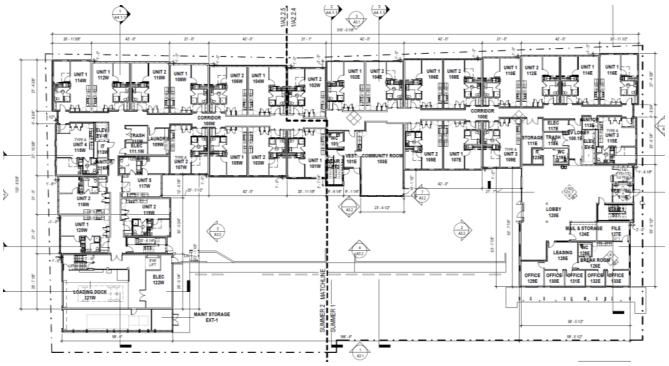
Providence
City Plan Commission
April 19, 2022

AGENDA ITEM 2 ▪ 94 SUMMER STREET



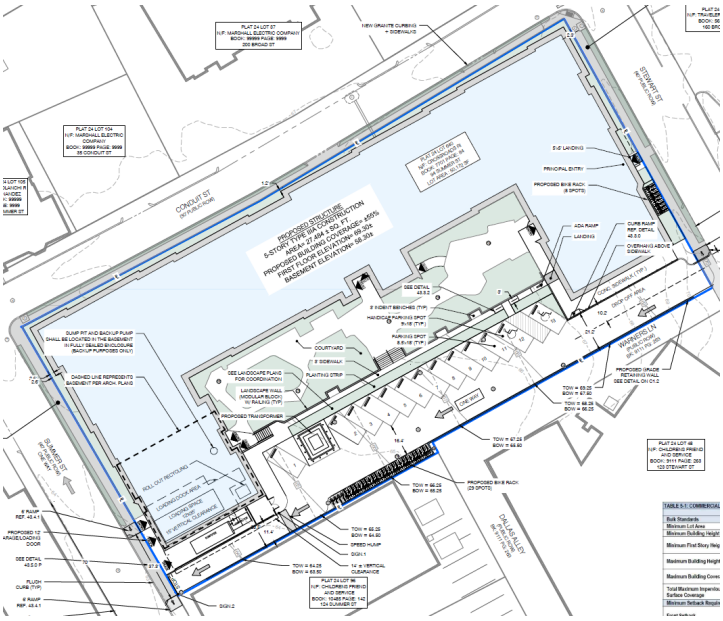
Proposed site plan

Rendering of the proposed building

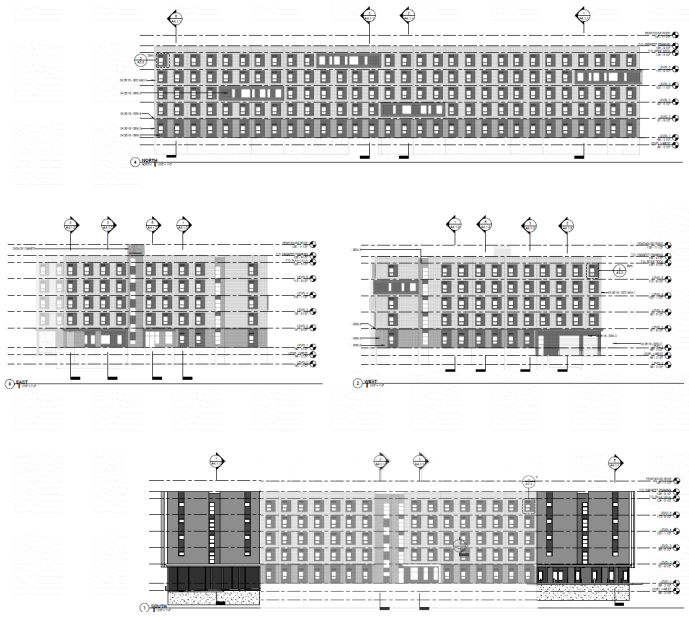
Aerial view of the site

OVERVIEW

OWNER/ APPLICANT:	Crossroads Rhode Island, Owner and Applicant	**PROJECT DESCRIPTION:**	The applicant is proposing to construct a five-story, 176 unit building on a vacant lot with parking and landscaping improvements.
CASE NO./ PROJECT TYPE:	**22-016MI** Preliminary Plan Approval		
PROJECT LOCATION:	94 Summer Street AP 24 Lot 640 C-2 zoning district; Transit Oriented Development (TOD)	**RECOMMENDATION:**	Approval of the Preliminary Plan subject to the noted findings and conditions
NEIGHBORHOOD:	Upper South Providence	**PROJECT PLANNER:**	Choyon Manjrekar



Proposed site plan



Proposed elevations

PROJECT OVERVIEW

The applicant is proposing to construct a five story, 58' tall, 176 unit building providing affordable housing. The subject lot which measures approximately 50,853 SF is currently vacant with frontage on Summer, Conduit and Stewart Streets and Warners Lane. The building will be set to the east, north and west lot lines but set back from the southern lot line to provide parking and a landscaped courtyard. The project will be reviewed as a minor land development project as it involves creation of over 10 dwelling units of housing and over 10,000 SF of gross floor area (GFA) with no commercial development.

ANALYSIS AND IDENTIFICATION OF POTENTIAL ISSUES

Use

The subject lot is zoned C-2 under the TOD overlay, where multifamily development is permitted by right.

Dimensions and site design

The building footprint measures approximately 27,484 SF, resulting in approximately 146,000 SF of GFA and 55% of lot coverage. The building will have a 'C' shaped layout, set to the northern lot line on Conduit Street and the eastern and western wings built to the lot lines on Summer and Stewart Streets. The main entrance will be located on Summer Street, with street access also provided from Stewart Street and Warners Lane. The main lobby, mailroom and office space will be located in the eastern wing. The southern portion of the building will be set back from the southern lot line on Warners Lane, providing space for a landscaped courtyard and parking.

The building's exterior will be composed of light brick, which is permitted by right in the zone. A total of 176 units—all one bedrooms with cooking facilities and bathrooms—will be provided over five stories. The

building's height of approximately 58'2" was determined based on the average grade of the site and is within the 70' height limit of the TOD overlay.

Parking

The TOD overlay does not require parking but 13, 60° angled parking spaces will be provided. The parking area will be accessed from a one-way lane to a drop off area accessed from Stewart Street, which will continue westward to exit onto Summer Street. The applicant will meet the bicycle parking requirement of one space per five dwelling units where 35 spaces are required and 37 will be provided. Twenty nine bicycle parking spaces will be provided south of the vehicular parking area and an additional eight spaces will be provided against the eastern façade.

One loading space is required as the development will provide over 40,000 SF of residential development. An internal loading space providing the minimum requirements of 12' x 35' with a clearance of 15' with access from Summer Street will be provided. The Department of Public Works (DPW) will prohibit parking in front of this space to allow for access to the site. A diagram showing turn radii for different vehicles has been included, which shows that the configuration will allow vehicles to access the loading space and exit the lot without negatively affecting traffic flow.

Landscaping

A landscaped courtyard will be located between the parking area and the southern building face providing open space for the building's residents. The plan will employ a mix of trees, shrubs and grass. The site requires approximately 7,525 SF of canopy coverage but 8,600 SF will be provided. The plan has been approved by the City Forester.

Drainage

Stormwater management measures are required on site as the site measures over 20,000 SF. The site is currently 100% impervious. Best Management Practices (BMP) will include treatment of roof runoff and impervious site areas with sand filters and surge tanks. Treated stormwater will be sent to the sanitary sewer system. Per the stormwater plan, the peak flows will be decreased for one to 100 year storm events. A sediment and erosion control plan outlining measures to prevent runoff from the site during construction has also been submitted.

Public Outreach

The applicant held three community meetings to discuss the project with neighbors and residents.

FINDINGS

Section 806 of the Commission's *Development Review Regulations* requires that the City Plan Commission make the following findings as part of their approval of all land development project applications. Based on the analysis contained herein and subject to the conditions contained in this report, staff has prepared the following findings regarding the request for approval of the Preliminary Plan stage:

1. *Consistency—The proposed development is consistent with the Comprehensive Plan and/or has satisfactorily addressed the issues where there may be inconsistencies.*

   According to the future land use map of *Providence Tommorow: The Comprehensive Plan* this area is intended for Neighborhood Commercial/Mixed Use development, where multifamily development is encouraged, particularly in proximity to commercial corridors. Provision of affordable housing would conform to objectives H-2, H-3 and H-4 of the plan which support creation of new and affordable housing for special populations. Construction of dense development within a single building is in conformance with objective BE-3 of the plan which promotes compact urban development. The parking reduction due to the TOD overlay conforms to objectives M-2, M-3 and M-4 of the plan which promotes use of alternative transportation including biking, transit and walking.

2. *Compliance with Zoning Ordinance—The proposed development is in compliance with the standards and provisions of the Zoning Ordinance.*

   Use: Multifamily housing is permitted by right in the C-2 zone and more so encouraged under the TOD overlay.

   Dimension and Design: As discussed, the development conforms to the dimensional and design requirements of the C-2 zone. Addition of landscaping and open space will enhance the building's character.

   Parking: The applicant will meet the vehicular and bicycle parking requirements.

3. *Environmental Impact—There will be no significant environmental impacts from the proposed development as shown on the final plan, with all required conditions for approval.*

   Per the applicant, the building is enrolled in the National Grid Zero Energy Buildings program. The project will use approximately 46% less energy than required by current energy codes based on energy modeling of the current design. Additionally, the building will use no fossil fuels, with all electric heating, cooling, and hot water systems. It will have a large 270kW rooftop solar array, and will obtain the balance of all electricity from solar with contracts for remote net metering. The efficiency measures will avoid 273 metric tons of CO2 emissions each year.

   No negative environmental impacts are expected as the applicant is expected to come into conformance with all applicable environmental regulations.

4. *Buildable Lot—The subdivision or development project, as proposed, will not result in the creation of individual lots with such physical constraints to development that building on those lots according to pertinent regulations and building standards would be impracticable.*

   There are no physical constraints that impact development of this property as the lot conforms to the dimensional requirements of the zoning ordinance and poses no impediments to development.

5. *Street Access—All proposed development projects and all subdivision lots shall have adequate and permanent physical access to a public street. Lot frontage on a public street without physical access shall not be considered compliance with this requirement.*

   Adequate vehicular and pedestrian access is provided from Summer, Stewart and Conduit Streets.

RECOMMENDATION

Based on the foregoing discussion, the CPC should vote to approve the preliminary plan subject to the following conditions:

1. The validity of the preliminary plan approval should be extended to one year from the date of recording of the approval letter.
2. Final plan approval should be delegated to DPD staff.

DRAWING LIST

12.17.21 - PROGRESS SET	02.18.22 - PROGRESS SET	SHEET #	SHEET NAME
		A2.2.8	A/V COORDINATION PLANS
		A2.3.6	RCP - DETAIL PLANS
		A3.3	ELEVATION DETAIL
		A3.4	ELEVATION DETAIL
		A4.2.2	WALL SECTIONS
		A5.2	EXTERIOR DETAILS
		A8.4	DOOR DETAILS
0 - GENERAL			
•	•	A0.0	COVER SHEET
•	•	A0.1	NOTES, ABBREVIATIONS, KEYNOTES
•	•	A0.2	KEYNOTES
1 - CIVIL			
	•	C0.0	COVER SHEET
•	•	SV1.0	LIMITED CONTENT BOUNDARY & EXISTING CONDITIONS PLAN
•	•	SV1.1	EXISTING UTILITY PLAN
	•	SV1.2	SEDIMENT AND EROSION CONTROL AND DEMO PLAN
•	•	C1.0	PROPOSED SITE PLAN
•	•	C1.1	PROPOSED UTILITY PLAN
		C1.2	PROPOSED GRADING PLAN
		C1.3	PROPOSED LANDSCAPE PLAN
•	•	C2.1	DETAILS & NOTES
•	•	C2.2	DETAILS & NOTES
•	•	C2.3	DETAILS & NOTES
	•	C2.4	DETAILS & NOTES
	•	C2.5	DETAILS & NOTES
2 - LANDSCAPE			
	•	L1.2	SITE PLAN LANDSCAPE
	•	L3.1.5	CPC PERMITTING PLAN
	•	L5.7	ELEVATIONS
3 - ARCHITECTURAL			
•	•	A1.0	SITE DIAGRAM
•	•	A2.2.0	BASEMENT & FIRST FLOOR KEY PLANS
•	•	A2.2.1	SECOND & THIRD FLOOR KEY PLANS
•	•	A2.2.2	FOURTH & FIFTH FLOOR KEY PLANS
•	•	A2.2.3	ROOF PLAN
•	•	A2.2.4	FIRST FLOOR PLAN - SUMMER 1
•	•	A2.2.5	FIRST FLOOR PLAN - SUMMER 2
•	•	A2.2.6	SECOND FLOOR PLAN - SUMMER 1
•	•	A2.2.7	SECOND FLOOR PLAN - SUMMER 2
•	•	A2.3.1	RCP - BASEMENT & PENTHOUSE
•	•	A2.3.2	RCP - FIRST FLOOR - SUMMER 1
•	•	A2.3.3	RCP - FIRST FLOOR - SUMMER 2
•	•	A2.3.4	RCP - TYP. UPPER FLOOR - SUMMER 1
•	•	A2.3.5	RCP- TYP. UPPER FLOOR - SUMMER 2
•	•	A3.1	ELEVATIONS
•	•	A3.2	ELEVATIONS
•	•	A4.1.1	BUILDING SECTION
•	•	A4.1.2	BUILDING SECTION
•	•	A4.2.1	WALL SECTIONS
•	•	A5.1	EXTERIOR DETAILS
•	•	A6.1	UNIT ELEVATIONS & DETAIL PLAN
•	•	A6.2	INTERIOR ELEVATIONS
•	•	A6.3	STAIR ELEVATIONS & DETAIL PLANS
•	•	A6.4	STAIR ELEVATIONS & DETAIL PLANS
•	•	A6.5	STAIR ELEVATIONS & DETAIL PLANS
•	•	A6.6	ELEVATOR ELEVATIONS & DETAIL PLANS
•	•	A7.1	PARTITION TYPES
•	•	A7.2	INTERIOR DETAILS
•	•	A7.3	INTERIOR DETAILS
•	•	A8.1	DOOR SCHEDULE
•	•	A8.2	WINDOW SCHEDULE
4 - STRUCTURAL			
•	•	S0.00	STRUCTURAL COVER SHEET
•	•	S0.1.0	GENERAL NOTES
	•	S0.1.1	LATERAL FORCE RESISTING SYSTEM & DESIGN CRITERIA
•	•	S0.1.2	LOADING PLANS
•	•	S1.0.0	OVERALL 3D VIEWS - BASEMENT, FIRST & SECOND FLOOR
•		S1.0.1	BASEMENT FOUNDATION PLAN - SUMMER 1
•		S1.0.2	BASEMENT FOUNDATION PLAN - SUMMER 2
•		S1.0.8	BASEMENT FOUNDATION PLAN
•	•	S1.1.1	OVERALL 3D VIEWS - THIRD & FOURTH FLOOR
•	•	S1.1.2	OVERALL 3D VIEWS - FIFTH FLOOR & ROOF
•		S1.4.0	LEVEL 4 FRAMING PLAN
•		S1.5.0	LEVEL 5 FRAMING PLAN
•		S1.6.0	ROOF FRAMING PLAN
•		S1.7.0	PENTHOUSE ROOF FRAMING PLAN
	•	S2.2.0	BASEMENT AND FIRST FLOOR FOUNDATION OVERALL PLANS
	•	S2.2.1	SECOND AND THIRD FLOOR OVERALL FRAMING PLAN
	•	S2.2.2	FOURTH AND FIFTH FLOOR OVERALL FRAMING PLAN
	•	S2.2.3	ROOF OVERALL FRAMING PLAN
	•	S2.2.3 - ALT	FOUNDATION PLAN OPTIONS
•	•	S2.2.6	SECOND FLOOR FRAMING PLAN - SUMMER 1
•	•	S2.2.7	SECOND FLOOR FRAMING PLAN - SUMMER 2
•	•	S2.2.8	THIRD FLOOR FRAMING PLAN - SUMMER 1
•	•	S2.2.9	THIRD FLOOR FRAMING PLAN - SUMMER 2
•	•	S2.2.10	FOURTH FLOOR FRAMING PLAN - SUMMER 1
•	•	S2.2.11	FOURTH FLOOR FRAMING PLAN - SUMMER 2
•	•	S2.2.12	FIFTH FLOOR FRAMING PLAN - SUMMER 1
•	•	S2.2.13	FIFTH FLOOR FRAMING PLAN - SUMMER 2

DRAWING LIST

12.17.21 - PROGRESS SET	02.18.22 - PROGRESS SET	SHEET #	SHEET NAME
•	•	S2.2.14	ROOF FRAMING PLAN - SUMMER 1
•	•	S2.2.15	ROOF FRAMING PLAN - SUMMER 2
	•	S3.1.1	BUILDING SECTIONS
	•	S3.1.2	BUILDING SECTIONS
•	•	S5.0	TYPICAL WOOD FRAMING DETAILS
•	•	S5.1	TYPICAL WOOD FRAMING DETAILS
•	•	S5.2	TYPICAL WOOD FRAMING DETAILS
•	•	S5.3	TYPICAL WOOD FRAMING DETAILS
•	•	S5.4	TYPICAL WOOD FRAMING DETAILS
•	•	S5.5	TYPICAL WOOD FRAMING DETAILS
5 - MECHANICAL			
	•	M0.0.0	MECHANICAL ABBREVIATIONS, SYMBOLS, & LEGENDS
•	•	M1.1.0	MECHANICAL PARTIAL LOWER LEVEL EAST
•	•	M2.1.0	MECHANICAL PARTIAL LOWER LEVEL WEST
•	•	M1.1.1	MECHANICAL PARTIAL FIRST FLOOR EAST
•	•	M2.1.1	MECHANICAL PARTIAL FIRST FLOOR WEST
•	•	M1.1.2	MECHANICAL PARTIAL SECOND FLOOR EAST
•	•	M2.1.2	MECHANICAL PARTIAL SECOND FLOOR WEST
•	•	M1.1.3	MECHANICAL PARTIAL THIRD FLOOR EAST
•	•	M2.1.3	MECHANICAL PARTIAL THIRD FLOOR WEST
•	•	M1.1.4	MECHANICAL PARTIAL FOURTH FLOOR EAST
•	•	M2.1.4	MECHANICAL PARTIAL FOURTH FLOOR WEST
•	•	M1.1.5	MECHANICAL PARTIAL FIFTH FLOOR EAST
•	•	M2.1.5	MECHANICAL PARTIAL FIFTH FLOOR WEST
	•	M1.2.0	MECHANICAL PARTIAL LOWER LEVEL WEST
	•	M1.2.1	MECHANICAL PARTIAL FIRST FLOOR EAST
	•	M2.2.1	MECHANICAL PARTIAL FIRST FLOOR WEST
	•	M1.2.2	MECHANICAL PARTIAL SECOND FLOOR EAST
	•	M2.2.2	MECHANICAL PARTIAL SECOND FLOOR WEST
	•	M1.2.3	MECHANICAL PARTIAL THIRD FLOOR EAST
	•	M2.2.3	MECHANICAL PARTIAL THIRD FLOOR WEST
	•	M1.2.4	MECHANICAL PARTIAL FOURTH FLOOR EAST
	•	M2.2.4	MECHANICAL PARTIAL FOURTH FLOOR WEST
	•	M1.2.5	MECHANICAL PARTIAL FIFTH FLOOR EAST
	•	M2.2.5	MECHANICAL PARTIAL FIFTH FLOOR WEST
•	•	M1.3.6	MECHANICAL PARTIAL ROOF PLAN EAST
	•	M2.3.6	MECHANICAL PARTIAL ROOF PLAN WEST
	•	M1.4.0	MECHANICAL TYPICAL UNIT PLANS
•	•	M2.4.0	MECHANICAL TYPICAL UNIT PLANS
	•	M3.4.0	MECHANICAL TYPICAL UNIT PLANS
•	•	M4.4.0	MECHANICAL TYPICAL UNIT PLANS
	•	M5.4.0	MECHANICAL TYPICAL UNIT PLANS
	•	M5.4.0.	MECHANICAL OFFICE AREA PARTIAL PLANS
	•	M1.5.0	MECHANICAL DETAILS
•	•	M2.5.0	MECHANICAL DETAILS
	•	M1.8.0	MECHANICAL SCHEDULES
•	•	M2.8.0	MECHANICAL SCHEDULES
•	•	M3.8.0	MECHANICAL SCHEDULES
6 - PLUMBING			
•	•	P0.0.0	PLUMBING SYMBOLS & ABBREVIATION
•	•	P2.0.1	PLUMBING LOWER LVL EAST - W&V
•	•	P2.0.2	PLUMBING LOWER LVL WEST - W&V
•	•	P2.1.1	PLUMBING FIRST FLR EAST - W&V
•	•	P2.1.2	TRADE FIRST FLR WEST - W&V
•	•	P2.2.1	PLUMBING SECOND FLR EAST - W&V
•	•	P2.2.2	PLUMBING SECOND FLR WEST - W&V
•	•	P2.3.1	PLUMBING THIRD FLR EAST - W&V
•	•	P2.3.2	PLUMBING THIRD FLR WEST - W&V
•	•	P2.4.1	PLUMBING FOURTH FLR EAST - W&V
•	•	P2.4.2	PLUMBING FOURTH FLR WEST - W&V
•	•	P2.5.1	PLUMBING FIFTH FLR EAST - W&V
•	•	P2.5.2	PLUMBING FIFTH FLR WEST - W&V
•	•	P2.6.1	PLUMBING ROOF PLAN EAST - W&V
•	•	P2.6.2	PLUMBING ROOF PLAN WEST - W&V
•	•	P3.0.1	PLUMBING PARTIAL LOWER LVL EAST - H&CW
•	•	P3.0.2	PLUMBING LOWER LVL WEST - H&CW
•	•	P3.1.1	PLUMBING FIRST FLR EAST - H&CW
•	•	P3.1.2	PLUMBING FIRST FLR WEST - H&CW
•	•	P3.2.1	PLUMBING SECOND FLR EAST - H&CW
•	•	P3.2.2	PLUMBING SECOND FLR WEST - H&CW
•	•	P3.3.1	PLUMBING THIRD FLR EAST - H&CW
•	•	P3.3.2	PLUMBING THIRD FLR WEST - H&CW
•	•	P3.4.1	PLUMBING FOURTH FLR EAST - H&CW
•	•	P3.4.2	PLUMBING FOURTH FLR WEST - H&CW
•	•	P3.5.1	PLUMBING FIFTH FLR EAST - H&CW
•	•	P3.5.2	PLUMBING FIFTH FLR WEST - H&CW
•	•	P3.6.1	PLUMBING ROOF PLAN EAST - H&CW
•	•	P3.6.2	PLUMBING ROOF PLAN WEST - H&CW
•	•	P4.0.0	PLUMBING TYPICAL UNIT PLANS

DRAWING LIST

12.17.21 - PROGRESS SET	02.18.22 - PROGRESS SET	SHEET #	SHEET NAME
•	•	P4.0.1	PLUMBING TYPICAL UNIT PLANS
•	•	P4.0.2	PLUMBING MECH RM PART PLAN & SCHEMATIC
•	•	P4.0.3	PLUMBING W&V RISER DIAGRAMS
•	•	P4.0.4	PLUMBING H&CW RISER DIAGRAMS
•	•	P4.0.5	PLUMBING H&CW RISER DIAGRAMS
•	•	P5.0.0	PLUMBING FIRE SAFING DETAILS
•	•	P5.0.1	PLUMBING FIRE SAFING DETAILS
•	•	P5.0.2	PLUMBING TYPICAL DETAILS
	•	P5.0.3	PLUMBING WATER HEATER PIPING SCHEMATICS
•	•	P5.0.4	PLUMBING SCHEDULES
7 - FIRE PROTECTION			
•	•	FP0.0.0	FIRE PROTECTION ABBREVIATIONS & SYMBOLS
•	•	FP2.0.1	FIRE PROTECTION PARTIAL LOWER LVL EAST
•	•	FP2.0.2	FIRE PROTECTION PARTIAL LOWER LVL WEST
•	•	FP2.1.1	FIRE PROTECTION PARTIAL FIRST FLR EAST
•	•	FP2.1.2	TRADE PARTIAL FIRST FLR WEST
•	•	FP2.2.1	FIRE PROTECTION PARTIAL SECOND FLR EAST
•	•	FP2.2.2	FIRE PROTECTION PARTIAL SECOND FLR WEST
•	•	FP2.3.1	FIRE PROTECTION PARTIAL THIRD FLR EAST
•	•	FP2.3.2	FIRE PROTECTION PARTIAL THIRD FLR WEST
•	•	FP2.4.1	FIRE PROTECTION PARTIAL FOURTH FLR EAST
•	•	FP2.4.2	FIRE PROTECTION PARTIAL FOURTH FLR WEST
•	•	FP2.5.1	FIRE PROTECTION PARTIAL FIFTH FLR EAST
•	•	FP2.5.2	FIRE PROTECTION PARTIAL FIFTH FLR WEST
•	•	FP2.6.1	FIRE PROTECTION PARTIAL ROOF PLAN EAST
•	•	FP2.6.2	FIRE PROTECTION PARTIAL ROOF PLAN WEST
•	•	FP3.0.1	FIRE PROTECTION STAIR RISERS
	•	F5.0.1	FIRE PROTECTION TYPICAL DETAILS
	•	FP5.0.2	FIRE PROTECTION FIRE SAFING DETAILS
	•	FP5.0.3	FIRE PROTECTION SCHEDULES
8 - ELECTRICAL			
•	•	E0.1	SYMBOLS, ABBREVIATIONS AND NOTES
•	•	E1.0	BASEMENT POWER AND LIGHTING PLAN
•	•	E1.1.1	SUMMER 1 FIRST FLOOR POWER PLAN
•	•	E1.1.2	SUMMER 2 FIRST FLOOR POWER PLAN
•	•	E1.2.1	SUMMER 1 SECOND FLOOR POWER PLAN
•	•	E1.2.2	SUMMER 2 SECOND FLOOR POWER PLAN
•	•	E1.3.1	SUMMER 1 THIRD FLOOR POWER PLAN
•	•	E1.3.2	SUMMER 2 THIRD FLOOR POWER PLAN
•	•	E1.4.1	SUMMER 1 FOURTH FLOOR POWER PLAN
•	•	E1.4.2	SUMMER 2 FOURTH FLOOR POWER PLAN
•	•	E1.5.1	SUMMER 1 FIFTH FLOOR POWER PLAN
•	•	E1.5.2	SUMMER 2 FIFTH FLOOR POWER PLAN
•	•	E1.6.1	SUMMER 1 ROOF POWER AND LIGHTING PLAN
	•	E1.6.2	SUMMER 2 ROOF POWER AND LIGHTING PLAN
•	•	E2.1.1	SUMMER 1 FIRST FLOOR LIGHTING PLAN
•	•	E2.1.2	SUMMER 2 FIRST FLOOR LIGHTING PLAN
•	•	E2.2.1	SUMMER 1 SECOND FLOOR LIGHTING PLAN
•	•	E2.2.2	SUMMER 2 SECOND FLOOR LIGHTING PLAN
•	•	E2.3.1	SUMMER 1 THIRD FLOOR LIGHTING PLAN
•	•	E2.3.2	SUMMER 2 THIRD FLOOR LIGHTING PLAN
•	•	E2.4.1	SUMMER 1 FOURTH FLOOR LIGHTING PLAN
•	•	E2.4.2	SUMMER 2 FOURTH FLOOR LIGHTING PLAN
•	•	E2.5.1	SUMMER 1 FIFTH FLOOR LIGHTING PLAN
•	•	E2.5.2	SUMMER 2 FIFTH FLOOR LIGHTING PLAN
•	•	E4.1	ONE-LINE POWER RISER DIAGRAM
	•	E4.2	WIRING SCHEMATICS AND DETAILS
•	•	E5.1	SCHEDULES
	•	E5.2	SCHEDULES
	•	E5.3	SCHEDULES
	•	E5.4	SCHEDULES
	•	E5.5	SCHEDULES
9 - FIRE ALARM			
•	•	FA1.0	BASEMENT FIRE ALARM PLAN
•	•	FA1.1.1	SUMMER 1 FIRST FLOOR FIRE ALARM PLAN
•	•	FA1.1.2	SUMMER 2 FIRST FLOOR FIRE ALARM PLAN
•	•	FA1.2.1	SUMMER 1 SECOND FLOOR FIRE ALARM PLAN
•	•	FA1.2.2	SUMMER 2 SECOND FLOOR FIRE ALARM PLAN
•	•	FA1.3.1	SUMMER 1 THIRD FLOOR FIRE ALARM PLAN
•	•	FA1.3.2	SUMMER 2 THIRD FLOOR FIRE ALARM PLAN

SUMMER STREET APARTMENTS

PROGRESS SET 02.18.2022

Owner:
SUMMER STREET LP1/SUMMER STREET LP2

Architect:
KITE Architects Inc. One Central Street, Providence, RI 02907 401.272.0240 info@kitearchitects.com

Contractor:
TBD

SUMMER I					
DWELLING UNIT DISTRIBUTION					
LEVEL		AVERAGE NSF		# of Units	# of Type A
0	1BR / 1BA	0	NSF	0	0
1	1BR / 1BA	509	NSF	13	2
2	1BR / 1BA	513	NSF	18	4
3	1BR / 1BA	512	NSF	18	4
4	1BR / 1BA	512	NSF	20	4
5	1BR / 1BA	513	NSF	18	4
TOTAL				87	18
SQUARE FOOTAGE BREAKDOWN					
RESIDENTIAL		NON-RESIDENTIAL PROGRAM AREA		COMMON	
48,168	GSF	4,310	GSF	18,967	GSF

SUMMER II					
DWELLING UNIT DISTRIBUTION					
LEVEL		AVERAGE NSF		# of Units	# of Type A
0	1BR / 1BA	0	NSF	0	0
1	1BR / 1BA	513	NSF	15	2
2	1BR / 1BA	512	NSF	19	4
3	1BR / 1BA	512	NSF	19	4
4	1BR / 1BA	511	NSF	17	4
5	1BR / 1BA	511	NSF	19	4
TOTAL				89	18
SQUARE FOOTAGE BREAKDOWN					
RESIDENTIAL		NON-RESIDENTIAL PROGRAM AREA		COMMON	
54,087	GSF	5,234	GSF	12,088	GSF

ALL UNITS ARE TYPE B ADAPTABLE UNLESS INDICATED AS TYPE A ACCESSIBLE

PROJECT INFORMATION			
PROJECT NAME:	94 SUMMER STREET (SUMMER I & SUMMER II)		
PROJECT ADDRESS:	94 SUMMER STREET, PROVIDENCE RHODE ISLAND 02907		
PARCEL DATA:	PLAT: 24 LOT: 640		
PARCEL AREA:	50,165 SF		
CLIENT NAME:	SUMMER STREET LP1/SUMMER STREET LP2		
CLIENT ADDRESS:	160 BROAD STREET, PROVIDENCE RI 02907		
BUILDING TYPE:	TYPE III B / TYPE III(200)		
BUILDING SIZE:	143,854 GSF TOTAL; 48,000 GSF MAX PER FLOOR		
DESCRIPTION OF WORK:	NEW CONSTRUCTION 5 STORIES ABOVE GRADE & PARTIAL BASEMENT		
ZONING DATA			
ZONING ORDINANCE:	CITY OF PROVIDENCE ZONING ORDINANCE, APRIL 6, 2020		
ZONING DISTRICT:	C2 TRANSIT ORIENTED DEVELOPMENT OVERLAY		
DATA:	REFERENCE	REQUIRED / ALLOWABLE	PROPOSED / EXISTING
USE:	SEC. 501	MULTI-FAMILY RESIDENTIAL PERMITTED BY RIGHT	MULTI-FAMILY AND PROPOSED
DWELLING UNITS ALLOWED		NO MAXIMUM	176
LOT FRONTAGE:	SEC. 502	NONE	0'-0"
MIN. LOT AREA:	SEC. 502	NONE	+/- 14,219 SF
BUILDING HEIGHT:	SEC. 502	70'-0"	58'-2"
PARKING:	SEC. 502	0 REQUIRED	13
PARKING RATIO:		0 REQUIRED	13 PARKING / 176 UNITS = 0.074
FRONT SETBACK:	SEC. 502	60% WITHIN BUILD TO ZONE TO ≤ 5'-0"	68.7% WITHIN BUILD-TO ZONE<5'-0"
SIDE SETBACK:	SEC. 502	40% WITHIN BUILD TO ZONE TO ≤ 5'-0"	43.2% WITHIN BUILD-TO ZONE<5'-0"
REAR SETBACK:	SEC. 502	NONE REQUIRED	0'-0"
% OF TRACT OCCUPIED BY BUILDING			25,867 SF = 51%
% OF BUILDING OCCUPIED BY PARKING & OTHER PAVED AREAS			11,748 SF = 23%
% OF TRACT OCCUPIED BY OPEN AREAS			12,550 SF = 26%
BUILDING COMPLIES WITH ALL REQUIRED DESIGN & CONSTRUCTION GUIDELINES OUTLINED. BEDROOM SIZE WAIVER REQUESTED.			

LOCUS MAP:

PROJECT NORTH N

NOT FOR CONSTRUCTION

KITE Architects, Inc.
One Central Street
Providence, Rhode Island 02907
401.272.0240
info@kitearchitects.com

CIVIL ENGINEER
NARRAGANSETT ENGINEERING INC.
3102 East Main Rd, Portsmouth, RI 02871

STRUCTURAL ENGINEER
ODEH ENGINEERS
1223 Mineral Spring Ave, North Providence, RI 02904

MECHANICAL ENGINEER
WILKINSON ASSOCIATES
615 Jefferson Blvd, Warwick, RI 02886

ELECTRICAL ENGINEER
STERLING ENGINEERING CO. INC.
79 Main St, Sturbridge, MA 01566

LANDSCAPE ARCHITECT
ANJALI JOSHI DESIGN
161 Exchange St, Pawtucket, RI 02860

NOT FOR CONSTRUCTION
PROGRESS SET
02.18.2022

SUMMER STREET APARTMENTS

94 Summer Street,
Providence, RI 02903

PROJECT NO. 2032

NO.	DATE	ISSUED FOR
	12/17/21	PROGRESS SET
	02/18/22	PROGRESS SET

COVER SHEET

A0.0

kite

STREET VIEW

94 SUMMER STREET APARTMENTS

kite architects one central street providence, rhode island 02907 401 272 0240 kitearchitects.com

No. CPC1

PROJECT No. 2032

DATE: 03.25.22

kite

COURTYARD VIEW

94 SUMMER STREET APARTMENTS

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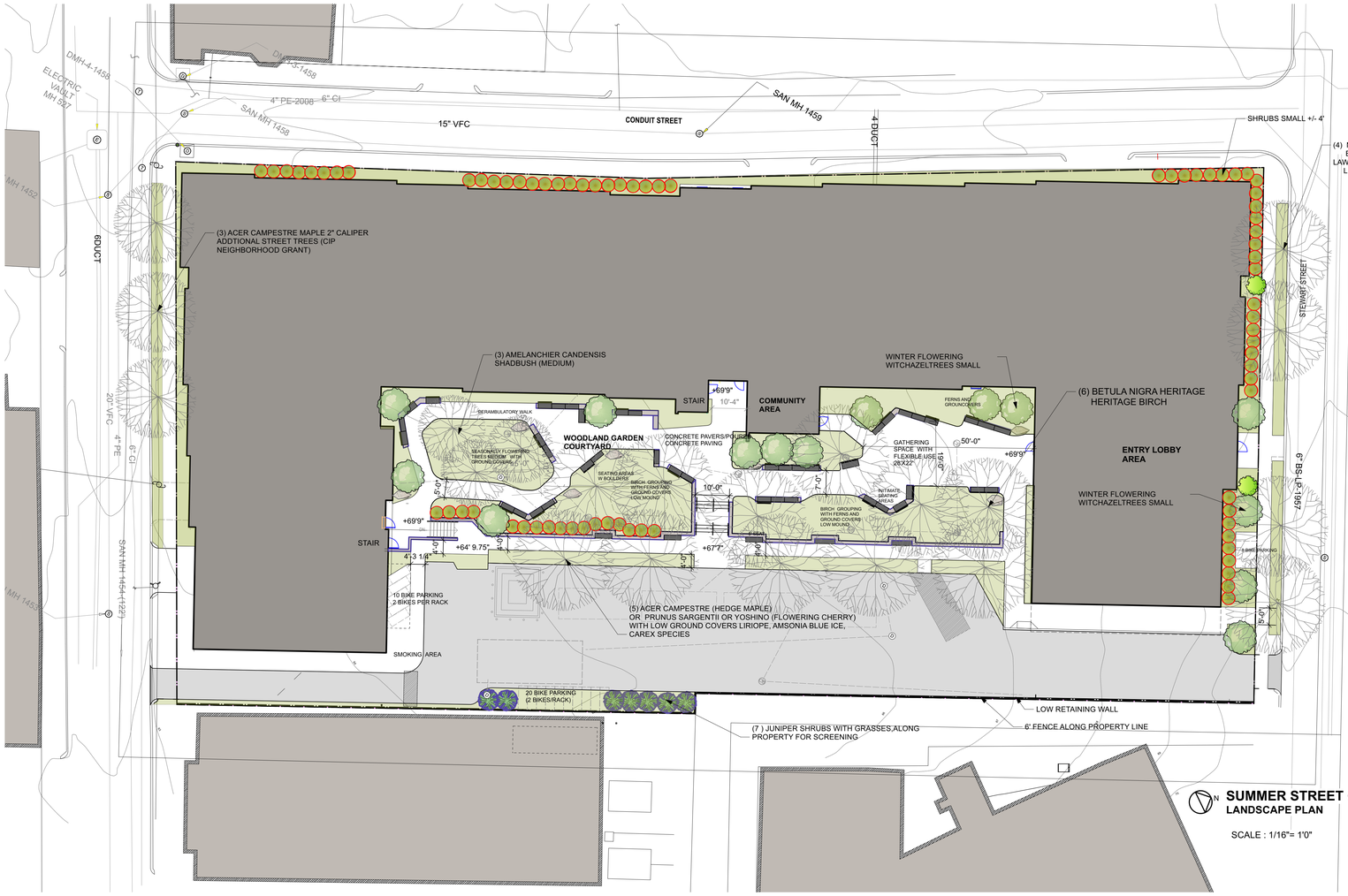
No. CPC2

PROJECT No. 2032

DATE: 03.25.22



LOT SIZE 50,170.0 SQFT
AREA OF DEVELOPMENT 100 PERCENT OF LOT SIZE 50,170.0 SQFT

15 PERCENT CANOPY COVER NEEDED = 7,525.5 SQFT.
CALIPER REPLACEMENT NEEDED
4 -3" CALIPER STREET TREES - 12"CALIPER

PROPOSED CANOPY COVERAGE ON SITE 8600.0 SQFT

11MEDIUM NEW SHADE TREES - 7700 SQFT
3 SMALL SHADE TREES - 900 SQFT.

