



3500 Parkway Lane, Suite 500
Peachtree Corners, Georgia 30092

T: 678.336.7740 | F: 678.336.7744
www.pondco.com



MULTI-USE PATH CROSSING SR 74 SOUTH OF CROSSTOWN DRIVE FEASIBILITY STUDY

May 9th, 2023

PROJECT UNDERSTANDING:

Peachtree City desires to investigate the feasibility of a bridge or tunnel to carry a multi-use path across SR 74 just south of Crosstown Drive. The crossing will connect the existing golf cart path near the Hoshizaki property to the development across SR 74/Joel Cowan Pkwy and then tie-in to TDK Blvd to align with the city's future development of their multi-use path system. This study identifies two crossing locations with approaches and includes concept-level cost estimates. The final connection to the proposed multi-use system at TDK Blvd is beyond the scope of this study.

ALTERNATIVES:

Pond prepared two concept-level plan and profile alternates that identified potential crossing locations. After a high-level review, a tunnel was excluded as an alternative due to existing terrain constraints and overall cost. The final two alternatives consist of a bridge structure with a truss main span over SR 74 with rail-to-rail width of 14 feet, minimum vertical clearance of 17 feet, and approach grades no greater than five percent. The assumed pavement design for the path will consist of 9.5 MM, and 19 MM recycled asphalt concrete layers and a 4-inch graded aggregate base layer. The layouts used GIS contour information, property lines, and aerial imagery that were provided by the City. In both alternatives the multi-use path will tie into TDK Blvd. However, future design refinement and enhancements will be needed to ensure that the path is appropriately connected to TDK Blvd. As this is only a feasibility study, additional improvements need to be further evaluated. These include but are not limited to drainage, environmental permitting, ROW acquisition, etc. These improvements have been considered in terms of the cost, but not evaluated at this stage.

ALTERNATIVE 1:

See **Exhibit 1** for the plan and profile of Alternative 1.

Alternative 1 will cross SR 74 along the northern property line of Hoshizaki America Inc. and connect to Home Plate Baseball Field. The east end connects to the existing golf cart path and the west end will eventually connect to TDK Blvd. The multi-use path connection to TDK Blvd from the limits of study will follow along the north side of Home Plate Baseball and turn north crossing TDK Way and following along the west side of TDK Way until finally linking up with TDK Blvd. The main concern with this alternative was the fill limits which were reduced using a Mechanically Stabilized Earth (MSE) retaining wall on the west end approach and two GDOT Standard Cantilever retaining walls along Hoshizaki's parking lot. Additionally, this crossing location will require a drainage pipe to convey water under the bridge on the east end approach. This feasibility study has laid out a conceptual alignment that will require the last 200 feet which connects to the existing golf cart path to be lengthen by either using switchbacks or realignment to flatten the slopes of the proposed trail. The total cost estimate for this alternative is \$3,405,000.

ALTERNATIVE 2:

See **Exhibit 2** for the plan and profile of Alternative 2.

Alternative 2 will cross SR 74 between the south side of Hoshizaki America Inc. and the commercial building surrounded by TDK Way. The east end connects to the existing golf cart path and the west end will eventually connect to TDK Blvd. The multi-use path connection to TDK Blvd from the limits of study will follow along the south face of the existing commercial building, then turn north following on the west side of TDK Way until finally linking up with TDK Blvd. The main concern for this alternative was creating a path that would provide enough length to flatten the slopes to meet ADA requirements. This alternative has laid out a conceptual alignment that will require



the last 150 feet which connects to the existing golf cart path to be lengthen by either using switchbacks or realignment to flatten the slopes of the proposed trail. The total cost estimate for this alternative is \$3,396,000.

COST ESTIMATE:

See Exhibit 3 for cost estimate summary of both alternatives.

RECOMMENDATION:

Overall, both alternatives have approximately the same total cost. However, there are additional factors to consider when determining which alternative is preferred. For instance, the trail connection to TDK Blvd is longer on Alternative 2 requiring additional ROW since the path is further along south of TDK Way. On the other hand, while both will require considerable grading work Alternative 1 appears to require more fill along with additional retaining wall. Another concern is the sharp paths on Alternative 2 which create a more complex route for users. Both routes will require additional alignment lengthening or switchbacks for the eastern connection due to their steep slopes. The path for Alternative 1 provides a more direct connection between the two developments and less sharp maneuvers. With these findings and considerations in mind Alternative 1 is the more suitable choice at this stage.



