APPENDIX 2737-10

TABLE OF CONTENTS

NORTH HAULDROAD EXTENSION 1

Page No.

Design Certification ii

Technical Report 1

Introduction 1

Roadway Configuration 1

Culvert Installations 1

Storm Water Pollution Prevention Plan 1

Reclamation 2

Exhibits

Exhibit 2737-10 North Haulroad Extension 1 Plan and Profile

DESIGN CERTIFICATION

North Haulroad Extension 1

I, Corey J. Sadowsky, a Registered Professional Engineer in the State of Louisiana, do hereby certify that the following design plans and report were prepared by me or under my direct supervision and that the information presented is true and accurate to the best of my knowledge.

5/7/2020

Corey J. Sadowsky, PE
Civil Engineer
North American Coal Corporation
Louisiana Registration # 38763

STATE OF LOUISIANA
COREY J. SADOWSKY
License No. 38763
PROFESSIONAL ENGINEER
IN
CIVIL ENGINEERING

TECHINCAL REPORT

Introduction

The proposed North Haulroad Extension 1 will provide access from the North Loop Haulroad to Sedimentation Pond SP-006. This haulroad is proposed as a temporary structure and the total length of the road is approximately 2.600 feet. Haulroad construction will begin between the fourth quarter of 2020 and the first quarter of 2021. Reclamation of the haulroad will be an ongoing process as mining progresses through the haulroad and will take place between 2022 and 2027.

Roadway Configuration

The design of this haulroad is presented on a plan and profile drawing in Exhibit 2737-10. A typical cross section is also shown in Exhibit 2737-10. The North Haulroad Extension 1 consists of a 70 foot crushed rock surface six inches thick, 1.5 percent cross slopes, 3H:1V inslopes, and 3H:1V back slopes. In cut section, the ditch will have a minimum depth of three feet. A slope stability analysis is included in the original sedimentation pond SP-003 submittal that demonstrates a factor of safety greater than 1.3 for embankments less than or equal to 25 feet.

Culvert Installations

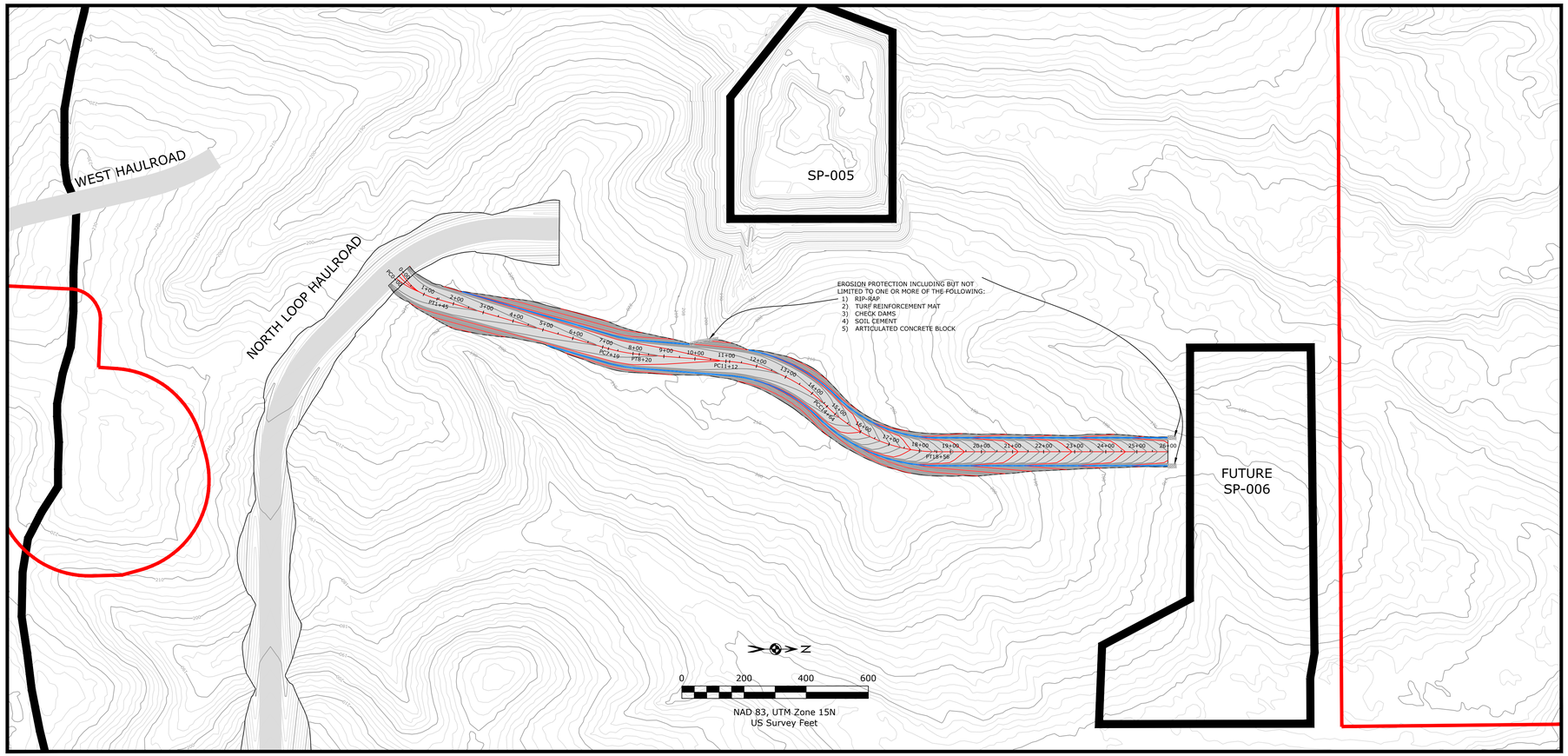
There are no culvert installations associated with this road.

