

PUBLIC NOTICE



**US Army Corps
of Engineers
Kansas City District**

**Permit No. 2012-782
Issue Date: October 17, 2012
Expiration Date: November 7, 2012**

21-Day Notice

JOINT PUBLIC NOTICE: This public notice is issued jointly with the Kansas Department of Health and Environment. The Department of Health and Environment will use the comments to this notice in deciding whether to grant Section 401 water quality certification. Commenters are requested to furnish a copy of their comments to the Kansas Department of Health and Environment, Bureau of Water - - Watershed Management Section, 1000 SW Jackson Street, Suite 420, Topeka, Kansas 66612-1367.

APPLICANT: City of Manhattan
City Hall, 1101 Poyntz Avenue
Manhattan, Kansas 66502-5497

PROJECT LOCATION (As shown on the attached drawings): Along the left bank and within the channel of Wildcat Creek in Section 14, Township 10 south, Range 7 east, Riley County, Kansas.
[MANHATTAN USGS QUAD – Latitude: 39.186897 – Longitude: -96.60809].

AUTHORITY: Section 404 of the Clean Water Act (33 USC 1344).

ACTIVITY (As shown on the attached drawings): **PROPOSED:** The proposed clearing, grubbing and shaping of two segments of approximately 410 linear feet of the eroding left streambank. The streambank would be shaped to a 2:1 slope and a rock riprap revetment would be constructed. Precast concrete blocks would be placed along 20 feet that is adjoining to an existing culvert outlet structure. Turf reinforcement mat would be placed on the 2:1 slope directly above the riprap and the disturbed areas would be planted to grass and trees. Six stream barbs would be constructed along the impacted reach. The channel alignment would be reestablished (approximately 490 feet) to accommodate the proposed work along the left bank. This work is part of a Natural Resources Conservation Service Emergency Watershed Protection Program Project. The project purpose as stated by the applicant is to restore and stabilize the outside bank (left bank) of Wildcat Creek to protect two adjacent apartment buildings and reduce the volume of sediment that is being transported downstream.

WETLANDS/AQUATIC HABITAT: There are no known wetlands are present within the project area.

APPLICANT'S STATEMENT OF AVOIDANCE, MINIMIZATION, AND COMPENSATORY MITIGATION FOR UNAVOIDABLE IMPACTS TO AQUATIC RESOURCES:

According to the applicant, the implementation of the Wildcat Creek EWP streambank stabilization project would prevent further degradation of the streambanks at this location. Best management practices would be used to minimize construction related impacts to water quality of the stream. The applicant is proposing onsite permittee responsible mitigation that includes, installation of instream barbs to direct flow away from the north bank, improve bedload sediment transport and improve fish habitat by creating bedform diversity. The disturbed areas would be revegetated with native riparian trees and shrubs to provide shade, bank stability, food and aquatic habitat and improved esthetics. In addition, through formal consultation with the U.S. Fish and Wildlife Service, additional mitigation measures to benefit the Federally listed Endangered Topeka shiner (*Notropis Topeka*) and its habitat are expected to be developed.

ADDITIONAL INFORMATION: Additional information about this application may be obtained by contacting contacting **Luke M. Cory, U.S. Army Corps of Engineers, Kanopolis Regulatory Field Office, 107 Riverside Drive, Marquette, Kansas 67464 at telephone 785-546-2130 (FAX 785-546-2050) or via email at luke.m.cory@usace.army.mil** All comments to this public notice should be directed to the above address.

STATE AUTHORIZATION: The applicant has applied for a permit from the Kansas Department of Agriculture (ECA Notice 2012464) pursuant to Kansas Statutes Annotated 82a-301 to 305.

CULTURAL RESOURCES: Kansas City District will comply with the National Historic Preservation Act of 1966 and 36 CFR 800. We have checked the National Register of Historic Places and the Federal Register and no property listed in the Register or proposed for listing is located in the permit area. This is the extent of our knowledge about historic properties in the permit area at this time. However, we will evaluate input by the State Historic Preservation Officer, Tribal Historic Preservation Officers (or Tribe designated representative) and the public in response to this public notice, and we may conduct or require a reconnaissance survey of the permit area to check for unknown historic properties, if warranted.

ENDANGERED SPECIES: In compliance with the Endangered Species Act, a preliminary determination has been made that the described work would affect the Federally listed, Endangered, Topeka Shiner (*Notropis topeka*) or adversely affect its habitat. In order to complete our evaluation of this activity, comments are solicited from the U.S. Fish and Wildlife Service and other interested agencies and individuals.

FLOODPLAINS: This activity is being reviewed in accordance with Executive Order 11988, Floodplain Management, which discourages direct or indirect support of floodplain development whenever there is a practicable alternative. By this public notice, comments are requested from individuals and agencies that believe the described work will adversely impact the floodplain.

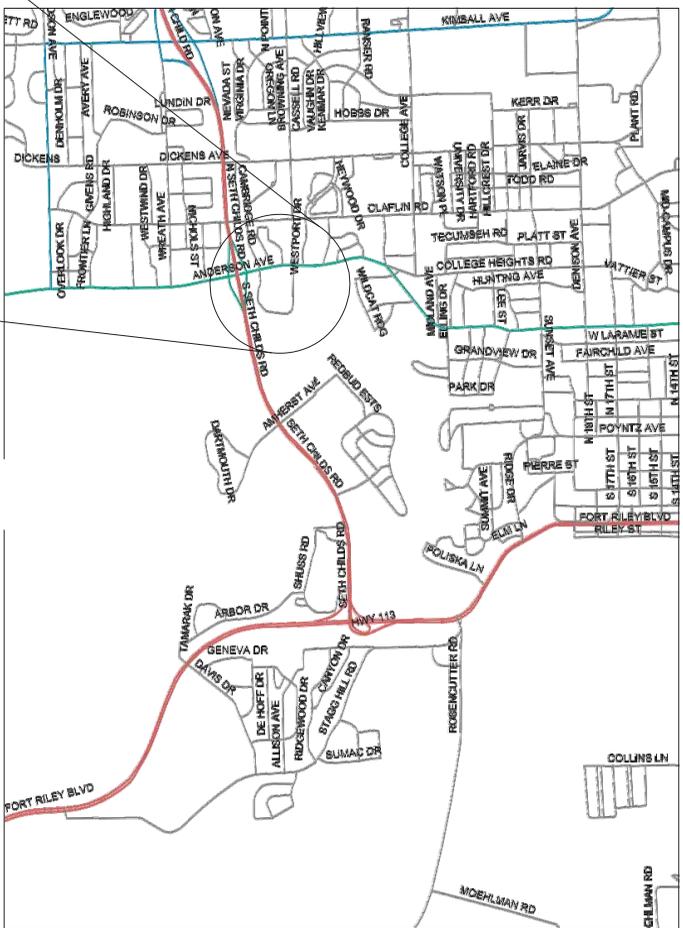
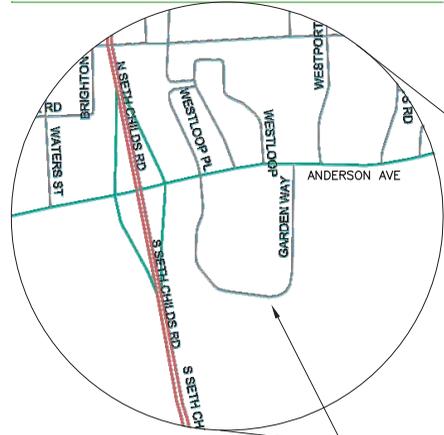
WATER QUALITY CERTIFICATION: Section 401 of the Clean Water Act (33 USC 1341) requires that all discharges of dredged or fill material must be certified by the appropriate state agency as complying with applicable effluent limitations and water quality standards. This public notice serves as an application to the state in which the discharge site is located for certification of the discharge. The discharge must be certified before a Department of the Army permit can be issued. Certification, if issued, expresses the state's opinion that the discharge will not violate applicable water quality standards.

