



INVITATION FOR BIDS (IFB)

COVE CREEK ROAD AQUATIC ORGANISM PASSAGE **NATIONAL FOREST STATE ROAD 809** COVE CREEK CAMPGROUND

RELEASE DATE: MAY 12, 2020

BID DUE DATE: JUNE 23, 2020 BY 4:00PM EST

MANDATORY PRE-BID MEETING: THURSDAY, MAY 28TH 3:00PM

**TRANSYLVANIA COUNTY ADMINISTRATION COMMISSIONERS
CHAMBERS**

QUESTIONS DUE: JUNE 9, 2020 BY 5:00PM EST

INTRODUCTION

Transylvania County, hereby referred to as (Owner) will be accepting bids from licensed contractors hereby referred to as (contractor) for **THE COVE CREEK ROAD AQUATIC ORGANISM PASSAGE, NATIONAL FOREST STATE ROAD 809, COVE CREEK CAMPGROUND.**

SCOPE OF WORK

The project consists of replacing the current approach with an aquatic organism passage as detailed in the attached Cove Creek AOM issued by the USDA Forest Service Region 8.

This information will be reviewed in full detail at the mandatory pre-bid meeting on Tuesday, March 24th at 2pm at Transylvania County Administration Building located at 101 South Broad Street, Brevard, NC 28712.

*****SEE DRAWINGS AND ATTACHED DOCUMENTS FOR MORE INFORMATION ABOUT THE SCOPE OF WORK*****
Hard copies can be picked up at the MANDATORY PRE BID MEETING.

GENERAL CONDITIONS

Materials, Equipment and Employees

The Contractor shall, unless otherwise specified, supply and pay for all labor, transportation, materials, tools, apparatus, lights, and incidentals necessary for the completion of his work; install, maintain, and use all equipment and other utensils required for construction in a safe, proper and lawful manner and remove same from the site upon completion; construct in the best and most workmanlike manner a complete job and everything incidental thereto, as described in the attached Scope of Work, and in accordance with the requirements of the contract documents.

Any proposed work that is beyond the defined Scope of Work must be approved in writing by the Owner prior to its commencement.

Any and all subcontractors that perform work on behalf of the Contractor must be listed in the Bid Form and approved by the Owner. Any changes to the subcontractor listing in the Bid Form, whether it be the subcontractor themselves or the type of work performed by a listed subcontractor must be approved in writing by the Owner prior to them beginning work.

The Contractor shall direct the work or designate a superintendent who shall direct the work and who has the authority to act for the Contractor. The Owner may appoint one or more representatives to act on the County's behalf.

All work under this contract shall conform to the current North Carolina Building Code and other state and national codes as are applicable.

Safety Requirements

The Contractor shall be responsible for and provide all the necessary protections for persons and property as required by laws or ordinances governing such conditions and as required by the Owner. Contractor shall adhere to the rules, regulations, and interpretations of the North Carolina Department of Labor relating to Occupational Safety and Health Standards for the Construction Industry, the AGC Accident Prevention Manual in Construction, and North Carolina Building Code requirements.

Contractor shall be responsible for any damage to the landowner's property or that of others on the job, by himself or his personnel and shall make good such damages. Contractor shall be responsible for and pay for any claims against the Owner arising from such damages.

The Contractor shall take reasonable precautions for safety of and shall provide reasonable protection to prevent damage, injury or loss to the following:

1. Employees on the work and other persons who may be affected
2. Work materials and equipment to be incorporated therein, whether in storage on or off site under care and custody of the contractor
3. Any property at the site or adjacent thereto, such as trees, shrubs, lawns, walks, pavements, roadways, structures, and utilities not designated for removal, relocation or replacement in the course of construction.

Contractor shall clearly mark or post signs warning of hazards existing, and shall barricade excavations and similar hazards, and shall protect against damage or injury resulting from falling materials. Contractor shall maintain all protective devices and signs throughout the progress of the work, clearly mark or post signs warning of hazards existing, and shall barricade excavations and similar hazards. Contractor shall protect against damage or injury resulting from falling materials and he shall maintain all protective devices and signs throughout the progress of the work.

General Insurance Requirements

The Contractor must have, or obtain, and maintain an insurance policy that meets the following minimum requirements:

1. shall be issued by an insurance carrier acceptable to the Owner;
2. shall be kept in force throughout performance of the General Contractor's services and for one (1) year after the end of such performance;
3. shall be an occurrence policy; and,
4. shall be evidenced by a certificate of insurance acceptable to the Owner which provides that the coverage evidenced thereby shall not be substantially modified or canceled without twenty-eight (28) calendar days prior written notice to the Owner. Transylvania County must be listed as an additional insured on the certificate with a notation of the project name.
5. Limits of coverage to be included on certificate of insurance are:
 - General Liability: \$1,000,000 per Occurrence / \$2,000,000 Aggregate
 - Automobile Liability: \$1,000,000 per occurrence
 - Worker's Compensation: \$500,000

Clean Up

The Contractor shall keep the site and surrounding area reasonably free from rubbish at all times and shall remove debris from the site from time to time or when directed to do so by the Owner. Before final inspection and acceptance of the project, the Contractor shall thoroughly clean the site, and completely prepare the project and site for use by Transylvania County.

Permits

It will be the responsibility of the Owner to apply for and acquire any and all applicable permits.

Mediation and Arbitration

Should a claim or dispute arise related to this contract, the Owner and the Contractor agree to follow the procedure described by North Carolina in its Alternative Dispute Resolution Program, whereby the parties make a good faith effort to resolve conflicts through mediation or, in the event mediation fails, through binding arbitration before legal action is initiated. The costs of mediation and binding arbitration are shared equally by the parties.

BID PROCESS AND INSTRUCTIONS TO BIDDERS

Standard Form Requirements

Contractors submitting a Bid represent that they have read and understand this Invitation for Bid (IFB), have visited the site, are qualified to perform the work described in the Scope of Work, and agree to comply with the stipulations presented in the General Conditions.

Bidding Documents

Contractors may pick up all necessary Bidding Documents from the Owner in person at the County's Finance Office at 101 South Broad Street, Brevard, NC 28712. The Owner does not assume responsibility for errors of misinterpretation resulting from the use of incomplete documents. It is the responsibility of each contractor to inquire directly with the Owner about any aspect of the Bidding Documents that is not fully understood or is believed to be susceptible to more than one interpretation. **Transylvania County will accept all questions following the mandatory pre-bid meeting regarding this IFB in writing until 5:00 pm EST on JUNE 9, 2020.** Written questions can be submitted to Jennifer Galloway, 101 South Broad Street, Brevard, NC 28712 or emailed to jennifer.galloway@transylvaniacounty.org.

Mandatory Pre-Bid Meeting will be held on THURSDAY, MAY 28TH, AT 3PM EST in TRANSYLVANIA COUNTY ADMINISTRATION BUILDING.

Interpretations, corrections and changes of Bidding Documents will be made by Addendum. Revisions to Bidding Documents made in any other manner will not be binding, and Bidders shall not rely upon them.

Each Bidder shall ascertain prior to submitting a Bid that he has received all Addenda issued and shall acknowledge their receipt on the Bid Form. Failure to acknowledge receipt of all addenda may cause the bid to be considered non-responsive, and therefore rejected.

Submission of Bid

Transylvania County will receive bids by mail or delivered in person no later than 4:00 PM EST on JUNE 23, 2020 at the address below. Bids received after this time will not be accepted.

One (1) copy of the bid is to be submitted on the Bid Form provided in the Bid Package. Submit bids addressed to:

**Jennifer Galloway, Purchasing Agent
Transylvania County
101 South Broad Street
Brevard, NC 28712**

Please clearly label envelope with Project Name, Bidders Name, and License Number on the outside of envelope. Transylvania County reserves the right to waive irregularities and to reject any and all bids.

All information requested on the attached Bid Form must be provided. If an item is not applicable, please indicate so by writing in "N/A".

Incomplete forms may cause the bid to be considered non-responsive, and therefore rejected.

Consideration of Bids

Transylvania County will review and evaluate the Bids on the following criteria:

- Ability to comply with General Conditions in the IFB and the General Information in the Specifications.
- References
- Cost
- Projected completion date of project/ the number of days estimated to complete project.

Award and Notification

The award will be granted to the Contractor who submits the best overall bid as determined by Transylvania County using the evaluation criteria outlined above. The contract shall be awarded to the lowest responsible, responsive bidder, taking into consideration quality, performance, and the ability to complete the project within given scheduling constraints. The Owner will notify the selected bidder in writing. The Contractor should be prepared to have the bid incorporated, along with all other written correspondence concerning this IFB, into the contract. Any false or misleading statements found in the bid will be grounds for disqualification. All bids submitted shall be valid for a period of 45 days from the deadline for submitting the bid.

Right to Reject Bids

Transylvania County reserves the right to reject any or all bids, with or without cause, when such rejection is determined to be in the interest of the Owner. Transylvania County also reserves the right to reject the bid of a Bidder who has previously failed to perform properly or complete on time contracts of a similar nature, or who is not in a position to provide the terms and conditions of the project as determined by the Owner.

CONTRACT

It is expressly understood by bidders that a contractual agreement must be properly signed and executed by the Owner and the Contractor to consummate the transaction prior to commencement of work on the project.

Contract Requirements

Contract

Upon acceptance and award of a contractor's bid, the contract between the Contractor and the Owner shall be comprised of (a) the IFB and addenda, (b) the selected bid (response to the IFB by the Contractor) and any attachments thereto, (c) the contract documents as defined in the IFB and (d) all other written communications between the Owner and the Contractor concerning the transactions. The IFB will govern in the event of conflict between the IFB and the selected bid.

The contract shall constitute the entire and only agreement and shall supersede all prior negotiations, commitments, understandings, or agreements, whether oral or written.

Bidder Incurred Costs

The Owner will not be liable for any cost incurred by Bidders prior to the contract award date.

Payment

Payment terms will be negotiated with the awarded Bidder. Preferred method is net 30.

Default

In case of default by the Contractor, the Owner may procure the articles and/or services called for in the contract from other sources and hold the Contractor responsible for any excess cost associated therewith. The performance of the contract may be terminated by Transylvania County in accordance with this clause, in whole or in part, in writing whenever the County shall determine that the Contractor has failed to meet performance requirements of the contract.

Assignment

The Contractor shall not assign, transfer, convey, sublet, or otherwise dispose of its agreements with the Owner; its rights, title, or interest herein; or its power to execute such agreement to any other person, company, or corporation without the previous consent and approval in writing by Transylvania County.

Governing Law and Forum

The contract between the Owner and the Contractor shall be governed in accordance with the laws of the State of North Carolina.

Amendments and Modifications of Contract; Waiver of Contract Terms

The contract between the Owner and the Contractor shall not be amended or modified, nor any of its terms waived, except in writing and executed by the party against whom enforcement of the amendment, modification, or waiver is sought.

Indemnification

The Contractor shall indemnify and hold Transylvania County, its officers, agents, and employees harmless from liabilities, obligations, losses, claims, damages, actions, suits, proceedings, costs, and expenses, including attorneys' fees that (a) arise out of, are connected with, or result directly or indirectly from the Contractor's failure to perform any of its obligations under this IFB; or (b) result from any negligent act or omission of the Contractor, its employees or agents in the performance of services; or (c) are a result of breach of any of the Contractor's warranties. The indemnification responsibilities created by this section shall survive and be enforceable after the contract between the Owner and the Contractor terminates or expires, and they shall be terminated only by the written agreement of the Contractor and the Owner.

BID FORM

TO: Jennifer Galloway
Transylvania County Finance Office
101 South Broad Street
Brevard, NC 28712

I have received the documents entitled: **COVE CREEK AOP**

I have received Addenda #____ #____ #____ and have included their provisions in my Proposal. I have examined both the documents and the site and submit the following proposal. This proposal includes all work as indicated in the Drawings and Specifications.

In submitting this proposal, I agree:

1. To hold my bid open for 90 days.
2. To enter into and execute a Contract, if awarded, on the basis of this proposal.
3. To accomplish the work in accordance with the Contract Documents.
4. To provide all required documentation regarding sales tax information associated with this project to the Owner in accordance with government requirements in order for the Owner to receive reimbursement.
5. To provide Transylvania County with Certificate of Insurance with coverages as outlined in the bid package.
6. TO BE ABLE TO BEGIN WORK BETWEEN THE DATES OF APRIL 16 TO APRIL 30.

For consideration of your bid, please provide the following information.

BUSINESS INFORMATION

Name of business and location(s) of business:

Please provide current NC Contractors License number(s): _____

REFERENCES

Please provide information on three projects completed within the past five years that demonstrate experience and expertise in the types of work outlined in the Scope of Work.

Project Description	Owner Name	Phone Number	Email Address

OFFER

Having read the IFB and examined the site of the Project Site and reviewed the bid documents, I hereby offer to enter into a contract to perform the repairs as presented in the Scope for COVE CREEK AOP Located at Community Services Building, 106 Morgan Street, Brevard, NC 28712.

ESTIMATED START DATE: _____

ESTIMATED COMPLETION DATE: _____

BASE BID- I will construct this project for the lump-sum price of:

\$ _____

Numerical amount

Written amount

It is understood that the lump-sum price will include required labor, tools, equipment, transportation, services and incidentals; the erection, application or installation of an item of the work being performed, and overhead and profit.

DATE: _____ SIGNED: _____
(name and position with business)

BUSINESS

NAME: _____

ADDRESS: _____

PHONE NUMBER: _____ E-MAIL ADDRESS: _____

BIDDERS CHECK LIST:

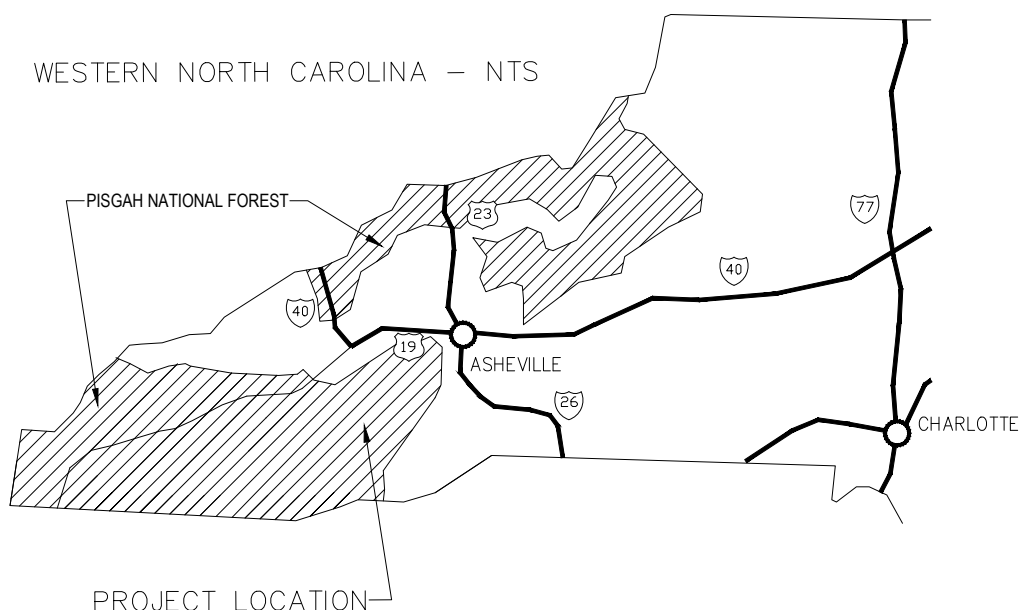
1. One Copy of Bid Form

- a. Note Addenda Received (all Addenda issued by number)
- b. E-VERIFY
- c. Bid Form must be completely filled in to be considered responsive and responsible.

