



**Athletic Fields Improvements Update for
Albemarle, Burr School + McGrath**

Virtual Community Meeting

March 25th, 2024

6:00 PM

athleticfields@newtonma.gov

AGENDA

- CAPITAL PLAN RECAP
- ALBEMARLE PHASE 1
- BURR SCHOOL FIELDS
- MCGRATH
- TYPICAL SITE ATTRIBUTES
- CONSTRUCTION SCHEDULES



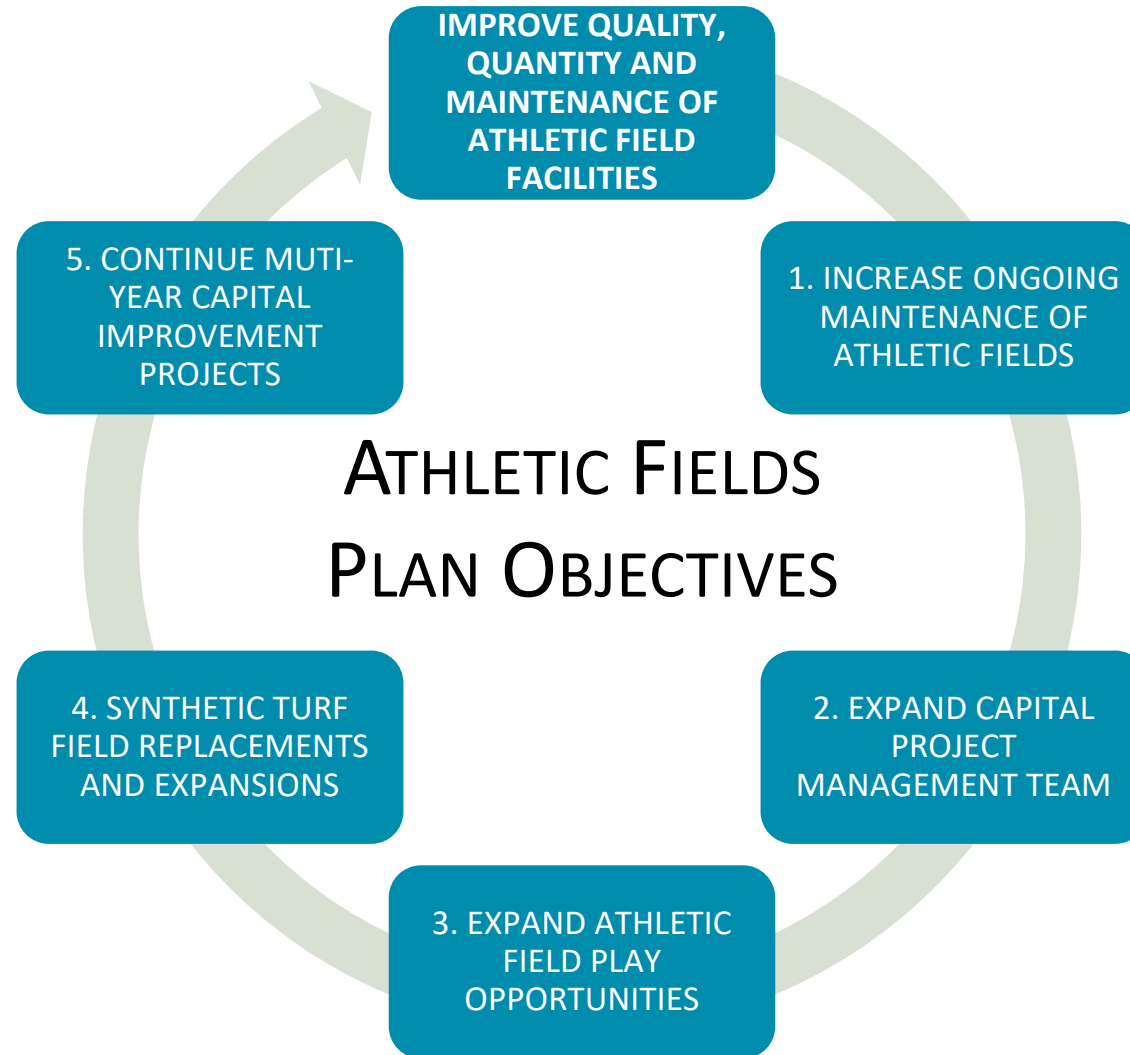
City of Newton Athletic Fields Analysis

- Both field types (ball fields and MP fields) are important to Newton athletics
- Prioritize projects to better meet the needs of Multipurpose sports (Rectangular fields)
- Examine and identify opportunities to increase MP fields
- Find a creative approach to expanding MP field offerings
- Athletic field groups have been advocating for more fields

