

U.S. Army Corps
of Engineers

Public Notice

In Reply to Application Number
NAB-2008-01999 (Jermyn Borough Flood Protection Project/Rush
Brook)

Baltimore District
PN-20-38

Comment Period: June 22, 2020 to July 7, 2020

The purpose of this public notice is to inform interested parties of the proposed activity and to solicit comments. A public notice for this project was issued on May 9, 2013 and this second notice is to re-inform the public of the project and its associated components. No decision has been made as to whether or not a permit will be issued at this time.

This District has received an application for a Department of the Army permit pursuant to Section 404 of the Clean Water Act (33 USC 1344), as described below:

APPLICANT: Pennsylvania Department of Environmental Protection
Department of General Services
Bureau of Engineering and Architecture
18th and Herr Streets
Harrisburg, Pennsylvania 17125

WATERWAY AND LOCATION OF THE PROPOSED WORK: The proposed project is located along three (3) different segments of Rush Brook, in Lackawanna County, Pennsylvania. The first is an approximate 148 linear foot segment located adjacent to the PA Route 107 in Carbondale Township; the second is an approximate 260 linear foot segment located on the northwest side of the PA Route 107 and Scranton Carbondale Road intersection in Mayfield Borough, and the third is an approximate 2,180 linear foot segment beginning on the southeast side of the PA Route 107 and Scranton Carbondale Road intersection and extending to near River Street, in Jermyn Borough. (Latitude: 41°32'22" N; Longitude: 75°33'16" W)

OVERALL PROJECT PURPOSE: To construct and provide a flood protection project for the 100-year flood event, for the residents along Rush Brook and the Borough of Jermyn, in Lackawanna County, Pennsylvania.

PROPOSED WORK: The applicant is seeking Section 404 authorization to construct a flood protection project along three (3) segments of Rush Brook. The project will result in a total of approximately 2,588 linear feet (1.43 acres) of permanent impact to Rush Brook associated with stream bank stabilization activities, channel excavation, culvert installations, and the replacement of five (5) bridge structures. A detailed description of the work being proposed at each of the three (3) segments of Rush Brook includes the following: 1.) Carbondale Township - Beginning at the upstream limits, the work includes temporary construction access and stream diversion along 148 linear feet of stream channel, the installation of approximately 120 linear feet of R-7 riprap along the left stream bank for stabilization, and excavation of the stream substrate; 2.) Mayfield Borough - Located on the northwest side of the PA Route 107 and PA Route 6 (Scranton Carbondale

Road) intersection, the work includes temporary construction access and stream diversion along 260 linear feet of stream channel. The work includes (a) the installation of the a steel H-pile trash rack comprised of eight steel pilings, measuring 6-feet long by 8-inch wide, concreted into a 14-inch diameter steel structure, spaced approximately 4-feet apart within the stream bed, extending the width of the stream channel; (b) construction of approximately 70 linear feet of precast concrete block wall along the left stream bank; (c) construction of approximately 180 linear feet of precast concrete block wall along the right stream bank; (d) excavation of stream substrate; and (e) removing selected trees within the 260 linear foot segment to allow for the construction of the concrete walls; 3.) Jermyn Borough - Located on the southeast side of the PA Route 107 and PA Route 6 (Scranton Carbondale Road) intersection, the work includes the construction of approximately 1,950 linear feet of precast concrete block walls along the left and right stream banks. Existing conditions within this stream segment include approximately 1,325 linear feet of the stream channel being previously manipulated by the installation of a combination of gabion basket walls, concrete block walls, stone walls, bridges and culverts along the left and right stream banks. The average width of the existing channel is approximately 20 feet; the proposed width will be approximately 22 feet along the length of the project. In addition, existing material will be excavated within the stream channel invert along the entire 1,950 linear foot length of this stream segment. The work also includes the replacement of five (5) bridge structures within this stream segment. Four of the original bridge structures (located at Lincoln Avenue, Jefferson Avenue, Madison Avenue, and South Washington Avenue) are undersized and will be replaced with four, 22-foot wide by 8-foot long precast V-bottom box culvert with depressed inverts and alternating baffles. The fifth bridge structure, on Johnson Court, is currently washed out and a new 22-foot wide by 8-foot long precast V-bottom concrete box culvert with depressed inverts and alternating baffles will be constructed at the same location. Also, proposed within this stream segment are three (3) sections of embedded concrete V-shaped grade controls to match the V-shaped bottom of the proposed box culverts for the purpose of concentrating low flows in the middle of the stream to enhance movement of aquatic life and keep normal flow away from the toes of the concrete side walls. Existing trees will be removed along the entire length of this stream segment to protect the stability and integrity of the concrete walls. Lastly, a short earthen levee will be constructed in the uplands, adjacent to the downstream limits of the project, near River Street.

The work is proposed in accordance with the enclosed plans.

LEAD FEDERAL AGENCY: The U.S. Army Corps of Engineers, as the lead federal agency, is responsible for all coordination pursuant to applicable federal authorities.

APPLICANT'S PROPOSED AVOIDANCE, MINIMIZATION, AND COMPENSATORY MITIGATION: Steps were taken to ensure avoidance and minimization of impacts to waters of the United States to the maximum extent possible. The applicant has avoided using a trapezoidal channel within the stream and will leave the stream invert in its natural state, except at the culvert locations. At the culvert replacement locations, the applicant

has proposed alternating baffles along the invert that will allow passive sediment build-up along the culvert invert. In addition, approximately 0.72 acre of compensatory mitigation is being proposed by the applicant for impacts to the 2,588 linear feet of stream. A restored channel and floodplain riparian zone is being proposed at the Rush Brook and Lackawanna River confluence, located just downstream of the flood protection project impact area. This will entail removing mining overburden located along the left bank of Rush Brook from its confluence with the Lackawanna River upstream approximately 400 linear feet. This valley bottom will then be re-graded to form an alluvial fan system. Based on utilizing the Pennsylvania Function Based Aquatic Resource Compensation Protocol (*draft version*), the applicant is providing sufficient functional compensation to offset project impacts.

CORPS EVALUATION REQUIREMENTS: This project will be evaluated pursuant to Corps Regulatory Program Regulations (33 CFR Parts 320-332). The decision whether to issue a permit will be based on an evaluation of the probable impacts, including cumulative impacts of the proposed activity on the public interest. That decision will reflect the national concern for both protection and utilization of important resources. The benefit, which reasonable may be expected to accrue from the proposal, must be balanced against its reasonably foreseeable detriments. All factors, which may be relevant to the proposal will be considered, including the cumulative effects thereof; among those are conservation, economic, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, flood plain values, land use, navigation, shoreline erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, and consideration of property ownership and in general, the needs and welfare of the people. The evaluation of the impact of this project will also include application of the Clean Water Act Section 404(b)(1) Guidelines promulgated by the Administrator, U.S. Environmental Protection Agency.

ENDANGERED SPECIES: A preliminary review of this application indicates that the proposed work will have no effect federally-listed threatened or endangered species or their critical habitat, pursuant to Section 7 of the Endangered Species Act, as amended. As the evaluation of this application continues, additional information may become available which could modify this preliminary determination.

HISTORIC RESOURCES: Pursuant to Section 106 of the National Historic Preservation Act (NHPA) of 1966 and applicable guidance, the Corps has reviewed the latest published version of the National Register of Historic Places and initially determined that no registered properties listed as eligible for inclusion, therein, are located at the site of the proposed work. The Corps has made the preliminary determination that the proposed project would have no effect on historic properties. The Corps final eligibility and effect determination will be based on coordination with the State Historic Preservation Office as appropriate and required, and with full consideration given to the proposed undertaking's potential direct and indirect effects on historic properties within the Corps' identified permit area.

TRIBAL RESOURCES: Section 106 of the NHPA also requires federal agencies to consult with federally-recognized American Indian tribes that attach religious and cultural significance to historic properties that may be affected by the agency's undertaking. Corps Tribal Consultation Policy mandates an open, timely, meaningful, collaborative, and effective deliberative communication process that emphasizes trust, respect, and shared responsibility. The policy further emphasizes that, to the extent practicable and permitted by law, consultation works toward mutual consensus and begins at the earliest planning stages, before decisions are made and actions taken. The Corps final eligibility and effect determination will be based on coordination with interested tribes, in accordance with the Corps current tribal standard operating procedures as appropriate and required, and with full consideration given to the proposed undertaking's potential direct and indirect effects on tribal resources.

WATER QUALITY CERTIFICATION: The applicant is required to obtain a water quality certification in accordance with Section 401 of the Clean Water Act.

SUBMISSION OF COMMENTS: The Corps of Engineers is soliciting comments from the public; federal, State, and local agencies and officials; Indian Tribes; and other interested parties in order to consider and evaluate the impacts of this proposed activity. Any comments received will be considered by the Corps of Engineers to determine whether to issue, modify, condition or deny a permit for this proposal. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, general environmental effects, and the other public interest factors listed above. Comments are used in the preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments provided will become part of the public record for this action and are subject to release to the public through the Freedom of Information Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

Written comments concerning the work described above related to the factors listed above or other pertinent factors must be received by the U.S. Army Corps of Engineers, Baltimore District within the comment period specified above through postal mail at the address below or electronic submission to the project manager email address below. Written comments should reference the Application Number NAB-2008-01999-P13.

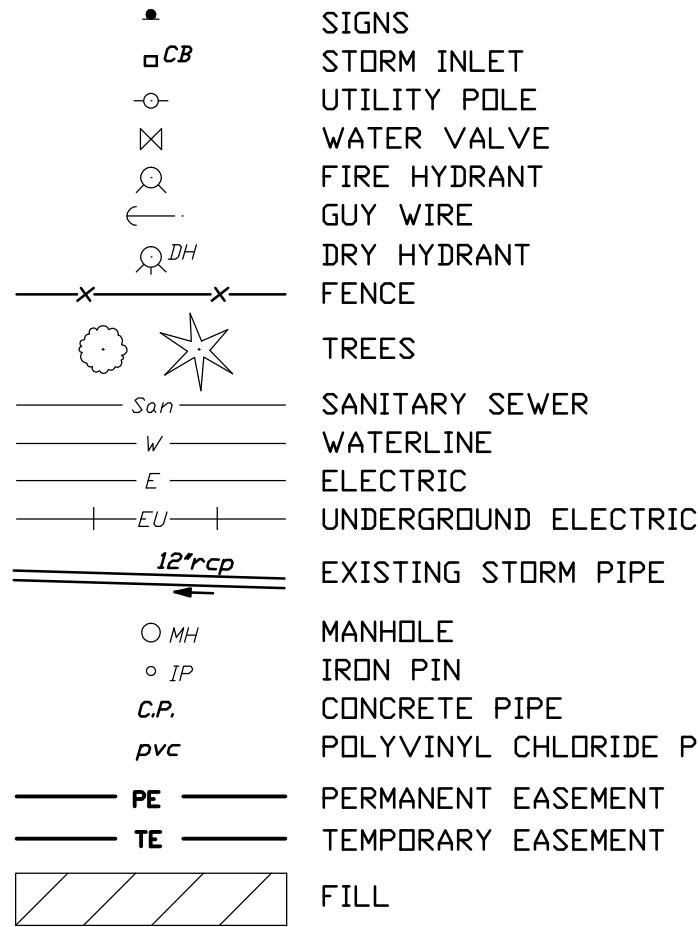
PUBLIC HEARING REQUESTS: Any person who has an interest which may be adversely affected by the issuance of this permit may request a public hearing. The request, which must be in writing, must be received within the comment period as specified above to receive consideration. Also it must clearly set forth the interest which may be adversely affected by this activity and the manner in which the interest may be adversely affected. The public hearing request may be submitted by electronic mail or mailed to the following address:

Amy Elliott
amy.h.elliott@usace.army.mil
U.S. Army Corps of Engineers, Baltimore District
Regulatory Branch
State College Field Office
1631 South Atherton Street
State College, PA 16801

It is requested that you communicate this information concerning the proposed work to any persons known by you to be interested, who did not receive a copy of this notice.

General information regarding the Corps' permitting process can be found on our website at <https://www.nab.usace.army.mil/Missions/Regulatory.aspx>. This public notice has been prepared in accordance with Corps implementing regulations at 33 CFR 325.3. If you have any questions concerning this specific project, or would like to request a paper copy of this public notice, please contact Mrs. Amy Elliott, at 814-235-0573. This public notice is issued by the Chief, Regulatory Branch.

LEGEND



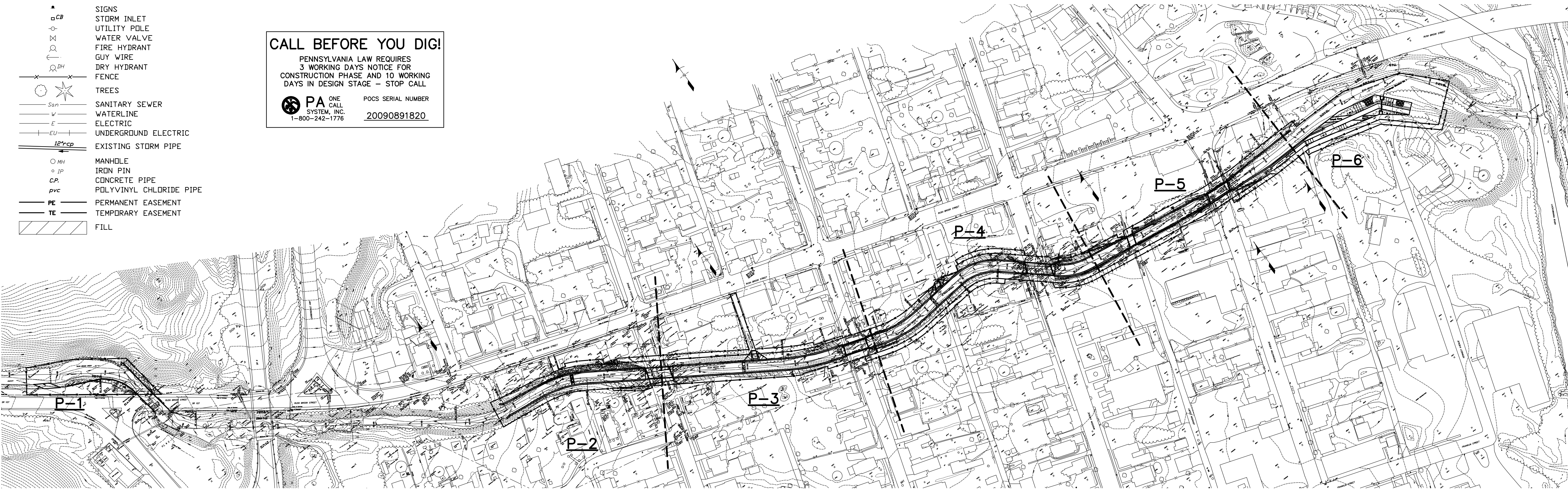
CALL BEFORE YOU DIG!

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



POCS SERIAL NUMBER

20090891820

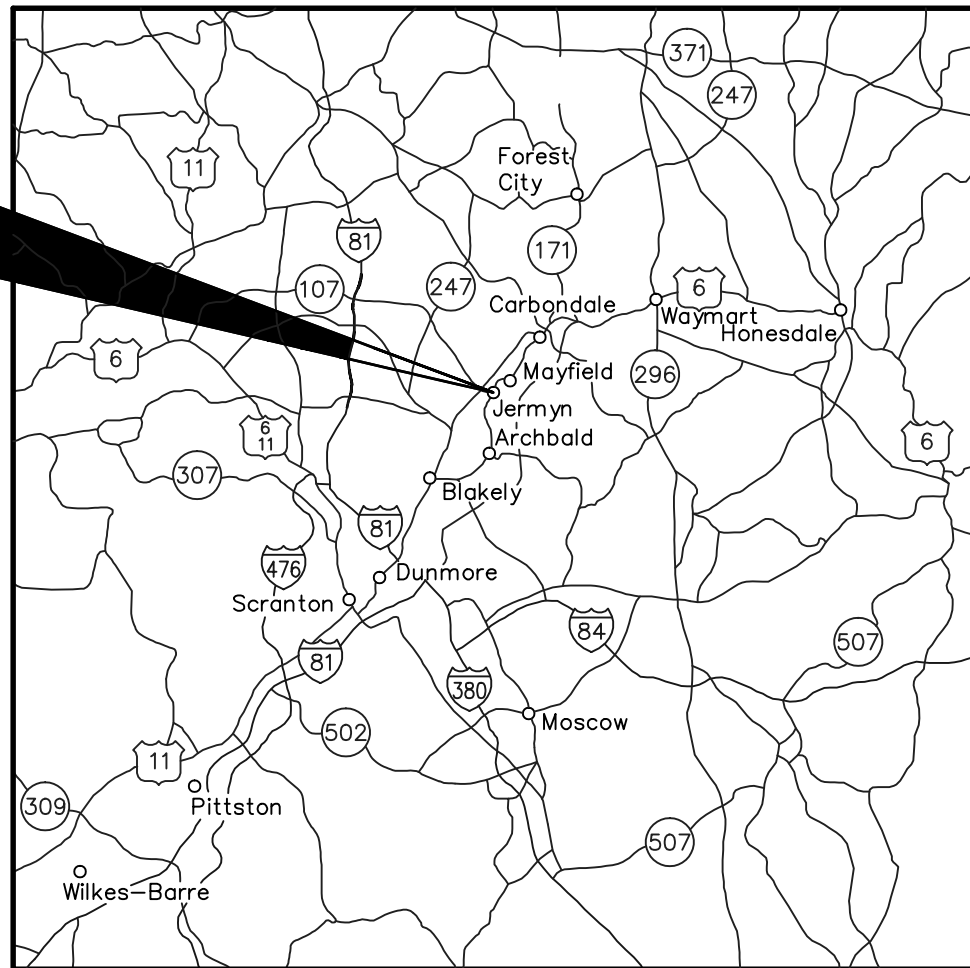


PLAN

Scale: 1 in. = 100 ft.

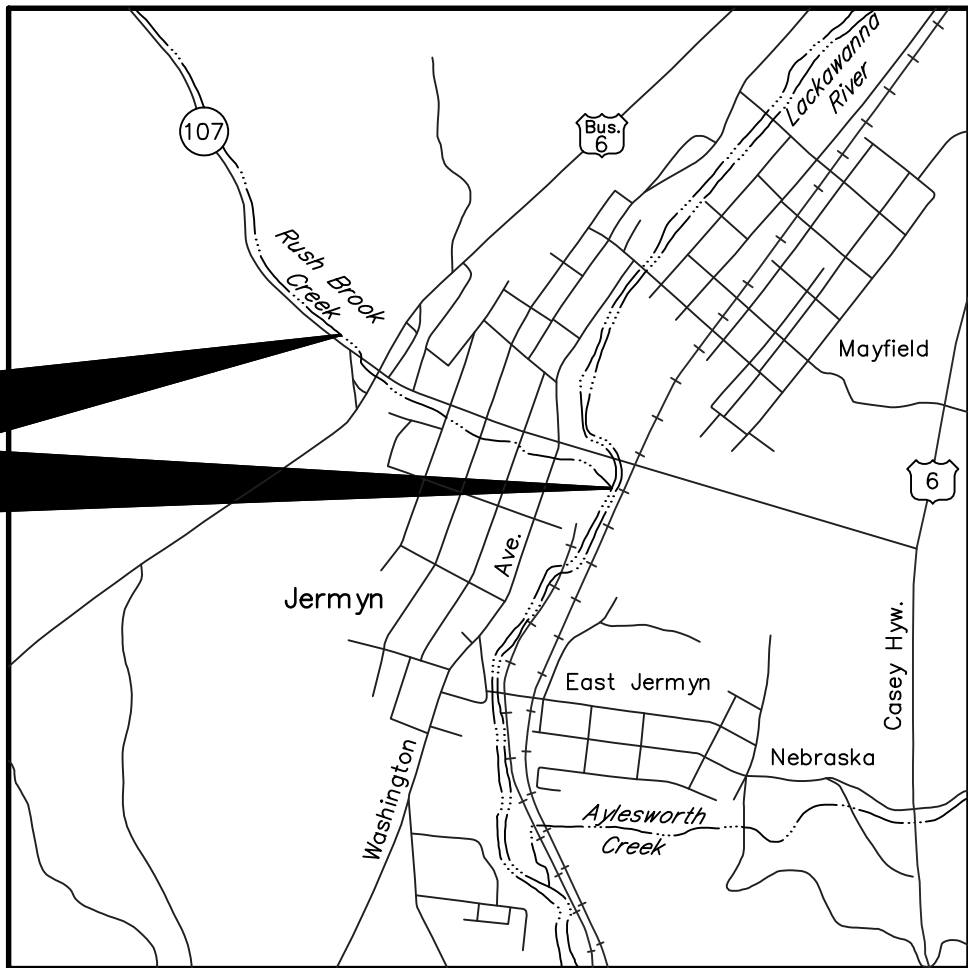
GENERAL NOTES:

- The topography shown on the drawings is based on a survey conducted by Larsen Design Group in 2005.
- All elevations are based on N.G.V.D. Elevations of features are to be taken from bench marks (B.M.) listed on the drawings.
- Existing contours and existing ground lines are intended to show the general ground configuration. Payment for excavation and fill items will be based upon survey cross sections made by the Department immediately prior to commencement of work.
- Data concerning utilities has been obtained from available information. Accuracy or completeness of this data is not guaranteed.
- The Contractor's attention is drawn to the "Sponsor Adjustments" tables. The items listed are not part of the Contract. See General Requirement - Flood Protection Projects - Supplemental Provisions - Sponsor Adjustments.
- Rights-of-Way Acquisition drawings, which show more detailed dimensions for rights-of-way and Contractor's working area limits are on file at the Office of Water Management, Department of Environmental Protection, Harrisburg, Pennsylvania. These drawings will be furnished to the successful bidder.
- Minor adjustments in alignment and grade may be made to facilitate construction with the approval of the Department.
- Clearing and grubbing is not shown on the drawings but it shall extend to the permanent easement line unless directed otherwise by the Department.
- Indiscriminate cutting of trees will not be permitted. Approval of the Department will be required prior to cutting any trees. See Technical Specification 8 - Clearing and Grubbing.
- The Contractor shall fill and/or grade areas adjacent to the new construction for positive drainage as directed by the Department.
- All seeding shall be Permanent Seeding unless otherwise noted.
- Spoil and/or borrow areas are to be secured by the Contractor at his cost. See General Requirement, Special Provision - Securing Borrow and/or Spoil Areas.
- (No.) indicates Pay Item numbers which correspond to those in the Bid Form.
- Concrete Notes are shown on Drawing No. D-7.



LOCATION MAP

Scale: 1 in. = 9 mi.



VICINITY MAP

Scale: 1 in. = 2000 ft.

HYDRAULIC DATA

Drainage Area = 5.94 Square Miles

1% Annual Chance (100yr.) Discharge = 2,360 Cubic Feet per Second

Freeboard (Channel Walls) = 1.0 Foot

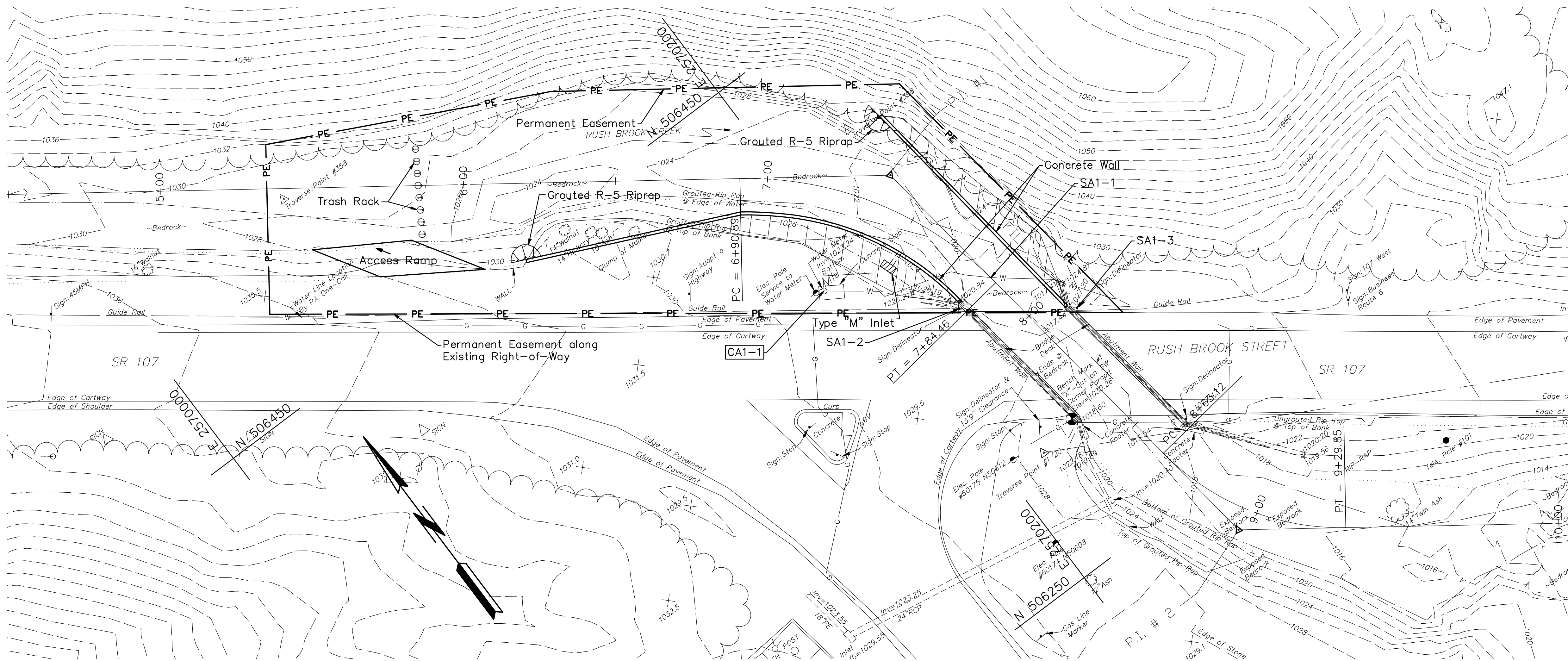
At Design Q, the depth of water and low chord clearance for culverts is as follows:

	DEPTH	FREEBOARD
PA Route 107	6.40'	1.60'
Lincoln Ave.	6.29'	0.70'
Jefferson Ave.	6.17'	0.83'
Madison Ave.	6.24'	0.76'
Johnson Ct.	6.60'	0.40'
Washington Ave.	7.00'	0.00'

NO.	DATE	REVISION	APPR.
SUBMITTED			
PROJECT COORDINATOR - D.E.P.			
APPROVED			
CHIEF - DIVISION OF PROJECT DEVELOPMENT - D.E.P.			
APPROVED			
DIRECTOR - BUREAU OF WATERWAYS ENGINEERING AND WETLANDS - D.E.P.			
PROFESSIONAL'S SIGNATURE			
DATE			
PROFESSIONAL'S SIGNATURE			
DATE			
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF WATER MANAGEMENT			
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF GENERAL SERVICES HARRISBURG, PENNSYLVANIA			
PROJECT NO. D.G.S. 181-21			
RUSHBROOK CREEK PROJECT			
BOROUGH OF JERMYN LACKAWANNA COUNTY, PENNSYLVANIA			
GENERAL PLAN			
DRAWN BY	DATE	DRAWING NO.	
A.J.M.	8-15-12		
CHECKED BY	SCALE		
	As Shown		

ALL DIMENSIONS AND EXISTING
CONDITIONS SHALL BE CHECKED
AND VERIFIED BY CONTRACTOR
AT THE SITE.

GP-1



CONTRACTOR ADJUSTMENTS

No.	Description	Location		Adjustment Required
		Station	Offset	
CA1-1	Water Meter Manhole	7+43.0	32.0' Rt.	Protect, Do Not Disturb
CA1-2	Guide Rail	5+35.0 to 8+00.0	44.0' Rt.	Remove and Reinstall as Necessary

SPONSOR ADJUSTMENTS

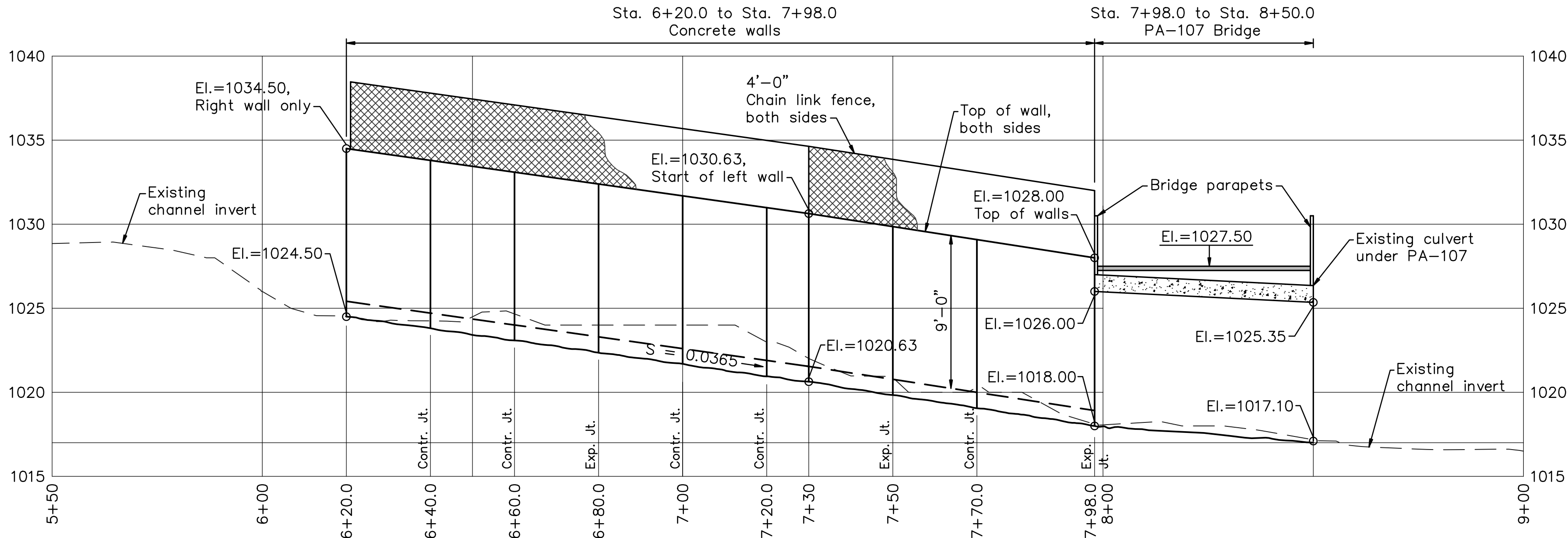
No.	Description	Location		Adjustment Required
		Station	Offset	
SA1-1	12" Water line	7+82.0	0	Remove/Relocate
SA1-2	Sign	7+82.0	14.5' Rt.	Remove and reinstall
SA1-3	Sign	8+09.0	13.0' Lt.	Remove and reinstall

PLAN

Scale: 1 in. = 20 ft.

CURVE DATA

Curve No.	P.I. Coordinates		Δ	D	R	T	L	P.C. Station	P.T. Station
	North	East							
P.O.T. #1	506,827.00	2,569,628.00							
P.I. #1	506,394.20	2,570,228.80	46°-47'-08"	50°-00'-00"	114.59'	49.57'	93.57'	6+90.89	7+84.46
P.I. #2	506,232.00	2,570,250.00	46°-42'-25"	70°-00'-00"	81.85'	35.34'	66.72'	8+63.12	9+29.85



PROFILE

Scale: { Horiz. 1 in. = 20 ft.
Vert. 1 in. = 5 ft.

NOTES:

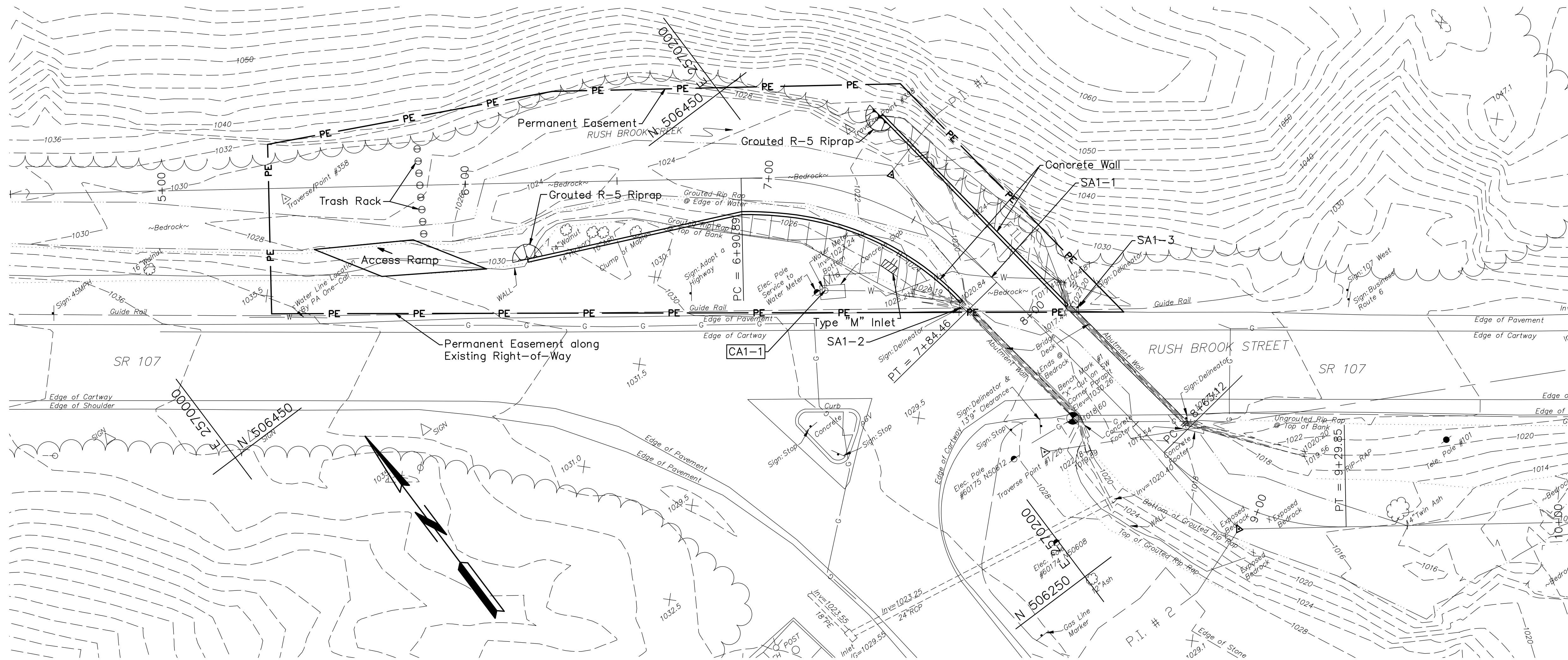
MText Holder

BENCH MARK DATA

BM No.	Elevation	Location
BM No. 1	1030.26	"X"-cut on SW corner of parapet of SR-107, Rushbrook Street culvert

NO.	DATE	REVISION	APPR.
SUBMITTED			
PROJECT COORDINATOR - D.E.P.			
APPROVED			
CHIEF - DIVISION OF PROJECT DEVELOPMENT - D.E.P.			
APPROVED			
DIRECTOR - BUREAU OF WATERWAYS ENGINEERING AND WETLANDS - D.E.P.			
PROFESSIONAL'S SIGNATURE DATE PROFESSIONAL'S SIGNATURE DATE			
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF WATER MANAGEMENT			
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF GENERAL SERVICES HARRISBURG, PENNSYLVANIA			
PROJECT NO. D.G.S. 181-21			
RUSHBROOK CREEK PROJECT			
BOROUGH OF JERMYN LACKAWANNA COUNTY, PENNSYLVANIA			
PLAN AND PROFILE STA. 5+00 TO STA. 9+00			
DRAWN BY J.A.D.	DATE 11-30-09	DRAWING NO. P-1	
CHECKED BY	SCALE As Shown		

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NOTES:

MText Holder

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		Station	Offset	
CA1-1	Water Meter Manhole	7+43.0	32.0' Rt.	Protect, Do Not Disturb
CA1-2	Guide Rail	5+35.0 to 8+00.0	44.0' Rt.	Remove and Reinstall as Necessary

SPONSOR ADJUSTMENTS

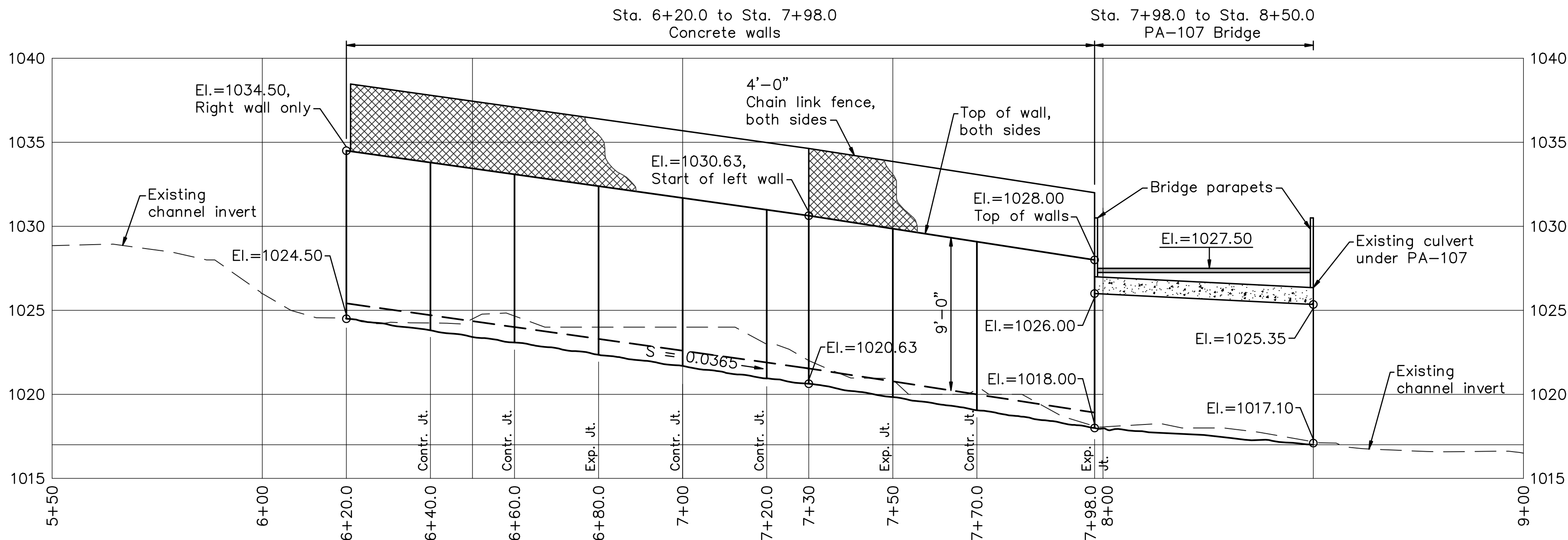
No.	Description	Location		Adjustment Required
		Station	Offset	
SA1-1	12" Water line	7+82.0	CL	Remove/Relocate
SA1-2	Sign	7+82.0	14.5' Rt.	Remove and reinstall
SA1-3	Sign	8+09.0	13.0' Lt.	Remove and reinstall

PLAN

Scale: 1 in. = 20 ft.

