



# Public Notice

**U.S. Army Corps  
of Engineers**  
Pittsburgh District

In Reply Refer to  
Notice No. below

US Army Corps of Engineers, Pittsburgh District  
1000 Liberty Avenue  
Pittsburgh, PA 15222-4186

Application No. 2017-554

Date: April 18, 2017

Notice No. 17-23

Closing Date: May 18, 2017

1. TO ALL WHOM IT MAY CONCERN: The following application has been submitted for a Department of the Army Permit under the provisions of Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of the Clean Water Act.
2. APPLICANT: Norfolk Southern Corporation  
1200 Peachtree Street, NE  
Atlanta, GA 30309
3. LOCATION: Along the right bank of the Ohio River, river mile 10.75, Glen Osborne Borough, Allegheny County, Pennsylvania.
4. PURPOSE AND DESCRIPTION OF WORK: The applicant proposes to stabilize approximately 600 feet of a severely eroded railroad embankment along the Fort Wayne Line, right bank of the Ohio River, mile 10.75. The method of stabilization being proposed is a flatten slope method by the placement of fill. The toe of the slope above the normal pool elevation of 692.0 feet, will be protected by constructing a gabion wall and re-aligning some of the existing concrete ties just up gradient of the gabions. Compacted structural fill material such as C 23, 12 to 24" riprap protection will be placed on the lower and mid elevations and C 2, 6 to 18" riprap protection on the upper elevation, will be placed to reduce the slope angle of the steep slope to 1.5 H; 1V or flatter. Drawings of the proposed bank stabilization are attached to this notice.
5. ENCROACHMENT PERMIT: The applicant must obtain a Water Obstruction and Encroachment Permit which includes 401 Water Quality Certification from the:

Pennsylvania Department of Environmental Protection  
Southwest Regional Office  
Waterways and Wetlands Section  
400 Waterfront Drive  
Pittsburgh, PA 15222-4745

Telephone: 412-442-4000

6. IMPACT ON NATURAL RESOURCES: The District Engineer has consulted the most recently available information and has determined that the project may affect, but is not likely to adversely affect endangered species or threatened species, or result in destruction or adverse modification of habitat of such species which has been determined to be critical. This Public Notice serves as a request to the U.S. Fish and Wildlife Service for any additional information they may have on whether any listed or proposed to be listed endangered or threatened species may be present in the area which would be affected by the activity, pursuant to Section 7(c) of the Endangered Species Act of 1972 (as amended).

If the U.S. Fish and Wildlife Service concurs with the may affect, not likely to adversely affect determination please respond with written concurrence. Pennsylvania Natural Diversity Inventory Project Search ID: 20160114545452 and March 22, 2016, USFWS e-mail to consultant, USFWS #2016-0470.

7. IMPACT ON CULTURAL RESOURCES: The National Register of Historic Places has been consulted, and it has been determined that there are no properties currently listed on the register which would be directly affected by the proposed work. If we are made aware, as a result of comments received in response to this notice, or by other means, of specific archeological, scientific, prehistorical, or historical sites or structures which might be affected by the proposed work, the District Engineer will immediately take the appropriate action necessary pursuant to the National Historic Preservation Act of 1966 - Public Law 89-665 as amended (including Public Law 96-515). Pennsylvania State Historic Preservation Office, February 3, 2016 letter, file number ER 2016-0639-003-A.

8. PUBLIC INVOLVEMENT: Any person may request, in writing, within the comment period specified in the paragraph below entitled "RESPONSES," that a public hearing be held to consider this application. The requests for public hearing shall state, with particularity, the reasons for holding a public hearing.

9. EVALUATION: Interested parties are invited to state any objections they may have to the proposed work. The decision whether to issue a permit will be based on an evaluation of the probable impact including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit which reasonably may be expected to accrue from the proposals must be balanced against its reasonably foreseeable detriments. All factors which may be relevant to the proposal will be considered including the cumulative effects thereof; among those are conservation, economics, aesthetics, general environmental concerns, wetlands, historic properties, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership and, in general, the needs and welfare of the people. The Corps of Engineers is soliciting comments from the public; Federal, state, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to

issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the overall public interest of the proposed activity. The evaluation of the impact of the activity on the public interest will include application of the guidelines promulgated by the Administrator, Environmental Protection Agency, under the authority of Section 404(b) of the Clean Water Act (40 CFR Part 230).

10. **RESPONSES:** A permit will be granted unless its issuance is found to be contrary to the public interest. Written statements concerning the proposed activity should be received in this office on or before the closing date of this Public Notice in order to become a part of the record and to be considered in the final determination. Any objections which are received during this period may be forwarded to the applicant for possible resolution before the determination is made whether to issue or deny the requested DA Permit. All responses to this notice should be directed to the Regulatory Branch, attn. George Brkovich at the above address, by telephoning (412) 395-7247, or by e-mail at [george.r.brkovich@usace.army.mil](mailto:george.r.brkovich@usace.army.mil). Please refer to CELRP-OP-F **2017-554** in all responses.

FOR THE DISTRICT ENGINEER:

// SIGNED //

Jon T. Coleman  
Chief, Southern Section  
Regulatory Branch  
Pittsburgh District

# BANK STABILIZATION AND RESTORATION PLAN - PC 10.75

## NORFOLK SOUTHERN RAIL CORPORATION FORT WAYNE LINE

### ALLEGHENY COUNTY, PENNSYLVANIA JANUARY 2017



VICINITY MAP

SCALE: 1" = 10 MILES

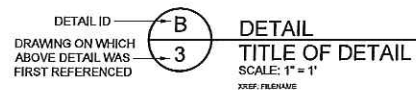
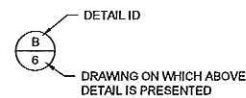
DRAWING NUMBER	DRAWING TITLE
1	TITLE SHEET AND LIST OF DRAWINGS
2	SITE PLAN
3	EXISTING CONDITIONS
4	PROPOSED CONDITIONS
5	SITE CROSS SECTIONS
6	BANK STABILIZATION AND RESTORATION SECTIONS
7	EROSION AND SEDIMENT CONTROL PLAN
8	EROSION AND SEDIMENT CONTROL DETAILS
9	EROSION AND SEDIMENT CONTROL NOTES



LOCATION MAP



SCALE: 1" = 1 MILES

#### DETAIL IDENTIFICATION LEGEND



EXAMPLE: DETAIL ID B PRESENTED ON DRAWING NO. 6 WAS REFERENCED FOR THE FIRST TIME ON DRAWING NO. 3.

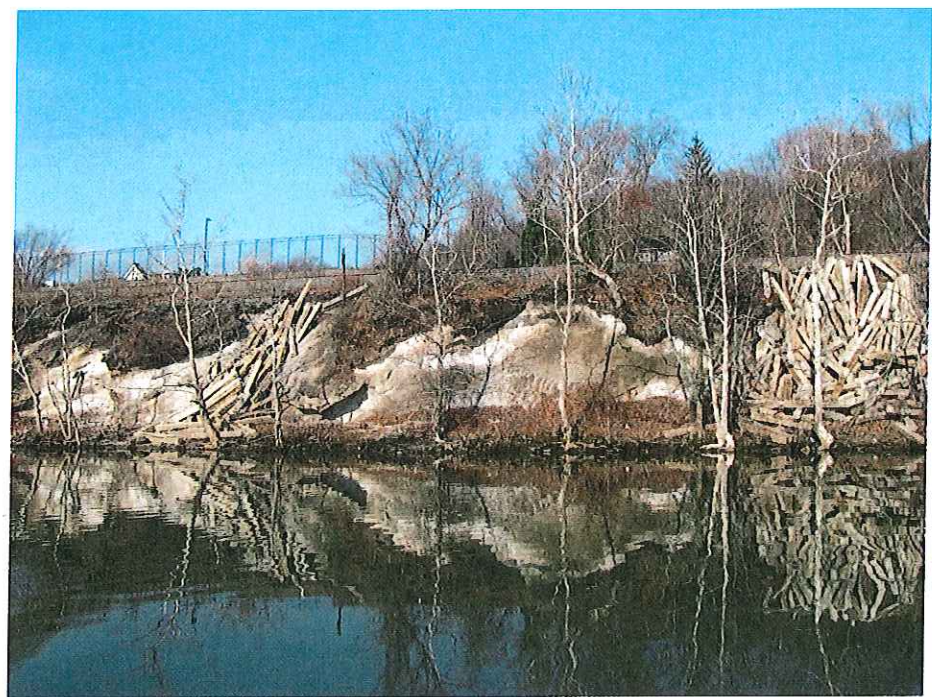
NOTE: ABOVE SYSTEM ALSO APPLIES TO SECTION IDENTIFICATIONS.

REV	DATE	DESCRIPTION	DRN	APP
 				
<p><b>Geosyntec consultants</b>                  PENN CENTER WEST ONE                  SUITE 4031 PENN CENTER                  PITTSBURGH, PA 15276                  TEL: 412.278.8001</p>				
<p><b>NORFOLK SOUTHERN</b>                  One line. Infinite possibilities.                  THREE COMMERCIAL PLACE                  NORFOLK, VIRGINIA 23510                  TEL: 1.800.455.7599</p>				
TITLE: TITLE SHEET AND LIST OF DRAWINGS				
PROJECT: BANK STABILIZATION AND RESTORATION PLAN - PC 10.75				
SITE: NORFOLK SOUTHERN RAIL CORPORATION - FORT WAYNE LINE ALLEGHENY COUNTY, PENNSYLVANIA				
DESIGN BY: DCR/YMC		DATE: JANUARY 2017		
DRAWN BY: ABK		PROJECT NO.: PH0045-02		
CHECKED BY: DCR		FILE: PH0045P010		
REVIEWED BY: RLH		DRAWING NO.:		
APPROVED BY: DJB		1 OF 9		

