REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
	D.C.	DDOT – CANAL RD, N.W.	1	24

DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION

PLANS OF PROPOSED

CANAL RD NW ROCK SLOPE STABILIZATION

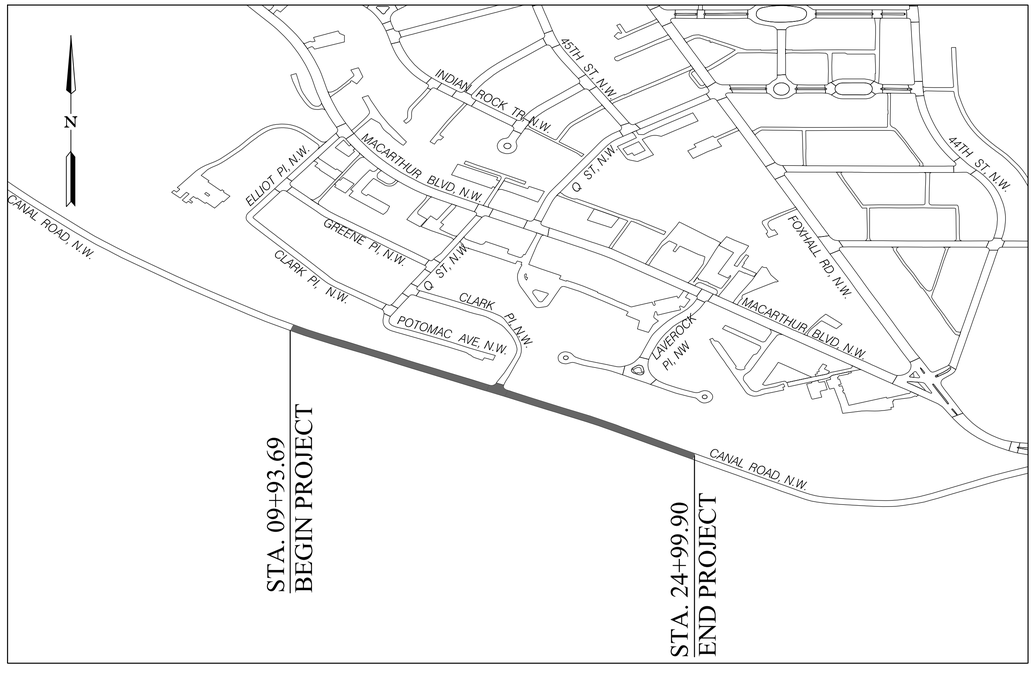
CONTRACT NO. DCKA-2017-T-0044

LENGTH OF PROJECT: 0.3 MILE

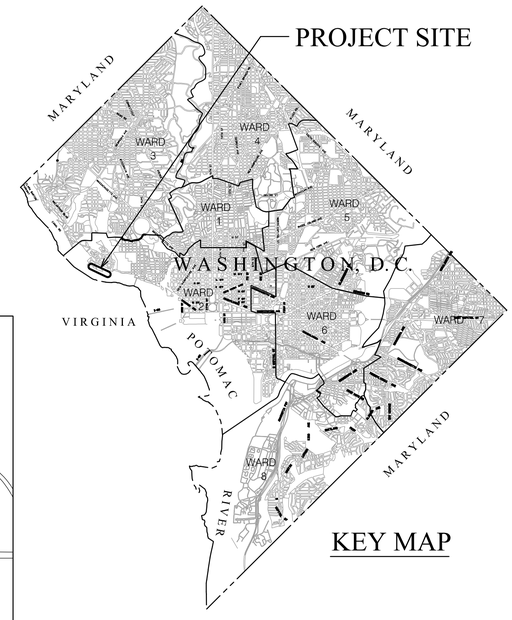
(30% SUBMISSION)

TRAFFIC DATA	
LOCATION	CANAL RD, N.W.
CONTROLS OF ACCESS	N/A
ADT (2020)	TBD
ADT (2040)	TBD
DHV (2040)	TBD
DISTRIBUTION (%)	TBD
TRUCKS (%)	TBD
POSTED V (MPH)	40
DESIGN V (MPH)	45
FUNCTIONAL CLASSIFICATION	PRINCIPAL ARTERIAL

INDEX OF SHEETS



LOCATION MAP
NOT TO SCALE



KEY MAP

Gannett Fleming
7133 RUTHERFORD ROAD, SUITE 300
BALTIMORE, MD 21244
(443) 348–2017

DISTRICT OF COLUMBIA
DEPARTMENT OF TRANSPORTATION

RECOMMENDED FOR APPROVAL

PROGRAM MANAGER DDOT IPMD /TEAM X — DATE

APPROVED

DEPUTY DIRECTOR / CHIEF TRANSPORTATION ENGINEER — DATE

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4/30/2021

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
	D.C.	DDOT – CANAL RD, N.W.	2	24

GENERAL NOTES

1. THIS PROJECT SHALL ADHERE TO THE CONTRACT PLANS, SPECIAL PROVISIONS, DISTRICT DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR HIGHWAYS AND STRUCTURES 2013, SUPPLEMENTAL SPECIFICATIONS 2007 AND STANDARD DRAWINGS 2015.
2. IN CASE OF DISCREPANCY AMONG CONTRACT DOCUMENTS REFER TO STANDARD SPECIFICATIONS, SECTION 103.1, ARTICLE 2, ORDER OF PRECEDENCE.
3. THE CONTRACTOR SHALL COORDINATE WORK AND ACCESS WITH ADJACENT CONSTRUCTION PROJECTS.
4. THE CONTRACTOR SHALL COORDINATE WITH WMATA REGARDING ANY IMPACT OF THIS CONSTRUCTION UPON METRO BUS STOPS OR ROUTES WITHIN THE PROJECT AREA AND VICINITY. THE CONTRACTOR SHALL COORDINATE HIS ACTIVITIES WITH THE WMATA OFFICE OF JOINT DEVELOPMENT AND ADJACENT CONSTRUCTION PHONE 301–618–1015.
5. CONTRACTOR IS RESPONSIBLE FOR OBTAINING PUBLIC SPACE PERMITS FROM THE DISTRICT OF COLUMBIA DEPARTMENT OF CONSUMER AND REGULATORY AFFAIRS (DCRA) LOCATED AT:

   1100 4TH STREET SW
   WASHINGTON, DC 20024

   PHONE: (202)442–4400
   WEB: dcra.dc.gov
6. PRIOR TO BEGINNING CONSTRUCTION, PUBLIC SPACE CONSTRUCTION PERMITS WILL BE REQUIRED IF THE CONTRACTOR WISHES TO STORE MATERIALS OR EQUIPMENT IN PUBLIC SPACE A SEPARATE OCCUPANCY PERMIT IS REQUIRED.

   APPLICATIONS FOR PUBLIC PERMITS CAN BE INITIATED ONLINE BUT THE PROCESS CAN BE EXPEDITED BY MAKING AN APPOINTMENT TO VISIT DCRA WITH THE ENGINEER.
7. REFER TO THE TRAFFIC CONTROL PLAN – GENERAL NOTES FOR PERMITTED WORK HOURS.

SURVEY NOTES

1. HORIZONTAL DATUM: MARYLAND STATE PLANE COORDINATE SYSTEM

   VERTICAL DATUM: NAVD88

   SURVEY UNIT: SURVEY FEET
2. DATE OF SURVEY: MARCH 2021

   SURVEY PERFORMED BY: GANNETT FLEMING

   ADDRESS: Valley Forge Corporate Center
   1010 Adams Avenue
   Audubon, PA 19403–2402
   PHONE: (610) 783–3764
   FAX: (610) 650–8190
   EMAIL: mlarson@gfnet.com
3. THE SURVEYOR HAS MADE EVERY ATTEMPT TO ACCURATELY PORTRAY EXISTING CONDITIONS WITHIN THE LIMITS OF SURVEY. HOWEVER, THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING EXISTING TOPOGRAPHIC FEATURES AND ELEVATIONS, ABOVE AND BELOW, GROUND, PRIOR TO BEGINNING CONSTRUCTION IN THE FIELD.

   THE CONTRACTOR SHALL BRING TO THE NOTICE OF THE ENGINEER ANY DISCREPANCY BETWEEN THE PLANS AND ACTUAL FIELD CONDITIONS.

   REFER TO THE EXISTING CONDITIONS PLANS FOR LIMITS OF SURVEY.
4. GIS PHOTOGRAMMETRIC DATA (I.E. CONTOURS, BUILDING FOOTPRINTS, EDGE OF ROAD, ETC.) IS SHOWN BEYOND THE LIMIT OF SURVEY FOR INFORMATIONAL PURPOSES ONLY AND SHOULD NOT BE USED FOR CONSTRUCTION. THE DATA WAS DOWNLOADED FROM THE DISTRICT OF COLUMBIA – OFFICE OF THE CHIEF TECHNOLOGY OFFICER (OCTO).
5. A BOUNDARY SURVEY WAS NOT PERFORMED FOR THE DEVELOPMENT OF THESE PLANS. IF ANY DISPUTE ARISES AS TO THE LOCATION OF RIGHT OF WAY LINES, PROPERTY LINES, OWNERSHIP, ETC, A BOUNDARY SURVEY SHOULD BE PERFORMED BY A SURVEYOR LICENSED IN THE DISTRICT OF COLUMBIA.

   RIGHT OF WAY LINES, PROPERTY LINES, OWNERS AND ADDRESSES SHOWN ON THE PLAN ARE SHOWN FOR INFORMATIONAL PURPOSES ONLY.

GEOTECHNICAL INVESTIGATION

1. GEOTECHNICAL TEST BORINGS AND AND DATA REPORT, DATED MARCH 2021,
   PREPARED BY: Soil and Land Use Technology, Inc.

   ADDRESS: 1818 New York Avenue, NE, Suite 231
   Washington, DC 20002
   PHONE: (202) 387–0022
   FAX: (443) 577–1601
   EMAIL: isyed@SaLUTinc.com
2. GEOTECHNICAL ENGINEERING REPORT, DATED APRIL 2021,
   PREPARED BY: GANNETT FLEMING.

   ADDRESS: Foster Plaza 8 Suite 400
   730 Holiday Drive
   Pittsburgh, PA 15220
   PHONE: (412) 503–4938
   FAX: (412) 922.3717
   EMAIL: mmorris@GFNET.com

UTILITY NOTES

1. UTILITY DESIGNATION WAS NOT PERFORMED FOR THE DEVELOPMENT OF THESE PLANS. IF ANY DISPUTE ARISES AS TO THE LOCATION OF UNDERGROUND UTILITY LINES AND/OR STRUCTURES, A UTILITY DESIGNATION SURVEY SHOULD BE PERFORMED BY A SURVEYOR LICENSED IN THE DISTRICT OF COLUMBIA.
2. THE UTILITY INFORMATION ON THE PLAN WAS BASED ON RESEARCH OF UTILITY RECORDS AVAILABLE AT THE TIME THESE PLANS WERE PREPARED AND IS SHOWN FOR INFORMATIONAL PURPOSES ONLY.
3. CONTRACTOR SHALL NOTIFY MISS UTILITY (1–800–257–7777) 48 HOURS PRIOR TO ANY EXCAVATION WORK. IT IS THE CONTRACTOR'S RESPONSIBILITY TO LOCATE ALL UTILITIES PRIOR TO BEGINNING EXCAVATION.
4. NO MECHANIZED EQUIPMENT SHALL BE USED FOR EXCAVATION IN CLOSE PROXIMITY TO UTILITIES. CONTRACTOR SHALL HAND DIG ONLY.
5. THE CONTRACTOR IS RESPONSIBLE FOR SUPPORTING AND PROTECTING EXISTING UTILITIES AS DIRECTED BY THE ENGINEER AND UTILITY OWNER. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGES TO EXISTING UTILITIES DUE TO NEGLIGENCE.
6. THE CONTRACTOR SHALL KEEP ALL UTILITIES IN SERVICE DURING CONSTRUCTION. IF ANY UTILITY IS ACCIDENTALLY DISRUPTED DURING CONSTRUCTION, THE UTILITY OWNER AND THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY. TEMPORARY AND /OR PERMANENT RESTORATION OF SERVICE SHALL BE AT THE CONTRACTOR'S EXPENSE. PLANNED DISRUPTIONS IN UTILITY SERVICE MUST BE COORDINATED THROUGH THE ENGINEER.
7. MODIFICATIONS TO DC WATER INFRASTRUCTURE SHALL BE IN ACCORDANCE WITH DC WATER STANDARD DETAILS.

TRAFFIC CONTROL NOTES

1. DURING ALL PHASES OF CONSTRUCTION AND THE DURATION OF THE CONTRACT, THE TRAFFIC SHALL BE MAINTAINED IN ACCORDANCE WITH THE CONTRACT DRAWINGS AND SPECIAL PROVISIONS.
2. IF THE CONTRACTOR DOES NOT PLAN TO USE THE TRAFFIC CONTROL PLANS IN THE CONTRACT DOCUMENTS, ALTERNATE TRAFFIC CONTROL PLANS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL, AT LEAST 72 HOURS PRIOR TO THE START OF THAT PHASE OF WORK.

Gannett Fleming
7133 RUTHERFORD ROAD, SUITE 300
BALTIMORE, MD 21244
(443) 348–2017

NO	DESCRIPTION	NAME	DATE

REVISIONS

DATE: 04–2021 | SCALE: N.T.S. | GN-01

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

CANAL RD NW ROCK SLOPE STABILIZATION

PROJECT ENG. _____
DESIGNED BY _____
CHECKED BY _____
DRAWN BY _____
PROJECT MGR. _____

GENERAL NOTES SHEET

DIVISION CHIEF
DATE _____
FILE _____
SHEET 2 OF 24

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4/30/2021

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
	D.C.	DDOT – CANAL RD, N.W.	3	24

CONVENTIONAL SYMBOLS
EXISTING CONSTRUCTION

PROPERTY LINE

EDGE OF ROADWAY PAVING

EXISTING GROUND CONTOURS (10') — 50

EXISTING GROUND CONTOURS (2') — 54

FENCE

EDGE OF WOODED AREAS

TREE (FREE STANDING)

SIGN

LIGHT POLE

MAILBOX — M.B.

UTILITY POLE

STORM DRAIN — SD

WATER LINE — W

ABANDON WATER LINE — W

SANITARY — SAN

GAS — G

ELECTRICAL HAND BOX – SIGNALS — H.B.

ELECTRIC (OVERHEAD) — POLE

FLOW LINE

EXISTING ROADWAY

BASE LINE OR SURVEY LINE — 31 +50 32

FIRE HYDRANT — F.H.

WETLAND BOUNDARY

EXISTING PIPE / CULVERT

EXISTING DROP INLET

WETLAND

WETLAND BUFFER — B

WATERS OF THE U.S. — WUS

BUSH / TREE

CONIFEROUS TREE

SOIL BORING LOCATION

CONVENTIONAL SYMBOLS
PROPOSED CONSTRUCTION

℄ CONSTRUCTION — 101 +50 102

CURB & GUTTER

TRAVERSE POINT

APPROXIMATE LIMITS OF CUT AND/OR FILL — C F

LIMIT OF DISTURBANCE — LOD

STORM DRAIN PIPE

DITCH FLOW LINE

ABBREVIATIONS

AASHTO ..American Association of State Highway Transportation Officials
ADT.....Average Daily Traffic
AHD.....Ahead
APPROX..Approximate
℄ or BL..Baseline
BK .....Back / Book
BIT. .....Bituminous
B.C. .....Bituminous Concrete
B.M. .....Bench Mark
BOT. .....Bottom
C.C. .....Center of Curve
CAP.....Corrugated Aluminum Pipe
CAPA .....Corrugated Aluminum Pipe Arch
CATV .....Cable Television
C.B.R.....California Bearing Ratio
℄ or CL..Centerline
CL. .....Class
CLF.....Chainlink Fence
CMP.....Corrugated Metal Pipe
C.O. .....Cleanout
COMB.....Combination
CONC. ....Concrete
CONSTR. ..Construction
COR. .....Corner
CORR. ....Correction
CPP–S ....Corrugated Polyethylene Pipe – Type 'S'
CSP .....Corrugated Steel Pipe – Aluminized Type 2
CSPA ....Corrugated Steel Pipe Arch – Aluminized Type 2
DC.....Degree of Curve
DDOT .....District of Columbia Department of Transportation
D.H.V. .....Design Hourly Volume
D.I. .....Drop Inlet
DIA. .....Diameter
D.O.....Double Opening
E .....East
E .....Electric
E .....External Distance
EA .....Each
EB .....Eastbound
ELEV .....Elevation
ES .....End Section
EX or EXIST Existing
FT .....Feet
F or FL ...Flowline
FB.....Foundation Boring
F.B.D. ....Flat Bottom Ditch
F.H. .....Fire Hydrant
FWD. .....Forward
G .....Gas
G.V. .....Gas Valve
H.B. .....Handbox
HDPE .....High Density Polyetheylene
HDWL. .....Headwall
HERCP..... Horizontal Ellipitical Reinforced Concrete Pipe
HP ..... High Point
IN ..... Inch
I.S.T..... Inlet Sediment Trap
INV. ..... Invert
J.B. ..... Junction Box
K ..... K Inlet
L ..... Length
LF ..... Linear Feet
L.L. ..... Liquid Limit
LP ..... Low Point
L.P. ..... Light Pole
LT. ..... Left
MAC. ..... Macadam
MB ..... Mail Box
M.C. ..... Moisture Content
M.D.D. ..... Maximum Dry Content
MAX. ..... Maximum
MH..... Manhole
MOD. ..... Modified
MIN. ..... Minimum
N ..... North
NB ..... Northbound
NE ..... Northeast
N.P. ..... Non–Plastic
O.C. ..... On Center
OHE ..... Overhead Electric
O.M. ..... Optimum Moisture
PAV'T. ..... Pavement
PB ..... Pavement Boring
PC ..... Point of Curvature
PCC ..... Point of Compound Curvature
P/C ..... Point of Crown
P/GE ..... Profile Grade Elevation
P.G.E..... Profile Ground Elevation
P.G.L. ..... Profile Grade Line
P/GL ..... Profile Ground Line
P/R ..... Point of Rotation
P.I. ..... Plasticity Index
PI ..... Point of Intersection
POC..... Point On Curve
POT..... Point On Tangent
PPWP..... Polyvinyl Chloride Profile Wall Pipe
PROP..... Proposed
PRC ..... Point of Reverse Curve
PT..... Point
PT..... Point of Tangency
PVC..... Point of Vertical Curve
PVC..... Polyvinyl Chloride
PVI ..... Point of Vertical Intersection
PVRC..... Point of Vertical Reverse Curve
PVT ..... Point of Vertical Tangency
R ..... Radius
R.F. ..... Rock Fragments
RT..... Right
RW or R/W...Right of Way
RCP ..... Reinforced Concrete Pipe
RCPP .... Reinforced Concrete Pressure Pipe
R.Q.D. ... Rock Quality Designation
R.M. ..... Rootmat
S ..... South
SAN. .... Sanitary Sewer
SB..... Soil Boring
S/B ..... Southbound
S.D. ..... Storm Drain
S.D.D. .... Surface Drain Ditch
S/E ..... Super Elevation
SF ..... Silt Fence
SF ..... Square Feet
SHT. .... Sheet
SPP ..... Structural Steel Plate Pipe
SPPA .... Structural Steel Plate Pipe Arch
S.P.T. .... Standard Penetration Testing
SRP..... Steel Spiral Rib Pipe – Aluminized Type 2
SRPA .... Steel Spiral Rib Pipe Arch – Aluminized Type 2
SSD ..... Stopping Sight Distance
SSF ..... Super Silt Fence
STD. ..... Standard
STA. ..... Station
SO. ..... Single Opening
SY ..... Square Yards
SWM..... Stormwater Management
T ..... Tangent
T ..... Telephone
T.C. ..... Top of Cover
T.G. ..... Top of Grate
T or TL .. Traverse Line
T.M. ..... Top of Manhole
TRAV. .... Traverse
TS ..... Temporary Swale
T.S. ..... Top of Slab
T.S. ..... Topsoil
TYP. ..... Typical
U.D. ..... Under Drain
U.G. ..... Underground
U.P. ..... Utility Pole
USDA .... United States Department of Agriculture
VCL ..... Vertical Clearance
V.C.L. .... Vertical Curve Length
W ..... Water
W ..... West
WB ..... Westbound
WB ..... Wetland Buffer
W.M. .... Water Meter
W.S. .... Wrapped Steel
WUS .... Waters of the United States
W.V. ..... Water Valve

