



*The Commonwealth of Massachusetts*  
*Executive Office of Energy and Environmental Affairs*  
*100 Cambridge Street, Suite 900*  
*Boston, MA 02114*

Charles D. Baker  
GOVERNOR

Karyn E. Polito  
LIEUTENANT GOVERNOR

Kathleen A. Theoharides  
SECRETARY

Tel: (617) 626-1000  
Fax: (617) 626-1081  
<http://www.mass.gov/eea>

April 30, 2021

CERTIFICATE OF THE SECRETARY OF ENERGY AND ENVIRONMENTAL AFFAIRS  
ON THE  
SINGLE ENVIRONMENTAL IMPACT REPORT

PROJECT NAMES : Founders Park (Previously Reviewed as Center 128)  
PROJECT MUNICIPALITY : Needham  
PROJECT WATERSHED : Charles River  
EEA NUMBER : 15233  
PROJECT PROPONENT : Children's Hospital Corporation  
DATE NOTICED IN MONITOR : March 24, 2021

Pursuant to the Massachusetts Environmental Policy Act (MEPA; M.G.L. c. 30, ss. 61-62I) and Section 11.08 of the MEPA regulations (301 CMR 11.00), I have reviewed the Single Environmental Impact Report (SEIR) and hereby determine that it **adequately and properly** complies with MEPA and its implementing regulations.

Original Project and Procedural History

MEPA review of the original Center 128 Project commenced in 2014 when an Expanded Environmental Notification Form (EENF) was submitted which described redevelopment of 13.68 acres of land within the New England Business Center (NEBC) in Needham. The original Center 128 West project included a 128-room hotel and approximately 740,000 square feet (sf) of office space within four buildings (total floor area of 829,740 sf), and two parking structures (approximately 2,734 spaces in both structured and surface parking). Center 128 West was proposed to be constructed in three phases:

- Phase Zero – Marriott Residence Inn (occupied);
- Phase 1 – 288,000-sf office building entirely preleased to Trip Advisor (occupied) and the first half of an eight-level, approximately 2,040-vehicle parking garage (Garage B) (B1); and
- Phase 2 – three additional office buildings (four- and five-story) totaling approximately 452,000 sf, the remaining half of Garage B (B2), and a second six-level, approximately 700-space parking structure (Garage A).

The Certificate on the EENF, issued on September 5, 2015, allowed submission of a SEIR (2014 SEIR). On December 31, 2014, a Certificate on the 2014 SEIR was issued indicating that it adequately and properly complied with MEPA.

In 2015, the MEPA Office was notified that additional development was being proposed on land located immediately northeast of the Center 128 West project, which included redevelopment of buildings currently occupied by General Dynamics into a mixed-use office complex, and construction of a 390-unit residential development adjacent to A Street and 2<sup>nd</sup> Avenue. A Notice of Project Change (NPC) was submitted that addressed the cumulative impacts of the overall development, including the previously reviewed Center 128 West project, the General Dynamics Redevelopment, and the 2<sup>nd</sup> Avenue residences, in light of required State Agency approvals and permits; the potential environmental impacts of each project component, both individually and cumulatively; and measures that could be undertaken to avoid, minimize, and mitigate these impacts. The NPC (submitted in 2015) described an expanded development program consisting of:

- Center 128 West project;
- General Dynamics Redevelopment (Center 128 East):
  - 77 A Street: retain building and provide approximately 262,000 sf of office space;
  - 189 B Street: retain building and provide approximately 170,000 sf of office space;
  - 156 B Street: replace building with an approximately six-story, 966-space parking structure and a two-story building with approximately 20,000 sf of ground-floor retail space and 20,000 sf of office space on the second floor;
  - Approximately 539 surface parking spaces distributed throughout the site; and
  - Associated infrastructure, including a stormwater management system and utilities.
- 2<sup>nd</sup> Avenue Residences – five-story 390-unit affordable housing rental development, a five-story parking structure containing 576 parking spaces, nine surface parking spaces, and associated infrastructure, including a stormwater management system and utilities.

On May 15, 2015, a Certificate on the NPC was issued which determined that the project change required a Draft Supplemental Environmental Impact Report (DSEIR) (filed in 2015). The DSEIR described two significant changes to the Center 128 component of the project: replacement of the existing building at 156 B Street with a five-story 91,000-sf building, including a 128-room hotel with approximately 19,000 sf of ground floor retail space; and elimination of the six-level 966-space parking structure and expansion of parking structures on the Center 128 West site (380R Garage (previously referred to as Garage B) would provide an additional 560 spaces, and the 400R Garage would provide an additional 345 spaces). The Center 128 West project was modified to accommodate parking changes as follows: Phase 1 included approximately one-third of Parking Garage 380R (built portion is eight levels and provides 1,077 parking spaces); Phase 2 would include the remaining two-thirds of the eight-level Garage 380R that will add 1,518 parking spaces for a total of 2,565 spaces; and Phase 3 would include a second eight-level, approximately 925-space Parking Garage 400R to be constructed over approximately five years.

A Certificate on the DSEIR (issued on October 16, 2015) determined that it adequately and properly complied with MEPA and required a Final Supplemental Environmental Impact Report (FSEIR). The FSEIR was submitted in 2016 and included three main components: Center 128 West,

Center 128 East and the 2<sup>nd</sup> Avenue Residences. The project included 1,818,429 sf of buildings consisting of office, hotel, retail, residences, and surface and structured parking. The Certificate on the FSEIR (issued on February 26, 2016) determined that it adequately and properly complied with MEPA.<sup>1</sup>

### Project Site

The NEBC is a commercial area bounded by Highland Avenue to the north, 2<sup>nd</sup> Avenue and 4<sup>th</sup> Avenue to the east, Kendrick Street to the south, and Interstate 95 (I-95)/Route 128 to the west. The Center 128 West project site (within the NEBC) is bounded by A Street to the north, parking and offices to the east, B Street to the south, and 1<sup>st</sup> Avenue to the west. The 13.68-acre site was previously developed with office and light industrial uses that were razed in 2012 and 2013 to accommodate new construction. A five-story, 128-room Marriot Residence Inn is located adjacent to B Street in the southeast corner of the site and includes approximately 110 parking spaces. The six-story Trip Advisor office building is located at the corner of 1<sup>st</sup> Avenue and B Street in the southwest corner of the site. The first half of Garage B is located in the central east portion of the site. The site is served by municipal utilities. The site does not contain any wetland resource areas and the remainder is undeveloped.

