



**TABLE 1A**  
**DEPARTMENT SPECIFIC ACTIVITIES**  
**1140 BROADWAY STREET REDEVELOPMENT**  
**073987.02**  
**06/22/17**

DEPARTMENT SPECIFIC (MDEQ) ACTIVITIES									
TASK/ACTIVITY	COST ITEM	UNIT COST	UNITS	QUANTITY	COST	TOTAL COST	TIF SOURCES		
							State	Local	
<b>BEA Activities</b>									
Phase I ESA <sup>(2)</sup>	Lookback- Phase I ESA for Lower Town properties	\$4,500	ea.	2	\$9,000	\$9,000	\$ -	\$ 9,000	
Phase II ESA/BEA <sup>(2)</sup>	Lookback- Phase II ESA- exploratory test pits	\$15,000	ea.	1	\$15,000	\$15,000	\$ -	\$ 15,000	
	Lookback- BEA report	\$5,000	ea.	1	\$5,000	\$5,000	\$ -	\$ 5,000	
<b>BEA Activities Subtotal:</b>						<b>\$29,000</b>	<b>\$ -</b>	<b>\$ 29,000</b>	
<b>Due Care Activities</b>									
Due Care Response Activity Planning and Coordination	Lookback- design engineering and remediation plans for response activities.	\$15,000	ea.	1	\$15,000	\$15,000	\$ -	\$ 15,000	
	Design engineering and remediation plans for response activities.	\$15,000	ea.	1	\$15,000	\$15,000	\$ 5,682	\$ 9,318	
Due Care Investigation	Subsurface investigation for due care design and cost planning- Soil gas assessment, chlorinated soil contamination delineation, chlorinated plume delineation, and delineation sampling.	\$60,000	ea.	1	\$60,000	\$60,000	\$ 22,726	\$ 37,274	
Documentation and Plans <sup>(2)</sup>	Lookback: Plan for Due Care Compliance - Construction	\$10,000	ea.	1	\$10,000	\$10,000	\$ -	\$ 10,000	
	Plan for Due Care Compliance - Future Use	\$10,000	ea.	1	\$10,000				
	Documentation of Due Care Compliance	\$15,000	ea.	1	\$15,000	\$30,000	\$ 11,363	\$ 18,637	
	Site Specific Health and Safety Plan	\$5,000	ea.	1	\$5,000				
Fence Repair	Repair existing perimeter fence for security and third-party protection, install warning signs	\$10,000	ea.	1	\$10,000	\$10,000	\$ 3,788	\$ 6,212	
Management and Disposal of Contaminated Soil	Disposal characterization	\$500	ea.	10	\$5,000				
	Transport and dispose contaminated soil at a licensed Type II landfill. (Material that cannot remain on site due to environmental or constructability issues)	\$45	ton	25,000	\$1,125,000	\$2,456,500	\$ 930,448	\$ 1,526,052	
	Transport and dispose contaminated soil at a licensed hazardous landfill. (Material PCE or other hazardous substances)	\$190	ton	5,600	\$1,064,000				
	Transport and dispose soils contaminated with concentrations greater than 10x the LDR for treatment at a licensed hazardous landfill.	\$525	ton	500	\$262,500				
Management of Dewatering Effluent	Rental of on-site frac storage tank	\$300	day	30	\$9,000				
	Disposal characterization	\$500	ea.	3	\$1,500				
	Dispose nonhaz water and liquids at a licensed disposal facility. (Includes liquids that cannot be appropriately managed onsite.)	\$0.55	gal	50,000	\$27,500	\$138,000	\$ 52,270	\$ 85,730	
	Dispose hazardous water and liquids at a licensed disposal facility. (Includes liquids that cannot be appropriately managed onsite.)	\$2.00	gal	50,000	\$100,000				
Install Vapor Mitigation Controls <sup>(1)</sup>	Design of VI Mitigation System	\$15,000	ea.	1	\$15,000				
	Install passive vapor mitigation system in enclosed building spaces within 50 feet of PCE contamination above VI Res Screening Values	\$5	s.f.	68,145	\$340,725	\$470,725	\$ 178,296	\$ 292,429	
