



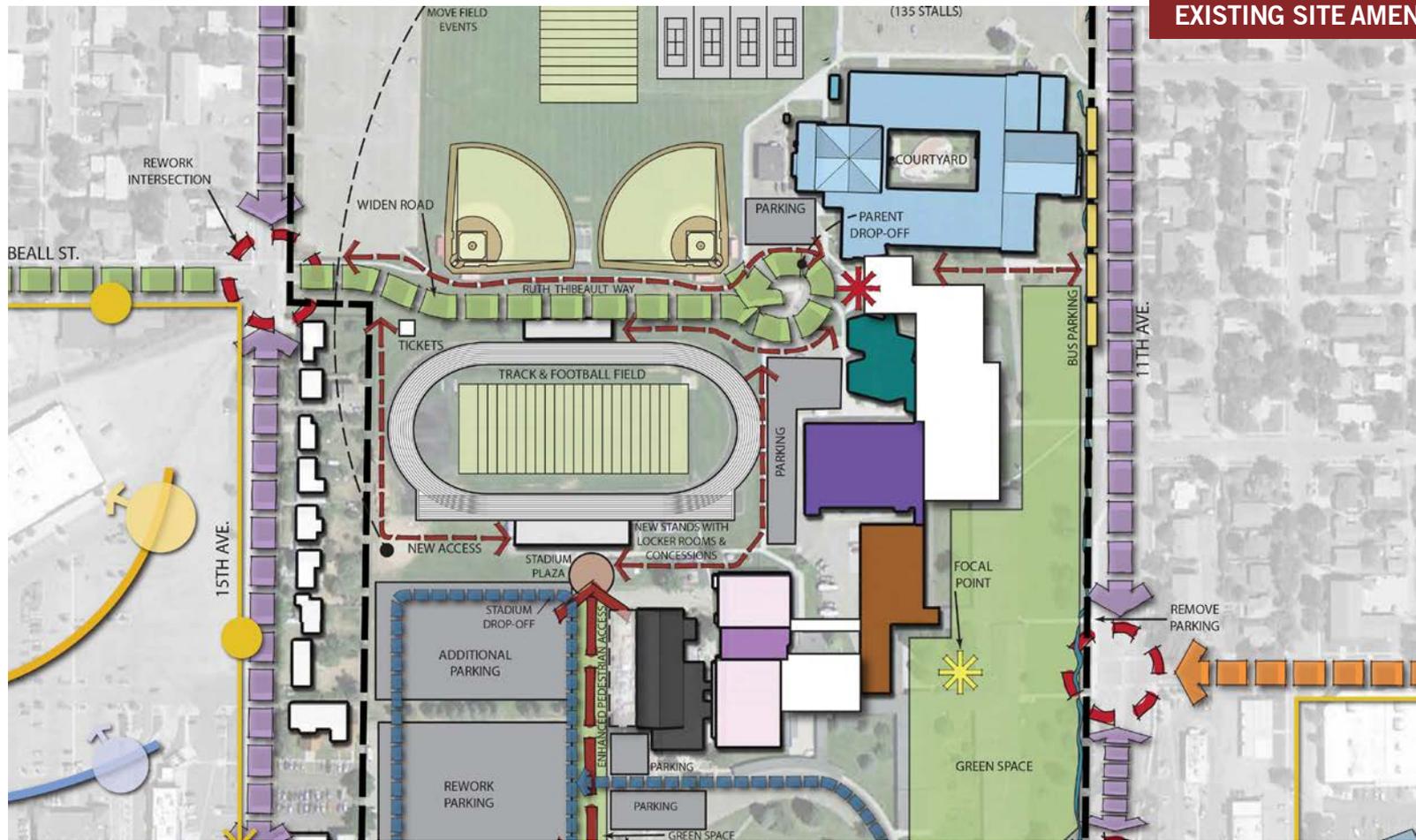
BOZEMAN HIGH SCHOOL - MULTI-PURPOSE STADIUM

