APPENDIX B

PREFERRED COASTAL BLUFF RETENTION DESIGNS
NOTES:

1. GEOTECHNICAL REPORT. (Required)
2. NOTCHED TO BEDROCK (4 DIRECTIONS)
3. MINIMIZE ALTERATION OF BLUFF-FACE OR MIMIC EXISTING.
4. INCLUDE MONITORING FOR FUTURE MAINTENANCE AND REPAIR.
5. LOCATED AS LANDWARD AS POSSIBLE
6. NO SAND OR PUBLIC RECREATION FEES ASSESSED WITH THIS SOLUTION
7. ADDITIONAL ERODIBLE CONCRETE MAY BE REQUIRED AFTER SETTLING TO ASSURE MARGIN CONTACT WITH BLUFF
NOTES
1. FACTOR OF SAFETY NEAR 1.0.
2. GEOTECHNICAL REPORT
3. STRUCTURAL CALCULATIONS
4. LOCATED AS FAR LANDWARD AS POSSIBLE
5. MINIMIZE ALTERATION OF BLUFF-FACE OR MIMIC EXISTING.
6. INCLUDE DETAILED METHODOLOGY FOR MONITORING AND MAINTENANCE OVER THE LIFE OF THE DEVICE.
7. MINIMIZE THE NEED FOR ANY MAINTENANCE THAT NECESSITATES ADDITIONAL SEAWARD ENCROACHMENT OF THE DEVICE.
8. BLUFF FACE TO HAVE "NATURAL COLOR AND TEXTURE" (SBMC 17.62)

Seacave/Notch Infill with Concrete Facing

City of Solana Beach

Approved by CCC on 01/09/14 (LUPA)

FIGURE NO. 1B
EXISTING BLUFF

TERRACE DEPOSITS

CLEAN SAND LENS

TIED-BACK, TEXTURED SHOTCRETE WALL

TRANSIENT SAND BEACH

TIEBACK

SANDSTONE BEDROCK

SEACAVE INFILL

NOTES
1. FACTOR OF SAFETY NEAR 1.0.
2. GEOTECHNICAL REPORT
3. STRUCTURAL CALCULATIONS
4. LOCATED AS FAR LANDWARD AS POSSIBLE
5. MINIMIZE ALTERATION OF BLUFF-FACE OR MIMIC EXISTING.
6. INCLUDE DETAILED METHODOLOGY FOR MONITORING AND MAINTENANCE OVER THE LIFE OF THE DEVICE.
7. MINIMIZE THE NEED FOR ANY MAINTENANCE THAT NECESSITATES ADDITIONAL SEAWARD ENCROACHMENT OF THE DEVICE.
8. BLUFF FACE TO HAVE "NATURAL COLOR AND TEXTURE" (SBMC 17.62)

Infill/Bluff Stabilization - Lower Seawall

City of Solana Beach
Approved by CCC on 01/09/14 (LUPA)

FIGURE NO. 1C
CONCRETE FILL

TIED-BACK, TEXTURED SHOTCRETE WALL

35' (ht. of wall) APPROX.

TRANSIENT SAND BEACH

NOTES:

1. FACTOR OF SAFETY NEAR 1.0
2. GEOTECHNICAL REPORT
3. STRUCTURAL CALCULATIONS
4. LOCATED AS FAR LANDWARD AS POSSIBLE
5. MINIMIZE ALTERATION OF BLUFF--FACE OR MIMIC EXISTING.
6. INCLUDE DETAILED METHODOLOGY FOR MONITORING AND MAINTENANCE OVER THE LIFE OF THE DEVICE.
7. MINIMIZE THE NEED FOR ANY MAINTENANCE THAT NECESSITATES ADDITIONAL SEAWARD ENCRUOSMENT OF THE DEVICE.
8. BLUFF FACE TO HAVE "NATURAL COLOR AND TEXTURE" (SBMC 17.62)

Preferred Solution – Higher Seawall/Clean Sand Lens Encapsulation

City of Solana Beach | CCC – Approved LUP, February 2013 | FIGURE NO. 2
Preferred Solution - Seawall and Upper Bluff Repair

City of Solana Beach  CCC - Approved LUP, February 2013

NOTES:

1. FACTOR OF SAFETY NEAR 1.0
2. GEOTECHNICAL REPORT
3. STRUCTURAL CALCULATIONS
4. LOCATED AS FAR LANDWARD AS POSSIBLE
5. MINIMIZE ALTERATION OF BLUFF-FACE OR MIMIC EXISTING.
6. INCLUDE DETAILED METHODOLOGY FOR MONITORING AND
   MAINTENANCE OVER THE LIFE OF THE DEVICE.
7. MINIMIZE THE NEED FOR ANY MAINTENANCE THAT NECESSITATES
   ADDITIONAL SEAWARD ENCROACMENT OF THE DEVICE.
8. BLUFF FACE TO HAVE "NATURAL COLOR AND TEXTURE" (SBMC 17.62)
RECONSTRUCT UPPER BLUFF WITH GEOTEXTILE REINFORCED FILL

LANDSCAPE & TEMPORARY IRRIGATION

CONCRETE FILL

EXISTING BLUFF/EXISTING SEAWALL/INFill

TRANSIENT SAND BEACH

TERRACE DEPOSITS

CLEAN SAND LENS

SANDSTONE BEDROCK

NOTES:

1. FACTOR OF SAFETY NEAR 1.0
2. GEOTECHNICAL REPORT
3. STRUCTURAL CALCULATIONS
4. LOCATED AS FAR LANDWARD AS POSSIBLE
5. MINIMIZE ALTERATION OF BLUFF-FACE OR MIMIC EXISTING
6. INCLUDE DETAILED METHODOLOGY FOR MONITORING AND MAINTENANCE OVER THE LIFE OF THE DEVICE
7. MINIMIZE THE NEED FOR ANY MAINTENANCE THAT NECESSITATES ADDITIONAL SEAWARD ENCROACMENT OF THE DEVICE
8. BLUFF FACE TO HAVE "NATURAL COLOR AND TEXTURE" (SBMC 17.62)

Preferred Solution - Upper Bluff Repair

City of Solana Beach  CCC – Approved LUP, February 2013  FIGURE NO. 4
IMPELVIOUS PATIO

TOP OF BLUFF

APPROX. EXISTING BLUFF

PROPOSED TIEBACK

TERRACE DEPOSITS

CLEAN SAND LENS

SANDSTONE BEDROCK

NOTES:

1. FACTOR OF SAFETY NEAR 1.0
2. GEOTECHNICAL REPORT
3. STRUCTURAL CALCULATIONS
4. LOCATED AS FAR LANDWARD AS POSSIBLE

Caisson & Tie-Backs

City of Solana Beach

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