

Raulston L. Travis, P.E.
International and Forensic Consulting Group, LLC
259 Blue Bonnet Trail
Marietta, SC 29661
(803) 331-1141 Telephone



First Revised Impact Assessment Report

**INTERSTATE-77 PANTHER INTERCHANGE DESIGN-BUILD PROJECT
YORK COUNTY
TRACT 36 – COLE ID AND EXEL, INC.
DHL SUPPLY CHAIN FACILITY**

IFCG File No: I02200431

**Prepared For:
INTEGRA REALTY RESOURCES – CHARLOTTE
214 WEST TREMONT AVENUE
SUITE 200
CHARLOTTE, NORTH CAROLINA 28203**

**Attention:
TRACY J. BOUYE, MAI**

A handwritten signature in blue ink that reads "Raulston L. Travis".

**Raulston L. Travis, P.E.
SC License #23195
Senior Consultant**



TABLE OF CONTENTS

I. Introduction3
II. Conclusions5
III. Analysis7
IV. Figures.....13
V. Photographs15
VI. Cost to Cure.....25

Section I INTRODUCTION

In order to provide access to the adjacent proposed Carolina Panther development and surrounding area, the South Carolina Department of Transportation (SCDOT) has a design build project in progress to create a new full access interstate interchange on I-77 in York County. The new interchange will provide access from I-77 to the new boulevard which is approximately 1 mile south of US 21 Bypass/Cherry Rd (Exit 82) and approximately 1.5 miles north of SC 122/Dave Lyle Blvd (Exit 79).

The proposed alignment of the boulevard and interchange with I-77 is shown in Figure 1. The subject parcel, owned by Cole ID and EXEL, Inc., operating as a DHL Supply Chain Facility was located at 996 Paragon Way, Rock Hill, SC and was impacted by the project improvements requiring a partial right-of-way take.

International and Forensic Consulting Group, LLC was retained by Integra Realty Resources and the South Carolina Department of Transportation to perform an inspection of the subject property and perform an impact assessment evaluation to determine physical impacts to the property caused by the I-77 Panther Interchange design build project. Raulston L. Travis, P.E. performed an inspection of the property on February 18, 2020 and prepared an **Impact Assessment Report** that was issued on March 19, 2020, in reference to our investigation. Subsequently, we were asked to re-evaluate the impacts to the property and our cost to cure estimate due to the revised proposed new right-of-way line based on the design established by the design team, Neel-Schaffer, for the project. This **First Revised Impact Assessment Report** addresses the above requested revisions.

This report was prepared for the exclusive use of Integra Realty Resources and was not intended for any other purpose. This report was based on the information available to us at the date of this report.

Should additional information become available, we reserve the right to determine the impact, if any, the new information may have on our opinions and conclusions, and to revise our opinions and conclusions if necessary and warranted.

Section II CONCLUSIONS

1. Vehicular and pedestrian access to the subject property were reviewed and analyzed with no impacts noted to pedestrian access to the property. Impacts to the vehicular access to the property were determined with a viable solution to relocate the driveway developed to modify the existing driveway alignment.
2. On-site vehicular and pedestrian circulation on the subject property was reviewed and analyzed with no impacts noted to pedestrian circulation on the property. Impacts to the vehicular circulation to the property were determined with a viable solution developed to modify the existing driveway and on-site circulation alignments.
3. The acquisition of right-of-way for the I-77 Panther Interchange design build project will impact the vehicular access for the truck driveway entrance and truck maneuverability to the DHL Supply Chain facility on the north side of the property and perimeter road alignment to the back of the building. The driveway will need to be relocated south along Paragon Way due to the alignment of the boulevard providing access to the Panther development and the surrounding area and the T-intersection proposed with Paragon Way.
4. The acquisition of right-of-way for the I-77 Panther Interchange design build project will impact the vehicular circulation at the northern portion of the property where the new right-of-way for the boulevard will cross the perimeter road alignment at the north side of the building and the proposed interstate ramp and new right-of-way will impact the perimeter road at the back of the building. Paragon Way will intersect with the boulevard alignment in a T-intersection with the boulevard serving as the main road and Paragon Way will operate as a stop condition. The proximity of this new intersection in relation to the DHL driveway and the impacts to the perimeter road will necessitate the relocation of the DHL gated driveway truck entrance. The relocation of the driveway and the modified alignment of the perimeter road along the north side

and to the rear of the building will also require the existing storm drainage system to be modified to accommodate the new driveway and perimeter road alignment.

