

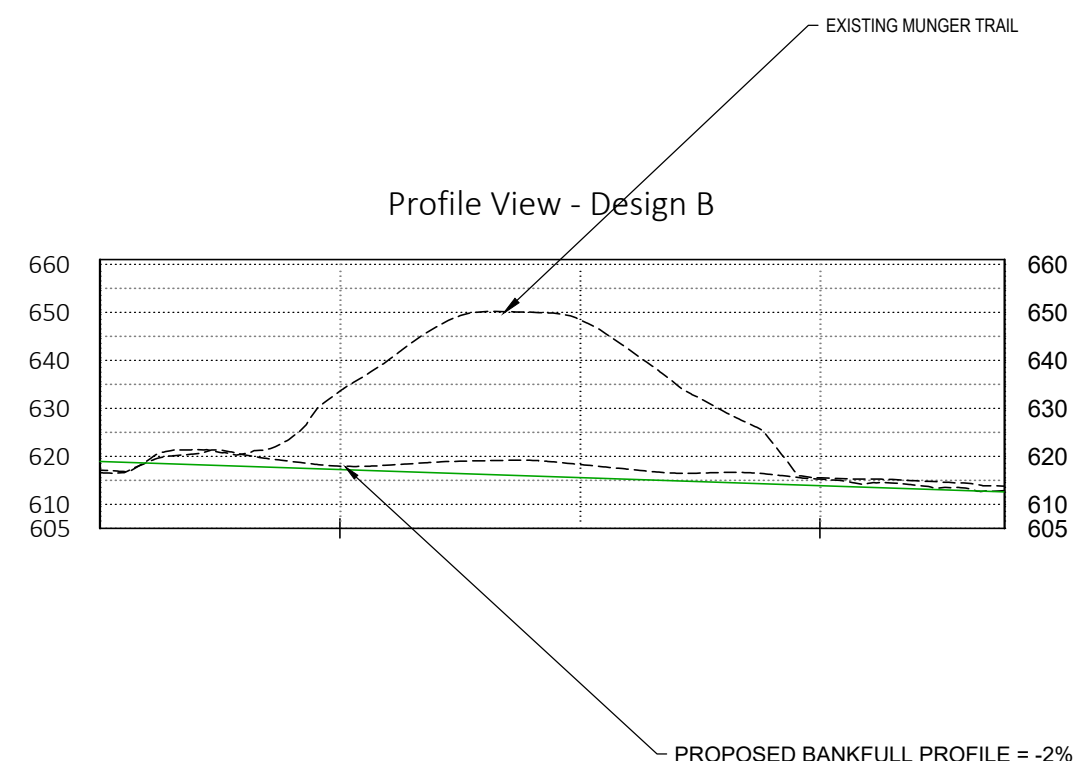
**30% REVIEW**  
**NOT FOR CONSTRUCTION**

**Knowlton Creek Culvert Replacement**  
 ---  
 FAW  
 ST LOUIS COUNTY      NEAR DULUTH  
 Section: 23      Township: 49N      Range: 15W

Revisions	
Date	By

Overview			
Survey:	Clp 5/23	Designed:	Clp 07/24
Drawn:	Clp 8/23	Drawn:	Clp 08/24
Checked:	XX ####	Checked:	XX ####
Horz. datum: St Louis County		Vert. datum: NAVD88	

