

The following pages contain updated and additional cost estimates for TSP projects that are amended or added as part of the TSP Implementation Project. Cost estimates were based on 2013 dollars for consistency with the existing cost estimates that informed the initial adoption of the Springfield 2035 Transportation System Plan in 2014.

<b>SPRINGFIELD TSP - ORDER OF MAGNITUDE ESTIMATE</b>					
<b>PROJECT:</b> PB-28 - South 2nd Street to South B Street			<b>PREPARED BY:</b> Madeline Klein		<b>DATE:</b> 10/25/2017
<b>DESIGN LEVEL:</b> Preliminary			<b>LENGTH (MILE):</b> 0.4		<b>SHEET:</b> 1 of 1
<b>KIND OF WORK:</b> Roadway, Earthwork, Drainage, Lighting,					
NO.	ITEM	UNIT	QUANTITY	UNIT COST	COST
1	Curb, Gutter, Sidewalks & Drainage	Mi.		\$935,700.00	\$0
2	Multi-use Path	Mi.	0.4	\$217,900.00	\$87,160
3	New Roadway Asphalt	Lane-Mi.		\$412,500.00	\$0
4	Overlay Existing Roadway	Lane-Mi.		\$89,400.00	\$0
5	Reconstruct Existing Roadway	Lane-Mi.		\$438,900.00	\$0
6	Intersection Widening	EA		\$76,500.00	\$0
7	Interconnect Signal	LS		\$35,000.00	\$0
8	New Signal	EA		\$300,000.00	\$0
9	Signal Modifications	EA		\$75,000.00	\$0
10	Earthwork (See Note)	CY	1,247	\$7.50	\$9,353
11	New Signs	EA	2	\$500.00	\$1,000
12	Thermoplastic Striping (Crosswalk)	SF	640	\$10.00	\$6,400
13	Landscaping	Mi.	0.09	\$235,000.00	\$21,150
14	Illumination	Mi.	0.4	\$260,000.00	\$104,000
15	Walls	SF		\$75.00	\$0
<b>SUBTOTAL</b>					<b>\$229,063</b>

	ADDITIONAL CONST. COSTS	SUGGESTED	PERCENTAGE		COST
	Construction Surveying	1.0-2.5%	2.50%		\$5,726.56
	TP & DT	3.0-8.0%	8.00%		\$18,325.00
	Mobilization	8.0-10.0%	10.00%		\$22,906.25
	Erosion Control	0.5-2.0%	2.00%		\$4,581.25
	Contingency	30-40%	40.00%		\$91,625.00
	Escalation Rate (per year)	0.5-2.0%	2.00%		
	Design Year (or Estimate Year)		2013		
	Construction Year		2013		
<b>TOTAL CONSTRUCTION COST</b>					<b>\$372,227</b>

	Anticipated Items	UNIT	QUANTITY	UNIT COST	COST
	Railroad Crossing	EA	0	\$600,000.00	\$0
	Environmental Mitigation		0.00%		\$0
	Easements & ROW Acquisition		17.50%		\$65,139.65
	<b>Indirect Costs</b>		<b>PERCENTAGE</b>		<b>COST</b>
	Engineering, Legal/Admin, Coordination		30.00%		\$111,668
	Construction Engineering		15.00%		\$55,834
<b>TOTAL PROJECT COST</b>					<b>\$604,868</b>

## Assumptions:

- Project extends from Booth Kelley Path Trailhead to connection with South 2nd St.
- .40 miles multiuse path (12' path with 2-2' buffers)
- Add two stop signs at the S. 5th and S. B st.
- Add a cross walk (64' by 10')
- ROW required
- .09 Landscaping

<b>SPRINGFIELD TSP - ORDER OF MAGNITUDE ESTIMATE</b>					
<b>PROJECT:</b> PB-31 - Moe Mountain Path - River Heights Drive to Marcola Road			<b>PREPARED BY:</b> Michael Liebler		<b>DATE:</b> 11/5/2018
<b>DESIGN LEVEL:</b> Preliminary					
<b>KIND OF WORK:</b> Roadway, Earthwork, Drainage, Lighting,			<b>LENGTH (MILE):</b> 0.4		<b>SHEET:</b> 1 of 1
<b>NO.</b>	<b>ITEM</b>	<b>UNIT</b>	<b>QUANTITY</b>	<b>UNIT COST</b>	<b>COST</b>
1	Curb, Gutter, Sidewalks & Drainage	Mi.		\$935,700.00	\$0
2	Multi-use Path	Mi.	0.35	\$217,900.00	\$76,265
3	New Roadway Asphalt	Lane-Mi.		\$412,500.00	\$0
4	Overlay Existing Roadway	Lane-Mi.		\$89,400.00	\$0
5	Reconstruct Existing Roadway	Lane-Mi.		\$438,900.00	\$0
6	Intersection Widening	EA		\$76,500.00	\$0
7	Interconnect Signal	LS		\$35,000.00	\$0
8	New Signal	EA		\$300,000.00	\$0
9	Signal Modifications	EA		\$75,000.00	\$0
10	Earthwork (See Note)	CY	700	\$30.00	\$21,000
11	New Signs	EA	6	500	\$3,000
12	Thermoplastic Striping (Crosswalk)	SF		\$10.00	\$0
13	Landscaping	Mi.	0.09	\$235,000.00	\$21,150
14	Illumination	Mi.	0.35	\$260,000.00	\$91,000
15	Bridges	SF	800	\$250.00	\$200,000
<b>SUBTOTAL</b>					<b>\$412,415</b>
<b>ADDITIONAL CONST. COSTS</b>		<b>SUGGESTED</b>	<b>PERCENTAGE</b>	<b>COST</b>	
Construction Surveying		1.0-2.5%	2.50%		\$10,310.38
TP & DT		3.0-8.0%	8.00%		\$32,993.20
Mobilization		8.0-10.0%	10.00%		\$41,241.50
Erosion Control		0.5-2.0%	2.00%		\$8,248.30
Contingency		30-40%	40.00%		\$164,966.00
Escalation Rate (per year)		0.5-2.0%	2.00%		
Design Year (or Estimate Year)			2013		
Construction Year			2013		
<b>SUBTOTAL</b>					<b>\$670,174</b>
<b>Anticipated Items</b>		<b>UNIT</b>	<b>QUANTITY</b>	<b>UNIT COST</b>	<b>COST</b>
Railroad Crossing		EA	0	\$600,000.00	\$0
Environmental Mitigation			10.00%		\$67,017
Easements & ROW Acquisition			20.00%		\$134,034.88
<b>Indirect Costs</b>			<b>PERCENTAGE</b>		<b>COST</b>
Engineering, Legal/Admin, Coordination			30.00%		\$201,052
Construction Engineering			15.00%		\$100,526
<b>TOTAL PROJECT COST</b>					<b>\$1,172,805</b>

## Assumptions:

Project extends from the beginning of River Heights Drive at V street to Marcola Road  
.35 miles multiuse path (12' path with 2-2' buffers)  
Add wayfinding and path signs at the V  
New Bridge across slough L 50', W 16' (12' path, 2-2' rails)  
Earthwork includes cutting on a 2H:1V

Additional Row required from railroad to make connection to marcola

<b>SPRINGFIELD TSP - ORDER OF MAGNITUDE ESTIMATE</b>					
<b>PROJECT: PB-42 - Main Street/66th Street to 67th Street</b>			<b>PREPARED BY:</b> Michael Liebler		<b>DATE:</b> 12/6/2019
<b>DESIGN LEVEL:</b> Final construction			<b>LENGTH (MILE);</b> NA		<b>SHEET:</b> 1 of 2
<b>KIND OF WORK:</b> Signal					
NO.	ITEM	UNIT	QUANTITY	UNIT COST	COST
1	Curb, Gutter, Sidewalks & Drainage	Mi.		\$935,700.00	\$0
2	Multi-use Path	Mi.		\$217,900.00	\$0
3	New Roadway Asphalt	Lane-Mi.		\$412,500.00	\$0
4	Overlay Existing Roadway	Lane-Mi.		\$89,400.00	\$0
5	Reconstruct Existing Roadway	Lane-Mi.		\$438,900.00	\$0
6	Mid-Block Crossing 4-L	EA	1	\$269,498.00	\$269,498
7	1-L Roundabout	EA		\$35,000.00	\$0
8	New Signal	EA		\$300,000.00	\$0
9	Signal Modifications	EA		\$75,000.00	\$0
10	Earthwork (See Note)	CY		\$7.50	\$0
11	Traffic Calming	5-10%		-	\$0
12	Illumination	Mi.		\$260,000.00	\$0
13	Landscaping	Mi.		\$235,000.00	\$0
14	Bridges	SF		\$250.00	\$0
15	Walls	SF		\$75.00	\$0
<b>SUBTOTAL</b>					<b>\$269,498</b>

