

CATEGORICAL EXCLUSION ACTION CLASSIFICATION FORM

TIP Project No.	<u>B-5302</u>
W.B.S. No.	<u>46016.1.1</u>
Federal Project No.	<u>BRNHPP-0017(127)</u>

A. Project Description:

This project involves replacing Beaufort County Bridge No. 3 on US 17 Business over Norfolk Southern Railroad. Bridge No. 3 is 173 feet long. The replacement structure will be a bridge approximately 235 feet long providing a minimum 68-foot clear deck width. The bridge will include four 12-foot lanes and 10-foot offsets. The bridge length is based on preliminary design information and is set by clearance requirements. The roadway grade of the new structure will be raised to meet the minimum vertical clearance requirements of 23 feet over railroads.

The proposed project is included in the 2016-2025 State Transportation Improvement Program (STIP). Right of way acquisition and construction are scheduled for state fiscal years 2017 and 2019, respectively, in the STIP. The approach roadway will extend approximately 840 feet from the southwest end of the new bridge and approximately 1,000 feet from the northeast end of the new bridge. Four 12-foot lanes and ten-foot shoulders (seven to eight-foot paved) are proposed on the approach roadway on each end of the bridge. Guardrail will be required on both sides of US 17 Business within the project limits. The roadway will be designed as a Minor Arterial Route with a 60 mile per hour design speed.

Traffic will be detoured off-site during construction (see Figure 1).

B. Purpose and Need:

The purpose of the proposed project is to replace an obsolete bridge.

NCDOT Bridge Management Unit records indicate Bridge No. 3 has a sufficiency rating of 48.9 out of a possible 100 for a new structure.

The bridge was built in 1941. In 1963 it was reconstructed to add width to the existing structure to support additional lanes along the road.

According to Federal Highway Administration (FHWA) standards, the bridge meets the criteria for functionally obsolete due to a deck geometry appraisal of 2 out of 9.

The existing vertical under clearance of 21.7 feet does not meet the 23-foot minimum requirement. Bridge No. 3's aging structure (53 years old with 75-year-old components) is approaching the end of its useful life and is in need of replacement.

C. Proposed Improvements:

Circle one or more of the following Type II improvements which apply to the project:

1. Modernization of a highway by resurfacing, restoration, rehabilitation, reconstruction, adding shoulders, or adding auxiliary lanes (e.g., parking, weaving, turning, climbing).
 - a. Restoring, Resurfacing, Rehabilitating, and Reconstructing pavement (3R and 4R improvements)
 - b. Widening roadway and shoulders without adding through lanes
 - c. Modernizing gore treatments
 - d. Constructing lane improvements (merge, auxiliary, and turn lanes)
 - e. Adding shoulder drains
 - f. Replacing and rehabilitating culverts, inlets, and drainage pipes, including safety treatments
 - g. Providing driveway pipes
 - h. Performing minor bridge widening (less than one through lane)
 - i. Slide Stabilization
 - j. Structural BMP's for water quality improvement
2. Highway safety or traffic operations improvement projects including the installation of ramp metering control devices and lighting.
 - a. Installing ramp metering devices
 - b. Installing lights
 - c. Adding or upgrading guardrail
 - d. Installing safety barriers including Jersey type barriers and pier protection
 - e. Installing or replacing impact attenuators
 - f. Upgrading medians including adding or upgrading median barriers
 - g. Improving intersections including relocation and/or realignment
 - h. Making minor roadway realignment
 - i. Channelizing traffic
 - j. Performing clear zone safety improvements including removing hazards and flattening slopes
 - k. Implementing traffic aid systems, signals, and motorist aid
 - l. Installing bridge safety hardware including bridge rail retrofit
3. Bridge rehabilitation, reconstruction, or replacement or the construction of grade separation to replace existing at-grade railroad crossings.
 - a. Rehabilitating, reconstructing, or replacing bridge approach slabs
 - b. Rehabilitating or replacing bridge decks
 - c. Rehabilitating bridges including painting (no red lead paint), scour repair, fender systems, and minor structural improvements
 - d. Replacing a bridge (structure and/or fill)
4. Transportation corridor fringe parking facilities.
5. Construction of new truck weigh stations or rest areas.

6. Approvals for disposal of excess right-of-way or for joint or limited use of right-of-way, where the proposed use does not have significant adverse impacts.
7. Approvals for changes in access control.
8. Construction of new bus storage and maintenance facilities in areas used predominantly for industrial or transportation purposes where such construction is not inconsistent with existing zoning and located on or near a street with adequate capacity to handle anticipated bus and support vehicle traffic.
9. Rehabilitation or reconstruction of existing rail and bus buildings and ancillary facilities where only minor amounts of additional land are required and there is not a substantial increase in the number of users.
10. Construction of bus transfer facilities (an open area consisting of passenger shelters, boarding areas, kiosks and related street improvements) when located in a commercial area or other high activity center in which there is adequate street capacity for projected bus traffic.
11. Construction of rail storage and maintenance facilities in areas used predominantly for industrial or transportation purposes where such construction is not inconsistent with existing zoning and where there is no significant noise impact on the surrounding community.
12. Acquisition of land for hardship or protective purposes, advance land acquisition loans under section 3(b) of the UMT Act. Hardship and protective buying will be permitted only for a particular parcel or a limited number of parcels. These types of land acquisition qualify for a CE only where the acquisition will not limit the evaluation of alternatives, including shifts in alignment for planned construction projects, which may be required in the NEPA process. No project development on such land may proceed until the NEPA process has been completed.
13. Acquisition and construction of wetland, stream and endangered species mitigation sites.
14. Remedial activities involving the removal, treatment or monitoring of soil or groundwater contamination pursuant to state or federal remediation guidelines.