The Center 128 East site and 2<sup>nd</sup> Avenue Residences site include an additional 27.25 acres to the northeast of the Center 128 West. The Center 128 East site is located on land that was occupied by General Dynamics, comprised of three buildings with a total floor area of 507,900 sf and 790 surface parking spaces. It is bounded by A Street to the northwest, 2<sup>nd</sup> Avenue to the northeast, office and commercial buildings to the east, and southeast, and the Center 128 West site to the southwest. The 2<sup>nd</sup> Avenue Residences site is located to the east of the Center 128 site.

### Description of Project Change

As described in the Expanded NPC (ExNPC) submitted in 2021, Founders Park (previously reviewed as Center 128) encompasses approximately 41 acres on the east side of I-95/Route 128 between the Highland Avenue and Kendrick Street exits. The location and extent of Founders Park has not changed since previous MEPA filings and includes Center 128 West, Center 128 East, and the 2<sup>nd</sup> Avenue Residences. Development within Founders Park consists of four new office buildings and two renovated office buildings totaling 1,160,429 sf; two hotels with a total of 308 rooms; 19,000 sf of retail space; 390 residential units; and a total of 4,879 parking spaces distributed among three garages with 4,101 spaces, and 778 surface spaces (Table 1-1 of the ExNPC). The following components have been completed to date: one of the new office buildings in Center 128 West (the Trip Advisor Office at 400 First Avenue), the renovated offices in Center 128 East, one of the hotels (the Residence Inn in Center 128 West), the 2<sup>nd</sup> Avenue Residences, and a portion of one of the proposed parking garages (Garage B).

The ExNPC described the proposed Boston Children's Hospital (BCH) Project which proposes to change the use (from office to pediatric medical facility) of one of the previously reviewed buildings in Founders Park (Center 128 West). The project change consists of construction of a 224,000-sf Pediatric Medical Facility at 380 First Avenue. This site is currently vacant and was previously programmed for 189,509 sf of office space. To offset the 34,491-sf increase in area at the 380 First

---

<sup>1</sup> An NPC was submitted in 2018 which identified changes to the hotel component of the proposed development plan to add 52 hotel rooms to the Center 128 East Hotel (156 B Street) (from 128 to 180 rooms). The Certificate on the 2018 NPC (issued on November 28, 2018) determined the project change was insignificant and did not require a Supplemental EIR.

Avenue site, the amount of office space programmed for the 37 A Street site will be reduced by 34,491 sf (from 135,000 sf to 100,509 sf). Therefore, the changes proposed in the ExNPC will not increase the total size of development approved for Founders Park (see table below). BCH will also acquire parcels at 37 A Street and 2 B Street, both of which are also unbuilt development sites within the western section of Founders Park (Center 128 West). Although BCH has no current plans to develop 37 A Street and 2 B Street, these parcels will remain intended for office use.

Street Address	Size as Previously Reviewed by MEPA and Approved by Town	Proposed	Change
380 First Ave.	189,509 sf 5 Stories / 84 feet	224,000 sf 5 Stories / 84 feet	+34,491 sf
2 B Street	127,145 sf 5 Stories / 72 feet	No change	0
37 A Street	135,000 sf 5 Stories / 70 feet	100,509 sf 4 Stories / 56 feet	-34,491 sf

The Pediatric Medical Facility will be supported by two parking facilities. The first facility is the parking garage at 380R First Street (Garage B). This garage has already been constructed and contains 2,070 parking spaces; the Proponent will construct an addition with 530 spaces, consistent with the previously approved development. As an interim condition, the Proponent will construct a 105-space surface lot at 37 A Street. When 37 A Street and 2 B Street are developed, the Proponent will construct the previously planned 925-space parking garage at 400R First Avenue (Garage A). The Pediatric Medical Facility will include a patient pick-up/drop-off area with direct access to the building front door. Access is proposed to the parking facilities from First Avenue, A Street, B Street, and Third Avenue. The ExNPC does not propose any changes to the total number of parking spaces, nor to site access and circulation. The change of use will result in 4,622 net new unadjusted daily vehicle trips compared to the previously approved project.

Jurisdiction and Permitting

The original project was required to undergo MEPA review and was subject to a mandatory EIR pursuant to 301 CMR 11.03(6)(a)(6) and 11.03(6)(a)(7) of the MEPA regulations because it required Agency Actions and would generate 3,000 or more adt on roadways providing access to a single location and require the construction of 1,000 or more new parking spaces at a single location. The Massachusetts Department of Transportation (MassDOT) issued a Vehicular Access Permit for the original project on June 24, 2016. The project required a Sewer Use Discharge Permit from the Massachusetts Water Resources Authority (MWRA) for the hotels’ laundry facilities. The project was subject to the MEPA Greenhouse Gas (GHG) Emissions Policy and Protocol (Policy).

The project change will generate additional traffic (4,622 new adt on an unadjusted basis) and exceeds the MEPA review threshold for a mandatory EIR pursuant to 11.03(6)(a)(6). It will require an amendment to the Vehicular Access Permit from MassDOT and a Determination of Need from the Massachusetts Department of Public Health (DPH). It is subject to the MEPA GHG Policy.

Because the Proponent is not seeking Financial Assistance from the Commonwealth for the project, MEPA jurisdiction extends to those aspects of the project that are within the subject matter of

required or potentially required State Agency Actions and that may cause Damage to the Environment as defined in the MEPA regulations.

### Review of the SEIR

The SEIR provides a response to the comments submitted on the ExNPC and provides updated draft Section 61 Findings. There are no significant changes to the project since the filing of the ExNPC. The Proponent provided supplemental information during MEPA review on April 22 and April 29, 2021 which included additional analysis of ground-source heat pumps and a commitment to provide phosphorus removal through the stormwater management system.