Gannett Fleming
7133 RUTHERFORD ROAD, SUITE 300
BALTIMORE, MD 21244
(443) 348–2017

NO.	DESCRIPTION	NAME	DATE

REVISIONS

DATE: 04–2021 | SCALE: N.T.S. | GN-02

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

CANAL RD NW ROCK SLOPE STABILIZATION

PROJECT ENG. _____
DESIGNED BY _____
CHECKED BY _____
DRAWN BY _____
PROJECT MGR. _____

SSTANDARD SYMBOLS AND ABBREVIATIONS

DIVISION CHIEF
DATE _____
FILE _____
SHEET 3 OF 24

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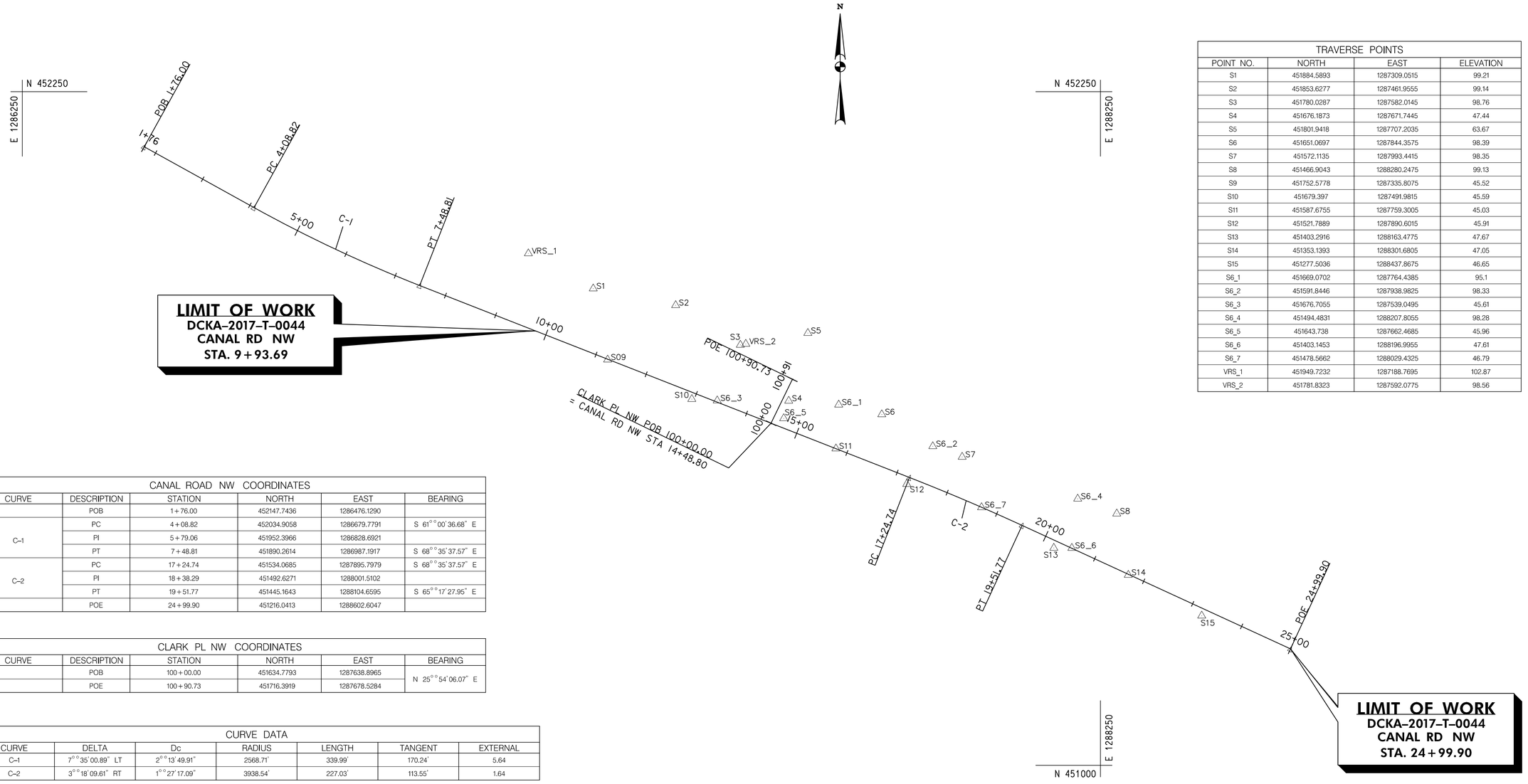
4/30/2021

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
	D.C.	DDOT – CANAL RD, N.W.	4	24



LIMIT OF WORK
DCKA–2017–T–0044
CANAL RD NW
STA. 9+93.69

LIMIT OF WORK
DCKA–2017–T–0044
CANAL RD NW
STA. 24+99.90

TRAVERSE POINTS			
POINT NO.	NORTH	EAST	ELEVATION
S1	451884.5893	1287309.0515	99.21
S2	451853.6277	1287461.9555	99.14
S3	451780.0287	1287582.0145	98.76
S4	451676.1873	1287671.7445	47.44
S5	451801.9418	1287707.2035	63.67
S6	451651.0697	1287844.3575	98.39
S7	451572.1135	1287993.4415	98.35
S8	451466.9043	1288280.2475	99.13
S9	451752.5778	1287335.8075	45.52
S10	451679.397	1287491.9815	45.59
S11	451587.6755	1287759.3005	45.03
S12	451521.7889	1287890.6015	45.91
S13	451403.2916	1288163.4775	47.67
S14	451353.1393	1288301.6805	47.05
S15	451277.5036	1288437.8675	46.65
S6_1	451669.0702	1287764.4385	95.1
S6_2	451591.8446	1287938.9825	98.33
S6_3	451676.7055	1287539.0495	45.61
S6_4	451494.4831	1288207.8055	98.28
S6_5	451643.738	1287662.4685	45.96
S6_6	451403.1453	1288196.9955	47.61
S6_7	451478.5662	1288029.4325	46.79
VRS_1	451949.7232	1287188.7695	102.87
VRS_2	451781.8323	1287592.0775	98.56

CANAL ROAD NW COORDINATES					
CURVE	DESCRIPTION	STATION	NORTH	EAST	BEARING
	POB	1+76.00	452147.7436	1286476.1290	
C–1	PC	4+08.82	452034.9058	1286679.7791	S 61°00'36.68" E
	PI	5+79.06	451952.3966	1286828.6921	
	PT	7+48.81	451890.2614	1286987.1917	S 68°35'37.57" E
C–2	PC	17+24.74	451534.0685	1287895.7979	S 68°35'37.57" E
	PI	18+38.29	451492.6271	1288001.5102	
	PT	19+51.77	451445.1643	1288104.6595	S 65°17'27.95" E
	POE	24+99.90	451216.0413	1288602.6047	

CLARK PL NW COORDINATES					
CURVE	DESCRIPTION	STATION	NORTH	EAST	BEARING
	POB	100+00.00	451634.7793	1287638.8965	N 25°54'06.07" E
	POE	100+90.73	451716.3919	1287678.5284	

CURVE DATA						
CURVE	DELTA	Dc	RADIUS	LENGTH	TANGENT	EXTERNAL
C–1	7°35'00.89" LT	2°13'49.91"	2568.71'	339.99'	170.24'	5.64
C–2	3°18'09.61" RT	1°27'17.09"	3938.54'	227.03'	113.55'	1.64

GRAPHIC SCALE

100 50 0 100 200

1" = 100'-0" HORIZ.

DATE: 04–2021	SCALE: 1" = 100'	GS-01

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

CANAL RD NW ROCK SLOPE STABILIZATION

PROJECT ENG. _____
DESIGNED BY _____
CHECKED BY _____
DRAWN BY _____
PROJECT MGR. _____

GEOMETRY SHEET

DIVISION CHIEF
DATE _____
FILE _____
SHEET 4 OF 24

Gannett Fleming
7133 RUTHERFORD ROAD, SUITE 300
BALTIMORE, MD 21244
(443) 348–2017

NO	DESCRIPTION	NAME	DATE

REVISIONS

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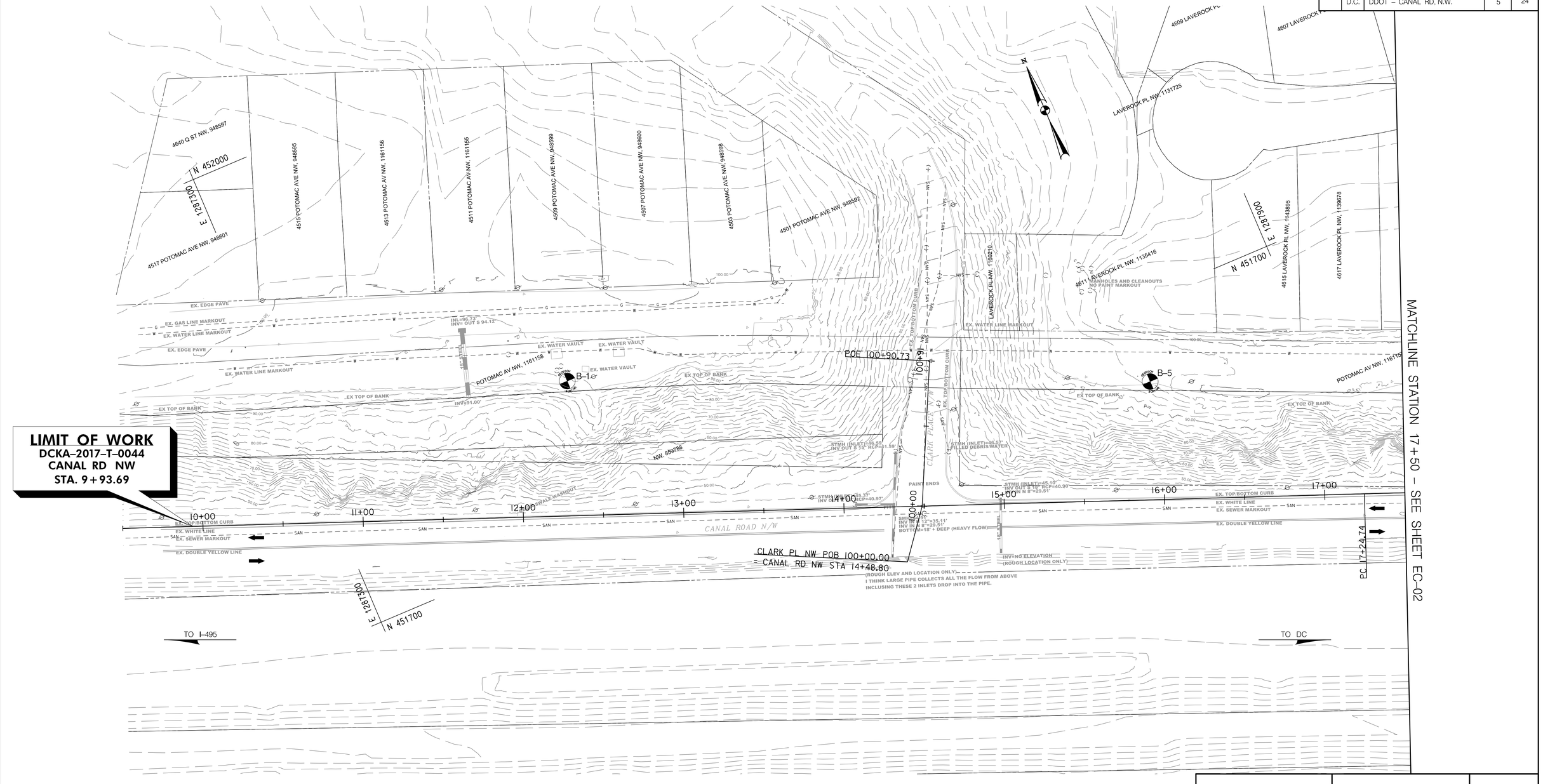
4/30/2021

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
	D.C.	DDOT – CANAL RD, N.W.	5	24



GRAPHIC SCALE

30 15 0 30 60

1" = 30'-0" HORIZ.

NO	DESCRIPTION	NAME	DATE

REVISIONS

Gannett Fleming
7133 RUTHERFORD ROAD, SUITE 300
BALTIMORE, MD 21244
(443) 348–2017

DATE: 04–2021	SCALE: 1" = 30'	EC-01

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

CANAL RD NW ROCK SLOPE STABILIZATION

PROJECT ENG. _____
DESIGNED BY _____
CHECKED BY _____
DRAWN BY _____
PROJECT MGR. _____

EXISTING CONDITIONS PLAN

DIVISION CHIEF
DATE _____
FILE _____
SHEET 5 OF 24

$PENTBLS$

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4/30/2021

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
	D.C.	DDOT – CANAL RD, N.W.	6	24

GRAPHIC SCALE

30 15 0 30 60

1" = 30'-0" HORIZ.

DATE: 04–2021	SCALE: 1" = 30'	EC-02

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

CANAL RD NW ROCK SLOPE STABILIZATION

PROJECT ENG. _____
DESIGNED BY _____
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DRAWN BY _____
PROJECT MGR. _____

EXISTING CONDITIONS PLAN

DIVISION CHIEF
DATE _____
FILE _____
SHEET 6 OF 24

Gannett Fleming
7133 RUTHERFORD ROAD, SUITE 300
BALTIMORE, MD 21244
(443) 348–2017

NO.	DESCRIPTION	NAME	DATE

REVISIONS

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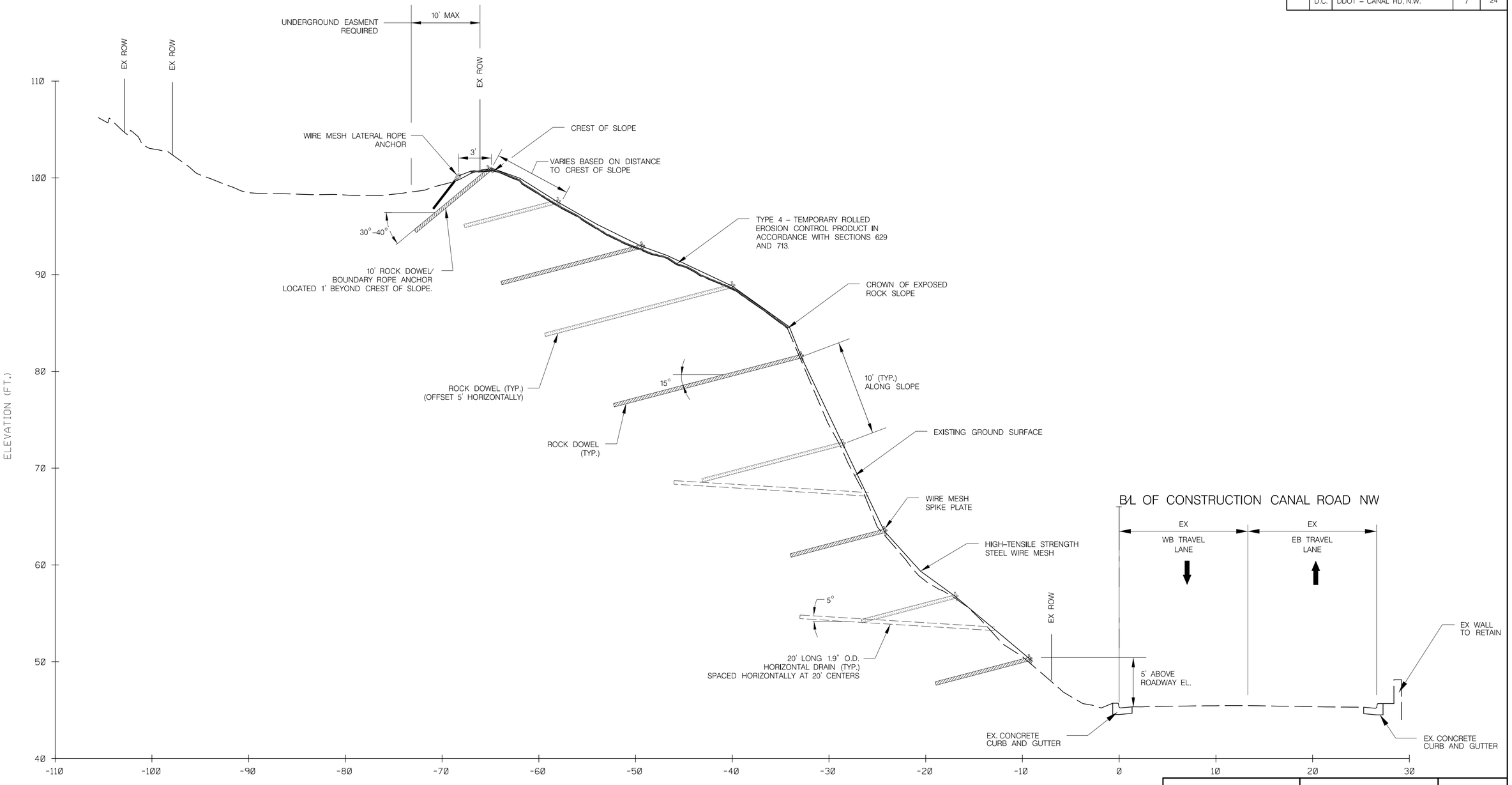
4/30/2021

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
	D.C.	DDOT – CANAL RD, N.W.	7	24



NOTES:

1. ROCK DOWELS RANGE FROM 10 FT TO 20 FT IN LENGTH.
2. EXISTING GROUND SURFACE DATA OBTAINED FROM GANNETT FLEMING TERRESTRIAL LIDAR SURVEY PERFORMED MARCH 2021.