PUBLIC INTEREST REVIEW: The decision to issue a permit will be based on an evaluation of the probable impact including the 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 benefits which reasonably 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, economics, esthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, floodplain 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, in general, the needs and welfare of the people. The evaluation of the impact of the activity on the public interest will include application of the guidelines promulgated by the Administrator, Environmental Protection Agency under authority of Section 404(b) of the Clean Water Act (33 USC 1344). 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 preparation of an Environmental Assessment and/or an Environmental Impact Statement pursuant to the National Environmental Policy Act. Comments are also used to determine the need for a public hearing and to determine the overall public interest of the proposed activity.

COMMENTS: This notice is provided to outline details of the above-described activity so this District may consider all pertinent comments prior to determining if issuance of a permit would be in the public interest. Any interested party is invited to submit to this office written facts or objections relative to the activity on or before the public notice expiration date. Comments both favorable and unfavorable will be accepted and made a part of the record and will receive full consideration in determining whether it would be in the public interest to issue the Department of the Army permit. Copies of all comments, including names and addresses of commenters, may be provided to the applicant. Comments should be mailed to the address shown on page 2 of this public notice.

PUBLIC HEARING: Any person may request, in writing, prior to the expiration date of this public notice, that a public hearing be held to consider this application. Such requests shall state, with particularity, the reasons for holding a public hearing.

ITEM	UNIT	QUANTITY	AS-BUILT QUANTITY
Clearing and Grubbing		Job	
Pollution Control		Job	
Structure Removal		Job	
Excavation:			
West Reach and Streambarbs	Cu.Yd.	640	
East Reach and Streambarbs	Cu.Yd.	860	
Channel	Cu.Yd.	4400	
Earthfill:			
West Reach	Cu.Yd.	105	
East Reach	Cu.Yd.	2200	
Channel	Cu.Yd.	245	
Geotextile			
West Reach	Sq.Yd.	585	
East Reach	Sq.Yd.	800	
Rock Riprap			
West Reach (Class A)	Tons	760	
East Reach (Class A)	Tons	1495	
Basin of Concrete Outlet Structure (Class A)	Tons	50	
Stream Barbs 1 and 2 (Class B)	Tons	255	
Stream Barbs 3, 4, 5, and 6 (Class B)	Tons	400	
Concrete Blocks, 24 inch x 24 inch x 48 inch			
Drainfill	Each	60	
	Cu.Yd.	22	
Turf Reinforcement Mat			
East Reach	Sq.Yd.	525	
West Reach	Sq.Yd.	15	
Safety Fence, Chain Link			
	Lin.Ft.	405	
Seeding and Mulching			
Mix No. 1	Acres	0.5	
Mix No. 2	Acres	0.5	
Mulching	Acres	0.9	



Manhattan, Kansas

Preliminary Plans
9/25/2012

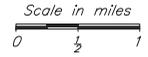
Benchmark Information				
Benchmark	Northing	Easting	Elevation	Description
BM 1	14,239,722.86	2,318,106.14	1034.58	SE corner concrete pad at manhole
BM 2	14,239,722.77	2,318,239.88	1038.23	NW corner of curb
BM 3	14,239,899.90	2,318,369.09	1036.91	Property line pin
BM 4	14,239,763.00	2,318,367.89	1036.52	Center of manhole cover
BM 5	14,239,614.26	2,318,377.91	1037.20	Property line pin

NAD 83 (CORS96) (ITRF 2000)
UTM Zone 14 North, US Survey Feet
NAVD 88 Geoid 09
Base horizontal localization on at least two points.

The project is located on Wildcat Creek, adjacent to Garden Way, approximately 0.2 mile south of Anderson Avenue, in Manhattan, Riley County, Kansas.

Legal description: NE $\frac{1}{4}$, Section 14, Township 10S, Range 7E

Latitude 39.1869°
Longitude -96.6083°



Location Map and Quantities



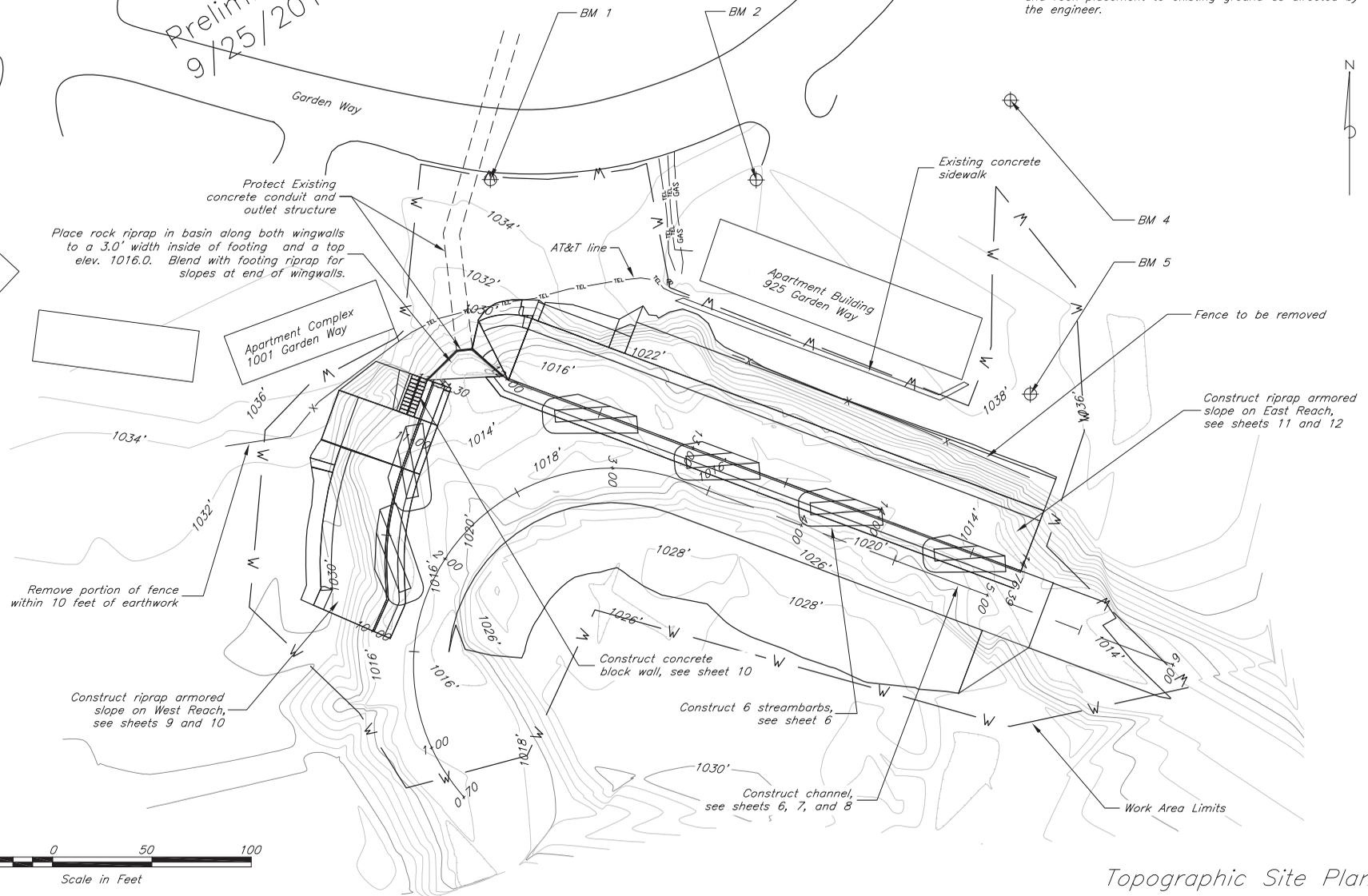
Notes:
 1) Overhead and buried utilities shown are approximate and are not all inclusive. The contractor shall verify the location of all utilities prior to the start of work.
 2) Equipment parking and staging area shall be as shown, and access shall be from Garden Way. Alternate areas for parking, staging, and access are subject to approval by the Contracting Officer.

Preliminary Plans
 9/25/2012
 Existing Site Plan

APPLICATION NO. 2012-782
 CITY OF MANHATTAN
 STREAMBANK PROTECTION
 WILDCAT CREEK
 RILEY COUNTY, KANSAS
 SHEET 2 OF 12
 DATED 17 OCTOBER 2012

Preliminary Plans
9/25/2012

Notes:
1) On the East Reach, near station 12+00, adjust grade of excavation and rock placement to avoid damage to the existing concrete outlet structure. Maintain the finished rock surface at or below the top of the wingwall within 5 feet of the structure.
2) At all other start and end points, blend earthwork and rock placement to existing ground as directed by the engineer.