As noted by the Charles River Watershed Association, the SEIR did not provide detailed analyses demonstrating that the proposed stormwater management system will provide treatment of runoff to a level consistent with the Charles River phosphorous TMDL. During the review period, the Proponent submitted calculations which estimate phosphorus removal of 67.1 percent. As noted below, the Proponent has committed to comply with this requirement and will revise its draft Section 61 Findings to include this mitigation commitment.

### *Traffic and Transportation*

MassDOT issued a Section 61 Finding for the project in 2016 and an Access Permit (#6-2016-0089) for the project in 2016. The project change will require an amendment to the Access Permit to document the change in use. The Proponent should continue consultation with the Town of Needham (Town) and appropriate MassDOT units to finalize the amended Section 61 Finding. A Transportation Scoping Letter (TSL) was submitted to MassDOT for the project in October 2020, to which, MassDOT issued a scoping letter for the preparation of a Transportation Impact Assessment (TIA). The ExNPC included a TIA prepared in general conformance with the current MassDOT/EOEEA *TIA Guidelines*. MassDOT comments do not recommend further MEPA review based on transportation-related issues. The Transportation Demand Management (TDM) program should be aimed at minimizing single occupancy vehicle (SOV) and Transportation Network Company (TNC, i.e. Uber and Lyft) trip generation.

The Proponent proposed and analyzed improvements to the Kendrick Street/Third Avenue intersection, which is under local jurisdiction. Improvements include adjusting signal timing and phasing to improve peak operations and adjusting signal heads to improve visibility and safety. The SEIR indicates that any changes to signal timing at this intersection would require approval from MassDOT because this signal is coordinated with MassDOT-controlled signals, located to the west of Third Avenue. The Proponent will also increase the storage capacity of the southbound right-turn lane with right-turn arrow lane striping improvements. These improvements will be implemented within six months after the issuance of a building permit. The Proponent will also make a \$30,000 contribution to the Town for future signal improvements for pedestrians at this location.

The intersection of Kendrick Street/Fourth Avenue is a Highway Safety Improvement Program (HSIP)-eligible cluster. The ExNPC included only a partial traffic signal warrant analysis (TSWA) for this location based on limitations associated with the current atypical traffic conditions due to the COVID-19 pandemic. The Proponent commits to working with the Town and MassDOT to conduct a

full TSWA and Roadway Safety Audit (RSA) at this location prior to the issuance of a building permit for either the 2 B Street site or the 37 A Street site. The RSA will occur at the same time as the full TSWA to ensure that safety issues are addressed in conjunction with the signal warrant. The Proponent currently has no plans regarding the development of these sites and associated timelines.

### *Climate Change*

Governor Baker's Executive Order 569: Establishing an Integrated Climate Change Strategy for the Commonwealth (EO 569) was issued on September 16, 2016. The Order recognizes the serious threat presented by climate change and directs Executive Branch agencies to develop and implement an integrated strategy that leverages state resources to combat climate change and prepare for its impacts. The Order seeks to ensure that Massachusetts will meet GHG emissions reduction limits established under the Global Warming Solution Act of 2008 (GWSA) and will work to prepare state government and cities and towns for the impacts of climate change. Review of these issues through the GHG Policy and requirements to analyze the effects of climate change through EIR review is an important part of this statewide strategy. These analyses inform State Agencies and proponents' understanding of a project's GHG emissions and a project's vulnerability to the effects of climate change.

### *Greenhouse Gas Emissions*

According to comments from the Massachusetts Department of Energy Resources (DOER), the project is incorporating significant improvements to building envelope and heat recovery systems which will reduce GHG emissions and natural gas use. The SEIR indicates that the project will incorporate an additional commitment of over-speeding the enthalpy wheels to recover more energy than would ordinarily be needed to satisfy the air handling unit. This additional commitment will increase the Mitigation Level from 4.1 percent to 8 percent. DOER comments commend the Proponent for including the following key envelope performance features in the building: continuous insulation; reducing air infiltration; reducing thermal bridges; limiting or eliminating use of glass "curtain wall" and spandrel assemblies; maximizing framed, insulated walls sections; and maintaining windows at or above code levels. The SEIR was required to further evaluate the following recommendations from DOER: partial electrification of space heating with a combination of air- or ground-source heat pumps backed up with natural gas, and water heating using air source heat pump or solar thermal. The SEIR evaluates the use of air-to-air heat pumps and air source variable refrigerant flow (VRF) systems to provide space heating, and solar thermal and air source water heating to provide service water heating. These evaluations indicate that these approaches are likely infeasible given the hospital setting.

The SEIR includes an updated stationary source GHG analysis for the 224,000-sf Pediatric Medical Facility, which evaluated CO<sub>2</sub> emissions for two alternatives as required by the Policy, a Base Case and the Preferred Alternative. The Base Case was designed to meet the minimum energy requirements of the 9<sup>th</sup> Edition of the Massachusetts Building Code, which references the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) 90.1-2013-Appendix G and the International Energy Conservation Code (IECC) 2018 with Massachusetts amendments including C402.1.5 (envelope), C405.3 and C405.4 (lighting), C405.10 (EV charging), and C406 (three additional efficiency measures). Section C406 measures included in the Base Case were equipment efficiencies (C406.2), reduced lighting power densities (C406.3), and improved envelope performance (C406.8). The Preferred Alternative incorporates additional energy-efficiency and GHG mitigation

measures. The project is subject to the Massachusetts Stretch Code which requires a 10 percent energy performance improvement over ASHRAE 90.1-2013-Appendix G plus Massachusetts amendments. The SEIR does not include a GHG analysis for future development at 37 A Street and 2 B Street as the use and prior GHG mitigation commitments for these office buildings has not changed.

Overall stationary source CO<sub>2</sub> emissions for the Pediatric Medical Facility building were estimated at 2,101 tons per year (tpy) in the Base Case. The mitigation measures included in the Preferred Alternative will reduce GHG emissions to 1,808 tpy, a reduction of 293 tpy (13.9 percent) and an estimated energy use reduction for the building of 22.8 percent.<sup>2</sup> Mobile source emissions were estimated at 274 tpy in the Base Case. Mitigation measures will reduce GHG emissions to 217 tpy, a reduction of 57 tpy (21 percent).

