

**March
2012**

Heights to Hudson

Trail Plan



Ohio & Erie Canalway Coalition

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Trail Plan

prepared by:



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Acknowledgements



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Introduction





BIKE & HIKE TRAIL CROSSING AT HINES HILL ROAD



VETERANS WAY PARK UNDER CONSTRUCTION (NOVEMBER 2011)



The communities of Hudson and Boston Heights are in close proximity to several of the most highly used trails in Summit County, including the Ohio and Erie Canalway Towpath Trail (OECC) and Metro Parks, Serving Summit County (Metro Parks) cross-county Hike and Bike Trail. These trails and the nearby Cuyahoga Valley National Park are prized as resources in the communities and both have sought ways to further connect their neighborhoods to them.

In 2011 the OECC began a dialogue with the two communities and Metro Parks about those connections and their trail plans, particularly the corridor along Hines Hill Road that could potentially interconnect the National Park and the Hike and Bike Trail in Boston Heights with Hudson's downtown and its nearby Veteran's Way Park, newly under construction. That park is the northerly terminus of a long sought after trail corridor, The Akron Secondary Line Trail.

It quickly became apparent that with plans both communities already had underway, this connection was not only possible but planning for it was timely. The OECC facilitated grant

funding from Summit County government late in 2011 and both communities contributed their corresponding share to finance a planning team led by OECC. This report summarizes the outcomes from that study and sets forth a plan of action for its eventual development.

Regional Character & Goals of the Plan





Both communities lie above the Cuyahoga River Valley in northern Summit County. The geography is of gently sloping terrain in a suburban setting. Multi-lane, limited access highways cross the region and the trail corridor itself is marked by regional two-lane connector roads. Hudson is an historic settlement dating from the early 19th century with a picture postcard Western Reserve style downtown square. The original community has grown considerably, having merged with the nearby Township in the 1990's. The downtown itself features a new urbanist style market district called First and Main. The downtown is a magnet for visiting shoppers, tourists and residents.

constructed access to the Route 8 and the Ohio Turnpike corridor Boston Heights has been positioning itself for growth, particularly at the Hines Hill Road interchange. Long-standing drainage problems along Hines Hill Road and the need to upgrade the road for future growth, combined with potential development parcels along the route have led Boston Heights to promote the partnership between the two communities to develop the trail as part of these road improvements.

Hudson is a progressive community with a growing park, trail and open space system that has just begun to be interconnected through trail and open space corridors. The community's plan is to continue building these connections, with the Heights to Hudson link being a priority.

Boston Heights is a small Village on the edge of the National Park and along the Hike and Bike Trail. With the advent of newly

The Trail Concept & Description





**HINES HILL ROAD JUST EAST OF THE BIKE & HIKE TRAIL LOOKING EAST
(TRAIL LOCATED ALONG LEFT SIDE OF ROAD)**

The 5.7-mile Heights to Hudson Trail connects the Cuyahoga Valley National Park and Metro Parks county-wide Hike and Bike trail in Boston Heights with Hudson's downtown and several park resources in the community. It sets the stage for future extensions to serve several neighborhoods in both communities in addition to those it passes through and the possibility of interconnection with the future Akron Secondary Trail that ultimately will extend to downtown Akron some thirteen miles away. This corridor is listed as AMATS', the regional municipal planning organization's highest trail corridor priority.

The plan takes into account the layers of community need that prompted the plan's development. The trail makes use of the road right-of-way for most of its route, giving both communities the opportunity to combine roadway improvement needs with the trail's development. The trail is planned as an asphalt paved, ten-foot wide trail, except in a few key areas. The trail is planned to be fully accessible, limiting grades in excess of five percent to less than 200 feet in length without a level landing. Only a very few places will exceed 5 percent in grade.

The following route description is supplemented by a series of route maps located in **Appendix A** of this report.

At its western end where it connects to the Hike and Bike Trail, the trail is seen as an 8 foot wide sidewalk along Hines Hill Road from there to its intersection with Olde 8 Road. It's here where serious road improvements are needed to correct drainage problems in the nearby residential neighborhood. The trail is proposed to be placed over the existing roadway drainage ditch on its north side, which will be replaced with a new storm sewer system to carry roadway water beyond the problem area. A new curb and street trees are also planned to control runoff and dress the pavement edge. A cross walk with a new flashing signal is planned at the intersection with Olde 8 to warn on-coming traffic of the crossing.

The trail segment east of Olde 8 to the Hines Hill Road interchange with Route 8 is proposed to be placed as a meandering ten foot wide path adjacent to the right-of way on the old Brandywine Golf Course property. It is located just north of a handsome row of

Maples trees along the road. As part of the future development of this site, a portion of the site is set-aside as buffer and parkland for the Village. A five-car trailhead parking lot is proposed within Village open space here to support access to the trail. It's also possible that the future development can set aside sufficient parking for the trailhead as part of it's improvements.

The ten-foot wide trail crosses Dean Memorial

Parkway and Hines Hill Road to the south side of the road just west of the Route 8 interchange to avoid busy access to the highway. This intersection is already signalized but will need installation of pedestrian actuators for the safety of trail users. The trail crosses Route 8 on the south side of the Hines Hill Road bridge in an improved berm. It is proposed that the trail be protected by a concrete barrier, separating it from car traffic throughout this length.



HINES HILL ROAD LOOKING WEST NEAR STATE ROUTE 8 INTERCHANGE
(TRAIL IS LOCATED ALONG RIGHT SIDE OF ROAD BEHIND THE ROW OF MAPLE TREES)



**HINES HILL ROAD EAST OF STATE ROUTE 8 LOOKING WEST
(TRAIL LOCATED ALONG LEFT SIDE OF ROAD)**

The trail remains on the south side of Hines Hill Road east of the interchange into Hudson. The ten-foot width here is proposed to be placed within the right-of-way beyond the road and in an adjacent easement to be acquired, where utilities present interfere with the trail. Just after crossing into Hudson the trail crosses Brandywine Creek near Walters Road. A premanufactured steel bridge is proposed to be placed on the roadway bridge abutment walls for the crossing.

East of Brandywine Creek the trail continues to parallel Hines Hill Road on its south side until reaching the old Youth Development Center (YDC). The berm in this area is limited and so some additional widening will be needed to provide for the ten-foot trail. Once reaching the YDC property, the trail diverges from the road right-of-way and meanders slightly within the adjacent lawn area. Metro Parks, Serving Summit County acquired a portion of the old YDC property in this area on the north side of Hines Hill Road for park purposes and plans the installation of a series of nature trails and a trailhead parking lot just off of Hines Hill Road at the intersection with the old main entry drive to the YDC property.

The plan calls for use of this future trailhead for the Heights to Hudson Trail, connecting it with a short spur trail and signed crosswalk at the road. Hudson further plans to extend the trails in the Metro Parks property to Maple Grove Park and the Ashbrook neighborhood to the north.

The trail within the YDC property continues east beyond this crosswalk, crosses a drainage channel with a small bridge or boardwalk and returns to the road right-of-way to avoid wetlands on the property. After crossing another drainage channel over an extended roadway culvert, it crosses the CSX railroad tracks at Hines Hill Road at a widened road crossing that is proposed to be improved with a new rubberized surface. The trail manages the steeper grade east of the railroad to its intersection with Prospect Street through a series of switchbacks in the trail within wooded lands owned by the City.

Long-term plans for Hines Hill Road suggest the possibility of an aerial crossing of the CSX Rail right-of-way and a realignment of the road to accommodate the crossing. An alternative trail route is proposed that follows in the berm



HINES HILL ROAD CROSSING BRANDYWINE CREEK
(TRAIL BRIDGE TO BE PLACED JUST TO THE LEFT OF THE EXISTING ROADWAY BRIDGE)



HINES HILL ROAD LOOKING WEST AT OLD YOUTH DEVELOPMENT CENTER
(TRAIL IS LOCATED ALONG LEFT SIDE OF ROAD)



**HINES HILL ROAD LOOKING WEST AT CSX RAILROAD CROSSING
(TRAIL LOCATED ALONG LEFT SIDE OF ROAD)**



**PROSPECT STREET LOOKING SOUTHEAST AT THE OHIO TURNPIKE BRIDGE CROSSING
(TRAIL LOCATED ALONG LEFT SIDE OF ROAD & BRIDGE)**



of the realigned road and bridge crossing if that were to happen. It is suggested that it replace the proposed route at that time. Given the uncertainty and cost of such a project, it is suggested that the proposed route be constructed initially and for the foreseeable future.

The trail heads south on the west side of Prospect Street until reaching the intersection with Hunting Hollow Drive. In this segment the ten-foot trail is parallel to the road within the right-of-way. It crosses three small drainage channels where roadway culverts are planned to be extended to accommodate the trail. At the intersection the trail crosses Prospect Street to the east side of the road and crosses the Ohio Turnpike bridge in the berm of the bridge. It is proposed that the sideline markers be repainted to allow for a 4-foot width on the bridge's east side to accommodate foot traffic in the berm. The trail will be signed in advance of the bridge warning trail users to dismount and walk bicycles across the bridge.

The trail continues south of the bridge within the right-of-way on Prospect, parallel to the

road until reaching the Steepleview Drive crosswalk and Hudson's existing trail in that area. The trail crosses both Steepleview and Prospect to continue the route on the existing trail. The existing trail crosses Brandywine Creek and Clayton Drive before ending. The trail continues as a widened sidewalk along Prospect Street south of Clayton. There exists as a 5-foot concrete walk in this area which is proposed to be widened to 10-feet to accommodate the trail. Some grading and tree removal will be needed in this area to provide a pad for the trail.

The trail crosses Morse Road at a signed crosswalk and enters into City parkland along the floodplain of Brandywine Creek. The trail is placed above the floodplain within wooded parkland which passes a small pond. A proposed trail spur is planned on the bed of a railroad line known as the Clinton Air Line which was never completed before it went bankrupt in the late 1850s. The spur ends at a proposed overlook on an historic stone arch railroad culvert over Brandywine Creek. The structure will need some restoration but will be well worth the effort. The spur could also provide access to the trail from the St. Mary's



Church parking lot on the opposite bank of the creek. The trail returns to Morse Road where the floodplain narrows and is located as a meandering, 10-foot widened sidewalk until reaching Owen Brown Street. The existing sidewalk is partially removed to accommodate the new route.

The trail crosses Owen Brown at a mid-block signed crosswalk near the crossing of Brandywine Creek and parallels the creek as it heads south toward the First and Main shopping district. The trail encounters a rain garden near the intersection with Clinton Street and a slightly steeper grade. This area is proposed to be altered somewhat to accommodate an accessible path and the rain garden. The trail crosses Clinton at another signed crosswalk and follows the existing trail path behind the Hudson Library. The existing path is widened to 10-feet in this block, as is a spur trail to the existing trailhead parking lot in this area. A new kiosk, bench and landscaping are planned.

The proposed route crosses Morse Road at a signed crosswalk and uses the driveway of an existing public parking lot in this area to

access the trail's continued route behind the Remax Realty/Dennis Saxe Architect building at the edge of the CSX right-of-way. It crosses Brandywine Creek on a small trail bridge to the north bank of the creek on the Summers Dry Cleaners property. This underutilized area is ideal for restoration as a small lunchtime park for use by patrons and employees. The trail route continues along the north side of Brandywine Creek between the Cleaners building and the creek until reaching S.R. 303 (E. Streetsboro Road).

The existing crosswalk at the intersection of E. Streetsboro Road and Morse Road is reused for the trail crossing and the intervening sidewalk is widened to ten feet. A few road and business signs will need to be adjusted here to accommodate the trail. The pedestrian actuator at the traffic light will need to be adjusted as well to shorten the waiting interval and lengthen the crossing period.

The trail continues to parallel Brandywine Creek at the back of several businesses on the south side of E. Streetsboro Road. Each parking lot is isolated from the adjacent lot in this area, making for a complicated driving



JUST NORTH OF MORSE ROAD LOOKING NORTH AT EXISTING TRAIL
(TRAIL IS LOCATED ALONG SAME ALIGNMENT BUT WOULD BE WIDENED TO 10')



EXISTING CROSSWALK AT STATE ROUTE 303 (W. STREETSBORO ST.)



EXISTING PARKING LOT BEHIND MORGAN BUILDING
(TRAIL LOCATED ALONG RIGHT SIDE OF PARKING LOT)

pattern and difficulty in sharing the parking between businesses. It also increases the needed number of curb cuts at the street. This is proposed to change. A pattern is proposed that interconnects the parking lots internally, allowing cars to move freely within this zone and to encourage shared parking among patrons. Some parking and asphalt is removed as well to accommodate the trail but overall, there is increased benefit to all the businesses. At pinch points the trail shares parking lot drives with car traffic. This is the case at the Noble House confectionery and at the Yours Truly Restaurant.

The trail completes its connection to Veteran's Way Park and the future extension to the Akron Secondary Line Trail by following the existing sidewalk south on Route 91 (South Main Street) to the park. The sidewalk is 5-feet wide in this area and so it is proposed that signage be added instructing cyclists to dismount and walk their bicycles to the park along South Main and the CSX underpass. The sidewalk connects to the park's trail system and the future Akron Secondary Line connector trail.



EXISTING SIDEWALK AT STATE ROUTE 91
(S. MAIN ST.)

Committee Meetings & Public Involvement





A series of Planning Committee meetings were held throughout plan development both in review of alignment options and to investigate them in the field. The Planning Committee included representatives of Boston Heights Village Council, the Mayor of Boston Heights, representatives of Hudson City Council, The Hudson Park Board, Hudson's Park's Superintendent, representatives from OECC and the Planning Consultant.

A public meeting was held in Boston Heights to specifically gauge public opinion about the trail in that community. Over 40 people (about 10% of the population) were in attendance and the overriding sentiment was that the trail was a fine addition to the community but that road and drainage improvements were needed on Hines Hill Road to set the stage for trail work.

Hudson has a long history of seeking public input, dating to when their community trail plan was developed and they were actively engaged in support of the Countywide Trail and Greenway Plan. Overwhelming community sentiment has repeatedly been heard for continued expansion of the City's

trail system. The Hines Hill trail was outlined in that earlier study, as was a trail connecting to the Ashbrook neighborhood. Representatives of Ashbrook were in attendance at the Boston Heights meeting and repeated their desire for a trail connection from their neighborhood north of Hines Hill Road to the First and Main development and downtown Hudson.

Cost Opinion & Next Steps





The It is recognized that a trail plan of this length requires considerable resources to accomplish and will likely be developed in several phases. A detailed conceptual stage cost opinion was prepared to help plan those future phases and to assist in seeking grants to further supplement local resources (see **Appendix B**). Each segment of trail is separately estimated for convenience. The following list outlines the trail segments and their approximate length.

- Hines Hill Road (Bike and Hike Trail to Olde Eight Road) 2,966 feet
- Hines Hill Road (Olde Eight Road to Dean Memorial Pkwy) 2,409 feet
- Hines Hill Road (Dean Memorial Pkwy. to Industrial Pkwy) 1,124 feet
- Hines Hill Road (Industrial Parkway to Hudson City limits) 3,111 feet
- Hines Hill Road (Hudson City limits to Prospect Street) 7,790 feet
- Prospect Road (Hines Hill Road to Steepleview Drive) 4,905 feet
- Prospect Road (Steepleview Drive to Clayton Court) 1,555 feet
- Prospect Road (Clayton Court to Morse Road) 922 feet
- Morse Road (Prospect Road to Owen Brown Street) 2,478 feet
- Brandywine Creek (Owen Brown St. to E. Streetsboro Rd.) 1,522 feet
- Brandywine Creek (E. Streetsboro Rd. to Veterans Way Park) 1,426 feet

The communities met independently to discuss their respective preferences for initial phases. Both communities ranked this project as a high priority. Boston Heights because of limited resources and the funds anticipated to be available from the National Park Service for repair of Hines Hill Road in 2013 have chosen to concentrate on the segment between the Bike and Hike Trail and Olde Eight Road, starting with the road infrastructure necessary to make the trail bench available adjacent to the road. The Hudson's Park Board endorsed the idea and gave the trail as a whole a high priority. The Board identified two sections of the trail as higher priorities: (1) Hudson is planning to repave Hines Hill Road in 2012 or 2013 and would plan to incorporate the trail into the improvements at that time and (2) the trail segment along Prospect Road nearest to the bridge.



Both communities will be seeking outside funding to supplement local government funds for the project and their next step will be to identify potential sources, including AMATS Transportation Enhancement allocation from ODOT, Clean Ohio and Recreational Trails Funds. At this time funding of these sources by Federal and State government is uncertain.

