



CARROLL COUNTY WATER AUTHORITY

P.O. Box 739 • Carrollton, Georgia 30112
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September 13, 2019

Via upload to SAFE website

Mr. Kevin Thames
Chief, Project Management
Piedmont Section
U.S. Army Corps of Engineers
1590 Adamson Parkway, Suite 200
Morrow, GA 30260-1777

Re: Indian Creek Reservoir, SAS-2009-00042
Supplemental Response to Comment Letter dated June 19, 2019 with
Revised Compensatory Mitigation Plan and Water Quality Monitoring Plan

Mr. Thames:

The Carroll County Water Authority ("CCWA") appreciates you granting it an extension to provide a revised Compensatory Mitigation Plan and Water Quality Monitoring Plan as requested in your June 19, 2019 letter. Both plans are enclosed herewith for agency review.

The Water Quality Monitoring Plan is the result of coordination between CCWA, the Georgia Environmental Protection Division ("EPD"), the U.S. Environmental Protection Agency ("EPA") and the United States Geological Survey ("USGS"). CCWA met on August 13, 2019 with EPD representatives Elizabeth Booth, Johanna Smith and Wei Zeng and participated in a telephone conference on August 21, 2019 with EPA representatives Eric Sommerville and Rosemary Calli. Following these discussions, USGS conducted a gage station site reconnaissance to further evaluate the locations discussed with EPD and EPA. CCWA used the combination of inputs from these agencies to derive monitoring locations, parameters, start times, frequency, and duration for both water quality and biological monitoring. The resulting Water Quality Monitoring Plan represents a reasonable strategy to establish measurable criteria to determine if there are adverse impacts to water quality and the integrity of the biological community as a result of the Indian Creek Reservoir and the associated Little Tallapoosa River withdrawal.

The Compensatory Mitigation Plan was specifically revised to remove the Priority 2 restoration proposed on Big Indian Creek within the Big Indian Creek Mitigation Site ("BICMS") and include the supplemental purchase of stream mitigation credits from a commercial bank. The plan was also updated to reflect the jurisdictional waters impacts approved in the January 15, 2019 concurrence letter. No other revisions were requested in your June 19, 2019 letter which was understood by CCWA as the compilation of all final comments on the project. For ease of reference, a copy of the 30% construction drawing site plans for the BICMS are attached to this letter. The

30% construction drawings in their entirety are also included as Appendix F in the Compensatory Mitigation Plan.

Based on prior approvals and your June 19, 2019 letter, CCWA asserts that the only outstanding items for issuance of the permit are issuance of the 401-water quality certification and final approval of the two enclosed reports. Given that the Corps has taken a hard look at the BICMS since 2008 with now five versions of the mitigation plan and five agency site visits complete, CCWA anticipates expedited review of the plan considering the single revision requested in your letter has been incorporated. Likewise, the Water Quality Monitoring Plan, although new, has been pre-coordinated with EPA, EPD and USGS in hopes of also expediting its review.

CCWA requests a meeting with you and your staff to discuss the final permitting checklist and permit issuance timeline. We ask that this meeting occur as soon as possible, even if prior to your ability to review the Compensatory Mitigation Plan or Water Quality Monitoring Plan.

Please let us know if you have any questions prior to our meeting.

Sincerely,



Matt Windom, PE
Executive Director

CC: Eric Somerville and Rosemary Calli, EPA – electronic copy (CD)
Sandy Abbott, F&WS – website access
Johanna Smith, EPD
Steve Wiedl, EPD – hard copy and electronic copy (USB device)
Andrea Gray – hard copy
Rick Larsen, Eco-Tech, Inc. - electronic
Bob Hawley, Sustainable Streams – electronic

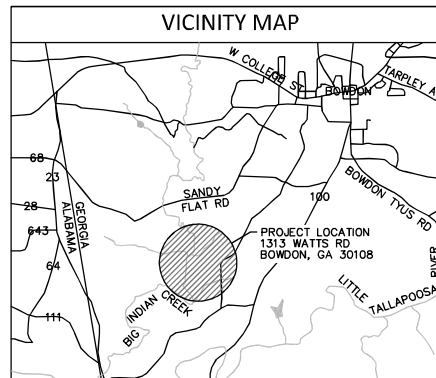
Attachments:

- Big Indian Creek Mitigation Plan Site Plans (pages 1-15 of 30% construction drawings)
- Water Quality Monitoring Plan
- Compensatory Mitigation Plan (access also available via website: www.indiancreekreservoir.com)

STREAM RESTORATION PROJECT BIG INDIAN CREEK MITIGATION SITE

WIGGINS FARM
CARROLL COUNTY, GEORGIA

PREPARED FOR:
CARROLL COUNTY WATER AUTHORITY
556 OLD BREMEN ROAD
CARROLLTON, GEORGIA 30112



UNDERGROUND UTILITIES
TWO WORKING DAYS
BEFORE YOU DIG, CALL
811

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SUBMITTAL PREPARED BY:
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LOUISVILLE, KENTUCKY 40205

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CARROLL CO. WATER AUTHORITY
556 OLD BREMEN ROAD
CARROLLTON, GEORGIA 30112

COVER SHEET
STREAM RESTORATION PROJECT
BIG INDIAN CREEK MITIGATION SITE

DATE REVISION

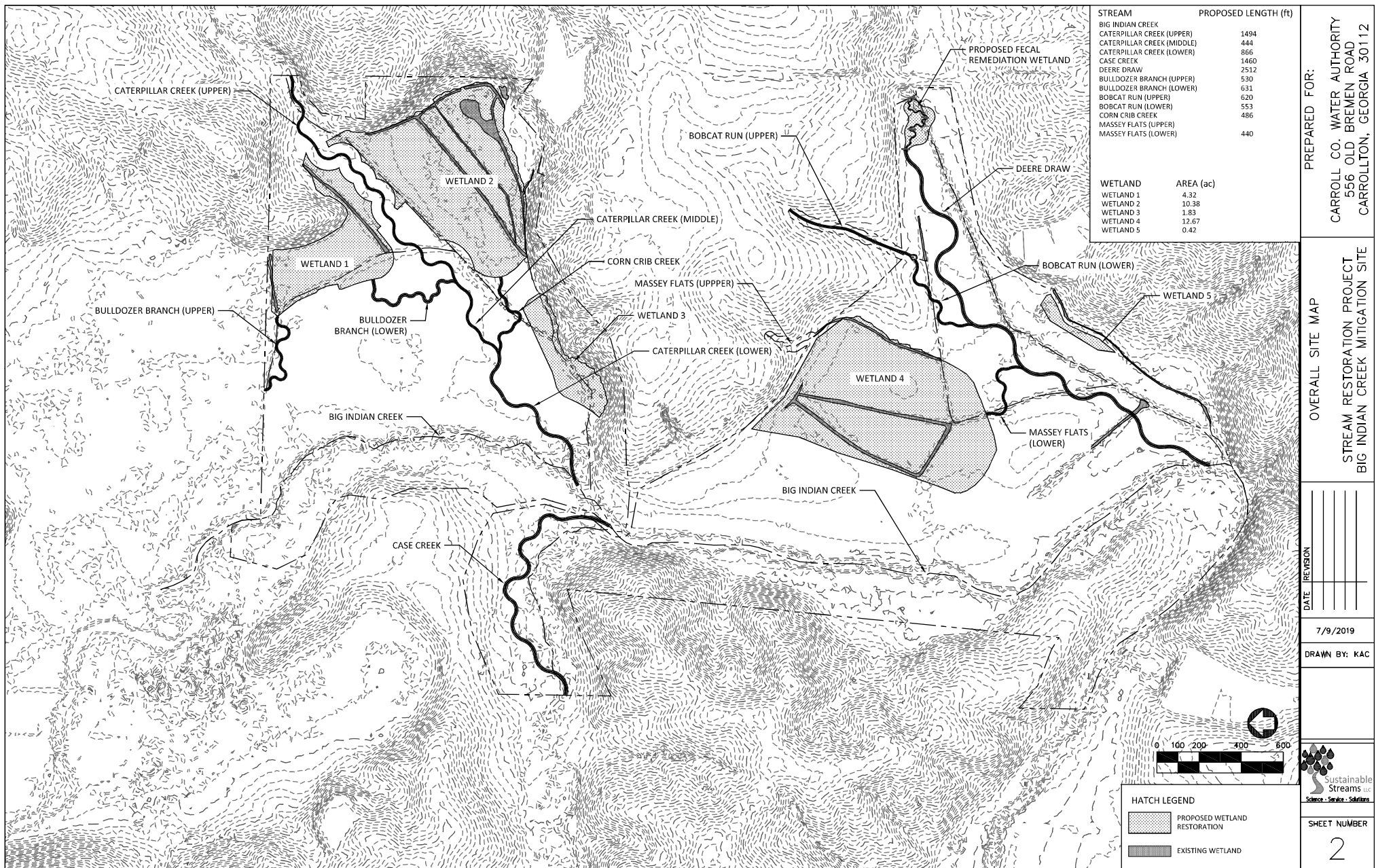
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SHEET NUMBER

