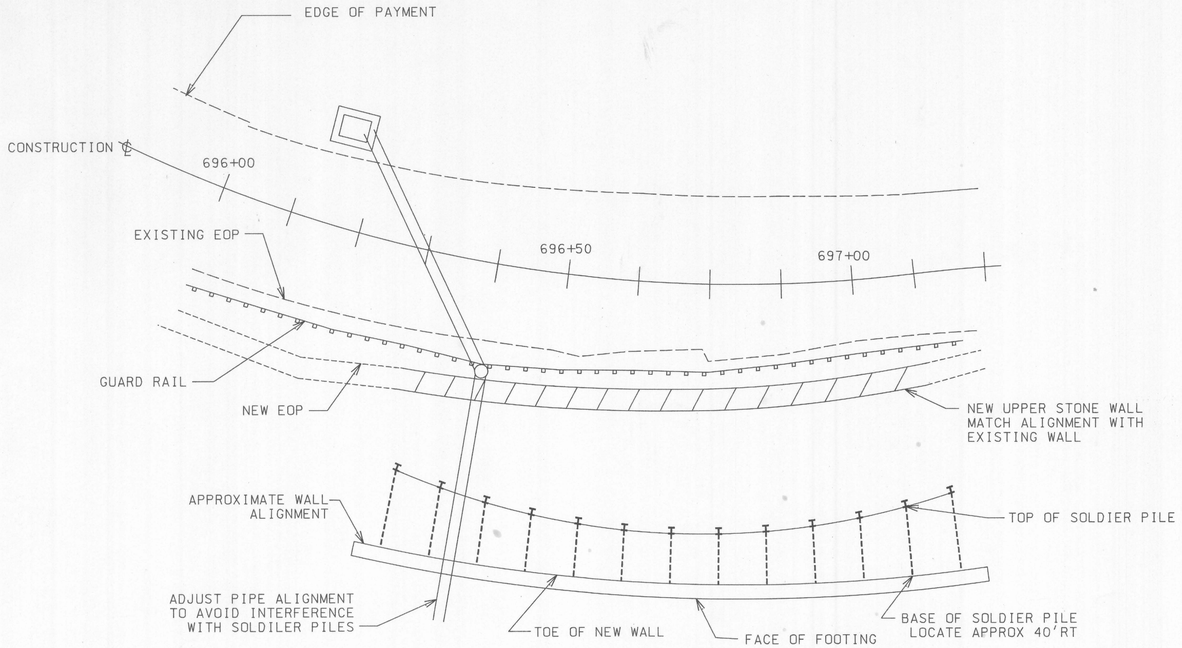
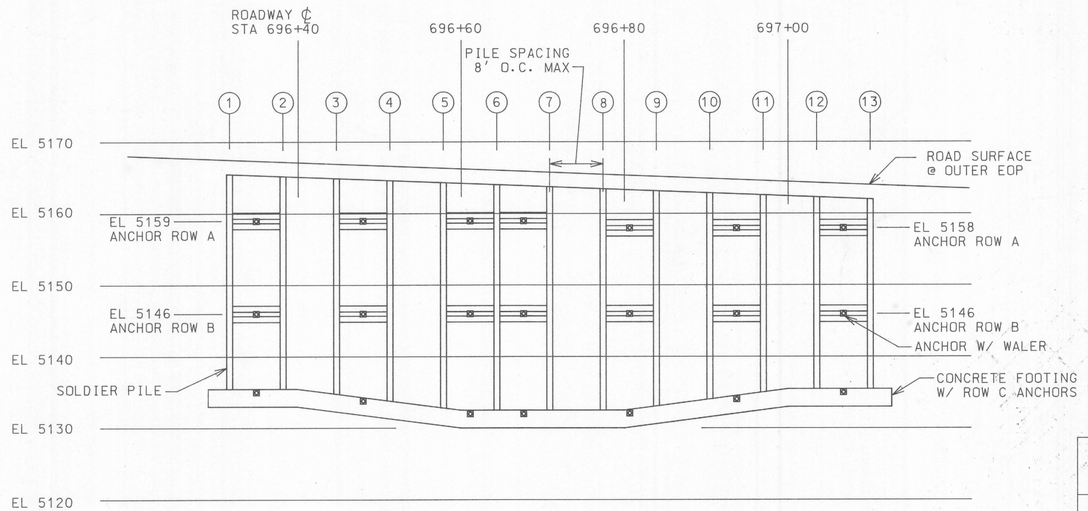


PLAN VIEW
SCALE 1"= 10'



WALL ELEVATION
SCALE 1"= 10'

Material Specifications & Installation Procedure

Material Specification - Materials for wall construction shall conform to the following standards:

Reinforcing Steel - Reinforcing bars shall be epoxy coated, Grade 60 deformed bars conforming to the requirements of ADOT Standard Specifications, Section 1003.