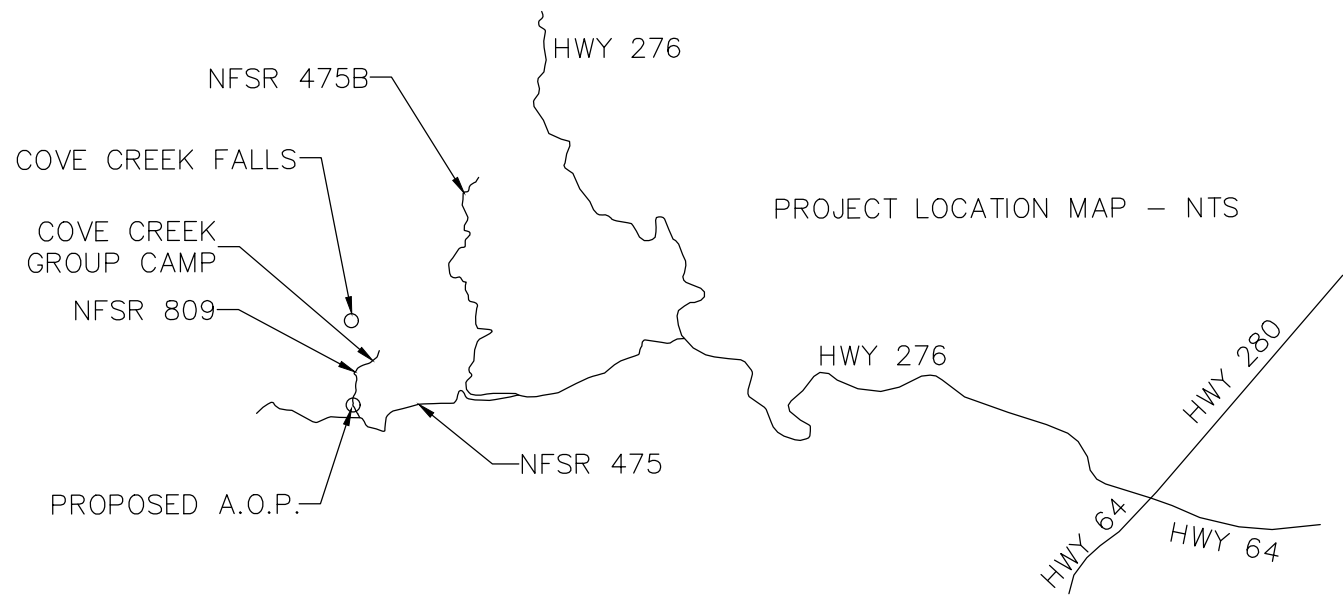
NATIONAL FORESTS IN NORTH CAROLINA

PISGAH RANGER DISTRICT

NFSR #809 COVE CREEK RD AQUATIC ORGANISM PASSAGE



SHEET NO	CONTENT
1	COVER SHEET
2	PROJECT NOTES
3	EXISTING SITE SURVEY FROM WES COLE LAND SURVEYING
4	EXISTING SITE AERIAL PHOTOGRAPH
5	AQUATIC ORGANISM PASSAGE (A.O.P) SITE PLAN
6	STREAM DIVERSION AND DEWATERING DETAILS
7	GENERAL A.O.P. CULVERT DETAILS
8	A.O.P. CULVERT END VIEW AND CROSS SECTIONS
9	HEADWALL AND WINGWALL FOUNDATION PLAN
10	FOOTING AND HEADWALL DETAILS
11	TYPICAL ROAD SECTIONS
12	EROSION CONTROL SITE SCHEMATIC
13	EROSION CONTROL NOTES AND DETAILS
14	TEMPORARY ACCESS PLAN
15	TEMPORARY CONSTRUCTION SIGNS



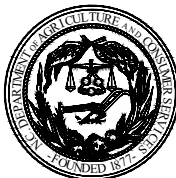
THE CREEK IN WHICH THIS WORK IS PROPOSED CONTAINS TROUT AND THE NC TROUT MORATORIUM WILL BE IN EFFECT. NO WORK MAY OCCUR IN THE CREEK OR WITHIN 25' OF THE CREEK BETWEEN OCTOBER 15 AND APRIL 15, UNLESS THE NORTH CAROLINA WILDLIFE COMMISSION ALLOWS A SHORTER MORATORIUM.



USDA
FOREST SERVICE
REGION 8

IN COOPERATION WITH

NCDA&CS
DIVISION OF SWC
TECHNICAL SERVICES



RECOMMENDED BY:

FOREST ENGINEER

DATE

DISTRICT RANGER

DATE

APPROVED BY:

R8 DIRECTOR OF ENGINEERING

DATE

FOREST SUPERVISOR

DATE

REVIEWED BY:

J. BELFLOWER

DRAWN BY:

1

15

GENERAL NOTES:

1. FOR THIS PROJECT STANDARD SPECIFICATIONS FOR CONSTRUCTION OF ROADS AND BRIDGES ON FEDERAL HIGHWAY PROJECTS AND SPECIAL PROJECT SPECIFICATIONS WILL BE USED, HEREINAFTER REFERRED TO AS FP-14.
2. STORAGE OF ALL EQUIPMENT ON SITE WILL BE AT THE CONTRACTOR’S RISK AND AT A LOCATION APPROVED BY THE CONTRACTING OFFICER.
3. CONSTRUCTION EQUIPMENT SHALL BE CONFINED TO THE ROADWAY, UNLESS OTHERWISE APPROVED BY THE CONTRACTING OFFICER.
4. ALL EXCAVATION IS CONSIDERED TO BE UNCLASSIFIED REGARDLESS OF MATERIAL ENCOUNTERED.
5. CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIR OF DAMAGE TO NATIONAL FOREST ROADS DUE TO TRANSPORTATION OF CONTRACTORS EQUIPMENT AND OR MATERIALS.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR DIVERSION OF WATER DURING CONSTRUCTION AS REQUIRED; CONTRACTOR SHALL FOLLOW C.O.R.’S GUIDANCE AND EXERCISE EXTREME CAUTION TO ENSURE WATER QUALITY.
7. EACH CULVERT’S LOCATION, LENGTH AND SKEW SHALL BE FIELD VERIFIED BY THE CONTRACTOR AND APPROVED BY THE CONTRACTING OFFICER PRIOR TO ORDERING.
8. WOODY MATERIAL CUT DURING CULVERT INSTALLATION SHALL BE SCATTERED OUTSIDE THE CLEARING LIMITS OR DISPOSED OF ACCORDING TO GUIDANCE FROM THE COR.
9. EXISTING CULVERTS TO BE REMOVED ARE THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM NATIONAL FOREST LANDS AND DISPOSED OF PROPERLY.
10. FILL SLOPE= 1.5(H):1(V), CUT SLOPE=1:1, OR AS STAKED BY THE CONTRACTING OFFICER OR AS SHOWN ON THE PLANS.
11. WOODY MATERIAL GREATER THAN 2” IN DIAMETER OR LONGER THAN 3’ SHALL NOT BE INCORPORATED INTO CONSTRUCTED FILLS.
12. DEPTHS OF MATERIALS SHOWN ON THE PLANS ARE FINAL IN-PLACE COMPACTED DEPTHS.
13. ALL RIPRAP SHALL BE PLACED BY HAND OR MACHINE, NOT SIDE CAST OR END DUMPED.
14. ALL PERMANENT SIGNS SHALL BE SECURED WITH TAMPER-RESISTANT HARDWARE APPROVED BY THE CONTRACTING OFFICER.
15. PRIOR TO ANY EXCAVATION, CALL ”NORTH CAROLINA ONE-CALL CENTER” AT 1-800-632-4949.
16. THE CONTRACTOR IS RESPONSIBLE FOR ALL TRAFFIC CONTROL INCLUDING TEMPORARY SIGNING AND PROTECTION OF THE PUBLIC. SIGNAGE BEYOND THOSE SHOWN ON THE DRAWINGS MAY BE REQUIRED. THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN TO THE C.O.R. FOR APPROVAL.
17. TRAFFIC CONTROL SIGNS SHALL CONFORM TO MUTCD SPECIFICATIONS.
18. ALL DRAINAGE STRUCTURES CONSTRUCTED/RECONSTRUCTED/RECONDITIONED SHALL BE CONSTRUCTED/RECONSTRUCTED/RECONDITIONED TO DRAIN.
19. STATIONS/MILEPOSTS IDENTIFIED FOR AGGREGATE PLACEMENT ARE FULL DEPTH, CONTRACTOR SHALL TAPER AGGREGATE AS SHOWN ON PLANS OR, IF NOT SHOWN, TAPER 10’ AHEAD AND BACK OF THE DEFINED STATION/MILEPOST, FOR A SMOOTH TRANSITION.
20. ALL STAKES AND FLAGGING IN THE FIELD THAT WERE USED FOR PROJECT IMPLEMENTATION SHALL BE GATHERED & REMOVED FROM FOREST LAND BY THE CONTRACTOR PRIOR TO FINAL ACCEPTANCE OF THE PROJECT. THIS WORK IS CONSIDERED PART OF MOBILIZATION AND NO SEPARATE PAYMENT WILL BE MADE.
21. COR APPROVAL IS REQUIRED PRIOR TO PLACEMENT OF THE FOLLOWING ITEMS: CONCRETE FORMS, STRUCTURAL OR LEAN CONCRETE, STREAM FLOW THROUGH BYPASS PIPE OR OVER NEWLY CONSTRUCTED STREAM BED, BACKFILLING AROUND PIPE ARCH OR FOOTINGS, CRUSHED AGGREGATE BASE / SURFACING.
22. DESIGN LOADING: HL-93 LIVE LOADS, DEAD LOAD, LOADS DUE TO EARTH PRESSURE

GENERAL NOTES: PAY ITEMS

1. CONTRACTOR IS RESPONSIBLE FOR PROTECTION OF ALL SURVEY STAKES AND MONUMENTS AND QUALITY CONTROL, NO SEPARATE PAYMENT WILL BE MADE.
2. CLEARING REQUIRED FOR CONSTRUCTION, RECONSTRUCTION, MAINTENANCE, INSTALLATION OF OUTLET DITCHES, CULVERT INSTALLATIONS AND RIPRAP PLACEMENT IS INCIDENTAL TO THAT WORK REQUIREMENT AND NO SEPARATE PAYMENT WILL BE MADE.
- 301 AGGREGATE SURFACE COURSE: THIS ITEM INCLUDES ALL ABC STONE USED IN PROJECT, INCLUDING SURFACING, SHOULDERS, TURNOUTS, TURNAROUNDS, & CURVE WIDENING.
- 303 ROAD RECONDITIONING: WORK REQUIRED TO RECONDITION EXISTING ROADS AND DRAINAGEWAYS IS INCIDENTAL TO RECONDITIONING AND NO SEPARATE PAYMENT WILL BE MADE. EXAMPLES INCLUDE ADDITION OF GRAVEL, DITCH REPAIR, SHOULDER RESHAPING, ETC.

RECONDITIONING OF ROAD OR DITCH LINES SHALL NOT UNDERCUT BACKSLOPE. WHERE UNDERCUTTING IS DONE THE BACKSLOPE (CUT-SLOPE) SHALL BE RESHAPED AND SEEDED.
- 602 A.O.P. CULVERT INSTALLATION NOTES:

CLEARING AND SLOPE ROUNDING REQUIRED FOR CULVERT INSTALLATION IS INCIDENTAL TO CULVERT INSTALLATION. CONSTRUCTION OF OUTLET DITCHES IS INCIDENTAL TO CULVERT INSTALLATION AND NO SEPARATE PAYMENT WILL BE MADE.

THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE NEW CONSTRUCTION AREA IN AS DRY A CONDITION AS POSSIBLE DURING CONSTRUCTION. THE CONTRACTOR WILL SUBMIT A DEWATERING / STREAM DIVERSION / SEDIMENT CONTROL PLAN TO THE COR FOR APPROVAL. MAINTAINING WATER TURBIDITY DOWNSTREAM (NOT EXCEEDING THE TURBIDITY OF THE UPSTREAM WATER) IS THE RESPONSIBILITY OF THE CONTRACTOR THROUGHOUT THE DURATION OF THE PROJECT. PUMPS CAPABLE OF PUMPING STREAM FLOW SHALL BE ON-SITE UNTIL STREAM IS FLOWING ON APPROVED FINISHED STREAMBED. OVERNIGHT PUMPING IS NOT PERMITTED,

FOR INSTALLATION OF THE BOTTOMLESS ARCH CULVERT, THE FOREST HYDROLOGIST MUST BE ON SITE TO DIRECT CONSTRUCTION OF THE CHANNEL (NATURAL STREAM SIMULATION THOUGH CROSSING). COORDINATE THE SCHEDULING OF THIS WORK WITH THE COR & FOREST HYDROLOGIST.

FINAL FOOTING ELEVATIONS WILL BE IDENTIFIED BY THE FOREST HYDROLOGIST AND C.O.R. AFTER BEDROCK ELEVATIONS HAVE BEEN DETERMINED.

FORMLINERS:

1. FORMLINERS SHALL BE ROCK DRY STACK PATTERN AS MANUFACTURED BY FITZGERALD FORMLINERS. 1341 EAST POMONA ST. SANTA ANA, CA. (714-547-6710) OR APPROVED EQUAL. FORMLINERS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS GUIDELINES AND THE APPLICABLE SUBSECTIONS OF FP-14 SECTION 613. PROVIDE 3’ X 3’ TEST SECTION FOR APPROVAL. THERE SHALL BE NO OBVIOUS SEAMS OR JOINTS BETWEEN FORMLINER SECTIONS. CORNERS SHALL BE MITERED. FORMLINERS WILL NOT BE MEASURED BUT ALL COSTS ASSOCIATED WITH PROVIDING INSTALLING AND REMOVING SHALL BE INCLUDED IN THE PRICE BID FOR STRUCTURAL CONCRETE.