Sheet: **EAW 1**  
 CC2: 8F119  
 File #: WAS01315.04.28.09  
 Site #: R#####



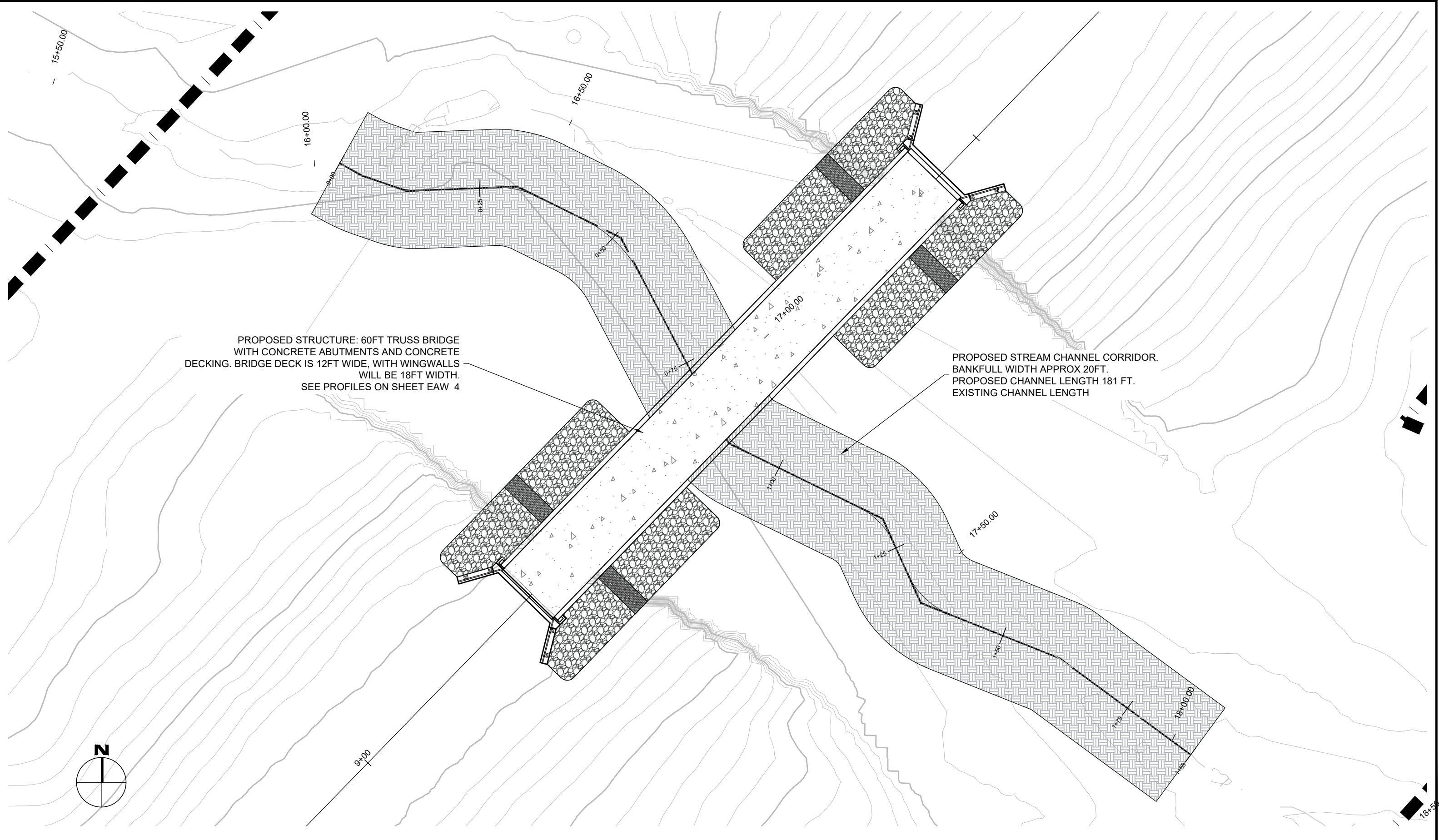
**30% REVIEW**  
**NOT FOR CONSTRUCTION**

**Knowlton Creek Culvert Replacement**  
 ---  
 FAW  
 ST LOUIS COUNTY      NEAR DULUTH  
 Section: 23      Township: 49N      Range: 15W