PERMIT DRAWING  
NOT FOR CONSTRUCTION



- GENERAL NOTES:**
- EXISTING CONDITIONS, PROPERTY BOUNDARY, AND RIGHT OF WAY INFORMATION PREPARED BY PVE SHEFFLER OF SEWCKLEY, PA. INITIAL SURVEY DATED 3/2/2016; REVISED 12/12/2016. AERIAL PHOTOGRAPHY (BING IMAGE) PROVIDED BY AUTODESK.
  - HORIZONTAL DATUM AND COORDINATES ARE IN NORTH AMERICAN DATUM OF 1983 (NAD83) PENNSYLVANIA STATE PLANE, SOUTH ZONE, IN US FEET.
  - VERTICAL DATUM IS NORTH AMERICAN VERTICAL DATUM OF 1988 IN FEET (NAVD88).
  - FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) BASE FLOOD ELEVATION (I.E. 100 YEAR FLOOD BOUNDARY) OBTAINED FROM FEMA FIRM PANEL 42003C0168H EFFECTIVE 8/28/2014. BASE FLOOD ELEVATION RANGES FROM APPROXIMATELY 716.38' TO THE EAST OF THE SITE (FEMA CROSS SECTION M) TO 716.08' TO THE WEST OF THE SITE (FEMA CROSS SECTION L).
  - LOCATIONS OF EXISTING INFRASTRUCTURE ARE APPROXIMATE AND DO NOT INCLUDE ALL UNDERGROUND STRUCTURES OR UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR (i) VERIFICATION OF EXISTING CONDITIONS, (ii) COORDINATION AND MARKING OF EXISTING UTILITIES PRIOR TO RESTORATION CONSTRUCTION, AND (iii) CONTACTING PA ONECALL (811) TO MARK OUT UTILITIES.
  - AS FIELD-REVIEWED WITH USACE STAFF DURING A SITE INSPECTION ON 2/29/2015, THE PROJECT AREA INCLUDES NO BORDERING VEGETATED WETLANDS. THE PROPOSED PROJECT WILL NOT RESULT IN ANY LOSS OF WETLANDS AND THEREFORE DOES NOT INCLUDE ANY REQUIREMENT FOR WETLAND MITIGATION.
  - OHIO RIVER NORMAL POOL AND ORDINARY HIGH WATER ELEVATIONS AT PC 10.75 ARE 692 FT AND 702 FT (NAVD88), RESPECTIVELY. ELEVATIONS OBTAINED FROM US ARMY CORPS OF ENGINEERS OHIO RIVER NAVIGATION CHARTS, JANUARY 2003 (CHART 221).
  - THE INTENT OF THESE DRAWINGS IS TO DESCRIBE THE ACTIONS THAT ARE TO BE IMPLEMENTED TO RELOCATE CONCRETE TIES AND STABILIZE THE SIDE SLOPE BETWEEN THE RIVER AND RAILWAY TRACKS. PRIOR TO PERFORMING THE WORK, THE CONTRACTOR IS RESPONSIBLE FOR PREPARING AN EXECUTION PLAN THAT SHALL OUTLINE BEST EROSION AND SEDIMENT PRACTICES, ESTABLISHMENT OF TEMPORARY ACCESS, HEALTH AND SAFETY PLAN, SEQUENCE OF CONSTRUCTION, AND BEST MANAGEMENT PRACTICES TO PERFORM THE WORK.
  - CONCRETE TIES ARE CHARACTERIZED AS WIDELY SCATTERED BETWEEN THE TOP OF SLOPE AND NORMAL POOL ELEVATION. EACH CONCRETE TIE IS APPROXIMATELY 11" X 11" X 8.5' L WITH AN APPROXIMATE WEIGHT OF 800 POUNDS.
  - SITE CONDITIONS INCLUDE THICK SHRUB AND TREE VEGETATION INCLUDING LARGE TREES WITH AN OVERHEAD CANOPY. WORK MAY REQUIRE SELECTIVE CLEARING AND VEGETATION REMOVAL TO ACCESS WORK AREA. TREES WITH OVERHANG ONTO WORK AREA MAY REQUIRE SELECTIVE REMOVAL.
  - THE FORT WAYNE RAIL LINE IS AN ACTIVE RAIL LINE. WORK WILL REQUIRE PROPER SAFETY TRAINING AND COORDINATION WITH NSRC.
  - FLAGMEN PROVIDED BY NSRC WILL BE REQUIRED FOR ALL WORK ADJACENT TO THE RAIL LINE.
  - ALL WORK WITHIN 15 FEET OF THE CENTERLINE OF THE NEAREST TRACK WILL REQUIRE PERMISSION FROM AN AUTHORIZED NSRC FLAGMAN.
  - NO CRANE OR BOOM EQUIPMENT SHALL BE ALLOWED TO SETUP WORK OR PARK WITHIN BOOM DISTANCE PLUS 15 FEET OF THE CENTERLINE OF THE TRACK WITHOUT PERMISSION FROM AN AUTHORIZED FLAGMAN.
  - ALL OPERATING EQUIPMENT WITHIN 25 FEET OF THE NEAREST TRACK MUST HALT OPERATIONS WHEN A TRAIN IS PASSING.
  - LIMIT OF WORK SHALL BE 1' WITHIN NORFOLK SOUTHERN RIGHT OF WAY. CONTRACTOR SHALL FLAG 1' OFFSET AT 100 FOOT INTERVALS (MINIMUM) PRIOR TO COMMENCING WORK.
  - NO DISTURBANCE SHALL OCCUR BELOW ELEVATION 693'.
  - ACCESS ROUTE TO THE RESTORATION AREA AND TOE OF SLOPE SHALL BE AS SHOWN ON THE PLANS. ACCESS ROUTE WILL INCLUDE TWO TEMPORARY RAIL CROSSINGS AND A TEMPORARY ACCESS ROAD TO ESTABLISH ACCESS ALONG TOE OF SLOPE.



EXISTING REPRESENTATIVE SLOPE CONDITIONS  
(PHOTO TAKEN ON 12/3/2013)  
(SEE GENERAL NOTES 9 AND 10)

N

0 80' 160'

SCALE IN FEET

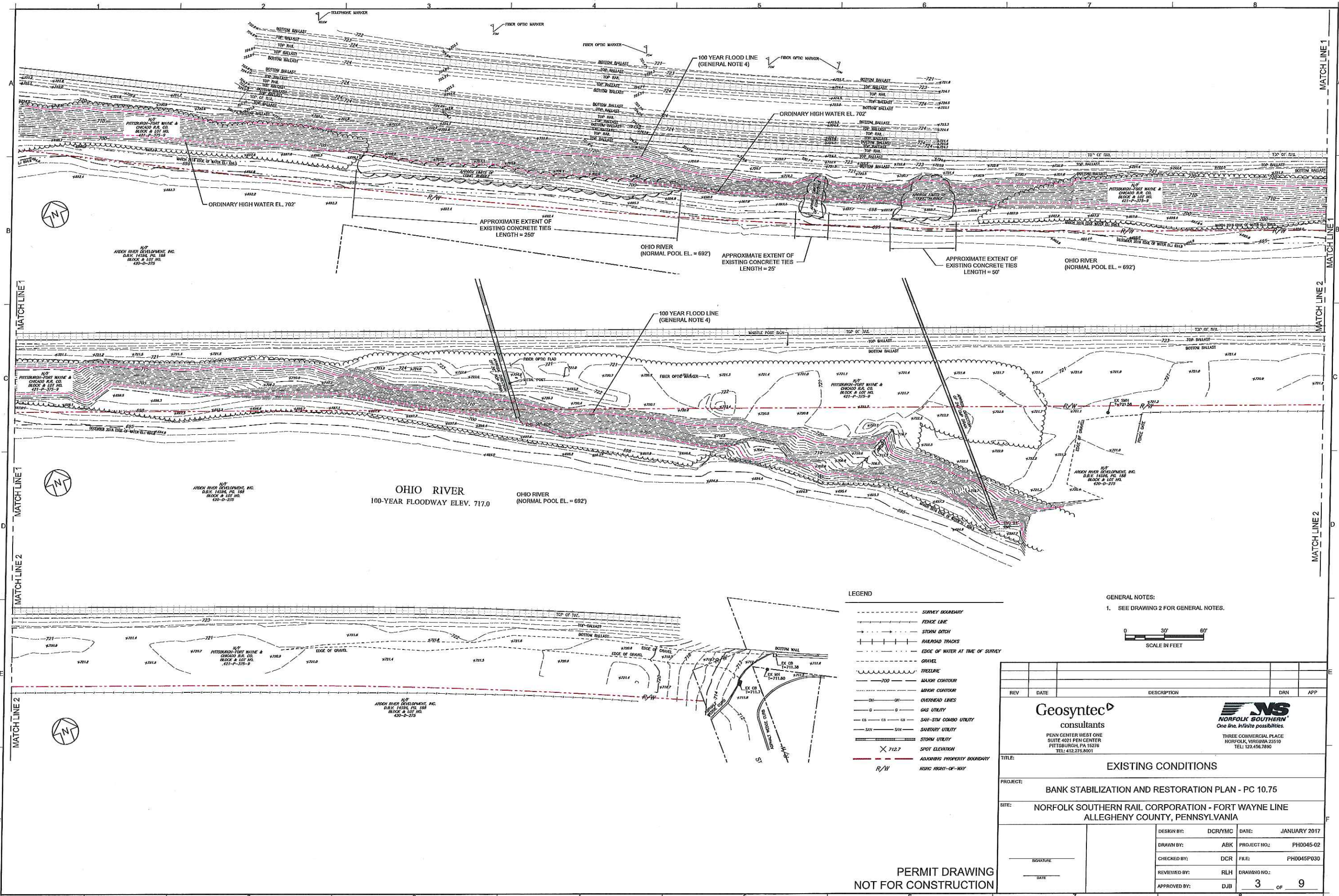
**LEGEND**

- CONTOUR (5-FOOT INTERVAL)
- ROAD / STREET CENTERLINE
- ORDINARY HIGH WATER EL. 702'
- RAILROAD
- 100 YEAR FLOOD LINE
- ▨ PROPOSED SLOPE RESTORATION AREA (A,B 6)
- ▤ PROPOSED ACCESS ROUTE

**PERMIT DRAWING  
NOT FOR CONSTRUCTION**

REV	DATE	DESCRIPTION	DRN	APP
		PENN CENTER WEST ONE SUITE 4021 PEN CENTER PITTSBURGH, PA 15276 TEL: 412.275.0001		
		THREE COMMERCIAL PLACE NORFOLK, VIRGINIA 23510 TEL: 123.456.7890		
<b>SITE PLAN</b>				
<b>PROJECT: BANK STABILIZATION AND RESTORATION PLAN - PC 10.75</b>				
<b>SITE: NORFOLK SOUTHERN RAIL CORPORATION - FORT WAYNE LINE ALLEGHENY COUNTY, PENNSYLVANIA</b>				
		DESIGN BY: DCR/YMC	DATE: JANUARY 2017	
		DRAWN BY: ABK	PROJECT NO.: PH0045-02	
		CHECKED BY: DCR	FILE: PH0045P020	
		REVIEWED BY: RLH	DRAWING NO.:	
		APPROVED BY: DJB	2	9

PROJECT: BANK STABILIZATION AND RESTORATION PLAN - PC 10.75 DATE: 1/10/2017 2:07 PM SHEET: 6 OF 6



**LEGEND**

---	SURVEY BOUNDARY
---	FENCE LINE
---	STORM DITCH
---	RAILROAD TRACKS
---	EDGE OF WATER AT TIME OF SURVEY
---	GRAVEL
---	TRISELINE
---	MAJOR CONTOUR
---	MINOR CONTOUR
---	OVERHEAD LINES
---	GAS UTILITY
---	SAV-STW COMBO UTILITY
---	SANITARY UTILITY
---	STORM UTILITY
X 712.7	SPOT ELEVATION
R/W	INDIC. RIGHTS-OF-WAY