5. The stormwater pond at the back (west) of the parcel is impacted by the right-of-way for the I-77 Panther Interchange design build project. The volume eliminated due to the new right-of-way can be recovered by expanding the size of the existing pond to the south.
6. The site had been designed to accommodate an expansion of the building 200 feet to the north providing an additional 94,000 square feet. The area viable for an expansion with the modifications proposed due to the I-77 design build project will decrease the size of the expansion to 23,500 square feet.
7. There are viable options to address the impacts to the vehicular access, vehicular circulation and the impacts to the stormwater pond and storm drainage system on the property. The driveway can be relocated approximately 125 feet south of the existing location, impacting the driveway island, security pole and cameras, electronic gate system (both the entrance swing gate and the exit automatic sliding gate), the 4 key pads and call boxes for vehicles and trucks, the gate operator control panel and emergency shut off, shipping and receiving signs, the DHL sign, light poles, black vinyl chain link fence and the pedestrian gate, removal and replacement of catch basins and drop inlets, boulders in grass areas in the radii of the perimeter road, the manual double swing gates that provides maintenance access along the perimeter road and around the pond, irrigation system, transformer, and conduits under the driveway for electrical service and utilities. The pond can be modified that will include excavation for the new pond and filling of the existing pond, removal and replacement of the inlet structure to the pond, removal and replacement of the outlet structure and pipe at the pond, removal and replacement of rip rap aprons at the inlet and outlet for the pond, removal and replacement of the headwall at the outlet of the pond, and removal and replacement of the grass emergency spillway. The project impacts will require relocation of the items listed above for the new driveway location and pond modifications with construction items including surveys and staking, traffic control,

erosion control, slope stabilization, inlet protection, rip rap, pavement and curb and gutter demolition outside the new SCDOT right-of-way, rough and fine grading, curb and gutter, aggregate base course, asphalt and concrete paving, remove manhole, catch basins, drop inlets, 48-inch, 54-inch, and 72-inch reinforced concrete pipe (RCP), flowable fill for abandoned RCP, 36-inch HDPE, gravel at the driveway island, trees, shrubs, and seeding for the driveway entrance, perimeter road re-alignment to the back of the building, and pond modifications. The estimated cost to cure the impacts to the vehicular access, vehicular circulation, and storm drainage and pond modifications of the subject property is \$5,147,312.86. This cost includes \$631,991.74 for predesign services including surveys and geotechnical investigations, site and hydrology design, permitting, QA/QC testing, and construction management and oversight.

Section III ANALYSIS

The impacts to Tract 36 were based on an aerial photograph and preliminary plans designed by Neel-Schaffer for the I-77 Panther Interchange design build project as provided by the SCDOT. The preliminary plans indicated that the new boulevard would curve and tie into Paragon Way north of the DHL driveway. A new T-intersection with Paragon Way would be created north of the DHL driveway with the boulevard as the main road and Paragon Way operating as a stop condition. Based on the information provided, the estimated location of the proposed right-of-way in relation to Tract 36 was conveyed onto the site plans for Tract 36 as provided by DHL.

