



TOWN OF NEEDHAM, MA

PLANNING AND COMMUNITY
DEVELOPMENT DEPARTMENT

500 Dedham Ave
Needham, MA 02492
781-455-7550

PLANNING

MAJOR PROJECT SITE PLAN SPECIAL PERMIT Amendment November 4, 2020

Normandy Real Estate Partners
Application No. 2012-07

(Original Decision dated October 16, 2012, amended and restated April 2, 2013, amended September 17, 2013, January 6, 2015, April 28, 2015, November 10, 2015 and April 25, 2016)

(Filed during the Municipal Relief Legislation, Chapter 53 of the Acts of 2020)

DECISION of the Planning Board (hereinafter referred to as the Board) on the petition of TripAdvisor LLC, 400 First Avenue, Needham, MA, (hereinafter referred to as the Petitioner), for property located at 400 First Avenue, Needham, Massachusetts. The property is shown on Assessor's Map 300 as Parcel 28 containing 13.68 acres in the New England Business Center Zoning District.

This Decision is in response to an application submitted to the Board and recorded with the Town Clerk on September 25, 2020, with a corrected application recorded with the Town Clerk on October 9, 2020, by the Petitioner to amend the Original Decision dated October 16, 2012, amended and restated April 2, 2013 (Section 3.38), amended September 17, 2013, January 6, 2015, April 28, 2015, November 10, 2015 and April 25, 2016. The requested amendment would, if granted, permit the Petitioner to install a fuel cell on site. The purpose of this project is to reduce electrical and heating costs while also reducing emissions of greenhouse gases and other air pollutants. The fuel cell would be mounted on a structural steel platform spanning the loading dock area fronting B street across from the Coca-Cola bottling facility. The platform will be screened using aluminum louvers specifically designed for mechanical screening.

After causing notice of the time and place of the public hearing and of the subject matter hereof to be published, posted and mailed to the Petitioner, abutters and other parties-in-interest as required by law, the hearing was called to order by the Chairperson, Jeanne S. McKnight on Tuesday, October 6, 2020 at 7:40 p.m. via remote meeting using Zoom ID 826-5899-3198. The hearing was continued to November 4, 2020 at 7:20 p.m. via remote meeting using Zoom ID 826-5899-3198 to allow for time to receive a corrected application and to re-notice with the proper applicant. Board members Jeanne S. McKnight Martin Jacobs, Paul S. Alpert, Ted Owens and Adam Block were present throughout the proceedings. The record of the proceedings and the submission upon which this decision is based may be referred to in the office of the Town Clerk or the office of the Board.

EVIDENCE

Submitted for the Board's review were the following exhibits:

- Exhibit 1 - Application Form for Site Plan Review completed by the applicant dated October 9, 2020 (as a correction to previously submitted application dated September 25, 2020).
- Exhibit 2 - Letter from Walter Bonola, Installation Project Manager, Doosan Fuel Cell America, Inc. to the Planning Board Members, dated September 3, 2020.
- Exhibit 3 - Design Review Board conditional approval dated August 10, 2020.
- Exhibit 4 - Plan Sheet M-700.00, entitled, "Section Sheet - 1," prepared by RST Technical Services, LLC, 101 Fellowship Road, Unit 43, Uwchland, PA, dated June 1, 2020.
- Exhibit 5 - Plan Sheet M-703.00, entitled, "Coordination Drawing," prepared by RST Technical Services, LLC, 101 Fellowship Road, Unit 43, Uwchland, PA, dated June 1, 2020.
- Exhibit 6 - Plan Sheet GA-003.00, entitled, "Fuel Cell Site Plan with Offsets," prepared by Genesys Engineering, 629 Fifth Avenue, Bldg 3, Suite 111, Pelham, NY, undated.
- Exhibit 7 - Airborne Noise Assessment, prepared by Acoustical Technologies Inc., 50 Myrock Ave, Waterford CT, dated August 25, 2020.
- Exhibit 8 - Interdepartmental Communication (IDC) to the Board from Thomas Ryder, Assistant Town Engineer, dated October 6, 2020; IDC to the Board from Tara Gurge, Health Department, dated September 30, 2020; IDC to the Board from Chief Dennis Condon, Fire Department, dated September 15, 2020; and IDC to the Board from the Building Commissioner, David Roche, dated September 16, 2020