Topographic Site Plan

APPLICATION NO. 2012-782
CITY OF MANHATTAN
STREAMBANK PROTECTION
WILDCAT CREEK
RILEY COUNTY, KANSAS
SHEET 3 OF 12
DATED 17 OCTOBER 2012

Point Information for West Reach Baseline

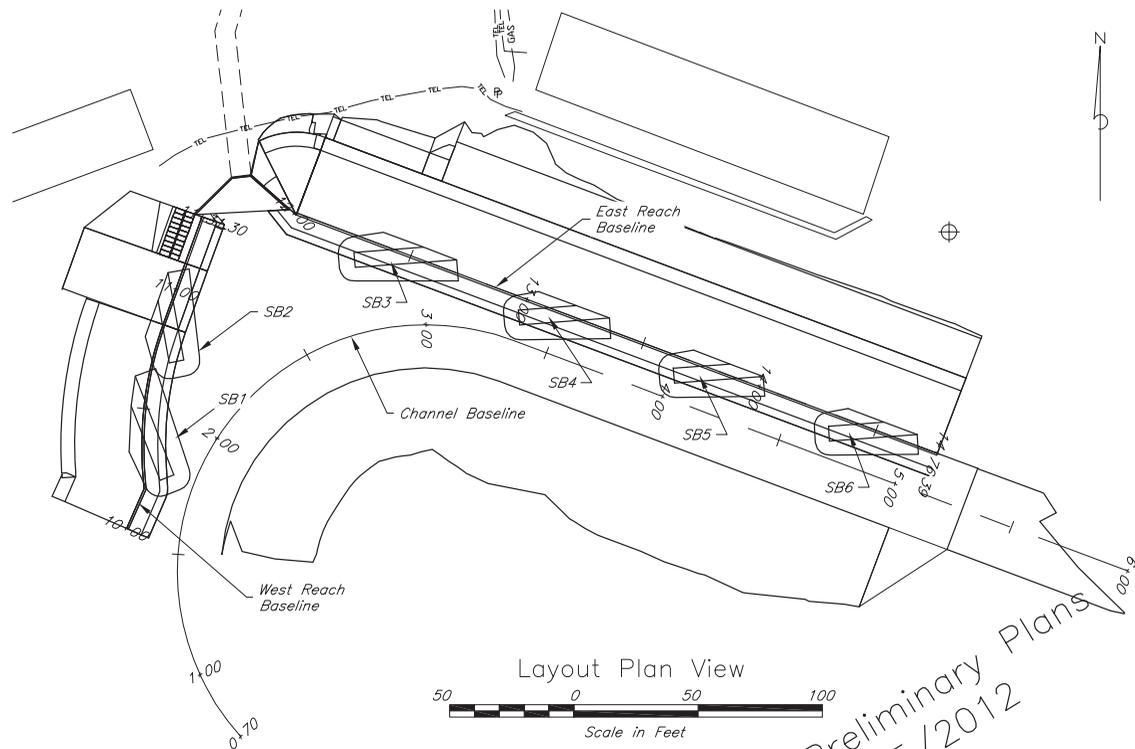
Station	Northing	Easting	Description
10+00	14,239,494.38	2,318,046.91	Begin baseline
10+17.47	14,239,510.39	2,318,053.90	PI
10+25.91	14,239,518.81	2,318,053.37	PC Begin Curve W1
10+50	14,239,542.87	2,318,053.85	
10+75	14,239,567.39	2,318,058.55	
10+85	14,239,576.91	2,318,061.60	PT End Curve W1
11+00	14,239,591.03	2,318,066.66	
11+11.3	14,239,601.67	2,318,070.48	Begin blocks
11+31.3	14,239,620.49	2,318,077.23	End blocks

Point Information for East Reach Baseline

Station	Northing	Easting	Description
12+00	14,239,621.74	2,318,114.57	PC Begin Curve E1
12+01.01	14,239,621.97	2,318,115.50	PT End Curve E1
12+50	14,239,604.68	2,318,161.33	
13+00	14,239,587.04	2,318,208.12	
13+50	14,239,569.39	2,318,254.90	
14+00	14,239,551.74	2,318,301.68	
14+50	14,239,534.10	2,318,348.47	
14+76.39	14,239,524.79	2,318,373.15	End baseline

Point Information for Channel Baseline

Station	Northing	Easting	Description
0+70	14,239,410.21	2,318,092.84	PC Begin Curve C1
1+55	14,239,488.91	2,318,068.18	Begin 0.2% grade
1+75	14,239,508.39	2,318,072.57	
2+00	14,239,530.88	2,318,083.33	
2+25	14,239,550.01	2,318,099.33	
2+50	14,239,564.58	2,318,119.56	
2+75	14,239,573.70	2,318,142.77	
3+00	14,239,576.80	2,318,167.51	
3+25	14,239,573.67	2,318,192.25	
3+36.01	14,239,570.36	2,318,202.74	PT End Curve C1
3+50	14,239,565.42	2,318,215.83	
4+00	14,239,547.78	2,318,262.61	
4+50	14,239,530.13	2,318,309.40	
5+00	14,239,512.48	2,318,356.18	
5+50	14,239,494.84	2,318,402.96	
5+71	14,239,487.43	2,318,422.61	
6+00	14,239,477.19	2,318,449.74	End baseline



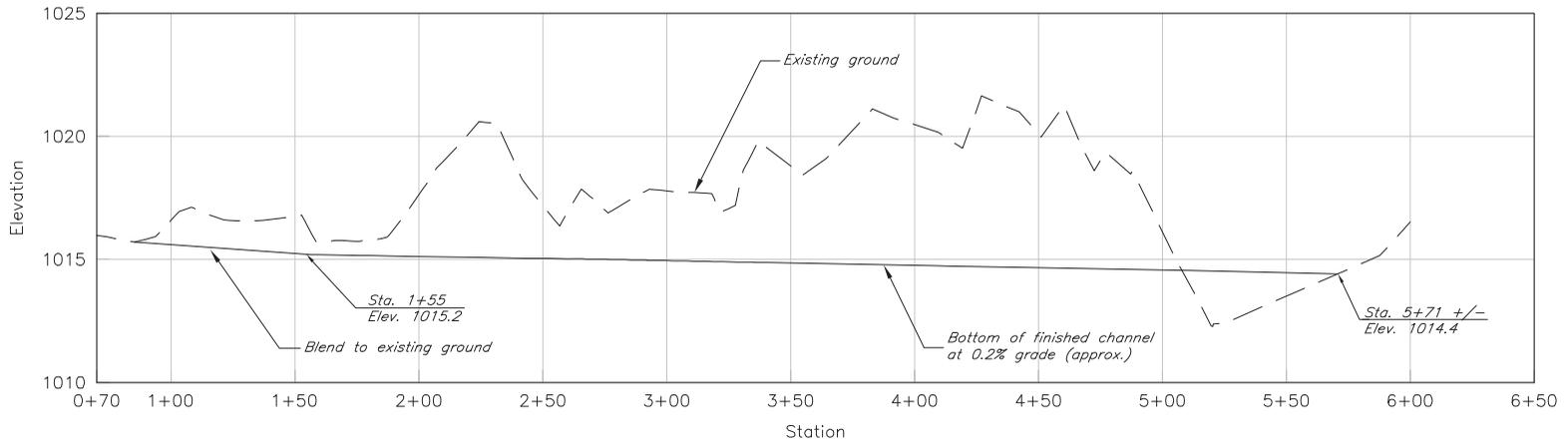
Point Information for Streambarbs

Stream-barb	Point A				Point B			
	Northing	Easting	Top Elev.	Bottom Elev.	Northing	Easting	Top Elev.	Bottom Elev.
SB1	14,239,549.96	2,318,049.63	1017.1	1014.3	14,239,514.94	2,318,063.23	1015.6	1011.3
SB2	14,239,592.21	2,318,061.56	1017.1	1014.3	14,239,561.95	2,318,067.04	1015.6	1011.3
SB3	14,239,605.58	2,318,173.13	1017.0	1014.2	14,239,602.97	2,318,138.68	1015.5	1011.3
SB4	14,239,581.98	2,318,234.56	1016.8	1014.0	14,239,579.73	2,318,204.83	1015.3	1011.3
SB5	14,239,558.41	2,318,296.47	1016.7	1013.9	14,239,556.20	2,318,267.21	1015.2	1011.3
SB6	14,239,534.85	2,318,358.37	1016.6	1013.8	14,239,532.67	2,318,329.59	1015.1	1011.3

