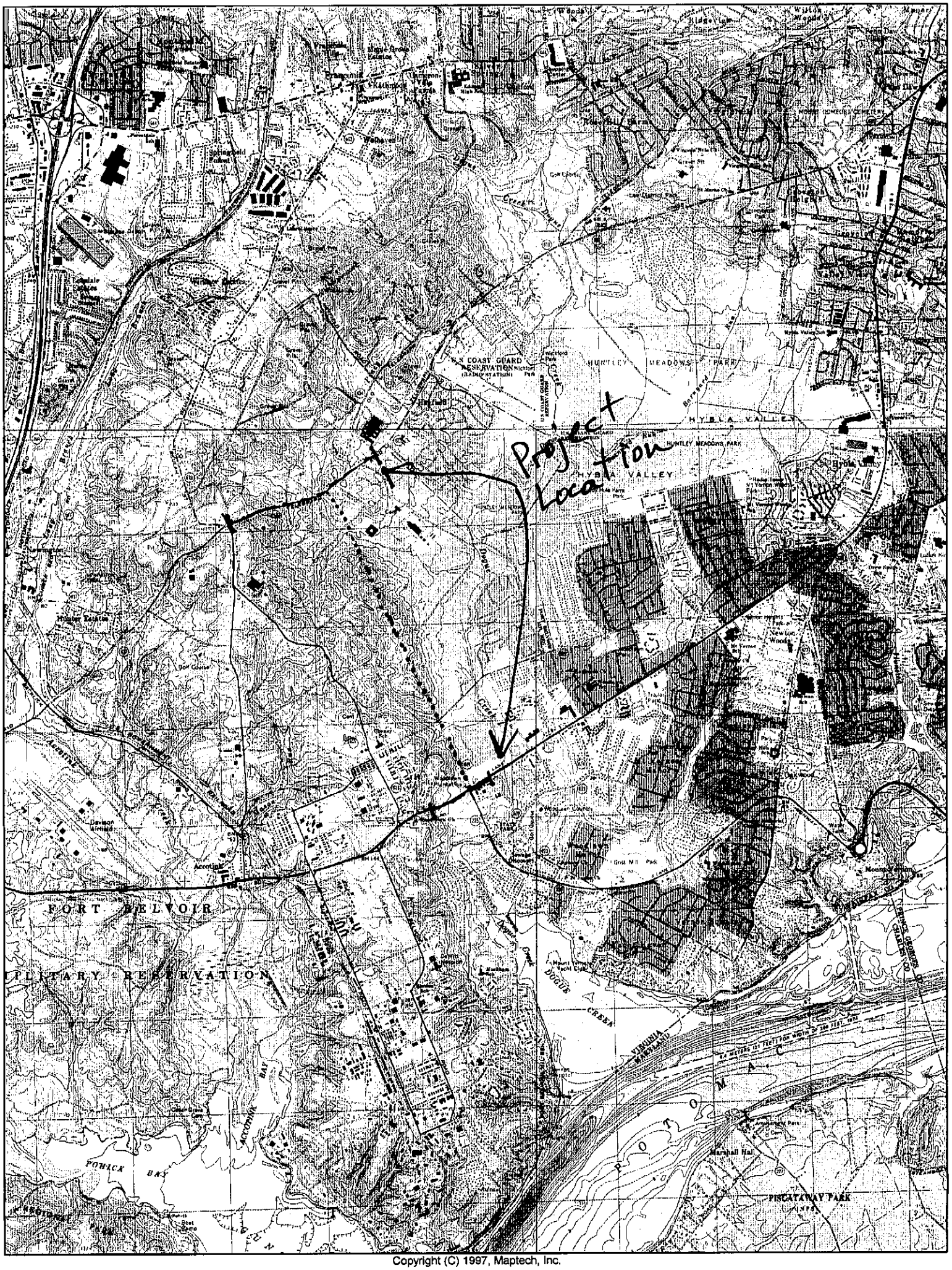
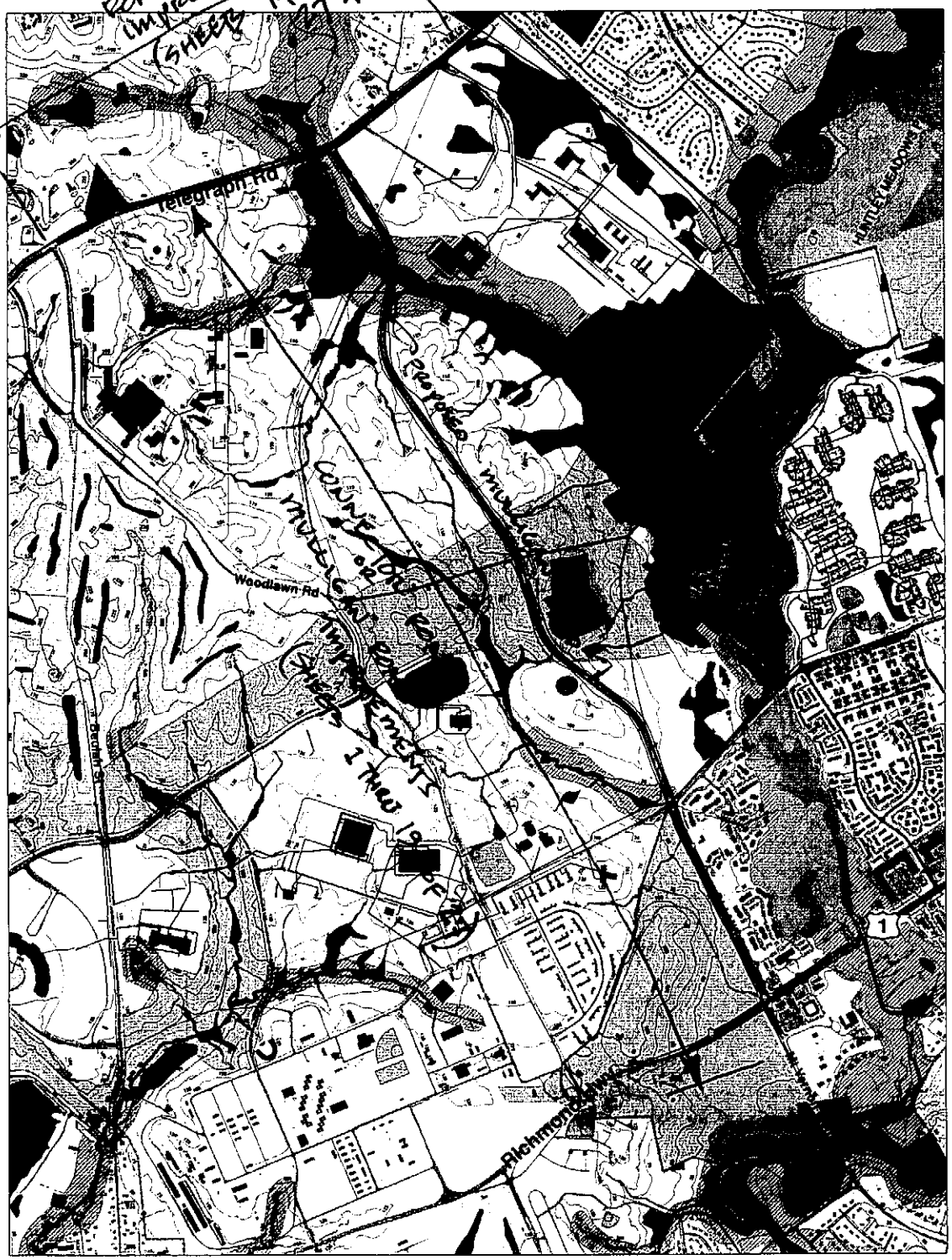


