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SITE NO

DA 103B

KBR

Engineered by KBR Technical Services Inc

GLENN DAVID RAUCHLE
VA REG 037388
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PERMITS OR
CONSTRUCTION
NOV 26, 2003

6-08-2004 10:45:03

bbrhoff

CONSTRUCTION LIMITS

FLOW FROM CREEK DA 103B WILL BE DISCHARGED INTO 60" CONCRETE CULVERT

℄ RAMP B

20' C/F

Jeep Trail

122'

PC 19+52.47

CREEK DA 103B
0.5' - 2.5' WIDE OHW
LENGTH OF
IMPACT = 510'

E/C

C/F

FLOW

Dense Trees

FLOW

GABION FLUME

001

CONSTRUCTION LIMITS

FOR CONTINUATION SEE DRAWING SK102001A

Dense Trees

CREEK DA 103B
0.5' - 2.5' WIDE OHW
LENGTH OF
IMPACT = 510'

PLAN

SCALE
0 50' 100'

PROPOSED RAMP B
GRADE LINE

TOP OF FILL
EL = 1757

60" CONCRETE CULVERT
INVERT EL 1747
AT ℄ RAMP B

FILL

EXISTING GROUND

OHW EL 1702

CENTER OF
CREEK DA 103B
BOTTOM EL 1690
AT ℄ RAMP B

0.5' - 2.5'
OHW

CROSS SECTION

HORIZONTAL SCALE
0 50' 100'

VERTICAL SCALE
0 20' 40'

ADJACENT PROPERTY OWNERS:		PROPOSED ROAD CROSSING PROJECT
001 HEARTLAND FOREST LAND FUND	PLAN & CROSS SECTION VIEW RAMP B ROAD CROSSING	CREEK DA 103B COUNTY: BUCHANAN APPLICANT: SHEET OF DATE:

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
	0121-013-101	SK102001	

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FOR CONTINUATION SEE DRAWING SKI02004B

SITE NO
DAI04C

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CONSTRUCTION
NOV 26, 2003

FLOW

CONSTRUCTION LIMITS

℄ RAMP B

113'

54" CONCRETE CULVERT

FLOW

CONSTRUCTION LIMITS

F/C

001

CREEK DA 104C
10' - 20' WIDE OHW
LENGTH OF
IMPACT = 504'

GABION FLUME

GABION FLUME

FOR CONTINUATION SEE DRAWING SKI02004D

PLAN

SCALE
0 50' 100'

PROPOSED RAMP B
GRADE LINE

TOP OF FILL
EL = 1759.79

54" CONCRETE CULVERT
INVERT EL 1739.26
AT ℄ RAMP B

FILL

EXISTING GROUND

OHW EL 1651
10' - 20'
OHW

CENTER OF
CREEK DA 104C
BOTTOM EL 1650
AT ℄ RAMP B

CROSS SECTION

HORIZONTAL SCALE
0 50' 100'

VERTICAL SCALE
0 20' 40'

ADJACENT PROPERTY OWNERS:	PLAN & CROSS SECTION VIEW RAMP B ROAD CROSSING	PROPOSED ROAD CROSSING PROJECT
001 HEARTLAND FOREST LAND FUND		CREEK DA 104C COUNTY: BUCHANAN APPLICANT: SHEET OF DATE:

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
	0121-013-101	SKI02004C	

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SITE NO
DA 106A

KBR
Engineered by KBR
Technical Services Inc

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CONSTRUCTION
NOV 26, 2003

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bbr1107

WETLAND DA 106A
PEM 0.57 AC.

001

IMPERVIOUS EMBANKMENT

CONSTRUCTION LIMITS

0.9 ACRE IMPACTED

60

℄ RAMP B
N 50° 18' 14" E

℄ ROUTE 121

129'

CONSTRUCTION LIMITS

SCALE
0 50' 100'

PLAN

WETLAND DA 106A
BOTTOM EL 1905

EXISTING GROUND

CUT

PROPOSED ROUTE 121
GRADE LINE
EL = 1774.31

HORIZONTAL SCALE
0 50' 100'

VERTICAL SCALE
0 20' 40'

CROSS SECTION

ADJACENT PROPERTY OWNERS:	PLAN & CROSS SECTION VIEW ROUTE 121	PROPOSED ROAD CROSSING PROJECT
001 HEARTLAND FOREST LAND FUND		WETLAND DA 106A COUNTY: BUCHANAN APPLICANT: SHEET OF DATE:

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
	0121-013-101	SK102003	

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cdavis

STREAM DA 201B. & DA 107/2014

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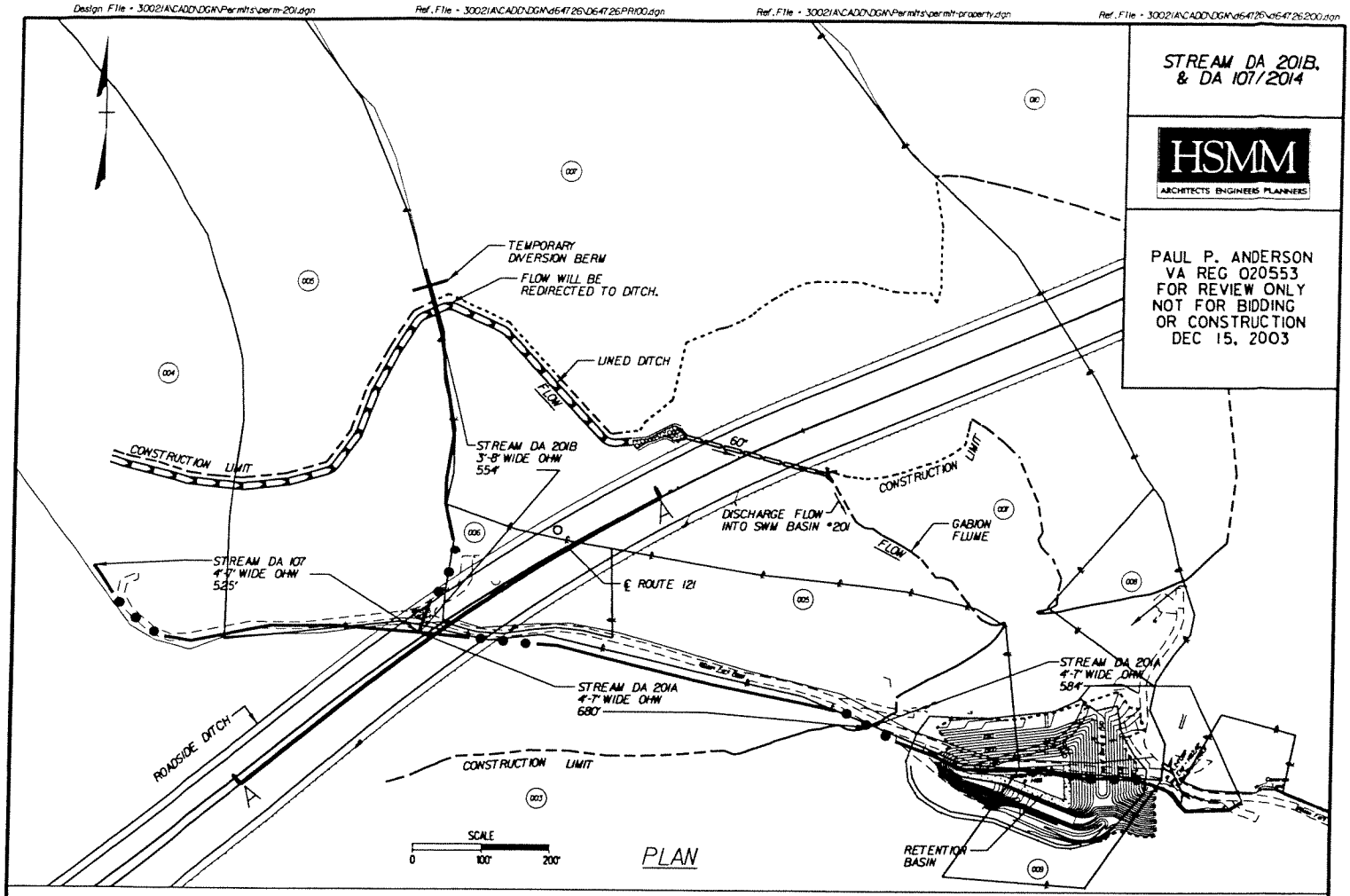

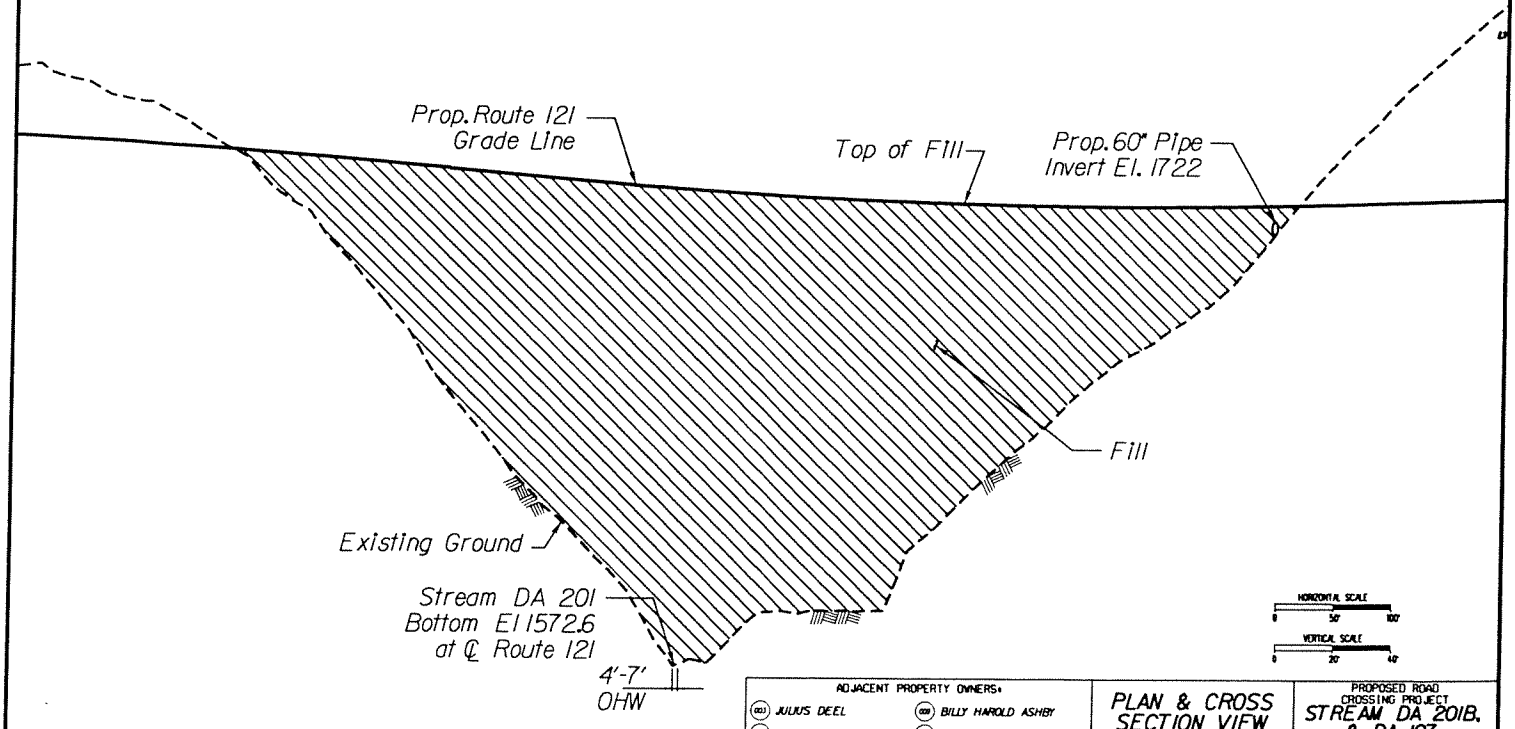

CROSS SECTION "A" - "A"

ADJACENT PROPERTY OWNERS:
- (003) JULIUS DEEL
- (004) JUNE YATES
- (005) AUDREY LYNN BOWMAN
- (006) BILLY DEAN CLEVINGER
- (007) JERRY DEAN CLEVINGER
- (008) CLINTON CLAY CLEVINGER
- (009) BILLY HAROLD ASHBY
- (010) EVELINE C. LANE ESTATE

PLAN & CROSS SECTION VIEW ROUTE 121 ROAD CROSSING

PROPOSED ROAD CROSSING PROJECT
STREAM DA 201B. & DA 107
COUNTY:
APPLICANT:
SHEET 1 OF 1
DATE: 10/22/03

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
	0121-013-101		

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STREAM DA 202

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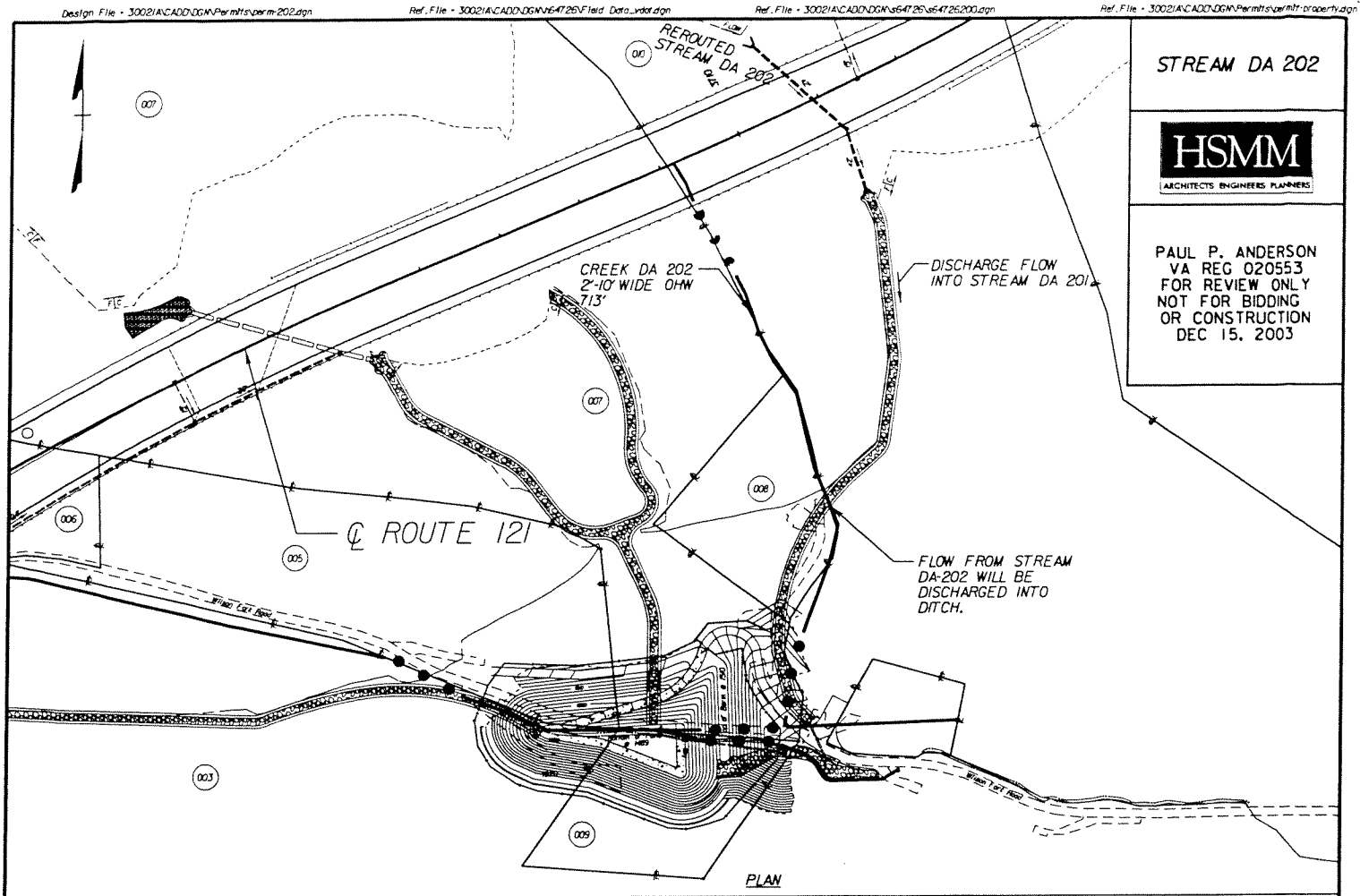

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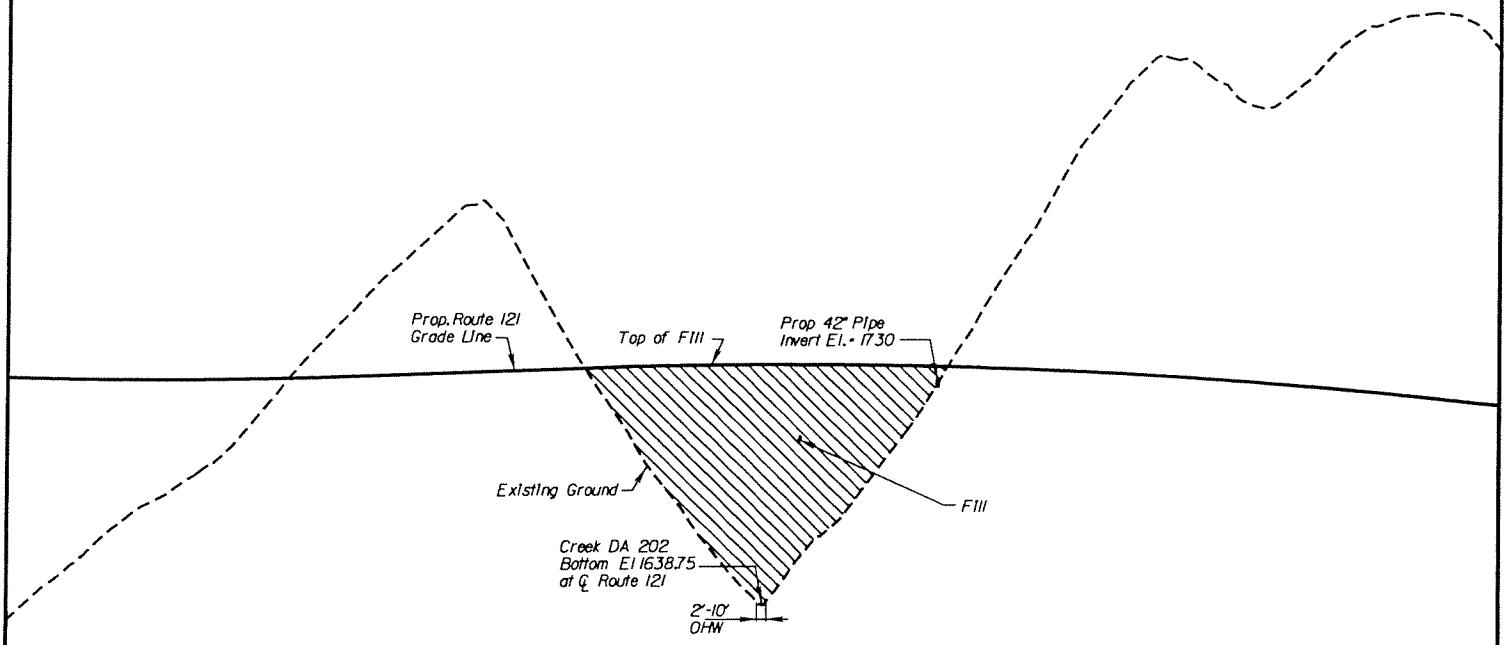

