

1700 ASYLUM AVENUE WEST HARTFORD, CT

Inland Wetlands and Watercourse Agency

December 13, 2023



ALTER & PEARSON, LLC
ATTORNEYS AT LAW



Architecture
Engineering
Environmental
Land Surveying



MINNO WASKO NEWMAN
ARCHITECTS AND PLANNERS



Overall Site Plan (both sites)



1700 - Reduced Impervious Site Plan



Improvements

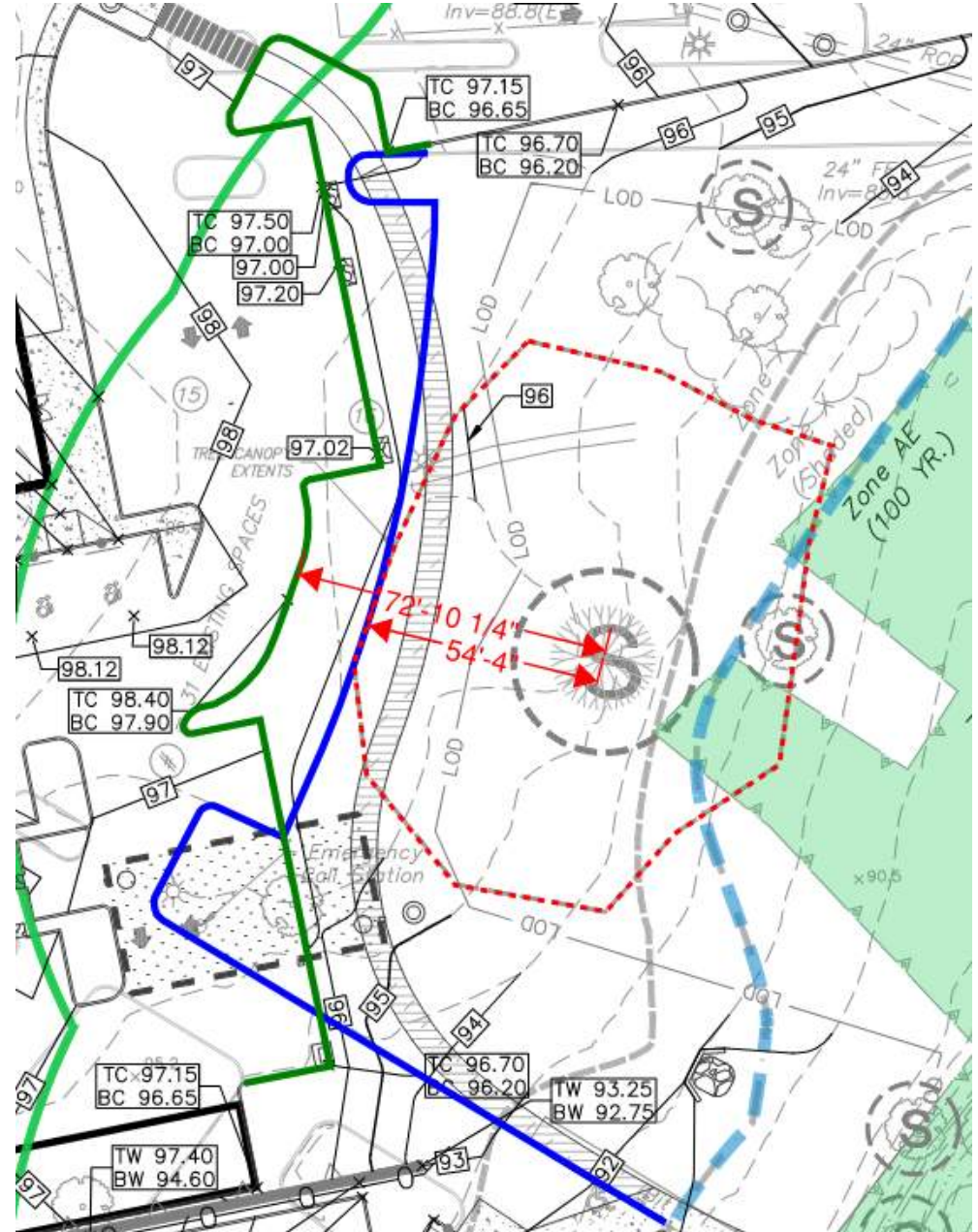
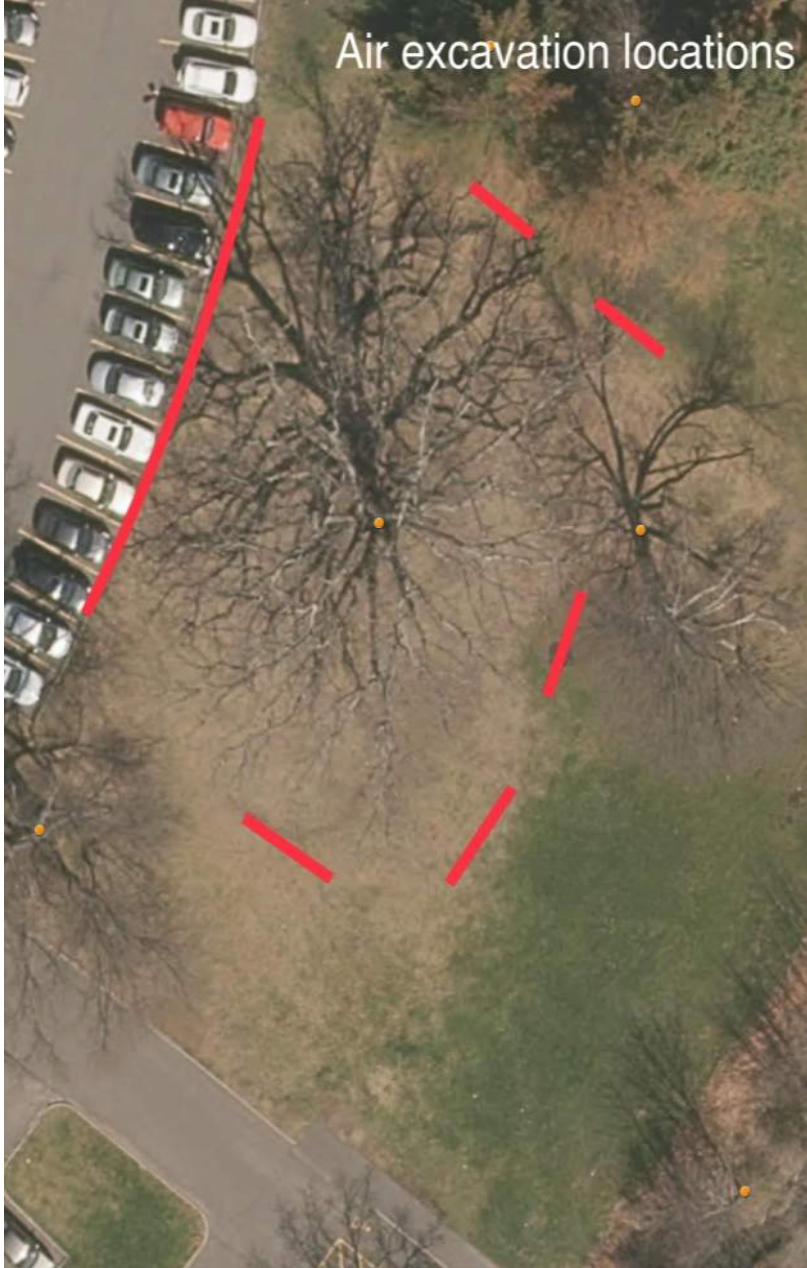
- » Impervious Area Within URA Reduced 1.3% Below Existing Conditions
- » Created 5-7' additional buffer to Wetland/St Joseph Brook (pulled in from existing curb lines)
- » Increase in Buffer Enhancement (9,180 sf)
- » Reduced Driveway Aisles from 24' to 22'
- » Revised Two Way Aisle To One Way Aisle (Baseball)
- » Revised 21 Parking Spaces To Pervious Asphalt (Baseball)
- » Eliminated 11 Parking Spaces (2 Baseball, 9 Residential)
- » Converted Sidewalk to Boardwalk (adjacent to Champion White Oak)