CURVE DATA

Curve No.	P.I. Coordinates		Δ	D	R	T	L	P.C. Station	P.T. Station
	North	East							
P.O.T. #1	506,827.00	2,569,628.00							
P.I. #1	506,394.20	2,570,228.80	46°-47'-08"	50°-00'-00"	114.59'	49.57'	93.57'	6+90.89	7+84.46
P.I. #2	506,232.00	2,570,250.00	46°-42'-25"	70°-00'-00"	81.85'	35.34'	66.72'	8+63.12	9+29.85

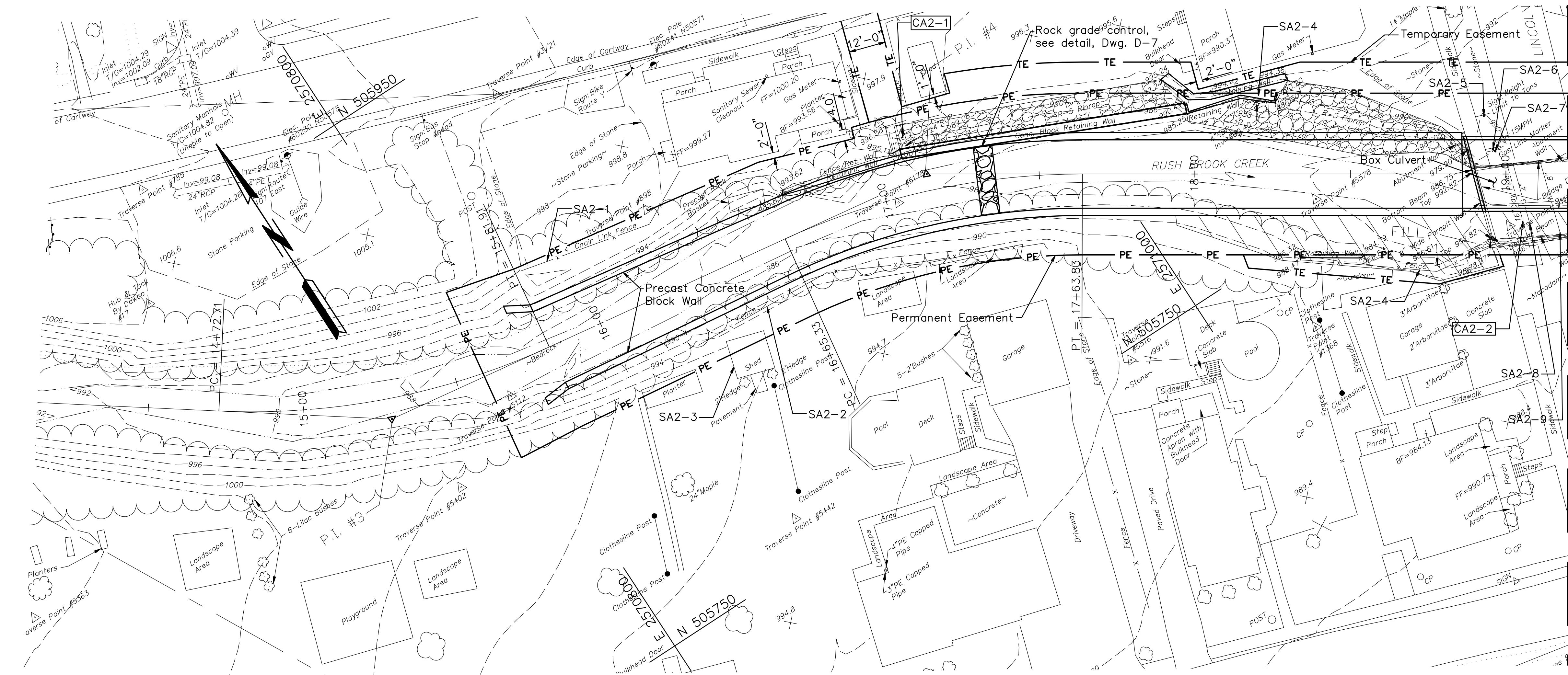


PROFILE

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NO.	DATE	REVISION	APPR.
SUBMITTED			
PROJECT COORDINATOR - D.E.P.			
APPROVED			
CHIEF - DIVISION OF PROJECT DEVELOPMENT - D.E.P.			
APPROVED			
DIRECTOR - BUREAU OF WATERWAYS ENGINEERING AND WETLANDS - D.E.P.			
PROFESSIONAL'S SIGNATURE DATE PROFESSIONAL'S SIGNATURE DATE			
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COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF GENERAL SERVICES HARRISBURG, PENNSYLVANIA			
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PLAN AND PROFILE STA. 5+00 TO STA. 9+00			
DRAWN BY J.A.D.	DATE 11-30-09	DRAWING NO. P-1	
CHECKED BY	SCALE As Shown		



MATCH LINE STA. 19+20.0, DRAWING P-3

NOTES:
MText Holder

CONTRACTOR ADJUSTMENTS

No.	Description	Location		Adjustment Required
		Station	Offset	
CA2-1	24" RC Pipe	17+09.8	15.6' Lt.	Extend through wall
CA2-2	16" Clay Pipe	19+01.2	CL	Extend through culvert

CURVE DATA

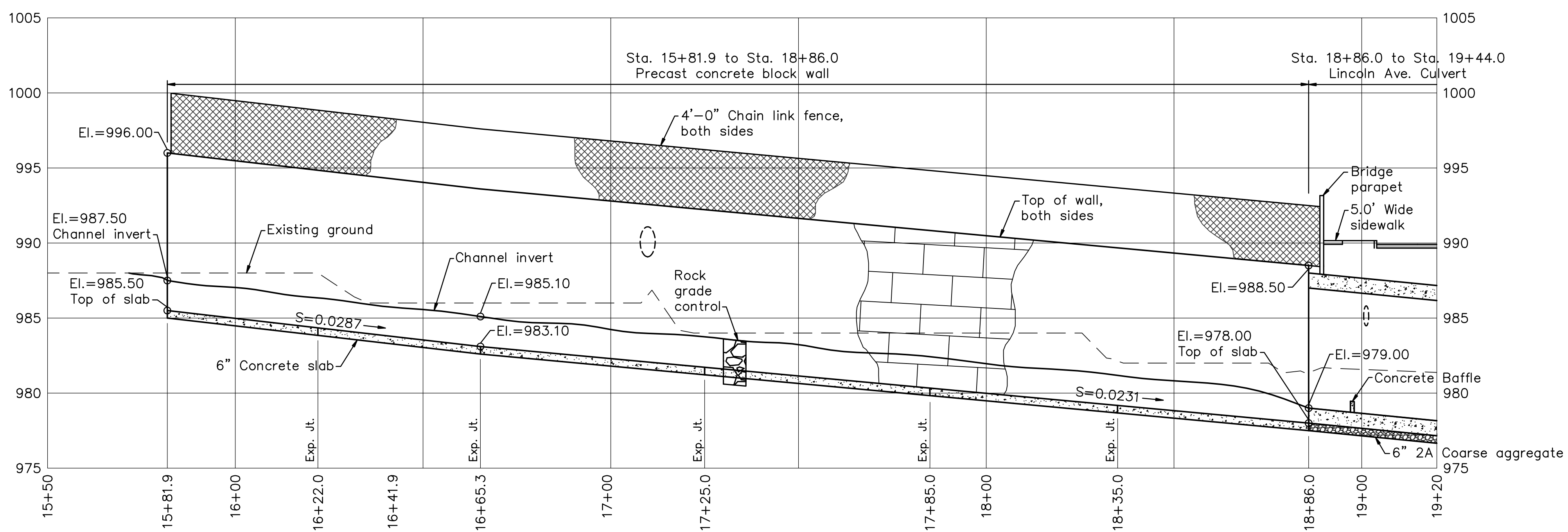
Curve No.	P.I. Coordinates		Δ	D	R	T	L	P.C. Station	P.T. Station
	North	East							
P.I. #3	505,860.80	2,570,763.80	27°-18'-03"	25°-00'-00"	229.18'	55.66'	109.21'	14+72.71	15+81.91
P.I. #4	505,832.70	2,570,950.80	24°-37'-32"	25°-00'-00"	229.18'	50.02'	98.50'	16+65.33	17+63.83

PLAN

Scale: 1 in. = 20 ft.

SPONSOR ADJUSTMENTS

No.	Description	Location		Adjustment Required
		Station	Offset	
SA2-1	4'-0" Chain link fence	15+84.0 to 16+32.8	24.0' Lt.	Remove
SA2-2	Fence	16+33.0 to 17+52.0	18.0' Rt.	Remove
SA2-3	Shed	16+42.0	23.0' Rt.	Remove and relocate outside P.E.
SA2-4	4" SDR-35 Pipe	18+19.8	23.0' Lt.	Extend through wall
SA2-4	Fence	18+34.5 to 18+95.0	28.0' Rt.	Remove
SA2-5	16 Ton Weight Limit Sign	18+93.0	19.0' Lt.	Remove
SA2-6	15 MPH Sign	18+96.0	8.5' Lt.	Remove and reinstall
SA2-7	Gas Line Marker Sign	18+97.0	8.0' Lt.	Remove and reinstall
SA2-8	4" Gas line	19+03.0	CL	Relocate
SA2-9	8" Water line	19+12.0	CL	Relocate



PROFILE

Scale: { Horiz. 1 in. = 20 ft.
Vert. 1 in. = 5 ft.

NO.	DATE	REVISION	APPR.
SUBMITTED			
PROJECT COORDINATOR - D.E.P.			
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CHIEF - DIVISION OF PROJECT DEVELOPMENT - D.E.P.			
APPROVED			
DIRECTOR - BUREAU OF WATERWAYS ENGINEERING AND WETLANDS - D.E.P.			
PROFESSIONAL'S SIGNATURE DATE PROFESSIONAL'S SIGNATURE DATE			
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF WATER MANAGEMENT			
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF GENERAL SERVICES HARRISBURG, PENNSYLVANIA			
PROJECT NO. D.G.S. 181-21			
RUSHBROOK CREEK PROJECT			
BOROUGH OF JERMYN LACKAWANNA COUNTY, PENNSYLVANIA			
PLAN AND PROFILE STA. 14+50 TO STA. 19+20			
DRAWN BY J.A.D.	DATE 11-30-09	DRAWING NO. P-2	
CHECKED BY	SCALE As Shown		

ALL DIMENSIONS AND EXISTING
CONDITIONS SHALL BE CHECKED
AND VERIFIED BY CONTRACTOR
AT THE SITE.

CONTRACTOR ADJUSTMENTS

No.	Description	Location		Adjustment Required
		Station	Offset	
CA3-1	Inlet & Pipe	19+28.0	9.0' Lt.	Replace inlet, connect to culvert
CA3-2	18" Clay Pipe	19+55.8	24.1' Rt.	Extend through wall
CA3-3	Deck	22+50.0	23.0' Rt.	Protect, do not disturb
CA3-4	15" PE Pipe	23+17.2	8.8' Lt.	Extend through culvert
CA3-5	12" PE Pipe	23+59.9	10.6' Lt.	Extend through wall
CA3-6	12" PE Pipe	23+60.2	11.9' Rt.	Extend through wall

SPONSOR ADJUSTMENTS

No.	Description	Location		Adjustment Required
		Station	Offset	
SA3-1	Fence	19+34.7	13.0' Lt.	Remove
SA3-2	Fence	19+78.0 to 20+94.0	25.0' Lt.	Remove to outside T.E. during construction, then reinstall
SA3-3	Fence	22+05.0 to 23+06.0	15.0' Rt.	Remove
SA3-4	Fence	23+55.5	12.0' Rt.	Remove

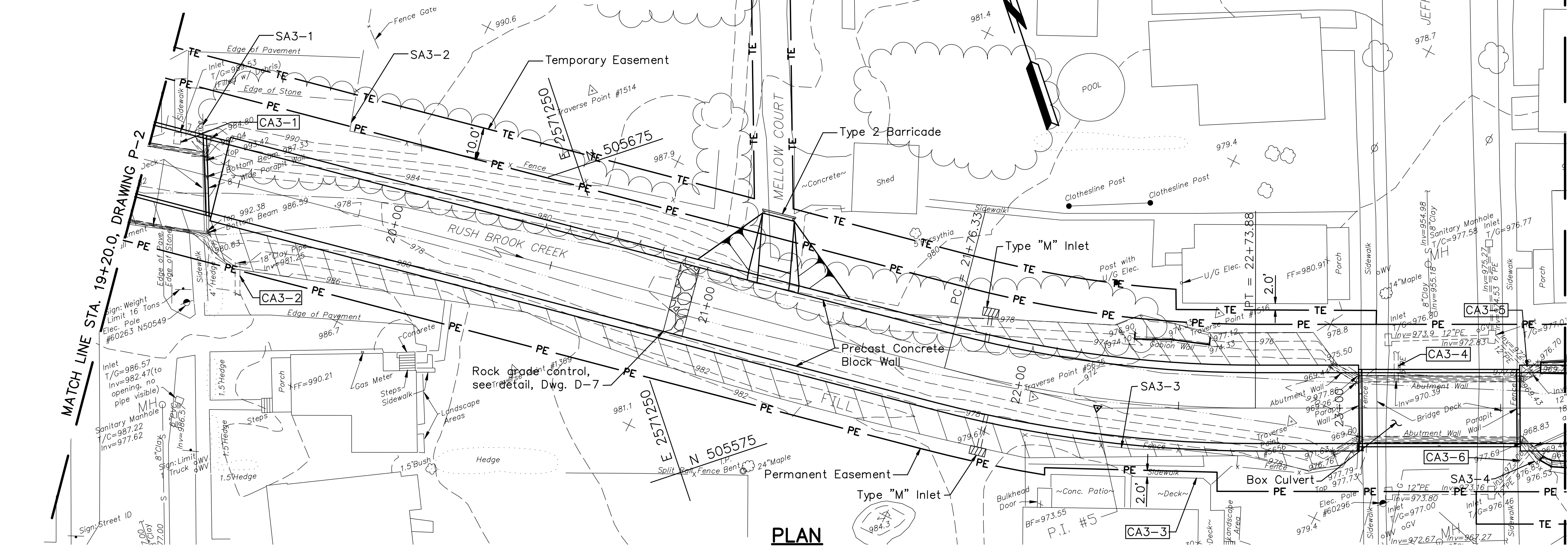
CURVE DATA

Curve No.	P.I. Coordinates		Δ	D	R	T	L	P.C. Station	P.T. Station
	North	East							
P.I. #5	505,552.80	2,571,379.00	14°-37'-58"	15'-00'-00"	381.71'	49.04'	97.55'	21+76.33	22+73.88

NOTES:

MText Holder

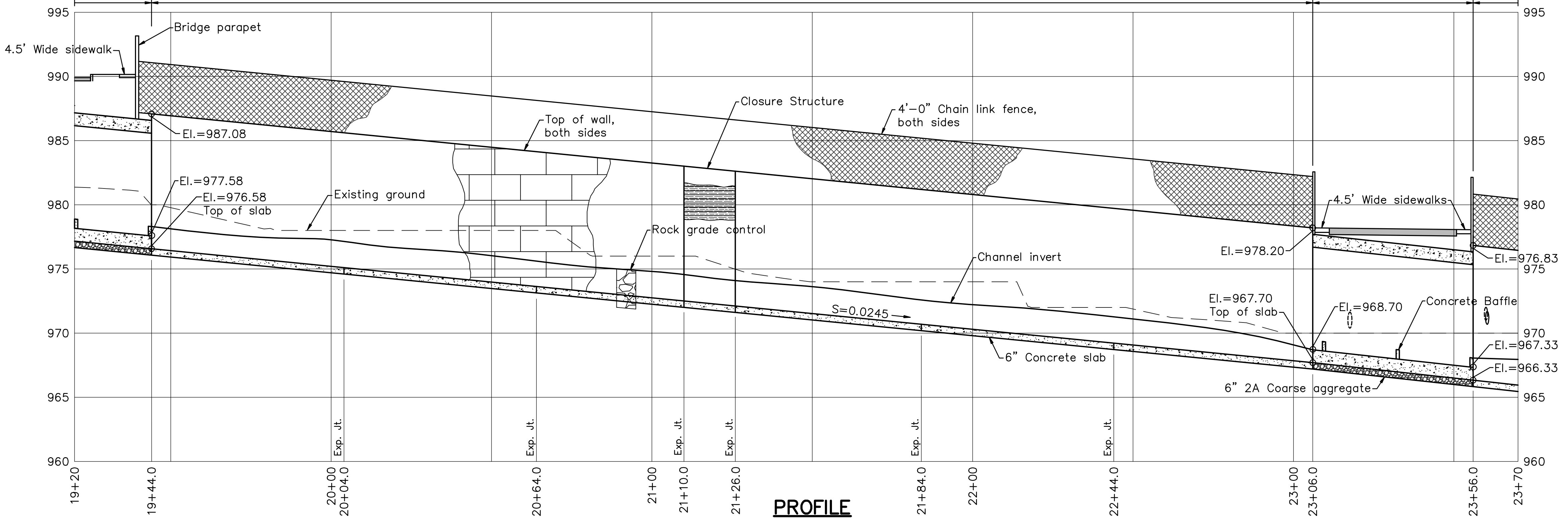
MATCH LINE STA. 23+70.0, DRAWING P-4



Sta. 18+86.0 to Sta. 19+44.0
Lincoln Ave. Culvert

Scale: 1 in. = 20 ft.
Sta. 19+44.0 to Sta. 23+06.0
Precast concrete block wall

Sta. 23+06.0 to Sta. 23+56.0
Jefferson Ave. Culvert



PROFILE
Scale: { Horiz. 1 in. = 20 ft.
Vert. 1 in. = 5 ft.

NO.	DATE	REVISION	APPR.
SUBMITTED			
PROJECT COORDINATOR - D.E.P.			
APPROVED			
CHIEF - DIVISION OF PROJECT DEVELOPMENT - D.E.P.			
APPROVED			
DIRECTOR - BUREAU OF WATERWAYS ENGINEERING AND WETLANDS - D.E.P.			
PROFESSIONAL'S SIGNATURE _____ DATE _____			
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF WATER MANAGEMENT			
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF GENERAL SERVICES HARRISBURG, PENNSYLVANIA			
PROJECT NO. D.G.S. 181-21			
RUSHBROOK CREEK PROJECT			
BOROUGH OF JERMYN LACKAWANNA COUNTY, PENNSYLVANIA			
PLAN AND PROFILE STA. 19+20 TO STA. 23+70			
DRAWN BY J.A.D.	DATE 11-30-09	DRAWING NO. P-3	
CHECKED BY	SCALE As Shown		

ALL DIMENSIONS AND EXISTING
CONDITIONS SHALL BE CHECKED
AND VERIFIED BY CONTRACTOR
AT THE SITE.

CONTRACTOR ADJUSTMENTS

No.	Description	Location		Adjustment Required
		Station	Offset	
CA4-1	Garage	25+39.8	19.1' Lt.	Protect, Do not disturb
CA4-2	12" CMP	27+35.5	5.7' Lt	Extend through culvert
CA4-3	Inlet and 12" Pipe	27+53.0	13.0' Rt.	Replace Inlet, Connect to Culvert
CA4-4	Inlet and 12" Pipe	27+80.0	13.0' Lt.	Replace Inlet, Connect to Culvert
CA4-5	Electric Pole #60340	27+81.0	15.0' Lt.	Protect, Do not disturb

CURVE DATA

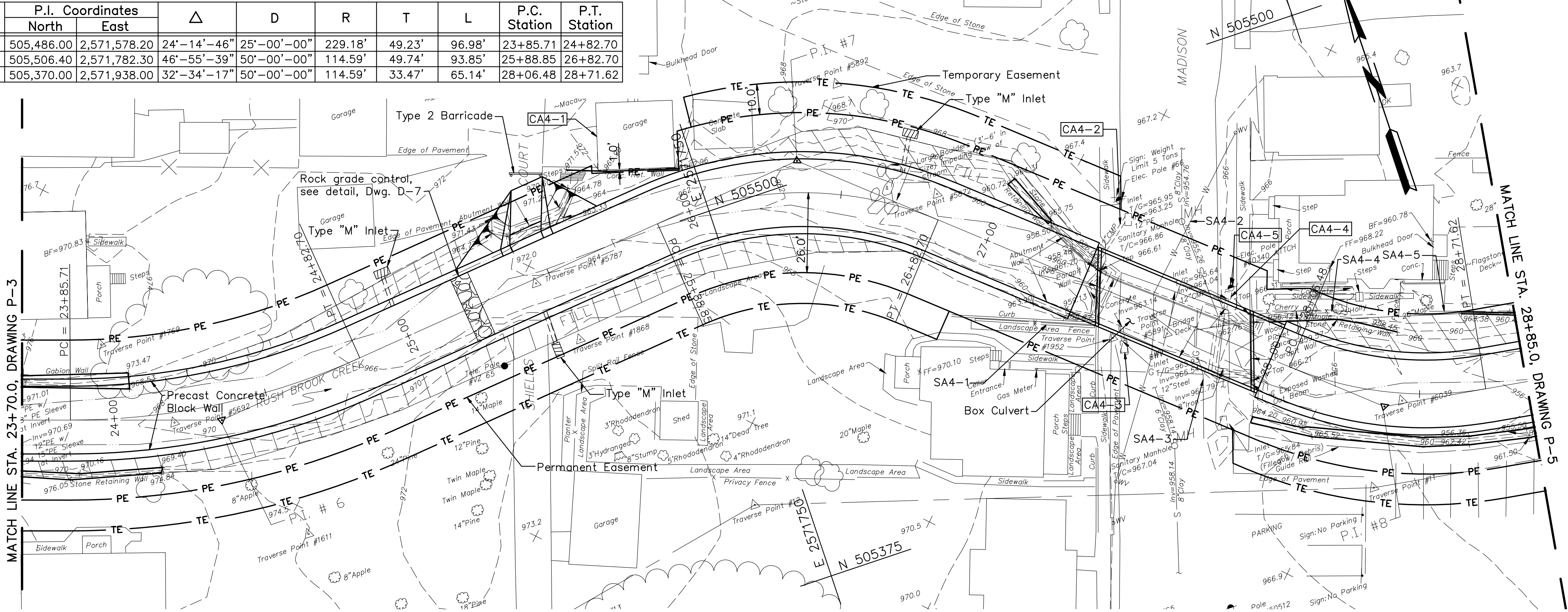
Curve No.	P.I. Coordinates		Δ	D	R	T	L	P.C. Station	P.T. Station
	North	East							
P.I. #6	505,486.00	2,571,578.20	24°-14'-46"	25°-00'-00"	229.18'	49.23'	96.98'	23+85.71	24+82.70
P.I. #7	505,506.40	2,571,782.30	46°-55'-39"	50°-00'-00"	114.59'	49.74'	93.85'	25+88.85	26+82.70
P.I. #8	505,370.00	2,571,938.00	32°-34'-17"	50°-00'-00"	114.59'	33.47'	65.14'	28+06.48	28+71.62

SPONSOR ADJUSTMENTS

No.	Description	Location		Adjustment Required
		Station	Offset	
SA4-1	Fence	27+20.0	20.0' Rt.	Remove
SA4-2	Water line	27+58.4	0	Relocate below box culvert
SA4-3	Gas line	27+75.0	0	Relocate below box culvert
SA4-4	Wood Picket Fence	27+89.0	12.5' Lt.	Remove
SA4-5	Fence	28+52.0 to 29+21.0	26.0' Lt.	Remove

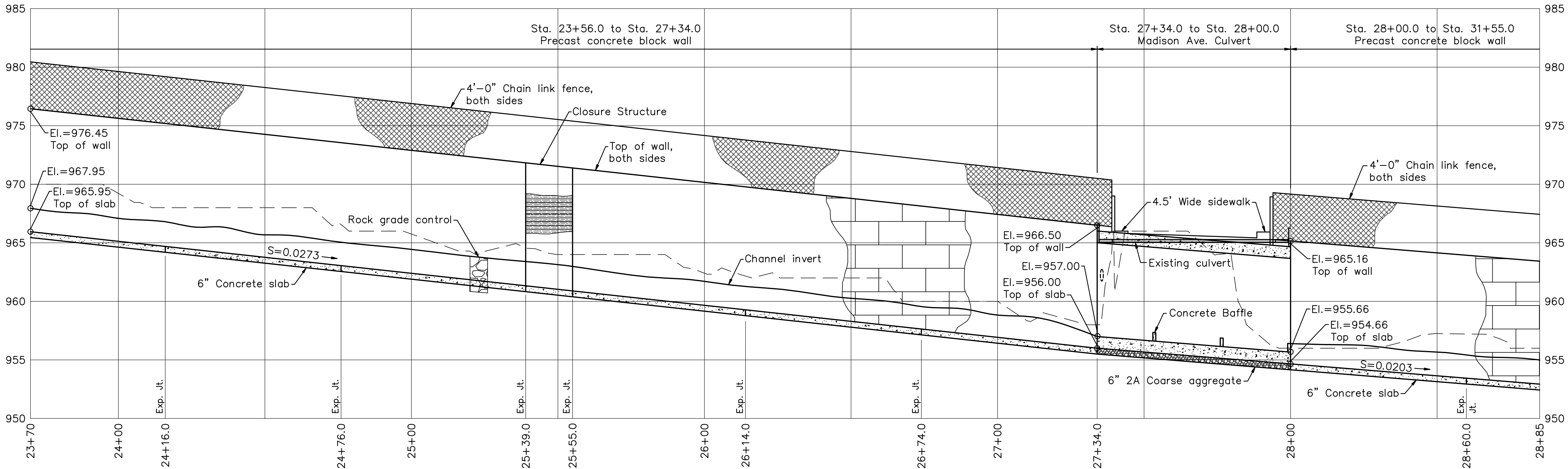
NOTES:

MText Holder



PLAN

Scale: 1 in. = 20 ft.



PROFILE

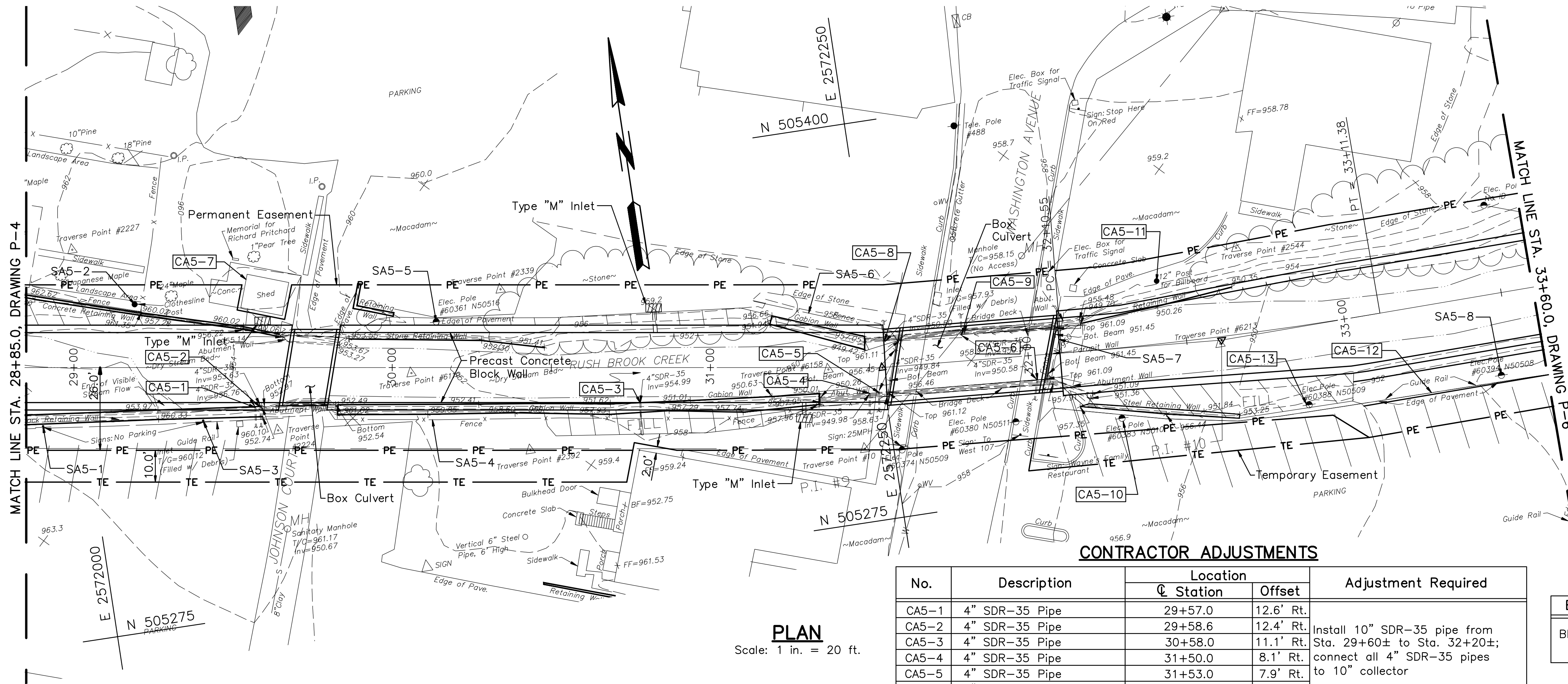
Scale: { Horiz. 1 in. = 20 ft.
Vert. 1 in. = 5 ft.

NO.	DATE	REVISION	APPR.
SUBMITTED			
PROJECT COORDINATOR - D.E.P.			
APPROVED			
CHIEF - DIVISION OF PROJECT DEVELOPMENT - D.E.P.			
APPROVED			
DIRECTOR - BUREAU OF WATERWAYS ENGINEERING AND WETLANDS - D.E.P.			
PROFESSIONAL'S SIGNATURE _____ DATE _____			
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF WATER MANAGEMENT			
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF GENERAL SERVICES HARRISBURG, PENNSYLVANIA			
PROJECT NO. D.G.S. 181-21			
RUSHBROOK CREEK PROJECT			
BOROUGH OF JERMYN LACKAWANNA COUNTY, PENNSYLVANIA			
PLAN AND PROFILE STA. 23+70 TO STA. 28+85			
DRAWN BY J.A.D.	DATE 11-30-09	DRAWING NO. P-4	
CHECKED BY	SCALE As Shown		

ALL DIMENSIONS AND EXISTING
CONDITIONS SHALL BE CHECKED
AND VERIFIED BY CONTRACTOR
AT THE SITE.

NOTES:

MText Holder



SPONSOR ADJUSTMENTS

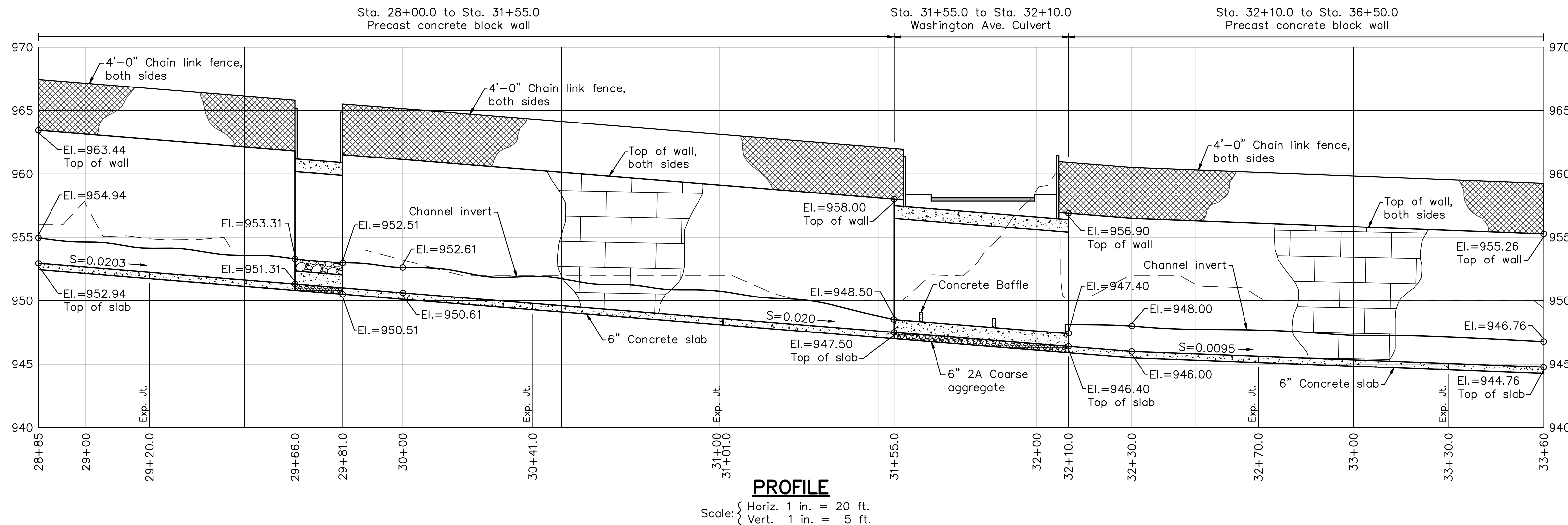
No.	Description	Location		Adjustment Required
		Station	Offset	
SA5-1	No Parking Sign	28+90.0	18.5' Rt.	Remove and reinstall
SA5-2	Clothesline Post	29+19.5	20.0' Lt.	Remove and reinstall
SA5-3	No Parking Sign	29+40.8	16.5' Rt.	Remove and reinstall
SA5-4	Fence	29+82.0 to 31+55.0	15.5' Rt.	Remove
SA5-5	Electric Pole	30+13.7	14.0' Lt.	Relocate outside P.E.
SA5-6	Fence	31+14.2 to 31+57.0	17.0' Lt.	Remove
SA5-7	Water line	32+09.0	C	Relocate below box culvert
SA5-8	Electric Pole	33+45.0	25.0' Rt.	Relocate

CONTRACTOR ADJUSTMENTS

No.	Description	Location		Adjustment Required
		Station	Offset	
CA5-1	4" SDR-35 Pipe	29+57.0	12.6' Rt.	Install 10" SDR-35 pipe from Sta. 29+60± to Sta. 32+20±; connect all 4" SDR-35 pipes to 10" collector
CA5-2	4" SDR-35 Pipe	29+58.6	12.4' Rt.	
CA5-3	4" SDR-35 Pipe	30+58.0	11.1' Rt.	
CA5-4	4" SDR-35 Pipe	31+50.0	8.1' Rt.	
CA5-5	4" SDR-35 Pipe	31+53.0	7.9' Rt.	
CA5-6	4" SDR-35 Pipe	32+02.2	7.6' Rt.	Protect, Do not disturb
CA5-7	Shed	29+57.0	18.0' Lt.	
CA5-8	4" SDR-35 Pipe	31+55.4	8.4' Lt.	Extend through culvert
CA5-9	4" SDR-35 Pipe	31+79.7	8.3' Lt.	Extend through culvert
CA5-10	Electric Pole#60383-N5010	32+25.0	22.0' Rt.	Protect, Do not disturb
CA5-11	12" Post for Billboard	32+42.7	19.7' Lt.	Protect, Do not disturb
CA5-12	Guide Rail	33+23.1	27.4' Rt.	Protect, Do not disturb
CA5-13	Electric Pole#60388-N50509	33+23.1	25.0' Rt.	Protect, Do not disturb

CURVE DATA

Curve No.	P.I. Coordinates		Δ	D	R	T	L	P.C. Station	P.T. Station
	North	East							
P.I. #9	505,322.50	2,572,250.30	4°-37'-39"	5°-00'-00"	1145.92'	50.44'	100.83'	32+10.55	31+54.04
P.I. #10	505,315.00	2,572,357.00	5°-02'-29"	5°-00'-00"	1145.92'	50.44'	100.83'	32+10.55	33+11.38



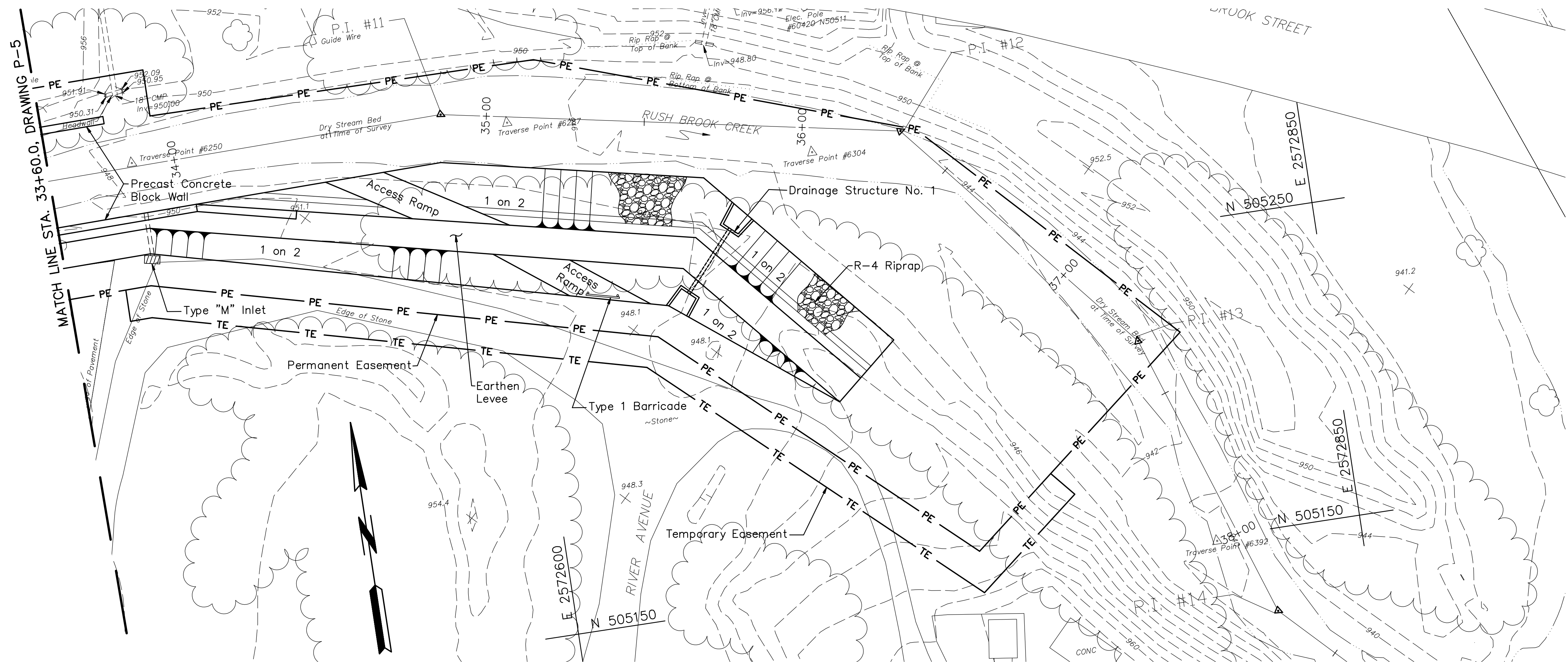
BENCH MARK DATA

BM No.	Elevation	Location
BM No. 5	958.72	NE corner bolt painted yellow on mast arm, SW corner of Washington Ave. and Rush Brook St.

NO.	DATE	REVISION	APPR.
SUBMITTED			
PROJECT COORDINATOR - D.E.P.			
APPROVED			
CHIEF - DIVISION OF PROJECT DEVELOPMENT - D.E.P.			
APPROVED			
DIRECTOR - BUREAU OF WATERWAYS ENGINEERING AND WETLANDS - D.E.P.			
PROFESSIONAL'S SIGNATURE DATE PROFESSIONAL'S SIGNATURE DATE			
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF WATER MANAGEMENT			
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF GENERAL SERVICES HARRISBURG, PENNSYLVANIA			
PROJECT NO. D.G.S. 181-21			
RUSHBROOK CREEK PROJECT			
BOROUGH OF JERMYN LACKAWANNA COUNTY, PENNSYLVANIA			
PLAN AND PROFILE STA. 28+85 TO STA. 33+60			
DRAWN BY	DATE	DRAWING NO.	
J.A.D.	11-30-09		
CHECKED BY	SCALE		
	As Shown		

ALL DIMENSIONS AND EXISTING CONDITIONS SHALL BE CHECKED AND VERIFIED BY CONTRACTOR AT THE SITE.

P-5



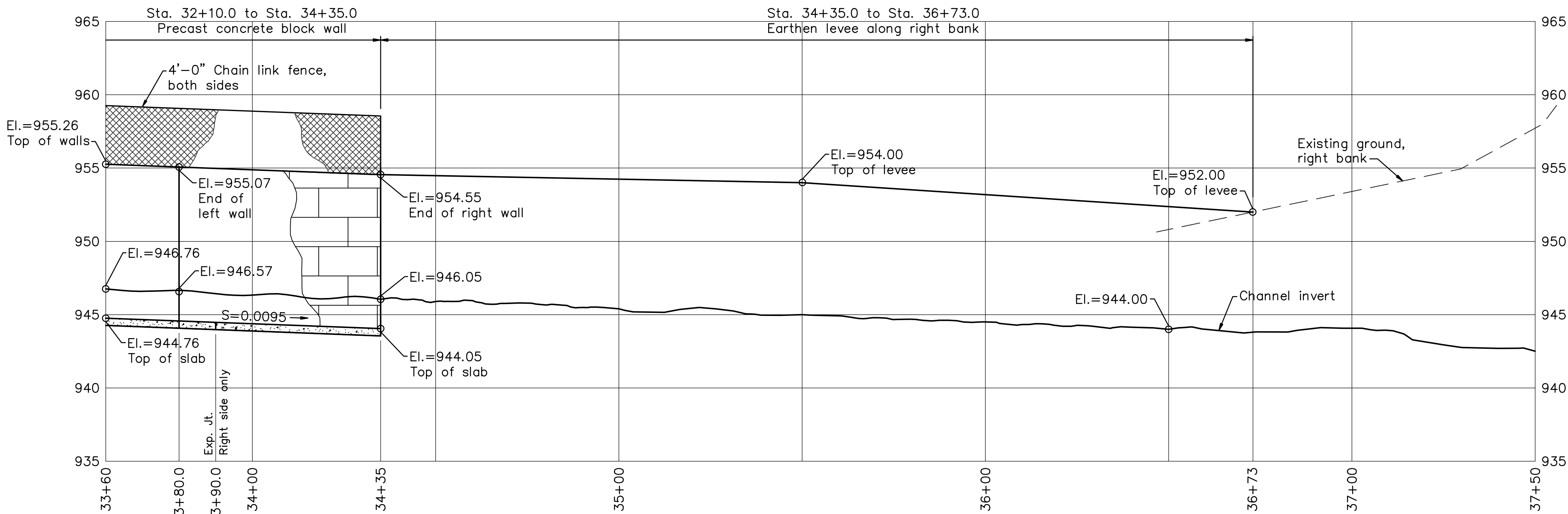
NOTES:
MText Placeholder

CURVE DATA

Curve No.	P.I. Coordinates		Δ	D	R	T	L	P.C. Station	P.T. Station
	North	East							
P.I. #11	505,319.00	2,572,581.50	11°-42'-47"						34+85.47
P.I. #12	505,292.00	2,572,724.50	39°-21'-22"						36+31.00
P.I. #13	505,215.00	2,572,789.00	21°-08'-23"						37+31.44
P.I. #14	505,124.00	2,572,820.00	25°-56'-48"						38+27.58
P.O.T. #2	505,040.60	2,572,902.70							39+45.03

PLAN

Scale: 1 in. = 20 ft.

