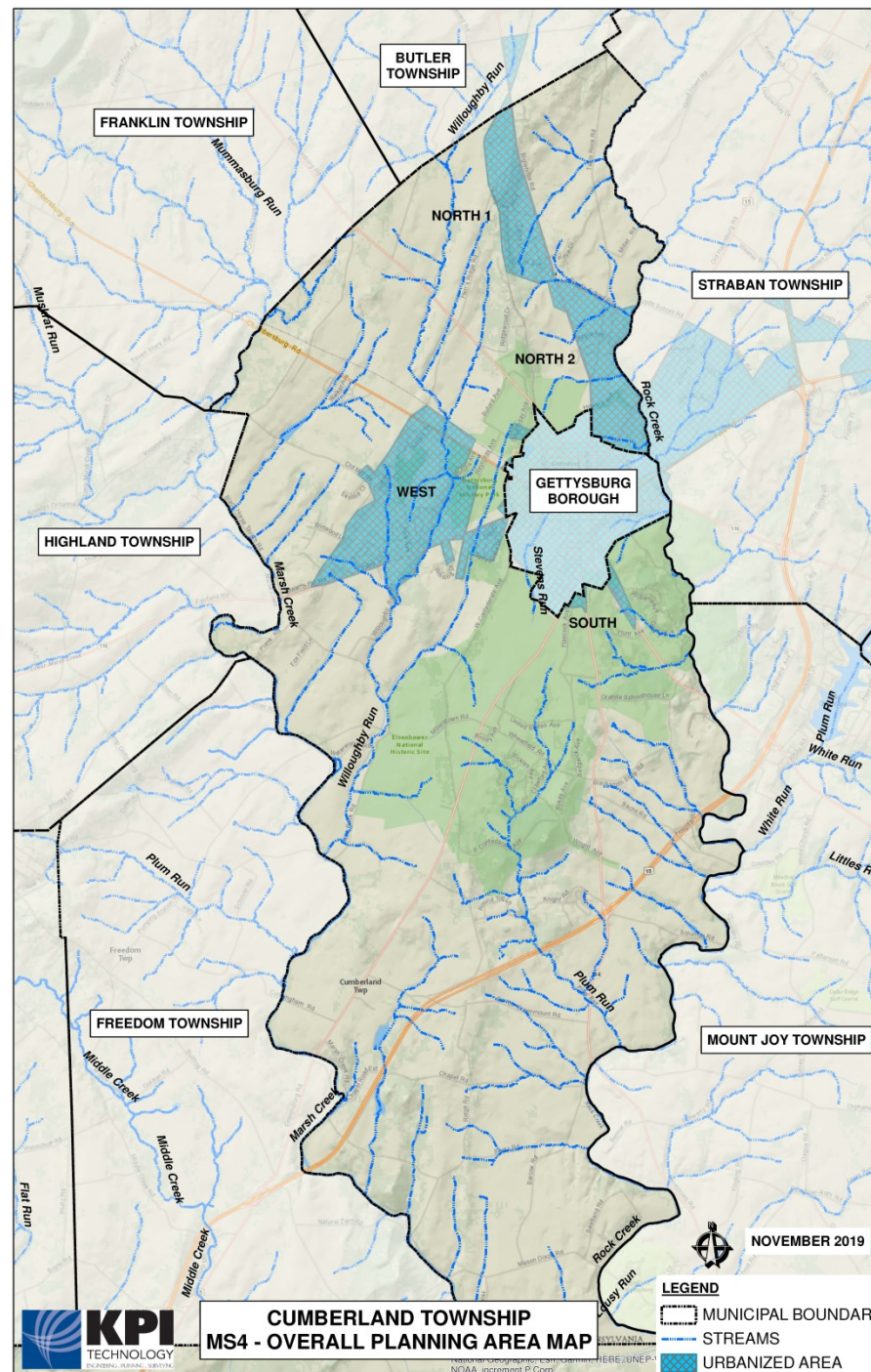


The background is a solid blue color with decorative wavy lines in shades of blue and teal at the top.

