



Mail Processing Center
Federal Aviation Administration
Southwest Regional Office
Obstruction Evaluation Group
10101 Hillwood Parkway
Fort Worth, TX 76177

Aeronautical Study No.
2017-ANE-3284-OE

Issued Date: 02/28/2018

Harry McCall
Garden Garage - AECOM/Tishman Construction Corp.
One Federal Street
Suite 800
Boston, MA 02110

**** 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 Garden Garage Building
Location:	Boston, MA
Latitude:	42-21-55.38N NAD 83
Longitude:	71-03-54.15W
Heights:	11 feet site elevation (SE) 490 feet above ground level (AGL) 501 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 to be marked/lighted in accordance with FAA Advisory circular 70/7460-1 L Change 1, Obstruction Marking and Lighting, red lights - Chapters 4,5(Red),&12.

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.

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 1)
__X__ Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

See attachment for additional condition(s) or information.

This determination expires on 08/28/2019 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 March 30, 2018. 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 to the Manager of the Airspace Policy Group. Petitions can be submitted via mail to Federal Aviation Administration, 800 Independence Ave, SW, Room 423, Washington, DC 20591, via email at OEPetitions@faa.gov, or via facsimile (202) 267-9328.

This determination becomes final on April 09, 2018 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 Policy Group via telephone – 202-267-8783.

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, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, effective 21 Nov 2007, 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 includes all previously filed frequencies and power for this structure.

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.

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 David Maddox, at (202) 267-4525, or david.maddox@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2017-ANE-3284-OE.

Signature Control No: 341845324-358323960

(DNH)

Mike Helvey

Manager, Obstruction Evaluation Group

Attachment(s)

Additional Information

Case Description

Map(s)

Additional information for ASN 2017-ANE-3284-OE

The proposed building (The Garden Garage) consists of ten (10) case study points 2017-ANE-3281 thru 3290-OE), not exceeding a height of 490 feet (ft.) above ground level (AGL), 501 ft. above means sea level (AMSL), which would be located approximately 2.59 - 2.62 nautical miles (NM) west of General Edward Lawrence Logan International Airport's (BOS) airport reference point (ARP), Boston, MA.

Each building corner was studied separately at the location(s) and height(s) shown below:

2017-ANE-3281-OE: 42-21-56.15N/ 71-03-54.34W / 373 ft. AGL / 384 ft. AMSL
2017-ANE-3282-OE: 42-21-55.57N/ 71-03-54.74W / 373 ft. AGL / 384 ft. AMSL
2017-ANE-3283-OE: 42-21-55.38N/ 71-03-54.20W / 373 ft. AGL / 384 ft. AMSL
2017-ANE-3284-OE: 42-21-55.38N/ 71-03-54.15W / 490 ft. AGL / 501 ft. AMSL
2017-ANE-3285-OE: 42-21-54.40N/ 71-03-53.19W / 490 ft. AGL / 501 ft. AMSL
2017-ANE-3286-OE: 42-21-54.61N/ 71-03-52.81W / 490 ft. AGL / 501 ft. AMSL
2017-ANE-3287-OE: 42-21-54.64N/ 71-03-52.84W / 490 ft. AGL / 501 ft. AMSL
2017-ANE-3288-OE: 42-21-54.81N/ 71-03-52.51W / 490 ft. AGL / 501 ft. AMSL
2017-ANE-3289-OE: 42-21-55.92N/ 71-03-53.58W / 490 ft. AGL / 501 ft. AMSL
2017-ANE-3290-OE: 42-21-55.89N/ 71-03-53.64W / 373 ft. AGL / 384 ft. AMSL

Individual determinations will be issued for each building point.

The proposed building points have been identified as obstructions under the standards of Title 14, Code of Federal Regulations (CFR), Part 77, as applied to BOS for the following case studies:

Section 77.17 (a) (2): A height that is 200 ft. AGL, or above the established airport elevation, whichever is higher, within 3 NM of the established reference point of an airport, excluding heliports, with its longest runway more than 3,200 ft. in actual length, and that height increases in the proportion of 100 ft. for each additional NM from the airport up to a maximum of 499 ft. The proposed building exceeds by up to the following:

2017-ANE-3281-OE: 165 ft.
2017-ANE-3282-OE: 165 ft.
2017-ANE-3283-OE: 165 ft.
2017-ANE-3284-OE: 282 ft.
2017-ANE-3285-OE: 282 ft.
2017-ANE-3286-OE: 282 ft.
2017-ANE-3287-OE: 282 ft.
2017-ANE-3288-OE: 282 ft.
2017-ANE-3289-OE: 282 ft.
2017-ANE-3290-OE: 165 ft.

Section 77.17 (a) (5): The surface of a takeoff and landing area of an airport or any imaginary surface established under 77.19, 77.21, or 77.23. However, no part of the takeoff or landing area itself will be considered an obstruction.

