



VICINITY MAP
NTS

APPLE VALLEY RECORD DRAWINGS

HENDERSON COUNTY, NORTH CAROLINA

FRENCH BROAD RIVER BASIN: HUC 06010105

MARCH 2021

RESOURCE ENVIRONMENTAL SOLUTIONS, LLC

3600 GLENWOOD AVE, SUITE 100

RALEIGH, NC 27612



3600 Glenwood Ave, Suite 100
Raleigh, NC 27612
Main: 919.829.9909
www.res.us

Engineering Services Provided By:
RES Environmental Operating Company, LLC
License: F-1428

SEAL



PLOT DATE:
3/23/2021

REVISIONS:

RELEASED FOR:
RECORD DRAWINGS



Know what's below.
Call before you dig

NOTICE TO CONTRACTOR

PRIOR TO CONSTRUCTION, DIGGING, OR EXCAVATION THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL UNDERGROUND UTILITIES (PUBLIC OR PRIVATE) THAT MAY EXIST AND CROSS THROUGH THE AREA(S) OF CONSTRUCTION, WHETHER INDICATED ON THE PLANS OR NOT. CALL "811" A MINIMUM OF 72 HOURS PRIOR TO DIGGING OR EXCAVATING. REPAIRS TO ANY UTILITY DAMAGED RESULTING FROM CONSTRUCTION ACTIVITIES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.

PROJECT DIRECTORY

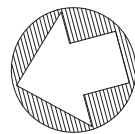
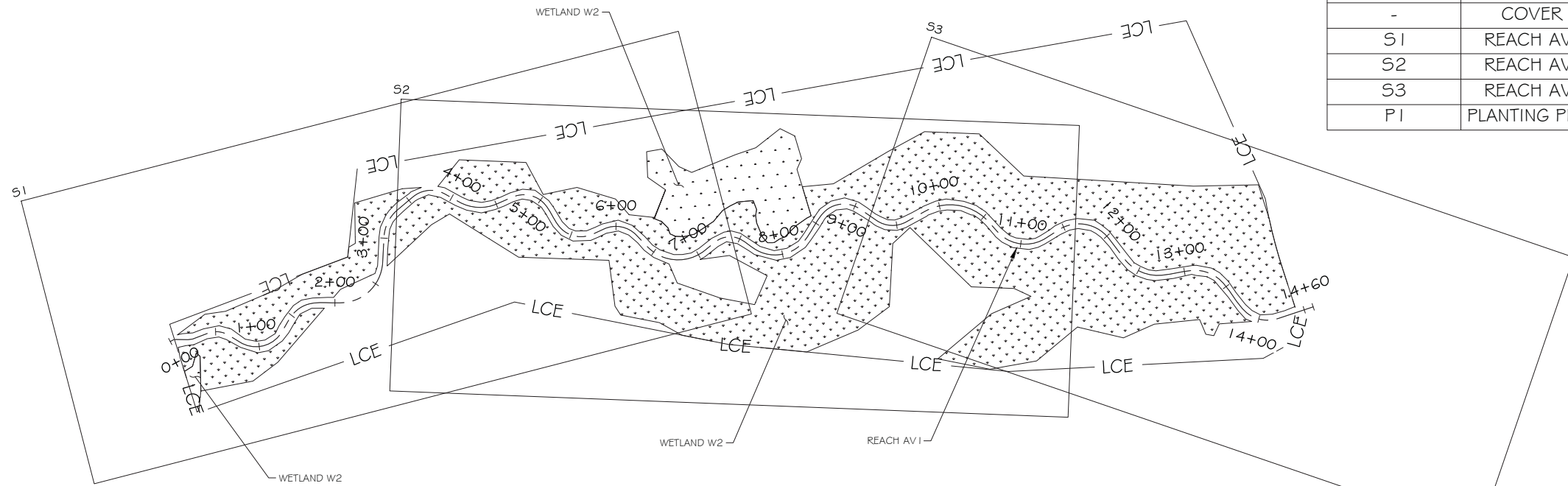
DESIGNED BY:
RESOURCE ENVIRONMENTAL SOLUTIONS, LLC
3600 GLENWOOD AVE., SUITE 100
RALEIGH, NC 27612

DESIGNED FOR:
HARRY TSOMIDES
NC DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF MITIGATION SERVICES
5 RAVENSCROFT DR., #102
ASHEVILLE, NC 28801

