# Concrete Retaining Wall

**STA 40 + 50 - STA 43 + 60**

**Worland Streets**

**West River Road & Big Horn Canal**

**2202016**

**Washakie County**

## Design Data

**Specifications:** AASHTO LRFD Bridge Design Specifications, 4th Edition

**Reinforced Concrete:** Load and Resistance Factor Design -
- Class B Concrete $f' = 3250$ psi
- Reinforcing Steel $f_y = 60,000$ psi (Grade 60)

## Estimated Quantities

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Item</th>
<th>Unit</th>
<th>Quantity</th>
<th>Estimate</th>
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<td>072.0000</td>
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<td>514.0000</td>
<td>Contractor Quality Control (Concrete)</td>
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<td>212</td>
<td>Lump Sum</td>
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## General Notes

**Specifications:** WYDOT Standard Specifications for Road and Bridge Construction, 2013 Edition

**Dimensions:** Longitudinal dimensions are horizontal and include no correction for grade.

**Reinforcing Steel:** Concrete cover to face of reinforcing steel is 2" unless noted. Dimensions for bent bars are out to out.

**Bar Marks:**
- **STRAIGHT BARS**
- **BENT BARS**

**Preformed Expansion Joint Filler:** Use preformed expansion joint filler conforming to AASHTO M 153 Type I. Work necessary for the Joint Filler is incidental to the contract pay Item Class B Concrete.

**Water:** Water at 13.6 gallons per ton has been estimated for correction for grade.

**Foundation:** The retaining wall is on a footing founded on dense sand and gravel.

**Crafter Run Subbase:** Use crusher run subbase conforming to Grading A.

**Wet Excavation:** The estimated quantity of wet excavation is calculated below the existing ground line to elevation 4072.0.

**General Notes:**
- Work necessary for the waterproofing is incidental to the contract pay Item Class B Concrete.
- Work necessary for the joint filler is incidental to the contract pay Item Class B Concrete.
- Water at 13.6 gallons per ton has been estimated for the joint filler.

## References

**Supplementary Specifications:**
- SSS-500G Structural Concrete With Preformed Expansion Joint Filler
  - Dated Dec 2008
  - Supplied by LVP Industries

**Structure No. LVH**
- ML2202B, RM 0.61
- Sec 26, T47N, R93W

**Design:**
- Structural Concrete With Preformed Joint Filler
- Work necessary for the joint filler is incidental to the contract pay Item Class B Concrete.
GENERAL PLAN AND ELEVATION
CONCRETE RETAINING WALL
STA 40+50 - STA 43+60
Worland Streets
West River Road & Big Horn Canal

4.21 - Example

Section 4.21 - Earth Retaining Structures
CONCRETE RETAINING WALL
STA 40+50 - STA 43+60
Worland Streets
West River Road & Stuhr Ave

Section 4.21 - Earth Retaining Structures

Note: Place shorting of 7W1 bars in footing.
ELEVATION - WALL SEGMENT A

Note: 1) Place 7W2 bars with 7W1 bars.
2) Place 7W2 and 417-3 bars to maintain 2" clearance from top of wall.
3) Trim contraction joints with 1/2" bevel strips.
Note: 1) Place 7W3 bars with 7W1 bars.
2) Place 7W3 and 416-10 bars to maintain 2" clearance from top of wall.
3) Trim contraction joints with 1/2" bevel strips.
Note: 1) Place 7W4 bars with 7W1 bars.
2) Place 7W4 and 416-5 bars to maintain 2" clearance from top of wall.
3) Trim contraction joints with 1/2" bevel strips.

Retaining Wall Details

Concrete Retaining Wall
STA 40+50 - STA 46+60
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Place 7W4 bars with 7W1 bars.
Place 7W4 and 416-5 bars to maintain 2" clearance from top of wall.
Trim contraction joints with 1/2" bevel strips.
Note: 1) Place 7W5 bars with 7W1 bars.
2) Place 7W5 and 416-2 bars to maintain 2" clearance from top of wall.
3) Trim contraction joints with 1/2" bevel strips.

Section 4.21 - Earth Retaining Structures

### RETAINING WALL DETAILS

**CONCRETE RETAINING WALL**

**STA 40+50 - STA 46+60**

**Horizon Streets**

**West River Road & Big Horn Canal**

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<tr>
<th>No.</th>
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**Worland Streets**

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