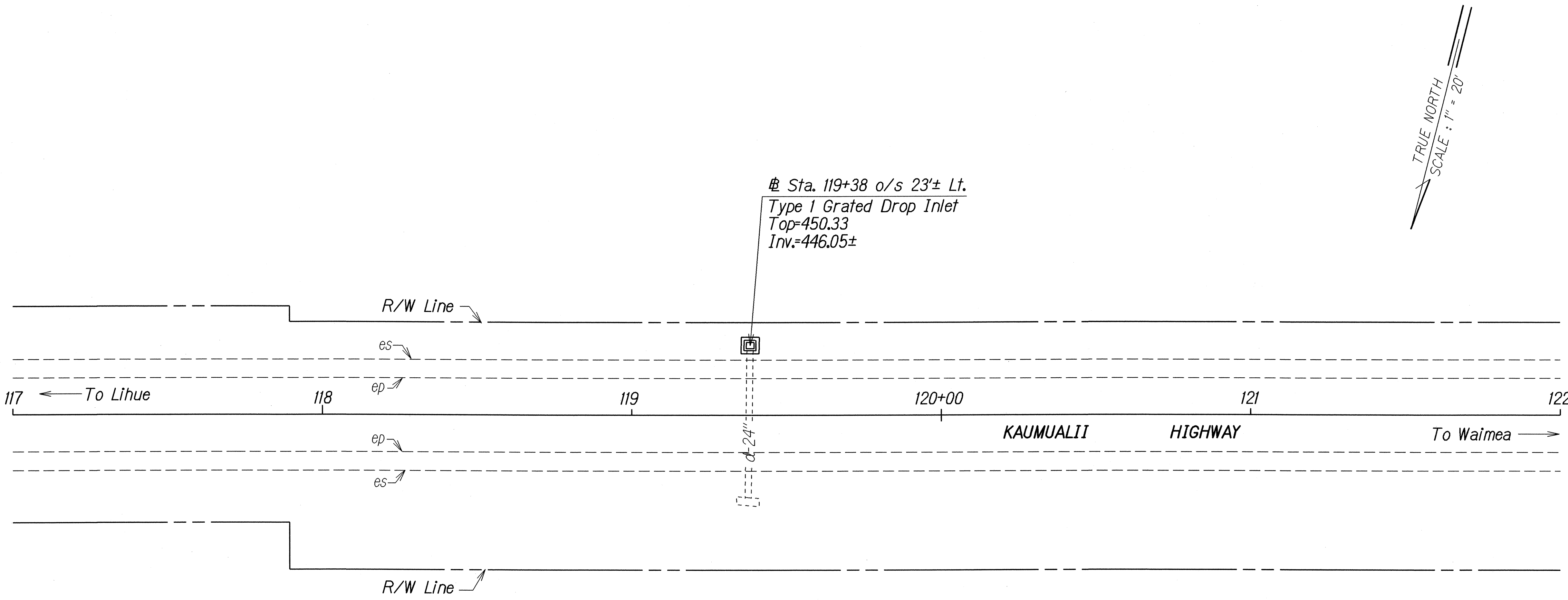


FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	50CD-01-02	2003	6	21



@ Sta. 119+38 o/s 23'± Lt.
 Type 1 Grated Drop Inlet
 Top=450.33
 Inv.=446.05±

@ Sta. 119+38 o/s 23'± Lt.
 Construct: Type 1 Grated Drop Inlet
 (For details, see sht. no. H7)

Estimated Quantities
 Type 1 Grated Drop Inlet
 1.00 ft. to 1.99 ft. = 1 EA.