Storm Water Pollution Prevention Plan

The North Haulroad Extension 1 will initially be located outside the currently approved surface water control structures, but well inside the approved permit boundary. Once Sedimentation Pond SP-006 is completed, the haulroad will be within surface water control. The erosion control plan will utilize silt fencing, sumps, rip-rap, turf reinforcement matting, check dams, soil cement, grassy swales, or other best management practices (BMPs) if necessary to control possible impacts to areas outside the construction disturbance area. All slopes will be revegetated as soon as practical. These BMPs will be monitored for soil and lignite sediment on a regular basis and modified as needed to ensure proper function. Lignite hauled on this road will be loaded in a manner to minimize spillage of material onto the road surface. Based on the nature of construction, it is not anticipated that there will be any substantial impacts to water quality along this haulroad. Upon completion of construction, stormwater runoff will be sampled in accordance with the LPDES permit.

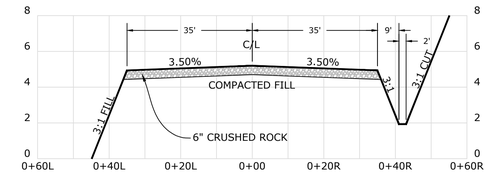
Reclamation

The mining progression on the north side of Five Forks Road is generally from west to east. As the pits continue to progress east, the North Haulroad Extension 1 will be consumed by the mining activities. The haulroad will be reclaimed as the pit that consumed the haulroad is reclaimed.



NORTH HAULROAD EXTENSION 1 PLAN VIEW

SCALE: 1"=200'
CONTOUR INTERVAL = 2'



HAULROAD TYPICAL CROSS SECTION

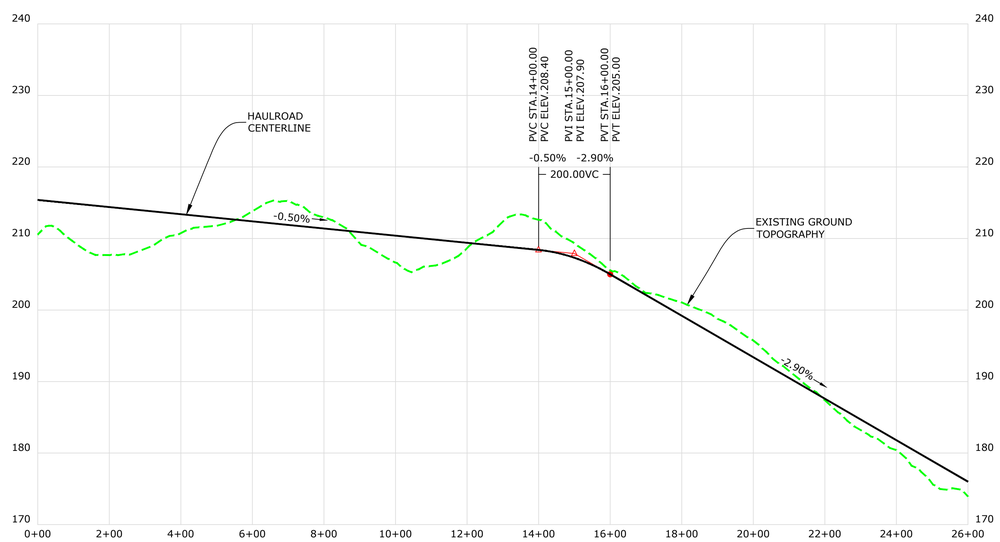
HORIZONTAL SCALE: 1"=20'
VERTICAL SCALE: 1"=4'

HAULROAD CENTERLINE INFORMATION

	Station	Northing	Easting	Delta (d-m-s)	Length (ft)	Radius (ft)
PC	0+00.00	11,618,642.11	1,606,420.72	33-09-17	145.33'	251.15'
PT	1+45.33	11,618,764.90	1,606,654.36			
PC	7+19.18	11,619,316.06	1,606,654.36	11-34-25	101.00'	500.00'
PT	8+20.18	11,619,415.24	1,606,672.52			
PC	11+12.00	11,619,706.13	1,606,695.87	40-18-49	351.80'	500.00'
PCC	14+63.81	11,620,019.08	1,606,840.12	44-54-10	391.85'	500.00'
PT	18+55.66	11,620,372.03	1,606,985.96			
PT	26+00.00	11,621,116.38	1,606,985.96			

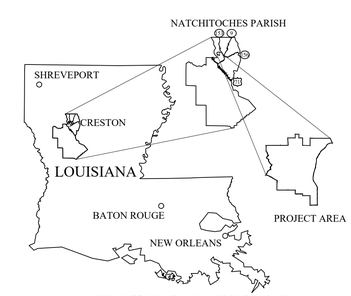
LEGEND

- EXISTING MINOR CONTOURS
- EXISTING MAJOR CONTOURS
- PROPOSED MINOR CONTOURS
- PROPOSED MAJOR CONTOURS
- PROPOSED ROAD DITCH
- EXISTING ROADS
- PERMIT BOUNDARY



NORTH HAULROAD EXTENSION 1 PROFILE VIEW

HORIZONTAL SCALE: 1"=200'
VERTICAL SCALE: 1"=10'



PROJECT LOCATION MAP

Revised Date	By

FIVE FORKS MINE
NATCHITOCHES PARISH, LA

TOWNSHIP 12 NORTH
RANGE 7 WEST

Exhibit 2737-10
North Haulroad Extension 1
Plan and Profile

Drawn By: DJ Date: APR 2020
Approved: CJS Date: APR 2020