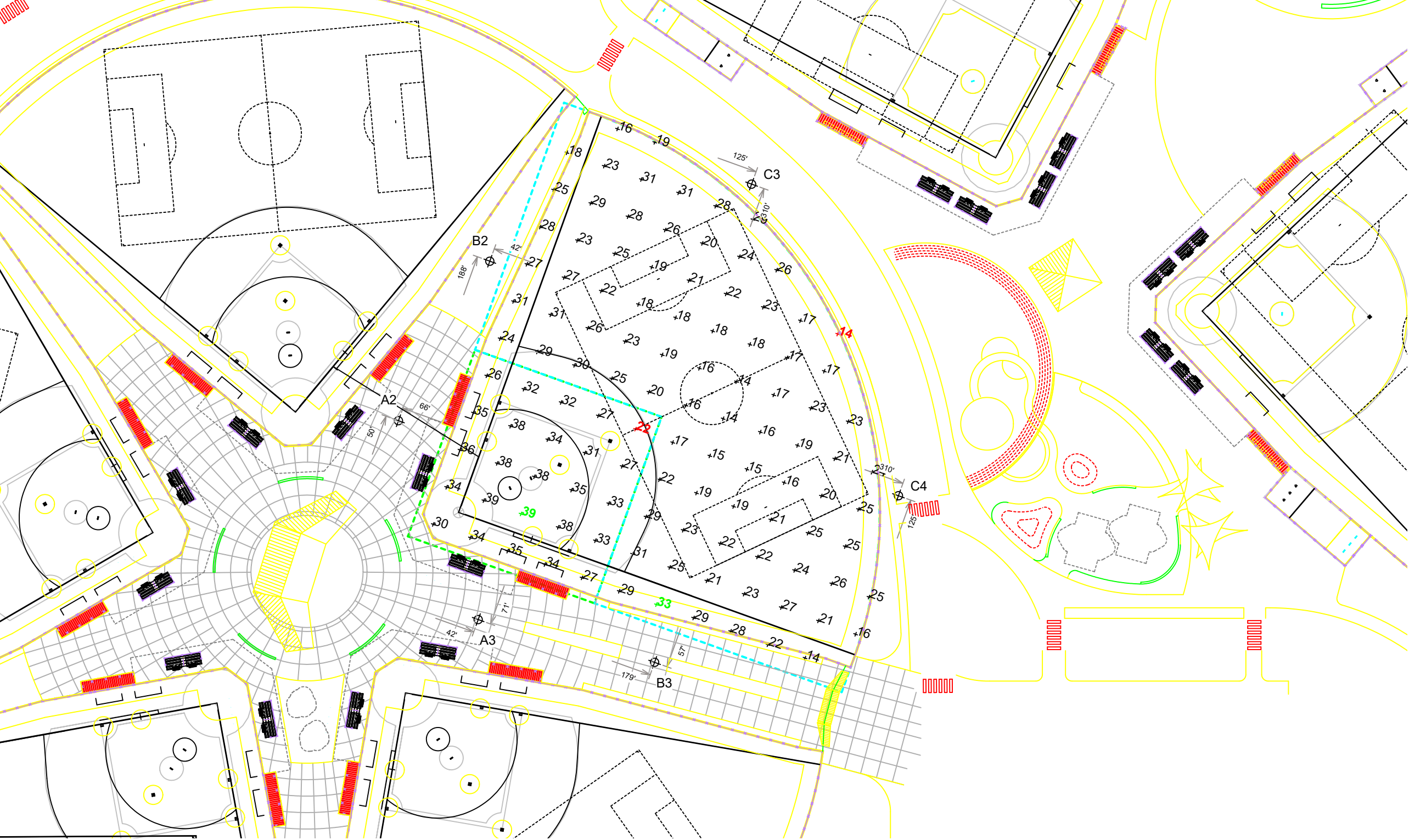
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ILLUMINATION SUMMARY

EQUIPMENT LIST FOR AREAS SHOWN

Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
2	A2-A3	80'	-	15'	TLC-BT-575	1/1*	1	1
				35'	CREE OSQ	1	0	1
				80'	TLC-LED-1150	4/4*	4	4
2	B2-B3	70'	-	15'	TLC-BT-575	1/1*	1	1
				35'	CREE OSQ	1	0	1
				70'	TLC-LED-1150	5/5*	5	5
2	C3-C4	70'	-	15'	TLC-BT-575	2	2	0
				70'	TLC-LED-1150	4	4	0
6	TOTALS					60	34	26

* This structure utilizes a back-to-back mounting configuration



Pole location(s) ⓧ dimensions are relative to 0,0 reference point(s) ⊗

Longview Athletic Complex

Longview,WA

GRID SUMMARY

Name:	Baseball 2
Size:	320'/320'/320' - basepath 90'
Spacing:	30.0' x 30.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY

MAINTAINED HORIZONTAL FOOTCANDLES

	Infield	Outfield
Guaranteed Average:	30	20
Scan Average:	33.1	22.5
Maximum:	39	33
Minimum:	22	14
Avg / Min:	1.52	1.62
Guaranteed Max / Min:	2.5	3
Max / Min:	1.78	2.35
UG (adjacent pts):	1.32	1.61
CU:	0.70	
No. of Points:	25	86

LUMINAIRE INFORMATION

Color / CRI:	5700K - 75 CRI
Luminaire Output:	121,000 / 52,000 lumens
No. of Luminaires:	34
Total Load:	34.5 kW

Luminaire Type	Lumen Maintenance		
	L90 hrs	L80 hrs	L70 hrs
TLC-LED-1150	>81,000	>81,000	>81,000
TLC-BT-575	>81,000	>81,000	>81,000

Reported per TM-21-11. See luminaire datasheet for details.

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.



