

## **Appendix A - Item 4**

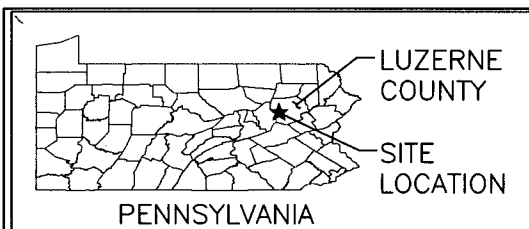
PPL Bell Bend Nuclear Power Plant  
Salem Township, Luzerne County, PA

### ***ACOE Information Requirement:***

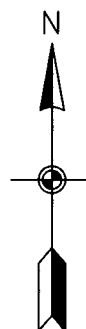
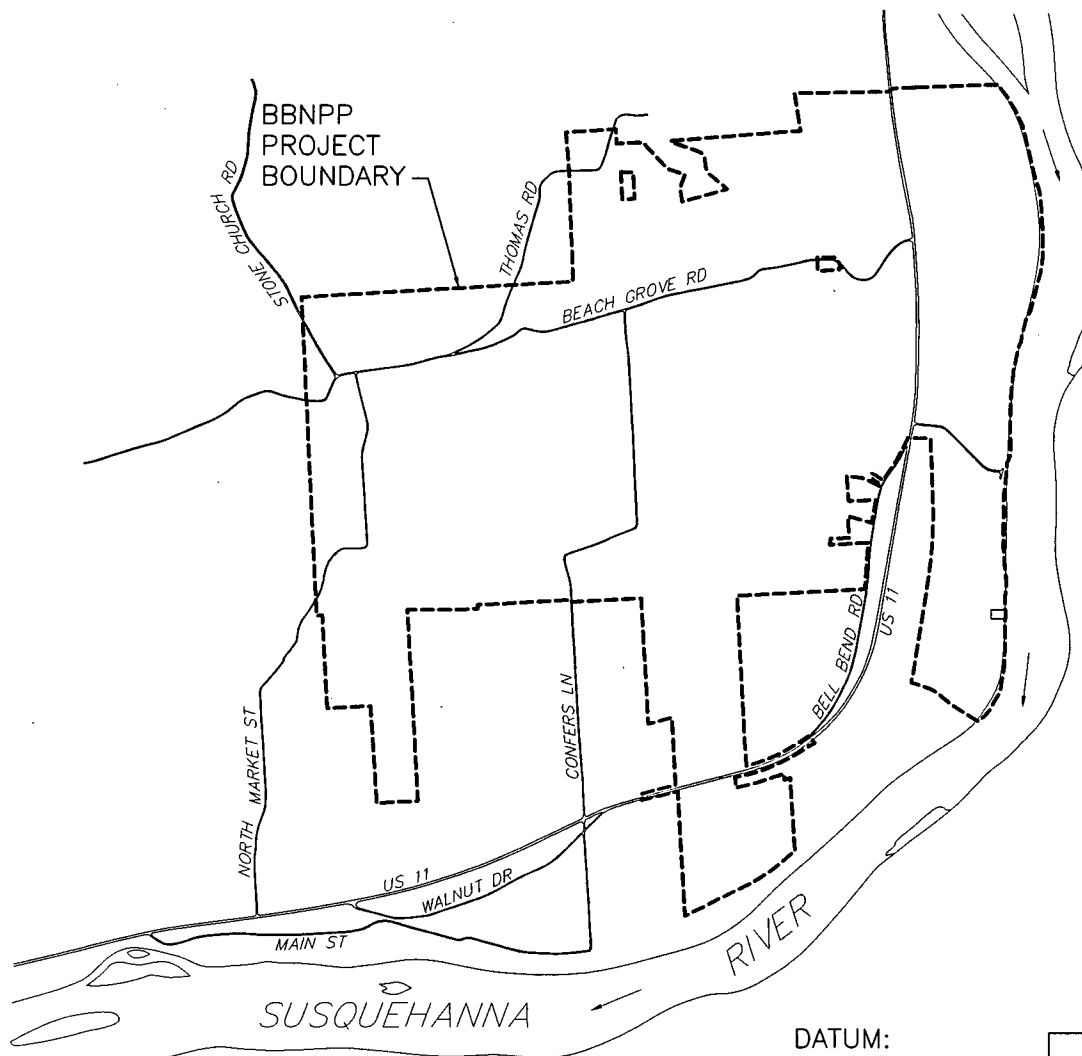
"Provide large plans (See JPA Section F) and 8.5" x 11" plan sheets for the proposed impact areas; provide top view, cross section, and/or profile drawings that include dimensions of all structures and fill proposed, including elevation and materials relative to jurisdictional waterway and wetland boundaries."

### ***Applicant Response:***

See attached 8.5" x 11" plan sheets.



# BELL BEND NUCLEAR POWER PLANT JPA SUBMISSION



NOTE:  
PROJECT LATITUDE/LONGITUDE  
IS LOCATED AT THE CENTER  
OF THE REACTOR CONTAINMENT  
BUILDING.

DATUM:  
H: (NAD 83)  
V: (NAVD 88)

PROJECT LATITUDE/LONGITUDE:  
LONG 76°09'57.34"  
LAT 41°05'21.19"

## LEGEND

BBNPP PROJECT BOUNDARY

EXISTING ROAD

**Pennoni**

Pennoni Associates Inc.  
100 N. Wilkes-Barre Blvd.  
Wilkes-Barre, PA 18702

ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES; AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

DRAWN BY: WCK

SCALE: 1"=3000'

DATE: 06/15/2011

CHECKED BY: LGB

JPA PERMIT SUBMITTAL

JOB No. PPLS 0902

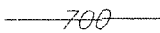
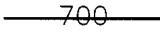







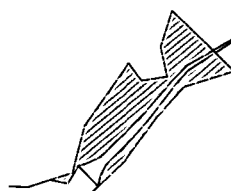

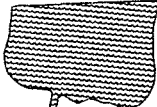

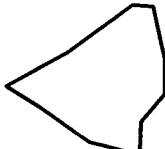
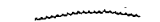








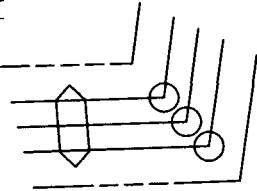
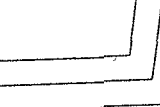
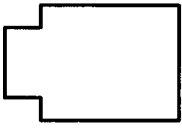
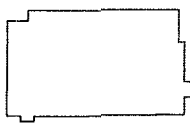
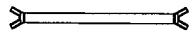
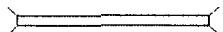
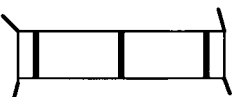

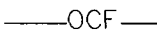


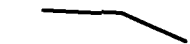
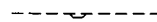



BELL BEND NUCLEAR POWER PLANT  
LUZERNE COUNTY, PENNSYLVANIA

FIGURE 1 – SITE LOCATION

REV 1 : 10/28/2011 REVISED PROJECT BOUNDARY  
REV 0 : 06/15/2011 INITIAL SUBMISSION

APPLICATION BY:  
PPL NUCLEAR DEVELOPMENT, LLC

# LEGEND

EXISTING	PROPOSED	EXISTING	PROPOSED
	MAJOR CONTOUR LINE (10')		100 YR. FLOODPLAIN
	TEMPORARY CONTOUR LINE (10')		500 YR. FLOODPLAIN
	TEMPORARY CONTOUR LINE (2')		
	UTILITY POLE		50' EXCEPTIONAL VALUE (EV) WETLAND BUFFER
	EVERGREEN TREE		NON-IMPACTED WETLANDS/ STREAM
	DECIDUOUS TREE		NON-IMPACTED WATERBODY
	FENCE		IMPACTED WETLANDS
	TREE/BRUSH LINE		IMPACTED STREAM/ RIVER
	EDGE OF PAVE		CREATED/ ENHANCED WETLANDS
	RAILROAD		BASIN
	BBNPP PROJECT BOUNDARY		PUMPED WATER FILTER BAG/ SEDIMENT FILTER PUMP
	PROPERTY LINE		TEMPORARY COFFERDAM
	TRANSMISSION TOWERS/LINES & R.O.W.		
	BUILDING/ STRUCTURE		
	CULVERT		
	BRIDGE		
	ORANGE CONSTRUCTION FENCE		
	INTAKE/ BLOWDOWN PIPE		
	INTAKE/ BLOWDOWN PIPE LINE OF EXCAVATION		
<i>ITALICS</i>	TEXT	NON-ITALICS	
			N.T.S. NOT TO SCALE
			WETLAND NUMBER DESIGNATION 

**Pennoni**

Pennoni Associates Inc.  
100 N. Wilkes-Barre Blvd.  
Wilkes-Barre, PA 18702

ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES, AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM

DRAWN BY: WCK  
CHECKED BY: LGB  
JOB No. PPLS 0902

SCALE: N/A

DATE: 06/15/2011

JPA PERMIT SUBMITTAL  
BELL BEND NUCLEAR POWER PLANT  
LUZERNE COUNTY, PENNSYLVANIA

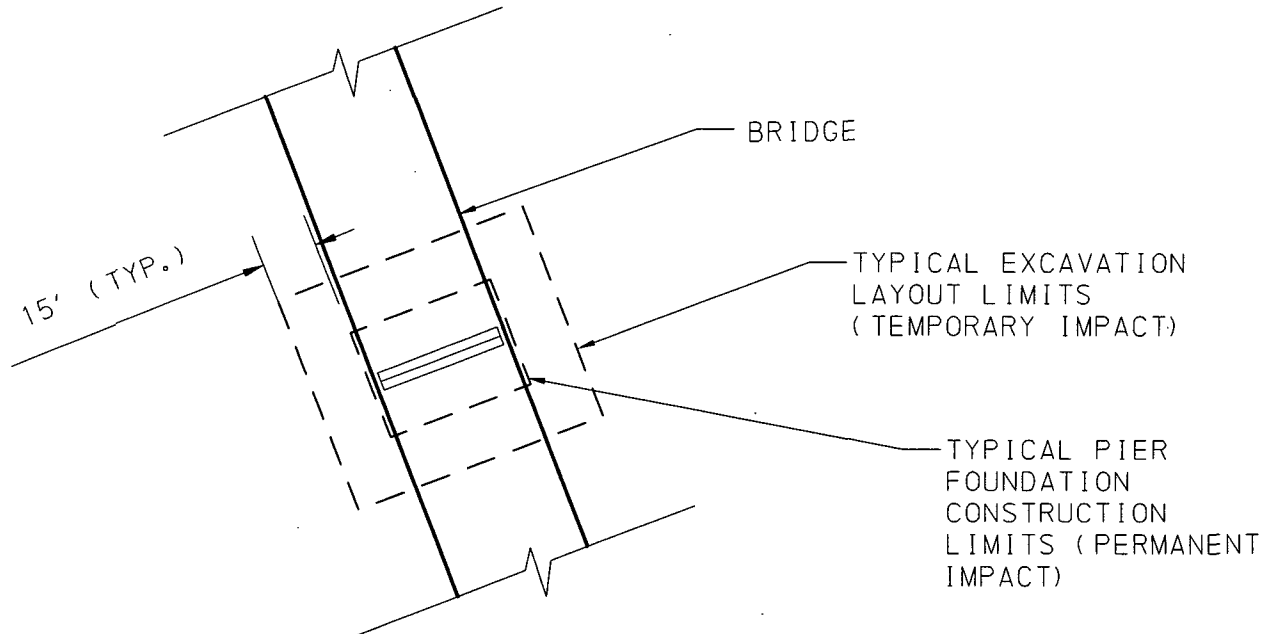
APPLICATION BY:  
PPL NUCLEAR DEVELOPMENT, LLC

FIGURE 2A - LEGEND

REV 0 : 06/15/2011 INITIAL SUBMISSION

# NOTES:

1. LOCATION OF WETLANDS, STREAMS, WATERBODIES, AND AREAS WAS OBTAINED FROM BBNPP USACOE THIRD PRELIMINARY JD MAPPING OCTOBER 2011.
2. A 50 FOOT BUFFER WAS PROVIDED FOR ALL EV WETLANDS, WHEREVER POSSIBLE, IN AN EFFORT TO PROTECT THESE AREAS FROM INDIRECT IMPACTS. GRADING AND CLEARING OF VEGETATION IS TO BE AVOIDED TO THE GREATEST EXTENT PRACTICABLE, EXCEPT AS SHOWN ON THESE PLANS.
3. WETLANDS ARE TO REMAIN UNDISTURBED UNLESS NOTED ON FIGURES. PROVIDE ORANGE CONSTRUCTION FENCE AROUND ALL WETLANDS OR WETLAND BUFFERS FOR PROTECTION. TO MINIMIZE IMPACTS, ATTACH THE ORANGE CONSTRUCTION FENCE TO EXISTING TREES TO REMAIN WHERE APPLICABLE. IF ORANGE CONSTRUCTION FENCE IS NOT ADEQUATE, CONSTRUCT AN EARTHEN BERM AROUND WETLANDS OR WETLAND BUFFERS.
4. EXISTING 500 YR. FLOOD PLAIN MAPPING INFORMATION SHOWN HEREON WAS OBTAINED FROM FEMA MAP PANEL 4206250020B, EFFECTIVE DATE MARCH 18, 1980. EXISTING AND PROPOSED 100 YR. FLOODPLAIN LINES ARE BASED ON THE SUSQUEHANNA RIVER FLOOD STUDY REPORT, REVISION 3, AUGUST 2011 AND THE WALKER RUN FLOOD STUDY REPORT, REVISION 2, SEPTEMBER 2011 PROVIDED BY LAND STUDIES INC.
5. TOPOGRAPHIC AND PLANIMETRIC INFORMATION SHOWN IS FROM A SURVEY PERFORMED BY AEROCON PHOTOGRAMMETRIC SERVICES, INC. IN NOVEMBER 2007, JANUARY 2008 AND 2010. ADDITIONAL TOPOGRAPHIC INFORMATION PROVIDED BY PETERS CONSULTANTS.
6. TREE CLEARING AND WETLAND IMPACTS FOR BRIDGES IS ASSUMED TO BE 80 TOTAL FEET OUTSIDE BRIDGE DECK WITH NO LESS THAN 50 FEET ON ONE SIDE. WETLANDS IN THESE AREAS WILL BE MAINTAINED IN AN EMERGENT OR SCRUB/SHRUB CONDITION TO PROTECT THE INTEGRITY OF THE BRIDGE STRUCTURE.
7. TREE CLEARING FOR OVERHEAD ELECTRIC LINES WILL BE THE FULL WIDTH OF THE RIGHT-OF-WAY OR 100 FEET MEASURED HORIZONTALLY FROM THE OUTERMOST TRANSMISSION LINE WHERE NO RIGHT-OF-WAY EXISTS. WETLANDS IN THESE AREAS WILL BE MAINTAINED IN AN EMERGENT OR SCRUB/SHRUB CONDITION OR PROTECT THE INTEGRITY OF THE TRANSMISSION LINES.
8. INTAKE/BLOWDOWN LINE TRENCH TEMPORARY IMPACTS SHALL BE THE TRENCH WIDTH PLUS ANY ADDITIONAL WIDTH REQUIRED FOR EQUIPMENT AND SIDE CAST MATERIAL.



TYPICAL PIER DETAIL  
N.T.S.


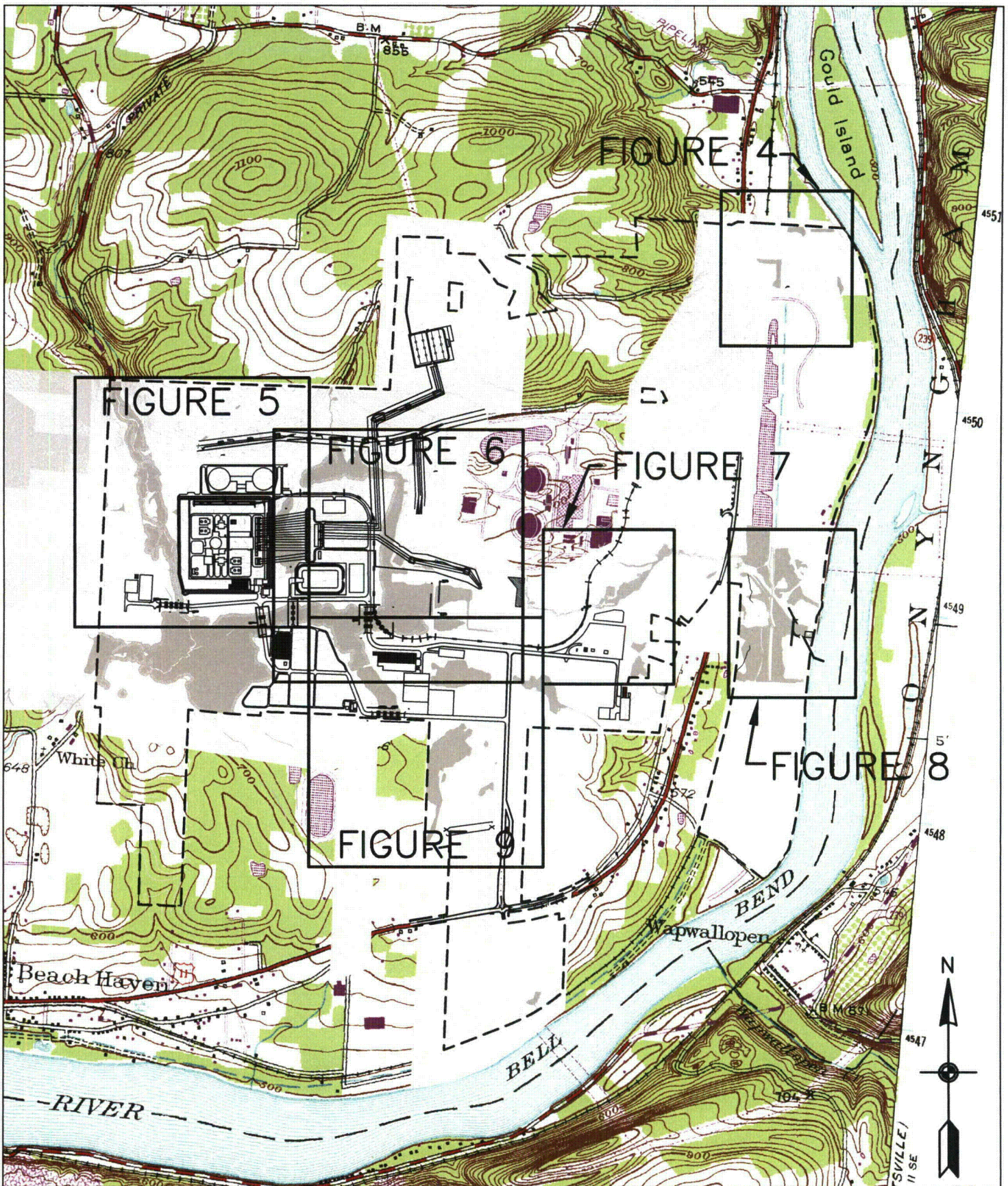
 <p>Pennoni Associates Inc. 100 N. Wilkes-Barre Blvd. Wilkes-Barre, PA 18702</p>	<small>ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES, AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.</small>	DRAWN BY: WCK	SCALE: N/A	DATE: 06/15/2011
		CHECKED BY: LGB	JPA PERMIT SUBMITTAL	
		JOB No. PPLS 0902	BELL BEND NUCLEAR POWER PLANT LUZERNE COUNTY, PENNSYLVANIA	
		REV 1 : 10/28/2011 REVISED TEXT REV 0 : 06/15/2011 INITIAL SUBMISSION	APPLICATION BY: PPL NUCLEAR DEVELOPMENT, LLC	

FIGURE 2B – GENERAL NOTES





**Pennoni**

Pennoni Associates Inc.  
100 N. Wilkes-Barre Blvd.  
Wilkes-Barre, PA 18702

ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES. AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