1700 – Development Overlay (Existing vs Proposed)

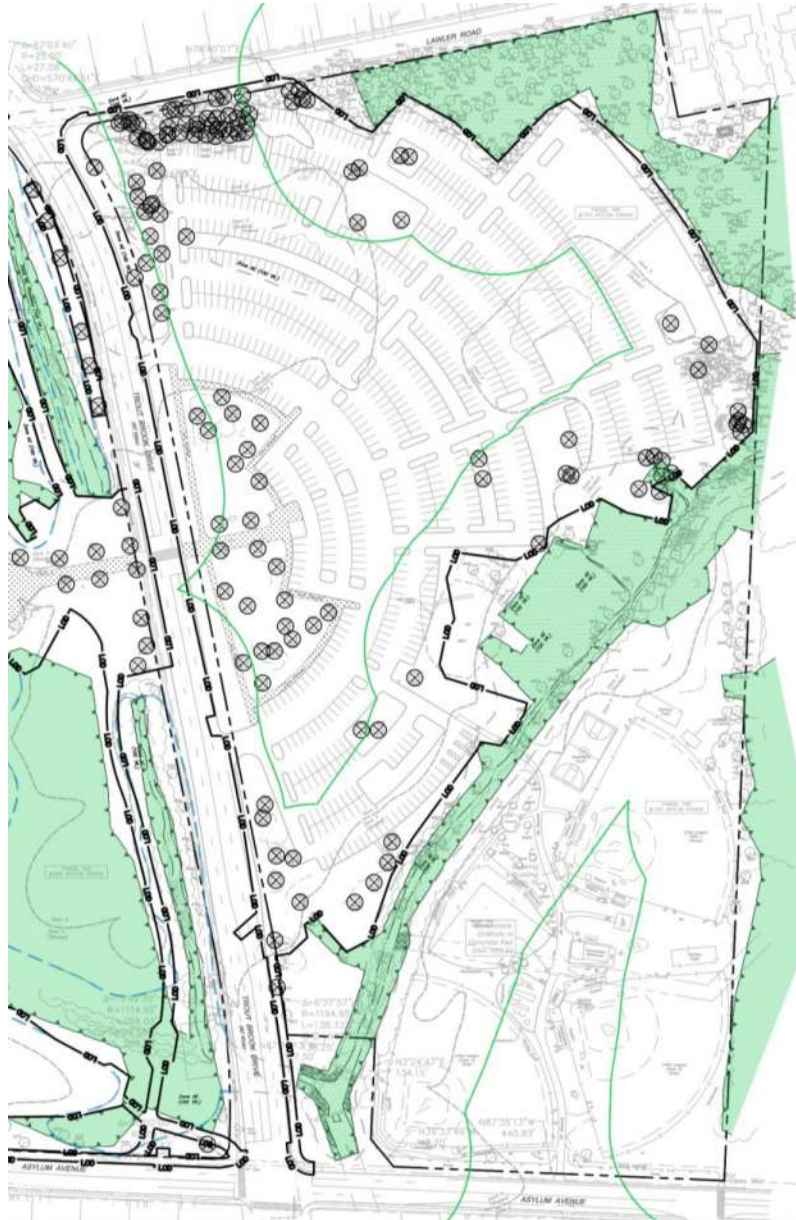


1700 - Champion White Oak

Air excavation locations



1700 – Tree (Removal vs Planting)



	<u>1700</u>
Existing Trees	517
To be Demo'd	-133
Existing in URA	209
Existing in Wetland	227
To be Demo'd in URA	-59
To be Demo'd in Wetland	-2
Existing Poor	59
Existing Dead	30
Poor to be Demo'd	-19
Dead to be Demo'd	-13
Proposed Landscaping in URA	+81
Proposed Wetland Mitigation in URA	+248
Total Proposed Trees in URA	+329
Proposed Landscaping Total	+174
Proposed Wetland Mitigation Total	+248
Total Proposed Trees on Site	+422
Total Change in Trees on Site in URA	+388
Total Change in Trees on Site	+555
Total Tree On Site Post-Development	939

1700 - Landscape Plan

PLANT SCHEDULE						
SYMBOL	CODE	QTY	BOTANICAL NAME	COMMON NAME	SIZE	CONTAINER
DECIDUOUS TREES						
	AF	47	ACER RUBRUM 'FRANK JR.'	REDPOINTE®MAPLE	4.5" CAL.	B&B
	BN	15	BETULA NIGRA	RIVER BIRCH MULTI-TRUNK	10'-12' HT.	B&B
	NH	13	NYSSA SYLVATICA HAPPY DAYS	HAPPY DAYS NYSSA	2.5"-3" CAL.	B&B
	QA	13	QUERCUS ALBA	WHITE OAK	4.5" CAL.	B&B
	UA	38	ULMUS AMERICANA 'PRINCETON'	PRINCETON AMERICAN ELM	2.5"-3" CAL.	B&B
EVERGREEN TREES						
	TO	35	THUJA OCCIDENTALIS 'NIGRA'	BLACK ARBORVITAE	8'-10' HT.	B&B
FLOWERING TREES						
	CF	4	CORNUS FLORIDA	FLOWERING DOGWOOD	2"-2.5" CAL.	B&B
	CP	9	CORNUS FLORIDA 'CHEROKEE PRINCESS'	CHEROKEE PRINCESS DOGWOOD	2"-2.5" CAL.	B&B
SHRUBS						
	CL	103	CLETHRA ALNIFOLIA 'HUMMINGBIRD'	HUMMINGBIRD SUMMERSWEET	3 GAL.	CONT.
	CB	94	CORNUS ALBA 'BAILHALG'	IVORY HALD®TATARIAN DOGWOOD	3 GAL.	CONT.
	CSF	20	CORNUS SERICEA 'YARROW'	ARCTIC FIRE®RED TWIG DOGWOOD	3 GAL.	CONT.
	FG	39	FOTHERGILLA GARDENII 'MT. AIRY'	MT. AIRY DWARF WITCHALDER	3 GAL.	CONT.
	HQ	10	HYDRANGEA QUERCIFOLIA 'PEE WEE'	PEE WEE OAKLEAF HYDRANGEA	3 GAL.	CONT.
	IG	157	ILEX GLABRA 'SHAMROCK'	SHAMROCK INKBERY HOLLY	3 GAL.	CONT.
	PJ	32	PIERIS JAPONICA 'COMPACTA'	COMPACT JAPANESE PIERIS	3 GAL.	CONT.
	RE	9	RHODODENDRON X 'ENGLISH ROSEUM'	ENGLISH ROSEUM RHODODENDRON	5 GAL.	CONT.
	RA	107	RHUS AROMATICA 'GRO-LOW'	GRO-LOW FRAGRANT SUMAC	3 GAL.	CONT.
	TM	100	TAXUS X MEDIA 'DENSIFORMIS'	DENSE ANGLØ-JAPANESE YEW	3 GAL.	CONT.
GRASSES						
	PV	295	PANICUM VIRGATUM 'HEAVY METAL'	HEAVY METAL SWITCH GRASS	3 GAL.	CONT.
	PB	66	PENNISETUM ALOPECUROIDES 'LITTLE BUNNY'	LITTLE BUNNY FOUNTAIN GRASS	1 GAL.	CONT.
	SS	47	SCHIZACHYRIUM SCOPARIUM	LITTLE BLUESTEM	3 GAL.	CONT.
GRASSES						
	SH	1,292	SPOROBOLUS HETEROLEPIS	PRAIRIE DROPSEED	1 GAL.	CONT.
PERENNIALS						
	AL	95	ACHILLEA MILLEFOLIUM	COMMON YARROW	1 GAL.	CONT.
	AE	288	ALLIUM CERNUUM	NODDING ONION	1 GAL.	CONT.
	HH	130	HEMEROCALLIS X 'HAPPY RETURNS'	HAPPY RETURNS DAYLILY	1 GAL.	CONT.
	MF	261	MONARDA FISTULOSA	BERGAMOT	1 GAL.	CONT.
	NF	60	NEPETA X 'WALKER'S LOW'	WALKER'S LOW CATMINT	1 GAL.	CONT.
	SA	36	SEDUM X 'AUTUMN JOY'	AUTUMN JOY SEDUM	1 GAL.	CONT.
GROUND COVERS						
	JH	249	JUNIPERUS HORIZONTALIS	CREeping JUNIPER	3 GAL.	CONT.
	MD	26	MICROBIOTA DECUSSATA	SIBERIAN CARPET CYPRESS	3 GAL.	CONT.



