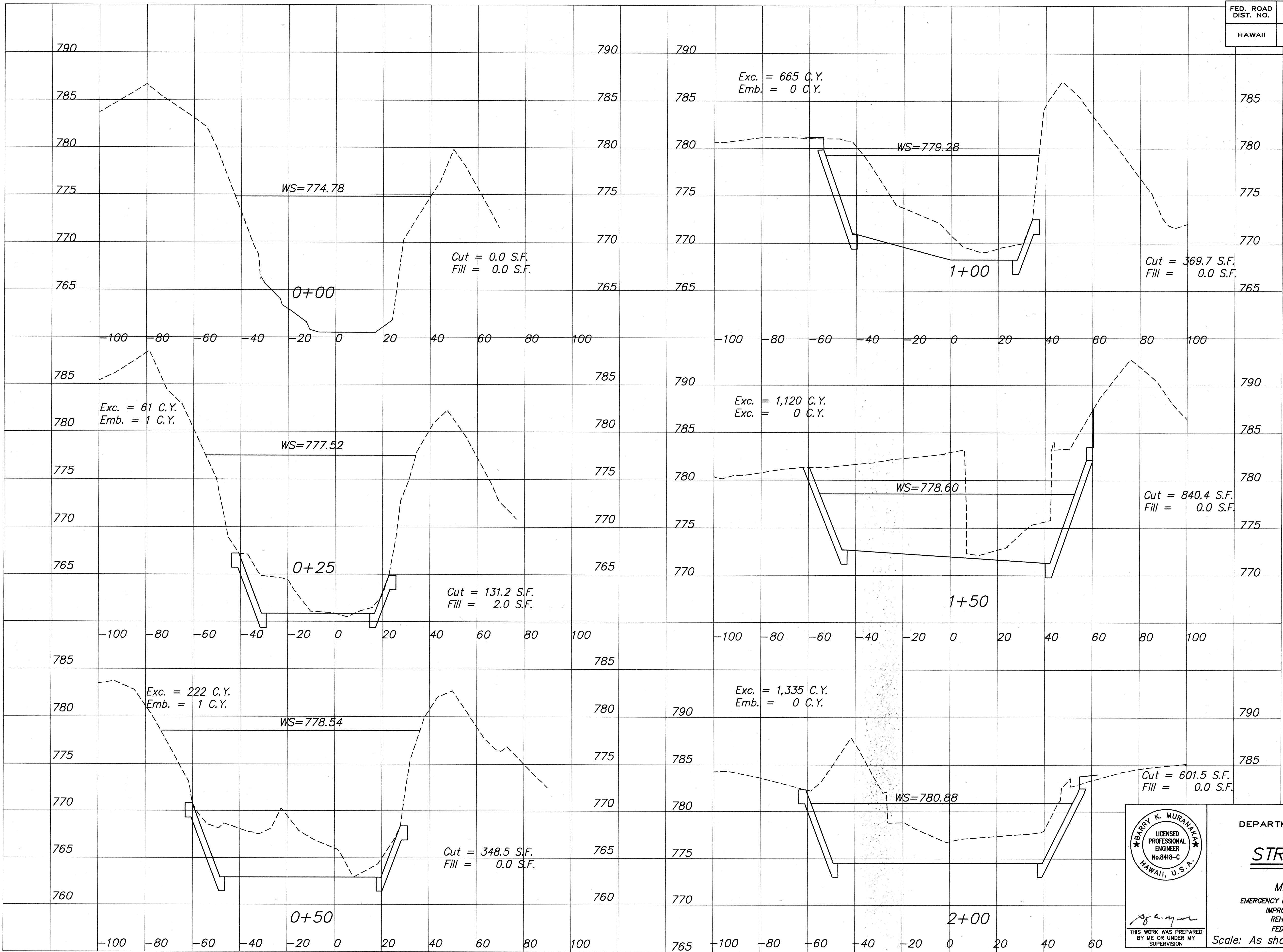


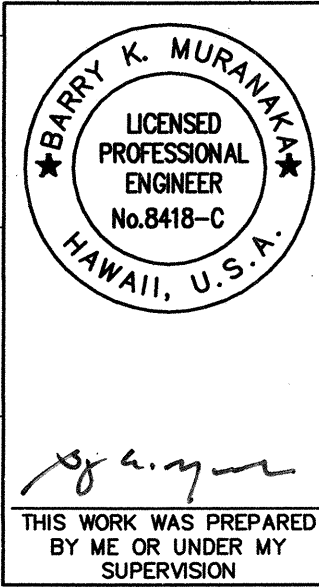
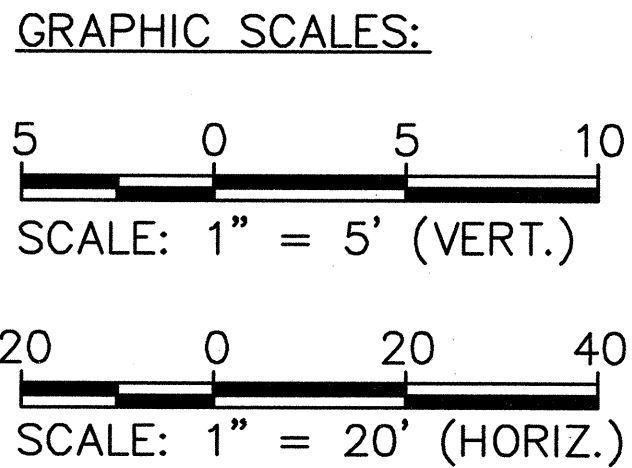
| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII              | HAW.  | ER-12(3)           | 2002        | 21        | 107          |



P.M.: BKM  
CURRENT OPR: mkf  
PREV. OPR:  
CURRENT TIME: Mar 26, 2002 - 11:03am  
LAST SAVED BY: rki  
LAST MODIFIED: Wed, 23 Jan 2002 - 10:13am

PREFIX: G:\Kai00-01\ACAD\  
FILE: KAI001.dwg  
BEGIN: 12/26/00  
SCALE: 1=1

| DATE | SURVEY PLOTTED BY |
|------|-------------------|
|      |                   |
| DATE | DRAWN BY          |
|      |                   |
| DATE | CHECKED BY        |
|      |                   |
| DATE | NOTED BY          |
|      |                   |
| DATE | NO.               |
|      |                   |



STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

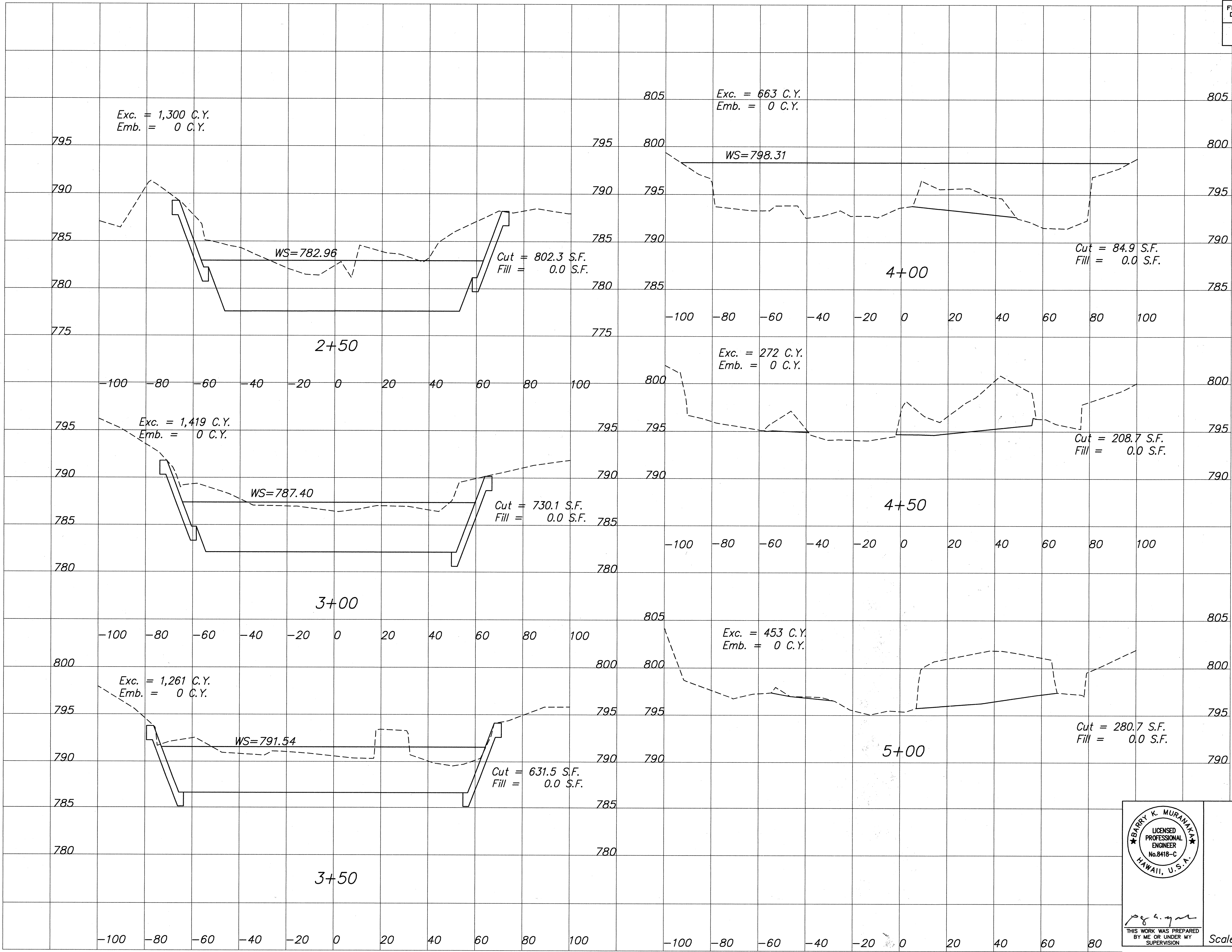
## STREAM SECTIONS

MAMALAHOA HIGHWAY  
EMERGENCY REPLACEMENT OF PAUUAU STREAM BRIDGE,  
IMPROVEMENTS AT KAMANI STREET, AND  
REHABILITATION OF VARIOUS BRIDGES  
FEDERAL AID PROJECT NO. ER-12(3)

Scale: As shown Date: Jan. 2002

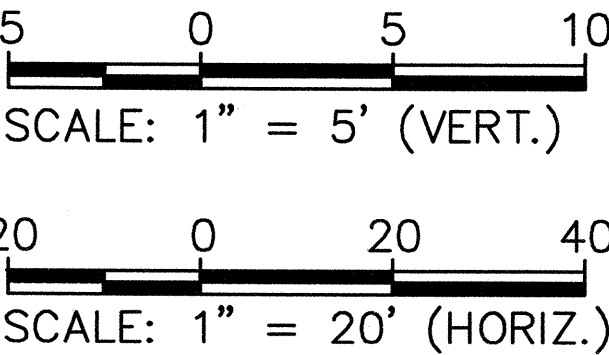
SHEET NO. 1 OF 3 SHEETS

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII              | HAW.  | ER-12(3)           | 2002        | 22        | 107          |



Note:  
WS (Water Surface Elevation) based on 50-year flood.

GRAPHIC SCALES:



STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

**STREAM SECTIONS**

MAMALAHOA HIGHWAY  
EMERGENCY REPLACEMENT OF PAAUUA STREAM BRIDGE,  
IMPROVEMENTS AT KAMANI STREET, AND  
REHABILITATION OF VARIOUS BRIDGES  
FEDERAL AID PROJECT NO. ER-12(3)

Scale: As shown Date: Jan. 2002

SHEET NO. 2 OF 3 SHEETS

P.M.: BKM  
CURRENT OPR: mkf  
PREV. OPR:  
CURRENT TIME: Mar 26, 2002 - 11:04am  
LAST SAVED BY: rki  
LAST MODIFIED: Mon, 07 Jan 2002 - 11:53am