	<b>ADDITIONAL CONST. COSTS</b>	<b>SUGGESTED</b>	<b>PERCENTAGE</b>		<b>COST</b>
	Construction Surveying	1.0-2.5%	0.00%		\$0.00
	TP & DT	3.0-8.0%	0.00%		\$0.00
	Mobilization	8.0-10.0%	0.00%		\$0.00
	Erosion Control	0.5-2.0%	0.00%		\$0.00
	Contingency	30-40%	0.00%		\$0.00
	Escalation Rate (per year)	0.5-2.0%	2.00%		
	Design Year (or Estimate Year)		2017		
	Construction Year		2019		
<b>SUBTOTAL</b>					<b>\$269,498</b>

	<b>Anticipated Items</b>	<b>UNIT</b>	<b>QUANTITY</b>	<b>UNIT COST</b>	<b>COST</b>
	Railroad Crossing	EA	0	\$600,000.00	\$0
	Environmental Mitigation		0.00%		\$0
	Easements & ROW Acquisition		10.00%		\$26,949.80
	<b>Indirect Costs</b>		<b>PERCENTAGE</b>		<b>COST</b>
	Engineering, Legal/Admin, Coordination		0.00%		\$0
	Construction Engineering		0.00%		\$0
<b>TOTAL PROJECT COST</b>					<b>\$296,448</b>

## Assumptions:

Cost Estimate reflects actual bid and anticipated overall construction cost for P21142  
 Additional costs incurred for screening fencing and some easements associated with siting signal hardware and ADA facilities

SPRINGFIELD TSP - ORDER OF MAGNITUDE ESTIMATE					
<b>PROJECT:</b> PB-53 - 66th Street - Thurston Road to Main Street			<b>PREPARED BY:</b> Michael Liebler		<b>DATE:</b> 11/5/2018
<b>DESIGN LEVEL:</b> Preliminary					
<b>KIND OF WORK:</b> Roadway			<b>LENGTH (MILE);</b> 0.54		<b>SHEET:</b> 1 of 1
NO.	ITEM	UNIT	QUANTITY	UNIT COST	COST
1	Curb, Gutter, Sidewalks & Drainage	Mi.		\$935,700.00	\$0
2	Multi-use Path	Mi.		\$217,900.00	\$0
3	New Roadway Concrete	Lane-Mi.		\$595,700.00	\$0
4	Overlay Existing Roadway	Lane-Mi.		\$89,400.00	\$0
5	Reconstruct Existing Roadway	Lane-Mi.		\$438,900.00	\$0
6	Concrete Sidewalk	SF		\$5.00	\$0
7	Restriping Roadway	Lane-Mi.	0.54	\$8,700.00	\$4,698
8	Permanent Pavement Marking	EA	20	\$250.00	\$5,000
9	New Signs	EA		\$500.00	\$0
10	Earthwork (See Note)	CY		\$7.50	\$0
11	Traffic Calming	5-10%		-	\$0
12	Illumination	Mi.		\$260,000.00	\$0
13	Landscaping	Mi.		\$235,000.00	\$0
14	Bridges	SF		\$250.00	\$0
15	Walls	SF		\$75.00	\$0
<b>SUBTOTAL</b>					<b>\$9,698</b>
ADDITIONAL CONST. COSTS		SUGGESTED	PERCENTAGE		COST
Construction Surveying		1.0-2.5%	2.50%		\$242.45
TP & DT		3.0-8.0%	8.00%		\$775.84
Mobilization		8.0-10.0%	10.00%		\$969.80
Erosion Control		0.5-2.0%	2.00%		\$193.96
Contingency		30-40%	40.00%		\$3,879.20
Escalation Rate (per year)		0.5-2.0%	2.00%		
Design Year (or Estimate Year)			2013		
Construction Year			2013		
<b>SUBTOTAL</b>					<b>\$15,759</b>
Anticipated Items		UNIT	QUANTITY	UNIT COST	COST
Railroad Crossing		EA	0	\$600,000.00	\$0
Environmental Mitigation			0.00%		\$0
Easements & ROW Acquisition			0.00%		\$0.00
Indirect Costs			PERCENTAGE		COST
Engineering, Legal/Admin, Coordination			30.00%		\$4,728
Construction Engineering			15.00%		\$2,364
<b>TOTAL PROJECT COST</b>					<b>\$22,851</b>

## Assumptions:

Improvements are for striping and pavement marking  
66th Street addition of bike lanes  
Markings will be at 1/250'

SPRINGFIELD TSP - ORDER OF MAGNITUDE ESTIMATE					
PROJECT: PB-54 - G Street-5th Street to 28 Street			PREPARED BY: Madeline Klein		DATE: 10/25/2017
DESIGN LEVEL: Preliminary			LENGTH (MILE): 1.63		SHEET: 1 of 1
KIND OF WORK: Roadway					
NO.	ITEM	UNIT	QUANTITY	UNIT COST	COST
1	Curb, Gutter, Sidewalks & Drainage	Mi.		\$935,700.00	\$0
2	Multi-use Path	Mi.		\$217,900.00	\$0
3	New Roadway Concrete	Lane-Mi.		\$595,700.00	\$0
4	Overlay Existing Roadway	Lane-Mi.		\$89,400.00	\$0
5	Reconstruct Existing Roadway	Lane-Mi.		\$438,900.00	\$0
6	Concrete Sidewalk	SF		\$5.00	\$0
7	Restriping Roadway	Lane-Mi.	1.63	\$8,700.00	\$14,181
8	Permanent Pavement Marking	EA	34	\$250.00	\$8,500
9	New Signs	EA	17	\$500.00	\$8,500
10	Earthwork (See Note)	CY		\$7.50	\$0
11	Traffic Calming	5-10%		-	\$0
12	Illumination	Mi.		\$260,000.00	\$0
13	Landscaping	Mi.		\$235,000.00	\$0
14	Bridges	SF		\$250.00	\$0
15	Walls	SF		\$75.00	\$0
<b>SUBTOTAL</b>					<b>\$31,181</b>

	ADDITIONAL CONST. COSTS	SUGGESTED	PERCENTAGE		COST
	Construction Surveying	1.0-2.5%	2.50%		\$779.53
	TP & DT	3.0-8.0%	8.00%		\$2,494.48
	Mobilization	8.0-10.0%	10.00%		\$3,118.10
	Erosion Control	0.5-2.0%	2.00%		\$623.62
	Contingency	30-40%	40.00%		\$12,472.40
	Escalation Rate (per year)	0.5-2.0%	2.00%		
	Design Year (or Estimate Year)		2013		
	Construction Year		2013		
<b>SUBTOTAL</b>					<b>\$50,669</b>

	Anticipated Items	UNIT	QUANTITY	UNIT COST	COST
	Railroad Crossing	EA	0	\$600,000.00	\$0
	Environmental Mitigation		0.00%		\$0
	Easements & ROW Acquisition		0.00%		\$0.00
	Indirect Costs		PERCENTAGE		COST
	Engineering, Legal/Admin, Coordination		30.00%		\$15,201
	Construction Engineering		15.00%		\$7,600
<b>TOTAL PROJECT COST</b>					<b>\$73,470</b>

## Assumptions:

- Improvements are for signing, striping and pavement marking
- G Street will be restriped with bike lanes, signed and marked for bike route
- Signs will be at 1/500'
- Markings will be at 1/250'

SPRINGFIELD TSP - ORDER OF MAGNITUDE ESTIMATE					
PROJECT: PB-55 - 48th/G/52nd - High Banks Road to Aster Street			PREPARED BY: Madeline Klein		DATE: 10/25/2017
DESIGN LEVEL: Preliminary			LENGTH (MILE): 1.11		SHEET: 1 of 1
KIND OF WORK: Roadway, Earthwork, Landscaping					
NO.	ITEM	UNIT	QUANTITY	UNIT COST	COST
1	Curb, Gutter, Sidewalks & Drainage	Mi.		\$935,700.00	\$0
2	Multi-use Path	Mi.	1.11	\$217,900.00	\$241,869
3	New Roadway Asphalt	Lane-Mi.		\$412,500.00	\$0
4	Overlay Existing Roadway	Lane-Mi.		\$89,400.00	\$0
5	Reconstruct Existing Roadway	Lane-Mi.		\$438,900.00	\$0
6	Intersection Widening	EA		\$76,500.00	\$0
7	Interconnect Signal	LS		\$35,000.00	\$0
8	New Signal	EA		\$300,000.00	\$0
9	Signal Modifications	EA		\$75,000.00	\$0
10	Earthwork (See Note)	CY	3,440	\$7.50	\$25,800
11	Traffic Calming	5-10%		-	\$0
12	Illumination	Mi.	1.11	\$260,000.00	\$288,600
13	Landscaping	Mi.		\$235,000.00	\$0
14	Bridges	SF		\$250.00	\$0
15	Walls	SF		\$75.00	\$0
<b>SUBTOTAL</b>					<b>\$556,269</b>