CROSS SECTION "A" - "A"

HORIZONTAL SCALE 0 20' 40'
VERTICAL SCALE 0 20' 40'

ADJACENT PROPERTY OWNERS:
003 JULIUS DEEL
005 AUDREY LYNN BOWMAN
006 BILLY DEAN CLEVINGER
007 JERRY DEAN CLEVINGER
008 CLINTON CLAY CLEVINGER
009 BILLY HAROLD ASHBY
010 EVELINE C. LANE ESTATE

PLAN & CROSS SECTION VIEW ROUTE 121 ROAD CROSSING

PROPOSED ROAD CROSSING PROJECT
STREAM DA 202
COUNTY:
APPLICANT:
SHEET 1 OF 1
DATE: 10/22/03

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
	0121-013-101		

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STREAM DA 203

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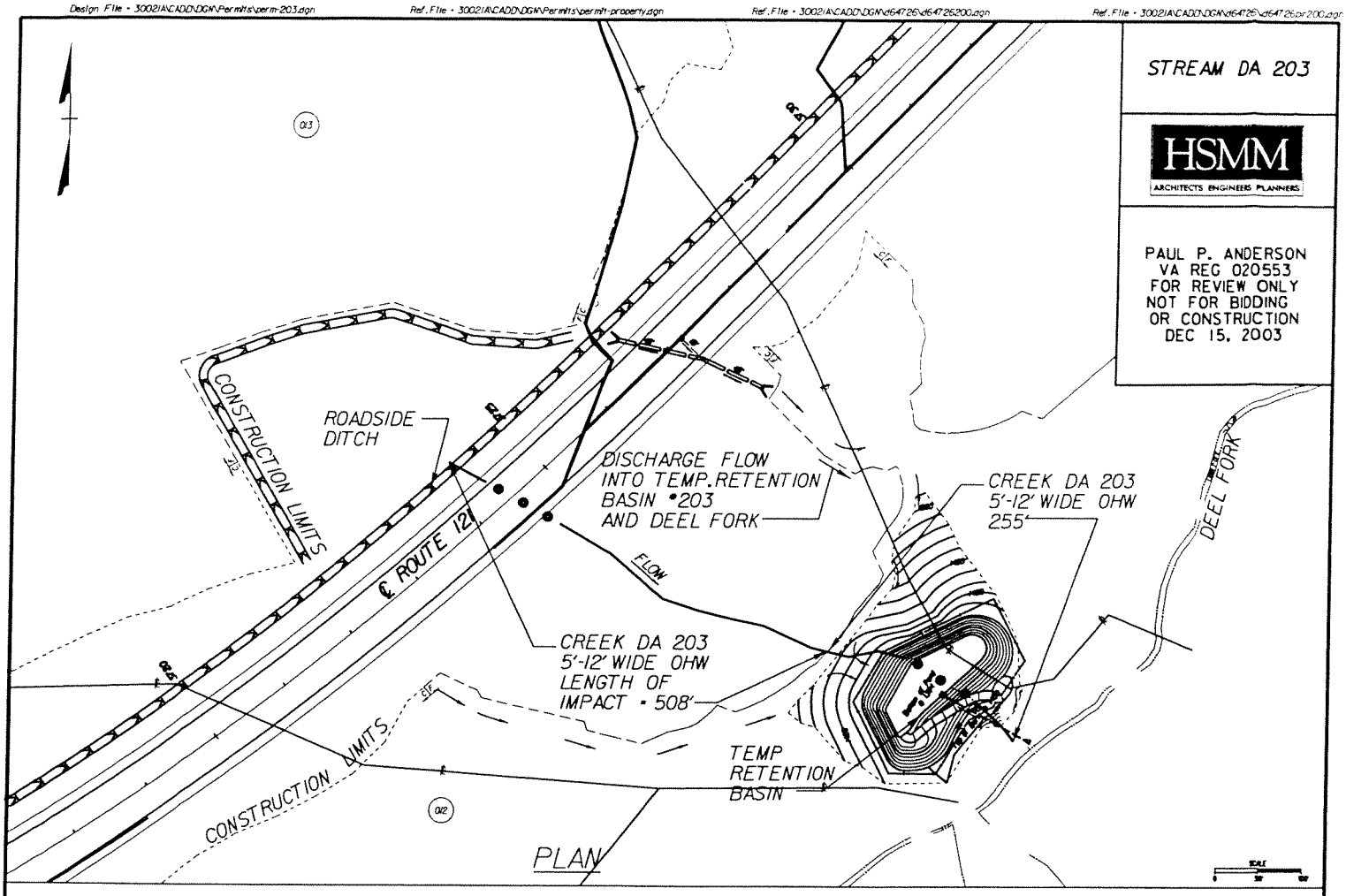

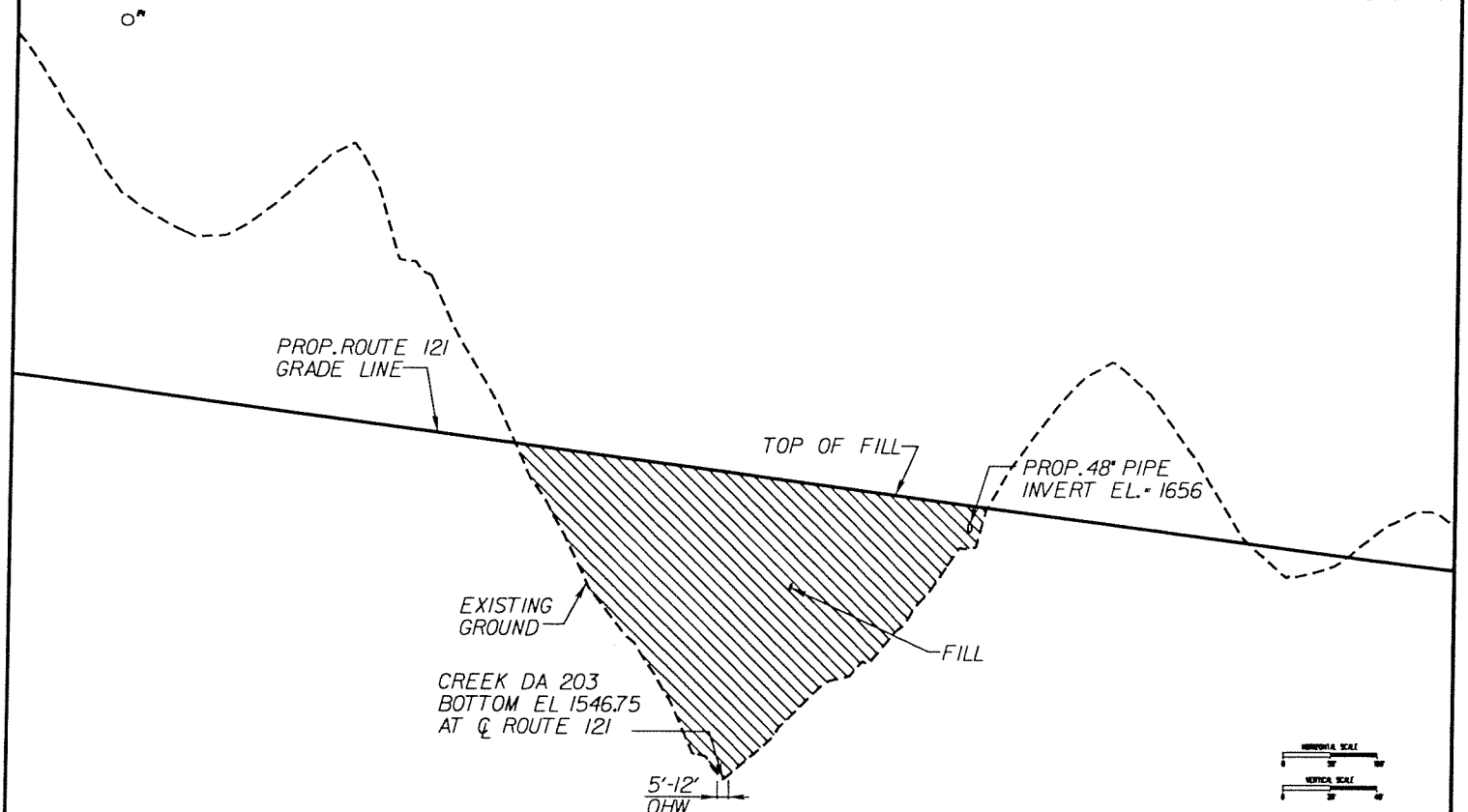

CROSS SECTION "A" - "A"

ADJACENT PROPERTY OWNERS:
(92) DORIS ANN RICE
(93) MAE GENTRY ESTATE

PLAN & CROSS SECTION VIEW ROUTE 121 ROAD CROSSING

PROPOSED ROAD CROSSING PROJECT
STREAM DA 203
COUNTY:
APPLICANT:
SHEET 1 OF 1
DATE: 10/22/03

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
	0121-013-101		

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NOTE:
JESS BRANCH WILL BE BRIDGED. NO IMPACTS TO THIS CREEK ARE ANTICIPATED.

JESS FORK

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DEC 15, 2003

CONCRETE BRIDGE PIER (TYP.)

℄ ROUTE 121

JESS BRANCH 5'-8' WIDE OHW

FLOW

PLAN

PROPOSED ROUTE 121

CONCRETE BRIDGE PIER (TYP.)

±247'

EXISTING GROUND

JESS BRANCH BOTTOM EL 1300.59 AT ℄ ROUTE 121

5'-8' OHW

CROSS SECTION

ADJACENT PROPERTY OWNERS:
- (028) BUCHANAN COUNTY BOARD OF SUPERVISORS
- (030) ROGER LEE WILSON
- (027) OAKLEY N. RIGSBY
- (031) BOBBY G. AND ETHEL ELLEN SHRADER
- (029) DANNY MELVIN SWINEY
- (026) C & M BUILDERS, LLC.
- (025) MICHAEL ELSWICK
- (032) MARIAN PATRICE ELSWICK
- (033) STUART ELSWICK

PLAN & CROSS SECTION VIEW ROUTE 121 ROAD CROSSING

PROPOSED ROAD CROSSING PROJECT
JESS FORK BRIDGE
COUNTY:
APPLICANT:
SHEET 1 OF 1
DATE: 10/22/03

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
	0121-013-101		

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JESS FORK

HSMM
ARCHITECTS ENGINEERS PLANNERS

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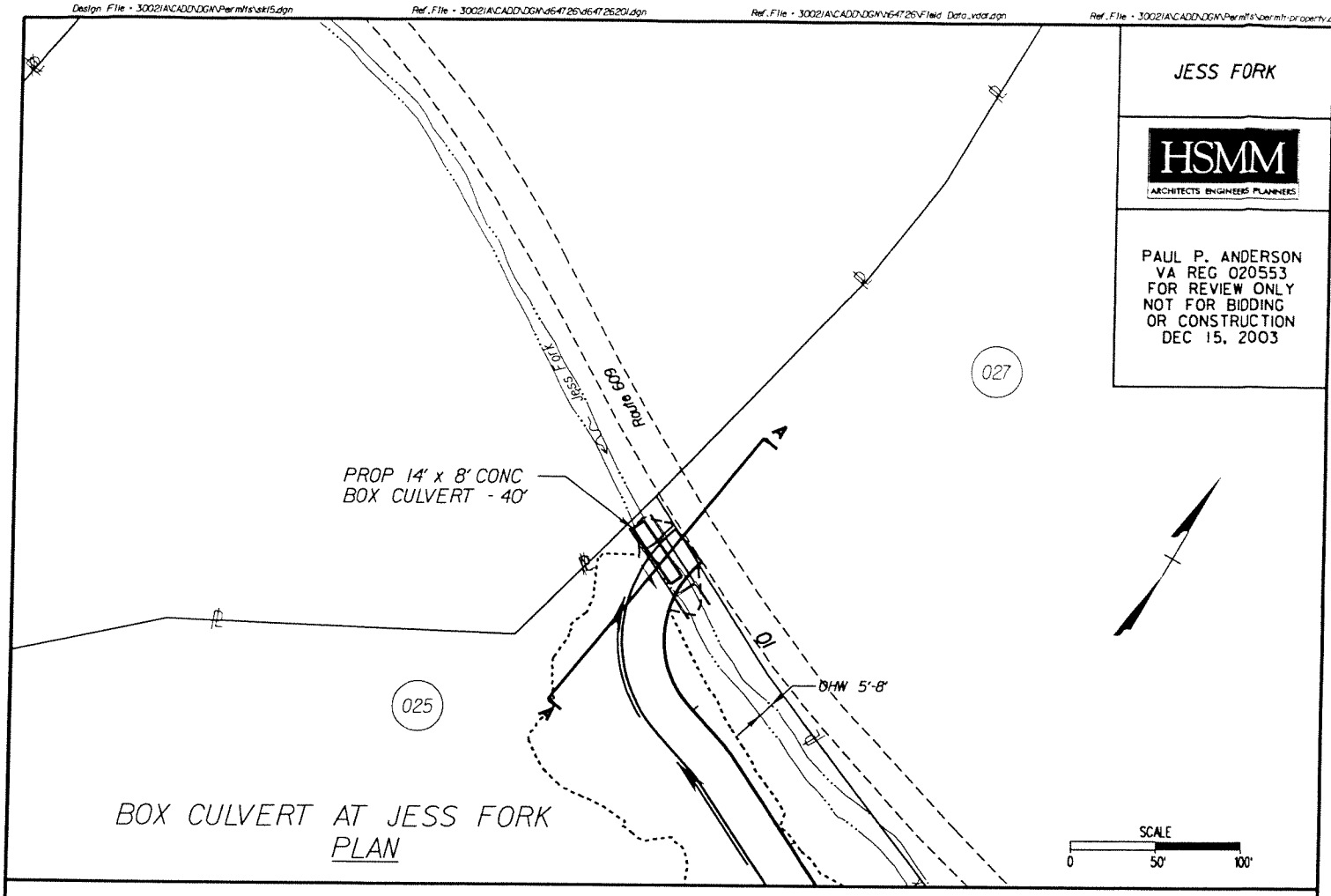
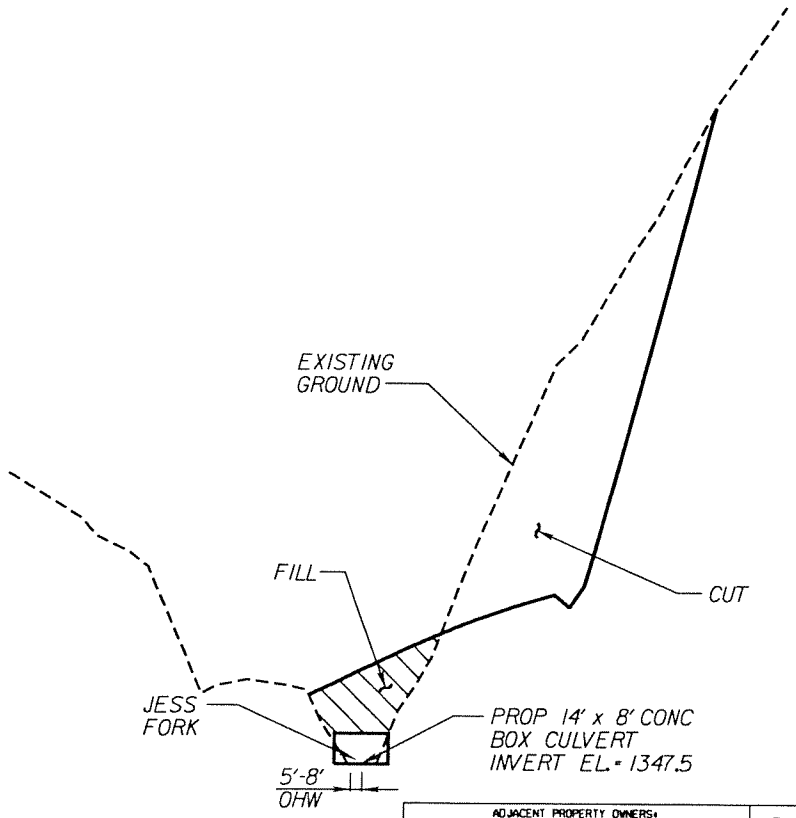
DEC 15, 2003



BOX CULVERT AT JESS FORK
PLAN

SCALE
0 50' 100'



HORIZONTAL SCALE
0 50' 100'

VERTICAL SCALE
0 20' 40'

CROSS SECTION "A" - "A"