1



STREAM		PROPOSED LENGTH (ft)
BIG INDIAN CREEK		
CATERPILLAR CREEK (UPPER)		1494
CATERPILLAR CREEK (MIDDLE)		444
CATERPILLAR CREEK (LOWER)		866
CASE CREEK		1460
DEERE DRAW		2512
BULLDOZER BRANCH (UPPER)		530
BULLDOZER BRANCH (LOWER)		631
BOBCAT RUN (UPPER)		620
BOBCAT RUN (LOWER)		553
CORN CRIB CREEK		486
MASSEY FLATS (UPPER)		
MASSEY FLATS (LOWER)		440

WETLAND	AREA (ac)
WETLAND 1	4.32
WETLAND 2	10.38
WETLAND 3	1.83
WETLAND 4	12.67
WETLAND 5	0.42

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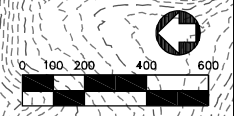
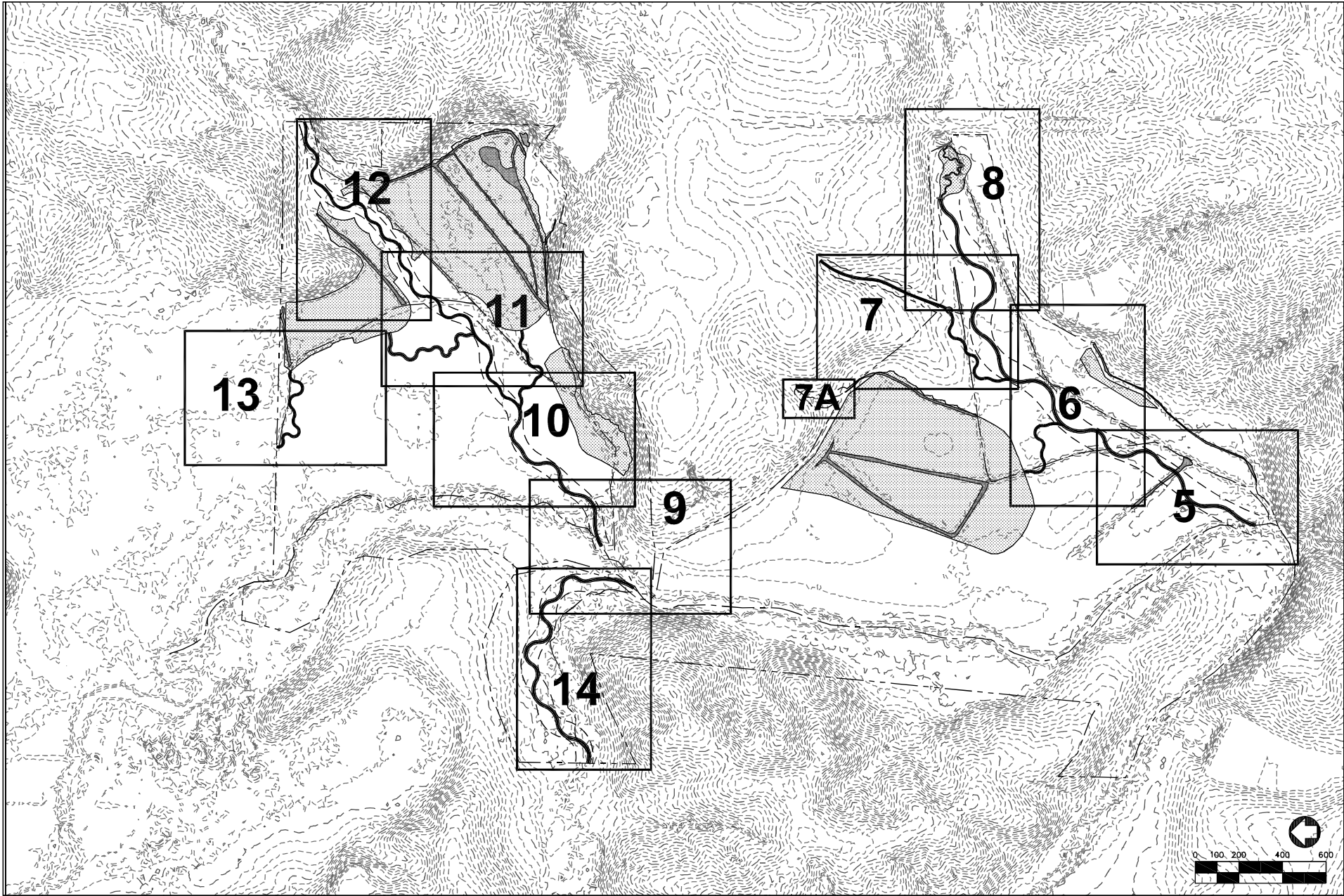
OVERALL SITE MAP
STREAM RESTORATION PROJECT
BIG INDIAN CREEK MITIGATION SITE


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Sustainable
Streams, Inc.
Science • Service • Solutions

SHEET NUMBER
2



 Sustainable Streams <small>Science - Service - Solutions</small>	SHEET NUMBER 3	
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	7/9/2019	
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SHEET LEGEND STREAM RESTORATION PROJECT BIG INDIAN CREEK MITIGATION SITE		
PREPARED FOR: CARROLL CO. WATER AUTHORITY 556 OLD BREMEN ROAD CARROLLTON, GEORGIA 30112		

GENERAL NOTES

SCOPE OF WORK:

THE WORK WITHIN THE LIMITS OF THIS IMPROVEMENT INCLUDES THE FOLLOWING ITEMS:

- EROSION CONTROL
- TREE CLEARING (AUGUST 1 TO MAY 14 ONLY)
- CONSTRUCTION CROSSINGS
- EXCAVATION/MASS GRADING
- CHANNEL CONSTRUCTION, BANK ARMORING AND ARMORING (ROCK AND WOOD)
- GROUNDWATER DAMS
- PLANTING AND SEEDING
- ALL OTHER ITEMS SHOWN ON THE PLANS, STIPULATED IN THE GENERAL NOTES, OR AS DIRECTED BY THE OWNER.

