

MARCH 31, 2021

DATE

SIGNATURE

EXISTING ZONING SETBACKS: ZONE SR

FRONT YARD: SIDE YARD: SIDE YARD:

28.5', 106.1' 8.0', 16.9' 93.55'

REAR YARD: LOT FRONTAGE:

RECORD OWNER LOT 1 & LOT 2:

BONICA, GAIL A BOOK 63706 PAGE 29

WASHINGTON (PUBLIC - 80' WIDE)

ABBREVIATIONS BACK

BK C. CONCRETE EX. **EXISTING** LANDING BR. **BRICK**

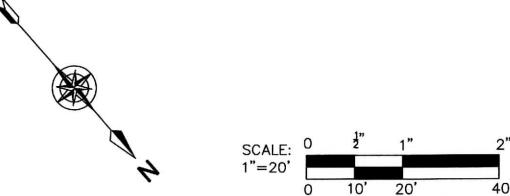
LEGEND

PROPERTY LINE

FENCE

I HEREBY CERTIFY THAT THIS PLAN IS BASED ON AN ACTUAL INSTRUMENT SURVEY MADE ON THE GROUND IN DECEMBER 2021 AND THE STRUCTURES DEPICTED HEREON ARE LOCATED AS SHOWN

STREE



DATE

SIGNATURE

31 MUNROE STREET

TEL 239.332.1505

SEAL:

LYNN, MASSACHUSETTS 01901

ATH OF MAS

CERRATO

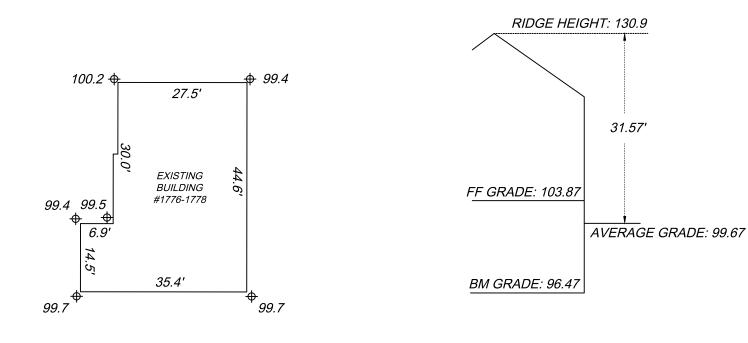
EXISTING ZONING SETBACKS: ZONE SR 28.5' 106.1' 8.0', 16.9' FRONT YARD: N/F N/F N/F SIDE YARD: SIDE YARD: CHUNG, SAMUEL & KATHLEEN LAVEY TRACEY M TR GOULDTHORPE, YOLANDA & ROBERT REAR YARD: #9 BONMAR #15 BONMAR #1707 WASHINGTON 93.55 LOT FRONTAGE: PID: 43008 0007 PID: 43008 0008 PID: 43008 0006 PROPOSED ZONING SETBACKS: ZONE SR FRONT YARD: 28.5°, 90.1° SIDE YARD: SIDE YARD: REAR YARD: WASHINGTON (PUBLIC-PROPOSED (3) STORMITECH SC-740 INFILTRATION CHAMBET W/ 1 FT. CRUSHED STONE AROUND 93.55 LOT FRONTAGE: RECORD OWNER: N/F 96.55 96.10 BONICA, GAIL A BOOK 63706 PAGE 29 PATRICIA SHAW & RACHEL WOO 95X77 #1774 COMMONWEALTH 95X77 96X55 PID: 43008 0003 PROPOSED PERMEABLE 15.5'PROPOSED OF MIDTH. REMOVE ECURB GRANITE CURB CONCRETE PROPOSED **PAVERS ADDITION** ARCHITECTURE & CIVIL 888 S.F. EX. 3-STORY WOOD FRAME SILT SOCK #1766-1768 96X23 95 OVERALL EXISTING TO THIS 95X77 ARCHITECTURE 95X22 - 80' WIDE) CIVIL / 97X78 TOP OF FND ENVIRONMENTAL LOT 1&2 COMBINED AREA. LANDSCAPE ₱_{5.96X21} 12,880 S.F.± LAND SURVEYING **ABBREVIATIONS** PID: 43008 0004 & SEPARATION TO SEWER S PID: 43008 0005 BACK BK TRE C. CONCRETE PROPOSED PLOT PLAN EX. **EXISTING LANDING** BR. BRICK 1766-1768 COMMONWEALTH AVE SMH RIM=95.64 **NEWTON. MASSACHUSETTS LEGEND** CONCRETE SIDEWALK PARCEL ID: 43008-004 W. PROPERTY LINE DRAWN BY: **FENCE** 26.3' D.B. REUSE EX CURB CUT COMMONWEALTH **AVENUE** CHECKED BY (PUBLIC - 80' WIDE) S.M.C. I HEREBY CERTIFY THAT THIS PLAN IS BASED ON AN ACTUAL INSTRUMENT SURVEY MADE ON THE GROUND SCALE: IN DECEMBER 2021 AND THE STRUCTURES DEPICTED 1" = 20' HEREON ARE LOCATED AS SHOWN DATE: 06/13/2022 GRAPHIC SCALE DRAWING NO. 1 inch = 20' ft.DATE SIGNATURE