FINDINGS AND CONCLUSIONS

The findings and conclusions made in Major Project Site Plan Special Permit No. 2012-07, dated October 16, 2012, amended and restated April 2, 2013, amended September 17, 2013, January 6, April 28, 2015, November 10, 2015 and April 25, 2016, were ratified and confirmed except as follows:

- 1.1. The property has been the subject of a number of site plan special permit decisions and amendments thereto. The original decision was dated October 16, 2012 and was amended and restated on April 2, 2013 and further amended on September 17, 2013, January 6, 2015, April 28, 2015, November 10, 2015 and April 25, 2016.
- 1.2 The requested amendment would, if granted, permit the Petitioner to install a fuel cell on site. The purpose of this project is to reduce electrical and heating costs while also reducing emissions of greenhouse gases and other air pollutants. The fuel cell would be mounted on a structural steel platform spanning the loading dock area fronting B street across from the Coca-Cola bottling facility. The platform will be screened using aluminum louvers specifically designed for mechanical screening.
- 1.3 The Petitioner describes the Fuel Cell as follows: Doosan's PureCell® Model 400 is a stationary phosphoric acid fuel cell (PAFC) power plant intended for distributed generation (DG) and combined heat and power (CHP) applications. It can produce ultra-clean, reliable electric power (460 kW in the first year and greater than 400 kW continuously for 10 years), and over 1.78 MMBtu/h of useful thermal energy. This heat can be used for space heating, hot water applications, and for driving an absorption chiller to provide cooling. With an optional grid-independent switchboard and controls, the Model 400 can also provide backup power when the

electric utility service fails. As long as natural gas is available, electric power and heat can be generated.

Natural gas is first converted to hydrogen in the fuel processing system (FPS) through a process known as catalytic steam reformation. Hydrogen and air are then supplied to four phosphoric acid fuel cell stacks, in which hydrogen and oxygen combine electrochemically to produce direct current (DC) electricity, heat, and water. Finally, alternating current (AC) electricity is produced through an on-board DC to AC inverter. Heat generated in the fuel cell process generates steam, which is returned to the FPS for use in the steam reformation process.

- 1.4 An acoustical study was included as part of this application (Exhibit 7). The acoustical study shows the project will be in compliance with all State of Massachusetts airborne noise requirements at all nearby properties.
- 1.5 The Petitioner appeared before the Design Review Board on August 10, 2020 and received conditional approval.
- 1.6 Under Section 7.4 of the By-Law and Section 4.2 of Major Project Site Plan Special Permit No. 2012-07, dated October 16, 2012 and last amended April 28, 2015, a Major Project Site Plan Special Permit Amendment may be granted in the New England Business Center Zoning District, if the Board finds that the proposed project complies with the standards and criteria set forth in the provisions of the By-Law. On the basis of the above findings and criteria, the Board finds that the Approved Plan Set, as conditioned and limited herein for Site Plan Review, to be in harmony with the purposes and intent of the By-Law, to comply with all applicable By-Law requirements, to have minimal adverse impact and to have proposed a development which is harmonious with the surrounding area.
- 1.7 Adjoining premises will be protected against any seriously detrimental uses of the proposed project by minimizing new impervious soil, screening with louvers, and acoustical levels that meet all state of Massachusetts airborne noise requirements.

The fuel cell will be mounted on a structural steel platform spanning the loading dock area fronting B street across from the Coca-Cola bottling facility. The platform will be screened using aluminum louvers specifically designed for mechanical screening. The louvers and the platform steel will be painted to match adjacent building envelope materials. The cooling module and purge gas manifold will be placed on the ground adjacent to the generator fuel tank and will be screened using the existing cedar fencing and an additional twenty feet of new fencing. Any landscaping plants removed for construction will be replaced once construction is complete.

An acoustical study was included as part of this application. The acoustical study shows the project will be in compliance with all State of Massachusetts airborne noise requirements at all nearby properties.

- 1.8 Convenience and safety of vehicular and pedestrian movement within the site and on adjacent streets and the location of driveway openings in relation to traffic or to adjacent streets has been assured. The proposed fuel cell will be mounted on a structural steel platform spanning the loading dock area some twenty feet in the air. The cooling module and purge gas manifold will be placed on the ground adjacent to the generator fuel tank and will be screened using the existing cedar fencing and an additional twenty feet of new fencing. The structural supports for the steel platform will be constructed in a manner to allow adequate pedestrian and vehicular traffic on the existing side-walks adjacent to the loading dock and will be protected by 12" concrete filled steel

bollards. The proposed project will have no impact to vehicular or pedestrian movement within the site or on the adjacent streets.