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTED BY	DRAWN BY	
CHECKED BY	TRACED BY	
	QUANTITIES BY	
	CHECKED BY	

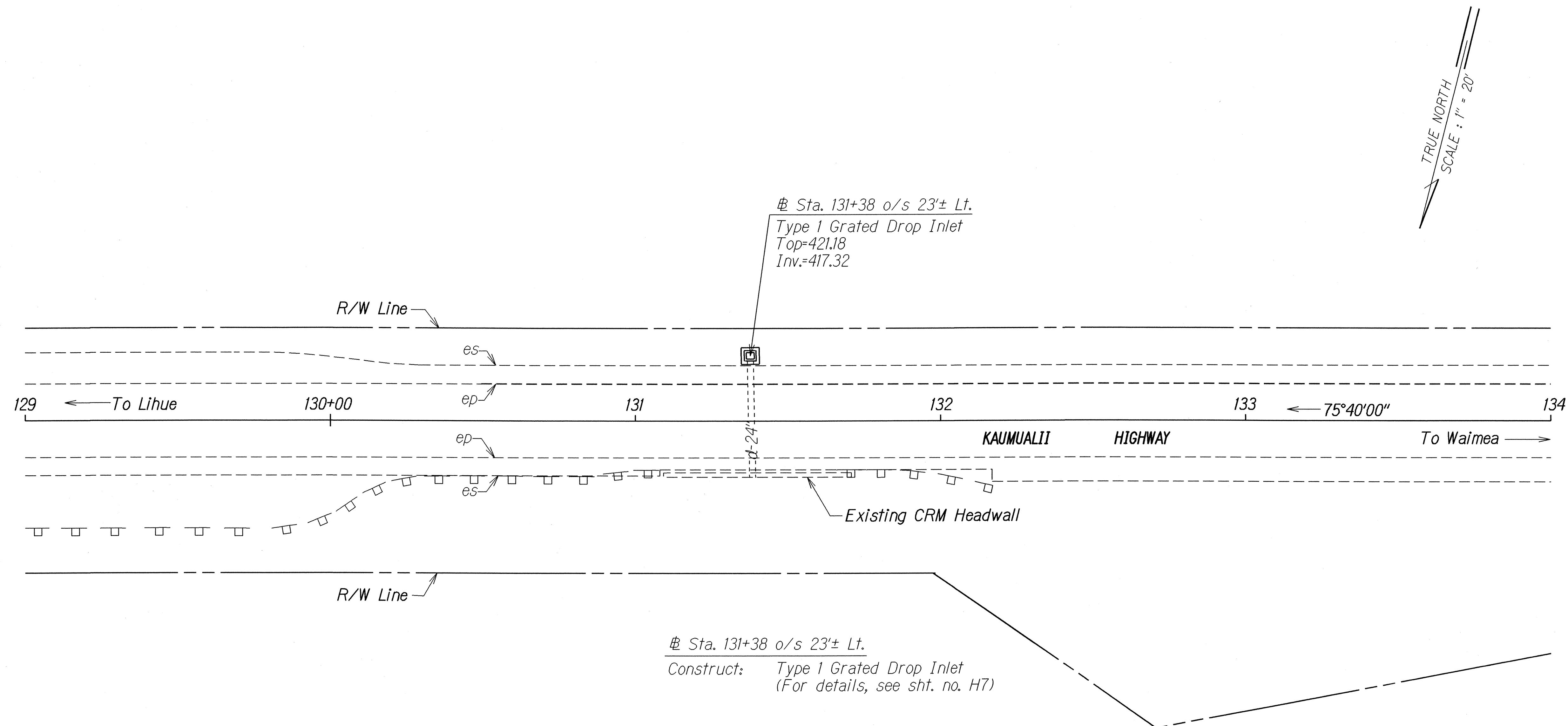
STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

DRAINAGE PLAN

KAUMUALII HIGHWAY DRAINAGE IMPROVEMENTS
 Vicinities of Huleia Stream Bridge
 and Hanapepe Valley Scenic Lookout
 Project No. 50CD-01-02
 Scale: 1"=20' Date: April 2002

SHEET No. H1 OF 10 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	50CD-01-02	2003	7	21



Sta. 131+38 o/s 23'± Lt.
 Construct: Type 1 Grated Drop Inlet
 (For details, see sht. no. H7)

Estimated Quantities
 Type 1 Grated Drop Inlet
 1.00 ft. to 1.99 ft. = 1 EA.