EXISTING ZONING SETBACKS: ZONE SR

AVERAGE GRADE: 99.67
BUILDING RIDGE HEIGHT: 130.9
FIRST FLOOR: 103.87
BASEMENT FLOOR: 96.47'

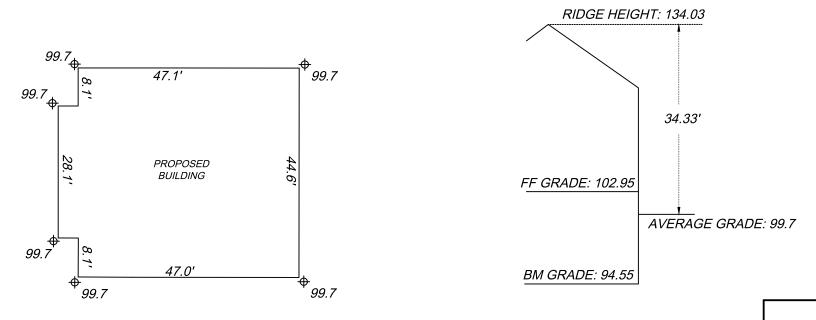
PROPOSED ZONING SETBACKS: ZONE SR

AVERAGE GRADE: 99.7
BUILDING RIDGE HEIGHT: 134.03
FIRST FLOOR: 102.95
BASEMENT FLOOR: 94.55



NOT TO SCALE NOT TO SCALE

EXISTING GRADE CALCULATIONS NOT TO SCALE



NOT TO SCALE NOT TO SCALE

PROPOSED GRADE CALCULATIONS NOT TO SCALE

SCOTT M. CERRATO Professional Land Surveyor

24 Pleasant View Drive • Exeter, NH 03833 • 781-775-3724

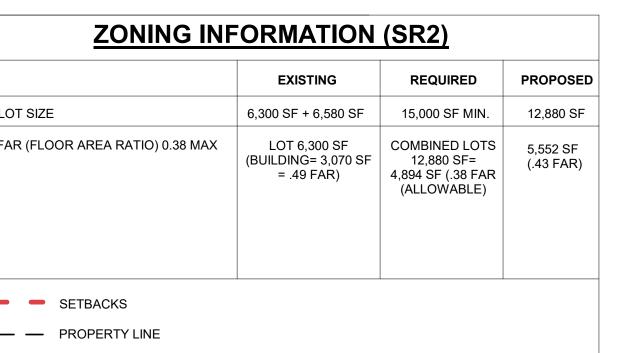
GRADE & HEIGHT CALCULATIONS

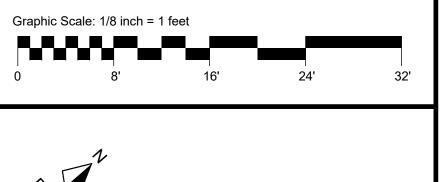
1766-1768 COMMONWEALTH AVENUE NEWTON, MASSACHUSETTS

PID: 43008 0004 & PID: 43008 0005

APRIL 27, 2022

ZONING INFORMATION (SR2)			
	EXISTING	REQUIRED	PROPOSED
LOT SIZE	6,300 SF + 6,580 SF	15,000 SF MIN.	12,880 SF
FAR (FLOOR AREA RATIO) 0.38 MAX	LOT 6,300 SF (BUILDING= 3,070 SF = .49 FAR)	COMBINED LOTS 12,880 SF= 4,894 SF (.38 FAR (ALLOWABLE)	5,552 SF (.43 FAR)
- SETBACKS			
— — PROPERTY LINE			





SURVEY INFORMATION BASED OF SURVEY PREPARED BY NATIVETEC PARCEL ID# MO-02-000192

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1766-1768 **COMMONWEALTH AVE**

1766-1768 COMMONWEALTH AVENUE, NEWTON, MA NEW COLOR PROPERTIES 005

ARCHITECT:

ARCHITECTURE RESIDENTIAL DESIGN PLANNIN G INTERIOR DESIGN

SALEM, MA 01970 50 GROVE ST. SUITE 226 SALEM, MA 01970 TEL: 978.498.4370 CEL: 978.818.5109 CEL: 774.317.0491

CONSULTANT:

CONSULTANT:

REVI	REVISION:		
NO:	DATE:	DESCRIPTION:	
1	05.20.2022	PERMIT SET	

DRAWING TITLE: PROPOSED SITE PLAN

SEAL:

DRAWN BY: MS CHECKED BY: MS SCALE: 1/8" = 1'-0"

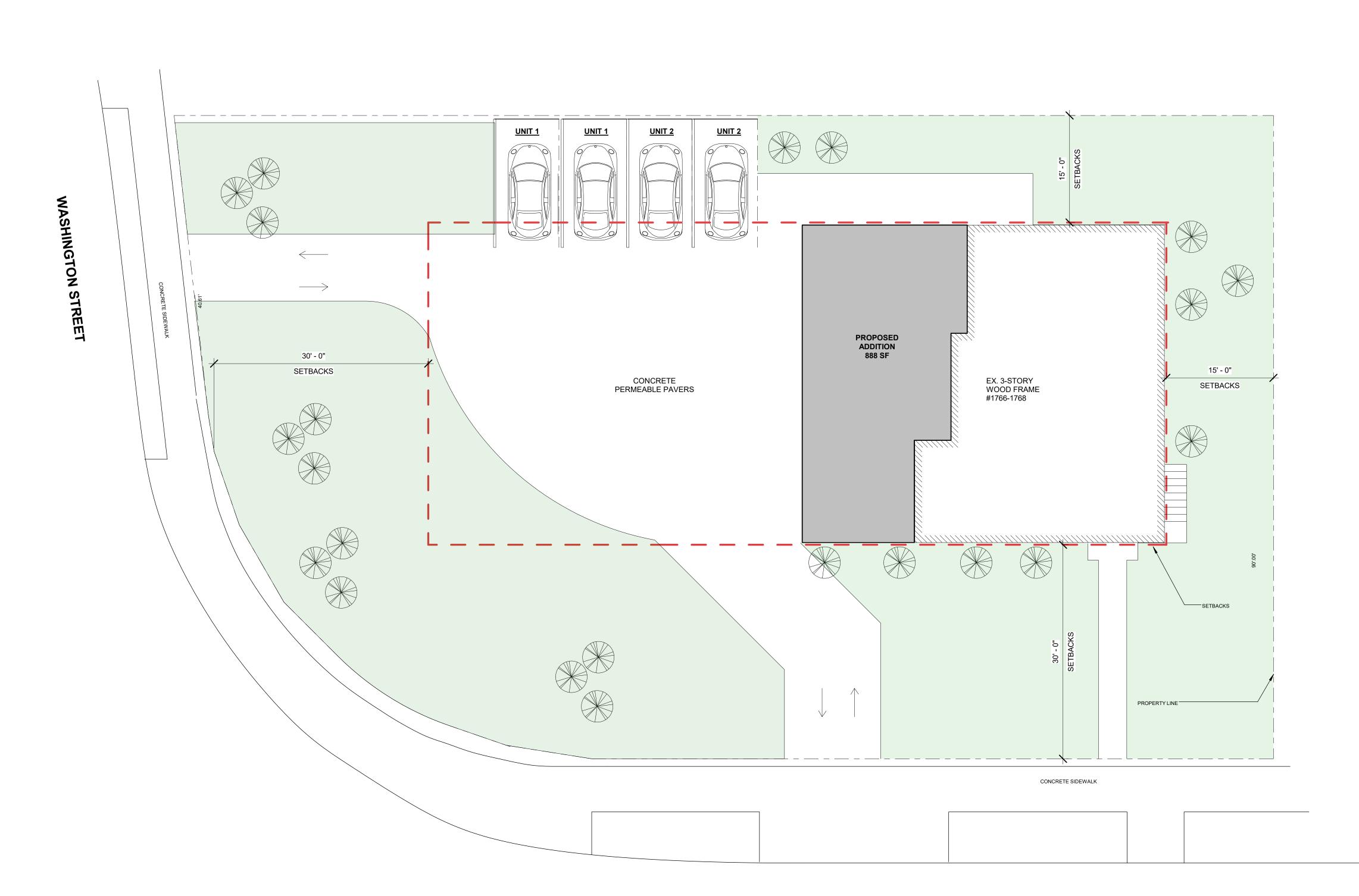
05.20.2022 PROJECT NO.:

21424

DRAWING NO.:

A-100

\\flow\Projects\Architecture\2021\21424 1766-1768 COMMONWEALTH AVE, NEWTON -ADDITION\A_Revit\21424 1766-1768 COMMONWEALTH AVE_PERMIT SET_2022-05-20.rvt



1 PROPOSED SITE PLAN
1/8" = 1'-0"

COMMONWEALTH AVENUE

Aguimar and Joe DeSouza

191 Broadway

Somerville, MA 02145 #`1209 Lock Box Code

Re: Proposed Addition at 1766-1768 Commonwealth Ave. Newton, MA

To Whom it may concern,

The proposed project consists of the addition of a two family-residence, both attached to an existing family-residence located at 1766-1768 Commonwealth Ave Newton, MA. The project includes the addition of associated infrastructure and utilities consisting of utility services, driveway, and the addition of stormwater storage chambers.

