



NORTH

PROJECT TEAM

PROJECT INFO		
REV	DESCRIPTION	DATE

STAMP:

COVER SHEET

SHEET NAME:

C0.0

SHT NO.	
DR BY: CAR	
CHK BY: WAK	
PROJ NO: 2012-027.10	
DATE: 7.17.13	
SCALE: N.T.S.	

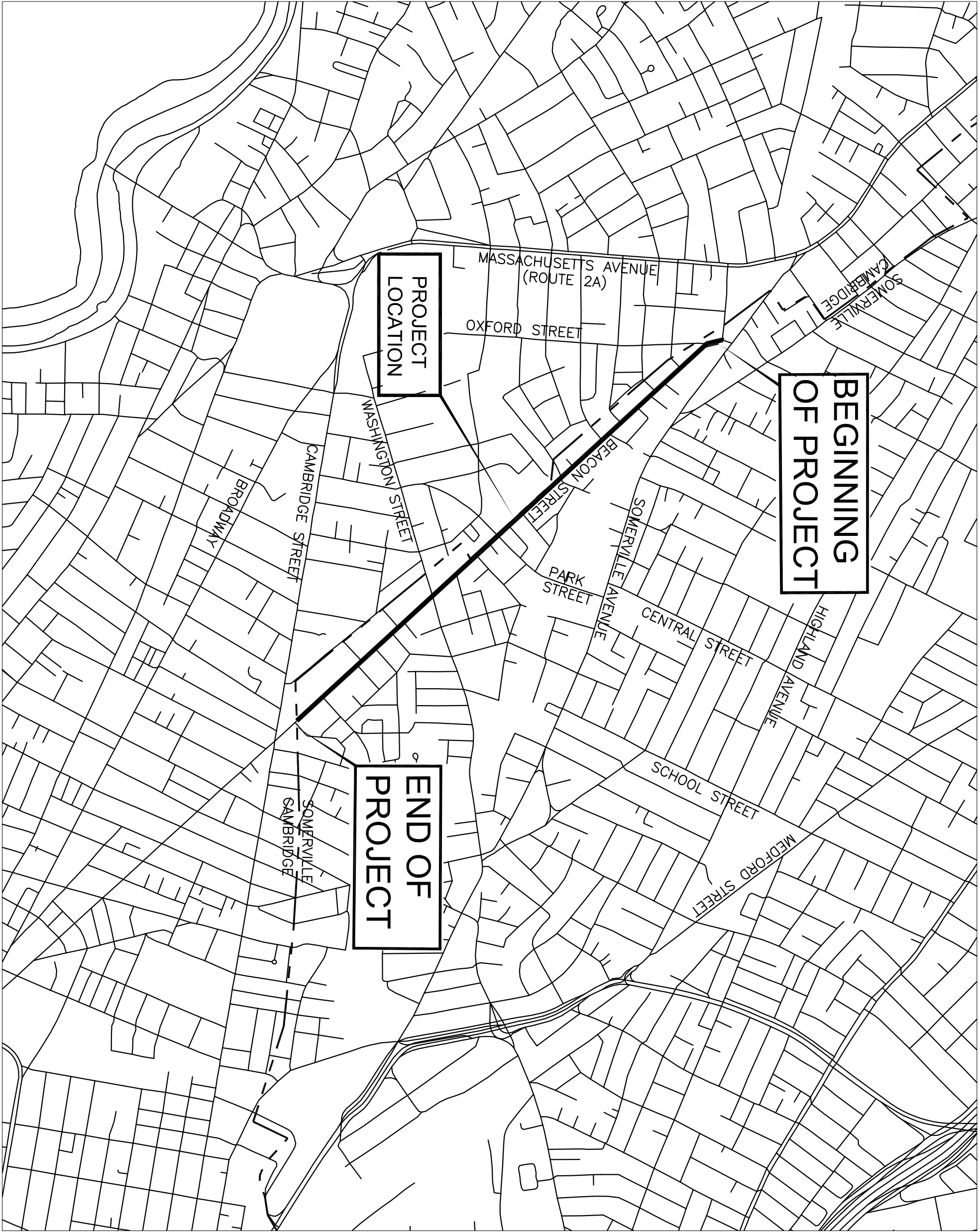
CITY OF SOMERVILLE

WATER & SEWER IMPROVEMENT PROJECT

BEACON STREET

IN THE CITY OF
SOMERVILLE
MIDDLESEX COUNTY
JULY 2013

MWRA I/I LOCAL FINANCIAL ASSISTANCE PROGRAM PROJECT NO. WRA-P8-30-3-816
MWRA LOCAL PIPELINE ASSISTANCE PROGRAM PROJECT NO. L WSAP13-043



MAYOR

JOSEPH A. CURTATONE

DEPARTMENT OF PUBLIC WORKS

STAN KOTY, COMMISSIONER

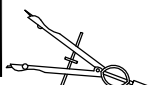
ROBERT KING, DIRECTOR OF ENGINEERING

OFFICE OF TRAFFIC & PARKING

TERENCE SMITH, CITY TRAFFIC ENGINEER

ENGINEER:

Design Consultants, Inc.
Consulting Engineers and Surveyors



120 MIDDLESEX AVENUE
SUITE 20
SOMERVILLE, MA 02145
617-776-3350

<u>SHEET NO.</u>	<u>DESCRIPTION</u>
C0.0	COVER SHEET
C1.0 – C1.10	EXISTING CONDITIONS PLANS
C2.0 – C2.10	SITE UTILITIES PLANS
C3.0	DETAILS
C4.0 – C4.2	TRAFFIC MANAGEMENT PLANS



PROJECT TEAM

PROJECT INFO

EXISTING
CONDITIONS
PLAN

SHEET NAME

5.0

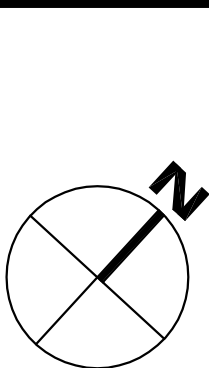
SHT NO

DR BY: WAK

CHK BY: WAK

DATE: 7.17.13

SCALE: 1"=20'



PROJECT TEAM

PROJECT INFO

REV

DESCRIPTION

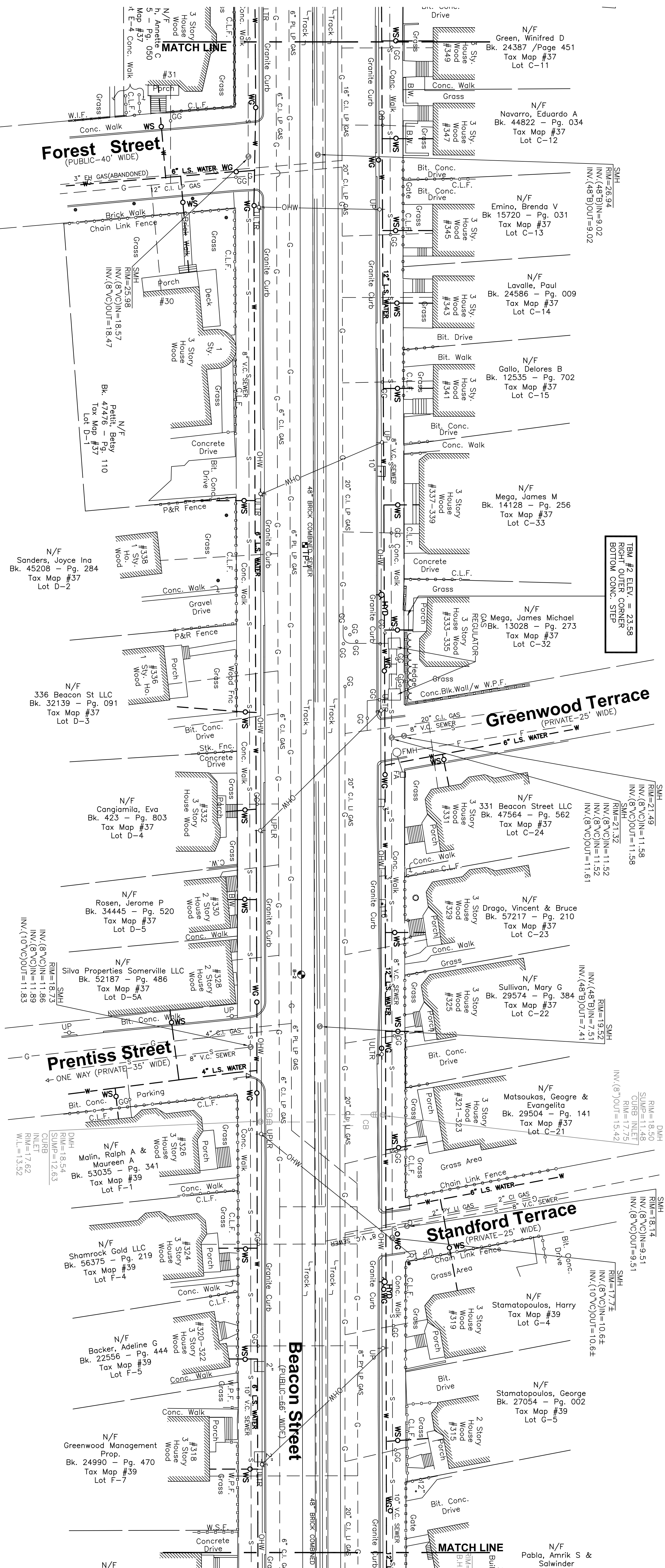
DATE

SHEET NAME

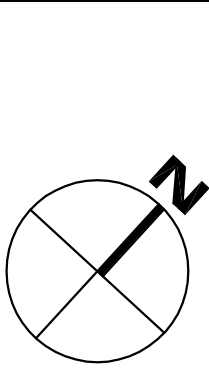
EXISTING
CONDITIONS
PLAN

C1.1

SHEET NO.
DR BY: WAK
CHK BY: WAK
PROJ NO: 2012-027.10
DATE: 7.17.13
SCALE: 1"=20'