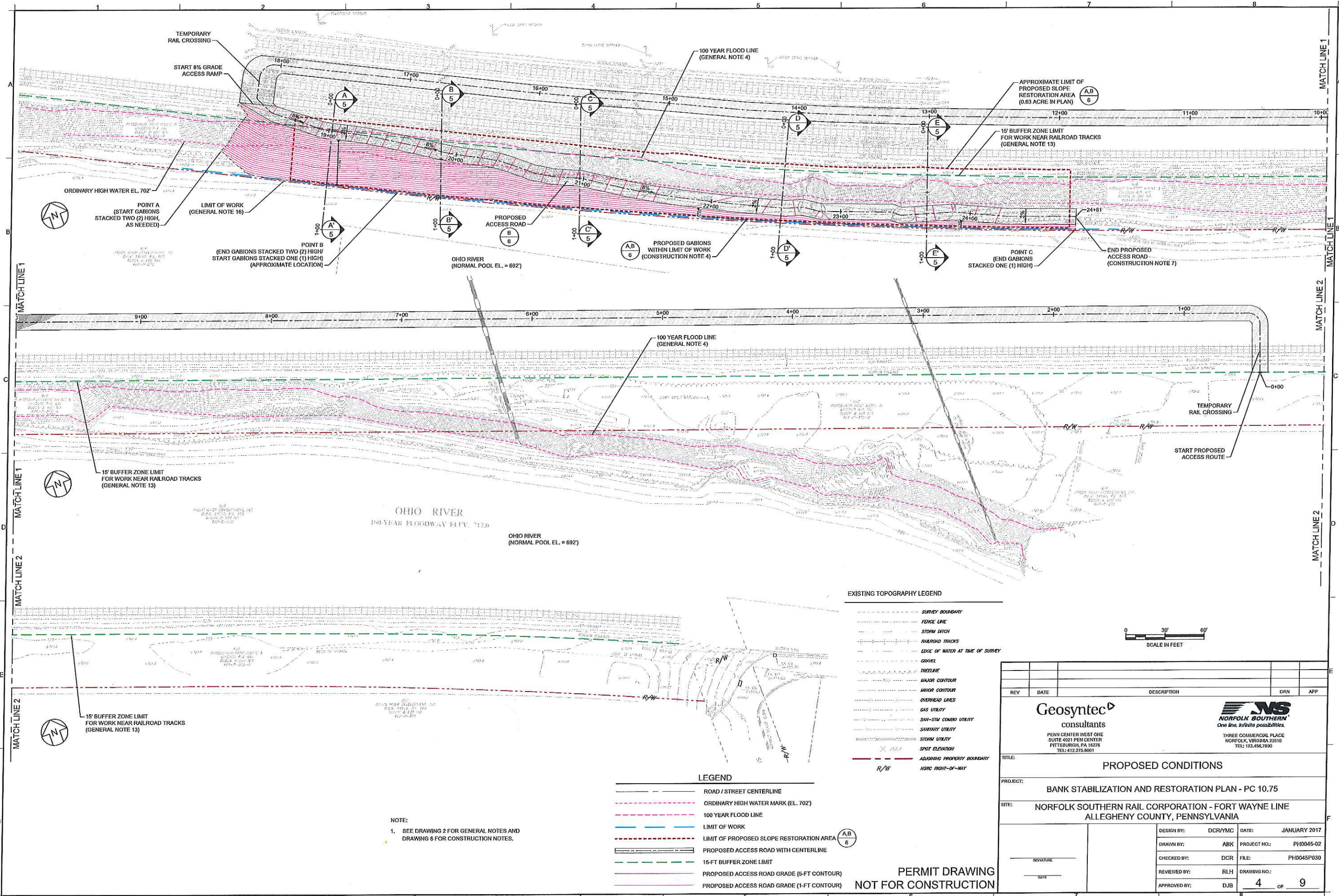
**GENERAL NOTES:**  
 1. SEE DRAWING 2 FOR GENERAL NOTES.



REV	DATE	DESCRIPTION	DRN	APP
<b>TITLE: EXISTING CONDITIONS</b>				
<b>PROJECT: BANK STABILIZATION AND RESTORATION PLAN - PC 10.75</b>				
<b>SITE: NORFOLK SOUTHERN RAIL CORPORATION - FORT WAYNE LINE ALLEGHENY COUNTY, PENNSYLVANIA</b>				
DESIGN BY: DCR/PMC		DATE: JANUARY 2017		
DRAWN BY: ABK		PROJECT NO.: PH0045-02		
CHECKED BY: DCR		FILE: PH0045P030		
REVIEWED BY: RLH		DRAWING NO.:		
APPROVED BY: DJB		3 of 9		

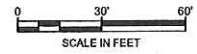
**PERMIT DRAWING  
 NOT FOR CONSTRUCTION**

PROJECT: NORFOLK SOUTHERN RAIL CORPORATION - FORT WAYNE LINE - PC 10.75  
 DRAWING NO. PH0045P030



**EXISTING TOPOGRAPHY LEGEND**

---	SURVEY BOUNDARY
---	FENCE LINE
---	STORM DITCH
---	RAILROAD TRACKS
---	EDGE OF WATER AT TIME OF SURVEY
---	GRAVEL
---	TRIGLINE
---	MAJOR CONTOUR
---	MINOR CONTOUR
---	OVERHEAD LINES
---	GAS UTILITY
---	SAW-SM COMBO UTILITY
---	SANITARY UTILITY
---	STEEL UTILITY
X	SPOT ELEVATION
---	ADJOINING PROPERTY BOUNDARY
---	NSRC RIGHT-OF-WAY



**LEGEND**

---	ROAD / STREET CENTERLINE
---	ORDINARY HIGH WATER MARK (EL. 702')
---	100 YEAR FLOOD LINE
---	LIMIT OF WORK
---	LIMIT OF PROPOSED SLOPE RESTORATION AREA (A,B 6)
---	PROPOSED ACCESS ROAD WITH CENTERLINE
---	15-FT BUFFER ZONE LIMIT
---	PROPOSED ACCESS ROAD GRADE (5-FT CONTOUR)
---	PROPOSED ACCESS ROAD GRADE (1-FT CONTOUR)

**NOTE:**  
1. SEE DRAWING 2 FOR GENERAL NOTES AND DRAWING 6 FOR CONSTRUCTION NOTES.

**PERMIT DRAWING  
NOT FOR CONSTRUCTION**

REV	DATE	DESCRIPTION	DRN	APP

**Geosyntec**  
consultants

PENN CENTER WEST ONE  
SUITE 4021 PEN CENTER  
PITTSBURGH, PA 15276  
TEL: 412.275.8001

**NS**  
**NORFOLK SOUTHERN**  
*One line. Infinite possibilities.*

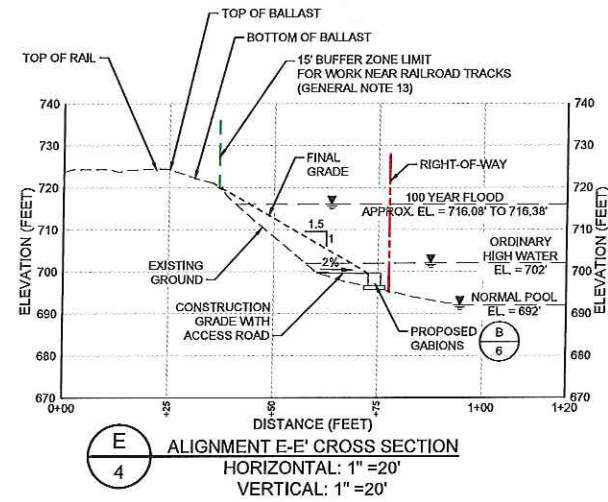
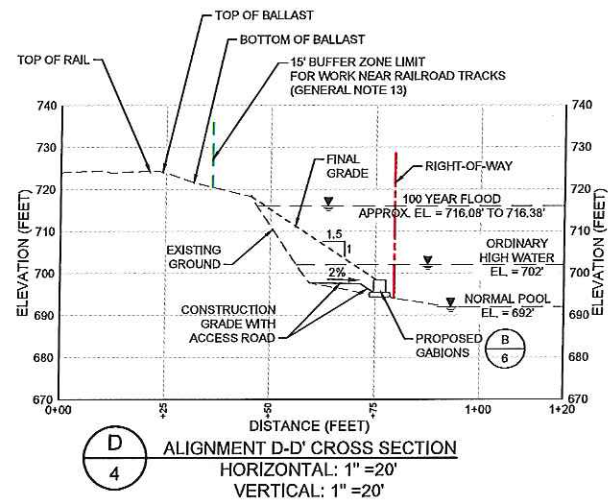
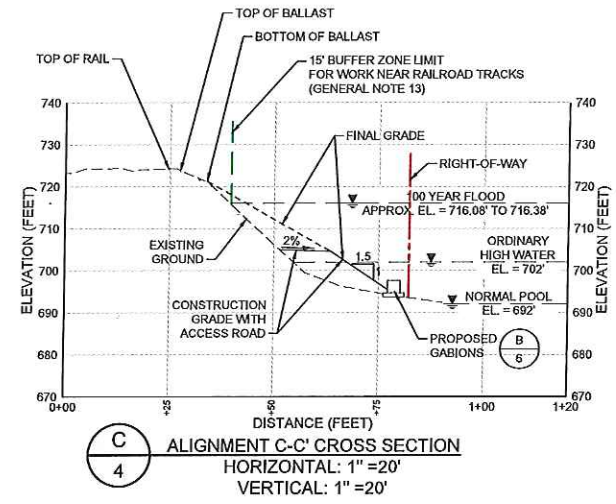
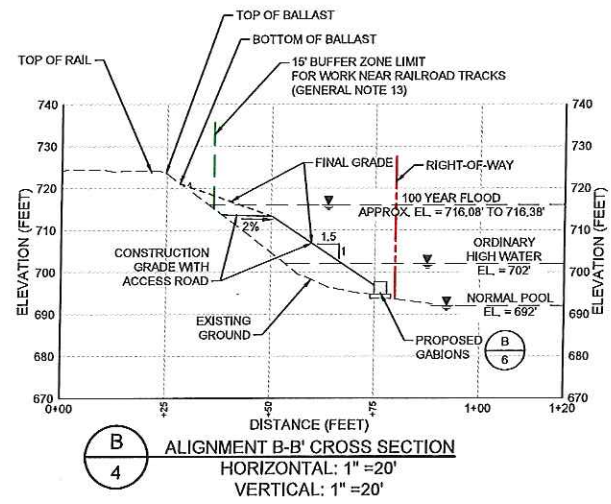
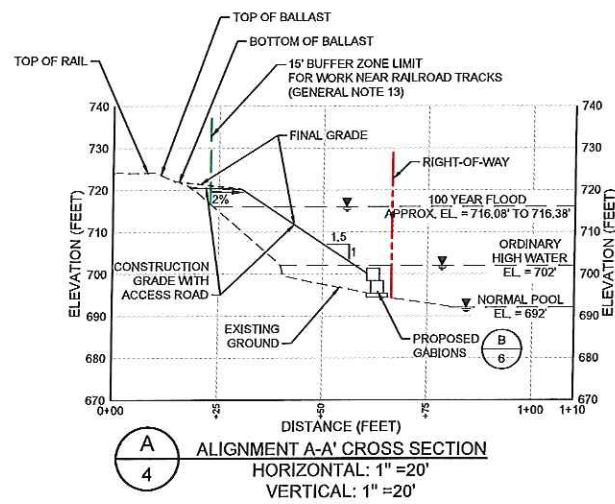
THREE COMMERCIAL PLACE  
NORFOLK, VIRGINIA 23510  
TEL: 123.456.7890