Copyright (C) 1997, Maptech, Inc.

TELEGRAPH ROAD IMPROVEMENTS (SHEETS 19 THRU 27 OF 27)



N

0 500 1,000 2,000 Feet

Legend

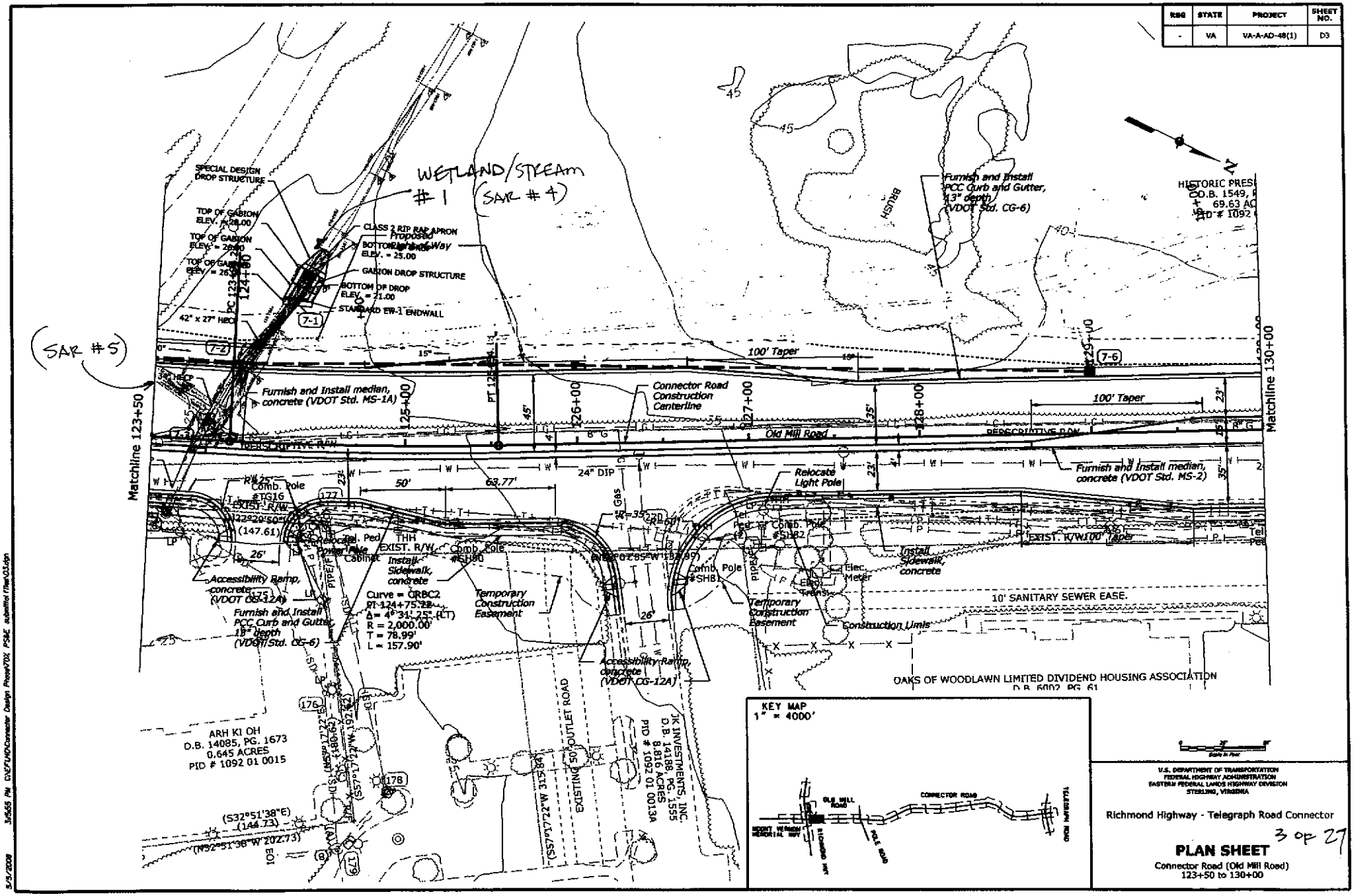
- Alignment 4CR Pavement (3-15-06)
- Alignment 4CR LOC (3-15-06)
- Fort Belvoir/HEC Boundary
- Woodlawn Historic District
- George Washington's Gristmill
- Landfills
- Open Water
- Wetlands
- Resource Protection Area
- Forest and Wildlife Corridor
- Fairfax County Schools
- Other County Property
- Parks - Fairfax County Park Authority
- Golf Course
- Fort Belvoir Athletic Fields
- Gas Main Line
- Water Main Line
- Wastewater Main Line