THE SCOPE OF WORK IS BASED ON THE LIMITS OF WORK AS SHOWN ON THE PLANS. MEASUREMENTS AND QUANTITIES OF MATERIALS THAT MAY BE SHOWN ON PLANS ARE APPROXIMATE AND INCLUDED FOR CONVENIENCE ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL MEASUREMETS TO THEIR OWN SATISFACTION AND FURNISHING WHATEVER QUANTITY OF MATERIALS NECESSARY TO CONSTRUCT THE PROJECT IN ACCORDANCE WITH THE PLANS. THERE WILL BE NO ADJUSTMENT IN THE CONTRACT SUM FOR ANY ADDITIONAL AMOUNT OF TYPES OF MATERIALS IN ADDITION TO THOSE LISTED.

PRIOR TO THE START OF ANY CONSTRUCTION ACTIVITIES, THE CONTRACTOR WILL HAVE A SITE MEETING WITH THE PROJECT ENGINEER AND OWNER TO MARK THE DISTURBANCE LIMITS, ANSWER QUESTIONS RELATED TO SCOPE, MEANS, AND/OR METHODS, AND ADDRESS ANY OTHER ISSUES THAT ANY PARTY MAY HAVE.

EVERY EFFORT SHALL BE TAKEN TO MINIMIZE DISTURBANCE IN THE STREAM CHANNEL OUTSIDE THE PROJECT LIMITS AND IN GAINING ACCESS TO/FROM THE WORK AREA. CONTRACTOR SHALL BE RESPONSIBLE FOR LEAVING ALL AREAS IN A CONDITION EQUAL TO OR IMPROVED UPON THE ORIGINAL.

UTILITIES:

THE CONTRACTOR SHALL FIELD VERIFY ALL UTILITIES WITHIN THE PROJECT AREA.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE INCURRED TO ANY UTILITY SERVICE LINE AT NO COST OR OBLIGATION TO THE OWNER.

LAYOUT:

AN ELECTRONIC AUTOCAD FILE WILL BE PROVIDED TO THE CONTRACTOR FOR THE HORIZONTAL AND VERTICAL LAYOUT. FIELD LAYOUT OF THE PROJECT SHALL BE INCLUDED IN THE BID.

SITE PRESERVATION AGREEMENT:

THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY DAMAGE TO EXISTING ROADS, CURBS, FENCING, DRIVEWAYS, ETC. CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT ALL ACCESS LOCATIONS PER THE PLANS.

THE CONTRACTOR SHALL MINIMIZE VEGETATION CLEARING AND TREE REMOVAL AND DISTURBANCE TO THE EXTENT POSSIBLE, SPECIFICALLY MATURE TREES OUTSIDE THE GRADING LIMITS. ALL TREE CLEARING SHALL OCCUR BETWEEN AUGUST 1 AND MAY 14.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY IMPROVEMENTS TO THE ROAD CONDITIONS, GATES, AND FENCING REQUIRED FOR ACCESS DURING CONSTRUCTION.

STAGING/STOCKPILING:

STAGING AND/OR STOCKPILING ARE NOT ALLOWED WITHIN THE DRIPLINE OF ANY TREE.

ALL STRUCTURES AND PROTECTION MEASURES SHALL BE CONSTRUCTED WITH THE MATERIAL AND METHODS IN THE PLANS.

STABILIZATION MEASURES SHALL BE PLACED WITHIN 48 HOURS AFTER FINISH GRADING IS COMPLETE.

EROSION AND SEDIMENT CONTROL:

THE CONTRACTOR SHALL INSTALL AND MAINTAIN THROUGHOUT THE PROJECT ALL EROSION CONTROL MEASURES IN ACCORDANCE WITH THESE PLANS AND IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL EROSION AND SEDIMENT CONTROL REGULATIONS.

THE CONTRACTOR SHALL CONTINUOUSLY MAINTAIN ALL EROSION AND SEDIMENT CONTROL DEVICES AND STRUCTURES, AND RELOCATE WHEN NECESSARY, TO CONTAIN SEDIMENT ONSITE.

ALL STORMWATER EROSION PREVENTION PRACTICES AFFECTED BY GRADING OPERATIONS SHALL BE INSTALLED IMMEDIATELY FOLLOWING MAJOR EARTHWORK IN THAT AREA, OR AS NECESSARY TO ACHIEVE SEDIMENT CONTROL.

DURING IN-STREAM CONSTRUCTION, THE CONTRACTOR SHALL MINIMIZE SEDIMENT POLLUTION BY WORKING IN LOW FLOW CONDITIONS. THE CONTRACTOR MAY, BUT IS NOT REQUIRED TO, DIVERT FLOW. ANY STRUCTURES CONSTRUCTED TO DIVERT FLOW SHALL BE REMOVED UPON COMPLETION OF WORK AND STREAMBED SHALL BE RESTORED TO ORIGINAL GRADE UNLESS OTHERWISE SHOWN. TEMPORARY FLOW DIVERSION SHALL BE CONSTRUCTED SUCH THAT IT DOES NOT RESULT IN FLOODING OF UPSTREAM PROPERTIES. THE CONTRACTOR SHALL STAY ATTUNED TO THE THREAT OF SIGNIFICANT RAIN EVENTS AND FLOODING. THE CONTRACTOR SHOULD WITHDRAW EQUIPMENT AND EMPLOYEES IF FLOODING CONDITIONS DEVELOP. TEMPORARY FLOW DIVERSION MUST BE REMOVED FROM THE STREAM PRIOR TO SIGNIFICANT RAIN EVENTS TO PREVENT FLOODING FROM OCCURRING UPSTREAM OF THE PROJECT SITE AS A RESULT OF PROJECT ACTIVITIES. HOWEVER, THE CONTRACTOR SHALL ENSURE THAT THE REACH OF STREAM BEING WORKED ON IS STABILIZED PRIOR TO REMOVAL OF THE FLOW DIVERSION.

THE CONSTRUCTION ACTIVITIES SHALL BE CONDUCTED TO MINIMIZE THE EXTENT OF DISTURBED SOILS EXPOSED AT ANY ONE TIME AND THE LENGTH OF SOIL EXPOSURE. THE CONTRACTOR SHALL NOT EXCEED SEVEN DAYS BEFORE SEEDING, MULCHING, AND BLANKETING DISTURBED AREAS ALONG THE STREAM RESTORATION REACH. SHOULD CHANCE OF RAIN BE PRESENT, THE CONTRACTOR SHALL SEED, MULCH, AND BLANKET THE RESTORATION REACH MORE FREQUENTLY.

EROSION AND SEDIMENT CONTROL MEASURES SHALL BE CHECKED AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS AFTER ANY RAIN EVENT GREATER THAN 0.5 INCHES OF PRECIPITATION. A WRITTEN LOG OF THESE INSPECTIONS AND IMPROVEMENTS OF CONTROLS SHALL BE KEPT ONSITE.

RESTORATION OF ALL DISTURBED AREAS SHALL IMMEDIATELY FOLLOW EXCAVATION AND GRADING OPERATIONS. DELAY IN RESTORATION SHALL NECESSITATE ADDITIONAL TEMPORARY EROSION CONTROL MEASURES AS DIRECTED BY THE OWNER, INCLUDING ADDITIONAL SEEDING/STRAW APPLICATION.

SEEDED AREAS SHALL BE CHECKED REGULARLY AND SHALL BE WATERED, FERTILIZED, RESEEDED, AND MULCHED AS NECESSARY TO OBTAIN A DENSE STAND OF GRASS.

ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 14 DAYS AFTER FINAL SITE STABILIZATION OR AFTER THE TEMPORARY MEASURES ARE NO LONGER NEEDED. TRAPPED SEDIMENT AND THE DISTURBED SOIL AREAS RESULTING FROM THE DISPOSITION OF TEMPORARY MEASURES SHALL BE PERMANENTLY STABILIZED TO PREVENT FURTHER EROSION AND SEDIMENTATION.

WHEN A CRUSHED STONE CONSTRUCTION ENTRANCE HAS BEEN COVERED WITH SOIL OR HAS BEEN PUSHED INTO THE SOIL BY CONSTRUCTION TRAFFIC, IT SHALL BE REPLACED WITH A DEPTH OF STONE EQUAL TO THAT OF THE ORIGINAL APPLICATION.

ALL DRAINAGE INLETS SHALL BE PROTECTED FROM SILTATION. INEFFECTIVE PROTECTION DEVICES SHALL BE IMMEDIATELY REPLACED AND THE INLET CLEANED. FLUSHING IS NOT AN ACCEPTABLE METHOD OF CLEANING.

SILT FENCE OR OTHER APPROVED EROSION PREVENTION MEASURE IS TO BE PLACED ALONG A CONTOUR AND NOT DOWNSLOPE AND AROUND ALL STOCKPILES.

THE CONTRACTOR SHALL KEEP ALL SURROUNDING PUBLIC ROADWAYS AND DRAINAGE SYSTEMS FREE FROM DIRT, MUD, AND CONSTRUCTION DEBRIS AT ALL TIMES. ALL MATERIALS DEPOSITED ONTO PUBLIC ROADS SHALL BE REMOVED IMMEDIATELY USING A STREET SWEEPER OR SCRAPER. DEBRIS SHALL NOT BE WASHED OFF PAVED SURFACES OR INTO STORM DRAINS.

WORKING IN "DRY" CONDITIONS

THESE PLANS HAVE BEEN DEVELOPED TO FACILITATE THE CONSTRUCTION OF THE PROPOSED CHANNELS IN THE "DRY" (NO FLOW) CONDITIONS TO THE MAXIMUM EXTENT PRACTICAL, WITHOUT CONNECTION TO THE EXISTING CHANNELS.

THE PROPOSED CHANNELS ARE TO REMAIN DISCONNECTED FROM THE EXISTING CHANNELS FOR A MINIMUM OF ONE FULL GROWING SEASON BEFORE THE CONNECTIONS BETWEEN THE PROPOSED AND EXISTING CHANNELS ARE CONSTRUCTED.

LEGEND

EXISTING

- MINOR CONTOUR
- MAJOR CONTOUR
- STREAM CENTERLINE
- PROPERTY/EASEMENT BOUNDARY
- WETLAND

PROPOSED

- APPROX. LIMITS OF EXCAVATION CORRIDOR
- CHANNEL BANKS
- STREAM CENTERLINE
- WETLAND
- HILLSLOPE EXTENSION
- POOL
- BOULDER CLUSTER
- LOW WATER CROSSING
- BURIED ROCK GRADE CONTROL
- ROCK TOE
- STEP POOL
- ROCK RIFFLE
- ROCK/LOG RIFFLE
- LOG VANE
- BURIED LOG
- LOG RIFFLE
- LOG RUN
- BENDWAY LOGS

PREPARED FOR:

GENERAL NOTES AND SITE ACCESS

DATE

7/9/2019

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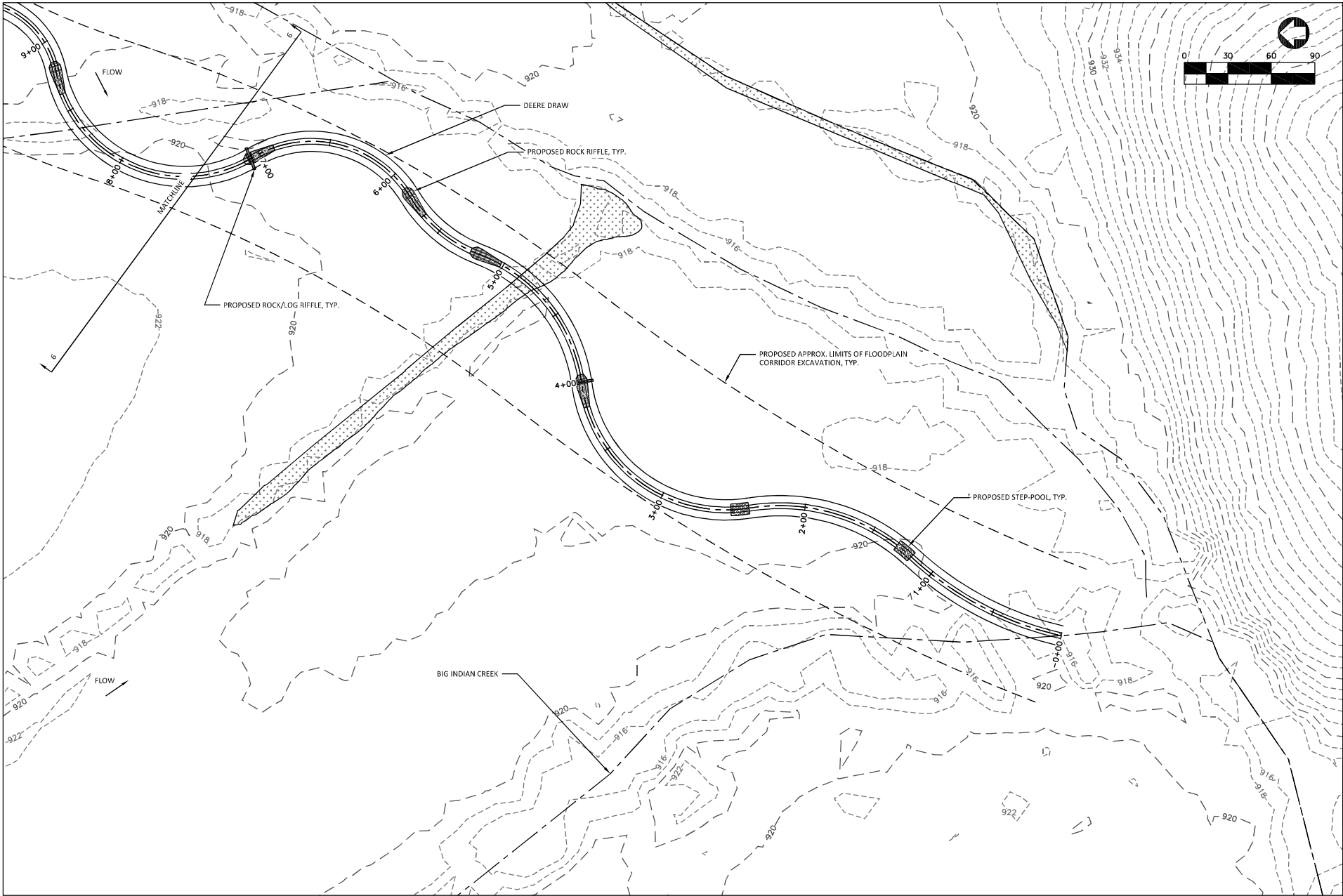