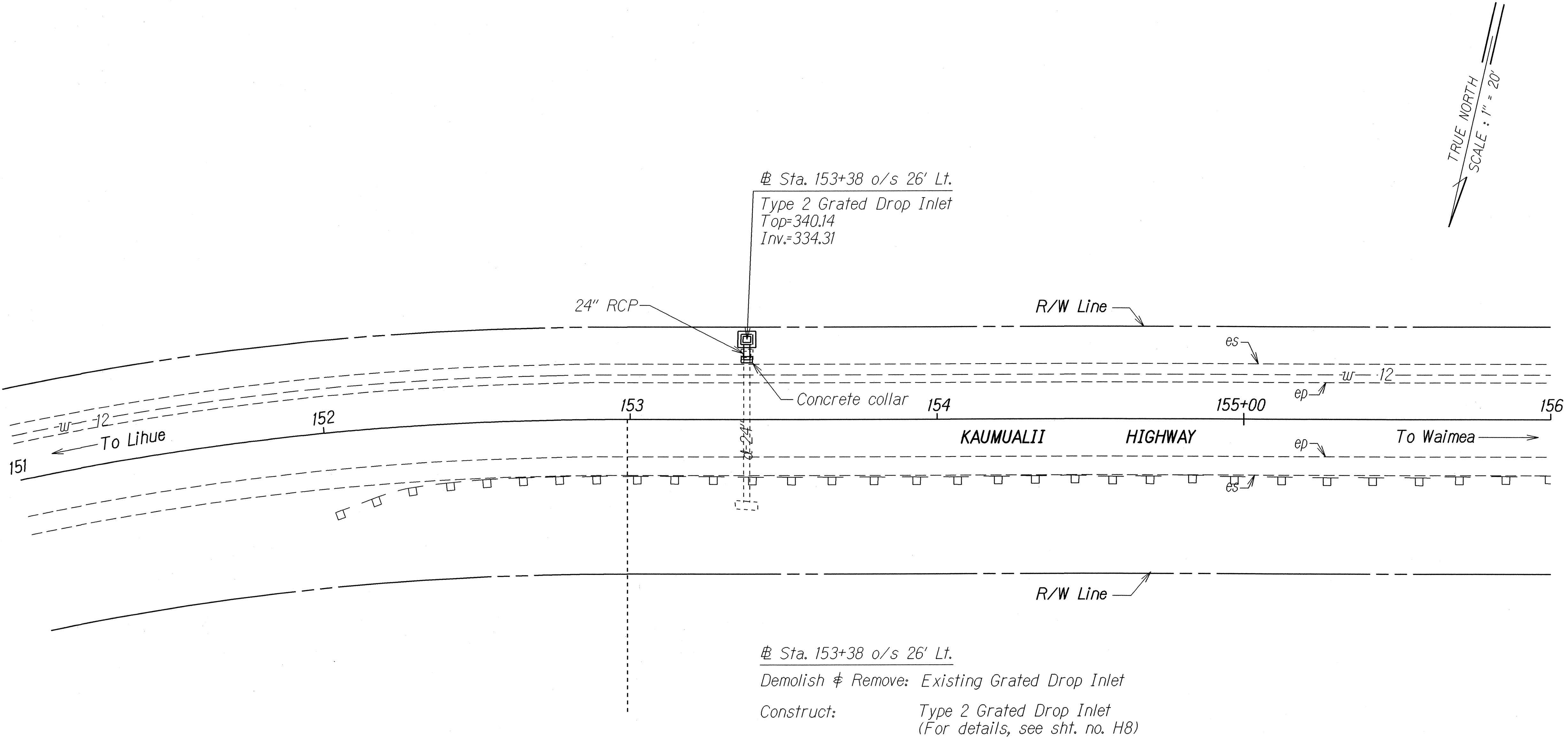
ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
QUANTITIES BY	DESIGNED BY	
CHECKED BY	CHECKED BY	

