

**PRELIMINARY PLAN LEGEND**

TEMP. GRADING & CONST. ESMNT. & INGRESS-EGRESS ESMNT.	NEST
PROPOSED STREAM ESMNT. TEMP. GRADING & CONST. ESMNT. & INGRESS-EGRESS ESMNT.	CAVITY
EXISTING INFRASTRUCTURE	VERNAL POOL
FLOODPLAIN EASEMENT	SNAG
NON-PERENNIAL STREAM (EXISTING TOP OF BANK)	DEN
PERENNIAL STREAM (EXISTING TOP OF BANK)	ACCESS PATH
LIMITS OF TREE SURVEY	EXISTING 100-YR FLOOD ELEVATION
PROPOSED BANKFULL TOP OF BANK	PROPOSED 100-YR FLOOD ELEVATION
PROPOSED CENTERLINE	LIMITS OF CLEARING, TREE PROTECTION FENCE
PROPOSED CONTOURS (0.5')	LIMITS OF CLEARING
TREES DOWN, DAMAGED, OR REMOVED	CHAINLINK FENCE
	TREES TO BE REMOVED
	TREES PROPOSED FOR REMOVAL (SEE NURSERY WIEHLE NORTH STREAM PLAN - PROVIDED UNDER SEPARATE COVER)

**NORTHERN VIRGINIA STREAM RESTORATION BANK**  
**COLVIN RUN - WIEHLE SOUTH**  
 Fairfax County, Virginia

**Preliminary Plan**

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REVISIONS	
No.	Description

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H. D. VCS NAD 83 V. D.: NCV D 29

Computer File Name: **1 of 4**

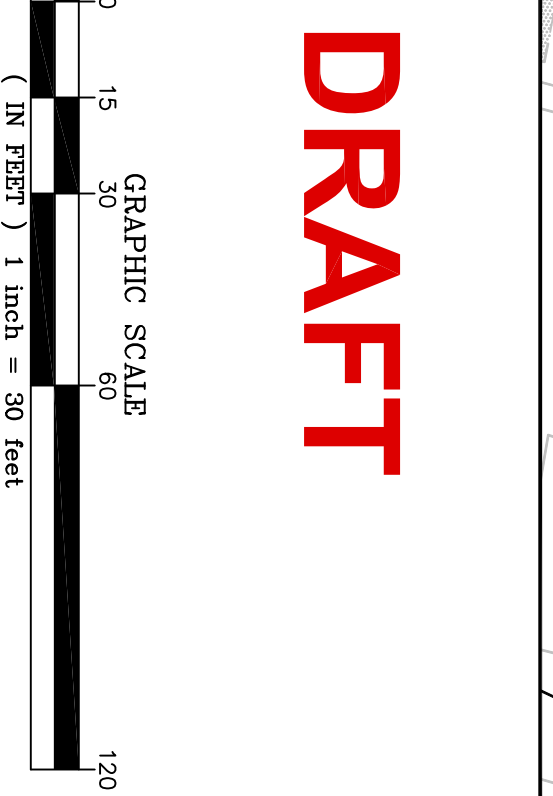
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Boundary and Top Source: WNSI and Fairfax Digital Data