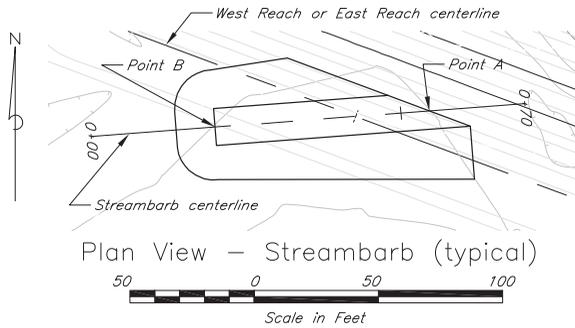
Curve Data

Curve	Radius Point		Radius (feet)	Length (feet)	Delta (degrees)
	Northing	Easting			
W1	14,239,527.95	2,318,198.08	145.00	59.09	23° 20' 53.3"
E1	14,239,621.19	2,318,115.20	0.84	1.01	68° 59' 11.6"
C1	14,239,476.80	2,318,167.45	100.00	266.01	152° 24' 35.3"

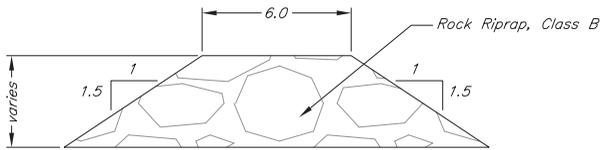
Layout Details



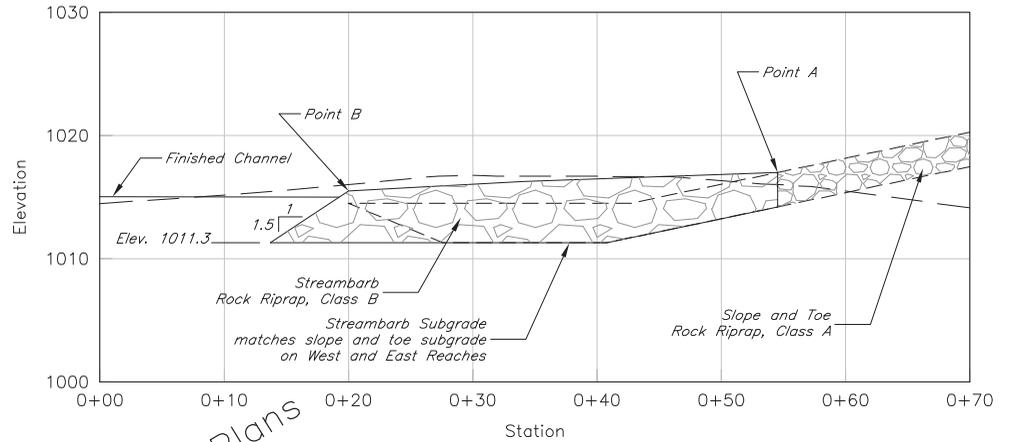
Profile along Channel



Plan View - Streambarb (typical)



Streambarb Section (typical)



Profile along Streambarb (typical)

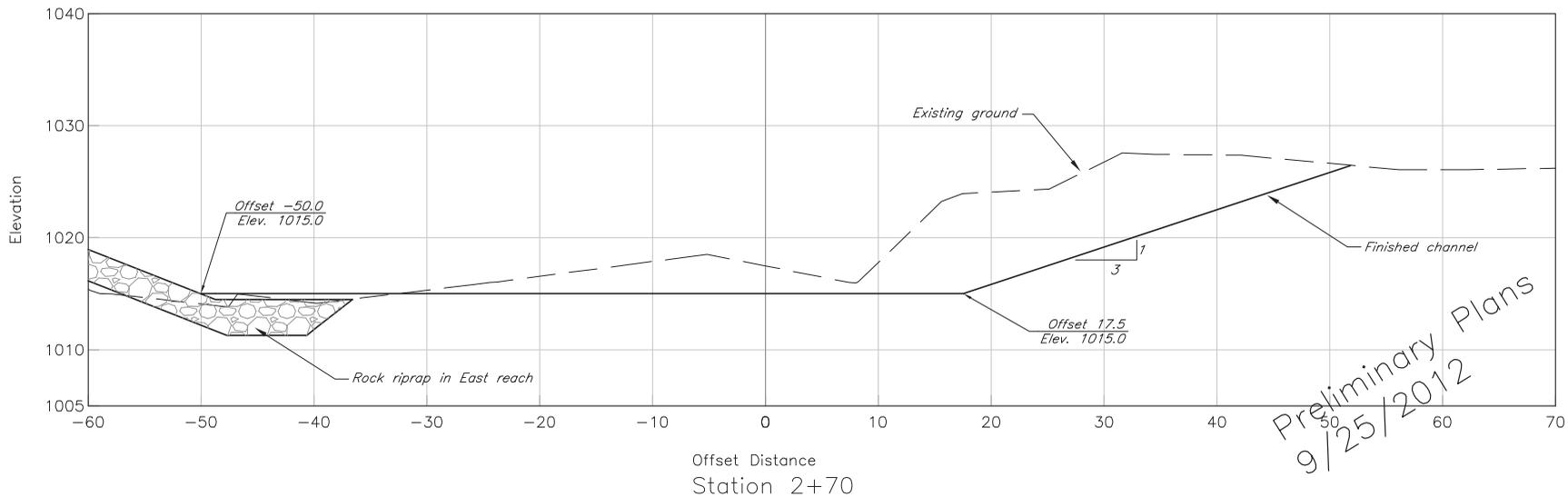
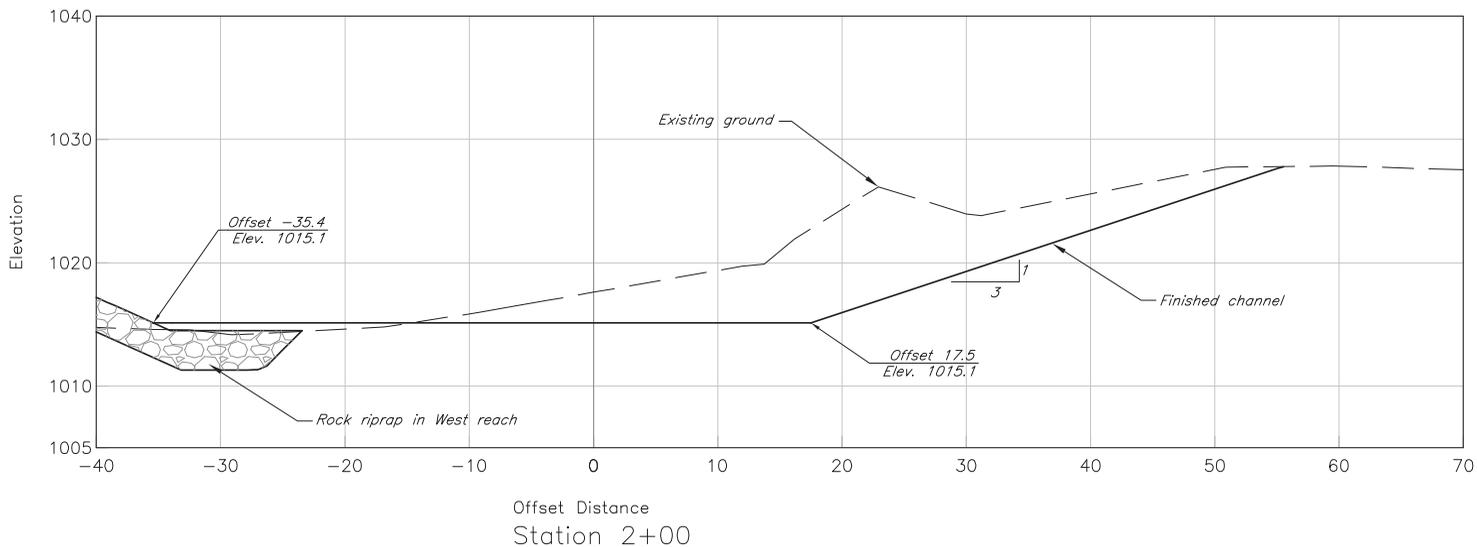
Preliminary Plans
9/25/2012