Revisions	
Date	By

Stream			
Survey:	Clp 5/23	Designed:	Clp 07/24
Drawn:	Clp 8/23	Drawn:	Clp 08/24
Checked:	XX ####	Checked:	XX ####
Horz. datum: St Louis County		Vert datum: NAVD88	

Sheet: **EAW 2**  
 CC2: 8F119  
 File #: WAS01315.04.28.09  
 Site #: R#####



PROPOSED STRUCTURE: 60FT TRUSS BRIDGE WITH CONCRETE ABUTMENTS AND CONCRETE DECKING. BRIDGE DECK IS 12FT WIDE, WITH WINGWALLS WILL BE 18FT WIDTH. SEE PROFILES ON SHEET EAW 4

PROPOSED STREAM CHANNEL CORRIDOR. BANKFULL WIDTH APPROX 20FT. PROPOSED CHANNEL LENGTH 181 FT. EXISTING CHANNEL LENGTH



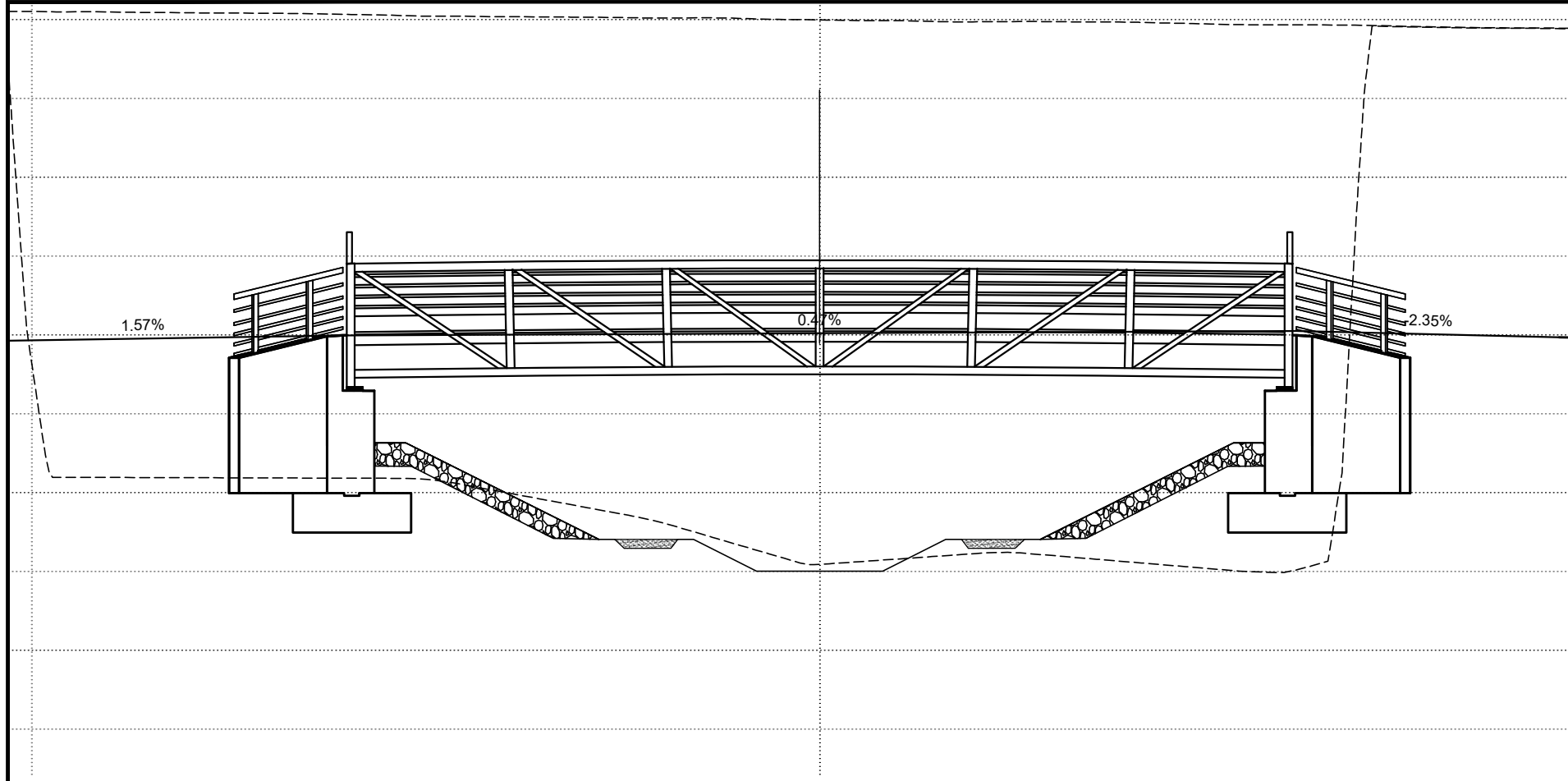
**30% REVIEW**  
NOT FOR CONSTRUCTION

**Knowlton Creek Culvert Replacement**  
---  
FAW  
ST LOUIS COUNTY      NEAR DULUTH  
Section: 23      Township: 49N      Range: 15W

Revisions	
Date	By

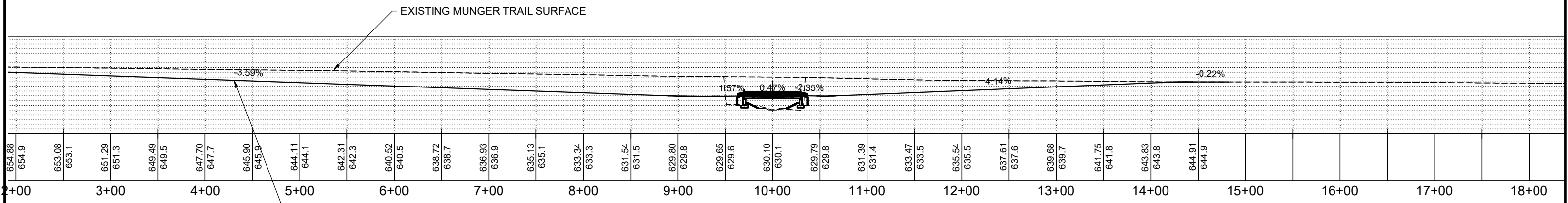
Trail & Bridge Plan			
Survey:	Clp 5/23	Designed:	Clp 07/24
