

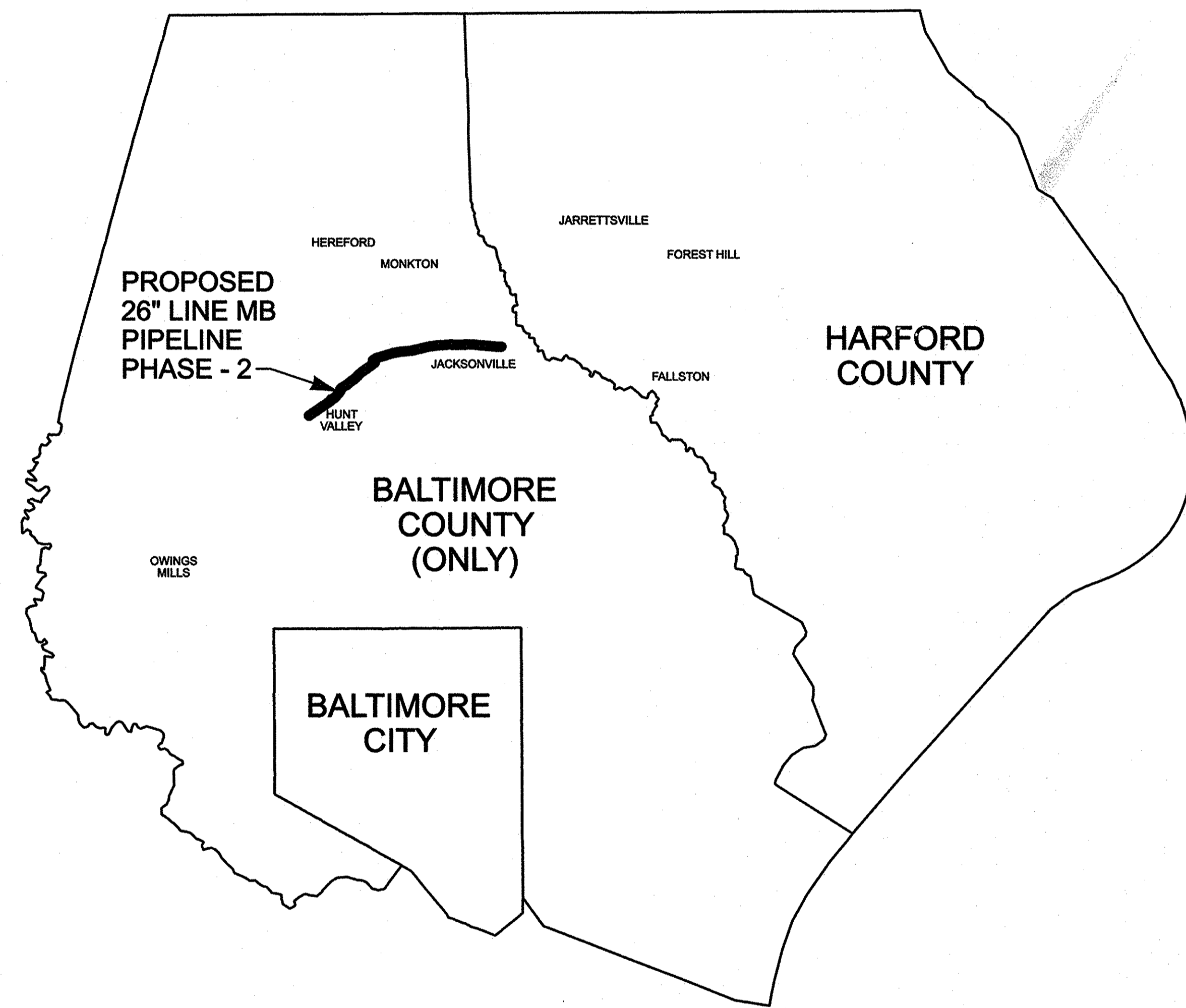
# BALTIMORE COUNTY GRADING \ EROSION AND SEDIMENT CONTROL PLAN COLUMBIA GAS TRANSMISSION, LLC LINE MB EXTENSION PROJECT-PHASE 2 BALTIMORE & HARFORD COUNTIES, MARYLAND

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### GENERAL LEGEND

----- 600 -----	EX. CONTOUR
----- 600 -----	PROP. CONTOUR
---SD---SD---	EX. STORM DRAIN
---S---S---	EX. SANITARY LINE
oCO.	EX. CLEANOUT
---W---	EX. WATER LINE
---FO---	EX. FIBER OPTIC LINE
---//---	EX. FOREIGN PIPELINE
---OH---	EX. OVERHEAD ELECTRIC
---E---	EX. UNDERGROUND ELECTRIC
---T---	EX. UNDERGROUND TELEPHONE
---B---	EX. FOREIGN UTILITY
---MA---	EX. LINE MA GAS LINE
---MB---MB---	PROPOSED LINE MB NATURAL GAS PIPELINE
---X---X---	EX. WOODS LINE
---X---X---	EX. FENCE
---O---O---	EX. GUARDRAIL
---*---*	EX. TREES
---	EX. STREAM
---	PROPERTY LINE
---	EX. EASEMENT
---	LINE MB PERMANENT RIGHT-OF-WAY
---	LINE MB TEMPORARY WORKSPACE
---	LINE MB ADDITIONAL TEMPORARY WORKSPACE
---	EXISTING LINE MA RIGHT-OF-WAY
---	PROPOSED ACCESS ROAD CENTERLINE
---	PROPOSED CONTRACTOR STAGING AREA
---	100 YEAR FEMA FLOODPLAIN
---	SOILS DELINEATION - HSG
MbB2-B	
---	SLOPES 15-25%
---	SLOPES 25% OR GREATER
---	FIELD DELINEATED WATERS OF THE U.S.
---	NATURAL RESOURCE DISTRICT
---	NON-TIDAL WETLAND
---	25' MDE REGULATED WETLAND BUFFER
---	FOREST STAND TREE LINE
---	FOREST BUFFER
---	EXPANDED RIPARIAN BUFFER
---	EX. EDGE OF PAVEMENT
---	LIMIT OF DISTURBANCE
---	HIGHLY ERODIBLE SOILS
---	EX. BUILDING
LNMAW0000	WETLAND ID
LNMAS0000	STREAM ID
AR-0000	ACCESS ROAD ID
MP 0	MILEPOST
MD-BA-000.00	PROPERTY TRACT NUMBER



LOCATION MAP  
N.T.S.

### OWNER/APPLICANT

NISOURCE / COLUMBIA GAS TRANSMISSION, LLC  
1700 MacCORKLE AVE, SE  
CHARLESTON, WV 25314  
TELE: (304) 357-2040  
CONTACT: JENNIFER L. CANNON

AREA DISTURBED IN BALTIMORE COUNTY: 4,401,571 SF. / 101.05 AC.

### -A. OWNER'S/DEVELOPER'S CERTIFICATION - GRADING

I/WE CERTIFY THAT ALL GRADING ON THIS SITE WILL BE DONE IN ACCORDANCE WITH THE CURRENT GRADING REQUIREMENTS AS SET FORTH BY THE BALTIMORE COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND RESOURCE MANAGEMENT AND WITH THE REQUIREMENTS SPECIFIED IN ARTICLE 33, TITLE 5 OF THE BALTIMORE COUNTY CODE.

OWERS/DEVELOPERS CERTI Jennifer Cannon NRP PROJECT MANAGER 7-17-15  
TITLE DATE  
JENNIFER CANNON  
PRINT NAME

### -B. OWNER'S/DEVELOPER'S CERTIFICATION - AIR QUALITY

I ACKNOWLEDGE THAT I AM RESPONSIBLE UNDER THE CODE OF MARYLAND REGULATIONS(26.1106.03) TO PREVENT PARTICULATE MATTER FROM BECOMING AIRBORNE DUE TO GRADING, LAND CLEARING, EXCAVATION, CONSTRUCTION OR OTHER RELATED ACTIVITIES. I WILL CONTACT THE ENVIRONMENTAL HEALTH SECTION AT 887-4065 AT LEAST THREE DAYS PRIOR TO BEGINNING WORK.

OWERS/DEVELOPERS CERTIFICATION Jennifer Cannon NRP PROJECT MANAGER 7-17-15  
TITLE DATE  
JENNIFER CANNON  
PRINT NAME

### OWNER'S / DEVELOPER'S CERTIFICATION

I/WE CERTIFY THAT ANY CLEARING, GRADING, CONSTRUCTION AND/OR DEVELOPMENT WILL BE DONE PURSUANT TO THIS PLAN AND THAT ANY RESPONSIBLE PERSONNEL INVOLVED IN THIS CONSTRUCTION WILL HAVE A CERTIFICATE OF ATTENDANCE AT A MARYLAND DEPARTMENT OF THE ENVIRONMENT APPROVED TRAINING PROGRAM FOR THE CONTROL OF SEDIMENT AND EROSION BEFORE BEGINNING THE PROJECT. I/WE ALSO CERTIFY THAT THE SITE WILL BE INSPECTED AT THE END OF EACH WORKING DAY, AND THAT ANY NEEDED MAINTENANCE WILL BE COMPLETED SO AS TO INSURE THAT ALL SEDIMENT CONTROL PRACTICES ARE LEFT IN OPERATIONAL CONDITION. I/WE AUTHORIZE THE RIGHT OF ENTRY FOR PERIODIC ON-SITE EVALUATIONS BY THE BALTIMORE COUNTY SOIL CONSERVATION DISTRICT BOARD OF SUPERVISORS OR THEIR AUTHORIZED AGENTS.

OWERS/DEVELOPERS SIGNATURE Jennifer Cannon 7-17-15  
DATE  
JENNIFER CANNON  
PRINT NAME  
NRP PROJECT MANAGER  
TITLE

### CONSULTANT'S CERTIFICATION

I CERTIFY THAT THIS PLAN OF EROSION AND SEDIMENT CONTROL REPRESENTS A PRACTICAL AND WORKABLE PLAN BASED ON MY PERSONAL KNOWLEDGE OF THE SITE, AND THAT THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE REQUIREMENTS OF THE BALTIMORE COUNTY SOIL CONSERVATION DISTRICT AND THE CURRENT STATE OF MARYLAND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL. I HAVE REVIEWED THIS EROSION AND SEDIMENT CONTROL PLAN WITH THE OWNER/DEVELOPER.

SIGNATURE Karen Powell 7-17-15  
DATE  
KAREN POWELL  
PRINT NAME  
14942  
MD LICENSE NO.

### GENERAL NOTES

- TOPOGRAPHICAL SURVEY DATA WAS PROVIDED BY BALTIMORE AND HARFORD COUNTIES IN 2012 (BALTIMORE COUNTY TOPOGRAPHIC CONTOUR DATA FROM 2005) (HARFORD COUNTY TOPOGRAPHIC CONTOUR DATA FROM 2008).
- BASE MAPPING SHOWN IS FROM A COMBINATION OF SOURCES BY OTHER FIRMS RESPONSIBLE FOR THE DESIGN OF THE PIPELINE. PROFESSIONAL RESPONSIBILITY OF KCI TECHNOLOGIES, INC. IS SOLELY THE CONSISTENCY OF THE EROSION CONTROL PLAN WITH THE BASE FILES PROVIDED, AND NOT THE ACCURACY OF THE BASE FILES THEMSELVES.
- ALL DISTURBED AREA FROM APPROXIMATELY OLD YORK ROAD EAST TO MANOR ROAD IS INCLUDED WITHIN A TIER II WATERSHED AS NOTED ON THE GRADING/EROSION AND SEDIMENT CONTROL PLAN DWG NO. EC-48 THROUGH EC-53.
- ALL DISTURBED AREA WITHIN THE EXPANDED RIPARIAN BUFFER IS WITHIN THE STREAMSIDE MANAGEMENT ZONE AS NOTED ON THE GRADING/EROSION AND SEDIMENT CONTROL PLAN DWG. NO. EC-26 THROUGH EC-53.
- EROSION AND SEDIMENT CONTROL PLANS FOR 2015 CONSTRUCTION WERE PREPARED PER THE DIRECTION OF COLUMBIA GAS TRANSMISSION, LLC.
- PROPERTY TRACT NUMBERS ARE SHOWN ON THE GRADING/EROSION AND SEDIMENT CONTROL PLAN DWG NO. EC-26 THROUGH EC-53. DETAILED INFORMATION FOR INDIVIDUAL PROPERTIES IS PROVIDED ON THE PROPERTY OWNER'S CHART, DWG NO. PO-1.1 THROUGH PO-1.3.

### NOTES

- THE PROPOSED GRADING SHOWN ON THIS PLAN MEETS THE REQUIREMENTS SET FORTH BY BALTIMORE COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY AND COMPLIES WITH ARTICLE 33, TITLE 5 OF THE BALTIMORE COUNTY CODE. HOWEVER, DUE TO BUILDING TYPES AND LAYOUT, SOME FIELD ADJUSTMENTS MAY BE REQUIRED. ALL CHANGES MUST COMPLY WITH THE ABOVE MENTIONED REQUIREMENTS.
- ALL SWALES HAVE BEEN DESIGNED BY THE ENGINEER TO CONVEY RUNOFF ACCORDING TO BALTIMORE COUNTY DEPARTMENT OF PUBLIC WORKS DESIGN STANDARDS.
- THERE SHALL BE NO CLEARING, GRADING, CONSTRUCTION OR DISTURBANCE OF VEGETATION IN FOREST BUFFER EASEMENT OR OTHER FOREST RETENTION AREAS, EXCEPT AS PERMITTED BY BALTIMORE COUNTY DEPARTMENT OF ENVIRONMENTAL PROTECTION AND SUSTAINABILITY.
- STORMWATER MANAGEMENT HAS BEEN ADDRESSED/APPROVED BY/THROUGH (PAYMENT OF A FEE IN LIEU TO THE BALTIMORE COUNTY STORMWATER MANAGEMENT FUND/ STORMWATER MANAGEMENT VARIANCE/STORMWATER MANAGEMENT EXEMPTION/ENVIRONMENTAL SITE DESIGN).

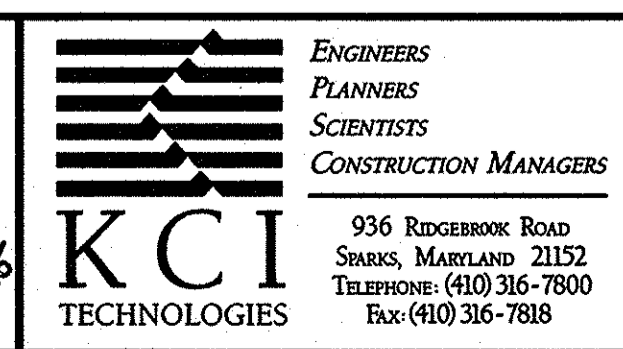
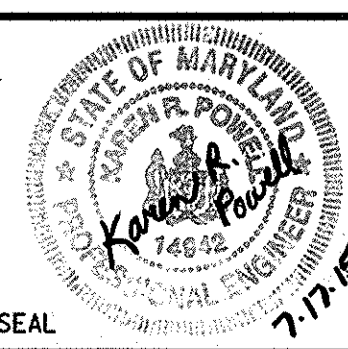
BALTIMORE COUNTY  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
AND SUSTAINABILITY  
APPROVED FOR GRADING  
DATE

STORMWATER MANAGEMENT  
PERMIT NOT REQUIRED  
8-1, 7-20-15 Replace Staging Area 7 with 7B, 7C & 7D, etc. etc.  
BALTIMORE COUNTY SOIL CONSERVATION DISTRICT  
APPROVED FOR SEDIMENT CONTROL 7-20-15  
DATE  
025-1882-15  
PLAN NO.  
DISTRICT OFFICIAL  
TECHNICAL REVIEW FOR THE DISTRICT BY:  
Jeffrey P. Wood and Sara C. Dulina  
IF A GRADING PERMIT HAS NOT BEEN OBTAINED WITHIN TWO YEARS OF THIS APPROVAL  
THIS PLAN SHALL BE RE-SUBMITTED TO THE DISTRICT.