	ADDITIONAL CONST. COSTS	SUGGESTED	PERCENTAGE		COST
	Construction Surveying	1.0-2.5%	2.50%		\$13,906.73
	TP & DT	3.0-8.0%	8.00%		\$44,501.52
	Mobilization	8.0-10.0%	10.00%		\$55,626.90
	Erosion Control	0.5-2.0%	2.00%		\$11,125.38
	Contingency	30-40%	40.00%		\$222,507.60
	Escalation Rate (per year)	0.5-2.0%	2.00%		
	Design Year (or Estimate Year)		2013		
	Construction Year		2013		
<b>SUBTOTAL</b>					<b>\$903,937</b>

	Anticipated Items	UNIT	QUANTITY	UNIT COST	COST
	Railroad Crossing	EA	0	\$600,000.00	\$0
	Environmental Mitigation		0.00%		\$0
	Easements & ROW Acquisition		25.00%		\$225,984.28
	Indirect Costs		PERCENTAGE		COST
	Engineering, Legal/Admin, Coordination		30.00%		\$271,181
	Construction Engineering		15.00%		\$135,591
<b>TOTAL PROJECT COST</b>					<b>\$1,536,693</b>

## Assumptions

- Path assumed along the right side of the road from Main St. to High Banks Road
- ROW .25 of total project along one side needed.
- Assume 1' average depth earthwork over new work areas
- length of improvements is 1.11 miles
- Illumination is assumed not included

SPRINGFIELD TSP - ORDER OF MAGNITUDE ESTIMATE					
PROJECT: R-27 - Yolanda Avenue to 35th Street			PREPARED BY: Madeline Klein		DATE: 10/25/2017
DESIGN LEVEL: Preliminary			LENGTH (MILE): 0.32		SHEET: 1 of 1
KIND OF WORK: Roadway, Earthwork, Drainage, Lighting, Landscaping					
NO.	ITEM	UNIT	QUANTITY	UNIT COST	COST
1	Curb, Gutter, Sidewalks & Drainage	Mi.	0.32	\$935,700.00	\$299,424
2	Multi-use Path	Mi.		\$217,900.00	\$0
3	New Roadway Concrete	Lane-Mi.	0.48	\$595,700.00	\$285,936
4	Overlay Existing Roadway	Lane-Mi.		\$89,400.00	\$0
5	Reconstruct Existing Roadway	Lane-Mi.	0.15	\$438,900.00	\$65,835
6	Concrete Sidewalk	SF		\$5.00	\$0
7	Restriping Roadway	Lane-Mi.	2	\$8,700.00	\$17,400
8	New Signal	EA		\$300,000.00	\$0
9	Signal Modifications	EA		\$75,000.00	\$0
10	Earthwork (See Note)	CY	3,900	\$7.50	\$29,250
11	Traffic Calming	5-10%		-	\$0
12	Illumination	Mi.	0.32	\$260,000.00	\$83,200
13	Landscaping	Mi.	0.19	\$235,000.00	\$44,650
14	Bridges	SF	11400	\$250.00	\$2,850,000
15	Walls	SF		\$75.00	\$0
<b>SUBTOTAL</b>					<b>\$3,675,695</b>

	ADDITIONAL CONST. COSTS	SUGGESTED	PERCENTAGE	COST
	Construction Surveying	1.0-2.5%	2.50%	\$91,892.38
	TP & DT	3.0-8.0%	8.00%	\$294,055.60
	Mobilization	8.0-10.0%	10.00%	\$367,569.50
	Erosion Control	0.5-2.0%	2.00%	\$73,513.90
	Contingency	30-40%	40.00%	\$1,470,278.00
	Escalation Rate (per year)	0.5-2.0%	2.00%	
	Design Year (or Estimate Year)		2013	
	Construction Year		2013	
<b>SUBTOTAL</b>				<b>\$5,973,004</b>

	Anticipated Items	UNIT	QUANTITY	UNIT COST	COST
	Railroad Crossing	EA	0	\$600,000.00	\$0
	Environmental Mitigation		10.00%		\$597,300
	Easements & ROW Acquisition		10.00%		\$597,300
	Indirect Costs		PERCENTAGE		COST
	Engineering, Legal/Admin, Coordination		30.00%		\$1,791,901
	Construction Engineering		15.00%		\$895,951
<b>TOTAL PROJECT COST</b>					<b>\$9,855,457</b>

## Assumptions:

- Urban collector; 3-L with bike lanes (3-12' lanes, 2-6' bike, 2-6' sidewalk) (including curbs and drainage)
- From end of Yolanda across the field south to the intersection of Yolanda between 33rd St and 34th St.
- 2-L with bike lanes on existing Yolanda roadway from 34th to 35th St.
- 60 ft ROW for improvements. Minor ROW impacts assumed.
- Roadway through wetland assumed on a bridge. L-220', W-52' Assumes 2-lanes on the bridge structure
- Length of the new roadway is about 900 LF not including the bridge. Lighting included for improvements
- Landscaping needed for constructing new roadway.
- Earthwork assumed at 1' total depth (cut/fill) for length. Grade is flat
- Roadway surfacing is assumed concrete for wetland area. Actual surfacing will be determined by LCCA per City Policy
- Sensitive area impacts are assumed. Mitigation included at 10% due to high value wetland.

SPRINGFIELD TSP - ORDER OF MAGNITUDE ESTIMATE					
<b>PROJECT:</b> R-39 - Extend South 48th Street to Daisy Street			<b>PREPARED BY:</b> Michael Liebler		<b>DATE:</b> 11/6/2018
<b>DESIGN LEVEL:</b> Preliminary					
<b>KIND OF WORK:</b> Roadway, Earthwork, Drainage, Lighting			<b>LENGTH (MILE);</b> 0.21 mi		<b>SHEET:</b> 1 of 1
NO.	ITEM	UNIT	QUANTITY	UNIT COST	COST
1	Curb, Gutter, Sidewalks & Drainage	Mi.	0.42	\$935,700.00	\$392,994
2	Multi-use Path	Mi.	0.21	\$217,900.00	\$45,759
3	New Roadway Asphalt	Lane-Mi.	1.26	\$412,500.00	\$519,750
4	Overlay Existing Roadway	Lane-Mi.		\$89,400.00	\$0
5	Reconstruct Existing Roadway	Lane-Mi.		\$438,900.00	\$0
6	Intersection Widening	EA		\$76,500.00	\$0
7	1-L Roundabout	EA	1	\$300,000.00	\$300,000
8	New Signal	EA		\$300,000.00	\$0
9	Signal Modifications	EA		\$75,000.00	\$0
10	Earthwork (See Note)	CY	2,750	\$7.50	\$20,625
11	Traffic Calming	5-10%		-	\$0
12	Illumination	Mi.	0.21	\$260,000.00	\$54,600
13	Landscaping	Mi.	0.21	\$235,000.00	\$49,350
14	Bridges	SF		\$250.00	\$0
15	Walls	SF		\$75.00	\$0
<b>SUBTOTAL</b>					<b>\$1,383,078</b>
ADDITIONAL CONST. COSTS		SUGGESTED	PERCENTAGE		COST
Construction Surveying		1.0-2.5%	2.50%		\$34,576.95
TP & DT		3.0-8.0%	8.00%		\$110,646.24
Mobilization		8.0-10.0%	10.00%		\$138,307.80
Erosion Control		0.5-2.0%	2.00%		\$27,661.56
Contingency		30-40%	40.00%		\$553,231.20
Escalation Rate (per year)		0.5-2.0%	2.00%		
Design Year (or Estimate Year)			2013		
Construction Year			2013		
<b>SUBTOTAL</b>					<b>\$2,247,502</b>
Anticipated Items		UNIT	QUANTITY	UNIT COST	COST
Railroad Crossing		EA	0	\$600,000.00	\$0
Environmental Mitigation			15.00%		\$337,125
Easements & ROW Acquisition			0.00%		\$0.00
Indirect Costs			PERCENTAGE		COST
Engineering, Legal/Admin, Coordination			30.00%		\$674,251
Construction Engineering			15.00%		\$337,125
<b>TOTAL PROJECT COST</b>					<b>\$3,596,003</b>

## Assumptions:

Improvement are 2-L collector street (2-12' lane, 12' Multi-use path) L-1109', .21mi  
Grade is relatively flat. Assumes 1.5' average depth of earthwork over new work areas.  
ROW already purchased as part of the willamalane and COS Weyerhauser Haul Road IGA  
No walls or bridges assumed  
Landscaping and illumination included  
1-lane roundabout in residential zoning