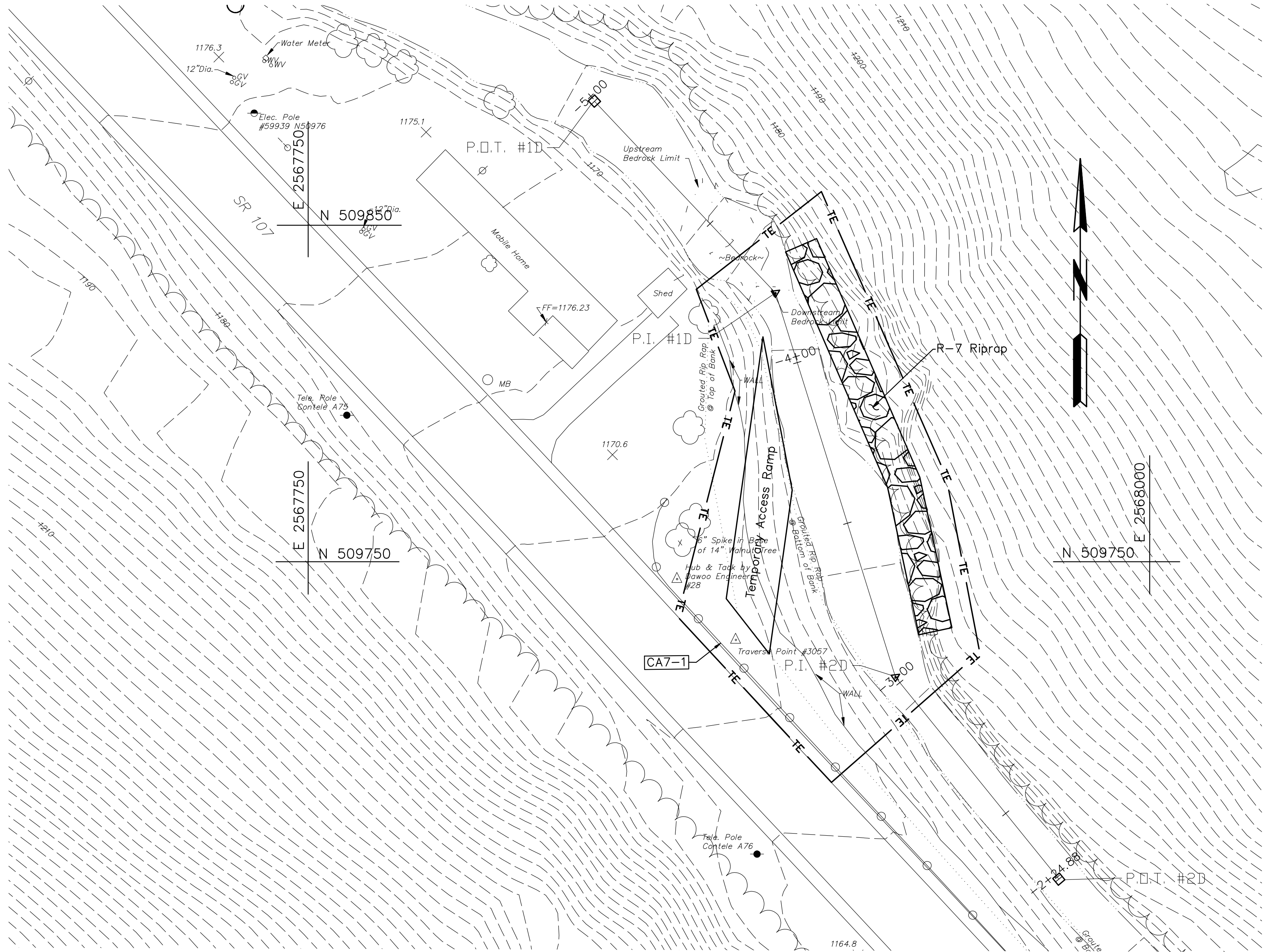


PROFILE

Scale: { Horiz. 1 in. = 20 ft.
Vert. 1 in. = 5 ft.

NO.	DATE	REVISION	APPR.			
SUBMITTED						
PROJECT COORDINATOR - D.E.P.						
APPROVED						
CHIEF - DIVISION OF PROJECT DEVELOPMENT - D.E.P.						
APPROVED						
DIRECTOR - BUREAU OF WATERWAYS ENGINEERING AND WETLANDS - D.E.P.						
PROFESSIONAL'S SIGNATURE				DATE	PROFESSIONAL'S SIGNATURE	DATE
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF WATER MANAGEMENT						
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF GENERAL SERVICES HARRISBURG, PENNSYLVANIA						
PROJECT NO. D.G.S. 181-21						
RUSHBROOK CREEK PROJECT						
BOROUGH OF JERMYN LACKAWANNA COUNTY, PENNSYLVANIA						
PLAN AND PROFILE STA. 33+60 TO STA. 38+50						
DRAWN BY	J.A.D.	DATE	11-30-09	DRAWING NO.	P-6	
CHECKED BY		SCALE	As Shown			

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CONDITIONS SHALL BE CHECKED
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PLAN
Scale: 1 in. = 20 ft.

CURVE DATA

Curve No.	P.I. Coordinates		Δ	D	R	T	L	P.C. Station	P.T. Station
	North	East							
P.O.T. #1D	509,886.82	2,567,835.07							
P.I. #1D	509,829.85	2,567,888.85							
P.I. #2D	509,715.70	2,567,924.46							
P.O.T. #2D	509,655.68	2,567,973.01							

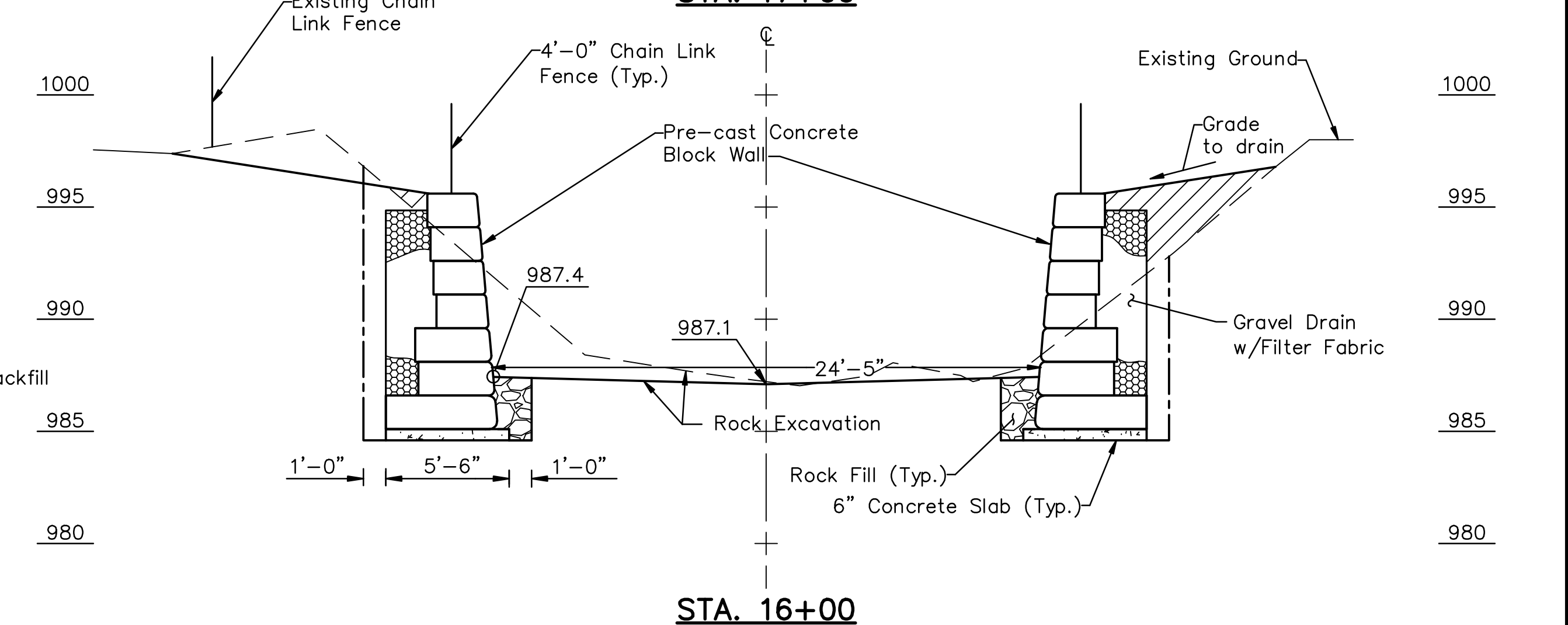
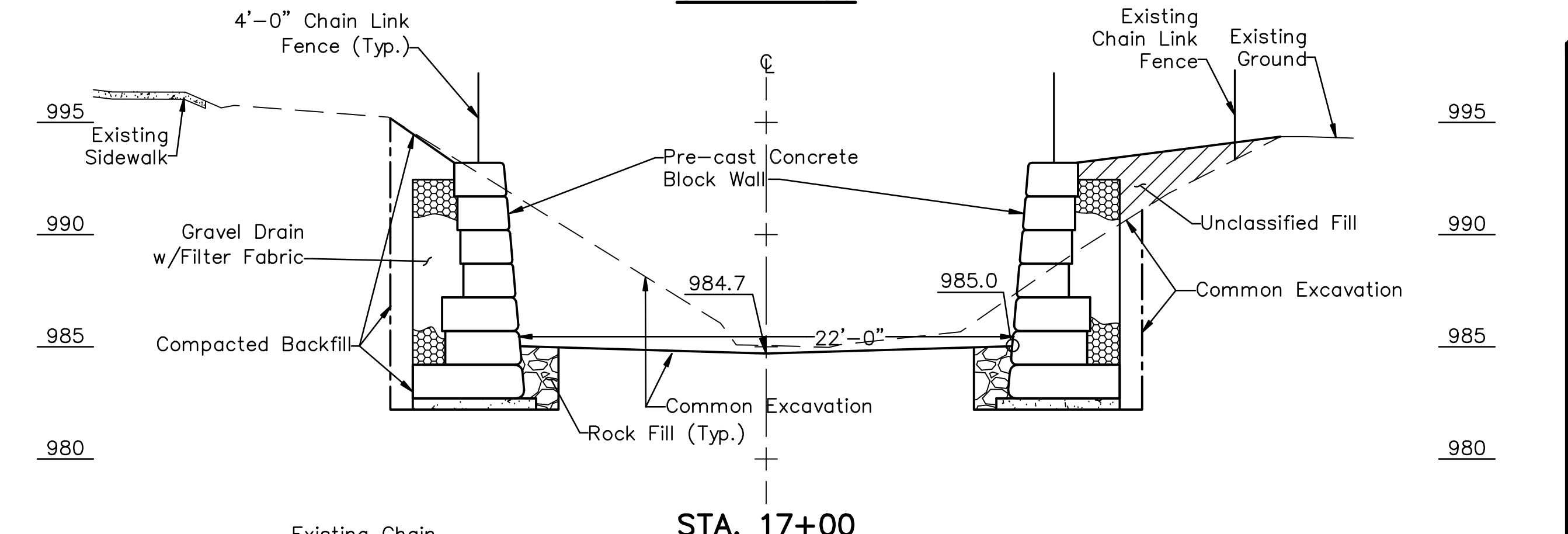
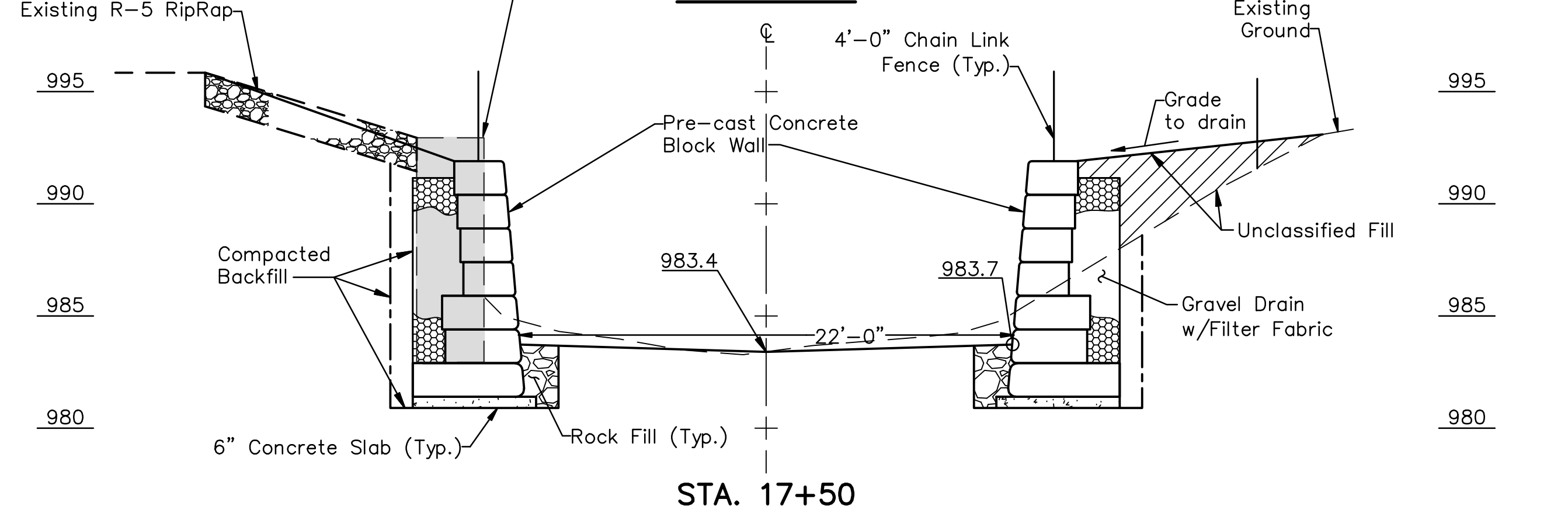
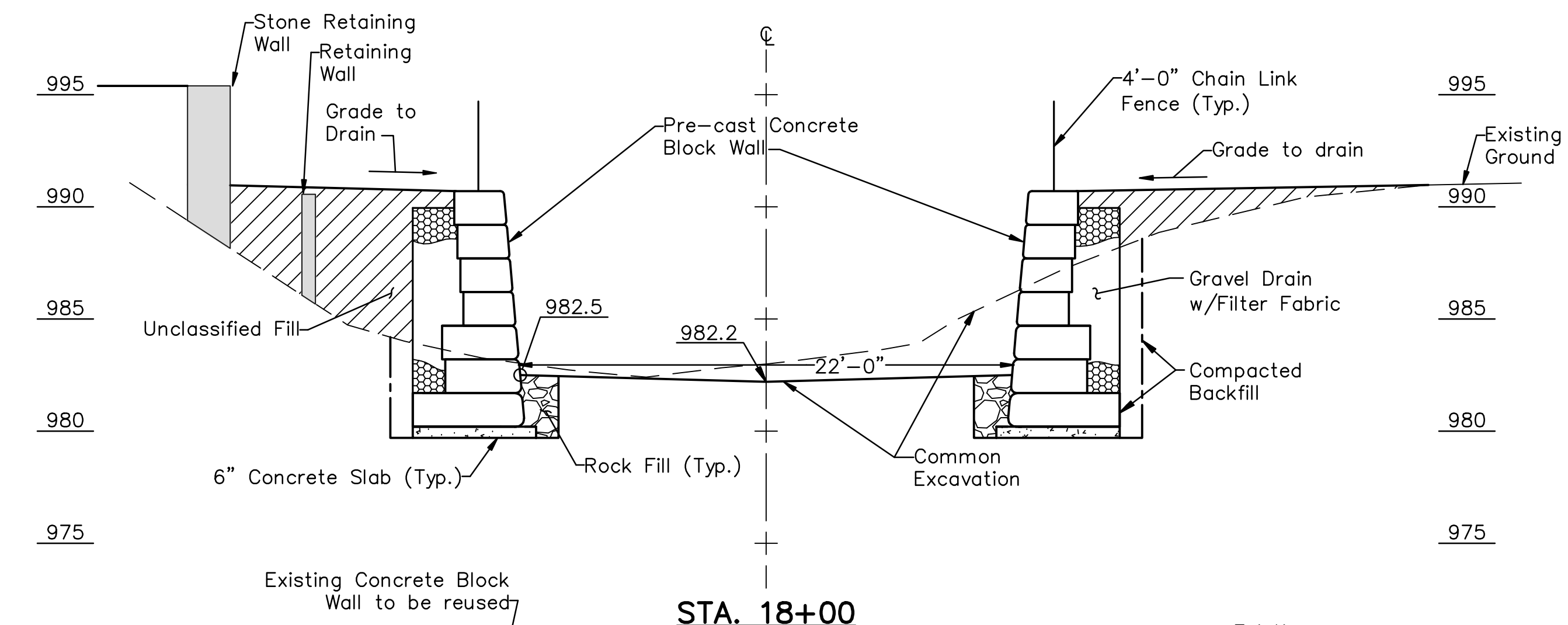
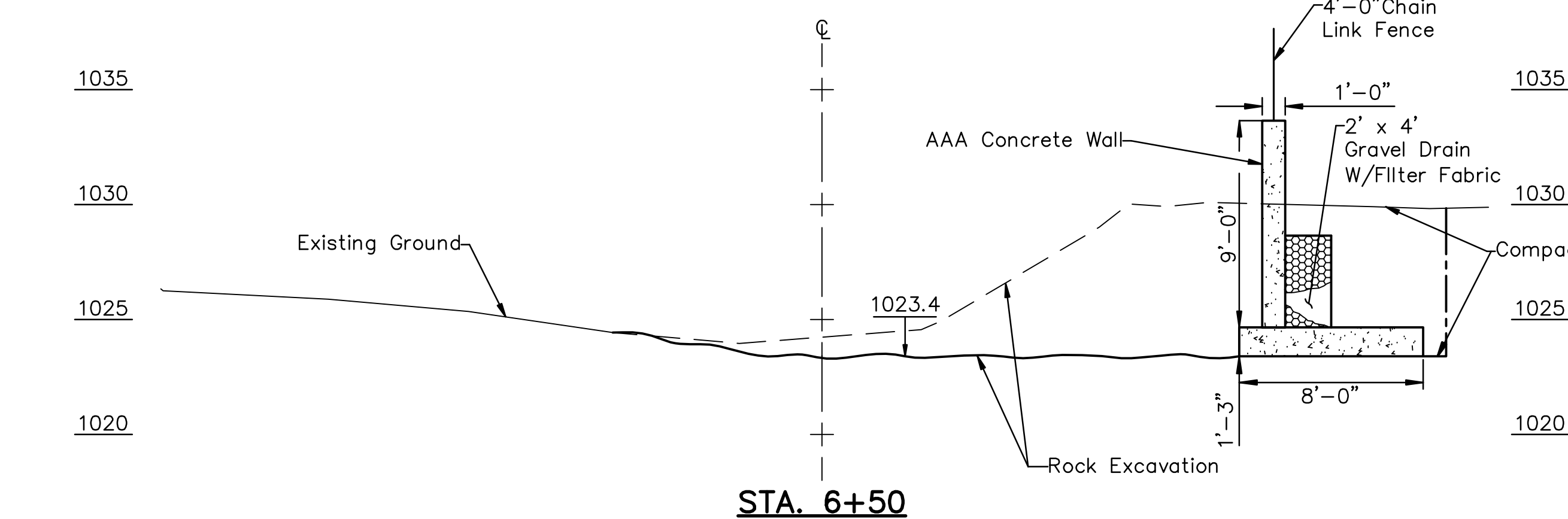
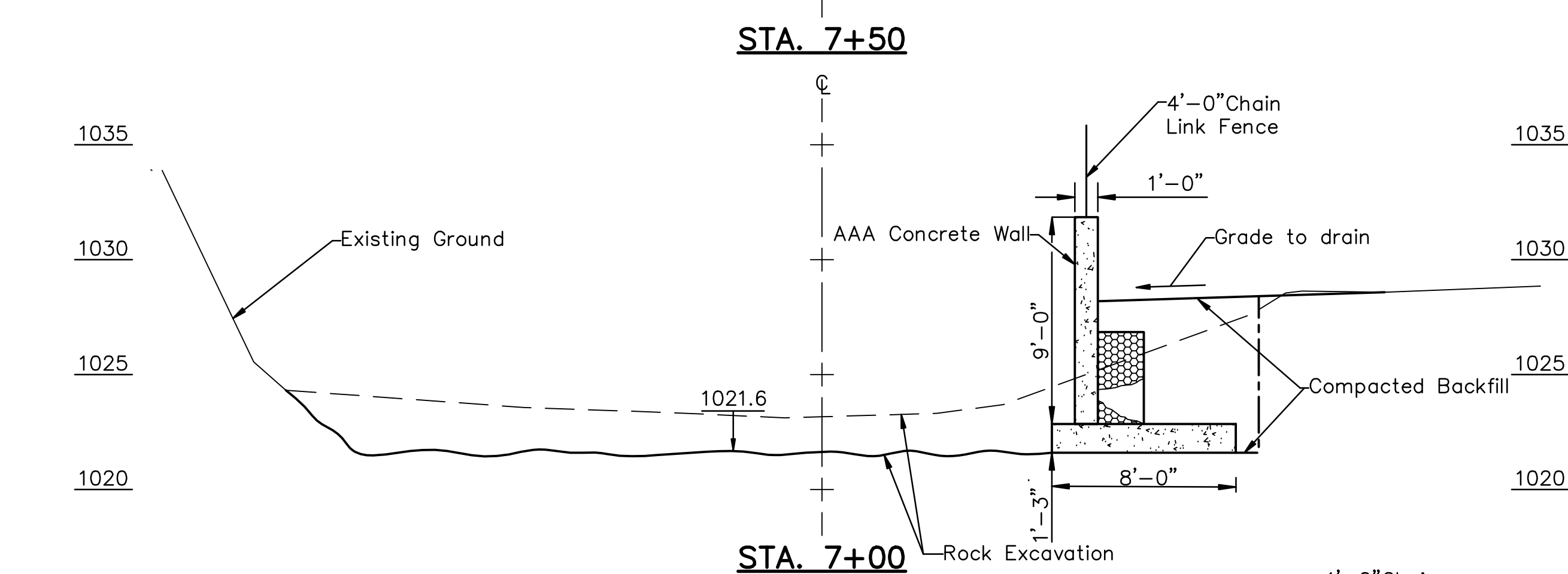
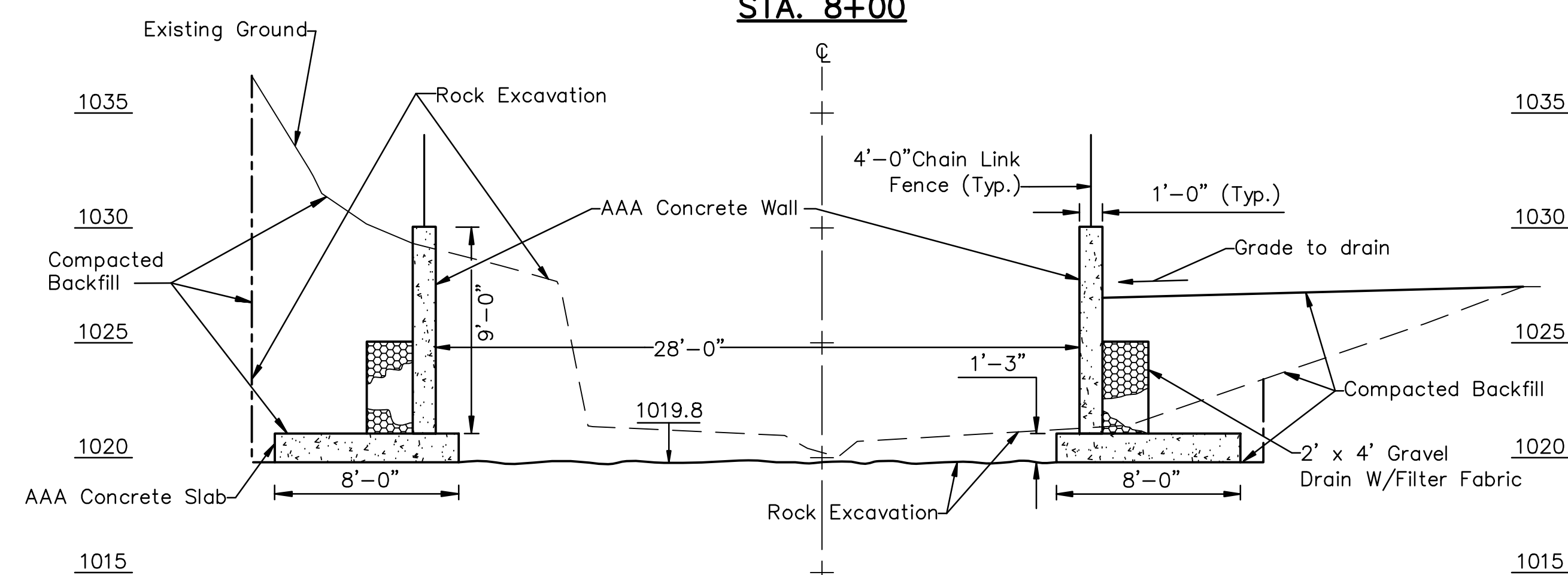
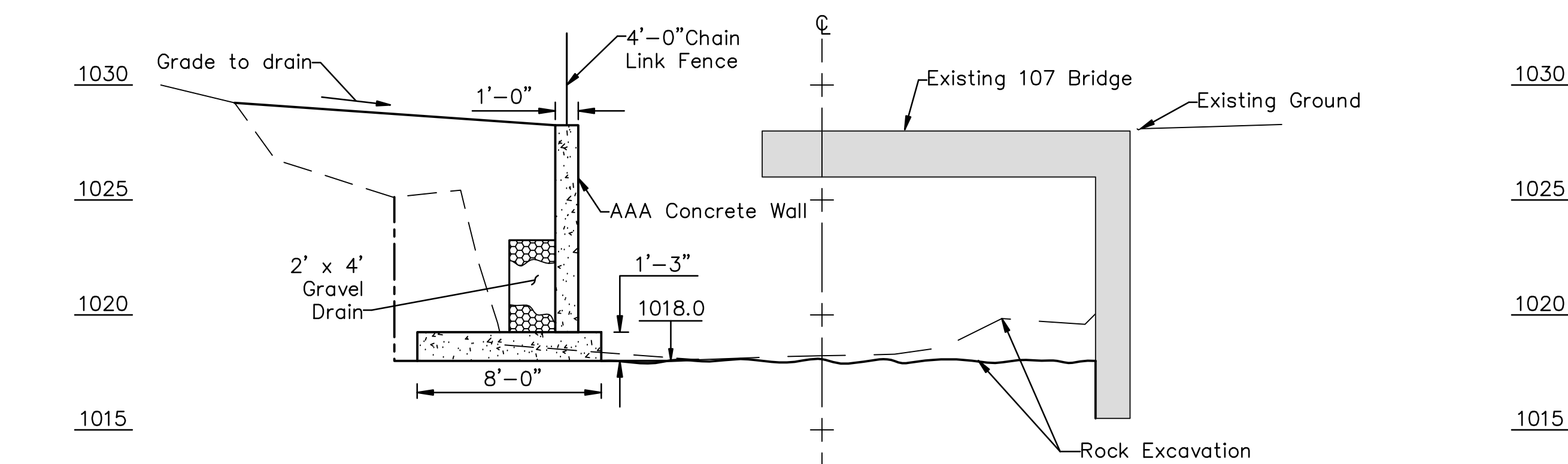
CONTRACTOR ADJUSTMENTS

No.	Description	Location		Adjustment Required
		Station	Offset	
CA7-1	Guide rail	-3+50 to -3+00	40.0' Rt.	Remove and Reinstall as necessary

NOTES:
MText Holder

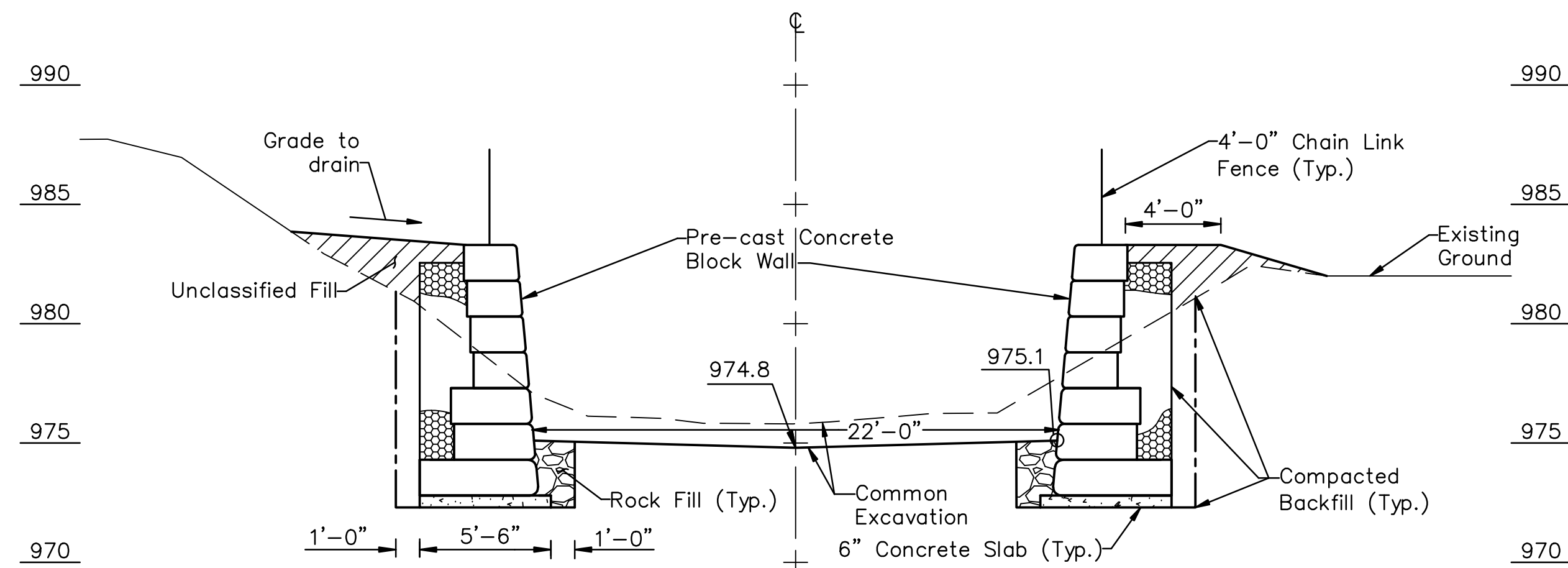
NO.	DATE	REVISION	APPR.
SUBMITTED			
PROJECT COORDINATOR - D.E.P.			
APPROVED			
CHIEF - DIVISION OF PROJECT DEVELOPMENT - D.E.P.			
APPROVED			
DIRECTOR - BUREAU OF WATERWAYS ENGINEERING AND WETLANDS - D.E.P.			
PROFESSIONAL'S SIGNATURE			
DATE			
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DATE			
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF WATER MANAGEMENT			
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF GENERAL SERVICES HARRISBURG, PENNSYLVANIA			
PROJECT NO. D.G.S. 181-21			
RUSHBROOK CREEK PROJECT			
BOROUGH OF JERMYN LACKAWANNA COUNTY, PENNSYLVANIA			
PLAN AND PROFILE STA. -5+00 TO STA. -2+24.88			
DRAWN BY	DATE	DRAWING NO.	
J.A.D.	11-30-09	P-7	
CHECKED BY	SCALE	As Shown	

ALL DIMENSIONS AND EXISTING
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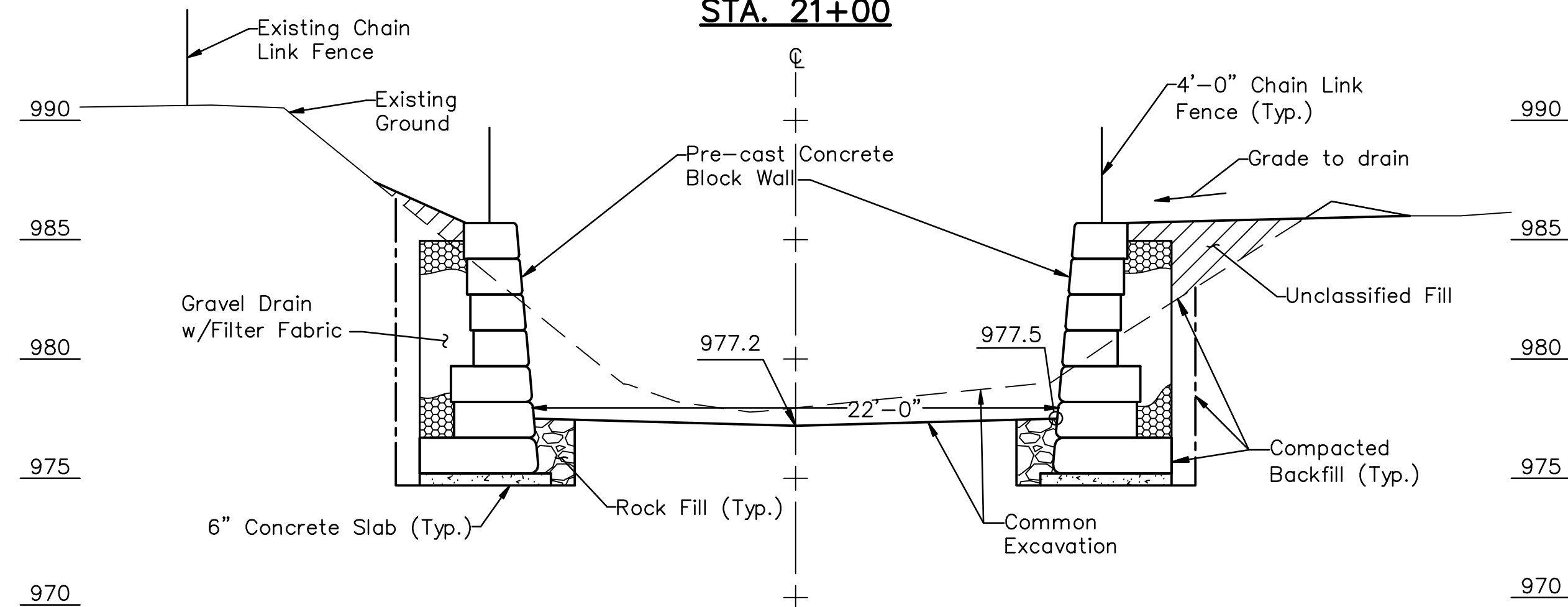


NO.	DATE	REVISION	APPR.
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PROJECT COORDINATOR - D.E.P.			
APPROVED			
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DIRECTOR - BUREAU OF WATERWAYS ENGINEERING AND WETLANDS - D.E.P.			
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF WATER MANAGEMENT			
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF GENERAL SERVICES HARRISBURG, PENNSYLVANIA			
PROJECT NO. D.G.S. 181-21			
RUSHBROOK CREEK PROJECT			
BOROUGH OF JERMYN LACKAWANNA COUNTY, PENNSYLVANIA			
CROSS SECTIONS STA. 6+50 TO STA. 18+00			
DRAWN BY J.A.D.	DATE 01-19-10	DRAWING NO. X-1	
CHECKED BY	SCALE 1 in. = 5 ft.		

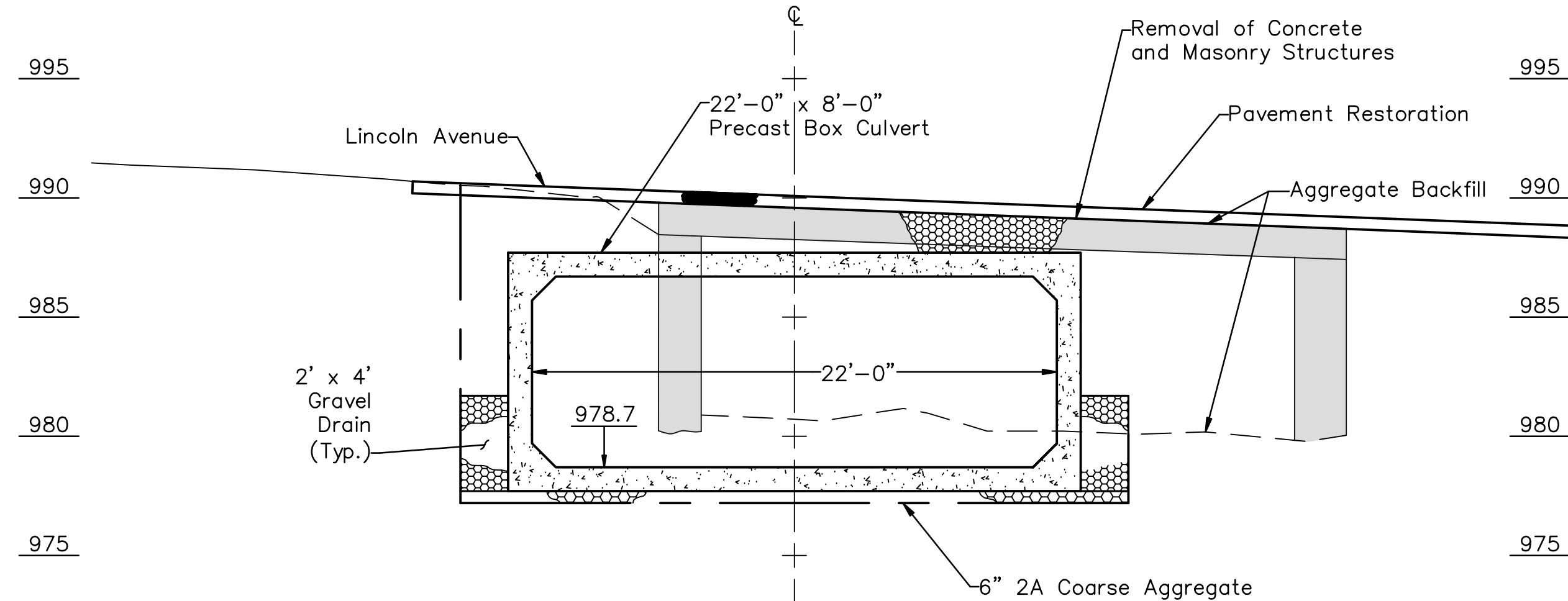
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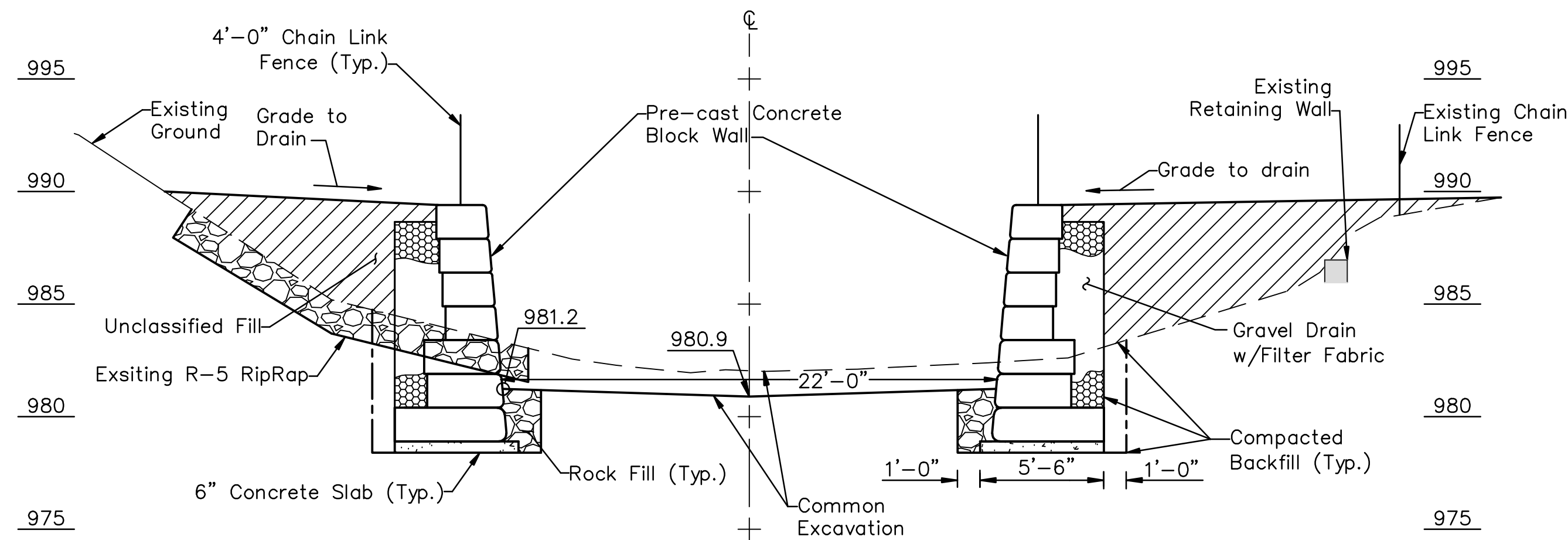
STA. 21+00