DESIGN & DRAWING BASED ON MARYLAND STATE  
COORDINATE SYSTEM - HORIZ: NAD 83 (ADA 107) VERT: NAVD 88

PLOTTER: WESLEY, PIV. 14, 2015; Tuesday, July 14, 2015; 1:01:11 PM; FILE: M:\2015\1882\15\025-1882-15\01 - TITLE - SHEET-ESSC-BC-Phase2.dwg

PROFESSIONAL CERTIFICATION:  
I HEREBY CERTIFY THAT THESE  
DOCUMENTS WERE PREPARED OR  
APPROVED BY ME, AND THAT  
I AM A LICENSED  
PROFESSIONAL ENGINEER  
UNDER THE LAWS OF THE STATE  
OF MARYLAND.  
LICENSE NO.: 14942  
EXPIRATION DATE: 6/30/2016

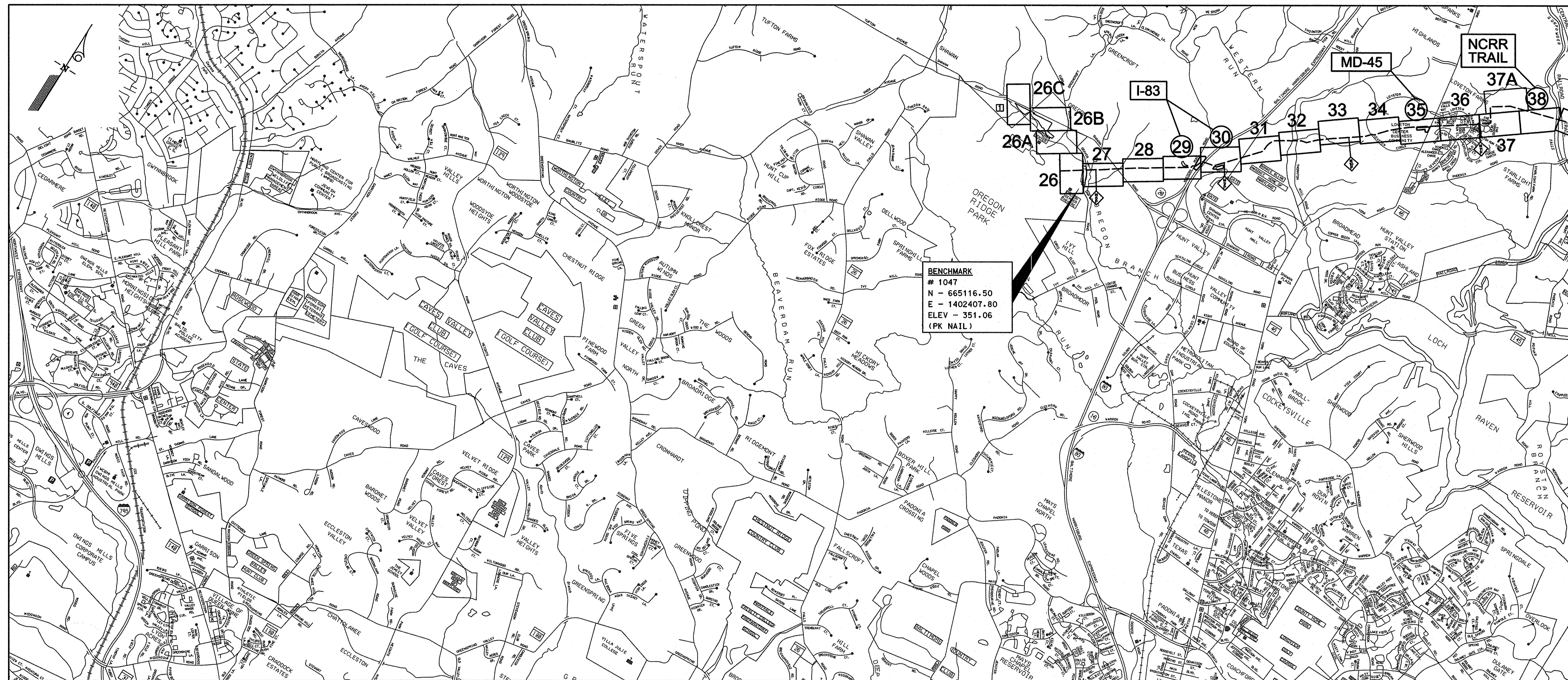


REVISIONS				DATE	
NO.	DATE	DESCRIPTION	BY	JAN. 2015	
1	JULY 2015	REVISED LOD TO REPLACE STAGING AREA #7 WITH STAGING AREA #7B, #7C, & #7D; RELOCATED PAVED	KP	SCALE AS SHOWN	
		AR-0800: REVISED TSDS 30-31 ADDED NEW TRENCH		DESIGNED BY	
		DRAIN: ADDED DBL-SIDED SFD DETAIL T-1.0, VIC-1.0.		CW	
		EC-26, EC-26A, EC-26B, EC-26C, EC-27, EC-30, EC-52, ECN-1.0, ECD-1.06, PO-1.1		DRAWN BY	
				KP	

BALTIMORE COUNTY  
GRADING / EROSION AND SEDIMENT CONTROL PLAN  
FOR  
COLUMBIA GAS TRANSMISSION, LLC  
LINE MB EXTENSION PROJECT - PHASE 2  
BALTIMORE & HARFORD COUNTIES, MARYLAND

DRAWING NO.  
**T-1.0**  
SHEET 1 OF 61  
KCI JOB NUMBER  
16-121849

ID	I2	J	K	L	M	N	O
GRADING UNIT	0.48	0.12	0.42	0.77	0.28	0.13	0.28



SEE SHEET VIC-1.1

**NOTE:**  
PLEASE REFER TO PLAN SHEETS EC-26 THROUGH EC-38 WHEN USING THE SHEET REFERENCE NUMBERS LISTED ABOVE.

**VICINITY MAP**  
1" = 2000'

**LEGEND**

- PROPOSED LINE MB NATURAL GAS PIPELINE
- PLAN SHEET INCLUDES BOTH STATE AND COUNTY PROPERTY
- PLAN SHEET INCLUDES COUNTY PROPERTY ONLY

R-1, 7-20-15  
Baltimore County Soil Conservation District  
**APPROVED FOR SEDIMENT CONTROL**  
*Scott J. Hall*  
7-20-15  
DATE

DESIGN & DRAWING BASED ON MARYLAND STATE COORDINATE SYSTEM - HORIZ: NAD 83 (ADJ. 07) VERT: NAVD 88

PLOTTER: 06.08.09 PM, Tuesday, July 14, 2015; FILE: \\MLV-202\18218\60\_00\PROJECTS\18218\_02\_LOCATION\_PLAN-ESC-Phase2.dwg

PROFESSIONAL CERTIFICATION I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 14942 EXPIRATION DATE: 6/01/2016



**KCI TECHNOLOGIES**  
ENGINEERS  
PLANNERS  
SCIENTISTS  
CONSTRUCTION MANAGERS  
936 RIDGEBROOK ROAD  
SPRINGFIELD, MARYLAND 21152  
TELEPHONE: (410) 316-7800  
FAX: (410) 316-7818

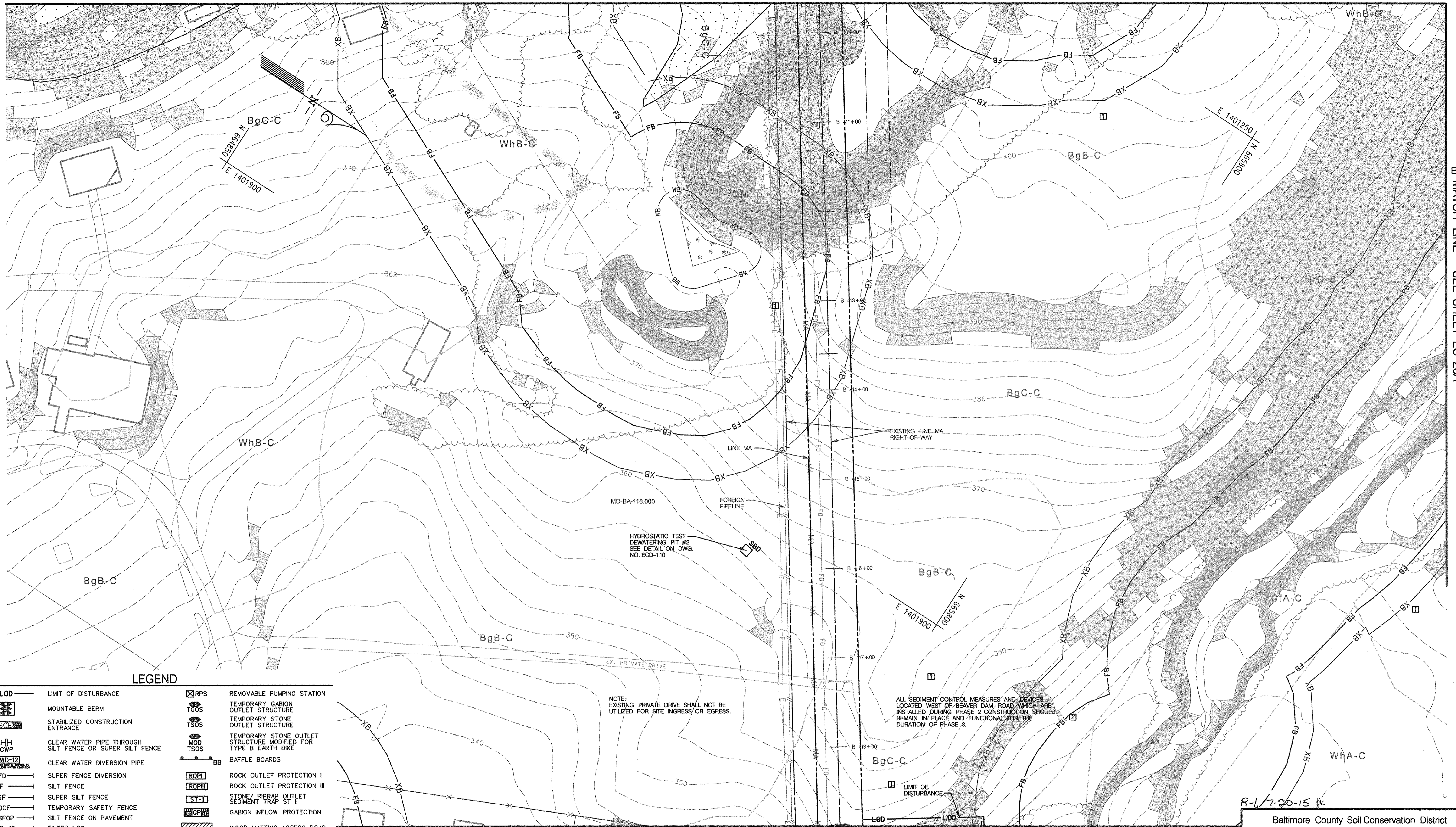
**Columbia Gas Transmission**  
A NiSource Company

REVISIONS				DATE
NO.	DATE	DESCRIPTION	BY	DATE
1	JULY 2015	REVISED LOD TO REPLACE STAGING AREA #7 WITH STAGING AREA #7B, #7C, & #7D; RELOCATED PAVED DRAIN; ADDED DBL-SIDED SFD DETAIL T-1.0, VIC-1.0.	KP	JAN. 2015
		EC-26, EC-26A, EC-26B, EC-26C, EC-27, EC-30, EC-32, ECN-1.0, ECD-1.06, PD-1.1	CW	
			KP	

**BALTIMORE COUNTY VICINITY MAP**  
FOR  
**COLUMBIA GAS TRANSMISSION, LLC**  
LINE MB EXTENSION PROJECT - PHASE 2  
BALTIMORE & HARFORD COUNTIES, MARYLAND

**DRAWING NO. VIC-1.0**  
SHEET 2 OF 61  
KCI JOB NUMBER 16-121849

MATCH LINE - SEE SHEET EC-25 (PHASE 3)

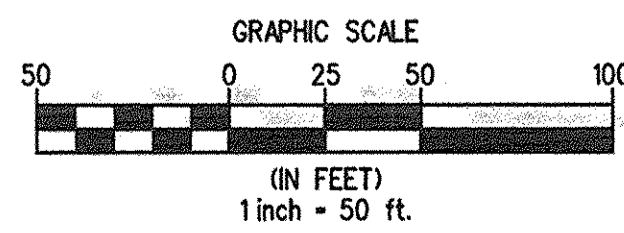


MATCH LINE - SEE SHEET EC-26A

LEGEND

- |             |   |            |   |
|-------------|---|------------|---|
| — LOD —     | LIMIT OF DISTURBANCE                                    | ⊠ RPS      | REMOVABLE PUMPING STATION                                       |
| — MB —      | MOUNTABLE BERM  | ⊠ TOS      | TEMPORARY GABION OUTLET STRUCTURE                               |
| — SCE —     | STABILIZED CONSTRUCTION ENTRANCE                        | ⊠ TSOS     | TEMPORARY STONE OUTLET STRUCTURE                                |
| — H-H CWP — | CLEAR WATER PIPE THROUGH SILT FENCE OR SUPER SILT FENCE | ⊠ MOD TSOS | TEMPORARY STONE OUTLET STRUCTURE MODIFIED FOR TYPE B EARTH DIKE |
| — CWD-12 —  | CLEAR WATER DIVERSION PIPE                              | — BB —     | BAFFLE BOARDS   |
| — SFD —     | SUPER FENCE DIVERSION                                   | ⊠ ROP I    | ROCK OUTLET PROTECTION I  |
| — SF —      | SILT FENCE  | ⊠ ROP III  | ROCK OUTLET PROTECTION III                                      |
| — SSF —     | SUPER SILT FENCE  | ⊠ ST-I     | STONE RIPRAP OUTLET   |
| — OCF —     | TEMPORARY SAFETY FENCE                                  | ⊠ HGP      | GABION INFLOW PROTECTION  |
| — SFOP —    | SILT FENCE ON PAVEMENT                                  | — WM —     | WOOD MATTING ACCESS ROAD  |
| — FL-1B —   | FILTER LOG  | — TAB —    | TEMPORARY ASPHALT BERM  |
| — S-FL —    | STACKED FILTER LOG                                      | — A-2 —    | TEMPORARY SWALE   |
| — SBD —     | HYDROSTATIC TEST DEWATERING PIT                         | — SFCD —   | SILT FENCE CHECK DAM  |
| — O —       | SANDBAGS  | — SIP —    | STANDARD INLET PROTECTION                                       |
| — P —       | PUMP  | — COIP —   | COMBINATION INLET PROTECTION                                    |
| — FB —      | FILTER BAG  | — SB —     | FILTER BAG WITH STRAW BALE AND SUPER SILT FENCE                 |
| — PDS-1 —   | PERIMETER DIKE / SWALE                                  | — COIP —   | COMBINATION INLET PROTECTION MODIFIED FOR SUMP                  |
| — A-1 —     | EARTH DIKE  |            |   |

MATCH LINE - SEE SHEET EC-27



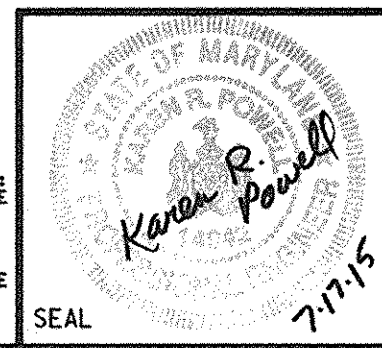
LIMIT OF DISTURBANCE

NOTE: EXISTING PRIVATE DRIVE SHALL NOT BE UTILIZED FOR SITE INGRESS/ OR EGRESS.

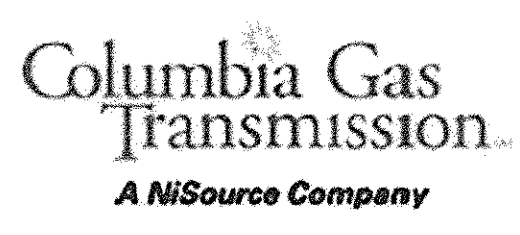
ALL SEDIMENT CONTROL MEASURES AND DEVICES LOCATED WEST OF BEAVER DAM ROAD WHICH ARE INSTALLED DURING PHASE 2 CONSTRUCTION SHOULD REMAIN IN PLACE AND FUNCTIONAL FOR THE DURATION OF PHASE 3.

