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THE BUNCHER COMPANY
JACKSON TOWNSHIP
BUTLER COUNTY, PENNSYLVANIA
JACKSON'S POINTE PHASE 3 AND 4
LOCATION EXHIBIT

Scale: 1" = 2000'
Date: APRIL 2015
Drawn By: MTS
Checked By: VLB
Approved By: VLB

Order No. **481-07**
Drawing No. **EX1**
Sheet No. **1 of 1**



Figure 2 - Aerial Site Location Map



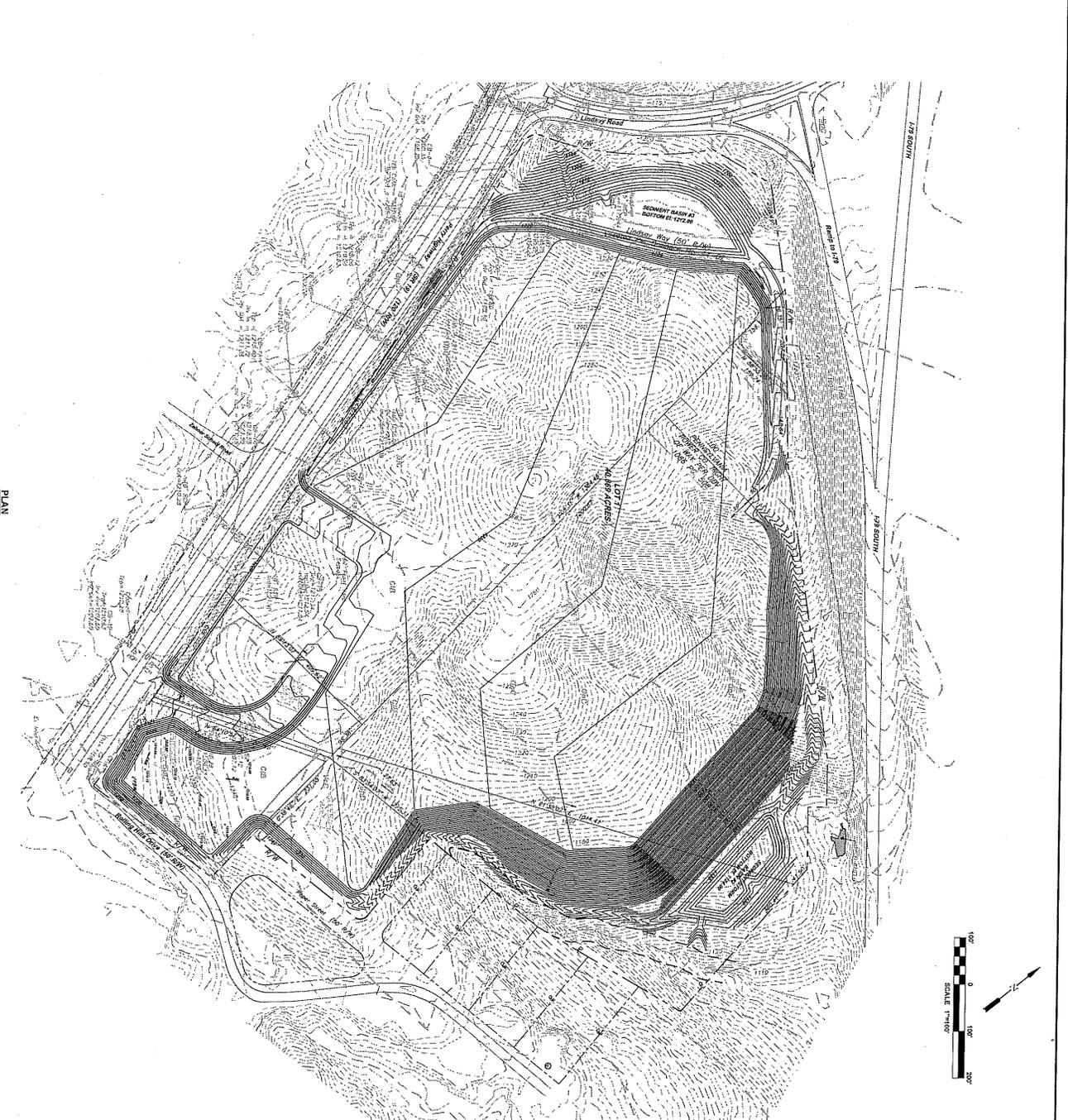
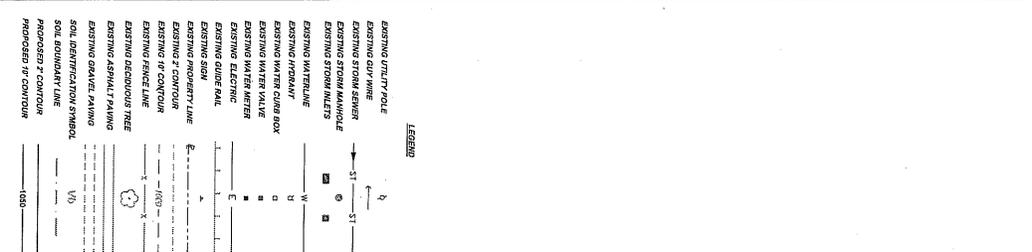
- | | | | |
|-----------------------|----------------------|------------------------------------|----------------------|
| GPS Streams | GPS Data | National Wetland Inventory | Study Area |
| — Channel Stream | — GPS Wetlands | — Freshwater Emergent Wetland | — Study Area |
| — Intermittent Stream | — Pond | — Freshwater Forest/Shrub Wetlands | — Chapter 83 Streams |
| — Perennial Stream | — Wetland Data Point | — Freshwater Pond | — Culverts |
| | — Wetland Data Point | — Other | — Control |
| | — Scip | | |