ITEM #2 ELEV. = 23.58
RIGHT OUTER CORNER
BOTTOM CONC. STEP



PROJECT TEAM

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REV DESCRIPTION DATE

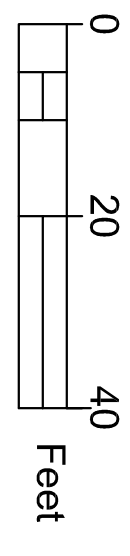
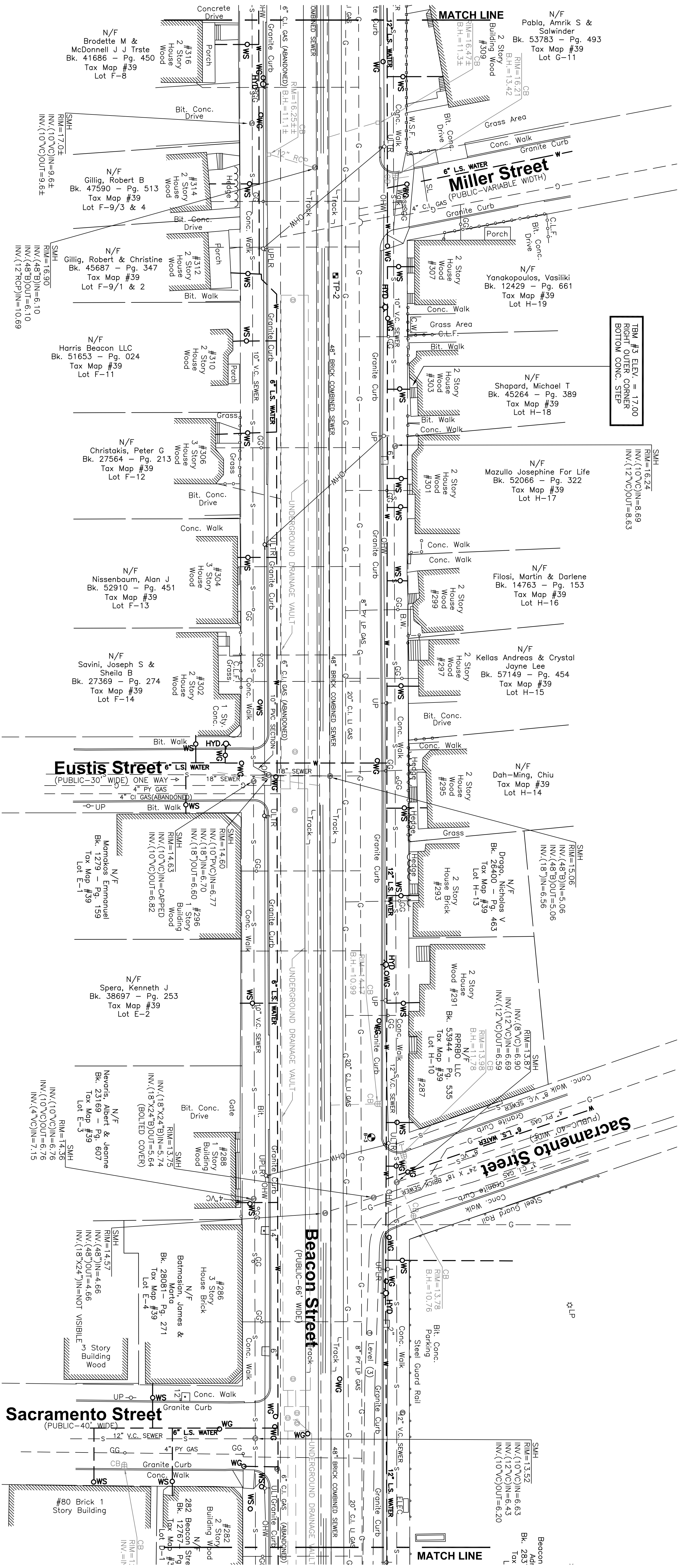
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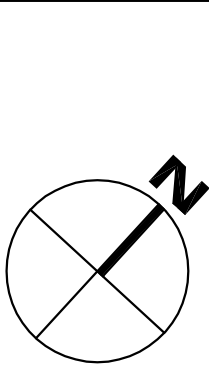
EXISTING
CONDITIONS
PLAN

SHEET NAME:

C1.2

SHEET NO.
DR BY: WAK
CHK BY: WAK
PROJ NO: 2012-027.10
DATE: 7.17.13
SCALE: 1"=20'





PROJECT TEAM

PROJECT INFO

REV	DESCRIPTION	DATE

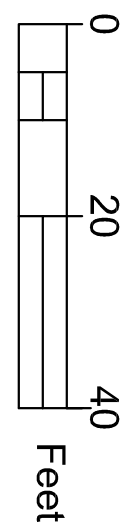
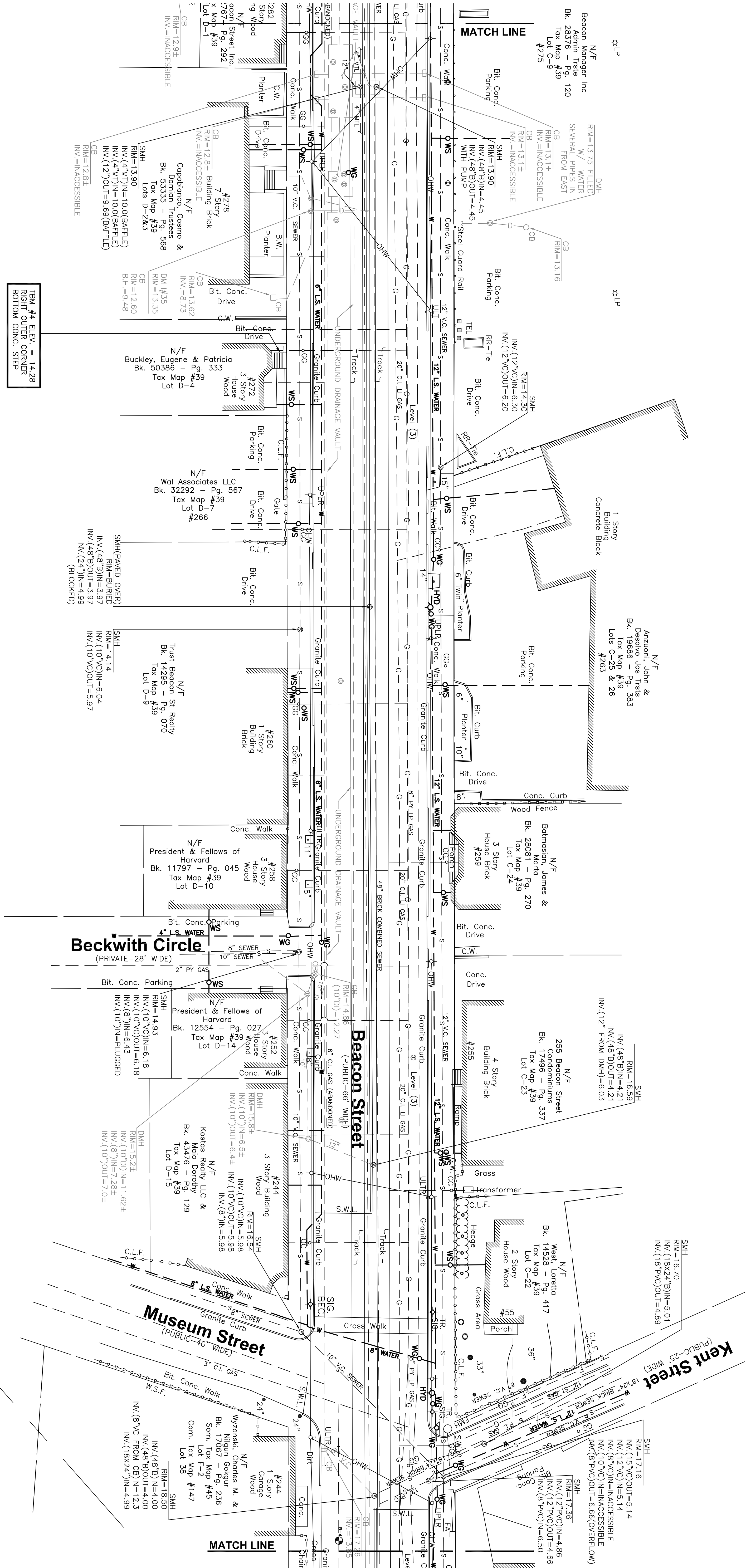
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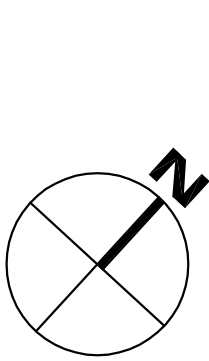
EXISTING
CONDITIONS
PLAN

SHEET NAME:

C1.3

SHEET NO.	DR BY: WAK
CHK BY: WAK	PROJ NO: 2012-027.10
DATE: 7.17.13	SCALE: 1"=20'





Design Consultants, Inc.
Civil Engineers and Land Surveyors
Somerville, MA 02148
617.778.3500 617.778.7714

PROJECT TEAM

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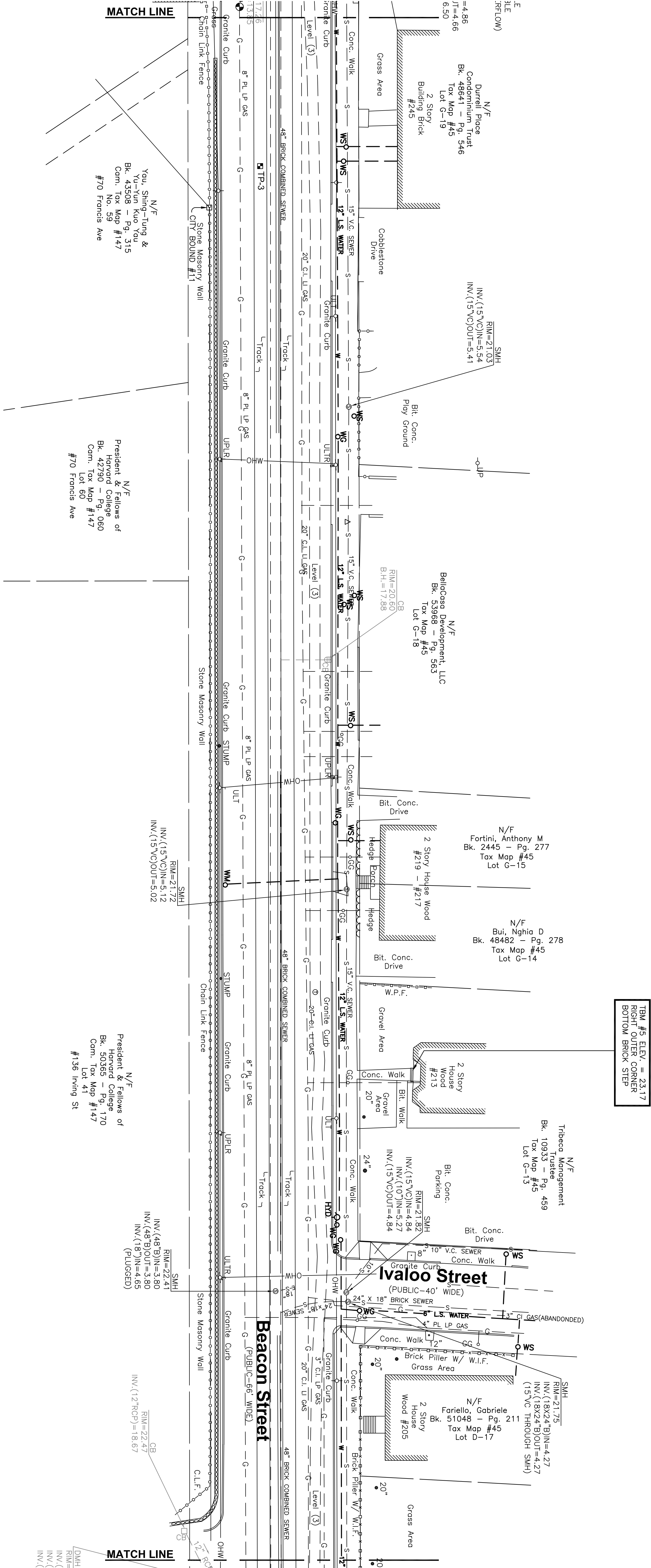
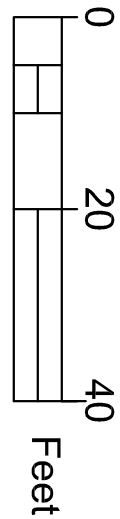
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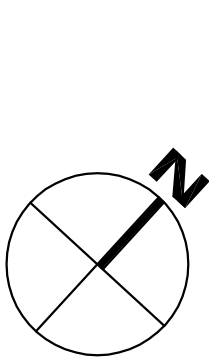
EXISTING
CONDITIONS
PLAN

SHEET NAME:

C1.4

SHEET NO.
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CHK BY: WAK
PROJ NO: 2012-027.10
DATE: 7.17.13
SCALE: 1"=20'





