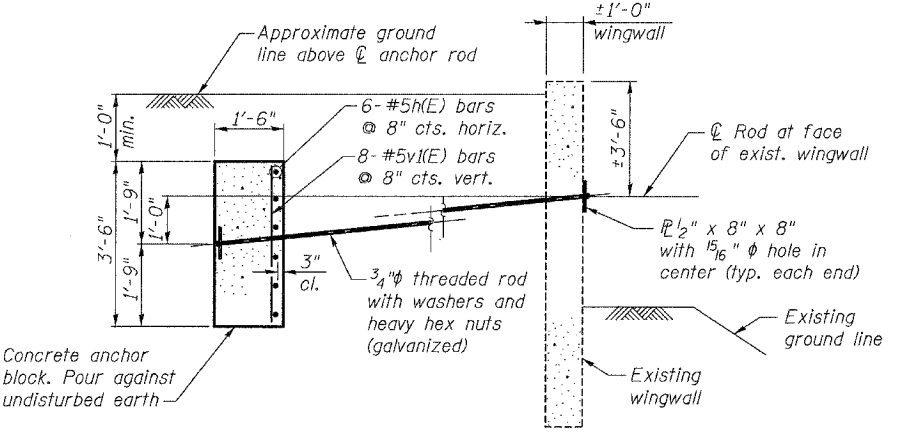


**ABUTMENT REPAIR PLAN**

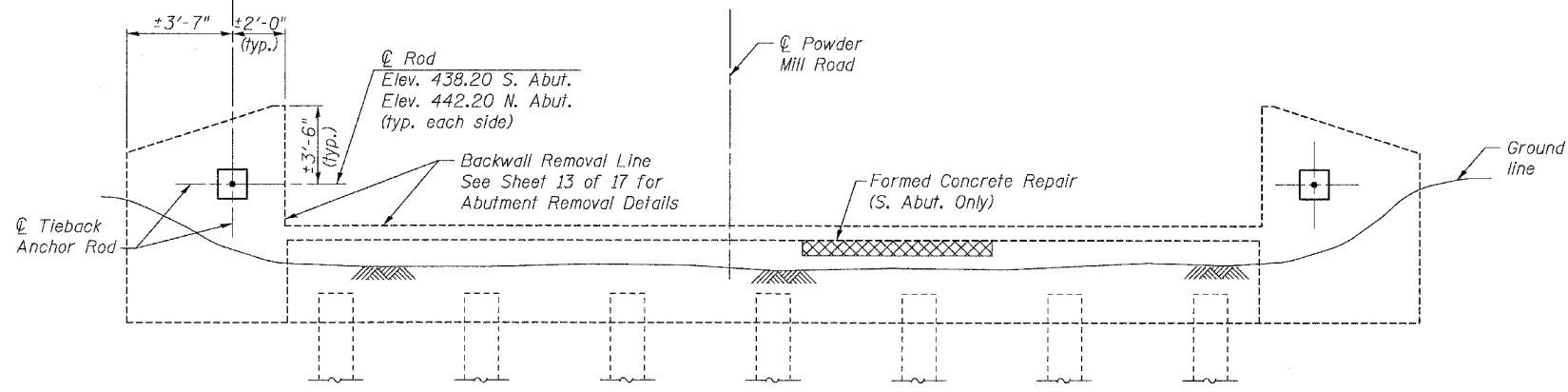
(South Abutment Shown,  
North Abutment Opposite Hand)



**WINGWALL TIEBACK DETAIL**

(4 locations)

Note: The cost of excavation for concrete anchor blocks is included in the cost of Concrete Structures.

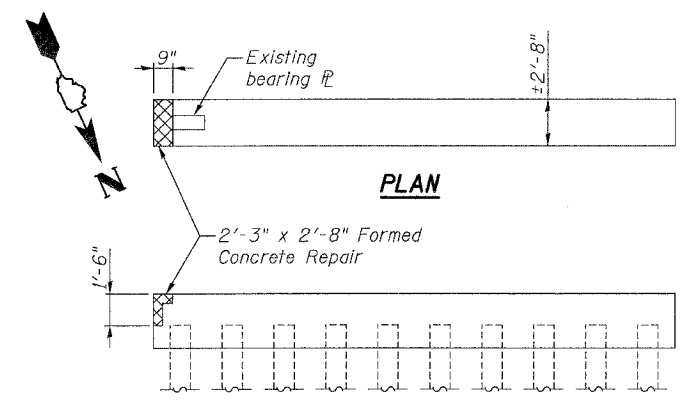


**ABUTMENT REPAIR ELEVATION**

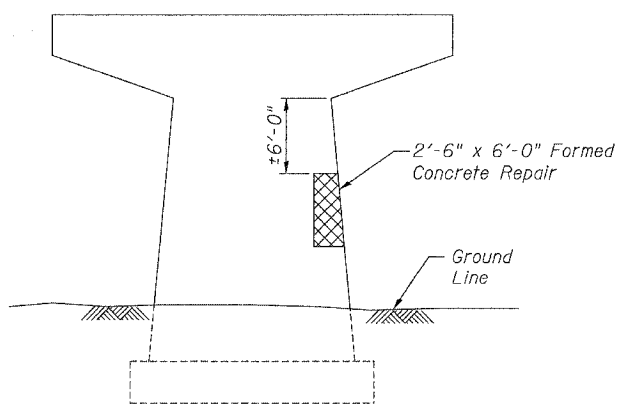
(South Abutment Looking South Shown,  
North Abutment Looking North Opposite Hand)

**BILL OF MATERIAL**

Bar	No.	Size	Length	Shape	
h(E)	24	#5	4'-6"	—	
v <sub>1</sub> (E)	32	#5	3'-0"	—	
Reinforcement Bars, Epoxy Coated				Pound	210
Concrete Structures				Cu. Yd.	4.0
Furnishing and Erecting Structural Steel				Pound	170
Formed Concrete Repair (Depth Equal To Or Less Than 5")				Sq Ft	38



**PIER 1 REPAIR**



**PIER 2 REPAIR**

(Looking North)

- Notes:
- ① Cross hatched areas indicate Formed Concrete Repair.
  - ② Threaded rods shall conform to the requirements of ASTM A307. Nuts and washers shall conform to AASHTO M164.
  - ③ Steel plates shall conform to the requirements of AASHTO M270 Grade 36.
  - ④ All threaded rods, nuts and washers shall be galvanized according to AASHTO M232.
  - ⑤ All plates shall be galvanized after shop fabrication according to AASHTO M111 and ASTM A385.
  - ⑥ Reinforcement bars designated (E) shall be epoxy coated.
  - ⑦ Install wingwall tiebacks prior to concrete backwall removal. Tieback anchors shall not be tightened for a minimum of 14 days after anchor block is poured.
  - ⑧ Contractor shall provide a 1" deep saw cut along the outside edges of partial depth repair areas prior to concrete removal. Existing reinforcement bars shall be cleaned and reused. See Special Provisions for additional requirements.
  - ⑨ Formed Concrete Repair areas are approximate and subject to adjustment during construction. Final removal limits will be established by the Engineer in the field. Contractor will be paid for the actual area of removal and repair, as approved by the Engineer.

**SUBSTRUCTURE REPAIRS  
POWDER MILL ROAD OVER  
EAST FORK OF WOOD RIVER  
SECTION 03-00044-00-BR  
VILLAGE OF EAST ALTON  
STA. 13+10  
STRUCTURE NO. 060-6400**