Transportation

PAT McCRORY
Governor

NICHOLAS J. TENNYSON
Secretary

May 4, 2016

U. S. Army Corps of Engineers
Regulatory Field Office
3331 Heritage Trade Drive, Suite 105
Wake Forest, NC 27587

ATTN: Mr. Eric Alsmeyer
NCDOT Division 5 Coordinator

SUBJECT: **Request for Modification of the Section 404 Individual Permit, Section 401 Water Quality Certification, Isolated Waters State General Permit, and Neuse River Riparian Buffer Certification** for the proposed East End Connector from NC 147 (Durham Freeway/Buck Dean Expressway) to north of NC 98 (Holloway Street) in Durham, Durham County, North Carolina, Division 5. Federal Aid Project No. NHF–76–1(2), TIP No. U-0071.

Debit $570.00 from WBS Element No. 34745.1.1

REFERENCE: 1) USACE Individual Permit, Action ID No. SAW-2011-00796, dated March 24, 2014.

2) USACE Individual Permit Modification, Action ID No. SAW-2011-00796, dated May 7, 2015.

3) USACE Individual Permit Modification, Action ID No. SAW-2011-00796, dated December 7, 2015.

4) NCDWR Section 401 Water Quality Certification, Neuse River Buffer Authorization, and Isolated Wetlands Permit, NCDWR Project No. 20131282, Certification No. 3980, dated January 28, 2014.

5) Modification to the NCDWR Section 401 Water Quality Certification, Neuse River Buffer Authorization, and Isolated Wetlands Permit, NCDWR Project No. 20131282 ver. 2, Certification No. 3980, dated April 15, 2015.

6) Modification to the NCDWR Section 401 Water Quality Certification, Neuse River Buffer Authorization, and Isolated Wetlands Permit, NCDWR Project No. 20131282 ver. 3, Certification No. 3980, dated October 26, 2015.

Dear Sir:

The purpose of this letter is to request a modification to the United States Army Corps of Engineers (USACE) Section 404 Individual Permit and North Carolina Division of Water Resources (NCDWR) Section 401 Water Quality Certification, Isolated Waters State General Permit, and Neuse River Riparian Buffer Certification for the above-referenced project.

In addition to this cover letter, please find enclosed revised Wetland Permit Drawing Sheet Nos. 30, 53, 55, 60, 90, and 91 of 91; revised Buffer Permit Drawing Sheet Nos. 6, 16, and 18 of 18; new ABF Freight Wetland Permit Drawing Sheet Nos. 1 and 2 of 2 for new Site No. 33, which is associated with the loss of property remediation between the N.C. Department of Transportation (NCDOT) and ABF Freight Corporation; a letter and accompanying map addressed to Mr. Dennis Jernigan, PE, Division 5 Construction Engineer, from Horvath Associates (representing ABF Freight) explaining the proposed loss of property remediation and how it will result in unavoidable wetland impacts at the above-mentioned Site 33; and the revised Mitigation Acceptance Letter from the N.C. Division of Mitigation Services (DMS).

IMPACTS TO WATERS OF THE UNITED STATES

Surface Waters

All revisions occur within the Neuse River Basin (HUC 03020201). Stream impact revisions occur at Sites 4, 12, 17, and 17A. Descriptions of the changes at each site are below. Please also see Table 1, which has been revised to reflect these modifications. Revised Sites, sub-totals, and totals are in bold.

Permit Site 4 (Permit Drawing 30 of 91) at 36+20 -SR2- Lt

- The contractor has installed the 48-inch pipe structure and rip rap bank stabilization following the most recently approved permit drawing at this site. Recent rain events have resulted in significant scour and failure of streambanks immediately upstream of the rip rap that has been installed by the contractor. The Department proposes to install additional Class II rip rap on the stream banks that would allow for the permanent stabilization within the project limits.

- This design change will result in an increase in temporary stream impacts of 5 linear feet and an increase in permanent bank stabilization impacts of 105 linear feet.

Permit Site 12 (Permit Drawing 53 of 91 and 55 of 91) at 25+50 -Y2- Rt

- Installation of the complete hydraulic system will result in an increase in runoff velocity during heavy rain events at this location. The Department has evaluated the existing stream channel and determined that the channel should be lined with a rip rap-lined 3 foot-base ditch to provide long-term stability.

- This design change will result in a decrease in temporary stream impacts of 60 linear feet, an increase of permanent stream loss impacts of 84 linear feet, and a decrease in permanent bank stabilization impacts of 24 linear feet.

Permit Site 17 (Permit Drawing 60 of 91) at 133+15 -L- Lt and Permit Site 17A (Permit Drawing 60 of 91) at 133+26 -L- Lt

- The contractor is currently installing the culvert at this location. The Department evaluated the existing stream channel at the culvert outlet and determined that the previously-permitted permanent rip rap bank stabilization at Permit Site 17 and previously-permitted temporary stream impacts at Permit Site 17A will not provide appropriate long-term stability. Additional Class II rip rap bank stabilization is proposed at the culvert outlet.

- At Permit Site 17, this design change will result in an increase in temporary stream impacts of 5 linear feet and an increase in permanent bank stabilization impacts of 55 linear feet.

- At Permit Site 17A, this design change will result in a decrease in temporary stream impacts of 19 linear feet and an increase in permanent bank stabilization impacts of 25 linear feet.

Table 1. Revised Surface Water Impacts within the Neuse River Basin (HUC 03020201)

Permit Site No.	Stream Name	Stream ID[1]	Intermittent/ Perennial	Impact Type	Impacts (lin. ft.)	Impacts Requiring USACE mitigation (lin. ft.)	USACE Mitigation Ratio	Impacts Requiring 1:1 DWR mitigation (lin. ft.)
1	UT of Goose Creek	S-B	Intermittent	Perm. Fill	412	0[2]		0[3]
2	UT of Goose Creek	S-A	Intermittent	Temp. Fill	14	0		0
				Perm. Fill	673	0[2]		0[3]
				Bank Stabil.	20	0[5]		0[3]
3	UT of Goose Creek	S-35	Intermittent	Perm. Fill	410	0[2]		0[3]
4	UT of Little Lick Creek	S-26	Intermittent (Isolated)	Temp. Fill	**20**	0		0
				Perm. Fill	349	0[4]		0[3]
				Bank Stabil.	**175**	0[4]		0[3]
6	UT of Little Lick Creek	S-25	Intermittent	Bank Stabil.	25	0[2]		0[3]
7	UT of Little Lick Creek	S-18	Perennial	Temp. Fill	104	0		0
				Perm. Fill	665	665	2:1	665
				Bank Stabil.	305	0[5]		305
8	UT of Little Lick Creek	S-19	Intermittent	Perm. Fill	443	0[2]		0[3]
9	UT of Little Lick Creek	S-24	Intermittent	Perm. Fill	29	0[2]		0[3]
				Bank Stabil.	43	0[5]		0[3]
12	UT of Little Lick Creek	S-16	Intermittent	Temp. Fill	**72**	0		0
				Perm. Fill	**789**	0[2]		0[3]
				Bank Stabil.	**18**	0[5]		0[3]

Table 1. Revised Surface Water Impacts within the Neuse River Basin (HUC 03020201) (Continued)

Permit Site No.	Stream Name	Stream ID[1]	Intermittent/ Perennial	Impact Type	Impacts (lin. ft.)	Impacts Requiring USACE mitigation (lin. ft.)	USACE Mitigation Ratio	Impacts Requiring 1:1 DWR mitigation (lin. ft.)
17	UT of Little Lick Creek	S-6	Perennial	Temp. Fill	**33**	0		0
				Perm. Fill	479	479	2:1	479
				Bank Stabil.	**140**	0[5]		**140**
17A	UT of Little Lick Creek	S-12	Intermittent	Temp. Fill	**37**	0		0
				Bank Stabil.	**25**	**0[5]**		**0[3]**
17B	UT of Little Lick Creek	S-14	Intermittent	Temp. Fill	7	0		0
23	UT of Little Lick Creek	S-6	Perennial	Temp. Fill	65	0		0
				Perm. Fill	270	270	2:1	270
				Bank Stabil.	140	0[5]		140
24	UT of Little Lick Creek	S-7	Intermittent	Temp. Fill	23	0		0
				Perm. Fill	104	0[2]		0[3]
25	UT of Little Lick Creek	S-2	Intermittent	Temp. Fill	10	0		0
				Perm. Fill	168	0[2]		0[3]
				Bank Stabil.	35	0[5]		0[3]
26	UT of Little Lick Creek	S-2	Intermittent	Temp. Fill	23	0		0
				Perm. Fill	50	0[2]		0[3]
				Bank Stabil.	50	0[5]		0[3]

Table 1. Revised Surface Water Impacts within the Neuse River Basin (HUC 03020201) (Continued)

Permit Site No.	Stream Name	Stream ID[1]	Intermittent/ Perennial	Impact Type	Impacts (lin. ft.)	Impacts Requiring USACE mitigation (lin. ft.)	USACE Mitigation Ratio	Impacts Requiring 1:1 DWR mitigation (lin. ft.)
27	UT of Little Lick Creek	S-6	Perennial	Bank Stabil.	10	0[5]		10[6]
U-1	UT of Little Lick Creek	S-25	Intermittent	Utility/ Bank Stabil.	20	0[5]		0[3]
Temporary Fill Impacts (Non-isolated)					**388**	0		0
Temporary Fill Impacts (Isolated)					**20**	0		0
Permanent Fill Impacts (Non-isolated)					**4,492**	1,414		1,414
Permanent Fill Impacts (Isolated)					349	0[4]		0
Bank Stabilization Impacts (Non-isolated)					**831**	0		**595**
Bank Stabilization Impacts (Isolated)					**175**	0[4]		0
TOTAL TEMPORARY IMPACTS					**408**	0		0
TOTAL PERMANENT IMPACTS					**5,847**	1,414		**2,009**

[1]Stream IDs are from the JD re-verification packet, dated April 7, 2011.

