

APPROVED JURISDICTIONAL DETERMINATION FORM
U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION

A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 04-Oct-2016

B. DISTRICT OFFICE, FILE NAME, AND NUMBER: CENAP-OP-R-2012-00492-75
PADOT 6-0 SR 0003 Section CH1 Chestnut Street Bridge Rehabilitation

C. PROJECT LOCATION AND BACKGROUND INFORMATION: This is in regard to the Department's proposal to rehabilitate the existing State Route (SR) 0003 (Chestnut Street) Bridge over the Schuylkill River, to rehabilitate the West River Wall, and to repair the Schuylkill River Trail Bridge.

State: Pennsylvania County: Philadelphia City: Philadelphia
Center coordinates of site (lat/long in degree decimal format): Lat. 39.95299° N, Long. 75.18099° W
Universal Transverse Mercator: 4422554.78985769 Northing, 484540.298434966 Easting, Zone 18
Name of nearest waterbody: Schuylkill River

Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Delaware River

Name of watershed or Hydrologic Unit Code (HUC): City of Philadelphia-Schuylkill River (020402031008)

- Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request.
 Check if other sites (e.g., offsite mitigation sites, disposal sites, etc...) are associated with this action and are recorded on a different JD form.

D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY):

- Office (Desk) Determination. Date: N/A.
 Field Determination. Date(s): 25-Aug-16.

SECTION II: SUMMARY OF FINDINGS

A. RHA SECTION 10 DETERMINATION OF JURISDICTION.

There are "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area.

- Waters subject to the ebb and flow of the tide.
 Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain: The project is located within a Federal Navigation Channel.

B. CWA SECTION 404 DETERMINATION OF JURISDICTION.

There are "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area.

1. Waters of the U.S.

a. Indicate presence of waters of U.S. in review area (check all that apply):¹

- TNWs, including territorial seas
 Wetlands adjacent to TNWs
 Relatively permanent waters² (RPWs) that flow directly or indirectly into TNWs
 Non-RPWs that flow directly or indirectly into TNWs
 Wetlands directly abutting RPWs that flow directly or indirectly into TNWs
 Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs
 Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs
 Impoundments of jurisdictional waters
 Isolated (interstate or intrastate) waters, including isolated wetlands

b. Identify (estimate) size of waters of the U.S. in the review area:

Non-wetland waters: 1,050 linear feet: N/A width (ft) and/or 2.81 acres.
Wetlands: 0 acres.

c. Limits (boundaries) of jurisdiction based on: Established by mean (average) high waters.

Elevation of established MHWL (if known): +3.19' (Referenced to Mean Low Water).

2. Non-regulated waters/wetlands (check if applicable):³

- Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional.
Explain: .

¹ Boxes checked below shall be supported by completing the appropriate sections in Section III below.

² For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

³ Supporting documentation is presented in Section III.F.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

1. TNW

Identify TNW: Schuylkill River.

Summarize rationale supporting determination: Water is subject to the ebb and flow of tide and is part of a Federal Navigation Channel.

2. Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is “adjacent”: N/A.

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are “relatively permanent waters” (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody⁴ is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:

Watershed size: **Pick List**

Drainage area: **Pick List**

Average annual rainfall: inches

Average annual snowfall: inches

(ii) Physical Characteristics:

(a) Relationship with TNW:

Tributary flows directly into TNW.

Tributary flows through **Pick List** tributaries before entering TNW.

Project waters are **Pick List** river miles from TNW.

Project waters are **Pick List** river miles from RPW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Project waters are **Pick List** aerial (straight) miles from RPW.

Project waters cross or serve as state boundaries. Explain: .

Identify flow route to TNW⁵: .

Tributary stream order, if known: .

⁴ Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

⁵ Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW.

(b) General Tributary Characteristics (check all that apply):

- Tributary** is: Natural
 Artificial (man-made). Explain: .
 Manipulated (man-altered). Explain: .

Tributary properties with respect to top of bank (estimate):

Average width: feet
Average depth: feet
Average side slopes: **Pick List**.

Primary tributary substrate composition (check all that apply):

- | | | |
|--|--|-----------------------------------|
| <input type="checkbox"/> Silts | <input type="checkbox"/> Sands | <input type="checkbox"/> Concrete |
| <input type="checkbox"/> Cobbles | <input type="checkbox"/> Gravel | <input type="checkbox"/> Muck |
| <input type="checkbox"/> Bedrock | <input type="checkbox"/> Vegetation. Type/% cover: | |
| <input type="checkbox"/> Other. Explain: . | | |

Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: .

Presence of run/riffle/pool complexes. Explain: .

Tributary geometry: **Pick List**

Tributary gradient (approximate average slope): %

(c) Flow:

Tributary provides for: **Pick List**

Estimate average number of flow events in review area/year: **Pick List**

Describe flow regime: .

Other information on duration and volume: .

Surface flow is: **Pick List**. Characteristics: .

Subsurface flow: **Pick List**. Explain findings: .

Dye (or other) test performed: .

Tributary has (check all that apply):

- | | |
|---|---|
| <input type="checkbox"/> Bed and banks | |
| <input type="checkbox"/> OHWM ⁶ (check all indicators that apply): | |
| <input type="checkbox"/> clear, natural line impressed on the bank | <input type="checkbox"/> the presence of litter and debris |
| <input type="checkbox"/> changes in the character of soil | <input type="checkbox"/> destruction of terrestrial vegetation |
| <input type="checkbox"/> shelving | <input type="checkbox"/> the presence of wrack line |
| <input type="checkbox"/> vegetation matted down, bent, or absent | <input type="checkbox"/> sediment sorting |
| <input type="checkbox"/> leaf litter disturbed or washed away | <input type="checkbox"/> scour |
| <input type="checkbox"/> sediment deposition | <input type="checkbox"/> multiple observed or predicted flow events |
| <input type="checkbox"/> water staining | <input type="checkbox"/> abrupt change in plant community |
| <input type="checkbox"/> other (list): | |
| <input type="checkbox"/> Discontinuous OHWM. ⁷ Explain: . | |

If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply):

- | | |
|--|--|
| <input type="checkbox"/> High Tide Line indicated by: | <input type="checkbox"/> Mean High Water Mark indicated by: |
| <input type="checkbox"/> oil or scum line along shore objects | <input type="checkbox"/> survey to available datum; |
| <input type="checkbox"/> fine shell or debris deposits (foreshore) | <input type="checkbox"/> physical markings; |
| <input type="checkbox"/> physical markings/characteristics | <input type="checkbox"/> vegetation lines/changes in vegetation types. |
| <input type="checkbox"/> tidal gauges | |
| <input type="checkbox"/> other (list): | |

(iii) **Chemical Characteristics:**

Characterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.).

Explain: .

Identify specific pollutants, if known: .

⁶A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.

⁷Ibid.

(iv) **Biological Characteristics. Channel supports (check all that apply):**

- Riparian corridor. Characteristics (type, average width): .
- Wetland fringe. Characteristics: .
- Habitat for:
 - Federally Listed species. Explain findings: .
 - Fish/spawn areas. Explain findings: .
 - Other environmentally-sensitive species. Explain findings: .
 - Aquatic/wildlife diversity. Explain findings: .

2. **Characteristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW**

(i) **Physical Characteristics:**

(a) General Wetland Characteristics:

Properties:

Wetland size: acres

Wetland type. Explain: .

Wetland quality. Explain: .

Project wetlands cross or serve as state boundaries. Explain: .

(b) General Flow Relationship with Non-TNW:

Flow is: **Pick List**. Explain: .

Surface flow is: **Pick List**

Characteristics: .

Subsurface flow: **Pick List**. Explain findings: .

- Dye (or other) test performed: .

(c) Wetland Adjacency Determination with Non-TNW:

Directly abutting

Not directly abutting

Discrete wetland hydrologic connection. Explain: .

Ecological connection. Explain: .

Separated by berm/barrier. Explain: .

(d) Proximity (Relationship) to TNW

Project wetlands are **Pick List** river miles from TNW.

Project waters are **Pick List** aerial (straight) miles from TNW.

Flow is from: **Pick List**.

Estimate approximate location of wetland as within the **Pick List** floodplain.

(ii) **Chemical Characteristics:**

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: .

Identify specific pollutants, if known: .

(iii) **Biological Characteristics. Wetland supports (check all that apply):**

- Riparian buffer. Characteristics (type, average width): .
- Vegetation type/percent cover. Explain: .
- Habitat for:
 - Federally Listed species. Explain findings: .
 - Fish/spawn areas. Explain findings: .
 - Other environmentally-sensitive species. Explain findings: .
 - Aquatic/wildlife diversity. Explain findings: .

3. **Characteristics of all wetlands adjacent to the tributary (if any)**

All wetland(s) being considered in the cumulative analysis: **Pick List**

Approximately () acres in total are being considered in the cumulative analysis.

For each wetland, specify the following:

Directly abuts? (Y/N) Size (in acres) Directly abuts? (Y/N) Size (in acres)

Summarize overall biological, chemical and physical functions being performed: _____

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the *Rapanos* Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

1. **Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D: _____
2. **Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: _____
3. **Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW.** Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: _____

D. DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL THAT APPLY):

1. **TNWs and Adjacent Wetlands.** Check all that apply and provide size estimates in review area:

- TNWs: 1,050 linear feet: N/A width (ft) and/or 2.81 acres.
 Wetlands adjacent to TNWs: _____ acres.

2. **RPWs that flow directly or indirectly into TNWs.**

- Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: _____
- Tributaries of TNW where tributaries have continuous flow “seasonally” (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally: _____

Provide estimates for jurisdictional waters in the review area (check all that apply):

- Tributary waters: _____ linear feet _____ width (ft).
 Other non-wetland waters: _____ acres.
Identify type(s) of waters: _____

3. Non-RPWs⁸ that flow directly or indirectly into TNWs.

- Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional waters within the review area (check all that apply):

- Tributary waters: linear feet width (ft).
 Other non-wetland waters: acres.

Identify type(s) of waters: .

4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.

- Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.
 Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

 Wetlands directly abutting an RPW where tributaries typically flow “seasonally.” Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: .

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

5. Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs.

- Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide acreage estimates for jurisdictional wetlands in the review area: acres.

6. Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs.

- Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.

Provide estimates for jurisdictional wetlands in the review area: acres.

7. Impoundments of jurisdictional waters.⁹

As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional.

- Demonstrate that impoundment was created from “waters of the U.S.,” or
 Demonstrate that water meets the criteria for one of the categories presented above (1-6), or
 Demonstrate that water is isolated with a nexus to commerce (see E below).

E. ISOLATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, DEGRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY SUCH WATERS (CHECK ALL THAT APPLY):¹⁰

- which are or could be used by interstate or foreign travelers for recreational or other purposes.
 from which fish or shellfish are or could be taken and sold in interstate or foreign commerce.
 which are or could be used for industrial purposes by industries in interstate commerce.
 Interstate isolated waters. Explain: .
 Other factors. Explain: .

Identify water body and summarize rationale supporting determination: .

Provide estimates for jurisdictional waters in the review area (check all that apply):

- Tributary waters: linear feet width (ft).
 Other non-wetland waters: acres.
Identify type(s) of waters: .
 Wetlands: acres.

⁸See Footnote # 3.

⁹ To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.

¹⁰ Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.

F. NON-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY):

- If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and/or appropriate Regional Supplements.
- Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce.
 - Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR).
- Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: .
- Other: (explain, if not covered above): .

Provide acreage estimates for non-jurisdictional waters in the review area, where the sole potential basis of jurisdiction is the MBR factors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional judgment (check all that apply):

- Non-wetland waters (i.e., rivers, streams): linear feet width (ft).
- Lakes/ponds: acres.
- Other non-wetland waters: acres. List type of aquatic resource: .
- Wetlands: acres.

Provide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction (check all that apply):

- Non-wetland waters (i.e., rivers, streams): linear feet, width (ft).
- Lakes/ponds: acres.
- Other non-wetland waters: acres. List type of aquatic resource: .
- Wetlands: acres.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):

- Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: "Erosion and Sediment Pollution Control Plan", sheets 1, 11 and 13 through 25 of 25, scaled as noted, plotted August 24, 2016, and prepared by Alfred Benesch & Company AND "Philadelphia County SR 0003, Sec. CH1 Segment 0090, Offset 2677 SR 0003-CH1, Sta. 109+44.24 SR 0003 Chestnut Street over Schuylkill River Path Stabilization at Pier 4", sheets 1 and 3 through 8 of 9, scaled as noted, plotted August 24, 2016, and prepared by Urban Engineers, Inc.
- Data sheets prepared/submitted by or on behalf of the applicant/consultant.
 - Office concurs with data sheets/delineation report.
 - Office does not concur with data sheets/delineation report.
- Data sheets prepared by the Corps: .
- Corps navigable waters' study: .
- U.S. Geological Survey Hydrologic Atlas: .
 - USGS NHD data.
 - USGS 8 and 12 digit HUC maps.
- U.S. Geological Survey map(s). Cite scale & quad name: "Figure 1 Project Location Map".
- USDA Natural Resources Conservation Service Soil Survey. Citation: .
- National wetlands inventory map(s). Cite name: .
- State/Local wetland inventory map(s): .
- FEMA/FIRM maps: .
- 100-year Floodplain Elevation is: (National Geodetic Vertical Datum of 1929)
- Photographs: Aerial (Name & Date): .
or Other (Name & Date): 7 photos, dated August 25, 2016.
- Previous determination(s). File no. and date of response letter: .
- Applicable/supporting case law: .
- Applicable/supporting scientific literature: .
- Other information (please specify): Revised "Project Description", received on August 26, 2016, and prepared by Alfred Benesch & Company AND "No Wetlands" statement, received on January 6, 2016, and prepared by Alfred Benesch & Company.

B. ADDITIONAL COMMENTS TO SUPPORT JD:

08\24\2016

PLOTTED:

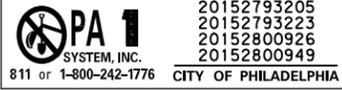
D-9012 CADD (02-90) REVISED (10-04)

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CALL BEFORE YOU DIG!

PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE - STOP CALL

- POCS SERIAL NUMBER
20083385248
20083385249
20083385465
20083385664
20111672847
20111672854
20112210534
20112210563
20122901425
20122901522
20122902239
20152793205
20152793223
20152800926
20152800949



CONSTRUCTION SEQUENCE

THE SEQUENCE OF WORK IS ONLY A SUGGESTED PROCEDURE. THE CONTRACTOR MAY FIND IT NECESSARY TO ALTER OR ADJUST THE SUGGESTED SEQUENCE...

- 1. CONTACT THE PADEP SOUTHEAST REGIONAL OFFICE AND THE INSPECTIONS COORDINATOR OF THE PWD (215-685-6387) 7 DAYS BEFORE THE START OF WORK TO SCHEDULE A PRE-CONSTRUCTION MEETING.
2. IMPLEMENT TRAFFIC CONTROL FOR STAGE 1 AS PER THE TRAFFIC CONTROL PLAN INCLUDING DETOURS FOR CHESTNUT STREET AND 24TH STREET.
3. INSTALL TEMPORARY EROSION CONTROL DEVICES AS SHOWN ON THE DRAWINGS INCLUDING COMPOST FILTER SOCKS, CONCRETE WASHOUT ALTERNATES, INLET PROTECTION, AND ROCK CONSTRUCTION ENTRANCES.

CONSTRUCTION SEQUENCE (CONT.)

4. INSTALL UNDER DECK SHIELDING TO PREVENT DEBRIS FROM ENTERING 30TH STREET LOWER, SR 0076, THE SCHUYLKILL RIVER, THE SCHUYLKILL RIVER TRAIL, CSX RAILROAD, AND 24TH STREET.

5. INSTALL TURBIDITY CURTAIN ALONG THE EAST RIVER WALL. REMOVE EXISTING STRUCTURES ADJACENT TO THE BRIDGE PIER INCLUDING CONCRETE WALL AND SUPPORTING STEEL FRAMING AND PILES. EXCAVATE SOIL AS REQUIRED DURING LOW TIDE TO INSTALL PRECAST BOX SECTIONS. LOWER BOXES TO FINAL ELEVATION USING HIGH PRESSURE WATER JETTING TO LOOSEN SOILS UNDER THE BOXES DURING LOW TIDE. DRILL ROCK CORES INTO BEDROCK AS INDICATED. PROPERLY DISPOSE OF EXCESS SEDIMENT AND ALL SOILS AT AN APPROPRIATE WASTE FACILITY. TREMIE POUR NEW CONCRETE INTO ROCK CORES AND PRECAST BOXES AS INDICATED. SEAL GAP BETWEEN BOXES AND EXISTING ADJACENT STRUCTURES AND TREMIE A CLOSURE POUR AROUND BOXES.

6. PERFORM BRIDGE REHABILITATIONS ON EIGHT (8) STRUCTURES AS INDICATED ON THE BRIDGE STRUCTURE PLANS AND IN ACCORDANCE WITH THE TRAFFIC CONTROL PLANS. IF ANY DEBRIS FALLS INTO THE SCHUYLKILL RIVER OR ONTO THE SCHUYLKILL RIVER TRAIL, CSX RAILROAD, OR VARIOUS ROADWAYS BELOW, IT MUST BE REMOVED IMMEDIATELY.

7. REMOVE ROOF PANELS FROM THE WEST RIVER WALL USING A BARGE OR DURING OFF-PEAK HOUR LANE CLOSURES ON SR 0076. REMOVE BUILT-UP SEDIMENT FROM INSIDE/BEHIND THE WEST RIVER WALL DURING LOW TIDE AS INDICATED AND DIRECTED. IF A PUMP/DREDGE IS USED FOR SEDIMENT REMOVAL A PUMPED WATER FILTER BAG LOCATED ON A BARGE SHALL BE USED TO DEWATER THE SEDIMENT PRIOR TO DISPOSAL. WORK IN 50 FOOT SECTIONS STARTING DOWNSTREAM AND WORKING UPSTREAM. USE TURBIDITY CURTAINS IF SOIL PLUGS FAIL. DISPOSE OF ROOF PANELS AND SEDIMENT AT AN OFF-SITE WASTE FACILITY.

8. DURING LOW TIDE ADJUST GRADING BEHIND THE WEST RIVER WALL TO MATCH ORIGINAL DESIGN GRADES. DO NOT ADD ANY FILL, ONLY REMOVE EXCESS MATERIALS. INSTALL NEW ROOF PANELS.

9. UPON BACKFILL OF SPAN 1 OF BRIDGE STRUCTURE OVER 30TH STREET AND BRIDGE ARCH STRUCTURES OVER CSX RAILROAD AND 24TH STREET, PAVE ROADWAY AND CONSTRUCT SIDEWALKS.

10. AFTER THE BRIDGE CONSTRUCTION IS COMPLETED, REMOVE THE CHESTNUT STREET AND 24TH STREET DETOURS.

11. PERFORM MILLING, PAVING, AND RESTRIPIING AS REQUIRED ON CHESTNUT STREET BETWEEN 34TH AND 31ST STREETS AND 23RD AND 22ND STREETS.

