
MIT Kendall Square Initiative SoMa Project

Planned Unit Development

Special Permit Application (Development Proposal)

July 27, 2015

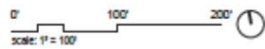
SECTION I: Introduction

MIT's Kendall Square Initiative South of Main ("SoMa") Project (the "SoMa Project") is an opportunity to transform five parking lots owned by MIT on its East Campus into a new, fully urban, mixed-use district in the heart of Kendall Square that will:

- Enhance the ground floor public realm and provide the foundation for continuous streetwall and related ground floor retail from Ames Street to the Longfellow Bridge on the south side of Main Street
- Increase the amount of publicly beneficial open space with a focus on community interaction and programming
- Increase the amount of MIT graduate student housing and locate it in the center of Kendall Square
- Create new office and R&D jobs and reinforce Kendall Square, MIT, and Cambridge's preeminent position as a leader in innovation
- Provide critical space to accelerate MIT's innovation and impact, strengthen the innovation ecosystem, and enable stronger interactions between the MIT campus community and the Kendall Square community
- Provide a new location for the MIT Museum and an opportunity to increase its exposure and role as a regional resource



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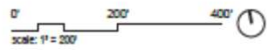
**SoMa
OPEN SPACE PLAN**

Figure B - 5

MIT KENDALL SQUARE
SoMa PROJECT



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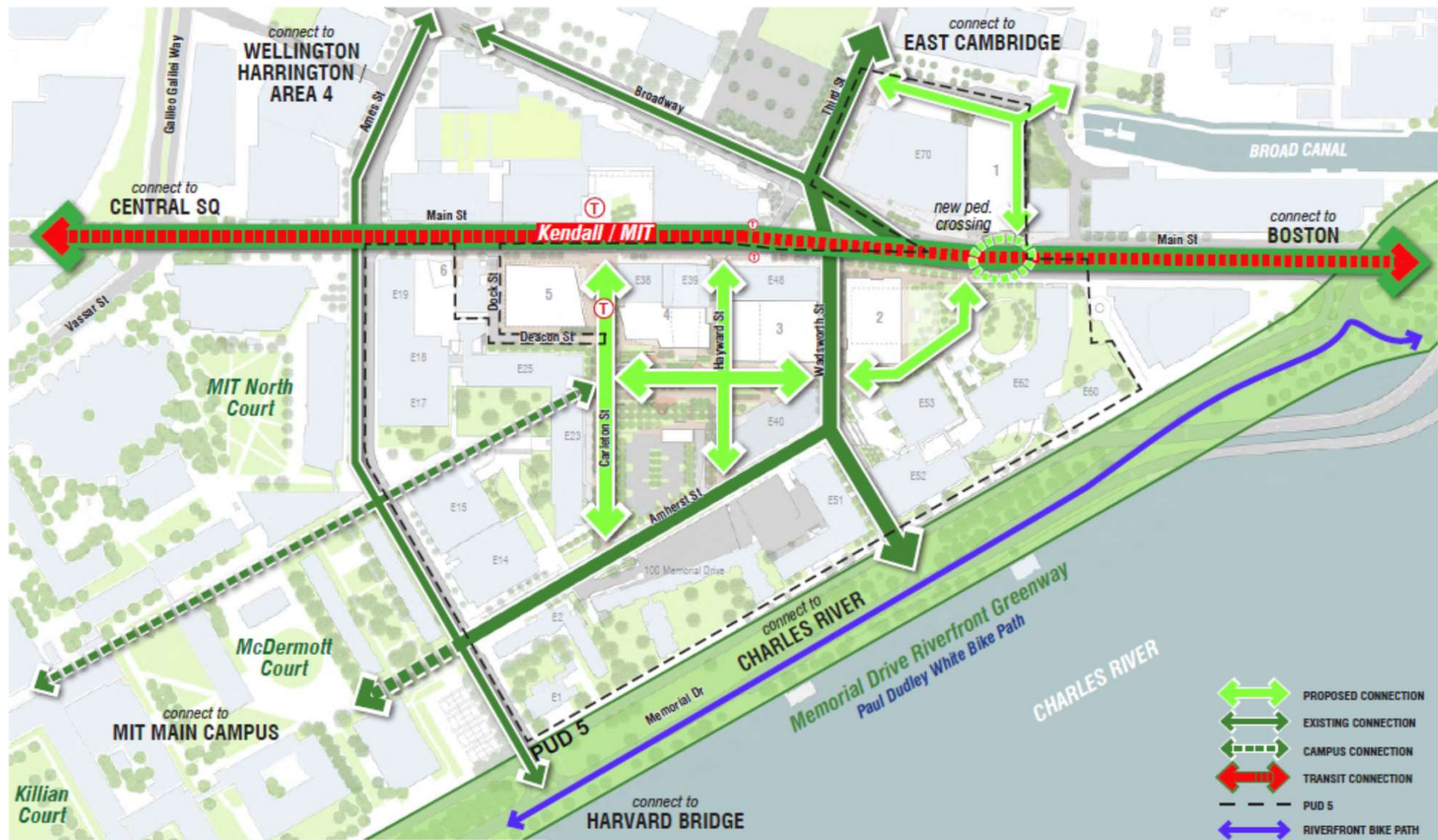