Gannett Fleming
7133 RUTHERFORD ROAD, SUITE 300
BALTIMORE, MD 21244
(443) 348–2017

NO	DESCRIPTION	NAME	DATE

REVISIONS

DATE: 04–2021 | SCALE: 1" = 5' | HT-01

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

CANAL RD NW ROCK SLOPE STABILIZATION

PROJECT ENG. _____
DESIGNED BY _____
CHECKED BY _____
DRAWN BY _____
PROJECT MGR. _____

TYPICAL SECTIONS

DIVISION CHIEF
DATE _____
FILE _____
SHEET 7 OF 24

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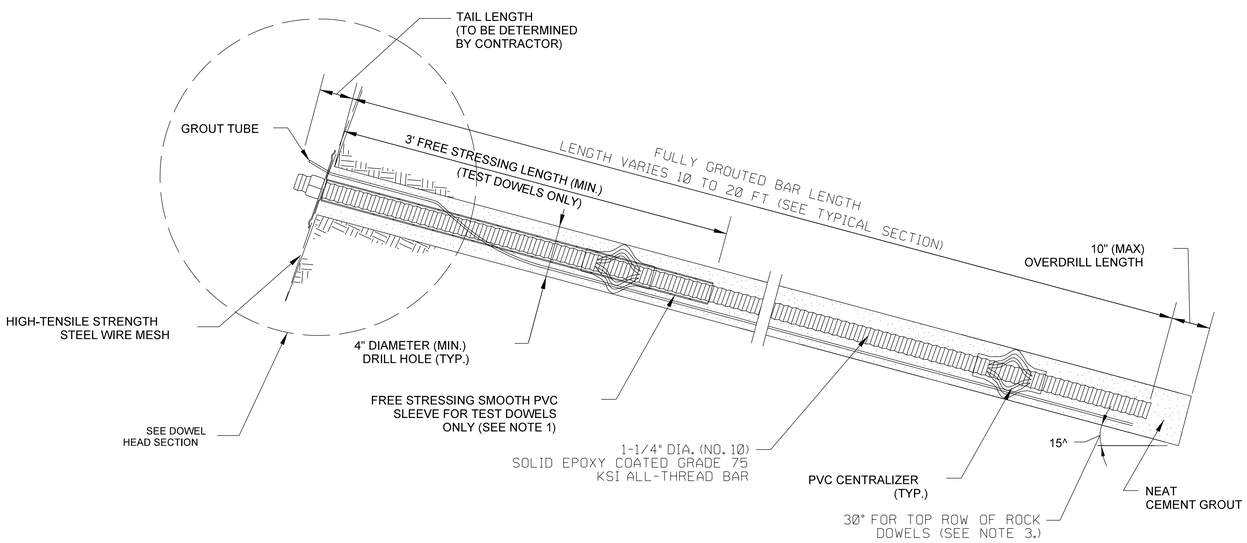
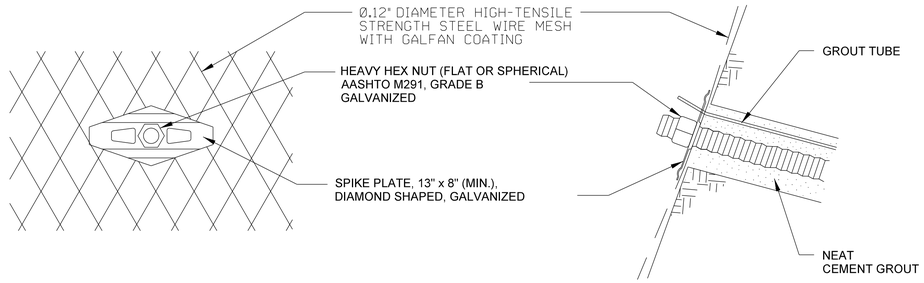
4/30/2021

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
	D.C.	DDOT – CANAL RD, N.W.	8	24



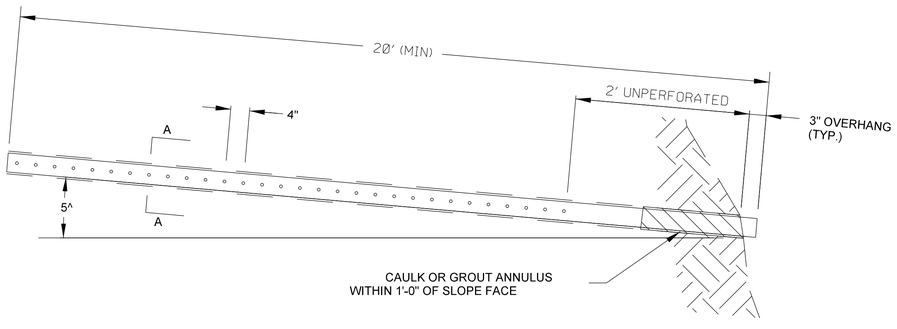
TYPICAL ROCK DOWEL DETAIL

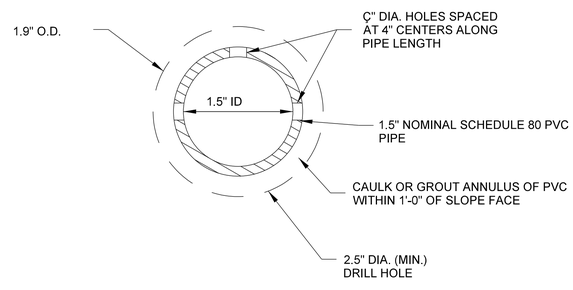
NOT TO SCALE



ROCK DOWEL HEAD DETAIL

NOT TO SCALE





SECTION A-A

NOT TO SCALE

NOTES:

1. FREE STRESSING SLEEVE ONLY REQUIRED FOR TEST DOWELS IN ACCORDANCE WITH SPECIFICATIONS.
2. STEEL WIRE MESH REINFORCEMENT SYSTEM INCLUDING STEEL WIRE MESH, SPIKE PLATES, BOUNDARY ROPES, ROPE ANCHORS, CONNECTION CLIPS, AND OTHER SYSTEM HARDWARE TO BE DESIGNED BY CONTRACTOR.
3. INSTALL TOP (UPPER MOST) ROW OF ROCK DOWELS AT AN ANGLE OF 30° FROM HORIZONTAL. ALL OTHER ROCK DOWELS SHALL BE INSTALLED AT AN ANGLE OF 15° FROM HORIZONTAL.

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REVISIONS

DATE: 04–2021	SCALE: N.T.S.	DE-01

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

CANAL RD NW ROCK SLOPE STABILIZATION

PROJECT ENG. _____
DESIGNED BY _____
CHECKED BY _____
DRAWN BY _____
PROJECT MGR. _____

MISCELLANEOUS DETAILS

DIVISION CHIEF
DATE _____
FILE _____
SHEET 8 OF 24

$PENTBLS$
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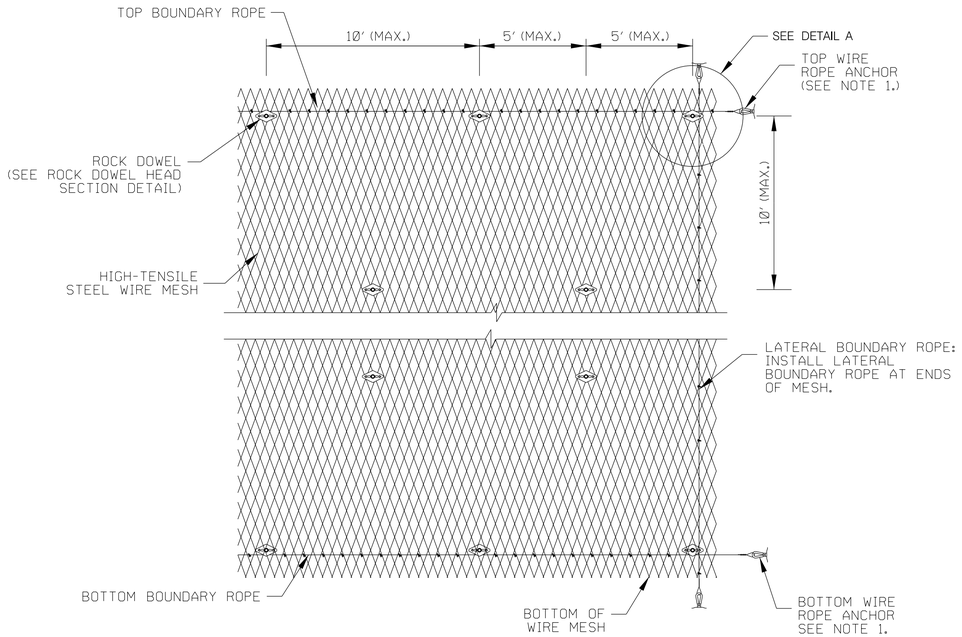
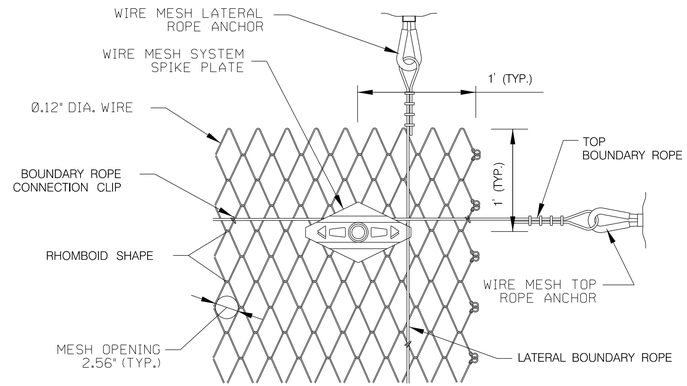
4/30/2021

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
	D.C.	DDOT – CANAL RD, N.W.	9	24



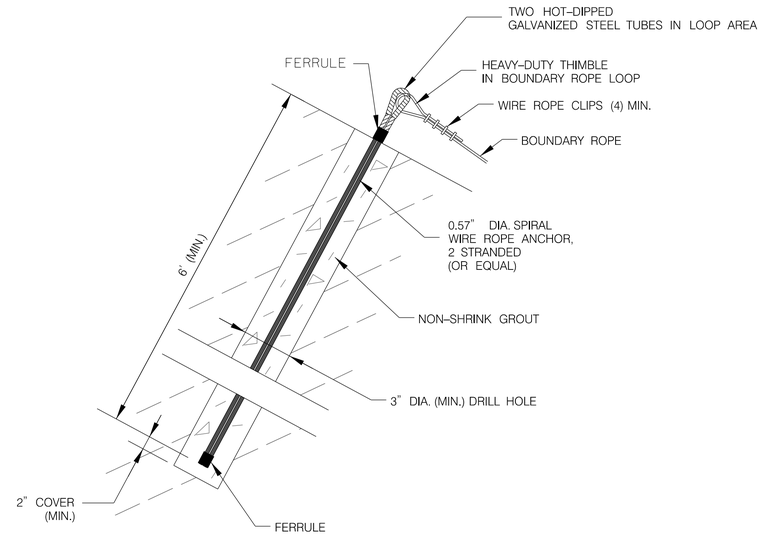
HIGH–TENSILE STEEL WIRE MESH FACING

ELEVATION VIEW
NOT TO SCALE



HIGH–TENSILE STEEL WIRE MESH FACING

DETAIL A
NOT TO SCALE



BOUNDARY WIRE ROPE AND TIE–BACK ANCHOR DETAIL

NOT TO SCALE

NOTES:

1. BOUNDARY ROPES MAY BE SECURED TO PRODUCTION ROCK DOWELS IN LIEU OF BOUNDARY ROPE ANCHORS WHERE APPROVED BY THE ENGINEER IN THE FIELD.

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D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

CANAL RD NW ROCK SLOPE STABILIZATION

PROJECT ENG. _____
DESIGNED BY _____
CHECKED BY _____
DRAWN BY _____
PROJECT MGR. _____

MISCELLANEOUS DETAILS

DIVISION CHIEF
DATE _____
FILE _____
SHEET 9 OF 24

$PENTBLS$

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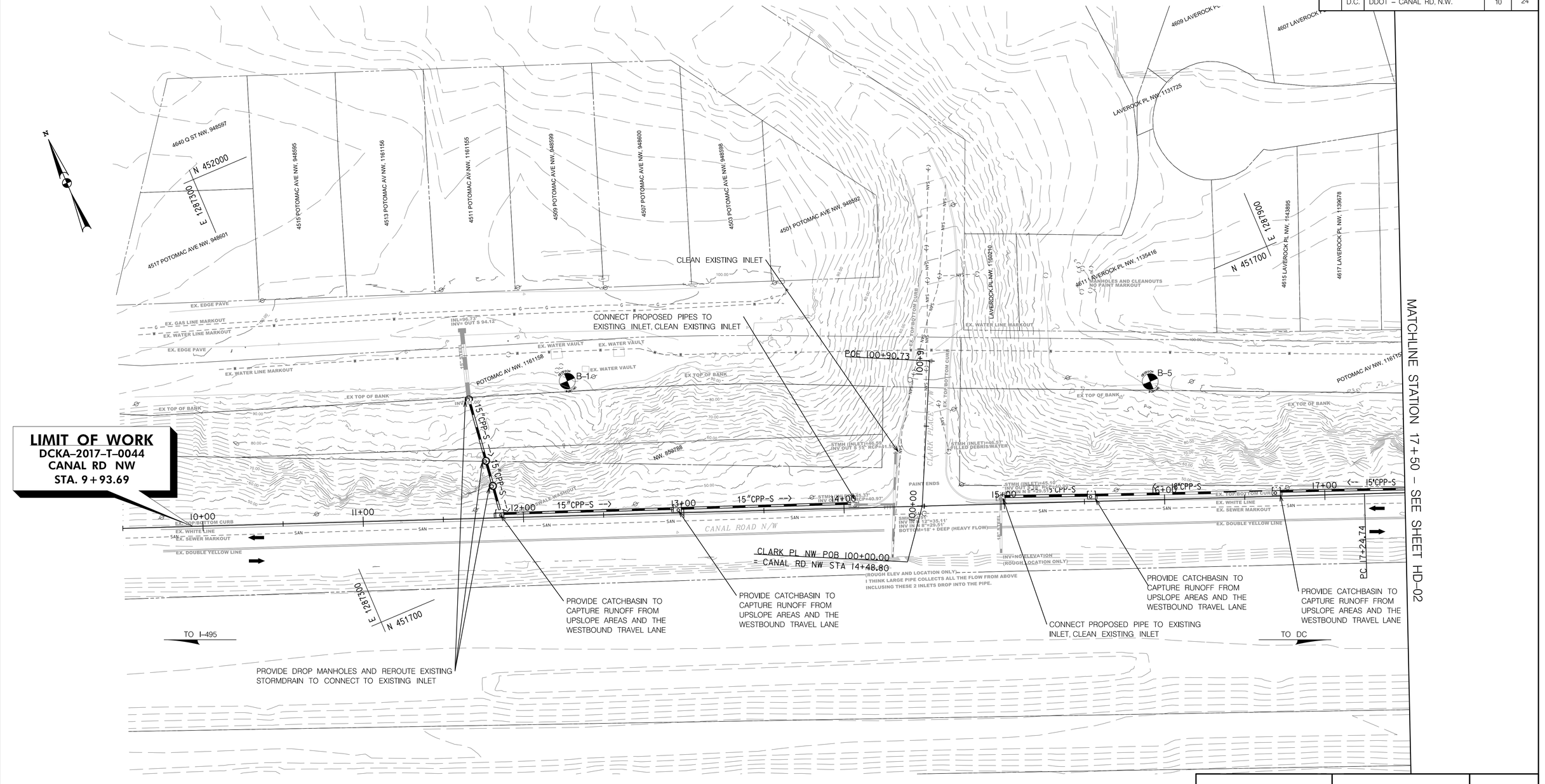
4/30/2021

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
	D.C.	DDOT – CANAL RD, N.W.	10	24



NOTE:

DRAINAGE LAYOUT SHOWN ON PLANS IS FOR ALTERNATIVE 1 ONLY. ALTERNATIVE 2 AND 3 WILL REQUIRE MODIFICATION TO LOCATION AND TYPE OF INLETS.

GRAPHIC SCALE

30 15 0 30 60

1" = 30'-0" HORIZ.