SPRINGFIELD TSP - ORDER OF MAGNITUDE ESTIMATE					
<b>PROJECT:</b> R-42 - Holly Street; South 48th Street to South 57th Street			<b>PREPARED BY:</b> Michael Liebler		<b>DATE:</b> 11/6/2018
<b>DESIGN LEVEL:</b> Preliminary					
<b>KIND OF WORK:</b> Roadway, Earthwork, Drainage, Lighting			<b>LENGTH (MILE);</b> 0.70 mi		<b>SHEET:</b> 1 of 1
NO.	ITEM	UNIT	QUANTITY	UNIT COST	COST
1	Curb, Gutter, Sidewalks & Drainage	Mi.	0.7	\$935,700.00	\$654,990
2	Multi-use Path	Mi.		\$217,900.00	\$0
3	New Roadway Asphalt	Lane-Mi.	2.1	\$412,500.00	\$866,250
4	Overlay Existing Roadway	Lane-Mi.		\$89,400.00	\$0
5	Reconstruct Existing Roadway	Lane-Mi.		\$438,900.00	\$0
6	Intersection Widening	EA		\$76,500.00	\$0
7	1-L Roundabout	EA		\$35,000.00	\$0
8	New Signal	EA		\$300,000.00	\$0
9	Signal Modifications	EA		\$75,000.00	\$0
10	Earthwork (See Note)	CY	11,500	\$7.50	\$86,250
11	Traffic Calming	5-10%		-	\$0
12	Illumination	Mi.	0.7	\$260,000.00	\$182,000
13	Landscaping	Mi.	0.7	\$235,000.00	\$164,500
14	Bridges	SF		\$250.00	\$0
15	Walls	SF		\$75.00	\$0
<b>SUBTOTAL</b>					<b>\$1,953,990</b>
ADDITIONAL CONST. COSTS		SUGGESTED	PERCENTAGE		COST
Construction Surveying		1.0-2.5%	2.50%		\$48,849.75
TP & DT		3.0-8.0%	8.00%		\$156,319.20
Mobilization		8.0-10.0%	10.00%		\$195,399.00
Erosion Control		0.5-2.0%	2.00%		\$39,079.80
Contingency		30-40%	40.00%		\$781,596.00
Escalation Rate (per year)		0.5-2.0%	2.00%		
Design Year (or Estimate Year)			2013		
Construction Year			2013		
<b>SUBTOTAL</b>					<b>\$3,175,234</b>
Anticipated Items	UNIT	QUANTITY	UNIT COST	COST	
Railroad Crossing	EA	0	\$600,000.00	\$0	
Environmental Mitigation		5.00%		\$158,762	
Easements & ROW Acquisition		15.00%		\$476,285.06	
Indirect Costs		PERCENTAGE		COST	
Engineering, Legal/Admin, Coordination		30.00%		\$952,570	
Construction Engineering		15.00%		\$476,285	
<b>TOTAL PROJECT COST</b>					<b>\$5,239,136</b>

## Assumptions:

Improvement are 2-L local street (2-12' lane, 2-6' bike, 2-5' setback sidewalks) L-3696.00.70mi

Grade is relatively flat. Assumes 1.5' average depth of earthwork over new work areas.

Majority of ROW assumed to be dedicated at time of development. One single family home property at S 57th street may need to be acquired for connection.

No walls or bridges assumed

Landscaping and illumination included

SPRINGFIELD TSP - ORDER OF MAGNITUDE ESTIMATE					
<b>PROJECT:</b> R-44 - Daisy Street crossing of Bob Straub Parkway			<b>PREPARED BY:</b> Michael Liebler		<b>DATE:</b> 9/13/2019
<b>DESIGN LEVEL:</b> Preliminary					
<b>KIND OF WORK:</b> Roadway, Earthwork, Drainage, Lighting, Signals, Landscaping			<b>LENGTH (MILE):</b>		<b>SHEET:</b> 1 of 1
NO.	ITEM	UNIT	QUANTITY	UNIT COST	COST
1	Curb, Gutter, Sidewalks & Drainage	Mi.		\$935,700.00	\$0
2	Multi-use Path	Mi.		\$217,900.00	\$0
3	New Roadway Asphalt	Lane-Mi.		\$412,500.00	\$0
4	Overlay Existing Roadway	Lane-Mi.		\$89,400.00	\$0
5	Reconstruct Existing Roadway	Lane-Mi.		\$438,900.00	\$0
6	2-L Roundabout	EA	1	\$852,400.00	\$852,400
7	Interconnect Signal	LS		\$35,000.00	\$0
8	New Signal	EA		\$300,000.00	\$0
9	Signal Removal	EA		\$25,000.00	\$0
10	Earthwork (See Note)	CY	1,950	\$7.50	\$14,625
11	Traffic Calming	5-10%		-	\$0
12	Illumination	Mi.		\$260,000.00	\$0
13	Landscaping	Mi.		\$235,000.00	\$0
14	Bridges	SF		\$250.00	\$0
15	Walls	SF		\$75.00	\$0
<b>SUBTOTAL</b>					<b>\$867,025</b>

	ADDITIONAL CONST. COSTS	SUGGESTED	PERCENTAGE		COST
	Construction Surveying	1.0-2.5%	2.50%		\$21,675.63
	TP & DT	3.0-8.0%	8.00%		\$69,362.00
	Mobilization	8.0-10.0%	10.00%		\$86,702.50
	Erosion Control	0.5-2.0%	2.00%		\$17,340.50
	Contingency	30-40%	40.00%		\$346,810.00
	Escalation Rate (per year)	0.5-2.0%	2.00%		
	Design Year (or Estimate Year)		2013		
	Construction Year		2013		
<b>SUBTOTAL</b>					<b>\$1,408,916</b>

	Anticipated Items	UNIT	QUANTITY	UNIT COST	COST
	Railroad Crossing	EA	0	\$600,000.00	\$0
	Environmental Mitigation		0.00%		\$0
	Easements & ROW Acquisition		25.00%		\$352,228.91
	<b>Indirect Costs</b>		<b>PERCENTAGE</b>		<b>COST</b>
	Engineering, Legal/Admin, Coordination		30.00%		\$422,675
	Construction Engineering		15.00%		\$211,337
<b>TOTAL PROJECT COST</b>					<b>\$2,395,157</b>

## Assumptions

Project is for intersection improvements at Daisy Street and Bob Straub to construct a 2-L roundabout  
Grade at the intersection is flat. 1' average depth earthwork is included for new work areas  
No bridges or walls  
Illumination and landscaping are included in the per unit cost for the roundabout  
Improvements are for the intersection only and do not include approaches more than 150' from the intersection  
ROW impacts are included  
Roundabout designed for instead of signal because signal may not be warranted.

SPRINGFIELD TSP - ORDER OF MAGNITUDE ESTIMATE					
<b>PROJECT:</b> R-46 - Bob Straub Parkway to Mountaingate Drive and Future Local			<b>PREPARED BY:</b> Madeline Klein		<b>DATE:</b> 10/25/2017
<b>DESIGN LEVEL:</b> Preliminary					
<b>KIND OF WORK:</b> Roadway, Earthwork, Drainage, Lighting, Landscaping			<b>LENGTH (MILE):</b> 0.44 mi		<b>SHEET:</b> 1 of 1
NO.	ITEM	UNIT	QUANTITY	UNIT COST	COST
1	Curb, Gutter, Sidewalks & Drainage	Mi.	0.44	\$935,700.00	\$411,708
2	Multi-use Path	Mi.		\$217,900.00	\$0
3	New Roadway Asphalt	Lane-Mi.	1.5	\$412,500.00	\$618,750
4	Overlay Existing Roadway	Lane-Mi.		\$89,400.00	\$0
5	Reconstruct Existing Roadway	Lane-Mi.		\$438,900.00	\$0
6	Intersection Widening	EA		\$76,500.00	\$0
7	1-L Roundabout	EA		\$35,000.00	\$0
8	New Signal	EA		\$300,000.00	\$0
9	Signal Modifications	EA		\$75,000.00	\$0
10	Earthwork (See Note)	CY	17,070	\$7.50	\$128,025
11	Traffic Calming	5-10%		-	\$0
12	Illumination	Mi.	0.44	\$260,000.00	\$114,400
13	Landscaping	Mi.	0.44	\$235,000.00	\$103,400
14	Bridges	SF		\$250.00	\$0
15	Walls	SF		\$75.00	\$0
<b>SUBTOTAL</b>					<b>\$1,376,283</b>

	ADDITIONAL CONST. COSTS	SUGGESTED	PERCENTAGE		COST
	Construction Surveying	1.0-2.5%	2.50%		\$34,407.08
	TP & DT	3.0-8.0%	8.00%		\$110,102.64
	Mobilization	8.0-10.0%	10.00%		\$137,628.30
	Erosion Control	0.5-2.0%	2.00%		\$27,525.66
	Contingency	30-40%	40.00%		\$550,513.20
	Escalation Rate (per year)	0.5-2.0%	2.00%		
	Design Year (or Estimate Year)		2013		
	Construction Year		2013		
<b>SUBTOTAL</b>					<b>\$2,236,460</b>