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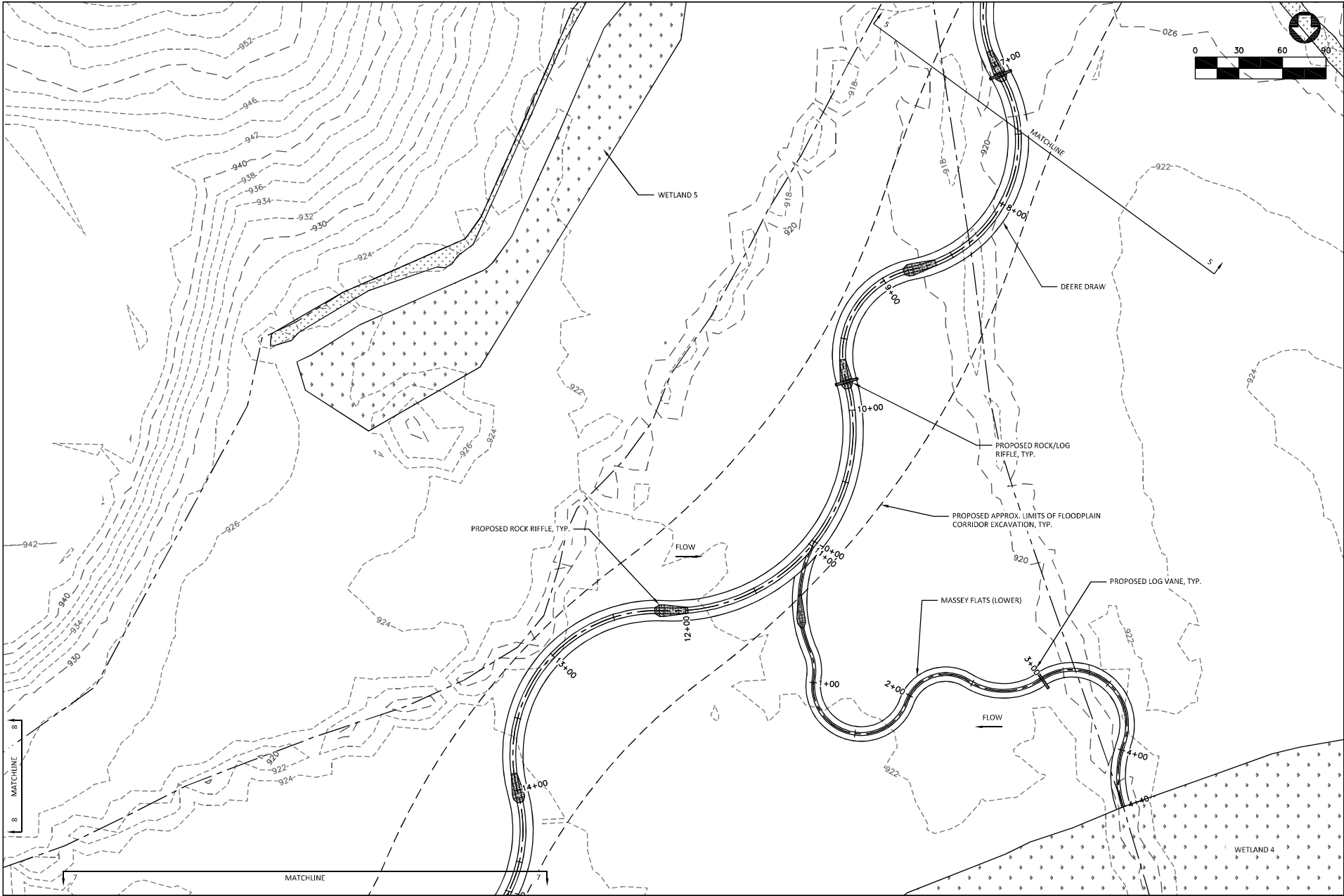
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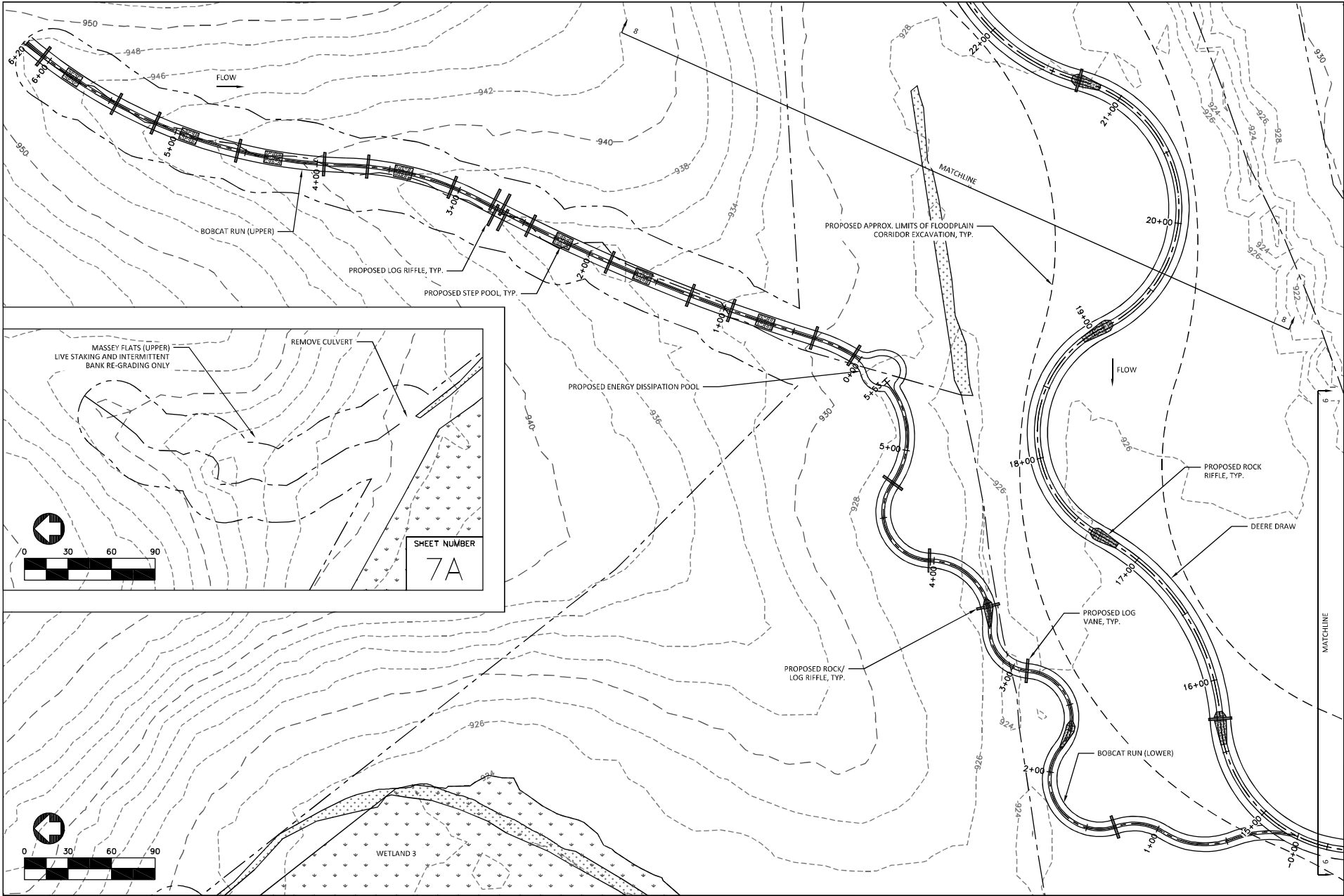
STREAM RESTORATION PROJECT
BIG INDIAN CREEK MITIGATION SITE



