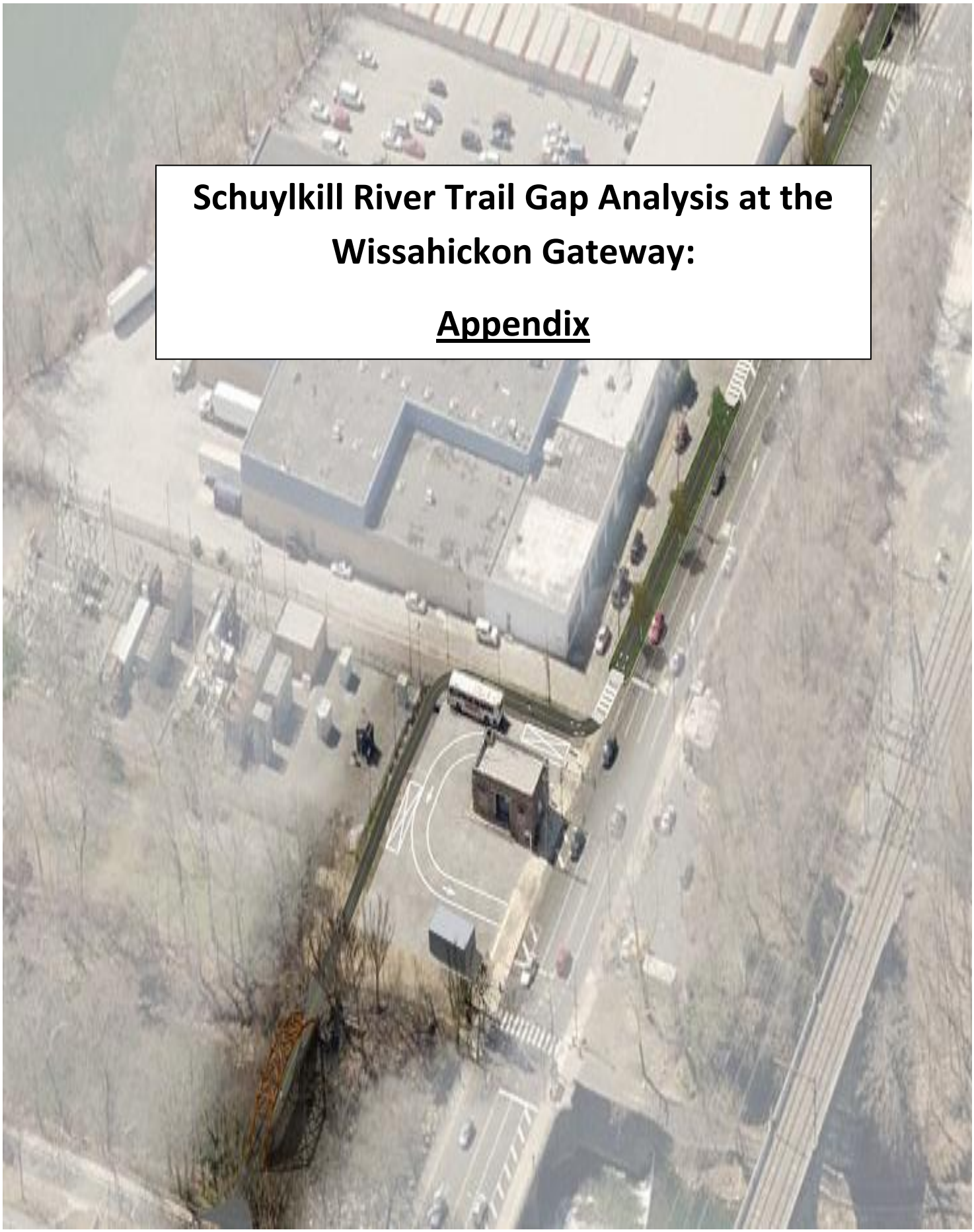
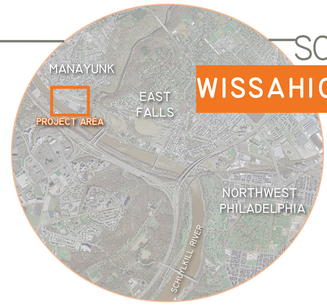
Schuylkill River Trail Gap Analysis at the Wissahickon Gateway:

<u>Appendix</u>



Illustrative Plan and Schematic Engineering Plans of the Preferred Short Term Alternative

SCHUYLKILL RIVER TRAIL
WISSAHICKON GATEWAY STUDY

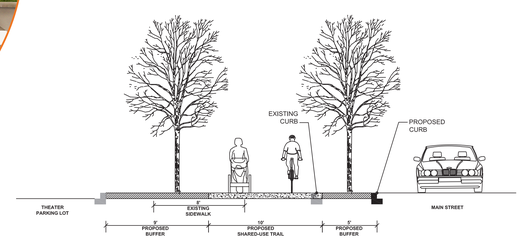


PREFERRED ALTERNATIVE

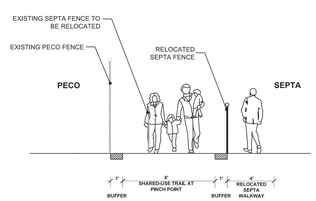
PERFERRED TRAIL ALIGNMENT
VIEW WEST

NOVEMBER 2012

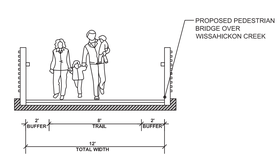
RIDGE AVENUE PERSPECTIVE
VIEW WEST



TRAIL ALONG MAIN ST/RIDGE AVE
SECTION A - VIEW WEST



TRAIL PINCH POINT
SECTION B - VIEW WEST



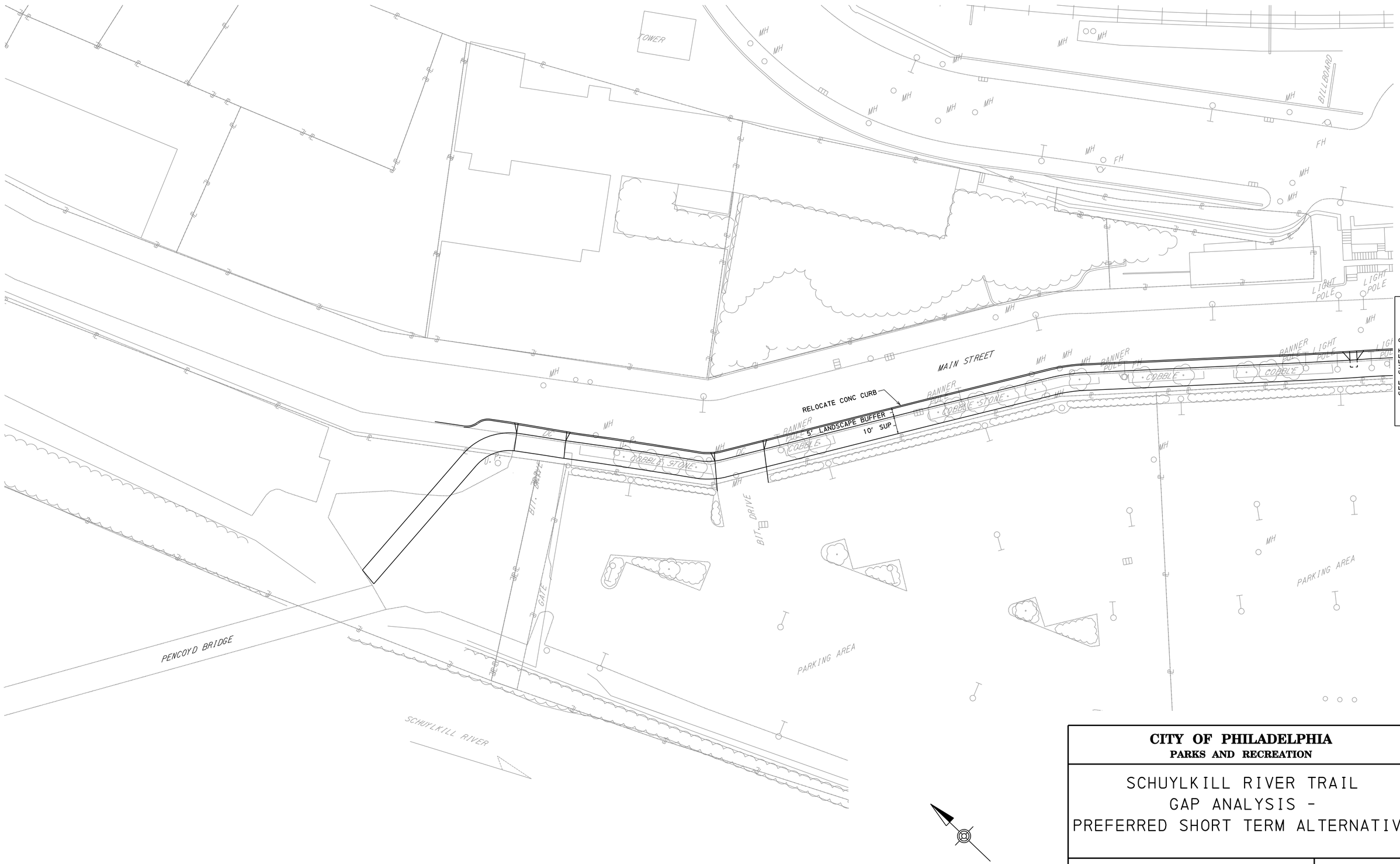
WISSAHICKON PEDESTRIAN BRIDGE
SECTION C- VIEW WEST

PEDESTRIAN BRIDGE PERSPECTIVE
VIEW NORTH

FRIENDS OF THE WISSAHICKON

pennsylvania DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES
PCPC Philadelphia City Planning Commission
Fairmount Park PHILADELPHIA'S PARK SYSTEM
PHILADELPHIA PARKS & RECREATION
BICYCLE COALITION OF PHILADELPHIA

Toole Design Group
Baker



CITY OF PHILADELPHIA
PARKS AND RECREATION

SCHUYLKILL RIVER TRAIL
GAP ANALYSIS -
PREFERRED SHORT TERM ALTERNATIVE

Baker

Michael Baker Jr., Inc.
1818 Market Street
Suite 3110
Philadelphia, PA 19103

DATE: JANUARY 2013

SHEET: 1 OF 3

14-JAN-2013

E:\123154_Wiss_Study\Plot\Plan\Ridge_plan_1.dgn

CITY OF PHILADELPHIA
PARKS AND RECREATION

SCHUYLKILL RIVER TRAIL
GAP ANALYSIS -
PREFERRED SHORT TERM ALTERNATIVE

Baker

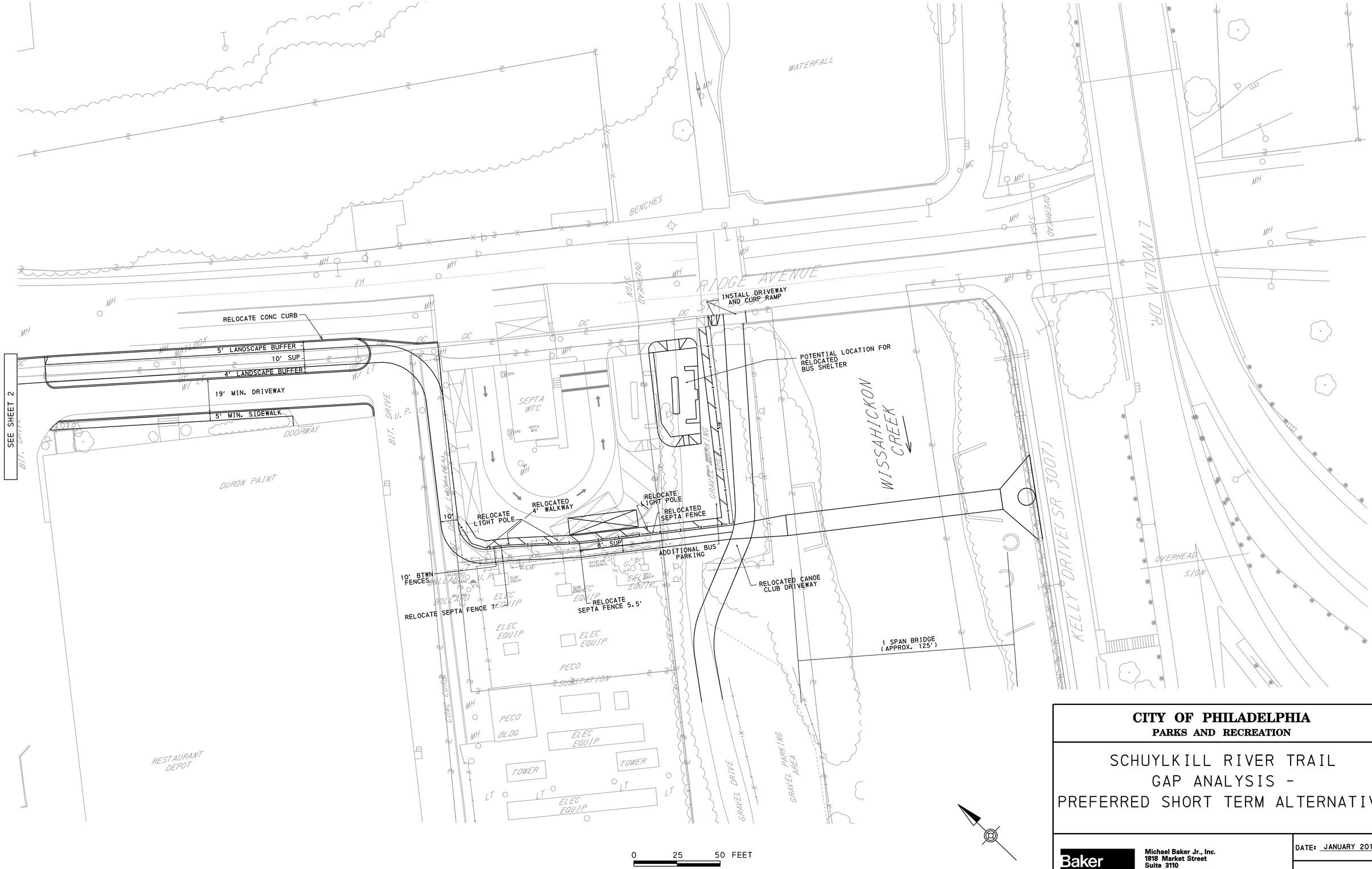
Michael Baker Jr., Inc.
1818 Market Street
Suite 3110
Philadelphia, PA 19103

DATE: JANUARY 2013

SHEET: 2 OF 3

14-JAN-2013

E:\123154_Wiss_Study\Plot\Plan\Ridge_plan_2.dgn



SEE SHEET 2

14-JAN-2013

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CITY OF PHILADELPHIA
PARKS AND RECREATION

SCHUYLKILL RIVER TRAIL GAP ANALYSIS - PREFERRED SHORT TERM ALTERNATIVE

Baker

Michael Baker Jr., Inc.
1818 Market Street
Suite 3110
Philadelphia, PA 19103

DATE: JANUARY 2013

SHEET: 3 OF 3

Structural Calculations for Widening of the Ridge Avenue Bridge

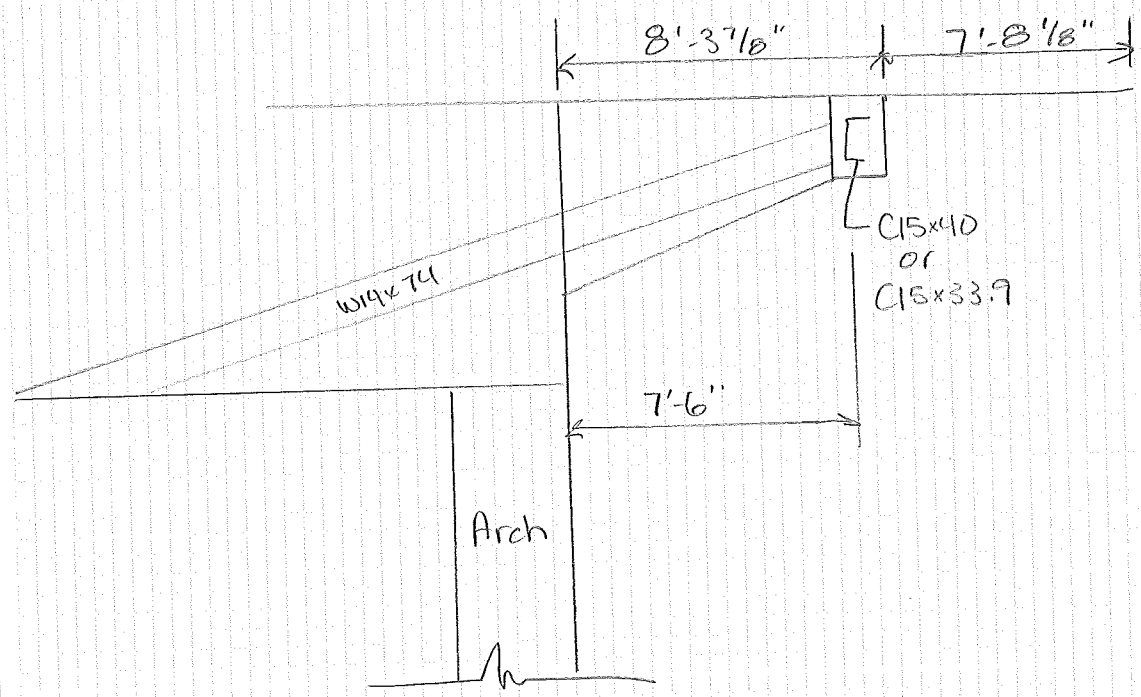
S.O. No.

Subject: Wissahickon Trail

Sheet No. 1 of

Drawing No.

Computed by RMS Checked By BTD 2/8/12 Date 4/12/11



pedestrian load = 0.085 ksf

assume dowel section every 3' into channel

$w = 0.085\,ksf \times 3\,ft$

$= 0.255\,klf \times 2.86 = 0.73\,klf$

$w_{DL} = 6\,in \times 3\,ft \times 0.115\,kcf$

$= 0.1725\,klf \times 1.3$

$= 0.224\,klf$

$M = \frac{0.95\,klf\,(7.677\,ft)^2}{2}$

$= 27.94\,k\text{-}ft \times 12 = 335.3\,k\text{-}in$

$f = \frac{335.3\,k\text{-}in}{14.9\,in^3}$ Assume W12x14

$= 22.5\,ksi < 36\,ksi$

S.O. No.