	Anticipated Items	UNIT	QUANTITY	UNIT COST	COST
	Railroad Crossing	EA	0	\$600,000.00	\$0
	Environmental Mitigation		7.50%		\$167,734
	Easements & ROW Acquisition		37.50%		\$838,672.45
	<b>Indirect Costs</b>		<b>PERCENTAGE</b>		<b>COST</b>
	Engineering, Legal/Admin, Coordination		30.00%		\$670,938
	Construction Engineering		15.00%		\$335,469
<b>TOTAL PROJECT COST</b>					<b>\$4,249,274</b>

## Assumptions:

Earthwork is assumed at 1' average depth over the improvements area  
 Urban collector; 3-L with bike lanes (3-12' lanes, 2-6' bike, 2-6' sidewalk) (including curbs and drainage)  
 60' ROW needed for 1221 LF of the project.  
 20' ROW needed for 660 LF of the project. Serviceable roadway exist.  
 Roadway surfacing assumed asphalt to match existing  
 Lighting included for improvements  
 Landscaping needed for constructing new roadway.  
 Intersection improvements at crossing of W-E and S-N would be a roundabout. No walls or bridges are assumed  
 No impacts to sensitive areas or railroad crossings  
 No structure impact assumed

<b>SPRINGFIELD TSP - ORDER OF MAGNITUDE ESTIMATE</b>					
<b>PROJECT: R-47 - Haul Road - Quartz Ave to UGB</b>			<b>PREPARED BY:</b> Michael Liebler		<b>DATE:</b> 11/6/2018
<b>DESIGN LEVEL:</b> Preliminary			<b>LENGTH (MILE);</b> 1.40 mi		<b>SHEET:</b> 1 of 2
<b>KIND OF WORK:</b> Roadway, Earthwork, Drainage, Lighting					
<b>NO.</b>	<b>ITEM</b>	<b>UNIT</b>	<b>QUANTITY</b>	<b>UNIT COST</b>	<b>COST</b>
1	Curb, Gutter, Sidewalks & Drainage	Mi.		\$935,700.00	\$0
2	Multi-use Path	Mi.		\$217,900.00	\$0
3	New Roadway Asphalt	Lane-Mi.	4.19	\$412,500.00	\$1,728,375
4	Overlay Existing Roadway	Lane-Mi.		\$89,400.00	\$0
5	Reconstruct Existing Roadway	Lane-Mi.		\$438,900.00	\$0
6	Intersection Widening	EA		\$76,500.00	\$0
7	1-L Roundabout	EA		\$35,000.00	\$0
8	New Signal	EA		\$300,000.00	\$0
9	Signal Modifications	EA		\$75,000.00	\$0
10	Earthwork (See Note)	CY	21,800	\$7.50	\$163,500
11	Traffic Calming	5-10%		-	\$0
12	Illumination	Mi.		\$260,000.00	\$0
13	Landscaping	Mi.	1.4	\$235,000.00	\$329,000
14	Bridges	SF		\$250.00	\$0
15	Walls	SF	4425	\$75.00	\$331,875
<b>SUBTOTAL</b>					<b>\$2,552,750</b>
<b>ADDITIONAL CONST. COSTS</b>	<b>SUGGESTED</b>	<b>PERCENTAGE</b>			<b>COST</b>
Construction Surveying	1.0-2.5%	2.50%			\$63,818.75
TP & DT	3.0-8.0%	8.00%			\$204,220.00
Mobilization	8.0-10.0%	10.00%			\$255,275.00
Erosion Control	0.5-2.0%	2.00%			\$51,055.00
Contingency	30-40%	40.00%			\$1,021,100.00
Escalation Rate (per year)	0.5-2.0%	2.00%			
Design Year (or Estimate Year)		2013			
Construction Year		2013			
<b>SUBTOTAL</b>					<b>\$4,148,219</b>
<b>Anticipated Items</b>	<b>UNIT</b>	<b>QUANTITY</b>	<b>UNIT COST</b>	<b>COST</b>	
Railroad Crossing	EA	0	\$600,000.00	\$0	
Environmental Mitigation		5.00%		\$207,411	
Easements & ROW Acquisition		0.00%		\$0.00	
<b>Indirect Costs</b>		<b>PERCENTAGE</b>		<b>COST</b>	
Engineering, Legal/Admin, Coordination		30.00%		\$1,244,466	
Construction Engineering		15.00%		\$622,233	
<b>TOTAL PROJECT COST</b>					<b>\$6,222,328</b>

Assumptions: Next Page

Assumptions:

Project Limits are on the existing Haul Road through the Jasper Narton area from Quartz Avenue south to the UGB line, assumed wallace creek road

Project removes the existing paved surface (which has failed) and constructs a green street section. The section assumes asphalt surfacing and shoulders, no curb or enclosed drainage and parallel swales for drainage.

Sidewalks are not included as a parallel multiuse path is assumed by project PB-46

The roadway width is assumed at 36' (2-12' lanes, 2-6' shoulders)

Landscaping is included

Illumination is excluded

Assume the proposed improvements match the existing roadway grades limiting cut and fill. Assume 1' total depth for earthwork over the roadway surfacing area.

Additional excavation is assumed for the swales at 2' depth and 6' width

The existing roadway is approximately 24' wide. 12' slope earthwork for one side.

Existing geometry assumed to remain. No improvements to curvature or grade assumed.

Existing ROW is 100' wide. No new ROW anticipated

No Bridges

Assume 20% of the length, one side to have 3' average height retaining walls

Assume impacts to sensitive areas.

SPRINGFIELD TSP - ORDER OF MAGNITUDE ESTIMATE					
<b>PROJECT:</b> R-52 - Main Street/48th Street			<b>PREPARED BY:</b> Madeline Klein		<b>DATE:</b> 10/25/2017
<b>DESIGN LEVEL:</b> Preliminary					
<b>KIND OF WORK:</b> Roadway, Earthwork, Drainage, Lighting, Signals, Landscaping			<b>LENGTH (MILE):</b>		<b>SHEET:</b> 1 of 1
NO.	ITEM	UNIT	QUANTITY	UNIT COST	COST
1	Curb, Gutter, Sidewalks & Drainage	Mi.		\$935,700.00	\$0
2	Multi-use Path	Mi.		\$217,900.00	\$0
3	New Roadway Asphalt	Lane-Mi.		\$412,500.00	\$0
4	Overlay Existing Roadway	Lane-Mi.		\$89,400.00	\$0
5	Reconstruct Existing Roadway	Lane-Mi.		\$438,900.00	\$0
6	2-L Roundabout	EA	1	\$852,400.00	\$852,400
7	Interconnect Signal	LS		\$35,000.00	\$0
8	New Signal	EA		\$300,000.00	\$0
9	Signal Removal	EA		\$25,000.00	\$0
10	Earthwork (See Note)	CY	1,950	\$7.50	\$14,625
11	Traffic Calming	5-10%		-	\$0
12	Illumination	Mi.		\$260,000.00	\$0
13	Landscaping	Mi.		\$235,000.00	\$0
14	Bridges	SF		\$250.00	\$0
15	Walls	SF		\$75.00	\$0
<b>SUBTOTAL</b>					<b>\$867,025</b>

	ADDITIONAL CONST. COSTS	SUGGESTED	PERCENTAGE		COST
	Construction Surveying	1.0-2.5%	2.50%		\$21,675.63
	TP & DT	3.0-8.0%	8.00%		\$69,362.00
	Mobilization	8.0-10.0%	10.00%		\$86,702.50
	Erosion Control	0.5-2.0%	2.00%		\$17,340.50
	Contingency	30-40%	40.00%		\$346,810.00
	Escalation Rate (per year)	0.5-2.0%	2.00%		
	Design Year (or Estimate Year)		2013		
	Construction Year		2013		
<b>SUBTOTAL</b>					<b>\$1,408,916</b>

	Anticipated Items	UNIT	QUANTITY	UNIT COST	COST
	Railroad Crossing	EA	0	\$600,000.00	\$0
	Environmental Mitigation		0.00%		\$0
	Easements & ROW Acquisition		25.00%		\$352,228.91
	Indirect Costs		PERCENTAGE		COST
	Engineering, Legal/Admin, Coordination		30.00%		\$422,675
	Construction Engineering		15.00%		\$211,337
<b>TOTAL PROJECT COST</b>					<b>\$2,395,157</b>

#### Assumptions

- Project is for intersection improvements at Main Street and 48th Street to construct a 2-L roundabout
- Grade at the intersection is flat. 1' average depth earthwork is included for new work areas
- No bridges or walls
- Illumination and landscaping are included in the per unit cost for the roundabout
- Improvements are for the intersection only and do not include approaches more than 150' from the intersection
- ROW impacts are included
- Roundabout designed for instead of signal because signal may not be warranted.