D. Special Project Information:

The estimated costs, based on 2016 prices, are as follows:

Construction Cost	\$5,300,000
Right-of-way Costs	260,000
Utility Costs	357,564
Total Project Cost	\$5,917,564

Estimated Traffic:

Current	-	13,300 vpd
Year 2035	-	19,200 vpd
TTST	-	4%
Dual	-	4%

Accidents: Four accidents occurred in the vicinity of Bridge No. 3 between 2011 and 2016. None were associated with the geometry of the bridge or its approach roadways.

Design Exceptions: There are no anticipated design exceptions for this project.

Pedestrian and Bicycle Accommodations: The proposed seven to eight-foot paved shoulders on the approach roadway and 10-foot offsets on the bridge will accommodate bicycles. Forty two-inch bridge rails are proposed on both sides of the bridge to accommodate bicycles.

Alternatives Discussion:

No Build – The no build alternative would result in eventually closing the road which is unacceptable given the volume of traffic served by US 17 Business.

Rehabilitation – The bridge was constructed in 1941 and reconstructed in 1963 and is reaching the end of its useful life.

Offsite Detour – Bridge No. 3 will be replaced on the existing alignment. Traffic will be detoured offsite (see Figure 1) during the construction period. [NCDOT Guidelines for Evaluation of Offsite Detours for Bridge Replacement Projects](#) considers multiple project variables beginning with the additional time traveled by the average road user resulting from the offsite detour. The offsite detour for this project would include US 17 Bypass, US 264 and NC 33. The majority of traffic on the road is through traffic. The detour for the average road user would result in 5 minutes of additional travel time (4 miles additional travel). Project construction is expected to take up to 18 months.

Onsite Detour – An onsite detour was not evaluated due to the presence of wetlands and an acceptable offsite detour.

Staged Construction – Staged construction was not considered because of the availability of an acceptable offsite detour.

New Alignment – Given that the existing alignment for US 17 Business is acceptable and the wetlands impacts associated, a new alignment was not considered as an alternative.

Typical Section Alternatives – Two typical sections were considered for the project. Both alternatives would involve constructing four 12-foot lanes. Alternative 1 would involve constructing a shoulder section with 10-foot shoulders including shoulder berm gutter in front of the guardrail and Alternative 2 would involve constructing a curb and gutter section with a four-foot paved shoulder on both sides of US 17 Business (60-foot face to face).

Alternative 1 was chosen for the project due to the high-speed traffic (60-MPH design speed) on this facility.

Other Agency Comments:

No substantive comments were received from other agencies on this project.

Public Involvement:

A letter was sent to all property owners affected directly by this project. Property owners were invited to comment. No comments have been received to date.

Permits Required:

The proposed project will require a Section 404 permit from the US Army Corps of Engineers. Given the current estimated wetland impacts (1.4 acres) it is likely an individual permit may be required. The wetland impacts presented in this document are based on an area 25 feet outside the slope stakes. If actual wetland impacts are reduced during design, a Nationwide Permit (NWP) 23 may be applicable. A NWP No. 33 may also apply for temporary construction activities such as stream dewatering, work bridges, or temporary causeways that are often used during bridge construction or rehabilitation. The Corps of Engineers holds the final discretion as to what permit will be required to authorize project construction. If a Section 404 permit is required, then a Section 401 Water Quality Certification from the NC Division of Water Resources will also be required.

E. Threshold Criteria

The following evaluation of threshold criteria must be completed for Type II actions

<u>ECOLOGICAL</u>	<u>YES</u>	<u>NO</u>
(1) Will the project have a substantial impact on any unique or important natural resource?	<input type="checkbox"/>	<u> X </u>
(2) Does the project involve habitat where federally listed endangered or threatened species may occur?	<input checked="" type="checkbox"/>	<u> </u>

- | | | | |
|-----|--|-------------------------------------|--------------|
| (3) | Will the project affect anadromous fish? | <input type="checkbox"/> | <u> X </u> |
| (4) | If the project involves wetlands, is the amount of permanent and/or temporary wetland taking less than one-tenth (1/10) of an acre and have all practicable measures to avoid and minimize wetland takings been evaluated? | <input checked="" type="checkbox"/> | <u> X </u> |
| (5) | Will the project require the use of U. S. Forest Service lands? | <input type="checkbox"/> | <u> X </u> |
| (6) | Will the quality of adjacent water resources be adversely impacted by proposed construction activities? | <input type="checkbox"/> | <u> X </u> |
| (7) | Does the project involve waters classified as Outstanding Resources Waters (ORW) and/or High Quality Waters (HQW)? | <input type="checkbox"/> | <u> X </u> |
| (8) | Will the project require fill in waters of the United States in any of the designated mountain trout counties? | <input type="checkbox"/> | <u> X </u> |
| (9) | Does the project involve any known underground storage tanks (UST's) or hazardous materials sites? | <input type="checkbox"/> | <u> X </u> |

