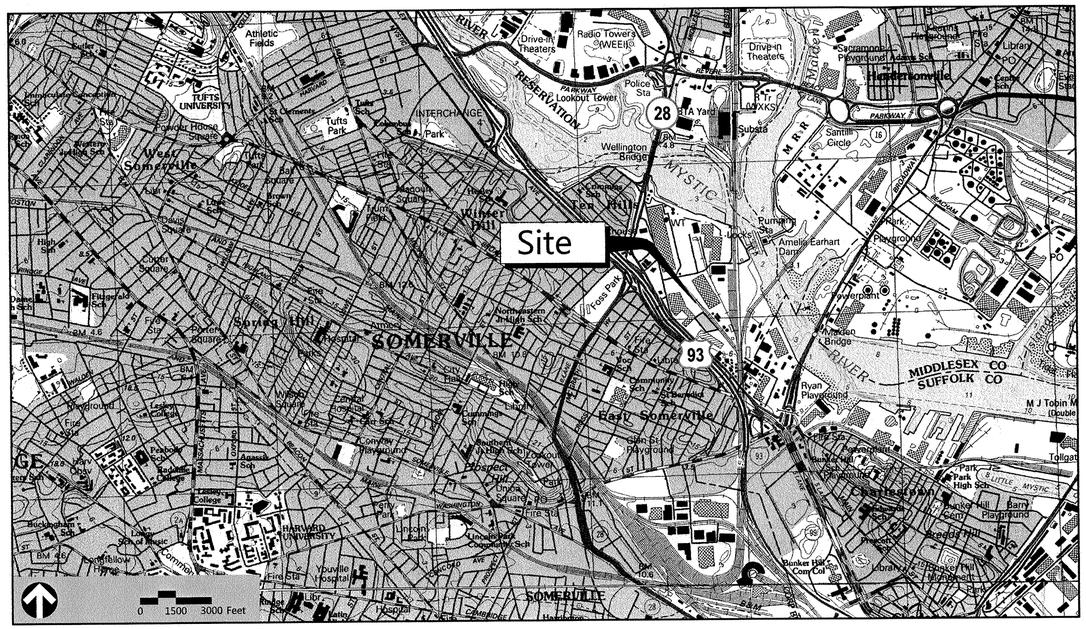
Site Plans

Issued for	Local Approvals
Date Issued	February 22, 2017
Latest Issue	February 22, 2017

Block 5B

Assembly Row
Somerville, Massachusetts



vhb.com

101 Walnut Street
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Federal Realty
INVESTMENT TRUST

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Reference Drawings

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COMMONWEALTH OF MASSACHUSETTS
DALE A. HORSMAN, III
CIVIL
No. 47454
REGISTERED PROFESSIONAL ENGINEER

2/22/2017

VHB Project : 08518.05 Block 5B
Issued for : Local Approvals - February 22, 2017

\\VHB\PROJ\WAT-LD\08518.05\CAD\LD\PLANSET\BLOCK 5B SPECIAL PERMIT\08518O5_B5B-COV 21 February 2017

\\vhb\proj\Wat-LD\08518.05\cad\d\Planset\Block 5B Special Permit\0851805_BL5B-LG.dwg

Legend

Exist.	Prop.	
		PROPERTY LINE
		PROJECT LIMIT LINE
		RIGHT-OF-WAY/PROPERTY LINE
		EASEMENT
		BUILDING SETBACK
		PARKING SETBACK
10+00	10+00	BASELINE
		CONSTRUCTION LAYOUT
		ZONING LINE
		TOWN LINE
		LIMIT OF DISTURBANCE
		WETLAND LINE WITH FLAG
		FLOODPLAIN
BLSF		BORDERING LAND SUBJECT TO FLOODING
BZ		WETLAND BUFFER ZONE
NDZ		NO DISTURB ZONE
200'RA		200' RIVERFRONT AREA
		GRAVEL ROAD
EOP		EDGE OF PAVEMENT
BB	BB	BITUMINOUS BERM
BC	BC	BITUMINOUS CURB
CC	CC	CONCRETE CURB
CG	CG	CURB AND GUTTER
ECC	ECC	EXTRUDED CONCRETE CURB
MCC	MCC	MONOLITHIC CONCRETE CURB
PCC	PCC	PRECAST CONC. CURB
SGE	SGE	SLOPED GRAN. EDGING
VGC	VGC	VERT. GRAN. CURB
		LIMIT OF CURB TYPE
		SAWCUT
		BUILDING
	EN	BUILDING ENTRANCE
	LD	LOADING DOCK
		BOLLARD
D	D	DUMPSTER PAD
		SIGN
		DOUBLE SIGN
		STEEL GUARDRAIL
		WOOD GUARDRAIL
		PATH
		TREE LINE
		WIRE FENCE
		FENCE
		STOCKADE FENCE
		STONE WALL
		RETAINING WALL
		STREAM / POND / WATER COURSE
		DETENTION BASIN
		STRAW BALES
		SILT FENCE
		SILT SOCK / STRAW WATTLE
4	4	MINOR CONTOUR
20	20	MAJOR CONTOUR
(10)	(10)	PARKING COUNT
	C10	COMPACT PARKING STALLS
DYL	DYL	DOUBLE YELLOW LINE
SL	SL	STOP LINE
		CROSSWALK
		ACCESSIBLE CURB RAMP
		ACCESSIBLE PARKING
VAN	VAN	VAN-ACCESSIBLE PARKING

Exist.	Prop.	
		CONCRETE
		HEAVY DUTY PAVEMENT
		RIPRAP
		CONSTRUCTION ENTRANCE
27.35 TC×	27.35 TC×	TOP OF CURB ELEVATION
26.85 BC×	26.85 BC×	BOTTOM OF CURB ELEVATION
132.75 ×	132.75 ×	SPOT ELEVATION
EX 12.65 ×	EX 12.65 ×	EXISTING SPOT ELEVATION
28.40 PD ×	28.40 PD ×	PREVIOUSLY DESIGNED SPOT ELEVATION
45.0 TW× 38.5 BW	45.0 TW× 38.5 BW	TOP & BOTTOM OF WALL ELEVATION
		BORING LOCATION
		TEST PIT LOCATION
MW	MW	MONITORING WELL
UD	UD	UNDERDRAIN
12"D	12"D	DRAIN
6"RD	6"RD	ROOF DRAIN
12"S	12"S	SEWER
FM	FM	FORCE MAIN
OHW	OHW	OVERHEAD WIRE
6"W	6"W	WATER
4"FP	4"FP	FIRE PROTECTION
	2"DW	DOMESTIC WATER
G	G	GAS
E	E	ELECTRIC
STM	STM	STEAM
T	T	TELEPHONE
FA	FA	FIRE ALARM
CATV	CATV	CABLE TV
		CATCH BASIN
		DOUBLE CATCH BASIN
		GUTTER INLET
		DRAIN MANHOLE
		TRENCH DRAIN
		PLUG OR CAP
CO	CO	CLEANOUT
		FLARED END SECTION
		HEADWALL
		SEWER MANHOLE
CS	CS	CURB STOP & BOX
WV	WV	WATER VALVE & BOX
TSV	TSV	TAPPING SLEEVE, VALVE & BOX
HYD	HYD	SIAMESE CONNECTION
HYD	HYD	FIRE HYDRANT
WM	WM	WATER METER
PIV	PIV	POST INDICATOR VALVE
W	W	WATER WELL
GS	GS	GAS GATE
GM	GM	GAS METER
EMH	EMH	ELECTRIC MANHOLE
EM	EM	ELECTRIC METER
		LIGHT POLE
TMH	TMH	TELEPHONE MANHOLE
T	T	TRANSFORMER PAD
		UTILITY POLE
		GUY POLE
		GUY WIRE & ANCHOR
HH	HH	HAND HOLE
PB	PB	PULL BOX
Matchline		MATCHLINE

Abbreviations

General

ABAN	ABANDON
ACR	ACCESSIBLE CURB RAMP
ADJ	ADJUST
APPROX	APPROXIMATE
BIT	BITUMINOUS
BS	BOTTOM OF SLOPE
BWLL	BROKEN WHITE LANE LINE
CONC	CONCRETE
DYCL	DOUBLE YELLOW CENTER LINE
EL	ELEVATION
ELEV	ELEVATION
EXIST	EXISTING
FDN	FOUNDATION
FFE	FIRST FLOOR ELEVATION
GRAN	GRANITE
GTD	GRADE TO DRAIN
LA	LANDSCAPE AREA
LOD	LIMIT OF DISTURBANCE
MAX	MAXIMUM
MIN	MINIMUM
NIC	NOT IN CONTRACT
NTS	NOT TO SCALE
PERF	PERFORATED
PROP	PROPOSED
PD	PREVIOUSLY DESIGNED
REM	REMOVE
RET	RETAIN
R&D	REMOVE AND DISPOSE
R&R	REMOVE AND RESET
SWEL	SOLID WHITE EDGE LINE
SWLL	SOLID WHITE LANE LINE
TS	TOP OF SLOPE
TYP	TYPICAL

Utility

CB	CATCH BASIN
CMP	CORRUGATED METAL PIPE
CO	CLEANOUT
DCB	DOUBLE CATCH BASIN
DMH	DRAIN MANHOLE
CIP	CAST IRON PIPE
COND	CONDUIT
DIP	DUCTILE IRON PIPE
DOM	DOMESTIC WATER LINE
FES	FLARED END SECTION
FM	FORCE MAIN
F&G	FRAME AND GRATE
F&C	FRAME AND COVER
GI	GUTTER INLET
GT	GREASE TRAP
HDPE	HIGH DENSITY POLYETHYLENE PIPE
HH	HANDHOLE
HW	HEADWALL
HYD	HYDRANT
INV	INVERT ELEVATION
I=	INVERT ELEVATION
LP	LIGHT POLE
MES	METAL END SECTION
PWW	PAVED WATER WAY
PVC	POLYVINYLCHLORIDE PIPE
PIV	POST INDICATOR VALVE
RCP	REINFORCED CONCRETE PIPE
R=	RIM ELEVATION
SMH	SEWER MANHOLE
TSV	TAPPING SLEEVE, VALVE AND BOX
UG	UNDERGROUND
UP	UTILITY POLE
WQU	WATER QUALITY UNIT

Notes:

General

1. CONTRACTOR SHALL NOTIFY "DIG-SAFE" (1-888-344-7233) AT LEAST 72 HOURS BEFORE EXCAVATING.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR SITE SECURITY AND JOB SAFETY. CONSTRUCTION ACTIVITIES SHALL BE IN ACCORDANCE WITH OSHA STANDARDS AND LOCAL REQUIREMENTS.
3. ACCESSIBLE ROUTES, PARKING SPACES, RAMPS, SIDEWALKS AND WALKWAYS SHALL BE CONSTRUCTED IN CONFORMANCE WITH THE FEDERAL AMERICANS WITH DISABILITIES ACT AND WITH STATE AND LOCAL LAWS AND REGULATIONS (WHICHEVER ARE MORE STRINGENT).
4. AREAS DISTURBED DURING CONSTRUCTION AND NOT RESTORED WITH IMPERVIOUS SURFACES (BUILDINGS, PAVEMENTS, WALKS, ETC.) SHALL RECEIVE SIX (6) INCHES LOAM AND SEED.
5. WITHIN THE LIMITS OF THE BUILDING FOOTPRINT, THE SITE CONTRACTOR SHALL PERFORM EARTHWORK OPERATIONS REQUIRED UP TO SUBGRADE ELEVATIONS.
6. WORK WITHIN THE LOCAL RIGHTS-OF-WAY SHALL CONFORM TO LOCAL MUNICIPAL STANDARDS. WORK WITHIN STATE RIGHTS-OF-WAY SHALL CONFORM TO THE LATEST EDITION OF THE STATE HIGHWAY DEPARTMENTS STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES.
7. UPON AWARD OF CONTRACT, CONTRACTOR SHALL MAKE NECESSARY CONSTRUCTION NOTIFICATIONS AND APPLY FOR AND OBTAIN NECESSARY PERMITS, PAY FEES, AND POST BONDS ASSOCIATED WITH THE WORK INDICATED ON THE DRAWINGS, IN THE SPECIFICATIONS, AND IN THE CONTRACT DOCUMENTS. DO NOT CLOSE OR OBSTRUCT ROADWAYS, SIDEWALKS, AND FIRE HYDRANTS, WITHOUT APPROPRIATE PERMITS.
8. TRAFFIC SIGNAGE AND PAVEMENT MARKINGS SHALL CONFORM TO THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES.
9. 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.
10. IN THE EVENT THAT SUSPECTED CONTAMINATED SOIL, GROUNDWATER, AND OTHER MEDIA ARE ENCOUNTERED DURING EXCAVATION AND CONSTRUCTION ACTIVITIES BASED ON VISUAL, OLFACTORY, OR OTHER EVIDENCE, THE CONTRACTOR SHALL STOP WORK IN THE VICINITY OF THE SUSPECT MATERIAL TO AVOID FURTHER SPREADING OF THE MATERIAL, AND SHALL NOTIFY THE OWNER IMMEDIATELY SO THAT THE APPROPRIATE TESTING AND SUBSEQUENT ACTION CAN BE TAKEN.
11. CONTRACTOR SHALL PREVENT DUST, SEDIMENT, AND DEBRIS FROM EXITING THE SITE AND SHALL BE RESPONSIBLE FOR CLEANUP, REPAIRS AND CORRECTIVE ACTION IF SUCH OCCURS.
12. DAMAGE RESULTING FROM CONSTRUCTION LOADS SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO OWNER.
13. CONTRACTOR SHALL CONTROL STORMWATER RUNOFF DURING CONSTRUCTION TO PREVENT ADVERSE IMPACTS TO OFF SITE AREAS, AND SHALL BE RESPONSIBLE TO REPAIR RESULTING DAMAGES, IF ANY, AT NO COST TO OWNER.

Utilities

1. THE LOCATIONS, SIZES, AND TYPES OF EXISTING UTILITIES ARE SHOWN AS AN APPROXIMATE REPRESENTATION ONLY. THE OWNER OR IT'S REPRESENTATIVE(S) HAVE NOT INDEPENDENTLY VERIFIED THIS INFORMATION AS SHOWN ON THE PLANS. THE UTILITY INFORMATION SHOWN DOES NOT GUARANTEE THE ACTUAL EXISTENCE, SERVICEABILITY, OR OTHER DATA CONCERNING THE UTILITIES, NOR DOES IT GUARANTEE AGAINST THE POSSIBILITY THAT ADDITIONAL UTILITIES MAY BE PRESENT THAT ARE NOT SHOWN ON THE PLANS. PRIOR TO ORDERING MATERIALS AND BEGINNING CONSTRUCTION, THE CONTRACTOR SHALL VERIFY AND DETERMINE THE EXACT LOCATIONS, SIZES, AND ELEVATIONS OF THE POINTS OF CONNECTIONS TO EXISTING UTILITIES AND, SHALL CONFIRM THAT THERE ARE NO INTERFERENCES WITH EXISTING UTILITIES AND THE PROPOSED UTILITY ROUTES, INCLUDING ROUTES WITHIN THE PUBLIC RIGHTS OF WAY.
2. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, OR EXISTING CONDITIONS DIFFER FROM THOSE SHOWN SUCH THAT THE WORK CANNOT BE COMPLETED AS INTENDED, THE LOCATION, ELEVATION, AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED IN WRITING TO THE OWNER'S REPRESENTATIVE FOR THE RESOLUTION OF THE CONFLICT AND CONTRACTOR'S FAILURE TO NOTIFY PRIOR TO PERFORMING ADDITIONAL WORK RELEASES OWNER FROM OBLIGATIONS FOR ADDITIONAL PAYMENTS WHICH OTHERWISE MAY BE WARRANTED TO RESOLVE THE CONFLICT.
3. SET CATCH BASIN RIMS, AND INVERTS OF SEWERS, DRAINS, AND DITCHES IN ACCORDANCE WITH ELEVATIONS ON THE GRADING AND UTILITY PLANS.
4. RIM ELEVATIONS FOR DRAIN AND SEWER MANHOLES, WATER VALVE COVERS, GAS GATES, ELECTRIC AND TELEPHONE PULL BOXES, AND MANHOLES, AND OTHER SUCH ITEMS, ARE APPROXIMATE AND SHALL BE SET/RESET AS FOLLOWS:

   A. PAVEMENTS AND CONCRETE SURFACES: FLUSH

   B. ALL SURFACES ALONG ACCESSIBLE ROUTES: FLUSH

   C. LANDSCAPE, LOAM AND SEED, AND OTHER EARTH SURFACE AREAS: ONE INCH ABOVE SURROUNDING AREA AND TAPER EARTH TO THE RIM ELEVATION.
5. THE LOCATION, SIZE, DEPTH, AND SPECIFICATIONS FOR CONSTRUCTION OF PROPOSED PRIVATE UTILITY SERVICES SHALL BE INSTALLED ACCORDING TO THE REQUIREMENTS PROVIDED BY, AND APPROVED BY, THE RESPECTIVE UTILITY COMPANY (GAS, TELEPHONE, ELECTRIC, FIRE ALARM, ETC.). FINAL DESIGN LOADS AND LOCATIONS TO BE COORDINATED WITH OWNER AND ARCHITECT.
6. CONTRACTOR SHALL MAKE ARRANGEMENTS FOR AND SHALL BE RESPONSIBLE FOR PAYING FEES FOR POLE RELOCATION AND FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE, FIRE ALARM, AND ANY OTHER PRIVATE UTILITIES, WHETHER WORK IS PERFORMED BY CONTRACTOR OR BY THE UTILITIES COMPANY.
7. UTILITY PIPE MATERIALS SHALL BE AS FOLLOWS, UNLESS OTHERWISE NOTED ON THE PLAN:

   A. WATER PIPES SHALL BE CEMENT LINED DUCTILE IRON (DIP) CLASS 52

   B. SANITARY SEWER PIPES SHALL BE POLYVINYL CHLORIDE (PVC) SDR 35 SEWER PIPE

   C. STORM DRAINAGE PIPES SHALL BE REINFORCED CONCRETE PIPE (RCP)

   D. PIPE INSTALLATION AND MATERIALS SHALL COMPLY WITH THE STATE PLUMBING CODE WHERE APPLICABLE. CONTRACTOR SHALL COORDINATE WITH LOCAL PLUMBING INSPECTOR PRIOR TO BEGINNING WORK.
8. CONTRACTOR SHALL COORDINATE WITH ELECTRICAL CONTRACTOR AND SHALL FURNISH EXCAVATION, INSTALLATION, AND BACKFILL OF ELECTRICAL FURNISHED SITEWORK RELATED ITEMS SUCH AS PULL BOXES, CONDUITS, DUCT BANKS, LIGHT POLE BASES, AND CONCRETE PADS. SITE CONTRACTOR SHALL FURNISH CONCRETE ENCASEMENT OF DUCT BANKS IF REQUIRED BY THE UTILITY COMPANY AND AS INDICATED ON THE DRAWINGS.
9. CONTRACTOR SHALL EXCAVATE AND BACKFILL TRENCHES FOR GAS IN ACCORDANCE WITH GAS COMPANY'S REQUIREMENTS.
10. ALL DRAINAGE AND SANITARY STRUCTURE INTERIOR DIAMETERS (4' MIN.) SHALL BE DETERMINED BY THE MANUFACTURER BASED ON THE PIPE CONFIGURATIONS SHOWN ON THESE PLANS AND LOCAL MUNICIPAL STANDARDS. FOR MANHOLES THAT ARE 20 FEET IN DEPTH AND GREATER, THE MINIMUM DIAMETER SHALL BE 5 FEET.

Layout and Materials

1. DIMENSIONS ARE FROM THE FACE OF CURB, FACE OF BUILDING, FACE OF WALL, AND CENTER LINE OF PAVEMENT MARKINGS, UNLESS OTHERWISE NOTED.
2. CURB RADII ARE THREE (3) FEET UNLESS OTHERWISE NOTED.
3. CURBING SHALL BE VERTICAL GRANITE CURB (VGC) WITHIN THE SITE UNLESS OTHERWISE INDICATED ON THE PLANS.
4. SEE ARCHITECTURAL DRAWINGS FOR EXACT BUILDING DIMENSIONS AND DETAILS CONTIGUOUS TO THE BUILDING, INCLUDING SIDEWALKS, RAMPS, BUILDING ENTRANCES, STAIRWAYS, UTILITY PENETRATIONS, CONCRETE DOOR PADS, COMPACTOR PAD, LOADING DOCKS, BOLLARDS, ETC.
5. PROPOSED BOUNDS AND ANY EXISTING PROPERTY LINE MONUMENTATION DISTURBED DURING CONSTRUCTION SHALL BE SET OR RESET BY A PROFESSIONAL LICENSED SURVEYOR.
6. PRIOR TO START OF CONSTRUCTION, CONTRACTOR SHALL VERIFY EXISTING PAVEMENT ELEVATIONS AT INTERFACE WITH PROPOSED PAVEMENTS, AND EXISTING GROUND ELEVATIONS ADJACENT TO DRAINAGE OUTLETS TO ASSURE PROPER TRANSITIONS BETWEEN EXISTING AND PROPOSED FACILITIES.

Demolition

1. CONTRACTOR SHALL REMOVE AND DISPOSE OF EXISTING MANMADE SURFACE FEATURES WITHIN THE LIMIT OF WORK INCLUDING BUILDINGS, STRUCTURES, PAVEMENTS, SLABS, CURBING, FENCES, UTILITY POLES, SIGNS, ETC. UNLESS INDICATED OTHERWISE ON THE DRAWINGS. REMOVE AND DISPOSE OF EXISTING UTILITIES, FOUNDATIONS AND UNSUITABLE MATERIAL BENEATH AND FOR A DISTANCE OF 10 FEET BEYOND THE PROPOSED BUILDING FOOTPRINT INCLUDING EXTERIOR COLUMNS.
2. EXISTING UTILITIES SHALL BE TERMINATED, UNLESS OTHERWISE NOTED, IN CONFORMANCE WITH LOCAL, STATE AND INDIVIDUAL UTILITY COMPANY STANDARD SPECIFICATIONS AND DETAILS. THE CONTRACTOR SHALL COORDINATE UTILITY SERVICE DISCONNECTS WITH THE UTILITY REPRESENTATIVES.
3. CONTRACTOR SHALL DISPOSE OF DEMOLITION DEBRIS IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS, ORDINANCES AND STATUTES.
4. THE DEMOLITION LIMITS DEPICTED IN THE PLANS IS INTENDED TO AID THE CONTRACTOR DURING THE BIDDING AND CONSTRUCTION PROCESS AND IS NOT INTENDED TO DEPICT EACH AND EVERY ELEMENT OF DEMOLITION. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING THE DETAILED SCOPE OF DEMOLITION BEFORE SUBMITTING ITS BID/PROPOSAL TO PERFORM THE WORK AND SHALL MAKE NO CLAIMS AND SEEK NO ADDITIONAL COMPENSATION FOR CHANGED CONDITIONS OR UNFORESEEN OR LATENT SITE CONDITIONS RELATED TO ANY CONDITIONS DISCOVERED DURING EXECUTION OF THE WORK.
5. UNLESS OTHERWISE SPECIFICALLY PROVIDED ON THE PLANS OR IN THE SPECIFICATIONS, THE ENGINEER HAS NOT PREPARED DESIGNS FOR AND SHALL HAVE NO RESPONSIBILITY FOR THE PRESENCE, DISCOVERY, REMOVAL, ABATEMENT OR DISPOSAL OF HAZARDOUS MATERIALS, TOXIC WASTES OR POLLUTANTS AT THE PROJECT SITE. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR ANY CLAIMS OF LOSS, DAMAGE, EXPENSE, DELAY, INJURY OR DEATH ARISING FROM THE PRESENCE OF HAZARDOUS MATERIAL AND CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS THE ENGINEER FROM ANY CLAIMS MADE IN CONNECTION THEREWITH. MOREOVER, THE ENGINEER SHALL HAVE NO ADMINISTRATIVE OBLIGATIONS OF ANY TYPE WITH REGARD TO ANY CONTRACTOR AMENDMENT INVOLVING THE ISSUES OF PRESENCE, DISCOVERY, REMOVAL, ABATEMENT OR DISPOSAL OF ASBESTOS OR OTHER HAZARDOUS MATERIALS.

