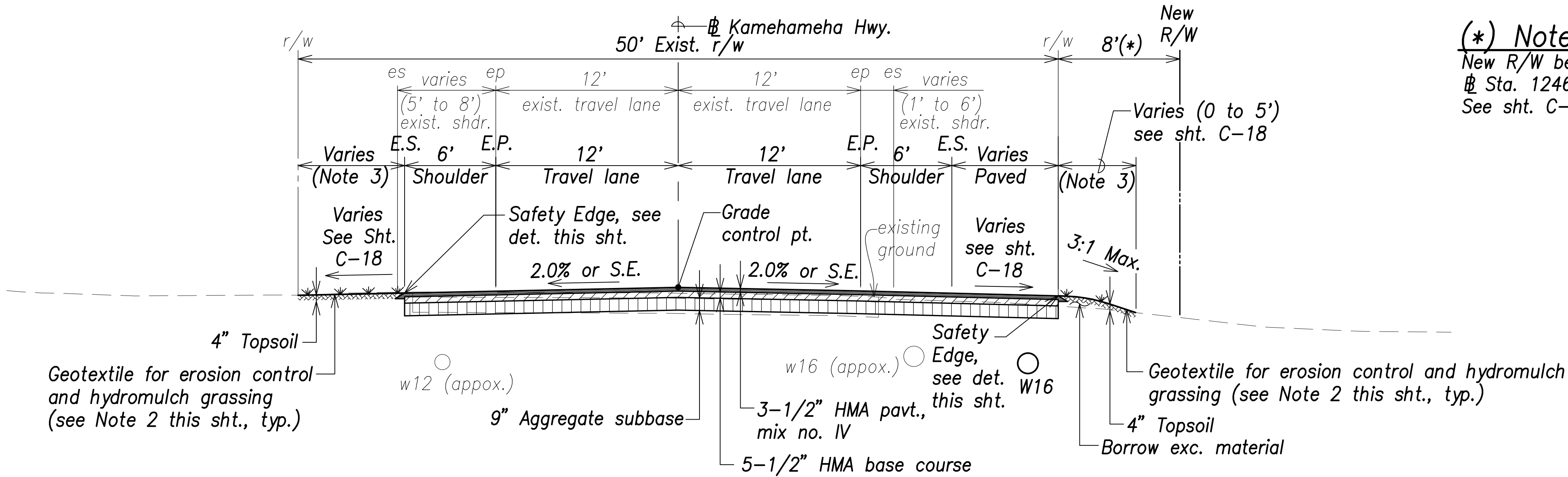
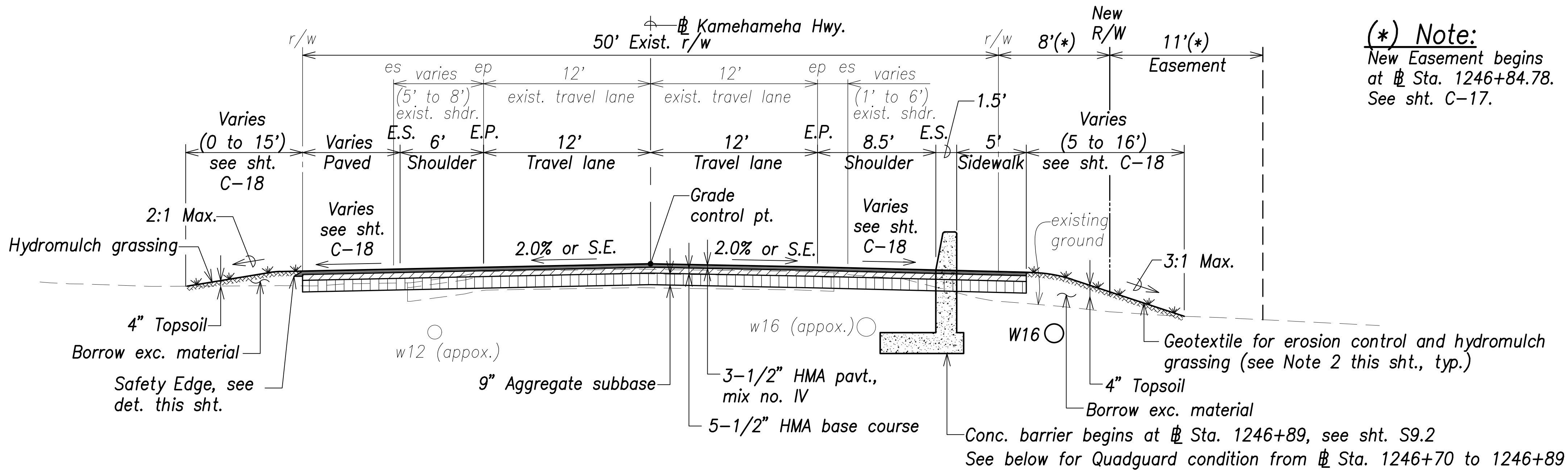


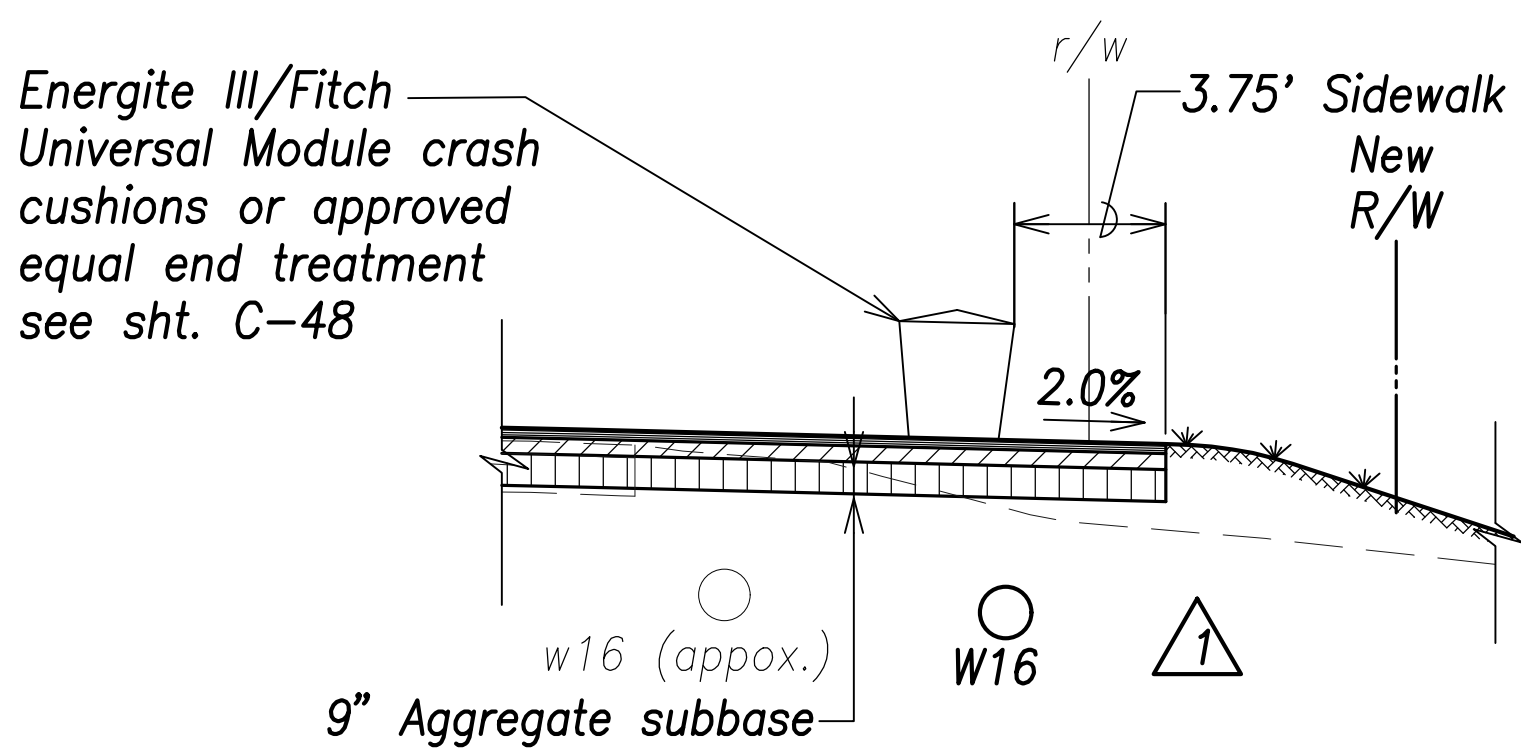
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-083-1(48)	2021	14	161



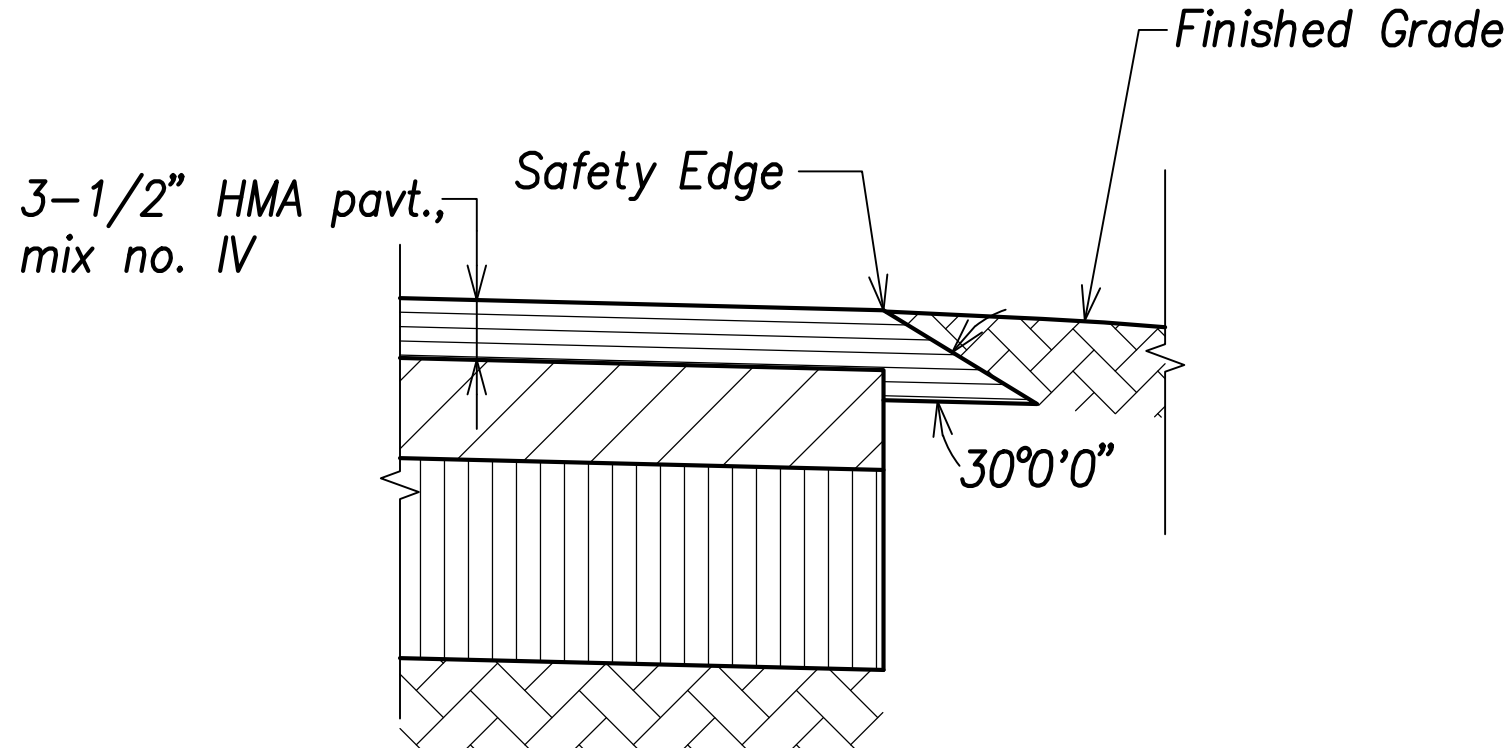
TYPICAL SECTION – (Sta. 1246+15 to Sta. 1246+70)
Scale: 1"=5'



