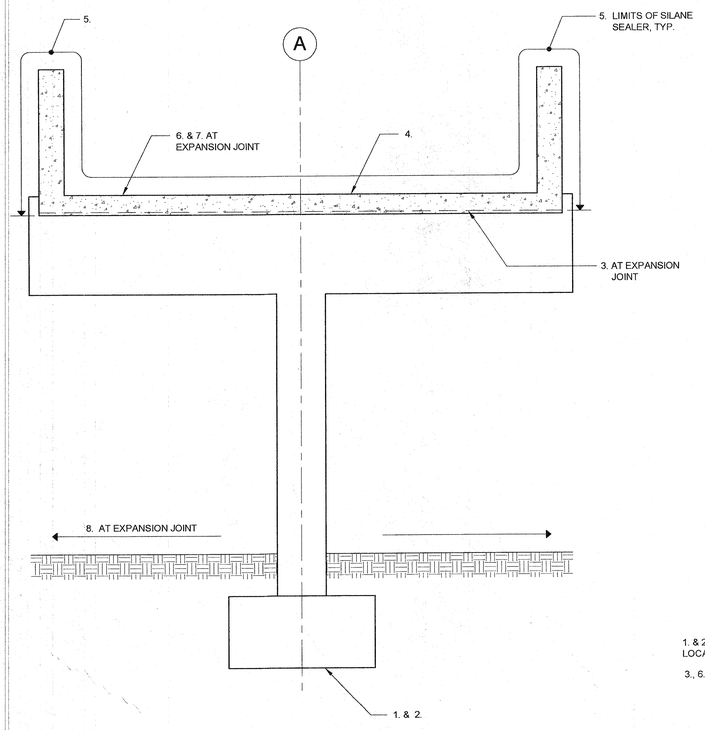
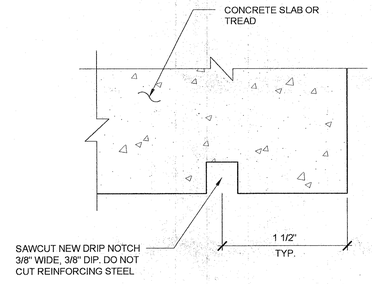


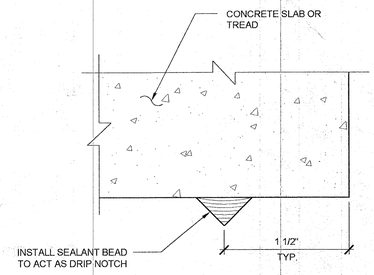

1 S-11 SECTION

SCALE: 1/2" = 1'-0"




DETAIL A

(PREFERRED)

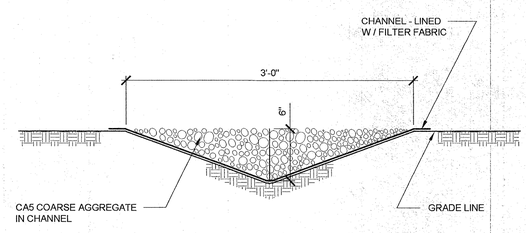



DETAIL B

(ALTERNATE TO DETAIL A)

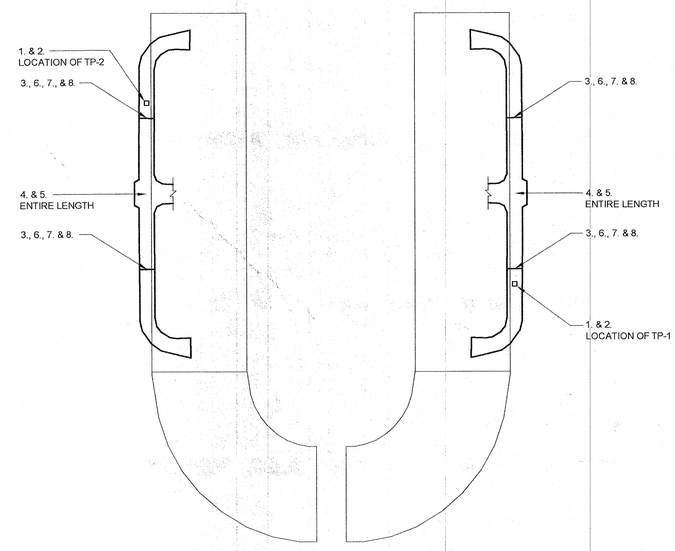
2 S-11 NEW DRIP EDGE DETAIL

SCALE: N.T.S.




3 S-11 STONE - LINED DRAINAGE CHANNEL

SCALE: 1 1/2" = 1' - 0"




4 S-11 LOCATION PLAN

SCALE: N.T.S.

N

SCOPE OF WORK:

1. STABILIZE FOOTING SETLEMENT BY UNDERPINNING AT TWO LOCATIONS:

   - FIRST COLUMN SOUTH OF EXPANSION JOINT AT SOUTHEAST RAMP

   - FIRST COLUMN NORTH OF EXPANSION JOINT AT NORTHWEST RAMP. EXISTING DRAWINGS UNAVAILABLE. VERIFY EXISTING STEEL IN FOOTING FOR CAPACITY DESIGN AND ANCHOR ATTACHMENT / LAYOUT.

   SUBMIT UNDERPINNING METHOD / LAYOUT AND FOOTING DESIGN FOR APPROVAL OF ENGINEER. SELECTED METHOD SHOULD ATTEMPT TO REVERSE EXISTING SETTLEMENT IF POSSIBLE. THEORETICAL SERVICE LOAD REACTIONS AT EACH FOOTING ARE: DEAD LOAD = 60 KIPS AND LIVE LOAD = 40 KIPS.

