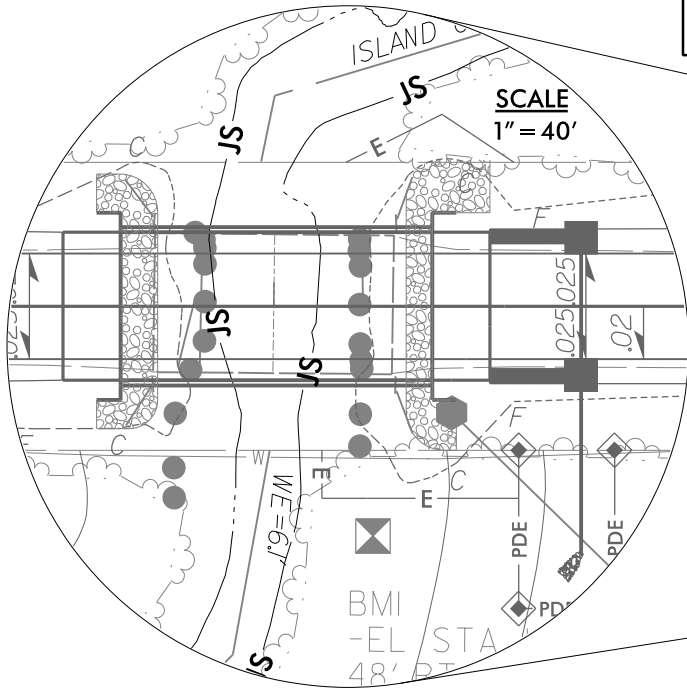


WETLAND & STREAM IMPACTS

HNTB HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554

PROJECT REFERENCE NO.	SHEET NO.
17BP.2.R.20	4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	



W2
PERMANENT WETLAND IMPACTS = 0 Ac / 0 SF
TEMPORARY WETLAND IMPACTS = 0 Ac / 0 SF
PERMANENT STREAM IMPACTS = 0 LF
TEMPORARY STREAM IMPACTS = 0 LF

W1
PERMANENT WETLAND IMPACTS = 0 Ac / 0 SF
TEMPORARY WETLAND IMPACTS = 0 Ac / 0 SF
PERMANENT STREAM IMPACTS = 0 LF
TEMPORARY STREAM IMPACTS = 0 LF

W3
PERMANENT WETLAND IMPACTS = 0 Ac / 0 SF
TEMPORARY WETLAND IMPACTS = 0 Ac / 0 SF
PERMANENT STREAM IMPACTS = 0 LF
TEMPORARY STREAM IMPACTS = 0 LF

W4
PERMANENT WETLAND IMPACTS = 0 Ac / 0 SF
TEMPORARY WETLAND IMPACTS = 0 Ac / 0 SF
PERMANENT STREAM IMPACTS = 0 LF
TEMPORARY STREAM IMPACTS = 0 LF

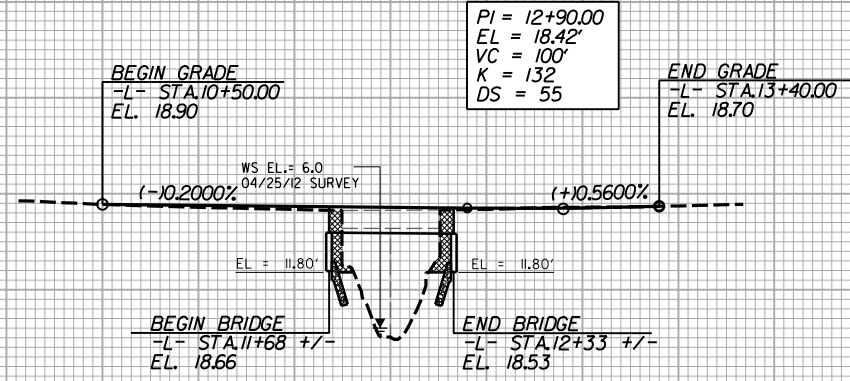
NC GRID
NAD 83/NSRS 2007

-BL- 3

NCDOT GPS -BL- 2

PROFILE

MATERIAL TO BE REMOVED

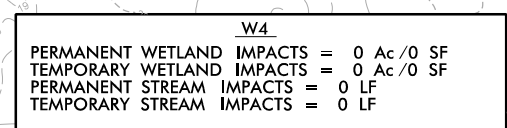


BRIDGE HYDRAULIC DATA		
DESIGN DISCHARGE	= 1000	CFS
DESIGN FREQUENCY	= 50	YRS
DESIGN HW ELEVATION	= 13J	FT
BASE DISCHARGE	= 1200	CFS
BASE FREQUENCY	= 100	YRS
BASE HW ELEVATION	= 13.96	FT
OVERTOPPING DISCHARGE	= -	CFS
OVERTOPPING FREQUENCY	= > 500(+)	YRS
OVERTOPPING ELEVATION	= 18.5	FT
DATE OF SURVEY	= 04/25/12	
W.S.ELEVATION AT DATE OF SURVEY	= 6.0	FT