12. PERFORM SEEDING AND MULCHING IMMEDIATELY AFTER FINAL GRADING OR EARTH MOVING IS COMPLETE. STABILIZE ALL DISTURBED AREAS.

13. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, THE OWNER AND/OR OPERATOR SHALL CONTACT THE INSPECTIONS COORDINATOR OF THE PWD (215-685-6387) FOR A FINAL INSPECTION PRIOR TO REMOVAL/CONVERSION OF THE E&S BMPs.

14. TEMPORARY BMP'S CAN BE REMOVED WHEN THE DISTURBED AREAS CONTRIBUTING TO THEM HAVE REACHED A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER. ANY DISTURBANCE CREATED IN THE REMOVAL OF THE BMP'S MUST BE STABILIZED IMMEDIATELY.

NOTE: ONSITE STOCKPILES ARE NOT ANTICIPATED. ALL DEMOLITION WASTE DEEMED AS SUITABLE MATERIAL BY THE DEPARTMENT'S REPRESENTATIVE MAY BE USED AS FILL MATERIAL. EXCESS FILL WILL BE REMOVED FROM THE SITE AND DISPOSED OF AT A WASTE SITE DEVOID OF WETLANDS, OUTSIDE OF THE 100-YEAR FLOODPLAIN, AND APPROVED BY THE DEPARTMENT'S REPRESENTATIVE.

NOTES:

- 1. RUNOFF FROM THE SITE ENTERS THE SCHUYLKILL RIVER, WHICH IS CLASSIFIED BY THE PENNSYLVANIA CODE TITLE 25, CHAPTER 93 WATER QUALITY STANDARDS, AS A WARM WATER FISHERY (WWF) WHICH SUPPORTS MIGRATORY FISHES (MF).
2. THE NATIONAL WETLAND INVENTORY DOES NOT SHOW WETLANDS IN THE AREA OF THE PROJECT.
3. THE 100-YEAR FLOOD ELEVATION DOES NOT OVERTOP THE CHESTNUT STREET BRIDGE.

Table with columns: DISTRICT, COUNTY, ROUTE, SECTION, SHEET. Values: 6-0, PHILADELPHIA, 0003, CH1, 1 OF 25. Includes CITY OF PHILADELPHIA and REVISIONS table.

NOTES (CONT.):

- 4. BASED ON THE EXISTING AND PROPOSED REHABILITATION AND STRUCTURE LAYOUT, NO ADVERSE FLOODPLAIN IMPACT IS ANTICIPATED.
5. THE PROJECT PROPOSES 2.03 ACRES OF EARTH DISTURBANCE, WITH 0.71 ACRES LOCATED OUTSIDE OF THE CHAPTER 105 PERMIT AREA (100-YEAR FLOODPLAIN).
6. THE PROJECT PROPOSES 10.59 ACRES OF ROADWAY MAINTENANCE, AS DEFINED IN PENNSYLVANIA CODE TITLE 25, CHAPTER 102.1, WITH 4.91 ACRES LOCATED OUTSIDE OF THE CHAPTER 105 PERMIT AREA (100-YEAR FLOODPLAIN).
7. THE NOAA FISHERIES AND THE US DEPARTMENT OF COMMERCE NATIONAL MARINE FISHERIES SERVICE RESTRICTED IN-STREAM CONSTRUCTION ACTIVITIES IN THE SCHUYLKILL RIVER. AS SUCH, NO IN-STREAM CONSTRUCTION ACTIVITIES ARE PERMITTED BETWEEN MARCH 1 AND JUNE 30.
8. THE MEAN LOW WATER (-2.91'), MEAN HIGH WATER (3.19'), AND THE OBSERVED HIGH TIDE (4.84') ELEVATIONS ARE LOCATED ALONG THE EAST AND WEST RIVER WALLS. THESE ELEVATIONS ARE DEPICTED ON THE WEST RIVER WALL DETAIL.

LEGEND

- Symbol: Box with X - PUMPED WATER FILTER BAG
Symbol: Dashed line - EXISTING AND PROPOSED FENCE
Symbol: Dotted line - LEGAL RIGHT-OF-WAY LINE
Symbol: Solid line - TEMPORARY CONSTRUCTION EASEMENT
Symbol: Dashed line with cross-hatch - EXISTING PIPE
Symbol: Box with diagonal lines - EXISTING INLET
Symbol: Line with CF12 - COMPOST FILTER SOCK, 12" DIAMETER
Symbol: Dashed line with -30- - EXISTING & PROPOSED CONTOURS
Symbol: Line with LD - LIMIT OF DISTURBANCE
Symbol: Line with B - TURBIDITY CURTAIN
Symbol: Box with rock pattern - ROCK CONSTRUCTION ENTRANCE
Symbol: Hexagon - INLET/SCUPPER PROTECTION
Symbol: Dashed line with arrows - 100-YEAR FLOODPLAIN
Symbol: Square with dot - PROPOSED SCUPPER
Symbol: Box with diagonal lines - WORK AREA
Symbol: Box with horizontal lines - WORK AREA ACCESS ROUTE
Symbol: Thick black line - RM ROADWAY MAINTENANCE ACTIVITIES

NOTES:

- 1. THE ROADWAY MAINTENANCE AND LIMIT OF DISTURBANCE LINES ARE OFFSET FOR PRESENTATION PURPOSES.
2. UTILITIES ARE NOT SHOWN FOR CLARITY.

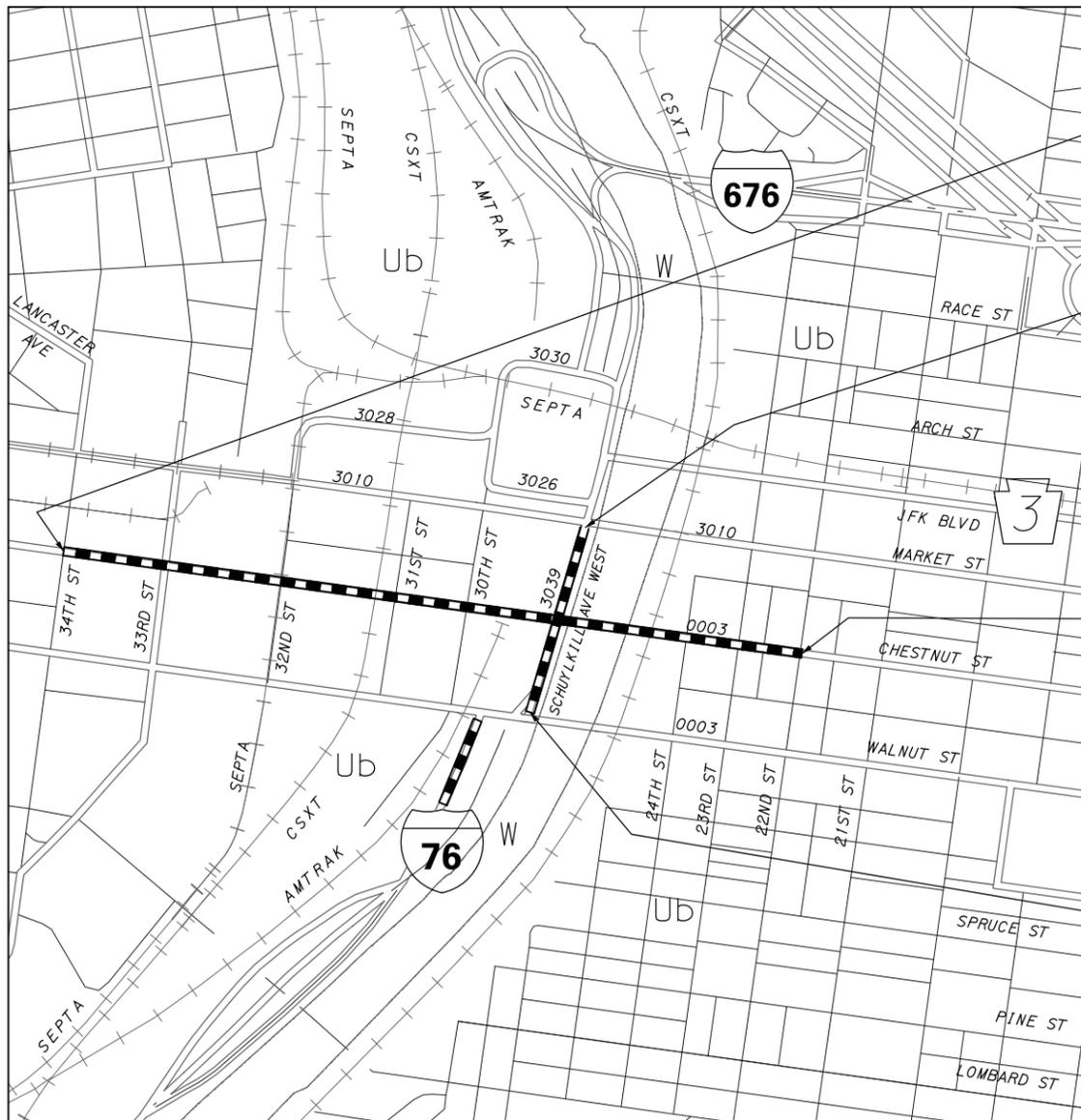
NOTE:

THE CONTRACTOR WILL BE RESPONSIBLE FOR THE PROPER CONSTRUCTION, STABILIZATION, AND MAINTENANCE OF ALL EROSION AND SEDIMENTATION CONTROLS AND RELATED ITEMS INCLUDED WITHIN THIS PERMIT.

EROSION AND SEDIMENT POLLUTION CONTROL PLAN

PREPARED BY: benesch engineers - scientists - planners Alfred Benesch & Company 840 Hamilton Street, Suite 400 Allentown, Pennsylvania 18101

PROJECT ENGINEER



LOCATION MAP

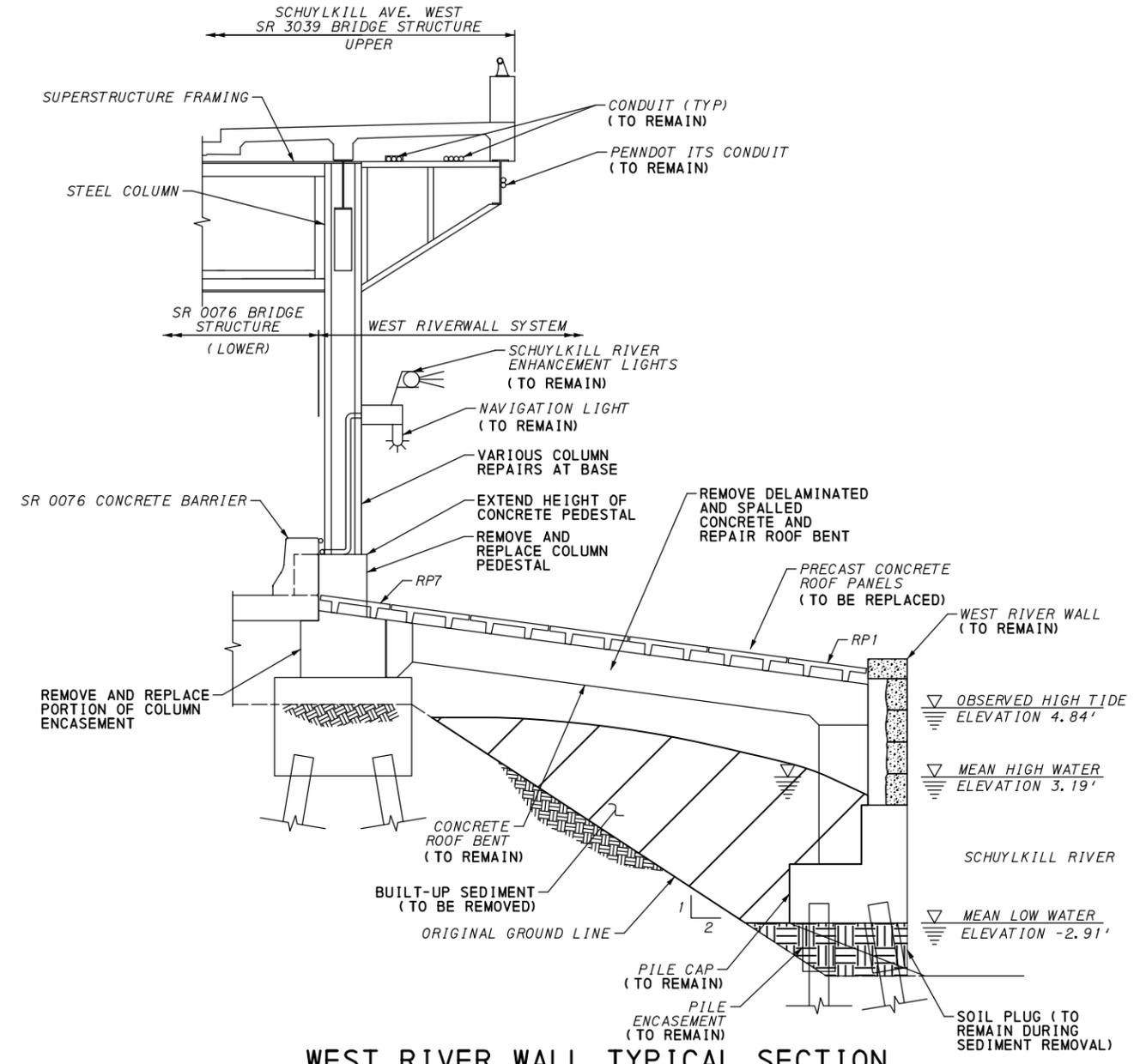
SCALE IN FEET 0 500 1000 FEET

LEGEND

- Symbol: Thick black line - PROJECT
Symbol: Solid line - STATE HIGHWAY
Symbol: Dashed line - CITY STREET
Symbol: Line with cross-ticks - RAILROAD
Symbol: Dotted line - WATERWAY AND SOIL BOUNDARY
Symbol: Ub - URBAN LAND, 0% TO 8% SLOPES
Symbol: W - WATER

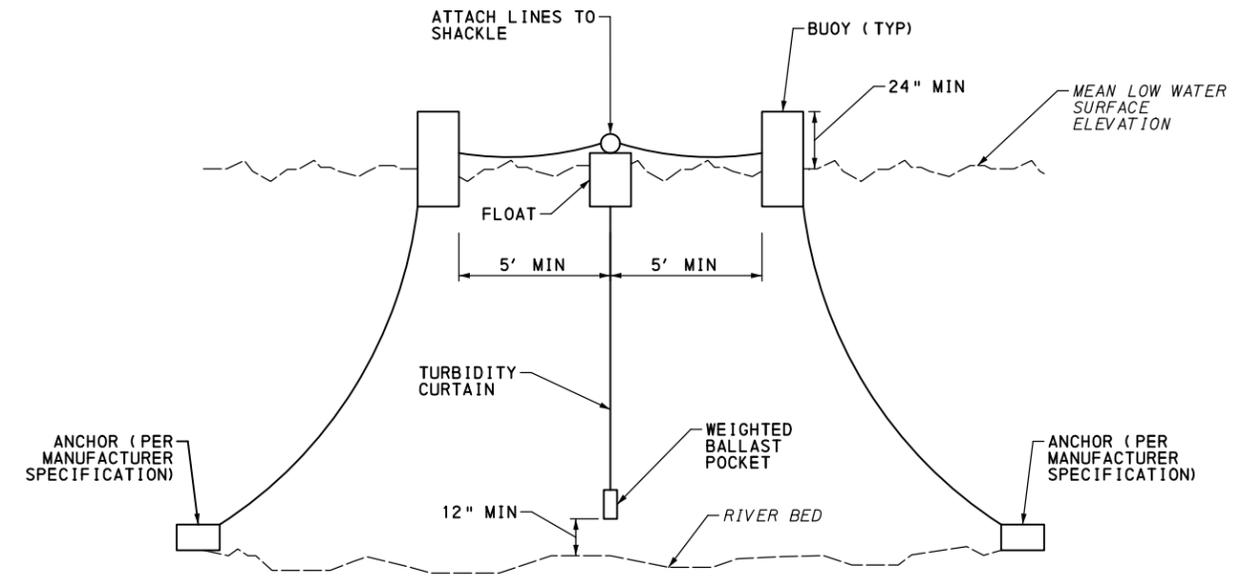
DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	PHILADELPHIA	0003	CH1	11 OF 25
CITY OF PHILADELPHIA				
REVISION NUMBER	REVISIONS	DATE	BY	

08/24/2016 PLOTTED: D-9012 CADD (02-90) REVISED (10-04) OPERATOR: Y:\P\trsv\1\le\30000s\30007.05\Eng_Docs\ES\010-Riverwall_TypDetail.dgn (Default)



WEST RIVER WALL TYPICAL SECTION
 (DRAINAGE NOT SHOWN FOR CLARITY)
 LOOKING NORTH
 STA 356+65.90 TO 366+13.67
 NOT TO SCALE
 ITEM NO. 9000-0044

- NOTES:**
1. REMOVE ROOF PANELS USING A BARGE OR DURING OFF-PEAK HOUR LANE CLOSURES ON SR 0076. DURING LOW TIDE REMOVE BUILT-UP SEDIMENT IN 50 FOOT SECTIONS STARTING DOWNSTREAM AND WORKING UPSTREAM. IF A PUMP/DREDGE IS USED FOR SEDIMENT REMOVAL A PUMPED WATER FILTER BAG LOCATED ON A BARGE SHALL BE USED TO DEWATER THE SEDIMENT PRIOR TO DISPOSAL. DEWATER AND DISPOSE OF ALL REMOVED MATERIALS AT AN UPLAND OFF-SITE WASTE FACILITY DEVOID OF SENSITIVE FEATURES IN A MANNER ACCEPTABLE TO THE PADEP AND ACOE.
 2. ADJUST GRADING BEHIND THE WEST RIVER WALL TO MATCH THE ORIGINAL DESIGN GRADES. DO NOT ADD ANY FILL, ONLY REMOVE EXCESS MATERIALS.
 3. USE TURBIDITY CURTAINS IF SOIL PLUG FAILS.
 4. FOR BARGE STAGING, SEE SCHUYLKILL RIVER BARGE STAGING EXHIBIT IN THE PERMIT DOCUMENTS.



