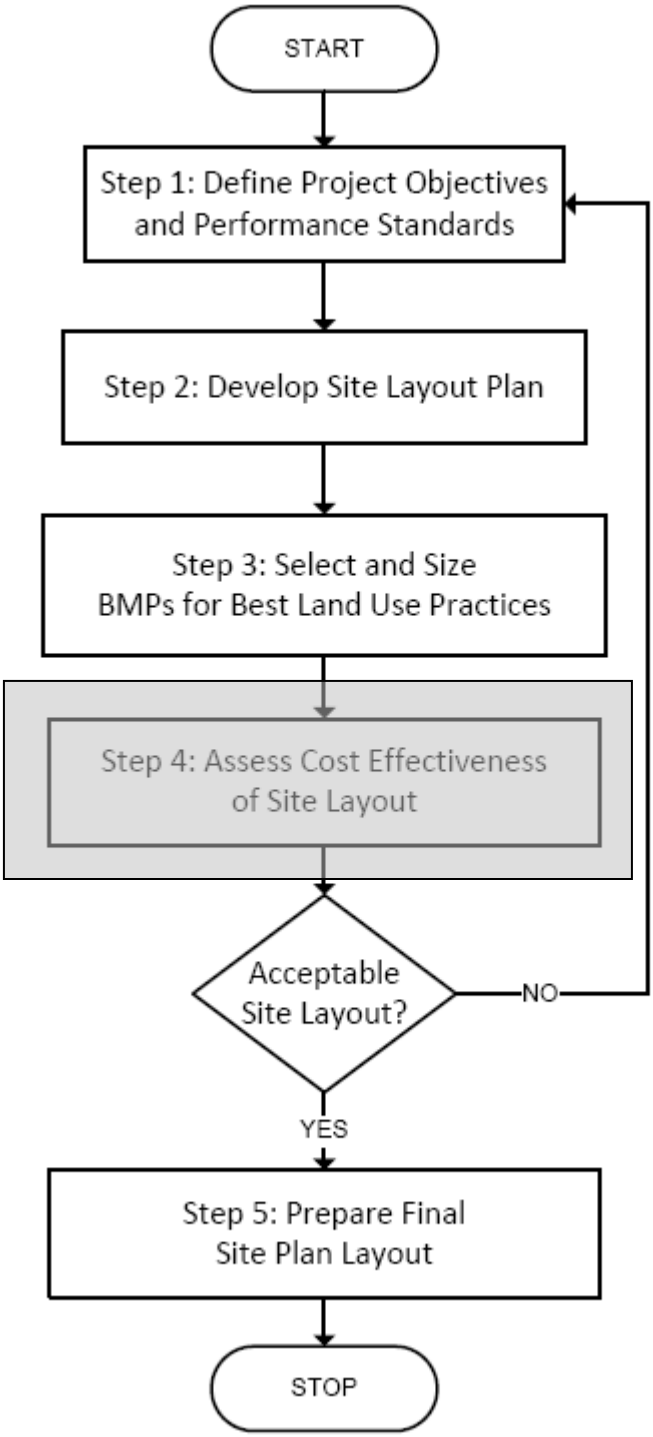
Section 7

Step 4: Developing a "Triple Bottom Line" Business Case


START
Step 1: Define Project Objectives and Performance Standards
Step 2: Develop Site Layout Plan
Step 3: Select and Size BMPs for Best Land Use Practices
Step 4: Assess Cost Effectiveness of Site Layout
Acceptable Site Layout?
NO
YES
Step 5: Prepare Final Site Plan Layout
STOP

Conceptual Cost Estimate for Conventional Development

Initial Costs

Item	Unit Cost low	Unit Cost high	Unit Cost average	Unit	Number	Average Total
Land Purchase	$ 9,800	$ 13,000	$ 11,400	ac	164	

Development Costs

Item	Unit Costs low	Unit Costs high	Unit Costs average	Unit	Number	Total
Site Clearing	$ 4,000	$ 7,000	$ 5,500	acre	165	
Residential Street -curb/gutter	$ 100	$ 130	$ 115	ft	22,700	
Storm Sewer System	$ 100	$ 140	$ 120	ft	22,700	
Other Utilties	$ 75	$ 120	$ 98	ft	11,000	
Flood Control Detention[1]	$ 8	$ 10	$ 9	cu. yd.	62,600	
Flood Control Pumps	$ 3,000	$ 6,000	$ 4,500	ea	4	
Residential Construction[2]	$ 150,000	$ 210,000	$ 190,000	ea	387	
Permitting	$ 5,000	$ 15,000	$ 10,000	lump sum	1	
					Total	$ -

Revenue

Item	Unit Costs low	Unit Costs high	Unit Costs average	Unit	Number	Total
Lot Price - Sales	$ 198,000	$ 242,000	$ 220,000	ea	387	

Profit **Total**

Notes:

[1]4 dry detention ponds over 7.76 acres at 5 foot depth

Conceptual Cost Estimate for Low Impact Development

Initial Costs	Unit Cost					Average
Item	low	high	average	Unit	Number	Total
Land Purchase	$ 9,800	$ 13,000	$ 11,400	ac	164	

Development Costs	Unit Costs					
Item	low	high	average	Unit	Number	Total
Site Clearing	$ 4,000	$ 7,000	$ 5,500	acre	149.1	
Residential Street -curb/gutter	$ 100	$ 130	$ 115	ft	11,700	
Residential Street - swale	$ 85	$ 115	$ 100	ft	11,000	
Storm Sewer System	$ 100	$ 140	$ 120	ft	12,000	
Other Utilties	$ 75	$ 120	$ 98	ft	11,000	
Residential Construction[1]	$ 150,000	$ 230,000	$ 190,000	ea	383	
Permitting	$ 5,000	$ 15,000	$ 10,000	lump sum	1	
Bioretention Filter BMP	$ 10	$ 14	$ 12	ft^2	1,200	
Infiltration BMP[2]	$ 18	$ 24	$ 21	ft^2	32,700	
Basin BMP	$ 8	$ 10	$ 9	cu. yd.	1400	
Swale	$ 4	$ 19	$ 11	ft	16900	
					Total	

Revenue	Unit Costs					
Item	low	high	average	Unit	Number	Total
Lot Price - Sales	$ 200,700	$ 245,300	$ 223,000	ea	383	

Profit **Total**

Notes:

[1] 2,400 sq. ft. wood frame structure - $78/$ft^2$

[2] 32,700 ft^2 required to infiltrate WQv over depth of 1 foot; remaining area is conserved as open space

Financial Viability Analysis / Performance Standards

Category	Description / Issues / Considerations	Present Worth Costs / Revenue
Pre-Construction		
- Design		
- Legal		
- Permitting		
- Property Acquisition		
- Financing		
- Other		
Subtotal		
Construction Cost		
- Site Preparation and Grading		
- Roads and Pavement		
- Utilities		
o Water / Sewer		
o Storm Water		
o Other		
- Buildings		
- Site Restoration and Landscaping		
- Other		
Subtotal		
Long-Term Sustainability		
- Operation and Maintenance		
- Long-Term Renewal		
Subtotal		
Marketability / Sales		
- Anticipated Property Value		
- Anticipated Sales Price		
Subtotal		
	Total	