3500 Parkway Lane, Suite 500
Peachtree Corners, Georgia 30092

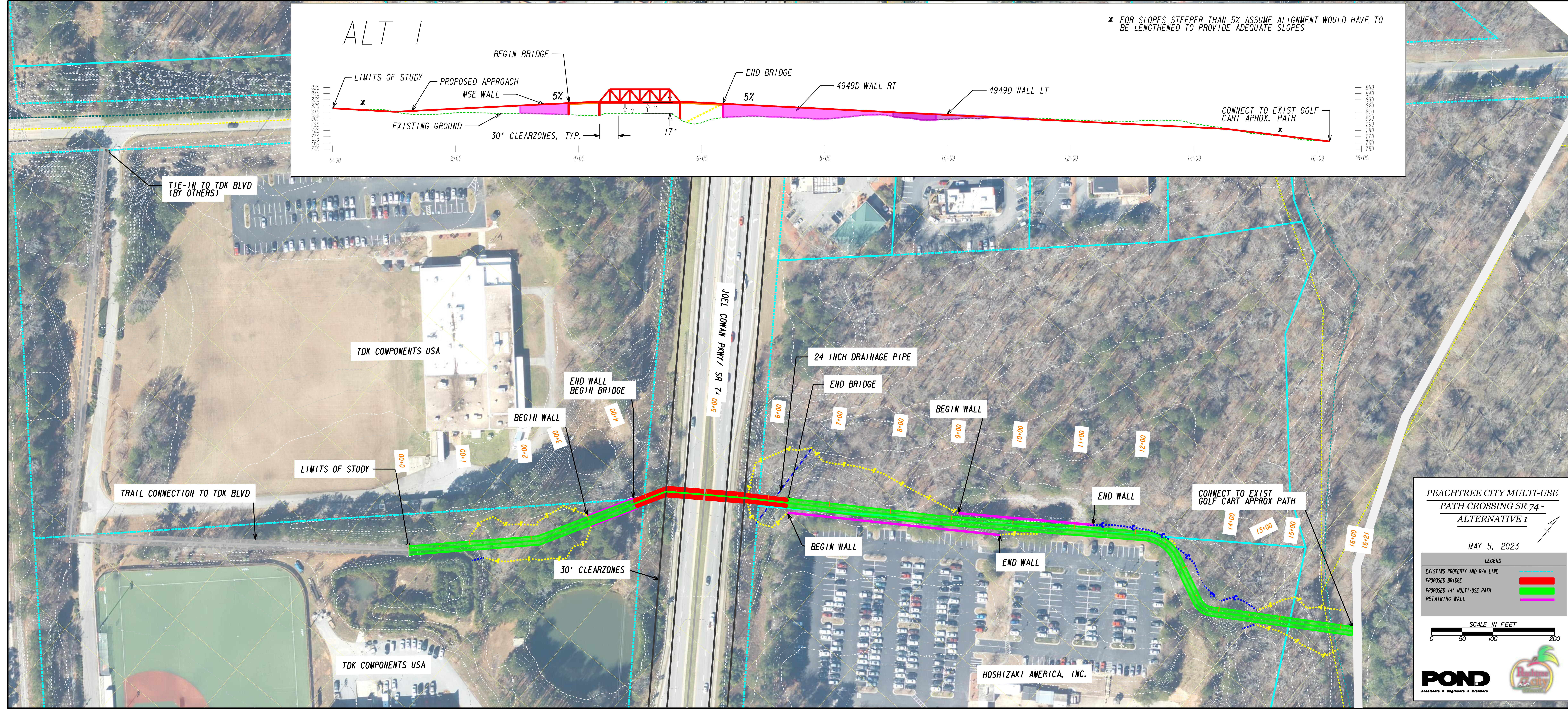
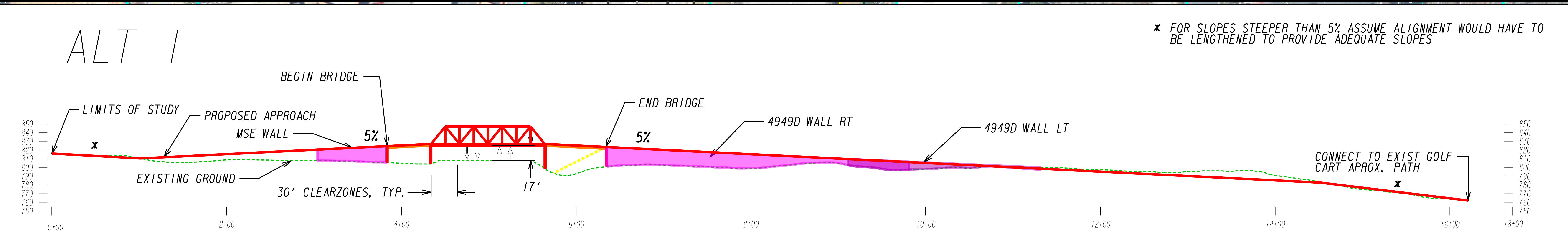
T: 678.336.7740 | F: 678.336.7744
www.pondco.com