1 inch = 300 feet
Date: November 22, 2013

UTILITY SERVICE INFORMATION:

EXISTING UTILITY POLES
 EXISTING UTILITY PIPES
 EXISTING STORM MAINS
 EXISTING STORM ALLEYS
 EXISTING WATER MAINS
 EXISTING WATER ALLEYS
 EXISTING ELECTRIC
 EXISTING GROUND WIRE
 EXISTING PROPERTY LINE
 EXISTING 7' CONTOUR
 EXISTING 10' CONTOUR
 EXISTING FENCE LINE
 EXISTING DECADUOUS TREE
 EXISTING ASPHALT PAVING
 EXISTING GRAVEL PAVING
 SOIL IDENTIFICATION SYMBOL
 SOIL BOUNDARY LINE
 PROPOSED 7' CONTOUR
 PROPOSED 10' CONTOUR



ZONING INFORMATION:

THE TOWNSHIP ENGINEERS HAVE REVIEWED THE PROPOSED GRADING PLAN AND FIND THAT THE PROPOSED GRADING PLAN IS IN ACCORDANCE WITH THE ZONING ORDINANCES OF BUTLER COUNTY, PENNSYLVANIA. THE TOWNSHIP ENGINEERS HAVE REVIEWED THE PROPOSED GRADING PLAN AND FIND THAT THE PROPOSED GRADING PLAN IS IN ACCORDANCE WITH THE ZONING ORDINANCES OF BUTLER COUNTY, PENNSYLVANIA.

DATE: 8/26/16
 TOWNSHIP SUBMISSION: 8/26/16
 TOWNSHIP SUBMISSION: 8/26/16
 TOWNSHIP SUBMISSION: 8/26/16
 TOWNSHIP SUBMISSION: 8/26/16

Scale:	As Shown	THE BUNCHER COMPANY TOWNSHIP OF JACKSON BUTLER COUNTY, PENNSYLVANIA JACKSON'S POINTE PHASE 3 & 4 GRADING PLAN PHASE 3		5178 Campbells Run Road Pittsburgh, PA 15206 Phone: 412.484.0510 Fax: 412.484.0426 info@klhengineers.com
Date:	8/26/16			
Drawn By:	JDA			
Checked By:	SMH			
Approved By:	JCM			