Vehicular and pedestrian access to the subject property were reviewed and analyzed with no impacts noted to pedestrian access to the property. Impacts to the vehicular access to the property were determined with a viable solution to relocate the driveway and to modify the existing perimeter road alignment. Due to the creation of the new interchange and addition of the boulevard to provide access to the surrounding area, the proximity of the T-intersection of the boulevard with Paragon Way to the DHL driveway will generate the relocation of the truck driveway for the DHL Supply Chain facility. The maneuverability of the trucks traveling from the new intersection to the existing driveway location will be restricted due to the limited distance available and the new alignment required for the perimeter road due to the new right-of-way impacts. Shifting the driveway south on Paragon Way would provide a separation from the new T-intersection and allow for trucks to maneuver into the property and new alignment of the perimeter road. The proposed new driveway is located approximately 125 feet south from the existing driveway. The new driveway could not be located any further south on Paragon Way due to the limited space available between Paragon Way and the front of the building. The existing conditions provided 90 feet from Paragon Way to the driveway island and 35 feet for the length of the island where the call box, key pad and electronic gates and controllers were located. To provide similar conditions to the existing driveway, the proposed driveway provided a 90-foot long driveway with a 35-foot island which was all the space available

between Paragon Way and the front of the building at approximately 125 feet south of the existing driveway. The ARMS manual requires for a posted speed limit of 35 MPH, a minimum driveway spacing (feet) on roadways with an AADT greater than or equal to 2000 or Driveways Generating more than 50 Peak Hour Trips a distance of 220 feet. The manual states that an exception to the minimum driveway spacing can be allowed if a driveway was disrupted by a SCDOT project. Shifting the driveway south on Paragon Way will provide an acceptable distance from the new T-intersection to accommodate the ARMS Manual requirements. Radii at the driveway with Paragon Way will be 40 feet and 70 feet, and 40 feet at the intersection with the parking lot at the front of the building. The new driveway will include an island with curb and gutter and decorative gravel. All elements at the existing driveway will need to be relocated to the new driveway including electronic swing and sliding gates, call boxes and key pads, irrigation system, transformer, gate operator control panel and emergency shut off, light poles, pole with security cameras, signs, fencing, and conduits under the pavement for electrical services, and utilities. Trees and shrubs impacted by the new driveway alignment will be replaced. Demolition of pavement and curb and gutter will include any areas outside the SCDOT right-of-way.

On site vehicular and pedestrian circulation on the subject property was reviewed and analyzed with no impacts noted to the pedestrian circulation on the property. Impacts to the vehicular circulation were determined. The new right-of-way for the boulevard and interstate ramp will impact the perimeter road on the north side of the property and both existing radii at the front and rear of the building requiring an entirely new perimeter road alignment. The new 30-foot wide perimeter road alignment will generate the need to abandon several lengths of storm drainage pipe, existing drainage structures and new catch basins, drop inlets, and RCP will be needed to tie into the existing system at the stormwater pond at the rear of the building. After entering the property, the perimeter road alignment turns to the right, then a radius to the left with the new alignment approximately 25 feet away from the proposed new right-of-way with a radius to the left to access the rear of the building. The new radii will impact the space available for the future expansion of the building. The original site had been designed to accommodate a

200-foot expansion (94,000 square feet) of the building to the north, then approximately 20 feet to the edge of the perimeter road and a 30-foot wide perimeter road to accommodate two-way traffic. The relocated driveway, new perimeter road alignment and the modified radii alignment at the front and back of the building will accommodate a 50-foot expansion to the north allowing for a 23,500 square foot building expansion. All of the security fencing along the north side of the property will need to be removed and replaced due to the new right-of-way and relocation of the perimeter road. The stormwater drainage system will also be impacted by the new perimeter road alignment. A catch basin at the new driveway location at the front parking will be removed and a new catch basin installed to tie into the existing drainage system. A new catch basin at the new driveway and on the new radii and 4 new drop inlets along the length of the perimeter road will be needed to convey stormwater to the existing system at the rear of the building. Two new 10-foot by 10-foot drainage boxes with new RCP to convey stormwater to the modified stormwater pond will be needed at the rear of the building outside of the new SCDOT right-of-way. Any RCP that is not retained in the modified stormwater design will be abandoned in place and filled with flowable fill. The depth of the existing drainage structures and all new structures are a significant cost due to the approximate 20-foot depth of the drainage system. The cost of the new RCP pipe for the modified system, including the inlet to the modified pond, is \$1,236,600 and \$243,000 for the 3 new catch basins, 4 new drop inlets, and the removal of 2 existing 5-foot by 5-foot drainage boxes and replacement with 10-foot by 10-foot drainage boxes. The new driveway, new perimeter road alignment on the side of the building and impacts to the pavement at the rear of the building due to drainage/pond modifications required new pavement. The site plans provided by DHL specified pavement designs of Heavy-Duty Pavement (HDP) for the driveway, Medium Duty Pavement (MDP) and concrete at the dock apron/dolly strips at the rear of the building. The HDP design included 12 inches of compacted aggregate base course (CABC), 4 inches of binder course, and 2.5 inches of wearing course. The MDP design included 8 inches of CABC, 3 inches of binder course, and 2.5 inches of wearing course. The concrete pavement design specified 8-inch compacted stone base course and 7 inches 4000 PSI reinforced concrete. The total cost for the new pavement is \$642,299 with the majority of the cost generated by the new perimeter road location

