

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	CM-STP-063-1(21)	2002	70	187

NOTES FOR TURF REINFORCEMENT MAT INSTALLATION:

Site Preparation:

- Grade And Shape Area Of Installation.
- Remove All Rocks, Clods, Vegetative Or Other Obstructions More Than 1 Inch In Diameter So That The Installed Mats Will Have Direct Contact With The Soil.
- Prepare Seedbed By Loosening 2-3 Inches Of Topsoil Above the Finish Grade.
- Incorporate Soil Amendments, Such As Lime And Fertilizer, Into Soil According To Soil Test And The Seeding Plan.

Seeding:

- Seed Area Before Mat Installation.

Anchoring:

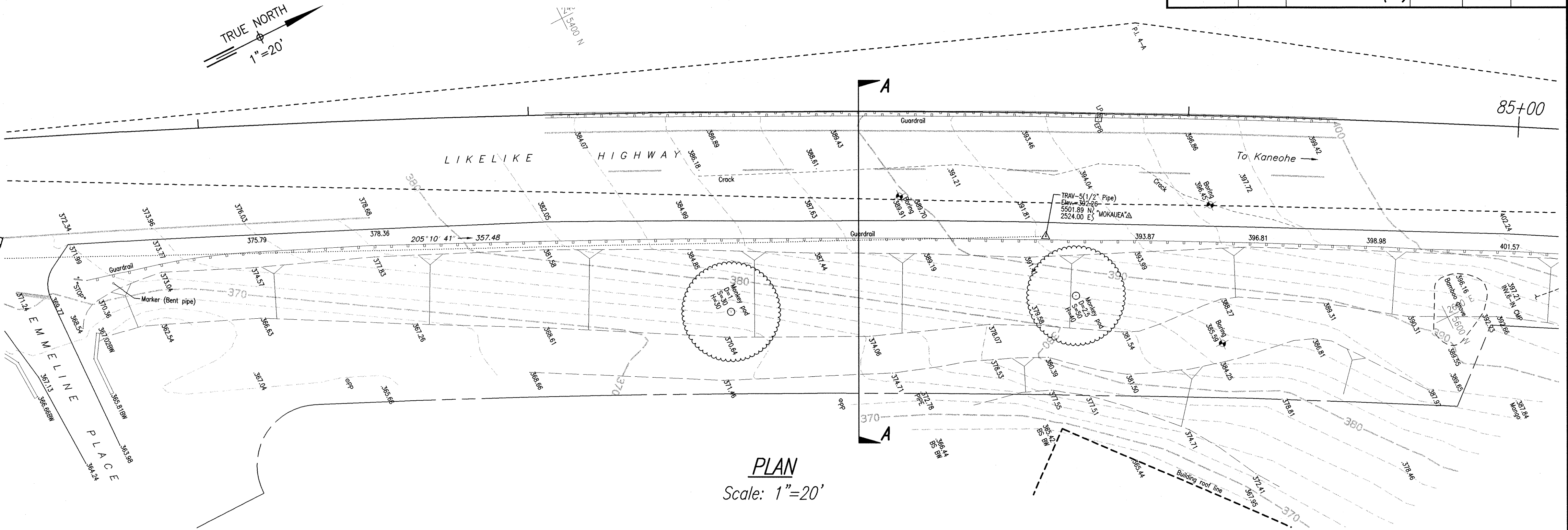
- U-Shaped Wire Staples Shall Be Used To Anchor Mats To The Ground Surface. Wire Staples Should Be A Minimum Of 11 Gauge. Wire Staples Should Be Driven Flush To The Soil Surface. All Anchors Should Be 6-8 Inches Long And Have Sufficient Ground Penetration To Resist Pullout. Longer Anchors May Be Required For Loose Soils.

Installation On Slopes:

- Begin At The Top Of The Slope And Anchor Mat Edge In A 6 Inch Deep x 6 Inch Wide Trench. Backfill Trench And Tamp Earth Firmly.
- Unroll Mat Downslope In The Direction Of Water Flow.
- The Edges Of Adjacent Parallel Rolls Must Be Overlapped 2-3 Inches And Be Stapled Every 3 Feet.
- When Mats Must Be Spliced, Placed Mats End Over End (Shingle Style) With 6 Inch Overlap. Staple Through Overlapped Area, Approximately 12 Inches Apart.
- Lay Mats Loosely And Maintain Direct Contact With The Soil: Do Not Stretch.
- Mats Shall Be Stapled Sufficiently To Anchor Blanket And Maintain Contact With The Soil. Staples Shall Be Placed Down The Center And Staggered With The Staples Placed Along The Edges. Steep Slopes, 1:1 To 2:1, Require 2 Staples Per Square Yard.