Structural Steel - Steel soldier piles, waler beams, bearing and stiffener plates shall conform to the requirements of ASTM A572 Grade 50 (AASHTO M223 Grade 50). All piles, wale beams and plates shall be galvanized for corrosion protection.

Concrete - Concrete for the wall footing and facing shall be Class S with a minimum 28 day compressive strength = 4,000 psi and shall conform to the requirements of ADOT Standard Specifications, Section 601. should be a comma

Timber - Sawn timber for wall facing shall be 4"x12" Douglas Fir Larch No. 2 or better (Fb=1,250 psi) and shall be pressure treated with preservatives in accordance with AWPI Standard Specification LP-22.

Grout - Neat cement grout for the rock anchors shall be composed of Type I/II Portland Cement and water (w/c ratio=0.45), and shall develop a 3,500 psi minimum cube strength (AASHTO T106) in 28 days.

Anchor Tendons - Anchor tendons shall consist of 0.6" diameter, seven wire strands conforming to ASTM A416, Grade 270 (270 ksi minimum, guaranteed ultimate tensile strength (GUTS) of 58.6 kips per strand) and shall be double corrosion protected.

Bolts - Bolts used for connection of the soldier pile base plate to the concrete footing shall be 3/4" diameter A325 galvanized, with 10" minimum embedment into the footing epoxy grouted with Hilti C-100 epoxy or equivalent.

Drainage Panel - The drainage panel placed behind the lagging shall be 2' wide Mira-drain or equivalent and shall be wrapped on both sides with filter fabric.

Wall Installation Sequence - The following is a brief description of the anchored wall installation. Associated items of work (utilities, roadwork) are not included in this description.

The anchored wall alignment shall be field adjusted based on the top of sound rock location exposed during footing excavation. The plans shall be revised to show final wall and footing alignment for submittal to ADOT.

The soldier piles in the main center portion of the wall shall be inclined back at a 2 horizontal to 10 vertical inclination. The end piles shall be leaned back at a steeper inclination in order to transition the face of new wall with the existing slopes at the wall ends. Inclination of these end piles shall be determined in the field.

a) Excavate bench for footing to sound rock. Competency of footing foundation rock shall be verified by Nicholson and ADOT engineering representatives. Install reinforced concrete footing with blockouts for the bottom row anchors.

b) Install and stress Row C anchors. Two each Row C anchors shall be installed with bond lengths similar to the Row B anchors and tested to 200% of the Row B design load to verify the anchor strength. The remainder of the Row C anchors shall be proof tested.

c) Install the steel soldier piles, connected at the bottom to the wall footing and temporarily braced in position at the top.

d) Install drain collector pipe along top of wall footing behind base of soldier piles.

e) Install timber wall facing to within 2' below the middle anchor row connection point, including drain panel installation with connection to the collector pipe. Place backfill to the top of installed facing.

f) Install middle row anchors and waler beams, proof test and lock off anchors.

g) Install wall facing, drainage panel and backfill to within 2' below the top row of anchors.

h) Install top row of anchors and waler beams, proof test and lock off anchors.

i) Complete installation of the wall facing, backfill and drainage panel.

j) Complete installation of the rock facade.

Anchor Load Testing - Two of the initial production anchors installed shall be performance load tested to 200% of their design load to verify adequate bond capacity. The remainder of the production anchors shall be proof tested to 133% of their design load. All of the anchors shall be locked off at 75% of their design load. Load testing shall be completed in conformance with the Post Tensioning Institute's "Recommendations for Prestressed Rock and Soil Anchors."

ANCHOR SCHEDULE

ANCHOR ROW #	INCLINATION ANGLE (DEG)	DESIGN LOAD (KIPS)	APPROX. MAX. UNBONDED LENGTH (FT)	BONDED LENGTH (FT)	# OF STRANDS (# EACH)	WALER BEAM SIZE
A	20	144	20	25	5	2 - W10X68
B	20	160	16	25	5	2 - W10X77
C	30	60	10	15	3	N/A

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SHOP DRAWING

NICHOLSON CONSTRUCTION

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PLAN VIEW AND WALL ELEVATION & NOTES
JEROME FLOOD DAMAGE ANCHORED WALL REPAIR
U.S. HIGHWAY 89A
JEROME, ARIZONA
OWNER: ARIZONA DEPARTMENT OF TRANSPORTATION
GEN'L CONTRACTOR: NICHOLSON CONSTRUCTION PACIFIC, INC

NO.	DATE	CHK'D	REVISION

Registered Professional Engineer (Civil) CERTIFICATE NO. 29957 JON WILLIAM LLEWELLYN 5-26-93 Date Signed ARIZONA, U.S.A.

DATE: 5/19/93
SCALE: AS SHOWN
FILE: jerome.dgn
DWN. BY: PLA CHK'D: PBG
NC L9407-01