ADJACENT PROPERTY OWNERS:
(025) HOWER ELSWICK
(027) DELMER ELSWICK

PLAN & CROSS SECTION VIEW
ROUTE 121
ROAD CROSSING

PROPOSED ROAD CROSSING PROJECT
BOX CULVERT
COUNTY: JESS FORK
APPLICANT:
SHEET 1 OF 1
DATE: 10/22/03

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
	0121-013-101		

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JESS FORK

HSMM
ARCHITECTS ENGINEERS PLANNERS

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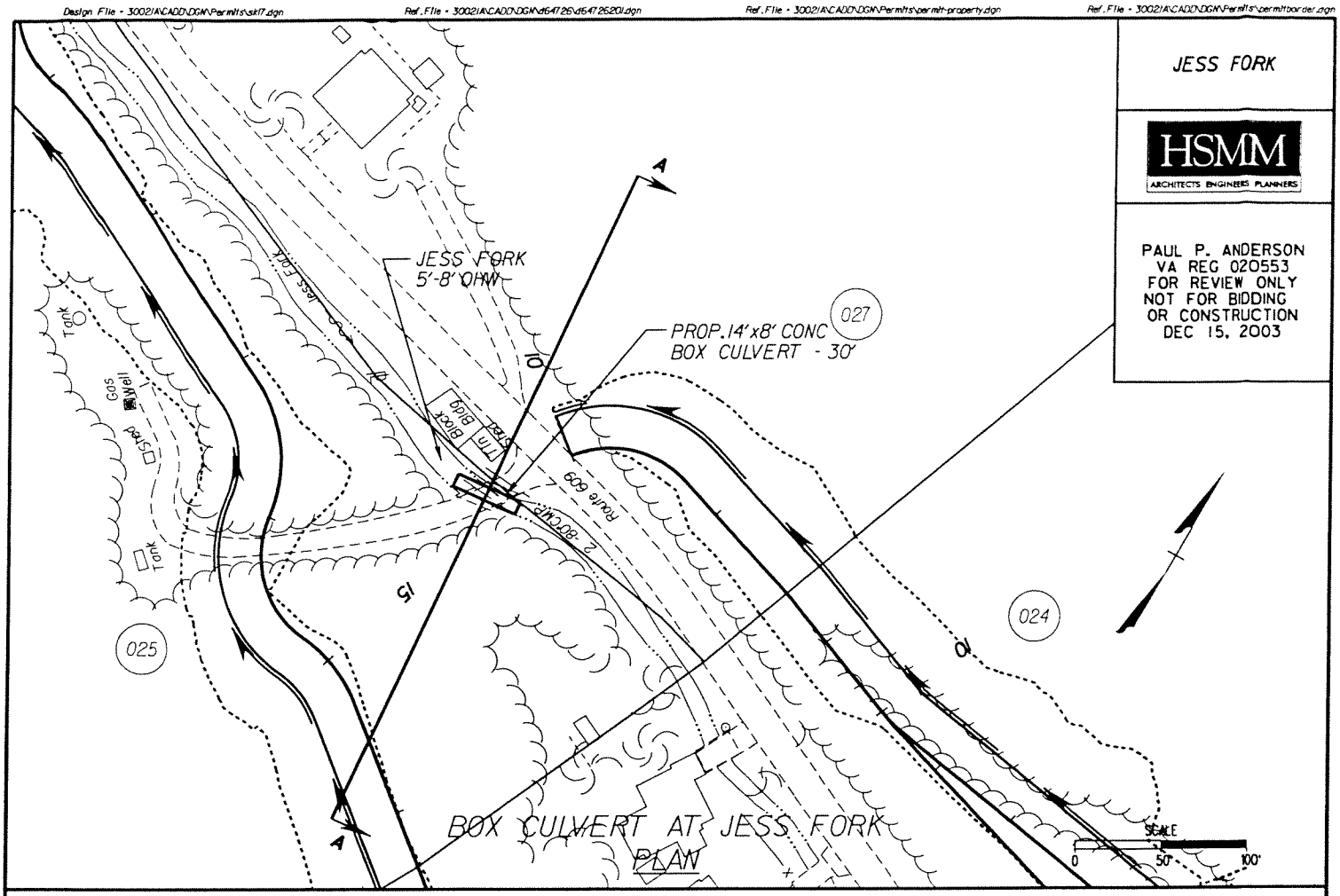
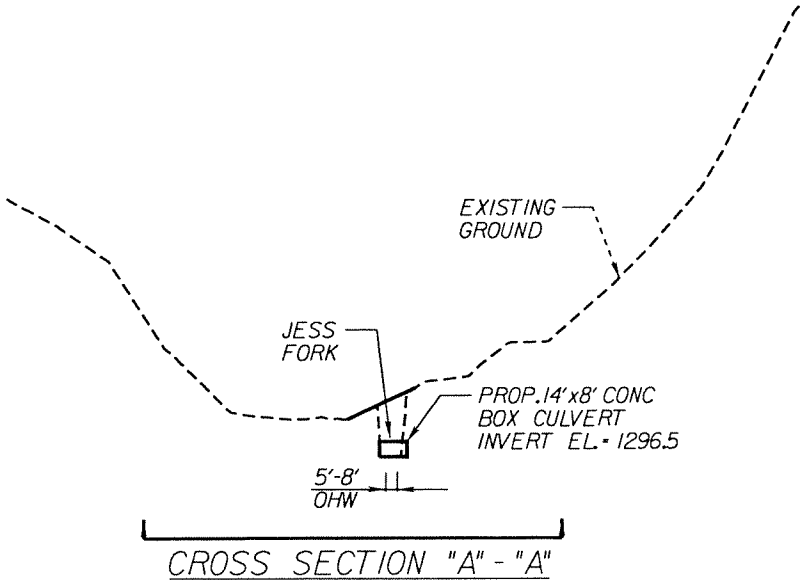
OR CONSTRUCTION
DEC 15, 2003



BOX CULVERT AT JESS FORK
PLAN



CROSS SECTION "A" - "A"

HORIZONTAL SCALE
0 50' 100'

VERTICAL SCALE
0 20' 40'

ADJACENT PROPERTY OWNERS:
- (DPK) DANNY MELVIN SWINEY
- (RES) HOMER ELSWICK
- (RET) DELMER ELSWICK

PLAN & CROSS SECTION VIEW
ROUTE 121
ROAD CROSSING

PROPOSED ROAD CROSSING PROJECT
BOX CULVERT @
JESS FORK
COUNTY:
APPLICANT:
SHEET 1 OF 1
DATE: 10/22/03

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
	0121-013-101		

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WETLAND DA 207A

HSMM
ARCHITECTS ENGINEERS PLANNERS

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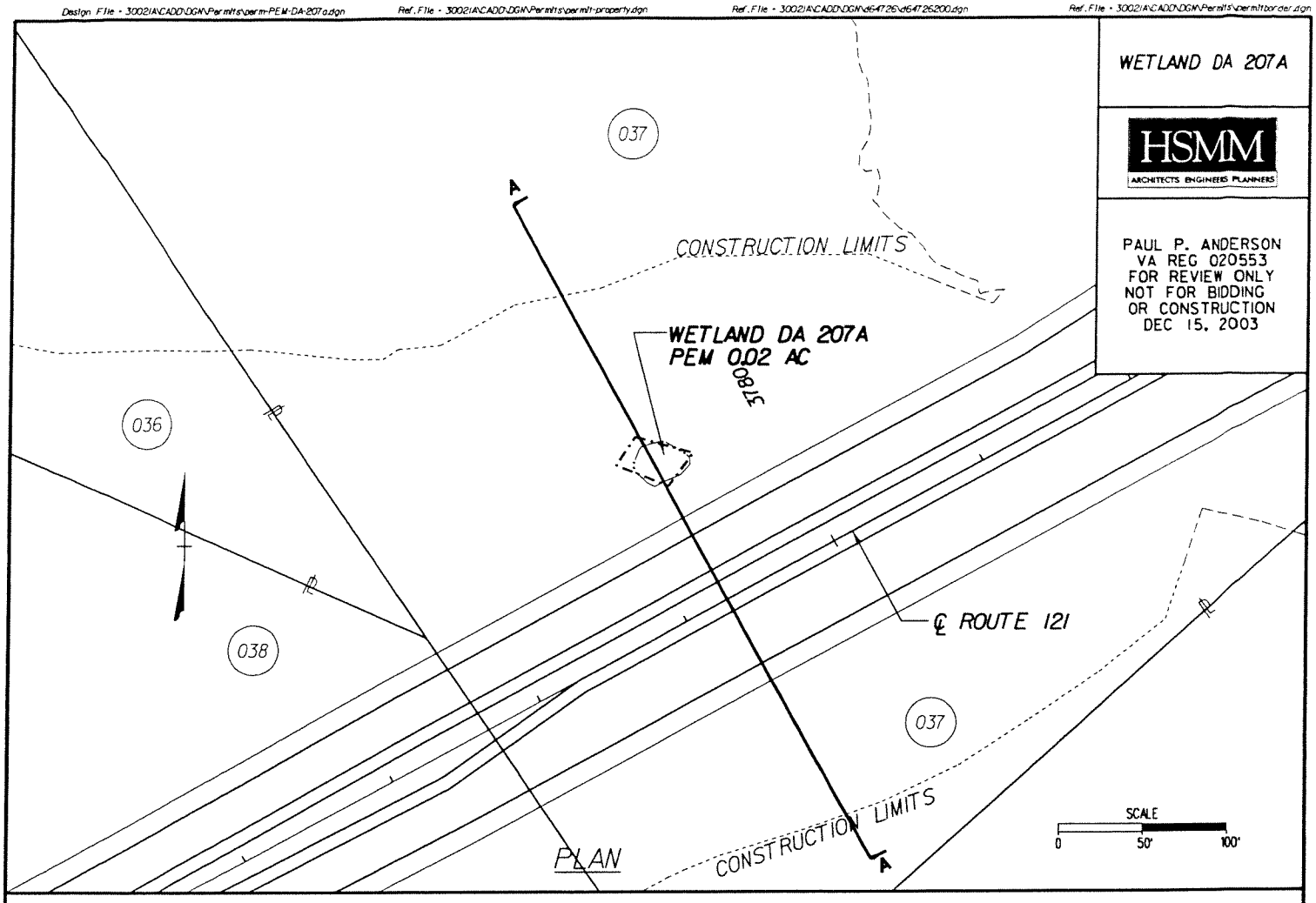
DEC 15, 2003



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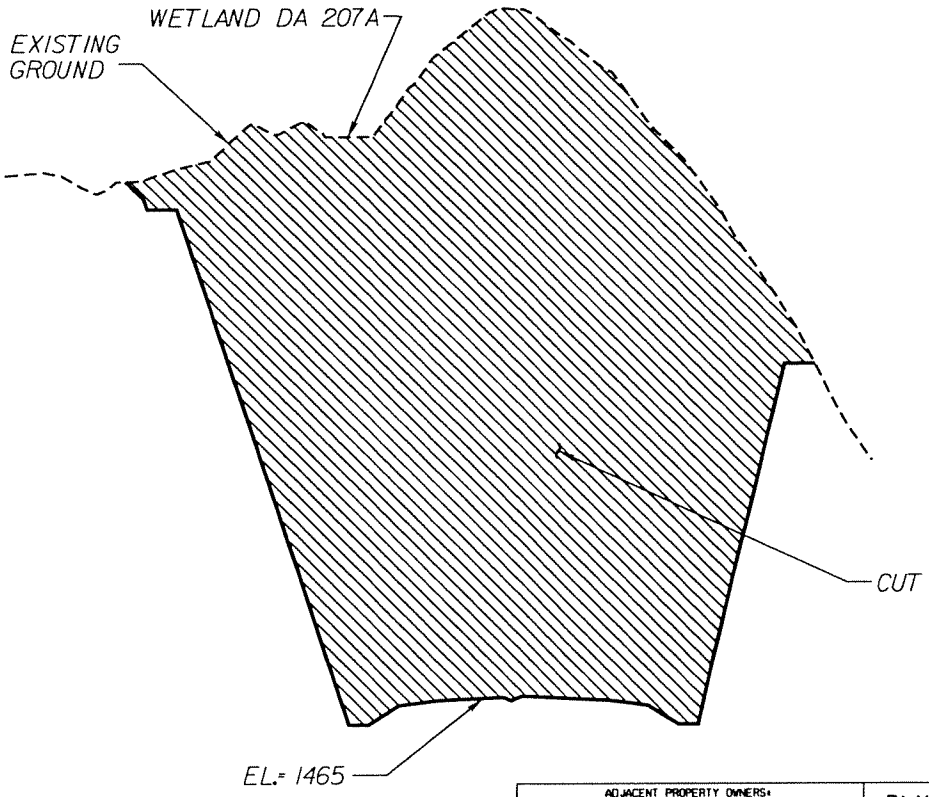

CROSS SECTION "A" - "A"

ADJACENT PROPERTY OWNERS:
(036) PENN VIRGINIA RESOURCE PARTNERS, LLC
(037) PENN VIRGINIA RESOURCE PARTNERS, LLC
(038) PENN VIRGINIA RESOURCE PARTNERS, LLC

PLAN & CROSS SECTION VIEW
ROUTE 121
ROAD CROSSING

PROPOSED ROAD CROSSING PROJECT
WETLAND DA 207A
COUNTY:
APPLICANT:
SHEET 1 OF 1
DATE: 10/22/03

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
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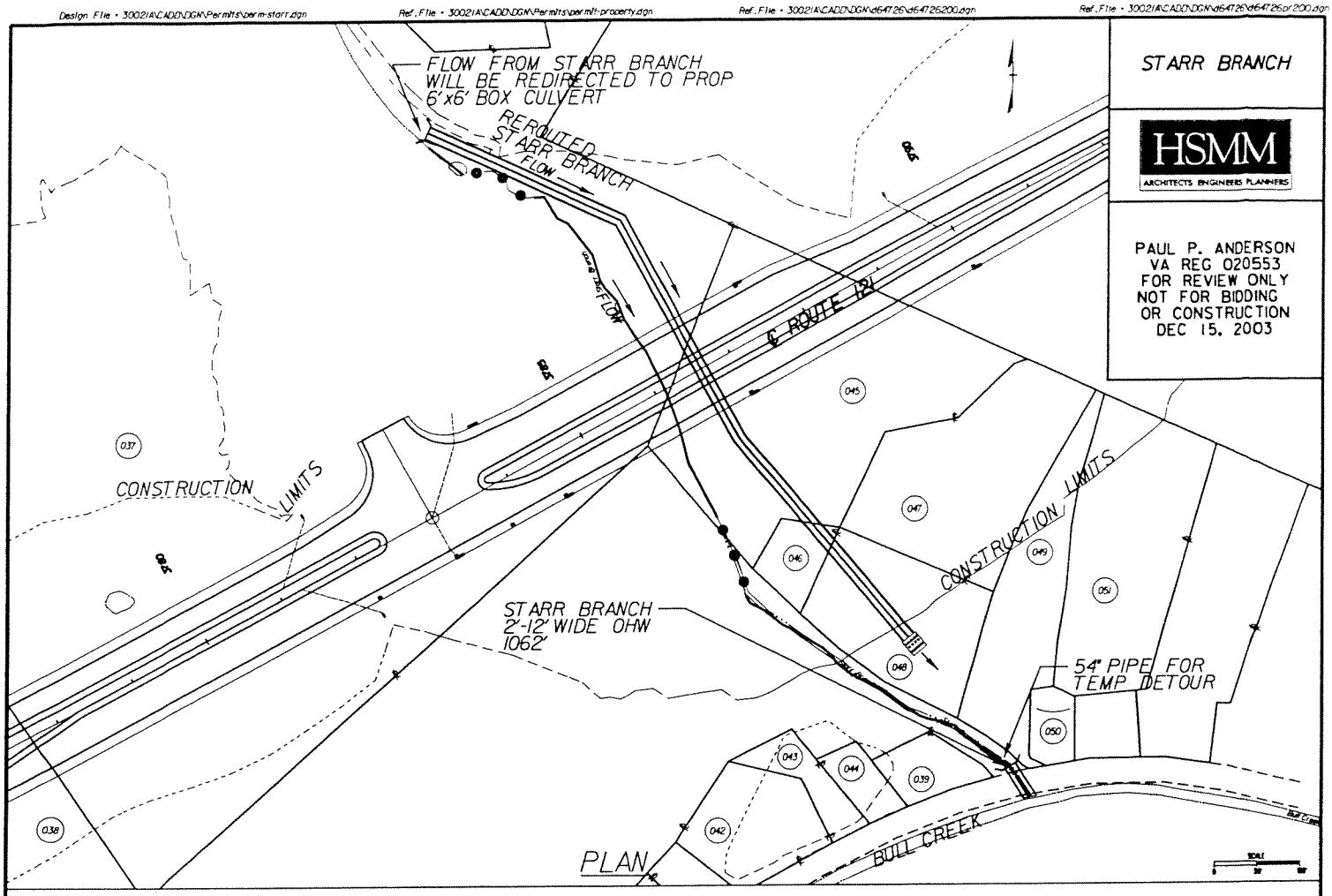