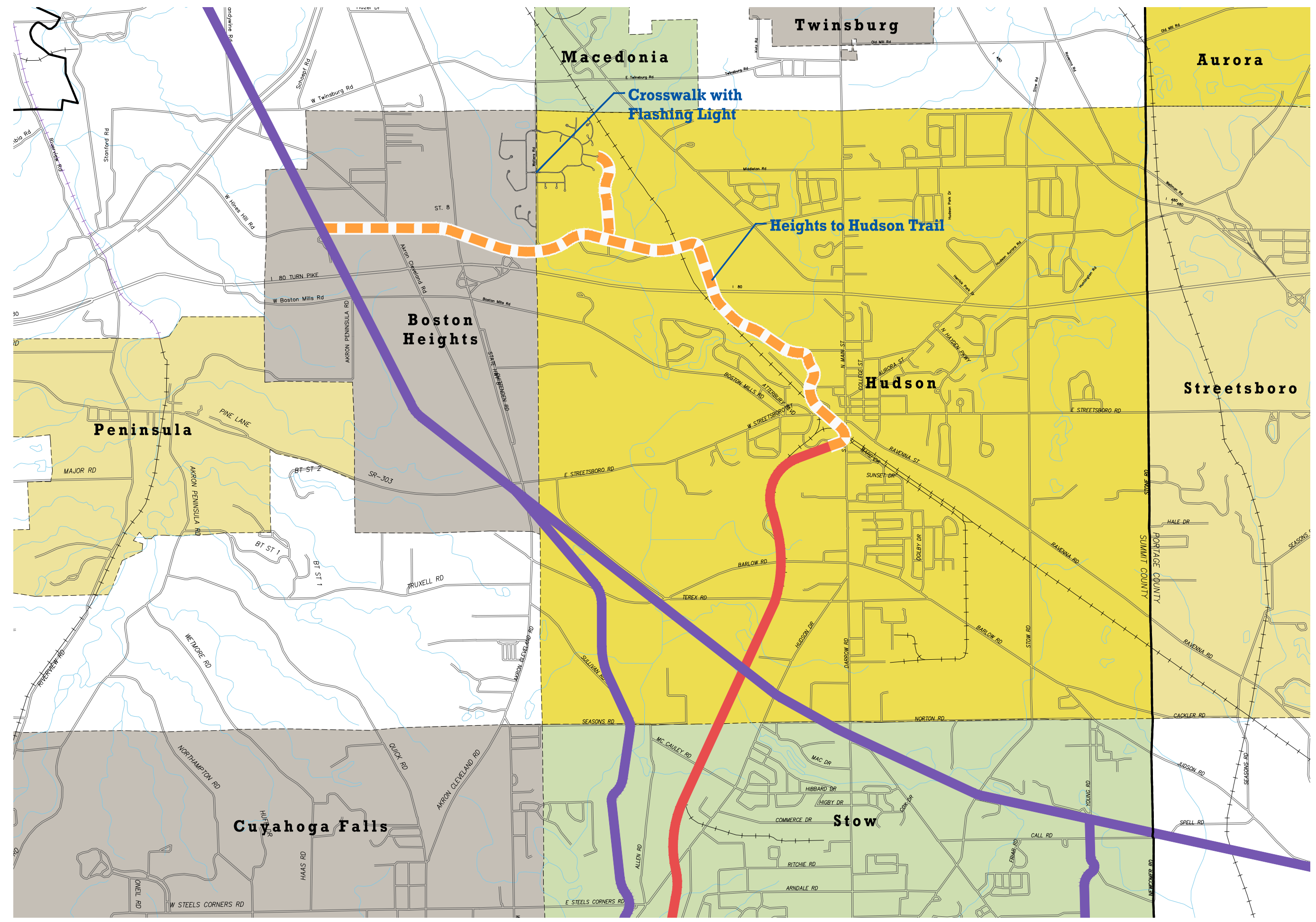


Appendix A

Trail Maps

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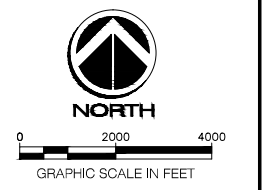
-  Proposed Akron Secondary Trail
-  Proposed Heights to Hudson Trail
-  Existing Bike & Hike Trail

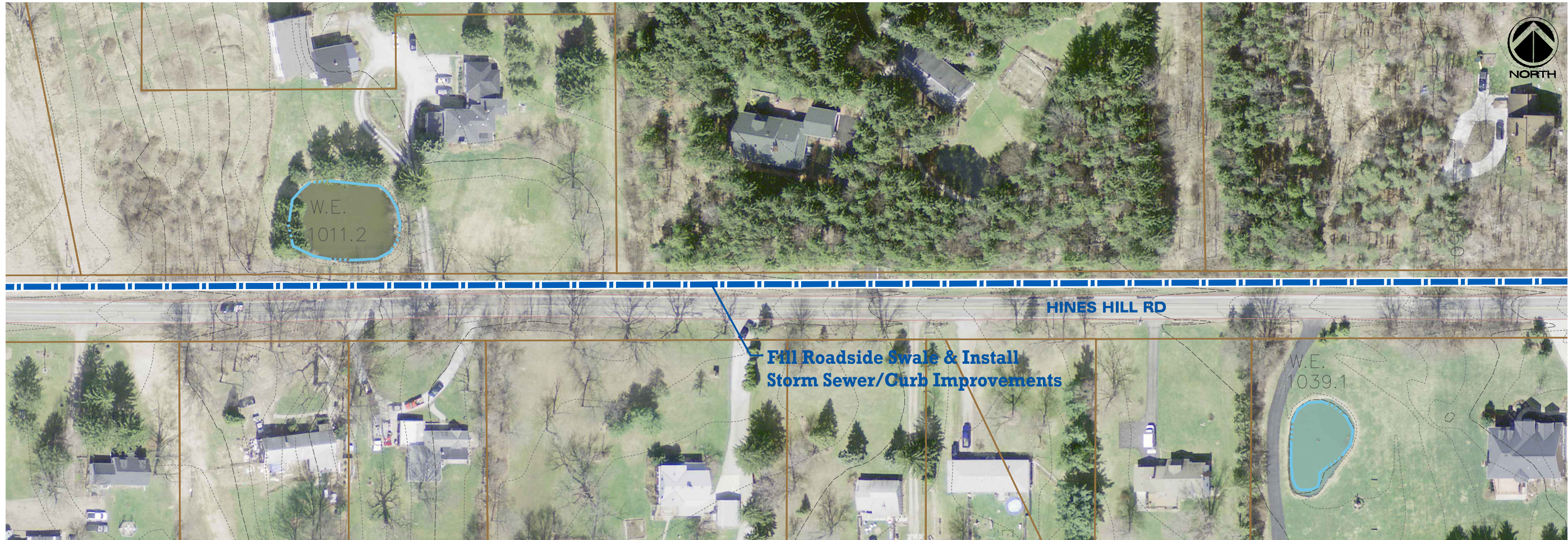
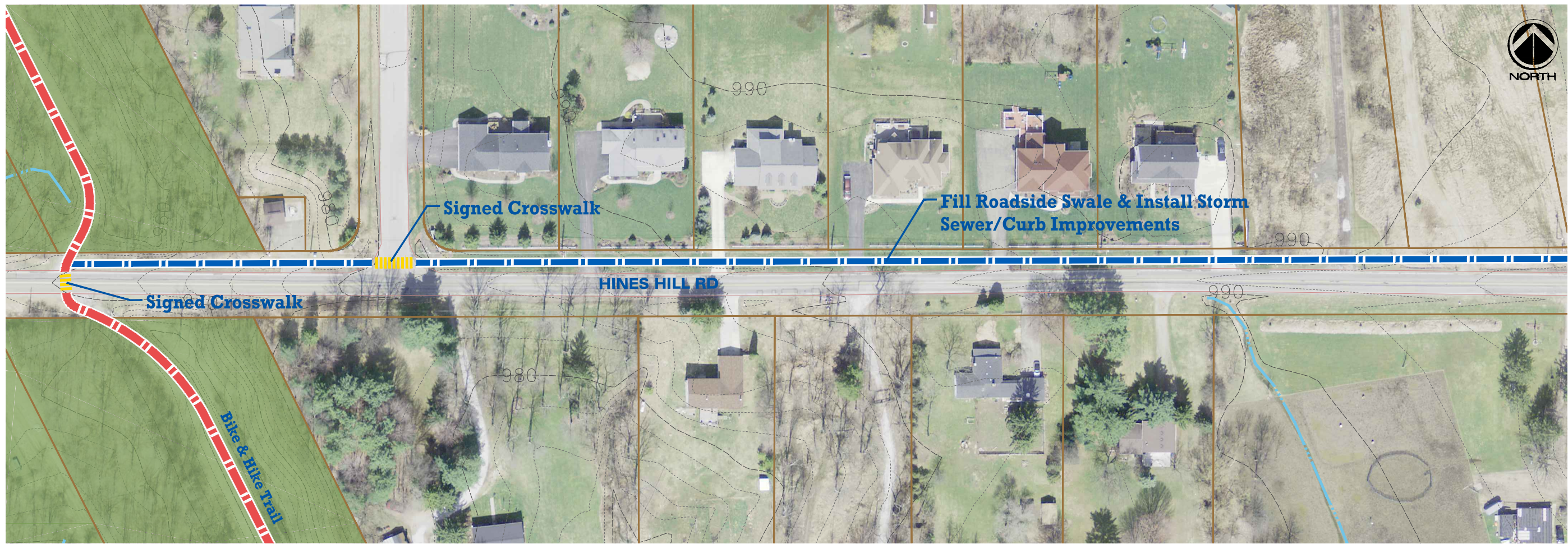


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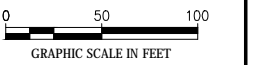
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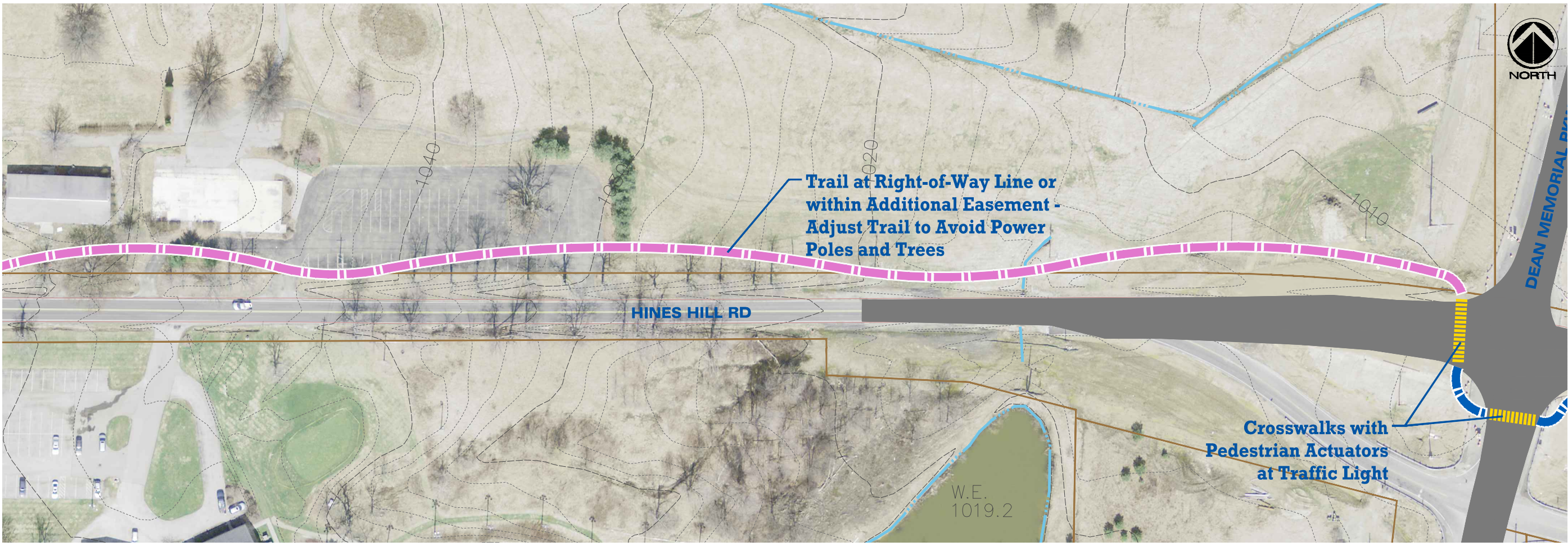
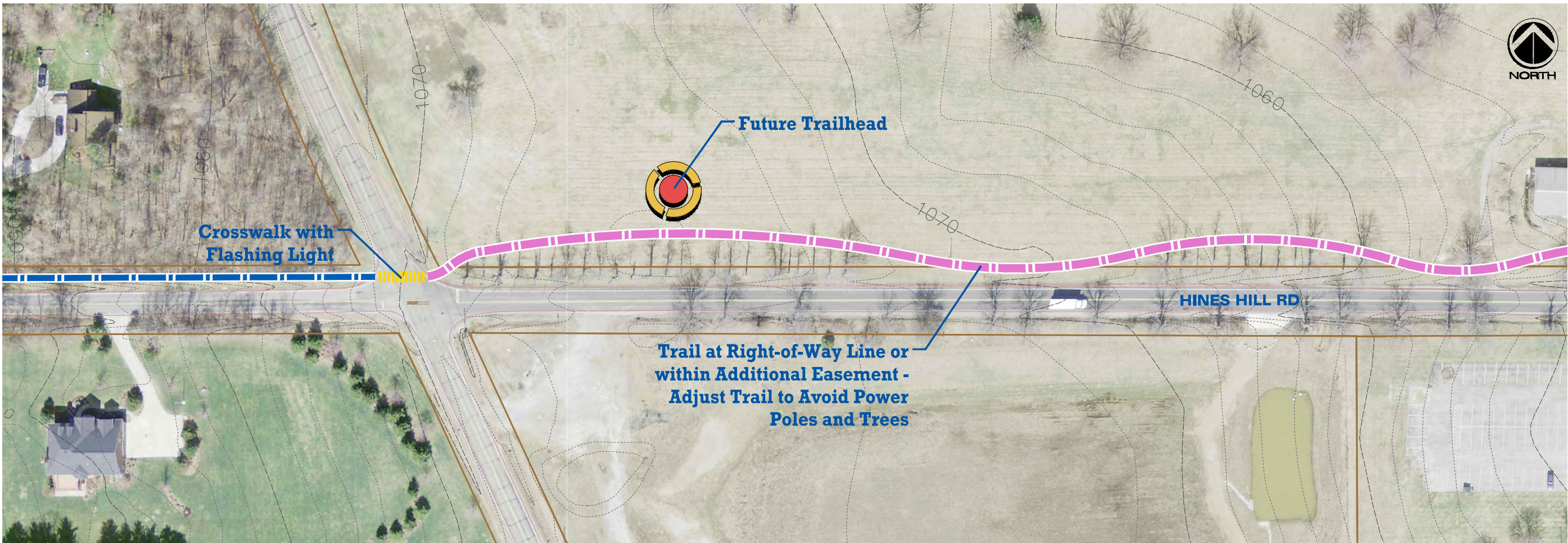
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