Newton Parks, Recreation and Culture Department

Athletic Fields Capital Improvement Plan Analysis

Improving Quality, Quantity + Maintenance of Athletic Fields



Newton Parks, Recreation and Culture Department

Athletic Fields Capital Improvement Plan Goals & Objectives

ATHLETIC FIELD CAPITAL IMPROVEMENTS GOALS + OBJECTIVES

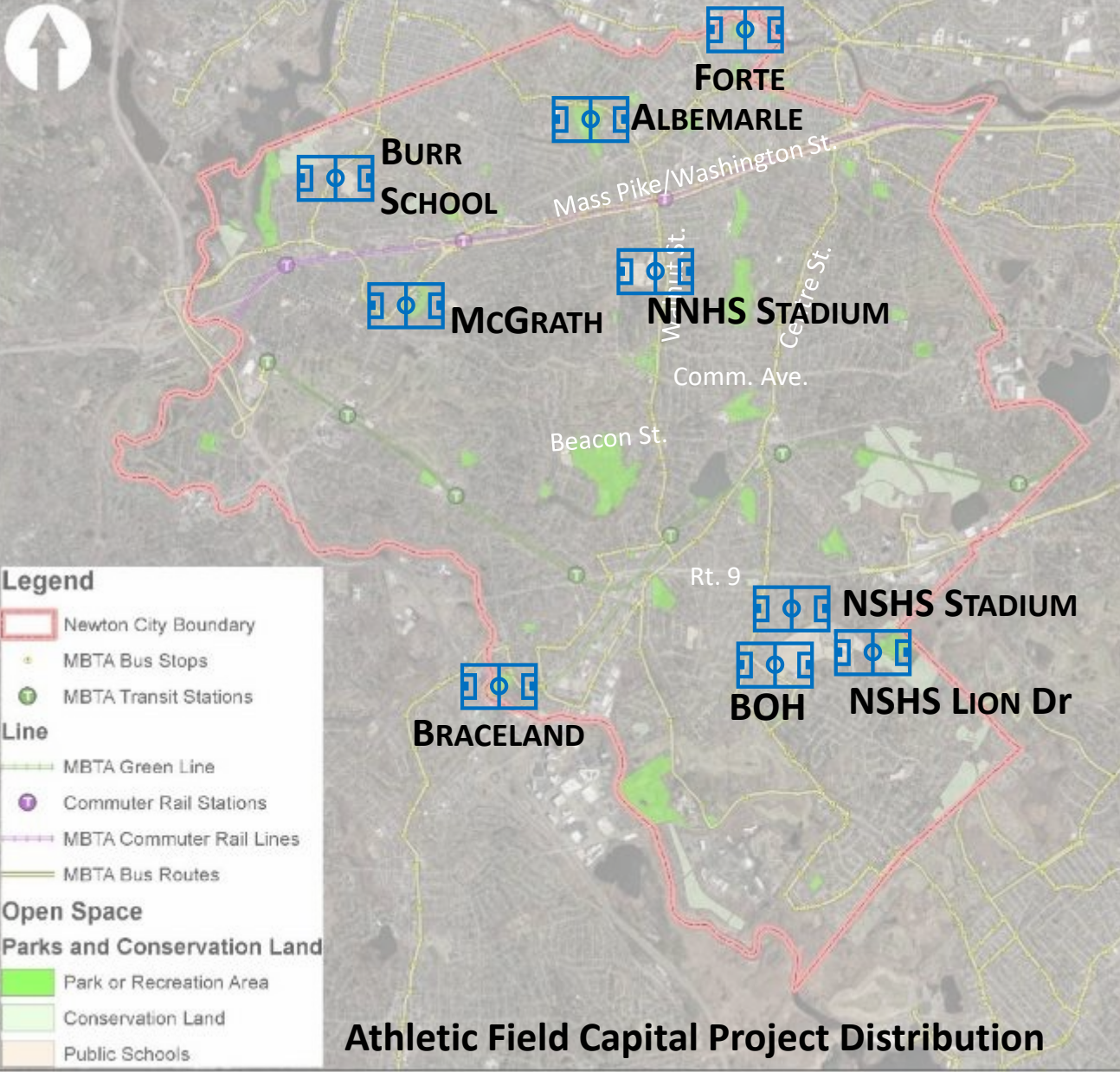
1. IMPROVE QUALITY AND QUANTITY OF ATHLETIC FIELDS

- Increase Play Opportunities thru Sports lighting, Synthetic Turf and grass field expansion
- Replace end-of-life Sports Lighting
- Improve quality of athletic field surfaces
- Increase available regulation-size athletic fields on Park and School lands
- Replace and expand synthetic turf field offerings
- Maximize flexibility of field usage in grass fields

2. IMPROVE ACCESSIBILITY TO AND WITHIN FIELD AMENITIES

3. IMPROVE ASSET MANAGEMENT THROUGH SUSTAINABLE, SMART TECHNOLOGY

- Smart Irrigation
- Smart, low-spillage lighting
- Utilize better, more sustainable materials
- Standardize site amenities (back stops, synthetic turf carpets and infills, benches)
- Reduce mowing in ancillary areas to increase potential for wildlife habitat



ATHLETIC FIELDS PLAN

- ALBEMARLE PHASE 1
- ✓ FORTE PARK RELIGHTING
- BURR SCHOOL
- BROWN/OAK HILL FIELDS
- MCGRATH PARK
- BOBBY BRACELAND
- ✓ NEWTON SOUTH STADIUM SPORTS LIGHTING
- ✓ NEWTON SOUTH LION DR SPORTS LIGHTING
- ✓ NSHS SYNTHETIC TURF REPLACEMENT
- ✓ NEWTON NORTH TIGER STADIUM LIGHTING
- NNHS SYNTHETIC TURF REPLACEMENT

Newton Parks, Recreation and Culture Department
Athletic Fields Capital Improvement Plan



