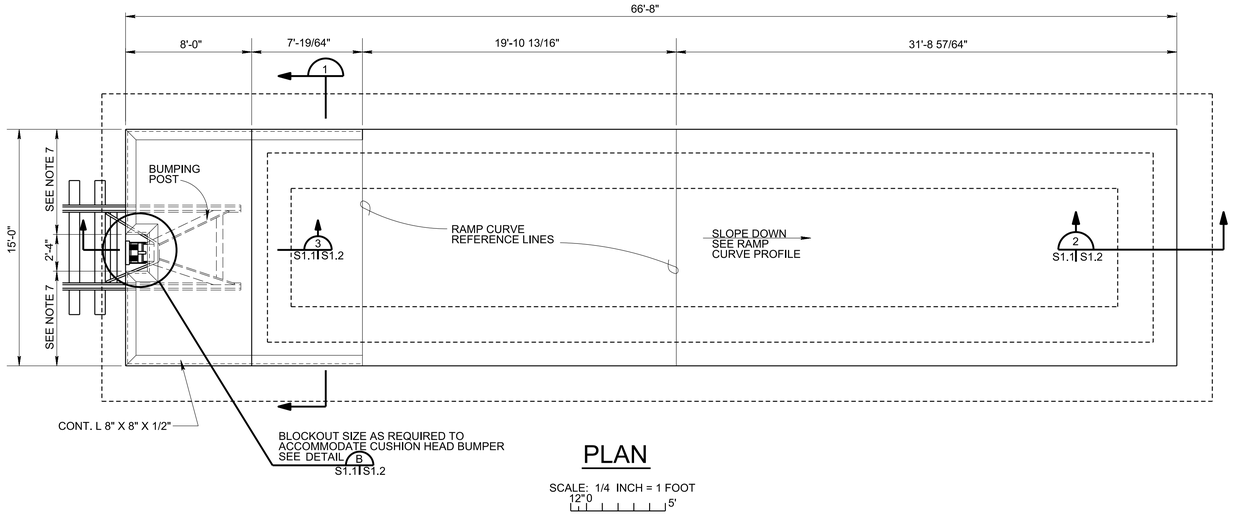
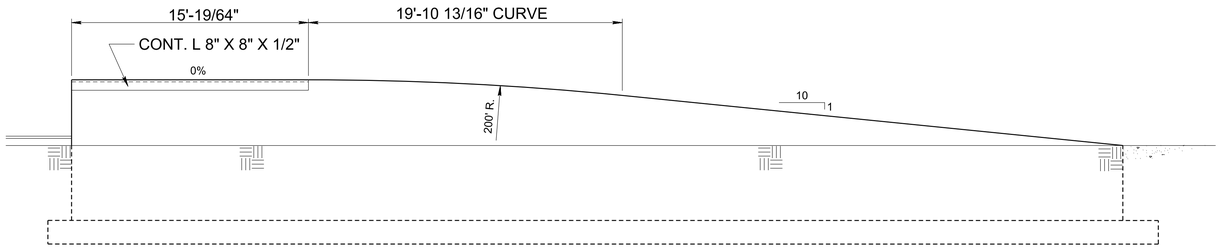


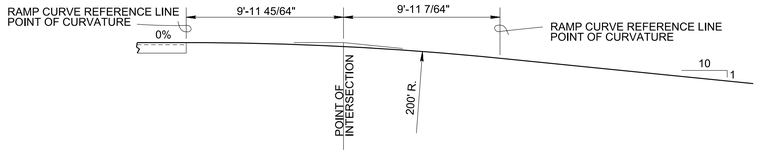
PLAN

SCALE: 1/4 INCH = 1 FOOT
12"0 5'



ELEVATION

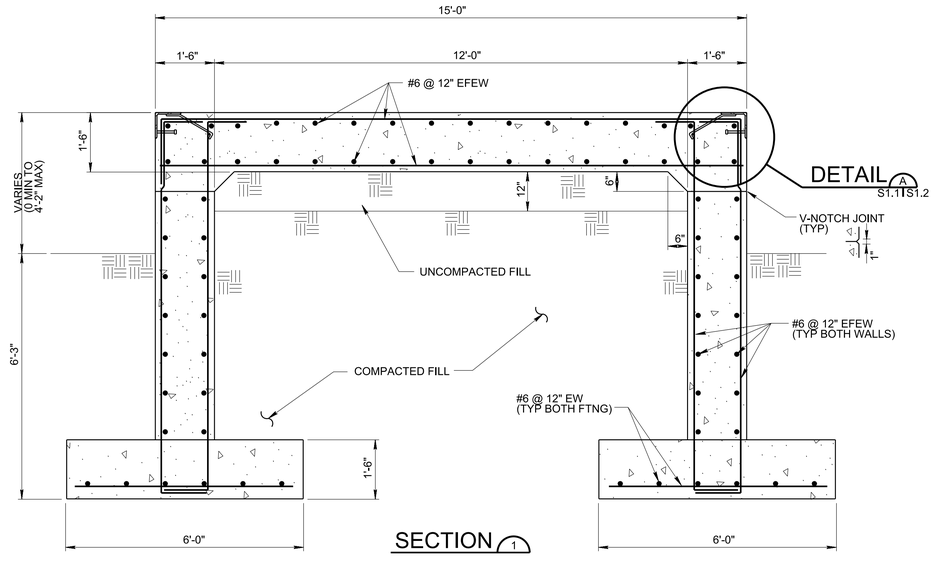
SCALE: 1/4 INCH = 1 FOOT
12"0 5'