Environmental Constraints
Alignment 4CR

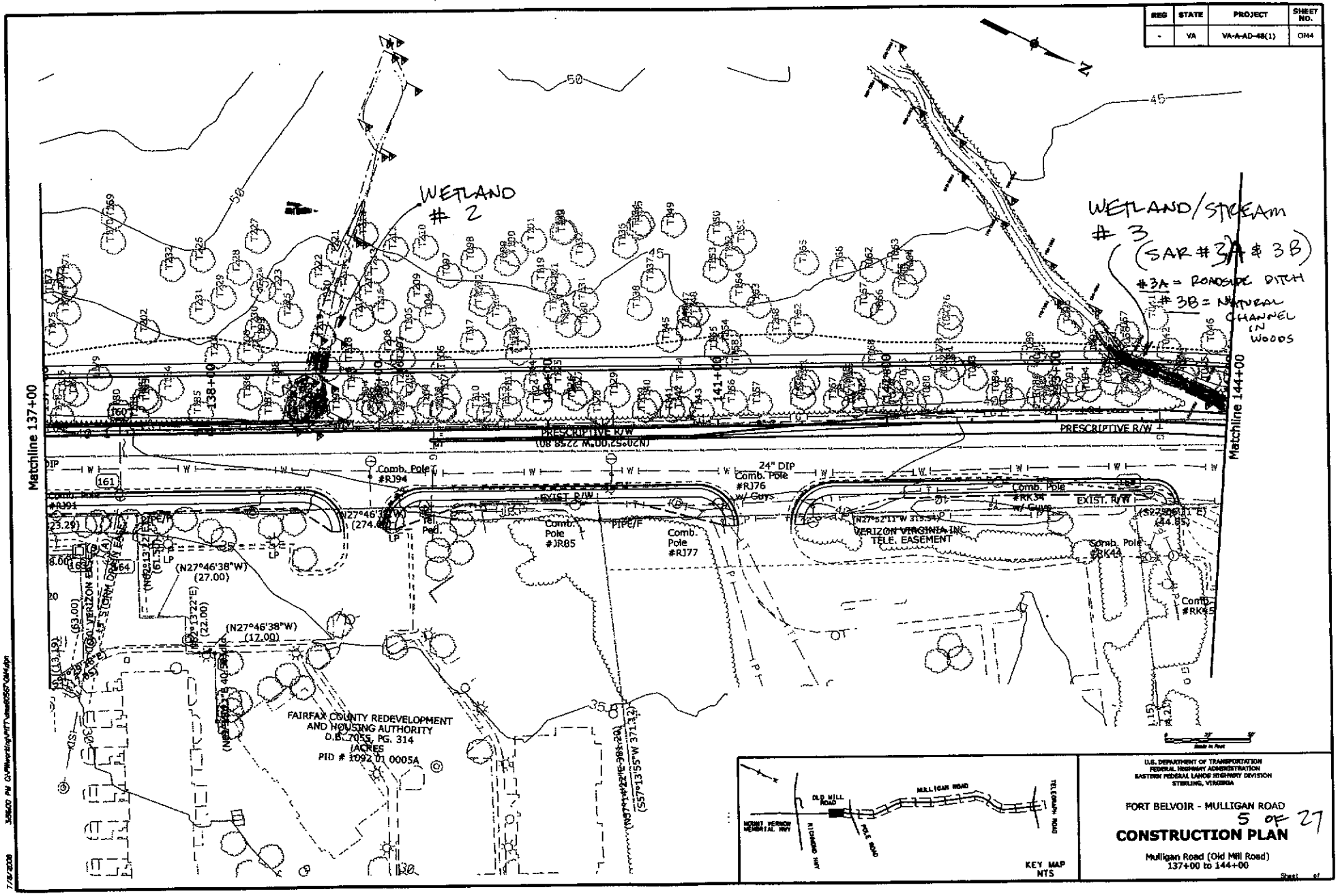
FHWA Richmond Highway - Telegraph Road Connector
Fairfax County, VA

