

APPENDIX TO ENGINEERING REPORT COVERING
REQUEST FOR CONSTRUCTION PERMIT
TECHNICAL NARRATIVE IN SUPPORT OF CITY OF LICENSE CHANGE
ON BEHALF OF GOIS BROADCASTING BOSTON, LLC
FOR WLLH 1400 KILOHERTZ
LAWRENCE, MASSACHUSETTS

NOVEMBER 2016

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STATEMENT

This technical narrative and accompanying engineering exhibits have been prepared on behalf of Gois Broadcasting Boston, LLC, hereinafter referred to as “Gois”, licensee of station WLLH Lowell, Massachusetts, in support of an application for construction permit. The minor modification application includes a request to change city of license from Lowell, Massachusetts to Lawrence, Massachusetts. This proposal is classified an intra-urban move as defined in *Rural Radio*¹, since Lowell² and Lawrence³ are located in the Boston Urbanized Area.

¹ See *Policies to Promote Rural Radio Service and to Streamline Allotment and Assignment Procedures*, Second Report and Order, First Order on Reconsideration, and Second Further Notice of Proposed Rulemaking, 26 FCC Rcd 2556 (2011) (“*Rural Radio*”) and Second Order on Reconsideration, adopted October 11, 2012 (“*Second Order on Recon*”).

² Population 108,866, source 2013 US Census estimate

³ Population 78,197, source 2014 US Census estimate

Due to the short distance between the licensed and proposed transmitter sites, it can be safely concluded the facilities specified in the instant modification are mutually exclusive with the WLLH licensed facilities⁴. Therefore, this application qualifies for a city of license change and the modification is appropriately requested as a minor modification application. See 47 C.F.R. Section 73.3571(j).

⁴ The distance between transmitter sites is 13.7 kilometers.

TABLE OF EXHIBITS ACCOMPANYING THIS NARRATIVE

FIGURE 1A	WLLH 2 mV/m Service Comparison
FIGURE 2A	Map of Protected AM Service to Existing Community of License
FIGURE 3A	Map of Protected FM Service to Existing Community of License
FIGURE 4A	Map of City Grade Service to Proposed Community of License
TABLE 1A	Table of AM Stations Providing Service to Existing Community of License
TABLE 2A	Table of FM Stations Providing Service to Existing Community of License

AREA AND POPULATION DATA

The 2 mV/m contour population associated with this proposal provides service to 245,724 persons within a land area of 356.5 square kilometers, while the licensed 2 mV/m contour provides service to 236,024 persons within a land area of 368.0 square kilometers. Figure 1A provides a mapping of the 2 mV/m contours.

The proposed population gain is 227,975 persons and the proposed land area gain is 289.1 square kilometers. The proposed population loss is 218,275 persons and the proposed land area loss is 300.6 square kilometers. Overall, there is a net population gain of 9,700 persons and net area loss of 11.5 square kilometers within the proposed 2 mV/m contour. All population counts and area computations are within the Boston Urbanized Area.

EXISTING SERVICE

There are 36 stations, 11 AM and 25 FM, excluding WLLH, that provide service to Lowell⁵. It is obvious by looking at Figures 2A and 3A that the 2 mV/m contour loss area will continue to be well served by numerous other aural services. The proposal to relocate to Lawrence will provide Lawrence with its third local service and not result in the creation of any “white” or “grey” service area. (The service count is based on stations which provide service to at least 80 percent of the area of Lawrence. As per FCC rules,

⁵ See Figures 2A and 3A, Tables 1A and 2A.

service for AM facilities is the daytime 2 mv/m contour, and for FM facilities, the 60 dbu contour except for Class B and B1 facilities, which are respectively the 54 and 57 dbu contours.)

COMPLIANCE WITH FCC RULES

Operation from the proposed transmitter site must provide the requisite city grade 5 mV/m service to 100% of Lawrence as per Section 73.24(i) of the rules. Figure 4A is a map of the city grade service area. The proposed operation would provide 5 mV/m service to 100% of Lawrence.

METHODOLOGY

The AM predicted coverage contours were calculated in accordance with the provisions of 47 C.F.R. Section 73.182. The FM predicted coverage contours were calculated in accordance with the provisions of 47 C.F.R. Section 73.313.

The population within the service contours was calculated using a computer program that utilizes the 2010 U.S. Census database of "population centroids." The program adds the populations of those U.S. Census designated areas whose centroid lies within each service area. Land areas were calculated using a root mean square algorithm.