Channel Profile and Streambarb Details

Notes:

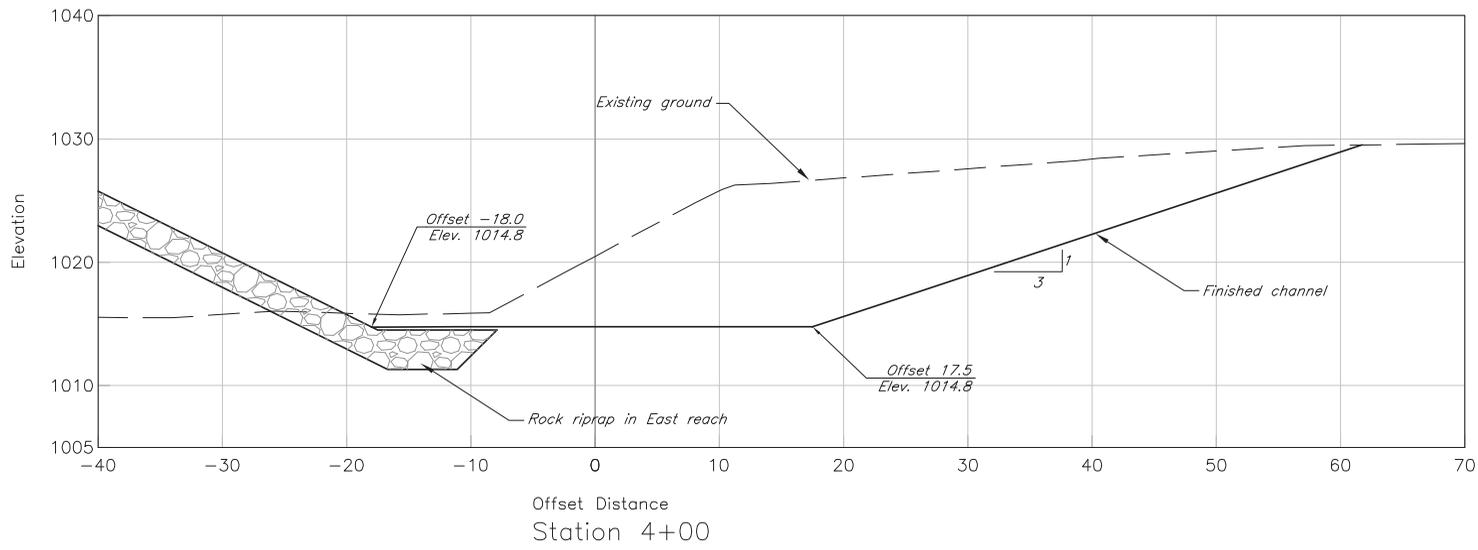
1) Excavate existing ground or place earthfill to finish grade of channel.

2) Material used for fill in the channel shall be limited to the gravelly material excavated from the channel.

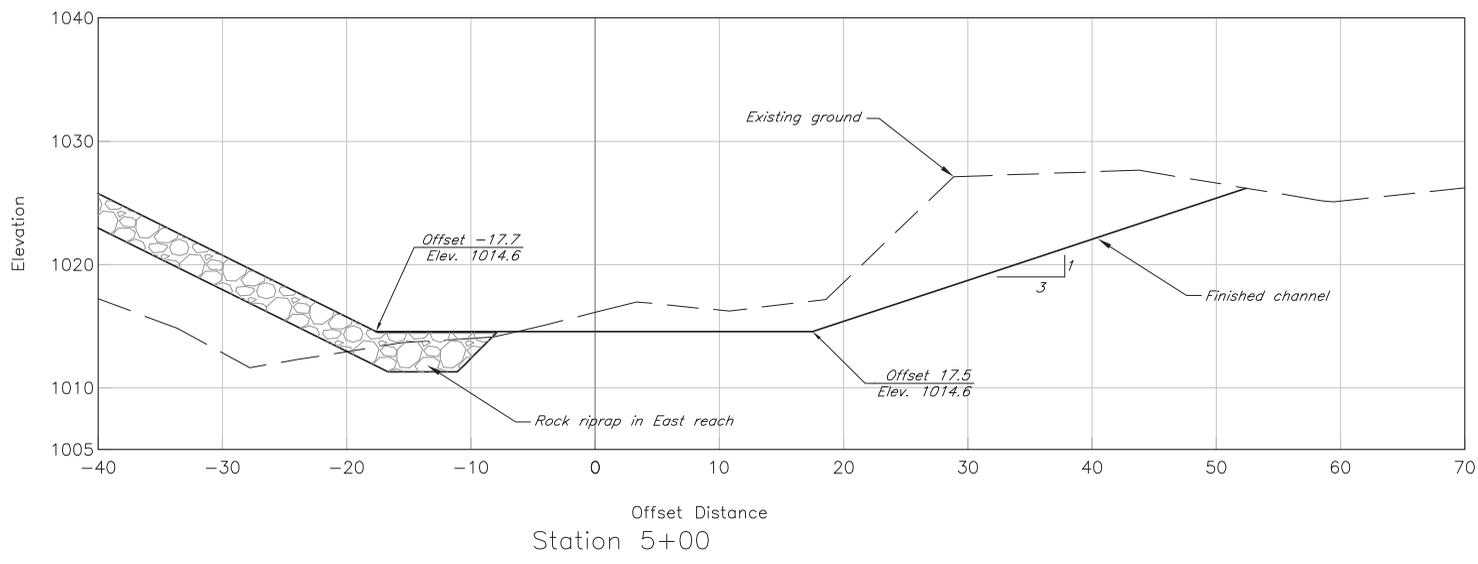


Preliminary Plans
9/25/2012

Channel Sections (1)

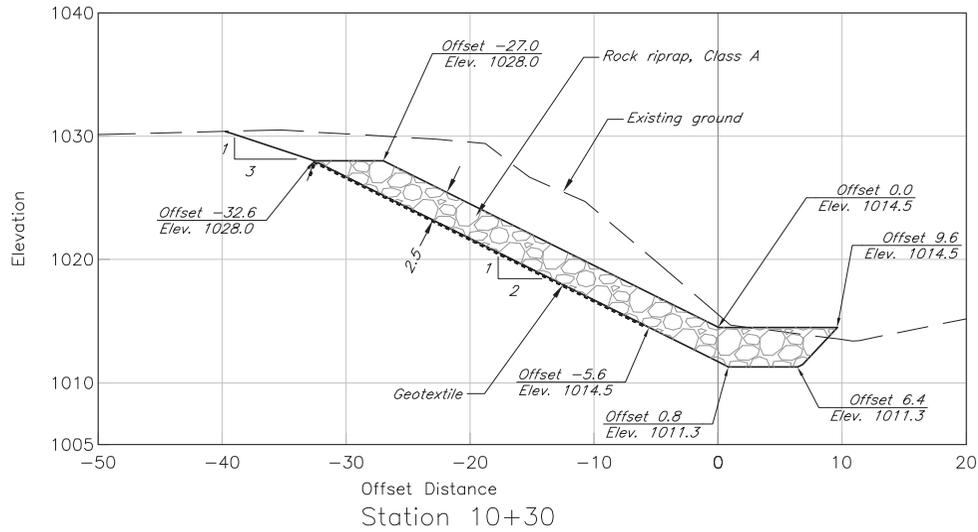


Notes:
 1) Excavate existing ground or place earthfill to finish grade of channel.
 2) Material used for fill in the channel shall be limited to the gravelly material excavated from the channel.