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION

DRAINAGE PLAN
KAUMUALII HIGHWAY DRAINAGE IMPROVEMENTS
Vicinity of Huleia Stream Bridge
and Hanapepe Valley Scenic Lookout
Project No. 50CD-01-02
 Scale: 1"=20' Date: April 2002

SHEET No. H2 OF 10 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	50CD-01-02	2003	8	21



Estimated Quantities

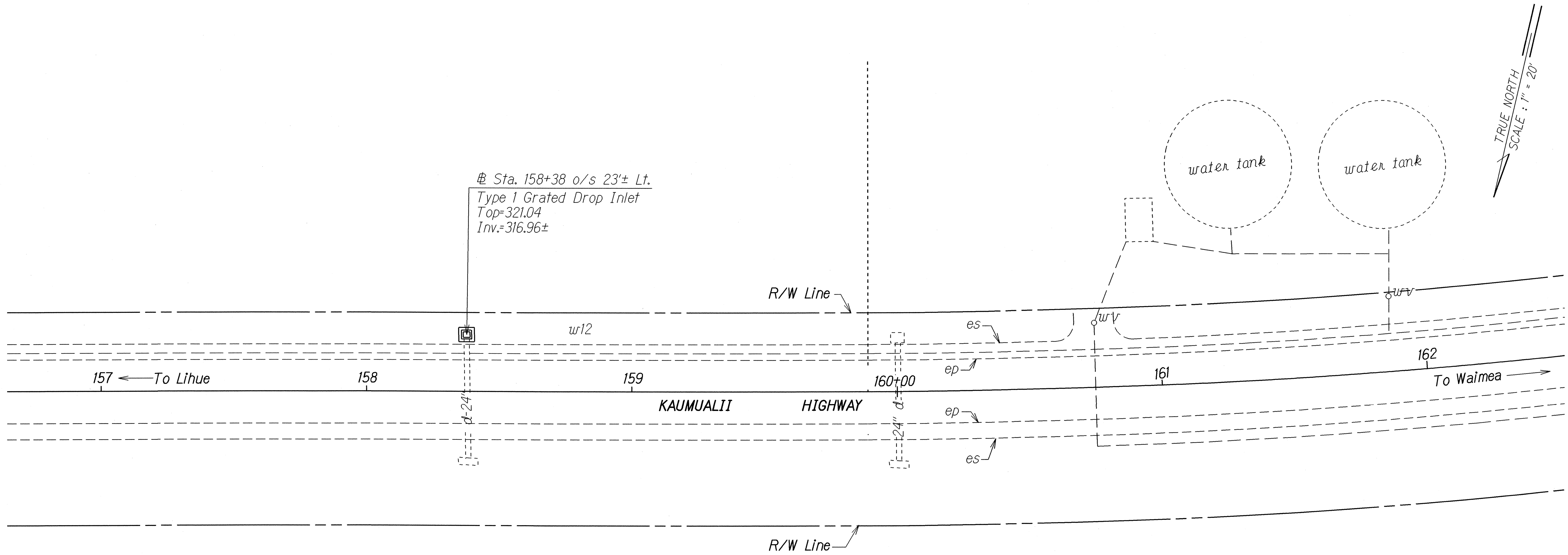
Structure Excavation for Drainage System	=	8 C.Y.
Type 2 Grated Drop Inlet 5.00 ft. to 5.99 ft	=	1 EA.
Concrete Collar	=	1 EA.
24" RCP, Class III	=	6 L.F.