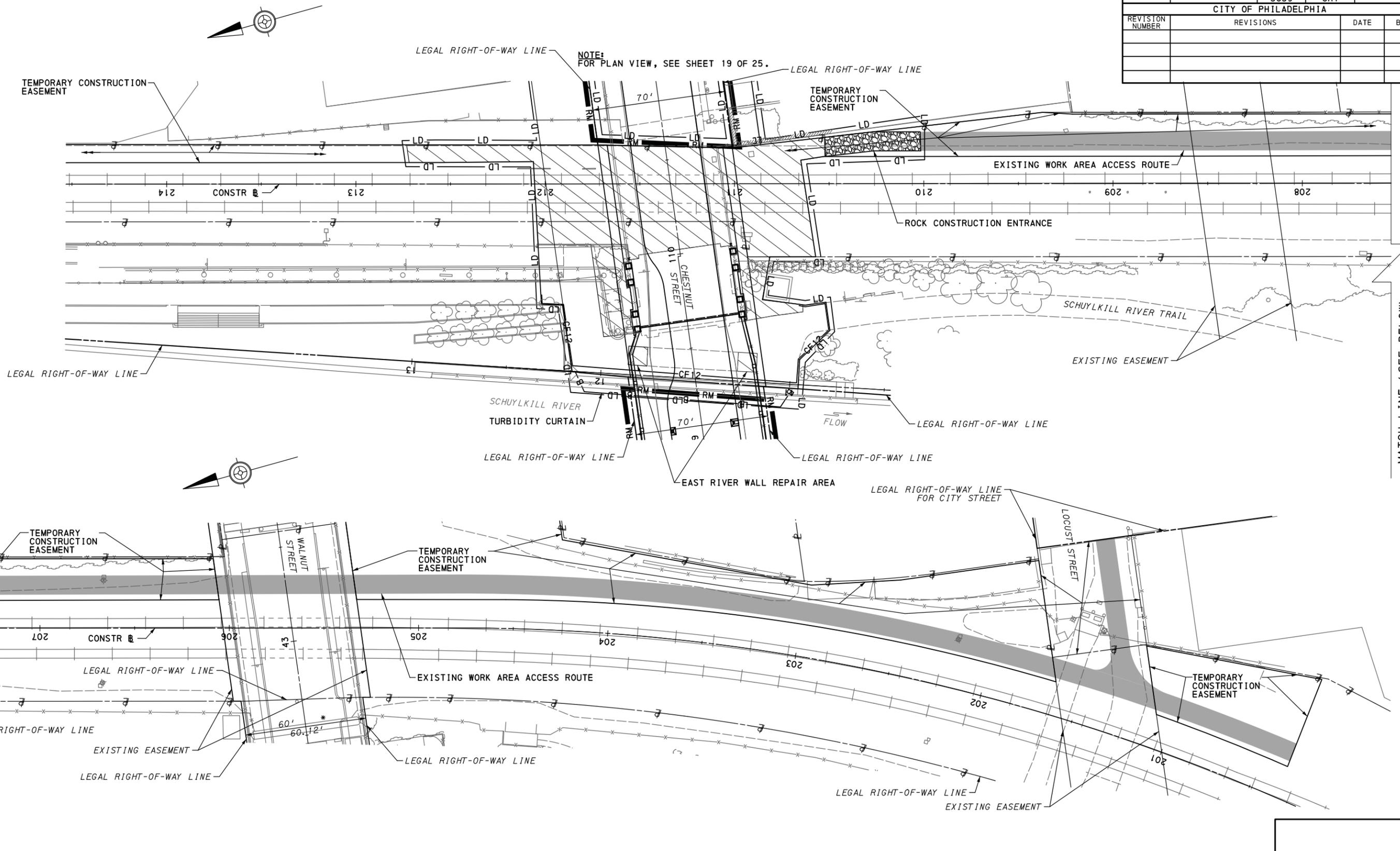
TURBIDITY CURTAIN
 NOT TO SCALE
 ITEM NO. 9000-0401

- NOTES:**
1. THE CURTAIN MUST HAVE A MINIMUM 12 INCH GAP BETWEEN THE WEIGHTED LOWER END OF THE CURTAIN AND THE RIVER BOTTOM AT MEAN LOW WATER.
 2. WHEN SIZING THE LENGTH OF THE CURTAIN, ALLOW AN ADDITIONAL 10%-20% VARIANCE IN THE STRAIGHT LINE MEASUREMENTS.
 3. MAINTAIN A CONTINUOUS SPAN BETWEEN JOINTS OF NO LESS THAN 50 FEET AND NO MORE THAN 100 FEET.
 4. VERIFY RIVER DEPTHS AND VELOCITIES ARE WITHIN THE ACCEPTABLE RANGES AS LISTED IN THE MANUFACTURER SPECIFICATIONS PRIOR TO INSTALLATION.
 5. FIRMLY SECURE ENDS OF CURTAIN TO THE WEST RIVER WALL.
 6. PRIOR TO REMOVAL OF CURTAINS, ALLOW SOIL PARTICLES A MINIMUM OF 6 HOURS TO SETTLE.
 7. WHEN REQUIRED, LOCATE CURTAIN ALONG WEST RIVER WALL TO ALLOW BARGE TO NAVIGATE WITHIN THE BARGE STAGING AREA.
 8. FIRMLY SECURE THE END OF THE CURTAINS TO THE CONCRETE EAST RIVER WALL UPRIVER OF THE CHESTNUT STREET BRIDGE AND THE STEEL SHEET PILE DOWNRIVER OF THE BRIDGE.
 9. LOCATE THE CURTAIN ALONG EAST RIVER WALL TO PROVIDE ADEQUATE CLEARANCE TO PERFORM THE REQUIRED WORK.

NOTE:
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**EROSION AND SEDIMENT
 POLLUTION CONTROL PLAN**

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	PHILADELPHIA	0003	CH1	13 OF 25
CITY OF PHILADELPHIA				
REVISION NUMBER	REVISIONS	DATE	BY	



MATCH LINE (SEE ABOVE)

MATCH LINE (SEE BELOW)

EXISTING WORK AREA ACCESS ROUTE FROM LOCUST STREET

NOTE:
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EROSION AND SEDIMENT POLLUTION CONTROL PLAN



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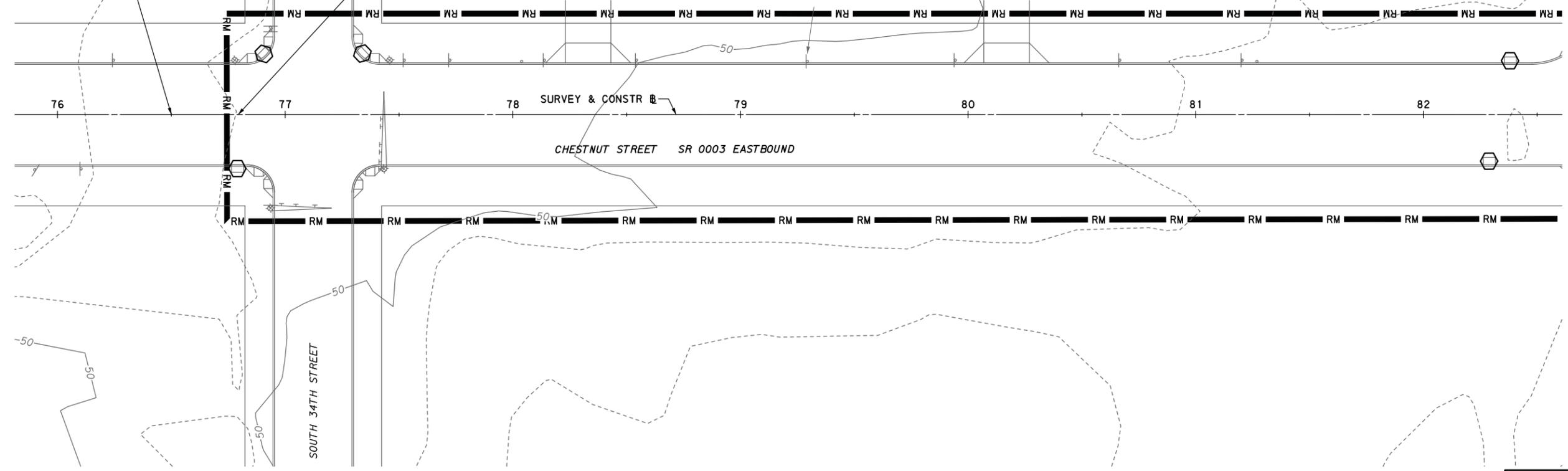
DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	PHILADELPHIA	0003	CH1	14 OF 25
		3039	CH1	
CITY OF PHILADELPHIA				
REVISION NUMBER	REVISIONS			DATE

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 D-9012 CADD (02-90) REVISED (10-04) PLOTTED: 08\24\2016



LIMIT OF WORK
 STA 76+50.00
 SEC 0080 OFFSET 1803
 SR 0003 SEC CH1
 CITY OF PHILADELPHIA
 PHILADELPHIA COUNTY

STA 76+79.37
 BEGIN MILL AND OVERLAY



SEE SHEET 15

NOTE:
 THE ROADWAY MAINTENANCE AND
 LIMIT OF DISTURBANCE LINES ARE
 OFFSET FOR PRESENTATION PURPOSES.

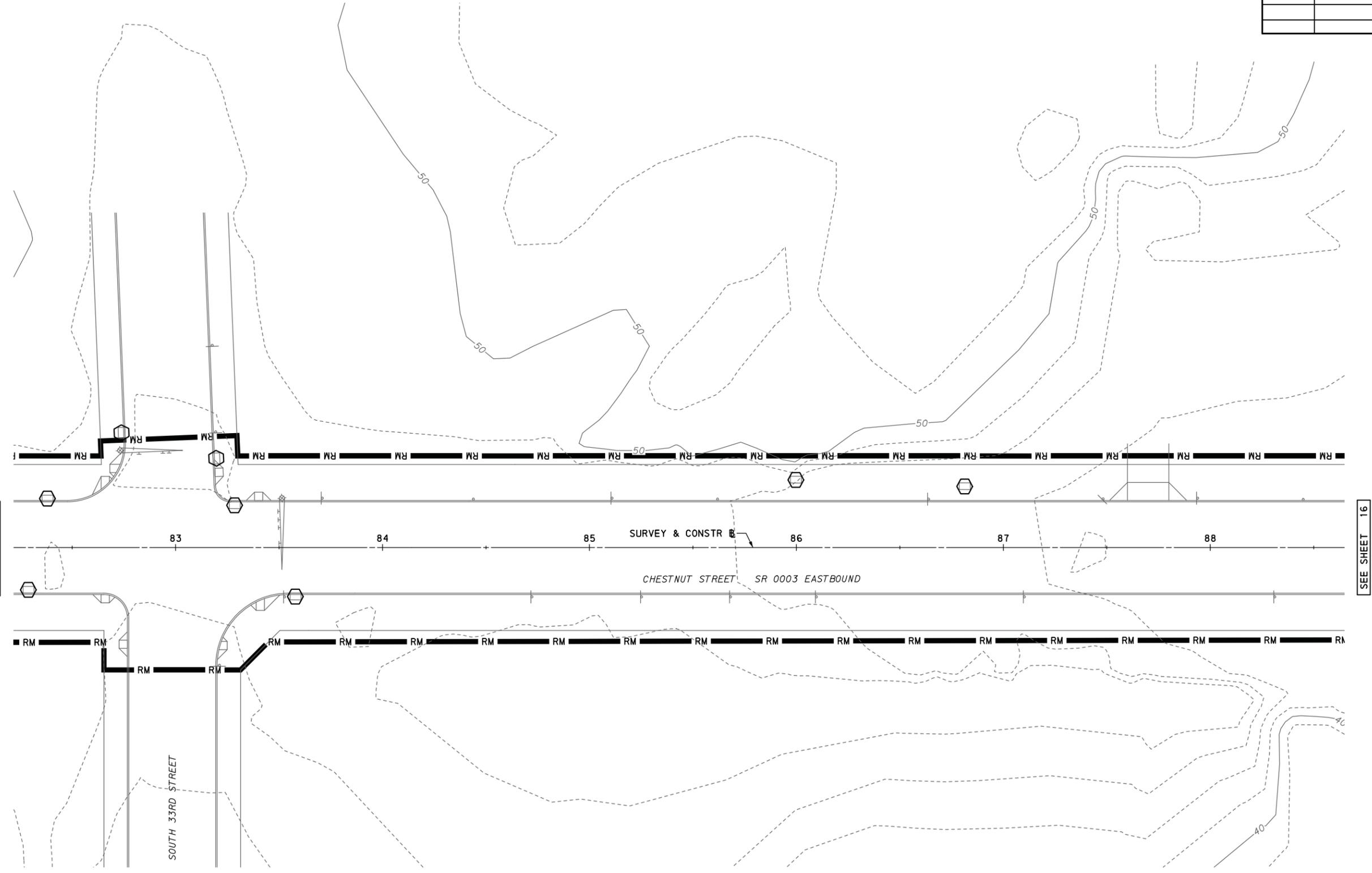


NOTE:
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 ITEMS INCLUDED WITHIN THIS PERMIT.

**EROSION AND SEDIMENT
POLLUTION CONTROL PLAN**

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	PHILADELPHIA	0003	CH1	15 OF 25
		3039	CH1	
CITY OF PHILADELPHIA				
REVISION NUMBER	REVISIONS			DATE BY

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 D-9012 CADD (02-90) REVISED (10-04) 08\24\2016 PLOTTED:



SEE SHEET 14

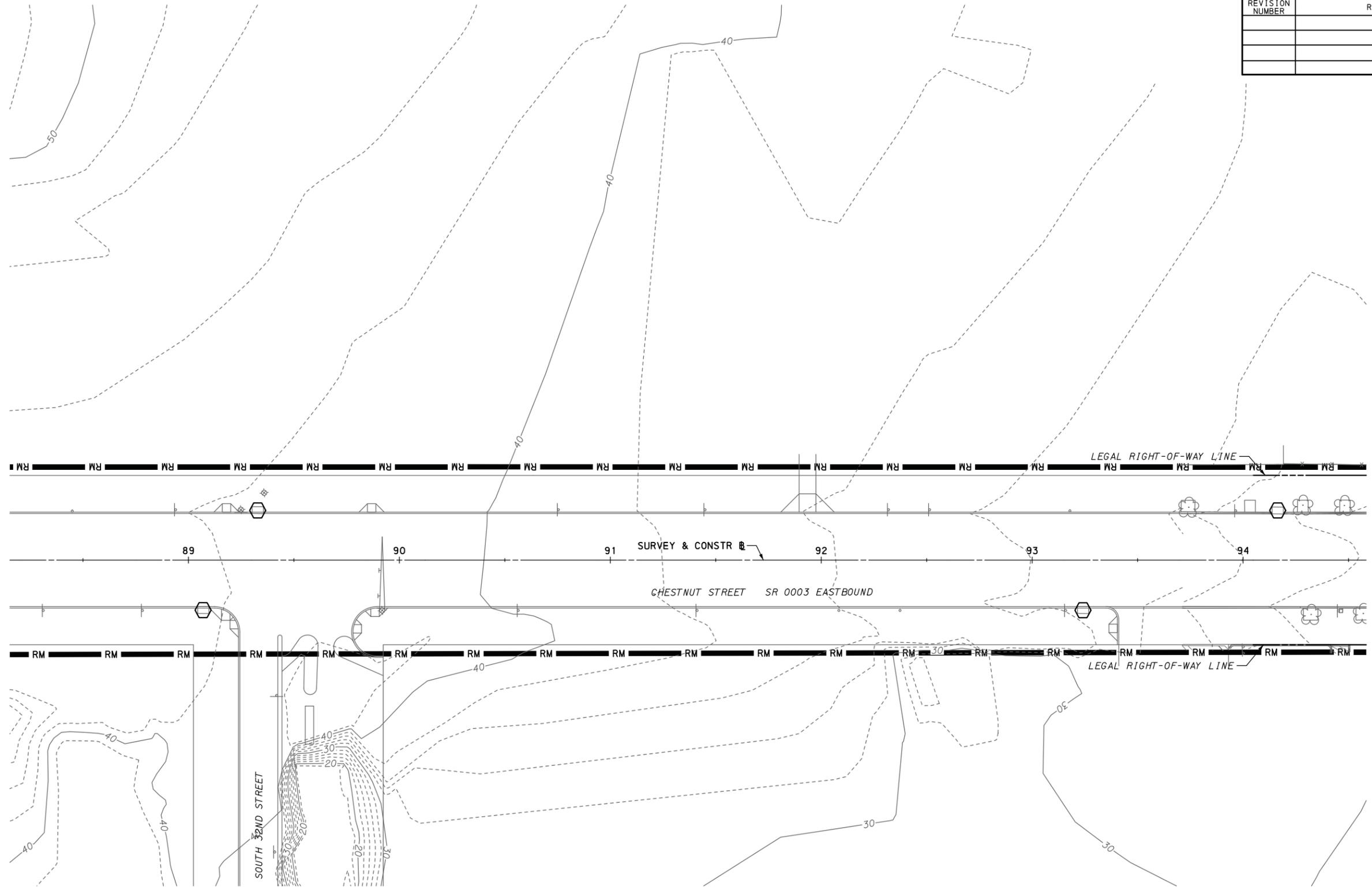
SEE SHEET 16

NOTE:
 THE ROADWAY MAINTENANCE AND LIMIT OF DISTURBANCE LINES ARE OFFSET FOR PRESENTATION PURPOSES.

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EROSION AND SEDIMENT POLLUTION CONTROL PLAN

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	PHILADELPHIA	0003	CH1	16 OF 25
		3039	CH1	
CITY OF PHILADELPHIA				
REVISION NUMBER	REVISIONS			DATE



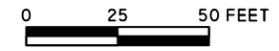
SEE SHEET 15

SEE SHEET 17

NOTE:
THE ROADWAY MAINTENANCE AND LIMIT OF DISTURBANCE LINES ARE OFFSET FOR PRESENTATION PURPOSES.