[2]Per USACE, no compensatory mitigation is required for permanent impacts (including bank stabilization) to USACE-regulated intermittent streams associated with this project.

[3] Per the NCDWQ Public Memorandum dated August 14, 2009, any NCDOT project within the Merger 01 process that has reached CP 4A prior to the effective date of October 16, 2009 is not subject to the NCDWR Intermittent Stream Mitigation Policy. This project reached CP 4A on December 13, 2007 and is not subject to this policy. Therefore, no compensatory mitigation for permanent impacts along intermittent streams is required by NCDWR for this project.

[4]Isolated streams are not regulated by USACE.

[5]Per USACE, bank stabilization impacts do not require compensatory mitigation.

[6]Although this Site does not individually exceed the 150 linear foot threshold set by NCDWR for requiring compensatory mitigation, when combined with other Sites along the same stream, the cumulative impact to the stream exceeds that threshold.

Wetlands

A new wetland impact site has been added to the project. Per USACE request, proposed impacts to this site are included with this modification request. This new site, Site No. 33, occurs within the Neuse River Basin (HUC 03020201). A description of this addition is below. Please also see Table 2, which has been revised to reflect this addition. Revised Sites, sub-totals, and totals are in bold.

Permit Site 33

- ABF Freight Corporation, Horvath Associates (representing ABF Freight), and NCDOT have been working on a plan to remediate the loss of property resulting from TIP Project No. U-0071 on the ABF Freight parcel located at 208 Muldee Street in Durham, North Carolina. The remediation plan consists of replacing the lost truck terminal parking spaces and necessary truck turning movement area (which were lost due to NCDOT ROW encroachment) on an adjacent property. This property will remain outside of the limits of the NCDOT ROW upon completion of U-0071. Within the proposed limits of disturbance for the proposed work, there is a small portion of a jurisdictional

wetland (Wetland WA) that needs to be impacted in order for the replacement parking areas to reasonably function for the intended uses. Additionally, for proper truck movements to occur and for the replacement area to be used as needed by the ABF Freight Corporation, the disturbance of this wetland area is unavoidable. A large portion of this wetland will remain undisturbed and this request is only for disturbance of the area necessary for the site to function properly.

- This design addition will result in 0.09 ac. of permanent fill at Site No. 33.

Table 2. Revised Wetland Impacts within the Neuse River Basin (HUC 03020201)

Permit Site No.	Wetland ID	Wetland Type	Impact Type	Permanent Impacts (ac.)	Impacts Requiring USACE mitigation (ac.)[1]	Temporary Impacts (ac.)
2	W-B	Riparian	Fill	0.08	0.08	0
3	W-30	Riparian	Fill	0.06	0.06	0
4	W-29	Riparian (Isolated)	Fill	0.05	0[2]	0
5	W-39	Riparian (Isolated)	Fill	0.06	0[2]	0
8	W-28	Riparian	Fill	0.04	0.04	0
10	W-25	Riparian	Fill	0.01	0.01	0.01
11	W-24	Riparian	Mechanized Clearing	<0.01	<0.01	0
14	W-10A	Riparian (Isolated)	Fill	0.08	0[2]	0
15	W-PX	Non-Riparian (Isolated)	Fill	0.03	0[2]	0
16	W-11	Non-Riparian (Isolated)	Fill	0.05	0[2]	0
33	**WA[4]**	**Riparian**	**Fill**	**0.09**	**0.09**	**0**
Riparian, Non-Isolated Impacts				**0.28**	**0.28**	0.01
Riparian, Isolated Impacts				0.19	0[2]	0
Non-Riparian, Isolated Impacts				0.08	0[2]	0
TOTAL IMPACTS				**0.55[3]**	**0.28[3]**	0.01

[1] Mitigation ratio for all applicable wetland sites is 2:1.

[2] Isolated wetlands are not regulated by the USACE. Additionally, NCDOT does not anticipate compensatory mitigation being required by NCDWR for isolated wetlands because total wetland impacts for the project do not exceed 1.0 acre.

[3] Rounded total is based on the sum of the actual impacts.

[4] This wetland is associated with the ABF Freight property.

Riparian Buffers

All revisions occur within the Neuse River Basin (HUC 03020201). Riparian buffer impact revisions occur at Sites 4 and 17. Descriptions of the changes at each site are below. Please also see Table 3, which has been revised to reflect these modifications. Revisions are in bold.

Permit Site 4 (Permit Drawing 6 of 18) at 36+20 -SR2- Lt

- The contractor has installed the 48 inch pipe structure and rip rap bank stabilization following the most recently approved permit drawing at this site. Recent rain events have resulted in significant scour and failure of streambanks immediately upstream of the rip rap that has been installed by the contractor. The Department proposes to install additional Class II rip rap on the stream banks that would allow for the permanent stabilization within the project limits.

- This design change will result in an increase in mitigable Road Crossing, Riparian Buffer Zone 1 impacts of 633 square feet.

Permit Site 17 (Permit Drawing 16 of 18) at 133+50 -L- Lt

- The contractor is currently installing the culvert this location. The Department evaluated the existing stream channel at the culvert outlet and determined that the previously-permitted permanent rip rap bank stabilization at Permit Site 17 and previously-permitted temporary stream impacts at Permit Site 17A will not provide appropriate long-term stability. Additional Class II rip rap bank stabilization is proposed at the culvert outlet.

- This design change will result in an increase in mitigable Road Crossing, Riparian Buffer Zone 1 impacts of 3,845 square feet and an increase in mitigable Road Crossing, Riparian Buffer Zone 2 impacts of 671 square feet.

Table 3. Revised Riparian Buffer Impacts within the Neuse River Basin (HUC 03020201)

Impact Type[1]	Zone 1 Impacts (sq. ft.)	Zone 2 Impacts (sq. ft.)	Buffer Impact Total (sq. ft.)
Allowable Stormwater Management Impacts	5,584	3,789	9,373
Allowable Utility Impacts	2,599	1,960	4,559
Allowable Road Crossing Impacts	20,076	12,601	32,677
Mitigable Utility Impacts	329	0	329
Mitigable Parallel Impacts	5,317	7,867	13,184
Mitigable Road Crossing Impacts	**355,113**	**236,440**	**591,553**
Total Allowable Impacts	28,259	18,350	46,609
Total Mitigable Impacts	**360,759**	**244,307**	**605,066**
Wetlands in Buffer Within Mitigable Impacts	6,999	2,335	9,334
Total Mitigable Impacts, Minus Wetlands In Buffer	**353,760**	**241,972**	**595,732**
TOTAL IMPACTS	**389,018**	**262,657**	**651,675**
TOTAL WETLANDS IN BUFFER	6,999	2,335	9,334
TOTAL IMPACTS, MINUS WETLANDS IN BUFFER	**382,019**	**260,322**	**642,341**

[1] See Buffer Impact Summary Sheet in the attached revised buffer drawings for site-by-site impacts.

Compensatory Mitigation

Compensatory mitigation requirements for permanent stream, wetland, and riparian buffer impacts associated with U-0071 within the Neuse River Basin (HUC 03020201) are summarized below in Table 4. Revised sub-totals and totals are in bold. Mitigation for the revised totals will be provided by DMS. Please see the attached DMS Mitigation Acceptance Letter.

Stream Impacts

A total of 5,847 linear feet of permanent warm water stream impacts will occur within the Neuse Basin. This is an increase of 245 linear feet compared to the 5,602 linear feet that was reported in the 2nd permit modification application.

A total of 1,414 linear feet of permanent warm water stream impacts will require compensatory mitigation per USACE at a 2:1 ratio. This is unchanged since the 2nd permit modification. The amount of permanent stream impacts requiring compensatory mitigation per NCDWR increased since the 2nd permit modification application from 1,954 linear feet to 2,009 linear feet; these impacts will be mitigated for at a 1:1 ratio.

Wetland Impacts

A total of 0.55 acres of permanent wetland impacts will occur within the Neuse Basin. Of that 0.55 acres, 0.27 acres are isolated and do not require mitigation. The remaining 0.28 acres will require compensatory mitigation per USACE at a 2:1 ratio. This is an increase of 0.09 acres due to the inclusion of Site 33. This is the 1st modification to wetland impacts since the original permit.

Riparian Buffer Impacts

A total of 353,760 square feet of mitigable Zone 1 Riparian Buffer impacts and 241,972 square feet of mitigable Zone 2 Riparian Buffer impacts will occur within the Neuse Basin. This is an increase of 4,478 square feet of mitigable Zone 1 buffer impacts and 671 square feet of mitigable Zone 2 buffer impacts when compared to previously-permitted amounts (most recently modified by the 1st permit modification). Zone 1 impacts will be mitigated for at a 3:1 ratio, while Zone 2 impacts will be mitigated for at a 1.5:1 ratio.

Table 4. Revised Neuse River Basin Compensatory Mitigation Summary

	Stream Impacts (lin. ft.)	Riparian Wetland Impacts (ac.)	Mitigable Zone 1 Buffer Impacts (sq. ft.)	Mitigable Zone 2 Buffer Impacts (sq. ft.)
Impacts Requiring Mitigation	1,414	**0.28**	**353,760**	**241,972**
Mitigation Ratio	2:1	2:1	3:1	1.5:1
Total DMS Mitigation Required	2,828	**0.56**	**1,061,280**	**362,958**

A copy of this permit modification application and its distribution list will be posted on the NCDOT website at https://connect.ncdot.gov/resources/Environmental/Pages/default.aspx, under *Quick Links > Permit Applications*. Thank you for your time and assistance with this project. Please contact James Mason at either jsmason@ncdot.gov or (919) 707-6136 if you have any questions or need additional information.