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK	DRAWN BY	
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SHWHP00359	CHECKED BY	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DRAINAGE PLAN
KAUMUALII HIGHWAY DRAINAGE IMPROVEMENTS
Vicinites of Huleia Stream Bridge
and Hanapepe Valley Scenic Lookout
Project No. 50CD-01-02
Scale: 1"=20' Date: April 2002
SHEET No. H3 OF 10 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	50CD-01-02	2003	9	21



Sta. 158+38 o/s 23'± Lt.
Construct: Type 1 Grated Drop Inlet
(For details, see sht. no. H7)

Estimated Quantities
Type 1 Grated Drop Inlet
1.00 ft. to 1.99 ft. = 1 EA.

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
TRACED BY	DRAWN BY	
NOTED BY	CHECKED BY	
QUANTITIES BY		
CHECKED BY		

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DRAINAGE PLAN

KAUMUALII HIGHWAY DRAINAGE IMPROVEMENTS

Vicinity of Huleia Stream Bridge
and Hanapepe Valley Scenic Lookout

Project No. 50CD-01-02

Scale: 1"=20' Date: April 2002

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	50CD-01-02	2003	10	21

Sta. 263+57± o/s 34'± Rt. to Sta. 266+07 o/s 34'± Rt.

Remove: Terminal Section, Type "F" Flare (1 EA)
Guardrail (75 L.F.)
Terminal Section, Type FLEAT-350 (1 EA)

Install: Guardrail, Strong Post W-Beam
(For details, see plan sht. no. 17)

Estimated Quantities

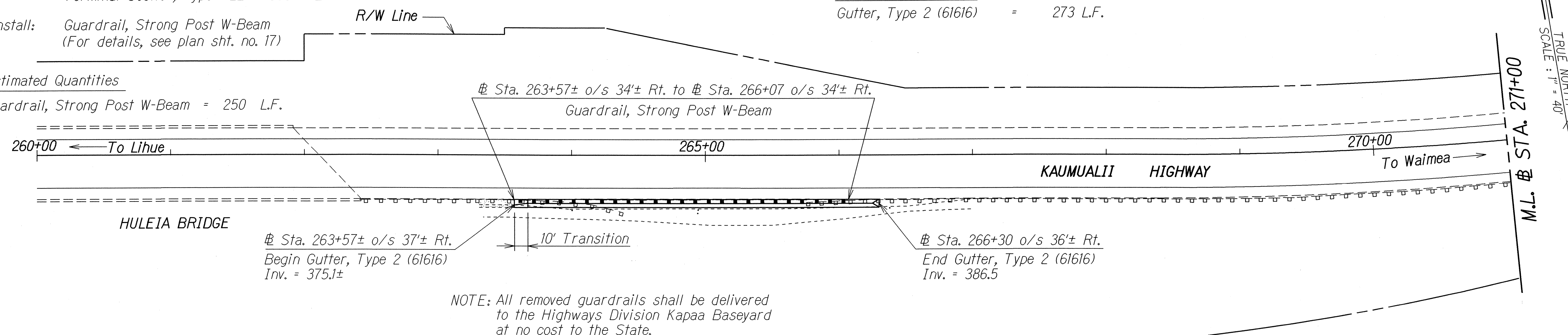
Guardrail, Strong Post W-Beam = 250 L.F.

Sta. 263+57± o/s 37'± Rt. to Sta. 266+30 o/s 36'± Rt.

Construct: Gutter, Type 2 (61616)
(For details, see sht. no. H10)

Estimated Quantities

Gutter, Type 2 (61616) = 273 L.F.