DES: CH DWG: RNI CKD: JBR

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NOTE:
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EROSION AND SEDIMENT POLLUTION CONTROL PLAN

08\24\2016

PLOTTED:

D-9012 CADD (02-90) REVISED (10-04)

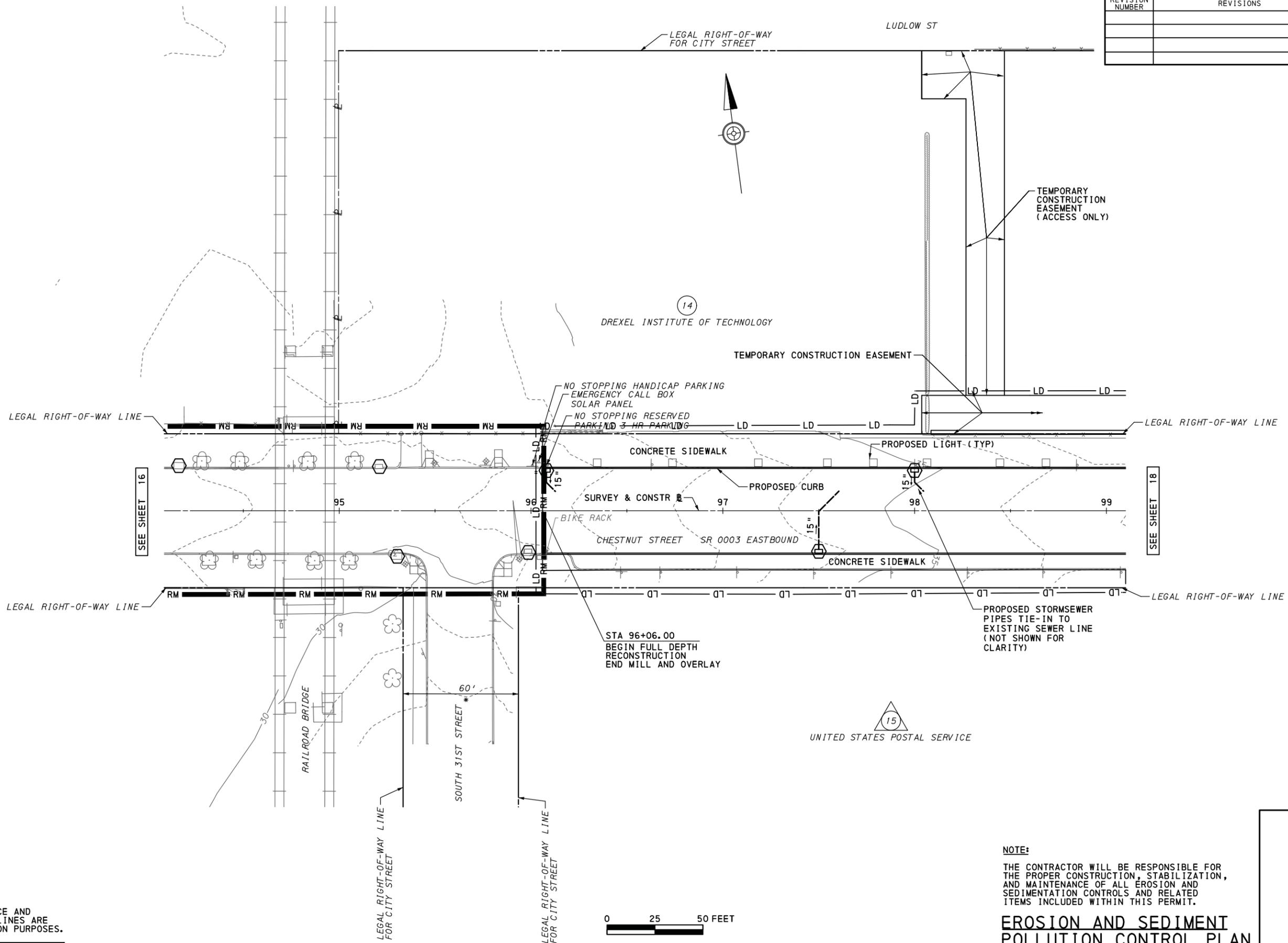
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DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	PHILADELPHIA	0003	CH1	17 OF 25
CITY OF PHILADELPHIA				
REVISION NUMBER	REVISIONS	DATE	BY	

08\24\2016 PLOTTED:

D-9012 CADD (02-90) REVISED (10-04)

OPERATOR: Y:\Pottsvill\30000s\30007.05\Eng_Docs\ES\016_ES_PL01.dgn (Default)



SEE SHEET 16

SEE SHEET 18

NOTE:
THE ROADWAY MAINTENANCE AND LIMIT OF DISTURBANCE LINES ARE OFFSET FOR PRESENTATION PURPOSES.

DES: CH DWG: RNI CKD: JBR

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EROSION AND SEDIMENT POLLUTION CONTROL PLAN

EXISTING STRUCTURE DATA (OVER 30TH STREET LOWER AND INFIELD)
 TYPE: THREE SPAN FLOORBEAM GIRDER SYSTEM WITH BUILT UP STEEL GIRDERS SUPPORTED ON BUILT UP STEEL FLOORBEAMS
 SPANS: 1 @ 26'-0", 1 @ 64'-0", 1 @ 67'-0"
 MIN UNDERCLEARANCE: 16'-6 1/4"
 SKEW: 90°00'00"
 CLEAR ROADWAY OUT-OUT: 44'-0 3/4" (CURB-CURB)
 80'-1 1/2" (BRIDGE OUT-OUT)
 NO. OF LANES: 3 THRU LANES, 1 PARKING LANE, 1 BIKE LANE

PROPOSED STRUCTURE DATA (OVER 30TH STREET LOWER AND INFIELD)
 TYPE: TWO SPAN FLOORBEAM GIRDER SYSTEM WITH BUILT UP STEEL GIRDERS SUPPORTED ON BUILT UP STEEL FLOORBEAMS
 SPANS: 1 @ 64'-0", 1 @ 67'-0"
 MIN UNDERCLEARANCE: 16'-6 1/4"
 SKEW: 90°00'00"
 CLEAR ROADWAY OUT-OUT: 45'-0 3/4" (CURB-CURB)
 80'-1 1/2" (BRIDGE OUT-OUT)
 NO. OF LANES: 3 THRU LANES, 1 PARKING LANE, 1 BIKE LANE

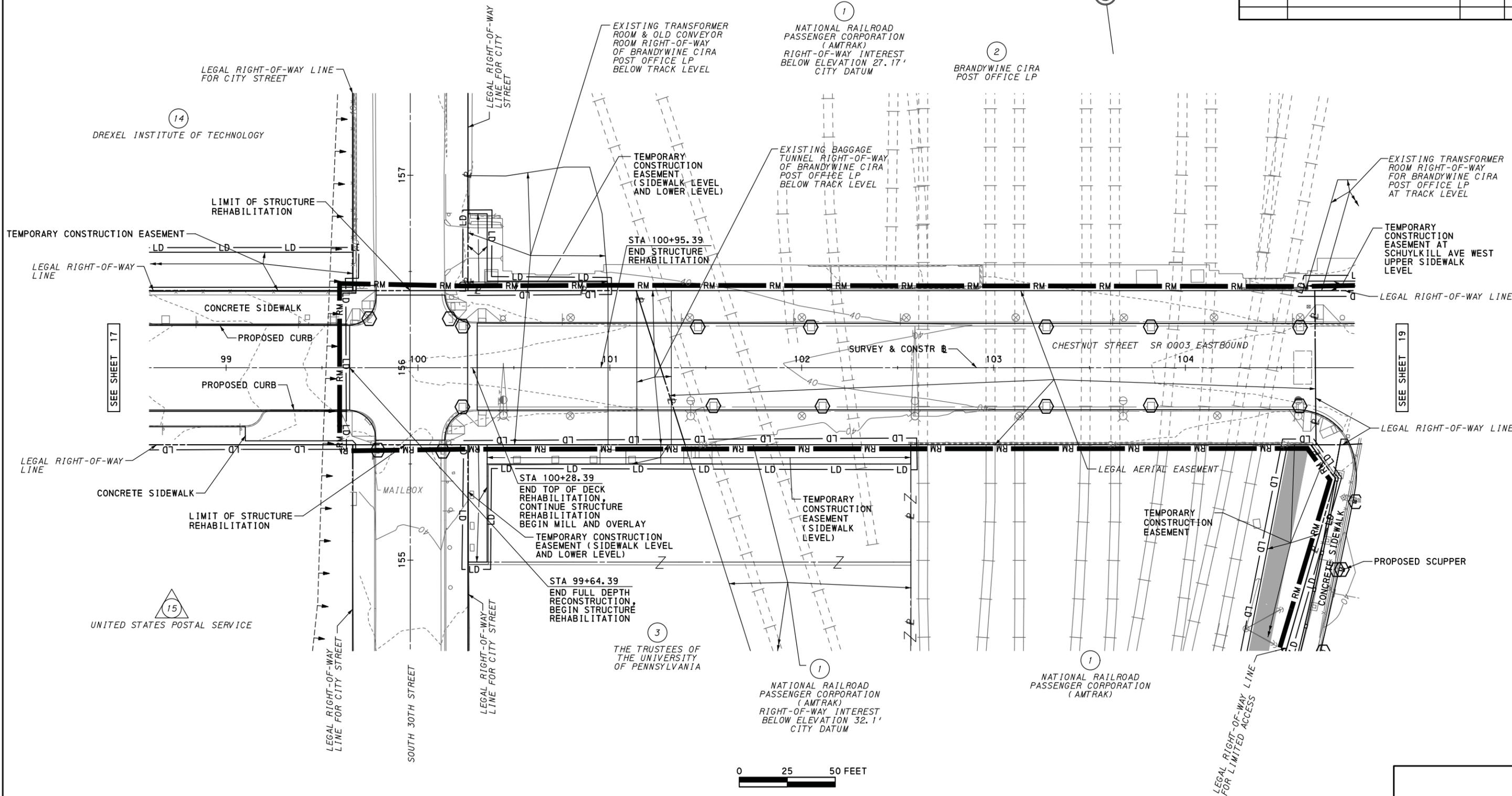
DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	PHILADELPHIA	0003	CH1	18 OF 25
CITY OF PHILADELPHIA				
REVISION NUMBER	REVISIONS	DATE	BY	

08/24/2016

PLOTTED:

D-9012 CADD (02-90) REVISED (10-04)

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NOTE:
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EROSION AND SEDIMENTATION POLLUTION CONTROL PLAN

08/24/2016

PLOTTED:

D-9012 CADD (02-90) REVISED (10-04)

OPERATOR: Y:\Pottsvill\1030000s\30007.05\Eng_Docs\ES\018_ES_PL03.dgn (Default)

STREET, SPAN 0)
 TYPE: SINGLE SPAN MULTI-GIRDER SYSTEM
 SPANS: 1 @ 68'-10 1/2" (ALONG SR 0003 @)
 MIN UNDERCLEARANCE: 16'-10 1/2"
 SKEW: 79°26'06" RT (TO SR 0003 @)
 CLEAR ROADWAY OUT-OUT: N/A (CURB-CURB)
 69'-3" (BRIDGE @ JT TO @ JT NORMAL TO @)

NO. OF LANES: 2 THRU LANES, 2 TURN LANES, 1 BIKE LANE FOR MAIN WEST/EAST DIRECTION

EXISTING STRUCTURE DATA (OVER SCHUYLKILL RIVER AND TRAIL)
 TYPE: FOUR SPAN NON-COMPOSITE TWO-GIRDER FLOORBEAM STRINGER SYSTEM WITH BUILT UP STEEL GIRDERS AND FLOORBEAMS SUPPORTED ON STONE MASONRY AND REINFORCED CONCRETE SUBSTRUCTURE
 SPANS: 1 @ 30'-10 1/8", 1 @ 176'-6", 1 @ 177', 1 @ 16'-3 1/2"
 MIN UNDERCLEARANCE: N/A
 SKEW: 1 @ 79°26'06" LT, 3 @ 78°47'08" LT, 1 @ 90°00'00"
 CLEAR ROADWAY OUT-OUT: SPAN 1, 71'-2 1/2" (OUT-OUT), SPAN 2 AND 3, 44'-0 3/4" (CURB TO CURB), 64'-6 3/4" (OUT-OUT), SPAN 4, VARIES 44'-0 3/4" TO 40'-4 1/2" (CURB-CURB), VARIES 64'-6 3/4" TO 57'-2" (OUT-OUT)

NO. OF LANES: SPAN 1, 2 THRU LANES, SPANS 2-4, 2 THRU LANES, 1 PARKING LANE, 1 BIKE LANE

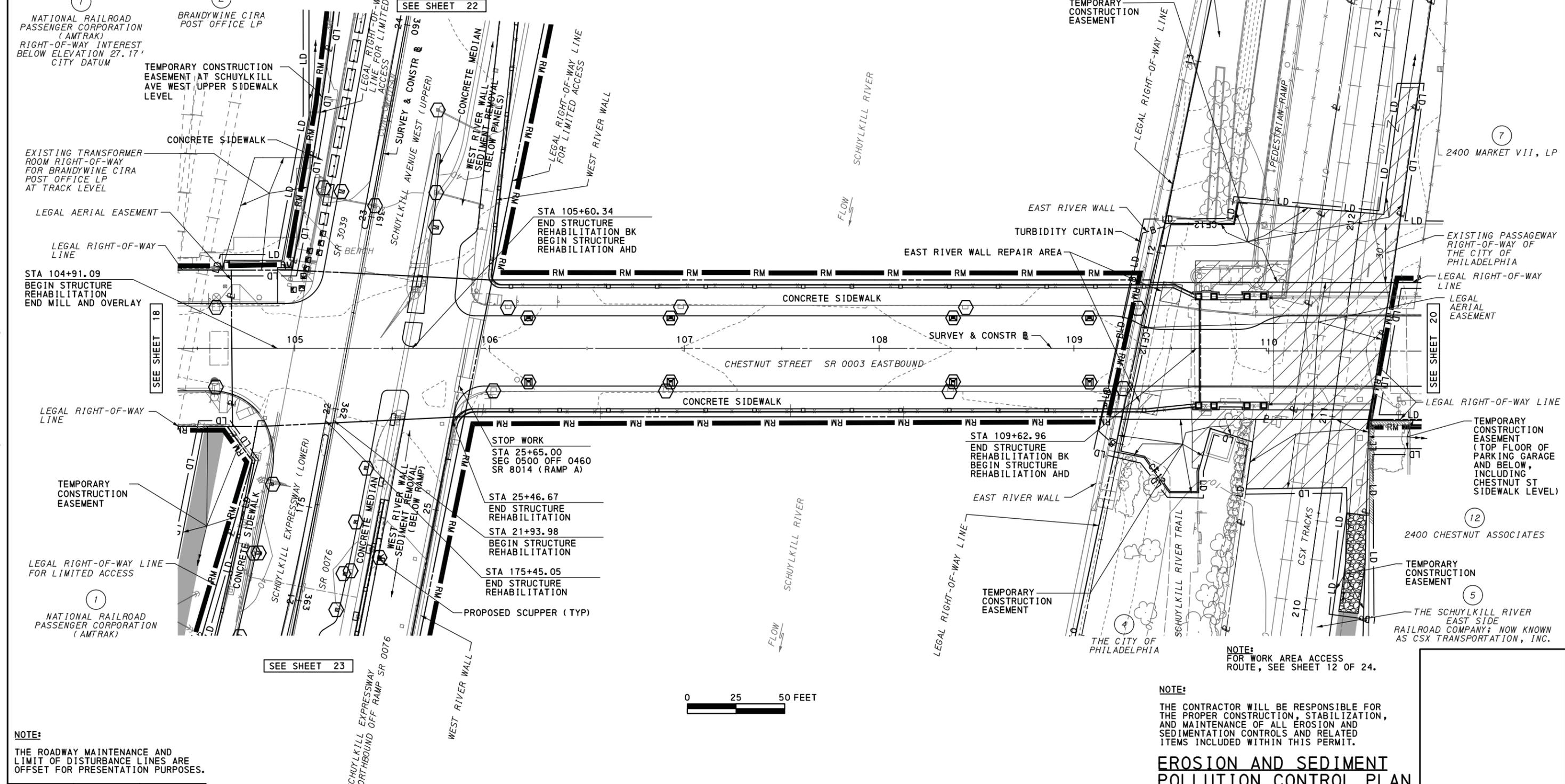
STREET, SPAN U)
 TYPE: SINGLE SPAN MULTI-GIRDER SYSTEM
 SPANS: 1 @ 68'-10 1/2" (ALONG SR 0003 @)
 MIN UNDERCLEARANCE: 16'-10 1/2"
 SKEW: 79°26'06" RT
 CLEAR ROADWAY OUT-OUT: N/A (CURB-CURB)
 71'-0" (BRIDGE @ JT TO @ JOINT NORMAL TO @)

NO. OF LANES: 1 THRU LANE, 2 TURN LANES, 1 BIKE LANE, 1 THRU OR TURN LANE

PROPOSED STRUCTURE DATA (OVER SCHUYLKILL RIVER AND TRAIL)
 TYPE: FOUR SPAN COMPOSITE TWO-GIRDER FLOORBEAM STRINGER SYSTEM WITH BUILT UP STEEL GIRDERS AND FLOORBEAMS SUPPORTED ON STONE MASONRY AND REINFORCED CONCRETE SUBSTRUCTURE
 SPANS: 1 @ 30'-10 1/8", 1 @ 176'-6", 1 @ 177', 1 @ 16'-3 1/2"
 MIN UNDERCLEARANCE: N/A
 SKEW: 1 @ 79°26'06" LT, 3 @ 78°47'08" LT, 1 @ 90°00'00"
 CLEAR ROADWAY OUT-OUT: SPAN 1, 71'-0" (OUT-OUT), SPAN 2 AND 3, 36'-0" (CURB-CURB), 65'-4" (OUT-OUT), SPAN 4, 29'-0" (CURB-CURB), VARIES 65'-3" TO 58'-0 3/8" (OUT-OUT)

NO. OF LANES: SPAN 1, 2 THRU LANES, 1 BIKE LANE, SPANS 2-4, 2 THRU LANES, 1 PARKING LANE, 1 BIKE LANE

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	PHILADELPHIA	0003	CH1	19 OF 25
CITY OF PHILADELPHIA				
REVISION NUMBER	REVISIONS	DATE	BY	



NOTE:
 THE ROADWAY MAINTENANCE AND LIMIT OF DISTURBANCE LINES ARE OFFSET FOR PRESENTATION PURPOSES.

DES: CH DWG: RNI CKD: JBR

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NOTE:
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EROSION AND SEDIMENT POLLUTION CONTROL PLAN

NOTE:
 FOR WORK AREA ACCESS ROUTE, SEE SHEET 12 OF 24.

