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Southwest Regional Office  
Obstruction Evaluation Group  
2601 Meacham Boulevard  
Fort Worth, TX 76137

Aeronautical Study No.  
2013-ANE-373-OE

Issued Date: 08/14/2013

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MP Franklin, LLC  
Millenium Partners  
172 Tremont Street  
Boston, MA 02116

**\*\* DETERMINATION OF NO HAZARD TO AIR NAVIGATION \*\***

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure:	Building One Franklin Tower - Point P1
Location:	Boston, MA
Latitude:	42-21-20.20N NAD 83
Longitude:	71-03-32.91W
Heights:	24 feet site elevation (SE) 666 feet above ground level (AGL) 690 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure would have no substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on the operation of air navigation facilities. Therefore, pursuant to the authority delegated to me, it is hereby determined that the structure would not be a hazard to air navigation provided the following condition(s) is(are) met:

As a condition to this Determination, the structure is marked/lighted in accordance with FAA Advisory circular 70/7460-1 K Change 2, Obstruction Marking and Lighting, red lights - Chapters 4,5(Red),&12.

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

- ☒ At least 10 days prior to start of construction (7460-2, Part I)  
☒ Within 5 days after the construction reaches its greatest height (7460-2, Part II)

See attachment for additional condition(s) or information.

Any height exceeding 666 feet above ground level (690 feet above mean sea level), will result in a substantial adverse effect and would warrant a Determination of Hazard to Air Navigation.

This determination expires on 02/14/2015 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.
- (c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

**NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.**

This determination is subject to review if an interested party files a petition that is received by the FAA on or before September 13, 2013. In the event a petition for review is filed, it must contain a full statement of the basis upon which it is made and be submitted in triplicate to the Manager, Airspace Regulations & ATC Procedures Group, Federal Aviation Administration, Airspace Regulations & ATC Procedures Group, 800 Independence Ave, SW, Room 423, Washington, DC 20591.

This determination becomes final on September 23, 2013 unless a petition is timely filed. In which case, this determination will not become final pending disposition of the petition. Interested parties will be notified of the grant of any review. For any questions regarding your petition, please contact Airspace Regulations & ATC Procedures Group via telephone -- 202-267-8783 - or facsimile 202-267-9328.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights, and frequencies or use of greater power will void this determination. Any future construction or alteration, including increase to heights, power, or the addition of other transmitters, requires separate notice to the FAA.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

This aeronautical study considered and analyzed the impact on existing and proposed arrival, departure, and en route procedures for aircraft operating under both visual flight rules and instrument flight rules; the impact on all existing and planned public-use airports, military airports and aeronautical facilities; and the cumulative impact resulting from the studied structure when combined with the impact of other existing or proposed structures. The study disclosed that the described structure would have no substantial adverse effect on air navigation.

An account of the study findings, aeronautical objections received by the FAA during the study (if any), and the basis for the FAA's decision in this matter can be found on the following page(s).

If we can be of further assistance, please contact Cindy Whitten, at (816) 329-2528. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2013-ANE-373-OE.

**Signature Control No: 184194254-196266575**

( DNH )

John Page

Manager, Obstruction Evaluation Group

Attachment(s)

Additional Information

Map(s)

The proposed new structure is a building at 666 feet to 677 feet Above Ground Level Height (AGL). Each of the four studies listed below represents a separate corner for the building. The proposed construction project (4 corner points) would be located approximately 9,689 feet west from the approach end of Runway 14 at the General Edward Lawrence Logan International Airport (BOS), Boston, MA. The proposed structure is identified as exceeding 14 CFR, Part 77, obstruction standards as applied to the BOS Airport. Originally the project was submitted at a proposed building height of 644 feet to 677 feet AGL. Once the 1A survey was completed to assist in mitigating IFR effects for the project, it was determined the original filing of the building corners was inaccurate. The corner heights and locations had been in part flipped. The sponsor has corrected all the corner heights and locations now and all data correctly matches the now submitted 1A survey. The coordinate changes were by less than a second in latitude and/or longitude and the building heights did not exceed the already provided highest point of 677 feet AGL. The over aeronautical effect of these changes from the original submission to the public is less, therefore no need or requirement for another public comment period. The following is what went out to the public for comment followed in parenthesis by the new heights and effects for each corner revision.

No negative comments or objections were received.