Erosion Control

1. PRIOR TO STARTING ANY OTHER WORK ON THE SITE, THE CONTRACTOR SHALL NOTIFY APPROPRIATE AGENCIES AND SHALL INSTALL EROSION CONTROL MEASURES AS SHOWN ON THE PLANS AND AS IDENTIFIED IN FEDERAL, STATE, AND LOCAL APPROVAL DOCUMENTS PERTAINING TO THIS PROJECT.
2. CONTRACTOR SHALL INSPECT AND MAINTAIN EROSION CONTROL MEASURES ON A WEEKLY BASIS (MINIMUM) OR AS REQUIRED PER THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP). THE CONTRACTOR SHALL ADDRESS DEFICIENCIES AND MAINTENANCE ITEMS WITHIN TWENTY-FOUR HOURS OF INSPECTION. CONTRACTOR SHALL PROPERLY DISPOSE OF SEDIMENT SUCH THAT IT DOES NOT ENCUMBER OTHER DRAINAGE STRUCTURES AND PROTECTED AREAS.
3. CONTRACTOR SHALL BE FULLY RESPONSIBLE TO CONTROL CONSTRUCTION SUCH THAT SEDIMENTATION SHALL NOT AFFECT REGULATORY PROTECTED AREAS, WHETHER SUCH SEDIMENTATION IS CAUSED BY WATER, WIND, OR DIRECT DEPOSIT.
4. CONTRACTOR SHALL PERFORM CONSTRUCTION SEQUENCING SUCH THAT EARTH MATERIALS ARE EXPOSED FOR A MINIMUM OF TIME BEFORE THEY ARE COVERED, SEEDED, OR OTHERWISE STABILIZED TO PREVENT EROSION.
5. UPON COMPLETION OF CONSTRUCTION AND ESTABLISHMENT OF PERMANENT GROUND COVER, CONTRACTOR SHALL REMOVE AND DISPOSE OF EROSION CONTROL MEASURES AND CLEAN SEDIMENT AND DEBRIS FROM ENTIRE DRAINAGE AND SEWER SYSTEMS.

Existing Conditions Information

1. THE PROPERTY LINES SHOWN WERE DETERMINED BY AN ACTUAL FIELD SURVEY PERFORMED BY VANASSE HANGEN BRUSTLIN, INC. BETWEEN APRIL 2004, MARCH 2006, OCTOBER 2007, SEPTEMBER 2008, JUNE 2009, AND NOVEMBER 2014, AND FROM DEEDS AND PLANS OF RECORD.
2. UNDERGROUND UTILITIES SHOWN ON THIS PLAN ARE BASED UPON FIELD OBSERVATIONS, INFORMATION OF RECORD AND DESIGN PLANS, CREATED BY VHB IN DECEMBER 2005. THEY ARE NOT WARRANTED TO BE EXACT, NOR IS IT WARRANTED THAT ALL UNDERGROUND UTILITIES OR OTHER STRUCTURES ARE SHOWN ON THIS PLAN.
3. ELEVATIONS SHOWN ARE BASED UPON USCGS, NATIONAL GEODETIC VERTICAL DATUM OF 1929 AND WERE INITIATED AT BENCHMARK #11000, A MASSACHUSETTS GEODETIC SURVEY DISC.
4. THE LOCUS PROPERTY LIES WITHIN ZONE C, AREA OF MINIMAL FLOODING, AS SHOWN ON THE FLOOD INSURANCE RATE MAP FOR THE CITY SOMERVILLE, MASSACHUSETTS COMMUNITY PANEL NUMBER 25017 C 0439 E, EFFECTIVE DATE JUNE 4, 2010.
5. MEAN HIGH WATER (MHW), MEAN SEA LEVEL (MSL) AND MEAN LOW WATER (MLW) ELEVATIONS WERE OBTAINED FROM THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA) TIDES AND CURRENTS WEBSITE; BOSTON HARBOR TIDE GAUGING STATION 8443970 AND CONVERTED TO NGVD 1929 DATUM AT THE AMELIA EARHART DAM.

Document Use

1. THESE PLANS AND CORRESPONDING CADD DOCUMENTS ARE INSTRUMENTS OF PROFESSIONAL SERVICE, AND SHALL NOT BE USED, IN WHOLE OR IN PART, FOR ANY PURPOSE OTHER THAN FOR WHICH IT WAS CREATED WITHOUT THE EXPRESSED, WRITTEN CONSENT OF VHB. ANY UNAUTHORIZED USE, REUSE, MODIFICATION OR ALTERATION, INCLUDING AUTOMATED CONVERSION OF THIS DOCUMENT SHALL BE AT THE USER'S SOLE RISK WITHOUT LIABILITY OR LEGAL EXPOSURE TO VHB.
2. CONTRACTOR SHALL NOT RELY SOLELY ON ELECTRONIC VERSIONS OF PLANS, SPECIFICATIONS, AND DATA FILES THAT ARE OBTAINED FROM THE DESIGNERS, BUT SHALL VERIFY LOCATION OF PROJECT FEATURES IN ACCORDANCE WITH THE PAPER COPIES OF THE PLANS AND SPECIFICATIONS THAT ARE SUPPLIED AS PART OF THE CONTRACT DOCUMENTS.
3. SYMBOLS AND LEGENDS OF PROJECT FEATURES ARE GRAPHIC REPRESENTATIONS AND ARE NOT NECESSARILY SCALED TO THEIR ACTUAL DIMENSIONS OR LOCATIONS ON THE DRAWINGS. THE CONTRACTOR SHALL REFER TO THE DETAIL SHEET DIMENSIONS, MANUFACTURERS' LITERATURE, SHOP DRAWINGS AND FIELD MEASUREMENTS OF SUPPLIED PRODUCTS FOR LAYOUT OF THE PROJECT FEATURES.

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Block 5B

Assembly Row
Somerville, Massachusetts

No.	Revision	Date	Appvd.

Designed by | Checked by
Issued for | Date

Local Approvals — **February 22, 2017**

Drawing Title
Legend and General Notes

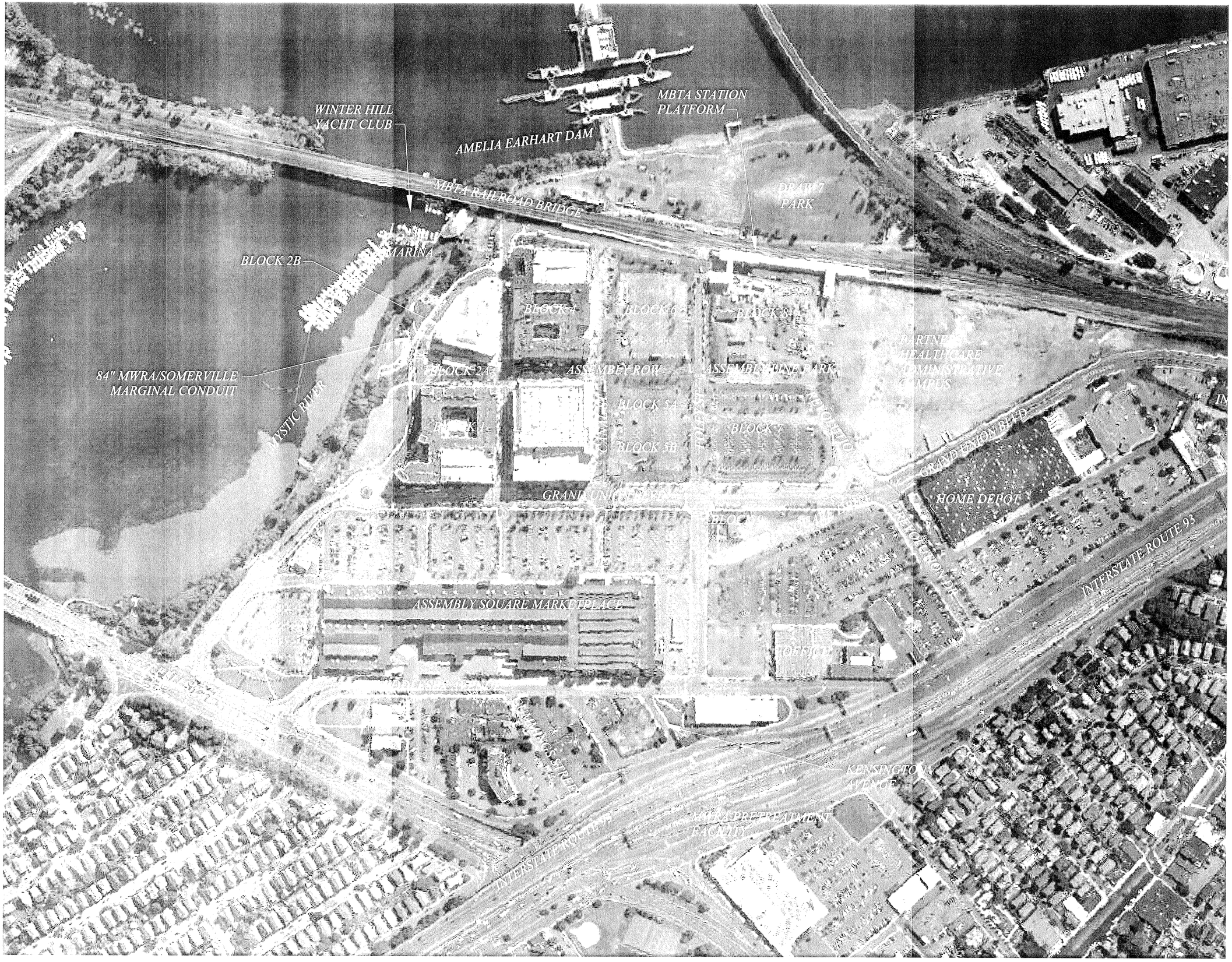
Drawing Number
C-1

Sheet 1 of 11

Project Number
08518.05

COMMONWEALTH OF MASSACHUSETTS
DALE A. HORSMAN, JR
CIVIL
No. 51803
REGISTERED PROFESSIONAL ENGINEER
2/22/2017

Saved Wednesday, January 18, 2017 1:25:14 PM PMARA Plotted Tuesday, February 21, 2017 7:29:14 PM Meegan, Daniel



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Block 5B

Assembly Row
Somerville, Massachusetts

No.	Revision	Date	Appvd

Designed by PTM | Checked by DH

Issued for: Local Approvals

Date: February 22, 2017

Drawing Title: Neighborhood Context Map 1

Drawing Number: C-2.1

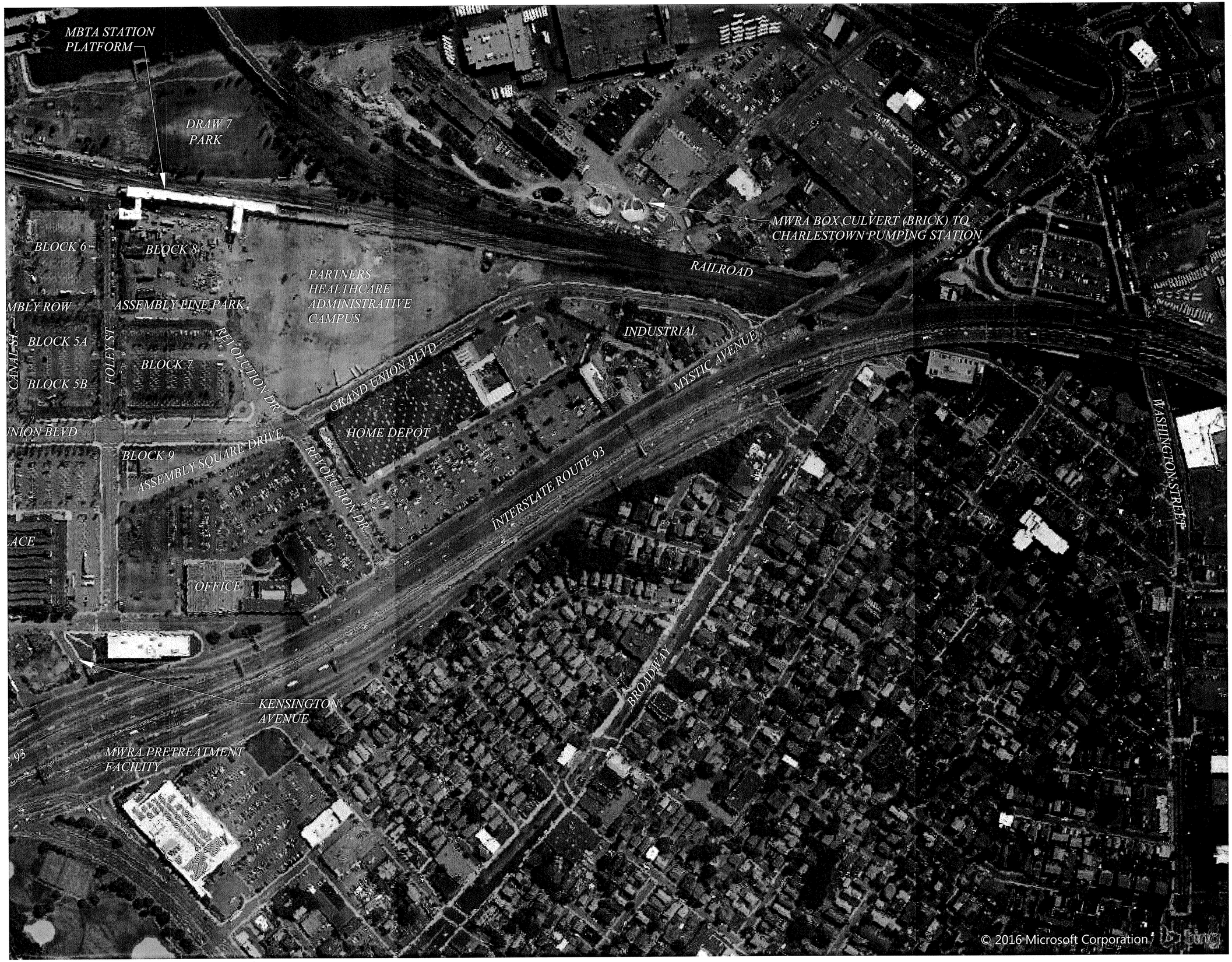
Sheet 2 of 11

Project Number: 08518.05

DALE A. HORSMAN, 6 CIVIL No. 51763 REGISTERED PROFESSIONAL ENGINEER COMMONWEALTH OF MASSACHUSETTS

2/22/2017

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Block 5B

Assembly Row
Somerville, Massachusetts

No.	Revision	Date	Appvd.

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Date: February 22, 2017

Drawing Title
Neighborhood Context Map 2

Drawing Number
C-2.2

Sheet 3 of 11

Project Number
08518.05

COMMONWEALTH OF MASSACHUSETTS
DALE A. HORSMAN, II
CIVIL
No. 51503
REGISTERED PROFESSIONAL ENGINEER
2/22/2017

Saved Wednesday, December 28, 2016 1:38:22 PM PMARA Plotted Tuesday, February 21, 2017 7:29:32 PM Meagan, Daniel

Parking Summary Chart

Description	Size Required	Size Provided	Office Required	Retail Required	Restaurant Required	Residential Required	Hotel Required	Cinema Required	Health Club Required	Mall Required	Mall Provided
STANDARD SPACES	9' x 18'	9' x 18'	2,763	367	289	1,814	81	57	96	1,038	1,072
STANDARD ACCESSIBLE SPACES*	13' x 18'	14' x 18'	32	6	5	24	3	2	3	17	17
VAN ACCESSIBLE SPACES*	16' x 18'	17' x 18'	7	2	2	5	1	1	1	4	6
TOTAL SPACES			2,802	375	296	1,843	85	60	100	1,059	1,095

* ADA/STATE/LOCAL REQUIREMENTS (MINIMUM)

Mixed Use Area Loading Requirements:

OFFICE:	0 – 10,000 SF	(0)	= 19
	10,001 – 100,000 SF	(1)	
	EACH ADDL. 150,000 SF	(1)	
RETAIL:	0 – 5,000 SF	(0)	= 10
	5,001 – 20,000 SF	(1)	
	20,001 – 35,000 SF	(2)	
	35,001 – 50,000 SF	(3)	
	EACH ADDL. 50,000 SF	(1)	
RESTAURANT:	0 – 4,000 SF	(0)	= 6
	4,001 – 6,000 SF	(1)	
	6,001 – 16,000 SF	(2)	
	16,001 – 40,000 SF	(3)	
	EACH ADDL. 40,000 SF	(1)	
HOTEL:	AS NEEDED		= 1
CINEMA:	AS NEEDED		= 1
HEALTH CLUB:	AS NEEDED		= 1

TOTAL LOADING REQUIRED = 38
TOTAL LOADING PROVIDED = 38

Mixed Use Area Parking Requirements:*

OFFICE	2,801,033 SF x 1 SPACE / 1,000 SF = 2,802
RETAIL	374,707 SF x 1 SPACE / 1,000 SF = 375
RESTAURANT	147,817 SF x 1 SPACE / 500 SF = 296
CINEMA	60,000 SF x 1 SPACE / 1,000 SF = 60
HEALTH CLUB	50,000 SF x 1 SPACE / 500 SF = 100
RESIDENTIAL	1,843 UNITS x 1 SPACE / UNIT = 1,843
HOTEL	170 GUEST ROOMS x 0.5 SPACES/GUEST ROOM = 85

TOTAL PARKING REQUIRED = 5,561
TOTAL PARKING PROVIDED = 8,971

*RETAIL AREA MAY BE RE-ALLOCATED TO OFFICE OR RESIDENTIAL USES AT ANY TIME, SO LONG AS ALSO PERMITTED BY NEW OR MODIFIED APPLICABLE ENTITLEMENTS; NO OTHER USE MAY BE CONVERTED.

RESIDENTIAL AREA MAY BE RE-ALLOCATED TO OFFICE USE AT ANY TIME, SO LONG AS PERMITTED BY NEW OR MODIFIED ENTITLEMENTS; AND

UP TO 400,000 SQUARE FEET OF THE NON-RESIDENTIAL USES (I.E., OFFICE, RETAIL, AND HOSPITALITY) MAY BE RE-ALLOCATED TO RESIDENTIAL USE, BUT NO SOONER THAN 10 YEARS FROM THE DATE THE PUD PLAN IS APPROVED, SO LONG AS PERMITTED BY NEW OR MODIFIED APPLICABLE ENTITLEMENTS.

Mall Parking Requirements:

RETAIL (ZONING)	328,806 SF x 1 SPACE / 1000 SF = 329
BLOCK 10 (MAX. ZONING)	4,500 SF x 1 SPACE / 500 SF = 9
RETAIL (LEASE)	328,806 SF x 3.22 SPACE / 1000 SF = 1,059

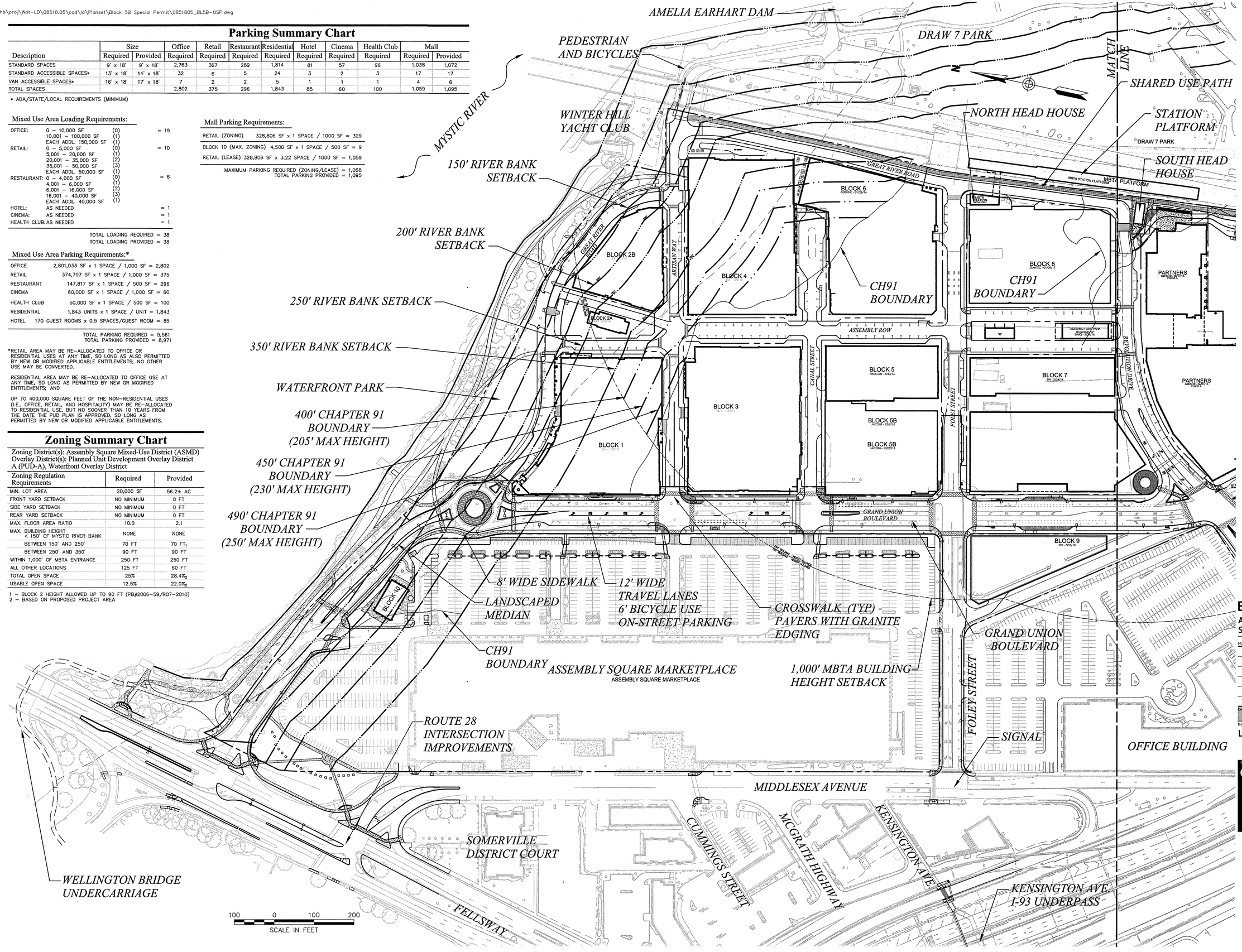
MAXIMUM PARKING REQUIRED (ZONING/LEASE) = 1,068
TOTAL PARKING PROVIDED = 1,095

Zoning Summary Chart

Zoning District(s): Assembly Square Mixed-Use District (ASMD)
Overlay District(s): Planned Unit Development Overlay District
A (PUD-A), Waterfront Overlay District

Zoning Regulation Requirements	Required	Provided
MIN. LOT AREA	20,000 SF	56.2± AC
FRONT YARD SETBACK	NO MINIMUM	0 FT
SIDE YARD SETBACK	NO MINIMUM	0 FT
REAR YARD SETBACK	NO MINIMUM	0 FT
MAX. FLOOR AREA RATIO	10.0	2.1
MAX. BUILDING HEIGHT < 150' OF MYSTIC RIVER BANK	NONE	NONE
BETWEEN 150' AND 250'	70 FT	70 FT[1]
BETWEEN 250' AND 350'	90 FT	90 FT
WITHIN 1,000' OF MBTA ENTRANCE	250 FT	250 FT
ALL OTHER LOCATIONS	125 FT	60 FT
TOTAL OPEN SPACE	25%	28.4%[2]
USABLE OPEN SPACE	12.5%	22.0%[2]

1 – BLOCK 2 HEIGHT ALLOWED UP TO 90 FT (PB#2006-59/R07-2010)
2 – BASED ON PROPOSED PROJECT AREA



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Drawing Title: Overall Site Plan 1

Drawing Number: C-3.1

Sheet 4 of 11

Project Number: 08518.05

COMMONWEALTH OF MASSACHUSETTS
DALE A. HORSMAN, II
CIVIL
No. 51909
REGISTERED PROFESSIONAL ENGINEER
2/22/2017

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DRAW 7 PARK

MATCH LINE

SHARED USE PATH

NORTH HEAD HOUSE

STATION PLATFORM

DRAW 7 PARK

SOUTH HEAD HOUSE

MBTA STATION PLATFORM

MBTA PLATFORM

MBTA ORANGE LINE

MBTA ORANGE LINE

FUTURE POTENTIAL SHARED USE PATH

ASSEMBLY SQUARE GATEWAY

LANDSCAPED MEDIAN

INTERSECTION IMPROVEMENTS

SIDEWALKS ON BOTH SIDES OF GRAND UNION BOULEVARD

SIGNAL

LOMBARDI

LANDSCAPED MEDIAN

HOME DEPOT

12' WIDE TRAVEL LANE

6' WIDE STRIPED SHOULDER FOR BIKE ROUTE

MYSTIC AVE.