Subject: Wissahickon Trail

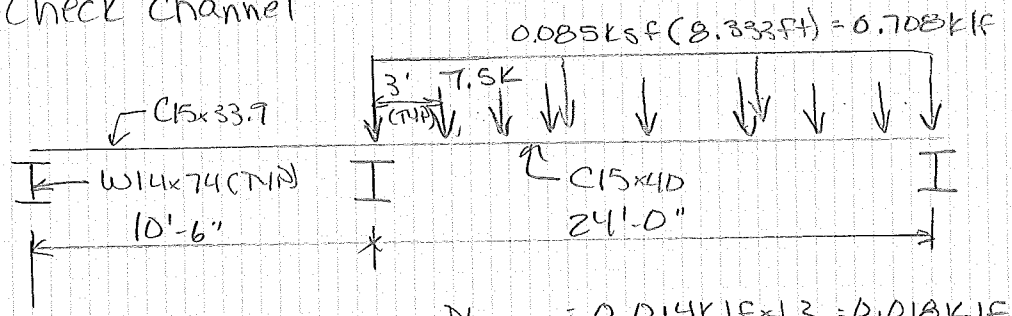
Sheet No. 2 of

Drawing No.

Computed by RMS Checked By BTD 2/8/12 Date 4/12/11

Baker

Check channel



$DL_{W12x14} = 0.014klf \times 1.3 = 0.018klf$

$DL_{conc} = 0.224klf$

load from extended section $= (0.018klf + 0.224klf + 0.73klf)(7.67ft)$

$= 7.46K$

$w = 0.708klf \times 2.86 = 2.02klf$

$M_{pad} = \frac{2.02klf\,(24ft)^2}{8}$

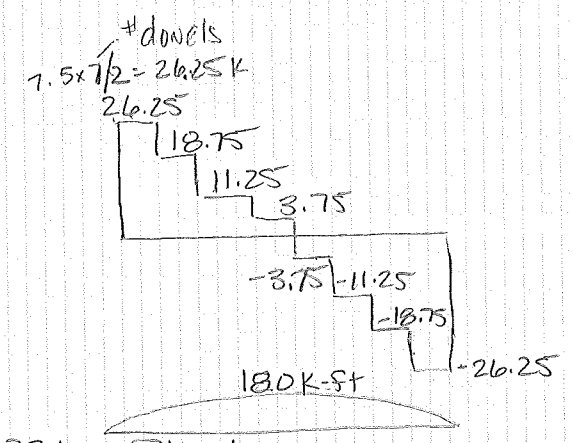
$= 146k\text{-}ft$

$M_{EXT} = 180k\text{-}ft$

$M_T = 326k\text{-}ft = 3912k\text{-}in$

$f = \frac{3912k\cdot in}{46.5in^3}$

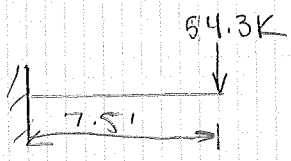
$= 84.1ksi > 33ksi \therefore NG$



Assume 33ksi Steel

Check W14x74

Assume cantilever portion is 7'-6"



$M = 326k\text{-}ft = \frac{wl^2}{8}$

$w = 4.53klf$

$R = \frac{wl}{2} = 54.3K$

$M = 54.3K\,(7.5ft)$

$= 407.5k\text{-}ft \times 12 = 4890k\cdot in$

$f = \frac{4890k\,in}{112in^3}$

$= 43.7ksi > 33ksi \therefore NG$

S.O. No.

Subject: Nissahickon Trail

Sheet No. 3 of

Drawing No.

Computed by RMS Checked By BTD 2/8/12 Date 4/20/11

Baker

Assume total trail 14', so extension will be 5'-8 1/8"

$W = 0.085\ ksf \times 3ft$

$= 0.255\ klf \times 2.86 = 0.73\ klf$

$W_{DL} = 6in \times 3ft \times 0.115\ ksf$

$= 0.1725\ klf \times 1.3$

$= 0.224\ klf$

$M = \frac{0.95\ klf (5.677\ ft)^2}{2}$

$= 15.31\ k\text{-}ft \times 12 = 183.70\ k\ in$

$f = \frac{183.70\ k\ in}{14.9\ in^3}$ Assume W12x14

$= 12.33\ ksi < 36\ ksi$

Check Channel

$DL_{extend} = 0.014\ klf \times 1.3 + 0.224\ klf$

$= 0.242\ klf$

Total load$_{extend}$ $= (0.242\ klf + 0.73\ klf)(5.677\ ft)$

$= 5.52\ k$

$W_u = 0.085\ ksf (8.333\ ft) \times 2.86$

$= 2.02\ klf$

$M_{ped} = \frac{2.02\ klf (24ft)^2}{8}$

$= 146\ k\text{-}ft$

$M_{EXT} = 132\ k\text{-}ft$

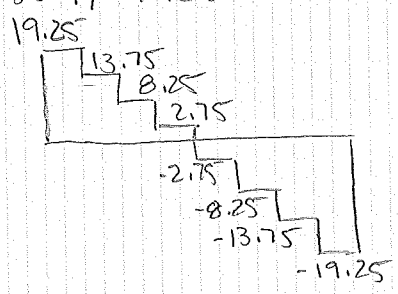
$M_T = 278\ k\ ft = 3336\ k\text{-}in$

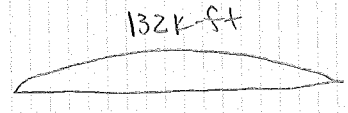
$f = \frac{3336\ k\ in}{46.5\ in^3}$ Assume 33ksi Steel

$= 71.74\ ksi > 33\ ksi$

∴ NG

5.5x7/2 = 19.25





S.O. No.

Subject: Wissahickon Trail

Sheet No. 4 of

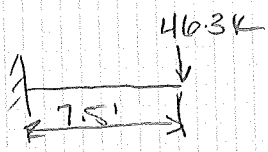
Drawing No.

Computed by RMS Checked By BJD 2/8/12 Date

Baker

Check W14x74

Assume cantilever portion is 7'-6"



$M = 278\,k\text{-}ft = \frac{wl^2}{8}$

$w = 3.86\,k/f$

$R = \frac{wl}{2} = 46.3k$

$M = 46.3k(7.5ft)$

$= 347.5\,k\text{-}ft = 4170\,k\text{-}in$

$f = \frac{4170\,k\text{-}in}{112\,in^3}$

$= 37.23\,ksi > 33\,ksi \therefore NG$

Construction Cost Estimates

Baker

1. Ridge Avenue Trail Alternative with Up Stream Crossing

Trail Cost: $1,622,609

Pre Fab. Trail Bridge (125')

Bridge Cost: $649,405

Total: $2,272,015

Bulb Tee Bridge (125')

Bridge Cost: $535,880

Total: $2,158,490

1. Ridge Avenue Trail Alternative with Up Stream Crossing

Baker

	Description	Quantity	Unit	Cost/Unit	Total Cost
Roadway					
0409-0385	Superpave, HMA PG64-22, <0.3 mililon esals, 9.5mm mix, 1 1/2", srl-l -	2,119	SY	20	$42,373.33
0309-0320	Superpave, HMA pg64-22,<0.3 million, 25.0mm 3"	2,119	SY	25	$52,966.67
0350-0106	Subbase 6" depth (No. 2A)	2,638	SY	5	$13,190.00
0212-0014	Geotextile - Class 4 Type A -	2,644	sy	11	$29,085.22
9630-0001	Plain Cement Concrete Curb, Including Removal of Existing Curb and Pavement Restoration	1,749	LF	130	$227,370.00
9309-0001	Sawcut	187	lf	5	$935.00
9624-0003	Split rail fence	0	lf	20	$0.00
9695-0001	DWS	20	SF	90	$1,800.00
0501-0024	Plain Cement Concrete Pavement, 6" Depth	519	sy	75	$38,950.00
9000-5001	Design of Concrete Curb Ramp	8	Each	800	$6,400.00
0676-0001	Cement concrete sidewalk	7	SY	110	$733.33
0804-0011	Seeding and soil supplements	736	SY	65	$47,853.72
9802-0002	Planting Soil Mix (assume 6")	123	cy	60	$7,396.56
9810-0000	Selective Tree Removal	32	each	1,000	$32,000.00
0	Relocate Banner Pole w/ new foundations	9	each	5,000	$9,000.00
9203-0001	Class 1 Excavation for shared use path (10.5" depth)	618	CY	130	$80,324.74
				Sub-Total Roadway:	**$590,378.58**
Structures					
	Wissahickon Bridge (1 span, 125' long)	1	LS	See bridge estimate	
	Boardwalk (400' long)	1	LS	See bridge estimate	
				Sub-Total Structures:	**$0.00**
Drainage					
9605-2002	4' City Inlet	1	Each	$10,000.00	$10,000.00
9605-2850	Inlet Box, Height <\= 10', with trap	1	Each	$7,500.00	$7,500.00
				Sub-Total Structures:	**$17,500.00**
Utility					
	Relocate Utility Pole w/ LT	4.00	Each	8,000.00	$32,000.00
	relocate utility pole	3.00	Each	8,000.00	$24,000.00
	16 to 36 inch dia utility casting adj for resurfacing - Type A	10.00	each	700.00	$7,000.00
	Relocate mailbox	1.00	each	500.00	$500.00
	Relocate Fire Hydrant	2.00	each	7,000.00	$14,000.00
	Casting Prices	0.00	LS	10,648.00	$10,648.00
				Sub-Total Utility:	**$88,148.00**
MPT					
0901-0001	MPT during construction	1	LS	50000	$50,000.00
0901-0231	Additional Warning lights, type B	660	each	15	$9,900.00
0901-0232	additional warning lights, type c	660	each	15	$9,900.00
0901-0240	Additional traffic control signs	161	each	20	$3,220.00
				Sub-Total MPT:	**$73,020.00**

	Description	Quantity	Unit	Cost/Unit	Total Cost
Pavement					
Marking					
0960-0001	W/4" (thermo)	1,254.00	LF	3	$3,762.00
				Sub-Total Pavm't Marking:	**$3,762.00**
Signs					
	Road & Trail Signage	1	LS	$15,000.00	$15,000.00
				Sub-Total Signs:	**$15,000.00**
Misc					
0609-0002	Inspection Field Office & Inspection Facilities, Type A	1	LS	$20,000.00	$20,000.00
0203-0001	Clearing and Grubbing	1	LS	$5,000.00	$5,000.00
0686-0060	Construction Surveying	1	LS	$20,000.00	$20,000.00
0609-0009	Equipment Package	1	LS	$5,000.00	$5,000.00
	Landscaping	1	LS	$65,000.00	$65,000.00
	Stormwater Management	1	LS	$50,000.00	$50,000.00
9951-4050	Relocate Traffic Signal Support & Equipment	1	Each	$10,000.00	$10,000.00
0689-0002	Network Schedule	1	LS	$5,000.00	$5,000.00
	Erosion & Sediment Pollution Control	1	LS	$20,000.00	$20,000.00
9901-1040	Curb Stakes	1	LS	$10,000.00	$10,000.00
	SEPTA WTC Modifications	1	LS	250000	$250,000.00
				Sub-Total Misc:	**$460,000.00**
				Sub-Total Roadway:	**$590,378.58**
				Sub-Total Structures:	**$0.00**
				Sub-Total Drainage:	**$17,500.00**
				Sub-Total Utility:	**$88,148.00**
				Sub-Total MPT:	**$73,020.00**
				Sub-Total Pave't Mark:	**$3,762.00**
				Sub-Total Signs:	**$15,000.00**
				Sub-Total Misc:	**$460,000.00**
				SUB-TOTAL:	**$1,247,808.58**
				Mobilization (5%):	**$62,390.43**
				25% Contingencies:	**$311,952.14**
		PRELIMINARY TOTAL COST ESTIMATE:			**$1,622,151.15**

S.O. No. 123154

Subject: Wissahickon Trail

Pedestrian Bridge over Wissahickon - Preliminary Estimate

Prefabricate Bridge Option 125' single span

Sheet No. _____ of _____

Drawing No. _____

Computed by AAC Checked by CS Date 7/13/2011

Baker

Item No.	Description	Unit	Cost	Quantity	Total Cost
	Fabrication Inspection	LS	$5,000.00	1.00	$5,000.00
	Sediment Filter Bags	Ea	2500	2.00	$5,000.00
	Half Pony Through Truss Bridge (Continental)	LS	$261,576.00	1.00	$261,576.00
	Unloading & Erection Cost	LS	$20,000.00	1.00	$20,000.00
	Helical Piers* (3 1/2" OD Piles - AB Chance)	LF	$300.00	400.00	$120,000.00
	Helical Piers Test Pile (3 1/2" OD Piles - AB Chance)	EA	$10,000.00	1.00	$10,000.00
	Pile Cap (Class A Concrete)* includes concrete in piles	CY	$1,500.00	9.00	$13,500.00
	Pile Cap Reinforcing	LB	$3.00	593.00	$1,779.00
	Deck (Class AAA Concrete)	CY	$1,500.00	38.00	$57,000.00
	Deck Reinforcing	LB	$3.00	3,119.00	$9,357.00
	Anchor Bolts	LB	$3.00	45.00	$135.00
	Rock Rip Rap (R6)	SY	$125.00	32.00	$4,000.00
	Excavation	CY	$150.00	32.00	$4,800.00
1019-0010	Protective Coating for Reinforced Concrete Surfaces(superstructure)	SY	$25.00	195.00	$4,875.00
1091-0332	Epoxy Injection Crack Seal	DOLLA	2500	1.00	$2,500.00
				Contingency:	1.25
				TOTAL COST:	$649,402.50
				COST/LF:	$5,196.00

* use contractor cost $300/lf from mine run

CONTECH CONSTRUCTION PRODUCTS INC.

364 Maple Avenue, Harleysville, PA 19438
p 215-256-4080 f 215-256-4081

June 1, 2011 cstanford@mbakercorp.com

Christopher Stanford
Michael Baker, Jr. Inc.
201 Gibraltar Road, Suite 120
Horsham, PA 19044-2331

Dear Chris:

The engineers' estimate for Wissahickon Gateway Trail Bridge, Philadelphia, PA, using the **CONTINENTAL Bridge System,** is as follows:

- **1 only-125'x 14'** Continental Bridge half-through Connector truss,
- One diagonal per panel, square end vertical, bearings at equal elevations
- Fabricated from atmospheric corrosion resistant steel
- Galvanized pans and side dams for 6" CIP decking, cast by others
- Galvanized pipe handrail
- ¼" x 6" steel toe plate placed 2" above deck
- Horizontal safety rails on the outside of the truss; maximum opening of less than 4"
- 42" truss height above the deck
- Dead load camber over entire span of bridge
- 85 psf uniform live load reduced per pedestrian guide specifications
- One 10,000 lb. vehicle load
- 25 psf uniform wind load over the vertical projection of the bridge as if enclosed
- The bridge will be delivered partially assembled.
- The approximate total lifting weight of the bridge is 81,600 lbs.
- AISC Design Standards, current edition

Delivered Price: Philadelphia, PA…… $173,000.00, plus sales tax
$173,000 +8% tax +40% labor for installation = $261,576.00
Estimated prices are valid for 60 days. This is an estimate based on the information available to us at the present time. This estimate is subject to change at any time and is not to be construed as an offer or contractual obligation between the parties.

[1] The following is not included:

- Soil testing, design, excavation and construction of bridge foundations including anchor bolts.
- All construction surveying, including field measurement and verification of abutments
- Anchor bolts placement, unloading and erection of the bridge.

Thank you for your interest in CONTECH Bridge Solutions, Inc. If you have any questions, would like to consider another option or elect to use the CONTINENTAL System, please contact us 215-498-3249.

Sincerely,
William G. Gray
Project Consultant

S.O. No. 123154

Subject: Wissahickon Trail

Pedestrian Bridge over Wissahickon - Preliminary Estimate

Bulb Tee Bridge Option 125' single span

Sheet No. _____ of _____

Drawing No. _____

Computed by AAC Checked by RMS Date 7/13/2011

Baker

Item No.	Description	Unit	Cost	Quantity	Total Cost
	Fabrication Inspection	LS	$0.00	1.00	$0.00
	Sediment Filter Bags	Ea	2500	2.00	$5,000.00
	bulb tee prestressed concrete beams (size 33x55.25 based on 7' spacing and 125' span, ext)	LF	$378.00	250.00	$94,500.00
	Unloading & Erection Cost	LS	$20,000.00	1.00	$20,000.00
	Helical Piers* (3 1/2" OD Piles - AB Chance)	LF	$300.00	400.00	$120,000.00
	Helical Piers Test Pile (3 1/2" OD Piles - AB Chance)	EA	$10,000.00	1.00	$10,000.00
	Pile Cap (Class A Concrete)* includes concrete in piles	CY	$1,500.00	9.00	$13,500.00
	Pile Cap Reinforcing	LB	$3.00	593.00	$1,779.00
	Deck (Class AAA Concrete)	CY	$1,500.00	49.00	$73,500.00
	Bridge Rail	LF	$150.00	250.00	$37,500.00
	Deck Reinforcing + Parapet Reinforcing (309 over 202, deck slab was 57, 208 lbs for a deck area 117*70.75)	LB	$3.00	12,250.00	$36,750.00
	Rock Rip Rap (R6)	SY	$125.00	32.00	$4,000.00
	Excavation	CY	$150.00	32.00	$4,800.00
1019-0010	Protective Coating for Reinforced Concrete Surfaces(superstructure)	SY	$25.00	195.00	$4,875.00
1091-0332	Epoxy Injection Crack Seal	DOLLA	2500	1.00	$2,500.00
				Contingency:	1.25
	* use contractor cost $300/lf from mine run			**TOTAL COST:**	$535,880.00
				COST/LF:	$4,288.00

Baker

2.Riverside Trail Alternative with Down Stream Crossing

Trail Cost: $841,317

Pre Fab Trail Bridge (270')

Bridge Cost: $1,368,085

Engineered Wood Boardwalk (800')

Boardwalk Cost: 2,057,440

Total: $4,205,991

Pre Fab Boardwalk (800')

Boardwalk Cost: $3,552,580

Total: $5,761,982

Bulb Tee Bridge (270')

Bridge Cost: $922,070

Engineered Wood Boardwalk (800')

Boardwalk Cost: $2,057,440

Total: $3,820,823

Bulb Tee Boardwalk (800')

