

DANEHY PARK: UNIVERSAL PLAYGROUND



W E L C O M E

PUBLIC MEETING #1

Thursday, October 24, 2019

DANEHY PARK: UNIVERSAL PLAYGROUND

AGENDA

An aerial photograph of Danehy Park in Boston, showing various sports fields, including baseball and softball diamonds, and surrounding urban development. A red outline highlights a central area of the park.

Introductions

Project Overview, Process, and Schedule

Universal Access and Inclusive Design

The Site and Environmental Considerations

Design Process-to-Date

Summary of Meeting Take-Aways

Next Steps

DANEHY PARK: UNIVERSAL PLAYGROUND

INTRODUCTIONS

City of Cambridge Project Manager: Paul Ryder

Focus Group: Members of *your* community!

Design Team: Weston & Sampson
Landscape Architects
Aquatic Designers
Engineers
Architects
Environmental Scientists

DANEHY PARK: UNIVERSAL PLAYGROUND

INTRODUCTIONS

Also on Our Team... (Mitch) Ryerson Design



DANEHY PARK: UNIVERSAL PLAYGROUND

INTRODUCTIONS

In collaboration with...

Cambridge Arts Council Percent-for-Art Program
(developing site-responsive public artwork)

Dominic Killiany



NuVu Studio



DANEHY PARK: UNIVERSAL PLAYGROUND

PROJECT OVERVIEW, PROCESS, AND SCHEDULE



