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<td>Soldier Pile Wingwall, Skewed Culverts, Details</td>
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SOLDIER PILE WINGWALL CONSTRUCTION SEQUENCE

1. Construct concrete box culvert.
2. Drill soldier piles (may be completed prior to completing construction of box culvert).
3. Install timber lagging.
4. Place and compact backfill behind wingwall to top of timber lagging.
5. Install shear stud connectors.
6. Place reinforcement and form concrete wall face.
7. Cast concrete wingwall facing.
8. Remove temporary soldier pile and timber lagging outside limits of the wingwall.
9. Place remainder of backfill to proposed ground surface elevations on both sides of wall (backfill front side of wall as much as possible before backfilling is completed).

Notes:
The temporary soldier pile is required to facilitate backfilling of the wingwall prior to casting the concrete face. The temporary soldier pile shall conform to the construction requirements for permanent soldier piles except material for the temporary soldier pile may be new or used. After the concrete face has been allowed to cure, the temporary soldier piles shall be removed 2 ft below streambed along with the adjacent timber lagging. Cost of removing and disposing temporary soldier pile and timber lagging shall be included in the cost of Concrete Box Culverts. The Contractor is responsible for the design and performance of the timber lagging using no less than a 3 inch nominal rough-sawn thickness and timber with a minimum allowable bending stress of 1000 psi.

SP-SK-DETAILS  2-17-2017

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION

CONTRACT NO.
COUNTY
F.A.
RTE.
SECTION
FED. AID PROJECT
TOTAL SHEETS
SHEET NO.
SHEETS
REVISED
REVISED
REVISED
REVISED
- 
- 
- 
- 
TOTAL
 
SOLDIER PILE DATA

<table>
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<tr>
<th>Soldier Pile</th>
<th>Pile Size</th>
<th>Top Elevation</th>
<th>Bottom Elevation</th>
<th>Total Height (ft)</th>
<th>Number of Shear Studs</th>
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Concrete Box Culverts. Geocomposite Wall Drain are included in the cost of Construct concrete box culvert. 2. Drill soldier piles (may be completed prior to completing construction of box culvert). 3. Install timber lagging. 4. Place and compact backfill behind wingwall to top of timber lagging. 5. Install shear stud connectors. 6. Place reinforcement and form concrete wall face. 7. Cast concrete wingwall facing. 8. Remove temporary soldier pile and timber lagging outside limits of the wingwall. 9. Place remainder of backfill to proposed ground surface elevations on both sides of wall (backfill front side of wall as much as possible before backfilling is completed).

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The Contractor is responsible for the design and performance of the timber lagging using no less than a 3 inch nominal rough-sawn thickness and timber with a minimum allowable bending stress of 1000 psi.
Concrete Box Culverts

Stud Shear Connectors

Piles

Furnishing Soldier Piles (In soil)

Drilling and Setting Soldier Piles (In rock)

Lagging

Untreated Timber

Drain

Geocomposite Wall

Prem. Jt. Filler

Concrete Nails (Flat Chamfer)

Concrete Nails (Flat)

Tilt hook of a1

CONSTRUCTION JOINT

Typ. between soldier piles

Weep hole

Temporary drilled soldier pile (HP x min., typ. each wing)

Finished ground line

Typ. each wing

See sheet of for soldier pile wingwall details.

No reduction in quantities shall be made for this substitution.

At the Contractor's option, a longer v1 bar may be ordered to replace the v bar.

Notes:

Bars indicated thus 12 x 4-#5 etc. Indicates 12 lines of bars with 4 lengths per line.

See sheet of for soldier pile wingwall details.

Order bars shown full length. Cut as shown and use remainder of bars in opposite wingwall.