Sincerely,

Philip S. Harris, III, P.E., Manager
Natural Environment Section

cc: NCDOT Permit Application Standard Distribution List

HORVATH
ASSOCIATES

Civil Engineers
Planners
Landscape Architects

Dennis Jernigan
North Carolina Department of Transportation
NCDOT Division 5 District 2
815 Stadium Drive
Durham, NC 27704
Re: ABF Freight / U-0071 Terminal Wetlands Disturbance

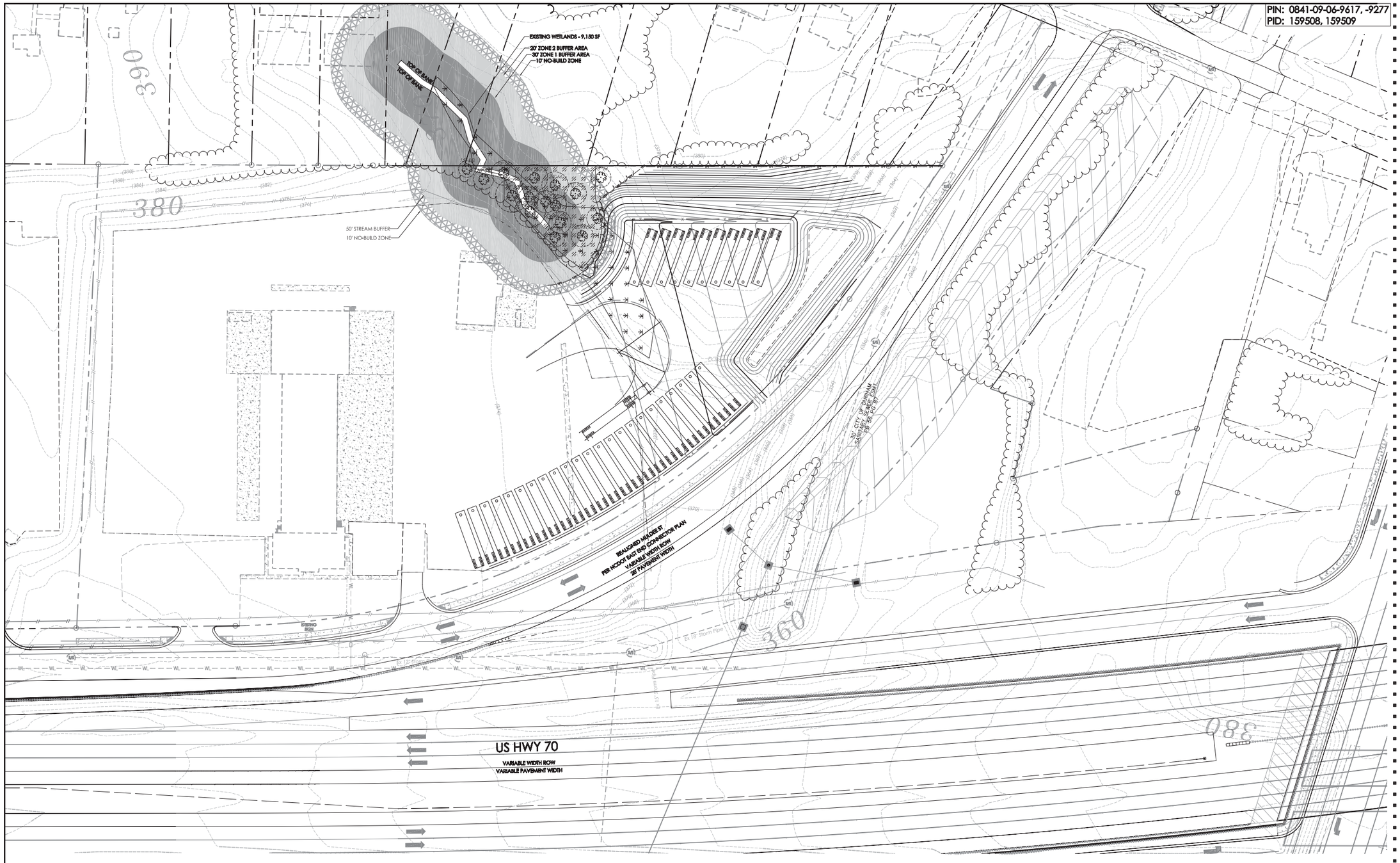
Mr. Jernigan,

As you are aware the ABF Freight Corporation, Horvath Associates, and NCDOT have been working on a plan to remediate the loss of property due to the U-0071 project on the ABF Freight Parcel located at 208 Muldee Street in Durham, North Carolina. The plan consists of replacing the lost truck terminal parking spaces and necessary truck turning movement area on an adjacent property which will remain outside of the limits of the right of way upon completion of project U-0071. Inside the proposed limits of disturbance for this replacement parking and movement area there is a small portion of an isolated wetland (approximately 4,000 SF ±) that needs to be disturbed in order for the replacement parking areas to reasonably function for the intended uses. Provided with this letter is a truck turnaround exhibit which clearly shows that for proper truck movements to occur and for the replacement area to be used as needed by the ABF Freight Corporation, the disturbance of this wetland area is unavoidable. It should be noted that a large portion of this wetland will remain undisturbed and that this request is only for disturbance of the area necessary for the site to function properly.

Sincerely,

Neil Allen
Horvath Associates, PA

16 Consultant Place, Suite 201
Durham, NC 27707
p 919-490-4990 f 919-490-8953



1 / X-1 TRUCK TURNAROUND EXHIBIT
SCALE: 1"=40'

0 20 40 80
SCALE: 1" = 40'

N

HORVATH ASSOCIATES

16 CONSULTANT PLACE, SUITE 201
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ABF FREIGHT

208 MULDEE STREET
DURHAM, NC 27703

TRUCK TURNAROUND EXHIBIT

NORTH CAROLINA BOARD OF EXAMINERS FOR ENGINEERS AND SURVEYORS LICENSE NO.: C-0676

DRAWN BY:	CHECKED BY:
NDA	KG
DATE	APRIL 15, 2016
SCALE	AS NOTED
PROJECT NO.	1319
SHEET NO.	X-1

CONSTRUCTION DRAWINGS

Mitigation Services
ENVIRONMENTAL QUALITY

PAT MCCRORY
Governor

DONALD R. VAN DER VAART
Secretary

May 3, 2016

Mr. Philip S. Harris, P.E., PLS
Project Development & Environmental Analysis Unit
North Carolina Department of Transportation
1598 Mail Service Center
Raleigh, North Carolina 27699-1598

Dear Mr. Harris:

Subject: Mitigation Acceptance Letter:

U-0071, East End Connector from NC 147 (Buck Dean Fwy) to North of NC 98, Durham County

References: USACE 404 Individual Permit issued March 24, 2014 (USACE Action ID 2011-00796) and 404 Individual Permit Modification issued May 7, 2015

NCDWR 401 Water Quality Certification issued January 28, 2014 (NCDWR Project ID 2013-1282) and 401 Water Quality Certification modification issued April 15, 2015

The purpose of this letter is to notify you that the Division of Mitigation Services (DMS) will provide the additional stream, riparian wetland and buffer mitigation for the subject project. Based on the information supplied by you on May 3, 2016, the additional impacts are located in CU 03020201 of the Neuse River Basin in the Central Piedmont (CP) Eco-Region, and are as follows:

Table 1 – Additional Impacts (feet / acres)

Neuse 03020201 CP	Stream			Wetlands			Buffer (Sq. Ft.)	
	Cold	Cool	Warm	Riparian	Non-Riparian	Coastal Marsh	Zone 1 (3:1)	Zone 2 (1.5:1)
Impacts (feet/acres)	0	0	58.0	0.09	0	0	4,478.0	671.0

All buffer mitigation requests and approvals are administrated through the Riparian Restoration Buffer Fund. The NCDOT will be responsible to ensure that appropriate compensation for the buffer mitigation will be provided in the agreed upon method of fund transfer. Upon receipt of the NCDWR's Buffer Authorization Certification, DMS will transfer funds from the NCDOT 2984 Fund into the Riparian Restoration Buffer Fund. Upon completion of transfer payment, NCDOT will have completed its addition riparian buffer mitigation responsibility for TIP Number U-0071. These additional impacts and associated mitigation needs were not projected by the NCDOT in the 2016 impact data. DMS is currently providing stream and riparian wetland mitigation for the impacts associated with this project located in cataloging unit 03030002 of the Cape Fear River basin and cataloging unit 03020201 of the Neuse River basin as required by the 404 and 401 permits that were issued in 2014 and 2015, as shown in the below table (in mitigation credits):

Table 2 – Current Permitted Impacts and Mitigation Requirements (based on 2014 permits) and Revised Anticipated Impacts (based on mitigation request)

Neuse 03020201

Impact Type	Total Permitted Impacts (feet / acre)	Mitigation Provided by DMS per Issued Permits (Credits)	Additional Impact (for approval)	Revised Total Impacts*
Stream	1,951.0	2,975.0	58.0	2,009.0
Riparian Wetland	0.19	0.38	0.09	0.28
Buffer – Zone 1	349,282.0 sq ft	1,047,846.0 sq ft	4,478.0 sq ft	353,760.0 sq ft
Buffer – Zone 2	241,301.0 sq ft	361,952.0 sq ft	671.0 sq ft	241,972.0 sq ft

Cape Fear 03030002

Impact Type	Total Permitted Impacts (feet / acre)	Mitigation Provided by DMS per Issued Permits (Credits)	Additional Impact (for approval)	Revised Total Impacts*
Stream	440.0	880.0	0	440.0

*Some of the stream and wetland impacts may be proposed to be mitigated at a 1:1 mitigation ratio. See permit application for details. DMS will provide the amount of mitigation as determined by the regulatory agencies.