Electric vehicle (EV) charging stations are critical for the continual transition towards electric mobility. Even if EV charging stations are not installed during construction, it is critical to maximize EV ready spaces as it is significantly cheaper and easier to size electrical service and install wiring or wiring conduit during construction instead of retrofitting a project later. DOER comments encourage the Proponent to maximize EV ready parking spaces for the project. The SEIR indicates that the Proponent will work with the Town to install the required EV charging stations and EV-ready parking spaces.

### Mitigation and Draft Section 61 Findings

MassDOT issued Section 61 Findings for the previously reviewed Center 128 project on April 19, 2016 which included mitigation measures at specific intersections, TDM measures, and transportation monitoring programs (TMP). The ExNPC provided a tabular summary of transportation improvements and mitigation commitments and indicated these measures were all completed (Table 1 in the ExNPC). The SEIR includes an updated chapter that summarizes proposed mitigation measures and provides draft Section 61 Findings for each State Agency Action for the project change. The SEIR contains commitments to implement these mitigation measures (including traffic monitoring) by the Proponent and identifies a schedule for implementation (Table 2-1 in the SEIR)..

The Proponent will submit a self-certification to the MEPA Office identifying the GHG reduction measures incorporated into the pediatric medical facility. This self-certification will be signed by an appropriate professional (e.g. civil engineer, traffic engineer, architect, general contractor) indicating that all of the GHG mitigation measures, or equivalent measures that are designed to collectively achieve the identified reductions in stationary source GHG emissions and transportation-related measures committed to in the SEIR have been incorporated into the project. To the extent the project will take equivalent measures to achieve the identified reductions, I encourage the Proponent to commit to achieving the same level of GHG emissions identified in the mitigated (design) case expressed in volumetric terms (e.g., tpy). The GHG self-certification should provide a narrative description of any changes made to building design or TDM measures since the SEIR. Details of the Proponent's implementation of operational measures will also be included.

### *Transportation*

The Pediatric Medical Facility at 380 First Street will be constructed in the first phase. The

---

<sup>2</sup> Energy use reduction based on a baseline EUI of 112.7 kBtu/sf-year and proposed case of 87 kBtu/sf-year.

future full build out of the BCH Project (office uses at 37 A Street and 2 B Street) will generate an incremental increase in traffic at Third Avenue/Kendrick Street. The Proponent proposes to implement the following additional mitigation measures to reduce project-related impacts at this intersection as approved by the Town through issuance of a Special Permit (January 4, 2021):

- Assess and implement compatible signal timing and phasing adjustments to this intersection, including removing the northbound/southbound split phase and running concurrent pedestrian phases to result in improved or similar level of service (LOS) during the morning and evening peak hours compared to the 2026 Reviewed Project Build Condition, and to improve visibility and overall safety
- Increase the storage capacity of the southbound right-turn lane
- Provide \$30,000 contribution to the Town to support future signalization improvements, specifically for pedestrians at this location

Based on a limited TSWA at the intersection of Kendrick Street/Fourth Avenue, criteria were met on both Warrants 2 and 3, which relates to the amount of peak period volume intending to turn from the side street (Fourth Avenue) to the primary corridor (Kendrick Street). A full TSWA will be conducted in the future when counts can be collected representing more typical weekday traffic conditions (non-Covid). The Proponent will also conduct an RSA at this location.

#### *Transportation Demand Management (TDM)*

The Proponent is committed to implementing TDM measures largely focused on the employees of the facility including provision of the following measures:

- An Employee Transportation Advisor who will coordinate with the 128 Business Council
- Shuttle service connecting to nearby public transportation modes (Massachusetts Bay Transportation Authority (MBTA) Commuter Rail and Green Line), which will be coordinated with other shuttles between Founders Park and the Newton Green Line station
- 50 percent transit pass subsidies for employees
- Carpool assistance and incentives
- Emergency ride home program
- Bicycling/walking incentives and amenities
- Telecommuting and compressed work weeks, where feasible
- Transportation information in the Main Lobby
- Promotional efforts

#### *Transportation Monitoring Program*

The Proponent will comply with the traffic monitoring requirements for the Previously Reviewed project as a whole, as laid out in the Section 61 Finding for Previously Reviewed project (which will continue to be fulfilled by others, as required). The Proponent will be required to conduct an annual traffic monitoring program for a period of five years, beginning six months after occupancy of the full-build project. The goals of the monitoring program will be to evaluate the assumptions made in the MEPA review and the adequacy of the mitigation measures, as well as to determine the effectiveness of the TDM program. The program will include the same commitments to measures identified as part of



the Section 61 Findings for the full Founders Park project. The Proponent will conduct annual parking monitoring beginning one year after the Certificate of Occupancy for 380 First Avenue.

### *Greenhouse Gas Emissions*

The following is a summary of the key GHG commitments for Pediatric Medical Facility:

- GHG emissions reduction at least 8 percent lower than ASHRAE 90.1-2013 reference building, as demonstrated through energy modeling with reference building incorporating C406.2, C406.3, C406.8 that included:
  - High performance building envelope (vertical envelope UA<sup>3</sup> performance of U-0.100 (40 percent higher than Code requirement))
  - Heat recovery chiller
  - Light or reflective roofs
  - Demand-controlled ventilation
  - Reduced lighting power densities
  - High-efficiency HVAC equipment with heat recovery chillers (to reduce gas use to 2,000 MMBtu/yr) which serve a heating load of 337,600 ton-hours and a cooling load of 262,400 tons-hours
  - a strategy of over-speeding the enthalpy wheels to recover more energy than would ordinarily be needed to satisfy the air handling unit, which, combined with conventional heat recovery chillers, will reduce gas use from 2,000 to 650 MMBtu/yr
  - High performance exterior lighting
  - Energy Star appliances
  - Low-flow fixtures
  - Recycling collection areas
  - Construction waste recycling
- Proposed building with total GHG emissions of 1,808 tpy, of which:
  - 1,606 tpy are attributable to electric emissions (using emission rate of 682 lbs/MWhr)
  - 202 tpy are attributable to gas emissions