Design: KLP  
 Draft: KLP  
 Approved: FRG

Sheet # **1 of 4**

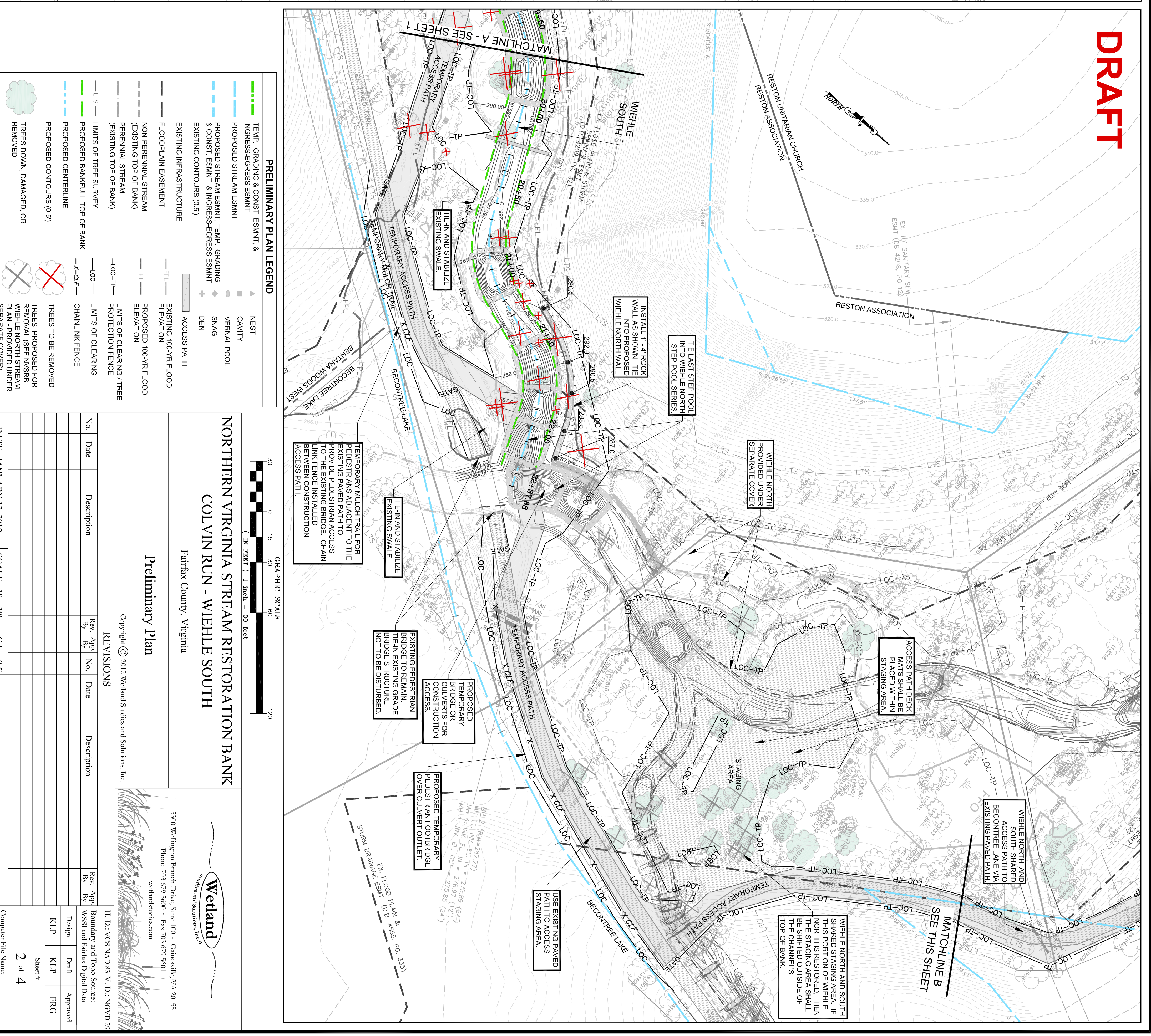
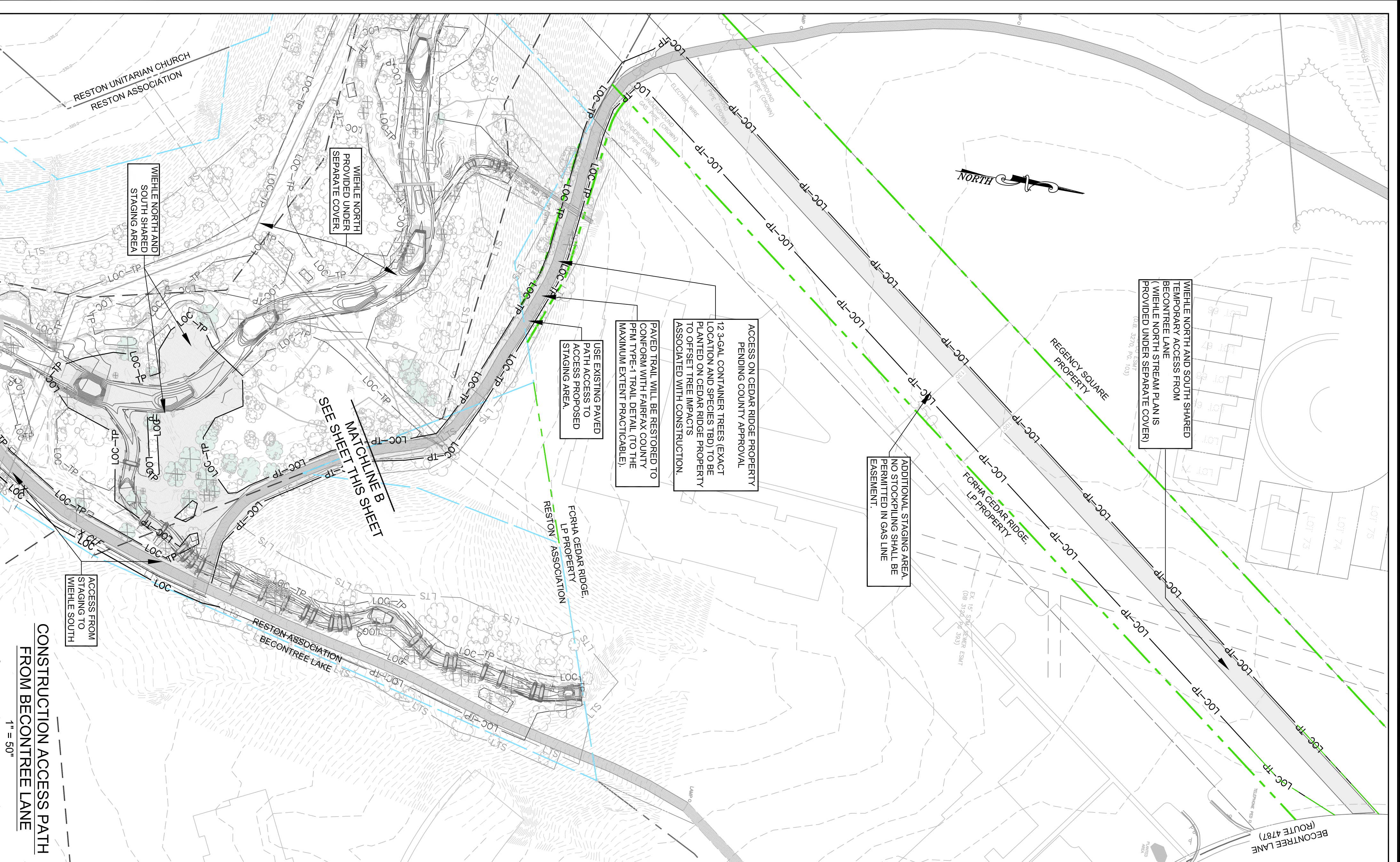


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DATE: JANUARY 12, 2012 SCALE: 1" = 30' C.I. = 0.5'