DANEHY PARK: UNIVERSAL PLAYGROUND

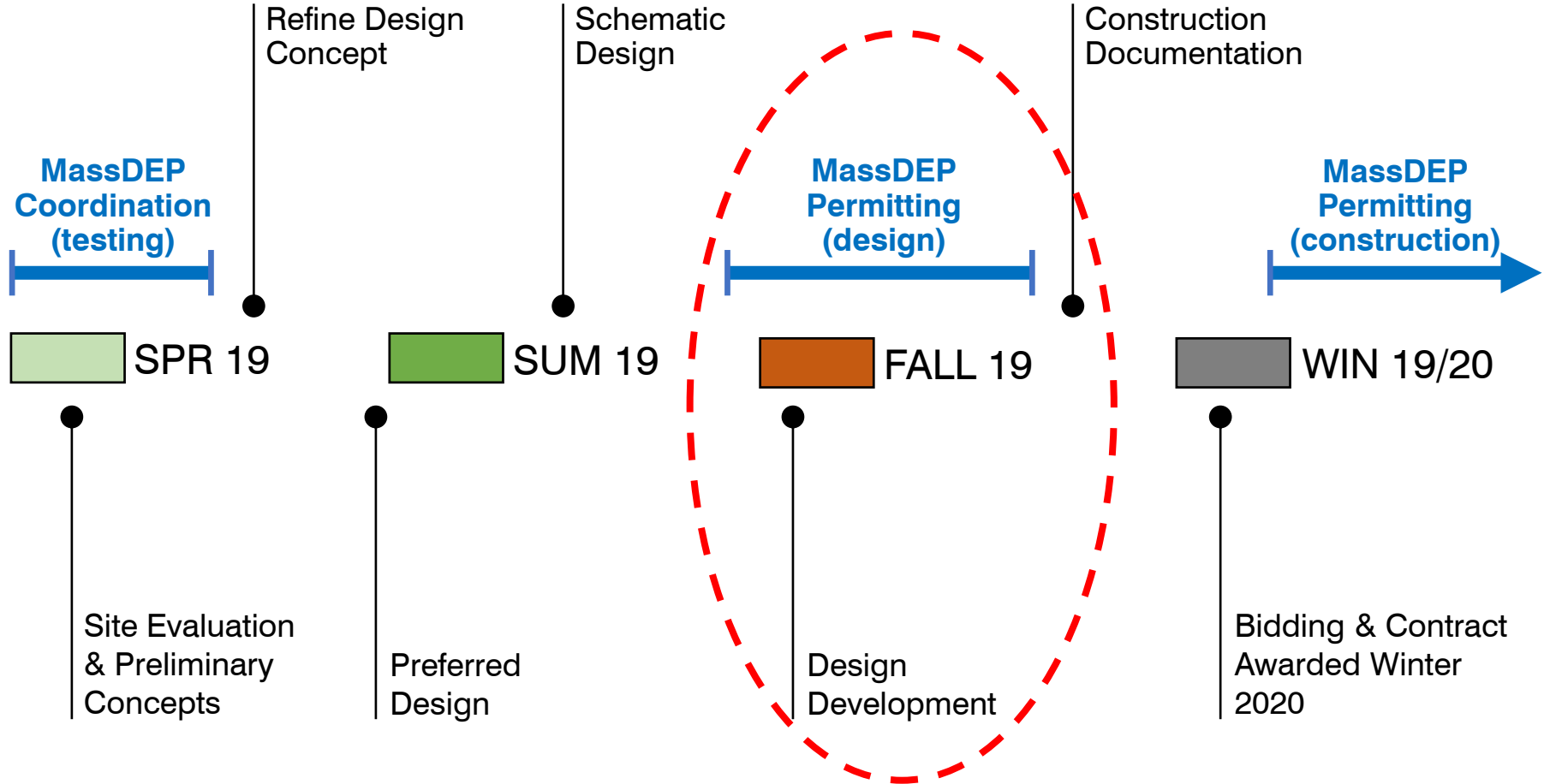
PROJECT OVERVIEW, PROCESS, AND SCHEDULE

Focus Group, Stakeholders, and Community Engagement



DANEHY PARK: UNIVERSAL PLAYGROUND

PROJECT OVERVIEW, PROCESS, AND SCHEDULE



Construction: Spring 2020 – Spring/Summer 2021

DANEHY PARK: UNIVERSAL PLAYGROUND

UNIVERSAL ACCESS AND INCLUSIVE DESIGN

Universal Access and Inclusive Design
is about delivering an outstanding user experience to
as many people as possible.

Design decisions have the potential to include or exclude people.

Understanding user diversity allows us to make informed **design** decisions.

User diversity covers variation in capabilities, needs and aspirations.

DANEHY PARK: UNIVERSAL PLAYGROUND

UNIVERSAL ACCESS AND INCLUSIVE DESIGN

‘Accessibility’ aims to make sure things work for people with clinically recognized disabilities.

‘Universal and Inclusive Design’ aim to make sure things **work for people**, not forgetting those with clinically recognized disabilities.

FIG 3. Age Distribution of Disability in the US Population, 2016

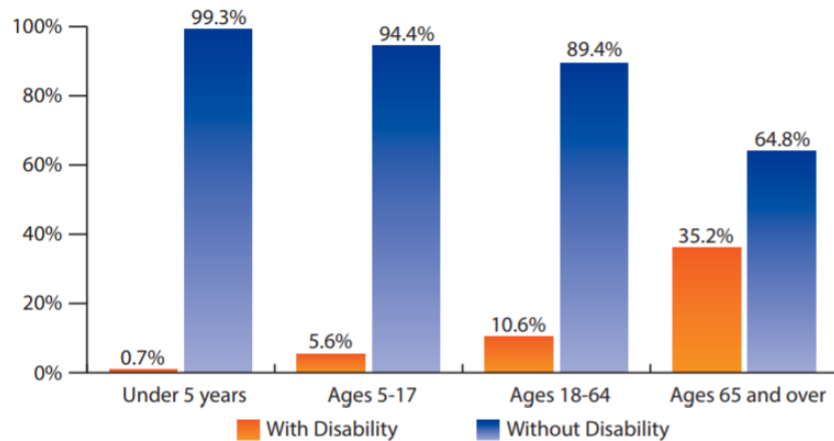
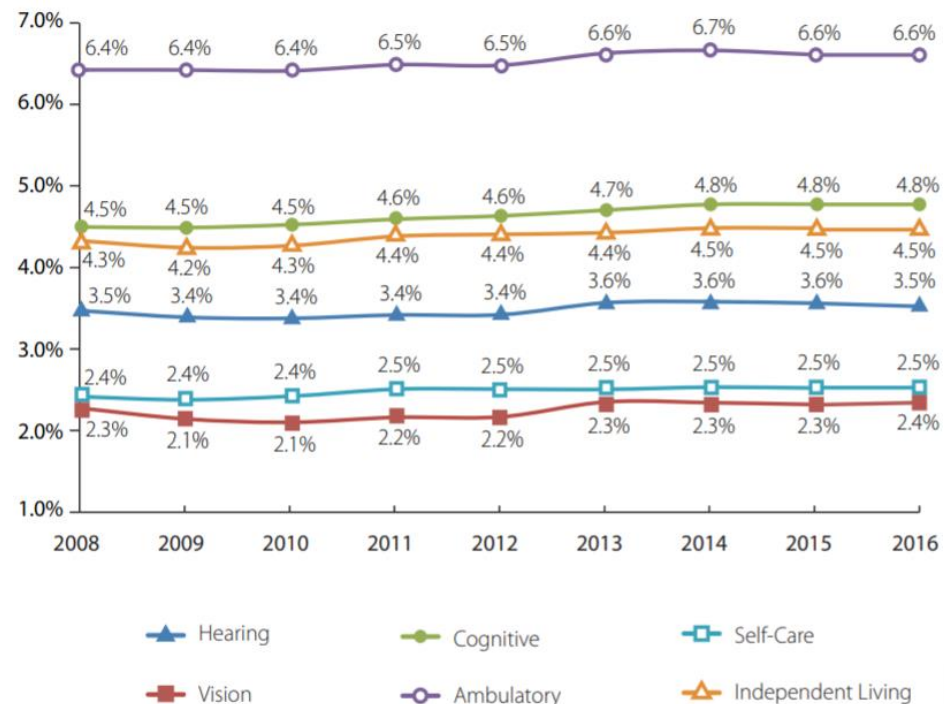