PROJECT TEAM

PROJECT INFO

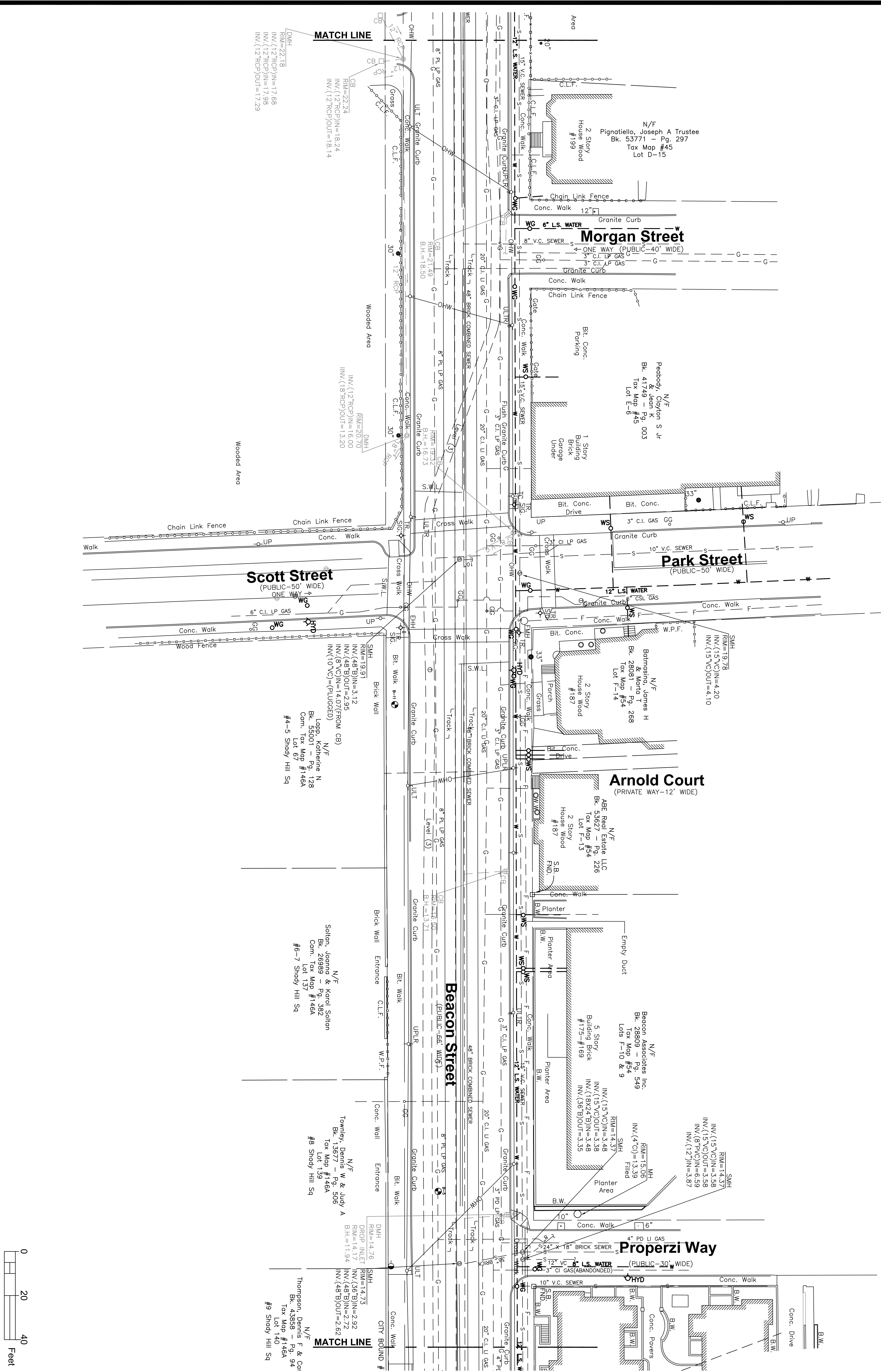
REV	DESCRIPTION	DATE

STAMP

EXISTING
CONDITIONS
PLAN

SHEET NAME:

C1.5





617-776-3350p 617-776-7710

PROJECT TEAM

PROJECT INFO

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STAMP

EXISTING CONDITIONS PLAN

SHEET NAME

2.9

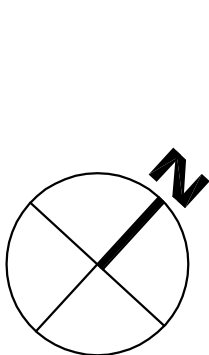
SHT NO

DR BY: WAK

PROJ NO: 2012-027.10

DATE: 7.17.13

SCALE: 1"=20'



PROJECT TEAM

PROJECT INFO

REV	DESCRIPTION	DATE

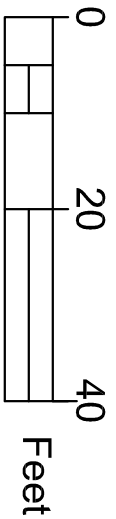
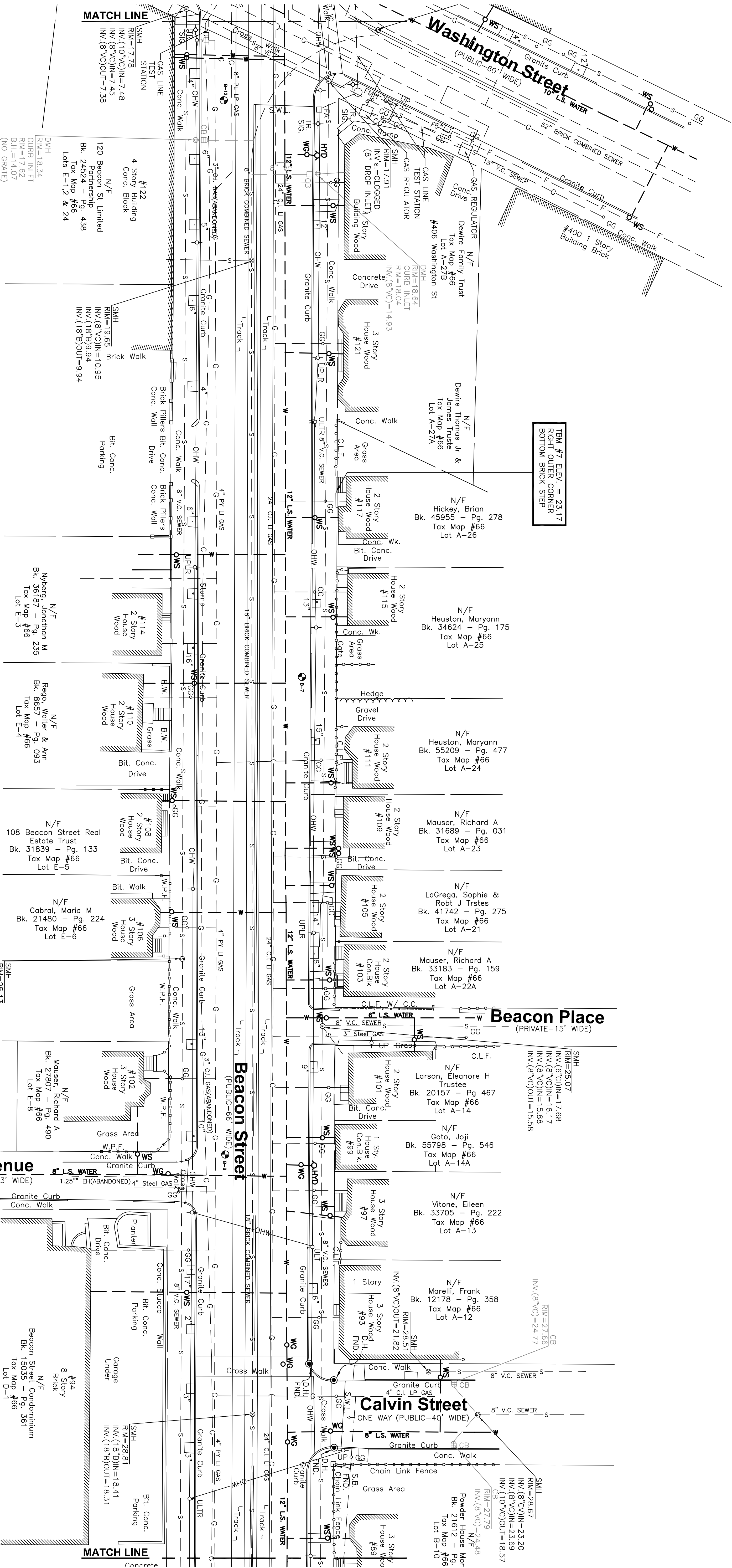
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EXISTING
CONDITIONS
PLAN

SHEET NAME:

C1.7

SHT NO:	DR BY: WAK
CHK BY: WAK	PROJ NO: 2012-027.10
DATE: 7.17.13	SCALE: 1"=20'





PROJECT TEAM

PROJECT INFO

REV	DESCRIPTION	DATE
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STAMP

EXISTING
CONDITIONS
PLAN

SHEET NAME

2.8

SHT NO

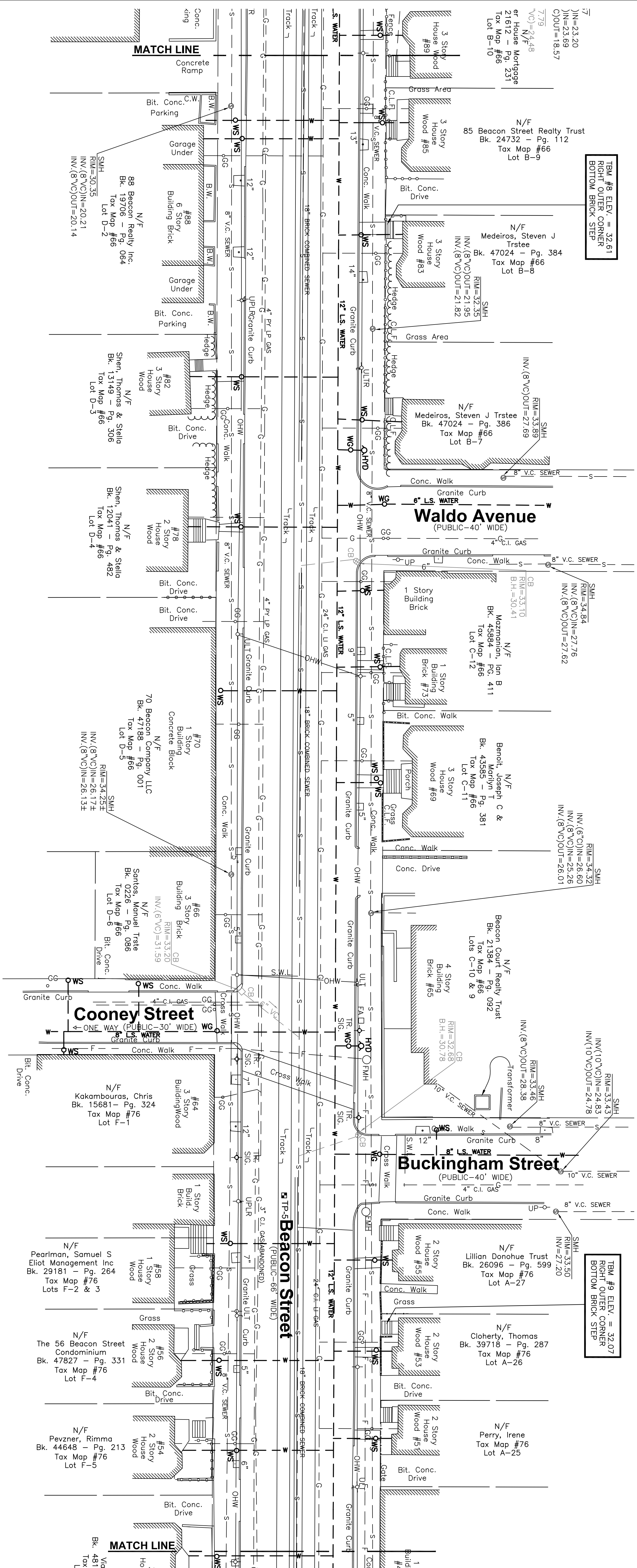
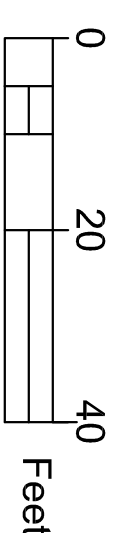
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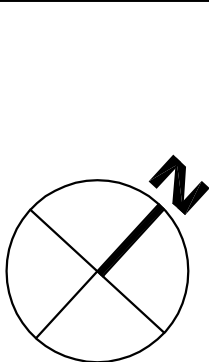
CHK BY: WAK