1700 – Existing Conditions/Values



WETLAND FUNCTION EVALUATION

Trout Brook, St. Joseph's Brook & Wetland 6

Key Facts: The banks of these perennial watercourses have been extensively disturbed and armored and contain minimal bordering wetland soils. Impaired water quality due to significant stormwater inputs in the urbanized watershed.

- Flood flow alteration
- Local habituated wildlife habitat
- Sediment and toxicant removal

1700 – Existing Condition Photos

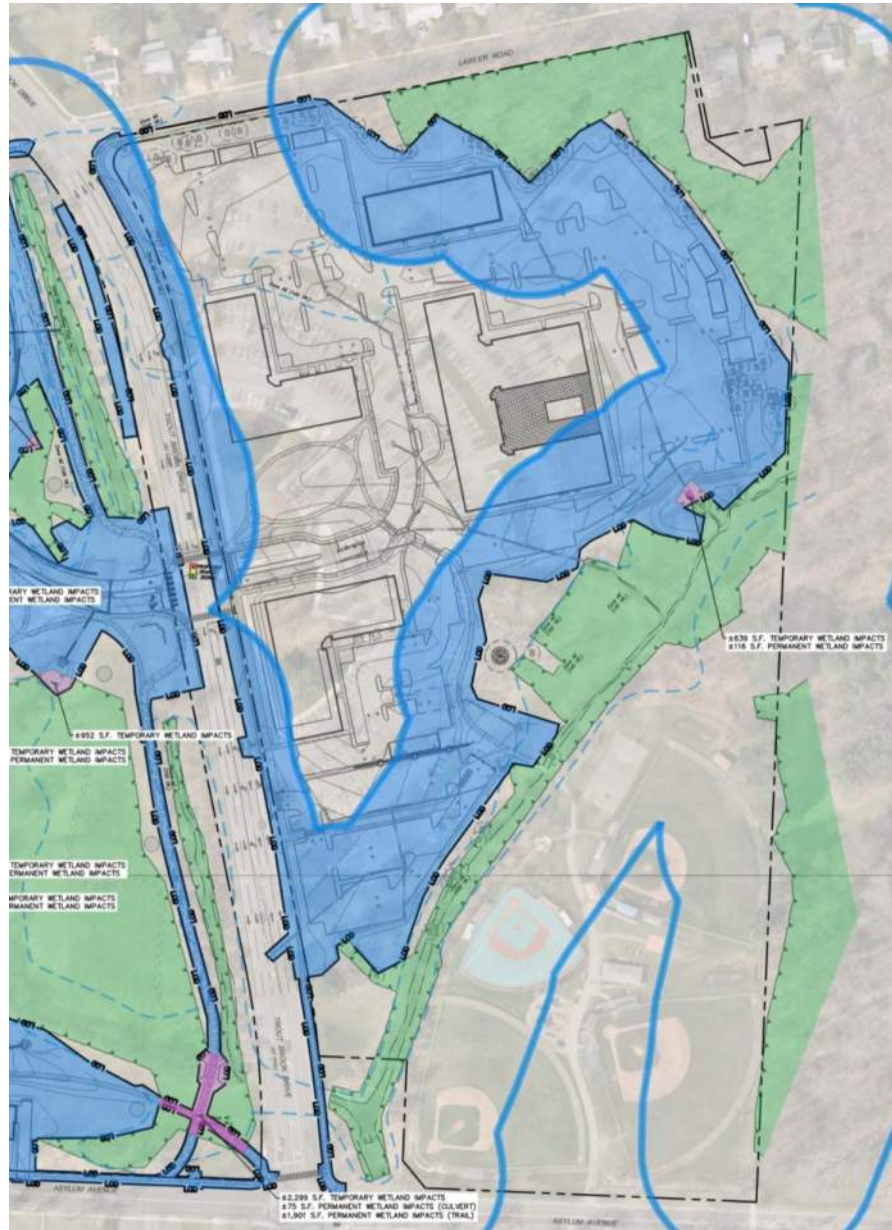


St. Joseph's Brook Armoring At Ball Field Culvert



St. Joseph's Brook Concrete Weir

1700 - Wetlands & URA: Direct Wetland Impacts



- » **BLUE** - UPLAND REVIEW AREA
- » **GREEN** - WETLANDS
- » **PINK** - TEMPORARY AND PERMANENT IMPACTS
 - TEMPORARY - 639 SF
 - PERMANENT - 116 SF
- » DIRECT WETLAND IMPACTS ASSOCIATED WITH UPGRADE AND REPLACEMENT OF EXISTING STORMWATER OUTLET



1700 - Direct Wetland Impacts - Outlet Replacement



1700 – Wetland Mitigation Plan Summary

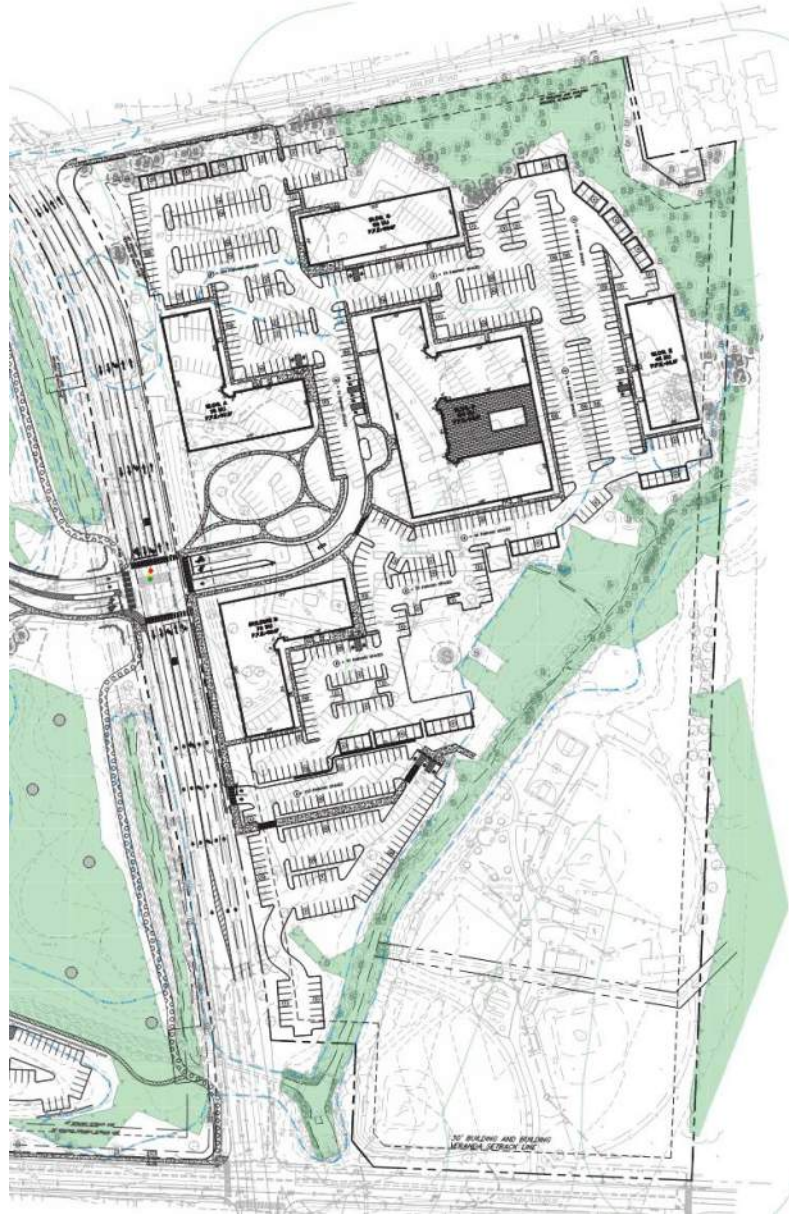
Wetland ID Association	Area of Wetland Mitigation (SF)	Mitigation Type	Description
1700 Asylum Avenue			
St. Joseph's Brook	6,390	Creation Area	expands Wetland 6 bordering St. Joseph's Brook
St. Joseph's Brook	59,100	Riparian Enhancement Area	remove woody invasives; plant native shrubs and seed mix to improve riparian corridor functions
St. Joseph's Brook	87,230	Buffer Enhancement Area	convert maintained lawn along west bank of brook to naturally vegetated buffer areas with native trees, shrubs, and meadow habitats
Total	<u>152,720</u>		wetland mitigation program provides significant compensation for <u>116 SF</u> of direct permanent wetland impact mitigation/direct impact ratio: <u>55:1</u> with enhancement areas: <u>564:1</u> (ratios excludes Buffer Enhancement Area)