Boardwalk Cost: $2,138,550

Total: $3,901,937

2. River Side Trail Alternative with Down Stream Crossing

	Description	Quantity	Unit	Cost/Unit	Total Cost
Roadway					
0409-0385	Superpave, HMA PG64-22, <0.3 mililon esals, 9.5mm mix, 1 1/2", srl-l -	1,293	SY	15	$19,400.00
0309-0320	Superpave, HMA pg64-22,<0.3 million, 25.0mm 3"	1,293	SY	20	$25,866.67
0350-0106	Subbase 6" depth (No. 2A)	1,293	SY	4	$5,173.33
0212-0014	Geotextile - Class 4 Type A -	1,293	sy	10	$12,933.33
9630-0001	Plain Cement Concrete Curb, Including Removal of Existing Curb and Pavement Restoration	0	LF	125	$0.00
9309-0001	Sawcut	12	lf	3	$36.00
9624-0003	Split rail fence	821	lf	15	$12,315.00
9695-0001	DWS	0	SF	80	$0.00
0501-0024	Plain Cement Concrete Pavement, 6" Depth	0	sy	50	$0.00
9000-5001	Design of Concrete Curb Ramp	0	Each	725	$0.00
0676-0001	Cement concrete sidewalk	0	SY	100	$0.00
0804-0011	Seeding and soil supplements	456	SY	62	$28,278.89
9802-0002	Planting Soil Mix (assume 6")	456	cy	58	$26,454.44
9810-0000	Selective Tree Removal	15	each	1,000	$15,000.00
0	Relocate Banner Pole w/ new foundations	0	each	750	$0.00
9203-0001	Class 1 Excavation for shared use path (10.5" depth)	377	CY	125	$47,148.06
				Sub-Total Roadway:	**$192,605.73**
Structures					
	See Structural Costs	1	LS	$0.00	$0.00
				Sub-Total Structures:	**$0.00**
Utility					
	Relocate Utility Pole w/ LT	3.00	Each	7,000.00	$21,000.00
	relocate utility pole	0.00	Each	7,000.00	$0.00
	16 to 36 inch dia utility casting adj for resurfacing - ty	0.00	each	517.00	$0.00
	Relocate mailbox	0.00	each	0.00	$0.00
	Relocate Fire Hydrant	0.00	each	6,000.00	$0.00
	Casting Prices	1.00	LS	0.00	$0.00
				Sub-Total Utility:	**$21,000.00**
MPT					
0901-0001	MPT during construction	1	LS	5000	$5,000.00
0901-0231	Additional Warning lights, type B	220	each	10	$2,200.00
0901-0232	additional warning lights, type c	220	each	10	$2,200.00
0901-0240	Additional traffic control signs	53.7	each	15	$805.00
				Sub-Total MPT:	**$10,205.00**
Lighting					
9910-0001	Design of Decorative Lighting	1	LS	17500	$17,500.00
9910-0002	Construction of Decorative Lighting	1	LS	275000	$275,000.00
				Sub-Total Signs:	**$292,500.00**

	Description	Quantity	Unit	Cost/Unit	Total Cost
Pavement					
Marking					
0960-0001	W/4" (thermo)	450.00	LF	1.5	$675.00
				Sub-Total Pavm't Marking:	**$675.00**
Signs					
	Road & Trail Signage	1	LS	$3,510.00	$3,510.00
				Sub-Total Signs:	**$3,510.00**
Misc					
0609-0002	Inspection Field Office & Inspection Facilities, Type A	1	LS	$7,500.00	$7,500.00
0203-0001	Clearing and Grubbing	1	LS	$20,000.00	$20,000.00
0686-0060	Construction Surveying	1	LS	$17,000.00	$17,000.00
0609-0009	Equipment Package	1	LS	$4,000.00	$4,000.00
	Landscaping	1	LS	$21,833.00	$21,833.00
	Stormwater Management	1	LS	$5,000.00	$5,000.00
9951-4050	Relocate Traffic Signal Support & Equipment	1	Each	$0.00	$0.00
0689-0002	Network Schedule	1	LS	$4,500.00	$4,500.00
	Erosion & Sediment Pollution Control	1	LS	$40,000.00	$40,000.00
9901-1040	Curb Stakes	1	LS	$6,838.00	$6,838.00
				Sub-Total Misc:	**$126,671.00**
				Sub-Total Roadway:	**$192,605.73**
				Sub-Total Structures:	**$0.00**
				Sub-Total Utility:	**$21,000.00**
				Sub-Total MPT:	**$10,205.00**
				Sub-Total Lighting:	**$292,500.00**
				Sub-Total Pave't Mark:	**$675.00**
				Sub-Total Signs:	**$3,510.00**
				Sub-Total Misc:	**$126,671.00**
				SUB-TOTAL:	**$647,166.73**
				Mobilization (5%):	**$32,358.34**
				25% Contingencies:	**$161,791.68**
		PRELIMINARY TOTAL COST ESTIMATE:			**$841,316.75**

S.O. No. 123154

Subject: Wissahickon Trail

Pedestrian Bridge over Wissahickon - Preliminary Estimate

Prefab. Bridge Option (Two 135' Spans) with timber boardwalk

Sheet No. _____ of _____

Drawing No. _____

Computed by AAC Checked by RMS Date 7/25/2011

Baker

Item No.	Description	Unit	Cost	Quantity	Total Cost
	Fabrication Inspection	LS	$5,000.00	1.00	$5,000.00
	Sediment Filter Bags	Ea	2500	2.00	$5,000.00
	Half Pony Through Truss Bridge (Continental)	LS	$665,280.00	1.00	$665,280.00
	Unloading & Erection Cost	LS	$20,000.00	2.00	$40,000.00
	Caissons (60"Dia)	LF	$2,000.00	75.00	$150,000.00
	Cross Hole Sonic Logging	EA	$4,000.00	3.00	$12,000.00
	Pile Cap (Class A Concrete)	CY	$1,500.00	60.00	$90,000.00
	Pile Cap Reinforcing	LB	$3.00	3,450.00	$10,350.00
	Deck (Class AAA Concrete)	CY	$1,500.00	47.00	$70,500.00
	Deck Reinforcing	LB	$3.00	6,736.00	$20,208.00
	Anchor Bolts	LB	$3.00	68.00	$204.00
	Rock Rip Rap (R6)	SY	$125.00	47.00	$5,875.00
	Excavation	CY	$150.00	47.00	$7,050.00
1019-0010	Protective Coating for Reinforced Concrete Surfaces(superstructure)	SY	$25.00	420.00	$10,500.00
1091-0332	Epoxy Injection Crack Seal	DOLLA	2500	1.00	$2,500.00
				Contingency:	1.25
				PREFAB BRIDGE COST:	$1,368,083.75
				COST/LF PREFAB BRIDGE:	$5,067.00
	Timber Boardwalk (810' long)	LF	$750.00	810.00	$607,500.00
	Helical Piers (for boardwalk only)* (3 1/2" OD Piles - AB Chance)	LF	$300.00	3,450.00	$1,035,000.00
	Timber Pile Caps (69 pile caps)	BOARD	$50.00	69.00	$3,450.00
				Contingency:	1.25
				TIMBER BOARDWALK COST:	$2,057,437.50
				COST/LF TIMBER :	$2,510.00
				TOTAL COST:	$3,425,522.00

* use contractor cost $300/lf from mine run

14' wide, supported every 11'-9"

http://twp.independence.mi.us/Community/SafetyPathUpdate_110512.pdf

http://www.easterntrail.org/engstudy/scarboro/App2Trail-StructureCosts9-12-06.pdf

S.O. No. 123154

Subject: Wissahickon Trail

Pedestrian Bridge over Wissahickon - Preliminary Estimate

Bulb Tee Bridge Option - Two 135' spans

Sheet No. _____ of _____

Drawing No. _____

Computed by AAC Checked by RMS Date 7/13/2011

Baker

Item No.	Description	Unit	Cost	Quantity	Total Cost
	Fabrication Inspection	LS	$0.00	1.00	$0.00
	Sediment Filter Bags	Ea	2500	2.00	$5,000.00
	bulb tee prestressed concrete beams (size 33x69.25 based on 8' spacing and 135' span, ext)	LF	$325.00	540.00	$175,500.00
	Unloading & Erection Cost	LS	$20,000.00	1.00	$20,000.00
	Caissons (60"Dia)	LF	$2,000.00	75.00	$150,000.00
	Cross Hole Sonic Logging	EA	$4,000.00	3.00	$12,000.00
	Pile Cap (Class A Concrete)	CY	$1,500.00	60.00	$90,000.00
	Pile Cap Reinforcing	LB	$3.00	3,450.00	$10,350.00
	Deck (Class AAA Concrete)	CY	$1,500.00	59.00	$88,500.00
	Bridge Rail	LF	$150.00	540.00	$81,000.00
	Deck Reinforcing + Parapet Reinforcing (309 over 202, deck slab was 57, 208 lbs for a deck area 117*70.75)	LB	$3.00	26,460.00	$79,380.00
	Rock Rip Rap (R6)	SY	$125.00	47.00	$5,875.00
	Excavation	CY	$150.00	47.00	$7,050.00
1019-0010	Protective Coating for Reinforced Concrete Surfaces(superstructure)	SY	$25.00	420.00	$10,500.00
1091-0332	Epoxy Injection Crack Seal	DOLLA	2500	1	$2,500.00
				Contingency:	1.25
				PREFAB BRIDGE COST:	$922,068.75
				COST/LF PREFAB BRIDGE:	$3,416.00
	Timber Boardwalk (810' long)	LF	$750.00	810.00	$607,500.00
	Helical Piers (for boardwalk only)* (3 1/2" OD Piles - AB Chance)	LF	$300.00	3,450.00	$1,035,000.00
	Timber Pile Caps (69 pile caps)	BOARD	$50.00	69.00	$3,450.00
				Contingency:	1.25
				TIMBER BOARDWALK COST:	$2,057,437.50
				COST/LF TIMBER :	$2,510.00
				TOTAL COST:	$2,979,507.00

* use contractor cost $300/lf from mine run

S.O. No. 123154

Subject: Wissahickon Trail

Pedestrian Bridge over Wissahickon - Preliminary Estimate

Prefab. Bridge Option - Two Spans (135' each) over Creek with 6 spans Prefab for boardwalk

Sheet No. _____ of _____

Drawing No. _____

Computed by AAC Checked by CS Date 7/25/2011

Baker

Item No.	Description	Unit	Cost	Quantity	Total Cost
	Fabrication Inspection	LS	$5,000.00	1.00	$5,000.00
	Sediment Filter Bags	Ea	2500	2.00	$5,000.00
	Half Pony Through Truss Bridge (Continental)	LS	$665,280.00	1.00	$665,280.00
	Unloading & Erection Cost	LS	$20,000.00	2.00	$40,000.00
	Caissons (60"Dia)	LF	$2,000.00	75.00	$150,000.00
	Cross Hole Sonic Logging	EA	$4,000.00	3.00	$12,000.00
	Pile Cap (Class A Concrete)	CY	$1,500.00	60.00	$90,000.00
	Pile Cap Reinforcing	LB	$3.00	3,450.00	$10,350.00
	Deck (Class AAA Concrete)	CY	$1,500.00	47.00	$70,500.00
	Deck Reinforcing	LB	$3.00	6,736.00	$20,208.00
	Anchor Bolts	LB	$3.00	68.00	$204.00
	Rock Rip Rap (R6)	SY	$125.00	47.00	$5,875.00
	Excavation	CY	$150.00	47.00	$7,050.00
1019-0010	Protective Coating for Reinforced Concrete Surfaces(superstructure)	SY	$25.00	420.00	$10,500.00
1091-0332	Epoxy Injection Crack Seal	DOLLA	2500	1.00	$2,500.00
				Contingency:	1.25
				2- 135' SPANS PREFAB BRIDGE COST:	$1,368,083.75
				COST/LF PREFAB BRIDGE:	$5,067.00
	Half Pony Through Truss Bridge (Continental)	LS	$665,280.00	3.00	$1,995,840.00
	Unloading & Erection Cost	LS	$20,000.00	6.00	$120,000.00
	Caissons (60"Dia)	LF	$2,000.00	150.00	$300,000.00
	Cross Hole Sonic Logging	EA	$4,000.00	6.00	$24,000.00
	Pile Cap (Class A Concrete)	CY	$1,500.00	120.00	$180,000.00
	Pile Cap Reinforcing	LB	$3.00	6,900.00	$20,700.00
	Deck (Class AAA Concrete)	CY	$1,500.00	71.00	$106,500.00
	Deck Reinforcing	LB	$3.00	20,206.00	$60,618.00
	Anchor Bolts	LB	$3.00	135.00	$405.00
1019-0010	Protective Coating for Reinforced Concrete Surfaces(superstructure)	SY	$25.00	1,260.00	$31,500.00
1091-0332	Epoxy Injection Crack Seal	DOLLA	2500	1.00	$2,500.00
				Contingency:	1.25
				6- 135' SPANS PREFAB BRIDGE COST:	$3,552,578.75
				COST/LF PREFAB BRIDGE:	$4,386.00
				TOTAL COST:	$4,920,663.00

* use contractor cost $300/lf from mine run

14' wide, supported every 11'-9"

http://twp.independence.mi.us/Community/SafetyPathUpdate_110512.pdf

http://www.easterntrail.org/engstudy/scarboro/App2Trail-StructureCosts9-12-06.pdf

S.O. No. 123154

Subject: Wissahickon Trail

Pedestrian Bridge over Wissahickon - Preliminary Estimate

Bulb Tee Bridge Option 8 spans at 135' each

Computed by AAC Checked by _____ Date 7/13/2011

Baker

Sheet No. _____ of _____

Drawing No. _____

Item No.	Description	Unit	Cost	Quantity	Total Cost
	Fabrication Inspection	LS	$0.00	1.00	$0.00
	Sediment Filter Bags	Ea	2500	2.00	$5,000.00
	bulb tee prestressed concrete beams (size 33x69.25 based on 8' spacing and 135' span, ext)	LF	$325.00	540.00	$175,500.00
	Unloading & Erection Cost	LS	$20,000.00	1.00	$20,000.00
	Caissons (60"Dia)	LF	$2,000.00	75.00	$150,000.00
	Cross Hole Sonic Logging	EA	$4,000.00	3.00	$12,000.00
	Pile Cap (Class A Concrete)	CY	$1,500.00	60.00	$90,000.00
	Pile Cap Reinforcing	LB	$3.00	3,450.00	$10,350.00
	Deck (Class AAA Concrete)	CY	$1,500.00	59.00	$88,500.00
	Bridge Rail	LF	$150.00	540.00	$81,000.00
	Deck Reinforcing + Parapet Reinforcing (309 over 202, deck slab was 57, 208 lbs for a deck area 117*70.75)	LB	$3.00	26,460.00	$79,380.00
	Rock Rip Rap (R6)	SY	$125.00	47.00	$5,875.00
	Excavation	CY	$150.00	47.00	$7,050.00
1019-0010	Protective Coating for Reinforced Concrete Surfaces(superstructure)	SY	$25.00	420.00	$10,500.00
1091-0332	Epoxy Injection Crack Seal	DOLLA	2500	1	$2,500.00
				Contingency:	1.25
				2-135' SPANS P/S BULB TEE BRIDGE COST:	$922,068.75
				COST/LF P/S BULB TEE BRIDGE:	$3,416.00
	bulb tee prestressed concrete beams (size 33x69.25 based on 8' spacing and 135' span, ext)	LF	$325.00	1,620.00	$526,500.00
	Unloading & Erection Cost	LS	$20,000.00	1.00	$20,000.00
	Caissons (60"Dia)	LF	$2,000.00	150.00	$300,000.00
	Cross Hole Sonic Logging	EA	$4,000.00	6.00	$24,000.00
	Pile Cap (Class A Concrete)	CY	$1,500.00	120.00	$180,000.00
	Pile Cap Reinforcing	LB	$3.00	6,900.00	$20,700.00
	Deck (Class AAA Concrete)	CY	$1,500.00	83.00	$124,500.00
	Bridge Rail	LF	$150.00	1,620.00	$243,000.00
	Deck Reinforcing + Parapet Reinforcing (309 over 202, deck slab was 57, 208 lbs for a deck area 117*70.75)	LB	$3.00	79,380.00	$238,140.00
1019-0010	Protective Coating for Reinforced Concrete Surfaces(superstructure)	SY	$25.00	1,260.00	$31,500.00
1091-0332	Epoxy Injection Crack Seal	DOLLA	2500	1.00	$2,500.00
				Contingency:	1.25
				6-135' SPANS P/S BULB TEE BRIDGE COST:	$2,138,550.00
				COST/LF P/S BULB TEE BRIDGE:	$2,641.00
				TOTAL COST:	$3,060,619.00

* use contractor cost $300/lf from mine run

3. River Side Trail Alternative with Up Stream Crossing

Trail Cost: $1,047,350

Pre Fab Continental Bridge

Bridge Cost: $649,405

Engineered Wood Boardwalk

Boardwalk Cost: $1,045,940

Total: $2,742,695

Pre Fab Boardwalk

Boardwalk Cost: $1,775,170

Total: $3,471,925

Bulb Tee Boardwalk

Boardwalk Cost: $1,449,850

Total: $3,146,605

Bulb Tee Bridge

Bridge Cost: $535,880

Engineered Wood Boardwalk

Boardwalk Cost: $1,045,940

Total: $2,629,170

Pre Fab Boardwalk

Boardwalk Cost: $1,775,170

Total: $3,358,400

Bulb Tee Boardwalk

Boardwalk Cost: $1,449,850

Total: $3,033,080

3. River Side Trail Alternative with Up Stream Crossing

	Description	Quantity	Unit	Cost/Unit	Total Cost
Roadway					
0409-0385	Superpave, HMA PG64-22, <0.3 mililon esals, 9.5mm mix, 1 1/2", srl-l -	2,424	SY	15	$36,358.33
0309-0320	Superpave, HMA pg64-22,<0.3 million, 25.0mm 3"	2,424	SY	20	$48,477.78
0350-0106	Subbase 6" depth (No. 2A)	2,424	SY	4	$9,695.56
0212-0014	Geotextile - Class 4 Type A -	2,424	sy	10	$24,238.89
9630-0001	Plain Cement Concrete Curb, Including Removal of Existing Curb and Pavement Restoration	0	LF	125	$0.00
9309-0001	Sawcut	12	lf	3	$36.00
9624-0003	Split rail fence	1,772	lf	15	$26,580.00
9695-0001	DWS	0	SF	80	$0.00
0501-0024	Plain Cement Concrete Pavement, 6" Depth	0	sy	50	$0.00
9000-5001	Design of Concrete Curb Ramp	0	Each	725	$0.00
0676-0001	Cement concrete sidewalk	0	SY	100	$0.00
0804-0011	Seeding and soil supplements	456	SY	62	$28,278.89
9802-0002	Planting Soil Mix (assume 6")	484	cy	58	$28,065.56
9810-0000	Selective Tree Removal	35	each	1,000	$35,000.00
0	Relocate Banner Pole w/ new foundations	0	each	750	$0.00
9203-0001	Class 1 Excavation for shared use path (10.5" depth)	707	CY	125	$88,362.11
				Sub-Total Roadway:	**$325,093.11**
Structures					
	Wissahickon Bridge (125' span)	1	LS	See bridge estimates	
	Boardwalk (400')	1	LS	See bridge estimates	
				Sub-Total Structures:	**$0.00**
Utility					
	Relocate Utility Pole w/ LT	3.00	Each	7,000.00	$21,000.00
	relocate utility pole	0.00	Each	7,000.00	$0.00
	16 to 36 inch dia utility casting adj for resurfacing - ty	0.00	each	517.00	$0.00
	Relocate mailbox	0.00	each	0.00	$0.00
	Relocate Fire Hydrant	0.00	each	6,000.00	$0.00
	Casting Prices	1.00	LS	0.00	$0.00
				Sub-Total Utility:	**$21,000.00**
MPT					
0901-0001	MPT during construction	1	LS	5000	$5,000.00
0901-0231	Additional Warning lights, type B	220	each	10	$2,200.00
0901-0232	additional warning lights, type c	220	each	10	$2,200.00
0901-0240	Additional traffic control signs	53.6666667	each	15	$805.00
				Sub-Total MPT:	**$10,205.00**