R-1/7-20-15  
 Baltimore County Soil Conservation District  
**APPROVED FOR SEDIMENT CONTROL**  
*[Signature]*  
 DATE 7-20-15

PLOTTER: 03/26 PM on Tuesday, July 14, 2015  
 FILE: \\C:\Users\jrb\Documents\Baltimore\EC-26\_Phase2.dwg



**KCI TECHNOLOGIES**  
 ENGINEERS PLANNERS SCIENTISTS CONSTRUCTION MANAGERS  
 936 RIDGEBANK ROAD  
 SHARPS, MARYLAND 21152  
 TELEPHONE: (410) 316-7800  
 FAX: (410) 316-7818

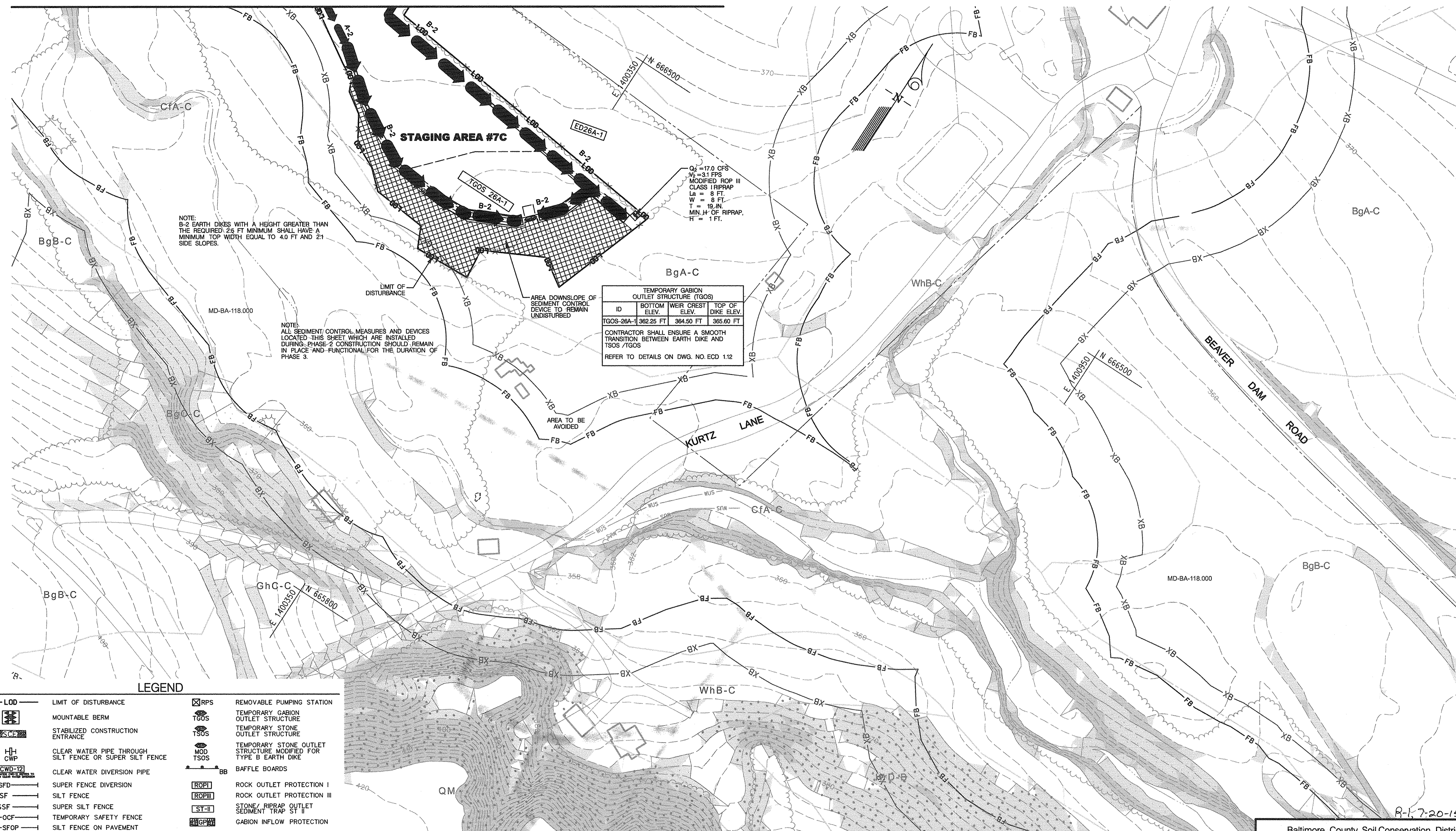


NO.	DATE	REVISIONS	BY	DATE
1	JULY 2015	REVISED LOD TO REPLACE STAGING AREA #7 WITH STAGING AREA #7B, #7C, & #7D; RELOCATED PAVED DR-0900; REVISED TSOS 30-51; ADDED NEW TRENCH (DRAIN); ADDED DBL-SIDED SFD DETAIL 1-1.0, V10-1.0, EC-26, EC-26A, EC-26B, EC-26C, EC-27, EC-30, EC-32, EC-1.0, ECD-1.0, P0-1.1	KP	JAN. 2015

**BALTIMORE COUNTY GRADING / EROSION AND SEDIMENT CONTROL PLAN**  
 FOR  
**COLUMBIA GAS TRANSMISSION, LLC**  
**LINE MB EXTENSION PROJECT - PHASE 2**  
 BALTIMORE & HARFORD COUNTIES, MARYLAND

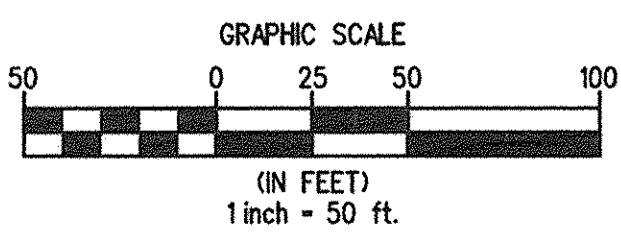
DRAWING NO. **EC-26**  
 SHEET 4 OF 61  
 KCI JOB NUMBER  
 16-121849

MATCH LINE - SEE SHEET EC-26B



**LEGEND**

- LOD LIMIT OF DISTURBANCE
- MOUNTABLE BERM
- STABILIZED CONSTRUCTION ENTRANCE
- CWP CLEAR WATER PIPE THROUGH SILT FENCE OR SUPER SILT FENCE
- CWD-12 CLEAR WATER DIVERSION PIPE
- SFD SUPER FENCE DIVERSION
- SF SILT FENCE
- SSF SUPER SILT FENCE
- OCF TEMPORARY SAFETY FENCE
- SFOP SILT FENCE ON PAVEMENT
- FL-18 FILTER LOG
- S-FL STACKED FILTER LOG
- SBD HYDROSTATIC TEST DEWATERING PIT
- SANDBAGS
- SANDBAG DAM
- PUMP
- FB FILTER BAG
- PDS-1 PERIMETER DIKE / SWALE
- A-1 EARTH DIKE
- TAB TEMPORARY ASPHALT BERM
- RPS REMOVABLE PUMPING STATION
- TGOS TEMPORARY GABION OUTLET STRUCTURE
- TSOS TEMPORARY STONE OUTLET STRUCTURE
- MOD TSOS TEMPORARY STONE OUTLET STRUCTURE MODIFIED FOR TYPE B EARTH DIKE
- BB BAFFLE BOARDS
- ROP-I ROCK OUTLET PROTECTION I
- ROP-III ROCK OUTLET PROTECTION III
- ST-I STONE / RIPRAP OUTLET SEDIMENT TRAP ST I
- IBGPI GABION INFLOW PROTECTION
- WOOD MATTING ACCESS ROAD
- TEMPORARY ACCESS BRIDGE
- A-2 TEMPORARY SWALE
- SFCD SILT FENCE CHECK DAM
- COIP STANDARD INLET PROTECTION
- COIP COMBINATION INLET PROTECTION
- SB FB FILTER BAG WITH STRAW BALE AND SUPER SILT FENCE
- MOD COIP COMBINATION INLET PROTECTION MODIFIED FOR SUMP



MATCH LINE - SEE SHEET EC-26

Baltimore County Soil Conservation District  
**APPROVED FOR SEDIMENT CONTROL**  
*[Signature]*  
 7-20-15  
 DATE

PLOTTER: PLOT BY Tuesday, July 14, 2015  
 FILE: H:\2015\26A\26A.dwg



**KCI TECHNOLOGIES**  
 ENGINEERS  
 PLANNERS  
 SCIENTISTS  
 CONSTRUCTION MANAGERS  
 936 RECORDER ROAD  
 SHAWES, MARYLAND 21152  
 TELEPHONE: (410) 316-7800  
 FAX: (410) 316-7818



REVISIONS			DATE
NO.	DATE	DESCRIPTION	BY
1	JULY 2015	REVISED LOD TO REPLACE STAGING AREA #7 WITH STAGING AREA #7B, #7C, & #7D; RELOCATED PAVED	KP
		DRAINING ADDED DBL-SIDED SFD DETAIL T-1.0, VIC-1.0.	
		EC-26, EC-26A, EC-26B, EC-26C, EC-27, EC-30, EC-32, ECN-1.0, ECD-1.06, P01-1.1	

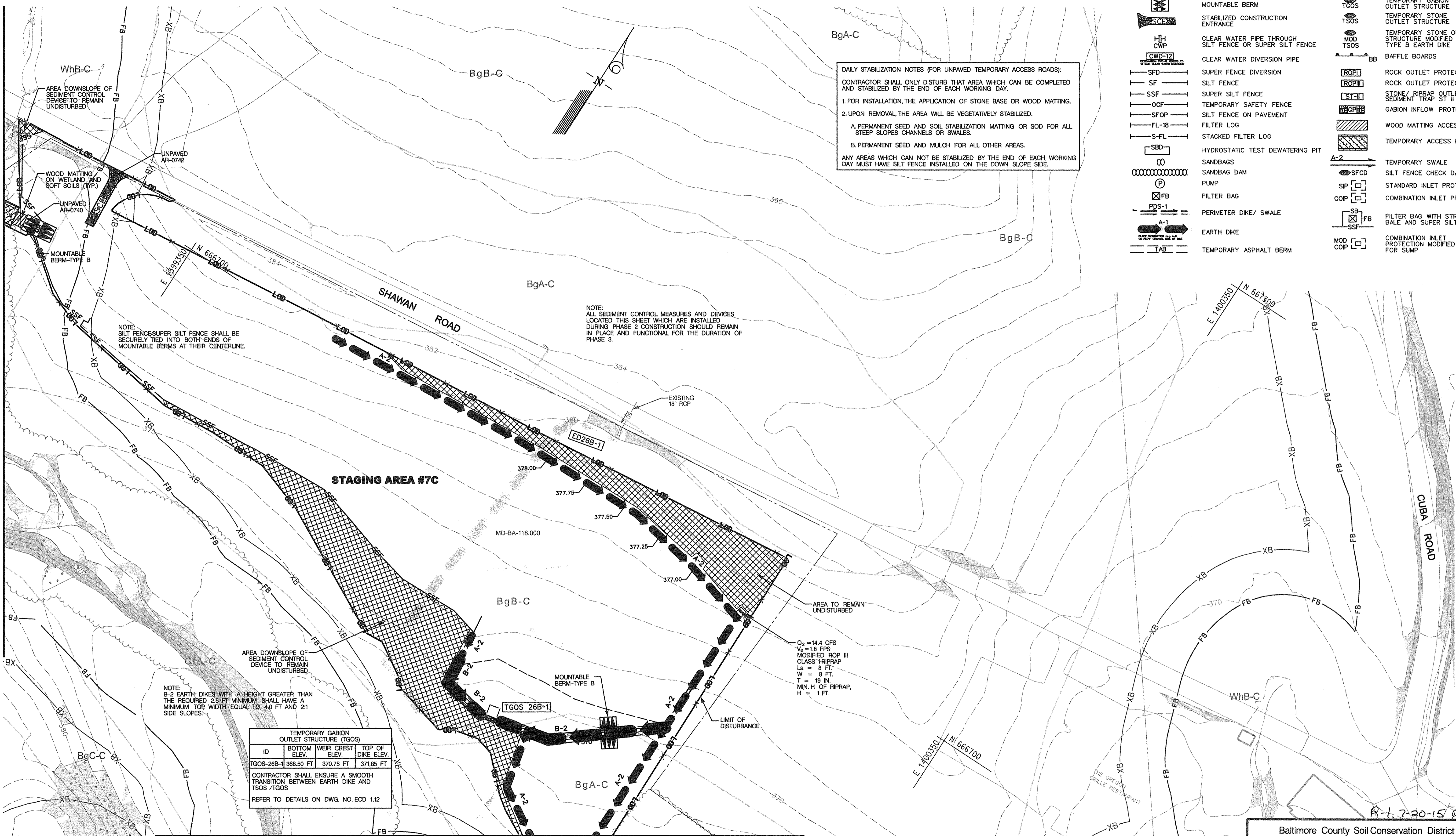
**BALTIMORE COUNTY GRADING / EROSION AND SEDIMENT CONTROL PLAN**  
 FOR  
**COLUMBIA GAS TRANSMISSION, LLC**  
 LINE MB EXTENSION PROJECT - PHASE 2  
 BALTIMORE & HANFORD COUNTIES, MARYLAND

DESIGNED BY: CW  
 DRAWN BY: KP

DATE: JULY 2015  
 SCALE: 1" = 50'

DRAWING NO. **EC-26A**  
 SHEET 4A OF 61  
 KCI JOB NUMBER  
 16-121849

MATCH LINE - SEE SHEET EC-26C



**DAILY STABILIZATION NOTES (FOR UNPAVED TEMPORARY ACCESS ROADS):**  
 CONTRACTOR SHALL ONLY DISTURB THAT AREA WHICH CAN BE COMPLETED AND STABILIZED BY THE END OF EACH WORKING DAY.  
 1. FOR INSTALLATION, THE APPLICATION OF STONE BASE OR WOOD MATTING.  
 2. UPON REMOVAL, THE AREA WILL BE VEGETATIVELY STABILIZED.  
 A. PERMANENT SEED AND SOIL STABILIZATION MATTING OR SOD FOR ALL STEEP SLOPES CHANNELS OR SWALES.  
 B. PERMANENT SEED AND MULCH FOR ALL OTHER AREAS.  
 ANY AREAS WHICH CAN NOT BE STABILIZED BY THE END OF EACH WORKING DAY MUST HAVE SILT FENCE INSTALLED ON THE DOWN SLOPE SIDE.

**NOTE:**  
 ALL SEDIMENT CONTROL MEASURES AND DEVICES LOCATED THIS SHEET WHICH ARE INSTALLED DURING PHASE 2 CONSTRUCTION SHOULD REMAIN IN PLACE AND FUNCTIONAL FOR THE DURATION OF PHASE 3.

**NOTE:**  
 SILT FENCES/SILT FENCE SHALL BE SECURELY TIED INTO BOTH ENDS OF MOUNTABLE BERMS AT THEIR CENTERLINE.

**NOTE:**  
 B-2 EARTH DIKES WITH A HEIGHT GREATER THAN THE REQUIRED 2.5 FT MINIMUM SHALL HAVE A MINIMUM TOP WIDTH EQUAL TO 4.0 FT AND 2:1 SIDE SLOPES.

TEMPORARY GABION OUTLET STRUCTURE (TGOS)			
ID	BOTTOM ELEV.	WEIR CREST ELEV.	TOP OF DIKE ELEV.
TGOS-26B-1	368.50 FT	370.75 FT	371.85 FT

CONTRACTOR SHALL ENSURE A SMOOTH TRANSITION BETWEEN EARTH DIKE AND TSOS /TGOS  
 REFER TO DETAILS ON DWG. NO. ECD 1.12

$Q_2 = 14.4$  CFS  
 $V_2 = 1.8$  FPS  
 MODIFIED ROP III CLASS RIPRAP  
 $L_s = 8$  FT  
 $W = 8$  FT  
 $T = 19$  IN.  
 MIN. H OF RIPRAP.  
 $H = 1$  FT.

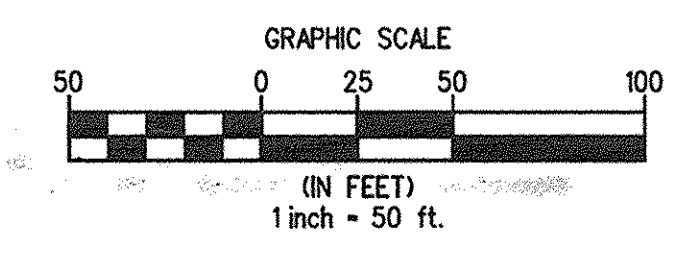
**LEGEND**

- LOD LIMIT OF DISTURBANCE
- MOUNTABLE BERM
- STABILIZED CONSTRUCTION ENTRANCE
- H-H CWP CLEAR WATER PIPE THROUGH SILT FENCE OR SUPER SILT FENCE
- CWD-12 CLEAR WATER DIVERSION PIPE
- SFD SUPER FENCE DIVERSION
- SF SILT FENCE
- SSF SUPER SILT FENCE
- OCF TEMPORARY SAFETY FENCE
- SFOP SILT FENCE ON PAVEMENT
- FL-18 FILTER LOG
- S-FL STACKED FILTER LOG
- SBD HYDROSTATIC TEST DEWATERING PIT
- SANDBAGS
- SANDBAG DAM
- PUMP
- FB FILTER BAG
- PDS-1 PERIMETER DIKE/ SWALE
- A-1 EARTH DIKE
- TAB TEMPORARY ASPHALT BERM
- XRPS REMOVABLE PUMPING STATION
- TGOS TEMPORARY GABION OUTLET STRUCTURE
- TSOS TEMPORARY STONE OUTLET STRUCTURE
- MOD TSOS TEMPORARY STONE OUTLET STRUCTURE MODIFIED FOR TYPE B EARTH DIKE
- BB BAFFLE BOARDS
- ROPI ROCK OUTLET PROTECTION I
- ROPIII ROCK OUTLET PROTECTION III
- ST-I STONE/ RIPRAP OUTLET SEDIMENT TRAP ST I
- HGPH GABION INFLOW PROTECTION
- WOOD MATTING ACCESS ROAD
- TEMPORARY ACCESS BRIDGE
- A-2 TEMPORARY SWALE
- SFCD SILT FENCE CHECK DAM
- SIP STANDARD INLET PROTECTION
- COIP COMBINATION INLET PROTECTION
- SB FB FILTER BAG WITH STRAW BALE AND SUPER SILT FENCE
- MOD COIP COMBINATION INLET PROTECTION MODIFIED FOR SUMP

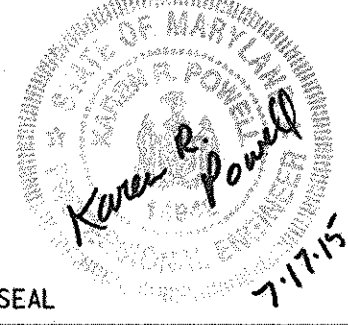
MATCH LINE - SEE SHEET EC-26A

Baltimore County Soil Conservation District  
**APPROVED FOR SEDIMENT CONTROL**  
*[Signature]*  
 7-20-15  
 DATE