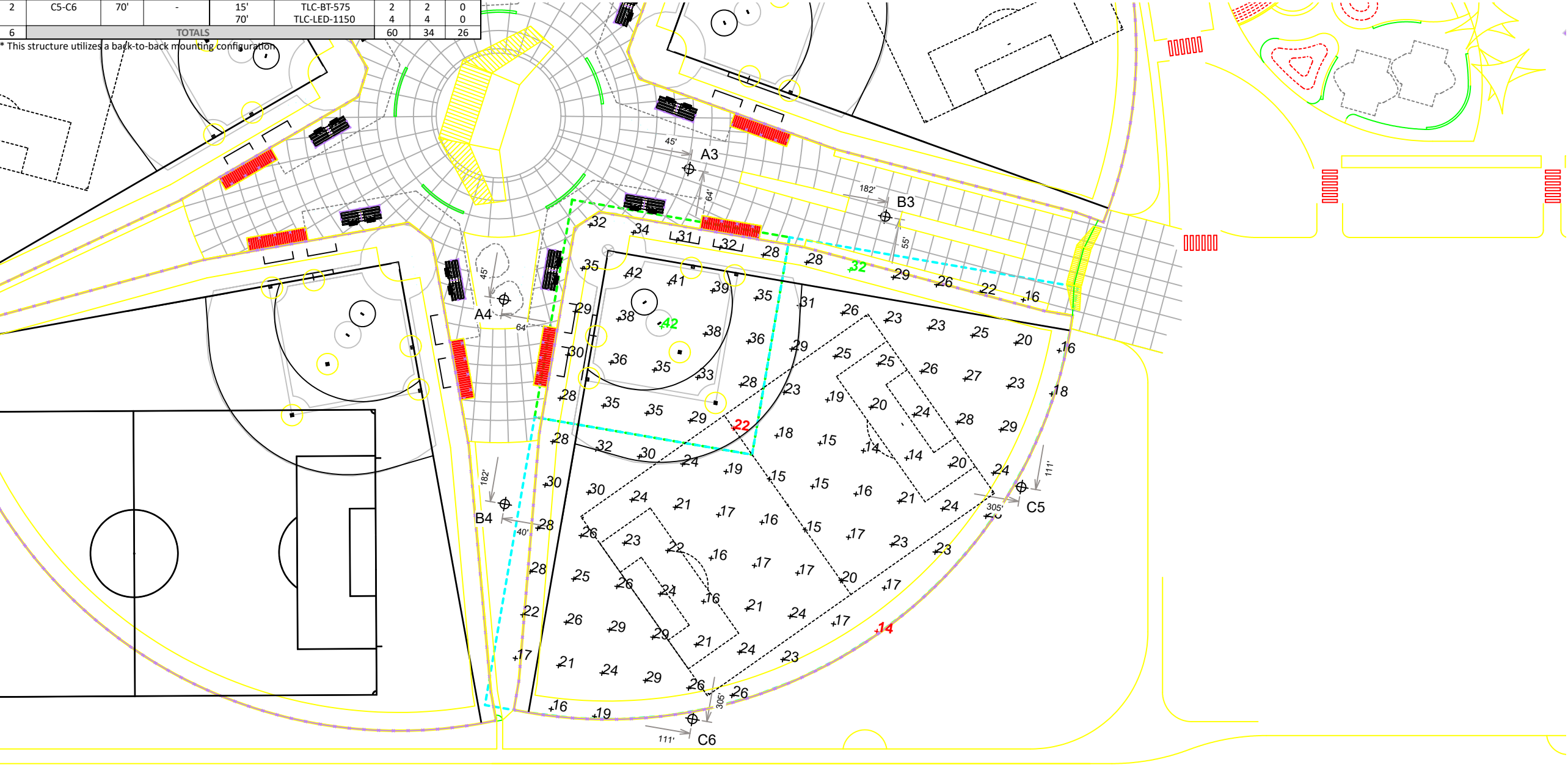
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ILLUMINATION SUMMARY

EQUIPMENT LIST FOR AREAS SHOWN								
Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
2	A3-A4	80'	-	15'	TLC-BT-575	1/1*	1	1
				35'	CREE OSQ	1	0	1
				80'	TLC-LED-1150	4/4*	4	4
2	B3-B4	70'	-	15'	TLC-BT-575	1/1*	1	1
				35'	CREE OSQ	1	0	1
				70'	TLC-LED-1150	5/5*	5	5
2	C5-C6	70'	-	15'	TLC-BT-575	2	2	0
				70'	TLC-LED-1150	4	4	0
6	TOTALS					60	34	26

* This structure utilizes a back-to-back mounting configuration.



Longview Athletic Complex

Longview,WA

GRID SUMMARY	
Name:	Baseball 3
Size:	320'/320'/320' - basepath 90'
Spacing:	30.0' x 30.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY			
MAINTAINED HORIZONTAL FOOTCANDLES			
	Infield	Outfield	
Guaranteed Average:	30	20	
Scan Average:	33.7	22.5	
Maximum:	42	32	
Minimum:	22	14	
Avg / Min:	1.54	1.65	
Guaranteed Max / Min:	2.5	3	
Max / Min:	1.91	2.38	
UG (adjacent pts):	1.32	1.70	
CU:	0.71		
No. of Points:	25	86	
LUMINAIRE INFORMATION			
Color / CRI:	5700K - 75 CRI		
Luminaire Output:	121,000 / 52,000 lumens		
No. of Luminaires:	34		
Total Load:	34.5 kW		
Lumen Maintenance			
Luminaire Type	L90 hrs	L80 hrs	L70 hrs
TLC-LED-1150	>81,000	>81,000	>81,000
TLC-BT-575	>81,000	>81,000	>81,000
Reported per TM-21-11. See luminaire datasheet for details.			