**TITLE: PROPOSED CONDITIONS**

**PROJECT: BANK STABILIZATION AND RESTORATION PLAN - PC 10.75**

**SITE: NORFOLK SOUTHERN RAIL CORPORATION - FORT WAYNE LINE ALLEGHENY COUNTY, PENNSYLVANIA**

DESIGN BY: DCR/YMC	DATE: JANUARY 2017
DRAWN BY: ABK	PROJECT NO.: PH0045-02
CHECKED BY: DCR	FILE: PH0045P030
REVIEWED BY: RLH	DRAWING NO.:
APPROVED BY: DJB	4 OF 9



NOTE:  
1. SEE DRAWING 2 FOR GENERAL NOTES AND DRAWING 6 FOR CONSTRUCTION NOTES.

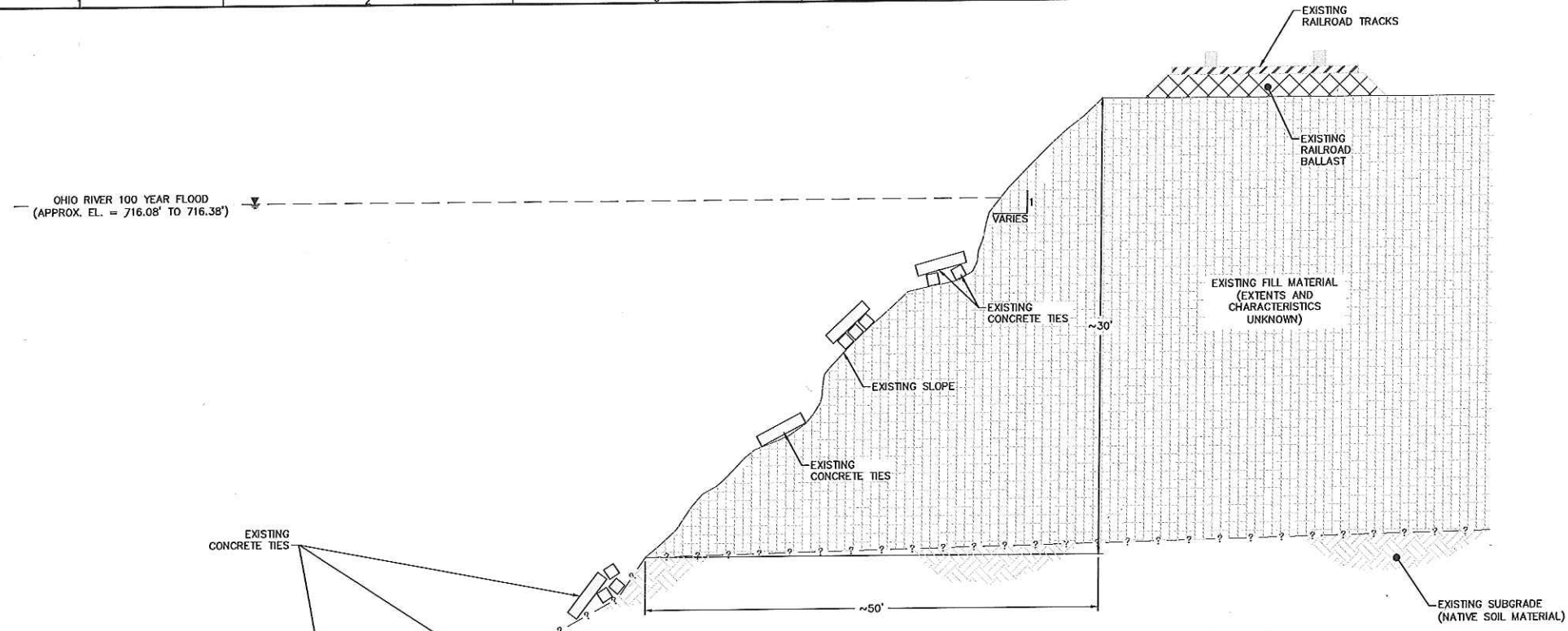


REV	DATE	DESCRIPTION	DRN	APP
<b>SITE CROSS SECTIONS</b>				
<b>PROJECT: BANK STABILIZATION AND RESTORATION PLAN - PC 10.75</b>				
<b>SITE: NORFOLK SOUTHERN RAIL CORPORATION - FORT WAYNE LINE ALLEGHENY COUNTY, PENNSYLVANIA</b>				
DESIGN BY: DCRYMC		DATE: JANUARY 2017		
DRAWN BY: ABK		PROJECT NO.: PH0045-02		
CHECKED BY: DCR		FILE: PH0045P030		
REVIEWED BY: RLH		DRAWING NO.:		
APPROVED BY: DJB		5 OF 9		