PLOTTED: 08:48 AM on Wednesday, July 15, 2015  
 FILE: \\MLV201A\B218.63.dwg  
 PLOTTER: HP DesignJet 2400



PROFESSIONAL CERTIFICATION  
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.  
 LICENSE NO. 14942  
 EXPIRATION DATE: 6/31/2016



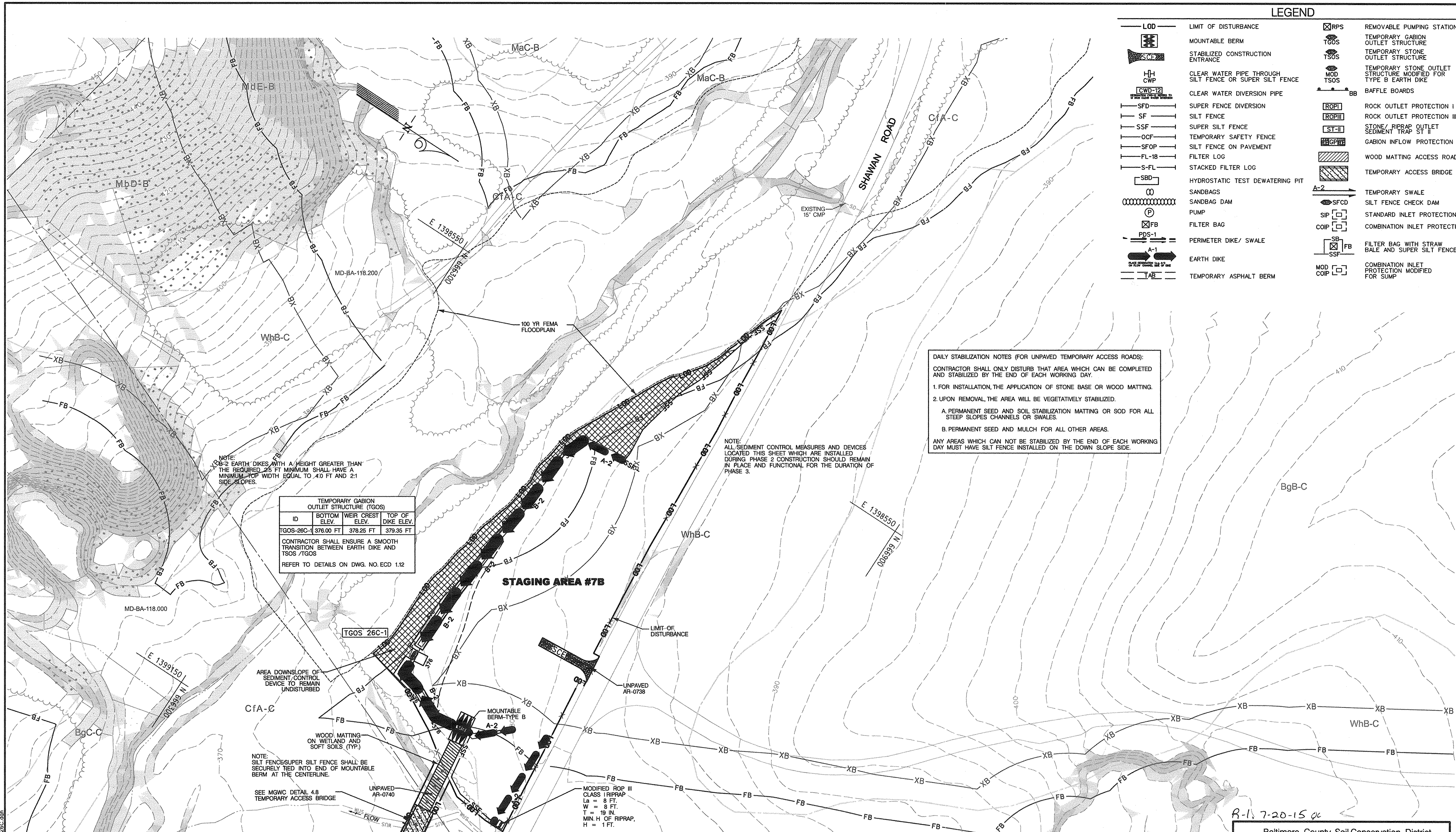
**KCI TECHNOLOGIES**  
 ENGINEERS  
 PLANNERS  
 SCIENTISTS  
 CONSTRUCTION MANAGERS  
 936 RIDGEBROOK ROAD  
 SHAWES, MARYLAND 21152  
 TELEPHONE: (410) 316-7800  
 FAX: (410) 316-7818

**Columbia Gas Transmission**  
 A NiSource Company

REVISIONS				DATE
NO.	DATE	DESCRIPTION	BY	DATE
1	JULY 2015	REVISED LOD TO REPLACE STAGING AREA #7 WITH STAGING AREA #7B, #7C, & #7D; RELOCATED PAVED AR-0500; REVISED TSOS 30-91 ADDED NEW TRENCH DRAIN; ADDED DBL-SIDED SFD DETAIL T-1.0, VIC-1.0.	KP	JULY 2015
		SCALE 1" = 50'		
		DESIGNED BY CW		
		DRAWN BY KP		

**BALTIMORE COUNTY GRADING / EROSION AND SEDIMENT CONTROL PLAN**  
 FOR  
**COLUMBIA GAS TRANSMISSION, LLC**  
 LINE MB EXTENSION PROJECT - PHASE 2  
 BALTIMORE & HARFORD COUNTIES, MARYLAND

DRAWING NO. **EC-26B**  
 SHEET 4B OF 61  
 KCI JOB NUMBER 16-121849



LEGEND			
— LOD —	LIMIT OF DISTURBANCE	⊠RPS	REMOVABLE PUMPING STATION
⊠	MOUNTABLE BERM	⊠TGOS	TEMPORARY GABION OUTLET STRUCTURE
⊠SCB	STABILIZED CONSTRUCTION ENTRANCE	⊠TSOS	TEMPORARY STONE OUTLET STRUCTURE
—H—H—	CLEAR WATER PIPE THROUGH SILT FENCE OR SUPER SILT FENCE	⊠MOD	TEMPORARY STONE OUTLET STRUCTURE MODIFIED FOR TYPE B EARTH DIKE
—CWD-12—	CLEAR WATER DIVERSION PIPE	—BB—	BAFFLE BOARDS
—SFD—	SUPER FENCE DIVERSION	⊠ROPI	ROCK OUTLET PROTECTION I
—SF—	SILT FENCE	⊠ROPIII	ROCK OUTLET PROTECTION III
—SSF—	SUPER SILT FENCE	⊠ST-II	STONE/ RIPRAP OUTLET SEDIMENT TRAP ST II
—OCF—	TEMPORARY SAFETY FENCE	⊠GIPFH	GABION INFLOW PROTECTION
—SFOP—	SILT FENCE ON PAVEMENT	⊠	WOOD MATTING ACCESS ROAD
—FL-18—	FILTER LOG	⊠	TEMPORARY ACCESS BRIDGE
—S-FL—	STACKED FILTER LOG	⊠A-2	TEMPORARY SWALE
⊠SBD	HYDROSTATIC TEST DEWATERING PIT	⊠SFCD	SILT FENCE CHECK DAM
⊠	SANDBAGS	⊠SIP	STANDARD INLET PROTECTION
⊠	SANDBAG DAM	⊠COIP	COMBINATION INLET PROTECTION
⊠P	PUMP	⊠SB	FILTER BAG WITH STRAW BALE AND SUPER SILT FENCE
⊠FB	FILTER BAG	⊠SSF	COMBINATION INLET PROTECTION MODIFIED FOR SUMP
—PDS-1—	PERIMETER DIKE/ SWALE		
—A-1—	EARTH DIKE		
—TAB—	TEMPORARY ASPHALT BERM		

DAILY STABILIZATION NOTES (FOR UNPAVED TEMPORARY ACCESS ROADS):  
 CONTRACTOR SHALL ONLY DISTURB THAT AREA WHICH CAN BE COMPLETED AND STABILIZED BY THE END OF EACH WORKING DAY.  
 1. FOR INSTALLATION, THE APPLICATION OF STONE BASE OR WOOD MATTING.  
 2. UPON REMOVAL, THE AREA WILL BE VEGETATIVELY STABILIZED.  
 A. PERMANENT SEED AND SOIL STABILIZATION MATTING OR SOD FOR ALL STEEP SLOPES CHANNELS OR SWALES.  
 B. PERMANENT SEED AND MULCH FOR ALL OTHER AREAS.  
 ANY AREAS WHICH CAN NOT BE STABILIZED BY THE END OF EACH WORKING DAY MUST HAVE SILT FENCE INSTALLED ON THE DOWN SLOPE SIDE.

NOTE: 30-2 EARTH DIKES WITH A HEIGHT GREATER THAN THE REQUIRED 25 FT MINIMUM SHALL HAVE A MINIMUM TOP WIDTH EQUAL TO 4.0 FT AND 2:1 SIDE SLOPES.

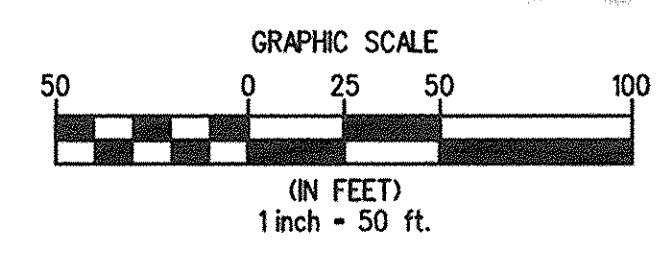
NOTE: ALL SEDIMENT CONTROL MEASURES AND DEVICES LOCATED THIS SHEET WHICH ARE INSTALLED DURING PHASE 2 CONSTRUCTION SHOULD REMAIN IN PLACE AND FUNCTIONAL FOR THE DURATION OF PHASE 3.

TEMPORARY GABION OUTLET STRUCTURE (TGOS)			
ID	BOTTOM ELEV.	WEIR CREST ELEV.	TOP OF DIKE ELEV.
TGOS-26C-1	378.00 FT	378.25 FT	379.35 FT

CONTRACTOR SHALL ENSURE A SMOOTH TRANSITION BETWEEN EARTH DIKE AND TSOS /TGOS  
 REFER TO DETAILS ON DWG. NO. ECD 1.12

MATCH LINE - SEE SHEET EC-26B

R-11 7-20-15  
 Baltimore County Soil Conservation District  
 APPROVED FOR SEDIMENT CONTROL  
*Antonio A. Russell*  
 7-20-15  
 DATE



PROFESSIONAL CERTIFICATION  
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A FULLY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.  
 LICENSE NO. 14942  
 EXPIRATION DATE: 6/01/2016



**KCI TECHNOLOGIES**  
 ENGINEERS  
 PLANNERS  
 SCIENTISTS  
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 SHAWNS, MARYLAND 21152  
 TELEPHONE: (410) 316-7800  
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**Columbia Gas Transmission**  
 A NiSource Company

REVISIONS				DATE
NO.	DATE	DESCRIPTION	BY	DATE
1	JULY 2015	REVISED LOD TO REPLACE STAGING AREA #7 WITH STAGING AREA #7B, #7C, & #7D; RELOCATED PAVED AR-0500; REVISED TSOS 30-31 ADDED NEW TRENCH	RP	JULY 2015
		BRATH: ADDED DBL-SIDED SFD DETAIL T-1.0, VIC-1.0.		
		EC-26, EC-26A, EC-26B, EC-26C, EC-27, EC-30, EC-52, ECD-1.0, ECD-1.06, PD-1.1		

**BALTIMORE COUNTY GRADING / EROSION AND SEDIMENT CONTROL PLAN**  
 FOR  
**COLUMBIA GAS TRANSMISSION, LLC LINE MB EXTENSION PROJECT - PHASE 2**  
 BALTIMORE & HARFORD COUNTIES, MARYLAND

DRAWING NO. **EC-26C**  
 SHEET 4C OF 61  
 KCI JOB NUMBER 16-121849

PLOTTED: 06/21/2015 11:01 AM by T. J. Tuesday, July 14, 2015  
 FILE: M:\2015\16121849\Drawings\WKS\ESC2PLANAL\_26C.dwg



SEQUENCE OF CONSTRUCTION FOR ACTIVITIES AT NORTHBOUND I-83

- CONTRACTOR SHOULD APPROACH I-83 FROM THE EAST SIDE.
- COMPLETE CLEARING ACTIVITIES. CLEARING ACTIVITIES ARE LIMITED TO ABOVE GROUND VEGETATION REMOVAL THAT DOES NOT RESULT IN DISTURBANCE OF THE ROOT ZONE. ANY DISTURBANCE SHALL BE STABILIZED AT THE END OF EACH WORKING DAY.
- GRUB AS NECESSARY FOR THE INSTALLATION OF PERIMETER CONTROLS.
- INSTALL PERIMETER CONTROLS AND NOTIFY THE BALTIMORE COUNTY DEPARTMENT OF PERMITS, APPROVALS AND INSPECTIONS, SEDIMENT CONTROL (DPA, SC) UPON COMPLETION OF SAID INSTALLATION.
- WITH THE APPROVAL OF THE BALTIMORE COUNTY DEPARTMENT OF PERMITS, APPROVALS AND INSPECTIONS, SEDIMENT CONTROL, AND THE SEDIMENT CONTROL INSPECTOR, GRUB FOR AND INSTALL ALL REMAINING EROSION AND SEDIMENT CONTROL MEASURES AND DEVICES. ALL DISTURBED AREAS ON THE SLOPE SHOULD BE STABILIZED DAILY. STABILIZE THE TRAVEL LANE WITH STONE IN ACCORDANCE WITH THE TYPICAL SECTION FOR UNPAVED TEMPORARY ACCESS ROADS ON DWG. NO. ECD-105.
- NOTIFY THE BALTIMORE COUNTY DEPARTMENT OF PERMITS, APPROVALS AND INSPECTIONS, SEDIMENT CONTROL (DPA, SC) UPON COMPLETION OF SAID INSTALLATION.
- WITH THE APPROVAL OF THE BALTIMORE COUNTY DEPARTMENT OF PERMITS, APPROVALS AND INSPECTIONS, SEDIMENT CONTROL, AND THE SEDIMENT CONTROL INSPECTOR, INSTALL PIPE:
  - BRING PIPE TO CREST OF THE SLOPE.
  - WELD THE PIPE ON THE CREST OF THE SLOPE.
  - EXCAVATE THE TRENCH.
  - BRING THE PIPE DOWN THE SLOPE AND PLACE IN THE EXCAVATED TRENCH.
  - BACKFILL THE TRENCH AND PERFORM DAILY STABILIZATION OF THE DISTURBED AREAS.
- THE SITE SHOULD BE REVIEWED DAILY TO ENSURE THAT ALL SEDIMENT CONTROL MEASURES ARE FUNCTIONING ADEQUATELY AND THAT ALL DISTURBED AREAS ARE STABILIZED.
- FINAL RESTORATION OF THE SLOPE SHALL INCLUDE:
  - IMPLEMENTATION OF THE SOIL COMPACTION MITIGATION NOTES ON DWG. NO. ECD-105.
  - REPLICATION OF TOPSOIL AND PERMANENT STABILIZATION IN ACCORDANCE WITH ENHANCED BEST MANAGEMENT PRACTICES FOR WORKING ON THE LINE MB EXTENSION PROJECT NOTE TO DWG. NO. ECD-105.

DAILY STABILIZATION NOTES (FOR UNPAVED TEMPORARY ACCESS ROADS):  
 CONTRACTOR SHALL ONLY DISTURB THAT AREA WHICH CAN BE COMPLETED AND STABILIZED BY THE END OF EACH WORKING DAY.  
 1. FOR INSTALLATION, THE APPLICATION OF STONE BASE OR WOOD MATTING.  
 2. UPON REMOVAL, THE AREA WILL BE VEGETATIVELY STABILIZED.  
 A. PERMANENT SEED AND SOIL STABILIZATION MATTING OR SOD FOR ALL STEEP SLOPES CHANNELS OR SWALES.  
 B. PERMANENT SEED AND MULCH FOR ALL OTHER AREAS.  
 ANY AREAS WHICH CAN NOT BE STABILIZED BY THE END OF EACH WORKING DAY MUST HAVE SILT FENCE INSTALLED ON THE DOWN SLOPE SIDE.

MODIFIED UTILITY NOTES  
 (FOR TYPICAL UPLAND PIPELINE CONSTRUCTION):  
 1. CONTRACTOR SHOULD LIMIT THE PERIOD OF TIME THAT THE TRENCH IS OPEN TO THE MINIMUM DURATION PRACTICABLE. SILT FENCE OR SUPER SILT FENCE MUST BE PLACED BELOW (DOWNSLOPE OF) THE TRENCH AS SHOWN ON THE PLAN PRIOR TO GRADING.  
 2. PLACE ALL EXCAVATED MATERIAL ON UPHILL SIDE OF TRENCH. IN LOCATIONS WHERE THE TEMPORARY WORKSPACE AND THE TEMPORARY SOIL STOCKPILES ARE ON THE DOWNHILL SIDE OF THE TRENCH SILT FENCE OR SUPER SILT FENCE WILL BE PLACED BELOW (DOWNSLOPE OF) THE TRENCH PRIOR TO MATERIAL PLACEMENT.  
 3. ANY SEDIMENT CONTROLS DISTURBED BY UTILITY CONSTRUCTION ARE TO BE REPAIRED IMMEDIATELY.