PROPOSED CALIPER REPLACEMENET
7- 2" CALIPER STREET TREES -14" CALIPER

LANDSCAPE IMPROVEMENTS TO INCREASE PERMEABILITY ON SITE AND ADJACENT SIDEWALKS AND REDUCE NET IMPERVIOUS AREAS - PLANTING BEDS WITH NATIVE TREES, GROUND COVERS AND NO MOW GRASS PROPOSED

Total Site Area = 50,170.0 SQFT

EXISTING IMPERVIOUS AREAS on SITE :
Impervious asphalt lot area,Ex concrete and building footprint 50,170SQFT
EXISTING PERVIOUS TREE PITS: None

EXISTING PERMEABLE SURFACES: 5537.0 SQFT

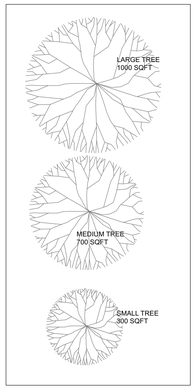
NEW IMPERVIOUS AREAS TO BE ADDED:
Building 29,069 sq. ft.
Paving, Walls, Stair etc 5615.0 sqft

NEW PERMEABLE AREAS TO BE ADDED:
New planting beds, 5600 sqft. (On site)

Perimeter Planting 2300 sqft (On site)

New sidewalk Beds and treepits 1238.0 sq. ft. (sidewalk)
TOTAL: 5443.0 sq. ft.

NO NET INCREASE IN IMPERVIOUS SURFACES REDUCED
NET INCREASE IN PERMEABLE SURFACE AREA : TOTAL 9138.0



LANDSCAPE CONCEPT:

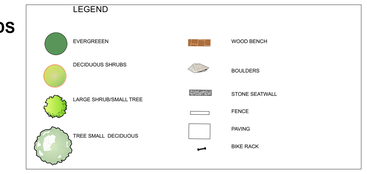
PROGRAM: A LUSH PARK LIKE SETTING WITH SHADE, INTIMATE SEATING AREAS, PERAMBULATORY WALK AND FLEXIBLE GATHERING SPACE FOR 176 RESIDENTS

A WOODLAND GARDEN COURTYARD IS ENVISONED FOR THE DESIRED SHADE FROM MEDIUM TO LARGE TREES AND THE MICROCLIMATE CREATED BY THE BUILDINGS. A VARIETY OF TREE HEIGHTS WITH GROUND COVERS OF FERNS, SEDGES, AND DROUGHT TOLERANT LOWER LAYER IS ENVISONED.

CONCRETE PAVERS OR CONCRETE WALKWAYS. SITE TOXICITY DOES NOT ALLOWS PERMEABLE PAVING OPTIONS AS SITE WILL BE CAPPED HAT WILL NEED REPAIR.

SOFTER ORGANIC FORMS AND BERMS ADD TO THE CREATION OF SEVERAL SMALLER OUTDOOR ROOMS WITHIN THE COURTYARD.

SEATING OUT OF CONCRETE AND WOOD/METAL BENCHES WALLS CONCRETE



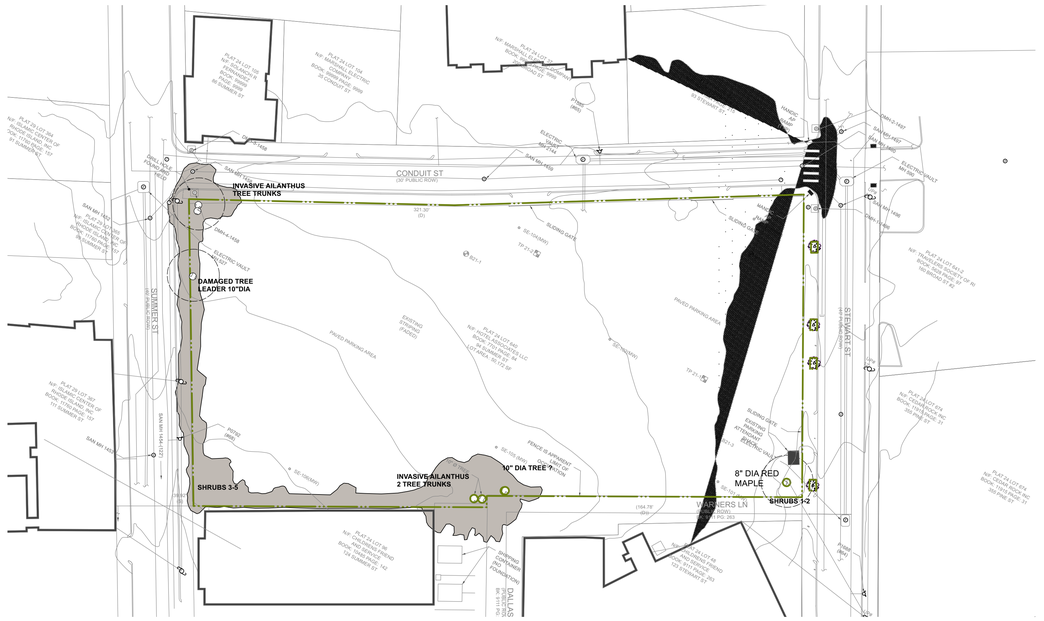
PLANT SCHEDULE FOR LANDSCAPE PLAN

SUMMER STREET APARTMENTS 94 Summer Street, Providence, RI

Plant List:

KEY	QTY	BOTANICAL NAME	COMMON NAME	NATIVE	SIZE	NOTE
		NEW PLANTING ON STREET SIDE WALK +CMW PREMISES				
Trees		**TREES - Flowering**				
	5	Acer Campestre or Prunus sargentii	Campestre Maple or flowering cherry		2"cal	Yellow Fall Color /Spring flowers
	5	Nyssa sylvatica Wildfire/JFS Red Firestarter	Black Gum	Y	2"cal	
	3	Amelanchier arborea 'Robin Hill'	Serviceberry/Shabush	Y	8' b&b	Multistemstem 1-1.5"cal
	11	Juniper Virginiana Emerald Sentinel	Eastern red cedar -15' high		6' b&b	
		SHRUBS				
Shrubs/Small Trees		Hamamalis xinteremedia 'Jelena'	Winter blooming Witchazel	N	4/5'b&b	
		Itea henry's garnet	Itea	Y	#5	
		Ilex Glabra	Inkberry	Y	#5	Evergreen screen
		PERENNIALS				
Perennials		Amsonia hubertii			1 gal	2-3' H, 2-3' Spread
		Carex pensylvanica	Sedge	Y	4" plugs	
		Drypoteris ferns	Autumn Fern		1 gal	
		Eupotorium purpureum ssp macultatum gateway	Joe Pye weed	Y	1 gal	5/6' H, 3-5' Spread, 24" spacing
		Liriope varieagated			1 gal	
		Monarda didyma 'Jacob cline'	Bee balm	Y		
		Panicum virgatum		Y	1 gal	3-4' H, 2-3'Spread, 12" spacing
		Penestemon Husker red			1 ga;	
		Vinca	Evergreen Grouncover		Flat	
Vines	4	Hydrangea anomala petiolaris 'Miranda'	Climbing hydrangea		#2 stkd	
Greenscreen						
		EXISTING STREET TREES				
		TREES - Street trees				
	3	Acer Campestre	Campestre Maple	Y	2"cal	Yellow Fall Color
	7	Nyssa sylvatica Wildfire/JFS Red Firestarter	Black Gum	Y	2"cal	
		Tree pits				
	2	No mow grass and groundcovers				4"-12" Ground cover

NOTE : PLANT MATERIAL SUBSTITUTIONS MAYBE NECESSARY BASED ON PLANT INVENTORY AT TIME OF CONSTRUCTION



ALL TREES ON SITE ARE INVASIVE AND ARE RECOMMENDED TO BE REMOVED BY CITY ARBORIST

1 EXISITING TREES
Scale: 1/32" = 1'-0"

NOT FOR CONSTRUCTION

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ODEH ENGINEERS
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MECHANICAL ENGINEER
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ELECTRICAL ENGINEER
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79 Main St, Sturbridge, MA 01566

LANDSCAPE ARCHITECT
ANJALI JOSHI DESIGN
161 Exchange Street Pawtucket, RI 02860

NOT FOR CONSTRUCTION

PROGRESS SET

02.18.2022

SUMMER STREET APARTMENTS

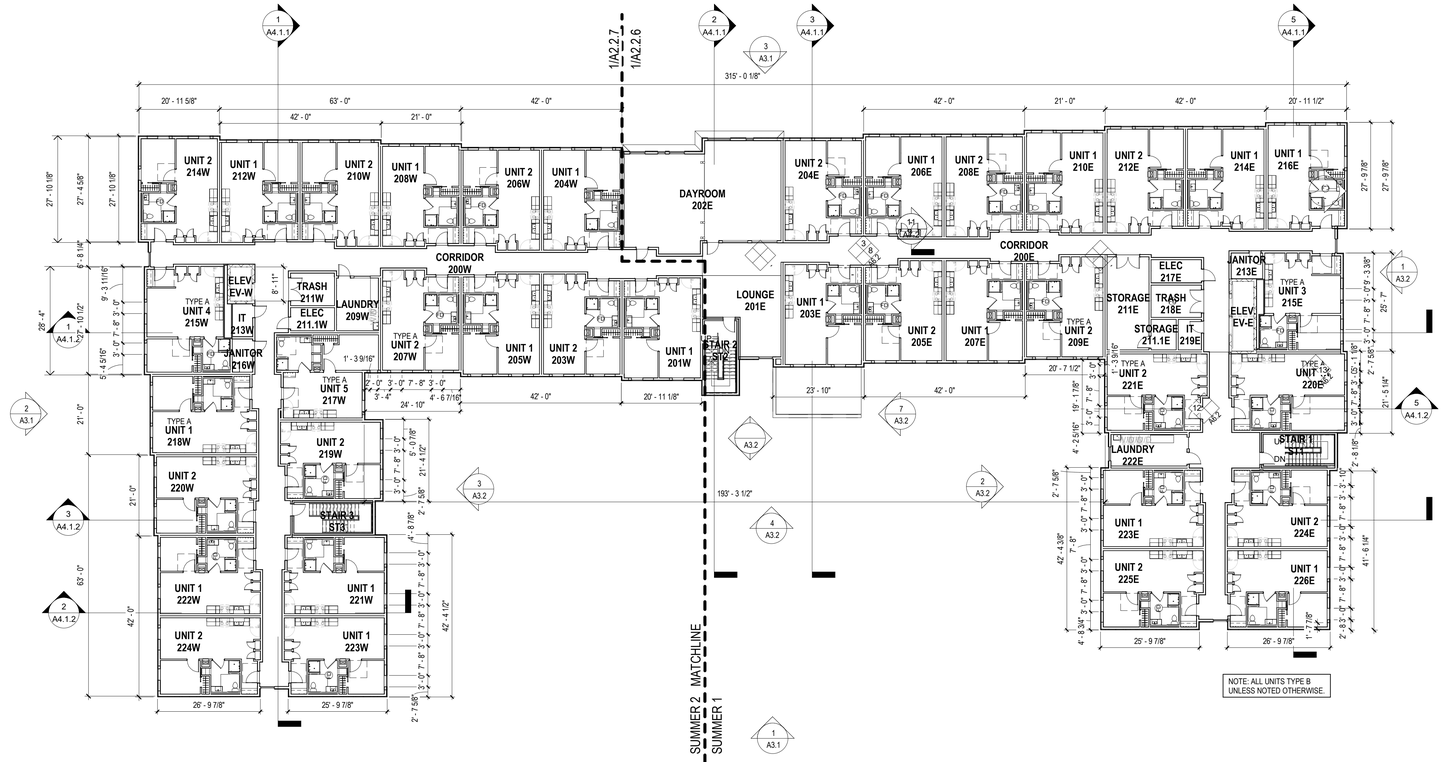
94 Summer Street,
Providence, RI 02903

PROJECT NO. 2032

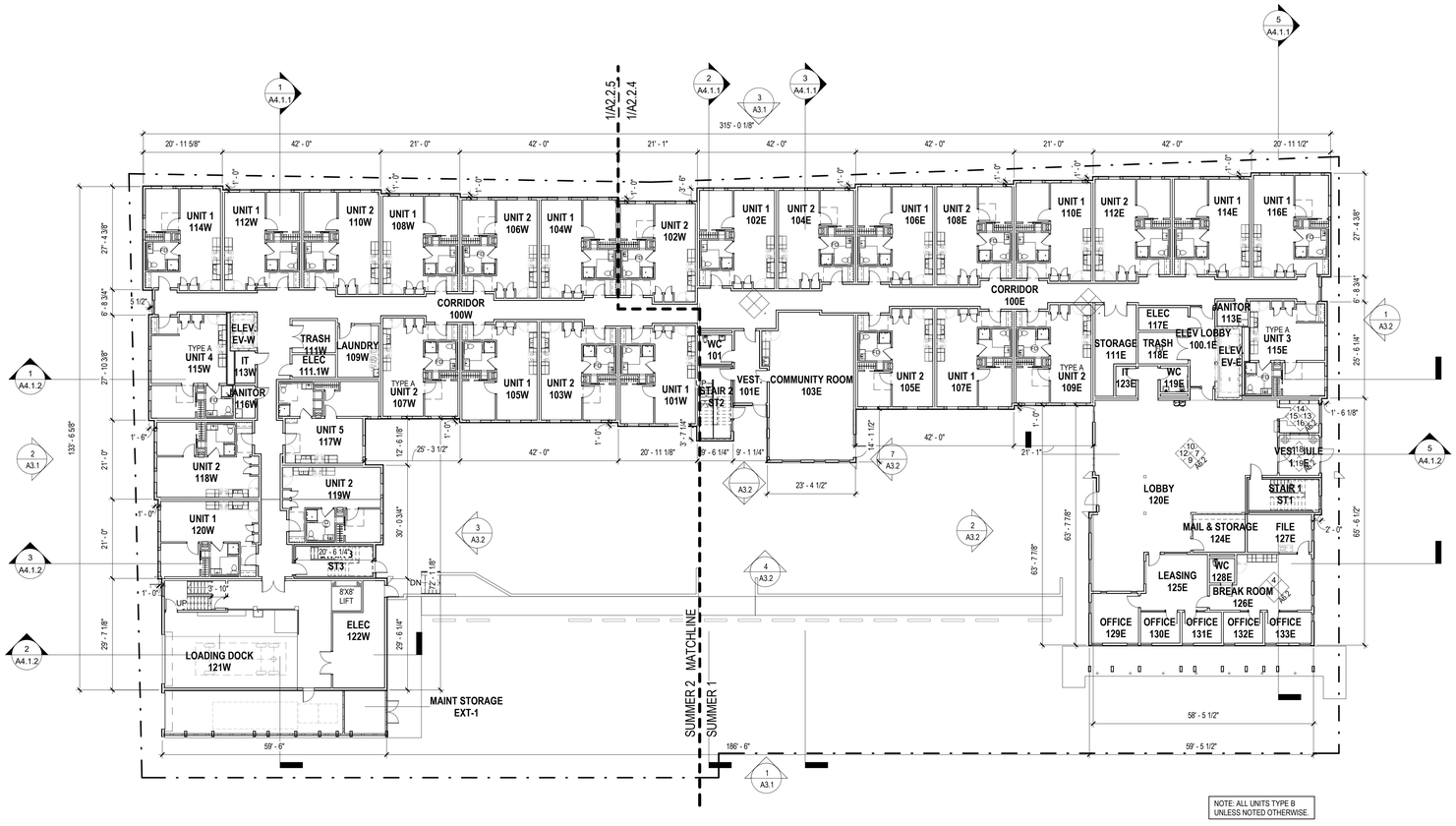
NO.	DATE	ISSUED FOR
	3/25/2022	PROGRESS SET

LANDSCAPE PLAN - CPC PERMITTING

LA. 3.1



2 SECOND FLOOR PLAN (TYPICAL UPPER FLOOR)
1/16" = 1'-0"



1 FIRST FLOOR PLAN
1/16" = 1'-0"

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PROGRESS SET

02.18.2022

SUMMER STREET APARTMENTS

94 Summer Street,
Providence, RI 02903

PROJECT NO. 2032

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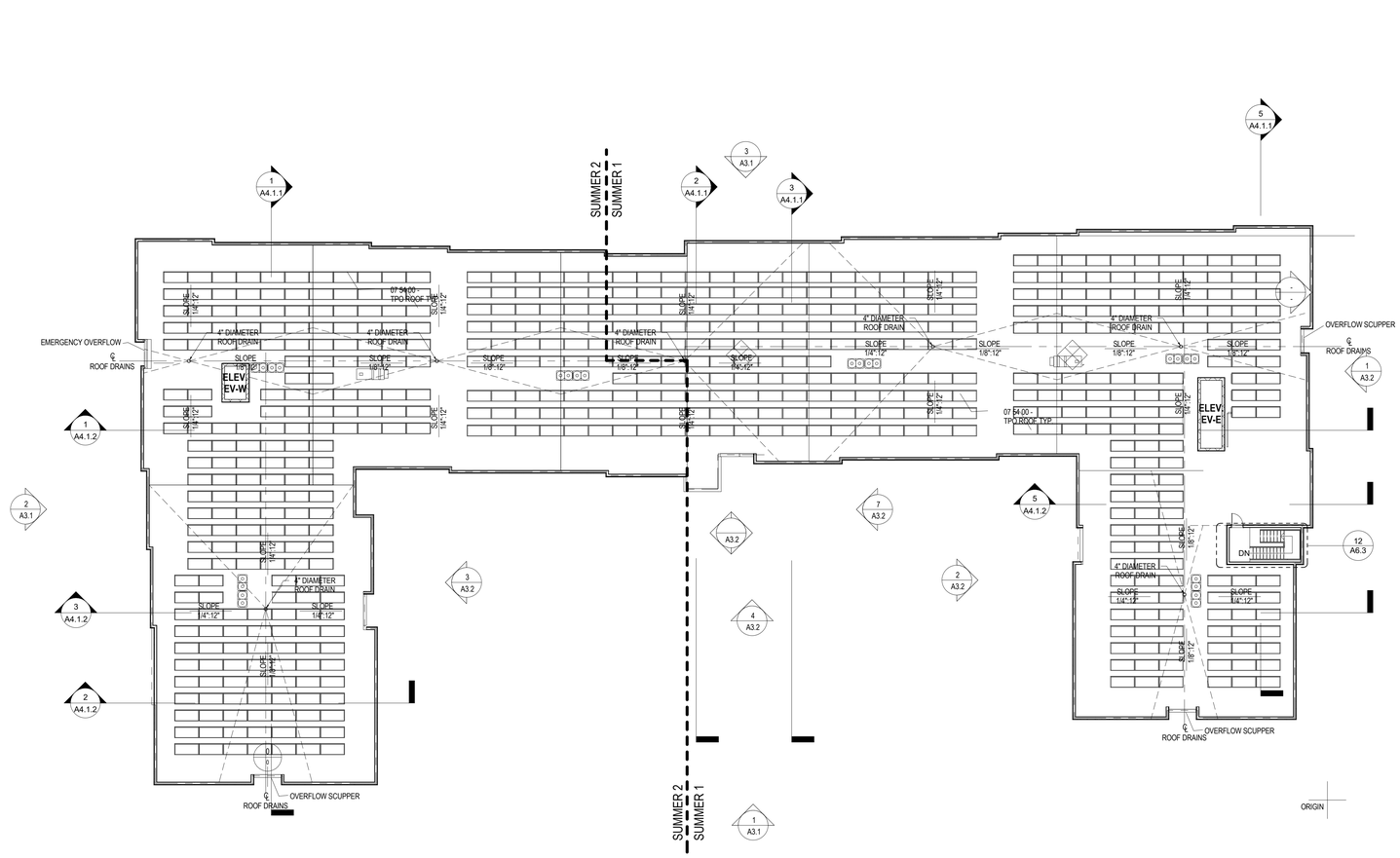
	02/18/22	PROGRESS SET

FLOOR PLANS: FIRST FLOOR AND TYP. UPPER FLOOR

A2.2.0



1 ROOF PLAN
1/16" = 1'-0"

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LANDSCAPE ARCHITECT
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NOT FOR CONSTRUCTION

PROGRESS SET

02.18.2022

SUMMER STREET APARTMENTS

94 Summer Street,
Providence, RI 02903

PROJECT NO. 2032

NO.	DATE	ISSUED FOR
	12/17/21	PROGRESS SET
	02/18/22	PROGRESS SET

ROOF PLAN

A2.2.3

NOT FOR CONSTRUCTION

kite

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CIVIL ENGINEER
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1223 Mineral Spring Ave, North Providence, RI 02904

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LANDSCAPE ARCHITECT
ANJALI JOSHI DESIGN
161 Exchange St, Pawtucket, RI 02860

NOT FOR CONSTRUCTION

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SUMMER STREET APARTMENTS

94 Summer Street,
Providence, RI 02903

PROJECT NO. 2032

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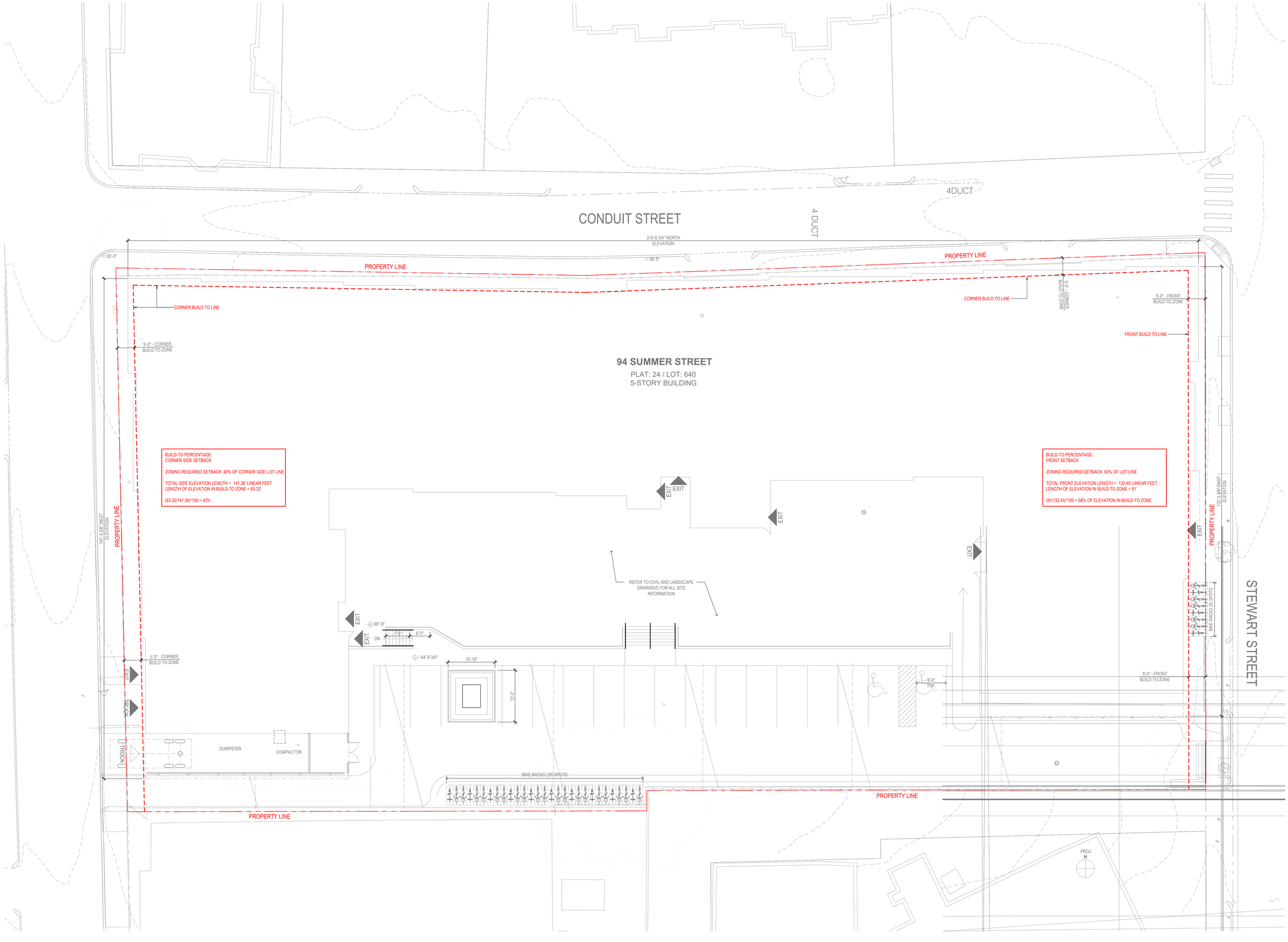
	02/18/22	PROGRESS SET

ELEVATIONS

A3.1



1 **PLAN**
SITE

3/32" = 1'-0"

KITE Architects
One Central Street
Providence, Rhode Island 02907
401.272.0240
info.kitearchitects.com

Civil Engineer
Narragansett Engineering Inc.
Structural Engineer
ODEH Engineers
Mechanical Engineer
Wilkinson Associates
Landscape Architect

PROGRESS SET

FOR REVIEW ONLY
NOT FOR CONSTRUCTION

12.17.21

94 SUMMER STREET APARTMENTS

One Central Street
Providence, Rhode Island 02907

PROJECT NO. 2032

NO.	DATE	ISSUED FOR
	12.17.21	PROGRESS SET

SITE PLAN

A1.0

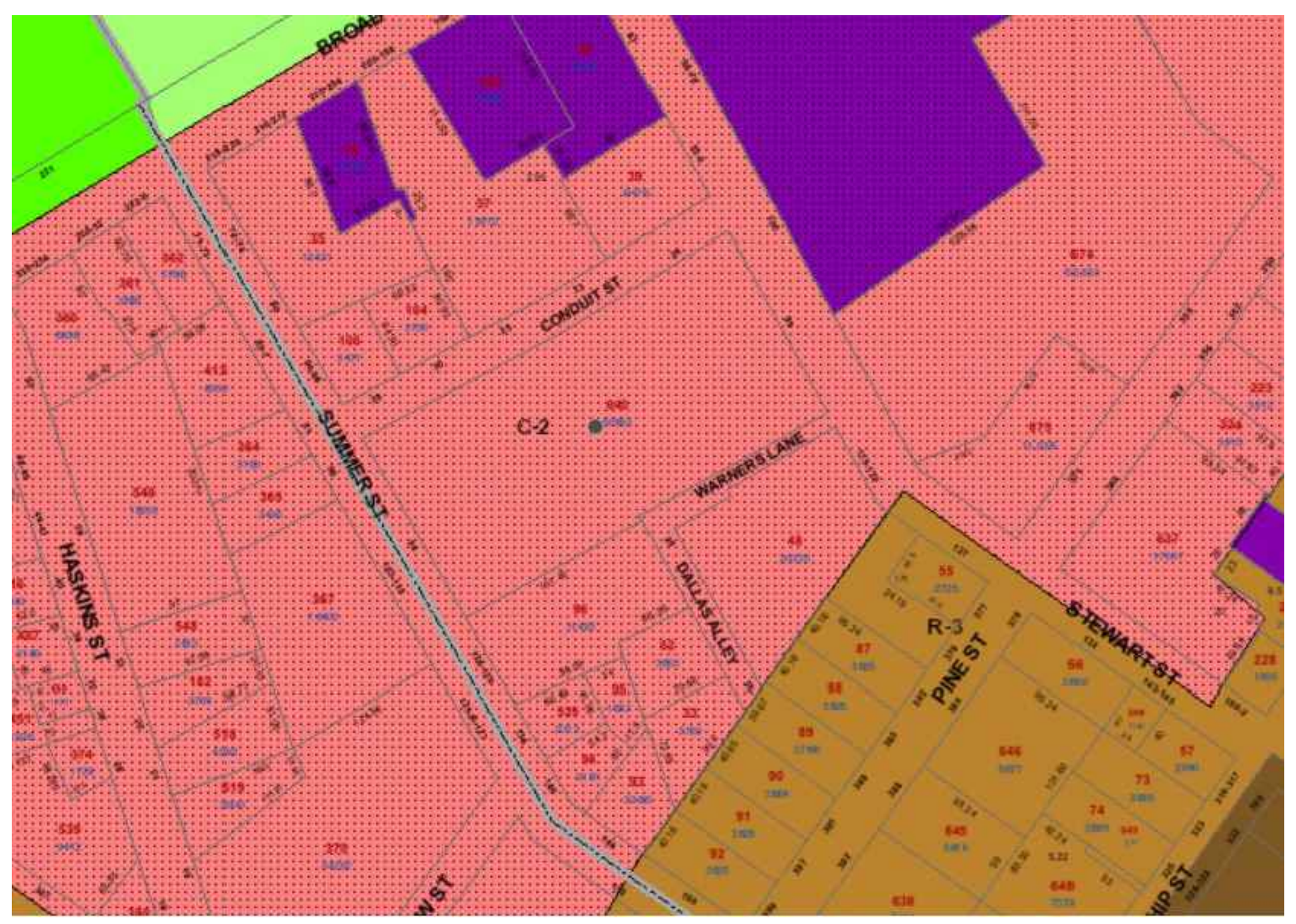
NEI Narragansett Engineering Inc.
Civil - Survey Structural Environmental Design
3102 East Main Road, Portsmouth RI 02871
Tel. 401.683.6630 www.nei-cds.com

SUMMER STREET APARTMENTS

COVER SHEET
MINOR LAND DEVELOPMENT APPLICATION
OWNER OF RECORD:
CROSSROADS RI (PER ASSESSOR)
APPLICANT:
CROSSROADS RI
PREPARED BY:
NARRAGANSETT ENGINEERING INC.
3-25-22

SHEET INDEX:

GIS ZONING MAP

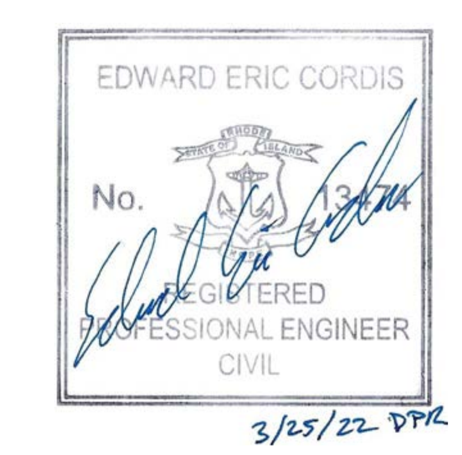


Zoning notes:
Zone: C-2 (Gen Commercial) / TOD (Traffic Sensitive Overlay District)
See architectural plans by Kite Architects for all zoning (parking, bike spaces, loading areas, etc.) data unless noted otherwise:

Selected zoning data:
One Loading Space Required, One Provided.
1406.B - Loading Space 12'x35'x15' (height)

1407.A
2. Multi-Family and Rowhouse Dwellings, and Non-Residential Driveways With the exception of loading berths, driveways are limited to a maximum width of 12 feet for oneway drives, and a maximum of 24 feet for two-way drives.