ALBEMARLE PHASE 1

PHASED APPROACH TO IMPLEMENTATION



FROM CRAFTS STREET LOOKING SOUTH - BEFORE



FROM CRAFTS STREET LOOKING SOUTH - AFTER








FROM NECP LOOKING NORTH - BEFORE



FROM NECP LOOKING NORTH - AFTER






PLAN HIGHLIGHTS PATH CONNECTION

-  Multi-use Bike Trail / Service Road
-  Pedestrian Pathways
-  Existing Sidewalk
-  Vehicular Swing Gate
-  Phase 2 Path Connection






PLAN HIGHLIGHTS - *Ball Fields*

-  **Dedicated Baseball Field**
-  **Dedicated Softball Field**
-  **Phase 2 Fields**

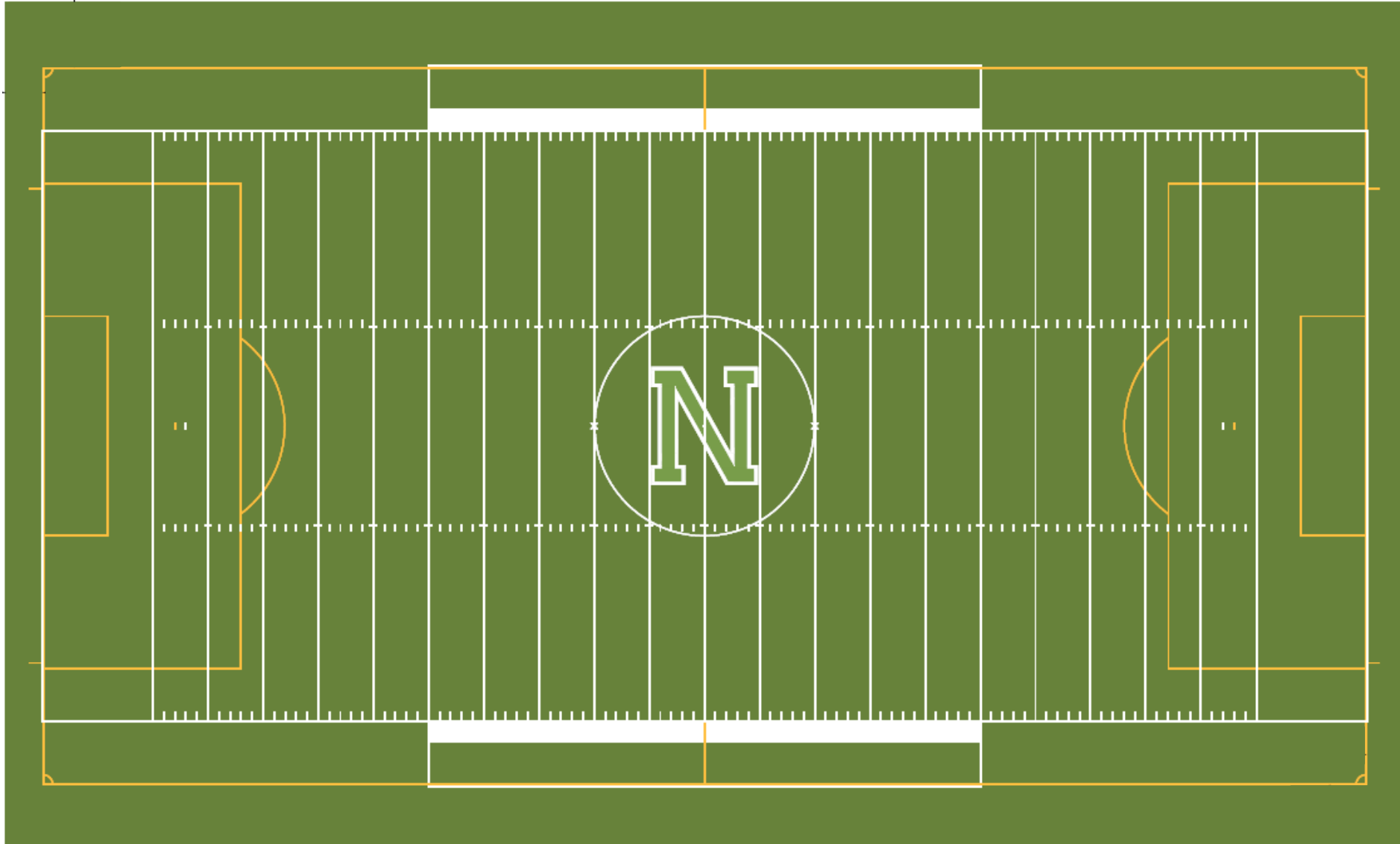


PLAN HIGHLIGHTS - *Multi-purpose Fields*



-  Synthetic Turf
Multi-purpose Fields
-  Natural Grass
Multi-purpose Fields
-  Phase 2
Multi-purpose Fields