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

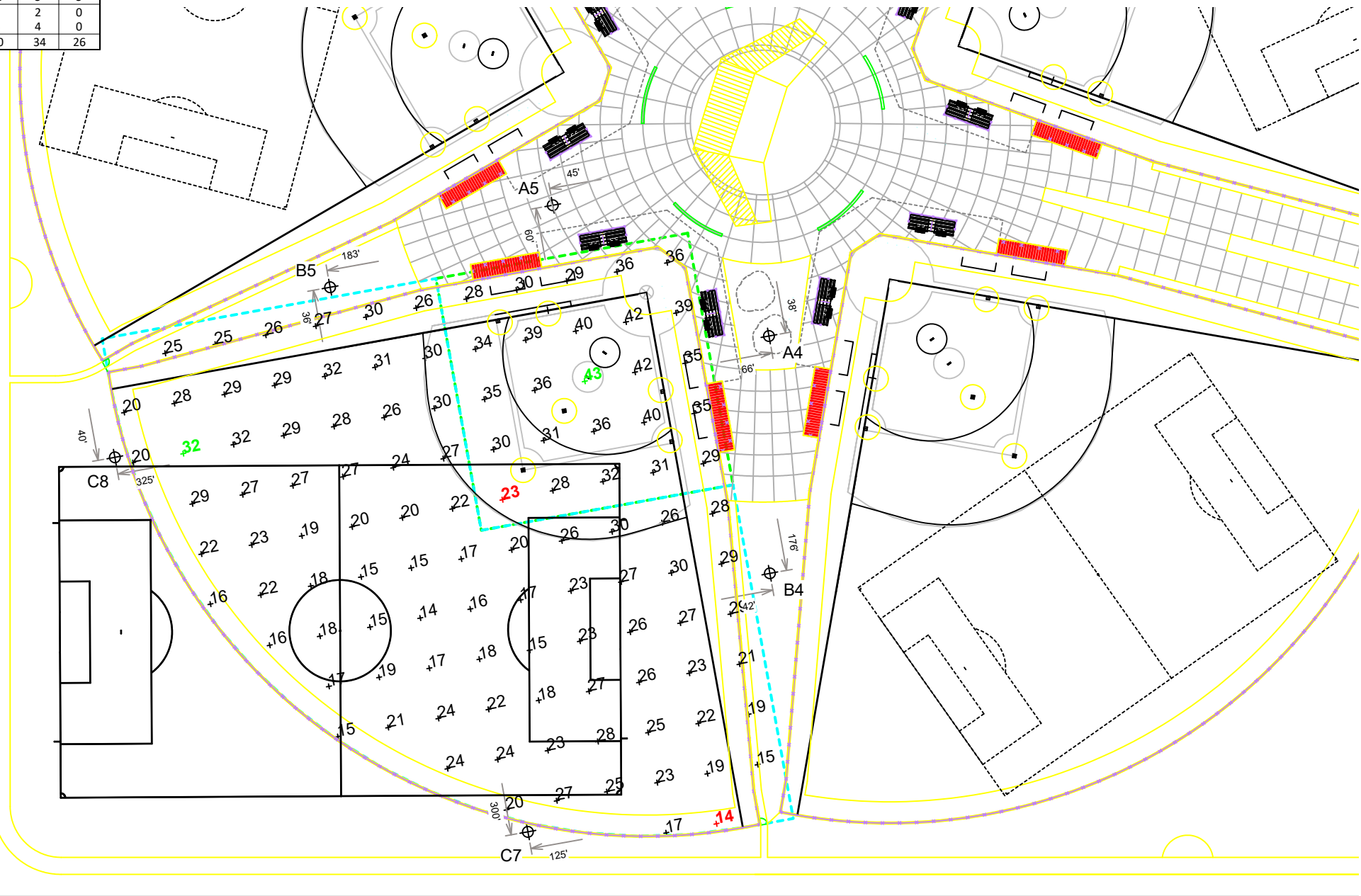
Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.



EQUIPMENT LIST FOR AREAS SHOWN

Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
2	A4-A5	80'	-	15'	TLC-BT-575	1/1*	1	1
				35'	CREE OSQ	1	0	1
				80'	TLC-LED-1150	4/4*	4	4
2	B4-B5	70'	-	15'	TLC-BT-575	1/1*	1	1
				35'	CREE OSQ	1	0	1
				70'	TLC-LED-1150	5/5*	5	5
2	C7-C8	70'	-	15'	TLC-BT-575	2	2	0
				35'	CREE OSQ	4	4	0
				70'	TLC-LED-1150	4	4	0
6	TOTALS					60	34	26

* This structure utilizes a back-to-back mounting configuration



Longview Athletic Complex

Longview,WA

GRID SUMMARY	
Name:	Baseball 4
Size:	320'/320'/320' - basepath 90'
Spacing:	30.0' x 30.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY			
MAINTAINED HORIZONTAL FOOTCANDLES			
	Infield	Outfield	
Guaranteed Average:	30	20	
Scan Average:	34.4	23.2	
Maximum:	43	32	
Minimum:	23	14	
Avg / Min:	1.47	1.63	
Guaranteed Max / Min:	2.5	3	
Max / Min:	1.83	2.24	
UG (adjacent pts):	1.34	1.58	
CU:	0.73		
No. of Points:	25	86	
LUMINAIRE INFORMATION			
Color / CRI:	5700K - 75 CRI		
Luminaire Output:	121,000 / 52,000 lumens		
No. of Luminaires:	34		
Total Load:	34.5 kW		
Lumen Maintenance			
Luminaire Type	L90 hrs	L80 hrs	L70 hrs
TLC-LED-1150	>81,000	>81,000	>81,000
TLC-BT-575	>81,000	>81,000	>81,000
Reported per TM-21-11. See luminaire datasheet for details.			

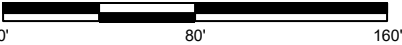
Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

SCALE IN FEET 1 : 80



Pole location(s) ⊕ dimensions are relative to 0,0 reference point(s) ⊗



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ILLUMINATION SUMMARY

EQUIPMENT LIST FOR AREAS SHOWN

Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
1	A1	80'	-	15'	TLC-BT-575	1/1*	1	1
				35'	CREE OSQ	1	0	1
				80'	TLC-LED-1150	4/4*	4	4
1	A5	80'	-	15'	TLC-BT-575	1/1*	1	1
				35'	CREE OSQ	1	0	1
				80'	TLC-LED-1150	4/4*	4	4
1	B1	70'	-	15'	TLC-BT-575	1/1*	1	1
				35'	CREE OSQ	1	0	1
				70'	TLC-LED-1150	5/5*	5	5
1	B5	70'	-	15'	TLC-BT-575	1/1*	1	1
				35'	CREE OSQ	1	0	1
				70'	TLC-LED-1150	5/5*	5	5
2	C9-C10	70'	-	15'	TLC-BT-575	2	2	0
				70'	TLC-LED-1150	4	4	0
6	TOTALS					60	34	26

* This structure utilizes a back-to-back mounting configuration

Longview Athletic Complex

Longview,WA

GRID SUMMARY

Name: Baseball 5
Size: 320'/320'/320' - basepath 90'
Spacing: 30.0' x 30.0'
Height: 3.0' above grade

ILLUMINATION SUMMARY

MAINTAINED HORIZONTAL FOOTCANDLES

	Infield	Outfield
Guaranteed Average:	30	20
Scan Average:	33.1	23.1
Maximum:	43	31
Minimum:	24	13
Avg / Min:	1.39	1.73
Guaranteed Max / Min:	2.5	3
Max / Min:	1.79	2.33
UG (adjacent pts):	1.30	1.65
CU:	0.72	
No. of Points:	25	86

LUMINAIRE INFORMATION

Color / CRI: 5700K - 75 CRI
Luminaire Output: 121,000 / 52,000 lumens
No. of Luminaires: 34
Total Load: 34.5 kW

Luminaire Type	Lumen Maintenance		
	L90 hrs	L80 hrs	L70 hrs
TLC-LED-1150	>81,000	>81,000	>81,000
TLC-BT-575	>81,000	>81,000	>81,000

Reported per TM-21-11. See luminaire datasheet for details.