SURVEYED BY:
WSP USA, INC.
128 TALBERT RD.
SUITE A
MOORESVILLE, NC 28117

DMS PROJECT #: 100063
CONTRACT #: 7531
USACE ACTION ID #: SAW-2018-01150
RFP #: 16-007334

PROJECT TOPOGRAPHY AND AS-BUILT PLANIMETRICS SURVEY WAS PROVIDED BY WSP USA, INC (NC FIRM LICENSE NUMBER F-0165, J. BRANDON HICKS, NC PLS L-5219), DATED FEBRUARY 9, 2021

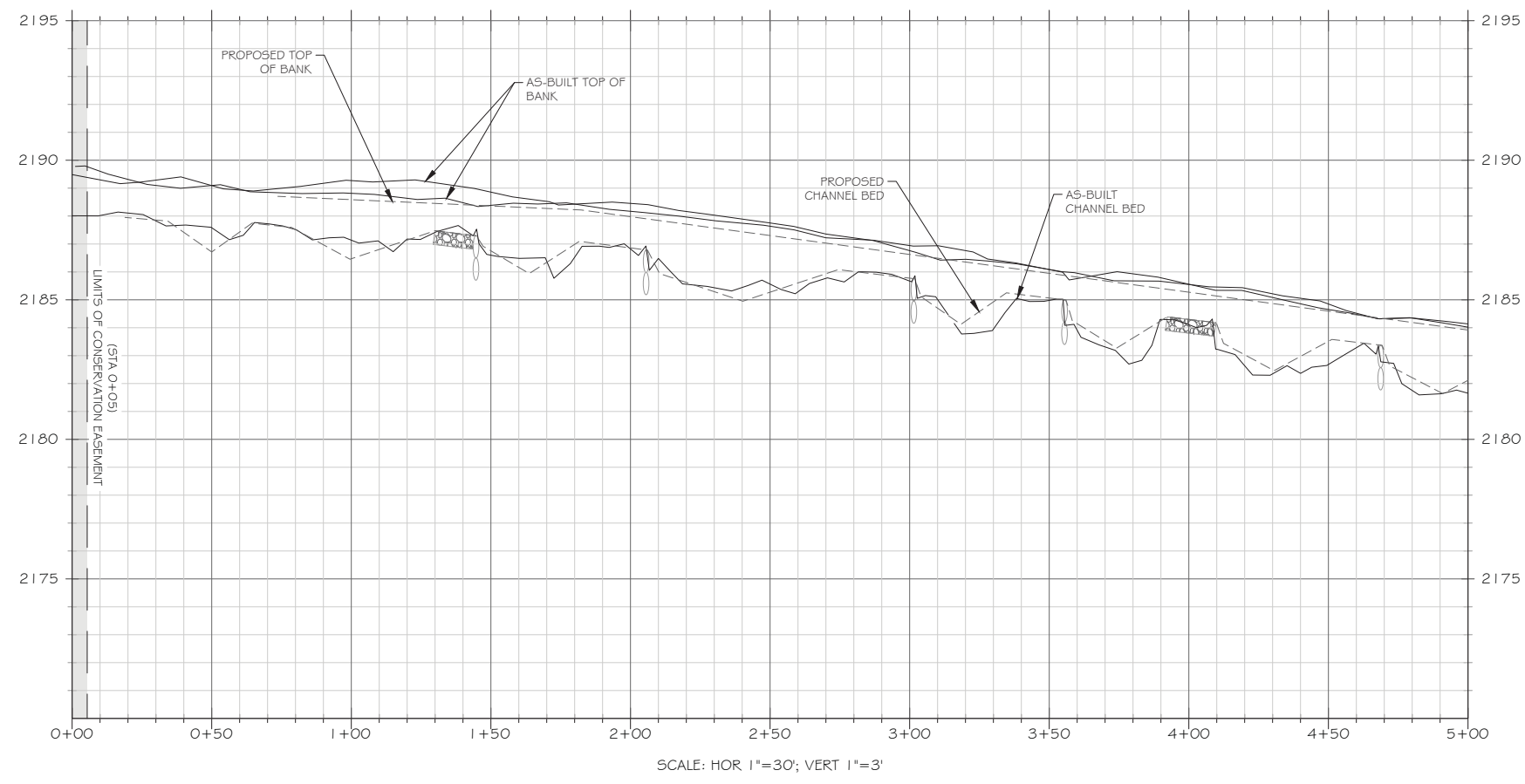
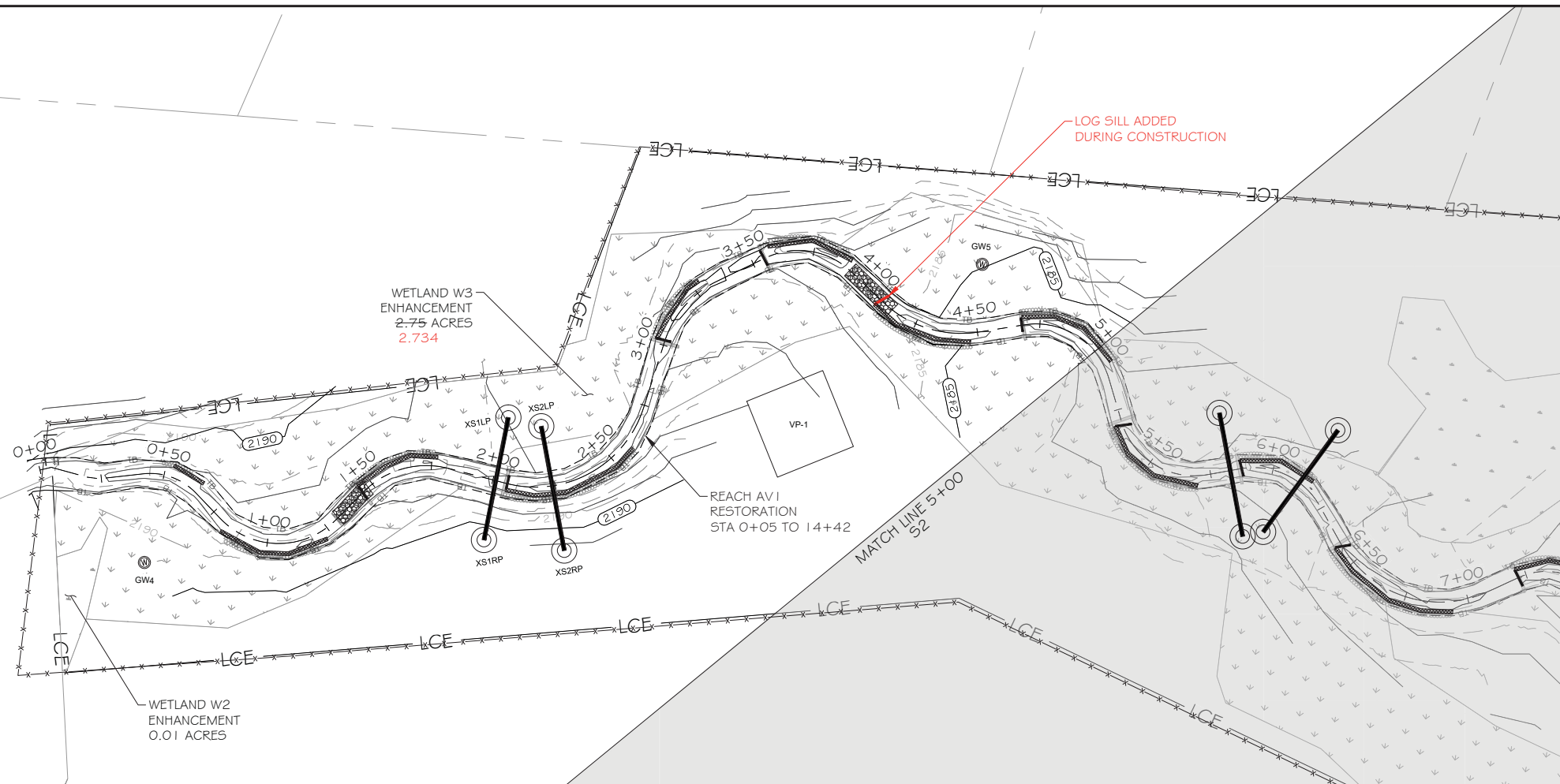