FIG 9. People with Disabilities, by Type and Year, 2008-2016



DANEHY PARK: UNIVERSAL PLAYGROUND

UNIVERSAL ACCESS AND INCLUSIVE DESIGN

Universal Access and Inclusive Design Approach



- Taking into consideration experience of caretakers
- Understanding that sometimes the caretaker is the one with the disability (parent w/ able-bodied child at playground)
- Needs of all users and activities for all ages

DANEHY PARK: UNIVERSAL PLAYGROUND

UNIVERSAL ACCESS AND INCLUSIVE DESIGN

Balancing Universal Access and Inclusive Design with Operations and Maintenance



DANEHY PARK: UNIVERSAL PLAYGROUND

UNIVERSAL ACCESS AND INCLUSIVE DESIGN

In summary, our mission is to: *Design a Welcoming Open Space*



- The process of listening and leading
- Making the place legible and safe through sequencing of experience
- Sight lines
- Prospect and refuge
- Focus on the human experience with flexibility for use and interpretation
- Universal language of play

DANEHY PARK: UNIVERSAL PLAYGROUND

THE SITE AND ENVIRONMENTAL CONSIDERATIONS



- **Summary of Geotechnical Investigations and Findings**
- **Options for Gravel Vent Trench**
- **Review of Environmental Controls**
- **Next Steps**