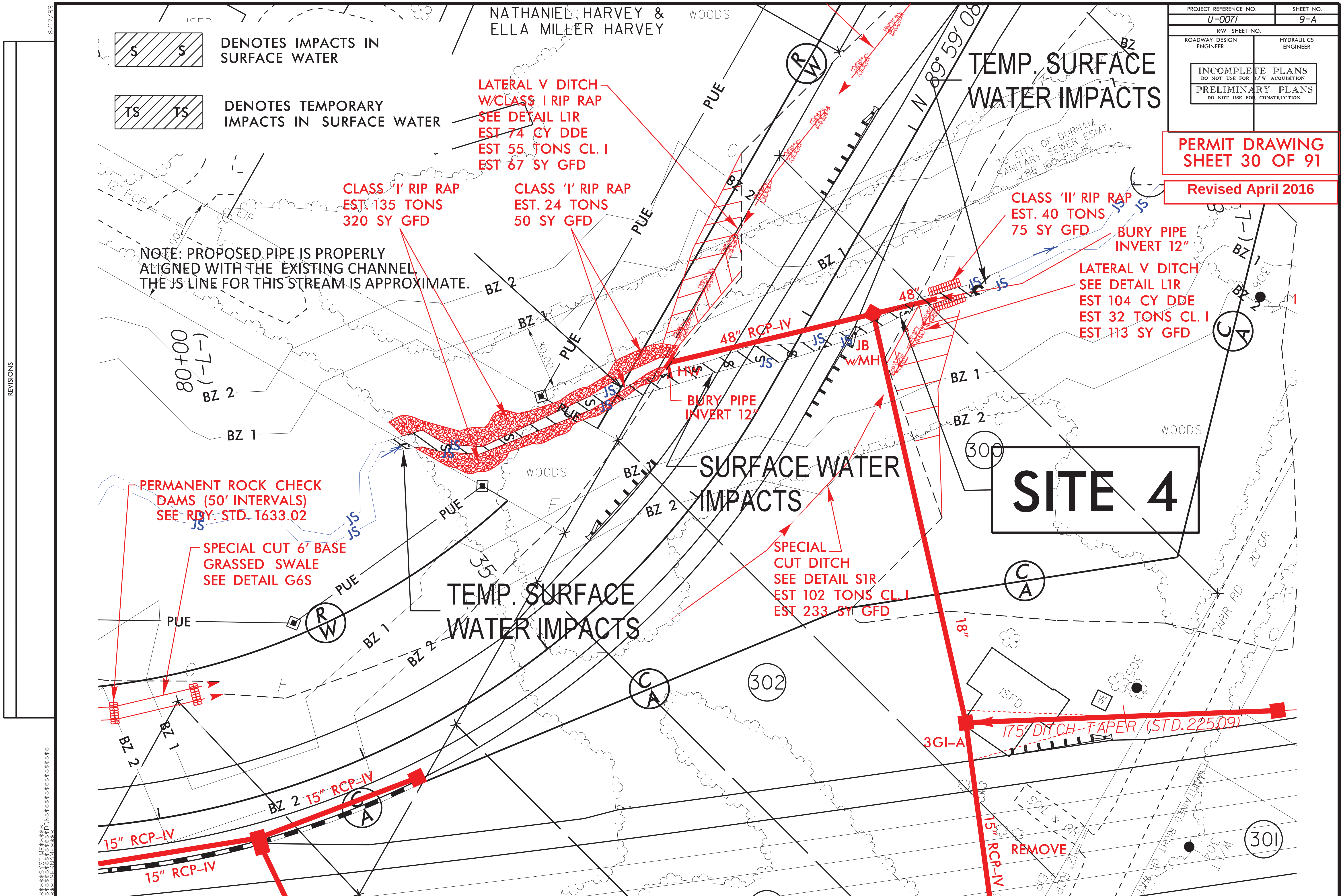
DMS has previously made debits for the stream and riparian wetland mitigation requirements to mitigation sites available in the cataloging units based on the amounts required in the 404 and 401 permits issued in 2014 and 2015. NCDOT has made payment for all riparian buffer mitigation as required by DWR. Upon issuance of the permit modifications for the project, DMS will make appropriate adjustments to the existing mitigation debits.

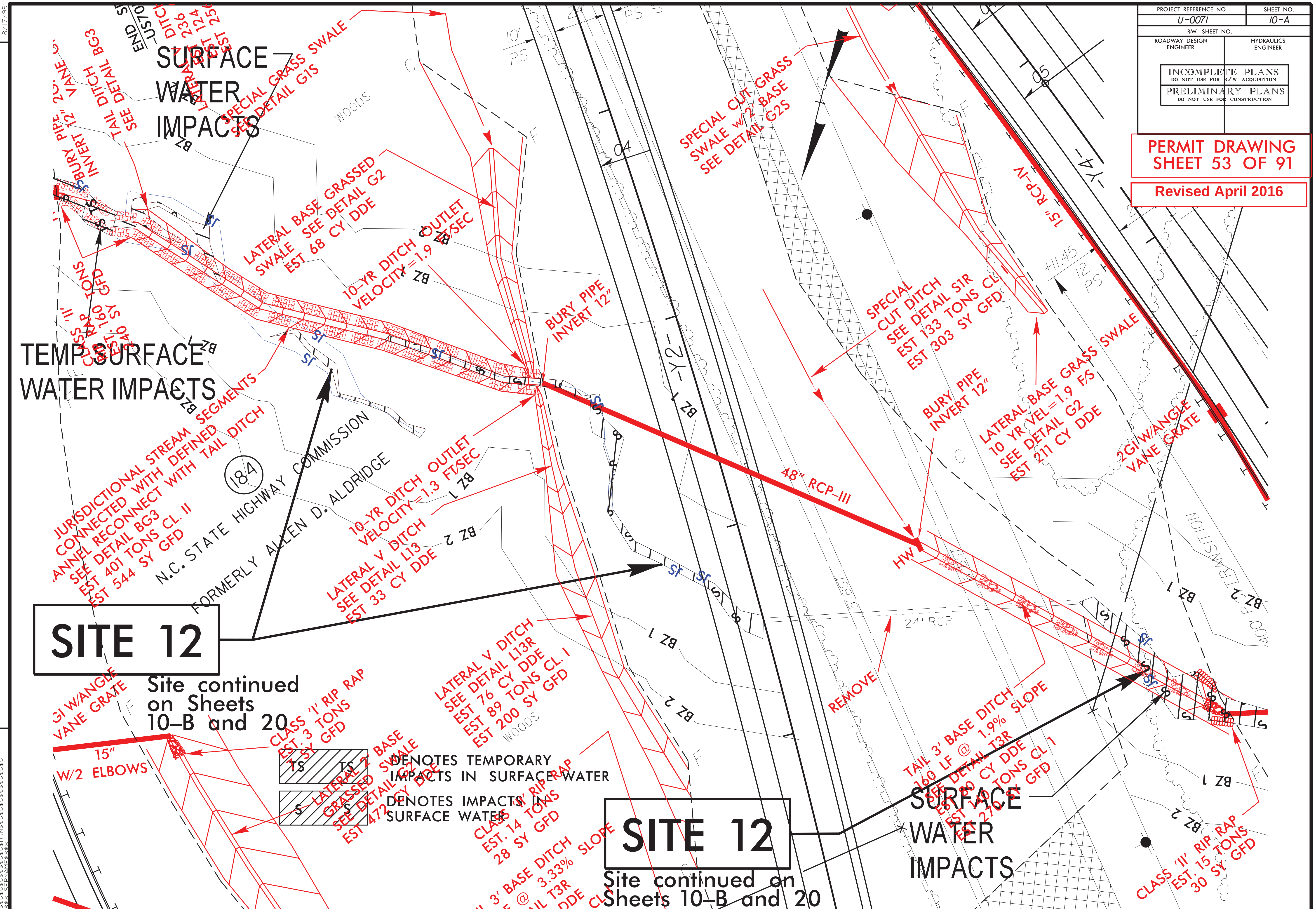
If you have any questions or need additional information, please contact Ms. Beth Harmon at 919-707-8420.