	Description	Quantity	Unit	Cost/Unit	Total Cost
Pavement					
Marking					
0960-0001	W/4" (thermo)	450.00	LF	1.5	$675.00
				Sub-Total Pavm't Marking:	**$675.00**
Signs					
	Road & Trail Signage	1	LS	$3,510.00	$3,510.00
				Sub-Total Signs:	**$3,510.00**
Lighting					
9910-0001	Design of Decorative Lighting	1	LS	17500	$17,500.00
9910-0002	Construction of Decorative Lighting	1	LS	340000	$340,000.00
				Sub-Total Signs:	**$357,500.00**
Misc					
0609-0002	Inspection Field Office & Inspection Facilities, Type A	1	LS	$7,500.00	$7,500.00
0203-0001	Clearing and Grubbing	1	LS	$15,000.00	$15,000.00
0686-0060	Construction Surveying	1	LS	$17,000.00	$17,000.00
0609-0009	Equipment Package	1	LS	$4,000.00	$4,000.00
	Landscaping	1	LS	$21,833.00	$21,833.00
	Stormwater Management	1	LS	$5,000.00	$5,000.00
9951-4050	Relocate Traffic Signal Support & Equipment	1	Each	$0.00	$0.00
0689-0002	Network Schedule	1	LS	$4,500.00	$4,500.00
	Erosion & Sediment Pollution Control	1	LS	$6,000.00	$6,000.00
9901-1040	Curb Stakes	1	LS	$6,838.00	$6,838.00
				Sub-Total Misc:	**$87,671.00**
				Sub-Total Roadway:	**$325,093.11**
				Sub-Total Structures:	**$0.00**
				Sub-Total Utility:	**$21,000.00**
				Sub-Total MPT:	**$10,205.00**
				Sub-Total Pave't Mark:	**$675.00**
				Sub-Total Signs:	**$3,510.00**
				Sub-Total Lighting:	**$357,500.00**
				Sub-Total Misc:	**$87,671.00**
				SUB-TOTAL:	**$805,654.11**
				Mobilization (5%):	**$40,282.71**
				25% Contingencies:	**$201,413.53**
		PRELIMINARY TOTAL COST ESTIMATE:			**$1,047,350.35**

S.O. No. 123154

Subject: Wissahickon Trail

Pedestrian Bridge over Wissahickon - Preliminary Estimate

Prefabricate Bridge Option 125' single span

Sheet No. _____ of _____

Drawing No. _____

Computed by AAC Checked by CS Date 7/13/2011

Baker

Item No.	Description	Unit	Cost	Quantity	Total Cost
	Fabrication Inspection	LS	$5,000.00	1.00	$5,000.00
	Sediment Filter Bags	Ea	2500	2.00	$5,000.00
	Half Pony Through Truss Bridge (Continental)	LS	$261,576.00	1.00	$261,576.00
	Unloading & Erection Cost	LS	$20,000.00	1.00	$20,000.00
	Helical Piers* (3 1/2" OD Piles - AB Chance)	LF	$300.00	400.00	$120,000.00
	Helical Piers Test Pile (3 1/2" OD Piles - AB Chance)	EA	$10,000.00	1.00	$10,000.00
	Pile Cap (Class A Concrete)* includes concrete in piles	CY	$1,500.00	9.00	$13,500.00
	Pile Cap Reinforcing	LB	$3.00	593.00	$1,779.00
	Deck (Class AAA Concrete)	CY	$1,500.00	38.00	$57,000.00
	Deck Reinforcing	LB	$3.00	3,119.00	$9,357.00
	Anchor Bolts	LB	$3.00	45.00	$135.00
	Rock Rip Rap (R6)	SY	$125.00	32.00	$4,000.00
	Excavation	CY	$150.00	32.00	$4,800.00
1019-0010	Protective Coating for Reinforced Concrete Surfaces(superstructure)	SY	$25.00	195.00	$4,875.00
1091-0332	Epoxy Injection Crack Seal	DOLLA	2500	1.00	$2,500.00
				Contingency:	1.25
				TOTAL COST:	$649,402.50
				COST/LF:	$5,196.00

* use contractor cost $300/lf from mine run

S.O. No. 123154

Subject: Wissahickon Trail

Pedestrian Bridge over Wissahickon - Preliminary Estimate

Bulb Tee Bridge Option 125' single span

Sheet No. _____ of _____

Drawing No. _____

Computed by AAC Checked by RMS Date 7/13/2011

Baker

Item No.	Description	Unit	Cost	Quantity	Total Cost
	Fabrication Inspection	LS	$0.00	1.00	$0.00
	Sediment Filter Bags	Ea	2500	2.00	$5,000.00
	bulb tee prestressed concrete beams (size 33x55.25 based on 7' spacing and 125' span, ext)	LF	$378.00	250.00	$94,500.00
	Unloading & Erection Cost	LS	$20,000.00	1.00	$20,000.00
	Helical Piers* (3 1/2" OD Piles - AB Chance)	LF	$300.00	400.00	$120,000.00
	Helical Piers Test Pile (3 1/2" OD Piles - AB Chance)	EA	$10,000.00	1.00	$10,000.00
	Pile Cap (Class A Concrete)* includes concrete in piles	CY	$1,500.00	9.00	$13,500.00
	Pile Cap Reinforcing	LB	$3.00	593.00	$1,779.00
	Deck (Class AAA Concrete)	CY	$1,500.00	49.00	$73,500.00
	Bridge Rail	LF	$150.00	250.00	$37,500.00
	Deck Reinforcing + Parapet Reinforcing (309 over 202, deck slab was 57, 208 lbs for a deck area 117*70.75)	LB	$3.00	12,250.00	$36,750.00
	Rock Rip Rap (R6)	SY	$125.00	32.00	$4,000.00
	Excavation	CY	$150.00	32.00	$4,800.00
1019-0010	Protective Coating for Reinforced Concrete Surfaces(superstructure)	SY	$25.00	195.00	$4,875.00
1091-0332	Epoxy Injection Crack Seal	DOLLA	2500	1.00	$2,500.00
				Contingency:	1.25
	* use contractor cost $300/lf from mine run			**TOTAL COST:**	$535,880.00
				COST/LF:	$4,288.00

S.O. No. 123154

Subject: Wissahickon Trail

Pedestrian Bridge over Wissahickon - Preliminary Estimate

Timber Bridge Option 400' multi-span

Sheet No. _____ of _____

Drawing No. _____

Computed by AAC Checked by _____ Date 7/13/2011

Item No.	Description	Unit	Cost	Quantity	Total Cost
	Sediment Filter Bags	Ea	2500	0.00	$0.00
	Timber Boardwalk (400' long)	LF	$750.00	400.00	$300,000.00
	Helical Piers* (3 1/2" OD Piles - AB Chance)	LF	$300.00	1,750.00	$525,000.00
	Helical Piers Test Pile (3 1/2" OD Piles - AB Chance)	EA	$10,000.00	1.00	$10,000.00
	Timber Pile Caps (35 piles)	BOARD	$50.00	35.00	$1,750.00
				Contingency:	1.25
				TIMBER BOARDWALK COST:	$1,045,937.50
				COST/LF TIMBER :	$2,615.00
				TOTAL COST:	$1,045,938.00

* use contractor cost $300/lf from mine run

14' wide, supported every 11'-9"

http://twp.independence.mi.us/Community/SafetyPathUpdate_110512.pdf

http://www.easterntrail.org/engstudy/scarboro/App2Trail-StructureCosts9-12-06.pdf

S.O. No. 123154

Subject: Wissahickon Trail

Pedestrian Bridge over Wissahickon - Preliminary Estimate

Bulb Tee Bridge Option 400' multi span

Sheet No. _____ of _____

Drawing No. _____

Computed by AAC Checked by _____ Date 7/13/2011

Baker

Item No.	Description	Unit	Cost	Quantity	Total Cost
	Sediment Filter Bags	Ea	2500	0.00	$0.00
	bulb tee prestressed concrete beams (size 33x45.25 based on 8' spacing and 100' span, ext)	LF	$340.00	800.00	$272,000.00
	Unloading & Erection Cost	LS	$20,000.00	1.00	$20,000.00
	Helical Piers* (3 1/2" OD Piles - AB Chance)	LF	$300.00	1,000.00	$300,000.00
	Helical Piers Test Pile (3 1/2" OD Piles - AB Chance)	EA	$10,000.00	1.00	$10,000.00
	Pile Cap (Class A Concrete)	CY	$1,500.00	34.00	$51,000.00
	Pile Cap Reinforcing	LB	$3.00	1,483.00	$4,449.00
	Deck (Class AAA Concrete)	CY	$1,500.00	157.00	$235,500.00
	Bridge Rail	LF	$150.00	800.00	$120,000.00
	Deck Reinforcing (309 over 202, deck slab was 57, 208 lbs for a deck area 117*70.75) south street, deck slab was 32,703 lbs for deck area 308.302*14	LB	$3.00	42,952.00	$128,856.00
	Rock Rip Rap (R6)	SY	$125.00	0.00	$0.00
	Excavation	CY	$150.00	0.00	$0.00
1019-0010	Protective Coating for Reinforced Concrete Surfaces(superstructure)	SY	$25.00	623.00	$15,575.00
1091-0332	Epoxy Injection Crack Seal	DOLLA	2500	1.00	$2,500.00
				Contingency:	1.25
				P/S BULB TEE BOARDWALK COST:	$1,449,850.00
				COST/LF P/S BULB TEE :	$3,625.00
	65549 lbs for a deck area 278.17x27.625 = 8.53 lb/sf			**TOTAL COST:**	$1,449,850.00

S.O. No. 123154

Subject: Wissahickon Trail

Pedestrian Bridge over Wissahickon - Preliminary Estimate

Prefabricate Bridge Option 400' multi span

Sheet No. _____ of _____

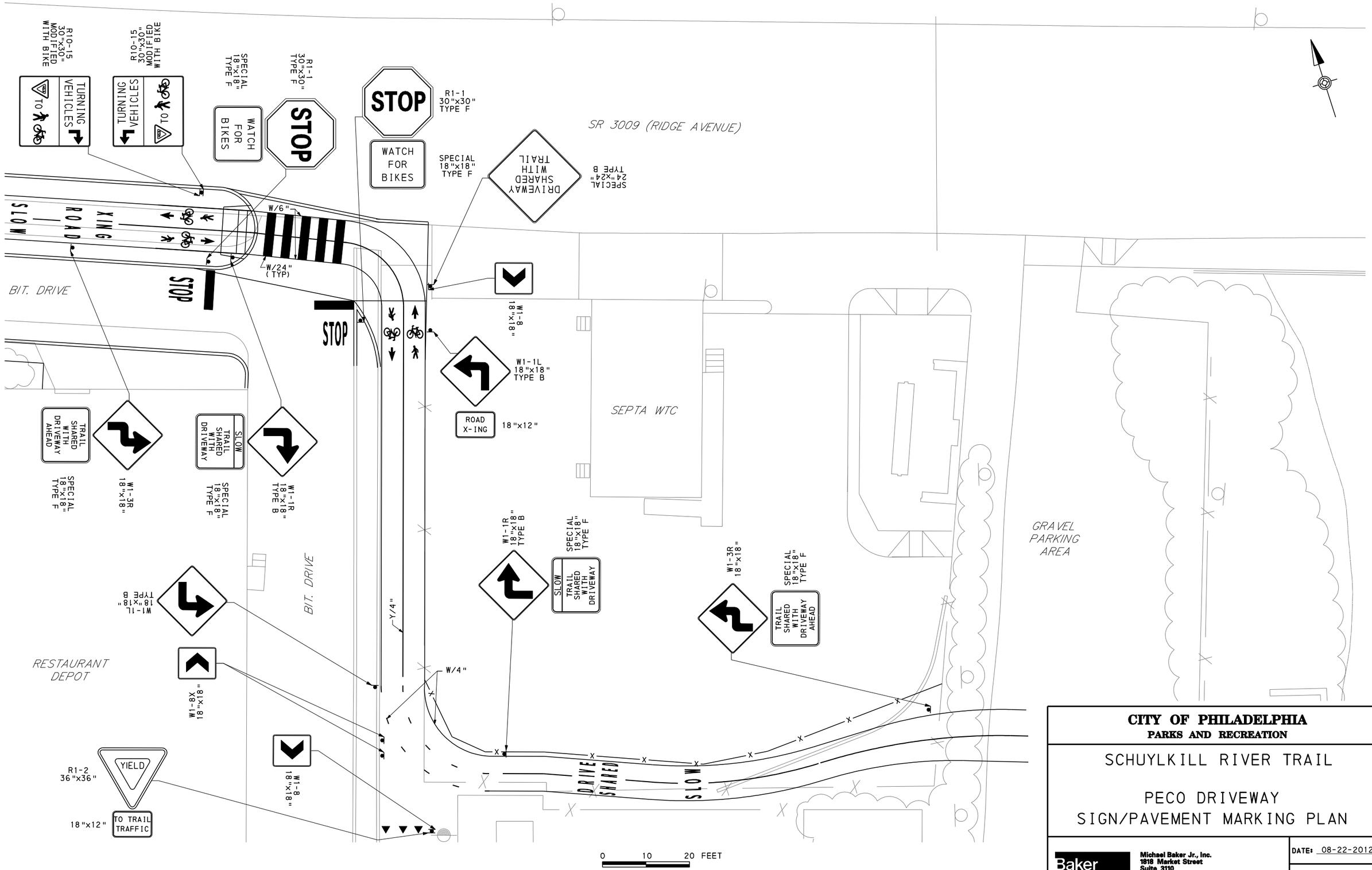
Drawing No. _____

Computed by AAC Checked by _____ Date 7/13/2011

Baker

Item No.	Description	Unit	Cost	Quantity	Total Cost
	Fabrication Inspection	LS	$5,000.00	1.00	$5,000.00
	Sediment Filter Bags	Ea	2500	0.00	$0.00
	Half Pony Through Truss Bridge (Continental)	LS	$798,336.00	1.00	$798,336.00
	Unloading & Erection Cost	LS	$20,000.00	1.00	$20,000.00
	Helical Piers* (3 1/2" OD Piles - AB Chance)	LF	$300.00	1,000.00	$300,000.00
	Helical Piers Test Pile (3 1/2" OD Piles - AB Chance)	EA	$10,000.00	1.00	$10,000.00
	Pile Cap (Class A Concrete)	CY	$1,500.00	34.00	$51,000.00
	Pile Cap Reinforcing	LB	$3.00	1,483.00	$4,449.00
	Deck (Class AAA Concrete)	CY	$1,500.00	122.00	$183,000.00
	Deck Reinforcing	LB	$3.00	9,979.00	$29,937.00
	Anchor Bolts	LB	$3.00	112.50	$337.50
	Rock Rip Rap (R6)	SY	$125.00	0.00	$0.00
	Excavation	CY	$150.00	0.00	$0.00
1019-0010	Protective Coating for Reinforced Concrete Surfaces(superstructure)	SY	$25.00	623.00	$15,575.00
1091-0332	Epoxy Injection Crack Seal	DOLLA	2500	1.00	$2,500.00
				Contingency:	1.25
				P/S PREFAB BOARDWALK COST:	$1,775,168.13
				COST/LF PREFAB:	$4,438.00
				TOTAL COST:	$1,775,169.00

Preliminary Signing and Pavement Marking Plan for sharing the PECO Driveway



CITY OF PHILADELPHIA
PARKS AND RECREATION

SCHUYLKILL RIVER TRAIL

PECO DRIVEWAY
SIGN/PAVEMENT MARKING PLAN

Baker

Michael Baker Jr., Inc.
1818 Market Street
Suite 3110
Philadelphia, PA 19103

DATE: 08-22-2012

SHEET: 1 OF 1

23-AUG-2012

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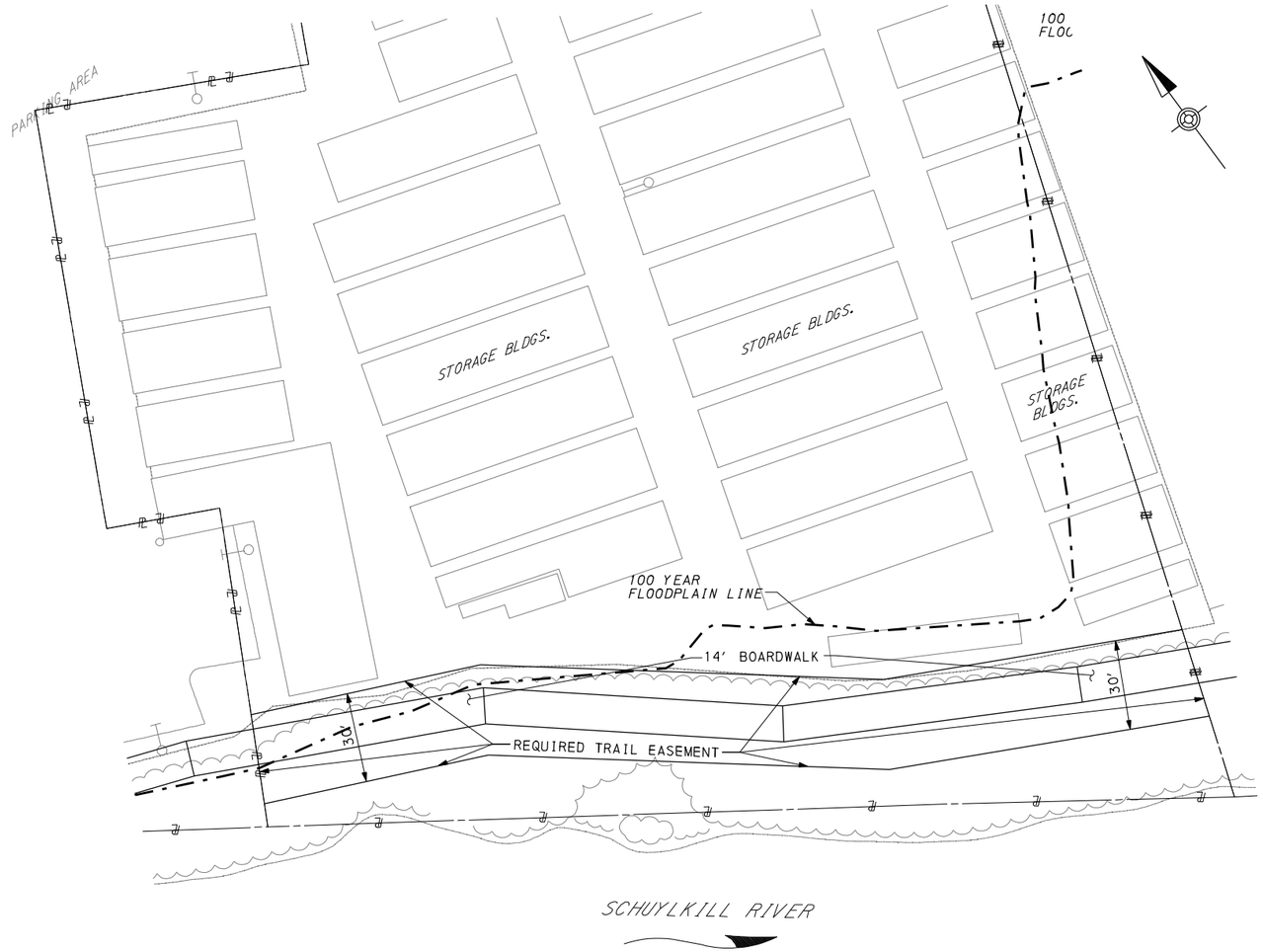
Draft Plans for Potential Trail Easements



REQUIRED TRAIL EASEMENT = 9505.12 S.F.
EASEMENT AREA WITHIN 100 YEAR FLOODPLAIN BOUNDARY = 8439.27 S.F.