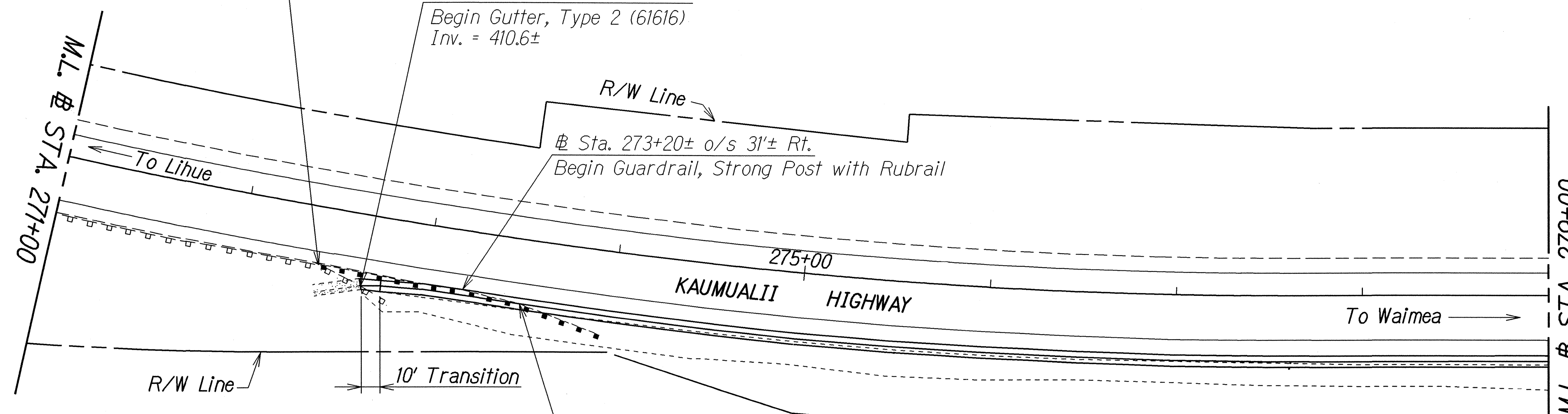


Sta. 272+45± o/s 31'± Rt.

Begin Guardrail, Strong Post W-Beam

Sta. 272+66± o/s 39'± Rt.
Begin Gutter, Type 2 (61616)
Inv. = 410.6±

Sta. 273+20± o/s 31'± Rt.
Begin Guardrail, Strong Post with Rubrail



Sta. 272+45± o/s 31'± Rt. to Sta. 273+20 o/s 31'± Rt.

Remove: Terminal Section, Type "F" Flare (1 EA)

Install: Guardrail, Strong Post W-Beam
Guardrail, Strong Post with Rubrail
(For details, see plan sht. no. 18)
Terminal Section, Modified Type "A-1" Flare
(For details, see plan sht. nos. 19-21)

Estimated Quantities

Guardrail, Strong Post W-Beam = 75 L.F.
Guardrail, Strong Post with Rubrail = 32 L.F.
Terminal Section, Modified Type "A-1" Flare = 1 EA

Sta. 272+66± o/s 39'± Rt. to Sta. 284+07 o/s 65' Rt.

Construct: Gutter, Type 2 (61616)
(For details, see sht. no. H10)

Estimated Quantities

Gutter, Type 2 (61616) = 1,157 L.F.

DATE	10/1/02
SURVEY PLOTTED BY	X
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NOTED BY	X
CHECKED BY	X
ORIGINAL PLAN	
NOTE BOOK	
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DRAINAGE PLAN