2. GROUT, OR MUD - JACK, BENEATH FOOTING TO RESTORE SOIL BEARING AFTER UNDERPINNING INSTALLATION AND THE FINAL FOOTING ELEVATION HAS BEEN ACHIEVED.

3. INSTALL NEW DRIP NOTCH PER 2/S-11 DETAIL "A" ADJACENT TO EACH RAMP EXPANSION JOINT, FOUR LOCATIONS TOTAL. THE DRIP NOTCH SHOULD BE INSTALLED ON THE "DOWNHILL" SIDE OF THE EXPANSION JOINT ONLY AND EXTEND FULL WIDTH OF THE RAMP.

4. INSTALL LOW-VISCOSITY EPOXY PENETRANT IN EXISTING CRACKS ON TOP SURFACE OF ALL RAMPS. ESTMATE OF 1500 LINEAR FEET TOTAL. SEAL WIDE CRACKS NEAR TOP OF RAMP PER DETAIL 1/S-9. SEALANT PRODUCT SHALL BE CAPABLE OF HANDLING FREQUENT FOOT AND WHEEL TRAFFIC, SUBMIT SAMPLE FOR ENGINEER APPROVAL.

5. REMOVE LICHEN GROWTH ON RAMP PERIMETER WALLS BY APPLICATION OF A FUNGICIDE CLEANER. SANDBLAST RAMP RAILING AND SLAB AND APPLY SILANE SEALER TO THESE SURFACES ALONG ENTIRE LENGTH.

6. SANBLAST ARMORING ANGLES AT EACH EXPANSION JOINT, 4 LOCATIONS ( 8 ANGLES ) TOTAL. PAINT ANGLES WITH ZINC RICH PAINT / PRIMER.

7. RE - ATTACH EXPANSION JOINT COVER PLATE AT EACH RAMP, 4 LOCATIONS TOTAL. USE PUDDLE WELDS OR SET SCREWS FLUSH WITH PLATE SURFACE. MODIFY SHAPE OF PLATE TO FIT NEW EXPANSION JOINT PROFILE ( SUBSEQUENT TO STEP 1.) IF NECESSARY.

8. INSTALL GRAVEL LAYER (FRENCH DRAIN) PER DETAIL 3/S-11 FULL WIDTH OF RAMP BELOW EXPANSION JOINTS FOUR LOCATIONS TOTAL, TO HELP PREVENT SOIL EROSION.

## GEOTECHNICAL INVESTIGATION TEST PIT LOG

Test Pit Log #: **TP-1** Date Advanced: **4/28/2005** Logged By: **Michael G. Woodworth, P.E.**

Excavated By: **Circle H Construction – Vacuum Excavator** Location: **Eastern Column**

Depth to Water Table: **Not Encountered** Depth to Bottom Of Hole: **7.1 Feet**

| Depth (Feet) | Field Description, w/USCS Soil and Sediment Classification |
|---|---|
| 0.0-5.8 | **Silty Gravel Fill (GM-FILL:** *Brown to brownish-gray, dry to slightly moist, medium dense, with fine to coarse sand and 8-inch minus cobbles.* ***(Note: Footing present at 4.0 extending to 5.8)*** |
| 5.8-7.1 | **Poorly Graded Sand with Gravel (SP):** *Yellowish-brown, dry, loose, coarse grained, with some 6-inch minus cobbles.* |

Edge of footing 18" from edge of column. Footing appears square and uniform.

## GEOTECHNICAL INVESTIGATION TEST PIT LOG

Test Pit Log #: **TP-2** Date Advanced: **4/28/2005** Logged By: **Michael G. Woodworth, P.E.**

Excavated By: **Circle H Construction – Vacuum Excavator** Location: **Western Column**

Depth to Water Table: **Not Encountered** Depth to Bottom Of Hole: **8.1 Feet**

| Depth (Feet) | Field Description, w/USCS Soil and Sediment Classification |
|---|---|
| 0.0-6.0 | **Silty Gravel Fill (GM-FILL:** *Brown to brownish-gray, dry to slightly moist, medium dense, with fine to coarse sand and 8-inch minus cobbles.* ***(Note: Footing present at 4.8 extending to 6.0)*** |
| 6.0-8.4 | **Poorly Graded Sand with Gravel (SP):** *Yellowish-brown, dry, loose, coarse grained, with some 6-inch minus cobbles. --Dense below 8.0 feet.* |

Edge of footing 24" from edge of column. Footing is highly irregular in shape.

GEOTECHNICAL TEST PIT REPORTS PROVIDED BY:
MATERIALS TESTING & INSPECTION
7446 W. LEMHI ST.
BOISE, IDAHO 83709
(208) 376-4748

PROFESSIONAL ENGINEER REGISTERED STATE OF IDAHO WILLIAM J. NUGENT 8/26/05

LICENSED ARCHITECT AR-1577 8-29-05 ROBERT L. SMITH STATE OF IDAHO


HUTCHISON SMITH ARCHITECTS
270 South 27th Street Boise, ID. 83702 (208) 336-1212 FAX (208) 336-0011 hsarch@hsarch.com

WJE ENGINEERS ARCHITECTS MATERIALS SCIENTISTS


BOISE STATE UNIVERSITY

STADIUM STRUCTURAL REPAIRS
1190 UNIVERSITY DRIVE
BOISE, IDAHO 83725

Date: 29 AUGUST 2005
DPW No: 05209
DRAWN BY: RHS
Check: NSA/DDC
FILE NAME:
REV:

SHEET TITLE: EAST RAMP REPAIR DETAILS

DRAWING S-11