SIGNAL

MT. VERNON ST.

BROADWAY

NEW ROAD

SIGNAL

GRAND UNION BOULEVARD

FOLEY STREET

SIGNAL

OFFICE BUILDING

I-93

KENSINGTON AVE.

I-93 UNDERPASS

BLOCK 8

CH91 BOUNDARY

BLOCK 7

BLOCK 9

PARTNERS

PARTNERS

CH91 BOUNDARY

7-STORY PARKING GARAGE

ASSEMBLY LINE PARK

FOLEY STREET

GRAND UNION BOULEVARD

ASSEMBLY SQUARE DR.

N

100 0 100 200

SCALE IN FEET

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Drawing Title

Overall Site Plan 2

Drawing Number

C-3.2

Sheet 5 of 11

Project Number

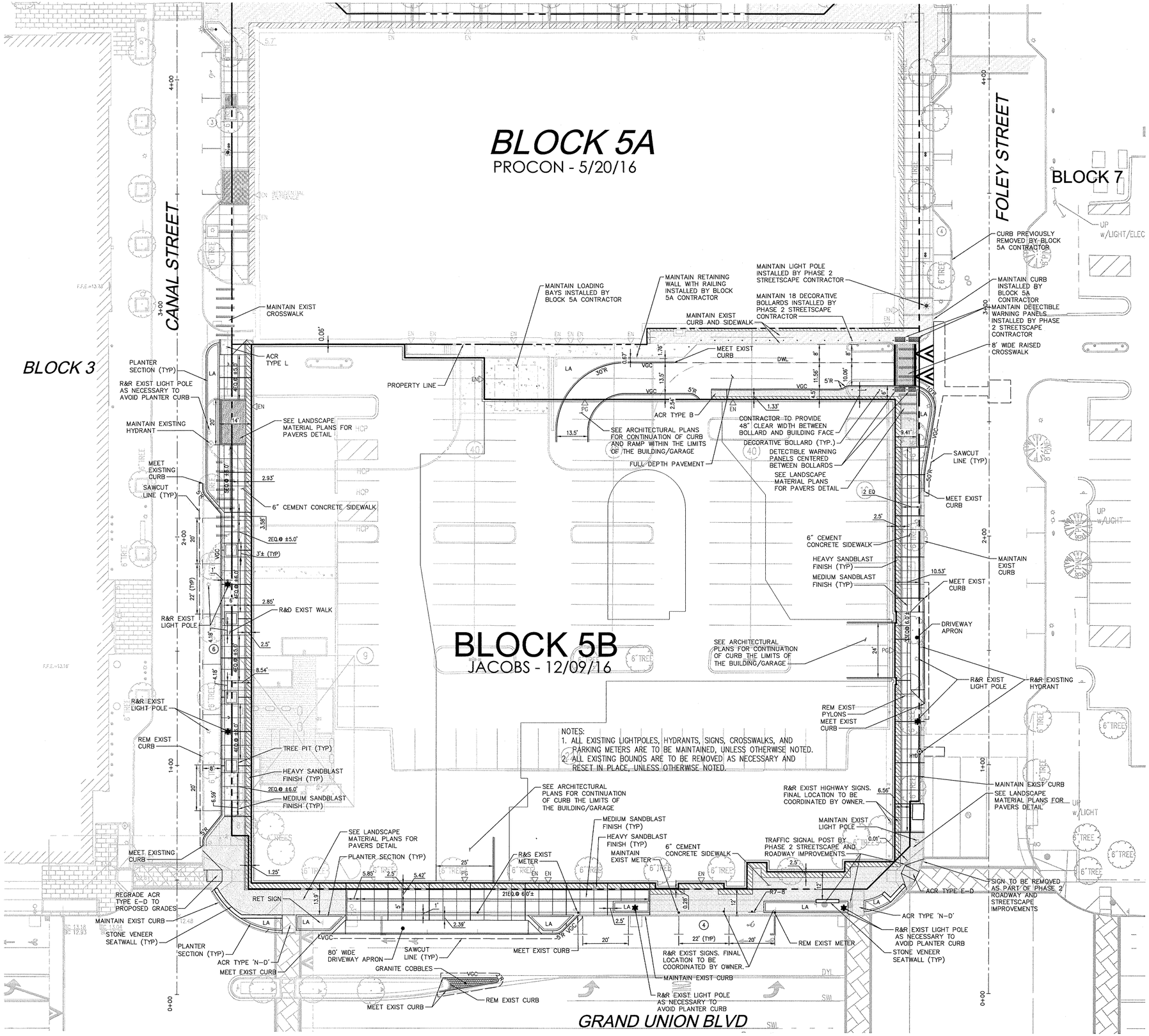
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COMMONWEALTH OF MASSACHUSETTS
DALE A. HORGAN, II
Civil
No. 51513
REGISTERED PROFESSIONAL ENGINEER

2/22/2017

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Sign Summary

M.U.T.C.D. Number	Specification		Desc.
	Width	Height	
R7-8	12"	18"	RESERVED PARKING

Zoning Summary Chart

Zoning District(s): Assembly Square Mixed-Use District (ASMD)
Overlay District(s): Planned Unit Development Overlay District A (PUD-A)

Zoning Regulation Requirements	Required	Provided
MIN. LOT AREA (PROJECT AREA)	20,000 SF	71,952 SF
FRONTAGE (GRAND U. BLVD)	–	270.59 FT
FRONT YARD SETBACK (GRAND U. BLVD)	NO MINIMUM	0.28 FT
SIDE YARD SETBACK (LEFT)	NO MINIMUM	0.01 FT
SIDE YARD SETBACK (RIGHT)	NO MINIMUM	1.25 FT
REAR YARD SETBACK	NO MINIMUM	0.06 FT
MAX. FLOOR AREA RATIO	10.0	7.51
BUILDING HEIGHT	250 FT$_1$	190'–10"
TOTAL OPEN SPACE	25%	28.4%$_2$
USABLE OPEN SPACE	16.4%$_2$	22.0%$_2$

1 – WITHIN 1,000' OF MBTA ENTRANCE
2 – BASED ON PROPOSED PROJECT AREA

Parking Summary Chart

Description	Size		Spaces	
	Required	Provided	Required	Provided
STANDARD SPACES	9'x18'	9'x18'	266	479
STANDARD ACCESSIBLE SPACES *	13'x18'	14'x18'	7	8
VAN ACCESSIBLE SPACES *	16'x18'	18'x18'	2	2
TOTAL SPACES			276	489
LOADING BAYS **	12'x30'x14'	12'x30'x14'	4	2***

* ADA/STATE/LOCAL REQUIREMENTS. REQUIRED ACCESSIBLE SPACES BASED ON TOTAL PROVIDED MALL PARKING. SEE OVERALL SITE PLAN.
**LOADING BAYS (RETAIL BUSINESS USE) 1 BAY PER 5,001 – 20,000 SF
LOADING BAYS (RESTAURANT USE) 2 BAYS PER 6,001 – 16,000 SF
LOADING BAYS (OFFICE USE) (1 BAY PER 10,001 – 100,000 SF) + (1 BAY PER EACH ADDL. 150,000 S.F.)
***WAIVER REQUESTED (SEE SECTION B.1 REQUESTED WAIVERS OF BLOCK 5B SPSR-A)

Parking Requirements

RETAIL USES	MIN:1 SPACE / 1,000 SF (MAX:1 SPACE / 500 SF)
RESTAURANT USES	MIN:1 SPACE / 500 SF (MAX:1 SPACE / 250 SF)
OFFICE USES	MIN:1 SPACE / 1,000 SF (MAX:1 SPACE / 500 SF)
PARKING REQUIRED	(19,821 SF RETAIL x 1 SPACES / 1,000 SF) = 20
	(9,910 SF RESTUARANT x 1 SPACE / 500 SF) = 20
	(237,656 SF OFFICE x 1 SPACE / 1000 SF) = 236
	TOTAL = 276

Bicycle Parking Requirements

NON-RESIDENTIAL	
PARKING REQUIRED*	20 SPACES + 1 SPACE x 289 STANDARD SPACES / 20 SPACES = 35 SPACES
PARKING PROVIDED	36 SPACES

*FOR A REQUIRED STANDARD SPACES OF MORE THAN 200 THE REQUIRED BICYCLE PARKING COUNT IS 20 SPACES + 1 SPACE FOR EVERY 20 PARKING SPACES ABOVE 200

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Drawing Title: Layout and Materials

Drawing Number: C-4

Sheet 6 of 11

Project Number: 08518.05

DALE A. HORSMAN, JR. CIVIL No. 51903 REGISTERED PROFESSIONAL ENGINEER COMMONWEALTH OF MASSACHUSETTS
2/22/2017

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BLOCK 5A
PROCON - 5/20/16

BLOCK 5B
JACOBS - 12/09/16

BLOCK 3

BLOCK 7

CANAL STREET

FOLEY STREET

GRAND UNION BLVD

36" DUCT BANK
20 PIPES

72"RCP STUB
ELEV. INV.=-1.08'

ELEV. INV.=4.07'

DMH #25B
STA. 210+12.17

CONNECT PROPOSED 72" DRAIN LINE TO EXISTING 72" DRAIN LINE (INV=4.05±). CONTRACTOR TO CONFIRM INVERT IS ABOVE EXISTING SPRING LINE PRIOR TO INSTALLATION.

72"RCP INVERT=-7.56'
BOTTOM =-1.03'
72"RCP INVERT=-1.03'
24" INV= 3.90'

PROPOSED GUTTER LINE (TYP.)

MATCH EXISTING GRADE

MEET EXISTING GRADE

CUT AND PLUG EXIST. DRAIN

MAINTAIN EXISTING FILTERA UNIT. RESET COVER TO PROPOSED GRADES

MAINTAIN EXISTING DRAIN LINE

REMOVE EXIST DRAIN LINE WITHIN 10' OF THE BLDG FACE. CONNECT TO EXIST 12" HDPE DRAIN (INV=3.20±)

R&D EXIST CB AND DRAIN LINE

R&D EXIST DMH. REMOVE EXIST DRAIN LINE WITHIN 10' OF THE BLDG FACE. CONNECT TO EXIST 12" RCP DRAIN (INV=7.00±)

CONNECT 4" HDPE UNDERDRAIN TO EXIST CB (INV=9.00±)

4" HDPE UNDERDRAIN (TYP) (INV=9.10±)

SILTSACK SEDIMENT TRAP (TYP)

CONNECT TO EXIST 12" RCP DRAIN STUB (INV=6.80)

CONNECT TO EXIST 12" RCP DRAIN STUB (INV=6.56)

CONNECT TO EXIST 12" RCP DRAIN STUB (INV=6.20)

MAINTAIN EXIST UNDERDRAIN AND ASSOCIATED CLEANOUTS (TYP.)

MAINTAIN EXIST 12" RCP DRAIN LINE TO BEYOND PROPOSED BUILDING FOOTPRINT

R&D EXIST DRAIN LINE & DMH WITHIN BLDG FOOTPRINT

R&D EXIST DRAIN LINE & DMH WITHIN BLDG FOOTPRINT

MAINTAIN EXIST AREA DRAIN

MAINTAIN EXIST RAIN GARDEN

MAINTAIN EXIST UNDERDRAIN AND ASSOCIATED CLEANOUTS (TYP)

TOP OF RAMP

DMH #28
STA. 33+42.85
LEFT 22.2'
R=12.50'
12" INV IN= 8.4'
12" INV OUT= 8.2'
BOTTOM ELEV=6.63'

DMH #25a
STA. 207+94.04
RIGHT 2.96'
R=12.78'
72"INV=-0.21'
72"INV=-0.21'
18" INV=5.48'
12" INV=7.67'
BOTTOM ELEV=-0.21'

DMH #29
STA. 207+52.19
RIGHT 3.40'
R=12.57'
72"OPENING TO MH 28=-0.10'
72"INV TO MH 25a=-0.10'
42" INV TO MH 24=-0.10'
42" OPENING TO EXIST 42"RCP=-0.10'
BOTTOM ELEV=-0.10'

CB #6
STA. 207+87.52
LEFT 27.56'
BOTTOM=5.40'

CB 6
STA. 33+43.2
LEFT 31.2'
12" RCP=8.47'

CB F7
STA. 207+68.6
RIGHT 20.10'
RIM=12.77'
12" DIP=8.82'

DRAIN STUB
STA. 208+17.8
RIGHT 36.5'
INV=6.0'

DMH-1
DMH-2
DMH-3
CB-4

TD-1 R=10.71' I=5.70' (OUT)
WQU-1 (450) R=11.40' I=6.60 I=6.50 TD-1 (OUT)

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Drawing Title
Grading, Drainage and Erosion Control Plan

Drawing Number
C-5

Sheet 7 of 11

Project Number
08518.05

COMMONWEALTH OF MASSACHUSETTS
DALE A. HORSMAN, III
CIVIL
No. 51903
REGISTERED PROFESSIONAL ENGINEER
2/22/2017

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BLOCK 5A
PROCON - 5/20/16

BLOCK 5B
JACOBS - 12/09/16

CANAL STREET

FOLEY STREET

BLOCK 3

BLOCK 7

GRAND UNION BLVD

6 PIPES — 12" DUCT BANK

18" DUCT BANK 4 PIPES

24" DUCT BANK 6 PIPES

36" DUCT BANK 20 PIPES

29" DUCT BANK 10 PIPES

MAINTAIN EXIST UNDERDRAIN AND ASSOCIATED CLEANOUTS (TYP)

CONNECT TO EXIST 12" RCP DRAIN STUB (INV=6.82)

CONNECT TO EXIST 12" RCP DRAIN STUB (INV=6.80)

CONNECT TO EXIST 12" RCP DRAIN STUB (INV=6.56)

EXIST SEWER PREVIOUSLY REMOVED BY OTHERS

MAINTAIN EXIST 12" RCP DRAIN LINE TO BEYOND PROPOSED BUILDING FOOTPRINT

CONNECT TO EXIST 12" RCP DRAIN STUB (INV=6.20)

RESIDENTIAL ENTRANCE

MAINTAIN ALL EXIST. LIGHT POLES ALONG CANAL STREET (TYP.)

8" DIP FIRE PROTECTION INSTALLED BY PROCON

PROCON CONNECTED DIP WATER LINE TO EXIST 8" DIP WATERLINE WITH TAPPING SLEEVE AND GATE VALVE

RELOCATE EXIST WATER VALVE

CONNECT TO EXIST WATER LINE

MAINTAIN EXIST 8" PVC SEWER LINE AND SMH

CONNECT TO EXISTING SEWER LINE

INSTALL NEW WATER SERVICE WITH 45° BENDS

R&D EXIST HAND HOLE

R&D EXIST SMH; CONNECT TO EXIST 8" PVC SEWER (INV=1.90±)

EXIST ELECTRIC LINE TO BE ABANDONED

MAINTAIN EXISTING HYDRANT

R&R EXIST LIGHT POLE AS NECESSARY TO AVOID PLANTER CURB

ABANDON AND REMOVE EXIST WATER AS NECESSARY

RELOCATE EXIST 1-1/2" TYPE K COPPER TUBING

TEMPORARY 36" WATER SERVICE FOR CONSTRUCTION TRAILER

INSTALL 3" CURB STOP

R&D EXIST CB AND DRAIN LINE

R&D EXIST DMH; REMOVE EXIST DRAIN LINE WITHIN 10' OF THE BLDG FACE. CONNECT TO EXIST 12" RCP DRAIN (INV=7.00±)

CONNECT 4" HDPE UNDERDRAIN TO EXIST CB (INV=9.00±)

R&R EXIST LIGHT POLE

4" HDPE UNDERDRAIN (TYP) (INV=9.10±)

R&R EXIST LIGHT POLE

CUT AND REMOVE EXIST SEWER WITHIN 10' OF BLDG FACE. CONNECT TO EXIST 8" PVC SEWER (INV=1.25±)

MAINTAIN EXIST WATER LINE AND WATER METER MANHOLE

MAINTAIN EXIST SANITARY SEWER LINES AND STRUCTURES

MAINTAIN EXIST STORM DRAIN LINES AND STRUCTURES

SEWER STUB TO MH#27

20" W STUB STA. 28+92 LEFT 65.6' INV=3.76'

TOP=4.50' TOR=1.70'

TOP CAP=12.09'

12" PVC

TOP CAP=9.52'

TOP PIPE WG=10.37 (NO CAP)

CONNECT TO EXIST 8" DIP WATER LINE

45° BEND

6" FIRE

ELEC DUCTBANK ABOVE TEL/COMM DUCTBANK

BLOCK 5A TEL/COMM SERVICE (16-4" PVC TEL/COMM CONDUITS)

BLOCK 5A ELEC SERVICE (8-5" PVC ELEC CONDUITS)

BLOCK 5A ELEC SERVICE (8-5" PVC ELEC CONDUITS)

BLOCK 5A TEL/COMM SERVICE (16-4" PVC TEL/COMM CONDUITS)

R&D EXIST DRAIN LINE & DMH WITHIN BLDG FOOTPRINT

MAINTAIN EXIST UGE AND UGT DUCTBANKS

6'6"x8'10" INSTAR/VERSOURCE M1204 SWH

8" DIP INSTALLED BY PROCON

CONNECT TO EXIST ELECTRIC MANHOLE

GAS SERVICE (SEE MEP PLANS)

EXIST 15" PVC SEWER MAIN

6" DIP RESIDENTIAL WATER LINE INSTALLED BY PROCON

TEMPORARY ELEC SERVICE TRANSFORMER 1600 A 750-1000kVa 480V 3 PHASE

6" DIP HOTEL DOMESTIC INSTALLED BY PROCON

TEMP ELEC SERVICE PVC CONDUITS

R&D EXIST DRAIN LINE & DMH WITHIN BLDG FOOTPRINT

CONNECT TO EXIST GAS LINE

CONNECT TO EXIST 20" WATER LINE

APPROX LOCATION OF EXIST GAS LINE. CONTRACTOR TO CONFIRM LOCATION PRIOR TO CONSTRUCTION.

CONNECT PROPOSED 12" DRAIN LINE TO EXISTING 72" DRAIN LINE (INV=4.05±). CONTRACTOR TO CONFIRM INVERT IS ABOVE EXISTING SPRING LINE PRIOR TO INSTALLATION.

INSTALL NEW VERIZON CONDUIT FROM EXISTING MANHOLE

INSTALL NEW WIFI, RCN, AND COMCAST CONDUITS FROM EXISTING MANHOLE

SMH #6b STA. 210+30.3 w/LIGHT, GAS & ELEC. METER

8"PVC OUT=-0.08

8"PVC IN=-0.21'

8"PVC IN=-0.31'

72"RCP STUB ELEV. INV.=-1.08'

ELEV. INV.=4.07'

DMH #25B STA. 210+12.17

SMH #6C STA. 209+85.8 LEFT 3.5' R=13.00'

15"PVC IN=-1.77'

15"PVC OUT=-1.75'

8"PVC IN=3.22'

8"PVC DROP IN=-0.84'

CONNECT TO EXIST STA. 209+8 LEFT 13

8" SEWER STUB STA. 209+88

INV=1.27'

8"D

TYPE A-2 (TYP)

TSV

TID-1 R=10.71 I=6.70' (OUT)

WQU-1 (450) R=11.40 I=6.60 I=6.50 TID-1 (OUT)

REFER TO MEP PLANS FOR CONTINUATION OF WATER LINE AND UGE WITHIN THE BLDG FOOTPRINT

REFER TO MEP PLANS FOR CONTINUATION OF UGT WITHIN THE BLDG FOOTPRINT

REMOVE EXIST TEMP TRANSFORMER AND SWITCHES. CONTRACTOR TO CONFIRM THAT THE POWER TO BLOCK 5A HAS BEEN REROUTED PRIOR TO REMOVAL

PROP TELECOM MANHOLE (SEE MEP PLANS)

RELOCATED TRANSFORMER AND CONTROLMETER CABINETS

SEE SITE ELECTRICAL PLAN FOR NUMBER AND SIZE OF CONDUITS

CONNECT CONTAINER VILLAGE ELECTRIC POWER TO RELOCATED TRANSFORMER AND POWER TO THE CONTAINER VILLAGE DURING THE POWER CABINET. CONTRACTOR TO MAINTAIN RELOCATION.