DRAWN BY: WCK

CHECKED BY: LGB

JOB No. PPLS 0902

SCALE: HORZ. 1"=2000'  
VERT. N/A

DATE: 06/15/2011

JPA PERMIT SUBMITTAL  
BELL BEND NUCLEAR POWER PLANT  
LUZERNE COUNTY, PENNSYLVANIA

APPLICATION BY:  
PPL NUCLEAR DEVELOPMENT, LLC

FIGURE 3 — KEY PLAN

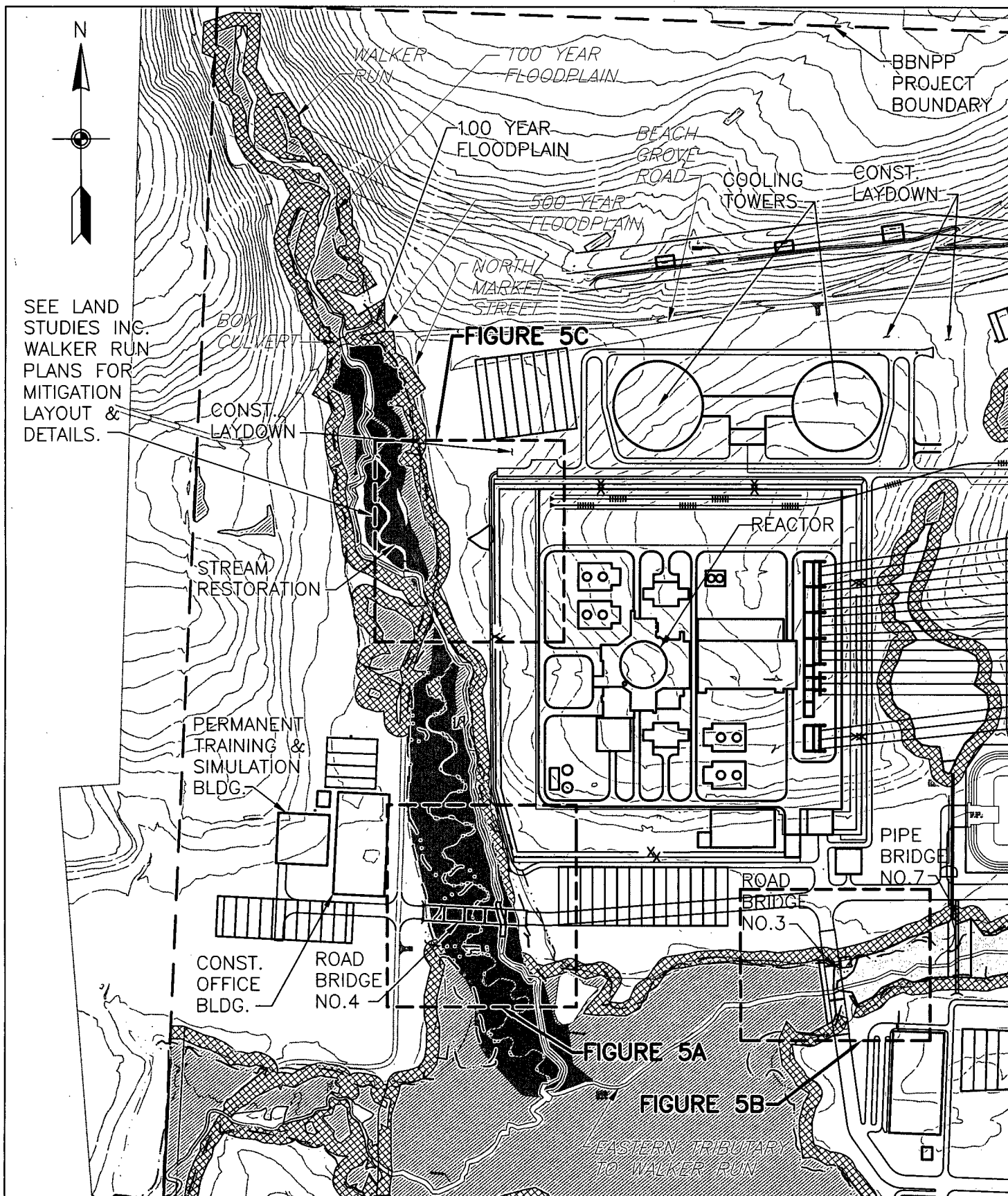
REV 1 : 10/28/2011 REVISED WETLANDS / PROJECT BOUNDARY  
REV 0 : 06/15/2011 INITIAL SUBMISSION



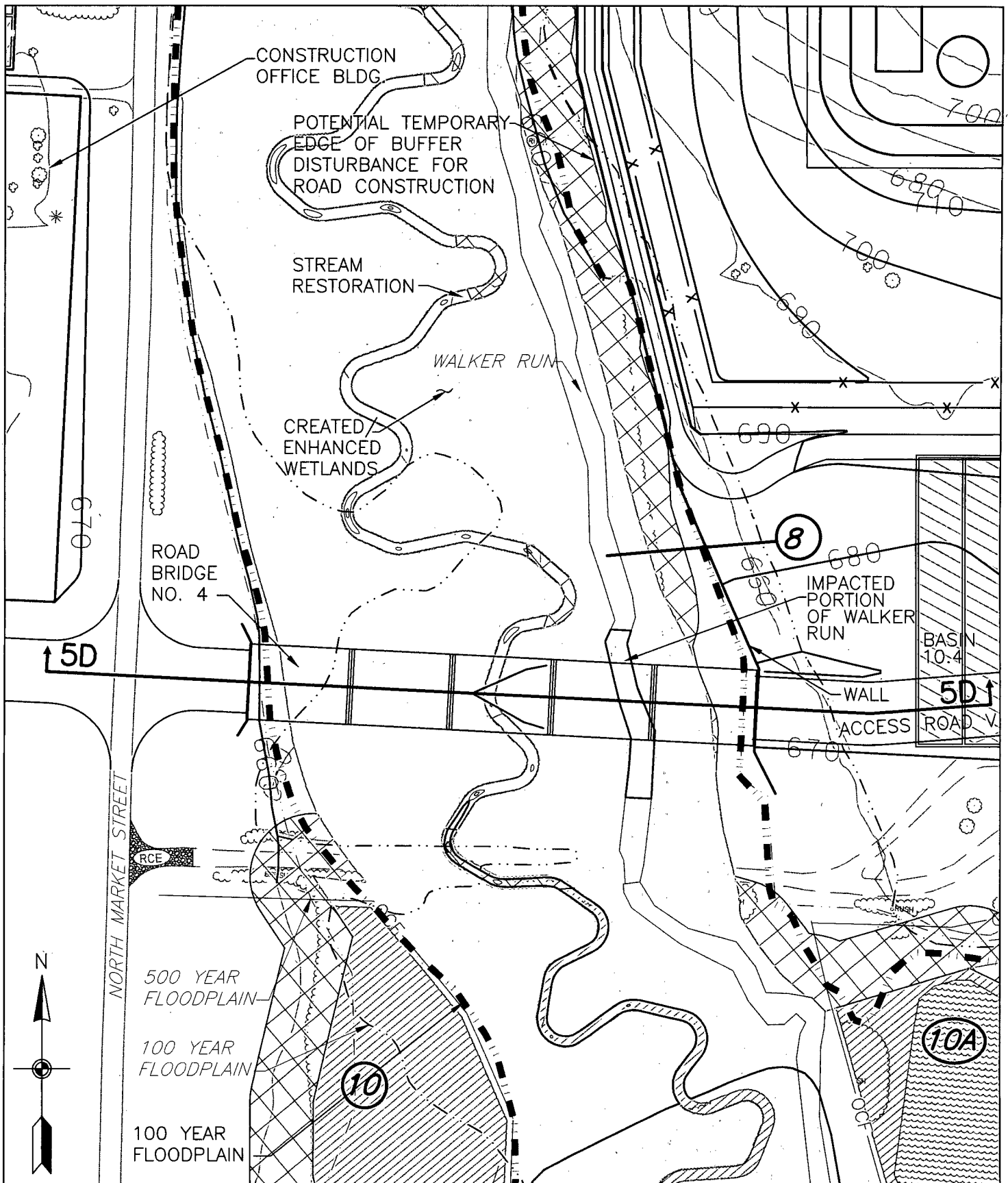


<b>Pennoni</b> Pennoni Associates Inc. 100 N. Wilkes-Barre Blvd. Wilkes-Barre, PA 18702	ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES; AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.	DRAWN BY: WCK CHECKED BY: LGB JOB No. PPLS 0902	SCALE: HORZ. 1"=200' VERT. N/A DATE: 06/15/2011
		REV 1 : 10/28/2011 REV. PROJECT BOUNDARY / FLOOD LINES REV 0 : 06/15/2011 INITIAL SUBMISSION	JPA PERMIT SUBMITTAL BELL BEND NUCLEAR POWER PLANT LUZERNE COUNTY, PENNSYLVANIA
			APPLICATION BY: PPL NUCLEAR DEVELOPMENT, LLC

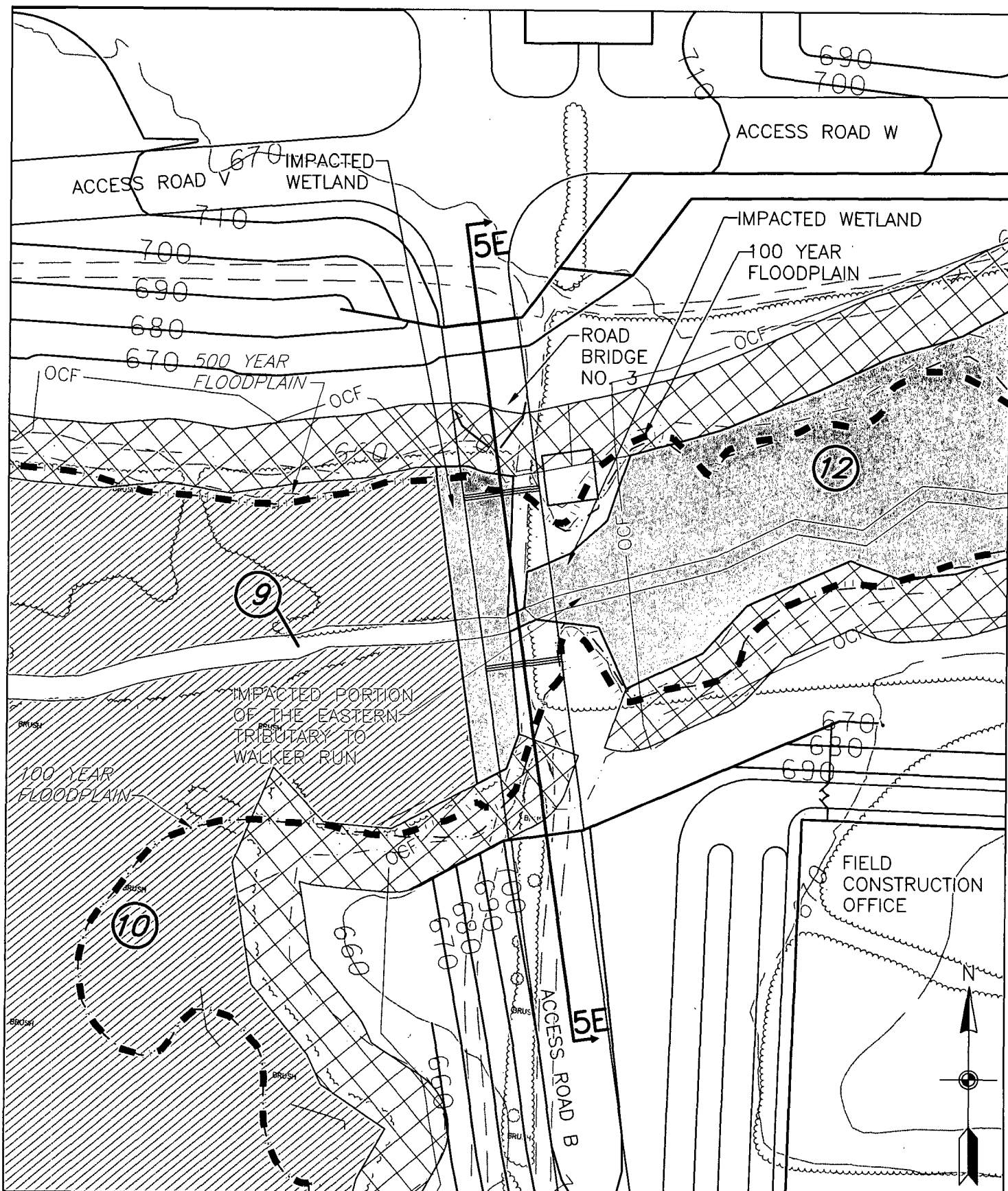
FIGURE 4 - SITE LAYOUT



<div><b>Pennoni</b></div> <div>Pennoni Associates Inc. 100 N. Wilkes-Barre Blvd. Wilkes-Barre, PA 18702</div>	ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES, AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.		DRAWN BY: WCK	SCALE: HORZ. 1"=500' VERT. N/A	DATE: 06/15/2011
			CHECKED BY: LGB	JPA PERMIT SUBMITTAL	
			JOB No. PPLS 0902	BELL BEND NUCLEAR POWER PLANT LUZERNE COUNTY, PENNSYLVANIA	
	FIGURE 5 – SITE LAYOUT		REV 1 : 10/28/2011 REVISED FLOOD LINES AND WETLANDS REV 0 : 06/15/2011 INITIAL SUBMISSION	APPLICATION BY: PPL NUCLEAR DEVELOPMENT, LLC	







**Pennoni**

Pennoni Associates Inc.  
100 N. Wilkes-Barre Blvd.  
Wilkes-Barre, PA 18702

ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES. AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

DRAWN BY: WCK

CHECKED BY: LGB

JOB No. PPLS 0902

SCALE: HORZ. 1"=100'  
VERT. N/A

DATE: 06/15/2011

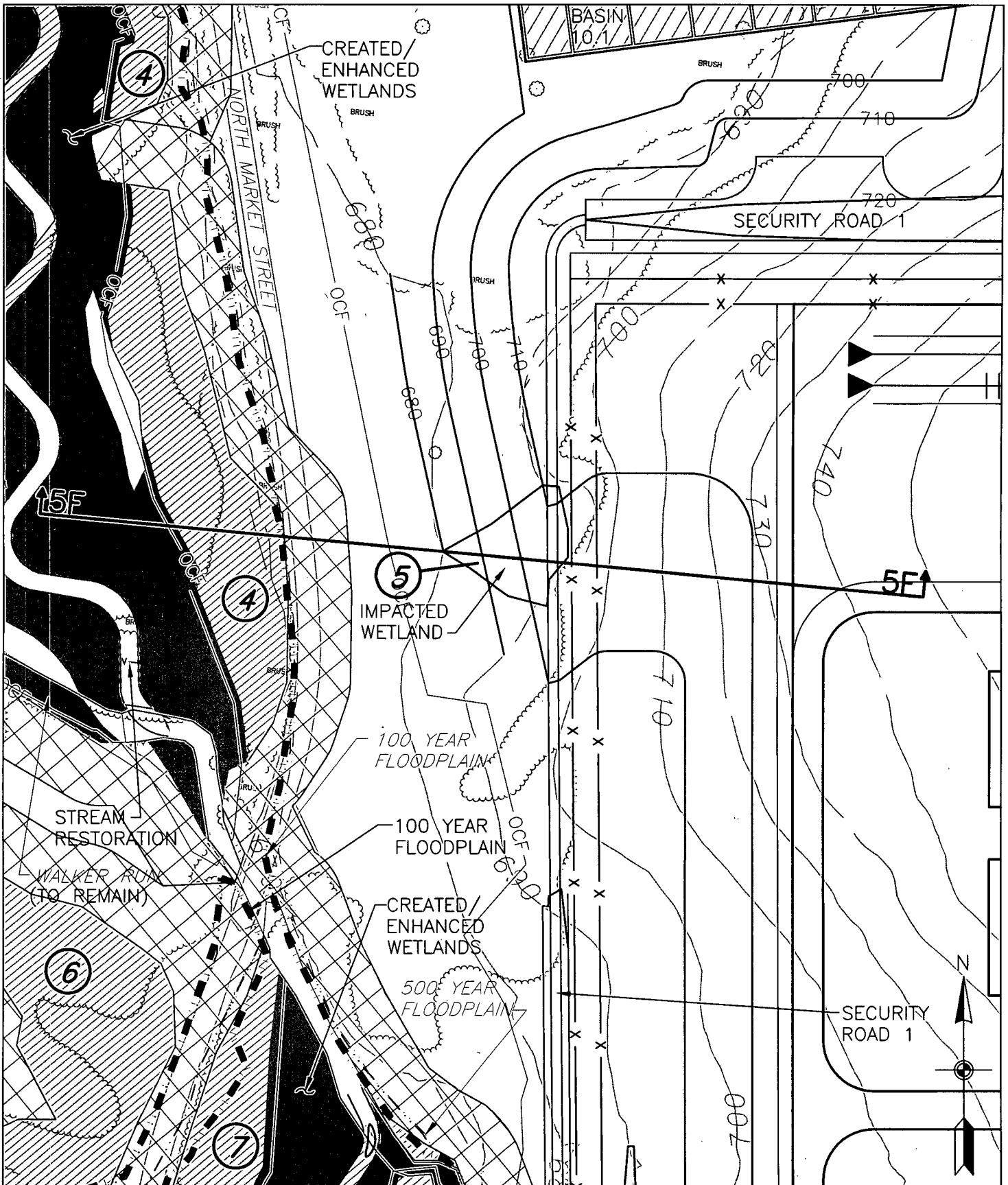
JPA PERMIT SUBMITTAL

BELL BEND NUCLEAR POWER PLANT  
LUZERNE COUNTY, PENNSYLVANIA

APPLICATION BY:  
PPL NUCLEAR DEVELOPMENT, LLC

FIGURE 5B - SITE LAYOUT

REV 1 : 10/28/2011 REVISED FLOOD LINES  
REV 0 : 06/15/2011 INITIAL SUBMISSION



**Pennoni**

Pennoni Associates Inc.  
100 N. Wilkes-Barre Blvd.  
Wilkes-Barre, PA 18702

ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES; AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

DRAWN BY: WCK

CHECKED BY: LGB

JOB No. PPLS 0902

SCALE: HORZ. 1"=100'  
VERT. N/A

DATE: 06/15/2011

JPA PERMIT SUBMITTAL

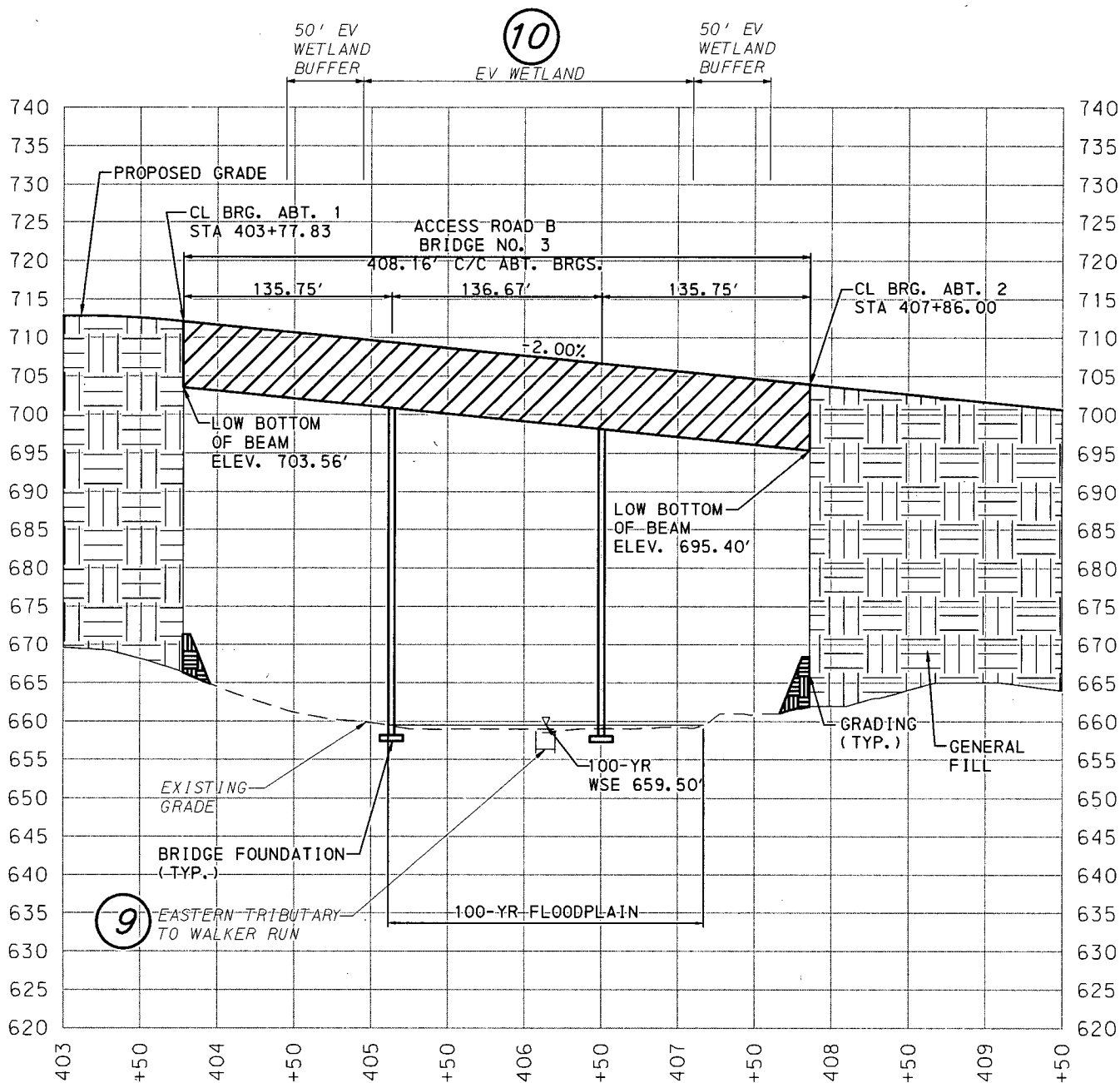
BELL BEND NUCLEAR POWER PLANT  
LUZERNE COUNTY, PENNSYLVANIA

APPLICATION BY:  
PPL NUCLEAR DEVELOPMENT, LLC

FIGURE 5C - SITE LAYOUT

REV 1 : 10/28/2011 REV. FLOOD LINES/ BASIN 10.2 REMOVED  
REV 0 : 06/15/2011 INITIAL SUBMISSION





**Pennoni**

Pennoni Associates Inc.  
100 N. Wilkes-Barre Blvd.  
Wilkes-Barre, PA 18702

ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES, AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

DRAWN BY: WCK

SCALE: HORZ. 1"=100'  
VERT. 1"=20'