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

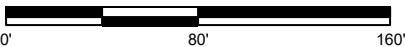


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ILLUMINATION SUMMARY

SCALE IN FEET 1 : 80



EQUIPMENT LIST FOR AREAS SHOWN

Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
2	A6-A7	70'	-	15'	TLC-BT-575	1	1	0
				35'	CREE OSQ	1	0	1
				70'	TLC-LED-1150	3	3	0
2	B6-B7	70'	-	15'	TLC-BT-575	1	1	0
				35'	CREE OSQ	1	0	1
				70'	TLC-LED-1150	5	5	0
2	C11-C12	70'	-	15'	TLC-BT-575	1	1	0
				70'	TLC-LED-1150	4	4	0
2	D1-D2	70'	-	15'	TLC-BT-575	1	1	0
				70'	TLC-LED-1150	3	3	0
8	TOTALS					42	38	4

Longview Athletic Complex

Longview,WA

GRID SUMMARY

Name:	Baseball 6
Size:	Irregular 300' / 375' / 300'
Spacing:	30.0' x 30.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY

MAINTAINED HORIZONTAL FOOTCANDLES

	Infield	Outfield
Guaranteed Average:	30	20
Scan Average:	31.6	26.8
Maximum:	37	35
Minimum:	25	19
Avg / Min:	1.28	1.42
Guaranteed Max / Min:	2.5	3
Max / Min:	1.47	1.87
UG (adjacent pts):	1.33	1.39
CU:	0.75	
No. of Points:	25	91

LUMINAIRE INFORMATION

Color / CRI:	5700K - 75 CRI
Luminaire Output:	121,000 / 52,000 lumens
No. of Luminaires:	38
Total Load:	39.1 kW

Lumen Maintenance			
Luminaire Type	L90 hrs	L80 hrs	L70 hrs
TLC-LED-1150	>81,000	>81,000	>81,000
TLC-BT-575	>81,000	>81,000	>81,000

Reported per TM-21-11. See luminaire datasheet for details.

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

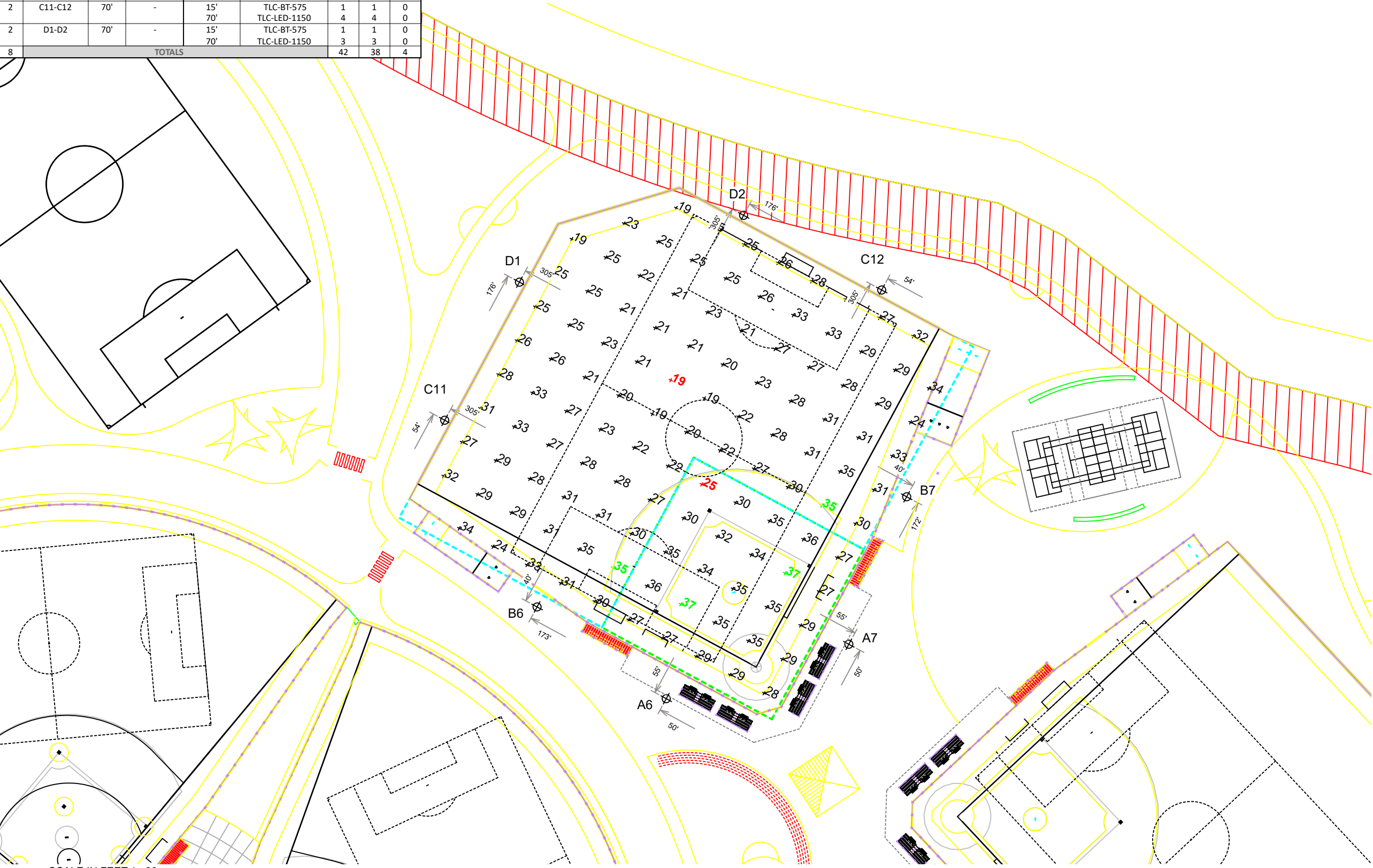
Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.