MATCHLINE A - SEE SHEET 2

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**PRELIMINARY PLAN LEGEND**

	TEMP. GRADING & CONST. ESMNT. & INGRESS-EGRESS ESMNT.		NEST
	PROPOSED STREAM ESMNT.		CAVITY
	PROPOSED STREAM ESMNT. TEMP. GRADING & CONST. ESMNT. & INGRESS-EGRESS ESMNT.		VERNAL POOL
	EXISTING CONTOURS (0.5)		SNAG
	EXISTING INFRASTRUCTURE		DEN
	FLOODPLAIN EASEMENT		ACCESS PATH
	NON-PERENNIAL STREAM (EXISTING TOP OF BANK)		EXISTING 100-YR FLOOD ELEVATION
	PERENNIAL STREAM (EXISTING TOP OF BANK)		PROPOSED 100-YR FLOOD ELEVATION
	LTS		LIMITS OF CLEARING / TREE PROTECTION FENCE
	PROPOSED BANKFULL TOP OF BANK		LIMITS OF CLEARING
	PROPOSED CENTERLINE		LIMITS OF BANKFULL TOP OF BANK
	PROPOSED CONTOURS (0.5)		CHAINLINK FENCE
	TREES TO BE REMOVED		TREES TO BE REMOVED
	TREES DOWN, DAMAGED, OR REMOVED		TREES PROPOSED FOR REMOVAL (SEE NYSM PLAN, PROVIDED UNDER SEPARATE COVER)

**NORTHERN VIRGINIA STREAM RESTORATION BANK**  
COLVIN RUN - WIEHLE SOUTH  
Fairfax County, Virginia

**Preliminary Plan**  
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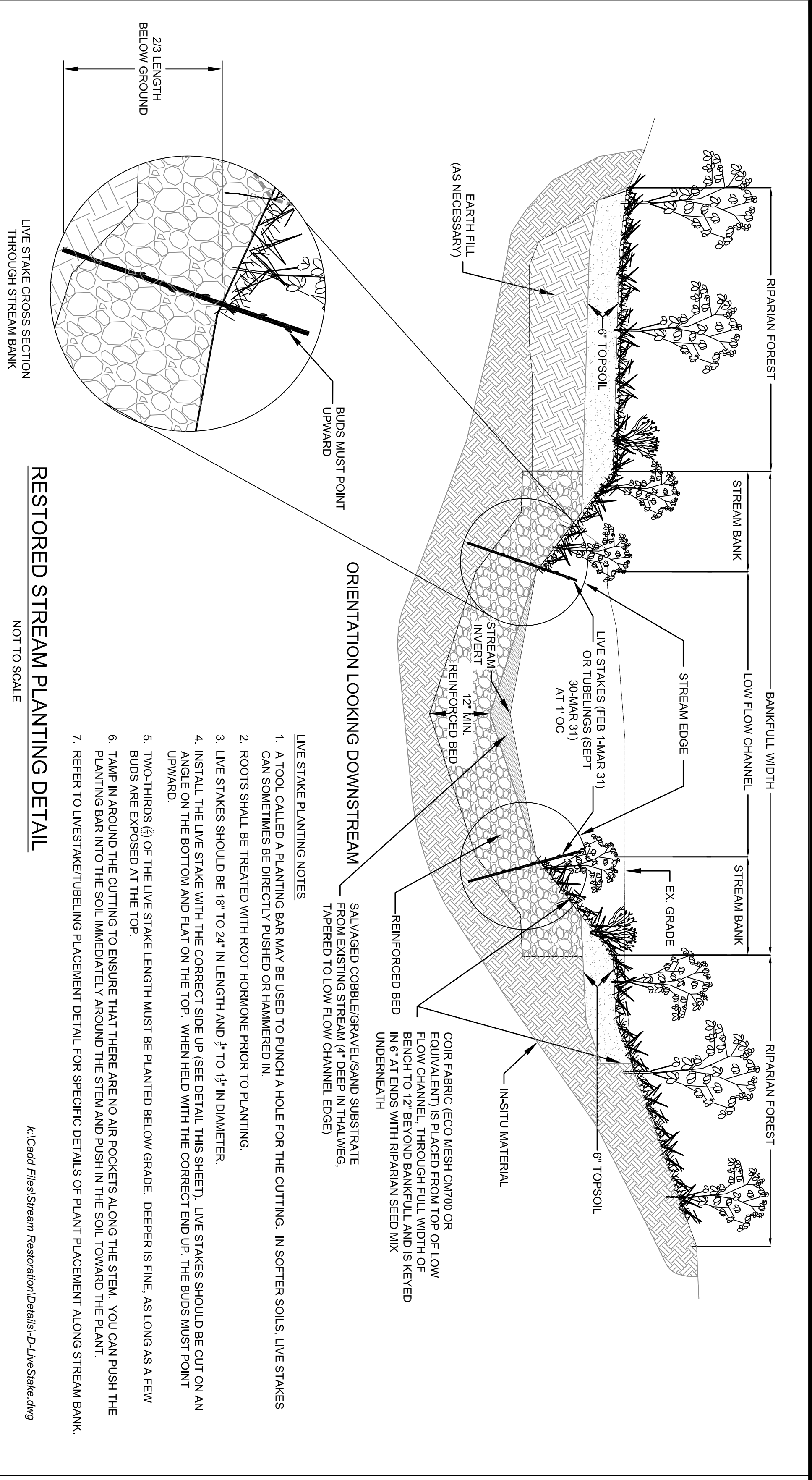
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Computer File Name: 2 of 4

No.	Date	Description	Rev.	App.	No.	Date	Description	Rev.	App.
			15					15	
			15					15	