TYPICAL RAMP-CURVE PROFILE

SCALE: 1/4 INCH = 1 FOOT
12"0 5'

NOTE:
FILL SHALL BE PLACED AND COMPACTED IN ACCORDANCE WITH THE SPECIFICATIONS AT EQUAL HEIGHTS EACH SIDE OF DOCK WALLS AS MUCH AS POSSIBLE TO AVOID EXCESSIVE FORCE ON WALLS DURING BACKFILLING.



SECTION 1

0 500 1000 mm
SCALE 1:20

DESIGN LOADS (PER EI 01S010):
1. SEISMIC LOADS
   SEISMIC ZONE 0
2. LIVE LOADS ARMY M1 TANK
3. SOILS AND FOUNDATION DATA
   ALLOWABLE BEARING PRESSURE 2000 PSF
   DESIGN FROST DEPTH 6'-0"

MATERIAL NOTES:
1. REINFORCED CONCRETE
   FOUNDATIONS & SLAB F'c = 4000 PSI
   REINFORCING STEEL ASTM A 615 GRADE 60
2. STRUCTURAL STEEL
   HOT ROLLED PLATES & SHAPES ASTM A 36

GENERAL NOTES
1. ALL EDGES OF EXPOSED CONCRETE SHALL BE CHAMFERED 3/4".
2. MINIMUM COVER FOR REINFORCING STEEL (UNLESS SHOWN OTHERWISE):
   A) CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH OR WEATHER 3"
   B) FORMED SURFACES EXPOSED TO EARTH OR WEATHER: #6 BARS AND LARGER 2"
3. THE TOP SURFACE OF THE RAMP SHALL HAVE A TRANSVERSE BROOM FINISH.
4. THE CONTRACTOR SHALL PROVIDE ADEQUATE DRAINAGE OF SURFACE WATER AWAY FROM THE STRUCTURE AND EXCAVATED AREAS DURING CONSTRUCTION. BACKFILL SHALL BE PLACED TO PROVIDE PROPER DRAINAGE AWAY FROM THE STRUCTURE.
5. THE FILL MATERIAL AND COMPACTION REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE ACCOMPANYING SPECIFICATIONS.
6. EXPOSED METAL SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A 123.
7. THE RAMP SHALL BE CENTERED ABOUT THE CENTERLINE OF THE TRACK. THE 2'-4" OPENING SHOWN SHALL BE CENTERED ABOUT THE CENTERLINE OF THE BUMPING POST CUSHIONED HEAD. THE WESTERN-CULLEN-HAYES TYPE WG BUMPING POST HEAD IS OFFSET 2 1/2" FROM THE CENTERLINE OF THE TRACK. THE 2'-4" OPENING SHOWN IS TYPICAL FOR A WESTERN-CULLEN-HAYES SHOCK-FREE HEAD. THE OPENING MAY BE ADJUSTED AS NEEDED FOR OTHER MANUFACTURER'S CUSHIONED HEADS TO ALLOW INSTALLATION AND REMOVAL OF THE CUSHIONED HEAD.

REINFORCING LAP SPLICE LENGTHS		
BAR SIZE	TOP BARS *	OTHER BARS
#4	2'-0"	1'-7"
#5	2'-6"	1'-10"
#6	3'-0"	2'-3"

* TOP BARS ARE HORIZONTAL BARS PLACED SO THAT MORE THAN 12" OF FRESH CONCRETE IS CAST BELOW THE BAR. HORIZONTAL WALL BARS WITH A HORIZONTAL BAR WITHIN 12" DIRECTLY BENEATH ARE NOT CONSIDERED TOP BARS.

$$ - THINK VALUE ENGINEERING - $$

Revisions

Symbol	Descriptions	Date	Approved

U.S. ARMY ENGINEER DISTRICT
CORPS OF ENGINEERS
OMAHA, NEBRASKA

Designed by: X
Drawn by: X
Checked by: X
Reviewed by: X
Submitted by:
Chief: X Section

X X
X
X

LOADING RAMP AND DOCK SECTIONS AND DETAILS

Plot Scale Ratio: 1:4
Design File: C111.DGN
Date: JANUARY 1998
Spec. No.: DACA 45
Contract No.: DACA 45
Drawing Code: X
Sheet reference number: C1.11

COMPUTER AIDED DESIGN & DRAFTING