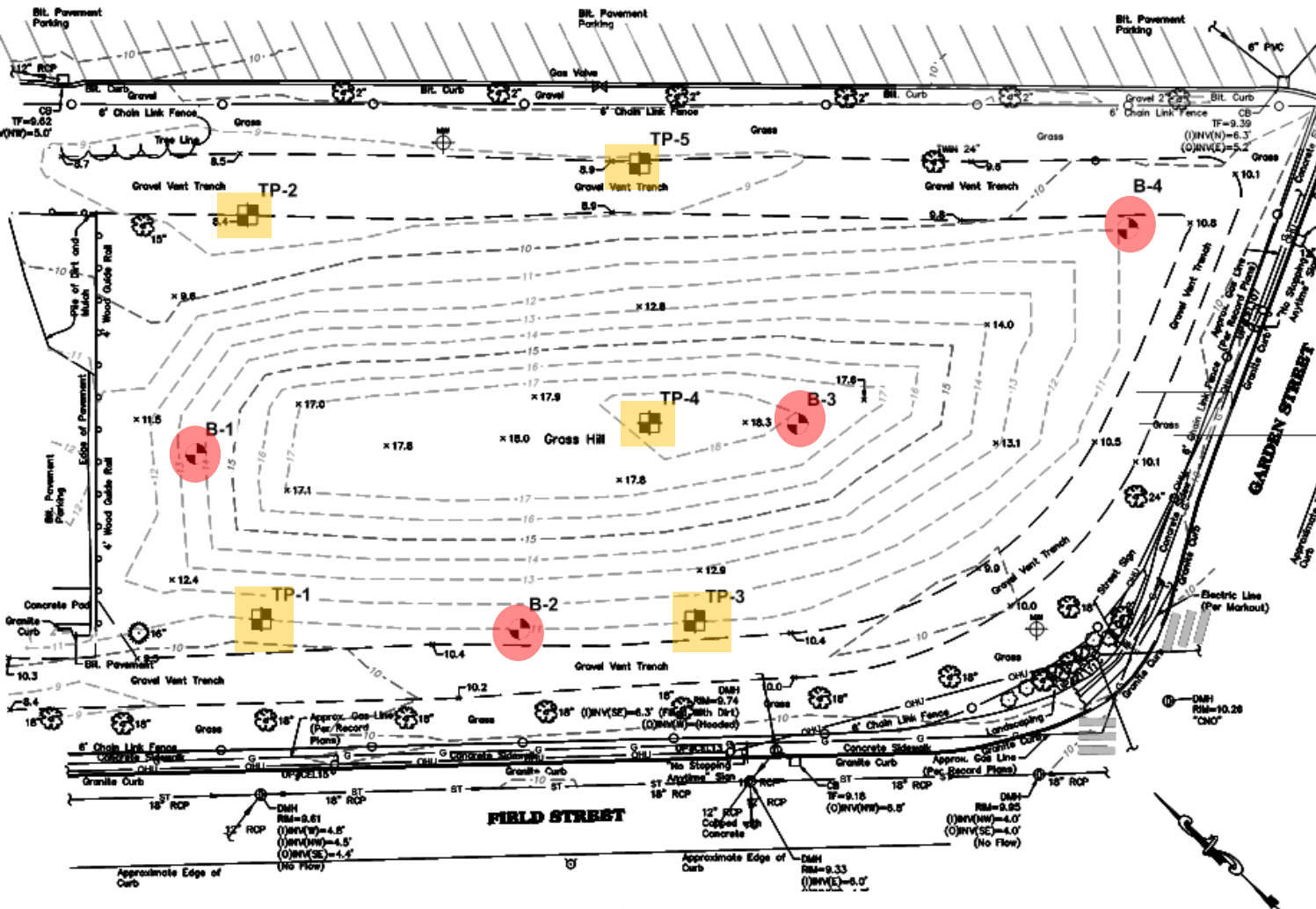
DANEHY PARK: UNIVERSAL PLAYGROUND



Weston & Sampson

SUMMARY OF GEOTECHNICAL INVESTIGATIONS AND FINDINGS

BRISTON ARMS APARTMENTS

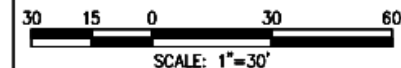


NOTES:

1. THIS DRAWING IS BASED ON AN APRIL 2019 GROUND SURVEY PREPARED BY WESTON & SAMPSON.
2. BORINGS WERE COMPLETED BY NEW ENGLAND BORING CONTRACTORS OF DERRY, NH ON JUNE 7 AND JUNE 10, 2019 AND OBSERVED BY WESTON & SAMPSON.
3. TEST PITS WERE COMPLETED BY NEW ENGLAND BORING CONTRACTORS OF DERRY, NH ON JUNE 7, 2019 AND OBSERVED BY WESTON & SAMPSON.
4. EXPLORATION LOCATIONS SHOWN ARE APPROXIMATE AND BASED ON FIELD MEASUREMENTS RELATIVE TO EXISTING SITE FEATURES.
5. ELEVATIONS REFERENCE THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88).

LEGEND:

- B-1** BORING DESIGNATION AND APPROXIMATE LOCATION.
- TP-1** TEST PIT DESIGNATION AND APPROXIMATE LOCATION.
- ⊕** DESIGNATION AND APPROXIMATE LOCATION OF EXISTING MONITORING WELL INSTALLED BY OTHERS.