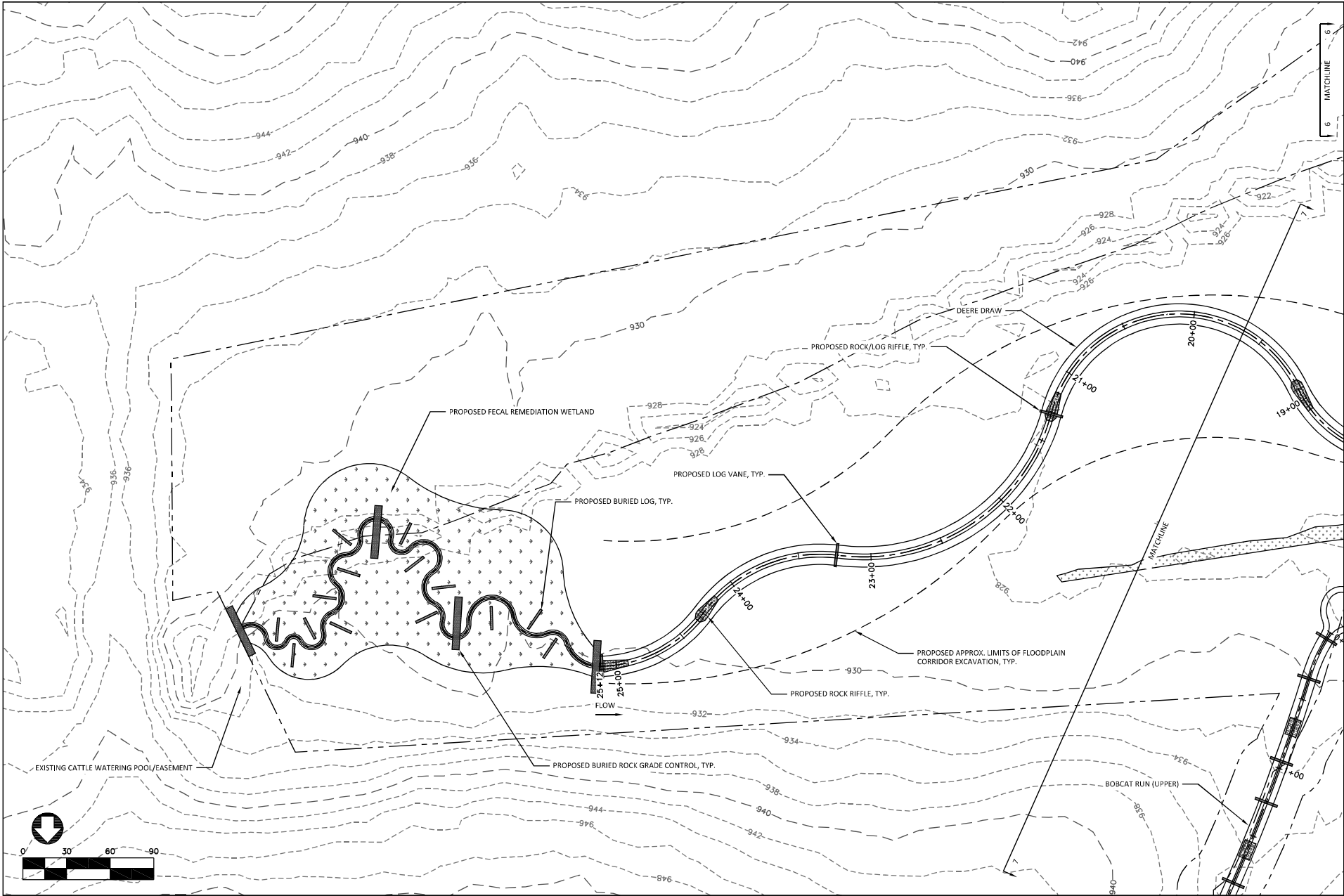
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SITE PLAN STREAM RESTORATION PROJECT BIG INDIAN CREEK MITIGATION SITE	
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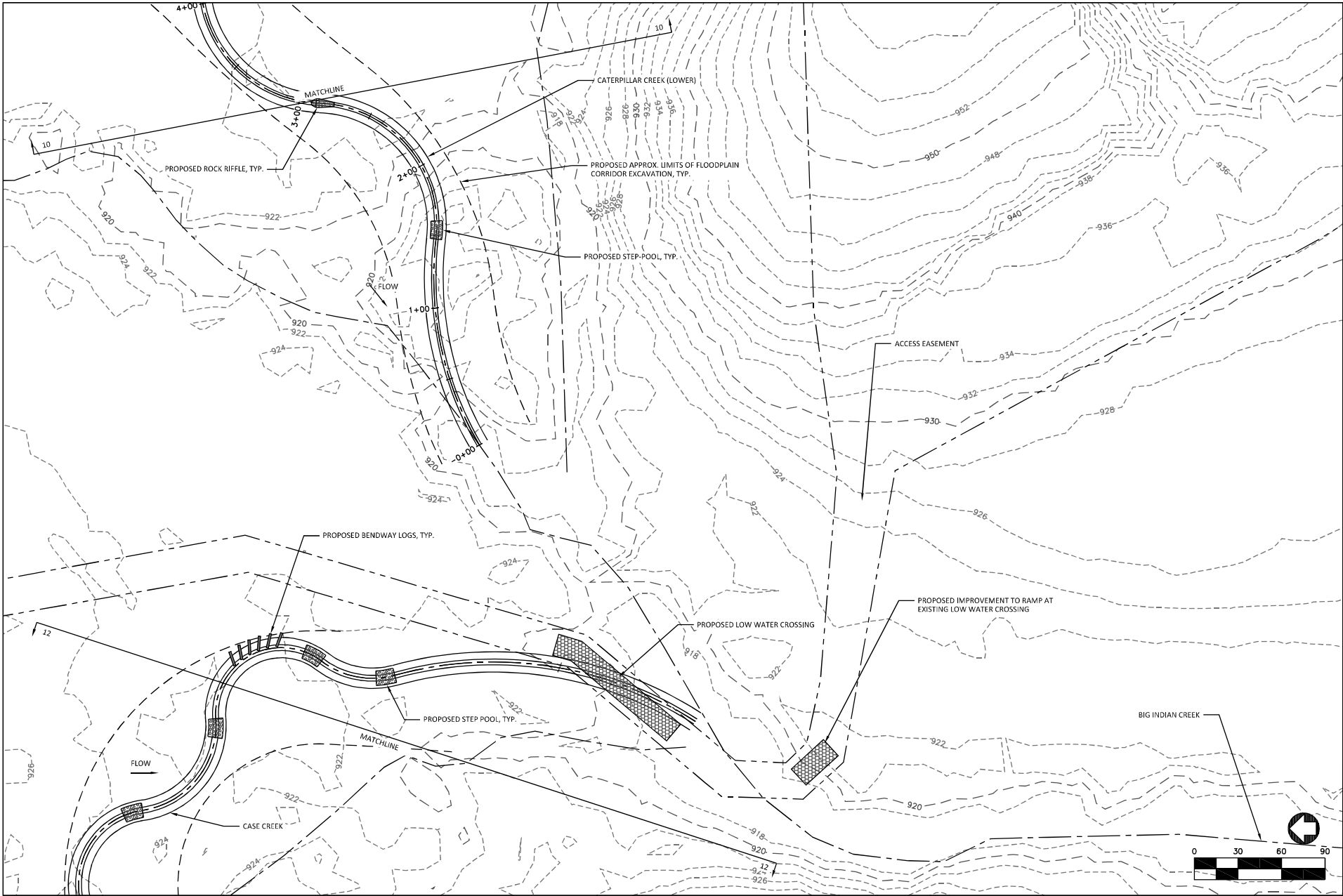
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SITE PLAN	