Sincerely,

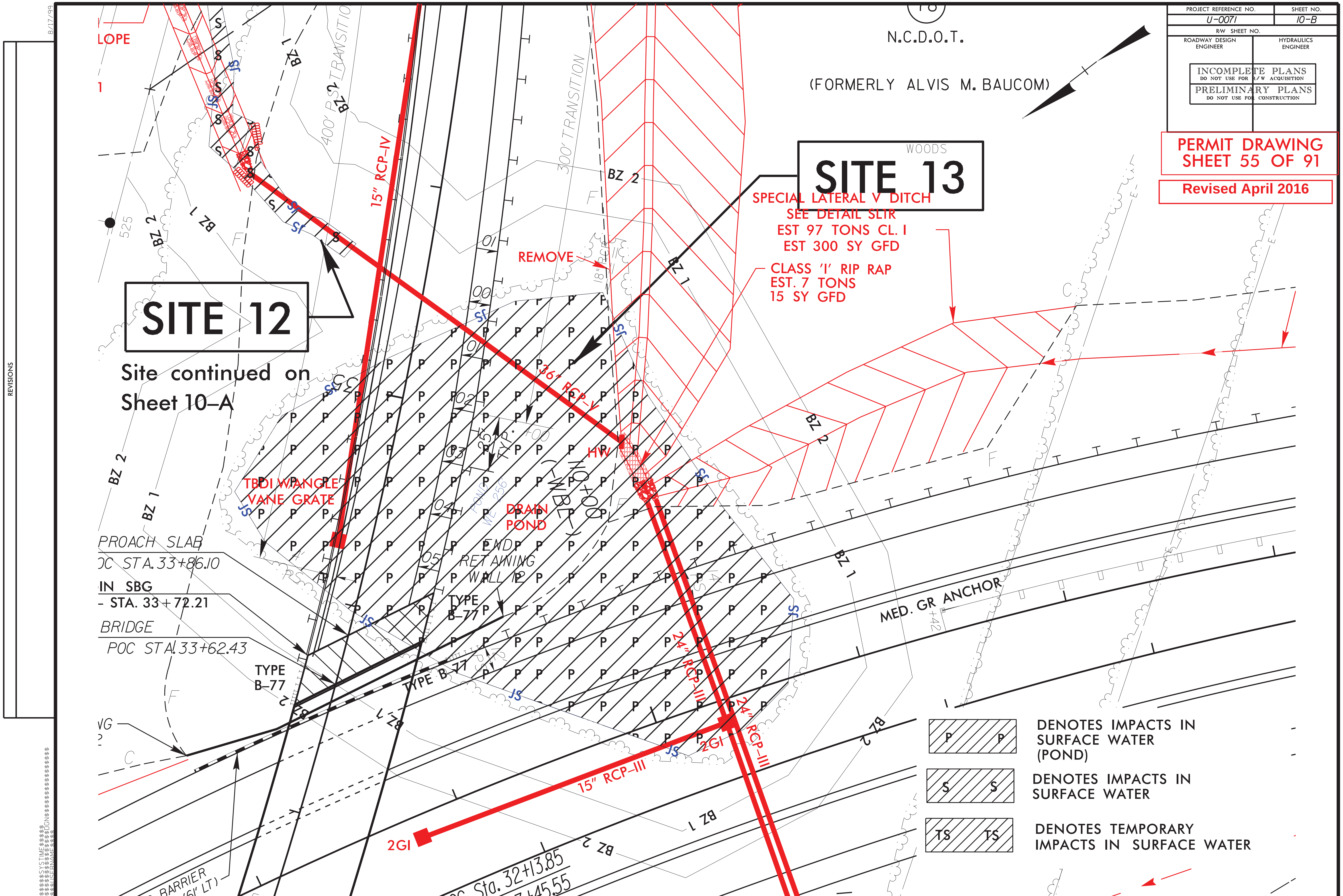
James B. Stanfill
DMS Asset Management Supervisor

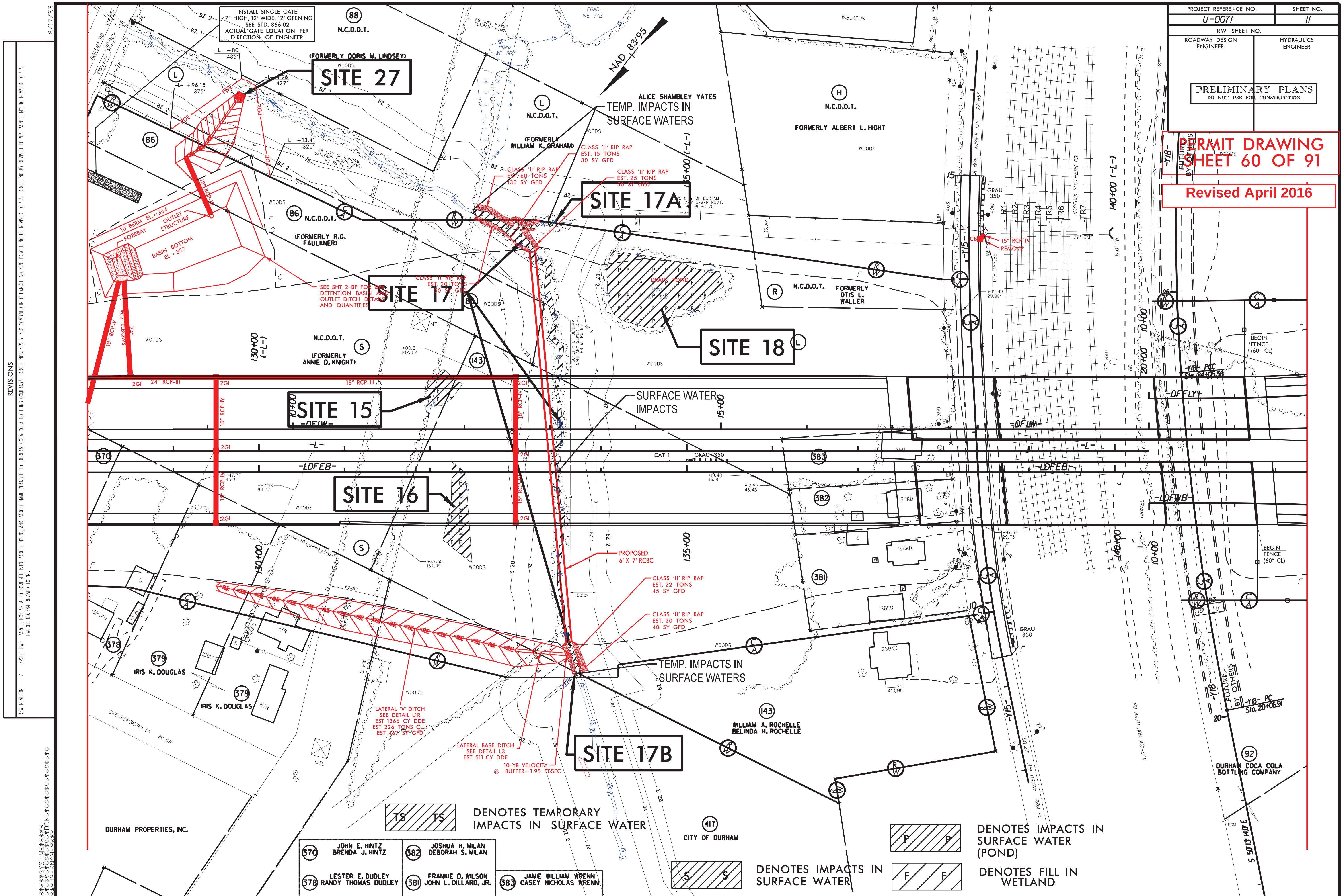
Cc: Mr. Eric Alsmeyer, USACE – Raleigh Regulatory Field Office
Ms. Amy Chapman, NC Division of Water Resources
File: U-0071 Additional 2


PROJECT REFERENCE NO.
U-0071
SHEET NO.
9-A
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION
PERMIT DRAWING
SHEET 30 OF 91
Revised April 2016
REVISIONS
8/17/99
DENOTES IMPACTS IN SURFACE WATER
DENOTES TEMPORARY IMPACTS IN SURFACE WATER
NATHANIEL HARVEY &
ELLA MILLER HARVEY
WOODS
LATERAL V DITCH
W/CLASS I RIP RAP
SEE DETAIL L1R
EST 74 CY DDE
EST 55 TONS CL. I
EST 67 SY GFD
CLASS 'I' RIP RAP
EST. 135 TONS
320 SY GFD
CLASS 'I' RIP RAP
EST. 24 TONS
50 SY GFD
NOTE: PROPOSED PIPE IS PROPERLY
ALIGNED WITH THE EXISTING CHANNEL.
THE JS LINE FOR THIS STREAM IS APPROXIMATE.
TEMP. SURFACE
WATER IMPACTS
30' CITY OF DURHAM
SANITARY SEWER ESMT.
DB 160 PG 115
CLASS 'II' RIP RAP
EST. 40 TONS
75 SY GFD
BURY PIPE
INVERT 12"
LATERAL V DITCH
SEE DETAIL L1R
EST 104 CY DDE
EST 32 TONS CL. I
EST 113 SY GFD
48" RCP-IV
48"
JB
w/MH
HW
BURY PIPE
INVERT 12"
SURFACE WATER
IMPACTS
SITE 4
80+00
(-L-)
12" RCP
EIP
PERMANENT ROCK CHECK
DAMS (50' INTERVALS)
SEE RDY. STD. 1633.02
SPECIAL CUT 6' BASE
GRASSED SWALE
SEE DETAIL G6S
PUE
SPECIAL
CUT DITCH
SEE DETAIL S1R
EST 102 TONS CL. I
EST 233 SY GFD
TEMP. SURFACE
WATER IMPACTS
300
302
301
18"
175' DITCH TAPER (STD.225.09)
3GI-A
15" RCP-IV
15" RCP-IV
15" RCP-IV
15" RCP-IV
REMOVE
ISFD
SOIL & GR
12" RCP
20' GR
CARR RD
MAINTAINED RIGHT OF WAY
305
304
306
WOODS



PROJECT REFERENCE NO. U-0071
SHEET NO. 10-A
RW SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION
PERMIT DRAWING SHEET 53 OF 91
Revised April 2016
SURFACE WATER IMPACTS
SPECIAL GRASS SWALE SEE DETAIL G1S
TEMP SURFACE WATER IMPACTS
LATERAL BASE GRASSED SWALE SEE DETAIL G2 EST 68 CY DDE
10-YR DITCH OUTLET VELOCITY=1.9 FT/SEC
BURY PIPE INVERT 12"
SPECIAL CUT GRASS SWALE w/ 2 BASE SEE DETAIL G2S
SPECIAL CUT DITCH SEE DETAIL S1R EST 133 TONS CL I EST 303 SY GFD
15" RCP-IV
BURY PIPE INVERT 12"
LATERAL BASE GRASS SWALE 10 YR VEL=1.9 F/S SEE DETAIL G2 EST 211 CY DDE
2GI W/ANGLE VANE GRATE
JURISDICTIONAL STREAM CONNECTED WITH DEFINED SEGMENTS CHANNEL RECONNECT WITH TAIL DITCH SEE DETAIL BG3 EST 401 TONS CL. II EST 544 SY GFD
N.C. STATE HIGHWAY COMMISSION
FORMERLY ALLEN D. ALDRIDGE
184
10-YR DITCH OUTLET VELOCITY=1.3 FT/SEC
LATERAL V DITCH SEE DETAIL L13 EST 33 CY DDE
48" RCP-III
HW
24" RCP
REMOVE
SITE 12
Site continued on Sheets 10-B and 20
GI W/ANGLE VANE GRATE
15" W/2 ELBOWS
CLASS 'I' RIP RAP EST. 3 TONS 7 SY GFD
DENOTES TEMPORARY IMPACTS IN SURFACE WATER
DENOTES IMPACTS IN SURFACE WATER
LATERAL V DITCH SEE DETAIL L13R EST 76 CY DDE EST 89 TONS CL. I EST 200 SY GFD
TAIL 3' BASE DITCH 160 LF @ 1.9% SLOPE SEE DETAIL T3R
SURFACE WATER IMPACTS
SITE 12
Site continued on Sheets 10-B and 20
CLASS 'II' RIP RAP EST. 15 TONS 30 SY GFD
400' TRANSITION
WOODS
-Y2-
-Y4-