The proposed new structure is a building at 644 feet to 677 (now 666 to 677) feet Above Ground Level Height (AGL). Each of the four studies listed below represents a separate corner for the building. The proposed construction project (4 corner points) would be located approximately 9,689 feet west from the approach end of Runway 14 at the General Edward Lawrence Logan International Airport (BOS), Boston, MA. The proposed structure is identified as exceeding 14 CFR, Part 77, obstruction standards as applied to the BOS Airport.

In order to facilitate the public comment process, results of the separate analyses done for each of the four building corners that exceeded obstruction standards under the study numbers listed below were combined into one public circularization. All comments received from the public circularization were considered in completing the final, separate determinations for each of the proposed building corners (all 4 corner points for the building) under their respective Aeronautical Study Numbers (ASN) below.

2013-ANE-373-OE: (42-21-20.56N and 71-03-32.77W)

The proposed new structure is a building at 677 (now 666) feet Above Ground Height (AGL)/714 (now 690) feet Above Mean Sea Level (AMSL). This study (Point P1) is for one of four building corners. The proposed structure will be located approximately 9,689 (now 9,701) feet west of the approach end of Runway 14 at the General Edward Lawrence Logan International Airport (BOS), Boston, MA. The proposed structure is identified as exceeding 14 CFR, part 77, obstruction standards as follows as applied to the BOS Airport:

Section 77.17(a)(1): A height exceeding 499 feet AGL. Exceeds by 178 feet. (now 167 feet)

Section 77.17(a)(2): A height AGL or airport elevation, whichever is higher, exceeding 200 feet within 3 miles; would exceed by 477 feet. (now 466 feet)

Section 77.17(a)(3): A height that increases a minimum instrument flight altitude within a terminal area (TERPS criteria): AT 714 AMSL. General Edward Lawrence Logan International Airport (BOS): TAKEOFF MINIMUMS AND (OBSTACLE) DEPARTURE PROCEDURES TAKEOFF MINIMUMS: Runway (RWY) 27, standard with minimum climb gradient of (from 474 to 493) feet per Nautical Mile (NM) to 1300 feet,

No Effect Height (NEH): 326 feet AMSL, Object located in the departure Initial Climb Area (ICA) surface area. ILS or LOC RWY 4R; ILS or LOC RWY 22L; ILS or LOC RWY 27; ILS or LOC RWY 33L; ILS or LOC/DME RWY 15R; RNAV (GPS) RWY 4R; RNAV (GPS) RWY 15R; RNAV (GPS) RWY 22L; RNAV (GPS) RWY 27; RNAV (GPS) RWY 32; RNAV (GPS) RWY 33L; VOR/DME RWY 15R; VOR/DME RWY 27; VOR/DME RWY 33L; VOR/DME-A Plan on File Change 21 criteria Circling CAT B MDA (from 1000 to 1080) NEH: 699 feet AMSL (with 2C-accuracy survey) 649 feet AMSL with (4D-default survey) AMSL. RNAV (GPS) RWY 27 (PROPOSED) LPV DA (from 319 to 340) NEH: 693 feet AMSL with (4D-default accuracy) with a 1A survey accuracy no effect. Object penetrates the missed approach surface. RNAV (GPS) RWY 32 (PROPOSED) LNAV/VNAV DA (from 489 to 514) NEH: 677 feet AMSL (with 4D-default accuracy), with a 1A survey accuracy, no effect. Object penetrates the missed approach surface. Departure Note: Obstacle also penetrates 40:1 departure surface for Runway 14/22L/22R/33L by 11 to 172 feet. Mitigated by current published departure procedures. The sponsor has agreed to provide both a pre-built 1A accuracy survey (for site elevation and coordinates), and then an as-built 1A accuracy survey (for site elevation, coordinates and above ground height) to mitigate some of the IFR effects listed above. NOW: with the 1A survey, no IFR effect for this corner.