SEEDING NOTES:

1. SEED ALL DISTURBED AREAS, INCLUDING THE ROAD. NO DISTURBED AREAS WILL BE LEFT WITHOUT SEEDING FOR MORE THAN 15 DAYS AND IN NO CASE MORE THAN 14 DAYS AFTER WORK HAS CEASED.
2. SEEDING MIXTURE FOR SEEDING DATES BETWEEN APRIL 15 AND OCTOBER 15 SHALL BE AS FOLLOWS:

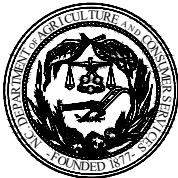
CREeping RED FESCUE	30 LBS PER ACRE
ANNUAL RYEGRASS	15 LBS PER ACRE
BROWNTOP MILLET	10 LBS PER ACRE
SWITCHGRASS	6 LBS PER ACRE
INDIAN GRASS	6 LBS PER ACRE
PARTRIDGE PEA	4 LBS PER ACRE
CRIMSON CLOVER	3 LBS PER ACRE
3. FERTILIZER SHALL BE 17-17-17 APPLIED AT 500 LBS. PER ACRE
4. AGRICULTURAL LIME SHALL BE APPLIED AT 2,000 LBS. PER ACRE
5. DRY MULCH SHALL BE APPLIED AT 2,000 LBS. PER ACRE
6. DISTURBED OR NEWLY CONSTRUCTED SLOPES WITHIN 25’ OF STREAM COURSE SHALL BE IMMEDIATELY PROTECTED BY SEEDING WITH 10 LBS PER ACRE ANNUAL RYEGRASS AND 5 LBS PER ACRE BROWNTOP MILLET AND COVERING WITH STRAW MULCH AND SMALL LIMBS. THIS ADDITIONAL SEEDING SHALL BE DONE THE SAME DAY AS THE DISTURBANCE (WHETHER COMPLETED OR NOT)



USDA
FOREST SERVICE
REGION 8

IN COOPERATION WITH

NCDA&CS
DIVISION OF SWC
TECHNICAL SERVICES



NATIONAL FORESTS IN NORTH CAROLINA
PISGAH RANGER DISTRICT
NFSR #809 COVE CREEK RD
AQUATIC ORGANISM PASSAGE

FILE NAME:
CoveCreekAOP95.dwg

LAST REVISION:
5/31/19 3:33 PM

PROJECT NOTES

2
15

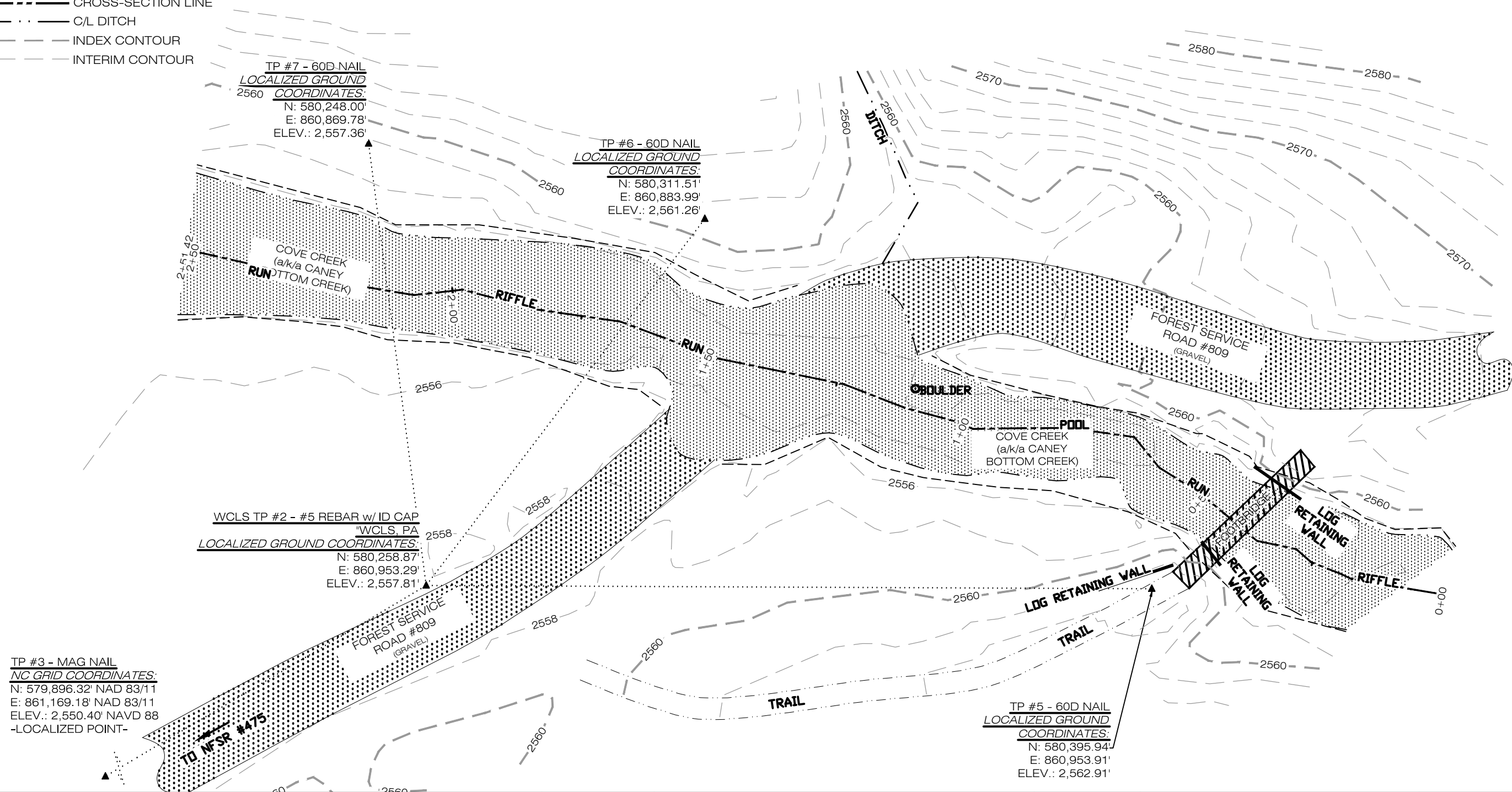
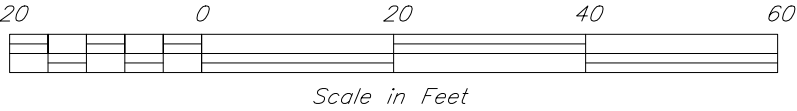
LEGEND:

- BOULDER
- WCLS CONTROL POINT
- SPOT ELEVATION
- THALWEG
- EDGE OF WATER (E.O.W.)
- CONTROL BASELINE
- TOP OF BANK
- CROSS-SECTION LINE
- C/L DITCH
- INDEX CONTOUR
- INTERIM CONTOUR

TOPO SURVEY PROVIDED BY
WES COLE LAND SURVEYING, PA



NC GRID NAD 83 (NSRS 2011)



USDA
FOREST SERVICE
REGION 8

IN COOPERATION WITH

NCDA&CS
DIVISION OF SWC
TECHNICAL SERVICES



NATIONAL FORESTS IN NORTH CAROLINA
PISGAH RANGER DISTRICT
NFSR #809 COVE CREEK RD
AQUATIC ORGANISM PASSAGE

FILE NAME:
CoveCreekAOP95.dwg
LAST REVISION:
5/31/19 3:33 PM

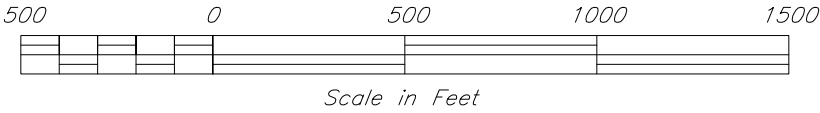
EXISTING SITE SURVEY FROM
WES COLE LAND SURVEYING

COVE CREEK GROUP CAMP

NFSR 809

PROPOSED A.O.P. LOCATION

NFSR 475



**USDA
FOREST SERVICE
REGION 8**

IN COOPERATION WITH

**NCDA&CS
DIVISION OF SWC
TECHNICAL SERVICES**



**NATIONAL FORESTS IN NORTH CAROLINA
PISGAH RANGER DISTRICT
NFSR #809 COVE CREEK RD
AQUATIC ORGANISM PASSAGE**

FILE NAME:
CoveCreekAOP95.dwg

LAST REVISION:
5/31/19 3:33 PM

**EXISTING SITE
AERIAL PHOTOGRAPH**

4

15


FINAL FOOTING ELEVATIONS WILL BE DETERMINED BY THE FOREST HYDROLOGIST AND C.O.R. AFTER EXCAVATION HAS EXPOSED BEDROCK

MINOR ADJUSTMENTS TO PROPOSED ROAD ALIGNMENT MAY BE MADE BY THE COR AFTER CLEARING AND GRUBBING

PROPOSED ROADBED NOTES:

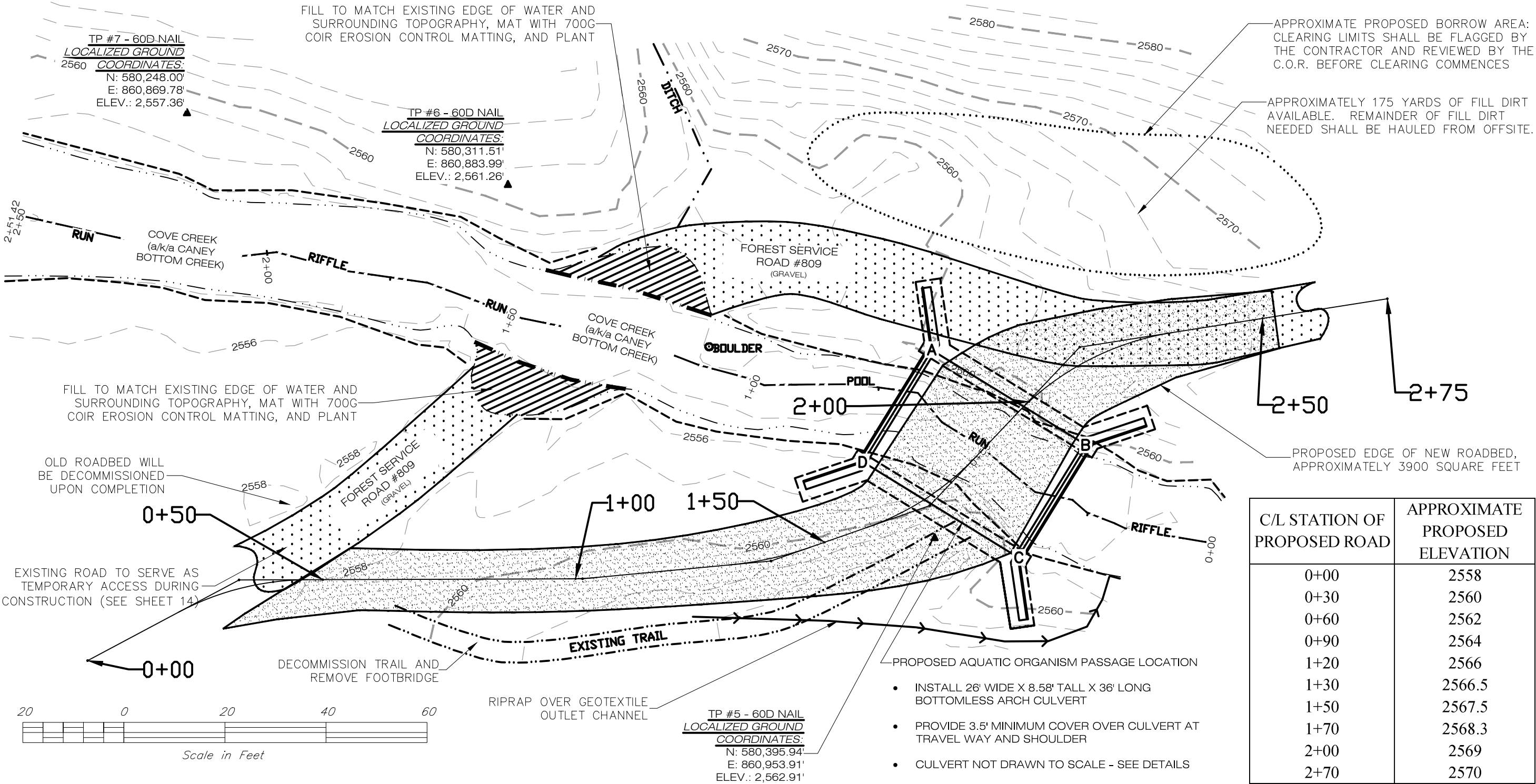
- MINIMUM ELEVATION OF ROADBED OVER ALUMINUM ARCH SHALL BE 2568.2'
- TOTAL LENGTH OF NEW ROAD BUILT ON FILL ~ 250 FEET
- APPROXIMATE YARDS OF FILL NEEDED = 1,100 CY

POINT	N	E
A	580,395.40'	860,916.72'
B	580,426.06'	860,935.58'
C	580,412.44'	860,957.73'
D	580,381.78'	860,938.86'



NC GRID NAD 83 (NSRS 2011)