Prudent and Feasible Alternatives

Original Plan

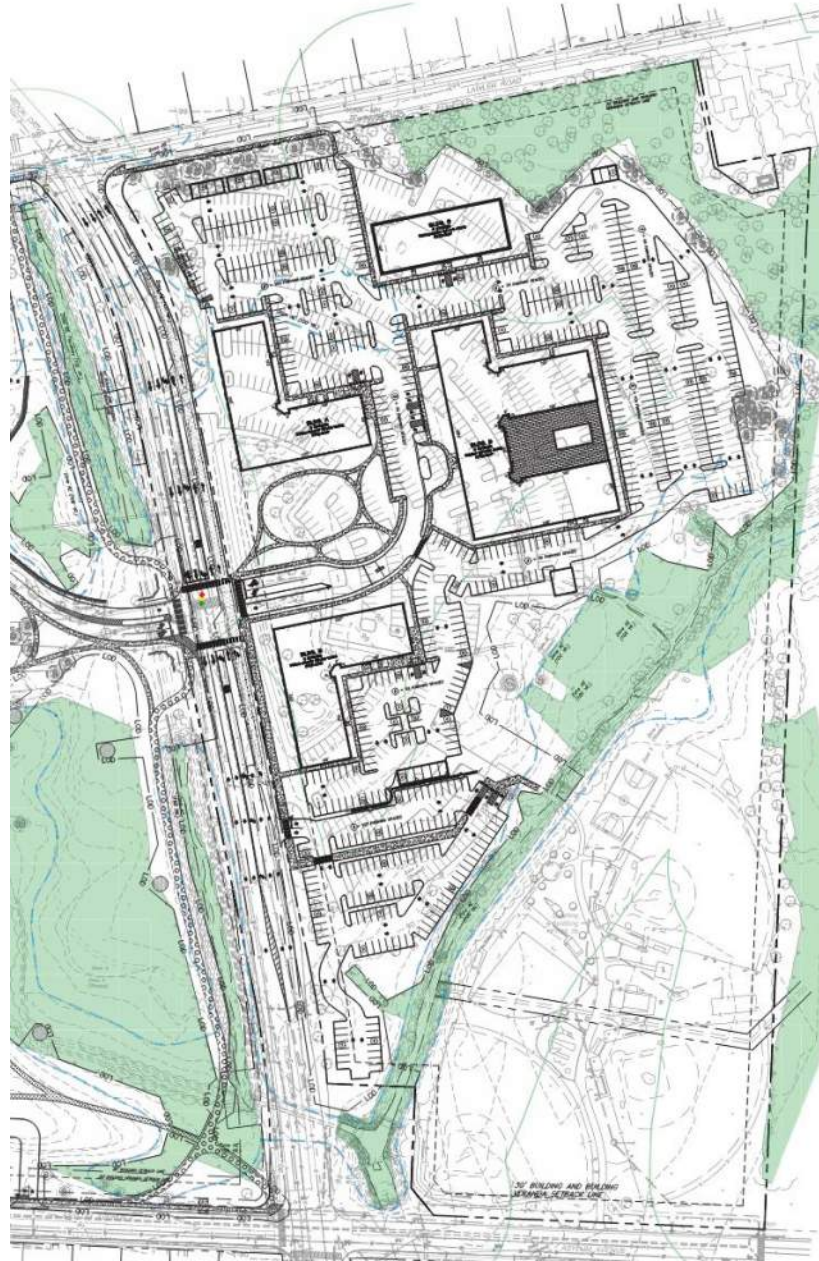


Prudent and Feasible Alternatives



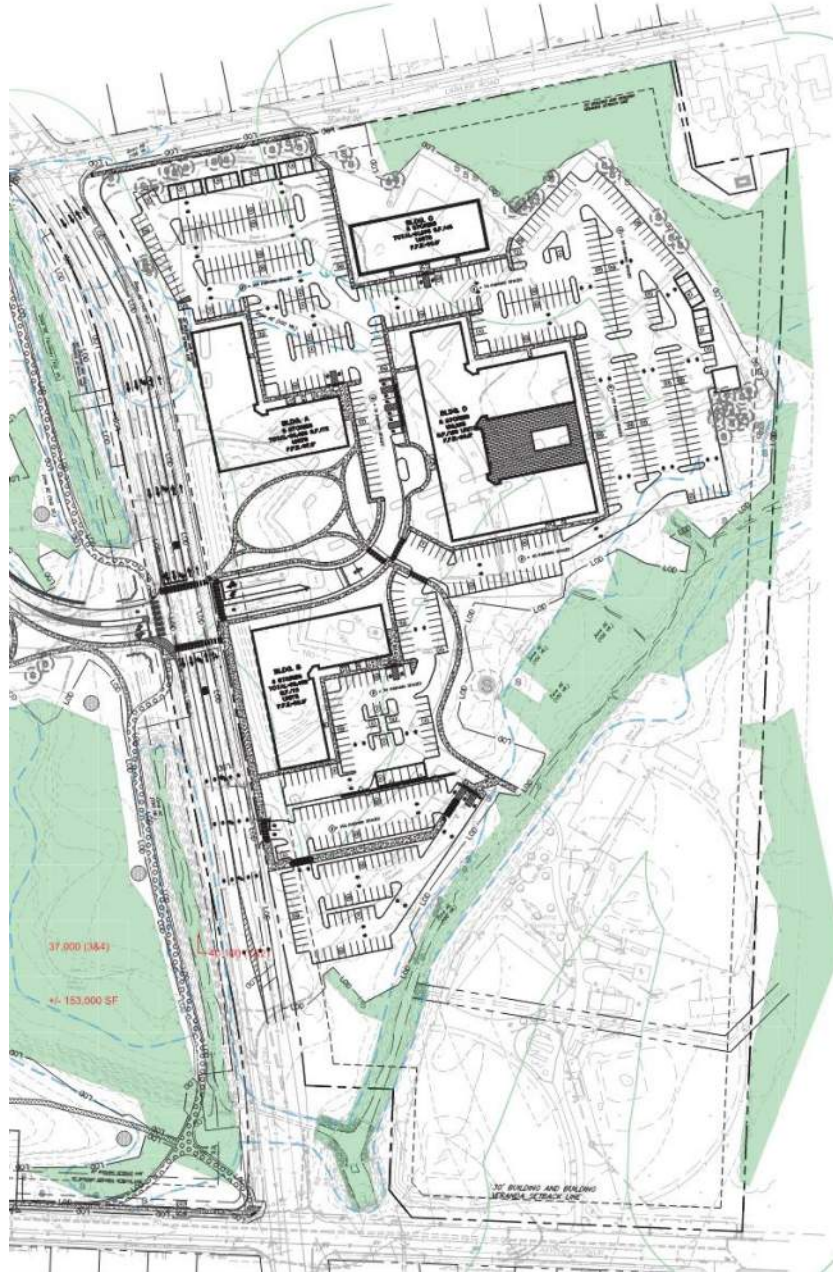
- Loss of 1 Building
- Loss of Driveway to Trout Brook
- Reconfiguration of Parking

