Specialty Applications for Keystone Walls

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Typical Plan View

Typical Wall Elevation

Typical Anchorage Detail

Typical Soil Nail/Anchor Section

Specialty Applications

Soil Nail Facing

No. Date Revision By

Date: 1/1/00

Scale

Project No.

Drawing No.
Typical Plan View

Top of Wall Steps

Limits of Concrete Beam

Rock Bolt Pattern (4" x 6") staggered

Joint in Concrete Beam

Finished Grade

Footing Steps

Typical Wall Elevation

Typical Rock Facing Section

Typical Concrete Beam Detail

Protect Exposed Anchor from Corrosion.
(galvanize, cold tar epoxy, grouted sleeve)

Rock Bolt or Rock Anchor
(length and spacing determined by design engineer)

Concrete Beam
(min 2" into unit above and below, f'c -4000 psi)

(4) - #5 Rebar

4" x 4" x 1/4" Steel Plate with
(2) - Nuts to Secure Plate

Keystone Standard Unit with Tail Cutoff

Keystone Standard Unit

Unit Drainage Fill

(1) - #5 Rebar

Keystone Standard Units

4 1/2" Exp Joint in Beam
@ 18" c/c - Step Rebar

Rock Anchors 6" c/c

Drainage Fill

Keystone Standard Unit with Tail Cutoff

Keystone Cap Unit

Keystone Standard Units

See Concrete Beam Detail

4" c/c (Max)

1:32

Rock Anchor System
(design by others)

Leveling Pad at Elevations
and Stations per Layout Plane

Unit Drainage Fill

6" Perforated PVC Collector Pipe

Specialty Applications

Rock/Shotcrete Facing

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No. Date Revision By: Designed By: Checked By: Date: 11/00 Scale: Project No.: Drawing No.: Specialty Applications Rock/Shotcrete Facing

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Typical Plan View

Typical Wall Elevation

Typical Manta Ray Anchor Section
Typical Plan View

Geogrid
3" Galvanized Pipe
Welded Pipe Loops
Sheet Piling

6' to 8' c/c

Keystone Compac Units

Top of Wall Steps

3" Galvanized Pipe

Finished Grade

Footing Steps

Typical Wall Elevation

Unit Drainage Fill
Geogrid

3" Galvanized Pipe
Welded Pipe Loop
#6 Rebar or 1/4" x 1.5" Bar Stock

Steel Sheet Piling

Keystone Compac Unit

2' x 1' nominal

Keystone Cap Unit

Steel Sheet Piling
PZ22/PZ27 Typical
(design by others)

3" Galvanized Pipe
& Welded Pipe Loop

Unit Drainage Fill

Leveling Rod at Elevations

Typical Sheet Piling Wall Section

Typical Connector Detail

See Connector Detail

Steel Sheet Piling
PZ22/PZ27 Typical
(design by others)

3" Galvanized Pipe
& Welded Pipe Loop

2.67' c/c (Max)

Finished Grade

Leveling Rod at Elevations and
Station's per Layout Plans

Specialty Applications
Sheet Pile Facing

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Plan View - Front Face

Elevation - Front Face

Typical Section - Second Landing

Pipe Anchor Detail
Typical Plan View

Typical Wall Elevation

Typical Interlocked Wall Section
Typical Wall Plan

Elevation - Front Face

Typical Section
Wall Elevation @ Pier

Wall Section @ Pier

Design Geogrid Level

4" Galv Pipe

Concrete Pier

3/4" Galv CTB TieRod

Unit Drainage Fill

Keystone Compac Units

Concrete Pier

Geogrid - Wrap pipe and return to wall

5' Lap

Design Geogrid Level

2" Dia

4" Galv Pipe - 6' long

1 1/16"

3/4" Galv CTB Bar - 7" Long

6' Wide Geogrid

Galv Nut & Washers

Keystone Compac Units

Wall Plan @ Pier

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Plan View

Odd Course
Three Unit Assembly - Grouted with #3 bars

Even Course

Installation
1. Cut out wall in 3-4 unit segments.
2. Drive anchor into backfill and lock.
3. Install three unit slip joint segment.
4. Repeat as required.

Three Cut Units

One Cut Unit with Hole

Three Unit Assembly

Anchored 3 Unit Assembly

Cut Off

11" Hole for threadbar

9.5"

12"

18"

12" 2"

2" Recess for Nut and Washer


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Specialty Applications

In-Situ Slip Joint

MR-88 Manta Ray Drive Anchor and #6 Threadbar

Cut Off

11" Hole for threadbar

9.5"

12"

18"

12" 2"

2" Recess for Nut and Washer

Three Unit Assembly

Anchored 3 Unit Assembly