TOPO SURVEY PROVIDED BY
WES COLE LAND SURVEYING, PA



USDA
FOREST SERVICE
REGION 8

IN COOPERATION WITH

NCDA&CS
DIVISION OF SWC
TECHNICAL SERVICES

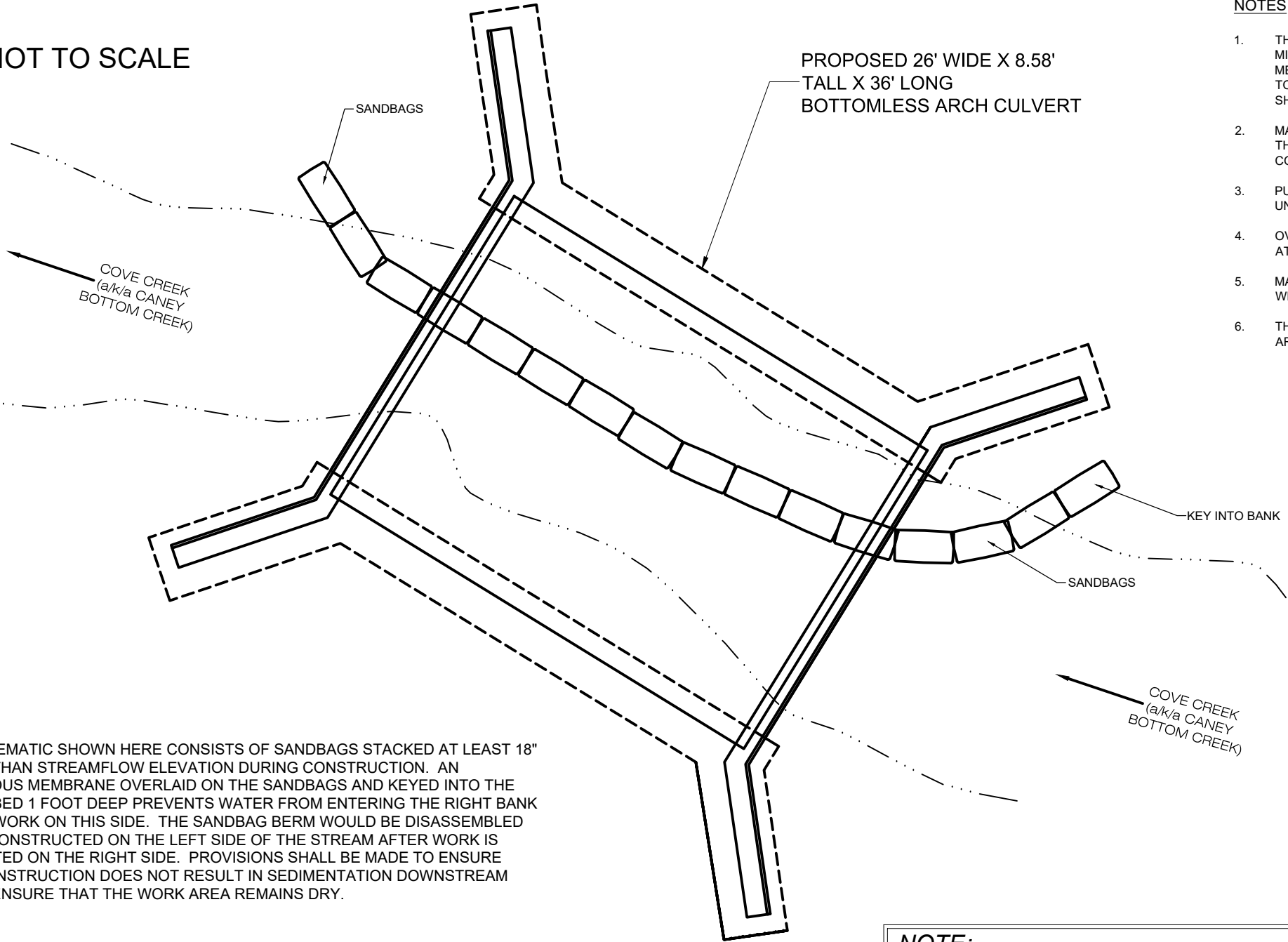


NATIONAL FORESTS IN NORTH CAROLINA
PISGAH RANGER DISTRICT
NFSR #809 COVE CREEK RD
AQUATIC ORGANISM PASSAGE

FILE NAME:
CoveCreekAOP95.dwg
LAST REVISION:
5/31/19 3:33 PM

AQUATIC ORGANISM
PASSAGE SITE PLAN

NOT TO SCALE



THE SCHEMATIC SHOWN HERE CONSISTS OF SANDBAGS STACKED AT LEAST 18" HIGHER THAN STREAMFLOW ELEVATION DURING CONSTRUCTION. AN IMPERVIOUS MEMBRANE OVERLAID ON THE SANDBAGS AND KEYED INTO THE STREAMBED 1 FOOT DEEP PREVENTS WATER FROM ENTERING THE RIGHT BANK DURING WORK ON THIS SIDE. THE SANDBAG BERM WOULD BE DISASSEMBLED AND RECONSTRUCTED ON THE LEFT SIDE OF THE STREAM AFTER WORK IS COMPLETED ON THE RIGHT SIDE. PROVISIONS SHALL BE MADE TO ENSURE THAT CONSTRUCTION DOES NOT RESULT IN SEDIMENTATION DOWNSTREAM AND TO ENSURE THAT THE WORK AREA REMAINS DRY.

NOTES

1. THIS DEWATERING & SEDIMENT CONTROL PLAN SHOWS THE MINIMUM ACCEPTABLE CRITERIA, AND MAY REQUIRE ADDITIONAL MEASURES. THE CONTRACTOR WILL SUBMIT A DESIGN/PLAN TO THE C.O.R. FOR APPROVAL THAT MEETS OR EXCEEDS THE STANDARDS SHOWN HEREON.
2. MAINTAINING WATER TURBIDITY DOWNSTREAM (NOT EXCEEDING THE TURBIDITY OF THE UPSTREAM WATER) IS THE RESPONSIBILITY OF THE CONTRACTOR THROUGHOUT THE DURATION OF THE PROJECT.
3. PUMPS CAPABLE OF PUMPING STREAM FLOW SHALL BE ON-SITE UNTIL STREAM IS FLOWING ON APPROVED FINISHED STREAMBED.
4. OVERNIGHT PUMPING IS NOT PERMITTED, OPERATE "BROWN-WATER" SUMP AT END OF WORK DAY UNTIL SUMP WATER IS CLEAR.
5. MATERIAL HANDLING BAGS MAY BE USED, INSTEAD OF SANDBAGS, WHERE THEY ARE MORE EFFECTIVE.
6. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING THE NEW CONSTRUCTION AREA IN AS DRY A CONDITION AS POSSIBLE DURING CONSTRUCTION.

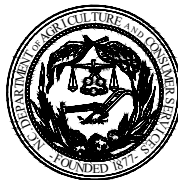
NOTE:
THIS DRAWING IS A **GRAPHIC REPRESENTATION** OF A TYPICAL WATER DIVERSION INSTALLATION.
AFTER THE AWARD OF THE CONSTRUCTION CONTRACT, THE CONTRACTOR WILL PROVIDE A DESIGN/PLAN TO MEET OR EXCEED THE STANDARDS SHOWN HERE AND TO MEET THE APPROVAL OF THE C.O.R.
THIS PLAN IS FOR EXAMPLE ONLY - NOT REQUIRED - **CONSIDER AS GUIDANCE**



USDA
FOREST SERVICE
REGION 8

IN COOPERATION WITH

NCDA&CS
DIVISION OF SWC
TECHNICAL SERVICES

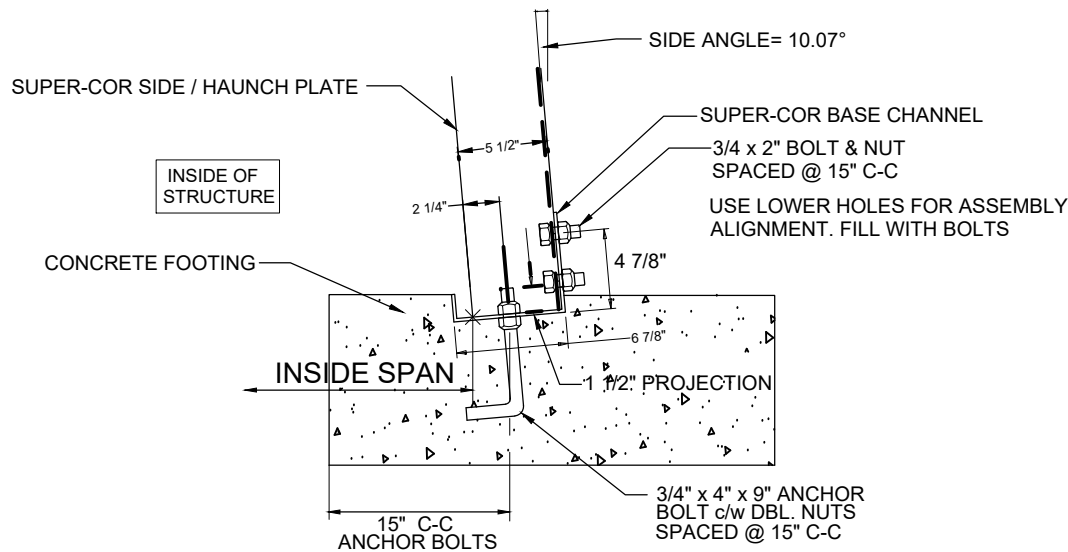


NATIONAL FORESTS IN NORTH CAROLINA
PISGAH RANGER DISTRICT
NFSR #809 COVE CREEK RD
AQUATIC ORGANISM PASSAGE

FILE NAME:
CoveCreekAOP95.dwg

LAST REVISION:
5/31/19 3:33 PM

STREAM DIVERSION AND
DEWATERING DETAILS



BASE CHANNEL DETAIL
NOT TO SCALE

✕ WORK POINT IS TAKEN AT THE BASE OF STEEL
ON THE INSIDE CREST

NOTES:

1. EXCAVATE BEDROCK TO PLACE FOOTINGS (36" MINIMUM), BOTTOM ELEVATION OF FOOTINGS MAY VARY WITH BEDROCK ELEVATION. A FOOTING DEPTH OF 36 INCHES SHALL BE MAINTAINED ON THE BEDROCK.

CEASE DOWNWARD EXCAVATION WHEN BEDROCK IS ENCOUNTERED & NOTIFY COR (LATERAL EXCAVATION ABOVE BEDROCK SURFACE MAY CONTINUE). COR WILL MAKE FINAL ADJUSTMENTS OF FOUNDATION ELEVATIONS AFTER ENTIRE BEDROCK SURFACE IS EXPOSED & WILL NOTIFY CONTRACTOR IN WRITING WHEN FINAL FOOTING OR PIPE INVERT ELEVATIONS ARE DETERMINED.

2. CULVERT IS ALUMINUM STRUCTURAL PLATE SINGLE RADIUS ARCH OR APPROVED EQUAL.
3. CONTRACTOR SHALL SUBMIT THREE COPIES OF ANY CHANGE OF MANUFACTURER FOR APPROVAL OF SPAN, RISE, BASE CONNECTION AND OTHER RELATED MATERIALS.

SPECIFICATION - ALUMINUM STRUCTURAL PLATE

Scope: This specification covers the manufacture and installation of the aluminum structural plate structure detailed in the plans.

Material: The aluminum structural plate structure shall consist of plates and appurtenant items as shown on the plans and shall conform to the requirements of AASHTO M219 and ASTM B 746. The corrugated plate (and ribs if required) shall be curved and bolt hole punched at the plant. Plate thickness and rib spacings shall be as indicated on the plans. All manufacturing processes including corrugating, punching, curving and galvanizing shall be performed within the United States using raw materials made in the United States.

Bolts and nuts shall conform to the requirements of ASTM A307 or ASTM A449.

Assembly: The structure shall be assembled in accordance with the shop drawings provided by the manufacturer and per the manufacturer's recommendations. Bolts shall be tightened using an applied torque of between 100 and 150 ft.-lbs.

Installation: The structure shall be installed in accordance with the plans and specifications, the manufacturer's recommendations, and the AASHTO Standard Specifications for Highway Bridges, Section 26 (Division II).

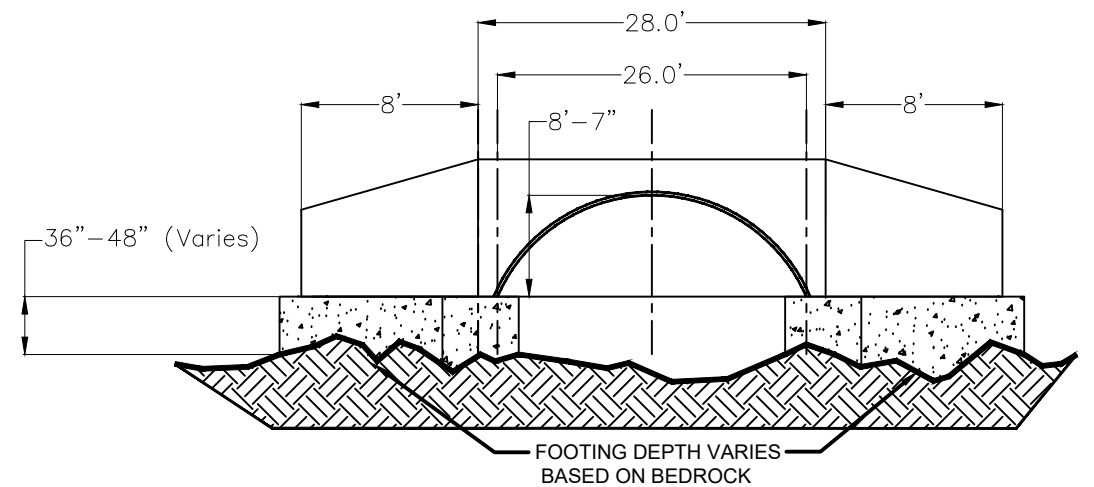
Representative: A representative of the manufacturer shall be on site to assist the contractor's crew in assembly and installation of the culvert & headwall system.

Backfill: The structure shall be backfilled using clean well graded granular material that meets the requirements of AASHTO M 145 for soil classifications A-1, A-2 or A-3. Backfill must be placed symmetrically on each side of the structure in 6 to 8 inch lifts. Each lift shall be compacted to a minimum of 90 percent density per AASHTO T 99.

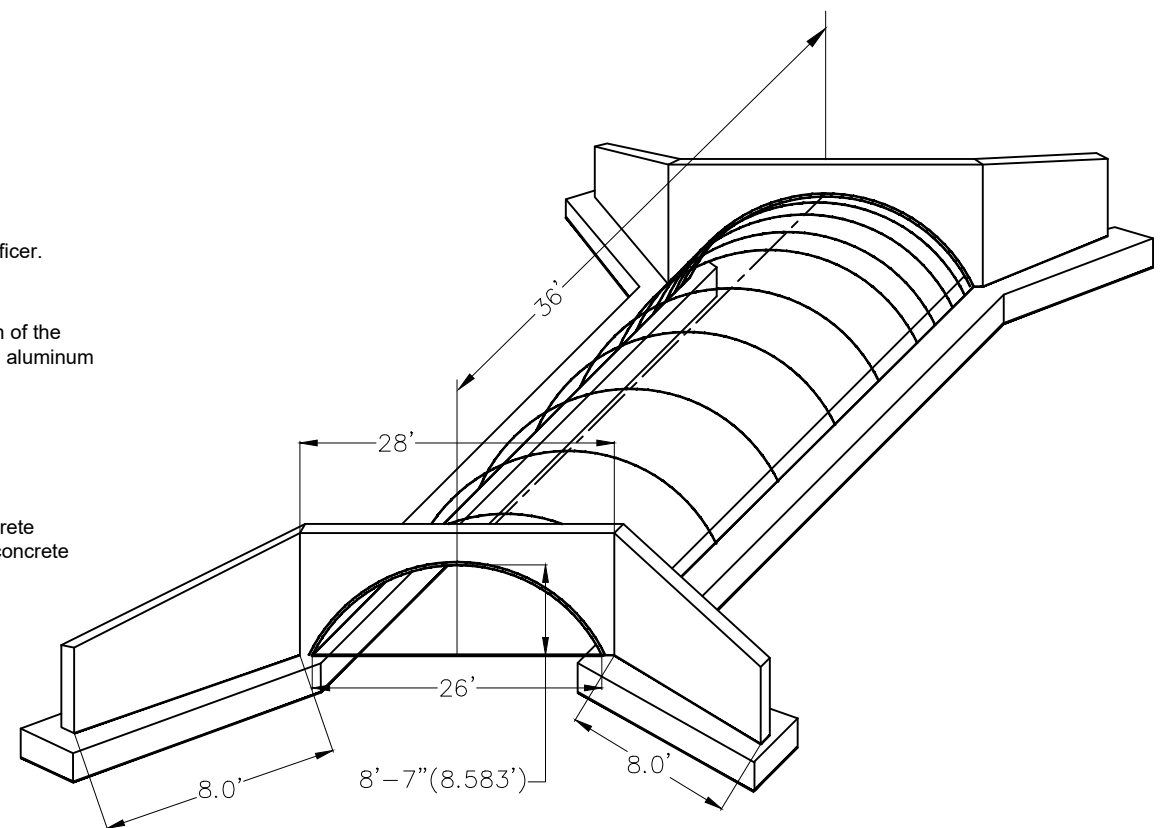
Note: Construction loads that exceed highway load limits are not allowed on the structure without approval from the Contracting Officer.