### *Adaptation and Resiliency*

- Incorporate sustainable design measures to support resiliency to the effects of climate change, including energy conservation measures such as energy and water efficient features for all systems, assemblies, and materials
- Design BCH Project to achieve Leadership in Energy and Environmental Design (LEED) certification at a minimum Silver level as required by the Determination of Need from DPH
- Incorporate adaptation measures including a high-performance building envelope to reduce cooling loads in the summer, high performance HVAC equipment, energy recovery ventilation systems, and new landscaping (including native and adaptive plant materials) and light-colored paving materials
- Implement measures to minimize stormwater runoff and promote runoff recharge to the greatest extent practicable

---

<sup>3</sup> overall average heat transmission of a gross area of the exterior building envelope

- Incorporate aeration fixtures and appliances for water conservation qualities and for conserving potable water supplies

*Infrastructure*

- Revised design of the stormwater management system at 380 First Avenue will replace two previously proposed rain gardens (providing 850 cubic feet (cf) of storage volume) with nine infiltration chambers providing 1,680 cf of storage volume (in addition to 27 chambers previously approved by the Town) located in the main site access driveway from 1st Avenue
- Overall stormwater management system will continue to comply with the Needham Stormwater By-Law and the Massachusetts Department of Environmental Protection (MassDEP) Stormwater Management Regulations
- Construction of a stormwater management system that also complies with the Charles River phosphorous TMDL
- In accordance with MassDEP’s administrative order to the Town, the Proponent will pay the Town to remove four times the calculated increase of inflow and infiltration (I/I) into the municipal sewer system (\$132,000) (the proposed Pediatric Medical Facility represents a 4,125 gallon per day increase from the previous use)

Conclusion

Based on a review of the SEIR and consultation with State Agencies, I find that the SEIR adequately and properly complies with MEPA and its implementing regulations. The project may proceed to permitting. State Agencies should forward copies of the final Section 61 Findings to the MEPA Office for publication in accordance with 301 CMR 11.12.

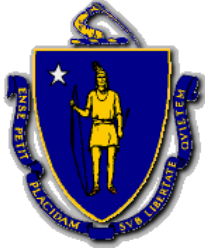
April 30, 2021  
Date

*K. Theoharides*  
\_\_\_\_\_  
Kathleen A. Theoharides

Comments received:

- 04/23/2021 Charles River Watershed Association (CRWA)
- 04/26/2021 Massachusetts Department of Transportation (MassDOT)
- 04/26/2021 Massachusetts Department of Energy Resources (DOER) (Final comments 04/29/2021)

KAT/PPP/ppp



COMMONWEALTH OF MASSACHUSETTS  
EXECUTIVE OFFICE OF  
ENERGY AND ENVIRONMENTAL AFFAIRS  
**DEPARTMENT OF ENERGY RESOURCES**  
100 CAMBRIDGE ST., SUITE 1020  
BOSTON, MA 02114  
Telephone: 617-626-7300  
Facsimile: 617-727-0030

**Charles D. Baker**  
Governor

**Karyn E. Polito**  
Lt. Governor

**Kathleen A. Theoharides**  
Secretary

**Patrick C. Woodcock**  
Commissioner

29 April 2021

Kathleen Theoharides, Secretary  
Executive Office of Energy & Environmental Affairs  
100 Cambridge Street  
Boston, Massachusetts 02114  
Attn: MEPA Unit

RE: Boston Children's Hospital at Founders Park, Needham, Massachusetts, EEA #15233

Cc: Maggie McCarey, Director of Energy Efficiency, Department of Energy Resources  
Patrick Woodcock, Commissioner, Department of Energy Resources

Dear Secretary Theoharides:

We've reviewed Single Environmental Impact Report (SEIR) for the above project. The proposed project consists of a 244,000-sf hospital building.

### **Executive Summary**

The project is incorporating significant improvements to building envelope and heat recovery systems which result in emissions reduction and a reduction in natural gas usage. Since the NPC, the project has added an additional commitment of over-speeding the enthalpy wheels to recover more energy than would ordinarily be needed to satisfy the air handling unit. This additional commitment increased the Mitigation Level from 4.1% to 8%.

### **Mitigation Level**

Including the additional performance of the enthalpy wheel described above, the building as currently-proposed, has a Mitigation Level<sup>1</sup> of 8%.

---

<sup>1</sup> Mitigation Level is the percent GHG reduction beyond the reduction that would occur as a result of following state and local building codes. A Mitigation Level of 0% means that no mitigation is proposed.

### Codes and Baseline

Massachusetts Stretch Code applies to this project. Stretch Code requires a 10% energy performance improvement over ASHRAE 90.1-2013-Appendix G plus Massachusetts amendments including C402.1.5 (envelope), C405.3 and C405.4 (lighting), C405.10 (EV charging), and C406 (three additional efficiency measures).

The project is using the following C406 measures:

- C406.2 – equipment efficiencies
- C406.3 – reduced lighting power densities
- C406.8 – improved envelope performance

### Building Envelope Performance

High-performing envelope is essential to successful GHG mitigation. Key strategies for maintaining integrity of envelope are:

- Continuous insulation;
- Reducing air infiltration;
- Reducing thermal bridges;
- Limiting or eliminating use of glass “curtain wall” and spandrel assemblies;
- Maximizing framed, insulated walls sections;
- Maintaining windows at or above code levels.