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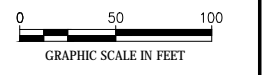
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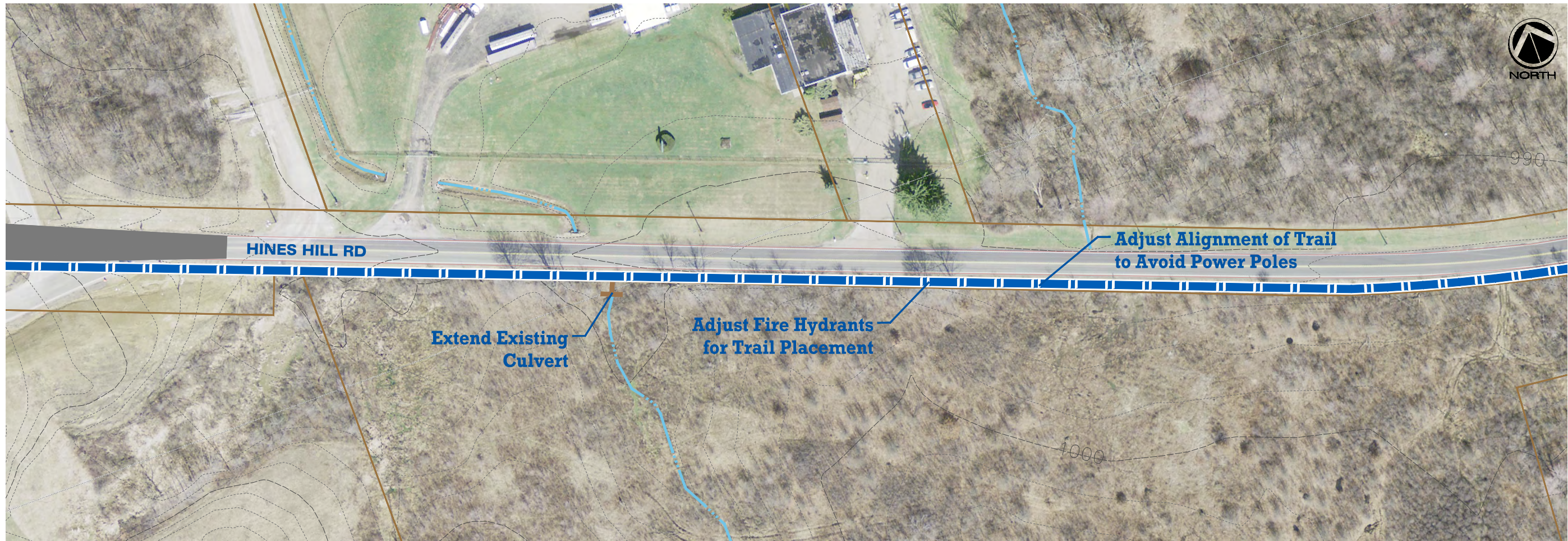
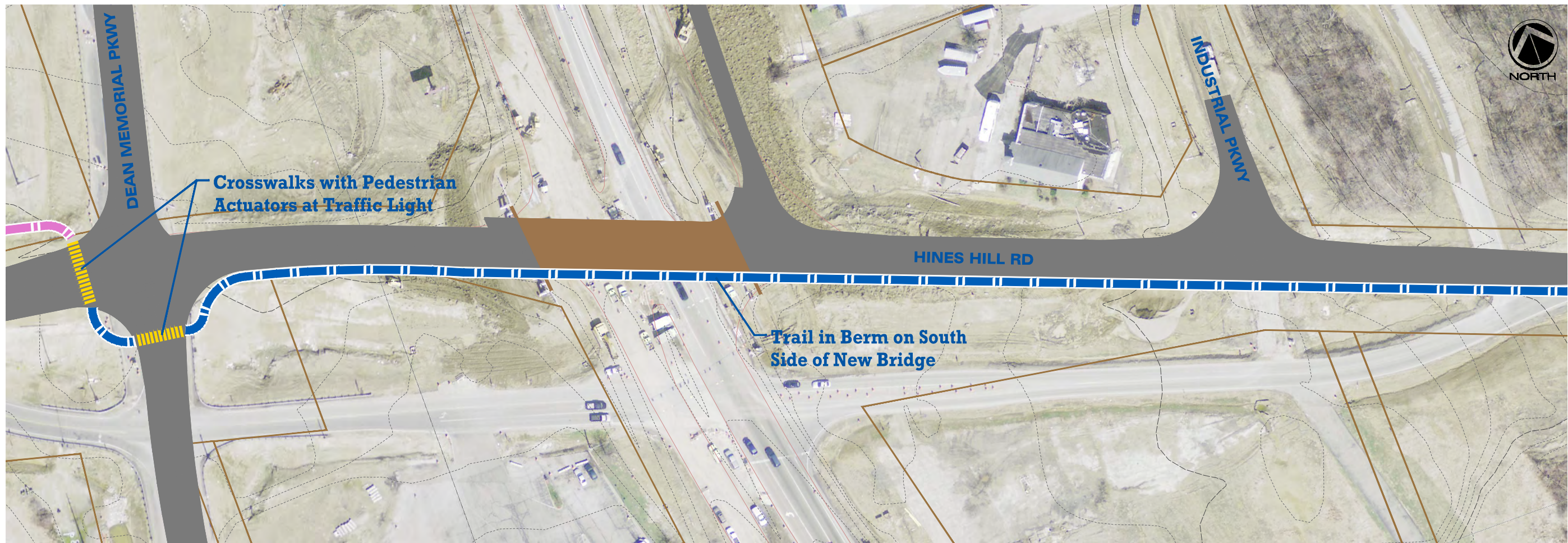
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



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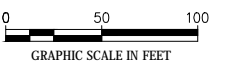
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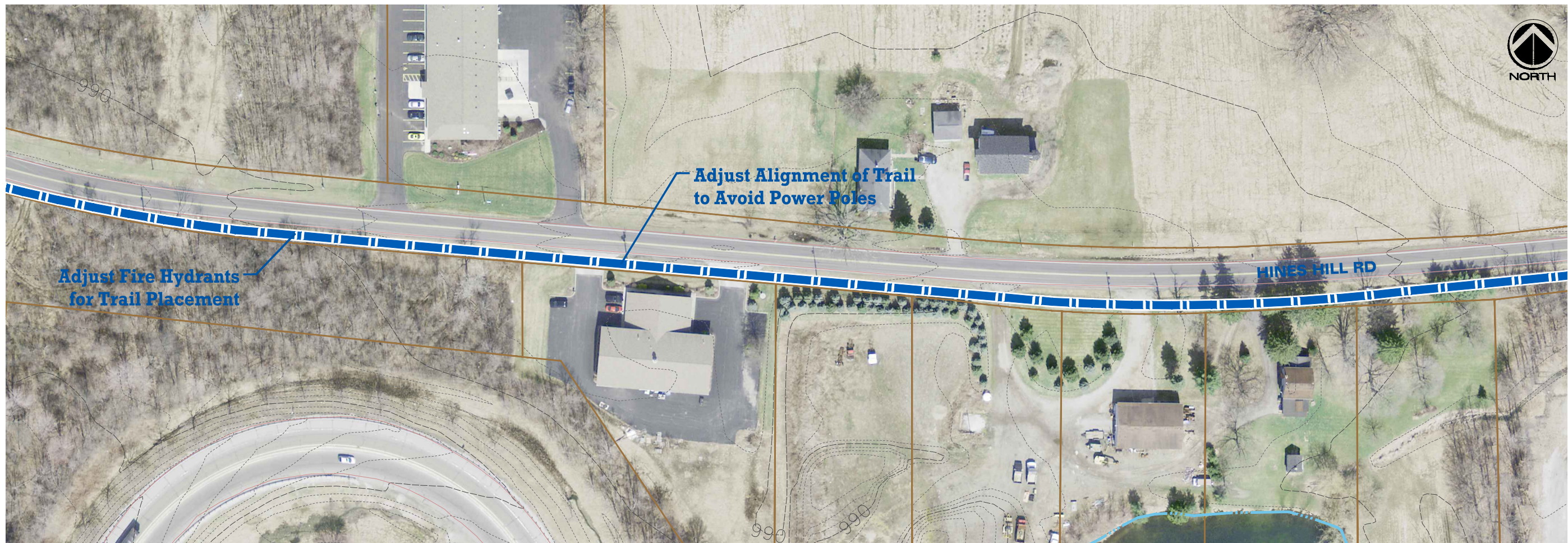
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



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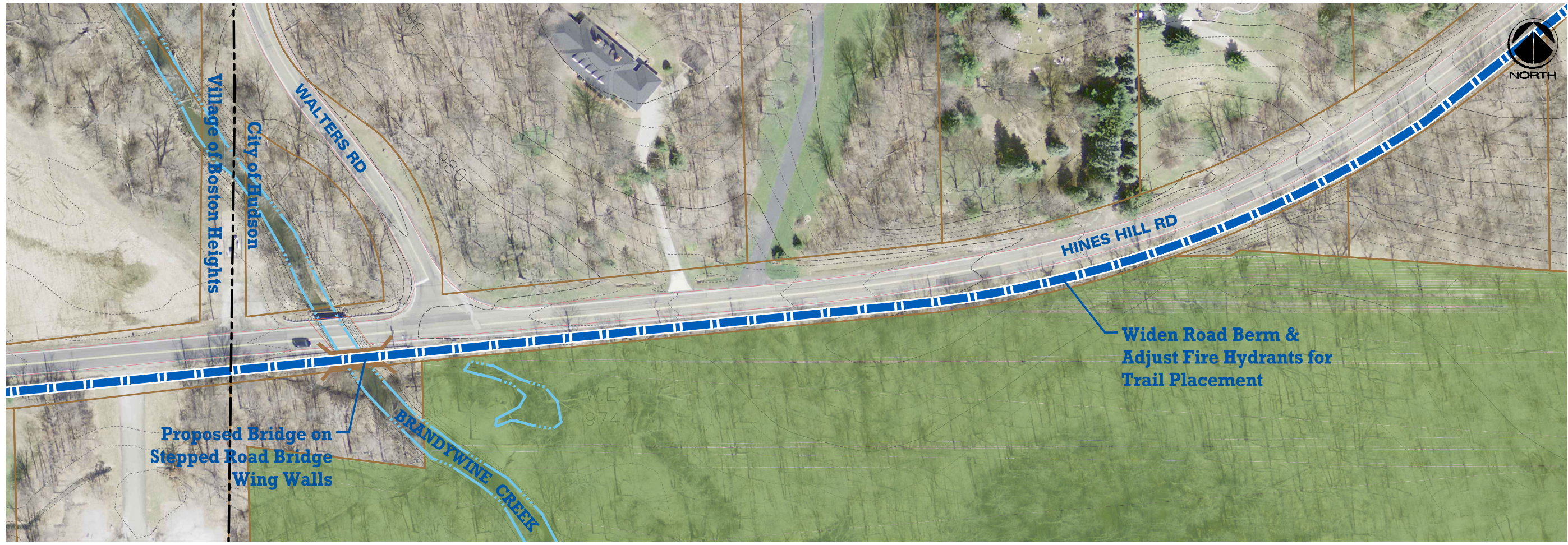
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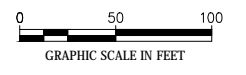
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



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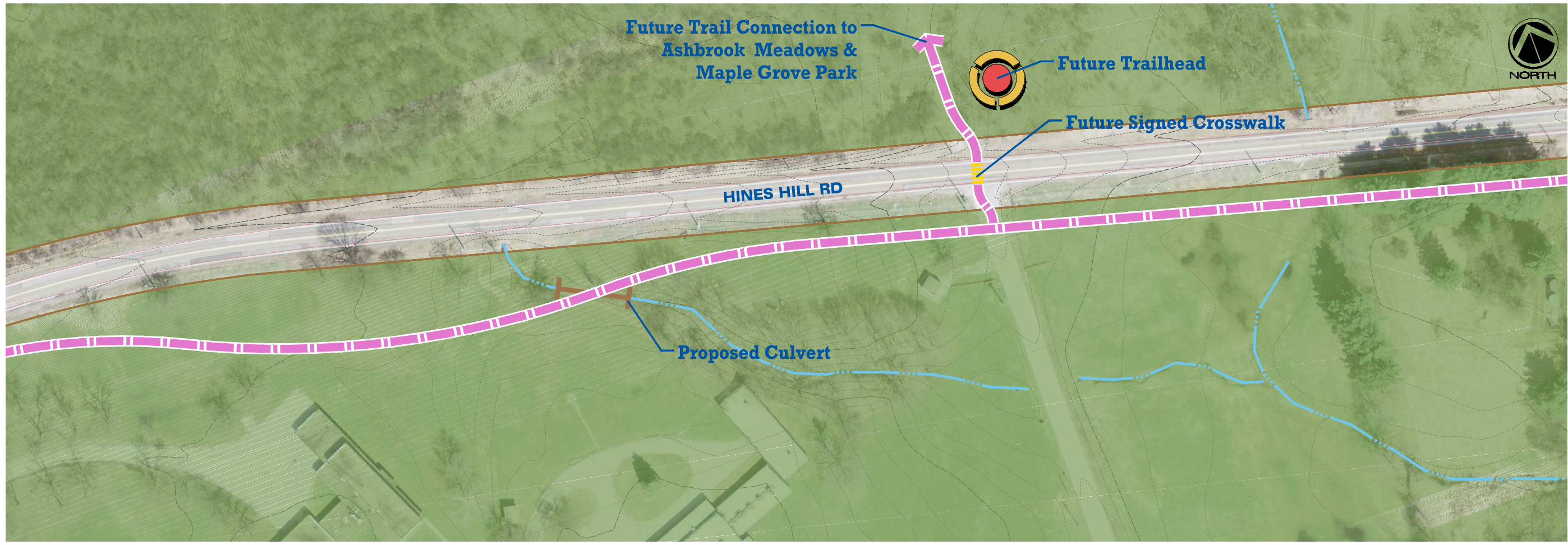
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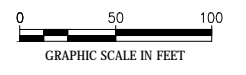
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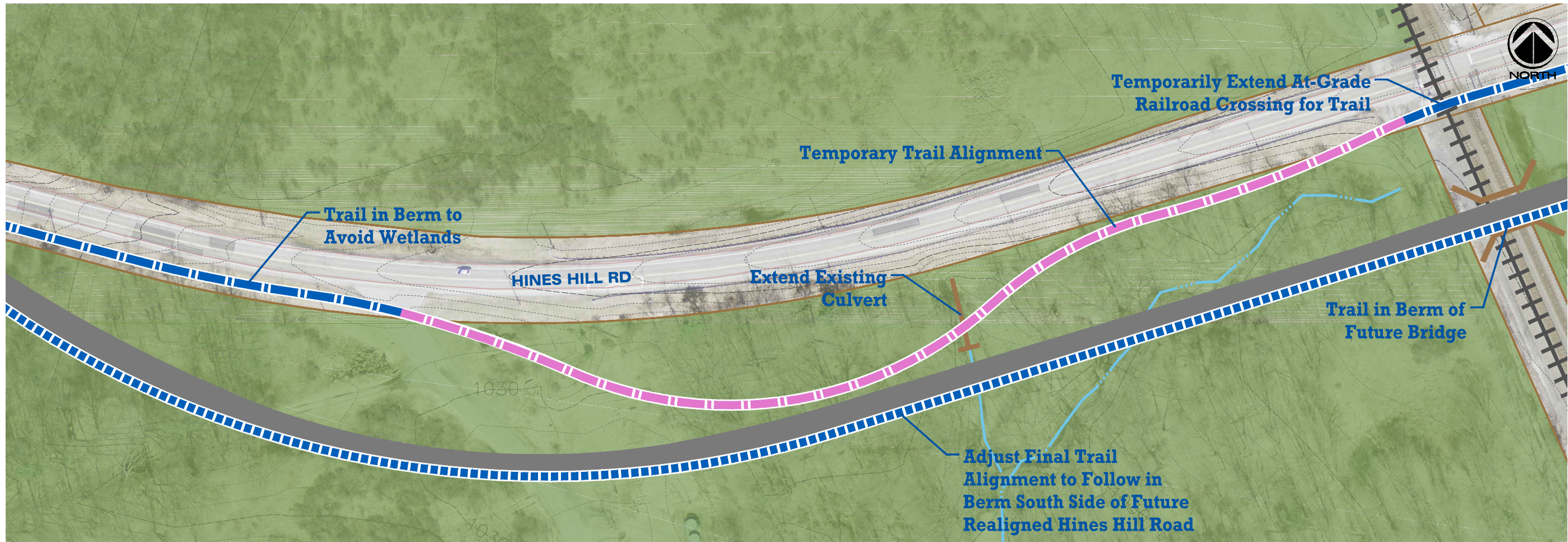
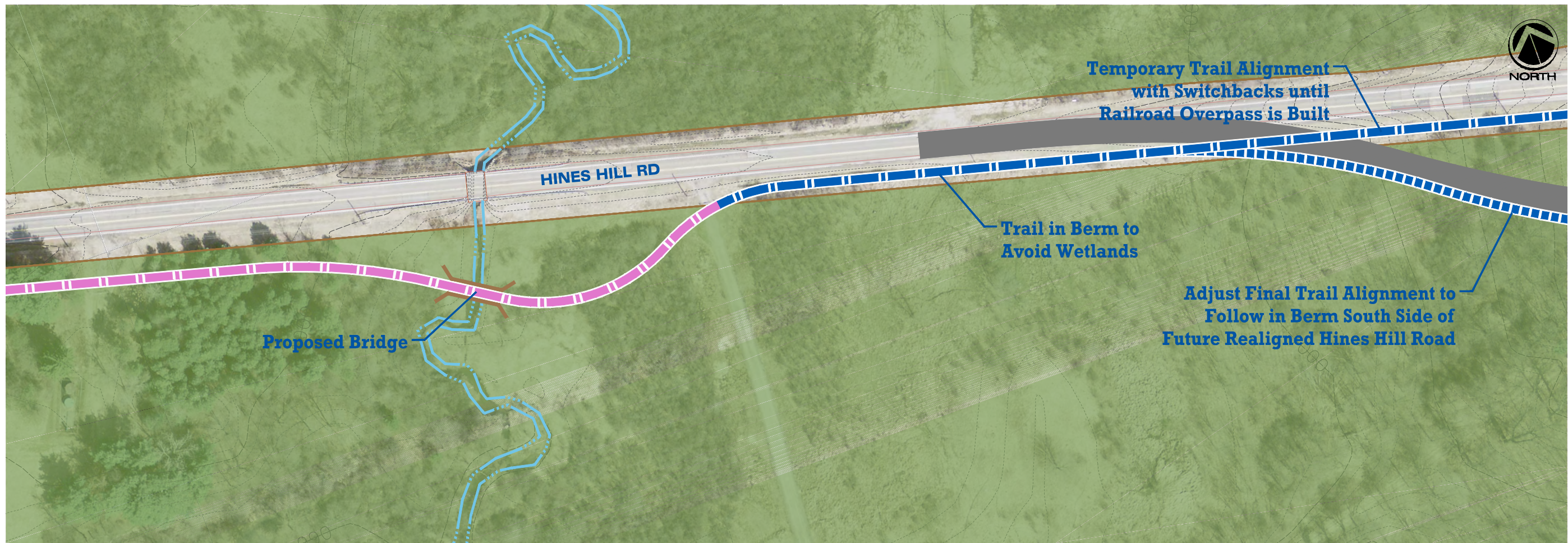