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	PHILADELPHIA	0003	CH1	20 OF 25
CITY OF PHILADELPHIA				
REVISION NUMBER	REVISIONS	DATE	BY	

EXISTING STRUCTURE DATA (OVER CSX)
 TYPE: TWO SPAN CLOSED SPANDREL BRICK AND STONE MASONRY ARCH WITH CANTILEVERED SIDEWALK
 SPANS: 1 @ 60'-0" ; 1 @ 52'-5"
 MIN UNDERCLEARANCE: 19'-5 7/8"
 SKEW: 90°00'00"
 CLEAR ROADWAY OUT-OUT: 36'-0" (CURB-CURB)
 57'-2" (BRIDGE OUT-OUT)
 NO. OF LANES: 2 THRU LANES, 1 PARKING LANE, 1 BIKE LANE

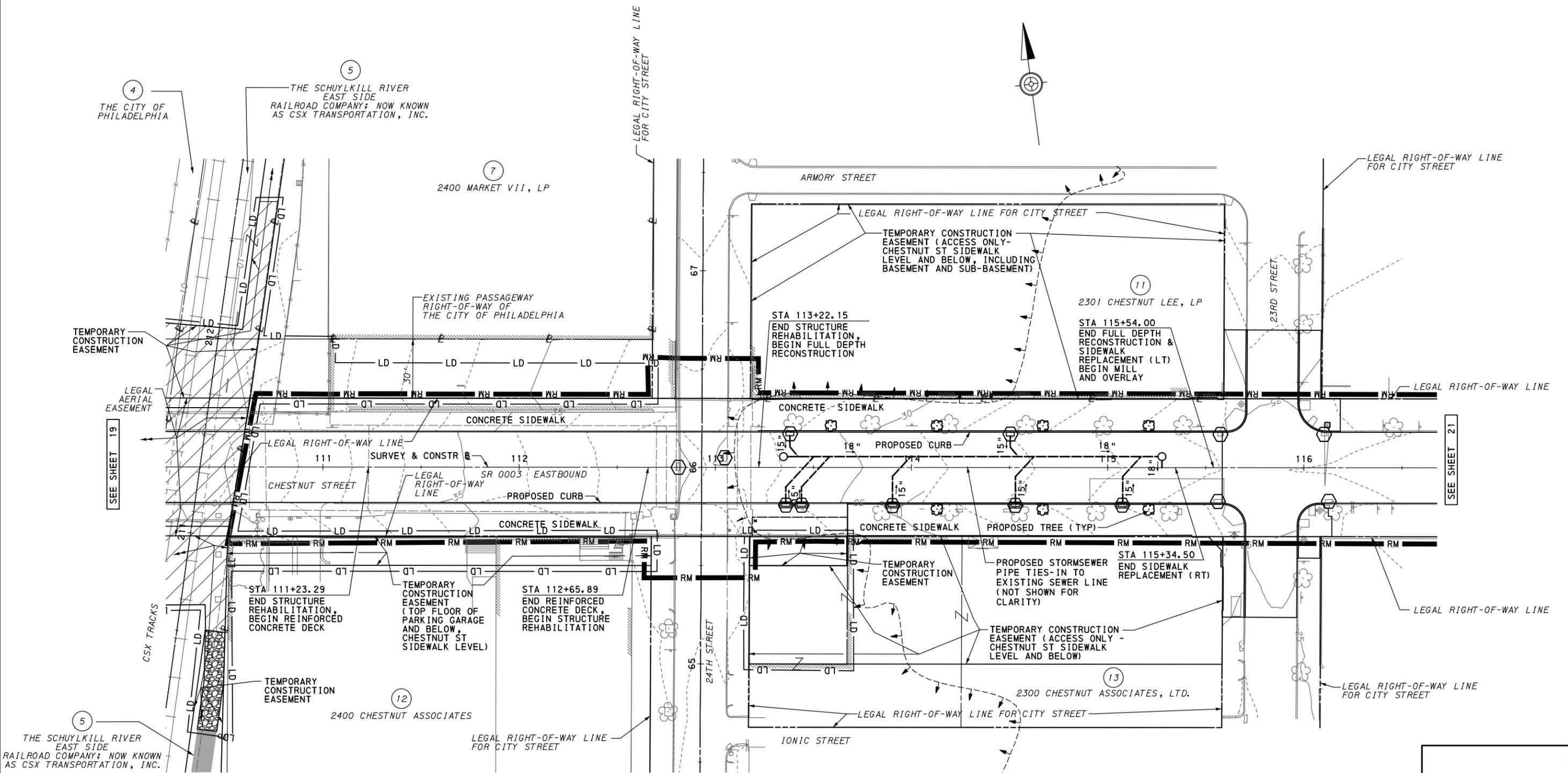
PROPOSED STRUCTURE DATA (OVER CSX)
 TYPE: TWO SPAN CLOSED SPANDREL BRICK AND STONE MASONRY ARCH WITH CANTILEVER SIDEWALK
 SPANS: 1 @ 60'-0" ; 1 @ 52'-5"
 MIN UNDERCLEARANCE: 19'-5 7/8"
 SKEW: 90°00'00"
 CLEAR ROADWAY OUT-OUT: 36'-0" (CURB-CURB)
 70'-0" (BRIDGE OUT-OUT)
 NO. OF LANES: 2 THRU LANES, 1 PARKING LANE, 1 BIKE LANE

08/24/2016

PLOTTED:

D-9012 CADD (02-90) REVISED (10-04)

OPERATOR: Y:\Pottsv\119\30000s\30007_05\Eng_Docs\ES\019_ES_PL04.dgn (Defaul1)



NOTE:
 FOR WORK AREA ACCESS ROUTE, SEE SHEET 12 OF 24.

NOTE:
 THE ROADWAY MAINTENANCE AND LIMIT OF DISTURBANCE LINES ARE OFFSET FOR PRESENTATION PURPOSES.

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EROSION AND SEDIMENTATION POLLUTION CONTROL PLAN

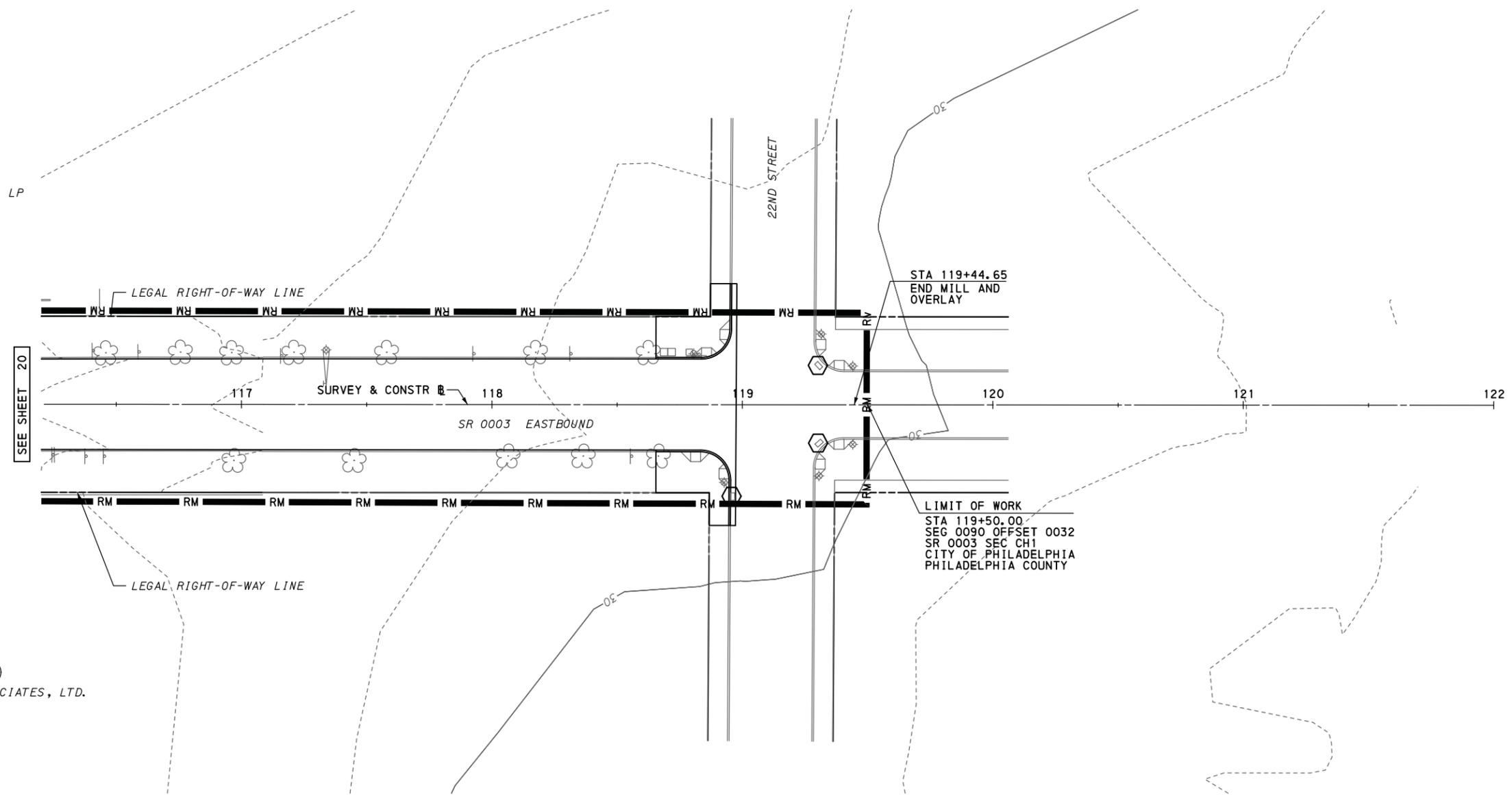
DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	PHILADELPHIA	0003	CH1	21 OF 25
		3039	CH1	
CITY OF PHILADELPHIA				
REVISION NUMBER	REVISIONS	DATE	BY	

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 D-9012 CADD (02-90) REVISED (10-04)
 08\24\2016
 PLOTTED:



11
2301 CHESTNUT LEE, LP

13
2300 CHESTNUT ASSOCIATES, LTD.



NOTE:
 THE ROADWAY MAINTENANCE AND
 LIMIT OF DISTURBANCE LINES ARE
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NOTE:
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 SEDIMENTATION CONTROLS AND RELATED
 ITEMS INCLUDED WITHIN THIS PERMIT.

**EROSION AND SEDIMENT
 POLLUTION CONTROL PLAN**

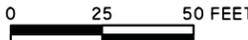
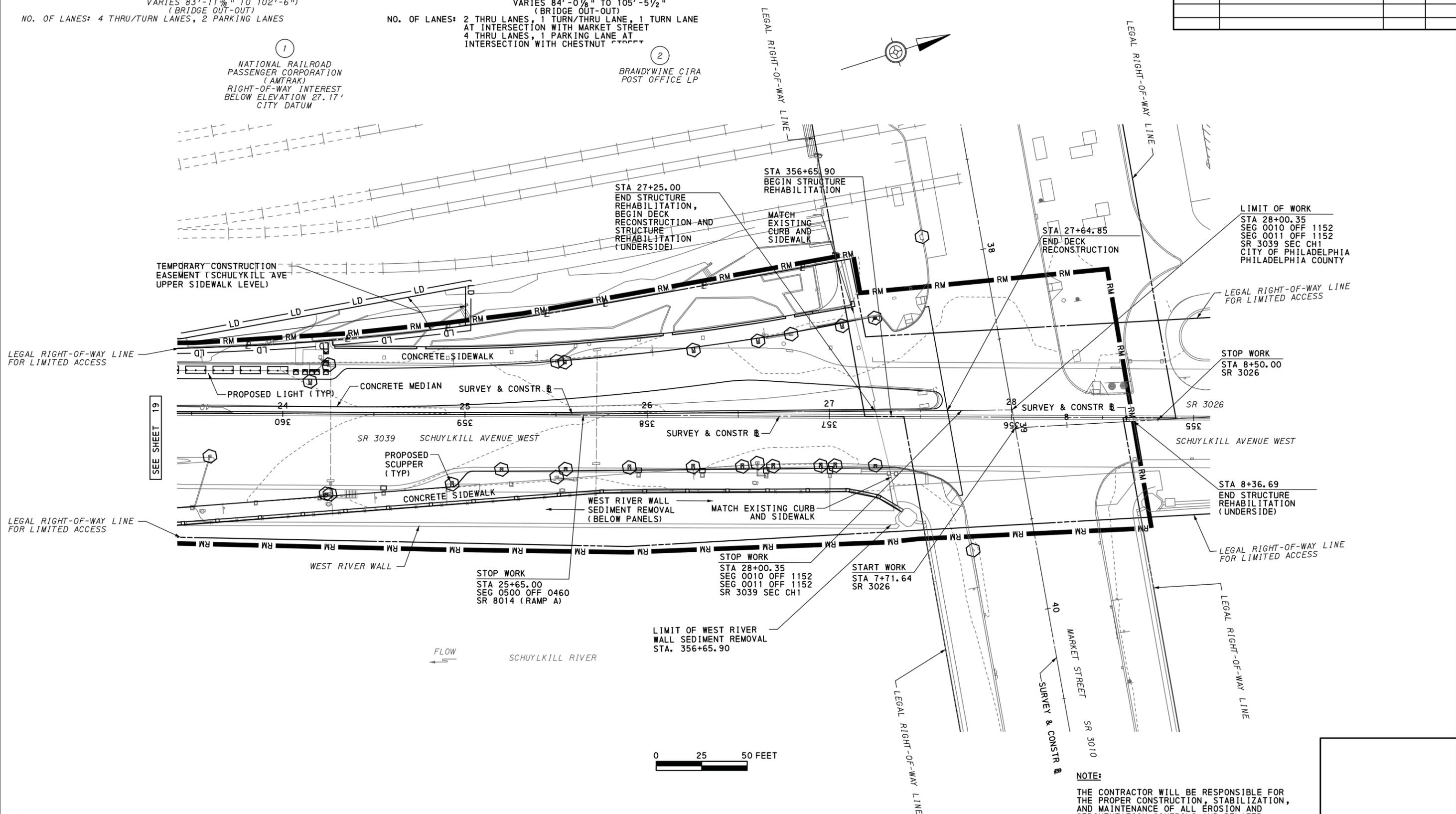
DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	PHILADELPHIA	0003	CH1	22 OF 25
CITY OF PHILADELPHIA				
REVISION NUMBER	REVISIONS	DATE	BY	

EXISTING STRUCTURE DATA (SCHUYLKILL AVENUE WEST, SPANS 1-13)
 TYPE: THIRTEEN SPAN STRUCTURE WITH ROLLED STEEL STRINGERS SUPPORTED ON BUILT UP STEEL PIER CAPS
 SPANS: 1 @ 47'-10 1/4", 11 @ 35'-0", 1 @ 24'-8 3/4"
 MIN UNDERCLEARANCE: 14'-4"
 SKEW: 1 @ 79°26'06" RT, 12 @ 90°00'00", 1 @ 76°13'41" RT
 CLEAR ROADWAY OUT-OUT: VARIES 65'-0" TO 80'-0" (CURB-CURB)
 VARIES 83'-11 3/8" TO 102'-6" (BRIDGE OUT-OUT)
 NO. OF LANES: 4 THRU/TURN LANES, 2 PARKING LANES

PROPOSED STRUCTURE DATA (SCHUYLKILL AVENUE WEST, SPANS 1-13)
 TYPE: THIRTEEN SPAN STRUCTURE WITH ROLLED STEEL STRINGERS SUPPORTED ON BUILT UP STEEL PIER CAPS
 SPANS: 1 @ 47'-10 1/4", 11 @ 35'-0", 1 @ 24'-8 3/4"
 MIN UNDERCLEARANCE: 14'-4"
 SKEW: 1 @ 79°26'06" RT, 12 @ 90°00'00", 1 @ 76°13'41" RT
 CLEAR ROADWAY OUT-OUT: VARIES 57'-6" TO 80'-9" (CURB-CURB)
 VARIES 84'-0 7/8" TO 105'-5 1/2" (BRIDGE OUT-OUT)
 NO. OF LANES: 2 THRU LANES, 1 TURN/THRU LANE, 1 TURN LANE AT INTERSECTION WITH MARKET STREET
 4 THRU LANES, 1 PARKING LANE AT INTERSECTION WITH CHESTNUT

1
 NATIONAL RAILROAD PASSENGER CORPORATION (AMTRAK)
 RIGHT-OF-WAY INTEREST BELOW ELEVATION 27.17' CITY DATUM

2
 BRANDYWINE CIRA POST OFFICE LP



NOTE:
 THE ROADWAY MAINTENANCE AND LIMIT OF DISTURBANCE LINES ARE OFFSET FOR PRESENTATION PURPOSES.

NOTE:
 THE CONTRACTOR WILL BE RESPONSIBLE FOR THE PROPER CONSTRUCTION, STABILIZATION, AND MAINTENANCE OF ALL EROSION AND SEDIMENTATION CONTROLS AND RELATED ITEMS INCLUDED WITHIN THIS PERMIT.

EROSION AND SEDIMENT POLLUTION CONTROL PLAN

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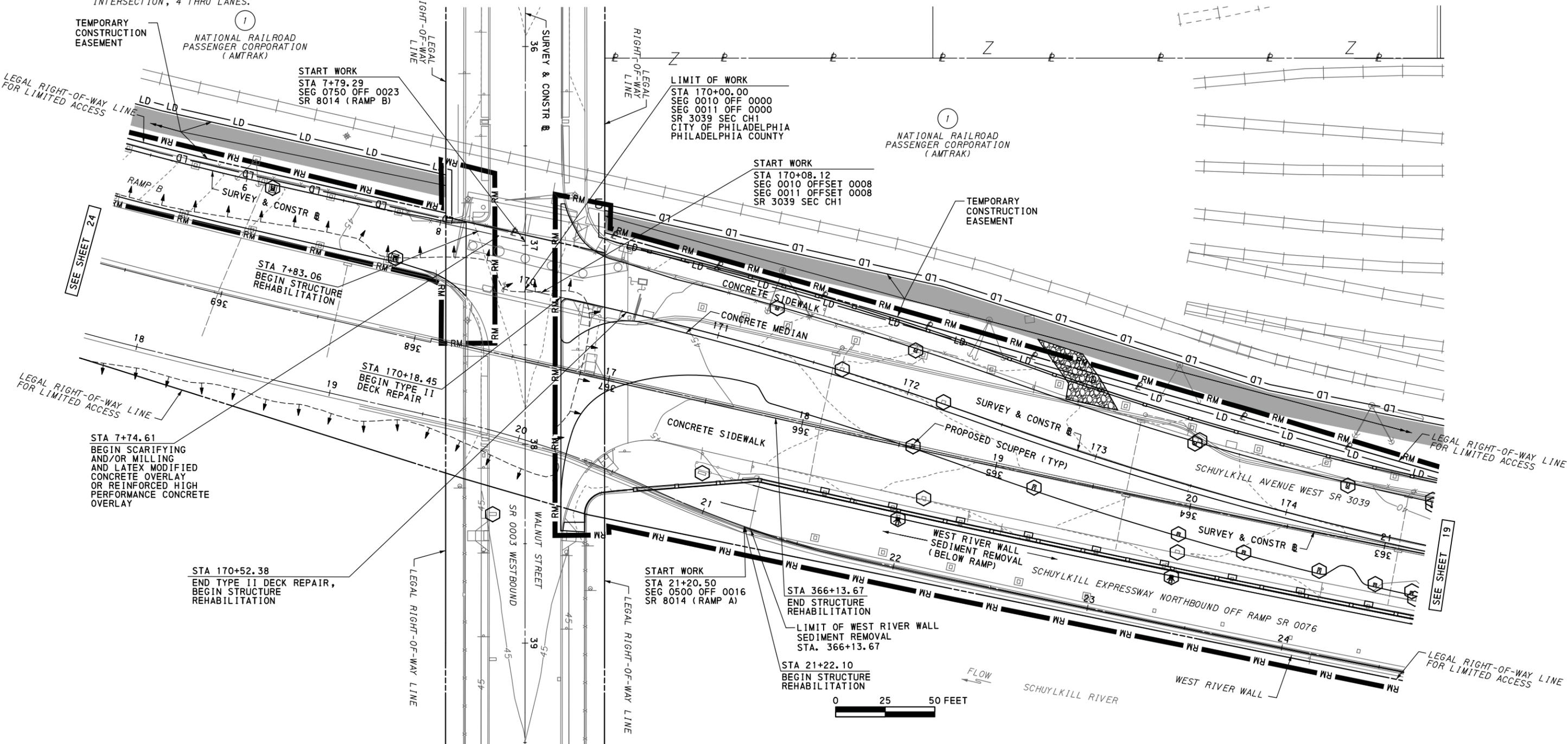
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EXISTING STRUCTURE DATA (SCHUYLKILL AVENUE WEST, SPANS 1-15)
 TYPE: FIFTEEN SPAN PIER CAP STRINGER SYSTEM WITH BUILTUP FASCIA STEEL STRINGERS AND ROLLED STEEL INTERIOR STRINGERS SUPPORTED ON BUILTUP STEEL PIER CAPS
 SPANS: 1 @ 37'-6 1/2", 2 @ 22'-0", 11 @ 35'-0", 1 @ 24'-6 7/8"
 MIN UNDERCLEARANCE: 13'-7" (WB OFF RAMP); 14'-0 3/4" (MAINLINE)
 MIN REQUIRED UNDERCLEARANCE: 14'-6" (WB OFF RAMP); 14'-0" (MAINLINE)
 SKEW: 1 @ 78°25'35" RT, 14 @ 90°00'00", 1 @ 78°23'13" RT
 CLEAR ROADWAY OUT-OUT: VARIES (CURB-CURB), VARIES 70'-3" TO 124'-0" (OUT-OUT)
 NO. OF LANES: WALNUT STREET INTERSECTION, 1 PARKING LANE, 2 THRU LANES, 1 RIGHT TURN LANE. AWAY FROM INTERSECTIONS, 1 PARKING LANE, 3 THRU LANES. CHESTNUT STREET INTERSECTION, 4 THRU LANES.