PROJECT REFERENCE NO.
U-0071
SHEET NO.
10-B
RW SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION
PERMIT DRAWING
SHEET 55 OF 91
Revised April 2016
N.C.D.O.T.
(FORMERLY ALVIS M. BAUCOM)
WOODS
SITE 13
SPECIAL LATERAL V DITCH
SEE DETAIL SL1R
EST 97 TONS CL. I
EST 300 SY GFD
CLASS 'I' RIP RAP
EST. 7 TONS
15 SY GFD
REMOVE
SITE 12
Site continued on
Sheet 10-A
15" RCP-IV
36" RCP-V
HW
24" RCP-III
15" RCP-III
2GI
2GI
TBDI W/ANGLE
VANE GRATE
DRAIN
POND
END
RETAINING
WALL 12
TYPE
B-77
TYPE B-77
PROACH SLAB
POC STA. 33+86.10
IN SBG
- STA. 33+72.21
BRIDGE
POC STA. 33+62.43
MED. GR ANCHOR
300' TRANSITION
400' TRANSITION
BZ 1
BZ 2
POC Sta. 32+13.85
BARRIER
(61' LT)
DENOTES IMPACTS IN SURFACE WATER (POND)
DENOTES IMPACTS IN SURFACE WATER
DENOTES TEMPORARY IMPACTS IN SURFACE WATER
REVISIONS
8/17/99


PROJECT REFERENCE NO.
U-0071
SHEET NO.
11
R/W SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION
PERMIT DRAWING
SHEET 60 OF 91
Revised April 2016
REVISIONS
R/W REVISION / /2012 RWP PARCEL NOS. 92 & 110 COMBINED INTO PARCEL NO. 92, AND PARCEL NAME CHANGED TO "DURHAM COCA COLA BOTTLING COMPANY". PARCEL NOS. 379 & 380 COMBINED INTO PARCEL NO. 379. PARCEL NO. 85 REVISED TO "S". PARCEL NO. 87 REVISED TO "L". PARCEL NO. 90 REVISED TO "H".
PARCEL NO. 384 REVISED TO "R".
8/17/99
INSTALL SINGLE GATE
47" HIGH, 12' WIDE, 12' OPENING
SEE STD. 866.02
ACTUAL GATE LOCATION PER
DIRECTION OF ENGINEER
SITE 27
SITE 17A
SITE 17
SITE 18
SITE 15
SITE 16
SITE 17B
NAD 83/95
ALICE SHAMBLEY YATES
TEMP. IMPACTS IN
SURFACE WATERS
CLASS 'II' RIP RAP
EST. 15 TONS
30 SY GFD
CLASS 'II' RIP RAP
EST. 60 TONS
130 SY GFD
CLASS 'II' RIP RAP
EST. 25 TONS
50 SY GFD
CLASS 'II' RIP RAP
EST. 20 TONS
50 SY GFD
SEE SHT 2-BF FOR DRY
DETENTION BASIN AND
OUTLET DITCH DETAILS
AND QUANTITIES
10' BERM EL.=364
FOREBAY
OUTLET
STRUCTURE
BASIN BOTTOM
EL.=357
SURFACE WATER
IMPACTS
PROPOSED
6' X 7' RCBC
CLASS 'II' RIP RAP
EST. 22 TONS
45 SY GFD
CLASS 'II' RIP RAP
EST. 20 TONS
40 SY GFD
TEMP. IMPACTS IN
SURFACE WATERS
LATERAL 'V' DITCH
SEE DETAIL L1R
EST 1366 CY DDE
EST 226 TONS CL. I
EST 467 SY GFD
LATERAL BASE DITCH
SEE DETAIL L3
EST 511 CY DDE
10-YR VELOCITY
@ BUFFER=1.95 FT/SEC
15" RCP-IV
REMOVE
(FORMERLY DORIS M. LINDSEY)
(FORMERLY WILLIAM K. GRAHAM)
(FORMERLY R.G. FAULKNER)
(FORMERLY ANNIE D. KNIGHT)
FORMERLY ALBERT L. HIGHT
FORMERLY OTIS L. WALLER
N.C.D.O.T.
IRIS K. DOUGLAS
WILLIAM A. ROCHELLE
BELINDA H. ROCHELLE
CITY OF DURHAM
DURHAM COCA COLA BOTTLING COMPANY
DURHAM PROPERTIES, INC.
NORFOLK SOUTHERN RR
ANGIER AVE
SR 1926
CHECKERBERRY LN
-L-
-LDFEB-
-DFLW-
-DFFLY-
-LDFWB-
-Y15-
-Y18-
FUTURE BY OTHERS
-Y18- PCC Sta. 24+05.56
-Y18- PC Sta. 20+06.91
BEGIN FENCE (60" CL)
S 50°13'14.0" E
130+00
135+00
140+00
370 JOHN E. HINTZ BRENDA J. HINTZ
378 LESTER E. DUDLEY RANDY THOMAS DUDLEY
382 JOSHUA H. MILAN DEBORAH S. MILAN
381 FRANKIE D. WILSON JOHN L. DILLARD, JR.
383 JAMIE WILLIAM WRENN CASEY NICHOLAS WRENN
DENOTES TEMPORARY IMPACTS IN SURFACE WATER
DENOTES IMPACTS IN SURFACE WATER
DENOTES IMPACTS IN SURFACE WATER (POND)
DENOTES FILL IN WETLAND

WETLAND PERMIT IMPACT SUMMARY

Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS: Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	SURFACE WATER IMPACTS: Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
1	L 32+58 to 36+64	FILL						0.04		412		
2	L 37+75 - SR1 34+84 Y17 11+14	66" RCP-IV, 48"RCP-III, 24"RCP-III	0.08					0.07	<0.01	673	14	
		BANK STABILIZATION								20		
3	L 44+53	30" RCP-III	0.06					0.06		410		
* 4	SR2 36+89 Y7 17+24	48" RCP-III, 60" RCP-III	0.05					0.03	<0.01	349	20	
		BANK STABILIZATION								175		
* 5(T)	Y7LPA 13+98	60" RCP-III	0.06									
6	Y7RPA 21+78	BANK STABILIZATION						<0.01		25		
7	Y7RPA 20+75 to Y6 15+90	8'x9' RCBC						0.17	0.01	665	104	
		BANK STABILIZATION								305		
8	Y4 19+63 to 22+30 and Y4 23+04 to 25+59	30" RCP-III, FILL	0.04					0.07		443		
9	Y5 23+20 RT.	30" RCP-III						0.03	<0.01	29	0	
		BANK STABILIZATION								43		
10	Y5 26+62 RT.	FILL	0.01	0.01								
11	Y6 11+15 off 104 RT.	18" RCP-III				<0.01						
12	Y2 26+53 to 27+90 LT.	48" RCP-III & RECHANNELIZATION						0.12	0.02	789	72	
		BANK STABILIZATION								18		
13(T)	Y4 35+48	36" RCP-IV						0.78				
* 14(T)	L 122+93	30" RCP-V	0.08									
* 15(T)	L 132+13	FILL	0.03									
* 16(T)	L 132+33 RT.	FILL	0.05									
17	L 133+41	6'x7' RCBC						0.06	<0.01	479	33	
		BANK STABILIZATION								140		
17A	L 133+26 264' LT	BANK STABILIZATION						<0.01	<0.01	25	37	
TOTALS:			0.46	0.01		<0.01		1.43	0.03	5000	280	

*Rounded totals are sum of actual impacts

NOTES:
* indicates isolated wetland

(T) Indicates Total Take

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

DURHAM COUNTY
WBS - 34745.1.1 (U-0071)

4/7/2016

WETLAND PERMIT IMPACT SUMMARY

Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS: Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	SURFACE WATER IMPACTS: Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
17B	L 133+69 263' RT	FILL							<0.01		7	
18(T)	L 134+53 LT.	FILL						0.19				
19	not jurisdictional	0										
20	DFLW 27+34 to 38+06	42" RCP-III						0.02	<0.01	218	17	
21	DFLW 39+19	FILL						0.01		28		
22	DFLW 41+62	FILL						0.01		23		
23	Y3 34+45	8'x10' CULVERT						0.09	0.01	270	65	
		BANK STABILIZATION								140		
24	Y3 40+16.69 RT	30" RCP-III						0.04	0.01	104	23	
25	Y9 28+10 LT to 26+85 RT	66" RCP-III						0.01	<0.01	168	10	
		BANK STABILIZATION								35		
26	Y3 57+75 LT to RT	60" RCP-III						0.01	<0.01	50	23	
		BANK STABILIZATION								50		
27	L 129+77 414LT.	BANK STABILIZATION								10		
28	DFLW 52+08 LT & RT	36" RCP						0.02	0.01	121	20	
29	DFLW 72+35 LT	FILL						< 0.01		40		
30	DFLW 73+72 LT	FILL						< 0.01		10		
31	DFLW 78+76 LT& 81+14 RT	BANK STABILIZATION								61		
		Construction Activity							<0.01		22	
32	DFLW 78+79 LT	Construction Activity							<0.01		9	
TOTALS (page 2 of 2):			0.00	0.00		0.00		0.4	0.03	1328	196	
TOTALS (page 1 of 2):			0.46	0.01		<0.01		1.43	0.02	5000	280	
TOTALS:			0.46	0.01		<.0.01		1.83	0.06	6328	476	

*Rounded totals are sum of actual impacts

NOTES:
* indicates isolated wetland

(T) Indicates Total Take

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

DURHAM COUNTY
WBS - 34745.1.1 (U-0071)

4/7/2016

PROJECT REFERENCE NO.	SHEET NO.
U-0071	9-A

R/W SHEET NO.