PROJ NO: 2012-027.10

DATE: 7.17.13

SCALE: 1"=20'





PROJECT TEAM

PROJECT INFO

REV	DESCRIPTION	DATE

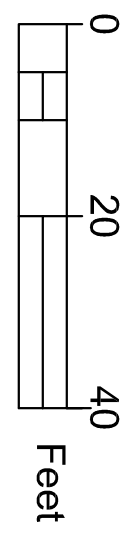
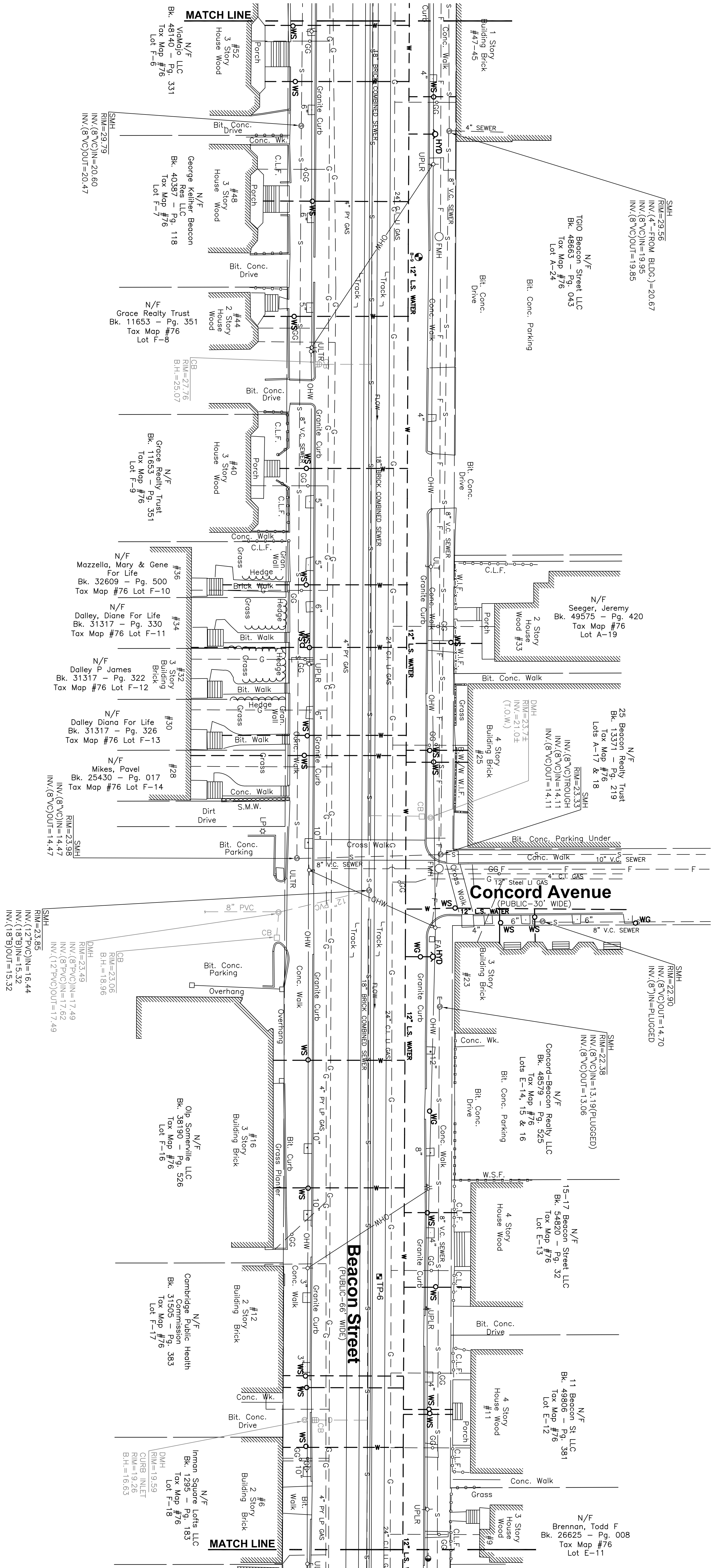
STAMP

EXISTING
CONDITIONS
PLAN

SHEET NAME:

C1.9

SHT NO.	DR BY: WAK
CHK BY: WAK	PROJ NO: 2012-027.10
DATE: 7.17.13	SCALE: 1"=20'





PROJECT TEAM

PROJECT INFO

[illegible]

STAMP

EXISTING CONDITIONS PLAN

SHEET NAME

C1.10

SHT NO:

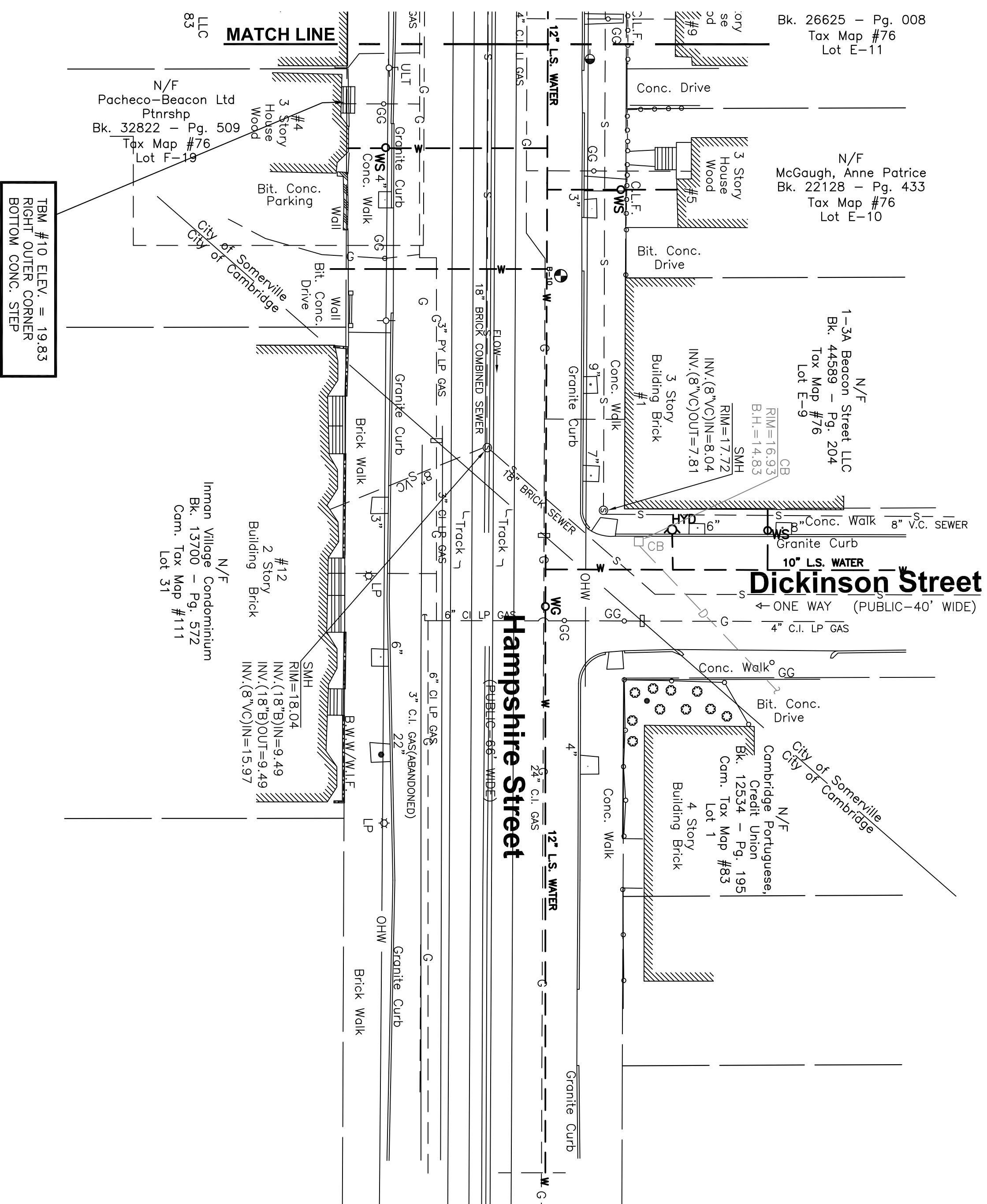
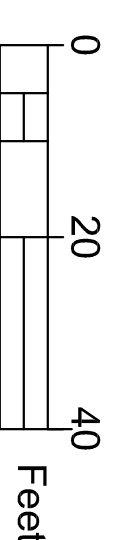
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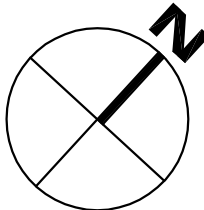
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PROJ NO: 2012-027.10

DATE: 7.17.1

SCALE: 1"=20'





PROJECT TEAM

PROJECT INFO

BORING NOTES:

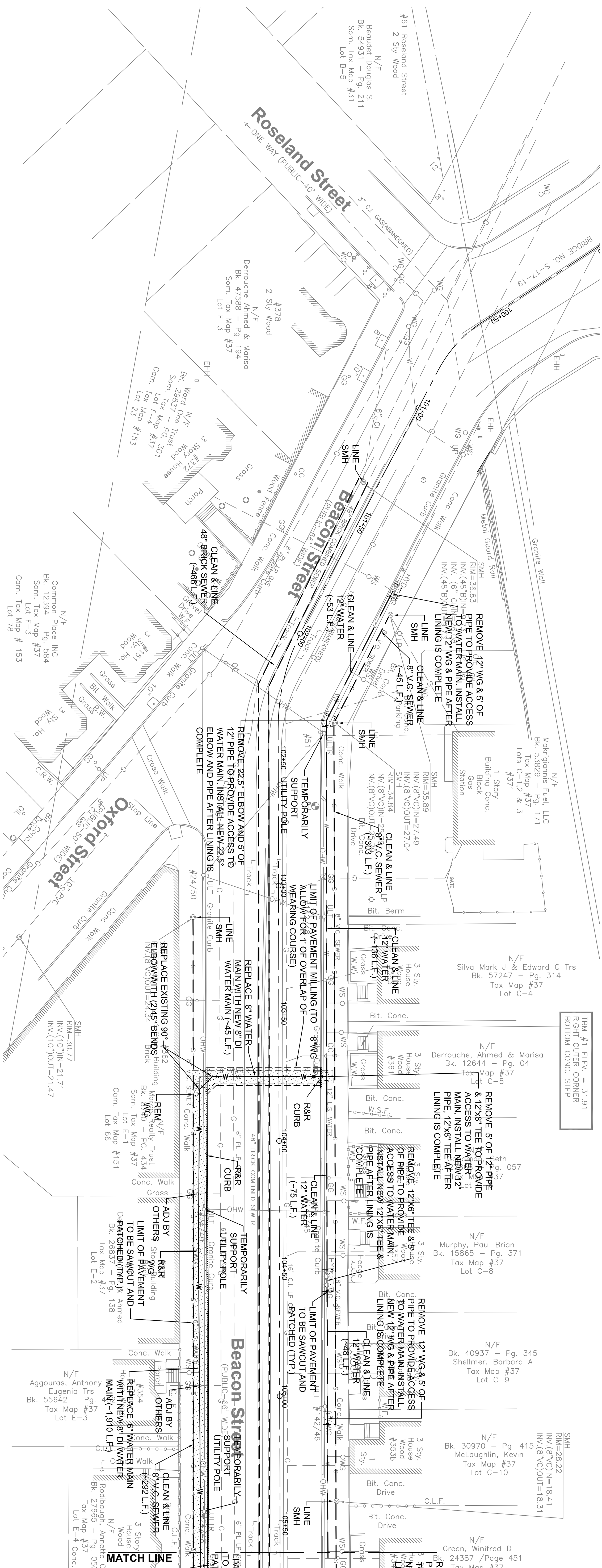
- BORINGS TAKEN FOR THE PURPOSE OF DESIGN AND SHOW CONDITIONS AT THE BORING POINTS ONLY, BUT DO NOT NECESSARILY SHOW THE NATURE OF THE MATERIALS TO BE ENCOUNTERED DURING CONSTRUCTION.
- WATER LEVELS SHOWN ON THE BORING LOGS WERE OBSERVED AT THE TIME OF TAKING BORINGS AND DO NOT NECESSARILY SHOW THE TRUE GROUND WATER LEVEL.
- FIGURES TO THE LEFT OF THE COLUMNS INDICATE THE DEPTH BELOW SURFACE AT BORING POINT
- FIGURES IN COLUMNS INDICATE NUMBER OF BLOWS PRODUCED BY A 30" FALL OF 140 POUND MASS HAMMER REQUIRED TO DRIVE 2" I.D. SPOON 1 FOOT.
- BORING SAMPLES TAKEN BETWEEN JUNE 6 AND JUNE 8, 2012.
- BORING CONTRACTOR: NORTHERN DRILLING, 130 EAST MAIN STREET BUILDING A, NORTHBOROUGH, MA 01532.