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



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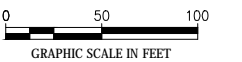
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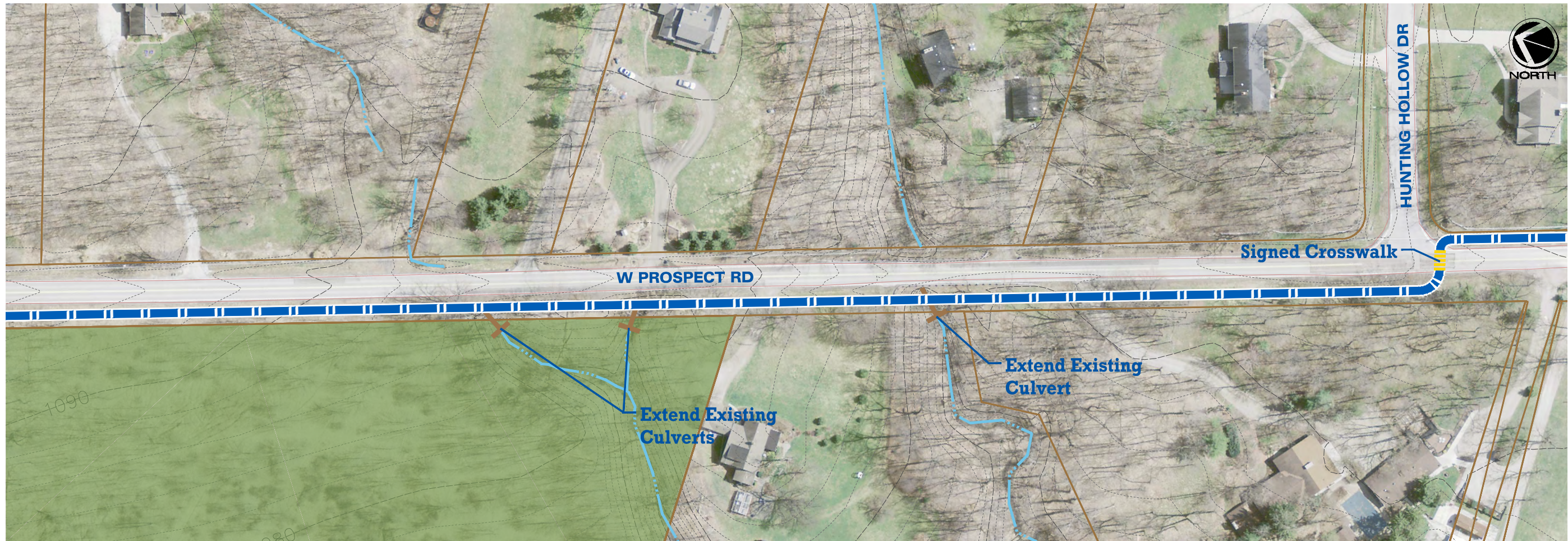
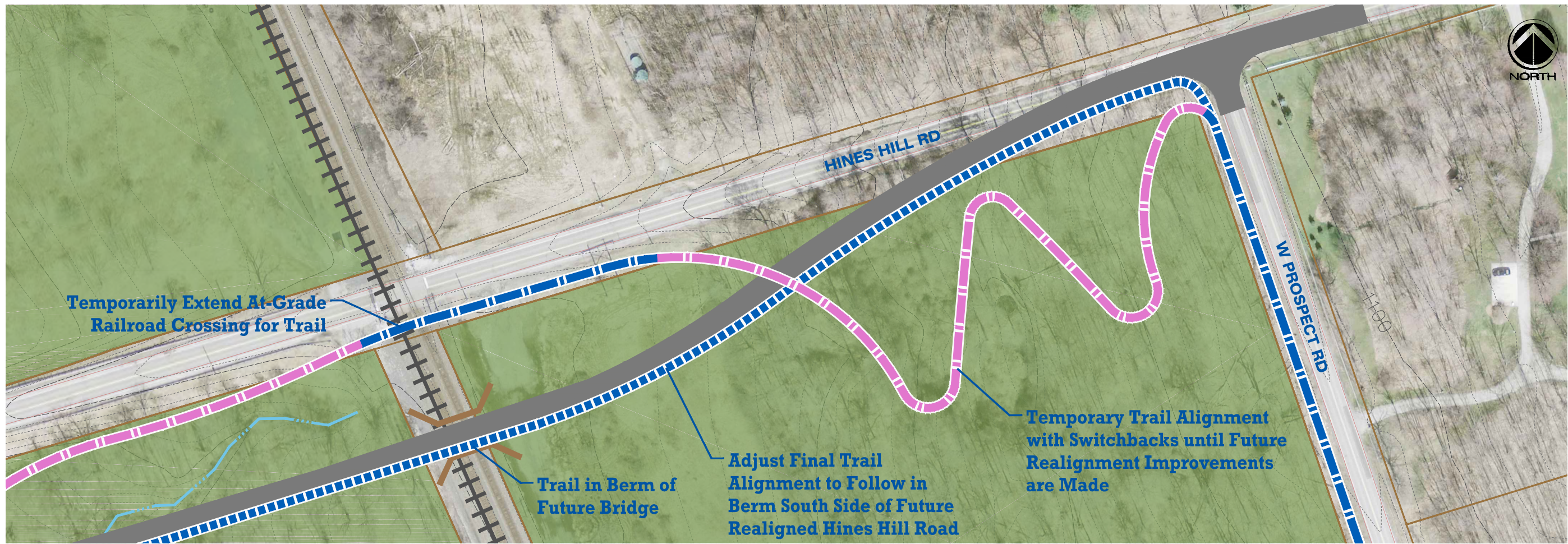
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



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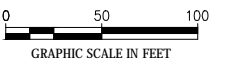
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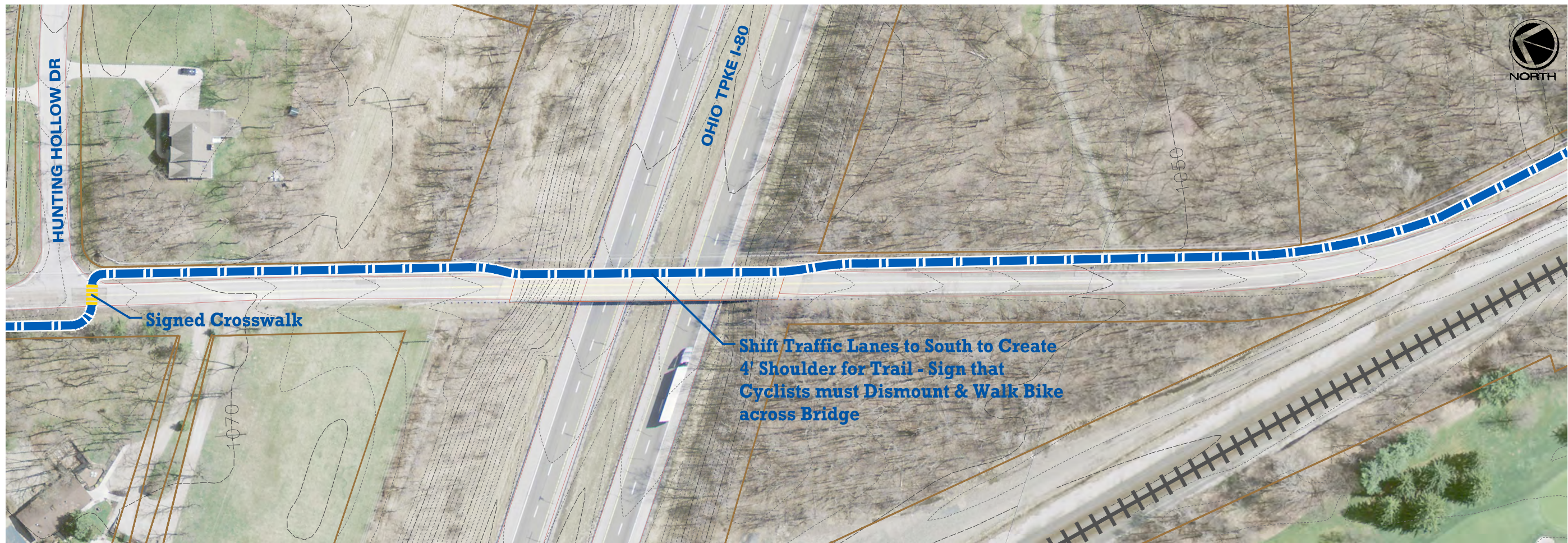
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Heights to Hudson Trail Plan








Summit County, Ohio

PROJECT NO.: 12-00095-010
 DRAWN BY: KTL
 CHECKED BY: DJM
 DATE ISSUED: MARCH 2012





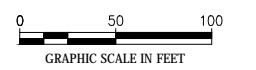
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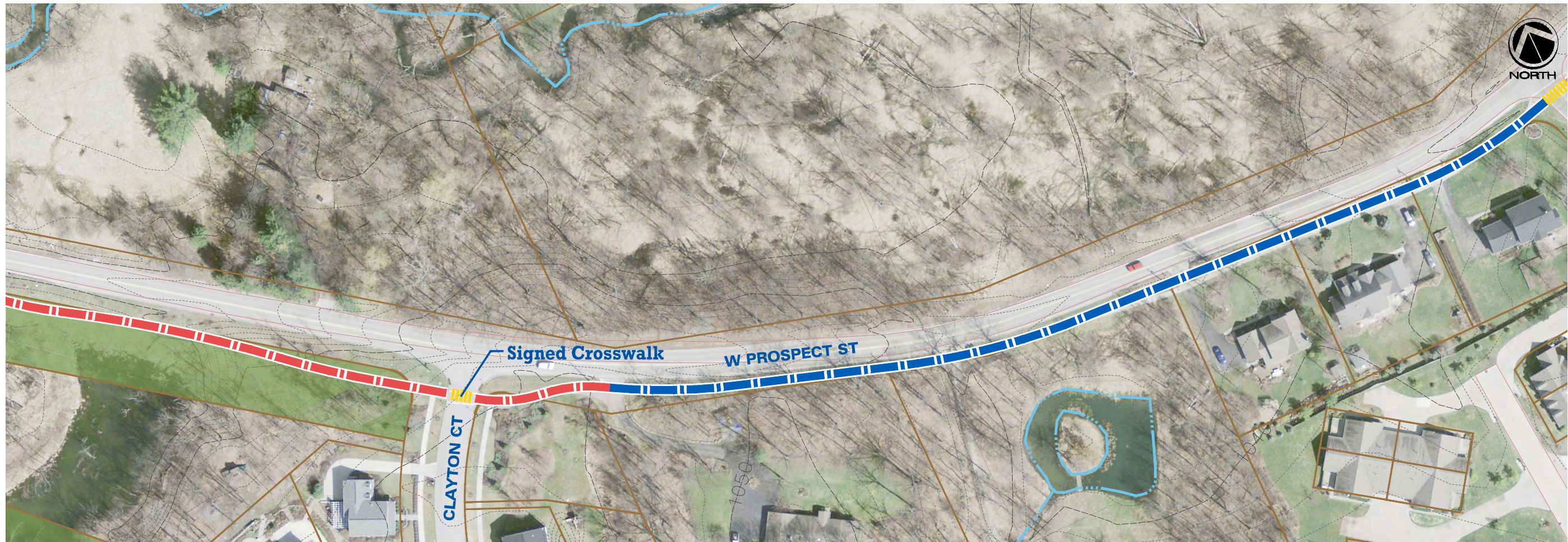
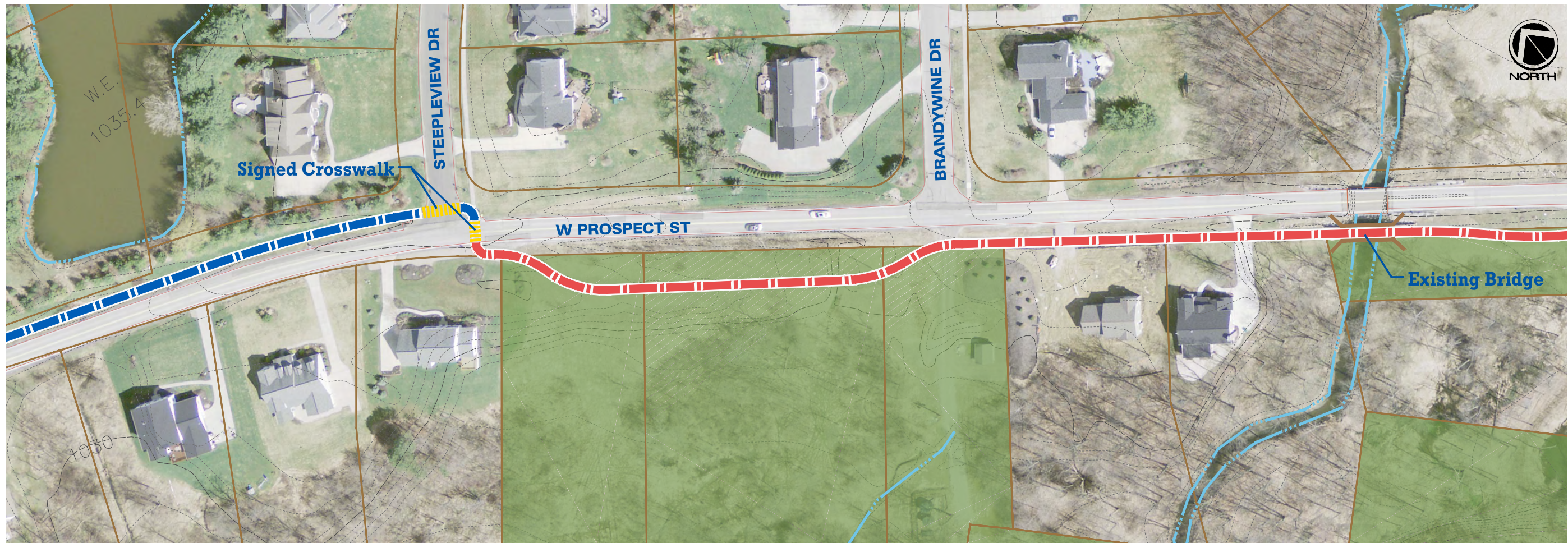
-  Possible Trailhead
-  Public Lands
-  Existing Off-Road Trail
-  Possible Off-Road Trail
-  Possible Widened Sidewalk
-  Municipal Boundary
-  Existing Railroad