PROJECT VICINITY MAP

RBG	STATE	PROJECT	SHEET NO.
-	VA	VA-A-AD-48(1)	D3



REG	STATE	PROJECT	SHEET NO.
-	VA	VA-A-AD-48(1)	OM4



U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
EASTERN FEDERAL LANDS HIGHWAY DIVISION
STERLING, VIRGINIA

FORT BELVOIR - MULLIGAN ROAD

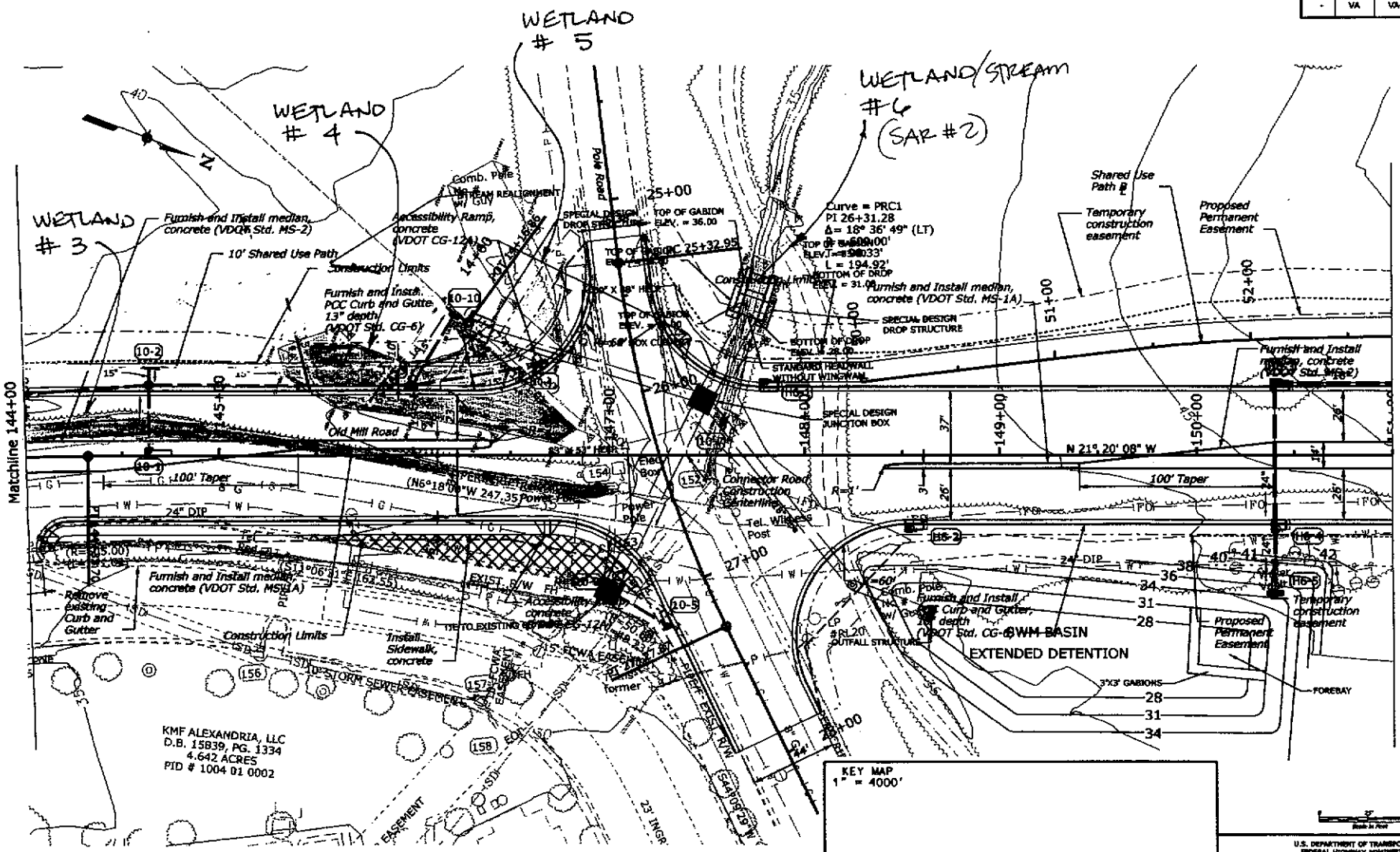
5 OF 27

CONSTRUCTION PLAN

Mulligan Road (Old Mill Road)
137+00 to 144+00

Sheet of

REG	STATE	PROJECT	SHEET NO.
-	VA	VA-A-AD-48(1)	D6



U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
EASTERN FEDERAL LANDS HIGHWAY DIVISION
STERLING, VIRGINIA

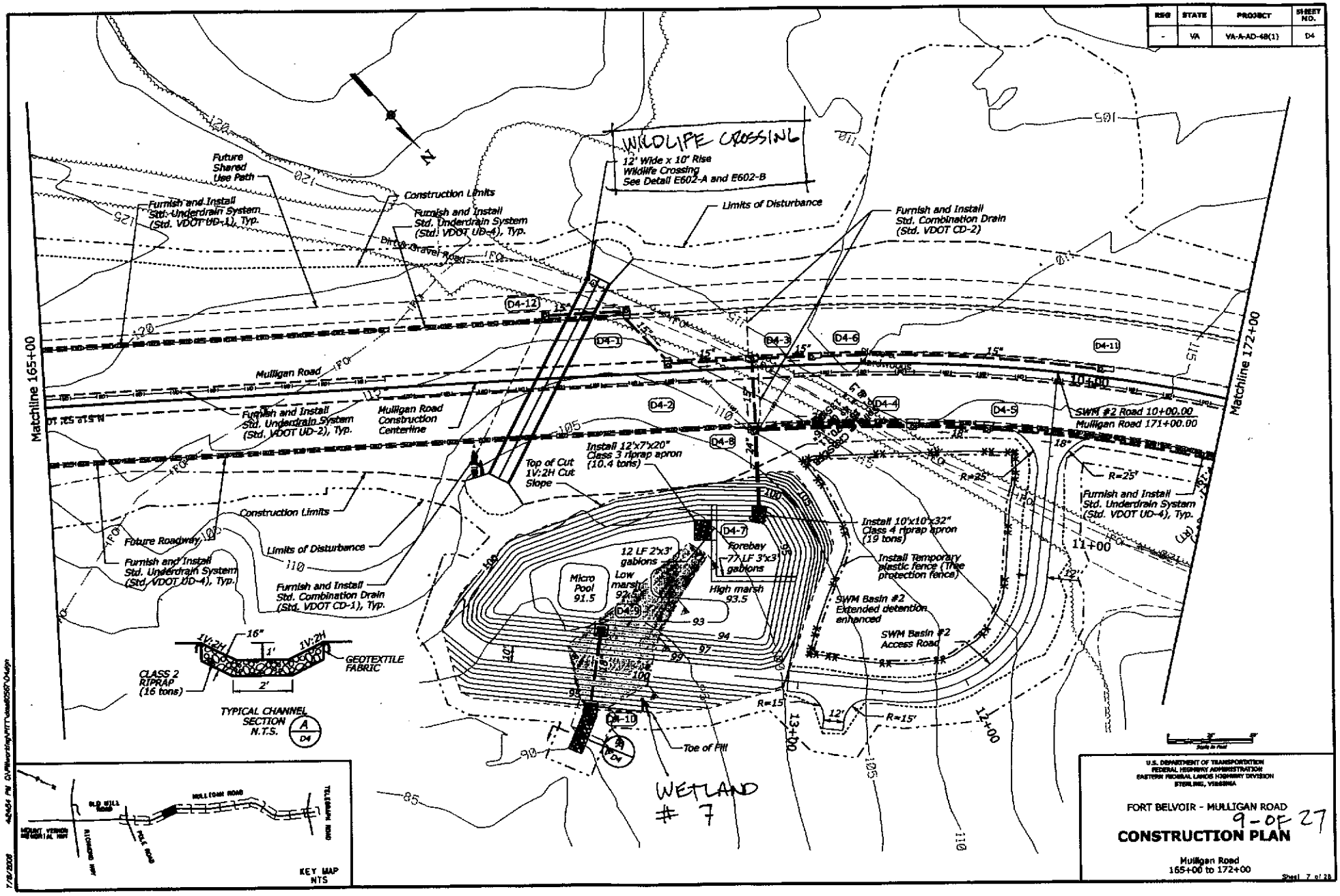
Richmond Highway - Telegraph Road Connector