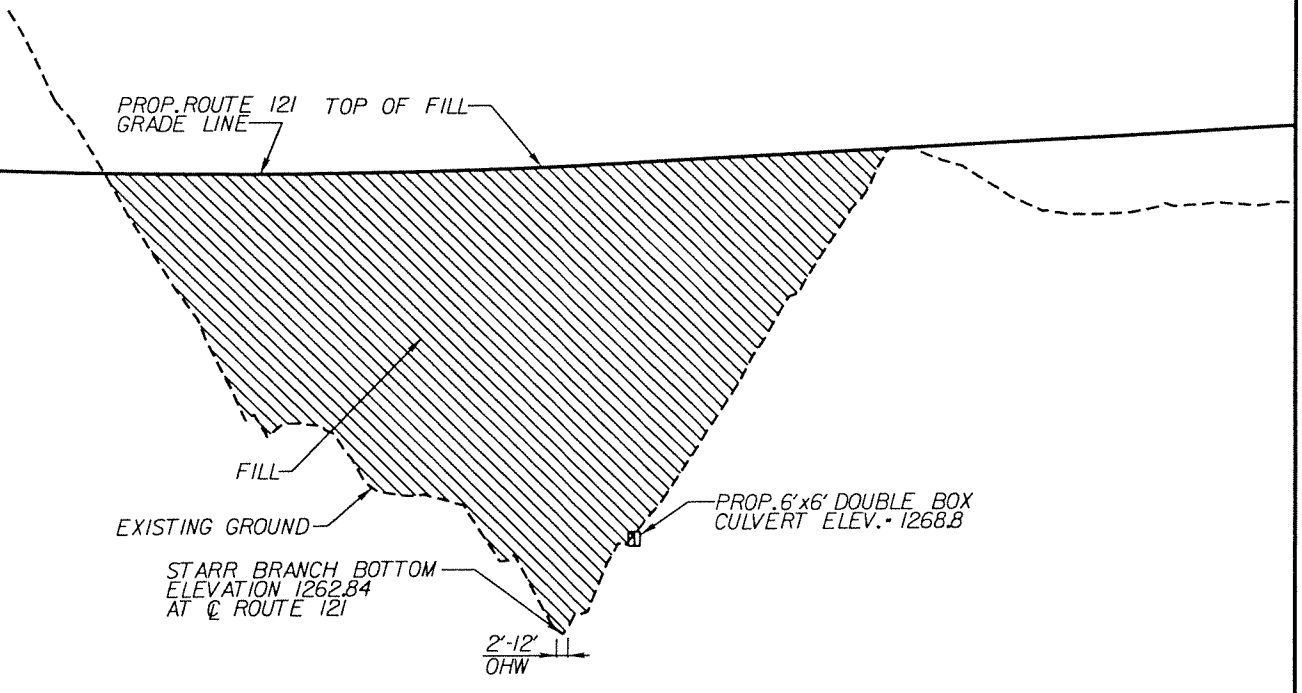

CROSS SECTION

STARR BRANCH

HSMM
ARCHITECTS ENGINEERS PLANNERS

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VA REG 020553
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OR CONSTRUCTION
DEC 15, 2003

ADJACENT PROPERTY OWNERS:

(037) PENN VIRGINIA RESOURCE PARTNERS,LLC
(038) PENN VIRGINIA RESOURCE PARTNERS,LLC
(039) PENN VIRGINIA RESOURCE PARTNERS,LLC
(042) JAMES RUSSELL AND LEXIE WEBB
(043) KIMBERLY LEE DEEL
(044) KIMBERLY LEE DEEL
(045) PENN VIRGINIA RESOURCE PARTNERS,LLC
(046) BURL LEE & GLENDA JEAN RATLIFF
(047) BURL LEE & GLENDA JEAN RATLIFF
(048) BURL LEE & GLENDA JEAN RATLIFF
(049) MART ELBERT AND VELMA ELSWICK
(050) REX ALLEN & JAMES EDWARD GREEN
(051) CYNTHIA DEEL ANDERSON

PLAN & CROSS SECTION VIEW ROUTE 121 ROAD CROSSING

PROPOSED ROAD CROSSING PROJECT
STARR BRANCH
COUNTY:
APPLICANT:
SHEET 1 OF 1
DATE: 10/22/03

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
	0121-013-101		

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NOTE:
BULL CREEK WILL BE BRIDGED.
NO IMPACTS TO THIS CREEK ARE ANTICIPATED.

BULL CREEK

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ARCHITECTS ENGINEERS PLANNERS

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DEC 15, 2003

BULL CREEK
6'-20' WIDE OHW

CONCRETE
BRIDGE
PIER (TYP.)

℄ ROUTE 121

FLOW

053

055

057

PLAN

PROPOSED
ROUTE 121

CONCRETE
BRIDGE
PIER (TYP.)

±284'

EXISTING GROUND

BULL CREEK
BOTTOM EL 1102.1
AT ℄ ROUTE 121

6'-20'
OHW

CROSS SECTION

ADJACENT PROPERTY OWNERS:
053 JOHN T. LOONEY ESTATE
055 NORFOLK SOUTHERN
057 JOHN T. LOONEY ESTATE

PLAN & CROSS SECTION VIEW
ROUTE 121
ROAD CROSSING

PROPOSED ROAD CROSSING PROJECT
BULL CREEK BRIDGE
COUNTY:
APPLICANT:
SHEET 1 OF 1
DATE: 10/22/03

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
	0121-013-101		

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BIG BRANCH

HSMM
ARCHITECTS ENGINEERS PLANNERS

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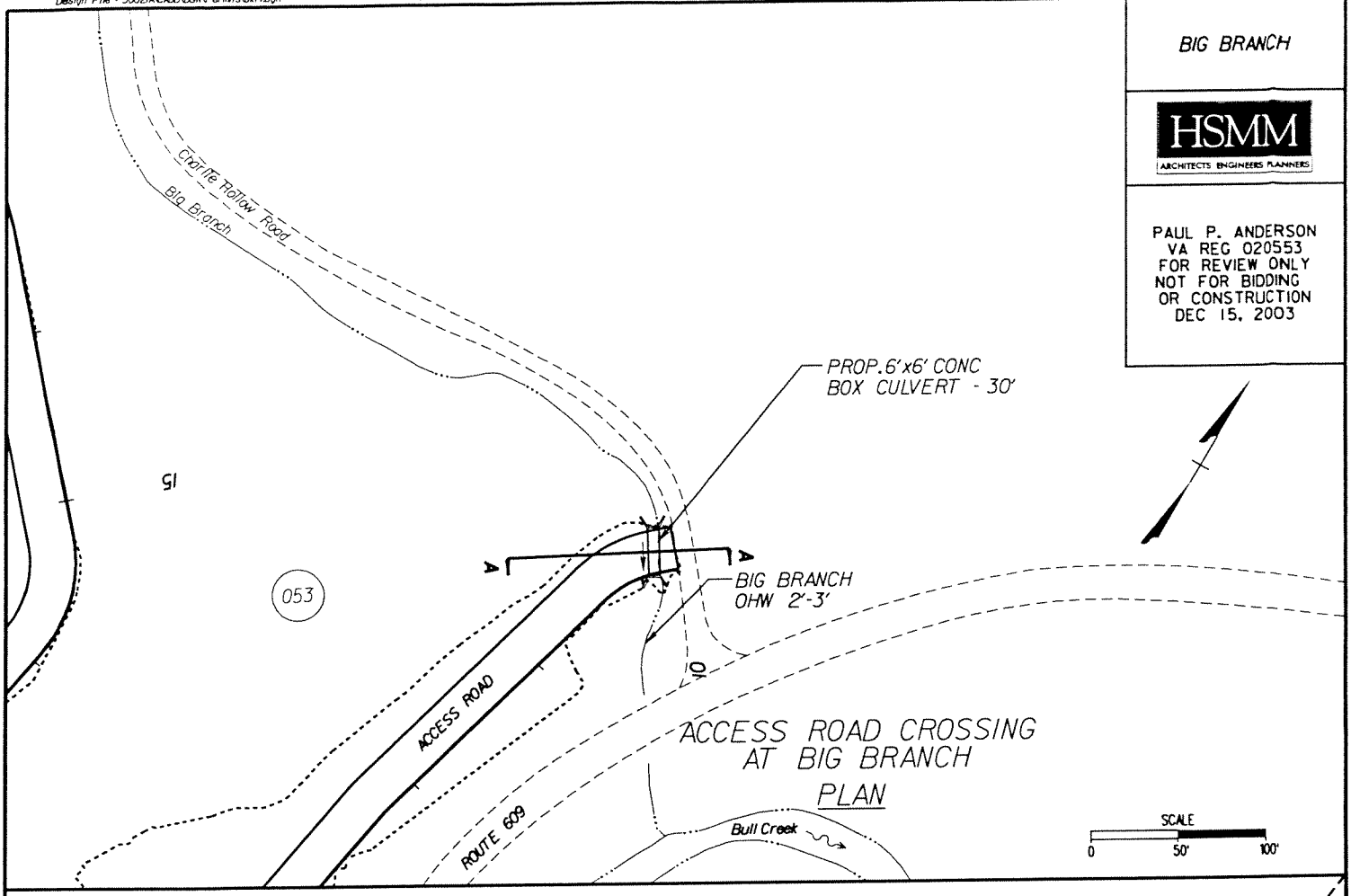
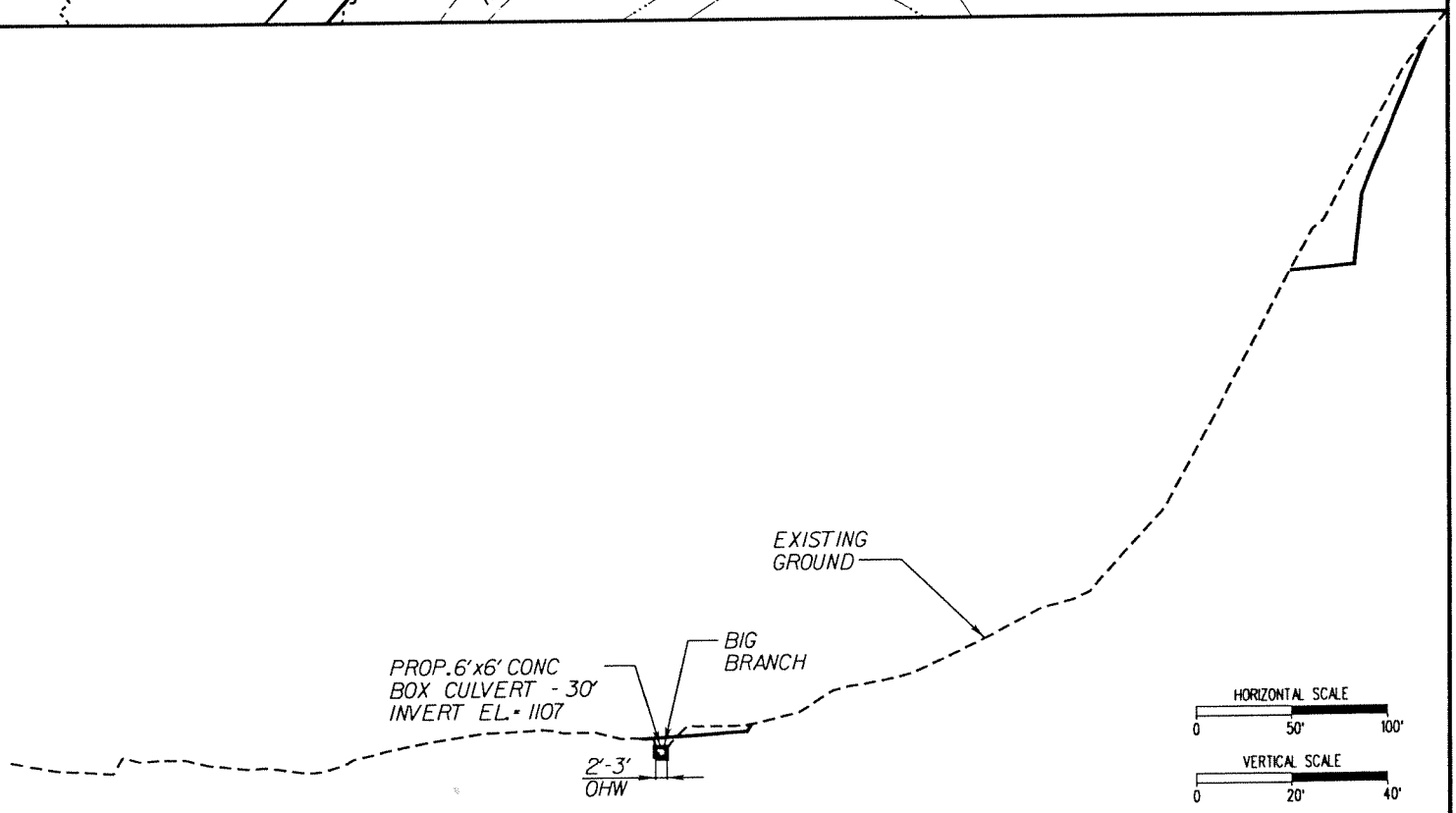
DEC 15, 2003





CROSS SECTION "A" - "A"

ADJACENT PROPERTY OWNERS:
(053) JOHN T. LOONEY ESTATE

PLAN & CROSS SECTION VIEW
ROUTE 121
ROAD CROSSING

PROPOSED ROAD CROSSING PROJECT
ACCESS ROAD CROSSING @ BIG BRANCH
COUNTY:
APPLICANT:
SHEET 1 OF 1
DATE: 10/22/03

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
	0121-013-101		

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adavis
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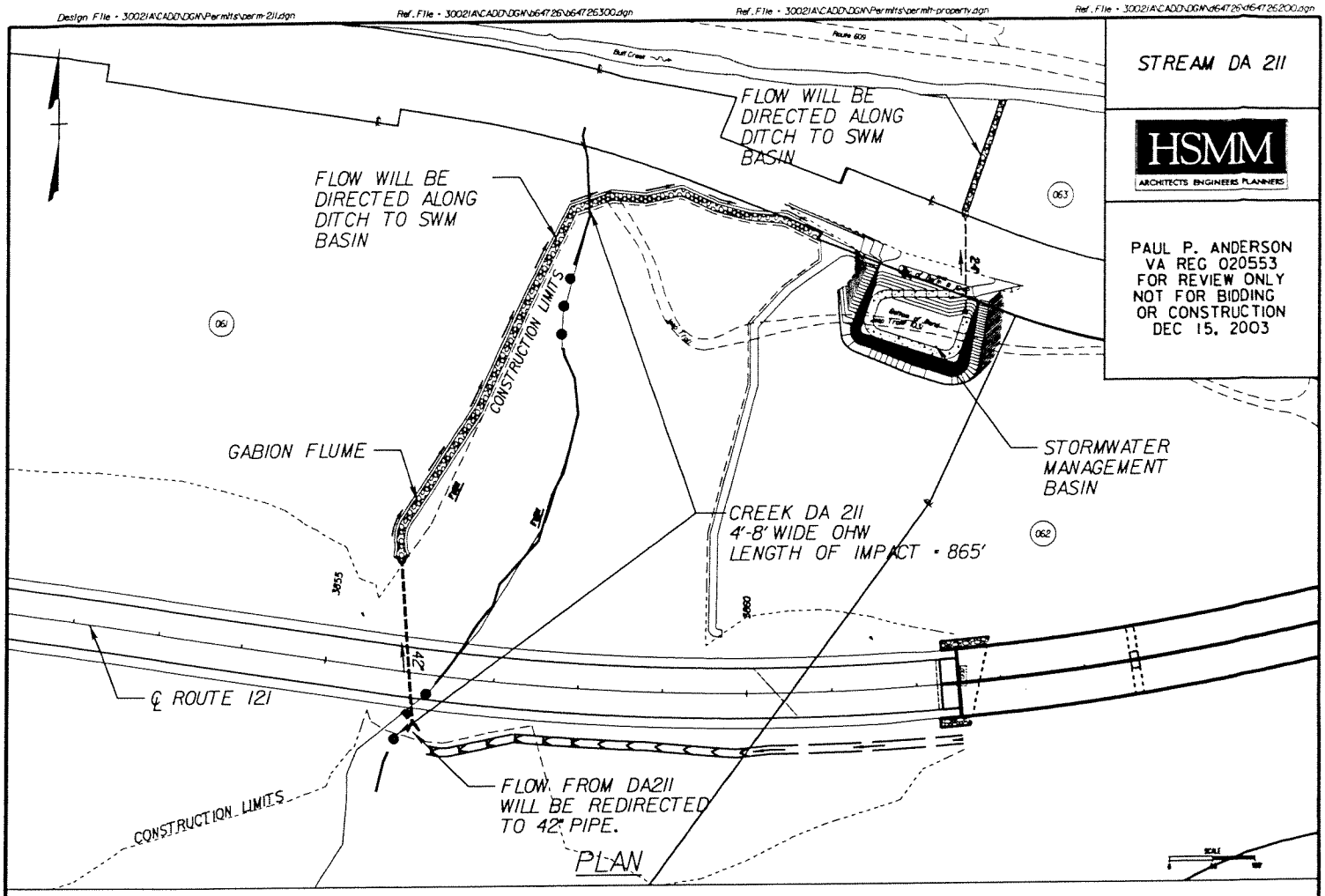
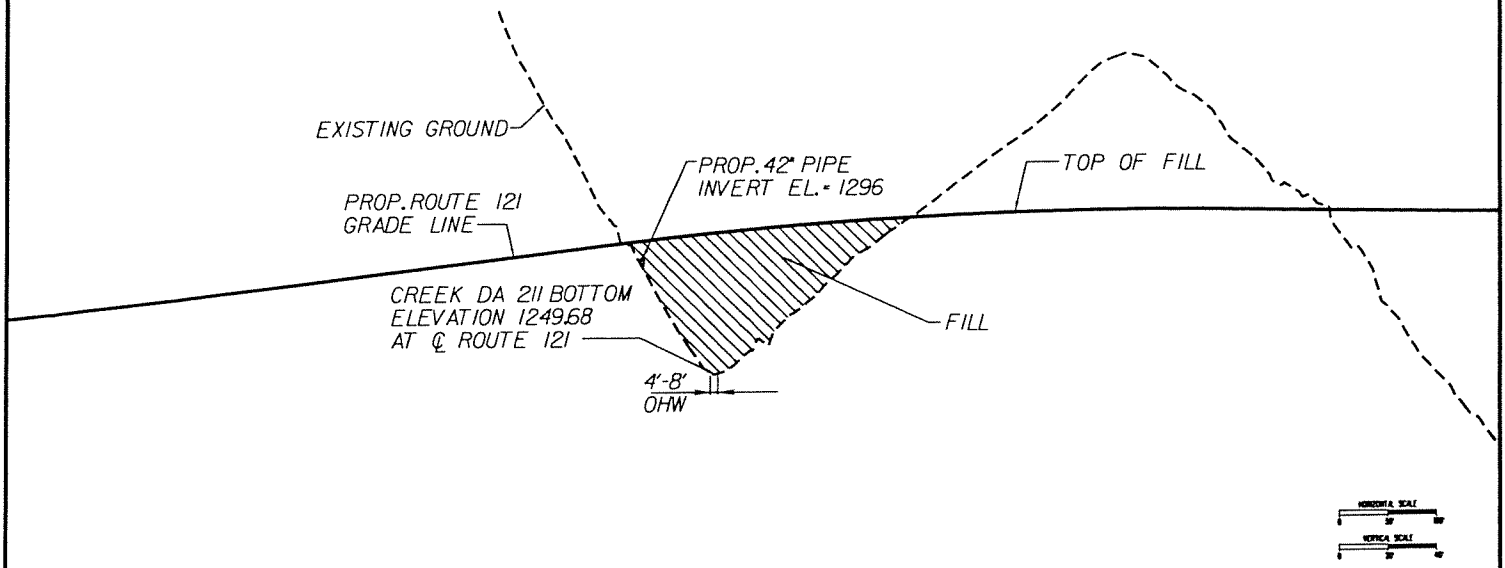
Ref. File - 30021A\CADD\DGN\Permits\permit-property.dgn
Ref. File - 30021A\CADD\DGN\b647265\b647265200.dgn

STREAM DA 211

HSMM
ARCHITECTS ENGINEERS PLANNERS

PAUL P. ANDERSON
VA REG 020553
FOR REVIEW ONLY
NOT FOR BIDDING
OR CONSTRUCTION
DEC 15, 2003





CROSS SECTION "A" - "A"

ADJACENT PROPERTY OWNERS:
(061) JAMES R. STILTNER
(062) JAMES R. STILTNER
(063) SHIRLEY C. BELCHER

PLAN & CROSS SECTION VIEW
ROUTE 121
ROAD CROSSING

PROPOSED ROAD CROSSING PROJECT
STREAM DA 211
COUNTY:
APPLICANT:
SHEET 1 OF 1
DATE: 10/22/03

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
	0121-013-101		

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NOTE:
CONVICT HOLLOW WILL BE BRIDGED. NO IMPACTS TO THIS CREEK ARE ANTICIPATED.