BORING COORDINATES		
BORING NO.	NORTH	EAST
B–1	451793.1112	1287465.5690
B–5	451650.7799	1287800.1760

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REVISIONS

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D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

CANAL RD NW ROCK SLOPE STABILIZATION

PROJECT ENG. _____
DESIGNED BY _____
CHECKED BY _____
DRAWN BY _____
PROJECT MGR. _____

ROADWAY PLAN

DIVISION CHIEF
DATE _____
FILE _____
SHEET 10 OF 24

$PENTBLS$

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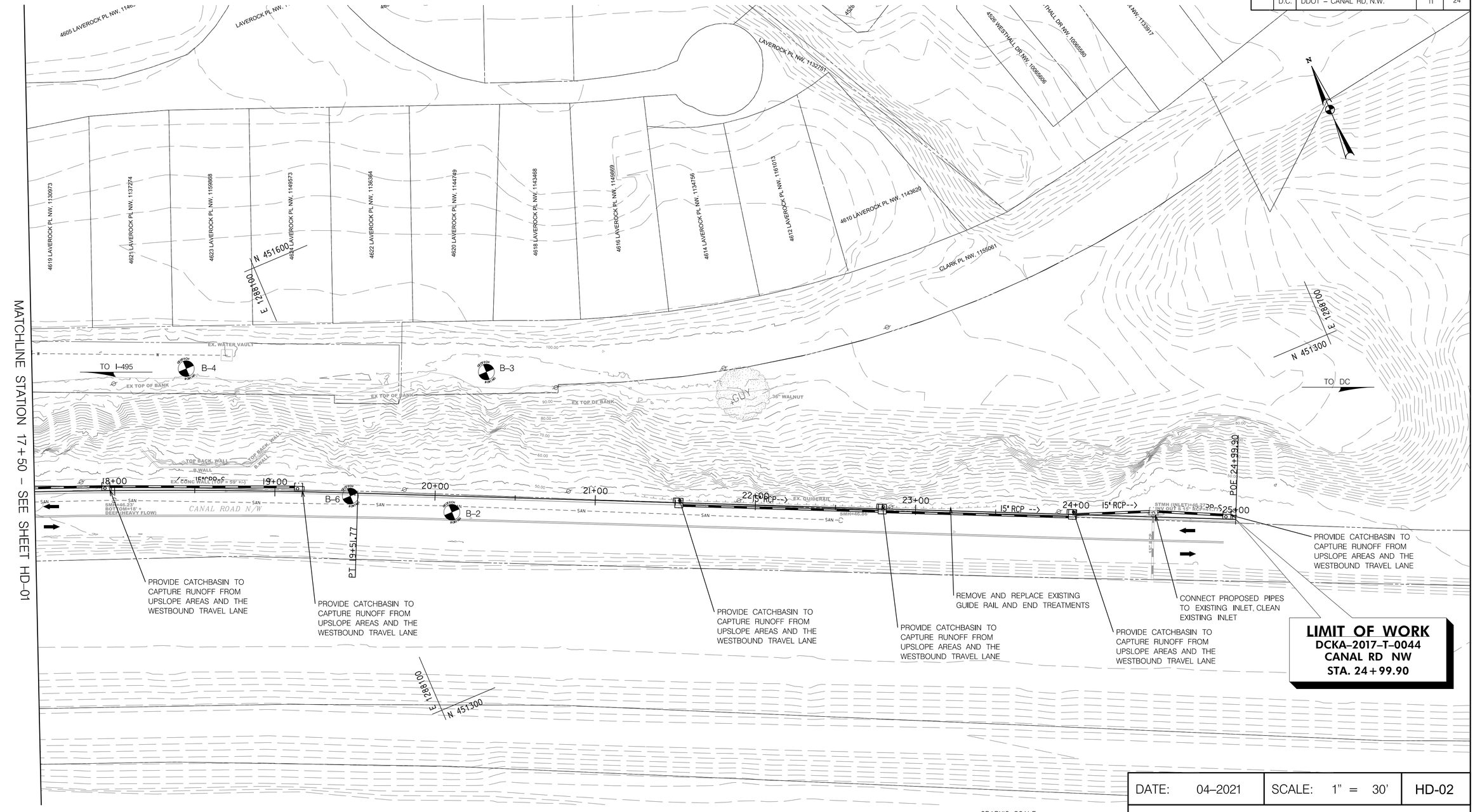
4/30/2021

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
	D.C.	DDOT – CANAL RD, N.W.	11	24



BORING COORDINATES		
BORING NO.	NORTH	EAST
B–2	451411.3045	1288154.0660
B–3	451483.5096	1288208.0980
B–4	451558.5940	1288036.4760
B–6	451445.3622	1288099.6590

NOTE:

DRAINAGE LAYOUT SHOWN ON PLANS IS FOR ALTERNATIVE 1 ONLY. ALTERNATIVE 2 AND 3 WILL REQUIRE MODIFICATION TO LOCATION AND TYPE OF INLETS.

GRAPHIC SCALE

30 15 0 30 60

1" = 30'-0" HORIZ.

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NO.	DESCRIPTION	NAME	DATE

REVISIONS

DATE: 04–2021	SCALE: 1" = 30'	HD-02

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

CANAL RD NW ROCK SLOPE STABILIZATION

PROJECT ENG. _____
DESIGNED BY _____
CHECKED BY _____
DRAWN BY _____
PROJECT MGR. _____

ROADWAY PLAN

DIVISION CHIEF
DATE _____
FILE _____
SHEET 11 OF 24

$PENTBLS$

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4/30/2021

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
	D.C.	DDOT – CANAL RD, N.W.	12	24

Project Description

This project includes slope stabilization along Canal Rd NW in Washington DC. The project is within PROW, tidal MS-4 (Municipal Separate Storm Sewer System) and non-AWDZ (Anacostia Waterfront Development Zone) area. The total disturbed area for the project is xxxx sf.

Prohibited Discharges

The following discharges are prohibited:

Wash-water from concrete, paint, curing compounds, and other construction materials
Fuels, oils, equipment-related compounds
Soaps, solvents used for vehicle washing
Waste, garbage, sanitary waste

Regularly inspect and maintain all mechanized equipment used in or near surface water to prevent contamination from fuels, lubricants, hydraulic fluids, or other toxic materials.

Solid waste generated from the project will consist of construction debris, garbage, and empty containers. Collect and store all waste in dumpsters, or in metal or plastic drums, as appropriate.

Hazardous waste will not be generated from normal construction activities. Equipment fueling and maintenance could generate spills, leaks, and hazardous wastes like motor oil, diesel, gasoline, and battery fluid. If feasible, conduct these activities in a covered area to avoid contact with storm water. Store all hazardous waste materials in appropriate and clearly marked containers away from other non-waste materials. Do not dispose of hazardous water materials into the on-site dumpsters. Dispose of material according to Federal, State, and local regulations.

Develop and implement a Spill Prevention Control and Countermeasures (SPCC) plan following the requirements under 40 CFR 112. Report spills large enough to discharge to surface waters to the National Response Center at 1-800-424-8802.

General Guidelines

The Erosion & Sediment Control Narrative is meant as a guideline for preventing erosion and controlling sediment. The work consists of applying measures throughout the life of the project to control erosion and to minimize the sedimentation of rivers, streams, and impoundments such as lakes, reservoirs, bays, and coastal waters. The measures consist of soil erosion control measures which are also defined and outlined in the Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects, FP-03, (English) and the Special Contract Requirements.

Do not modify the type, size, or location of any control or practice without prior approval from the Contracting Officer (CO).

No construction access will be permitted through a wetland or waterway.

Do not allow construction vehicles to track sediment outside the project limits.

Do not allow any construction equipment to operate on or access the down-slope side of the perimeter control measures.

Direct storm water to vegetated buffer areas and do not discharge directly into surface waters.

Sequence of Construction

Phase I Establish Perimeter Controls

Prior to any clearing, grubbing, and excavation, construct perimeter controls to ensure that disturbed sediment does not leave the project site. Perimeter controls include silt fence, inlet protection, and other approved measures outside the construction limits.

Phase II Intermediate Controls

Apply intermediate controls during rough grading operations. Install silt fence in areas surrounding the culverts as called out in the Erosion and Sediment Control plans. Install filter berms in ditches along the roadway.

Apply temporary turf establishment in disturbed areas that will remain exposed for over 14 calendar days within 7 days. Apply permanent turf establishment to the finished slopes according to Section 624 and 625.

At the end of each day's grading operations, shape earthwork to minimize and control erosion from storm runoff.

Provide silt fence around all stockpiled excavated roadway material. Apply temporary turf establishment to stockpiles remaining in place longer than 14 days within 7 days of stockpiling.

Phase III Final Construction / Stabilization

After completion of roadway construction, do the following as directed by the CO:

Finish grading, and apply permanent turf establishment to any remaining disturbed areas.
Where necessary, replace eroded topsoil and re-apply permanent turf establishment to disturbed areas where vegetation has not established.
Remove silt fence only after all upslope areas are stabilized and vegetation is well established.
Remove all other perimeter controls when directed by the CO.

Maintenance and Inspection Procedures

Unless stated otherwise, construct and maintain all vegetated and structural erosion control practices according to Section 157, the details shown in the plans, and the individual permitting requirements. Check and maintain erosion control measures once every 7 days and within 24 hours after a rain of 0.25 inches or more, and daily during wet weather. Repair and replace any damaged measures by the end of the day.

Inlet protection - inspect for buildup of excess sediment. Remove sediment and restore the impoundment to its original dimensions when sediment has accumulated to ½ the design depth.

Silt fence - inspect for buildup of excess sediment, undercutting, sags, and other failures. If the fabric becomes damaged, repair or replace as necessary. Remove sediment from behind the silt fence when it becomes 0.5 ft deep at the fence.

Stabilized Construction Entrance - inspect for buildup of excess sediment. Remove the accumulated sediment in order to ensure proper functioning of the entrance.

Record the inspection date and summary of findings within 24 hours of completing a site inspection.

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(443) 348–2017

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REVISIONS

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D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

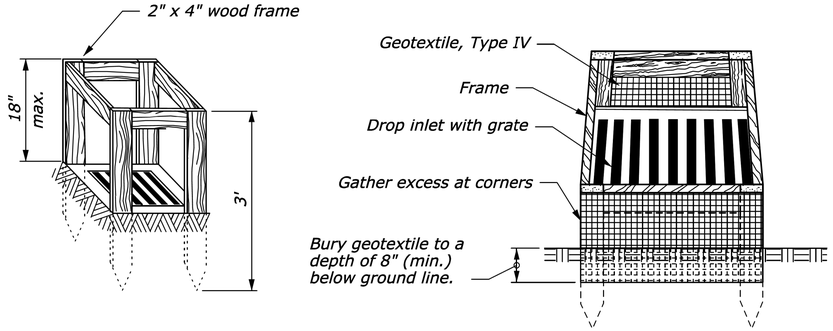
CANAL RD NW ROCK SLOPE STABILIZATION

PROJECT ENG. _____
DESIGNED BY _____
CHECKED BY _____
DRAWN BY _____
PROJECT MGR. _____

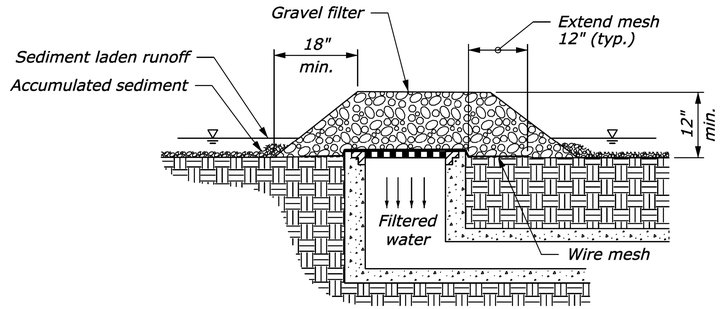
EROSION & SEDIMENT CONTROL
GENERAL NOTES

DIVISION CHIEF
DATE _____
FILE _____
SHEET 12 OF 24

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
	D.C.	DDOT – CANAL RD, N.W.	13	24



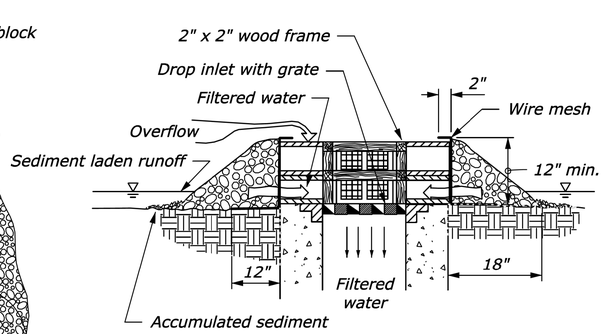
SILT FENCE DROP INLET PROTECTION (TYPE A)



GRAVEL AND WIRE MESH DROP INLET PROTECTION (TYPE B)

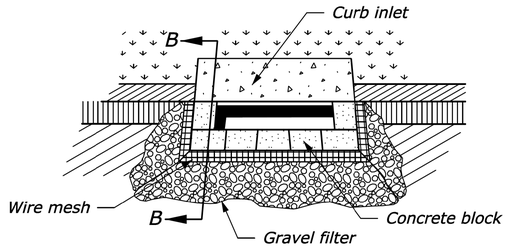
NOTE:

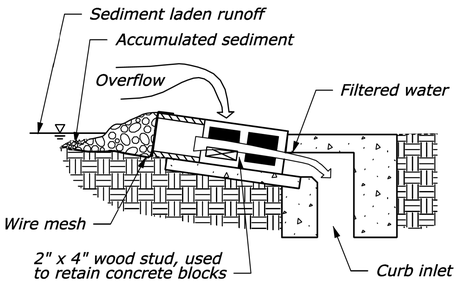
1. For gravel filters use 2" - 3" diameter coarse aggregate.
2. Use wire mesh with ½" x ½" openings.
3. Use Type A inlet protection in sump locations only.
4. Use Type B inlet protection only in sump locations where heavy concentrated flows are not expected. Do not use where ponding around the structure might cause inconvenience or damage.



SECTION A-A

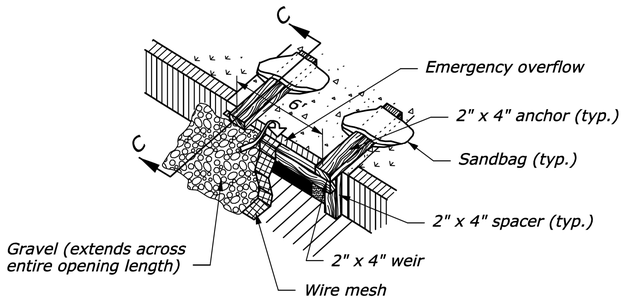
BLOCK AND GRAVEL DROP INLET PROTECTION (TYPE C)

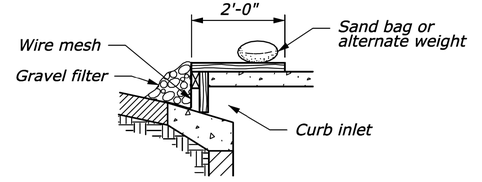




SECTION B-B

CURB INLET PROTECTION, BLOCK AND GRAVEL (TYPE D)





SECTION C-C

CURB INLET PROTECTION, WOODEN WEIR (TYPE E)

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D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

CANAL RD NW ROCK SLOPE STABILIZATION

PROJECT ENG. _____
DESIGNED BY _____
CHECKED BY _____
DRAWN BY _____
PROJECT MGR. _____

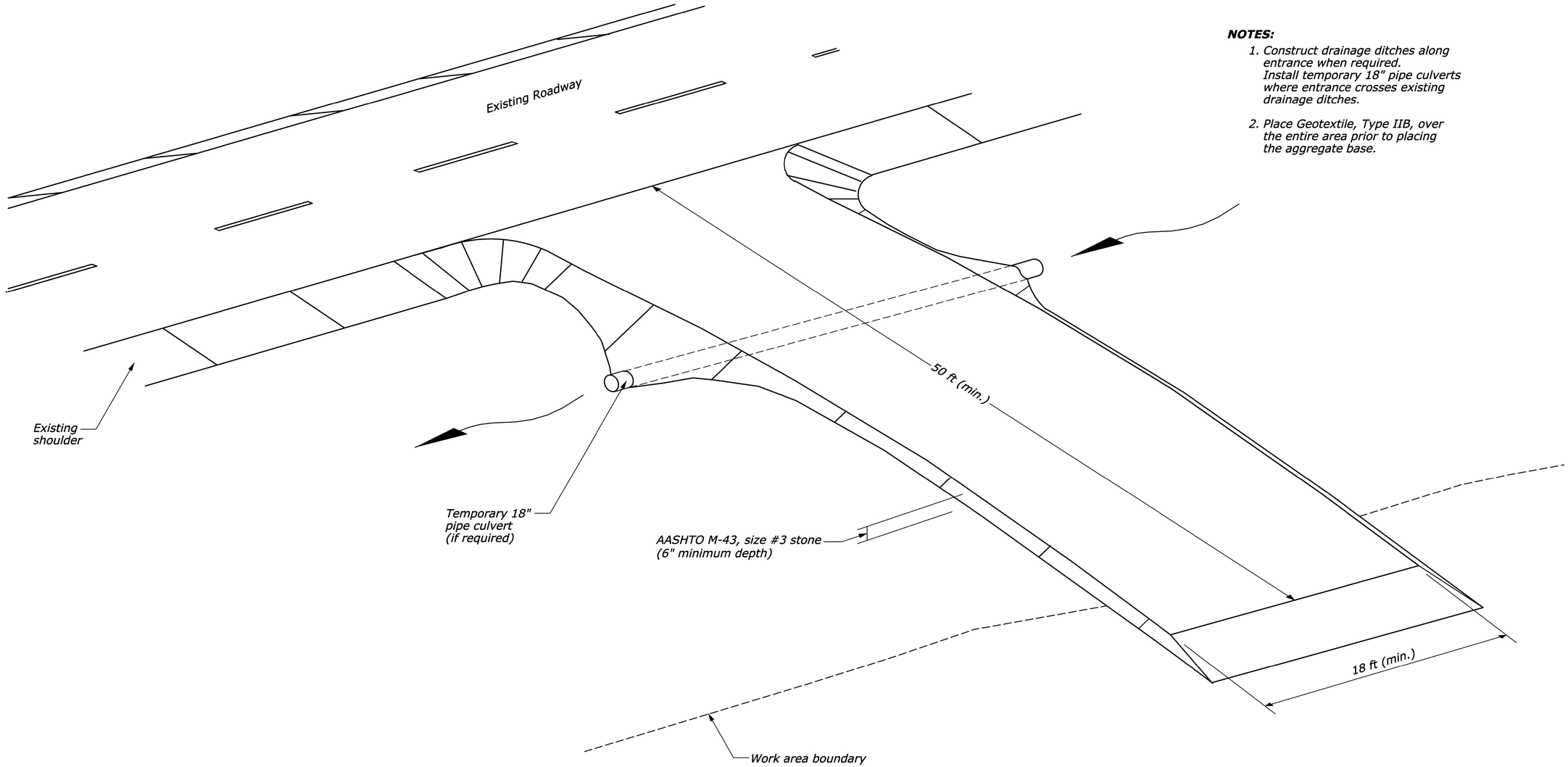
EROSION & SEDIMENT CONTROL DETAILS

DIVISION CHIEF
DATE _____
FILE _____
SHEET 13 OF 24

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
	D.C.	DDOT – CANAL RD, N.W.	14	24

NOTES:

1. *Construct drainage ditches along entrance when required. Install temporary 18" pipe culverts where entrance crosses existing drainage ditches.*
2. *Place Geotextile, Type IIB, over the entire area prior to placing the aggregate base.*



STABILIZED CONSTRUCTION ENTRANCE

DATE: 04–2021	SCALE: N.T.S.	EN-03
D.C. DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE PROJECT MANAGEMENT DIVISION		
CANAL RD NW ROCK SLOPE STABILIZATION		PROJECT ENG. _____ DESIGNED BY _____ CHECKED BY _____ DRAWN BY _____ PROJECT MGR. _____
EROSION & SEDIMENT CONTROL DETAILS		DIVISION CHIEF DATE _____ FILE _____ SHEET 14 OF 24

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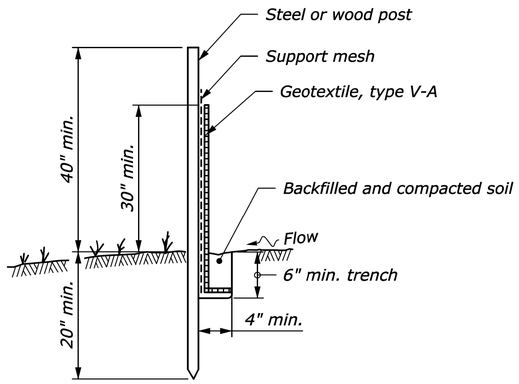
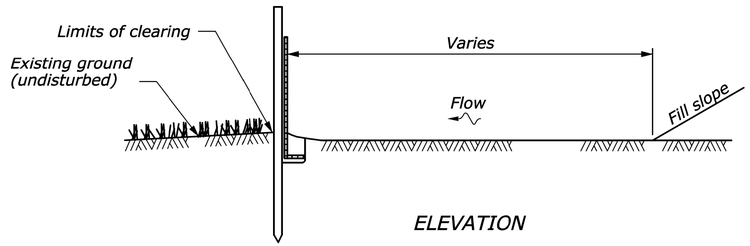
NO.	DESCRIPTION	NAME	DATE

REVISIONS

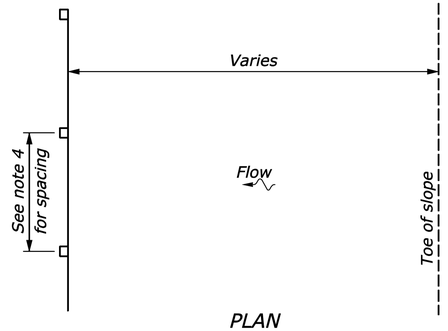
REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
	D.C.	DDOT – CANAL RD, N.W.	15	24



POST AND GEOTEXTILE INSTALLATION DETAIL



ELEVATION

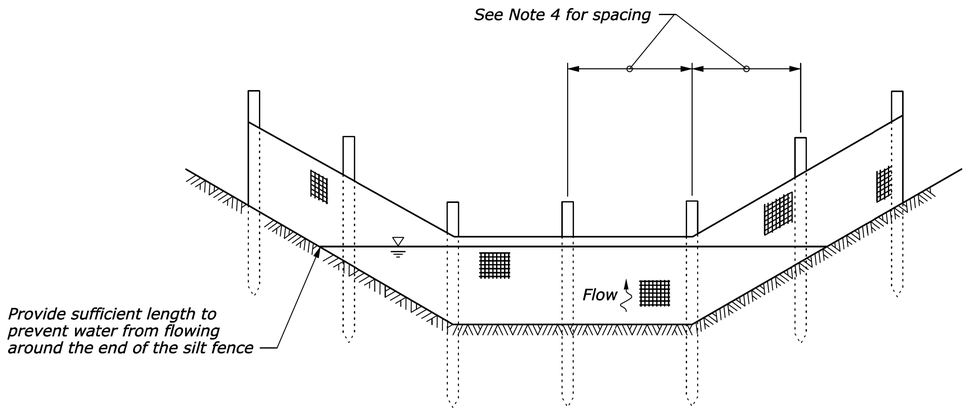


PLAN

SILT FENCE INSTALLATION AT TOE OF FILL

NOTE:

1. *Use drainage ditch installation for low flow conditions only when specified on Erosion Control Plan.*
2. *Alternate preassembled silt fence options (geotextile, type V-B) will be allowed as long as specified dimensions are satisfied. Follow manufacturer's recommendations for installation procedures. All types must ensure silt fence remains attached to, and does not slide down, supporting posts.*
3. *Install silt fence along ground contours. Curve ends of silt fence upgrade to prevent water from running around the ends.*
4. *10 ft. (max.) spacing with fence support.*
   6 ft. (max.) spacing without fence support.



SILT FENCE INSTALLATION IN A DRAINAGE DITCH
See Note 1

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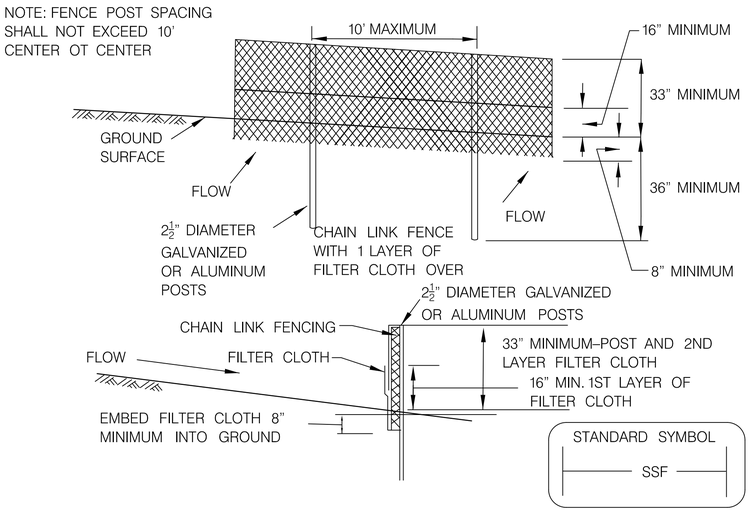
DATE: 04–2021	SCALE: N.T.S.	EN-04
D.C. DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE PROJECT MANAGEMENT DIVISION		
CANAL RD NW ROCK SLOPE STABILIZATION	PROJECT ENG. _____ DESIGNED BY _____ CHECKED BY _____ DRAWN BY _____ PROJECT MGR. _____	
EROSION & SEDIMENT CONTROL DETAILS	DIVISION CHIEF DATE _____ FILE _____ SHEET 15 OF 24	

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
	D.C.	DDOT – CANAL RD, N.W.	16	24

DETAIL – SUPER SILT FENCE



Design Criteria

Slope	Slope Steepness	Slope Length (maximum)	Silt Fence Length (maximum)
0 – 10%	0 – 10:1	Unlimited	Unlimited
10 – 20%	10:1 – 5:1	200 feet	1,500 feet
20 – 33%	5:1 – 3:1	100 feet	1,000 feet
33 – 50%	3:1 – 2:1	100 feet	500 feet
50% +	2:1 +	50 feet	250 feet

Construction Specifications

Fencing shall be 42 inches in height and constructed in accordance with the latest Maryland State Highway Details for Chain Link Fencing. The specification for a 6 foot fence shall be used, substituting 42 inch fabric and 6 foot length posts.

1. The poles do not need to set in concrete.

2. Chain link fence shall be fastened securely to the fence posts with wire ties or staples.

3. Filter cloth shall be fastened securely to the chain link fence with ties spaced every 24" at the top and mid section.

4. Filter cloth shall be embedded a minimum 8" into the ground.

5. When two sections of filter cloth adjoin each other, they shall be overlapped by 6" and folded.

6. Maintenance shall be performed as needed and silt buildups removed when "bulges" develop in the silt fence.

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D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

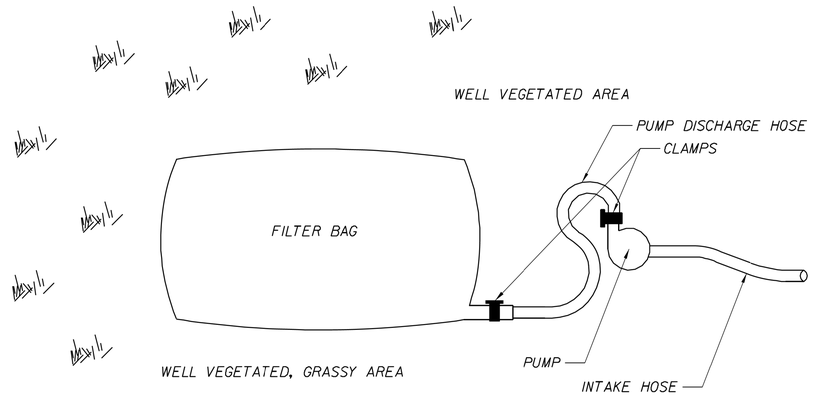
CANAL RD NW ROCK SLOPE STABILIZATION

PROJECT ENG. _____
DESIGNED BY _____
CHECKED BY _____
DRAWN BY _____
PROJECT MGR. _____

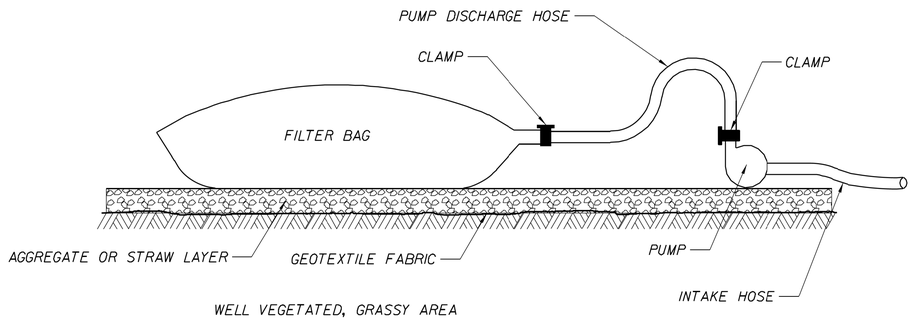
EROSION & SEDIMENT CONTROL DETAILS

DIVISION CHIEF
DATE _____
FILE _____
SHEET 16 OF 24

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
	D.C.	DDOT – CANAL RD, N.W.	17	24



PLAN VIEW



ELEVATION VIEW

NOTES:

1. WATER FILTRATION BAGS:

A. Filter or dewatering bags are used to filter water pumped from disturbed areas prior to discharging to waters as indicated in the plans or as directed by the CO. They may also be used to filter water pumped from the sediment storage areas of sediment basins. Follow all manufacturer's instructions for installation, use, and maintenance.

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

C. A suitable means of accessing the bag with machinery required for disposal purposes must be provided and approved by the CO. Replace filter bags when they become half full or per manufacturer guidelines. Have spare bags available on site for replacement of those that have failed or are filled. Dispose bags legally off Government property per local ordinances.

D. Locate bags in well-vegetated (grassy) area, and discharge onto stable, erosion resistant areas. Where this is not possible, provide a aggregate or straw flow path. Do not place bags on slopes greater than 5%. Filter bags may not be placed in the stream or any location where a bag failure would result in sediment being released into the stream waters.

E. Insert the pump discharge hose into the bags as specified by the manufacturer and securely clamped.

F. The maximum pumping rate should be set at no greater than 750 gallons per minute or half the maximum as specified by the manufacturer, whichever is less. Pumping rates will vary depending on the size of the filter bag, and the type and amount of sediment discharged to the bag. The pump intake should be floating and screened.

G. Inspect filter bags daily. If any problem is detected, cease pumping immediately and do not resume until the problem is corrected or as directed by the CO.

2. SITE CONDITIONS AND ASSUMPTIONS:

A. See Section 157 of the Special Contract Requirements for site conditions and design assumptions.

B. Unless otherwise directed by the CO, the size and the number of filter bags required is based on the assumptions listed in the Special Contract Requirements and per manufacturer's recommendations.

iDesign Engineering, Inc.
4041 Powder Mill Rd.
Suite 204
Calverton, MD 20705
www.idesigneng.com

Gannett Fleming
7133 RUTHERFORD ROAD, SUITE 300
BALTIMORE, MD 21244
(443) 348-2017

NO	DESCRIPTION	NAME	DATE
	REVISIONS		

DATE: 04–2021	SCALE: N.T.S.	EN-06
D.C. DEPARTMENT OF TRANSPORTATION INFRASTRUCTURE PROJECT MANAGEMENT DIVISION		
CANAL RD NW ROCK SLOPE STABILIZATION	PROJECT ENG. _____ DESIGNED BY _____ CHECKED BY _____ DRAWN BY _____ PROJECT MGR. _____	
EROSION & SEDIMENT CONTROL DETAILS	DIVISION CHIEF DATE _____ FILE _____ SHEET 17 OF 24	

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
	D.C.	DDOT – CANAL RD, N.W.	18	24

TRAFFIC CONTROL PLAN (TCP) GENERAL NOTES

1. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THE SAFETY OF THE PUBLIC AND HIS /HER WORKERS THROUGH THE TERM OF THIS CONTRACT. THE MOTORIST MUST BE GUIDED IN A CLEAR AND POSITIVE MANNER WHILE APPROACHING AND PASSING THROUGH THE CONSTRUCTION AREA.
2. THE CONTRACTOR SHALL DEVELOP HIS /HER CONSTRUCTION SCHEDULE WITHIN THE FRAMEWORK OF THE TRAFFIC CONTROL PLAN (TCP) PROVIDED HEREIN. THE CONTRACTOR'S ACTIVITIES SHALL NOT CHANGE THE OPERATIONAL REQUIREMENTS SET FORTH IN THIS TCP, EXCEPT AS PROVIDED BY THE ENGINEER PRIOR TO THE EXECUTION OF CONSTRUCTION OPERATIONS OR TASKS IN SUBSEQUENT CONSTRUCTION PHASES.
3. THE CONTRACTOR MAY USE AN ALTERNATE TCP, SUBJECT TO APPROVAL BY THE ENGINEER.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THE INSTALLATION OF TRAFFIC CONTROL DEVICES (TCD) IN CONFORMANCE WITH THE DDOT STANDARD DRAWINGS (2015 EDITION), THE "D.C. TEMPORARY TRAFFIC CONTROL MANUAL" (2006 EDITION) AND THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD), 2009 EDITION, PRIOR TO THE BEGINNING OF OPERATIONS. INSTALLATION OF TEMPORARY SIGNS AND DEVICES SHOWN IN THE PLANS IS CONSIDERED AN ESSENTIAL MINIMUM REQUIREMENT, AND DOES NOT RELEASE THE CONTRACTOR FROM HIS /HER RESPONSIBILITY OF ENSURING SAFE CONDITIONS DURING CONSTRUCTION.
5. EXISTING TCD'S SHALL BE COVERED OR REMOVED WHEN NOT APPLICABLE. THE PAYMENT IS INCLUDED IN THE "LANE CLOSURE" BID ITEM.
6. ANY DRAINAGE, SIGNING, LIGHTING, UTILITY, EROSION AND SEDIMENT CONTROL PROTECTION, PAVEMENT MARKING AND OTHER MISCELLANEOUS WORK SHALL BE PERFORMED AS THE TCP ALLOWS.
7. THE CONTRACTOR SHALL USE WATER–FILLED BARRIERS FOR WORK AREA PROTECTION, WITH THE LEADING END SERVING AS ITS OWN PROTECTIVE END–TREATMENT. WATER–FILLED BARRIERS SHALL BE INSTALLED WITH THE FIRST SEGMENT UN–FILLED PER THE MANUFACTURER'S RECOMMENDATIONS.
8. THE CONTRACTOR SHALL COVER ALL EXCAVATIONS WITH STEEL PLATES AT THE END OF EACH WORK DAY. THE CONTRACTOR SHALL BACK–FILL ANY EXCAVATION DROP–OFFS GREATER THAN 2.5" WITH AGGREGATE AT 4:1 MAX. SLOPE, AT THE END OF EACH WORK DAY.
9. THE CHIEF ENGINEER SHALL ROUTINELY INSPECT THE TCP SETUP DURING EACH CONSTRUCTION PHASE. IF DEFICIENCIES ARE NOTED, THE ENGINEER RESERVES THE RIGHT TO STOP ALL WORK UNTIL CORRECTIVE ACTION IS TAKEN.
10. TEMPORARY REMOVABLE REFLECTIVE PAVEMENT TAPE OF AN APPROVED TYPE SHALL BE USED TO DESIGNATE TEMPORARY TRAFFIC LANES ON ALL FINAL PAVEMENT SURFACES THAT REQUIRE TEMPORARY PAVEMENT MARKINGS. TEMPORARY PAINT SHALL ONLY BE USED ON SURFACES THAT ARE SCHEDULED FOR REMOVAL, OR THAT ARE SCHEDULED FOR FINAL SURFACE CONSTRUCTION IN A LATER PHASE. PAVEMENT MARKINGS SHALL BE WHITE OR YELLOW AS NOTED.
11. THE CONTRACTOR SHALL ERECT STATIC SIGNS WITH THE MESSAGE "CONSTRUCTION WILL START ON XX/XX " AT BOTH LIMITS OF THE CANAL ROAD, NW PROJECT SEGMENT A MAXIMUM OF FIVE (5) DAYS AFTER RECEIVING THE NOTICE–TO–PROCEED.
12. UNLESS OTHERWISE NOTED, SPACING BETWEEN WARNING SIGNS SHALL BE AT LEAST 250 FT.
13. ALL TRAFFIC DRUMS USED FOR THE TRAFFIC CHANNELIZATION AND WORK ZONE DELINATION AND PROTECTION, SHALL BE FABRICATED WITH A LOW–DENSITY MATERIAL, UNLESS OTHERWISE NOTED, SPACING BETWEEN TRAFFIC DRUMS SHALL BE NO GREATER THAN 40 FT.
14. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO THE START OF CONSTRUCTION. ALL EXISTING INLETS IMPACTED BY THE CONSTRUCTION, INCLUDING NEW INLETS, SHALL BE PROTECTED. SEE EROSION AND SEDIMENT CONTROL PLANS FOR DETAILS.
15. NO WORK WILL BE PERMITTED DURING RUSH HOUR PERIODS, EXCEPT WITHIN THE WORK AREA BEHIND THE TEMPORARY BARRIER. RUSH HOUR PERIODS ARE DEFINED AS 6:30 AM TO 9:30 AM, AND 3:30 PM TO 6:30 PM MONDAY THROUGH FRIDAY.
16. NIGHTTIME OPERATIONS ARE NOT PERMITTED IN RESIDENTIAL AREAS OR COMMERCIAL AREAS WITHIN ONE (I) BLOCK OF A HOTEL. WORK IN THESE AREAS WILL BE PERMITTED BETWEEN 9:30 AM AND 3:30 PM. NIGHTTIME WORK IN ALL OTHER AREAS WILL BE PERMITTED, WITH THE APPROVAL OF THE CHIEF ENGINEER.
17. WORK WILL NOT BE PERMITTED ON SUNDAYS, ON NATIONAL HOLIDAYS OR ON DISTRICT OF COLUMBIA HOLIDAYS, UNLESS OTHERWISE APPROVED BY THE CHIEF ENGINEER.
18. NO RESURFACING OR UTILITY WORK THAT IS NOT BEHIND TRAFFIC BARRIERS WILL BE PERMITTED DURING RUSH HOURS. SEE SPECIAL PROVISIONS FOR ALLOWABLE LANE–CLOSURE HOURS.
19. DURING EACH CONSTRUCTION PHASE, THE CONTRACTOR SHALL COMPLETE WORK ON INTERSECTION CORNERS AS EARLY AS POSSIBLE, AND REOPEN LANES TO REGULAR TRAFFIC OPERATIONS WHILE THE REMAINDER OF THE WORK IS COMPLETED.
20. THE CONTRACTOR SHALL USE TEMPORARY AC, SUPERPAVE SURFACE COURSE 12.5MM FOR TEMPORARY PAVEMENT DURING CONSTRUCTION IF NEEDED.
21. THE TRAFFIC CONTROL PLAN HAS BEEN DEVELOPED BASED ON THE POSTED SPEED LIMIT OF 40 MPH FOR CANAL ROAD, NW.
22. THE CONTRACTOR SHALL NOTIFY MR. JAMIE CEPLER OF WMATA AT 202–962–6085 A MINIMUM OF 30 DAYS IN ADVANCE OF ANY CONSTRUCTION OR ROAD CLOSURES TO COORDINATE BUS ROUTE AND SCHEDULE ADJUSTMENTS, AND BUS STOP CLOSURES.
23. THE CONTRACTOR SHALL COORDINATE WITH DDOT TO SEQUENCE CONSTRUCTION ACTIVITIES TO MINIMIZE TRAFFIC FLOW DISRUPTIONS AND INCONVENIENCE TO RESIDENTS DURING CONSTRUCTION OF THE DDOT PROJECT ALONG CANAL ROAD, NW.