TEMPORARY 4" SEWER FOR CONSTRUCTION TRAILER, INV OUT =9.00

TEMPORARY CONSTRUCTION TRAILER

72" OPENING TO MH 28=-0.10'

72"INV TO MH 25a=-0.10'

42" INV TO MH 24=-0.10'

42" OPENING TO EXIST 42"RCP=-0.10'

BOTTOM ELEV=-0.10'

RAIN GARDEN 5B

REMOVE EXIST DRAIN LINE WITHIN 10' OF THE BLDG FACE. CONNECT TO EXIST 12" HDPE DRAIN (INV=3.20±)

TRAFFIC SIGNAL POST BY PHASE 2 STREETSCAPE AND ROADWAY IMPROVEMENTS

42" DRAIN PIPE

WQU #3 STA. 12+41.6 LEFT 9.5' TOP CONC. 6.89' 8" OUT=1.81 18" INLET=2.01

DRAIN STUB INV = 4.75

MAINTAIN EXIST UNDERDRAIN AND ASSOCIATED CLEANOUTS (TYP)

CONNECT TO EXIST 20" DIP WATER LINE

R&R EXIST LIGHT POLE AS NECESSARY TO AVOID PLANTER CURB

DMH #25 STA. 32+33.4 LEFT 20.8'

NEW WG EL.=11.56'

NEW WG EL.=11.36'

NEW HYDRANT

R&R EXISTING HYDRANT AND WATER GATE

R&R EXIST LIGHT POLE

CONNECT TO EXIST 20" WATER LINE

MAINTAIN EXISTING FILTERA UNIT, RESET COVER TO PROPOSED GRADES

MAINTAIN EXISTING DRAIN LINE

CUT AND PLUG EXIST DRAIN

R&R EXIST LIGHT POLE AS NECESSARY TO AVOID PLANTER CURB

APPROX LOCATION OF EXIST GAS LINE

DMH #25c STA. 207+94.04 RIGHT 0.96' R=12.78'

72" INV=-0.21'

72" INV=-0.21'

18" INV =5.48'

12" INV=8.35'

12" INV=7.67'

BOTTOM ELEV=-0.21'

18" DRAIN STUB STA. 208+17.8 RIGHT 36.5' INV=6.0'

CB F7 STA. 207+64.6 RIGHT 20' INV=12.77'

12" DIP=8.82'

ELEC. STUB STA. 33+59 LEFT 48' TOR=8.72'

LENGTH=79'± 10-5" PIPES

TELE. STUB STA. 33+59 LEFT 48' TOR=8.72'

DMH #28 STA. 33+42.85 LEFT 22.24' R=12.50'

212" DUCTBANK 4 PIPES INV OUT= 8.2' BOTTOM ELEV=0.03'

CB 27 STA. 33+43.2 LEFT 31.1'

12" RCP=8.47'

TOP CAP=12.47'

TOP CAP=12.11'

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Drawing Title
Utility Plan

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C-6

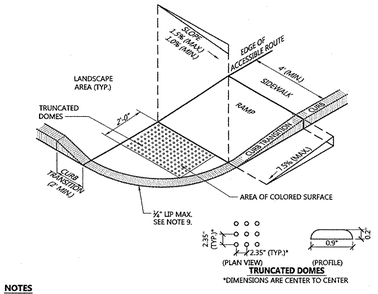
Sheet 8 of 11

Project Number
08518.05

DALE A. HORSMAN, II CIVIL No. 51601 REGISTERED PROFESSIONAL ENGINEER COMMONWEALTH OF MASSACHUSETTS
2/22/2017

Saved Tuesday, February 21, 2017 7:29:23 PM DWEEGAN Plotted Tuesday, February 21, 2017 7:57:35 PM Meegan, Daniel

\\vhb\proj\Wat-LD\08518.05\cad\id\Planset\Block 5B Special Permit\0851805_BL5B-DT.dwg



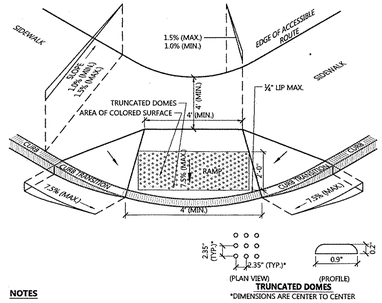
NOTES

1. THE MAXIMUM ALLOWABLE SIDEWALK AND CURB RAMP CROSS SLOPES SHALL BE 1.5 (1% MIN.).
2. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE EXCLUDING CURB RAMPS SHALL BE 5%.
3. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE AT CURB RAMPS SHALL BE 7.5%.
4. A MINIMUM OF 3 FEET CLEAR SHALL BE MAINTAINED AT ANY PERMANENT OBSTACLE IN ACCESSIBLE ROUTE (I.E., HYDRANTS, UTILITY POLES, TREE WELLS, SIGNS, ETC.).
5. CURB TREATMENT VARIES, SEE PLANS FOR CURB TYPE.
6. RAMP, CURB AND ADJACENT PAVEMENTS SHALL BE GRADED TO PREVENT PONDING.
7. SEE TYPICAL SIDEWALK SECTION FOR RAMP CONSTRUCTION.
8. WHERE ACCESSIBLE ROUTES ARE LESS THAN 5' IN WIDTH (EXCLUDING CURBING) A 5' x 5' PASSING AREA SHALL BE PROVIDED AT INTERVALS NOT TO EXCEED 200 FEET.
9. ELIMINATE CURBING AT RAMP WHERE IT ABUTS ROADWAY, EXCEPT WHERE VERTICAL CURBING IS INDICATED ON THE DRAWINGS TO BE INSTALLED AND SET FLUSH.
10. DETECTABLE WARNINGS SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES.
11. DETECTABLE WARNINGS SHALL BE INSTALLED PERPENDICULAR TO THE ACCESSIBLE ROUTE.
12. CONTRACTOR TO SUBMIT R.F.I. FOR THIS TYPE OF ACCESSIBLE CURB RAMP FOR APEX ROADWAY CROSSINGS.

Accessible Curb Ramp (ACR) - Type 'B-D'

1/16

N.T.S. Source: VHB LD_501



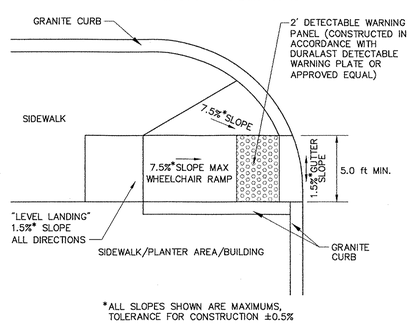
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5. CURB TREATMENT VARIES, SEE PLANS FOR CURB TYPE.
6. RAMP, CURB AND ADJACENT PAVEMENTS SHALL BE GRADED TO PREVENT PONDING.
7. SEE TYPICAL SIDEWALK SECTION FOR RAMP CONSTRUCTION.
8. WHERE ACCESSIBLE ROUTES ARE LESS THAN 5' IN WIDTH (EXCLUDING CURBING) A 5' x 5' PASSING AREA SHALL BE PROVIDED AT INTERVALS NOT TO EXCEED 200 FEET.
9. ELIMINATE CURBING AT RAMP WHERE IT ABUTS ROADWAY, EXCEPT WHERE VERTICAL CURBING IS INDICATED ON THE DRAWINGS TO BE INSTALLED AND SET FLUSH.
10. DETECTABLE WARNINGS SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES.
11. DETECTABLE WARNINGS SHALL BE INSTALLED PERPENDICULAR TO THE ACCESSIBLE ROUTE.
12. CONTRACTOR TO SUBMIT R.F.I. FOR THIS TYPE OF ACCESSIBLE CURB RAMP FOR APEX ROADWAY CROSSINGS.

Accessible Curb Ramp (ACR) Type 'E-D'

1/16

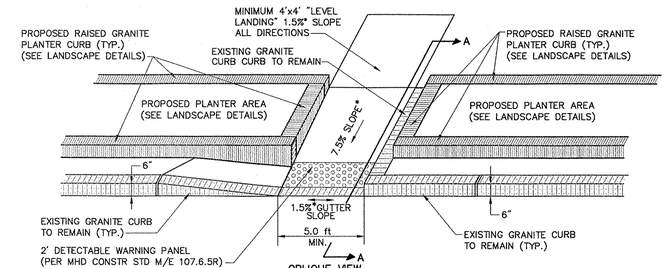
N.T.S. Source: VHB LD_504



Accessible Curb Ramp (ACR) Type 'L-D'

4/03

N.T.S. Source: VHB WRC-04



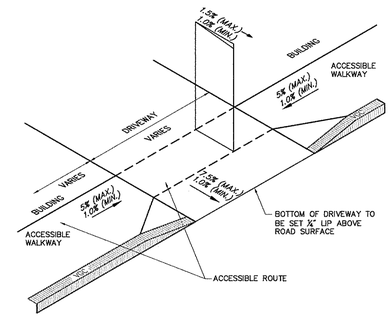
NOTES

1. THE MAXIMUM ALLOWABLE SIDEWALK AND CURB RAMP CROSS SLOPES SHALL BE 1.5 (1% MIN.).
2. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE EXCLUDING CURB RAMPS SHALL BE 5%.
3. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE AT CURB RAMPS SHALL BE 7.5%.
4. A MINIMUM OF 3 FEET CLEAR SHALL BE MAINTAINED AT ANY PERMANENT OBSTACLE IN ACCESSIBLE ROUTE (I.E., HYDRANTS, UTILITY POLES, TREE WELLS, SIGNS, ETC.).
5. CURB TREATMENT VARIES, SEE PLANS FOR CURB TYPE.
6. RAMP, CURB AND ADJACENT PAVEMENTS SHALL BE GRADED TO PREVENT PONDING.
7. SEE TYPICAL SIDEWALK SECTION FOR RAMP SECTION CONSTRUCTION.
8. WHERE ACCESSIBLE ROUTES ARE LESS THAN 5' IN WIDTH (EXCLUDING CURBING) A 5' x 5' PASSING AREA SHALL BE PROVIDED AT INTERVALS NOT TO EXCEED 200 FEET.
9. DETECTABLE WARNINGS SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES.
10. DETECTABLE WARNINGS SHALL BE INSTALLED PERPENDICULAR TO THE ACCESSIBLE ROUTE.

Accessible Curb Ramp (ACR) Type 'N-D'

01/17

N.T.S SOURCE: VHB



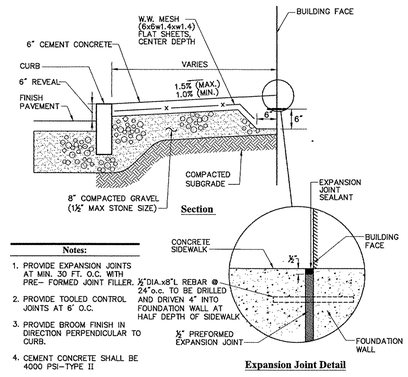
Notes:

1. THE MAXIMUM ALLOWABLE SIDEWALK AND CURB RAMP CROSS SLOPES SHALL BE 1.5 (1% MIN.).
2. THE MAXIMUM ALLOWABLE SLOPE OF ACCESSIBLE ROUTE EXCLUDING CURB RAMPS SHALL BE 5%.
3. RAMP, CURB AND ADJACENT PAVEMENTS SHALL BE GRADED TO PREVENT PONDING.

Typical Driveway Detail with Sidewalk

12/04

N.T.S.



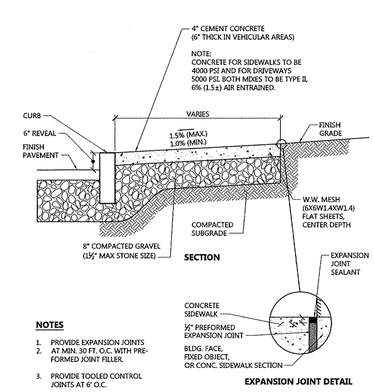
Notes:

1. PROVIDE EXPANSION JOINTS AT MIN. 30 FT. O.C. WITH PRE– FORMED JOINT FILLER.
2. PROVIDE TOOLED CONTROL JOINTS AT 6' O.C.
3. PROVIDE BROOM FINISH IN DIRECTION PERPENDICULAR TO CURB.
4. CEMENT CONCRETE SHALL BE 4000 PSI–TYPE II

Concrete Sidewalk at Building Face

6/08

N.T.S. Source: VHB REV LD_420



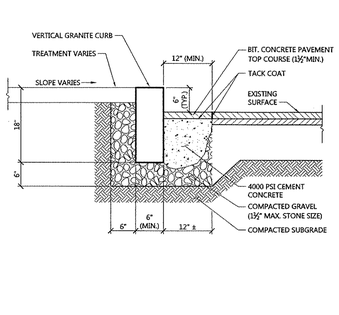
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1. PROVIDE EXPANSION JOINTS AT MIN. 30 FT. O.C. WITH PRE-FORMED JOINT FILLER.
3. PROVIDE TOOLED CONTROL JOINTS AT 6' O.C.
4. PROVIDE BROOM FINISH IN DIRECTION PERPENDICULAR TO CURB.

Concrete Sidewalk

1/16

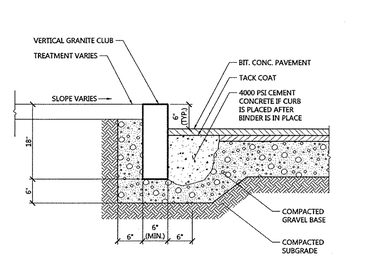
N.T.S. Source: VHB LD_420



Vertical Granite Curb (VGC) Set In Existing Pavement

1/16

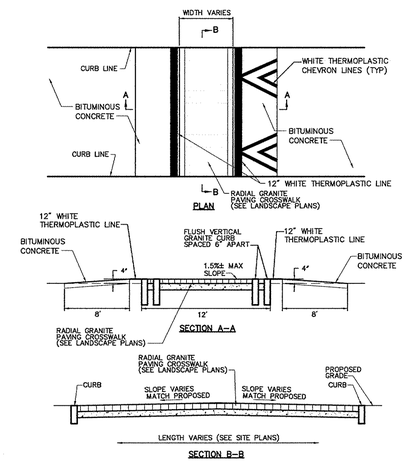
N.T.S. Source: VHB LD_403



Vertical Granite Curb (VGC)

1/16

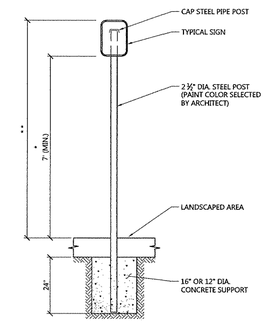
N.T.S. Source: VHB LD_402



Raised Crosswalk

8/10

N.T.S. Source: VHB LD_810



* THIS DIMENSION SHALL BE A MINIMUM OF 5' FOR ACCESSIBLE SIGNAGE.

** THIS DIMENSION SHALL BE A MAXIMUM OF 8' FOR ACCESSIBLE SIGNAGE.

Sign Post - Type 'A'

1/16

N.T.S. Source: VHB LD_701

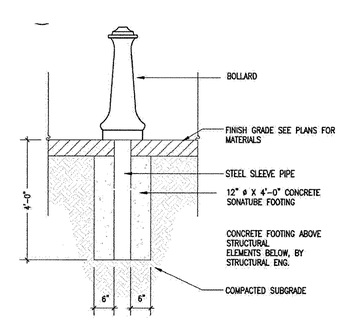
PROPOSED FULL DEPTH PAVEMENT

SURFACE:	4" HOT MIX ASPHALT (2" SURFACE COURSE TYPE B OVER 2" INTERMEDIATE COURSE TYPE B).
	4" HOT MIX ASPHALT BASE COURSE MATERIAL PLACED IN ONE COURSE.
SUB-BASE:	4" DENSE GRADED CRUSHED STONE FOR SUB-BASE OVER
BASE:	8" GRAVEL BORROW, TYPE b.
	BITUMEN FOR TACK COAT (RS-1) AT 0.05 GAL/SY OVER BASE AND BINDER COURSES

Bituminous Concrete Pavement Section

9/16

N.T.S. Source: VHB

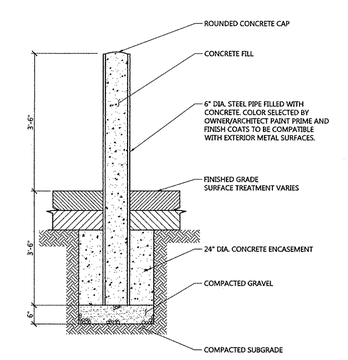


Notes:

DECORATIVE BOLLARDS TO BE MANUFACTURED BY FAIRWEATHER SITE FURNISHINGS, MODEL B–BB SERIES (OR OWNER/ARCHITECT APPROVED EQUIVALENT), WITH A POWDERCOAT FINISH, COLOR TO BE BLACK, AND HAVE AN EMBEDDED MOUNT.

Decorative Bollard

N.T.S. Source: VHB



Bollard

1/16

N.T.S. Source: VHB LD_700

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Block 5B

Assembly Row
Somerville, Massachusetts

No.	Revision	Date	Appvd.

Designed by PTM Checked by DH

Issued for Date

Local Approvals February 22, 2017

Drawing Title

Site Details

Drawing Number

C-7.1

Sheet 9 of 11

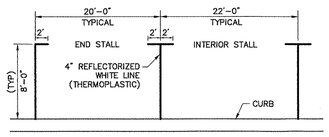
Project Number 08518.05

COMMONWEALTH OF MASSACHUSETTS — DALE A. HORSMAN, II — CIVIL — No. 51760 — REGISTERED PROFESSIONAL ENGINEER

2/22/2017

Saved Wednesday, January 18, 2017 2:02:19 PM PMARA Plotted Tuesday, February 21, 2017 7:38:21 PM Meegan, Daniel

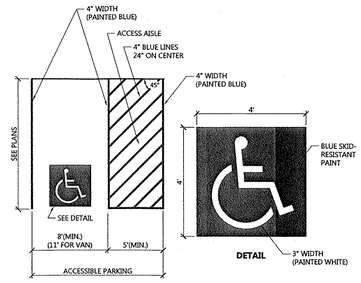
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Parking Stall Markings

4/03

N.T.S. Source: VHB PM-01



DETAIL

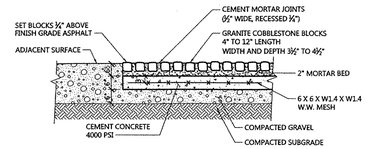
NOTES

1. ALL DIMENSIONS TO EDGES OF 4" PAVEMENT STRIPING.
2. 8' STALL WIDTH REFERS TO 8' CLEAR BETWEEN INSIDE EDGES OF PAVEMENT MARKINGS.
3. ALL SLOPES THROUGHOUT THE ACCESSIBLE PARKING AND AISLE AREAS SHALL NOT EXCEED 1.5%.

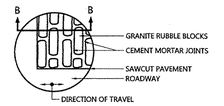
Accessible Parking Space

1/16

N.T.S. Source: VHB LD_552



PARTIAL SECTION B-B

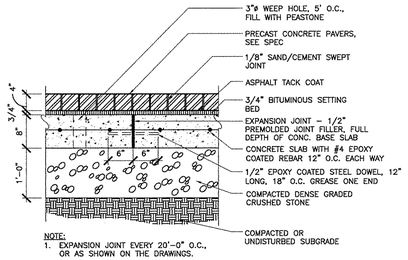


PARTIAL PLAN VIEW

Cobble Paving

1/16

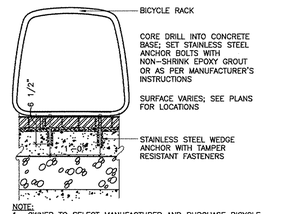
N.T.S. Source: VHB LD_806



NOTE:
1. EXPANSION JOINT EVERY 20'-0" O.C., OR AS SHOWN ON THE DRAWINGS.

UNIT PAVERS ON VEHICULAR BASE

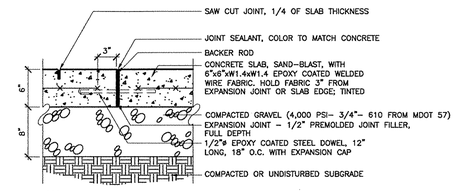
SCALE: 1"=1'-0"



NOTE:
1. OWNER TO SELECT MANUFACTURER AND PURCHASE BICYCLE RACK.
2. THE LOCATION OF SITE FURNITURE SHALL BE STAKED IN THE FIELD AND APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION.

BICYCLE RACK MOUNTING

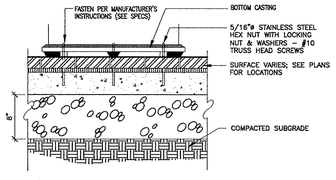
SCALE: 1" = 1'-0"



NOTE:
1. CONTROL JOINTS EVERY 5' O.C. UNLESS OTHERWISE SHOWN ON PLAN.
2. EXPANSION JOINTS EVERY 20' O.C. UNLESS OTHERWISE SHOWN ON PLAN.
3. WHERE NEW CONCRETE MEETS EXISTING CONCRETE, CORE DRILL EXISTING CONCRETE TO RECEIVE STEEL DOWEL.

6" CONCRETE PAVEMENT

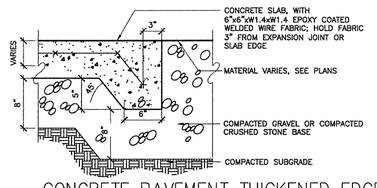
SCALE: 1-1/2"=1'-0"



NOTES:
1. BENCH MANUFACTURER TO PROVIDE ANCHOR TEMPLATE TO CONTRACTOR.
2. OWNER TO SELECT MANUFACTURER AND PURCHASE TRASH RECEPTACLE.
3. THE LOCATION OF SITE FURNITURE SHALL BE STAKED IN THE FIELD AND APPROVED BY THE ENGINEER PRIOR TO CONSTRUCTION.

TRASH RECEPTACLE MOUNTING

SCALE: 1-1/2"=1'-0"



CONCRETE PAVEMENT THICKENED EDGE

SCALE: 1-1/2" = 1'-0"

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Block 5B

Assembly Row
Somerville, Massachusetts

No.	Revision	Date	Appvd.

Designed by PTM Checked by DH

Issued for Date

Local Approvals February 22, 2017

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Drawing Number

C-7.2

Sheet 10 of 11

Project Number 08518.05

COMMONWEALTH OF MASSACHUSETTS
DALE A. HORSMAN, II
CIVIL
No. 51903
REGISTERED PROFESSIONAL ENGINEER

2/22/2017

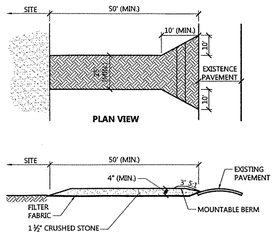
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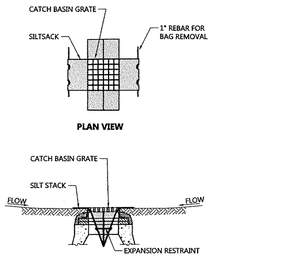


NOTES

1. ENTRANCE WIDTH SHALL BE A TWENTY-FIVE (25) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
2. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH SHALL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY. BERM SHALL BE PERMITTED. PERIODIC INSPECTION AND MAINTENANCE SHALL BE PROVIDED AS NEEDED.
3. STABILIZED CONSTRUCTION EXIT SHALL BE REMOVED PRIOR TO FINAL FINISH MATERIALS BEING INSTALLED.

Stabilized Construction Exit 1/16

N.T.S. Source: VHB LD_682



NOTES

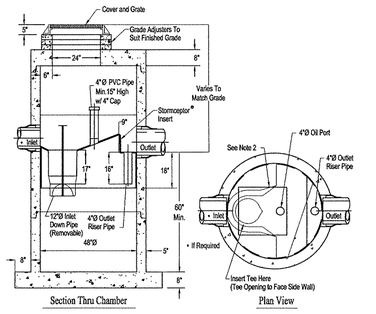
1. INSTALL SILTSACK IN ALL CATCH BASINS WHERE INDICATED ON THE PLAN BEFORE COMMENCING WORK OR IN PAVED AREAS AFTER BINDER COURSE IS PLACED AND HAY BALES HAVE BEEN REMOVED.
2. GRATE TO BE PLACED OVER SILTSACK.
3. SILTSACK SHALL BE INSPECTED PERIODICALLY AND AFTER ALL STORM EVENTS AND CLEANING OR REPLACEMENT SHALL BE PERFORMED PROMPTLY AS NEEDED. MAINTAIN UNTIL UPSTREAM AREAS HAVE BEEN PERMANENTLY STABILIZED

Siltsack Sediment Trap 1/16

N.T.S. Source: VHB LD_674

Rinker MATERIALS Concrete Pipe Division

STC 450i Precast Concrete Stormceptor® (450 U.S. Gallon Capacity)

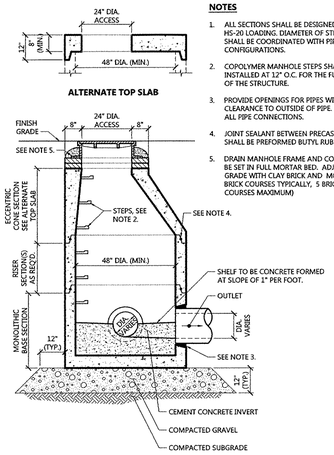


Notes:
1. The Use Of Flexible Connection is Recommended at The Inlet and Outlet Where Applicable.
2. The Cover Should be Positioned Over The Inlet Drop Pipe and The Oil Port.
3. The Stormceptor System is protected by one or more of the following U.S. Patents: #4985148, #5498331, #5725760, #5753115, #5849181, #6068765, #6371690.
4. Contact a Concrete Pipe Division representative for further details not listed on this drawing.