**Ohio & Erie Canalway Coalition
 Heights to Hudson Trail Plan**

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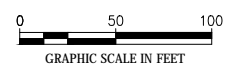
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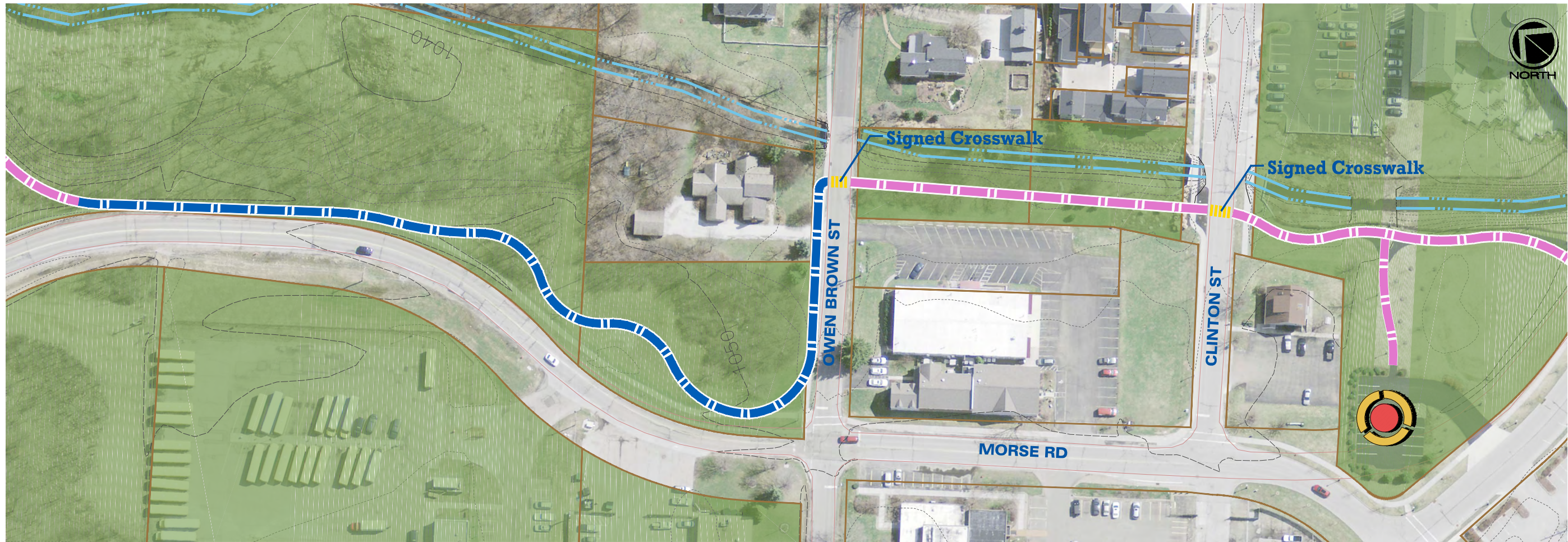
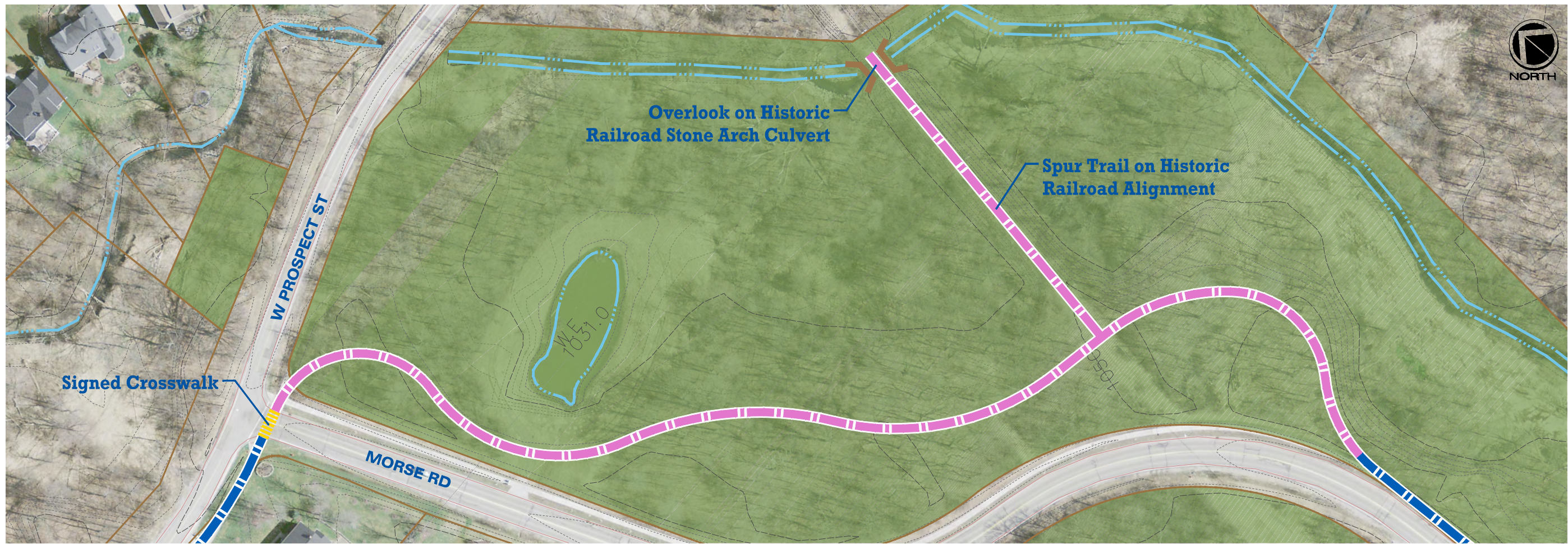
- Possible Trailhead
- Public Lands
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**Ohio & Erie Canalway Coalition
 Heights to Hudson Trail Plan**








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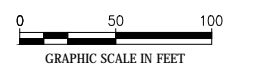
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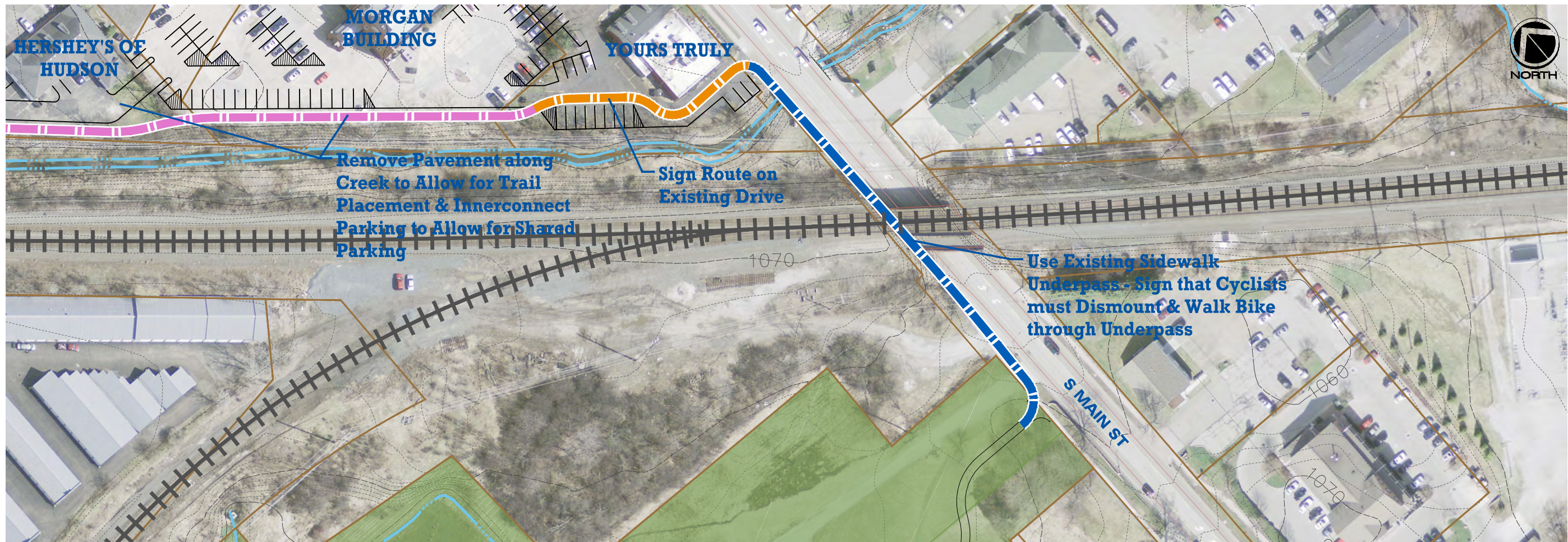
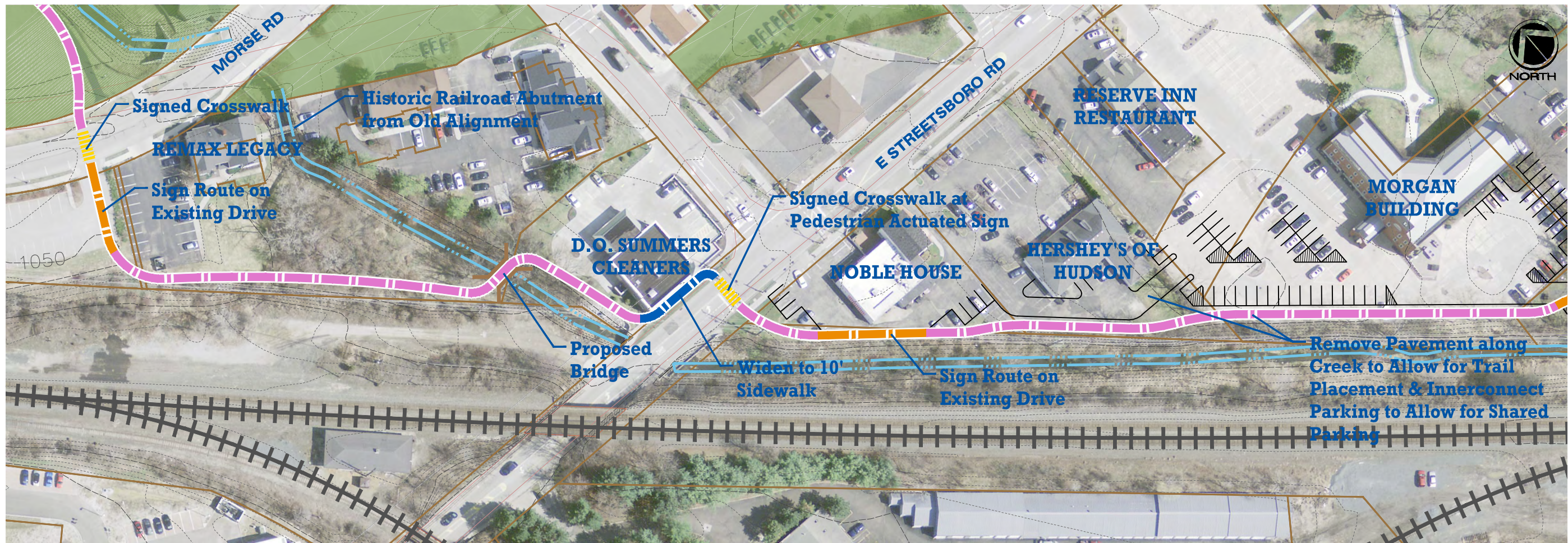
-  Possible Trailhead
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Ohio & Erie Canalway Coalition
Heights to Hudson Trail Plan








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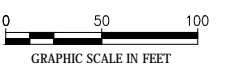
LEGEND

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-  Possible Off-Road Trail
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Ohio & Erie Canalway Coalition
Heights to Hudson Trail Plan

Summit County, Ohio

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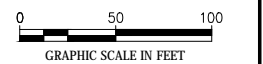


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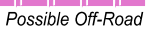

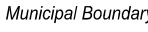

-  Possible Trailhead
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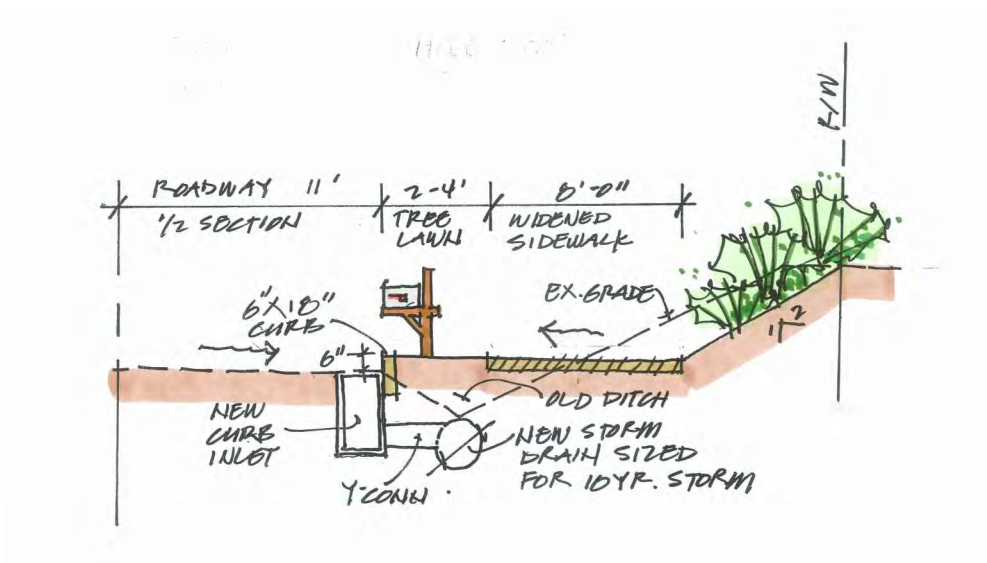
Ohio & Erie Canalway Coalition
Heights to Hudson Trail Plan
 Summit County, Ohio

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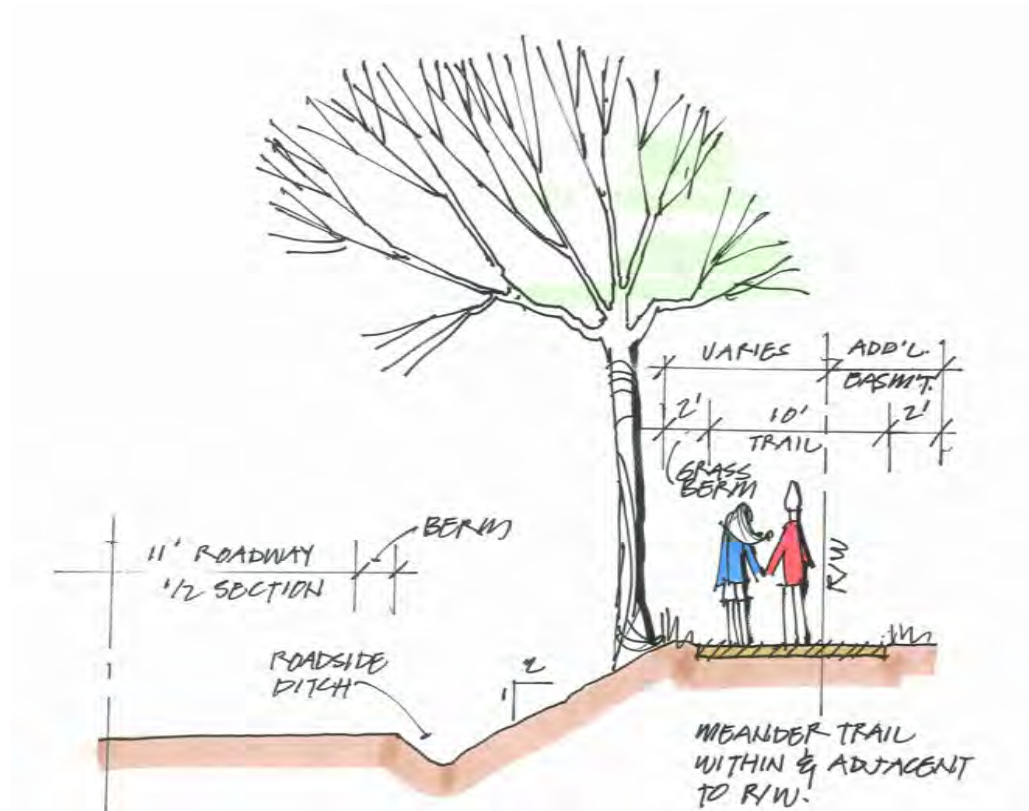


LEGEND

-  Possible Trailhead
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-  Possible Off-Road Trail
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**Trail on North Side of Hines Hill Road
West of Olde 8**