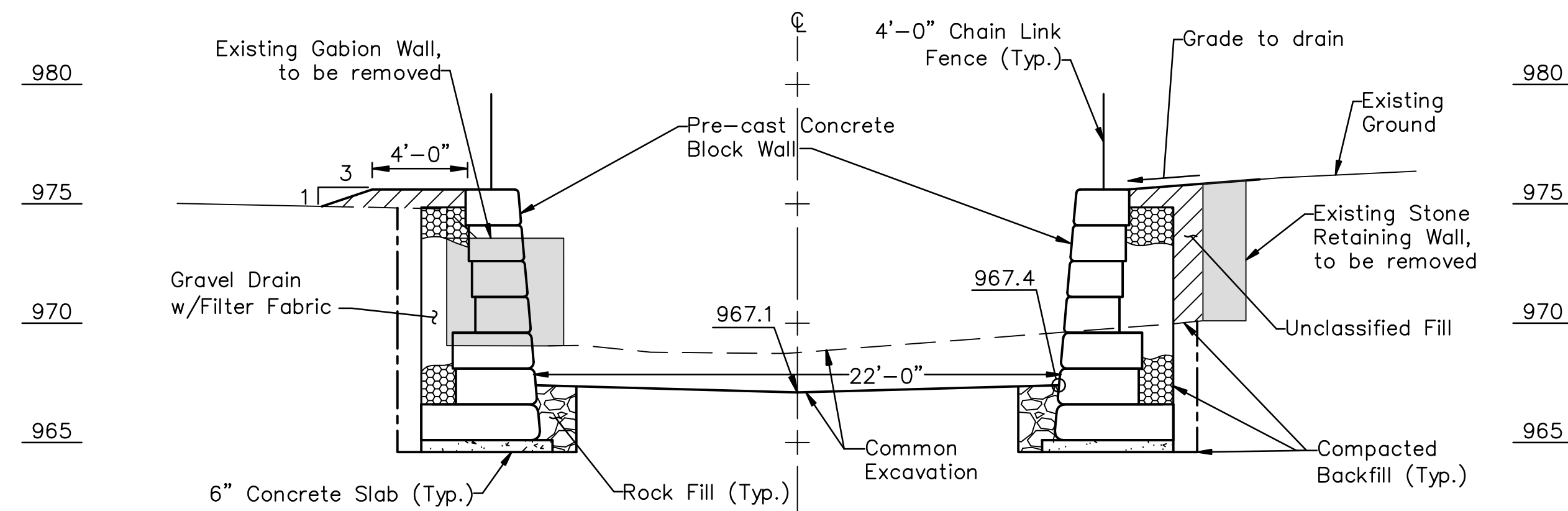
STA. 20+00



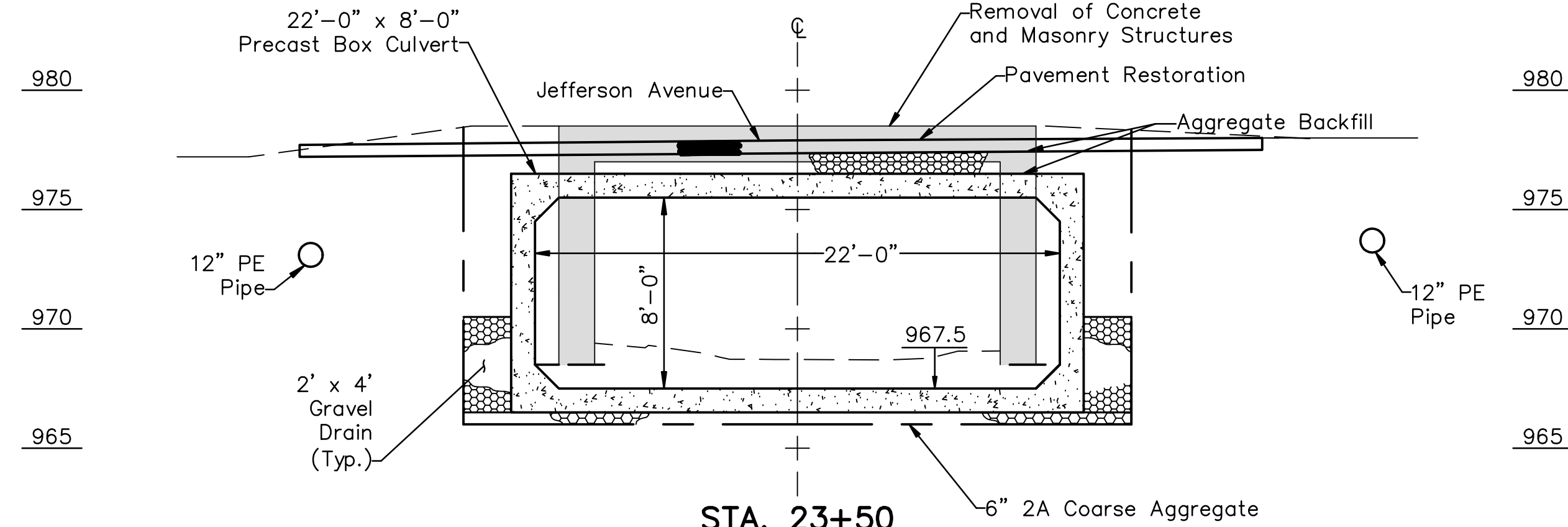
STA. 19+00



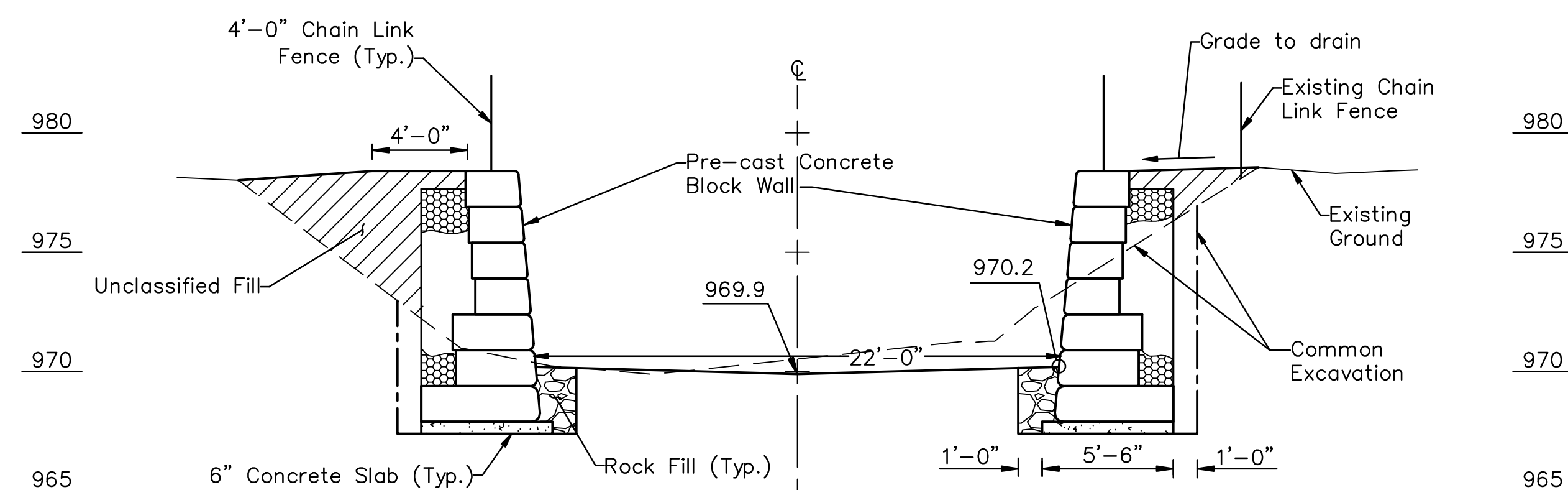
STA. 18+50



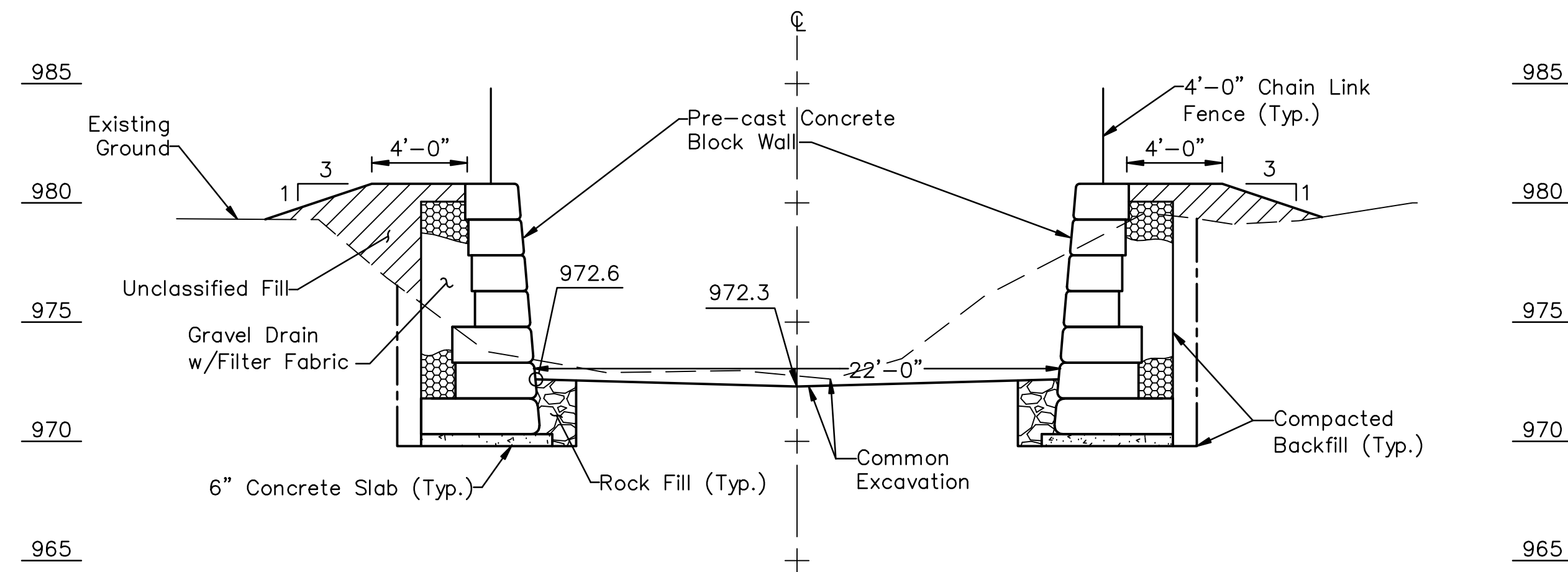
STA. 24+00



STA. 23+50



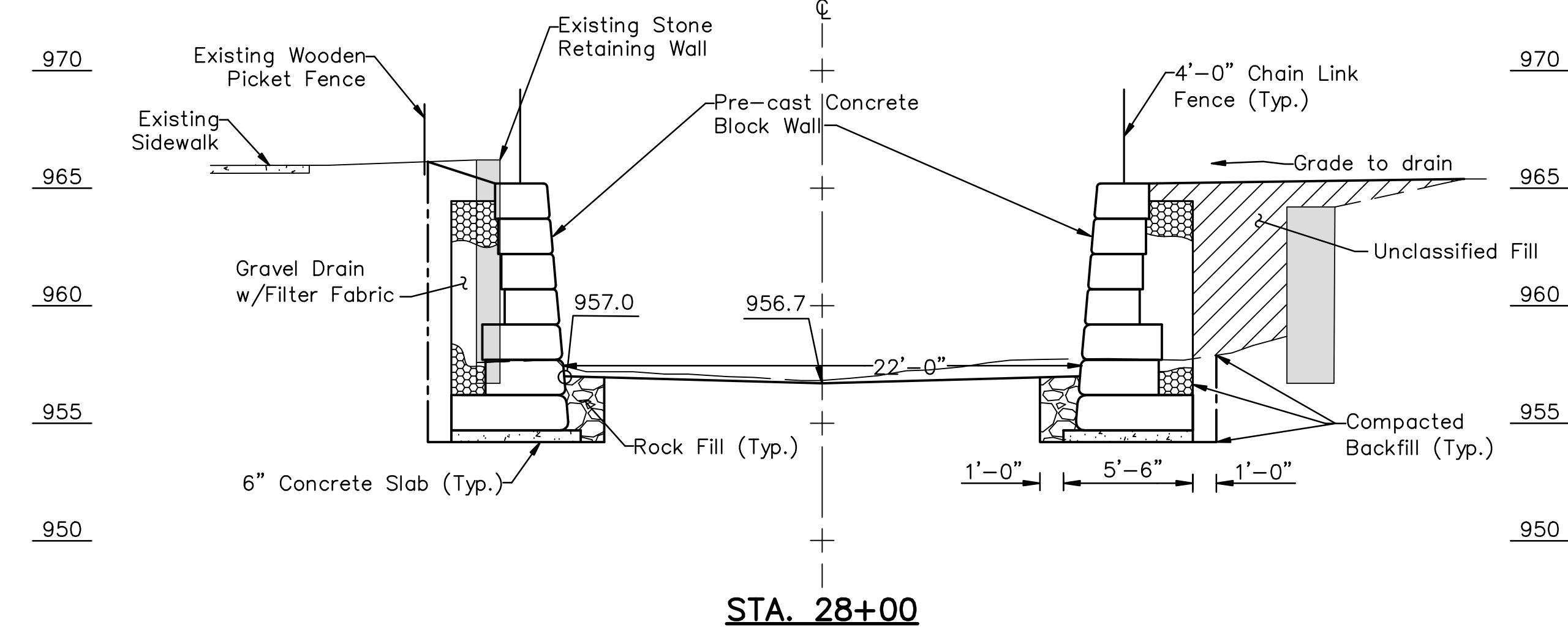
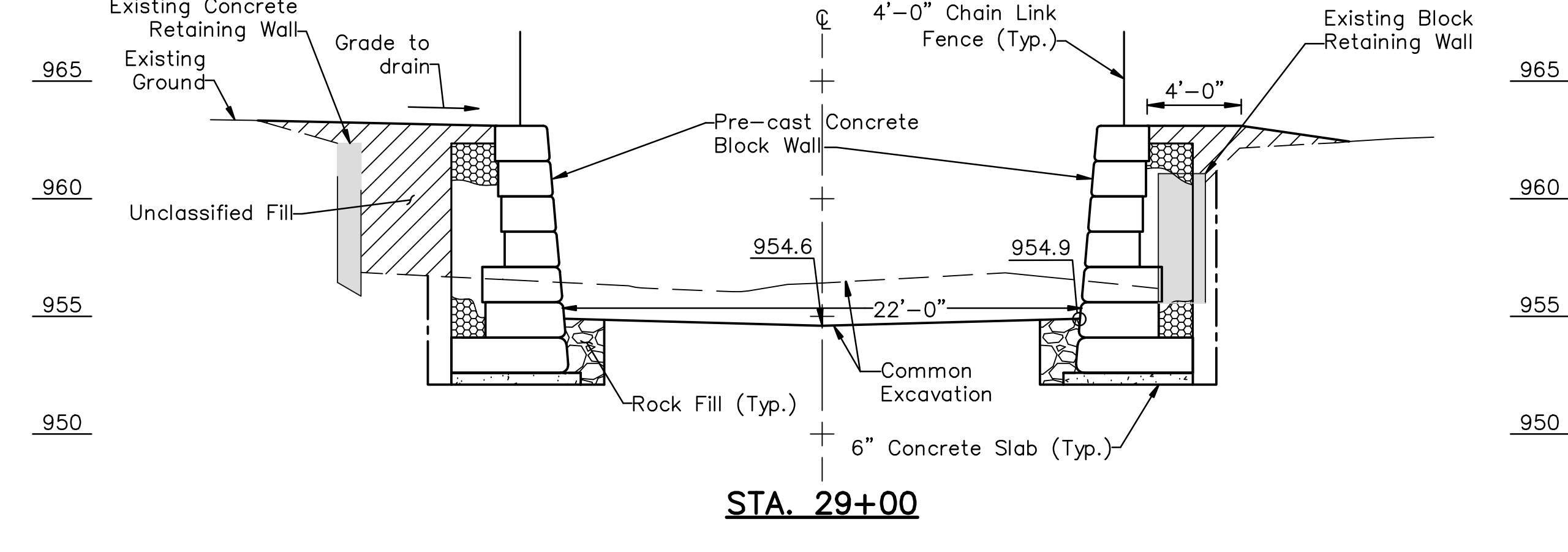
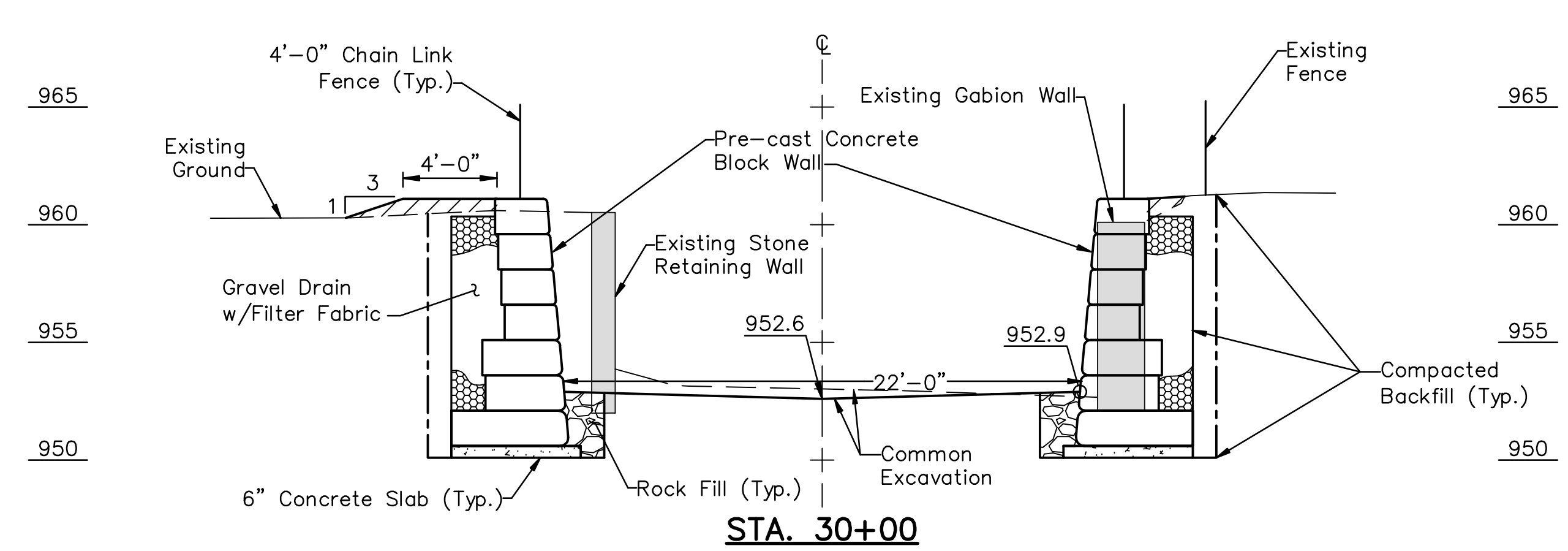
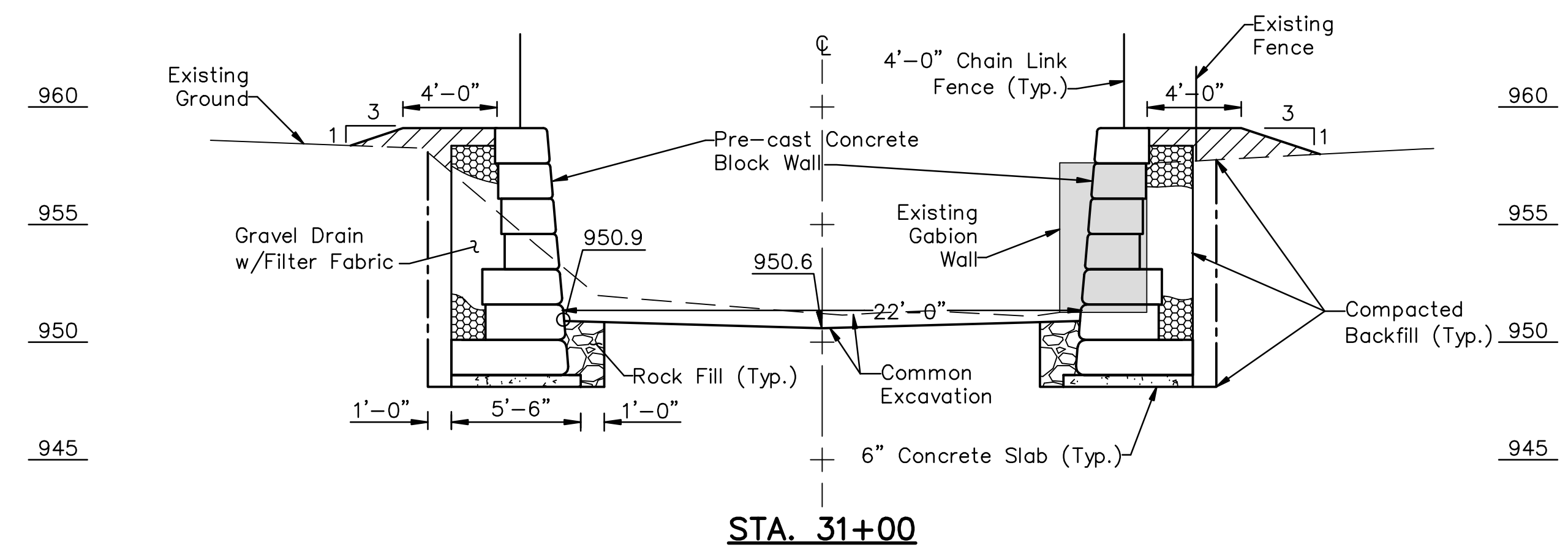
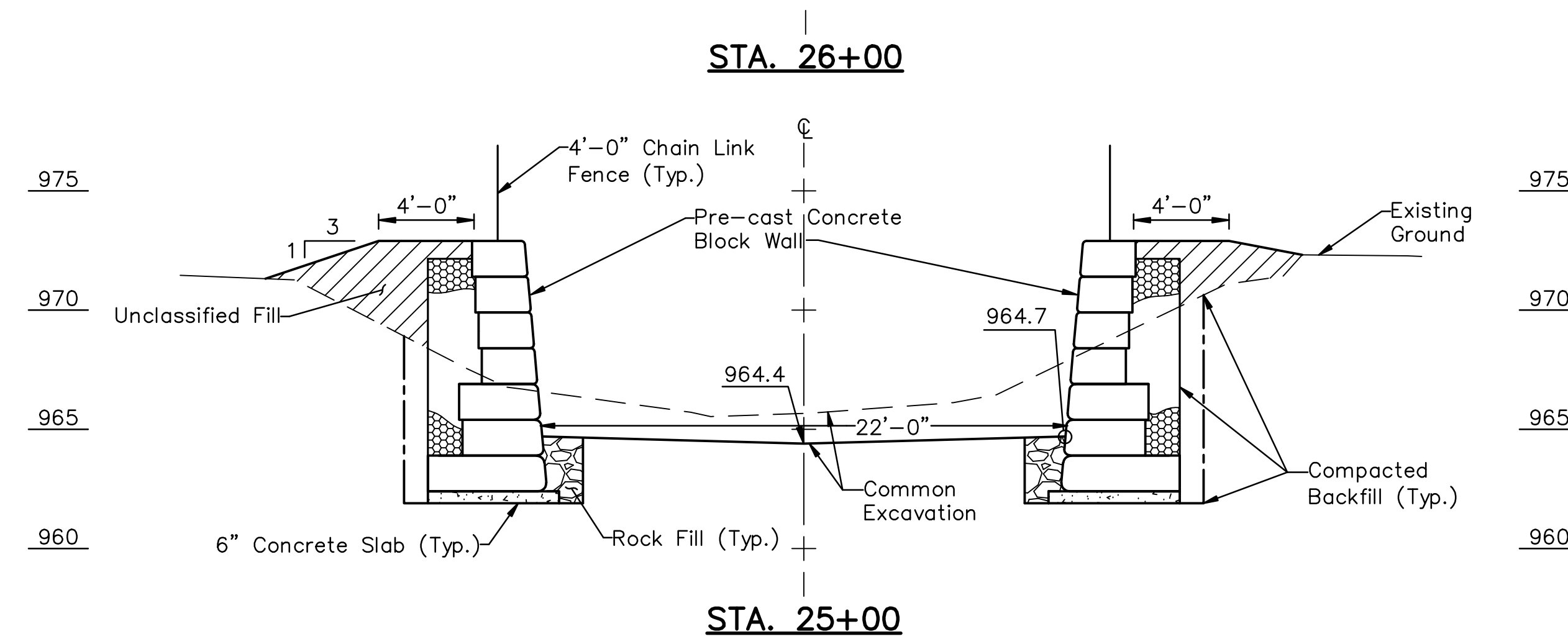
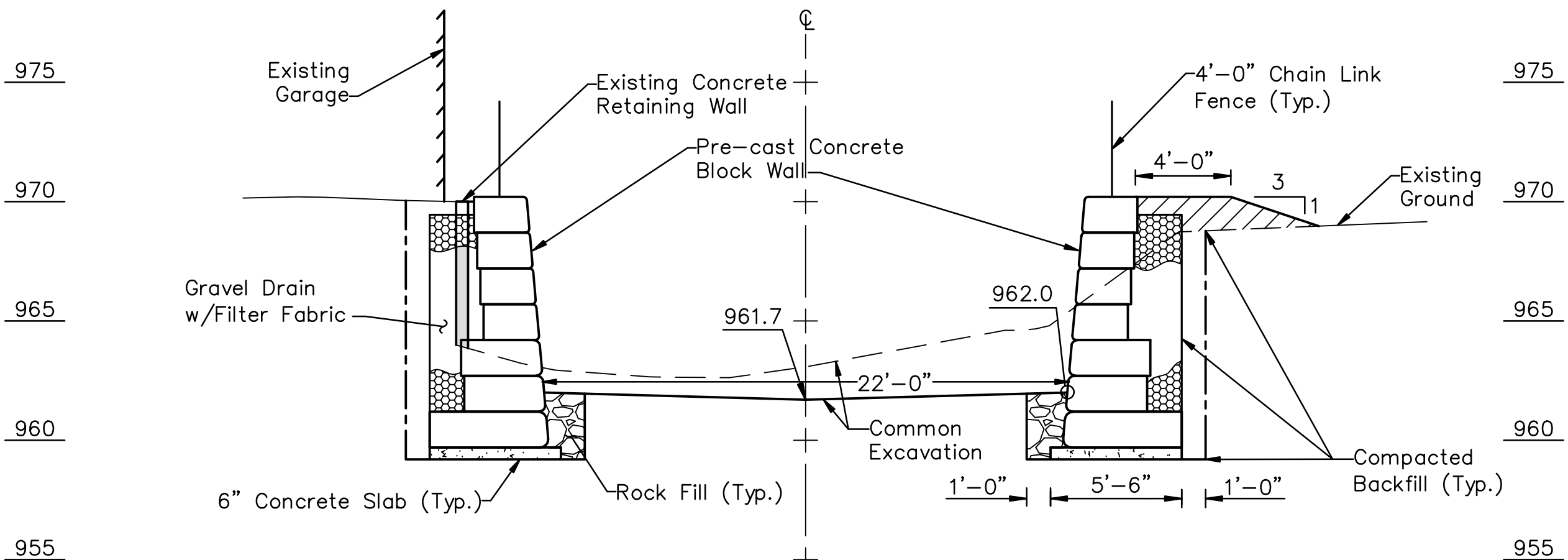
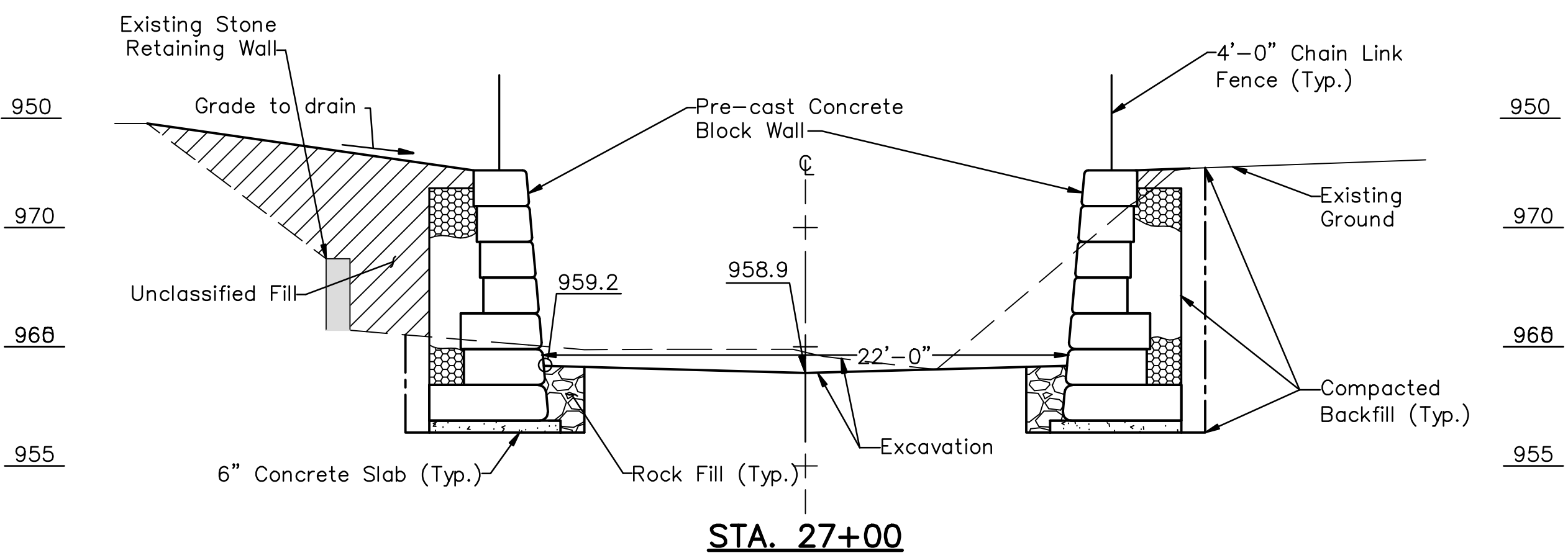
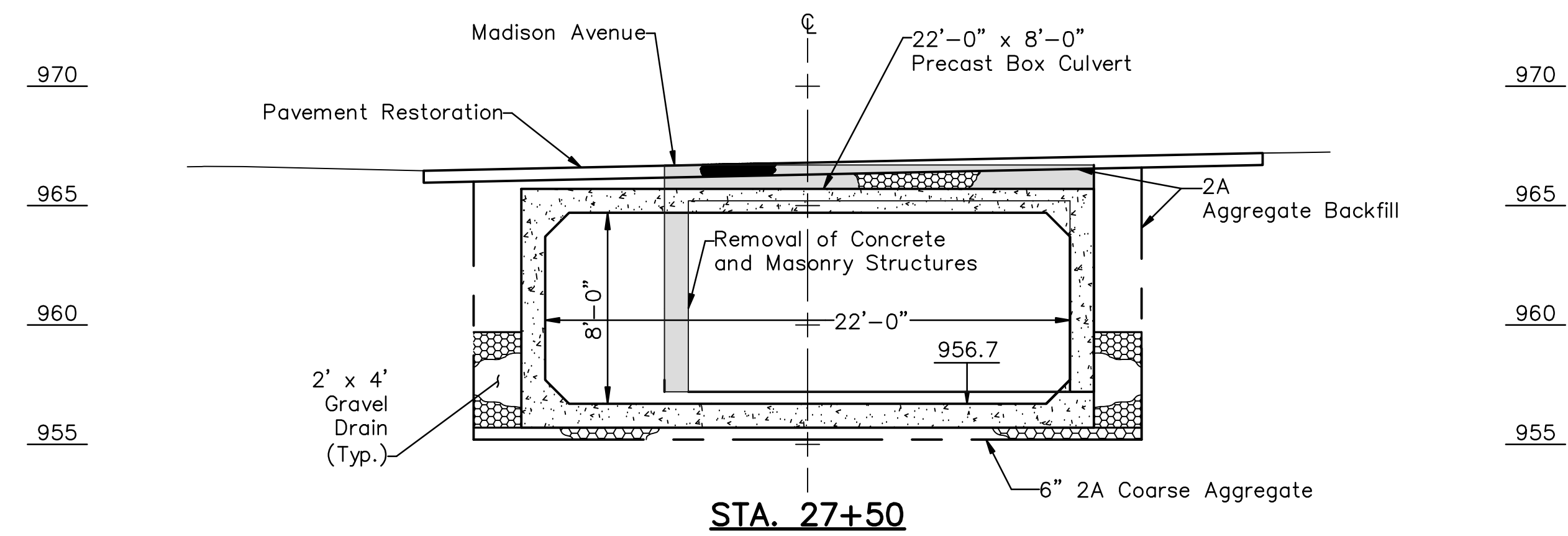
STA. 23+00



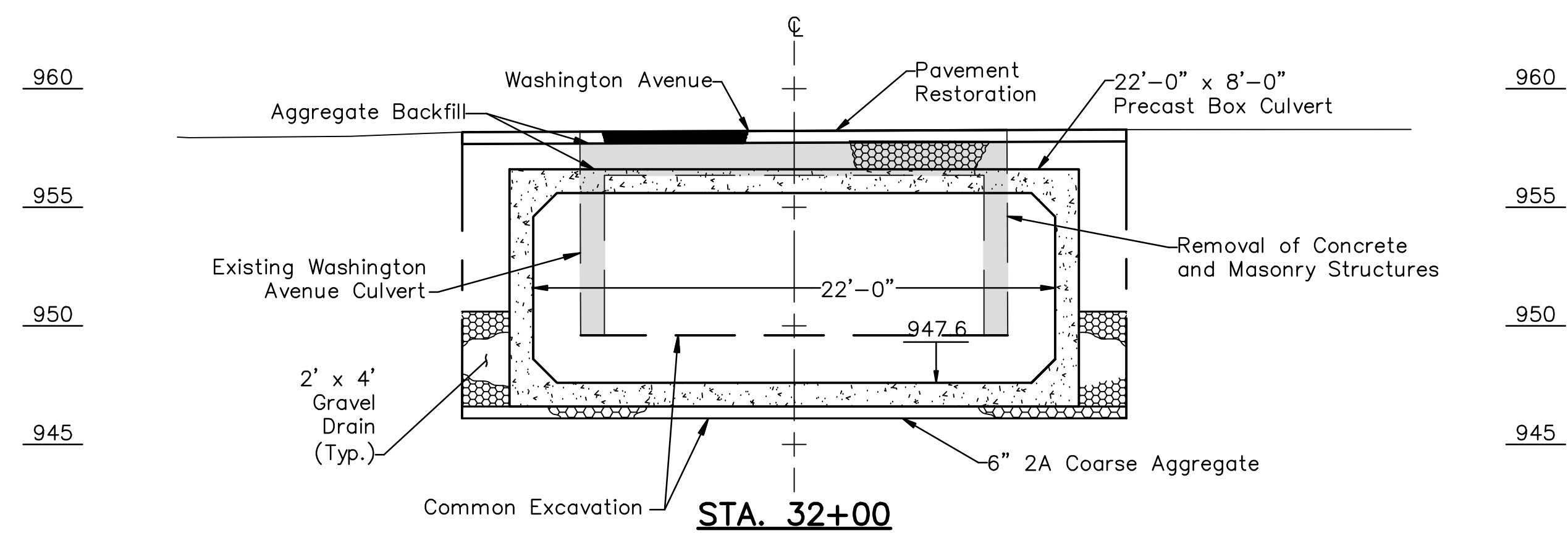
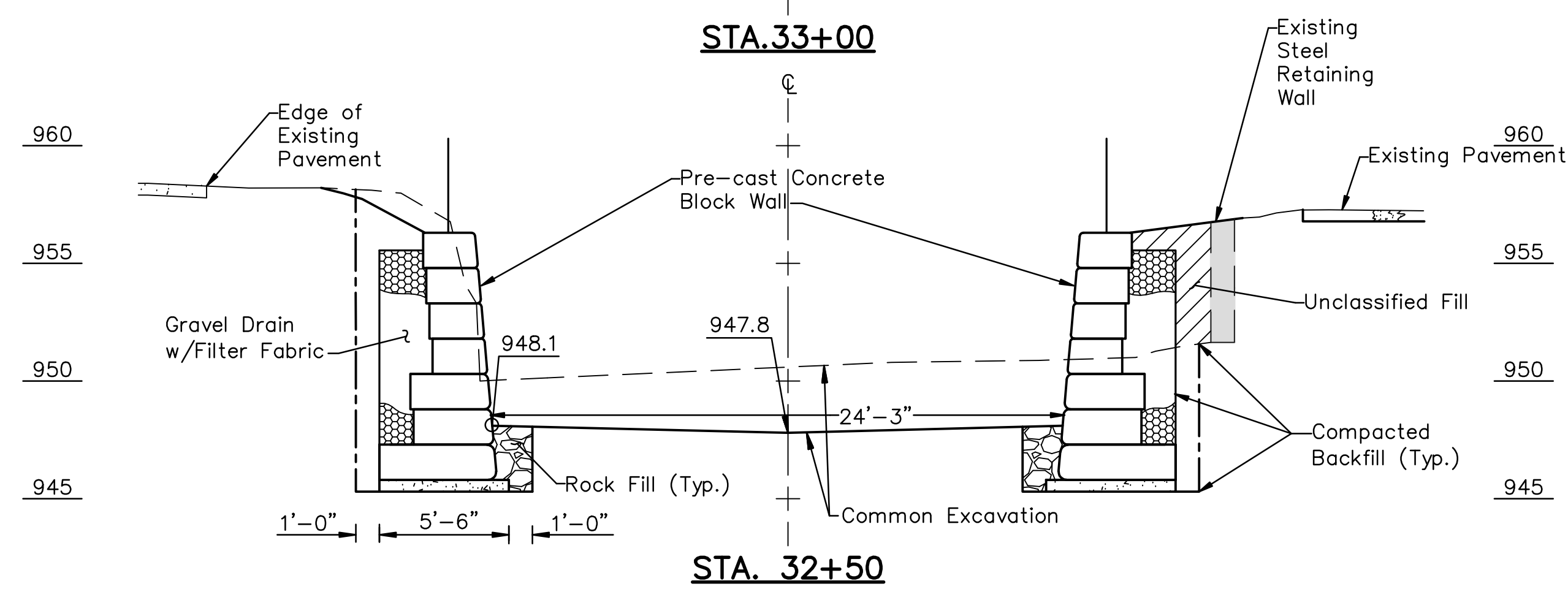
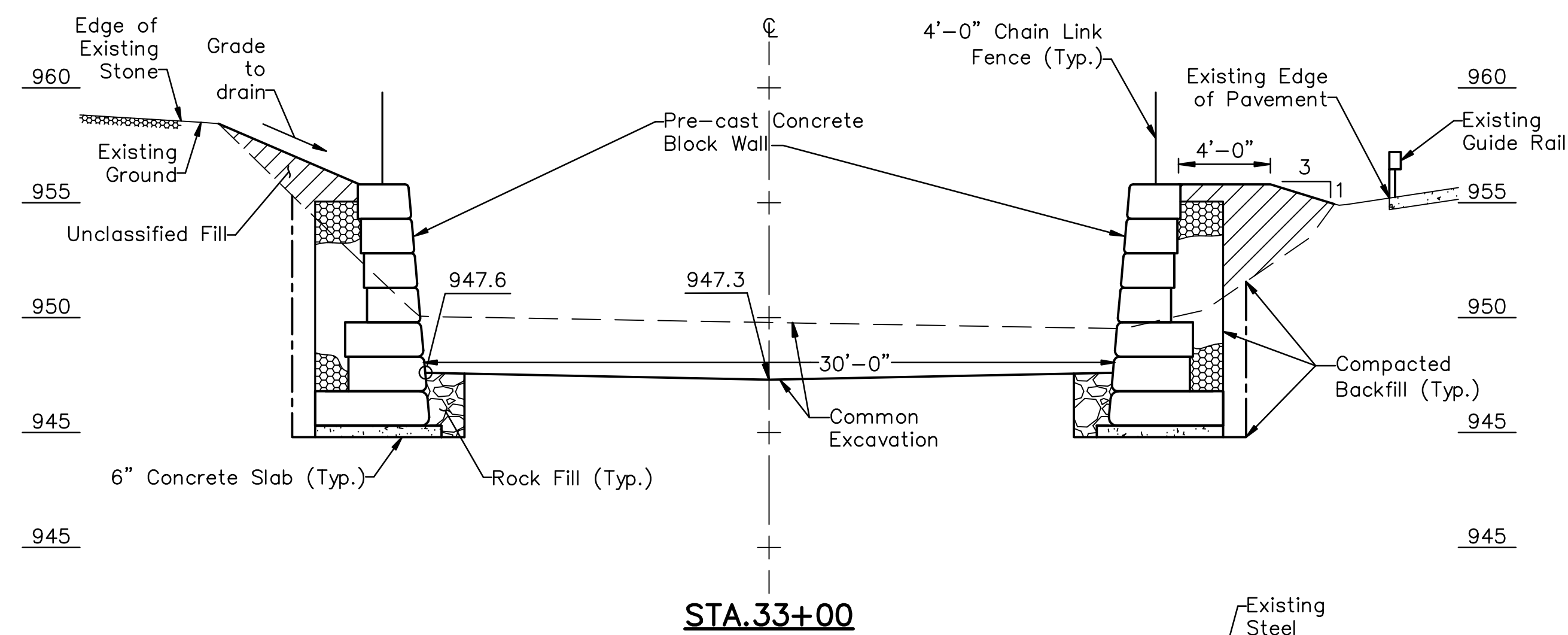
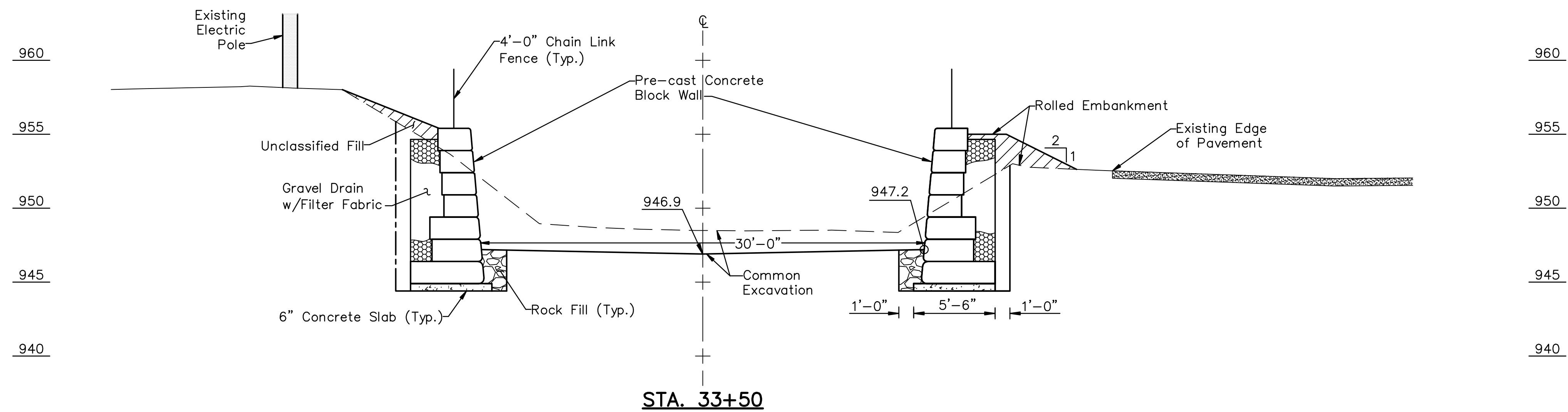
STA. 22+00

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NO.	DATE	REVISION	APPR.
SUBMITTED			
PROJECT COORDINATOR - D.E.P.			
APPROVED			
CHIEF - DIVISION OF PROJECT DEVELOPMENT - D.E.P.			
APPROVED			
DIRECTOR - BUREAU OF WATERWAYS ENGINEERING AND WETLANDS - D.E.P.			
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF WATER MANAGEMENT			
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF GENERAL SERVICES HARRISBURG, PENNSYLVANIA			
PROJECT NO. D.G.S. 181-21			
RUSHBROOK CREEK PROJECT			
BOROUGH OF JERMYN LACKAWANNA COUNTY, PENNSYLVANIA			
CROSS SECTIONS STA. 18+50 TO STA. 24+00			
DRAWN BY J.A.D.	DATE 01-19-10	DRAWING NO. X-2	
CHECKED BY	SCALE 1 in. = 5 ft.		