Albemarle Synthetic Turf Field Layout – 65 Yds x 110Yds w/ 12-ft runout zones



PLAN HIGHLIGHTS - *Courts*

-  **Basketball Court (1)**
-  **Pickleball Courts (6)**





BURR SCHOOL FIELDS

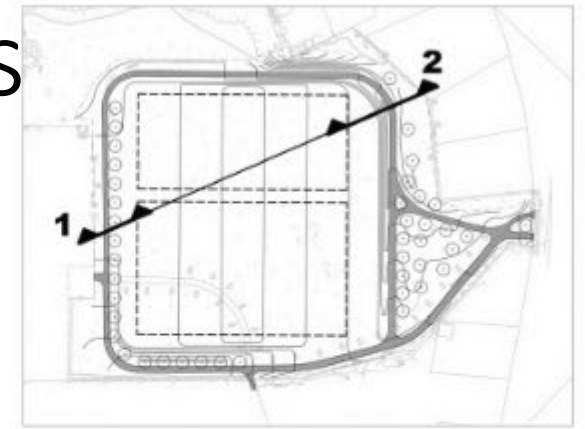
Burr School Existing Conditions



Burr School Final Site Plan



Burr School Cross-Sections



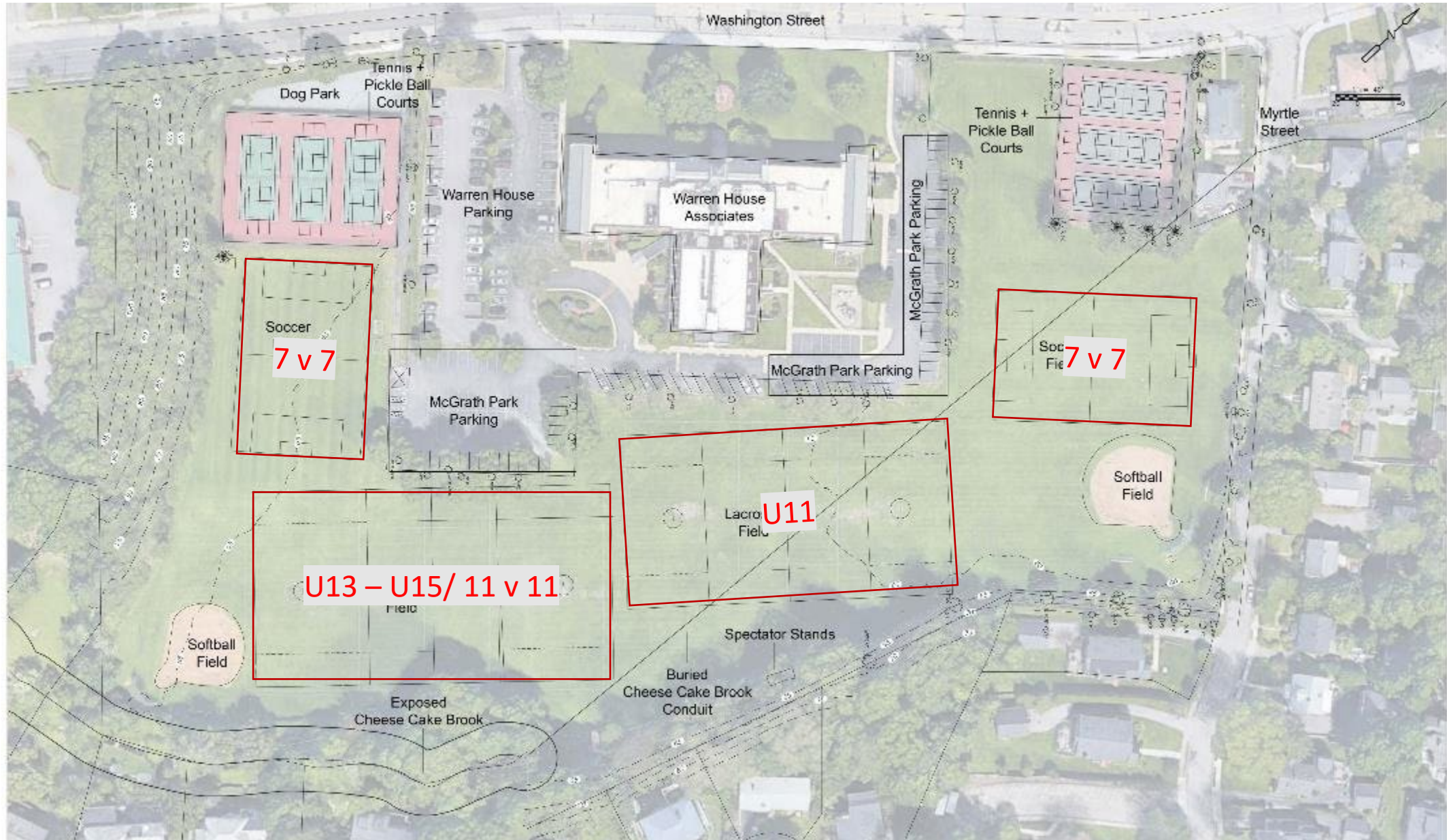
2



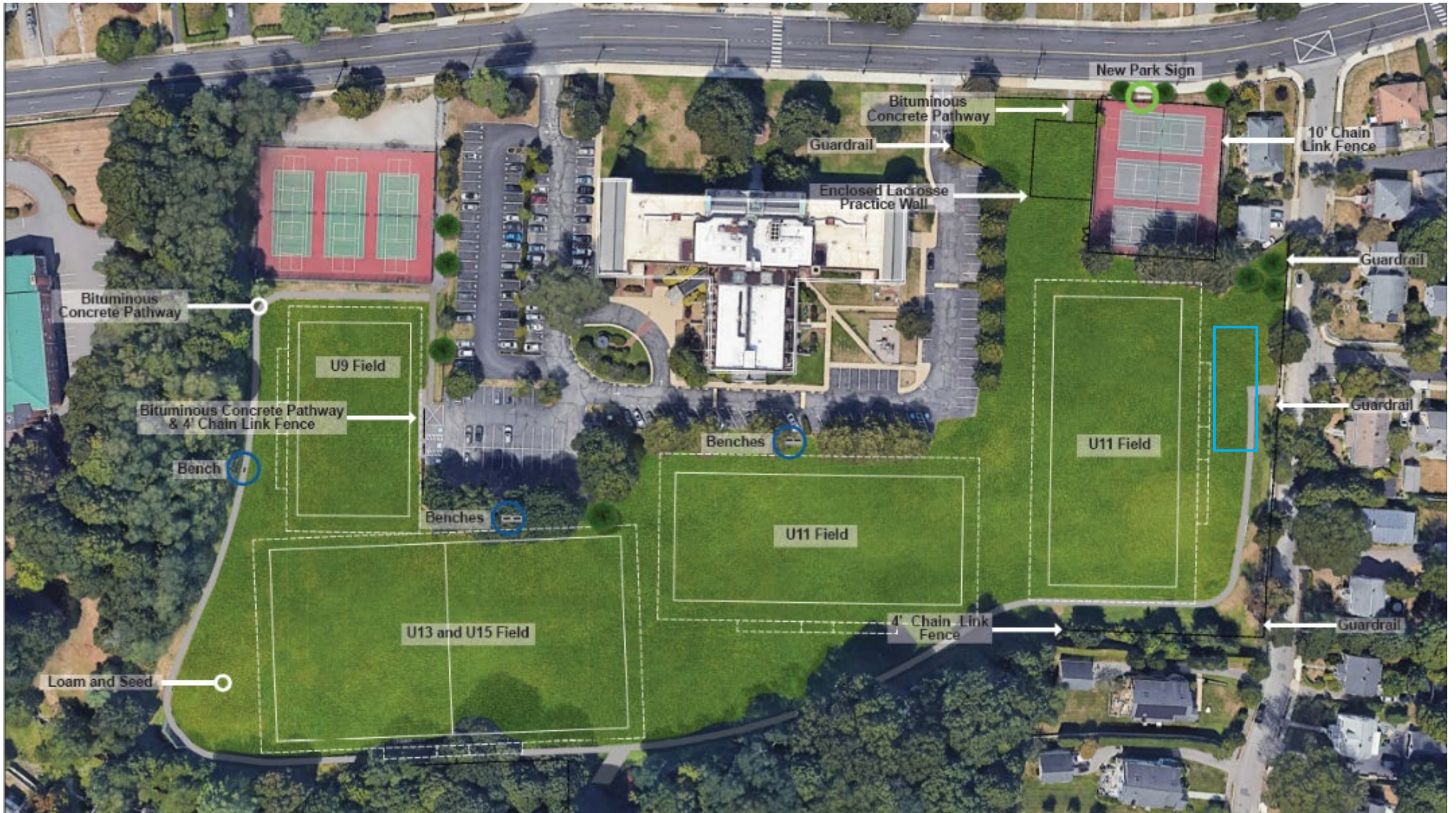


MCGRATH PARK

McGrath Park Existing Conditions



McGrath Park Site Plan

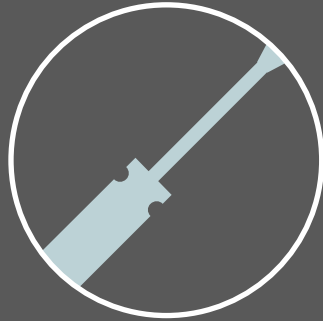


SYNTHETIC TURF FIELD SURFACES AND MATERIALS SELECTION BASED ON A BALANCED APPROACH



Longevity

- Life Span and Warranty
- Quality of Carpet
- Quality of Infill
- Minimal Infill Replenishing



Maintenance

- Annual Maintenance
- Minimal Infill Displacement
- Minimal Large-Scale Repairs
- Reduced field marking labor



Player Safety in Turf

- Consistency in GMAX Rating
- Heat Index
- Toxic Chemical Exposure
- Freezing Conditions
- Consistency in Head Injury Criterion (HIC) Rating



Environmental Impacts

- Minimal Infill Displacement into waterways
- Cleaner Materials
- No need for Watering
- Future End-of-Life Disposal
- PFAS Exposure



Playability

- Playability
- Shock Absorption
- Minimal Disruption to Use
- Extended Seasonal Use
- Retain Newton Athletic Competitive Edge