STREAM RESTORATION PROJECT BIG INDIAN CREEK MITIGATION SITE	
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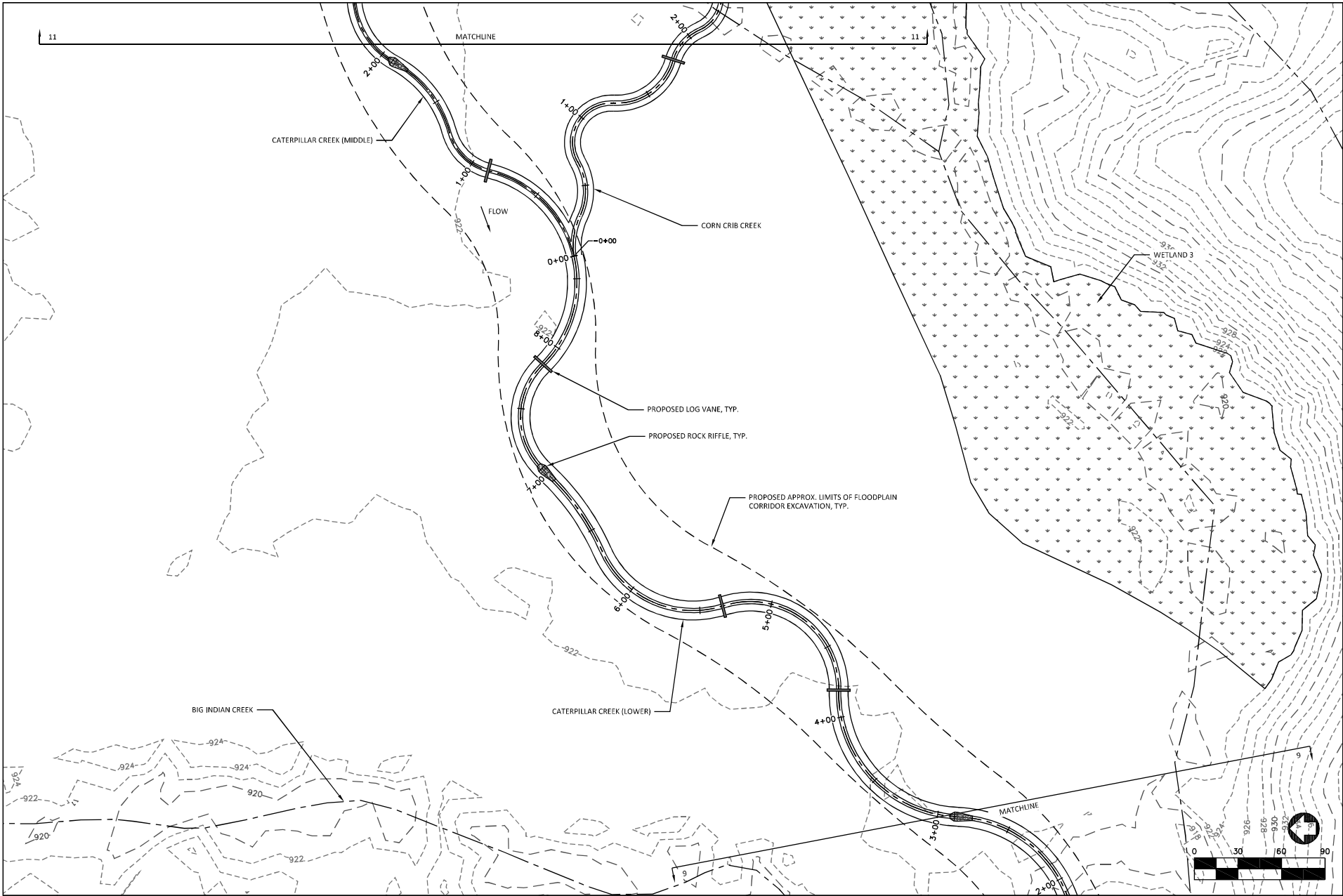
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SITE PLAN STREAM RESTORATION PROJECT BIG INDIAN CREEK MITIGATION SITE	
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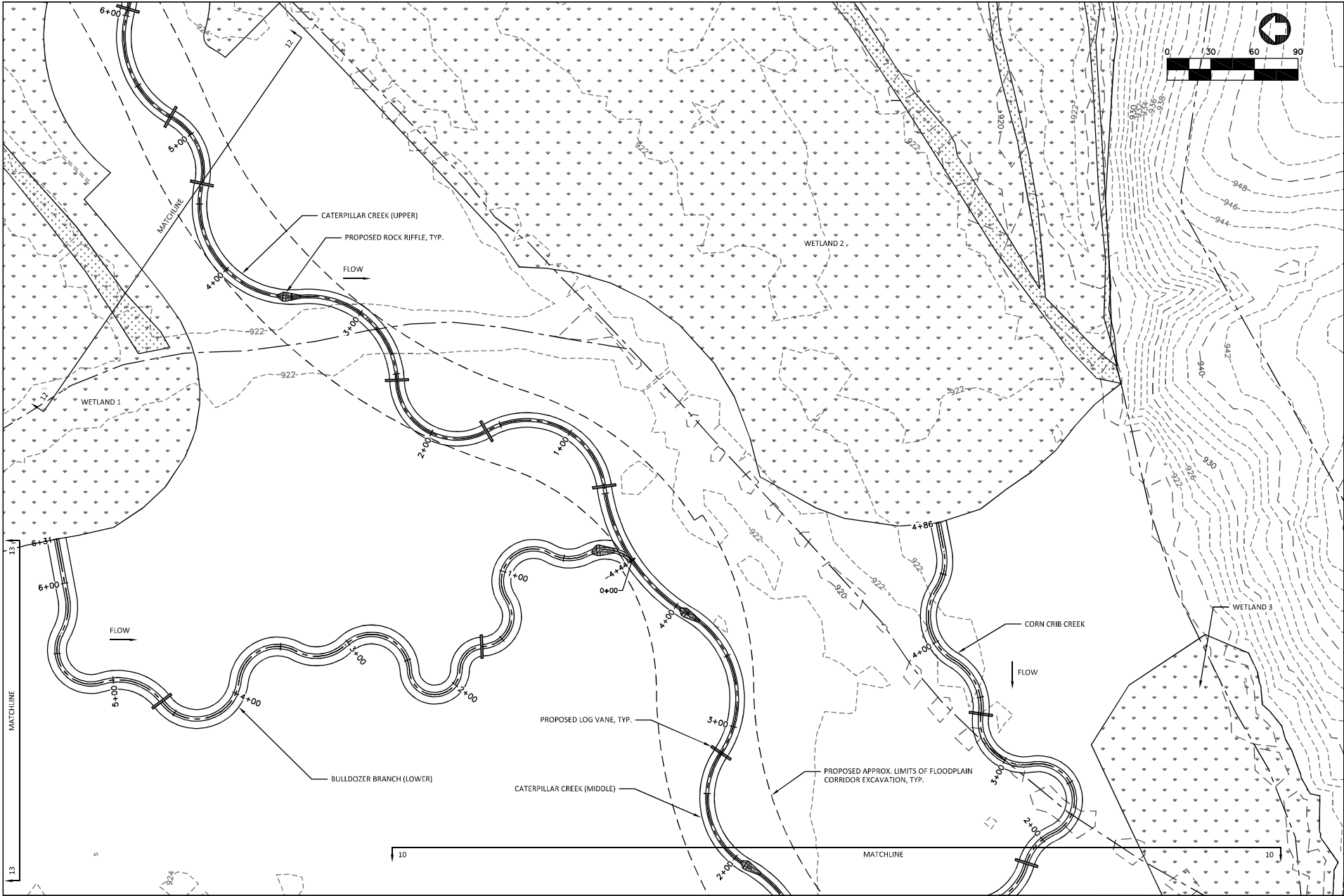