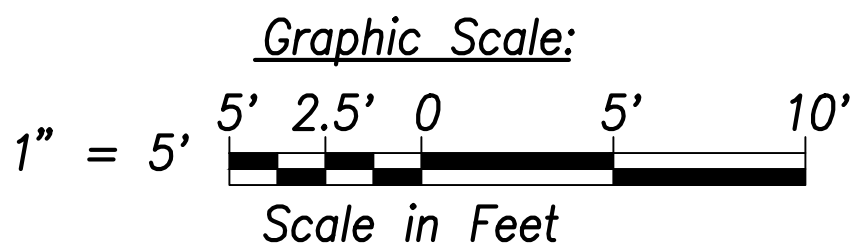
TYPICAL SECTION – (Sta. 1246+70 to Sta. 1247+12.18)
Scale: 1"=5'



TYPICAL CRASH CUSHION SECTION – (Sta. 1246+70 to Sta. 1246+89)
Scale: 1"=5'

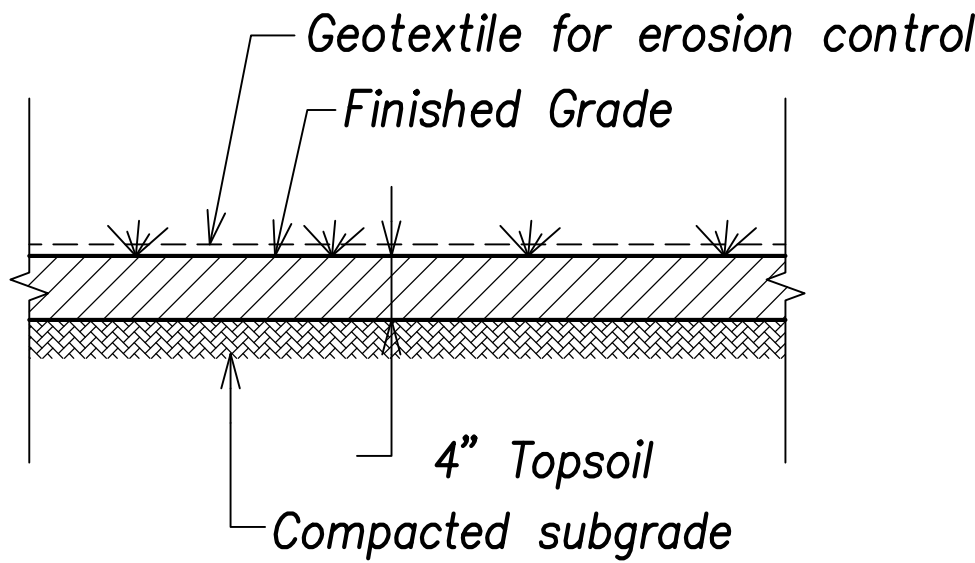


SAFETY EDGE
Not to Scale

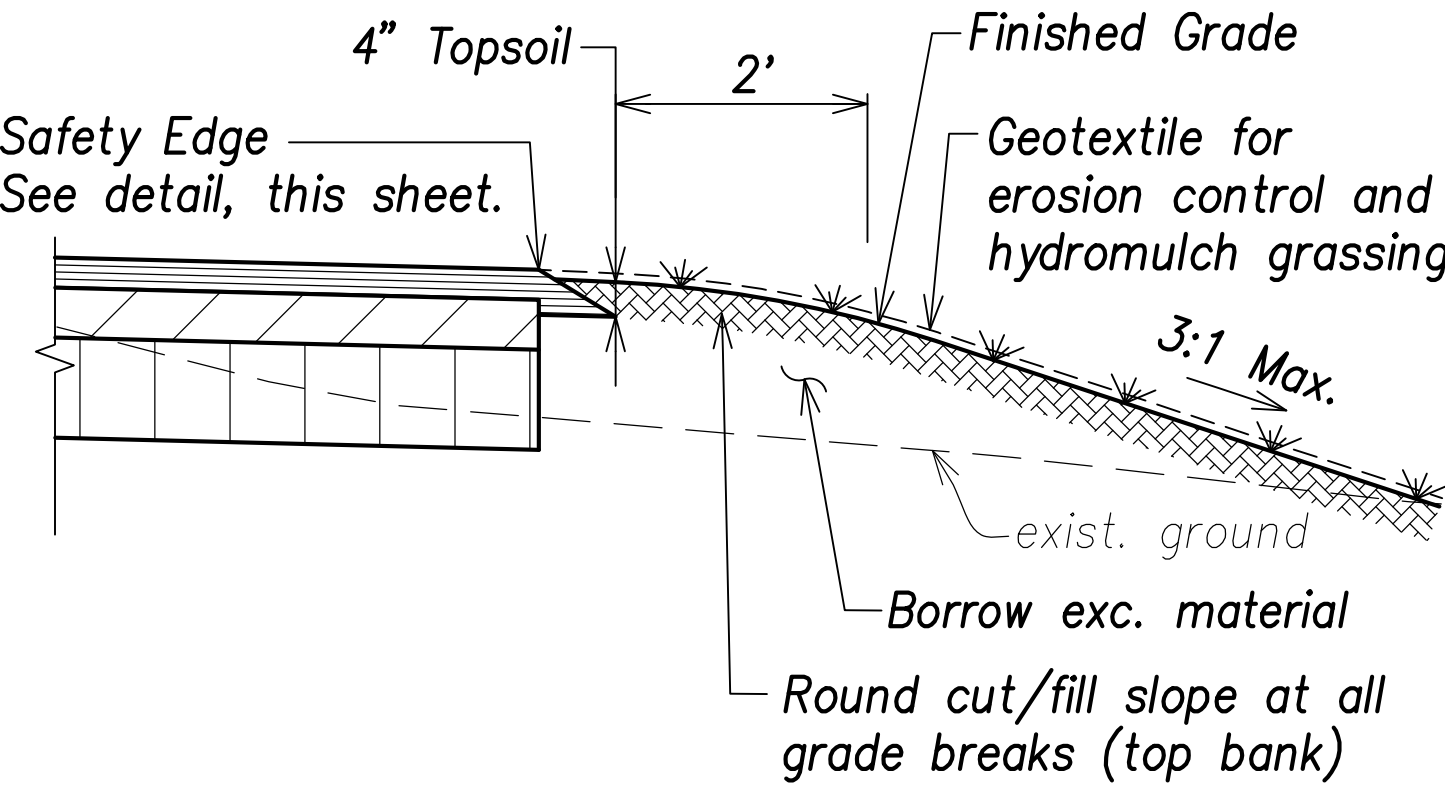


(*) **Note:**
New R/W begins at Sta. 1246+52.78. See sht. C-17.

(*) **Note:**
New Easement begins at Sta. 1246+84.78. See sht. C-17.



GEOTEXTILE FOR EROSION CONTROL
Not to Scale



TYPICAL TOP BANK ROUNDING
Not to Scale

- Notes:**
- The Contractor shall photo document the existing landscaping in all adjacent residential lots affected by the project and submit to the engineer. Upon completion of major work items, the Contractor shall restore landscaping back to existing condition or better.
 - Hydromulch Grassing. The Contractor shall broadcast sprigs of seashore paspalum at 10 bushels per 1,000 SF capped with hydromulch at 30 lbs per 1,000 SF.
 - At driveway connections, pavement section shall be 3-1/2" HMA pvt., mix no. IV over 6" Aggregate subbase. See sht. C-17 and C-20.

DATE	BY	DATE	BY
DESIGNED BY	W.C.	CHECKED BY	No.
TRACED BY	W.C.	QUANTITIES BY	No.
ORIGINAL PLAN	W.C.	NOTE BOOK	No.

7/7/21	Rev. Typ. Crash Cushion Section
DATE	REVISION

WALTER G. C. CHONG
LICENSED PROFESSIONAL ENGINEERS
No. 8982-C
HAWAII, U.S.A.

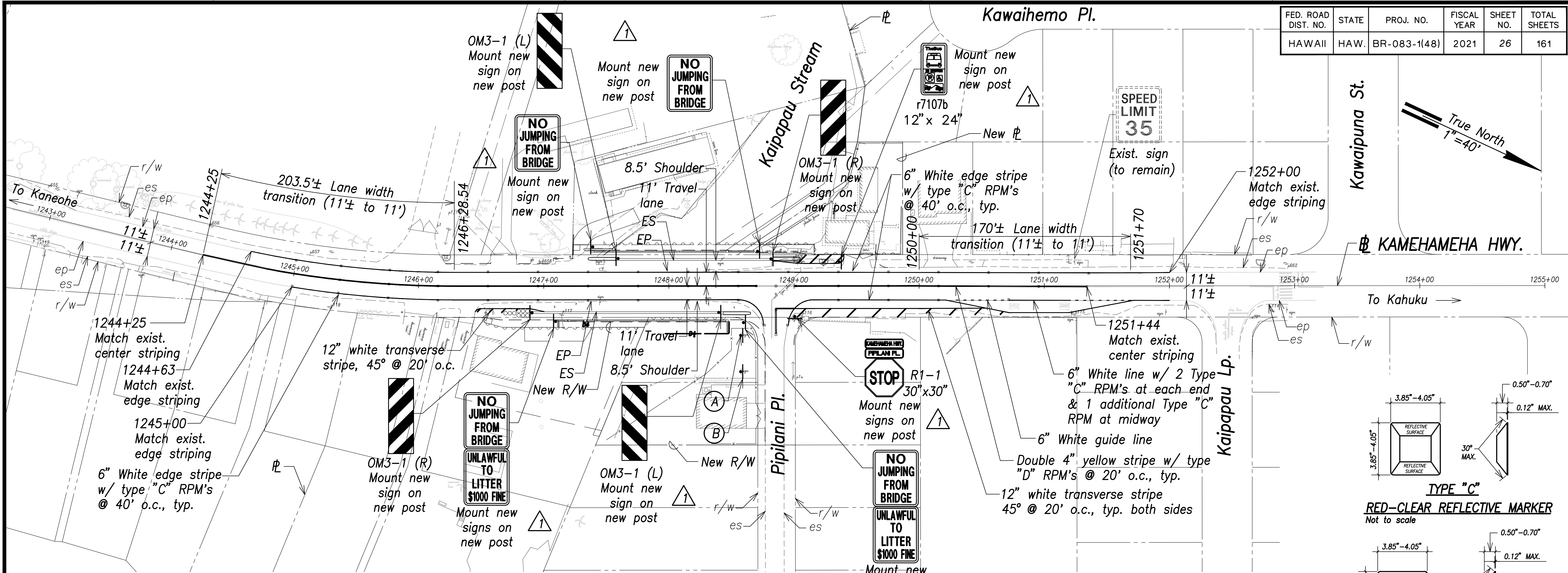
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