PERMITS AND COORDINATION

YES

NO

- | | | | |
|------|--|--------------------------|--------------|
| (10) | If the project is located within a CAMA county, will the project significantly affect the coastal zone and/or any "Area of Environmental Concern" (AEC)? | <input type="checkbox"/> | <u> X </u> |
| (11) | Does the project involve Coastal Barrier Resources Act resources? | <input type="checkbox"/> | <u> X </u> |
| (12) | Will a U. S. Coast Guard permit be required? | <input type="checkbox"/> | <u> X </u> |
| (13) | Could the project result in the modification of any existing regulatory floodway? | <input type="checkbox"/> | <u> X </u> |
| (14) | Will the project require any stream relocations or channel changes? | <input type="checkbox"/> | <u> X </u> |

SOCIAL, ECONOMIC, AND CULTURAL RESOURCES

YES

NO

- | | | | |
|------|---|--------------------------|--------------|
| (15) | Will the project induce substantial impacts to planned growth or land use for the area? | <input type="checkbox"/> | <u> X </u> |
| (16) | Will the project require the relocation of any family or business? | <input type="checkbox"/> | <u> X </u> |
| (17) | Will the project have a disproportionately high and adverse human health and environmental effect on any minority or low-income population? | <input type="checkbox"/> | <u> X </u> |

(18)	If the project involves the acquisition of right of way, is the amount of right of way acquisition considered minor?	<u>X</u>	<input type="checkbox"/>
(19)	Will the project involve any changes in access control?	<input type="checkbox"/>	<u>X</u>
(20)	Will the project substantially alter the usefulness and/or land use of adjacent property?	<input type="checkbox"/>	<u>X</u>
(21)	Will the project have an adverse effect on permanent local traffic patterns or community cohesiveness?	<input type="checkbox"/>	<u>X</u>
(22)	Is the project included in an approved thoroughfare plan and/or Transportation Improvement Program (and is, therefore, in conformance with the Clean Air Act of 1990)?	<u>X</u>	<input type="checkbox"/>
(23)	Is the project anticipated to cause an increase in traffic volumes?	<input type="checkbox"/>	<u>X</u>
(24)	Will traffic be maintained during construction using existing roads, staged construction, or on-site detours?	<u>X</u>	<input type="checkbox"/>
(25)	If the project is a bridge replacement project, will the bridge be replaced at its existing location (along the existing facility) and will all construction proposed in association with the bridge replacement project be contained on the existing facility?	<u>X</u>	<input type="checkbox"/>
(26)	Is there substantial controversy on social, economic, or environmental grounds concerning the project?	<input type="checkbox"/>	<u>X</u>
(27)	Is the project consistent with all Federal, State, and local laws relating to the environmental aspects of the project?	<u>X</u>	<input type="checkbox"/>
(28)	Will the project have an "effect" on structures/properties eligible for or listed on the National Register of Historic Places?	<input type="checkbox"/>	<u>X</u>
(29)	Will the project affect any archaeological remains which are important to history or pre-history?	<input type="checkbox"/>	<u>X</u>
(30)	Will the project require the use of Section 4(f) resources (public parks, recreation lands, wildlife and waterfowl refuges, historic sites, or historic bridges, as defined in Section 4(f) of the U. S. Department of Transportation Act of 1966)?	<input type="checkbox"/>	<u>X</u>
(31)	Will the project result in any conversion of assisted public recreation sites or facilities to non-recreation uses, as defined by Section 6(f) of the Land and Water Conservation Act of 1965, as amended?	<input type="checkbox"/>	<u>X</u>
(32)	Will the project involve construction in, across, or adjacent to a river designated as a component of or proposed for inclusion in the National System of Wild and Scenic Rivers?	<input type="checkbox"/>	<u>X</u>

F. Additional Documentation Required for Unfavorable Responses in Part E

Response to Question 2:

Habitat for the red wolf, rough-leaved loosestrife and sensitive joint-vetch exists in the project area.

A review of the NC Natural Heritage Program records, updated June 2016 indicates the area in and around the study area is suitable habitat for red wolf, but does not indicate a known occurrence of the red wolf within one mile of the study area. It is anticipated the project may affect, but is not likely to adversely affect the red wolf. Coordination with the US Fish and Wildlife Service regarding this biological conclusion will be conducted prior to construction authorization for the project.

NC Natural Heritage Program records indicate no known occurrence of rough-leaved loosestrife within one mile of the study area. Surveys for rough-leaved loosestrife will be conducted within the survey window (May to June) prior to construction authorization of the project.

NC Natural Heritage Program records, updated July 2016, indicate two known sensitive joint-vetch occurrences within one mile of the project study area. A survey to confirm the presence/absence of sensitive joint-vetch in the study area was performed in August 2016. No plants were found. It is anticipated the project will have "no effect" on sensitive joint-vetch.