DATE: 06/15/2011

CHECKED BY: LGB

JPA PERMIT SUBMITTAL

JOB No. PPLS 0902

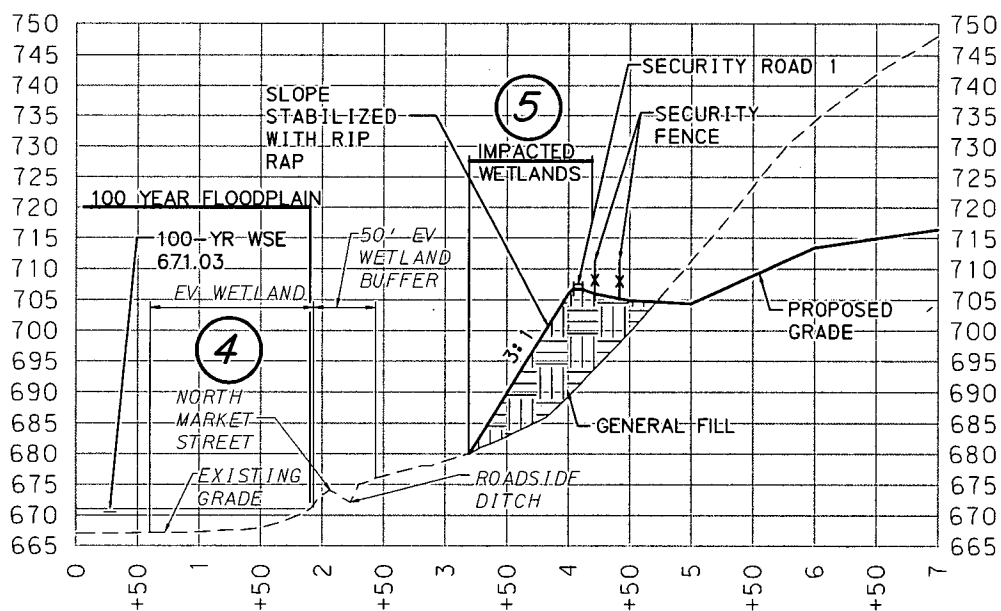
BELL BEND NUCLEAR POWER PLANT  
LUZERNE COUNTY, PENNSYLVANIA

APPLICATION BY:  
PPL NUCLEAR DEVELOPMENT, LLC

FIGURE 5E — BRIDGE NO. 3 CROSS SECTION

REV 0 : 06/15/2011 INITIAL SUBMISSION





**Pennoni**

Pennoni Associates Inc.  
100 N. Wilkes-Barre Blvd.  
Wilkes-Barre, PA 18702

ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES; AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

DRAWN BY: WCK

CHECKED BY: LGB

JOB No. PPLS 0902

SCALE: HORZ. 1"=150'  
VERT. 1"=20'

DATE: 06/15/2011

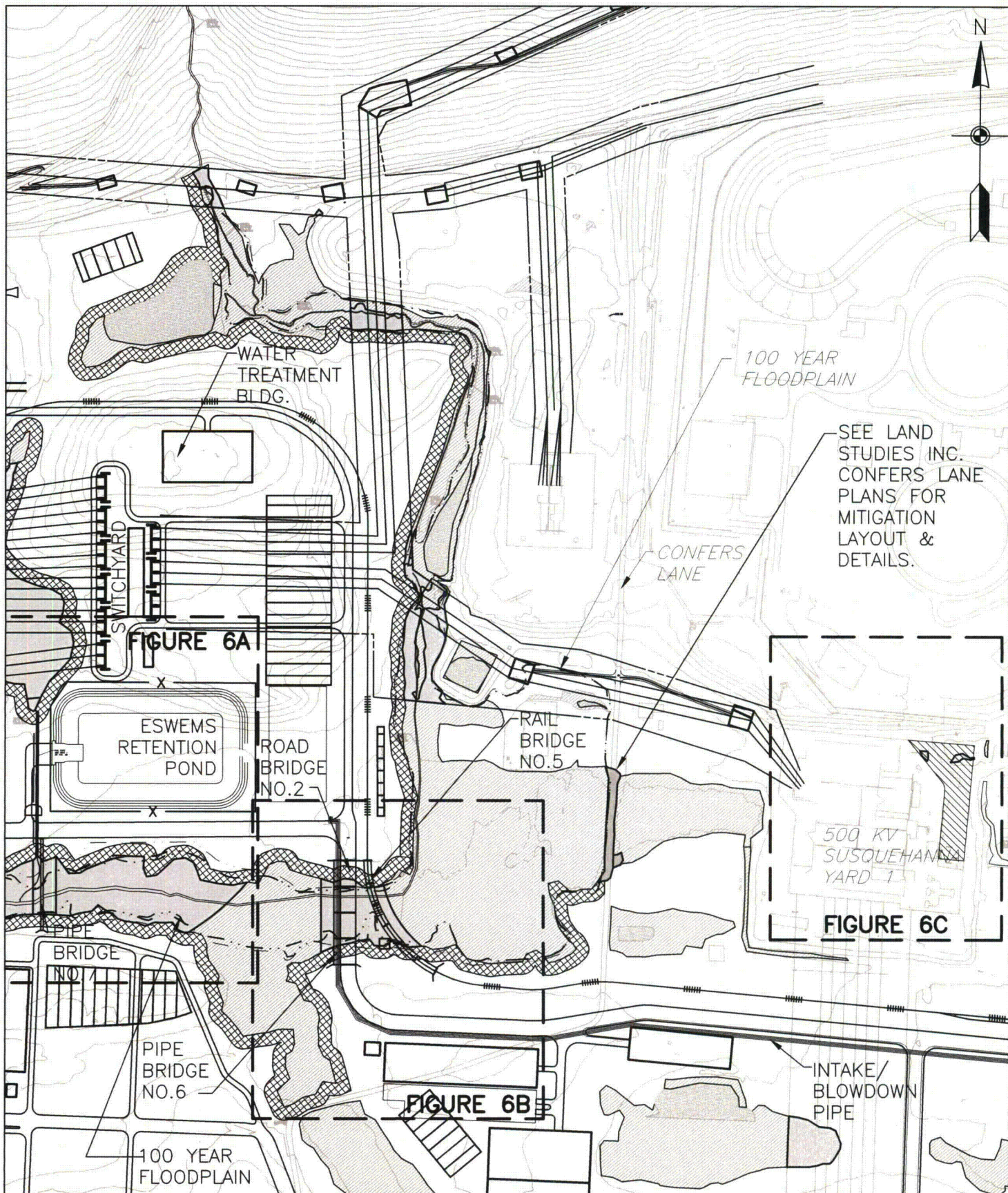
JPA PERMIT SUBMITTAL

BELL BEND NUCLEAR POWER PLANT  
LUZERNE COUNTY, PENNSYLVANIA

APPLICATION BY:  
PPL NUCLEAR DEVELOPMENT, LLC

FIGURE 5F - DISTURBED WETLAND AT  
POWERBLOCK CROSS SECTION

REV 0 : 06/15/2011 INITIAL SUBMISSION



**Pennoni**

Pennoni Associates Inc.  
100 N. Wilkes-Barre Blvd.  
Wilkes-Barre, PA 18702

ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES; AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM

DRAWN BY: WCK  
CHECKED BY: LGB  
JOB No. PPLS 0902

SCALE: HORIZ. 1"=500'  
VERT. N/A

DATE: 06/15/2011

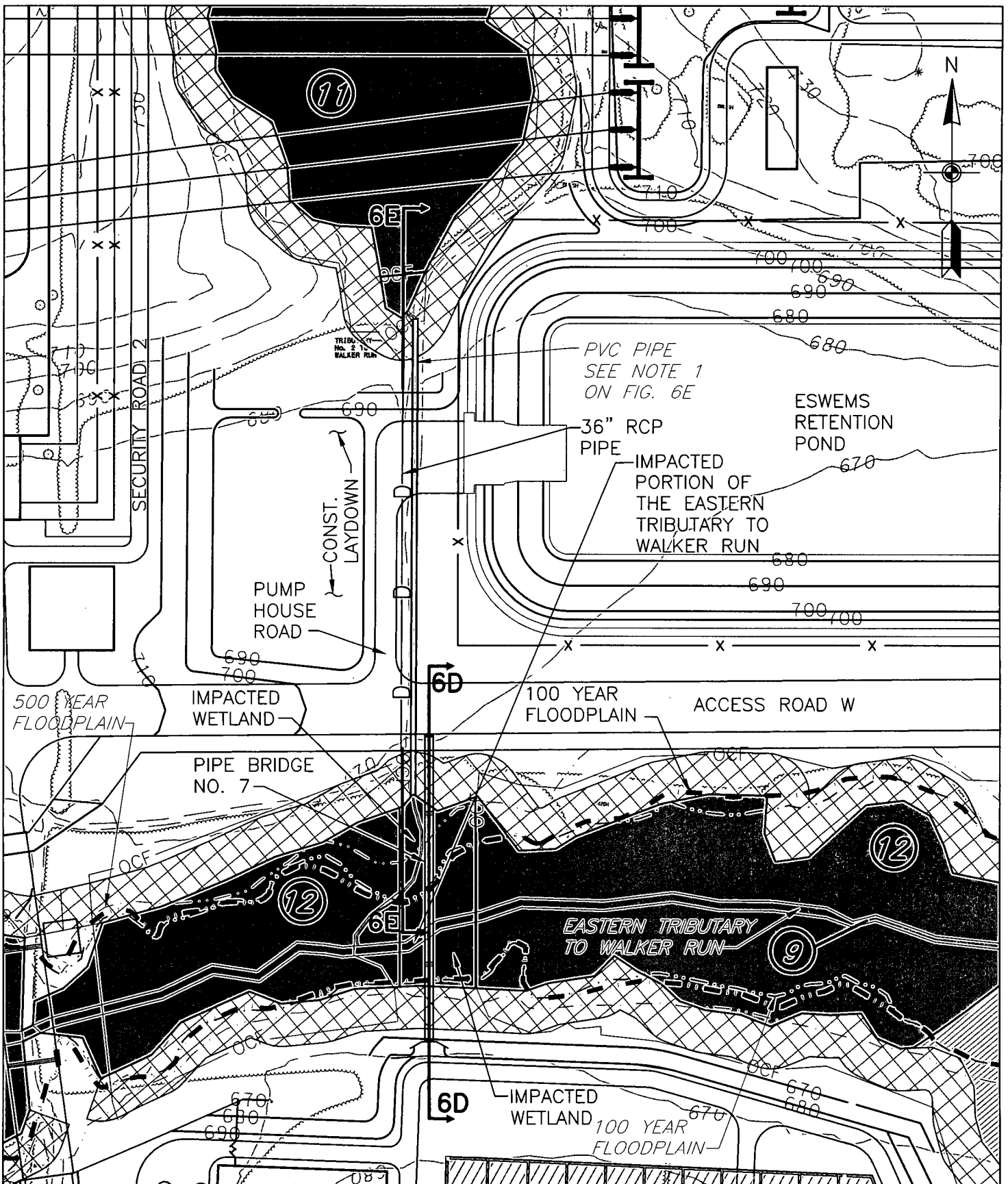
JPA PERMIT SUBMITTAL  
BELL BEND NUCLEAR POWER PLANT  
LUZERNE COUNTY, PENNSYLVANIA

APPLICATION BY:  
PPL NUCLEAR DEVELOPMENT, LLC

FIGURE 6 - SITE LAYOUT

REV 1 : 10/28/2011 REVISED NORTH WEST CORNER  
REV 0 : 06/15/2011 INITIAL SUBMISSION





**Pennoni**

Pennoni Associates Inc.  
100 N. Wilkes-Barre Blvd.  
Wilkes-Barre, PA 18702

ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES. AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

DRAWN BY: WCK

CHECKED BY: LGB

JOB No. PPLS 0902

SCALE: HORZ. 1"=150'  
VERT. N/A

DATE: 06/15/2011

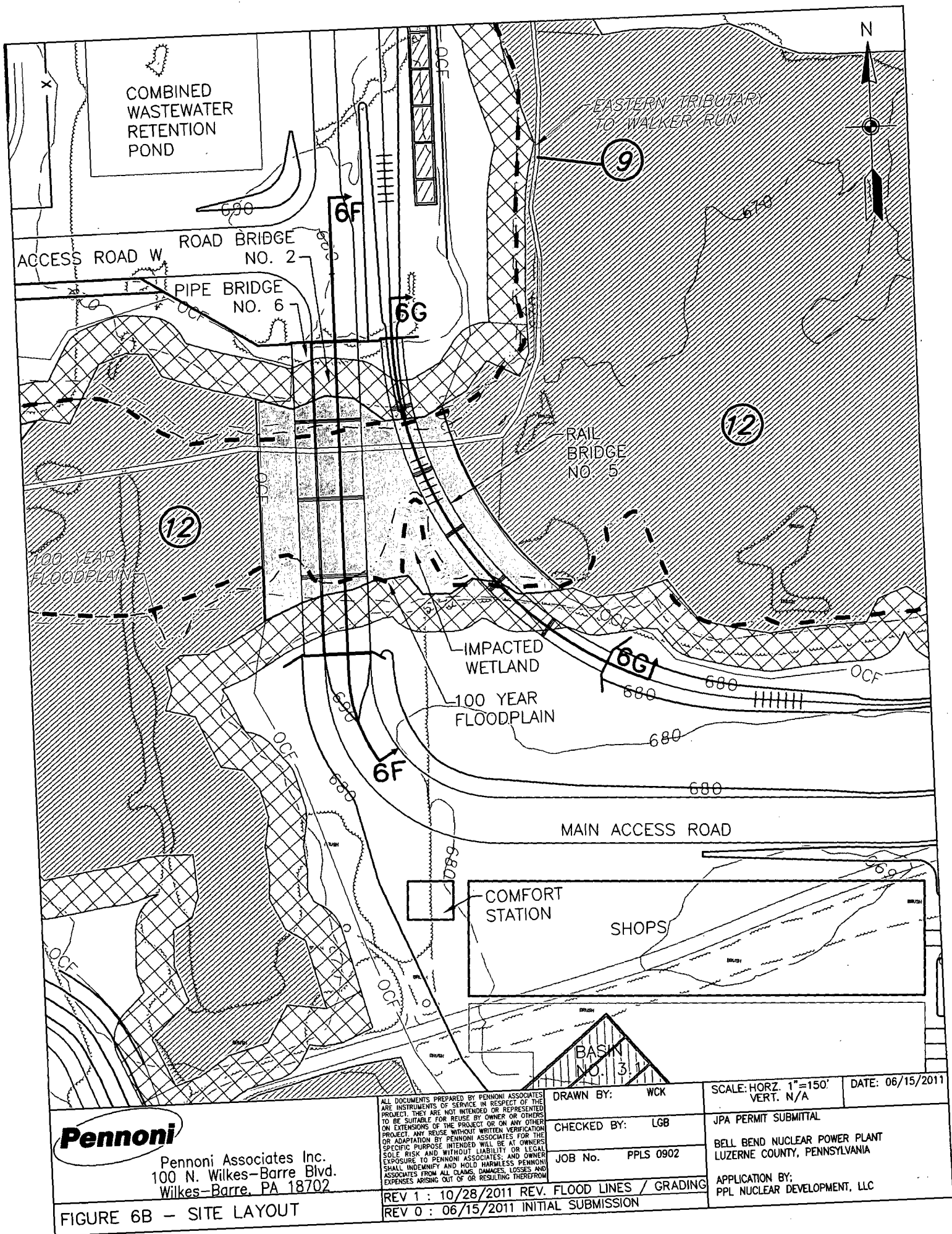
JPA PERMIT SUBMITTAL

BELL BEND NUCLEAR POWER PLANT  
LUZERNE COUNTY, PENNSYLVANIA

APPLICATION BY:  
PPL NUCLEAR DEVELOPMENT, LLC

FIGURE 6A - SITE LAYOUT

REV 1 : 10/28/2011 REV. FLOOD LINES / 36" LINE STYLE  
REV 0 : 06/15/2011 INITIAL SUBMISSION



**Pennoni**

Pennoni Associates Inc.  
100 N. Wilkes-Barre Blvd.  
Wilkes-Barre, PA 18702

FIGURE 6B - SITE LAYOUT

ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES; AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

DRAWN BY: WCK

CHECKED BY: LGB

JOB No. PPLS 0902

SCALE: HORZ. 1"=150'  
VERT. N/A

DATE: 06/15/2011

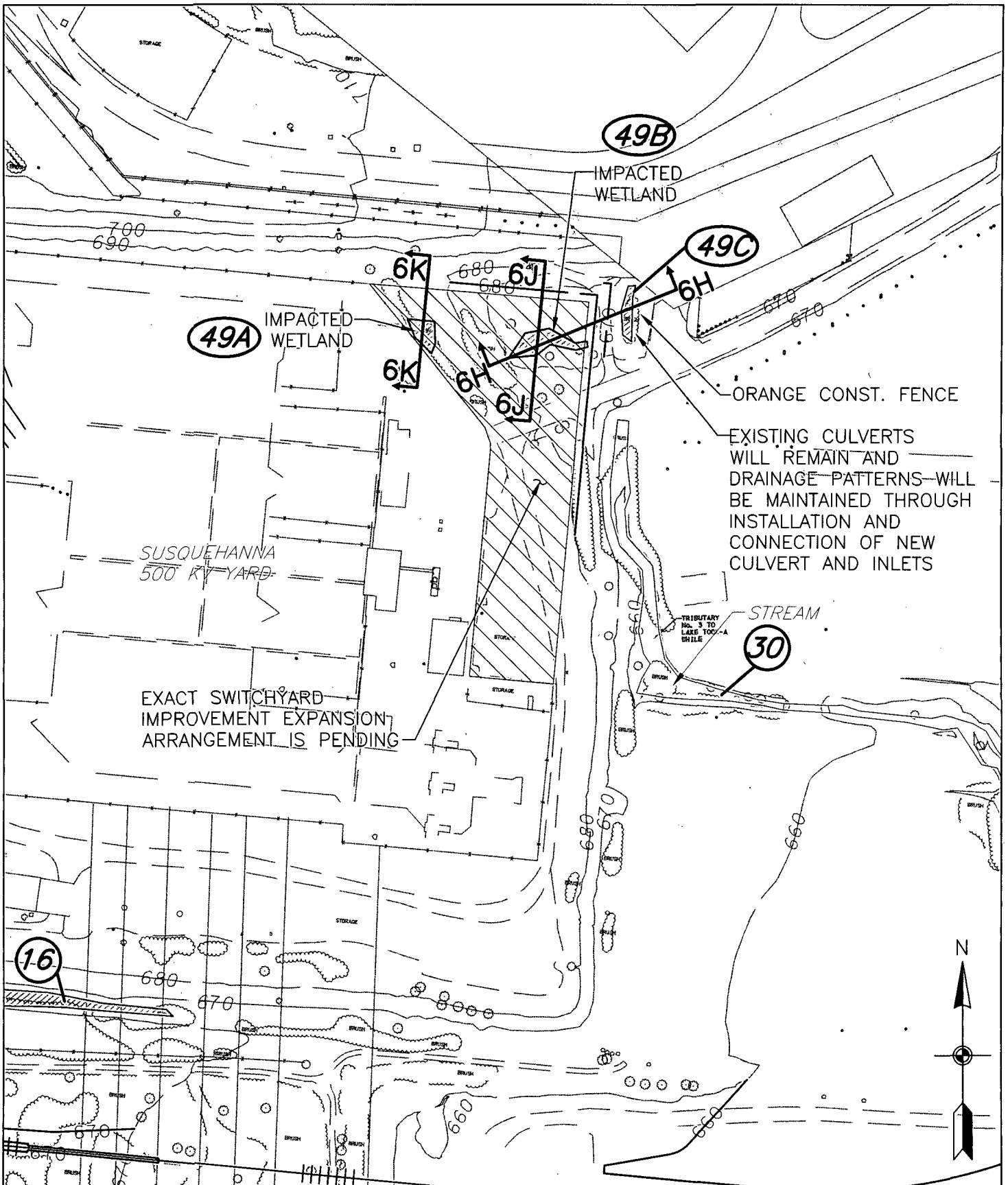
JPA PERMIT SUBMITTAL

BELL BEND NUCLEAR POWER PLANT  
LUZERNE COUNTY, PENNSYLVANIA

APPLICATION BY:  
PPL NUCLEAR DEVELOPMENT, LLC

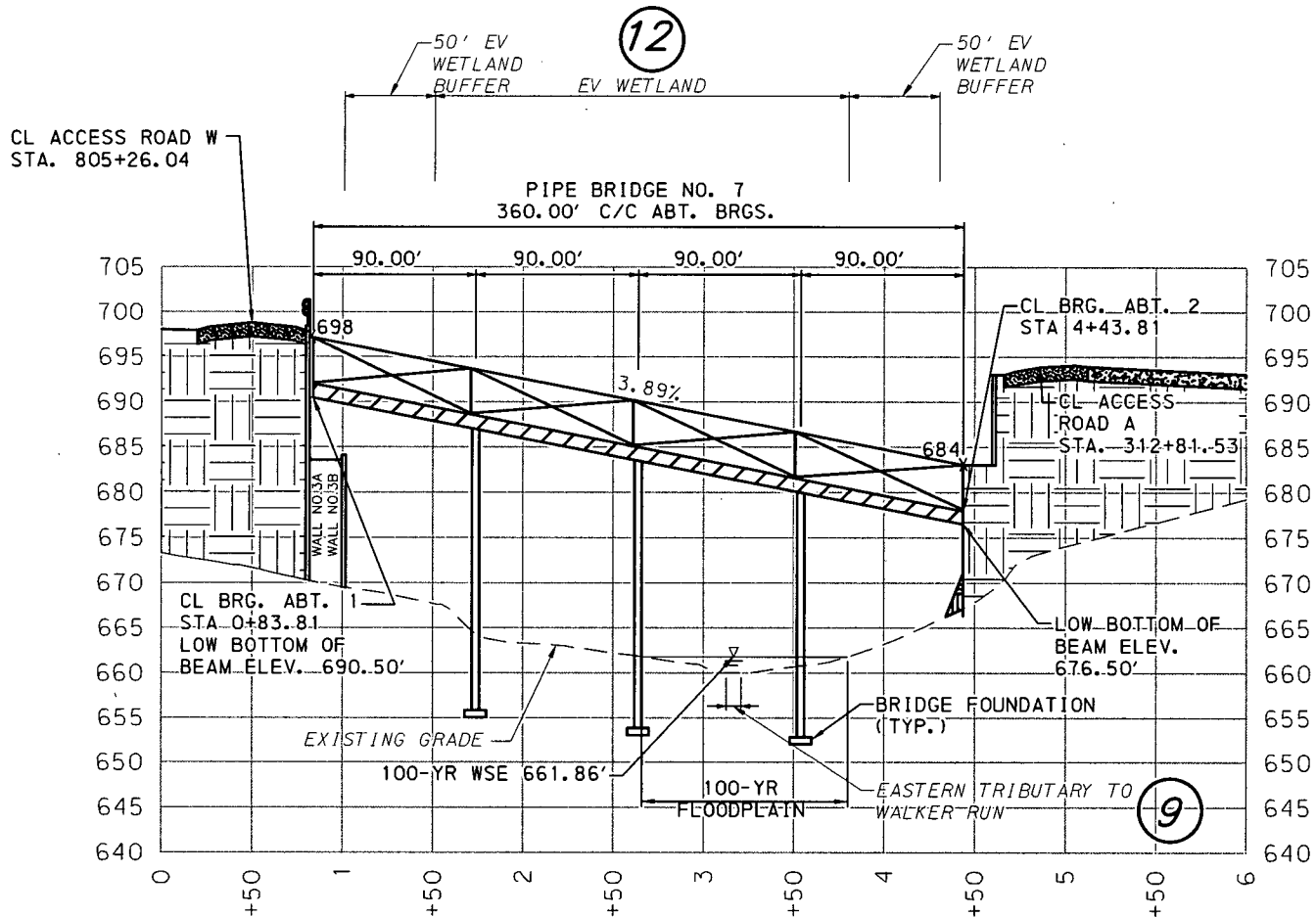
REV 1 : 10/28/2011 REV. FLOOD LINES / GRADING  
REV 0 : 06/15/2011 INITIAL SUBMISSION