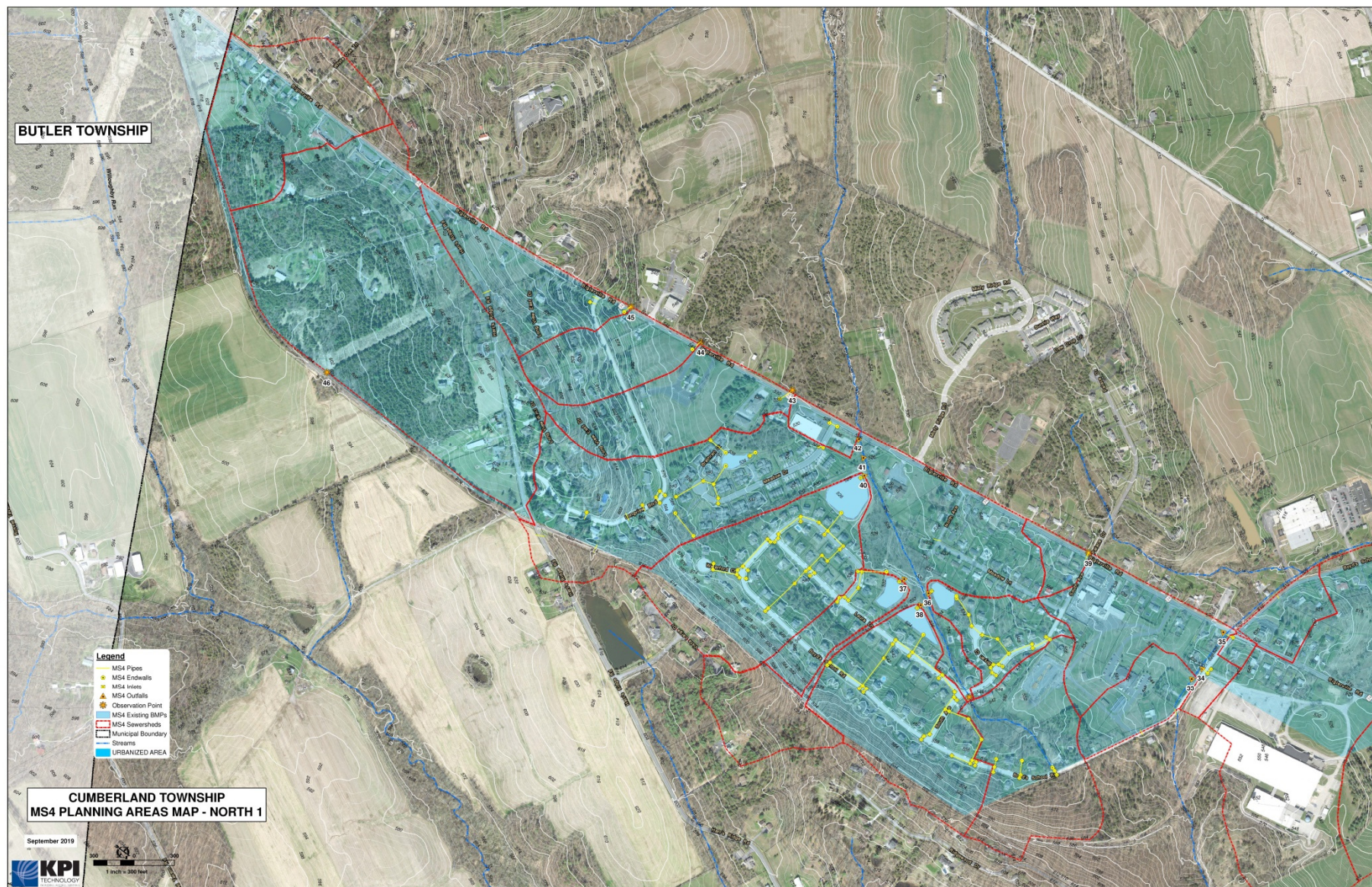
Cumberland Township Municipal Separate Storm Sewer System (MS4) Township Supervisors Workshop