**LEGEND**

LOD	LIMIT OF DISTURBANCE	RPS	REMOVABLE PUMPING STATION
MB	MOUNTABLE BERM	TGOS	TEMPORARY GABION OUTLET STRUCTURE
SCD	STABILIZED CONSTRUCTION ENTRANCE	TSOS	TEMPORARY STONE OUTLET STRUCTURE
H-CWP	CLEAR WATER PIPE THROUGH SILT FENCE OR SUPER SILT FENCE	MOD TSOS	TEMPORARY STONE OUTLET STRUCTURE MODIFIED FOR TYPE B EARTH DIKE
CWD-12	CLEAR WATER DIVERSION PIPE	BB	BAFFLE BOARDS
SFD	SUPER FENCE DIVERSION	ROPI I	ROCK OUTLET PROTECTION I
SF	SILT FENCE	ROPI II	ROCK OUTLET PROTECTION II
SSF	SUPER SILT FENCE	ST-I	STONE/RIPRAP OUTLET STRUCTURE
OCF	TEMPORARY SAFETY FENCE	GGP	GABION INFLOW PROTECTION
SFOP	SILT FENCE ON PAVEMENT	WMA	WOOD MATTING ACCESS ROAD
FL-1B	FILTER LOG	TAB	TEMPORARY ACCESS BRIDGE
S-FL	STACKED FILTER LOG	A-2	TEMPORARY SWALE
SBD	HYDROSTATIC TEST DEWATERING PIT	SFCD	SILT FENCE CHECK DAM
OO	SANDBAGS	SIP	STANDARD INLET PROTECTION
OD	SANDBAG DAM	COIP	COMBINATION INLET PROTECTION
P	PUMP	SF	FILTER BAG WITH STRAW BALE AND SUPER SILT FENCE
FB	FILTER BAG	MOD COIP	COMBINATION INLET PROTECTION MODIFIED FOR SUMP
PDS-1	PERIMETER DIKE / SWALE		
A-1	EARTH DIKE		
TAB	TEMPORARY ASPHALT BERM		

TEMPORARY GABION OUTLET STRUCTURE (TGOS)

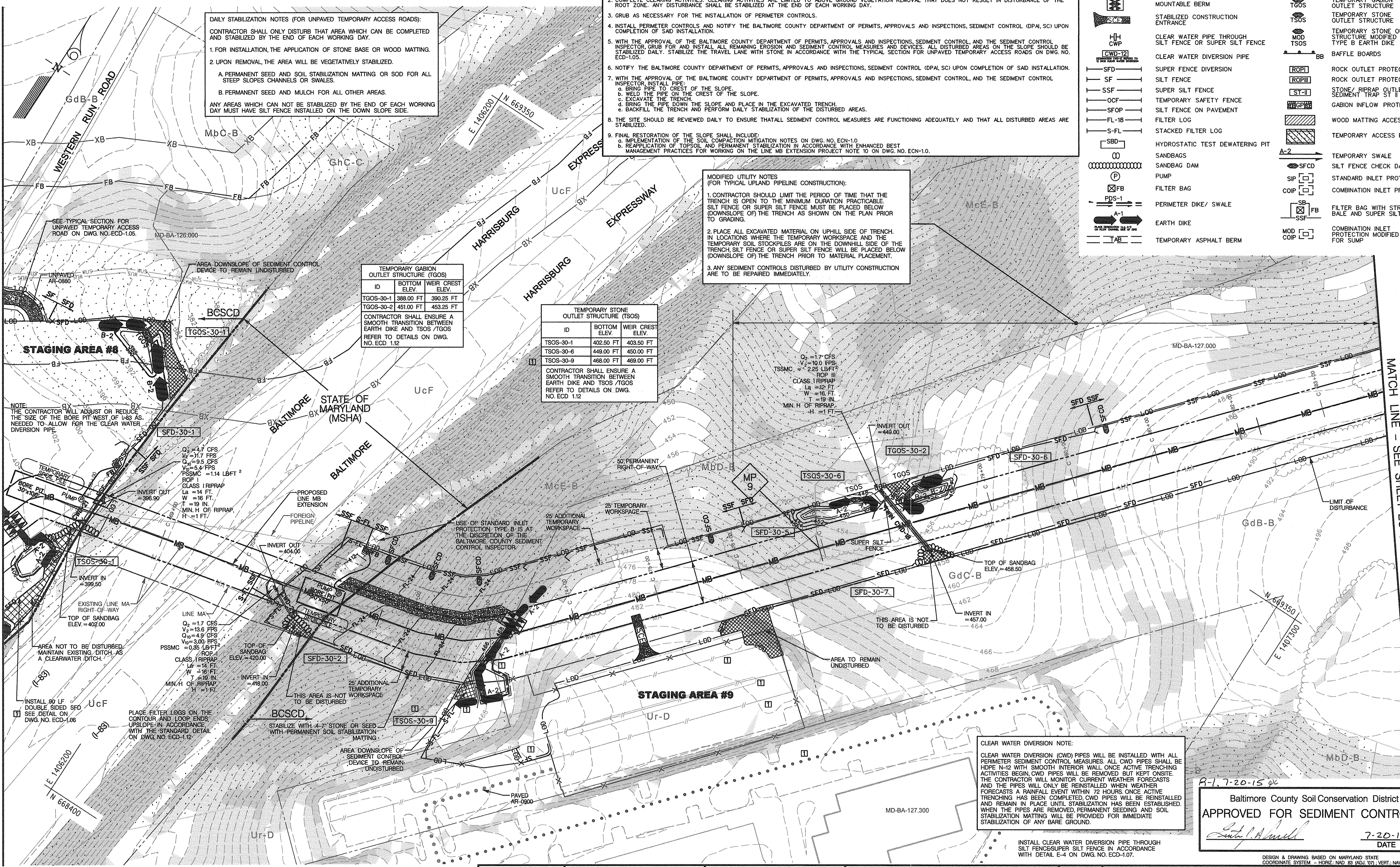
ID	BOTTOM ELEV.	WEIR CREST ELEV.
TGOS-30-1	388.00 FT	390.25 FT
TGOS-30-2	451.00 FT	453.25 FT

CONTRACTOR SHALL ENSURE A SMOOTH TRANSITION BETWEEN EARTH DIKE AND TGOS /TGOS. REFER TO DETAILS ON DWG. NO. ECD 1.12

TEMPORARY STONE OUTLET STRUCTURE (TSOS)

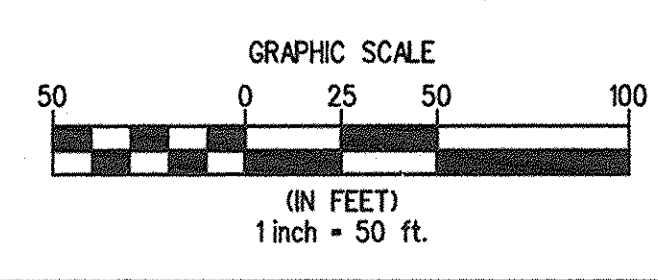
ID	BOTTOM ELEV.	WEIR CREST ELEV.
TSOS-30-1	402.50 FT	403.50 FT
TSOS-30-6	449.00 FT	450.00 FT
TSOS-30-9	468.00 FT	469.00 FT

CONTRACTOR SHALL ENSURE A SMOOTH TRANSITION BETWEEN EARTH DIKE AND TSOS /TGOS. REFER TO DETAILS ON DWG. NO. ECD 1.12



CLEAR WATER DIVERSION NOTE:  
 CLEAR WATER DIVERSION (CWD) PIPES WILL BE INSTALLED WITH ALL PERIMETER SEDIMENT CONTROL MEASURES. ALL CWD PIPES SHALL BE HDPE N-12 WITH SMOOTH INTERIOR WALL. ONCE ACTIVE TRENCHING ACTIVITIES BEGIN, CWD PIPES WILL BE REMOVED, BUT KEPT ON-SITE. THE CONTRACTOR WILL MONITOR CURRENT WEATHER FORECASTS AND THE PIPES WILL ONLY BE REINSTALLED WHEN WEATHER FORECASTS A RAINFALL EVENT WITHIN 72 HOURS. ONCE ACTIVE TRENCHING HAS BEEN COMPLETED, CWD PIPES WILL BE REINSTALLED AND REMAIN IN PLACE UNTIL STABILIZATION HAS BEEN ESTABLISHED. WHEN THE PIPES ARE REMOVED, PERMANENT SEEDING AND SOIL STABILIZATION MATTING WILL BE PROVIDED FOR IMMEDIATE STABILIZATION OF ANY BARE GROUND.

Baltimore County Soil Conservation District  
**APPROVED FOR SEDIMENT CONTROL**  
*[Signature]*  
 7-20-15  
 DATE



PROFESSIONAL CERTIFICATION:  
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A duly Licensed PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 14942. EXPIRATION DATE: 6/30/2016



ENGINEERS  
 PLANNERS  
 SCIENTISTS  
 CONSTRUCTION MANAGERS

**KCI TECHNOLOGIES**

936 RIDGEBROOK ROAD  
 SHARPS, MARYLAND 21152  
 TELEPHONE: (410) 316-7800  
 FAX: (410) 316-7818

**Columbia Gas Transmission**  
 A NiSource Company

NO.	DATE	REVISIONS	BY	DATE
1	JULY 2015	REVISED LOD TO REPLACE STAGING AREA #7 WITH STAGING AREA #7B, #7C, & #7D; RELOCATED PAVED	KP	JAN. 2015
2		AR-0900; REVISED TSOS 30-9; ADDED NEW TRENCH		
3		DRAINS ADDED DBL-SIDED SFD DETAIL T-1.0, VIC-1.0, EC-26; EC-26A; EC-26B; EC-26C; EC-27; EC-30; EC-32; ECD-1.0; ECD-1.06; P0-1.1		

BALTIMORE COUNTY  
 GRADING / EROSION AND SEDIMENT CONTROL PLAN  
 FOR  
**COLUMBIA GAS TRANSMISSION, LLC**  
 LINE MB EXTENSION PROJECT - PHASE 2  
 BALTIMORE & HARFORD COUNTIES, MARYLAND

DESIGNED BY: CW  
 DRAWN BY: KP

DRAWING NO. **EC-30**  
 SHEET 8 OF 61  
 KCI JOB NUMBER 16-121849

PLTTER: 7/20/15, 8:45 PM, 07, Tuesday, July 14, 2015  
 FILE: I:\2015\16218.03\GIS\DWG\1507\ESC-20-141\_30.dwg



MATCH LINE - SEE SHEET EC-51

MATCH LINE - SEE SHEET EC-53

**MODIFIED CLEAR WATER DIVERSION NOTE:**

CLEAR WATER DIVERSION (CWD) PIPES WILL BE INSTALLED WITH ALL PERIMETER SEDIMENT CONTROL MEASURES. CWD PIPE SHALL BE 18 INCH CORRUGATED METAL PIPE (CMP), TO ENSURE WATERTIGHT CONNECTION, INSTALL CONCRETE COLLAR BETWEEN EXISTING AND PROPOSED TEMPORARY PIPE PER COLLAR DETAIL ON DWG. NO. ECD 1.11. CWD PIPE SHALL REMAIN IN PLACE UNTIL STABILIZATION HAS BEEN ESTABLISHED. WHEN THE TEMPORARY PIPE IS REMOVED, PERMANENT ROCK OUTLET PROTECTION WILL BE PROVIDED AT THE OUTLET OF THE EXISTING CMP. PERMANENT SEEDING AND SOIL STABILIZATION MATTING WILL BE PROVIDED FOR IMMEDIATE STABILIZATION OF ANY BARE GROUND.

INSTALL CLEAR WATER DIVERSION PIPE THROUGH SILT FENCE/SUPER SILT FENCE IN ACCORDANCE WITH DETAIL E-4 ON DWG. NO. ECD-107.

ALL SEDIMENT CONTROL MEASURES AND DEVICES LOCATED AT STAGING AREA #10 AND BETWEEN JARRETTVILLE PIKE AND MANOR ROAD AND PREVIOUSLY APPROVED WITH PHASE 1 ARE SUPERSEDED BY THIS PHASE 2 GRADING/EROSION AND SEDIMENT CONTROL PLAN.

NOTE: A STABILIZED CONSTRUCTION ENTRANCE SHALL BE PROVIDED AT ALL TIMES DURING WHICH THE BORE PIT(S) IS NOT ACTIVE. THE ENTRANCE WILL BE REMOVED TO ALLOW FOR THE JACK AND BORE AT JARRETTVILLE PIKE AND 140'. UPON COMPLETION OF THE ROADWAY CROSSING, THE STABILIZED CONSTRUCTION ENTRANCE WILL BE REPLACED.

THIS AREA IS NOT TO BE UNDISTURBED. AREA DOWNSLOPE OF SEDIMENT CONTROL DEVICE TO REMAIN UNDISTURBED.

TEMPORARY STONE OUTLET STRUCTURE (TSOS)		
ID	BOTTOM WEIR CREST ELEV.	505.5 FT
MOD TSOS-62-1	503.5 FT	505.5 FT

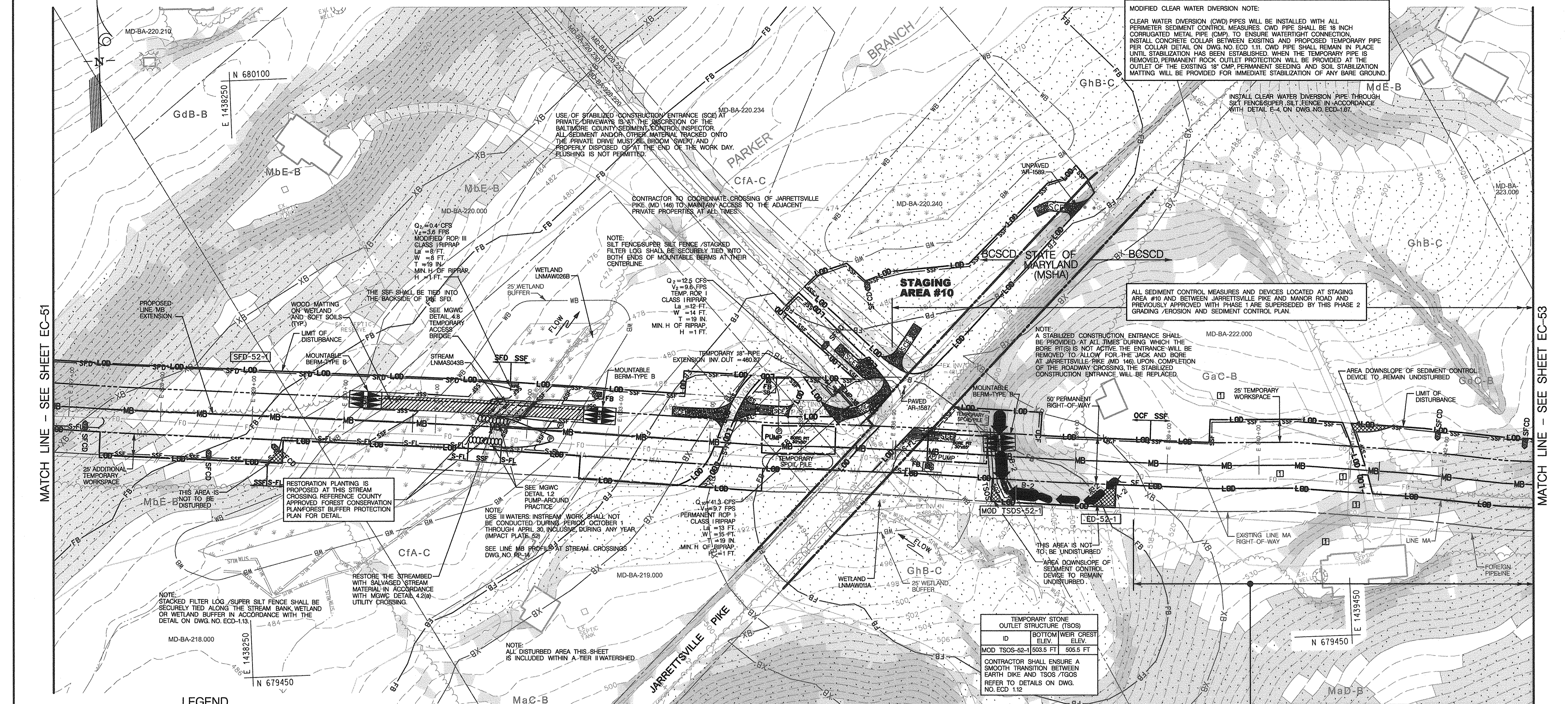
CONTRACTOR SHALL ENSURE A SMOOTH TRANSITION BETWEEN EARTH DIKE AND TSOS/TGOS. REFER TO DETAILS ON DWG. NO. ECD 1.12

**MODIFIED UTILITY NOTES**  
(FOR TYPICAL UPLAND PIPELINE CONSTRUCTION):

- CONTRACTOR SHOULD LIMIT THE PERIOD OF TIME THAT THE TRENCH IS OPEN TO THE MINIMUM DURATION PRACTICABLE. SILT FENCE OR SUPER SILT FENCE MUST BE PLACED BELOW (DOWNSLOPE OF) THE TRENCH AS SHOWN ON THE PLAN PRIOR TO GRADING.
- PLACE ALL EXCAVATED MATERIAL ON UPHILL SIDE OF TRENCH. IN LOCATIONS WHERE THE TEMPORARY WORKSPACE AND THE TEMPORARY SOIL STOCKPILES ARE ON THE DOWNHILL SIDE OF THE TRENCH, SILT FENCE OR SUPER SILT FENCE WILL BE PLACED BELOW (DOWNSLOPE OF) THE TRENCH PRIOR TO MATERIAL PLACEMENT.
- ANY SEDIMENT CONTROLS DISTURBED BY UTILITY CONSTRUCTION ARE TO BE REPAIRED IMMEDIATELY.