TYPICAL SECTIONS – 1

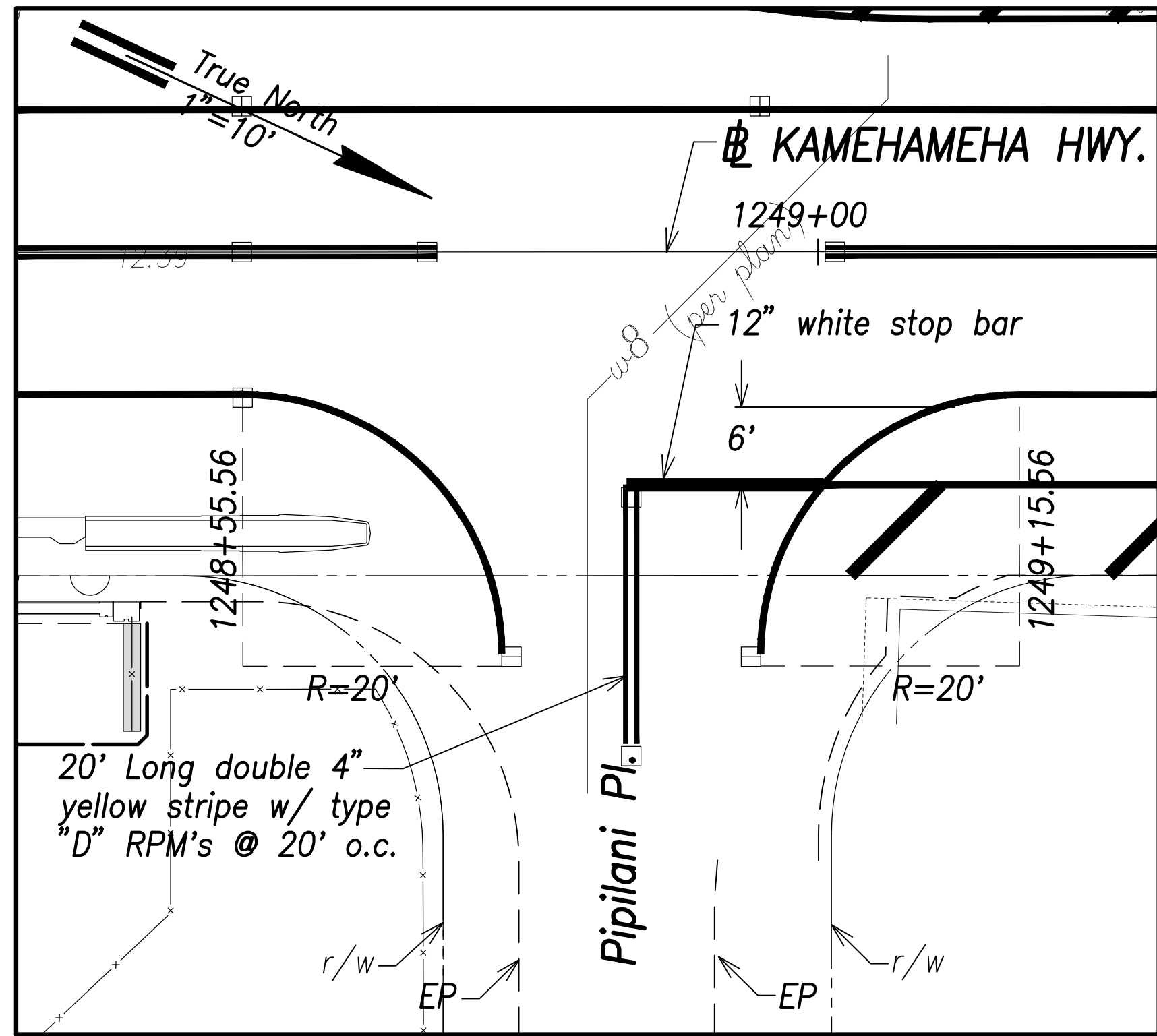
Kamehameha Highway
Kaipapau Stream Bridge Replacement
Federal Aid Project No. BR-083-1(48)

Scale: As Noted Date: February 2021

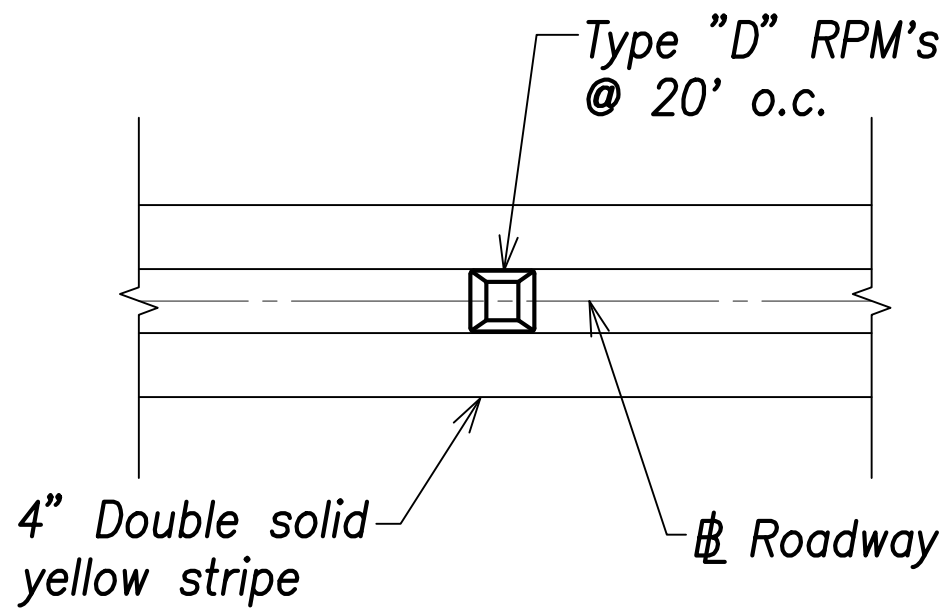
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-083-1(48)	2021	26	161



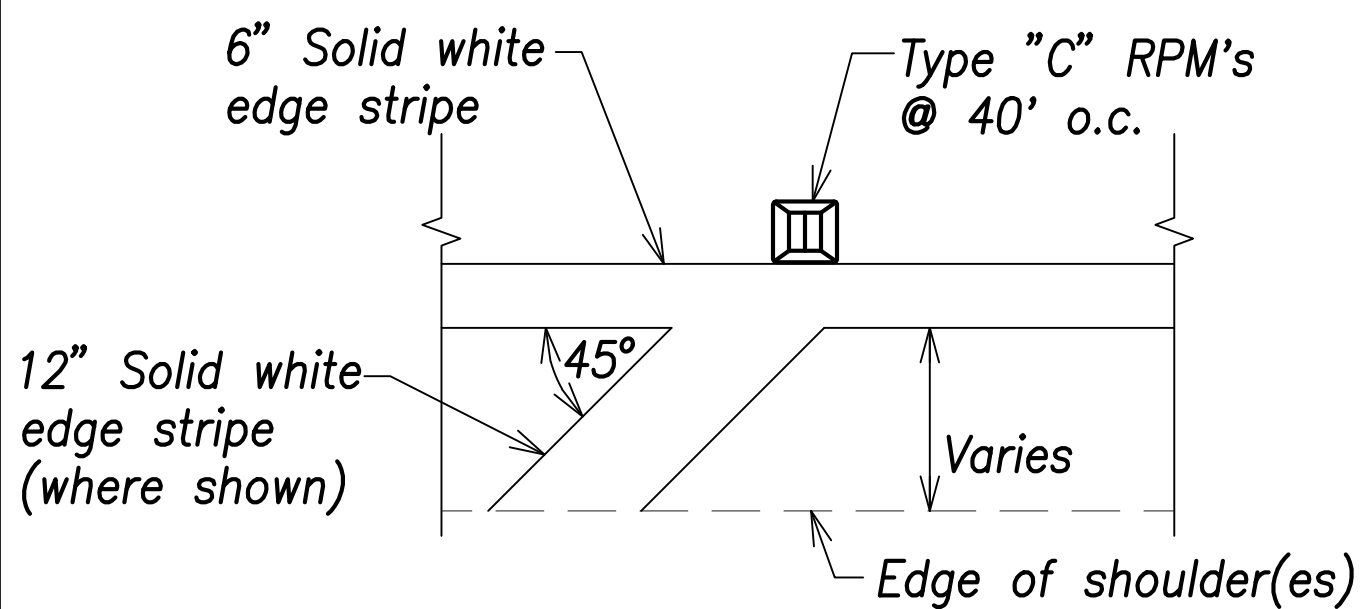
SIGNING & STRIPING PLAN
Scale: 1"=40'



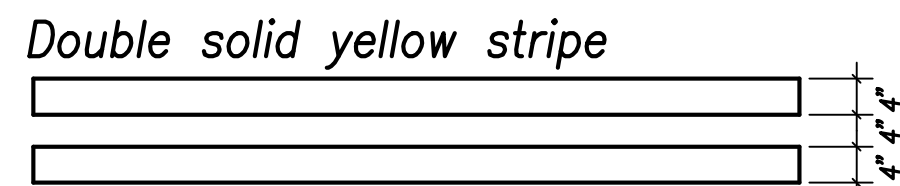
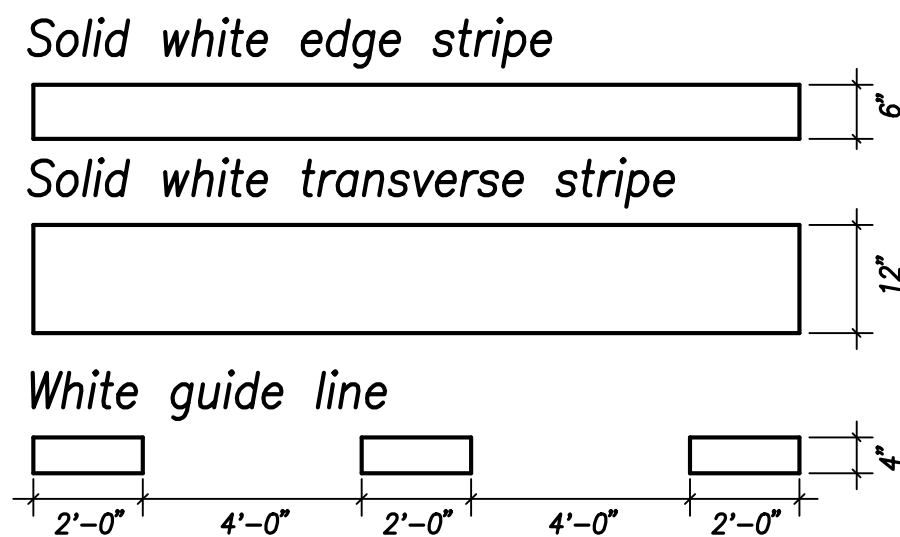
INTERSECTION PLAN
Scale: 1"=10'



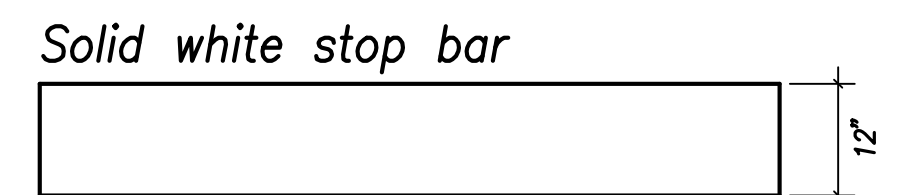
TYPICAL CENTER LINE STRIPING
Not to scale



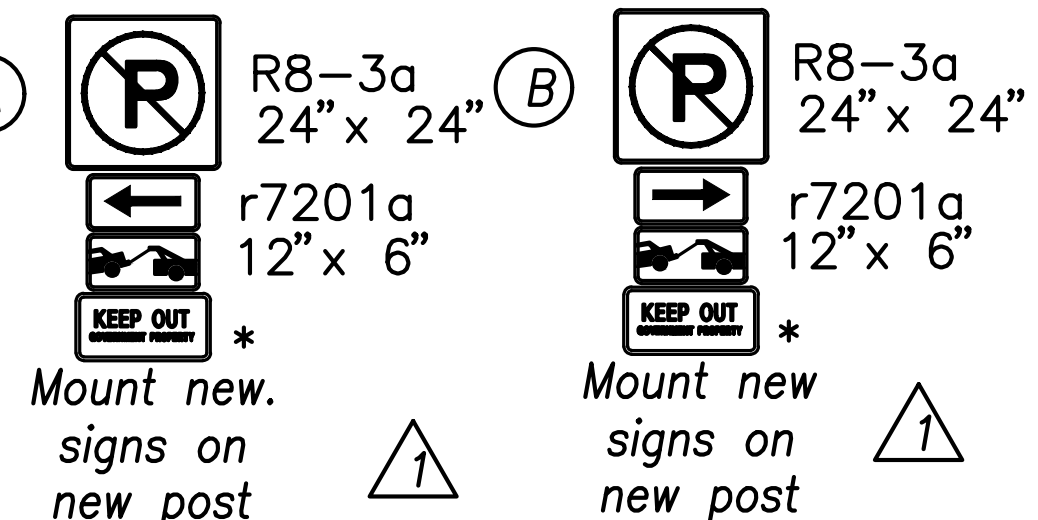
TYPICAL EDGE LINE STRIPING
Not to scale



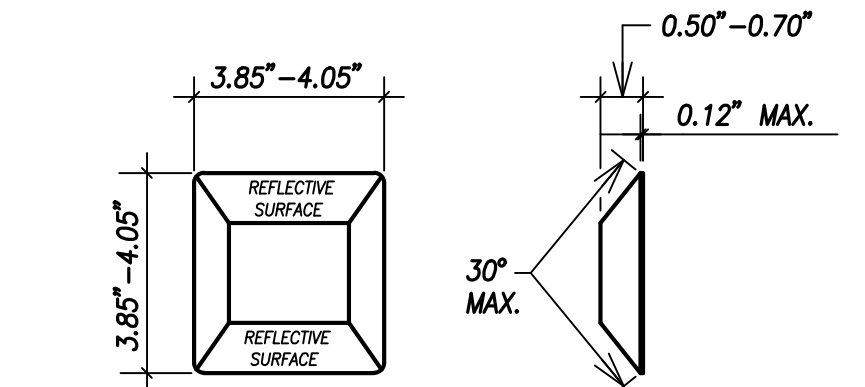
TYPES OF LONGITUDINAL LINES
Not to scale