Boundary and Top Source: Design Draft Approved  
KLP KLP FRG



RESTORED STREAM PLANTING DETAIL  
NOT TO SCALE

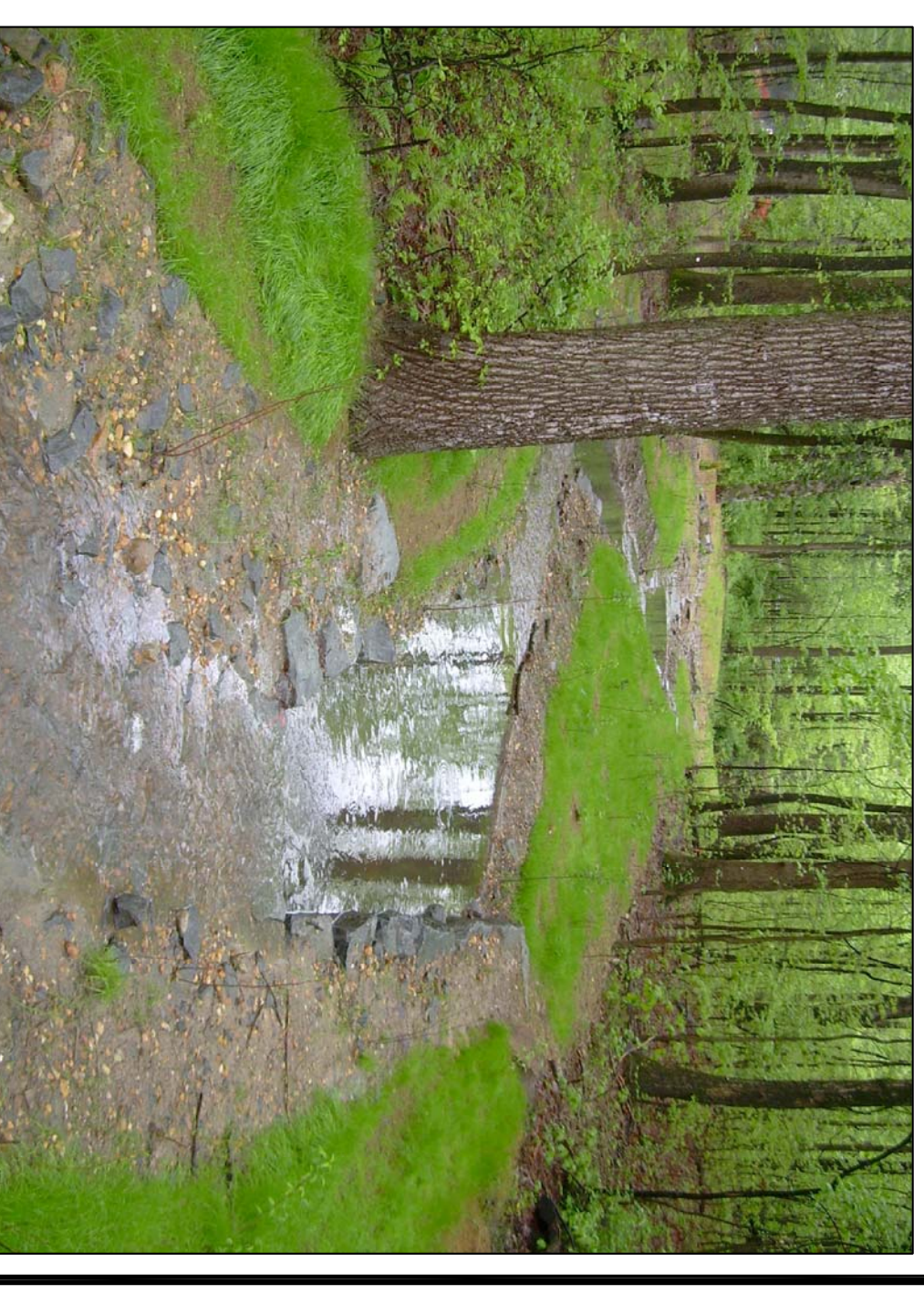
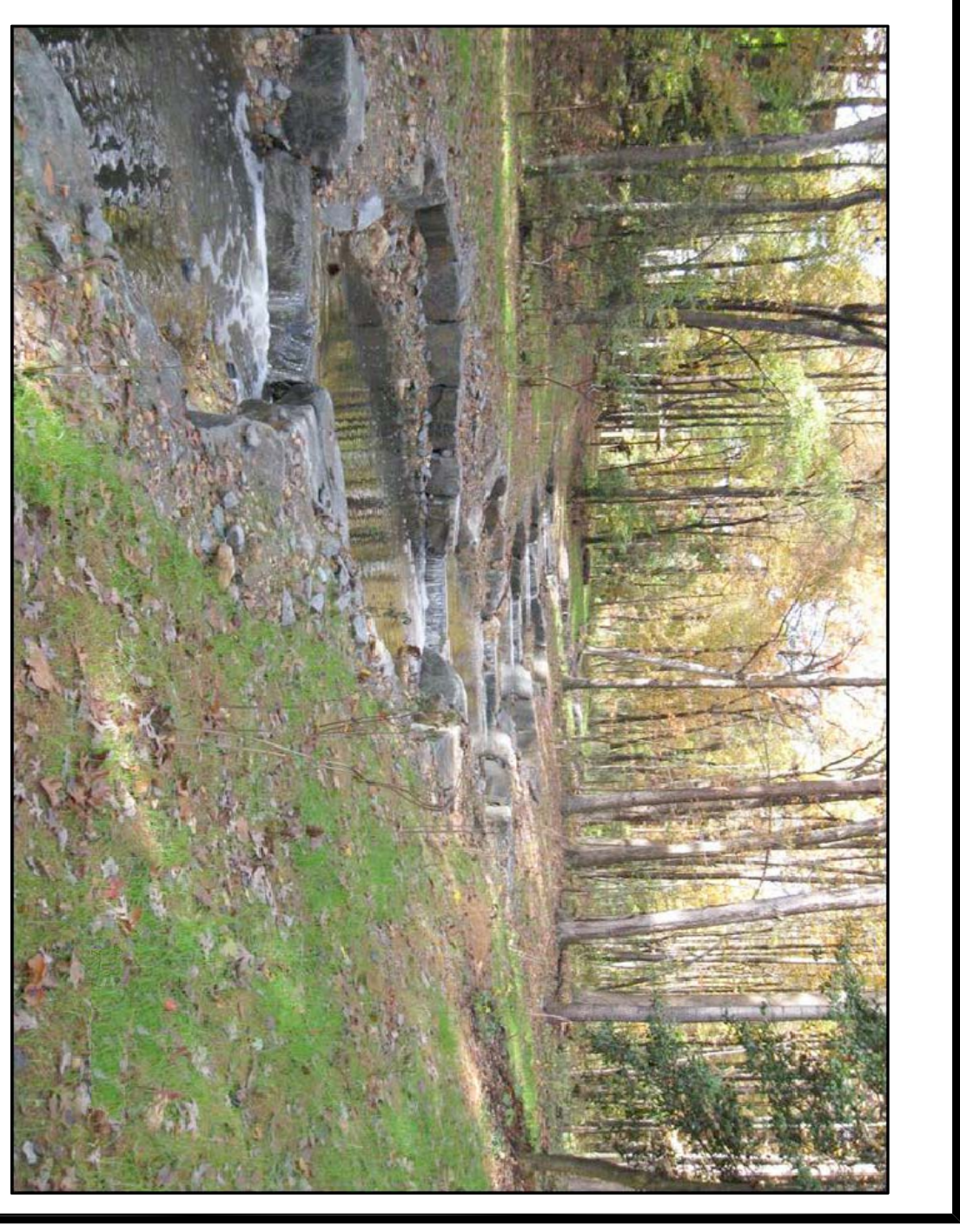
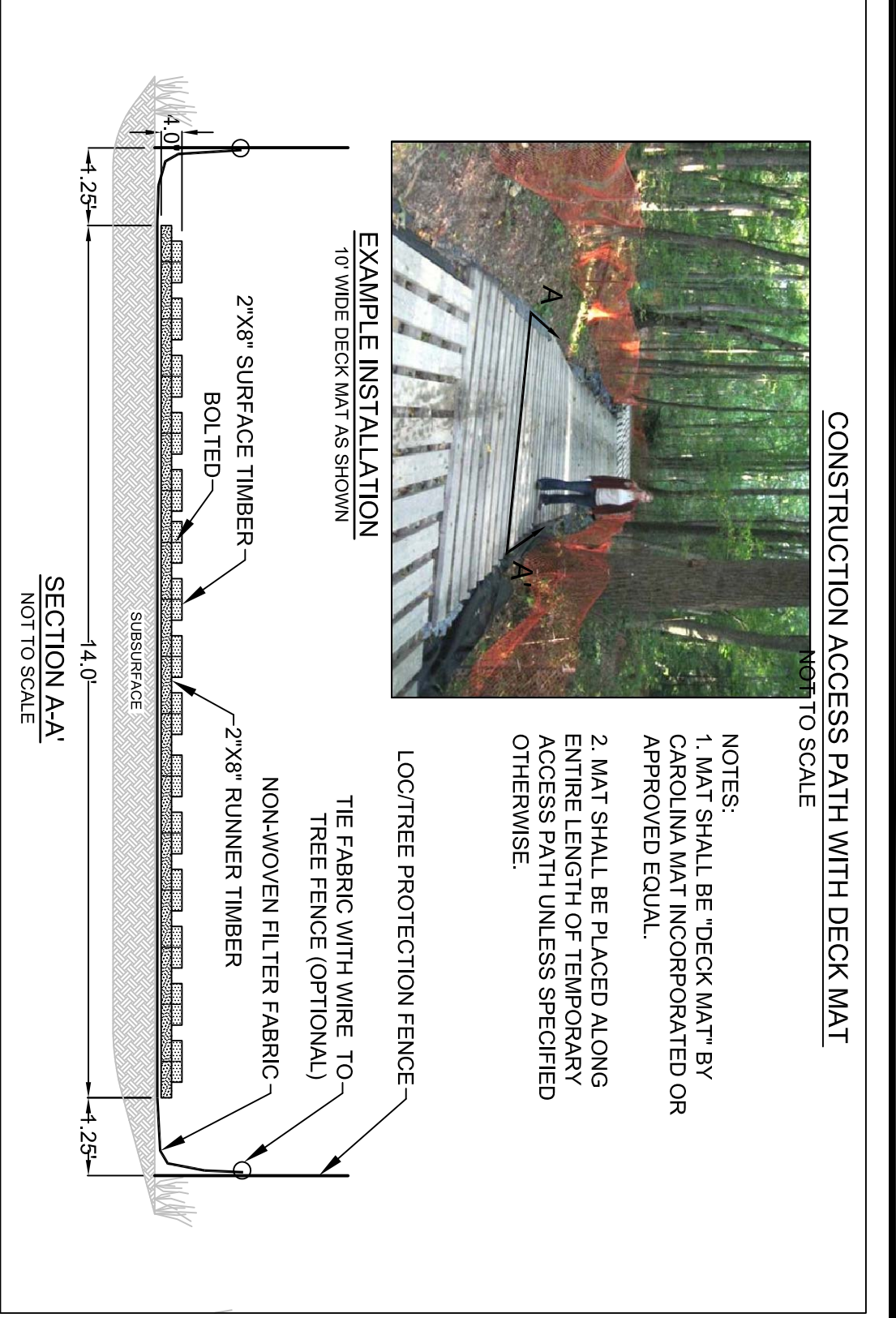
K:\Cadd\FreshStream\_Restoration\Details-D\LiveStake.dwg