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PLAN SHEET 1100

8 OF 33

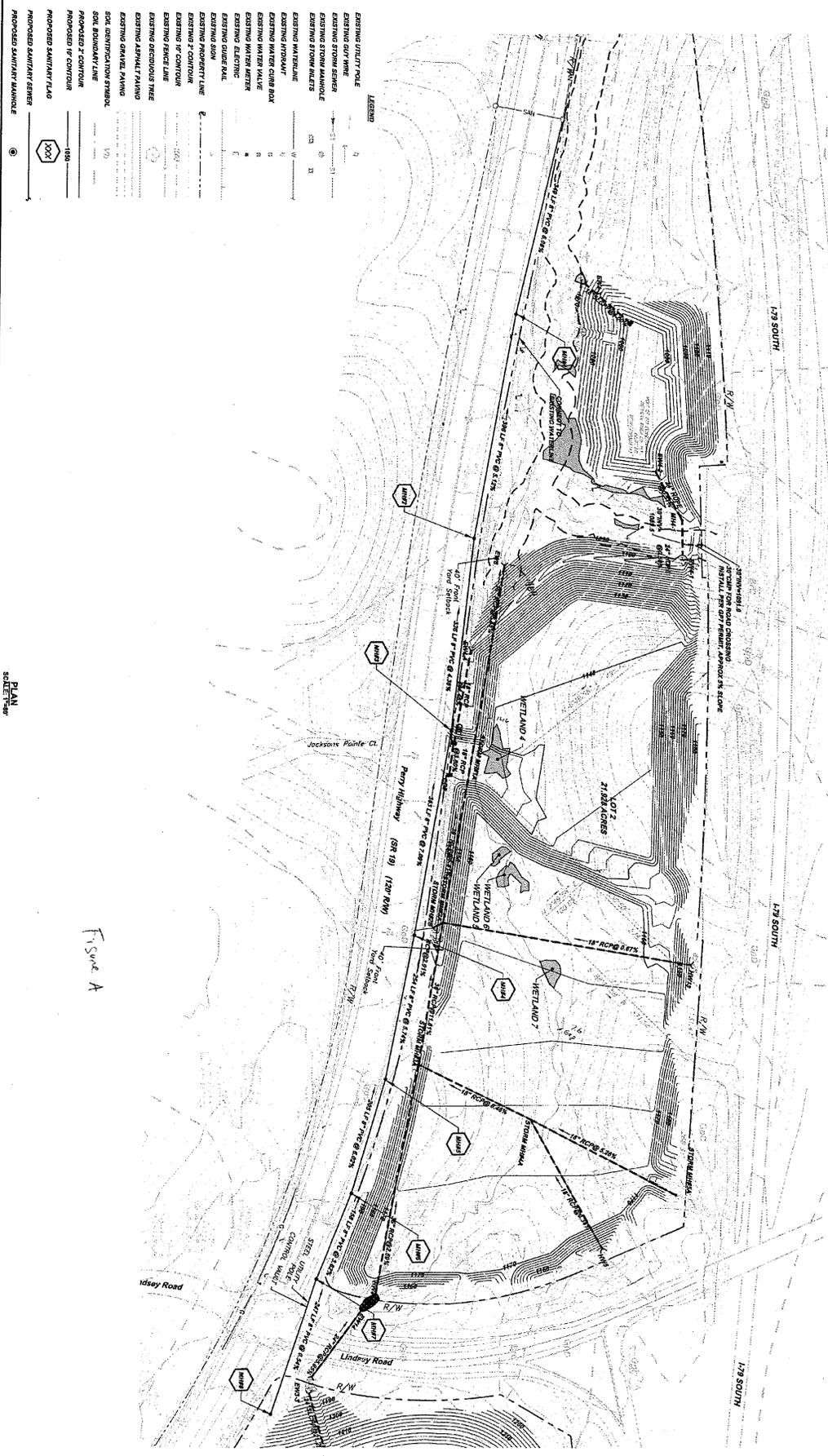
UTILITY SERVICE INFORMATION

EXISTING UTILITIES SHOWN ON THIS PLAN ARE BASED ON RECORD DRAWINGS, FIELD SURVEY AND VISUAL OBSERVATION. THE LOCATION AND DEPTH OF UTILITIES IS NOT GUARANTEED. THE USER SHALL VERIFY THE LOCATION AND DEPTH OF UTILITIES PRIOR TO CONSTRUCTION.