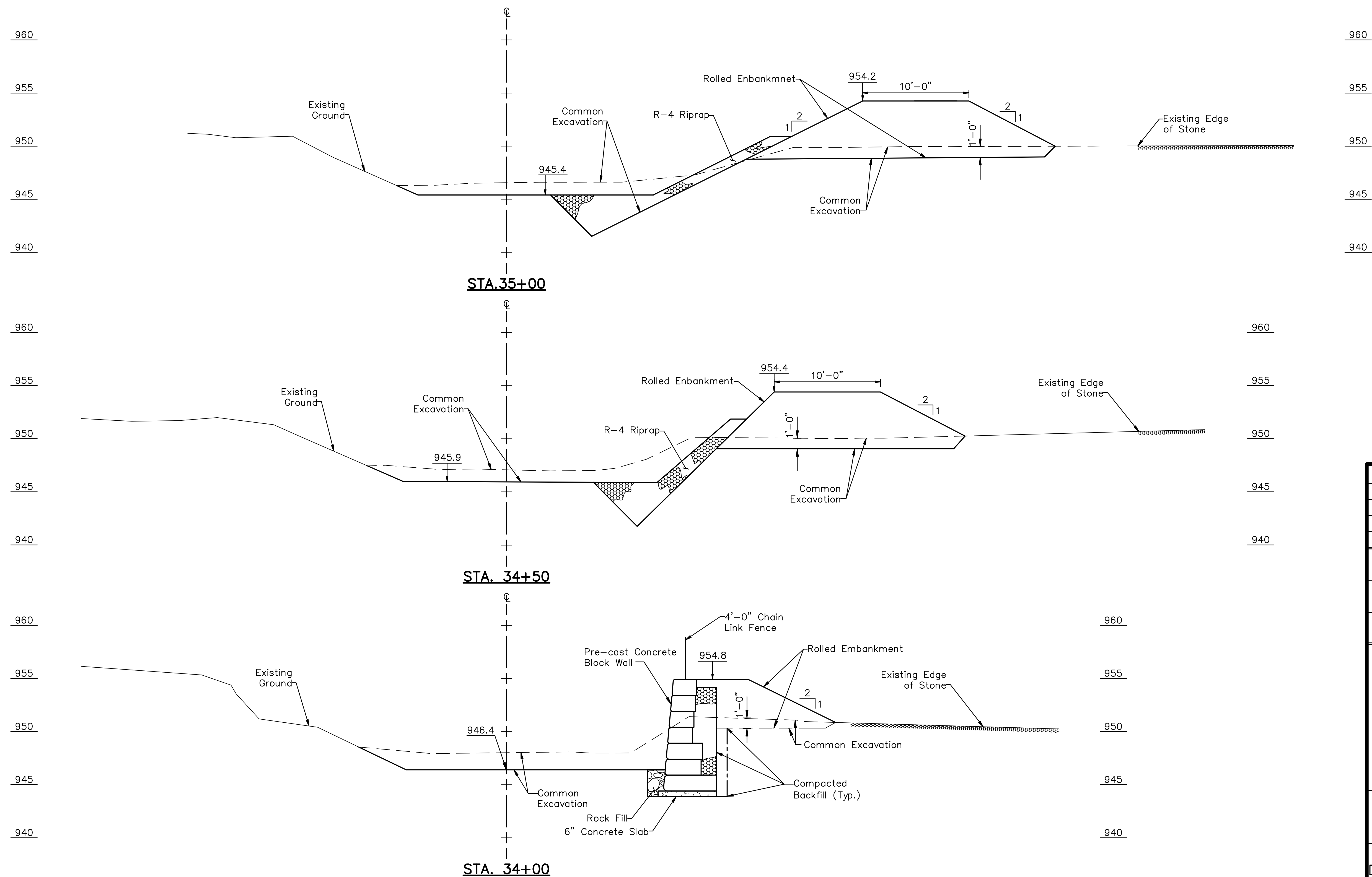


NO.	DATE	REVISION	APPR.
SUBMITTED			
PROJECT COORDINATOR – D.E.P.			
APPROVED			
CHIEF – DIVISION OF PROJECT DEVELOPMENT – D.E.P.			
APPROVED			
DIRECTOR – BUREAU OF WATERWAYS ENGINEERING AND WETLANDS – D.E.P.			



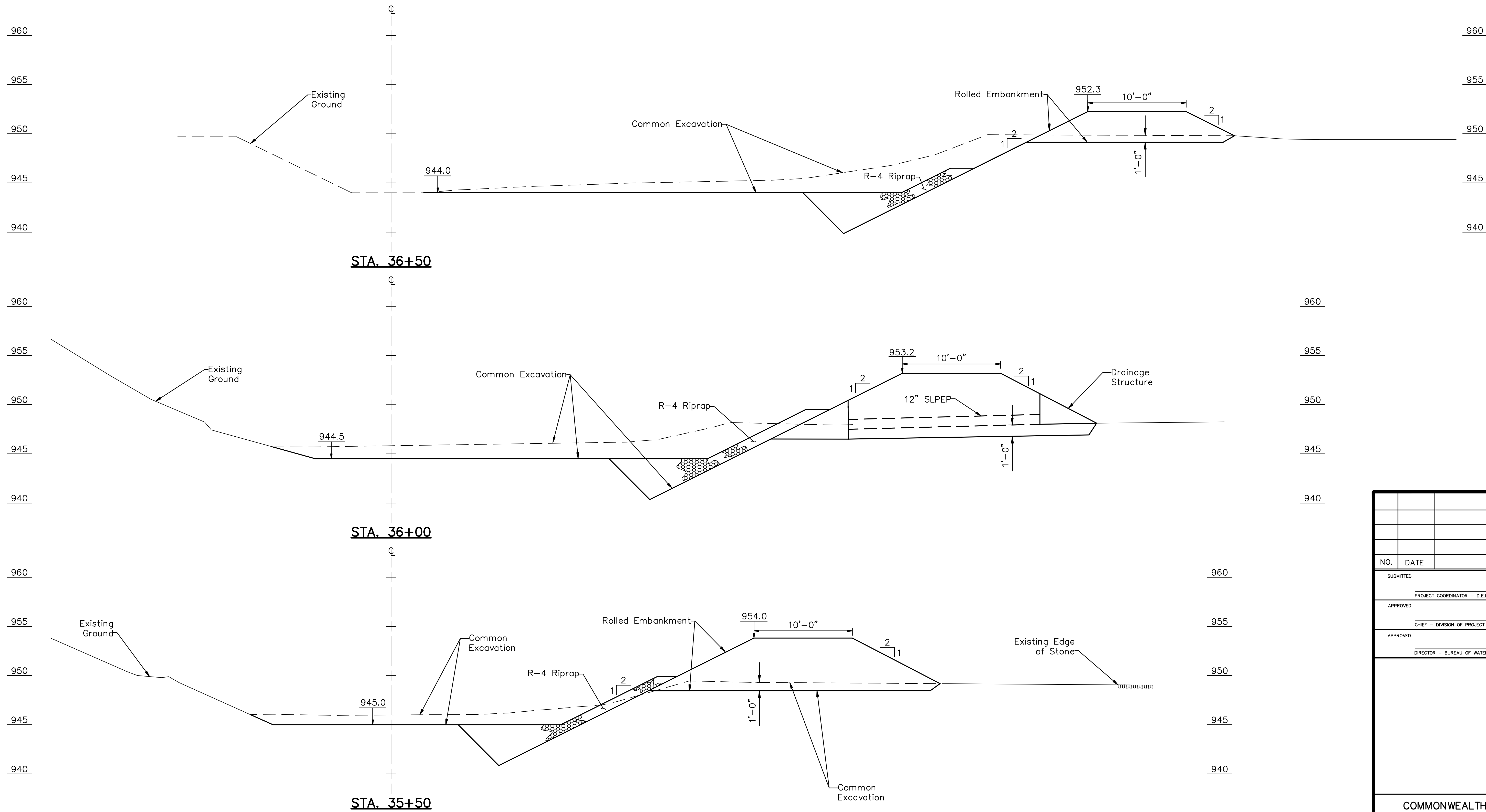
NO.	DATE	REVISION	APPR.
SUBMITTED			
PROJECT COORDINATOR - D.E.P.			
APPROVED			
CHIEF - DIVISION OF PROJECT DEVELOPMENT - D.E.P.			
APPROVED			
DIRECTOR - BUREAU OF WATERWAYS ENGINEERING AND WETLANDS - D.E.P.			
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF WATER MANAGEMENT			
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF GENERAL SERVICES HARRISBURG, PENNSYLVANIA			
PROJECT NO. D.G.S. 181-21			
RUSHBROOK CREEK PROJECT			
BOROUGH OF JERMYN LACKAWANNA COUNTY, PENNSYLVANIA			
CROSS SECTIONS STA. 32+00 TO STA. 33+50			
DRAWN BY J.A.D.	DATE 01-19-10	DRAWING NO. X-4	
CHECKED BY	SCALE 1 in. = 5 ft.		

ALL DIMENSIONS AND EXISTING
CONDITIONS SHALL BE CHECKED
AND VERIFIED BY CONTRACTOR
AT THE SITE.



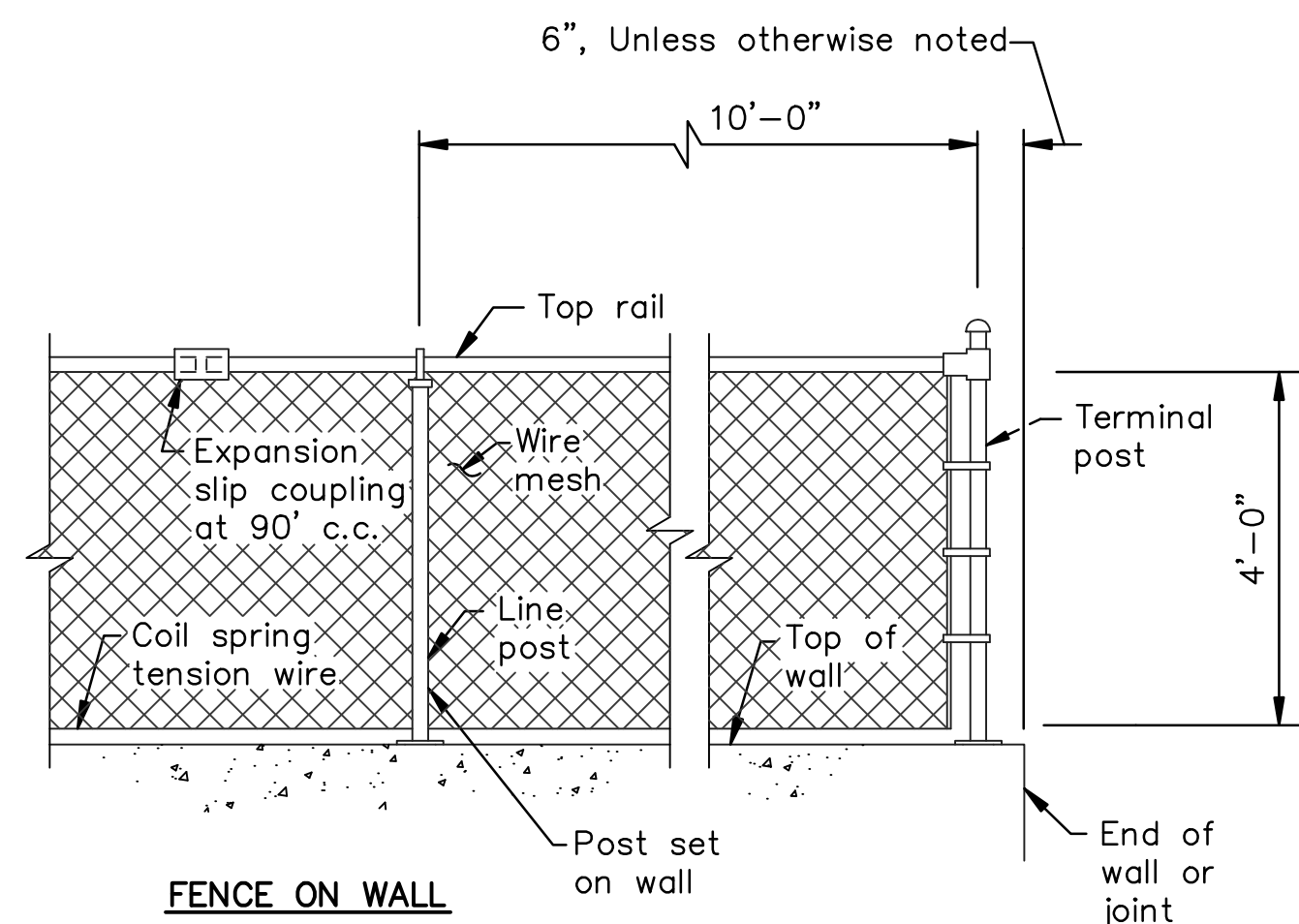
NO.	DATE	REVISION	APPR.
SUBMITTED			
PROJECT COORDINATOR - D.E.P.			
APPROVED			
CHIEF - DIVISION OF PROJECT DEVELOPMENT - D.E.P.			
APPROVED			
DIRECTOR - BUREAU OF WATERWAYS ENGINEERING AND WETLANDS - D.E.P.			
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF WATER MANAGEMENT			
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF GENERAL SERVICES HARRISBURG, PENNSYLVANIA			
PROJECT NO. D.G.S. 181-21			
RUSHBROOK CREEK PROJECT			
BOROUGH OF JERMYN LACKAWANNA COUNTY, PENNSYLVANIA			
CROSS SECTIONS STA. 34+00 TO STA. 35+00			
DRAWN BY J.A.D.	DATE 01-19-10	DRAWING NO. X-5	
CHECKED BY	SCALE 1 in. = 5 ft.		

ALL DIMENSIONS AND EXISTING
CONDITIONS SHALL BE CHECKED
AND VERIFIED BY CONTRACTOR
AT THE SITE.

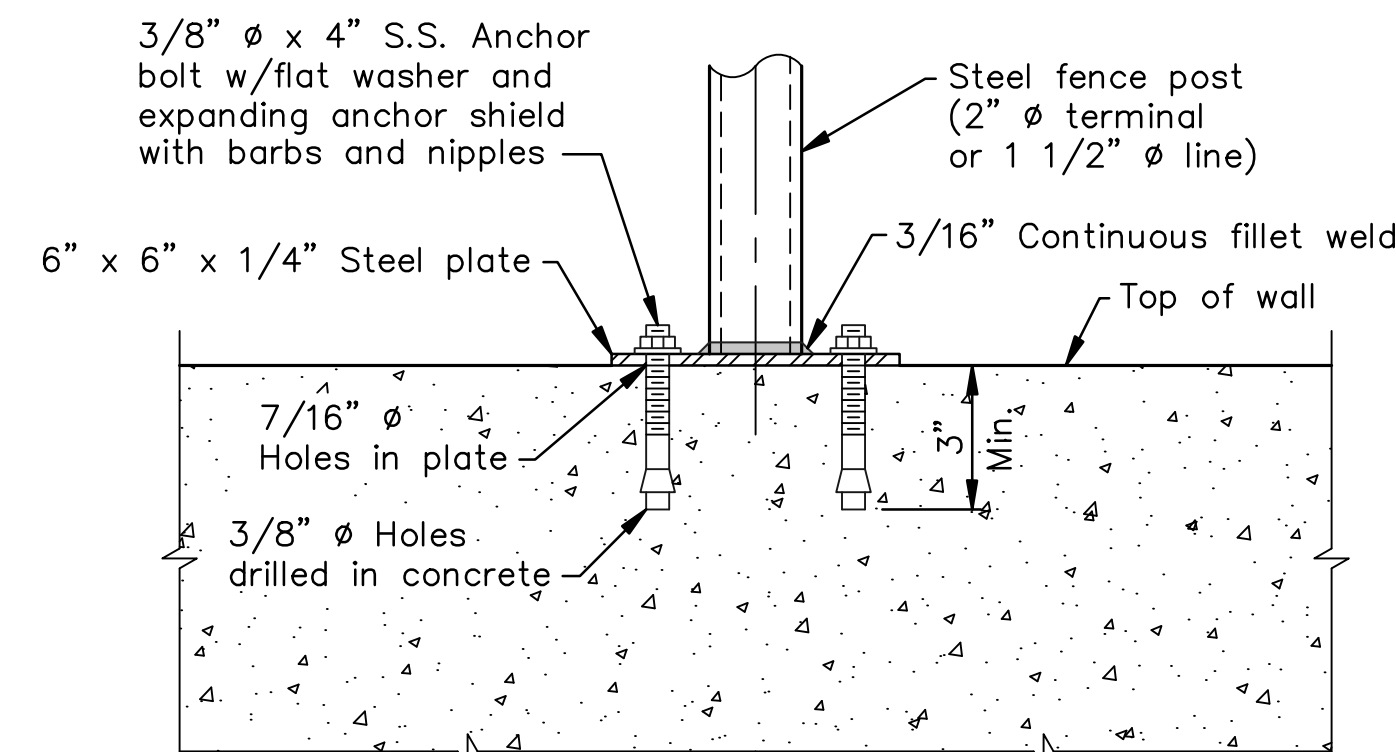


NO.	DATE	REVISION	APPR.
SUBMITTED			
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APPROVED			
CHIEF - DIVISION OF PROJECT DEVELOPMENT - D.E.P.			
APPROVED			
DIRECTOR - BUREAU OF WATERWAYS ENGINEERING AND WETLANDS - D.E.P.			
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COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF GENERAL SERVICES HARRISBURG, PENNSYLVANIA			
PROJECT NO. D.G.S. 181-21			
RUSHBROOK CREEK PROJECT			
BOROUGH OF JERMYN LACKAWANNA COUNTY, PENNSYLVANIA			
CROSS SECTIONS STA. 35+50 TO STA. 36+50			
DRAWN BY J.A.D.	DATE 01-19-10	DRAWING NO. X-6	
CHECKED BY	SCALE 1 in. = 5 ft.		

ALL DIMENSIONS AND EXISTING
CONDITIONS SHALL BE CHECKED
AND VERIFIED BY CONTRACTOR
AT THE SITE.

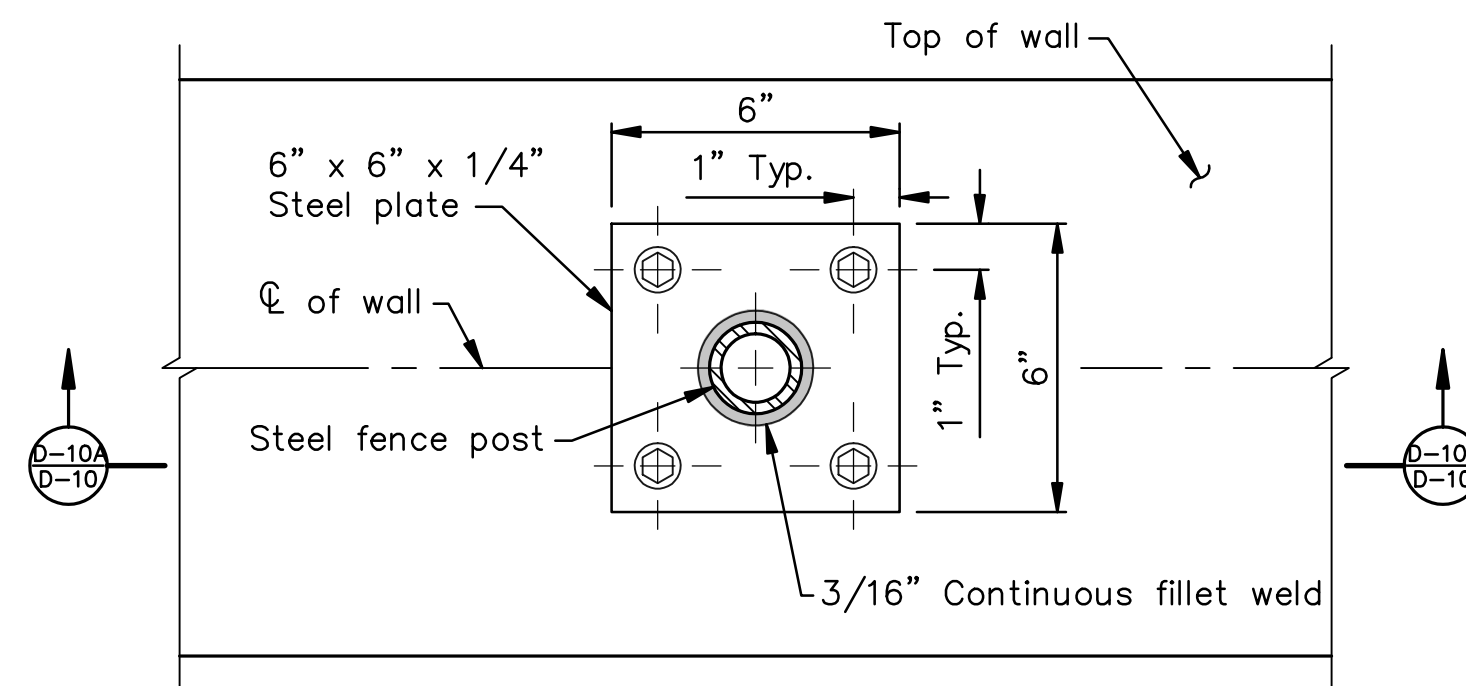


CHAIN LINK FENCE
No Scale

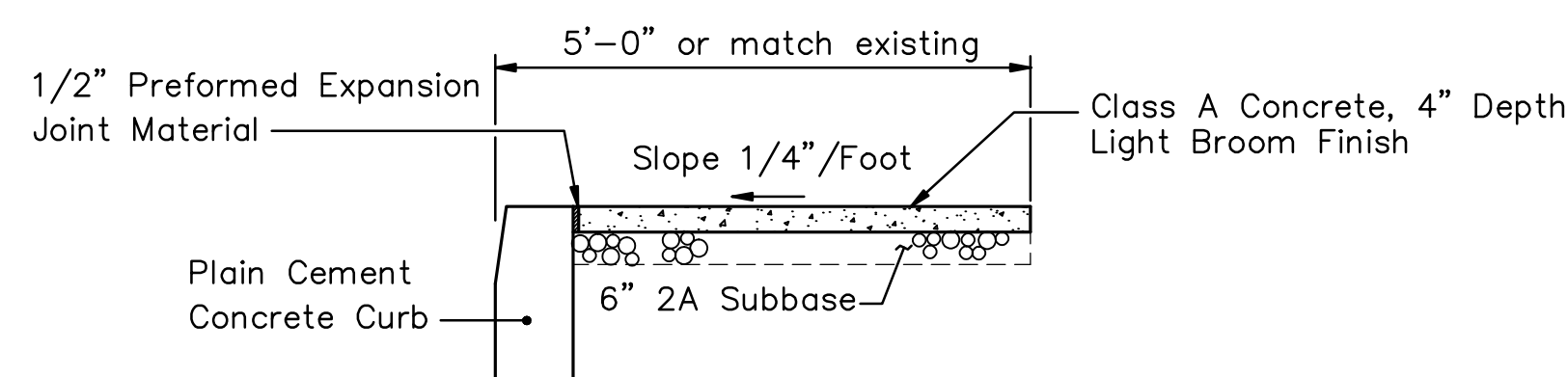


Note: Galvanizing is to be done after all fabricating, drilling of holes, and welding is complete.

**SECTION 8-10A
6-10**

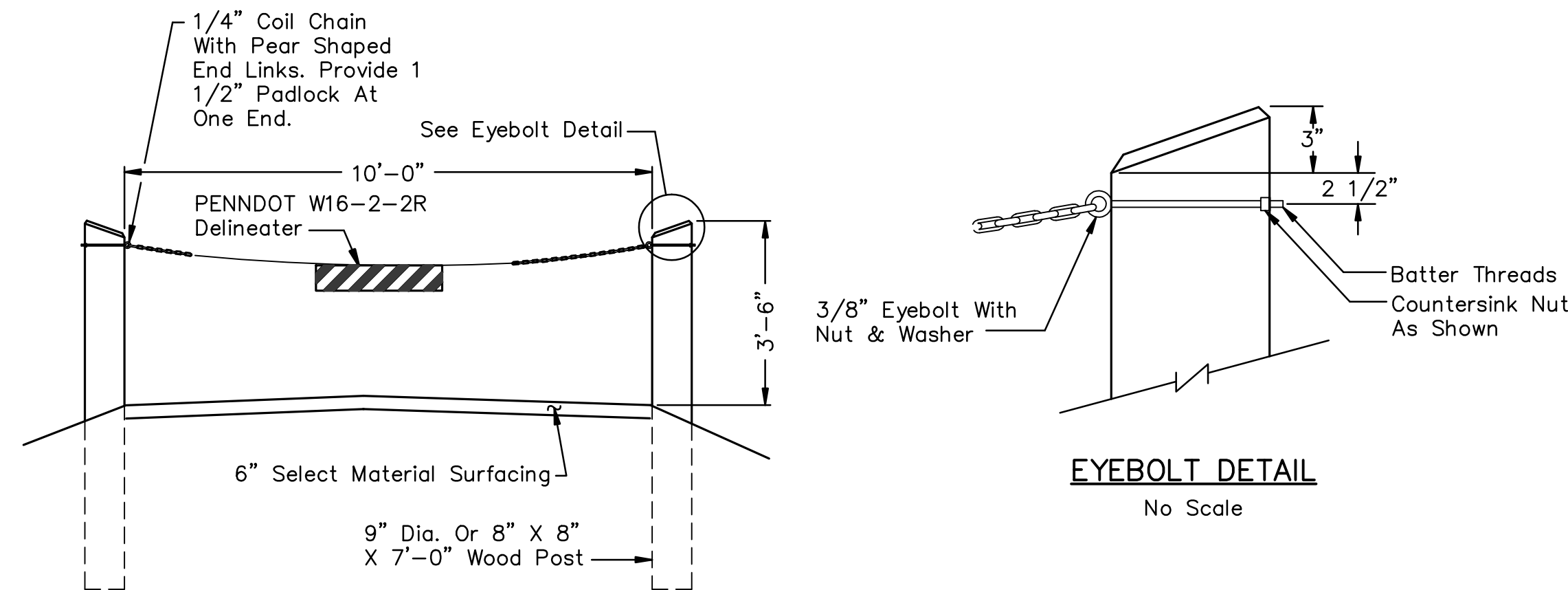


WALL-MOUNTED GALVANIZED STEEL FENCE POST
No Scale

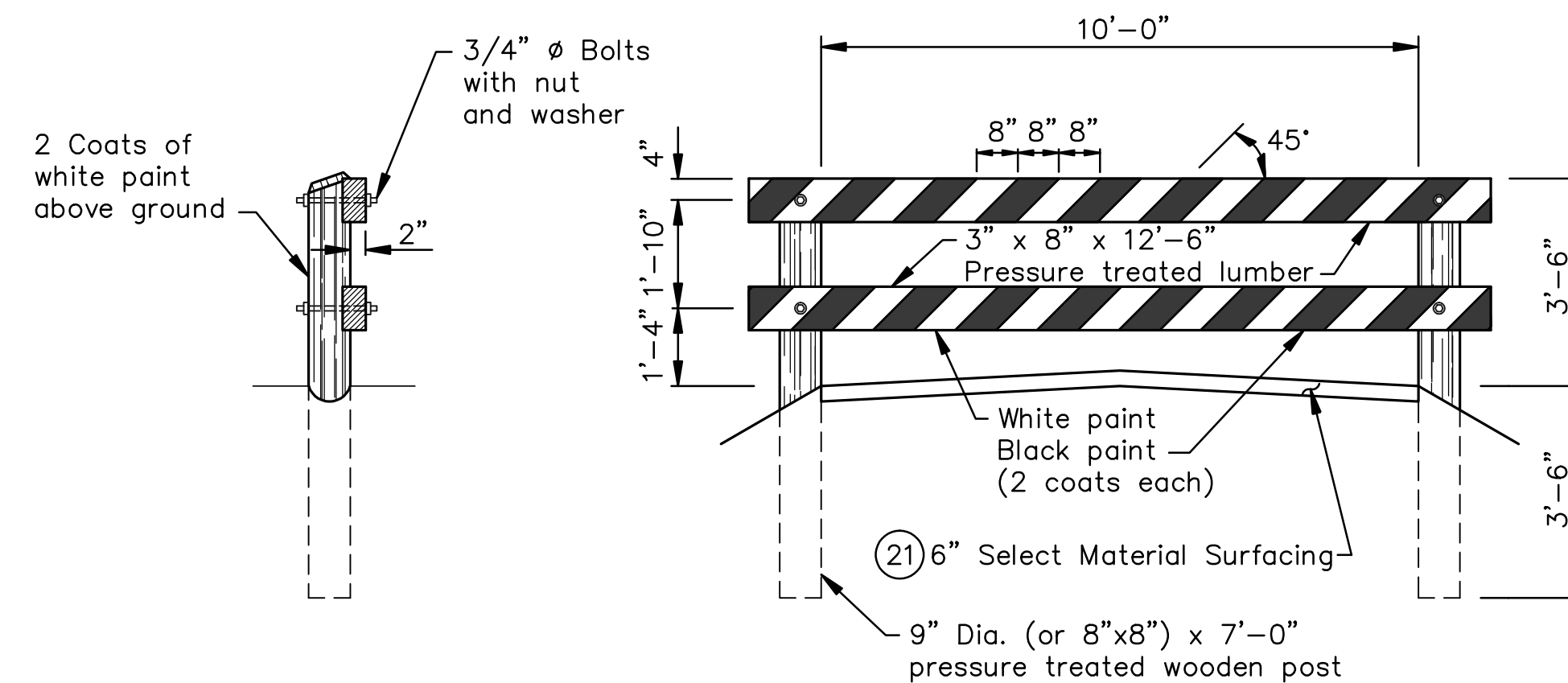


CEMENT CONCRETE SIDEWALK 31
No Scale

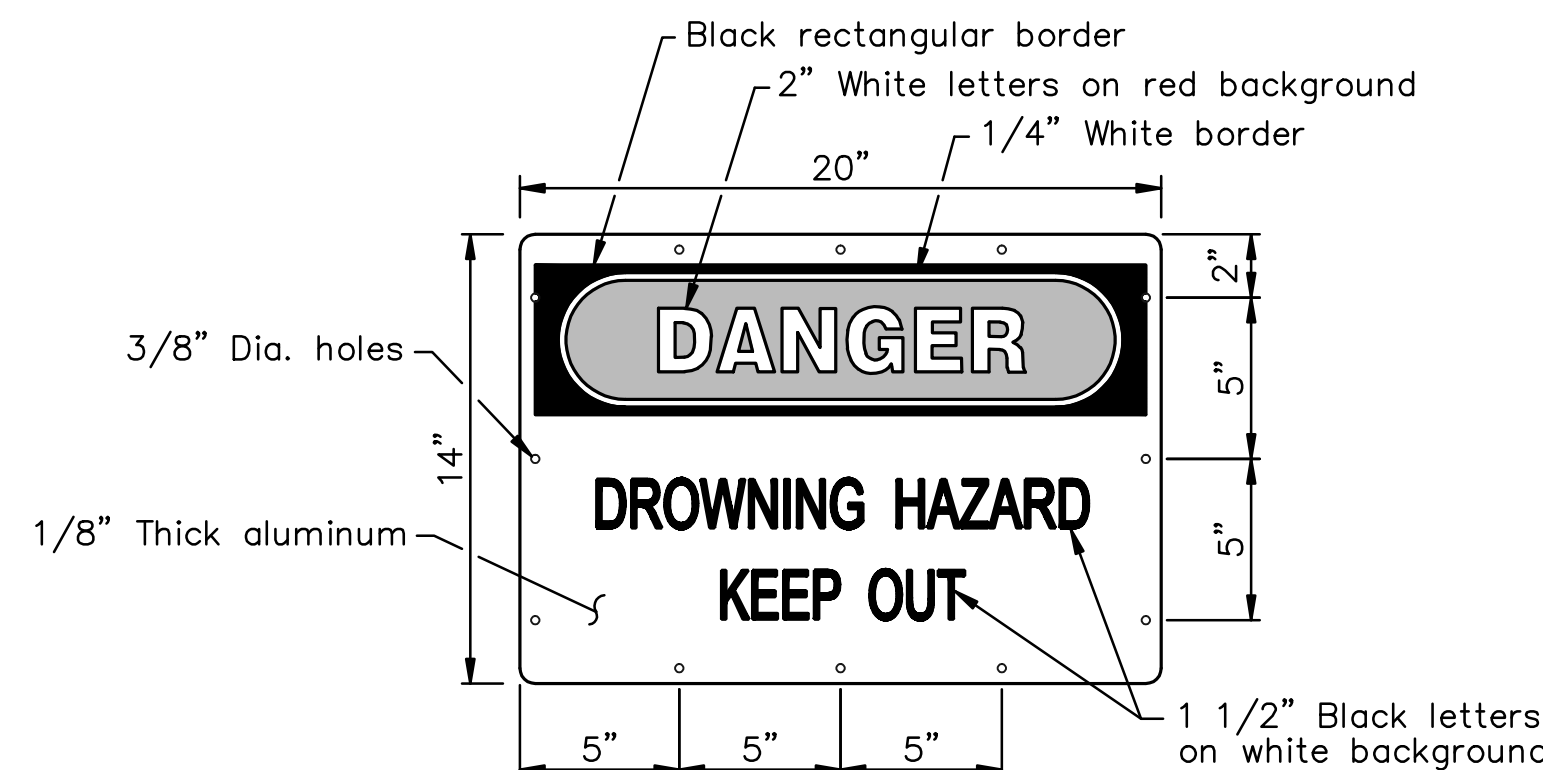
- NOTES:
1. Form Outside Edges And Joints With a 1/4" Radius Edging Tool.
 2. Form Transverse False Joints At 5-foot Intervals, Approximately 1/4" Wide And 1" Deep.
 3. Provide Expansion Joints Every 20 Feet And Separate Slabs With 1/2" Preformed Expansion Joint Material.



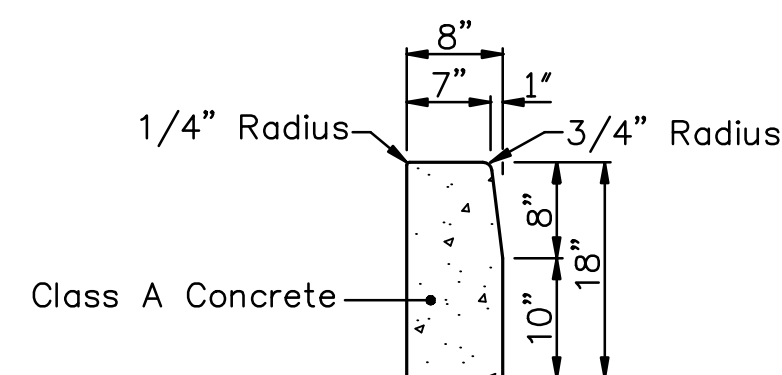
TYPE 1 ACCESSIBLE BARRICADE 31
No Scale



TYPE 2 BARRICADE 31
No Scale

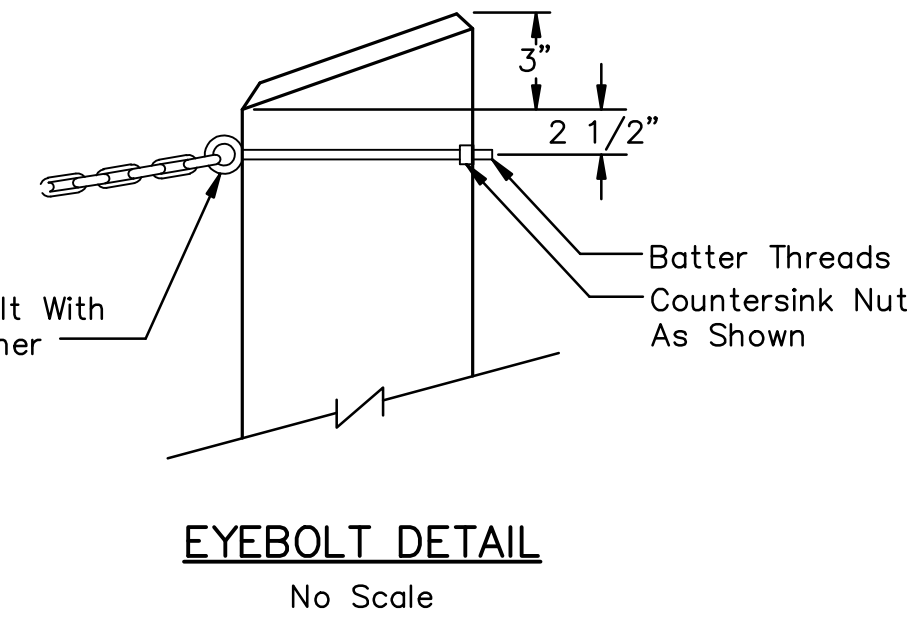


WARNING SIGN DETAILS 40
No Scale

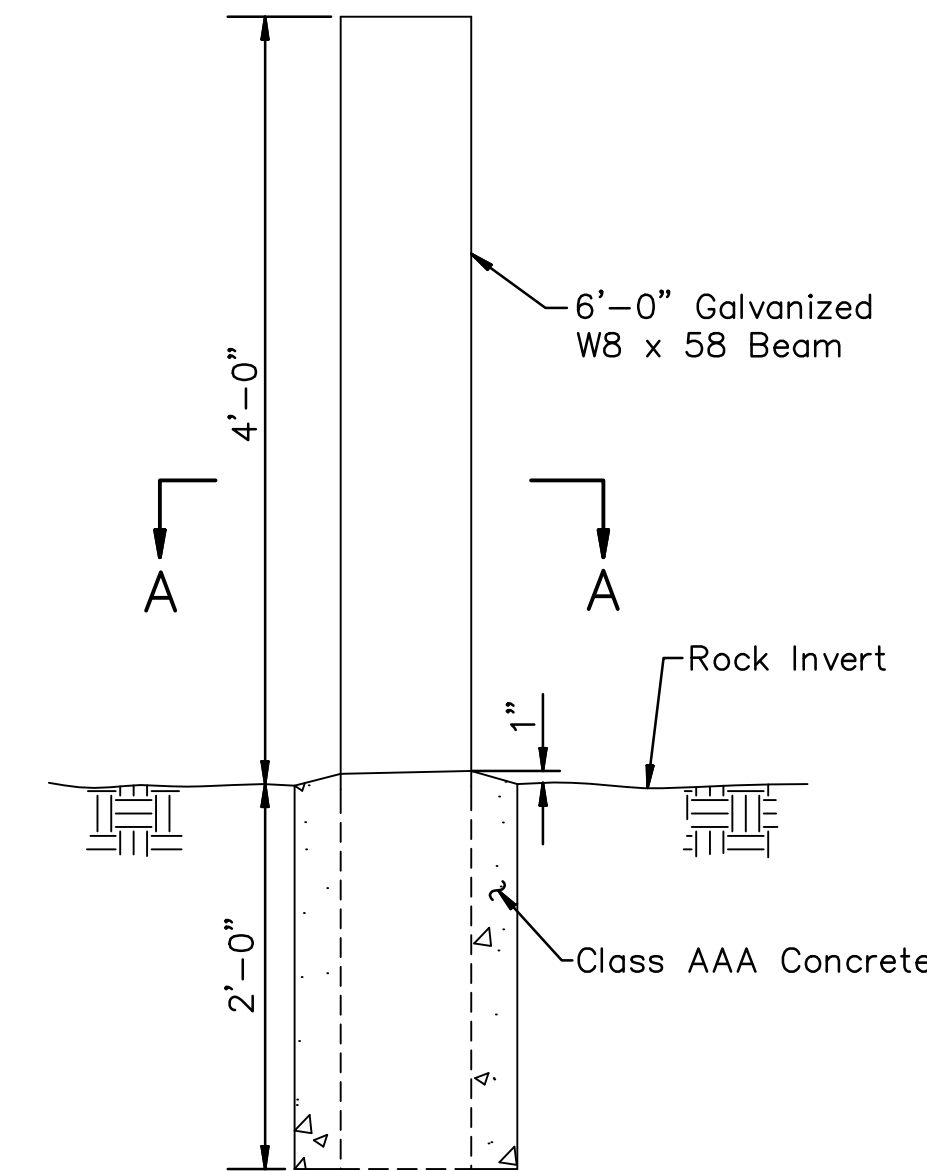
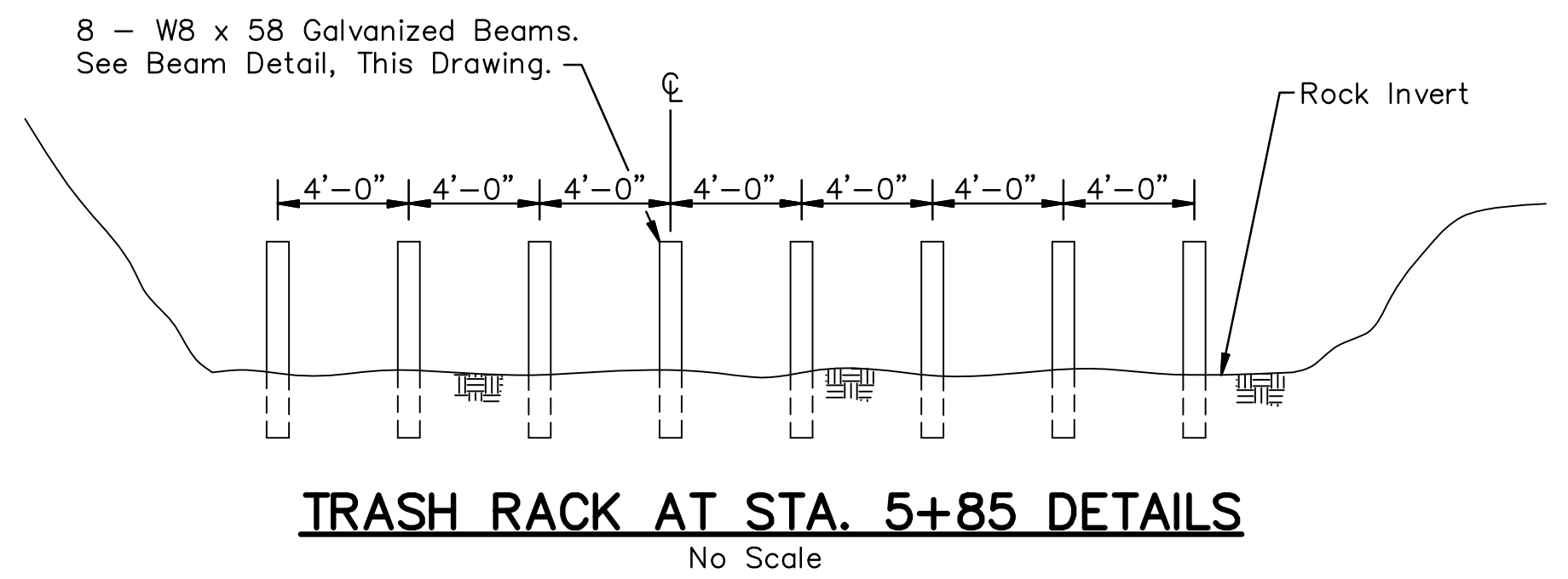


PLAIN CEMENT CONCRETE CURB 32
No Scale

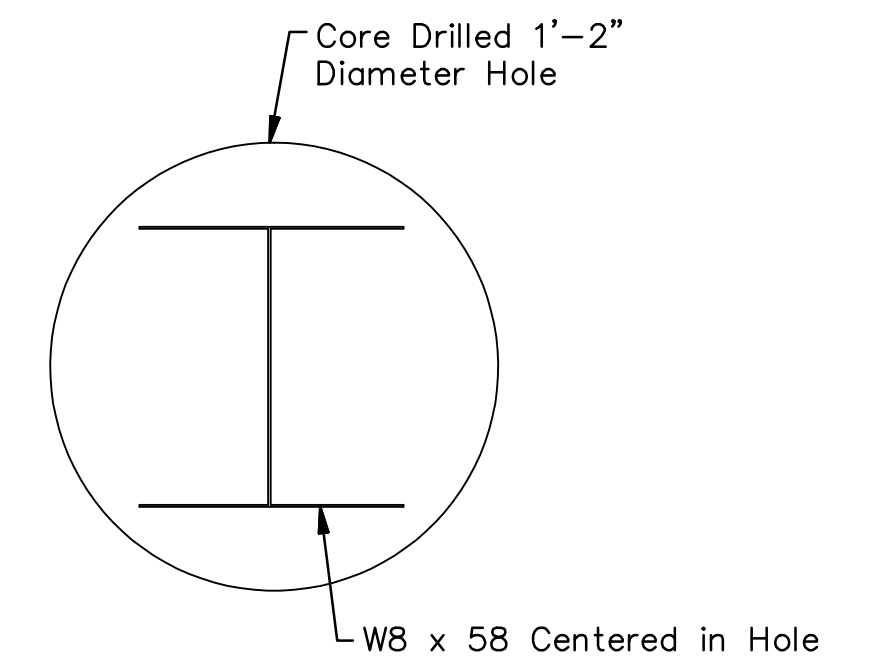
Place 3/4" Preformed Expansion Joint Material At Structures And At The End Of Work Day. Cut Material To Conform To Area Adjacent To Curb Or To Conform To Cross Sectional Area Of Curb.