KAUMUALII HIGHWAY DRAINAGE IMPROVEMENTS

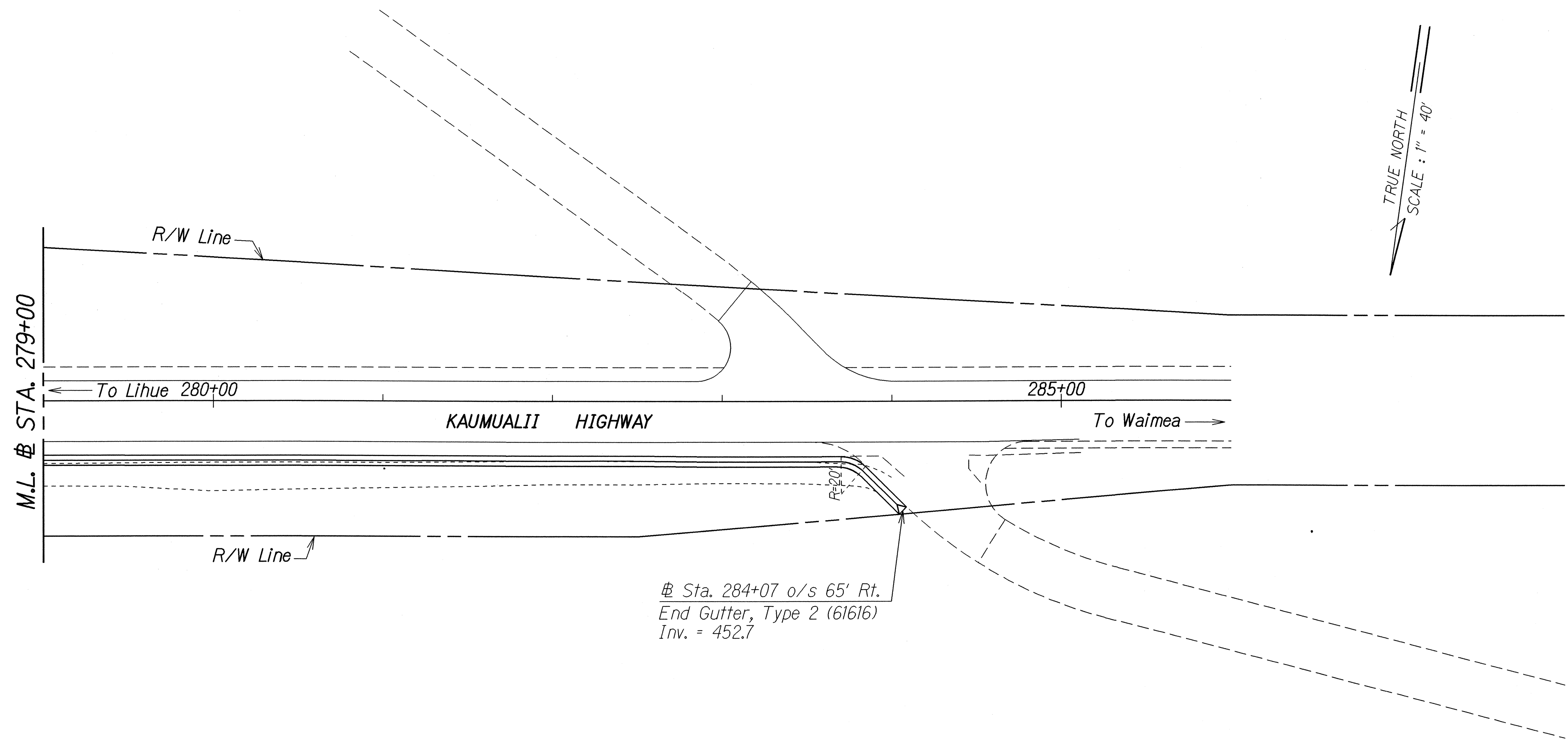
Vicinity of Huleia Stream Bridge
and Hanapepe Valley Scenic Lookout

Project No. 50CD-01-02

Scale: 1"=40' Date: April 2002

SHEET No. H5 OF 10 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	50CD-01-02	2003	11	21



ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
PLAN	DRAWN BY	
NOTE BOOK	TRACED BY	
	CHECKED BY	
	QUANTITIES BY	
	CHECKED BY	

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

DRAINAGE PLAN

KAUMUALII HIGHWAY DRAINAGE IMPROVEMENTS
Vicinity of Huleia Stream Bridge
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SHEET No. H6 OF 10 SHEETS