**FIGURE 2
SITE PLAN**

UNIVERSAL PLAYGROUND DESIGN
CAMBRIDGE, MASSACHUSETTS

DESIGNED BY: MJZ CHECKED BY: THF DATE: JULY 2019

Weston & Sampson

Completed 4 soil borings and 5 test pits

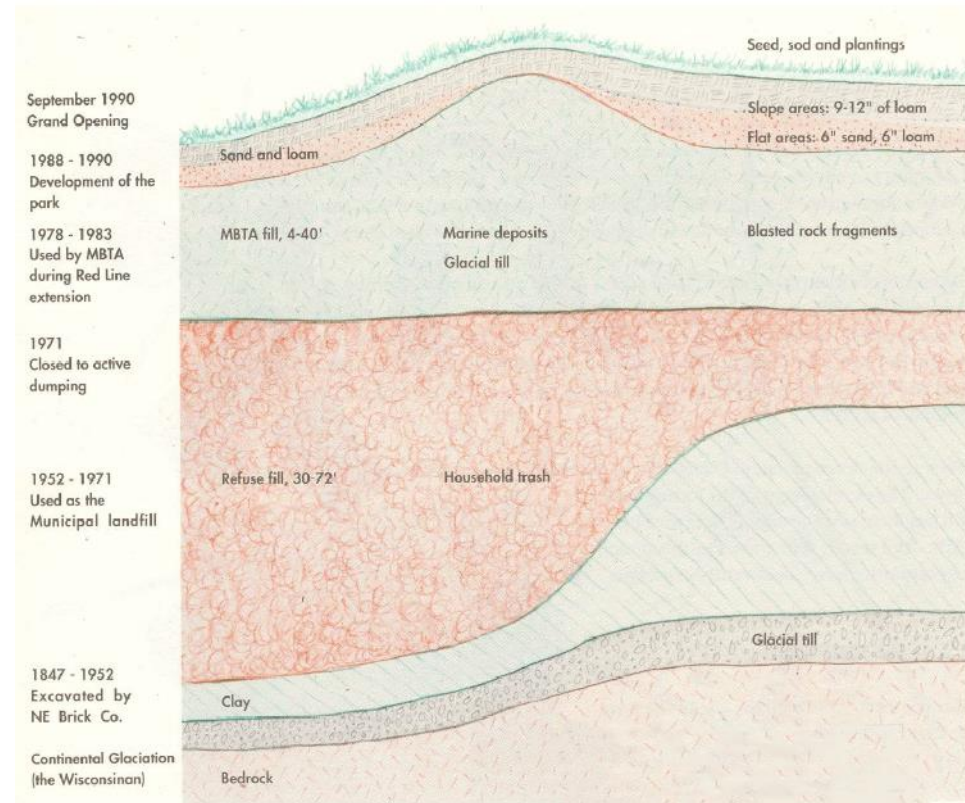
DANEHY PARK: UNIVERSAL PLAYGROUND



SUMMARY OF GEOTECHNICAL INVESTIGATIONS AND FINDINGS

Subsurface conditions generally similar to that described in past reports

- Variable cover thickness: 1.5 ft. to 14 ft.
- Cover fill soils typically sand or silt with gravel and trace to little debris
- Geotechnical recommendations being carried into design:
 - Foundation design depth and type;
 - Loading; and
 - Cover thickness – 2 ft. minimum
- Gravel vent trench found to be silted

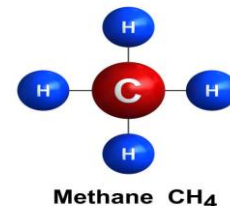
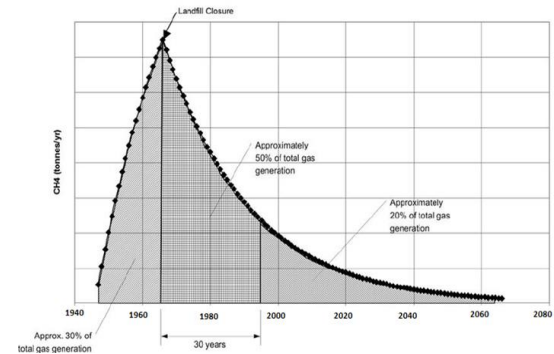


DANEHY PARK: UNIVERSAL PLAYGROUND

SUMMARY OF GEOTECHNICAL INVESTIGATIONS AND FINDINGS

Landfill Gas Management

- **Methane (CH₄) colorless, odorless, tasteless, flammable gas, widely distributed in nature; natural gas, landfill gas.**
 - Lower Explosive Limit (LEL) for Methane is **5% in air**
 - Required to report to DEP under Municipal Solid Waste Regulations if the conc. is 25% of LEL (1.25% in air)
 - This has not occurred since Dec 2012 in a single catch basin (CB-6) – ventilation was found to be impeded, immediately fixed
- **Methane is toxic at concentrations much higher than the LEL – 60 to 70% in air**
 - Asphyxiant when allowed to accumulate in an enclosed space
 - Headache, nausea and vomiting at levels that cause asphyxia
- **Concentrations at Danehy Park are generally below the LEL and well below a level that would pose a health risk**
 - Majority of monitoring wells at 0.0%
 - Catch basins, hydrants, probes at 0.0%