- LIVE STAKE PLANTING NOTES**
1. A TOOL CALLED A PLANTING BAR MAY BE USED TO PUNCH A HOLE FOR THE CUTTING. IN SOFTER SOILS, LIVE STAKES CAN SOMETIMES BE DIRECTLY PUSHED OR HAMMERED IN.
  2. ROOTS SHALL BE TREATED WITH ROOT HORMONE PRIOR TO PLANTING.
  3. LIVE STAKES SHOULD BE 18" TO 24" IN LENGTH AND 2" TO 1 1/2" IN DIAMETER.
  4. INSTALL THE LIVE STAKE WITH THE CORRECT SIDE UP (SEE DETAIL THIS SHEET). LIVE STAKES SHOULD BE CUT ON AN ANGLE ON THE BOTTOM AND FLAT ON THE TOP. WHEN HELD WITH THE CORRECT END UP, THE BUDS MUST POINT UPWARD.
  5. TWO-THIRDS (2/3) OF THE LIVE STAKE LENGTH MUST BE PLANTED BELOW GRADE. DEEPER IS FINE, AS LONG AS A FEW BUDS ARE EXPOSED AT THE TOP.
  6. TAMP IN AROUND THE CUTTING TO ENSURE THAT THERE ARE NO AIR POCKETS ALONG THE STEM. YOU CAN PUSH THE PLANTING BAR INTO THE SOIL IMMEDIATELY AROUND THE STEM AND PUSH IN THE SOIL TOWARD THE PLANT.
  7. REFER TO LIVESTAKE/TUBELING PLACEMENT DETAIL FOR SPECIFIC DETAILS OF PLANT PLACEMENT ALONG STREAM BANK.