CONCLUSION

Granting the request to reassign WLLH to the community of Lawrence would provide an overall preferential arrangement of allotments that would serve the public interest. Lawrence will receive its third local service⁶ and the community of Lowell will continue to have three local services⁷ in addition to copious service from the 36 stations that provide protected service to Lowell⁸. All of the loss areas would continue to be well-served by five or more aural reception services⁹. Therefore, Gois requests a construction permit for WLLH to specify Lawrence, Massachusetts as the community of license, in lieu of Lowell, Massachusetts and to authorize the other technical changes requested in this application.

⁶ Stations WNNW(AM) and WEEI-FM are licensed to Lawrence.

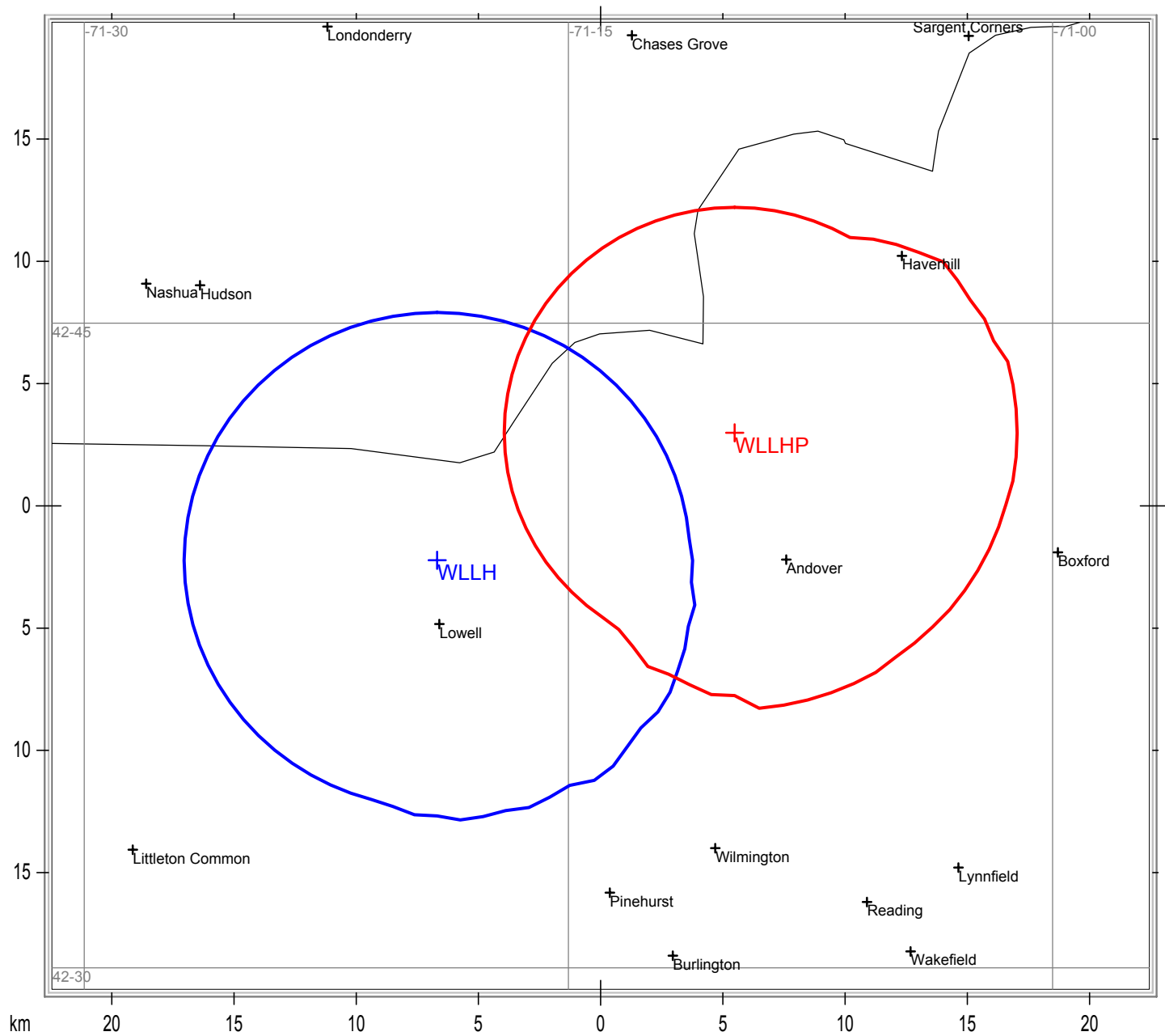
⁷ Stations WCAP(AM), WUML(FM) and WCRB(FM) are licensed to Lowell.