Rinker 027

WQU - Stormceptor 450i (or Approved Equal)

N.T.S. Source: RINKER

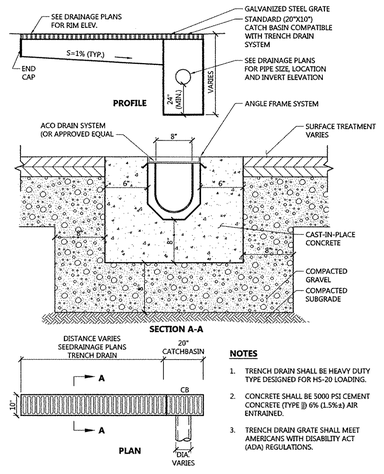


NOTES

1. ALL SECTIONS SHALL BE DESIGNED FOR HS-20 LOADING. DIAMETER OF STRUCTURES SHALL BE COORDINATED WITH PIPE CONFIGURATIONS.
2. COPOLYMER MANHOLE STEPS SHALL BE INSTALLED AT 12" O.C. FOR THE FULL DEPTH OF THE STRUCTURE.
3. PROVIDE OPENINGS FOR PIPES WITH 2" MAX. CLEARANCE TO OUTSIDE OF PIPE. MORTAR ALL PIPE CONNECTIONS.
4. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.
5. DRAIN MANHOLE FRAME AND COVER SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH CLAY BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES MAXIMUM)

Drain Manhole (DMH) 1/16

N.T.S. Source: VHB LD_115

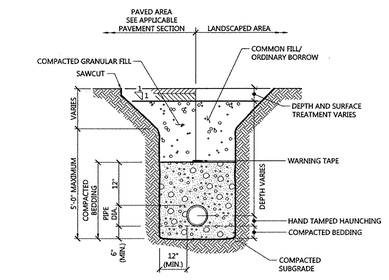


NOTES

1. TRENCH DRAIN SHALL BE HEAVY DUTY TYPE DESIGNED FOR HS-20 LOADING.
2. CONCRETE SHALL BE 5000 PSI CEMENT CONCRETE (TYPE @ 6% (1.5%±) AIR ENTRAINED.
3. TRENCH DRAIN GRATE SHALL MEET AMERICANS WITH DISABILITY ACT (ADA) REGULATIONS.

Trench Drain (Type A) 1/16

N.T.S. Source: VHB LD_190-A

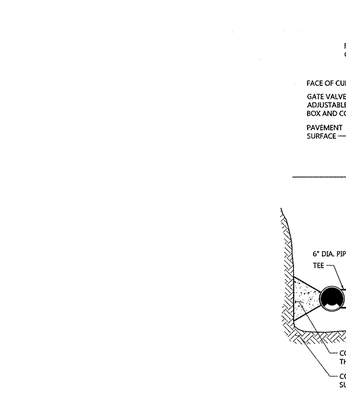


NOTES

1. WHERE UTILITY TRENCHES ARE CONSTRUCTED THROUGH DETENTION BASIN BERMS OR OTHER SUCH SPECIAL SECTIONS, PLACE TRENCH BACKFILL WITH MATERIALS SIMILAR TO THE SPECIAL SECTION REQUIREMENTS.
2. USE METALLIC TRACING/WARNING TAPE OVER ALL PIPES.

Utility Trench 1/16

N.T.S. Source: VHB LD_300

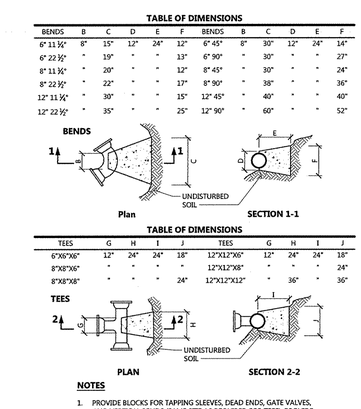


NOTES

1. CONCRETE THRUST BLOCKS TO BE USED ONLY WHERE THEY CAN BEAR ON UNDISTURBED EARTH AS SHOWN. USE CLAMPS AND TIE RODS OR OTHER ACCEPTABLE METHOD OF JOINT RESTRAINT WHERE SOIL CONDITIONS PROHIBIT THE USE OF THRUST BLOCKS.
2. HYDRANT IN SIDEWALK AREAS TO BE LOCATED TO PROVIDE MINIMUM CLEAR SIDEWALK PASSAGE WIDTH OF 3 FEET AT HYDRANT.

Hydrant Construction 1/16

N.T.S. Source: VHB LD 250

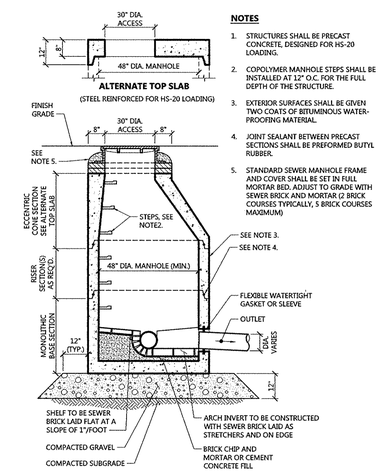


NOTES

1. PROVIDE BLOCKS FOR TAPPING SLEEVES, DEAD ENDS, GATE VALVES, AND VERTICAL BENDS (SAME SIZE AS REQUIRED FOR TEES). PROVIDE ANCHOR RODS AT VERTICAL BENDS AND GATE VALVES.
2. CONCRETE SHALL NOT BE PLACED AGAINST PIPE BEYOND FITTING.
3. CONCRETE SHALL BE 3,000 PSI-TYPE I.

Concrete Thrust Block 1/16

N.T.S. Source: VHB LD 260

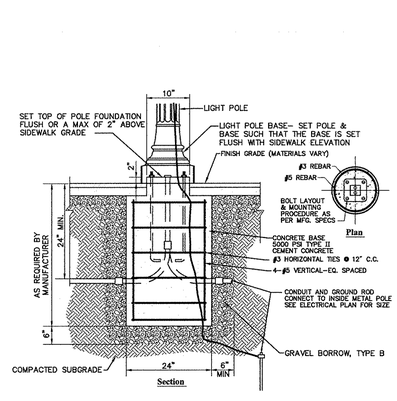


NOTES

1. STRUCTURES SHALL BE PRECAST CONCRETE, DESIGNED FOR HS-20 LOADING.
2. COPOLYMER MANHOLE STEPS SHALL BE INSTALLED AT 12" O.C. FOR THE FULL DEPTH OF THE STRUCTURE.
3. EXTERIOR SURFACES SHALL BE GIVEN TWO COATS OF BITUMINOUS WATER-PROOFING MATERIAL.
4. JOINT SEALANT BETWEEN PRECAST SECTIONS SHALL BE PREFORMED BUTYL RUBBER.
5. STANDARD SEWER MANHOLE FRAME AND COVER SHALL BE SET IN FULL MORTAR BED. ADJUST TO GRADE WITH SEWER BRICK AND MORTAR (2 BRICK COURSES TYPICALLY, 5 BRICK COURSES MAXIMUM)

Sanitary Sewer Manhole (SMH) 1/16

N.T.S. Source: VHB LD 200



Notes:

1. LIGHT POLE FOUNDATION DESIGN IS SUBJECT TO CHANGE BASED ON FINAL POLE AND FIXTURE SELECTION AND GEOTECHNICAL SITE INVESTIGATION.

Light Pole Foundation Detail

N.T.S. Source: VHB

Block 5B

Assembly Row
Somerville, Massachusetts

No.	Revision	Date	Appvd.

Designed by PTM Checked by DH

Issued for Local Approvals

Date February 22, 2017

Drawing Title: Site Details

Drawing Number: C-7.3

Sheet 11 of 11

Project Number: 08518.05

DALE A. HOEHNA, II
CIVIL
No. 53151
REGISTERED PROFESSIONAL ENGINEER
COMMONWEALTH OF MASSACHUSETTS

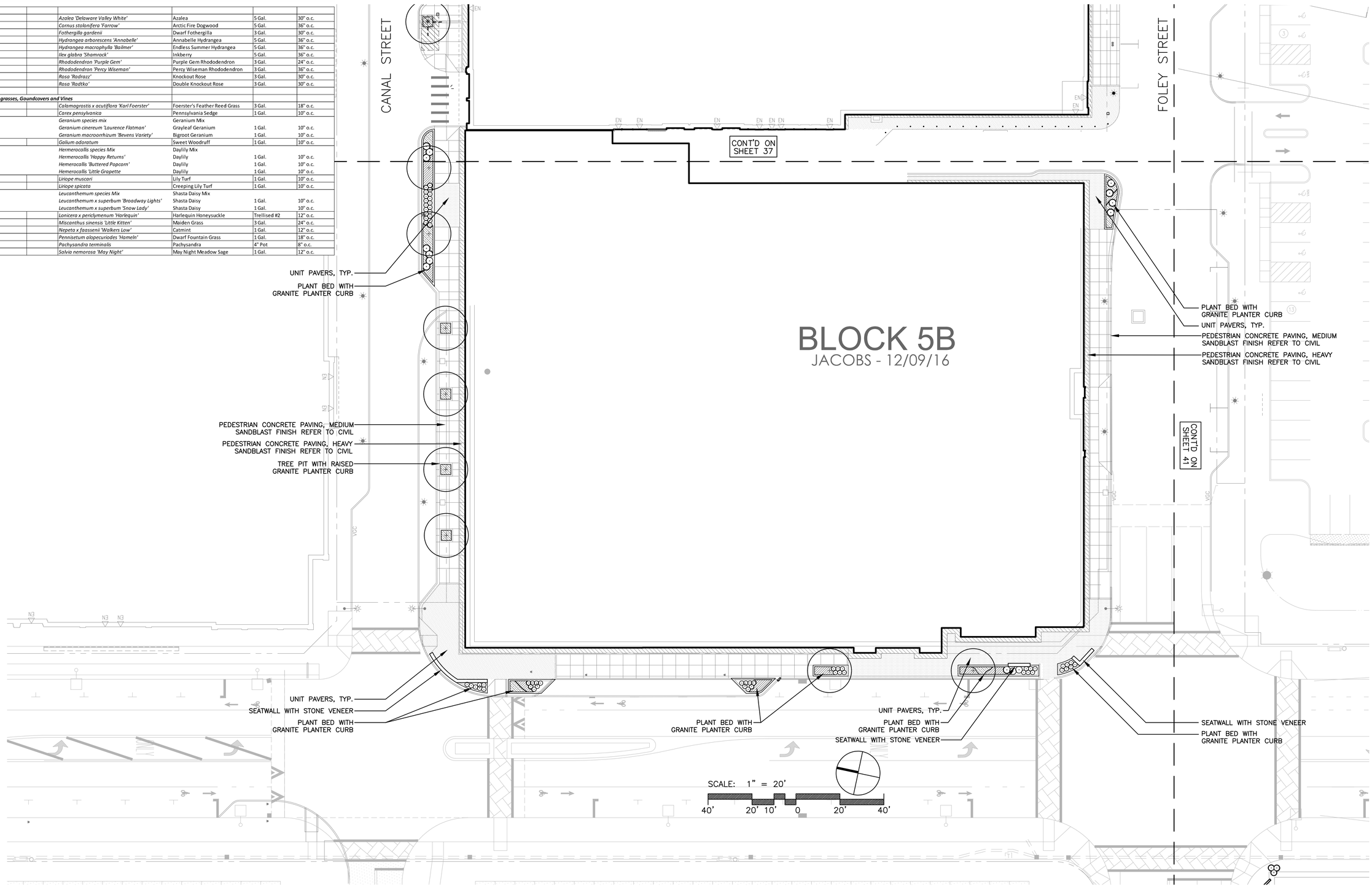
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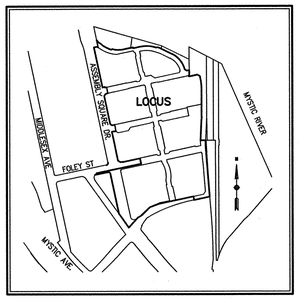
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ASSEMBLY ROW AT ASSEMBLY SQUARE

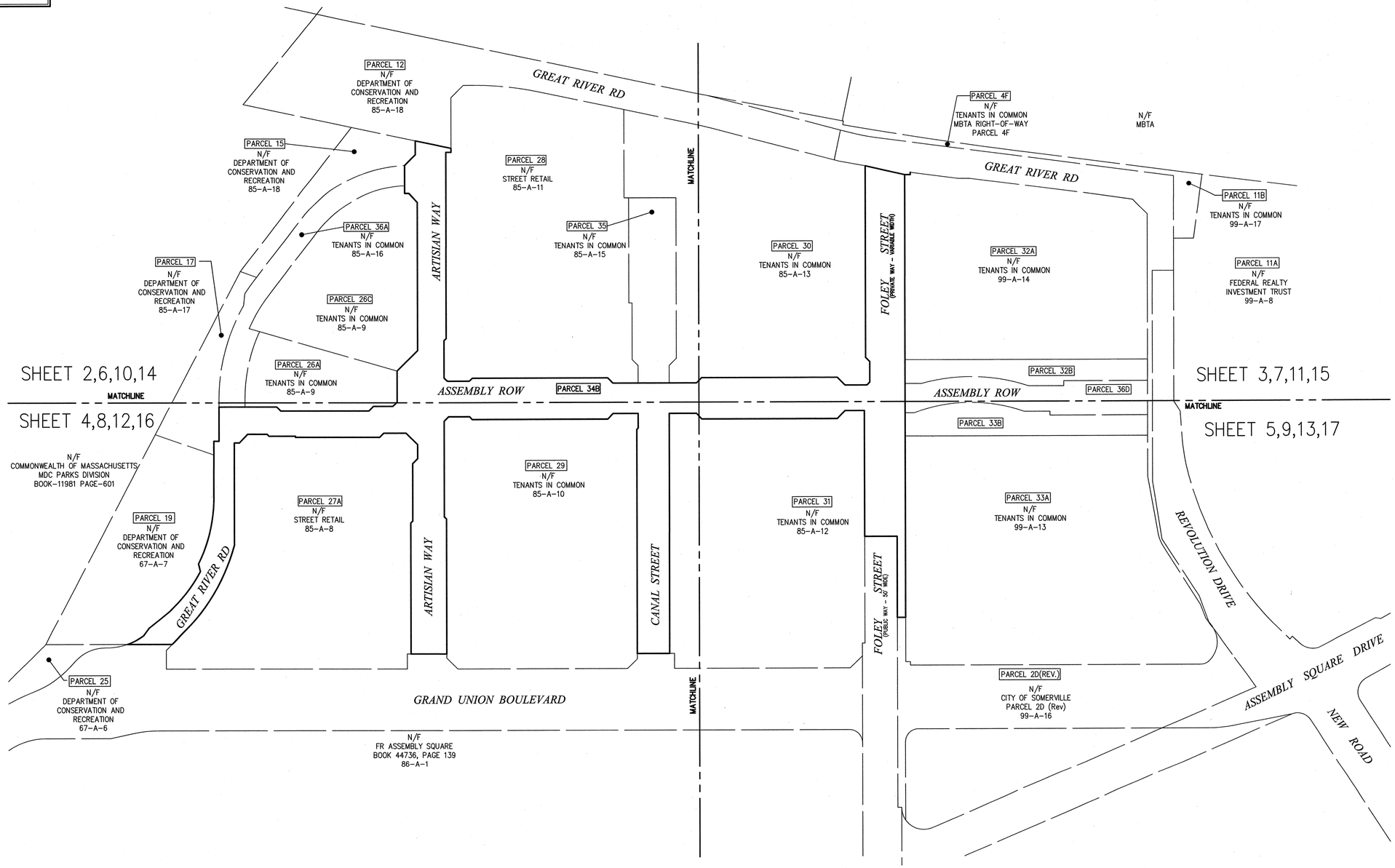
LANDSCAPE MATERIALS PLAN

Symbol	Quantity	Scientific Name	Common Name	Size	Comments
Trees					
ARA		*Acer rubrum 'Armstrong'*	Armstrong Maple	5" - 5 1/2" Cal	B&B Matched
AR		*Acer rubrum'Franksred'*	Red Sunset Maple	4" - 4 1/2" Cal.	B&B Matched
AS		*Acer saccharum 'Commemoration'*	Commemoration Sugar Maple	4" - 4 1/2" Cal.	B&B Matched
GT		*Gleditsia triacanthos 'Shademaster'*	Shademaster Honeylocust	5" - 5 1/2" Cal	B&B Matched
QR		*Quercus rubra*	Red Oak	5" - 5 1/2" Cal	B&B Matched
UA		*Ulmus americana 'Princeton'*	Princeton Elm	5" - 5 1/2" Cal	B&B Matched
Shrubs					
AD		*Azalea 'Delaware Valley White'*	Azalea	5 Gal.	30" o.c.
CS		*Cornus stolonifera 'Farrow'*	Arctic Fire Dogwood	5 Gal.	36" o.c.
FG		*Fothergilla gardenii*	Dwarf Fothergilla	3 Gal.	30" o.c.
HA		*Hydrangea arborescens 'Annabelle'*	Annabelle Hydrangea	5 Gal.	36" o.c.
HM		*Hydrangea macrophylla 'Bailmer'*	Endless Summer Hydrangea	5 Gal.	36" o.c.
IG		*Ilex glabra 'Shamrock'*	Inkberry	5 Gal.	36" o.c.
RPG		*Rhododendron 'Purple Gem'*	Purple Gem Rhododendron	3 Gal.	24" o.c.
RPW		*Rhododendron 'Percy Wiseman'*	Percy Wiseman Rhododendron	3 Gal.	36" o.c.
RRZ		*Rosa 'Radrazz'*	Knockout Rose	3 Gal.	30" o.c.
RRD		*Rosa 'Radtko'*	Double Knockout Rose	3 Gal.	30" o.c.
Perennials, grasses, Goundcovers and Vines					
CA		*Calamagrostis x acutiflora 'Karl Foerster'*	Foerster's Feather Reed Grass	3 Gal.	18" o.c.
CP		*Carex pensylvanica*	Pennsylvania Sedge	1 Gal.	10" o.c.
GM		*Geranium species mix*	Geranium Mix		
		Geranium cinereum 'Laurence Flatman'	Grayleaf Geranium	1 Gal.	10" o.c.
		Geranium macroorrhizum 'Bevens Variety'	Bigroot Geranium	1 Gal.	10" o.c.
GO		*Galium odoratum*	Sweet Woodruff	1 Gal.	10" o.c.
HCM		*Hermerocallis species Mix*	Daylily Mix		
		Hemerocallis 'Happy Returns'	Daylily	1 Gal.	10" o.c.
		Hemerocallis 'Buttered Popcorn'	Daylily	1 Gal.	10" o.c.
		Hemerocallis 'Little Grapette	Daylily	1 Gal.	10" o.c.
LM		*Liriope muscari*	Lily Turf	1 Gal.	10" o.c.
LS		*Liriope spicata*	Creeping Lily Turf	1 Gal.	10" o.c.
LSM		*Leucanthemum species Mix*	Shasta Daisy Mix		
		Leucanthemum x superbum 'Broadway Lights'	Shasta Daisy	1 Gal.	10" o.c.
		Leucanthemum x superbum 'Snow Lady'	Shasta Daisy	1 Gal.	10" o.c.
LXP		*Lonicera x periclymenum 'Harlequin'*	Harlequin Honeysuckle	Trellised #2	12" o.c.
MS		*Miscanthus sinensis 'Little Kitten'*	Maiden Grass	3 Gal.	24" o.c.
NF		*Nepeta x faassenii 'Walkers Low'*	Catmint	1 Gal.	12" o.c.
PE		*Pennisetum alopecuriodes 'Hameln'*	Dwarf Fountain Grass	1 Gal.	18" o.c.
PT		*Pachysandra terminalis*	Pachysandra	4" Pot	8" o.c.
SN		*Salvia nemorosa 'May Night'*	May Night Meadow Sage	1 Gal.	12" o.c.





Locus Map
(NOT TO SCALE)



VHB
Vanasse Hangen Brustlin, Inc.

Transportation
Land Development
Environmental Services

101 Walnut Street, P.O. Box 9151
Watertown, Massachusetts 02471-9151
617 924 1770 • FAX 617 924 2286

Legend

- DRAIN MANHOLE
- CATCH BASIN
- SEWER MANHOLE
- ELECTRIC MANHOLE
- TELEPHONE MANHOLE
- MANHOLE
- HH HAND HOLE
- WATER GATE
- FIRE HYDRANT
- GAS GATE
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- LAT=100' LIMIT MEAN ANNUAL HIGH WATER
- BF1=100' LIMIT OF BANK
- WT1=100' VEGETATED WETLAND BOUNDARY

No.	Revision	Date	Appvd.

Designed by	Drawn by	Checked by
CAD checked by		Approved by
Scale 1"=40'		Date November 6, 2014

Project Title

Assembly Row
Assembly Square
PUD

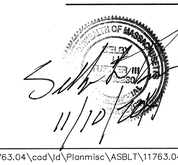
Somerville, Massachusetts

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As Built

Drawing Title

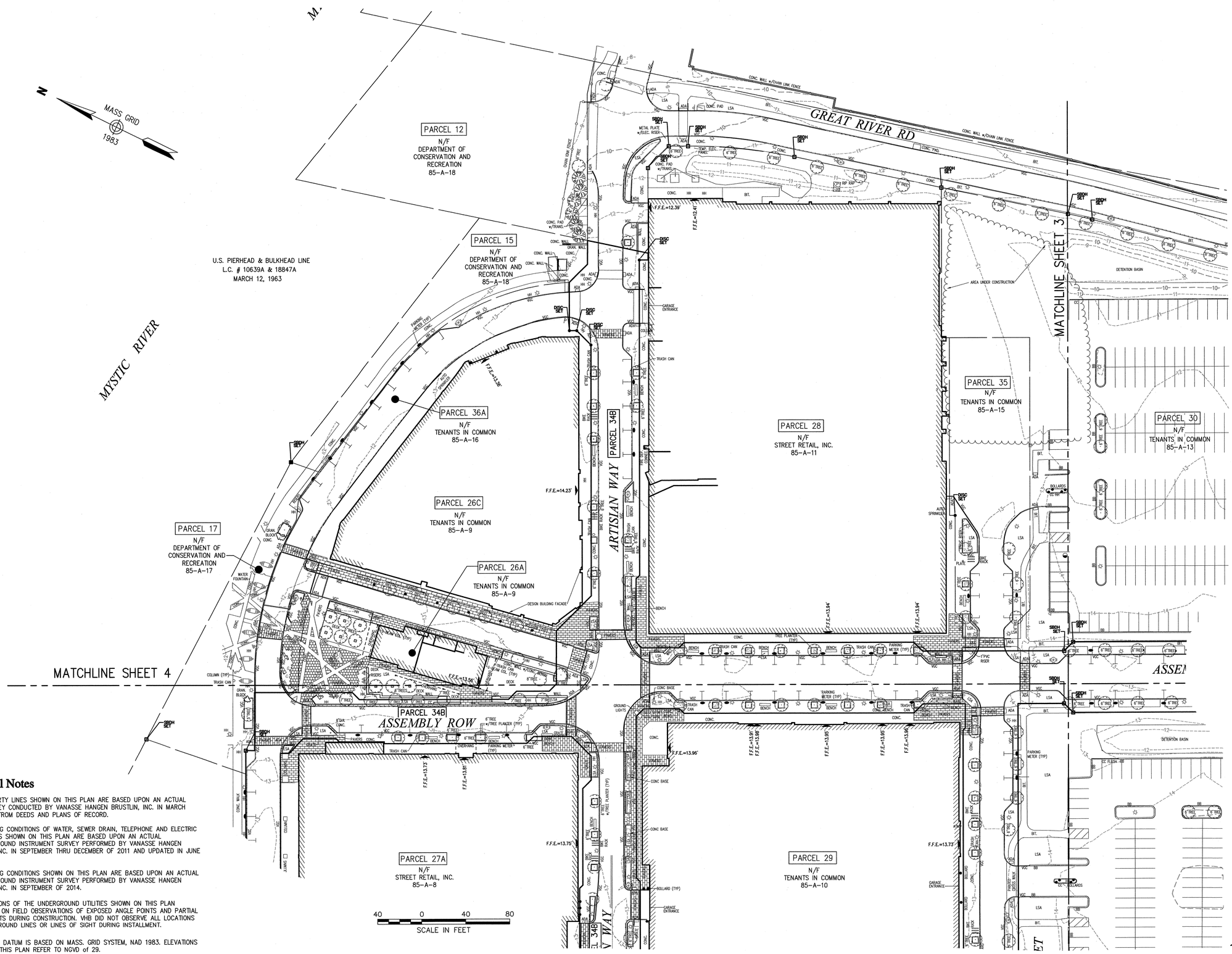
Key Sheet



Drawing Number
Sv-1

Sheet 1 of 17

Project Number
11763.04



General Notes

1. THE PROPERTY LINES SHOWN ON THIS PLAN ARE BASED UPON AN ACTUAL FIELD SURVEY CONDUCTED BY VANASSE HANGEN BRUSTLIN, INC. IN MARCH 2008 AND FROM DEEDS AND PLANS OF RECORD.
2. THE EXISTING CONDITIONS OF WATER, SEWER DRAIN, TELEPHONE AND ELECTRIC DUCT BANKS SHOWN ON THIS PLAN ARE BASED UPON AN ACTUAL ON-THE-GROUND INSTRUMENT SURVEY PERFORMED BY VANASSE HANGEN BRUSTLIN, INC. IN SEPTEMBER THRU DECEMBER OF 2011 AND UPDATED IN JUNE OF 2014.
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CAD checked by	Approved by
Scale 1"=40'	Date November 6, 2014