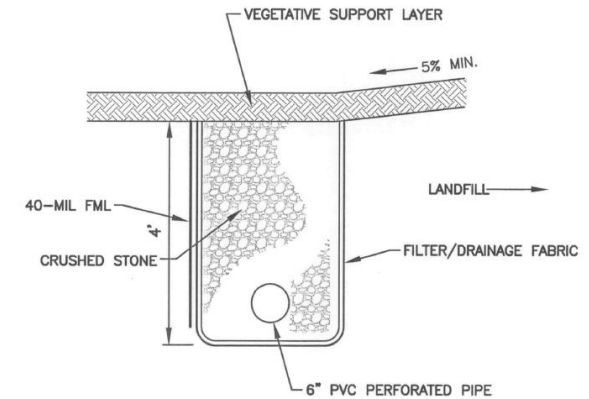


Weston & Sampson

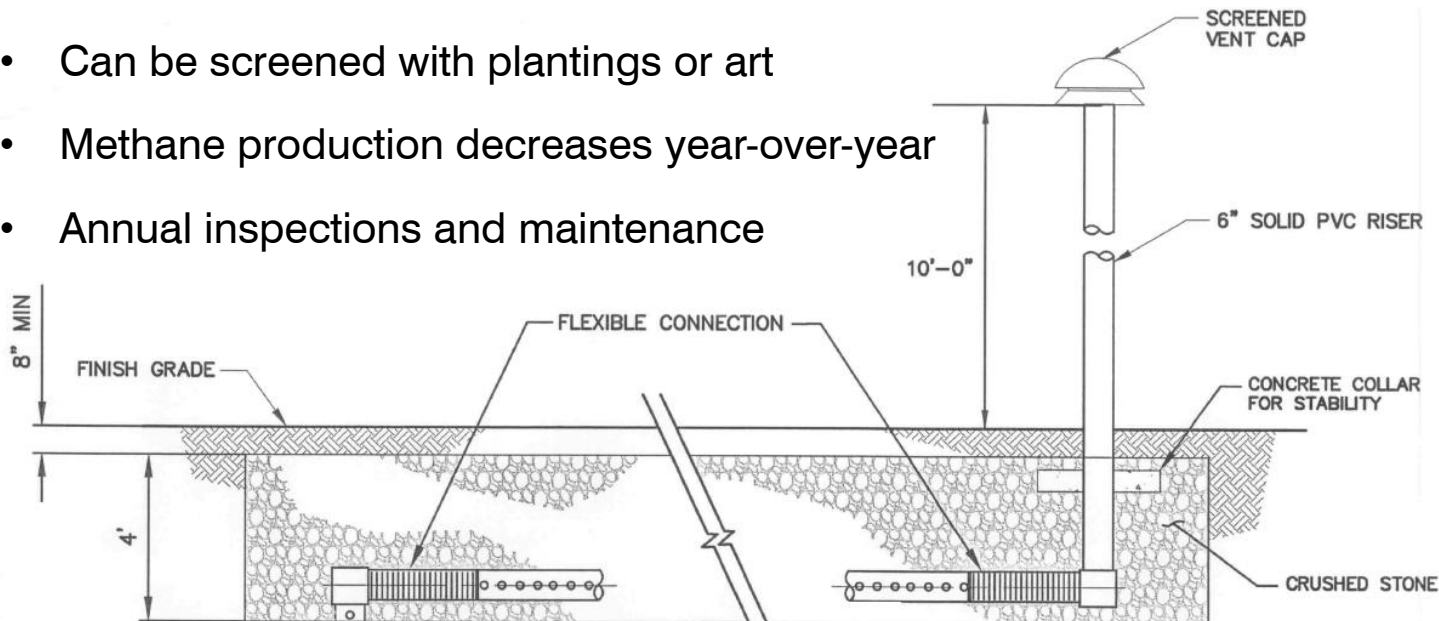
DANEHY PARK: UNIVERSAL PLAYGROUND

REROUTING GAS COLLECTED FROM GRAVEL VENT TRENCH

- Existing trench vents to be piped to collect and vent landfill gas and allow for expanded playground footprint
- Perforated lateral collection pipes placed in trench to direct gas to vertical above-grade pipe vents
 - Use clean stone wrapped in filter fabric to prevent silting
- Gases vented to atmosphere at minimum of 10 feet above ground surface
 - Can be screened with plantings or art
 - Methane production decreases year-over-year
 - Annual inspections and maintenance



SHALLOW COLLECTION TRENCH – SECTION
N.T.S.



SHALLOW COLLECTION TRENCH – ELEVATION



Source: KMDG Kendall

DANEHY PARK: UNIVERSAL PLAYGROUND

ENVIRONMENTAL CONTROLS DURING CONSTRUCTION

Management & Monitoring of:

- Surplus Soils
- Dewatering Fluids
- Ambient Air
- Dust



DANEHY PARK: UNIVERSAL PLAYGROUND

ENVIRONMENTAL CONTROLS DURING CONSTRUCTION (cont.)



- **Odor Controls as needed:**
 - Active misting or
 - Spray application of foams (non-PFAS containing)
- **MassDEP permitting and coordination for landfill re-use**
- **Proper soil and/or waste management for surplus materials**



Source: Rusmar, Inc.