Inspection And Maintenance:

- All Mats Shall Be Inspected Periodically Following Installation by the State Department of Transportation.
- Inspect Installation After Significant Rainstorms To Check For Erosion And Undermining. Contractor Shall Repair Any Failure Immediately.
- If Washout Or Breakage Occurs, Contractor Shall Re-install The Material After Repairing The Damage To The Slope.



Exist. Signal Corp. Cable, Contractor to Verify the Location in the Field. The Contractor Shall Exercise Caution While Driving Pile and Guardrail. The Damages Shall be Repaired or Replaced by the Contractor at no Cost to the State.

Provide Temp. Shoring System Paid Under Section 206 (15'± Pile). The Contractor Shall Be Responsible For the Design, Installation and Maintenance of Sheet Piles.

Reconstruct Exist. Pavement & Replace Exist. Granular Fill To A Depth Of 3 FT. (Sta. 82+00 to 84+50) For Detail, See Sht. 12

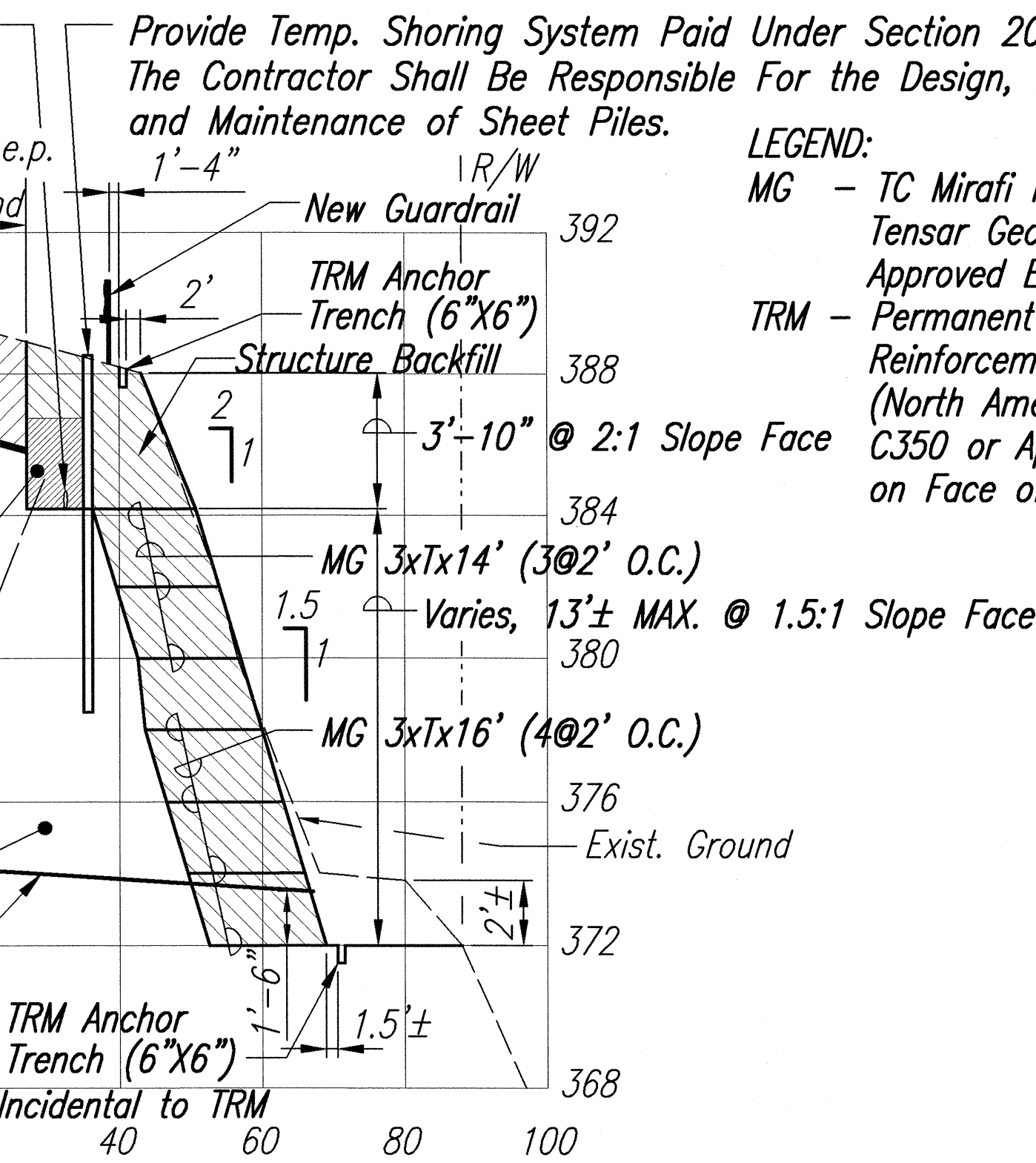
Permeable Separator/Reinforcement

Exist. Backfill to Remain

Exist. Granular Backfill

Existing Clay

6" Dia. PVC Perforated Pipe, SCH. 40 @ 10' O.C. Slope To Drain, Paid under 605.0060



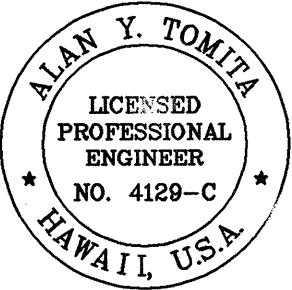
LEGEND:

- MG - TC Mirafi Miragrid, Tensar Geogrid or Approved Equal.
- TRM - Permanent Turf Reinforcement Mat (North American Green C350 or Approved Equal) on Face of MSE Slope.

NOTE:

- The Engineer will Pay Exist. Pavement Reconstruction Under Pavement Sections (203, 312 and 401).
- The Engineer Will Pay the Soil Reinforcement Under Section 647-Matting.

SURVEY PLOTTED BY	DATE
DESIGNED BY	
TRACED BY	
NOTE BOOK	
QUANTITIES BY	
CHECKED BY	
NO.	



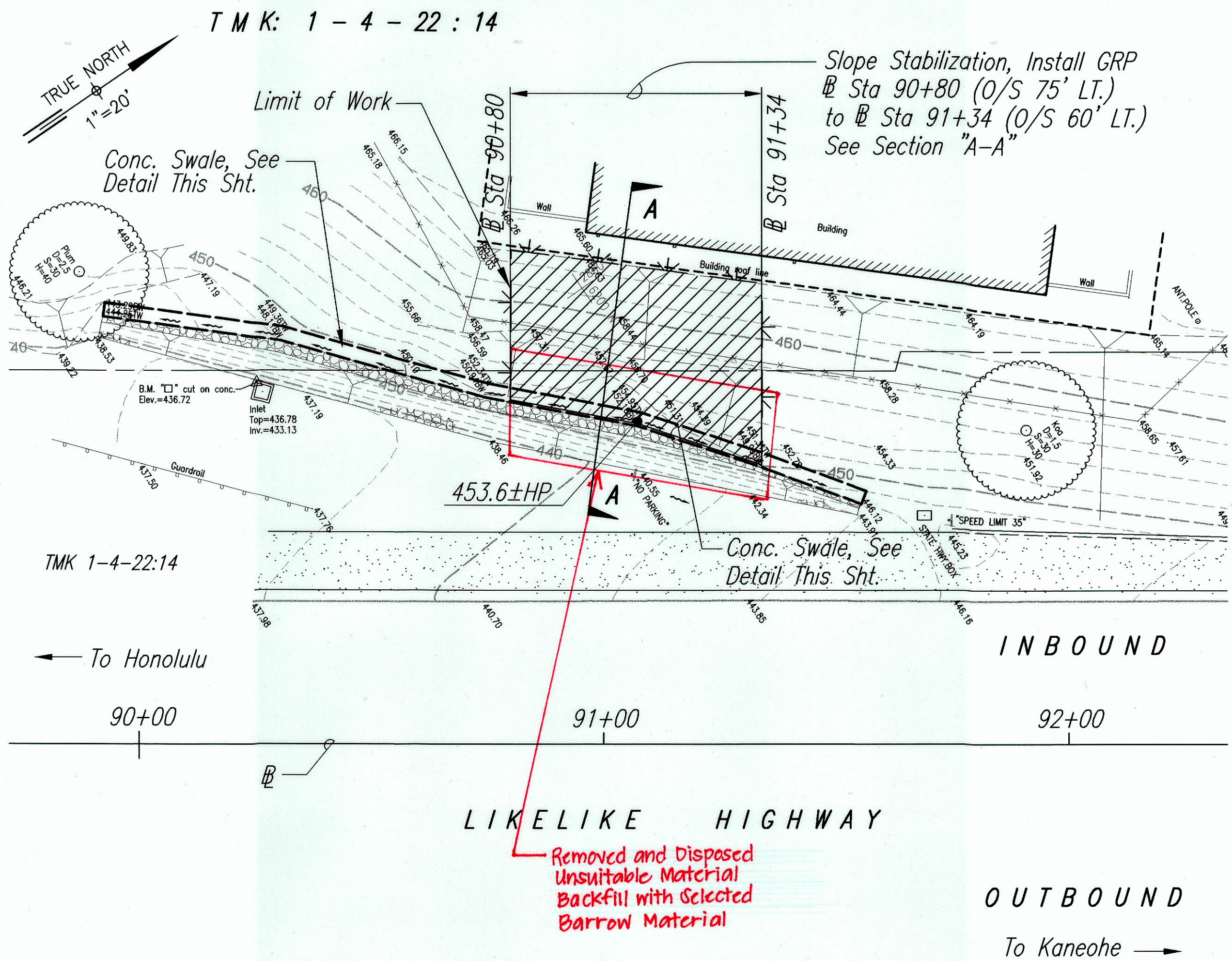
THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