Drawn:	Clp 8/23	Drawn:	Clp 08/24
Checked:	XX ####	Checked:	XX ####
Horz. datum: St Louis County datum: NAVD88			

Sheet: **EAW 3**  
CC2: 8F119  
File #: WAS01315.04.28.09  
Site #: R#####



1 PROPOSED 60FT TRUSS BRIDGE VIEW  
Scale: NTS

2 EXAMPLE 60FT TRUSS BRIDGE  
Scale: NTS



PROPOSED MUNGER TRAIL SURFACE: ELEVATION IS LOWERED TO TIE-IN WITH BRIDGE DECK AND STAY WITHIN ADA TOLERANCES FOR THE TRAIL

3 EXISTING AND PROPOSED MUNGER TRAIL ELEVATION  
Scale: NTS



30% REVIEW  
NOT FOR CONSTRUCTION

Knowlton Creek Culvert Replacement  
---  
FAW  
ST LOUIS COUNTY NEAR DULUTH  
Section: 23 Township: 49N Range: 15W

Revisions	
Date	By

Trail & Bridge Profile			
Survey:	Clp 5/23	Designed:	Clp 07/24
Drawn:	Clp 8/23	Drawn:	Clp 08/24
Checked:	XX ####	Checked:	XX ####
Horz. datum: St Louis County		Vert. datum: NAVD88	

Sheet: **EAW 4**  
CC2: 8F119  
File #: WAS01315.04.28.09  
Site #: R#####