<b>Pennoni</b> Pennoni Associates Inc. 100 N. Wilkes-Barre Blvd. Wilkes-Barre, PA 18702	ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES; AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.	DRAWN BY: WCK	SCALE: HORZ. 1"=150' VERT. N/A	DATE: 06/15/2011
		CHECKED BY: LGB	JPA PERMIT SUBMITTAL	
		JOB No. PPLS 0902	BELL BEND NUCLEAR POWER PLANT LUZERNE COUNTY, PENNSYLVANIA	
		REV 1 : 10/28/2011 REVISED PROJECT BOUNDARY REV 0 : 06/15/2011 INITIAL SUBMISSION		APPLICATION BY: PPL NUCLEAR DEVELOPMENT, LLC

FIGURE 6C - SITE LAYOUT



**Pennoni**

Pennoni Associates Inc.  
100 N. Wilkes-Barre Blvd.  
Wilkes-Barre, PA 18702

ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES. AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

DRAWN BY: WCK

CHECKED BY: LGB

JOB No. PPLS 0902

SCALE: HORZ. 1"=100'  
VERT. 1"=20'

DATE: 06/15/2011

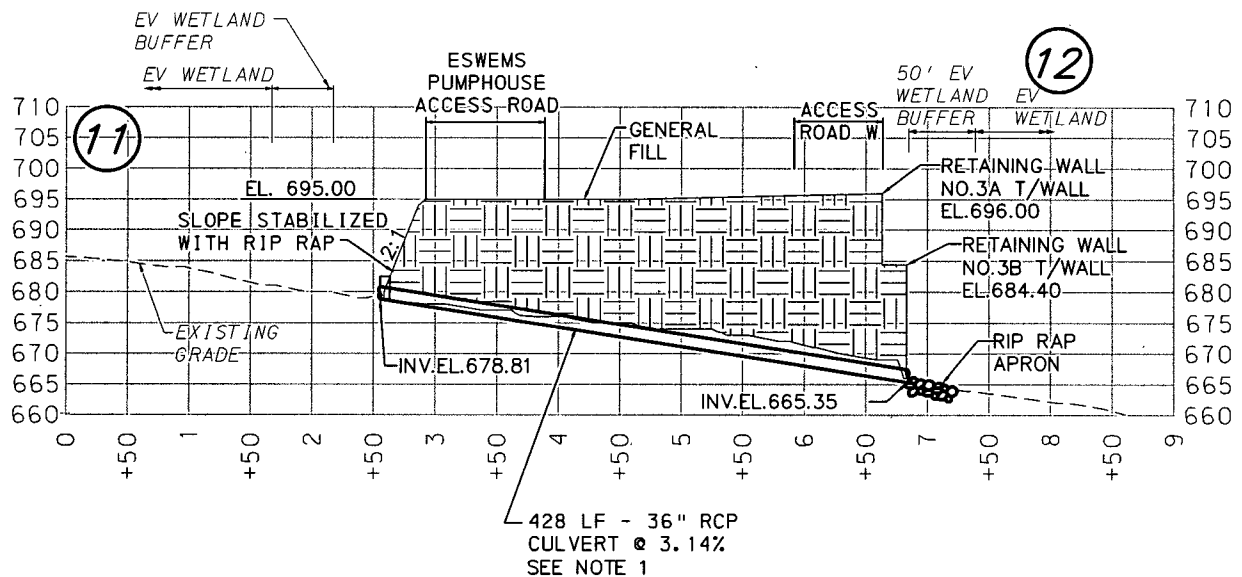
JPA PERMIT SUBMITTAL

BELL BEND NUCLEAR POWER PLANT  
LUZERNE COUNTY, PENNSYLVANIA

APPLICATION BY:  
PPL NUCLEAR DEVELOPMENT, LLC

FIGURE 6D — PROPOSED PIPE BRIDGE 7  
CROSS SECTION

REV 0 : 06/15/2011 INITIAL SUBMISSION



**NOTES:**

1. EXISTING DRAIN PIPE TO BE REMOVED & REPLACED MAINTAINING CURRENT HYDRAULIC CONDITIONS.

**Pennoni**

Pennoni Associates Inc.  
100 N. Wilkes-Barre Blvd.  
Wilkes-Barre, PA 18702

ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES; AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

DRAWN BY: WCK

CHECKED BY: LGB

JOB No. PPLS 0902

SCALE: HORZ. 1"=150'  
VERT. 1"=30'

DATE: 06/15/2011

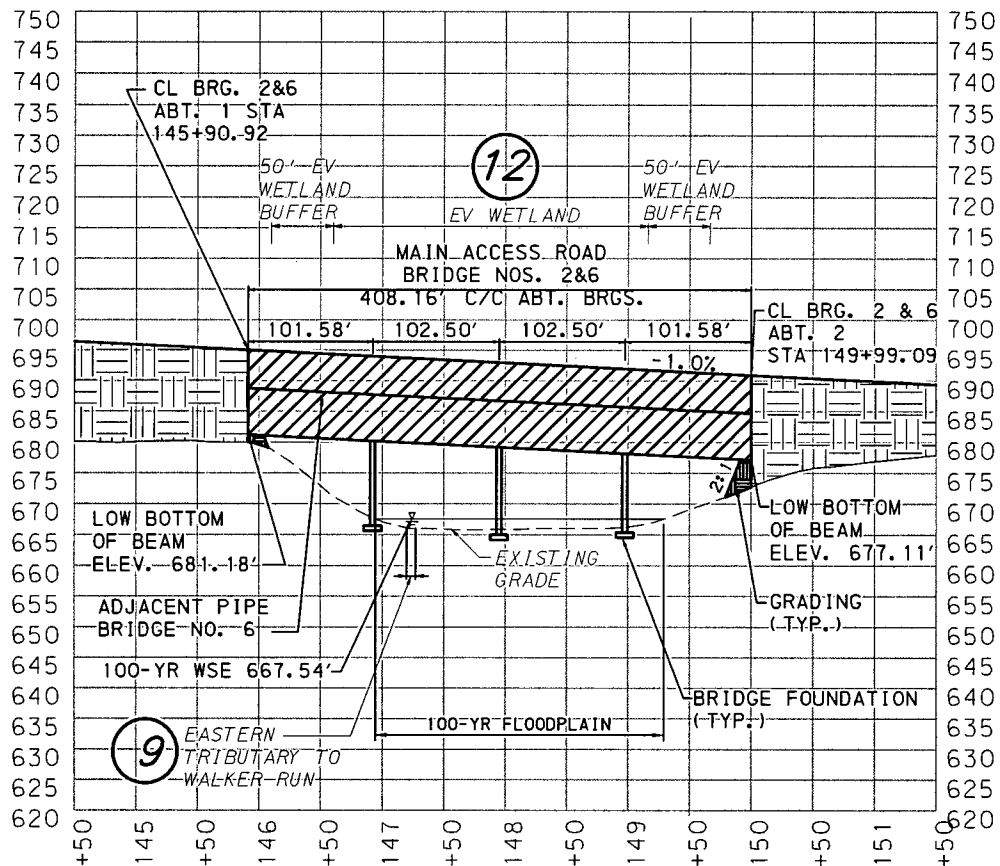
JPA PERMIT SUBMITTAL

BELL BEND NUCLEAR POWER PLANT  
LUZERNE COUNTY, PENNSYLVANIA

APPLICATION BY:  
PPL NUCLEAR DEVELOPMENT, LLC

FIGURE 6E - TEARDROP WETLAND 36" PIPE CULVERT CROSS SECTION

REV 0 : 06/15/2011 INITIAL SUBMISSION



**Pennoni**

Pennoni Associates Inc.  
100 N. Wilkes-Barre Blvd.  
Wilkes-Barre, PA 18702

ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES; AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

DRAWN BY: WCK

CHECKED BY: LGB

JOB No. PPLS 0902

SCALE: HORZ. 1"=150'  
VERT. 1"=30'

DATE: 06/15/2011

JPA PERMIT SUBMITTAL

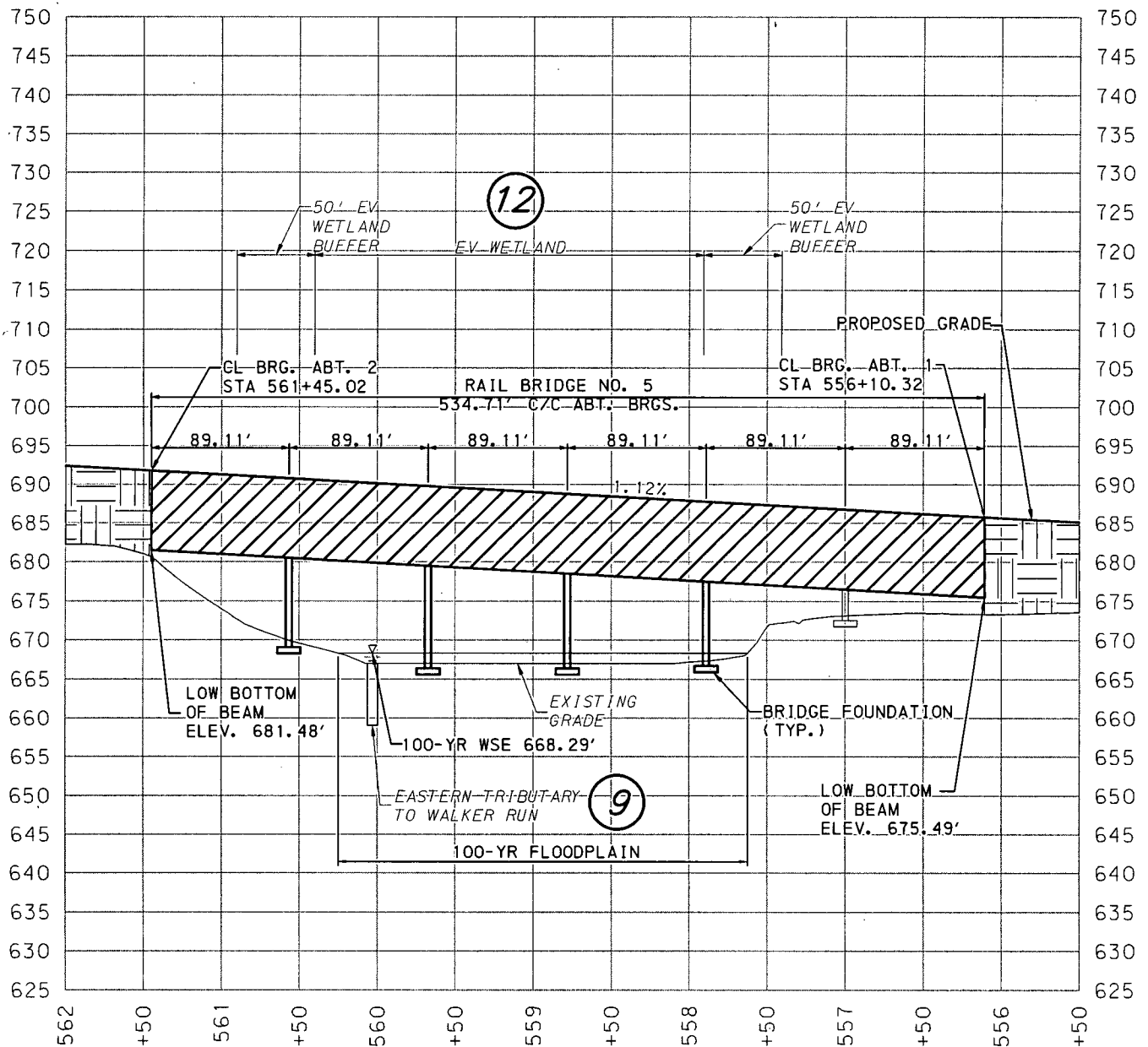
BELL BEND NUCLEAR POWER PLANT  
LUZERNE COUNTY, PENNSYLVANIA

APPLICATION BY:  
PPL NUCLEAR DEVELOPMENT, LLC

FIGURE 6F — BRIDGE NO. 2 & PIPE  
BRIDGE NO. 6 CROSS SECTION

REV 0 : 06/15/2011 INITIAL SUBMISSION





**Pennoni**

Pennoni Associates Inc.  
100 N. Wilkes-Barre Blvd.  
Wilkes-Barre, PA 18702

ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES, AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

DRAWN BY: WCK

CHECKED BY: LGB

JOB No. PPLS 0902

SCALE: HORZ. 1"=100'  
VERT. 1"=20'

DATE: 06/15/2011

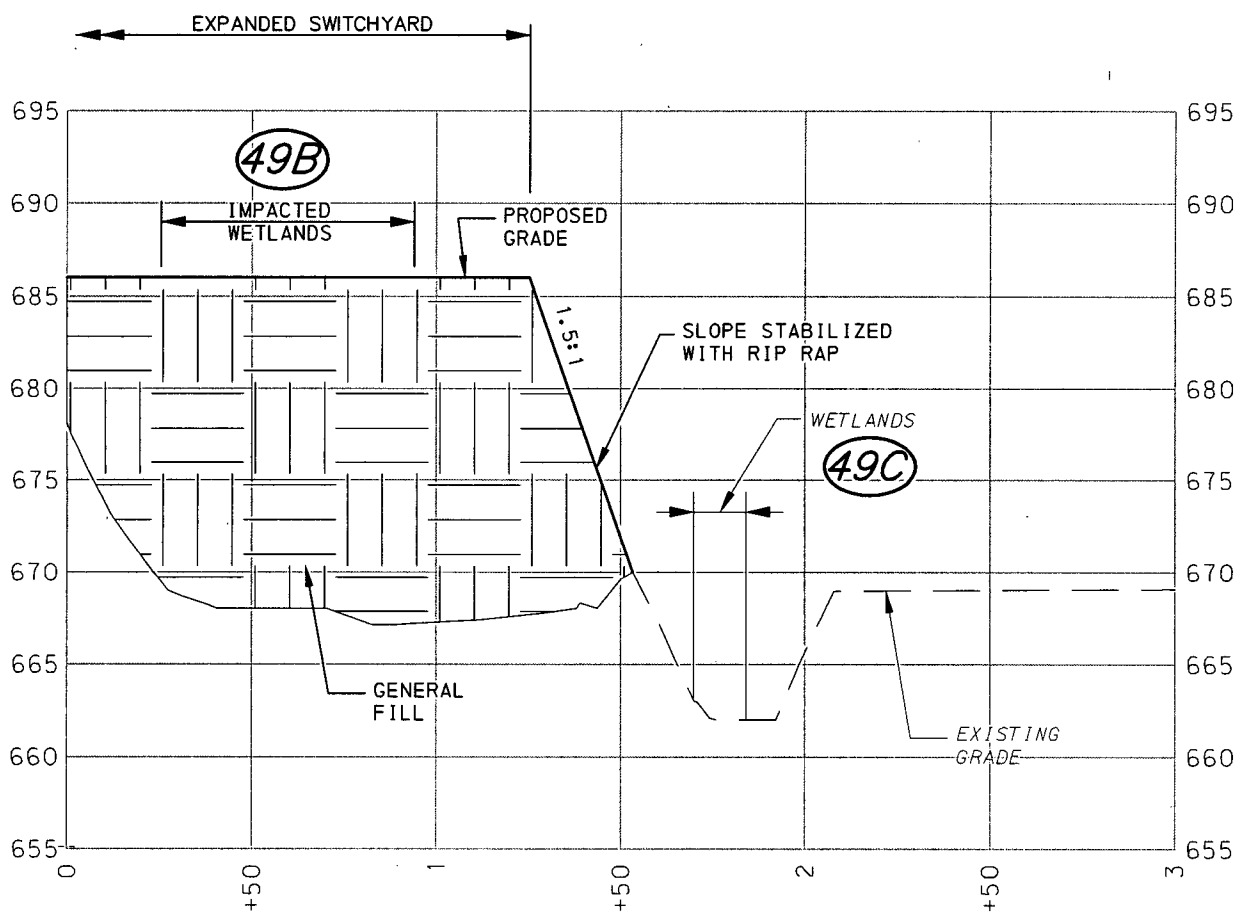
JPA PERMIT SUBMITTAL

BELL BEND NUCLEAR POWER PLANT  
LUZERNE COUNTY, PENNSYLVANIA

APPLICATION BY:  
PPL NUCLEAR DEVELOPMENT, LLC

FIGURE 6G - RAIL ROAD BRIDGE  
NO. 5 CROSS SECTION

REV 0 : 06/15/2011 INITIAL SUBMISSION



Pennoni Associates Inc.  
100 N. Wilkes-Barre Blvd.  
Wilkes-Barre, PA 18702

ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES; AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

DRAWN BY: WCK

CHECKED BY: LGB

JOB No. PPLS 0902

SCALE: HORZ. 1"=50'  
VERT. 1"=10'

DATE: 06/15/2011

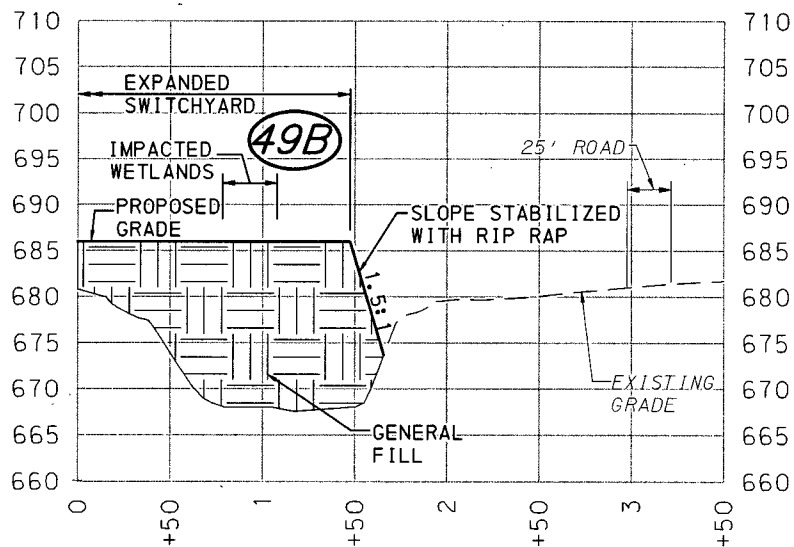
JPA PERMIT SUBMITTAL

BELL BEND NUCLEAR POWER PLANT  
LUZERNE COUNTY, PENNSYLVANIA

APPLICATION BY:  
PPL NUCLEAR DEVELOPMENT, LLC

FIGURE 6H — EXISTING SWITCHYARD  
EXPANSION CROSS SECTION

REV 0 : 06/15/2011 INITIAL SUBMISSION



**Pennoni**

Pennoni Associates Inc.  
100 N. Wilkes-Barre Blvd.  
Wilkes-Barre, PA 18702

ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES; AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

DRAWN BY: WCK

CHECKED BY: LGB

JOB No. PPLS 0902

SCALE: HORZ. 1"=100'  
VERT. 1"=20'