CONTAINER PLANTING ZONE	SPECIES GROUP <sup>1,2</sup>	SPECIES <sup>3</sup>	INDICATOR STATUS	PLANT SPACING <sup>4</sup>	CONTAINER SIZE RATE AND QUANTITY <sup>5</sup>
PRPRAN FOREST	1	QUERCUS ALBA (WHITE OAK) QUERCUS BICOLOR (SWAMP WHITE OAK) QUERCUS PALUMBRIS (PIN OAK) QUERCUS PHELILOS (WALLOW OAK) QUERCUS RUBRA (NORTHERN RED OAK)	FAU- FAU- FAU- FAU- FAU-	SEE NOTE #1 SEE NOTE #1 SEE NOTE #1 SEE NOTE #1 SEE NOTE #1	ONE-GALLON TUBELINGS -- or -- TUBELINGS -- or -- MIGALAT 7.5 PAKS (SEE NOTE #1)
	2	ACER FLORIDANUM (RED MAPLE) BETULA NIGRA (RIVER BIRCH) LIRIODENDRON (SWEET GUM) NYSSA SYLVATICA (BLACK GLIM)	FAU- FAU- FAU- FAU-	SEE NOTE #1 SEE NOTE #1 SEE NOTE #1 SEE NOTE #1	ONE-GALLON TUBELINGS -- or -- TUBELINGS MIGALAT 7.5 PAKS (SEE NOTE #1)
	3	LEX OPACA (AMERICAN HOLLY)	FAU-	SEE NOTE #1	ONE-GALLON TUBELINGS MIGALAT 7.5 PAKS (SEE NOTE #1)
	4	AMELANCHIER CANADENSIS (CANADIAN REDBERRY) CERIS CHAMBERSII (EASTERN HEBEBIRD) CORNUS FLORIDA (FLORIDIAN DOGWOOD) CORNUS AMERICANA (AMERICAN LANCELOT) VIBURNUM DENTATUM (SOUTHERN SPICEBUSH) VIBURNUM PRUNIFOLIUM (BLACK HAW)	FAU- FAU- FAU- FAU- FAU- FAU-	SEE NOTE #1 SEE NOTE #1 SEE NOTE #1 SEE NOTE #1 SEE NOTE #1 SEE NOTE #1	ONE-GALLON TUBELINGS -- or -- TUBELINGS -- or -- TUBELINGS MIGALAT 7.5 PAKS (SEE NOTE #1)
STREAM BANK	5	LEX VERTICILLATA (COMMON WINTERBERRY) LINDERA BACATA (NORTHERN SPICEBUSH) SAMBUCUS CANADENSIS (ELOBERRY) VIBURNUM DENTATUM (SOUTHERN SPICEBUSH) VIBURNUM PRUNIFOLIUM (BLACK HAW)	FAU- FAU- FAU- FAU- FAU-	SEE NOTE #1 SEE NOTE #1 SEE NOTE #1 SEE NOTE #1 SEE NOTE #1	APPROX. ONE-GALLON TUBELINGS -- or -- TUBELINGS MIGALAT 7.5 PAKS (SEE NOTE #1)
	6	AMELANCHIER CANADENSIS (CANADIAN REDBERRY) CORNUS AMERICANA (AMERICAN LANCELOT) SALIX NIGRA (BLACK WILLOW) VIBURNUM DENTATUM (SOUTHERN SPICEBUSH) VIBURNUM PRUNIFOLIUM (BLACK HAW)	FAU- FAU- FAU- FAU- FAU-	SEE NOTE #1 SEE NOTE #1 SEE NOTE #1 SEE NOTE #1 SEE NOTE #1	APPROX. ONE-GALLON TUBELINGS -- or -- TUBELINGS MIGALAT 7.5 PAKS (SEE NOTE #1)