DOER commends the proponent for incorporating all of the key strategies above. Vertical envelope performance is 40% higher-performing than code requirement. Committed vertical envelope performance is as follows:

Vertical Envelope Performance

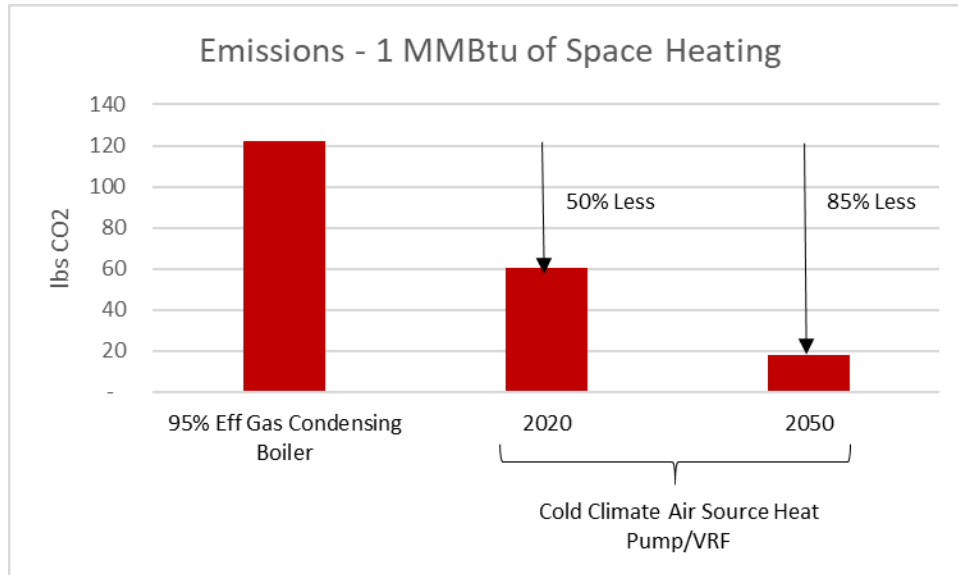
	Code Min		Proposed	
	%	U	%	U
Wall	70	0.064	77	0.050
Window	30	0.380	23	0.250
Vertical Aggregate U		0.077		0.100
Improvement over code minimum				40%

### Electric Space and Service Water Heating

Efficient electrification and renewable thermal space and water heating entails the swapping of fossil fuels (natural gas, oil, and propane) or electric resistance systems with one or more of the following:

- Cold-climate air source heat pumps and variable refrigerant flow (VRF) for space heating;
- Air source heat pumps for water heating;
- Ground source heat pumps;
- Solar thermal.

Electrification of space and water heating is a key mitigation strategy with significant short- and long-term implications on GHG emissions. Massachusetts grid emissions rates continue to decline with the implementation of clean energy policies that increase renewable electricity sources. The implication is that efficient electric space and water heating with cold climate air source heat pump and VRF equipment have lower emissions than other fossil-fuel based heating options, including best-in-class (95% efficient) condensing natural gas equipment. Currently, efficient electric heating has approximately **50% lower emissions** in Massachusetts than condensing natural gas heating. By 2050, efficient electric heating is expected to have approximately **85% lower emissions** in Massachusetts than condensing natural gas heating. See illustration below.



### Space Heating

The submission evaluated the use of air to air heat pumps and air source VRF systems. The evaluations show that these approaches are likely not feasible given the hospital setting.

### Service Water Heating

The submission evaluated solar thermal and air source water heating. The evaluations show that these approaches are likely not feasible given the hospital setting.

## **Heat Recovery**

The project is using significant heat recovery strategies. As detailed in the 21 April 2021 memorandum from BR+A to Boston Children's Hospital, the project is incorporating two heat recovery strategies, as follows:

1. Conventional heat recovery chiller which reduces gas use from 6,400 MMBtu/yr to 2,000 MMBtu/yr.
2. A strategy of over-speeding the enthalpy wheels to recover more energy than would ordinarily be needed to satisfy the air handling unit. This strategy further reduces gas use from 2,000 MMBtu/yr to 650 MMBtu/yr

Strategy 2 has been added to the project since the NPC. In the NPC, the proposed building energy use intensity was about 93 kBtu/sf-yr. With the addition of strategy 2, above, the new EUI will be about 87 kBtu/sf-yr.

## **Rooftop Solar PV**

Rooftop PV can provide significant GHG benefits as well as significant financial benefits. The submission states that rooftop equipment, by local ordinance, is limited to 25% of the roof area.

## **Electric Vehicle (EV) Ready Parking Spaces**

EV charging stations are critical for the continual transition towards electric mobility. Even if EV charging stations are not installed during construction, it is critical to maximize EV ready spaces as it is significantly cheaper and easier to size electrical service and install wiring or wiring conduit during construction rather than retrofitting a project later.

We encourage the project to maximize EV ready parking spaces for the project.

## **Current Commitments**

The project is committing to a Mitigation Level of 8%. This ML is achieved as follows:

1. Proposed building EUI of about 87 kBtu/sf-yr.
2. Additional C406 measures will be: C406.2, C406.3, C406.8.
3. Proposed building having total emissions of 1,808 tons/yr of which:
  - a. 1,606 tons per year are attributable to electric emissions (using emission rate of 682 lbs/MWhr)
  - b. 202 tons per year are attributable to gas emissions
4. Vertical envelope UA performance of U-0.100.

Boston Children's Hospital at Founders Park, EEA #15233  
Needham, Massachusetts

5. Heat recovery chillers used as described below. The effect of these HRCs is to reduce gas use to 2,000 MMBtu/yr.
  - a. Heating load of 337,600 ton-hours
  - b. Cooling load of 262,400 tons-hours
  
6. A strategy of over-speeding the enthalpy wheels to recover more energy than would ordinarily be needed to satisfy the air handling unit. Together with conventional heat recovery chillers, this strategy reduces gas use from 2,000 to 650 MMBtu/yr.

Sincerely,



Paul F. Ormond, P.E.  
Energy Efficiency Engineer  
Massachusetts Department of Energy Resources



Brendan Place  
Clean Energy Engineer  
Massachusetts Department of Energy Resources



Charles D. Baker, Governor  
Karyn E. Polito, Lieutenant Governor  
Jamey Tesler, Acting Secretary & CEO



April 23, 2021

Kathleen A. Theoharides, Secretary  
Executive Office of Energy and Environmental Affairs  
100 Cambridge Street, Suite 900  
Boston, MA 02114-2150

RE: Needham: Founders Park (Center 128) – SEIR  
(EEA #15233)

ATTN: MEPA Unit  
Alex Strysky

Dear Secretary Theoharides:

On behalf of the Massachusetts Department of Transportation, I am submitting comments regarding the Single Environmental Impact Report for the Founders Park project in Needham, as prepared by the Office of Transportation Planning. If you have any questions regarding these comments, please contact J. Lionel Lucien, P.E., Manager of the Public/Private Development Unit, at (857) 368-8862.