Project Title

Assembly Row
Assembly Square
PUD

Somerville, Massachusetts

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Drawing Title

Roadway As Built

SEAN TURNER III No. 46256 REGISTERED PROFESSIONAL ENGINEER

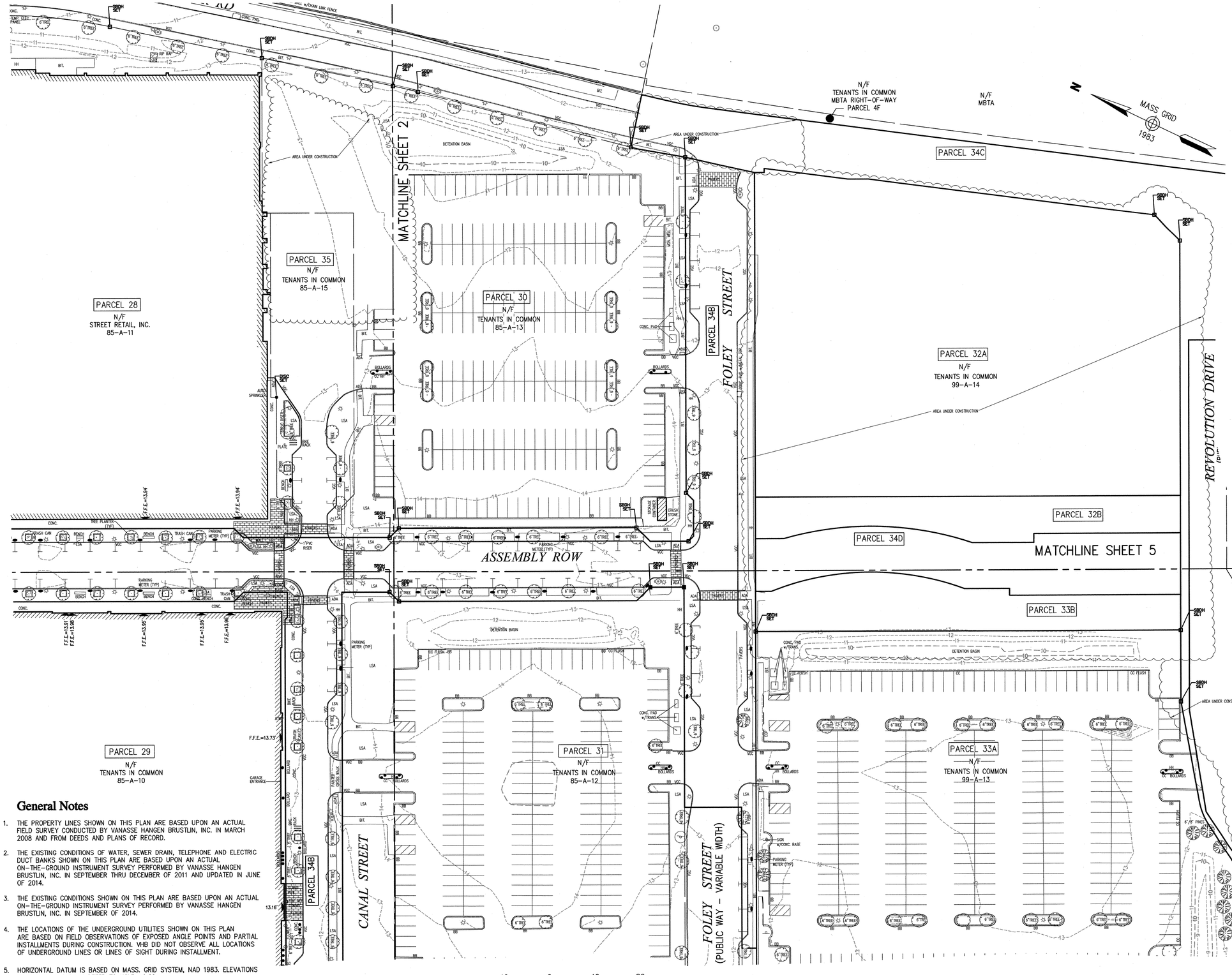
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Sv-2

Sheet of
2 17

Project Number
11763.04

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Scale 1"=40' | Date November 6, 2014

Project Title
Assembly Row
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Drawing Title
Existing Conditions
Plan of Land

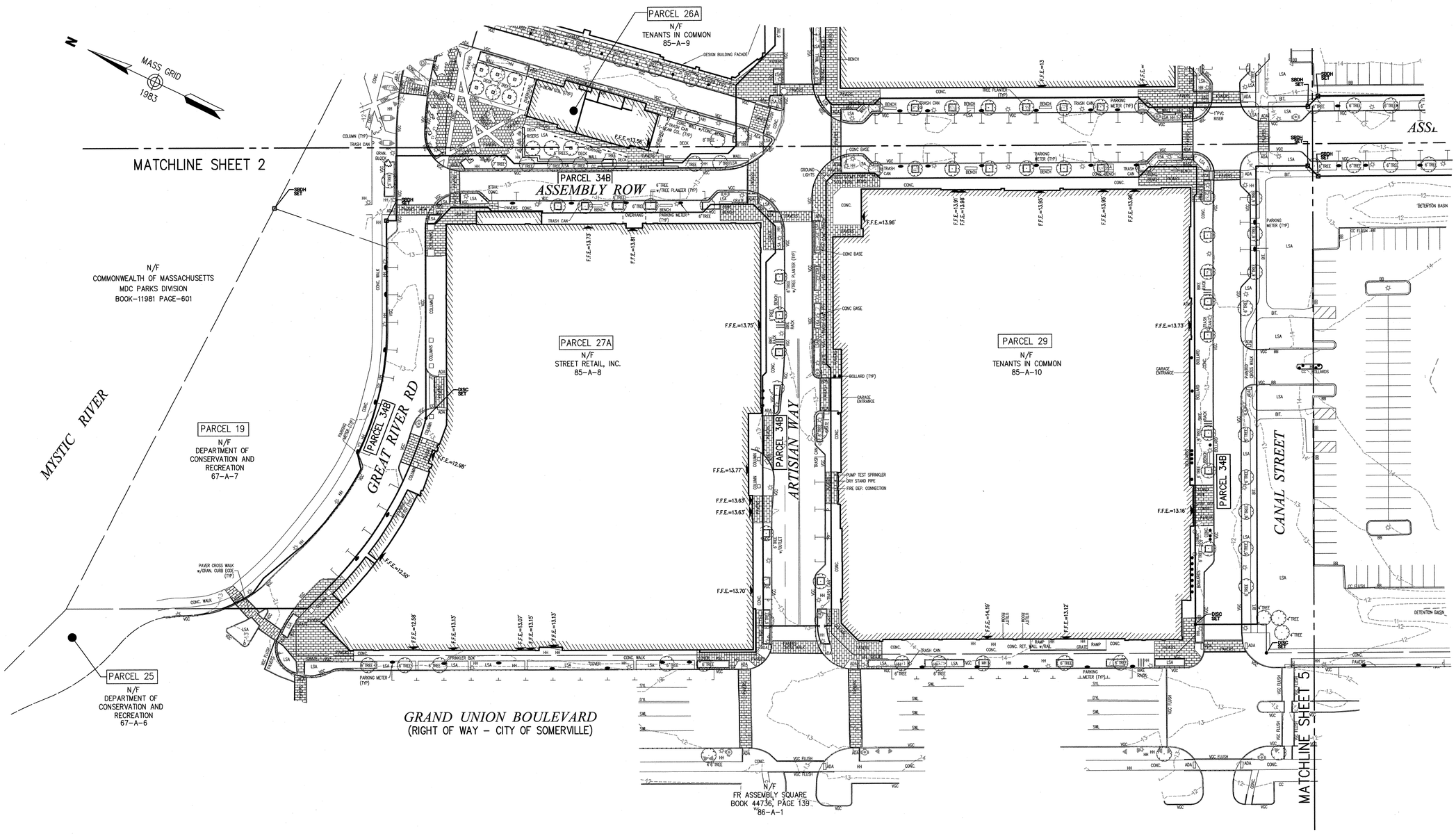
COMMONWEALTH OF MASSACHUSETTS
SELBY L. TURNER III
No. 49230
REGISTERED PROFESSIONAL LAND SURVEYOR

Drawing Number
Sv-3

Sheet 3 of 17

Project Number
11763.04

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SCALE IN FEET

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Assembly Row
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PUD
Somerville, Massachusetts

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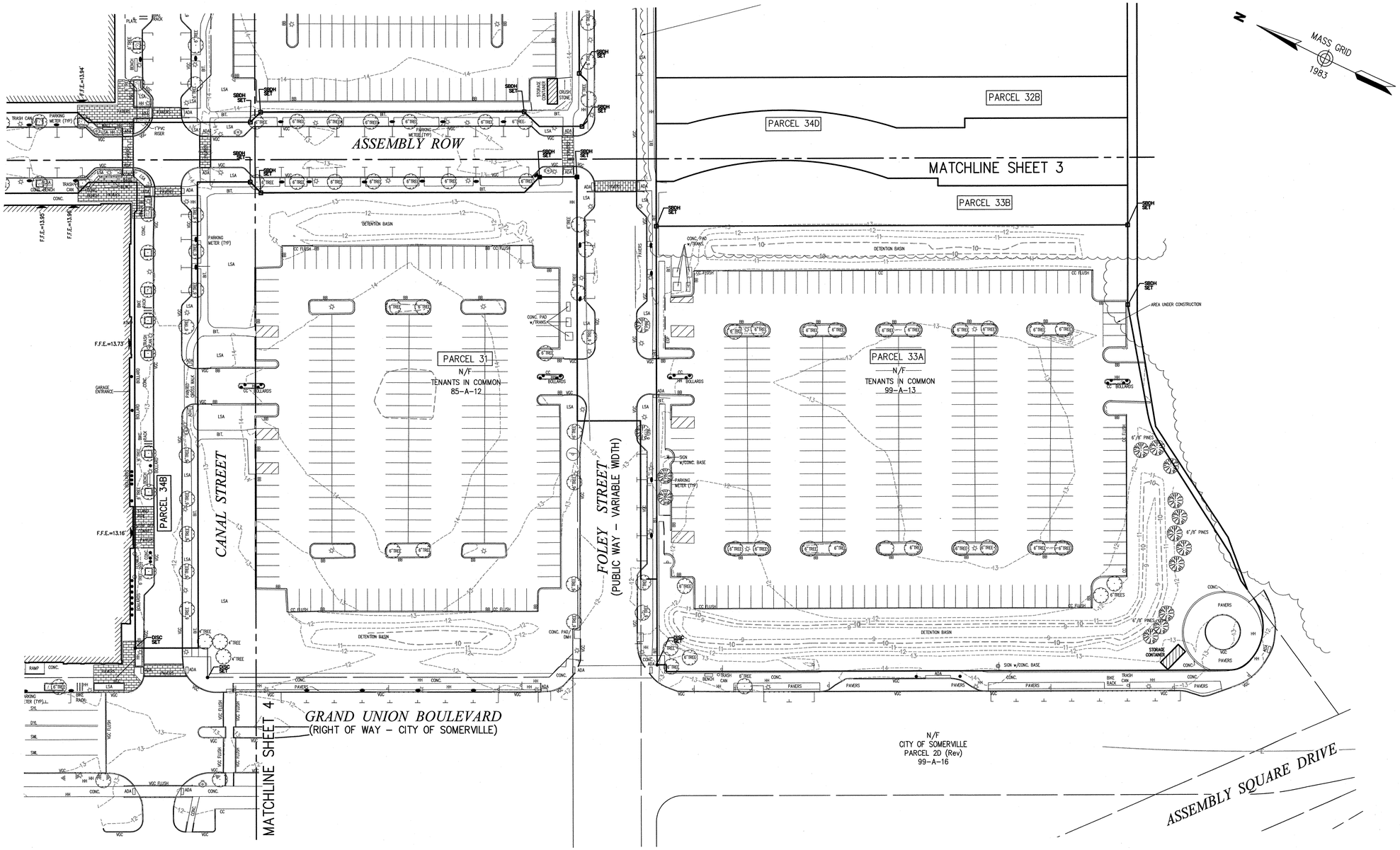
COMMONWEALTH OF MASSACHUSETTS
SELBY C. TURNER III
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REGISTERED
LAND SURVEYOR
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Drawing Number
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Sheet 4 of 17

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General Notes

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3. THE EXISTING CONDITIONS SHOWN ON THIS PLAN ARE BASED UPON AN ACTUAL ON-THE-GROUND INSTRUMENT SURVEY PERFORMED BY VANASSE HANGEN BRUSTLIN, INC. IN SEPTEMBER OF 2014.
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VHB

Vanasse Hangen Brustlin, Inc.

Transportation
Land Development
Environmental Services

101 Walnut Street, P.O. Box 9151
Watertown, Massachusetts 02471-9151
617 924 1770 • FAX 617 924 2286

Legend

- DRAIN MANHOLE
- CATCH BASIN
- SEWER MANHOLE
- ELECTRIC MANHOLE
- TELEPHONE MANHOLE
- MANHOLE
- HH HAND HOLE
- WATER GATE
- FIRE HYDRANT
- GAS GATE
- STREET SIGN
- LIGHT POLE
- UTILITY POLE
- GUY POLE
- GUY WIRE
- MW MONITORING WELL
- FLOOD LIGHT
- W WELL
- CNO COULD NOT OPEN
- NPV NO PIPES VISIBLE
- SBDH STONE BOUND DRILL HOLE
- ADA DETECTABLE WARNING PAD
- LSA LANDSCAPE AREA
- F.F.E.=45.27' FINISHED FLOOR ELEVATION
- EOP EDGE OF PAVEMENT
- CC CONCRETE CURB
- VGC VERTICAL GRANITE CURB
- SGE SLOPED GRANITE EDGE
- BB BITUMINOUS BERM
- BC BITUMINOUS CURB
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- AF1-100 LIMIT MEAN ANNUAL HIGH WATER
- BF1-100 LIMIT OF BANK
- WF1-100 VEGETATED WETLAND BOUNDARY

No.	Revision	Date	Appvd.

Designed by | Drawn by | Checked by
CAD checked by | Approved by
Scale 1"=40' | Date November 6, 2014

Project Title

Assembly Row
Assembly Square
PUD
Somerville, Massachusetts

Issued for

As Built

Drawing Title

Existing Condition
Plan of Land

COMMONWEALTH OF MASSACHUSETTS
SELBY L TURNER JR
NO. 49230
REGISTERED LAND SURVEYOR

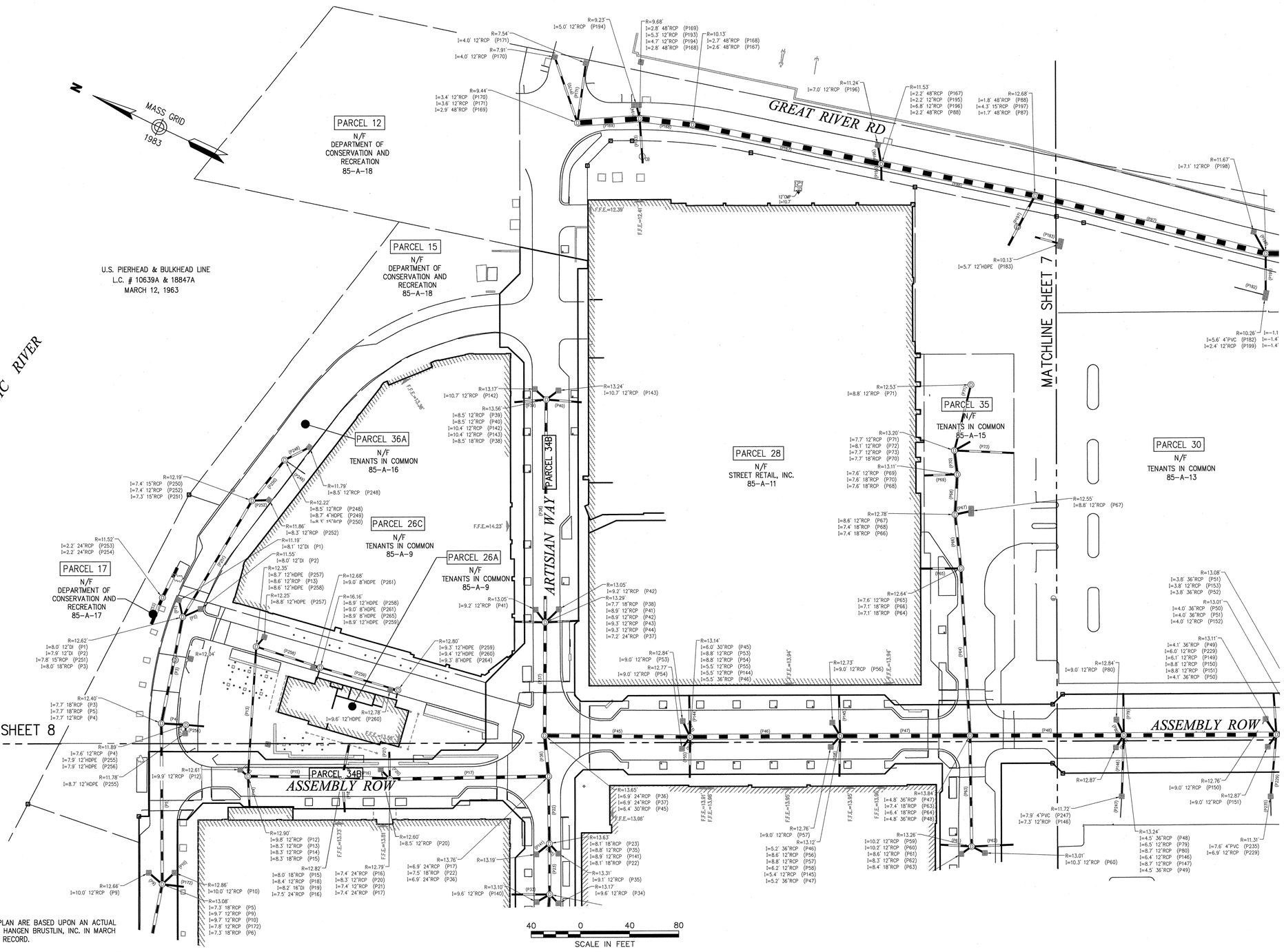
Drawing Number

Sv-5

Sheet 5 of 17

Project Number
11763.04

\\vhb\proj\Wat-LD\11763.04\cad\id\Planmisc\ASBLT\11763.04_Roadway AsBlt_2014.dwg



General Notes

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Transportation
Land Development
Environmental Services

101 Walnut Street, P.O. Box 9151
Watertown, Massachusetts 02471-9151
617 924 1770 • FAX 617 924 2286

Legend

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No.	Revision	Date	Appvd.

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CAD checked by | Approved by

Scale 1"=40' | Date November 6, 2014

Project Title

Assembly Row
Assembly Square
PUD

Somerville, Massachusetts

Issued for

As Built

Drawing Title

Drain Asbuilt

COMMONWEALTH OF MASSACHUSETTS
SELBY L. TURNER
No. 46230
REGISTERED PROFESSIONAL LAND SURVEYOR

Drawing Number

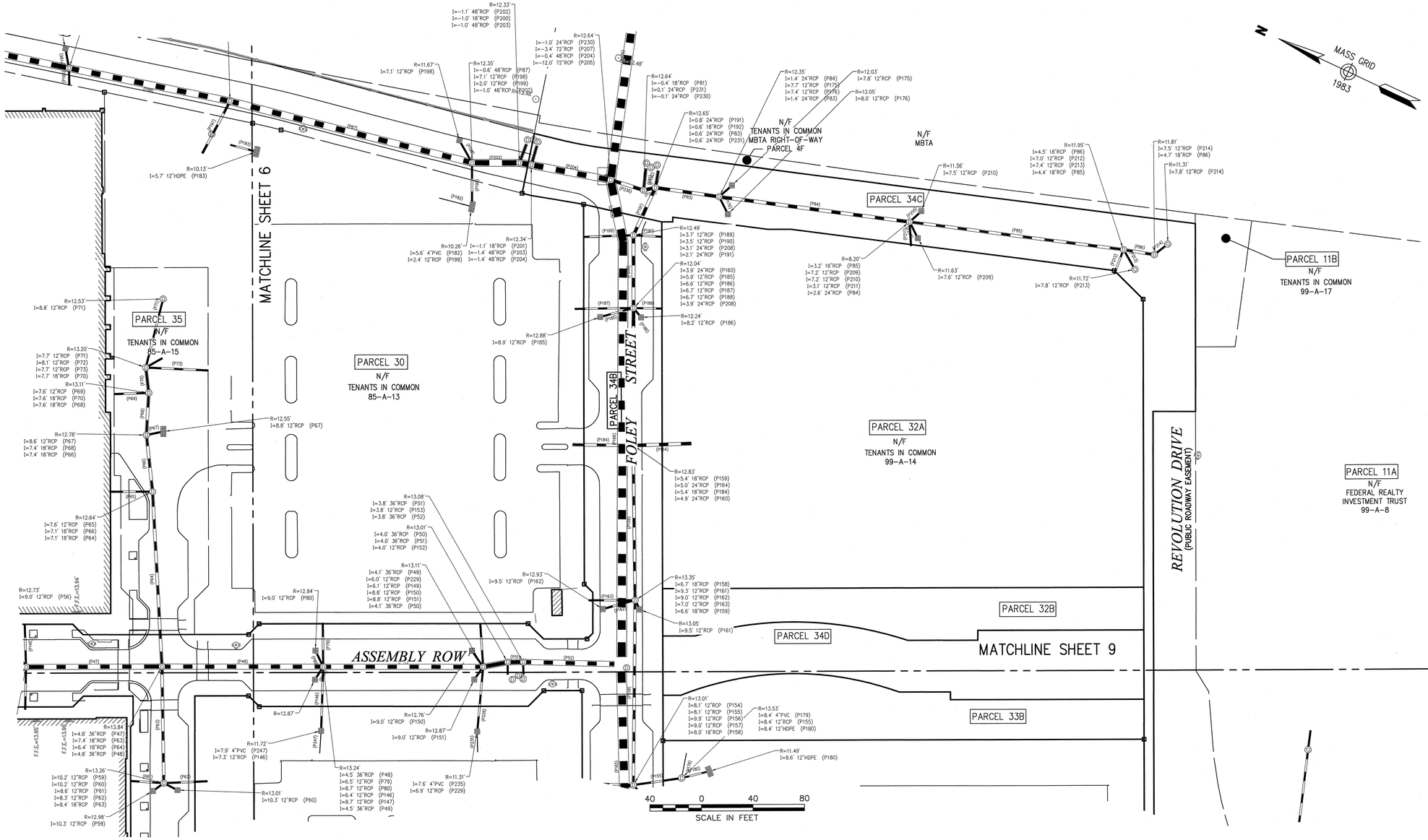
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Sheet 6 of 17