1 COVER — EXTENDED SITE VIEW
Scale: 1" = 50'

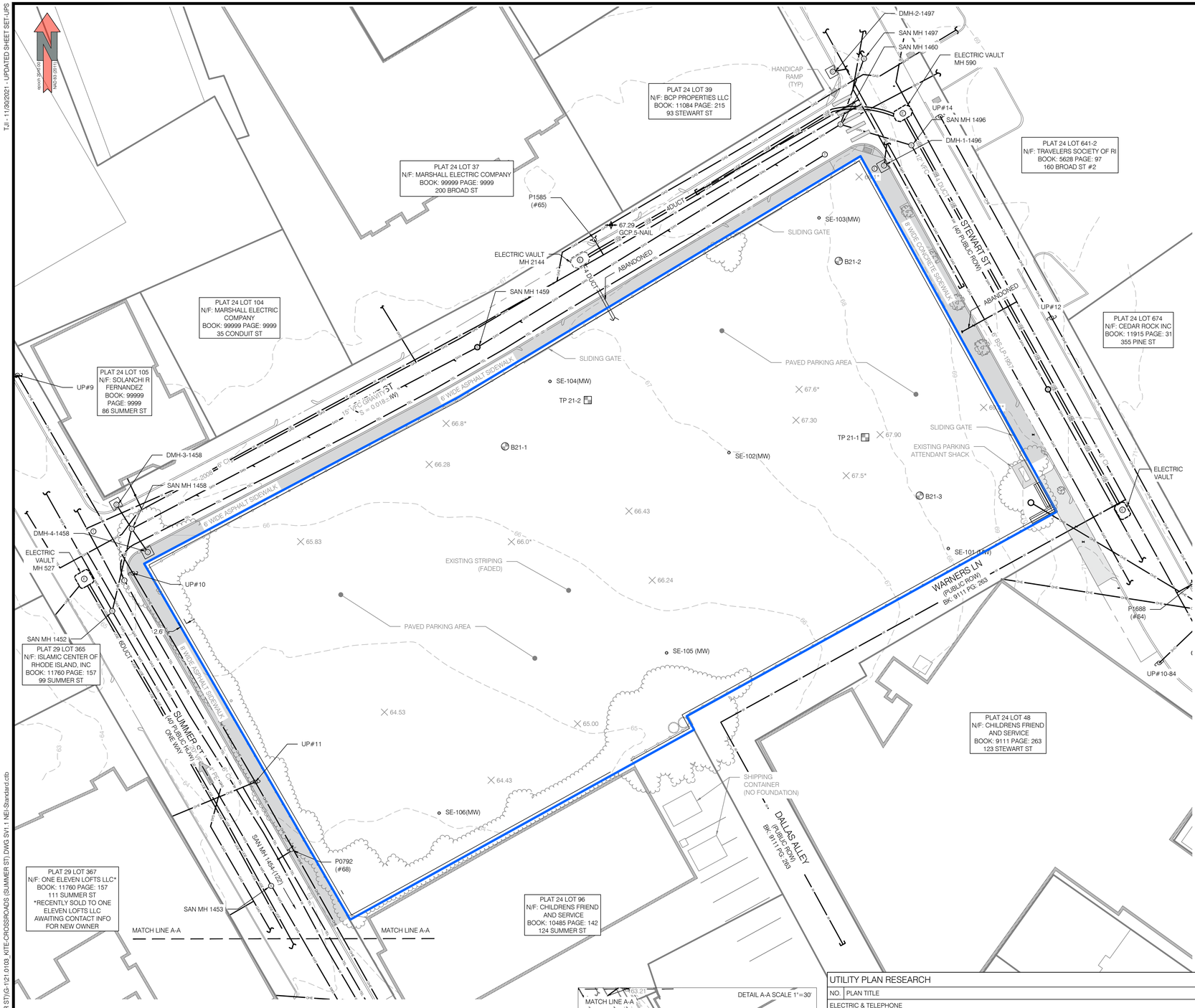


LEGEND

- 100.00' DIMENSION - EXISTING
- 100.00' DIMENSION - PROPOSED
- 100.00' (D) PLAN / DEED DIMENSION
- 100.00' (S) SURVEY DIMENSION
- PROPERTY LINE - ABUTTING
- PROPERTY LINE - EXISTING
- PROPERTY LINE - PROPOSED
- SETBACKS
- 100.00 GRADE CONTOUR - EXISTING
- 100.00 GRADE CONTOUR - PROPOSED
- ELECTRIC - OVERHEAD (OHE)
- ELECTRIC - TELEPHONE - CABLE (ETC)
- ELECTRIC - UNDERGROUND (UGE)
- GAS (G)
- SANITARY SEWER (S)
- STORM DRAIN (SD)
- WATER
- LIMIT OF DISTURBANCE (LOD)
- SEDIMENT CONTROL (SED)
- LOD / SED
- EDGE OF PAVEMENT - EXISTING
- FENCE - METAL
- FENCE - WOOD
- STONE WALL
- BRUSH LINE (APPROXIMATE)
- WETLAND LIMIT

CATCH BASIN		STRUCTURE, EXISTING	
DRAINAGE MANHOLE		STRUCTURE, PROPOSED	
ELECTRICAL MANHOLE		SPOT GRADE - EXISTING	4.24
SANITARY MANHOLE		SPOT GRADE - PROPOSED	4.24
TELEPHONE MANHOLE		DRILL HOLE	
MONITORING WELL		GRANITE BOUND	
GATE VALVE		REBAR / STEEL PIPE FOUND	
WATER SHUT OFF		SPIKE	
FIRE HYDRANT		WETLAND FLAG LOCATION	
ELECTRIC BOX (ETC)		BENCHMARK	
UTILITY POLE		BORING	
TREE		SOIL EVALUATION	TH No. 48" SHGWT 80" LEDGE
CURB INLET			

TJI - 11/30/2021 - UPDATED SHEET SET-UPS



1 SV1.1 **EXISTING UTILITY PLAN**

Scale: 1" = 20'

0 50 75 100 150 250

UTILITY NOTES:
1. LOCATION OF SUBSURFACE MAINS, SURFACE FEATURES, AND LATERALS ARE OMITTED. CONTRACTOR TO CALL DIG SAFE AND/OR APPLICABLE UTILITY COMPANIES PRIOR TO ANY CONSTRUCTION. DIG SAFE TEL #:1-800-344-7233 (1-800-DIG-SAFE).
   A. WATER - SHOWN BASED ON RECORD PLANS BY PROVWATER- UTILITY REFERENCE 8. NOT FIELD LOCATED
   B. SEWER - SURFACE FEATURES AND INVERTS, SHOWN BASED ON UAV DATA & FIELD MEASUREMENTS PERFORMED BY NARRAGANSETT ENGINEERING ON 08-12-2021. SUBSURFACE PER PLAN REF.
   C. GAS -SURFACE FEATURES PER FIELD AND UAV DATA. SUBSURFACE FEATURES SHOWN PER PAVEMENT MARKINGS IN FIELD AND PLAN REF.
   D. ELECTRIC & TELEPHONE - SURFACE FEATURES PER FIELD & UAV DATA. UNDERGROUND LINES AND STRUCTURES SHOWN PER PLAN REF.
   E. STORM DRAIN - SURFACE FEATURES AND INVERTS, SHOWN BASED ON UAV DATA & FIELD MEASUREMENTS PERFORMED BY NARRAGANSETT ENGINEERING ON 08-12-2021. SUBSURFACE PER PLAN REF.
2. SEWER AND STORM DRAINS DEPICTED AT ASCE QUALITY LEVEL D.
3. GAS, ELECTRIC, TELEPHONE, AND WATER DEPICTED AT ASCE QUALITY LEVEL D.
4. REFER TO UTILITY PLAN REFERENCE TABLE FOR ALL UTILITY RECORD PLANS USED.

UNMANNED AERIAL VEHICLE (UAV) NOTES:
1. THIS PLAN IS BASED ON A PRIVATE UAV FLIGHT PROVIDED BY NARRAGANSETT ENGINEERING INC. AND OTHER REFERENCE MATERIAL AS LISTED HEREON. THE UAV FLIGHT TOOK PLACE ON JULY 15TH, 2021 ; RMS ERROR OF GROUND CONTROL POINTS (COMPUTED) : 0.023'. IMAGES WERE TAKEN AT 150ft. ABOVE GROUND LEVEL, PIXEL SIZE IS 0.08' EXPECTED VERTICAL TOLERANCE (RMS ERROR, Z: 0.031)
2. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND IS SUBJECT TO THE RESTRICTIONS. COVENANTS AND/OR EASEMENTS THAT MAY BE CONTAINED THEREIN.
3. ELEVATIONS WERE COMPUTED FROM A PRIVATE UAV FLIGHT USING PHOTOGRAMMETRY SOFTWARE AND TESTED AGAINST FOUR GROUND CONTROL POINTS WITH AN AVERAGE VERTICAL ACCURACY OF .08 ft. THERE MAY BE ANOMALIES IN THE DATA AND SHOULD BE FIELD VERIFIED PRIOR TO CONSTRUCTION.
4. ORTHOGRAPHY PHOTO DEVELOPED BY DATA AND PICTURES COLLECTED BY THE UAV TO ACCURATELY INTERPOLATE AND DEPICT THE SITE.
5. UAV FLOWN BY FAA CERTIFIED PILOT AND WAS PROPERLY INSURED DURING FLIGHT.

SURVEY NOTES:
1. ZONING INFORMATION SHOW FROM RECORD INFORMATION, MAPS AND / OR GIS. ZONING DATA MAY VARY BASED ON USE, LOT SIZE, ORIENTATION AND OTHER FACTORS AND IS SHOWN FOR REFERENCE INFORMATION ONLY.
2. ZONING DATA MUST BE CONFIRMED WITH ZONING OFFICIAL AND / OR LEGAL COUNSEL FOR USE IN DESIGN OR PERMITTING.
3. ALL PERTINENT ZONING DATA IS SHOWN ON ARCHITECTURAL PLAN REFERENCE.
4. COORDINATE SYSTEM IS RI3800 / NAVD 88.
5. TOPOGRAPHY IS MIX OF ON GROUND SHOTS & UAV DATA.
6. ALL PROPOSED ITEMS MUST BE LAID OUT BY REGISTERED SURVEYOR AS NOTED.
7. PLAN IS NOT AS-BUILT UTILITY PLAN.
8. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT OF PROBATE SEARCH, AND IS SUBJECT TO THE RESTRICTIONS, COVENANTS AND/OR EASEMENTS THAT MAY BE CONTAINED THEREIN.
9. SEE SHEET SV1.1 FOR ALL UTILITY INFORMATION.
10. THE SOIL BORING AND TEST PIT NUMBERS CORRESPOND TO THE "GEOTECHNICAL SOIL INVESTIGATION AND PRELIMINARY FEASIBILITY REPORT" BY RMA GEOENVIRONMENTAL DATED JANUARY 28, 2021
11. ABUTTING PROPERTY LINES SHOWN APPROXIMATELY PER CITY OF PROVIDENCE GIS

BENCHMARK NOTE:
NEI WILL ALWAYS PROVIDE A MINIMUM OF TWO SITE BENCHMARKS. CONTRACTOR TO VERIFY ALL BENCHMARKS EXIST PRIOR TO CONSTRUCTION. ELEVATIONS OF ALL BENCHMARKS TO BE SHOT IN FIELD (WITH SUITABLE EQUIPMENT) AND DIFFERENTIAL TO BE VERIFIED. IF VERTICAL DIFFERENTIAL EXCEEDS 0.05 IT SHALL BE IMMEDIATELY REPORTED TO NEI. DIFFERENTIAL IN EXCESS OF 0.05' INDICATES THAT BENCHMARKS MAY HAVE BEEN DISTURBED AND ARE NOT SUITABLE FOR USE.

SAN MH 1460			DMH-1-1496	
RIM EL	67.80		RIM EL	68.38
INV A 12" VFC	55.55	INVERT IN	INV A	63.88
INV B 12" VFC	55.55	INVERT IN	DMH-2-1497	
INV C 12" VFC	55.55	INVERT IN	RIM EL	68.29
INV D 15" VFC	55.45	INVERT OUT	INV A	64.27
SAN MH 1459			DMH-3-1458	
RIM EL	66.61		RIM EL	66.02
INV A 15" VFC	54.31	INVERT IN	INV A	??
INV B 15" VFC	54.31	INVERT OUT	DMH-4-1458	
SAN MH 1458			RIM EL	N/A
RIM EL	65.40		INV A	N/A
INV A 15" VFC	53.20	INVERT IN	DMH-5-1454?	
INV B 15" VFC	53.20	INVERT OUT	RIM EL	62.25
SAN MH 1452			INV A	
RIM EL	65.14		DMH-6-1454?	
INV A 15" VFC	52.90	INVERT IN	RIM EL	62.33
INV B 15" VFC	53.0	INVERT IN	INV A	DIRTY
INV C 20" VFC	52.59	INVERT OUT		
SAN MH 1453				
RIM EL	63.65			
INV A 20" VFC	51.20	INVERT IN		
INV B 20" VFC	51.12	INVERT OUT		
SAN MH 1454				
RIM EL	62.34			
INV A 20" VFC	49.80	INVERT IN		
INV B 20" VFC	49.76	INVERT OUT		

UTILITY PLAN RESEARCH

NO.	PLAN TITLE	DATE
ELECTRIC & TELEPHONE		
1	"CONDUIT STREET, SUMMER ST TO SEEKELL ST, SHOWING LOCATION OF CONDUIT" PREPARED BY THE NARRAGANSETT ELECTRIC COMPANY	6/8/2004
2	"STEWART STREET, MH 657 TO CONDUIT ST, SHOWING LOCATION OF CONDUIT" PREPARED BY NARRAGANSETT ELECTRIC LIGHTING COMPANY	12/12/2016
3	"SUMMER STREET, FRIENDSHIP ST TO WARNERS LN, SHOWING LOCATION OF CONDUIT" PREPARED BY NARRAGANSETT ELECTRIC LIGHTING COMPANY	6/25/2004
SEWER & STORMWATER		
4	PLAN PREPARED BY CITY ENGINEERS OFFICE SEWER DEPARTMENT. DRAWER 157 SHEET 1	1/26/1996
5	PLAN PREPARED BY CITY ENGINEERS OFFICE SEWER DEPARTMENT. DRAWER 157 SHEET 9	5/20/1882
GAS		
6	NATIONAL GRID GIS PLAN " SUMMER ST"	8/15/2021
7	NATIONAL GRID GIS PLAN "SUMMER ST 2"	8/15/2021
8	NATIONAL GRID GIS PLAN "STEWART ST GAS"	11/21/2020
WATER		
8	PROVIDENCE WATER DEPARTMENT GIS PDF/IMAGE	8/23/2021

LEGEND

- 100.00' — DIMENSION - EXISTING
- 100.00' — DIMENSION - PROPOSED
- 100.00' (D) — PLAN / DEED DIMENSION
- 100.00' (S) — SURVEY DIMENSION
- PROPERTY LINE - ABUTTING
- PROPERTY LINE - EXISTING
- PROPERTY LINE - PROPOSED
- SETBACKS
- 100.00 — GRADE CONTOUR - EXISTING
- 100.00 — GRADE CONTOUR - PROPOSED
- OHE — ELECTRIC - OVERHEAD (OHE)
- ETC — ELECTRIC - TELEPHONE - CABLE (ETC)
- UGE — ELECTRIC - UNDERGROUND (UGE)
- GAS — GAS (G)
- SAN — SANITARY SEWER (S)
- SD — STORM DRAIN (SD)
- W — WATER
- LOD — LIMIT OF DISTURBANCE (LOD)
- SED — SEDIMENT CONTROL (SED)
- LOD / SED — LOD / SED
- EDGE OF PAVEMENT - EXISTING
- FENCE - METAL
- FENCE - WOOD
- STONE WALL
- BRUSH LINE (APPROXIMATE)
- WETLAND LIMIT
- CATCH BASIN
- DRAINAGE MANHOLE
- ELECTRICAL MANHOLE
- SANITARY MANHOLE
- TELEPHONE MANHOLE
- MONITORING WELL
- GATE VALVE
- WATER SHUT OFF
- FIRE HYDRANT
- ELECTRIC BOX (ETC)
- UTILITY POLE
- TREE
- CURB INLET
- STRUCTURE, EXISTING
- STRUCTURE, PROPOSED
- 4.24 — SPOT GRADE - EXISTING
- 4.24 — SPOT GRADE - PROPOSED
- DRILL HOLE
- GRANITE BOUND
- REBAR / STEEL PIPE FOUND
- SPIKE
- WETLAND FLAG LOCATION
- BENCHMARK
- BORING
- TH No. 48" SHGWT 80" LEDGE — SOIL EVALUATION

Narragansett Engineering Inc.
Civil • Survey Structural Environmental Design
3102 East Main Road, Portsmouth RI 02871
Tel. 401.683.6630 www.nei-cds.com

SHEET TITLE
EXISTING UTILITY PLAN

SUMMER STREET APARTMENTS

IN CARE OF: CHRISTINE M. WEST, AIA | PRINCIPAL
KITE ARCHITECTS | ONE CENTRAL STREET |
PROVIDENCE RI 02907 KITEARCHITECTS.COM |
401.272.0240 X117
CW@KITEARCHITECTS.COM

PROPERTY RECORD
94 SUMMER ST, PROVIDENCE, RI 02903
PLAT: 24, LOT: 640
ZONE: C-2
AREA: 1.16 ACRES
N/F: CROSSROADS RI
REF. NEI # 0019.198

CERTIFICATION
THIS SURVEY HAS BEEN CONDUCTED AND THE PLAN HAS BEEN PREPARED PURSUANT TO 435-RICR00-00-1.9 OF THE RULES AND REGULATIONS ADOPTED BY THE RHODE ISLAND STATE BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS ON DECEMBER 31, 2020 (EFFECTIVE DATE); AS FOLLOWS:
CLASS I (PARTIAL) AS NOTED
CLASS III (PHYSICAL FEATURES)
TOPOGRAPHIC SURVEY T-2

THIS COMPILATION PLAN HAS BEEN PREPARED FROM SOURCES OF INFORMATION AND DATA WHOSE POSITIONAL ACCURACY AND RELIABILITY HAS NOT BEEN VERIFIED. THE PROPERTY LINES DEPICTED HEREON DO NOT REPRESENT A BOUNDARY OPINION, AND OTHER INFORMATION DEPICTED IS SUBJECT TO SUCH CHANGES AS AN AUTHORITATIVE FIELD SURVEY MAY DISCLOSE.

THE PURPOSE FOR THE CONDUCT OF THE SURVEY AND FOR THE PREPARATION OF THE PLAN IS AS FOLLOWS: FOR THE PREPARATION OF A CLASS I AND CLASS III LIMITED CONTENT SURVEY PLAN.

NEAL HINGORANY REG. 2515
COA: A38

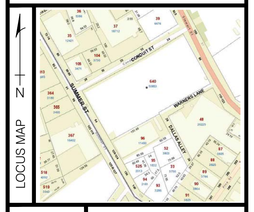
nei-cds.com

PROJECT #	DATE	DRAWN	CHECK
21.0103	12/17/21	LD	NKH

No	DATE	REVISIONS/DESCRIPTION	BY
1	02/18/22	PROGRESS SET	CB

DRAWINGS MUST BE PRINTED IN COLOR TO BE VALID. THIS NOTE SHOULD BE BLUE. IF THIS NOTE IS NOT BLUE, PLEASE REPRINT IN COLOR OR CONTACT NEI.

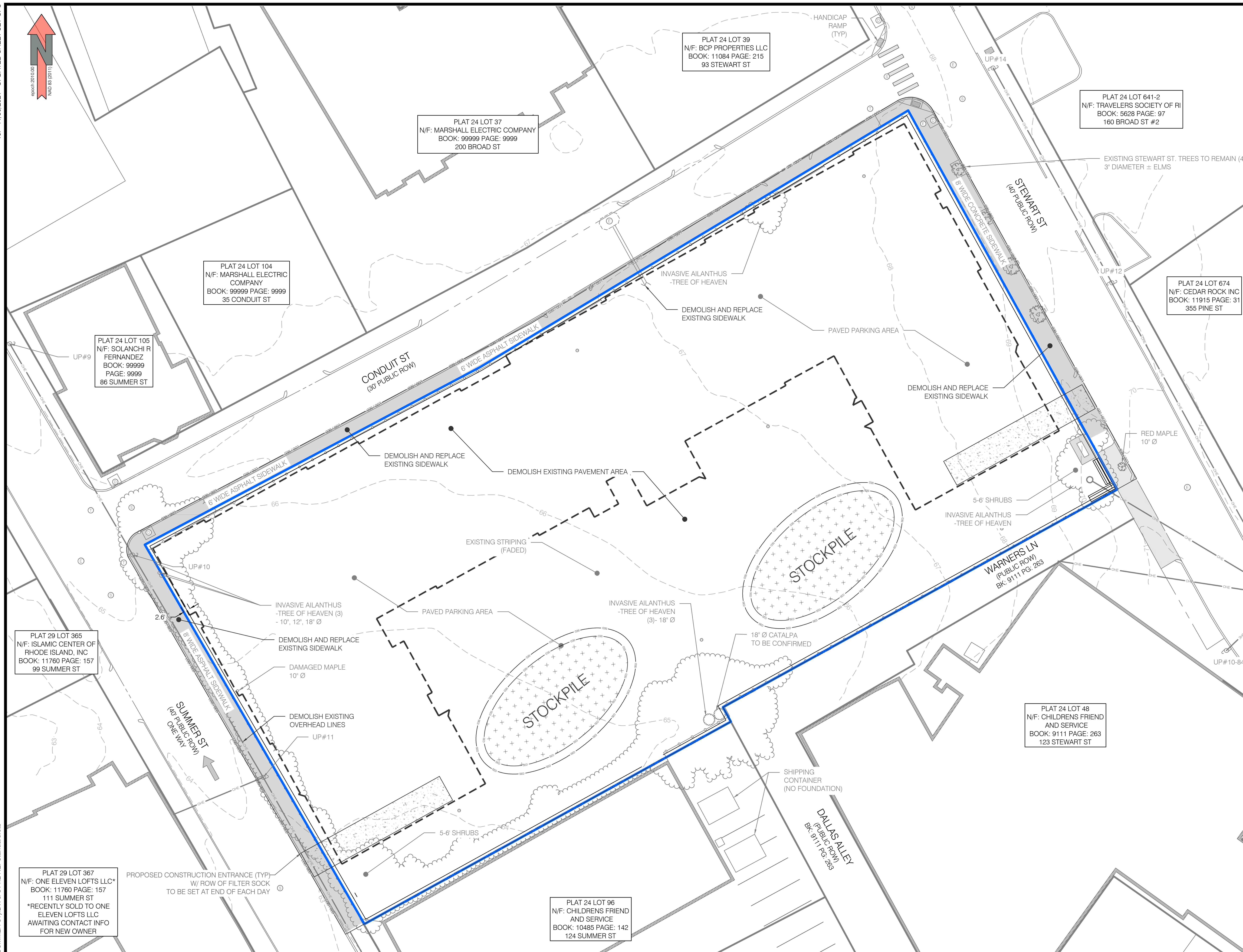
LOCUS MAP



SCALE 1"=20'

SV1.1

N:\PROJECTS\21.0103_KITE-CROSSROADS (SUMMER ST)\G-1\21.0103_KITE-CROSSROADS (SUMMER ST).DWG SV1.1 NEI-Standard.ctb



1 SV1.2 SEDIMENT AND EROSION CONTROL AND DEMO PLAN

Scale: 1" = 20'

0 50 75 100 150 250

EROSION AND SEDIMENT CONTROL NOTES:

1. ALL EROSION CONTROL SHALL BE IN ACCORDANCE WITH RHODE ISLAND SOIL EROSION AND SEDIMENT CONTROL HANDBOOK, LATEST REVISION.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION AND MAINTENANCE OF ALL SEDIMENT AND EROSION CONTROL MEASURES SHOWN ON THESE PLANS.
3. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED AND MAINTAINED ONCE WEEKLY OR AFTER EVERY RAINFALL EVENT GREATER THAN 0.25 INCHES.
4. SEDIMENT BUILD UP GREATER THAN ONE-HALF THE BARRIER HEIGHT SHALL BE REMOVED AND DISPOSED OF PROPERLY AS REQUIRED. ANY SEDIMENT BUILD UP OUTSIDE OF THE SEDIMENT BARRIER SHALL BE REMOVED IMMEDIATELY.
5. CONTRACTOR SHALL MAINTAIN A RESERVE OF EROSION CONTROL MATERIALS FOR EMERGENCY USE AND ROUTINE MAINTENANCE.
6. THE CONTROLS SHOWN ON THESE PLANS ARE INTENDED AS MINIMUM MEASURES. ADDITIONAL MEASURES MAY BE REQUIRED AND SHALL BE IMPLEMENTED BY THE CONTRACTOR IF WARRANTED OR REQUESTED BY THE OWNER, OWNERS REPRESENTATIVE, ENGINEER, OR ANY APPLICABLE REGULATING AGENCY.
7. PRIOR TO THE START OF ANY LAND CLEARING / GRUBING OR OTHER CONSTRUCTION ACTIVITY THE PERIMETER CONTROLS SHALL BE PLACED, PROPERLY CONSTRUCTED AND CLEARLY VISIBLE. THESE CONTROLS SHALL REPRESENT THE LIMITS OF WORK AND WORKERS SHALL BE NOTIFIED THAT NO CONSTRUCTION ACTIVITY IS ALLOWED BEYOND THESE CONTROLS.
8. IF OR AS POSSIBLE CONSTRUCTION SHALL BE PHASED TO LIMIT TO THE MAXIMUM EXTENT PRACTICABLE THE AMOUNT OF EXPOSED SOILS. ALL DISTURBED AREAS SHALL BE TEMPORARILY OR PERMANENTLY STABILIZED WITHIN 14 DAYS OF COMPLETION OF GRADING ACTIVITIES.
9. THE CONTRACTOR SHALL SCHEDULE WORK IN A WAY TO ALLOW POSITIVE DRAINAGE OF SUBGRADE THROUGHOUT CONSTRUCTION.
10. CONSTRUCTION ENTRANCES PER RIDOT STANDARD DETAIL 9.9.0 SHALL BE EMPLOYED AT ALL POINTS OF INGRESS AND EGRESS FROM THE SITE.
11. TEMPORARY DIVERSIONS, SEDIMENT BASINS, AND TEMPORARY SWALES MAY BE USED AND SHALL BE SIZED ACCORDING TO THE RHODE ISLAND SOIL EROSION AND SEDIMENT CONTROL HANDBOOK.
12. CATCH BASINS AND STORM DRAINS SHALL BE PROTECTED PER RIDOT STANDARD DETAIL 9.8.0 IN GRASSED AREAS OR SEDIMENT BAGS IN PAVED AREAS.
13. TEMPORARY SEDIMENT STOCK PILES SHALL BE KEPT MOIST AND COVERED AT ALL TIMES. CALCIUM CHLORIDE SHALL ONLY BE USED IF AN APPROVAL FROM THE TOWN/CITY OR OTHER APPLICABLE AGENCY HAS BEEN GRANTED.
14. DEWATERING FROM EXCAVATIONS WILL BE CONVEYED BY HOSE TO AN UPLAND AREAS AND DISCHARGED INTO A DEWATERING BASIN PER RIDOT STANDARD 9.7.0, HAYBALE CORRALS, OR SEDIMENTATION BAGS. THE CONTRACTOR SHALL ENSURE THAT NO CONTAMINATE IS PRESENT IN ANY WATERS PRIOR TO DISCHARGE FROM SITE AND IS RESPONSIBLE FOR ALL ENGINEERING, EQUIPMENT, MATERIAL AND LABOR REQUIRED FOR THE SITE WATER REMOVAL DURING CONSTRUCTION.
15. CONSTRUCTION WASTE MATERIALS SHALL BE KEPT ON-SITE AND DISPOSED OF IN AN APPROVED AND APPROPRIATE MANNER IN ACCORDANCE WITH ALL APPLICABLE REGULATORY AGENCIES.
16. RIPRAP SHALL BE USED WHERE NECESSARY TO CONTROL EXIT VELOCITIES.
17. NON MOBILE (I.E. TRACKED MACHINERY) SHALL BE MAINTAINED WITHIN THE LIMIT OF DISTURBANCE DEFINED BY SEDIMENT BARRIER.
18. NEWLY VEGETATED AREAS SHALL BE REGULARLY INSPECTED AND MAINTAINED TO ENSURE ESTABLISHMENT OF APPROPRIATE VEGETATION.
19. THE CONTRACTOR SHALL NOT REMOVE ANY EROSION AND SEDIMENTATION CONTROL MEASURES UNTIL FINAL ACCEPTANCE OF THE SITE HAS OCCURRED.
20. ALL DRAINAGE STRUCTURES SHALL BE CLEARED OF ACCUMULATED SEDIMENT PRIOR TO THE FINAL SITE ACCEPTANCE.
21. TEMPORARY VEGETATIVE COVER SHALL BE APPLIED TO ANY DISTURBED AREAS (INCLUDING SOIL STOCKPILE AREAS) THAT HAVE NOT YET REACHED FINISH GRADE AS SOON AS POSSIBLE, BUT NOT MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT AREA HAS A TEMPORARY ASSIST UNLESS THE ACTIVITY IS TO RESUME WITHIN 21 DAYS. THE RECOMMENDED TEMPORARY SEATING DATES ARE MARCH 15 TO NOVEMBER 15 WITH THE APPROVAL OF THE ENGINEER.THIS TEMPORARY VEGETATIVE COVER SHALL CONSIST OF 60% OF ANNUAL OR PERENNIAL RYEGRASS AND 40% OF MULLET OR SUDAN GRASS OR 100% OF WINTER RYE. ANNUAL OR PERENNIAL RYEGRASS SHALL BE PLANTED AT THE RATE OF 1.5 POUNDS PER 1000 FT.^{2}, WINTERIZE SHALL BE PLANTED AT A RATE OF 2.5 POUNDS PER 1000 FT.^{2}, AND MILLET OR SUDAN GRASS SHALL BE PLANTED AT A RATE OF 1 POUND PER 1000 FT.^{2}

LIMESTONE AND FERTILIZER SHALL BE APPLIED ACCORDING TO SOIL TEST RECOMMENDATIONS OFFERED BY THE UNIVERSITY OF RHODE ISLAND SOIL TESTING LABORATORY. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL, FERTILIZER MAY BE APPLIED AT THE RATE OF 300 POUNDS PER ACRE OR 7 1/2 POUNDS PER 1000 FT.^{2} OF 10 – 10–10 OR EQUIVALENT. APPLY LIMESTONE EQUIVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDE AS FOLLOWS: (1) 3 TONS PER ACRE OR 135 POUNDS FOR 1000 FT.^{2} FOR CLAY, CLAY LOAM, AND HIGH ORGANIC SOIL (2) 2 TONS PER ACRE OR 90 POUNDS FOR 1000 FT.^{2} FOR SANDY LOAM, LOAM, SILTY LOAM, AND (3) 1 TON PER ACRE OR 45 POUNDS PER 1000 FT.^{2} LOAMY SAND OR SAND. TEMPORARY VEGETATIVE COVER SHALL BE INSTALLED AS OUTLINED IN THE RHODE ISLAND SOIL EROSION AND SEDIMENT CONTROL HANDBOOK.

22. PERMANENT VEGETATIVE COVER SHALL BE APPLIED TO ALL DISTURBED AREAS THAT HAVE REACHED FINISH GRADE AS SOON AS POSSIBLE, BUT NO MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT AREA HAS PERMANENTLY CEASED. THE RECOMMENDED PERMANENT SEATING DATES ARE APRIL 1 TO MAY 31 AND AUGUST 15 TO OCTOBER 15. PERMANENT VEGETATIVE COVER OUTSIDE OF DETENTION BASINS, IMPERVIOUS SURFACES, OR NOT OTHERWISE SPECIFIED ON THE LANDSCAPE PLANS SHALL RECEIVE THE FOLLOWING SEED MIXTURE ALSO KNOWN AS PARK SEED MIXTURE.

75% OF RED FESCUE	APPLICATION RATE: 1.75 LBS/ 1,000 SF
15% OF KENTUCKY BLUEGRASS	APPLICATION RATE: 0.35 LBS/ 1,000 SF
5% COLONIAL BENTGRASS	APPLICATION RATE: 0.11 LBS/ 1,000 SF
5% OF PERENNIAL RYEGRASS	APPLICATION RATE: 0.11 LBS/ 1,000 SF

LIMESTONE AND FERTILIZER SHALL BE APPLIED ACCORDING TO SOIL TEST RECOMMENDATIONS OFFERED BY THE UNIVERSITY OF RHODE ISLAND SOIL TESTING LABORATORY. IF SOIL TESTING IS NOT FEASIBLE ON SMALL OR VARIABLE SITES, OR WHERE TIMING IS CRITICAL, FERTILIZER MAY BE APPLIED AT A RATE OF 500 POUNDS PER ACRE OR 11.5 POUNDS PER 1000 FT.^{2} OF 10–20 DASH 20 OR EQUIVALENT. APPLY LIMESTONE EQUIVALENT TO 50% CALCIUM PLUS MAGNESIUM OXIDE AS FOLLOWS: 4 TONS PER ACRE OR 180 POUNDS PER 1000 FT.^{2} FOR CLAY, CLAY LOAM, AND HIGH ORGANIC SOIL: 3 TONS PER ACRE OR 135 POUNDS PER 1000 FT.^{2} FOR SANDY LOAM, LOAM, OR SILT LOAM: AND 2 TONS PER ACRE OR 90 POUNDS PER 1000 FT.^{2} LET ME SAND OR SAND.

NOTE:
THE USE OF HAY IS NOT ALLOWED. ALL REFERENCES TO HAY, SHALL BE TAKEN TO MEAN STRAW.

STOCKPILE NOTE:
ALL STOCKPILES AND SOIL HANDLING ARE SUBJECT TO REQUIREMENTS AS REQUIRED BY ENVIRONMENTAL CONSULTANT

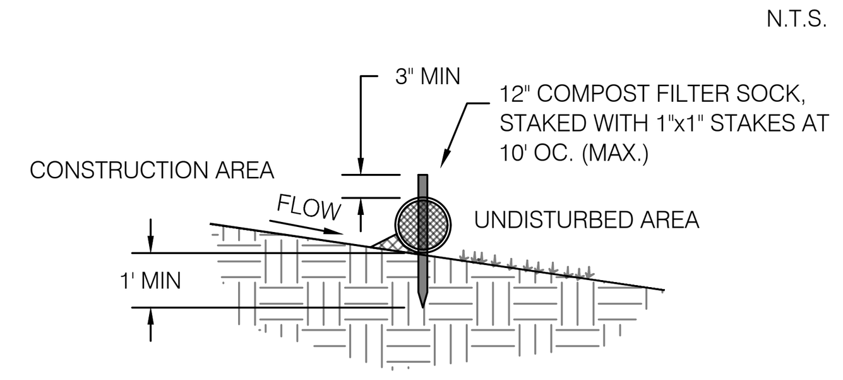
NOTE:
COORDINATE WITH ENVIRONMENTAL REPORTS AND PERMITS BY SAGE ENVIRONMENTAL

SEDIMENT BARRIER COMPOST FILTER SOCK DETAIL

REF. SECTION 206.03.4 OF RIDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION
N.T.S.

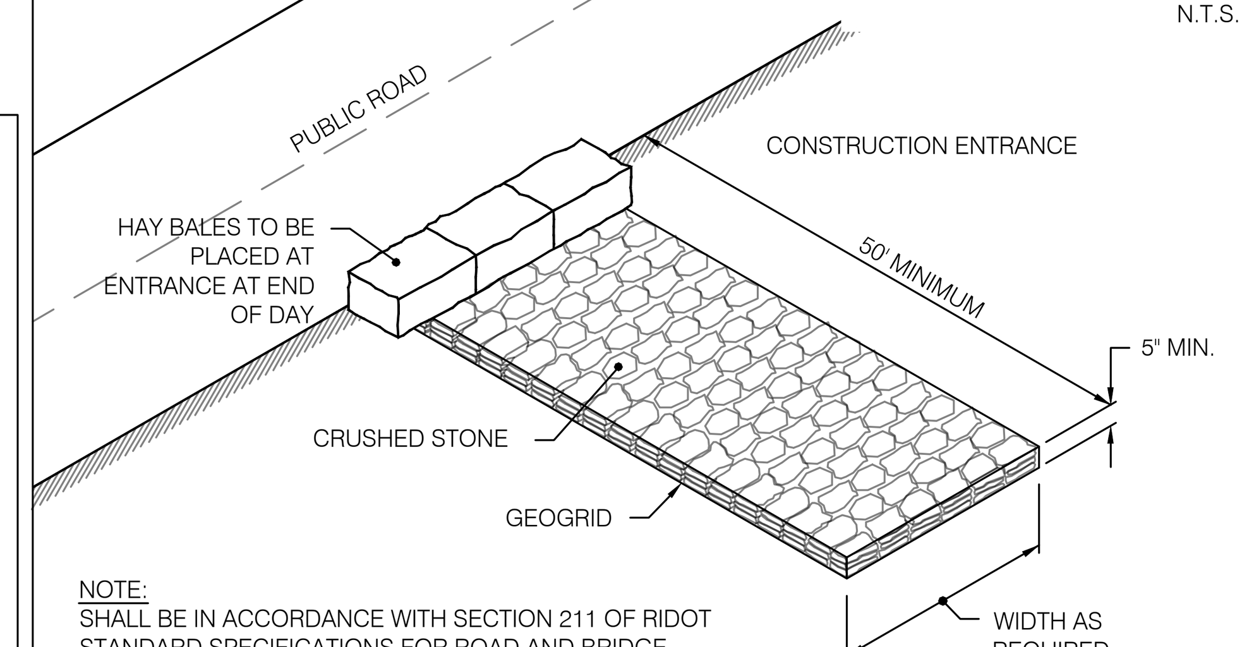
A. INSTALLATION. COMPOST FILTER SOCKS SHALL BE CONSTRUCTED AT THE LOCATIONS, AND IN ACCORDANCE WITH THE DETAILS INDICATED ON THE PLANS, OR AS DIRECTED BY THE ENGINEER. THE FOLLOWING STIPULATIONS ALSO APPLY:
   1. COMPOST FILTER SOCKS MAY BE EITHER FABRICATED ON SITE OR DELIVERED TO THE SITE.
   2. COMPOST MEDIA SHALL CONFORM TO AASHTO MP 9-06 AND RIDOT SECTION 206.
   3. TRENCHING IS NOT REQUIRED. COMPOST FILTER SOCKS SHALL BE PLACED OVER THE TOP OF GROUND, WOODEN STAKES SHALL BE DRIVEN THROUGH THE CENTER OF THE FILTER SOCKS TO ANCHOR THEM TO THE GROUND. TO ENSURE OPTIMUM PERFORMANCE, HEAVY VEGETATION SHALL BE CUT DOWN OR REMOVED, AND EXTREMELY UNEVEN SURFACES SHALL BE GRADED TO ENSURE THAT THE COMPOST FILTER SOCK UNIFORMLY CONTACTS THE GROUND SURFACE.
   4. FILTER SOCKS SHALL BE PLACED IN A CONTINUOUS LINE. WHERE ENDS INTERSECT THEY SHALL BE SLEEVED TO CREATE AN INTERLOCK WITH A TWO (2) FOOT OVERLAP. AFTER ONE SECTION IS FILLED AND THE ENDS TIED OFF, THE NEXT SECTION SHALL BE PULLED OVER THE TIED OFF END OF THE PREVIOUS SECTION, TO CREATE A 2 FOOT OVERLAP. THE OVERLAP SHALL BE STAKED. THE INTERSECTING OVERLAPS SHALL BE CONSTRUCTED TO ENSURE THAT STORMWATER DOES NOT BREAK THROUGH AT THESE INTERSECTION POINTS.