6 OF 27

PLAN SHEET

Connector Road (Old Mill Road at Pole Road)
144+00 to 151+00

REG	STATE	PROJECT	SHEET NO.
-	VA	VA-A-AD-48(1)	D4



U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
EASTERN FEDERAL LANDS HIGHWAY DIVISION
STERLING, VIRGINIA

FORT BELVOIR - MULLIGAN ROAD

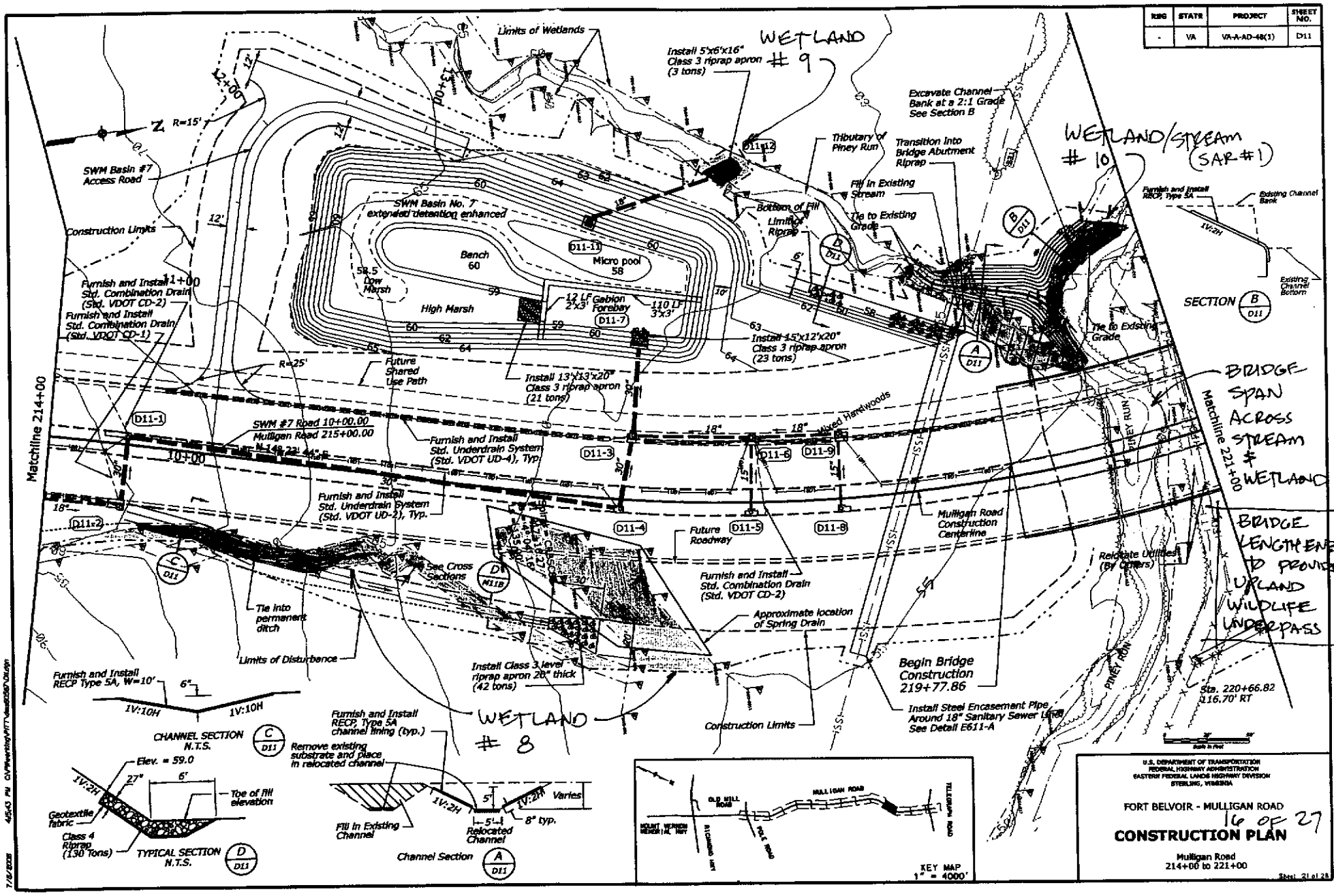
9 OF 27

CONSTRUCTION PLAN

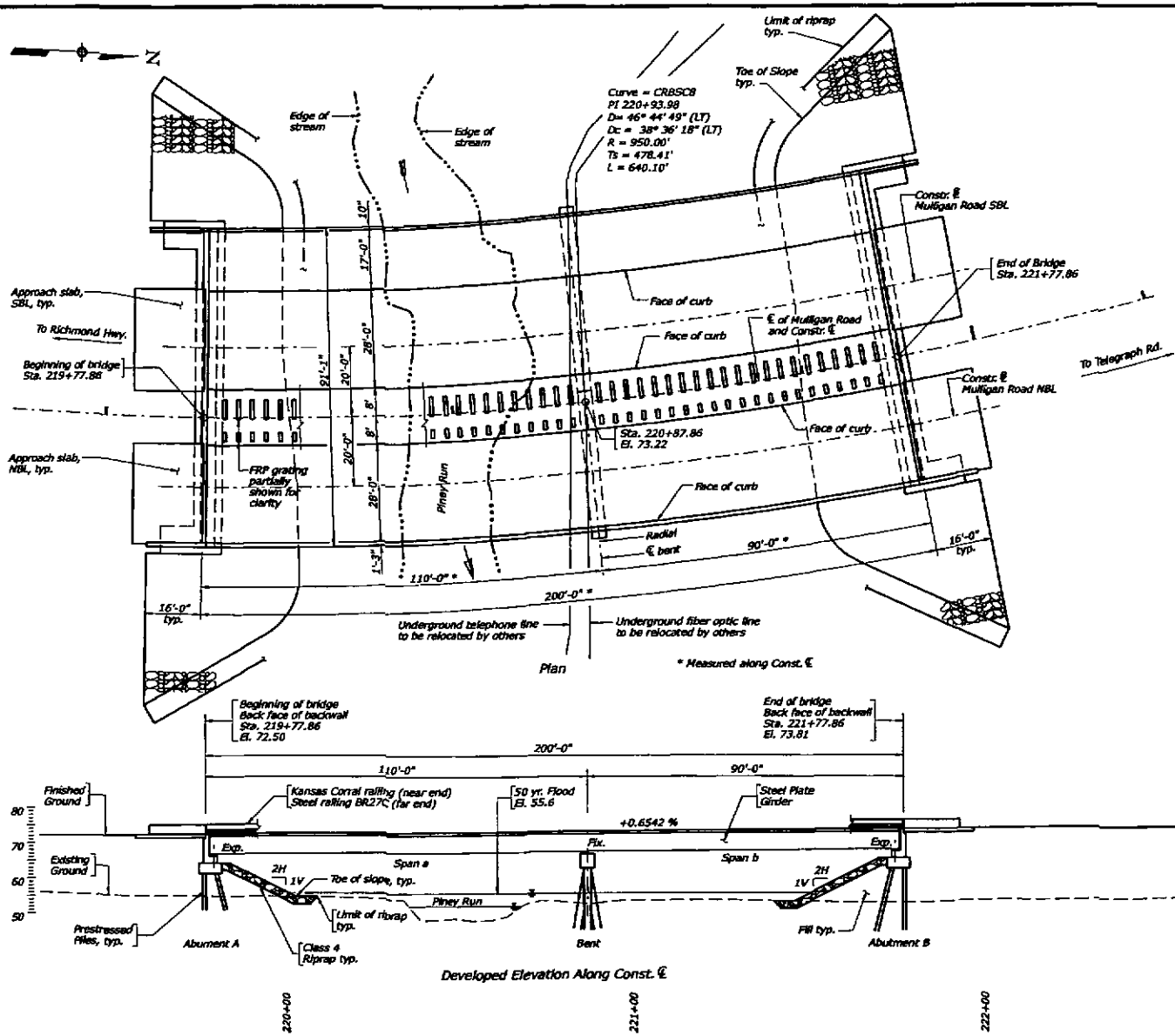
Mulligan Road
165+00 to 172+00

Sheet 7 of 28

REG	STATE	PROJECT	SHEET NO.
-	VA	VA-A-AD-48(1)	D11



REG	STATE	PROJECT	SHEET NO.
-	VA	VA-A-AD-48(1)	R30



General notes:

Width: 91'-1" out -to-out.

