

DESIGN REFERENCES

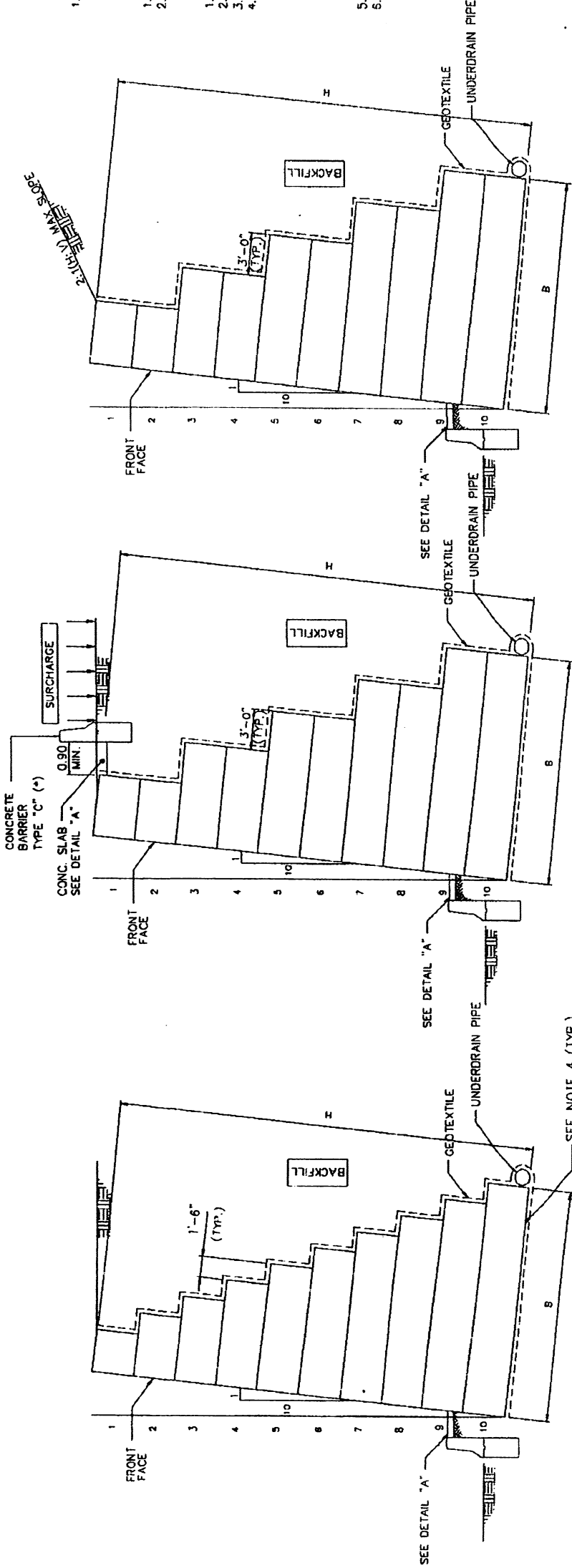
1. AASHTO - STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, SIXTEENTH EDITION, 1996 WITH INTERIMS 1997 & 1998

DESIGN LOADS

1. EARTHQUAKE - MAX. EXPECTED ROCK ACCELERATION $A = 0.20 G$.
2. DESIGN LIVE LOAD (SURCHARGE) = 250 psf.

DESIGN DATA:

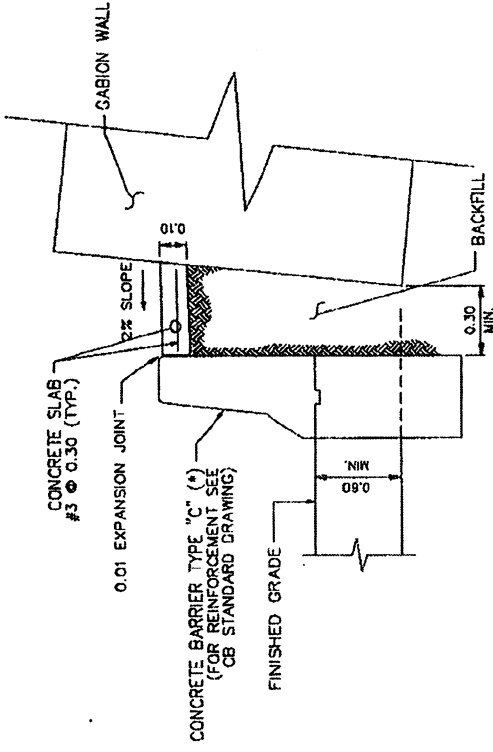
1. UNIT WEIGHT OF GABIONS 110 PCF.
2. UNIT WEIGHT OF SOIL = 120 pcf.
3. QALL - ALLOWABLE SOIL BEARING CAPACITY (SEE TABLE)
4. SOIL PROPERTIES AT WALL BASE AS FOLLOWS:
 COHESIVE SOILS
 COHESION, $C = 1500$ psf MIN. (FOR 1 TO 7 COURSES)
 COHESION, $C = 3000$ psf MIN. (FOR 8 TO 10 COURSES)
 COHESIONLESS SOILS
 ANGLE OF INTERNAL FRICTION, $\phi = 28^\circ$ MIN. (FOR 1 TO 5 COURSES)
 ANGLE OF INTERNAL FRICTION, $\phi = 32^\circ$ MIN. (FOR 6 TO 10 COURSES)
 5. CONCRETE CLASS "A"
 6. REINFORCING STEEL AASHTO M31 GRADE 60



GABION WALL WITHOUT SURCHARGE
SCALE: N.T.S.

GABION WALL WITH SURCHARGE
SCALE: N.T.S.

GABION WALL WITH SLOPE
SCALE: N.T.S.



DETAIL "A"

(* IF REQUIRED ON PLANS)

EFFECTIVE DATE: OCTOBER 2000

COMMONWEALTH OF PUERTO RICO
 DEPARTMENT OF TRANSPORTATION
 AND PUBLIC WORKS
 HIGHWAY AND TRANSPORTATION AUTHORITY

RECOMMENDED BY:

[Signature]
 DESIGN AREA DIRECTOR
 DATE: 10/13/00

APPROVED BY:

[Signature]
 EXECUTIVE DIRECTOR
 DATE: 10/13/00

GABIONS
GRAVITY WALL
VERTICAL FRONT FACE

DATE	REVISION	BY

STD. DWG. 10 OF 20

NO OF COURSES	H FT	B FT	VOLUME M ³ /L.M.	QALL KSF
1	3.0	6.0	1.67	2.0
2	6.0	6.0	3.34	2.0
3	9.0	9.0	5.85	2.0
4	12.0	9.0	8.36	2.5
5	15.0	12.0	11.71	3.5
6	18.0	12.0	15.05	5.0
7	21.0	15.0	19.23	6.0
8	24.0	15.0	23.41	9.0
9	27.0	18.0	28.43	10.0
10	30.0	18.0	33.45	11.0

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1	3.0	6.0	1.67	2.0
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3	9.0	9.0	5.85	2.0
4	12.0	9.0	8.36	2.0
5	15.0	12.0	11.71	2.5
6	18.0	12.0	15.05	3.5
7	21.0	15.0	19.23	4.0
8	24.0	15.0	23.41	5.0
9	27.0	18.0	28.43	5.5
10	30.0	18.0	33.45	6.5

NO OF COURSES	H FT	B FT	VOLUME M ³ /L.M.	QALL KSF
1	3.0	3.0	0.84	2.0
2	6.0	4.5	2.09	2.0
3	9.0	6.0	3.76	2.0
4	12.0	7.5	5.85	2.5
5	15.0	9.0	8.36	3.5
6	18.0	10.5	11.29	4.0
7	21.0	12.0	14.63	5.0
8	24.0	13.5	18.39	6.0
9	27.0	15.0	22.58	6.5
10	30.0	16.5	27.17	7.5

NOTES:

1. THE BACKFILL, GEOTEXTILES, UNDERDRAIN, EXCAVATION, BARRIERS (IF REQUIRED ON PLANS), EQUIPMENT, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK ARE SOLELY RESPONSIBILITY OF THE GABION UNIT'S PAY ITEM UNLESS THESE OTHER ITEMS HAVE BEEN INCLUDED AS INDIVIDUAL PAY ITEM IN THE PROJECT.
2. FOR GEOTEXTILE & UNDERDRAIN DETAILS SEE OTHER GABI STANDARD DRAWINGS
3. BACKFILL SHALL BE A-1, A-3, A-2-2 OR A-2-4 COMPACTED TO 95% T-1800

LEGEND:

- L.M. = LINEAR METER
- KSF = KIIPS PER SQUARE FOOT (KIIPS=1000 pounds)
- QALL = ALLOWABLE BEARING PRESSURE