Prudent and Feasible Alternatives



- Loss of Another Building (2 total)
- Loss of Parking

Prudent and Feasible Alternatives

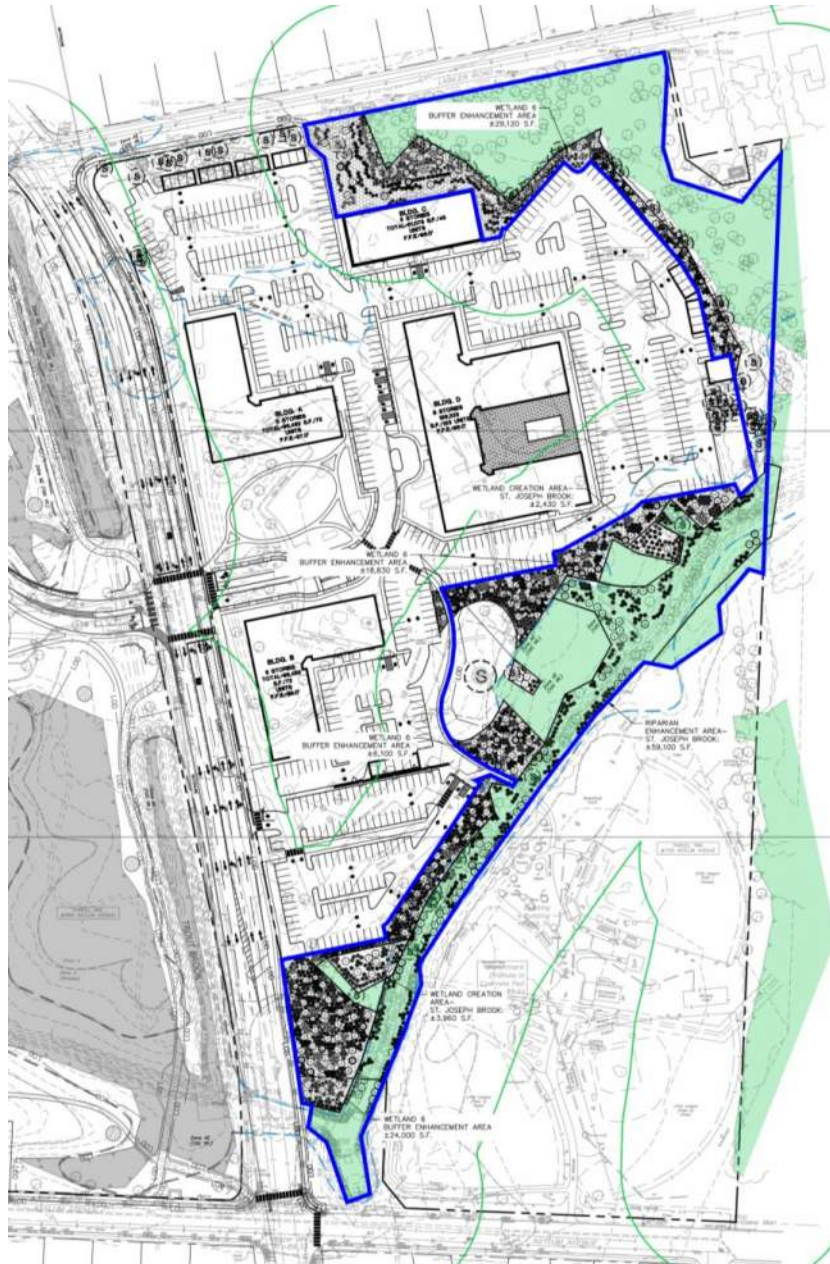


- Loss of Baseball Parking

Alternatives Analysis

- Existing impervious and developed/disturbed limits were generally maintained
- Reduction in wetland impacts was achieved from the first alternative to the preferred alternative
- Existing mature vegetated buffers generally remain undisturbed by preferred alternative
- Enhance existing maintained lawn buffers with planting of native trees, shrubs, and herbaceous plants improve buffer functions

1700 – Conservation Easement / Maintenance



- Wetland Mitigation Plan – 1-5, 6, 10 year (wetland creation, enhancement, & invasive species control)
- Stewardship (Ongoing Landscaping Maintenance) – Covers Entire Site
- Conservation Easement – Inclusive of Wetlands, Mitigation, and Champion White Oak
- Zoning Enforcement – For Eternity
- Future Modifications To Plans Presented Would Need To Come Back To Agency

1700 – Conclusion: Findings

- 116 SF of Permanent Direct Wetland Impact
- 152,720 SF Wetland Creation, Buffer Enhancement, and Riparian Enhancement
- Mitigation/Direct Impact Ratio: 55:1
With Enhancement Areas: 564:1
- Improved Stormwater Management System Over Existing
- No Impact on Flooding As Result Of Development
- Proposed Public Sidewalks (Lawler and Trout Brook)
- Preserve Champion White Oak
- Preserve Baseball Fields and Dedicated Parking Lot



Questions



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Engineering
Environmental
Land Surveying



MINNO WASKO
ARCHITECTS AND PLANNERS

NEWMAN



Stantec

1800 Asylum



1700 – Wetland Impact Areas/Regulates Activities



REGULATED ACTIVITIES

Redevelopment of the existing large, paved parking field on 1700 Asylum Avenue mostly avoids direct impacts to Wetland 6/St. Joseph's Brook.

- Wetland 6: STRC-21 - aligns with existing stormwater outfall into man-made drainage ditch
Permanent: 116 SF; Temporary: 639 SF

Upland Review Area

±6.8 acres of URA activities predominately occur within existing developed and disturbed areas, approximately half of which consist of existing impervious surfaces (e.g., parking field).

Neighborhood Aerial



1700 – Aerial Drone – Wetlands



2019

1700 – Aerial Drone – Envelope of Development



2019

1700 - Aerial Drone - Areas of New Development with URA*



2019

1700 - Grading, Drainage, and FEMA



Stormwater and Flood Regulations

- » 2004 CT Stormwater Quality Manual
- » 2002 Erosion and Sedimentation Control Guidelines
- » Town of West Hartford Regulations