	Daily monitoring and coordination of VI system installation	\$1,500	day	30	\$45,000				
	Install vent risers, building monitors, and wind turbines	\$50,000	ea.	1	\$50,000				
	Post-installation monitoring and reporting	\$5,000	ea.	4	\$20,000				
Trackout and Dust Control	Disposal characterization	\$600	ea.	1	\$600				
	Dust suppression	\$300	day	100	\$30,000	\$38,825	\$ 14,706	\$ 24,119	
	Nonhazardous contaminated soil disposal - street sweeping	\$45	ton	35	\$1,575				
	Hazardous contaminated soil disposal - street sweeping	\$190	ton	35	\$6,650				
Prevent Exacerbation and Human Exposure - Utilities	Design of utility seals	\$2,000	ea.	1	\$2,000				
	Install bentonite slurry plug in utility trenches, near property boundary. Assumes 12 utility trench locations for utilities such as water, sanitary, storm, etc.	\$800	ea.	12	\$9,600	\$83,600	\$ 31,665	\$ 51,935	
Abandon Existing Monitoring Wells	Install pipe joint seals in areas of shallow contaminated groundwater to prevent infiltration into pipe. Assumes 300 feet of 5-foot section piping will require seals.	\$1,200	ea.	60	\$72,000				
	Abandon existing MWs (approx. 12 wells).	\$1,300	per well	12	\$15,600	\$15,600	\$ 5,909	\$ 9,691	
Project Field Monitoring and Management	Perform daily on-site inspection and monitoring of due care during response/earthwork	\$1,100	day	90	\$99,000	\$129,000	\$ 48,861	\$ 80,139	
	Project coordination and management	\$30,000	ea.	1	\$30,000				
<b>Due Care Activities Subtotal:</b>						<b>\$3,472,250</b>	<b>\$ 1,305,714</b>	<b>\$ 2,166,536</b>	
<b>Additional Response Activities</b>									
Install Permeable Reactive Barrier (PRB)	Install PRB near east site boundary. Based on contractor specs of 170' long and 30' tall	\$1,095,000	ea.	1	\$1,095,000	\$1,095,000	\$ 414,753	\$ 680,247	
	Design assessments, design, and documentation	\$75,000	ea.	1	\$75,000	\$75,000	\$ 28,408	\$ 46,592	
	Install new monitoring wells to evaluate post-wall groundwater conditions	\$3,000	per well	12	\$36,000	\$36,000	\$ 13,636	\$ 22,364	
	Monitoring of PRB installation	\$1,100	day	30	\$33,000	\$33,000	\$ 12,499	\$ 20,501	
<b>Additional Response Activities Subtotal:</b>						<b>\$1,239,000</b>	<b>\$ 469,296</b>	<b>\$ 769,704</b>	
<b>Brownfield Plan and Work Plan</b>									
Preparation of Brownfield Plan <sup>(2)</sup>	Brownfield Plan	\$20,000	ea.	1	\$20,000	\$20,000	\$ 7,575	\$ 12,425	
Preparation and review of Act 381 Work Plan <sup>(2)</sup>	Act 381 Work Plan - MDEQ	\$15,000	ea.	1	\$15,000	\$15,000	\$ 5,682	\$ 9,318	
<b>Brownfield Plan and Work Plan Subtotal:</b>						<b>\$35,000</b>	<b>\$ 13,257</b>	<b>\$ 21,743</b>	
<b>Environmental Subtotal:</b>						<b>\$4,775,250</b>	<b>\$ 1,788,267</b>	<b>\$ 2,986,983</b>	
<b>Contingency</b>		\$4,671,250	Percentage	15%	\$700,688	\$700,688	\$ 265,400	\$ 435,288	
<b>TOTAL ELIGIBLE DEPARTMENT SPECIFIC (MDEQ) COSTS:</b>						<b>\$5,475,938</b>	<b>\$2,053,667</b>	<b>\$3,422,271</b>	

Notes:  
(1) Square footage value includes entirety of buildings A and C and excludes building B and the open air parking deck.  
(2) These costs are not included in the 15% contingency item.