Project Number

11763.04

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VHB
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Transportation
Land Development
Environmental Services
101 Walnut Street, P.O. Box 9151
Watertown, Massachusetts 02471-9151
617 924 1770 • FAX 617 924 2286

Legend

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CAD checked by | Approved by
Scale 1"=40' | Date November 6, 2014

Project Title

Assembly Row
Assembly Square
PUD

Somerville, Massachusetts

Issued for

As Built

Drawing Title

Drain Asbuilt

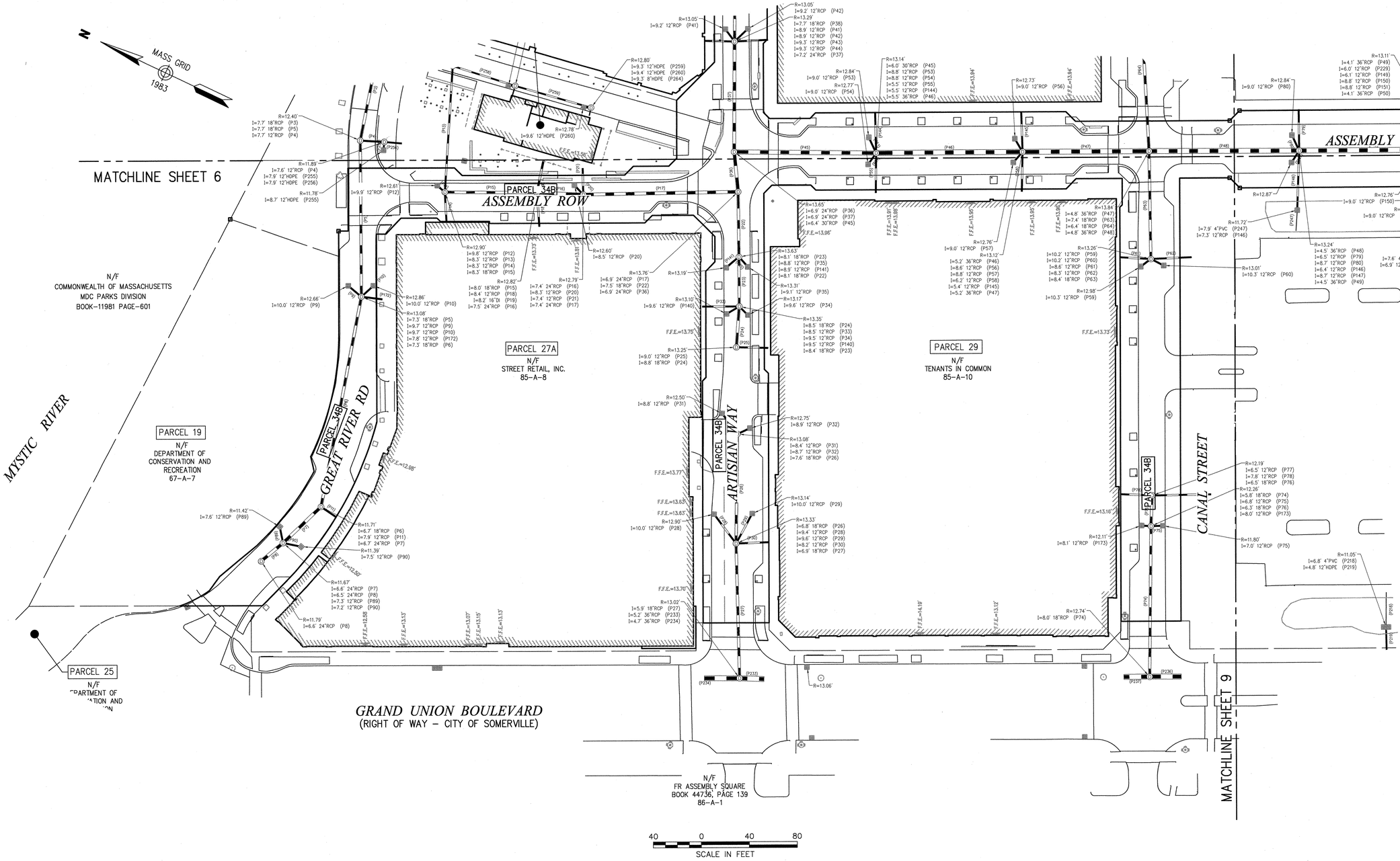
COMMONWEALTH OF MASSACHUSETTS
SHELBY L. TURGEON
No. 46290
REGISTERED LAND SURVEYOR

Drawing Number
Sv-7

Sheet 7 of 17

Project Number
11763.04

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General Notes

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VHB

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Transportation
Land Development
Environmental Services

101 Walnut Street, P.O. Box 9151
Watertown, Massachusetts 02471-9151
617 924 1770 • FAX 617 924 2286

Legend

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No.	Revision	Date	Appvd.

Designed by	Drawn by	Checked by	
CAD checked by		Approved by	
Scale 1"=40'		Date November 6, 2014	

Project Title

Assembly Row
Assembly Square
PUD

Somerville, Massachusetts

Issued for

As Built

Drawing Title

Drain Asbuilt

COMMONWEALTH OF MASSACHUSETTS
STEVEN J. TURNER III
No. 40235
REGISTERED PROFESSIONAL ENGINEER

Drawing Number

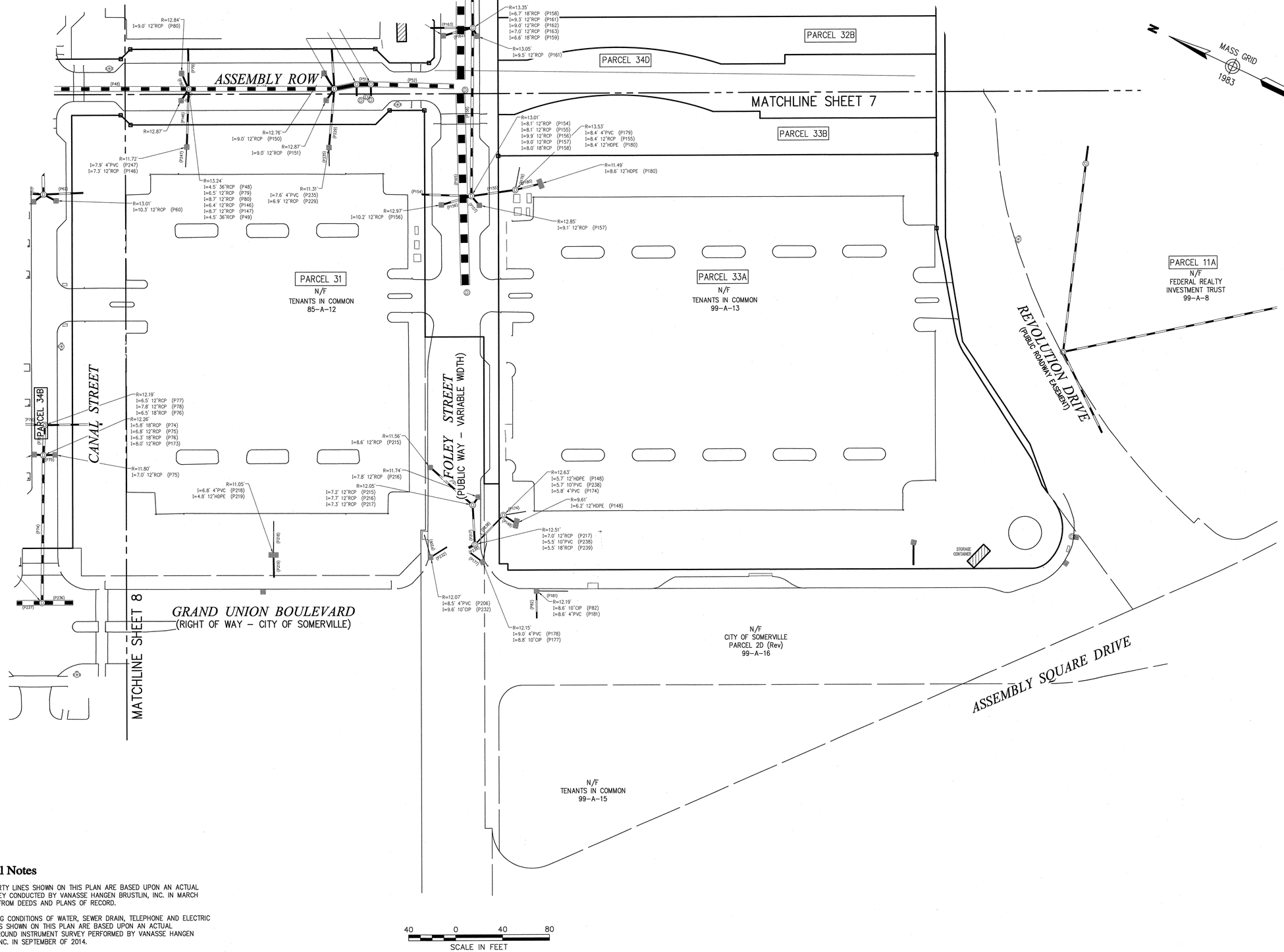
Sv-8

Sheet 8 of 17

Project Number

11763.04

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VHB
Vanasse Hangen Brustlin, Inc.
Transportation
Land Development
Environmental Services
101 Walnut Street, P.O. Box 9151
Watertown, Massachusetts 02471-9151
617 924 1770 • FAX 617 924 2286

Legend

- DRAIN MANHOLE
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Scale 1"=40' | Date November 6, 2014

Project Title

Assembly Row
Assembly Square
PUD

Somerville, Massachusetts

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As Built

Drawing Title

Drain Asbuilt

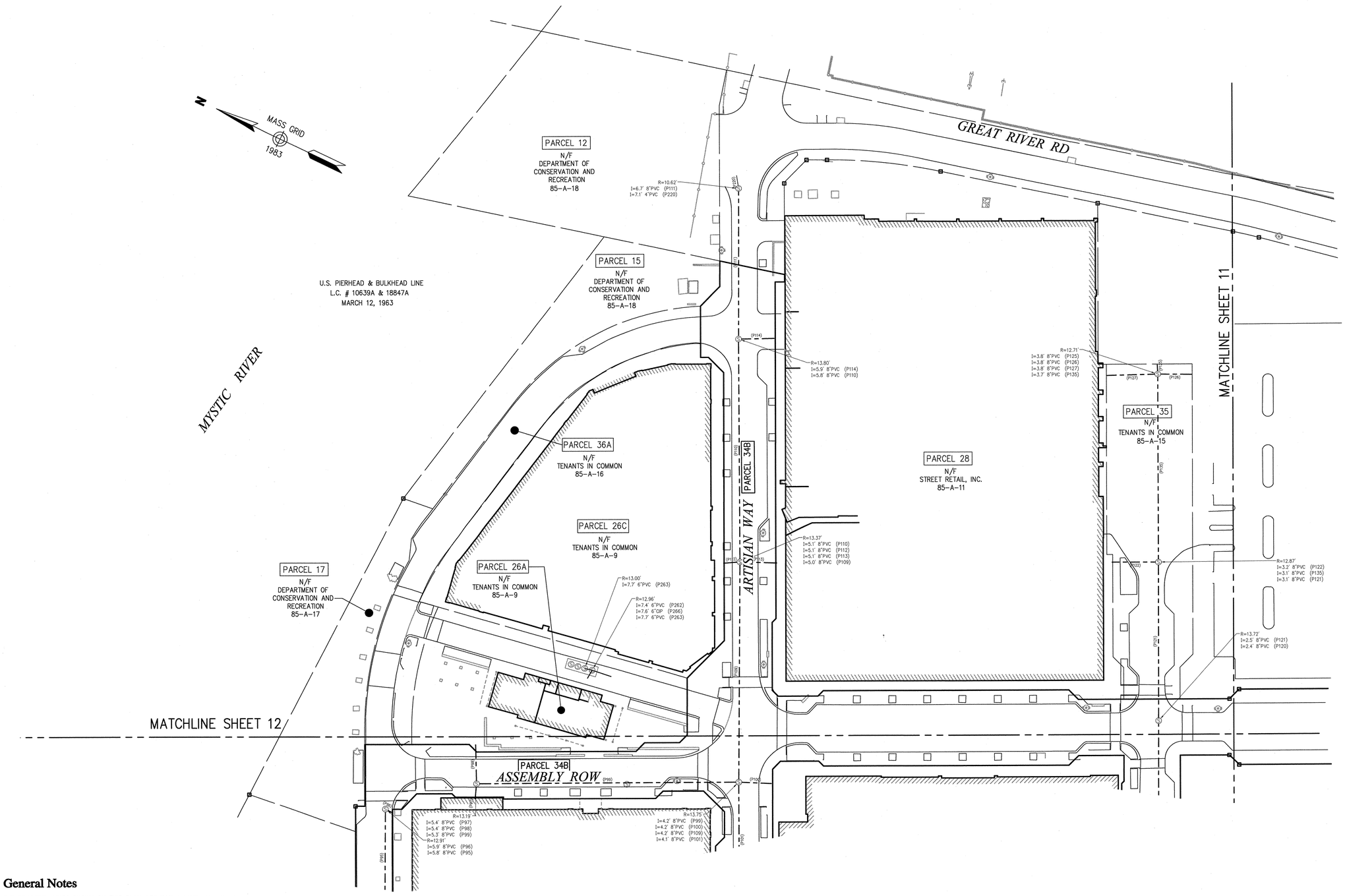
COMMONWEALTH OF MASSACHUSETTS
SELBY L TURNER JR
No. 49220
REGISTERED PROFESSIONAL LAND SURVEYOR
11/19/2014

Drawing Number
Sv-9

Sheet 9 of 17

Project Number
11763.04

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General Notes

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Transportation
Land Development
Environmental Services

101 Walnut Street, P.O. Box 9151
Watertown, Massachusetts 02471-9151
617 924 1770 • FAX 617 924 2286

Legend

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No.	Revision	Date	Appvd.

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CAD checked by	Approved by	
Scale 1"=40'	Date November 6, 2014	

Project Title

Assembly Row
Assembly Square
PUD

Somerville, Massachusetts

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As Built

Drawing Title

Sewer Asbuilt

COMMONWEALTH OF MASSACHUSETTS
SELBY L. TURNER III
No. 49230
REGISTERED LAND SURVEYOR

11/7/2014

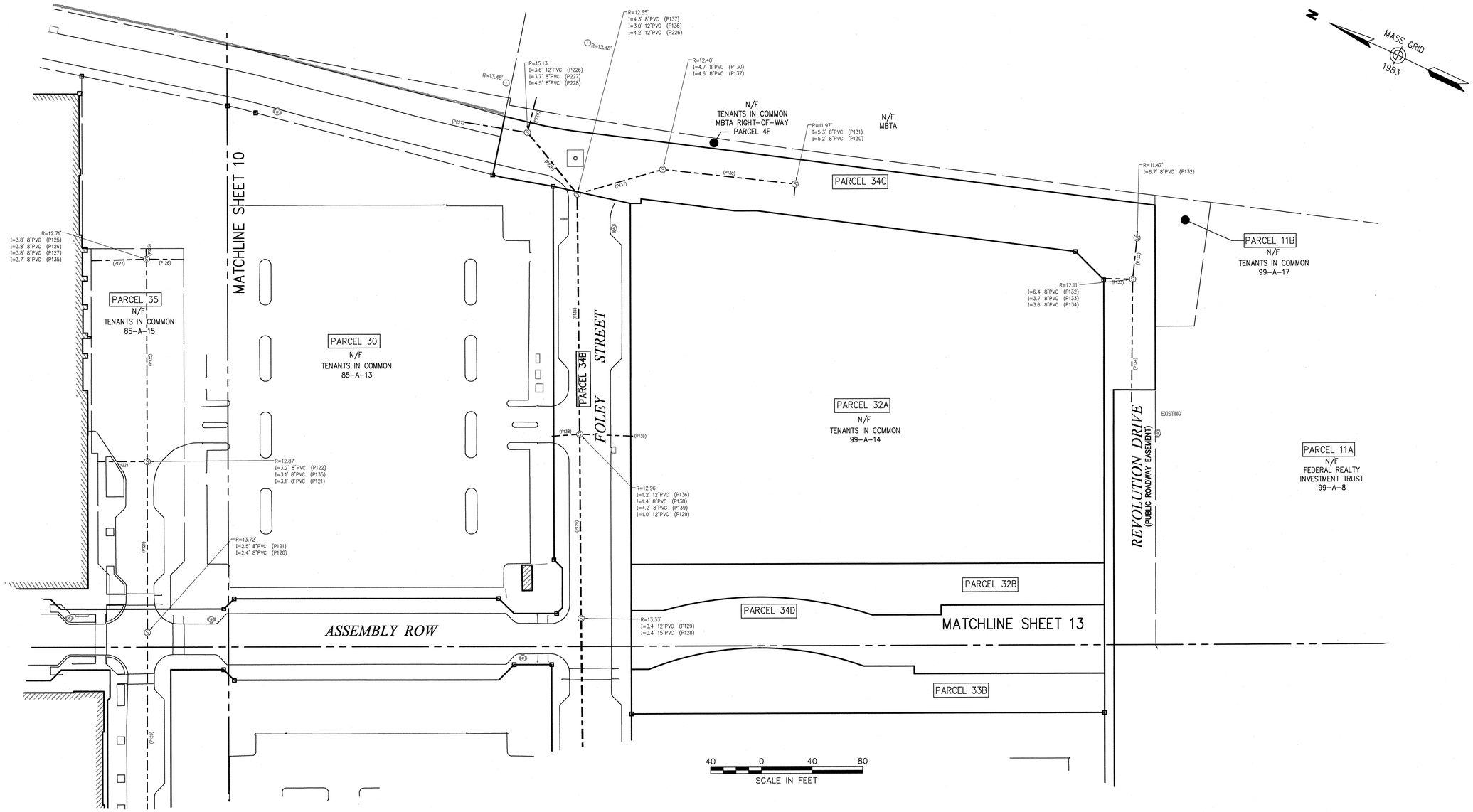
Drawing Number

Sv-10

Sheet 10 of 17

Project Number

11763.04



General Notes

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Transportation
Land Development
Environmental Services
101 Walnut Street, P.O. Box 9151
Watertown, Massachusetts 02471-9151
617 924 1770 • FAX 617 924 2286

Legend

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Scale 1"=40'	Date November 6, 2014	

Project Title

Assembly Row
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Somerville, Massachusetts

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As Built

Drawing Title

Sewer Asbuilt

COMMONWEALTH OF MASSACHUSETTS
KELLY L. WARNER III
No. 40230
REGISTERED PROFESSIONAL ENGINEER

11/07/14

Drawing Number

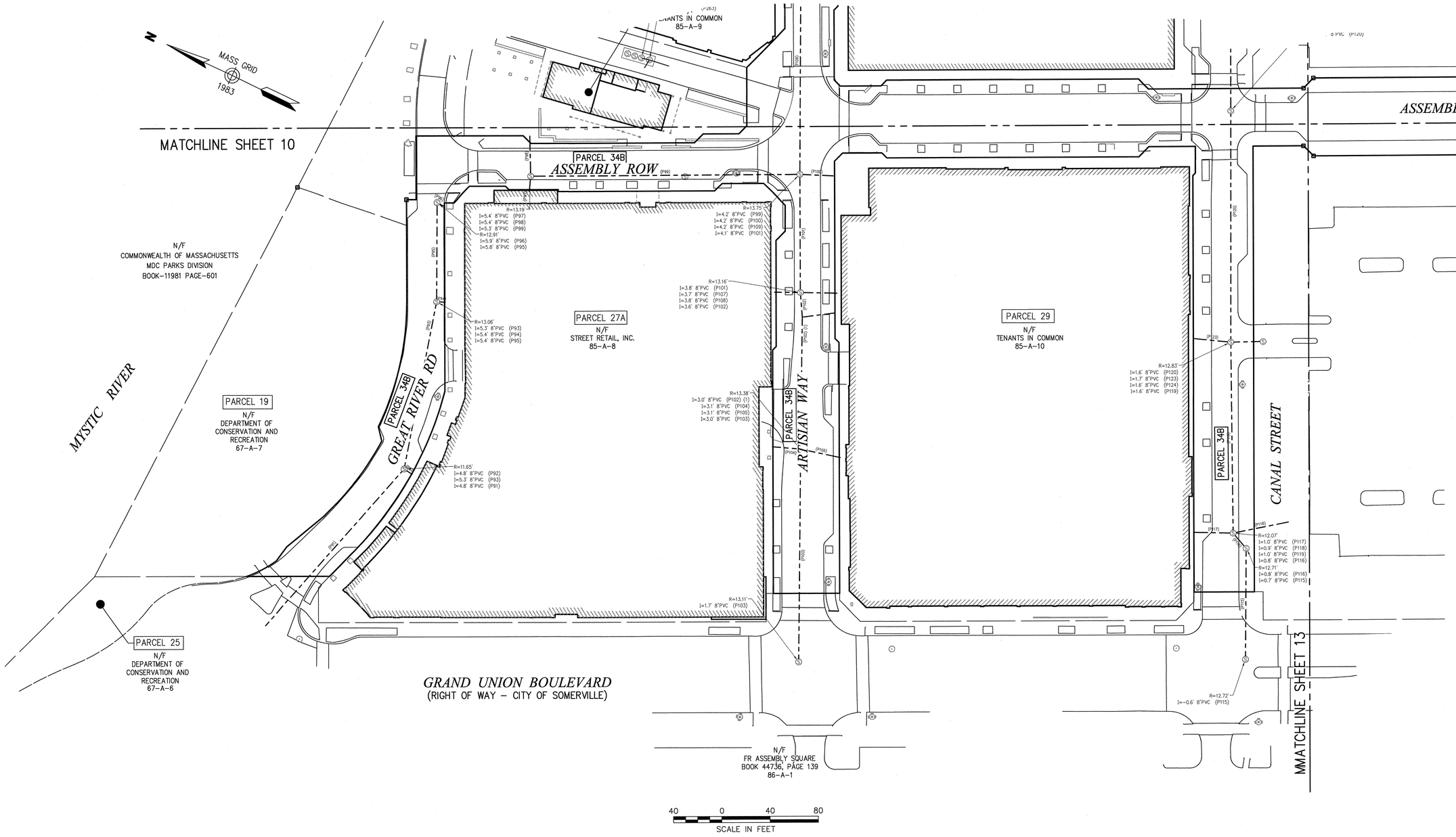
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Sheet 11 of 17

Project Number

11763.04

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General Notes

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VHB
Vanasse Hangen Brustlin, Inc.
Transportation
Land Development
Environmental Services
101 Walnut Street, P.O. Box 9151
Watertown, Massachusetts 02471-9151
617 924 1770 • FAX 617 924 2286

Legend

- DRAIN MANHOLE
- CATCH BASIN
- SEWER MANHOLE
- ELECTRIC MANHOLE
- TELEPHONE MANHOLE
- MANHOLE
- HAND HOLE
- WATER GATE
- FIRE HYDRANT
- GAS GATE
- STREET SIGN
- LIGHT POLE
- UTILITY POLE
- GUY POLE
- GUY WIRE
- MONITORING WELL
- FLOOD LIGHT
- WELL
- CNO COULD NOT OPEN
- NPV NO PIPES VISIBLE
- SBDH STONE BOUND DRILL HOLE
- ADA DETECTABLE WARNING PAD
- LSA LANDSCAPE AREA
- F.F.E.=45.27' FINISHED FLOOR ELEVATION
- EOP EDGE OF PAVEMENT
- CC CONCRETE CURB
- VGC VERTICAL GRANITE CURB
- SGE SLOPED GRANITE EDGE
- BB BITUMINOUS BERM
- BC BITUMINOUS CURB
- GUARD RAIL
- CHAIN LINK FENCE
- DRAINAGE LINE
- SEWER LINE
- OHW OVERHEAD WIRE
- E UNDERGROUND ELECTRIC
- T TELEPHONE LINE
- G GAS LINE
- W WATER LINE
- STONE WALL
- TREE LINE
- 100'BZ 100-FT BUFFER ZONE
- 100'RA 100-FT RIVER FRONT AREA
- 200'RA 200-FT RIVER FRONT AREA
- MFI-100 LIMIT MEAN ANNUAL HIGH WATER
- BFI-100 LIMIT OF BANK
- WF1-100 VEGETATED WETLAND BOUNDARY

No.	Revision	Date	Appvd.