Sustainable Attributes – Pedestrian Lighting

NIGHT SKY BLOTTED OUT BY LIGHT POLLUTION

VISIBLE NIGHT SKY



VERY BAD

BAD

BETTER

BEST

Bad, better, best

Use outdoor lighting responsibly by only using it where it's needed, when it's needed, and in the amount required. Use the lowest light level required, limit blue-violet light, utilize timers or motion sensors, and use shielding.



LIGHT TO PROTECT THE NIGHT

Five Principles for Responsible Outdoor Lighting



Illuminating
ENGINEERING SOCIETY



USEFUL



ALL LIGHT SHOULD HAVE A CLEAR PURPOSE

Before installing or replacing a light, determine if light is needed. Consider how the use of light will impact the area, including wildlife and the environment. Consider using reflective paints or self-luminous markers for signs, curbs, and steps to reduce the need for permanently installed outdoor lighting.

TARGETED



LIGHT SHOULD BE DIRECTED ONLY TO WHERE NEEDED

Use shielding and careful aiming to target the direction of the light beam so that it points downward and does not spill beyond where it is needed.

LOW LIGHT LEVELS



LIGHT SHOULD BE NO BRIGHTER THAN NECESSARY

Use the lowest light level required. Be mindful of surface conditions as some surfaces may reflect more light into the night sky than intended.