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LEGEND

- EXISTING UTILITY POLE
- EXISTING GUY WIRE
- EXISTING STORM SEWER
- EXISTING STORM MANHOLE
- EXISTING STORM INLETS
- EXISTING WATERLINE
- EXISTING HYDRANT
- EXISTING WATER CURB BOX
- EXISTING WATER VALVE
- EXISTING WATER METER
- EXISTING ELECTRICAL
- EXISTING SIGN
- EXISTING PROPERTY LINE
- EXISTING 2' CONTOUR
- EXISTING 10' CONTOUR
- EXISTING FENCE LINE
- EXISTING RECIPROUS TREE
- EXISTING ASPHALT PAVING
- EXISTING GRAVEL PAVING
- SOIL IDENTIFICATION SYMBOL
- SOIL BOUNDARY LINE
- PROPOSED 2' CONTOUR
- PROPOSED 10' CONTOUR
- PROPOSED SANITARY FLAG
- PROPOSED SANITARY MANHOLE

PLAN
SCALE: 1"=40'

Figure A

Figure A



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Scale:	As Shown
Date:	5/28/16
Drawn By:	JDA
Checked By:	SMH
Approved By:	JCM
Drawn No:	418147
Sheet No:	12 of 33

THE BUNCHER COMPANY
TOWNSHIP OF JACKSON
BUTLER COUNTY, PENNSYLVANIA
JACKSON'S POINTE PHASE 3 & 4
UTILITY PLAN PHASE 4



5173 Campbell Run Road Pittsburgh, PA 15206 Phone: 412-434-6510 Fax: 412-494-0426 Info@kliengineers.com	Date	Revision	Date	Revision
	02/15	TOWNSHIP SUBMISSION	05/16	TOWNSHIP SUBMISSION
	02/15	TOWNSHIP SUBMISSION	06/16	TOWNSHIP SUBMISSION
	02/15	TOWNSHIP SUBMISSION	07/16	TOWNSHIP SUBMISSION
	02/16	TOWNSHIP SUBMISSION	08/16	TOWNSHIP SUBMISSION

Mitigation Plan

Figure 2 illustrates the streams and wetlands located within the project boundary limits (yellow line). Drawing Numbers GP2 and GP3 illustrate the grading, hence the impacts from the proposed development. The numbering and length of the impacted streams along with the area of the impacted wetlands was obtained from preliminary jurisdictional determination(attached), except for Stream 1. Figure A illustrates the impacted length of Stream 1. Table X lists the impacts to the resources.

Table X
Impact Summary

Resource	Impact Type	Permanent Impact (Lineal ft.)
Stream 1	Culvert/Fill	1,464
Stream 6	Culvert/Fill	240
Stream 5	Culvert/Fill	239
Stream 7	Culvert/Fill	306
Stream 8	Culvert/Fill	321
Stream 9	Culvert/Fill	138
Stream 10	Fill	633
Stream 11	Fill	490
Stream 12	Fill	235
Total		4,066
		(Acre)
Wetland 7	Fill	0.025
Wetland 6	Fill	0.031
Wetland 5	Fill	0.013
Wetland 4	Fill	0.054
Total		0.123

The mitigation of these impacts will result from the Buncher Company donating/purchasing materials for Connoquenessing Watershed Alliance’s Thorn Creek Habitat Improvement Project (TCHIP), and the Buncher Company purchasing wetland mitigation area from Resources Environmental Solutions, LLC.

The TCHIP was started in 2010 to coordinate Thorn Creek habitat improvements along Thorn Creek in central Butler County, PA. To date, the project has seen the installation of 55 habitat improvement devices on one property, improving approximately 2,500 feet of stream. These projects are designed in conjunction with the Stream Habitat Manager for the PA Fish and Boat Commission, and all work will be permitted and coordinated through this office. The Stream Habitat Manager will be present on site for all project work. Due to commitments from other projects, the Stream Habitat Manager has limited availability which requires the Thorn Creek projects to be staged yearly.

The improvements have reached completion on the original property, and for the next several years will move to additional locations and involve several property owners. These new locations are directly upstream and downstream of the initial property, and will add substantial improvements to an area that receives high use from the public during the spring and summer fishing seasons.