SITE MAP
NTS

| Sheet List Table | |
|------------------|---------------|
| Sheet Number | Sheet Title |
| - | COVER |
| S1 | REACH AV I |
| S2 | REACH AV I |
| S3 | REACH AV I |
| PI | PLANTING PLAN |

PROJECT LOCATION:
LAT: 35.419058°
LONG: -82.363181°

FILE NAME: R:\rescad\Projects\100911-Apple Valley\ABRL\100911_ABR_L_AVI.dwg SAVED BY: Stasking



LEGEND

| | |
|--|--|
| EXISTING WETLAND | |
| EXISTING OVERHEAD ELECTRIC UTILITY LINE | |
| PROPERTY LINE | |
| PROPOSED CONTOUR MAJOR | |
| PROPOSED CONTOUR MINOR | |
| PROPOSED TOP OF BANK | |
| PROPOSED CHANNEL CENTERLINE | |
| AS-BUILT CONTOUR MAJOR | |
| AS-BUILT CONTOUR MINOR | |
| AS-BUILT TOP OF BANK | |
| AS-BUILT CHANNEL CENTERLINE | |
| BRUSH TOE PROTECTION | |
| LOG SILL | |
| ROCK CROSS VANE | |
| RIFFLE GRADE CONTROL | |
| AS-BUILT BRUSH TOE | |
| AS-BUILT LOG STRUCTURE | |
| AS-BUILT ROCK CROSS VANE | |
| AS-BUILT RIFFLE GRADE CONTROL | |
| AS-BUILT CROSS-SECTION | |
| AS-BUILT WETLAND GAUGE | |
| AS-BUILT CREST GAUGE | |
| AS-BUILT VEGETATION MONITORING PLOT | |
| LIMITS OF PROPOSED CONSERVATION EASEMENT | |