Section 77.19(a): The surface of a takeoff and landing area of an airport or any imaginary surface established under 77.19, 77.21, or 77.23; would exceed the horizontal surface by 544 feet. (now 520 feet)

Section 77.23(b): The approach surface for the proposed public use Kneeland street heliport (ID: 3857) by 329 feet. (now 309 feet)

It also exceeds the traffic pattern airspace climb and descent areas for Category B, C and D aircraft to runways 14/32, 09/27, 15R/33L, 15L/33R by 345 feet. (now by 320 feet)

2013-ANE-374-OE: (42-21-21.61N and 71-3-34.72W)

The proposed new structure is a building at 657 feet (now 677) Above Ground Height (AGL)/694 (now 709) feet Above Mean Sea Level (AMSL). This study (Point P2) is for one of four building corners. The proposed structure will be located approximately 9,832 (now 9,833) feet west of the approach end of Runway 14 at the General Edward Lawrence Logan International Airport (BOS), Boston, MA. The proposed structure is identified as exceeding 14 CFR, part 77, obstruction standards as follows as applied to the BOS Airport:

Section 77.17(a)(1): A height exceeding 499 feet AGL. Exceeds by 158 feet. (now 178 feet)

Section 77.17(a)(2): A height AGL or airport elevation, whichever is higher, exceeding 200 feet within 3 miles; would exceed by 457 feet. (now 477 feet)

Section 77.17(a)(3): A height that increases a minimum instrument flight altitude within a terminal area (TERPS criteria): AT 694 AMSL. General Edward Lawrence Logan International Airport (BOS): RNAV (GPS) RWY 32 (PROPOSED) LNAV/VNAV DA (from 489 to 498) No Effect Height (NEH) 681 feet AMSL (with 4d-default accuracy), with a 1A accuracy survey, no effect. Object penetrates the missed approach surface. Departure Note: Obstacle also penetrates 40:1 departure surface for Runway 22L/22R/27/33L by 93 to 365 feet. Mitigated by current published departure procedures. The sponsor has agreed to provide both a pre-built 1A accuracy survey (for site elevation and coordinates), and then an as-built 1A accuracy survey (for site elevation, coordinates and above ground height) to mitigate some of the IFR effects listed above.

With the 1A survey the following will be the only IFR effect now: AT 709 AMSL. General Edward Lawrence Logan International Airport (BOS) Plan on File Change 21 All procedures with CAT B CIRCLING MDA from 1000 to 1020, NEH: 700 AMSL. All other prior effects are mitigated.

Section 77.19(a): The surface of a takeoff and landing area of an airport or any imaginary surface established under 77.19, 77.21, or 77.23; would exceed the horizontal surface by 524 feet. (now 539 feet)

Section 77.23(b): The approach surface for the proposed public use Kneeland street heliport (ID: 3857) by 294 feet. (now 310 feet)

It also exceeds the traffic pattern airspace climb and descent areas for Category B, C and D aircraft to runways 14/32, 09/27, 15R/33L, 15L/33R by 324 feet. (now 339 feet)

2013-ANE-375-OE: (42-21-21.15N and 71-3-35.13W)

The proposed new structure is a building at 649 (now 669) feet Above Ground Height (AGL)/686 (now 700) feet Above Mean Sea Level (AMSL). This study (Point P3) is for one of four building corners. The proposed structure will be located approximately 9,864 (now 9,868) feet west of the approach end of Runway 14 at the General Edward Lawrence Logan International Airport (BOS), Boston, MA. The proposed structure is identified as exceeding 14 CFR, part 77, obstruction standards as follows as applied to the BOS Airport:

Section 77.17(a)(1): A height exceeding 499 feet AGL. Exceeds by 150 feet. (now 170 feet)

Section 77.17(a)(2): A height AGL or airport elevation, whichever is higher, exceeding 200 feet within 3 miles; would exceed by 449 feet. (now 469 feet)

Section 77.17(a)(3): A height that increases a minimum instrument flight altitude within a terminal area (TERPS criteria): AT 686 AMSL. General Edward Lawrence Logan International Airport (BOS): RNAV (GPS) RWY 32 (PROPOSED) LNAV/VNAV DA (from 489 to 492) No Effect Height (NEH) 681 feet AMSL (with 4d-default accuracy), with a 1A accuracy survey, no effect. Object penetrates the missed approach surface. Departure Note: Obstacle also penetrates 40:1 departure surface for Runway 22L/22R/27/33L by 85 to 365 feet. Mitigated by current published departure procedures. The sponsor has agreed to provide both a pre-built 1A accuracy survey (for site elevation and coordinates), and then an as-built 1A accuracy survey (for site elevation, coordinates and above ground height) to mitigate some of the IFR effects listed above. (Now: NO IFR EFFECT)

Section 77.19(a): The surface of a takeoff and landing area of an airport or any imaginary surface established under 77.19, 77.21, or 77.23; would exceed the horizontal surface by 516 feet. (now 530 feet)

