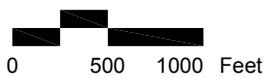


Vanasse Hangen Brustlin, Inc.



Site Location Map  
 Assembly Row  
 at Assembly Square  
 Amended Preliminary Master Plan  
 Planned Unit Development  
 Somerville, MA

Figure 1  
 July 2010

**Figure 2: Existing Water Demand**

File: \\Mawald\ld\08518.05\docs\VARIOUS\AmPUD\Utilities\Water\08518.05 Existing Water Demand.xml\Water Demands Fig 4

1. Average flows for Massachusetts are based on 314 CMR 7: Sewer System Extension and Connection Program.

**Existing Uses to remain out side of Phase 1-AA but within the Planned Unit Development**

Building Identification	Use	Square Feet	Quantity	Unit	Unit Flow (gal/Unit)	Average Flow (GPD)	Total Bldg. Flow (GPM)	Total Peak Bldg. Flow (GPM) <sup>1</sup>
Assembly Marketplace	Retail	328,806	329	1,000 SF	50	16,440	11	20
Yacht Club	Marina	-	80	Slip	10	800	1	1
Amelia Earhart Dam	Offices	1,000	1	1000 SF	75	75	0	1
Spaulding Brick	Industrial	11,700	12	1000 SF	75	878	1	1
Trucking Company	Industrial	26,910	27	1000 SF	75	2,018	1	2
La Quinta Inn	Hotel	77,678	172	1 Bedroom	110	18,920	13	23
Religious	Institutional	15,842	16	1000 SF	50	792	1	1
County	Institutional	32,432	32	1000 SF	75	2,432	2	3
Sunrise Cuisine	Restaurant	4,326	40	1 Seat	35	1,400	1	2
Dunkin Donuts	Restaurant	4,006	12	1 Seat	20	240	0	1
Warehouse	Industrial	8,369	8	1000 SF	75	628	0	1
99 Restaurant	Restaurant	11,382	393	1 Seat	35	13,755	10	17
Office	Offices	114,559	115	1000 SF	75	8,592	6	10
Loew's Cinema	Cinema	80,000	2,400	1 Seat	5	12,000	8	15
Home Depot	Retail	147,608	148	1000 SF	50	7,380	5	9
Circuit City	Retail	33,488	33	1000 SF	50	1,674	1	2
Enterprise Rent A Car	Retail	2,000	2	1000 SF	50	100	0	1
Hillside Service Center	Commercial	4,656	Min Allow	2	150	300	0	1
Ashton Fuel	Commerical	15,405	15	1,000	50	770	1	1
Tracer Technologies	Industrial	30,995	31	1,000	75	2,325	2	3
<b>91,520</b>							<b>64</b>	<b>115</b>

1) Maximum Day Demand Peaking Factor = 1.75 Times Average Day Demand. Minimum peak flow =1 PGM

**Amended Preliminary Master Plan  
Existing Sewer Generation within Assembly Square Revitalization Area  
Somerville, MA**

<b>Building Identification</b>	<b>Use</b>	<b>Building (SF. Ft.)</b>	<b>Number</b>	<b>Unit</b>	<b>Unit Flow Rate (GPD)</b>	<b>Flows Removed Phase 1</b>	<b>Flows Removed Full Build</b>	<b>Flows To Remain</b>
85 Foley St.- Cab repair <sup>1</sup>	Gasoline Station with Service Bays	3,677	1	Island	300		300	
			4	Bay	125		500	
99 Foley St.- Central Steel <sup>1</sup>	Industrial <sup>2</sup>	51,217	13	Person	15		195	
	Office	2,961	3	1000 SF	75		222	
123 Foley St.- Spaulding Brick <sup>1</sup>	Industrial <sup>3</sup>	16,880	5	Person	15	75		
	Office	2,920	3	1000 SF	75	219		
147 Foley St. American Propane	Office	1,050	1	1000 SF	75	79		
100 Sturtevant	Industrial <sup>2</sup>	22,760	15	Person	15	225		
	Office	3,772	4	1000 SF	75	283		
Yacht Club	Marina		80	slip	10			800
Goodtime Billiards <sup>4</sup>	-	109,232						
	Restaurant/ Tavern/ Lounge		508	Seat	35	17,780		
	Bowling Alley		4	Alley	100	400		
	Function Hall		438	Seat	15	6,570		
Boston Paintball	Retail	39,162	39	1000 SF	50	1,958		
World Gym	Retail	26,606	27	1000 SF	50	1,330		
Graybar	Industrial <sup>3</sup>	26,609	15	Person	15	225		
Home Depot	Retail	147,608	148	1000 SF	50			7,380
Circuit City	Retail	33,488	33	1000 SF	50			1,675
Amelia Earhart Dam	Office	1,000	1	1000 SF	75			75
<b>Totals:</b>						<b>29,144</b>	<b>1,217</b>	<b>9,930</b>

1. Flows to be removed before next phases.

2. Population for Industrial uses based on available parking spaces.

3. Assumed population.

4. Goodtime sewer generation based on floor plan received from City of Somerville Inspectional Services on August 4, 2009.



