Vashon Island High School – Track and Field Forum

6 October 2016

WHAT PROBLEMS ARE WE WORKING TO SOLVE?

1. Sports fields are reaching end of useful life with inadequate access for programs

- Grass fields (VHS stadium and McMurray) are reaching end of useful life due to compaction and drainage problems which significantly reduce field access. Average replacement is 12 – 15 years for well-maintained fields. McMurray field is 15 years old, VHS stadium field has not been substantially renovated for 30 years.
- Demand for use for PE programs, district sports and community use far exceeds available playing time
- Stadium field can now support use for competitions only - no practices
- Grass fields must be rested 6-8 weeks per year over the summer
- Grass fields are shut down during extended inclement weather to prevent damage
- Over use of the practice field yields poor condition, field damage, and uneven playing conditions and higher maintenance cost

2. Running track has reached end of useful life and no longer supports programs

- Track has reached end of useful life
- Inadequate drainage, hard and uneven surface
- Cinder can no longer be locally sourced (now eastern Oregon)
- Does not meet league requirements to hold meets
- No facilities for high jump or pole vault events

3. Grandstand requires substantial safety repair and disability access

- Repairs are necessary to provide safety and to extend the life of the facility
- Solution is required to provide reasonable access for people with disabilities

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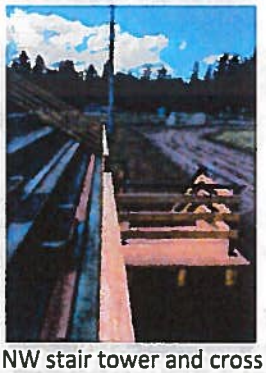
STADIUM GRANDSTANDS

The district retained Ellisport Engineering and Mayes Testing to review the structural integrity of the existing grandstands. The findings determined the grandstands can receive minor modifications and continue to be used for 5-10 years with periodic monitoring and inspections. Necessary modifications would include: a survey of the wood and pipe supports for rot and corrosion with replacement as necessary; repair of guardrails and reduce any opening to 4" or less; and upgrade/replace pole-to-beam and truss-to-pole connections.

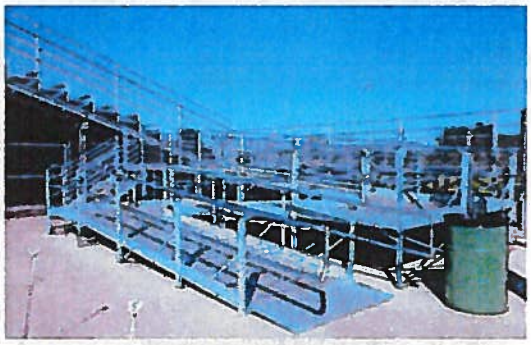
Estimated cost: $100,000 - $150,000

In addition to the minor upgrades noted above, providing wheelchair access to the grandstands is a priority. The least expensive alternative would be an aluminum ramp and extended platform. This would require removal of the existing NW stair tower shown below. The new ramp, which would be located at the northwest end of the grandstands, would be approximately 66' in length and require 3 intermediate landings. The current walking isle of the grandstands shown below would be extended out by approximately 5' for a length 45'. Companion benches would be added to this area to accompany the wheelchair seating area.

Estimated cost: $75,000



NW stair tower and cross isle



Typical aluminum ramp structure

RUBBERIZED RUNNING TRACK

Designs were reviewed for both a 6-lane and 8-lane track. While either will fit within the footprint of the existing facility, 6-lane tracks are typical for schools our size and costs provided have been based on 6-lanes.

SPORTS FIELD SURFACING & BASE OPTIONS

Natural Turf with Sand Base or Synthetic Turf with Porous Base

One Synthetic Turf field would satisfy all school-day PE and school athletic needs with added capacity for community use. Two Natural Turf fields would be needed to equal the playtime available on a synthetic field. However, both natural turf fields would be unusable in moderate rain and during a period in the summer for annual maintenance and reseeding.

Natural Turf with Sand Base

Description: The field base typically includes a compacted subgrade with a subsurface drainage system, imported permeable base layer (sand or pea gravel), and a sand/organic root zone

Advantages:

- Field performance is not dependant on native soil conditions
- Allows for limited play through wet weather conditions
- Provides uniform playing conditions across the entire field area
- Provides deep root development
- Playability: non-abrasive, conditions can be modified with maintenance

Disadvantages:

- High construction, irrigation, and maintenance costs
- Difficult to repair when heavily worn
- Less forgiving of inadequate maintenance procedures
- Field requires 6-8 weeks recovery/maintenance during summer
- Field shut down for longer periods during extended inclement weather
- Surface requires replacement every 12-15 years

Synthetic Turf with Porous Base

Description: The field base typically includes a compacted subgrade with a subsurface drainage system, imported permeable aggregate layer, and an in-filled synthetic turf surfacing system. A variety of in-fill options are available.

Advantages:

- Wear resistance provides for year-round scheduling with unlimited play without respect to weather conditions
- Provides uniform playing conditions across the entire field area
- Lowest maintenance costs without the need to irrigate and fertilize
- Permanent lines and markings
- Playability: uniform playing condition, even surface without holes or divots

Disadvantages:

- Highest construction cost
- Surface requires replacement every 8 to 12 years

FIELD CONSTRUCTION & MAINTENANCE COSTS (INCLUDING 6-LANE RUBBERIZED TRACK)

Construction Costs

Natural Turf with Sand Base: $3,850,000 + $1,200,000 for 2nd field

Synthetic Turf with Aggregate Base: $4,650,000

Typical Annual Maintenance Costs

Natural Turf with Sand Base: $30,000 to $50,000 x 2

Irrigation per field would consume approximately 1.2 – 1.5 million gallons of water x 2

Cost per field for water would be approximately $8,000 x 2 (included in # above)

Synthetic Turf with Aggregate Base: $5,000 to $15,000

Typical Life Cycle

Natural Turf with Sand Base: 12 – 15 years

Cost for replacement: $465,000 x 2

Synthetic Turf with Aggregate Base: 8 – 12 years

Cost for Replacement $1,036,000 in 2016 dollars