Although not listed for Beaufort County, the US Fish and Wildlife Service has developed a programmatic biological opinion (PBO) in conjunction with the Federal Highway Administration (FHWA), the US Army Corps of Engineers (USACE), and NCDOT for the northern long-eared bat (NLEB) (*Myotis septentrionalis*) in eastern North Carolina. The PBO covers the entire NCDOT program in Divisions 1-8, including all NCDOT projects and activities. The programmatic determination for NLEB for the NCDOT program is "May Affect, Likely to Adversely Affect". The PBO provides incidental take coverage for NLEB and will ensure compliance with Section 7 of the Endangered Species Act for five years for all NCDOT projects with a federal nexus in Divisions 1-8, which includes Beaufort County.

Response to Question 4:

It is anticipated that 1.14 acres of wetlands will be impacted by this project. NCDOT will attempt to avoid and minimize impacts to wetlands to the greatest extent practicable during project construction.

G. CE Approval

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W.B.S. No.	<u>46016.1.1</u>
Federal Project No.	<u>BRNHPP-0017(127)</u>

Project Description:

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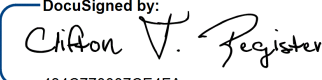
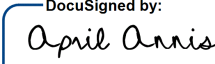
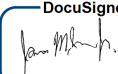
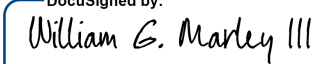
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Traffic will be detoured off-site during construction (see Figure 1).

Categorical Exclusion Action Classification:

TYPE II(A)
 TYPE II(B)

Approved:

12/22/2016	
Date	434C770007CE4EA... Clifton T. Register, PE, Project Manager TGS Engineers
12/22/2016	
Date	E646D1B972B34C0... April Annis, Project Planning Engineer NCDOT, Project Development & Environmental Analysis Unit
12/22/2016	
Date	0880E38DDE8141B... James McInnis, Jr., PE, Project Engineer NCDOT, Project Development & Environmental Analysis Unit
12/22/2016	
Date For	E27AAAAB09D141E... John F. Sullivan, III, PE, Division Administrator Federal Highway Administration

PROJECT COMMITMENTS

**Beaufort County
Bridge No. 3 on U.S. 17
Over Norfolk Southern Railroad
Federal Aid Project No. BRNHPP-0017(127)
W.B.S. No. 46016.1.1
S.T.I.P. No. B-5302**

Division Two Construction, Resident Engineer's Office – Offsite Detour

In order to have time to adequately reroute school busses, Beaufort County Schools will be contacted at (252) 946-6209 at least one month prior to road closure.

Beaufort County Emergency Services will be contacted at (252) 940-6519 at least one month prior to road closure to make the necessary temporary reassignments to primary response units.