B. REMOVAL. THIS WORK, IF REQUIRED, SHALL INCLUDE THE REMOVAL OF THE COMPOST FILTER SOCK AND STAKES. UNLESS BIODEGRADABLE, THE MESH FILTER SOCK MATERIAL SHALL BE CUT OPEN AND THE MESH REMOVED. IN GENERAL, THE COMPOST FILTER MATERIAL MAY BE LEFT IN PLACE, HOWEVER THE MATERIAL WILL BE RAKED OUT LEVELED TO SURROUNDING GRADES, THEN SEEDED. PRIOR TO SUCH REMOVAL, HOWEVER, ALL SILT, MUD AND DEBRIS ENTRAPPED OUTSIDE OF THE COMPOST FILTER SOCK SHALL BE REMOVED AND THE AREA CLEANED UP IN ACCORDANCE WITH THE APPLICABLE PROVISIONS OF SECTION 212 OF RIDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.



CONSTRUCTION ACCESS

PER RIDOT STANDARD 9.9.0
N.T.S.

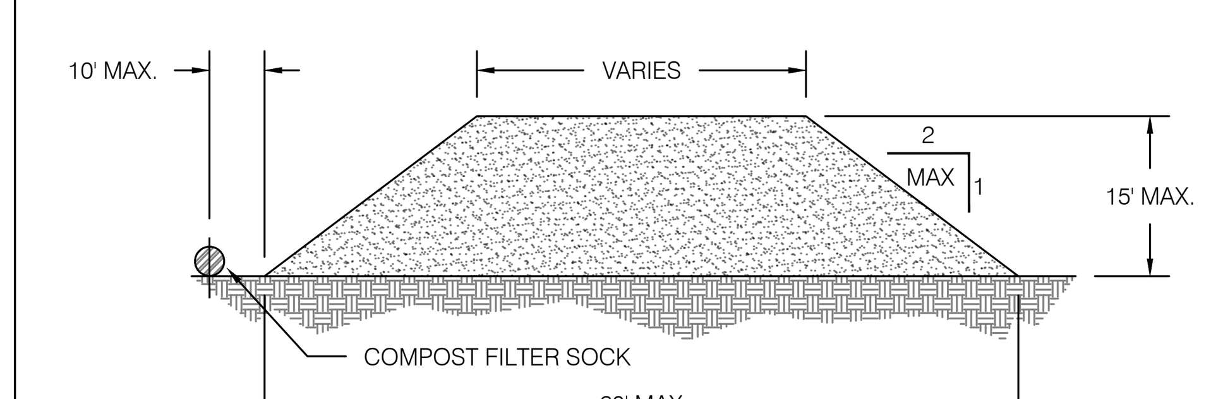


NOTE:
SHALL BE IN ACCORDANCE WITH SECTION 211 OF RIDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION

TEMPORARY SEDIMENT STOCKPILE

N.T.S.

NOTES:
1. PRIOR TO CONSTRUCTION, CONTRACTOR SHALL PREPARE PLAN INDICATING LOCATIONS OF SEDIMENT STOCKPILES FOR APPROVAL BY THE ENGINEER OR APPROPRIATE REGULATORY AUTHORITY.
2. STOCKPILE SHALL NOT EXCEED GIVEN DIMENSIONS WITHOUT APPROVAL BY ENGINEER OR APPROPRIATE REGULATORY AUTHORITY.
3. STOCKPILED MATERIAL NOT TO BE USED WITHIN 14 CALENDAR DAYS SHALL BE PLANTED WITH TEMPORARY SEED MIX PER RIDOT STD M.18.10.5.



LEGEND

100.00'	DIMENSION - EXISTING
100.00'	DIMENSION - PROPOSED
100.00' (D)	PLAN / DEED DIMENSION
100.00' (S)	SURVEY DIMENSION
	PROPERTY LINE - ABUTTING
	PROPERTY LINE - EXISTING
	PROPERTY LINE - PROPOSED
	SETBACKS
100.00	GRADE CONTOUR - EXISTING
100.00	GRADE CONTOUR - PROPOSED
OHE	ELECTRIC - OVERHEAD (OHE)
ETC	ELECTRIC - TELEPHONE - CABLE (ETC)
UGE	ELECTRIC - UNDERGROUND (UGE)
G	GAS (G)
S	SANITARY SEWER (S)
SD	STORM DRAIN (SD)
W	WATER
LOD	LIMIT OF DISTURBANCE (LOD)
SED	SEDIMENT CONTROL (SED)
LOD / SED	LOD / SED
	EDGE OF PAVEMENT - EXISTING
	FENCE - METAL
	FENCE - WOOD
	STONE WALL
	BRUSH LINE (APPROXIMATE)
	WETLAND LIMIT

	CATCH BASIN		STRUCTURE, EXISTING
D	DRAINAGE MANHOLE		STRUCTURE, PROPOSED
E	ELECTRICAL MANHOLE	4.24	SPOT GRADE - EXISTING
S	SANITARY MANHOLE	4.24	SPOT GRADE - PROPOSED
T	TELEPHONE MANHOLE		DRILL HOLE
MW	MONITORING WELL		GRANITE BOUND
XV	GATE VALVE		REBAR / STEEL PIPE FOUND
WSO	WATER SHUT OFF		SPIKE
	FIRE HYDRANT		WETLAND FLAG LOCATION
E	ELECTRIC BOX (ETC)		BENCHMARK
	UTILITY POLE		BORING
	TREE	TH No. 48" SHGWT 80" LEDGE	SOIL EVALUATION
D	CURB INLET		

NEI Narragansett Engineering Inc.
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SHEET TITLE
SEDIMENT AND EROSION CONTROL AND DEMO PLAN
SUMMER STREET APARTMENTS

IN CARE OF: CHRISTINE M. WEST, AIA | PRINCIPAL
KITE ARCHITECTS | ONE CENTRAL STREET |
PROVIDENCE RI 02907 KITEARCHITECTS.COM |
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PROPERTY RECORD
94 SUMMER ST, PROVIDENCE, RI 02903
PLAT: 24, LOT: 640
ZONE: C-2
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CLASS I (PARTIAL) AS NOTED
CLASS III (PHYSICAL FEATURES)
TOPOGRAPHIC SURVEY T-2

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NEAL HINGORANY REG. 2515
COA: A38

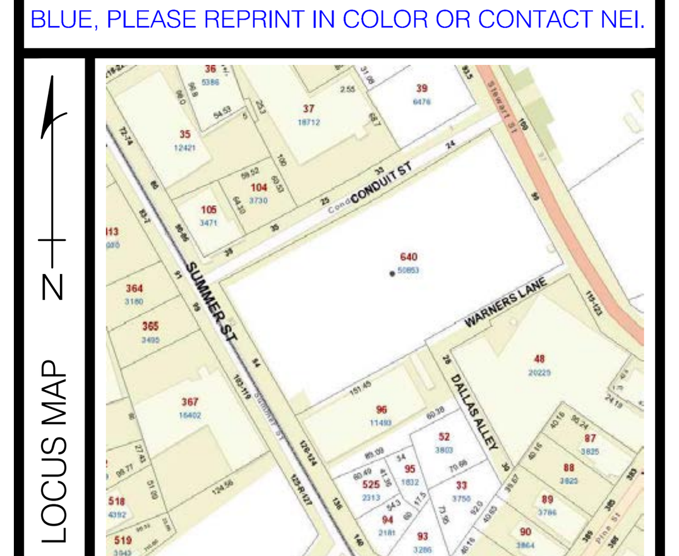
nei-cds.com

PROJECT #	DATE	DRAWN	CHECK
21.0103	12/17/21	LD	NKH

No	DATE	REVISIONS/DESCRIPTION	BY
1	02/18/22	PROGRESS SET	CB

EDWARD ERIC CORDIS
No.
REGISTERED PROFESSIONAL ENGINEER
CIVIL
3/25/22

DRAWINGS MUST BE PRINTED IN COLOR TO BE VALID. THIS NOTE SHOULD BE BLUE. IF THIS NOTE IS NOT BLUE, PLEASE REPRINT IN COLOR OR CONTACT NEI.



LOCUS MAP

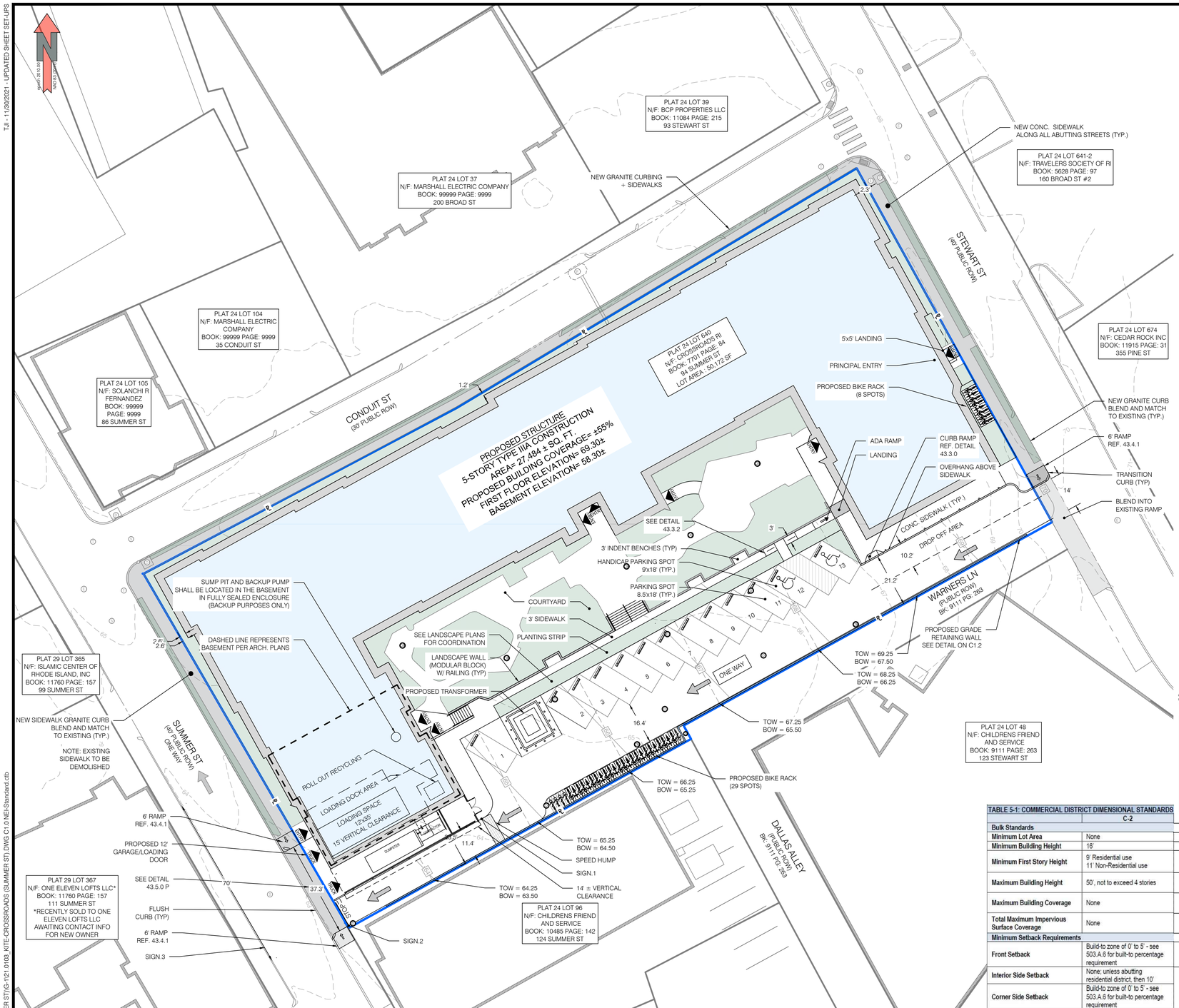
SCALE
1" = 20'

SV1.2

TJI - 11/30/2021 - UPDATED SHEET SET-UPS

N:\PROJECTS\21.0103_KITE-CROSSROADS (SUMMER ST)\G-1\21.0103_KITE-CROSSROADS (SUMMER ST) DWG SV1.2 NEI-Standard.ctb

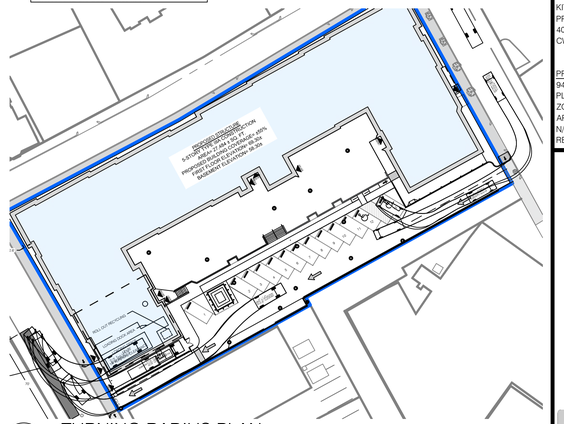
TJI - 11/30/2021 - UPDATED SHEET SET-UPS



1 C1.0 PROPOSED SITE PLAN

Scale: 1" = 20'

0 20 30 40 60 100



2 C1.0 TURNING RADIUS PLAN

Scale: 1" = 50'

0 50 75 100 150 250

UNMANNED AERIAL VEHICLE (UAV) NOTES:

1. THIS PLAN IS BASED ON A PRIVATE UAV FLIGHT PROVIDED BY NARRAGANSETT ENGINEERING INC. AND OTHER REFERENCE MATERIAL AS LISTED HEREON. THE UAV FLIGHT TOOK PLACE ON JULY 15th, 2021 : RMS ERROR OF GROUND CONTROL POINTS (COMPUTED) : 0.023'. IMAGES WERE TAKEN AT 150ft. ABOVE GROUND LEVEL, PIXEL SIZE IS 0.08" EXPECTED VERTICAL TOLERANCE (RMS ERROR, Z: 0.031')
2. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND IS SUBJECT TO THE RESTRICTIONS. COVENANTS AND/OR EASEMENTS THAT MAY BE CONTAINED THEREIN.
3. ELEVATIONS WERE COMPUTED FROM A PRIVATE UAV FLIGHT USING PHOTOGRAMMETRY SOFTWARE AND TESTED AGAINST FOUR GROUND CONTROL POINTS WITH AN AVERAGE VERTICAL ACCURACY OF .08 ft. THERE MAY BE ANOMALIES IN THE DATA AND SHOULD BE FIELD VERIFIED PRIOR TO CONSTRUCTION.
4. ORTHOGRAPHY PHOTO DEVELOPED BY DATA AND PICTURES COLLECTED BY THE UAV TO ACCURATELY INTERPOLATE AND DEPICT THE SITE.
5. UAV FLOWN BY FAA CERTIFIED PILOT AND WAS PROPERLY INSURED DURING FLIGHT.

SITE NOTES:

1. ZONING INFORMATION SHOW FROM RECORD INFORMATION, MAPS AND / OR GIS. ZONING DATA MAY VARY BASED ON USE, LOT SIZE, ORIENTATION AND OTHER FACTORS AND IS SHOWN FOR REFERENCE INFORMATION ONLY.
2. ZONING DATA MUST BE CONFIRMED WITH ZONING OFFICIAL AND / OR LEGAL COUNSEL FOR USE IN DESIGN OR PERMITTING.
3. ALL PERTINENT ZONING DATA IS SHOWN ON ARCHITECTURAL PLAN REFERENCE.
4. COORDINATE SYSTEM IS RI3800 / NAVD 88.
5. TOPOGRAPHY IS MIX OF ON GROUND SHOTS & UAV DATA.
6. ALL PROPOSED ITEMS MUST BE LAID OUT BY REGISTERED SURVEYOR AS NOTED.
7. PLAN IS NOT AS-BUILT UTILITY PLAN.
8. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT OF PROBATE SEARCH, AND IS SUBJECT TO THE RESTRICTIONS, COVENANTS AND/OR EASEMENTS THAT MAY BE CONTAINED THEREIN.
9. SEE SHEET SV-101 FOR ALL UTILITY INFORMATION.
10. THE SOIL BORING AND TEST PIT NUMBERS CORRESPOND TO THE 'GEOTECHNICAL SOIL INVESTIGATION AND PRELIMINARY FEASIBILITY REPORT' BY RMA GEOENVIRONMENTAL DATED JANUARY 28, 2021
11. ABUTTING PROPERTY LINES SHOWN APPROXIMATELY PER CITY OF PROVIDENCE GIS
12. REFERENCE: ARCHITECTURAL PLAN SET; " SUMMER STREET APARTMENTS'. PREPARED BY KITE ARCHITECTS, INC. DATED 02-10-22
13. REFERENCE: LANDSCAPE PLAN SET; "SUMMER ST LANDSCAPE PLAN OPTION 2". PREPARED BY ANJALI JOSHI. DATED 01-27-22

BENCHMARK NOTE:

NEI WILL ALWAYS PROVIDE A MINIMUM OF TWO SITE BENCHMARKS. CONTRACTOR TO VERIFY ALL BENCHMARKS EXIST PRIOR TO CONSTRUCTION. ELEVATIONS OF ALL BENCHMARKS TO BE SHOT IN FIELD (WITH SUITABLE EQUIPMENT) AND DIFFERENTIAL TO BE VERIFIED, IF VERTICAL DIFFERENTIAL EXCEEDS 0.05' IT SHALL BE IMMEDIATELY REPORTED TO NEI. DIFFERENTIAL IN EXCESS OF 0.05' INDICATES THAT BENCHMARKS MAY HAVE BEEN DISTURBED AND ARE NOT SUITABLE FOR USE.

NOTE:

WHERE PARKING STALL IS MARKED AS HANDICAP, HANDICAP SIGN SHALL BE PLACED ON BUILDING, ON POST BEHIND CURB, OR ON POST BEHIND SIDEWALK.

ADA PARKING GRADED AT 1:50 MAX.

SIGN INDEX:

SIGN.1:	SHARED LANE PEDESTRIANS AND VEHICLES USE CAUTION
SIGN.2:	STOP
SIGN.3:	PARKING RESTRICTION (PER CITY OF PROVIDENCE)

TURNING RADIUS INDEX:

VEHICLE.1 - F150 SUPER CAB
VEHICLE.2 - AMBULANCE
VEHICLE.3 - F150 SUPER CAB
VEHICLE.4 - SU30 SINGLE UNIT TRUCK
VEHICLE.5 - SU30 SINGLE UNIT TRUCK

VEHICLE 4 & VEHICLE 5 TURNING IS RELIANT ON PARKING RESTRICTIONS BY CITY OF PROVIDENCE. REFER TO MARCH 18TH 2022 LETTER BY DEPARTMENT OF PUBLIUC WORKS REGARDING PARKING RESTRICTIONS

TABLE 5-1: COMMERCIAL DISTRICT DIMENSIONAL STANDARDS

	C-2	PROVIDED
Bulk Standards		
Minimum Lot Area	None	50,172 SQ FT
Minimum Building Height	16'	62' ±
Minimum First Story Height	9' Residential use 11' Non-Residential use	12.5' ±
Maximum Building Height	50', not to exceed 4 stories	62' ± SEE TOD TABLE
Maximum Building Coverage	None	55% ±
Total Maximum Impervious Surface Coverage	None	85% ±
Minimum Setback Requirements		
Front Setback	Build-to zone of 0' to 5' - see 503.A.6 for built-to percentage requirement	SEE ARCH. PLAN FOR %
Interior Side Setback	None; unless abutting residential district, then 10'	SEE ARCH. PLAN FOR %
Corner Side Setback	Build-to zone of 0' to 5' - see 503.A.6 for built-to percentage requirement	
Rear Setback	None, unless abutting residential district, then 20'	SEE ARCH. PLAN FOR %

TABLE 11-2: TOD OVERLAY DISTRICT DIMENSIONAL STANDARDS

	TOD
Minimum Building Height	20'
Maximum Building Height	70'
Minimum Front Setback	Build-to zone of 0' to 8', with min. build-to percentage of 60%
Minimum Interior Side Setback	None; unless abutting residential, then 5'
Minimum Corner Side Setback	Build-to zone of 0' to 8', with min. build-to percentage of 40%
Minimum Rear Setback	None, unless abutting residential, then 10'

LEGEND

100.00'	DIMENSION - EXISTING
100.00'	DIMENSION - PROPOSED
100.00' (D)	PLAN / DEED DIMENSION
100.00' (S)	SURVEY DIMENSION
	PROPERTY LINE - ABUTTING
R	PROPERTY LINE - EXISTING
R	PROPERTY LINE - PROPOSED
	SETBACKS
100.00	GRADE CONTOUR - EXISTING
100.00	GRADE CONTOUR - PROPOSED
OHE	ELECTRIC - OVERHEAD (OHE)
ETC	ELECTRIC - TELEPHONE - CABLE (ETC)
UGE	ELECTRIC - UNDERGROUND (UGE)
GAS	GAS (G)
SAN	SANITARY SEWER (S)
SD	STORM DRAIN (SD)
W	WATER
LOD	LIMIT OF DISTURBANCE (LOD)
SED	SEDIMENT CONTROL (SED)
LOD / SED	LOD / SED
	EDGE OF PAVEMENT - EXISTING
	FENCE - METAL
	FENCE - WOOD
	STONE WALL
	BRUSH LINE (APPROXIMATE)
	WETLAND LIMIT
CATCH BASIN	STRUCTURE, EXISTING
DRAINAGE MANHOLE	STRUCTURE, PROPOSED
ELECTRICAL MANHOLE	SPOT GRADE - EXISTING
SANITARY MANHOLE	SPOT GRADE - PROPOSED
TELEPHONE MANHOLE	DRILL HOLE
MONITORING WELL	GRANITE BOUND
GATE VALVE	REBAR / STEEL PIPE FOUND
WATER SHUT OFF	SPIKE
FIRE HYDRANT	WETLAND FLAG LOCATION
ELECTRIC BOX (ETC)	BENCHMARK
UTILITY POLE	BORING
TREE	TH No. 48" SHGWT 80" LEDGE — SOIL EVALUATION
CURB INLET	

Narragansett Engineering Inc.
Civil • Survey Structural Environmental Design
3102 East Main Road, Portsmouth RI 02871
Tel. 401.683.6630 www.nei-cds.com

kite
KITE Architects, Inc.
One Central Street
Providence, Rhode Island 02907
401.272.0240
info@kitearchitects.com

SHEET TITLE
PROPOSED SITE PLAN

SUMMER STREET APARTMENTS

IN CARE OF: CHRISTINE M. WEST, AIA | PRINCIPAL
KITE ARCHITECTS | ONE CENTRAL STREET |
PROVIDENCE RI 02907 KITEARCHITECTS.COM |
401.272.0240 X117
CW@KITEARCHITECTS.COM

PROPERTY RECORD
94 SUMMER ST, PROVIDENCE, RI 02903
PLAT: 24, LOT: 640
ZONE: C-2
AREA: 1.16 ACRES
N/F: CROSSROADS RI
REF: NEI # 0019.198

EDWARD ERIC CORDIS
No. 13
REGISTERED PROFESSIONAL ENGINEER
CIVIL
3/25/22 DPR

nei-cds.com

PROJECT #	DATE	DRAWN	CHECK
21.0103	12/17/21	LD	NKH

No	DATE	REVISIONS/DESCRIPTION	BY
1	02/18/22	PROGRESS SET	CB

STREET INDEX:
THIS PLAN SHALL BE FILED UNDER-
SUMMER STREET
CONDUIT STREET
STEWART STREET

NEAL K. HINGORANY
No. 2515
PROFESSIONAL LAND SURVEYOR

DRAWINGS MUST BE PRINTED IN COLOR TO BE VALID. THIS NOTE SHOULD BE BLUE. IF THIS NOTE IS NOT BLUE, PLEASE REPRINT IN COLOR OR CONTACT NEI.

LOCUS MAP

SCALE 1"=20'

C1.0

N:\PROJECTS\21.0103_KITE-CROSSROADS (SUMMER ST)\G-1\21.0103_KITE-CROSSROADS (SUMMER ST).DWG C1.0 NEI-Standard.ctb

TJI - 11/30/2021 - UPDATED SHEET SET-UPS

SAN MH 1460			DMH-1-1496	
RIM EL	67.80		RIM EL	68.38
INV A 12" VFC	55.55	INVERT IN	INV A	63.88
INV B 12" VFC	55.55	INVERT IN	DMH-2-1497	
INV C 12" VFC	55.55	INVERT IN	RIM EL	68.29
INV D 15" VFC	55.45	INVERT OUT	INV A	64.27
SAN MH 1459			DMH-3-1458	
RIM EL	66.61		RIM EL	66.02
INV A 15" VFC	54.31	INVERT IN	INV A	??
INV B 15" VFC	54.31	INVERT OUT	DMH-4-1458	
SAN MH 1458			RIM EL	N/A
RIM EL	65.40		INV A	N/A
INV A 15" VFC	53.20	INVERT IN	DMH-5-1454?	
INV B 15" VFC	53.20	INVERT OUT	RIM EL	62.25
SAN MH 1452			INV A	
RIM EL	65.14		DMH-6-1454?	
INV A 15" VFC	52.90	INVERT IN	RIM EL	62.33
INV B 15" VFC	53.0	INVERT IN	INV A	SILTED
INV C 20" VFC	52.59	INVERT OUT		
SAN MH 1453				
RIM EL	63.65			
INV A 20" VFC	51.20	INVERT IN		
INV B 20" VFC	51.12	INVERT OUT		
SAN MH 1454				
RIM EL	62.34			
INV A 20" VFC	49.80	INVERT IN		
INV B 20" VFC	49.76	INVERT OUT		

PROPOSED UTILITY NOTE:
ALL PROPOSED UTILITIES ARE SUBJECT TO REVIEW PER A.H.J (AUTHORITY HAVING JURISDICTION)

epoch 2010.00 (NAD 83 (2011))

PROPOSED SEWER CONNECTION LATERAL TIE IN EL = 55.32 (CALCUALTED BASED ON RECORD PLAN. CONTRACTOR TO VIF PRIOR TO CONSTRUCTION) CONNECTION SPEC & BACK FLOW PREVENTER PER AHJ

PR SMH.2
INV IN = 55.42
INV OUT = 55.37

PROPOSED 8" Ø PVC SDR 40 @ 40%±

DMH-2-1497
SAN MH 1497
SAN MH 1460
ELECTRIC VAULT MH 590
UP#14
SAN MH 1496
DMH-1-1496
P1585 (#65)
ELECTRIC VAULT MH 2144
ABANDONED
SAN MH 1459
54.1'
PROPOSED SEWER CONNECTION LATERAL TIE IN EL = 54.60 (CALCULATED BASED ON RECORD PLAN. CONTRACTOR TO VIF PRIOR TO CONSTRUCTION) CONNECTION SPEC & BACK FLOW PREVENTER PER AHJ
PR SMH.1
INV IN = 54.70
INV OUT = 54.65
PROPOSED 8" Ø PVC SDR 40
UP#12
UP#9
EXISTING UP#9 TO REMAIN WITH ADDED RISER
RELOCATE EXISTING OVERHEAD COMMUNICATION LINES TO UNDERGROUND CONDUIT. COORDINATE WITH UTILITY SERVICE PROVIDERS
DMH-3-1458
PROPOSED STRUCTURE
5-STORY TYPE IIIA CONSTRUCTION
AREA= 27,484 ± SQ. FT.
PROPOSED BUILDING COVERAGE= ±55%
FIRST FLOOR ELEVATION= 69.30±
BASEMENT ELEVATION= 58.30±
PR CB.1
SAN MH 1458
76.4'
ELECTRIC VAULT
ROOF DRAIN PIPE = 6"Ø COORDINATE WITH ARCH FOR LOCATIONS (4) (TYP)
PR CB.2
PR CB.3
DMH-4-1458
ELECTRIC VAULT MH 527
UP#10
PR DMH.3
PR CB.6
PR CB.4
PR CB.5
PR DMH.2
P688 (#64)
SAN MH 1452
2.6'
EXISTING UP#10 & UP#11 TO BE REMOVED
PR DMH.4
SAND FILTER (TYP.)
PR DMH.1
UP#10-84
RELOCATED FIRE HYDRANT LOCATION
EXISTING OVERHEAD COMMUNICATION LINE TO BE REMOVED. COORDINATE WITH AP 29-367 & UTILITY SERVICE PROVIDER TO RE-ROUTE SERVICE IN UNDERGROUND CONDUIT
UP#11
PR DMH.5
PR CB.8
PR CB.7
PROPOSED STORM WATER STORAGE TANKS PER EC (TYP.)
PROPOSED FIRE SERVICE LINE (6" Ø) CONNECTION PER MEP DRAWINGS (CONNECTION POINT TO BE DETERMINED BY PVD WATER)
PROPOSED DOMESTIC WATER LINE (4" Ø) CONNECTION PER MEP DRAWINGS
PR DMH.6
REPLACE EXISTING FIRE HYDRANT AS SHOWN
P5792 (#68)
SAN MH 1454 (152)
SAN MH 1453
PR EMH.1 AS REQ'D PER AHJ
PR DMH.7
SANITARY SEWER CONNECTION TO NEW 10" CONNECTOR TO EXISTING 20" VCT
INV IN = 50.77
MATCH LINE A-A
MATCH LINE A-A

1 C1.1 PROPOSED UTILITY PLAN
Scale: 1" = 20'
0 50 75 100 150 250

DETAIL A-A SCALE 1"=30'
INV IN = 50.77
MATCH LINE A-A
UP#12 TO REMAIN
DMH-6-1454
SAN MH 1454 (152)
DMH-5-1454
SAN MH 1454

SITE NOTES:
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3. ALL PERTINENT ZONING DATA IS SHOWN ON ARCHITECTURAL PLAN REFERENCE.
4. COORDINATE SYSTEM IS RI3800 / NAVD 88.
5. TOPOGRAPHY IS MIX OF ON GROUND SHOTS & UAV DATA.
6. ALL PROPOSED ITEMS MUST BE LAID OUT BY REGISTERED SURVEYOR AS NOTED.
7. PLAN IS NOT AS-BUILT UTILITY PLAN.
8. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT OF PROBATE SEARCH, AND IS SUBJECT TO THE RESTRICTIONS, COVENANTS AND/OR EASEMENTS THAT MAY BE CONTAINED THEREIN.
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11. ABUTTING PROPERTY LINES SHOWN APPROXIMATELY PER CITY OF PROVIDENCE GIS
12. REFERENCE: ARCHITECTURAL PLAN SET; " SUMMER STREET APARTMENTS". PREPARED BY KITE ARCHITECTS, INC. DATED 2-10-22

BENCHMARK NOTE:
NEI WILL ALWAYS PROVIDE A MINIMUM OF TWO SITE BENCHMARKS. CONTRACTOR TO VERIFY ALL BENCHMARKS EXIST PRIOR TO CONSTRUCTION. ELEVATIONS OF ALL BENCHMARKS TO BE SHOT IN FIELD (WITH SUITABLE EQUIPMENT) AND DIFFERENTIAL TO BE VERIFIED. IF VERTICAL DIFFERENTIAL EXCEEDS 0.05' IT SHALL BE IMMEDIATELY REPORTED TO NEI. DIFFERENTIAL IN EXCESS OF 0.05' INDICATES THAT BENCHMARKS MAY HAVE BEEN DISTURBED AND ARE NOT SUITABLE FOR USE.

UTILITY NOTES:
1. LOCATION OF SUBSURFACE MAINS, SURFACE FEATURES, AND LATERALS ARE OMITTED. CONTRACTOR TO CALL DIG SAFE AND/OR APPLICABLE UTILITY COMPANIES PRIOR TO ANY CONSTRUCTION. DIG SAFE TEL.#:1-800-344-7233 (1-800-DIG-SAFE).
   A. WATER - SHOWN BASED ON RECORD PLANS BY PROVWATER- UTILITY REFERENCE 8. NOT FIELD LOCATED
   B. SEWER - SURFACE FEATURES AND INVERTS, SHOWN BASED ON UAV DATA & FIELD MEASUREMENTS PERFORMED BY NARRAGANSETT ENGINEERING ON 08-12-2021. SUBSURFACE PER PLAN REF.
   C. GAS -SURFACE FEATURES PER FIELD AND UAV DATA. SUBSURFACE FEATURES SHOWN PER PAVEMENT MARKINGS IN FIELD AND PLAN REF.
   D. ELECTRIC & TELEPHONE - SURFACE FEATURES PER FIELD & UAV DATA. UNDERGROUND LINES AND STRUCTURES SHOWN PER PLAN REF.
   E. STORM DRAIN - SURFACE FEATURES AND INVERTS, SHOWN BASED ON UAV DATA & FIELD MEASUREMENTS PERFORMED BY NARRAGANSETT ENGINEERING ON 08-12-2021. SUBSURFACE PER PLAN REF.
2. SEWER AND STORM DRAINS DEPICTED AT ASCE QUALITY LEVEL C.
3. GAS, ELECTRIC, TELEPHONE, AND WATER DEPICTED AT ASCE QUALITY LEVEL D.
4. REFER TO UTILITY PLAN REFERENCE TABLE FOR ALL UTILITY RECORD PLANS USED.