SEED PLANTING ZONE	SPECIES GROUP <sup>1,2</sup>	SPECIES <sup>3</sup>	INDICATOR STATUS	SEEDING RATE <sup>5</sup> (LBS/AC)	
PRPRAN BLYFFER SEED MIX	7	LELIDUM VITIFOLIUM (ANNUAL TREBLESSE) SETARIA (PRAIRIE FOXTAIL) CEREAL RYEGRASS (CERIAL RYE) COREX SQUARROSA (SQUARE SEED) COREX VILBORNIA (POX SEED) CYPERUS ESCULENTUS (POX) JUNCUS EFFUSUS (POX) JUNCUS TENNIS (POX)	UPL UPL UPL UPL UPL UPL UPL	45.00 45.00 0.20 0.20 0.20 0.20 0.20	
	8	ASTER PRINOSUS (RED ASTER) ASTER PRELIMINARIS (DOG TAG ASTER) LULIUM SUPERBUM (TULSCAP LILY) SOLIDAGO JUNCEA (REARY GOLDENROD) EUPATORIUM RESUTIOSUS (POX) EUPATORIUM PERFORIUM (BOHE SEI) EUPATORIUM SPICATUM (BOHE SEI) EUPATORIUM VITIFOLIUM (BOHE SEI)	UPL UPL UPL UPL UPL UPL UPL	0.10 0.10 0.10 0.10 0.10 0.10 0.10	
	9	ELIOMUS VIRGINICUS (WILD RYE) PANDANUS GANDENSIS (GREEN TONGUE GRASS) PANDANUS DICHOTOMIFOLIUS (SHOED HORN GRASS) PANDANUS VIRGINICUS (TONGUE GRASS)	UPL UPL UPL UPL	10.00 10.00 10.00 10.00	
	10	ASTER NOYAL (SAGELEAF) ASTER PRINOSUS (RED ASTER) ASTER PRELIMINARIS (DOG TAG ASTER) LULIUM SUPERBUM (TULSCAP LILY) SOLIDAGO JUNCEA (REARY GOLDENROD) EUPATORIUM RESUTIOSUS (POX) EUPATORIUM PERFORIUM (BOHE SEI) EUPATORIUM SPICATUM (BOHE SEI)	UPL UPL UPL UPL UPL UPL UPL	0.10 0.10 0.10 0.10 0.10 0.10 0.10	
	11	ELIOMUS VIRGINICUS (WILD RYE) PANDANUS GANDENSIS (GREEN TONGUE GRASS) PANDANUS DICHOTOMIFOLIUS (SHOED HORN GRASS) PANDANUS VIRGINICUS (TONGUE GRASS)	UPL UPL UPL UPL	10.00 10.00 10.00 10.00	
	12	HELIUM VITIFOLIUM (ANNUAL TREBLESSE) LELIDUM VITIFOLIUM (ANNUAL TREBLESSE) COREX SQUARROSA (SQUARE SEED) COREX VILBORNIA (POX SEED) CYPERUS ESCULENTUS (POX) JUNCUS EFFUSUS (POX) JUNCUS TENNIS (POX)	UPL UPL UPL UPL UPL UPL UPL	0.20 0.20 0.20 0.20 0.20 0.20 0.20	
	13	HELIUM VITIFOLIUM (ANNUAL TREBLESSE) LELIDUM VITIFOLIUM (ANNUAL TREBLESSE) COREX SQUARROSA (SQUARE SEED) COREX VILBORNIA (POX SEED) CYPERUS ESCULENTUS (POX) JUNCUS EFFUSUS (POX) JUNCUS TENNIS (POX)	UPL UPL UPL UPL UPL UPL UPL	0.20 0.20 0.20 0.20 0.20 0.20 0.20	
	14	HELIUM VITIFOLIUM (ANNUAL TREBLESSE) LELIDUM VITIFOLIUM (ANNUAL TREBLESSE) COREX SQUARROSA (SQUARE SEED) COREX VILBORNIA (POX SEED) CYPERUS ESCULENTUS (POX) JUNCUS EFFUSUS (POX) JUNCUS TENNIS (POX)	UPL UPL UPL UPL UPL UPL UPL	0.20 0.20 0.20 0.20 0.20 0.20 0.20	
	15	HELIUM VITIFOLIUM (ANNUAL TREBLESSE) LELIDUM VITIFOLIUM (ANNUAL TREBLESSE) COREX SQUARROSA (SQUARE SEED) COREX VILBORNIA (POX SEED) CYPERUS ESCULENTUS (POX) JUNCUS EFFUSUS (POX) JUNCUS TENNIS (POX)	UPL UPL UPL UPL UPL UPL UPL	0.20 0.20 0.20 0.20 0.20 0.20 0.20	
	<b>SEEDING TOTALS</b>				137.20

- PLANTING AND SEEDING NOTES:**
1. IT IS EXPECTED AND PREFERRED THAT ALL SPECIES IN EACH OF THE SPECIES GROUPS ARE PLANTED. THE TOLERANCES LISTED IN THIS NOTE ARE INTENDED TO INDICATE THE RANGE OF TOLERANCES TO SPECIES AVAILABILITY. AT A MINIMUM, ALL OF THE 5 SPECIES IN GROUP 1, ALL OF THE 6 SPECIES IN GROUP 2, ALL OF THE 7 SPECIES IN GROUP 3, ALL OF THE 4 SPECIES IN GROUP 4, ALL OF THE 5 SPECIES IN GROUP 5, ALL OF THE 4 SPECIES IN GROUP 6 (WITH SALIX NIGRA A REQUIRED SPECIES), ALL OF GROUP 7.
  2. SUBSTITUTIONS FOR SELECTED SPECIES BASED UPON AVAILABILITY SHALL BE REQUESTED IN WRITING TO ENGINEER DOCUMENTING THE LACK OF AVAILABILITY IF THE FLEXIBILITY INHERENT IN THE ABOVE SCHEDULE IS STILL NOT SUFFICIENT. ENGINEER IS UNDER NO OBLIGATION TO APPROVE SUBSTITUTIONS.
  3. THE PLANTED TREES AND SHRUBS SHALL BE RANDOMLY SPACED AND SPECIES MIXED THROUGHOUT THE PLANTING AREAS.
  4. CONTAINER RATES AND QUANTITIES SHOWN FOR ONE GALLON SIZE FOR PLANTING ARE BASED UPON THE SPECIES RATES AND QUANTITIES FOR ONE GALLON CONTAINER PLANT IN THIS SCHEDULE. CONTRACTOR MAY PROVIDE A MIX OF CONTAINER AND TUBELING SIZES FOR EACH SPECIES REQUIREMENT. PROVIDED THE RATIO OF TUBELINGS TO CONTAINERS IS NOT LESS THAN 2:1. EXCEPTION -- GROUP 6 (STREAM EDGE) SHALL BE PLANTED IN ACCORDANCE WITH NOTE #5.
  5. GROUP 6 (STREAM EDGE) ZONE SHALL BE PLANTED WITH TUBELINGS, OR AS LIVES TAKES (SALIX NIGRA ONLY, AND ONLY BETWEEN FEBRUARY 1 AND MARCH 31) NO ONE GALLONS ARE TO BE USED FOR ANY OF THIS GROUP'S SPECIES.
  6. STREAM BANK AND STREAM EDGE ZONES SHALL BE PLANTED SUCH THAT THE COMBINED MIX OF SPECIES IS SPACED APPROX. 3' O.C. AND 1' O.C. RESPECTIVELY. THESE ZONES SHALL NOT BE PLANTED SUCH THAT EACH INDIVIDUAL SPECIES IN THESE ZONES IS PLANTED AT THESE RATES, RESULTING IN TIGHTER SPACING.
  7. ALL SEEDING RATES ARE EXPRESSED IN POUNDS OF PURE LIVE SEED (PLS).