EXHIBIT 1: ALTERNATIVE 1

ALT 1

* FOR SLOPES STEEPER THAN 5% ASSUME ALIGNMENT WOULD HAVE TO BE LENGTHENED TO PROVIDE ADEQUATE SLOPES

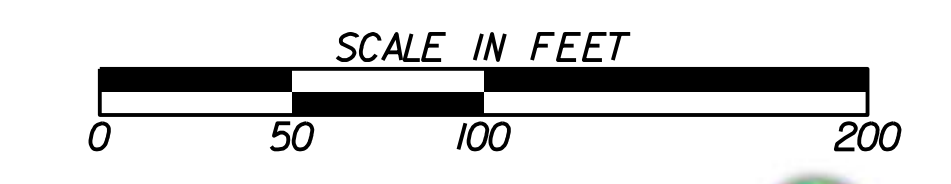


PEACHTREE CITY MULTI-USE PATH CROSSING SR 74 - ALTERNATIVE 1

MAY 5, 2023

LEGEND

EXISTING PROPERTY AND R/W LINE	
PROPOSED BRIDGE	
PROPOSED 14' MULTI-USE PATH	
RETAINING WALL	



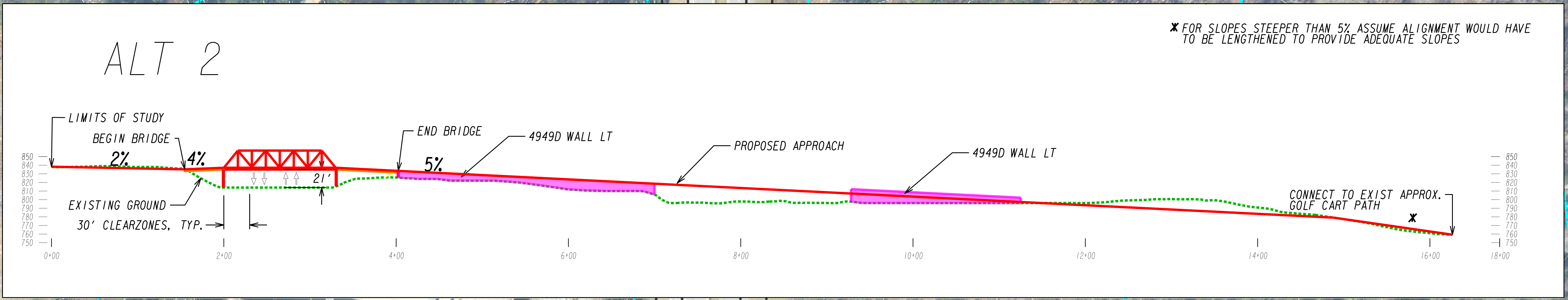
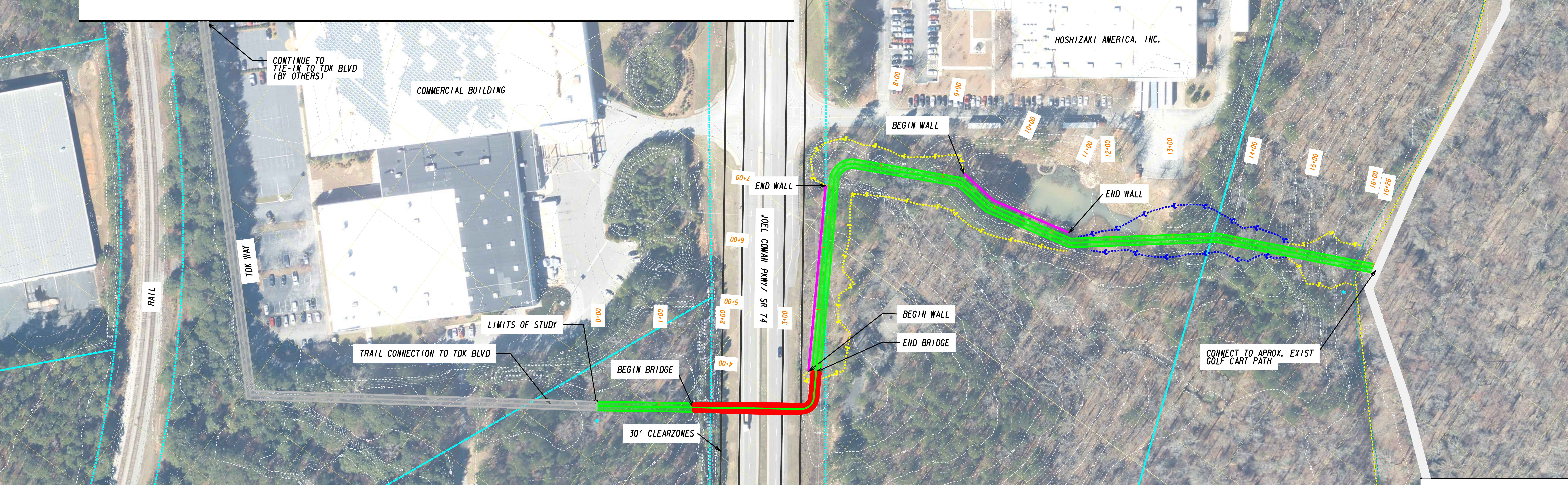