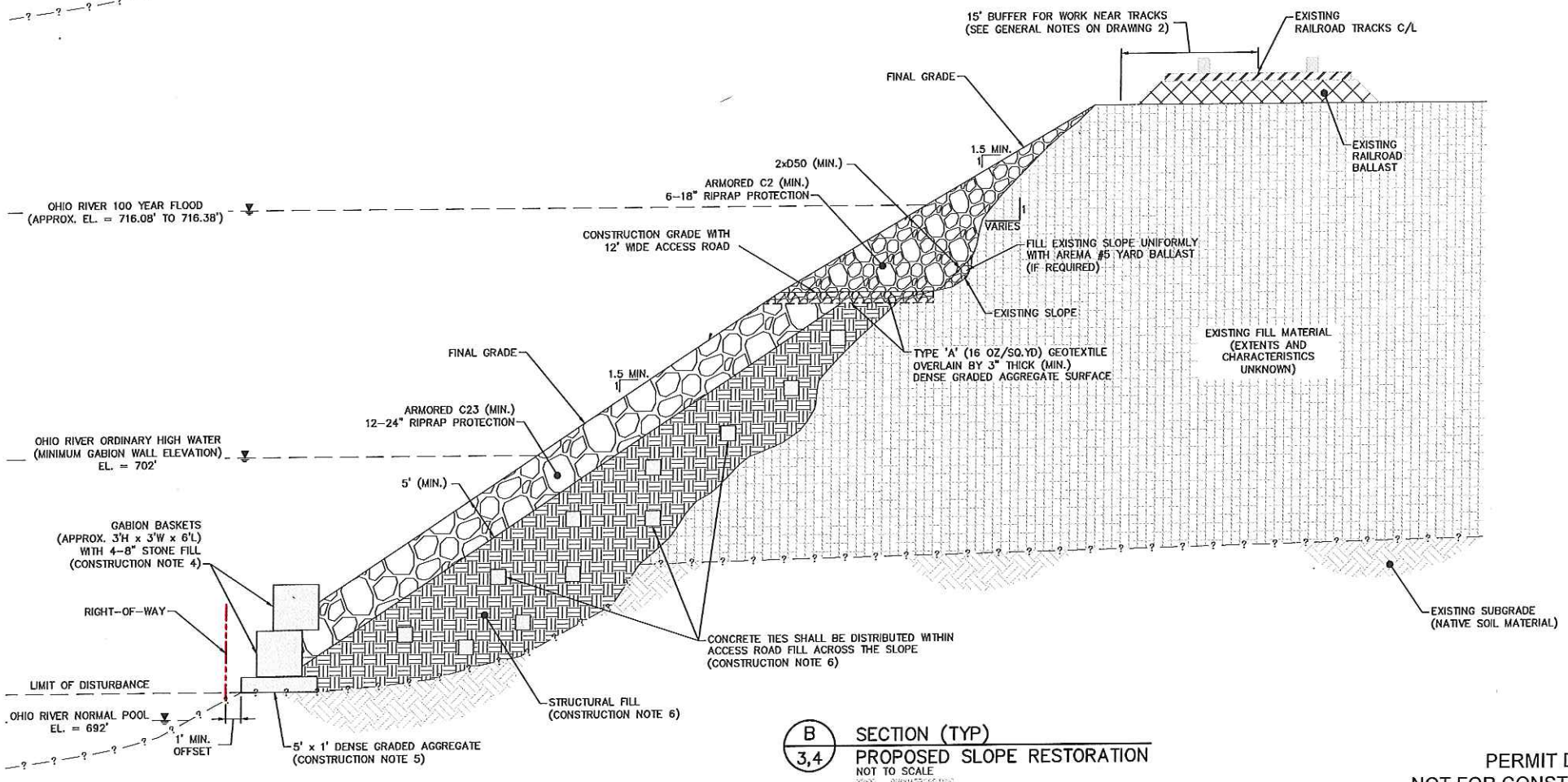
PERMIT DRAWING  
NOT FOR CONSTRUCTION

P:\000\ALLEGHENY\FORT WAYNE\REVISED\SS\REVISED\PC10.75\2017-1-18\4\Shelton.dwg





**A** SECTION (TYP)  
3,4 EXISTING CONDITIONS  
NOT TO SCALE



**B** SECTION (TYP)  
3,4 PROPOSED SLOPE RESTORATION  
NOT TO SCALE

- CONSTRUCTION NOTES:
- CONTRACTOR SHALL ESTABLISH (2) TWO TEMPORARY RAIL CROSSINGS IN ACCORDANCE WITH NSRCS REQUIREMENTS.
  - CONTRACTOR SHALL CONSTRUCT TEMPORARY ACCESS ROAD TO ESTABLISH ACCESS ALONG TOE OF SLOPE. WIDTH OF ROAD SHALL BE CONSTRUCTED TO ACCOMMODATE CONSTRUCTION EQUIPMENT (12' MAXIMUM).
  - CONTRACTOR MUST DEMONSTRATE THAT ALL PROPOSED CONSTRUCTION EQUIPMENT HAS A MAXIMUM FULLY LOADED GROUND PRESSURE OF LESS THAN 15 PSI. IT IS ANTICIPATED THAT CONSTRUCTION EQUIPMENT WITH LOW GROUND PRESSURE WILL BE REQUIRED (I.E. TRACKED VEHICLES).
  - GABION BASKETS SHALL BE INSTALLED ALONG THE ENTIRE TOE OF SLOPE WITHIN THE LIMIT OF WORK AS SHOWN ON PLANS. A MINIMUM OF TWO (2) GABION BASKETS SHALL BE STACKED ON TOP OF ONE ANOTHER FROM POINT A TO B. A MINIMUM OF ONE (1) GABION BASKET SHALL BE INSTALLED FROM POINT B TO C.
  - CONTRACTOR SHALL PREPARE SUBGRADE PRIOR TO INSTALLATION OF GABION BASKETS. CONTRACTOR SHALL EXCAVATE UNSUITABLE MATERIAL (E.G. DEBRIS, CLAY, AND OTHER SOFT MATERIALS) AND COMPACT THE GROUND. CONTRACTOR SHALL INSTALL TYPE 'A' (16 OZ/SQ. YD.) GEOTEXTILE PRIOR TO PLACING A LEVELING LAYER OF DENSE GRADED AGGREGATE.
  - STRUCTURAL FILL FOR THE ACCESS ROAD CONSTRUCTION SHALL BE COMPRISED OF A COMBINATION OF C2 (MIN.) 6-18" RIPRAP AND GRAVEL AND SHALL CONTAIN LESS THAN 5% FINES PASSING NO. 200 SIEVE. CONCRETE TIES SHALL BE PLACED WITHIN ACCESS ROAD STRUCTURAL FILL, AS FEASIBLE. THE MIXTURE OF STRUCTURAL FILL AND TIES SHALL BE WELL COMPACTED TO SUPPORT CONTRACTOR'S EQUIPMENT.
  - CONTRACTOR SHALL TIE THE END OF PROPOSED ACCESS ROAD INTO EXISTING GRADE.
  - PROPOSED ACCESS ROAD STRUCTURAL FILL SHALL BE CAPPED WITH 5-FT (MINIMUM) THICK C23 RIPRAP AS SHOWN IN SECTION.
  - FOR THE FINAL CONDITION, CONTRACTOR SHALL FILL THE ENTIRE SLOPE FROM ACCESS ROAD TO BOTTOM OF EXISTING BALLAST WITH C23 RIPRAP AS SHOWN IN SECTION B. PRIOR TO PLACING RIPRAP, UNSUITABLE MATERIALS (E.G. SATURATED CLAY) ON THE EXISTING SLOPE SHALL BE REMOVED AND SOFT AREAS SHALL BE COMPACTED.

REV	DATE	DESCRIPTION	DRN	APP

**Geosyntec**  
consultants

PENN CENTER WEST ONE  
SUITE 4021 PEN CENTER  
PITTSBURGH, PA 15274  
TEL: 412.275.6001

**NS**  
NORFOLK SOUTHERN  
*One line. Infinite possibilities.*

THREE COMMERCIAL PLACE  
NORFOLK, VIRGINIA 23510  
TEL: 133.456.7590

**TITLE:** BANK STABILIZATION AND RESTORATION SECTIONS

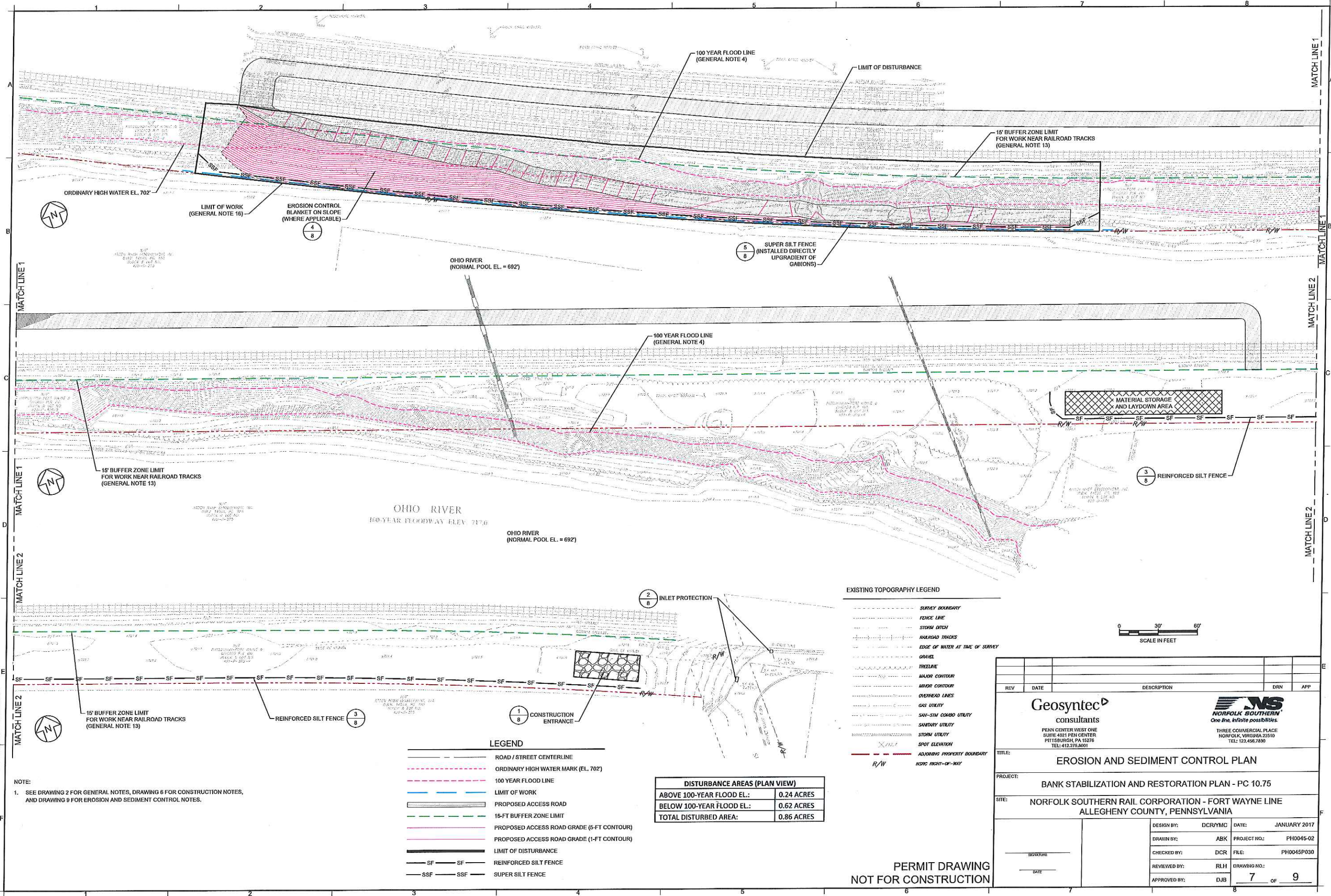
**PROJECT:** BANK STABILIZATION AND RESTORATION PLAN - PC 10.75

**SITE:** NORFOLK SOUTHERN RAIL CORPORATION - FORT WAYNE LINE  
ALLEGHENY COUNTY, PENNSYLVANIA

DESIGN BY: DCR/MC	DATE: JANUARY 2017
DRAWN BY: ABK	PROJECT NO.: PH0045-02
CHECKED BY: DCR	FILE: PH0045P060
REVIEWED BY: RLH	DRAWING NO.:
APPROVED BY: DJB	6 OF 9

PERMIT DRAWING  
NOT FOR CONSTRUCTION

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ORDINARY HIGH WATER EL. 702'

LIMIT OF WORK  
(GENERAL NOTE 16)

EROSION CONTROL  
BLANKET ON SLOPE  
(WHERE APPLICABLE)

OHIO RIVER  
(NORMAL POOL EL. = 692')

100 YEAR FLOOD LINE  
(GENERAL NOTE 4)

LIMIT OF DISTURBANCE

15' BUFFER ZONE LIMIT  
FOR WORK NEAR RAILROAD TRACKS  
(GENERAL NOTE 13)

5  
8 SUPER SILT FENCE  
(INSTALLED DIRECTLY  
UPGRADIENT OF  
GABIONS)

15' BUFFER ZONE LIMIT  
FOR WORK NEAR RAILROAD TRACKS  
(GENERAL NOTE 13)

OHIO RIVER  
100-YEAR FLOODWAY ELEV. 717.0

OHIO RIVER  
(NORMAL POOL EL. = 692')

100 YEAR FLOOD LINE  
(GENERAL NOTE 4)

MATERIAL STORAGE  
AND LAYDOWN AREA

3  
8 REINFORCED SILT FENCE

2  
8 INLET PROTECTION

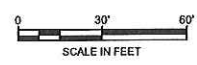
1  
8 CONSTRUCTION  
ENTRANCE

15' BUFFER ZONE LIMIT  
FOR WORK NEAR RAILROAD TRACKS  
(GENERAL NOTE 13)

3  
8 REINFORCED SILT FENCE

EXISTING TOPOGRAPHY LEGEND

- SURVEY BOUNDARY
- FENCE LINE
- STORM DITCH
- RAILROAD TRACKS
- EDGE OF WATER AT TIME OF SURVEY
- GRAVEL
- TREE LINE
- MAJOR CONTOUR
- MINOR CONTOUR
- OVERHEAD LINES
- GAS UTILITY
- SAN-SM COMBO UTILITY
- SANITARY UTILITY
- STORM UTILITY
- SPOT ELEVATION
- ADJOINING PROPERTY BOUNDARY
- NSRC RIGHT-OF-WAY



LEGEND

- ROAD / STREET CENTERLINE
- ORDINARY HIGH WATER MARK (EL. 702')
- 100 YEAR FLOOD LINE
- LIMIT OF WORK
- PROPOSED ACCESS ROAD
- 15-FT BUFFER ZONE LIMIT
- PROPOSED ACCESS ROAD GRADE (5-FT CONTOUR)
- PROPOSED ACCESS ROAD GRADE (1-FT CONTOUR)
- LIMIT OF DISTURBANCE
- SF --- SF --- REINFORCED SILT FENCE
- SSF --- SSF --- SUPER SILT FENCE

DISTURBANCE AREAS (PLAN VIEW)	
ABOVE 100-YEAR FLOOD EL.:	0.24 ACRES
BELOW 100-YEAR FLOOD EL.:	0.62 ACRES
<b>TOTAL DISTURBED AREA:</b>	<b>0.86 ACRES</b>

NOTE:  
1. SEE DRAWING 2 FOR GENERAL NOTES, DRAWING 6 FOR CONSTRUCTION NOTES,  
AND DRAWING 9 FOR EROSION AND SEDIMENT CONTROL NOTES.