TRIB. TO BULL CREEK (CONVICT HOLLOW)

HSMM
ARCHITECTS ENGINEERS PLANNERS

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VA REG 020553
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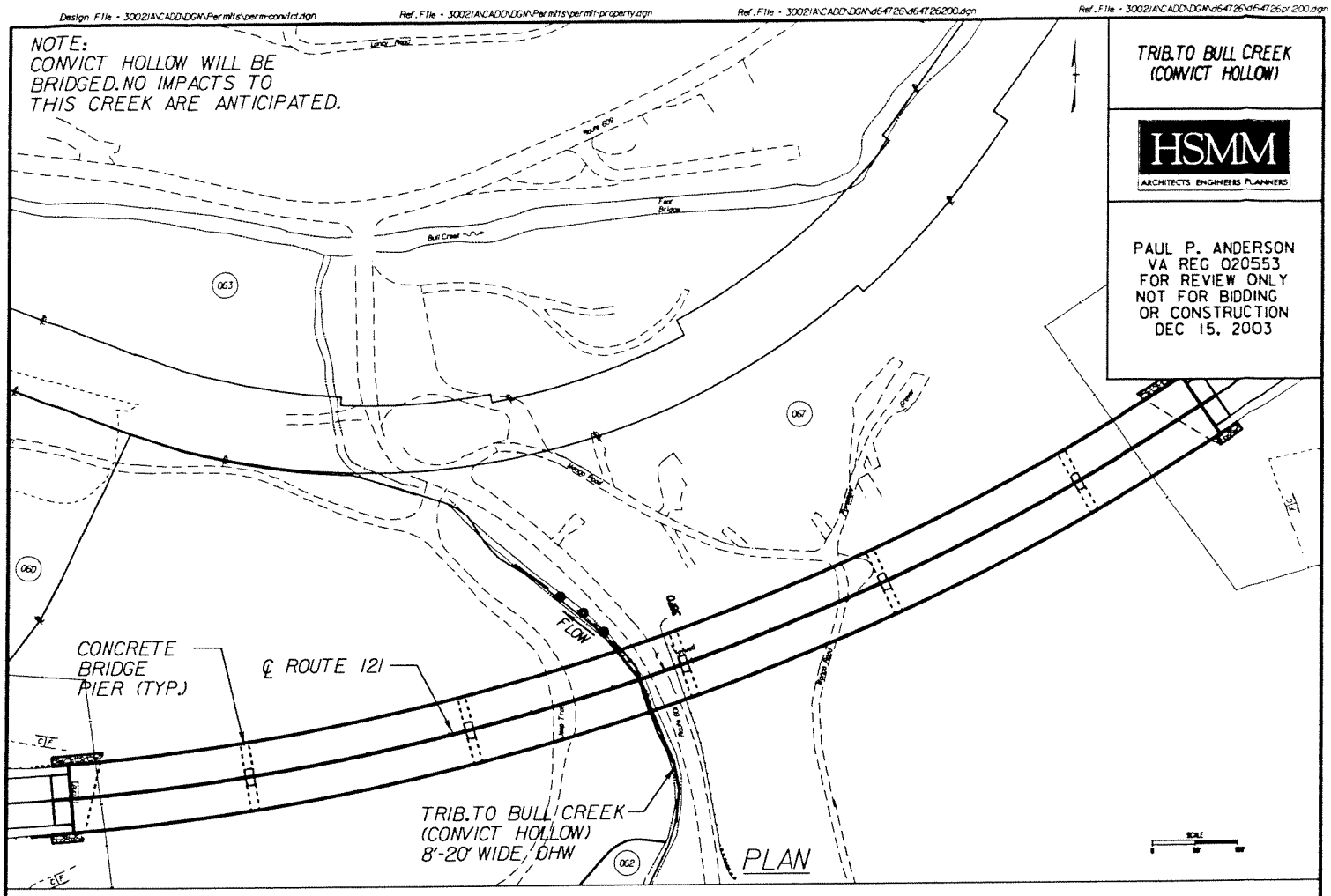
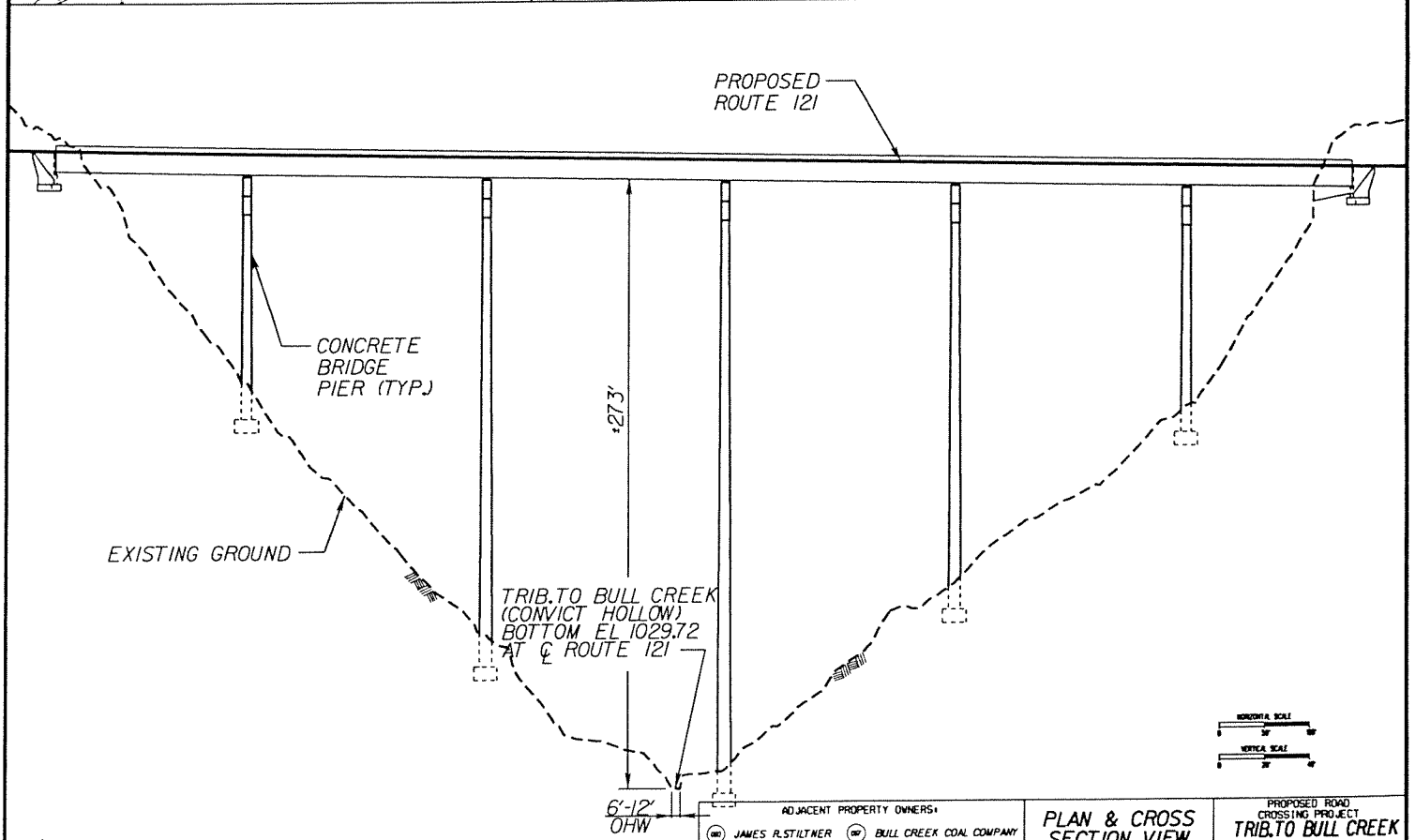
OR CONSTRUCTION
DEC 15, 2003





CROSS SECTION "A" - "A"

ADJACENT PROPERTY OWNERS:
(060) JAMES R. STILTNER (061) BULL CREEK COAL COMPANY
(062) JAMES R. STILTNER
(063) SHIRLEY C. BELCHER

PLAN & CROSS SECTION VIEW ROUTE 121 ROAD CROSSING

PROPOSED ROAD CROSSING PROJECT
TRIB. TO BULL CREEK (CONVICT HOLLOW) BRIDGE
COUNTY:
APPLICANT:
SHEET 1 OF 1
DATE: 10/22/03

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
	0121-013-101		

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WETLAND DA 214A

HSMM
ARCHITECTS ENGINEERS PLANNERS

PAUL P. ANDERSON
VA REG 020553
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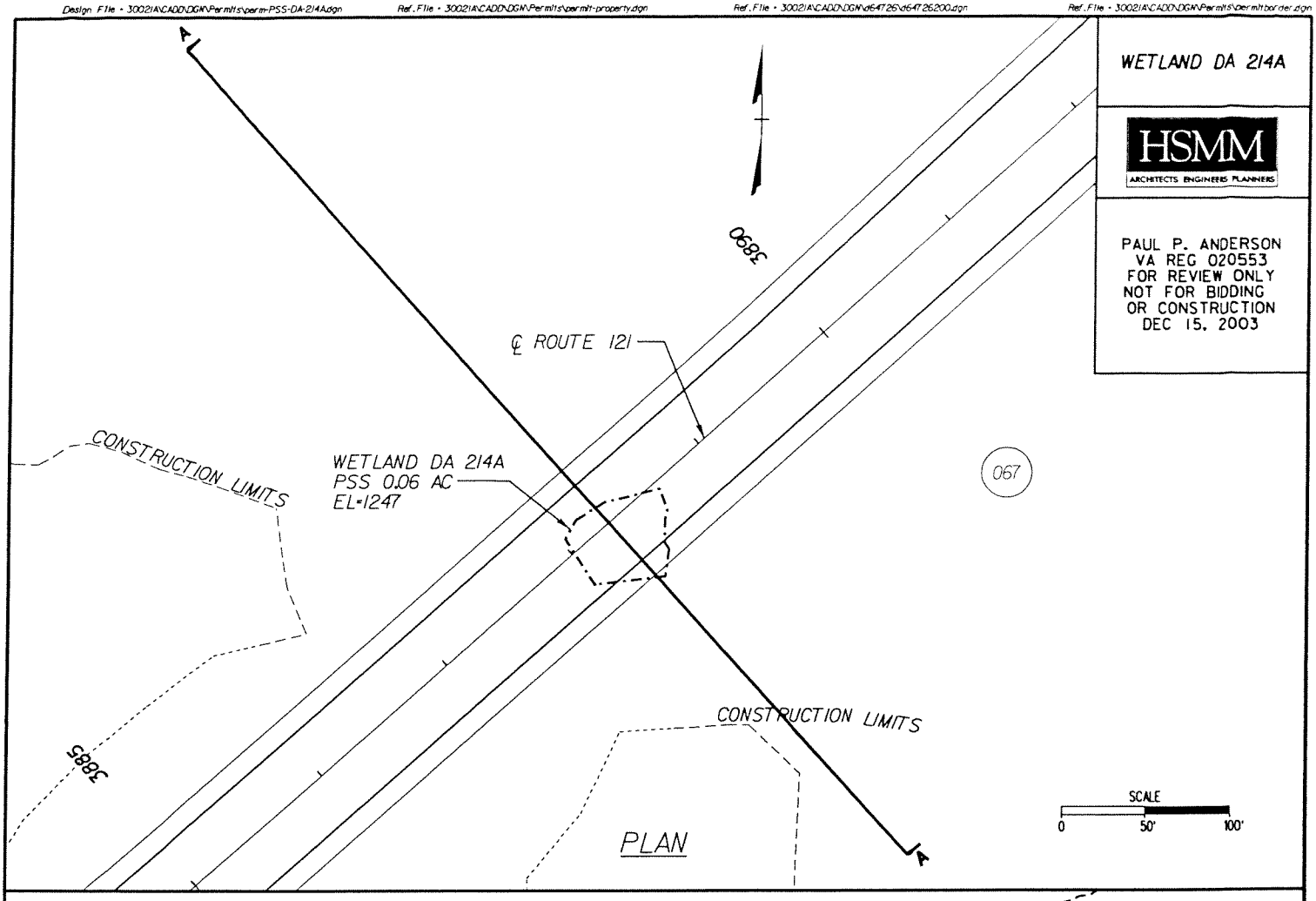
OR CONSTRUCTION
DEC 15, 2003



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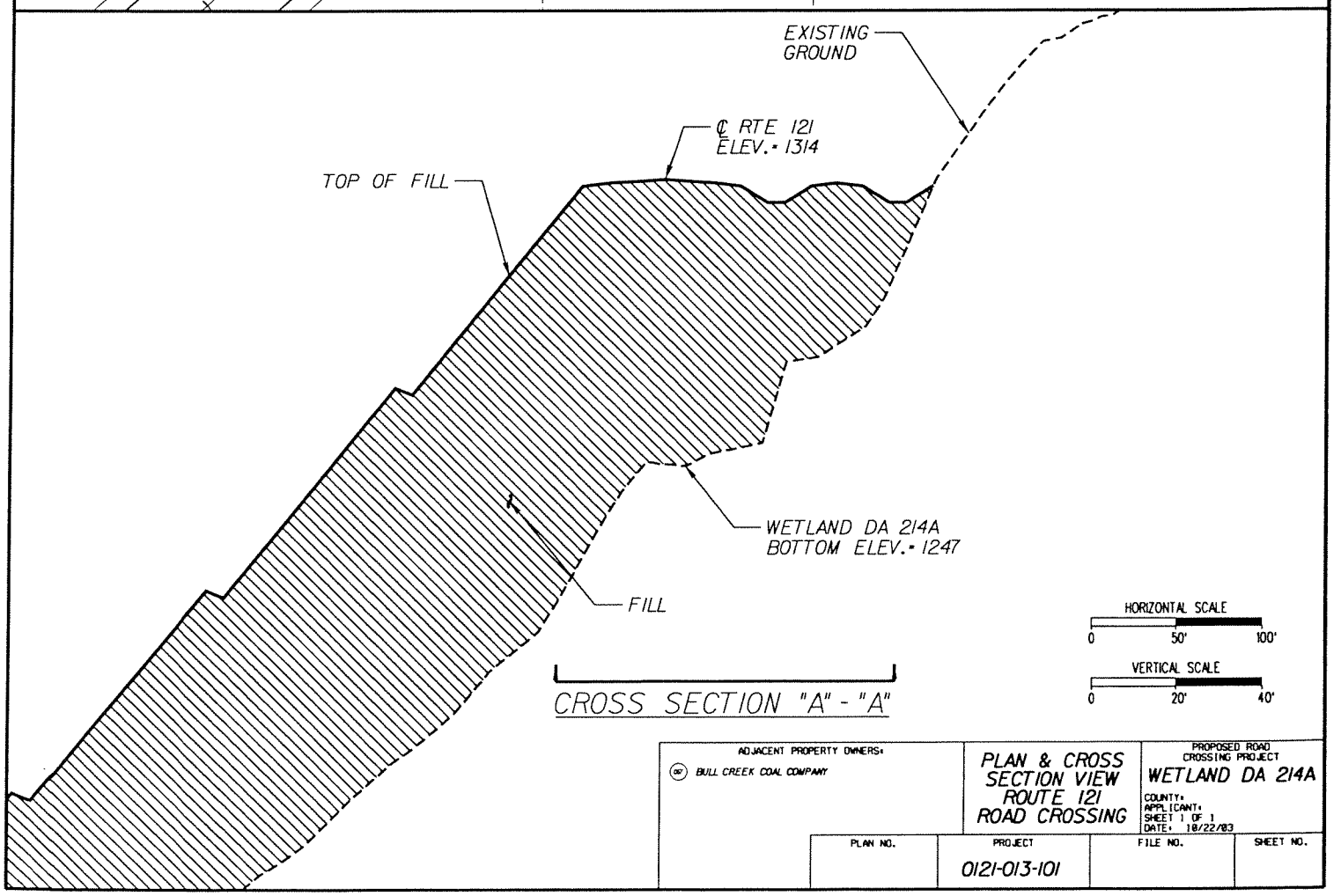

CROSS SECTION "A" - "A"