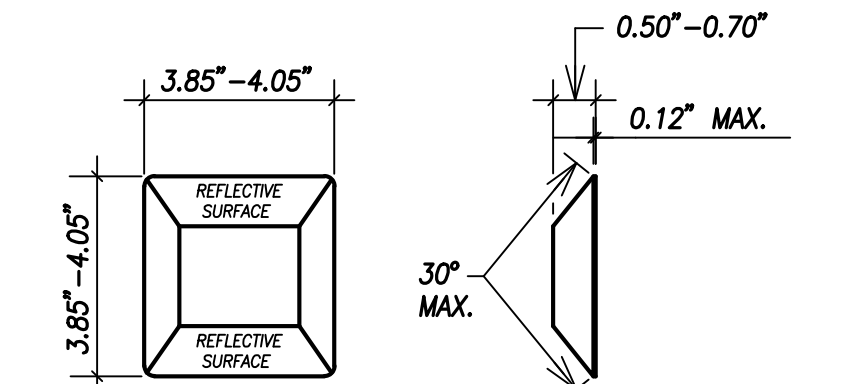
STOP BAR DETAIL
Not to scale



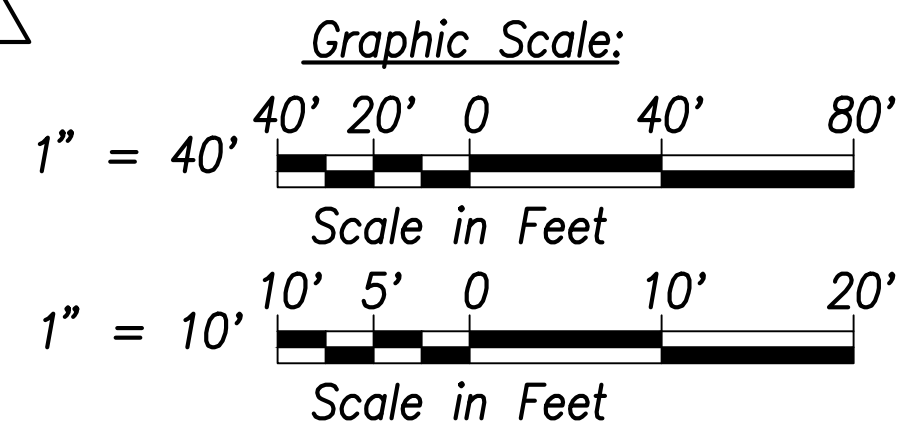
*See Sheet C-41
for sign detail



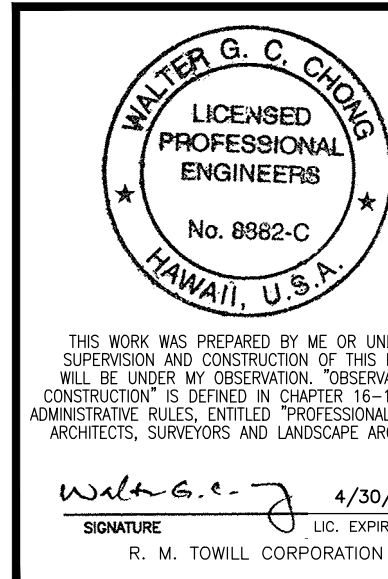
TYPE "C"
RED-CLEAR REFLECTIVE MARKER
Not to scale



TYPE "D"
TWO-WAY YELLOW REFLECTIVE MARKER
Not to scale



DATE	REVISION
7/7/21	Rev. sign callouts



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

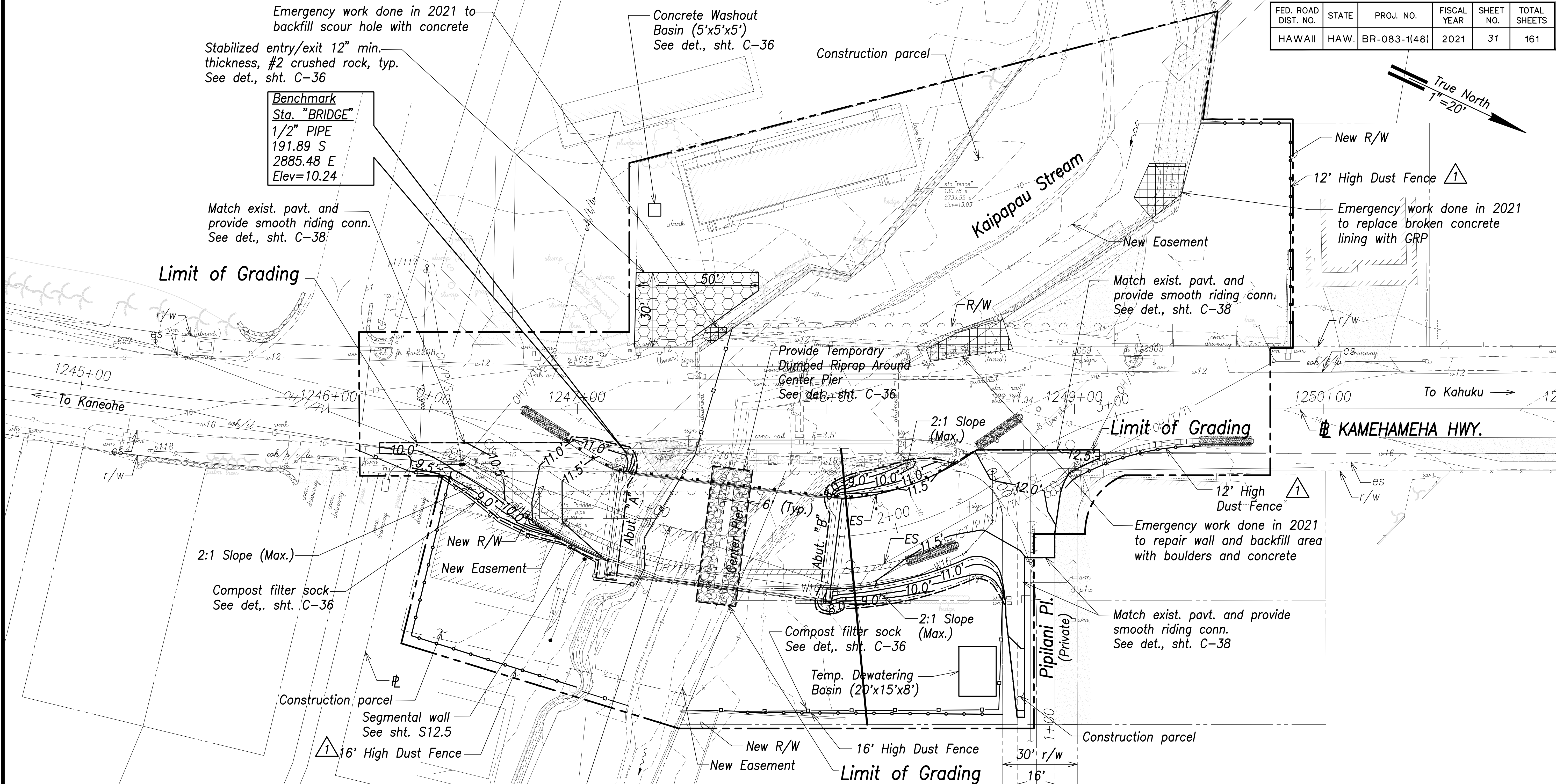
SIGNING & STRIPING PLAN

Kamehameha Highway
Kaipapau Stream Bridge Replacement
Federal Aid Project No. BR-083-1(48)

Scale: As Noted Date: February 2021

SHEET No. C-24 OF SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-083-1(48)	2021	31	161



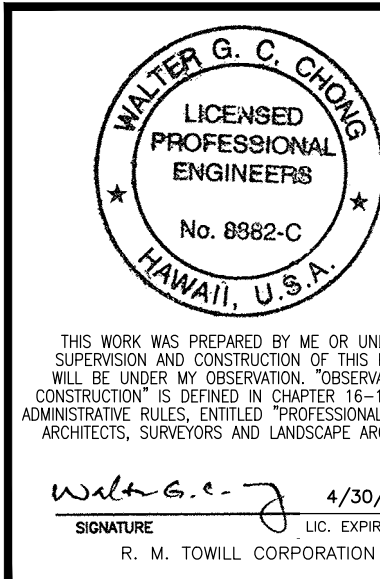
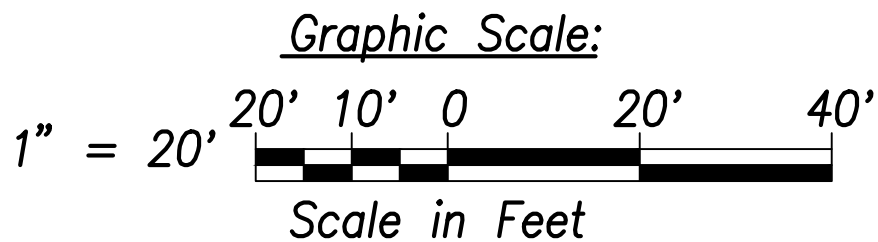
Legend:

- Project Limits
- 10' Exist. Ground Contour
- 10.0' Finished Grade Contour
- Limit of Grading
- Dust Fence
- Compost Filter Sock
- Drainage Flow Direction
- Stabilized Entry/Exit

Notes:

- The contractor shall be responsible for obtaining grading permit from the City and County of Honolulu, Department of Planning and Permitting.
- Sediment and Erosion Control BMP measures shown in the Contract Documents are minimum BMPs requirements and do not constitute an acceptable and/or complete Sediment and Erosion Control Plan. The Contractor shall incorporate additional BMPs based upon their means and methods considering site conditions and construction sequence in accordance with the Contract Documents including applicable permit document requirements. Cost shall be included in Pay Item 209.0100, "Installation, Maintenance, Monitoring, and Removal of BMP."