and alignment around the side of the building. Demolition of pavement and curb and gutter will include any areas outside the SCDOT right-of-way. Other impacts include the relocation of light poles and fencing as needed for the new perimeter road alignment around the side of the building. Large and small boulders that were located in the radii to prevent trucks from traveling on the grass will be relocated to the new radii locations.

The proposed right-of-way for the new boulevard impacts one of the existing ponds on the north side of the property. There is adequate space available at the back of the property to allow for the enlargement of the existing pond to accommodate the volume lost due to the proposed right-of-way. The removal of the inlet and outlet structures of the existing pond will be required to allow for the modifications needed to enlarge the pond. The removal of two of the drop inlets at the rear of the building at the container parking is needed for construction of larger structures to collect stormwater from the existing system and to serve as an inlet structure to the modified pond. The location of the new drop inlets will necessitate the removal of existing RCP and installation of new RCP sloped in the opposite direction to drain to the new inlet location to the modified pond. Pavement, both asphalt and concrete, will need to be demolished to allow for the modifications to the existing drainage system. Approximately 72,400 cubic yards of soils will be excavated for the enlargement of the existing pond. Approximately 63,400 cubic yards of that excavation, at a cost of \$760,800, will be used to fill a portion of the existing pond and approximately 9,000 cubic yards, at a cost of \$315,000, of excavation will be disposed of off-site. Slope stabilization measures and approximately 6.0 acres of hydro-seeding will be needed to stabilize the modified pond and areas along the driveway in disturbed areas.

There are viable options to address the vehicular access, vehicular circulation and the impacts to the stormwater pond on the property. The existing driveway can be relocated including the relocation of the driveway island, 4 light poles and one pole with 4 mounted security cameras that were located at the existing driveway, 2 light poles at the radius at the front of the building, 3 light poles at the radius at the back of the building, and 2 light poles at the new driveway. The electronic gate system that provided access to the facility

with an entrance swing gate, Lift Master operator, 8-feet high by 16 feet wide gate with black vinyl coated chain link fence fabric, and an automated exit sliding gate, Lift Master operator, 8-feet high by 34-feet, 4-inches wide with black vinyl coated chain link fence fabric, providing a 23-foot opening will be relocated. An 8-foot high black vinyl coated chain link fence extended from the entrance/exit gate along the sides and back of the property and around the stormwater pond will be removed and replaced. Three signs will be relocated with 2 signs at the entrance/exit “Shipping and Receiving Office” and a DHL Supply Chain 996 Paragon Way sign on a concrete base at the entrance/exit driveway. The irrigation system will be modified including a landscape irrigation box on the north(right) side of the driveway. There was an electrical transformer at the entrance/exit to the driveway that will be relocated. There are several conduits under the driveway for electrical service and utilities that will need to be removed and replaced. Large and small boulders will be relocated in 2 different locations along the perimeter road at the radii points. The pond can be modified that will include excavation for the new pond and filling of the existing pond, removal and replacement of the inlet structure to the pond, removal and replacement of the outlet structure and pipe at the pond, removal and replacement of rip rap aprons at the inlet and outlet for the pond, removal and replacement of the headwall at the outlet of the pond, and removal and replacement of the grass emergency spillway. The project impacts will require removal and relocation/replacement of the items listed above for the new driveway location, perimeter road alignment and pond modifications with construction items including surveys and staking, traffic control, erosion control, slope stabilization, inlet protection, rip rap, pavement and curb and gutter demolition outside the new SCDOT right-of-way, rough and fine grading, curb and gutter, aggregate base course, asphalt and concrete paving, manholes, catch basins, drop inlets, 48-inch, 54-inch, and 72-inch RCP, 36-inch HDPE, flowable fill for abandoned RCP, gravel at the driveway island, trees, shrubs, and seeding. The estimated cost to cure the impacts to the vehicular access, vehicular circulation, and pond modification of the subject property is \$5,147,312.86. This cost includes \$631,991.74 for predesign services including surveys and geotechnical investigations, site and hydrology design, permitting, QA/QC testing, and construction management and oversight.