BOZEMAN, MT 2018/01/04

PERKINS+WILL 



EXISTING SITE AMENITIES



EXISTING SITE AMENITIES





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STADIUM PROGRAM

BHS - MULTI-PURPOSE STADIUM

Butte High School

Naranche Stadium // 1937 // 2011 (reconstructed)



Butte High School

Naranche Stadium // 1937 // 2011 (reconstructed)

SITE FEATURES:

1 synthetic turf field (east-west)

- concrete bleachers (north sideline)
- restrooms (original warming houses) serve as bookends
- seating stands (south sideline)
- west end zone seating
- main entry (Gate 1) is located at the NW corner

The stadium embodies the rugged characteristics of Butte, the Mining City



Laurel High School

Sports Complex // 2009 // \$3.6 million



Laurel High School

Sports Complex // 2009 // \$3.6 million

SITE FEATURES:

1 synthetic turf field (east-west)
10-lane all-weather track

field: 50-50 rubber-sand infill

4,500-seat bleachers (north sideline)

scoreboard with 8ft x 25ft video screen

ticket booths at the east and west grandstands

facility to hold state track meets and championships

practice fields next to the stadium

residents can use the facility for walking and jogging



WHAT WE HEARD

MULTIPURPOSE TRACK + FIELD



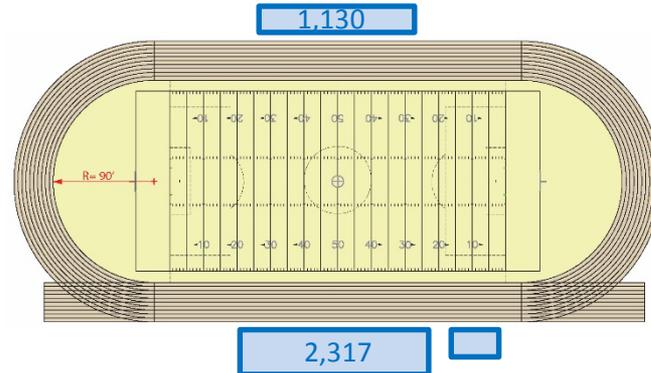
IDEAL FIELD SIZE AND TYPE:

- Football: 120-yard (360') field with no less than 16-20' runoff
- Soccer: 195' x 360'
NFHS Recommended soccer field:
300' -360' in length, 165' - 240' in width

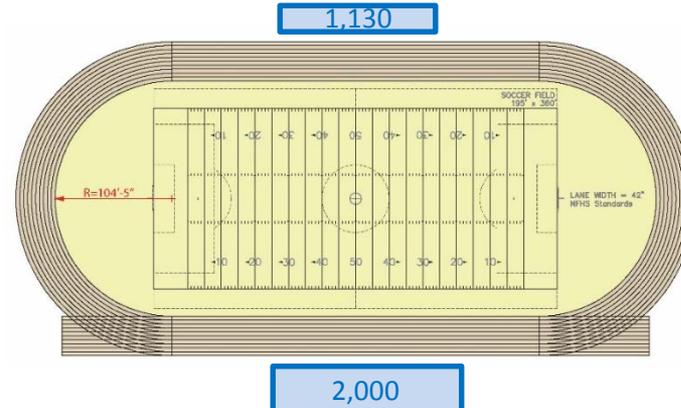
IDEAL TRACK TYPE: 400 METER

- Track: 10-lane around + 10-lane straightaway
- Lane Width = 42" (National Federation of State High School Associations - NFHS)
- rubberized asphalt

The radius of tracks may differ, depending on the configuration for activities inside the oval. – NFHS Track and Field Rules



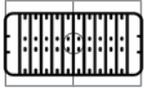
EXISTING TRACK + FIELD (Radius=90')



NEW TRACK + FIELD (Ideal Radius =104'-5")

WHAT WE HEARD

COMPETITION FIELD



ARTIFICIAL TURF TYPE:

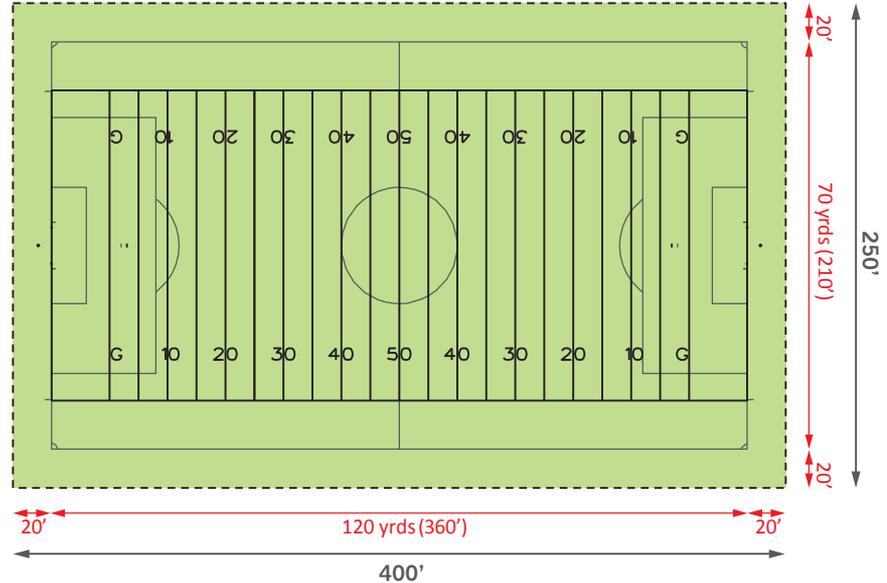
- Football: 120-yard (360') field
- Soccer: 120yrd x 70yrd (360' x 210') with 20' runoff

*NFHS Recommended soccer field:
300' -360' in length, 165' - 240' in width*

TOTAL TURF SIZE:

- 400' x 250'

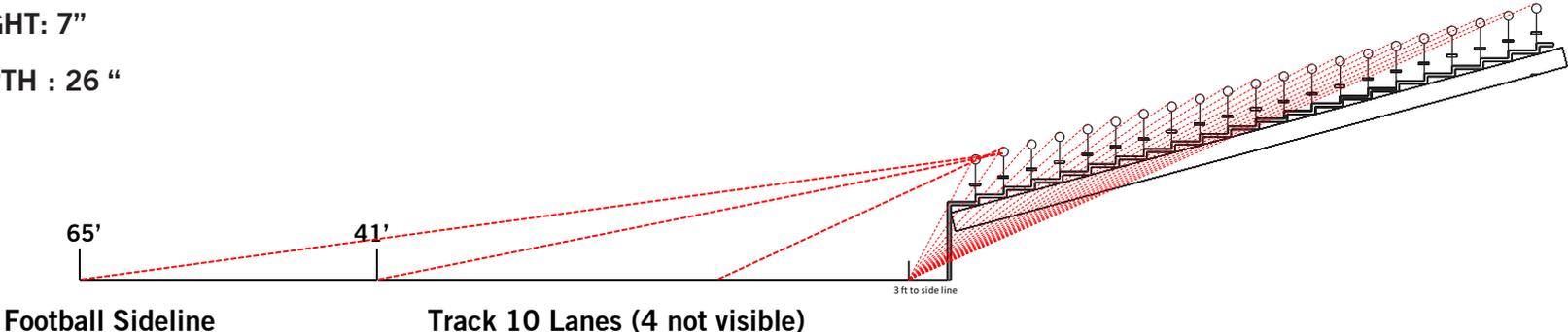
*turf can accommodate 120yrd x 75yrd
(360' x 225') soccer field with 12'-6" runoff*



EXISTING BLEACHER AT TRACK AND FIELD

RISER HEIGHT: 7"

TREAD DEPTH : 26 "