NOTE: ALL SIGNIFICANT CHANGES FROM THE DESIGN ARE SHOWN IN RED

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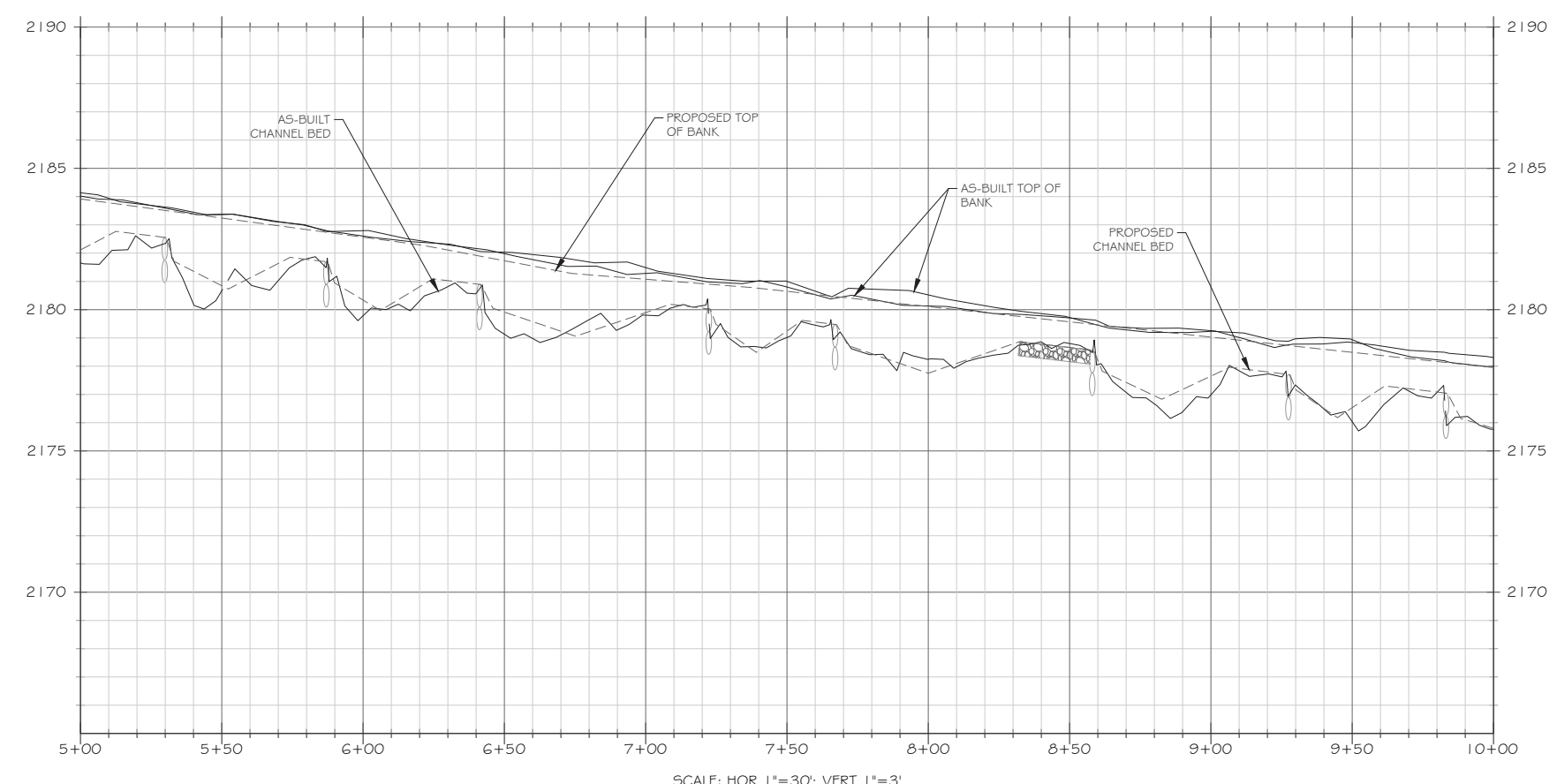
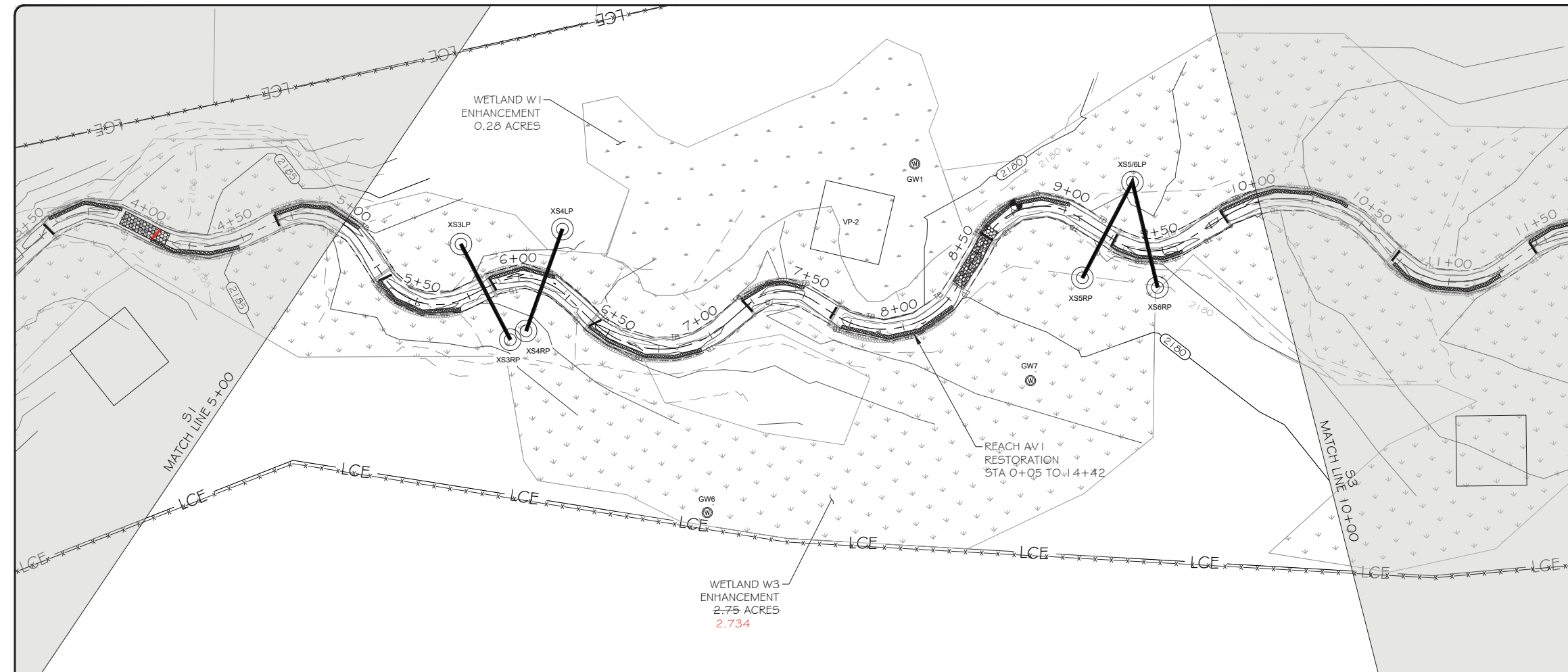
PROJECT NAME:
APPLE VALLEY RECORD DRAWINGS
HENDERSON COUNTY, NORTH CAROLINA