- 1.9 Adequacy of the arrangement of parking and loading spaces in relation to the proposed uses of the premises has been assured. The proposed project will have no impact on the arrangement of parking and loading spaces on the premises. During operation it is expected that a Doosan service vehicle will visit the project location approximately once per month, having no impact on the adequacy of parking and loading for the existing facility.
- 1.10 Adequate methods of disposal of refuse and other wastes resulting from the uses permitted on the site have been provided. Any waste generated during normal servicing of the fuel cell system will be disposed of by Doosan's technicians in accordance with all state and federal laws. A minimal amount of material is expected to be generated through normal replacement of internal components. This waste generation will not have an adverse impact on the facilities ability to dispose of refuse and waste. The fuel cell system does not produce any hazardous waste.
- 1.11 The proposed project will not have any adverse impacts on the Town's resources, including the effect on the Town's water supply and distribution system, sewer collection and treatment, fire protection and streets. The site is already developed. The proposed project will not have an adverse effect on the Town's resources, including the Town's water supply and distribution system, sewer collection and treatment, fire protection and streets.

The proposed project will connect to the towns water system and use approximately 3,000 gallons per year of water at a maximum flow of 2 gallons per minute, a minor impact to the Town's water system. The Fuel Cells are certified by CSA international to meet strict ANSI/CSA FC-1 2014 safety standards to protect against risks from electrical, mechanical, chemical, and combustion safety hazards. This project has been designed in accordance with NFPA 853 for the safe installation of stationary fuel cell systems. An emergency response plan will be shared with the Fire Chief as part of the building permit application process. The proposed project will have no appreciable generation of motor vehicle traffic, with approximately one service vehicle visiting per month.

The fuel cell system will provide 460 kW of clean renewable electric power and 1.8 million BTU/hour of available thermal energy to the building infrastructure reducing Trip Advisor's reliance on electric grid power and significantly reducing consumption of natural gas for heating the facility all without combustion of any kind. With heat and electricity utilized the installation will achieve a total efficiency of 78% and utilizing state of Massachusetts and power company incentives will result in a significant long-term cost savings to Trip Advisor and a reduction in their carbon footprint.

The addition of this system will have a positive impact on the Town, both from improving the financial performance of a key employer in town and providing a reduction in carbon footprint.

- 1.12 Relationship of structures and open spaces to the natural landscape, existing buildings and other community assets in the area and compliance with other requirements of the By-Law has been met. The fuel cell will be mounted on a structural steel platform spanning the loading dock area fronting B street across from the Coca-Cola bottling facility. The platform will be screened using aluminum louvers specifically designed for mechanical screening. The louvers and the platform steel will be painted to match adjacent building envelope materials. The cooling module and purge gas manifold will be placed on the ground adjacent to the generator fuel tank and will be

screened using the existing cedar fencing and an additional twenty feet of new fencing. Any landscaping plants removed for construction will be replaced once construction is complete.

- 1.13 Under Section 7.4 of the By-Law, a Major Project Site Plan Review Special Permit Amendment may be granted in the New England Business Center Zoning District, if the Board finds that the proposed development complies with the standards and criteria set forth in the provisions of the By-Law. On the basis of the above findings and conclusions, the Board finds that the proposed development Plan, as conditioned and limited herein for the site plan review, to be in harmony with the purposes and intent of the By-Law, to comply with all applicable By-Law requirements, to have minimal adverse impact and to have promoted a development which is harmonious with the surrounding area.

PLAN MODIFICATIONS

Prior to the issuance of a building permit or the start of any construction pertaining to this Decision, the Petitioner shall cause the Plan to be revised to show the following additional, corrected, or modified information. The Building Inspector shall not issue any building permit for the work proposed in this Decision nor shall he permit any construction activity pertaining to this Decision to begin on the site until and unless he finds that the Plan is revised to include the following additional corrected or modified information. Except where otherwise provided, all such information shall be subject to the approval of the Building Inspector. Where approvals are required from persons other than the Building Inspector, the Petitioner shall be responsible for providing a written copy of such approvals to the Building Inspector before the Inspector shall issue any building permit or permit for any construction on the site. The Petitioner shall submit four copies of the final Plans as approved for construction by the Building Inspector to the Board prior to the issuance of a Building Permit.

