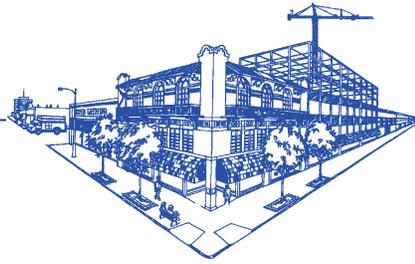


E. D. Hovee & Company, LLC

Economic and Development Services



MEMORANDUM

To: Seth Otto, MFA
From: Eric Hovee
Subject: Application of Pro Forma Feasibility Analysis to Portland Brownfield Inventory
Date: June 28, 2012 (**DRAFT**)

In its present form, the draft Task 3/4 report of the financial feasibility and public benefits analysis conducted for Portland Brownfield Assessment provides analysis for 32 alternative development prototypes across seven employment and brownfield typologies of the city. The analysis is not intended to be site specific, but to represent a range of redevelopment use and brownfield cost conditions for each of the typologies considered.

This memorandum expands on the Task 3/4 work by applying results across the full inventory of brownfield constrained properties of Portland's EOA geographies – with the exception of the City's institutional geography. The purposes of this expanded analysis are to:

- Estimate the total financial “gap” associated with EOA brownfield properties
- Further evaluate “lost opportunities” in terms of employment and tax revenues that might be attainable if these sites could be put into full productive use.

Provided with this summary memorandum is a brief statement of approach and data assumptions followed by preliminary results by employment / brownfield typology.

METHODOLOGY

The draft Task 3/4 report provides estimates of financial “gap” – as the amount by which development project costs *exceed* valuation upon completion – across each of 7 employment / brownfield typologies and 32 associated pro forma variations. The analysis is conducted to indicate the feasibility gap with costs of brownfield remediation included and then, for affected harbor area properties, the added costs associated with Superfund Shadow or Harbor Waterfront properties. For purposes of this city-wide application, properties that are financially feasible are indicated as having zero financial gap.

Also provided are estimates of public benefit associated with potential reclamation of current lost opportunities. Metrics of currently foregone public benefit include employment, payroll, and direct taxes to state and local jurisdictions.

While financial pro formas were generated in terms of typical square footage estimates of building area together with associated costs and incomes, these results were then translated to per site area figures based on intensity (or FAR) of anticipated development. This memorandum takes these *per site area* results as the starting point for aggregating results over the full EOA brownfield constrained inventory of vacant and underutilized parcels as defined by the Buildable Lands Inventory (BLI).

Excluding the EOA Institutional geography, BPS currently estimates that there are about 714 acres of vacant and underutilized brownfield constrained industrial and commercial designated properties in Portland. This includes recent revisions to the DEQ and LUST data bases as well as other adjustments that affect Main Street typology, in particular. Note that this brownfield acreage estimates are subject to further revision based on Brownfield Advisory Group discussion and resulting refined analysis.

Key steps in this aggregation process – by typology – have included the following:

- Identification of BLI brownfield acreage by typology based on BPS / GIS custom data run.
- Distributing high-medium-low cost remediation sites across each of the seven typologies – based on case study assessment by MFA. This distribution varies by typology as follows:

Distribution of Brownfield Acreage by Typology & Remediation Cost

Brownfields Typology	% of Brownfield Acres by Cost		
	High	Medium	Low
1. Downtown High Density	0%	50%	50%
2. Mixed Use Hubs			
3. Main Street (west and east)	10%	40%	50%
4. Central City Industrial			
5. Standard Industrial	20%	37%	43%
6. Superfund Shadow			
7. Portland Harbor Waterfront	50%	40%	10%

Source: Maul Foster & Alongi, Inc. (MFA)

- Further distribution or allocation of brownfield by anticipated type of redevelopment – as for mixed use (with residential and commercial) versus commercial office-retail use for commercial typologies and for flex/business park space versus warehouse-distribution for industrial properties. Note that the residential allocations for mixed use have been defined consistent with target shares (ranging from 34-49% of affected typologies) as consistent with the Portland EOA for each pertinent Comprehensive Plan designation.

Approximately 42% of future development within the Standard Industrial and Superfund Shadow typologies is anticipated to occur with flex/business park space and 58% with

warehouse-distribution space. For Harbor Waterfront properties, 100% of future development is assumed as warehouse-distribution related use.

- Per square foot remediation costs and feasibility “gap” numbers are converted to acreage equivalents, multiplied across the acreage distributions, and then summed to estimate total remediation cost and associated feasibility gap figures, by typology. Note that for redevelopment prototypes that would be financially underwater even before brownfield considerations, the effect of the gap is further intensified by the cost to remediate.

For prototypes that otherwise have positive feasibility (if unconstrained), the cost of brownfield remediation is deducted from the unconstrained feasibility and included – if negative. The only typology variations that are projected to be financially feasible even with remediation are the Downtown High Density low remediation cost and the Main Street West office-retail low remediation cost alternatives.

For the Superfund Shadow and Harbor Waterfront typologies, costs are calculated separately for on-site remediation and potential Superfund liability. For purposes of illustration (and as detailed in the Task 3/4 report), these costs are estimated at an added \$1.46 per square foot of land area for brownfield constrained properties in the Superfund Shadow typology and at \$13.10 per square foot of site area for the Harbor Waterfront typology.

- Per site area figures of employment, payroll and state / local jurisdiction tax revenue potential are multiplied by typology specific acreage and use distributions to arrive at estimates of potential opportunity cost resulting from brownfield sites not in productive economic use.