DATE: 06/15/2011

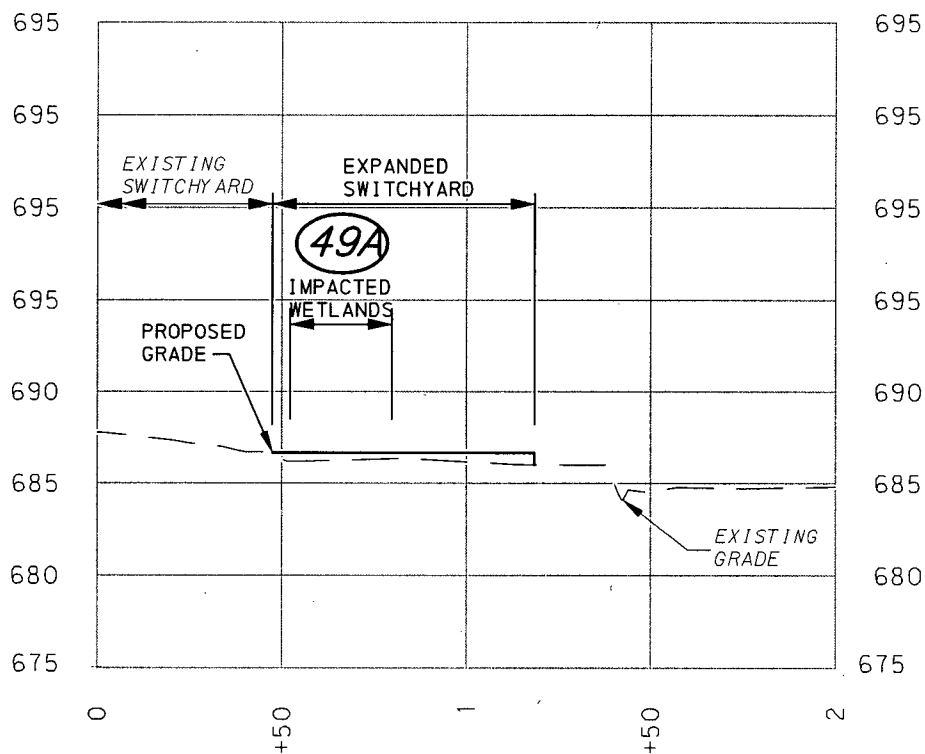
JPA PERMIT SUBMITTAL

BELL BEND NUCLEAR POWER PLANT  
LUZERNE COUNTY, PENNSYLVANIA

APPLICATION BY:  
PPL NUCLEAR DEVELOPMENT, LLC

FIGURE 6J - EXISTING SWITCHYARD  
EXPANSION CROSS SECTION

REV 0 : 06/15/2011 INITIAL SUBMISSION



**Pennoni**

Pennoni Associates Inc.  
100 N. Wilkes-Barre Blvd.  
Wilkes-Barre, PA 18702

ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES; AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

DRAWN BY: WCK

SCALE: HORZ. 1"=50'  
VERT. 1"=10'

DATE: 06/15/2011

CHECKED BY: LGB

JPA PERMIT SUBMITTAL

JOB No. PPLS 0902

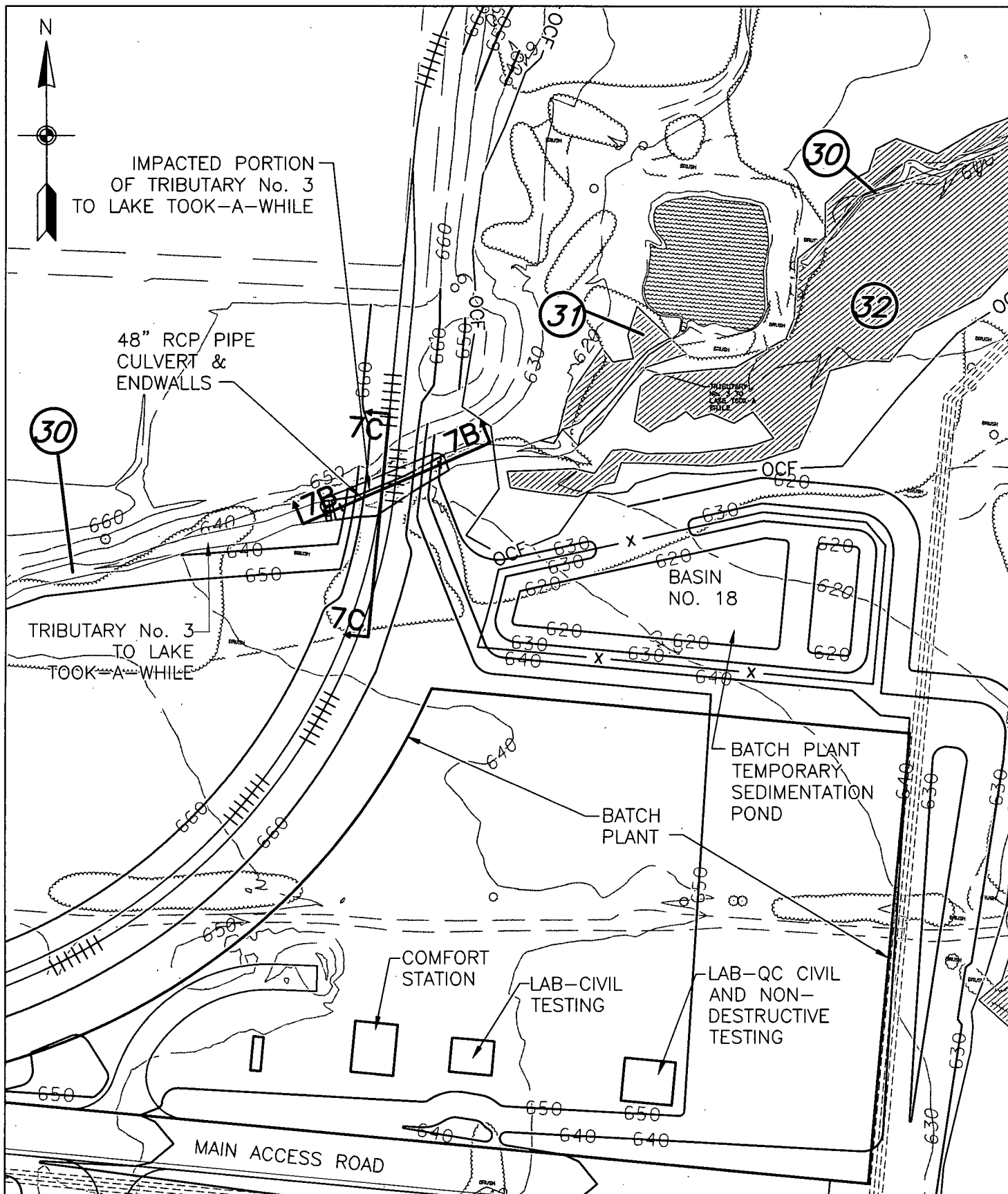
BELL BEND NUCLEAR POWER PLANT  
LUZERNE COUNTY, PENNSYLVANIA

FIGURE 6K — EXISTING SWITCHYARD  
EXPANSION CROSS SECTION

REV 0 : 06/15/2011 INITIAL SUBMISSION

APPLICATION BY:  
PPL NUCLEAR DEVELOPMENT, LLC





**Pennoni**

Pennoni Associates Inc.  
100 N. Wilkes-Barre Blvd.  
Wilkes-Barre, PA 18702

ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES, AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

DRAWN BY: WCK

CHECKED BY: LGB

JOB No. PPLS 0902

SCALE: HORZ. 1"=150'  
VERT. N/A

DATE: 06/15/2011

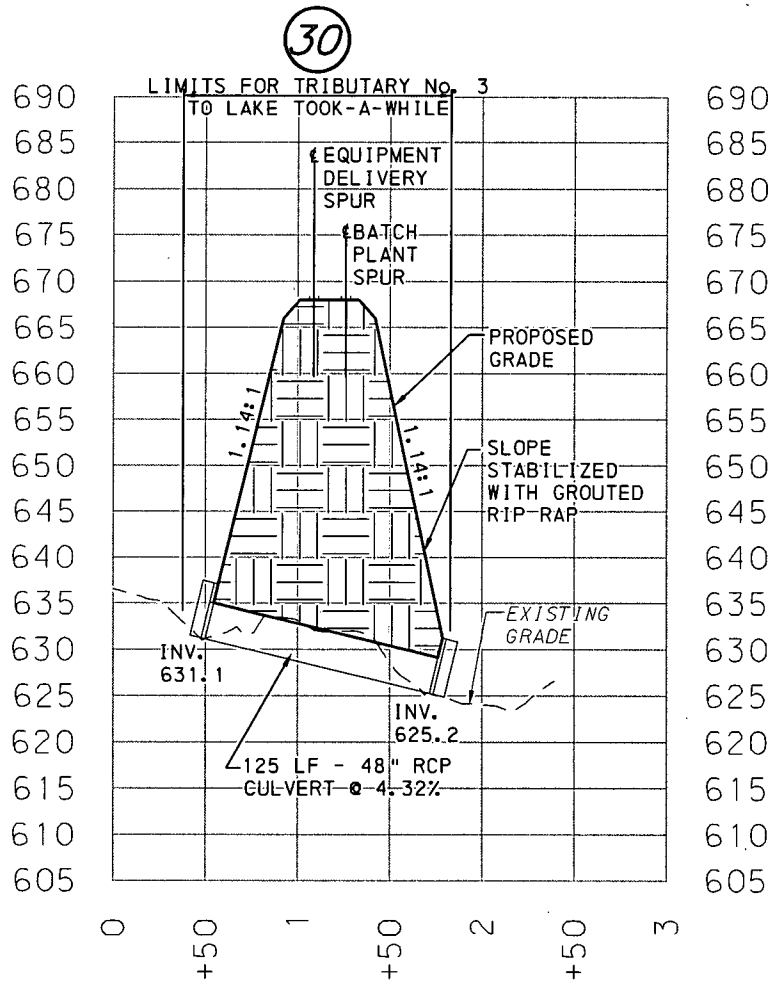
JPA PERMIT SUBMITTAL

BELL BEND NUCLEAR POWER PLANT  
LUZERNE COUNTY, PENNSYLVANIA

APPLICATION BY:  
PPL NUCLEAR DEVELOPMENT, LLC

FIGURE 7A - SITE LAYOUT

REV 1 : 10/28/2011 REVISED STREAM NAME  
REV 0 : 06/15/2011 INITIAL SUBMISSION



**Pennoni**

Pennoni Associates Inc.  
100 N. Wilkes-Barre Blvd.  
Wilkes-Barre, PA 18702

ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES; AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

DRAWN BY: WCK

SCALE: HORZ. 1"=100'  
VERT. 1"=20'

DATE: 06/15/2011

CHECKED BY: LGB

JPA PERMIT SUBMITTAL

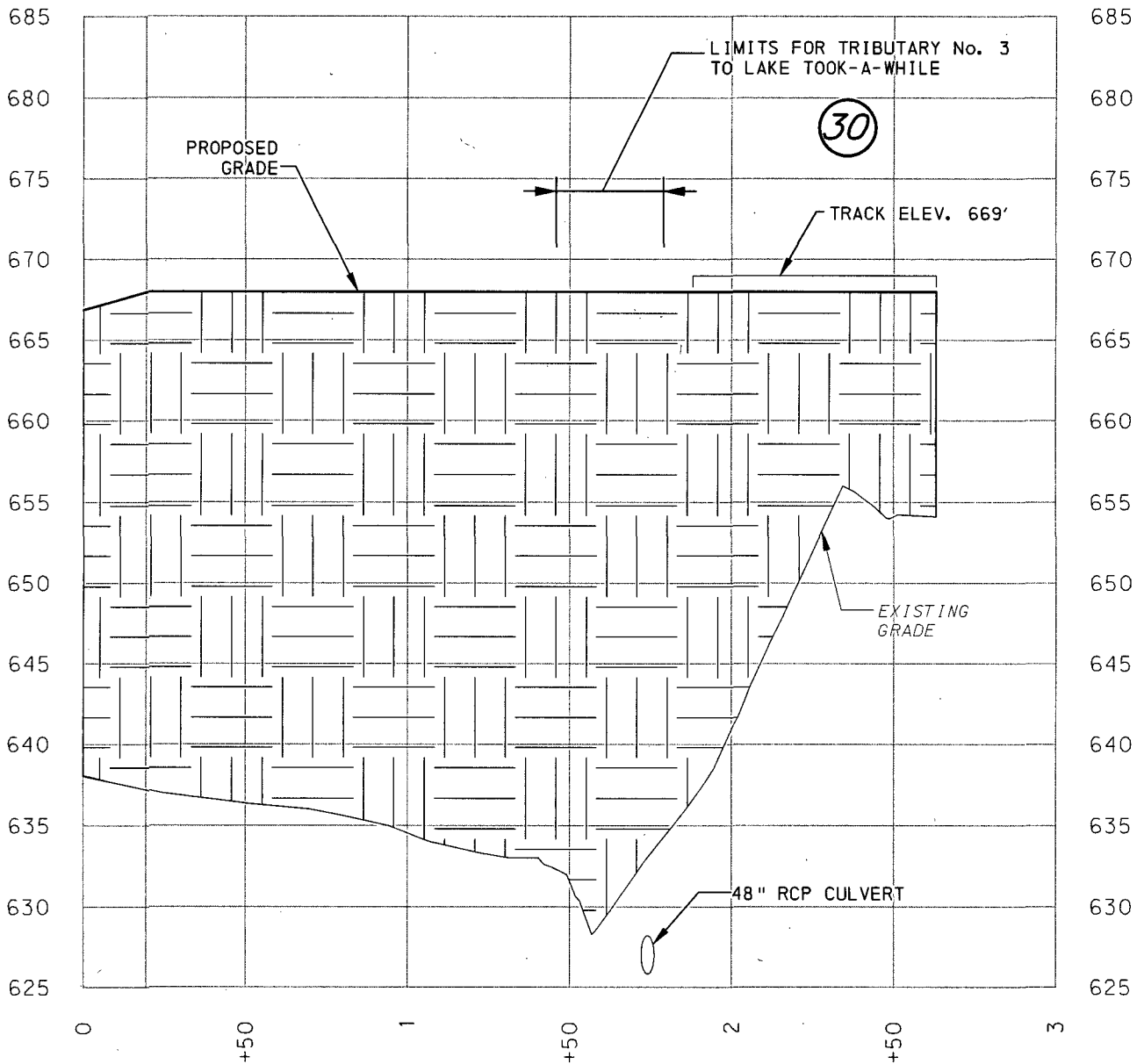
JOB No. PPLS 0902

BELL BEND NUCLEAR POWER PLANT  
LUZERNE COUNTY, PENNSYLVANIA

FIGURE 7B - RAILROAD TRACK AT STREAM  
CROSSING CROSS SECTION

REV 1 : 10/28/2011 REVISED STREAM NAME  
REV 0 : 06/15/2011 INITIAL SUBMISSION

APPLICATION BY:  
PPL NUCLEAR DEVELOPMENT, LLC



**Pennoni**

Pennoni Associates Inc.  
100 N. Wilkes-Barre Blvd.  
Wilkes-Barre, PA 18702

ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES; AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

DRAWN BY: WCK

CHECKED BY: LGB

JOB No. PPLS 0902

SCALE: HORZ. 1"=50'  
VERT. 1"=10'

DATE: 06/15/2011

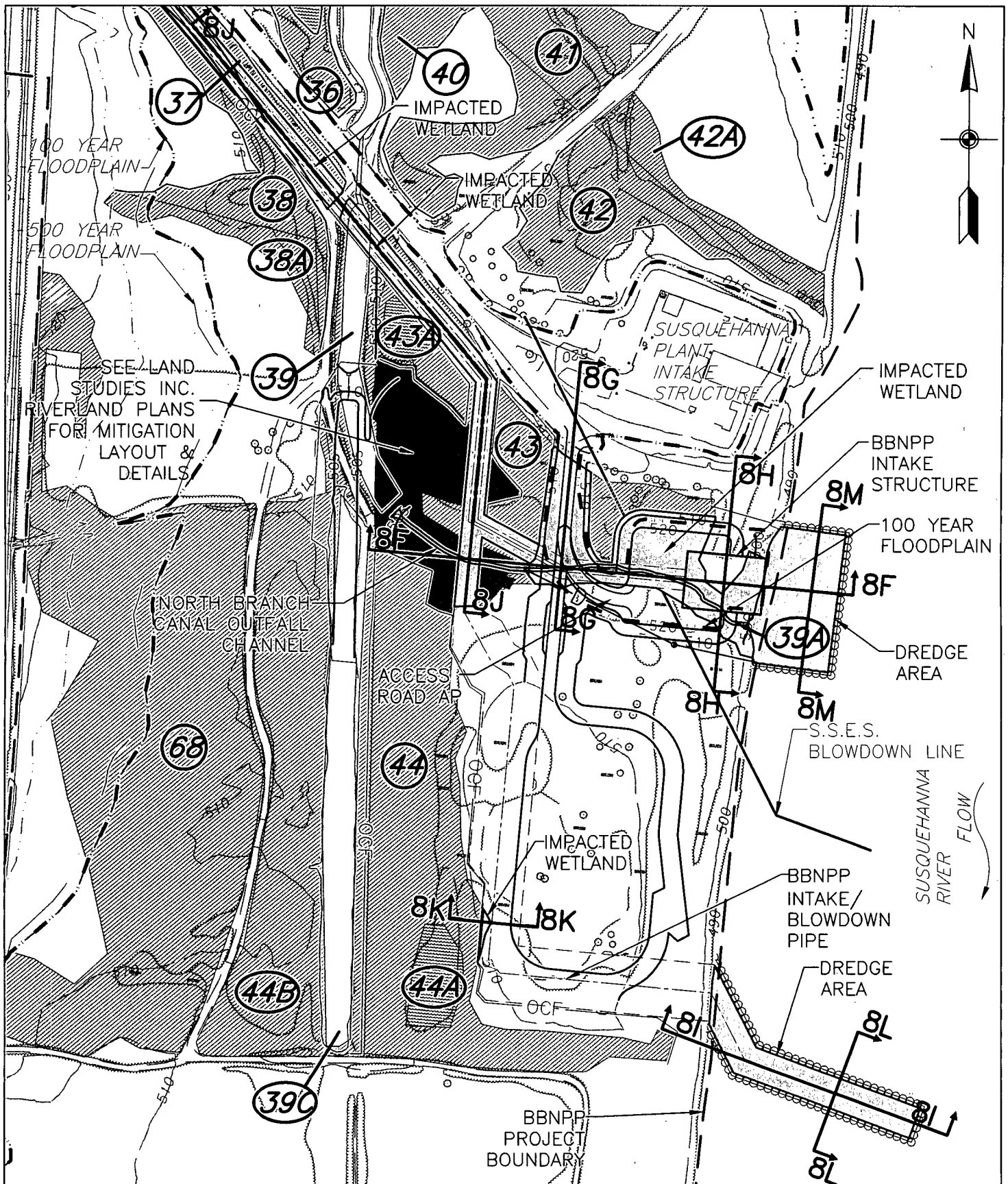
JPA PERMIT SUBMITTAL

BELL BEND NUCLEAR POWER PLANT  
LUZERNE COUNTY, PENNSYLVANIA

APPLICATION BY:  
PPL NUCLEAR DEVELOPMENT, LLC

FIGURE 7C — RAILROAD TRACK AT  
STREAM CROSSING PROFILE

REV 1 : 10/28/2011 REVISED STREAM NAME  
REV 0 : 06/15/2011 INITIAL SUBMISSION



**Pennoni**

Pennoni Associates Inc.  
100 N. Wilkes-Barre Blvd.  
Wilkes-Barre, PA 18702

ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES, AND OWNERS SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