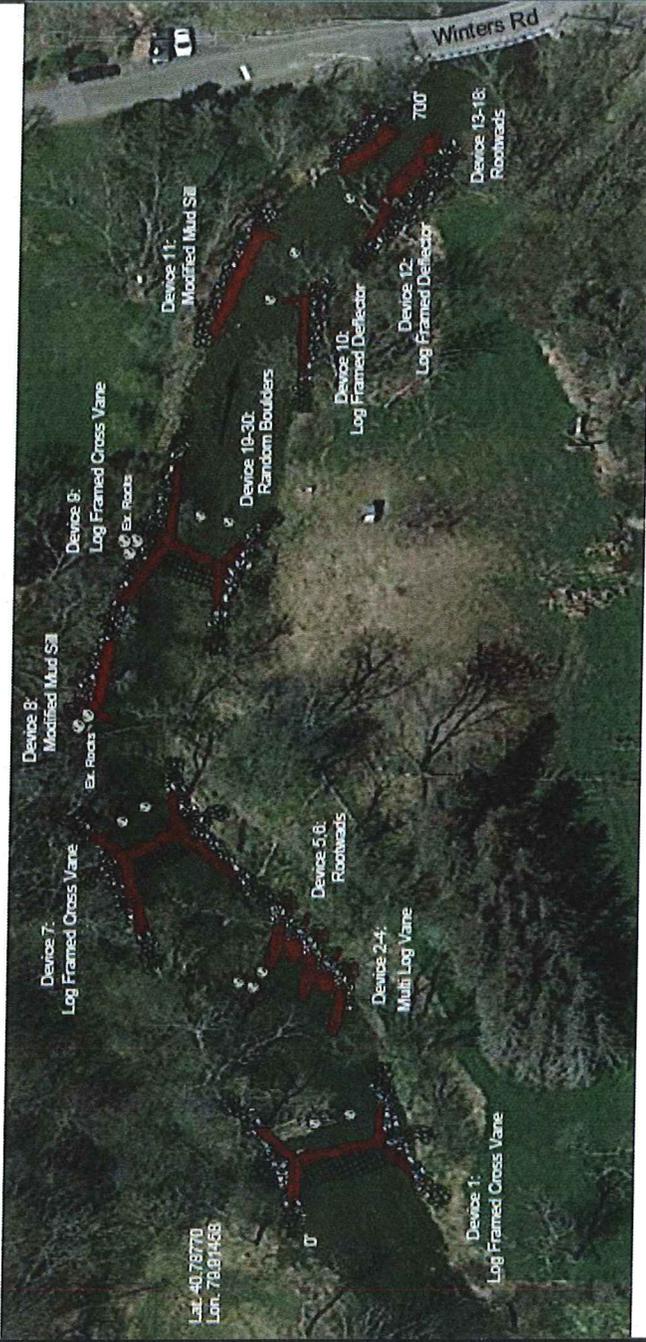
In 2017 work is planned at the Kosher Site. This site suffers from severe bank erosion due to extreme high water events from upstream impervious surfaces. The creek rapidly rises during rain events, and stream banks quickly erode due to a lack of hard surface protection and riparian buffers. Figure Y illustrates the Kosher Site's location on Thorn Creek while Figure Z show all devices that will be constructed and placed in the stream. The Kosher Site will improve approximately 700 feet of stream

In 2018 work is planned at the Upper and Lower Railroad Sites. These sites also suffer from severe bank erosion. This erosion is causing damage to a rail line that runs along Thorn Creek, and was the impetus for moving to these properties in order to protect and reinforce the stream bank and prevent the rail line from falling into the stream due to the loss of ballast. Protection of the bank near the rail line will come in the form of mud sills and rootwads, forcing the water away from the stream bank and collecting sediments to help build additional stream bank. Once sediments have accumulated, live stakes of riparian buffer species will be planted to hold the sediments in place and provide overhead cover and shading of the stream. Figure A illustrates the site locations on Thorn Creek while Figures B and C shows all devices that will be constructed and placed in the stream. The Upper and Lower Railroad Sites will improve approximately 275 feet and 650 feet, respectively of stream.