⁸ See Figures 2A and 3A, Tables 1A and 2A.

⁹ Based on Figures 2A and 3A, it can be safely concluded that in excess of ten stations provide service to the loss areas.

FIGURE 1A - 2 MV/M SERVICE COMPARISON MAP

LICENSED CONTOUR SHOWN IN BLUE AND PROPOSED CONTOUR IN RED

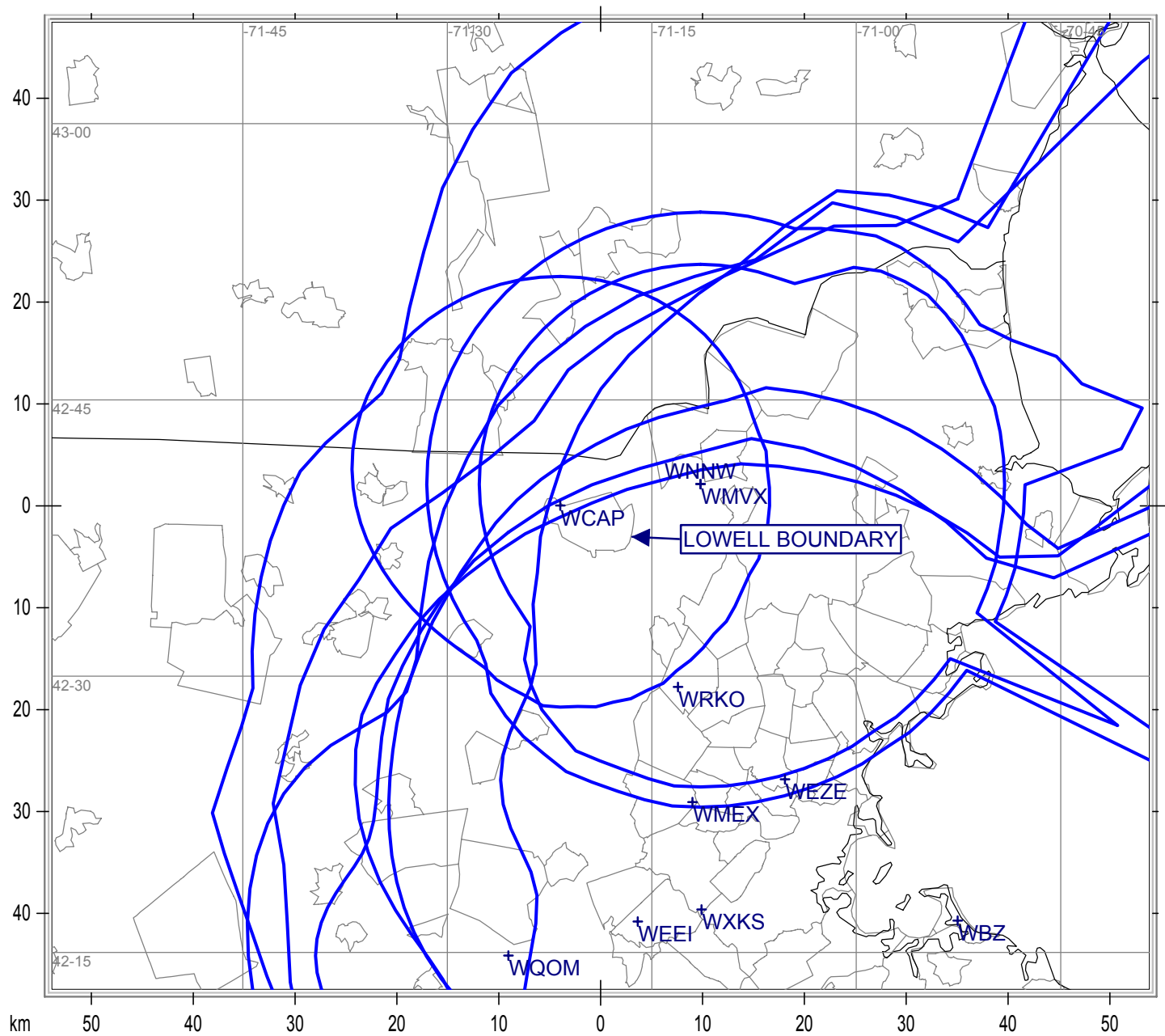


WLLH 1400 KILOHERTZ 1 KW ND LAWRENCE, MASSACHUSETTS

State Borders Lat/Lon Grid