NOTE: ON THE SPRINKLER/FIRE WATER LINE
- FINAL CONNECTION POINT FOR SPRINKLER/FIRE SERVICE LINE TO HIGH PRESSURE MAIN PRESCRIBED BY PROVIDENCE WATER

SAND FILTER INVERT TABLE			
DESCRIPTION	ELE.	IN/OUT	NOTES
INV A (6" N12)	62.5	OUT	SAME (4) FILTERS
INV B (6" N12)	60.00	IN	SAME (4) FILTERS

SURGE TANKS INVERT TABLE			
DESCRIPTION	ELE.	IN/OUT	NOTES
(4) TANK INVERTS	59.75		
INV A (6" N12)	59.75	OUT	
INV B (12" N12)	59.80	IN	
INV C (12" N12)	59.75	IN	

PROPOSED CB INVERT TABLE			
DESCRIPTION	EL.	IN/OUT	NOTES
PR CB.1			
RIM EL.	68.90		
INV A (8" PVC)	67.00	IN	
INV B (12" N12)	67.00	OUT	
PR CB.2			
RIM EL.	68.70		
INV A (8" PVC)	66.50	IN	
INV B (12" N12)	66.50	IN	
INV C (12" N12)	66.50	OUT	
PR CB.3			
RIM EL.	68.90		
INV A (12" N12)	66.00	IN	
INV B (12" N12)	66.00	OUT	
PR CB.4			
RIM EL.	68.90		
INV A (12" N12)	66.50	OUT	
PR CB.5			
RIM EL.	68.70		
INV A (8" PVC)	66.00	IN	
INV B (12" N12)	66.00	IN	
INV C (12" N12)	66.00	IN	
INV D (15" N12)	65.00	OUT	
PR CB.6			
RIM EL.	68.05		
INV A (12" N12)	66.20	OUT	
PR CB.7			
RIM EL.	66.10		
INV A (12" N12)	63.80	IN	
INV B (12" N12)	63.80	OUT	
PR CB.8			
RIM EL.	65.25		
INV A (12" N12)	61.50	OUT	

PROPOSED DMH INVERT TABLE			
DESCRIPTION	EL.	IN/OUT	NOTES
PR DMH.1			8' DIAMETER
RIM EL.	65.85		
INV A (12" N12)	63.60	IN	
INV B (12" N12)	63.60	IN	
INV C (6" N12)	63.50	OUT	TO SAND FILTER
INV D (12" N12)	63.60	IN	
INV E (15" N12)	62.00	OUT	FROM WEIR
WEIR TO E	64.80	OUT	3' WEIR TO INV. E
PR DMH.2			4' DIAMETER
RIM EL.	67.00		
INV A (6" N12)	63.10	IN	
INV B (6" N12)	63.00	OUT	
INV C (6" N12)	63.00	OUT	
INV D (6" N12)	63.00	OUT	
PR DMH.3			4' DIAMETER
RIM EL.	67.85		
INV A (6" N12)	63.00	IN	
INV B (6" N12)	63.00	OUT	
INV C (6" N12)	63.00	OUT	
PR DMH.4			4' DIAMETER
RIM EL.	67.55		
INV A (12" N12)	59.90	IN	
INV B (12" N12)	59.90	IN	
INV C (12" N12)	59.90	OUT	
PR DMH.5			4' DIAMETER
RIM EL.	66.55		
INV A (12" N12)	59.80	IN	
INV B (12" N12)	59.80	IN	
INV C (12" N12)	59.80	IN	
INV D (12" N12)	59.80	IN	
PR DMH.6			4' DIAMETER
RIM EL.	65.05		
INV A (10" N12)	59.60	IN	
INV B (12" N12)	59.60	IN	
INV C (10" N12)	59.60	IN	
PR DMH.7			4' DIAMETER
RIM EL.	63.4		
INV A (10" N12)	58.00	IN	
INV B (10" N12)	51.75	OUT	

LEGEND

- DIMENSION - EXISTING
- DIMENSION - PROPOSED
- PLAN / DEED DIMENSION
- SURVEY DIMENSION
- PROPERTY LINE - ABUTTING
- PROPERTY LINE - EXISTING
- PROPERTY LINE - PROPOSED
- SETBACKS
- GRADE CONTOUR - EXISTING
- GRADE CONTOUR - PROPOSED
- ELECTRIC - OVERHEAD (OHE)
- ELECTRIC - TELEPHONE - CABLE (ETC)
- ELECTRIC - UNDERGROUND (UGE)
- GAS (G)
- SANITARY SEWER (S)
- STORM DRAIN (SD)
- WATER
- LIMIT OF DISTURBANCE (LOD)
- SEDIMENT CONTROL (SED)
- LOD / SED
- EDGE OF PAVEMENT - EXISTING
- FENCE - METAL
- FENCE - WOOD
- STONE WALL
- BRUSH LINE (APPROXIMATE)
- WETLAND LIMIT
- CATCH BASIN
- DRAINAGE MANHOLE
- ELECTRICAL MANHOLE
- SANITARY MANHOLE
- TELEPHONE MANHOLE
- MONITORING WELL
- GATE VALVE
- WATER SHUT OFF
- FIRE HYDRANT
- ELECTRIC BOX (ETC)
- UTILITY POLE
- TREE
- CURB INLET
- STRUCTURE, EXISTING
- STRUCTURE, PROPOSED
- SPOT GRADE - EXISTING
- SPOT GRADE - PROPOSED
- DRILL HOLE
- GRANITE BOUND
- REBAR / STEEL PIPE FOUND
- SPIKE
- WETLAND FLAG LOCATION
- BENCHMARK
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- TH No. 48" SHOWT 80" LEDGE — SOIL EVALUATION

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SHEET TITLE
PROPOSED UTILITY PLAN

SUMMER STREET APARTMENTS

IN CARE OF: CHRISTINE M. WEST, AIA | PRINCIPAL
KITE ARCHITECTS | ONE CENTRAL STREET | PROVIDENCE RI 02907 KITEARCHITECTS.COM | 401.272.0240 X117
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PROPERTY RECORD
94 SUMMER ST, PROVIDENCE, RI 02903
PLAT: 24, LOT: 640
ZONE: C-2
AREA: 1.16 ACRES
N/F: CROSSROADS RI
REF. NEI # 0019.198

EDWARD ERIC CORDIS
No. REGISTERED PROFESSIONAL ENGINEER CIVIL
3/25/22 DPR

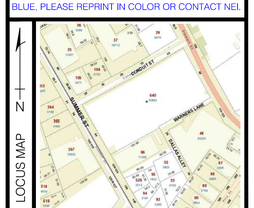
nei-cds.com

PROJECT #	DATE	DRAWN	CHECK
21.0103	12/17/21	LD	NKH

No	DATE	REVISIONS/DESCRIPTION	BY
1	02/18/22	PROGRESS SET	CB

DRAWINGS MUST BE PRINTED IN COLOR TO BE VALID. THIS NOTE SHOULD BE BLUE. IF THIS NOTE IS NOT BLUE, PLEASE REPRINT IN COLOR OR CONTACT NEI.

LOCUS MAP



SCALE 1"=20'

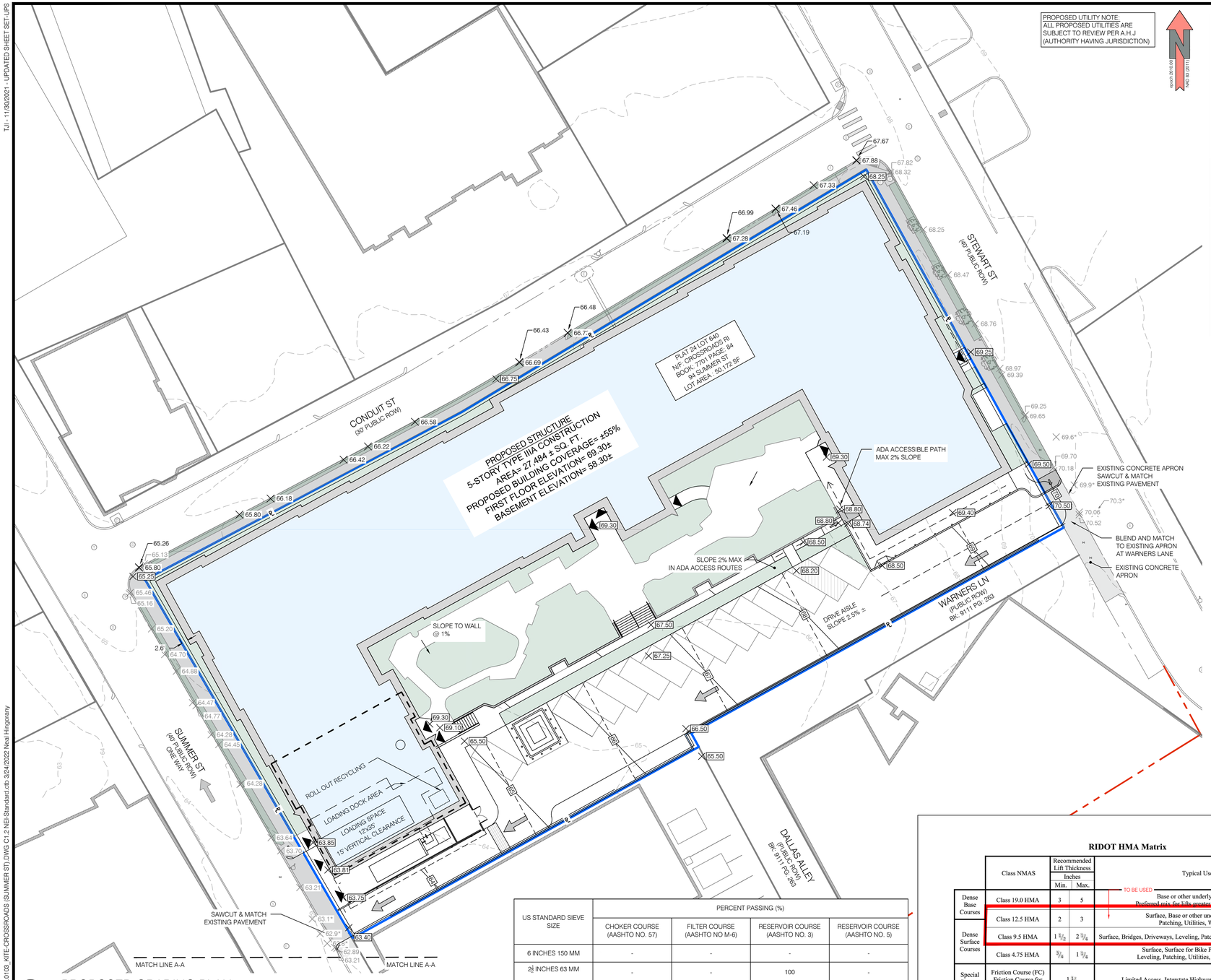
C1.1

N:\PROJECTS\21.0103_KITE-CROSSROADS (SUMMER ST)\G-1\21.0103_KITE-CROSSROADS (SUMMER ST).DWG C1.1 NEI.Standard.ctb 3/25/2022 Neal Hingorany

TJI - 11/30/2021 - UPDATED SHEET SET-UPS

PROPOSED UTILITY NOTE:
ALL PROPOSED UTILITIES ARE SUBJECT TO REVIEW PER A.H.J (AUTHORITY HAVING JURISDICTION)

epoch:2010.00 NAD 83 (2011)

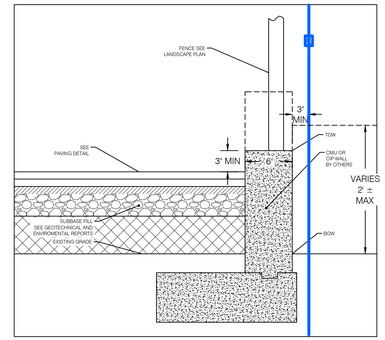


1 C1.2 PROPOSED GRADING PLAN
Scale: 1" = 20'
0 50 75 100 150 250

SITE NOTES:
1. ZONING INFORMATION SHOW FROM RECORD INFORMATION, MAPS AND / OR GIS. ZONING DATA MAY VARY BASED ON USE, LOT SIZE, ORIENTATION AND OTHER FACTORS AND IS SHOWN FOR REFERENCE INFORMATION ONLY.
2. ZONING DATA MUST BE CONFIRMED WITH ZONING OFFICIAL AND / OR LEGAL COUNSEL FOR USE IN DESIGN OR PERMITTING.
3. ALL PERTINENT ZONING DATA IS SHOWN ON ARCHITECTURAL PLAN REFERENCE.
4. COORDINATE SYSTEM IS RI3800 / NAVD 88.
5. TOPOGRAPHY IS MIX OF ON GROUND SHOTS & UAV DATA.
6. ALL PROPOSED ITEMS MUST BE LAID OUT BY REGISTERED SURVEYOR AS NOTED.
7. PLAN IS NOT AS-BUILT UTILITY PLAN.
8. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT OF PROBATE SEARCH, AND IS SUBJECT TO THE RESTRICTIONS, COVENANTS AND/OR EASEMENTS THAT MAY BE CONTAINED THEREIN.
9. SEE SHEET SV-101 FOR ALL UTILITY INFORMATION.
10. THE SOIL BORING AND TEST PIT NUMBERS CORRESPOND TO THE "GEOTECHNICAL SOIL INVESTIGATION AND PRELIMINARY FEASIBILITY REPORT" BY RMA GEOENVIRONMENTAL DATED JANUARY 28, 2021
11. ABUTTING PROPERTY LINES SHOWN APPROXIMATELY PER CITY OF PROVIDENCE GIS
12. REFERENCE: ARCHITECTURAL PLAN SET; " SUMMER STREET APARTMENTS". PREPARED BY KITE ARCHITECTS, INC. DATED 2-10-22

BENCHMARK NOTE:
NEI WILL ALWAYS PROVIDE A MINIMUM OF TWO SITE BENCHMARKS. CONTRACTOR TO VERIFY ALL BENCHMARKS EXIST PRIOR TO CONSTRUCTION. ELEVATIONS OF ALL BENCHMARKS TO BE SHOT IN FIELD (WITH SUITABLE EQUIPMENT) AND DIFFERENTIAL TO BE VERIFIED, IF VERTICAL DIFFERENTIAL EXCEEDS 0.05' IT SHALL BE IMMEDIATELY REPORTED TO NEI. DIFFERENTIAL IN EXCESS OF 0.05' INDICATES THAT BENCHMARKS MAY HAVE BEEN DISTURBED AND ARE NOT SUITABLE FOR USE.

UTILITY NOTES:
1. LOCATION OF SUBSURFACE MAINS, SURFACE FEATURES, AND LATERALS ARE OMITTED. CONTRACTOR TO CALL DIG SAFE AND/OR APPLICABLE UTILITY COMPANIES PRIOR TO ANY CONSTRUCTION. DIG SAFE TEL.#:1-800-344-7233 (1-800-DIG-SAFE).
   A. WATER - SHOWN BASED ON RECORD PLANS BY PROVWATER- UTILITY REFERENCE 8. NOT FIELD LOCATED
   B. SEWER - SURFACE FEATURES AND INVERTS, SHOWN BASED ON UAV DATA & FIELD MEASUREMENTS PERFORMED BY NARRAGANSETT ENGINEERING ON 08-12-2021. SUBSURFACE PER PLAN REF.
   C. GAS -SURFACE FEATURES PER FIELD AND UAV DATA. SUBSURFACE FEATURES SHOWN PER PAVEMENT MARKINGS IN FIELD AND PLAN REF.
   D. ELECTRIC & TELEPHONE - SURFACE FEATURES PER FIELD & UAV DATA. UNDERGROUND LINES AND STRUCTURES SHOWN PER PLAN REF.
   E. STORM DRAIN - SURFACE FEATURES AND INVERTS, SHOWN BASED ON UAV DATA & FIELD MEASUREMENTS PERFORMED BY NARRAGANSETT ENGINEERING ON 08-12-2021. SUBSURFACE PER PLAN REF.
2. SEWER AND STORM DRAINS DEPICTED AT ASCE QUALITY LEVEL C.
3. GAS, ELECTRIC, TELEPHONE, AND WATER DEPICTED AT ASCE QUALITY LEVEL D.
4. REFER TO UTILITY PLAN REFERENCE TABLE FOR ALL UTILITY RECORD PLANS USED.



2 C1.2 RETAINING WALL DETAIL
Scale: NTS

US STANDARD SIEVE SIZE	PERCENT PASSING (%)			
	CHOKER COURSE (AASHTO NO. 57)	FILTER COURSE (AASHTO NO M-6)	RESERVOIR COURSE (AASHTO NO. 3)	RESERVOIR COURSE (AASHTO NO. 5)
6 INCHES 150 MM	-	-	-	-
2½ INCHES 63 MM	-	-	100	-
2 INCHES 50 MM	-	-	90 - 100	-
1 ½ INCHES 37.5 MM	100	-	35 - 70	100
1 INCH 25 MM	95 - 100	-	0 - 15	90 - 100
¾ INCH 19 MM	-	-	-	20 - 55
½ INCH 12.5 MM	25 - 60	-	0 - 5	0 - 10
⅜ INCH 9.5 MM	-	100	-	0 - 5
#4 4.75 MM	0 - 10	70 - 100	-	-
#8 2.36 MM	0 - 5	-	-	-
#200 0.075 MM	-	0 - 6**	-	-
% COMPACTION ASTM D698 / AASHTO T99	95	95	95	95

4 C1.2 STD GRADATIONS TABLE F-7 RIDEM
SCALE: NOT TO SCALE

RIDOT HMA Matrix

	Class NMAS	Recommended Lift Thickness Inches Min.	Max.	Typical Use
Dense Base Courses	Class 19.0 HMA	3	5	Base or other underlying layers. Preferred mix for lifts greater than or equal to 3"
	Class 12.5 HMA	2	3	Surface, Base or other underlying layers. Patching, Utilities, Waterways
Dense Surface Courses	Class 9.5 HMA	1 ½	2 ¾	Surface, Bridges, Driveways, Leveling, Patching, Utilities, Waterways, Misc.
	Class 4.75 HMA	¾	1 ¾	Surface, Surface for Bike Paths, Sidewalks, Leveling, Patching, Utilities, Waterways, Misc.
Special Courses and Other Courses	Friction Course (FC) Friction Course for Shoulders	1 ½		Limited Access, Interstate Highways, High Speed Facilities
	PPEST	1		Pavement Preservation Overlay
	SMA	Varies		Base and/or Surface

TO BE USED

HMA = Hot Mix Asphalt, NMAS = Nominal Maximum Aggregate Size, FC = Friction Course, PPEST = Paver Placed Elastomeric Surface Treatment, SMA = Stone Matrix Asphalt

Notes:
1. "Class" refers to dense HMA courses. "Class" is followed by a number representing the NMAS of the mix in millimeters.
2. Minimum lift thickness may be calculated as 4 times the NMAS. For example: Class 12.5 HMA, 4 x 12.5mm = 50 mm or 2 inches as a lift thickness (this rule excludes special courses). In general, using more lifts will provide for a smoother pavement; the largest NMAS should be used for each lift.
3. Surface course binder shall be modified for all paver placed surface courses unless otherwise designated. Other additives for binder will be specified in the Contract Documents as required, e.g. WMA, anti-stripping.
   a) The term "binder" refers to liquid asphalt.
   b) The term "modified" refers to the polymer modification of binder.

Ver 2.4 07/2019

3 C1.2 RIDOT HMA MATRIX
SCALE: NOT TO SCALE

LEGEND

100.00'	DIMENSION - EXISTING
100.00'	DIMENSION - PROPOSED
100.00' (D)	PLAN / DEED DIMENSION
100.00' (S)	SURVEY DIMENSION
	PROPERTY LINE - ABUTTING
℄	PROPERTY LINE - EXISTING
℄	PROPERTY LINE - PROPOSED
	SETBACKS
100.00	GRADE CONTOUR - EXISTING
100.00	GRADE CONTOUR - PROPOSED
OHE	ELECTRIC - OVERHEAD (OHE)
ETC	ELECTRIC - TELEPHONE - CABLE (ETC)
UGE	ELECTRIC - UNDERGROUND (UGE)
GAS	GAS (G)
SAN	SANITARY SEWER (S)
SD	STORM DRAIN (SD)
W	WATER
LOD	LIMIT OF DISTURBANCE (LOD)
SED	SEDIMENT CONTROL (SED)
LOD / SED	LOD / SED
	EDGE OF PAVEMENT - EXISTING
	FENCE - METAL
	FENCE - WOOD
	STONE WALL
	BRUSH LINE (APPROXIMATE)
	WETLAND LIMIT
CB	CATCH BASIN
D	DRAINAGE MANHOLE
E	ELECTRICAL MANHOLE
S	SANITARY MANHOLE
T	TELEPHONE MANHOLE
MW	MONITORING WELL
	GATE VALVE
WSO	WATER SHUT OFF
	FIRE HYDRANT
E	ELECTRIC BOX (ETC)
	UTILITY POLE
	TREE
D	CURB INLET
	STRUCTURE, EXISTING
	STRUCTURE, PROPOSED
4.24	SPOT GRADE - EXISTING
4.24	SPOT GRADE - PROPOSED
	DRILL HOLE
	GRANITE BOUND
	REBAR / STEEL PIPE FOUND
	SPIKE
	WETLAND FLAG LOCATION
	BENCHMARK
	BORING
TH No. 48' SHOWT 80' LEDGE	SOIL EVALUATION

Narragansett Engineering Inc.
Civil • Survey Structural Environmental Design
3102 East Main Road, Portsmouth RI 02871
Tel. 401.683.6630 www.nei-cds.com

KITE Architects, Inc.
One Central Street
Providence, Rhode Island 02907
401.272.0240
info@kiteachitects.com

SHEET TITLE
PROPOSED GRADING PLAN

SUMMER STREET APARTMENTS

IN CARE OF: CHRISTINE M. WEST, AIA | PRINCIPAL
KITE ARCHITECTS | ONE CENTRAL STREET |
PROVIDENCE RI 02907 KITEARCHITECTS.COM |
401.272.0240 X117
CW@KITEARCHITECTS.COM

PROPERTY RECORD
94 SUMMER ST, PROVIDENCE, RI 02903
PLAT: 24, LOT: 640
ZONE: C-2
AREA: 1.16 ACRES
N/F: CROSSROADS RI
REF. NEI # 0019.198

EDWARD ERIC CORDIS
No. 13
REGISTERED PROFESSIONAL ENGINEER CIVIL
3/25/22 DPR

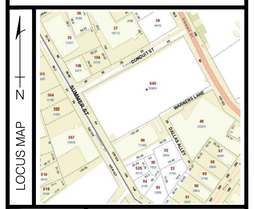
nei-cds.com

PROJECT #	DATE	DRAWN	CHECK
21.0103	12/17/21	LD	NKH

No	DATE	REVISIONS/DESCRIPTION	BY
1	02/18/22	PROGRESS SET	CB

DRAWINGS MUST BE PRINTED IN COLOR TO BE VALID. THIS NOTE SHOULD BE BLUE. IF THIS NOTE IS NOT BLUE, PLEASE REPRINT IN COLOR OR CONTACT NEI.

LOCUS MAP



N

SCALE 1"=20'

C1.2

N:\PROJECTS\21.0103_KITE-CROSSROADS (SUMMER ST)\G-1\21.0103_KITE-CROSSROADS (SUMMER ST).DWG C1.2 NEI-Standard.ctb 3/24/2022 Neal Hingorany

1 SV1.0 LIMITED CONTENT BOUNDARY AND EXISTING CONDITIONS PLAN

Scale: 1" = 20'

0 50 75 100 150 250

UNMANNED AERIAL VEHICLE (UAV) NOTES:

1. THIS PLAN IS BASED ON A PRIVATE UAV FLIGHT PROVIDED BY NARRAGANSETT ENGINEERING INC. AND OTHER REFERENCE MATERIAL AS LISTED HEREON. THE UAV FLIGHT TOOK PLACE ON JULY 15TH, 2021 ; RMS ERROR OF GROUND CONTROL POINTS (COMPUTED) : 0.023'. IMAGES WERE TAKEN AT 150ft. ABOVE GROUND LEVEL, PIXEL SIZE IS 0.08' EXPECTED VERTICAL TOLERANCE (RMS ERROR, Z: 0.031)
2. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT AND IS SUBJECT TO THE RESTRICTIONS. COVENANTS AND/OR EASEMENTS THAT MAY BE CONTAINED THEREIN.
3. ELEVATIONS WERE COMPUTED FROM A PRIVATE UAV FLIGHT USING PHOTOGRAMMETRY SOFTWARE AND TESTED AGAINST FOUR GROUND CONTROL POINTS WITH AN AVERAGE VERTICAL ACCURACY OF .08 ft. THERE MAY BE ANOMALIES IN THE DATA AND SHOULD BE FIELD VERIFIED PRIOR TO CONSTRUCTION.
4. ORTHOGRAPHY PHOTO DEVELOPED BY DATA AND PICTURES COLLECTED BY THE UAV TO ACCURATELY INTERPOLATE AND DEPICT THE SITE.
5. UAV FLOWN BY FAA CERTIFIED PILOT AND WAS PROPERLY INSURED DURING FLIGHT.

SURVEY NOTES:

1. ZONING INFORMATION SHOW FROM RECORD INFORMATION, MAPS AND / OR GIS. ZONING DATA MAY VARY BASED ON USE, LOT SIZE, ORIENTATION AND OTHER FACTORS AND IS SHOWN FOR REFERENCE INFORMATION ONLY.
2. ZONING DATA MUST BE CONFIRMED WITH ZONING OFFICIAL AND / OR LEGAL COUNSEL FOR USE IN DESIGN OR PERMITTING.
3. ALL PERTINENT ZONING DATA IS SHOWN ON ARCHITECTURAL PLAN REFERENCE.
4. COORDINATE SYSTEM IS RI3800 / NAVD 88.
5. TOPOGRAPHY IS MIX OF ON GROUND SHOTS & UAV DATA.
6. ALL PROPOSED ITEMS MUST BE LAID OUT BY REGISTERED SURVEYOR AS NOTED.
7. PLAN IS NOT AS-BUILT UTILITY PLAN.
8. THIS SURVEY WAS PREPARED WITHOUT THE BENEFIT OF A TITLE REPORT OF PROBATE SEARCH, AND IS SUBJECT TO THE RESTRICTIONS, COVENANTS AND/OR EASEMENTS THAT MAY BE CONTAINED THEREIN.
9. SEE SHEET SV1.1 FOR ALL UTILITY INFORMATION.
10. THE SOIL BORING AND TEST PIT NUMBERS CORRESPOND TO THE "GEOTECHNICAL SOIL INVESTIGATION AND PRELIMINARY FEASIBILITY REPORT" BY RMA GEOENVIRONMENTAL DATED JANUARY 28, 2021
11. ABUTTING PROPERTY LINES SHOWN APPROXIMATELY PER CITY OF PROVIDENCE GIS

BENCHMARK NOTE:

NEI WILL ALWAYS PROVIDE A MINIMUM OF TWO SITE BENCHMARKS. CONTRACTOR TO VERIFY ALL BENCHMARKS EXIST PRIOR TO CONSTRUCTION. ELEVATIONS OF ALL BENCHMARKS TO BE SHOT IN FIELD (WITH SUITABLE EQUIPMENT) AND DIFFERENTIAL TO BE VERIFIED. IF VERTICAL DIFFERENTIAL EXCEEDS 0.05' IT SHALL BE IMMEDIATELY REPORTED TO NEI. DIFFERENTIAL IN EXCESS OF 0.05' INDICATES THAT BENCHMARKS MAY HAVE BEEN DISTURBED AND ARE NOT SUITABLE FOR USE.

TABLE 5-1: COMMERCIAL DISTRICT DIMENSIONAL STANDARDS

	C-2
Bulk Standards	
Minimum Lot Area	None
Minimum Buildling Height	16'
Minimum First Story Height	9' Residential use 11' Non-Residential use
Maximum Building Height	50', not to exceed 4 stories
Maximum Building Coverage	None
Total Maximum Impervious Surface Coverage	None
Minimum Setback Requirements	
Front Setback	Build-to zone of 0' to 5' - see 503.A.6 for built-to percentage requirement
Interior Side Setback	None; unless abutting residential district, then 10'
Corner Side Setback	Build-to zone of 0' to 5' - see 503.A.6 for built-to percentage requirement
Rear Setback	None, unless abutting residential district, then 20'

TABLE 11-2: TOD OVERLAY DISTRICT DIMENSIONAL STANDARDS

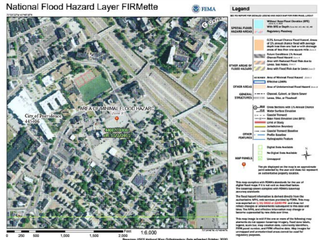
	TOD
Minimum Building Height	20'
Maximum Building Height	70'
Minimum Front Setback	Build-to zone of 0' to 8', with min build-to percentage of 60%
Minimum Interior Side Setback	None, unless abutting residential, then 5'
Minimum Corner Side Setback	Build-to zone of 0' to 8', with min build-to percentage of 40%
Minimum Rear Setback	None, unless abutting residential, then 10'

E. Parking Standards

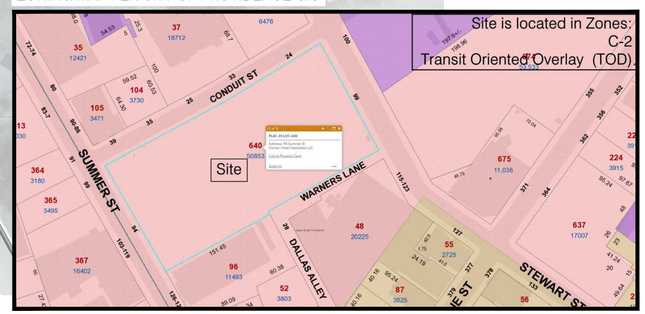
In addition to the parking regulations of Article 14, the following parking requirements apply to the TOD Overlay Districts.

1. A maximum of one parking space per dwelling unit, plus one guest space per 15 units in a multi-family dwelling, is permitted. There is no minimum parking requirement for residential uses.
2. The first 5,000 square feet of gross floor area of non-residential uses are exempt from all parking requirements. Parking for non-residential uses is limited to a maximum of one space per 300 square feet of gross floor area.
3. Where feasible, ingress and egress from parking and loading shall be from side streets or alleys.

National Flood Hazard Layer FIRMette



ZONING MAP PER CITY OF PROVIDENCE GIS



DEED RESEARCH & PLAN REFERENCE

NO.	PLAT	LOT	BOOK	PAGE	OWNER OF RECORD	PLAN	DEED	DATE FILED
1	24	640	7701	84	HOTEL ASSOCIATES LLC		X	11/18/2005
2			3074	181	TRUSTEES OF HOTEL ASSOCIATES REALTY TRUST		X	12/31/1994
3					RIGHT OF WAY FOR CONDUIT ST, STEWART ST, AND SUMMER ST REPRODUCED FROM CITY PLAN COMMISSION, PROVIDENCE RI. BY CHARLES A MAGUIRE AND ASSOCIATES	X		
4	24	48	9111	263	CHILDRENS FRIEND AND SERVICE		X	5/29/2008
5	24	96	10485	142	CHILDRENS FRIEND AND SERVICE		X	1/24/2013

UAV SURFACE TOLERANCE TEST

POINT #	DESCRIPTION	SURVEYED EL.	SURFACE EL.	VERTICAL DIFFERENCE	HORIZONTAL DIFFERENCE
128	MONWELL	67.88	67.91	-0.03	0.05
123	WGV	67.32	67.37	-0.05	0.07
1107	GASMAINGV	66.43	66.61	-0.18	0.05
1148	WGV	64.51	64.45	0.06	0.15
134	MONWELL	64.02	64.04	-0.02	0.11
137	MONWELL	65.55	65.59	-0.04	0.06
140	MONWELL	66.95	66.98	-0.03	0.06
			Std. Dev.	0.071	0.038
			Root Mean Square Error	0.206	0.227

LEGEND

- DIMENSION - EXISTING
- DIMENSION - PROPOSED
- PLAN / DEED DIMENSION
- SURVEY DIMENSION
- PROPERTY LINE - ABUTTING
- PROPERTY LINE - EXISTING
- PROPERTY LINE - PROPOSED
- SETBACKS
- GRADE CONTOUR - EXISTING
- GRADE CONTOUR - PROPOSED
- ELECTRIC - OVERHEAD (OHE)
- ELECTRIC - TELEPHONE - CABLE (ETC)
- ELECTRIC - UNDERGROUND (UGE)
- GAS (G)
- SANITARY SEWER (S)
- STORM DRAIN (SD)
- WATER
- LIMIT OF DISTURBANCE (LOD)
- SEDIMENT CONTROL (SED)
- LOD / SED
- EDGE OF PAVEMENT - EXISTING
- FENCE - METAL
- FENCE - WOOD
- STONE WALL
- BRUSH LINE (APPROXIMATE)
- WETLAND LIMIT
- CATCH BASIN
- DRAINAGE MANHOLE
- ELECTRICAL MANHOLE
- SANITARY MANHOLE
- TELEPHONE MANHOLE
- MONITORING WELL
- GATE VALVE
- WATER SHUT OFF
- FIRE HYDRANT
- ELECTRIC BOX (ETC)
- UTILITY POLE
- TREE
- CURB INLET
- STRUCTURE, EXISTING
- STRUCTURE, PROPOSED
- SPOT GRADE - EXISTING
- SPOT GRADE - PROPOSED
- DRILL HOLE
- GRANITE BOUND
- REBAR / STEEL PIPE FOUND
- SPIKE
- WETLAND FLAG LOCATION
- BENCHMARK
- BORING
- SOIL EVALUATION

Narragansett Engineering Inc.
Civil • Survey Structural Environmental Design
3102 East Main Road, Portsmouth RI 02871
Tel. 401.683.6630 www.nei-cds.com

SHEET TITLE

LIMITED CONTENT BOUNDARY & EXISTING CONDITIONS PLAN SUMMER STREET APARTMENTS

IN CARE OF: CHRISTINE M. WEST, AIA | PRINCIPAL
KITE ARCHITECTS | ONE CENTRAL STREET |
PROVIDENCE RI 02907 KITEARCHITECTS.COM |
401.272.0240 X117
CW@KITEARCHITECTS.COM

PROPERTY RECORD
94 SUMMER ST, PROVIDENCE, RI 02903
PLAT: 24, LOT: 640
ZONE: C-2
AREA: 1.16 ACRES
N/F: CROSSROADS RI
REF. NEI # 0019.198

CERTIFICATION

THIS SURVEY HAS BEEN CONDUCTED AND THE PLAN HAS BEEN PREPARED PURSUANT TO 435-RICR00-00-1.9 OF THE RULES AND REGULATIONS ADOPTED BY THE RHODE ISLAND STATE BOARD OF REGISTRATION FOR PROFESSIONAL LAND SURVEYORS ON DECEMBER 31, 2020 (EFFECTIVE DATE). AS FOLLOWS:
CLASS I (PARTIAL) AS NOTED
CLASS III (PHYSICAL FEATURES)
TOPOGRAPHIC SURVEY T-2

THIS COMPILATION PLAN HAS BEEN PREPARED FROM SOURCES OF INFORMATION AND DATA WHOSE POSITIONAL ACCURACY AND RELIABILITY HAS NOT BEEN VERIFIED. THE PROPERTY LINES DEPICTED HEREON DO NOT REPRESENT A BOUNDARY OPINION, AND OTHER INFORMATION DEPICTED IS SUBJECT TO SUCH CHANGES AS AN AUTHORITATIVE FIELD SURVEY MAY DISCLOSE.

THE PURPOSE FOR THE CONDUCT OF THE SURVEY AND FOR THE PREPARATION OF THE PLAN IS AS FOLLOWS: FOR THE PREPARATION OF A CLASS I AND CLASS III LIMITED CONTENT SURVEY PLAN.

NEAL HINGORANY REG. 2515
COA: A38

nei-cds.com

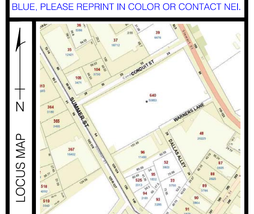
PROJECT #	DATE	DRAWN	CHECK
21.0103	12/17/21	LD	NKH

No	DATE	REVISIONS/DESCRIPTION	BY
1	02/18/22	PROGRESS SET	CB

STREET INDEX:
THIS PLAN SHALL BE FILED UNDER-
SUMMER STREET
CONDUIT STREET
STEWART STREET

DRAWINGS MUST BE PRINTED IN COLOR TO BE VALID. THIS NOTE SHOULD BE BLUE. IF THIS NOTE IS NOT BLUE, PLEASE REPRINT IN COLOR OR CONTACT NEI.