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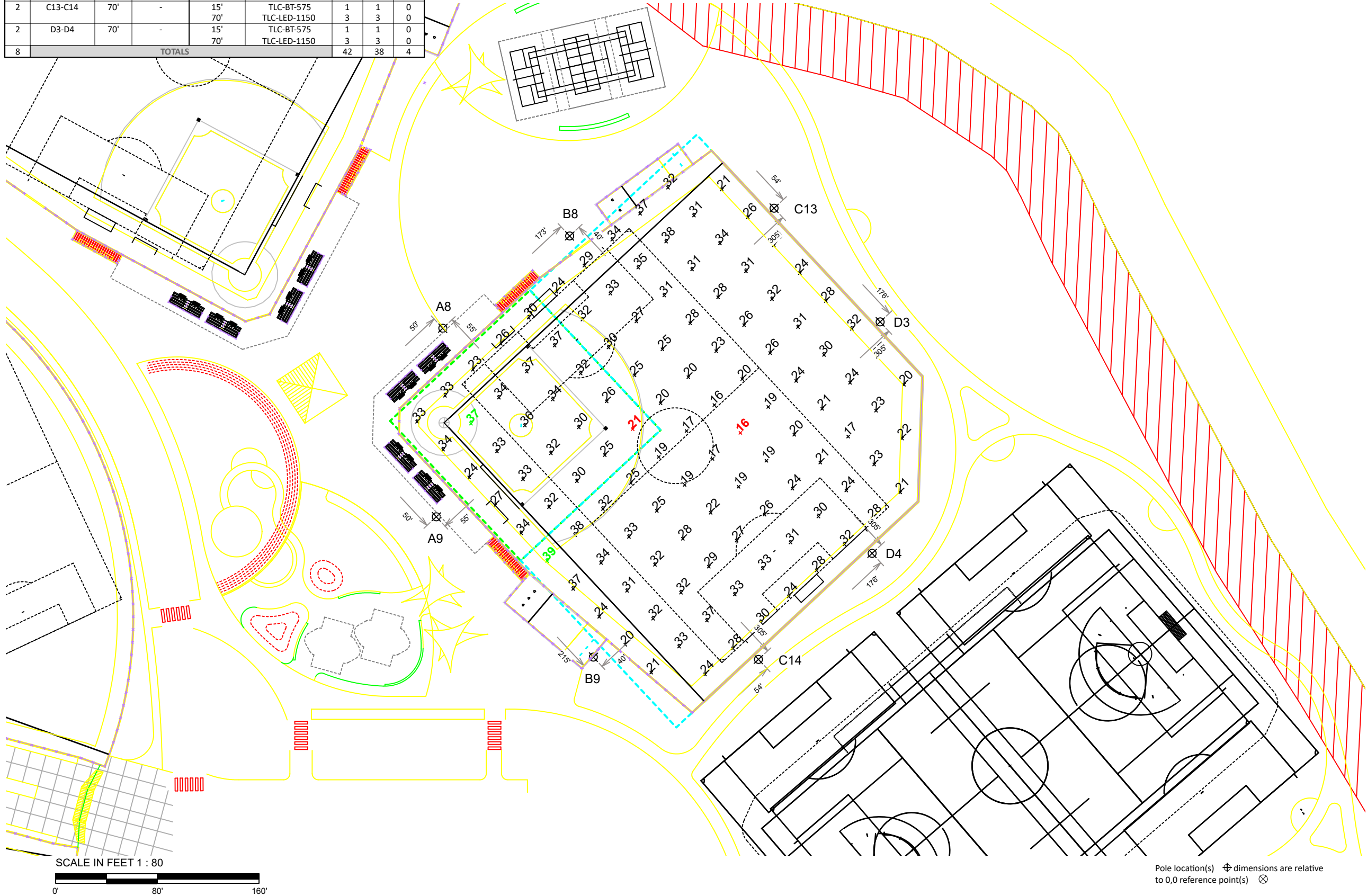
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ILLUMINATION SUMMARY



Pole location(s) ⦿ dimensions are relative to 0,0 reference point(s) ⊗

EQUIPMENT LIST FOR AREAS SHOWN								
Pole				Luminaires				
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE	THIS GRID	OTHER GRIDS
2	A8-A9	70'	-	15'	TLC-BT-575	1	1	0
				35'	CREE OSQ	1	0	1
				70'	TLC-LED-1150	3	3	0
2	B8-B9	70'	-	15'	TLC-BT-575	1	1	0
				35'	CREE OSQ	1	0	1
				70'	TLC-LED-1150	6	6	0
2	C13-C14	70'	-	15'	TLC-BT-575	1	1	0
				70'	TLC-LED-1150	3	3	0
2	D3-D4	70'	-	15'	TLC-BT-575	1	1	0
				70'	TLC-LED-1150	3	3	0
8	TOTALS					42	38	4



Longview Athletic Complex
Longview,WA

GRID SUMMARY	
Name:	Baseball 7
Size:	Irregular 300' / 375' / 300'
Spacing:	30.0' x 30.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY			
MAINTAINED HORIZONTAL FOOTCANDLES			
	Infield	Outfield	
Guaranteed Average:	30	20	
Scan Average:	30.9	27.0	
Maximum:	37	39	
Minimum:	21	16	
Avg / Min:	1.45	1.67	
Guaranteed Max / Min:	2.5	3	
Max / Min:	1.75	2.42	
UG (adjacent pts):	1.51	1.62	
CU:	0.75		
No. of Points:	25	91	
LUMINAIRE INFORMATION			
Color / CRI:	5700K - 75 CRI		
Luminaire Output:	121,000 / 52,000 lumens		
No. of Luminaires:	38		
Total Load:	39.1 kW		
Lumen Maintenance			
Luminaire Type	L90 hrs	L80 hrs	L70 hrs
TLC-LED-1150	>81,000	>81,000	>81,000
TLC-BT-575	>81,000	>81,000	>81,000
Reported per TM-21-11. See luminaire datasheet for details.			

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.