This specification covers the design, manufacturing and installation of the ALUMINUM STRUCTURAL PLATE 9 inch X 2-1/2 inch corrugated aluminum structural plate structure detailed in the plans.
Aluminum Single Radius Arch, 26' x 8'-7" x 36' Long
Opening: 161.4 sq.ft
Thickness: 0.218" Thick
Type 4 Ribs @ 18"
Min/Max Cover: 3.5' / 23'
Square Ends with 9" x 3" Hookbolts at ends to tie structure to concrete headwalls and Super-Cor receiving channel to attach structure to concrete footings.

CULVERT DETAILS



UPPER END ELEVATION
NOT TO SCALE



CULVERT OBLIQUE VIEW
NOT TO SCALE



**USDA
FOREST SERVICE
REGION 8**

IN COOPERATION WITH

**NCDA&CS
DIVISION OF SWC
TECHNICAL SERVICES**



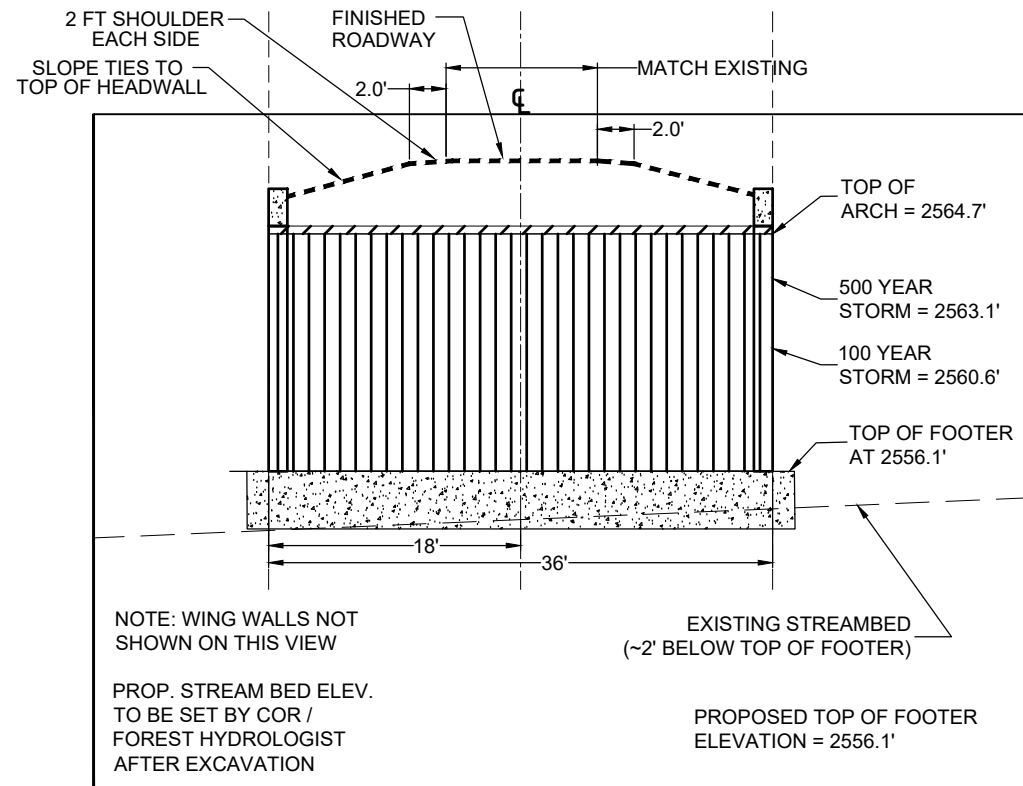
**NATIONAL FORESTS IN NORTH CAROLINA
PISGAH RANGER DISTRICT
NFSR #809 COVE CREEK RD
AQUATIC ORGANISM PASSAGE**

FILE NAME:
CoveCreekAOP95.dwg

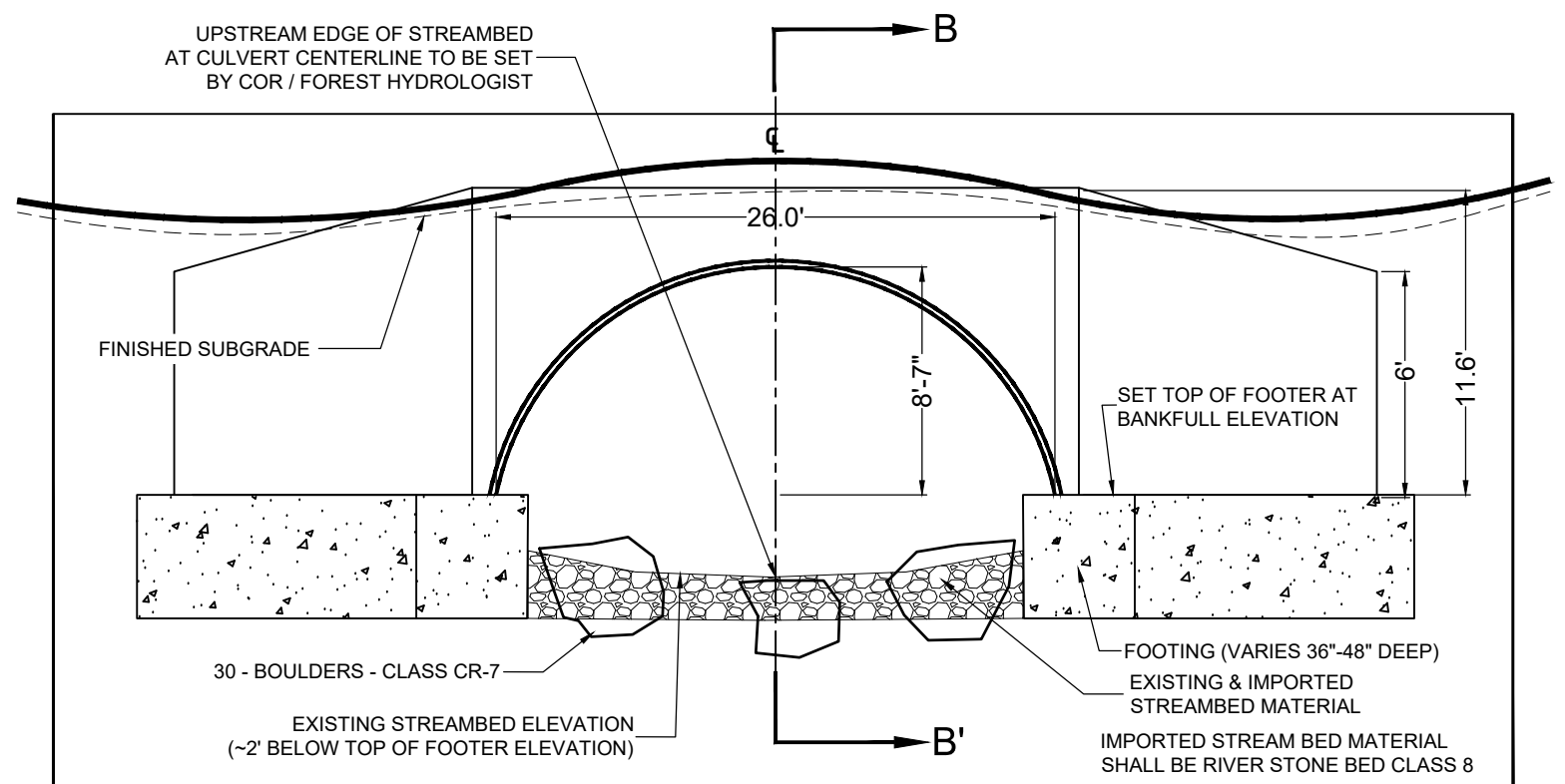
LAST REVISION:
5/31/19 3:33 PM

**GENERAL A.O.P
CULVERT DETAILS**

**7
15**



CROSS SECTION @ ROAD CENTERLINE STATION 0+50
SECTION B-B'
NOT TO SCALE



SEE SECTION 705.08 OF SPECIFICATIONS - TABLES 705-4 AND 705-5 FOR STONE SIZES

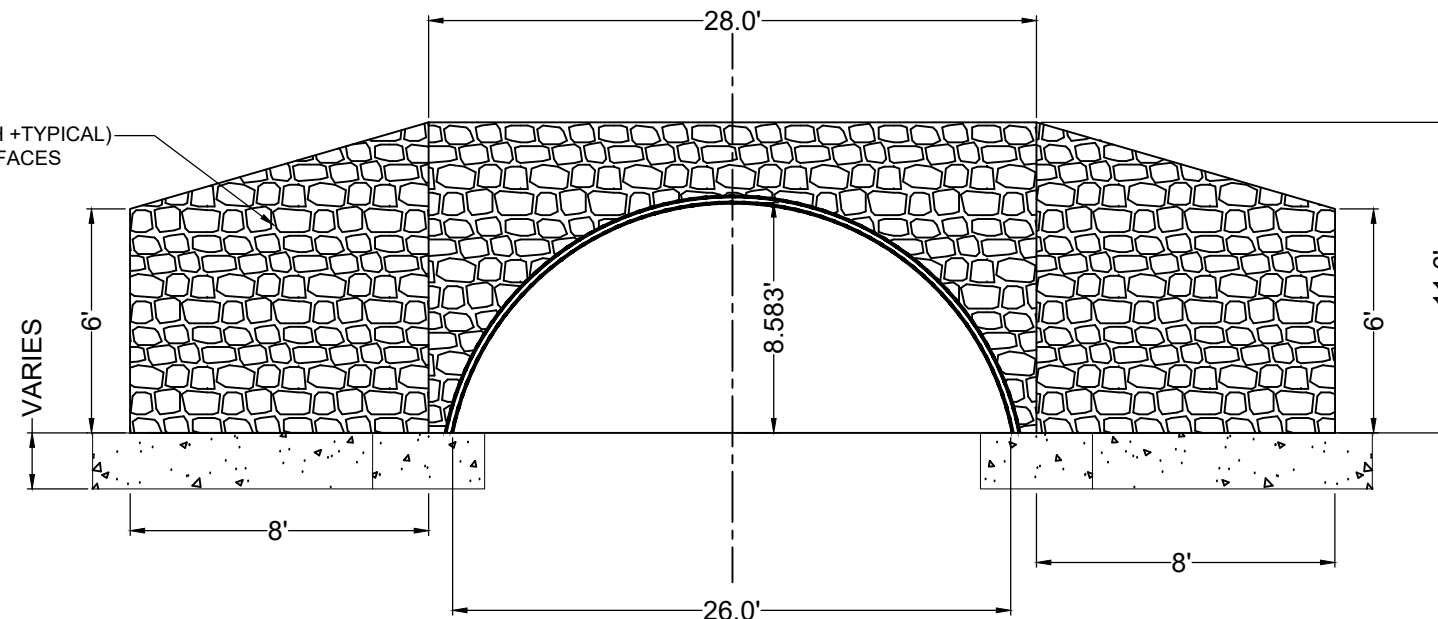
STREAM SECTION VIEW
SECTION A-A'
NOT TO SCALE

SEE SPECIFICATION 648 FOR ADDITIONAL DETAILS REGARDING STREAM BED WITHIN CULVERT

GENERAL NOTES:

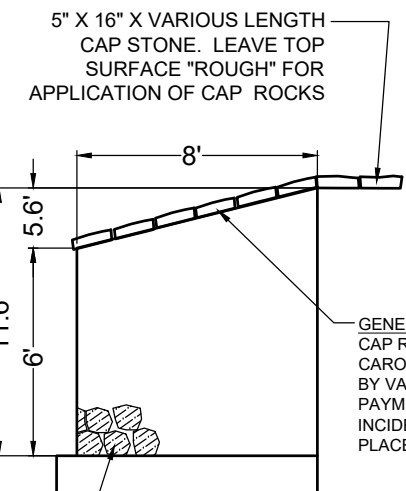
1. ALL CONCRETE SHALL HAVE A MINIMUM DESIGN STRENGTH OF 4000 PSI AND CONFORM TO FP-14 STRUCTURAL CONCRETE.
2. REINFORCEMENT SHALL CONFORM TO 554, REINFORCING STEEL.
3. ELEVATIONS RELATE TO BENCH MARKS SHOWN ON PLAN.
4. EXCAVATE BEDROCK TO PLACE FOOTINGS, BOTTOM ELEVATION OF FOOTINGS MAY VARY, CONFORMING TO BEDROCK ELEVATION.
5. A MINIMUM FOOTING DEPTH OF 36" DEPTH SHALL BE MAINTAINED ON THE BEDROCK.