DRAWING TITLE:
REACH AV1

PROJECT NUMBER: 100911
PROJECT MANAGER: BPB
DESIGNED: DIS
DRAWN: SCF
CHECKED: AFM

SHEET NUMBER:
S1

DMS PROJECT #: 100063



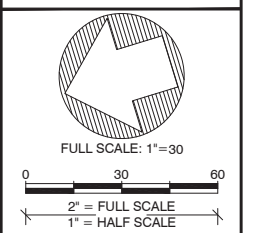
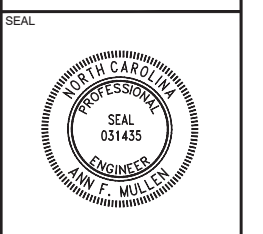
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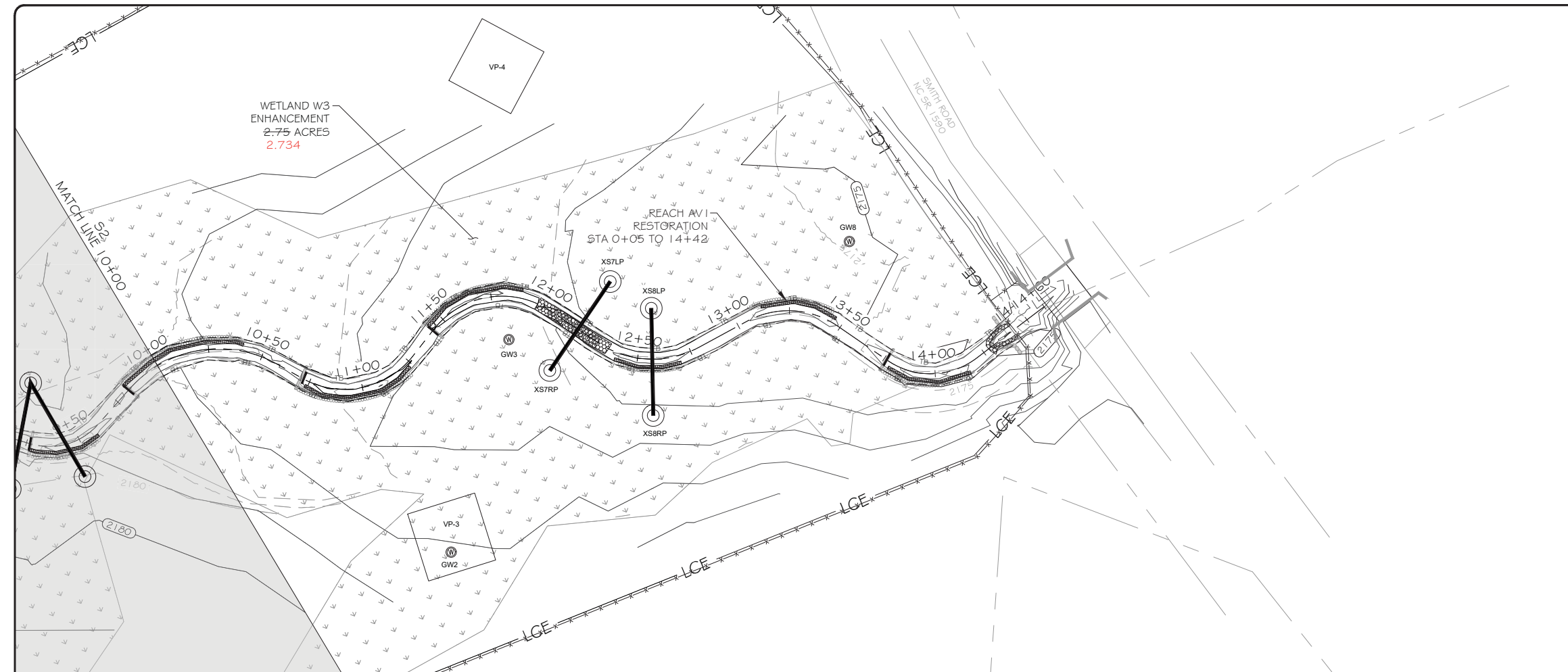
DRAWING TITLE:
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PROJECT NUMBER: 100911
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DESIGNED: DIS
DRAWN: SCF
CHECKED: AFM

SHEET NUMBER:
S2

DMS PROJECT #: 100063

FILE NAME: R:\rescad\Projects\100911-Apple Valley\ABRL\100911_ABR_L_AV1.dwg SAVED BY: Stasking