CONTROLLED



LIGHT SHOULD BE USED ONLY WHEN IT IS USEFUL

Use controls such as timers or motion detectors to ensure that light is available when it is needed, dimmed when possible, and turned off when not needed.

COLOR



USE WARMER COLOR LIGHTS WHERE POSSIBLE

Limit the amount of shorter wavelength (blue-violet) light to the least amount needed.

Sustainable Attributes – Sports Lighting



Clydon Park Little League, Vienna, Virginia, USA



TLC for LED
Total Light Control

1. Poletop Luminaire Assembly

2. Galvanized Steel Pole

3. Electrical Components Enclosure

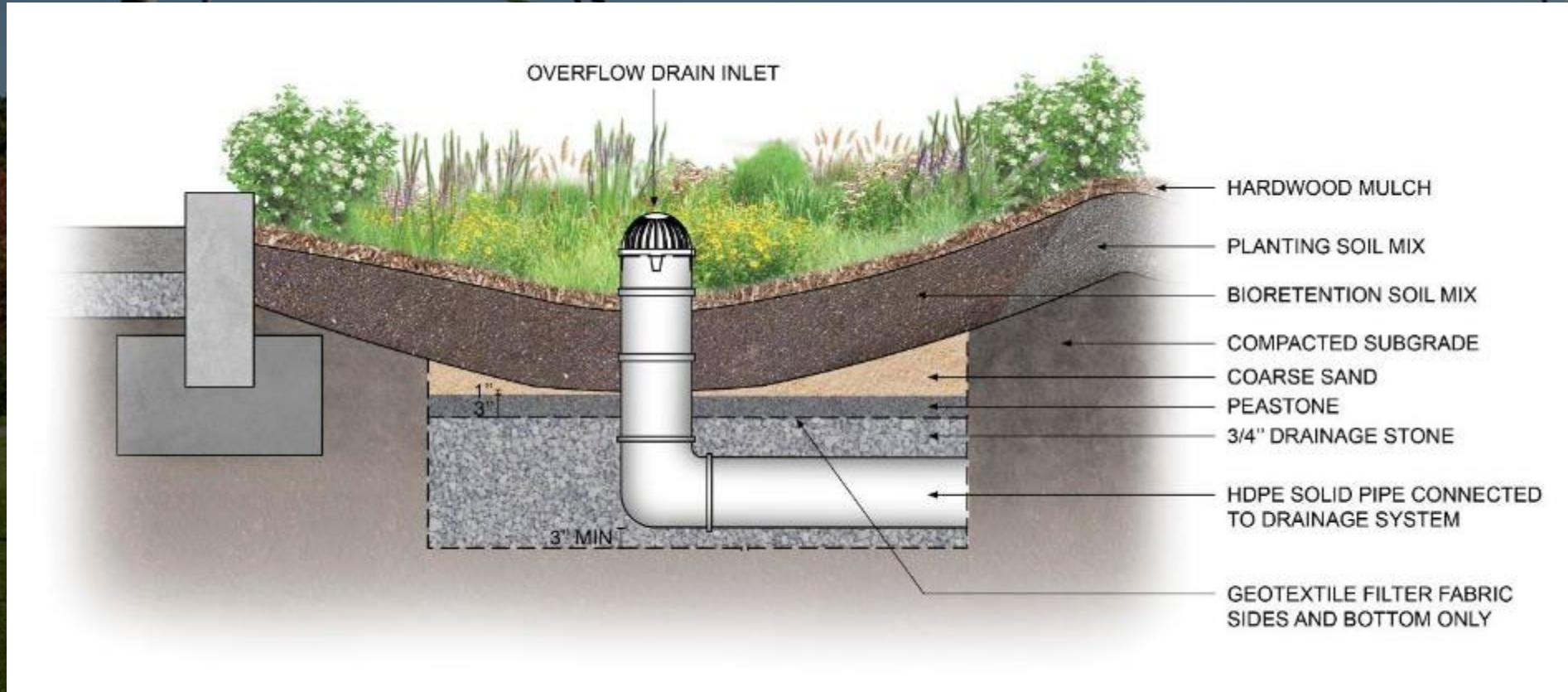
4. Wire Harness

5. Precast Concrete Base

Integrated Lightning Ground System

"Advancements in all aspects of fixture design are critical to achieving the full performance of LED technology."
— U.S. Department of Energy
www.energy.gov/eere/led/led-basics