STAMP:

SHEET NAME:	
SITE UTILITIES PLAN	

C2.0

SHEET NO.:	
DR BY: CAR	
CHK BY: WAK	
PROJ. NO.: 2012-027.10	
DATE: 7.17.13	
SCALE: 1"=20'	

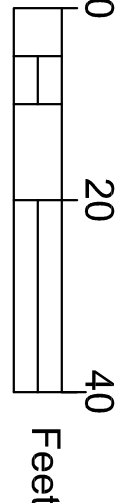


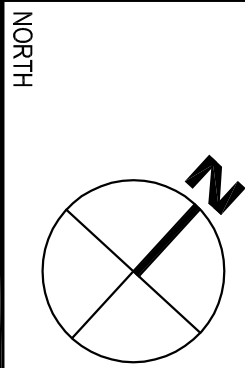
NOTES (CONT'D)

- THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES SHOWN ARE APPROXIMATE, AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREE TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY BE INCURRED AND ASSIGNED TO BE THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.
- ALL MUNICIPAL OWNED CASTINGS WITHIN THE PROJECT AREA SHALL BE ADJUSTED TO NEW GRADE BY THE CONTRACTOR UNLESS OTHERWISE NOTED.
- WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED TO THE ENGINEER FOR RESOLUTION OF THE CONFLICT.
- AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.
- THE TERM "PROPOSED" (PROP) MEANS WORK TO BE CONSTRUCTED USING NEW MATERIALS OR, WHERE APPLICABLE, RE-USING EXISTING MATERIALS IDENTIFIED AS "REMOVE AND RESET". (R&R)
- TRENCH AREAS FOR THE CONSTRUCTION OF THE UNDERGROUND UTILITIES ARE TO BE REPAVED WITH SAME MATERIAL AT THE SAME DEPTH AS THE EXISTING MATERIAL. THE AREAS OF TRENCHING SHALL BE NEATLY SAW-CUT AND THE NEW REPAVING MATERIAL SHALL BE PROPERLY SEaled IN ACCORDANCE TO THE CITY OF SOMERVILLE MUNICIPAL STANDARDS.
- THE CITY OF SOMERVILLE MUNICIPAL UTILITIES (WATER, SEWER & DRAIN) ARE PART OF DIG-SAFE. REQUEST FOR MARKINGS CAN BE MADE BY CALLING DIG-SAFE AT 1-888-344-7233 AT LEAST 72 HOURS PRIOR TO THE EXCAVATION. STREET OPENING PERMITS SHOULD ALSO BE FILED AT THAT TIME.
- DURING EXCAVATION AND CONSTRUCTION OF PIPES AND STRUCTURES, TRENCHES MUST BE ADEQUATELY BRACED AND PROTECTED AGAINST CAVE-IN.
- EXISTING TOPOGRAPHY & UTILITIES SHOWN ON THESE PLANS WERE PRODUCED FROM THE PLANS OF RECORD & THE EXISTING CONDITION PLAN PREPARED BY DESIGN CONSULTANTS, 120 MIDDLESEX AVENUE, SOMERVILLE, MA.
- NO TRENCHES WILL BE ALLOWED TO REMAIN OPEN OVERNIGHT. ALL TRENCHES SHALL BE BACKFILLED AT THE END OF THE WORK DAY OR COVERED WITH STEEL PLATES PER 520 CMR 14.00 EXCAVATION AND TRENCH SAFETY. IF STEEL PLATES ARE USED, THE TOTAL LENGTH OF PLATES IN THE TRAVELED WAY WILL BE LIMITED TO 50
- ALL WORK PERFORMED AS PART OF THIS PROJECT SHALL CONFORM TO THE CITY OF SOMERVILLE DEPT. OF PUBLIC WORKS AND ANY OTHER AGENCY WITH AUTHORITY IN THIS AREA, IF THERE IS A QUESTION OF WHICH SPECIFICATION TO USE, MASSDOT, HIGHWAY DIVISION SPECIFICATIONS SHALL PREVAIL.
- ALL SANITARY SEWER SERVICES AND STORM DRAINS THAT CONNECT TO PIPES THAT ARE BEING REPLACED SHALL BE CONNECTED TO THE NEW PIPE AS PART OF THIS CONTRACT. CONTRACTOR TO COORDINATE BY-PASS PUMPING FOR SANITARY SEWER AND WATER SO THERE IS NO INTERRUPTION IN SERVICE.

LEGEND

- CHAIN LINK FENCE
- DRAIN LINE
- SANITARY SEWER
- WATER LINE
- ELECTRIC LINE
- GAS LINE
- FIRE LINE
- TELEPHONE LINE
- SANITARY SEWER MANHOLE
- DRAIN MANHOLE
- ELECTRIC MANHOLE
- TELEPHONE MANHOLE
- FIRE MANHOLE
- CATCH BASIN
- MONITORING WELL
- FIRE HYDRANT
- WATER GATE
- GAS GATE
- UTILITY POLE
- MAIL BOX
- MAIL ALARM BOX
- HAND HOLE
- DECIDUOUS TREE
- SPOT ELEVATION
- BITUMINOUS BERM
- EDGE OF PAVEMENT
- VERTICAL GRANITE CURB
- CONCRETE
- BITUMINOUS
- CORRUGATED POLYETHYLENE PIPE
- PVC
- POLYVINYL CHLORIDE PIPE
- ADJUST
- R&R REMOVE AND RESET
- EXISTING BORING
- PROPOSED SAW CUT LINE
- PROPOSED SEWER CLEAN AND LINE
- PROPOSED WATER PIPE
- PROPOSED WATER CLEAN AND CEMENT LINE
- BITUMINOUS CONCRETE PAVEMENT
- REMOVE AND RESET CURB





PROJECT TEAM

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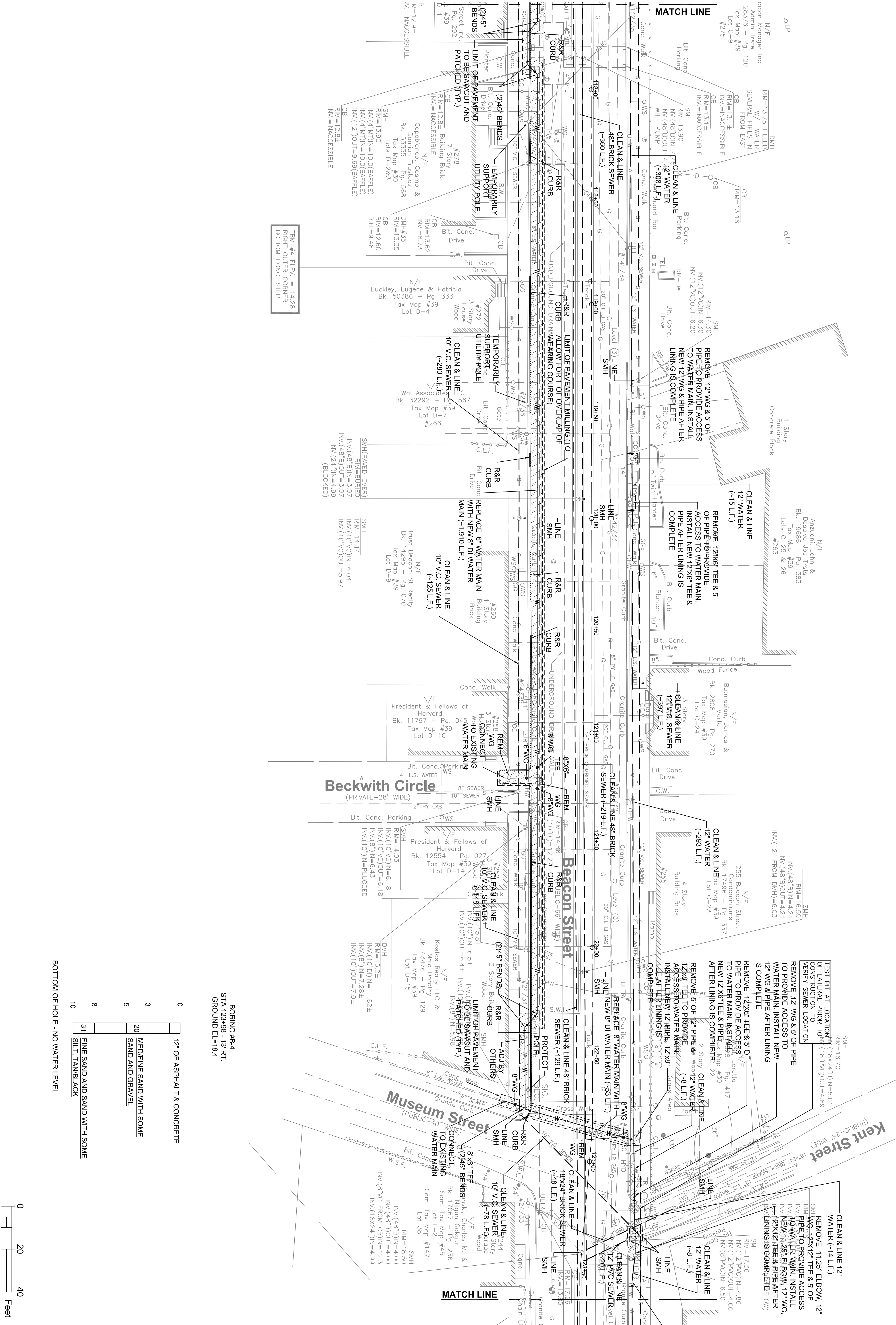
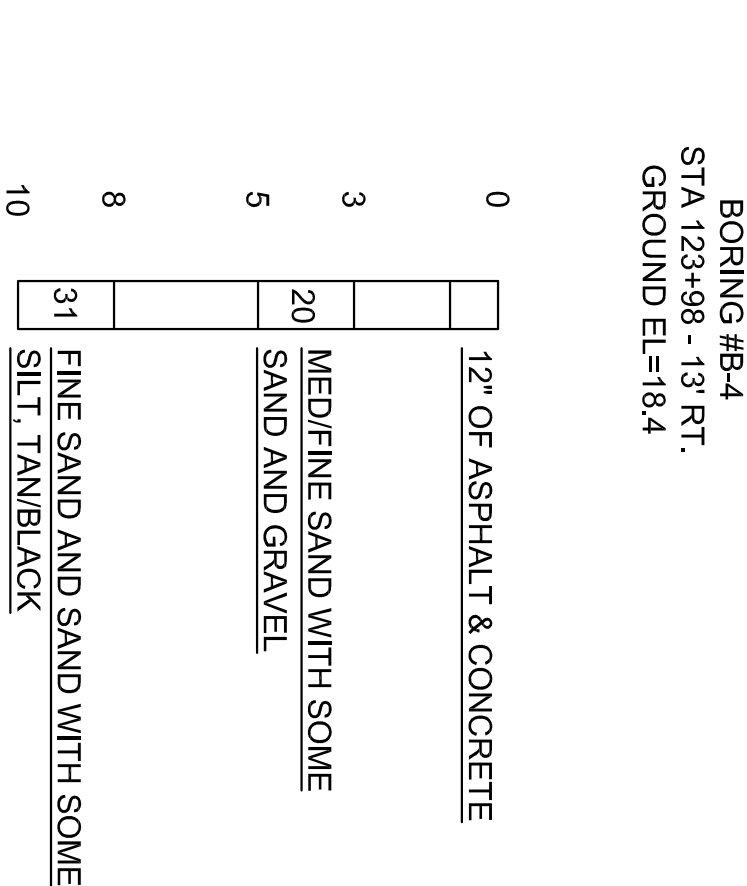
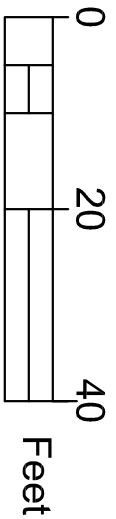
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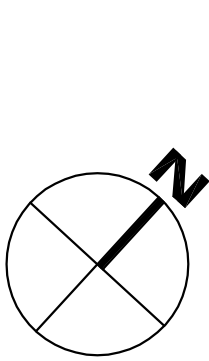
SITE UTILITIES PLAN