Sincerely,

David J. Mohler  
Executive Director  
Office of Transportation Planning

DJM/jll



cc: Jonathan Gulliver, Administrator, Highway Division  
Patricia Leavenworth, P.E., Chief Engineer, Highway Division  
Neil Boudreau, Assistant Administrator of Traffic and Highway Safety  
Paul Stedman, MassDOT District 4 Highway Director  
Planning Board, Town of Needham  
Boston Region Metropolitan Planning Organization  
Route 128 Business Council



Charles D. Baker, Governor  
Karyn E. Polito, Lieutenant Governor  
Jamey Tesler, Acting Secretary & CEO



## MEMORANDUM

TO: David Mohler, Executive Director  
Office of Transportation Planning

FROM: J. Lionel Lucien, P.E, Manager  
Public/Private Development Unit

DATE: April 23, 2021

RE: Founders Park (Center 128) – SEIR  
(EEA #15233)

The Public/Private Development Unit (PPDU) has reviewed the Single Environmental Impact Report (SEIR) for the proposed Boston Children’s Hospital (BCH) Pediatric Ambulatory Center at 380 First Avenue within Founders Park (formerly the Center 128 development) in Needham. The site was planned and permitted as an office facility as part of the larger Founders Park project. The overall project was reviewed under the Massachusetts Environmental Policy Act (MEPA) from 2014 to 2016 and MassDOT issued a Section 61 Finding for the project in 2016 and an Access Permit (#6-2016-0089) in support of the Project in 2016. The Founders Park site is bounded by Interstate 95 (I-95) to the southwest, A Street to the northwest, Second Street and existing development to the northeast, and B Street and existing development to the southeast. Some lots within Founders Park have been developed while others remain vacant.

This SEIR and the Notice of Project Change (NPC) submitted in January 2021 address the change of use at the 380 First Avenue site from the approved use, office, to a Pediatric Ambulatory Center. An NPC was required because the proposed change in use results in a change in trip generation that exceeds 3,000 unadjusted daily vehicle trips. The change consists of the construction of a 224,000 square foot (sf) Pediatric Ambulatory Center at 380 First Avenue. This site is currently vacant and was previously programmed for 189,509 sf of office space. To offset the 34,491-sf increase in area at the 380 First Avenue site, the amount of office space programmed for the 37 A Street site will be reduced by 34,491 sf from 135,000 sf to 100,509 sf. Thus, the changes described in the NPC and SEIR will not increase the total size of development approved for Founders Park. BCH is acquiring 37 A Street and 2 B Street, the other unbuilt development sites within the western section of Founders Park (Center 128 West). Although BCH has no current plans to develop 37 A Street and 2 B Street, they will remain intended for office use. 380 First Avenue is the only facility that BCH plans to construct imminently.

The Pediatric Ambulatory Center will be supported by two parking facilities. The first facility is the parking garage at 380R First Street (Garage B). This garage has already been

constructed and contains 2,070 parking spaces; the Proponent will add 530 spaces, consistent with the previously approved development. As an interim condition, the Proponent will construct a 105-space surface lot at 37 A Street. When 37 A Street and 2 B Street are developed, the Proponent will construct the previously planned 925-space parking garage at 400R First Avenue (Garage A). The Pediatric Ambulatory Center will include a patient pick-up/drop-off area with direct access to the building front door. Access is proposed to the parking facilities from First Avenue, A Street, B Street, and Third Avenue. There are no changes to the total parking provision, nor to site access and circulation.

The change of use will result in 4,622 net new unadjusted daily vehicle trips compared to the previously approved project. The trip generation analysis in the NPC demonstrated that the adjusted change in trip generation is only 2,193 net new daily vehicle trips, when the total Founders Park trip generation is adjusted to account for the observed trips generated by the sections of Founders Park that have already been constructed. Additionally, the new peak hour trip generation is similar to the peak hour trip generation used for analysis in the previously approved MEPA filings.

A Transportation Scoping Letter (TSL) was submitted to MassDOT for the project in October 2020; in response MassDOT issued a scoping letter for the preparation of a Transportation Impact Assessment (TIA). The NPC included a TIA prepared in general conformance with the current MassDOT/EOEEA *TIA Guidelines*. MassDOT recommends that no further environmental review be required based on transportation-related issues.

### Multimodal Access and Improvements

The Proponent proposed and analyzed improvements to the Kendrick Street at Third Avenue intersection, which is under local jurisdiction. The improvements include studying the signal timing and phasing and retaining a signal contractor to make one-time signal timing and phasing adjustments to improve peak operations and to adjust the signal heads to improve visibility and safety. As noted in the SEIR, this signal is coordinated with the MassDOT controlled signals located on Kendrick Street west of Third Avenue, thus any changes to signal timing would require approval from MassDOT. The Proponent will also increase the storage capacity of the southbound right turn lane with right turn arrow lane striping improvements. These improvements will be implemented within six months after the issuance of a Building Permit. The Proponent will also make a \$30,000 contribution to the Town for future signal improvements for pedestrians at this location.

Another study intersection, Kendrick Street at Fourth Avenue, is a Highway Safety Improvement Program (HSIP)-eligible cluster. The NPC included a partial signal warrant analysis for this location. Because of the data currently available and the current atypical traffic conditions due to the COVID-19 pandemic, a full warrant analysis could not be completed at this time. The Proponent commits to working with the Town and MassDOT to conduct a full Traffic Signal Warrant Analysis and Roadway Safety Audit (RSA) at this location. The RSA will occur at the same time as the full Traffic Signal Warrant Analysis to ensure that safety issues are addressed in conjunction with the signal warrant. Both

assessments will be conducted prior to the issuance of a building permit for either the 2 B Street site or the 37 A Street site. The Proponent currently has no plans regarding when these sites will be developed.