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**Figure 3.2 - Estimated Sewer Generation and Water Demand**

Project: Assembly Square Planned Unit Development  
 Full Build Sewer Generation - 2014 Program  
 Location: Somerville, Massachusetts

Proj. No.: 08518.05  
 Date: 4/28/2014  
 Computed by: HGH  
 Checked by:

**Development Program and Projected Sewer Flows**

Phase	Block	Comments <sup>1</sup>	Use <sup>2</sup>	Area <sup>3</sup> (SF)	Unit	Quantity	Unit Flow <sup>4</sup> (Gal/Unit)	Average Flow (GPD)	Total Block Flow (GPD)	Total Phase Flow (GPD) <sup>6</sup>	Water Flow GPM	Peak Water GPM	
1AA	10	4,500	Restaurant	4,500	1 Seat	98	20	1,980	1,980	172,244	120	209	
		67,530	Retail	43,818	1,000 SF	44	50	2,191					
	1A	1		Apartments	225,615	1 Bedroom	293	110	32,230				76,421
				Apartments		Dwelling Units	195						
				Restaurant	23,712	1 Seat	1,200	35	42,000				
				Office	93,183	1,000 SF	93	75	6,989				
		2B	30,000	Retail	18,000	1,000 SF	18	50	900				21,889
				Restaurant	12,000	1 Seat	400	35	14,000				
		3	122,914	Retail	113,914	1,000 SF	114	50	5,696				21,896
				Cinema	60,000	1 Seat	1,590	5	7,950				
	Bowling		0	1 Lane	0	100	0						
	Restaurant		4,500	1 Seat	150	35	5,250						
	Fast Food		4,500	1 Seat	150	20	3,000						
	Apartments		249,964	1 Bedroom	389	110	42,790						
4	43,975	Apartments		Dwelling Units	253			48,539					
		Retail	40,775	1,000 SF	41	50	2,039						
		Restaurant	3,200	1 Seat	106	35	3,710						
KIOSK	3,605	Fast Food	3,605	1 Seat	77	20	1,540	1,540					
	Full Build Remaining Phases	5	60,000	Retail	43,200	1,000 SF	43	50	2,160	57,805			
			Office	250,000	1,000 SF	250	75	18,750					
			Apartments	0	1.7 Bedroom	0	187	0					
			Fast Food	3,800	1 Seat	152	20	3,040					
			Hotel	104,550	1 Bedroom	170	110	18,700					
6A		35,000	Restaurant	13,000	1 Seat	433	35	15,155	12,000				
			Retail	25,000	1,000 SF	25	50	1,250					
			Office	0	1,000 SF	0	75	0					
6B			Fast Food	2,500	1 Seat	100	20	2,000	75,735				
			Restaurant	7,500	1 Seat	250	35	8,750					
		Condo	486,000	1.7 Bedroom	405	187	75,735						
7	48,500	Retail	30,000	1,000 SF	30	50	1,500	175,230					
		Office	450,000	1,000 SF	450	75	33,750						
		Office	0	1,000 SF	0	75	0						
		Condo	768,000	1.7 Bedroom	640	187	119,680						
		Fast Food	3,500	1 Seat	140	20	2,800						
8	36,000	Restaurant	15,000	1 Seat	500	35	17,500	125,136					
		Retail	20,000	1,000 SF	20	50	1,000						
		Office	553,150	1,000 SF	553	75	41,486						
		Fast Food	4,000	1 Seat	160	20	3,200						
9		Restaurant	12,000	1 Seat	400	35	14,000	22,500					
		Condo	420,000	1.7 Bedroom	350	187	65,450						
		Office	300,000	1,000 SF	300	75	22,500						
11	75,000	Office	1,155,000	1,000 SF	1,155	75	86,625	133,970					
		Fast Food	15,000	1 Seat	600	20	12,000						
		Restaurant	20,000	1 Seat	667	35	23,345						
		Health Club	50,000	1 Locker	500	20	10,000						
				5,692,486				774,620	<b>FULL BUILD TOTAL</b>	<b>774,620</b>	<b>538</b>	<b>941</b>	

**Notes:**

- Retail was space allocated at by 20.3% for estimated restaurant areas and by 6.0% for fast food within all future Blocks. Future Phase Building Program info taken from Street-Works LLC Proposed Phasing Schedule dated 2/13/09. Total restaurant area - 121,701 square feet (includes Block 10 and IKEA).
- Restaurant seats are based on 30 square feet per seat within future phases.
- Average flows for Massachusetts are based on 314 CMR 7: Sewer System Extension and Connection Program.
- Not used.
- The previously permitted sewer flow for both Phase 1AA and Phase 1A is 173,146 gpd. The current building program from actual tenanting information for Phase 1AA and 1A is 1,257 gpd less than permitted. The surplus sewer flow will be applied to the Full Build Remaining Phases.
- The Full Build Remaining Phases requested permit flows are 650,003 gpd. The sewer flow shown on this table for the Full Build Remaining Phases includes surplus sewer flow from previous phases (1,257 gpd).