Preliminary Plans
 9/25/2012

Channel Sections (2)

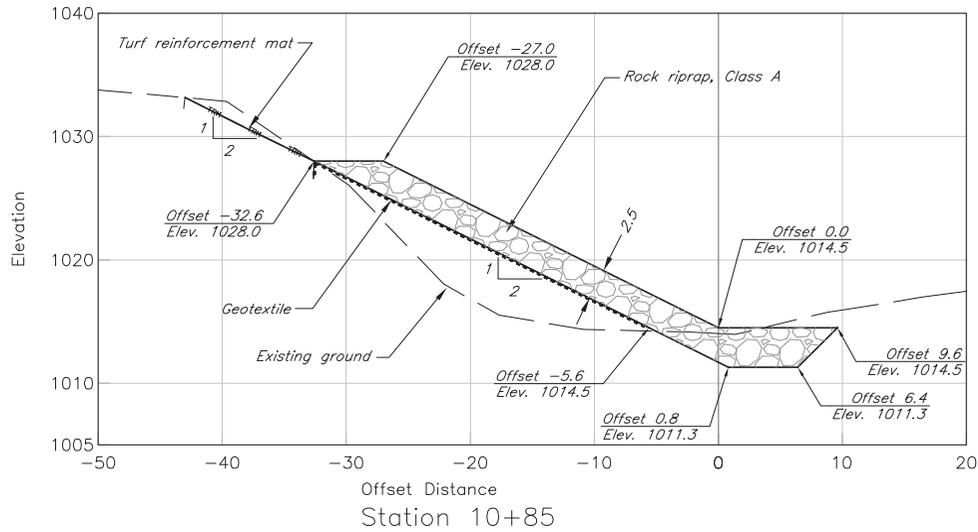


- Notes:
- 1) Excavate existing ground or place earthfill to subgrade of rock riprap.
 - 2) Place geotextile fabric below rock riprap to the extent indicated. Anchorage at the top of rock riprap shall be 0.5 foot below subgrade.
 - 3) From Station 10+75 to Station 10+85, transition slope above riprap from 3:1 to 2:1.
 - 4) Place turf reinforcement mat on the 3:1-2:1 transition slope above the top of riprap between Station 10+75 and Station 10+85. Anchorage shall be as recommended by the manufacturer, and 0.5 foot below subgrade at the top of rock riprap and at the top of the slope.
 - 5) From Station 10+00 to 10+05, thicken riprap thickness from 2.5 feet to 5 feet for an end key.

Rock Riprap Class A Gradation Requirements

Sieve No.	% Finer
28"	100
24"	80-100
18"	60-80
12"	30-50
8"	10-20

- Notes:
- 1) The amount of earth and rock smaller than 15 pounds shall not exceed 10 percent of the total weight.



Rock Riprap Class B Gradation Requirements

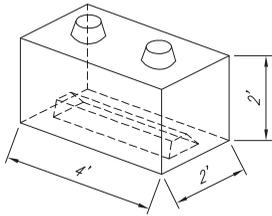
Sieve No.	% Finer
48"	100
36"	80-100
24"	60-80
18"	30-50
12"	10-20

- Notes:
- 1) The amount of earth and rock smaller than 15 pounds shall not exceed 10 percent of the total weight.

Preliminary Plans
9/25/2012

West Reach Sections (1)

Concrete Block Style



Concrete Block Layout

-Station 11+31.3

T19	T20
T17	T18
T15	T16
T13	T14
T11	T12
T9	T10
T7	T8
T5	T6
T3	T4
T1	T2

Top Layer

-Station 11+11.3

-Station 11+31.3

M17	M19	M20
M15	M18	
M13	M15	M16
M9	M11	M12
M7	M10	
M5	M7	M8
M1	M3	M4
M2		

Middle Layer

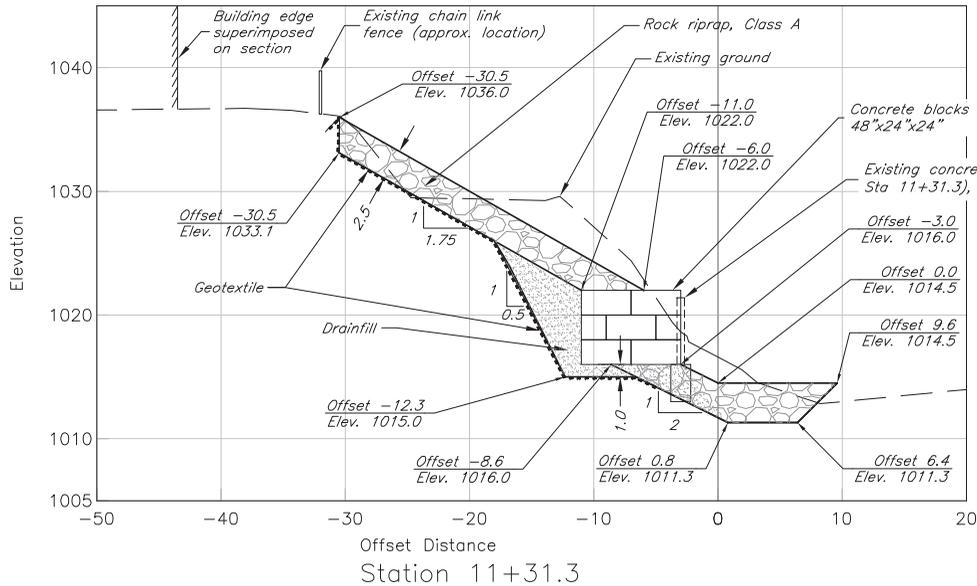
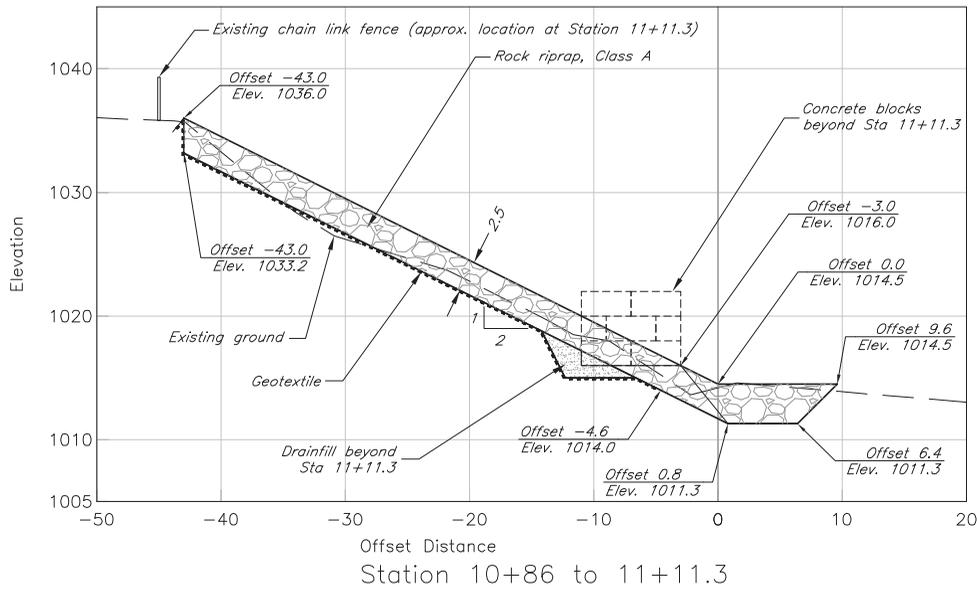
-Station 11+11.3

-Station 11+31.3

B19	B20
B17	B18
B15	B16
B13	B14
B11	B12
B9	B10
B7	B8
B5	B6
B3	B4
B1	B2

Bottom Layer

-Station 11+11.3



- Notes:
- 1) Excavate existing ground or place earthfill to subgrade of rock riprap.
 - 2) Place geotextile fabric below rock riprap to the extent indicated. Anchorage at the top of rock riprap shall be 0.5 foot below subgrade. Geotextile shall be placed at all drainfill and soil interfaces.
 - 3) Footing depth of existing concrete wingwall is unknown. Use caution to avoid undermining wall.
 - 4) End concrete block wall approximately 3 inches from the end of the existing concrete wingwall and footing. Adjust beginning station of concrete block wall as needed to accomplish this.
 - 5) Before placing concrete blocks, fill voids in rock riprap below blocks with drainfill to provide a uniform bedding surface.
 - 6) Blend riprap to existing ground beyond Station 11+32, and fill any void behind concrete blocks and concrete wingwall with rock riprap.
 - 7) Between Stations 11+11.3 and 11+31.3 (+/-), smoothly transition the riprap slope from a 2:1 to a 1.75:1. Maintain the concrete blocks at the same grade indicated for Station 11+31.3.
 - 8) Workers shall be protected in areas of steep slopes.