SHEET NAME:

C2.3

SHT NO.	DR BY: CAR
CHK BY: WAK	PROJ NO: 2012-027.10
DATE: 7.17.13	SCALE: 1"=20'





Design Consultants, Inc.
Civil Engineers and Land Surveyors
Somerville, MA 02148
817.778.3500 817.778.7719

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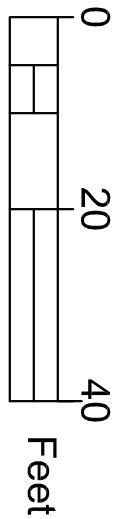
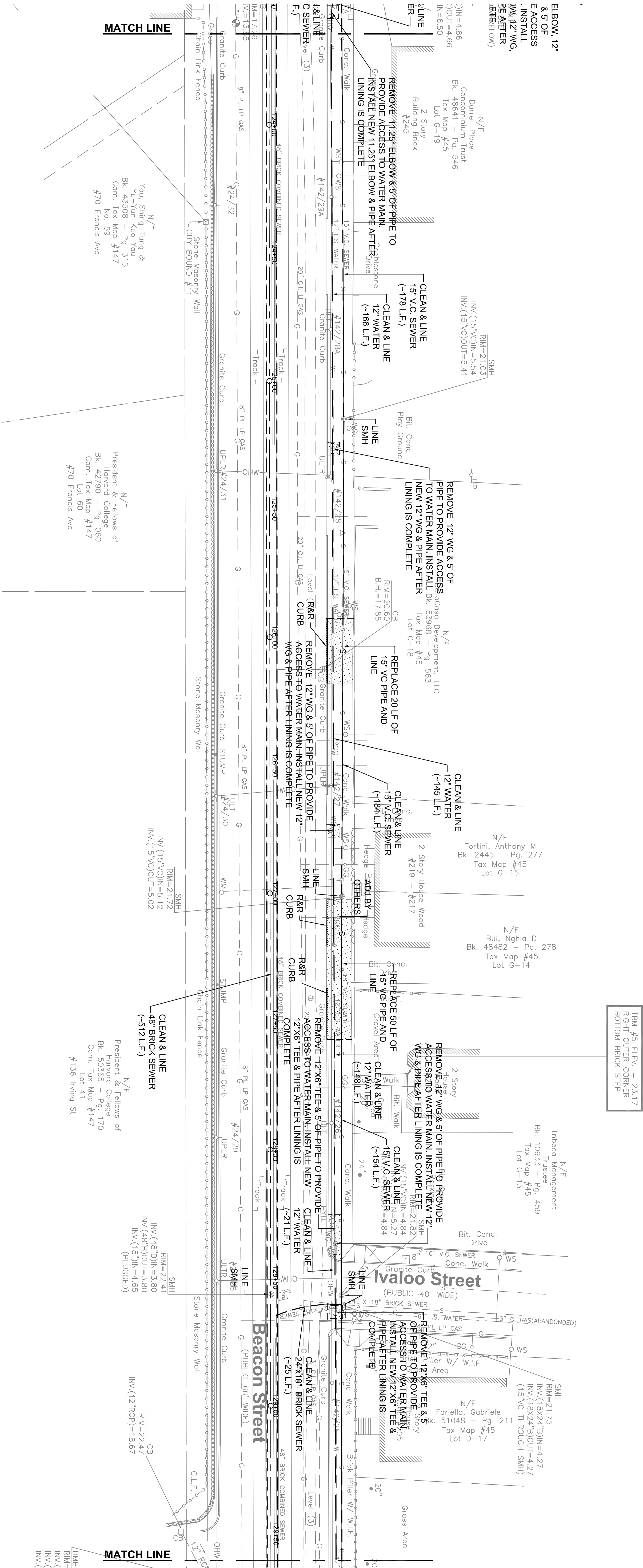
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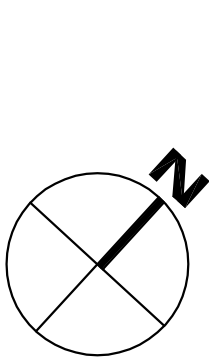
SITE UTILITIES PLAN

SHEET NAME:

C2.4

SHEET NO.	DR BY: CAR
CHK BY: WAK	PROJ NO: 2012-027.10
DATE: 7.17.13	SCALE: 1"=20'





PROJECT TEAM

PROJECT INFO

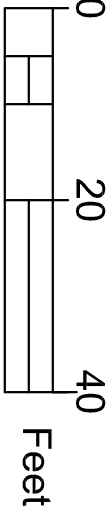
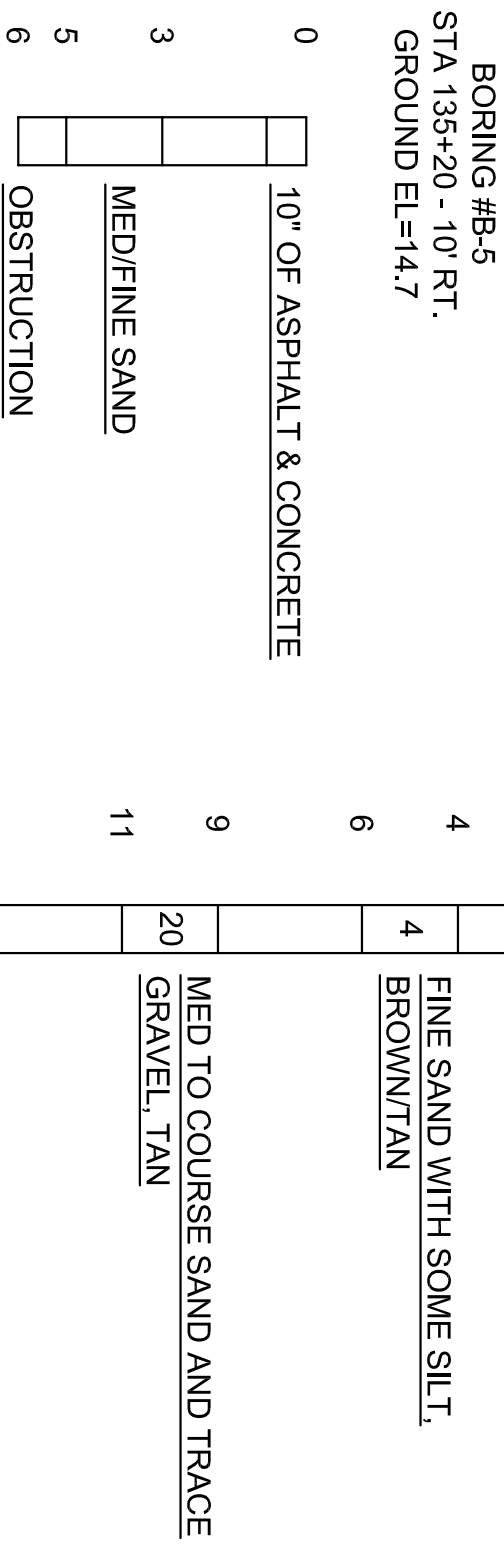
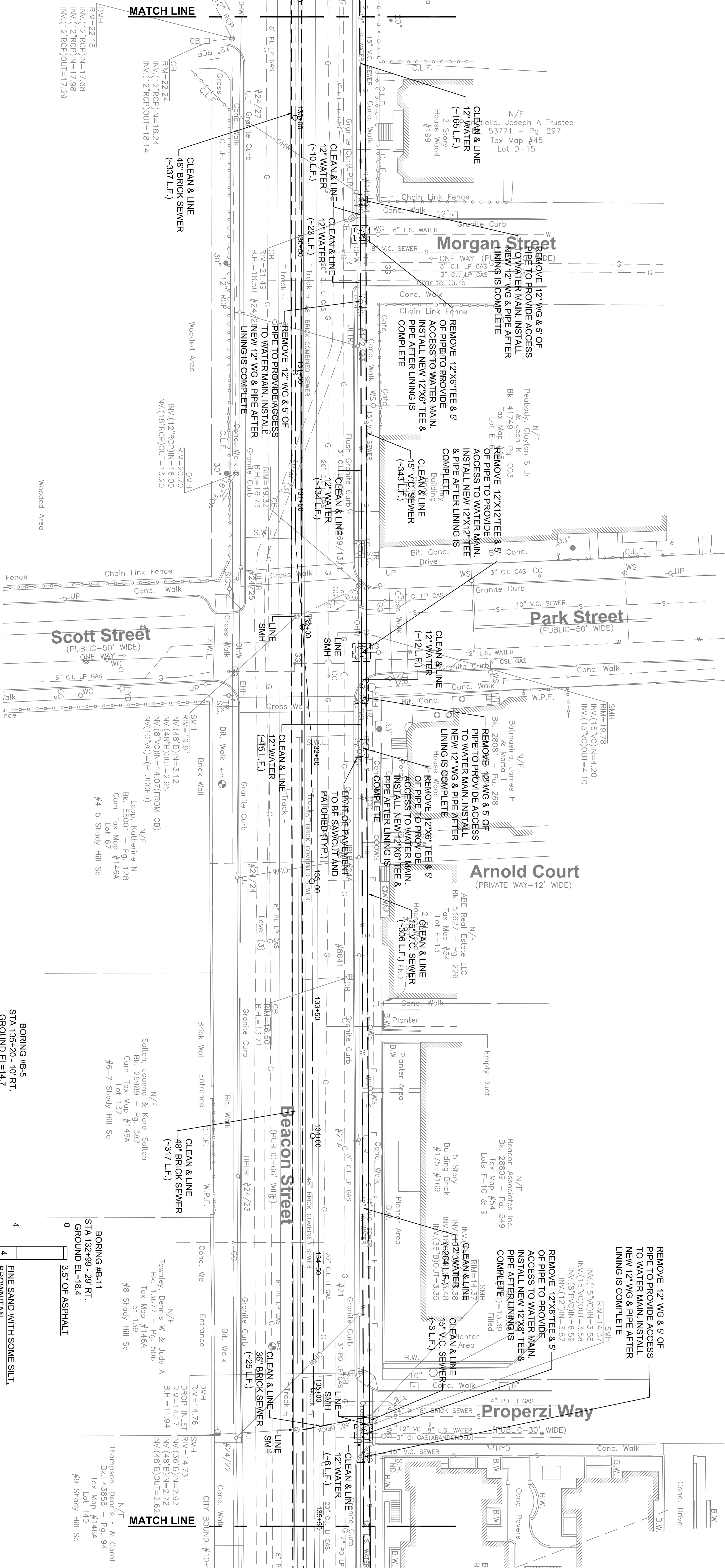
REV	DESCRIPTION	DATE