Sustainable Attributes – Stormwater



Sustainable Attributes – NoMow

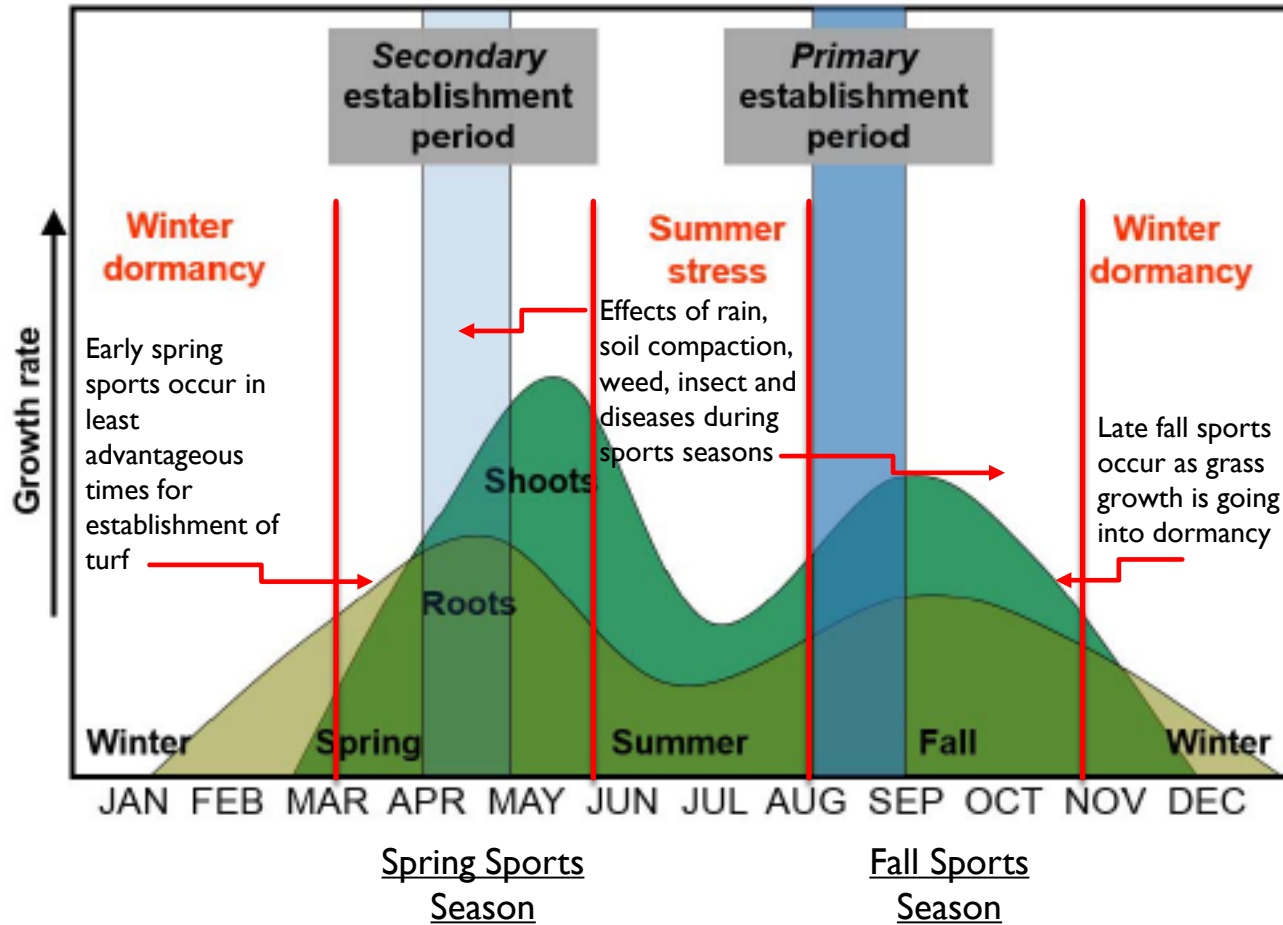


Sustainable Attributes – Field Marking



THE SCIENCE OF NATURAL GRASS IN NEW ENGLAND - SPRING AND FALL SPORTS

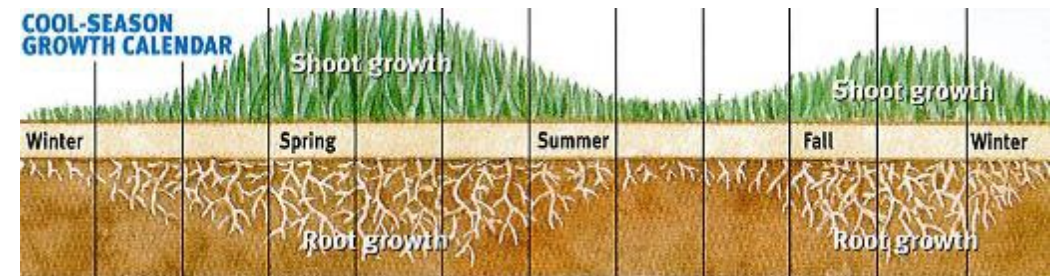
Cool-Season Turf Establishment Periods



Early spring sports occur early in the growth cycle of natural turf and fall sports occur late into the fall growth cycle.