Drainfill Gradation Requirements

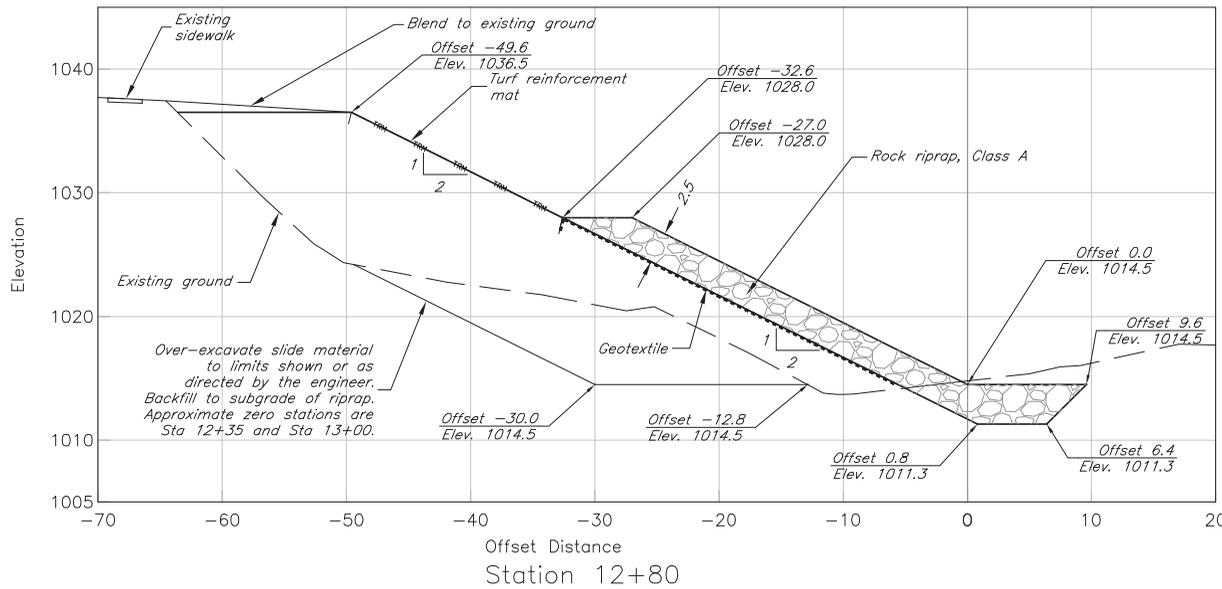
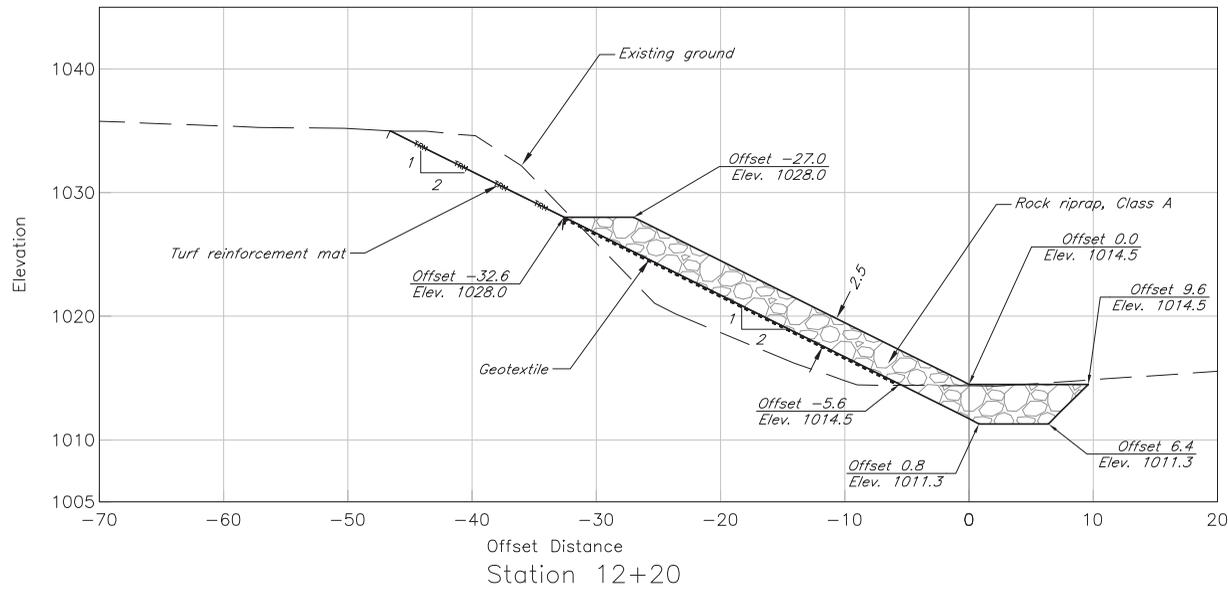
Sieve No.	% Passing
1 1/2"	100
1"	90-100
3/4"	60-90
No. 4	0-20
No. 16	0-10
No. 50	0-7
No. 100	0-2

- Notes:
- 1) Material passing the No. 200 sieve shall be non-plastic.
 - 2) Gradation requirement is equivalent to KDOT aggregate type BD-1.

Preliminary Plans
9/25/2012

West Reach Sections (2)

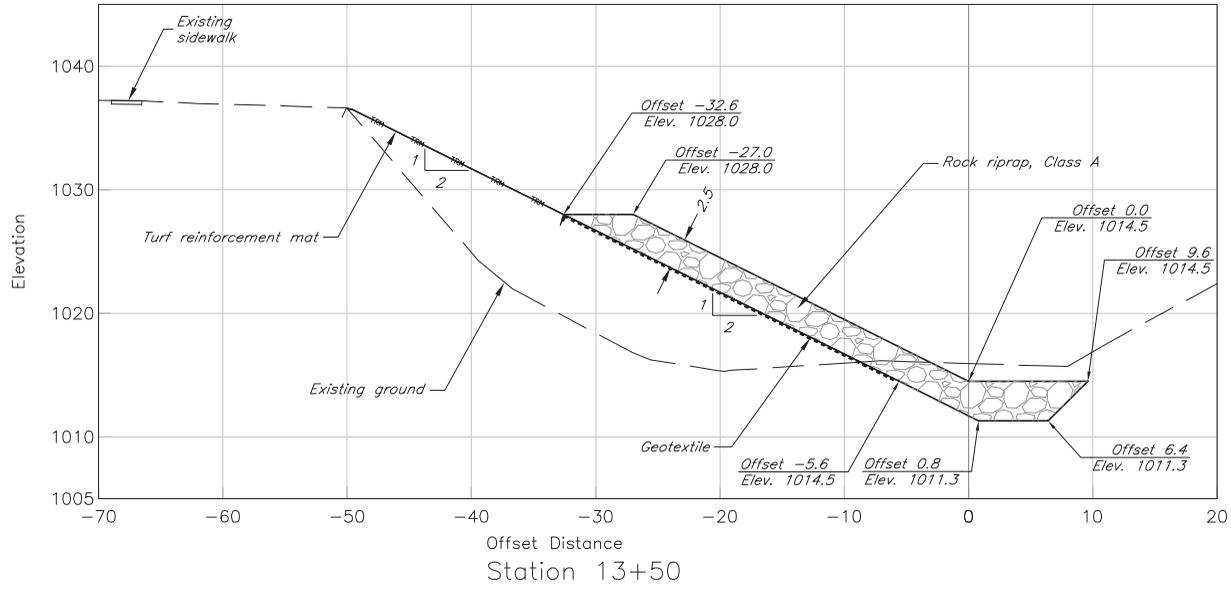
- Notes:
- 1) Excavate existing ground or place earthfill to subgrade of rock riprap.
 - 2) Place geotextile fabric below rock riprap to the extent indicated. Anchorage at the top of rock riprap shall be 0.5 foot below subgrade.
 - 3) Place turf reinforcement mat on the 2:1 slope above the top of riprap as indicated. Anchorage shall be as recommended by the manufacturer, and 0.5 foot below subgrade at the top of rock riprap and at the top of the slope.