Section IV
FIGURES

FIGURE 1

ROW Limits

Project Inspector

Legend

- Parcel 1
- Parcel 2
- Parcel 3
- Parcel 4

Parcel 4: 0.45 AC

Parcel 3: 0.53 AC

Parcel 2: 8.95 AC

Parcel 1: 2.33 AC

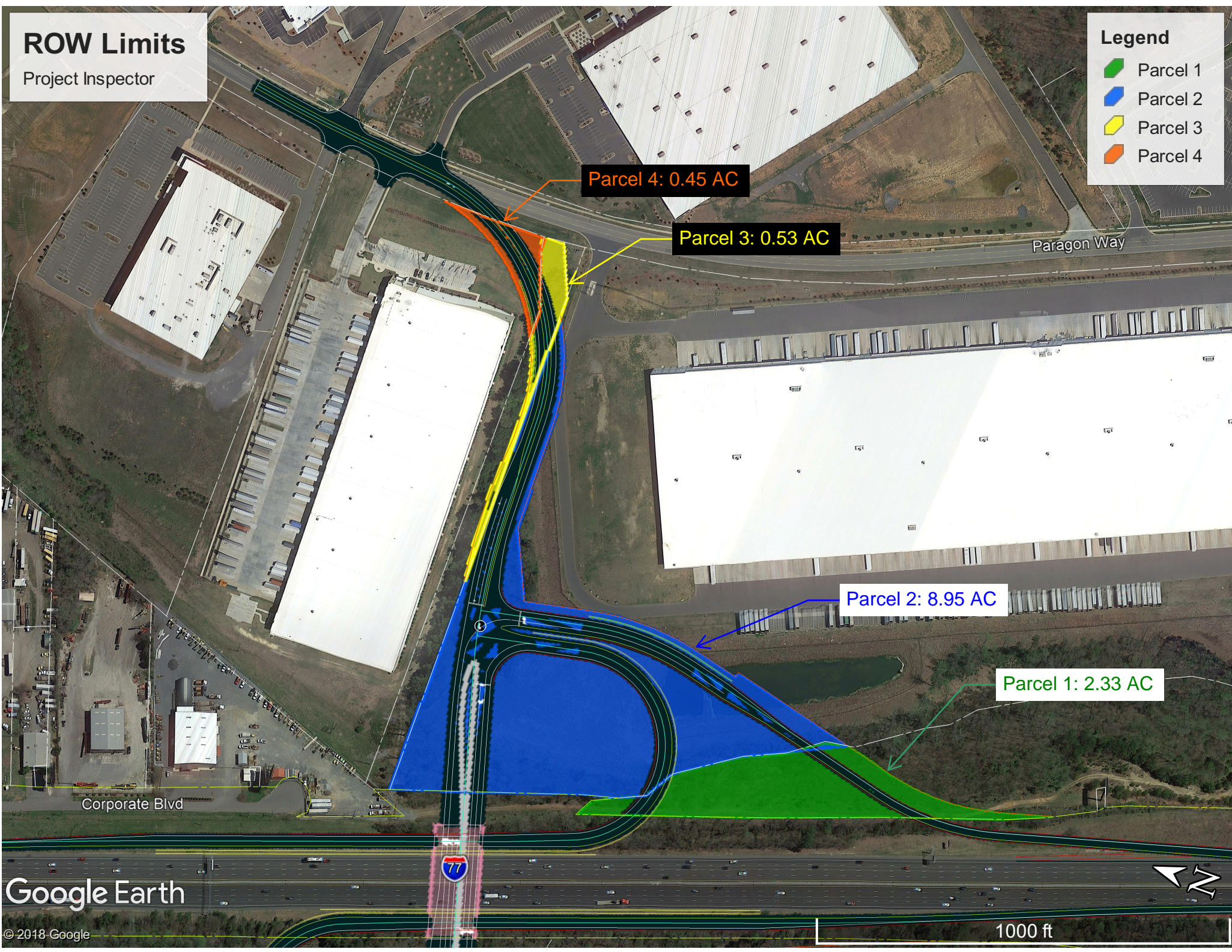
Paragon Way

Corporate Blvd

Google Earth

© 2018 Google

1000 ft



Section V

PHOTOGRAPHS

Photographs taken during our inspection, which were not included in this report, were retained in our files and are available to you upon request.

Photograph 1

The new right-of-way for the boulevard to access the surrounding area from the new interchange with I-77 Panther Development impacted the DHL Supply Chain facility at 996 Paragon Way.



Photograph 2

The entrance/exit gate and driveway location, light poles, security cameras and fencing were impacted by the new right-of-way and would require relocation.



Photograph 3

The irrigation system and transformer at the existing driveway location would require relocation.



Photograph 4

The irrigation system and transformer at the existing driveway location would require relocation.



Photograph 5

There were 2 sets of call boxes and key pads for trucks and vehicles at the entrance and exit gates that will be relocated.



Photograph 6

The gate operator control panel and emergency shut off for the entrance/exit electrical service will need to be relocated to the new driveway location.



Photograph 7

The DHL Supply Chain sign at the existing driveway location will need to be relocated.



Photograph 8

There are 2 Shipping and Receiving Office signs impacted by the relocation of the driveway due to the proposed right-of-way for the boulevard alignment.



Photograph 9

View of the new driveway location at the front of the property. Note the fencing, light poles and landscaping that will be impacted.



Photograph 10