Shoots grow best with 65°-75° air temp

Roots grow best with 55°-65° soil temp



The natural growth cycle of grass turf

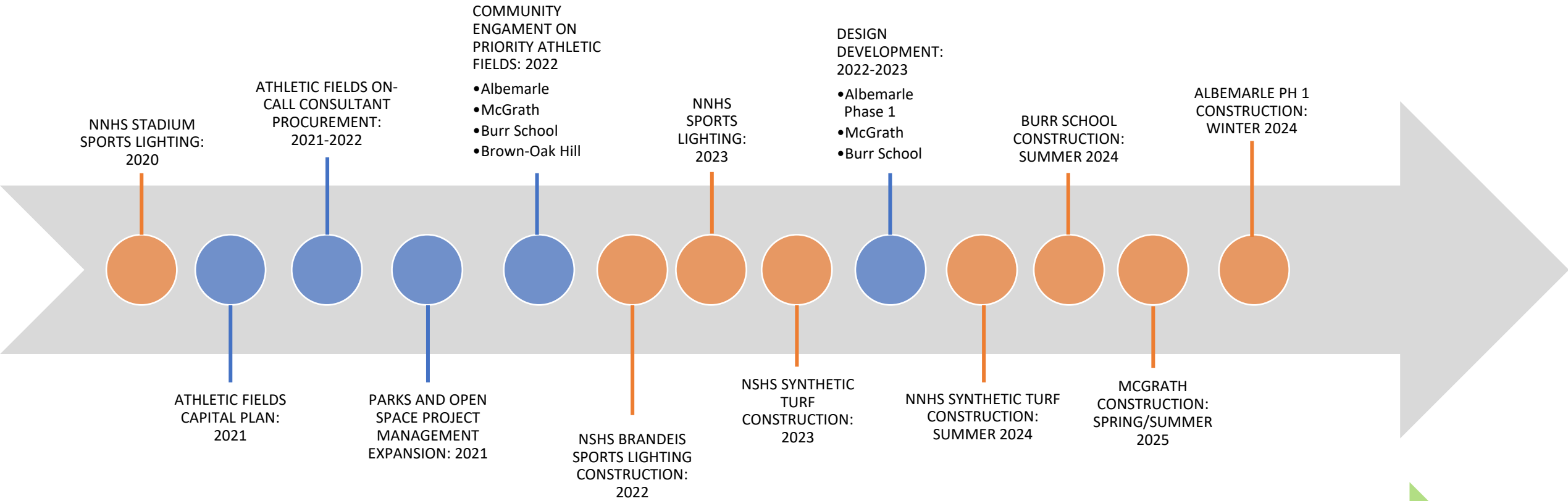
Project Construction Planning Prioritization Criteria

- DEVELOP SCHEDULE BASED ON LIMITING EXTENDED DISRUPTION TO PARK AND FIELD USERS
- SCHEDULE CONSTRUCTION TO ENSURE PROPER GRASS ESTABLISHMENT PERIODS ARE ACCOUNTED FOR
- SCHEDULE CONSTRUCTION TO MINIMIZE SCHEDULING CONFLICTS AMONG SPORTS GROUPS AND OTHER USERS

Newton Parks, Recreation and Culture Department

Athletic Fields Capital Improvement Plan Criteria

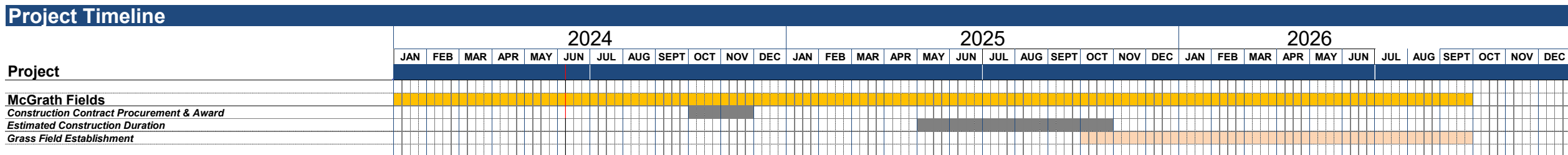
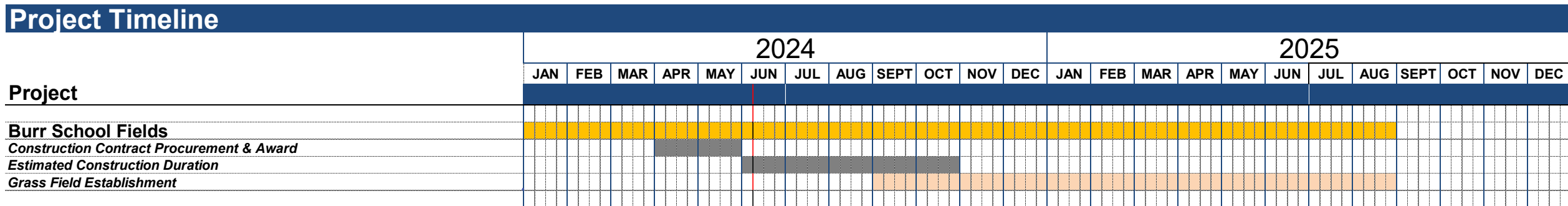
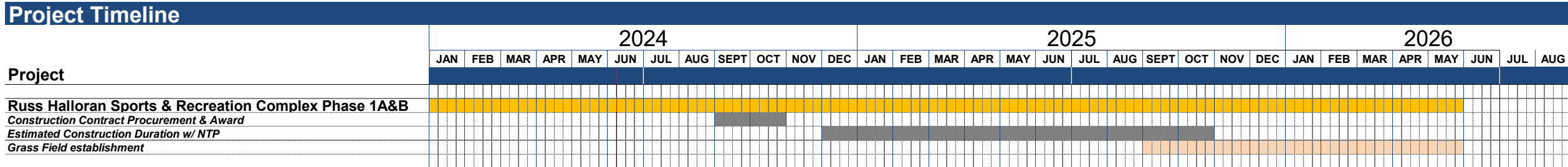
5 YEAR ATHLETIC FIELD PLAN SCHEDULE



Continue Assessment

Continue planning

5 YEAR ATHLETIC FIELD CONSTRUCTION SCHEDULE



Site Furnishing Options



Questions and Discussion

For additional questions and input please contact: athleticfields@newtonma.gov

For Presentation, Chat, recordings and meeting recordings, please go to
www.newtonma.gov/fieldprojects

For Field permit questions, please email: fieldpermits@newtonma.gov