Span Layout: 2 span 110'-90' continuous steel plate girder spans.

Capacity: HL-93 loading.

Drainage Area: 2.10 square miles

Specifications: Construction: Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects, FP-03

Design: AASHTO LRFD Bridge Design Specifications 4th. Edition, 2007 and VDOT Modifications.

These plans are incomplete unless accompanied by SCR (Special Contract Requirements) included in contract documents.

Design loading includes 20 psf allowance for construction tolerances and construction methods.

The use of prestressed deck panels as stay-in place forms will not be permitted.

All structural steel, except in bearings and sole plates, shall be ASTM A709 grade 50W and shall be unpainted except as required by FHWA FP-03 specifications. Structural steel in bearings and sole plates shall be ASTM A709 Grade 36 and shall be painted. Finish paint color shall be brown, 595-20059. Structural steel including cross frames under median openings shall be painted.

Girders shall be curved by cutting the flanges to proper curvature or by heat curving.

Concrete in prestressed pile shall be class P (f'c = 5000 psi). Concrete in superstructure including parapets, terminal walls, sidewalks and median barriers shall be class A(AE) (f'c = 4000 psi), abutments and bent cap, class A(AE) (f'c = 3000 psi). High performance concrete shall be used in bridge deck, median, sidewalk, parapet and terminal walls.

Deformed reinforcing bars shall conform to ASTM A615, Grade 60. All Reinforcements in superstructure shall be Epoxy Coated.

18" piles at Abutments have ultimate axial capacity of 271 tons, with a safety factor of 2.25; 24" piles at bent have ultimate axial capacity of 278 tons, with a safety factor of 2.25. 18" cast-in-place piles with conical point at the end may be substituted for 18" prestressed concrete piles at no additional cost.

BM: B&N Tablet stamped "3000" located on the north side of John Kingman Road, 330.55 ft East of Connector Road N 6952665.8919, E 11871044.5308, El. 121.19.

PROJECT DATA:

Bridge Name: Connector Road over Piney Run
Stream: Piney Run
Project Location: Fairfax County, Virgina
Owner: VDOT

HYDRAULIC DATA:

Year	Discharge (CF / Sec.)	Water Elev. (Ft.)	Velocities (Ft. / Sec.)
2	590	52.7	3.9
10	1140	54.3	5.6
50	2100	55.6	6.9
100	2570	56.2	7.3
500	4400	57.5	8.2

0 15 30
SCALE IN FEET

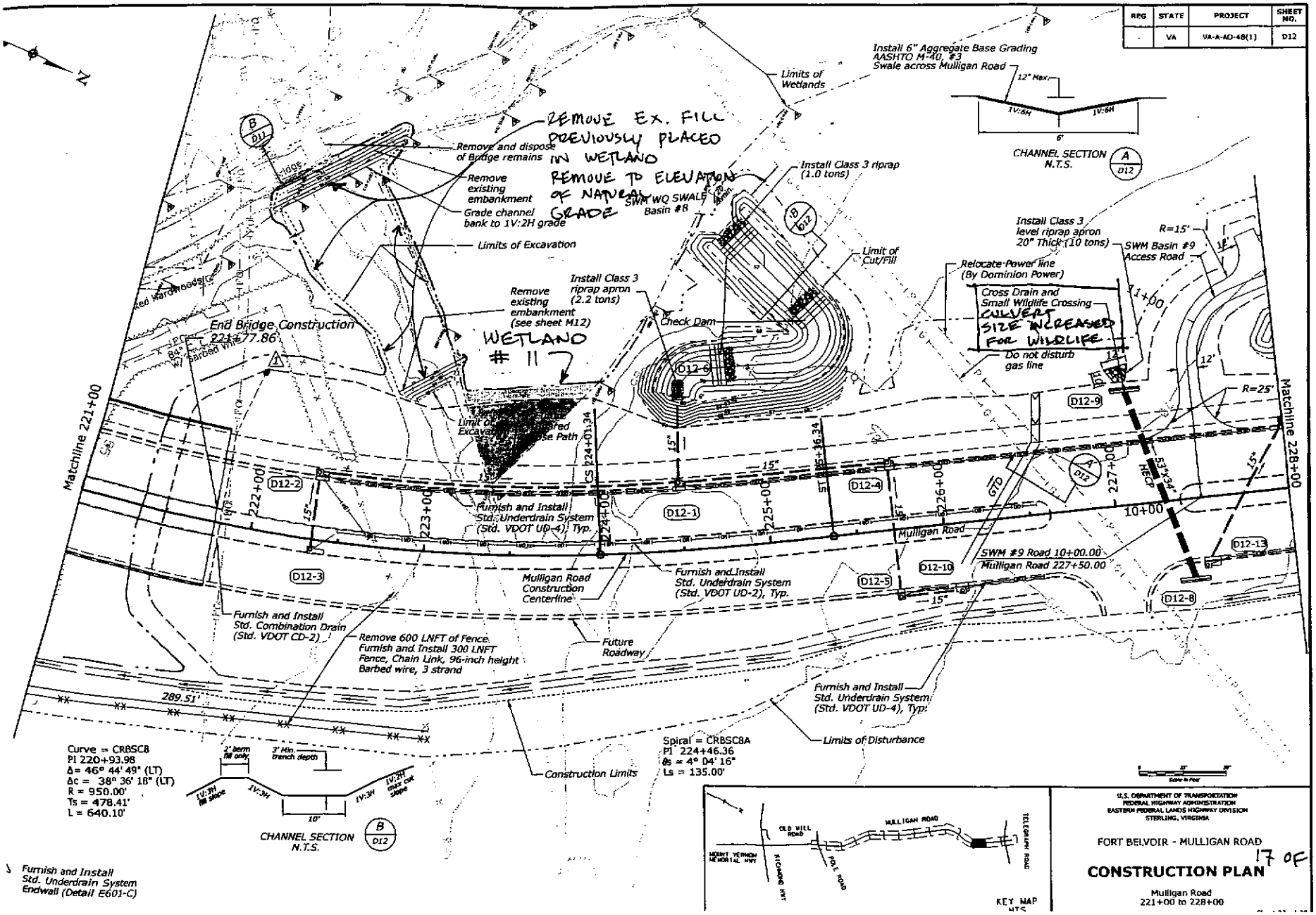
V.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
EASTERN FEDERAL LANDS HIGHWAY DIVISION
STERLING, VIRGINIA