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Longview Athletic Complex

Longview,WA

GRID SUMMARY	
Name:	Blanket Grid
Spacing:	30.0' x 30.0'
Height:	3.0' above grade

ILLUMINATION SUMMARY			
MAINTAINED HORIZONTAL FOOTCANDLES			
	Entire Grid		
Scan Average:	7.8		
Maximum:	44		
Minimum:	0		
Avg / Min:	-		
Max / Min:	-		
UG (adjacent pts):	35.03		
CU:	0.88		
No. of Points:	3185		
LUMINAIRE INFORMATION			
Color / CRI:	5700K - 75 CRI		
Luminaire Output:	121,000 / 52,000 lumens		
No. of Luminaires:	246		
Total Load:	250.7 kW		
Lumen Maintenance			
Luminaire Type	L90 hrs	L80 hrs	L70 hrs
TLC-LED-1150	>81,000	>81,000	>81,000
TLC-BT-575	>81,000	>81,000	>81,000
Reported per TM-21-11. See luminaire datasheet for details.			

Guaranteed Performance: The ILLUMINATION described above is guaranteed per your Musco Warranty document and includes a 0.95 dirt depreciation factor.

Field Measurements: Individual field measurements may vary from computer-calculated predictions and should be taken in accordance with IESNA RP-6-15.

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.



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ILLUMINATION SUMMARY

SCALE IN FEET 1 : 200



Pole location(s) ⚡ dimensions are relative to 0,0 reference point(s) ⊗

Longview Athletic Complex
Longview,WA

EQUIPMENT LAYOUT

INCLUDES:

- Baseball 1
- Baseball 2
- Baseball 3
- Baseball 4
- Baseball 5
- Baseball 6
- Baseball 7

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

EQUIPMENT LIST FOR AREAS SHOWN						
Pole				Luminaires		
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE
5	A1-A5	80'	-	15'	TLC-BT-575	1/1*
				35'	CREE OSQ	1
				80'	TLC-LED-1150	4/4*
4	A6-A9	70'	-	15'	TLC-BT-575	1
				35'	CREE OSQ	1
				70'	TLC-LED-1150	3
5	B1-B5	70'	-	15'	TLC-BT-575	1/1*
				35'	CREE OSQ	1
				70'	TLC-LED-1150	5/5*
2	B6-B7	70'	-	15'	TLC-BT-575	1
				35'	CREE OSQ	1
				70'	TLC-LED-1150	5
2	B8-B9	70'	-	15'	TLC-BT-575	1
				35'	CREE OSQ	1
				70'	TLC-LED-1150	6
10	C1-C10	70'	-	15'	TLC-BT-575	2
				70'	TLC-LED-1150	4
				70'	TLC-LED-1150	4
2	C11-C12	70'	-	15'	TLC-BT-575	1
				70'	TLC-LED-1150	4
				70'	TLC-LED-1150	4
2	C13-C14	70'	-	15'	TLC-BT-575	1
				70'	TLC-LED-1150	3
				70'	TLC-LED-1150	3
4	D1-D4	70'	-	15'	TLC-BT-575	1
				70'	TLC-LED-1150	3
				70'	TLC-LED-1150	3
36	TOTALS					264

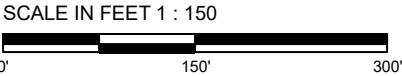
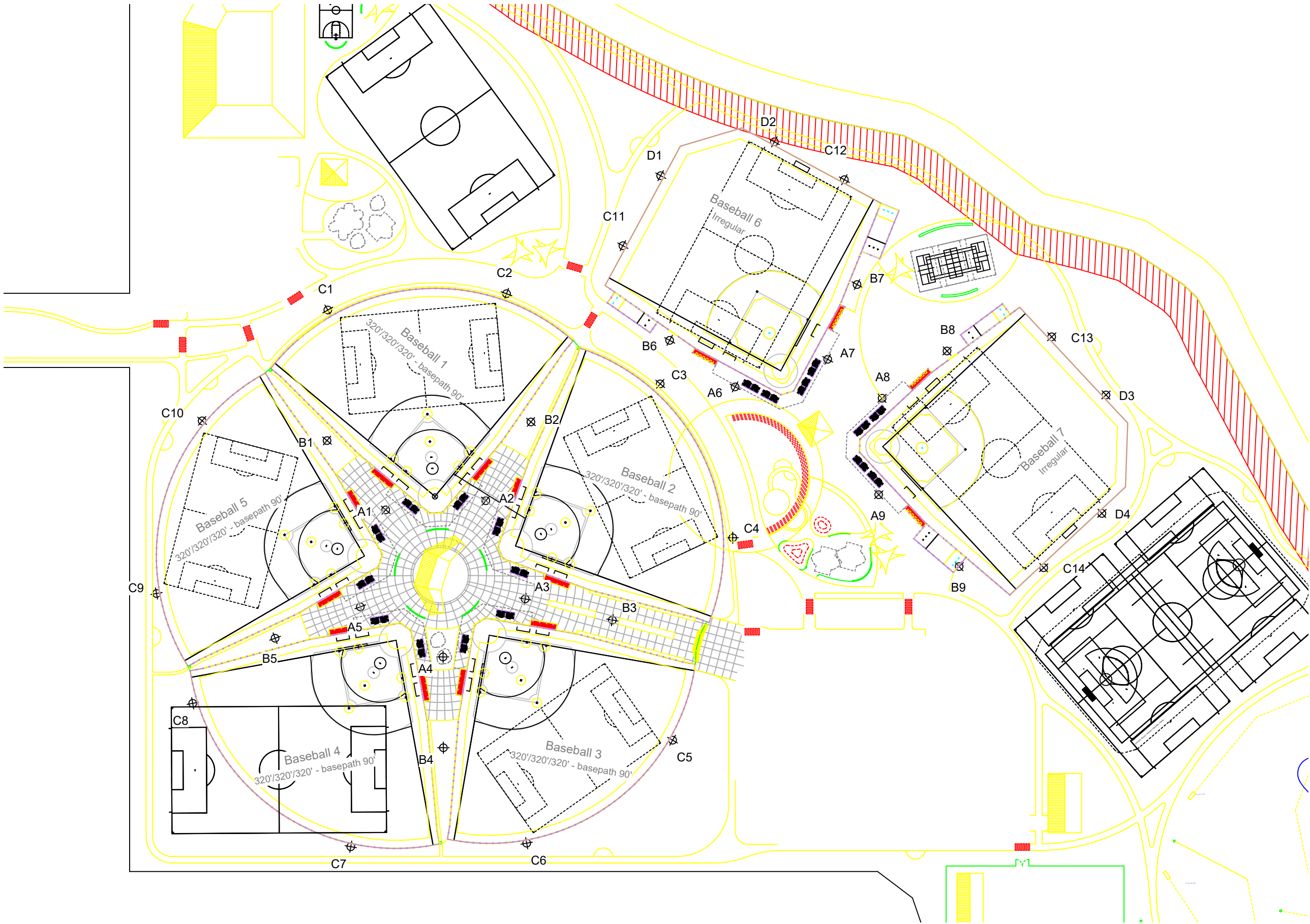
* This structure utilizes a back-to-back mounting configuration