The new driveway location and new right-of-way for the boulevard will require a modification to the radius and a new perimeter road alignment on the north side of the building. Note the large and small boulders that will need to be relocated.



Photograph 11

The new perimeter road alignment will impact the existing storm drain system with the removal of catch basins, a manhole and abandonment of pipes. Note all the light poles and fencing will need to be removed and replaced.



Photograph 12

A 200-foot expansion of the building to the north (94,000 square feet) was accommodated for in the initial grading and construction of the building. The impacts from the proposed right-of-way will decrease the expansion to 23,500 square feet.



Photograph 13

The perimeter road alignment will require a modification to the radius at the rear of the building due to the proposed right-of-way. Note the light poles, fencing, and large and small boulders that will need to be relocated.



Photograph 14

View of the existing pond and drainage structures impacted by the proposed right-of-way for the project. A portion of the existing pond at the northern end will be filled and the southern end of the pond expanded to provide for the volume lost.



Photograph 15

View of the existing pond and drainage structures impacted by the proposed right-of-way for the project. A portion of the existing pond at the northern end will be filled and the southern end of the pond expanded to provide for the volume lost.



Photograph 16

View of the existing catch basin that served as the inlet to the existing pond. This structure will need to be removed and a new catch basin installed to drain to the modified stormwater pond.



Photograph 17

View of the property behind the building that will accommodate the expansion of the existing pond to provide for the volume lost due to the proposed right-of-way.