Public Meeting
May 25, 2021

Mapping



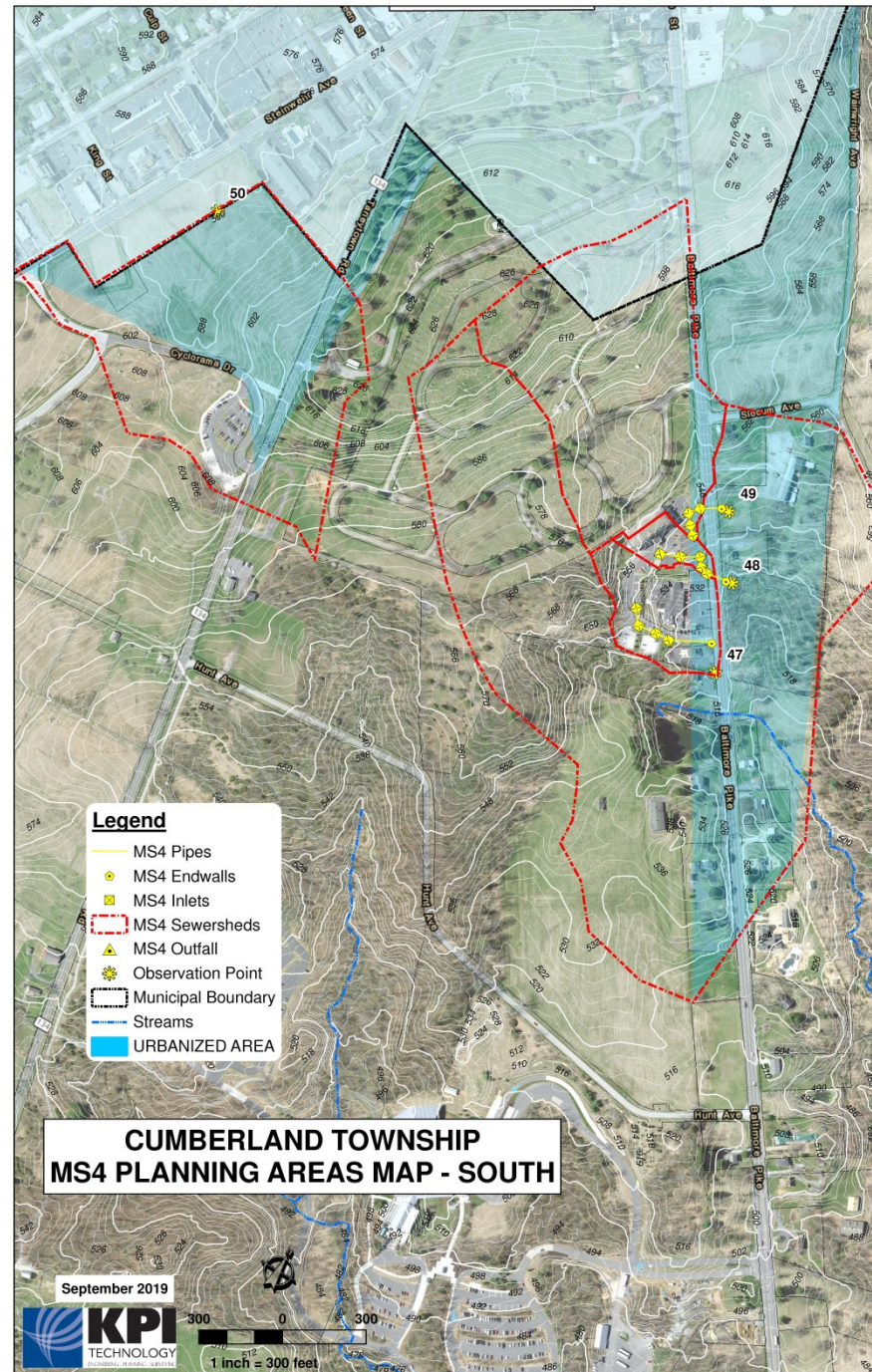
Mapping – North 1



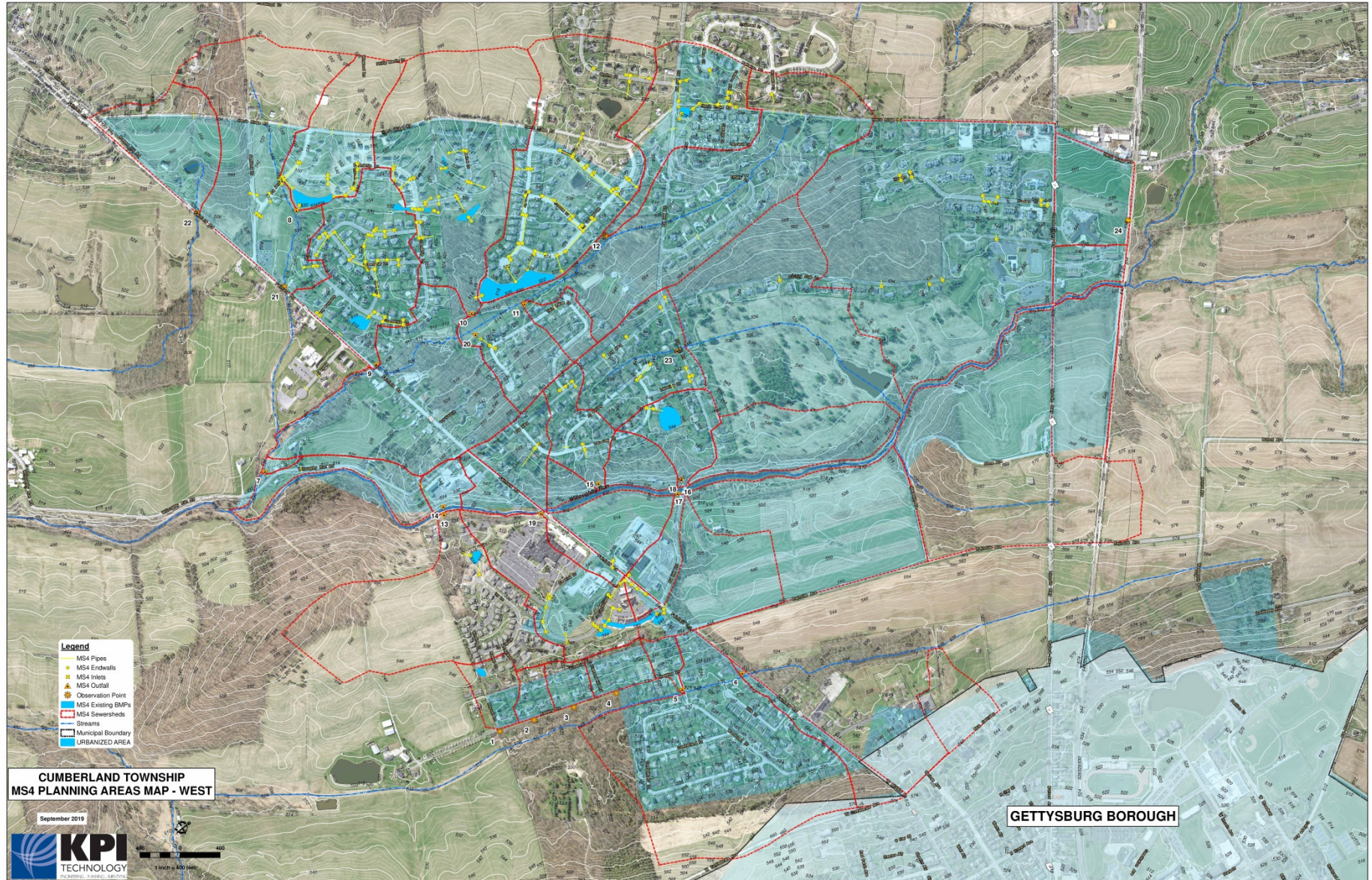
Mapping – North 2



Mapping – South

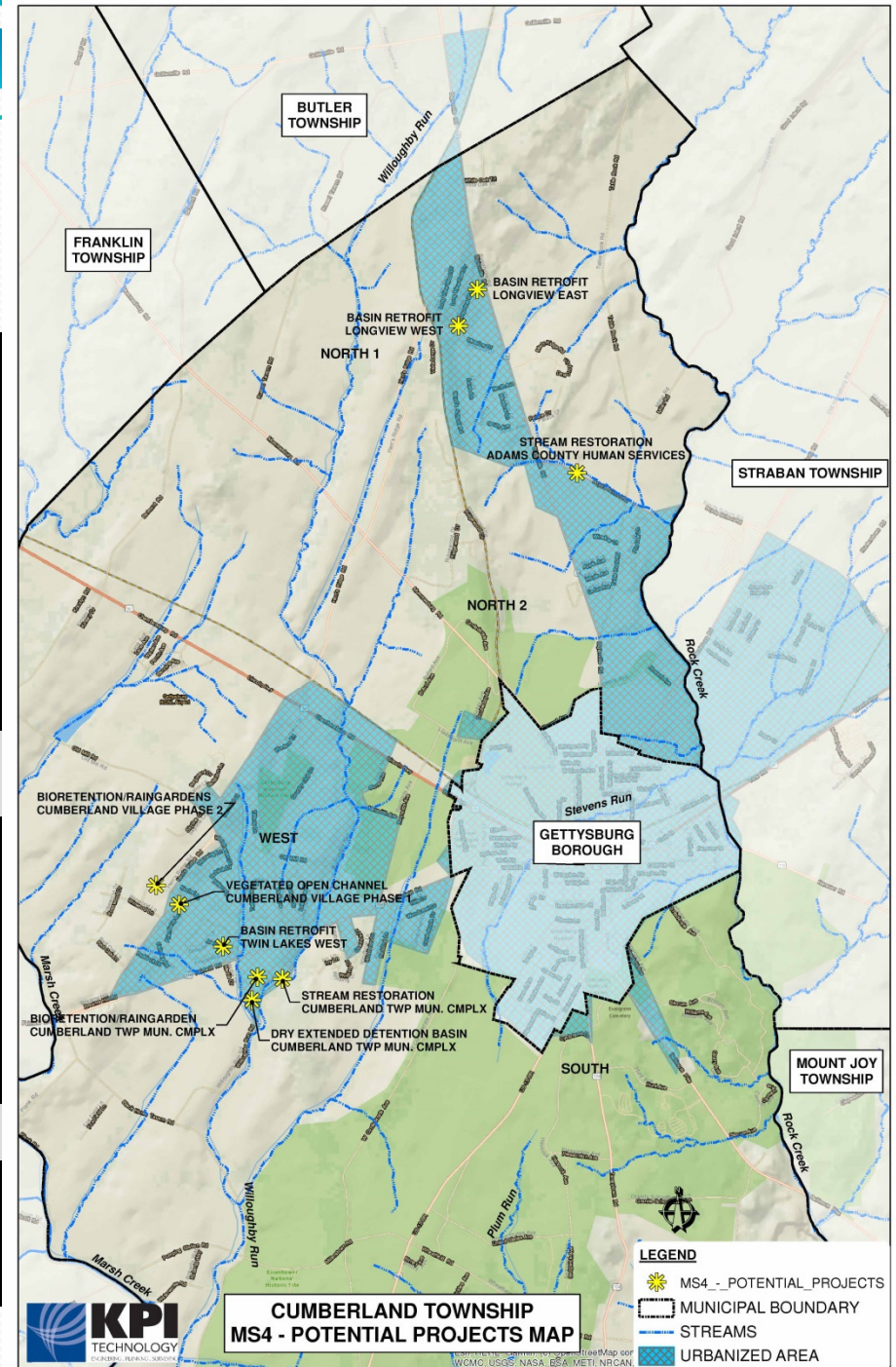


Mapping – West



Proposed Project Locations

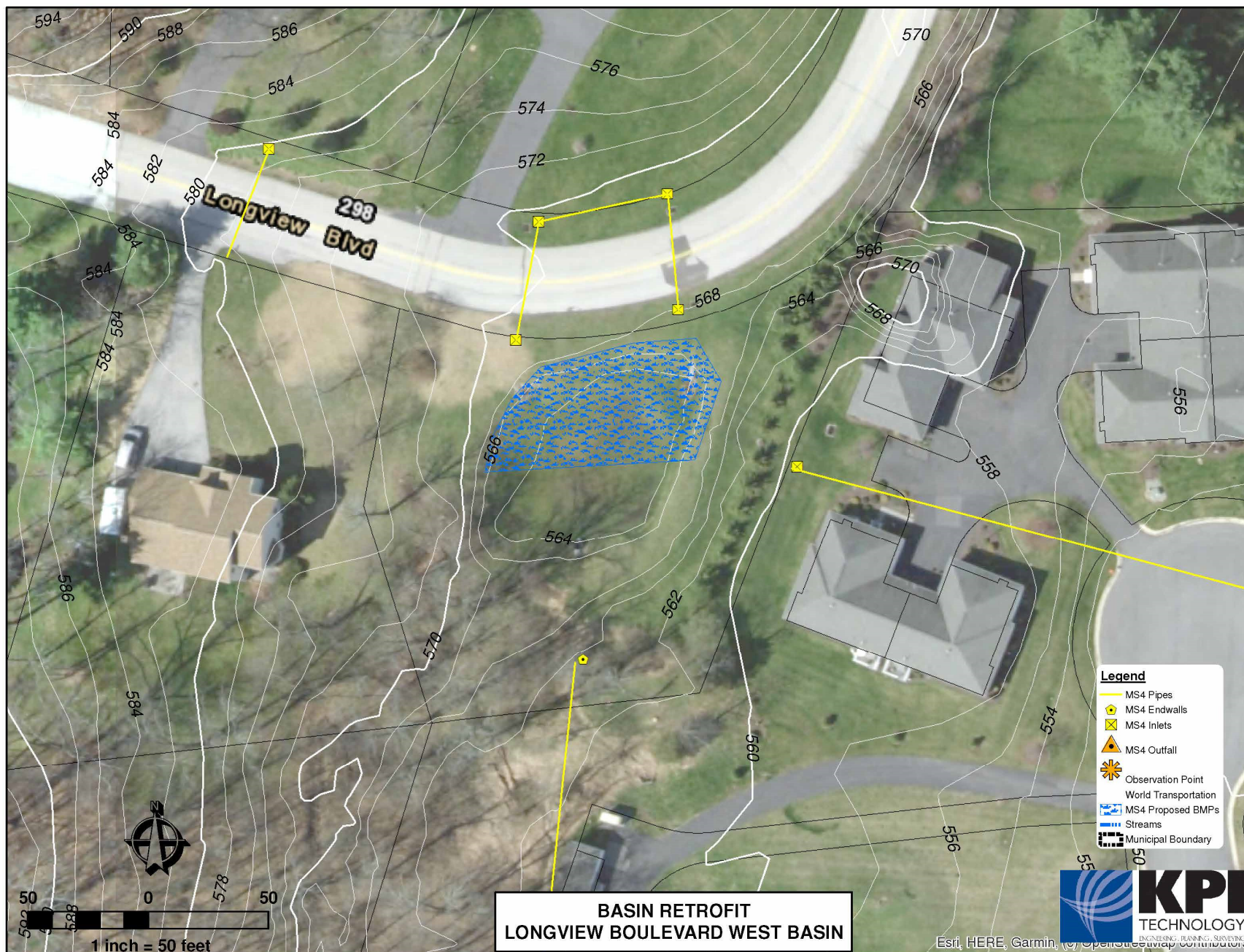
Marsh Creek Watershed			
45,822 lb/yr	required sediment reduction		
Project	Achieved Sediment Reduction (lb/yr)	% Total Required Reduction	Estimated Construction Cost