SINGLE LUMINAIRE AMPERAGE DRAW CHART							
Ballast Specifications (.90 min power factor)	Line Amperage Per Luminaire (max draw)						
	208 (60)	220 (60)	240 (60)	277 (60)	347 (60)	380 (60)	480 (60)
Single Phase Voltage	208 (60)	220 (60)	240 (60)	277 (60)	347 (60)	380 (60)	480 (60)
TLC-LED-1150	6.8	6.5	5.9	5.1	4.1	3.7	3.0
Cree OSQ	-	-	-	-	-	-	-
TLC-BT-575	3.4	3.2	2.9	2.5	2.0	1.8	1.5



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EQUIPMENT LAYOUT



Pole location(s) ⚡ dimensions are relative to 0,0 reference point(s) ⊗

Longview Athletic Complex
Longview,WA

EQUIPMENT LAYOUT

INCLUDES:

- Baseball 1
- Baseball 2
- Baseball 3
- Baseball 4
- Baseball 5
- Baseball 6
- Baseball 7

Electrical System Requirements: Refer to Amperage Draw Chart and/or the "Musco Control System Summary" for electrical sizing.

Installation Requirements: Results assume ± 3% nominal voltage at line side of the driver and structures located within 3 feet (1m) of design locations.

EQUIPMENT LIST FOR AREAS SHOWN

Pole				Luminaires		
QTY	LOCATION	SIZE	GRADE ELEVATION	MOUNTING HEIGHT	LUMINAIRE TYPE	QTY / POLE
5	A1-A5	80'	-	15'	TLC-BT-575	1/1*
				35'	CREE OSQ	1
				80'	TLC-LED-1150	4/4*
4	A6-A9	70'	-	15'	TLC-BT-575	1
				35'	CREE OSQ	1
				70'	TLC-LED-1150	3
5	B1-B5	70'	-	15'	TLC-BT-575	1/1*
				35'	CREE OSQ	1
				70'	TLC-LED-1150	5/5*
2	B6-B7	70'	-	15'	TLC-BT-575	1
				35'	CREE OSQ	1
				70'	TLC-LED-1150	5
2	B8-B9	70'	-	15'	TLC-BT-575	1
				35'	CREE OSQ	1
				70'	TLC-LED-1150	6
10	C1-C10	70'	-	15'	TLC-BT-575	2
				70'	TLC-LED-1150	4
2	C11-C12	70'	-	15'	TLC-BT-575	1
				70'	TLC-LED-1150	4
2	C13-C14	70'	-	15'	TLC-BT-575	1
				70'	TLC-LED-1150	3
4	D1-D4	70'	-	15'	TLC-BT-575	1
				70'	TLC-LED-1150	3
36	TOTALS					264

* This structure utilizes a back-to-back mounting configuration

SINGLE LUMINAIRE AMPERAGE DRAW CHART

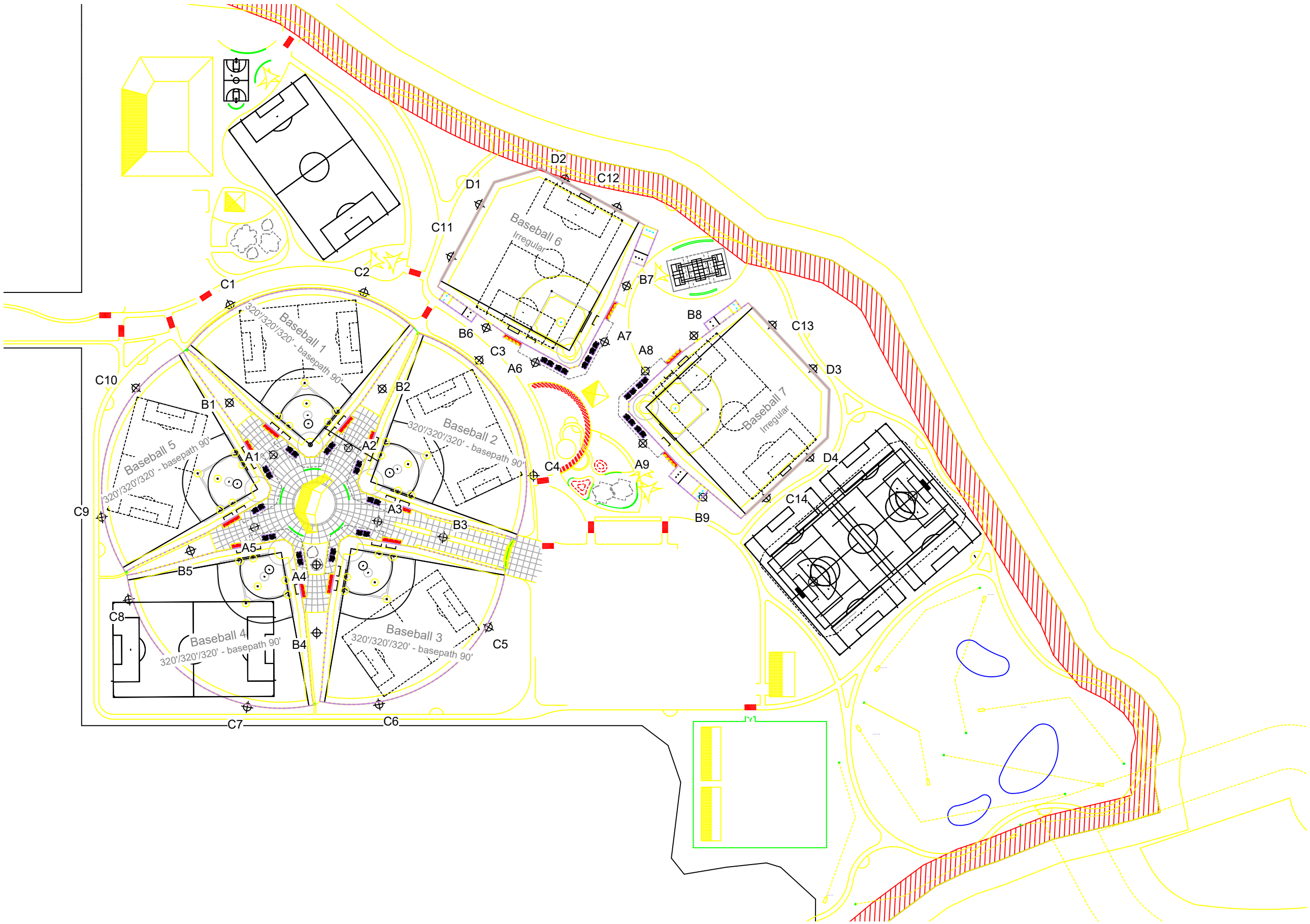
Ballast Specifications (.90 min power factor)	Line Amperage Per Luminaire (max draw)						
	208 (60)	220 (60)	240 (60)	277 (60)	347 (60)	380 (60)	480 (60)
Single Phase Voltage							
TLC-LED-1150	6.8	6.5	5.9	5.1	4.1	3.7	3.0
Cree OSQ	-	-	-	-	-	-	-
TLC-BT-575	3.4	3.2	2.9	2.5	2.0	1.8	1.5