<b>SPRINGFIELD TSP - ORDER OF MAGNITUDE ESTIMATE</b>					
<b>PROJECT:</b> US-1 - Game Farm Road South - Mallard Avenue to Harlow Road			<b>PREPARED BY:</b> Sophie McGinley		<b>DATE:</b> 11/1/2017
<b>DESIGN LEVEL:</b> Preliminary			<b>LENGTH (MILE)</b> 0.48		<b>SHEET:</b> 1 of 1
<b>KIND OF WORK:</b> Roadway, Earthwork, Drainage, Lighting					
NO.	ITEM	UNIT	QUANTITY	UNIT COST	COST
1	Curb, Gutter, Sidewalks & Drainage	Mi.	0.41	\$935,700.00	\$383,637
2	Multi-use Path	Mi.		\$173,700.00	\$0
3	New Roadway Asphalt	Lane-Mi.	0.46	\$412,500.00	\$189,750
4	Overlay Existing Roadway	Lane-Mi.	1.14	\$89,400.00	\$101,916
5	Reconstruct Existing Roadway	Lane-Mi.		\$438,900.00	\$0
6	Intersection Widening	EA		\$76,500.00	\$0
7	1-L Roundabout	EA		\$35,000.00	\$0
8	New Signal	EA		\$300,000.00	\$0
9	Signal Modifications	EA		\$75,000.00	\$0
10	Earthwork (See Note)	CY	2,410	\$7.50	\$18,075
11	Traffic Calming	5-10%		-	\$0
12	Illumination	Mi.	0.48	\$260,000.00	\$124,800
13	Landscaping	Mi.	0.48	\$235,000.00	\$112,800
14	Bridges	SF		\$250.00	\$0
15	Walls	SF		\$75.00	\$0
<b>SUBTOTAL</b>					<b>\$930,978</b>

	ADDITIONAL CONST. COSTS	SUGGESTED	PERCENTAGE		COST
	Construction Surveying	1.0-2.5%	2.50%		\$23,274.45
	TP & DT	3.0-8.0%	8.00%		\$74,478.24
	Mobilization	8.0-10.0%	10.00%		\$93,097.80
	Erosion Control	0.5-2.0%	2.00%		\$18,619.56
	Contingency	30-40%	40.00%		\$372,391.20
	Escalation Rate (per year)	0.5-2.0%	2.00%		
	Design Year (or Estimate Year)		2013		
	Construction Year		0		
<b>SUBTOTAL</b>					<b>\$1,512,839</b>

	Anticipated Items	UNIT	QUANTITY	UNIT COST	COST
	Railroad Crossing	EA	0	\$600,000.00	\$0
	Environmental Mitigation		0.00%		\$0
	Easements & ROW Acquisition		0.00%		\$0.00
	Indirect Costs		PERCENTAGE		COST
	Engineering, Legal/Admin, Coordination		30.00%		\$453,852
	Construction Engineering		15.00%		\$226,926
<b>TOTAL PROJECT COST</b>					<b>\$2,193,617</b>

## Assumptions

Urban collector cross section; 2-12' lanes, 2-6' bike, 2-6' sidewalk (curb and drainage included) Length of improvements is measured  
2,545 LF from Mallard Avenue to Harlow Road  
Existing ROW is 50 ft, Proposed ROW is 56' Signals and bridges are not included  
No impacts to sensitive areas or railroad crossings  
36 ft wide road exists for 730 ft north of Harlow Road and 25ft wide road exists north to Mallard Ave for 1815 ft which is in serviceable condition Landscaping and Illumination included No structures assumed to be impacted

SPRINGFIELD TSP - ORDER OF MAGNITUDE ESTIMATE					
<b>PROJECT:</b> US-3 - Aspen Street from Blvd Centennial West D Street			<b>PREPARED BY:</b> Sophie McGinley		<b>DATE:</b> 11/1/2017
<b>DESIGN LEVEL:</b> Preliminary			<b>LENGTH (MILE)</b> 0.45		<b>SHEET:</b> 1 of 1
<b>KIND OF WORK:</b> Roadway, Earthwork, Drainage, Lighting, Landscaping					
NO.	ITEM	UNIT	QUANTITY	UNIT COST	COST
1	Curb, Gutter, Sidewalks & Drainage	Mi.	0.45	\$935,700.00	\$421,065
2	Multi-use Path	Mi.		\$173,700.00	\$0
3	New Roadway Asphalt	Lane-Mi.	0.45	\$412,500.00	\$185,625
4	Overlay Existing Roadway	Lane-Mi.	0.9	\$89,400.00	\$83,142
5	Reconstruct Existing Roadway	Lane-Mi.		\$438,900.00	\$0
6	Intersection Widening	EA		\$76,500.00	\$0
7	1-L Roundabout	EA		\$35,000.00	\$0
8	New Signal	EA		\$300,000.00	\$0
9	Signal Modifications	EA		\$75,000.00	\$0
10	Earthwork (See Note)	CY		\$7.50	\$0
11	Traffic Calming	5-10%		-	\$0
12	Illumination	Mi.	0.45	\$260,000.00	\$117,000
13	Landscaping	Mi.	0.45	\$235,000.00	\$105,750
14	Bridges	SF		\$250.00	\$0
15	Walls	SF		\$75.00	\$0
<b>SUBTOTAL</b>					<b>\$912,582</b>

	ADDITIONAL CONST. COSTS	SUGGESTED	PERCENTAGE		COST
	Construction Surveying	1.0-2.5%	2.50%		\$22,814.55
	TP & DT	3.0-8.0%	8.00%		\$73,006.56
	Mobilization	8.0-10.0%	10.00%		\$91,258.20
	Erosion Control	0.5-2.0%	2.00%		\$18,251.64
	Contingency	30-40%	40.00%		\$365,032.80
	Escalation Rate (per year)	0.5-2.0%	2.00%		
	Design Year (or Estimate Year)		2013		
	Construction Year		0		
<b>SUBTOTAL</b>					<b>\$1,482,946</b>

	Anticipated Items	UNIT	QUANTITY	UNIT COST	COST
	Railroad Crossing	EA	0	\$600,000.00	\$0
	Environmental Mitigation		0.00%		\$0
	Easements & ROW Acquisition		0.00%		\$0.00
	Indirect Costs		PERCENTAGE		COST
	Engineering, Legal/Admin, Coordination		30.00%		\$444,884
	Construction Engineering		15.00%		\$222,442
<b>TOTAL PROJECT COST</b>					<b>\$2,150,271</b>

## Assumptions

Urban collector cross section; 2-12' lanes, 2-6' bike, 2-6' sidewalk (Curb and drainage included) Length of improvements measured at 2350 LF  
Existing ROW is 60 ft. No additional ROW needed  
Signals and bridges are not included  
Lighting and Landscaping included for improvements. No impacts to sensitive areas or railroad crossings.  
Serviceable roadway exits however it needs overlay

SPRINGFIELD TSP - ORDER OF MAGNITUDE ESTIMATE					
<b>PROJECT:</b> US-8 - 35th Street - Olympic Street to Commercial Avenue			<b>PREPARED BY:</b> Michael Liebler		<b>DATE:</b> 11/6/2018
<b>DESIGN LEVEL:</b> Preliminary			<b>LENGTH (MILE);</b> 0.45 mi		<b>SHEET:</b> 1 of 1
<b>KIND OF WORK:</b> Roadway, Earthwork, Drainage, Lighting					
NO.	ITEM	UNIT	QUANTITY	UNIT COST	COST
1	Curb, Gutter, Sidewalks & Drainage	Mi.	0.45	\$935,700.00	\$421,065
2	Multi-use Path	Mi.		\$217,900.00	\$0
3	New Roadway Asphalt	Lane-Mi.	1.05	\$412,500.00	\$433,125
4	Overlay Existing Roadway	Lane-Mi.	0.75	\$89,400.00	\$67,050
5	Reconstruct Existing Roadway	Lane-Mi.		\$438,900.00	\$0
6	Intersection Widening	EA	1	\$76,500.00	\$76,500
7	1-L Roundabout	EA		\$35,000.00	\$0
8	New Signal	EA		\$300,000.00	\$0
9	Signal Modifications	EA		\$75,000.00	\$0
10	Earthwork (See Note)	CY	4,244	\$7.50	\$31,830
11	Traffic Calming	5-10%		-	\$0
12	Illumination	Mi.	0.45	\$260,000.00	\$117,000
13	Landscaping	Mi.	0.45	\$235,000.00	\$105,750
14	Bridges	SF		\$250.00	\$0
15	Walls	SF		\$75.00	\$0
<b>SUBTOTAL</b>					<b>\$1,252,320</b>
ADDITIONAL CONST. COSTS		SUGGESTED	PERCENTAGE	COST	
Construction Surveying		1.0-2.5%	2.50%	\$31,308.00	
TP & DT		3.0-8.0%	8.00%	\$100,185.60	
Mobilization		8.0-10.0%	10.00%	\$125,232.00	
Erosion Control		0.5-2.0%	2.00%	\$25,046.40	
Contingency		30-40%	40.00%	\$500,928.00	
Escalation Rate (per year)		0.5-2.0%	2.00%		
Design Year (or Estimate Year)			2013		
Construction Year			2013		
<b>SUBTOTAL</b>					<b>\$2,035,020</b>
Anticipated Items		UNIT	QUANTITY	UNIT COST	COST
Railroad Crossing		EA	1	\$600,000.00	\$600,000
Environmental Mitigation			0.00%		\$0
Easements & ROW Acquisition			0.00%		\$0.00
Indirect Costs			PERCENTAGE	COST	
Engineering, Legal/Admin, Coordination			30.00%		\$610,506
Construction Engineering			15.00%		\$305,253
<b>TOTAL PROJECT COST</b>					<b>\$3,550,779</b>