1. The Plan shall be revised consistent with the recommendations of the Design Review Board (Exhibit 3) as follows: Install a gate and panel to match the screen wall above the loading area and provide a cedar fence enclosure in place of the metal fence enclosure shown at the rear of the building and provide a security gate at the foot of the staircase.

CONDITIONS AND LIMITATIONS

The plan modifications, conditions and limitations contained in Major Project Site Plan Special Permit No. 2012-07, dated October 16, 2012, amended and restated April 2, 2013, amended September 17, 2013, January 6, April 28, 2015, November 10, 2015 and April 25, 2016, are ratified and confirmed except as modified herein.

DECISION

NOW THEREFORE, by unanimous vote of the Planning Board, the Board votes that:

- 3.1 The plan modifications, conditions and limitations contained in Major Project Site Plan Special Permit No. 2012-07, dated October 16, 2012, amended and restated April 2, 2013, amended September 17, 2013, January 6, April 28, 2015, November 10, 2015 and April 25, 2016 are ratified and confirmed, except as follows:
- 3.2 The proposed fuel cell shall contain the dimensions and shall be located on that portion of the locus exactly as shown on the Plan, as modified by this Decision, and in accordance with the

applicable dimensional requirements of the By-Law. Any changes, revisions or modifications to the Plan, as modified by this Decision, shall require approval by the Board.

- 3.3 The proposed fuel cell shall be installed and operated as described in Sections 1.2, 1.3, and 1.4 of this Decision and as further described under Exhibits 1, 2, 3, 4, 5, 6 and 7. Any changes of such above-described use shall be permitted only by amendment of this Approval by the Board.
- 3.4 The Petitioner shall obtain all necessary Federal, state and local permits for the project. The facility shall operate in compliance with all applicable lawful requirements imposed by local, state and/or federal authorities, including those addressing sound attenuation to protect the adjoining properties and nearest inhabited residence.
- 3.5 All construction staging shall be on-site. No construction parking shall be on public streets. Construction parking shall be all on site or a combination of on-site and off-site parking at locations in which the Petitioner can make suitable arrangements. Construction staging plans shall be included in the final construction documents prior to the filing of a Building Permit and shall be subject to the review and approval of the Building Inspector.
- 3.6 The following interim safeguards shall be implemented during construction:
 - a. The hours of construction shall be 7:00 a.m. to 5:00 p.m. Monday through Saturday not at all on Sundays and holidays.
 - b. The Petitioner's contractor shall provide temporary security chain-link or similar type fencing around the portions of the project site, which require excavation or otherwise pose a danger to public safety.
 - c. The Petitioner's contractor shall designate a person who shall be responsible for the construction process. That person shall be identified to the Police Department, the Department of Public Works, the Building Inspector and the abutters and shall be contacted if problems arise during the construction process. The designee shall also be responsible for assuring that truck traffic and the delivery of construction material does not interfere with or endanger traffic flow on First Avenue or surrounding streets.
- 3.7 No building permit shall be issued for the proposed project in pursuance of the Special Permit and Site Plan Approval until:
 - a. The final plans shall be in conformity with those approved by the Board, and a statement certifying such approval shall have been filed by this Board with the Building Commissioner.
 - b. A construction management and staging plan shall have been submitted to the Police Chief and Building Commissioner for their review and approval.
 - c. The Petitioner shall have recorded with the Norfolk County Registry of Deeds a certified copy of this Decision granting this Special Permit and Site Plan Approval with the appropriate reference to the book and page number of the recording of the Petitioner's title deed or notice endorsed thereon.
- 3.8 The fuel cell installation that is subject to the Special Permits and Site Plan Approval shall not be activated until:

- a. An as-built plan, supplied by the engineer of record showing that the fuel cell was installed according to the approved documents, shall be submitted to the Board and Department of Public Works. The as-built plan shall show the building, and all final construction details of the fuel cell installation improvement on-site, in its true relationship to the lot lines. In addition to the engineer of record, said plan shall be certified by a Massachusetts Registered Land Surveyor.
 - b. There shall be filed with the Building Commissioner and Board a statement by the Department of Public Works certifying that the fuel cell has been constructed to the standards of the Town of Needham Department of Public Works and in accordance with the approved Plan.
 - c. There shall be filed with the Board and Building Commissioner a Final Construction Control Document signed by a registered structural engineer upon completion of construction.
 - d. There shall be filed with the Board and Building Commissioner an as-built Landscaping Plan showing the final location, number and type of plant material, final landscape features for the project. Said plan shall include a certification that such improvements were completed according to the approved documents.
 - e. There shall be filed by the Petitioner a supplemental letter from the Petitioner's acoustical engineer (see Exhibit 7) confirming that the fuel cell as installed and tested meets all applicable Federal, state and local regulations, including those addressing sound attenuation to protect the adjoining adjacent properties.
- 3.9 The applicant, by accepting this permit decision, warrants that the applicant has included all relevant documentation, reports, and information available to the applicant in the application submitted, and that this information is true and valid to the best of the applicant's knowledge.
- 3.10 Violation of any of the conditions of this Decision shall be grounds for revocation of any building permit or certificate of occupancy granted hereunder as follows: In the case of violation of any conditions of this Decision, the Town will notify the Petitioner of such violation and give the Petitioner reasonable time, not to exceed thirty (30) days, to cure the violation. If, at the end of said thirty (30) day period, the Petitioner has not cured the violation, or in the case of violations requiring more than thirty (30) days to cure, has not commenced the cure and prosecuted the cure continuously, the permit granting authority may, after notice to the Petitioner, conduct a hearing in order to determine whether the failure to abide by the conditions contained herein should result in a recommendation to the Building Inspector to revoke any building permit or certificate of occupancy granted hereunder. This provision is not intended to limit or curtail the Town's other remedies to enforce compliance with the conditions of this Decision including, without limitation, by an action for injunctive relief before any court of competent jurisdiction. The Petitioner agrees to reimburse the Town for its reasonable costs in connection with the enforcement of the conditions of this Decision if the Town prevails in such enforcement action.

LIMITATIONS

- 4.0 The authority granted to the Petitioner by this permit is limited as follows:
- 4.1 This permit applies only to the site and off-site improvements, which are the subject of this petition. All construction to be conducted on-site and off-site shall be conducted in accordance

with the terms of this permit and shall be limited to the improvements on the Plan, as modified by this Decision.

- 4.2 There shall be no further development of this site without further site plan approval as required under Section 7.4 of the By-Law. The Board, in accordance with M.G.L., Ch. 40A, S.9 and said Section 7.4, hereby retains jurisdiction to (after hearing) modify and/or amend the conditions to, or otherwise modify, amend or supplement, this Decision and to take other action necessary to determine and ensure compliance with the Decision.
- 4.3 This Decision applies only to the requested Special Permits and Site Plan Review. Other permits or approvals required by the By-Law, other governmental boards, agencies or bodies having jurisdiction shall not be assumed or implied by this Decision.
- 4.4 No approval of any indicated signs or advertising devices is implied by this Decision.
- 4.5 The foregoing restrictions are stated for the purpose of emphasizing their importance but are not intended to be all-inclusive or to negate the remainder of the By-Law.
- 4.6 This Site Plan Special Permit Amendment shall lapse on November 4, 2022, if substantial use thereof has not sooner commenced, except for good cause. Any requests for an extension of the time limits set forth herein must be in writing to the Board at least 30 days prior to November 4, 2022. The Board herein reserves its rights and powers to grant or deny such extension without a public hearing. The Board, however, shall not grant an extension as herein provided unless it finds that the use of the property in question or the construction of the site has not begun, except for good cause.

This approval shall be recorded in the Norfolk District Registry of Deeds. This Special Permit Amendment shall not take effect until a copy of this decision bearing the certification of the Town Clerk that twenty (20) days have elapsed after the decision has been filed in the Town Clerk's office or that if such appeal has been filed, that it has been dismissed or denied is recorded with Norfolk District Registry Deeds and until the Petitioner has delivered a certified copy of the recorded document to the Board.

The provisions of this Special Permit Amendment shall be binding upon every owner or owner of the lots and the executors, administrators, heirs, successors and assigns of such owners, and the obligations and restrictions herein set forth shall run with the land, as shown on the Plan, in full force and effect for the benefit of and enforceable by the Town of Needham.

Any person aggrieved by this decision may appeal pursuant to the General Laws, Chapter 40A, Section 17 within twenty (20) days after filing of this decision with the Needham Town Clerk.