**Trail at Hines Hill Road Adjacent to
Old Golf Course**

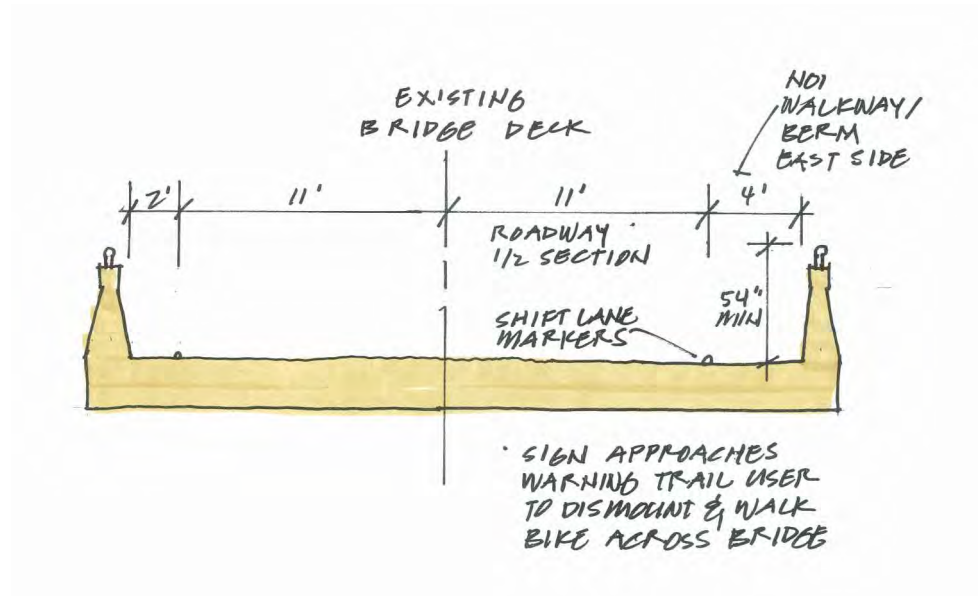
Ohio & Erie Canalway Coalition
Heights to Hudson Trail Plan

Summit County, Ohio

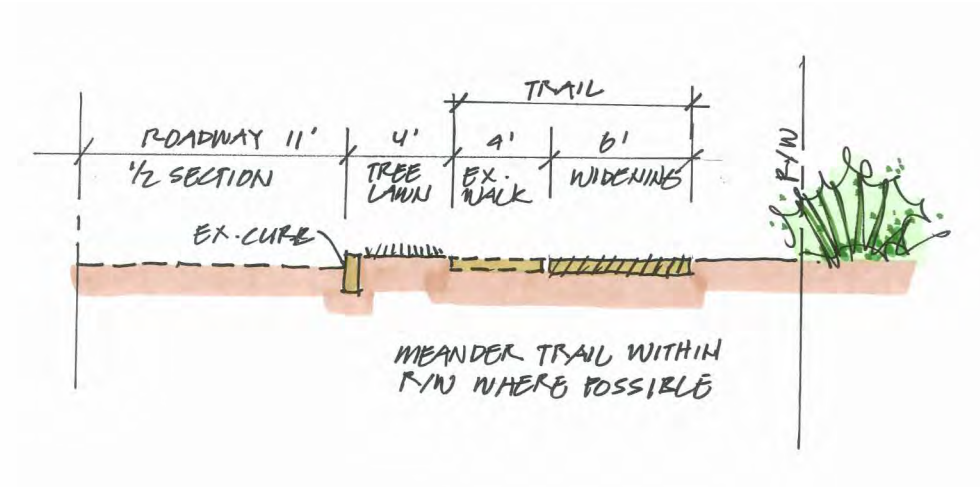
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LEGEND

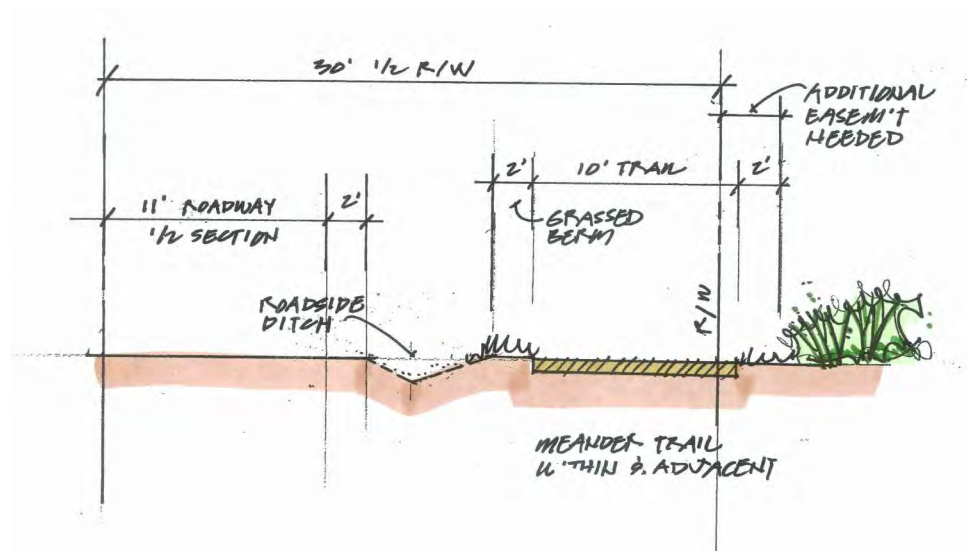
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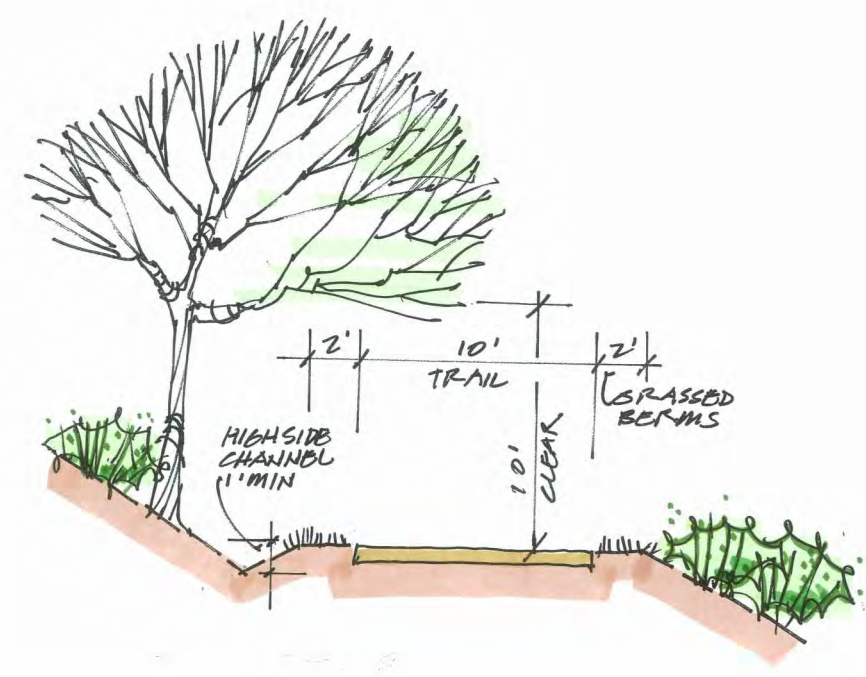
Trail at Prospect Bridge over Turnpike



Trail along Morse & Prospect



Trail along Hines Hill Road & Prospect Street



Typical Trail Section

Ohio & Erie Canalway Coalition
Heights to Hudson Trail Plan

Summit County, Ohio

PROJECT NO.: 12-00095-010
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Appendix B

Cost Opinion

**OHIO & ERIE CANALWAY COALITION
CONCEPTUAL OPINION OF PROBABLE COSTS
HEIGHTS TO HUDSON TRAIL PLAN**



MARCH 12, 2012

TRAIL ROUTES				
SECTION	DESCRIPTION	LENGTH	UNIT	TOTAL COST
1	HINES HILL ROAD (BIKE & HIKE TRAIL TO OLDE EIGHT ROAD)	2,966	LF	\$645,420.70
2	HINES HILL ROAD (OLDE EIGHT ROAD TO DEAN MEMORIAL PARKWAY)	2,409	LF	\$309,733.65
3	HINES HILL ROAD (DEAN MEMORIAL PARKWAY TO INDUSTRIAL PARKWAY)	1,124	LF	\$90,697.88
4	HINES HILL ROAD (INDUSTRIAL PARKWAY TO BOSTON HEIGHTS BOUNDARY)	3,111	LF	\$414,793.48
5	HINES HILL ROAD Existing Alignment (BOSTON HEIGHTS BOUNDARY TO PROSPECT ROAD)	7,790	LF	\$1,166,358.64
6	PROSPECT ROAD (HINES HILL ROAD TO STEEPVIEW DRIVE)	4,905	LF	\$503,859.59
7	PROSPECT ROAD (CLAYTON COURT TO MORSE ROAD)	922	LF	\$128,310.51
8	MORSE ROAD (PROSPECT TO OWEN BROWN STREET)	2,478	LF	\$278,811.03
9	BRANDYWINE CREEK (OWEN BROWN STREET TO EAST STREETSBORO ROAD)	1,522	LF	\$328,119.19
10	BRANDYWINE CREEK (EAST STREETSBORO ROAD TO VETERANS WAY PARK)	1,426	LF	\$189,591.53
TOTAL		28,653	LF	\$4,055,696.19

**HEIGHTS TO HUDSON TRAIL PLAN
CONCEPTUAL OPINION OF PROBABLE COSTS
MARCH 12, 2012**

1 - HINES HILL ROAD (BIKE & HIKE TRAIL TO OLDE EIGHT ROAD)

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL COST
1	Site Preparation/Demolition				
	A. Clearing and Grubbing	1	LS	\$3,000.00	\$3,000.00
	B. Construction Fencing	2966	LF	\$2.50	\$7,415.00
	Subtotal				\$10,415.00
2	Earthwork				
	A. Excavation/Embankment	3400	CY	\$10.00	\$34,000.00
	B. Borrow	1200	CY	\$20.00	\$24,000.00
	C. Strip, Stockpile & Replace Topsoil	1200	CY	\$10.00	\$12,000.00
	Subtotal				\$70,000.00
3	Erosion Control				
	A. Silt Fence	2966	LF	\$3.50	\$10,381.00
	B. Swale Matting Protection	600	SY	\$5.00	\$3,000.00
	C. Slope Matting Protection	2000	SY	\$5.00	\$10,000.00
	D. Erosion Control Measures	1	LS	\$3,000.00	\$3,000.00
	Subtotal				\$26,381.00
4	Trail Pavement				
	A. Subgrade Preparation	3750	SY	\$1.50	\$5,625.00
	B. 8' Asphalt Trail	2500	SY	\$30.00	\$75,000.00
	C. Geogrid	3750	SY	\$6.00	\$22,500.00
	D. Driveway Asphalt Approaches (Trail to Rd.)	275	SY	\$30.00	\$8,250.00
	E. Saw Cut Pavement Edge (Drwy. & Curb)	220	LF	\$2.00	\$440.00
	F. Concrete Curb	3086	LF	\$15.00	\$46,290.00
	Subtotal				\$158,105.00
5	At Grade Crossings				
	A. Crosswalk Marking	202	LF	\$2.50	\$505.00
	B. Crosswalk Approaches w/ Trunc. Domes	3	EA	\$1,500.00	\$4,500.00
	Subtotal				\$5,005.00
6	Storm Sewers				
	A. 18" HDPE Pipe (Assumed Average Dia.)	2966	LF	\$45.00	\$133,470.00
	B. Concrete Catch Basin (1 per 200LF)	15	EA	\$2,500.00	\$37,500.00
	Subtotal				\$170,970.00
7	Site Amenities				
	A. Bollards	6	EA	\$300.00	\$1,800.00
	B. Removable Bollards	3	EA	\$500.00	\$1,500.00
	C. Trail Signage	2966	LF	\$1.00	\$2,966.00
	D. Bench (1 per 2500')	1	EA	\$1,000.00	\$1,000.00
	E. Trash Receptacle (1 per 2500')	1	EA	\$500.00	\$500.00
	Subtotal				\$7,766.00

**HEIGHTS TO HUDSON TRAIL PLAN
CONCEPTUAL OPINION OF PROBABLE COSTS
MARCH 12, 2012**

1 - HINES HILL ROAD (BIKE & HIKE TRAIL TO OLDE EIGHT ROAD)

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL COST
8	Landscape				
	A. Trailside Seeding and Fine Grading	1300	SY	\$1.20	\$1,560.00
	B. Seeding Disturbed Areas	2600	SY	\$0.80	\$2,080.00
	C. Street Trees (1.5" Cal. Per 150LF)	20	EA	\$200.00	\$4,000.00
	D. Shrubs	1	LS	\$5,000.00	\$5,000.00
	Subtotal				\$12,640.00
9	Construction Survey & Layout				
	A. Survey & Layout	1	LS	\$5,000.00	\$5,000.00
	B. Traffic Control & Maintenance	1	LS	\$5,000.00	\$5,000.00
	Subtotal				\$10,000.00
	TOTAL				\$471,282.00
	A. Contingency (10%)				\$47,128.20
	B. General Conditions (5%)				\$25,920.51
	C. Bonds & Insurances (3%)				\$15,552.31
	D. Mobilization/Demobilization (1.5%)				\$7,776.15
	E. Design & Documents (15%)				\$77,761.53
	GRAND TOTAL				\$645,420.70

**HEIGHTS TO HUDSON TRAIL PLAN
CONCEPTUAL OPINION OF PROBABLE COSTS
MARCH 12, 2012**

2 - HINES HILL ROAD (OLDE EIGHT ROAD TO DEAN MEMORIAL PARKWAY)

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL COST
1	Site Preparation/Demolition				
	A. Clearing and Grubbing	1	LS	\$3,000.00	\$3,000.00
	B. Construction Fencing	2409	LF	\$2.50	\$6,022.50
	Subtotal				\$9,022.50
2	Earthwork				
	A. Excavation/Embankment	1100	CY	\$10.00	\$11,000.00
	B. Strip, Stockpile & Replace Topsoil	650	CY	\$10.00	\$6,500.00
	Subtotal				\$17,500.00
3	Erosion Control				
	A. Silt Fence	2409	LF	\$3.50	\$8,431.50
	B. Swale Matting Protection	700	SY	\$5.00	\$3,500.00
	C. Slope Matting Protection	2000	SY	\$5.00	\$10,000.00
	D. Erosion Control Measures	1	LS	\$3,000.00	\$3,000.00
	Subtotal				\$24,931.50
4	Trail/Parking Lot Pavement				
	A. Subgrade Preparation	3747	SY	\$1.50	\$5,620.50
	B. 10' Asphalt Trail	2677	SY	\$30.00	\$80,310.00
	C. Geogrid	3747	SY	\$6.00	\$22,482.00
	D. Driveway Asphalt Approaches (Trail to Rd.)	0	SY	\$30.00	\$0.00
	E. Saw Cut Pavement Edge (Drwy. & Curb)	0	LF	\$2.00	\$0.00
	F. Trailhead Asphalt Lot & Driveway (5-cars)	577	SY	\$30.00	\$17,310.00
	G. Concrete Curb		LF	\$15.00	\$0.00
	Subtotal				\$125,722.50
5	At Grade Crossings				
	A. Crosswalk Marking	120	LF	\$2.50	\$300.00
	B. Crosswalk Approaches w/ Trunc. Domes	3	EA	\$1,500.00	\$4,500.00
	C. Flashing Light at Olde Eight Rd. Crossing	1	EA	\$20,000.00	\$20,000.00
	Subtotal				\$24,800.00
6	Site Amenities				
	A. Bollards	6	EA	\$300.00	\$1,800.00
	B. Removable Bollards	3	EA	\$500.00	\$1,500.00
	C. Trail Signage	2409	LF	\$1.00	\$2,409.00
	D. Bench (1 per 2500')	3	EA	\$1,000.00	\$3,000.00
	E. Trash Receptacle (1 per 2500')	2	EA	\$500.00	\$1,000.00
	F. Kiosk (2-Sided)	1	EA	\$5,000.00	\$5,000.00
	Subtotal				\$14,709.00

**HEIGHTS TO HUDSON TRAIL PLAN
CONCEPTUAL OPINION OF PROBABLE COSTS
MARCH 12, 2012**

2 - HINES HILL ROAD (OLDE EIGHT ROAD TO DEAN MEMORIAL PARKWAY)

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL COST
7	Landscape				
	A. Trailside Seeding and Fine Grading	1100	SY	\$1.20	\$1,320.00
	B. Seeding Disturbed Areas	2700	SY	\$0.80	\$2,160.00
	Subtotal				\$3,480.00
8	Construction Survey & Layout				
	A. Survey & Layout	1	LS	\$3,500.00	\$3,500.00
	B. Traffic Control & Maintenance	1	LS	\$2,500.00	\$2,500.00
	Subtotal				\$6,000.00
	TOTAL				\$226,165.50
	A. Contingency (10%)				\$22,616.55
	B. General Conditions (5%)				\$12,439.10
	C. Bonds & Insurances (3%)				\$7,463.46
	D. Mobilization/Demobilization (1.5%)				\$3,731.73
	E. Design & Documents (15%)				\$37,317.31
	GRAND TOTAL				\$309,733.65