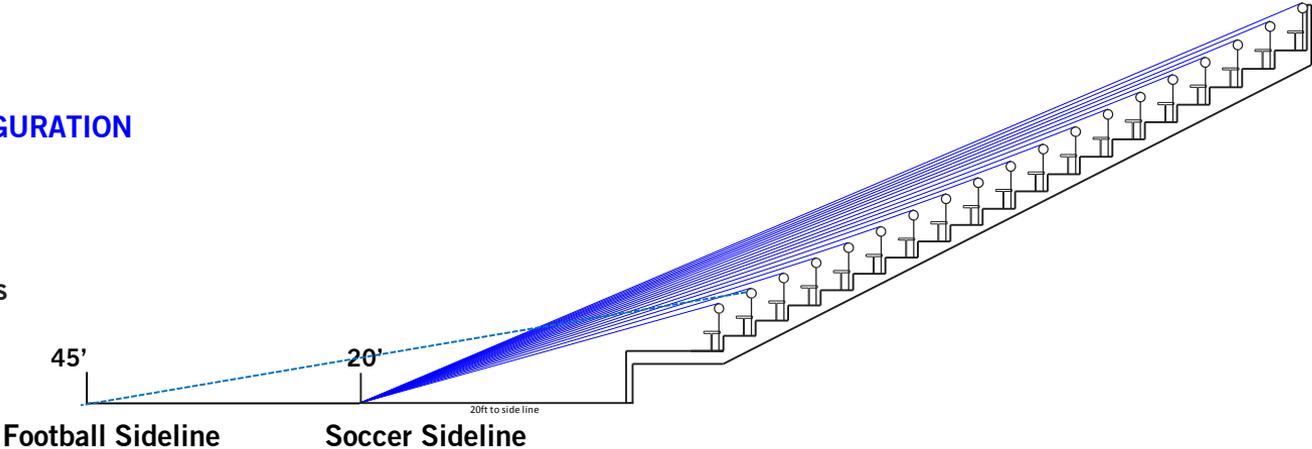


IDEAL STADIUM SEATING CONFIGURATION

RISER HEIGHT: 14-17"

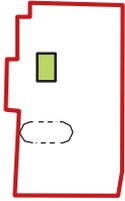
TREAD DEPTH : 30 "

ADA Enhanced Sightlines Positions



SITE DESIGN

BHS - MULTI-PURPOSE STADIUM

**PROS**

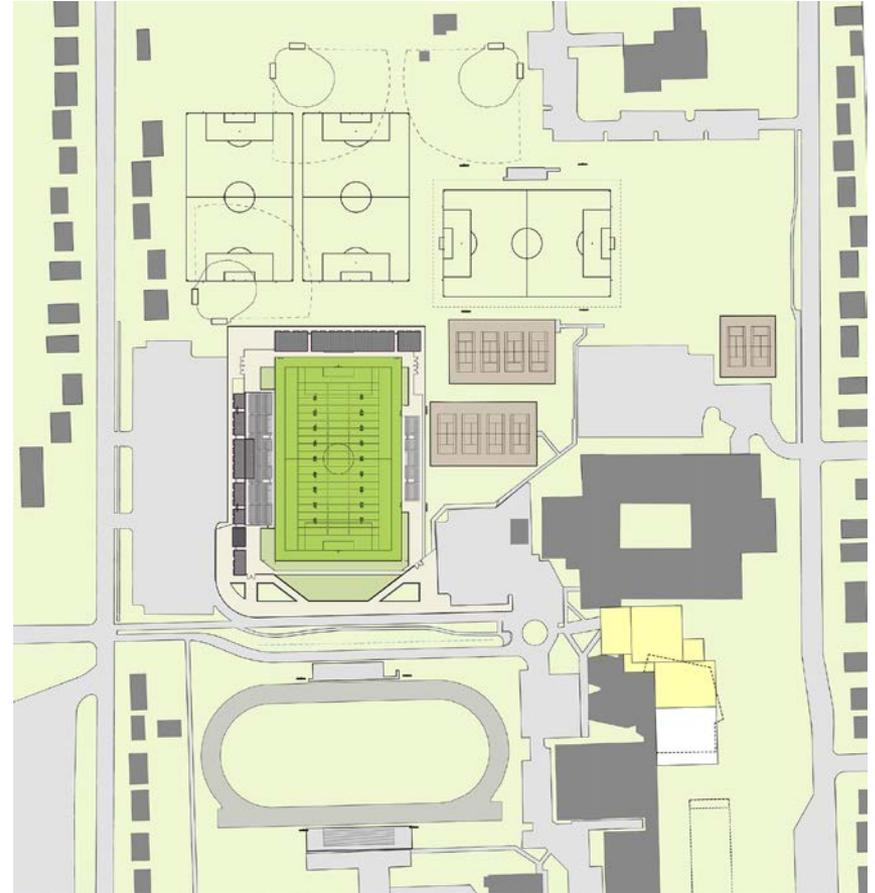
- Program Flexibility
- Ideal Orientation
- Centralized Fan Amenities
- Construction and Phasing
- Fan Experience
- Keep Existing
- Cost