Section 77.19 (b): Conical Surface. A surface, extending outward and upward, from the periphery of the horizontal surface at a slope of 20 to 1 for a horizontal distance of 4,000 ft. The proposed building exceeds by up to the following:

2017-ANE-3281-OE: 66 ft.
2017-ANE-3282-OE: 64 ft.
2017-ANE-3283-OE: 66 ft.
2017-ANE-3284-OE: 183 ft.
2017-ANE-3285-OE: 186 ft.
2017-ANE-3286-OE: 188 ft.
2017-ANE-3287-OE: 188 ft.
2017-ANE-3288-OE: 189 ft.
2017-ANE-3289-OE: 186 ft.
2017-ANE-3290-OE: 69 ft.

The proposed building exceeds the VFR traffic pattern airspace (TPA) Conical Surface for Category C/D aircraft (aircraft with approach speeds of 141 knots, but less than 166 knots) as applied to visual approach runways at BOS by up to 132 ft.

BOS RWY 14 Descent Area "D" Right "D" Right Exceeds by 132 ft.
BOS RWY 09 Descent Area "D" Left "D" Left Exceeds by 132 ft.
BOS RWY 14 Descent Area "C" Right "C" Right Exceeds by 132 ft.
BOS RWY 09 Descent Area "C" Left "C" Left Exceeds by 132 ft.
BOS RWY 33R Climb Area "D" Left "D" Left Exceeds by 132 ft.
BOS RWY 33R Climb Area "C" Left "C" Left Exceeds by 132 ft.

VFR Helicopter Route: VFR Helicopter Route (PIKER, Boston) runs east and west along the Charles River and the Inner Harbor to the Coast Guard Station. Proposal is located approximately 965 ft. south of the VFR Route.

Technical Operations Report: Possible electromagnetic interference to BOS ASR Radar: Possible shielding/cumulative radar effect between 290.92-to-291.37 degrees (total of 0.45 degrees) relative to the BOS radar antenna. Vertical Screening Angle: +1.49 Degrees. The no exceed height to limit adding to possible cumulative radar effect is 169 ft. AGL / 180 ft. AMSL.

Note: At 507 ft. AMSL, Boston / General Edward Lawrence Logan Intl (BOS), MA. Obstacle penetrates RWY 27 and RWY 32, 40:1 departure surface, however, departure NA, or required climb gradient is less than currently published, therefore no IFR effect.

In response to Notices of Presumed Hazard letters issued on January 12, 2018 a request was received from the sponsor on January 15, 2018 for circularization to the public. For the sake of efficiency, the adverse effects were circularized under case study 2017-ANE-3288-OE. After circularization to all known aviation interests and to non-aeronautical interests that may be affected by the proposal, no objections were received as a result of circularization.

Boston Air Traffic Control Tower (ATCT and Terminal Radar Approach Control (TRACON) had no objection to the Technical Operations report regarding possible radar interference, and stated; "Neither Boston ATCT nor Boston TRACON object to the possibility of radar shielding associated with this project - FUSION and ADS-B will mitigate the effects."

Aeronautical study, which included analysis from both internal and external Federal Aviation Administration (FAA) divisions, including the FAA Flight Procedures Team responsible for reviewing IFR effect, disclosed

that the proposal would have no effect on either existing or proposed instrument approach procedures, nor would it change current or future minimums to said procedures currently on file with the FAA at BOS. It is recommended the proposed monopole be lit with red lights at select locations for pilot conspicuity should circumnavigation be necessary, which is a prescribed mitigation for structures that exceed a Part 77 obstruction standard.

Aeronautical study disclosed that the proposal would have no effects on existing or proposed arrival, departure, or en route instrument flight rule (IFR) operations, minimum flight altitudes, minimum vectoring altitudes (MVA), aeronautical procedures, aeronautical facilities or at any other known public use or military airport. Information on the proposal shall be forwarded for appropriate aeronautical charting.

Study for possible VFR effect disclosed the proposal would exceed 77.19 (b) as noted above, but would have no effect on any existing or proposed arrival or departure VFR operations or procedures. The proposal would not conflict with any airspace required to conduct normal VFR traffic pattern and/or visual approach operations at BOS or at any other public-use, joint-use, or military airport. The proposal would not require a VFR aircraft to change its regular flight course or altitude, restrict VFR operations in any way, or create a dangerous situation during a critical phase of flight while operating under VFR conditions. Therefore, at a height of up to 490 ft. AGL, the proposed building would have no substantial adverse effects on any existing or proposed VFR arrival, VFR departure, en route, minimum flight altitudes, or VFR helicopter routes in the vicinity of this location.

The structure should be lit with red lights at select locations to make it more conspicuous to airmen should circumnavigation be necessary.

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

Therefore, it is determined that the proposal 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 as long as all conditions written within this determination are met.

Case Description for ASN 2017-ANE-3284-OE

A single 44-story residential building that is approximately 517,700 square feet with 470 units, and includes approximately 367,000 square feet of below-grade parking with 830 spaces. Project is associated with ASN 2017-ANE-3046-OE (Crane Filing)