Please see the attached plans and supporting documents assembled in a combined bound pdf. The time of concentration for proposed is about 6 minutes vs about 30 seconds for existing. We are figuring the tome to get to the Catch basin in the driveway whereas there is no catch basin in the existing situation only lawn area which perco9lates about as fast per inch as the tome to get there. There is only about a 1.04-.91 or .13 cfs increase in the runoff. Holding a total of the peak 2 hr. period entails holding 936 CF. We are showing 12 chambers each holding 140 CF. This states only 6.6 chambers are required to hold the increase in runoff. We are retaining 1260 CF which is greater. This does not account for the infiltration which enable the infiltrators to accommodate the existing runoff as well.

Supplemental TR 55 output data has been provided to show that the 100 yr. 24 hr. storm for, residential addition, and new pervious paved parking and driveway will be maintained in the revised proposed infiltration system. Please see the notes on the supplemental hydrology report. The details, plans, and notes have been revised to show the relocation of the stormwater pipe and catch basin with hood. The existing water service to each unit existing water service will require replacement if it is not 1-inch copper based on field verification by the contractor.

If you have any questions or require additional information, please do not hesitate to contact us.

Very truly yours,

VNATIVEtec

Robert E. Marini, PE, LA, and Wetland Scientist

Principal

Rob Marini

1766 Com Ave Newton

EXISTING

Middlesex County, Massachusetts

Hydrograph Peak/Peak Time Table

Sub-Area Peak Flow and Peak Time (hr) by Rainfall Return Period

or Reach 100-Yr Identifier (cfs)

(hr)

SUBAREAS

roof 0.46

12.12

Bit Pvt 0.25

12.12

Grass 0.21

12.15

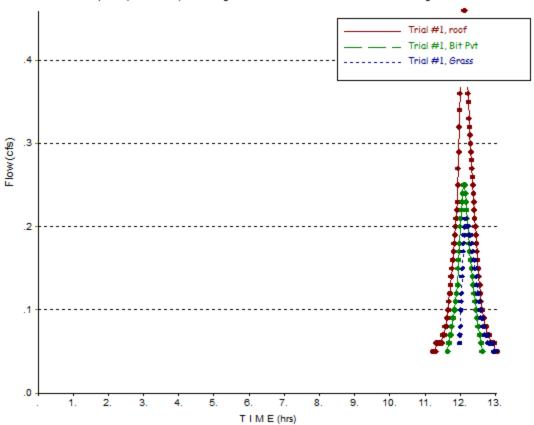
REACHES

OUTLET 0.91

WinTR-55 Output Hydrograph

6/13/2022

R-55 Output Hydrograph Project: 1766 Com Ave Newton 6/13/2022
Subareas: (roof, Bit Pvt, Grass) Storm: 100-Yr
C:\Users\USER\Dropbox (NativeTEC)\New England\1766-1768 Com Ave Newton\Existing 1766 Com Ave.w55



Rob Marini

1766 Com Ave Newton Proposed

Middlesex County, Massachusetts

Hydrograph Peak/Peak Time Table

Sub-Area Peak Flow and Peak Time (hr) by Rainfall Return Period or Reach 100-Yr (cfs) (hr)

SUBAREAS

SUBAKERS Pr roof 12.12 0.34

Perv Pvt 0.55

Grass 0.17 12.15

REACHES

OUTLET 1.04

R-55 Output Hydrograph Project: 1766 Com Ave Newton 6/13/2022
Subareas: (Pr roof, Perv Pvt, Grass, Outlet) Storm: 100-Yr
C:\Users\USER\Dropbox (NativeTEC)\New England\1766-1768 Com Ave Newton\Existing 1766 Com Ave.w55 WinTR-55 Output Hydrograph 6/13/2022 1.0 Trial #1, Pr roof Trial #1, Perv Pvt ----- Trial #1, Grass .9 Trial #1, OUTLET .8 Flow(cfs) .6 .5 .4 .3 .2 .1 .0

9.

8.

TIME (hrs)

10.

11.

12.