LOCUS MAP



SCALE 1"=20'

SV1.0

N:\PROJECTS\21.0103_KITE-CROSSROADS (SUMMER ST)\G-1\21.0103_KITE-CROSSROADS (SUMMER ST)\G-1\21.0103_KITE-CROSSROADS (SUMMER ST).DWG SV1.0 NEI-Standard.ctb

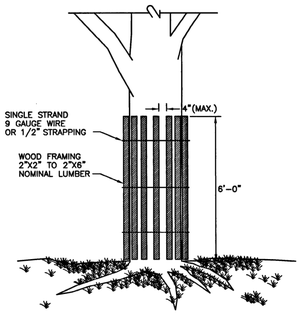
TJI - 11/30/2021 - UPDATED SHEET SET-UPS

GENERAL NOTES:

1. THE STATE OF RHODE ISLAND STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION, 2004 EDITION, AND THE RHODE ISLAND STANDARD DETAILS ARE MADE A PART HEREOF AS FULLY AND COMPLETELY AS IF ATTACHED HERETO. ALL WORK SHALL CONFORM TO RHODE ISLAND STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION 2004 EDITION OR LATEST REVISION. THE 2004 EDITION OF THE STANDARD SPECIFICATION MAY BE OBTAINED AT THE RHODE ISLAND DEPARTMENT OF TRANSPORTATION.
2. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO APPLY FOR AND OBTAIN ANY AND ALL NECESSARY PERMITS, PAY ALL FEES AND POST ALL BONDS ASSOCIATED WITH THE SAME, AND COORDINATE WITH ARCHITECT OR ENGINEER AS NECESSARY
3. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR THE SAFETY OF THE JOB SITE. THE CONTRACTOR SHALL PROVIDE TEMPORARY FENCING AND/OR BARRIERS AROUND ANY EXPOSED EXCAVATED AREAS IN ACCORDANCE WITH OSHA STANDARDS.
4. IN THE CASE THAT ANY DEVIATION / ALTERATION / OR IMPROVEMENT FROM THE APPROVED PLANS IS NECESSARY THE CONTRACTOR SHALL IMMEDIATELY CONTACT THE ENGINEER AND OWNER PRIOR TO OCCURRENCE OF DEVIATION
5. ALL WORK SHALL BE LIMITED TO THE AREAS WITHIN THE LIMIT OF DISTURBANCE DISPLAYED ON THESE PLANS OR PROPERTY LINE IF LIMIT OF DISTURBANCE IS UNCLEAR. ANY AREA DISTURBED OUTSIDE OF THE LIMIT OF DISTURBANCE SHALL BE REPAIRED AND RESTORED TO ITS ORIGINAL CONDITION AT NO COST TO THE OWNER OR ENGINEER, AND PREFORMED TO THE ENGINEERS SATISFACTION
6. ALL SITE WORK SHALL MEET OR EXCEED THE SITE WORK SPECIFICATION SHOWN ON THESE PLANS AND/OR ACCOMPANYING SPECIFICATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING IF ANY CONFLICTS WITH EXISTING CONDITIONS OR PROPOSED CONDITIONS EXIST. IF ANY CONFLICTS ARE DISCOVERED, THE CONTRACTOR SHALL NOTIFY THE OWNER AND ENGINEER PRIOR TO INSTALLATION OF ANY PORTION OF THE SITE WORK THAT WOULD BE AFFECTED
7. EXCAVATED ROCK SHALL BE REMOVED FROM THE SITE AND LEGALLY DISPOSED OF UNLESS OTHER ARRANGEMENTS ARE MADE WITH THE OWNER. SUITABLE ROCK MAY BE UTILIZED IN FILL AREAS WITH WRITTEN PERMISSION OF THE OWNERS REPRESENTATIVES
8. DEBRIS, ORGANICS AND OTHER UNSUITABLE MATERIALS UNCOVERED DURING THE COURSE OF SITE EXCAVATION SHALL BE REMOVED FROM THE SITE AND DISPOSED OF LEGALLY
9. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR MAINTAINING THE INTEGRITY OF ALL EXISTING UTILITIES THAT SERVICE THE SITE AND NEIGHBORING AREAS. IF ANY DAMAGE OCCURS TO EXISTING UTILITIES IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO PAY ALL COSTS ASSOCIATED WITH REPAIR OF UTILITIES AS DIRECTED BY THE ENGINEER, UTILITY OWNER, OR GOVERNING AGENCY
10. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR QUANTITY TAKE-OFF IN COMPUTING ANY ESTIMATES
11. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING ALL TEMPORARY SEDIMENTATION AND EROSION CONTROLS.
12. THE LOCATION OF EXISTING UTILITIES AS SHOWN ARE APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR. "DIG SAFE" SHALL BE CONTACTED BY THE CONTRACTOR AS PART OF THIS VERIFICATION
13. NO EXCAVATION SHALL PROCEED UNTIL UTILITY COMPANIES ARE NOTIFIED IN ADVANCE
14. ALL TREE PROTECTION BY OTHERS UNLESS OTHERWISE NOTED
15. CONTRACTOR TO LOAM AND SEED ALL DISTURBED AREAS WITH APPROPRIATE SEED MIXTURES

GRADING AND UTILITIES NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THAT THE PROPOSED WORK SHOWN ON THESE PLANS DO NOT CONFLICT WITH ANY EXISTING CONDITIONS OR OTHER PROPOSED WORK. IF CONFLICTS ARISE, THE CONTRACTOR SHALL NOTIFY THE OWNER AND ENGINEER PRIOR TO INSTALLATION OF ANY PORTION OF THE SITE WORK WHICH WOULD BE AFFECTED. NO FIELD ADJUSTMENTS IN THE LOCATION OF SITE ELEMENTS SHALL BE MADE WITHOUT THE ENGINEERS APPROVAL
2. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH WORK, THE LOCATION, ELEVATION, SIZE AND MATERIAL SHALL BE ACCURATELY DETERMINED BY THE CONTRACTOR IMMEDIATELY AND THE INFORMATION FURNISHED TO THE ENGINEER FOR RESOLUTION. THE CONTRACTOR SHALL NOT CONTINUE WORK ON AFFECTED UTILITIES UNTIL THE CONFLICT IS RESOLVED
3. ALL WORK PERFORMED AND ALL MATERIALS FURNISHED SHALL CONFORM WITH THE LINE AND GRADES ON THE PLANS AND SITE WORK SPECIFICATIONS
4. AT ALL LOCATIONS WHERE EXITING CURBING OR PAVEMENT ABUT NEW CONSTRUCTION, THE EDGE OF THE EXISTING CURB OR PAVEMENT SHALL BE SAW CUT TO A CLEAN, SMOOTH EDGE. BLEND NEW PAVEMENT AND CURBS SMOOTHLY INTO EXISTING BY MATCHING LINES, GRADES AND JOINTS
5. ALL UTILITY COVERS, GRATES, AND THE LIKE SHALL BE BE FLUSH WITH THE SURROUNDING SURFACE OR PAVEMENT FINISH. RIM ELEVATIONS ARE APPROXIMATE AND FINAL ELEVATIONS ARE TO BE SET FLUSH AND CONSISTENT WITH GRADING
6. THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR THE ALTERATION OF PRIVATE UTILITIES BY THE UTILITY COMPANY, AS REQUIRED.
7. THE CONTRACTOR SHALL PROTECT ALL UNDERGROUND UTILITY FACILITIES FROM EXCESSIVE VEHICULAR LOADING. ANY DAMAGE RESULTING TO THESE FACILITIES SHALL BE RESTORED TO THEIR ORIGINAL CONDITION AT THE CONTRACTORS EXPENSE
8. ALL WATER WORKS SHALL HAVE 5 FEET OF COVER
9. GAS, ELECTRIC, AND COMMUNICATIONS ROUTING ARE SUBJECT TO REVIEW AND APPROVAL BY UTILITY COMPANY
10. DURING CONSTRUCTION CONTRACTOR SHALL PROTECT EXITING UTILITIES BY PROVIDING TEMPORARY SUPPORTS OR SHEETING AS REQUIRED AT NOT ADDITIONAL COST TO THE OWNER
11. EXCAVATION REQUIRED WITHIN THE PROXIMITY OF EXISTING UTILITY LINES SHALL BE DONE BY HAND. CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING UTILITY LINE OR STRUCTURES INCURRED DURING CONSTRUCTION OPERATION AT NO COST TO THE OWNER
12. PITCH EVENLY BETWEEN ALL SPOT GRADES.
13. THE CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND DISPOSAL OF ANY, ROCKS, DEBRIS, ORGANICS, OR THE LIKE UNCOVERED IN THE COURSE OF WORK



NOTE:
SHALL BE IN ACCORDANCE WITH SECTION L.11 OF THE STANDARD SPECIFICATIONS.

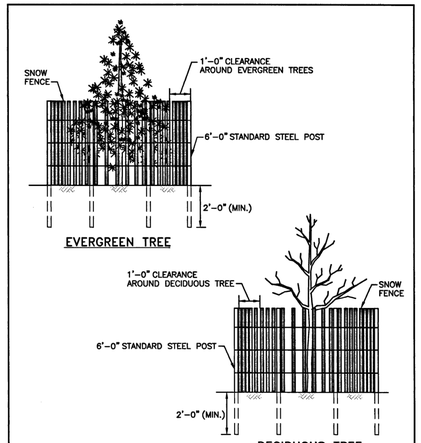
RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS NO.	BY	DATE

TREE PROTECTION DEVICE

James R. Cahill, CHIEF ENGINEER TRANSPORTATION — Edward P. Roberts Jr., CHIEF DESIGN ENGINEER TRANSPORTATION — JUNE 15, 1998 ISSUE DATE

R.I. STANDARD 51.1.0



NOTE:
SHALL BE IN ACCORDANCE WITH SECTION L.11 OF THE R.I. STANDARD SPECIFICATIONS.

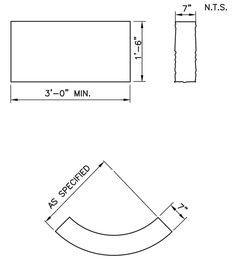
RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS NO.	BY	DATE

DRIP LINE TREE PROTECTION DEVICE FOR EXISTING TREES

James R. Cahill, CHIEF ENGINEER TRANSPORTATION — Edward P. Roberts Jr., CHIEF DESIGN ENGINEER TRANSPORTATION — JUNE 15, 1998 ISSUE DATE

R.I. STANDARD 51.1.1

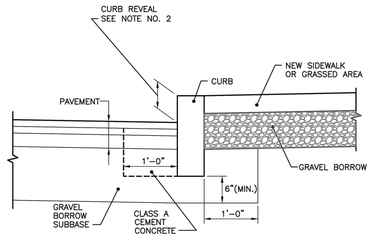


NOTE:
1. SHALL BE IN ACCORDANCE WITH SECTION 906 OF THE RI STANDARD SPECIFICATIONS.
2. TOP SURFACE TO BE DRESSED BY SAW. REMAINDER TO BE SAWCUT OR QUARRY SPLIT.
3. MINIMUM LENGTH OR CIRCULAR PIECES TO BE 3'-0".
4. CIRCULAR CURB IS REQUIRED ON CURVES AS INDICATED. STRAIGHT CURB TO BE USED ON CURVES OF MORE THAN 160'-0" RADIUS.
5. CURB TO BE SET PER PROVIDENCE CURB SETTING DETAIL.

GRANITE CURB - STRAIGHT AND CIRCULAR
N.T.S.

7.3.0 P PROVIDENCE STANDARD

ISSUE DATE: 1/6/17

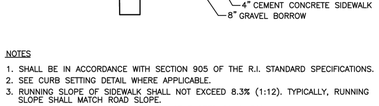


NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 906 OF THE R.I. STANDARD SPECIFICATIONS.
2. NEW CURBING CONSTRUCTION SHALL BE SET AT A 6 INCH REVEAL OR AS INDICATED ON PLANS OR DIRECTED BY PROVIDENCE DPW. NEW CURBING INSTALLED ADJACENT TO EXISTING CURBING SHALL MATCH THE EXISTING REVEAL OR A MINIMUM OF 4 INCHES, WHICHEVER IS GREATER. IF ADJACENT EXISTING REVEAL IS LESS THAN 4 INCHES, THE FIRST SECTION OF NEW CURB SHALL TRANSITION TO 4" REVEAL.

CURB SETTING DETAIL
N.T.S.

7.6.0 P PROVIDENCE STANDARD

ISSUE DATE: 1/6/17

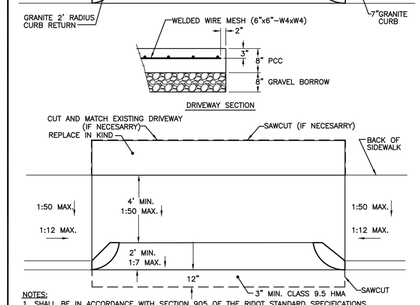


NOTES
1. SHALL BE IN ACCORDANCE WITH SECTION 905 OF THE R.I. STANDARD SPECIFICATIONS.
2. SEE CURB SETTING DETAIL WHERE APPLICABLE.
3. RUNNING SLOPE OF SIDEWALK SHALL NOT EXCEED 8.3% (1:12). TYPICALLY, RUNNING SLOPE SHALL MATCH ROAD SLOPE.
4. CROSS SLOPE OF SIDEWALK SHALL NOT EXCEED 2% (1:50).
5. SIDEWALK MAY BE SUBJECT TO GRASS STRIP INSTALLATION. CONSULT WITH DPW ENGINEERING
6. GRAVEL BORROW BASE SHALL COMPACT TO ACHEIVE SOIL DENSITY VALUES OF 95% MODIFIED PROCTOR DENSITY (AASHTO T180).
7. SIDEWALK REPAIRS TWENTY FEET OR LONGER ARE SUBJECT TO REQUIREMENTS HEREIN. SIDEWALK REPAIRS SHORTER THAN TWENTY FEET SHALL MAKE EVERY EFFORT TO MEET REQUIRED SLOPES.
8. CONTROLL JOINTS SHALL BE INSTALLED EVERY 5 FEET IN EACH DIRECTION.
9. EXPANSION JOINTS SHALL BE INSTALLED EVERY 20 FEET IN EACH DIRECTION AT FOUNDATIONS AND WALLS AND IN A SQUARE PATTERN AROUND MANHOLE COVERS, HYDRANTS, SIGN POSTS AND UTILITY POLES. THE EXPANSION JOINT SHALL BE THE FULL DEPTH OF THE SIDEWALK AND FILLED WITH AN APPROVED TYPE OF PREMOLDED EXPANSION JOINT FILLER.

CEMENT CONCRETE SIDEWALK
N.T.S.

43.1.0 P PROVIDENCE STANDARD

ISSUE DATE: 1/6/17

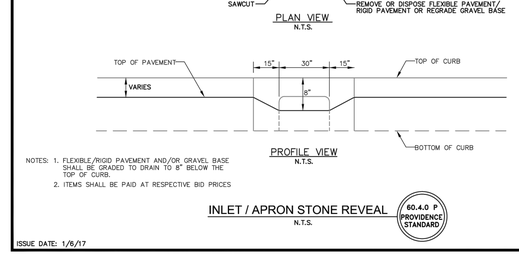


NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 905 OF THE RIDOT STANDARD SPECIFICATIONS.
2. RUNNING SLOPE OF SIDEWALK/DRIVEWAY SHALL NOT EXCEED 8.3% (1:12)
3. 4' MINIMUM ACCESSIBLE PATH SHALL BE INSTALLED WITH CROSS SLOPE NOT EXCEEDING 2% (1:50)
4. RESIDENTIAL CURB CUTS SHALL BE NO WIDER THAN 12' FROM INSIDE OF CURB RETURNS.

CEMENT CONCRETE DRIVEWAYS
N.T.S.

43.5.0 P PROVIDENCE STANDARD

ISSUE DATE: 1/6/17, REVISED 10/6/17



NOTES: 1. FLEXIBLE/RIGID PAVEMENT AND/OR GRAVEL BASE SHALL BE GRADED TO DRAIN TO 8" BELOW THE TOP OF CURB.
2. ITEMS SHALL BE PAID AT RESPECTIVE BID PRICES

INLET / APRON STONE REVEAL
N.T.S.

60.4.0 P PROVIDENCE STANDARD

ISSUE DATE: 1/6/17

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SHEET TITLE
DETAILS & NOTES

SUMMER STREET APARTMENTS

IN CARE OF: CHRISTINE M. WEST, AIA | PRINCIPAL
KITE ARCHITECTS | ONE CENTRAL STREET |
PROVIDENCE RI 02907 KITEARCHITECTS.COM |
401.272.0240 X117
CW@KITEARCHITECTS.COM

PROPERTY RECORD
94 SUMMER ST, PROVIDENCE, RI 02903
PLAT: 24, LOT: 640
ZONE: C-2
AREA: 1.16 ACRES
N/F: CROSSROADS RI
REF. NEI # 0019.198

EDWARD ERIC CORDIS, No. 9576, REGISTERED PROFESSIONAL ENGINEER CIVIL
3/25/22 DPW

nei-cds.com

PROJECT #	DATE	DRAWN	CHECK
21.0103	12/17/21	LD	NKH

No	DATE	REVISIONS/DESCRIPTION	BY
1	02/18/22	PROGRESS SET	CB

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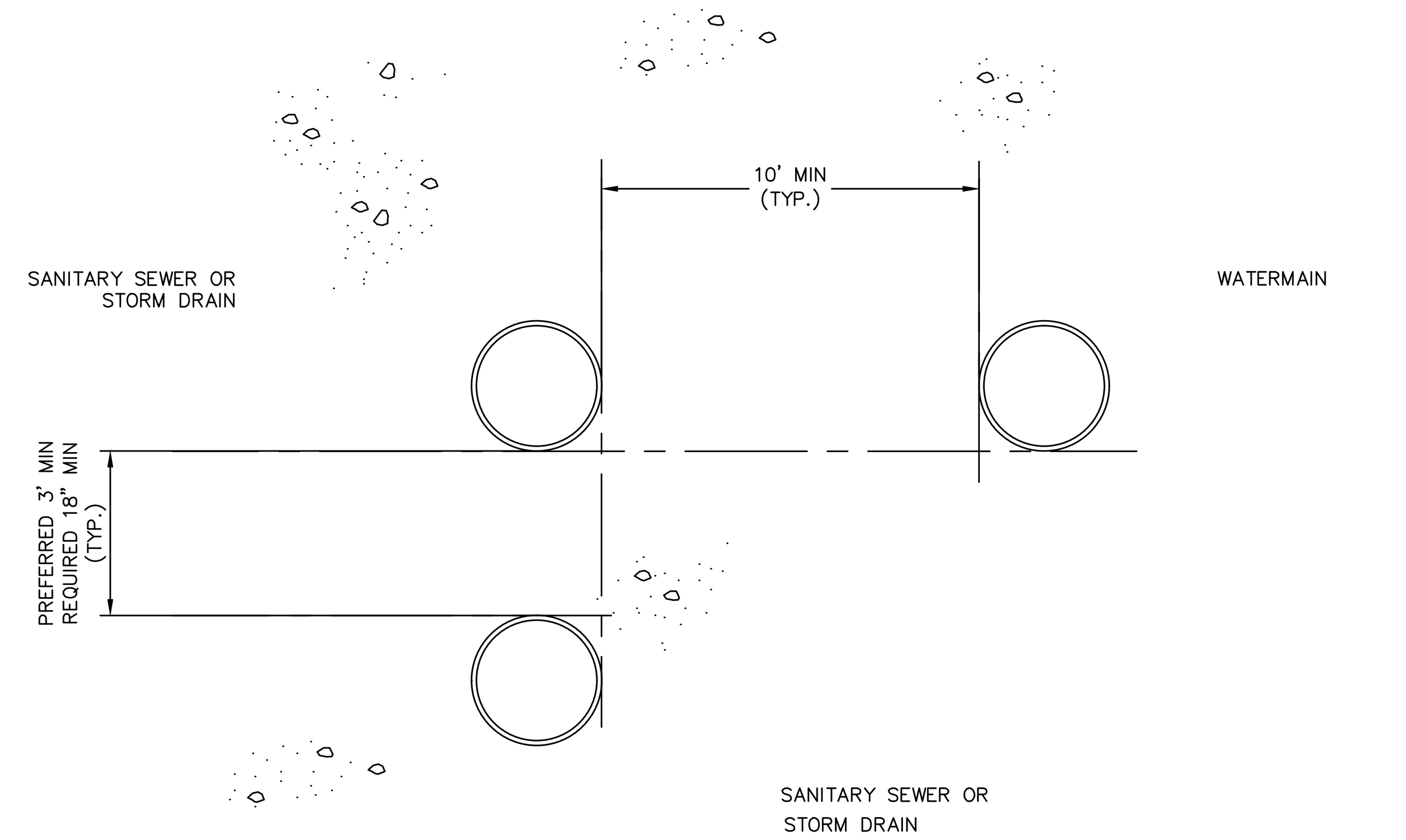
C2.1

TJI - 11/30/2021 - UPDATED SHEET SET-UPS



1. WHERE IT IS NOT POSSIBLE TO MAINTAIN A 10 FOOT HORIZONTAL SEPARATION, A DEVIATION MAY BE GRANTED ON A CASE-BY-CASE BASIS. SUCH DEVIATION MAY ALLOW INSTALLATION OF THE SEWER CLOSER TO A WATER SERVICE, PROVIDED THAT:
   A.) THE SEWER LINE AND WATER SERVICE ARE LAID IN SEPARATE TRENCHES AND THE CROWN OF THE SEWER LINE SHALL BE AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER SERVICE.

   OR

   B.) THE SEWER LINE AND WATER SERVICE MAY BE INSTALLED IN THE SAME TRENCH WITH THE WATER SERVICE PLACED ON A BENCH OF UNDISTURBED EARTH AND THE CROWN OF THE SEWER LINE SHALL BE AT LEAST 18 INCHES BELOW THE BOTTOM OF THE WATER SERVICE.
2. IN CASES WHERE IT IS IMPOSSIBLE TO OBTAIN PROPER HORIZONTAL AND VERTICAL SEPARATION AS STIPULATED ABOVE (INCLUDING CROSSING OVER), THE FOLLOWING PROTECTION SHALL BE PROVIDED:
   A.) ENCASEMENT OF THE SEWER PIPE IN CONCRETE WITH A MINIMUM THICKNESS OF 6" IN ALL DIRECTIONS AROUND THE OUTSIDE OF THE PIPE EXTENDING TO A DISTANCE THAT WILL PROVIDE THE REQUIRED 10 FEET HORIZONTAL OR 18 INCH VERTICAL SEPARATION BETWEEN THE UNENCASED PORTIONS OF THE PIPES. THE WATER MAIN SHALL BE ENCASED IN EXCAVATABLE CONTROLLED LOW STRENGTH MATERIAL (CLSM) CONFORMING WITH RIDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION SECTION 603.

   OR

   B.) PLACING EITHER THE SEWER LINE OR WATER SERVICE IN A WATERTIGHT CARRIER PIPE EXTENDING TO A DISTANCE THAT WILL PROVIDE THE REQUIRED 10 FEET HORIZONTAL OR 18 INCH VERTICAL SEPARATION BETWEEN THE UNENCASED PORTIONS OF THE PIPES.
3. FOR ALL CROSSINGS, ANY NEW WATER LINES SHALL BE LAID WITH A FUL LENGTH OF WATER PIPE CENTERED AT THE POINT OF CROSSING. THERE SHALL BE NO JOINTS PERMITTED AT THE POINT OF CROSSING.
4. FOR ANY CROSSING OF A WATER MAIN BELOW AN EXISTING OR PROPOSED SANITARY SEWER LINE, ADEQUATE STRUCTURAL SUPPORT MUST BE PROVIDED FOR THE SANITARY LINE IN ORDER TO PREVENT SETTLING

1 / C2.2 WATER MAIN AND STORM OR SANITARY SEPERATION

SCALE: N.T.S

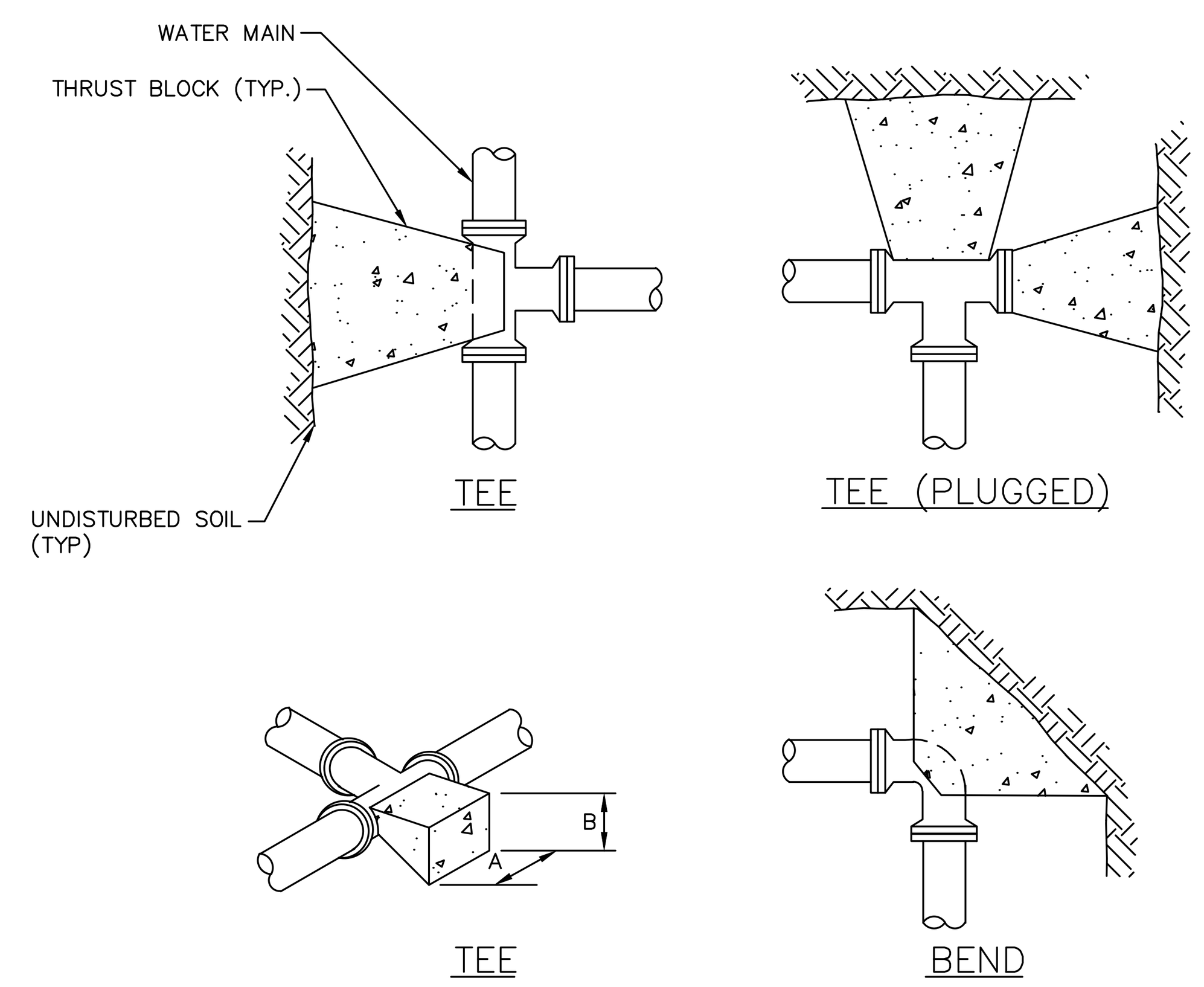


TABLE 1: 4" THRU 10" FITTINGS				
SOIL TYPE	TEES		BENDS	
	A	B	A	B
SOFT CLAY	48"	24"	48"	24"
SAND	24"	24"	24"	24"
GRAVEL	24"	18"	24"	18"

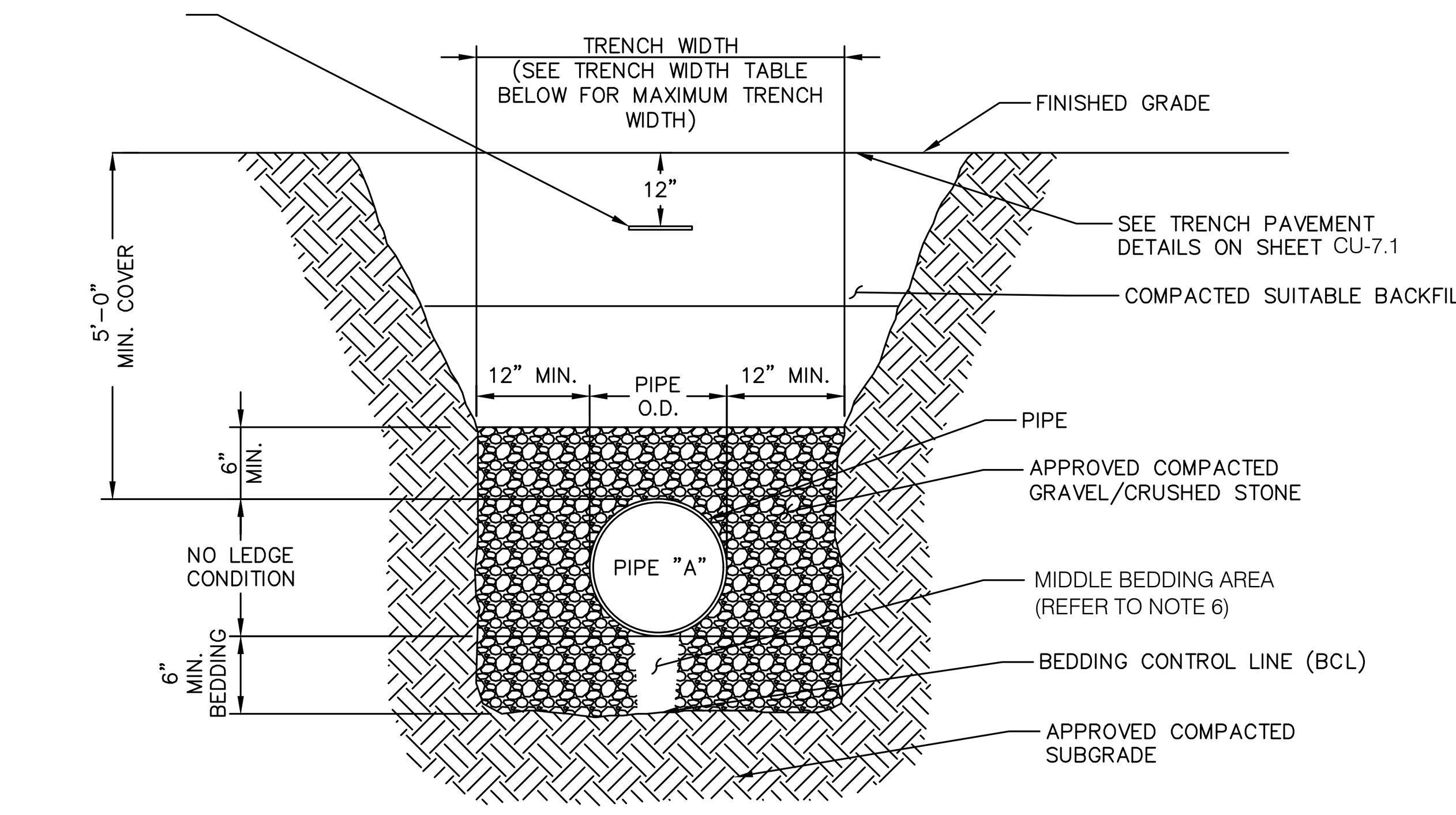
TABLE 2: 12" THRU 16" FITTINGS				
SOIL TYPE	TEES		BENDS	
	A	B	A	B
SOFT CLAY	60"	36"	72"	36"
SAND	36"	30"	48"	30"
GRAVEL	30"	24"	40"	24"

NOTES:

1. CONCRETE FOR ALL THRUST BLOCKS TO BE MINIMUM 3,000 PSI., 28 DAY STRENGTH, TYPE I CEMENT, 3/4" STONE.
2. WHERE POSSIBLE, CONSTRUCT THRUST BLOCKS AGAINST UNDISTURBED SOIL. WHERE NOT POSSIBLE PLACE FILL BETWEEN THE THRUST BLOCK AND THE UNDISTURBED SOIL COMPACTED TO 90% STANDARD PROCTOR DENSITY.
3. WRAP FITTINGS WITH POLYETHYLENE PRIOR TO CONSTRUCTING THRUST BLOCKS. NO JOINTS SHALL BE COVERED WITH CONCRETE.
4. THRUST BLOCK DIMENSIONS ARE BASED ON A MAXIMUM WATER MAIN PRESSURE OF 150 PSI.

5 / C2.2 TYPICAL THRUST BLOCK DETAIL

SCALE: N.T.S



NOTES:

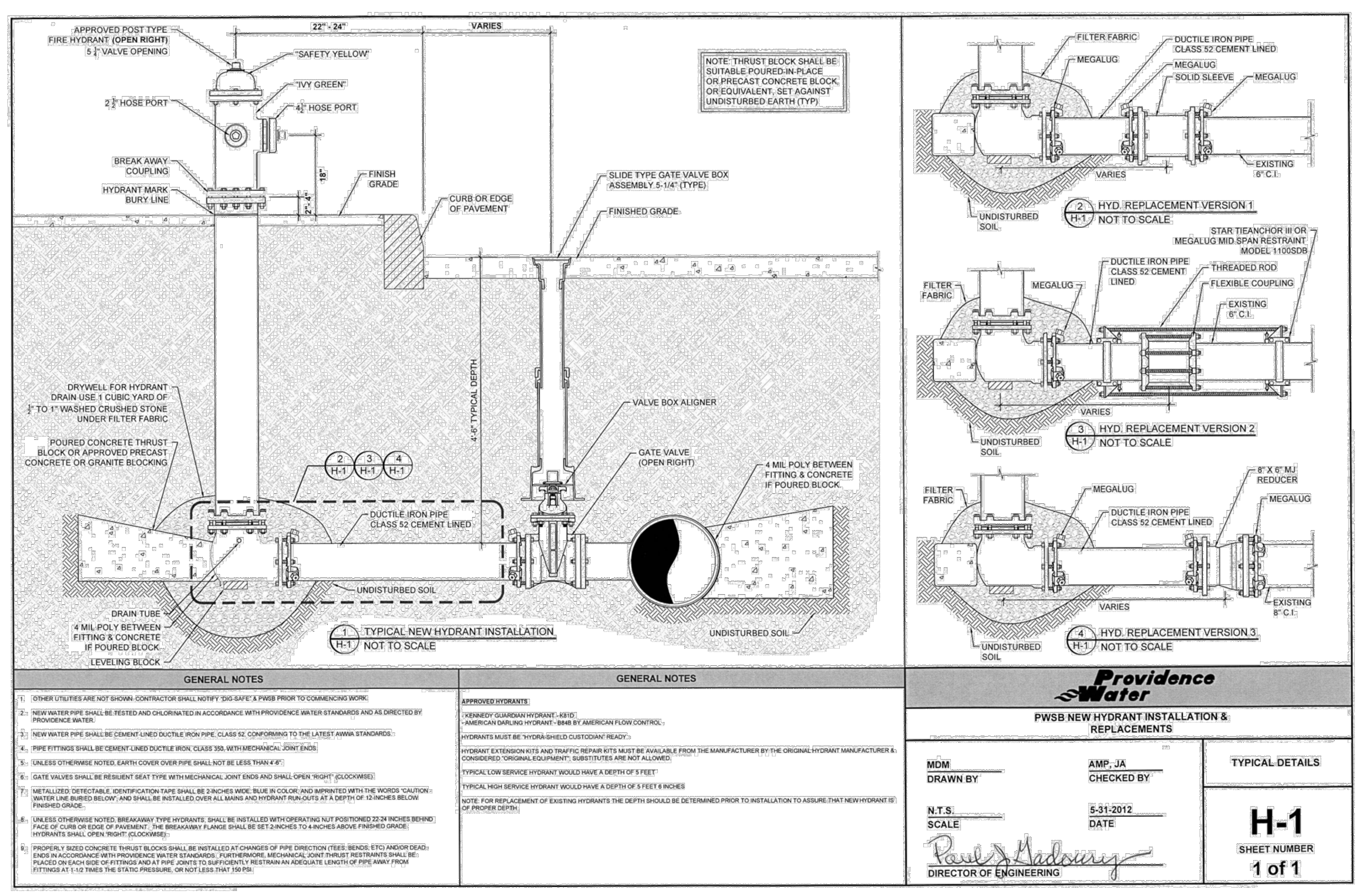
1. MAINTAIN UNIFORM TRENCH WIDTH TO 6" OVER PIPE.
2. IF SHEETING IS REQUIRED TO REMAIN, CUT OFF TWO (2) FEET BELOW FINISH GRADE.
3. IF GROUNDWATER IS ENCOUNTERED, WRAP STONE WITH MIRAFI 140N FILTER FABRIC OR APPROVED EQUAL.
4. SEE PAVEMENT REPAIR DETAILS FOR ROAD WORK AREAS.
5. PROVIDE 6" MIN. BEDDING FOR AREAS OF EXCAVATION IN ROCK.
6. LOOSELY PLACE SUITABLE BACKFILL OR CLEAN WASHED ¾" CRUSHED STONE IN MIDDLE BEDDING AREA. DO NOT COMPACT MIDDLE BEDDING AREA.
7. ALL TRENCHES SHALL BE SUFFICIENTLY WIDE TO ACCOMMODATE TRENCH BOX.
8. PER RIDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, APPROVED SUBGRADE SHOULD NOT CONSIST OF UNSUITABLE SOIL. UNSUITABLE SOILS IS DEFINED AS THOSE SOILS, OTHER THAN MUCK, WHICH DUE TO THEIR CONSOLIDATION PROPERTIES, DEGREE OF SATURATION, GRADATION, OR OTHER DELETERIOUS CHARACTERISTICS WILL NOT PROVIDE A STABLE SUPBRADE OR SIDE SLOPES, CANNOT BE USED AS, OR SUPPORT EMBANKMENT, OR CANNOT BE PLACED AND COMPACTED AS BACKFILL.