Alan Y. Tomita

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
SLOPE STABILIZATION AT EMMELINE
PL STA. 82+00 TO STA. 84+50
LIKELINE HIGHWAY RESURFACING
Emmeline Place to the Wilson Tunnel
F. A. Project No. CM-STP-063-1(21)

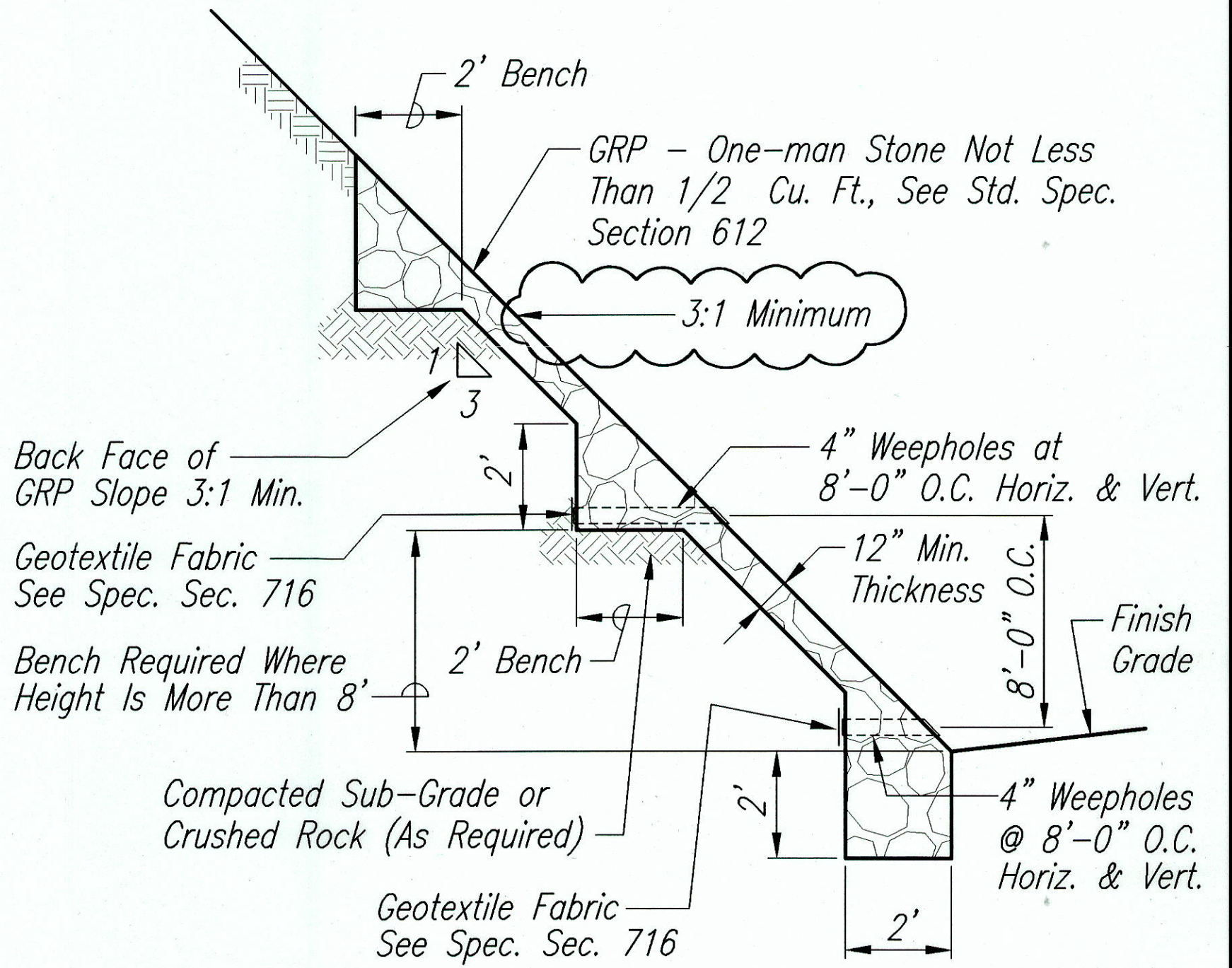
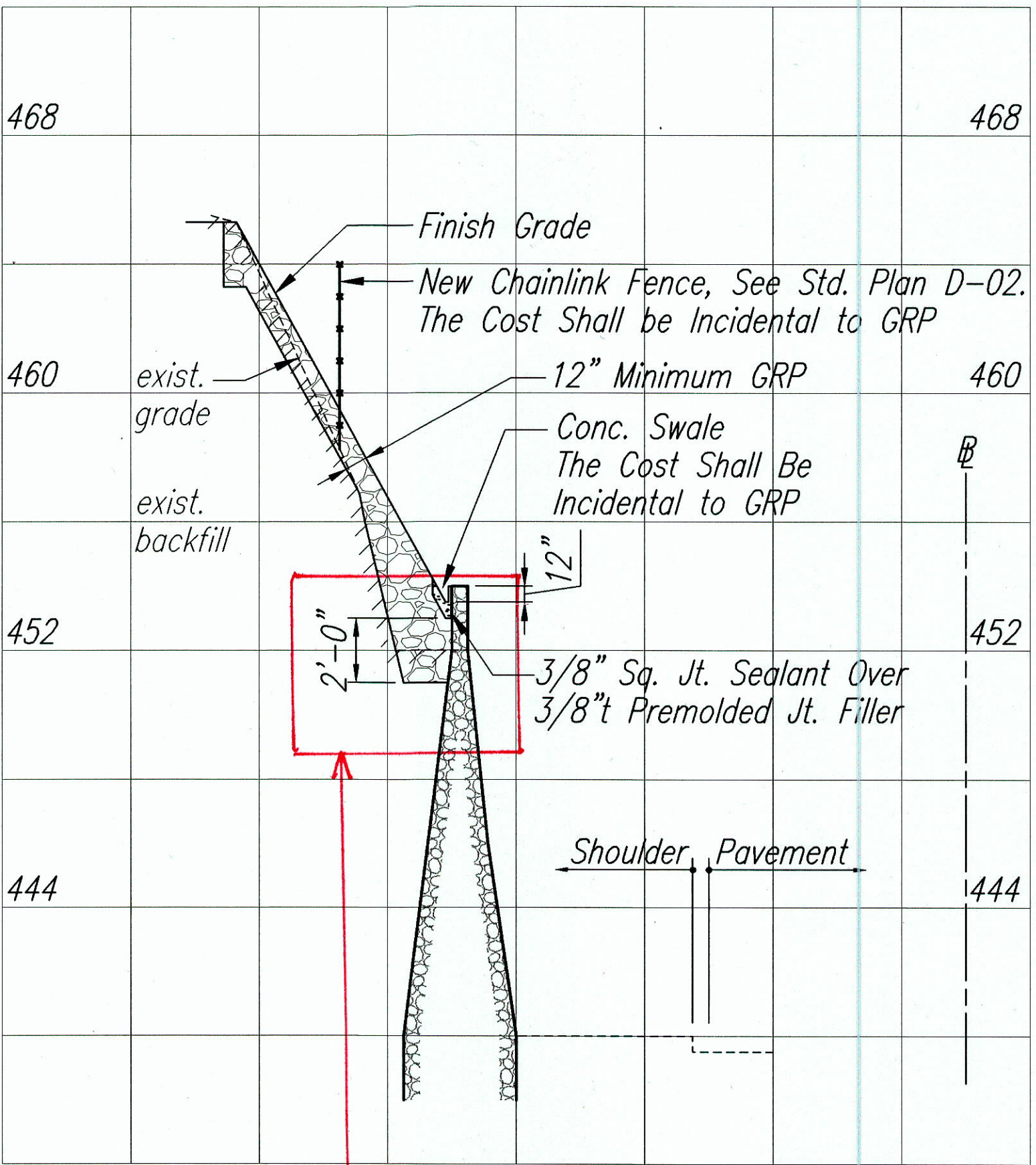
Scale: As Shown Date: December, 2001