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SEAL

ANN F. MULLEY
ENGINEER
SEAL 031435
NORTH CAROLINA PROFESSIONAL ENGINEER

FULL SCALE: 1"=30'
0 30 60
2" = FULL SCALE
1" = HALF SCALE

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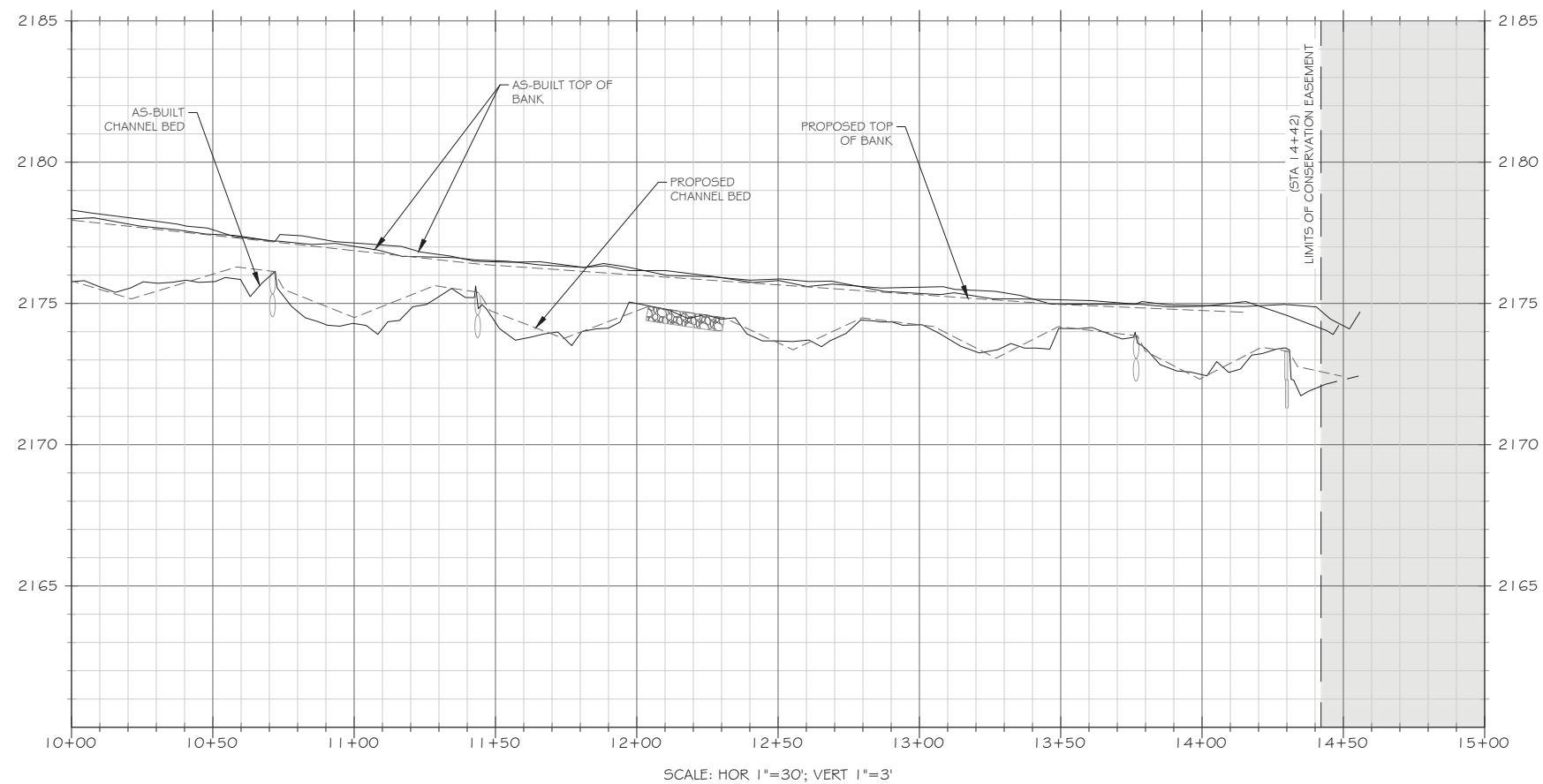
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DRAWING TITLE:
REACH AV1

PROJECT NUMBER: 100911
PROJECT MANAGER: BPB
DESIGNED: DIS
DRAWN: SCF
CHECKED: AFM

SHEET NUMBER:
S3

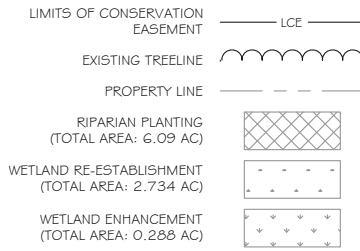
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FILE NAME: R:\Research\Projects\100911-Apple Valley\ABRL\100911_ABRL_SITE.dwg SAVED BY: Staking