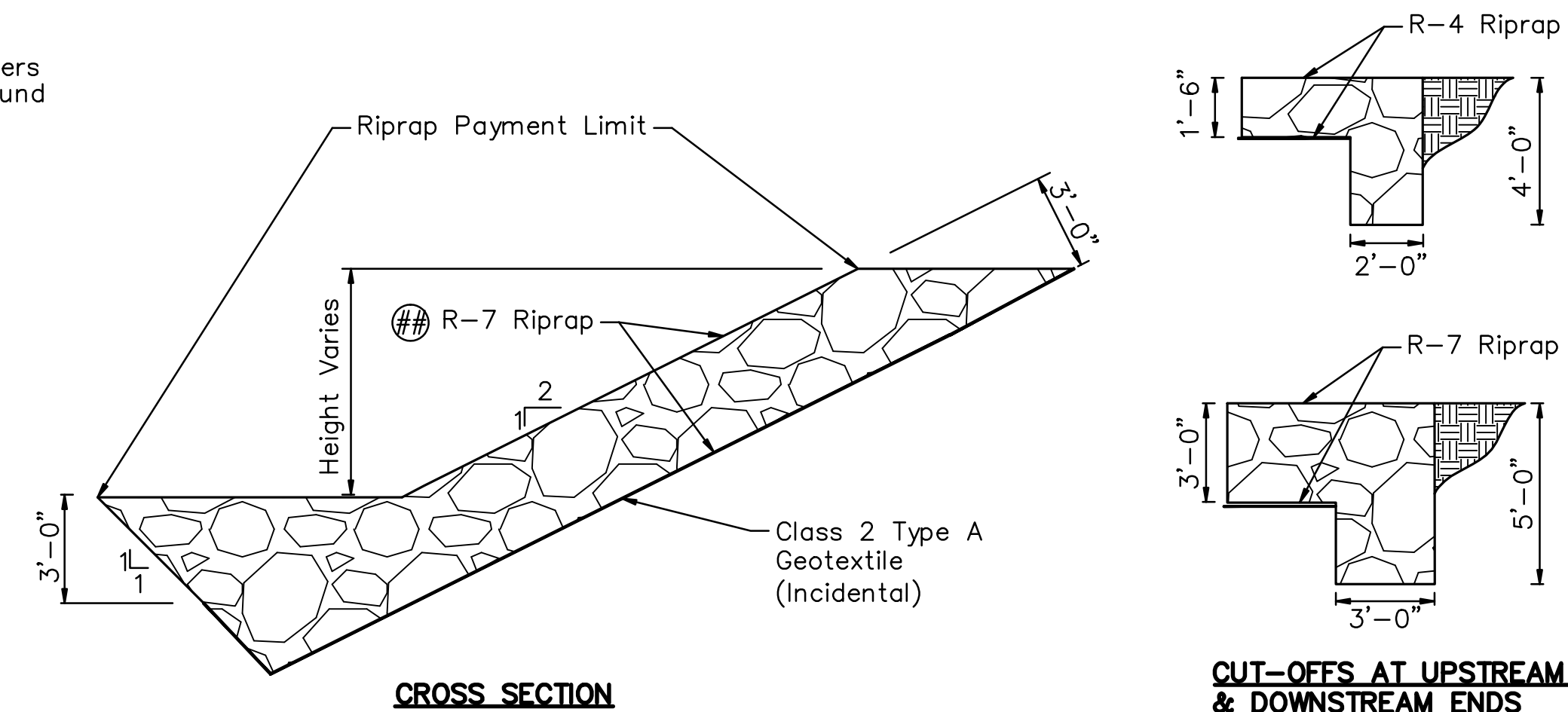
EYEBOLT DETAIL
No Scale



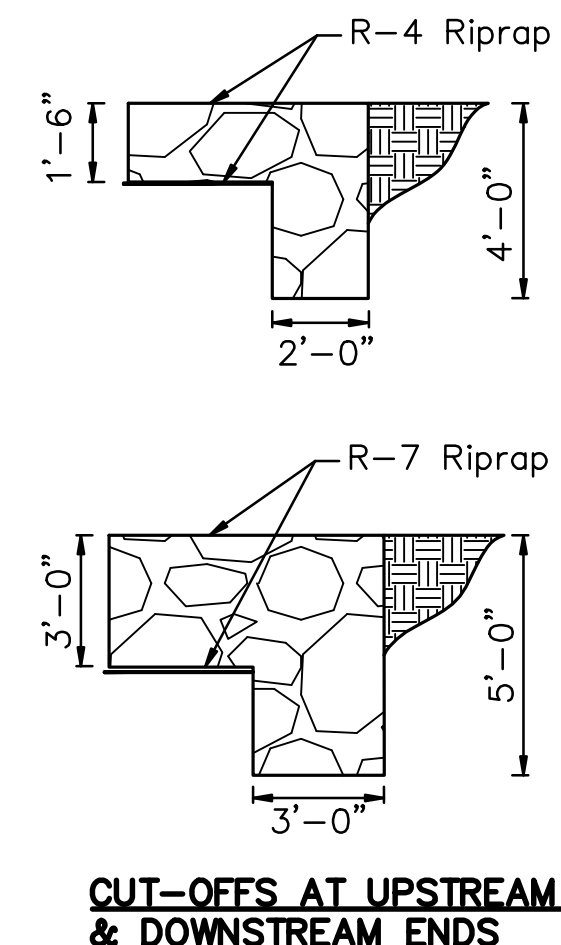
BEAM DETAIL
No Scale



SECTION A-A
No Scale



RIPRAP SLOPE PROTECTION DETAIL
No Scale



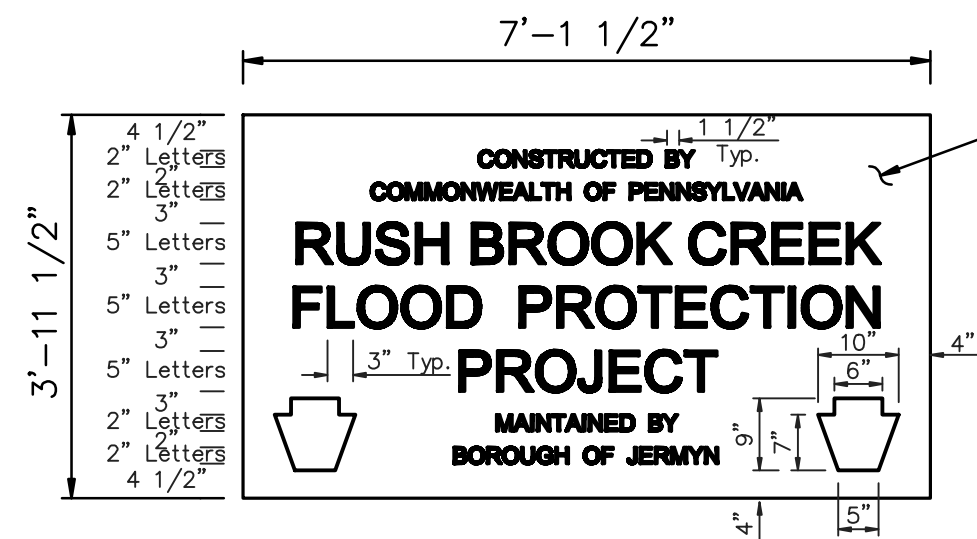
CUT-OFFS AT UPSTREAM & DOWNSTREAM ENDS

NO.	DATE	REVISION	APPR.
SUBMITTED			
PROJECT COORDINATOR - D.E.P.			
APPROVED			
CHIEF - DIVISION OF PROJECT DEVELOPMENT - D.E.P.			
APPROVED			
DIRECTOR - BUREAU OF WATERWAYS ENGINEERING AND WETLANDS - D.E.P.			
PROFESSIONAL'S SIGNATURE DATE PROFESSIONAL'S SIGNATURE DATE			
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF WATER MANAGEMENT			
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF GENERAL SERVICES HARRISBURG, PENNSYLVANIA			
PROJECT NO. D.G.S. 181-21			
RUSHBROOK CREEK PROJECT BOROUGH OF JERMYN LACKAWANNA COUNTY, PENNSYLVANIA			
MISCELLANEOUS DETAILS			
DRAWN BY JAD	DATE XX/XX/XXXX	DRAWING NO. D-10	
CHECKED BY	SCALE As Shown		

ALL DIMENSIONS AND EXISTING
CONDITIONS SHALL BE CHECKED
AND VERIFIED BY CONTRACTOR
AT THE SITE.

PERMANENT PROJECT SIGN NOTES:

1. Posts and cross members for frame shall be Pressure Treated Lumber, S4S, conforming to T.S. 49.4A.
2. All wood shall be painted with a brown, exterior grade, latex based, wood stain, conforming to T.S. 49.4C.
3. Sign panel shall be a 3-layer plastic sheet made from recycled HDPE, conforming to T.S. 49.4B.
4. Lettering and keystone outlines shall be routed on both sides of the sign panel.
5-inch x 3-inch letters shall be routed 3/4" wide x 3/16" deep.
2-inch x 1 1/2-inch letters shall be routed 1/4" wide x 3/16" deep.
Keystones shall be routed 3/16" deep.
5. All hardware is stainless steel, conforming to T.S. 49.4E. with threaded ends of all bolted connections slightly peened.



FRONT AND BACK VIEW

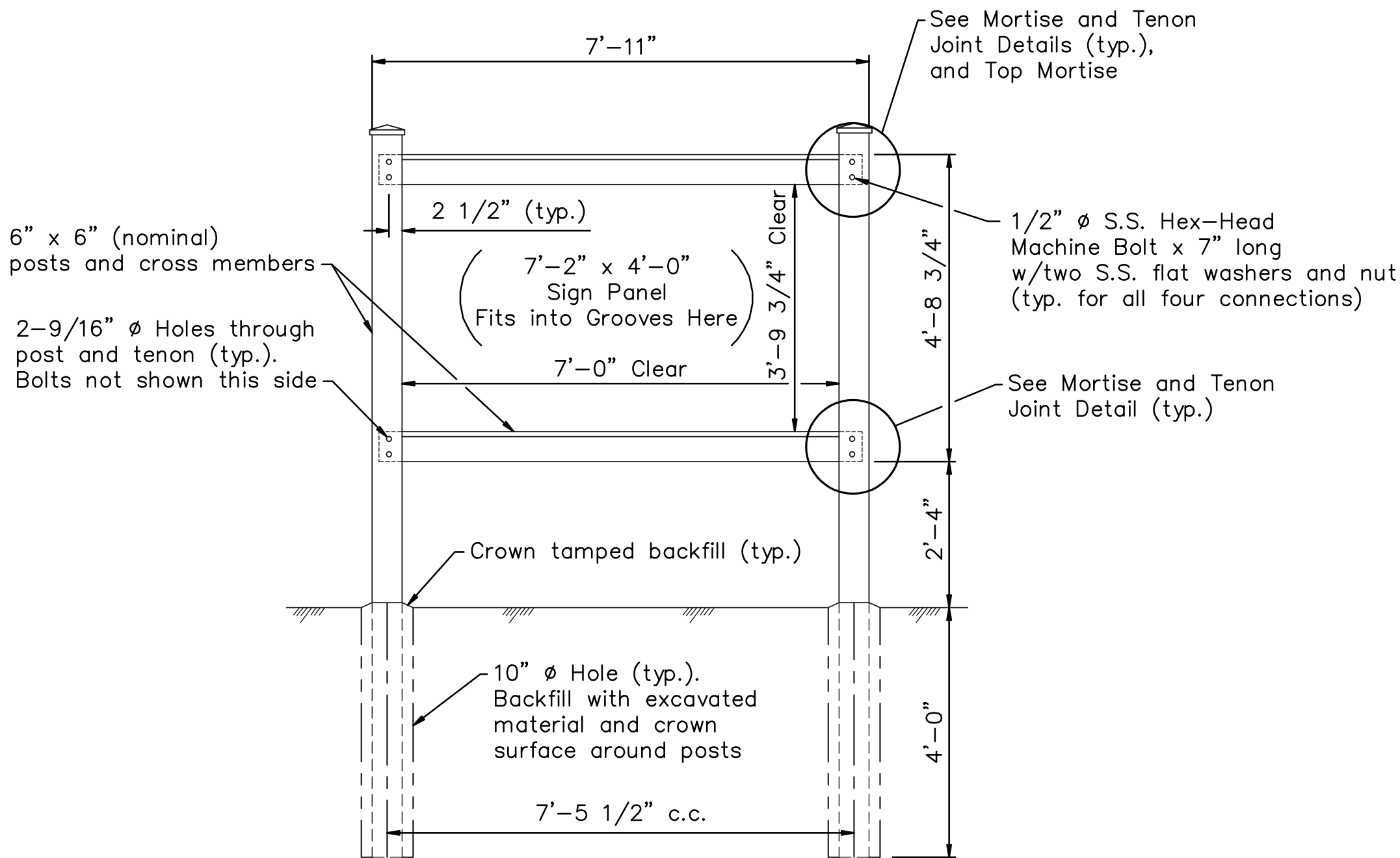
SIGN PANEL

Scale: 1/2 in. = 1 ft.

Brown-colored 6" x 6"
Wood-Plastic Composite Post Cap.
Drill hole top center for
S.S. Nail Fastener (typ.)

3" (10d) S.S.
Spiral or Ribbed Nail (Typ.)

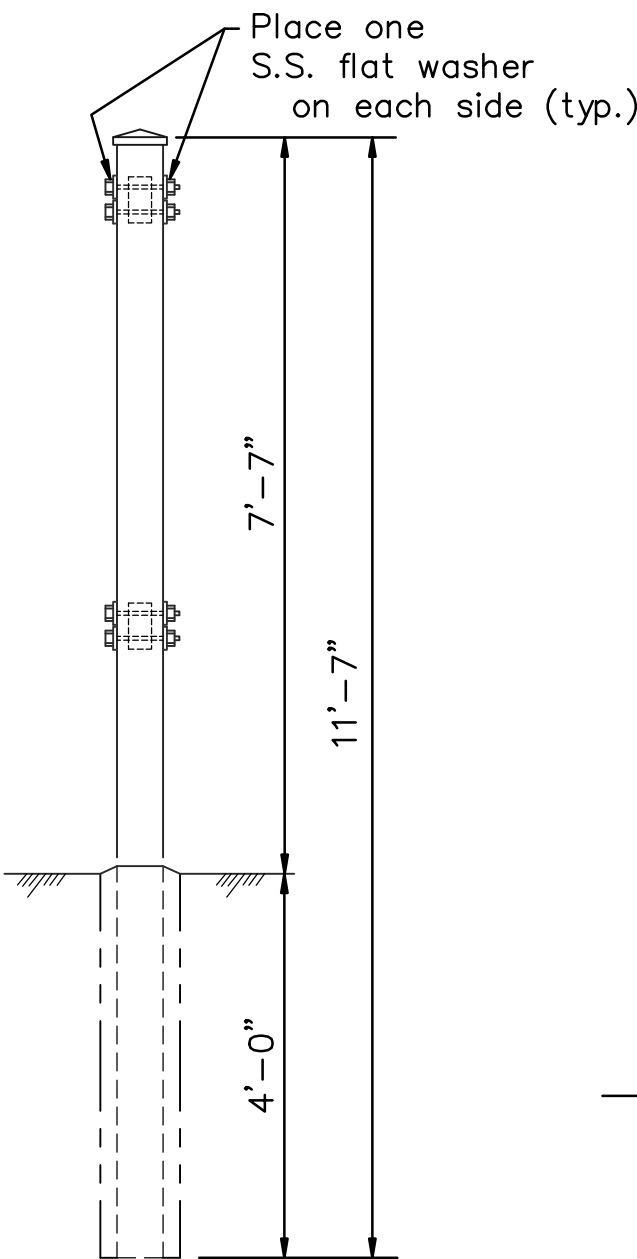
TOP VIEW



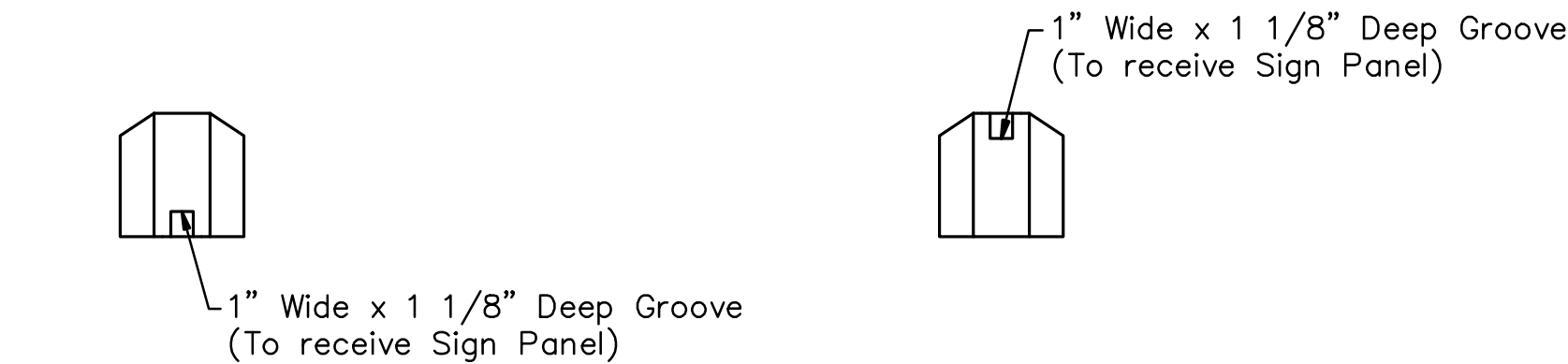
FRONT AND BACK VIEW

FRAME

Scale: 1/2 in. = 1 ft.



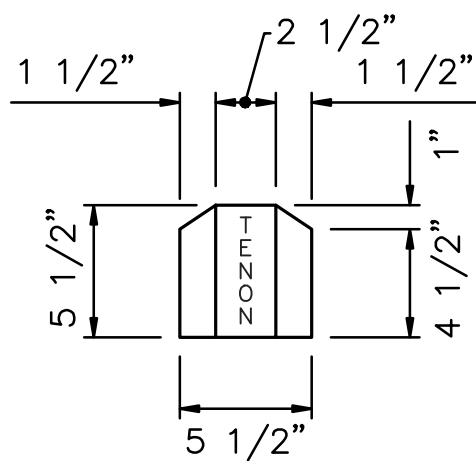
SIDE VIEW



TOP MEMBER

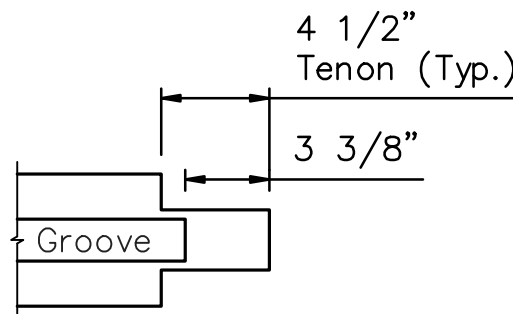
BOTTOM MEMBER

Note: Grooves stop 3 3/8" from ends
of Cross Member Tenons.



Grooves not shown

TOP VIEW OF END OF
BOTTOM CROSS MEMBER

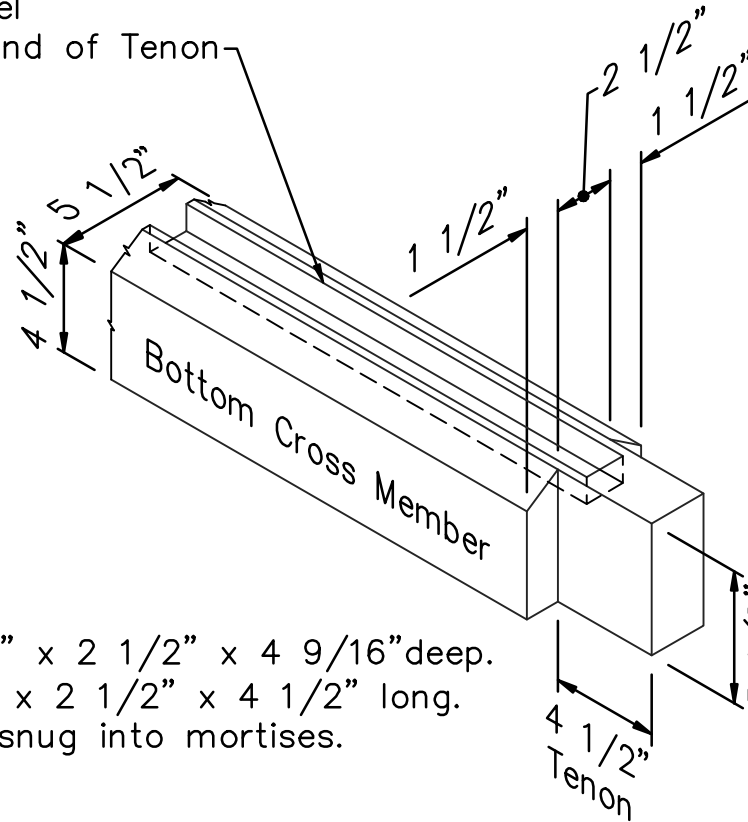


BOTTOM VIEW OF END OF
TOP CROSS MEMBER

CROSS MEMBERS

Scale: 1/8 in. = 1 in.

Centered 1" Wide x 1 1/8" Deep
Groove for Sign Panel
Ends 3 3/8" from end of Tenon



Mortise = 5 1/2" x 2 1/2" x 4 9/16" deep.
Tenon = 5 1/2" x 2 1/2" x 4 1/2" long.
Tenons shall fit snug into mortises.

Top of post
inside cap

3" S.S. Spiral
or Ribbed Nail

TOP MORTISE

MORTISE AND TENON JOINT (TYP.)

MORTISE AND TENON JOINT DETAILS

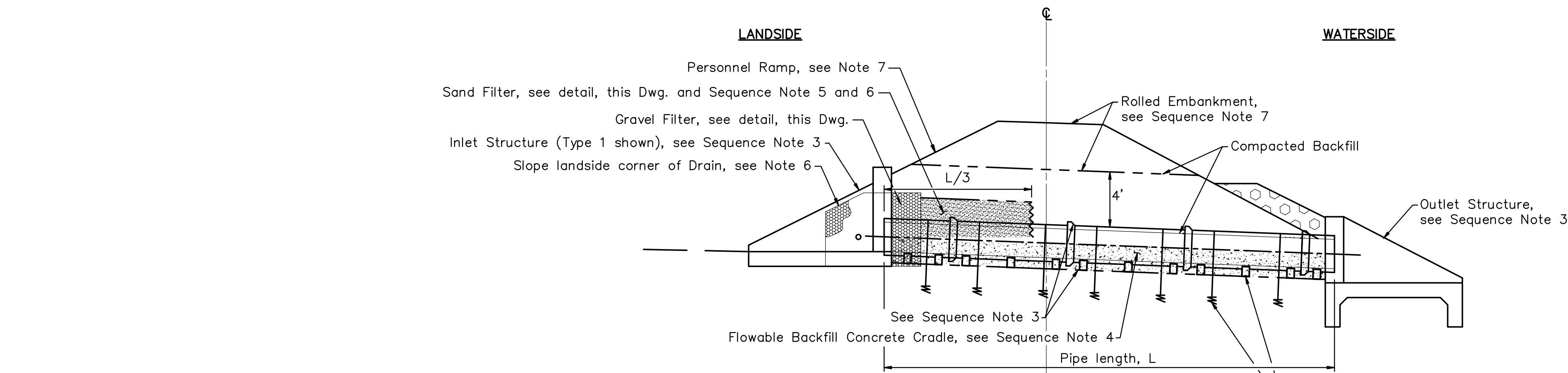
Scale: 1/8 in. = 1 in.

NO.	DATE	REVISION	APPR.
SUBMITTED			
PROJECT COORDINATOR - D.E.P.			
APPROVED			
CHIEF - DIVISION OF PROJECT DEVELOPMENT - D.E.P.			
APPROVED			
DIRECTOR - BUREAU OF WATERWAYS ENGINEERING AND WETLANDS - D.E.P.			
PROFESSIONAL'S SIGNATURE			
DATE			
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF WATER MANAGEMENT			
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF GENERAL SERVICES HARRISBURG, PENNSYLVANIA			
PROJECT NO. D.G.S. 181-21			
RUSHBROOK CREEK PROJECT BOROUGH OF JERMYN LACKAWANNA COUNTY, PENNSYLVANIA			
PERMANENT PROJECT SIGN DETAILS			
DRAWN BY	DATE	DRAWING NO.	
JAD	XX/XX/XXXX	D-11	
CHECKED BY	SCALE		
	As Shown		

ALL DIMENSIONS AND EXISTING
CONDITIONS SHALL BE CHECKED
AND VERIFIED BY CONTRACTOR
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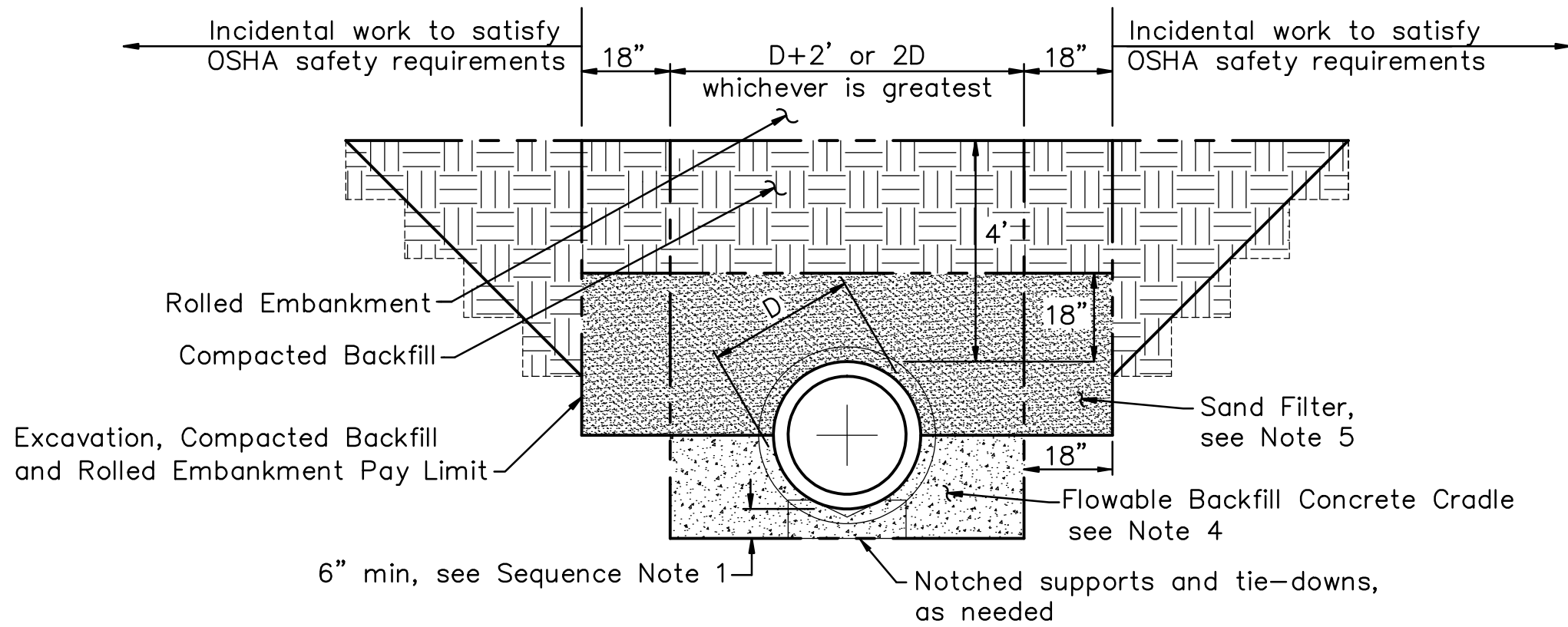
SEQUENCE OF WORK:

1. Use Trench Excavation along pipe alignment to establish an undisturbed surface, 6" below the outer wall of pipe. Layback side slopes as shown to satisfy OSHA Safety Requirements, but this excavation is incidental to the work shown.
2. Place SLPEP to final alignment using notched supports and floatation prevention methods approved by the Department in writing.
3. Joint pipes according to TS-16.5C and construct inlet and outlet structures as shown on Dwg. D-8. Note that weepholes are required at the inlet structure sidewalls. Bulkhead the inlet and outlet structure sidewalls adequately to contain Concrete Cradle placement.
4. Place Flowable Backfill Concrete Cradle along the full pipe length up to the midpoint of SLPEP. Minimal vibration may be required to obtain full cradle. Cure concrete with wet burlap for at least 48 hours before placing Rolled Embankment.
5. After Concrete Cradle has cured, increase Trench Excavations width for Sand Filter placement on the landside 1/3 pipe length, as shown on Typical Profile and Details, this drawing on all drainage structures.
6. Install Sand Filter, Compacted Backfill and Gravel Filter in adjacent 4" layers to the limits shown on the details on all drainage structures. Note that the filter fabric is only used as a separator between the filter-to-embankment interface and is not to cross the sand-to-gravel interface at any time.
7. Continue Rolled Embankment as soon as 4 feet minimum pipe clearance is provided.



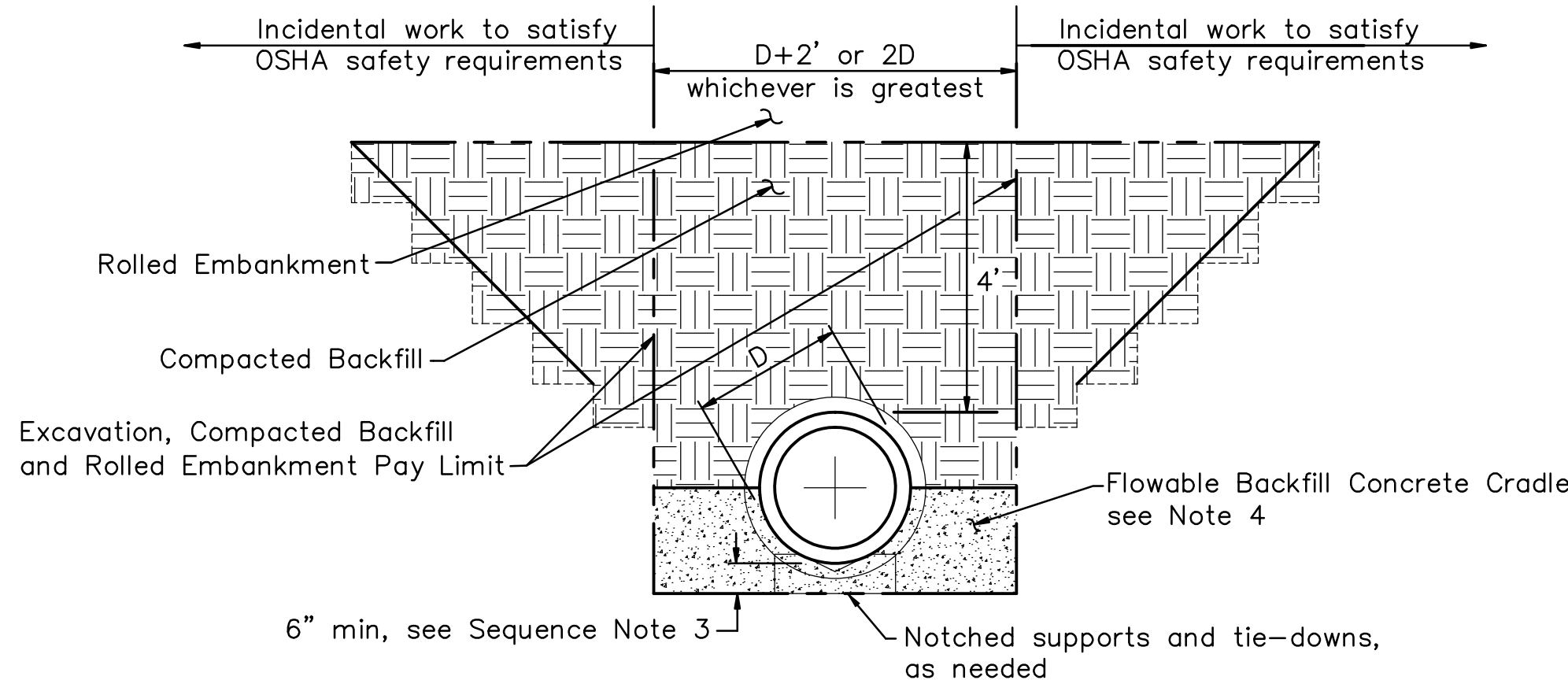
DRAINAGE STRUCTURE
TYPICAL PROFILE

No Scale



SAND AND GRAVEL FILTER ABOVE PIPE

No Scale

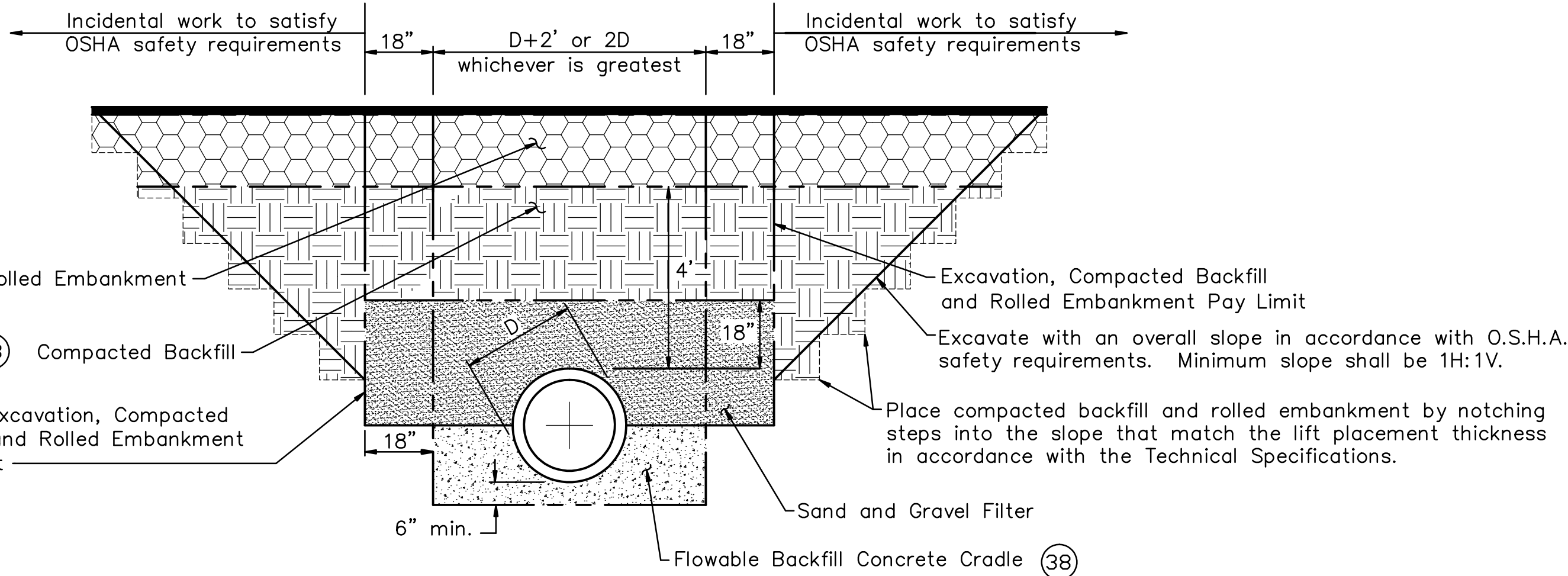


COMPLETE IMPERVIOUS FILL

No Scale

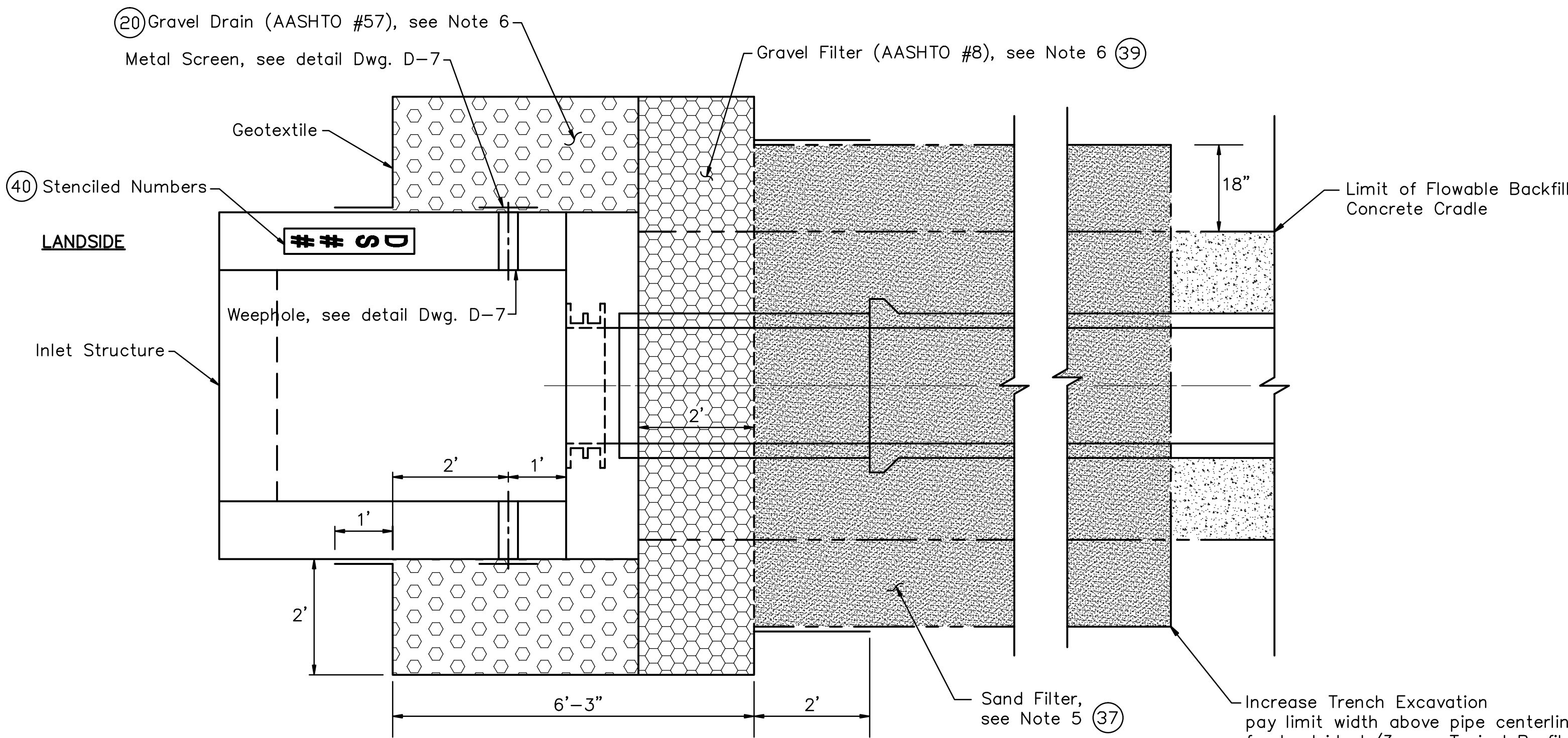
NOTES:

1. For General Notes, see Dwg. GP-1.
2. For Drainage Structure Profiles, see Dwg. D-9.
3. For Inlet and Outlet Structure Details, see Dwg. D-8.
4. Flowable Backfill Concrete Cradle shall comply with TS-___ and requires a 48-hour cure with wet burlap.
5. Sand Filter material shall comply with PennDOT, Section 703.1, Fine Aggregate Cement Concrete Sand, Type A. Satisfactory placement of Sand Filter material shall be determined based on non-movement of material placed in 4" layers.
6. Gravel Filter shall comply with TS-___, except that Coarse Aggregate shall comply with AASHTO #8 or AASHTO #57 as shown. Gravel Filter and weepholes shall be provided at Inlet Structures only. Gravel Filter is 4.5' in height at the headwall. Slope top surface of drain as necessary to provide 1' clearance from landside slope.
7. Provide a 3' wide ramp from the levee crown to the top of each inlet structure for ease of access with the portable actuator. Do not exceed 10% slope.