PORT BELVOIR - MULLIGAN ROAD
MULLIGAN ROAD OVER PINEY RUN

PLAN AND ELEVATION GENERAL NOTES

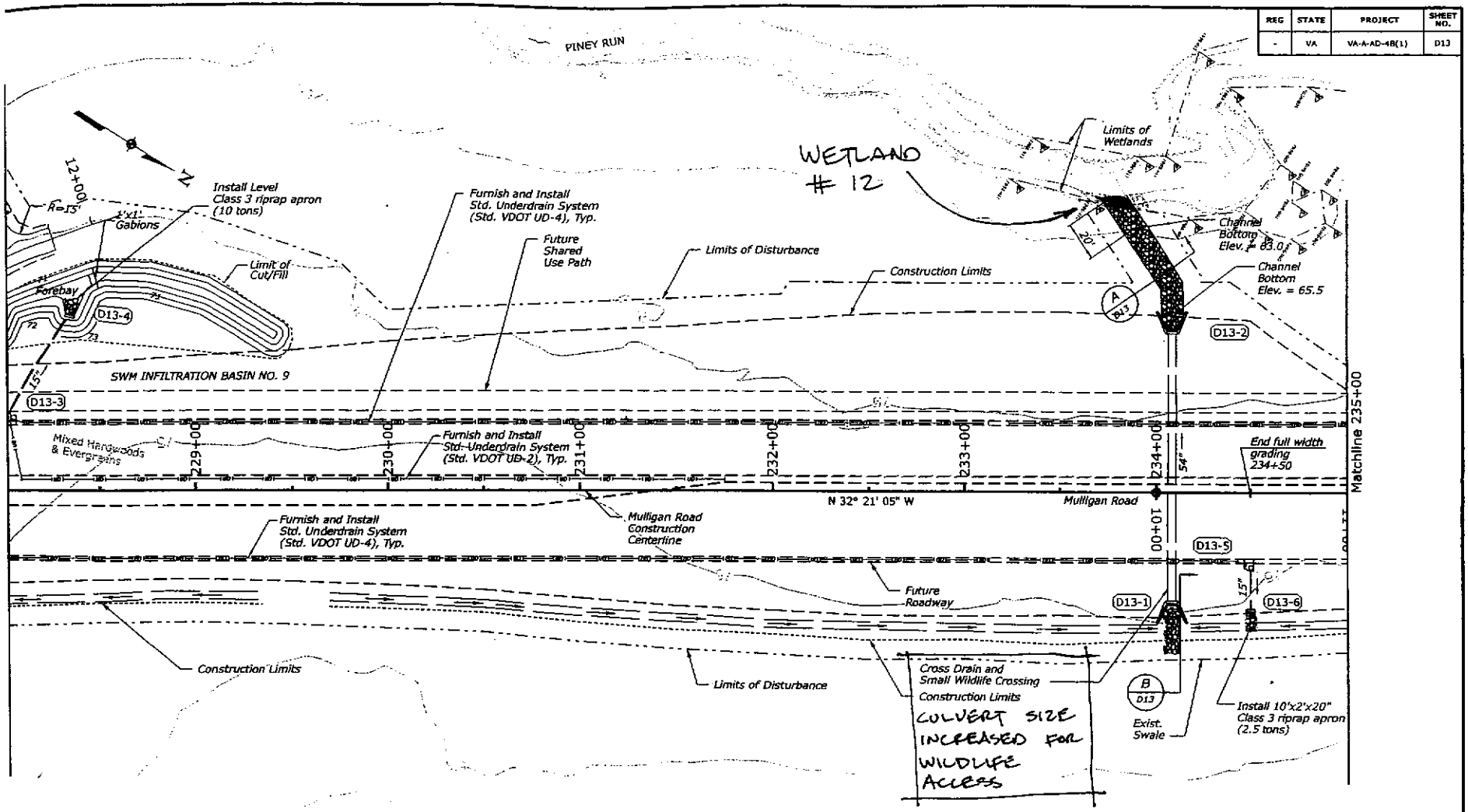
5/22/2008 4:04:43 PM C:\PWworking\PRT\vlas56\Sht\r-r-sheet.dgn

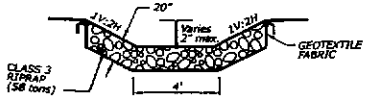
REG	STATE	PROJECT	SHEET NO.
-	VA	VA-A-AD-48(1)	D12



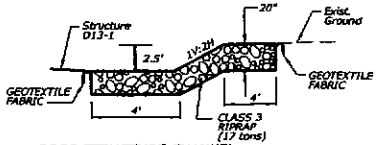
17 of 27

REG	STATE	PROJECT	SHEET NO.
-	VA	VA-A-AD-4B(1)	D13

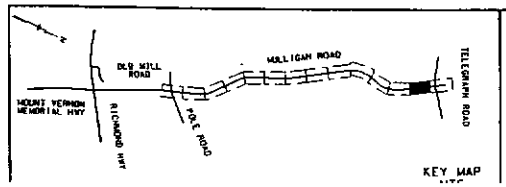




TYPICAL CHANNEL SECTION N.T.S. (A / D13)



DROP STRUCTURE CHANNEL SECTION N.T.S. (B / D13)