CONS

- Separation From Existing Program
- More Site Work and Field Impacts
- Not as Visible

SUMMARY:

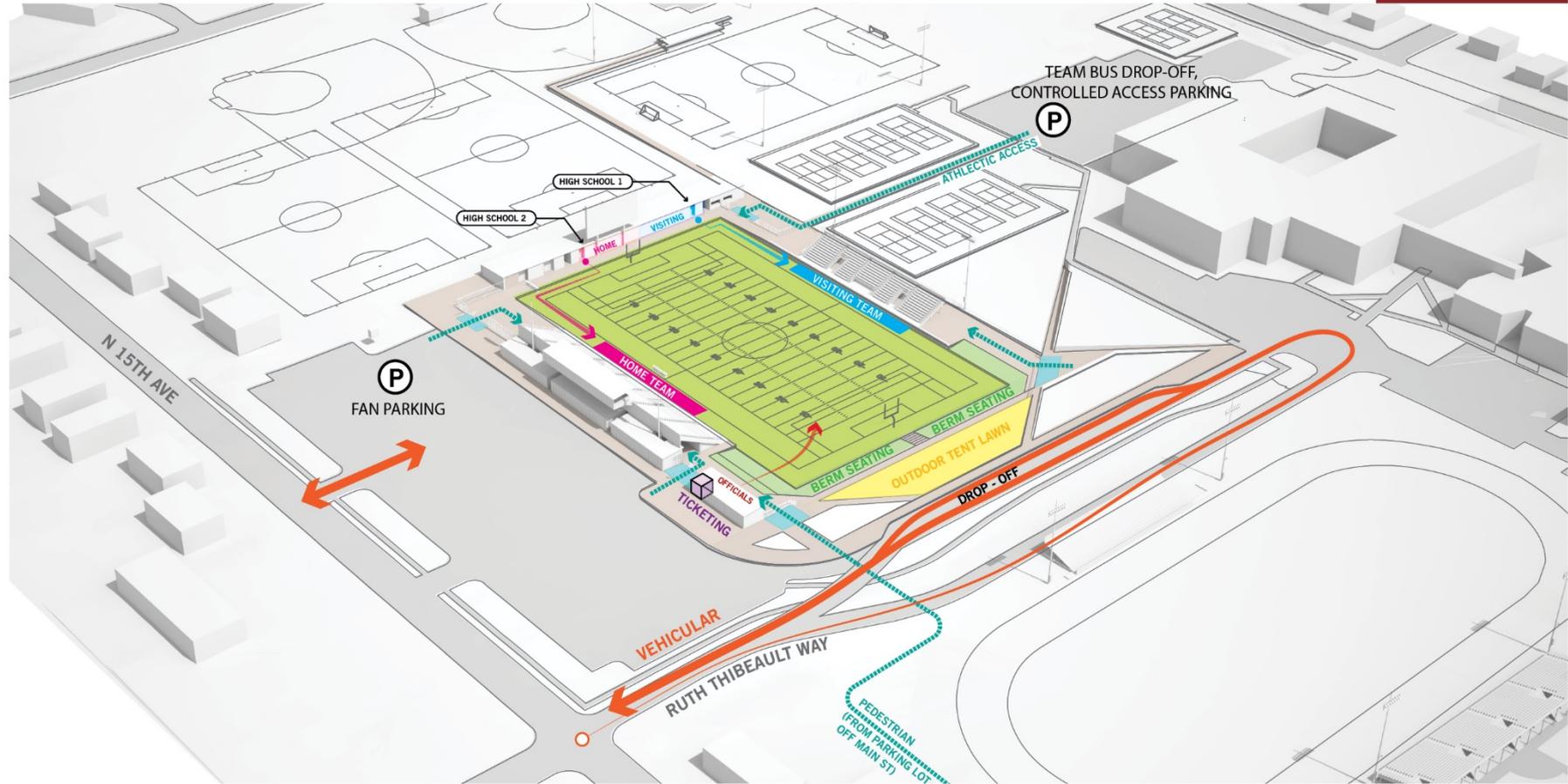
- Maximum site intervention
- Future turf field to the north
- Home and visitor seating combined
- North-south pedestrian connection
- Secondary east-west pedestrian connection
- Centralized program and amenities