Gannett Fleming
7133 RUTHERFORD ROAD, SUITE 300
BALTIMORE, MD 21244
(443) 348–2017

NO	DESCRIPTION	NAME	DATE

REVISIONS

DATE: 04–2021	SCALE: N.T.S.	MT-01

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

CANAL RD NW ROCK SLOPE STABILIZATION

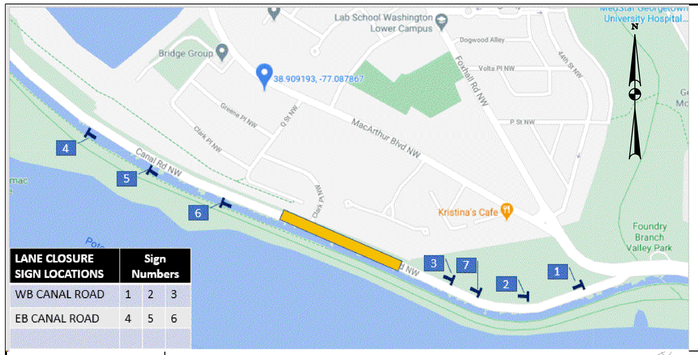
TRAFFIC CONTROL PLAN
GENERAL NOTES

PROJECT ENG. _____
DESIGNED BY _____
CHECKED BY _____
DRAWN BY _____
PROJECT MGR. _____

DIVISION CHIEF

DATE _____
FILE _____
SHEET 18 OF 24

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
	D.C.	DDOT – CANAL RD, N.W.	19	24



LANE CLOSURE SIGN LOCATIONS	Sign Numbers		
WB CANAL ROAD	1	2	3
EB CANAL ROAD	4	5	6

MINIMUM SIGN SPACING

SPEED (MPH)	MINIMUM SIGN SPACING (FT)
25	150
30	200
35	250
40	350
45	550
50	600
55	700

POSTED SPEED 40 MPH

TEMPORARY TRAFFIC CONTROL CONDITION	I	II	III
Mon–Fri 6:00 AM to 10:15 AM Except Holidays	X	X	
Mon–Fri 3:00 PM to 7:00 PM Except Holidays	X	X	
All Other Times			X

PROJECT DESCRIPTION:

THE PURPOSE OF THIS TRAFFIC CONTROL PLAN IS TO PROVIDE ADEQUATE AREA FOR CONSTRUCTION ACTIVITIES THAT ARE TO BE UNDERTAKEN.

AS PART OF: CANAL ROAD ROCK SLOPE STABILIZATION, NORTHWEST QUADRANT, WASHINGTON D.C.

ADDRESS: CANAL RD, NW

THE CONTRACTOR PROPOSES THE FOLLOWING CONSTRUCTION ACTIVITIES: ROCK SLOPE STABILIZATION.

NO MATERIALS SHALL BE STORED OR WORK PERFORMED BEYOND THE BOUNDARIES OUTLINED HEREIN

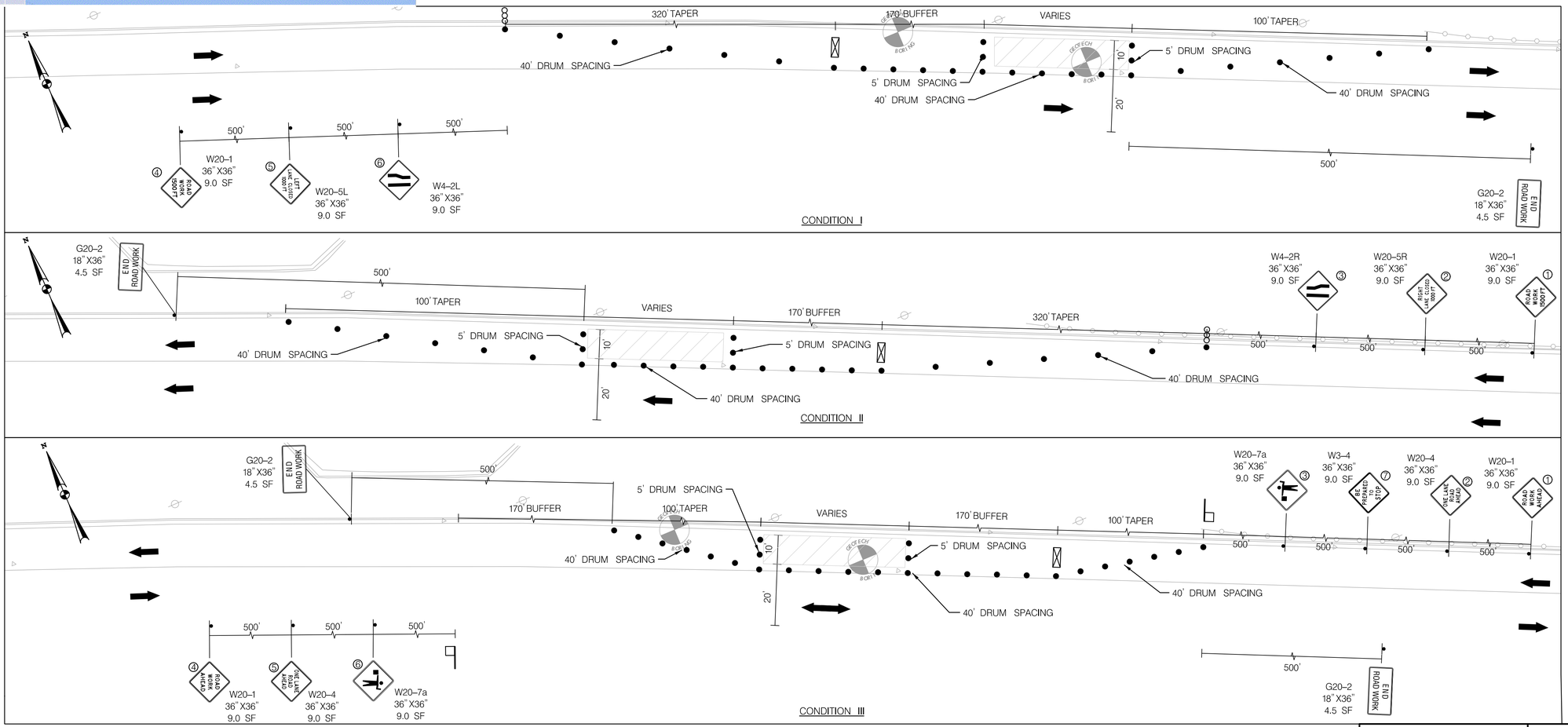
TOTAL PHASE DURATION: XX DAYS.

WORK HOURS: 9:30AM–3:30PM (MONDAY–SATURDAY)

THIS PLAN IS ANTICIPATED TO BE IMPLEMENTED UPON APPROVAL AND EXPIRES SIMULTANEOUSLY AS THE PUBLIC SPACE PERMIT. IF PERMIT EXTENSION IS REQUIRED THIS PLAN MUST BE RENEWED AND NEW COPIES MUST BE OBTAINED FROM THE AUTHORIZING SOURCE BEARING AN ORIGINAL DATED SIGNATURE PRIOR TO RENEWAL.

NOTES:

1. ALL TEMPORARY SIGNS AND TRAFFIC CONTROL MEASURES MUST BE REMOVED OUTSIDE OF WORK HOURS.



LEGEND

- CURRENT WORK ZONE
- TRAFFIC CONTROL DRUM
- TEMPORARY SIGN POST
- TRAFFIC FLOW ARROW
- TEMPORARY SIGN
- TRUCK MOUNTED ATTENUATOR
- ARROW PANEL
- FLAGGER

WORK PLAN:

WORK TO BEGIN IN THE ROADWAY STARTING AT 9:30AM. TRAFFIC CONTROL WILL BE PROVIDED BY APPROPRIATE ADVANCE WARNING SIGNAGE AND THE USE OF AFABS (VIA FLAGGER FORCE) WHICH IS AN AUTOMATIC FLAGGER TRAFFIC CONTROL DEVICE. THIS IS MONITORED BY ONSITE PERSONNEL. THIS ROUTE WILL BE THE BEST AS THERE IS NO LANE FOR ESCAPE SHOULD A CAR BREAK CONTROL.

CONTROLL THE NORTHERN LANE OF CANAL ROAD NW IN TWO STAGES SO AS TO NOT SPREAD TRAFFIC PROTECTION BEYOND ACCEPTABLE CAPABILITIES.

- BEGIN WORK ON THE WEST SIDE OF THE INTERSECTION OF CANAL ROAD NW AND CLARK PLACE NW (STARTING APPROX. 500' WEST OF THE INTERSECTION) AND CONTINUE EAST TO THE INTERSECTION OF CANAL ROAD NW AND CLARK PLACE NW.
- ONCE COMPLETING THE WEST EXTENT WORK, CLOSE THE SAME NORTHERN LANE OF CANAL ROAD NW FROM THE INTERSECTION WITH CLARK PLACE NW TO APPROXIMATELY 800' EAST OF SAID INTERSECTION.

LANE CLOSURE TIME WILL BEGIN AT 8:30AM TO ANTICIPATE CONTROL BEING UP AND READY FOR CONSTRUCTION ACTIVITIES BY 9:30AM. WORK WILL CONTINUE UNTIL 3:30PM WHEN THE LANE MAY BE RELEASED BACK TO PUBLIC ACCESS. THE EXACT END AND START TIMES ARE SUBJECT TO CHANGE GIVEN SITE SPECIFIC FACTORS AND THE AMOUNT OF WORK ABLE TO BE COMPLETED WITHIN THE TENTATIVE TIME FRAME.

GRAPHIC SCALE

20 10 0 20 40

1" = 20'-0" HORIZ.

Gannett Fleming

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(443) 348–2017

NO	DESCRIPTION	NAME	DATE

REVISIONS

DATE: 04–2021	SCALE: 1" = 20'	MT-02

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

CANAL RD NW ROCK SLOPE STABILIZATION

PROJECT ENG. _____
DESIGNED BY _____
CHECKED BY _____
DRAWN BY _____
PROJECT MGR. _____

TRAFFIC PROTECTION PLAN

DIVISION CHIEF
DATE _____
FILE _____
SHEET 19 OF 24

$PENTBL.$#

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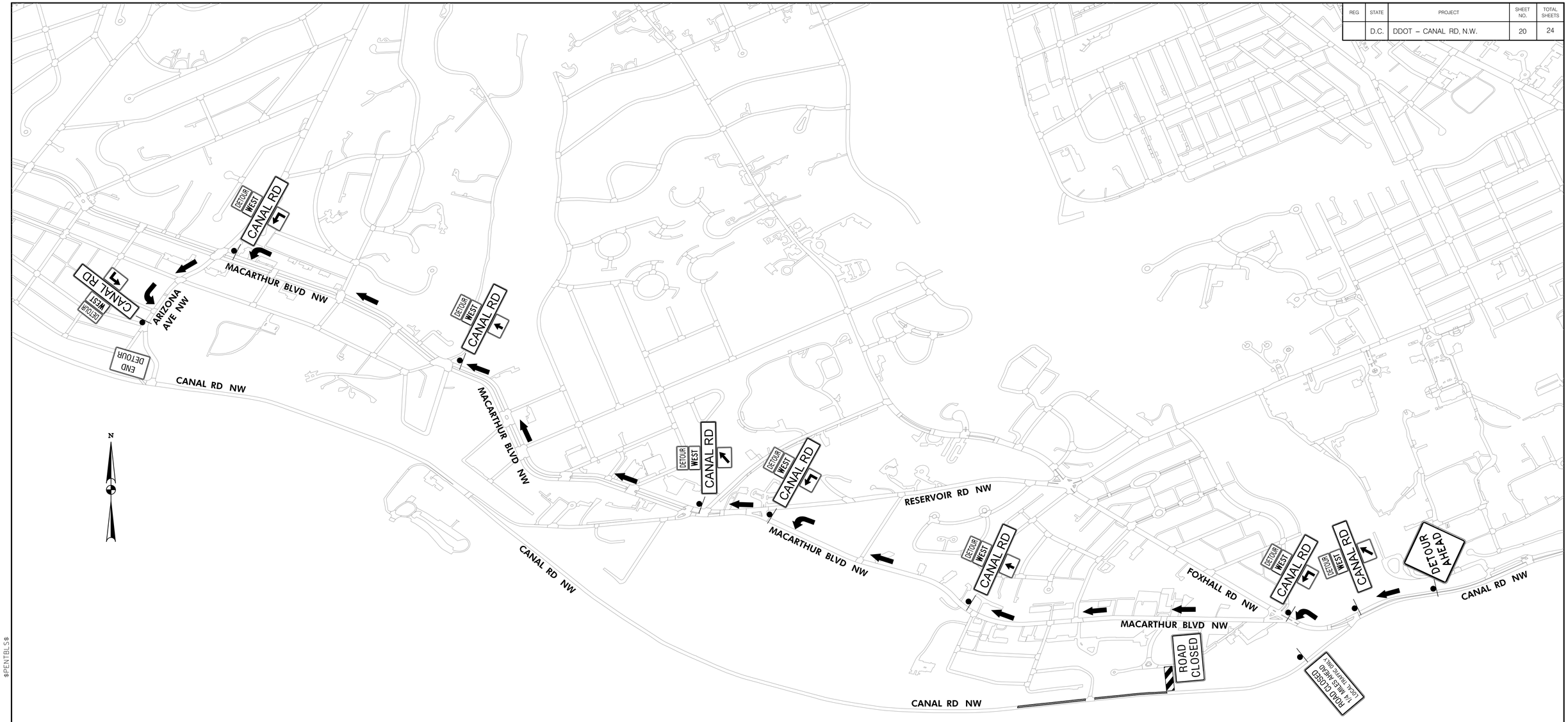
4/30/2021

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
	D.C.	DDOT – CANAL RD, N.W.	20	24



LEGEND

- CURRENT WORK ZONE
- TYPE III BARRICADE
- TEMPORARY SIGN POST
- DETOUR FLOW ARROW
- ROAD WORK — TEMPORARY SIGN

GRAPHIC SCALE

400 200 0 400 800

1" = 400'-0" HORIZ.