ADJACENT PROPERTY OWNERS:
(BC) BULL CREEK COAL COMPANY

PLAN & CROSS SECTION VIEW
ROUTE 121
ROAD CROSSING

PROPOSED ROAD CROSSING PROJECT
WETLAND DA 214A
COUNTY:
APPLICANT:
SHEET 1 OF 1
DATE: 10/22/03

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
	0121-013-101		

5-27-2004 22:24:08 cdavis VC KBROPPM:SCADD FILENAME

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STREAM DA-214B

HSMM
ARCHITECTS ENGINEERS PLANNERS

PAUL P. ANDERSON
VA REG 020553
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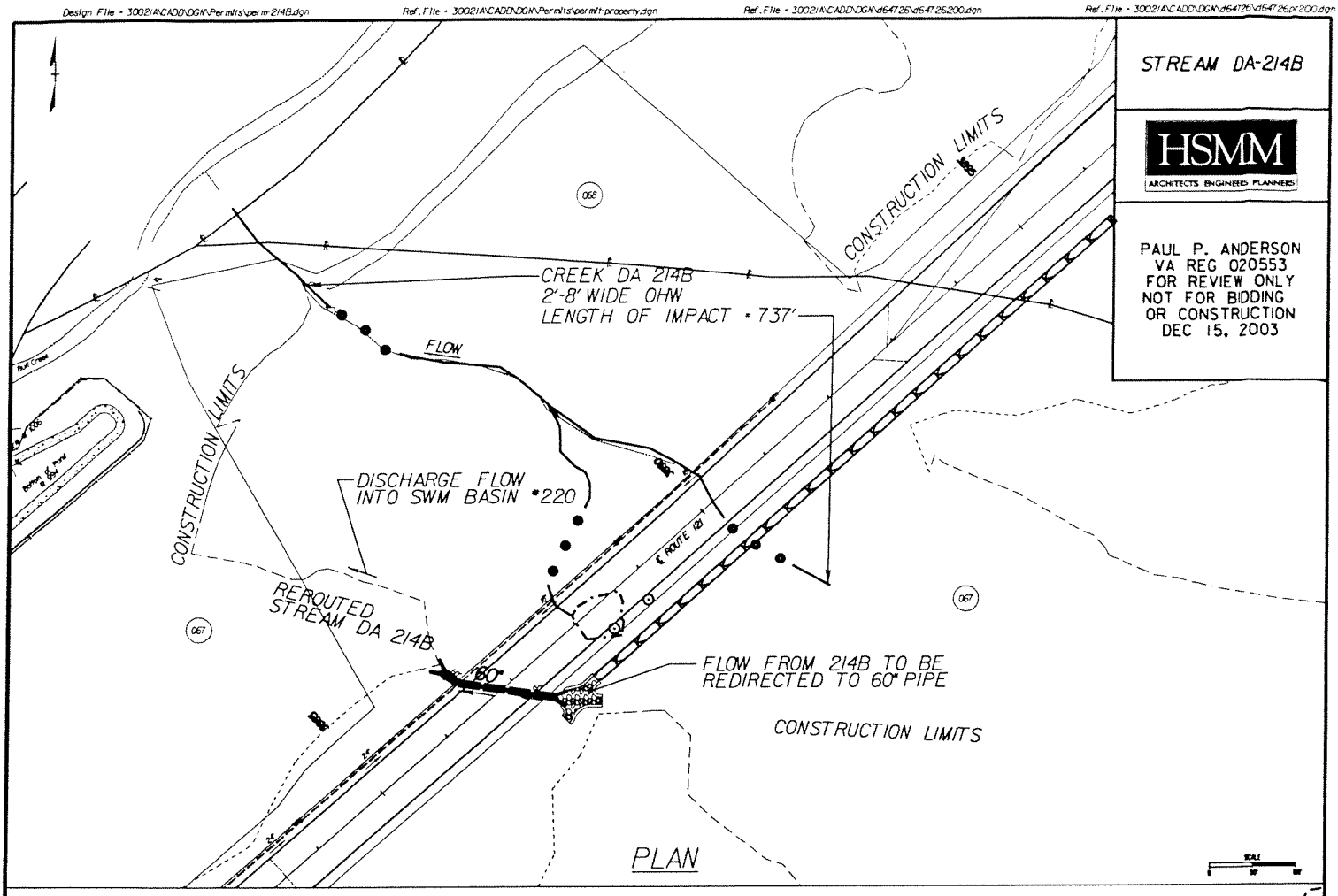
OR CONSTRUCTION
DEC 15, 2003



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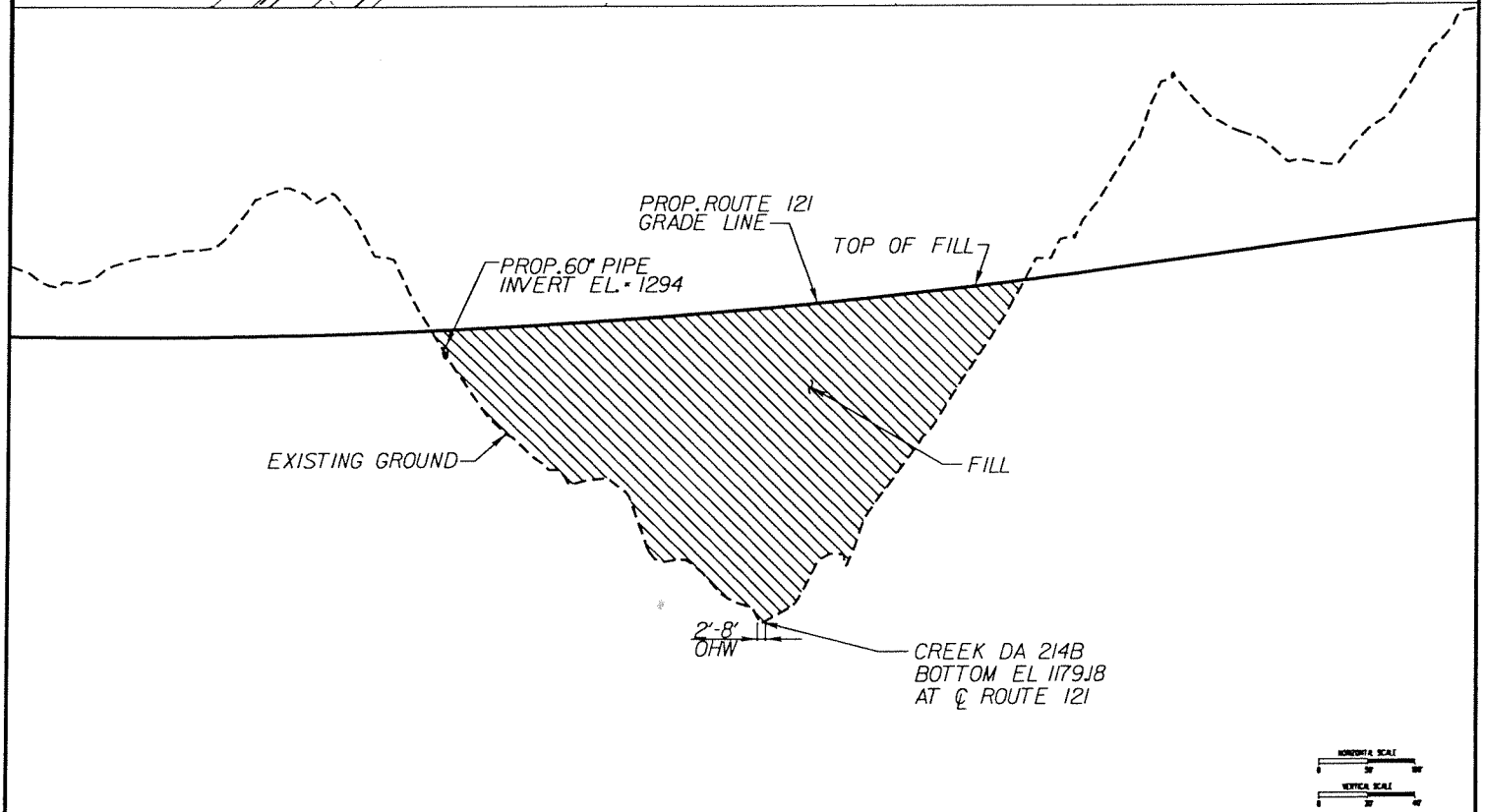

CROSS SECTION

ADJACENT PROPERTY OWNERS:
- (067) BULL CREEK COAL COMPANY
- (068) JACK C. SMITH

PLAN & CROSS SECTION VIEW
ROUTE 121
ROAD CROSSING

PROPOSED ROAD CROSSING PROJECT
STREAM DA-214B
COUNTY:
APPLICANT:
SHEET 1 OF 1
DATE: 10/22/03

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
	0121-013-101		

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Ref. File - f:\CM0166\C_KBR\d647263Oi.dgn

STREAM DA 303A

KBR
Engineered by KBR Technical Services Inc

GLENN DAVID RAUCHLE
VA REG 037388
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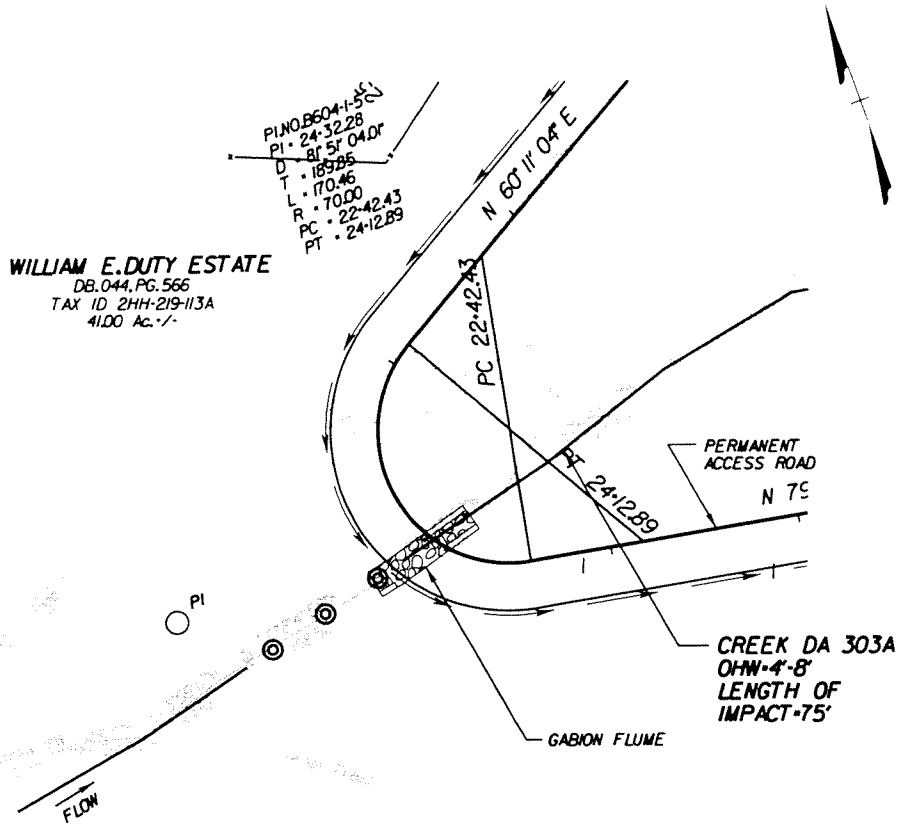
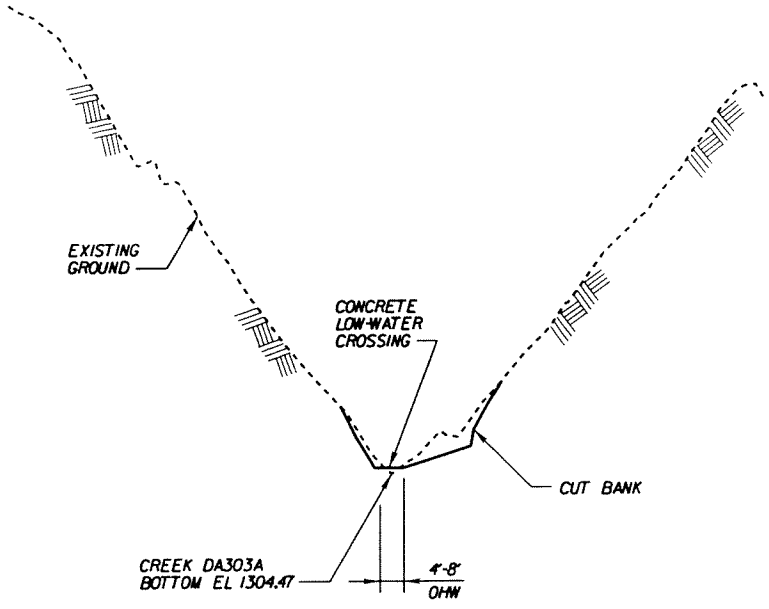
OR CONSTRUCTION
APRIL 13, 2004



PLAN

SCALE
0 50' 100'



CROSS SECTION

HORIZONTAL SCALE
0 50' 100'
VERTICAL SCALE
0 20' 40'

ADJACENT PROPERTY OWNERS:	PLAN & CROSS SECTION VIEW ROUTE 121 ROAD CROSSING	PROPOSED ROAD CROSSING PROJECT: CREEK DA 303A COUNTY: APPLICANT: SHEET 1 OF 1 DATE: 10/31/03	
PLAN NO.	PROJECT: 0121-013-101	FILE NO.: SK041204L	SHEET NO.

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Levels on - 1, 3, 5, 6, 11, 13, 16, 31

NOTE

POPLAR CREEK WILL BE BRIDGED. NO IMPACTS TO THESE CREEKS ARE ANTICIPATED

STORM WATER MANAGEMENT BASIN-2

P.I.NO.BASIN-2
P.I. = 11+14.90
D = 260° 26' 07.30"
T = 1.26
L = 2.51
R = 22.00
P.C. = 11+13.64

FLOW FROM BASIN WILL BE DISCHARGED INTO POPLAR CREEK

MILDRED WILMER TROUT
DB. 2[illegible] PG. 264
TAX ID 2HH-219-100
0.25 Ac.±

S 65° 35' 35" W
9930

TEMPORARY DIVERSION BERM

FLOW

POT 13+17.29

FLARED END SECTION WITH RIPRAP OUTFALL PROTECTION

3933

POPLAR CREEK
20'-25' WIDE OHW

POT 2[illegible]

P.I.NO.B604-2-3
P.I. = 8+18.36
P.I. = 29.51
D = 114° 35' 00"
T = 17.98
L = 31.42
R = 15.00
P.C. = 9+00.38
P.T. = 9+31.80

P.I.NO.B604-2-4
P.I. = 8+78.37
P.I. = 29.51
D = 37° 11' 00"
T = 16.06
L = 31.58
R = 80.00
P.C. = 8+62.31
P.T. = 8+93.89

P.I.NO.B604-2-5
P.I. = 20+65.86
P.I. = 29.51
D = 87° 33' 42"
T = 19.78
L = 50.00
R = 32.83
P.C. = 20+83.36
P.T. = 21+33.36

HUGHLES YATES
LOUDELLA YATES
DB. 449, PG. 623
TAX ID 2HH-219-097
0.50 Ac.±

℄ ROUTE 121

FLOW

CREEK DA 303A
LENGTH OF IMPACT=412'
OHW=4'-8'

FLOW FROM CREEK 303A WILL BE REDIRECTED INTO RIP-RAP CHANNEL

DISCHARGE FLOW INTO POPLAR CREEK

PLAN

P.I.NO.B604-2-A
P.I. = 6+53.85
P.I. = 29.51

SCALE
0 50' 100'

PROPOSED ROUTE 121
GRADE LINE
EL 1226.97

231.43'

EXISTING GROUND

OHW
EL 987

OHW
EL 984

CREEK DA 303A
BOTTOM EL 984
AT ℄ ROUTE 121

POPLAR CREEK
BOTTOM EL 976
AT ℄ ROUTE 121

4'-8'
OHW

20'-25'
OHW

HORIZONTAL SCALE
0 50' 100'
VERTICAL SCALE
0 20' 40'

CROSS SECTION

ADJACENT PROPERTY OWNERS:

