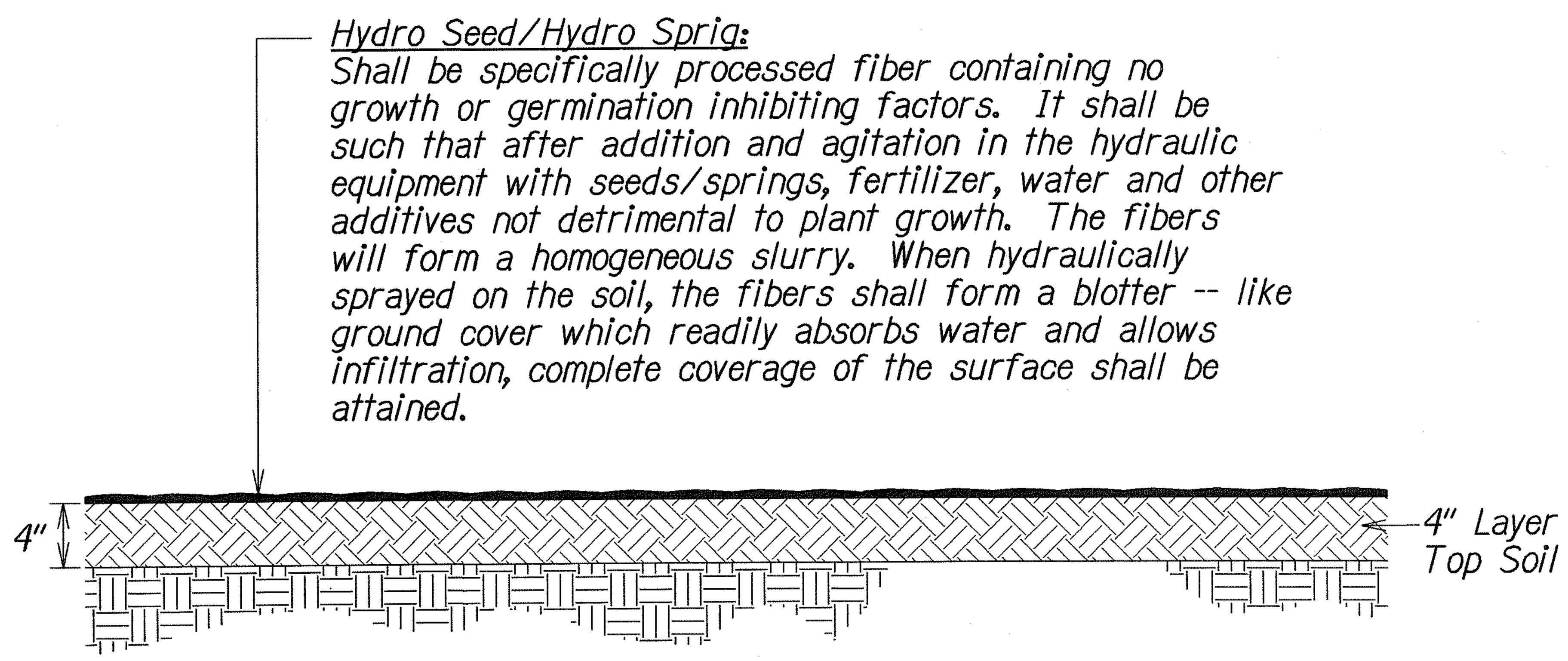
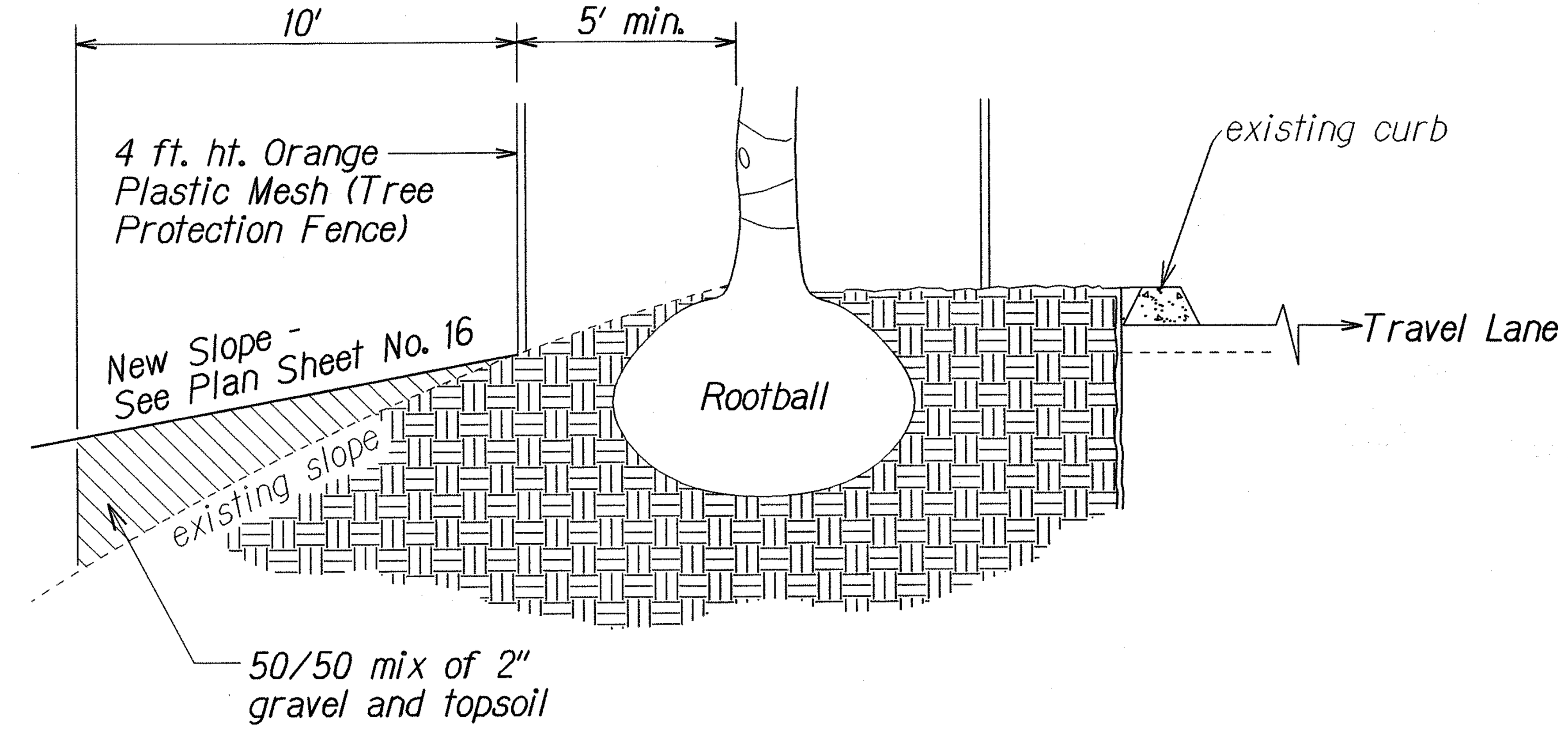
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	HII-01-08	2009	8	73