SHEET NAME:

SITE UTILITIES PLAN

C2.5

SHEET NO.
DR BY: CAR
CHK BY: WAK
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PROJECT TEAM

PROJECT INFO[illegible]

STAMM

SITE UTILITIES PLAN

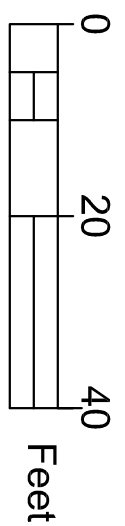
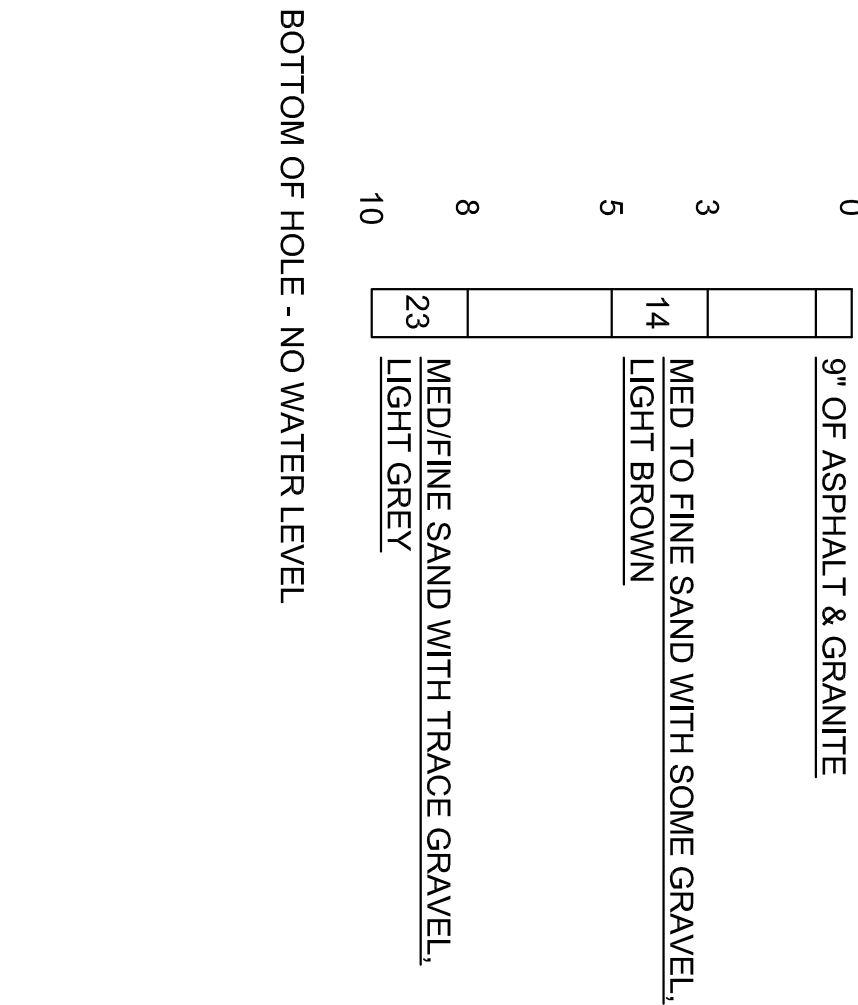
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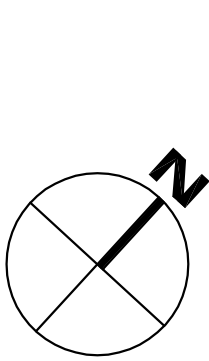
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SHT NO

DR BY: CAR

SCALE: 1"=20'





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SHEET NO.

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CHK BY: WAK

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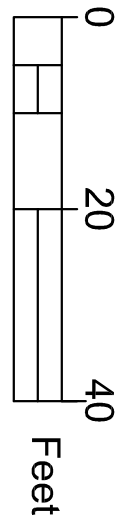
DATE: 7.17.13

SCALE: 1"=20'

SITE UTILITIES PLAN

SHEET NAME:

C2.7



0	8" OF ASPHALT & CONCRETE
4	
6	MED TO FINE SAND WITH TRACE GRAVEL
9	
11	MED/FINE SAND
14	CLAY WITH SOME SILT
16	GREY
19	CLAY WITH SOME SILT AND FINE SAND WITH SOME SILT
21	
24	CLAY WITH SOME SILT AND SOME FINE SAND, GREY
26	
28	
30	CLAY WITH SOME SILT, GREY

BOTTOM OF HOLE - NO WATER LEVEL

BORING #B-12
STA 142+26 - 13 RT.
GROUND EL.=18.1

0	8" OF ASPHALT & COBBLESTONES
3	
5	POORLY GRADED SILT & GRAVEL, BROWN TO LIGHT GREY
8	
10	SANDY GRAVEL WITH TRACE SILT

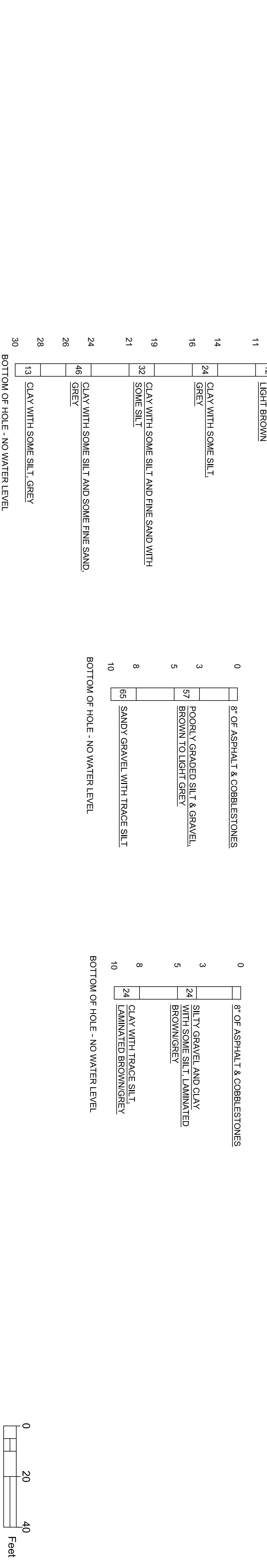
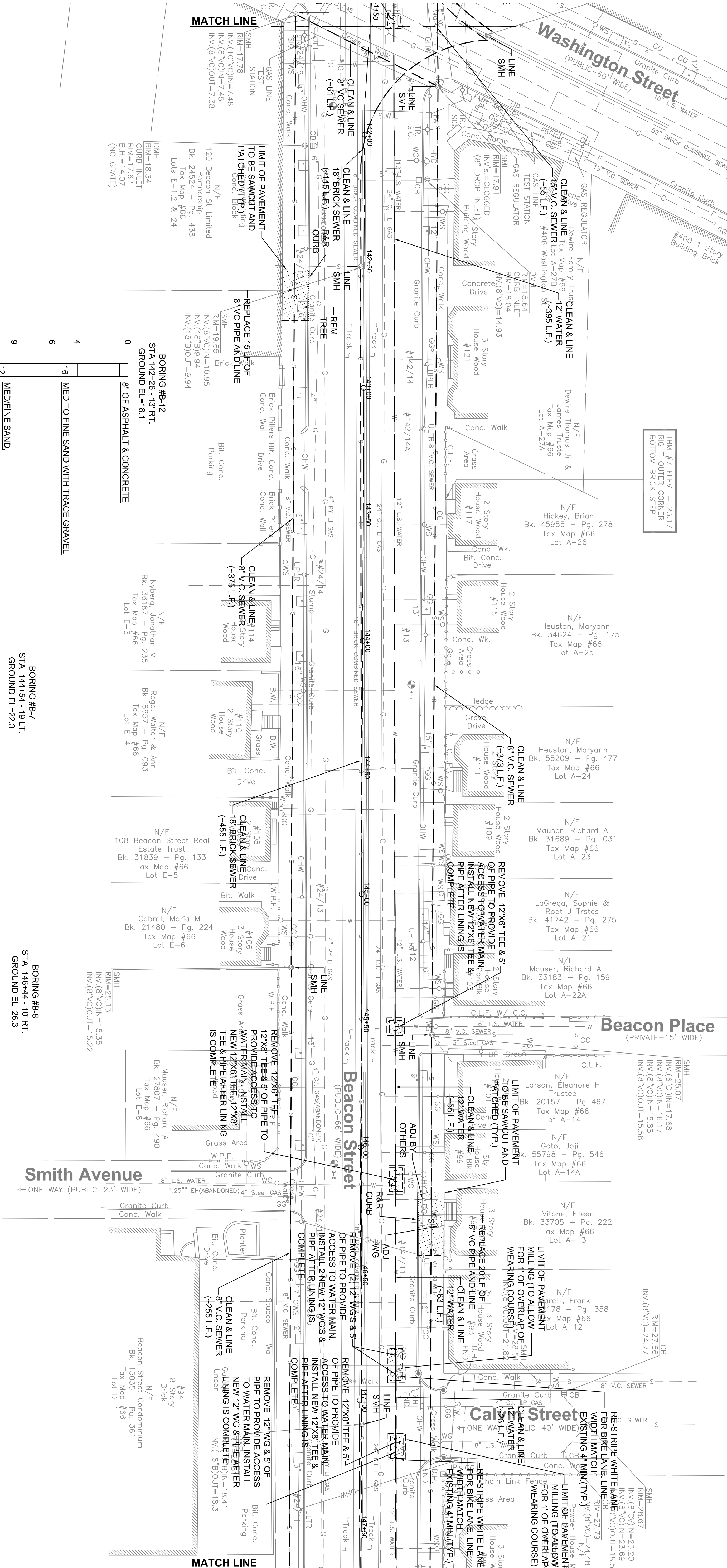
BOTTOM OF HOLE - NO WATER LEVEL

BORING #B-7
STA 144+54 - 19 LT.
GROUND EL.=22.3

0	8" OF ASPHALT & COBBLESTONES
3	
5	SILT GRAVEL AND CLAY WITH SOME SILT, LAMINATED BROWNGREY
8	
10	CLAY WITH TRACE SILT, LAMINATED BROWNGREY