DIVERSION ROAD – GRADING, EROSION AND SEDIMENT CONTROL PLAN
 Scale: 1"=20'



7/7/21	Rev. Dust fence height
DATE	REVISION

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
DIVERSION ROAD-GRADING, EROSION AND SEDIMENT CONTROL PLAN
Kamehameha Highway
Kaipapau Stream Bridge Replacement
Federal Aid Project No. BR-083-1(48)

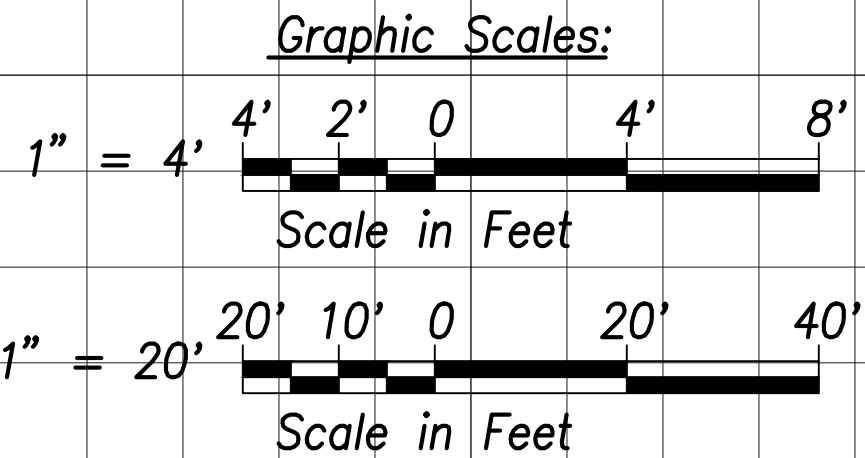
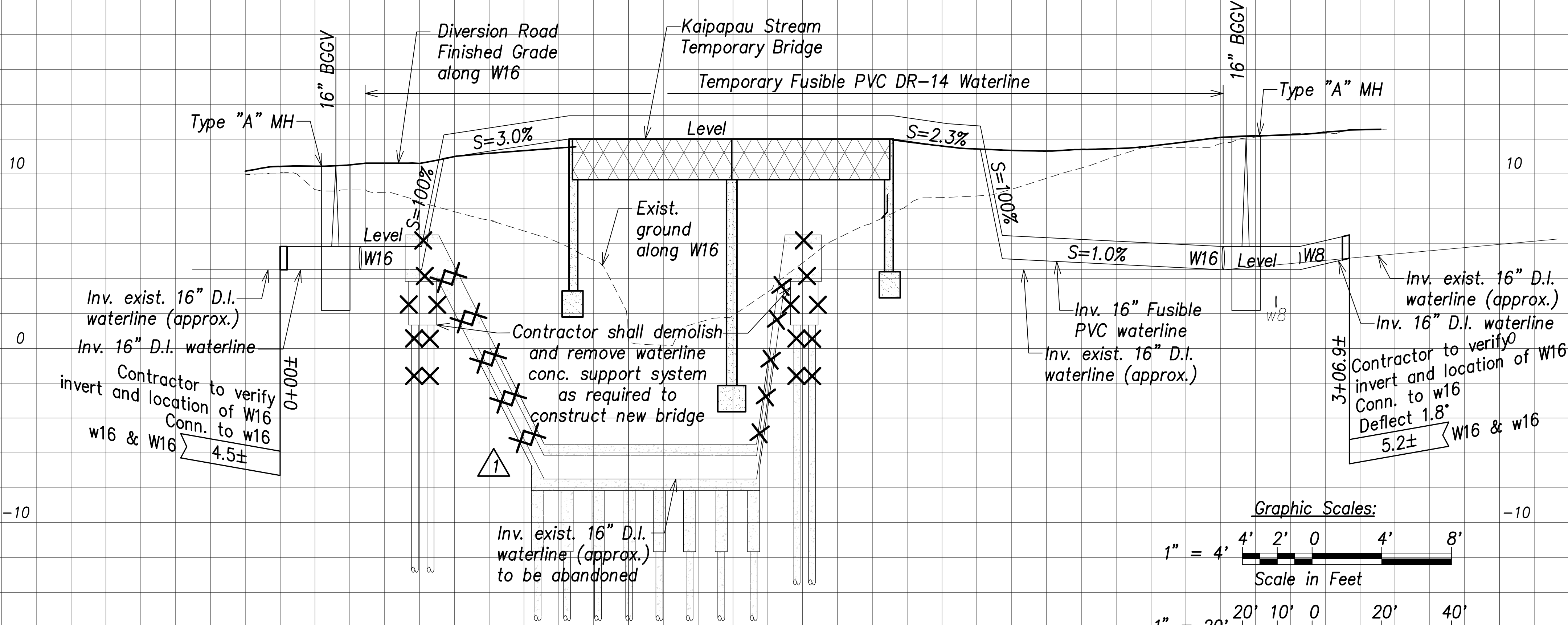
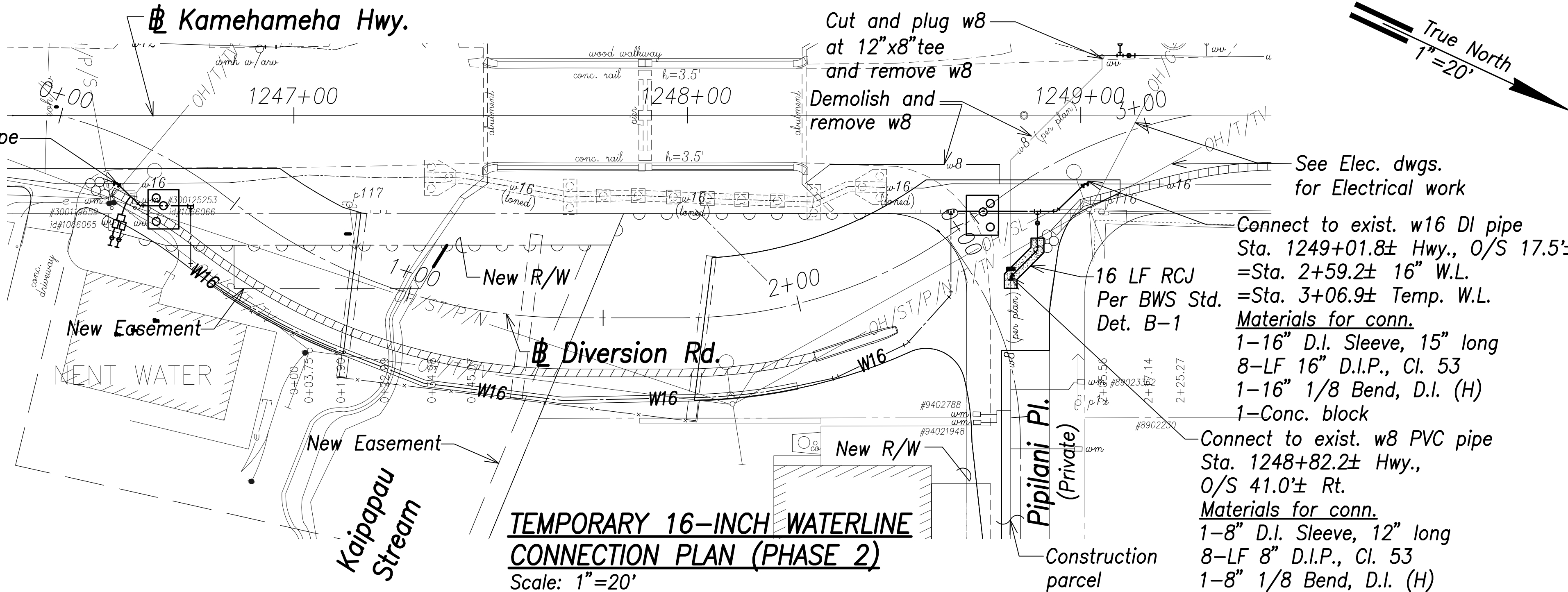
Scale: As Noted Date: February 2021
SHEET No. C-29 OF SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-083-1(48)	2021	35	161

Notes:

- The existing waterlines shown on these plans were located using record drawings and toning information from the Board of Water Supply. The contractor shall make an independent check by probing the waterlines and coordinating with the Board of Water Supply to ascertain the exact locations of the waterlines. Any discrepancies shall be immediately brought to the attention of the Project Engineer prior to any work on the water system.
- Connection of the temporary 16" waterline to the existing 16" waterline cannot begin until after the permanent 12" waterline has been pressure tested, accepted by BWS and placed into service and the temporary 12" waterline has been removed.

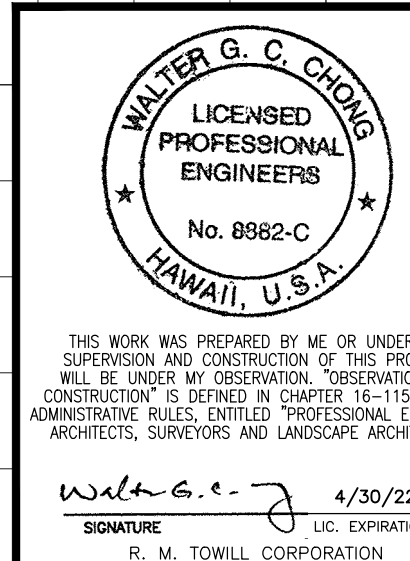
Connect to exist. w16 D.I. pipe
Sta. 1246+52.0± Hwy.,
O/S 17.3± Rt.
=Sta. 0+00.0± 16" W.L.
=Sta. 0+00.0± Temp. W.L.
Materials for conn.
1-16" D.I. Sleeve, 15" long
8-LF 16" D.I.P., Cl. 53
1-16" 1/8 Bend, D.I. (H)
1-Conc. block
Temp. for testing
1-16" Cap w/4" C.O.
1-Conc. block



TEMPORARY 16-INCH WATERLINE CONNECTION PROFILE (PHASE 2)

Scales: 1"=20' Horiz.
1"=4' Vert.

APPROVED: [Signature]
Manager and Chief Engineer, BWS
(for work affecting BWS facilities
State R/W & BWS easements only)
DATE: MAY 24 2021

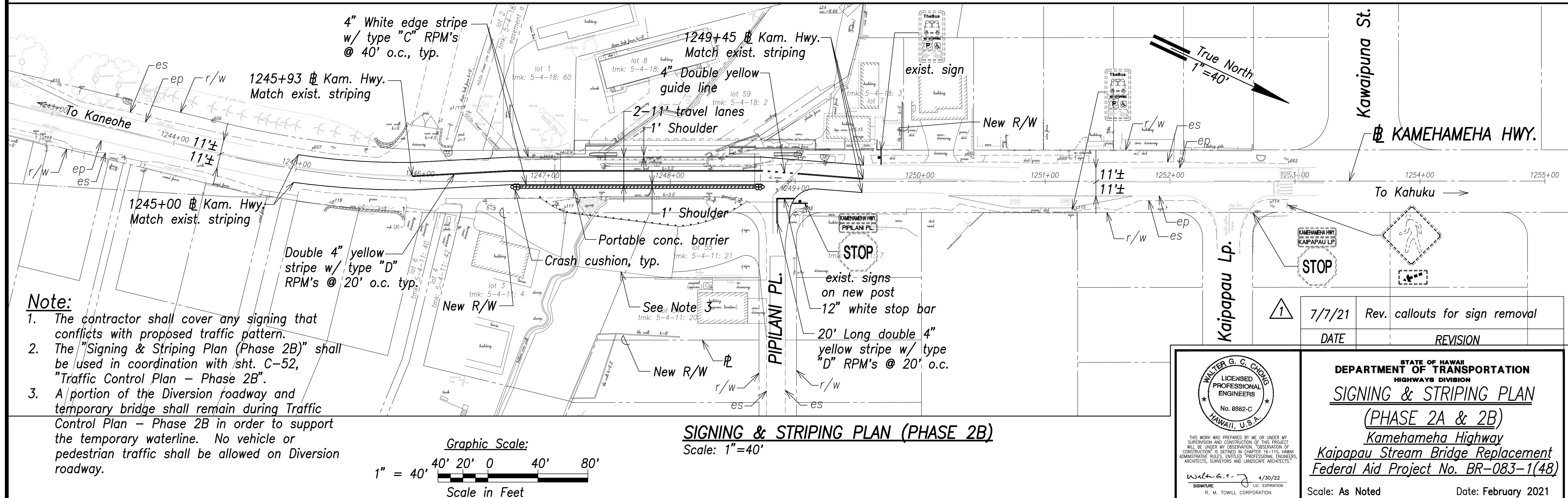
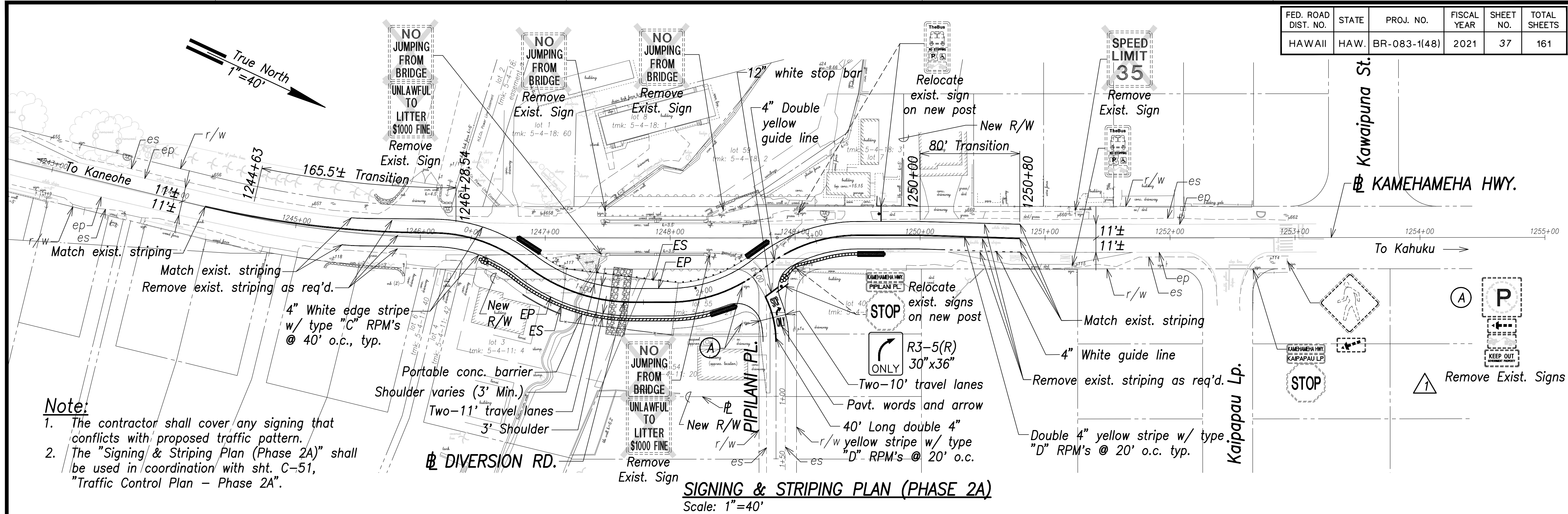


STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
TEMPORARY 16-INCH WATERLINE CONNECTION PLAN (PHASE 2)
Kamehameha Highway
Kaipapau Stream Bridge Replacement
Federal Aid Project No. BR-083-1(48)

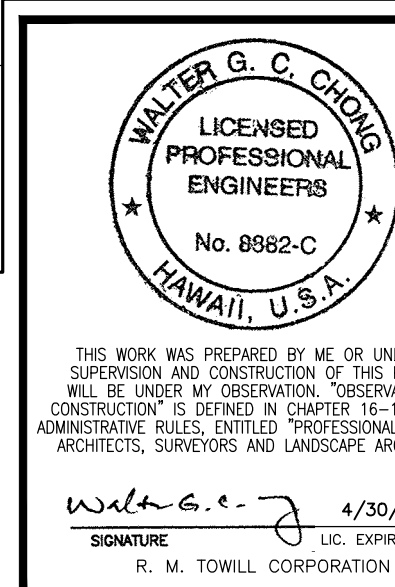
Scale: As Noted Date: February 2021

SHEET No. C-33 OF SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-083-1(48)	2021	37	161

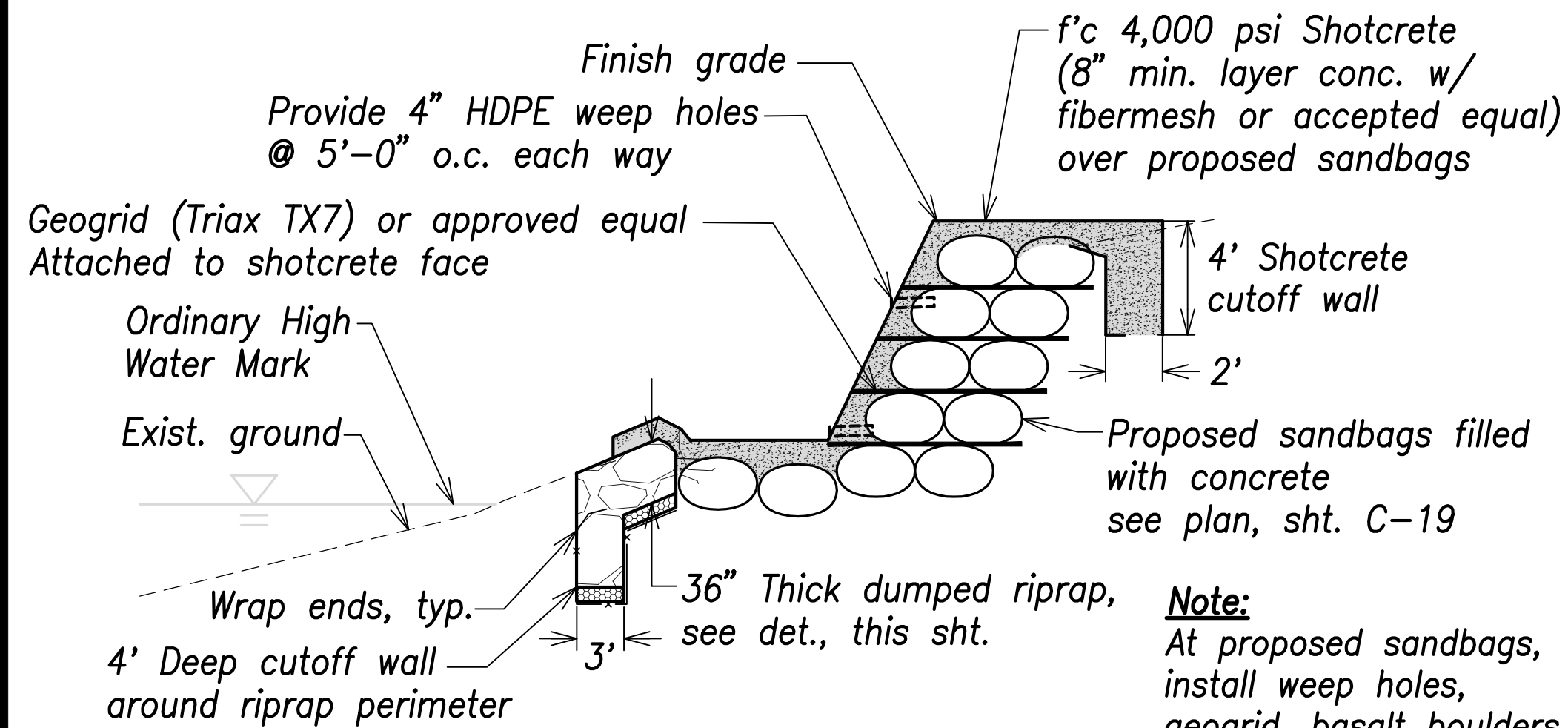


DATE	BY
DESIGNED BY	TC
DRAWN BY	TC
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
QUANTITIES BY	
NO.	



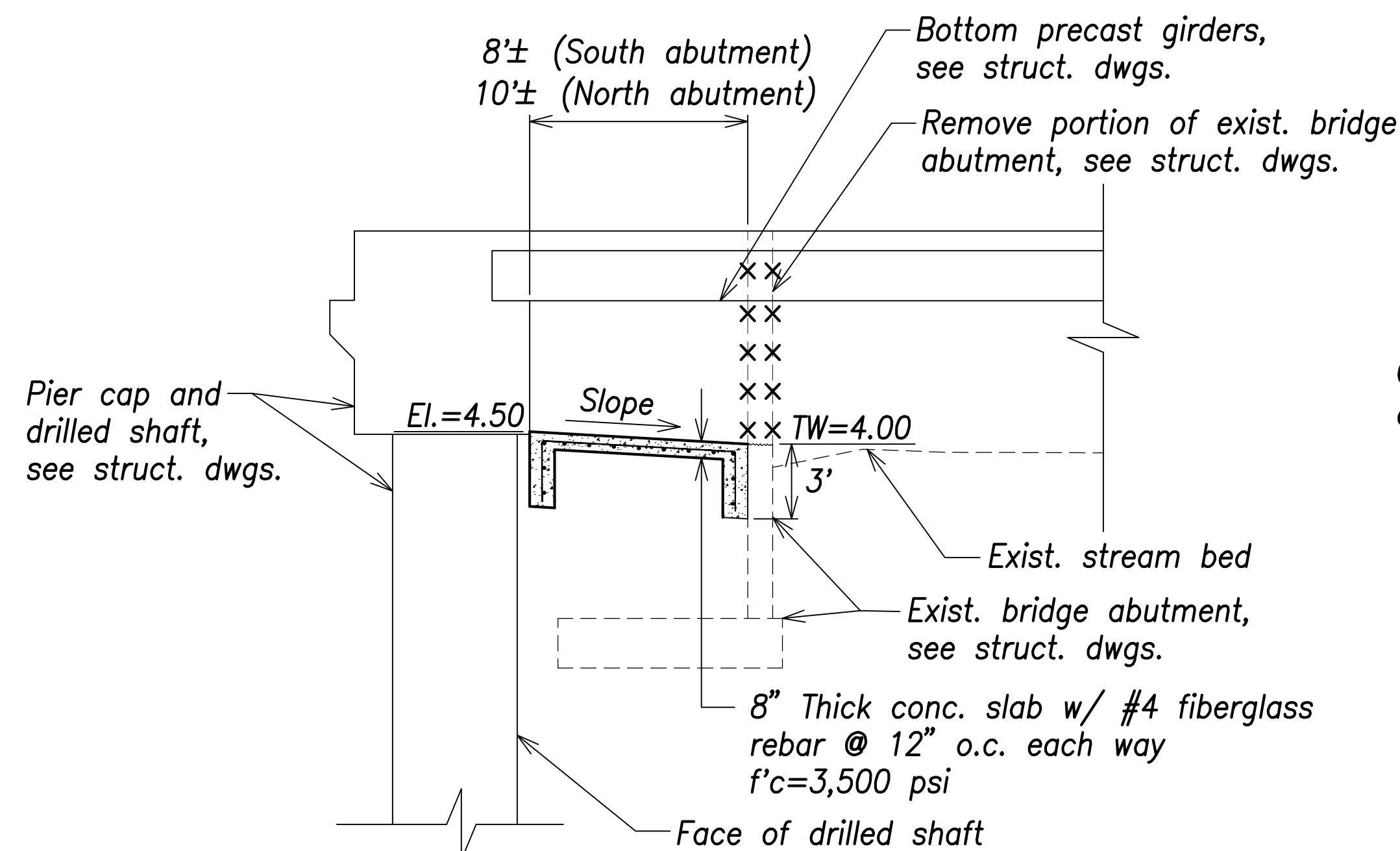
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
SIGNING & STRIPING PLAN (PHASE 2A & 2B) Kamehameha Highway Kaipapau Stream Bridge Replacement Federal Aid Project No. BR-083-1(48)	
Scale: As Noted	Date: February 2021
SHEET No. C-35 OF SHEETS	

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BR-083-1(48)	2021	39	161

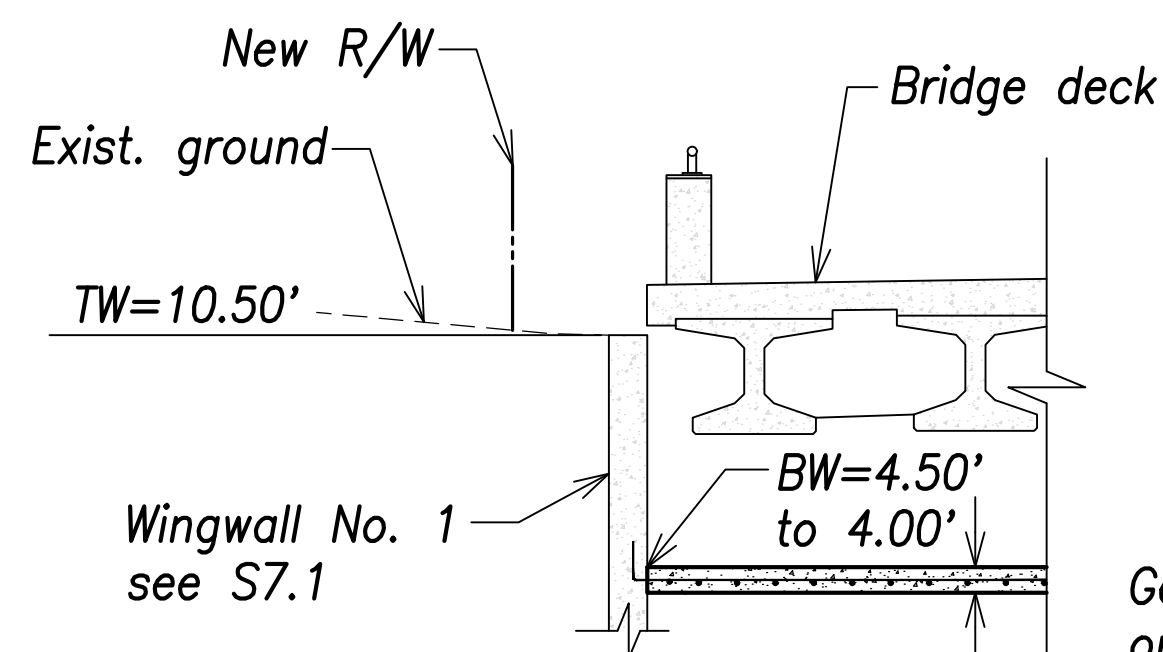


TYPICAL SECTION - NEW SANDBAGS

Scale: 1"=5'