Environmental Science | Landscape Architecture | Architecture | Engineering | Urban Design | Survey 31 Munroe Street Lynn, MA 01901

WEB | nativetec.com TEL | 617-437-6461

FAX | 239-236-0444

<u>1766 Com. Ave PIPE SIZING</u> Mass Uniform State Plumbing Code Method

Number	Fixture	Fixture value, hot	Fixture value, cold	Total fixture units
4	Bathtub	8	8	
8	Toilet (Tank type)	-	8	
10	Hand Wash sinks	10	10	
2	Shower head	4	4	
2	Dishwasher	4	-	
2	Kitchen sink	4	4	
2	Washer / Dryer	4	4	
Total		34	38	72

248 CMR 10.14(4): Table 2 indicates a Demand Factor of 0.35 for a Multi Residential dwelling. (Domestic Water Line Only)

Capacity value = $72 \times 0.35 = 25.2$

A capacity value of 25.2 is between 16.6 and 28 in 248 CMR 10.14(4): Table 3, and the related pipe size is equal to a 1 1/4" diameter pipe for a combined water service. Each unit by itself has a capacity value of 12.6 which falls between 9.1 and 16.5 capacity values, so 2 separate water service pipes can be 1' minimum diameter type K Copper

UNIT 1

• Bathtub: 2

Shower head: 1

• Toilet (tank type): 4

Hand Wash Sink: 5

Dishwasher: 1

Kitchen sink: 1

Washer/Dryer: 1

UNIT 2

• Bathtub: 2

Shower head: 1

Toilet (tank type): 4

Hand Wash Sink: 5

Dishwasher: 1

Kitchen sink: 1

Washer/Dryer: 1



CALCE OF ACTIVE TECHNOLOGYEnvironmental Science | Landscape Architecture | Architecture | Engineering | Urban Design | Survey 31 Munroe Street Lynn, MA 01901

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TABLE 2

OCCUPANCY USE	DEMAND FACTORS	
RESIDENTIAL		
One or Two Family Dwelling	0.50	
Multi-residential	0.35	
Hotel	0.70	
SCHOOL		
General	0.75	
Shower Room	1.00	
INSTITUTIONAL		
General	0.45	
ASSEMBLY		
General	0.25	
Restaurant, Café	0.70	
Club House	0.60	
BUSINESS AND MERCANTILE		
General	0.25	
Laundry	1.00	
INDUSTRIAL		
General, Exclusive of Process Piping	0.90	



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TABLE 3: CAPACITY VALUES FOR SERVICE, MAINS, RISERS AND/OR BRANCHES

Nominal Pipe or Tubing Sizes (inches)	Capaci	ty \	/alue
d	1		
1/2	1.1	to	4
3/4	4.1	to	9
1	9.1	to	16.5
11/4	16.6	to	28
1½	28.1	to	55
2	55.1	to	107.5
2½	107.6	to	182.5
3	182.6	to	287.5
3½	287.6	to	425
4	425.1	to	700
5	700.1	to	1100
6	1100.1	to	1300

LEGEND

BC BUILDING CORNER BLDG EDGE OF BUILDING

GS GROUND SHOT

CLF CHAIN LINK FENCE

CB CATCH BASIN

SMH SEWER MANHOLE DMH DRAIN MANHOLE

HYD FIRE HYDRANT

LC LOT CORNER

EHH ELEC HANDHOLE

₩ WG WATER GATE

₩ GG GAS GATE

DS PROPOSED DOWNSPOUT EXISTING DOWNSPOUT

4.0 PROPOSED FINISHED GRADE **RL** PROPOSED ROOF LEADERS

BSW BACK EDGE OF SIDEWALK

DRAINAGE CALCULATIONS

ROOF AREA = $\underline{1590}$ SF DRIVEWAY AREA = $\underline{3820}$ SF

INFILTRATE (STORE) 1" OF RUNOFF 1/12 (1590 + 3820 SF) = 451 CF

USE STORMTECH SC-740 LEACH CHAMBER - SEE DETAIL 45.9 CU. FT. WITH 1 FT. CRUSHED STONE AROUND

VOLUME COMPUTATION EXTERIOR CRUSHED STONE 27.77 FT X 6.25 FT X 7.25 FT = 1258.33 CU FT/3 CHAMBERS=419.44 CF 419.4 CU FT - 45.9 CU FT (CHAMBER VOLUME) = 373.5 CU FT 373.5 CU FT X 0.3 (VOIDS) = 112.07 CU FT VOLUME VOIDS STORAGE 45.9 CU FT CHAMBER VOLUME + 112.07 CU FT VOIDS = 157.9 CU FT 157.9 x 3 CHAMBERS = 473.91 CU FT TOTAL STORAGE > 451 CF

473.91 CU FT > 451 CU FT RUNOFF CALCULATION

EXISTING ZONING SETBACKS: ZONE SR

FRONT YARD: SIDE YARD: 28.5', 106.1' 8.0', 16.9' SIDE YARD:

REAR YARD: 93.55' LOT FRONTAGE:

PROPOSED ZONING SETBACKS: ZONE SR

93.55

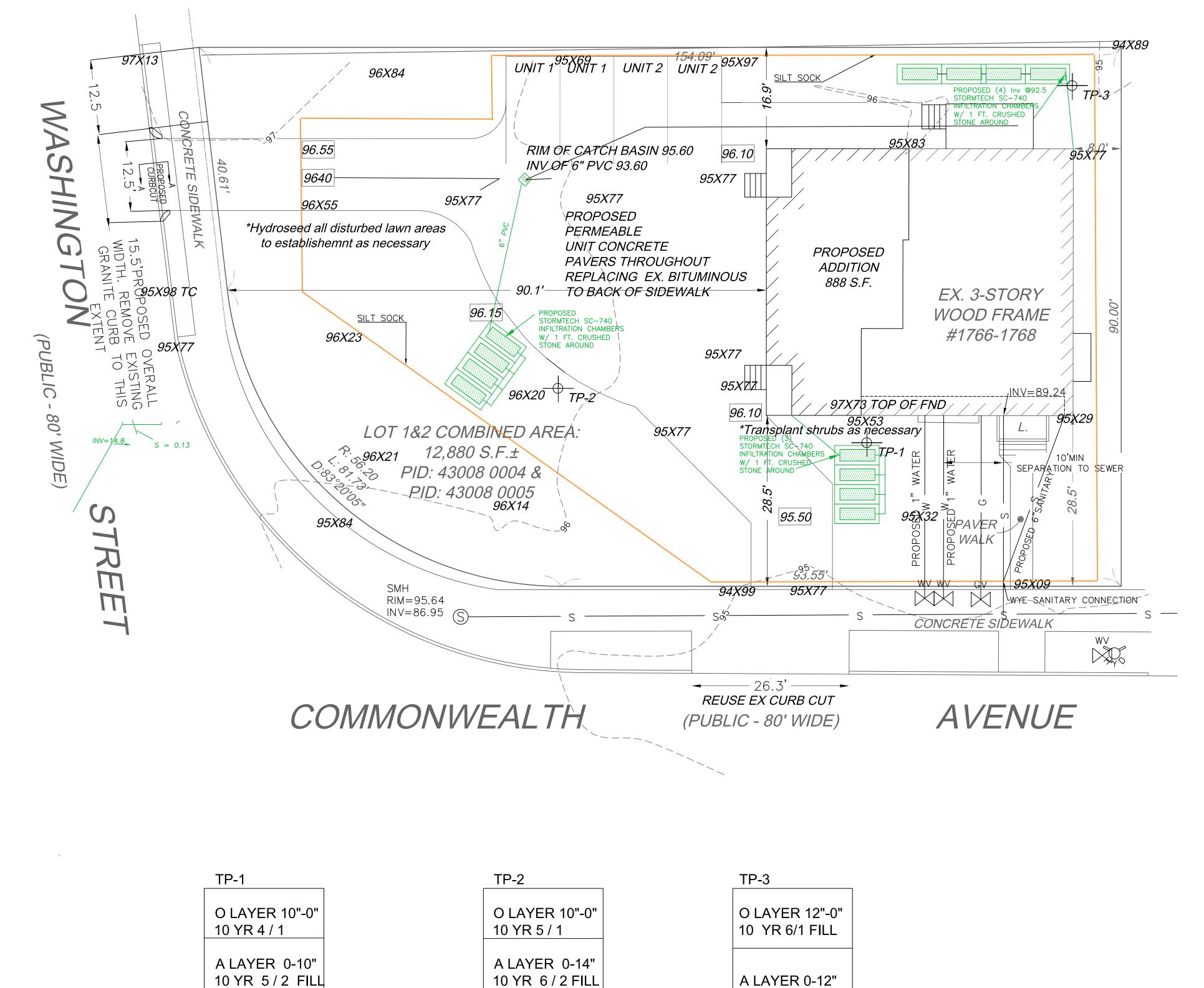
28.5', 90.1' 8.0', 16.9' SIDE YARD: SIDE YARD: REAR YARD:

RECORD OWNER:

LOT FRONTAGE:

BONICA, GAIL A BOOK 63706 PAGE 29

ZONING INFORMATION (SR2)			
	EXISTING	REQUIRED	PROPOSED
LOT SIZE	6,300 SF + 6,580 SF	15,000 SF MIN.	12,880 SF
FAR (FLOOR AREA RATIO) 0.38 MAX	LOT 6,300 SF (BUILDING= 3,070 SF = .49 FAR)	COMBINED LOTS 12,880 SF= 4,894 SF (.38 FAR (ALLOWABLE)	5,552 SF (.43 FAR)



TP-1		1P-2		1P-3
O LAYER 10"-0" 10 YR 4 / 1		O LAYER 10"-0" 10 YR 5 / 1		O LAYER 12"-0" 10 YR 6/1 FILL
A LAYER 0-10" 10 YR 5/2 FILL		A LAYER 0-14" 10 YR 6/2 FILL		A LAYER 0-12" 7.5 YR 6 /1 FILL
B LAYER 10-18" 10 YR $\frac{7}{2}$ FILL		B LAYER 14-30" 10 YR 6 / 3		7.5 TROTIFIEL
				C LAYER 12-38+" 10 YR 6 / 4
C LAYER 18-54+" 10 YR 6 / 4		C LAYER 30-54 + 10 YR 6 / 4	-''	
SANDY SILT THRO	DUGHOUT			STONY SILTY SAND