FIGURE Y Koshier Site

Section 1



*All Stream Habitat Devices will not be greater than 3 feet above normal stream bed
 *Habitat structures will not restrict the stream flow more than the most narrow natural stream width within the project area

Linear: 427'
Square: 7,200'

Thom Creek
Butler County
Kohser Property
Fish Habitat Improvement Plan
Stream Section: Habitat Management District
Patrons: Pennsylvania Fish & Boat Commission
Prepared by: Mark Sautzer
Date: 10/27/2015
Scale: 1/2" = 100'

FIGURE Z Koshier Site Devices



FIGURE A Upper / Lower Railroad Sites

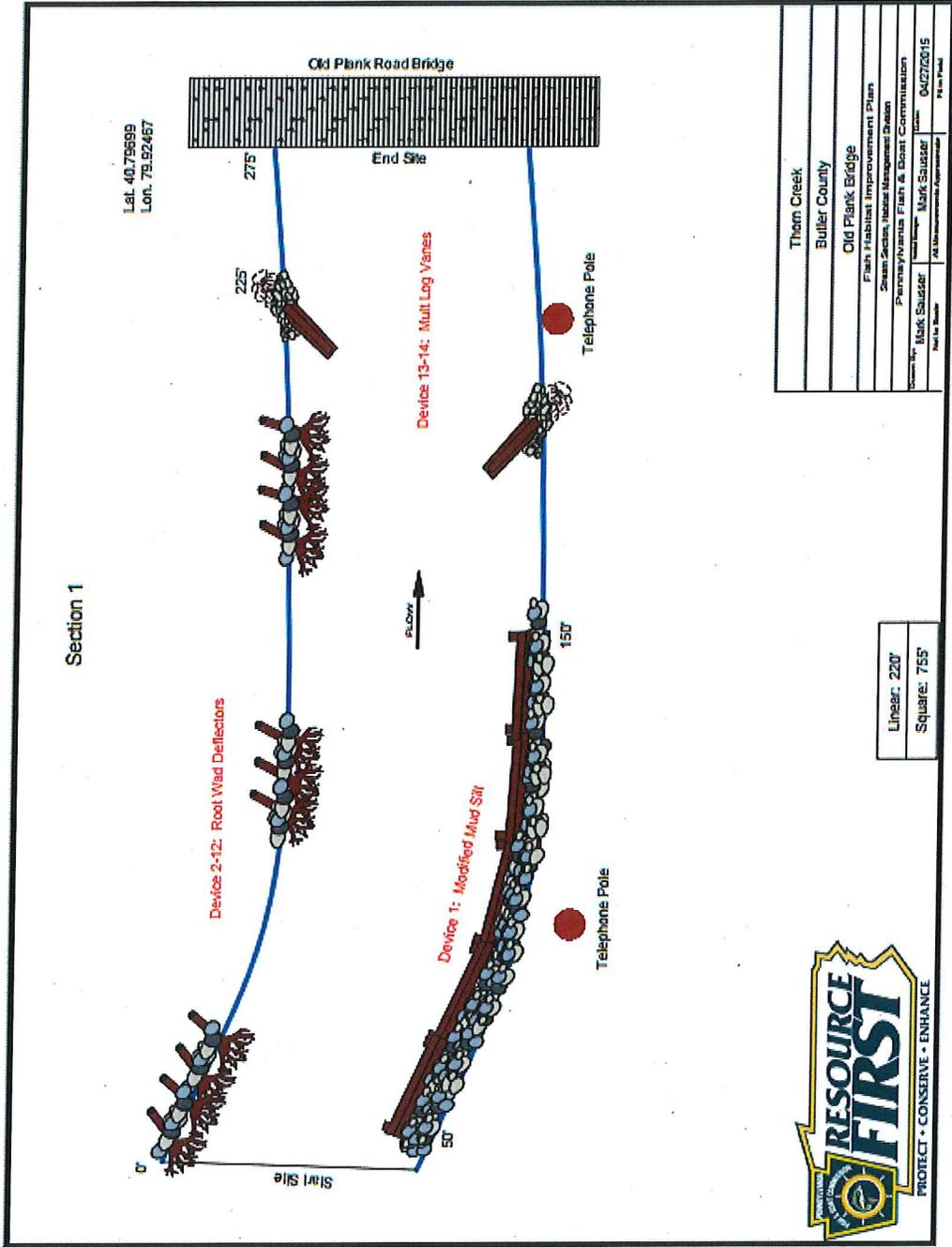


Figure B Upper Railroad Site Devices