FIGURE 2A - PROTECTED AM SERVICE TO LOWELL, MA

SUBMITTED IN SUPPORT OF APPLICATION TO RELOCATE TO LAWRENCE, MASSACHUSETTS



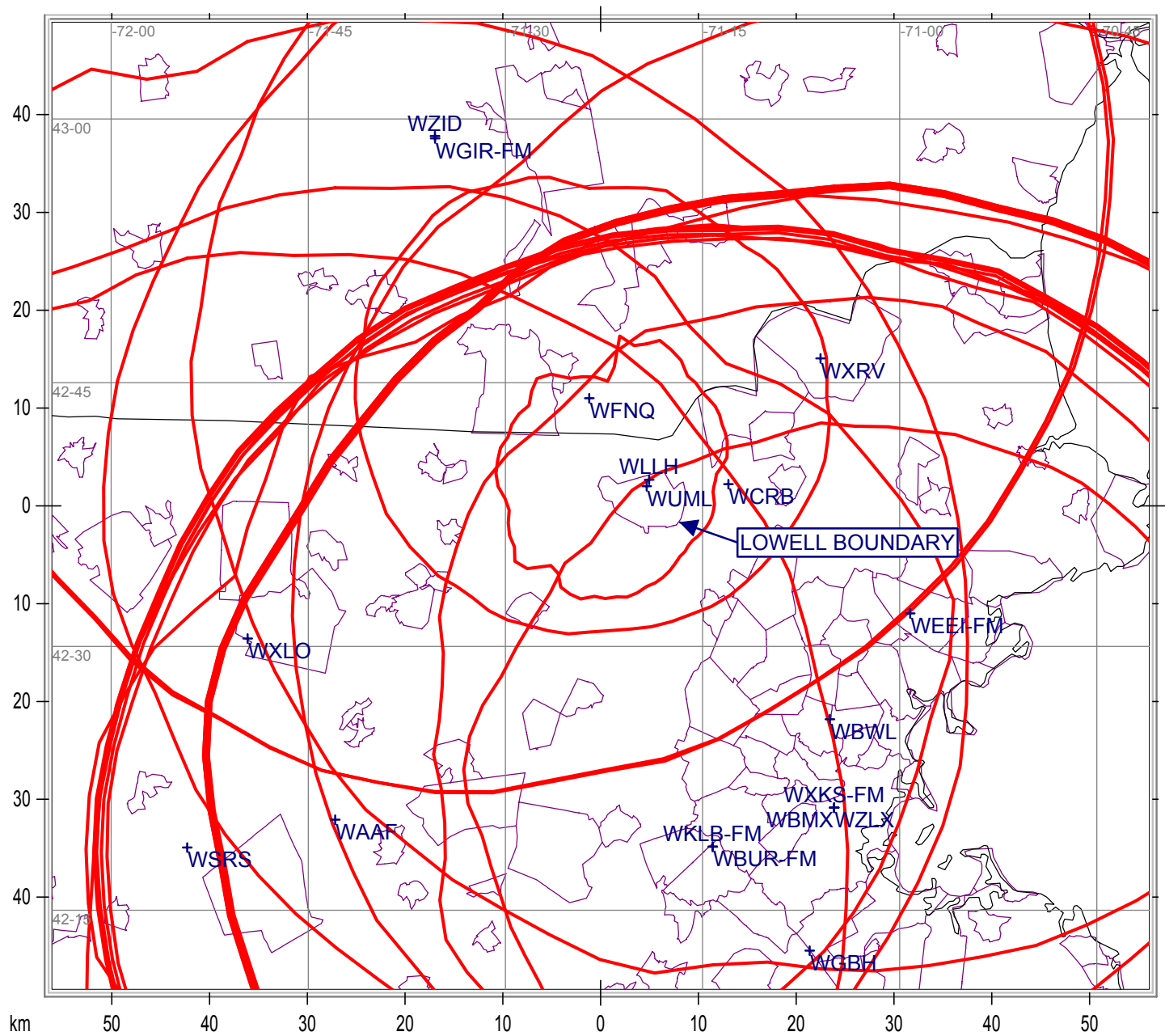
State Borders City Borders Lat/Lon Grid

Map Scale: 1:600000 1 cm = 6.00 km V/H Size: 94.91 x 107.74 km

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FIGURE 3A - PROTECTED FM SERVICE TO LOWELL, MA