W BOULDERS IN THE C LAYER

PERC: 1 MIN 53 SEC / INCH

SANDY SILT THROUGHOUT

PERC: 6 MIN 3 SEC / INCH

THROUGHOUT

W BOULDERS IN THE C LAYER

PERC: 2 MIN 9 SEC / INCH

GRAPHIC SCALE (IN FEET) 1 inch = 10 ft.

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OWNER

AGUIMAR & JOSEPH DESOUZA 191 BROADWAY SOMERVILLE, MA 02145

ARCHITECTURE & CIVIL

VNATIVEtec

ARCHITECTURE

Lynn, Massachusetts 01901 TEL. 617.437.6461 LANDSCAPE ARCHITECTURE

PROJECT

LAND SURVEYING

1766 - 1768 COMMONWEALTH **AVENUE** NEWTON, MA 02466

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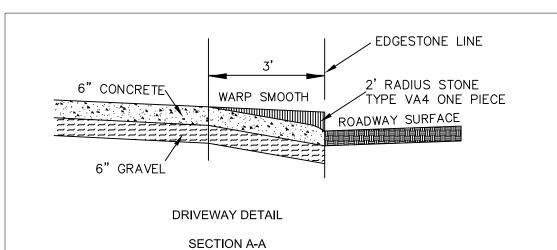
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REV_NO_2	DATE_2	DESCRIPTION_2
REV_NO_3	DATE_3	DESCRIPTION_3
REV_NO_4	DATE_4	DESCRIPTION_4
REV_NO_5	DATE_5	DESCRIPTION_5

DRAWING TITLE: SITE PLAN FOR UTILITIES AND DRAINAGE

DRAWN_BY CHK'D_BY AS_NOTED ISSUE_DATE PROJECT NO.: PROJ_NO DRAWING NO.:

1_OF_2

PROJECT LOCATION:



STREET SURFACE

ROADWAY BOX

STREET BASE

TOP SECTION

SEE DETAIL (F2-9)

MAIN TUBE

(4" PVC)