CITY OF PHILADELPHIA
PARKS AND RECREATION

SCHUYLKILL RIVER TRAIL
GAP ANALYSIS

STORAGE FACILITY PROPERTY

Baker

0 25 50 FEET

SHEET 1

SEPTEMBER 2011

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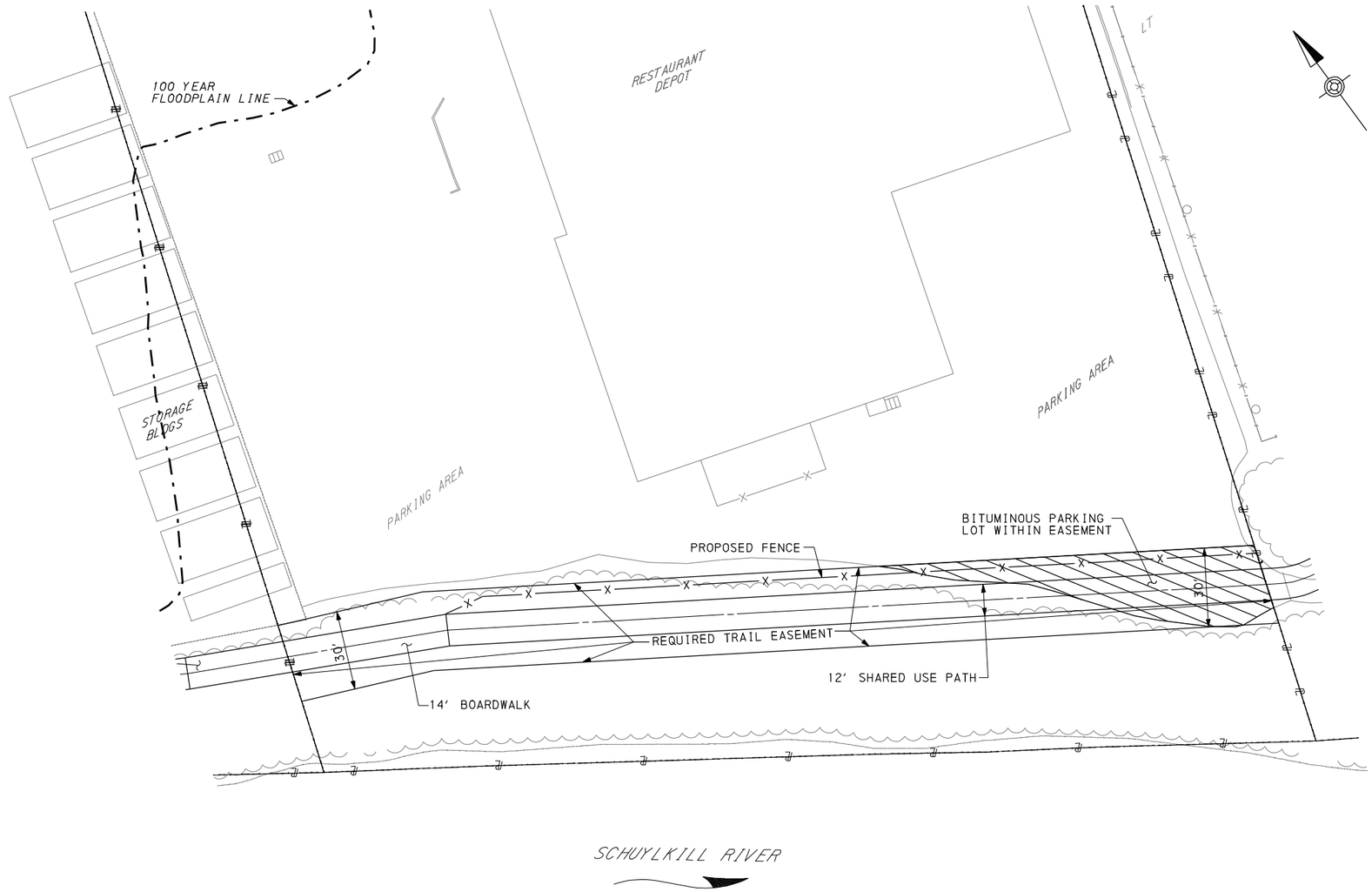

REQUIRED TRAIL EASEMENT = 11,173.57 S.F.
AREA OF BITUMINOUS PARKING LOT WITHIN EASEMENT = 2,390.49 S.F.
EASEMENT AREA WITHIN 100 YEAR FLOODPLAIN BOUNDARY = 11,173.57 S.F.

CITY OF PHILADELPHIA
PARKS AND RECREATION

SCHUYLKILL RIVER TRAIL
GAP ANALYSIS
DURON PAINT/RESTAURANT DEPOT
PROPERTY

SHEET 2

Baker

0 25 50 FEET

SEPTEMBER 2011

29-FEB-2012

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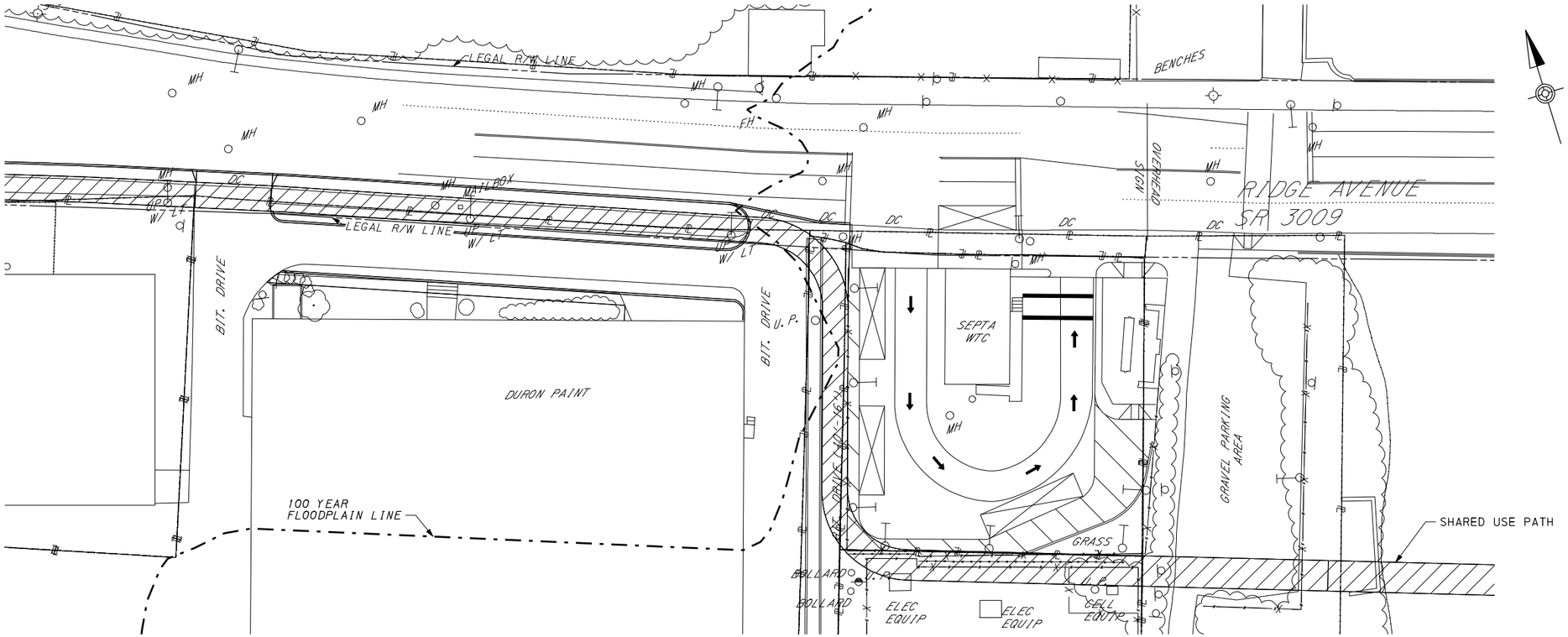
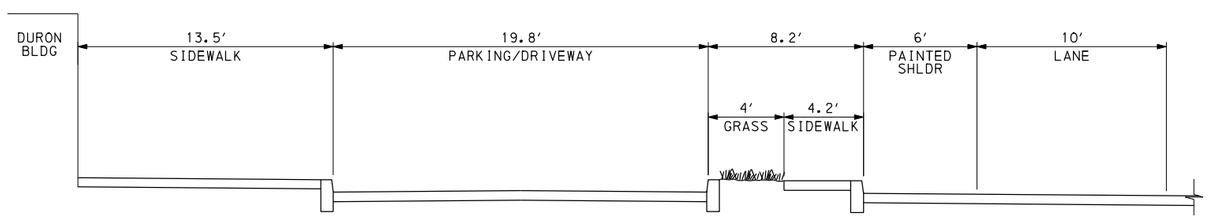
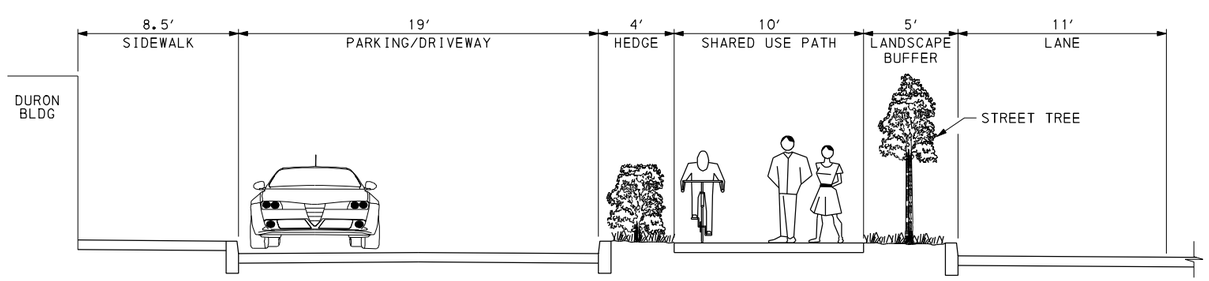




EXISTING CROSS SECTION

NOT TO SCALE



PROPOSED CROSS SECTION

NOT TO SCALE

CITY OF PHILADELPHIA
PARKS AND RECREATION

SCHUYLKILL RIVER TRAIL
GAP ANALYSIS
DURON PAINT/RESTAURANT DEPOT PROPERTY

SHEET 3

Baker

0 25 50 FEET

JANUARY 2011

29-FEB-2012

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Minutes from Coordination Meetings with PWD & Streets Dept.

Meeting Minutes

Project:	Schuylkill River Trail Gap Study	**Date:**	Sept. 12, 2011
Subject:	BMP Alternatives Analysis Meeting	**Time:**	2:00 PM
		Place:	Parks and Rec. Dept.

Attendee	Representing	Phone Number	Email Address
Chris Dougherty	Parks & Recreation	215.683.0212	Chris.r.dougherty@phila.gov
Erin Williams	Philadelphia Water Dept.	215.685.6070	erin.williams@phila.gov
Chris Stanford	Michael Baker Jr., Inc.	215.442.5333	cstanford@mbakercorp.com
Julia Rosenbloom	Michael Baker Jr., Inc.	215.442.5336	jrosenbloom@mbakercorp.com

Purpose of Meeting:

The goal of the meeting was to discuss the potential green infrastructure improvements along each of the two alternative trail routes.

Discussion:

1. **Project Overview**

Chris Stanford provided an overview of the project scope to determine the most feasible route to connect the SRT on the east side of the Wissahickon Creek to the Pencoyd Bridge. There are two main trail alignment alternatives that are being investigated during this study. The first option is along the top of the river bank. The second option is along Ridge Ave and Main Street. The main challenges of the first option are navigating the Canoe club, the PECO substation areas and the storage facility buildings that are built to the top of bank. The challenges of the second option are the Wissahickon Transportation Center, the frontage of the Duron Paints building, the frontage of the Mr. Storage facility and the frontage of the Movie Theater center. The end product is a study report, cost estimates and schematic design plans outlining the results of the investigations.

The existing site is made up of light industrial properties including PECO, Duron Paint, Mr. Storage, and the Manayunk Movie Theater / Diner. It was recommended that right of way acquisition on these sites be avoided or minimized due to the cost and long time periods that can result. Recent discussions with PECO indicated that existing facilities conflicting with the proposed alignment will require costly relocation. It was recommended that we explore options that avoid impacts as much as feasible. Philadelphia Parks & Recreation has an existing easement on the river side of the Movie Theater / Diner site. The roadway alternative would require an easement from the Duron site only.

As an incentive to the private property owners to accept an easement agreement, the project team is developing a list of potential SMPs that can provide additional stormwater credits and a smaller

stormwater bill for the private owners. No discussions with the private property owners has occurred to date. Neither private owner has submitted a credit application to the PWD in order to decrease the cost of their monthly stormwater bill. The two alternative routes were discussed in terms of their potential for installation of stormwater SMPs with minimal costs and impacts to the private properties.

2. **Proposed Stormwater Management Practices (SMPs)**

   Erin Williams discussed which SMPs could be used for credits and how the SMPs lower the private owner's stormwater bills. Ms. William explained that the current billing structure charges $4.17 per 500 SF Impervious Area (IA) plus $0.53 per 500 SF Gross Area (GA). Any IA directed to a SMP that mitigates 1" of runoff can be removed from the stormwater bill calculation. The ownership and maintenance of the SMP is the responsibility of the owner or any party other than PWD. A direct discharge credit exists, but is temporary and will be eliminated in the future. The proposed SMPs discussed and the potential credits allowable are listed below in order of preference.

   a. **Vegetated Surface Site:** This is preferred due to their ability to provide filtration and improve water quality as well as providing some level of rate and volume control. The application of any surface SMP is limited on these sites due to the narrow footprint and small green space available on-site.
   b. **Green Roofs:** This is preferred for properties characterized by buildings with large roof areas and relatively small usable space. The 1-story Duron warehouse and storage pods would receive maximum benefit from a green roof. This SMP is cost restrictive and outside the scope of this project.
   c. **Porous Pavement:** This is preferred for properties characterized by large, flat, impervious surfaces. The large parking areas on the Duron and Storage sites would receive significant benefit from porous concrete or asphalt. This SMP is cost restrictive.
   d. **Street Trees:** Trees have a small footprint area in relation to the benefit they provide. However, at 100 SF of credit per tree, they do not initially provide significant cost savings. As the trees grow larger over time, they have a larger benefit. After reaching maturity, the trees can be reassessed to determine their actual canopy areas and possibly increase the available credit per tree.
   e. **Underground Filtration/Detention:** These SMPs are to be utilized as a last resort if surface treatment is not feasible. Products generally have high costs for purchase and underground installation. Common underground filtration products are Vortex type devices or products sold by Stormceptor.

3. **Roadway Alternative**

   The roadway route alternative would require easements from the owners of the Duron site and PECO. Potential SMPs include street trees along the property line between PECO and Duron, an

underground infiltration trench along/under the trail, and a possible vegetated surface SMP in the small green space at the front of the Duron site. More costly solutions include porous pavement or green roofs. Due to its location along the roadway, the ownership and maintenance responsibilities for SMPs under the trail may be covered by PWD as part of their Green Streets initiative commitments. Further coordination with Jessica Brooks is required to determine the feasibility of this type of agreement.

The constraints of this alignment include increased coordination to avoid conflicts with existing utilities and provide access to the existing sites. The roadway is located upstream of the Duron site, which will limit the quantity of water that can reach the site.

There may be a potential for some SMPs to be installed on the Duron and Storage Facilities properties in exchange for the easements. The property owners would gain a stormwater credit but would have to agree to maintain the facilities in the future.

4. Riverside Alternative

The river route alternative would require easements from the owners of the Duron site and Storage facility site. The benefits of this alignment include three existing easements including a 12' wide easement behind the Movie Theater and diner. Potential SMPs include street trees along the property line between PECO and Duron, a filter strip and underground filtration trench under the trail along the back of the Duron property, and a possible vegetated surface SMP on the Theater site using water piped from the storage site. More costly solutions include porous pavement or green roofs. Using available 1% PIDC grants will increase the ROI of these options, but further investigation is necessary to determine if they are economically feasible.

The constraints of this alignment include the proximity to the Schuylkill River and location within the floodplain. The ownership and maintenance responsibilities for the SMPs at these sites would belong to either Parks & Recreation or the private owner. Neither of those parties are currently looking to provide SMP maintenance services.

Any additions and/or corrections to these meeting minutes are to be submitted to the author within five (5) days of receipt or the minutes will be considered the final record of the meeting as written.

Sincerely,

Chris Stanford, P.E., PTOE, PMP

Michael Baker Jr., Inc.
Project Manager

JDR

Meeting Minutes

Project:	Schuylkill River Trail Gap Analysis	**Date:**	Oct. 7, 2011
Subject:	PWD Coordination Meeting	**Time:**	10:00 AM
		Place:	PWD

Attendee	Representing	Phone Number	Email Address
Jessica Brooks	Phila Water Dept. (PWD)	215-685-6038	Jessica.k.brooks@phila.gov
Chris Dougherty	Parks & Recreation	215.683.0212	Chris.r.dougherty@phila.gov
Chris Stanford	Michael Baker Jr., Inc.	215.442.5333	cstanford@mbakercorp.com

Purpose of Meeting: To review the potential addition of PWD green infrastructure to the two proposed trail alternatives.

Meeting Summary/Notes: Mr. Stanford presented the two main trail alternatives and summarized the proposed improvements. The goal of the study is determine a feasible trail route between the end of the Schuylkill River Trail at Kelly Drive and the Pencoyd Bridge. The two main alternatives include: (1) a trail within the road right of way along Ridge Avenue/Main Street or (2) a trail route through the canoe club area and along the top of bank of the river behind Duron Paints, the Storage Facility and Movie theater properties. For the Ridge Avenue /Main Street option, the trail improvements will include a 5' landscaped buffer adjacent to the curb and a 10' shared use path. For the river side option, a 10'-12' shared use path is proposed.

The group discussed the potential for adding PWD green infrastructure along both routes. Ms. Brooks indicated that PWD would be interested in constructing green infrastructure along the Ridge Ave/Main Street option. PWD would not likely install green infrastructure along the river option due to flooding concerns, poor soil conditions close to the river and the fact that this infrastructure would not be located on City property.