PREFIX: C:\Kai00-01\ACAD\  
FILE: KAI0012.dwg  
BEGIN: 12/26/00  
SCALE: 1"=1

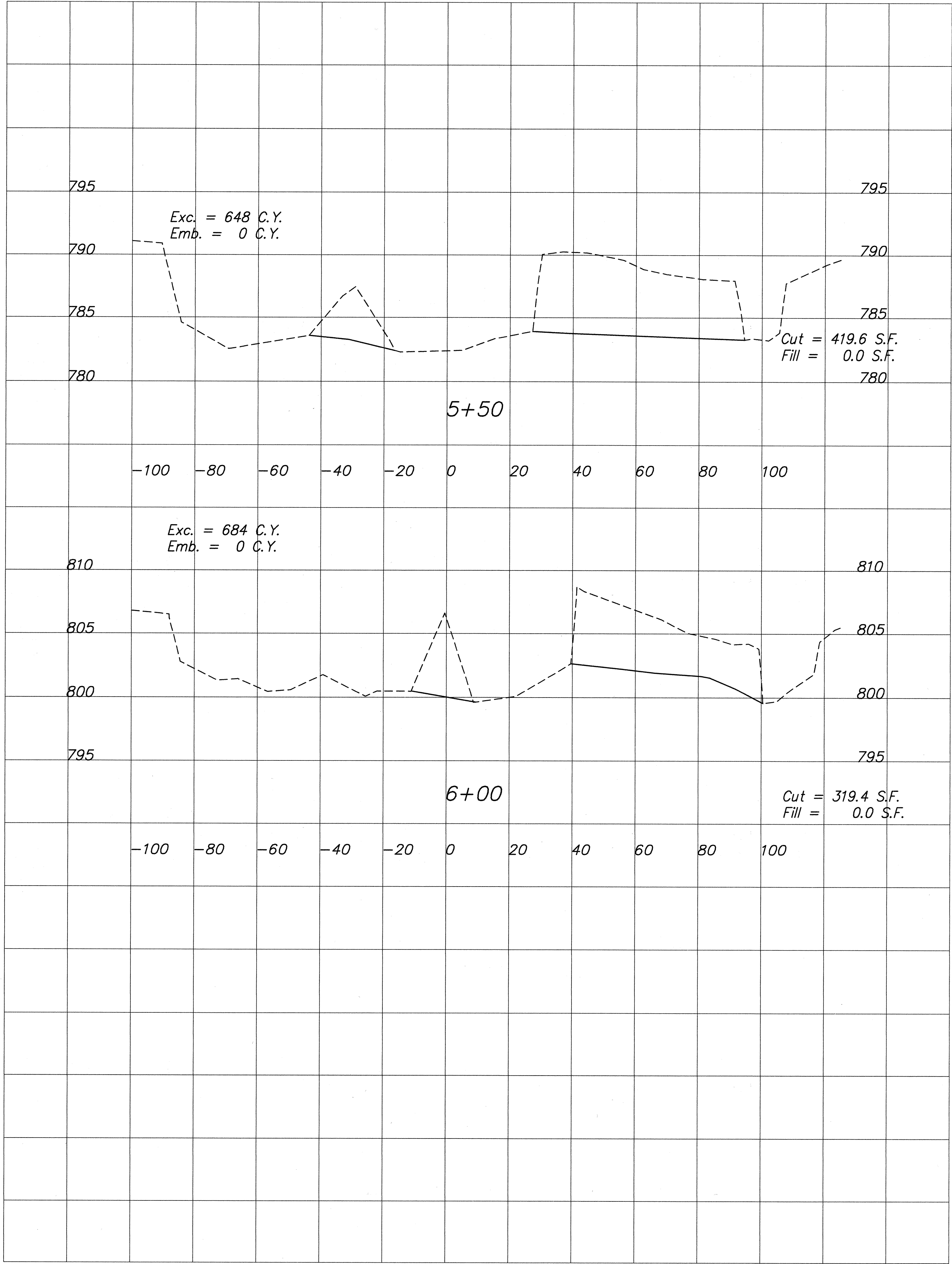
| DATE | SURVEY PLOTTED BY |
|------|-------------------|
|      | DRAWN BY          |
|      | TRACED BY         |
|      | CHECKED BY        |
|      | NO.               |

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII              | HAW.  | ER-12(3)           | 2002        | 23        | 107          |

P.M.: BKM  
CURRENT OPR: mkf  
PREV. OPR:  
CURRENT TIME: Mar 26, 2002 - 11:05am  
LAST SAVED BY: rki  
LAST MODIFIED: Mon, 07 Jan 2002 - 11:55am

PREF: C:\Kai00-01\ACAD\  
FILE: KAI0029.dwg  
BEGIN: 12/26/00  
SCALE: 1"=1

|               |                   |      |
|---------------|-------------------|------|
| ORIGINAL PLAN | SURVEY PLOTTED BY | DATE |
| NOTEBOOK      | DRAWN BY          |      |
|               | TRACED BY         |      |
|               | QUANTITIES BY     |      |
|               | CHECKED BY        |      |
| No.           |                   |      |



EARTHWORK SUMMARY:

Exc. = 10,103 C.Y.  
Emb. = 2 C.Y.

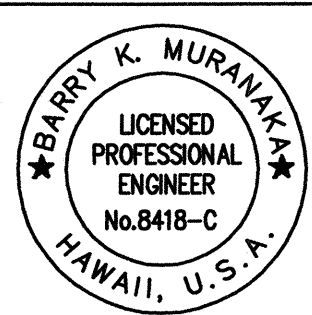
Note:

WS (Water Surface  
Elevation) based on  
50-year flood.

GRAPHIC SCALES:

5 0 5 10  
SCALE: 1" = 5' (VERT.)

20 0 20 40  
SCALE: 1" = 20' (HORIZ.)



STATE OF HAWAII  
DEPARTMENT OF TRANSPORTATION  
HIGHWAYS DIVISION

STREAM SECTIONS

MAMALAHOA HIGHWAY  
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IMPROVEMENTS AT KAMANI STREET, AND  
REHABILITATION OF VARIOUS BRIDGES  
FEDERAL AID PROJECT NO. ER-12(3)

Scale: As shown Date: Jan. 2002

SHEET NO. 3 OF 3 SHEETS