U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
EASTERN FEDERAL LANDS HIGHWAY DIVISION
STERLING, VIRGINIA

FORT BELVOIR - MULLIGAN ROAD

CONSTRUCTION PLAN

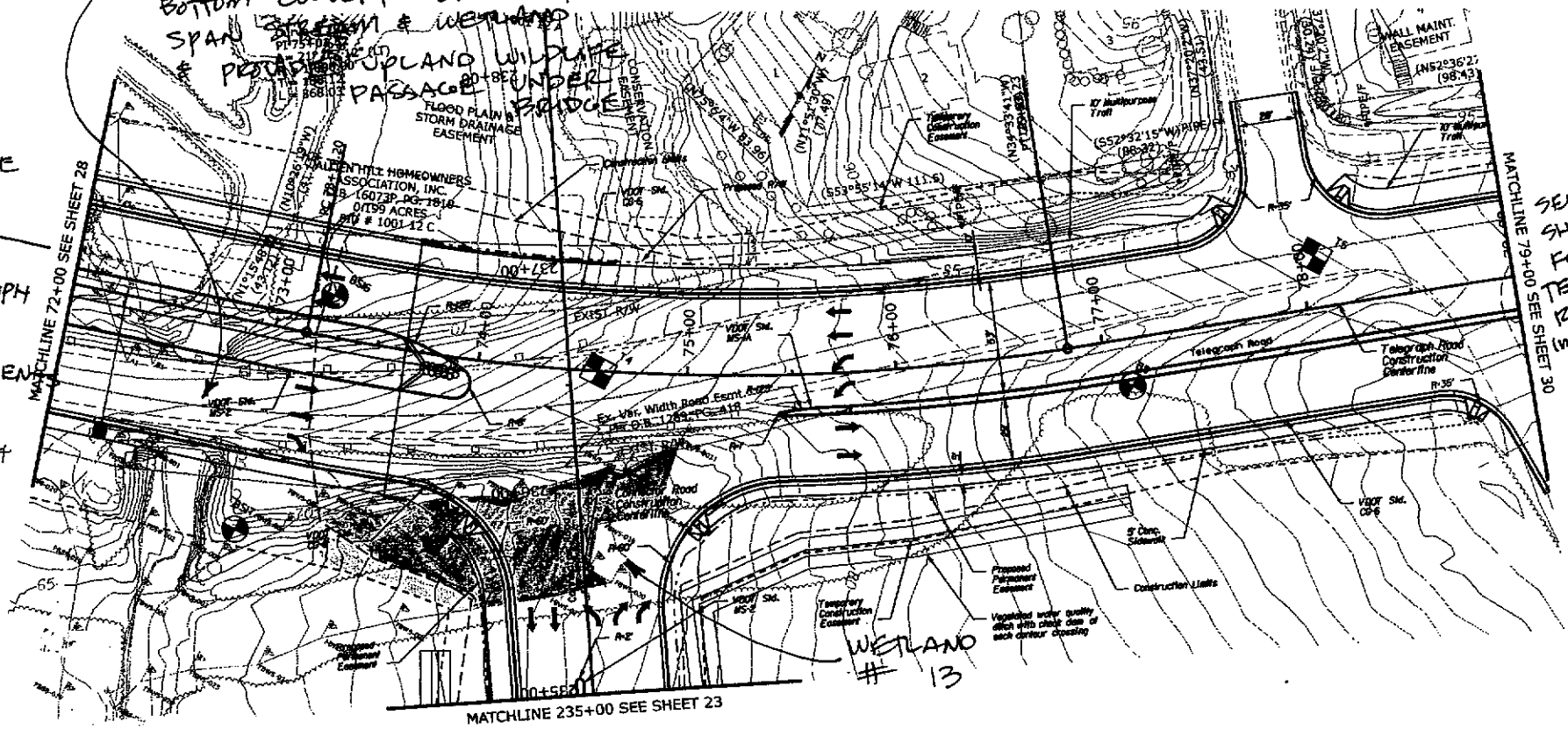
Mulligan Road
228+00 to 235+00

18 of 27

RRG	STATE	PROJECT	SHEET NO.
	VA	VA-A-AD-48(1)	29

BRIDGE TO REPLACE THE EXISTING 2-CELL CONCRETE BOTTOM CULVERT - BRIDGE TO SPAN STREAM & WETLAND & PROVIDE UPLAND WILDLIFE PASSAGE UNDER BRIDGE

SEE SHEETS FOR TELEGRAPH ROAD IMPROVEMENT (SHEETS 20 THRU 24 OF 27)



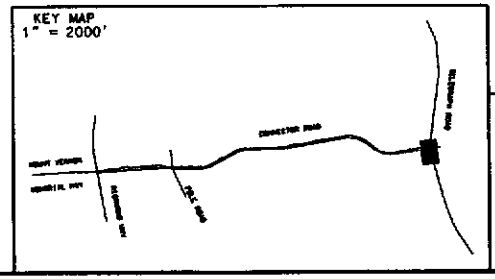
RICHMOND HIGHWAY - TELEGRAPH ROAD CONNECTOR

AKA

MULLIGAN ROAD

↓ TO ROUTE 1

KEY MAP
1" = 2000'



0 25 50
SCALE IN FEET

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
EASTERN FEDERAL LANDS HIGHWAY DIVISION
STERLING, VIRGINIA

RICHMOND HIGHWAY-
TELEGRAPH ROAD CONNECTOR

PLAN SHEET 19 OF 27

Telegraph Road
T2+00 TO T9+00

6/18/2007 135440 PM C:\PWworking\PITTUM\6058\28.dgn

Wetland/Stream No. SAR # & Plan Sheet Location	Wetland/Water Impact Description	Area of Temporary Impact	Area of Permanent Impact	Length of Stream Channel Impacted	Type of Wetland/Stream (Classification)
Wetland/Stream #1 (SAR #5) Sheet 2 of 27	Permanent, NonTidal, Fill, intermittent		455 Ft²	70 LF	RIUB
Weland/Stream #1 (SAR #4) Sheet 3 of 27	Permanent, NonTidal, Fill, intermittent		270 Ft²	30 LF	RIUB
Wetland #2 Sheet 5 of 27	Permanent, NonTidal, Fill	120 Ft²	875Ft²		
Wetland Stream #3 (SAR #3A) Sheets 5&6 of 7	Permanent, NonTidal, Fill, intermittent		1,138 Ft²	325 LF	RIUB
Wetland/Stream #3 (SAR #3B) Sheets 5 & 6 of 27	Permanent, NonTidal, Fill, intermittent		675 Ft²	90 LF	RIUB
Wetland #4 Sheet 6 of 27	Permanent, NonTidal, Fill	200 Ft²	4,500 Ft²		
Wetland #5 Sheet 6 of 27	Permanent, NonTidal, Fill	418 Ft²	72 Ft²		
Wetland/Stream #6 (SAR #2) Sheet 6 of 27	Permanent, NonTidal, Fill, intermittent		770 Ft²	110 LF	RIUB
Wetland #7 Sheet 9 of 27	Permanent, NonTidal, Fill		3500 Ft²		
Wetland #8 Sheets 15 & 16 of 27	Permanent, NonTidal, Fill	2,900 Ft²	5,750 Ft²		
Wetland #9 Sheet 16 of 27	Permanent, NonTidal, Fill	250 Ft²	216 Ft²		
Wetland/Stream #10 (SAR #1) Sheet 16 of 27	Permanent, NonTidal, Fill, Perennial		3,375 Ft²	110	RLPUB
Wetland #11 Sheet 17 of 27	Permanent, NonTidal, Fill	1,310 Ft²	1,460 Ft²		
Wetland #12 Sheet 18 of 27	Permanent, NonTidal, Fill	85 Ft²	70 Ft²		
Wetland #13 Sheet 19 of 27	Permanent, NonTidal, Fill	900 Ft²	5,625 Ft²		
Wetland #14 Sheet 24 of 27	Permanent, NonTidal, Fill	875 Ft²			