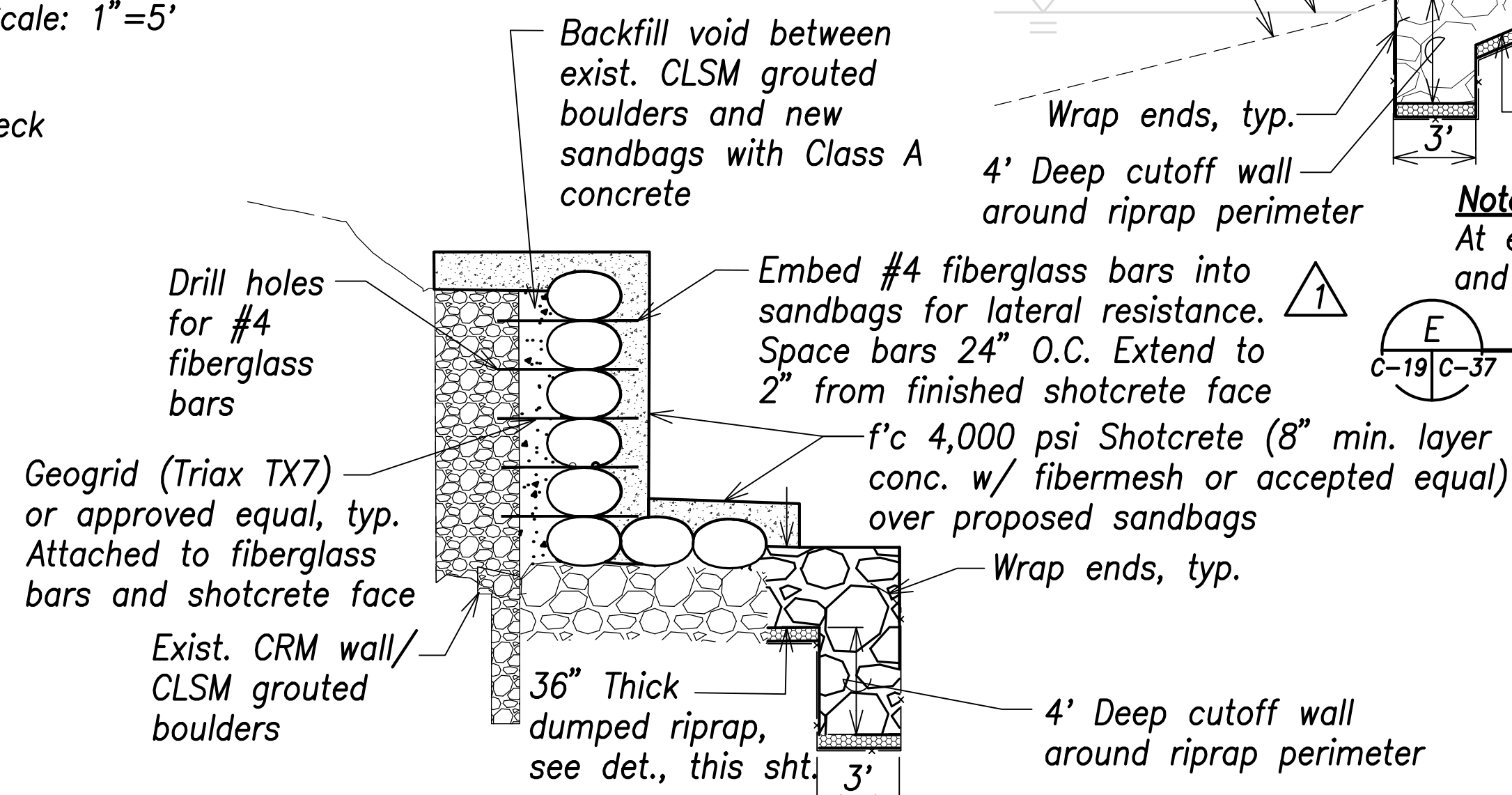


SECTION A
C-19/C-37 Scale: 1"=5'

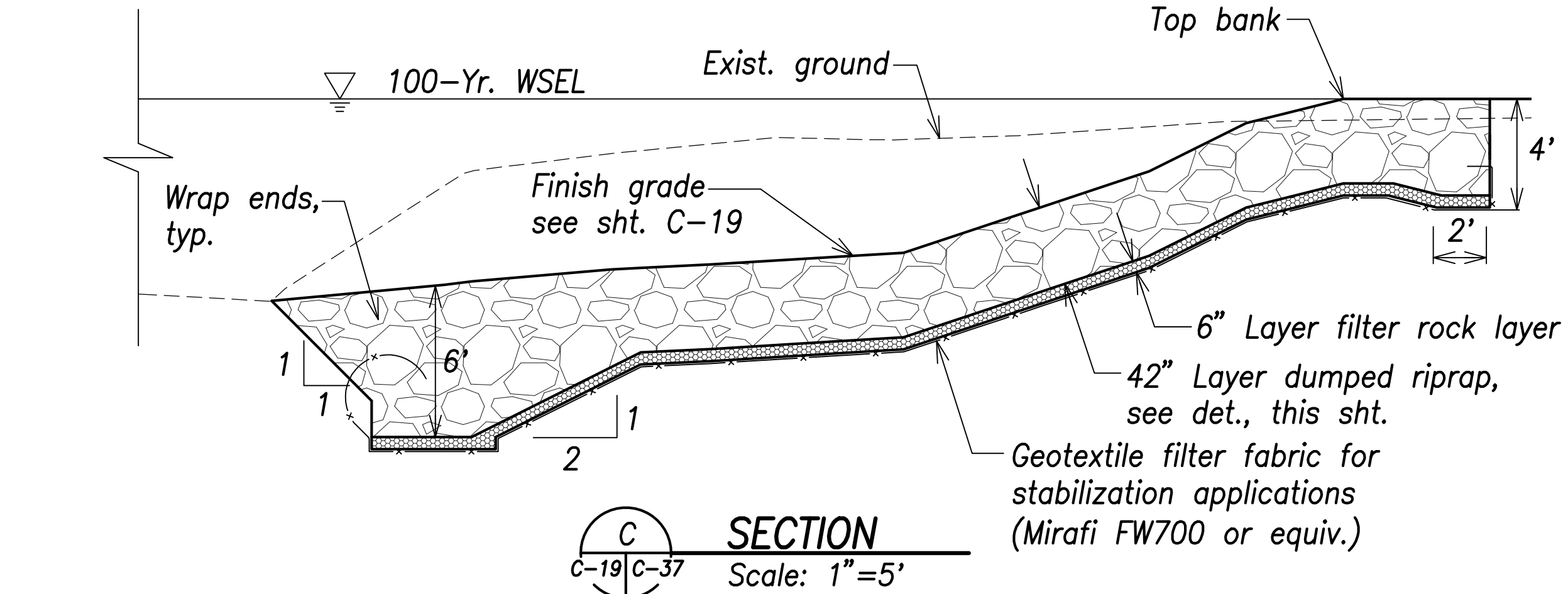


Note:
Concrete shall be
f'c=3,500 psi.

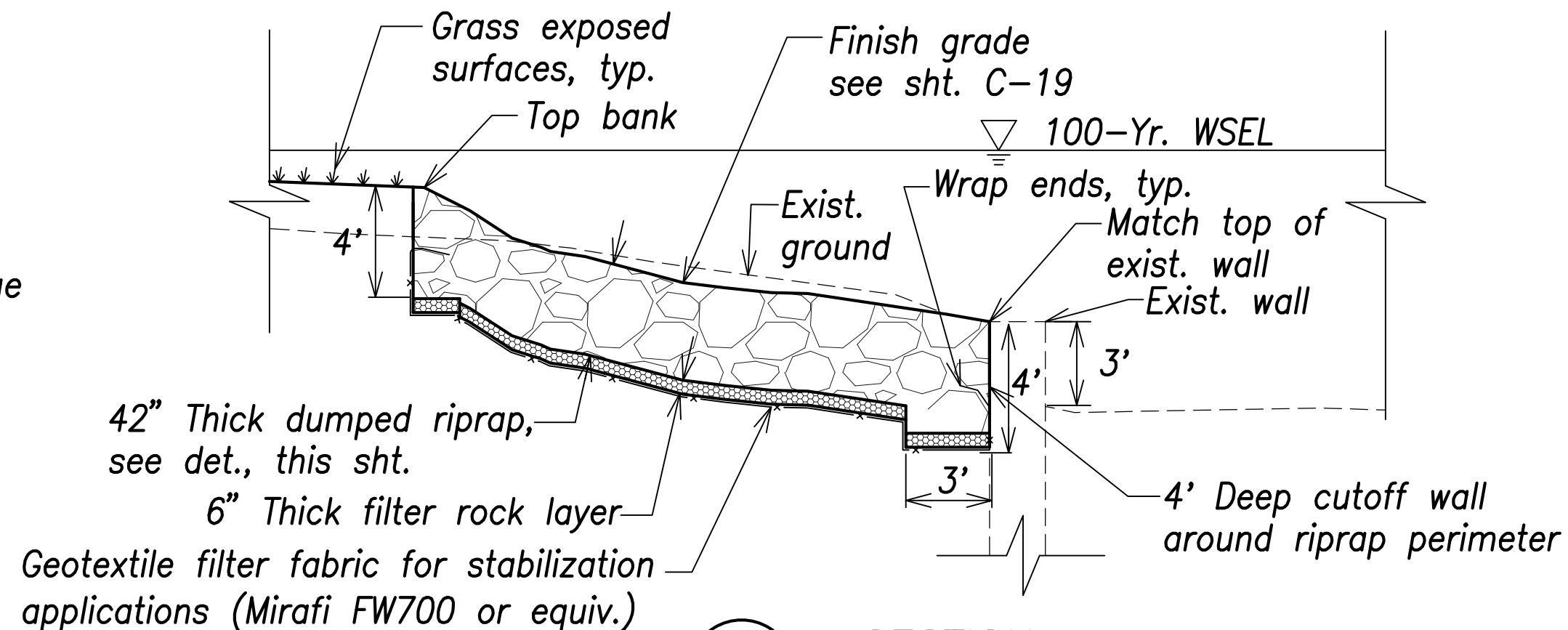
SECTION B
C-19/C-37 Scale: 1"=5'