Gannett Fleming
7133 RUTHERFORD ROAD, SUITE 300
BALTIMORE, MD 21244
(443) 348–2017

NO	DESCRIPTION	NAME	DATE

REVISIONS

DATE: 04–2021	SCALE: 1" = 400'	MT-03

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

CANAL RD NW ROCK SLOPE STABILIZATION

PROJECT ENG. _____
DESIGNED BY _____
CHECKED BY _____
DRAWN BY _____
PROJECT MGR. _____

TRAFFIC CONTROL PLAN
DETOUR FOR
WESTBOUND CANAL RD CLOSURE

DIVISION CHIEF
DATE _____
FILE _____
SHEET 20 OF 24

$PENTBL$$

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4/30/2021

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
	D.C.	DDOT – CANAL RD, N.W.	21	24

Page 1 of 2

RECORD OF SOIL / ROCK EXPLORATION

Contracted With: Gannett Fleming Architects — Boring #: B-1
Project Name: DC Canal Road NW Rock Slope Stabilization — Job #: 20-0033
Location: Washington DC

SAMPLER

Datum: — Hammer Wt.: 140 lb — Hole Diameter: 8 in — Foreman: M. Fletcher
Surf. Elev.: 96.0 ± ft — Hammer Drop: 30 in — Rock Core Dia.: 2 in — Inspector: Sagar
Date Started: 3/15/21 — Spoon Size: 2 in — Boring Method: HSA/RC — Date Completed: 3/16/21

ELEV. (ft)	SOIL DESCRIPTION Color, Moisture, Density, Plasticity, Size Proportions	STRA DEPTH (ft)	SOIL SYMBOL	DEPTH SCALE	SAMPLE: Core Time (min/ft)	Cond	Blows/6" RQD/REC	No.	Type	Rec (in)	BORING & SAMPLE NOTES
95.0	**TOP SOIL**, some vegetation	1.0									1. Drill Rig: Mobile B-57 with NX core bit for rock coring.
	Brown, dry to moist, loose to medium dense, Fine to Medium **SAND**, with some Silt, Mica, and few weathered fragments of Schist					D	2-1-2	1	DS	2	
						D	2-2-2	2	DS	3	2. Rock Coring started at 29.0-ft
						D	10-12-9	3	DS	6	3. Boring location was offset by 4.0-ft
86.0		10.0		10		D	19-28-36	4	DS	4	4. Representative bag sample was obtained at 1.0-5.0-ft
	Light Brown to Tan, moist, very dense, Silty **SAND**, with weathered fragments of Schist					D	50/5"	5	DS	5	5. No groundwater encountered in soil, Bentonite used in flush fluid for rock coring. No water reading obtained at completion and @ 24hrs.
				20		D	50/5"	6	DS	6	
70.5		25.5		25		D	50/2"	7	DS	2	6. Boring backfilled with auger cuttings upon completion and site restored.
67.0	Tan, dry, very dense, **ROCK DUST**, with few fragments of mechanicilly weathered rock	29.0									
65.2	Light to Dark Gray, **SCHIST**, moderately to intensely fractured with angular and pependicular fracture planes, moderately hard	30.8		30	5.83		RQD=75% REC=92%	R1	RC	22	
	Gray, **SCHIST**, moderately weathered, intensely fractured, and moderately hard				2.18 1.33		RQD=51% REC=85%	R2	RC	51	
60.2		35.8		35	1.67 1.70						
	Light to Dark Gray, **SCHIST**, intensely fractured, moderately hard rock with moderate to high weathering				2.0 2.77 3.45		RQD=60% REC=85%	R3	RC	51	
				40	5.40						

SAMPLER TYPE
DS - DRIVEN SPLIT SPOON
PT - PRESSED SHELBY TUBE
CA - CONTINUOUS FLIGHT AUGER
RC - ROCK CORE

SAMPLE CONDITIONS
D - DISINTEGRATED
I - INTACT
U - UNDISTURBED
L - LOST

GROUNDWATER DEPTH
AT COMPLETION ____ ft
AFTER ____ HRS. ____ ft
AFTER 24 HRS. ____ ft
CAVED AT ____ ft

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
DC - DRIVING CASING
MD - MUD DRILLING

STANDARD PENETRATION TEST DRIVING 2" OD SAMPLER 1' WITH 140# HAMMER FALLING 30". COUNT MADE AT 6" INTERVALS

Page 2 of 2

RECORD OF SOIL / ROCK EXPLORATION

Contracted With: Gannett Fleming Architects — Boring #: B-1
Project Name: DC Canal Road NW Rock Slope Stabilization — Job #: 20-0033
Location: Washington DC

SAMPLER

Datum: — Hammer Wt.: 140 lb — Hole Diameter: 8 in — Foreman: M. Fletcher
Surf. Elev.: 96.0 ± ft — Hammer Drop: 30 in — Rock Core Dia.: 2 in — Inspector: Sagar
Date Started: 3/15/21 — Spoon Size: 2 in — Boring Method: HSA/RC — Date Completed: 3/16/21

ELEV. (ft)	SOIL DESCRIPTION Color, Moisture, Density, Plasticity, Size Proportions	STRA DEPTH (ft)	SOIL SYMBOL	DEPTH SCALE	SAMPLE: Core Time (min/ft)	Cond	Blows/6" RQD/REC	No.	Type	Rec (in)	BORING & SAMPLE NOTES
55.2		40.8			6.17						
	Dark Gray, **SCHIST**, hard slightly weathered rock with mechanical fractures				2.93 2.45 3.43		RQD=77% REC=100%	R4	RC	60	
50.2		45.8		45	3.63 3.62						
	Dark Gray, **SCHIST**, slightly weathered, hard rock with few fractures				4.23 3.45 3.17		RQD=92% REC=99%	R5	RC	53.2	
45.7		50.3		50	3.10 3.42						
	Dark Gray, **SCHIST**, moderately weathered, moderately hard with moderate to intense fractures				2.63 2.33 2.45		RQD=60% REC=91%	R6	RC	51	
40.2		55.8		55	3.28 7.08						
	Dark Gray, **SCHIST**, intensely fractured, moderately to highly weathered, moderately hard rock				2.83 2.37 2.95		RQD=40% REC=85%	R7	RC	51	
35.2		60.8		60	5.33 6.20						
	Gray, **SCHIST**, intensely fractured, moderately weathered, moderately hard rock				2.28 2.93 2.22		RQD=41% REC=100%	R8	RC	60	
30.2		65.8		65	4.03 3.12						
	Gray, **SCHIST**, moderately fractured, moderately weathered, moderately hard rock				2.35 2.53 4.27		RQD=30% REC=83%	R9	RC	49.5	
25.2		70.8		70	4.17 3.50						
	Bottom of Boring at 71.0 ft			75							
				80							

SAMPLER TYPE
DS - DRIVEN SPLIT SPOON
PT - PRESSED SHELBY TUBE
CA - CONTINUOUS FLIGHT AUGER
RC - ROCK CORE

SAMPLE CONDITIONS
D - DISINTEGRATED
I - INTACT
U - UNDISTURBED
L - LOST

GROUNDWATER DEPTH
AT COMPLETION ____ ft
AFTER ____ HRS. ____ ft
AFTER 24 HRS. ____ ft
CAVED AT ____ ft

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
DC - DRIVING CASING
MD - MUD DRILLING

STANDARD PENETRATION TEST DRIVING 2" OD SAMPLER 1' WITH 140# HAMMER FALLING 30". COUNT MADE AT 6" INTERVALS

Page 1 of 1

RECORD OF SOIL / ROCK EXPLORATION

Contracted With: Gannett Fleming Architects — Boring #: B-2
Project Name: DC Canal Road NW Rock Slope Stabilization — Job #: 20-0033
Location: Washington DC

SAMPLER

Datum: — Hammer Wt.: 140 lb — Hole Diameter: 8 in — Foreman: M. Fletcher
Surf. Elev.: 47.6 ± ft — Hammer Drop: 30 in — Rock Core Dia.: 2 in — Inspector: C.Vegesna
Date Started: 3/25/21 — Spoon Size: 2 in — Boring Method: HSA/RC — Date Completed: 3/25/21

ELEV. (ft)	SOIL DESCRIPTION Color, Moisture, Density, Plasticity, Size Proportions	STRA DEPTH (ft)	SOIL SYMBOL	DEPTH SCALE	SAMPLE: Core Time (min/ft)	Cond	Blows/6" RQD/REC	No.	Type	Rec (in)	BORING & SAMPLE NOTES
47.3	4" **ASPHALT**	0.3									1. No Bulk sample obtained at 1.0 to 5.0-ft.
46.6	8" **AGGREGATE BASE COURSE**	1.0									
46.1	Brown, dry to moist, medium dense, fine to medium, **SAND**, with silt and gravel. (Fill)	1.5				D	22-12-5	1	DS	12	2. Drill Rig: Mobile B-57 with NX core bit for rock coring.
	Brown to gray, dry, loose to dense, fine to medium, **SAND**, with some silt, weathered rock and mica. (Fill)					D	11-5-6	2	DS	8	
39.1		8.5				D	10-31-50/5"	3	DS	9	3. Boring offset by 8.0-ft to provide overhead utility clerance
	Gray to brown, dry, medium dense, fine, **SAND**, with some silt, weathered rocks and mica. (Fill)			10		D	12-12-8	4	DS	6	4. Rock coring started at 20.0-ft
				15		D	4-2-3	5	DS	7	5. No groundwater encountered in soil. Bentonite used in flush fluid for rock coring. No water reading obtained at completion and @ 24hrs.
29.1		18.5									
	Light tan, light gray, dry, very dense, silty **SAND**, with angular gravel and crushed concrete. (Fill)	20.0		20		D	12-35-50/4"	6	DS	10	
27.6	Light gray to dark gray, **SCHIST**, Top 6" of Concrete and Gravel	21.0			5.5		RQD=0% REC=100%	R1	RC	12	6. Upon Completion, boring backfilled with auger cuttings and surface patched with fast setting quikrete
26.6	Light gray to gray, **SCHIST**, hard rock, slight to moderately weathered, slightly to very slightly fractured				4.5 2.92 3.25		RQD=90% REC=97%	R2	RC	58	
21.6		26.0		25	2.75 3.42						
	Light gray to tan, **SCHIST**, moderately hard, moderately weathered, moderately fractured with angular fractures				2.83 3.00 1.75		RQD=98% REC=83%	R3	RC	40	
17.6		30.0		30	2.83						
	Bottom of Boring at 30.0 ft			35							
				40							

SAMPLER TYPE
DS - DRIVEN SPLIT SPOON
PT - PRESSED SHELBY TUBE
CA - CONTINUOUS FLIGHT AUGER
RC - ROCK CORE

SAMPLE CONDITIONS
D - DISINTEGRATED
I - INTACT
U - UNDISTURBED
L - LOST

GROUNDWATER DEPTH
AT COMPLETION ____ ft
AFTER ____ HRS. ____ ft
AFTER 24 HRS. ____ ft
CAVED AT ____ ft

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
DC - DRIVING CASING
MD - MUD DRILLING

STANDARD PENETRATION TEST DRIVING 2" OD SAMPLER 1' WITH 140# HAMMER FALLING 30". COUNT MADE AT 6" INTERVALS

Gannett Fleming
7133 RUTHERFORD ROAD, SUITE 300
BALTIMORE, MD 21244
(443) 348–2017

NO	DESCRIPTION	NAME	DATE

REVISIONS

DATE: 04–2021 | SCALE: N.T.S. | BR-01

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

CANAL RD NW ROCK SLOPE STABILIZATION

PROJECT ENG. ____
DESIGNED BY ____
CHECKED BY ____
DRAWN BY ____
PROJECT MGR. ____

BORING LOGS

DIVISION CHIEF
DATE ____
FILE ____
SHEET 21 OF 24

$PENTBL.S$
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4/30/2021

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
	D.C.	DDOT – CANAL RD, N.W.	22	24

RECORD OF SOIL / ROCK EXPLORATION

Contracted With: Gannett Fleming Architects — Boring #: B-3
Project Name: DC Canal Road NW Rock Slope Stabilization — Job #: 20-0033
Location: Washington DC

SAMPLER

Datum: — Hammer Wt: 140 lb — Hole Diameter: 8 in — Foreman: M. Fletcher
Surf. Elev.: 97.8 ± ft — Hammer Drop: 30 in — Rock Core Dia: 2 in — Inspector: PJ. Sagar
Date Started: 3/11/21 — Spoon Size: 2 in — Boring Method: HSA/RC — Date Completed: 3/12/21

ELEV. (ft)	SOIL DESCRIPTION Color, Moisture, Density, Plasticity, Size Proportions	STRA DEPTH (ft)	SOIL SYMBOL	DEPTH SCALE	SAMPLE Core Time (min/ft)	Cond	Blows/6" RQD/REC	No.	Type	Rec (in)	BORING & SAMPLE NOTES
96.8	**TOPSOIL**, some vegetation	1.0									1. Drill Rig: Mobile B-57 with NX core bit for rock coring.
94.3	Brown, dry to moist, medium dense, Fine to medium **SAND**, with Silt and little mica	3.5				D	7-10-11	1	DS	7	
91.8	Brown-Tan, moist, very dense, Fine **SAND**, with Silt, mica, and decomposed rock	6.0		5		I/D	16-34-20	2	DS	14	2. Rock Coring started at 9.0-ft
89.3	Light Brown to Light Gray, dry, very dense, Fine **SAND**, with some Silt, little fine gravel, decomposed rock, mica	8.5				D	50/1.5"	3	DS	1	3. Boring offset 5.5-ft NNE and 2.5-ft. ENE
88.8	Light Gray, dry, very dense, Fine **SAND**, some weathered rock fragments, and rock powder with little mica	9.0		10		I/D	50/1.5"	4	DS	1	4. Representative bag sample obtained at 1.0-5.0-ft
86.3	Light gray, Tan, **SCHIST**, highly weathered and highly fractured with some angular and pependicular fractures along weathering planes.	11.5			2.09 1.70		RQD=71% REC=97%	R1	RC	29	
81.3	Light gray, Tan, **SCHIST**, moderate to highly weathered, moderately factured	16.5			3.51 3.52 8.49		RQD=65% REC=100%	R2	RC	60	5. Water loss at 17'6" in Run#3 and continued till 71'6" in Run#13
76.3	Light Gray, Tan, **SCHIST**, moderately hard to hard rock with moderate weathering and facture	21.5		15	4.14 4.04 4.56 4.17 7.81		RQD=60% REC=91%	R3	RC	54.5	6. No groundwater encountered in soil. Bentonite used in flush fluid for rock coring. No water reading obtained at completion and @ 24hrs.
71.3	Light gray to dark gray, **SCHIST**, hard rock, slightly weathered with few angular fractures	26.5		20	4.53 5.22 1.37 3.25 3.33 5.58		RQD=70% REC=93%	R4	RC	56	7. Boring backfilled with auger cuttings upon completion and site restored.
66.3	Gray, **SCHIST**, hard rock with slight weathering and few angular fractures	31.5		25	3.03 6.50 3.53 3.38 2.28		RQD=85% REC=100%	R5	RC	60	
61.3	Gray, **SCHIST**, moderately hard, higly weathered, moderately to intensely fractured, dark gray and orange weathered surfaces.	36.5		30	2.68 2.92 2.28 4.20 5.25		RQD=52% REC=90%	R6	RC	54	
	Gray, **SCHIST**, moderately hard, moderately weathered with shear fractures along solution weathering planes			35	2.70 3.40 2.12 2.00		RQD=73% REC=100%	R7	RC	60	
				40							

SAMPLER TYPE
DS - DRIVEN SPLIT SPOON
PT - PRESSED SHELBY TUBE
CA - CONTINUOUS FLIGHT AUGER
RC - ROCK CORE

SAMPLE CONDITIONS
D - DISINTEGRATED
I - INTACT
U - UNDISTURBED
L - LOST

GROUNDWATER DEPTH
AT COMPLETION _____ ft
AFTER _____ HRS _____ ft
AFTER 24 HRS _____ ft
CAVED AT 8.5 ft

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
DC - DRIVING CASING
MD - MUD DRILLING

STANDARD PENETRATION TEST DRIVING 2" OD SAMPLER 1' WITH 140# HAMMER FALLING 30". COUNT MADE AT 6" INTERVALS

RECORD OF SOIL / ROCK EXPLORATION

Contracted With: Gannett Fleming Architects — Boring #: B-3
Project Name: DC Canal Road NW Rock Slope Stabilization — Job #: 20-0033
Location: Washington DC

SAMPLER

Datum: — Hammer Wt: 140 lb — Hole Diameter: 8 in — Foreman: M. Fletcher
Surf. Elev.: 97.8 ± ft — Hammer Drop: 30 in — Rock Core Dia: 2 in — Inspector: PJ. Sagar
Date Started: 3/11/21 — Spoon Size: 2 in — Boring Method: HSA/RC — Date Completed: 3/12/21

ELEV. (ft)	SOIL DESCRIPTION Color, Moisture, Density, Plasticity, Size Proportions	STRA DEPTH (ft)	SOIL SYMBOL	DEPTH SCALE	SAMPLE Core Time (min/ft)	Cond	Blows/6" RQD/REC	No.	Type	Rec (in)	BORING & SAMPLE NOTES
56.3	Gray, **SCHIST**, hard slightly weathered rock with mechanical fractures	41.5			2.53 2.02 4.07 2.40		RQD=94% REC=98%	R8	RC	59	
51.3	Gray, **SCHIST**, hard slightly weathered rock with mechanical fractures	46.5		45	2.05 2.38 1.87 2.57		RQD=85% REC=100%	R9	RC	60	
46.3	Gray, **SCHIST**, fresh, hard, unfractured rock	51.5		50	2.47 2.75 2.53 2.27		RQD=100% REC=100%	R10	RC	60	
41.3	Gray, **SCHIST**, moderately hard, moderately weathered rock with pependicular and inclined shear fractures	56.5		55	2.37 1.83 1.90 1.87 2.05		RQD=70% REC=100%	R11	RC	60	
36.3	Gray, **SCHIST**, fresh, hard rock with mechanical fractures	61.5		60	2.87 1.58 1.88 2.07 2.30		RQD=97% REC=100%	R12	RC	60	
31.3	Gray, **SCHIST**, Hard, slightly weathered rock with moderate mechanical fractures	66.5		65	3.25 2.65 2.53 2.87 4.42		RQD=81% REC=88%	R13	RC	53	
26.3	Bottom of Boring at 71.5 ft	71.5		70	3.57 3.10 3.30 2.67 2.17						
				75							
				80							

SAMPLER TYPE
DS - DRIVEN SPLIT SPOON
PT - PRESSED SHELBY TUBE
CA - CONTINUOUS FLIGHT AUGER
RC - ROCK CORE

SAMPLE CONDITIONS
D - DISINTEGRATED
I - INTACT
U - UNDISTURBED
L - LOST

GROUNDWATER DEPTH
AT COMPLETION _____ ft
AFTER _____ HRS _____ ft
AFTER 24 HRS _____ ft
CAVED AT 8.5 ft

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
DC - DRIVING CASING
MD - MUD DRILLING

STANDARD PENETRATION TEST DRIVING 2" OD SAMPLER 1' WITH 140# HAMMER FALLING 30". COUNT MADE AT 6" INTERVALS

Gannett Fleming
7133 RUTHERFORD ROAD, SUITE 300
BALTIMORE, MD 21244
(443) 348–2017

NO	DESCRIPTION	NAME	DATE

REVISIONS

DATE: 04–2021	SCALE: N.T.S.	BR-02

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

CANAL RD NW ROCK SLOPE STABILIZATION

PROJECT ENG. _____
DESIGNED BY _____
CHECKED BY _____
DRAWN BY _____
PROJECT MGR. _____

BORING LOGS

DIVISION CHIEF
DATE _____
FILE _____
SHEET 22 OF 24

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
	D.C.	DDOT – CANAL RD, N.W.	23	24

RECORD OF SOIL / ROCK EXPLORATION

Contracted With: Gannett Fleming Architects — Boring #: B-4
Project Name: DC Canal Road NW Rock Slope Stabilization — Job #: 20-0033
Location: Washington DC

SAMPLER

Datum: — Hammer Wt: 140 lb — Hole Diameter: 8 in — Foreman: M. Fletcher
Surf. Elev.: 98.5 ± ft — Hammer Drop: 30 in — Rock Core Dia: 2 in — Inspector: PJ
Date Started: 3/10/21 — Spoon Size: 2 in — Boring Method: HSA/RC — Date Completed: 3/11/21