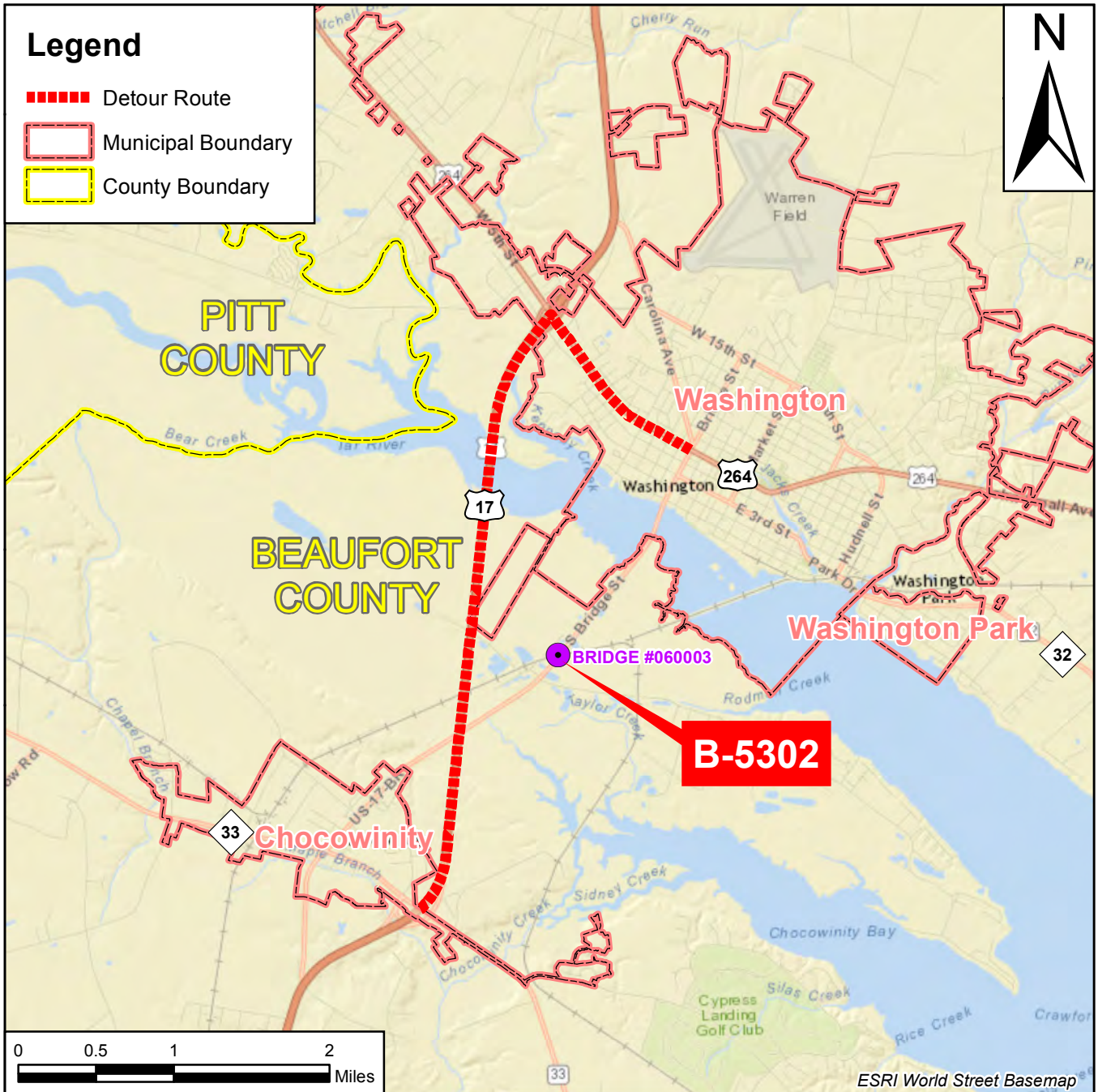
Roadway Design, Structure Design

Forty two-inch bridge rails are proposed on both sides of the bridge to accommodate bicycles.

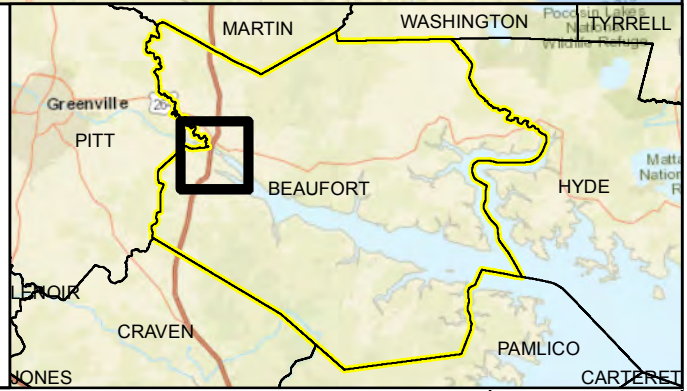
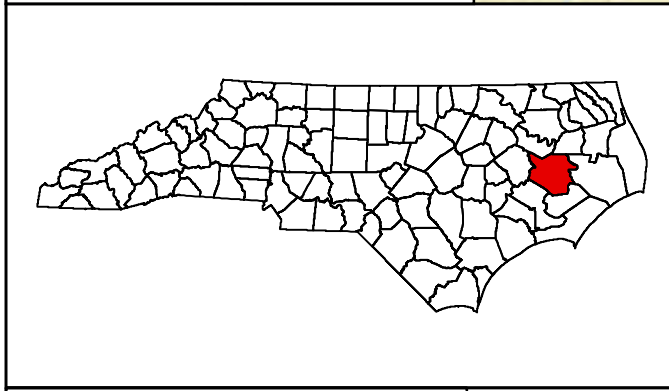
Natural Environment Section

It is anticipated the project may affect, but is not likely to adversely affect the red wolf. Coordination with the US Fish and Wildlife Service regarding this biological conclusion will be conducted prior to construction authorization for the project.

Surveys for rough-leaved loosestrife will be conducted during the survey window (May to June) prior to construction authorization of the project.