Basin Retrofit at Twin Lakes West	5,130	11.2%	\$52,000
Bioretention/Raingarden at Cumberland Twp MC	1,277	2.8%	\$18,000
Dry Extended Detention Basin at Cumberland Twp MC	2,319	5.1%	\$24,000
Stream Restoration at Cumberland Twp MC	22,440	49.0%	\$100,000
Developer Projects			
Vegetated Open Channel at Cumberland Village P1	3,083	6.7%	\$0
Bioretention/Raingardens at Cumberland Village P2	15,918	34.7%	\$30,000
	50,167	109.5%	
*Township can pay cost to enhance.			
Construction Subtotal			\$224,000
Rock Creek Watershed			
33,832 lb/yr	required sediment reduction		
Project	Achieved Sediment Reduction (lb/yr)	% Total Required Reduction	Estimated Construction Cost
Longview Blvd West Basin	2,631	7.8%	\$22,000
Longview Blvd East Basin	3,010	8.9%	\$20,000
Stream Restoration at Adams County Human Services	31,416	92.9%	\$140,000
	37,057	109.5%	
Construction Subtotal			\$182,000
Construction Total			\$406,000
Contingency (10%)			\$40,600
Engineering/Permitting (20%)			\$81,200
Year One Administrative Startup (5%)			\$20,300
Total Projects Cost			\$548,100





Proposed Projects

- Basin retrofit at Twin Lakes West
- Bioretention/Raingarden at Cumberland Twp MC
- Dry Extended Detention Basin at Cumberland Twp MC
- Stream Restoration at Cumberland Twp MC
- Longview Boulevard West Basin
- Longview Boulevard East Basin
- Stream Restoration at Adams County Human Services
- Developer Projects



