

## SEQUENCE OF CONSTRUCTION JUNCTION STRUCTURE 'A' & 'B'

### REFERENCES:

ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE FOLLOWING REFERENCES:

1. THE VIRGINIA STREAM RESTORATION & STABILIZATION BEST MANAGEMENT PRACTICES GUIDE, VIRGINIA DEPARTMENT OF CONSERVATION AND RECREATION (DCR)
2. VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, VIRGINIA DEPARTMENT OF CONSERVATION AND RECREATION (DCR)
3. VIRGINIA STORMWATER HANDBOOK, VIRGINIA DEPARTMENT OF CONSERVATION AND RECREATION (DCR)

### STAGE I

1. EXISTING TRIPLE BOX CULVERT (WONJU STREET): REDIRECT ALL FLOW INTO SOUTHERN-MOST BARREL (NO. 1)
  - a. THIS WILL BE PERFORMED BY BLOCKING FLOW INTO THE MIDDLE (NO. 2) BARREL AND THE NORTHERN-MOST BARREL (NO. 3) WITH SAND BAGS OR OTHER SUITABLE METHODS IN ACCORDANCE WITH PRACTICE 5.2.
  - b. CLEAN THE BARRELS OF THE CULVERT OF ALL DEBRIS AND RUBBLE BEFORE BEGINNING THIS PROCESS.
2. ONCE THE FLOW IS DIVERTED TO BARREL NO. 1, CONSTRUCT A TEMPORARY DIVERSION USING A PORTABLE DAM/BARRIER IN ACCORDANCE WITH PRACTICE 5.4 ALONG THE NORTHERN EDGE OF BARREL NO. 1. SEE STAGE I PLAN HEREON. THE PURPOSE OF THE TEMPORARY BARRIER IS TO PERMIT WORK ON BARRELS 2 & 3 WHILE IN A DRY AND DEWATERED ENVIRONMENT.
3. BEGIN WORK ON JUNCTION STRUCTURE 'A' AT BARREL NOS. 2 & 3.
  - a. MAINTAIN ALL DIVERSIONS AND BARRIERS.
  - b. MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES IN AND ADJOINING THE WORK AREA.
  - c. IF DEWATERING OF THE STAGE I WORK AREA IS REQUIRED, EMPLOY AN APPROVED PUMP AND DEWATERING DEVICES.
4. APPROXIMATE TIME TO COMPLETE THIS STAGE IS TWO WEEKS.

### STAGE II

1. UPON COMPLETION OF THE JUNCTION STRUCTURE BETWEEN BARREL NO. 3 AND THE NEW BOX CULVERT, REMOVE FLOW DIVERSION (PRACTICE 5.2) FROM OPENING OF BARREL NO. 3.
2. BLOCK BARREL NO. 1 USING AN APPROVED DIVERSION (PRACTICE 5.2) AND REDIRECT ALL FLOW INTO BARREL NO. 3.
3. ONCE FLOW IS SUCCESSFULLY DIVERTED THROUGH BARREL NO. 3, THE JUNCTION STRUCTURE, AND THE BOX CULVERT, CONSTRUCT AN APPROVED TEMPORARY BARRIER (PRACTICE 5.4) TO DIRECT ORE BRANCH TRIBUTARY INTO ORE BRANCH AS SHOWN HEREON.
4. ONCE BARRIER IS IN PLACE, BEGIN CONSTRUCTION ON THE REMAINDER OF JUNCTION STRUCTURE 'A'. THIS INCLUDES THE REMAINDER OF BARREL NO. 2, ALL OF BARREL NO. 1, AND THE 120-INCH PIPE FROM JUNCTION STRUCTURE 'B'.
  - a. MAINTAIN ALL DIVERSIONS AND BARRIERS.
  - b. MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES IN AND ADJOINING THE WORK AREA.
  - c. IF DEWATERING OF THE STAGE II WORK AREA IS REQUIRED, EMPLOY AN APPROVED PUMP AND DEWATERING DEVICES.
5. UPON COMPLETION OF THE WORK IN THIS STAGE, REMOVE THE TEMPORARY DIVERSIONS PLACED AT THE INLET OF CULVERT BARREL NO. 1 & 2.
6. LEAVE TEMPORARY BARRIER IN-PLACE UNTIL STAGE III WORK IS COMPLETE AND ALL FLOW IS DIVERTED INTO THE NEW SYSTEM.
7. APPROXIMATE TIME TO COMPLETE THIS STAGE IS THREE WEEKS.