Stormwater Improvements

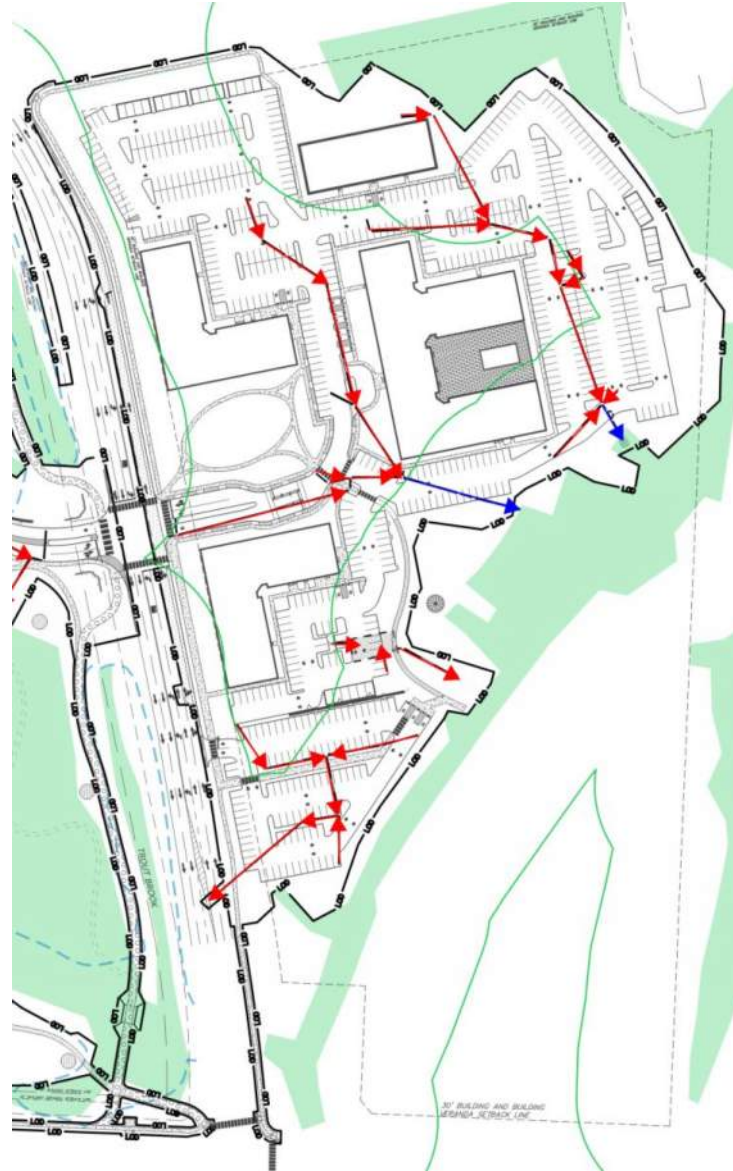
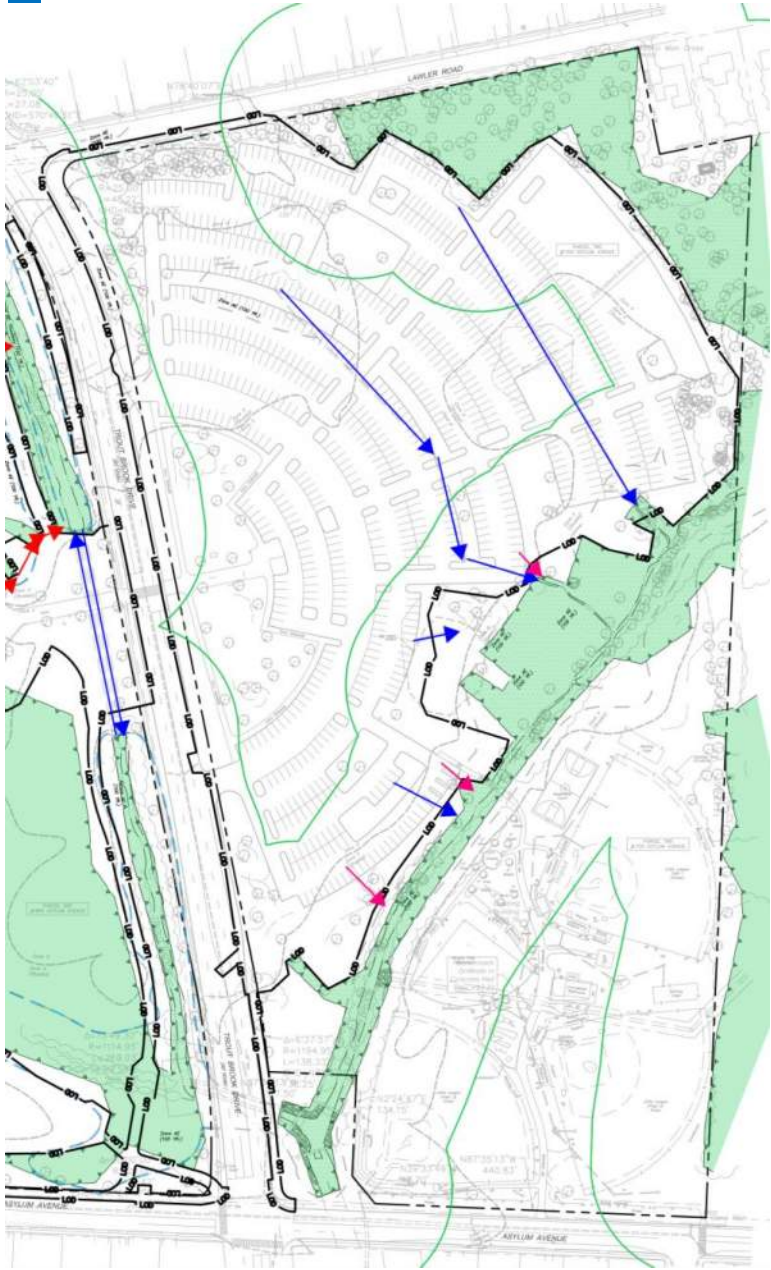
- » Water Quality Improvements
- » Pre vs Post Flow Mitigation
- » 80% TSS Removal
- » Maintaining Existing Drainage Patterns/Outfalls

Flood / FEMA

- » 'No Rise' Certification
- » Maintain floodplain capacity onsite
- » Provide compensatory storage within same hydraulic reach
- » Analyzed for up to and including 100-year flood elevation
- » Unrestricted hydraulic connection.

Coordinating for future Town-led culvert improvements

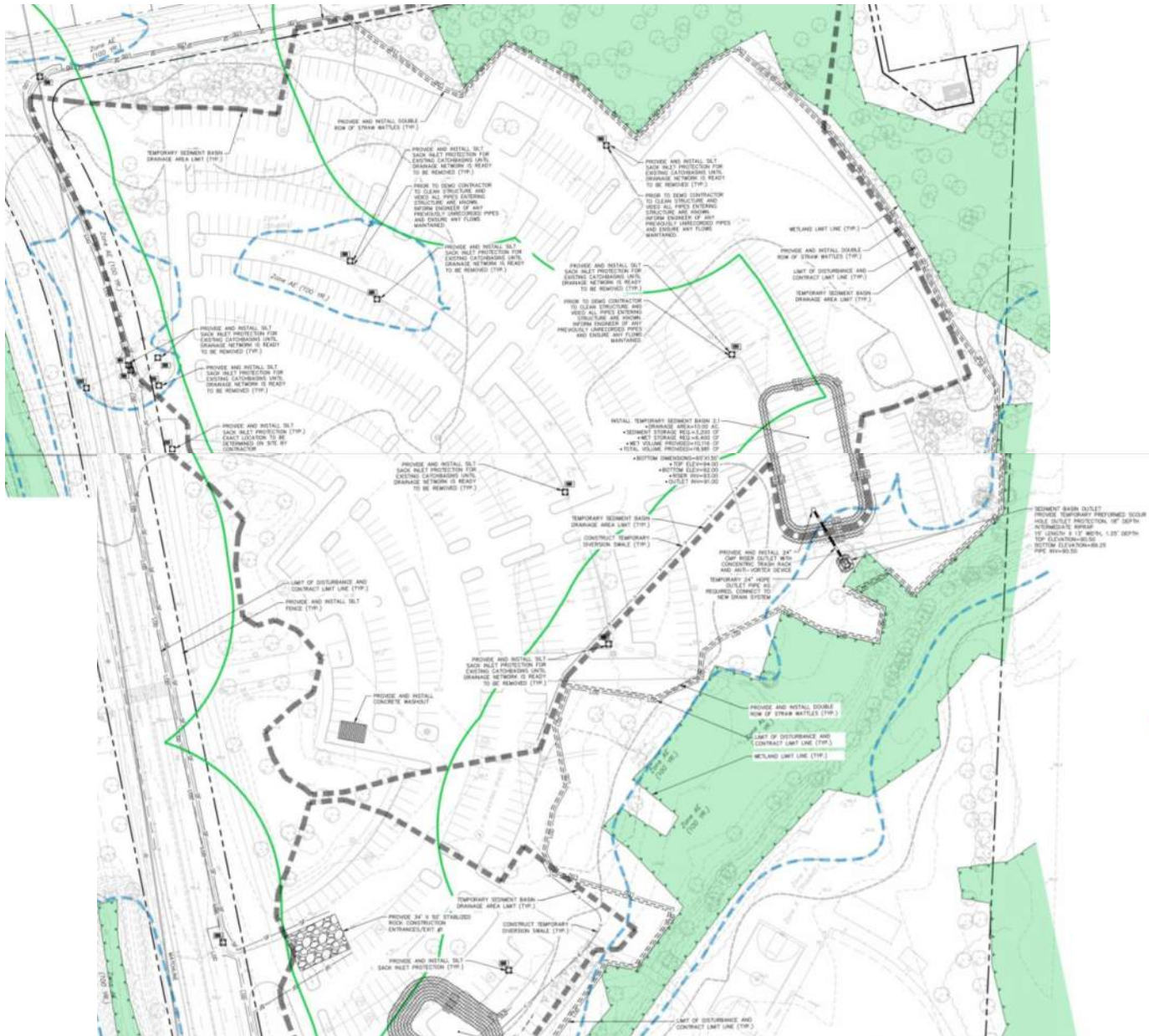
1700 – Drainage Network (Existing vs Proposed)