PRELIMINARY AGGREGATED RESULTS

Preliminary aggregated results of this analysis are summarized by the chart on the following page. As shown, remediation costs for brownfield constrained costs are estimated at over \$200 million. If potential Superfund liability is added for these sites, the total remediation / clean-up cost increases to an estimated \$330 million. *Note:* this estimate does not include added potential superfund related liabilities for other Harbor Waterfront or Shadow properties not associated with direct on-site environmental contamination.

Across Portland’s non-institutional employment geographies, these costs are about \$16.6 million more than the resulting calculated aggregate feasibility gap. This is because the Downtown High Density typology and Main Street West retail-office alternative appear to offer strong enough feasibility to absorb low cost remediation without need for added funding incentives or offsets.

Aggregated Feasibility Gap & Opportunity Cost Analysis – by Employment / Brownfield Typology

Typology Use Type Brownfield Cost	Total All Typologies	1. DT High Density	2. Mixed Use Hubs	3a. Main Street West	3b. Main Street East	4. Central City Industrial	5. Standard Industrial	6. Superfund Shadow	7. Harbor Waterfront
Remediation Cost	\$7.50	\$6.00	\$3.75	\$6.39	\$5.19	\$6.06	\$6.06	\$6.07	\$10.55
Remediation Cost w/Superfund	\$12.29	\$6.00	\$3.75	\$6.39	\$5.19	\$6.06	\$6.06	\$7.52	\$23.65
Financial Gap w/ Remediation (if any)	(\$6.88)	\$(2.05)	\$(4.22)	\$(5.01)	\$(6.19)	\$(8.16)	\$(5.53)	\$(5.53)	\$(9.94)
Financial Gap w/Superfund	\$(11.67)	\$(2.05)	\$(4.22)	\$(5.01)	\$(6.19)	\$(8.16)	\$(5.53)	\$(6.99)	\$(23.04)
Land Area (Acres)									
Total Brownfield Constrained	714	34	30	214	72	6	50	93	215
Total Cost to Cure									
Remediation Cost (w/o Superfund)	\$201,442,000	\$4,444,000	\$4,901,000	\$39,595,000	\$14,333,000	\$1,585,000	\$13,209,000	\$24,570,000	\$98,805,000
Remediation Cost w/Superfund	\$330,043,000	\$4,444,000	\$4,901,000	\$39,595,000	\$14,333,000	\$1,585,000	\$13,209,000	\$30,484,000	\$221,492,000
Financial Gap (w/o Superfund)	\$(184,812,000)	\$(1,515,000)	\$(5,512,000)	\$(31,036,000)	\$(17,079,000)	\$(2,133,000)	\$(12,052,000)	\$(22,417,000)	\$(93,068,000)
Financial Gap w/Superfund	\$(313,413,000)	\$(1,515,000)	\$(5,512,000)	\$(31,036,000)	\$(17,079,000)	\$(2,133,000)	\$(12,052,000)	\$(28,331,000)	\$(215,755,000)
Economic Opportunity Cost									
<i>Employment / Payroll (@ 100% Use)</i>									
Employment	19,380	5,067	1,366	5,151	2,299	406	873	1,623	2,595
Annual Payroll	\$859,660,000	\$203,499,000	\$49,110,000	\$184,305,000	\$76,807,000	\$20,041,000	\$51,335,000	\$95,485,000	\$179,078,000
<i>Annual Tax Revenue (@ 100% Use)</i>									
City of Portland	\$25,314,000	\$7,602,000	\$1,600,000	\$6,465,000	\$1,999,000	\$570,000	\$1,146,000	\$2,136,000	\$3,796,000
Total State / Local Revenue	\$143,810,000	\$37,619,000	\$8,446,000	\$32,881,000	\$11,849,000	\$3,398,000	\$7,977,000	\$14,840,000	\$26,800,000

Source: E. D. Hovee & Company, LLC. Analysis is preliminary, intended for illustrative purposes, and subject to revision.

Other preliminary observations drawn from this summary chart and analysis to date include the following:

- Industrial properties (associated with typologies 5-7) account for close to 70% of the overall feasibility gap for on-site remediation and more than 80% of the gap affecting brownfield constrained properties if potential Superfund-related liability is included.
- About half (48%) of the added job potential with 100% brownfield redevelopment may be oriented to typologies (2-4) for Mixed Use Hubs, Main Street, and Central City Industrial – with the remainder split about evenly between industrial typologies (5-7) and the Downtown High Density typology (1). While Downtown accounts for over 5,000 of nearly 19,400 lost potential jobs, these are jobs for which brownfield remediation involves relatively low cost fixes (and for which remediation is a relatively small component of overall project cost and resulting feasibility).
- Current opportunity cost also includes an estimated \$860 million in foregone annual payroll and close to \$144 million per year in potential state and local income, property and business tax revenues (estimated in 2012 dollars).

NEXT STEPS

As noted, this application of pro forma analysis across the full spectrum of Portland’s employment and brownfields is preliminary, intended to serve as a basis for discussion and subsequent refinement. Revisions may occur in response to questions and comments regarding the individual prototype pro formas, brownfield acreages to which results are applied and/or proportional allocations as to building use types or remediation cost ranges.

Results of this refined analysis will then be used with the next phase work and resulting Task 5 report to:

- Analyze the financial payback period of development incentives by site typology as needed to fill the financial gaps identified by this aggregate evaluation
- Further analyze financing scenarios related to the objectives of achieving 50%, 70% and 90% brownfield redevelopment citywide by 2035.

Questions and suggestions regarding any aspect of this preliminary evaluation are appreciated.