BOTTOM OF HOLE - NO WATER LEVEL

BORING #B-8
STA 146+44 - 10 RT.
GROUND EL.=26.3





PLAIN

SHEET NAME

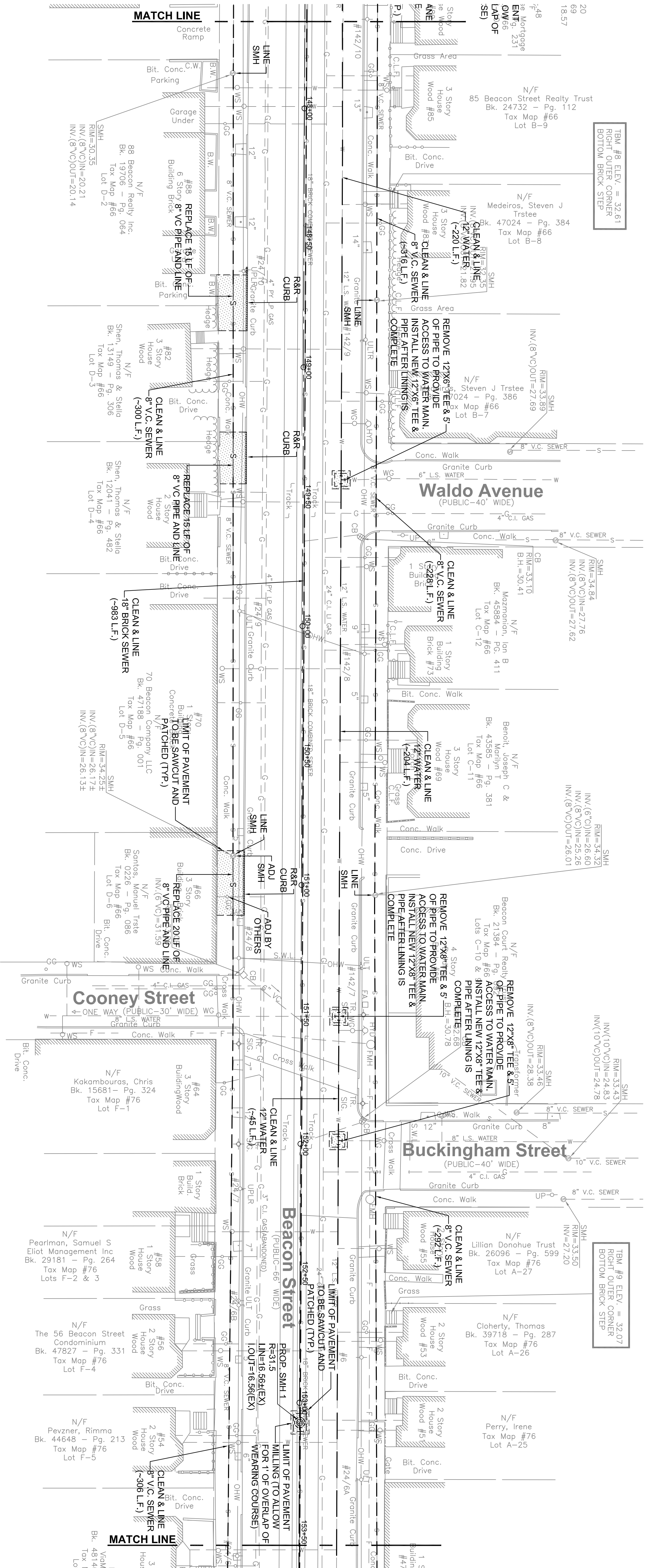
2.8

DATE: 7.17.13

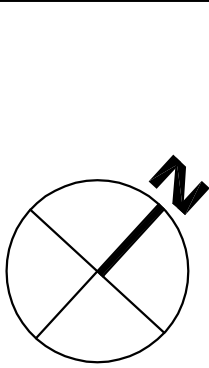
REV	DESCRIPTION	DATE
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PROJECT INFO

PROJECT TEAM

[illegible]

STAMP



PROJECT TEAM

N/F
Brennan, Todd F
Bk. 26625 - Pg. 008
Tax Map #76
Lot E-11

PROJECT INFO

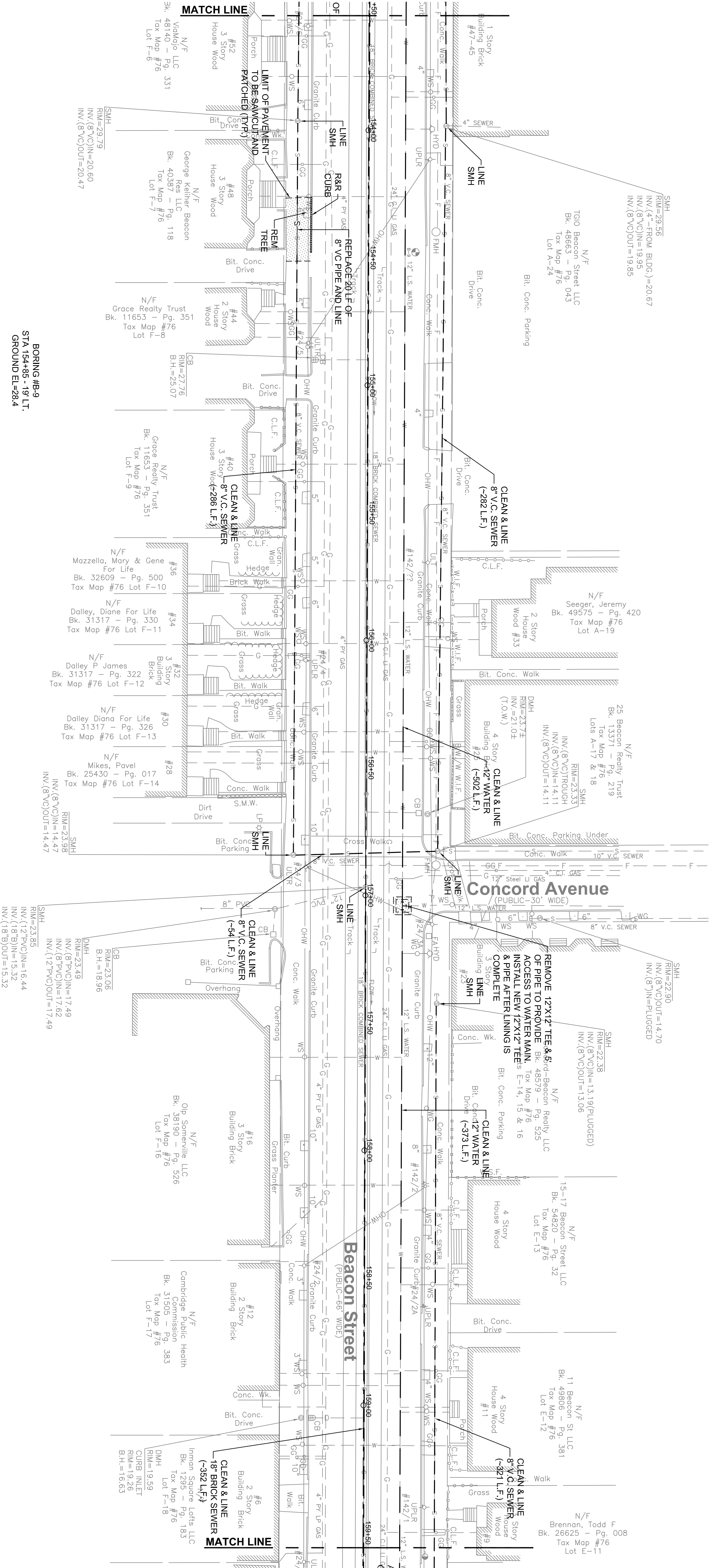
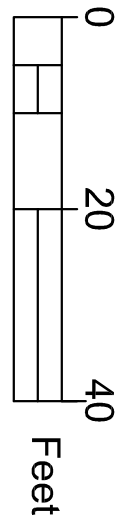
REV	DESCRIPTION	DATE

SHEET NAME:

SITE UTILITIES PLAN

C2.9

SHEET NO.
DR BY: CAR
CHK BY: WAK
PROJ NO: 2012-027.10
DATE: 7.17.13
SCALE: 1"=20'



BORING #B-9
STA 154+83 - 19 L.T.
GROUND EL.=28.4

0	9" OF ASPHALT & COBBLESTONES
3	CLAY WITH SOME SILT
34	LAMINATED BROWN/GREY
5	
8	CLAY WITH SOME SILT
33	LAMINATED BROWN/GREY
10	

BOTTOM OF HOLE - NO WATER LEVEL



PROJECT TEAM

PROJECT INFO[illegible]

STAMP

SITE UTILITIES PLAN

SHEET NAME

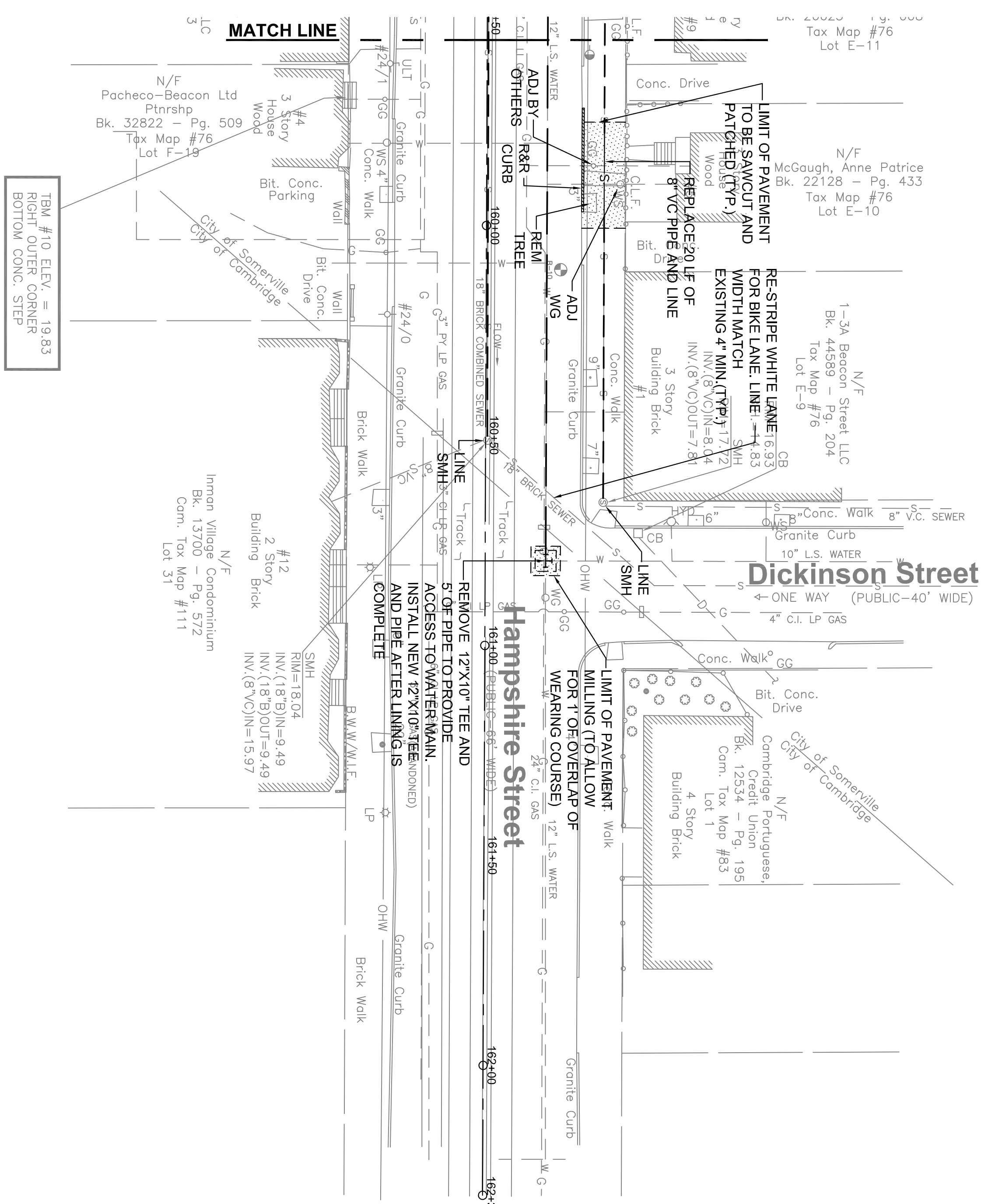
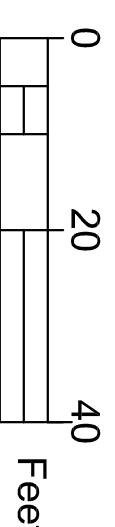
C2.10

SHT NO

DR BY: CAR

DATE: 7.17.13

SCALE: 1"=20'



BORING #B-10
STA 160+48 - 17' LT.
GROUND EL=18.2

0		<u>14" OF ASPHALT, COBBLESTONES & CONCRETE</u>
3	36	<u>CLAY WITH SOME SILT AND TRACE GRAVEL, LAMINATED BROWN/ GREY</u>
5		
8		<u>CLAY WITH TRACE SILT, LAMINATED BROWN/ GREY</u>
10	33	

BOTTOM OF HOLE - NO WATER LEVEL