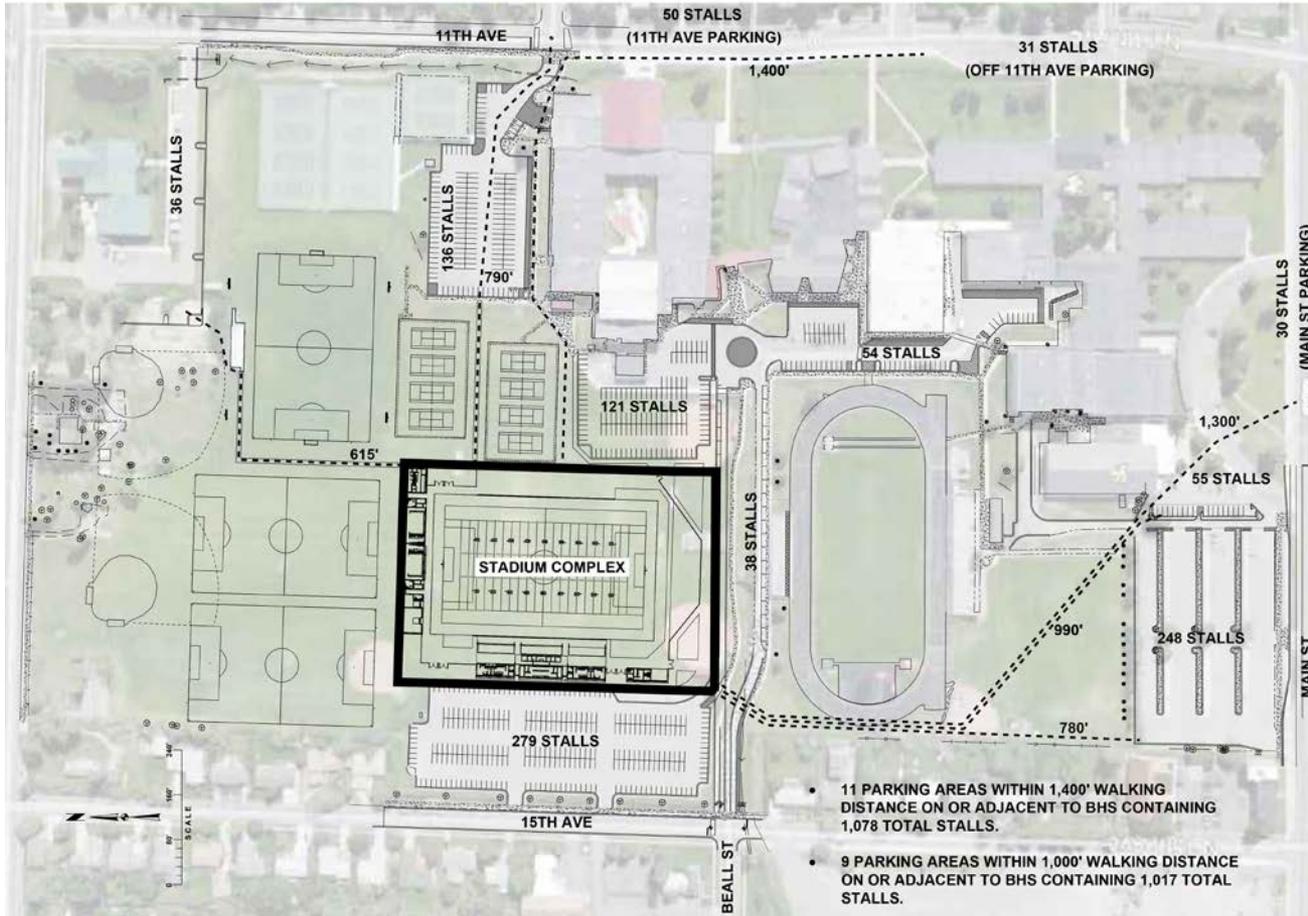




GAME DAY CIRCULATION

SITE DIAGRAM





- 11 PARKING AREAS WITHIN 1,400' WALKING DISTANCE ON OR ADJACENT TO BHS CONTAINING 1,078 TOTAL STALLS.
- 9 PARKING AREAS WITHIN 1,000' WALKING DISTANCE ON OR ADJACENT TO BHS CONTAINING 1,017 TOTAL STALLS.

OVERALL PLAN - CONCOURSE LEVEL

-  CHANGING ROOMS
-  TRAINING + FIRST AID
-  ATHLETIC / FIELD STORAGE
-  PRESS BOX
-  RESTROOMS
-  CONCESSIONS
-  OFFICE
-  BUILDING SUPPORT



OVERALL PLAN - PRESS BOX LEVEL

- CHANGING ROOMS
- TRAINING + FIRST AID
- ATHLETIC / FIELD STORAGE
- PRESS BOX
- RESTROOMS
- CONCESSIONS
- OFFICE
- BUILDING SUPPORT













BHS - MULTI-PURPOSE STADIUM

Musco cares as much about preserving darkness as it does about creating light.

Emitting light is easy. But LED fixtures that can't effectively control the light being emitted brings the unintended consequences of glare for players and neighbors, and wasteful spill into the night sky.

With Musco's Total Light Control—TLC for LED™, we've taken LED to a level of performance and precision never before seen in sports lighting. It means no disruptive glare into nearby homes and the preservation of dark skies above.

And it opens up new opportunities for where fields can be located within a community, and for existing fields that, until now, weren't able to install lights because of community push back.

Control

preserving the night sky.



"Glyndon Park is in a naturally wooded residential area. We didn't want to illuminate the homes of neighbors in the area. I initially wasn't supportive of putting in traditional lights. The product Musco has developed allows us to light this field, yet light nothing else around it."

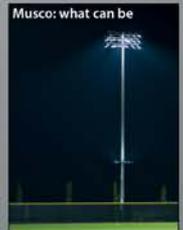
— Cathy Salgado,
Parks and Recreation Director, Vienna, VA



Glyndon Park Little League, Vienna, Virginia



What often is



Musco: what can be

WAUKESHA SOUTH HIGH SCHOOL

Waukesha, Wisconsin, USA

Football Field – 40 horizontal footcandles

System Energy Comparison:

38.4 kW – 58% reduction from typical HID equipment



THANK YOU

BHS - MULTI-PURPOSE STADIUM