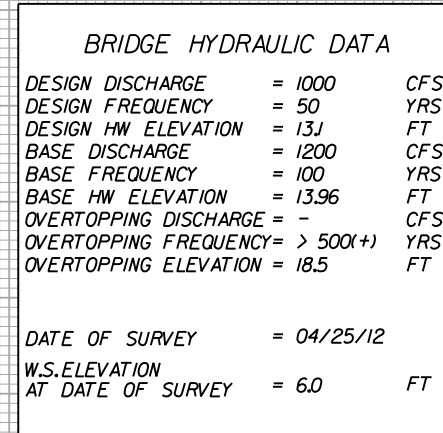
REVISIONS

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PROJECT REFERENCE NO.	SHEET NO.
<i>17BP.2.R.20</i>	<i>4</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

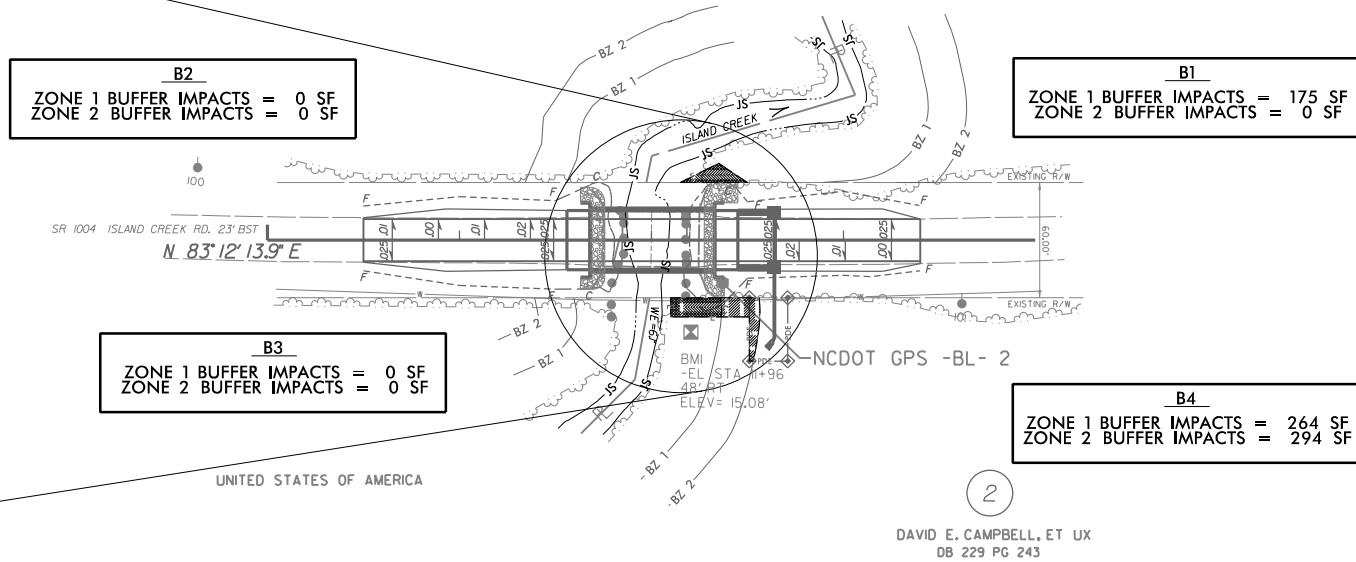


 MATERIAL TO BE REMOVED

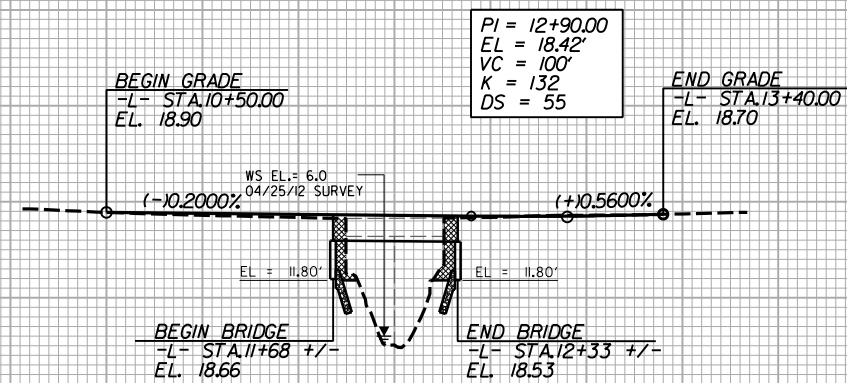


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PROJECT REFERENCE NO.	SHEET NO.
17BP.2R.20	4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	