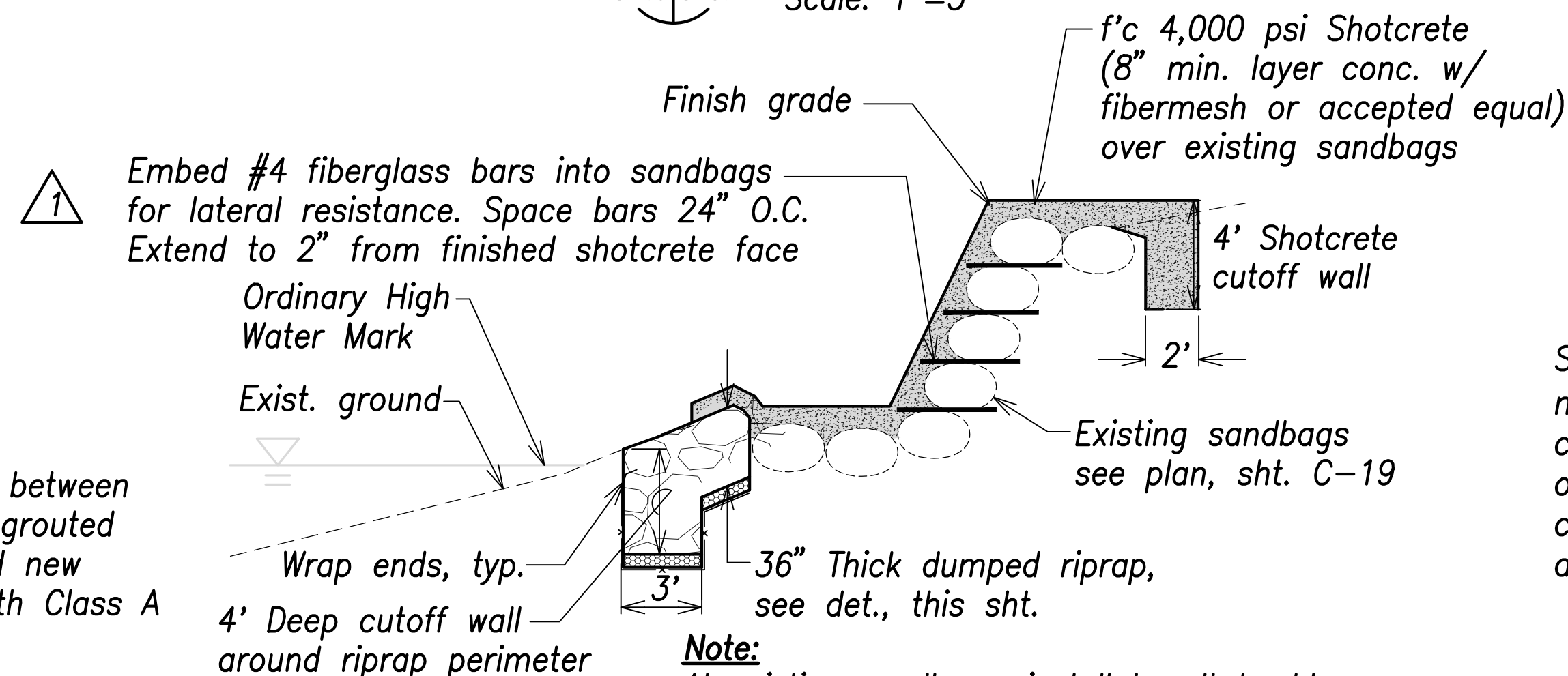
TYPICAL SECTION - NEW SANDBAGS AT CRM WALL
Scale: 1"=5'



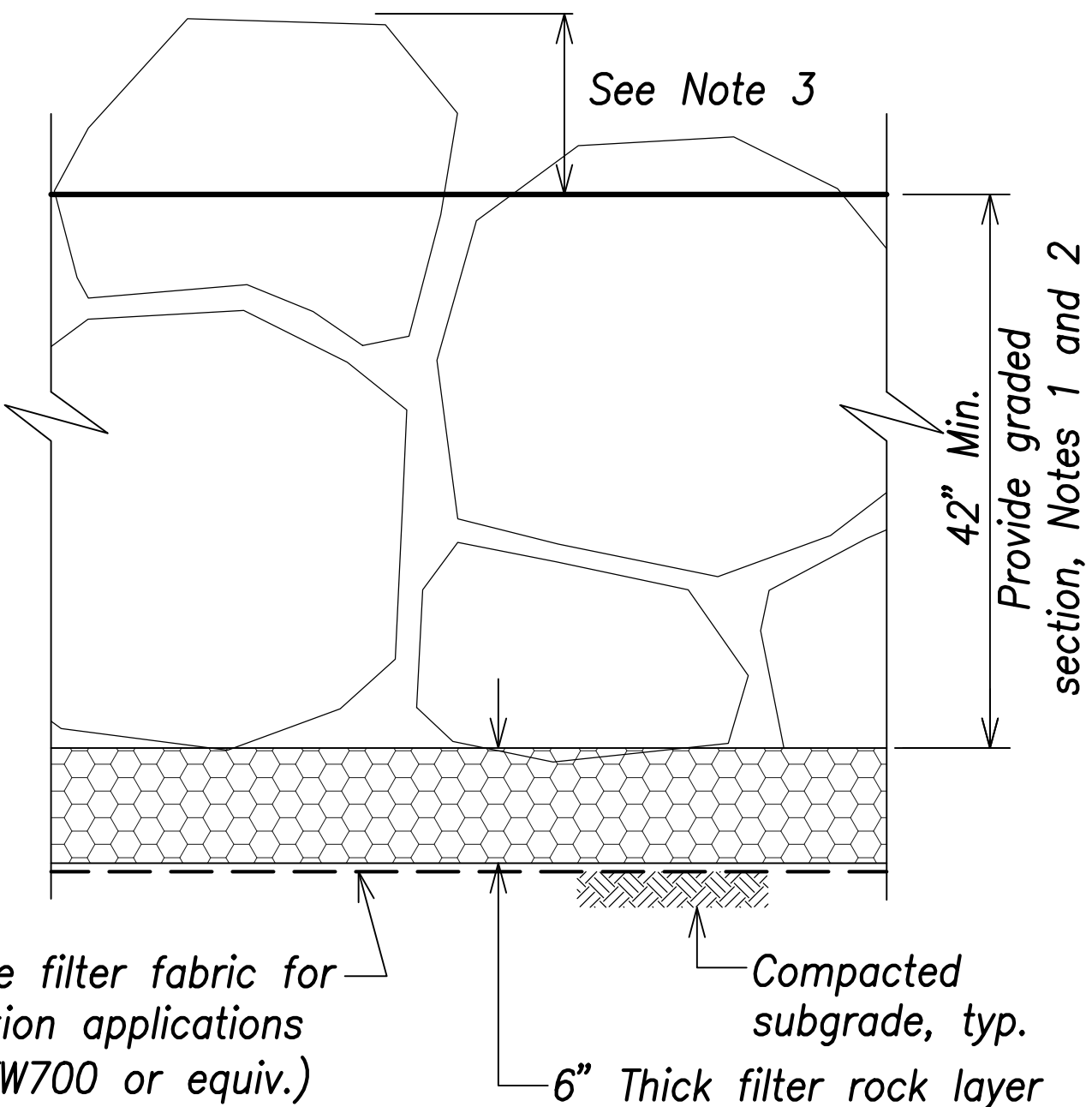
SECTION C
C-19/C-37 Scale: 1"=5'



SECTION D
C-19/C-37 Scale: 1"=5'



SECTION E
C-19/C-37 Scale: 1"=5'

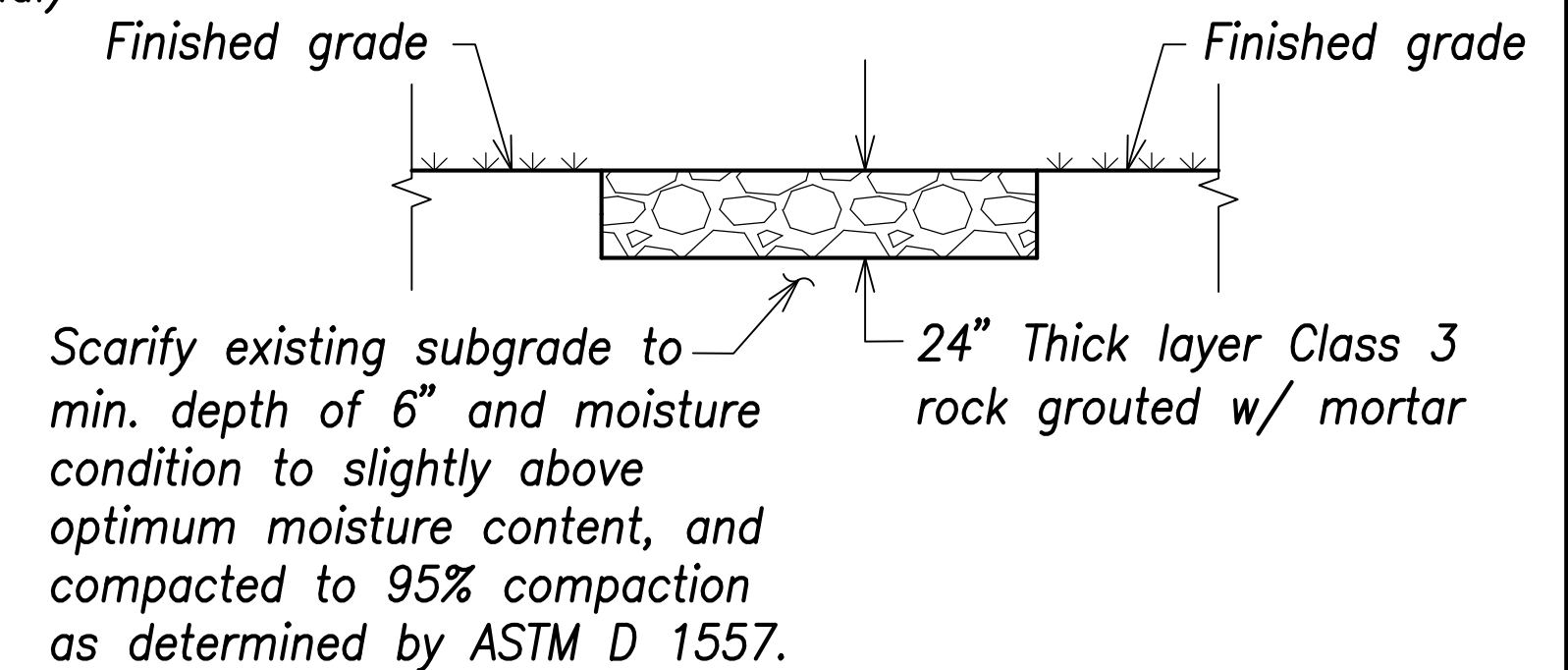


Geotextile filter fabric for
stabilization applications
(Mirafi FW700 or equiv.)

Notes:

- Riprap shall be basalt rock and consist of 27" average stone size.
- Riprap gradation:
D₁₀₀ = 2.85' 2,000 lbs
D₅₀ = 2.25' 1,000 lbs
D₁₀ = 1.80' 500 lbs
- 12" Max. from highest adjacent rock finish top.

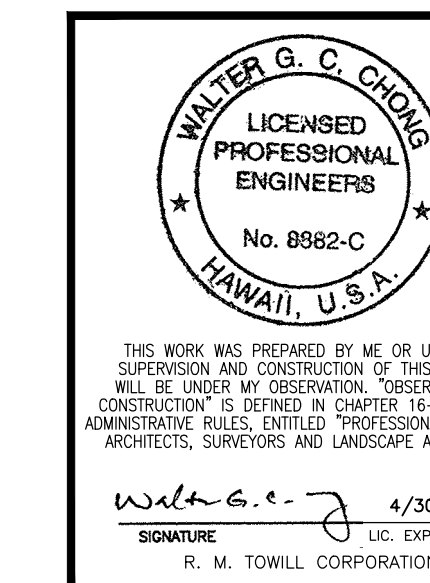
DUMPED RIPRAP
Not to Scale



Scarify existing subgrade to
min. depth of 6" and moisture
condition to slightly above
optimum moisture content, and
compacted to 95% compaction
as determined by ASTM D 1557.

GROUTED RIPRAP SECTION
Not to Scale

7/7/21	Add. 24" O.C. spacing for bars
DATE	REVISION



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
**STREAM BANK STABILIZATION &
MISCELLANEOUS DETAILS**
Kamehameha Highway
Kaipapau Stream Bridge Replacement
Federal Aid Project No. BR-083-1(48)

Scale: As Noted Date: February 2021

SHEET No. C-37 OF SHEETS