PLANTING LEGEND



PLANTING TABLE

| Permanent Riparian Seed Mix | | |
|-----------------------------|-----------------------------------|---------------------|
| Common Name | Scientific Name | Percent Composition |
| Virginia Wildrye | <i>Elymus virginicus</i> | 25% |
| Indian Grass | <i>Sorghastrum nutans</i> | 25% |
| Little Blue Stem | <i>Schizachyrium scoparium</i> | 10% |
| Orange Jewelweed | <i>Impatiens capensis</i> | 10% |
| Blackeyed susan | <i>Rudbeckia hirta</i> | 10% |
| Deertongue | <i>Dichanthelium clandestinum</i> | 10% |
| Common Milkweed | <i>Asclepias syriaca</i> | 5% |
| Showy Goldenrod | <i>Solidago erecta</i> | 5% |

| Live Staking and Live Cuttings Bundle Tree Species | | |
|--|------------------------|---------------------|
| Common Name | Scientific Name | Percent Composition |
| Black willow | <i>Salix nigra</i> | 50% |
| Tag alder | <i>Alnus serrulata</i> | 50% |

| Bare Root Planting Tree Species | | |
|---------------------------------|----------------------------------|---------------------|
| Common Name | Scientific Name | Percent Composition |
| American sycamore | <i>Platanus occidentalis</i> | 15% |
| River Birch | <i>Betula nigra</i> | 15% |
| Northern red oak | <i>Quercus rubra</i> | 15% |
| Sugarberry | <i>Celtis laevigata</i> | 10% |
| Persimmon | <i>Diospyros virginiana</i> | 10% |
| Blackgum | <i>Nyssa sylvatica</i> | 10% 0% |
| Buttonbush | <i>Cephalanthus occidentalis</i> | 10% 15% |
| Tulip poplar | <i>Liriodendron tulipifera</i> | 10% |
| Chestnut oak | <i>Quercus montana</i> | 5% 10% |

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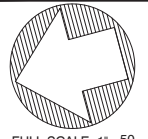
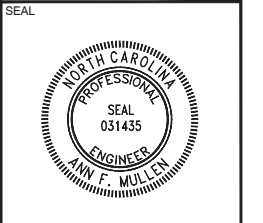
PLANTING NOTES

- ALL PLANTING AREAS**
- EROSION CONTROL MEASURES SHALL BE PROPERLY MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED AND FINAL APPROVAL HAS BEEN ISSUED. THE CONTRACTOR SHALL INSPECT EROSION CONTROL MEASURES AT THE END OF EACH WORKING DAY TO ENSURE MEASURES ARE FUNCTIONING PROPERLY.
 - DISTURBED AREAS NOT AT FINAL GRADE SHALL BE TEMPORARILY VEGETATED WITHIN 10 WORKING DAYS. UPON COMPLETION OF FINAL GRADING, PERMANENT VEGETATION SHALL BE ESTABLISHED FOR ALL DISTURBED AREAS WITHIN 10 WORKING DAYS. SEEDING SHALL BE IN ACCORDANCE WITH EROSION CONTROL PLAN.
 - ALL DISTURBED AREAS SHALL BE PREPARED PRIOR TO PLANTING BY DISC OR SPRING-TOOTH CHISEL FLOW TO MINIMUM DEPTH OF 1.2 INCHES. MULTIPLE PASSES SHALL BE MADE ACROSS PLANTING AREAS WITH THE IMPLEMENT AND THE FINAL PASS SHALL FOLLOW TOPOGRAPHIC CONTOURS.
 - BARE ROOT AND LIVE STAKE TREE SPECIES SHALL FOLLOW THE COMPOSITION SHOWN IN THE TABLE TO THE LEFT. SPECIES MAY BE SUBSTITUTED BASED ON AVAILABILITY.
 - BARE ROOT AND LIVE STAKE TREE SPECIES SHALL BE PLANTED ACCORDING TO THEIR RESPECTIVE DETAILS.
 - BARE ROOT PLANTING DENSITY IS APPROXIMATELY 800 STEMS PER ACRE. SPECIES SHALL BE DISTRIBUTED SUCH THAT 3 TO 6 PLANTS OF THE SAME SPECIES ARE GROUPED TOGETHER.
 - TREATMENT/REMOVAL OF INVASIVE SPECIES, PINES AND SWEET GUMS LESS THAN 6" DBH SHALL BE PERFORMED THROUGHOUT THE PLANTED AREA.
 - TEMPORARY SEED MIX SHALL BE APPLIED AT A RATE OF 150 LBS/ACRE TO ALL DISTURBED AREAS WITH SLOPES EQUAL TO OR STEEPER THAN 3:1.
 - PERMANENT RIPARIAN SEED MIX SHALL BE APPLIED TO ALL DISTURBED AREAS WITHIN THE CONSERVATION EASEMENT AT A RATE OF 15 LBS/ACRE.



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