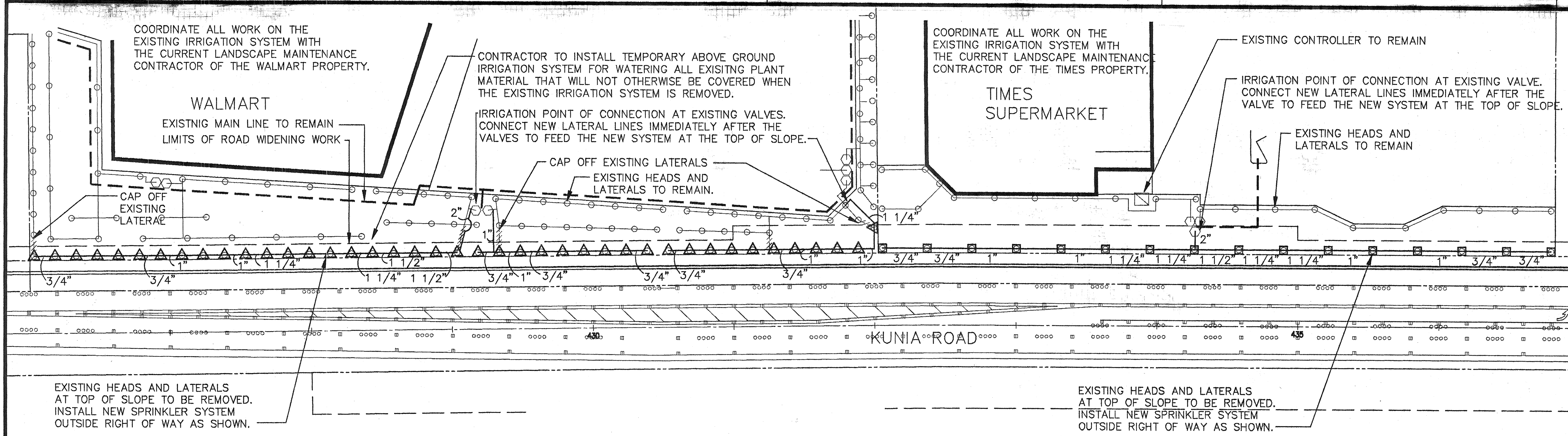
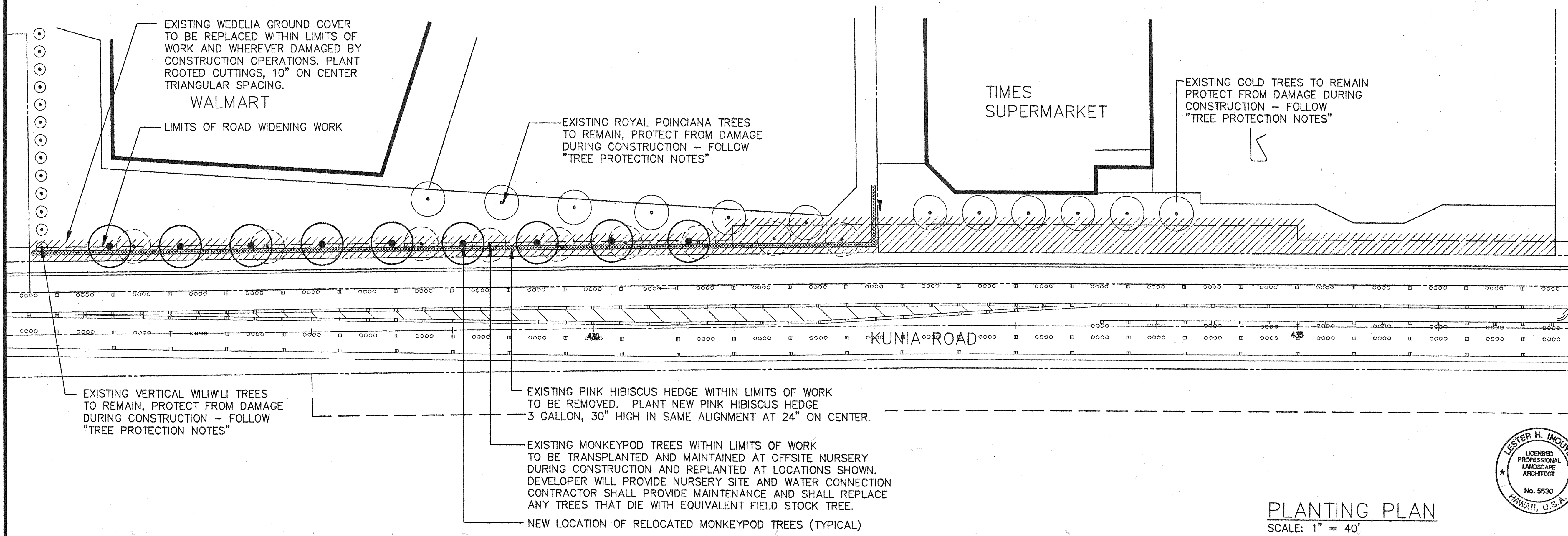


FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	IM-STP-0750(10)	1999	85	97

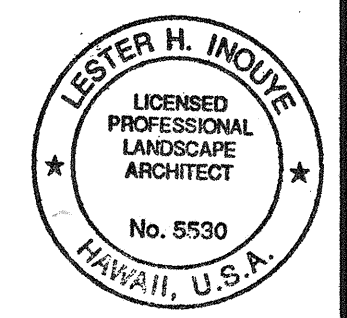


IRRIGATION PLAN
SCALE: 1" = 40'



PLANTING PLAN
SCALE: 1" = 40'

DESIGNED BY	DATE
NOTED BY	
CHECKED BY	
ORIGINAL PLAN	
NOTE BOOK	



THIS WORK WAS PREPARED BY
ME OR UNDER MY SUPERVISION.
Lester H. Inoué
Signature
14 Nov 97

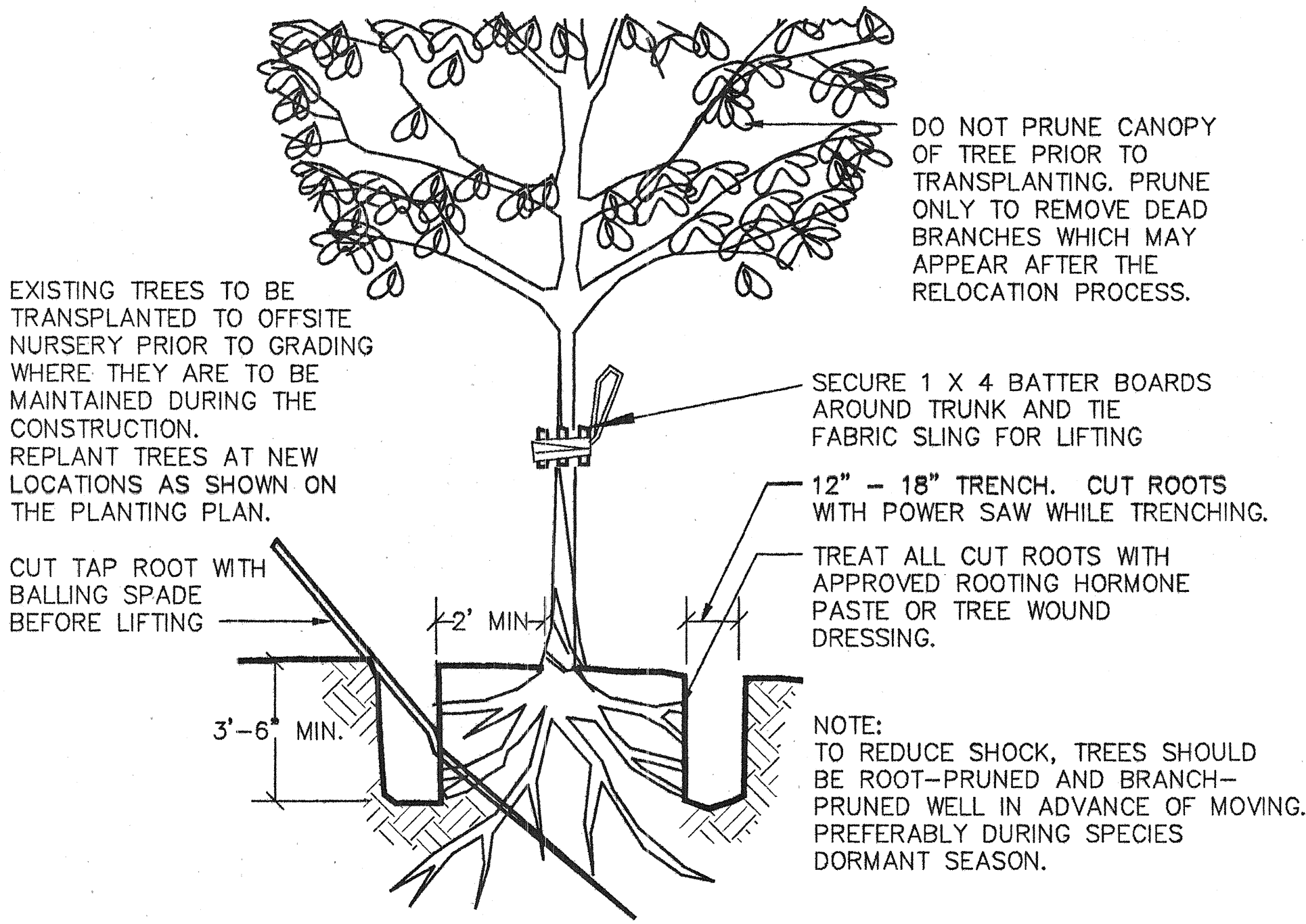
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