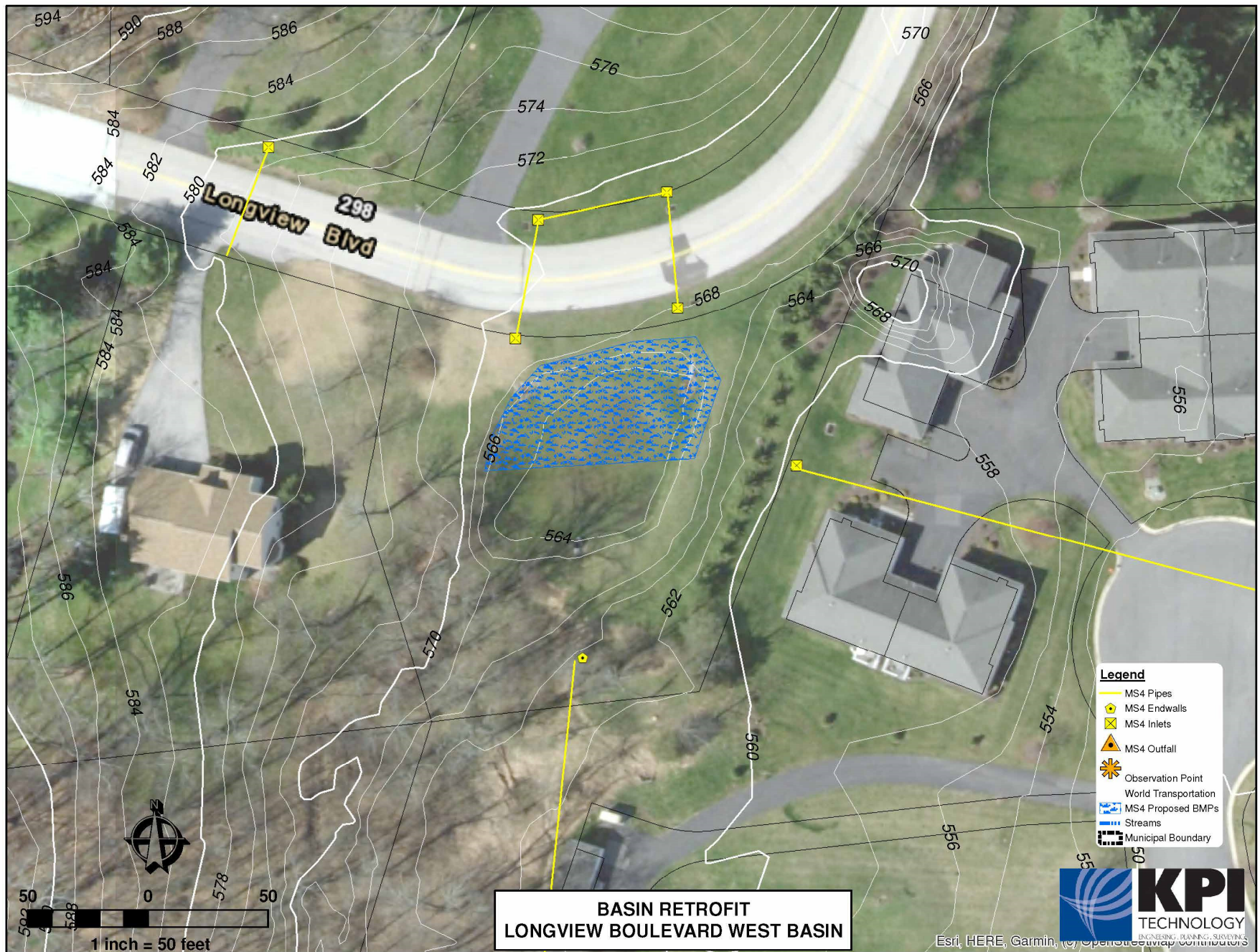


Twin Lakes West Basin



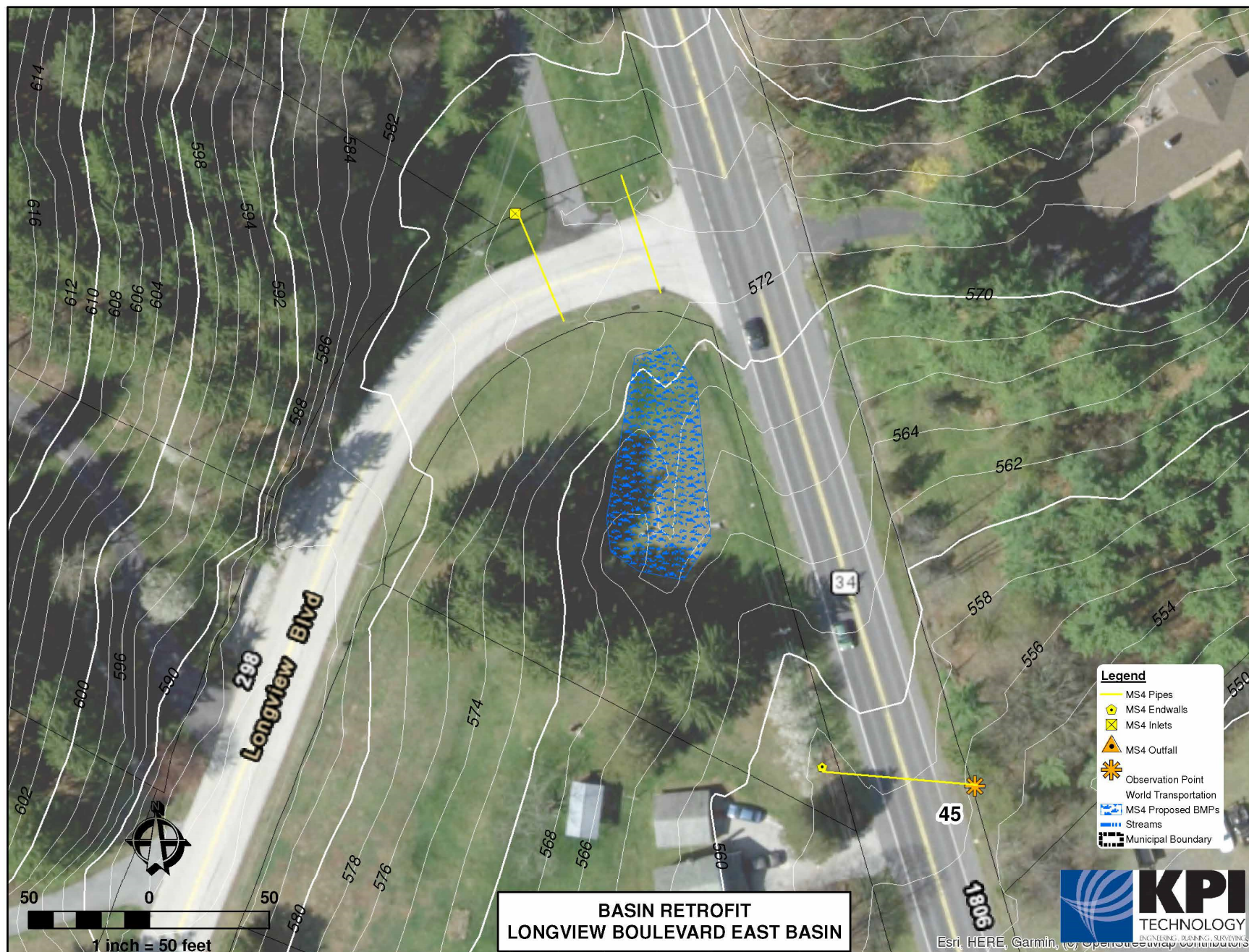








Longview Blvd West Basin





Longview Blvd East Basin



Stream Restoration at Adams County Human Services

Cumberland Township MS4 Cost Summary

Estimated Yearly O&M Budget (Permit Term 2018-2023)

1. Facilities Maintenance	\$ 12,000
2. MCMs – Program Cost	\$ 7,500
3. Engineering Services (Annual Report, Training, Outfall Inspections)	\$ 7,500
4. Accounting	\$ 5,000
5. Administrative	\$ 3,000
6. Legal	\$ 5,000
Total Annual O&M Budget:	\$ 40,000

Projects (Construction Costs, Engineering/Administrative, Financing)

1. Basin Retrofit (Longview West)	\$ 22,000
2. Basin Retrofit (Longview East)	\$ 20,000
3. Stream Restoration (ACHS)	\$140,000
4. Basin Retrofit (Twin Lakes West)	\$ 52,000
5. Bioretention/Raingarden (CT Mun. Cmplx)	\$ 18,000
6. Dry Extended Detention Basin (CT Mun. Cmplx)	\$ 24,000
7. Stream Restoration (CT Mun. Cmplx)	\$100,000

Developer Projects

8. Vegetated Open Channel (Cumberland Village Phase 1)	\$ 0
9. Bioretention/Raingarden (Cumberland Village Phase 2)	\$ 30,000

Total Construction Costs:	\$406,000
Contingency (10%)	\$ 40,600
Engineering/Permitting (20%)	\$ 81,200
Year One Administrative Startup (5%)	\$ 20,300

Total Projects Budget: **\$548,100**

Total Annual Projects Budget: **\$ 43,981* (@ 5%/20 years)**

Total Estimated Yearly Cost: **\$ 83,981**

Estimated # of ERUs: 1,500

Total Estimated Yearly Cost Per ERU: **\$ 56.00**

*Assumes no grant funding

The background is a solid blue gradient. At the top, there are several wavy, horizontal lines in shades of light blue and cyan, creating a layered, water-like effect. The rest of the background is a uniform medium blue.

Question?
Comments