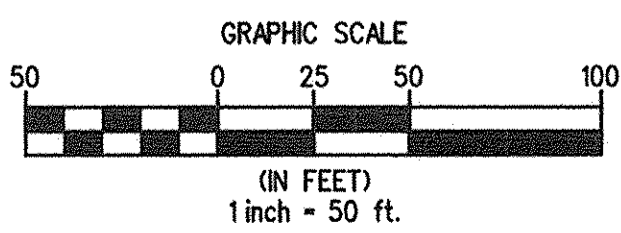
**SEQUENCE OF CONSTRUCTION FOR STREAM CROSSING**

- FOLLOWING INSTALLATION OF ALL PERIMETER CONTROLS AND WITH THE APPROVAL OF THE BALTIMORE COUNTY SEDIMENT CONTROL INSPECTOR, AND THE MDE WMA SEDIMENT CONTROL INSPECTOR, ALL IN-STREAM WORK AND THE SUPERVISION OF RELATED STREAM CROSSING ACTIVITIES WILL OCCUR AT OR BELOW BASE FLOW LEVELS AND WILL BE PERFORMED CONTINUOUSLY (24 HOUR) UNTIL THE STREAM CROSSING IS ENTIRELY COMPLETE.
- INSTALL PUMP AROUND PRACTICE PER DETAIL ON SHEET ECD-102. THE ACTUAL STREAM CROSSING OF LINE MB SHALL BE COMPLETED DURING A NOAA EXTENDED THREE-DAY DRY WEATHER FORECAST. THE CONTRACTOR SHALL PROVIDE AND SUPERVISE THE PUMP-AROUND AND DEWATERING PRACTICE AT ALL TIMES. ONCE IN-STREAM CONSTRUCTION ACTIVITIES BEGIN, WORK MUST BE PERFORMED IN A CONTINUOUS MANNER UNTIL THE CROSSING HAS BEEN COMPLETED, THE CHANNEL RESTORED AND PERMANENTLY STABILIZED AND THE PUMP-AROUND AND DEWATERING PRACTICES ARE REMOVED. AT NO TIME IS IT ACCEPTABLE FOR THE PUMP-AROUND PRACTICE TO REMAIN UNATTENDED. ALL DISCHARGE MUST BE ACCOMPLISHED IN A NON-EROSIVE MANNER. NO SEDIMENT LADEN DISCHARGE IS PERMITTED.
- UPON COMPLETION OF THE STREAM CROSSING, INSTALL THE REMAINDER OF LINE MB.



**LEGEND**

- LOD LIMIT OF DISTURBANCE
- MOUNTABLE BERM
- STABILIZED CONSTRUCTION ENTRANCE
- CWP CLEAR WATER PIPE THROUGH SILT FENCE OR SUPER SILT FENCE
- CWD-12 CLEAR WATER DIVERSION PIPE
- SFD SUPER FENCE DIVERSION
- SF SILT FENCE
- SSF SUPER SILT FENCE
- OCF TEMPORARY SAFETY FENCE
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- A-2 TEMPORARY SWALE
- SFCD SILT FENCE CHECK DAM
- SIP STANDARD INLET PROTECTION
- COIP COMBINATION INLET PROTECTION
- SB FB FILTER BAG WITH STRAW BALE AND SUPER SILT FENCE
- MOD COIP COMBINATION INLET PROTECTION MODIFIED FOR PUMP



PLOTTER: 105.46.01 on Tuesday, July 14, 2015  
 FILE: X:\2015\102828\2\Grading\Baltimore\EC-52.dwg



**KCI TECHNOLOGIES**  
 ENGINEERS PLANNERS SCIENTISTS CONSTRUCTION MANAGERS  
 936 RIVERBANK ROAD  
 SMITHS, MARYLAND 21152  
 TELEPHONE: (410) 316-7800  
 FAX: (410) 316-7818



NO.	DATE	DESCRIPTION	BY	DATE
1	JULY 2015	REVISED LOD TO REPLACE STAGING AREA #7 WITH STAGING AREA #7B, #7C, & #7D; RELOCATED PAVED AR-0900; REVISED TSOS 30-51; ADDED NEW TRENCH (DRAIN); ADDED DBL-SIDED SFD DETAIL T-1.0, VIC-1.0, EC-25, EC-26A, EC-26B, EC-26C, EC-27, EC-30, EC-52; ECD-1.0, ECD-1.06, PD-1.1	KP	JAN. 2015

SCALE: 1" = 50'  
 DESIGNED BY: CW  
 DRAWN BY: KP

Baltimore County Soil Conservation District  
**APPROVED FOR SEDIMENT CONTROL**  
*[Signature]*  
 DATE: 7-20-15

**BALTIMORE COUNTY GRADING / EROSION AND SEDIMENT CONTROL PLAN FOR COLUMBIA GAS TRANSMISSION, LLC LINE MB EXTENSION PROJECT - PHASE 2**  
 BALTIMORE & HARFORD COUNTIES, MARYLAND

DRAWING NO. **EC-52**  
 SHEET 32 OF 61  
 KCI JOB NUMBER 16-121849

GENERAL EROSION AND SEDIMENT CONTROL NOTES

- 1. REFER TO "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL" FOR STANDARD DETAILS AND DETAILED SPECIFICATIONS OF EACH PRACTICE SPECIFIED HEREIN.
2. WITH THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR, MINOR FIELD ADJUSTMENTS CAN AND WILL BE MADE TO INSURE THE CONTROL OF ANY SEDIMENT.
3. AT THE END OF EACH WORKING DAY, ALL SEDIMENT CONTROL PRACTICES WILL BE INSPECTED AND LEFT IN OPERATIONAL CONDITION.
4. FOLLOWING INITIAL SOIL DISTURBANCE OR REDISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION MUST BE COMPLETED WITHIN: A.) THREE CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES GREATER THAN THREE HORIZONTAL TO ONE VERTICAL (3:1), AND B.) SEVEN CALENDAR DAYS AS TO ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING.
5. ANY CHANGE TO THE GRADING PROPOSED ON THIS PLAN REQUIRES RE-SUBMISSION TO BALTIMORE COUNTY SOIL CONSERVATION DISTRICT FOR APPROVAL.
6. DUST CONTROL WILL BE PROVIDED FOR ALL DISTURBED AREAS. REFER TO "2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL", PG. H-22, FOR ACCEPTABLE METHODS AND SPECIFICATIONS FOR DUST CONTROL.
7. ANY VARIATIONS FROM THE SEQUENCE OF OPERATIONS STATED ON THIS PLAN REQUIRES THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR AND THE BALTIMORE COUNTY SOIL CONSERVATION DISTRICT PRIOR TO THE INITIATION OF THE CHANGE.
8. EXCESS CUT OR BORROW MATERIAL SHALL GO TO, OR COME FROM, RESPECTIVELY, A SITE WITH AN OPEN GRADING PERMIT AND APPROVED SEDIMENT CONTROL PLAN.
9. THE FOLLOWING ITEM MAY BE USED AS APPLICABLE: REFER TO "MARYLAND'S GUIDELINES TO WATERWAY CONSTRUCTION" BY THE WATER MANAGEMENT ADMINISTRATION (WMA) OF THE MARYLAND DEPARTMENT OF THE ENVIRONMENT DATED, NOVEMBER, 2000, FOR STANDARD DETAILS AND DETAILED SPECIFICATIONS OF EACH PRACTICE SPECIFIED HEREIN FOR WATERWAY CONSTRUCTION.
10. PUMPING SEDIMENT LADEN WATER INTO WATERS OF THE STATE IS STRICTLY PROHIBITED. ANY PORTABLE DEWATERING DEVICE MUST BE LOCATED WITHIN THE LIMIT OF DISTURBANCE.

PROJECT DESCRIPTION

THIS PROJECT IS A LINEAR UNDERGROUND UTILITY INSTALLATION, CONSISTING OF EXTENSION OF A 26-INCH NATURAL GAS PIPELINE(LINE MB) FOR APPROXIMATELY 21 MILES FROM EXISTING OWINGS MILLS METER AND REGULATOR STATION IN BALTIMORE COUNTY, MARYLAND TO THE EXISTING RUTLEDGE COMPRESSOR STATION IN HARFORD COUNTY, MARYLAND. THE PROJECT WILL BE CO-LOCATED WITH EXISTING RIGHT-OF-WAY (ROWS), TO THE GREATEST EXTENT PRACTICABLE, INCLUDING COLUMBIA'S ROW FOR THE EXISTING LINE MA PIPELINE.

EROSION AND SEDIMENT CONTROL NOTES

- A. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH THE APPROVED EROSION AND SEDIMENT CONTROL PLAN. REFERENCE MANUALS INCLUDE: 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, MARYLAND GUIDELINES FOR WATERWAY CONSTRUCTIONS, DATED 2000, AND COLUMBIA GAS TRANSMISSION ENVIRONMENTAL CONSTRUCTION STANDARDS, DATED JANUARY 2009.
B. COLUMBIA SHALL NOT BEGIN CONSTRUCTION ON ANY INDIVIDUAL PARCEL OF LAND UNTIL IT HAS OBTAINED THE LEGAL RIGHTS FOR THAT PARCEL AND HAS RECEIVED NOTICE TO PROCEED AUTHORIZATION FROM THE FEDERAL ENERGY REGULATORY COMMISSION (FERC).
C. SEQUENCE OF CONSTRUCTION
1. A PRE-CONSTRUCTION MEETING SHALL BE HELD WITH BALTIMORE COUNTY DEPARTMENT OF PERMITS, APPROVALS AND INSPECTIONS (DPAI, SC) (410-887-3226); MARYLAND DEPARTMENT OF THE ENVIRONMENT, COMPLIANCE PROGRAM (410-637-3510) AND NONTIDAL WETLANDS DIVISION (410-537-3911); AND U.S. ARMY CORPS OF ENGINEERS (410-962-6080). NOTIFY BALTIMORE COUNTY DEPARTMENT OF PERMITS, APPROVALS AND INSPECTIONS (DPAI, SC) (410-887-3226) AT LEAST 48 HOURS PRIOR TO BEGINNING WORK. NOTIFY MARYLAND DEPARTMENT OF THE ENVIRONMENT, INSPECTION AND COMPLIANCE PROGRAM (410-537-3510) AT LEAST 5 DAYS PRIOR TO BEGINNING WORK.
2. THE LIMIT OF DISTURBANCE (LOD) WILL BE CLEARLY DEFINED IN THE FIELD. THIS DEMARCATION SHALL BE INSPECTED AND APPROVED BY BALTIMORE COUNTY PAI AT THE PRE-CONSTRUCTION MEETING.
3. CLEAR AND GRUB AS NECESSARY FOR THE INSTALLATION OF ALL SEDIMENT CONTROL MEASURES OR DEVICES ONLY AT STAGING AREA NOS. 7, 7B, 7C, 7D, 8, 9, 9A, 10 AND 11.
4. INSTALL ALL SEDIMENT AND EROSION CONTROL MEASURES AND DEVICES FOR THE STAGING AREAS.
5. NOTIFY BALTIMORE COUNTY DEPARTMENT OF PERMITS, APPROVALS AND INSPECTIONS, SEDIMENT CONTROL (DPAI, SC) UPON COMPLETION OF SAID INSTALLATION.
6. WITH THE APPROVAL OF BALTIMORE COUNTY DEPARTMENT OF PERMITS, APPROVALS AND INSPECTIONS, SEDIMENT CONTROL, AND THE SEDIMENT CONTROL INSPECTOR, CLEAR AND GRUB THE REMAINDER OF THE STAGING AREAS.
7. CLEAR THE REMAINING WORKSPACE AS NECESSARY. CLEARING ACTIVITIES ARE LIMITED TO ABOVE GROUND VEGETATION REMOVAL THAT DOES NOT RESULT IN DISTURBANCE OF THE ROOT ZONE. ANY DISTURBANCE SHALL BE STABILIZED BY THE END OF EACH WORKING DAY.
8. CLEAR AND GRUB FOR, AND INSTALL ALL REMAINING SEDIMENT AND EROSION CONTROL MEASURES AND DEVICES.
9. NOTIFY BALTIMORE COUNTY DEPARTMENT OF PERMITS, APPROVALS AND INSPECTIONS, SEDIMENT CONTROL (DPAI, SC) UPON COMPLETION OF SAID INSTALLATION.
10. WITH THE APPROVAL OF BALTIMORE COUNTY DEPARTMENT OF PERMITS, APPROVALS AND INSPECTIONS, SEDIMENT CONTROL, AND THE SEDIMENT CONTROL INSPECTOR, BEGIN GRUBBING ACTIVITIES, GRADING AND TRENCHING THE REMAINDER OF THE WORKSPACE. TOPSOIL SHALL BE STOCKPILED AND REAPPLIED PRIOR TO PERMANENT STABILIZATION.
11. INSTALL LINE MB. SEE ALL OTHER NOTES /GUIDELINES ON PLAN VIEW SHEETS INCLUDING SEQUENCE OF CONSTRUCTION FOR STREAM CROSSINGS AND STEEP SLOPES AT I-83 AND WESTERN RUN.
12. BACKFILL THE TRENCH, FINE GRADE, REAPPLY TOPSOIL, AND PERMANENTLY STABILIZE ALL DISTURBED AREAS. FINAL RESTORATION INCLUDES THE IMPLEMENTATION OF THE APPROVED FOREST BUFFER PROTECTION PLAN. SEE "SOIL COMPACTION MITIGATION" NOTES ON THIS SHEET.
13. UPON STABILIZATION OF THE SITE WITH ESTABLISHED VEGETATION AND WITH PERMISSION OF THE SEDIMENT CONTROL INSPECTOR, REMOVE SEDIMENT CONTROL MEASURES AND STABILIZE THOSE AREAS DISTURBED BY THIS PROCESS.
D. EROSION AND SEDIMENT CONTROL MEASURES SHALL BE PROPERLY MAINTAINED AND ADEQUATELY FUNCTIONING AT THE END OF EACH WORKDAY AND AFTER EVERY STORM EVENT. ANY EXISTING MEASURES THAT ARE DAMAGED SHALL BE PROPERLY REPAIRED AT THE END OF EACH WORKDAY. MAINTENANCE SHALL INCLUDE, BUT NOT BE LIMITED TO THE REMOVAL OF ALL ACCUMULATED SEDIMENT. GEOTEXTILE FABRIC SHALL BE REPLACED AS NEEDED TO ENSURE PROPER FUNCTION.
E. EXCAVATED TOPSOIL AND SUBSOIL SHALL BE KEPT SEPARATE AND PROTECTED AS FOLLOWS:
1. TEMPORARY STOCKPILES SHALL BE LOCATED WITHIN THE LIMIT OF DISTURBANCE
2. TEMPORARY STOCKPILES SHALL DRAIN TO A FUNCTIONING SEDIMENT CONTROL DEVICE.
3. TEMPORARY STOCKPILES SHALL BE POSITIONED TO NOT IMPEDE UPON, OR IMPAIR THE FUNCTION OF SAID DEVICE.
4. TEMPORARY STOCKPILES SHALL BE POSITIONED TO NOT ALTER DRAINAGE DIVIDES.
F. POINT OF CONSTRUCTION INGRESS AND EGRESS SHALL BE PROTECTED TO PREVENT THE TRACKING OF SOIL ONTO PUBLIC WAYS BY USING STABILIZED CONSTRUCTION ENTRANCE AT THE INTERFACES WITH PUBLIC ROADWAYS.
G. FOLLOWING INITIAL SOIL DISTURBANCE OR RE-DISTURBANCE, PERMANENT OR TEMPORARY STABILIZATION SHALL BE COMPLETED WITHIN:
1. THREE (3) CALENDAR DAYS AS TO THE SURFACE OF ALL PERIMETER CONTROLS, DIKES, SWALES, DITCHES, PERIMETER SLOPES, AND ALL SLOPES GREATER THAN THREE HORIZONTAL TO ONE VERTICAL (3:1).
2. SEVEN (7) CALENDAR DAYS FOR ALL OTHER DISTURBED OR GRADED AREAS ON THE PROJECT SITE NOT UNDER ACTIVE GRADING.
H. ANY DEWATERING DISCHARGE SHALL BE PLACED INTO AN APPROVED DEWATERING STRUCTURE CONSTRUCTED IN ACCORDANCE WITH THE STANDARD DETAILS AND DWG. NO. ECD-1.11.