FORMLINER FINISH +TYPICAL) ON ALL EXPOSED FACES



HEADWALL / WINGWALL ELEVATION

NOT TO SCALE



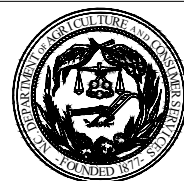
FORMLINER DETAIL
NOT TO SCALE



USDA
FOREST SERVICE
REGION 8

IN COOPERATION WITH

NCDA&CS
DIVISION OF SWC
TECHNICAL SERVICES



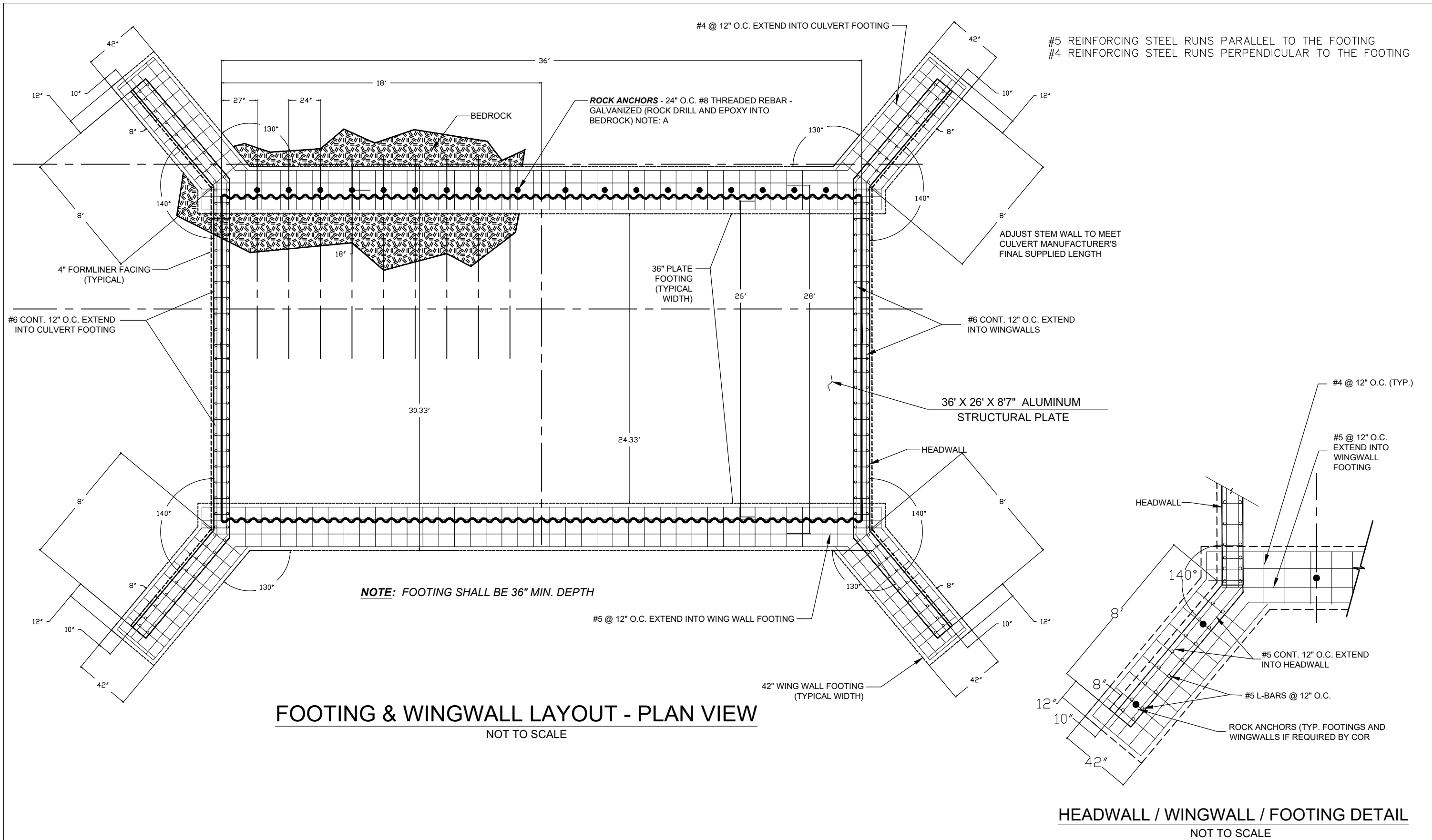
NATIONAL FORESTS IN NORTH CAROLINA
PISGAH RANGER DISTRICT
NFSR #809 COVE CREEK RD
AQUATIC ORGANISM PASSAGE

FILE NAME:
CoveCreekAOP95.dwg

LAST REVISION:
5/31/19 3:33 PM

A.O.P. CULVERT END VIEW
AND CROSS SECTIONS

8
15



USDA
FOREST SERVICE
REGION 8

IN COOPERATION WITH

NCDA&CS
DIVISION OF SWC
TECHNICAL SERVICES



NATIONAL FORESTS IN NORTH CAROLINA
PISGAH RANGER DISTRICT
NFSR #809 COVE CREEK RD
AQUATIC ORGANISM PASSAGE

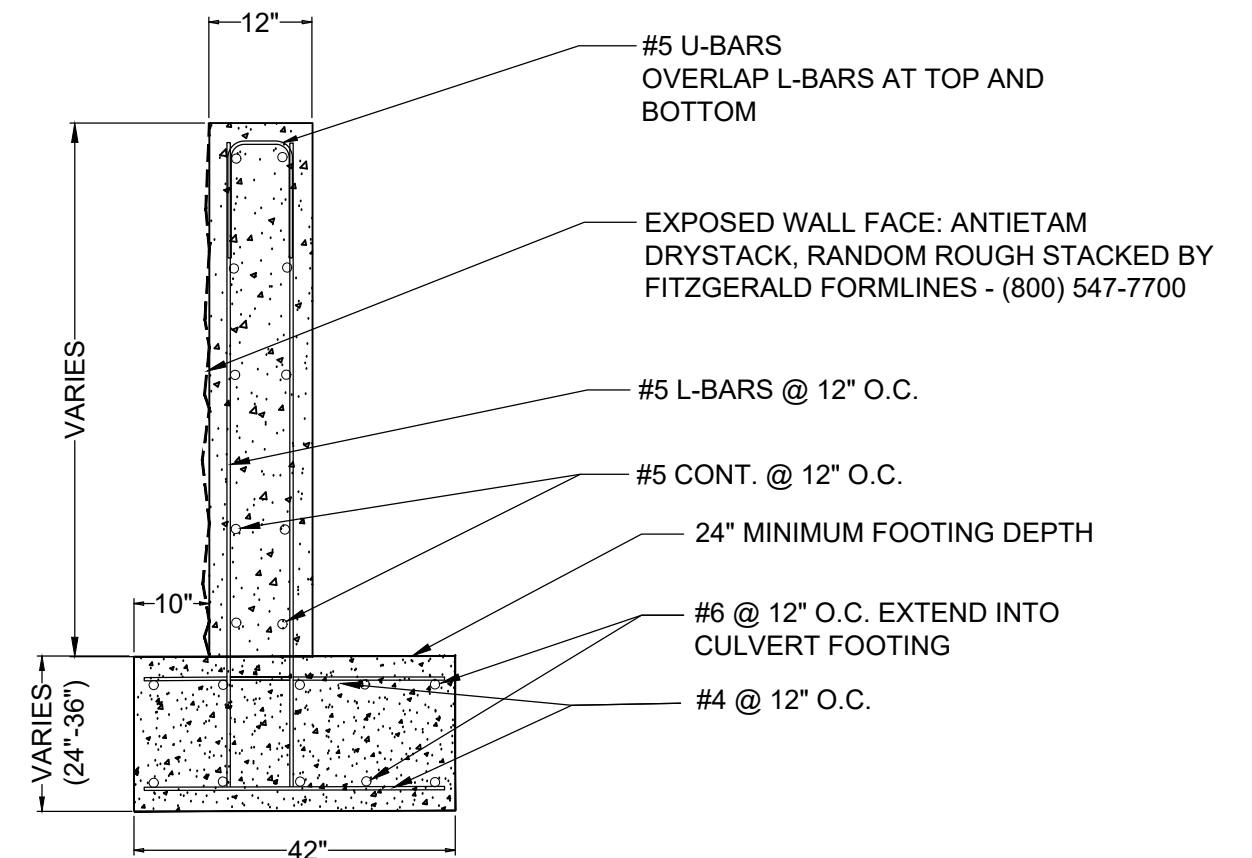
FILE NAME:
CoveCreekAOP95.dwg

LAST REVISION:
5/31/19 3:33 PM

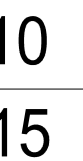
HEADWALL AND WINGWALL
FOUNDATION PLAN

9
15

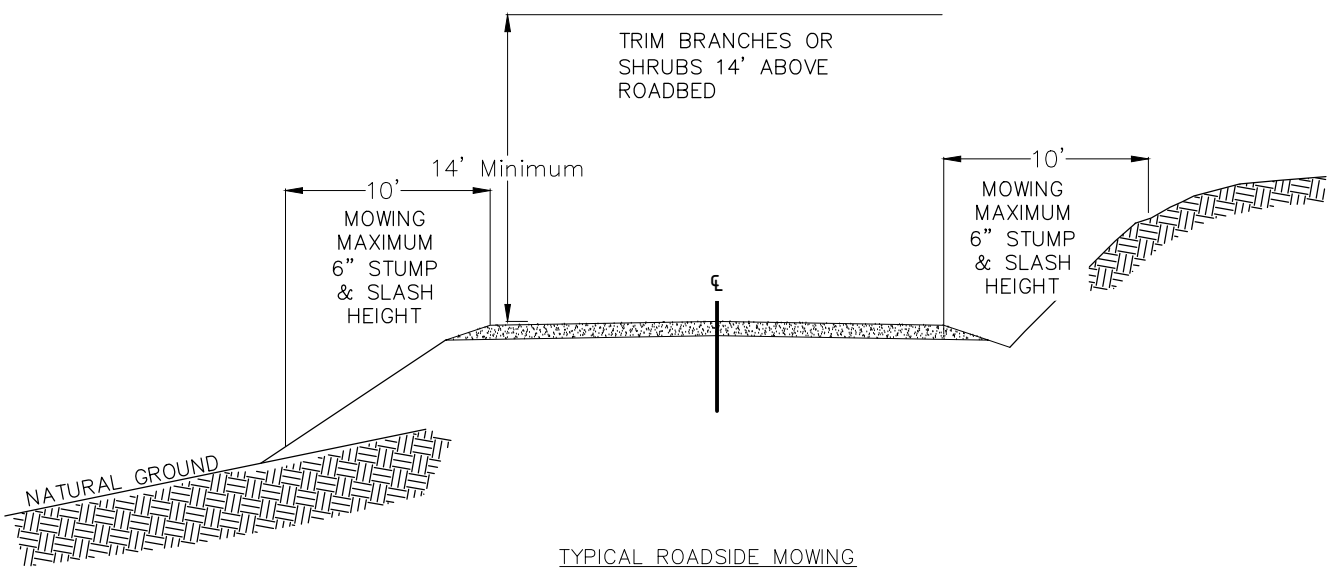
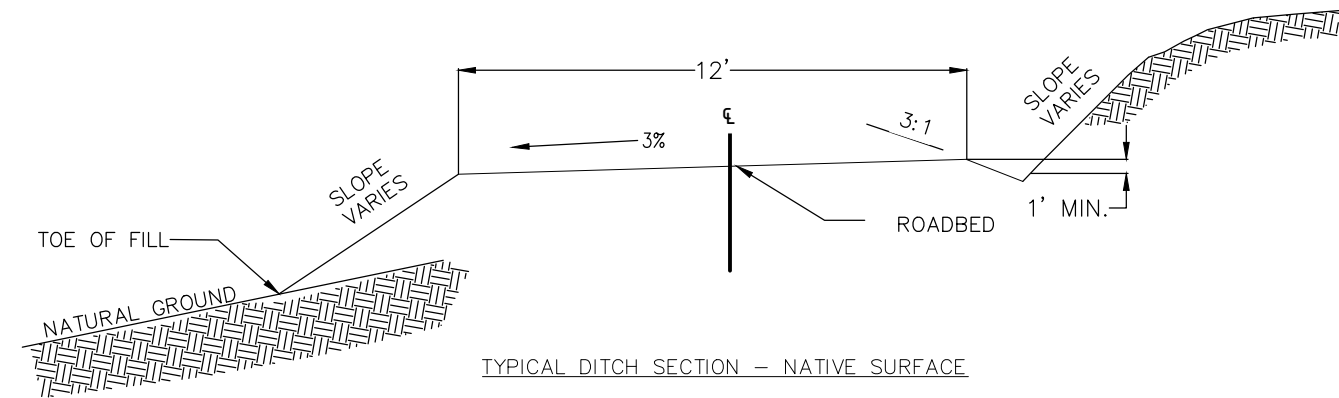
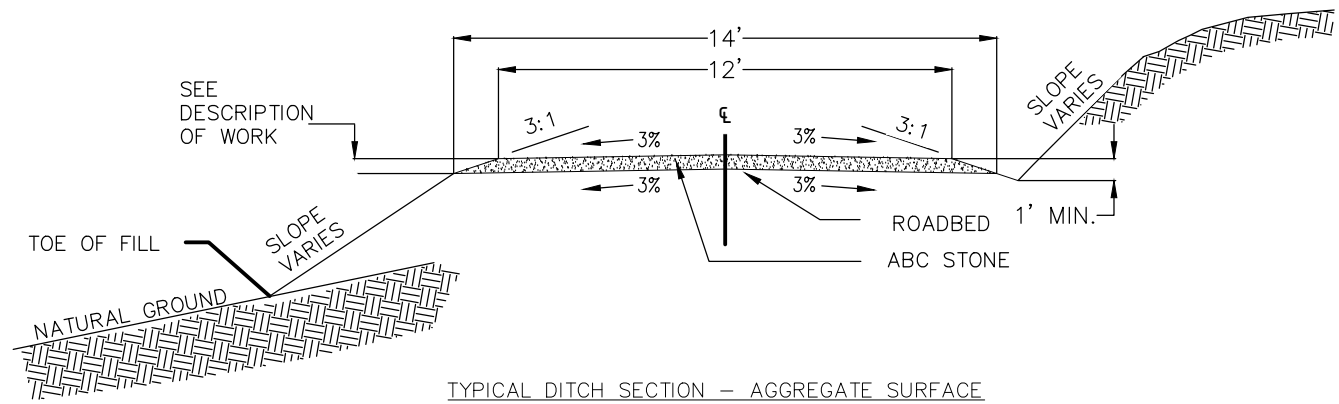
CAP ROCKS ARE TO BE NORTH CAROLINA FIELD STONE,
5" X 16" BY VARIOUS LENGTHS. PAYMENT FOR CAP
STONE IS INCIDENTAL TO CONCRETE PLACEMENT.



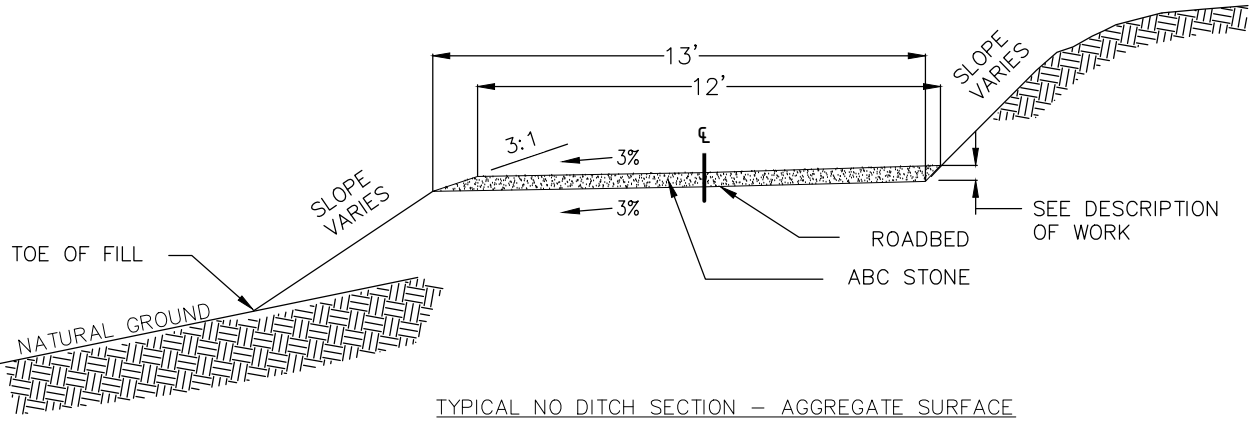
**CONCRETE FOOTING / WINGWALL TYPICAL &
CONCRETE HEADWALL OVER TOP OF CULVERT TYPICAL**
NOT TO SCALE



PROPOSED ROAD SHALL BE GRADED
ACCORDING TO THESE DETAILS AND
GUIDANCE FROM THE C.O.R.