PROPOSED STRUCTURE DATA (SCHUYLKILL AVENUE WEST, SPANS 1-15)
 TYPE: FIFTEEN SPAN PIER CAP STRINGER SYSTEM WITH BUILTUP FASCIA STEEL STRINGERS AND ROLLED STEEL INTERIOR STRINGERS SUPPORTED ON BUILTUP STEEL PIER CAPS
 SPANS: 1 @ 37'-6 1/2", 2 @ 22'-0", 11 @ 35'-0", 1 @ 24'-6 7/8"
 MIN UNDERCLEARANCE: 14'-6" (WB OFF RAMP); 14'-0 3/4" (MAINLINE)
 SKEW: 1 @ 78°25'35" RT, 14 @ 90°00'00", 1 @ 78°23'13" RT
 CLEAR ROADWAY OUT-OUT: VARIES (CURB-CURB), 70'-4" TO 123'-9 1/4" (OUT-OUT)
 NO. OF LANES: WALNUT STREET INTERSECTION, 2 THRU LANES, 1 RIGHT TURN/THRU LANE. AWAY FROM INTERSECTIONS, 2 PARKING LANES, 2 THRU LANES. CHESTNUT STREET INTERSECTION, 3 THRU LANES.

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	PHILADELPHIA	0003	CH1	23 OF 25
CITY OF PHILADELPHIA				
REVISION NUMBER	REVISIONS	DATE	BY	



NOTE:
 THE ROADWAY MAINTENANCE AND LIMIT OF DISTURBANCE LINES ARE OFFSET FOR PRESENTATION PURPOSES.

EXISTING STRUCTURE DATA (RAMP A)
 TYPE: TWELVE SPAN PIER CAP STRINGER SYSTEM WITH ROLLED STEEL STRINGERS SUPPORTED ON ROLLED STEEL PIER CAPS
 SPANS: 11 @ 35'-0", 1 @ 36'-8"
 MIN UNDERCLEARANCE: N/A
 SKEW: 12 @ 90°00'00", 1 @ 78°23'13" RT
 CLEAR ROADWAY OUT-OUT: VARIES 21'-7" TO 24'-10 1/2" (CURB-CURB), VARIES 26'-2" TO 29'-6 1/2" (OUT-OUT)
 NO. OF LANES: 2 THRU LANES (STRIPED FOR ONE LANE ALTHOUGH USED FOR TWO LANES)

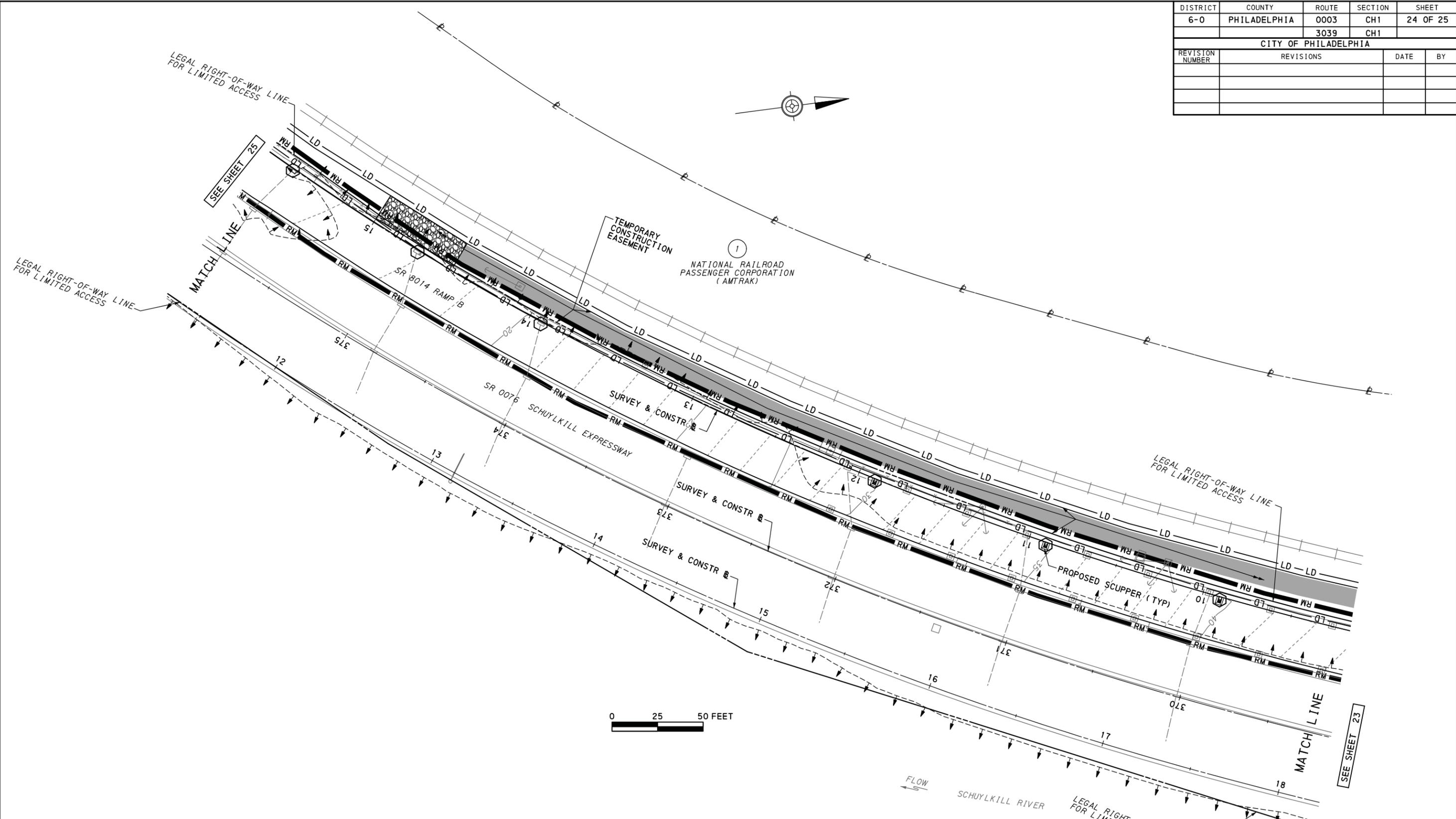
PROPOSED STRUCTURE DATA (RAMP A)
 TYPE: TWELVE SPAN PIER CAP STRINGER SYSTEM WITH ROLLED STEEL STRINGERS SUPPORTED ON BUILTUP STEEL PIER CAPS
 SPANS: 11 @ 35'-0", 1 @ 36'-8"
 MIN UNDERCLEARANCE: N/A
 SKEW: 12 @ 90°00'00" RT, 1 @ 78°23'13" RT
 CLEAR ROADWAY OUT-OUT: VARIES 21'-7" TO 24'-10 1/2" (CURB-CURB), VARIES 26'-2" TO 29'-6 1/2" (OUT-OUT)
 NO. OF LANES: 1 THRU LANE, 1 RIGHT TURN LANE

NOTE:
 THE CONTRACTOR WILL BE RESPONSIBLE FOR THE PROPER CONSTRUCTION, STABILIZATION, AND MAINTENANCE OF ALL EROSION AND SEDIMENTATION CONTROLS AND RELATED ITEMS INCLUDED WITHIN THIS PERMIT.

EROSION AND SEDIMENTATION POLLUTION CONTROL PLAN

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	PHILADELPHIA	0003	CH1	24 OF 25
CITY OF PHILADELPHIA				
REVISION NUMBER	REVISIONS			DATE

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EXISTING STRUCTURE DATA (RAMP B)
 TYPE: THIRTY ONE SPAN BRIDGE
 THIRTEEN SPAN FLOORBEAM STRINGER SYSTEM WITH BUILTUP FASCIA STEEL STRINGERS AND ROLLED STEEL INTERIOR STRINGERS SUPPORTED ON ROLLED STEEL FLOORBEAMS, THREE CONCRETE T-BEAM SPANS AND FIFTEEN PILE SUPPORTED CONCRETE SLAB SPANS
 SPANS: 1 @ 38'-8", 12 @ 35'-0", 3 @ 40'-0", 15 @ 20'-0"
 MIN UNDERCLEARANCE: N/A
 SKEW: WALNUT STREET SUPERSTRUCTURE INTERSECTION @ 77°18'57", 31 @ 90°00'00"
 CLEAR ROADWAY OUT-OUT: VARIES 24'-11" TO 26'-0" (CURB-CURB) 29'-6" (OUT-OUT)
 NO. OF LANES: 2 THRU LANES (STRIPED FOR ONE LANE ALTHOUGH USED FOR 2 LANES)

PROPOSED STRUCTURE DATA (RAMP B)
 TYPE: THIRTY ONE SPAN BRIDGE
 THIRTEEN SPAN FLOORBEAM STRINGER SYSTEM WITH BUILTUP FASCIA STEEL STRINGERS AND ROLLED STEEL INTERIOR STRINGERS SUPPORTED ON ROLLED STEEL FLOORBEAMS, THREE CONCRETE T-BEAM SPANS AND FIFTEEN PILE SUPPORTED CONCRETE SLAB SPANS
 SPANS: 1 @ 38'-8", 12 @ 35'-0", 3 @ 40'-0", 15 @ 20'-0"
 MIN UNDERCLEARANCE: N/A
 SKEW: WALNUT STREET SUPERSTRUCTURE INTERSECTION @ 77°18'57", 31 @ 90°00'00"
 CLEAR ROADWAY OUT-OUT: VARIES 24'-11" TO 26'-0" (CURB-CURB) 29'-6" (OUT-OUT)
 NO. OF LANES: 2 THRU LANES

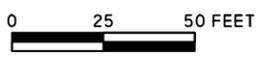
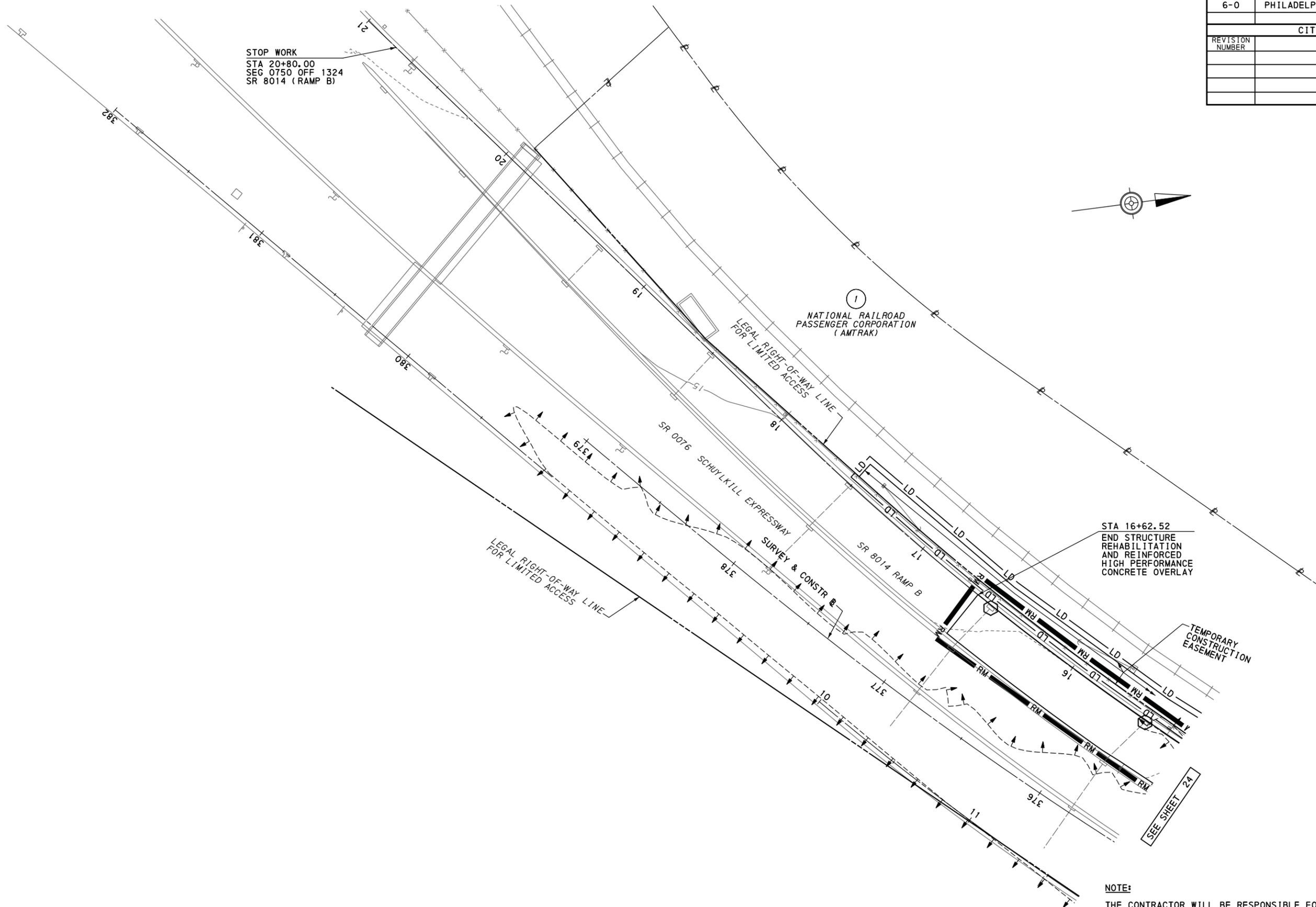
NOTE:
 THE ROADWAY MAINTENANCE AND LIMIT OF DISTURBANCE LINES ARE OFFSET FOR PRESENTATION PURPOSES.

NOTE:
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EROSION AND SEDIMENT POLLUTION CONTROL PLAN

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
6-0	PHILADELPHIA	0003	CH1	25 OF 25
CITY OF PHILADELPHIA				
REVISION NUMBER	REVISIONS	DATE	BY	

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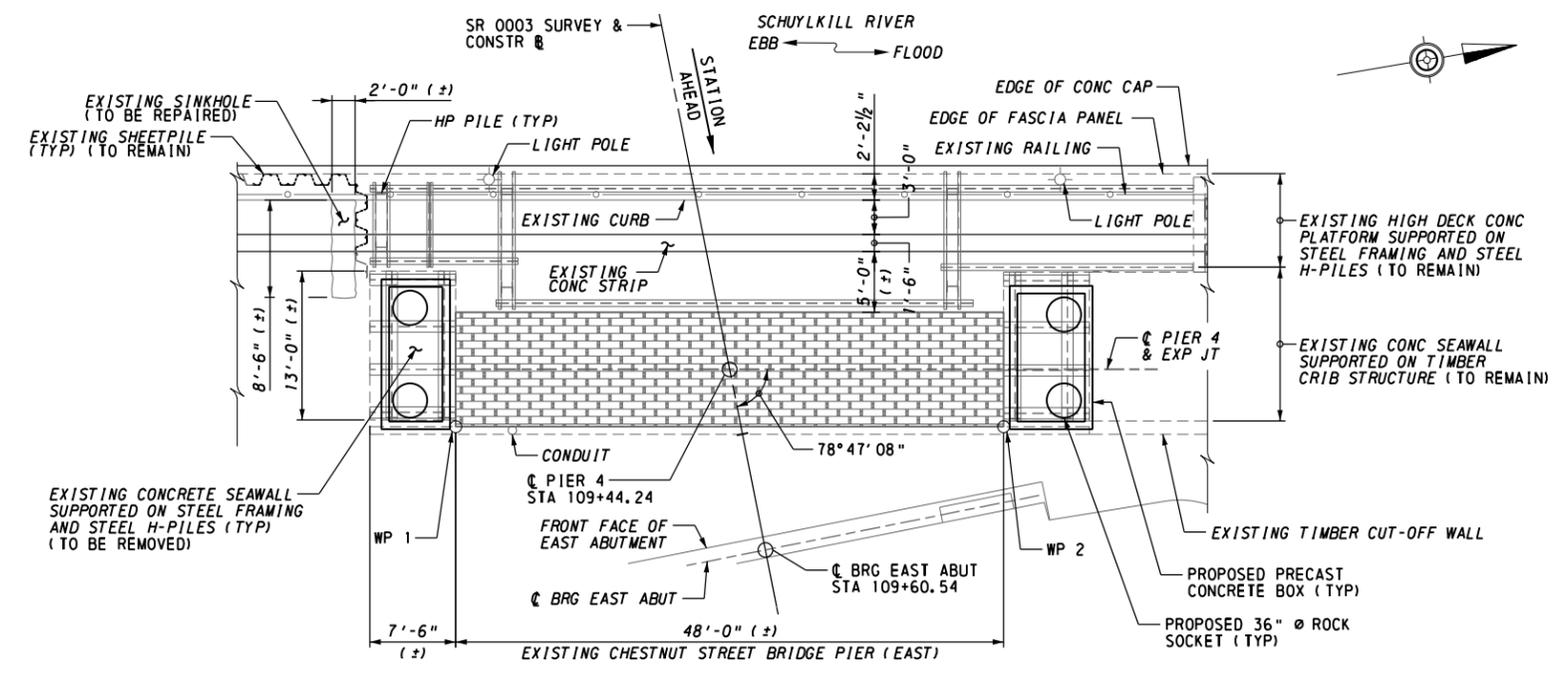


NOTE:
 THE ROADWAY MAINTENANCE AND LIMIT OF DISTURBANCE LINES ARE OFFSET FOR PRESENTATION PURPOSES.