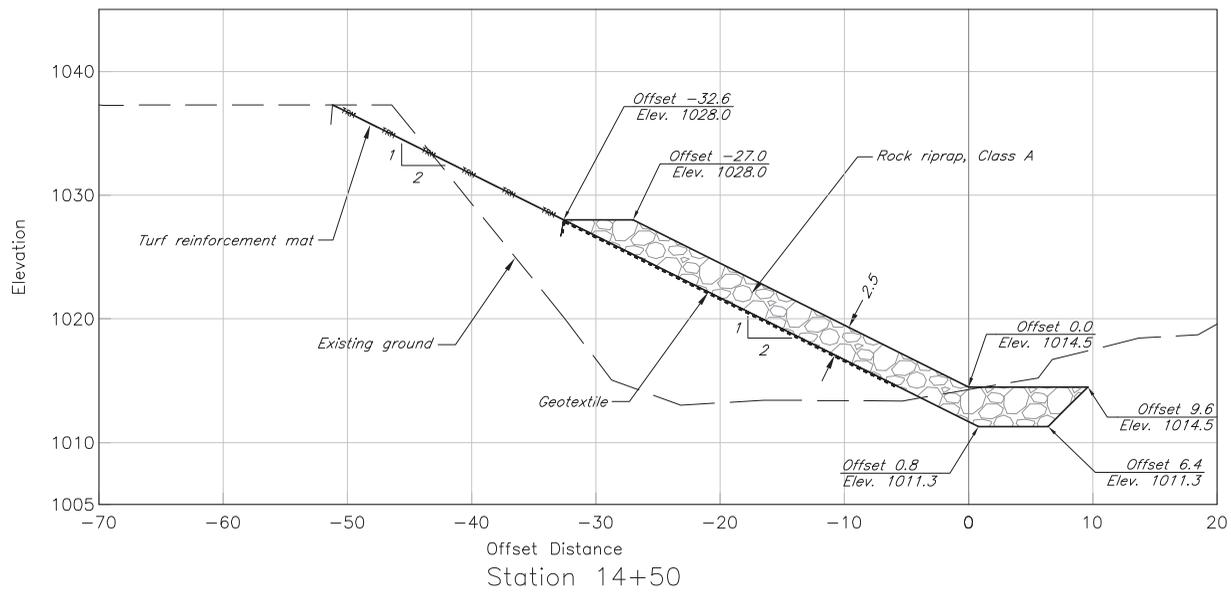
Over-excavate slide material to limits shown or as directed by the engineer. Backfill to subgrade of riprap. Approximate zero stations are Sta 12+35 and Sta 13+00.

Preliminary Plans
9/25/2012

East Reach Sections (1)



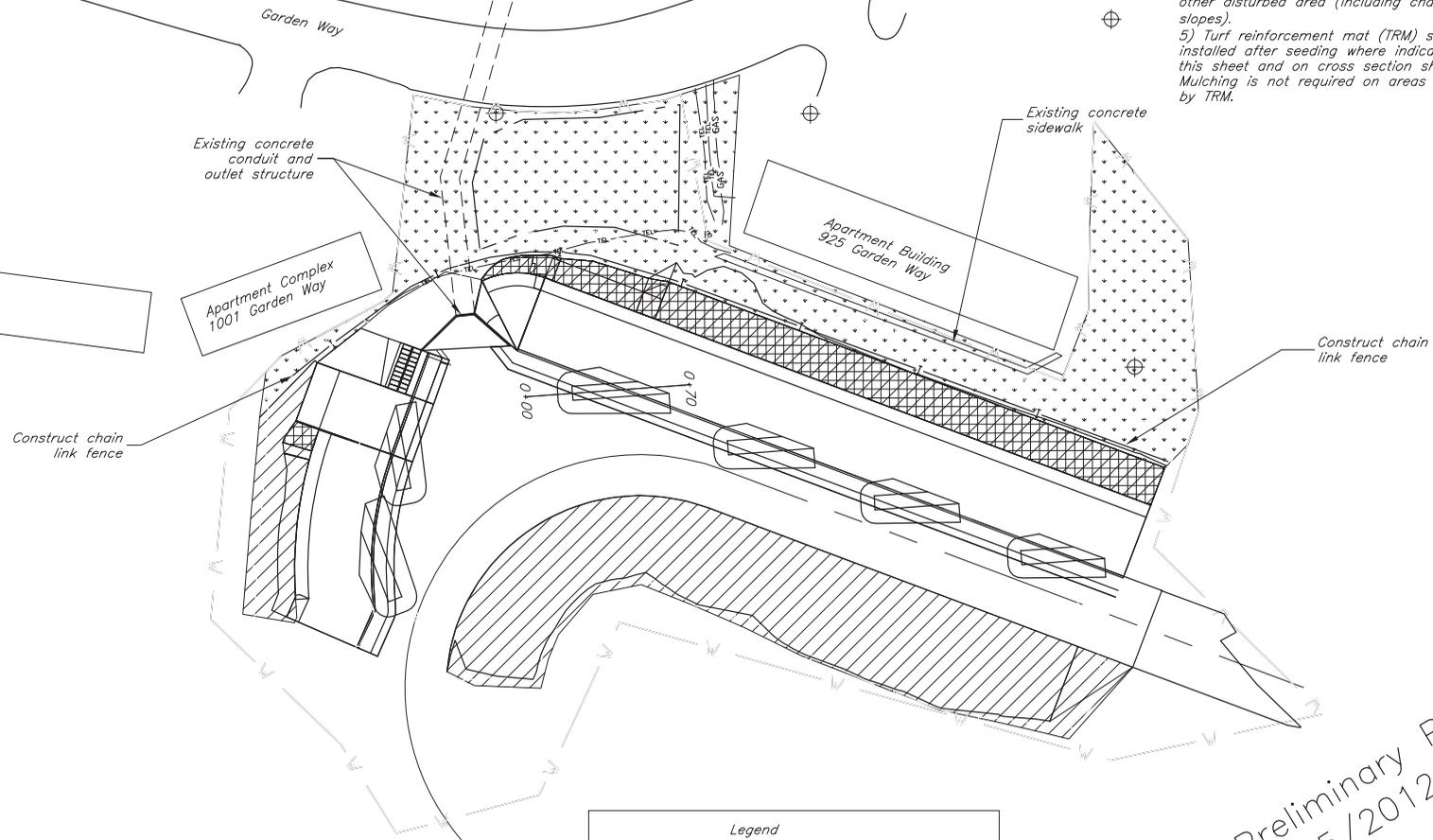
- Notes:
- 1) Excavate existing ground or place earthfill to subgrade of rock riprap.
 - 2) Place geotextile fabric below rock riprap to the extent indicated. Anchorage at the top of rock riprap shall be 0.5 foot below subgrade.
 - 3) Place turf reinforcement mat on the 2:1 slope above the top of riprap as indicated. Anchorage shall be as recommended by the manufacturer, and 0.5 foot below subgrade at the top of rock riprap and at the top of the slope.
 - 4) From Station 10+00 to 10+05, thicken riprap thickness from 2.5 feet to 5 feet for an end key.

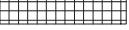


Preliminary Plans
9/25/2012

East Reach Sections (2)

- Notes:
- 1) Seed all disturbed areas except for channel bottom and riprap slopes.
 - 2) Seed mixes (including cover crop), mulch, and fertilizer rates are as indicated in Construction Specification 253.
 - 3) Mix No. 1 (fescue) shall be applied to all disturbed area between Garden Way and the top of the north channel bank (around buildings and in equipment parking area), except as shown on this sheet, or staked on site.
 - 4) Mix No. 2 (brome) shall be applied to all other disturbed area (including channel slopes).
 - 5) Turf reinforcement mat (TRM) shall be installed after seeding where indicated on this sheet and on cross section sheets. Mulching is not required on areas covered by TRM.



Legend	
	Seed Mix No. 1
	Seed Mix No. 2
	Turf Reinforcement Mat (TRM)

Preliminary Plans
9/25/2012

Seeding and Fencing Plan