The uses of linear SMPs such as tree trenches were discussed as an option along Ridge Avenue/Main Street. PWD would participate in cost sharing for items such as pavement repairs, sidewalk, curb, etc. that are required to construct the SMPs. PWD would cover the cost of items specifically required for the SMPs such as excavation, inlets, piping, stone, etc. Ms. Brooks will acquire the Highway Supervisors Plans and other existing resources to further evaluate this option. A design process similar to the 58th Street project was discussed as an option. PWD would do the preliminary design of the SMPs and provide the info to Baker. Baker would complete the final design and incorporate the SMPs into the construction documents. Ms. Brooks also mentioned that Baker's existing PWD contracts could potentially be used to complete the design work as well.

Next Steps:

- PWD will conduct additional background research on the area to explore potential SMPs
- PWD will provide Parks a brief letter indicating willingness to cost share on the project.
- Parks will notify PWD on the design schedule for the project and when design of the SMPs needs to start

Any additions and/or corrections to these meeting minutes are to be submitted to the author within five (5) days of receipt or the minutes will be considered the final record of the meeting as written.

Sincerely,

Chris Stanford, P.E., PTOE, PMP

Michael Baker Jr., Inc.
Project Manager

Meeting Minutes

Project:	Schuylkill River Trail Gap Analysis	**Date:**	September 8, 2011
Subject:	Streets Meeting	**Time:**	10:30 AM
		Place:	PPR

Attendee	Representing	Email Address
Rich Montanez	Streets	richard.montanez@phila.gov
Charles Denny	Streets	charles.denny@phila.gov
Darin Gatti	Streets	darin.gatti@phila.gov
Chris Dougherty	Parks & Recreation	chris.r.dougherty@phila.gov
Chris Stanford	Michael Baker Jr., Inc.	cstanford@mbakercorp.com
Jim Miller	Michael Baker Jr., Inc.	jmiller@mbakercorp.com

Purpose of Meeting: To Review the Ridge Ave/Main Street alternative and determine if curb line modifications are feasible.

Meeting Summary/Notes: Mr. Stanford gave the group an overview of the feasibility study goals and the alternatives currently under consideration. An alternative along the river and an alternative along Ridge Ave/Main Street are currently proposed. The proposed alternative along Ridge Avenue/Main Street includes moving the curb line on the south side of Ridge Ave and Main Street to the north approximately 6' to the north to provide for a 10-12' shared use path and 5' buffer to the roadway. Mr. Denny noted that no parking is currently allowed along Ridge Avenue. Parking is currently allowed along Main Street but is not utilized on the south side due to the large parking lot at the movie theater commercial area. The group thought that elimination of parking in this area would not be a problem due to the lack of residential properties in the area and the ample parking at the movie theater. An ordinance change would be needed to eliminate the parking in this area. A formal City Plan change will also be needed if the curb lines are modified. No future Streets Department projects are planned in the area that would conflict with this proposal.

Mr. Denny indicated that these roadways are used for various bicycle and running races throughout the year. He indicated that the changes will have little impact on the races. If this alternative is selected, he recommended that we notify them of the curb line changes.

The group discussed the potential transition of bicyclist from the trail to Main Street near the western end of the project. The City suggested a separate bike access ramp and appropriate signage beyond the driveway that leads to the Pencoyd bridge.

For the proposed trail bridge over the Wissahickon Creek, Mr. Gatti indicated that a bow string truss may be a structure type to consider. This type of structure was used nearby at Fountain Street over the canal and was the most economical option.

The consensus of the group was that the alternative was feasible and could move forward as a viable alternative for the trail alignment.

Any additions and/or corrections to these meeting minutes are to be submitted to the author within five (5) days of receipt or the minutes will be considered the final record of the meeting as written.

Sincerely,

Chris Stanford, P.E., PTOE, PMP

Michael Baker Jr., Inc.
Project Manager

Minutes from Stakeholder & Public Meetings

Meeting Minutes

Project:	Schuylkill River Trail Gap Study	**Date:**	Feb. 14, 2011
Subject:	Kick-off Meeting	**Time:**	10:30 AM
		Place:	Parks and Rec. Dept.

Attendee	Representing	Phone Number	Email Address
Jeannette Brugger	PCPC	215.643.4653	Jeannette.brugger@phila.gov
Rob Armstrong	Parks & Recreation	215.683.0229	Rob.armstrong@phila.gov
Jennifer Barr	PCPC	215.683.4672	Jennifer.barr@phila.gov
Gina Snyder	East Falls Dev. Corp.	215.848.8084	ginasnyder@eastfalls-pa.com
Kay Sykora	Schuylkill Project	215.266.2310	ksykora@manayunk.org
Sarah C. Stuart	Bicycle Coalition	215.242.9253 x6#	sarah@bicyclecoalition.org
Kevin Groves	Friends of The Wissahickon	215.247.0417 x105	groves@fow.org
Stephanie Craighead	Parks & Recreation	215.683.0210	Stephanie.craighead@phila.gov
Charles Mottershead	Dept. of Public Property	215.683.4466	Charles.mottershead@phila.gov
Marcus Allen	DPP-Fairmount Park		Marcus.allen@phila.gov
Chris Dougherty	Parks & Recreation	215.683.0212	Chris.r.dougherty@phila.gov
Dan Biggs	Toole Design Group LLC	301.927.1900 x109	Dbiggs@tooledesign.com
Fernando Mascioli	Michael Baker Jr., Inc.	215.442.5328	fmascioli@mbakercorp.com
Chris Stanford	Michael Baker Jr., Inc.	215.442.5333	cstanford@mbakercorp.com

Purpose of Meeting:

This was the kick-off meeting for this study. The goal of the meeting was gain background information on the study, determine exact goals and lay out a schedule for future meetings.

Discussion:

1. **Past Studies / On-going projects**

   The group discussed the origins of the project and the latest study. The Wissahickon Gateway Study, which was prepared by Brown and Keener, outlined general alignment options and ideas for the area. This study will build upon the results of the previous Gateway study. The project to widen the existing Schuylkill River Trail (SRT) along Kelly Drive between the Falls Bridge and Ridge Avenue has received Notice to Proceed and will begin construction mid March. Tony DePaul is the contractor. The width of the widened trail will be 10'. A project to stabilize the creek bank has been completed recently at the Canoe Club. A new retaining wall and a structure have been constructed at the site. The Canoe Club buildings are located on Fairmount Park property and there is a lease agreement with the Canoe Club for use of the area. O'Neil Properties has purchased the Pencoyd Bridge and is required to provide trail access across the structure as part of the adjacent land development project on the Lower Merion Township side of the river. The O'Neil property includes a driveway connection between Main Street and the Pencoyd Bridge.

Several years ago a concept plan was developed for a separate trail bridge over the Wissahickon Creek utilizing the existing abutments, but it was not approved.

It was mentioned that the City is investigating the possibility of improving the existing pinch point in the sidewalk at the corner of Ridge Avenue and Kelly Drive. There may be a potential to use the contractor from the adjacent Gustine Lake interchange project or the Kelly Drive trail enhancements. The Parks Dept. will discuss this issue with the Streets Dept.

2. Scope/Goals of the Study

The scope of the project is to determine the most feasible route to connect the SRT on the east side of the Wissahickon Creek to the Penncoyd Bridge. The study will evaluate a route along the river and a route along Ridge Avenue and Main Street. The end product is a study report, cost estimates and schematic design plans outlining the results of the investigations. One of the larger aspects of the work will be evaluation of the existing bridge on Ridge Avenue over the Wissahickon Creek to see if construction of a widened sidewalk for the trail route is feasible. Evaluation of the existing stone abutments for reuse for a separate trail bridge over the creek will also be included in the effort.

It was stated that we should use 12’ as the standard width for the trail, 10’ minimum for constrained areas, with 2’ shy distance on either side of the rail.

3. Alignment Alternatives

There are two main trail alignment alternatives that will be investigated during this study. The first option is along the top of the river bank. The second option is along Ridge Ave and Main Street. Aside from the creek crossing, the main challenges of the first option are navigating the Canoe club, the PECO substation areas and the storage facility buildings that are built to the top of banke. The challenges of the second option are the Wissahickon Transportation Center, the frontage of the Duron Paints building, the frontage of the Mr. Storage facility and the frontage of the Movie Theater center.

Some issues exist related to the Transportation Center. Buses are loading and unloading along Ridge Avenue. The understanding was that the buses should be entering the Center to conduct these operations. This leads to transit users waiting on the sidewalk. If the buses entered the Center, these conflicts with a potential trail along Ridge Avenue could be avoided.

There are three easements that exist in the area including a 12’ wide easement behind the Movie theater and diner. A 10’ trail with 1’ grass shoulders was recommended in this area. The City will provide existing plans, deeds and other property information to Baker for the study.

It was recommended that right of way acquisition be avoided or minimized due to the cost and long time periods that can result. It was recommended that we explore options that avoid impacts as much as feasible. Easements on unused portions of properties such as the riverbank are more likely to be successful.

No discussions with PECO have occurred recently.

It was mentioned that the Canoe Club Driveway could be shared for trail access.

4. Bridge Options

There are two options for a trail crossing of the Wissahickon Creek. One option is the widening of the sidewalk on the Ridge Avenue over Wissahickon Bridge. The second option is a separate trail bridge. Baker will investigate these options as part of the study.

5. Available Resources

The group discussed information from previous efforts that may be useful for the project. Baker will contact the individuals to acquire the information.

6. Future Meeting Schedule

Baker prepared a preliminary meeting schedule for the project. See attached. The goal is to complete the study by late fall of 2011. Study Group meetings are anticipated in April and September. It was suggested to move the first public meeting to early June to avoid summer vacations and get better attendance. The Gustine Lake recreation center was recommended as a good location for the meeting. An additional public meeting is anticipated at the end of the study to present the results.

Any additions and/or corrections to these meeting minutes are to be submitted to the author within five (5) days of receipt or the minutes will be considered the final record of the meeting as written.

Sincerely,

Chris Stanford, P.E., PTOE, PMP

Michael Baker Jr., Inc.
Project Manager

Meeting Minutes

Project:	Schuylkill River Trail Gap Analysis	**Date:**	April 27, 2011
Subject:	Field View Meeting	**Time:**	11 AM
		Place:	Wissahickon Gateway

Attendee	Representing	Phone Number	Email Address
Jeannette Brugger	PCPC	215.643.4653	Jeannette.brugger@phila.gov
Rob Armstrong	Parks & Recreation	215.683.0229	Rob.armstrong@phila.gov
Gina Snyder	East Falls Dev. Corp.	215.848.8084	ginasnyder@eastfalls-pa.com
Kay Sykora	Schuylkill Project	215.266.2310	ksykora@manayunk.org
Sarah C. Stuart	Bicycle Coalition	215.242.9253 x6#	sarah@bicyclecoalition.org
Kevin Groves	Friends of The Wissahickon	215.247.0417 x105	groves@fow.org
Stephanie Craighead	Parks & Recreation	215.683.0210	Stephanie.craighead@phila.gov
Charles Mottershead	Dept. of Public Property	215.683.4466	Charles.mottershead@phila.gov
Marcus Allen	DPP-Fairmount Park		Marcus.allen@phila.gov
Chris Dougherty	Parks & Recreation	215.683.0212	Chris.r.dougherty@phila.gov
Charles Carmalt	Phila-MOTU	215.686.6835	Charles.carmalt@phila.gov
George Schaefer	Phila Canoe Club	215.402.9056	gs@schaeferdesignllc.com
Todd Zielinski	Phila Canoe Club	215.327.7676	toddz@icee.org
Rosemary Rau	Phila Canoe Club	215.743.6938	rosemaryrau@comcast.net
Chris Stanford	Michael Baker Jr., Inc.	215.442.5333	cstanford@mbakercorp.com
Dan Biggs	Toole Design Group	301-927-1900	dbiggs@tooledesign.com
Megan Tymesko	Toole Design Group	301-927-1900	mtymesko@tooledesign.com

Purpose of Meeting:

The purpose of the meeting was to conduct a field view of the project, discuss the alternatives/challenges of each route and update the study group on the progress made to date on the study.

Meeting Summary/Notes:

- River Trail Alignment
  - It was noted that O'Neill properties has applied to DCNR for a grant for improvements to the Pencoyd Bridge.
  - Existing parking lot lights near the Diner parking lot may need to be relocated or avoided. There is a pinch point near the Pencoyd bridge where there is little room between the top of the slope and the existing parking area.
  - A connection to the SEPTA Rail Station between the Diner and Movie Theater is recommended. To minimize loss of parking, destination signing may be considered. An improved crossing of Main St. at the Movie Theater driveway to access the stairway to the SEPTA station is also recommended.
  - Bike parking was noted between the Diner and the Movie Theatre. The Diner and Movie Theatre are likely destinations along both options of the potential trail.

- Existing topography and parking lot behind Duron Paint building creates a pinch point. Consideration of a boardwalk as well as a trail on land at top of bank was suggested. The elevation of a boardwalk section was noted to be determined according to the flood elevation.
- Existing parking and movement of large trucks at Duron Paint building is a safety issue for potential trail users.
    - Provide buffer and or fencing between parking lot and potential trail alignment.
- Canoe Club members showed strong interest in the alignment between the SEPTA fence line and fence for the PECO substation connecting to the River Trail, to redirect the alignment away from club driveway.
- The Canoe Club has lease agreements with PECO and the Restaurant Depot for parking/access during selected events throughout the year.
- Pedestrian Bridge Options – several options were presented and discussed. Most agreed that aligning the bridge with the new trail connection is preferred.
- The structural conditions of the Ridge Ave Bridge and the existing abutments was discussed. Baker's analysis so far shows that it is not feasible to increase the width of the existing sidewalk to accommodate a 14' or 16' wide trail. The existing steel beams that hold up the existing 8' wide sidewalk are not strong enough to hold up the additional weight of a widened trail. A new beam running parallel to Ridge Avenue with foundations on each end would likely be required to accommodate the trail in the existing sidewalk location.
- It was mentioned that PennDOT or the Streets Department may be designing a rehabilitation of the Ridge Ave Bridge. This should be investigated.
- Baker completed the inspection of the existing stone bridge abutments south of Ridge Avenue. Due to the questionable condition, scour holes at the foundation and substantial vegetation growth, it is not recommended to reuse the existing abutments for a new trail bridge. The foundations for a new bridge could be placed 20'-30' back from the existing abutments and use the same alignment. This potential location aligns well with the route between the SEPTA fence and the PECO fence but would impact the existing trailhead parking area. The study group did not think that impacts to the parking area would be a major problem.

- Ridge Ave/ Main Street Trail Alignment
    - A Pedestrian Bridge should be placed as close to Ridge Ave as feasible to facilitate connections to the Wissahickon Trail.
    - Pinchpoints along Main Street/Ridge Ave occur at existing lighting poles, signal poles and utility poles. Grades/slopes at the storage facility would likely require a retaining wall if widening is outside the existing sidewalk and adjacent planted area.
    - Beyond the SEPTA driveways, the area of existing painted shoulder could be utilized to accommodate the trail. The curb line could be move to within 1' of the existing white edge line and provide 6'-8' of additional width for the trail area.
    - At the SEPTA Transfer Station, signal timing could be improved since no signal heads are provided for the buses leaving the site.
    - At Main Street, the EB side of the roadway is also overly wide and 6'-8' shoulder area taken to provide width for the trail.

    - The group noted an existing “No left turn” into parking lot to Movie Theater from Main Street, drivers are directed to use west entrance
    - At location B.6, there is a potential for trail users to want to continue into Manayunk using the existing roadway. It was recommended that a crosswalk or other treatment be considered to transition from a side path along Main Street to the existing roadway.

- General Comments
    - Connections to the SEPTA rail station, Wissahickon Trail, and other local amenities are an important consideration.
    - Connections through the storage facility property have not been illustrated, but could minimize the need for a boardwalk segment.
    - Some raised concern over the Street Alignment being too unsafe for preferred alignment with a high mixture of modes of transportation, specifically at SEPTA Transfer Station.
    - Design team to provide examples of boardwalk at next stakeholder meeting.
    - Philadelphia Canoe Club Comments.
        - The Canoe Club supports the general goals of the project.
        - Support Trail Alignment alternative between SEPTA Transfer Station and PECO substation to minimize conflicts along canoe club driveway.
        - Proposed trail along canoe club driveway may cause safety issues/space issues with the high activity use area in front of the club building
        - Canoe Club is concerned about the security of canoe club facility, potential vandalism and maintenance issues, as well as increased access and liability issues of docks area if trail runs near the Canoe Club site.
        - Concerns about fishing and picnicking near the canoe club building. Concerns about people swimming in the creek or river. Concern about liability issues from swimming accidents.
        - Option suggested to design trail uniquely or provide some other destination to attract trail users to the trail route between the fence lines and to discourage movement through Canoe Club area

Next Steps:

- Prepare for a public meeting in early June
- Explore land ownership and possible easements through PECO and SEPTA properties

Any additions and/or corrections to these meeting minutes are to be submitted to the author within five (5) days of receipt or the minutes will be considered the final record of the meeting as written.

Sincerely,

Chris Stanford, P.E., PTOE, PMP

Michael Baker Jr., Inc.
Project Manager

Meeting Minutes

Project:	Schuylkill River Trail Gap Analysis	**Date:**	August 18, 2011
Subject:	Progress Meeting	**Time:**	10:30 AM
		Place:	PPR

Attendee	Representing	Phone Number	Email Address
Jeannette Brugger	PCPC	215.643.4653	Jeannette.brugger@phila.gov
Rob Armstrong	Parks & Recreation	215.683.0229	Rob.armstrong@phila.gov
Stephanie Craighead	Parks & Recreation	215.683.0210	Stephanie.craighead@phila.gov
Matt Wysong	Planning Commission	215.683.4650	Matt.wysong@phila.gov
Marcus Allen	DPP-Fairmount Park	215.683.4457	Marcus.allen@phila.gov
Chris Dougherty	Parks & Recreation	215.683.0212	Chris.r.dougherty@phila.gov
Chris Stanford	Michael Baker Jr., Inc.	215.442.5333	cstanford@mbakercorp.com
Dan Biggs	Toole Design Group	301.927.1900	dbiggs@tooledesign.com

Purpose of Meeting: To review trail alternatives and associated construction costs. Plan next steps and prepare for the public meeting.

Meeting Summary/Notes: Mr. Stanford presented the three trail alternatives and summarized the probable range of construction costs for each item. See attached summary. The structure types chosen for the bridge over the Wissahickon Creek and the boardwalk area will have a large impact on the construction costs. The pros and cons of each alternative and structure type were discussed. The consensus of the group was that a trail alignment along the River is preferred from an aesthetic point of view.

Pre-Fabricated bridge type: Ms. Craighead indicated that the City has had some maintenance issues with other pre-fabricated bridges within the City's trail system. She recommended a field view to talk about these issues and ways to avoid them if possible.