DRAWINGS
NOT TO SCALE



THE WIDTH OF THE PROPOSED ROAD SHALL BE
CONSTRUCTED ACCORDING TO WIDTHS SHOWN
ON SHEET 5 AND ACCORDING TO THIS TABLE:

Number	Type	Length	Radius	MLW (FT)	Measured Lane Width (FT)	Start Station	End Station
1	Line	20.378'				0+00.00'	0+20.38'
2	Curve	26.634'	54.797'	17.5	17.8	0+20.38'	0+47.01'
3	Line	51.516'				0+47.01'	0+98.53'
4	Curve	5.723'	63.052'	NA	NA	0+98.53'	1+04.25'
5	Line	26.193'				1+04.25'	1+30.44'
6	Curve	16.675'	68.949'	15	16.2	1+30.44'	1+47.12'
7	Line	11.726'				1+47.12'	1+58.84'
8	Curve	25.852'	54.217'	17	31.6	1+58.84'	1+84.70'
9	Line	11.396'				1+84.70'	1+96.09'
10	Curve	35.875'	54.642'	18.5	20.8	1+96.09'	2+31.97'
11	Line	43.008'				2+31.97'	2+74.98'



USDA
FOREST SERVICE
REGION 8

IN COOPERATION WITH

NCDA&CS
DIVISION OF SWC
TECHNICAL SERVICES



NATIONAL FORESTS IN NORTH CAROLINA
PISGAH RANGER DISTRICT
NFSR #809 COVE CREEK RD
AQUATIC ORGANISM PASSAGE

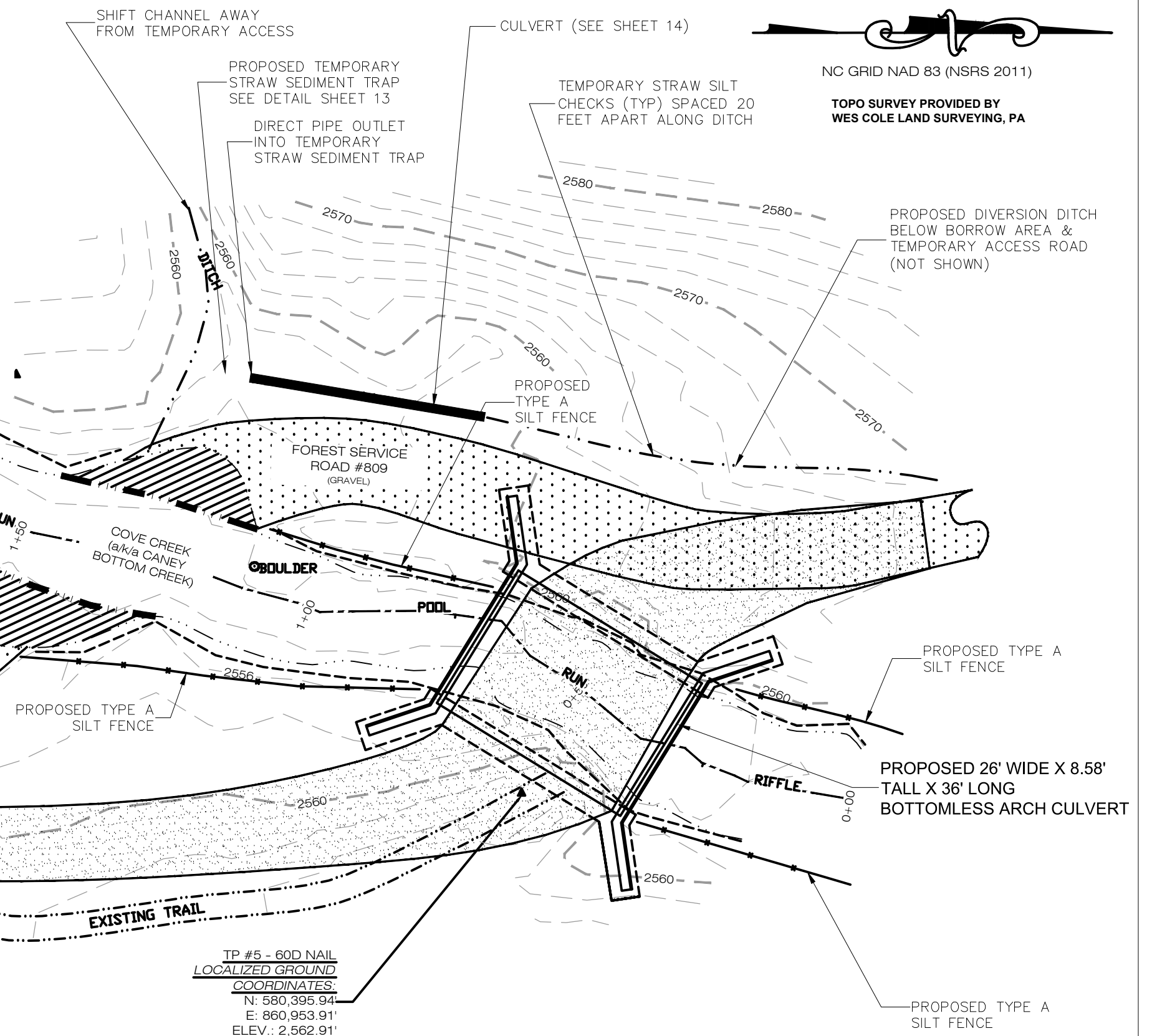
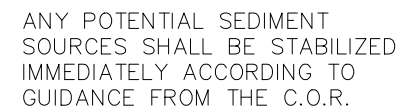
FILE NAME:
CoveCreekAOP95.dwg

LAST REVISION:
5/31/19 3:33 PM

TYPICAL ROAD SECTIONS

11
15

1. EROSION AND SEDIMENT CONTROL MEASURES ARE TO BE INSTALLED PRIOR TO BEGINNING EARTH DISTURBING ACTIVITIES IN ACCORDANCE WITH THE APPROVED EROSION CONTROL PLAN. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES MAY BE REQUIRED BY CONTRACTING OFFICER. MEASURES SHOWN ON THIS SHEET ARE SCHEMATIC AND NOT DESIGNED TO REPRESENT THE ENTIRE CONSTRUCTION PROCESS.
2. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 14 DAYS AFTER WORK HAS CEASED.
3. ALL SEDIMENT AND EROSION CONTROL DEVICES SHALL BE INSPECTED EVERY SEVEN (+7) DAYS OR AFTER EACH RAINFALL OCCURRENCE THAT EXCEEDS ONE-HALF (+1/2) INCH. DAMAGED OR INEFFECTIVE DEVICES SHALL BE REPAIRED OR REPLACED.
4. CONTRACTOR SHALL PROVIDE SILT FENCE AND/OR OTHER CONTROL DEVICES, AS MAY BE REQUIRED TO CONTROL SOIL EROSION DURING ROAD CONSTRUCTION.
5. SEDIMENT SHALL BE REMOVED FROM BEHIND TEMPORARY SILT FENCING WHEN THE DEPTH OF SEDIMENT REACHES 6 INCHES.
6. ALL DISTURBED AREAS WHERE EARTH IS EXPOSED SHALL BE CLEANED, GRADED SMOOTH, SHAPED TO DRAIN, AND SEEDED.
7. SEE SUPPLEMENTAL SPECIFICATION 713 - "ROADSIDE IMPROVEMENT MATERIAL" FOR SEED & FERTILIZER MIXTURE. WHEN SECTION 625 IS NOT INCLUDED IN THE BID SCHEDULE, SEEDING IS CONSIDERED INCIDENTAL TO OTHER WORK AND THERE WILL BE NO SEPARATE PAYMENT. REPAIR SEEDING IF INITIAL SEEDING DOES NOT ESTABLISH SATISFACTORY COVER TO CONTROL EROSION, REPAIR WASHES, PREPARE SOIL, SEED AND MULCH AS BEFORE.
8. ALL TEMPORARY SEDIMENT CONTROL MEASURES AND PRACTICES SHALL BE REMOVED WITHIN TWO (+2) MONTHS AFTER THE FOREST SERVICE HAS ACCEPTED THE PROJECT.

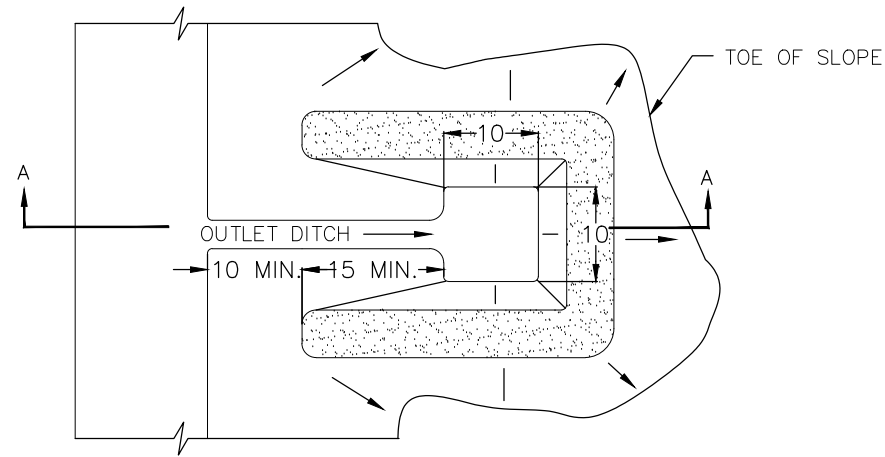


**NCDA&CS
DIVISION OF SWC
TECHNICAL SERVICES**

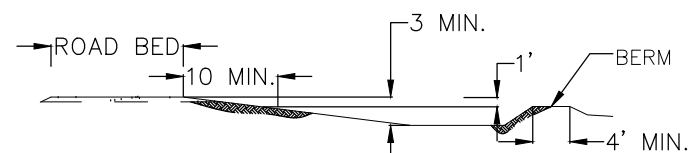


LAST REVISION:
5/31/19 3:33 PM

12
15

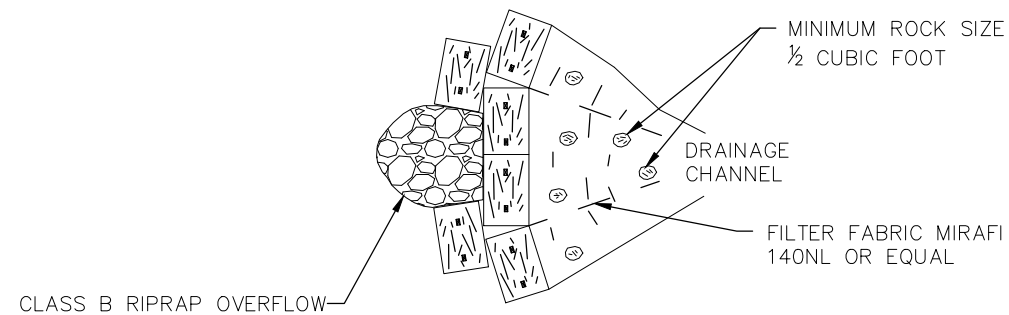


SEDIMENT BASIN PLAN VIEW

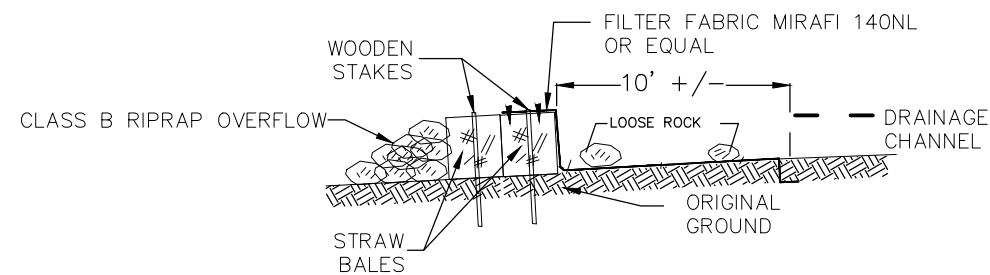


SEDIMENT BASIN SECTION A-A

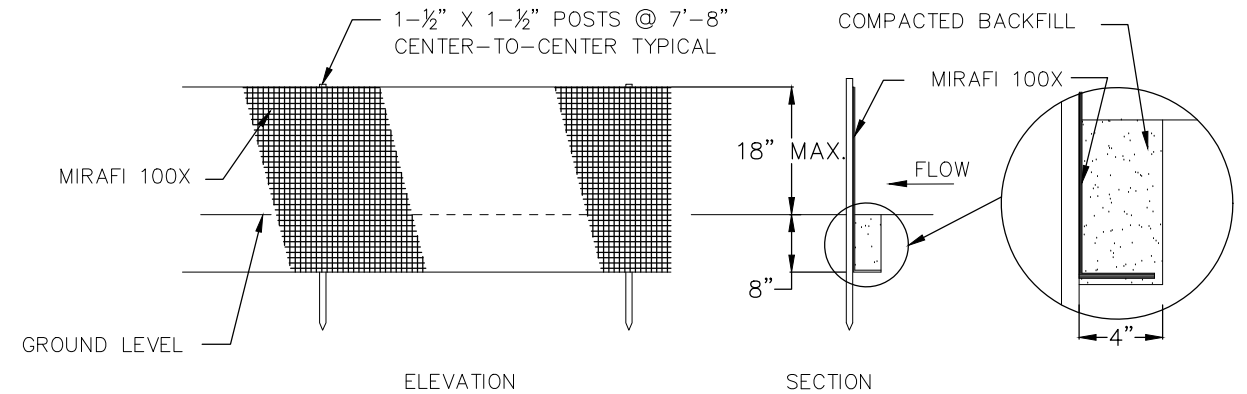
DRAWINGS
NOT TO SCALE



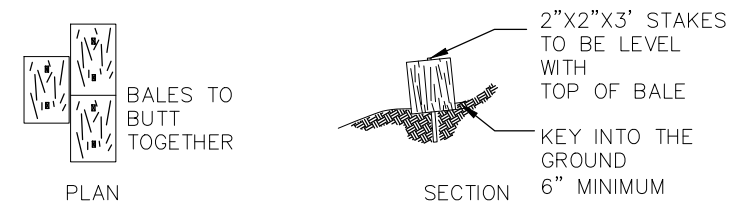
TEMPORARY STRAW SEDIMENT TRAP
PLAN VIEW



TEMPORARY SEDIMENT TRAP
SECTION



SILT FENCE DETAILS



TEMPORARY STRAW SILT CHECKS

NOTES:

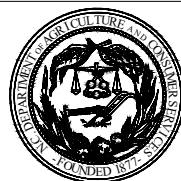
- SEDIMENT BASIN.
 - ALL SEDIMENT BASIN CUT AND FILL SLOPES SHALL BE 2:1 OR FLATTER.
 - ALL DISTURBED AREAS SHALL BE SEEDED ACCORDING TO APPLICABLE SPECIFICATIONS.
 - CLEARING LIMITS SHALL BE APPROVED BY THE CONTRACTING OFFICER PRIOR TO CONSTRUCTION.
 - MATERIAL FROM EXCAVATION SHALL BE USED TO CONSTRUCT BERM AS SHOWN OR SHALL BE INCORPORATED INTO THE ROAD BED AS APPROVED BY CONTRACTING OFFICER.
- SILT FENCE.
 - THE SKIRT TO BE ANCHORED IN A TRENCH 8" DEEP AND 4" WIDE WITH BACKFILL COMPACTED.
 - SILT FENCE SHALL BE PREFABRICATED WITH 1-1/2" SQUARE HARDWOOD POSTS, MIRAFI SILT FENCE OR EQUAL.
 - INSTALL AS NEEDED FOR EROSION CONTROL OR AS DIRECTED BY THE CONTRACTING OFFICER.
- TEMPORARY SEDIMENT TRAP.
 - TO BE INSTALLED AT END OF DIVERSION DITCH.
 - FILTER FABRIC SHALL BE KEYED INTO GROUND AT A DEPTH OF 8" AND COMPACTED BY HAND TAMPING.
 - SEDIMENT TRAPS SHALL BE PLACED PRIOR TO EXCAVATION AND REMOVED AS DIRECTED BY CONTRACTING OFFICER.
 - USE A MINIMUM OF 4 BALES FOR EACH TRAP.
 - LOOSE ROCKS SHALL BE APPROPRIATE SIZE TO RETAIN FABRIC IN PLACE.
- SEDIMENT CONTROL MEASURES TO BE USED AT LOCATIONS REQUIRED BY THE EROSION CONTROL PLAN, AS SHOWN ON THESE PLANS, AND/OR AS DIRECTED BY THE CONTRACTING OFFICER.