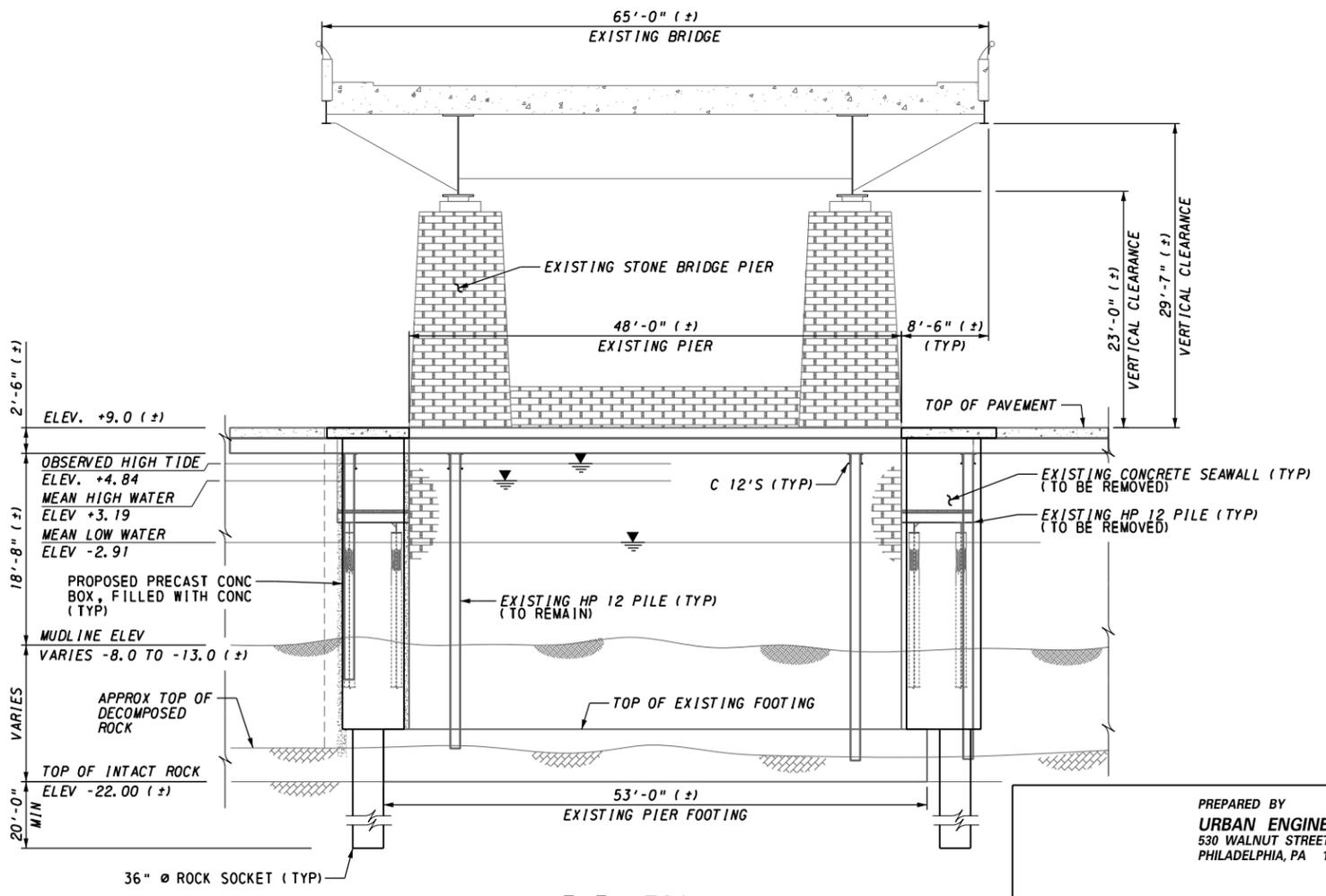
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EROSION AND SEDIMENT POLLUTION CONTROL PLAN

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PLAN
2 0 4 8 FEET



ELEVATION
2 0 4 8 FEET

PREPARED BY
URBAN ENGINEERS, INC.
530 WALNUT STREET
PHILADELPHIA, PA 19106

- NOTES**
- FOR GENERAL NOTES, SEE SHEET 2.
 - FOR EXISTING TYPICAL SECTIONS, SEE SHEET 4.
 - ELEVATIONS REFERENCED TO MEAN LOW WATER.
 - WORK POINT COORDINATES ARE APPROXIMATE AND ARE BASED ON EXISTING PIER DIMENSIONS. CONTRACTOR SHALL VERIFY PIER CORNER WORK POINTS IN THE FIELD.

INDEX OF DRAWINGS	
SHEET NO	TITLE
1	GENERAL PLAN AND ELEVATION
2	GENERAL NOTES
3	EXISTING PLAN DETAIL
4	EXISTING SECTIONS
5	STRUCTURAL DEMOLITION PLAN
6	STRUCTURAL DEMOLITION ELEVATION
7	PROPOSED PLAN
8	PROPOSED ELEVATION
9	DETAILS & SECTIONS

APPROXIMATE QUANTITIES			
ITEM NO	DESCRIPTION	UNIT	QUANTITY
9000-7001 (2)	CHESTNUT STREET PATH STABILIZATION	LS	---
(1)	EXISTING SEAWALL DEMOLITION	LS	---
(1)	CLASS A CEMENT CONCRETE	CY	200
(1)	REINFORCEMENT BARS, EPOXY COATED	LS	---
(1)	PRECAST CONCRETE BOX	LF	60
(1)	36" Ø ROCK SOCKET	LF	80
(1)	NO. 57 COARSE AGGREGATE	LS	---
(1)	PAVEMENT	LS	---

- NOTES:**
- ITEMS INCLUDED IN LUMP SUM ITEM 9000-7001 GIVEN FOR INFORMATION ONLY.
 - SEE SPECIAL PROVISIONS

WORK POINT COORDINATES (SEE NOTE 4)			
WP	STATION	COORDINATES	
		NORTHING	EASTING
1	109+44.48	236,162.03	2,688,792.04
2	109+53.81	236,207.49	2,688,807.44

Mark	Description	By	Chk' d.	Recm' d.	Date
REVISIONS					

SR 0003 PREVIOUSLY KNOWN AS LR 67351

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DEPARTMENT OF TRANSPORTATION

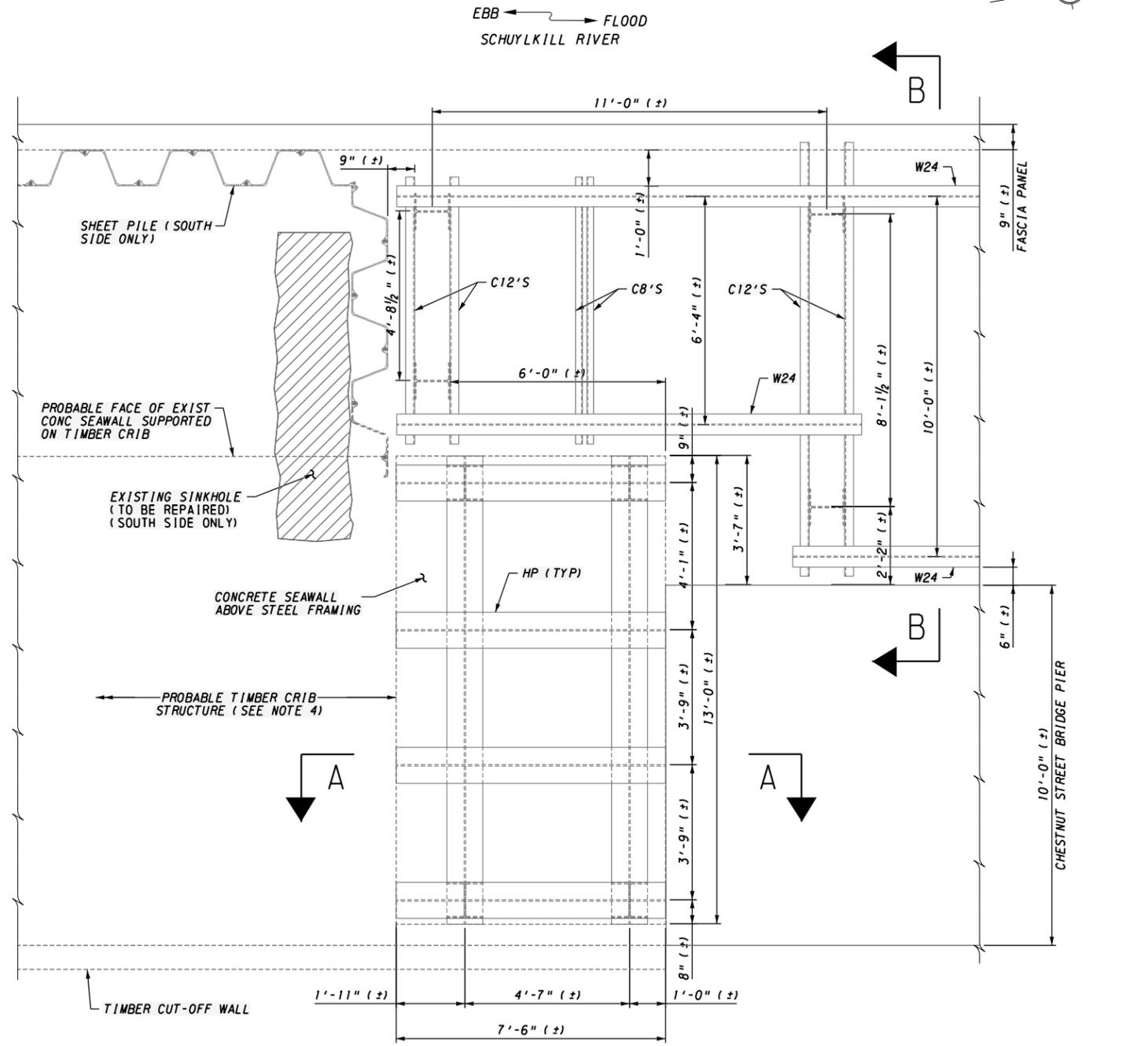
PHILADELPHIA COUNTY
SR 0003, SEC. CH1
SEGMENT 0090, OFFSET 2677
SR 0003-CH1, STA. 109+44.24
SR 0003 CHESTNUT STREET OVER SCHUYLKILL RIVER
PATH STABILIZATION AT PIER 4

GENERAL PLAN AND ELEVATION

RECOMMENDED _____	SHEET 1 OF 9 AND SUPPLEMENTAL DRAWINGS
DISTRICT BRIDGE ENGINEER	S - XXXXX

REINFORCEMENT BAR FABRICATION DETAILS	BC-736M	5-18-12
DESCRIPTION	DWG. NO.	APP. DATE
SUPPLEMENTAL DRAWINGS		

DES: _____ DWG: RMS CKD: _____



PLAN VIEW DETAIL
 (SOUTH SIDE SHOWN; NORTH SIDE SIMILAR)

1 0 1 2 FEET



LOCATION MAP
 NOT TO SCALE

NOTES

1. FOR SECTIONS A-A AND B-B, SEE SHEET 4.
2. TOP OF STEEL ELEVATION UNDER CONCRETE SEAWALL = +0.0 (±)
3. TOP OF W24 FRAMING STEEL ELEV = +8.3 (±)
4. ORIGINAL CONSTRUCTION IS COMPRISED OF A CONCRETE SEAWALL SUPPORTED BY A TIMBER CRIB STRUCTURE. A STEEL SHEET PILE WALL WAS INSTALLED OUTSHORE OF THE ORIGINAL SEAWALL IN THE MID 1990'S. FILL WAS PLACED BETWEEN THE TWO STRUCTURES. EXACT LIMITS OF THE ORIGINAL WALL ARE UNKNOWN.

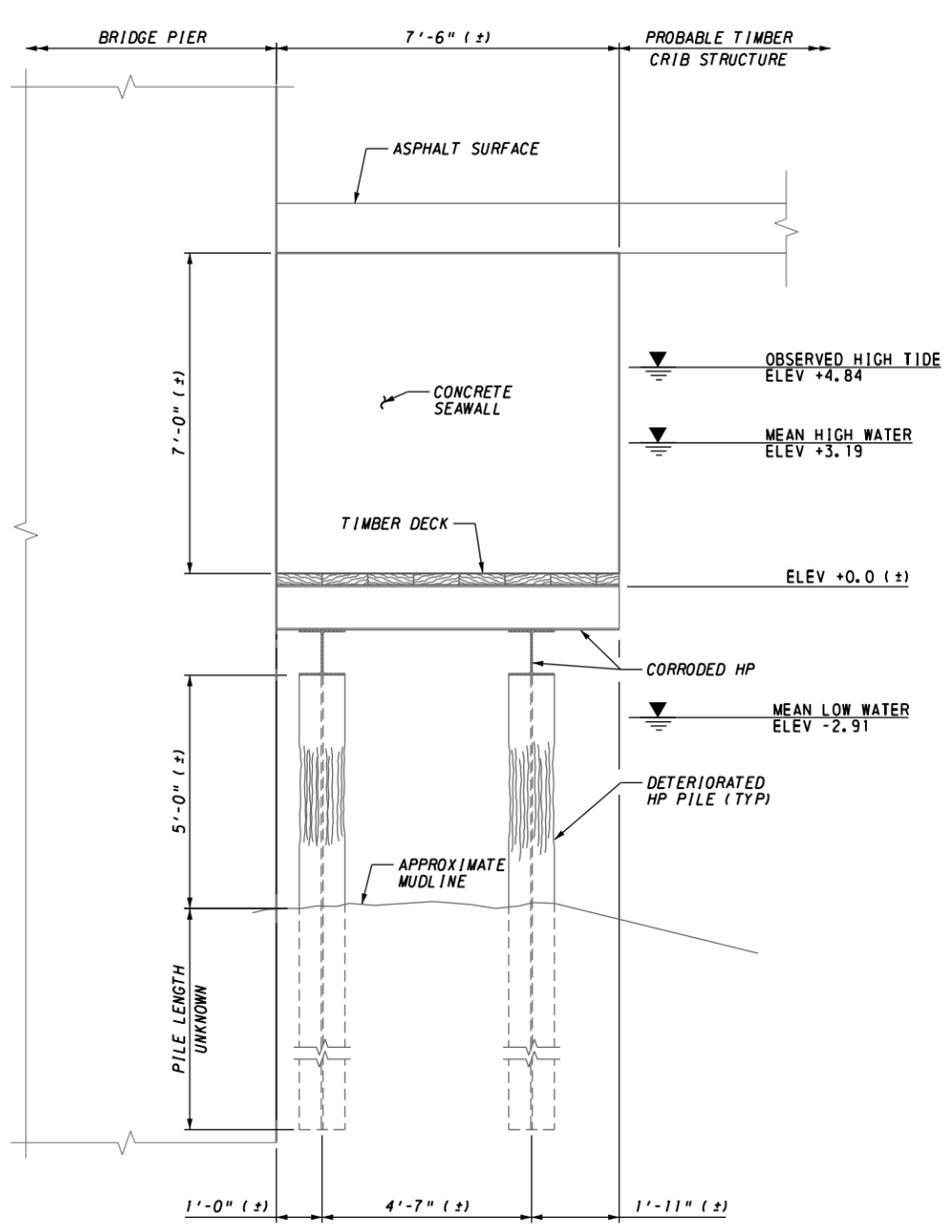
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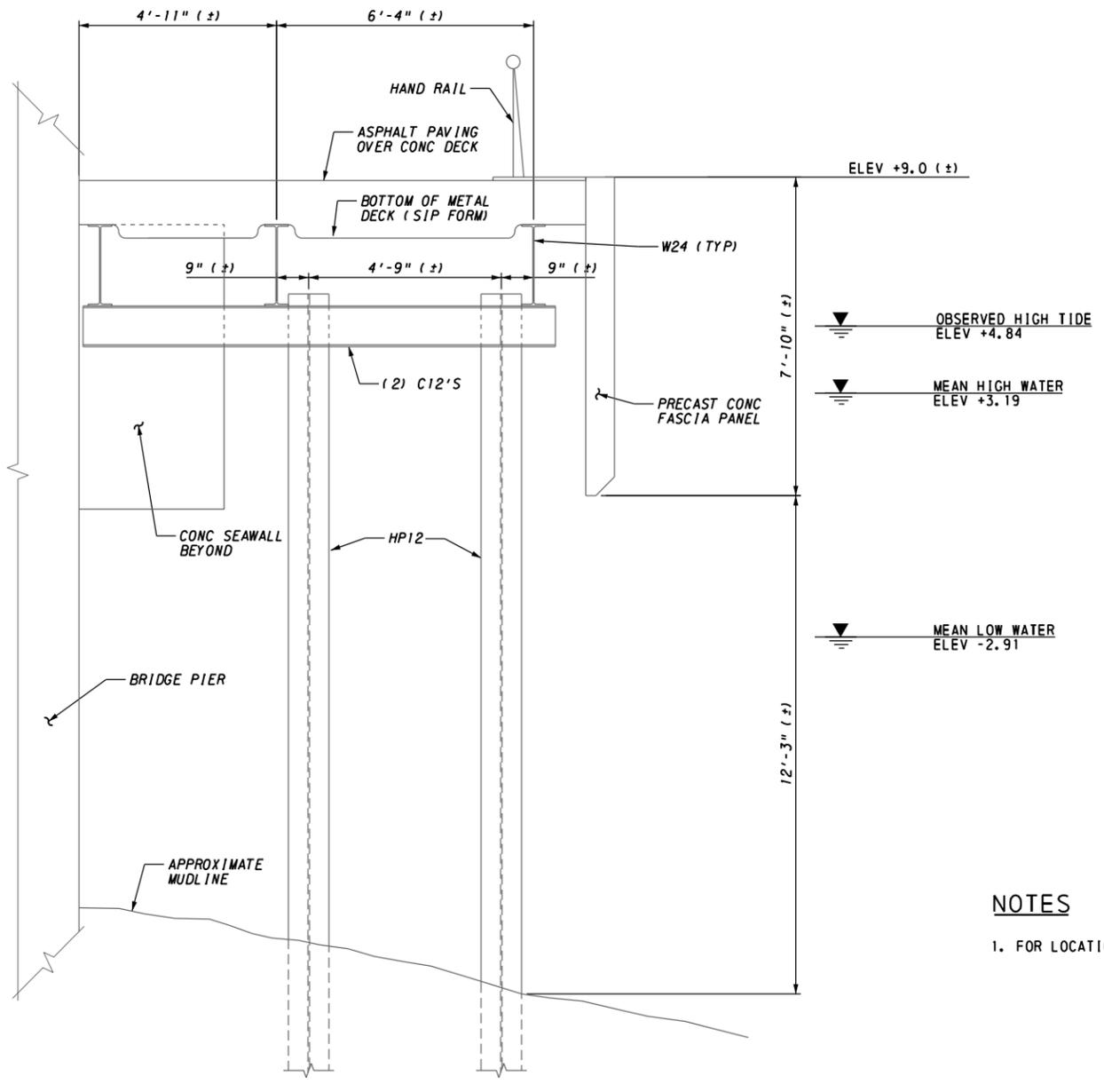
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 SR 0003-CH1, STA. 109+44.24
 SR 0003 CHESTNUT STREET OVER SCHUYLKILL RIVER
 PATH STABILIZATION AT PIER 4
EXISTING PLAN DETAIL

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SECTION A-A
 1 0 1 2 FEET



SECTION B-B
 1 0 1 2 FEET

NOTES

- 1. FOR LOCATION OF SECTIONS A-A & B-B, SEE SHEET 3.

