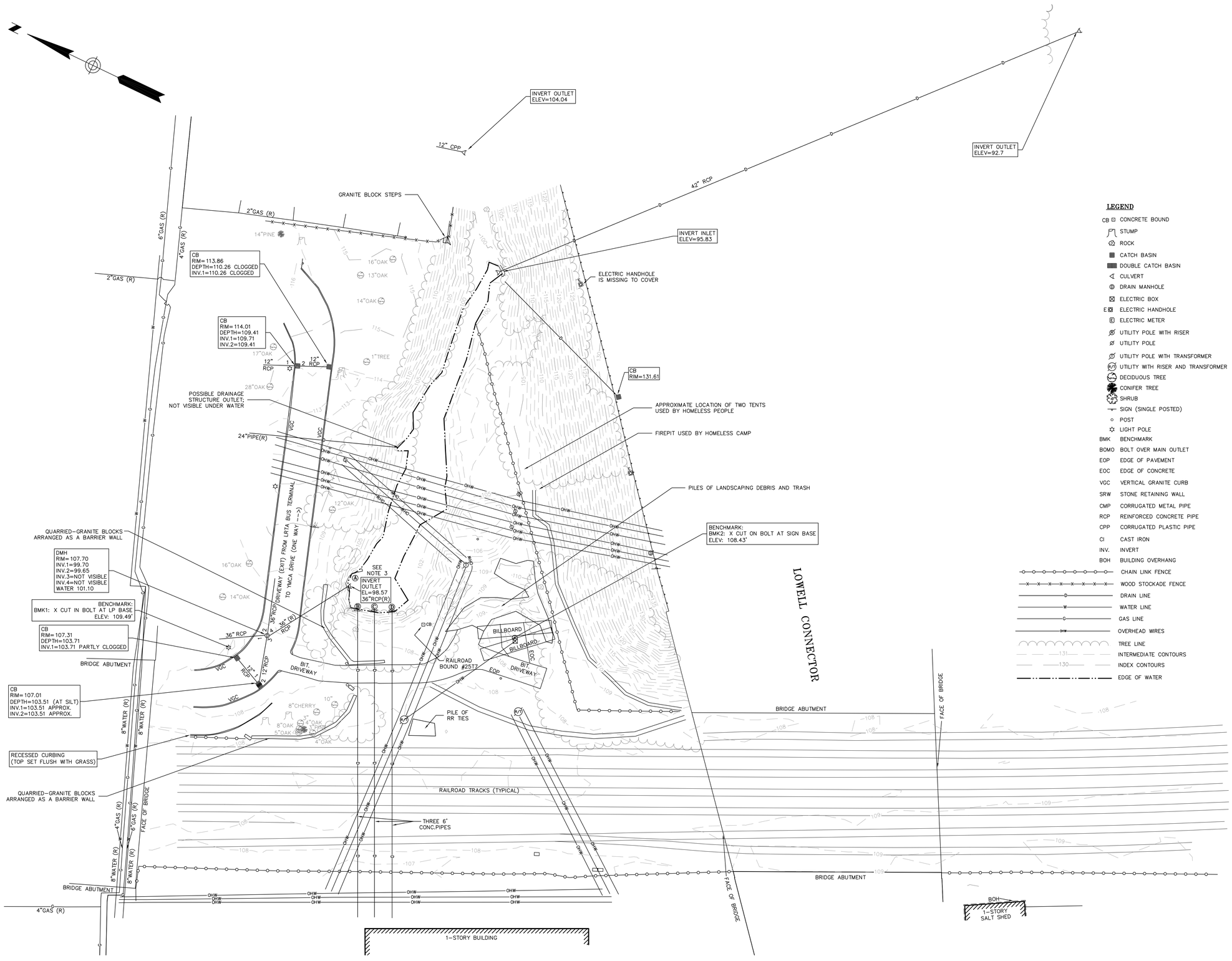

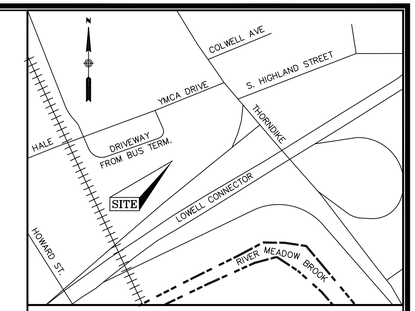

LOCUS MAP
(N.T.S.)