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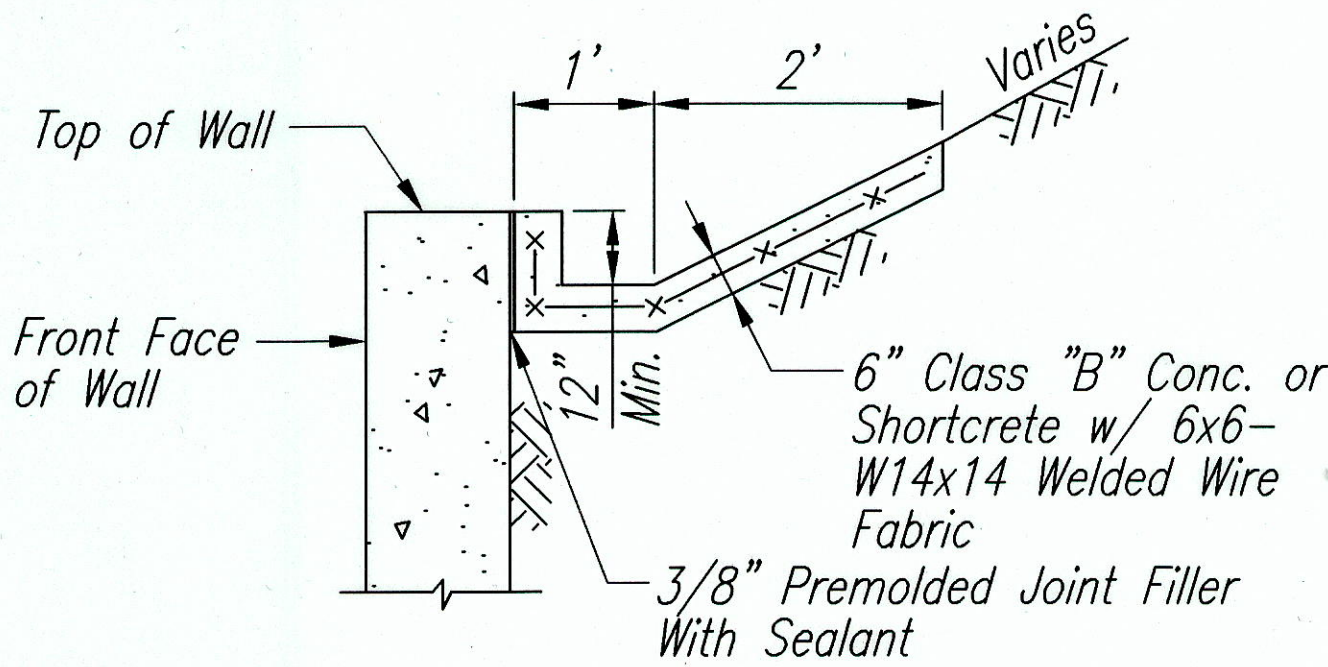


PLAN
Scale: 1"=20'

GRP @ STATE DOT LAB DETAIL @ STA. 90+80 TO @ STA. 91+34
Scale: As Shown

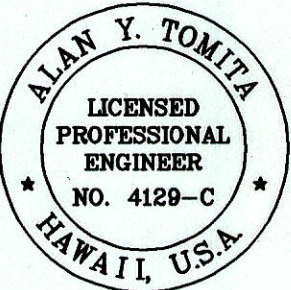


TYPICAL GRP DETAIL
Not to Scale



TYPICAL CONC. SWALE
Not to Scale

1/22/02	Revise Face of GRP Slope to 3:1 Minimum
DATE	REVISION



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

Alan Y. Tomita

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
SLOPE STABILIZATION AT
STA. 90+80 TO STA. 91+34
LIKELIKE HIGHWAY RESURFACING
Emmeline Place to the Wilson Tunnel
F. A. Project No. CM-STP-063-1(21)

Scale: As Shown Date: December, 2001

SHEET No. 2 OF 2 SHEETS

"AS-BUILT"

ADD 71

SURVEY PLOTTED BY	DATE
DRAWN BY	
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QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	
No.	