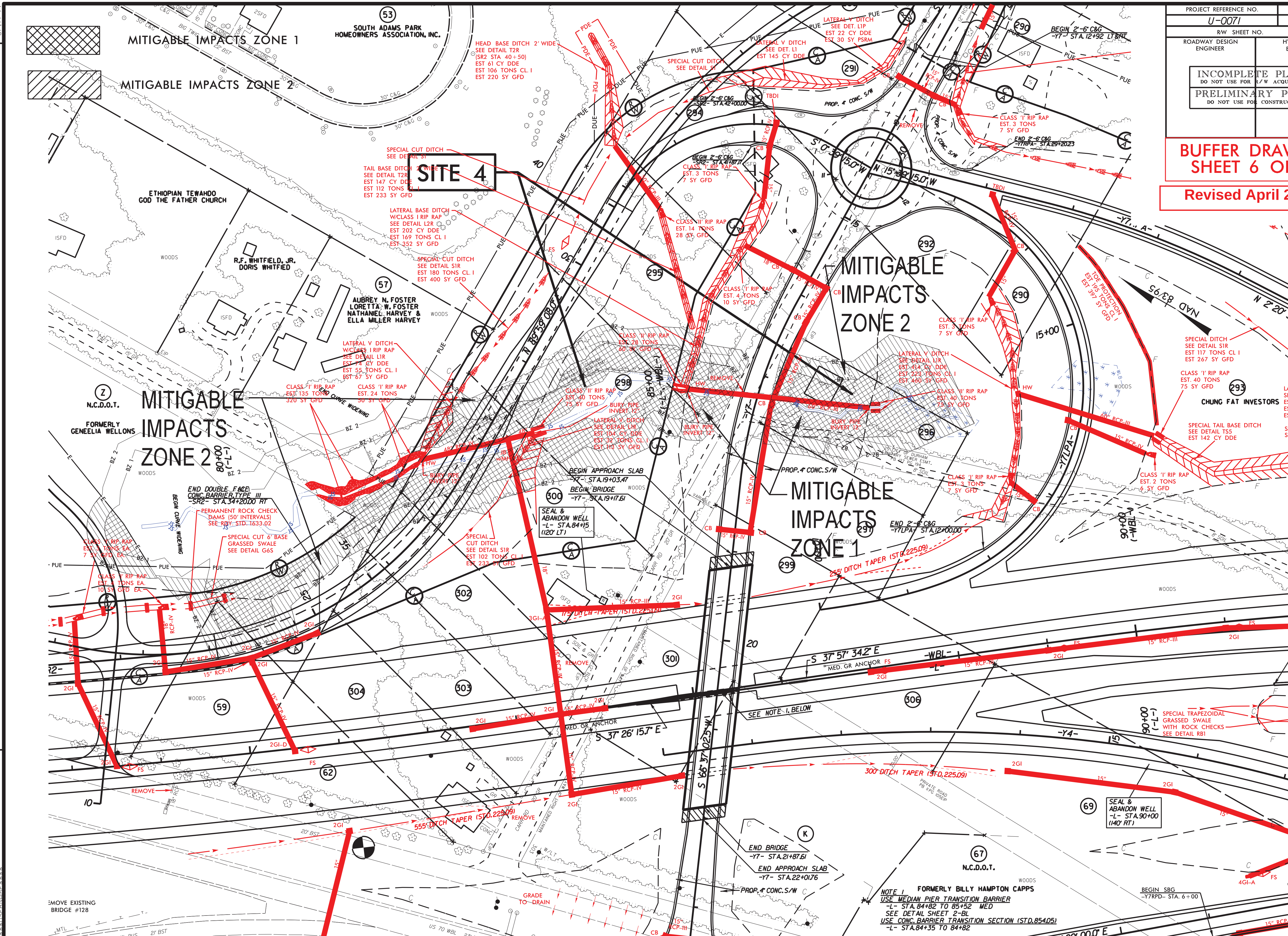
ROADWAY DESIGN ENGINEER | HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