**NORTHERN VIRGINIA STREAM RESTORATION BANK**  
COLVIN RUN - WHEEL SOUTH  
Fairfax County, Virginia

**Preliminary Plan**

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REVISIONS	No.	Date	Description	Rev. App. By	Date	Description	Rev. App. By

H. D.: VCS NAD 83 V. D.: NCVD 29

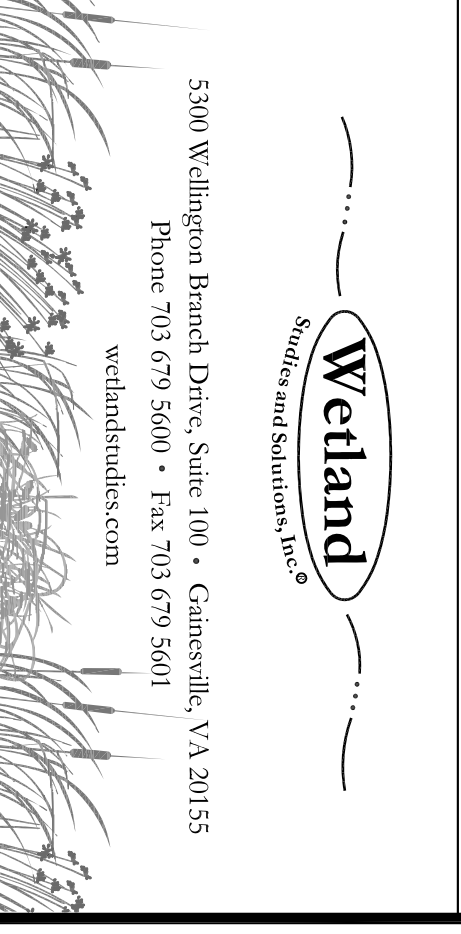
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Approved: [Signature] ERG

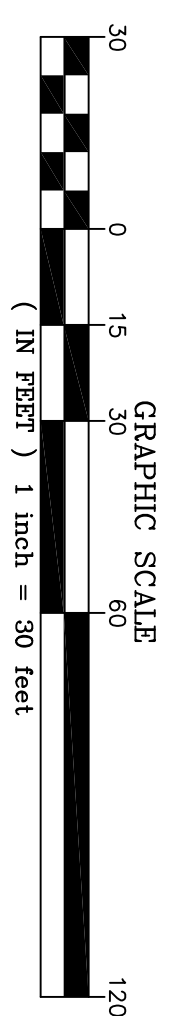
Sheet # 3 of 4

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**TREE SAVE PLAN LEGEND**

	TEMP. GRADING & CONST. ESMNT. & INGRESS-EGRESS ESMNT.		NEST
	PROPOSED STREAM ESMNT.		CAVITY
	PROPOSED STREAM ESMNT. TEMP. GRADING & CONST. ESMNT. & INGRESS-EGRESS ESMNT.		VERNAL POOL
	EXISTING CONTOURS (0.5')		SNAG
	EXISTING INFRASTRUCTURE		DEN
	FLOODPLAIN EASEMENT		ACCESS PATH
	NON-PERENNIAL STREAM (EXISTING TOP OF BANK)		LIMITS OF CLEANING / TREE PROTECTION FENCE
	PERENNIAL STREAM (EXISTING TOP OF BANK)		LIMITS OF CLEARING
	LIMITS OF TREE SURVEY		CHAINLINK FENCE
	PROPOSED BANKFILL TOP OF BANK		TREE TO BE REMOVED
	PROPOSED CENTERLINE		TREE NOT TO BE DISTURBED
	PROPOSED CONTOURS (0.5')		TREE DOWN, DAMAGED OR REMOVED



NORTHERN VIRGINIA STREAM RESTORATION BANK  
COL VIN RUN - WIEHLE SOUTH

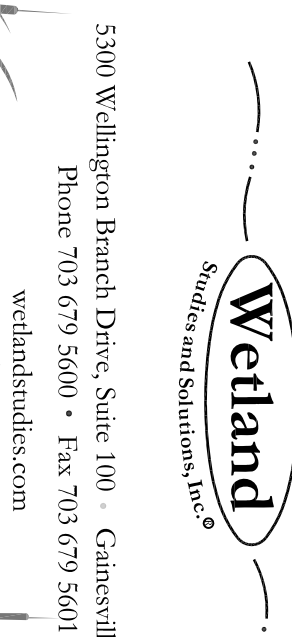
Fairfax County, Virginia  
Tree Save Plan

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