EXISTING OPEN SPACE CONNECTIONS

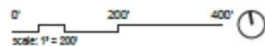
- EXISTING CONNECTION
- CAMPUS CONNECTION
- TRANSIT CONNECTION
- PUD 5
- RIVERFRONT BIKE PATH

Figure B - 3

MIT KENDALL SQUARE SoMa PROJECT



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PROPOSED OPEN SPACE CONNECTIONS

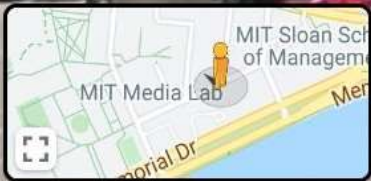
Figure B - 4

MIT KENDALL SQUARE SoMa PROJECT

26 Amherst St
Cambridge, Massachusetts



Street View



Google





Table B Total Proposed Development Program by Building and Land Use (GSF)

Building	Office (GSF)	R&D (GSF)	Retail (GSF)	Museum (GSF)	Grad Housing (GSF/units)	Child Care (GSF)	Total (GSF)
Development Parcel B							
Building 2	300,000	0	18,000	0	0	0	318,000
Development Parcel C							
Building 3	0	280,000	27,000	0	0	0	307,000
Building 4	0	0	28,000	0	330,000	9,000	367,000
Building 5	360,000	0	20,000	65,000	0	0	445,000
Building 6	0	0	6,600	0	0	0	6,600
Development Parcel C	360,000	280,000	81,600	65,000	330,000	9,000	1,125,600
Total SoMa	665,000	280,000	99,600	65,000	330,000	9,000	1,443,600

Water:

The SoMa buildings will connect both fire and domestic water services to the existing water mains located in the area. Redundant water supply systems will be provided for the new SoMa buildings. Details of the redundant systems will be coordinated with the Cambridge Water Department (CWD) as design of the individual buildings progresses.

The condition of the water mains in the area is still being investigated; however, it is likely that some of older water mains in the area will need to be lined or replaced as part of the SoMa Project. The design team will continue to coordinate with the CWD to determine which mains may be in need of lining or replacement.

Based on current program projections for the SoMa Development Parcels, it is anticipated that the development will use approximately 320,000 gallons per day for its domestic water demand and non-potable uses. Rainwater collection cisterns will be used to supplement demands within the SoMa Development Parcels reducing the actual demand on the municipal water system. The project estimates that approximately 5,000,000 gallons of water per year can be saved with the rainwater collection and reuse system for development areas within the adjacent buildings 2 - 6. It is unknown at this time if one or multiple cisterns will be used to accomplish the reuse. This will be further studied as designs for the SoMa Project are advanced. Possible non-potable uses for the collected rainwater include: MEP makeup water (cooling towers), toilet flushing and landscape irrigation. Rainwater collection and reuse is discussed in further detail in the Stormwater section of this narrative.

MIT SoMa Projected Annual Water Usage

$320,000\text{gal/day}(365\text{days/yr})=116,800,000\text{gal/yr}$

Anticipated reduction in water usage through rainwater collection and reuse efforts = 5,000,000gal/yr

$116,800,000\text{gal/yr} - 5,000,000\text{gal/yr} = 111,800,000\text{gal/yr}$

Adjusted daily water usage

$111,800,000\text{gal/yr} = \underline{306,301\text{gal/day}}$

What does all this development and increased water usage mean to CWD?

Current Daily Average Plant Production is approx.
13MGD

A daily increase of 306,300gal/day would increase our daily production by approx. 2.3% to 13.32MGD

Our withdrawal permit allows us to withdraw up to
16MGD/day

This increase is well within our withdrawal limit and does not adversely affect it or our ability to produce enough water to meet demand on a daily basis

CWD CURRENT WATER RATES PER 100 CUBIC FEET (1cuft = 7.48gals)

		water	sewer
July 1, 2019	1-10	\$3.02	\$11.77
	11-100	\$3.24	\$12.44
TO	101-501	\$3.44	\$13.36
	501-2500	\$3.65	\$14.39
June 30, 2020	2500+	\$3.96	\$15.30