CULVERT PAYMENT SECTION

No Scale

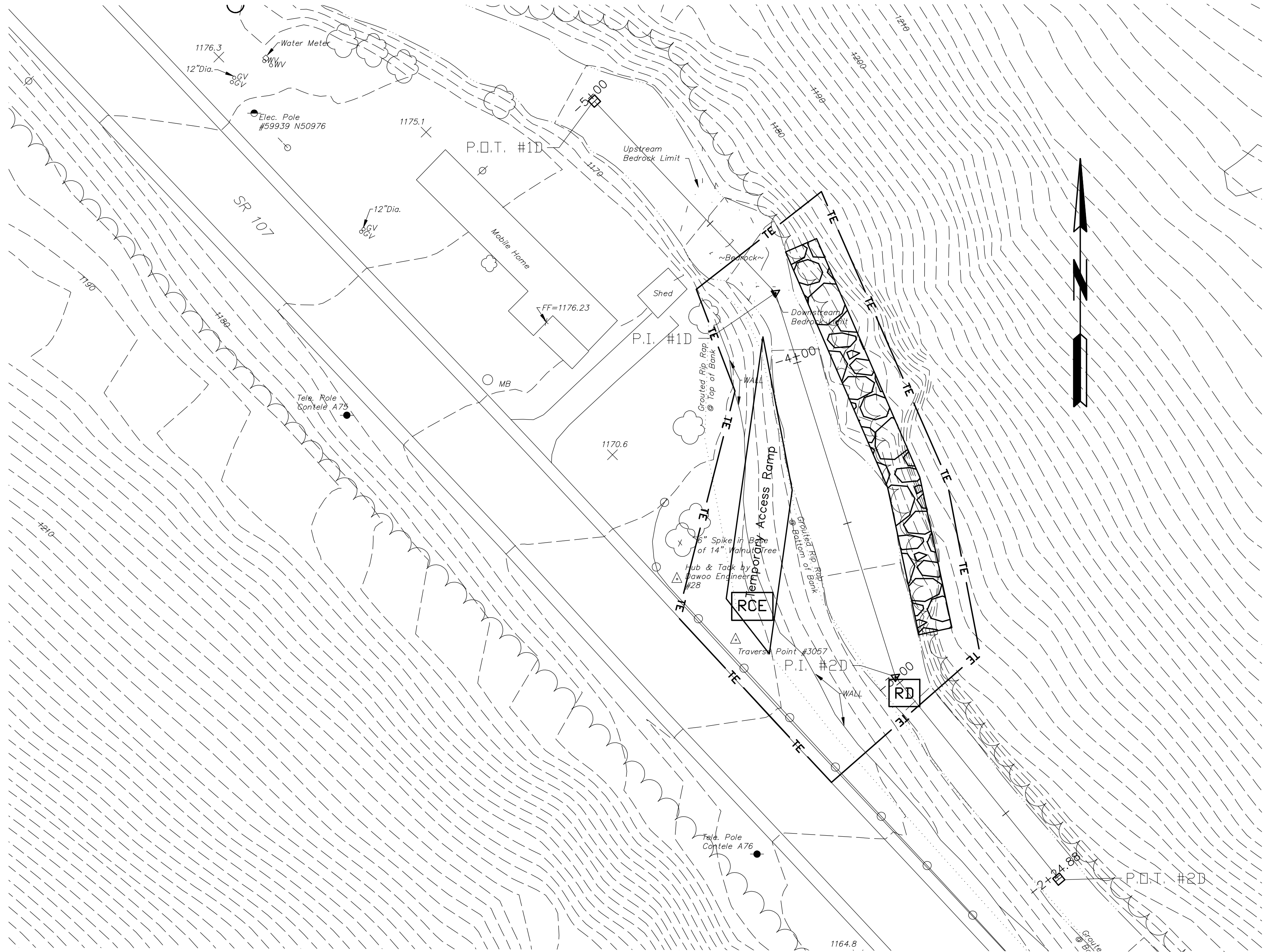


SAND AND GRAVEL FILTER

No Scale

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APPROVED			
DIRECTOR - BUREAU OF WATERWAYS ENGINEERING AND WETLANDS - D.E.P.			
PROFESSIONAL'S SIGNATURE			
DATE			
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DATE			
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF WATER MANAGEMENT			
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF GENERAL SERVICES HARRISBURG, PENNSYLVANIA			
PROJECT NO. D.G.S. 181-21			
RUSHBROOK CREEK PROJECT			
BOROUGH OF JERMYN LACKAWANNA COUNTY, PENNSYLVANIA			
DRAINAGE STRUCTURE TRENCH FILL DETAILS			
DRAWN BY	DATE	DRAWING NO.	
JAD	XX/XX/XXXX		
CHECKED BY	SCALE		
	As Shown		



PLAN

LEGEND

- PE PERMANENT EASEMENT
TE TEMPORARY EASEMENT
RD TEMPORARY ROCK DAM
RCE TEMPORARY ROCK CONSTRUCTION ENTRANCE

DETAILED E&S CONTROL PLAN

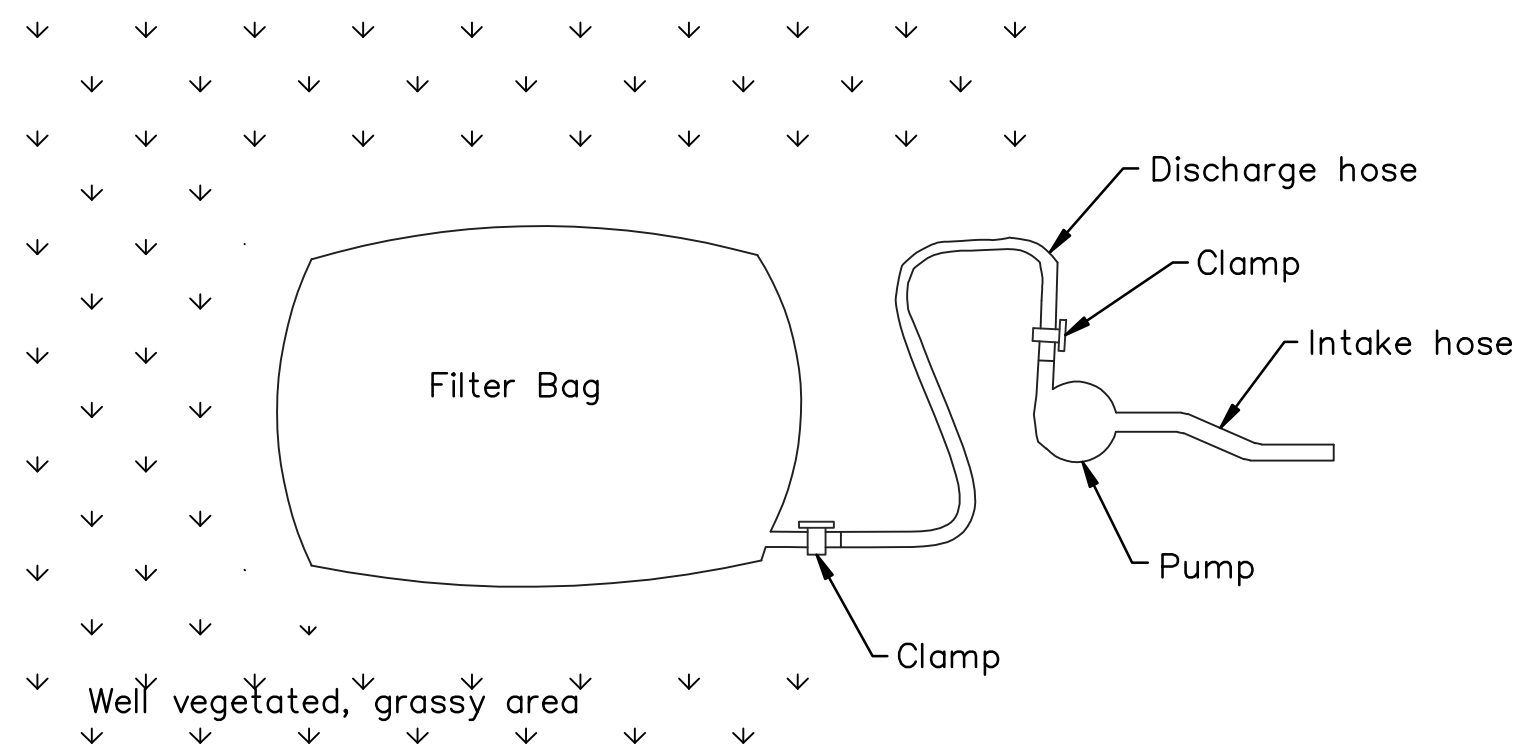
CONTRACTOR:	
DATE:	
SIGNATURE:	

NOTES:

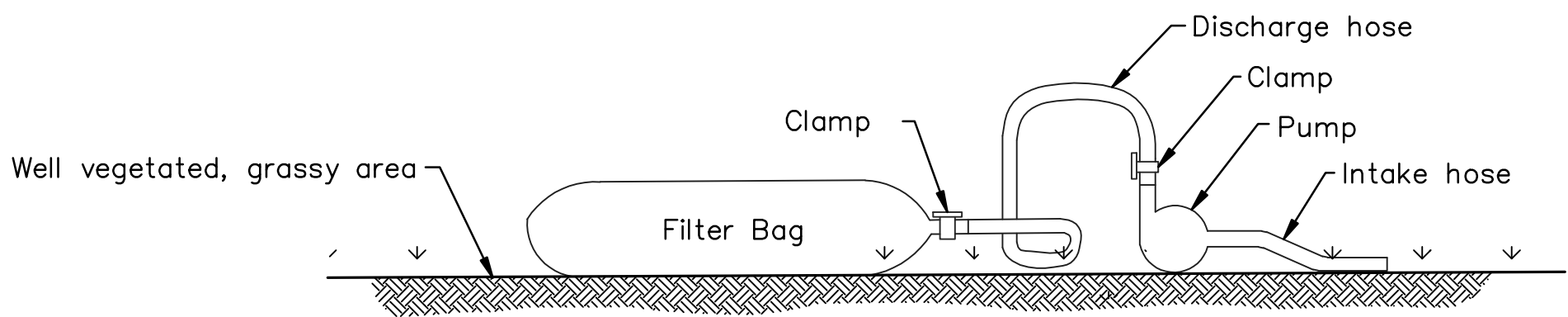
- For General E&S Notes, see Dwg. ES-3.
- For General E&S Details, see Dwg. ES-1 and ES-2.
- For E&S Detailed Plans, see Dwg. ES-4 thru ES-10.

NO.	DATE	REVISION	APPR.
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APPROVED			
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COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF GENERAL SERVICES HARRISBURG, PENNSYLVANIA			
PROJECT NO. D.G.S. 181-21			
RUSHBROOK CREEK PROJECT			
BOROUGH OF JERMYN LACKAWANNA COUNTY, PENNSYLVANIA			
E & S PLAN STA. -5+00 TO STA. -2+24.88			
DRAWN BY J.A.D.	DATE 11-30-09	DRAWING NO. ES-10	
CHECKED BY	SCALE As Shown		

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CONDITIONS SHALL BE CHECKED
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AT THE SITE.



PLAN VIEW



ELEVATION VIEW

PUMPED WATER FILTER BAG

No Scale

NOTE:

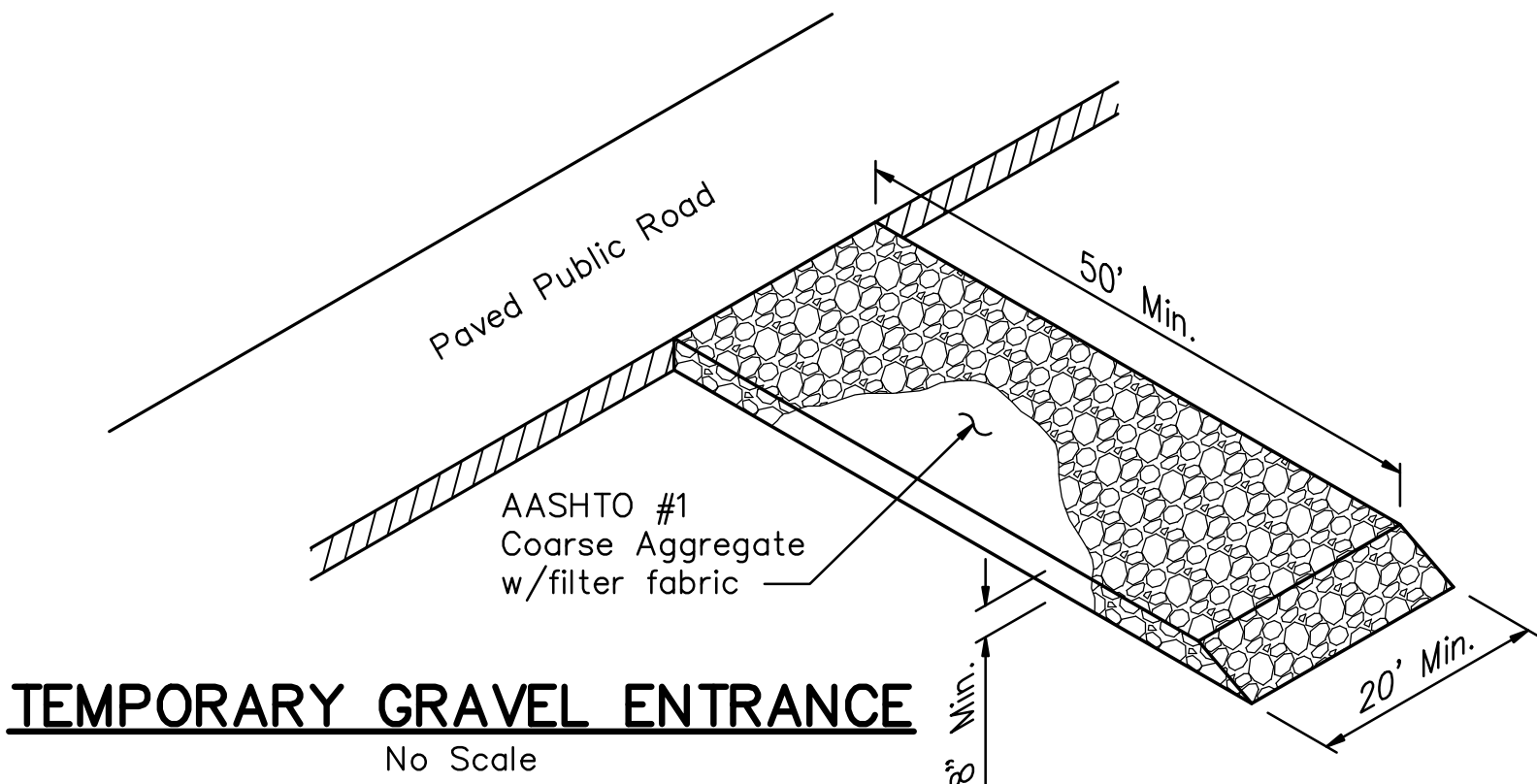
Filter bags shall be made from non-woven geotextile material sewn with high strength, double stitched "J" type seams. They shall be capable of trapping particles larger than 150 microns.

Provide a suitable means of accessing the bag with machinery required for disposal purposes. Filter bags shall be replaced when they become 1/2 full. Spare bags shall be kept available for replacement of those that have failed or are filled.

Locate bags in well-vegetated (grassy) area, and discharge onto stable, erosion resistant areas. Where this is not possible, provide a geotextile flow path. Bags shall not be placed on slopes greater than 5%.

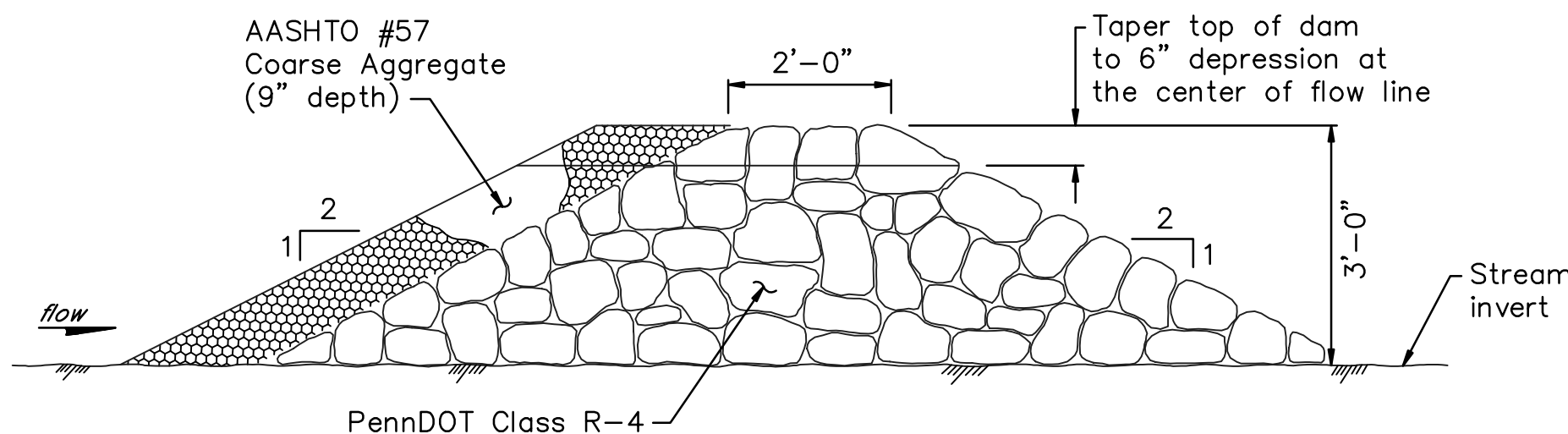
Insert the pump discharge hose into the bags in the manner specified by the Manufacturer and securely clamp.

The pumping rate shall be no greater than 750 gpm or 1/2 the maximum specified by the Manufacturer, whichever is less. Pump intakes should be floating and screened.



TEMPORARY GRAVEL ENTRANCE

No Scale



TEMPORARY ROCK DAM

No Scale

Note: Install in existing creek bed immediately downstream of proposed work areas.

DETAILED E&S CONTROL PLAN			
CONTRACTOR:			
DATE:			
SIGNATURE:			

NOTES:

- For General E&S Notes, see Dwg. ES-3.
- For General E&S Details, see Dwg. ES-1 and ES-2.
- For E&S Detailed Plans, see Dwg. ES-4 thru ES-10.

NO.	DATE	REVISION	APPR.
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APPROVED			
CHIEF - DIVISION OF PROJECT DEVELOPMENT - D.E.P.			
APPROVED			
DIRECTOR - BUREAU OF WATERWAYS ENGINEERING AND WETLANDS - D.E.P.			
PROFESSIONAL'S SIGNATURE DATE PROFESSIONAL'S SIGNATURE DATE			
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF WATER MANAGEMENT			
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF GENERAL SERVICES HARRISBURG, PENNSYLVANIA			
PROJECT NO. D.G.S. 181-21			
RUSHBROOK CREEK PROJECT			
BOROUGH OF JERMYN LACKAWANNA COUNTY, PENNSYLVANIA			
EROSION AND SEDIMENT CONTROL DETAILS			
DRAWN BY A.J.M.	DATE 8-15-12	DRAWING NO.	
CHECKED BY	SCALE As Shown	ES-2	

ALL DIMENSIONS AND EXISTING
CONDITIONS SHALL BE CHECKED
AND VERIFIED BY CONTRACTOR
AT THE SITE.

E&S GENERAL NOTES

The following General Directives apply to all phases of construction activities:

1. Contractor shall conduct all work in accordance with the latest version of the "Erosion and Sediment Pollution Control Program Manual", published by the DEP Bureau of Watershed Management.
2. A copy of the approved Erosion and Sediment Control Plan must be available at the project site at all times.
3. Special care shall be taken to prevent sediment laden stormwater from entering all stormwater management and conveyance facilities until the site has been properly stabilized.
4. During construction, the Contractor is to make certain all runoff is directed to the sediment control devices. Erosion and sediment BMPs must be constructed, stabilized, and functional before site disturbance begins within the tributary areas of those BMPs.
5. All erosion and sedimentation pollution control measures shall remain in place until the site has been stabilized. Vegetated areas are considered to be stabilized when a uniform 70 percent vegetative cover of erosion resistant perennial species has been achieved, or the disturbed area is covered with an acceptable BMP which permanently minimizes accelerated erosion and sedimentation. Until such time as this standard is achieved, interim stabilization measures and temporary erosion and sediment control BMPs that are used to treat project runoff may not be removed. Until the site is stabilized, all erosion and sediment control BMPs must be maintained properly. Maintenance must include inspections of all erosion and sediment control BMPs after each runoff event and on a weekly basis. All preventative and remedial maintenance work, including cleanout, repair, replacement, regrading, reseeding, mulching and renetting must be performed immediately. If erosion and sediment control BMPs fail to perform as expected, replacement BMPs or modifications of those installed will be required.
6. After final site stabilization has been achieved, temporary erosion and sediment BMPs must be removed. Areas disturbed during removal of the BMPs must be stabilized immediately.
7. Erosion and sediment BMPs must be constructed, stabilized, and functional before site disturbance begins within the tributary areas of those BMPs.
8. All soil stockpiles shall be seeded with a grass cover immediately to avoid prolonged exposure of the bare soil material to rainfall events. If the area is expected to be disturbed again during the construction process, the temporary seed mixture may be utilized. Stockpiles shall not be greater than 35 feet in height, nor shall stockpile slopes be steeper than 2 to 1. Whenever possible, place all excavated material upslope from disturbed areas. Stockpiles shall be set parallel to grade to reduce runoff.
9. All vehicles and equipment must enter and exit disturbed areas through temporary rock construction entrances.
10. In all cases during construction, the area of disturbance should be minimized.
11. Silt barrier BMP's shall be placed end to end, securely staked in place, and maintained until area is stabilized.
12. All pumping of sediment laden water shall be through a sediment control BMP, such as a pumped water filter bag or equivalent sediment removal facility, over undisturbed vegetated areas.
13. Upon general completion of the site improvements, topsoil shall be placed and final grading passes shall be made perpendicular to the direction of runoff.
14. Reseed and reestablish any barren and disturbed areas not having established ground cover.
15. Any disturbed area must be stabilized immediately. If the area is expected to be disturbed again during the construction process, the temporary seed mixture may be utilized. During non-germinating periods, mulch must be applied at the recommended rates. Disturbed areas which are not at finished grade and which will be redistributed within 1 year may be stabilized in accordance with temporary seeding specifications. Disturbed areas which are either at finished grade or will not be redistributed within 1 year must be stabilized in accordance with permanent seeding specifications.
16. In all cases, care should be taken to prevent the entry of soil, stone, or other materials and refuse into existing drainage pipes and swales, as well as wetland areas on the site.
17. The Contractor shall be cognizant of appropriate seasons for planting grass seed mixtures, and plan his construction schedule to appropriately utilize the best times of the year for germination of the seed and stabilization of the site.
18. Wherever the term "Seeding" is mentioned in the Construction Sequence or in the Erosion and Sediment Pollution Control Plan, the term means the entire soil preparation, seeding, mulching, and maintenance in accordance with TS 32--Seeding.
19. Sediment and soil material that is removed from clogged or full BMPs shall be disposed of by thoroughly mixing with other suitable fill materials on the project site, and incorporated into fill in upland areas of the project site. The fill area and other disturbed areas shall be stabilized in accordance with the Erosion and Sediment Pollution Control Plan. In no case shall the sediment or "waste" soil material be carelessly dumped or otherwise placed in a manner that causes the material to again be eroded and transported by runoff, either on or off the project site.
20. The Contractor shall dispose of waste materials obtained from demolition activities in a legal manner, and shall recycle as much of the waste material as possible, in accordance with applicable sections of the contract specifications. All building materials and wastes must be removed from the site and recycled or disposed of in accordance with the Department's Solid Waste Management Regulations at 25 PA Code 260.1 et seq., 271.1, and 287.1 et seq. No building materials or wastes or unused building materials shall be burned, buried, dumped, or discharged at the site.

21. Should any soil materials be removed from the site at any time, the soil materials must be disposed of properly. The Contractor will be responsible for the proper removal and disposal of any excess topsoil and fill material from the site. The receiving site must have a Soil Erosion and Sedimentation Control Plan approved by the Department prior to the placement of any fill. In addition, the receiving site may require a NPDES Permit.
22. Immediately upon discovering unforeseen circumstances posing the potential for accelerated erosion and/or sediment pollution, the Contractor shall implement appropriate best management practices to eliminate the potential for accelerated erosion and/or sediment pollution. Should additional or unexpected erosion or sedimentation occur during construction, or questions regarding the maintenance control practices arise, contact the Bureau of Waterways Engineering and Wetlands.
23. The Chapter 93 Water Classification for Rushbrook Creek is CWF.

TEMPORARY CONTROL MEASURES

1. During construction, the Contractor shall keep the site well drained at all times. Erosion and sediment BMPs must be constructed, stabilized, and functional before site disturbance begins within the tributary areas of those BMPs.
2. Any waste material accumulated during construction, which will not be reused in later construction, shall be removed from the site and disposed of in a responsible and legal manner.
3. All unstabilized soil stockpiled temporarily shall be covered with a tarp or other suitable stabilization (seeded) in order to prevent washoff when precipitation is imminent.
4. Silt barrier BMP's shall be placed at critical erosion areas, as shown on the plan, in order to prevent sediment from entering onto public roadways, adjacent properties and waterways.
5. Stabilized construction entrances shall be placed at the point of construction ingress and egress to the project site. This structure will prevent tracking and flowing of sediment onto the public roadway. The entrance shall remain functional for the duration of the project, or determined no longer necessary for a specific site by the Department.
6. Where dust or wind erosion is a problem, the unstable surface(s) shall be sprinkled with water or other suitable dust suppressor.
7. Any water pumped from sanitary, storm, or utility trenches, for any reason, shall be directed through a BMP such as a sediment filter bag discharging over non--disturbed areas.
8. The Contractor shall employ measures during construction to prevent spills of fuels or lubricants. If a spill occurs, it shall be controlled immediately to prevent its entry into nearby waterways.
9. All earth moving activities shall be carried out in such a manner as to minimize the amount of disturbed area.
10. Responsibility for implementing erosion and sedimentation control shall be designated to a minimum of one individual who will be present at the project site daily.
11. When the Engineer, Municipal Official, or County Representative determines that erosion control measures are necessary, that were not foreseen in the design stage, said Official shall estimate the erosion potential and select measures on the basis of both cost effectiveness and the consequences of the erosion.
12. Any temporary erosion control measure applied to exposed soil surfaces shall remain functional until vegetation cover is sufficiently established.
13. All temporary erosion and sedimentation control materials shall be subject to applicable regulations of the Department of Transportation Form 408 Specifications, most recent edition.
14. After final site stabilization has been achieved, temporary erosion and sediment BMP controls must be removed. Areas disturbed during removal of the BMPs must be stabilized immediately.

MAINTENANCE PROGRAM

1. Until the site is stabilized, all erosion and sediment control BMPs must be maintained properly. Maintenance must include inspections of all erosion and sediment control BMPs after each runoff event and on a weekly basis. All preventative and remedial maintenance work, including cleanout, repair, replacement, regrading, reseeding, mulching and renetting must be performed immediately. If erosion and sediment control BMPs fail to perform as expected, replacement BMPs or modifications of those installed will be required.
2. The Permittee and Contractor must ensure that visual site inspections are conducted weekly, and after each measurable precipitation event by qualified personnel, trained and experienced in erosion and sediment control, to ascertain that the erosion and sediment control (E&S) BMPs are operational and effective in preventing pollution to the waters of the Commonwealth. A written report of each inspection shall be kept, and include:

1) A summary of the site conditions, E&S BMPs, and compliance; and

2) The date, time, and the name of the person conducting the inspection.
3. A rock construction entrance shall be placed at the point of construction ingress and egress. The structure will prevent tracking and flowing of sediment onto existing stabilized areas. Clean and redress the rock construction entrance when the voids become choked with mud and sediment. The entrance shall remain functional for the duration of the project.
4. Where dust or wind erosion is a problem, the unstable surface(s) shall be sprinkled with water or other suitable dust suppressor.

SEQUENCE OF CONSTRUCTION

All earth disturbance activities shall proceed in accordance with the following sequence. Each stage shall be completed and immediately stabilized before any following stage is initiated. Clearing, grubbing, and topsoil stripping shall be limited only to those areas described in each stage. All proposed stream diversion and dewatering measures shall conform and be implemented in accordance with the Erosion and Sediment Control Plans.

Immediately upon discovering unforeseen circumstances posing the potential for accelerated erosion and/or sediment pollution, the Contractor shall implement appropriate best management practices to eliminate the potential for accelerated erosion and/or sediment pollution.

1. At least 7 days before starting any earth disturbance activities, the Contractor shall invite all Sub--Contractors involved in those activities, the Department the Erosion and Sediment Control Plan Preparer, and a Representative of the County Conservation District to an on--site pre--construction meeting.
2. At least 3 days before starting any earth disturbance activities, all Contractors involved in those activities shall notify the Pennsylvania One Call System Incorporated at 1--800--242--1776 for the location of existing underground utilities.
3. Construct the temporary rock construction entrances as shown on the plans. All vehicles entering the site shall do so via the rock construction entrances. Any mud or sediment tracked onto macadam roadways shall be removed by the Contractor at the end of each working day. Washing of the roadway is not permitted. The Contractor is also responsible for all traffic control devices associated with the access drive throughout the term of construction activities.
4. Field--mark all waters of the Commonwealth boundaries including stream buffers, wetland boundaries, floodways, etc.
5. Field--mark the project limit of disturbance.
6. Install silt barrier BMP's as necessary to perform construction of the project to protect the water body from sediment runoff.
7. Clear and grub the area of proposed construction. Strip topsoil and stockpile at the temporary areas provided, surround with filter fabric and seed per temporary seeding specifications, fertilize and mulch.
8. Construct the project beginning at the downstream end and progress upstream, in 500 foot segments.
9. Coordinate and overlap segments to provide continuous erosion and sedimentation control for the entire project length.
10. Replace topsoil and stabilize all exposed or disturbed areas by performing final grading operations at the soil material stockpile areas. Seed, fertilize and mulch exposed or disturbed areas.
11. Perform fine grading operations at disturbed areas adjacent to the channel/culvert, and seed the disturbed areas with permanent seed mixture.
12. Upon completion of all earth disturbance activities, removal of all temporary BMPs, and permanent *stabilization of all disturbed areas, the Contractor shall contact the Department for a final inspection. Proper disposal and/or recycling of the BMPs is required by the Site Contractor as per General E&S Notes.

*Stabilization -- Permanent stabilization is defined as a minimum uniform 70% perennial vegetative cover or other permanent non--vegetative cover with a density sufficient to resist accelerated surface erosion and subsurface characteristics sufficient to resist sliding and other movements.

5. Any temporary erosion control measure applied to exposed soil surfaces shall remain functional until vegetative cover is sufficiently established.
6. Permanent soil protection will be completed as early as practical.
7. Any debris accumulated at silt barrier BMP's shall be removed and properly disposed. Barriers shall be checked daily and realigned or reset as required. Remove sediment when it reaches on half of barrier height.
8. Any sediment removed from BMPs during construction will be returned to upland areas on site and incorporated into the site grading.
9. All channels must be kept free of obstructions such as fill ground, fallen leaves and woody debris, accumulated sediment, and construction materials/wastes. Channels should be kept mowed and/or free of all weedy, brushy or woody growth.
10. Vegetated channels shall be constructed free of rocks, tree roots, stumps or other projections that will impede normal channel flow and/or prevent good lining to soil contact. The channel shall be initially over--excavated to allow for topsoil placement.
11. Vegetative stabilization shall be periodically inspected for proper growth. Any areas not responding shall be promptly reseeded. Areas which show signs of erosion prior to stabilization shall be graded, reseeded and mulched as soon as possible. Sod shall be utilized at areas where seeding does not appear to be properly stabilizing an area.
12. Clean and redress the rock filter berms when the voids become choked with mud and sediment. Rock filter berms shall remain functional for the duration of the project.

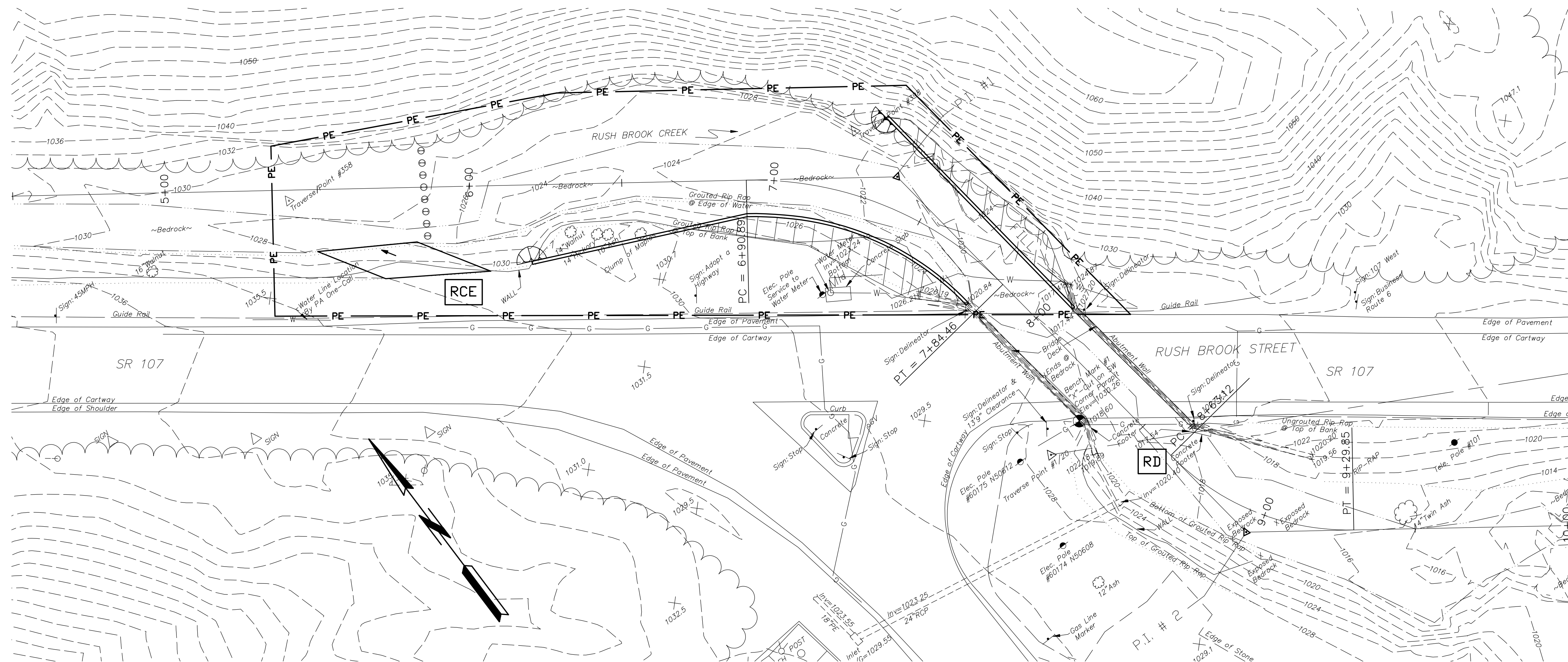
DETAILED E&S CONTROL PLAN		
CONTRACTOR:		
DATE:		
SIGNATURE:		

NOTES:

1. For General E&S Notes, see Dwg. ES--3.
2. For General E&S Details, see Dwg. ES--1 and ES--2.
3. For E&S Detailed Plans, see Dwg. ES--4 thru ES--10.

NO.	DATE	REVISION	APPR.
SUBMITTED			
PROJECT COORDINATOR -- D.E.P.			
APPROVED			
CHIEF -- DIVISION OF PROJECT DEVELOPMENT -- D.E.P.			
APPROVED			
DIRECTOR -- BUREAU OF WATERWAYS ENGINEERING AND WETLANDS -- D.E.P.			
PROFESSIONAL'S SIGNATURE		DATE	PROFESSIONAL'S SIGNATURE
			DATE
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF WATER MANAGEMENT			
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF GENERAL SERVICES HARRISBURG, PENNSYLVANIA			
PROJECT NO. D.G.S. 181--21			
RUSHBROOK CREEK PROJECT			
BOROUGH OF JERMYN LACKAWANNA COUNTY, PENNSYLVANIA			
EROSION AND SEDIMENT CONTROL GENERAL NOTES			
DRAWN BY	DATE	DRAWING NO.	
A.J.M.	8--15--12	ES--3	
CHECKED BY	SCALE		
	As Shown		

ALL DIMENSIONS AND EXISTING
CONDITIONS SHALL BE CHECKED
AND VERIFIED BY CONTRACTOR
AT THE SITE.



LEGEND

_____ PE _____ PERMANENT EASEMENT
 _____ TE _____ TEMPORARY EASEMENT
 [RD] TEMPORARY ROCK DAM
 [RCE] TEMPORARY ROCK CONSTRUCTION ENTRANCE

DETAILED E&S CONTROL PLAN

CONTRACTOR:	
DATE:	
SIGNATURE:	

NOTES:

1. For General E&S Notes, see Dwg. ES-3.
2. For General E&S Details, see Dwg. ES-1 and ES-2.
3. For E&S Detailed Plans, see Dwg. ES-4 thru ES-10.

NO.	DATE	REVISION	APP

SUBMITTED

PROJECT COORDINATOR - D.E.P.

APPROVED

CHIEF - DIVISION OF PROJECT DEVELOPMENT - D.E.P.

APPROVED

DIRECTOR - BUREAU OF WATERWAYS ENGINEERING AND WETLANDS - D.E.P.