TREE PROTECTION ZONE

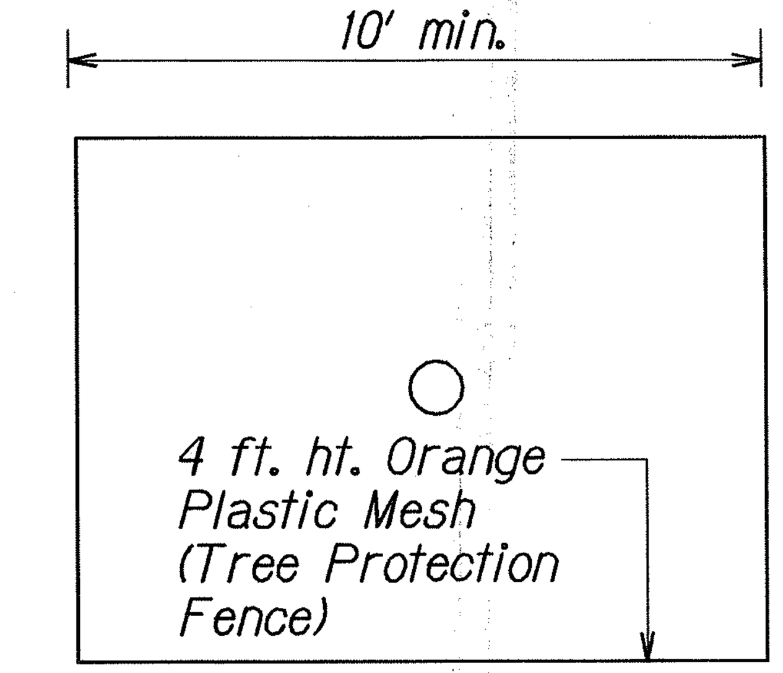
1. All trees 6" caliper or greater (as measured at 4½feet height) shall be protected. If trees other than those designated for removed are damaged beyond survival condition as determined by the Engineer and consultation of an arborist, the Contractor shall remove such trees and replace with a tree of the same species and size in location as determined by the Engineer within the project site. Such replacement will be within four weeks of notification and maintained for the duration of the construction or 12 months whichever is greater at no cost to the State. In addition, for damages to trees or not following the tree protection zone instructions, the Contractor shall pay up to a maximum of $5,000 per incident in liquidated damages as determined by the Engineer, up to a total maximum of $15,000 per tree.
2. The recommended Tree Protection Zone should be located at the outer drip line of the canopy of the tree. However, the minimum protection zone around a tree should be at least 5 feet from the external surface of the tree's trunk.
3. All trees shall remain unless shown for removal. If there is a discrepancy, contractor shall contact the Engineer immediately.
4. Protective fences shall be erected around trees identified on the plans or trees with a trunk diameter greater than 6 inches (as measured at a height of 4½ feet.) Protective fence shall be 4 feet high orange plastic mesh or approved equivalent supported on steel T-post a minimum of 6 feet long. Protective fence shall surround the tree at a minimum of 5 feet from the tree trunk with steel T-post at a minimum of 5 feet on center. Fence shall be installed and approved in writing by Landscape Architect prior to any demolition work and shall remain in place until site work is completed. Signs shall be posted on all four sides to read "Tree Protection Zone (TPZ) - No Grade Changed, Storaged or Equipment Permitted Within Tree Protection Zone."
5. Prior to any demolition or excavation work, the Contractor shall conduct a walk through of the project area for approval by the DOT Landscape Architect of the tree protection zone fencing. Walk through shall include a representative of the Outdoor Circle (Mary Steiner 593-0300), DOT Landscape Architect, contractor's arborist and the Engineer.
6. For the duration of construction within the drip line of the trees to remain, there must be :
   - No changed, alternation or disturbance to the grade by adding fill, excavating or scraping except as noted on plans;
   - No storage of construction materials or equipment;
   - No stockpiling of any construction materials or excavated materials;
   - No disposal of any liquids, such as concrete sleuth, gas, oil or paint;
   - No vehicular traffic, equipment or excessive pedestrian traffic;
   - No attachment of any wires, ropes, lights or any other such attachment other than those of a protective nature to any tree to be preserved, and
   - No cleaning of equipment or material under the canopy of any tree or group of trees to be preserved.
7. The 50/50 mix shall be placed directly on top of existing grass and shall be compacted lightly. All areas outside of 15' limit from the trunk shall use structural backfill.