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Project Title

Assembly Row
Assembly Square
PUD
Somerville, Massachusetts

Issued for

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Drawing Title

Sewer Asbuilt

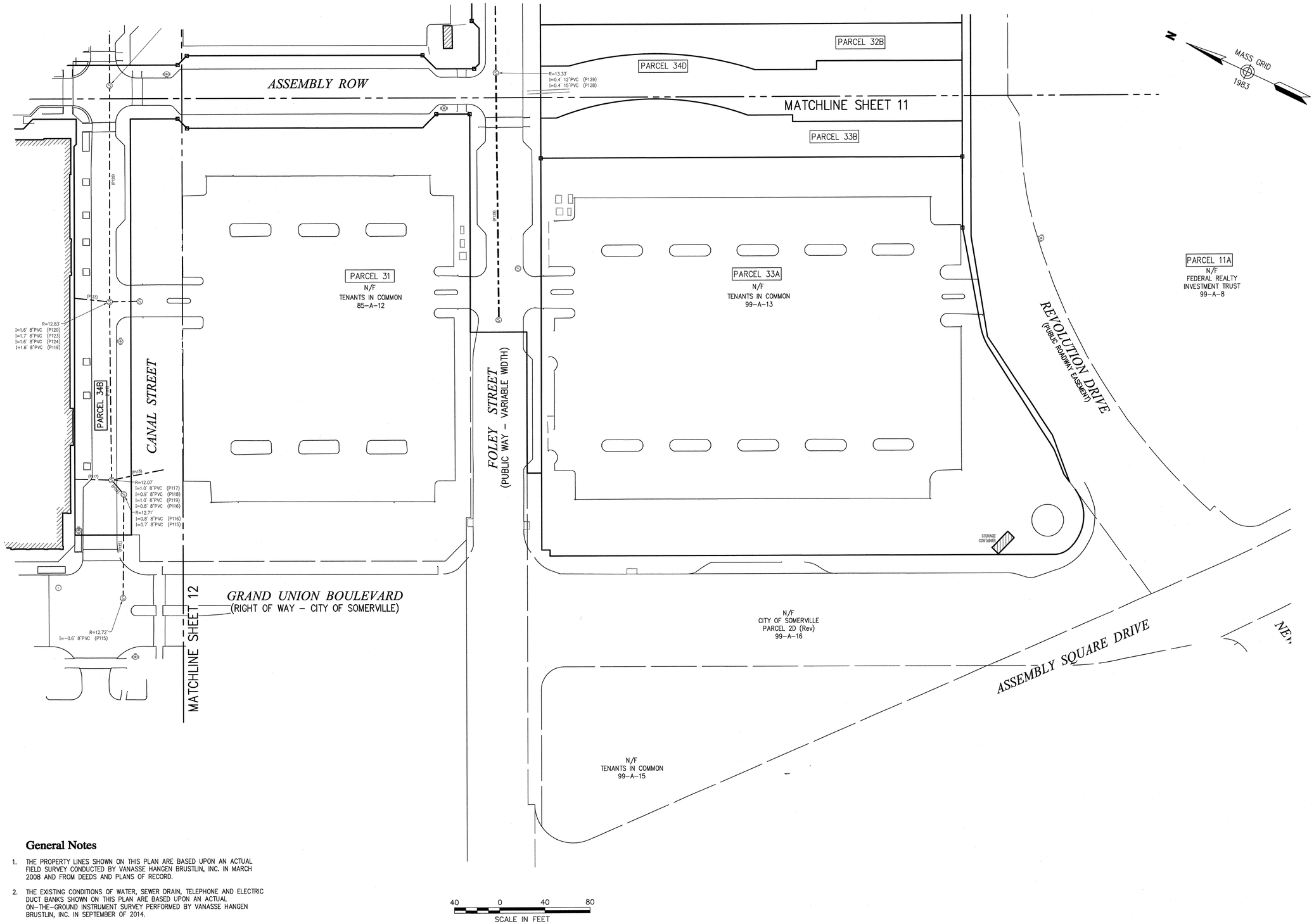
COMMONWEALTH OF MASSACHUSETTS
SEUNY K. TURNER III
No. 40290
REGISTERED LAND SURVEYOR

Drawing Number
Sv-12

Sheet 12 of 17

Project Number
11763.04

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General Notes

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Transportation
Land Development
Environmental Services

101 Walnut Street, P.O. Box 9151
Watertown, Massachusetts 02471-9151
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Legend

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- LSA LANDSCAPE AREA
- F.F.E.=45.27' FINISHED FLOOR ELEVATION
- EOP — EDGE OF PAVEMENT
- CC — CONCRETE CURB
- VGC — VERTICAL GRANITE CURB
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- G — GAS LINE
- W — WATER LINE
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- TREE LINE
- 100'BZ — 100-FT BUFFER ZONE
- 100'RA — 100-FT RIVER FRONT AREA
- 200'RA — 200-FT RIVER FRONT AREA
- APT-100' — LIMIT MEAN ANNUAL HIGH WATER
- BF1-100 — LIMIT OF BANK
- WF1-100 — VEGETATED WETLAND BOUNDARY

No.	Revision	Date	Appvd.

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Project Title

Assembly Row
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PUD

Somerville, Massachusetts

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Drawing Title

Sewer Asbuilt

COMMONWEALTH OF MASSACHUSETTS
STEVEN L. TURNER, JR.
No. 45230
REGISTERED PROFESSIONAL LAND SURVEYOR

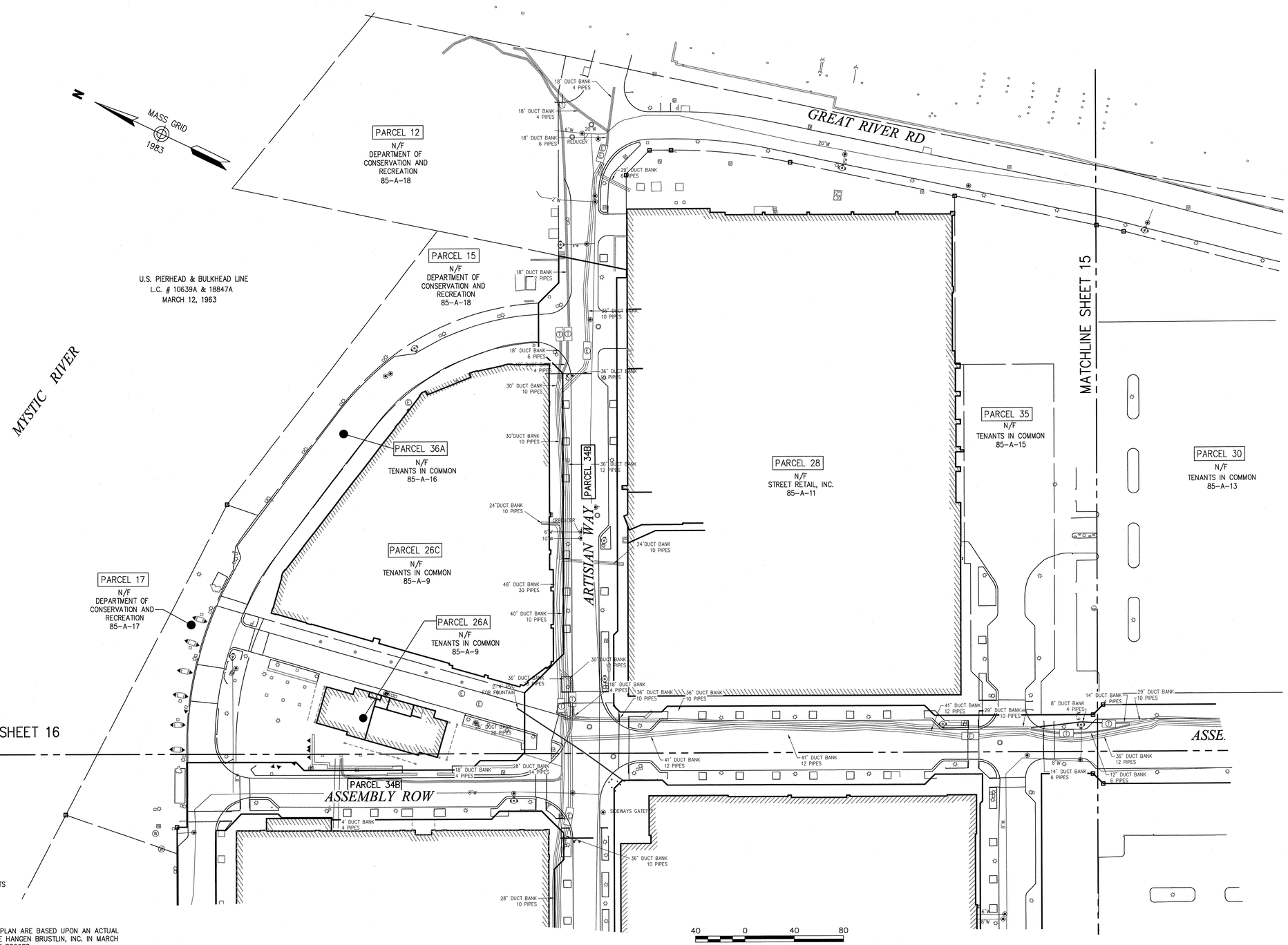
11/10/2014

Drawing Number
Sv-13

Sheet 13 of 17

Project Number
11763.04

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Transportation
Land Development
Environmental Services
101 Walnut Street, P.O. Box 9151
Watertown, Massachusetts 02471-9151
617 924 1770 • FAX 617 924 2286

Legend

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- BF1-100 LIMIT OF BANK
- WF1-100 VEGETATED WETLAND BOUNDARY

No.	Revision	Date	Appvd.

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Project Title

Assembly Row
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Somerville, Massachusetts

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Drawing Title

Utility Asbuilt

COMMONWEALTH OF MASSACHUSETTS
SELBY
TURNER JR.
NO. 46230
REGISTERED
LAND SURVEYOR

11/26/2014

Drawing Number

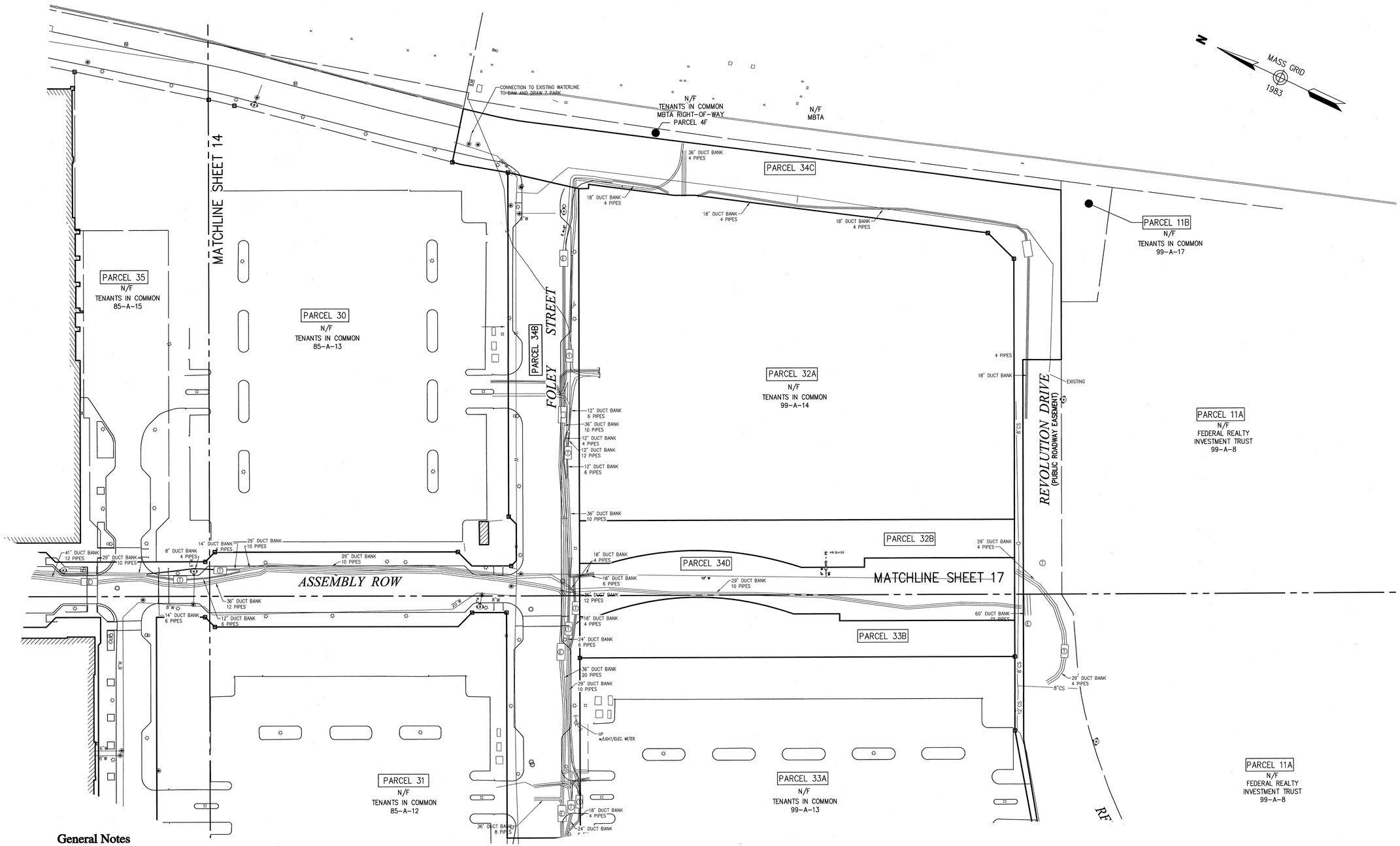
Sv-14

Sheet 15 of 17

Project Number

11763.04

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VHB

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Transportation
Land Development
Environmental Services

101 Walnut Street, P.O. Box 9151
Watertown, Massachusetts 02471-9151
617 924 1770 • FAX 617 924 2286

MASS GRID 1983

Legend

- DRAIN MANHOLE
- CATCH BASIN
- SEWER MANHOLE
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No.	Revision	Date	Appvd.
1	ADDED NSTAR GAS LOCATIONS	4-2-2012	

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Project Title

Assembly Row
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Somerville, Massachusetts

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As Built

Drawing Title

Utility Asbuilt

COMMONWEALTH OF MASSACHUSETTS
JEREMY L. TURNER
No. 49259
REGISTERED PROFESSIONAL LAND SURVEYOR

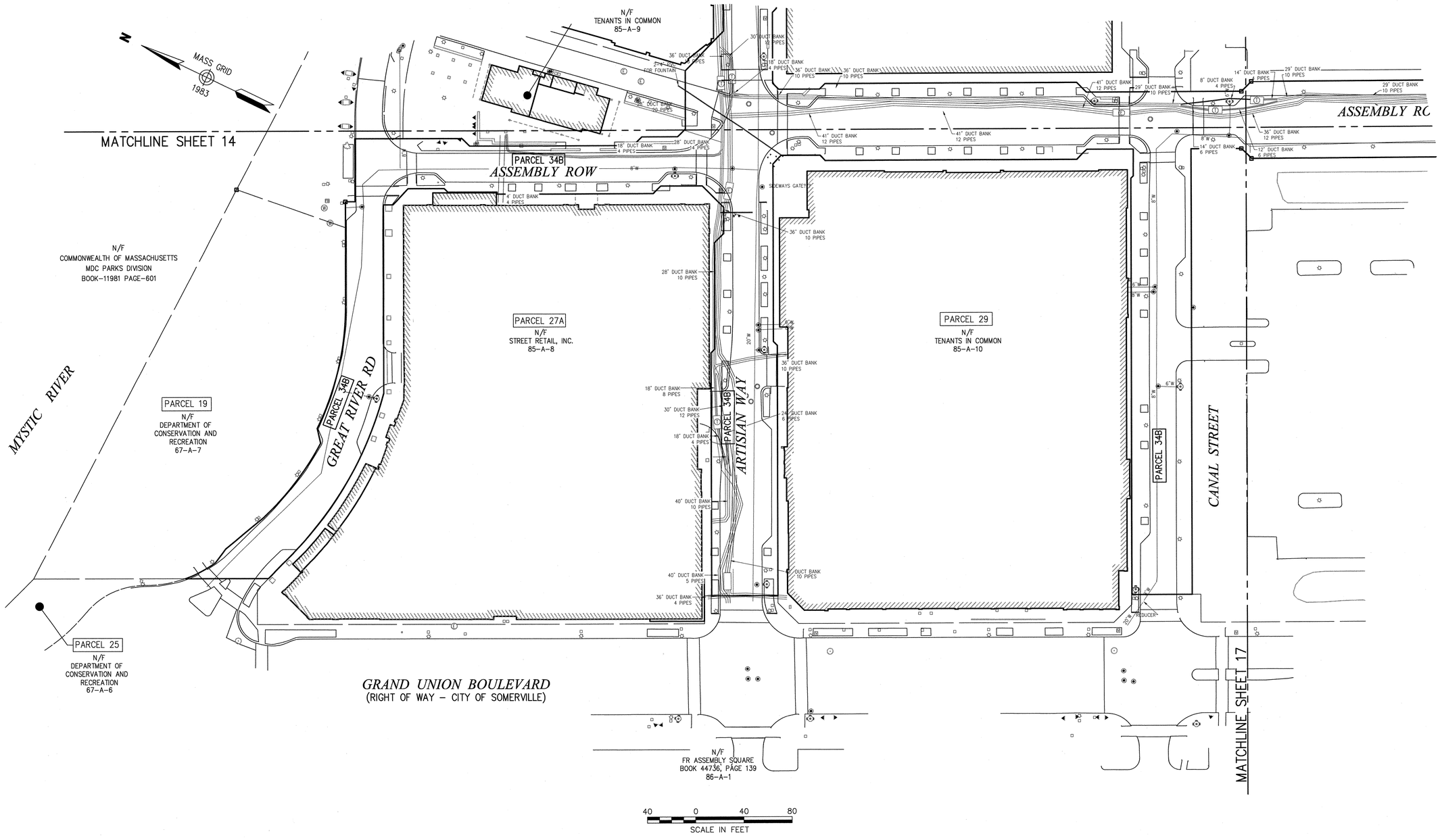
11/7/2014

Drawing Number
Sv-15

Sheet 14 of 17

Project Number
11763.04

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Transportation
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Environmental Services
101 Walnut Street, P.O. Box 9151
Watertown, Massachusetts 02471-9151
617 924 1770 • FAX 617 924 2286

Legend

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No.	Revision	Date	Appvd.

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Project Title

Assembly Row
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Utility Asbuilt

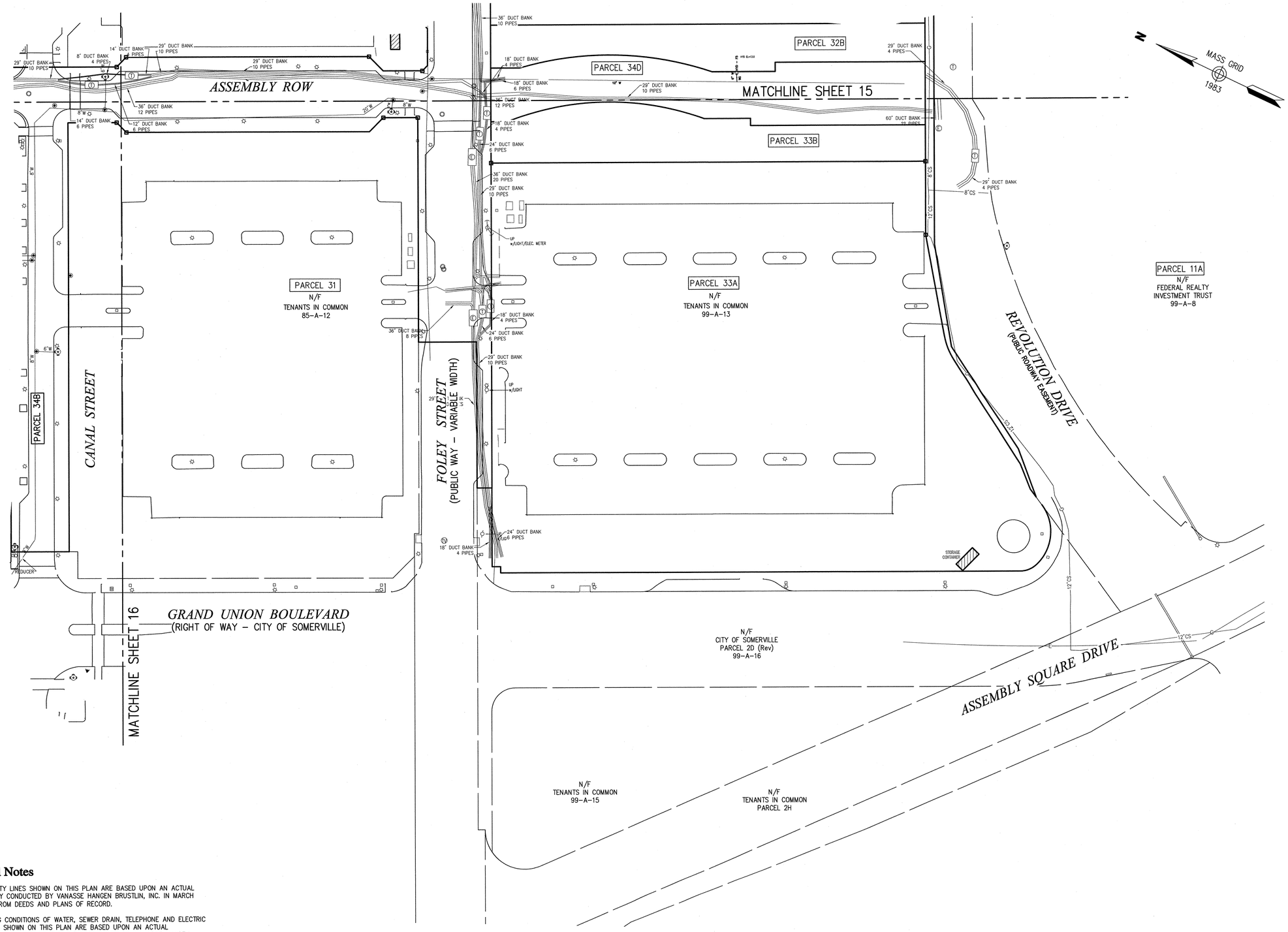
COMMONWEALTH OF MASSACHUSETTS
SELBY M. TURNER III
NO. 49258
REGISTERED LAND SURVEYOR
11/10/2014

Drawing Number
Sv-16

Sheet 16 of 17

Project Number
11763.04

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Transportation
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617 924 1770 • FAX 617 924 2286

Legend

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Project Title

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Somerville, Massachusetts

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COMMONWEALTH OF MASSACHUSETTS
STEVEN L. SURPRENANT
No. 44230
REGISTERED PROFESSIONAL ENGINEER
11/7/2014

Drawing Number
Sv-17

Sheet 17 of 17

Project Number
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