PROFESSIONAL'S SIGNATURE _____ DATE _____ PROFESSIONAL'S SIGNATURE _____ DATE _____

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF WATER MANAGEMENT

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
HARRISBURG, PENNSYLVANIA

PROJECT NO. D.G.S. 181-21

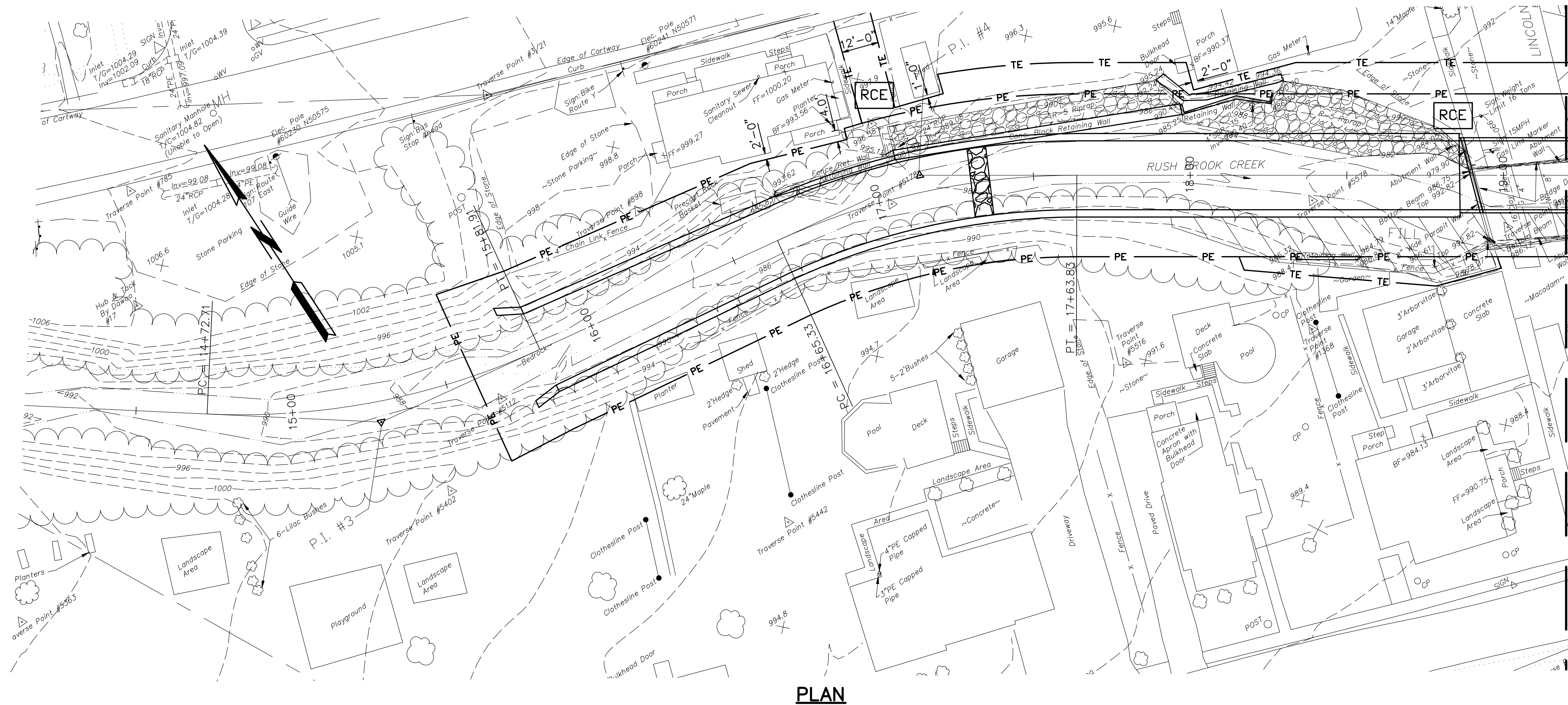
RUSHBROOK CREEK PROJECT

BOROUGH OF JERMYN
LACKAWANNA COUNTY, PENNSYLVANIA

E & S PLAN
STA. 5+00 TO STA. 9+00

DRAWN BY J.A.D.	DATE 11-30-09	DRAWING NO. ES-4
CHECKED BY	SCALE As Shown	

ALL DIMENSIONS AND EXISTING
CONDITIONS SHALL BE CHECKED
AND VERIFIED BY CONTRACTOR
AT THE SITE.



LEGEND

PE PERMANENT EASEMENT
TE TEMPORARY EASEMENT

RD TEMPORARY ROCK DAM
RCE TEMPORARY ROCK CONSTRUCTION ENTRANCE

DETAILED E&S CONTROL PLAN

CONTRACTOR:	
DATE:	
SIGNATURE:	

- NOTES:**
- For General E&S Notes, see Dwg. ES-3.
 - For General E&S Details, see Dwg. ES-1 and ES-2.
 - For E&S Detailed Plans, see Dwg. ES-4 thru ES-10.

NO.	DATE	REVISION	APPR.

SUBMITTED

PROJECT COORDINATOR - D.E.P. _____

APPROVED

CHIEF - DIVISION OF PROJECT DEVELOPMENT - D.E.P. _____

APPROVED

DIRECTOR - BUREAU OF WATERWAYS ENGINEERING AND WETLANDS - D.E.P. _____

PROFESSIONAL'S SIGNATURE _____ DATE _____ PROFESSIONAL'S SIGNATURE _____ DATE _____

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF WATER MANAGEMENT

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
HARRISBURG, PENNSYLVANIA

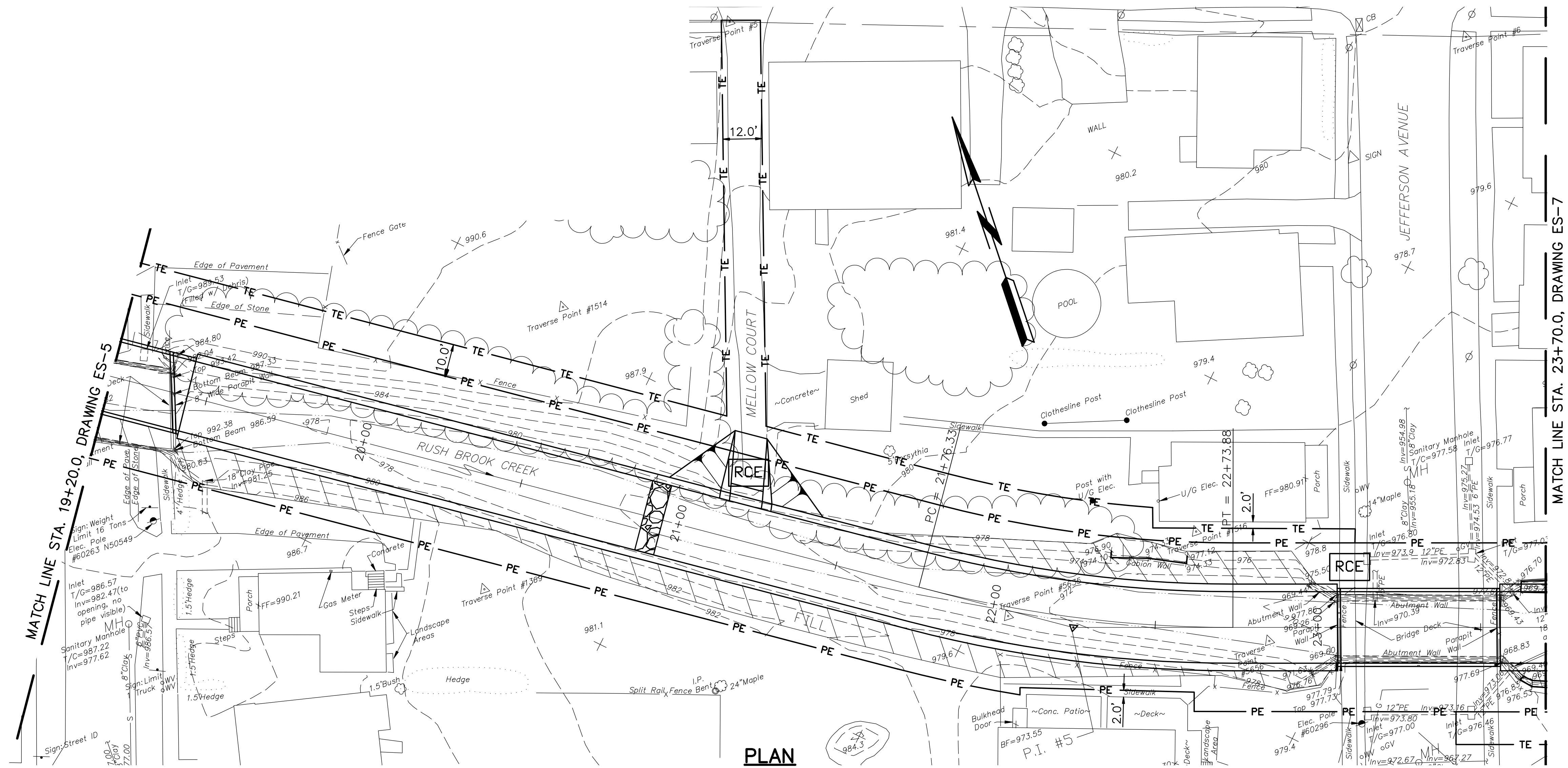
PROJECT NO. D.G.S. 181-21

RUSHBROOK CREEK PROJECT
BOROUGH OF JERMYN
LACKAWANNA COUNTY, PENNSYLVANIA

E & S PLAN
STA. 14+50 TO STA. 19+20

DRAWN BY J.A.D.	DATE 11-30-09	DRAWING NO. ES-5
CHECKED BY	SCALE As Shown	

ALL DIMENSIONS AND EXISTING
CONDITIONS SHALL BE CHECKED
AND VERIFIED BY CONTRACTOR
AT THE SITE.



LEGEND

PE

PERMANENT EASEMENT

TE

TEMPORARY EASEMENT

RD

TEMPORARY ROCK DAM

RCE

TEMPORARY ROCK CONSTRUCTION ENTRANCE

DETAILED E&S CONTROL PLAN	
CONTRACTOR:	
DATE:	
SIGNATURE:	

- NOTES:
1. For General E&S Notes, see Dwg. ES-3.

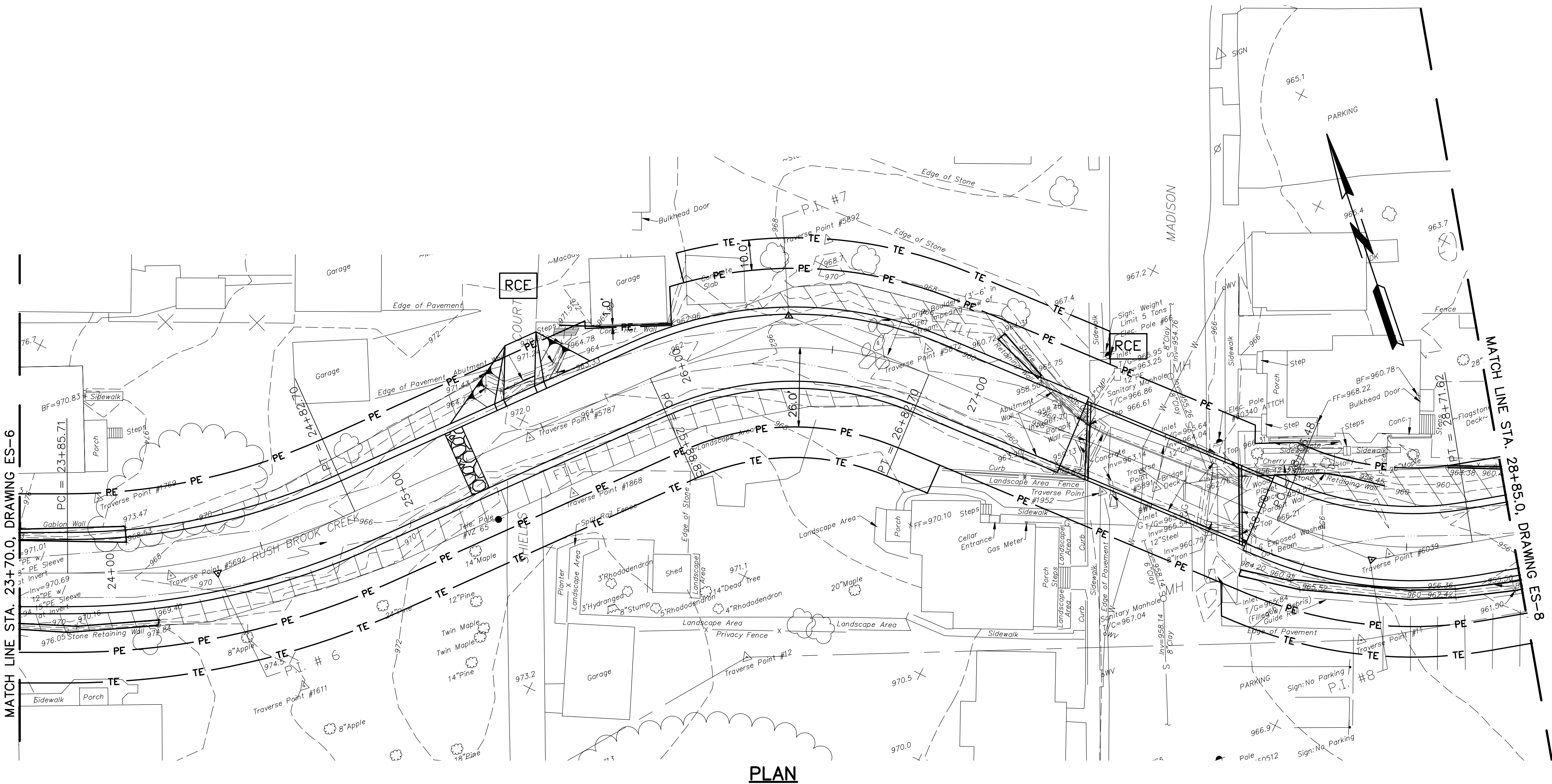
2. For General E&S Details, see Dwg. ES-1 and ES-2.

3. For E&S Detailed Plans, see Dwg. ES-4 thru ES-10.

NO.	DATE	REVISION	APPR.
SUBMITTED			
PROJECT COORDINATOR - D.E.P.			
APPROVED			
CHIEF - DIVISION OF PROJECT DEVELOPMENT - D.E.P.			
APPROVED			
DIRECTOR - BUREAU OF WATERWAYS ENGINEERING AND WETLANDS - D.E.P.			
PROFESSIONAL'S SIGNATURE DATE PROFESSIONAL'S SIGNATURE DATE			
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF WATER MANAGEMENT			
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF GENERAL SERVICES HARRISBURG, PENNSYLVANIA			
PROJECT NO. D.G.S. 181-21			
RUSHBROOK CREEK PROJECT			
BOROUGH OF JERMYN LACKAWANNA COUNTY, PENNSYLVANIA			
E & S PLAN STA. 19+20 TO STA. 23+70			
DRAWN BY J.A.D.	DATE 11-30-09	DRAWING NO. ES-6	
CHECKED BY	SCALE As Shown		

ALL DIMENSIONS AND EXISTING
CONDITIONS SHALL BE CHECKED
AND VERIFIED BY CONTRACTOR
AT THE SITE.

MATCH LINE STA. 23+70.0, DRAWING ES-6



PLAN

LEGEND

PE	PERMANENT EASEMENT
TE	TEMPORARY EASEMENT
RD	TEMPORARY ROCK DAM
RCE	TEMPORARY ROCK CONSTRUCTION ENTRANCE

DETAILED E&S CONTROL PLAN

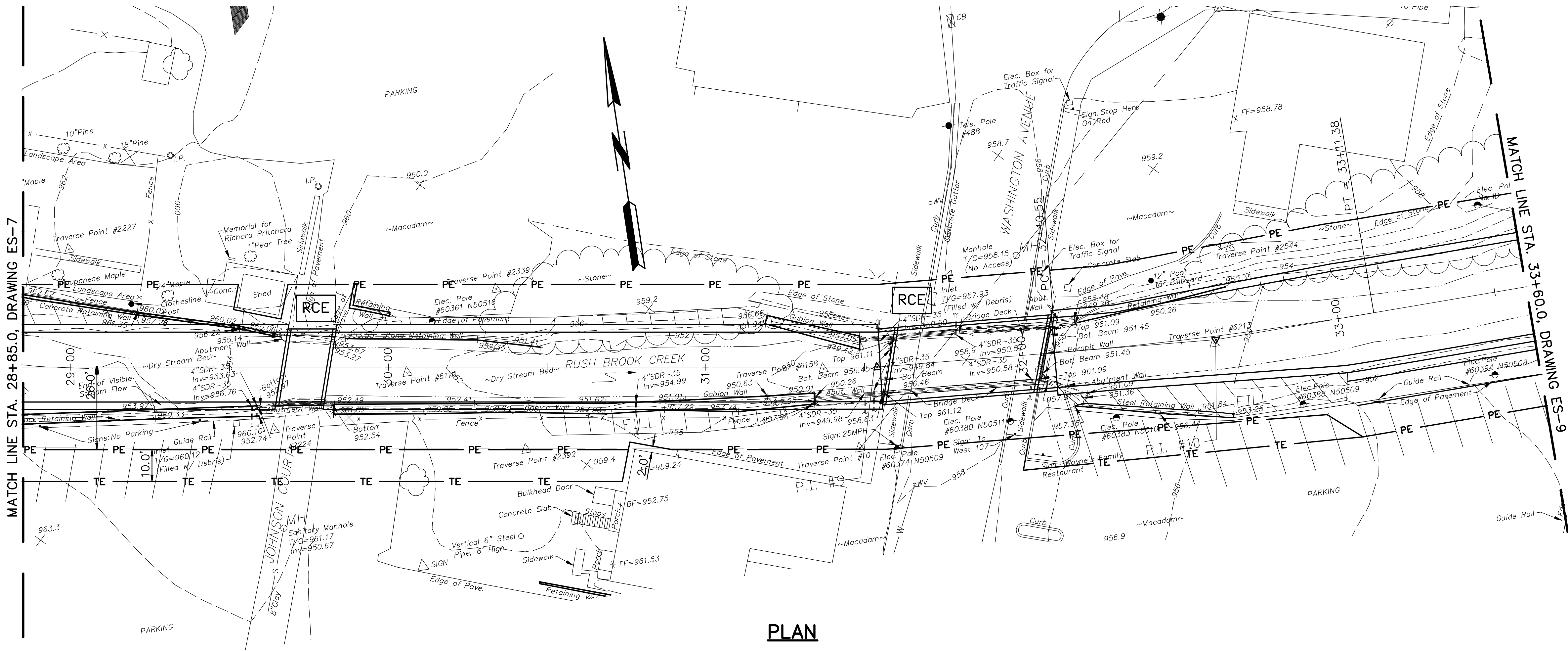
CONTRACTOR:	
DATE:	
SIGNATURE:	

NOTES:

- For General E&S Notes, see Dwg. ES-3.
- For General E&S Details, see Dwg. ES-1 and ES-2.
- For E&S Detailed Plans, see Dwg. ES-4 thru ES-10.

NO.	DATE	REVISION	APPR.
SUBMITTED			
PROJECT COORDINATOR - D.E.P.			
APPROVED			
CHIEF - DIVISION OF PROJECT DEVELOPMENT - D.E.P.			
APPROVED			
DIRECTOR - BUREAU OF WATERWAYS ENGINEERING AND WETLANDS - D.E.P.			
PROFESSIONAL'S SIGNATURE			
DATE			
PROFESSIONAL'S SIGNATURE			
DATE			
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF WATER MANAGEMENT			
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF GENERAL SERVICES HARRISBURG, PENNSYLVANIA			
PROJECT NO. D.G.S. 181-21			
RUSHBROOK CREEK PROJECT			
BOROUGH OF JERMYN LACKAWANNA COUNTY, PENNSYLVANIA			
E & S PLAN STA. 23+70 TO STA. 28+85			
DRAWN BY	DATE	DRAWING NO.	
J.A.D.	11-30-09	ES-7	
CHECKED BY	SCALE	As Shown	

ALL DIMENSIONS AND EXISTING
CONDITIONS SHALL BE CHECKED
AND VERIFIED BY CONTRACTOR
AT THE SITE.



PLAN

LEGEND

- PE PERMANENT EASEMENT
- TE TEMPORARY EASEMENT
- RD TEMPORARY ROCK DAM
- RCE TEMPORARY ROCK CONSTRUCTION ENTRANCE

DETAILED E&S CONTROL PLAN

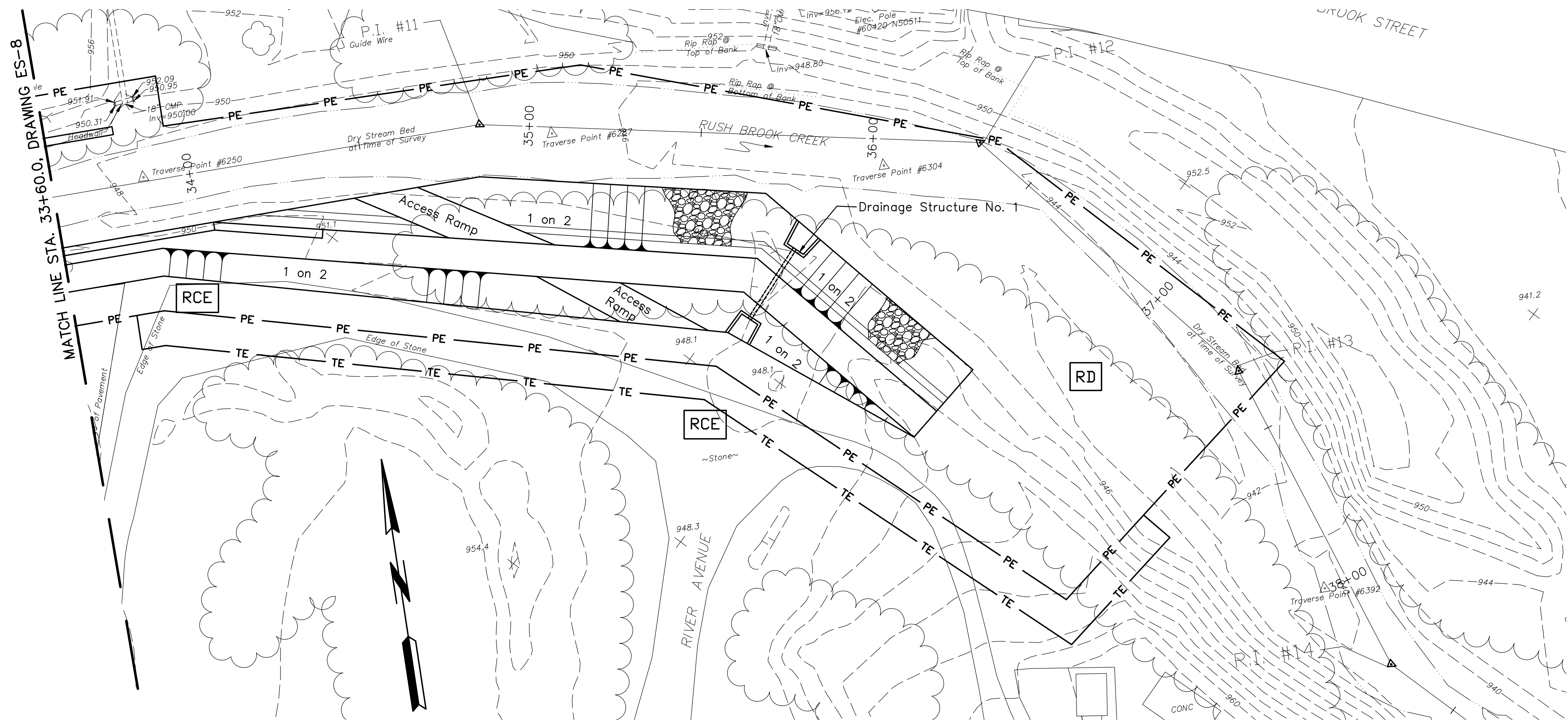
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DATE:	
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NOTES:

- For General E&S Notes, see Dwg. ES-3.
- For General E&S Details, see Dwg. ES-1 and ES-2.
- For E&S Detailed Plans, see Dwg. ES-4 thru ES-10.

NO.	DATE	REVISION	APPR.			
SUBMITTED						
PROJECT COORDINATOR - D.E.P.						
APPROVED						
CHIEF - DIVISION OF PROJECT DEVELOPMENT - D.E.P.						
APPROVED						
DIRECTOR - BUREAU OF WATERWAYS ENGINEERING AND WETLANDS - D.E.P.						
PROFESSIONAL'S SIGNATURE				DATE	PROFESSIONAL'S SIGNATURE	DATE
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF WATER MANAGEMENT						
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF GENERAL SERVICES HARRISBURG, PENNSYLVANIA						
PROJECT NO. D.G.S. 181-21						
RUSHBROOK CREEK PROJECT						
BOROUGH OF JERMYN LACKAWANNA COUNTY, PENNSYLVANIA						
E & S PLAN STA. 28+85 TO STA. 33+60						
DRAWN BY	DATE	DRAWING NO.				
J.A.D.	11-30-09			ES-8		
CHECKED BY	SCALE					
	As Shown					

ALL DIMENSIONS AND EXISTING
CONDITIONS SHALL BE CHECKED
AND VERIFIED BY CONTRACTOR
AT THE SITE.



PLAN

LEGEND

- PE PERMANENT EASEMENT
- TE TEMPORARY EASEMENT
- RD TEMPORARY ROCK DAM
- RCE TEMPORARY ROCK CONSTRUCTION ENTRANCE

DETAILED E&S CONTROL PLAN

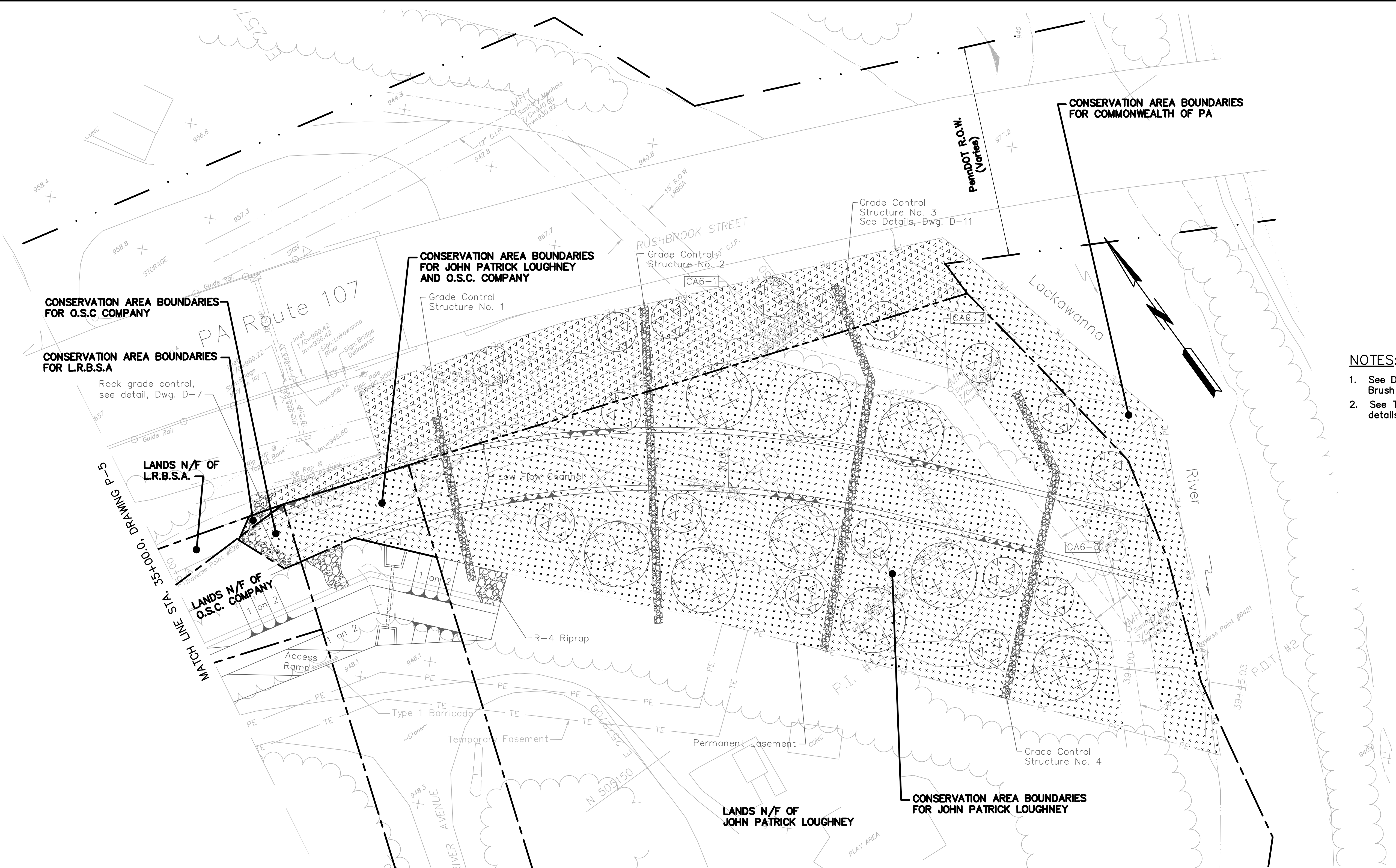
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DATE:	
SIGNATURE:	

NOTES:

- For General E&S Notes, see Dwg. ES-3.
- For General E&S Details, see Dwg. ES-1 and ES-2.
- For E&S Detailed Plans, see Dwg. ES-4 thru ES-10.

NO.	DATE	REVISION	APPR.
SUBMITTED			
PROJECT COORDINATOR - D.E.P.			
APPROVED			
CHIEF - DIVISION OF PROJECT DEVELOPMENT - D.E.P.			
APPROVED			
DIRECTOR - BUREAU OF WATERWAYS ENGINEERING AND WETLANDS - D.E.P.			
PROFESSIONAL'S SIGNATURE DATE PROFESSIONAL'S SIGNATURE DATE			
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF WATER MANAGEMENT			
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF GENERAL SERVICES HARRISBURG, PENNSYLVANIA			
PROJECT NO. D.G.S. 181-21			
RUSHBROOK CREEK PROJECT			
BOROUGH OF JERMYN LACKAWANNA COUNTY, PENNSYLVANIA			
E & S PLAN STA. 33+60 TO STA. 38+50			
DRAWN BY J.A.D.	DATE 11-30-09	DRAWING NO. ES-9	
CHECKED BY	SCALE As Shown		

ALL DIMENSIONS AND EXISTING
CONDITIONS SHALL BE CHECKED
AND VERIFIED BY CONTRACTOR
AT THE SITE.



LEGEND

Rock Grade Control

Log Brush Barrier

Tree Buffer

Shrub Buffer

Conservation Area

Mitigation Work Within PennDOT R.O.W.

Property Line

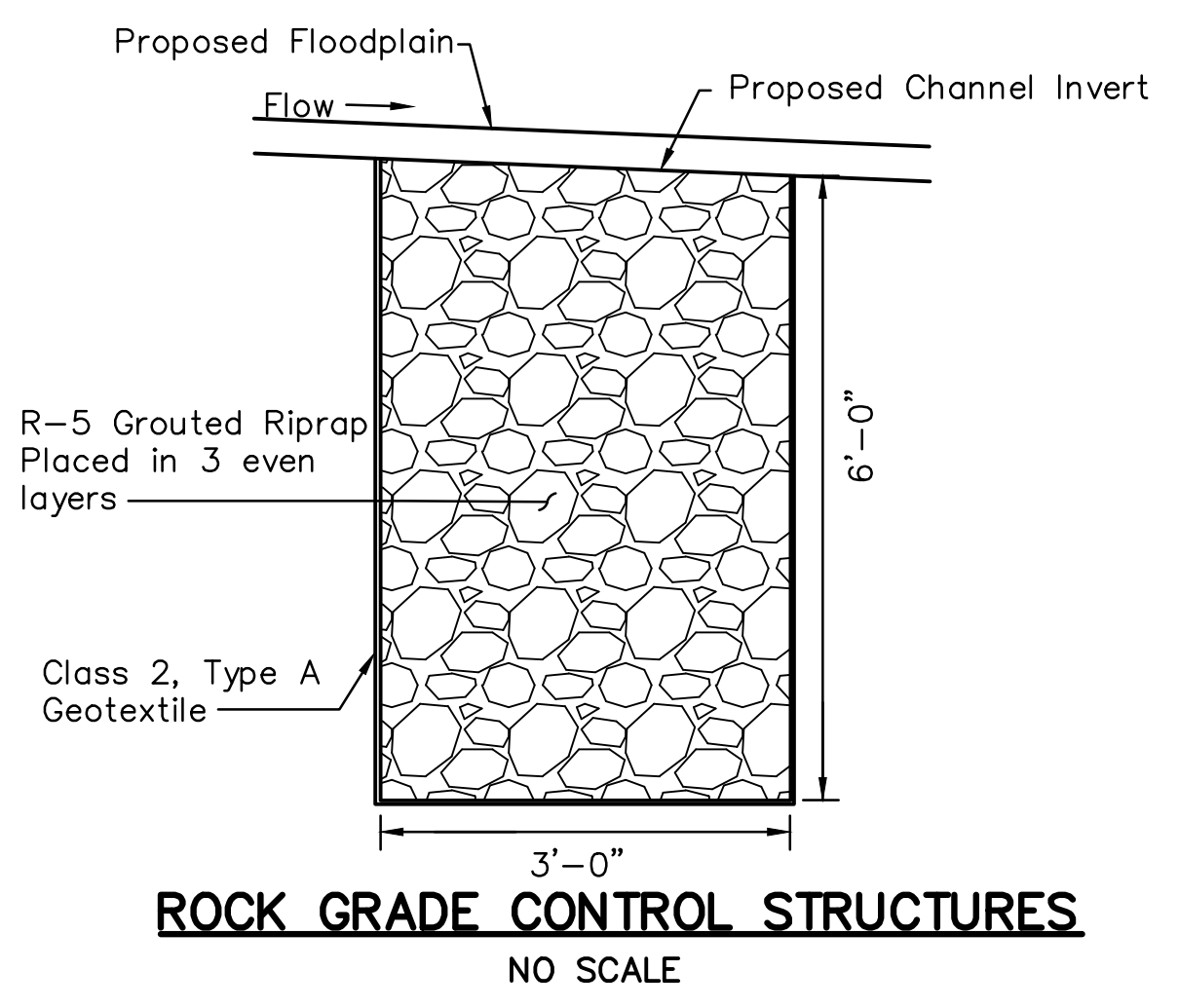
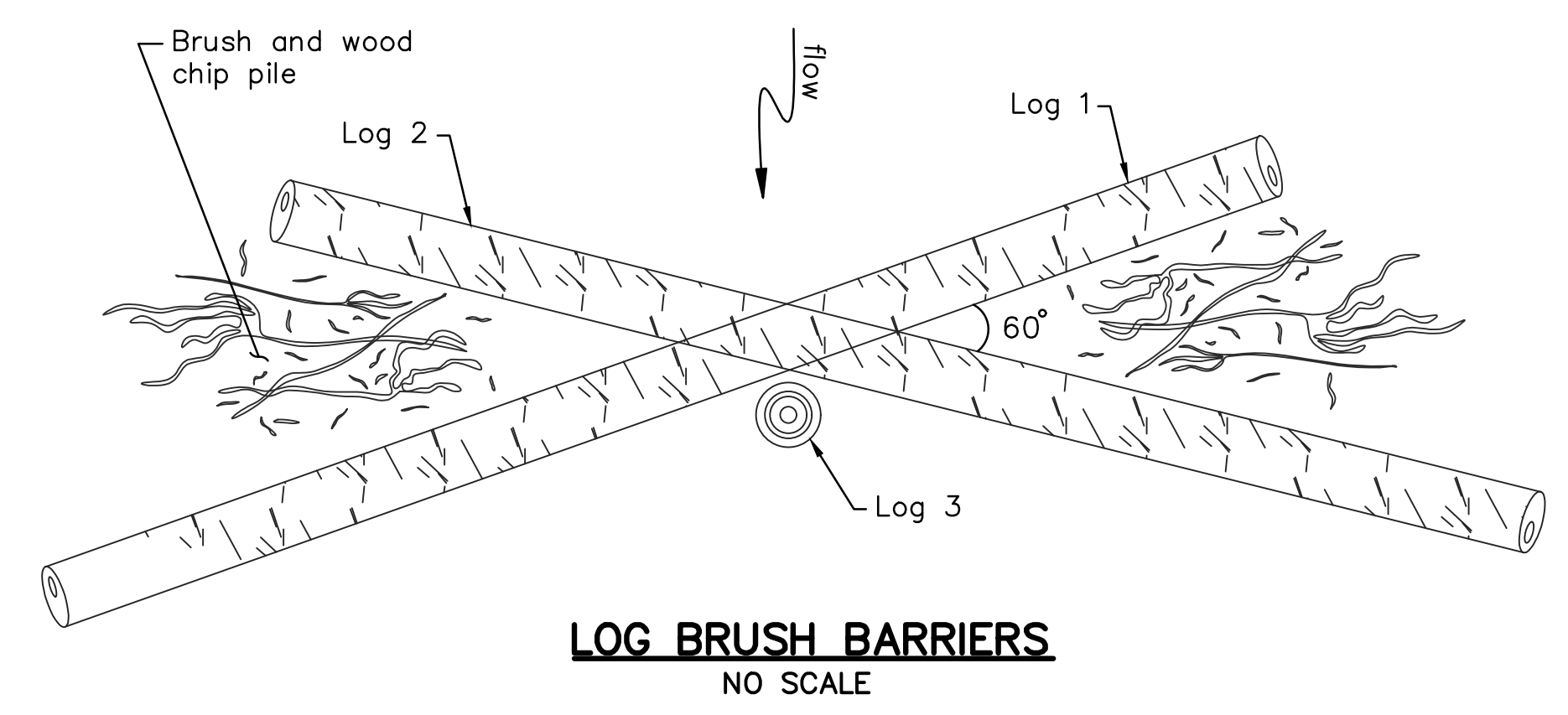
- NOTES:
1. See Drawing D-11 for Grade Control Structure and Log Brush Barrier details.

2. See Technical Specification TS-77 Riparian Planting for details of Tree Buffer and Shrub Buffer plantings.

PLAN

Scale: 1 in. = 20 ft.

20' 0 20'



ROCK GRADE CONTROL STRUCTURES

Structure No.	Sta.	Rock El.
1	36+15	942.9
2	37+00	941.0
3	37+75	939.5
4	38+55	937.9

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
OFFICE OF WATER PROGRAMS

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
HARRISBURG, PENNSYLVANIA

PROJECT NO. D.G.S. 181-21, PH. 1

RUSHBROOK CREEK PROJECT

JERMYN BOROUGH
LACKAWANNA COUNTY, PENNSYLVANIA

EXHIBIT B – CONSERVATION
AREA(S) BOUNDARY MAP

DRAWN BY
A.N.P.

CHECKED BY

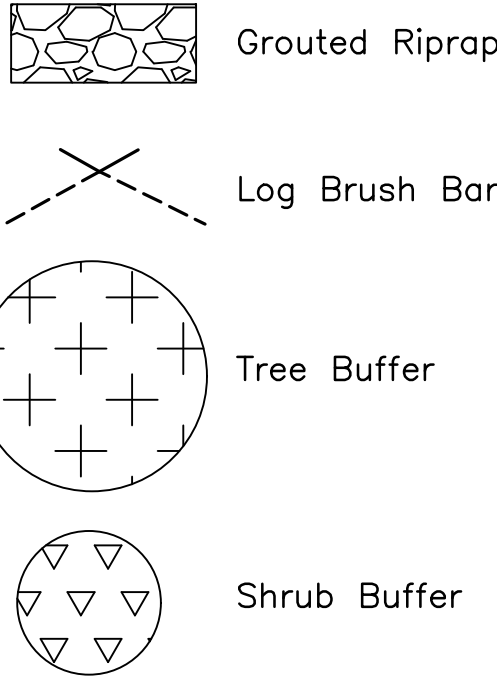
DATE
04/02/2020

SCALE
As Shown

DRAWING NO.
MIT-1

\\PENNSYLVANIA\DESIGN\181-21\W8121_P&P_MIT.dwg, MIT-1, 12/5/2019 2:41:00 PM, anidene, DIF DWG TO PDF.pc3

LEGEND



NOTES:

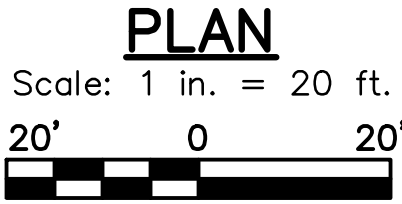
1. See Drawing D-11 for Grade Control Structure and Log Brush Barrier details.
2. See Technical Specification TS-77 Riparian Planting for details of Tree Buffer and Shrub Buffer plantings.

NO.	DATE	REVISION	APPR.
SUBMITTED			
PROJECT COORDINATOR - D.E.P.			
APPROVED			
CHIEF - DIVISION OF PROJECT DEVELOPMENT - D.E.P.			
APPROVED			
DIRECTOR - BUREAU OF WATERWAYS ENGINEERING AND WETLANDS - D.E.P.			
DRAFT			
PROFESSIONAL'S SIGNATURE _____ DATE _____			
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION OFFICE OF WATER PROGRAMS			
COMMONWEALTH OF PENNSYLVANIA DEPARTMENT OF GENERAL SERVICES HARRISBURG, PENNSYLVANIA			
PROJECT NO. D.G.S. 181-21, PH. 1			
RUSHBROOK CREEK PROJECT			
JERMYN BOROUGH LACKAWANNA COUNTY, PENNSYLVANIA			
COMPENSATORY MITIGATION AREA SITE PLAN			
DRAWN BY A. J. J.		DATE 10/25/2017	DRAWING NO.
CHECKED BY		SCALE As Shown	MIT-1

Curve No.	P.I. Coordinates		Δ	D	R	T	L	P.C. Station	P.T. Station
	North	East							
P.I. #12	505,292.00	2,572,724.50	39°-21'-22"						36+31.00
P.I. #13	505,215.00	2,572,789.00	21°-08'-23"						37+31.44
P.I. #14	505,124.00	2,572,820.00	25°-56'-48"						38+27.58
P.O.T. #2	505,040.60	2,572,902.70							39+45.03

CONTRACTOR ADJUSTMENTS

No.	Description	Location		Adjustment Required
		Station	Offset	
CA6-1	Sanitary Sewer Manhole	37+14.0	61.0' Lt.	Protect, Do not disturb
CA4-2	Sanitary Sewer Manhole	37+75.0	79.0' Lt.	Protect, Do not disturb
CA4-3	Sanitary Sewer Manhole	38+98.0	15.0' Lt.	Protect, Do not disturb



ROCK GRADE CONTROL STRUCTURES

Structure No.	Sta.	Rock El.
1	36+15	942.9
2	37+00	941.0
3	37+75	939.5
4	38+55	937.9