 MATERIAL TO BE REMOVED

BRIDGE HYDRAULIC DATA

DESIGN DISCHARGE	=	1000	CFS
DESIGN FREQUENCY	=	50	YRS
DESIGN HW ELEVATION	=	13.1	FT
BASE DISCHARGE	=	1200	CFS
BASE FREQUENCY	=	100	YRS
BASE HW ELEVATION	=	13.96	FT
OVERTOPPING DISCHARGE	=	-	CFS
OVERTOPPING FREQUENCY	=	> 500(+)	YRS
OVERTOPPING ELEVATION	=	18.5	FT

DATE OF SURVEY = 04/25/12
W.S.ELEVATION
AT DATE OF SURVEY = 6.0

REVISIONS

10/25/2012
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REVISIONS

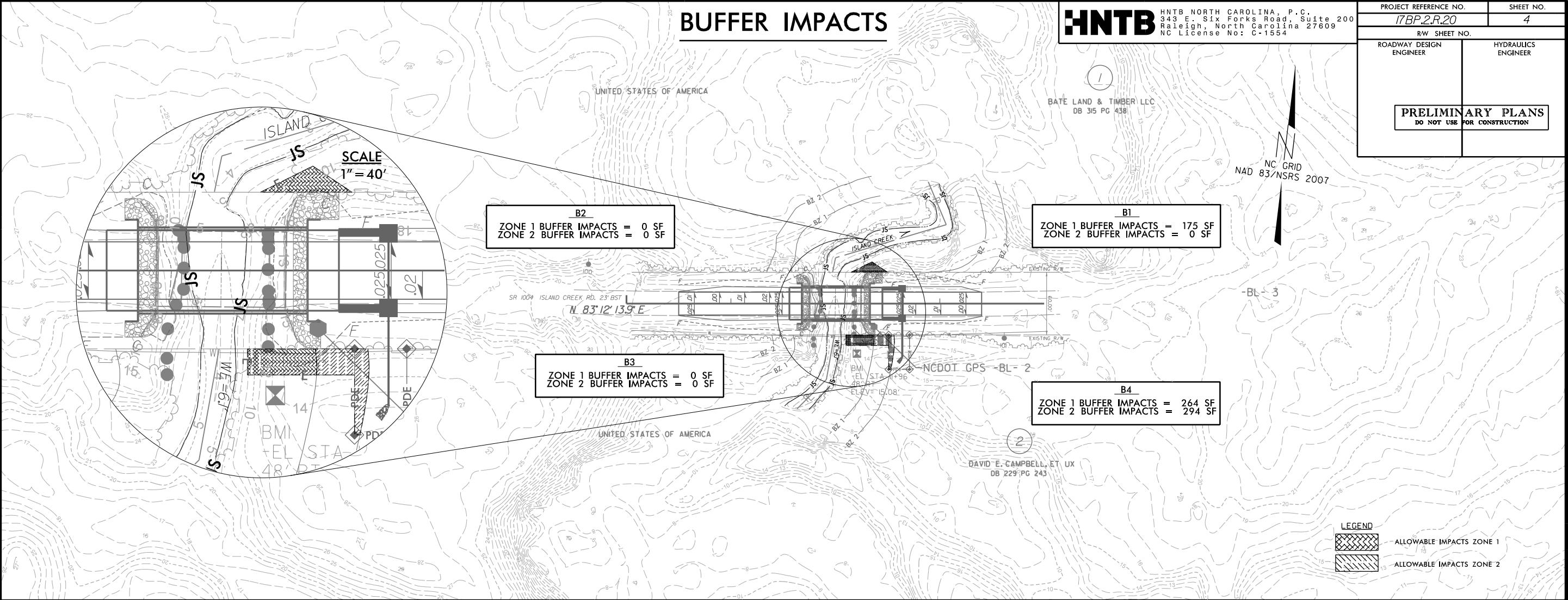
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BUFFER IMPACTS

HNTB

HNTB NORTH CAROLINA, P.C.
343 E. Six Forks Road, Suite 200
Raleigh, North Carolina 27609
NC License No: C-1554

PROJECT REFERENCE NO.		SHEET NO.	
17BP.2.R.20		4	
RW SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION			



PROFILE