The following is a summary of the items noted for each alternative:

<u>Alignment Alternative #1 - Ridge Ave Trail Alternative with Upstream Bridge Crossing</u>

- Cost estimate includes $0.5 million for PECO equipment relocation. Overall PECO not very interested in that concept.
- Requires 7 utility poles relocations, 9 banner pole relocations and 1 signal pole relocation
- Curb to be moved into roadway
- Need to talk with the "Streets" Department to identify any potential issues with roadway reconfiguration
- Need to talk with Duron Paint about potential changes to the property frontage
- Most of the trail alignment is in the public Right-of-Way. May minimize property owner concerns.
- Trail crosses several driveways. Careful design needed to minimize any safety concerns

Alignment Alternative #2 - Riverside Trail Alternative with Downstream Bridge Crossing

- High construction cost due to two span bridge over the Creek/Canoe Club and longer boardwalk
- Impacts to Canoe Club views – potential Section 106 impacts
- Significant permit effort from bridge and boardwalk in floodway area of the river
- Vertical clearance between the PECO transmission lines and the elevated bridge would need to be determined
- Avoids changes to the Canoe Club driveway and area in the front of the building

Alignment Alternative #3 - Riverside Trail Alternative with Upstream Crossing

- Awaiting formal approval of trail on the PECO property behind the Canoe Club shed and relocation of PECO fence line
- Potential to separate the trail from the Canoe Club driveway
- Need to be aware of potential red bellied turtle habitat

The City requested some concepts for redesign of the Canoe club driveway and parking area to serve the needs of the trail and the Canoe Club. It was noted that the trailhead parking area could be use for Canoe Club parking if needed. The City requested approximate easement areas, areas of useable space need for the trail and area of easements within the 100 year flood

Public Meeting:

The consensus of the group was that the following items need to occur before a public should be held:

- Conduct meeting with Streets Dept.
- Conduct one on one meetings with Duron Paint, Canoe Club and Storage facility property owners
- Get formal answer back from PECO on fence relocation option

A public meeting is anticipated for October pending completion of the above meetings. It was noted that all the trail options that were investigated and not recommended be shown at the public meeting. Reasoning for not recommending these options should be shown to eliminate a lot of the questions.

Next Steps:

- Develop concepts for Canoe Club driveway area
- Develop estimated easement areas
- Set up meetings with property owners and Canoe Club
- Set up meeting with Streets Dept.
- Visit pre-fab bridge location(s)
- Plan for public meeting

Any additions and/or corrections to these meeting minutes are to be submitted to the author within five (5) days of receipt or the minutes will be considered the final record of the meeting as written.

Sincerely,

Chris Stanford, P.E., PTOE, PMP

Michael Baker Jr., Inc.
Project Manager

Meeting Minutes

Project:	Schuylkill River Trail Gap Analysis	**Date:**	December 13, 2011
Subject:	Progress Meeting	**Time:**	2:00 PM
		Place:	PPR

Attendee	Representing	Phone Number	Email Address
Jeannette Brugger	PCPC	215.643.4653	Jeannette.brugger@phila.gov
Kay Sykora	Schuylkill Project	215.266.2310	Ksykora@manayunk.org
Stephanie Craighead	Parks & Recreation	215.683.0210	Stephanie.craighead@phila.gov
Chris Dougherty	Parks & Recreation	215.683.0212	Chris.r.dougherty@phila.gov
Gina Snyder	East Falls Dev. Corp	215.848.8084	ginasnyder@eastfalls-pa.com
Marcus Allen	DPP-Fairmount Park	215.683.4457	Marcus.allen@phila.gov
Chris Stanford	Michael Baker Jr., Inc.	215.442.5333	cstanford@mbakercorp.com
Rosemary Rau	Phila Canoe Club	215.743.6938	rosemaryrau@comcast.net
George Schaefer	Phila Canoe Club	215.402.9056	gs@schaeferdesignllc.com
Sarah Clark Stuart	Bicycle Coalition	215.242.9253	sarah@bicyclecoalition.org
Henry Stroud	Friends of the Wissahickon	215.247.0417	stroud@fow.org
Kevin Groves	Friends of the Wissahickon	215.247.0417	groves@fow.org
Dan Mercer	Friends of the Wissahickon	215.247.0417	dannmer@gmail.com

Purpose of Meeting: The purpose of the meeting was to update all the attendees on the progress made on the study since the last study group meeting.

Meeting Summary/Notes:
Mr. Stanford provided the group the following summary of progress since the field view and study group meeting held on April 27, 2011:

1. Baker developed alternatives for trail alignments adjacent to the PECO Substation (near Canoe Club shed). PPR submitted these to PECO for review. PECO indicated that none of the options were acceptable to them.

2. Baker developed schematic plans for Ridge Avenue/Main Street and River Trail options as well as preliminary construction cost estimates.

3. Baker developed conceptual designs/structure type alternatives and construction cost estimates for the trail bridge over the Wissahickon Creek.

4. Baker developed structural alternatives and cost estimates for the boardwalk option along the River.

5. August 8, 2011 meeting held with Parks Dept. staff to review alternatives and cost estimates

6. Baker developed conceptual easement plans for Storage facility, Restaurant Depot and PECO properties. Provided to PPR to support upcoming property owner meetings

7. Meetings
    a. Streets Dept. (Sept. 9 ,2011) – Reviewed curb line changes proposed along Ridge and Main St. Streets indicated that Ridge Ave/Main St. option was feasible and curb line changes would be acceptable.
    b. PWD Meeting #1 (Sept 12, 2011) – reviewed potential green infrastructure improvements along river trail and Ridge Ave./Main St. options as potential tradeoffs for trail easements.
    c. SEPTA (Oct 3, 2011) – reviewed potential modifications of the backside of the Wissahickon Transportation Center for the Trail. SEPTA indicated that changes are not possible.
    d. PWD Meeting #2 (Oct 7, 2011) - reviewed potential green infrastructure improvements along River Trail and Ridge Ave./Main St. options for potential cost sharing opportunities

8. Detailed alternatives for area between SEPTA / PECO developed and provided to PPR. Meeting held with Parks PM to review concepts and next steps (Nov. 22, 2011)

9. Baker developed Canoe Club parking and driveway relocation alternatives

10. Baker developed Canoe Club shed relocation alternatives

11. Upcoming meetings
    a. Property owners
    b. PECO & SEPTA
    c. Public Plans Display

12. Upcoming activities –Enhancement Alternatives of SEPTA property

Comments:

It was suggested that we check the status of the Duron/Restaurant Depot driveways to see if they were permitted / opened legally. Baker will contact the Streets Dept. to check on this issue.

It was suggested that the existing driveway for Duron be explored as a possible trail location. Baker will add this option to the alternatives under consideration.

It was suggested that Baker create some renderings of the various trail cross sections for the upcoming public meetings. Baker will prepare renderings of the critical locations in the near future.

Any additions and/or corrections to these meeting minutes are to be submitted to the author within five (5) days of receipt or the minutes will be considered the final record of the meeting as written.

Sincerely,

Chris Stanford, P.E., PTOE, PMP

Michael Baker Jr., Inc.
Project Manager

Meeting Minutes

Project:	Schuylkill River Trail Gap Study	**Date:**	March 8, 2012
Subject:	Steinberg Properties Coord. Meeting	**Time:**	1:00 PM
		Place:	Parks and Rec. Dept.

Attendee	Representing	Email Address
Kay Sykora	Schuylkill Project	ksykora@manayunk.org
Stephanie Craighead	Parks & Recreation	Stephanie.craighead@phila.gov
Chris Dougherty	Parks & Recreation	Chris.r.dougherty@phila.gov
Gary Steinberg	Property Owner	Garwood@comcast.net
Chris Stanford	Michael Baker Jr., Inc.	cstanford@mbakercorp.com
Matt Wysong	Phila City Planning Commission	Matt.Wysong@phila.gov
Brian Flanagan	City of Phila	Brian.Flanagan@phila.gov

Purpose of Meeting:

A coordination meeting was held to discuss trail alignment alternatives and potential trail easements on the Restaurant Depot/Duron Paints property and the Mr. Storage property.

Discussion:
Mr. Stanford gave an overview of the project study area and the goals of the project. There are two alternatives currently under study. The first alternative is a riverside option. The second alternative is an option that is adjacent to Ridge Avenue and Main Street within the roadway right of way. Potential benefits/incentives of the trail to each of the properties were discussed. Mr. Steinberg indicated that they are currently not paying any stormwater fees since they are in the Schuylkill direct discharge area. Mr. Stanford mentioned that we have been told that PWD policy regarding exemptions for direct discharge areas will likely change in the near future. Mr. Steinberg indicated that they have a long term lease with the Restaurant Depot. However, Restaurant Depot has indicated that will relocate in the near future. Mr. Steinberg estimated that they would move in 1-2 years. He indicated that the Duron paint store is currently vacant and they are actively looking for a tenant for that space. He indicated that modification of the restaurant depot property to another use such as a supermarket is a possibility in the future.

Trail Alternative at the Front of Restaurant Depot Property:

Mr. Stanford explained the proposed trail option at the front of the Restaurant Depot Property. Mr. Steinberg's main concern with modifications of the frontage of that property for the trail would be the safety concerns of future tenants as well as the Streets Department with the high numbers of trail users crossing the two driveways. He is concerned that the trail in that location might deter potential developers from buying/leasing the property. He is also concerned that the trail would be a safety issue for future reconfiguration of the driveways and would make City approvals more difficult. In the short term, Mr. Steinberg is interested in exploring adding angle parking in front of the building to make the Duron paint space more attractive to tenants. The sidewalk would be eliminated and a small retaining wall would be required. The drive aisle would be made one way. He also indicated that removing the utility poles and placing the utilities underground would be his preference if the trail were located in this area. He is

interested in improvements and landscaping to the street frontage to enhance the appearance of the property. The City agreed to develop a concept for adding the angled parking to the trail concept plan and forward that plan to Mr. Steinberg for his review. The City will also investigate the cost to relocate the utilities underground in the frontage area.

Riverside Trail option:

Mr. Stanford explained the proposed trail option at the rear of the Restaurant Depot and Mr. Storage Properties. Mr. Steinberg mentioned that a formal separation of the trail area and the parking area/loading dock area would be needed due to the high number of large trucks using that area. The City agreed that fencing, curbing, bollards, etc. would be utilized to make that separation. Mr. Steinberg indicated he would be more receptive to providing trail easements along the rear of the properties and he thought the riverside alignment would be more attractive to future developers. He would like some details on reimbursement to cover the costs of his lawyer to review any easements. The City will forward draft easement agreements and plans to Mr. Steinberg for a trail along the riverside.

The City will explore the legal possibility of a change in site use or an agreement of sale for specified uses triggering a movement of the trail to existing easements behind the properties. This assumes that easements would be already be in place on both properties along the river and that an appropriate time frame (i.e. 2-3 years) would be provided to the City. The easements will consist of fast land at the top of the bank such that no boardwalk construction will be required.

Any additions and/or corrections to these meeting minutes are to be submitted to the author within five (5) days of receipt or the minutes will be considered the final record of the meeting as written.
Sincerely,

Chris Stanford, P.E., PTOE, PMP

Michael Baker Jr., Inc.
Project Manager

Stanford, Chris

From: Gary B. Steinberg [garwood@comcast.net]
Sent: Monday, March 12, 2012 6:50 PM
To: Stanford, Chris
Cc: Chris R Dougherty; Matt Wysong; Brian Flanagan; Kay Sykora; Stephanie Craighead
Subject: Re: Minutes from SRT Gap meeting

Chris,

Thank you for keeping minutes.

The only corrections that should be noted are:

1.) That the vast majority of rear easement is not on fast/paved land above the bank. The parking area, and refrigerator equipment for Restaurant Depot utlilze most of that space on Parcel A. On Parcel B, Mr. Storage has units to the edge of that paving as well. I thought those are the factors which led to the traffic/street side vs. river view alignment.

2.) Concern with river trail traffic on the street side exists with no change in driveway configuration, but also with any regulatory "prejudice" triggered by a future change of use - despite the extremely high volume of patronage/site traffic which currently works very well.

I did take some time to review both plans that were presented. Keeping a planted area, such as is illustrated, healthy in such close proximity to the road bed will prove to be challenging, as well as serving as a very weak safety buffer for trail users. What may be more well advised, would be an more solid fencing buffer on the road side - similar to some of bridge and creek side installations on Fairmount Park trails - with a green buffer/shrubs on an inner-layer. In that manner, storm wash out, salt contamination, litter and debris from the road would be kept off of the trail with a more substantial perimeter. This would also, cut down on the required width and use outside of the right-of-way.

-Gary

Gary B. Steinberg

MBS Associates

Prudential Fox & Roach Realtors

336 Conshohocken State Road

Gladwyne, PA 19035

610.642.6533 - Direct

610.896.7400 - Office

Garwood@comcast.net - E-mail

Meeting Minutes

Project:	Schuylkill River Trail Gap Analysis	**Date:**	April 20, 2012
Subject:	Coordination Mtg. with SEPTA	**Time:**	2:30 PM
		Place:	SEPTA

Attendee	Representing	Email Address
Byron Comati	SEPTA	BComati@septa.org
Jody Holton	SEPTA	JHolton@septa.org
Josh Gottlieb	SEPTA	JGottlieb@septa.org
Stephanie Craighead	Parks & Recreation	Stephanie.craighead@phila.gov
Chris Dougherty	Parks & Recreation	Chris.r.dougherty@phila.gov
Chris Stanford	Michael Baker Jr., Inc.	cstanford@mbakercorp.com

Purpose of Meeting: To review trail alternatives and potential site modifications at the Wissahickon Transportation Center (WTC).

Meeting Summary/Notes: Mr. Stanford presented the existing conditions and two current options for the fence line modifications/site modifications at the Wissahickon Transportation Center to accommodate the Schuylkill River Trail. See attached.

Option #1 (Fence and Parking Relocation) – Involves slight relocation of the fence line at the back of the WTC to the north to fit in the 8' trail. The option provides the required 4' walkway and appears to have little or no impact on existing bus movements. A minor relocation of one bus parking space is included in this option.

Mr. Comati noted that improvements to this site were completed in 2007 and the funding for that project may restrict modification of the site or require some funding be returned. Mr. Comati indicated that he does not believe that federal funding was used for the project. He will explore the funding used for the project and determine any restrictions on modifications.

SEPTA would like written confirmation from PECO on the shared use of the PECO driveway with the trail before they agree to any changes to the WTC.

Option #2 (Access and Parking Enhancements) – Involves the transfer of a 30' wide x 115' strip of land from the City to SEPTA in exchange for the area at the rear of the WTC to accommodate the trail. This option would result in one additional bus parking space at the site and allow for enhanced loading/unloading area.

Mr. Gottlieb indicated that this option may require relocation/reconstruction of the shelter. Ms. Craighead indicated that the Parks Department would be responsible for the cost for the shelter relocation and other required site improvements involved with either option.

Next Steps:

- SEPTA to determine any restrictions on site modifications due to previous funding
- Parks Dept. will contact PECO to confirm agreement on shared use of the PECO drive
- SEPTA to review both options with internal operations and engineering staff

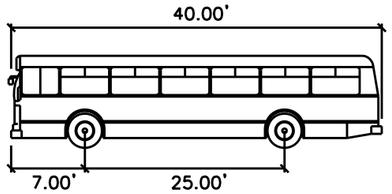
Any additions and/or corrections to these meeting minutes are to be submitted to the author within five (5) days of receipt or the minutes will be considered the final record of the meeting as written.

Sincerely,

Chris Stanford

Chris Stanford, P.E., PTOE, PMP

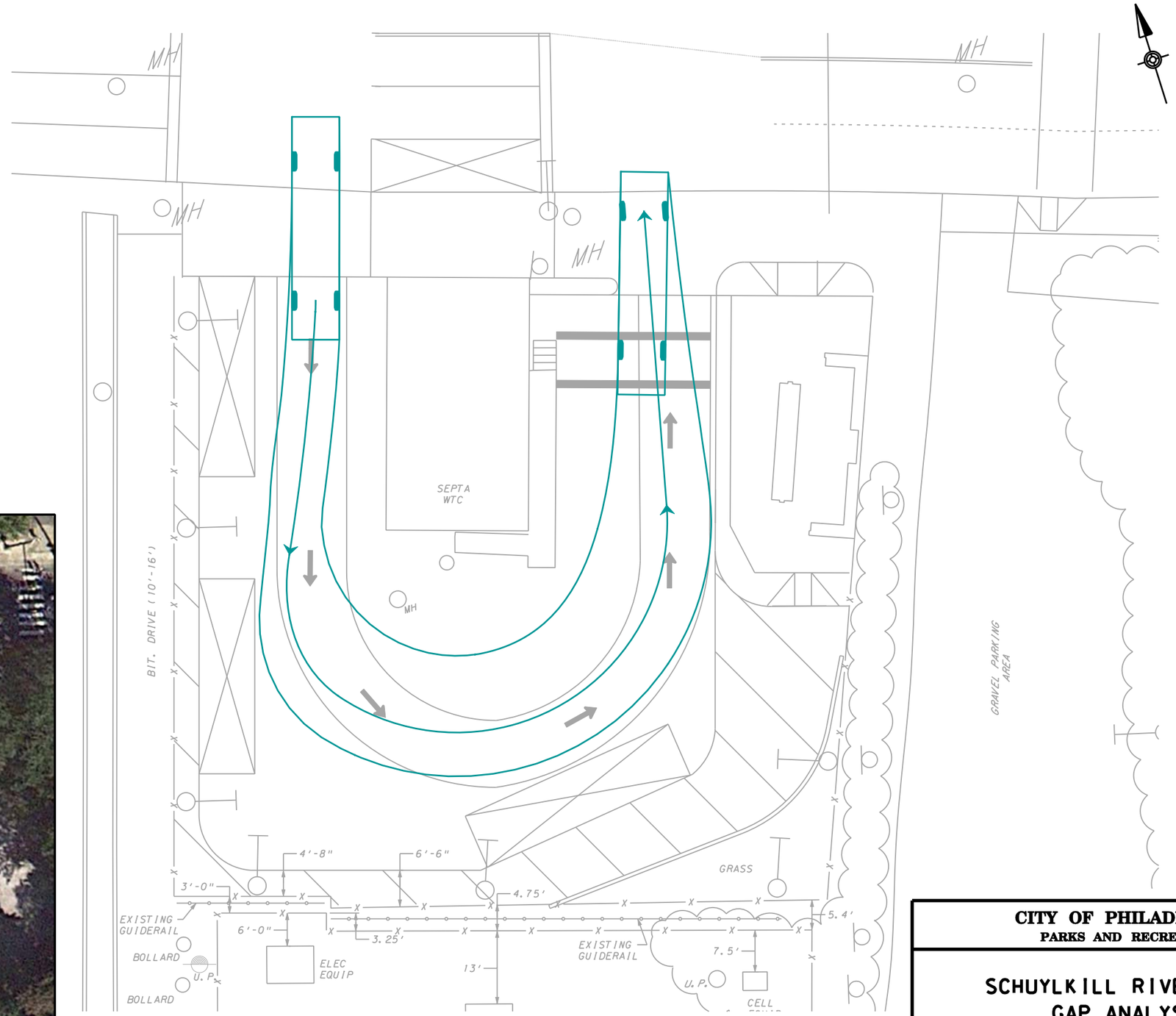
Michael Baker Jr., Inc.
Project Manager



CITY–BUS
feet

Width	: 8.50
Track	: 8.50
Lock to Lock Time	: 6.0
Steering Angle	: 41.4

AERIAL VIEW
NOT TO SCALE



EXISTING CONDITIONS

0 5' 10' 20'

CITY OF PHILADELPHIA
PARKS AND RECREATION

SCHUYLKILL RIVER TRAIL
GAP ANALYSIS
FIGURE 1

Baker
MICHAEL BAKER JR. INC.