## Assumptions:

Improvement are 3-L urban collector street (3-12' lane, 2-6' bike, 2-5' setback sidewalks) L-2376.00.45mi

Existing ROW is 80 feet

20 foot wide asphalt road exists

Signals and bridges are not included

Project includes one rail crossing

Roadway surface assumed to match existing asphalt

Earthwork assumed to be 1' of depth for only new roadway area and setback sidewalk

SPRINGFIELD TSP - ORDER OF MAGNITUDE ESTIMATE					
PROJECT: US-9 - Commercial Avenue - 35th to 42nd Street			PREPARED BY: Michael Liebler		DATE: 11/6/2018
DESIGN LEVEL: Preliminary			LENGTH (MILE); 0.79 mi		SHEET: 1 of 1
KIND OF WORK: Roadway, Earthwork, Drainage, Lighting					
NO.	ITEM	UNIT	QUANTITY	UNIT COST	COST
1	Curb, Gutter, Sidewalks & Drainage	Mi.	0.7	\$935,700.00	\$654,990
2	Multi-use Path	Mi.		\$217,900.00	\$0
3	New Roadway Asphalt	Lane-Mi.	1.63	\$412,500.00	\$672,375
4	Overlay Existing Roadway	Lane-Mi.	1.17	\$89,400.00	\$104,598
5	Reconstruct Existing Roadway	Lane-Mi.		\$438,900.00	\$0
6	Intersection Widening	EA	1	\$76,500.00	\$76,500
7	1-L Roundabout	EA		\$35,000.00	\$0
8	New Signal	EA		\$300,000.00	\$0
9	Signal Modifications	EA		\$75,000.00	\$0
10	Earthwork (See Note)	CY	6,570	\$7.50	\$49,275
11	Traffic Calming	5-10%		-	\$0
12	Illumination	Mi.	0.7	\$260,000.00	\$182,000
13	Landscaping	Mi.	0.7	\$235,000.00	\$164,500
14	Bridges	SF		\$250.00	\$0
15	Walls	SF		\$75.00	\$0
<b>SUBTOTAL</b>					<b>\$1,904,238</b>
ADDITIONAL CONST. COSTS		SUGGESTED	PERCENTAGE		COST
Construction Surveying		1.0-2.5%	2.50%		\$47,605.95
TP & DT		3.0-8.0%	8.00%		\$152,339.04
Mobilization		8.0-10.0%	10.00%		\$190,423.80
Erosion Control		0.5-2.0%	2.00%		\$38,084.76
Contingency		30-40%	40.00%		\$761,695.20
Escalation Rate (per year)		0.5-2.0%	2.00%		
Design Year (or Estimate Year)			2013		
Construction Year			2013		
<b>SUBTOTAL</b>					<b>\$3,094,387</b>
Anticipated Items		UNIT	QUANTITY	UNIT COST	COST
Railroad Crossing		EA	0	\$600,000.00	\$0
Environmental Mitigation			0.00%		\$0
Easements & ROW Acquisition			0.00%		\$0.00
Indirect Costs			PERCENTAGE		COST
Engineering, Legal/Admin, Coordination			30.00%		\$928,316
Construction Engineering			15.00%		\$464,158
<b>TOTAL PROJECT COST</b>					<b>\$4,486,861</b>

## Assumptions:

Improvement are 3-L urban collector street (3-12' lane, 2-6' bike, 2-5' setback sidewalks) L-3696.00.70mi  
Existing ROW is 80 feet transitioning to 70 feet .09 miles before 42nd intersection  
20 foot wide asphalt road exists  
Signals and bridges are not included  
.09 Miles of Roadway up to standard at the 42nd intersection heading west only requiring re-striping.  
Roadway surface assumed to match existing asphalt  
Earthwork assumed to be 1' of depth for only new roadway area and setback sidewalk

SPRINGFIELD TSP - ORDER OF MAGNITUDE ESTIMATE					
<b>PROJECT:</b> US-10 - 36th Street - Comercial Avenue to Main Street			<b>PREPARED BY:</b> Michael Liebler		<b>DATE:</b> 11/6/2018
<b>DESIGN LEVEL:</b> Preliminary					
<b>KIND OF WORK:</b> Roadway, Earthwork, Drainage, Lighting			<b>LENGTH (MILE);</b> 0.47 mi		<b>SHEET:</b> 1 of 1
NO.	ITEM	UNIT	QUANTITY	UNIT COST	COST
1	Curb, Gutter, Sidewalks & Drainage	Mi.	0.47	\$935,700.00	\$439,779
2	Multi-use Path	Mi.		\$217,900.00	\$0
3	New Roadway Asphalt	Lane-Mi.	0.47	\$412,500.00	\$193,875
4	Overlay Existing Roadway	Lane-Mi.	1.41	\$89,400.00	\$126,054
5	Reconstruct Existing Roadway	Lane-Mi.		\$438,900.00	\$0
6	Intersection Widening	EA		\$76,500.00	\$0
7	1-L Roundabout	EA		\$350,000.00	\$0
8	New Signal	EA		\$300,000.00	\$0
9	Signal Modifications	EA		\$75,000.00	\$0
10	Earthwork (See Note)	CY	2,012	\$7.50	\$15,090
11	Traffic Calming	5-10%		-	\$0
12	Illumination	Mi.	0.47	\$260,000.00	\$122,200
13	Landscaping	Mi.	0.47	\$235,000.00	\$110,450
14	Bridges	SF		\$250.00	\$0
15	Walls	SF		\$75.00	\$0
<b>SUBTOTAL</b>					<b>\$1,007,448</b>
ADDITIONAL CONST. COSTS		SUGGESTED	PERCENTAGE	COST	
Construction Surveying		1.0-2.5%	2.50%	\$25,186.20	
TP & DT		3.0-8.0%	8.00%	\$80,595.84	
Mobilization		8.0-10.0%	10.00%	\$100,744.80	
Erosion Control		0.5-2.0%	2.00%	\$20,148.96	
Contingency		30-40%	40.00%	\$402,979.20	
Escalation Rate (per year)		0.5-2.0%	2.00%		
Design Year (or Estimate Year)			2013		
Construction Year			2013		
<b>SUBTOTAL</b>					<b>\$1,637,103</b>
Anticipated Items		UNIT	QUANTITY	UNIT COST	COST
Railroad Crossing		EA	0	\$600,000.00	\$0
Environmental Mitigation			0.00%		\$0
Easements & ROW Acquisition			40.00%		\$654,841.20
Indirect Costs			PERCENTAGE	COST	
Engineering, Legal/Admin, Coordination			30.00%		\$491,131
Construction Engineering			15.00%		\$245,565
<b>TOTAL PROJECT COST</b>					<b>\$3,028,641</b>

## Assumptions:

Improvement are 3-L urban collector street (3-12' lane, 2-6' bikelanes, 2-5' sidewalks) L-2470.00.47mi

Existing ROW is 50 feet

36 foot wide asphalt road exists with curbside sidewalk.

Signals and bridges are not included

Sidewalk not setback to minimize required ROW aquisition.