PERMIT DRAWING  
NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION	DRN	APP

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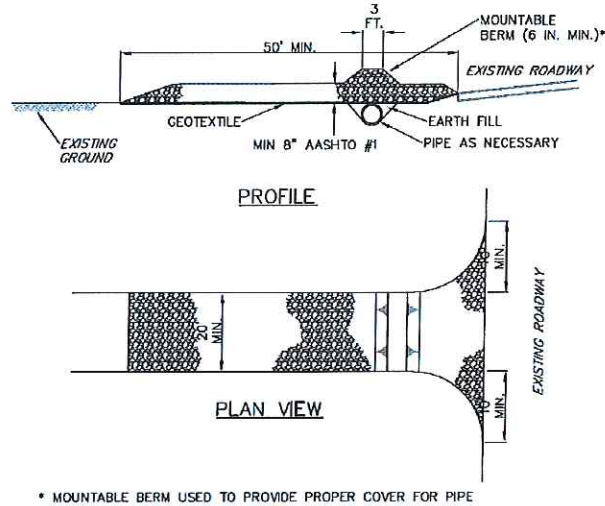
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NORFOLK, VIRGINIA 23510  
TEL: 123.456.7890

TITLE: **EROSION AND SEDIMENT CONTROL PLAN**

PROJECT: **BANK STABILIZATION AND RESTORATION PLAN - PC 10.75**

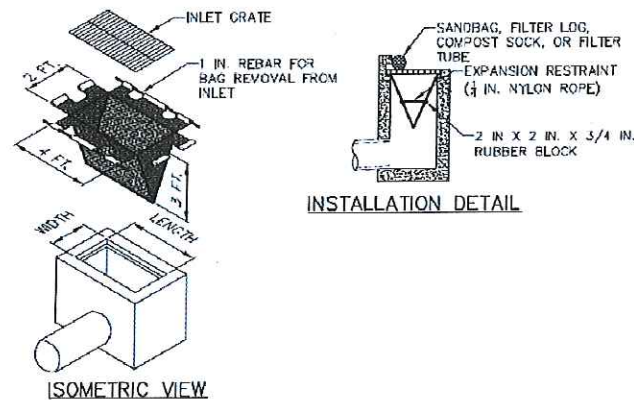
SITE: **NORFOLK SOUTHERN RAIL CORPORATION - FORT WAYNE LINE  
ALLEGHENY COUNTY, PENNSYLVANIA**

DESIGN BY: DCR/MC	DATE: JANUARY 2017
DRAWN BY: ABK	PROJECT NO.: PH0045-02
CHECKED BY: DCR	FILE: PH0045P030
REVIEWED BY: RLH	DRAWING NO.:
APPROVED BY: DJB	7 OF 9

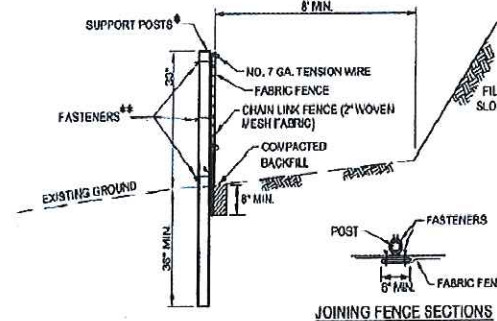


- NOTES:
- REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE.
  - RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.

1  
7  
**DETAIL (TYPICAL)**  
**ROCK CONSTRUCTION ENTRANCE**  
 SCALE: NTS



2  
7  
**DETAIL (TYPICAL)**  
**FILTER BAG INLET PROTECTION**  
 SCALE: NTS



- NOTES:
- FABRIC WIDTH SHALL BE 42" MINIMUM.
  - POST SHALL BE INSTALLED USING POSTHOLE DRILL.
  - CHAIN LINK SHALL BE GALVANIZED NO. 11.5 GA. STEEL WIRE WITH 2 1/2" OPENING. NO. 11 GA. ALUMINUM COATED STEEL WIRE IN ACCORDANCE WITH ASTM-A491, OR GALVANIZED NO. 9 GA. STEEL WIRE TOP AND BOTTOM WITH GALVANIZED NO. 11 GA. STEEL INTERMEDIATE WIRES. NO. 7 GAGE TENSION WIRE TO BE INSTALLED HORIZONTALLY THROUGH HOLES AT TOP AND BOTTOM OF CHAIN-LINK FENCE OR ATTACHED WITH HOG RINGS AT 5' (MAX.) CENTERS.
  - SILT FENCE SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE FENCE SHALL BE EXTENDED AT LEAST 8 FEET UPSLOPE AT 45 DEGREES TO MAIN BARRIER ALIGNMENT.
  - SEDIMENT SHALL BE REMOVED WHEN ACCUMULATIONS REACH HALF THE ABOVEGROUND HEIGHT OF THE SILT FENCE.
  - SILT FENCE SHALL BE INSTALLED DIRECTLY UPGRADIENT OF ROCK FILLED GABIONS (TO BE INSTALLED ALONG LIMIT OF WORK) TO PROVIDE ADDITIONAL SUPPORT AND ENERGY DISSIPATION.

FENCE NO.	LOCATION	SLOPE PERCENT	SLOPE LENGTH ABOVE BARRIER (FT)
2	DOWNGRADIENT OF SLOPE RESTORATION AREA	> 50%	50

5  
7  
**DETAIL (TYPICAL)**  
**SUPER SILT FENCE**  
 SCALE: NTS



Rule of thumb: If you are seeing a lot of bare ground, there is not enough straw. (Caution: Too much straw can be as harmful as too little straw.)

Mulches should be applied at the rates shown in Table 11.6  
 Straw and hay mulch should be anchored or tackified immediately after application to prevent being windblown. A tractor-drawn implement may be used to "crimp" the straw or hay into the soil — about 3 inches. This method should be limited to slopes no steeper than 3H:1V. The machinery should be operated on the contour. Note: Crimping of hay or straw by running over it with tracked machinery is not recommended.

Polymeric and gum tackifiers mixed and applied according to manufacturer's recommendations may be used to tack mulch. Avoid application during rain and on windy days. A 24-hour curing period and a soil temperature higher than 45° F are typically required. Application should generally be heaviest at edges of seeded areas and at crests of ridges and banks to prevent loss by wind. The remainder of the area should have binder applied uniformly. Binders may be applied after mulch is spread or sprayed into the mulch as it is being blown onto the soil. Applying straw and binder together is generally more effective.

**TABLE 11.6**  
**Mulch Application Rates**

Mulch Type	Application Rate (Min.)			Notes
	Per Acre	Per 1,000 sq. ft.	Per 1,000 sq. yd.	
Straw	3 tons	140 lb.	1,240 lb.	Either wheat or oat straw, free of weeds, not chopped or finely broken
Hay	3 tons	140 lb.	1,240 lb.	Timothy, mixed clover and timothy or other native forage grasses
Wood Chips	4 - 8 tons	185 - 275 lb.	1,850 - 2,500 lb.	May prevent germination of grasses and legumes
Hydromulch	1 ton	47 lb.	415	See limitations above

6  
7  
**DETAIL (TYPICAL)**  
**STRAW MULCH**  
 SCALE: NTS

- NOTES:
- SEE DRAWING 9 FOR EROSION AND SEDIMENT CONTROL NOTES.

REV	DATE	DESCRIPTION	DRN	APP

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**TITLE:**  
 EROSION AND SEDIMENT CONTROL DETAILS

**PROJECT:**  
 BANK STABILIZATION AND RESTORATION PLAN - PC 10.75

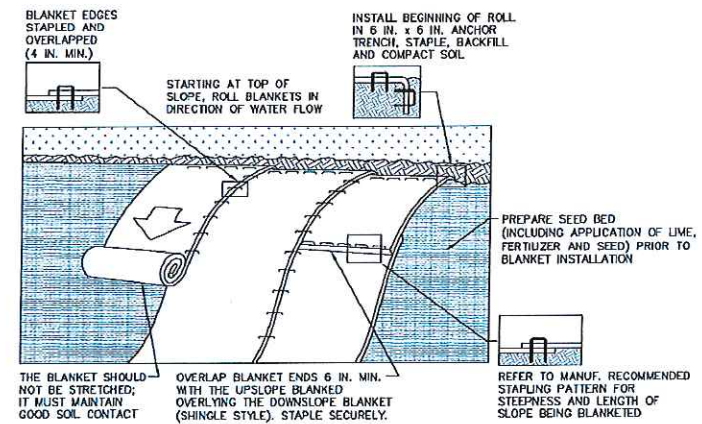
**SITE:**  
 NORFOLK SOUTHERN RAIL CORPORATION - FORT WAYNE LINE ALLEGHENY COUNTY, PENNSYLVANIA

DESIGN BY: DCRYMC DATE: JANUARY 2017  
 DRAWN BY: ABK PROJECT NO.: PH0045-02  
 CHECKED BY: DCR FILE: PH0045P080  
 REVIEWED BY: RLH DRAWING NO.:  
 APPROVED BY: DJB 8 OF 9

PERMIT DRAWING  
 NOT FOR CONSTRUCTION

FENCE NO.	LOCATION	SLOPE PERCENT	SLOPE LENGTH ABOVE BARRIER (FT)
1	DOWNGRADIENT OF PROPOSED ACCESS ROAD AND SURROUNDING MATERIAL LAYDOWN AREA	5%	45

3  
7  
**DETAIL (TYPICAL)**  
**REINFORCED SILT FENCE**  
 SCALE: NTS



- NOTES:
- PROVIDE ANCHOR TRENCH AT TOE OF SLOPE IN SIMILAR FASHION AS AT TOP OF SLOPE.
  - SLOPE SURFACE SHALL BE FREE OF ROCKS, CLODS, STICKS, AND GRASS.
  - BLANKET SHALL HAVE GOOD CONTINUOUS CONTACT WITH UNDERLYING SOIL THROUGHOUT ENTIRE LENGTH, LAY BLANKET LOOSELY AND STAKE OR STAPLE TO MAINTAIN DIRECT CONTACT WITH SOIL. DO NOT STRETCH BLANKET.
  - THE BLANKET SHALL BE STAPLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