PLAN & CROSS SECTION VIEW ROUTE 121 ROAD CROSSING

PROPOSED ROAD CROSSING PROJECT
CREEK DA 303A & POPLAR CREEK
COUNTY:
APPLICANT:
SHEET 1 OF 1
DATE: 10/31/03

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
	0121-013-101	SK102003A	

POPLAR CREEK & STREAM DA 303A

KBR
Engineered by KBR
Technical Services Inc

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APRIL 13, 2004

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STREAM DA 305

KBR
Engineered by KBR Technical Services Inc

GLENN DAVID RAUCHLE
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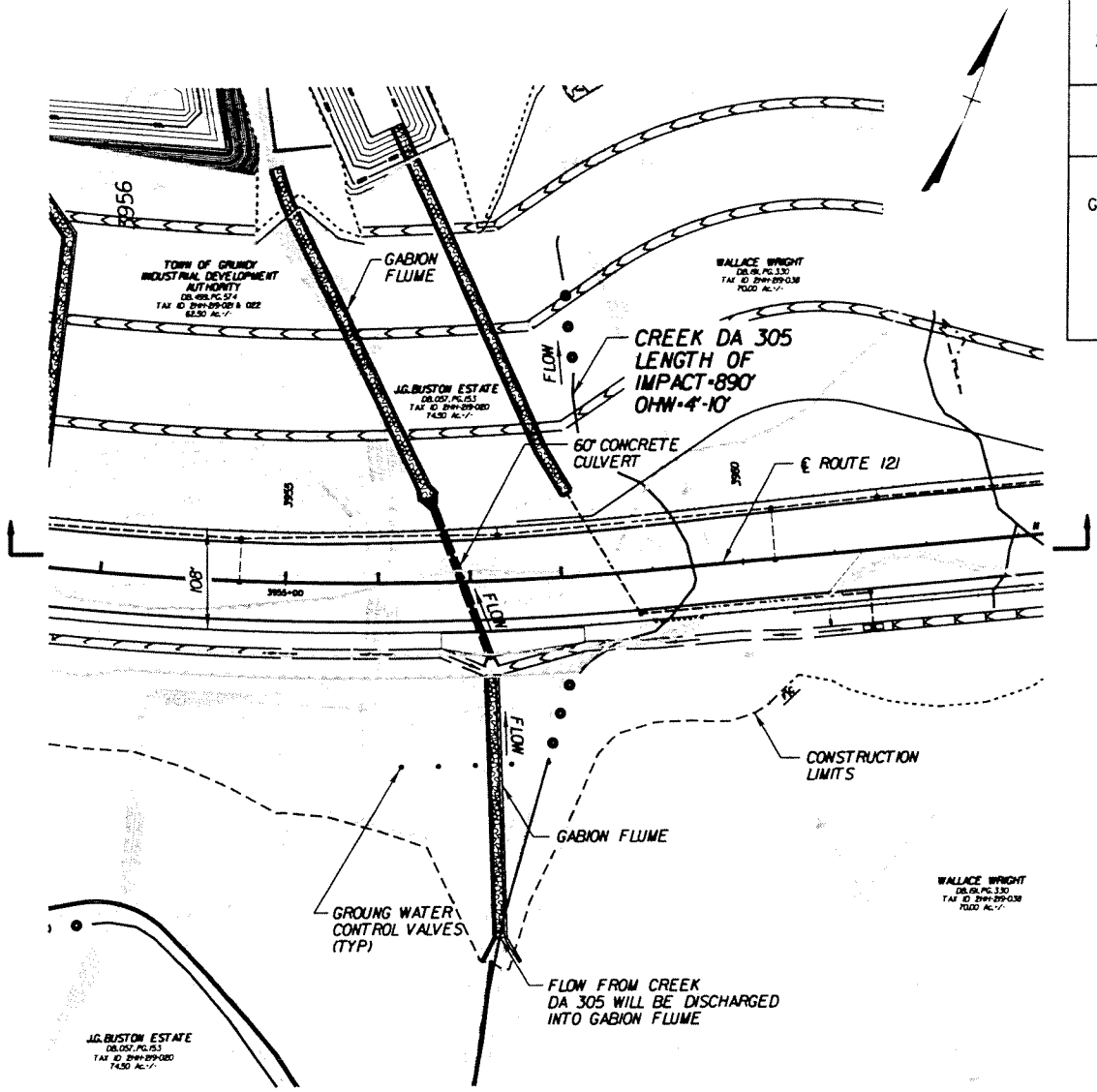
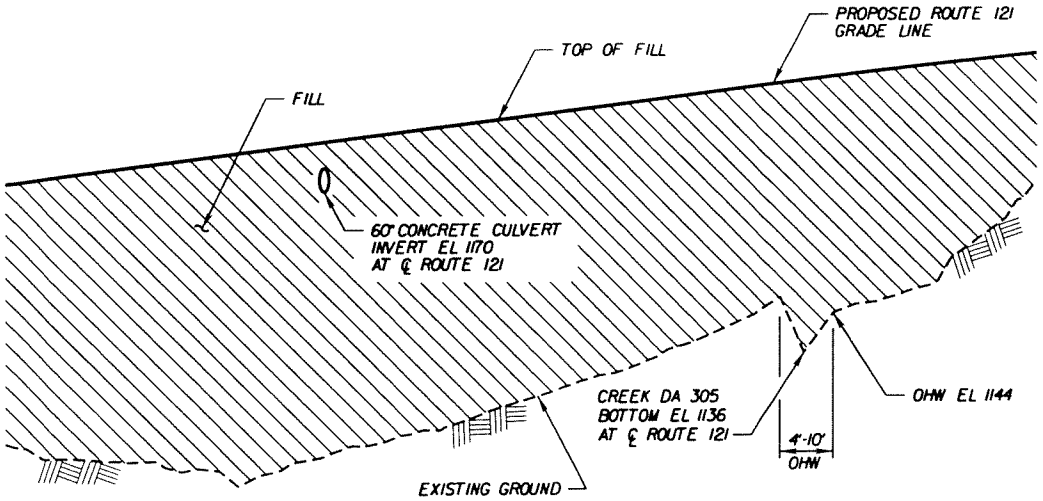
APRIL 13, 2004



PLAN

SCALE
0 100' 200'



CROSS SECTION

HORIZONTAL SCALE
0 50' 100'
VERTICAL SCALE
0 20' 40'

ADJACENT PROPERTY OWNERS:	PLAN & CROSS SECTION VIEW ROUTE 121 ROAD CROSSING	PROPOSED ROAD CROSSING PROJECT CREEK DA 305
		COUNTY: APPLICANT: SHEET 1 OF 1 DATE: 10/22/03

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
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Ref. File - F:\CM0166C_KBR\COE_Sheet3.dgn

SITE NO

STREAM DA 305B

KBR
Engineered by KBR
Technical Services Inc

GLENN DAVID RAUCHLE
VA REG 037388
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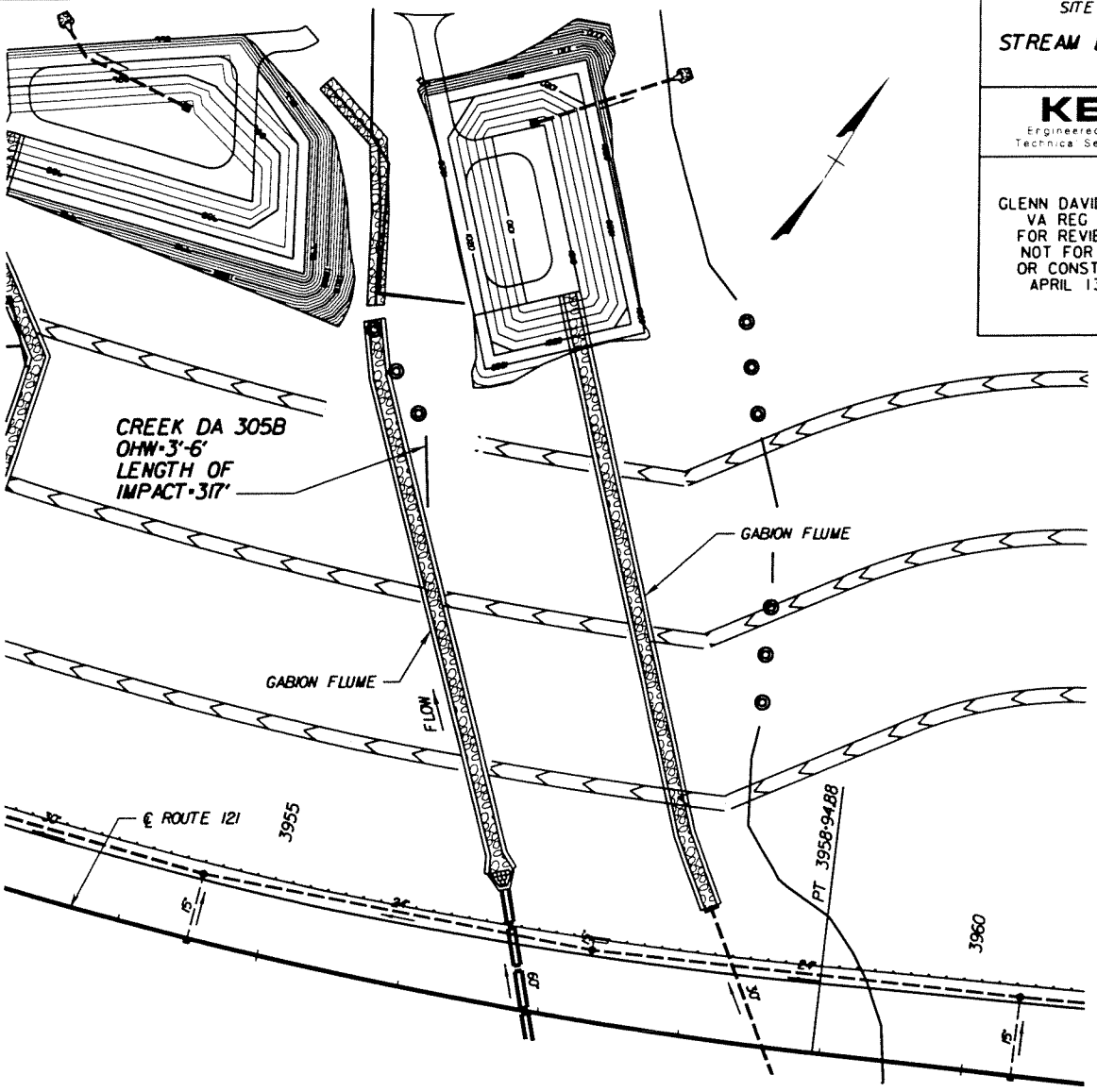
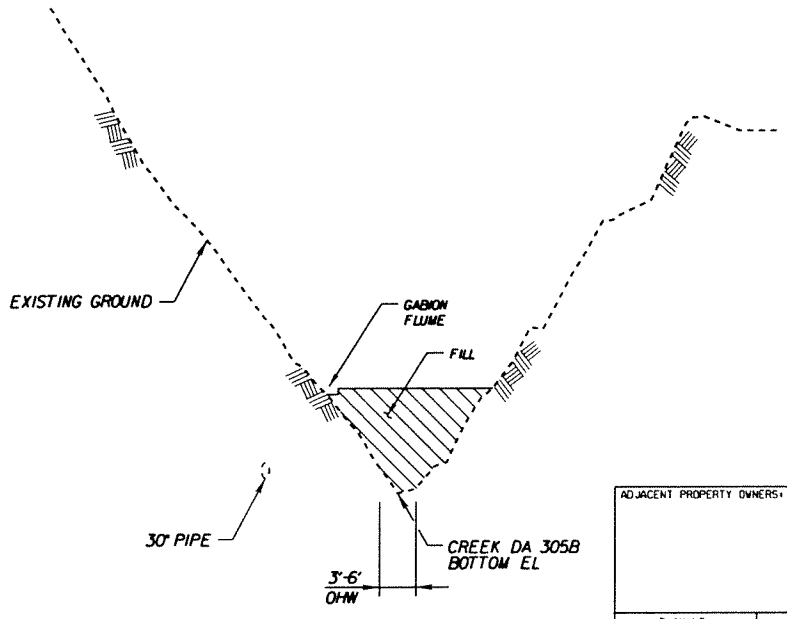
OR CONSTRUCTION
APRIL 13, 2004



PLAN

SCALE
0 100' 200'



CROSS SECTION

HORIZONTAL SCALE
0 200' 400'
VERTICAL SCALE
0 80' 160'

ADJACENT PROPERTY OWNERS:	PLAN & CROSS SECTION VIEW ROUTE 121 ROAD CROSSING	PROPOSED ROAD CROSSING PROJECT CREEK DA 305B COUNTY: APPLICANT: SHEET 1 OF 1 DATE: 10/31/03

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
	0121-013-101	SK052604	

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DISCHARGE FLOW INTO RAILWAY CULVERT

SPOIL AREA

STREAM DA 306

KBR
Engineered by KBR Technical Services Inc

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VA REG 037388
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APRIL 13, 2004

FOR CONTINUATION SEE DRAWING SKI02003E

GABION FLUME

WALLACE WRIGHT
DB. 191, PG. 330
TAX ID 2HH-219-038
70.00 Ac.+/-

CREEK DA 306
2'-10" WIDE OHW
LENGTH OF
IMPACT=345'

3961

FLOW

3965

℄ ROUTE 121

120'

24'

FLOW FROM CREEK
DA 306 WILL BE DISCHARGED
INTO 24" CONCRETE CULVERT

24" CONCRETE
CULVERT

GABION FLUME

PLAN

SCALE
0 50' 100'

EXISTING GROUND

PROPOSED ROUTE 121
GRADE LINE

FILL

TOP OF FILL

24" CONCRETE CULVERT
INVERT EL 1190
AT ℄ ROUTE 121

OHW EL 1173

CREEK DA 306
BOTTOM EL 1172
AT ℄ ROUTE 121

2'-10"
OHW

HORIZONTAL SCALE
0 50' 100'

VERTICAL SCALE
0 20' 40'

CROSS SECTION

ADJACENT PROPERTY OWNERS:	PLAN & CROSS SECTION VIEW ROUTE 121 ROAD CROSSING	PROPOSED ROAD CROSSING PROJECT: CREEK DA 306 COUNTY: APPLICANT: SHEET 1 OF 1 DATE: 11/05/03

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
	0121-013-101	SKI02003C	

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STREAM DA 306

WETLAND DA 306B

KBR
Engineered by KBR
Technical Services Inc

GLENN DAVID RAUCHLE
VA REG 037388
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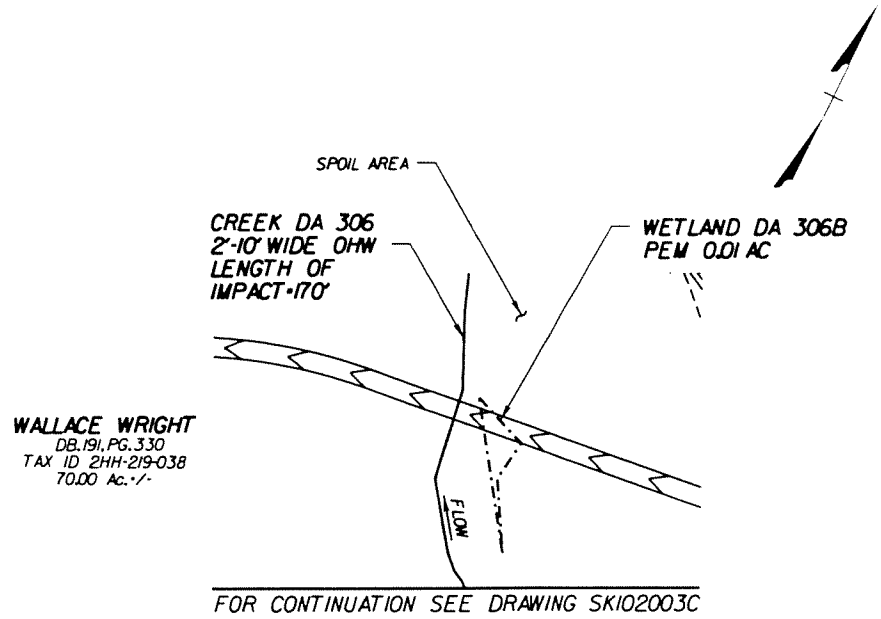
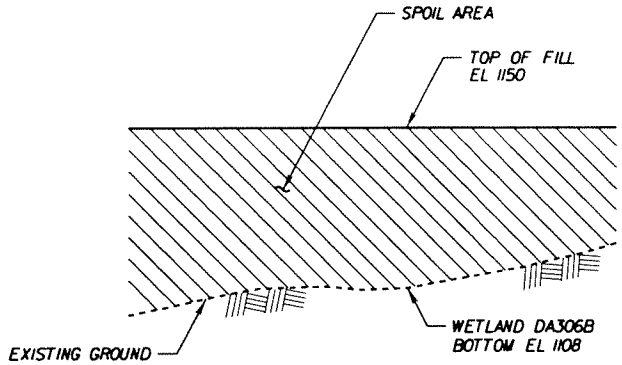
OR CONSTRUCTION
APRIL 13, 2004



PLAN

SCALE
0 50' 100'



CROSS SECTION

HORIZONTAL SCALE
0 50' 100'
VERTICAL SCALE
0 20' 40'

ADJACENT PROPERTY OWNERS:	PLAN & CROSS SECTION VIEW ROUTE 121 ROAD CROSSING	PROPOSED ROAD CROSSING PROJECT: WETLAND DA 306B COUNTY: APPLICANT: SHEET 1 OF 1 DATE: 11/05/03	
PLAN NO.	PROJECT: 0121-013-101	FILE NO.: SK102003E	SHEET NO.

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DISCHARGE FLOW INTO RAILWAY CULVERT

TEMPORARY DIVERSION BERM

CREEK DA 307B
OHW-5'-12"
LENGTH OF IMPACT-624'

J.G. BUSTON ESTATE
DB.059, PG.004
TAX ID SEC 64 - 025 & 026
24.61 Ac.+/-

GABION FLUME

WALLACE WRIGHT
DB.191, PG.330
TAX ID 2HH-219-038
70.00 Ac.+/-

60" CONCRETE CULVERT

CONSTRUCTION LIMITS

FLOW

℄ RAMP 3

120'

℄ RAMP 4

℄ ROUTE 121

TEMPORARY DIVERSION BERM

CONSTRUCTION LIMITS

WALLACE WRIGHT
DB.191, PG.330
TAX ID 2HH-219-038
70.00 Ac.+/-

FLOW FROM CREEK DA 307B WILL BE DISCHARGED INTO 60" CONCRETE CULVERT

PLAN

SCALE
0 100' 200'

EXISTING GROUND

FILL

TOP OF FILL

PROPOSED ROUTE 121 GRADE LINE

60" CONCRETE CULVERT
INVERT EL 1203
AT ℄ ROUTE 121

CREEK DA 307B
BOTTOM EL 1159
AT ℄ ROUTE 121

OHW EL 1164

5'-12"
OHW

CROSS SECTION

HORIZONTAL SCALE
0 50' 100'

VERTICAL SCALE
0 20' 40'

STREAM DA 307B

KBR
Engineered by KBR
Technical Services Inc

GLENN DAVID RAUCHLE
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APRIL 13, 2004

ADJACENT PROPERTY OWNERS:	PLAN & CROSS SECTION VIEW ROUTE 121 ROAD CROSSING	PROPOSED ROAD CROSSING PROJECT CREEK DA 307B COUNTY: APPLICANT: SHEET 1 OF 1 DATE: 11/05/03

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
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STREAM DA 319B

KBR
Engineered by KBR Technical Services Inc

GLENN DAVID RAUCHLE
VA REG 037388
FOR REVIEW ONLY
NOT FOR BIDDING
OR CONSTRUCTION
APRIL 13, 2004

℄ ROUTE 121

RAPOCA ENERGY CO.
DB. 289, PG. 041
TAX ID 2HH-219-023

CONSTRUCTION LIMITS

CONSTRUCTION LIMITS

TEMPORARY DIVERSION BERM

FLOW FROM CREEK DA 319D WILL BE DISCHARGED INTO GABION FLUME

CREEK DA 319B
LENGTH OF IMPACT-92'
OHW-4'-8"

TEMPORARY DIVERSION BERM

60" CONC CULVERT

GABION FLUME

18'
15'
15'
18'
18'
48'
48'

75
PC 75+22.19

PLAN

SCALE
0 100' 200'