Roadway surface assumed to match existing asphalt and overlaid

Earthwork assumed to be 1' of depth for only new roadway area and sidewalk

**SPRINGFIELD TSP - ORDER OF MAGNITUDE ESTIMATE**

<b>PROJECT: US-16 - 48th Street - Main Street to G Street</b>			<b>PREPARED BY:</b> Sophie McGinley		<b>DATE:</b> 11/1/2017
<b>DESIGN LEVEL:</b> Preliminary			<b>LENGTH (MILE)</b> 0.48		<b>SHEET:</b> 1 of 1
<b>KIND OF WORK:</b> Roadway, Earthwork, Drainage, Lighting					
<b>NO.</b>	<b>ITEM</b>	<b>UNIT</b>	<b>QUANTITY</b>	<b>UNIT COST</b>	<b>COST</b>
1	Curb, Gutter, Sidewalks & Drainage	Mi.	0	\$935,700.00	\$0
2	Multi-use Path	Mi.		\$173,700.00	\$0
3	New Roadway Asphalt	Lane-Mi.	0	\$412,500.00	\$0
4	Overlay Existing Roadway	Lane-Mi.	0.48	\$89,400.00	\$42,912
5	Reconstruct Existing Roadway	Lane-Mi.	0.48	\$438,900.00	\$210,672
6	Intersection Widening	EA		\$76,500.00	\$0
7	1-L Roundabout	EA		\$35,000.00	\$0
8	New Signal	EA		\$300,000.00	\$0
9	Signal Modifications	EA		\$75,000.00	\$0
10	Earthwork (See Note)	CY	0	\$7.50	\$0
11	Traffic Calming	5-10%		-	\$0
12	Illumination	Mi.		\$260,000.00	\$0
13	Landscaping	Mi.	0	\$235,000.00	\$0
14	Bridges	SF		\$250.00	\$0
15	Walls	SF		\$75.00	\$0
<b>SUBTOTAL</b>					<b>\$253,584</b>

	<b>ADDITIONAL CONST. COSTS</b>	<b>SUGGESTED</b>	<b>PERCENTAGE</b>		<b>COST</b>
	Construction Surveying	1.0-2.5%	2.50%		\$6,339.60
	TP & DT	3.0-8.0%	8.00%		\$20,286.72
	Mobilization	8.0-10.0%	10.00%		\$25,358.40
	Erosion Control	0.5-2.0%	2.00%		\$5,071.68
	Contingency	30-40%	40.00%		\$101,433.60
	Escalation Rate (per year)	0.5-2.0%	2.00%		
	Design Year (or Estimate Year)		2013		
	Construction Year		0		
<b>SUBTOTAL</b>					<b>\$412,074</b>

	<b>Anticipated Items</b>	<b>UNIT</b>	<b>QUANTITY</b>	<b>UNIT COST</b>	<b>COST</b>
	Railroad Crossing	EA	0	\$600,000.00	\$0
	Environmental Mitigation		0.00%		\$0
	Easements & ROW Acquisition		0.00%		\$0.00
	<b>Indirect Costs</b>		<b>PERCENTAGE</b>		<b>COST</b>
	Engineering, Legal/Admin, Coordination		30.00%		\$123,622
	Construction Engineering		15.00%		\$61,811
<b>TOTAL PROJECT COST</b>					<b>\$597,507</b>

## Assumptions:

- Improvements for urban facility, 3-L (2-12' lanes)
- Bike and Ped elements included in PB-56
- No additional ROW needed
- lighting included but landscape assumed to be included in PB-56

SPRINGFIELD TSP - ORDER OF MAGNITUDE ESTIMATE					
<b>PROJECT:</b> US-17 - G Street - 48th Street to 52nd Street			<b>PREPARED BY:</b> Sophie McGinley		<b>DATE:</b> 11/1/2017
<b>DESIGN LEVEL:</b> Preliminary					
<b>KIND OF WORK:</b> Roadway, Earthwork, Drainage, Lighting			<b>LENGTH (MILE)</b> 0.39		<b>SHEET:</b> 1 of 1
NO.	ITEM	UNIT	QUANTITY	UNIT COST	COST
1	Curb, Gutter, Sidewalks & Drainage	Mi.	0	\$935,700.00	\$0
2	Multi-use Path	Mi.		\$173,700.00	\$0
3	New Roadway Asphalt	Lane-Mi.	0	\$412,500.00	\$0
4	Overlay Existing Roadway	Lane-Mi.	0.78	\$89,400.00	\$69,732
5	Reconstruct Existing Roadway	Lane-Mi.	0.2	\$438,900.00	\$87,780
6	Intersection Widening	EA		\$76,500.00	\$0
7	1-L Roundabout	EA		\$35,000.00	\$0
8	New Signal	EA		\$300,000.00	\$0
9	Signal Modifications	EA		\$75,000.00	\$0
10	Earthwork (See Note)	CY	0	\$7.50	\$0
11	Traffic Calming	5-10%		-	\$0
12	Illumination	Mi.		\$260,000.00	\$0
13	Landscaping	Mi.	0	\$235,000.00	\$0
14	Bridges	SF		\$250.00	\$0
15	Walls	SF		\$75.00	\$0
<b>SUBTOTAL</b>					<b>\$157,512</b>

	ADDITIONAL CONST. COSTS	SUGGESTED	PERCENTAGE		COST
	Construction Surveying	1.0-2.5%	2.50%		\$3,937.80
	TP & DT	3.0-8.0%	8.00%		\$12,600.96
	Mobilization	8.0-10.0%	10.00%		\$15,751.20
	Erosion Control	0.5-2.0%	2.00%		\$3,150.24
	Contingency	30-40%	40.00%		\$63,004.80
	Escalation Rate (per year)	0.5-2.0%	2.00%		
	Design Year (or Estimate Year)		2013		
	Construction Year		0		
<b>SUBTOTAL</b>					<b>\$255,957</b>

	Anticipated Items	UNIT	QUANTITY	UNIT COST	COST
	Railroad Crossing	EA	0	\$600,000.00	\$0
	Environmental Mitigation		0.00%		\$0
	Easements & ROW Acquisition		0.00%		\$0.00
	Indirect Costs		PERCENTAGE		COST
	Engineering, Legal/Admin, Coordination		30.00%		\$76,787
	Construction Engineering		15.00%		\$38,394
<b>TOTAL PROJECT COST</b>					<b>\$371,138</b>

## Assumptions:

- Improvements for urban facility, 3-L (2-12' lanes)
- Bike and Ped elements included in PB-56
- No additional ROW needed
- lighting included but landscape assumed to be included in PB-56

SPRINGFIELD TSP - ORDER OF MAGNITUDE ESTIMATE					
<b>PROJECT:</b> US-18 - 52nd Street - OR 126E to G Street			<b>PREPARED BY:</b> Sophie McGinley		<b>DATE:</b> 11/1/2017
<b>DESIGN LEVEL:</b> Preliminary					
<b>KIND OF WORK:</b> Roadway, Earthwork, Drainage, Lighting			<b>LENGTH (MILE)</b> 0.2		<b>SHEET:</b> 1 of 1
NO.	ITEM	UNIT	QUANTITY	UNIT COST	COST
1	Curb, Gutter, Sidewalks & Drainage	Mi.		\$935,700.00	\$0
2	Multi-use Path	Mi.		\$173,700.00	\$0
3	New Roadway Asphalt	Lane-Mi.		\$412,500.00	\$0
4	Overlay Existing Roadway	Lane-Mi.	0.2	\$89,400.00	\$17,880
5	Reconstruct Existing Roadway	Lane-Mi.	0.2	\$438,900.00	\$87,780
6	Intersection Widening	EA		\$76,500.00	\$0
7	1-L Roundabout	EA		\$35,000.00	\$0
8	New Signal	EA		\$300,000.00	\$0
9	Signal Modifications	EA		\$75,000.00	\$0
10	Earthwork (See Note)	CY		\$7.50	\$0
11	Traffic Calming	5-10%		-	\$0
12	Illumination	Mi.		\$260,000.00	\$0
13	Landscaping	Mi.		\$235,000.00	\$0
14	Bridges	SF		\$250.00	\$0
15	Walls	SF		\$75.00	\$0
<b>SUBTOTAL</b>					<b>\$105,660</b>

	ADDITIONAL CONST. COSTS	SUGGESTED	PERCENTAGE		COST
	Construction Surveying	1.0-2.5%	2.50%		\$2,641.50
	TP & DT	3.0-8.0%	8.00%		\$8,452.80
	Mobilization	8.0-10.0%	10.00%		\$10,566.00
	Erosion Control	0.5-2.0%	2.00%		\$2,113.20
	Contingency	30-40%	40.00%		\$42,264.00
	Escalation Rate (per year)	0.5-2.0%	2.00%		
	Design Year (or Estimate Year)		2013		
	Construction Year		0		
<b>SUBTOTAL</b>					<b>\$171,698</b>

	Anticipated Items	UNIT	QUANTITY	UNIT COST	COST
	Railroad Crossing	EA	0	\$600,000.00	\$0
	Environmental Mitigation		0.00%		\$0
	Easements & ROW Acquisition		0.00%		\$0.00
	Indirect Costs		PERCENTAGE		COST
	Engineering, Legal/Admin, Coordination		30.00%		\$51,509
	Construction Engineering		15.00%		\$25,755
<b>TOTAL PROJECT COST</b>					<b>\$248,961</b>

## Assumptions:

- Improvements for urban facility, 3-L (2-12' lanes)
- Bike and Ped elements included in PB-56
- No additional ROW needed
- lighting included but landscape assumed to be included in PB-56