4  
7  
**DETAIL (TYPICAL)**  
**EROSION CONTROL BLANKET**  
 SCALE: NTS

A. PADEP STANDARD NOTES

- ALL EARTH DISTURBANCES, INCLUDING CLEARING AND GRUBBING AS WELL AS CUTS AND FILLS SHALL BE DONE IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENT CONTROL PLAN (ESCP). A COPY OF THE APPROVED DRAWINGS (STAMPED, SIGNED AND DATED BY THE REVIEWING AGENCY) MUST BE AVAILABLE AT THE PROJECT SITE AT ALL TIMES. THE REVIEWING AGENCY SHALL BE NOTIFIED OF ANY CHANGES TO THE APPROVED PLAN PRIOR TO IMPLEMENTATION OF THOSE CHANGES. THE REVIEWING AGENCY MAY REQUIRE A WRITTEN SUBMITTAL OF THOSE CHANGES FOR REVIEW AND APPROVAL AT ITS DISCRETION.
- AT LEAST 7 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, INCLUDING CLEARING AND GRUBBING, THE OWNER AND/OR OPERATOR SHALL INVITE ALL CONTRACTORS, THE LANDOWNER, APPROPRIATE MUNICIPAL OFFICIALS, THE ESCP PREPARER, AND A REPRESENTATIVE FROM THE LOCAL CONSERVATION DISTRICT TO AN ON-SITE PRECONSTRUCTION MEETING.
- AT LEAST 3 DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES, OR EXPANDING INTO AN AREA PREVIOUSLY UNMARKED, THE PENNSYLVANIA ONE CALL SYSTEM INC. SHALL BE NOTIFIED AT 1-800-242-1776 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES.
- ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE SEQUENCE PROVIDED IN THE CONTRACTOR'S APPROVED EXECUTION PLAN. DEVIATION FROM THAT SEQUENCE MUST BE APPROVED IN WRITING FROM THE LOCAL CONSERVATION DISTRICT OR BY THE DEPARTMENT PRIOR TO IMPLEMENTATION.
- AREAS TO BE FILLED ARE TO BE CLEARED, GRUBBED, AND STRIPPED TO REMOVE TREES, VEGETATION, ROOTS AND OTHER OBJECTIONABLE MATERIAL.
- CLEARING, GRUBBING, AND STRIPPING SHALL BE LIMITED TO THOSE AREAS DESCRIBED IN EACH STAGE OF THE CONSTRUCTION SEQUENCE. GENERAL SITE CLEARING GRUBBING AND STRIPPING MAY NOT COMMENCE IN ANY STAGE OR PHASE OF THE PROJECT UNTIL THE EROSION AND SEDIMENT CONTROL BMPs SPECIFIED IN THE SEQUENCE OF CONSTRUCTION FOR THAT STAGE OR PHASE HAVE BEEN INSTALLED AND ARE FUNCTIONING AS DESCRIBED IN THIS ESCP.
- AT NO TIME SHALL CONSTRUCTION VEHICLES BE ALLOWED TO ENTER AREAS OUTSIDE THE LIMIT OF DISTURBANCE BOUNDARIES SHOWN ON THE PLAN MAPS. THESE AREAS MUST BE CLEARLY MARKED IN THE FIELD USING HIGHLY VISIBLE FLAGGING OR ORANGE CONSTRUCTION FENCING BEFORE CLEARING AND GRUBBING OPERATIONS BEGIN.
- IF REQUIRED, VEGETATIVE SUPPORT MATERIAL REQUIRED FOR THE ESTABLISHMENT OF VEGETATION SHALL BE STOCKPILED AT THE LOCATION(S) SHOWN ON THE PLAN MAPS(S) IN THE AMOUNT NECESSARY TO COMPLETE THE FINISH GRADING OF ALL EXPOSED AREAS THAT ARE TO BE STABILIZED BY VEGETATION. EACH STOCKPILE SHALL HAVE PERIMETER SEDIMENT CONTROL INSTALLED ON THE DOWN GRADIENT SIDE OF THE PILE. STOCKPILE HEIGHTS SHALL NOT EXCEED 20 FEET, STOCKPILE SLOPES SHALL BE 2H:1V OR FLATTER.
- IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE OPERATOR SHALL IMPLEMENT APPROPRIATE BMPs TO MINIMIZE THE POTENTIAL FOR EROSION AND SEDIMENT POLLUTION AND NOTIFY THE LOCAL CONSERVATION DISTRICT AND/OR THE REGIONAL OFFICE OF THE DEPARTMENT.
- ALL BUILDING MATERIALS AND WASTES SHALL BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1, AND 287.1 ET. SEQ. NO BUILDING MATERIALS OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THE SITE.
- ALL OFF-SITE WASTE AND BORROW AREAS MUST BE LICENSED AND HAVE VALID APPLICABLE PERMITS.
- THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT ANY MATERIAL BROUGHT ON SITE IS CLEAN FILL. FORM FP-001 MUST BE RETAINED BY THE PROPERTY OWNER FOR ANY FILL MATERIAL AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE BUT QUALIFYING AS CLEAN FILL DUE TO ANALYTICAL TESTING.
- IF REQUIRED, ALL PUMPING OF WATER FROM ANY WORK AREA SHALL BE DONE ACCORDING TO THE PROCEDURE DESCRIBED IN THE CONTRACTOR'S APPROVED EXECUTION PLAN IN A MANNER THAT IS CONSISTENT WITH THIS ESCP, OVER UNDISTURBED VEGETATED AREAS.
- UNTIL THE SITE IS STABILIZED (I.E., AT LEAST 70% VEGETATION COVERAGE OR STABILIZED WITH HARD ARMOR), ALL EROSION AND SEDIMENT CONTROL BMPs SHALL BE MAINTAINED ACCORDING TO THIS PLAN AND THE PENNSYLVANIA EROSION AND SEDIMENT CONTROL MANUAL. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT BMPs AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING AND RENETTING MUST BE PERFORMED IMMEDIATELY, IF THE E&S BMPs FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPs, OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED.
- A LOG SHOWING DATES THAT E&S BMPs WERE INSPECTED AS WELL AS ANY DEFICIENCIES FOUND AND THE DATE THEY WERE CORRECTED SHALL BE MAINTAINED ON THE SITE AND BE MADE AVAILABLE TO REGULATORY AGENCY OFFICIALS AT THE TIME OF INSPECTION.
- SEDIMENT TRACKED BEYOND SITE'S LIMITS OF DISTURBANCE AND ONTO ANY PUBLIC ROADWAY OR SIDEWALK SHALL BE RETURNED TO THE CONSTRUCTION SITE BY THE END OF EACH WORK DAY AND DISPOSED IN THE MANNER DESCRIBED IN THIS PLAN. IN NO CASE SHALL THE SEDIMENT BE WASHED, SHOVELED, OR SWEEPED INTO ANY ROADSIDE DITCH, STORM SEWER, OR SURFACE WATER.
- ALL SEDIMENT REMOVED FROM BMPs SHALL BE DISPOSED OF IN THE MANNER DESCRIBED ON THE PLAN DRAWINGS.
- AREAS WHICH ARE TO BE TOPSOILED SHALL BE SCARIFIED TO A MINIMUM DEPTH OF 3 TO 5 INCHES - 6 TO 12 INCHES ON COMPACTED SOILS - PRIOR TO PLACEMENT OF TOPSOIL. AREAS TO BE VEGETATED SHALL HAVE A MINIMUM 3 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING. FILL OUTSLOPES SHALL HAVE A MINIMUM OF 2 INCHES OF TOPSOIL.
- ALL FILLS SHALL BE COMPACTED AS REQUIRED TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. FILL INTENDED TO SUPPORT BUILDINGS, STRUCTURES AND CONDUITS, ETC., SHALL BE COMPACTED IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES.
- IF REQUIRED, ALL EARTHEN FILLS SHALL BE PLACED IN COMPACTED LAYERS NOT TO EXCEED 9 INCHES IN THICKNESS.
- IF REQUIRED, FILL MATERIALS SHALL BE FREE OF FROZEN PARTICLES, BRUSH, ROOTS, SOD, OR OTHER FOREIGN OR OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH OR PREVENT CONSTRUCTION OF SATISFACTORY FILLS.
- FROZEN MATERIALS OR SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIALS SHALL NOT BE INCORPORATED INTO FILLS.
- FILL SHALL NOT BE PLACED ON SATURATED OR FROZEN SURFACES.
- SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD.
- ALL GRADED AREAS SHALL BE PERMANENTLY STABILIZED IMMEDIATELY UPON REACHING FINISHED GRADE. CUT SLOPES IN COMPETENT BEDROCK AND ROCK FILLS NEED NOT BE VEGETATED. SEEDED AREAS WITHIN 50 FEET OF A SURFACE WATER, OR AS OTHERWISE SHOWN ON THE PLAN DRAWINGS, SHALL BE BLANKETED ACCORDING TO THE STANDARDS OF THIS PLAN.
- IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE IN ANY AREA OR SUBAREA OF THE PROJECT, THE OPERATOR SHALL STABILIZE ALL DISTURBED AREAS. DURING NON-GERMINATING MONTHS, MULCH OR PROTECTIVE BLANKETING SHALL BE APPLIED AS DESCRIBED IN THE PLAN. AREAS NOT AT FINISHED GRADE, WHICH WILL BE REACTIVATED WITHIN 1 YEAR, MAY BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY STABILIZATION SPECIFICATIONS. THOSE AREAS WHICH WILL NOT BE REACTIVATED WITHIN 1 YEAR SHALL BE STABILIZED IN ACCORDANCE WITH THE PERMANENT STABILIZATION SPECIFICATIONS.

- PERMANENT STABILIZATION IS DEFINED AS A MINIMUM UNIFORM, PERENNIAL 70% VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED EROSION. CUT AND FILL SLOPES SHALL BE CAPABLE OF RESISTING FAILURE DUE TO SLUMPING, SLIDING, OR OTHER MOVEMENTS.
- E&S BMPs SHALL REMAIN FUNCTIONAL AS SUCH UNTIL ALL AREAS TRIBUTARY TO THEM ARE PERMANENTLY STABILIZED OR UNTIL THEY ARE REPLACED BY ANOTHER BMP APPROVED BY THE LOCAL CONSERVATION DISTRICT OR THE DEPARTMENT.
- UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE LOCAL CONSERVATION DISTRICT FOR AN INSPECTION PRIOR TO REMOVAL/CONVERSION OF THE E&S BMPs.
- AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMPs MUST BE REMOVED OR CONVERTED TO PERMANENT POST CONSTRUCTION STORMWATER MANAGEMENT BMPs. AREAS DISTURBED DURING REMOVAL OR CONVERSION OF THE BMPs SHALL BE STABILIZED IMMEDIATELY, IN ORDER TO ENSURE RAPID REVEGETATION OF DISTURBED AREAS, SUCH REMOVAL/CONVERSIONS ARE TO BE DONE ONLY DURING THE GERMINATING SEASON (I.E., APRIL 15 THROUGH JUNE 15 AND SEPTEMBER 15 THROUGH NOVEMBER 15).
- UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE LOCAL CONSERVATION DISTRICT TO SCHEDULE A FINAL INSPECTION.
- FAILURE TO CORRECTLY INSTALL E&S BMPs, FAILURE TO PREVENT SEDIMENT-LADEN RUNOFF FROM LEAVING THE CONSTRUCTION SITE, OR FAILURE TO TAKE IMMEDIATE CORRECTIVE ACTION TO RESOLVE FAILURE OF E&S BMPs MAY RESULT IN ADMINISTRATIVE, CIVIL, AND/OR CRIMINAL PENALTIES BEING INSTITUTED BY THE DEPARTMENT AS DEFINED IN SECTION 602 OF THE PENNSYLVANIA CLEAN STREAMS LAW. THE CLEAN STREAMS LAW PROVIDES FOR UP TO \$10,000 PER DAY IN CIVIL PENALTIES, UP TO \$10,000 IN SUMMARY CRIMINAL PENALTIES, AND UP TO \$25,000 IN MISDEMEANOR CRIMINAL PENALTIES FOR EACH VIOLATION.