Section VI
COST TO CURE

Raulston L. Travis, P.E.
International and Forensic Consulting Group, LLC
259 Blue Bonnet Trail
Marietta, SC 29661
(803) 331-1141

SCDOT – I-77 Panthers Interchange Design Build Project – York County
Cole ID and Exel, Inc./DHL Supply Chain Facility - Tract 36
First Revised Cost To Cure Estimate
31-Mar-20

Cost To Cure					
Item	Description	Quantity	Units	Unit Cost	Total Cost
1	General Conditions	1	LS	\$ 208,752.71	\$ 208,752.71
2	Surveys - Staking and Layout	1	LS	\$ 3,500.00	\$ 3,500.00
3	Clearing and Grubbing	3	Acre	\$ 8,000.00	\$ 24,000.00
4	Traffic Control	1	LS	\$ 7,500.00	\$ 7,500.00
5	Erosion Control - Silt Fence	10000	LF	\$ 3.00	\$ 30,000.00
6	Slope Stabilization	8445	SY	\$ 1.65	\$ 13,934.25
7	Inlet Protection	18	EA	\$ 350.00	\$ 6,300.00
8	Construction Entrance	1	EA	\$ 2,500.00	\$ 2,500.00
9	Demolition Pavement (asphalt)	4400	SY	\$ 12.80	\$ 56,320.00
10	Demolition Pavement (concrete)	278	SY	\$ 19.15	\$ 5,323.70
11	Demolition Curb and Gutter	765	LF	\$ 7.25	\$ 5,546.25
12	Curb and Gutter	680	LF	\$ 15.00	\$ 10,200.00
13	Rough Grading	102540	SF	\$ 1.15	\$ 117,921.00
14	Fine Grading	61100	SF	\$ 1.65	\$ 100,815.00
15	Excavation Disposed of in Existing Pond	63400	CY	\$ 12.00	\$ 760,800.00
16	Excavation Disposed of Off-Site	9000	CY	\$ 35.00	\$ 315,000.00
17	Remove existing catch basin (approximtelty 20 feet deep each)	3	EA	\$ 4,000.00	\$ 12,000.00
18	Remove 42" RCP - Pavement removal, excavation, trench boxes included with new 54" RCP	136	LF	\$ 20.00	\$ 2,720.00
19	Remove 48" RCP - Pavement removal, excavation, trench boxes included with new 54" RCP	243	LF	\$ 20.00	\$ 4,860.00
20	Remove manhole	1	EA	\$ 4,000.00	\$ 4,000.00
21	Drop Inlets (approximatley 18' to 20' deep)	4	EA	\$ 9,000.00	\$ 36,000.00
22	Catch basin (approximately 18' to 20' deep)	3	EA	\$ 9,000.00	\$ 27,000.00
23	Remove existing 5'x5' box (DI-B3) & replace with 10'x10' box (approx. 20' deep)	2	EA	\$ 90,000.00	\$ 180,000.00
24	New outlet structure in new pond	1	EA	\$ 30,000.00	\$ 30,000.00
25	Anti-seep collar at outlet structure (4.5'x4.5'x1.5')	3	EA	\$ 1,500.00	\$ 4,500.00
26	48" RCP (approximately 20' deep)	524	LF	\$ 650.00	\$ 340,600.00
27	54" RCP (approximately 20' deep)	656	LF	\$ 1,000.00	\$ 656,000.00
28	72" RCP (approximately 20' deep)	120	LF	\$ 2,000.00	\$ 240,000.00
29	36" HDPE with rubber gaskets at outlet structure	83	LF	\$ 125.00	\$ 10,375.00
30	Rip Rap Aprons at inlet and outlet of pond	294	TN	\$ 185.00	\$ 54,390.00
31	Headwall at outlet	1	EA	\$ 2,800.00	\$ 2,800.00
32	Flowable Fill	584	CY	\$ 150.00	\$ 87,600.00
33	Demolition of headwall	1	LS	\$ 1,000.00	\$ 1,000.00
34	Remove outlet structure	1	LS	\$ 4,500.00	\$ 4,500.00
35	Remove existing 36" HDPE and anti-seep collars	1	LS	\$ 4,200.00	\$ 4,200.00
36	Relocate Electric Swing Gate	1	EA	\$ 8,400.00	\$ 8,400.00
37	Relocate Electric Sliding Gate	1	EA	\$ 5,300.00	\$ 5,300.00
38	Relocate Key Pad and Call Box for vehicles and trucks	4	EA	\$ 700.00	\$ 2,800.00
39	Gate Operator Control Panel and Emergency Shut Off	1	LS	\$ 3,500.00	\$ 3,500.00
40	Relocate Shipping and Receiving Office Signs	2	EA	\$ 150.00	\$ 300.00
41	Relocate DHL sign on concrete base	1	EA	\$ 1,100.00	\$ 1,100.00
42	Relocate Security Pole/Cameras at Entrance/Exit Driveway	1	EA	\$ 2,100.00	\$ 2,100.00
43	Relocate Light Poles on concrete bases	13	EA	\$ 1,750.00	\$ 22,750.00
44	Remove and replace black vinyl 8' tall chain link fence	3770	LF	\$ 42.00	\$ 158,340.00
45	Relocate Ped Gate - black vinyl 8' chain link	1	EA	\$ 840.00	\$ 840.00
46	Manual double swing gates for maintenance access to ponds (2-5' leaves) 8' tall	5	EA	\$ 2,350.00	\$ 11,750.00
47	Modify existing irrigation system	1	LS	\$ 3,500.00	\$ 3,500.00
48	Relocate transformer	1	LS	\$ 2,500.00	\$ 2,500.00
49	6" conduit under pavement	360	LF	\$ 63.00	\$ 22,680.00
50	3" conduit under pavement	90	LF	\$ 39.00	\$ 3,510.00
51	2" conduit under pavement	90	LF	\$ 41.00	\$ 3,690.00
52	4" conduit under pavement	540	LF	\$ 61.00	\$ 32,940.00
53	Compacted Aggregate Base Course - 12"	1530	CY	\$ 155.00	\$ 237,150.00
54	4" Binder	4590	SY	\$ 38.00	\$ 174,420.00
55	2.5" Wearing Course	5702	SY	\$ 24.00	\$ 136,848.00
56	Compacted Aggregate Base Course - 8"	247	CY	\$ 155.00	\$ 38,285.00
57	3" Binder	1112	SY	\$ 28.00	\$ 31,136.00
58	8" Compacted Stone Base Course	62	CY	\$ 155.00	\$ 9,610.00
59	7" 4000 PSI Reinforced Concrete	54	CY	\$ 275.00	\$ 14,850.00
60	Rocks at grass radius - large	14	EA	\$ 450.00	\$ 6,300.00