### STAGE III

1. BEGIN CONSTRUCTION OF 120" DIAMETER PIPE BETWEEN STATIONS 10+25 AND 12+25. THIS WORK WILL BE PERFORMED OUTSIDE THE STREAM LIMITS AND WILL NOT BREACH THE EXISTING CHANNEL.
2. INSTALL A PUMP AROUND DIVERSION (PRACTICE 5.1) UPSTREAM OF NEW JUNCTION STRUCTURE 'B'.
3. ONCE PUMP AROUND DIVERSION IS COMPLETE, BEGIN CONSTRUCTION OF JUNCTION STRUCTURE 'B'. ALL WORK FOR THIS JUNCTION STRUCTURE SHALL BE CONDUCTED IN THE DRY.
  - a. MAINTAIN ALL DIVERSIONS AND BARRIERS.
  - b. MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES IN AND ADJOINING THE WORK AREA.
  - c. IF DEWATERING OF THE STAGE III WORK AREA IS REQUIRED, EMPLOY AN APPROVED PUMP AND DEWATERING DEVICES.

4. UPON COMPLETION OF JUNCTION STRUCTURE 'B' AND THE 120-INCH DIAMETER PIPE FROM JUNCTION STRUCTURE 'B' TO 'A', CONSTRUCT NEW BOX CULVERT FROM EXISTING HEAD WALL AT FRANKLIN TO NEW JUNCTION STRUCTURE 'B'. MAINTAIN PUMP-AROUND SYSTEM DURING THIS OPERATION TO ENSURE WORK IS PERFORMED IN THE DRY.

5. ONCE WORK IS COMPLETE, THE FLOW WILL BE COMPLETELY DIVERTED INTO JUNCTION STRUCTURE 'B' AND INTO THE 120-INCH PIPE.

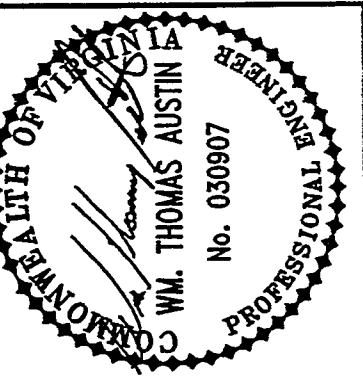
6. APPROXIMATE TIME TO COMPLETE THIS STAGE IS TWO WEEKS.

### STAGE IV

1. BEGIN FILLING TRIBUTARY TO ORE BRANCH AT FRANKLIN ROAD FROM JUNCTION STRUCTURE 'B' TO CONFLUENT WITH ORE BRANCH.
2. REMOVE ALL TEMPORARY BARRIERS AND DIVERSIONS.
3. BEGIN FILLING ORE BRANCH FROM JUNCTION STRUCTURE 'A' AND MOVE IN A DOWNSTREAM DIRECTION.
4. ONCE ITEMS ABOVE ARE COMPLETE, GRADING AND BUILDING PAD PREPARATION CAN BE COMPLETED FOR THE UKROP'S AND WALGREEN'S SITE.

NOTE:  
WORK WITHIN THE FLOODWAY SHALL BE PROHIBITED  
UNTIL STAGES I-III ARE COMPLETE.

SCALE IN FEET  
0 30 60



Revisions	Date	By	For
1	1/15/05		FINAL CITY OF ROANOKE REVIEW

Issue Date:	October 25, 2005
Drawn By:	CVZ
Designed By:	BSM/CSZ/WTA
Checked By:	WTA
Date:	10/25/2005

**Mattern & Craig**  
CONSULTING ENGINEERS • SURVEYORS  
701 FIRST STREET  
ROANOKE, VIRGINIA 24012  
(800) 345-5882  
FAX (540) 345-7881

SITE DEVELOPMENT PLANS  
IVY MARKET - PHASE I  
ORE BRANCH DIVERSION  
SEQUENCE  
CITY OF ROANOKE, VIRGINIA

Vertical Scale:	N/A
Horizontal Scale:	1" = 30'
Commission No.	2384

Sheet No.:  
**C-8**