TOP OF FILL

FILL

PROPOSED ROUTE 121 GRADE LINE

EXISTING GROUND

48" CONCRETE CULVERT
INVERT EL
AT ℄ ROUTE 121

HORIZONTAL SCALE
0 100' 200'

VERTICAL SCALE
0 40' 80'

CROSS SECTION

ADJACENT PROPERTY OWNERS:	PLAN & CROSS SECTION VIEW ROUTE 121 ROAD CROSSING	PROPOSED ROAD CROSSING PROJECT: CREEK DA 319B COUNTY: APPLICANT: SHEET 1 OF 1 DATE: 10/31/03

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
	0121-013-101	SK041204J	

6-09-2004 14:24
bartlett

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Ref. File - \\houfile02\hdvlib\cm0166\MDF\cf xborder A.dgn
Ref. File - I:\CM0166\C_KBR\Field Data_vdot.dgn

NOTE

CREEK DA 320 AND LEVISA FORK WILL BE BRIDGED

LEVISA FORK & STREAM DA 320

KBR
Engineered by KBR Technical Services Inc

GLENN DAVID RAUCHLE
VA REG 037388
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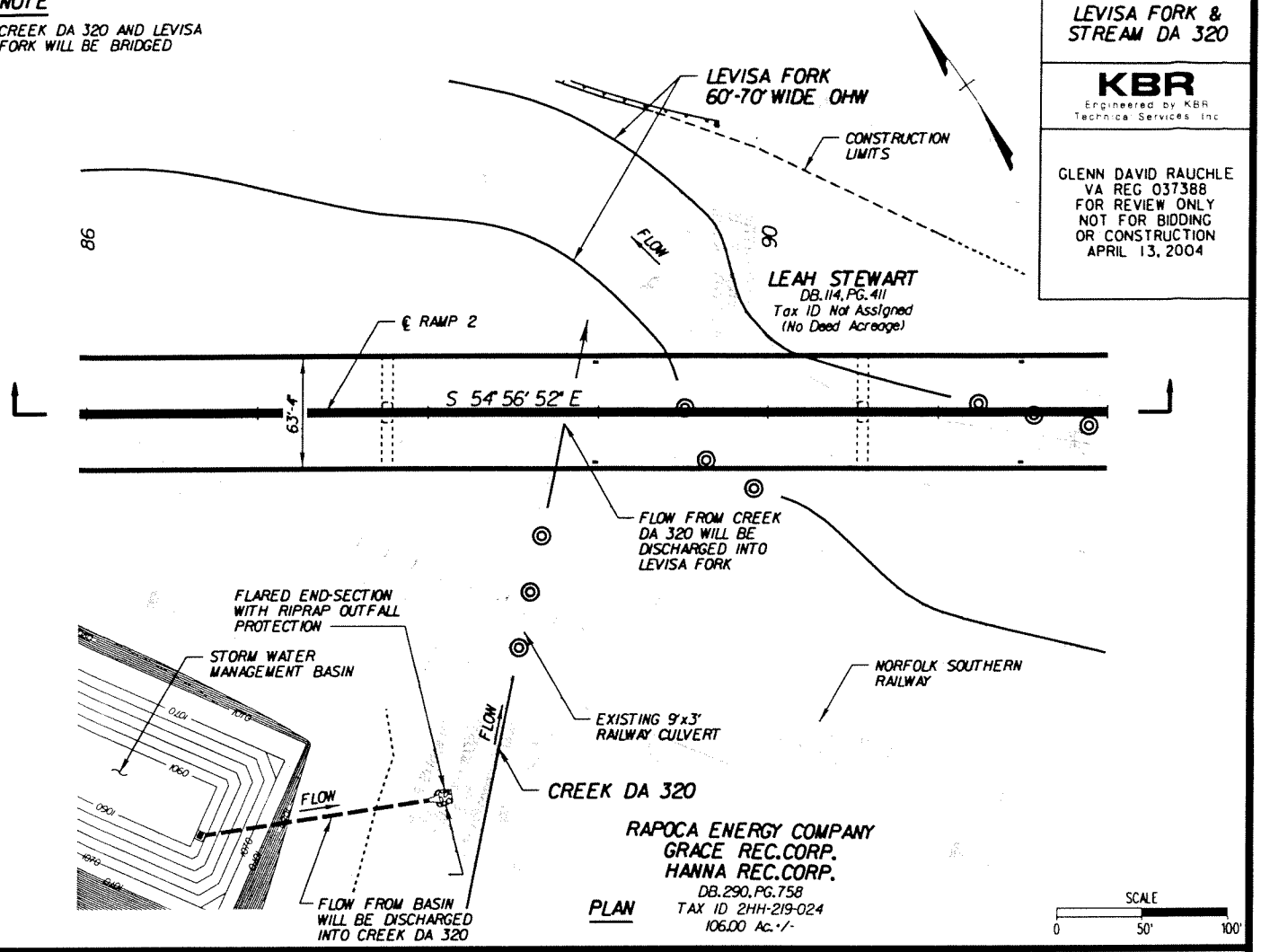
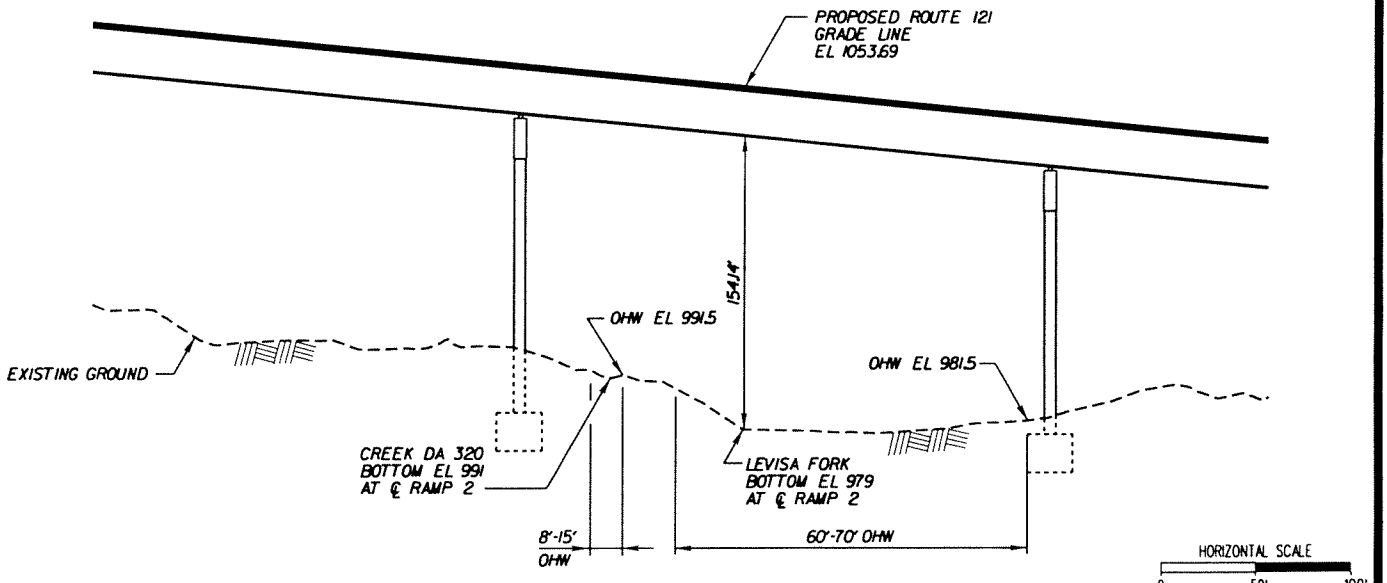
OR CONSTRUCTION
APRIL 13, 2004





CROSS SECTION

ADJACENT PROPERTY OWNERS:	PLAN & CROSS SECTION VIEW ROUTE 121 ROAD CROSSING	PROPOSED ROAD CROSSING PROJECT CREEK DA 320 & LEVISA FORK COUNTY: APPLICANT: SHEET 1 OF 1 DATE: 11/3/03

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
	0121-013-101	SK102003B	

6-09-2004 2:00:32

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Ref. File • f:\CM0166C_KBR\COE_Sheet3.dgn

STREAM DA 364

KBR
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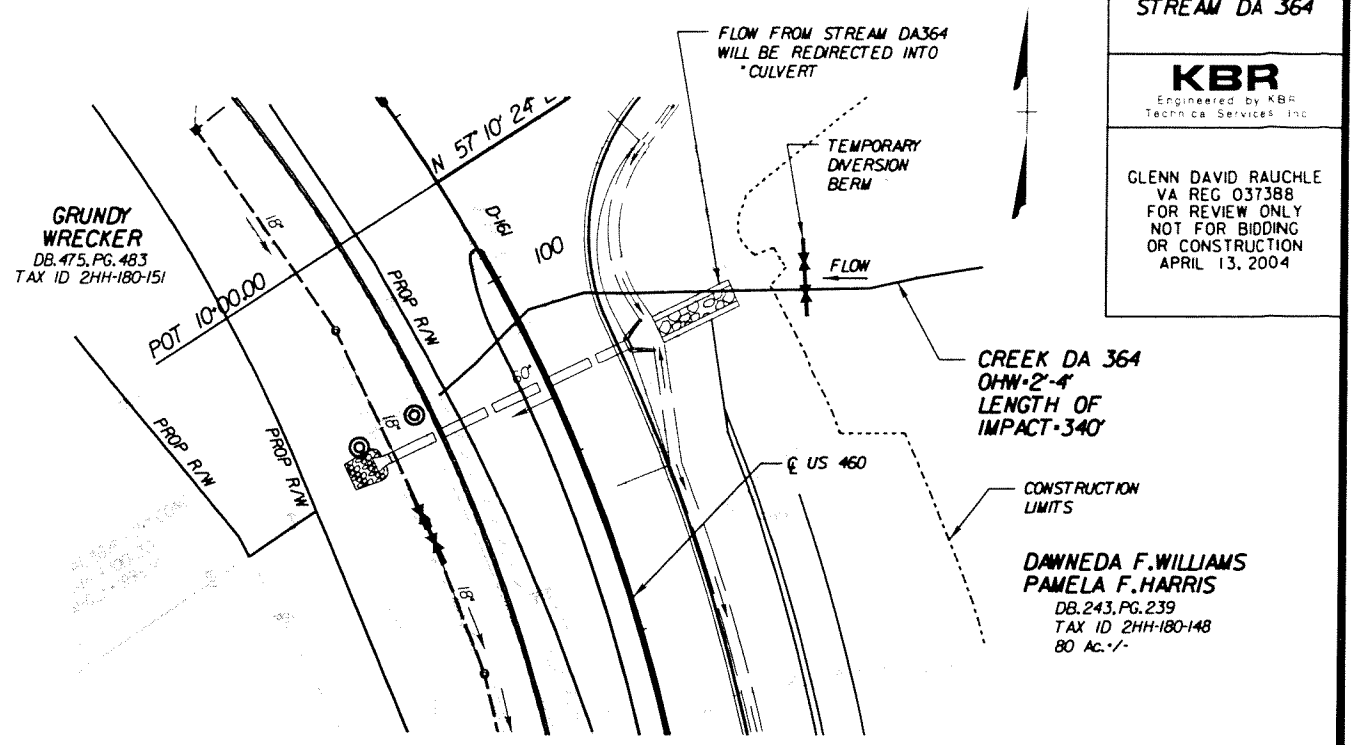
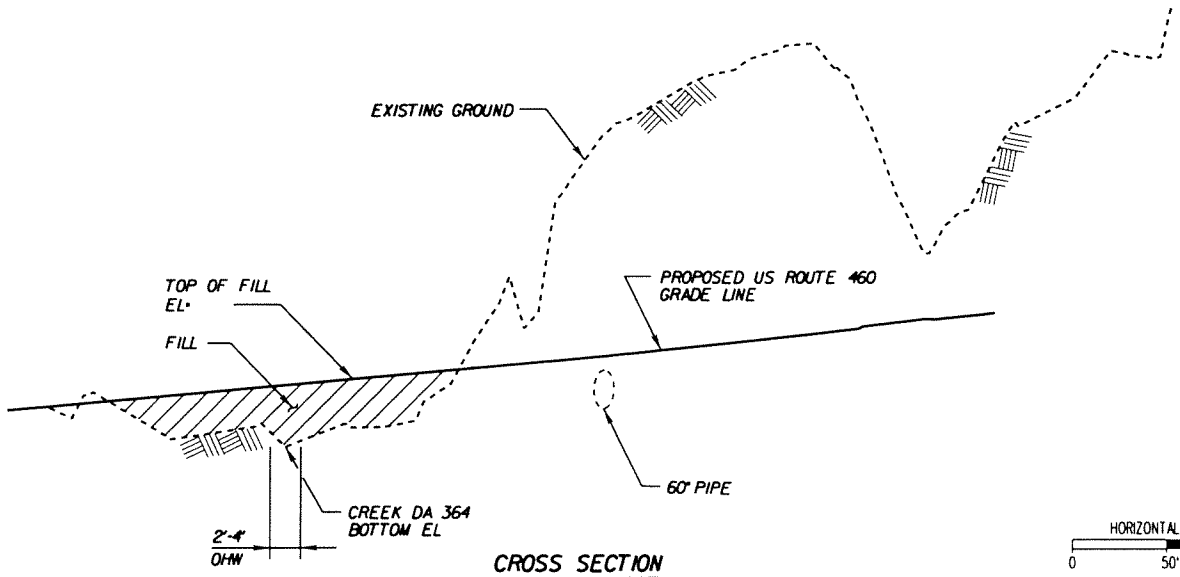
APRIL 13, 2004



PLAN

SCALE
0 50' 100'



CROSS SECTION

HORIZONTAL SCALE
0 50' 100'
VERTICAL SCALE
0 20' 40'

ADJACENT PROPERTY OWNERS:	PLAN & CROSS SECTION VIEW ROUTE 121 ROAD CROSSING	PROPOSED ROAD CROSSING PROJECT CREEK DA 364
		COUNTY: APPLICANT: SHEET 1 OF 1 DATE: 10/31/03

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
	0121-013-101	SK040904	

6-08-2004 2:31:27
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Levels on : 1,17,19,53,61

TEMPORARY DIVERSION BERM

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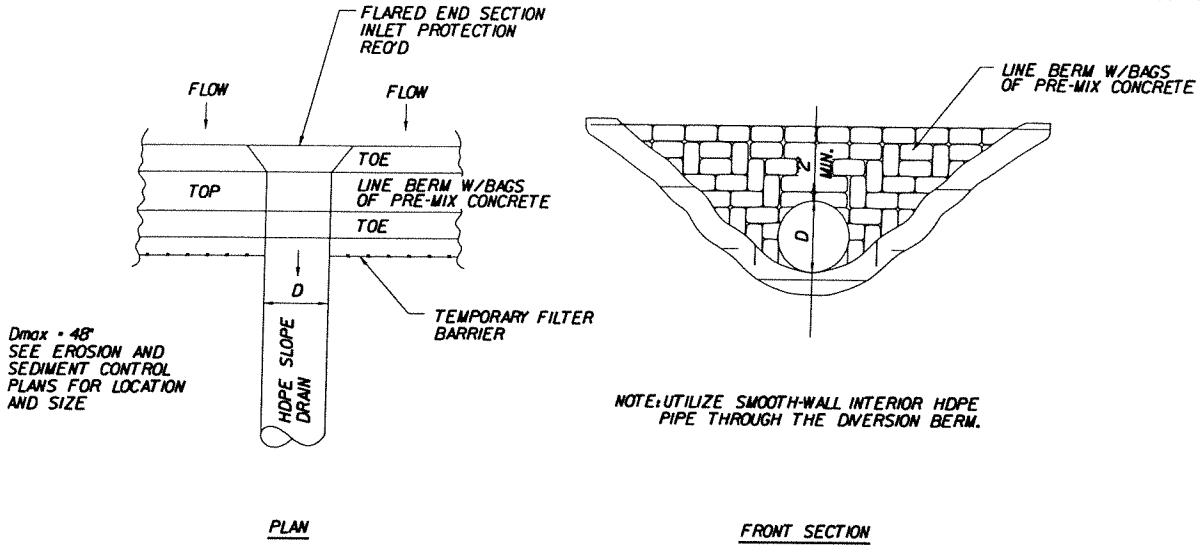
APRIL 13, 2004

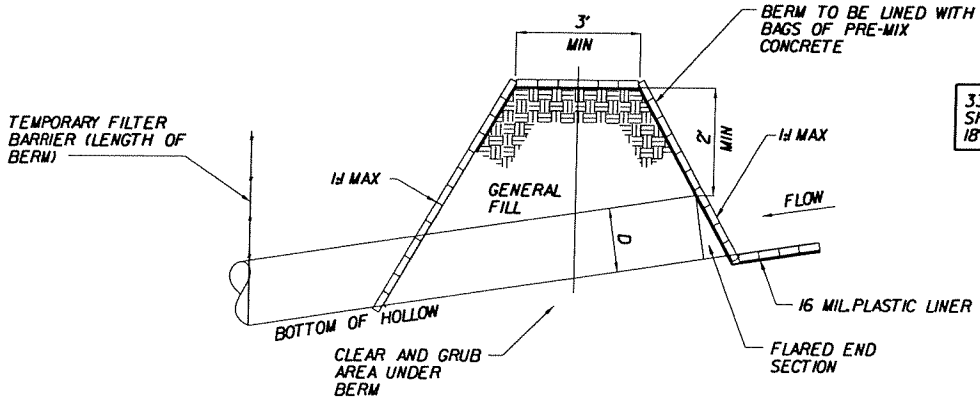


PLAN

FRONT SECTION

PIPE THROUGH DIVERSION BERM

NOT TO SCALE



33% OF BAGS OF PRE-MIX CONCRETE SHALL BE STAKED TO BERM WITH 18" WOODEN STAKES

DIVERSION BERM SECTION

NOT TO SCALE

ADJACENT PROPERTY OWNERS:	PLAN & CROSS SECTION VIEW ROUTE 121 ROAD CROSSING	PROPOSED ROAD CROSSING PROJECT TEMPORARY DIVERSION BERM COUNTY: APPLICANT: SHEET__OF DATE:

PLAN NO.	PROJECT	FILE NO.	SHEET NO.
	0121-013-101		

5-27-2004 2:40:40
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