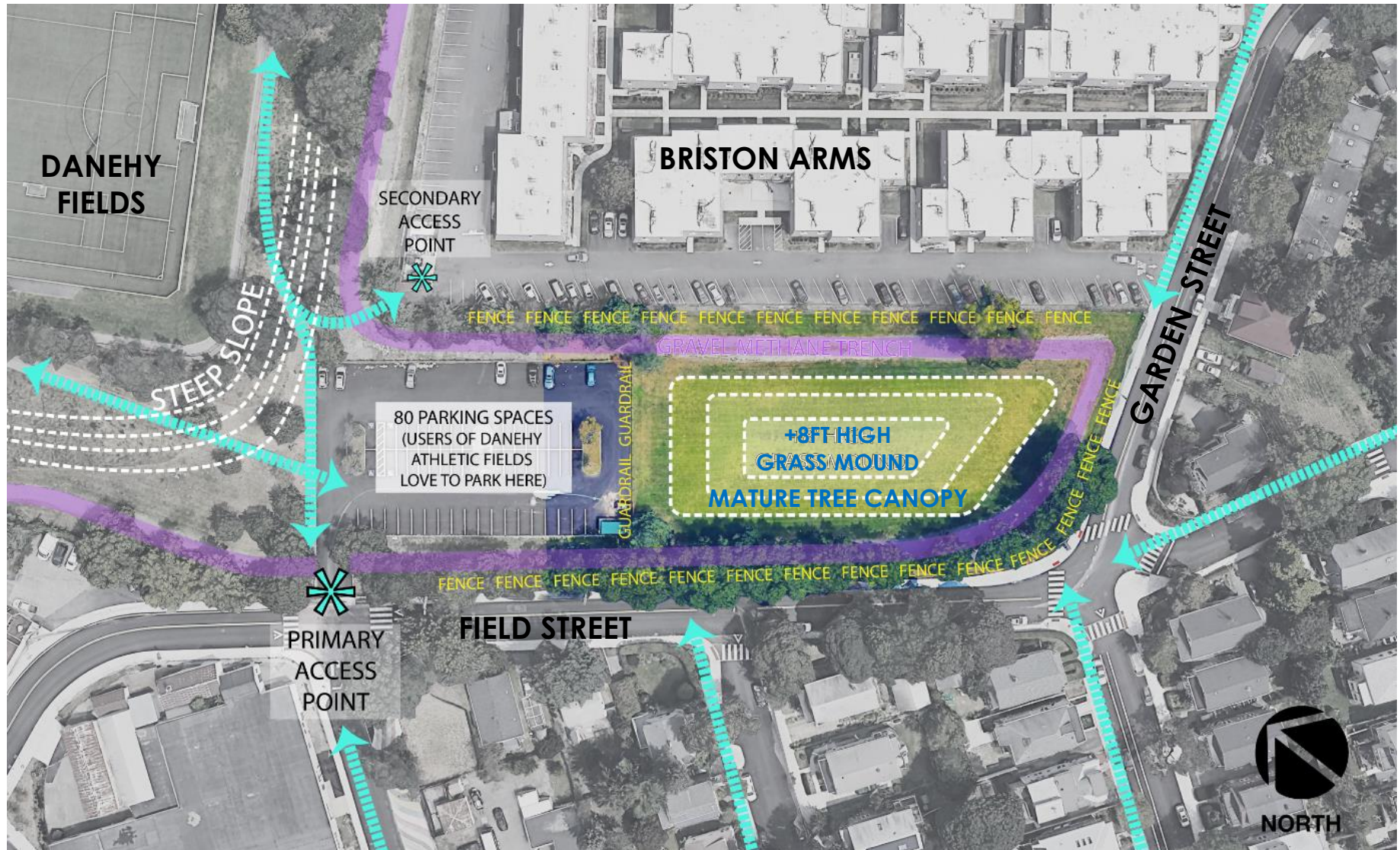
Source: OdorBoss, Inc.

DANEHY PARK: UNIVERSAL PLAYGROUND



Weston & Sampson

DESIGN INFLUENCES: OVERVIEW OF SITE ANALYSIS



DANEHY PARK: UNIVERSAL PLAYGROUND

DESIGN INFLUENCES: OVERVIEW OF SITE ANALYSIS



Weston & Sampson



VIEW FROM FIELD STREET

DANEHY PARK: UNIVERSAL PLAYGROUND



DESIGN INFLUENCES: PROGRAM PRIORITIES

- Concerned about sounds & security with abutters
- Desire a water feature / splash pad
- Connections for abutters
- Play areas for younger kids that are gated / fenced
- Tables and furnishings
- Areas of refuge / quiet
- Maybe sand, rocks, etc., but very separate from main play
- Enough space at elements for caregivers
- Music / sound components
- Green space with grass, trees, and shrubs
- Consider in-ground trampolines
- Shade structures



DANEHY PARK: UNIVERSAL PLAYGROUND

DESIGN INFLUENCES: PROGRAM PRECEDENT IMAGES



Weston & Sampson



PERIMETER



LANDFORM



SENSORY



PASSIVE AREA

(PLAY/GATHERING/REFUGE & SOCIAL)