We Make It Happen.

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EQUIPMENT LAYOUT



SCALE IN FEET 1 : 200
0' 200' 400'

Pole location(s) ⚓ dimensions are relative to 0,0 reference point(s) ⊗

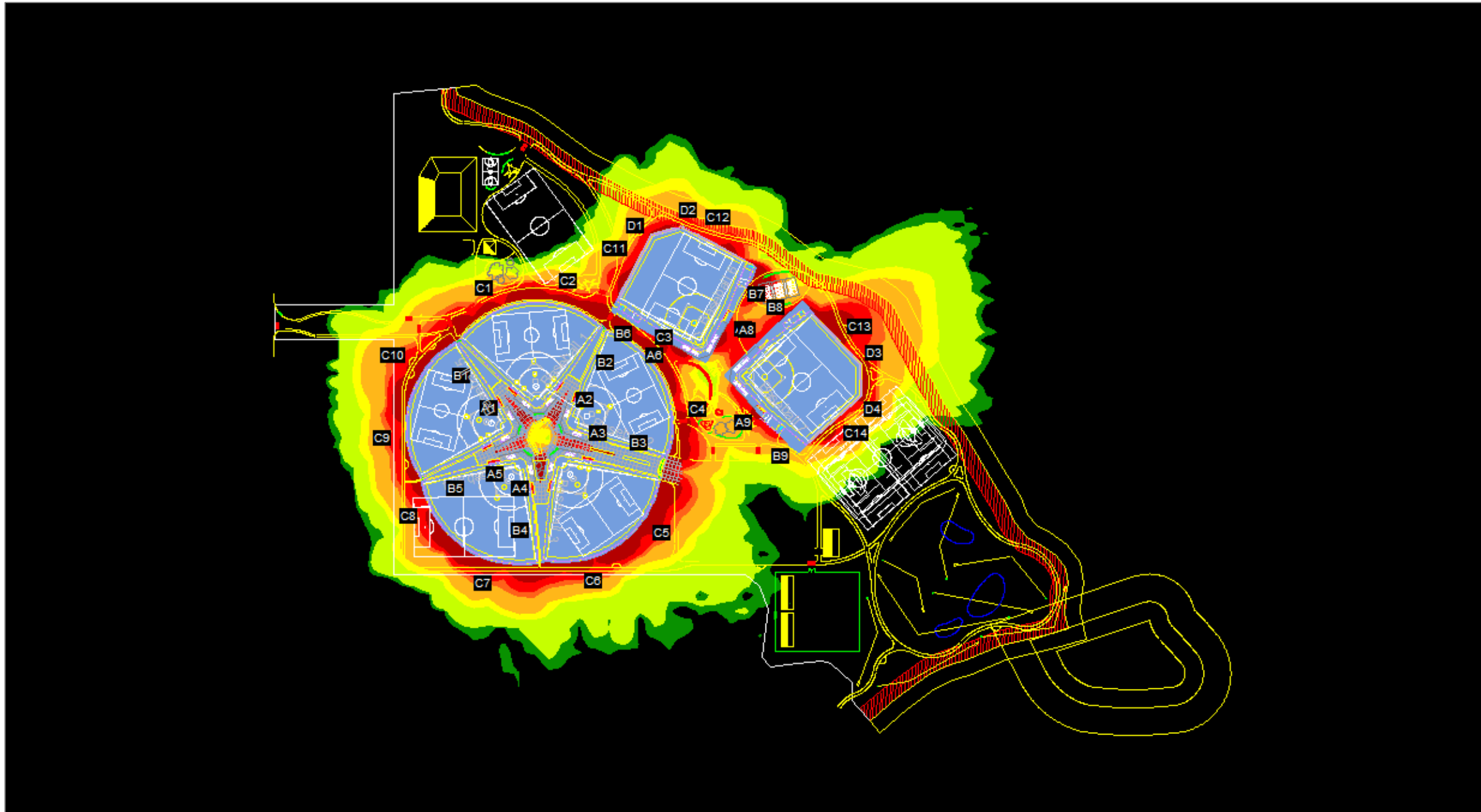
Longview,WA

Summary

A well-designed lighting system controls light to provide maximum useful on-field illumination with minimal destructive off-site glare.

Candela Levels

Minimal to No Glare: 500 or less candela
Equivalent to 100W incandescent light bulb.



ENVIRONMENTAL GLARE IMPACT

ROY MORSE PARK

Athletic Facility Complex Master Plan



- | | | |
|---|--------------------------------------|-----------------------------------|
| 1 recreation building | 4 disc golf course | 7 loop trail |
| 2 baseball field with soccer overlay | 5 softball field with soccer overlay | 8 maintenance area & tree nursery |
| 3 collegiate soccer field with overlays | 6 playground / picnic / plaza | |