LEGEND

CB	CONCRETE BOUND
	STUMP
	ROCK
	CATCH BASIN
	DOUBLE CATCH BASIN
	CULVERT
	DRAIN MANHOLE
	ELECTRIC BOX
E	ELECTRIC HANDHOLE
E	ELECTRIC METER
	UTILITY POLE WITH RISER
	UTILITY POLE
	UTILITY POLE WITH TRANSFORMER
	UTILITY WITH RISER AND TRANSFORMER
	DECIDUOUS TREE
	CONIFER TREE
	SHRUB
	SIGN (SINGLE POSTED)
	POST
	LIGHT POLE
BMK	BENCHMARK
BOMO	BOLT OVER MAIN OUTLET
EOP	EDGE OF PAVEMENT
EOC	EDGE OF CONCRETE
VGC	VERTICAL GRANITE CURB
SRW	STONE RETAINING WALL
CMP	CORRUGATED METAL PIPE
RCP	REINFORCED CONCRETE PIPE
CPP	CORRUGATED PLASTIC PIPE
CI	CAST IRON
INV.	INVERT
BOH	BUILDING OVERHANG
	CHAIN LINK FENCE
	WOOD STOCKADE FENCE
	DRAIN LINE
	WATER LINE
	GAS LINE
	OVERHEAD WIRES
	TREE LINE
	INTERMEDIATE CONTOURS
	INDEX CONTOURS
	EDGE OF WATER

NOTES

1. THIS PLAN WAS PRODUCED FROM ON-THE-GROUND SURVEYS BY THIS OFFICE USING TOTAL STATION AND 3D LASER SCANNING TECHNIQUES ON OCTOBER 15, 16, AND 20, 2015.

2. THE HORIZONTAL DATUM SHOWN HEREON REFERENCES THE MASSACHUSETTS MAINLAND STATE PLANE COORDINATE SYSTEM NAD83 AND WAS ESTABLISHED BY USING RTK GPS METHODS. CORS STATIONS WMTS AND NMTS WERE USED AS A BASIS TO ESTABLISH THE SITE CONTROL.

3. THE VERTICAL DATUM SHOWN HEREON REFERENCES NAVD88 AND WAS ESTABLISHED BY USING RTK GPS METHODS. THE ELEVATIONS ARE BEING REPORTED IN FEET. THEY ARE BASED ON THE GEOID12A GEOID MODEL. CORS STATIONS WMTS AND NMTS WERE USED AS A BASIS TO ESTABLISH THE BENCHMARKS. DIFFERENTIAL LEVELING WAS USED TO TIE THE PROJECT CONTROL TO THE PUBLISHED BENCHMARKS.

4. THE UNDERGROUND UTILITY INFORMATION SHOWN HEREON LABELED WITH AN (R) ARE FROM RECORD DOCUMENTS. ADDITIONAL FIELD INVESTIGATION WILL BE REQUIRED BY OTHERS TO DETERMINE THE ACTUAL PIPE SIZE(S) AND TYPE(S).

5. THE CONCRETE DRAINAGE CULVERT OUTLETS SHOWN HEREON ALONG THE WESTERLY END OF THE DRAINAGE BASIN WERE ONLY PARTIALLY VISIBLE (ALL BUT THE TOP FEW INCHES WERE SUBMERGED IN WATER AND MUD). ELEVATIONS OBSERVED WERE AS FOLLOWS:

CULVERT	CROWN ELEVATION	MEASURE-DOWN TO REFUSAL
A	101.90	3.30 FT
B	101.60	4.00 FT
C	101.64	4.50 FT
D	101.57	2.60 FT

UTILITY STATEMENTS

THE LOCATION OF THE UTILITIES AS SHOWN HEREON HAVE BEEN COMPILED FROM VISIBLE STRUCTURES AND INFORMATION OBTAINED FROM VARIOUS SOURCES. THE ACTUAL LOCATION OF ALL UTILITIES AND UNDERGROUND STRUCTURES SHALL BE CONSIDERED APPROXIMATE AND SHALL BE VERIFIED BY THE OWNER PRIOR TO ANY CONSTRUCTION. THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICES OR ABANDONED. THE SURVEYOR FURTHER DOES NOT WARRANT THAT THE UNDERGROUND UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED.

COMMONWEALTH OF MASSACHUSETTS
DARREN
HARDY
NO. 48385
REGISTERED
PROFESSIONAL LAND SURVEYOR

DARREN J. HARDY, P.L.S.
REG. NO. 48385
WSP USA, CORP.

DATE: 12/07/2015

GRAPHIC SCALE

30 0 15 30 60 120

(IN FEET)
1 inch = 30 ft.

REVISION	
DATE	DESCRIPTION
--/--/--	---

EXISTING CONDITIONS PLAN
VACANT LOT BY LRTA BUS TERMINAL
OFF YMCA DRIVE
LOWELL, MASSACHUSETTS
PREPARED FOR
NOBIS ENGINEERING, INC.

WSP
Transportation & Infrastructure
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Drawn By	MJC	Date	Job No.
Surveyed By	MJC, RC	NOVEMBER 6, 2015	188239
Checked By	DJH	Scale	Sheet No.
Book No.	N273	1" = 30'	1 OF 1