DRAWN BY: WCK

CHECKED BY: LGB

JOB No. PPLS 0902

SCALE: HORZ. 1"=200'  
VERT. N/A

DATE: 06/15/2011

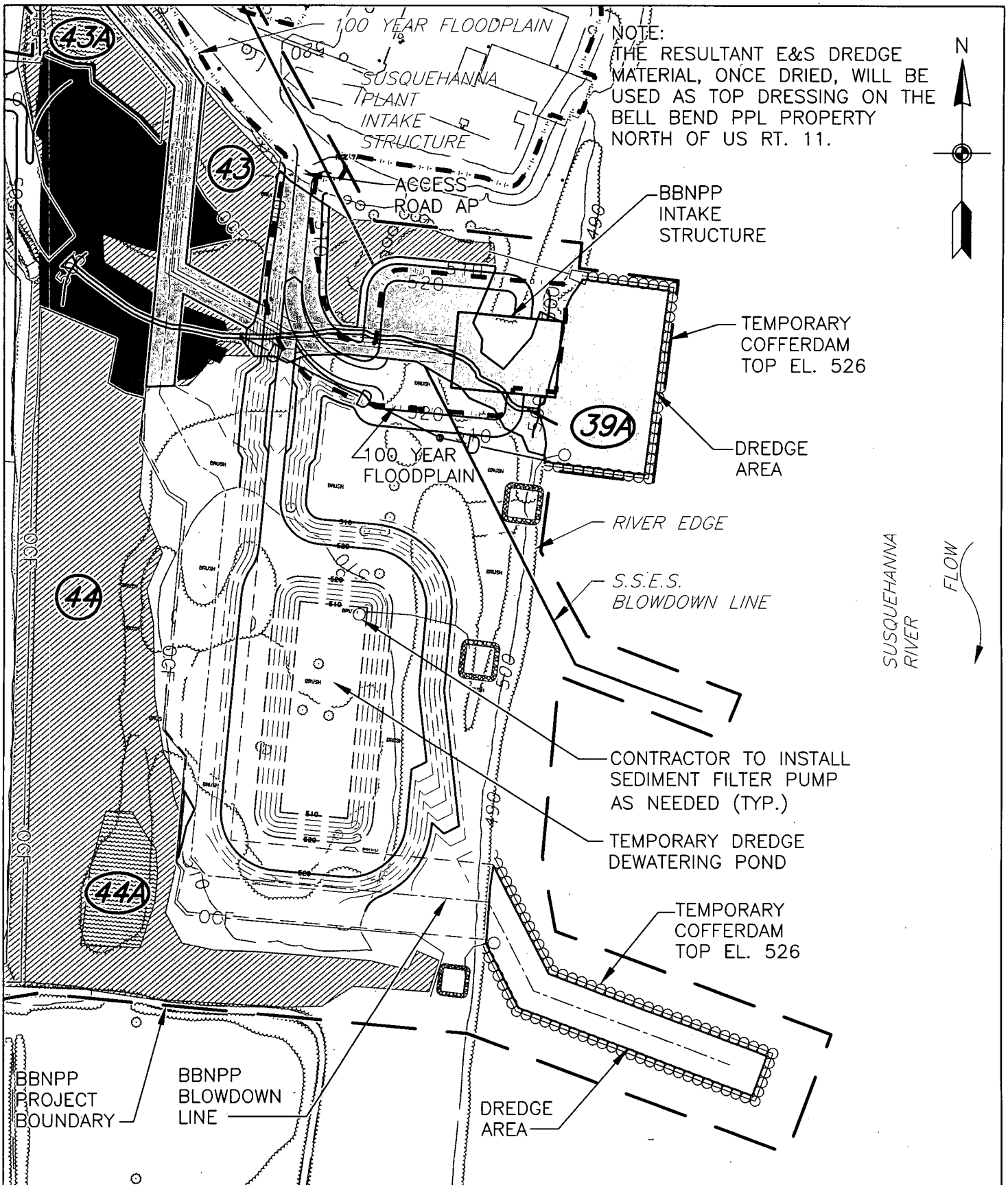
JPA PERMIT SUBMITTAL

BELL BEND NUCLEAR POWER PLANT  
LUZERNE COUNTY, PENNSYLVANIA

APPLICATION BY:  
PPL NUCLEAR DEVELOPMENT, LLC

FIGURE 8A - SITE LAYOUT

REV 1: 10/28/2011 REV. STREAM NAME/PROJECT BND/ FLOOD LINES  
REV 0: 06/15/2011 INITIAL SUBMISSION



**Pennoni**

Pennoni Associates Inc.  
100 N. Wilkes-Barre Blvd.  
Wilkes-Barre, PA 18702

ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES, AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

DRAWN BY: WCK

CHECKED BY: LGB

JOB No. PPLS 0902

SCALE: HORZ. 1"=150'  
VERT. N/A

DATE: 06/15/2011

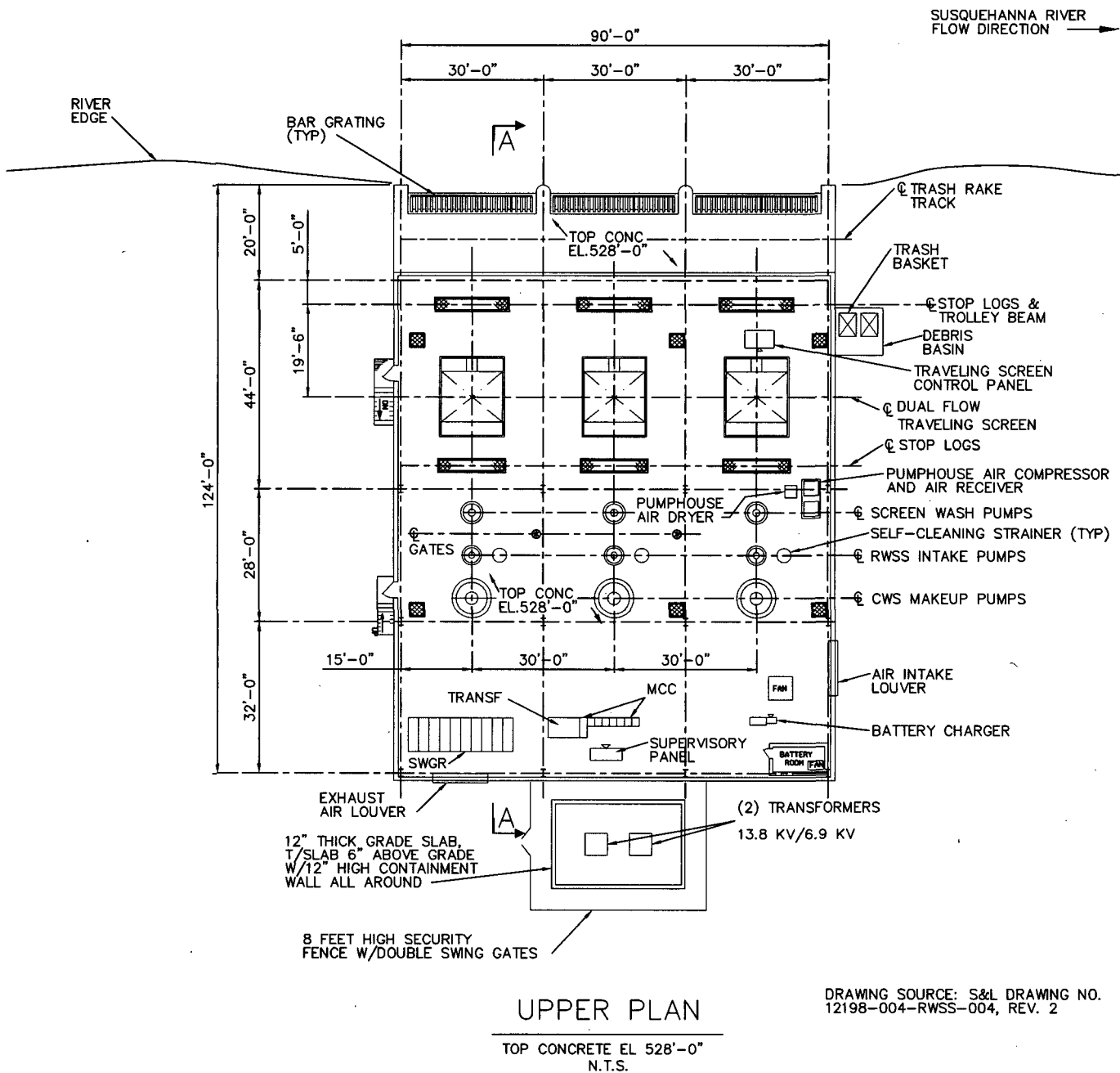
JPA PERMIT SUBMITTAL

BELL BEND NUCLEAR POWER PLANT  
LUZERNE COUNTY, PENNSYLVANIA

APPLICATION BY:  
PPL NUCLEAR DEVELOPMENT, LLC

FIGURE 8B - COFFERDAM LOCATIONS

REV 1 : 10/28/2011 REVISED FLOOD LINES  
REV 0 : 06/15/2011 INITIAL SUBMISSION



DRAWING SOURCE: S&L DRAWING NO. 12198-004-RWSS-004, REV. 2

**Pennoni**

Pennoni Associates Inc.  
100 N. Wilkes-Barre Blvd.  
Wilkes-Barre, PA 18702

ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES. AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

DRAWN BY: WCK

CHECKED BY: LGB

JOB No. PPLS 0902

SCALE: NTS

DATE: 06/15/2011

JPA PERMIT SUBMITTAL

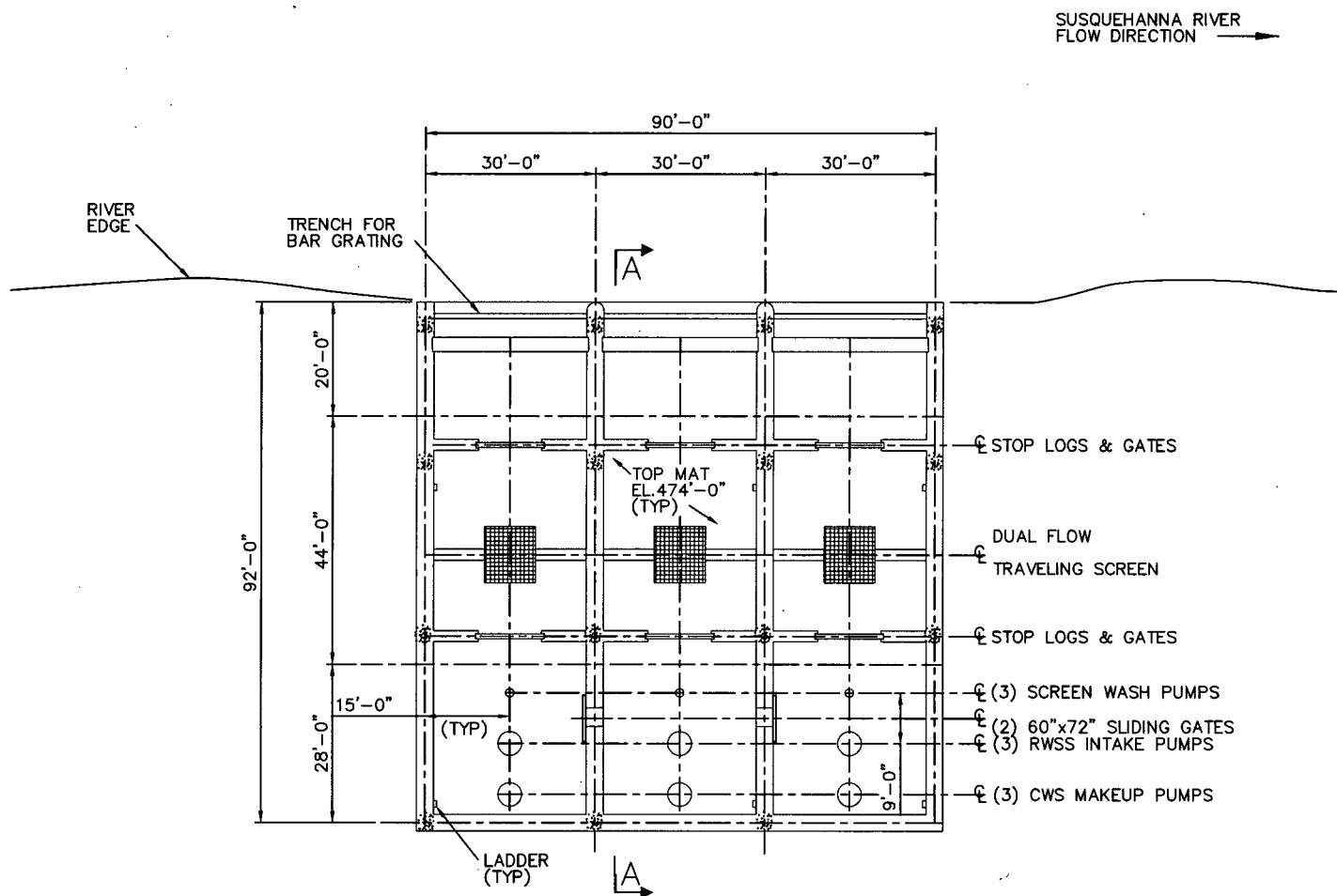
BELL BEND NUCLEAR POWER PLANT  
LUZERNE COUNTY, PENNSYLVANIA

APPLICATION BY:  
PPL NUCLEAR DEVELOPMENT, LLC

FIGURE 8C - INTAKE STRUCTURE PLAN

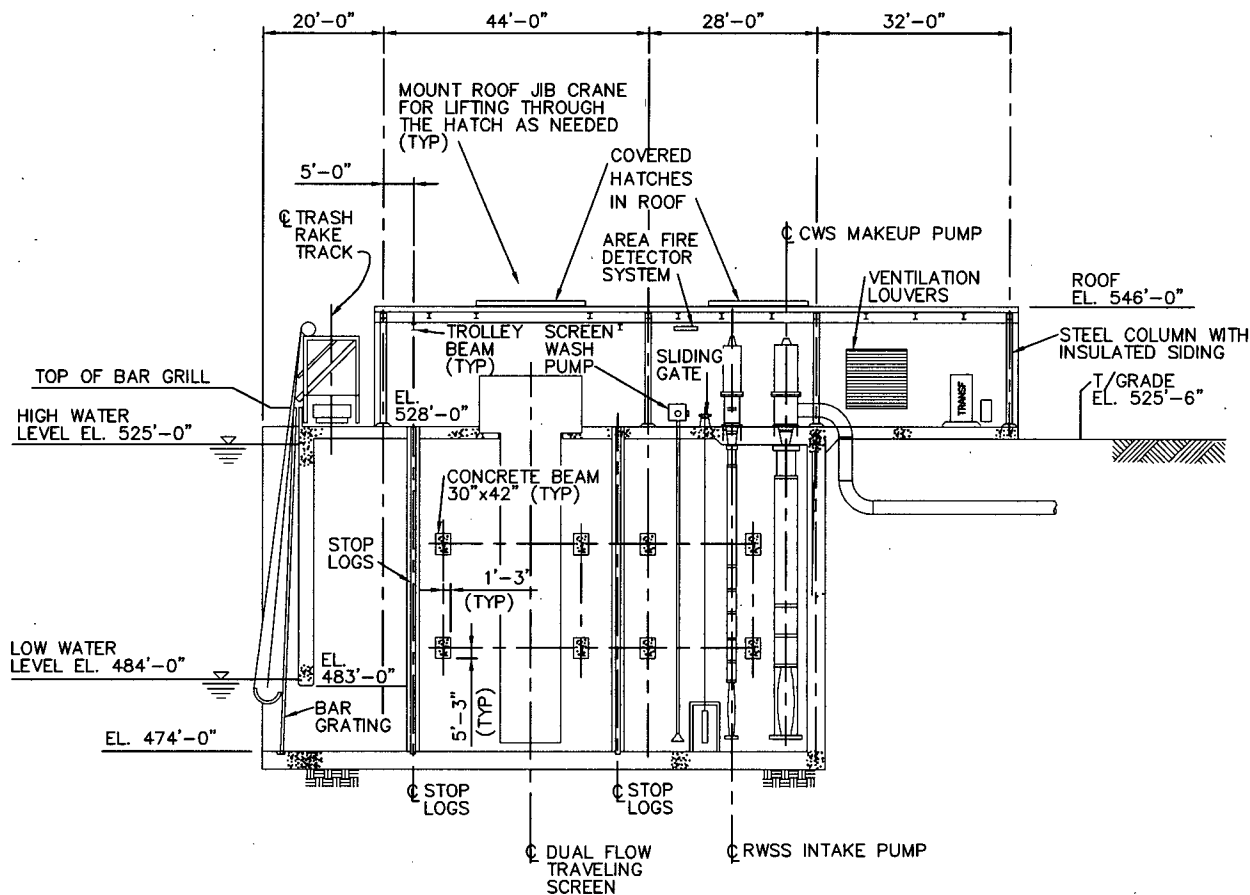
REV 0 : 06/15/2011 INITIAL SUBMISSION





DRAWING SOURCE: S&L DRAWING NO.  
12198-004-RWSS-004, REV. 2

<b>Pennoni</b> Pennoni Associates Inc. 100 N. Wilkes-Barre Blvd. Wilkes-Barre, PA 18702	ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES. AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.		DRAWN BY: WCK	SCALE: NTS	DATE: 06/15/2011
			CHECKED BY: LGB	JPA PERMIT SUBMITTAL	
			JOB No. PPLS 0902	BELL BEND NUCLEAR POWER PLANT LUZERNE COUNTY, PENNSYLVANIA	
	FIGURE 8D - INTAKE STRUCTURE PLAN		REV 0 : 06/15/2011 INITIAL SUBMISSION	APPLICATION BY: PPL NUCLEAR DEVELOPMENT, LLC	



## SECTION A-A

N.T.S.

FOR SECTION LOCATION  
SEE FIGURE 8D

DRAWING SOURCE: S&L DRAWING NO.  
12198-004-RWSS-004, REV. 2

**Pennoni**

Pennoni Associates Inc.  
100 N. Wilkes-Barre Blvd.  
Wilkes-Barre, PA 18702

ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES. AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

DRAWN BY: WCK

SCALE: NTS

DATE: 06/15/2011

CHECKED BY: LGB

JPA PERMIT SUBMITTAL

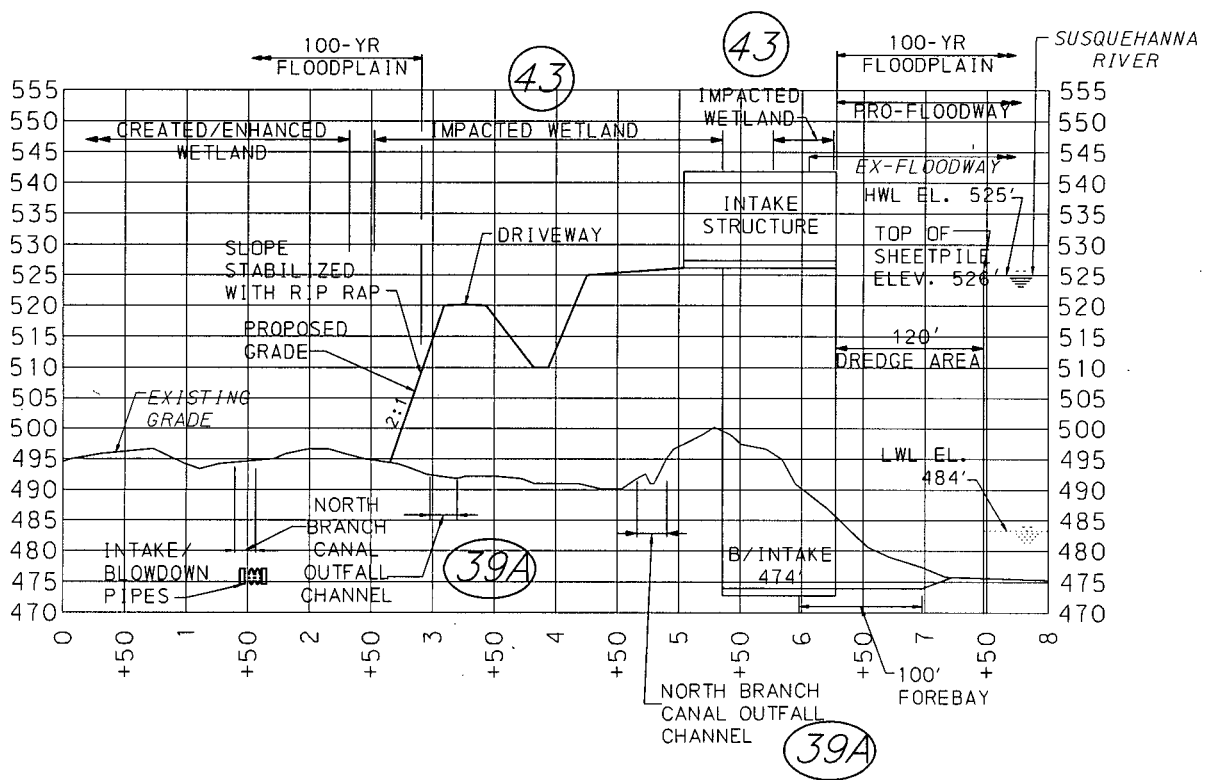
JOB No. PPLS 0902

BELL BEND NUCLEAR POWER PLANT  
LUZERNE COUNTY, PENNSYLVANIA

APPLICATION BY:  
PPL NUCLEAR DEVELOPMENT, LLC

FIGURE 8E - INTAKE STRUCTURE PLAN

REV 0 : 06/15/2011 INITIAL SUBMISSION



NOTE: FLOOD ELEVATION FROM  
FEMA FIRM MAP PANEL NUMBER  
420625 0020 B IS 512.5.