ELEV. (ft)	SOIL DESCRIPTION Color, Moisture, Density, Plasticity, Size Proportions	STRA DEPTH (ft)	SOIL SYMBOL	DEPTH SCALE	SAMPLE Core Time (min/ft)	Cond	Blows/6" RQD/REC	No.	Type	Rec (in)	BORING & SAMPLE NOTES
97.5	**TOPSOIL**, some vegetation	1.0									1. Drill Rig: Mobile B-57 with NX core bit for rock coring.
95.0	Brown to Light Gray, dry to moist, medium dense, Silty **SAND**, with mica and little organics	3.5				D	12-10-5	1	DS	8	
92.5	Dark Brown to Brown, dry, loose, Silty **SAND**, with mica	6.0		5		D	3-5-5	2	DS	6	10. Boring backfilled with auger cuttings at completion and site restored
90.0	Brown, dry, medium dense, Silty **SAND**, with mica, and weathered rock	8.5				D	5-12-16	3	DS	5	
85.0	Light Brown to Light Gray, moist, dense, Silty **SAND**, with mica	13.5		10		I/D	11-19-28	4	DS	18	2. Rock Coring started at 19.0-ft 3. Boring location was offset 7-ft NNE
80.0	Brown to Tan, moist, very dense, Silty **SAND**, with some mica	18.5		15		D	15-50/5"	5	DS	3	4. Representative bag sample collected at 1.0-5.0-ft
79.5	Light Brown to Light Gray, dry to moist, very dense, Silty **SAND**, with some mica and rock fragments (grey)	19.0				D	50/4"	6	DS	4	6. Core barrel jammed at 40'4". Rock core sample for Run#5 was collected in 2 parts (36'6"-40'4' and 40'4"-41'6")
77.0	Dark Brown, **SCHIST**, moderately hard, moderately to highly weathered rock with moderate angular fractures,	21.5		20	3.33 4.32 1.83 2.15		RQD=18% REC=50%	R1	RC	15	
72.0	Gray, **SCHIST**, moderately hard, moderate to highly weathered rock, moderate to highly weathered angular shear and mechanical fractures	26.5		25	2.00 2.00 3.85 3.93		RQD=21% REC=42%	R2	RC	25	7. Core barrel jammed at 55'6". Rock core sample for Run#6 was collected in 2 parts (51'6"-55'6" and 55'6"-56'6")
67.0	Dark Gray, **SCHIST**, moderately hard, moderately weathered rock with angular and shear fractures	31.5		30	2.45 2.00 2.23 9.75 4.12		RQD=33% REC=63%	R3	RC	38	
62.0	Gray, **SCHIST**, moderately hard, moderately to highly weathered with multiple angular breaks	36.5		35	3.33 2.28 2.72 2.48		RQD=68% REC=100%	R4	RC	60	8. Water loss at 40'6"-41'6" in Run#5 and minor water loss in Run#6 (41'6"-46'6" depth)
	Gray, **SCHIST**, moderately hard, slightly weathered rock with mechanical fractures			40	2.88 2.77 3.23 3.25		RQD=71% REC=98%	R5	RC	59	9. No groundwater

SAMPLER TYPE
DS - DRIVEN SPLIT SPOON
PT - PRESSED SHELBY TUBE
CA - CONTINUOUS FLIGHT AUGER
RC - ROCK CORE

SAMPLE CONDITIONS
D - DISINTEGRATED
I - INTACT
U - UNDISTURBED
L - LOST

GROUNDWATER DEPTH
AT COMPLETION ____ ft
AFTER ____ HRS. ____ ft
AFTER 24 HRS ____ ft
CAVED AT 19.8 ft

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
DC - DRIVING CASING
MD - MUD DRILLING

STANDARD PENETRATION TEST DRIVING 2" OD SAMPLER 1' WITH 140# HAMMER FALLING 30". COUNT MADE AT 6" INTERVALS

RECORD OF SOIL / ROCK EXPLORATION

Contracted With: Gannett Fleming Architects — Boring #: B-4
Project Name: DC Canal Road NW Rock Slope Stabilization — Job #: 20-0033
Location: Washington DC

SAMPLER

Datum: — Hammer Wt: 140 lb — Hole Diameter: 8 in — Foreman: M. Fletcher
Surf. Elev.: 98.5 ± ft — Hammer Drop: 30 in — Rock Core Dia: 2 in — Inspector: PJ
Date Started: 3/10/21 — Spoon Size: 2 in — Boring Method: HSA/RC — Date Completed: 3/11/21

ELEV. (ft)	SOIL DESCRIPTION Color, Moisture, Density, Plasticity, Size Proportions	STRA DEPTH (ft)	SOIL SYMBOL	DEPTH SCALE	SAMPLE Core Time (min/ft)	Cond	Blows/6" RQD/REC	No.	Type	Rec (in)	BORING & SAMPLE NOTES
57.0	Gray, **SCHIST**, hard, slightly weathered, with mechanical fractures	41.5		45	6.25 2.00 2.40 2.75 3.57 3.65		RQD=85% REC=98%	R6	RC	59	encountered in soil layer. Bentonite used in flush fluid for rock coring. No water reading obtained at completion and @ 24hrs.
52.0	Gray, **SCHIST**, hard, slightly weathered rock with equidistant shear fractures and some mechanical breaks	46.5		50	3.43 3.50 2.43 3.55 2.97 4.25		RQD=91% REC=100%	R7	RC	60	
47.0	Gray, **SCHIST**, hard, slightly weathered rock with moderate angular and mechanical fractures	51.5		55	2.83 2.80 4.68 6.85		RQD=68% REC=82%	R8	RC	49	
42.0	Gray, **SCHIST**, hard, slightly weathered rock, wit few mechanical breaks seperating long contineous sections	56.5		60	5.68 4.33 2.85 3.65		RQD=95% REC=98%	R9	RC	59	
37.0	Gray, **SCHIST**, Long continuous sections, some hard, fresh rock, long contineous sections seperated by mechanical breaks	61.5		65	3.55 4.30 5.27 4.27 3.92		RQD=96% REC=98%	R10	RC	59	
32.0	Light Gray, **SCHIST**, Hard, slightly weathered rock with multiple angular shear breaks	66.5		70	3.77 5.25 3.82 3.33 3.23		RQD=58% REC=80%	R11	RC	48	
27.0	Bottom of Boring at 71.5 ft	71.5		75	3.15 5.18						
				80							

SAMPLER TYPE
DS - DRIVEN SPLIT SPOON
PT - PRESSED SHELBY TUBE
CA - CONTINUOUS FLIGHT AUGER
RC - ROCK CORE

SAMPLE CONDITIONS
D - DISINTEGRATED
I - INTACT
U - UNDISTURBED
L - LOST

GROUNDWATER DEPTH
AT COMPLETION ____ ft
AFTER ____ HRS. ____ ft
AFTER 24 HRS ____ ft
CAVED AT 19.8 ft

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
DC - DRIVING CASING
MD - MUD DRILLING

STANDARD PENETRATION TEST DRIVING 2" OD SAMPLER 1' WITH 140# HAMMER FALLING 30". COUNT MADE AT 6" INTERVALS

Gannett Fleming
7133 RUTHERFORD ROAD, SUITE 300
BALTIMORE, MD 21244
(443) 348–2017

NO	DESCRIPTION	NAME	DATE

REVISIONS

DATE: 04–2021 | SCALE: N.T.S. | BR-03

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

CANAL RD NW ROCK SLOPE STABILIZATION

PROJECT ENG. ____
DESIGNED BY ____
CHECKED BY ____
DRAWN BY ____
PROJECT MGR. ____

BORING LOGS

DIVISION CHIEF
DATE ____
FILE ____
SHEET 23 OF 24

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4/30/2021
$PENTBLS$

REG	STATE	PROJECT	SHEET NO.	TOTAL SHEETS
	D.C.	DDOT – CANAL RD, N.W.	24	24

RECORD OF SOIL / ROCK EXPLORATION

Contracted With: Gannett Fleming Architects — Boring #: B-5
Project Name: DC Canal Road NW Rock Slope Stabilization — Job #: 20-0033
Location: Washington DC

SAMPLER

Datum: — Hammer Wt.: 140 lb — Hole Diameter: 8 in — Foreman: M. Fletcher
Surf. Elev.: 96.8 ± ft — Hammer Drop: 30 in — Rock Core Dia.: 2 in — Inspector: Sagar
Date Started: 3/8/21 — Spoon Size: 2 in — Boring Method: HSA/RC — Date Completed: 3/9/21

ELEV. (ft)	SOIL DESCRIPTION Color, Moisture, Density, Plasticity, Size Proportions	STRA DEPTH (ft)	SOIL SYMBOL	DEPTH SCALE	SAMPLE Core Time (min/ft)	Cond	Blows/6" RQD/REC	No.	Type	Rec (in)	BORING & SAMPLE NOTES
95.8	**TOP SOIL**, with organic matter	1.0									1. Representative bag sample obtained at 1.0-5.0-ft
93.3	Brown, moist, medium dense, Silty **SAND**, some decomposed rock and mica present	3.5				I/D	4-7-7	1	DS	12	
90.8	Brown, moist, medium dense, Silty **SAND**, some decomposed rock and mica present	6.0				I/D	7-6-7	2	DS	12	2. Drill Rig: Mobile B-57 with NX core bit for rock coring.
88.3	Brown, moist, dense, Silty **SAND**, some decomposed rock and mica present	8.5				D	13-17-20	3	DS	7	3. Boring offset by 8.0-ft.
83.3	Brown, moist, medium dense. Silty **SAND**, mica present	13.5				I/D	30-15-12	4	DS	13	4. Rock coring started at 19.0-ft
78.3	Brown, moist, very dense, Silty **SAND**, mica present	18.5				I/D	50/2"	5	DS	2	5. No groundwater encountered in soil layer. Bentonite used in flush fluid for rock coring. No water reading obtained at completion and @ 24hrs.
77.8	Tan to Brown, moist, very dense, Silty **SAND**, with fragments of weathered mica schist	19.0				I/D	50/2"	6	DS	2	
72.8	Light Gray, Brown, **SCHIST**, moderately hard, highly weathered with intense angular shear fractures along solution weathering planes	24.0			4.50 2.50 3.83 3.17 1.83		RQD=28% REC=76%	R1	RC	45.5	6. Boring backfilled with auger cuttings at completion and site restored.
67.8	Brown, **SCHIST**, moderately hard, highly weathered with intense angular fractures along solution planes	29.0			3.43 3.63 4.2 2.93 3.5		RQD=30% REC=77%	R2	RC	46	
62.8	Light Gray, Brown, **SCHIST**, moderately hard, moderately weathered rock with intense shear and mechanical fractures	34.0			3.55 3.42 2.58 3.02 3.55		RQD=60% REC=93%	R3	RC	56	
57.8	Dark Gray, Brown, **SCHIST**, moderately soft, intensely fractured, highly weathered rock with no distinct fracture pattern, some crumbled fragments	39.0			2.55 3.55 3.15 3.45 5.17		RQD=28% REC=80%	R4	RC	48	

SAMPLER TYPE
DS - DRIVEN SPLIT SPOON
PT - PRESSED SHELBY TUBE
CA - CONTINUOUS FLIGHT AUGER
RC - ROCK CORE

SAMPLE CONDITIONS
D - DISINTEGRATED
I - INTACT
U - UNDISTURBED
L - LOST

GROUNDWATER DEPTH
AT COMPLETION ____ ft
AFTER ____ HRS. ____ ft
AFTER 24 HRS. ____ ft
CAVED AT 12.0 ft

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
DC - DRIVING CASING
MD - MUD DRILLING

STANDARD PENETRATION TEST DRIVING 2" OD SAMPLER 1' WITH 140# HAMMER FALLING 30". COUNT MADE AT 6" INTERVALS

RECORD OF SOIL / ROCK EXPLORATION

Contracted With: Gannett Fleming Architects — Boring #: B-5
Project Name: DC Canal Road NW Rock Slope Stabilization — Job #: 20-0033
Location: Washington DC

SAMPLER

Datum: — Hammer Wt.: 140 lb — Hole Diameter: 8 in — Foreman: M. Fletcher
Surf. Elev.: 96.8 ± ft — Hammer Drop: 30 in — Rock Core Dia.: 2 in — Inspector: Sagar
Date Started: 3/8/21 — Spoon Size: 2 in — Boring Method: HSA/RC — Date Completed: 3/9/21

ELEV. (ft)	SOIL DESCRIPTION Color, Moisture, Density, Plasticity, Size Proportions	STRA DEPTH (ft)	SOIL SYMBOL	DEPTH SCALE	SAMPLE Core Time (min/ft)	Cond	Blows/6" RQD/REC	No.	Type	Rec (in)	BORING & SAMPLE NOTES
	Gray, **SCHIST**, hard, slightly weathered rock with moderate fractures along inclined shear fracture planes *(continued)*				5.22 5.18 5.17 3.83		RQD=68% REC=100%	R5	RC	60	
52.8	**SCHIST**, hard, slightly weathered rock with moderate fractures along shear planes	44.0		45	4.33 4.15 5		RQD=91% REC=97%	R6	RC	58	
47.8	**SCHIST**, hard, slightly weathered rock with moderate fractures along inclined shear fracture planes	49.0		50	3.93 4.6 4.97 4.63 3.72		RQD=68% REC=100%	R7	RC	60	
42.8	**SCHIST**, hard, slightly weathered rock with moderate fractures along inclined shear fracture planes	54.0		55	5.25 4.92 4.77 3.33 4.00		RQD=75% REC=100%	R8	RC	60	
37.8	**SCHIST**, hard, slightly weathered rock with moderate fractures along inclined shear fracture planes	59.0		60	4.08 4.22 4.17 4.43 4.03		RQD=79% REC=78%	R9	RC	47	
32.8	**SCHIST**, hard, slightly weathered rock with moderate fractures along inclined shear fracture planes	64.0		65	13.75 4.70 4.23 6.05 5.00		RQD=39% REC=98%	R10	RC	59	
27.8	Bottom of Boring at 69.0 ft	69.0		70	3.00 4.65						
				75							
				80							

SAMPLER TYPE
DS - DRIVEN SPLIT SPOON
PT - PRESSED SHELBY TUBE
CA - CONTINUOUS FLIGHT AUGER
RC - ROCK CORE

SAMPLE CONDITIONS
D - DISINTEGRATED
I - INTACT
U - UNDISTURBED
L - LOST

GROUNDWATER DEPTH
AT COMPLETION ____ ft
AFTER ____ HRS. ____ ft
AFTER 24 HRS. ____ ft
CAVED AT 12.0 ft

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
DC - DRIVING CASING
MD - MUD DRILLING

STANDARD PENETRATION TEST DRIVING 2" OD SAMPLER 1' WITH 140# HAMMER FALLING 30". COUNT MADE AT 6" INTERVALS

RECORD OF SOIL / ROCK EXPLORATION

Contracted With: Gannett Fleming Architects — Boring #: B-6
Project Name: DC Canal Road NW Rock Slope Stabilization — Job #: 20-0033
Location: Washington DC

SAMPLER

Datum: — Hammer Wt.: 140 lb — Hole Diameter: 8 in — Foreman: W. Massey
Surf. Elev.: 47.4 ± ft — Hammer Drop: 30 in — Rock Core Dia.: 2 in — Inspector: B.Adhikari
Date Started: 3/26/21 — Spoon Size: 2 in — Boring Method: HSA/RC — Date Completed: 3/26/21

ELEV. (ft)	SOIL DESCRIPTION Color, Moisture, Density, Plasticity, Size Proportions	STRA DEPTH (ft)	SOIL SYMBOL	DEPTH SCALE	SAMPLE Core Time (min/ft)	Cond	Blows/6" RQD/REC	No.	Type	Rec (in)	BORING & SAMPLE NOTES
47.1	4" **ASPHALT**	0.3									1. Representative bag sample obtained at 1.0-5.0-ft
46.4	8" **AGGREGATE BASE COURSE**	1.0									
	Brown to Gray, dry, medium dense to very dense, silty **SAND**, with weathered fragments and trace of mica.					D	4-6-6	1	DS		2. Drill Rig: Mobile B-57 with NX core bit for rock coring.
41.3		6.1		5		D	6-50/2"	2	DS	2	
						D	50/0.5"	3	DS	0.5	
	Gray, **SCHIST**, moderate hard to hard, slightly weathered rock with moderate fractures along angular shear planes				4.5 4.5 3.0		RQD=88% REC=100%	R1	RC	60	3. Rock coring started at 6.08-ft.
36.3		11.1		10	3.0 3.0						4. No groundwater encountered in soil. Bentonite used in flush fluid for rock coring. No water reading obtained at completion and @ 24hrs.
	Bottom of Boring at 11.1 ft			15							
				20							5. Upon Completion, boring was backfilled with auger cuttings and the surface patched with fast setting concrete.
				25							
				30							
				35							
				40							

SAMPLER TYPE
DS - DRIVEN SPLIT SPOON
PT - PRESSED SHELBY TUBE
CA - CONTINUOUS FLIGHT AUGER
RC - ROCK CORE

SAMPLE CONDITIONS
D - DISINTEGRATED
I - INTACT
U - UNDISTURBED
L - LOST

GROUNDWATER DEPTH
AT COMPLETION ____ ft
AFTER ____ HRS. ____ ft
AFTER 24 HRS. ____ ft
CAVED AT 4.3 ft

BORING METHOD
HSA - HOLLOW STEM AUGERS
CFA - CONTINUOUS FLIGHT AUGERS
DC - DRIVING CASING
MD - MUD DRILLING

STANDARD PENETRATION TEST DRIVING 2" OD SAMPLER 1' WITH 140# HAMMER FALLING 30". COUNT MADE AT 6" INTERVALS

DATE: 04–2021 | SCALE: N.T.S. | BR-04

D.C. DEPARTMENT OF TRANSPORTATION
INFRASTRUCTURE PROJECT MANAGEMENT DIVISION

CANAL RD NW ROCK SLOPE STABILIZATION

PROJECT ENG. ____
DESIGNED BY ____
CHECKED BY ____
DRAWN BY ____
PROJECT MGR. ____

BORING LOGS

DIVISION CHIEF
DATE ____
FILE ____
SHEET 24 OF 24

Gannett Fleming
7133 RUTHERFORD ROAD, SUITE 300
BALTIMORE, MD 21244
(443) 348–2017

NO	DESCRIPTION	NAME	DATE

REVISIONS

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4/30/2021
$PENTBLS$