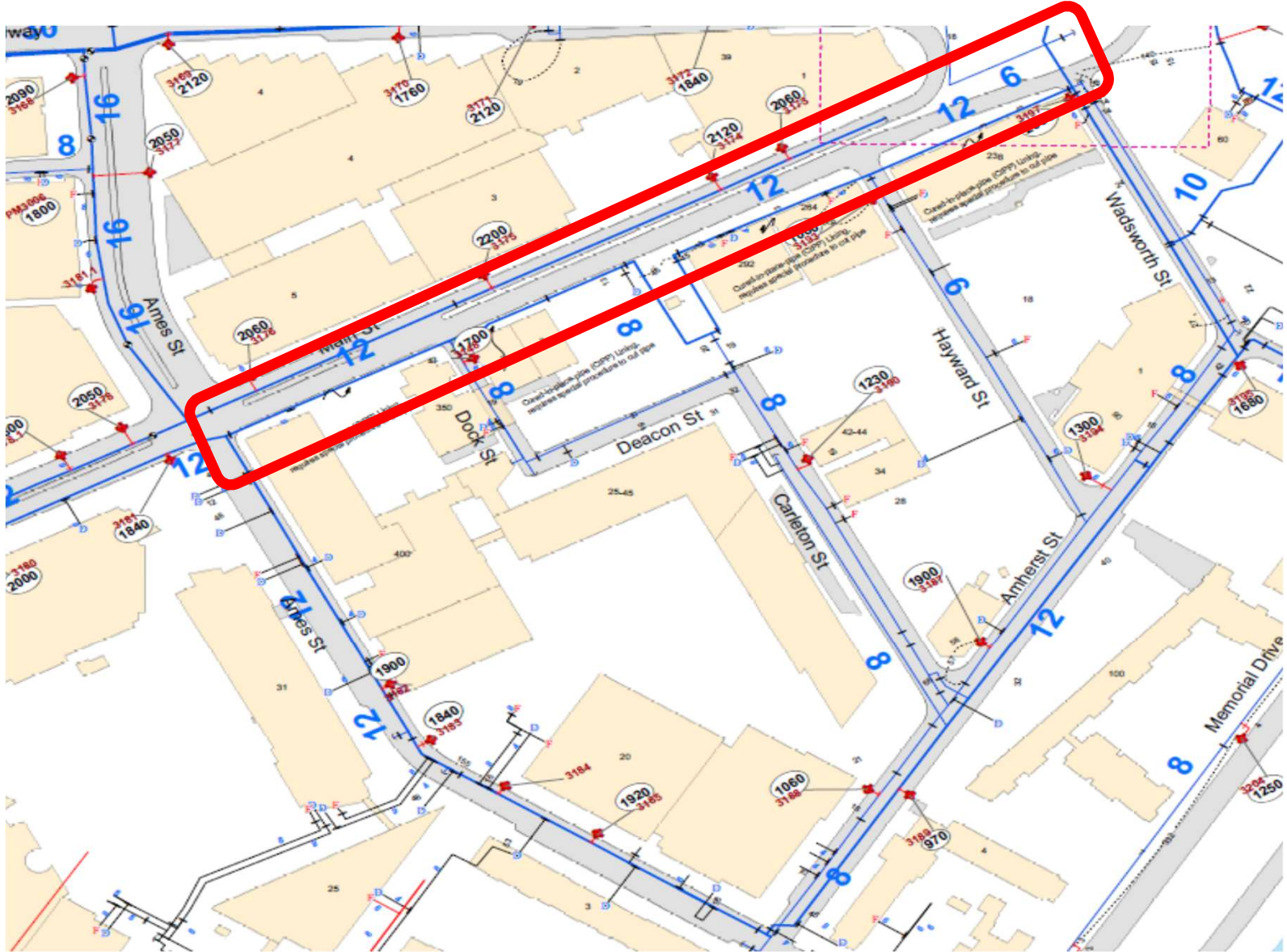
SoMa ESTIMATED WATER USAGE COSTS (CWD REVENUE)

306,301gal (7.48gal/cuft) = 40949cuft/day

40949cuft/100cuft/unit = 409.5 units

409.5 units (\$3.24/unit) = **\$1326/day = \$484,263/yr**







SCALE 1=40

561
South
with for...
AS built
DT...

NO.	Description	BY
		MIT

Kendal Square Initiative
South of Main Street

J.F. White
Contracting CO
Framingham, MA

Waterline ASbuilts



JOB# 1615	PREPARED FOR: Cambridge Water Dept
PREPARED BY: TV	REVISION # 0
CHECKED BY: TV	DRAWING # 1 of X
DATE: 01-14-2019	SCALE: AS Noted

PREPARED FOR: Cambridge Water Dept
REVISION # 0
DRAWING # 1 of X
SCALE: AS Noted

CONCLUSIONS

The additional water demand of 320,000gal/day is well within CWD capacity to provide

The additional water usage will generate approximately **\$500,000** of increased revenue for CWD

Major improvements/upgrades were made to the City Distribution System significantly increasing the redundancy and reliability of the water system that feeds the Kendall Square Area at little or no cost to CWD