**Pennoni**

Pennoni Associates Inc.  
100 N. Wilkes-Barre Blvd.  
Wilkes-Barre, PA 18702

ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES  
ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE  
PROJECT. THEY ARE NOT INTENDED OR REPRESENTED  
TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS  
ON EXTENSIONS OF THE PROJECT OR ON ANY OTHER  
PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION  
OR ADAPTATION BY PENNONI ASSOCIATES FOR THE  
SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS  
SOLE RISK AND WITHOUT LIABILITY OR LEGAL  
EXPOSURE TO PENNONI ASSOCIATES, AND OWNER  
SHALL INDEMNIFY AND HOLD HARMLESS PENNONI  
ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND  
EXPENSES ARISING OUT OF OR RESULTING THEREFROM

DRAWN BY: WCK  
CHECKED BY: LGB  
JOB No. PPLS 0902

SCALE: HORZ. 1"=150'  
VERT. 1"=30'

DATE: 06/15/2011

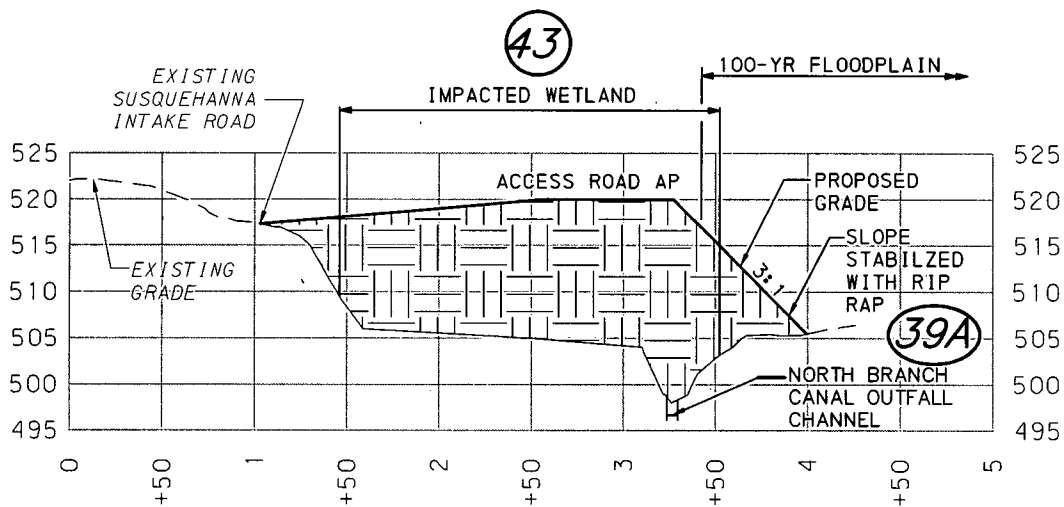
JPA PERMIT SUBMITTAL

BELL BEND NUCLEAR POWER PLANT  
LUZERNE COUNTY, PENNSYLVANIA

APPLICATION BY:  
PPL NUCLEAR DEVELOPMENT, LLC

FIGURE 8F - INTAKE STRUCTURE  
CROSS SECTION

REV 1 : 10/28/2011 REVISED STREAM NAME / FLOODWAY  
REV 0 : 06/15/2011 INITIAL SUBMISSION



Pennoni Associates Inc.  
100 N. Wilkes-Barre Blvd.  
Wilkes-Barre, PA 18702

ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES; AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

DRAWN BY: WCK

CHECKED BY: LGB

JOB No. PPLS 0902

SCALE: HORZ. 1"=100'  
VERT. 1"=20'

DATE: 06/15/2011

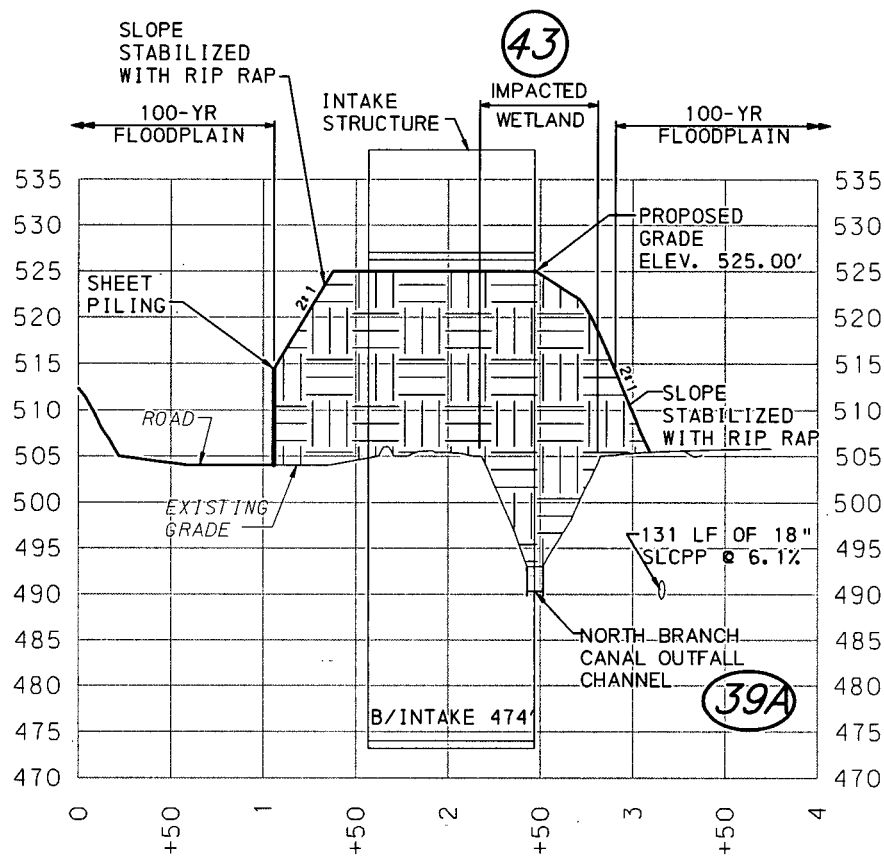
JPA PERMIT SUBMITTAL


BELL BEND NUCLEAR POWER PLANT  
LUZERNE COUNTY, PENNSYLVANIA

APPLICATION BY:  
PPL NUCLEAR DEVELOPMENT, LLC

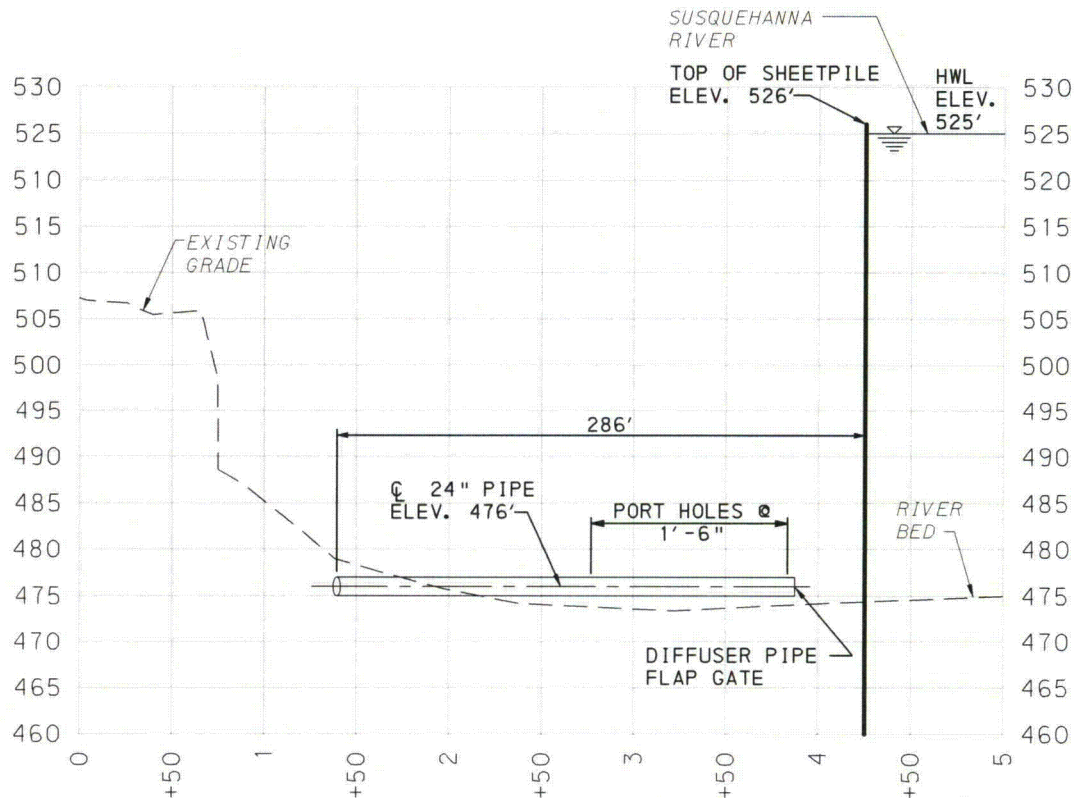
FIGURE 8G — INTAKE AREA  
CROSS SECTION

REV 1 : 10/28/2011 REVISED STREAM NAME  
REV 0 : 06/15/2011 INITIAL SUBMISSION

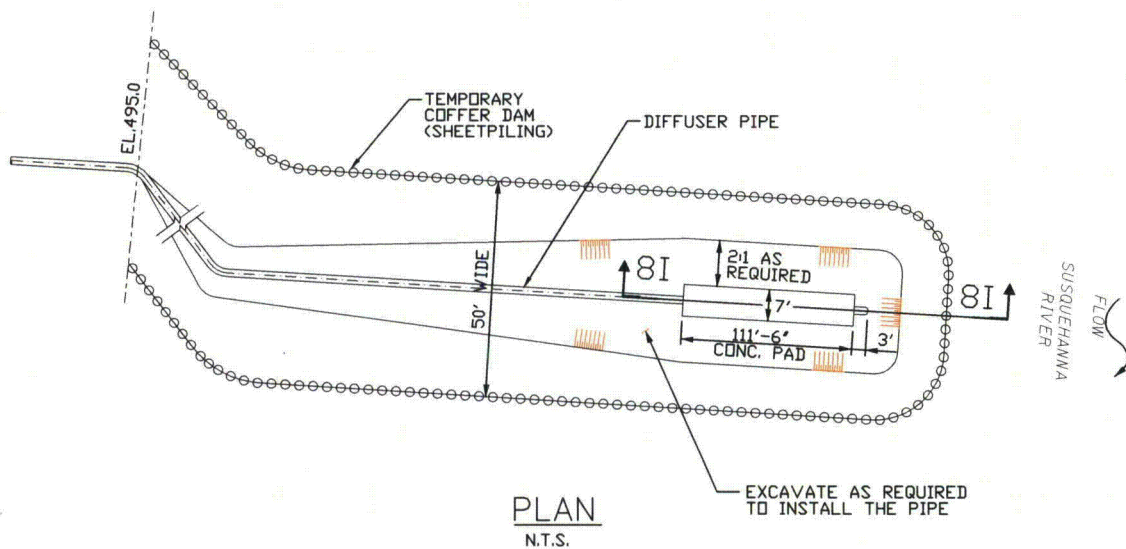


<div></div> <p>Pennoni Associates Inc. 100 N. Wilkes-Barre Blvd. Wilkes-Barre, PA 18702</p>	<small>ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR EXPOSURE TO PENNONI ASSOCIATES, AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM</small>	DRAWN BY: WCK	SCALE: HORZ. 1"=100' VERT. 1"=20'	DATE: 06/15/2011
		CHECKED BY: LGB	JPA PERMIT SUBMITTAL	
		JOB No. PPLS 0902	BELL BEND NUCLEAR POWER PLANT LUZERNE COUNTY, PENNSYLVANIA	
		APPLICATION BY: PPL NUCLEAR DEVELOPMENT, LLC		
				FIGURE 8H — INTAKE STRUCTURE CROSS SECTION
REV 1 : 10/28/2011 REVISED STREAM NAME				
REV 0 : 06/15/2011 INITIAL SUBMISSION				





SECTION 81



PLAN NOTES:

1. DRAWING SOURCE: S&L DRAWING NO. COLA-FIGURE-3.4-12.
2. SEE FIGURE 8N FOR DIFFUSER PIPE DETAIL.

**Pennoni**

Pennoni Associates Inc.  
100 N. Wilkes-Barre Blvd.  
Wilkes-Barre, PA 18702

ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES. AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

DRAWN BY: WCK

CHECKED BY: LGB

JOB No. PPLS 0902

SCALE: HORZ. 1"=100'  
VERT. 1"=20'

DATE: 06/15/2011

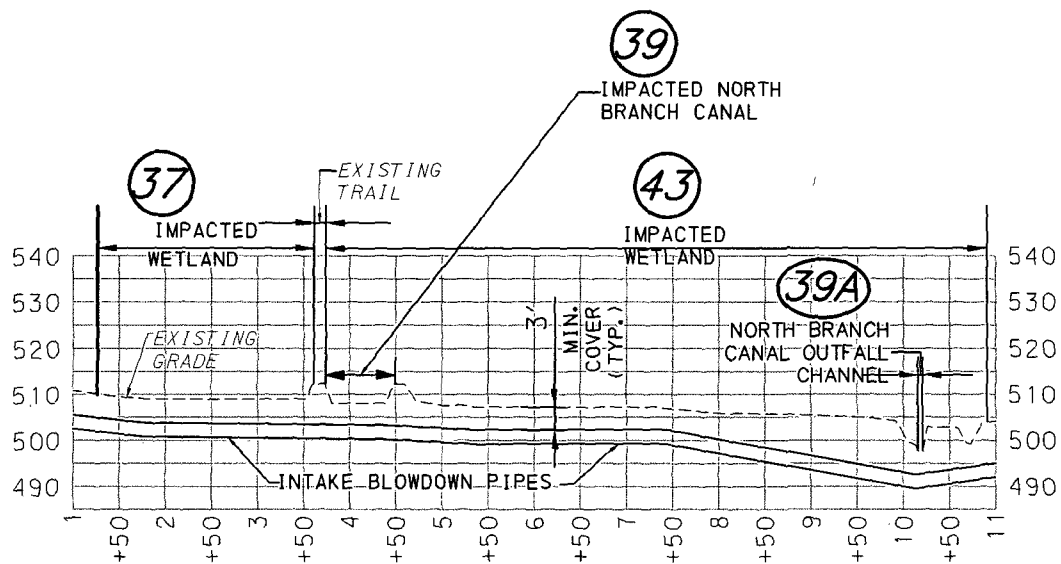
JPA PERMIT SUBMITTAL

BELL BEND NUCLEAR POWER PLANT  
LUZERNE COUNTY, PENNSYLVANIA

APPLICATION BY:  
PPL NUCLEAR DEVELOPMENT, LLC

FIGURE 8I — END OF BLOWDOWN LINE

REV 0 : 06/15/2011 INITIAL SUBMISSION



**Pennoni**

Pennoni Associates Inc.  
100 N. Wilkes-Barre Blvd.  
Wilkes-Barre, PA 18702

ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES. AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

DRAWN BY: WCK

CHECKED BY: LGB

JOB No. PPLS 0902

SCALE: HORIZ. 1"=200'  
VERT. 1"=40'

DATE: 06/15/2011

JPA PERMIT SUBMITTAL

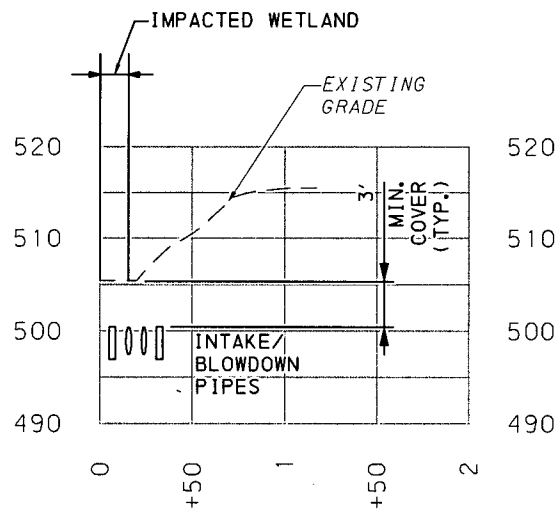
BELL BEND NUCLEAR POWER PLANT  
LUZERNE COUNTY, PENNSYLVANIA

APPLICATION BY:  
PPL NUCLEAR DEVELOPMENT, LLC

FIGURE 8J - UTILITY CORRIDOR  
CROSS SECTION

REV 1 : 10/28/2011 REVISED STREAM NAME  
REV 0 : 06/15/2011 INITIAL SUBMISSION

44



**Pennoni**

Pennoni Associates Inc.  
100 N. Wilkes-Barre Blvd.  
Wilkes-Barre, PA 18702

ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES; AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

DRAWN BY: WCK

CHECKED BY: LGB

JOB No. PPLS 0902

SCALE: HORZ. 1"=100'  
VERT. 1"=20'

DATE: 06/15/2011

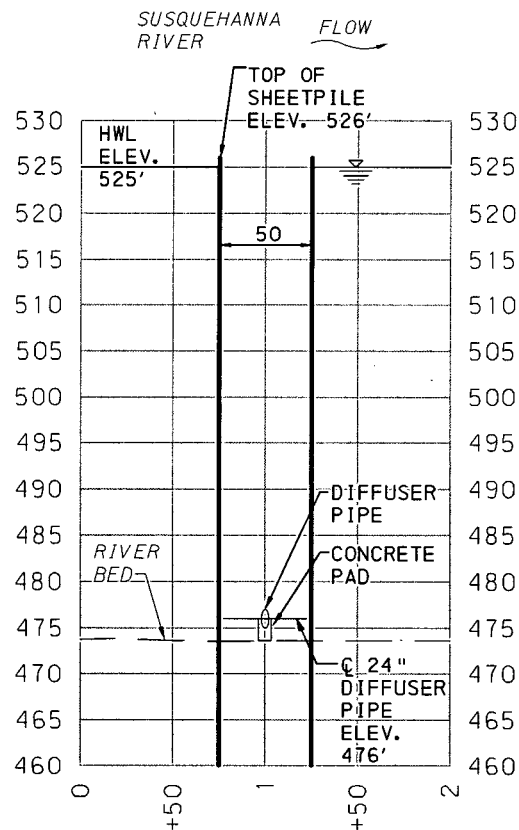
JPA PERMIT SUBMITTAL

BELL BEND NUCLEAR POWER PLANT  
LUZERNE COUNTY, PENNSYLVANIA

APPLICATION BY:  
PPL NUCLEAR DEVELOPMENT, LLC

FIGURE 8K — INTAKE AREA CROSS SECTION

REV 0 : 06/15/2011 INITIAL SUBMISSION



**Pennoni**

Pennoni Associates Inc.  
100 N. Wilkes-Barre Blvd.  
Wilkes-Barre, PA 18702

ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES. AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

DRAWN BY: WCK

CHECKED BY: LGB

JOB No. PPLS 0902

SCALE: HORZ. 1"=100'  
VERT. 1"=20'

DATE: 06/15/2011

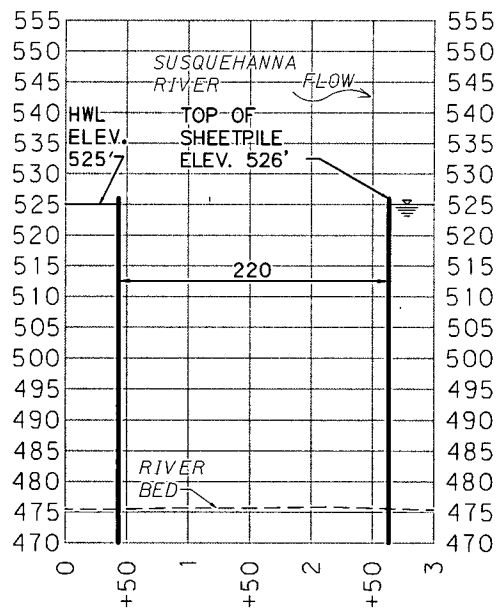
JPA PERMIT SUBMITTAL

BELL BEND NUCLEAR POWER PLANT  
LUZERNE COUNTY, PENNSYLVANIA

APPLICATION BY:  
PPL NUCLEAR DEVELOPMENT, LLC

FIGURE 8L - BLOWDOWN LINE DREDGE  
AREA CROSS SECTION

REV 0 : 06/15/2011 INITIAL SUBMISSION



NOTE: FLOOD ELEVATION  
FROM FEMA FIRM MAP PANEL  
NUMBER 420625 0020 B IS  
512.5.

**Pennoni**

Pennoni Associates Inc.  
100 N. Wilkes-Barre Blvd.  
Wilkes-Barre, PA 18702

ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES, AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

DRAWN BY: WCK

CHECKED BY: LGB

JOB No. PPLS 0902

SCALE: HORZ. 1"=150'  
VERT. 1"=30'

DATE: 06/15/2011

JPA PERMIT SUBMITTAL

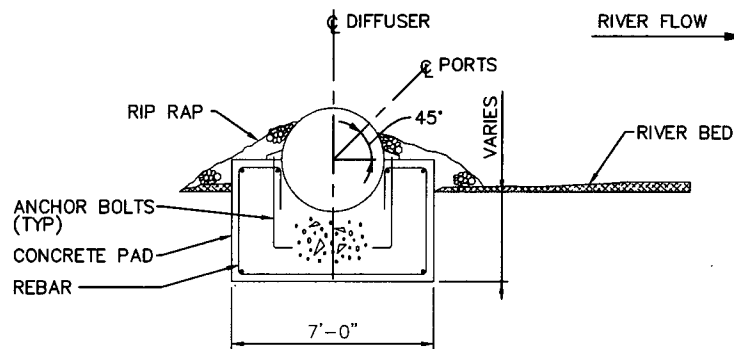
BELL BEND NUCLEAR POWER PLANT  
LUZERNE COUNTY, PENNSYLVANIA

APPLICATION BY:  
PPL NUCLEAR DEVELOPMENT, LLC

FIGURE 8M - INTAKE STRUCTURE DREDGE  
AREA CROSS SECTION

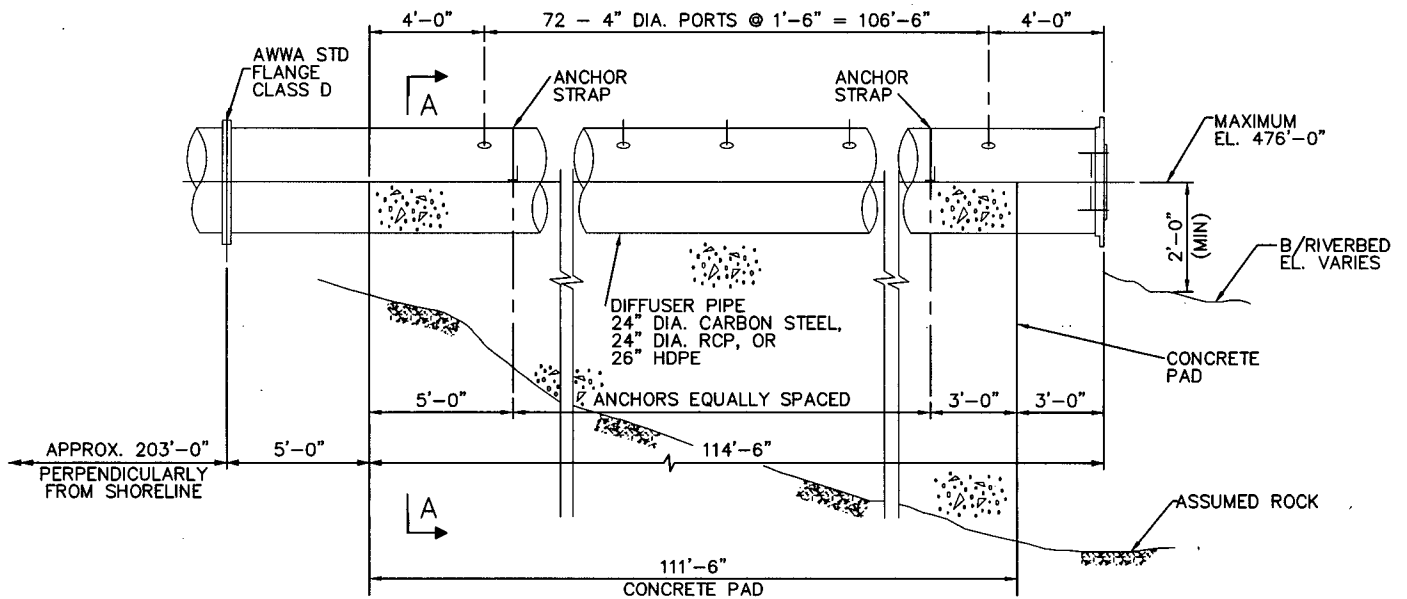
REV 0 : 06/15/2011 INITIAL SUBMISSION





### SECTION A-A

N.T.S.