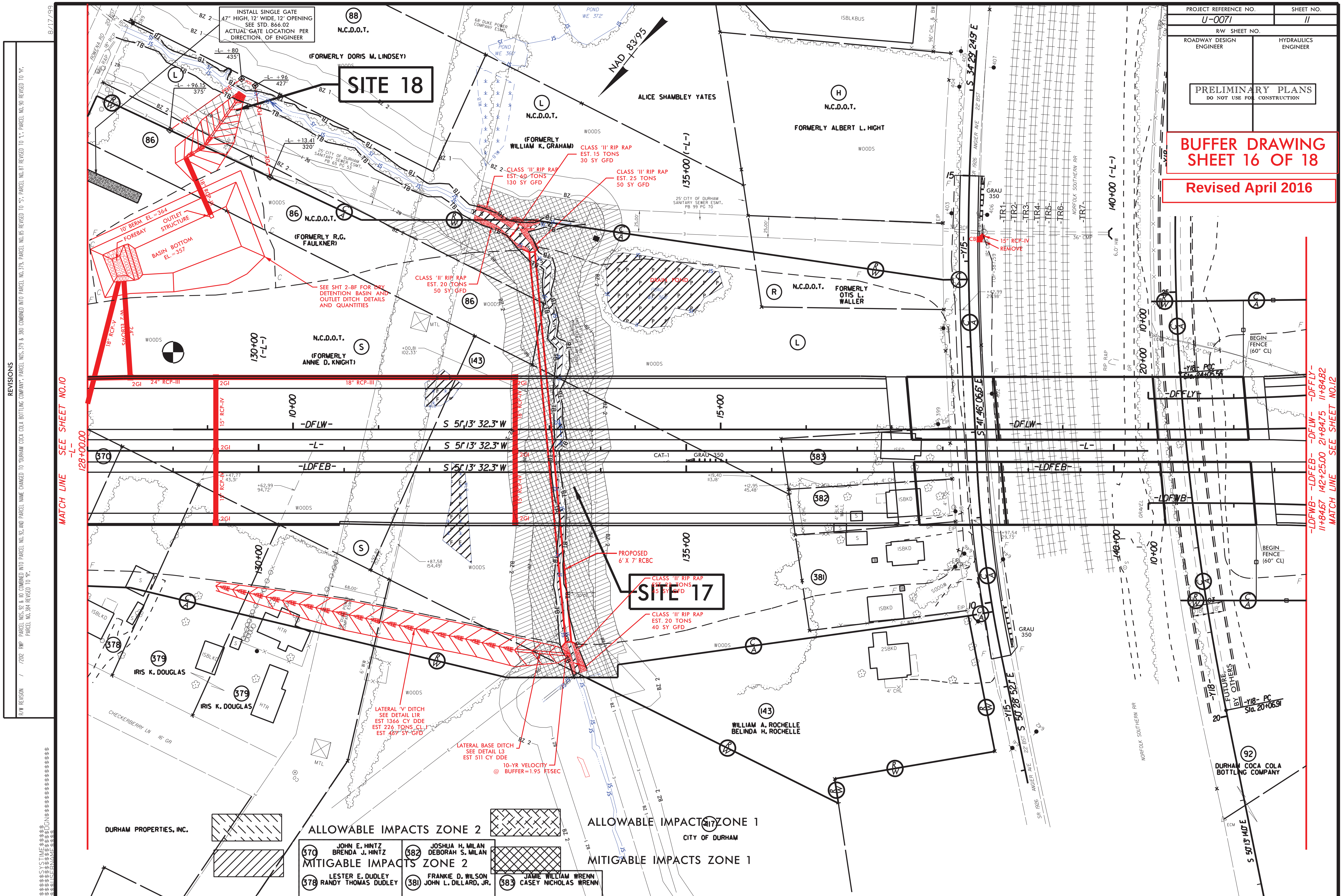
BUFFER DRAWING SHEET 6 OF 18

Revised April 2016



REVISIONS

8/17/99


PROJECT REFERENCE NO. U-0071
SHEET NO. 11
RW SHEET NO.
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION
BUFFER DRAWING SHEET 16 OF 18
Revised April 2016
SITE 18
SITE 17
NAD 83/95
INSTALL SINGLE GATE 47" HIGH, 12' WIDE, 12' OPENING SEE STD. 866.02 ACTUAL GATE LOCATION PER DIRECTION OF ENGINEER
N.C.D.O.T.
(FORMERLY DORIS M. LINDSEY)
ALICE SHAMBLEY YATES
FORMERLY ALBERT L. HIGHT
(FORMERLY WILLIAM K. GRAHAM)
(FORMERLY R.G. FAULKNER)
(FORMERLY ANNIE D. KNIGHT)
FORMERLY OTIS L. WALLER
CLASS 'II' RIP RAP EST. 15 TONS 30 SY GFD
CLASS 'II' RIP RAP EST. 60 TONS 130 SY GFD
CLASS 'II' RIP RAP EST. 25 TONS 50 SY GFD
CLASS 'II' RIP RAP EST. 20 TONS 50 SY GFD
CLASS 'II' RIP RAP EST. 20 TONS 40 SY GFD
SEE SHT 2-BF FOR DRY DETENTION BASIN AND OUTLET DITCH DETAILS AND QUANTITIES
10' BERM EL.=364
FOREBAY
OUTLET STRUCTURE
BASIN BOTTOM EL.=357
15" RCP-IV REMOVE
PROPOSED 6' X 7' RCBC
LATERAL 'V' DITCH SEE DETAIL L1R EST 1366 CY DDE EST 226 TONS CL. I EST 497 SY GFD
LATERAL BASE DITCH SEE DETAIL L3 EST 511 CY DDE
10-YR VELOCITY @ BUFFER=1.95 FT/SEC
-DFLW-
-L-
-LDFEB-
-LDFWB-
-DFFLY-
S 51°13' 32.3" W
S 34°29' 24.9" E
S 41°46' 06.6" E
S 50°28' 52.5" E
MATCH LINE SEE SHEET NO.10 -L- 128+00.00
MATCH LINE SEE SHEET NO.12 -LDFWB- 11+84.67 -LDFEB- 142+25.00 -DFLW- 21+84.75 -DFFLY- 11+84.82
IRIS K. DOUGLAS
WILLIAM A. ROCHELLE BELINDA H. ROCHELLE
DURHAM COCA COLA BOTTLING COMPANY
DURHAM PROPERTIES, INC.
CITY OF DURHAM
NORFOLK SOUTHERN RR
CHECKERBERRY LN
ALLOWABLE IMPACTS ZONE 2
MITIGABLE IMPACTS ZONE 2
ALLOWABLE IMPACTS ZONE 1
MITIGABLE IMPACTS ZONE 1
370 JOHN E. HINTZ BRENDA J. HINTZ
382 JOSHUA H. MILAN DEBORAH S. MILAN
378 LESTER E. DUDLEY RANDY THOMAS DUDLEY
381 FRANKIE D. WILSON JOHN L. DILLARD, JR.
383 JAMIE WILLIAM WRENN CASEY NICHOLAS WRENN
REVISIONS

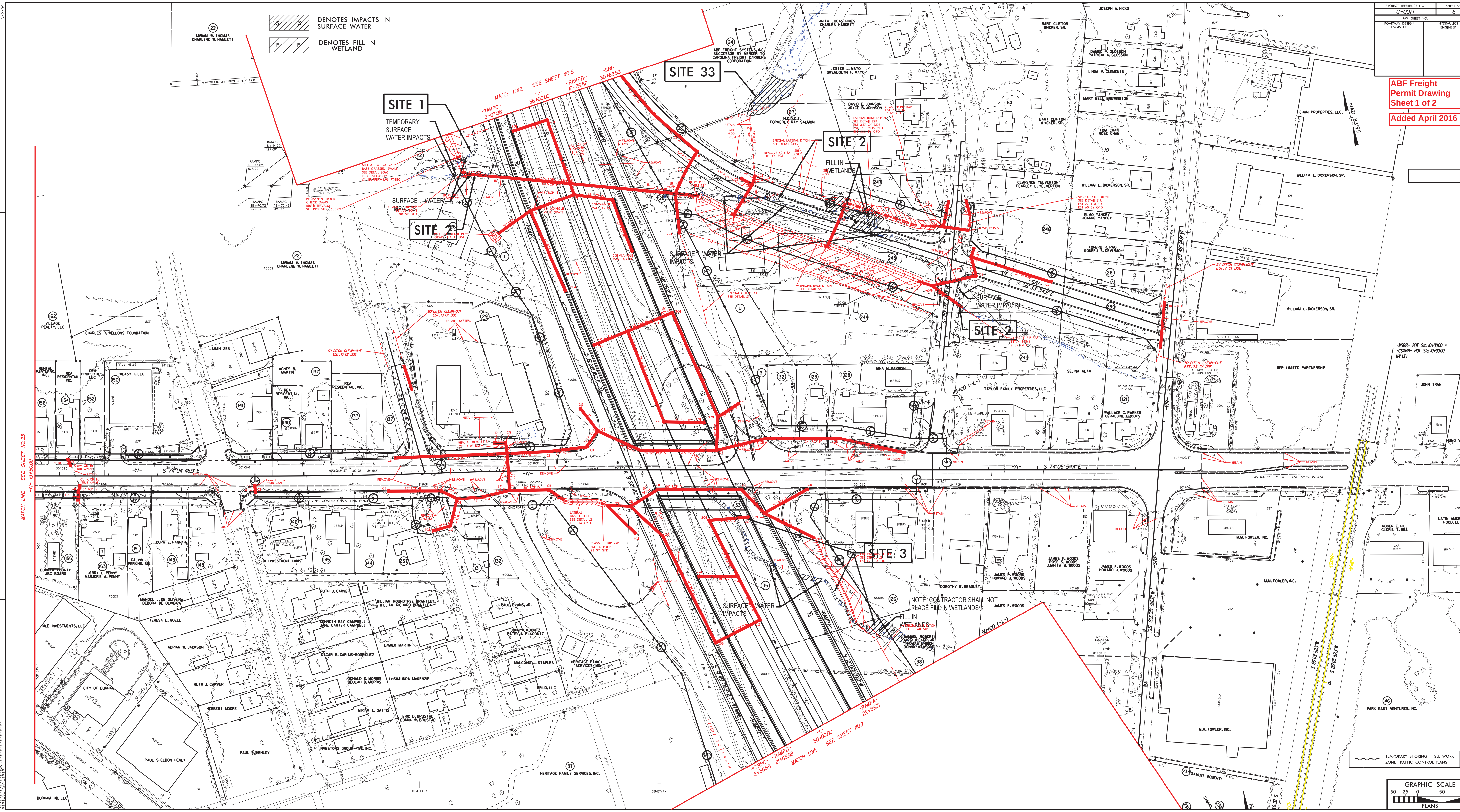
BUFFER IMPACTS SUMMARY

			IMPACT									BUFFER REPLACEMENT	
			TYPE			ALLOWABLE			MITIGABLE				
SITE NO.	STRUCTURE SIZE / TYPE	STATION (FROM/TO)	ROAD CROSSING	BRIDGE	PARALLEL IMPACT	ZONE 1 (ft^2)	ZONE 2 (ft^2)	TOTAL (ft^2)	ZONE 1 (ft^2)	ZONE 2 (ft^2)	TOTAL (ft^2)	ZONE 1 (ft^2)	ZONE 2 (ft^2)
1	66" RCP-V	L 36+86RT to 38+71LT	X						41408	26834	68242		
2	30" RCP & 15"RCP	L 44+95 to 49+16 LT	X						22801	15534	38335		
3	30" RCP-III	Y17 12+93 to 13+97	X			2222	997	3219					
4	18", 48" & 60" RCP	SR2 32+99 to Y7 16+51	X						45253	35088	80341		
5	66" RCP-III	Y7RPA 21+27 to 22+32	X			2342	3142	5484					
6	TWO 8'x9' RCBC	Y7RPA 20+32 to Y7RPD 7+62	X						63171	38576	101747		
7	30" RCP-III	Y4 21+14	X						24286	16780	41066		
8	DITCH	Y5 23+24	STORMWATER MANAGEMENT			3438	1805	5243					
9	15" RCP-III	Y7 29+00			X				4340	6087	10427		
10	18" RCP-III	Y6 11+09			X				977	1780	2757		
11	PREFORMED SCOUR HOLE	Y12 10+00	STORMWATER MANAGEMENT				87	87					
12	15", 24", & 36" RCP	L 109+80 to Y2 29+08	X						77205	50757	127962		
13	8'x10' RCBC	Y3 34+44	X						27871	20229	48100		
14	30" RCP	Y3 40+73	X			7822	3210	11032					
15	60" RCP	Y9 27+33	X						13171	8861	22032		
16	60" RCP	Y3 57+71	X			7690	5252	12942					
17	6'x7' RCBC	L 133+41	X						39947	23781	63728		
18	DITCH	L 129+60	STORMWATER MANAGEMENT			2146	1897	4043					
TOTAL:						25660	16390	42050	360430	244307	604737		

N.C. DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS

DURHAM COUNTY
PROJECT: 34745.2.8 (U-0071)

04/07/2016
SHEET 18 of 18



PROJECT REFERENCE NO. U-0071
SHEET NO. 6
ROADWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
ABF Freight
Permit Drawing
Sheet 1 of 2
Added April 2016
DENOTES IMPACTS IN SURFACE WATER
DENOTES FILL IN WETLAND
SITE 33
SITE 1
TEMPORARY SURFACE WATER IMPACTS
SITE 2
FILL IN WETLANDS
SURFACE WATER IMPACTS
SITE 3
NOTE: CONTRACTOR SHALL NOT PLACE FILL IN WETLANDS
MATCH LINE SEE SHEET NO.5
MATCH LINE SEE SHEET NO.7
MATCH LINE -Y1- SEE SHEET NO.23
ABF FREIGHT SYSTEMS, INC. SUCCESSOR BY MERGER TO CAROLINA FREIGHT CARRIERS CORPORATION
MIRIAM W. THOMAS CHARLENE W. HAMLETT
CHAN PROPERTIES, LLC.
WILLIAM L. DICKERSON, SR.
BFP LIMITED PARTNERSHIP
M.M. FOWLER, INC.
PARK EAST VENTURES, INC.
HERITAGE FAMILY SERVICES, INC.
CITY OF DURHAM
PAUL SHELDON HENLY
TEMPORARY SHORING – SEE WORK ZONE TRAFFIC CONTROL PLANS
GRAPHIC SCALE
50 25 0 50 100
PLANS

WETLAND PERMIT IMPACT SUMMARY

			WETLAND IMPACTS					SURFACE WATER IMPACTS				
Site No.	Station (From/To)	Structure Size / Type	Permanent Fill In Wetlands (ac)	Temp. Fill In Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Natural Stream Design (ft)
33	-SR1- 33+75 LT	FILL	0.09									
TOTALS*:			0.09							0	0	0

*Rounded totals are sum of actual impacts

NOTES:

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
04/21/2016
Durham County
U-0071
34745.1.1

ABF Freight Permit Drawing Sheet 2 of 2

Added April 2016