TEE HEAD

MAIN TUBE SHOE

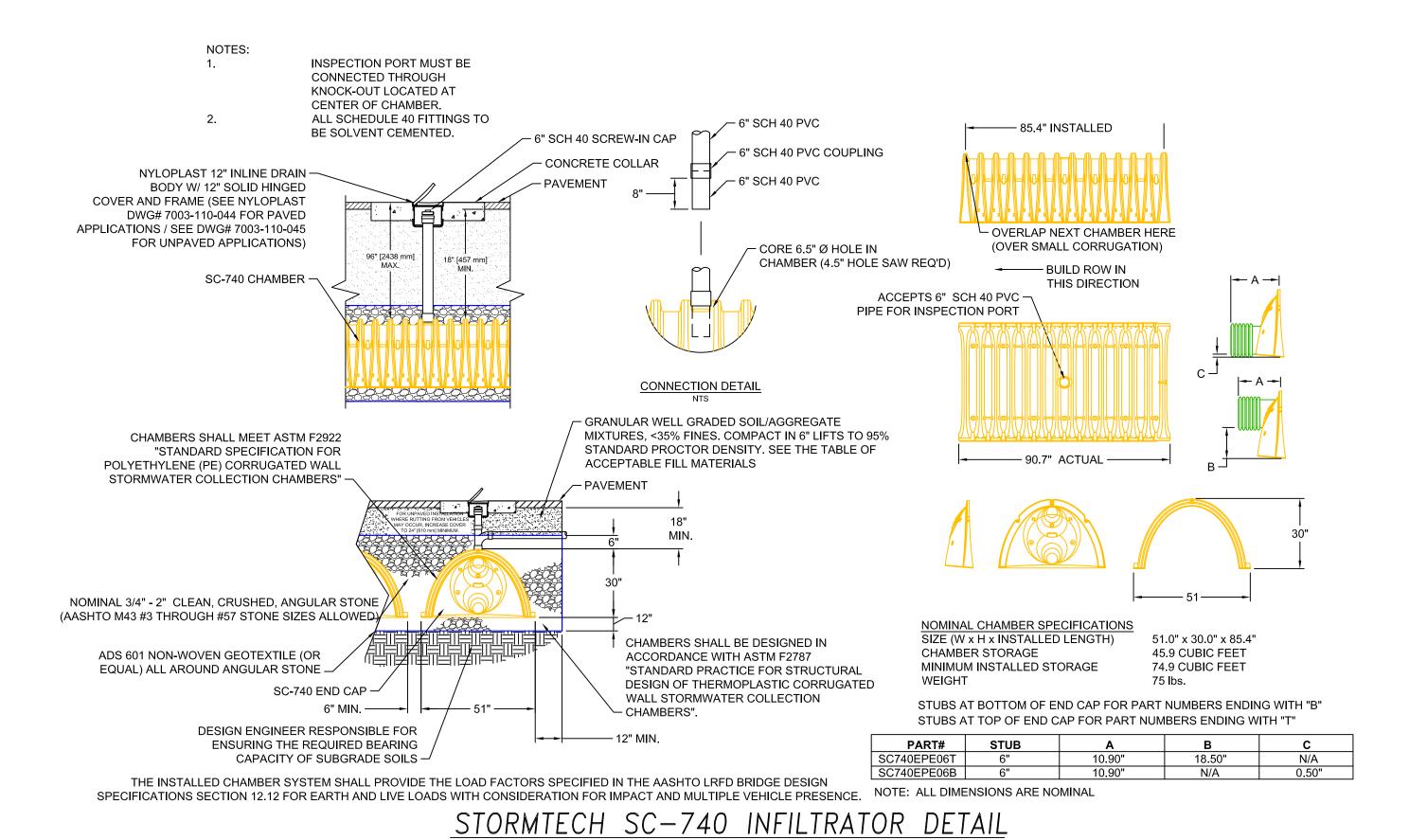
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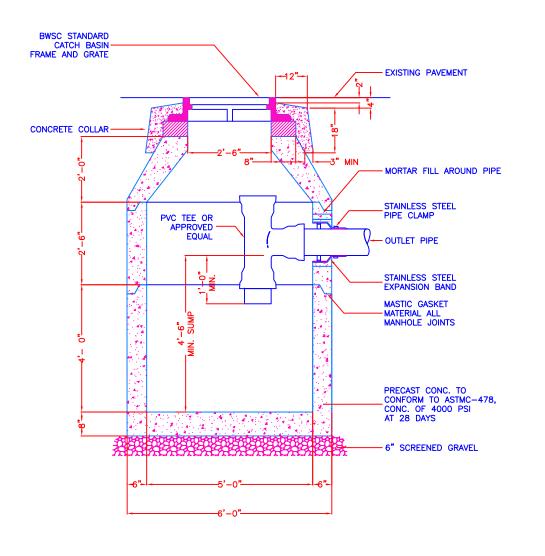
B.W.S.C.)

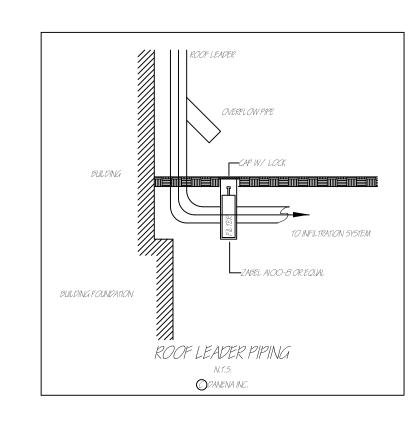
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MAIN IS ≥12"

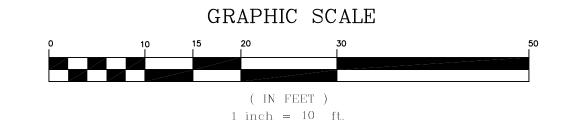
FIRE AND WATER CONNECTION DETAIL







ROOF DOWNSPOUT DETAIL



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OWNER

AGUIMAR & JOSEPH DESOUZA 191 BROADWAY SOMERVILLE, MA 02145

ARCHITECTURE & CIVIL



ARCHITECTURE CIVIL

Lynn, Massachusetts 01901 TEL. 617.437.6461

LANDSCAPE ARCHITECTURE

LAND SURVEYING

PROJECT

1766 - 1768 COMMONWEALTH AVENUE NEWTON, MA 02466

SEAL:



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DATE_2	DESCRIPTION_2
DATE_3	DESCRIPTION_3
DATE_4	DESCRIPTION_4
DATE_5	DESCRIPTION_5
	DATE_3 DATE_4

DRAWING TITLE: SITE PLAN DETAILS

DRAWN BY:	
DRAWN_BY	
CHECKED BY:	
CHK'D_BY	
SCALE:	
AS_NOTED	
DATE:	
ISSUE_DATE	
PROJECT NO.:	

DRAWING NO.:

PROJ_NO

2 OF 2

PROJECT LOCATION:
Date: 1/15/2021 - C:\Users\USER\Dropbox (NatIveTEC)\New England\1766-1768 Com Ave Newton\1776-1768 Commonwealth 22-6.7_recover.dwg