ESRI World Street Basemap



County: BEAUFORT	
Div: 2	TIP# B-5302
WBS: 46016.1.1	
Date: 10-12-2016	

VICINITY MAP
 REPLACE BRIDGE NO. 03
 OVER NORFOLK SOUTHERN RAILROAD
 BEAUFORT COUNTY
 STIP B-5302


FIGURE
1

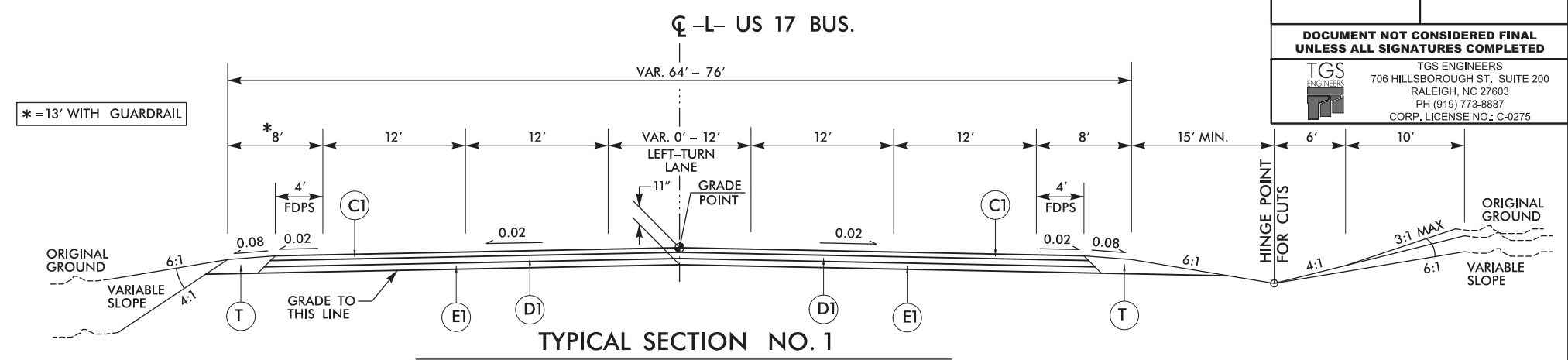
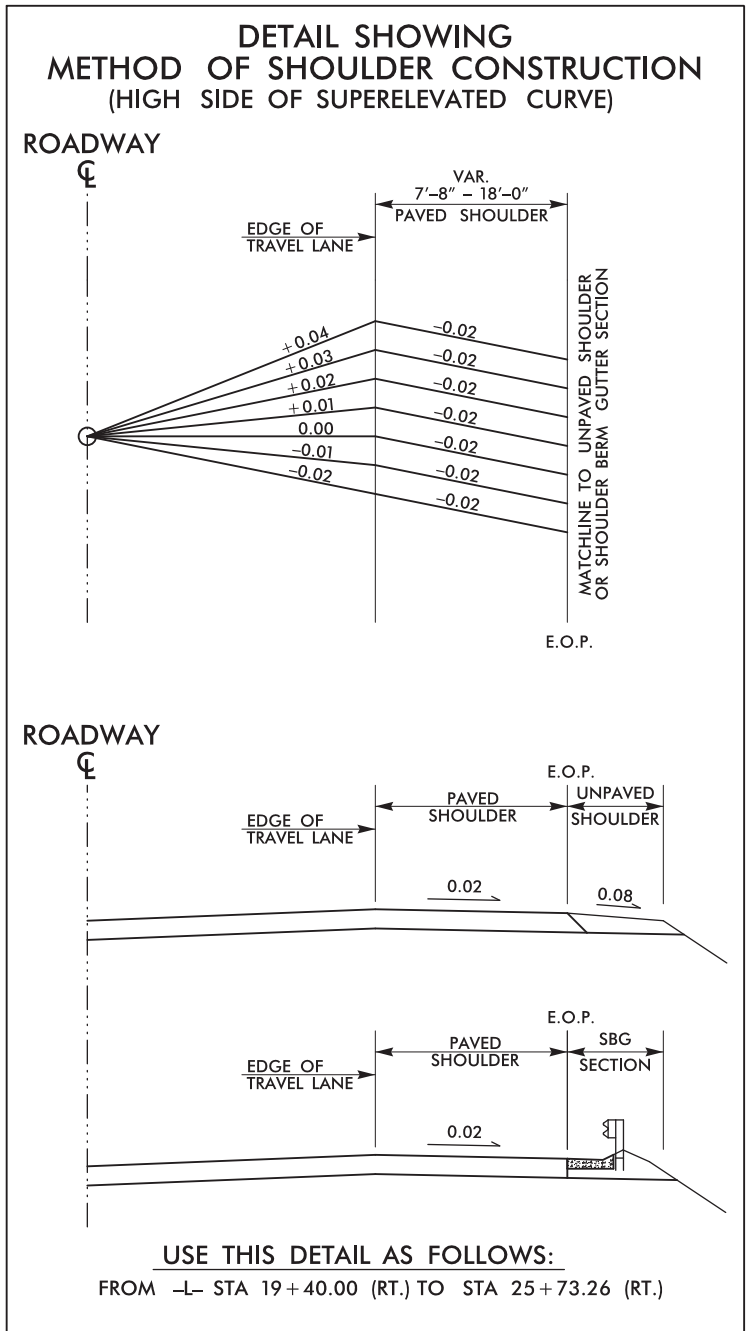