3500 Parkway Lane, Suite 500
Peachtree Corners, Georgia 30092

T: 678.336.7740 | F: 678.336.7744
www.pondco.com



EXHIBIT 2: ALTERNATIVE 2

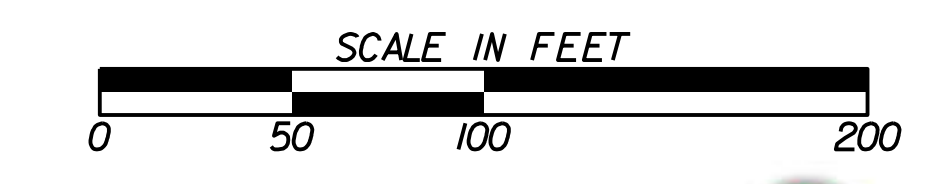


PEACHTREE CITY MULTI-USE
 PATH CROSSING SR 74 -
 ALTERNATIVE 2A

MAY 5, 2023

LEGEND

EXISTING PROPERTY AND R/W LINE	(Cyan dashed line)
PROPOSED BRIDGE	(Red truss)
PROPOSED 14' MULTI-USE PATH	(Green line)
RETAINING WALL	(Purple line)





3500 Parkway Lane, Suite 500
Peachtree Corners, Georgia 30092

T: 678.336.7740 | F: 678.336.7744
www.pondco.com



EXHIBIT 3: COST ESTIMATE

ALTERNATIVE 1				
	UNIT	UNIT \$	QUANTITY	COST
Multi-use Path				
CLASS A CONCRETE, TYPE P3, RETAINING WALL	LF	\$ 921.00	567	\$ 522,207.00
RECYCLED ASPH CONC 9.5 MM SUPERPAVE - 135 LBS/SY	TN	\$ 420.00	268	\$ 112,668.32
RECYCLED ASPH CONC 19 MM SUPERPAVE -220 LB/SY	TN	\$ 123.94	437	\$ 54,181.74
GR AGGR BASE CRS. INCL MATL - 6 IN	SY	\$ 27.97	3974	\$ 111,158.13
MSE WALL	SF	\$ 75.00	3204	\$ 240,300.00
GRADING COMPLETE	LS	\$ 200,000.00	1	\$ 200,000.00
Bridge				
CONSTRUCTION OF BRIDGE COMPLETE	LS	\$ 894,080.00	1	\$ 894,080.00
Drainage	LS	\$ 533,648.80	1	\$ 533,648.80
Erosion Control	LS	\$ 106,729.76	1	\$ 106,729.76
Signing and Marking	LS	\$ 106,729.76	1	\$ 106,729.76
ROW Acquisition	LS	\$ 522,379.00	1	\$ 522,379.00
TOTAL			\$ 3,404,082.49	

ALTERNATIVE 2				
	UNIT	UNIT \$	QUANTITY	COST
Multi-use Path				
CLASS A CONCRETE, TYPE P3, RETAINING WALL	LF	\$ 921.00	496	\$ 456,816.00
RECYCLED ASPH CONC 9.5 MM SUPERPAVE - 135 LBS/SY	TN	\$ 420.00	423	\$ 177,650.93
RECYCLED ASPH CONC 19 MM SUPERPAVE -220 LB/SY	TN	\$ 123.94	689	\$ 85,431.61
GR AGGR BASE CRS. INCL MATL - 6 IN	SY	\$ 27.97	6266	\$ 175,269.72
GRADING COMPLETE	LS	\$ 200,000.00	1	\$ 200,000.00
Bridge				
CONSTRUCTION OF BRIDGE COMPLETE	LS	\$ 869,440.00	1	\$ 869,440.00
Drainage	LS	\$ 491,152.06	1	\$ 491,152.06
Erosion Control	LS	\$ 98,230.41	1	\$ 98,230.41
Signing and Marking	LS	\$ 98,230.41	1	\$ 98,230.41
ROW Acquisition	LS	\$ 743,639.00	1	\$ 743,639.00
TOTAL			\$ 3,395,860.14	