### Transportation Demand Management (TDM)

The SEIR states that the Proponent is committed to implementing TDM measures, largely focused on the employees of the facility. The TDM program should be aimed at minimizing single occupancy vehicle (SOV) and Transportation Network Company (TNC, i.e. Uber and Lyft) trip generation. The NPC lists the following TDM measures:

- Provision of an Employee Transportation Advisor who will coordinate with the 128 Business Council;
- Provision of shuttle service connecting to nearby public transportation modes (MBTA Commuter Rail and Green Line);
- Provision of 50 percent transit pass subsidies for employees;
- Provision of carpool assistance and incentives;
- Provision of emergency ride home;
- Provision of bicycling/walking incentives and amenities;
- Provision of telecommuting and compressed work weeks, where feasible;
- Provision of transportation information in the Main Lobby; and
- Promotional efforts.

As recommended by MassDOT, the SEIR states that BCH will coordinate their service with other shuttles between Founders Park and the Green Line station.

### Transportation Monitoring Program

The Proponent will be required to conduct an annual traffic monitoring program as part of the program required for the full Founders Park project. The goals of the monitoring program will be to evaluate the assumptions made in the MEPA review and the adequacy of the mitigation measures, as well as to determine the effectiveness of the TDM program. The program will include the same measures agreed to as part of the Section 61 Finding for the full Founders Park project. The SEIR also states that the Proponent will conduct annual parking monitoring beginning one year after the Certificate of Occupancy for 380 First Avenue.

The Proponent should continue consultation with the Town of Needham and appropriate MassDOT units, including PPDU and the District 6 Office to finalize the amended Section 61 Finding. The changes to the project described in the NPC and SEIR will also require an amendment to the Access Permit issued by MassDOT to document the change in use. If you have any questions regarding these comments, please contact me at [Lionel.Lucien@dot.state.ma.us](mailto:Lionel.Lucien@dot.state.ma.us).



April 23, 2021

*Via email*

Purvi Patel, Environmental Analyst  
MEPA Office, Executive Office of Energy and Environmental Affairs  
100 Cambridge Street, Suite 900  
Boston, MA 02114  
purvi.patel@mass.gov

**Re: Comments on Single Environmental Impact Report, Founders Park,  
Needham, MA, EEA No. 15233**

Dear Purvi:

Charles River Watershed Association (“CRWA”) submits these comments on the Single Environmental Impact Report (“SEIR”) for the Founders Park (Center 128) Project in Needham. This project—which consists of four new office buildings and two renovated office buildings totaling approximately 1,160,000 square feet; two hotels having a total of 308 rooms; 19,000 square feet of retail space; 390 residential units; and 4,879 parking spaces—has been extensively reviewed under MEPA beginning in 2014. Boston Children’s Hospital (“BCH”) is now proposing to change the use proposed at 380 First Avenue from office use to a pediatric medical facility to be developed by BCH.

CRWA has provided comments on the overall project on four previous occasions: the Expanded Environmental Notification Form (“ENF”) on October 2, 2014, the 2014 SEIR on December 23, 2014, the 2015 Notice of Project Change (“NPC”) on May 5, 2015, and the 2021 NPC on February 22, 2021.

In our previous comments, CRWA has requested, among other things, that the proponent discuss how it will meet the 65% phosphorus reduction required by the Total Maximum Daily Load (“TMDL”) for nutrients in the Upper/Middle Charles River, finalized in 2011. The most recent responses to our comments are merely conclusory and still do not address our repeated requests that the specific calculations showing how the development will comply with the MS4 permit and the TMDL be included in the project’s MEPA filings.

For example, in response to CRWA’s comments that the NPC did not reference the MS4 permit’s requirements for development and redevelopment projects or explain how the project will comply with the TMDL, as well as CRWA’s request that additional stormwater management plans detailing system sizing, type, and location be provided along with calculations showing that the project complies with the TMDL, the proponent stated only that:

- “[t]he proposed stormwater management system was reviewed and approved as part of the municipal permitting process and has been designed to fully comply with all applicable regulations;” and
- “the infiltration proposed as part of the stormwater management system will provide a significant reduction in phosphorous compared to the untreated existing condition.”

These partial responses do not fully address CRWA's comments. At the very least, specific information from the municipal permitting process could have been reproduced in the proponent's MEPA filing. Presumably though, the municipal permitting process relied on the state stormwater handbook and standards which are *not* the same as the federal MS4 permit and TMDL. In particular, the MS4 permit is *more stringent* than the state stormwater standards, meaning that compliance with the state stormwater standards is not sufficient to demonstrate compliance with the MS4 permit and TMDL.

It is necessary for the proponent to provide calculations showing how the project will, in fact, comply with the phosphorus TMDL and not simply assert compliance. The analysis should also address and document the TMDL requirements of no additional inputs of phosphorus to the river and a significant reduction from existing sources. Ideally, such an analysis would have been included in the SEIR as CRWA requested. At this juncture, CRWA requests that a specific requirement to conduct and document this analysis be included in the Final Chapter 61 Findings for the Project.

For example, the March 29, 2021 Certificate for the Northland Project (EEA No. 15727) on the opposite side of the Charles River from Founders Park contained the following statement:

As noted by [CRWA], the FEIR did not provide detailed analyses demonstrating that the proposed stormwater management system will provide treatment of runoff to a level consistent with the Charles River phosphorous TMDL. During the review period, the Proponent indicated that the site design has not progressed yet to the stage where final design of the stormwater management system has been completed and phosphorous removal rates calculated. I anticipate that the City and the Newton Conservation Commission will require this level of information during the permitting of the project. As noted below, **the Proponent has committed to comply with this requirement in the draft Section 61 Findings included in the FEIR [construction of a stormwater management system that complies with MassDEP's Stormwater Management Standards and the Charles River phosphorous TMDL].**

(emphasis added).

Thank you for considering these comments. Please do not hesitate to reach out with any questions.

Sincerely,



Heather Miller, Esq.  
General Counsel and Policy Director

cc: David Hewett, Epsilon Associates  
Ralph Abele, Charles River Watershed Association