5/14/99

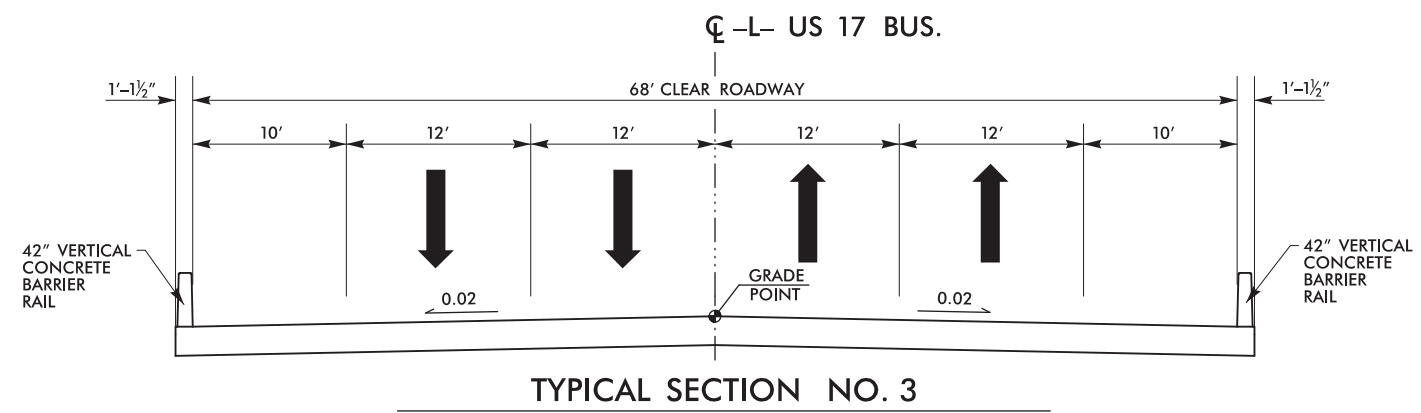
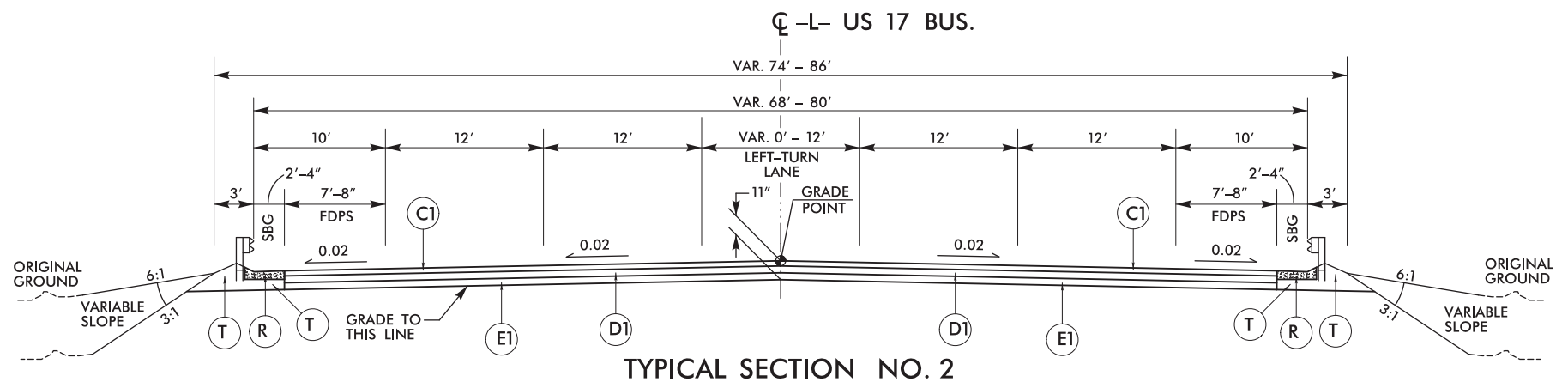
PAVEMENT SCHEDULE	
FINAL PAVEMENT DESIGN: DECEMBER 31, 2015	
C1	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
D1	PROP. APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
E1	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
R	SHOULDER BERM GUTTER
T	EARTH MATERIAL

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.

PROJECT REFERENCE NO. B-5302	SHEET NO. 2A-1
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR A/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
 TGS ENGINEERS 706 HILLSBOROUGH ST., SUITE 200 RALEIGH, NC 27603 PH (919) 773-8887 CORP. LICENSE NO.: C-0275	



SBG=SHOULDER BERM GUTTER
FDPS=FULL DEPTH PAVED SHOULDER



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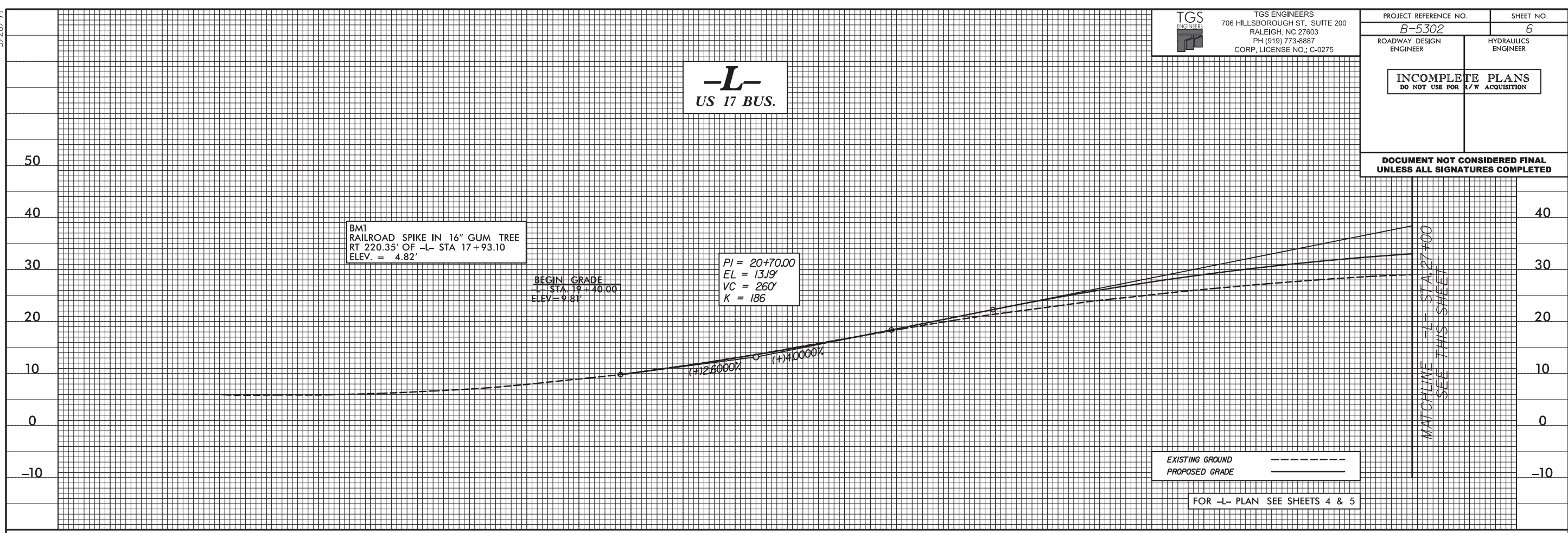
5/28/99