ACTIVE AREA



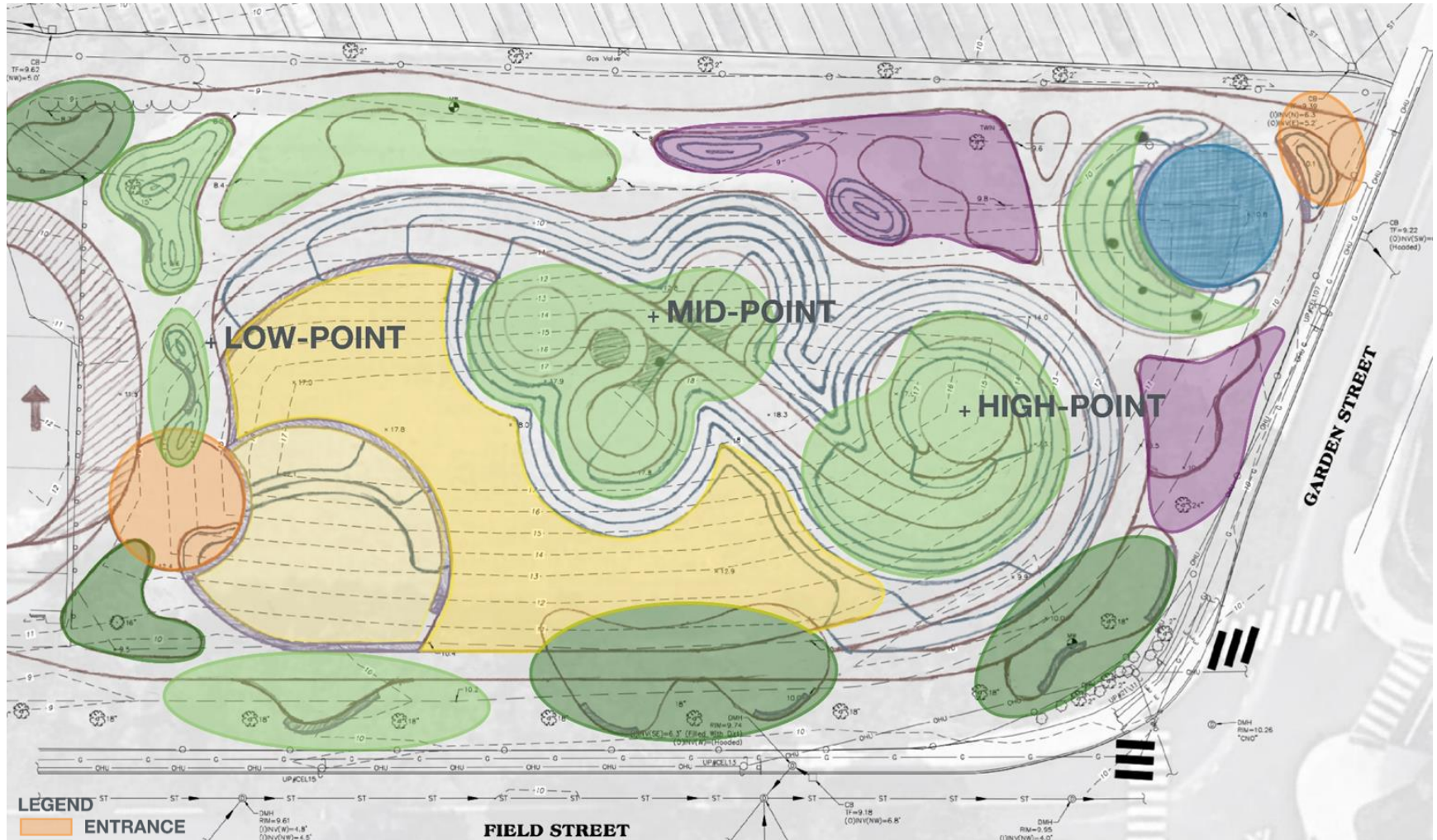
WATER PLAY

DANEHY PARK: UNIVERSAL PLAYGROUND



Weston & Sampson

PROGRAM CONCEPT: "Meandering"



LEGEND

- ENTRANCE
- PASSIVE/SITTING
- REFUGE
- 2-5 PLAY AREA
- 5-12 PLAY AREA
- WATER PLAY
- SENSORY/NATURE PLAY

DANEHY PARK: UNIVERSAL PLAYGROUND



Weston & Sampson

CONCEPT DESIGN: "Meandering"



LEGEND

- ENTRANCE
- PASSIVE/SITTING
- REFUGE
- 2-5 PLAY AREA
- 5-12 PLAY AREA
- WATER PLAY
- SENSORY/NATURE PLAY

DANEHY PARK: UNIVERSAL PLAYGROUND



Weston & Sampson

SUMMARY OF MEETING TAKE-AWAYS + NEXT STEPS

TAKE AWAYS

-

NEXT STEPS

- Next Focus Group Meeting #5 – November
- Next Public Meeting

THANK YOU!