TRENCH WIDTHS	
PIPE SIZE	MAX (ONE PIPE)[a]
15" OR LESS	4'-0"
18"	5'-0"
24"	5'-6"
30"	6'-0"
36"	6'-6"
42"	7'-0"
48"	7'-6"
MANHOLES	O.D. + 6'-0"
CATCH BASINS'	O.D. + 6'-0"

a. FOR ROCK EXCAVATION SUBTRACT 1'-0"

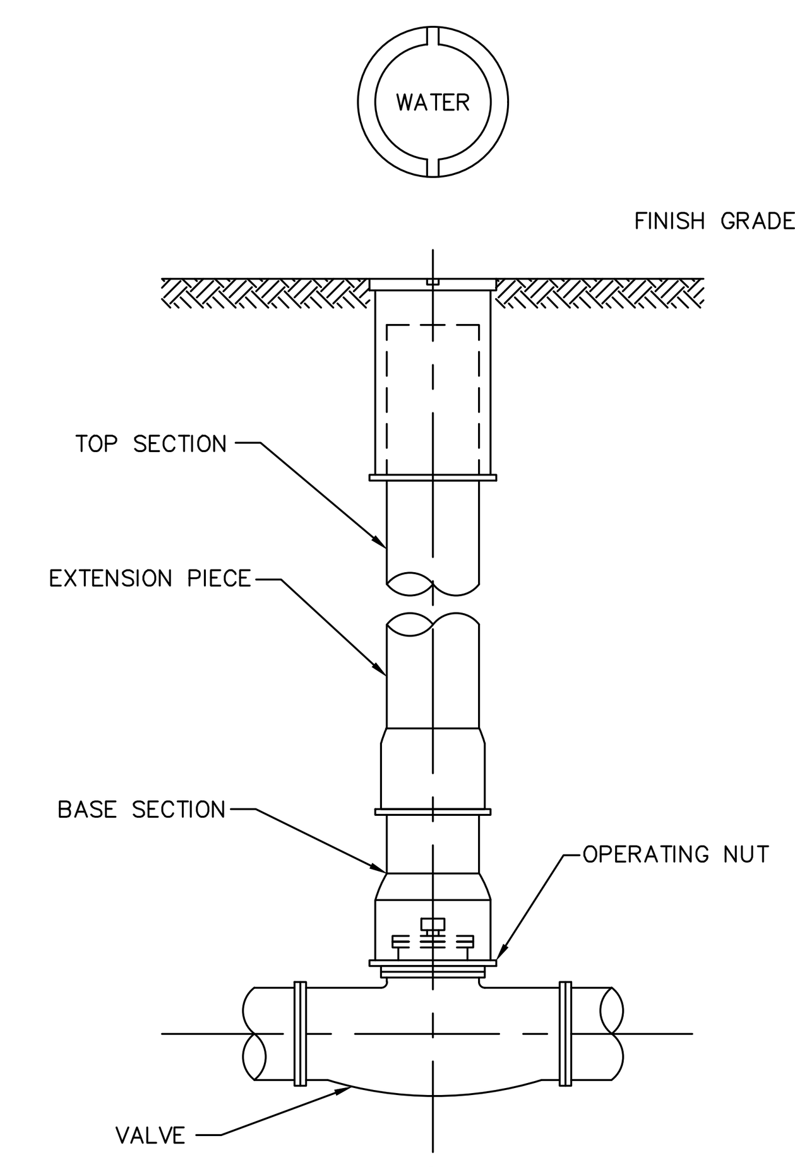
3 / C2.2 TYPICAL PIPE TRENCH

SCALE: N.T.S



4 / C2.2 PROVIDENCE WATER HYDRANT DETAILS

SCALE: N.T.S



5 / C2.2 GATE VALVE WITH VALVE BOX

SCALE: N.T.S

N:\PROJECTS\21.0103_KITE-CROSSROADS (SUMMER ST)\DWG C2.2 NEI-Standard.ctb 3/24/2022 Neal Hingorany

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SHEET TITLE
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IN CARE OF: CHRISTINE M. WEST, AIA | PRINCIPAL
KITE ARCHITECTS | ONE CENTRAL STREET |
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ZONE: C-2
AREA: 1.16 ACRES
N/F: CROSSROADS RI
REF. NEI # 0019.198

EDWARD ERIC CORDIS
No.
REGISTERED PROFESSIONAL ENGINEER
CIVIL
3/25/22

nei-cds.com

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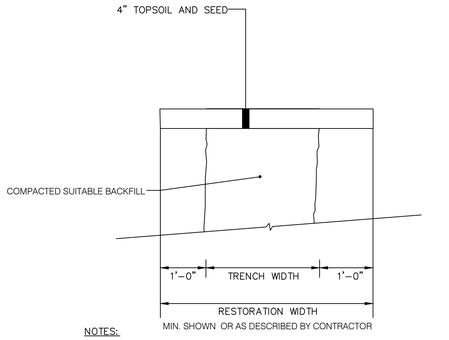
C2.2

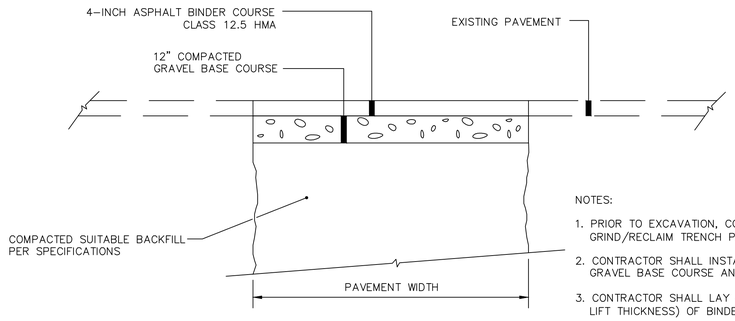


NOTES:

1. CONTRACTOR SHALL APPLY WATER AND FERTILIZER AS NECESSARY TO ALLOW GRASS SEED TO GERMINATE PROPERLY.

1 C2.3 TRENCH GRASS RESTORATION SECTION

SCALE: N.T.S

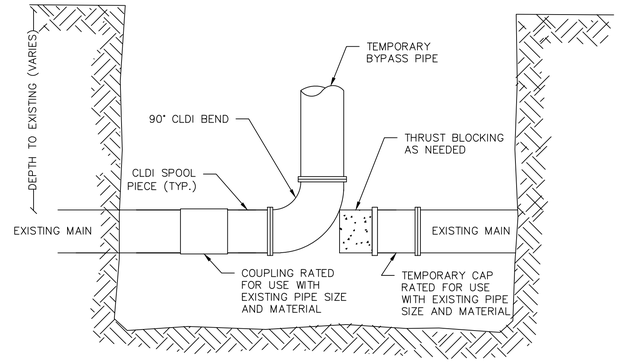


NOTES:

1. PRIOR TO EXCAVATION, CONTRACTOR SHALL GRIND/RECLAIM TRENCH PAVEMENT.
2. CONTRACTOR SHALL INSTALL 12-INCHES OF GRAVEL BASE COURSE AND COMPACT.
3. CONTRACTOR SHALL LAY 4-INCHES (COMPRESSED LIFT THICKNESS) OF BINDER COURSE, TYPE I-1.

2 C2.3 TEMPORARY TRENCH PAVEMENT SECTION

SCALE: N.T.S

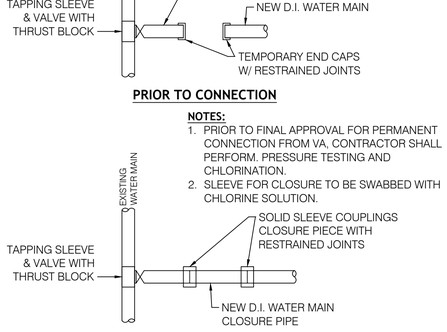


NOTES:

1. REMOVE BYPASS CONNECTION AND AND RESTORE AREA ONCE WATER MAIN INSTALLATION HAS BEEN COMPLETED.
2. RESTRAIN ALL JOINTS.

3 C2.3 TEMPORARY BYPASS CONNECTION DETAIL

SCALE: N.T.S



PRIOR TO CONNECTION

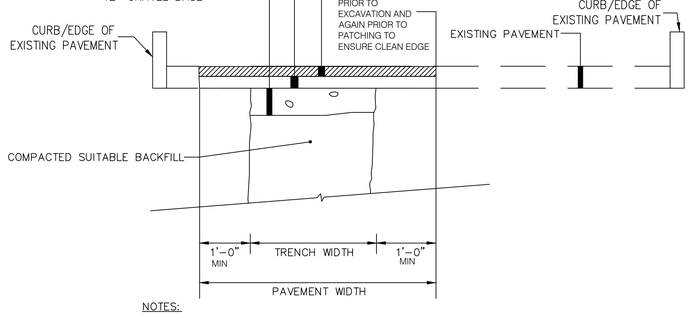
NOTES:

1. PRIOR TO FINAL APPROVAL FOR PERMANENT CONNECTION FROM VA, CONTRACTOR SHALL PERFORM. PRESSURE TESTING AND CHLORINATION.
2. SLEEVE FOR CLOSURE TO BE SWABBED WITH CHLORINE SOLUTION.

CONNECTION

4 C2.3 CONN. OF PR. WATER MAIN TO EX. WATER MAIN

SCALE: N.T.S

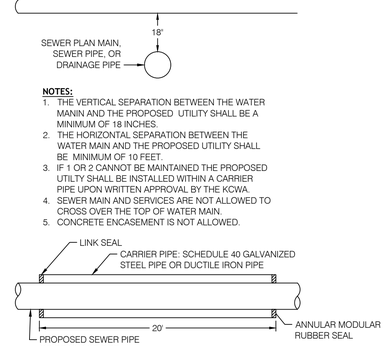


NOTES:

1. CONTRACTOR SHALL SEAL PAVEMENT JOINTS AFTER PAVING.

5 C2.3 PERMANENT TRENCH PAVEMENT SECTION

SCALE: N.T.S



NOTES:

1. THE VERTICAL SEPARATION BETWEEN THE WATER MANIN AND THE PROPOSED UTILITY SHALL BE A MINIMUM OF 18 INCHES.
2. THE HORIZONTAL SEPARATION BETWEEN THE WATER MAIN AND THE PROPOSED UTILITY SHALL BE MINIMUM OF 10 FEET.
3. IF 1 OR 2 CANNOT BE MAINTAINED THE PROPOSED UTILITY SHALL BE INSTALLED WITHIN A CARRIER PIPE UPON WRITTEN APPROVAL BY THE KCWA.
4. SEWER MAIN AND SERVICES ARE NOT ALLOWED TO CROSS OVER THE TOP OF WATER MAIN.
5. CONCRETE ENCASEMENT IS NOT ALLOWED.

6 C2.3 TYPICAL UTILITY SEPARATION

SCALE: N.T.S

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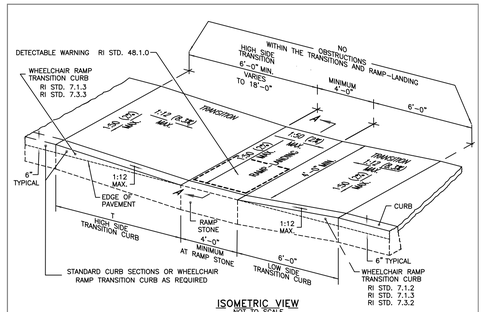
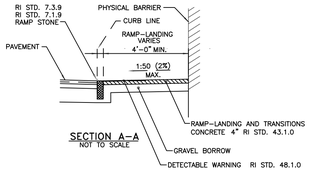
SCALE
1"=20'

C2.3



ISOMETRIC VIEW
NOT TO SCALE



ROADWAY PROFILE GRADE	T (FT.)
0.00	6.0
0.01	7.0
0.02	8.0
0.03	9.5
0.04	11.5
0.05	15.0
> 0.05	18.0

SECTION A–A
NOT TO SCALE

NOTES:
1. THIS DETAIL MAY BE USED WHEN A PHYSICAL BARRIER IS PRESENT AND THERE IS INSUFFICIENT ROOM TO PROPERLY CONSTRUCT AN ADA ACCESSIBLE RAMP AND LANDING. A TECHNICAL INFEASIBILITY FINDING IS REQUIRED.
2. SHALL BE IN ACCORDANCE WITH SECTION 905 OF THE RI STANDARD SPECIFICATIONS.
3. THE RAMP–LANDING AND TRANSITIONS SHALL BE FREE OF OBSTRUCTIONS.
4. LOCATION OF THE RAMP–LANDING IS AS SHOWN ON CONTRACT DRAWINGS.
5. AN UNOBSTRUCTED PEDESTRIAN ACCESS ROUTE (PATH OF TRAVEL) WITH A MINIMUM WIDTH OF 4'–0" SHALL BE MAINTAINED.
6. THE ENTRANCE OF THE RAMP–LANDING SHALL BE FLUSH WITH THE PAVEMENT.
7. MINIMUM LENGTH OF STRAIGHT OR CIRCULAR FILLER PIECES TO BE 3'–0" (GREATER LENGTHS PREFERRED).
8. ALL REQUIRED CUTTING OF CURB PIECES TO BE PAID FOR UNDER COST OF CURB.
9. DETECTABLE WARNINGS TO BE PAID FOR UNDER SECTION 942 OF THE RI STANDARD SPECIFICATIONS

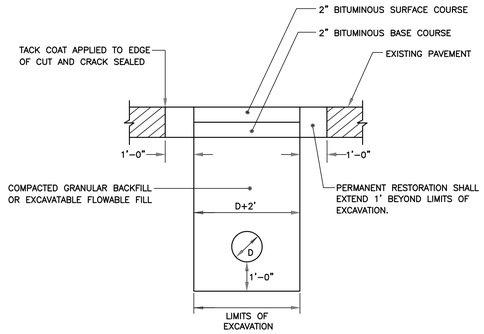
RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS		
NO.	BY	DATE

RAMP–LANDING FOR NARROW SIDEWALK

CHIEF ENGINEER TRANSPORTATION — CHIEF DESIGN ENGINEER TRANSPORTATION — MARCH 31, 2015 ISSUE DATE

R.I. STANDARD 43.3.2

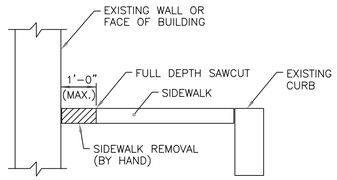


NOTES:
1. BITUMINOUS CONCRETE SHALL ADHERE TO RIDOT SPECIFICATIONS, SECTION 401.
2. GRANUAL BASE MATERIAL SHALL BE COMPACTED TO 95% OF MODIFIED PROCTOR DENSITY (AASHTO T180). GRAVEL BASE COURSE SHALL ADHERE TO RIDOT SPECIFICATIONS, SECTION 301.
3. EXCAVATABLE FLOWABLE FILL (CONTROLLED DENSITY FILL, CDF) SHALL ADHERE TO 95% OF THE MODIFIED PROCTOR DENSITY (AASHTO T180), ADHERING TO RIDOT SPECIFICATIONS, SECTION 603.
4. PRIOR TO PERMANENT RESTORATION, ALL EDGES OF THE EXCAVATED AREA AND ONE FOOT BEYOND SHALL BE SAWCUT TO A CLEAN, SQUARE EDGE.
5. IF EXCAVATION IS ON A PROTECTED STREET, THE REMAINING ROADWAY OUTSIDE THE TRENCH TO THE NEAREST CURB SHALL BE MILLED 1.5 INCHES WITH 1.5 INCH BITUMINOUS CONCRETE SURFACE OVERLAY. THE JOINTS SHALL BE SEALED USING INFRARED TECHNOLOGY. THE LENGTH OF THE NEW PAVED AREA MUST BE A MINIMUM OF 10 FEET TO ALLOW FOR PROPER ROLLING.
6. IF EXCAVATION IS ON A NON–PROTECTED STREET, AND THE DISTANCE FROM EDGE OF EXCAVATION TO EDGE OF ROADWAY IS TWO FEET OR LESS, THE REMAINING AREA TO EDGE OF ROADWAY SHALL BE REMOVED AND REPLACED IN CONJUNCTION WITH THE PERMANENT PAVEMENT RESTORATION.

PERMANENT ROADWAY RESTORATION - GRANULAR BASE
N.T.S.

60.2.0 P PROVIDENCE STANDARD

ISSUE DATE: 1/6/17



NOTES:
1. IN AREAS WHERE SIDEWALKS ARE TO BE REMOVED IN FRONT OF EXISTING WALLS OR BUILDINGS, THE CONTRACTOR SHALL SAWCUT ONE(1) FOOT (MAXIMUM) IN FRONT OF THE WALL/BUILDING AND REMOVE THE SIDEWALK STRUCTURE BY HAND.
2. IN THE EVENT THAT THE EXISTING SIDEWALK IS A STRUCTURAL ELEMENT OF THE WALL/BUILDING, THE EXISTING SIDEWALK IN FRONT OF THESE STRUCTURES WILL REMAIN IN–PLACE AND A NEW SIDEWALK CONSTRUCTED TO MATCH THE EXISTING SECTION.
3. ANY DAMAGE TO THE WALL OR BUILDING BY THE CONTRACTOR SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE CITY.

SIDEWALK REMOVAL DETAIL
N.T.S.

43.1.1 P PROVIDENCE STANDARD

ISSUE DATE: 1/6/17

NEI Narragansett Engineering Inc.
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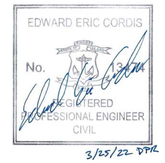
Civil • Survey Structural Environmental Design
3102 East Main Road, Portsmouth RI 02871
Tel. 401.683.6630 www.nei-cds.com

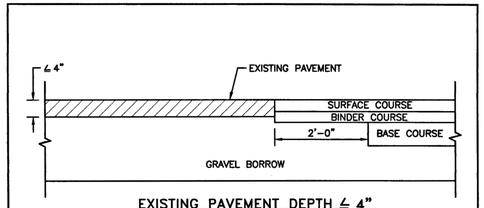
SHEET TITLE
DETAILS & NOTES

SUMMER STREET APARTMENTS

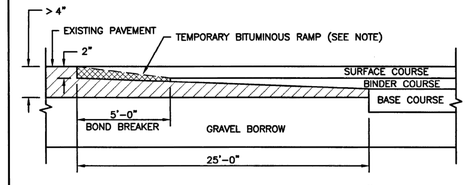
IN CARE OF: CHRISTINE M. WEST, AIA | PRINCIPAL
KITE ARCHITECTS | ONE CENTRAL STREET |
PROVIDENCE RI 02907 KITEARCHITECTS.COM |
401.272.0240 X117
CW@KITEARCHITECTS.COM

PROPERTY RECORD
94 SUMMER ST, PROVIDENCE, RI 02903
PLAT: 24, LOT: 640
ZONE: C-2
AREA: 1.16 ACRES
N/F: CROSSROADS RI
REF. NEI # 0019.198





EXISTING PAVEMENT DEPTH ≤ 4"



EXISTING PAVEMENT DEPTH > 4"

NOTE:
A BOND BREAKER (TAPERED OR EQUIVALENT) WILL BE PLACED 5'–0" FROM THE JOINT AND COVERED WITH THE BINDER COURSE AS THE TEMPORARY RAMP. PRIOR TO PLACING THE SURFACE COURSE, THE BINDER COURSE AND BOND BREAKER WILL BE REMOVED.

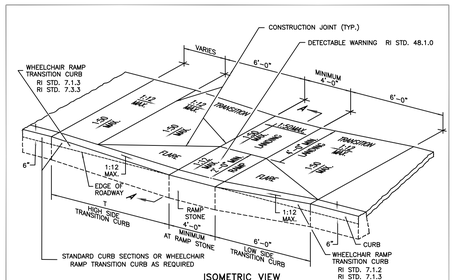
RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS		
NO.	BY	DATE

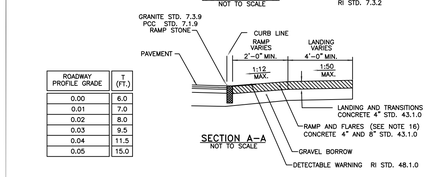
TRANSVERSE PAVEMENT CUT AND MATCH

CHIEF ENGINEER TRANSPORTATION — CHIEF DESIGN ENGINEER TRANSPORTATION — JUNE 15, 1998 ISSUE DATE

R.I. STANDARD 47.1.1



ISOMETRIC VIEW
NOT TO SCALE



ROADWAY PROFILE GRADE	T (FT.)
0.00	6.0
0.01	7.0
0.02	8.0
0.03	9.5
0.04	11.5
0.05	15.0

SECTION A–A
NOT TO SCALE

NOTES:
1. SHALL BE IN ACCORDANCE WITH SECTION 905 OF THE RI STANDARD SPECIFICATIONS.
2. WHEN ANY OBSTRUCTION LOCATED IN THE SIDEWALK FALLS WITHIN A CROSSWALK AREA, THE WHEELCHAIR RAMP SHALL BE PLACED SUCH THAT THE OBSTRUCTION FALLS OUTSIDE OF THE RAMP.
3. AT NO TIME IS ANY PART OF THE WHEELCHAIR RAMP TO BE LOCATED OUTSIDE OF THE CROSSWALK, AND IT IS TO BE CENTERED WHENEVER POSSIBLE.
4. DRAINAGE FACILITIES ARE TO BE LOCATED UP–GRADE OF ALL WHEELCHAIR RAMPS.
5. LOCATION OF WHEELCHAIR RAMPS IS AS SHOWN ON CONTRACT DRAWINGS.
6. IN NO INSTANCE SHALL THE SIDEWALK CROSS SLOPE EXCEED 1:50 EXCEPT WITHIN THE RAMP AREA.
7. AN UNOBSTRUCTED PATH OF TRAVEL WITH A MINIMUM WIDTH OF 4'–0" SHALL BE MAINTAINED.
8. THE WHEELCHAIR RAMP SLOPE AND SIDE SLOPES (TRANSITIONS), MUST NOT BE STEEPER THAN 1:12. HOWEVER, THESE SLOPES MAY BE FLATTER THAN 1:12 WHEN WARRANTED BY SURROUNDING CONDITIONS.
9. WHERE THE ROAD PROFILE EXCEEDS 5% THE HIGH SIDE TRANSITION LENGTH (T) SHALL BE EIGHTEEN FEET (18'–0").
10. IN NO CASE, WHERE A STOP LINE IS WARRANTED, SHALL A RAMP BE PLACED BEHIND THE STOP LINE.
11. THE DEPRESSED RAMP WHEELCHAIR RAMP SHALL BE LOCATED WITH THE RAMP CENTERED ON THE CROSSWALK.
12. THE WHEELCHAIR RAMP SHALL BE CONSTRUCTED RADIALLY OPPOSITE THE RADIUS POINT WHEN POSSIBLE.
13. MINIMUM LENGTH OF STRAIGHT OR CIRCULAR FILLER PIECES TO BE 3'–0" (GREATER LENGTHS PREFERRED).
14. ALL REQUIRED CUTTING OF CURB PIECES TO BE PAID FOR UNDER COST OF CURB.
15. DETECTABLE WARNINGS TO BE PAID FOR UNDER SECTION 942 OF THE RI STANDARD SPECIFICATIONS
16. 8" CONCRETE DEPTH FOR RADIUS WHEELCHAIR RAMPS ONLY. USE 4" DEPTH FOR TANGENT (MID–BLOCK) LOCATIONS.

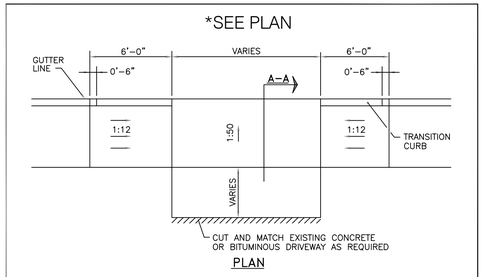
RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS		
NO.	BY	DATE
1	MLP	Oct. 2005
2	MLP	Jan. 2006
3	MLP	Sep. 2012

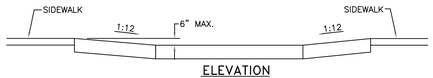
WHEELCHAIR RAMP

CHIEF ENGINEER TRANSPORTATION — CHIEF DESIGN ENGINEER TRANSPORTATION — JUNE 15, 1998 ISSUE DATE

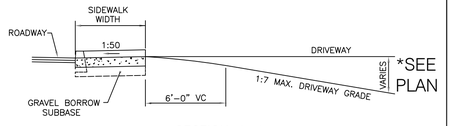
R.I. STANDARD 43.3.0



PLAN



ELEVATION



SECTION A–A

NOTE:
SHALL BE IN ACCORDANCE WITH SECTION 905 OF THE R.I. STANDARD SPECIFICATIONS.

RHODE ISLAND DEPARTMENT OF TRANSPORTATION

REVISIONS		
NO.	BY	DATE
1	MLP	3/1/05
2	MLP	6/27/08

DRIVEWAY DEVELOPMENT FOR 6'–0" TRANSITION CURB

CHIEF ENGINEER TRANSPORTATION — CHIEF DESIGN ENGINEER TRANSPORTATION — JUNE 15, 1998 ISSUE DATE

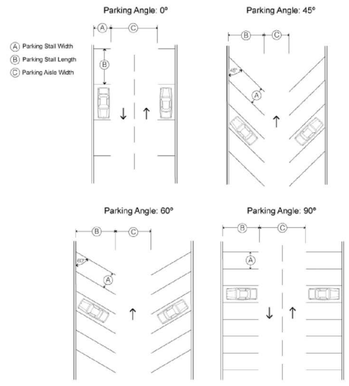
R.I. STANDARD 43.4.1

OFF-STREET PARKING DIMENSIONS (Figure 14-1)

Parking Angle	Standard Minimum Stall Width	Standard Minimum Stall Length	Compact Minimum Stall Width	Compact Minimum Stall Length	Minimum Aisle Width
0°	8.5'	18'	7.5'	15'	11' / 22' [1]
45°	8.5'	18'	7.5'	15'	12'
60°	8.5'	18'	7.5'	15'	16'
90°	8.5'	18'	7.5'	15'	22'

[1] Two-way traffic

FIGURE 14-1



PROJECT #	DATE	DRAWN	CHECK
21.0103	12/17/21	LD	NKH

No	DATE	REVISIONS/DESCRIPTION	BY
1	02/18/22	PROGRESS SET	CB

DRAWINGS MUST BE PRINTED IN COLOR TO BE VALID. THIS NOTE SHOULD BE BLUE. IF THIS NOTE IS NOT BLUE, PLEASE REPRINT IN COLOR OR CONTACT NEI.

SCALE 1"=20'

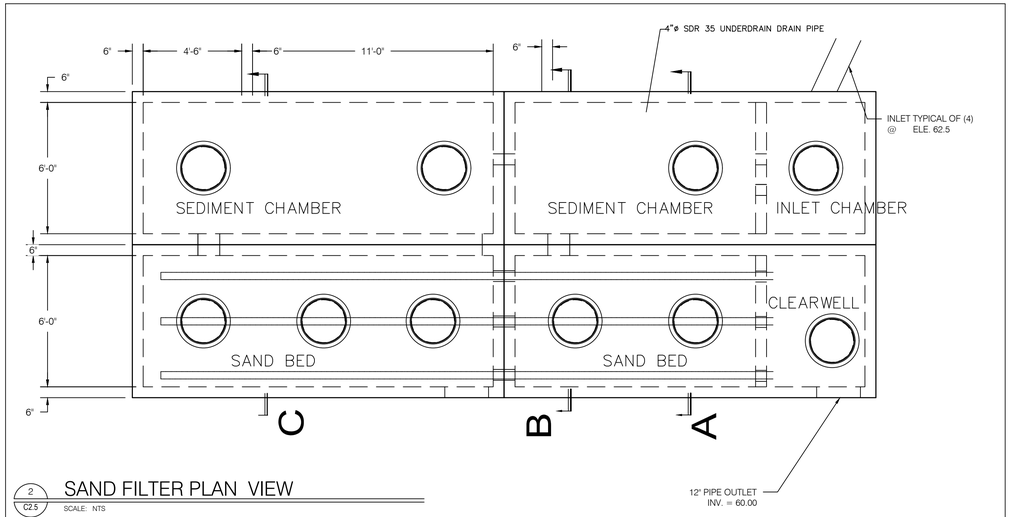
C2.4

Material Specifications for Sand Filters

Parameter	Specification	Size	Notes
Sand	clean AASHTO M-6 or ASTM C-33 concrete sand	0.02" to 0.04"	Sand substitutions such as Diabase and Graystone #10 are not acceptable. No calcium carbonated or dolomitic sand substitutions are acceptable. No rock dust can be used for sand.
Underdrain gravel	RIDOT Specs. Sec. 300 AASHTO M-43	0.25" to 0.75"	Must be washed, clean gravel; refer to Appendix Section F.4.1, Part 2 for applicable material specs.
Geotextile Fabric (if required)	ASTM D-751 (puncture strength - 125 lb.) ASTM D-1117 (Mullen Burst Strength - 400 psi) ASTM D-1682 (Tensile Strength - 300 lb.)	0.08" thick equivalent opening size of #80 sieve	Must maintain 125 gpm per sq. ft. flow rate. Note: a 4" pea gravel layer may be substituted for geotextiles meant to separate filter layers.
Underdrain Piping	RIDOT Specs. Sec. 703 ASTM D-1785 or AASHTO M-278	4-6" rigid schedule 40 PVC	3/8" perf. @ 6" on center, 4 holes per row; minimum of 3" of gravel over pipes.
Concrete (Cast-in-place)	See RIDOT Specs. Sec. 600 f'c = 3500 psi, normal weight, air-entrained; reinforcing bars to meet ASTM 615-60	n/a	on-site testing of poured-in-place concrete required: 28 day strength and slump test; all concrete design (cast-*in-place or pre-cast) not using previously approved local* or RI standards requires design drawings sealed and approved by a RI-licensed structural PE.
Concrete (pre-cast)	See RIDOT Specs. Sec. 600 per pre-cast manufacturer	n/a	SEE ABOVE NOTE
non-rebar steel	ASTM A-36	n/a	structural steel to be hot-dipped galvanized ASTM A123

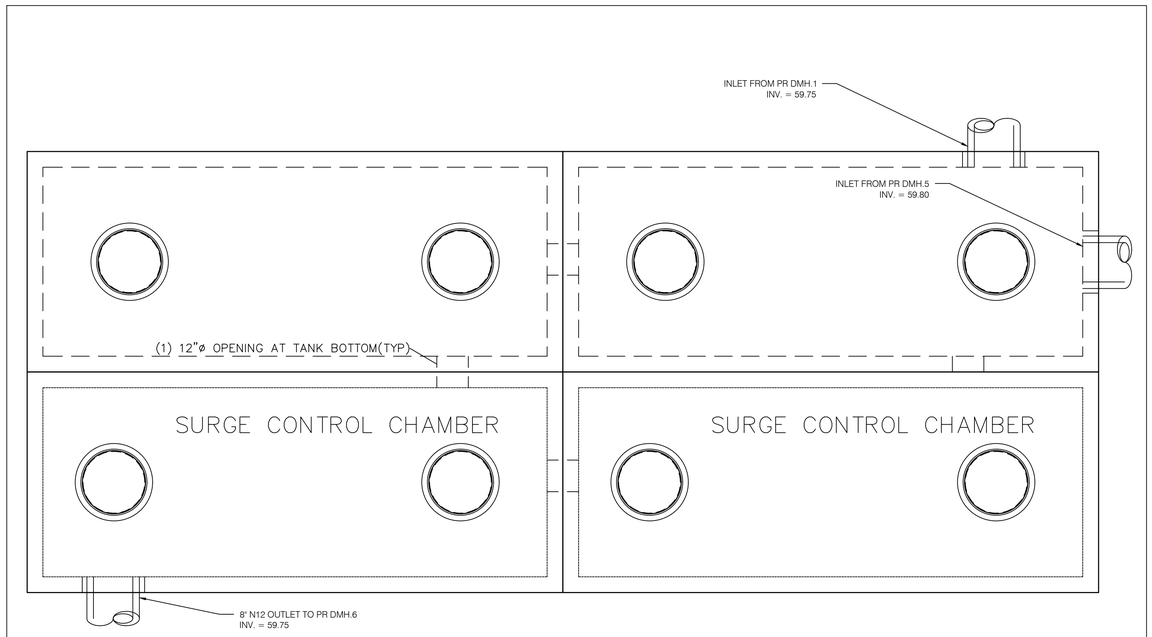
1 / C2.5 SAND FILTER MATERIAL SPECIFICATIONS

SCALE: NTS



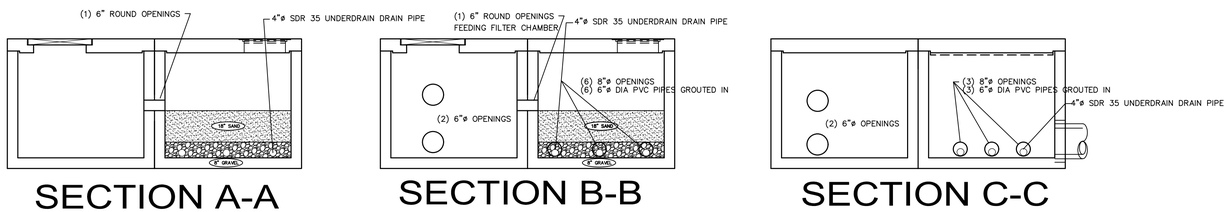
2 / C2.5 SAND FILTER PLAN VIEW

SCALE: NTS



4 / C2.5 SURGE TANK DETAIL

SCALE: N.T.S



3 / C2.5 SAND FILTER SECTIONAL VIEWS

SCALE: NTS

DESIGN NOTES

CONCRETE MINIMUM STRENGTH – 000 PSI @ 28 DAYS
STEEL REINFORCEMENT – ASTM A-615, GRADE 60
DESIGN LOADING – AASHTO HS20-44
SECTION JOINT – SEE JOINT DETAIL
DESIGN SPECIFICATION – AASHTO LOAD FACTOR DESIGN METHOD
EARTH COVER 0'-0" MIN. 0'-0" MAX.

Narragansett Engineering Inc.
Civil • Survey Structural Environmental Design
3102 East Main Road, Portsmouth RI 02871
Tel. 401.683.6630 www.nei-cds.com

SHEET TITLE
DETAILS & NOTES

SUMMER STREET APARTMENTS

IN CARE OF: CHRISTINE M. WEST, AIA | PRINCIPAL
KITE ARCHITECTS | ONE CENTRAL STREET |
PROVIDENCE RI 02907 KITEARCHITECTS.COM |
401.272.0240 X117
CW@KITEARCHITECTS.COM

PROPERTY RECORD
94 SUMMER ST, PROVIDENCE, RI 02903
PLAT: 24, LOT: 640
ZONE: C-2
AREA: 1.16 ACRES
N/F: CROSSROADS RI
REF. NEI # 0019.198

EDWARD ERIC CORDIS
No. 5762
REGISTERED PROFESSIONAL ENGINEER
CIVIL
3/25/22

nei-cds.com

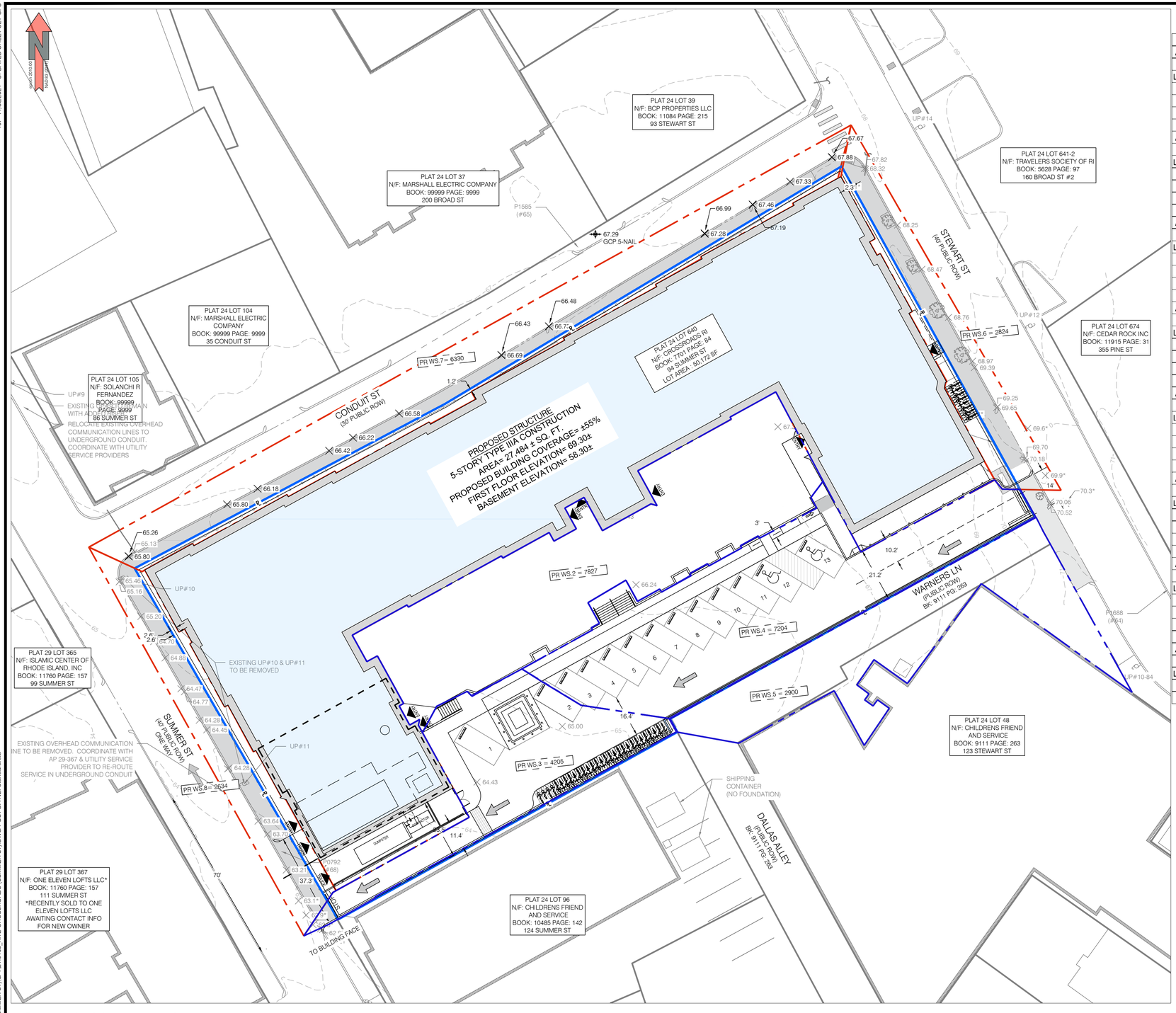
PROJECT #	DATE	DRAWN	CHECK
21.0103	12/17/21	LD	NKH

No	DATE	REVISIONS/DESCRIPTION	BY
1	02/18/22	PROGRESS SET	CB

DRAWINGS MUST BE PRINTED IN COLOR TO BE VALID. THIS NOTE SHOULD BE BLUE. IF THIS NOTE IS NOT BLUE, PLEASE REPRINT IN COLOR OR CONTACT NEI.