**HEIGHTS TO HUDSON TRAIL PLAN
CONCEPTUAL OPINION OF PROBABLE COSTS
MARCH 12, 2012**

3 - HINES HILL ROAD (DEAN MEMORIAL PARKWAY TO INDUSTRIAL PARKWAY)

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL COST
1	Site Preparation/Demolition				
	A. Clearing and Grubbing	0	LS	\$3,000.00	\$0.00
	B. Construction Fencing	0	LF	\$2.50	\$0.00
	Subtotal				\$0.00
2	Earthwork				
	A. Excavation/Embankment	0	CY	\$10.00	\$0.00
	B. Borrow	0	CY	\$20.00	\$0.00
	C. Strip, Stockpile & Replace Topsoil	0	CY	\$10.00	\$0.00
	Subtotal				\$0.00
3	Erosion Control				
	A. Silt Fence	0	LF	\$3.50	\$0.00
	B. Swale Matting Protection	0	SY	\$5.00	\$0.00
	C. Slope Matting Protection	0	SY	\$5.00	\$0.00
	D. Erosion Control Measures	0	LS	\$3,000.00	\$0.00
	Subtotal				\$0.00
4	Trail Pavement				
	A. Subgrade Preparation	0	SY	\$1.50	\$0.00
	B. 10' Asphalt Trail	0	SY	\$30.00	\$0.00
	C. Geogrid	0	SY	\$6.00	\$0.00
	D. Driveway Asphalt Approaches (Trail to Rd.)	111	SY	\$30.00	\$3,330.00
	E. Saw Cut Pavement Edge (Drwy. & Curb)	90	LF	\$2.00	\$180.00
	F. Concrete Curb & Barrier	1124	LF	\$40.00	\$44,960.00
	G. Restripe Lanes	1124	LF	\$2.00	\$2,248.00
	Subtotal				\$50,718.00
5	At Grade Crossings				
	A. Crosswalk Marking	74	LF	\$2.50	\$185.00
	B. Crosswalk Approaches w/ Trunc. Domes	4	EA	\$1,500.00	\$6,000.00
	Subtotal				\$6,185.00
6	Site Amenities				
	A. Bollards	4	EA	\$300.00	\$1,200.00
	B. Removable Bollards	2	EA	\$500.00	\$1,000.00
	C. Trail Signage	1124	LF	\$1.00	\$1,124.00
	Subtotal				\$3,324.00

**HEIGHTS TO HUDSON TRAIL PLAN
CONCEPTUAL OPINION OF PROBABLE COSTS
MARCH 12, 2012**

3 - HINES HILL ROAD (DEAN MEMORIAL PARKWAY TO INDUSTRIAL PARKWAY)

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL COST
7	Landscape				
	A. Trailside Seeding and Fine Grading	0	SY	\$1.20	\$0.00
	B. Seeding Disturbed Areas	0	SY	\$0.80	\$0.00
	Subtotal				\$0.00
8	Construction Survey & Layout				
	A. Survey & Layout	1	LS	\$2,500.00	\$2,500.00
	B. Traffic Control & Maintenance	1	LS	\$3,500.00	\$3,500.00
	Subtotal				\$6,000.00
	TOTAL				\$66,227.00
	A. Contingency (10%)				\$6,622.70
	B. General Conditions (5%)				\$3,642.49
	C. Bonds & Insurances (3%)				\$2,185.49
	D. Mobilization/Demobilization (1.5%)				\$1,092.75
	E. Design & Documents (15%)				\$10,927.46
	GRAND TOTAL				\$90,697.88

**HEIGHTS TO HUDSON TRAIL PLAN
CONCEPTUAL OPINION OF PROBABLE COSTS
MARCH 12, 2012**

4 - HINES HILL ROAD (INDUSTRIAL PARKWAY TO BOSTON HEIGHTS BOUNDARY)

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL COST
1	Site Preparation/Demolition				
	A. Clearing and Grubbing	1	LS	\$3,000.00	\$3,000.00
	B. Construction Fencing	3111	LF	\$2.50	\$7,777.50
	Subtotal				\$10,777.50
2	Earthwork				
	A. Excavation/Embankment	1400	CY	\$10.00	\$14,000.00
	B. Borrow	1200	CY	\$20.00	\$24,000.00
	C. Strip, Stockpile & Replace Topsoil	800	CY	\$10.00	\$8,000.00
	Subtotal				\$46,000.00
3	Erosion Control				
	A. Silt Fence	3111	LF	\$3.50	\$10,888.50
	B. Swale Matting Protection	400	SY	\$5.00	\$2,000.00
	C. Slope Matting Protection	3000	SY	\$5.00	\$15,000.00
	D. Erosion Control Measures	1	LS	\$3,000.00	\$3,000.00
	Subtotal				\$30,888.50
4	Trail Pavement				
	A. Subgrade Preparation	4737	SY	\$1.50	\$7,105.50
	B. 10' Asphalt Trail	3383	SY	\$30.00	\$101,490.00
	C. Geogrid	4737	SY	\$6.00	\$28,422.00
	D. Driveway Asphalt Approaches (Trail to Rd.)	170	SY	\$30.00	\$5,100.00
	E. Saw Cut Pavement Edge (Drwy. & Curb)	260	LF	\$2.00	\$520.00
	Subtotal				\$142,637.50
5	At Grade Crossings				
	A. Crosswalk Marking	146	LF	\$2.50	\$365.00
	B. Crosswalk Approaches w/ Trunc. Domes	4	EA	\$1,500.00	\$6,000.00
	Subtotal				\$6,365.00
6	Utilities				
	A. 12" RCP Culvert Extension	20	LF	\$50.00	\$1,000.00
	B. Adjust Fire Hydrants to Grade	8	EA	\$1,000.00	\$8,000.00
	C. Power Pole Relocation	8	EA	\$5,000.00	\$40,000.00
	Subtotal				\$49,000.00
7	Site Amenities				
	A. Bollards	4	EA	\$300.00	\$1,200.00
	B. Removable Bollards	2	EA	\$500.00	\$1,000.00
	C. Trail Signage	3111	LF	\$1.00	\$3,111.00
	D. Bench (1 per 2500')	1	EA	\$1,000.00	\$1,000.00
	E. Trash Receptacle (1 per 2500')	1	EA	\$500.00	\$500.00
	Subtotal				\$6,811.00

**HEIGHTS TO HUDSON TRAIL PLAN
CONCEPTUAL OPINION OF PROBABLE COSTS
MARCH 12, 2012**

4 - HINES HILL ROAD (INDUSTRIAL PARKWAY TO BOSTON HEIGHTS BOUNDARY)

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL COST
8	Landscape				
	A. Trailside Seeding and Fine Grading	1400	SY	\$1.20	\$1,680.00
	B. Seeding Disturbed Areas	3400	SY	\$0.80	\$2,720.00
	Subtotal				\$4,400.00
9	Construction Survey & Layout				
	A. Survey & Layout	1	LS	\$3,500.00	\$3,500.00
	B. Traffic Control & Maintenance	1	LS	\$2,500.00	\$2,500.00
	Subtotal				\$6,000.00
	TOTAL				\$302,879.50
	A. Contingency (10%)				\$30,287.95
	B. General Conditions (5%)				\$16,658.37
	C. Bonds & Insurances (3%)				\$9,995.02
	D. Mobilization/Demobilization (1.5%)				\$4,997.51
	E. Design & Documents (15%)				\$49,975.12
	GRAND TOTAL				\$414,793.48

**HEIGHTS TO HUDSON TRAIL PLAN
CONCEPTUAL OPINION OF PROBABLE COSTS
MARCH 12, 2012**

5 - HINES HILL ROAD Existing Alignment (BOSTON HEIGHTS BOUNDARY TO PROSPECT ROAD)

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL COST
1	Site Preparation/Demolition				
	A. Clearing and Grubbing	1	LS	\$5,000.00	\$5,000.00
	B. Construction Fencing	7790	LF	\$2.50	\$19,475.00
	Subtotal				\$24,475.00
2	Earthwork				
	A. Excavation/Embankment	5000	CY	\$5.00	\$25,000.00
	B. Borrow	600	CY	\$20.00	\$12,000.00
	C. Strip, Stockpile & Replace Topsoil	2100	CY	\$10.00	\$21,000.00
	Subtotal				\$58,000.00
3	Erosion Control				
	A. Silt Fence	7790	LF	\$3.50	\$27,265.00
	B. Swale Matting Protection	1600	SY	\$5.00	\$8,000.00
	C. Slope Matting Protection	7000	SY	\$5.00	\$35,000.00
	D. Erosion Control Measures	1	LS	\$3,000.00	\$3,000.00
	Subtotal				\$73,265.00
4	Trail Pavement				
	A. Subgrade Preparation	11962	SY	\$1.50	\$17,943.00
	B. 10' Asphalt Trail	8544	SY	\$30.00	\$256,320.00
	C. Geogrid	11962	SY	\$6.00	\$71,772.00
	D. Driveway Asphalt Approaches (Trail to Rd.)	111	SY	\$30.00	\$3,330.00
	E. Saw Cut Pavement Edge (Drwy. & Curb)	100	LF	\$2.00	\$200.00
	Subtotal				\$349,565.00
5	At Grade Crossings				
	A. Crosswalk Marking	57	LF	\$2.50	\$142.50
	B. Rubber Railroad Crossing (2 track)	1	LS	\$20,000.00	\$20,000.00
	C. Crosswalk Approaches w/ Trunc. Domes	6	EA	\$1,500.00	\$9,000.00
	Subtotal				\$20,142.50
6	Utilities				
	A. 12" RCP Culvert Extension	130	LF	\$50.00	\$6,500.00
	B. Adjust Fire Hydrants to Grade	5	EA	\$1,000.00	\$5,000.00
	C. Power Pole Relocation	9	EA	\$5,000.00	\$45,000.00
	Subtotal				\$56,500.00
7	Site Amenities				
	A. Bollards	12	EA	\$300.00	\$3,600.00
	B. Removable Bollards	6	EA	\$500.00	\$3,000.00
	C. Trail Signage	7790	LF	\$1.00	\$7,790.00
	D. Bench (1 per 2500')	3	EA	\$1,000.00	\$3,000.00
	E. Trash Receptacle (1 per 2500')	3	EA	\$500.00	\$1,500.00
	F. Kiosk (2-Sided)	1	EA	\$5,000.00	\$5,000.00
	G. Timber Rail	1045	LF	\$50.00	\$52,250.00
	Subtotal				\$76,140.00

**HEIGHTS TO HUDSON TRAIL PLAN
CONCEPTUAL OPINION OF PROBABLE COSTS
MARCH 12, 2012**

5 - HINES HILL ROAD Existing Alignment (BOSTON HEIGHTS BOUNDARY TO PROSPECT ROAD)

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL COST
8	Site Structures				
	A. Pre-Manufactured Bridge	40	LF	\$1,800.00	\$72,000.00
	B. Pre-Manufactured Bridge	30	LF	\$1,800.00	\$54,000.00
	C. Bridge Abutment on Roadway Wing Walls	2	EA	\$5,000.00	\$10,000.00
	D. Bridge Abutment	2	EA	\$15,000.00	\$30,000.00
	E. Bridge Approaches	4	EA	\$1,000.00	\$4,000.00
	Subtotal				\$170,000.00
9	Landscape				
	A. Trailside Seeding and Fine Grading	3500	SY	\$1.20	\$4,200.00
	B. Seeding Disturbed Areas	8600	SY	\$0.80	\$6,880.00
	Subtotal				\$11,080.00
10	Construction Survey & Layout				
	A. Survey & Layout	1	LS	\$10,000.00	\$10,000.00
	B. Traffic Control & Maintenance	1	LS	\$2,500.00	\$2,500.00
	Subtotal				\$12,500.00
	TOTAL				\$851,667.50
	A. Contingency (10%)				\$85,166.75
	B. General Conditions (5%)				\$46,841.71
	C. Bonds & Insurances (3%)				\$28,105.03
	D. Mobilization/Demobilization (1.5%)				\$14,052.51
	E. Design & Documents (15%)				\$140,525.14
	GRAND TOTAL				\$1,166,358.64

**HEIGHTS TO HUDSON TRAIL PLAN
CONCEPTUAL OPINION OF PROBABLE COSTS
MARCH 12, 2012**

6 - PROSPECT ROAD (HINES HILL ROAD TO STEEPVIEW DRIVE)

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL COST
1	Site Preparation/Demolition				
	A. Clearing and Grubbing	1	LS	\$3,000.00	\$3,000.00
	B. Construction Fencing	4905	LF	\$2.50	\$12,262.50
	Subtotal				\$15,262.50
2	Earthwork				
	A. Excavation/Embankment	2100	CY	\$10.00	\$21,000.00
	B. Borrow	400	CY	\$20.00	\$8,000.00
	C. Strip, Stockpile & Replace Topsoil	1200	CY	\$10.00	\$12,000.00
	Subtotal				\$41,000.00
3	Erosion Control				
	A. Silt Fence	4905	LF	\$3.50	\$17,167.50
	B. Swale Matting Protection	1100	SY	\$5.00	\$5,500.00
	C. Slope Matting Protection	4000	SY	\$5.00	\$20,000.00
	D. Erosion Control Measures	1	LS	\$3,000.00	\$3,000.00
	Subtotal				\$45,667.50
4	Trail Pavement				
	A. Subgrade Preparation	7148	SY	\$1.50	\$10,722.00
	B. 10' Asphalt Trail	5106	SY	\$30.00	\$153,180.00
	C. Geogrid	7148	SY	\$6.00	\$42,888.00
	D. Driveway Asphalt Approaches (Trail to Rd.)	133	SY	\$30.00	\$3,990.00
	E. Saw Cut Pavement Edge (Drwy. & Curb)	120	LF	\$2.00	\$240.00
	F. Trail Striping on Bridge	1080	LF	\$2.00	\$2,160.00
	Subtotal				\$213,180.00
5	At Grade Crossings				
	A. Crosswalk Marking	100	LF	\$2.50	\$250.00
	B. Crosswalk Approaches w/ Trunc. Domes	4	EA	\$1,500.00	\$6,000.00
	Subtotal				\$6,250.00
6	Utilities				
	A. 12" RCP Culvert Extension	85	LF	\$50.00	\$4,250.00
	B. Adjust Fire Hydrants to Grade	0	EA	\$1,000.00	\$0.00
	C. Power Pole Relocation	1	EA	\$5,000.00	\$5,000.00
	Subtotal				\$9,250.00
7	Site Amenities				
	A. Bollards	6	EA	\$300.00	\$1,800.00
	B. Removable Bollards	3	EA	\$500.00	\$1,500.00
	C. Trail Signage	4905	LF	\$1.00	\$4,905.00
	D. Bench (1 per 2500')	2	EA	\$1,000.00	\$2,000.00
	E. Trash Receptacle (1 per 2500')	2	EA	\$500.00	\$1,000.00
	F. Timber Rail	240	LF	\$50.00	\$12,000.00
	Subtotal				\$23,205.00

**HEIGHTS TO HUDSON TRAIL PLAN
CONCEPTUAL OPINION OF PROBABLE COSTS
MARCH 12, 2012**

6 - PROSPECT ROAD (HINES HILL ROAD TO STEEPVIEW DRIVE)

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL COST
8	Landscape				
	A. Trailside Seeding and Fine Grading	2100	SY	\$1.20	\$2,520.00
	B. Seeding Disturbed Areas	5100	SY	\$0.80	\$4,080.00
	Subtotal				\$6,600.00
9	Construction Survey & Layout				
	A. Survey & Layout	1	LS	\$5,000.00	\$5,000.00
	B. Traffic Control & Maintenance	1	LS	\$2,500.00	\$2,500.00
	Subtotal				\$7,500.00
	TOTAL				\$367,915.00
	A. Contingency (10%)				\$36,791.50
	B. General Conditions (5%)				\$20,235.33
	C. Bonds & Insurances (3%)				\$12,141.20
	D. Mobilization/Demobilization (1.5%)				\$6,070.60
	E. Design & Documents (15%)				\$60,705.98
	GRAND TOTAL				\$503,859.59

**HEIGHTS TO HUDSON TRAIL PLAN
CONCEPTUAL OPINION OF PROBABLE COSTS
MARCH 12, 2012**

7 - PROSPECT ROAD (CLAYTON COURT TO MORSE ROAD)