USDA
FOREST SERVICE
REGION 8

IN COOPERATION WITH

NCDA&CS
DIVISION OF SWC
TECHNICAL SERVICES



NATIONAL FORESTS IN NORTH CAROLINA
PISGAH RANGER DISTRICT
NFSR #809 COVE CREEK RD
AQUATIC ORGANISM PASSAGE

FILE NAME:
CoveCreekAOP95.dwg

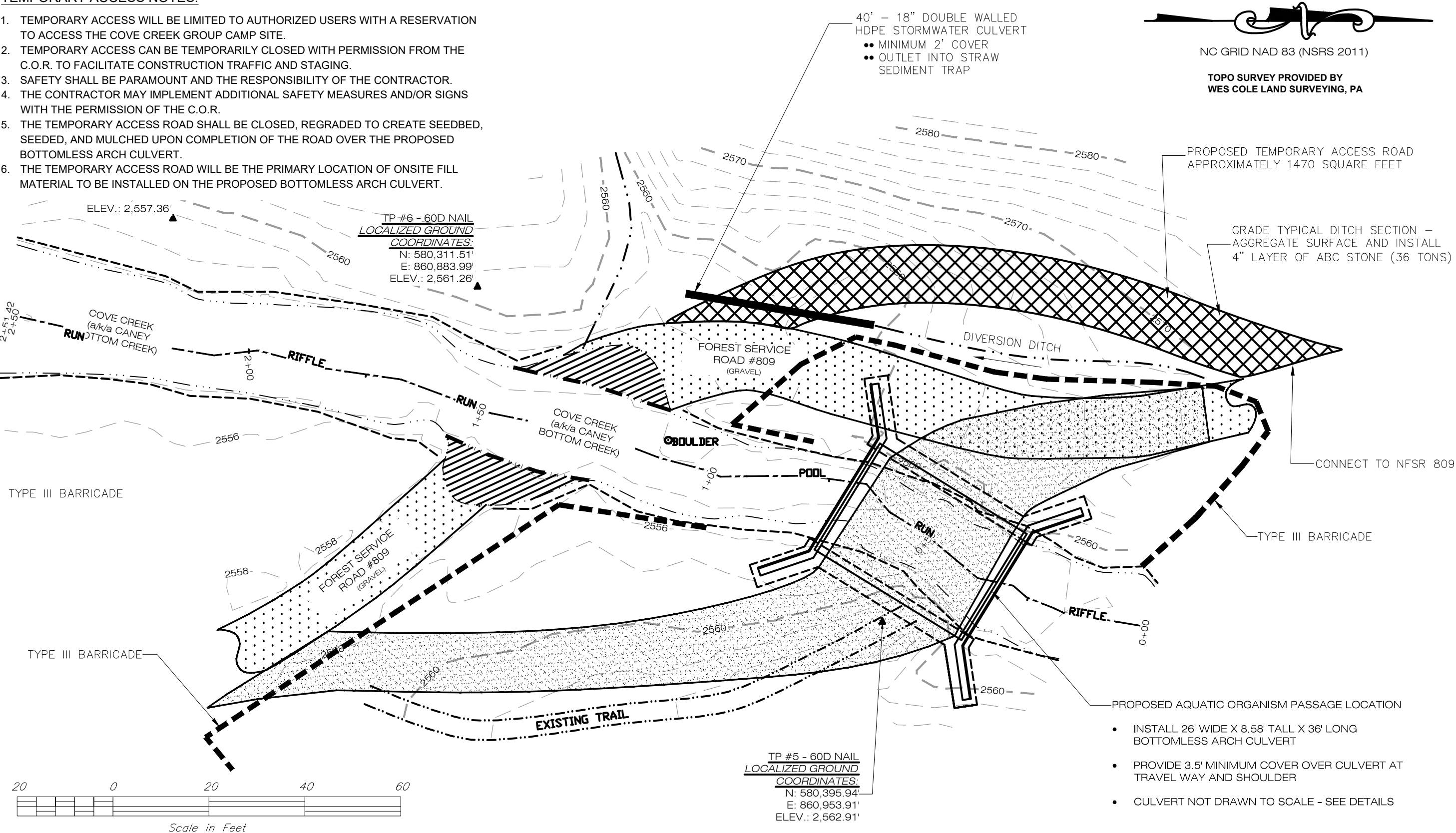
LAST REVISION:
5/31/19 3:33 PM

EROSION CONTROL NOTES
AND DETAILS

13
15

TEMPORARY ACCESS NOTES:

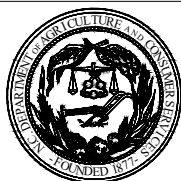
1. TEMPORARY ACCESS WILL BE LIMITED TO AUTHORIZED USERS WITH A RESERVATION TO ACCESS THE COVE CREEK GROUP CAMP SITE.
2. TEMPORARY ACCESS CAN BE TEMPORARILY CLOSED WITH PERMISSION FROM THE C.O.R. TO FACILITATE CONSTRUCTION TRAFFIC AND STAGING.
3. SAFETY SHALL BE PARAMOUNT AND THE RESPONSIBILITY OF THE CONTRACTOR.
4. THE CONTRACTOR MAY IMPLEMENT ADDITIONAL SAFETY MEASURES AND/OR SIGNS WITH THE PERMISSION OF THE C.O.R.
5. THE TEMPORARY ACCESS ROAD SHALL BE CLOSED, REGRADED TO CREATE SEEDBED, SEEDED, AND MULCHED UPON COMPLETION OF THE ROAD OVER THE PROPOSED BOTTOMLESS ARCH CULVERT.
6. THE TEMPORARY ACCESS ROAD WILL BE THE PRIMARY LOCATION OF ONSITE FILL MATERIAL TO BE INSTALLED ON THE PROPOSED BOTTOMLESS ARCH CULVERT.



USDA
FOREST SERVICE
REGION 8

IN COOPERATION WITH

NCDA&CS
DIVISION OF SWC
TECHNICAL SERVICES



NATIONAL FORESTS IN NORTH CAROLINA
PISGAH RANGER DISTRICT
NFSR #809 COVE CREEK RD
AQUATIC ORGANISM PASSAGE

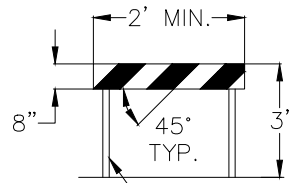
FILE NAME:
CoveCreekAOP95.dwg
LAST REVISION:
5/31/19 3:33 PM

TEMPORARY ACCESS PLAN

14
15

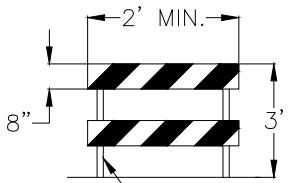


R11-2
48" X 30"



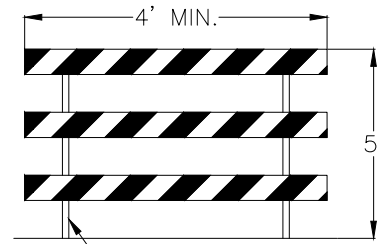
SUPPORT VARIES

TYPE I BARRICADE



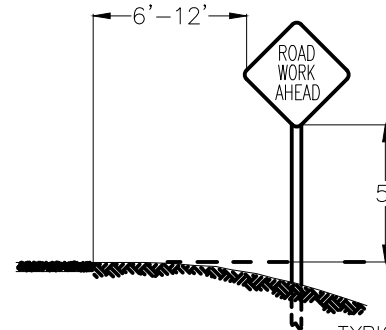
SUPPORT VARIES

TYPE II BARRICADE



POSTS OR SKIDS

TYPE III BARRICADE



TYPICAL INSTALLATIONS



DRAWINGS NOT TO SCALE

NOTES:

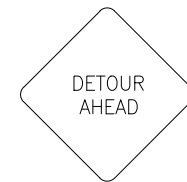
1. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THE SAFETY OF THE PUBLIC. ADDITIONAL TRAFFIC CONTROL MEASURES AND WARNING SIGNS WILL LIKELY BE NECESSARY.
2. ALL TRAFFIC CONTROL DEVICES SHALL BE CONSTRUCTED, LOCATED, INSTALLED, AND MAINTAINED ACCORDING TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS" (MUTCD) LATEST EDITION.
3. SIGNS SHALL BE MADE FROM SUITABLE MATERIALS WHICH ARE IN ACCORDANCE WITH ALL STATE AND FEDERAL SPECIFICATIONS.
4. ALL WARNING SIGNS SHALL BE BLACK ON ORANGE.
5. REFER TO FP-14 PARAGRAPH 718.01 FOR RETROREFLECTIVE SHEETING, USE ASTM D 4956 TYPE I, "ENGINEERING GRADE", OR BETTER. FOR POSTED SPEEDS GREATER THAN 35 MPH USE TYPE VII "SUPER-HIGH-INTENSITY, PRISMATIC SHEETING".
6. SIGN SUBSTRATE MAY BE WOOD, METAL, POLYPLATE, FABRIC OR MATERIAL APPROVED BY THE CONTRACTING OFFICER.
7. SIGNS SHALL BE LOCATED WHERE THEY WILL BE CONSPICUOUSLY VISIBLE DAY AND NIGHT ALONG THE RIGHT HAND SIDE OF APPROACHING TRAFFIC.
8. WHEN A SIGN IS REQUIRED FOR AN EXTENDED PERIOD, IT SHALL BE FASTENED TO 4 X 4 POSTS WITH 2 EACH 3/8" DIA. CARRIAGE BOLTS. PORTABLE SUPPORTS ARE PERMITTED FOR SHORT PERIODS PROVIDED THE CONSTRUCTION IS SUCH THAT WIND OR OTHER AGENTS CANNOT READILY UPSET THE SIGN.
9. SIGNS WARNING OF CONSTRUCTION SHALL BE PLACED ON ALL MAJOR INTERSECTIONS ACCESSING THE WORK AREA.
10. SELECTION AND PLACEMENT OF ALL SIGNS SHALL BE SUBJECT TO APPROVAL OF THE CONTRACTING OFFICER. SIGNS OTHER THAN THOSE PICTURED MAY BE USED PROVIDED THEY ARE IN CONFORMANCE WITH MUTCD STANDARDS AND APPROVED IN WRITING BY THE CONTRACTING OFFICER.
11. IF REQUIRED BY THE CONTRACTING OFFICER, LIGHTING DEVICES SUCH AS FLASHERS, TORCHES, LANTERNS AND ELECTRIC LIGHTS SHALL BE PLACED AND MAINTAINED FROM SUNSET TO SUNRISE AT ALL POINTS OF HAZARD AND AT ALL SIGNS INDICATING CAUTION.
12. ADDITIONAL SIGNS MAY BE REQUIRED AS DIRECTED BY THE CONTRACTING OFFICER.
13. ALL SIGNS ARE TEMPORARY. SIGNAGE SHALL BE REMOVED WITHIN TWO WEEKS OF FINAL ACCEPTANCE.
14. TYPE III BARRICADES SHALL BE PLACED ON EITHER SIDE OF UNCOMPLETED CONSTRUCTION SITES WHEN NO CONSTRUCTION ACTIVITIES ARE IN PROGRESS AS APPROVED BY THE CONTRACTING OFFICER.



W 20-1
36" x 36" MIN.



M4-10
48" x 18"
RIGHT OR LEFT



W 20-2D
36" x 36" MIN.

CONSTRUCTION SIGN SCHEDULE			
SIGN	MILEPOST	LOCATION	TEXT
W 20-1	BEGINNING OF NFSR 809	APPROX. $\frac{1}{2}$ MILE BEFORE CONSTRUCTION	ROAD WORK AHEAD
CUSTOM	100 FEET AFTER BEGINNING OF NFSR 809	APPROX. $\frac{1}{2}$ MILE BEFORE CONSTRUCTION	ENTER AT YOUR OWN RISK
TYPE III BARRICADE	BEGINNING OF PROPOSED ROAD	IN BETWEEN TEMPORARY ACCESS AND CONSTRUCTION ZONE	DANGER-CONSTRUCTION AREA-KEEP OUT
W 20-2D	100 FEET BEFORE PROPOSED ROAD	BOTH SIDES OF STREAM	DETOUR AHEAD
M4-10	20 FEET BEFORE PROPOSED ROAD	BOTH SIDES OF STREAM	DETOUR

1. R11-2 SIGNS SHALL BE BLACK ON WHITE. R11-3a AND W20-1 SIGNS SHALL BE BLACK ON ORANGE.
2. ADDITIONAL PERMANENT SIGNS MAY BE REQUIRED BY THE C.O.R.
3. ADDITIONAL TEMPORARY SIGNS MAY BE REQUIRED BY THE C.O.R.



USDA
FOREST SERVICE
REGION 8

IN COOPERATION WITH

NCDA&CS
DIVISION OF SWC
TECHNICAL SERVICES



NATIONAL FORESTS IN NORTH CAROLINA
PISGAH RANGER DISTRICT
NFSR #809 COVE CREEK RD
AQUATIC ORGANISM PASSAGE

FILE NAME:
CoveCreekAOP95.dwg

LAST REVISION:
5/31/19 3:33 PM

TEMPORARY CONSTRUCTION
SIGNS

15
15