SCALE 1"=20'

C2.5



1 POST DA

PROPOSED WATERSHED PLAN

Scale: 1" = 20'

0 50 75 100 150 250

Item		Area	CN
Area Name	PWS1		
Pavement		28768	98
Landscaping		0	
Total		28768	98
Tc			6

Item		Area	CN
Area Name	PRWS2		
Pavement		3499	98
Landscaping		4320	72
Total		7819	84
Tc			6

Item		Area	CN
Area Name	PRWS3		
Pavement		4037	98
Landscaping		123	74
Total		4160	97
Tc			6

Item		Area	CN
Area Name	PRWS4		
Pavement		6443	98
Landscaping		693	74
Total		7136	96
Tc			6

Item		Area	CN
Area Name	PWS5		
Pavement		4480	98
Landscaping			
Total		4480	98
Tc			6

Item		Area	CN
Area Name	PRWS6		
Pavement		1819	98
Landscaping		1005	74
Total		2824	89
Tc			6

Item		Area	CN
Area Name	PRWS7		
Pavement		4913	98
Landscaping		1417	74
Total		6330	93
Tc			6

Item	PRWS8	Area	CN
Area Name			
Pavement		1944	98
Landscaping		690	
Total		2634	92
Tc			6

LEGEND

- DIMENSION - EXISTING
- DIMENSION - PROPOSED
- PLAN / DEED DIMENSION
- SURVEY DIMENSION
- PROPERTY LINE - ABUTTING
- PROPERTY LINE - EXISTING
- PROPERTY LINE - PROPOSED
- SETBACKS
- GRADE CONTOUR - EXISTING
- GRADE CONTOUR - PROPOSED
- ELECTRIC - OVERHEAD (OHE)
- ELECTRIC - TELEPHONE - CABLE (ETC)
- ELECTRIC - UNDERGROUND (UGE)
- GAS (G)
- SANITARY SEWER (S)
- STORM DRAIN (SD)
- WATER
- LIMIT OF DISTURBANCE (LOD)
- SEDIMENT CONTROL (SED)
- LOD / SED
- EDGE OF PAVEMENT - EXISTING
- FENCE - METAL
- FENCE - WOOD
- STONE WALL
- BRUSH LINE (APPROXIMATE)
- WETLAND LIMIT
- CATCH BASIN
- DRAINAGE MANHOLE
- ELECTRICAL MANHOLE
- SANITARY MANHOLE
- TELEPHONE MANHOLE
- MONITORING WELL
- GATE VALVE
- WATER SHUT OFF
- FIRE HYDRANT
- ELECTRIC BOX (ETC)
- UTILITY POLE
- TREE
- CURB INLET
- STRUCTURE, EXISTING
- STRUCTURE, PROPOSED
- SPOT GRADE - EXISTING
- SPOT GRADE - PROPOSED
- DRILL HOLE
- GRANITE BOUND
- REBAR / STEEL PIPE FOUND
- SPIKE
- WETLAND FLAG LOCATION
- BENCHMARK
- BORING
- TH No. 48' SHOWT 80' LEDGE — SOIL EVALUATION

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SHEET TITLE
PROPOSED WATERSHED PLAN

SUMMER STREET APARTMENTS

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EDWARD ERIC CORDIS
No. 6
REGISTERED PROFESSIONAL ENGINEER
CIVIL
3/25/22 DMC

nei-cds.com

PROJECT #	DATE	DRAWN	CHECK
21.0103	12/17/21	LD	NKH

No	DATE	REVISIONS/DESCRIPTION	BY
1	02/18/22	PROGRESS SET	CB

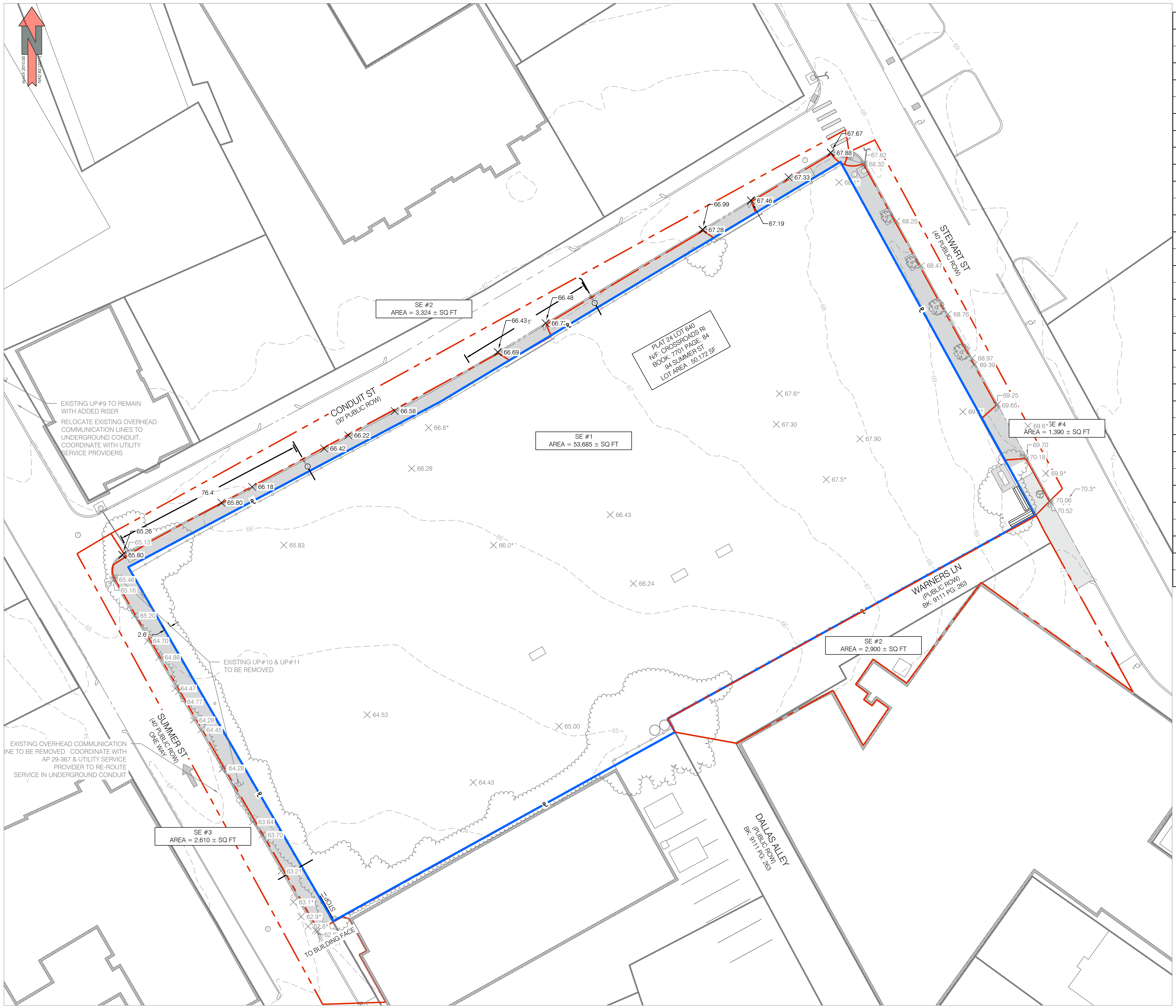
STREET INDEX:
THIS PLAN SHALL BE FILED UNDER-
SUMMER STREET
CONDUIT STREET
STEWART STREET

DRAWINGS MUST BE PRINTED IN COLOR TO BE VALID. THIS NOTE SHOULD BE BLUE. IF THIS NOTE IS NOT BLUE, PLEASE REPRINT IN COLOR OR CONTACT NEI.

LOCUS MAP

SCALE 1"=20'

POST DA



Item		Area	CN
Area Name	1S		
Pavement		53685	98
Landscaping		0	
Total		53685	98
Tc			6
Item		Area	CN
Area Name	2S		
Pavement		3324	98
Landscaping			
Total		3324	98
Tc			6
Item	3S	Area	CN
Area Name			
Pavement		2610	98
Landscaping		0	
Total		2610	98
Tc			6
Item		Area	CN
Area Name	4S		
Pavement		2852	98
Landscaping			
Total		2852	98
Tc			6
Item		Area	CN
Area Name	5S		
Pavement		4480	98
Landscaping			
Total		4480	98
Tc			6

1 PRE DA — EXISTING WATERSHED PLAN
Scale: 1" = 20'
0 50 75 100 150 250

LEGEND

- 100.00' DIMENSION - EXISTING
- 100.00' DIMENSION - PROPOSED
- 100.00' (D) PLAN / DEED DIMENSION
- 100.00' (S) SURVEY DIMENSION
- PROPERTY LINE - ABUTTING
- PROPERTY LINE - EXISTING
- PROPERTY LINE - PROPOSED
- SETBACKS
- 100.00 GRADE CONTOUR - EXISTING
- 100.00 GRADE CONTOUR - PROPOSED
- ELECTRIC - OVERHEAD (OHE)
- ELECTRIC - TELEPHONE - CABLE (ETC)
- ELECTRIC - UNDERGROUND (UGE)
- GAS (G)
- SANITARY SEWER (S)
- STORM DRAIN (SD)
- WATER
- LIMIT OF DISTURBANCE (LOD)
- SEDIMENT CONTROL (SED)
- LOD / SED
- EDGE OF PAVEMENT - EXISTING
- FENCE - METAL
- FENCE - WOOD
- STONE WALL
- BRUSH LINE (APPROXIMATE)
- WETLAND LIMIT
- CATCH BASIN
- DRAINAGE MANHOLE
- ELECTRICAL MANHOLE
- SANITARY MANHOLE
- TELEPHONE MANHOLE
- MONITORING WELL
- GATE VALVE
- WATER SHUT OFF
- FIRE HYDRANT
- ELECTRIC BOX (ETC)
- UTILITY POLE
- TREE
- CURB INLET
- STRUCTURE, EXISTING
- STRUCTURE, PROPOSED
- 4.24 SPOT GRADE - EXISTING
- 4.24 SPOT GRADE - PROPOSED
- DRILL HOLE
- GRANITE BOUND
- REBAR / STEEL PIPE FOUND
- SPIKE
- WETLAND FLAG LOCATION
- BENCHMARK
- BORING
- TH No. 48" SHGWT 80" LEDGE — SOIL EVALUATION

NEI Narragansett Engineering Inc.
Civil • Survey Structural Environmental Design
3102 East Main Road, Portsmouth RI 02871
Tel. 401.683.6630 www.nei-cds.com

SHEET TITLE
EXISTING WATERSHED PLAN

SUMMER STREET APARTMENTS

IN CARE OF: CHRISTINE M. WEST, AIA | PRINCIPAL
KITE ARCHITECTS | ONE CENTRAL STREET |
PROVIDENCE RI 02907 KITEARCHITECTS.COM |
401.272.0240 X117
CW@KITEARCHITECTS.COM

PROPERTY RECORD
94 SUMMER ST, PROVIDENCE, RI 02903
PLAT: 24, LOT: 640
ZONE: C-2
AREA: 1.16 ACRES
N/F: CROSSROADS RI
REF. NEI # 0019.198

EDWARD ERIC CORDIS
No.
REGISTERED PROFESSIONAL ENGINEER
CIVIL
3/25/22

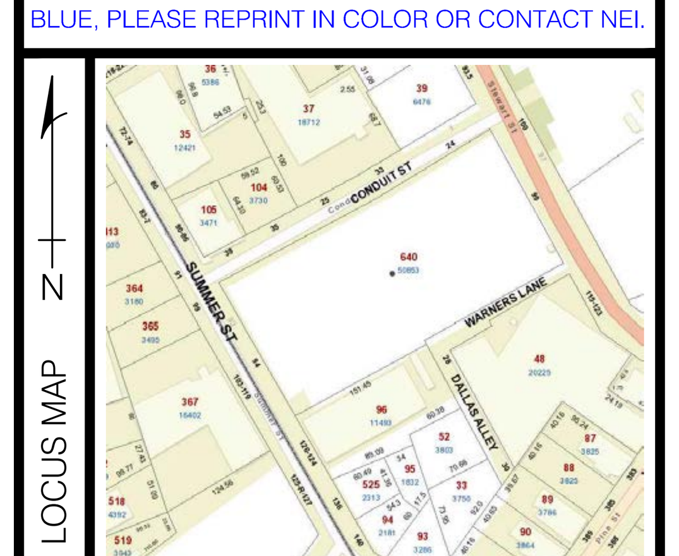
nei-cds.com

PROJECT #	DATE	DRAWN	CHECK
21.0103	12/17/21	LD	NKH

No	DATE	REVISIONS/DESCRIPTION	BY
1	02/18/22	PROGRESS SET	CB

STREET INDEX:
THIS PLAN SHALL BE FILED UNDER-
SUMMER STREET
CONDUIT STREET
STEWART STREET

DRAWINGS MUST BE PRINTED IN COLOR TO BE VALID. THIS NOTE SHOULD BE BLUE. IF THIS NOTE IS NOT BLUE, PLEASE REPRINT IN COLOR OR CONTACT NEI.

LOCUS MAP


SCALE
1"=20'

PRE DA

TJ/ - 11/30/2021 - UPDATED SHEET SET-UPS

N:\PROJECTS\21.0103_KITE-CROSSROADS (SUMMER ST)\G-1\21.0103_KITE-CROSSROADS (SUMMER ST).DWG PRE DA NEI-Standard.ctb

STORMWATER REPORT

Proposed Development Project
Summer Street Apartments
94 Summer Street
Providence RI 02903

Assessors Plat 24, Lot 640
Issued 3-25-22

Narragansett Engineering Inc.
nei-cds.com
Civil • Survey • Structural • Environmental • Design
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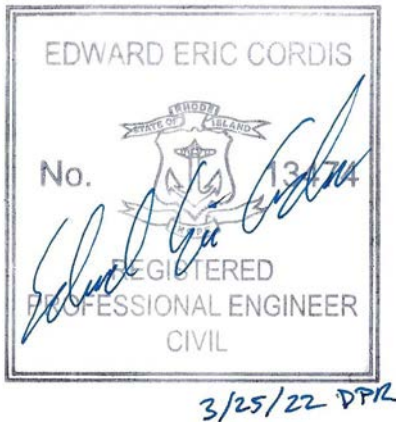


Prepared by E. Eric Cordis, P.E.

NEI Job Number: 21.0103

Prepared by:

Narragansett Engineering, Inc. 3102 East Main St, Portsmouth, RI 02871

CONTENTS

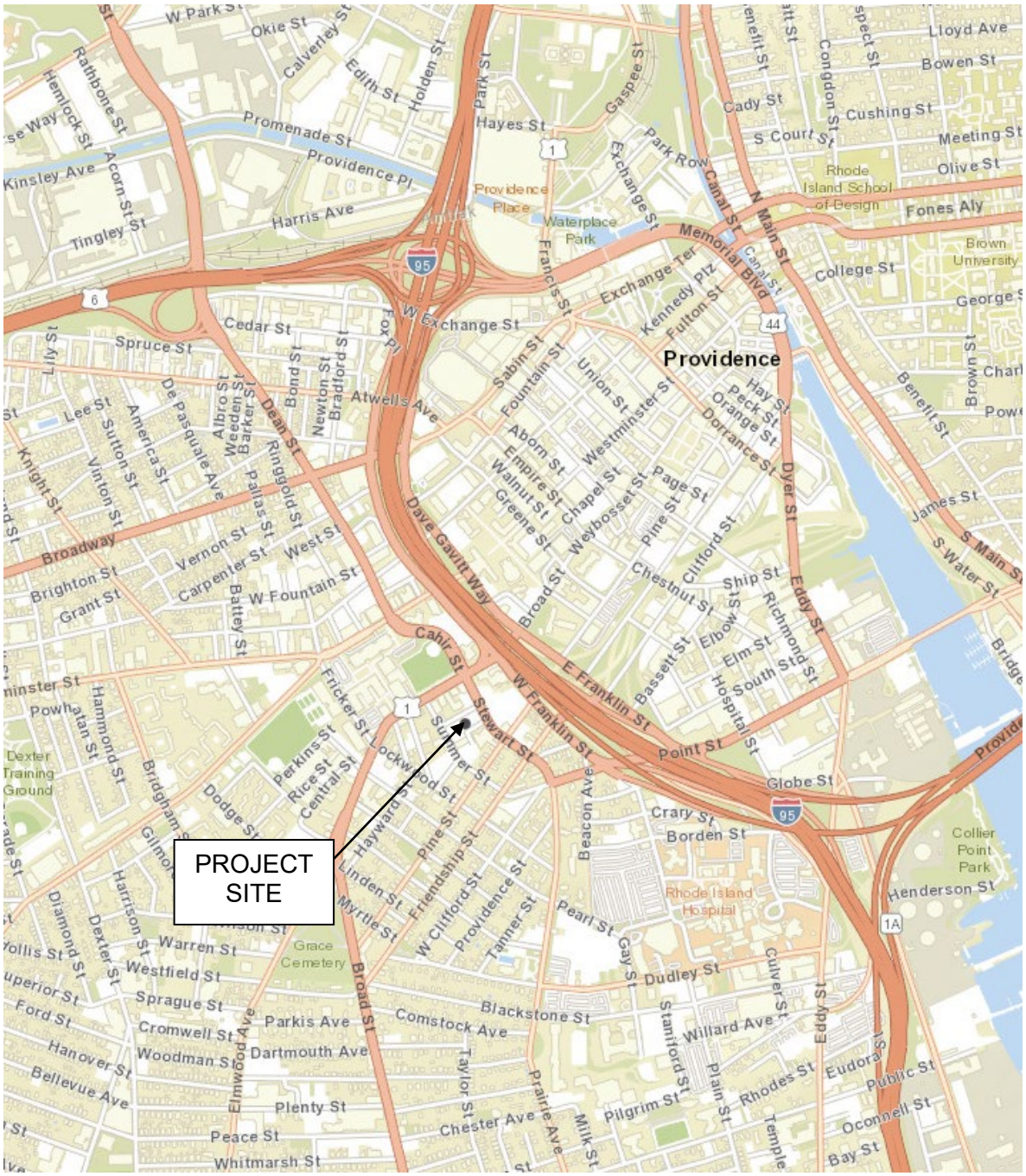
1. INTRODUCTION

On behalf of Crossroads RI (Applicant), Narragansett Engineering, Inc. (NEI) has prepared this Stormwater Management Report in support of a proposed residential housing redevelopment to an existing site (“the Site” or “the Project”) located at 94 Summer Street., Providence Rhode Island.

The subject site is comprised of the parcel, Plat 24, Lot 640 Located on the lot bounded by Summer, Conduit, and Stewart Street. The site is zoned C-2 (Gen Commercial with a TOD (Traffic Sensitive Overlay District).

This project is not a “Land use with higher potential pollutant loads (LUHPPL)” as defined in the RISDISM. The Site location is shown below and provided in Appendix A.1.

Location Map – 94 Summer St, Providence, RI 02903



The Project includes a number of stormwater best management practices (BMPs) to control stormwater quality and quantity for the development. BMPs proposed for the project include treatment of roof runoff, and most impervious areas on the interior courtyard with sand filters using forebay settling with treatment of the water quality volume (WQv) and treatment of the surge or peak flows with (4) surge tanks.

Due to urban fill issues, there is no concentrated infiltration proposed. Landscape areas are proposed for tree planting and landscaping, but these areas will not be treating adjacent stormwater areas with concentrated infiltration.

Treated stomwater will be sent the sanitary sewer system (NBC) with a direct connection at the request of the city of Providence Engineering Department. The final design point (proposed DP1) is the same location as existing, the sanitary system south of the site at the NBC sanitary sewer main (20" diameter).

Storage tanks are used to control peak flows and orifice release of flows to keep flows such as post flow rates are less than existing flow rates.

This Stormwater Management Report provides supporting evaluation, documentation, analysis, and calculations to confirm that all components of the stormwater management system have been designed to comply with the requirements set forth in the latest edition of the "*Rhode Island Stormwater Design and Installation Manual (RISDISM)."*

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2. EXISTING CONDITIONS

The subject site contains an existing paved parking lot (94 Summer St), currently used for vehicle parking. The site has been extensively graded, and is currently in a disturbed state, though topographically it slopes generally from east to west. The property is served by Providence Water, NBC Sewer, as well as National Grid Electric. The site is not located in a flood hazard zone, it is located in any TD (transportation District) overlay district

Currently, site stormwater runoff flows to the:

- South/West to the street gutter line, and final disposition in the NBC sanitary sewer via several catch basins ringing the site. (DP1)
- There is an area to the south east with is directed onto the project site, flows across and exits in the south west corner of the site to the street line, and hence to the sanitary sewer.
- .

GROUNDWATER AND SOIL EVALUATION

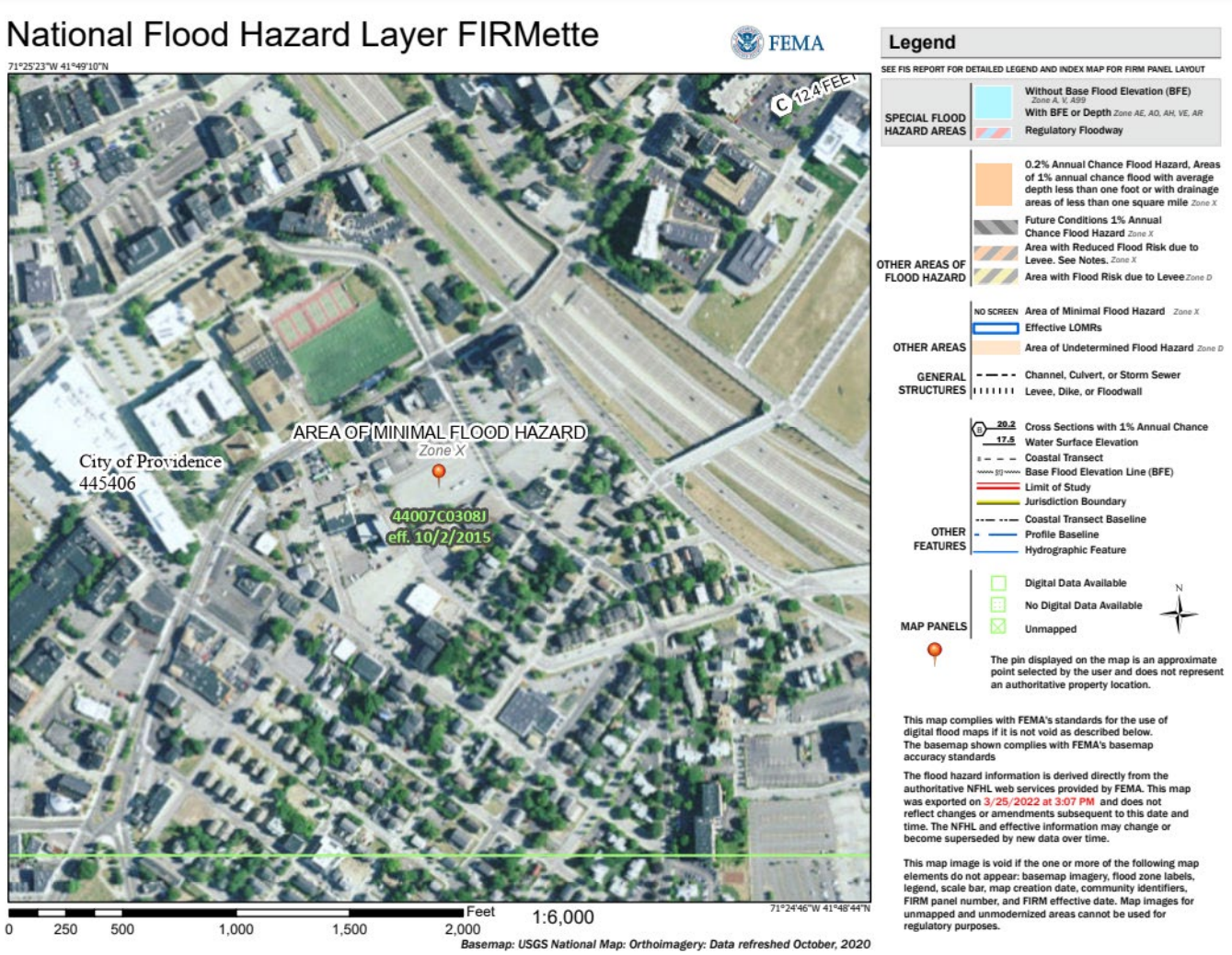
Based on NRCS mapping (see Appendix A.2: NRCS Soils Map), soils within the development areas of the Site are:

Mu, Merrimac-urban land complex. Class A, was used for the analysis.

(2) test pits, and (4) soil borings were performed at the site. These evaluations show that design SHGW depth is between 14'-20' from original grade. Ledge was encountered in the deep boring at 101.5 feet below grade. No bedrock outcrops are located on the property.

FEMA

Based on Fema FIRMette, dated 2-2-22 the project site is not located in a flood zone. See Appendix A.3: Flood Insurance Rate Maps (FIRMette).



DESIGN POINTS

As determined by NEI, based on existing site condition and topography along with the proposed development program, One Design Point has been used for the stormwater analysis.

- DP-1, NBC Sanitary sewer Summer Street

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ANALYSIS METHODOLOGIES

The stormwater design was designed to exceed the requirements of the City of Providence and RISDISM (unless noted otherwise due to site constraints) via the application of several sand filter BMPs and water storage tanks for peak control. The analytical approach was to reduce peak flows for all storms events, and maximize stormwater treatment. As such, proposed watersheds were analyzed by adjusting the surface cover where appropriate, and recomputing HydroCAD. In addition, the model calculated separate runoff for pervious and impervious areas within each sub catchment, adjusted-Q approach to preserve the impervious runoff for stormwater flow.

To establish the study limits and down-gradient Design Point (DP1), a rainfall-runoff model in HydroCAD (Version 10.00-11) using standard Curve Number (CN) methodologies, the Soil Conservation Service (SCS) TR-20 runoff method, the Natural Resources Conservation Service (NRCS) unit hydrograph and time of concentration

methodologies). The Analytical approach for this application was to determine a range of frequency related flood outflow hydrographs routed to, or potentially impacted by, the development areas (1.2 in., 1-yr, 3-month, 2-yr, 10-yr, 25 yr and 100-yr).

Erodible Surface Assumptions

The entire area of the lot is to be reduced to below erodible surface for the water quality calculations.

Waiver requirements

Due to the urban fill, no concentrated soil infiltration will be allowed, so the recharge target levels will not be able to be reached.

PRE-DEVELOPMENT ANALYSIS

Under pre-development conditions, the Site stormwater runoff travels to the above-described Design Points, where peak discharge rates were evaluated for the WQ-Event (0-Storm), 1-year, 3 month, 2-year, 10-year, 25 year and 100- year storm events. (See Appendix C.1: Pre-development HydroCAD Analysis and Appendix E: Existing Site Watershed Plan.

POST DEVELOPMENT ANALYSIS

Under post-development conditions, the Site stormwater runoff travels to the above-described Design Point, where peak discharge rates were evaluated for the WQ-Event (0-Storm), 1-year, 3-month, 2 year, 10-year, and 100- year storm events. (See Appendix C.2: Pre-development HydroCAD Analysis and Appendix E: Existing Site Watershed Plan.

The intent of the design was to reduce post peaks at DP1 to reduce stress on the sanitary sewer system.

The water quality volume is directed to the sand filter tanks for the entire WQ storm. Flows larger than this amount are directed via an overflow weir to the storage surge tanks. Sand filters (after processing), and offsite flows are directed to the site storage tanks to buffer the peak flows prior to discharge.
By utilizing a bypass on the sand filters/forebays, the forebays and will be greatly reduced so that sediment re-suspension in the forebay areas is eliminated. This will promote the long-term service life of the sand filters themselves.

4. HYDROLOGIC ANALYSIS

The hydrologic analysis was performed using HydroCAD software for a 24-hour, Type III rainfall event for Providence County (1-year: 2.7 inches, 10-year: 4.9 inches, 100-year: 8.7 inches) and three points of analysis, "Design Point".

Table 1 provides a summary of this analysis, which shows that post-development peak discharge rates will be less than pre-development peak discharge rates for all storms up to and including the 100-year event. Due to the limited infiltration capacity on the property and the lined filter systems, volume control was not a primary objective. By a slight reduction in impervious area, the difference in the pre and post volumes is statistically insignificant. The post design peak flows were reduced at all three design points for all storm events in the analysis.

Table 1: Hydrologic Analysis Summary (See additional details in Appendix C)

DESIGN POINT	DESIGN STORM	Peak Flow (cfs)		Total Volume (Acre Feet)	
		EXISTING	PROP	EXISTING	PROPOSED
DP1	WQv	1.68	0.49	0.126	0.104
	3 Month NBC	3.26	1.60	0.177	0.146
	1-YEAR	4.01	2.20	0.316	0.263
	2-Year	4.93	2.92	0.393	0.326
	10-Year	7.37	5.28	0.597	0.498
	25-Year	7.37	6.87	0.597	0.630
	100-Year	13.13	9.53	1.084	0.920

The HydroCad model analysis shows that the proposed conditions are an improvement over existing conditions for total Peak Flow Rate for each model storm event (WQv,3 Month,1,2,10,25,100 year).

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a. CONCLUSIONS

This project has been designed in accordance with the latest edition of the *RISDISM,* Section 3.2 Minimum Stormwater Management Standards, as summarized below and provided in other submission documents.

MINIMUM STORMWATER MANAGEMENT STANDARDS

1. Minimum Standard 1: LID Site Planning and Design Strategies

   "LID Site planning and design strategies must be used to the maximum extent practicable in order to reduce the generation of the water runoff volume for both new and redevelopment projects."

LID site planning and design strategies have been employed on this project to the maximum extent practicable.

2. Minimum Standard 2: Groundwater Recharge

"Stormwater must be recharged within the same sub watershed to maintain base flow at pre-development recharge levels to the maximum extent practicable."

The required recharge volume is calculated using the formula Re = (1"/12)(F)(I), where:
Re = Groundwater Recharge Volume
F = Recharge Factor, based on HSG for the project (Site is A; therefore, F = 0.60) I = Contributing impervious area (AC)
Therefore, Re = (1"/12)(0.6)(42,658 sq ft) = 2,132-FT^3 (Required)

0 cf of concentrated infiltration is provided due to the presence of urban fill. Landscape areas are allowed to infiltrate, and hence the infiltration at the site is improved over existing.

This standard is not meet due to urban fill presence at the site. Compliance with this standard is technically impractical.

3. Minimum Standard 3: Water Quality

"Stormwater runoff must be treated before discharge."

Pre-treatment: Pre-treatment equal to 25% of the water quality volume is required for parking lots, driveways, and sidewalks; no pre-treatment is required for stormwater generated from the building roofs entering infiltration ponds. For the parking lot, access drives, and sidewalks pre-treatment of is achieved using a sedimentation forebay prior to the sand filters (2P).

See appendix D for sand filter calculations. A forebay is used prior to each sand filter unit. Discharges are sent to storage tanks, which has a controlled discharge by the 8" outlet pipe in the final tank.

The forebays and the sand filter are designed as off line devices to reduce peak flow impacts due to larger storms. Bypasses begin to occur after about 1.2 inches of rainfall, which is the full wqs volume. The sand filters and bypass can hold or bypass a 100-year storm with no adverse effects.

The sand filters systems are sized to hold more than 75% of the WQv going to each filter (in a static condition).

Accordingly, the pre-treatment and treatment requirements of Minimum Standard 3 have been satisfied. Pretreatment practices are Forebays for sand filters.

4. Minimum Standard 4: Conveyance and Natural Channel Protection

"Protection for natural channels downstream must be supplied by providing 24-hour extended detention of the one-year, 24-hour Type III design storm event runoff volume."

HydroCAD calculations are provided in Appendix C; these calculations show that the resulting flow rates (total of all design points) is less in a post construction configuration in comparison to the existing peak flow rates.

Minimal Infiltration measures are possible at the site due to shallow groundwater levels.

The sand filter system is designed to release the CPv volume. The system meets the volume and rate requirements to meet the CPv standard.

5. Minimum Standard 5: Overbank Flood Protection

"Downstream overbank flood protection must be provided by attenuating the post-development peak discharge rate to the pre-development levels for the 10-year and 100-year, 24-hour Type III design storm events. In addition, designers must demonstrate that runoff from the Site for storms up to the 100-year, 24-hour Type III design storm events actually reach proposed structural practices designed to meet this criterion."

The stormwater management system has been designed to attenuate the post-development peak discharge rates to pre-development levels for the 1-, 10 and 100-year storm events. Additionally, a hydraulic analysis of the system provides confirmation that the stormwater management system has been adequately sized to convey the 100-year storm to the proposed structural practices via the proposed stormwater collection system or by overland flow in an extreme event.

Therefore, Minimum Standard 5 has been satisfied. A Stormwater management Plan checklist or "Appendix A (RISDISM)" has been prepared and is provided under separate cover. This document provides data to show compliance with this standard.

6. Minimum Standard 6: Redevelopment and Infill Projects

"The purpose of this minimum standard is to establish the alternative requirements for projects or portions of a project where existing impervious areas will be redeveloped or where the Site qualifies as infill."

This project is considered a redevelopment or infill project; therefore Minimum Standard 6 is applicable to this project. Calculations are provided in Appendix D.

7. Minimum Standard 7: Pollution Prevention

"All development Sites require the use of source control and pollution prevention measures to minimize the impact that the land use may have on stormwater runoff quality."

Pollution prevention is addressed in the Soil Erosion and Sedimentation Control Plan provided under separate cover, which confirms that Minimum Standard 7 has been satisfied.

8. Minimum Standard 8: Land Uses with Higher Potential Pollutant Loads

"Stormwater discharges from land uses with higher potential pollutant loads (LUHPPLs) require the use of specific source control and pollution prevention measures and the specific stormwater BMPs approved for such use."

In accordance with the *RISDISM* definition, the project is not considered a "land use with higher potential pollutant loads;" therefore Minimum Standard 8 is not applicable to this project.

9. Minimum Standard 9: Illicit Discharges

   "All illicit discharges to stormwater management systems are prohibited."

   There are no existing or proposed illicit discharges to the stormwater management system; therefore Minimum Standard 9 is not applicable to this project.

10. Minimum Standard 10: Construction Erosion and Sedimentation Control

    "Erosion and sedimentation control (ESC) practices must be utilized during the construction phase as well as during any land disturbing activities. ESC practices must meet the following minimum design criteria: temporary sediment trapping practices must be sized to store 1 inch of runoff from the contributing area or per the sediment volume method (Rhode Island Soil Erosion and Sediment Control Handbook), whichever is greater; and temporary conveyance practices must be sized to handle the peak flow from the 10-year, 24-hour Type III design storm."

    NEI developed Site plans that include a Proposed Site Plan, Sedimentation and erosion control and demo plan, Utility construction Plans, and Detail sheets. These plans have been developed in conformance with the checklist provided in RIPDES CGP Section 5. These plans illustrate the minimum construction erosion and sedimentation controls necessary to meet the requirements of Minimum Standard 10 at the start of construction. Details to control erosion and sediment transport throughout construction are also provided on this plan set.

11. Minimum Standard 11: Stormwater Management Operation and Maintenance

    "The stormwater management system, including all structural stormwater controls and conveyances, must have an operation and maintenance plan to ensure that it continues to function as designed."

    An Operations and Maintenance Plan has been developed and will be provided to the reviewer(s) under separate cover prior to final approval by the Providence engineering department. This document demonstrates compliance with Minimum Standard 11.

APPENDIX A:

Background Information