CLEARED TIMBER NOTE

CLEARED TIMBER MAY BE PLACED ON THE ADJACENT LAND OWNER'S PROPERTY, OUTSIDE THE LOD, FOR THE LAND OWNER'S PERSONAL USE, PROVIDED THAT THE TIMBER IS NOT PLACED IN A STREAM, WETLAND, BUFFER, OR EXPANDED BUFFER AND THAT THE PLACEMENT DOES NOT REQUIRE EQUIPMENT TO LEAVE THE LOD.

MOUNTABLE BERM NOTE

MOUNTABLE BERMS CAN BE PLACED OVER WATER CONVEYANCE MEASURES (EARTH DIKE, PDS, CWD, ETC.) IN ACCORDANCE WITH DETAIL C-8 ON DWG. NO. ECD-1.05 AS NECESSARY AT THE DISCRETION OF THE BALTIMORE COUNTY SEDIMENT CONTROL INSPECTOR PROVIDED DRAINAGE AREAS TO THE CONTROL DEVICES ARE PROPERLY MAINTAINED.

INLET PROTECTION NOTE

THE CONTRACTOR IS REQUIRED TO INSTALL INLET PROTECTION ON ALL STORM DRAIN INLETS WITH THE EXCEPTION OF THE FOLLOWING:

- \*1. ANY INLET OUTFALLING DIRECTLY INTO A SEDIMENT TRAPPING DEVICE.
2. INLETS ON PRIVATE OR PUBLIC PAVED ROADWAYS OPEN TO THE PUBLIC.
ALL INLET PROTECTION WILL BE INSTALLED AS DIRECTED BY THE INSPECTOR IN ACCORDANCE WITH THE 2011 MARYLAND STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL, PAGE E.23 (OR AS MAY BE AMENDED). THE REMOVAL OF ANY INLET PROTECTION DEVICES WILL REQUIRE APPROVAL FROM THE INSPECTOR.

\* STORM DRAINS TO BE FLUSHED PRIOR TO TRAPPING DEVICE REMOVAL.

SUMMARY OF GRADING UNITS table with columns: ID, FROM, TO, LOD Area (sf), LOD Area(ac), GRADING UNIT (20 ac), NOTES. Includes rows for Staging Areas 7, 7B, 7C, 7D; Beaver Dam Rd; Shawan Rd; Loveton Circle; Loveton Farms Rd; Hunting Way; Carroll Rd; Carroll Mill Rd; Stockton Rd; Old York Rd; SR 146 (Jarrettsville Rd).

\*WITH THE APPROVAL OF THE BALTIMORE COUNTY SEDIMENT CONTROL INSPECTOR, THE CONTRACTOR MAY WORK IN MULTIPLE GRADING UNITS CONCURRENTLY.

SITE INFORMATION table with rows: TOTAL AREA OF FACILITY (113.10 ACRES), AREA DISTURBED (101.05 ACRES (4,401,571 SQ FT)), AREA TO BE ROOFED OR PAVED (0 ACRES), TOTAL CUT (8 CUBIC YARDS), TOTAL FILL (713 CUBIC YARDS), OFF-SITE WASTE /BORROW AREA LOCATION (NONE).

SOIL COMPACTION MITIGATION

- A. TEST TOPSOIL AND SUBSOIL FOR COMPACTION AT REGULAR INTERVALS IN AREAS OF CONCERN (i.e., HAUL ROADS, ETC.). CONDUCT TESTS ON THE SAME SOIL TYPE UNDER SIMILAR MOISTURE CONDITIONS IN UNDISTURBED AREAS IMMEDIATELY ADJACENT TO THE CONSTRUCTION AREA TO APPROXIMATE PRECONSTRUCTION CONDITIONS. PENETROMETERS OR OTHER APPROPRIATE DEVICES WILL BE USED TO CONDUCT THE TESTS.
B. PLOW ALL SEVERELY COMPACTED AREAS WITHIN THE DISTURBED AREA WITH A PARAPLOW, SUBSOILER, OR OTHER DEEP TILLAGE IMPLEMENT. TILLAGE DEPTH SHALL BE A MINIMUM OF 12 INCHES. IN AREAS WHERE TOPSOIL HAS BEEN SEGREGATED, DEEP TILL THE SUBSOIL BEFORE REPLACING THE SEGREGATED TOPSOIL. IF SUBSEQUENT CONSTRUCTION AND CLEANUP ACTIVITIES RESULT IN FURTHER COMPACTION, CONDUCT ADDITIONAL DEEP TILLING.

STABILIZED CONSTRUCTION ENTRANCE (SCE) NOTE

THE LOCATIONS OF THE STABILIZED CONSTRUCTION ENTRANCES SHOWN ON THE PLAN SHEETS ARE APPROXIMATE. THE CONTRACTOR SHALL DETERMINE EXACT LOCATIONS IN THE FIELD AND RELOCATE AS NEEDED IN ACCORDANCE WITH BALTIMORE COUNTY GENERAL EROSION AND SEDIMENT CONTROL NOTE NO. 2 AND WITH THE APPROVAL OF THE SEDIMENT CONTROL INSPECTOR.

ENHANCED BEST MANAGEMENT PRACTICES FOR WORKING ON THE LINE MB EXTENSION PROJECT

- 1. AT A MINIMUM, THE CONTRACTOR MUST INSPECT ALL SEDIMENT CONTROL MEASURES AND DEVICES ONCE EVERY SEVEN (7) CALENDAR DAYS, AND WITHIN 24 HOURS OF THE OCCURRENCE OF A STORM EVENT OF 0.25 INCHES OR GREATER. THE CONTRACTOR SHALL PREPARE A WRITTEN INSPECTION REPORT FOR EACH INSPECTION, AND MAINTAIN A LOG BOOK FOR ALL REPORTS. ALL CORRECTIVE ACTION SHOULD BE INITIATED WITHIN 24 HOURS AND COMPLETED WITHIN 72 HOURS OF BEING NOTED.
2. THE CONTRACTOR MUST INSPECT ALL SEDIMENT CONTROL MEASURES AND DEVICES PRIOR TO A NOAA FORCASTED EVENT OF 0.25 INCHES OR GREATER. THE CONTRACTOR SHALL PERFORM REPAIRS AND MAINTENANCE TO THE MAXIMUM EXTENT PRACTICABLE TO ASSURE ALL DEVICES ARE IN GOOD WORKING ORDER PRIOR TO THE EVENT.
3. ALL POINTS OF INGRESS AND EGRESS TO THE LINE MB EXTENSION PROJECT WILL BE CLEARLY MARKED AS SUCH.
4. ALL WETLANDS, WATERWAYS, AND 100-YR FLOODPLAINS SHALL BE CLEARLY MARKED AS SUCH. VEHICLES OPERATING WITHIN 100 FT OF THESE AREAS SHALL CARRY EMERGENCY SPILL KITS.
5. ALL FOREST BUFFER AND FOREST CONSERVATION AREAS SHALL BE CLEARLY MARKED AS SUCH.
6. WITHIN THE EXPANDED RIPARIAN BUFFER (XB), CUT VEGETATION OFF JUST ABOVE GROUND LEVEL, LEAVING THE EXISTING ROOT SYSTEMS IN PLACE, AND REMOVE VEGETATION FROM THE XB FOR DISPOSAL. MINIMIZE GRADING WITHIN THE XB TO ONLY WHAT IS REQUIRED TO SAFELY AND EFFICIENTLY OPERATE EQUIPMENT. LIMIT PULLING OF TREE STUMPS AND GRADING ACTIVITIES TO DIRECTLY OVER THE TRENCHLINE EXCEPT WHERE THE CHIEF INSPECTOR AND ENVIRONMENTAL INSPECTOR DETERMINE THAT SAFETY RELATED CONSTRUCTION CONSTRAINTS REQUIRE REMOVAL OF TREE STUMPS FROM UNDER THE WORKING SIDE OF THE CONSTRUCTION WORK AREA.
7. MULCH DEPTH APPLICATION SHALL NOT EXCEED 6 INCHES.
8. STOCKPILES WILL BE LOCATED WITHIN THE LOD AND SHALL DRAIN TO AN APPROPRIATE EROSION AND SEDIMENT CONTROL DEVICE (I.E., SILT FENCE). STOCKPILES THAT ARE LOCATED WITHIN 100 FT. OF STREAM RESOURCES AND ARE INACTIVE (THOSE UNTOUCHED FOR SEVEN (7) DAYS OR LONGER) WILL BE SEEDED OR COVERED WITH AN IMPERMEABLE COVER WHEN INACTIVE.
9. REDUNDANT CONTROLS SHALL BE USED FOR DEWATERING DISCHARGES WITHIN THE XB (I.E., FILTER BAG SURROUNDED WITH STRAW BALES AND SUPER SILT FENCE - SEE DETAIL ON DWG. NO. ECD-1.11).
10. HYDROSEEDING SHALL BE CONDUCTED WITH FLEXTERRA HIGH PERFORMANCE-FLEXIBLE GROWTH MEDIUM, OR APPROVED EQUIVALENT, USED IN CONJUNCTION WITH FIBER ROLLS IN AREAS OF 15% SLOPE OR GREATER, WITHIN 100-FT OF WETLANDS OR WATERBODIES, THE MEDIUM MUST BE CERTIFIED ENVIRONMENTALLY NON-TOXIC BY THE APPROPRIATE STATE OR FEDERAL AGENCY. THE FIBER ROLLS WILL BE LOCATED IN THE FIELD BY THE CONTRACTOR AND IN ACCORDANCE WITH THE DETAIL ON DWG. NO. ECD-1.08 AND SUBJECT TO APPROVAL BY THE SEDIMENT CONTROL INSPECTOR.
11. TEMPORARY SOIL STABILIZATION MATTING SLOPE APPLICATION (TSSMS 2.25 LBS/SP) IN ACCORDANCE WITH DETAIL B-4-6-B ON DWG. NO. ECD-1.08 SHALL BE UTILIZED IN AREAS WITH HIGHLY ERODIBLE SOILS AND LESS THAN 15% SLOPE.

EROSION AND SEDIMENT CONTROL WILL BE STRICTLY ENFORCED.

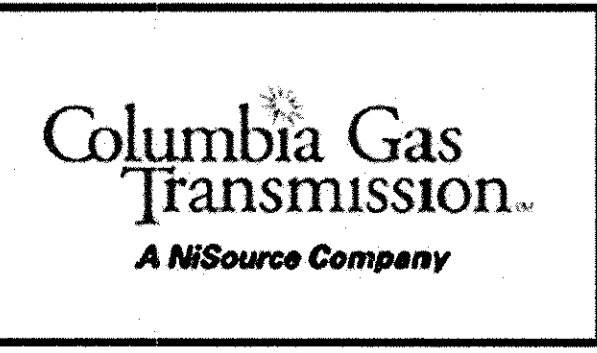
Baltimore County Soil Conservation District APPROVED FOR SEDIMENT CONTROL. Signature of J. A. Cressell, DATE 7-20-15

DESIGN & DRAWING BASED ON MARYLAND STATE COORDINATE SYSTEM - HORIZ: NAD 83 (ADA 107), VERT: NAVD 88

PROJECT: 00519 - An on Wednesday, July 15, 2015. FILE: \\A:\2015\20150715\20150715-Cummins\A\15-030-001-Phase2.dgn



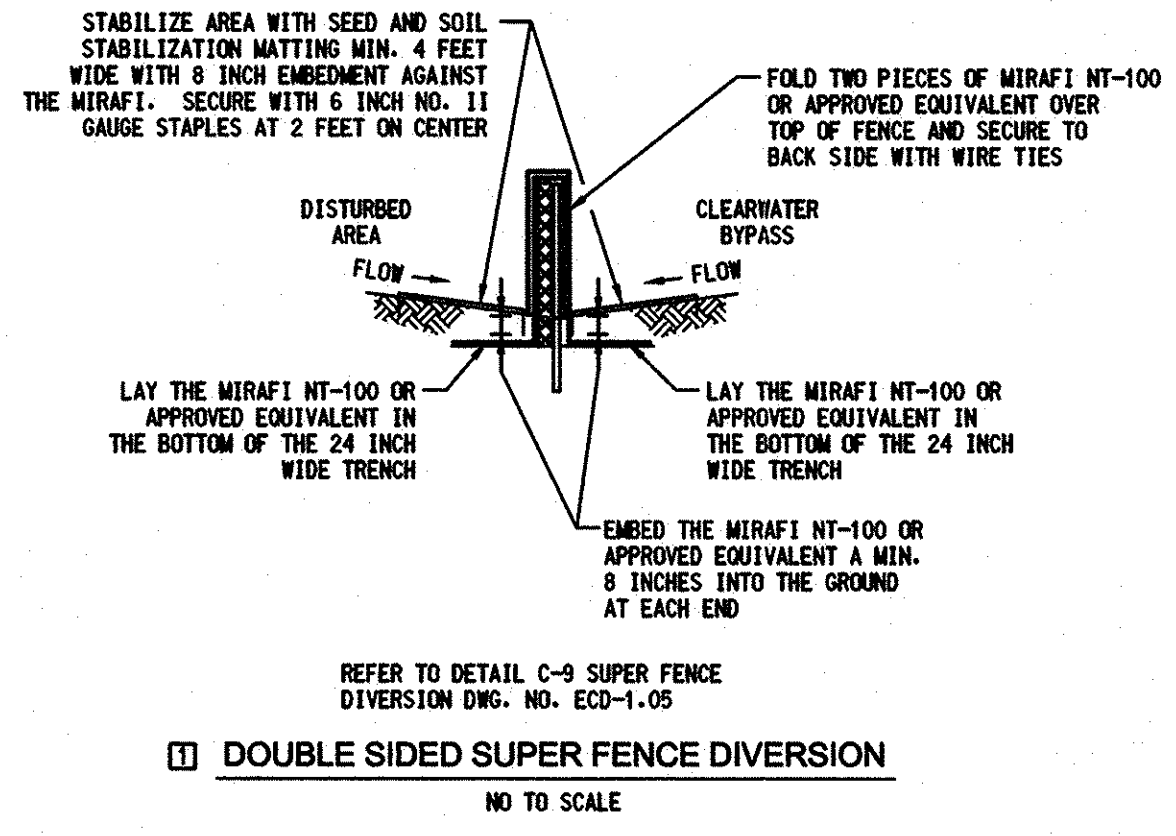
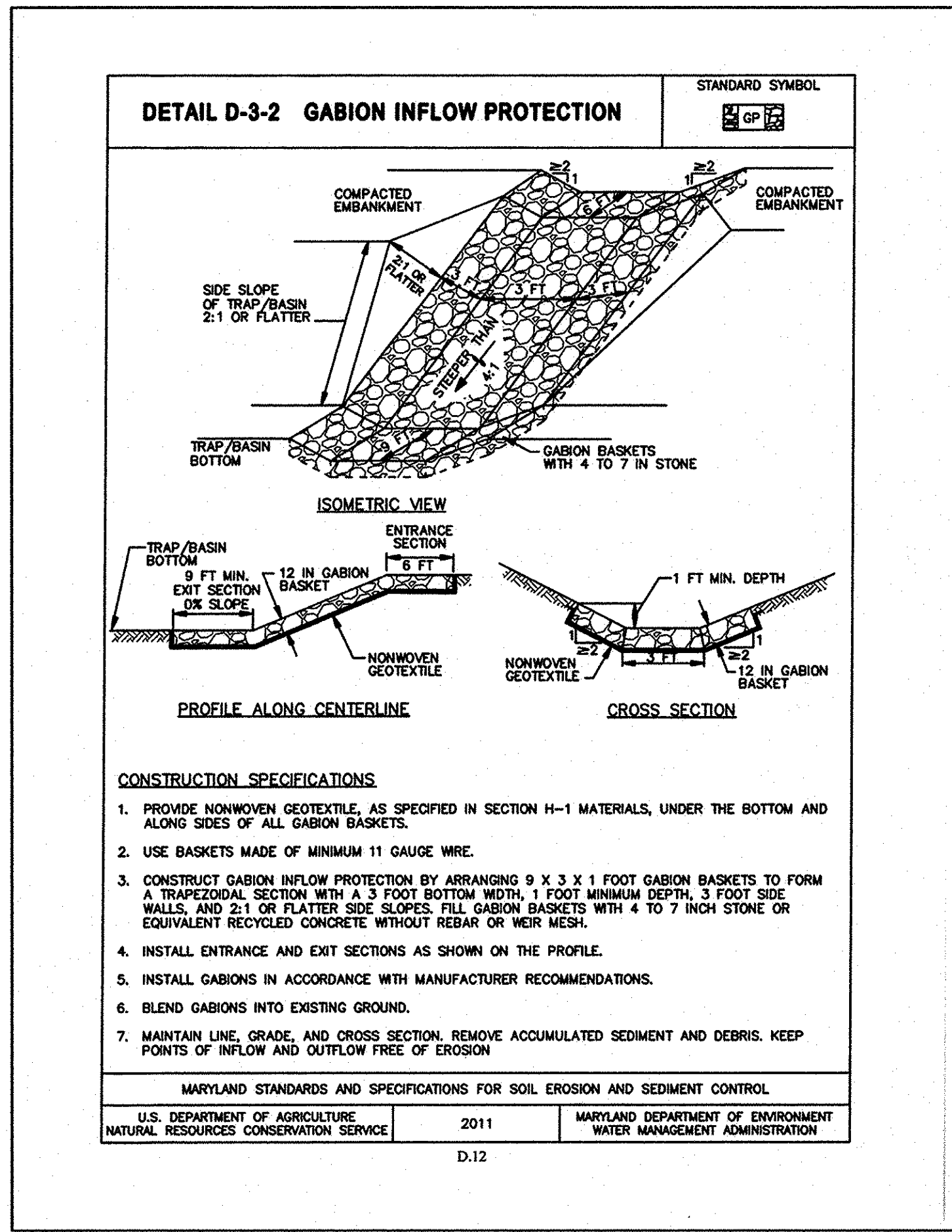
ENGINEERS PLANNERS SCIENTISTS CONSTRUCTION MANAGERS KCI TECHNOLOGIES 936 RIDGEBROOK ROAD SHAW, MARYLAND 21152 TELEPHONE: (410) 316-7800 FAX: (410) 316-7818



REVISIONS table with columns: NO., DATE, DESCRIPTION, BY. Includes revision 1: JULY 2015, REVISED LOD TO REPLACE STAGING AREA #7 WITH STAGING AREA #7B, #7C, & #7D; RELOCATED PAVED...