Stormwater System

- » Catch Basins with Deep Sumps and Hoods
- » Hydrodynamic Separators
- » Subsurface Detention and Above Ground Detention Systems
- » Providing 80% TSS Removal
- » Mitigating Peak Flows for 2, 5, 10, 25, 50, 100 year events
- » Maintaining Existing Drainage Patterns
- » Repairing Existing Outfall
- » Eliminated 4 Untreated Outfalls

1700 – Erosion & Sediment Control



E&S Measures

- » Silt Fence / Straw Wattles
- » Silt Sacks
- » Construction Entrance
- » Soil Stockpiles
- » Concrete Washout Areas
- » Temporary Diversion Swales
- » Temporary Sediment Basins

- » Town Approval
- » CTDEEP Approval
- » Construction Monitoring Required

- » Limit of Disturbance (LOD) encompasses wetland creation areas

Existing Conditions (both sites)



1700 - DEVELOPMENT PLANTING- WETLAND CREATION (6,390 SF)



- TREES**



RED MAPLE



TUPELO



PIN OAK

- SEED MIX**



WETLAND MEADOW MIX

- SHRUBS**



SWEET PEPPERBUSH



SILKY DOGWOOD



WINTERBERRY

- PERENNIALS**



BLUE FLAG IRIS



ARROWWOOD



NANYBERRY



BLUE VERVAIN

1700 - DEVELOPMENT PLANTING-RIPARIAN ENHANCEMENT (59,100 SF)



- TREES



RED MAPLE



TUPELO



SWAMP WHITE OAK



PIN OAK



BLACK WILLOW

- SHRUBS



CANADIAN SERVICEBERRY



RED CHOKEBERRY



BLACK CHOKEBERRY



COMMON WITCH HAZEL



PUSSY WILLOW



SILKY DOGWOOD



AMERICAN ELDERBERRY



ARROWWOOD



NANNYBERRY



WINTERBERRY

Aerial Rendering (both sites)



Aerial View Looking East

1800 – Existing Condition Photos



Wetlands 1A Looking South



Wetland 4 Trail West Crossing Looking West



Wetland 4 Trail Crossing,
Looking East at intersection of
Trout Brook Dr and Asylum Ave