SUBMITTED IN SUPPORT OF APPLICATION TO RELOCATE TO LAWRENCE, MASSACHUSETTS



WLLH 1400 KILOHERTZ 1 KW ND LAWRENCE, MASSACHUSETTS

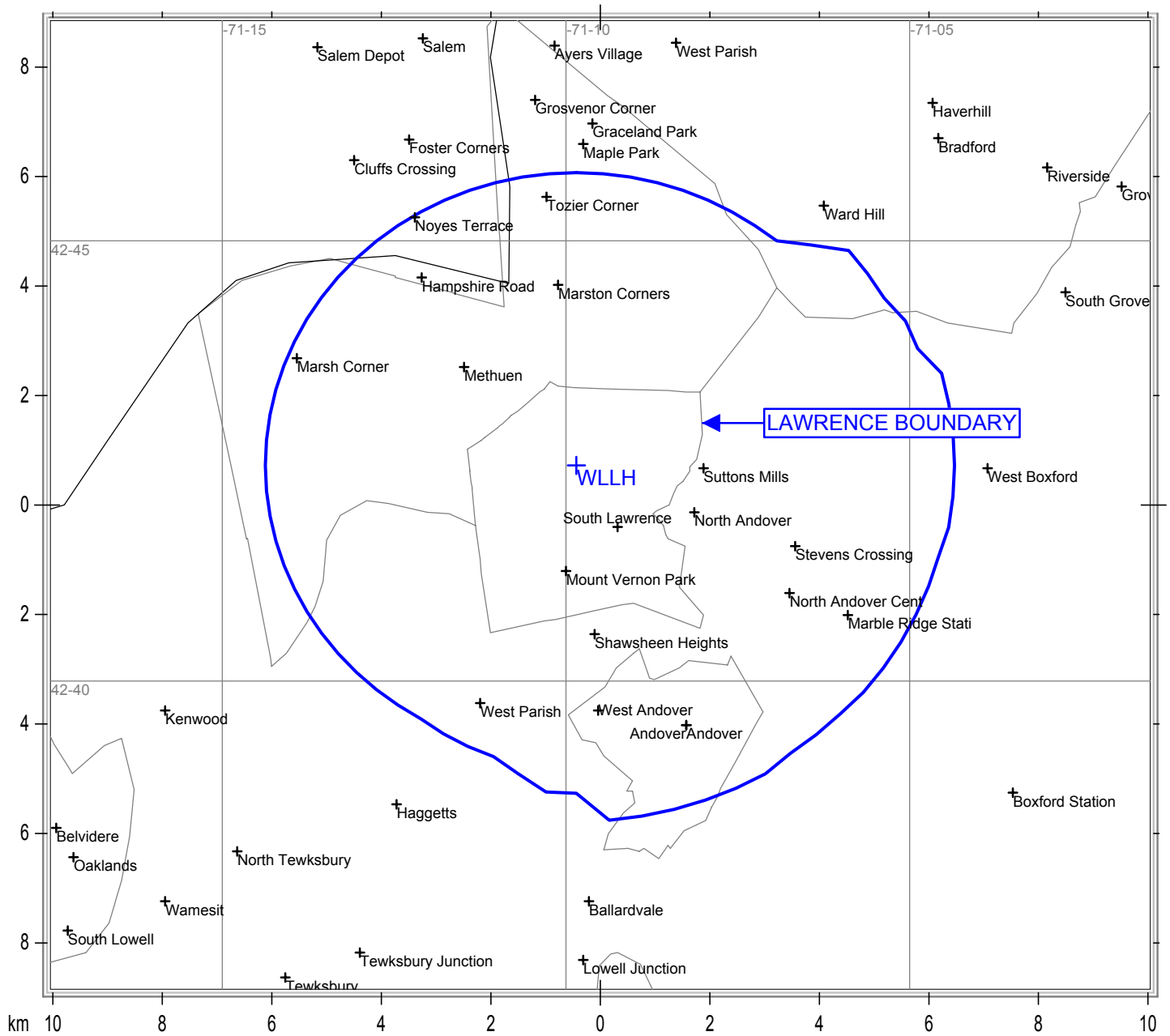
State Borders City Borders Lat/Lon Grid

Map Scale: 1:625000 1 cm = 6.25 km VJH Size: 98.87 x 112.23 km

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FIGURE 4A - CITY GRADE SERVICE MAP