### ELEVATION

N.T.S.

DRAWING SOURCE: FIGURE 3.4-6 OF THE  
BELL BEND NUCLEAR POWER PLANT COMBINED  
LICENSE APPLICATION, PART 3:  
ENVIRONMENTAL REPORT, REV. 2.

**Pennoni**

Pennoni Associates Inc.  
100 N. Wilkes-Barre Blvd.  
Wilkes-Barre, PA 18702

ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES; AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

DRAWN BY: WCK

SCALE: NTS

DATE: 06/15/2011

CHECKED BY: LGB

JPA PERMIT SUBMITTAL

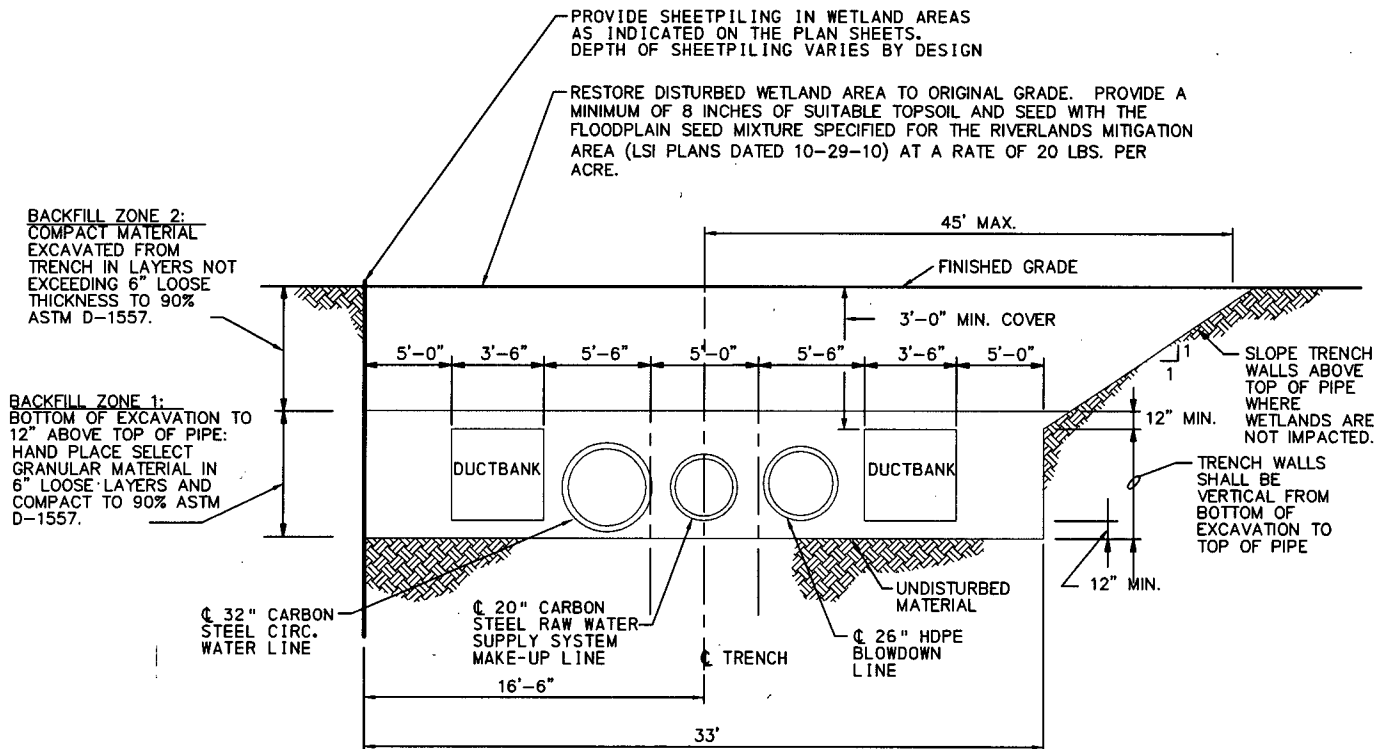
JOB No. PPLS 0902

BELL BEND NUCLEAR POWER PLANT  
LUZERNE COUNTY, PENNSYLVANIA

APPLICATION BY:  
PPL NUCLEAR DEVELOPMENT, LLC

FIGURE 8N - DIFFUSER PIPE DETAIL

REV 0 : 06/15/2011 INITIAL SUBMISSION



### BEDDING AND BACKFILL REQUIREMENTS

#### NOTE:

THE BLOWDOWN LINE, WATER INTAKE LINES, AND ASSOCIATED DUCTBANKS SHALL BE COMBINED INTO A SINGLE TRENCH IN ALL LOCATIONS.

**Pennoni**

Pennoni Associates Inc.  
100 N. Wilkes-Barre Blvd.  
Wilkes-Barre, PA 18702

ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES; AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

DRAWN BY: WCK

SCALE: NTS

DATE: 06/15/2011

CHECKED BY: LGB

JPA PERMIT SUBMITTAL

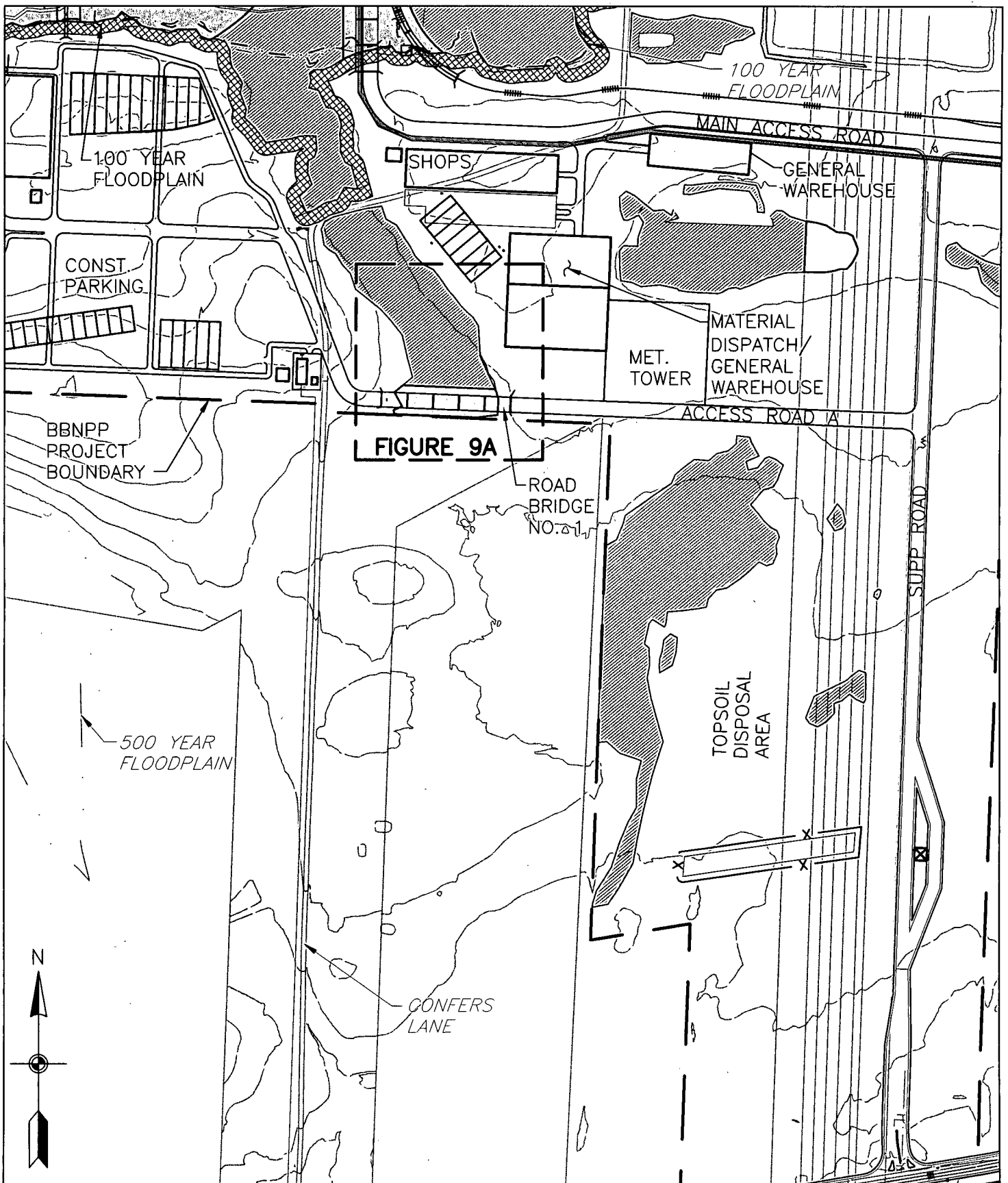
JOB No. PPLS 0902

BELL BEND NUCLEAR POWER PLANT  
LUZERNE COUNTY, PENNSYLVANIA

FIGURE 8P - BLOWDOWN & WATER INTAKE LINE SECTION

REV 1: 11/4/2011 UPDATED CIRC. WATER LINE  
REV 0 : 06/15/2011 INITIAL SUBMISSION

APPLICATION BY:  
PPL NUCLEAR DEVELOPMENT, LLC



**Pennoni**

Pennoni Associates Inc.  
100 N. Wilkes-Barre Blvd.  
Wilkes-Barre, PA 18702

ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES. AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

DRAWN BY: WCK

CHECKED BY: LGB

JOB No. PPLS 0902

SCALE: HORZ. 1"=500'  
VERT. N/A

DATE: 06/15/2011

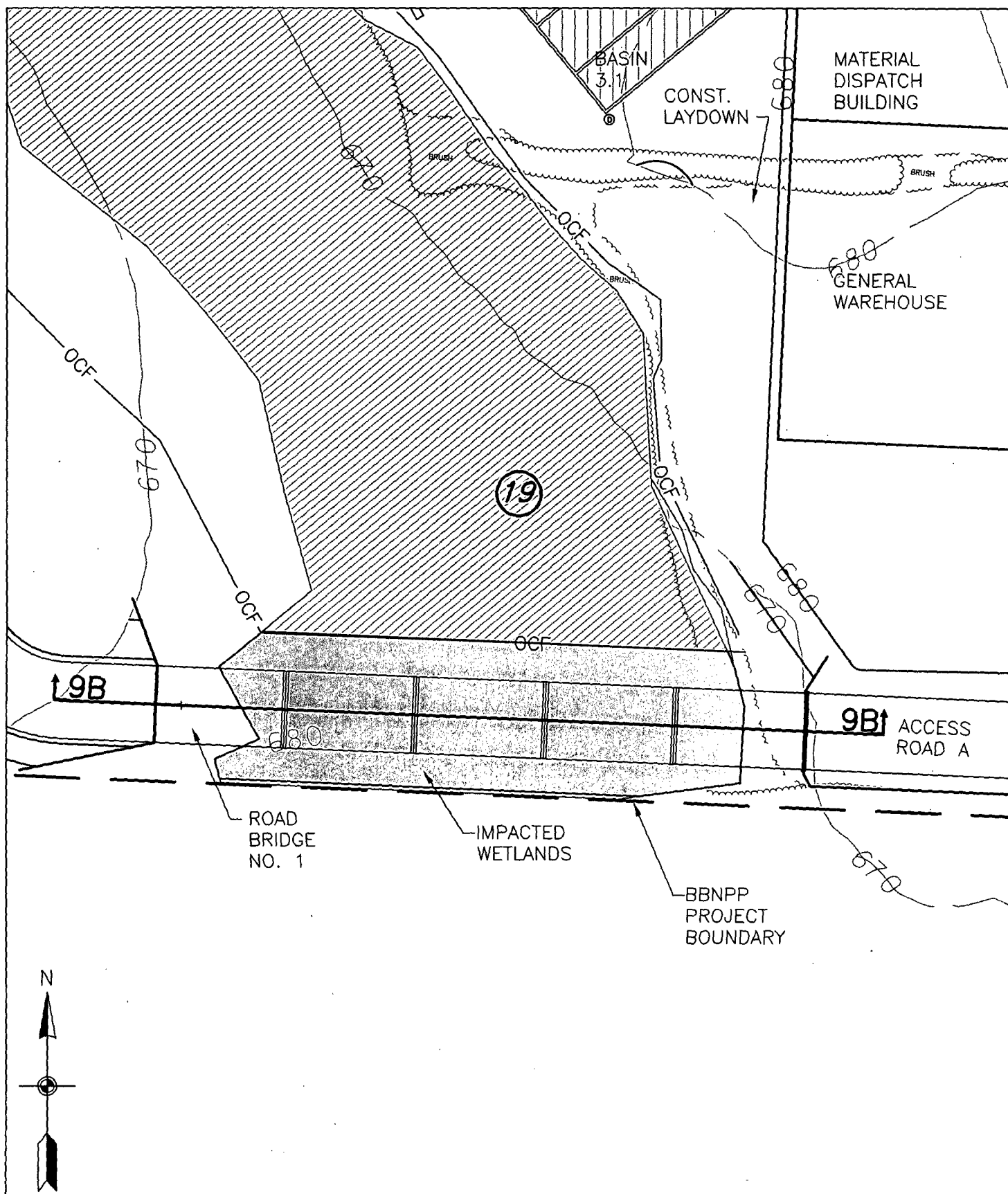
JPA PERMIT SUBMITTAL

BELL BEND NUCLEAR POWER PLANT  
LUZERNE COUNTY, PENNSYLVANIA

APPLICATION BY:  
PPL NUCLEAR DEVELOPMENT, LLC

FIGURE 9 - SITE LAYOUT

REV 1 : 10/28/2011 REVISED FLOOD LINES  
REV 0 : 06/15/2011 INITIAL SUBMISSION



**Pennoni**

Pennoni Associates Inc.  
100 N. Wilkes-Barre Blvd.  
Wilkes-Barre, PA 18702

ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES, AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

DRAWN BY: WCK

CHECKED BY: LGB

JOB No. PPLS 0902

SCALE: HORZ. 1"=100'  
VERT. N/A

DATE: 06/15/2011

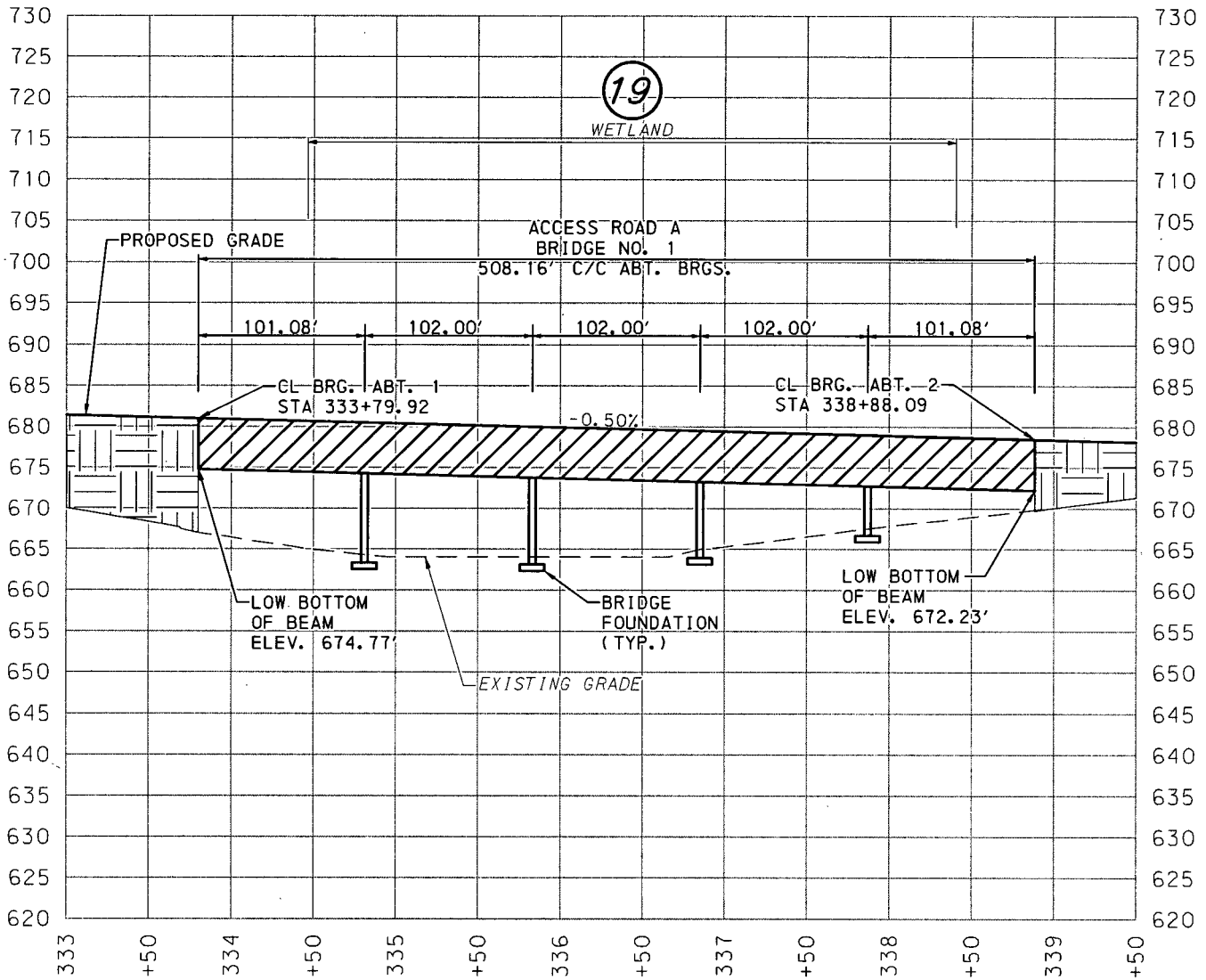
JPA PERMIT SUBMITTAL

BELL BEND NUCLEAR POWER PLANT  
LUZERNE COUNTY, PENNSYLVANIA

APPLICATION BY:  
PPL NUCLEAR DEVELOPMENT, LLC

FIGURE 9A - SITE LAYOUT

REV 1 : 10/28/2011 REVISED OCF AND GRADING  
REV 0 : 06/15/2011 INITIAL SUBMISSION



**Pennoni**

Pennoni Associates Inc.  
100 N. Wilkes-Barre Blvd.  
Wilkes-Barre, PA 18702

ALL DOCUMENTS PREPARED BY PENNONI ASSOCIATES ARE INSTRUMENTS OF SERVICE IN RESPECT OF THE PROJECT. THEY ARE NOT INTENDED OR REPRESENTED TO BE SUITABLE FOR REUSE BY OWNER OR OTHERS ON EXTENSIONS OF THE PROJECT OR ON ANY OTHER PROJECT. ANY REUSE WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY PENNONI ASSOCIATES FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT OWNERS SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO PENNONI ASSOCIATES. AND OWNER SHALL INDEMNIFY AND HOLD HARMLESS PENNONI ASSOCIATES FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM.

DRAWN BY: WCK  
CHECKED BY: LGB  
JOB No. PPLS 0902

SCALE: HORZ. 1"=100'  
VERT. 1"=5'

DATE: 06/15/2011

JPA PERMIT SUBMITTAL

BELL BEND NUCLEAR POWER PLANT  
LUZERNE COUNTY, PENNSYLVANIA

APPLICATION BY:  
PPL NUCLEAR DEVELOPMENT, LLC

FIGURE 9B — BRIDGE NO. 1 CROSS SECTION

REV 0 : 06/15/2011 INITIAL SUBMISSION