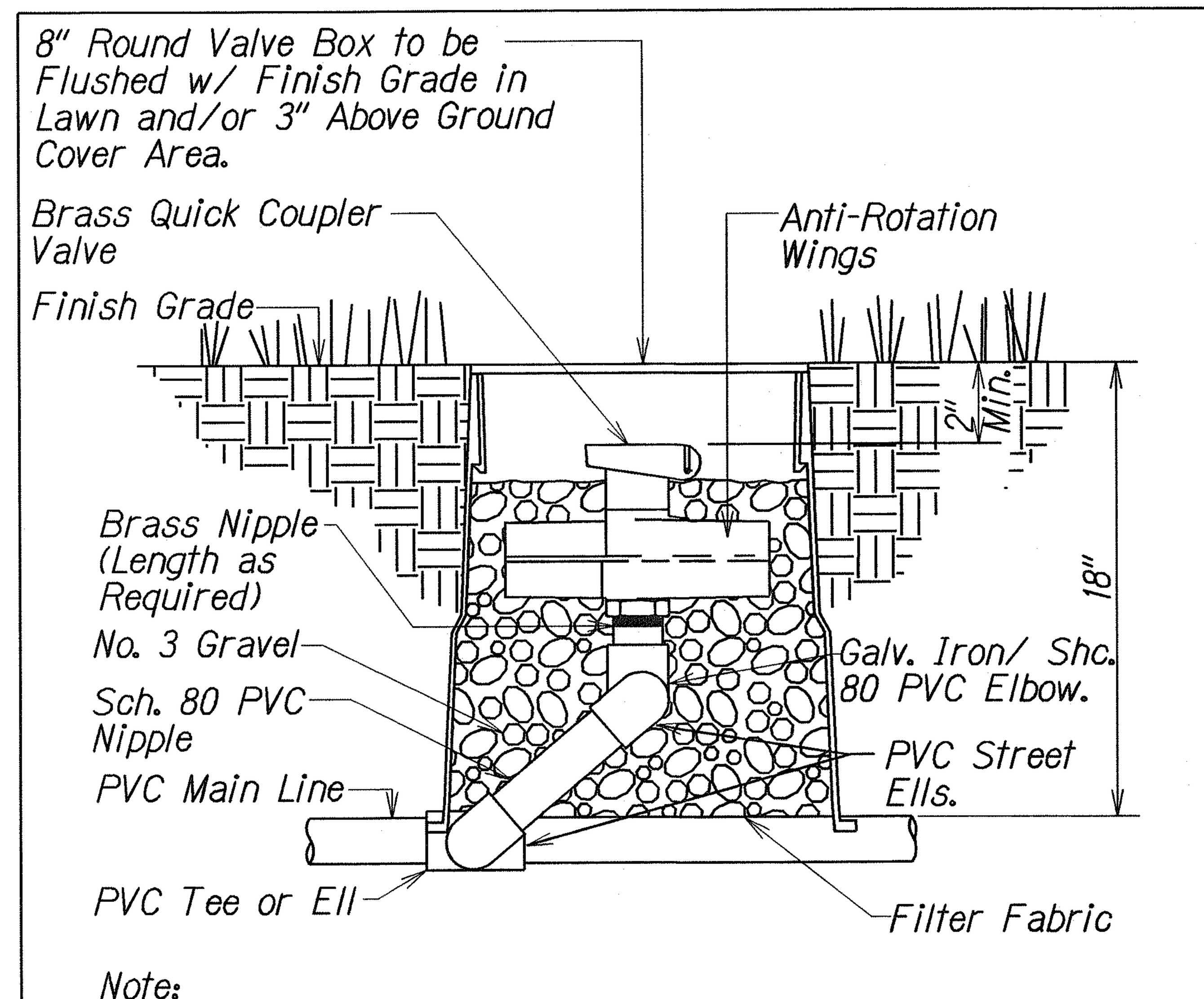
HYDRO SEED/SPRIG DETAIL
Not to Scale



TREE PROTECTION ZONE DETAIL
Not to Scale

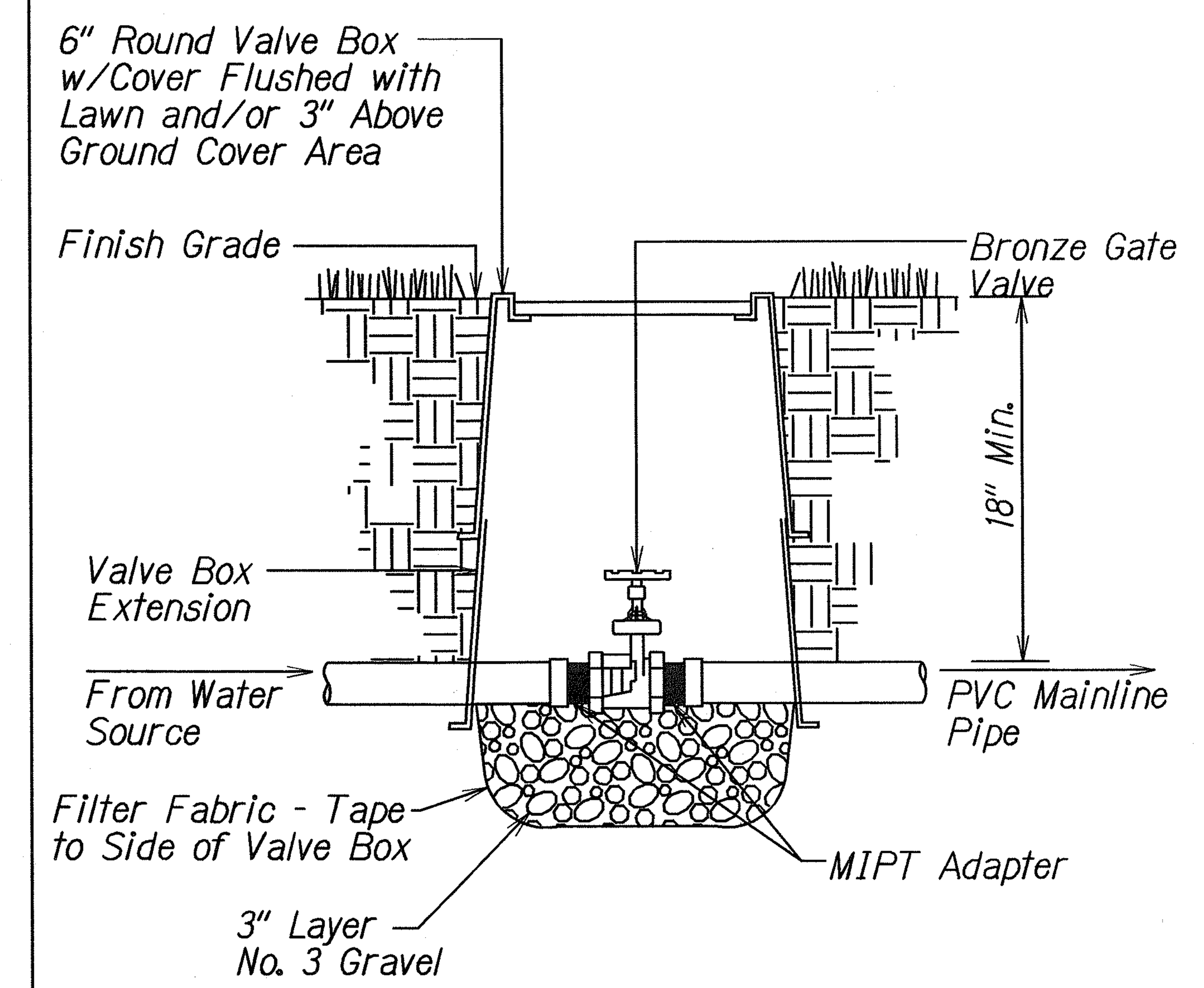


PLAN VIEW



Note:
1. KBI or Lasco Swing Joints Upon Approval by Engineer.
2. All Valve Box Cover Shall be Labeled Valve Type, Zone Number and, Controller Number.
3. Controller Shall Provide One (1) Quick Coupler Key and One (1) Hose Ell for Each Quick Coupler Valve.

41 QUICK COUPLER VALVE DETAIL N.T.S



NOTE:
All Valve Box Covers Shall Be Labeled Recycled Water [If Applicable], Valve Type, Zone Number and Controller Number

44 GATE VALVE DETAIL N.T.S

IRRIGATION EQUIPMENT LIST

Symbol	Quantity	Manufacturer Catalog Number	Description	G.P.M.	Radius	P.S.I.
	1	Gate Valve NIBCO-T113	Gatevalve			
—		PVC Schedule 40	Irrigation Main			
	1	Rainbird Quick Coupling Valve 44LRC	Quick Coupling Valve.			

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

LANDSCAPING DETAILS

INTERSTATE ROUTE H-1
Extension and Repair of
School Street On-Ramp Retaining Wall
Project No. HI1-01-08

Scale: Not to Scale Date: Feb., 2009

SHEET No. 1 OF 1 SHEETS

ORIGINAL PLAN	SURVEY PLOTTED BY	DATE
NOTE BOOK d65	DRAWN BY	
	TRACED BY	
	DESIGNED BY	
	QUANTITIES BY	
	CHECKED BY	