Introduction



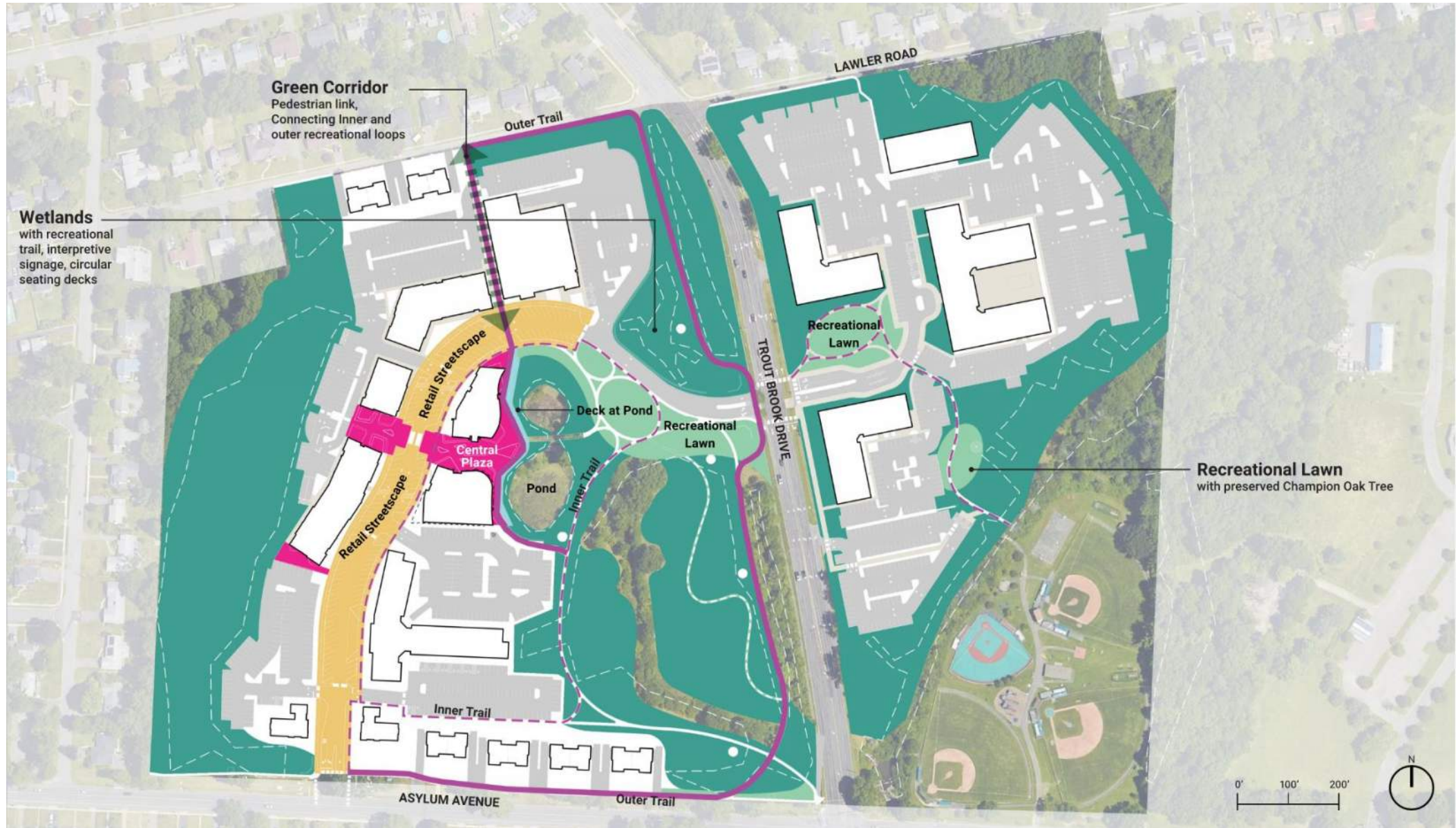
Neighborhood Aerial



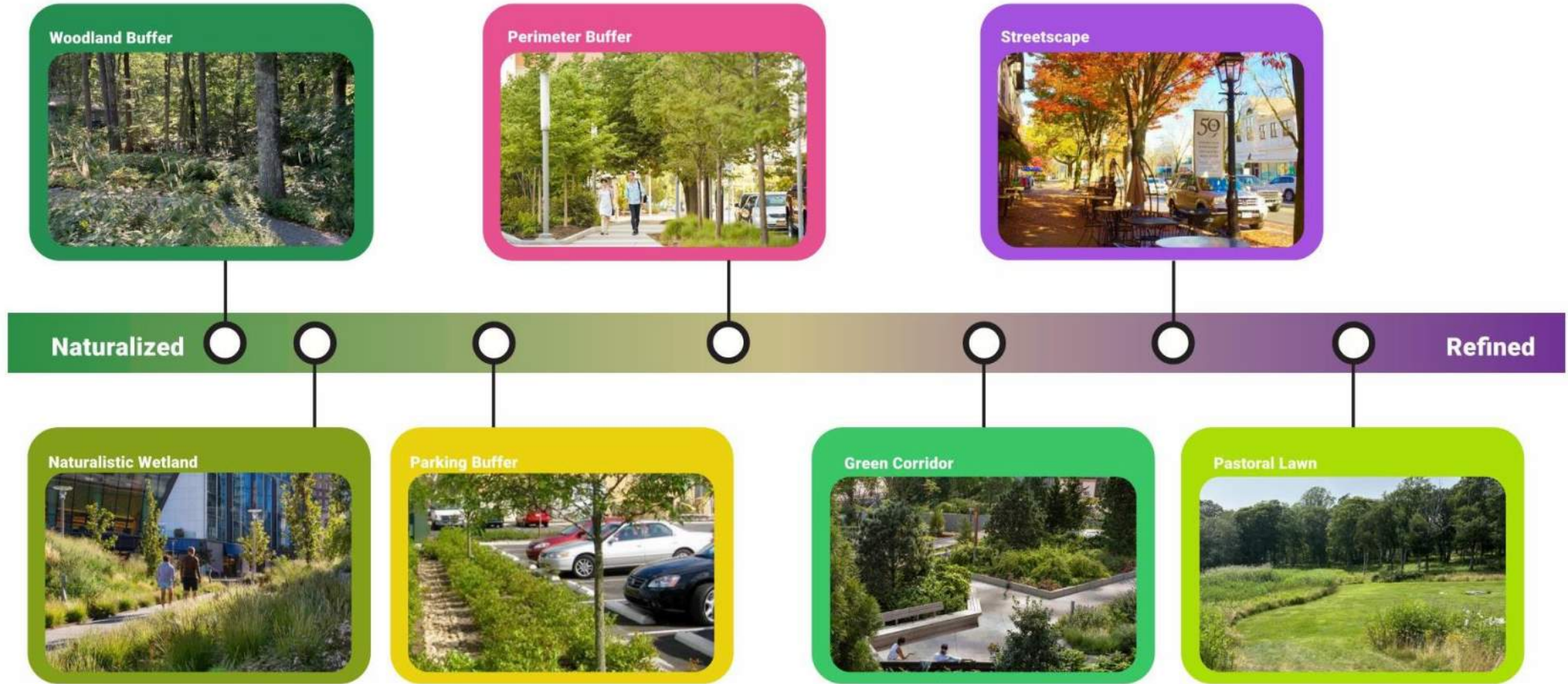
Overview Aerial Rendering



Landscaping – Vision (both sites)



Landscaping – Vision (both sites)



Landscaping – Vision (both sites)

Site Design Framework

1. **Create a unique site character derived from the innate landscape**
 - Maintain wetland areas and restore ecological systems
 - Explore opportunities for phytoremediation, carbon sequestration, stormwater capture and infiltration, wildlife/pollinator habitat
2. **Weave a nature-focused experience into the built environment**
 - Space for exploration, observation of nature, health and mental well-being
 - Unique park-like setting for residents, shoppers, visitors and the neighboring community



Pastoral Lawn

A prominent, manicured lawn is defined by naturalistic edge and mature trees, yet provides plenty of open flexible space.



Naturalistic Wetland Meadow

Reinvigorate the wetland landscape with native plants to replenish the ecological functions, creating habitat, providing a food source for wildlife/ pollinators, and infiltrate stormwater, etc

Representative Species:

- **Canopy:** River Birch, Serviceberry, Pussy Willow, Swamp White Oak, American Larch, Baldcypress, Sycamore
- **Wetland Seed Mix**



Woodland Buffer

Preserving existing tree canopy along the east and west edge of the property while finding opportunities to restore and expand the woodland buffer.

Representative Species:

- **Canopy:** Red Maple, White Oak, Shagbark Hickory, Pitch Pine, Eastern Red Cedar
- **Groundcover:** Ferns, Pennsylvania Sedge, Black Snakeroot, White Wood Aster



Landscaping – Vision (both sites)

Site Design Framework

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Streetscape

Bold, pronounced streetscape that frames views of building architecture upon entry to site while maintaining an inviting, open landscape while also contributing to the urban ecological fabric

Representative Species:

- **Canopy:** Tulip Poplar, Black Gum, American Elm, Pin Oak
- **Groundcover:** Common Yarrow, Little Bluestem, Bergamot, Nodding Onion



Perimeter Buffer

Merging the character of the neighborhood with the new park space

Representative Species:

- **Canopy:** Red Maple, White Oak
- **Groundcover:** New England Aster, Common Yarrow, Butterfly Milkweed, Bergamot, Little Bluestem



Green Corridor

An extension of the streetscape, the green corridors incorporate plazas and rain gardens and provide a connection between the core built environment and open wetland landscape.

Representative Species:

- **Canopy:** Quaking Aspen, River Birch, American Hornbeam, Sassafras, Serviceberry, Redbud
- **Groundcover:** Little Bluestem, Purple Coneflower, River Oats, Blue Vervain



Parking Buffer

Looking at the whole urban ecological system and how the parking lots can be a functioning landscape providing carbon sequestration, stormwater capture and infiltration, habitat and food for wildlife/ pollinators

Representative Species:

- **Canopy:** Baldcypress, Red Maple
- **Shrubs:** Low-bush Blueberry, Gro-low Sumac
- **Groundcover:** Switchgrass, Zig-zag Goldenrod, Prairie dropseed



Historical Map (both sites)



1934

Historical Map (both sites)



1950

Historical Map (both sites)



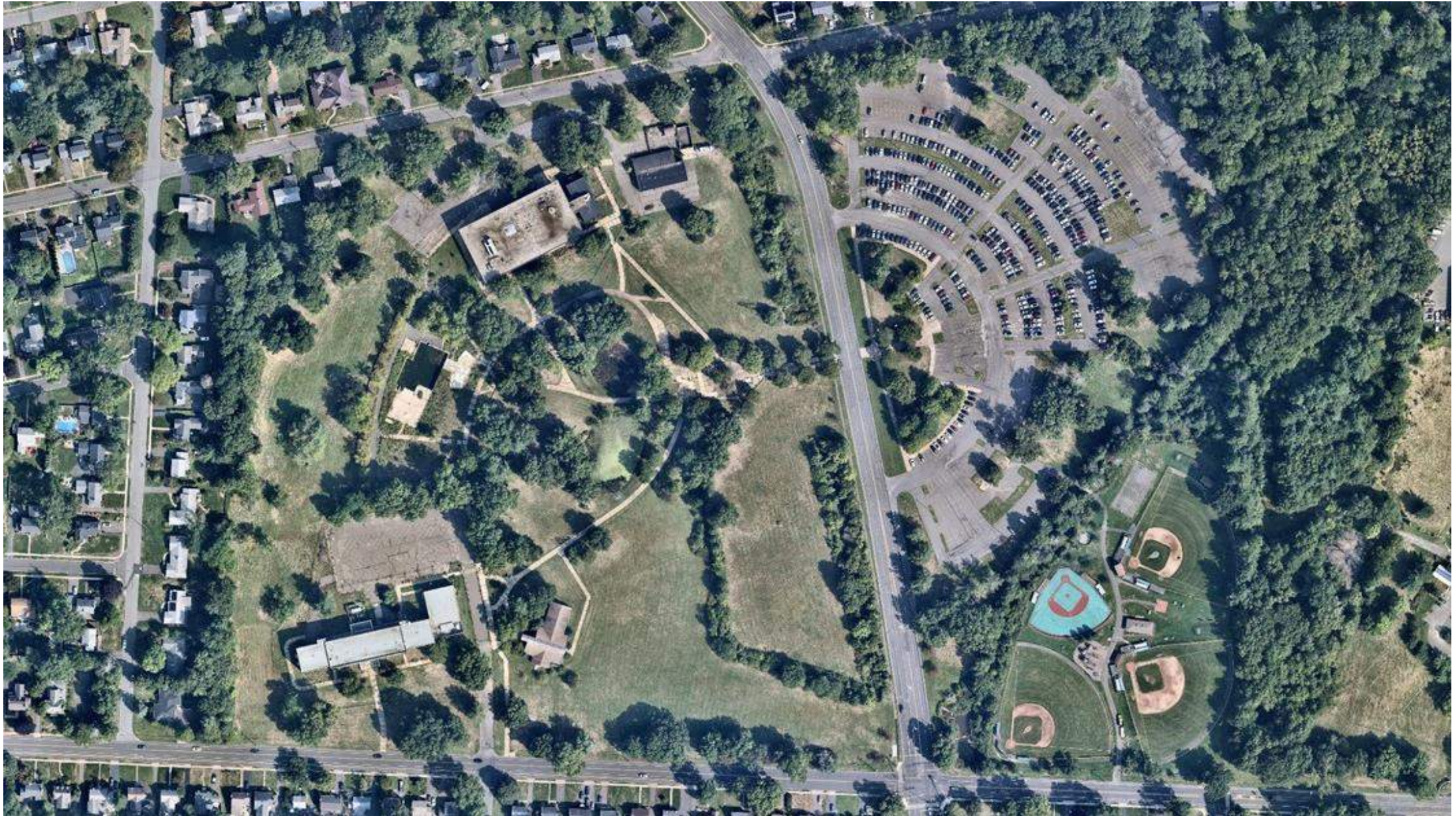
1970

Historical Map (both sites)



1986

Current Aerial Photo (both sites)



2022