SHOWING 5 MV/M CONTOUR



WLLH 1400 KILOHERTZ 1 KW ND LAWRENCE, MASSACHUSETTS

State Borders City Borders Lat/Lon Grid

Map Scale: 1:111854 1 cm = 1.12 km VJH Size: 17.69 x 20.09 km

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TABLE IA
AM STATIONS PROVIDING 2 MV/M DAY SERVICE TO LOWELL, MASSACHUSETTS

CALL	ST	CITY ARN LATITUDE	FREQ OWNER LONGITUDE	PAT	PWR	DESC
WMEX	MA	BOSTON BL20020619ACD 42-23-10.0 N	1510 DALY XXL COMMUNICATIONS LLC 71-12-01.0 W	LD	50.00	DA3
WCAP	MA	LOWELL BL19801014AT 42-39-16.0 N	980 MERRIMACK VALLEY RADIO, LLC 71-21-43.0 W	LD	5.000	DA2
WMVX	MA	METHUEN BP20161011AEG 42-40-26.0 N	1570 COSTA-EAGLE RADIO VENTURES LIMITED PARTNERSHIP 71-11-26.0 W	AD	44.00	ND2
WNNW	MA	LAWRENCE BL20060209AET 42-40-26.0 N	800 COSTA-EAGLE RADIO VENTURES LIMITED PARTNERSHIP 71-11-26.0 W	LD	3.000	ND2
WXKS	MA	NEWTON BMML20110217ADC 42-17-20.0 N	1200 CAPSTAR TX, LLC 71-11-21.0 W	LD	50.00	DA2
WQOM	MA	NATICK BL20111212CVV 42-14-50.0 N	1060 HOLY FAMILY COMMUNICATIONS 71-25-31.0 W	LD	50.00	DA2
WEEI	MA	BOSTON BMML20140314ADY 42-16-41.0 N	850 ENTERCOM LICENSE, LLC 71-16-02.0 W	LD	50.00	DA2
WRKO	MA	BOSTON BL19880712AH 42-29-25.0 N	680 ENTERCOM LICENSE, LLC 71-13-05.0 W	LD	50.00	DA2
WEZE	MA	BOSTON BL 42-24-24.0 N	590 PENNSYLVANIA MEDIA ASSOCIATES, INC. 71-05-14.0 W	LU	5.000	DA1
WBZ	MA	BOSTON BL19790525AI 42-16-44.0 N	1030 CBS RADIO EAST INC. 70-52-34.0 W	LU	50.00	DA1

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TABLE 2A
FM STATIONS PROVIDING PROTECTED SERVICE TO LOWELL, MASSACHUSETTS