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL COST
1	Site Preparation/Demolition				
	A. Clearing and Grubbing	1	LS	\$4,000.00	\$4,000.00
	B. Construction Fencing	922	LF	\$2.50	\$2,305.00
	Subtotal				\$6,305.00
2	Earthwork				
	A. Excavation/Embankment	2500	CY	\$5.00	\$12,500.00
	B. Strip, Stockpile & Replace Topsoil	300	CY	\$10.00	\$3,000.00
	Subtotal				\$15,500.00
3	Erosion Control				
	A. Silt Fence	922	LF	\$3.50	\$3,227.00
	B. Swale Matting Protection	500	SY	\$5.00	\$2,500.00
	C. Slope Matting Protection	500	SY	\$5.00	\$2,500.00
	D. Erosion Control Measures	1	LS	\$3,000.00	\$3,000.00
	Subtotal				\$11,227.00
4	Trail Pavement				
	A. Subgrade Preparation	1369	SY	\$1.50	\$2,053.50
	B. Widen Sidewalk (5' addition to existing)	4610	SF	\$5.00	\$23,050.00
	C. Geogrid	1369	SY	\$6.00	\$8,214.00
	D. Driveway Asphalt Approaches (Trail to Rd.)	90	SY	\$30.00	\$2,700.00
	E. Saw Cut Pavement Edge (Drwy. & Curb)	80	LF	\$2.00	\$160.00
	Subtotal				\$36,177.50
5	At Grade Crossings				
	A. Crosswalk Marking	72	LF	\$2.50	\$180.00
	B. Crosswalk Approaches w/ Trunc. Domes	1	EA	\$1,500.00	\$1,500.00
	Subtotal				\$1,680.00
6	Utilities				
	A. 12" RCP Culvert Extension	0	LF	\$50.00	\$0.00
	B. Adjust Fire Hydrants to Grade	0	EA	\$1,000.00	\$0.00
	C. Power Pole Relocation	3	EA	\$5,000.00	\$15,000.00
	Subtotal				\$15,000.00
7	Site Amenities				
	A. Bollards	2	EA	\$300.00	\$600.00
	B. Removable Bollards	1	EA	\$500.00	\$500.00
	C. Trail Signage	922	LF	\$1.00	\$922.00
	D. Bench (1 per 2500')	1	EA	\$1,000.00	\$1,000.00
	E. Trash Receptacle (1 per 2500')	1	EA	\$500.00	\$500.00
	Subtotal				\$3,522.00

**HEIGHTS TO HUDSON TRAIL PLAN
CONCEPTUAL OPINION OF PROBABLE COSTS
MARCH 12, 2012**

7 - PROSPECT ROAD (CLAYTON COURT TO MORSE ROAD)

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL COST
8	Landscape				
	A. Trailside Seeding and Fine Grading	400	SY	\$1.20	\$480.00
	B. Seeding Disturbed Areas	1000	SY	\$0.80	\$800.00
	Subtotal				\$1,280.00
9	Construction Survey & Layout				
	A. Survey & Layout	1	LS	\$1,500.00	\$1,500.00
	B. Traffic Control & Maintenance	1	LS	\$1,500.00	\$1,500.00
	Subtotal				\$3,000.00
	TOTAL				\$93,691.50
	A. Contingency (10%)				\$9,369.15
	B. General Conditions (5%)				\$5,153.03
	C. Bonds & Insurances (3%)				\$3,091.82
	D. Mobilization/Demobilization (1.5%)				\$1,545.91
	E. Design & Documents (15%)				\$15,459.10
	GRAND TOTAL				\$128,310.51

**HEIGHTS TO HUDSON TRAIL PLAN
CONCEPTUAL OPINION OF PROBABLE COSTS
MARCH 12, 2012**

8 - MORSE ROAD (PROSPECT TO OWEN BROWN STREET)

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL COST
1	Site Preparation/Demolition				
	A. Clearing and Grubbing	1	LS	\$7,500.00	\$7,500.00
	B. Construction Fencing	2478	LF	\$2.50	\$6,195.00
	C. Concrete Pavement Removal	395	SY	\$5.00	\$1,975.00
	Subtotal				\$15,670.00
2	Earthwork				
	A. Excavation/Embankment	2500	CY	\$5.00	\$12,500.00
	B. Strip, Stockpile & Replace Topsoil	700	CY	\$10.00	\$7,000.00
	Subtotal				\$19,500.00
3	Erosion Control				
	A. Silt Fence	2478	LF	\$3.50	\$8,673.00
	B. Swale Matting Protection	800	SY	\$5.00	\$4,000.00
	C. Slope Matting Protection	2000	SY	\$5.00	\$10,000.00
	D. Erosion Control Measures	1	LS	\$3,000.00	\$3,000.00
	Subtotal				\$25,673.00
4	Trail Pavement				
	A. Subgrade Preparation	3855	SY	\$1.50	\$5,782.50
	B. 10' Asphalt Trail	2753	SY	\$30.00	\$82,590.00
	C. Geogrid	3855	SY	\$6.00	\$23,130.00
	D. Driveway Asphalt Approaches (Trail to Rd.)	25	SY	\$30.00	\$750.00
	E. Saw Cut Pavement Edge (Drwy. & Curb)	20	LF	\$2.00	\$40.00
	Subtotal				\$112,292.50
5	At Grade Crossings				
	A. Crosswalk Marking	37	LF	\$2.50	\$92.50
	B. Crosswalk Approaches w/ Trunc. Domes	2	EA	\$1,500.00	\$3,000.00
	Subtotal				\$3,092.50
6	Utilities				
	A. 12" RCP Culvert Extension	0	LF	\$50.00	\$0.00
	B. Adjust Fire Hydrants to Grade	0	EA	\$1,000.00	\$0.00
	C. Power Pole Relocation	0	EA	\$5,000.00	\$0.00
	Subtotal				\$0.00
7	Site Amenities				
	A. Bollards	4	EA	\$300.00	\$1,200.00
	B. Removable Bollards	2	EA	\$500.00	\$1,000.00
	C. Trail Signage	2478	LF	\$1.00	\$2,478.00
	D. Bench (1 per 2500')	1	EA	\$1,000.00	\$1,000.00
	E. Trash Receptacle (1 per 2500')	1	EA	\$500.00	\$500.00
	F. Repair & Repoint Ex. Stone Arch Culvert	1	LS	\$5,000.00	\$5,000.00
	G. Timber Rail	100	LF	\$50.00	\$5,000.00
	Subtotal				\$16,178.00

**HEIGHTS TO HUDSON TRAIL PLAN
CONCEPTUAL OPINION OF PROBABLE COSTS
MARCH 12, 2012**

8 - MORSE ROAD (PROSPECT TO OWEN BROWN STREET)

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL COST
8	Landscape				
	A. Trailside Seeding and Fine Grading	1200	SY	\$1.20	\$1,440.00
	B. Seeding Disturbed Areas	2800	SY	\$0.80	\$2,240.00
	Subtotal				\$3,680.00
9	Construction Survey & Layout				
	A. Survey & Layout	1	LS	\$5,000.00	\$5,000.00
	B. Traffic Control & Maintenance	1	LS	\$2,500.00	\$2,500.00
	Subtotal				\$7,500.00
	TOTAL				\$203,586.00
	A. Contingency (10%)				\$20,358.60
	B. General Conditions (5%)				\$11,197.23
	C. Bonds & Insurances (3%)				\$6,718.34
	D. Mobilization/Demobilization (1.5%)				\$3,359.17
	E. Design & Documents (15%)				\$33,591.69
	GRAND TOTAL				\$278,811.03

**HEIGHTS TO HUDSON TRAIL PLAN
CONCEPTUAL OPINION OF PROBABLE COSTS
MARCH 12, 2012**

9 - BRANDYWINE CREEK (OWEN BROWN STREET TO East Streetsboro Road)

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL COST
1	Site Preparation/Demolition				
	A. Clearing and Grubbing	1	LS	\$3,000.00	\$3,000.00
	B. Construction Fencing	1436	LF	\$2.50	\$3,590.00
	C. Asphalt Pavement Removal	417	SY	\$5.00	\$2,085.00
	Subtotal				\$8,675.00
2	Earthwork				
	A. Excavation/Embankment	150	CY	\$10.00	\$1,500.00
	B. Borrow	150	CY	\$20.00	\$3,000.00
	C. Strip, Stockpile & Replace Topsoil	400	CY	\$10.00	\$4,000.00
	Subtotal				\$8,500.00
3	Erosion Control				
	A. Silt Fence	1436	LF	\$3.50	\$5,026.00
	B. Swale Matting Protection	600	SY	\$5.00	\$3,000.00
	C. Slope Matting Protection	1000	SY	\$5.00	\$5,000.00
	D. Erosion Control Measures	1	LS	\$3,000.00	\$3,000.00
	Subtotal				\$16,026.00
4	Trail Pavement				
	A. Subgrade Preparation	2234	SY	\$1.50	\$3,351.00
	B. 10' Asphalt Trail	1174	SY	\$30.00	\$35,220.00
	C. Widen Asphalt Trail (8' to 10' wide)	327	SY	\$25.00	\$8,175.00
	D. Widen Sidewalk (5' concrete addition)	425	SF	\$5.00	\$2,125.00
	E. Brick Band next to Widen Sidewalk (3' wide)	255	SF	\$8.00	\$2,040.00
	F. Geogrid	2234	SY	\$6.00	\$13,404.00
	G. Driveway Asphalt Approaches (Trail to Rd.)	0	SY	\$30.00	\$0.00
	H. Saw Cut Pavement Edge (Drwy. & Curb)	0	LF	\$2.00	\$0.00
	Subtotal				\$64,315.00
5	At Grade Crossings				
	A. Crosswalk Marking	93	LF	\$2.50	\$232.50
	B. Crosswalk Approaches w/ Trunc. Domes	7	EA	\$1,500.00	\$10,500.00
	Subtotal				\$10,732.50
6	Utilities				
	A. 12" RCP Culvert Extension	0	LF	\$50.00	\$0.00
	B. Adjust Fire Hydrants to Grade	0	EA	\$1,000.00	\$0.00
	C. Power Pole Relocation	0	EA	\$5,000.00	\$0.00
	Subtotal				\$0.00
7	Site Amenities				
	A. Bollards	14	EA	\$300.00	\$4,200.00
	B. Removable Bollards	7	EA	\$500.00	\$3,500.00
	C. Trail Signage	1522	LF	\$1.00	\$1,522.00
	D. Relocate Signage	1	LS	\$1,000.00	\$1,000.00
	E. Bench (1 per 2500')	3	EA	\$1,000.00	\$3,000.00
	F. Trash Receptacle (1 per 2500')	2	EA	\$500.00	\$1,000.00
	G. Kiosk (3-Sided)	1	EA	\$7,000.00	\$7,000.00
	H. Timber Rail	160	LF	\$50.00	\$8,000.00
	Subtotal				\$29,222.00

**HEIGHTS TO HUDSON TRAIL PLAN
CONCEPTUAL OPINION OF PROBABLE COSTS
MARCH 12, 2012**

9 - BRANDYWINE CREEK (OWEN BROWN STREET TO East Streetsboro Road)

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL COST
8	Site Structures				
	A. Pre-Manufactured Bridge	30	LF	\$1,800.00	\$54,000.00
	B. Bridge Abutment	2	EA	\$15,000.00	\$30,000.00
	Subtotal				\$84,000.00
9	Landscape				
	A. Trailside Seeding and Fine Grading	700	SY	\$1.20	\$840.00
	B. Seeding Disturbed Areas	1600	SY	\$0.80	\$1,280.00
	C. Trees (3" Cal.)	10	EA	\$400.00	\$4,000.00
	D. Shrubs/Perennials	1	LS	\$5,000.00	\$5,000.00
	Subtotal				\$11,120.00
10	Construction Survey & Layout				
	A. Survey & Layout	1	LS	\$5,000.00	\$5,000.00
	B. Traffic Control & Maintenance	1	LS	\$2,000.00	\$2,000.00
	Subtotal				\$7,000.00
	TOTAL				\$239,590.50
	A. Contingency (10%)				\$23,959.05
	B. General Conditions (5%)				\$13,177.48
	C. Bonds & Insurances (3%)				\$7,906.49
	D. Mobilization/Demobilization (1.5%)				\$3,953.24
	E. Design & Documents (15%)				\$39,532.43
	GRAND TOTAL				\$328,119.19

**HEIGHTS TO HUDSON TRAIL PLAN
CONCEPTUAL OPINION OF PROBABLE COSTS
MARCH 12, 2012**

10 - BRANDYWINE CREEK (EAST STREETSBORO ROAD TO VETERANS WAY PARK)

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL COST
1	Site Preparation/Demolition				
	A. Clearing and Grubbing	1	LS	\$2,000.00	\$2,000.00
	B. Construction Fencing	668	LF	\$2.50	\$1,670.00
	C. Saw Cut	581	LF	\$2.00	\$1,162.00
	D. Asphalt Pavement Removal	300	SY	\$5.00	\$1,500.00
	E. Concrete Pavement Removal	500	SY	\$5.00	\$2,500.00
	Subtotal				\$8,832.00
2	Earthwork				
	A. Excavation/Embankment	750	CY	\$10.00	\$7,500.00
	B. Strip, Stockpile & Replace Topsoil	300	CY	\$10.00	\$3,000.00
	Subtotal				\$10,500.00
3	Erosion Control				
	A. Silt Fence	668	LF	\$3.50	\$2,338.00
	B. Swale Matting Protection	0	SY	\$5.00	\$0.00
	C. Slope Matting Protection	800	SY	\$5.00	\$4,000.00
	D. Erosion Control Measures	1	LS	\$3,000.00	\$3,000.00
	Subtotal				\$9,338.00
4	Trail/Parking Lot Pavement				
	A. Subgrade Preparation	1039	SY	\$1.50	\$1,558.50
	B. 10' Asphalt Trail	742	SY	\$30.00	\$22,260.00
	C. Geogrid	1039	SY	\$6.00	\$6,234.00
	D. Driveway Asphalt Approaches (Trail to Rd.)	0	SY	\$30.00	\$0.00
	E. Saw Cut Pavement Edge (Drwy. & Curb)	0	LF	\$2.00	\$0.00
	F. Asphalt Parking Lot Connections	173	SY	\$30.00	\$5,190.00
	G. Concrete Curb	650	LF	\$15.00	\$9,750.00
	Subtotal				\$44,992.50
5	At Grade Crossings				
	A. Crosswalk Marking	0	LF	\$2.50	\$0.00
	B. Crosswalk Approaches w/ Trunc. Domes	4	EA	\$1,500.00	\$6,000.00
	Subtotal				\$6,000.00
6	Utilities				
	A. 12" RCP Culvert Extension	0	LF	\$50.00	\$0.00
	B. Adjust Fire Hydrants to Grade	0	EA	\$1,000.00	\$0.00
	C. Power Pole Relocation	0	EA	\$5,000.00	\$0.00
	Subtotal				\$0.00
7	Site Amenities				
	A. Bollards	8	EA	\$300.00	\$2,400.00
	B. Removable Bollards	4	EA	\$500.00	\$2,000.00
	C. Trail Signage	1426	LF	\$1.00	\$1,426.00
	D. Bench (1 per 2500')	1	EA	\$1,000.00	\$1,000.00
	E. Trash Receptacle (1 per 2500')	1	EA	\$500.00	\$500.00
	F. Timber Rail	869	LF	\$50.00	\$43,450.00
	Subtotal				\$50,776.00

**HEIGHTS TO HUDSON TRAIL PLAN
CONCEPTUAL OPINION OF PROBABLE COSTS
MARCH 12, 2012**

10 - BRANDYWINE CREEK (EAST STREETSBORO ROAD TO VETERANS WAY PARK)

ITEM	DESCRIPTION	QUANTITY	UNIT	UNIT COST	TOTAL COST
8	Landscape				
	A. Trailside Seeding and Fine Grading	300	SY	\$1.20	\$360.00
	B. Seeding Disturbed Areas	800	SY	\$0.80	\$640.00
	Subtotal				\$1,000.00
9	Construction Survey & Layout				
	A. Survey & Layout	1	LS	\$5,000.00	\$5,000.00
	B. Traffic Control & Maintenance	1	LS	\$2,000.00	\$2,000.00
	Subtotal				\$7,000.00
	TOTAL				\$138,438.50
	A. Contingency (10%)				\$13,843.85
	B. General Conditions (5%)				\$7,614.12
	C. Bonds & Insurances (3%)				\$4,568.47
	D. Mobilization/Demobilization (1.5%)				\$2,284.24
	E. Design & Documents (15%)				\$22,842.35
	GRAND TOTAL				\$189,591.53