MARCH, 2012

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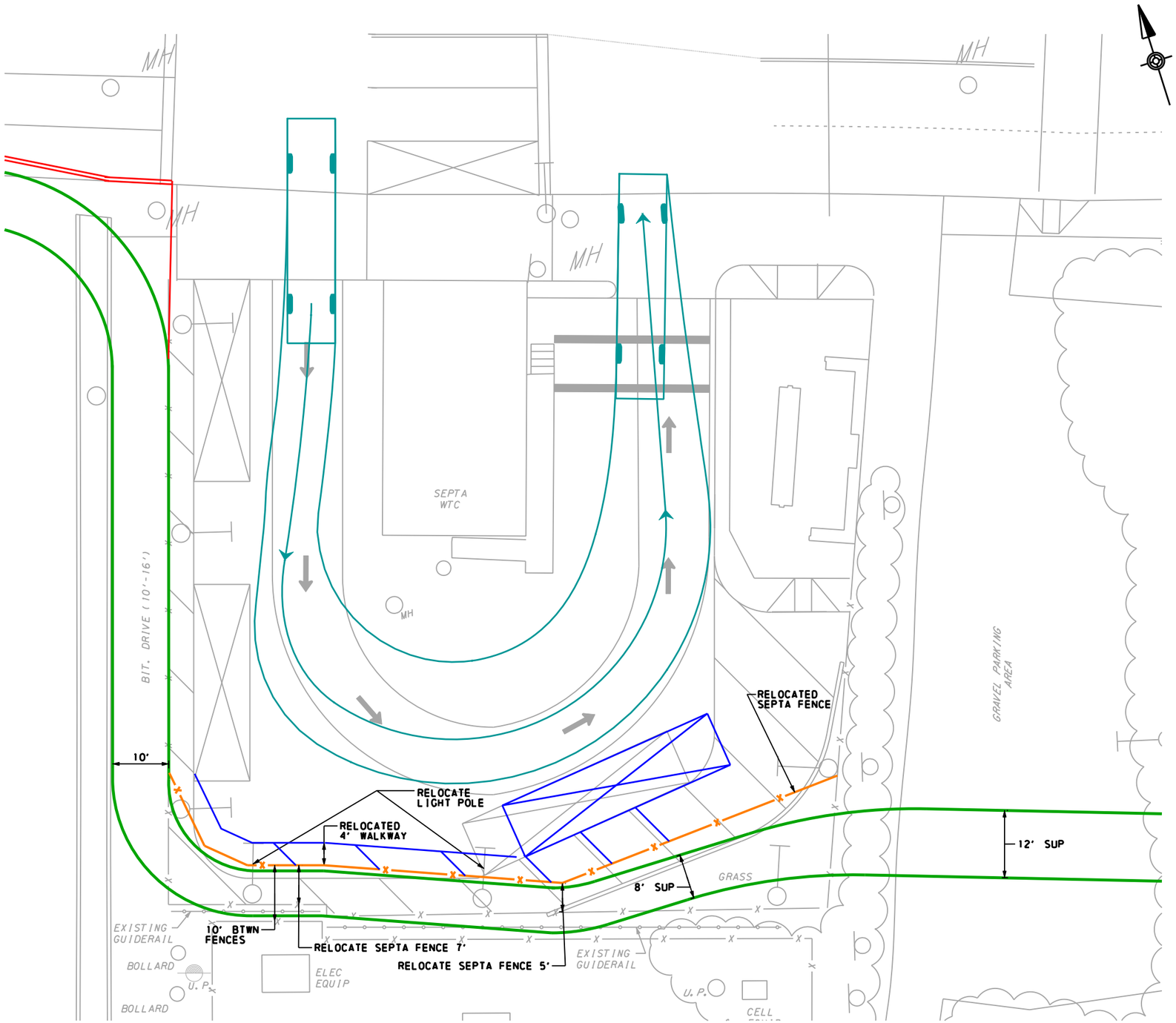

OPTION #1 - FENCE & PARKING RELOCATION

0 5' 10' 20'

KEY FEATURES OF THIS OPTION:

- 4' WALKWAY MAINTAINED.
- EXISTING BUS MOVEMENTS AND PARKING NOT IMPACTED.
- FENCE RELOCATED A MAXIMUM OF 5' TO 7'.
- 8' SHARED USE PATH WITH 1' OFFSET TO FENCES.

CITY OF PHILADELPHIA
PARKS AND RECREATION

SCHUYLKILL RIVER TRAIL
GAP ANALYSIS
OPTION #1

Baker
MICHAEL BAKER JR. INC.

MARCH, 2012

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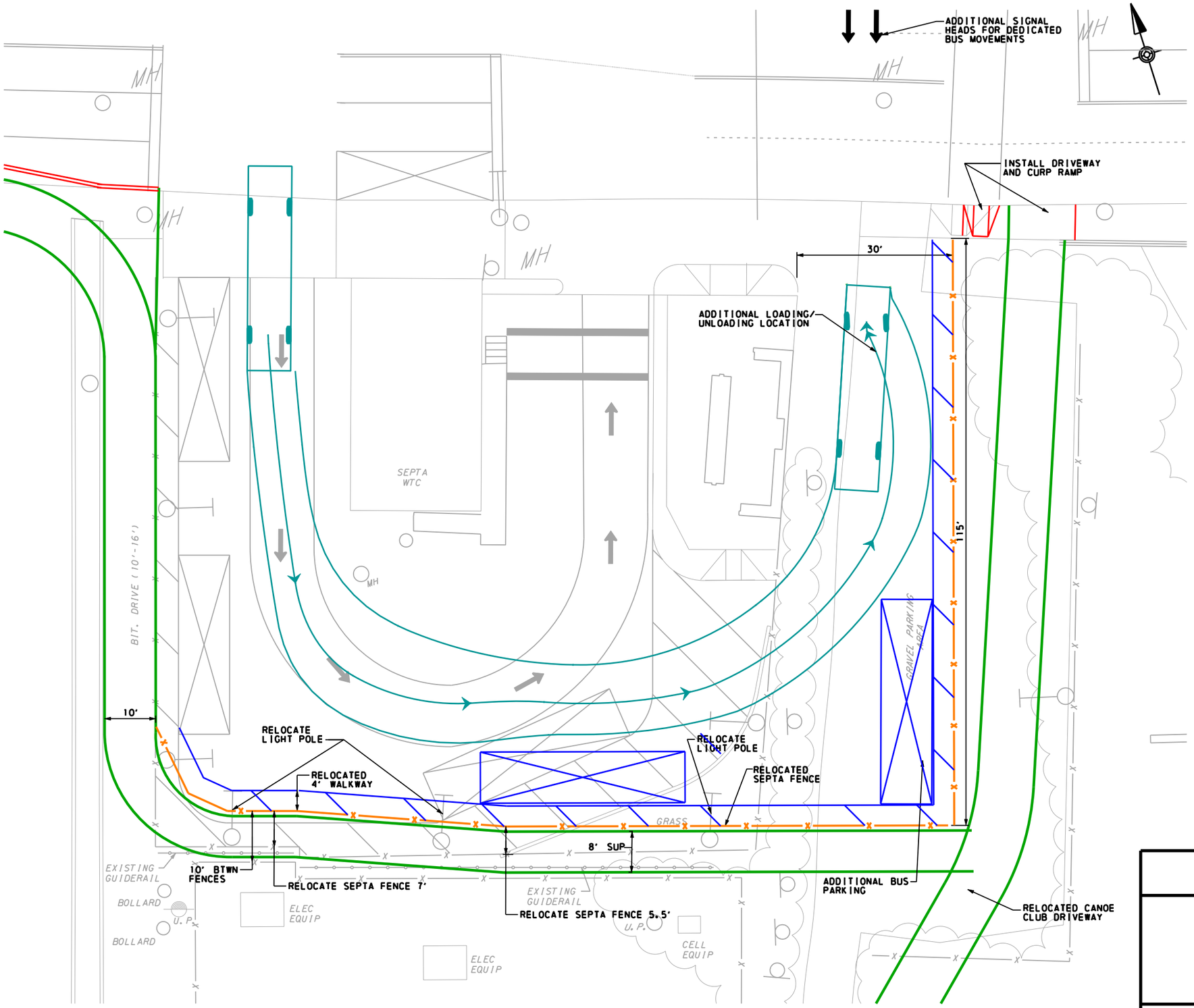

KEY FEATURES OF THIS OPTION:

- 30' x 115' AREA TO BE ADDED TO THE WTC.
- ONE ADDITIONAL BUS PARKING SPACE.
- ADDITIONAL LOADING/UNLOADING LOCATION.
- ADDITIONAL TRAFFIC SIGNAL INDICATIONS FOR DEDICATED BUS MOVEMENTS.
- 8' SHARED USE PATH WITH 1' OFFSET TO FENCES.
- 4' WALKWAY MAINTAINED.

OPTION #2 - ACCESS & PARKING ENHANCEMENTS

0 5' 10' 20'

CITY OF PHILADELPHIA
PARKS AND RECREATION

SCHUYLKILL RIVER TRAIL GAP ANALYSIS OPTION #2

Baker
MICHAEL BAKER JR. INC.

MARCH, 2012

E:\123154_Wiss_Study\Plot\Traffic\TurnNewPark-Opt3-MissPeco.dgn 3/14/2012

Memorandum

To: Chris Stanford, PE (MBJ)

From: Daniel Biggs, RLA (TDG)

CC: Megan Tymesko (TDG)

Date: November 8, 2011

Re: Wissahickon Gateway - Schuylkill River Trail Gap Analysis Study
TDG Project No. 5293
Community Information Meeting

A public meeting was held at Gustine Lake Recreation Center on November 1, 2012, at 6:30 pm. A list of the attendees is attached.The following is a summary of the question and answer period following a presentation of the project by Chris Stanford of Michael Baker Jr. and Dan Biggs of Toole Design Group. Also attached are the comment forms received at the meeting.

Public Comment Summary:

- Several citizens noted their concern regarding bicyclists traveling west from the Wissahickon Trail along Main Street.
- It was noted that food, bathrooms, and an area to rest in the general area of the SEPTA transfer station is needed. It was suggested that the area should be “treated it like an interchange for walkers and bikers”.
- Some noted that branding the trail or raising the awareness of the trail connection would only help with general public awareness and acknowledgement of the trail.
- Some citizens noted their concern of the potential conflicts at the seven trail/driveway crossings in the preferred alternative.
- It was suggested that the proposed 10’ trail width may not be of sufficient width for the anticipated volumes of trail traffic. As a result, a 12 to 14’ trail and reduction of the trail buffers, depending on available space could be considered.
- Several citizens noted that “conflict and warning” signage and different surface materials are recommended at trail/driveway intersections. (Different surface materials could consist of color or texture treatments).
- Most of public agreed that the Preferred Alternative would provide greater safety and visibility of the trail throughout the day, and possibly reduce potential crime on the trail.
- It was suggested that the “Preferred Alternative” be documented as the short-term improvement, while the Riverside Alignment be the long-term alternative. As a result, both trail connections would provide greater connectivity within this section of the trail network.
- Several citizens noted that the sidewalk space north side along Ridge Ave needs to be widened.
- It was suggested that the preferred alternative show a connection along the Canoe Club driveway to the existing crosswalk across Ridge Avenue to the Wissahickon Trail.
- Provide a safe crossing at the west end of the project to allow trail users to access Main Street

Schuylkill River Trail Gap Analysis Study

PHILADELPHIA PARKS & RECREATION

Public Meeting

Gustine Lake Recreation Center
Nov. 1, 2012

Name	Address	Email	Phone
Sam Scavozza	364 Lycam Ave	SamFran@patch.com	740-6915
Bryan Crenshaw	407 Wigard Ave	ebciii3@bcrenshaw.com	
Carolyn Sutton	3429 W. Penn St.	cardsutton@gmail.com	215-848-9098
SHAWN MEGILL LEGEND	3671 EVELINE ST	ssllegend2000@yahoo.com	—
Charles Brant	15 N. Highland Ave.	charlybike@aol.com	610-278-5200
Sarah C Stutz	~~4324 N. Vaux~~ 1500 Walnut 19102	sarah@bicycletoolkition.org	215-242-9253 x 306
Kay Sykova	445 Green Ln	ksykova@manayunk.org	215-206-2310
Jeannette Bruggeir	1828 S 15th St	jeannette.brugger@phila.gov	683 4637
William Ross	3110 W. Coulter St 29	wbrossiii@gmail.com	
Elly Avila	186 Dupont	ellyavila@hotmail	
Susan Dannenberg	7000 Wissahickon Ave 19119	susandannenberg@gmail.com	215-715-9459
Christine Fisher	500 N 17th St	cfisher@gmail	603-318-8891
Thomas Benson	4334 Cauriston St. 19128	ambrocup.benson@gmail	215 285 6182
A. FREEDMAN	828 LOMBARD St 19147	COOKIE.FREEDMAN@GMAIL	215-923-8494

Schuylkill River Trail Gap Analysis Study

PHILADELPHIA PARKS & RECREATION

Public Meeting

Gustine Lake Recreation Center
Nov. 1, 2012

Name	Address	Email	Phone
Jeff Braff	234 S. 21st St. 19103	jbraff@cozen.com	
David Wauthier	3007 Fox Ln 19144	wauthond@cs[illegible].org	267 997 7383
Ryan Dumont	3620 Gypsy Ln. 19129	rvdumont@gmail.com	
Bob Thomas	1504 South St. 19146	rthomas@campbellthomas.com	215-985-4354
MIKE SZILAGYI	331 ELM AV NORTH WALES PA 19454	MIKE.SZILAGYI@GMAIL.COM	267-218-3208
Gina Snyder	3728 A MIDVALE 19129	EFDC	

Schuylkill River Trail Gap Analysis Study

Public Meeting
Gustine Lake Recreation Center
Nov. 1, 2012

COMMENT FORM

Dear Community Member:

Thank you for attending this public meeting. We are interested in your comments on the proposed improvements. Please take a moment to complete this comment form.

Comments:

Please take this opportunity to add bathroom facilities
the river path is ideal
Strengthen/address the western transition to Main Street (
Why can't you utilize

Name: Susan Dannenberg

Address: 7000 Wissahickon Avenue

Phone/Email: susandannenberg@gmail.com 215-715-9159

Please return completed forms to the design staff tonight, or mail/fax completed form to:

Christopher R. Dougherty
Philadelphia Parks & Recreation
One Parkway – 10th floor
515 Arch Street
Philadelphia, Pa 19102-1587
Phone: (215) 683-0212
Fax: (215) 683-0205
Email: Chris.r.dougherty@phila.gov

Thank you for completing this comment form and for your interest in this project!

Schuylkill River Trail Gap Analysis Study

Public Meeting
Gustine Lake Recreation Center
Nov. 1, 2012

COMMENT FORM

Dear Community Member:

Thank you for attending this public meeting. We are interested in your comments on the proposed improvements. Please take a moment to complete this comment form.

Comments:

My concern in the Preferred Alternative is that there be a stronger connection with Ridge Ave & Main St, for bike traffic. There needs to be a good signalized crossing for bikers to cross Ridge Ave heading Northwest on Ridge West of the narrow section ~~&~~ between the Wissahickon Creek & where the road widens West of Tommy Gunns. I think the ideal plan would be a combination of the Preferred Alternative & Plan #3.

Name: Tom Benson

Address: 4334 Lauriston St. 19128

Phone/Email: ambrocap.benson@gmail.com

Please return completed forms to the design staff tonight, or mail/fax completed form to:

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Philadelphia Parks & Recreation
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Phone: (215) 683-0212
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Schuylkill River Trail Gap Analysis Study

Public Meeting
Gustine Lake Recreation Center
Nov. 1, 2012

COMMENT FORM

Dear Community Member:

Thank you for attending this public meeting. We are interested in your comments on the proposed improvements. Please take a moment to complete this comment form.

Comments:

FIRST PREFERENCE ALTERNATIVE 2 (RIVERSIDE + DOWNSTREAM)
SECOND " " 3 " + UPSTREAM

Name: HARRY CONRY

Address: PO BOX 2581 BALA CYNWYD PA 19004

Phone/Email: HARRY CONRY @ COMCAST.NET

Please return completed forms to the design staff tonight, or mail/fax completed form to:

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Schuylkill River Trail Gap Analysis Study

Public Meeting
Gustine Lake Recreation Center
Nov. 1, 2012

COMMENT FORM

Dear Community Member:

Thank you for attending this public meeting. We are interested in your comments on the proposed improvements. Please take a moment to complete this comment form.

Comments:

- Please call the Preferred Alternative the Near-Term Alternative and a riverside Alternative the Long-term Alternative.

- The Trail needs to be 12ft wide wherever possible

- improve the canoe club driveway to connect to the new Trail Lincoln Drive/Wissahickon Trail
- make safe connection to ~~the~~ Main Street

- Driveway crossings need to be made as safe as possible

Name: Sarah C Stuart

Address:

Phone/Email: sarah@bicyclecoalition.org

Please return completed forms to the design staff tonight, or mail/fax completed form to:

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Philadelphia Parks & Recreation
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Philadelphia, Pa 19102-1587
Phone: (215) 683-0212
Fax: (215) 683-0205
Email: Chris.r.dougherty@phila.gov

Thank you for completing this comment form and for your interest in this project!

Schuylkill River Trail Gap Analysis Study

Public Meeting
Gustine Lake Recreation Center
Nov. 1, 2012

COMMENT FORM

Dear Community Member:

Thank you for attending this public meeting. We are interested in your comments on the proposed improvements. Please take a moment to complete this comment form.

Comments:

(1) This trail connection is really important
(2) I'm glad to see several alternatives were/are being considered.
(3) I think it would be best to get to the river as much as you can without building a boardwalk - I don't think they are safe (too slippery, degrade too quickly) and I'm concerned about impact on the river
(4) Take your time working with the property owners - (over)

Name: David Wootton

Address: 3007 Foxx Lane, 19144

Phone/Email: 267-997-7383, davidmwootton@gmail.com

Please return completed forms to the design staff tonight, or mail/fax completed form to:

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Philadelphia Parks & Recreation
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515 Arch Street
Philadelphia, Pa 19102-1587
Phone: (215) 683-0212
Fax: (215) 683-0205
Email: Chris.r.dougherty@phila.gov

Thank you for completing this comment form and for your interest in this project!

continued

- it seems to me the best option - if Dunton/etc gets redeveloped in the right spirit - could miss both the canoe club and the part of the river requiring the boardwalk. That would increase the value to the developer in many scenarios ...