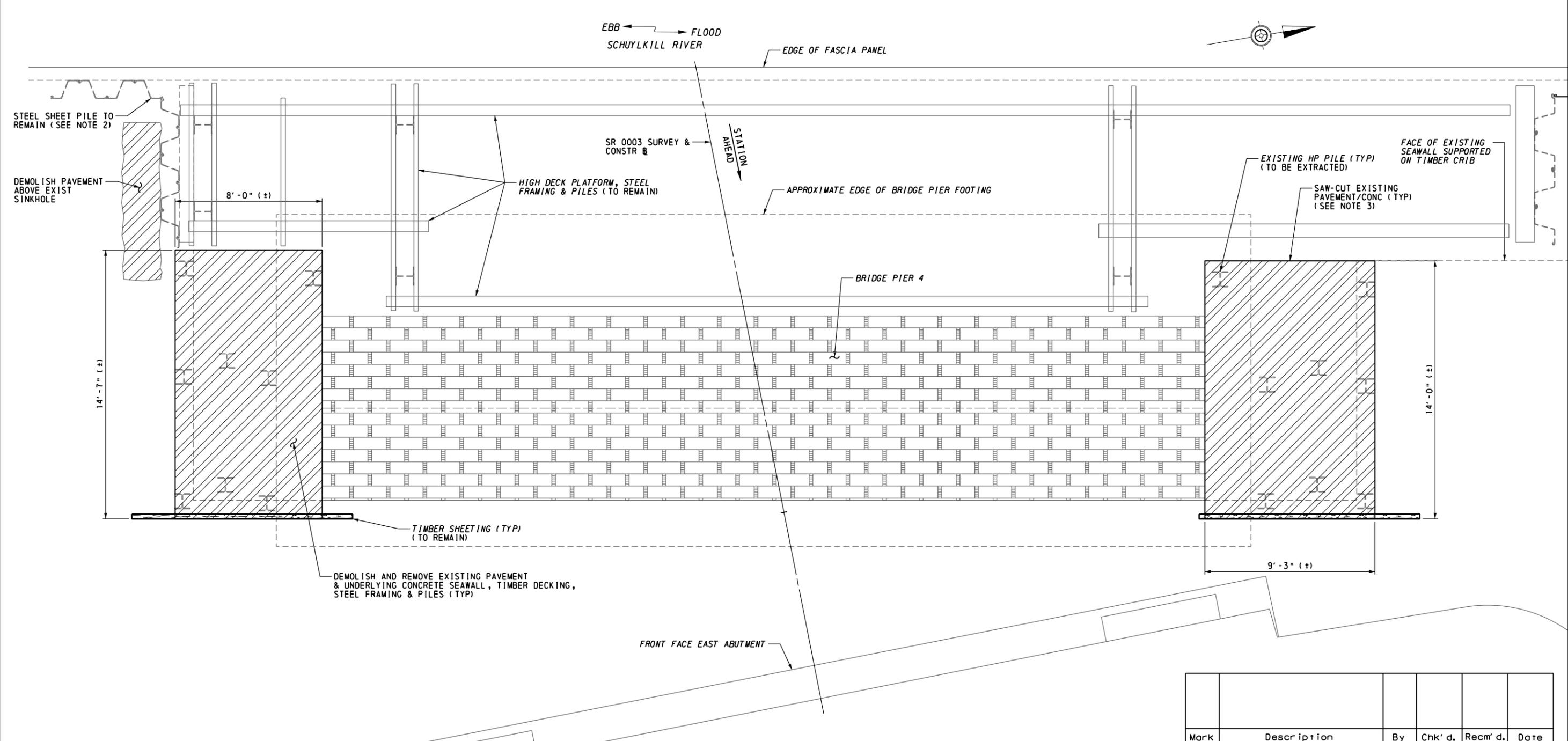
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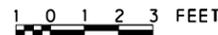
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 SR 0003 CHESTNUT STREET OVER SCHUYLKILL RIVER
 PATH STABILIZATION AT PIER 4
EXISTING SECTIONS

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STRUCTURAL DEMOLITION PLAN



NOTES

1. FOR GENERAL NOTES, SEE SHEET 2.
2. CONTRACTOR TO PRESERVE ANY EXISTING STEEL PILE TIE BACK OR OTHER ELEMENTS THAT MAY BE ENCOUNTERED DURING DEMOLITION.
3. DEMOLISH CONCRETE SEAWALL AND SUPPORTING MATERIALS, PRESERVING STEEL FRAMEWORK SUPPORTING THE ADJACENT DECK.

LEGEND

- AREA TO BE DEMOLISHED

Mark	Description	By	Chk' d.	Recm' d.	Date
REVISIONS					

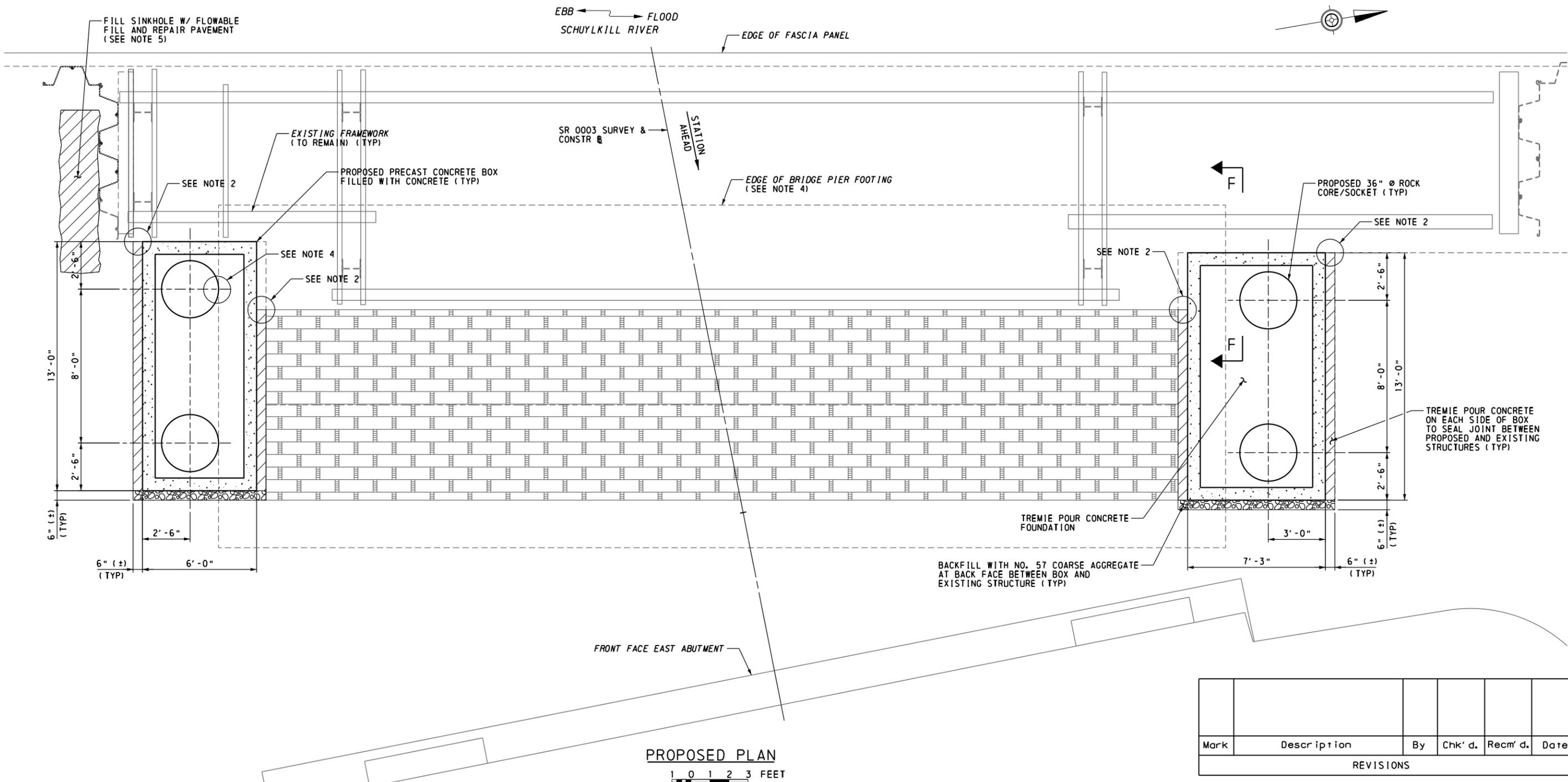
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PHILADELPHIA COUNTY
SR 0003, SEC. CH1
 SEGMENT 0090, OFFSET 2677
 SR 0003-CH1, STA. 109+44.24
 SR 0003 CHESTNUT STREET OVER SCHUYLKILL RIVER
 PATH STABILIZATION AT PIER 4
STRUCTURAL DEMOLITION PLAN

RECOMMENDED _____	SHEET 5 OF 9
S - XXXXX	

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PROPOSED PLAN
 1 0 1 2 3 FEET

NOTES

1. CONTRACTOR TO LOCATE EDGE OF EXISTING PIER FOOTING PRIOR TO DRILLING ROCK CORE.
2. SEAL JOINT BETWEEN PROPOSED PRECAST CONCRETE BOX AND EXISTING SHEET PILE OR OTHER STRUCTURE. PROVIDE EMBEDDED ITEMS IN PRECAST CONCRETE AS REQUIRED.
3. FOR CONSTRUCTION SEQUENCING REQUIREMENTS, SEE CONTRACT SPECIAL PROVISIONS.
4. VERIFY LIMITS OF EXISTING BRIDGE PIER FOOTING PRIOR TO DRILLING ROCK SOCKETS. NOTIFY ENGINEER IF SOCKET WILL OVERLAP FOOTING FOR RELOCATION.
5. DEMOLISH PAVEMENT AND FILL EXISTING SINKHOLE WITH FLOWABLE FILL, AFTER INSTALLING PRECAST BOXES, UP TO A LEVEL EQUIVALENT TO THE BOTTOM OF PROPOSED PAVEMENT SECTION.
6. FOR SECTION F-F, SEE SHEET 9.

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REVISIONS					

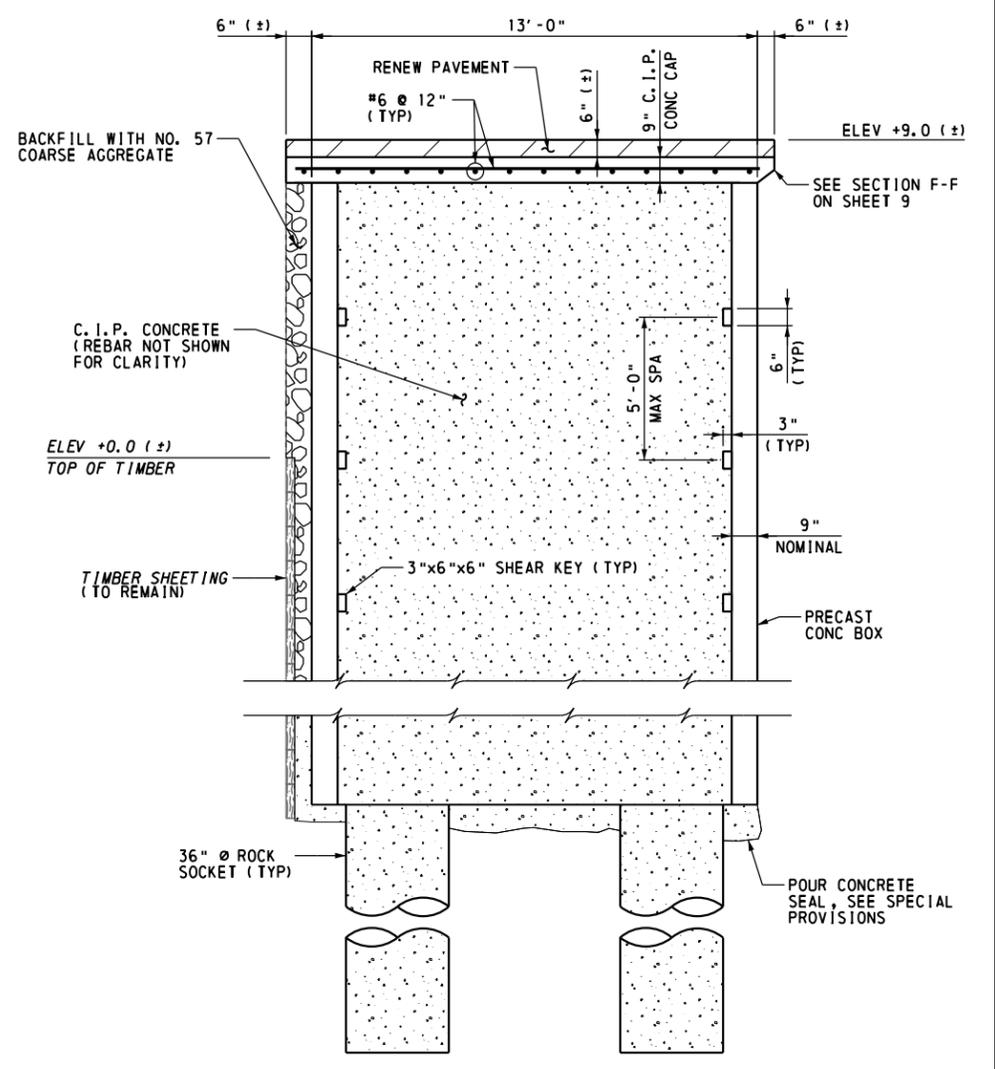
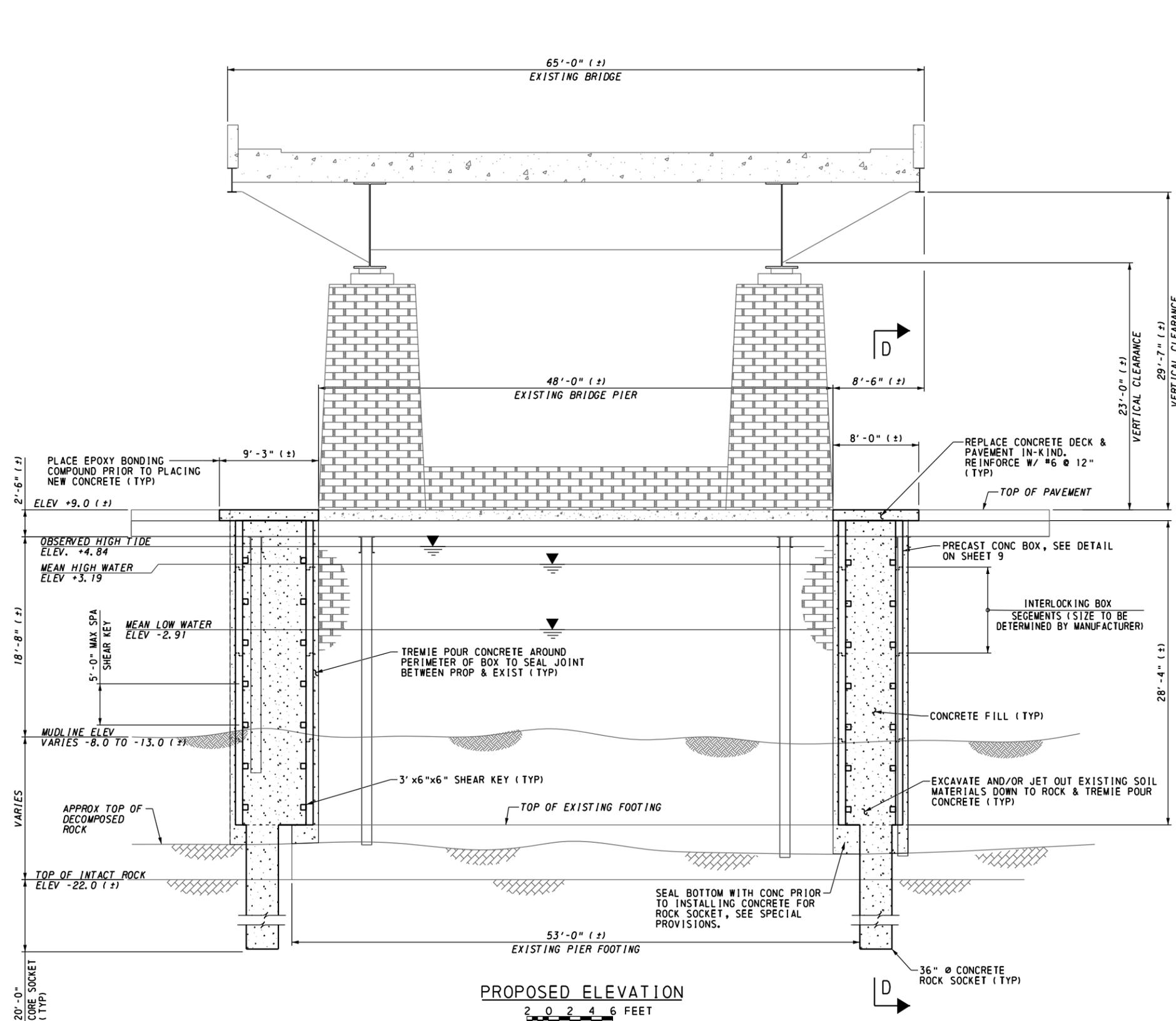
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 SR 0003-CH1, STA. 109+44.24
 SR 0003 CHESTNUT STREET OVER SCHUYLKILL RIVER
 PATH STABILIZATION AT PIER 4

PROPOSED PLAN

RECOMMENDED _____	SHEET 7 OF 9
	S - XXXXX



Mark	Description	By	Chk'd.	Recm'd.	Date
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 SR 0003-CH1, STA. 109+44.24
 SR 0003 CHESTNUT STREET OVER SCHUYLKILL RIVER
 PATH STABILIZATION AT PIER 4

PROPOSED ELEVATION

RECOMMENDED _____	SHEET 8 OF 9
	S - XXXXX

- NOTES**
- FOR SECTION C-C, SEE SHEET 9.
 - FOR CONSTRUCTION SEQUENCING REQUIREMENTS, SEE SHEET 2.
 - ROCK SOCKET SHALL EXTEND A MINIMUM OF 20' BELOW TOP OF INTACT ROCK.
 - BOTH ROCK SOCKETS AT EACH SIDE OF PIER MUST BE TREMIED AT THE SAME TIME USING TWO SEPARATE OUT PORTS.