B. ADDITIONAL NOTES

- CONTRACTOR SHALL MINIMIZE THE AMOUNT OF DISTURBED AREAS AT ALL TIMES DURING CONSTRUCTION TO REDUCE THE RISK OF EROSION.
- THIS PROJECT DOES NOT INCLUDE ANY PERMANENT HYDRAULIC BMPs (E.G., CHANNELS) AND THE EXISTING DRAINAGE PATTERNS WILL NOT BE AFFECTED BY THE CONSTRUCTION ACTIVITIES.

C. STABILIZATION

- UPON FINAL COMPLETION OF AN EARTH DISTURBANCE ACTIVITY OR ANY STAGE OR PHASE OF AN ACTIVITY; OR TEMPORARY CESSATION OF THE EARTH DISTURBANCE ACTIVITY, OR ANY STAGE OR PHASE OF AN ACTIVITY WHERE THE CESSATION OF EARTH DISTURBANCE WILL EXCEED FOUR (4) DAYS, THE PROJECT SITE SHALL BE IMMEDIATELY STABILIZED IN ACCORDANCE WITH THE REQUIREMENTS OF 25 PA. CODE §102.22(A) OR (B) (RELATING TO SITE STABILIZATION), AS APPLICABLE. E&S BMPs SHALL BE IMPLEMENTED AND MAINTAINED UNTIL PERMANENT STABILIZATION IS COMPLETED. ONCE PERMANENT STABILIZATION HAS BEEN ESTABLISHED THE TEMPORARY E&S BMPs SHALL BE REMOVED. ANY AREAS DISTURBED IN THE ACT OF REMOVING TEMPORARY E&S BMPs SHALL BE PERMANENTLY STABILIZED UPON COMPLETION OF THE TEMPORARY E&S BMP REMOVAL ACTIVITY.
- CONTRACTOR SHALL STABILIZE AREAS TO BE REVEGETATED WITH SEED MIXTURE 3 (BIRDSFOOT TREFLOIL AT 6 LB/ACRE PURE LIVE SEED AND TALL FESCUE AT 30 LB/ACRE PURE LIVE SEED) IN ACCORDANCE WITH TABLE 11.4 FROM THE PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL.
- CONTRACTOR SHALL APPLY MULCH AFTER SEEDING. CONTRACTOR SHALL APPLY EROSION CONTROL BLANKET, STRAW OR HAY MULCH AT THREE TONS/ACRE (MINIMUM), OR HYDROMULCH AT ONE TON/ACRE (MINIMUM).



- EROSION CONTROL BLANKET SHALL BE USED ON ANY DISTURBED AREA TO BE REVEGETATED WITHIN 50 FT OF THE OHIO RIVER, ON SLOPES 3(H):1(V) OR STEEPER AND INSTALLED PER THE MANUFACTURER'S RECOMMENDATIONS.
- STRAW AND HAY MULCH SHOULD BE ANCHORED OR TACKIFIED IMMEDIATELY AFTER APPLICATION TO PREVENT BEING WINDBLOWN. A TRACTOR-DRAWN IMPLEMENT MAY BE USED TO "CRIMP" THE STRAW OR HAY INTO THE SOIL 3 INCHES (MINIMUM). THIS METHOD SHOULD BE LIMITED TO SLOPES NO STEEPER THAN 3H:1V. THE MACHINERY SHOULD BE OPERATED ON THE CONTOUR.
- POLYMERIC AND GUM TACKIFIERS MIXED AND APPLIED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS MAY BE USED TO TACK MULCH.
- MULCH ON SLOPES OF 8% OR STEEPER SHALL BE HELD IN PLACE WITH NETTING. LIGHTWEIGHT PLASTIC, FIBER, OR PAPER NETS MAY BE STAPLED OVER THE MULCH ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
- SHREDDED PAPER HYDROMULCH SHALL NOT BE USED ON SLOPES STEEPER THAN 5%.

D. INSPECTION AND MAINTENANCE SCHEDULE

- UNTIL THE SITE IS STABILIZED (I.E., AT LEAST 70% VEGETATION COVERAGE OR STABILIZED WITH HARD ARMOR), ALL EROSION AND SEDIMENT CONTROL BMPs SHALL BE MAINTAINED ACCORDING TO THIS PLAN AND THE PENNSYLVANIA EROSION AND SEDIMENT CONTROL MANUAL. MAINTENANCE SHALL INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENT BMPs AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING AND RENETTING MUST BE PERFORMED IMMEDIATELY, IF THE E&S BMPs FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMPs, OR MODIFICATIONS OF THOSE INSTALLED WILL BE REQUIRED.
- A LOG SHOWING DATES THAT E&S BMPs WERE INSPECTED AS WELL AS ANY DEFICIENCIES FOUND AND THE DATE THEY WERE CORRECTED SHALL BE MAINTAINED ON THE SITE AND BE MADE AVAILABLE TO REGULATORY AGENCY OFFICIALS AT THE TIME OF INSPECTION.
- BMP MAINTENANCE SHALL OCCUR AT THE FOLLOWING INTERVAL AND OCCURRENCES, AT MINIMUM.
  - EROSION CONTROL BLANKET
    - BLANKETED AREAS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT UNTIL PERENNIAL VEGETATION IS ESTABLISHED TO A MINIMUM UNIFORM 70% COVERAGE THROUGHOUT THE BLANKETED AREA.
    - DAMAGED OR DISPLACED BLANKETS SHALL BE RESTORED OR REPLACED WITHIN FOUR (4) CALENDAR DAYS.
  - ROCK CONSTRUCTION ENTRANCE
    - ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK.
    - ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY.
  - SILT FENCE
    - DAMAGED SILT FENCE SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.
    - ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES HALF THE ABOVEGROUND HEIGHT OF THE SILT FENCE AND SHALL BE DISPOSED OF IN A MANNER APPROVED BY THE OWNER'S REPRESENTATIVE.

- FILTER BAG INLET PROTECTION
  - INLET FILTER BAGS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT.
  - BAGS SHALL BE EMPTIED AND RINSED OR REPLACED WHEN HALF FULL OR WHEN FLOW CAPACITY HAS BEEN REDUCED SO AS TO CAUSE FLOODING OR BYPASSING OF THE INLET.
  - DAMAGED OR CLOGGED BAGS SHALL BE REPLACED.
  - SEDIMENT REMOVED FROM BMPs SHALL BE DISPOSED OF IN A MANNER APPROVED BY THE OWNER'S REPRESENTATIVE.
- E. CONSTRUCTION SEQUENCE
- (THE FOLLOWING SEQUENCE IS INTENDED AS A GUIDE FOR THE CONTRACTOR. THE CONTRACTOR SHALL PREPARE A SEQUENCE OF CONSTRUCTION AND SUBMIT TO NSRC AND OWNER'S REPRESENTATIVE AT LEAST 14 DAYS PRIOR TO MOBILIZATION FOR CONSTRUCTION.)
- POST APPLICABLE PERMIT DOCUMENTATION AT A VISIBLE LOCATION AT THE ENTRANCE OF THE SITE.
  - PHOTO DOCUMENT EXISTING CONDITIONS OF THE PROJECT AREA INCLUDING RAILROAD AVENUE.
  - STAKE/FLAG THE LIMITS OF DISTURBANCE, LIMIT OF WORK, AND 15' BUFFER ZONE LIMIT PROMINENTLY. THESE LIMITS MUST REMAIN CONSPICUOUSLY MARKED FOR THE DURATION OF CONSTRUCTION.
  - INSTALL THE ROCK CONSTRUCTION ENTRANCE AND FILTER BAG INLET PROTECTION.
  - INSTALL REINFORCED SILT FENCE AT THE MATERIAL STORAGE AREA DESIGNATED BY THE CONTRACTOR.
  - INSTALL TEMPORARY RAILROAD CROSSINGS.
  - INSTALL GABIONS ALONG TOE OF SLOPE.
  - THE CONTRACTOR SHALL MINIMIZE THE AMOUNT OF DISTURBANCE AT ANY ONE TIME.
  - INSTALL PERIMETER CONTROL SUPER SILT FENCE DIRECTLY UPGRADIENT OF GABIONS AS SHOWN ON THE DRAWINGS.
  - PERFORM CLEARING AND GRUBBING ACTIVITIES.
  - PERFORM SLOPE RESTORATION ACTIVITIES INCLUDING PLACEMENT OF STRUCTURAL FILL, INSTALLATION OF ACCESS ROAD, AND ARMORING.
  - PERMANENTLY STABILIZE DISTURBED AREAS. FINAL STABILIZATION SHALL BE OBTAINED (I.E., PLACEMENT OF STONE AND RIPRAP ARMORING) AS SOON AS PRACTICABLE BUT NO MORE THAN 3 DAYS AFTER REACHING FINAL GRADE.
  - REMOVE ALL REMAINING TEMPORARY SEDIMENT CONTROL BMPs AND RETURN SITE TO PRE-EXISTING CONDITIONS.
  - PHOTO DOCUMENT AND SURVEY THE AS-BUILT CONDITION INCLUDING RAILROAD AVENUE.

PERMIT DRAWING  
NOT FOR CONSTRUCTION

REV	DATE	DESCRIPTION	DRN	APP
 				
PENN CENTER WEST ONE SUITE 401 PEEK CENTER PITTSBURGH, PA 15276 TEL: 412.275.8001		THREE COMMERCIAL PLACE NORFOLK, VIRGINIA 23510 TEL: 123.456.7890		
TITLE: EROSION AND SEDIMENT CONTROL NOTES				
PROJECT: BANK STABILIZATION AND RESTORATION PLAN - PC 10.75				
SITE: NORFOLK SOUTHERN RAIL CORPORATION - FORT WAYNE LINE ALLEGHENY COUNTY, PENNSYLVANIA				
DESIGN BY: DCR/YMC		DATE: JANUARY 2017		
DRAWN BY: ABK		PROJECT NO.: PH0045-02		
CHECKED BY: DCR		FILE: PH0045/P080		
REVIEWED BY: RLH		DRAWING NO.: 9 OF 9		
APPROVED BY: DJB				

FOODCOURT AND VENDOR SEASONS CONSTRUCTION PERMITTING (1.11.2017-12.31.17) Standard