TGS ENGINEERS
706 HILLSBOROUGH ST. SUITE 200
RALEIGH, NC 27603
PH (919) 773-8887
CORP. LICENSE NO.: C-0275

PROJECT REFERENCE NO. B-5302	SHEET NO. 6
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

-L-
US 17 BUS.

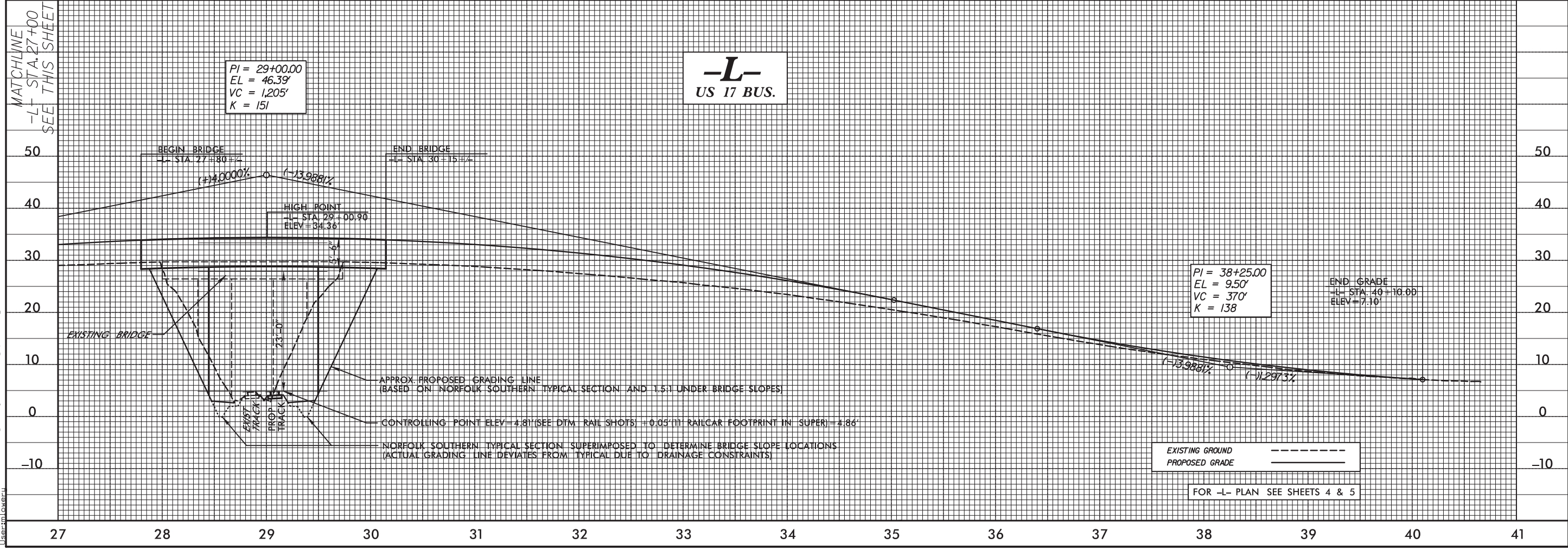


EXISTING GROUND
PROPOSED GRADE

FOR -L- PLAN SEE SHEETS 4 & 5

14 15 16 17 18 19 20 21 22 23 24 25 26 27

-L-
US 17 BUS.



EXISTING GROUND
PROPOSED GRADE

FOR -L- PLAN SEE SHEETS 4 & 5

27 28 29 30 31 32 33 34 35 36 37 38 39 40 41

I:\7172016\B-5302\Roadway\Proj\B5302_rdy.plt.dgn
User:cmlover

MATCHLINE
-L- STA. 27+00
SEE THIS SHEET

MATCHLINE -L- STA. 27+00
SEE THIS SHEET

BEGIN BRIDGE
-L- STA. 27+80+4

END BRIDGE
-L- STA. 30+15+4

HIGH POINT
-L- STA. 29+00.90
ELEV = 34.36'

EXISTING BRIDGE

APPROX. PROPOSED GRADING LINE
(BASED ON NORFOLK SOUTHERN TYPICAL SECTION AND 1.5:1 UNDER BRIDGE SLOPES)

CONTROLLING POINT ELEV = 4.81' (SEE DTM RAIL SHOTS) + 0.05' (11' RAILCAR FOOTPRINT IN SUPER) = 4.86'

NORFOLK SOUTHERN TYPICAL SECTION SUPERIMPOSED TO DETERMINE BRIDGE SLOPE LOCATIONS
(ACTUAL GRADING LINE DEVIATES FROM TYPICAL DUE TO DRAINAGE CONSTRAINTS)