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SITE PLAN					
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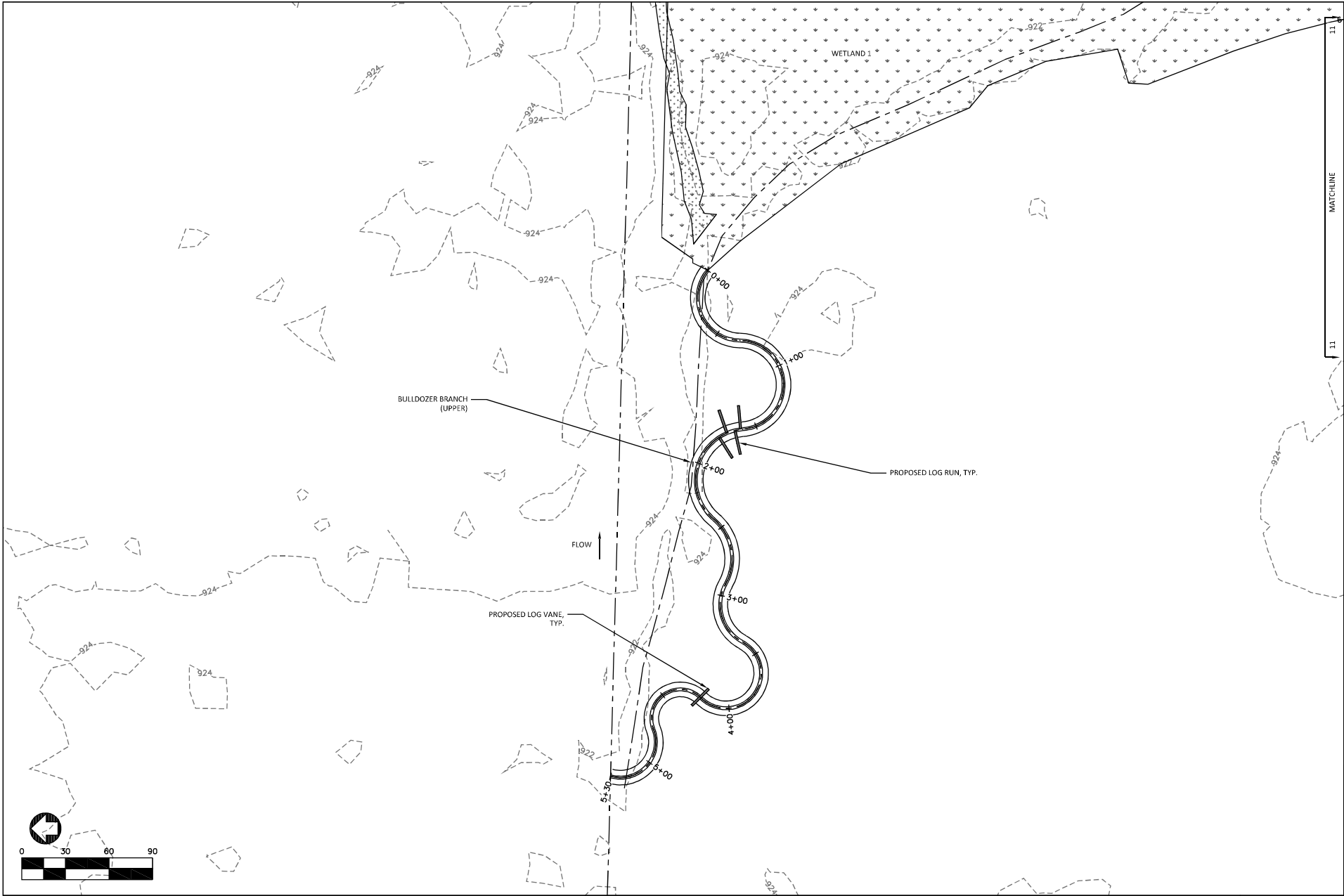
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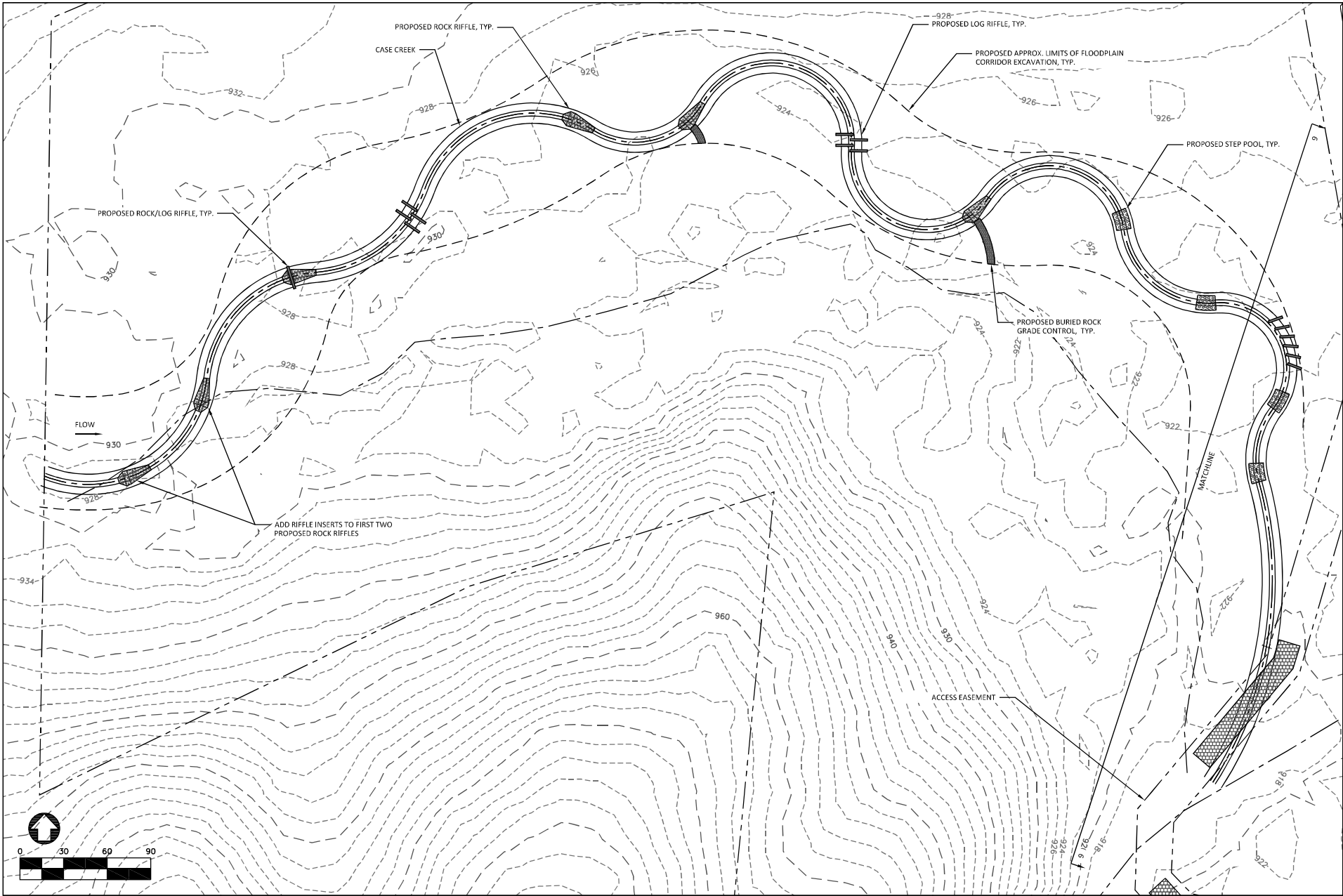
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