Section 77.23(b): The approach surface for the proposed public use Kneeland street heliport (ID: 3857) by 292 feet. (now 306 feet)

It also exceeds the traffic pattern airspace climb and descent areas for Category B, C and D aircraft to runways 14/32, 09/27, 15R/33L, 15L/33R by 316 feet. (now 330 feet)

2013-ANE-376-OE: (42-21-19.98N and 71-3-33.49W)

The proposed new structure is a building at 644 (now 648) feet Above Ground Height (AGL)/681 (now 674) feet Above Mean Sea Level (AMSL). This study (Point P4) is for one of four building corners. The proposed

structure will be located approximately 9,745 (now 9,743) feet west of the approach end of Runway 14 at the General Edward Lawrence Logan International Airport (BOS), Boston, MA. The proposed structure is identified as exceeding 14 CFR, part 77, obstruction standards as follows as applied to the BOS Airport:

Section 77.17(a)(1): A height exceeding 499 feet AGL. Exceeds by 145 feet. (now 149 feet)

Section 77.17(a)(2): A height AGL or airport elevation, whichever is higher, exceeding 200 feet within 3 miles; would exceed by 444 feet. (now 448 feet)

Section 77.17(a)(3): A height that increases a minimum instrument flight altitude within a terminal area (TERPS criteria): AT 681 AMSL. General Edward Lawrence Logan International Airport (BOS): RNAV (GPS) RWY 32 (PROPOSED) LNAV/VNAV DA (from 489 to 492) No Effect Height (NEH) 677 feet AMSL (with 4d-default accuracy), with a 1A accuracy survey, no effect. Object penetrates the missed approach surface. Departure Note: Obstacle also penetrates 40:1 departure surface for Runway 22L/22R/27/33L by 85 to 365 feet. Mitigated by current published departure procedures. The sponsor has agreed to provide both a pre-built 1A accuracy survey (for site elevation and coordinates), and then an as-built 1A accuracy survey (for site elevation, coordinates and above ground height) to mitigate some of the IFR effects listed above. (NOW NO IFR EFFECT)

Section 77.19(a): The surface of a takeoff and landing area of an airport or any imaginary surface established under 77.19, 77.21, or 77.23; would exceed the horizontal surface by 511 feet. (now 504 feet)

Section 77.23(b): The approach surface for the proposed public use Kneeland street heliport (ID: 3857) by 303 feet. (now 299 feet)

It also exceeds the traffic pattern airspace climb and descent areas for Category B, C and D aircraft to runways 14/32, 09/27, 15R/33L, 15L/33R by 311 feet. (now 304 feet)

The proposal was circularized on July 1, 2013, to all known aviation interests and to non-aeronautical interests that may be affected by the proposal. No objections were received.

Aeronautical study disclosed that the proposed structure would have no effect on existing or proposed arrival, departure, or en route instrument flight rule (IFR) operations or procedures with one exception as follows: With the 1A survey the following will be the only IFR effect now: AT 709 AMSL. General Edward Lawrence Logan International Airport (BOS) Plan on File Change 21 All procedures with CAT B CIRCLING MDA from 1000 to 1020, NEH: 700 AMSL. All other prior effects are mitigated. No objections were received. A NOTAM to change the procedure will be implemented.

The proposed structure would have no effect on any existing or proposed IFR minimum flight altitudes or minimum vectoring altitudes.

The proposed structure would not penetrate those altitudes normally considered available to airmen for VFR en route flight. The proposed structure would be located within the traffic pattern airspace, however due to the location of this proposed structure within the existing city skyline it will not conflict with airspace required to conduct normal VFR traffic pattern and/or visual approach operations at BOS or any other known public use or military airports.

The proposed structure will be appropriately obstruction marked and/or lighted to make it more conspicuous to airmen flying in VFR weather conditions at night.

The cumulative impact of the proposed structure, when combined with other proposed and existing structures, is not considered to be significant. Study did not disclose any adverse effect on existing or proposed public-use or military airports or navigational facilities, nor would the proposal affect the capacity of any known existing or planned public-use or military airport.

Therefore, it is determined that the proposed structure would not have a substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on any air navigation facility and would not be a hazard to air navigation providing the conditions set forth in this determination are met.

# TOPO Map for ASN 2013-ANE-373-OE