BALTIMORE COUNTY EROSION AND SEDIMENT CONTROL NOTES FOR COLUMBIA GAS TRANSMISSION, LLC LINE MB EXTENSION PROJECT - PHASE 2

DRAWING NO. ECN-1.0 SHEET 43 OF 61 KCI JOB NUMBER 16-121849



R-1, 7-20-15 *gc*

Baltimore County Soil Conservation District  
**APPROVED FOR SEDIMENT CONTROL**

*Scott J. A. Smith* 7-20-15  
 DATE

PLOTTED: 05/08/15 09:45 AM Tuesday, July 14, 2015  
 FILE: \\M:\2015\05\20150508\05\050815\05\050815-06-BC-phase2.dwg

PROFESSIONAL CERTIFICATION:  
 I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME AND THAT I AM A duly LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.  
 LICENSE NO. 14942  
 EXPIRATION DATE: 6/01/2016



**KCI TECHNOLOGIES**  
 ENGINEERS PLANNERS SCIENTISTS CONSTRUCTION MANAGERS  
 936 RIVERBANK ROAD  
 SHARPS, MARYLAND 21152  
 TELEPHONE: (410) 316-7800  
 FAX: (410) 316-7818

**Columbia Gas Transmission**  
 A NiSource Company

REVISIONS				DATE
NO.	DATE	DESCRIPTION	BY	DATE
1	JULY 2015	REVISED LOD TO REPLACE STAGING AREA #7 WITH STAGING AREA #7B, #7C, & #7D; RELOCATED PAVED DRAIN; ADDED DBL-SIDED SFO DETAIL 1-1.0, VIC-1.0, EC-26, EC-26A, EC-26B, EC-26C, EC-27, EC-30, EC-32, ECD-1.0, ECD-1.06, PD-1.1	KP	JAN. 2015
				SCALE: N.T.S.
				DESIGNED BY: CW
				DRAWN BY: KP

**BALTIMORE COUNTY EROSION AND SEDIMENT CONTROL DETAILS**  
 FOR  
**COLUMBIA GAS TRANSMISSION, LLC LINE MB EXTENSION PROJECT - PHASE 2**  
 BALTIMORE & HARFORD COUNTIES, MARYLAND

DRAWING NO. **ECD-1.06**  
 SHEET 50 OF 61  
 KCI JOB NUMBER 16-121849

DESIGN & DRAWING BASED ON MARYLAND STATE COORDINATE SYSTEM -- HORIZ: NAD 83 (ADA 107); VERT.: NAVD 88

TRACT NUMBER	DISTRICT - ACCOUNT #	OWNER	CONTACT ADDRESS	TAX MAP	GRID	PARCEL	LOT	DEED REFERENCE / PLAT REF.	ZONING
<b>EC 26</b>									
MD-BA-118.000	08 - 0802019031	BALTIMORE COUNTY MARYLAND	ATTN: BRIAN ADAMS, PAM JARRELL & SAM MORCHIANO ATTN: CHRIS MCCOLLUM, PAT SIMON, STEVEN WALSH 111 WEST CHESAPEAKE AVENUE TOWSON MD 21204	41	17	56		05056/00650 / N/A	RC 7
<b>EC 27</b>									
MD-BA-118.000	08 - 0802019031	BALTIMORE COUNTY MARYLAND	ATTN: BRIAN ADAMS, PAM JARRELL & SAM MORCHIANO ATTN: CHRIS MCCOLLUM, PAT SIMON, STEVEN WALSH 111 WEST CHESAPEAKE AVENUE TOWSON MD 21204	41	17	56		05056/00650 / N/A	RC 7
MD-BA-119.000	08 - 0801089100	COLUMBIA GAS TRANSMISSION CORPORATION	C/O TAX DEPT PO BOX 10146 FAIRFAX VA 22030-0146	42	13	54		01788/00548 / N/A	RC 4
MD-BA-120.000	08 - 0819087720	CAROL SUE SUTTON DENNIS KEITH SUTTON	919 SHAWAN RD COCKEYSVILLE MD 21030-1308 13500 BEAVER DAM ROAD COCKEYSVILLE, MD 21030	42	13	50		15594/00436 / N/A	RC 4
MD-BA-121.000	08 - 0806035400	SAINT MARY'S ORTHODOX CATHOLIC CHURCH	ATTN: GEORGE PERDIKAKIS 911 SHAWAN RD COCKEYSVILLE MD 21030-1308	42	13	52		28535/00490 / N/A	RC 4
MD-BA-122.000	08 - 2000000152	SAINT MARY'S ORTHODOX CATHOLIC CHURCH	ATTN: FATHER THEODORE 909 SHAWAN RD HUNT VALLEY MD 21030-1308	42	13	471		06831/00589 / N/A	RC 4
MD-BA-123.000	08 - 2300006869	HAYFIELD INC	ATTN: BRIAN KELBAUGH 701 HAYFIELDS ROAD COCKEYSVILLE, MD 21030	42	7	542		13690/00433 / A 0072/0003	RC 2
<b>EC 28</b>									
MD-BA-123.000	08 - 2300006869	HAYFIELD INC	ATTN: BRIAN KELBAUGH 701 HAYFIELDS ROAD COCKEYSVILLE, MD 21030	42	7	542		13690/00433 / A 0072/0003	RC 2
<b>EC 29</b>									
MD-BA-123.000	08 - 2300006869	HAYFIELD INC	ATTN: BRIAN KELBAUGH 701 HAYFIELDS ROAD COCKEYSVILLE, MD 21030	42	7	542		13690/00433 / A 0072/0003	RC 2
MD-BA-124.000	08 - 2300006886	HAYFIELD INC	ATTN: BRIAN KELBAUGH 701 HAYFIELDS ROAD COCKEYSVILLE, MD 21030	42	7	542	0	13690/00433 / B 0072/0004	RC 2
MD-BA-125.000	08 - 0812021150	PHILLIPS F LEE, III OPAL J LEE	314 WESTERN RUN RD COCKEYSVILLE MD 21030-1310	42	8	28		19873/ 00001 / N/A	RC 2
MD-BA-126.000	08 - 2300007784	HAYFIELD INC	ATTN: BRIAN KELBAUGH 701 HAYFIELDS ROAD COCKEYSVILLE, MD 21030	42	2	26		N/A / D 0072/0034	RC 2
<b>EC 30</b>									
MD-BA-124.000	08 - 2300006886	HAYFIELD INC	ATTN: BRIAN KELBAUGH 701 HAYFIELDS ROAD COCKEYSVILLE, MD 21030	42	7	542	0	13690/00433 / B 0072/0004	RC 2
MD-BA-126.000	08 - 2300007784	HAYFIELD INC	ATTN: BRIAN KELBAUGH 701 HAYFIELDS ROAD COCKEYSVILLE, MD 21030	42	2	26		N/A / D 0072/0034	RC 2
MD-BA-127.000	08 - 1900002500	GRAND LODGE OF ANCIENT FREE & ACCEPTED MASONS OF MARYLAND	C/O MD MASONIC HOMES ATTN: AMY LACOCK 500 CHESTERFIELD PARKWAY MALVERN, PA 19355-8707	42	8	27		N/A / 0047/0016	RC 6/OT
<b>EC 31</b>									
MD-BA-127.000	08 - 1900002500	GRAND LODGE OF ANCIENT FREE & ACCEPTED MASONS OF MARYLAND	C/O MD MASONIC HOMES ATTN: AMY LACOCK 500 CHESTERFIELD PARKWAY MALVERN, PA 19355-8707	42	8	27		N/A / 0047/0016	RC 6/OT
<b>EC 32</b>									
MD-BA-128.000	08 - 0802059171	KENNETH THOMAS BOSLEY PHYLLIS BUNKER BOSLEY	P O BX 585 SPARKS MD 21152-0585	42	3	341		03616/00196 / N/A	RC 6
MD-BA-129.000	08 - 2300010711	2301 FALLSTON ROAD LLC	7164 COLUMBIA GATEWAY DRIVE SUITE 230 COLUMBIA, MD 21046	42	3	358	0	32287/ 00094 / 0073/0022	RC 6
MD-BA-130.000	08 - 2400011875	GRACE HOMES INC	712 IVY HILL ROAD COCKEYSVILLE, MD 21030	42	3	35		12664/00745 / 0077/0196	RC 4
MD-BA-131.000	08 - 2400011865	GRACE HOMES INC	712 IVY HILL ROAD COCKEYSVILLE, MD 21030	42	3	35	1	12664/00745 / 0077/0196	RC 4
<b>EC 33</b>									
MD-BA-129.000	08 - 2300010711	2301 FALLSTON ROAD LLC	7164 COLUMBIA GATEWAY DRIVE SUITE 230 COLUMBIA, MD 21046	42	3	358	0	32287/ 00094 / 0073/0022	RC 6
MD-BA-131.000	08 - 2400011865	GRACE HOMES INC	712 IVY HILL ROAD COCKEYSVILLE, MD 21030	42	3	35	1	12664/00745 / 0077/0196	RC 4
MD-BA-132.000	08 - 1900002773	LOVETON LOT 10 LLC	ATTN: PAUL F WOODEN, JR. 42 LOVETON CIR SPARKS MD 21152-9201	34	22	47	10	18928/00223 / 0047/0029	ML
MD-BA-133.000	08 - 1900002772	FR LOVETON LLC C/O FIRST INDUSTRIAL REALTY TRUST	ATTN: KEVIN BAUER & STEPHEN BIESCHKE 9700 PATUXENT WOODS DR #103 COLUMBIA MD 21046-1605	34	22	47	9	23197/00466 / 4 0047/0029	ML
<b>EC 34</b>									
MD-BA-132.000	08 - 1900002773	LOVETON LOT 10 LLC	ATTN: PAUL F WOODEN, JR. 42 LOVETON CIR SPARKS MD 21152-9201	34	22	47	10	18928/00223 / 0047/0029	ML
MD-BA-133.000	08 - 1900002772	FR LOVETON LLC C/O FIRST INDUSTRIAL REALTY TRUST	ATTN: KEVIN BAUER & STEPHEN BIESCHKE 9700 PATUXENT WOODS DR #103 COLUMBIA MD 21046-1605	34	22	47	9	23197/00466 / 4 0047/0029	ML
MD-BA-134.000	08 - 1900002787	BECTON DICKINSON AND COMPANY	ATTN FINANCE PO BOX 999 SPARKS MD 21152-0999	34	22	47	28	07555/00634 / 0047/0029	ML
MD-BA-135.000	08 - 2300005868	LOVETON INVESTORS LLC	ATTN: CHIP BENOFF 2560 LORD BALTIMORE DRIVE BALTIMORE MD 21244-2666	34	22	47	29	13741/00656 / 0071/0100	ML
MD-BA-136.000	08 - 2100013417	BECTON DICKINSON AND COMPANY	ATTN FINANCE PO BOX 999 SPARKS MD 21152-0999	34	22	47	29	00000/00000 / 0060/0123	ML
MD-BA-137.000	08 - 2300005869	BT NEWYO LLC	ATTN TAXDEPT 55 GLENLAKE PKWY NE ATLANTA GA 30328-3474	34	22	47	30	19907/00404 / 0071/0100	ML

TRACT NUMBER	DISTRICT - ACCOUNT #	OWNER	CONTACT ADDRESS	TAX MAP	GRID	PARCEL	LOT	DEED REFERENCE / PLAT REF.	ZONING
<b>EC PLAN 26A</b>									
MD-BA-118.000	08 - 0802019031	BALTIMORE COUNTY MARYLAND	ATTN: BRIAN ADAMS, PAM JARRELL & SAM MORCHIANO ATTN: CHRIS MCCOLLUM, PAT SIMON, STEVEN WALSH 111 WEST CHESAPEAKE AVENUE TOWSON MD 21204	41	17	56		05056/00650 / N/A	RC 7
<b>EC PLAN 26B</b>									
MD-BA-118.000	08 - 0802019031	BALTIMORE COUNTY MARYLAND	ATTN: BRIAN ADAMS, PAM JARRELL & SAM MORCHIANO ATTN: CHRIS MCCOLLUM, PAT SIMON, STEVEN WALSH 111 WEST CHESAPEAKE AVENUE TOWSON MD 21204	41	17	56		05056/00650 / N/A	RC 7
<b>EC PLAN 26C</b>									
MD-BA-118.000	08 - 0802019031	BALTIMORE COUNTY MARYLAND	ATTN: BRIAN ADAMS, PAM JARRELL & SAM MORCHIANO ATTN: CHRIS MCCOLLUM, PAT SIMON, STEVEN WALSH 111 WEST CHESAPEAKE AVENUE TOWSON MD 21204	41	17	56		05056/00650 / N/A	RC 7
MD-BA-118.200	08 - 0813026130	BALTIMORE COUNTY MARYLAND	OLD COURT HOUSE BALTIMORE MD 21204	41	17	49		14419/00380 / N/A	RC 7

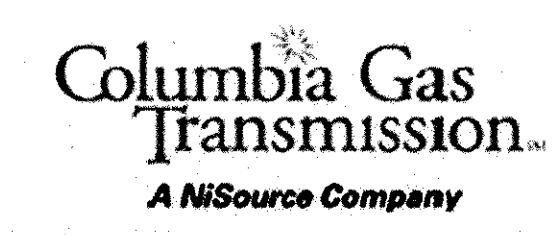
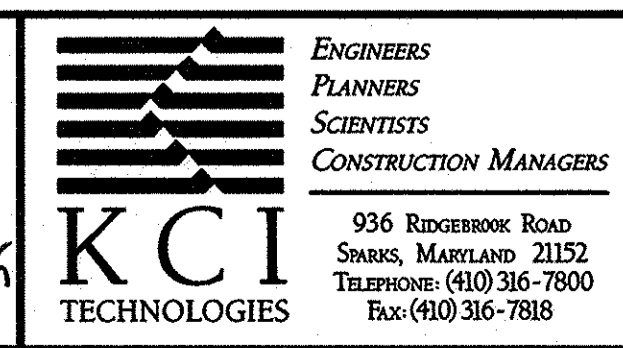
NOTE:  
REFER TO GRADIEROSION AND SEDIMENT CONTROL PLAN DWG. NO. EC-26 THROUGH EC-34 FOR THE PROPERTY TRACT NUMBERS AND THE LOCATION OF INDIVIDUAL PROPERTIES.

R-1, 7-20-15 04  
Baltimore County Soil Conservation District  
APPROVED FOR SEDIMENT CONTROL  
*Scott J. A. Smith*  
7-20-15  
DATE

DESIGN & DRAWING BASED ON MARYLAND STATE COORDINATE SYSTEM - HORIZ: NAD 83 (ADJ. 107); VERT.: NAVD 88

PLANNER: MCS-05, CIV. ENR. Tuesday, July 14, 2015  
FILE: \\C:\2015\21218.01\Drawings\DWG\_EC-PROP\_OWNERS\_2\_EC-Phase2.dwg

PROFESSIONAL CERTIFICATION:  
I HEREBY CERTIFY THAT THESE DOCUMENTS WERE PREPARED BY ME OR UNDER MY CLOSE PERSONAL SUPERVISION AND THAT I AM A LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND.  
LICENSE NO. 14942  
EXPIRATION DATE: 6/30/2016



NO.	DATE	DESCRIPTION	BY	DATE
1	JULY 2015	REVISED LOD TO REPLACE STAGING AREA #7 WITH STAGING AREA #7B, #7C, & #7D; RELOCATED PAVED DRAIN; ADDED DBL-SIDED SFD DETAIL T-1.0, VIC-1.0.	KP	JAN. 2015
		EC-26, EC-26A, EC-26B, EC-26C, EC-27, EC-30, EC-32, EC-1.0, EC-1.06, PD-1.1		

BALTIMORE COUNTY PROPERTY OWNERS CHART FOR COLUMBIA GAS TRANSMISSION, LLC LINE MB EXTENSION PROJECT - PHASE 2 BALTIMORE & HARFORD COUNTIES, MARYLAND

DRAWING NO. **PO-1.1**

SHEET 59 OF 61  
KCI JOB NUMBER 16-121849