CALL	ST	CITY ARN LATITUDE	FREQ OWNER LONGITUDE	CL	ERP HAAT:m	STAT AMSL:m
WERS	MA	BOSTON BLED-19900706KB 42-21-08.0 N	88.9 EMERSON COLLEGE 71-03-25.0 W	B1	4000 159.5	LIC 203.0
WAAF	MA	WESTBOROUGH BLH-20051019ABP 42-20-09.0 N	107.3 ENTERCOM LICENSE, LLC 71-42-57.0 W	B	9600 310.1	LIC 480.0
WBUR-FM	MA	BOSTON BPED-20160331ADI 42-18-36.6 N	90.9 THE TRUSTEES OF BOSTON UNIVERSITY 71-14-13.8 W	B	8600 337.6	CP 400.6
WXRV	MA	ANDOVER BLH-20061121ACI 42-46-23.0 N	92.5 BEANPOT LICENSE CORP. 71-06-01.0 W	B	25000 215.0	LIC 262.0
WKLB-FM	MA	WALTHAM BLH-20090515ABT 42-18-37.0 N	102.5 CHARLES RIVER BROADCASTING COMPANY 71-14-14.0 W	B	14000 265.5	LIC 320.0
WXLO	MA	FITCHBURG BMLH-19910920KB 42-30-27.0 N	104.5 RADIO LICENSE HOLDING CBC, LLC 71-49-37.0 W	B	37000 170.6	LIC 404.0
WZID	NH	MANCHESTER BLH-19870928KA 42-59-02.0 N	95.7 SAGA COMMUNICATIONS OF NEW ENGLAND, LLC 71-35-22.0 W	B	14500 277.0	LIC 431.0
WGIR-FM	NH	MANCHESTER BLH-19910718KC 42-58-54.0 N	101.1 CAPSTAR TX, LLC 71-35-21.0 W	B	11500 312.4	LIC 457.0
WZLX	MA	BOSTON BLH-19911018KF 42-20-50.0 N	100.7 CBS RADIO INC. OF BOSTON 71-04-59.0 W	B	21500 233.7	LIC 258.0
WGBH	MA	BOSTON BLED-19800609AH 42-12-42.0 N	89.7 WGBH EDUCATIONAL FOUNDATION 71-06-51.0 W	B	98000 195.0	LIC 242.0
WXKS-FM	MA	MEDFORD BLH-19911018KE 42-20-50.0 N	107.9 AMFM RADIO LICENSES, L.L.C. 71-04-59.0 W	B	20500 233.3	LIC 258.0

TABLE 2A

-2-

WBMX	MA	BOSTON BLH-19911018KD 42-20-50.0 N	104.1 INFINITY BROADCASTING CORPORATION 71-04-59.0 W	B 21000 230.2	LIC 258.0
WMJX	MA	BOSTON BLH-19911018KC 42-20-50.0 N	106.7 GREATER BOSTON RADIO, INC. 71-04-59.0 W	B 21500 210.2	LIC 258.0
WBQT	MA	BOSTON BLH-19960903KE 42-20-50.0 N	96.9 GREATER BOSTON RADIO, INC. 71-04-59.0 W	B 22500 208.7	LIC 247.0
WODS	MA	BOSTON BLH-20101105AA 42-18-27.4 N	103.3 CBS RADIO EAST INC. 71-13-26.7 W	B 8700 342.4	LIC 391.6
WUML	MA	LOWELL BLED-19940406KC 42-39-07.0 N	91.5 UNIVERSITY OF MASSACHUSETTS, LOWELL 71-19-15.0 W	A 1400 61.7	LIC 114.0
WBZ-FM	MA	BOSTON BLH-19900131KB 42-18-27.0 N	98.5 CBS RADIO STATIONS INC. 71-13-27.0 W	B 9000 346.3	LIC 393.0
WFNQ	NH	NASHUA BLH-19920527KA 42-44-07.0 N	106.3 WBIN MEDIA CO., INC. 71-23-37.0 W	A 950.00 147.5	LIC 242.0
WJMN	MA	BOSTON BLH-20031201AWA 42-18-27.0 N	94.5 AMFM RADIO LICENSES, L.L.C. 71-13-27.0 W	B 9200 343.6	LIC 394.0
WBOS	MA	BROOKLINE BLH-19940401KZ 42-18-12.0 N	92.9 GREATER BOSTON RADIO, INC. 71-13-08.0 W	B 13000 284.8	LIC 334.0
WROR-FM	MA	FRAMINGHAM BLH-20000223AAP 42-20-50.0 N	105.7 GREATER BOSTON RADIO, INC. 71-04-59.0 W	B 23000 196.4	LIC 247.0
WCRB	MA	LOWELL BLH-19990310KE 42-39-14.0 N	99.5 WGBH EDUCATIONAL FOUNDATION 71-13-02.0 W	B 27000 193.5	LIC 238.0
WBWL	MA	LYNN BLH-20150803ABJ 42-25-51.7 N	101.7 AMFM RADIO LICENSES, LLC 71-05-18.8 W	B1 13500 132.8	LIC 164.0
WSRS	MA	WORCESTER BMLH-20051227AFL 42-18-34.0 N	96.1 CAPSTAR TX, LLC 71-54-13.0 W	B 16500 260.4	LIC 503.0
WEEI-FM	MA	LAWRENCE BLH-20090904ACK 42-31-53.0 N	93.7 ENTERCOM LICENSE, LLC 70-59-12.0 W	B 34000 177.1	LIC 202.0