61	Rocks at grass radius - small	6	EA	\$	150.00	\$	900.00
62	Trees	6	EA	\$	1,000.00	\$	6,000.00
63	Shrubs	15	EA	\$	150.00	\$	2,250.00
64	Hydroseeding	6	Acre	\$	2,000.00	\$	12,000.00
65	Gravel at Driveway Island	70	SY	\$	30.00	\$	2,100.00
66	Miscellaneous	1	LS	\$	40,000.00	\$	40,000.00
67	Final Cleanup	1	LS	\$	15,000.00	\$	15,000.00
						Sub - Total	\$ 4,383,806.91
						Contingency	\$ 131,514.21
						Construction Repairs Sub-Total	\$ 4,515,321.12
						Pre-design Services - Surveys and Geotechnical	\$ 45,000.00
						Design - Site and Hydrology	\$ 338,649.08
						Permitting	\$ 45,153.21
						QA/QC Testing	\$ 67,729.82
						Construction Management & Oversight	\$ 135,459.63
						Cost To Cure Total	\$ 5,147,312.86

Additional Information from SCDOT regarding this report:

The analysis herein assumed that the existing detention pond volume was 528,186 cf based on design drawings provided by the owner. After extension communications with the owner, it was discovered that the total pond volume was 818,976 cf.

In order to accommodate the increased pond volume, a retaining wall for a portion of the interior pond slopes would be required. This analysis does not take this into account and it is estimated that this revision would add approximately \$1,000,000 in additional costs to this estimate.