LANDSCAPE PLAN

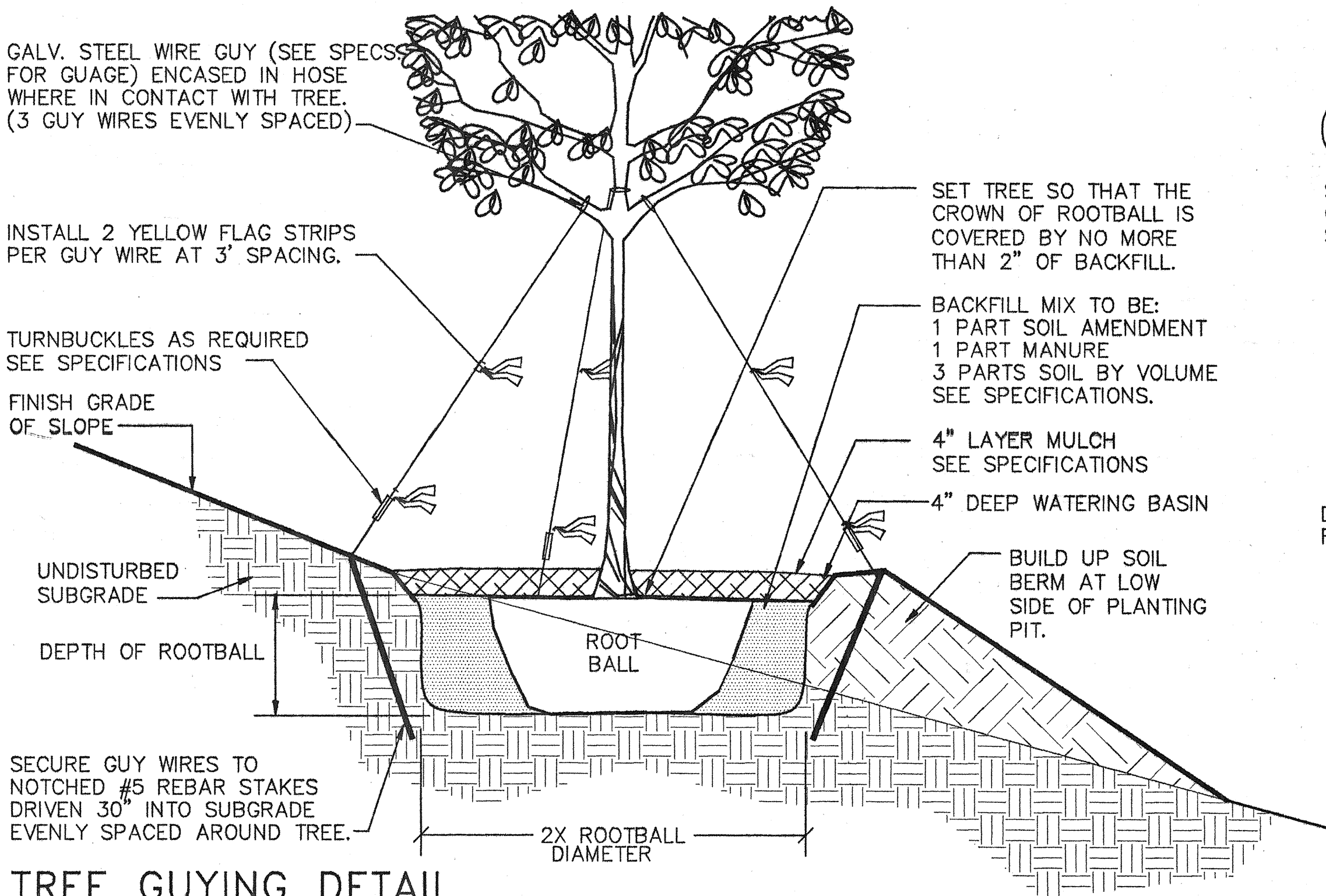
KUNIA ROAD WIDENING AND
H-1, KUNIA I.C., RAMP KO WIDENING
F.A.I. PROJECT NO. IM-STP-0750(10)

SCALE: AS NOTED DATE: APRIL 1999

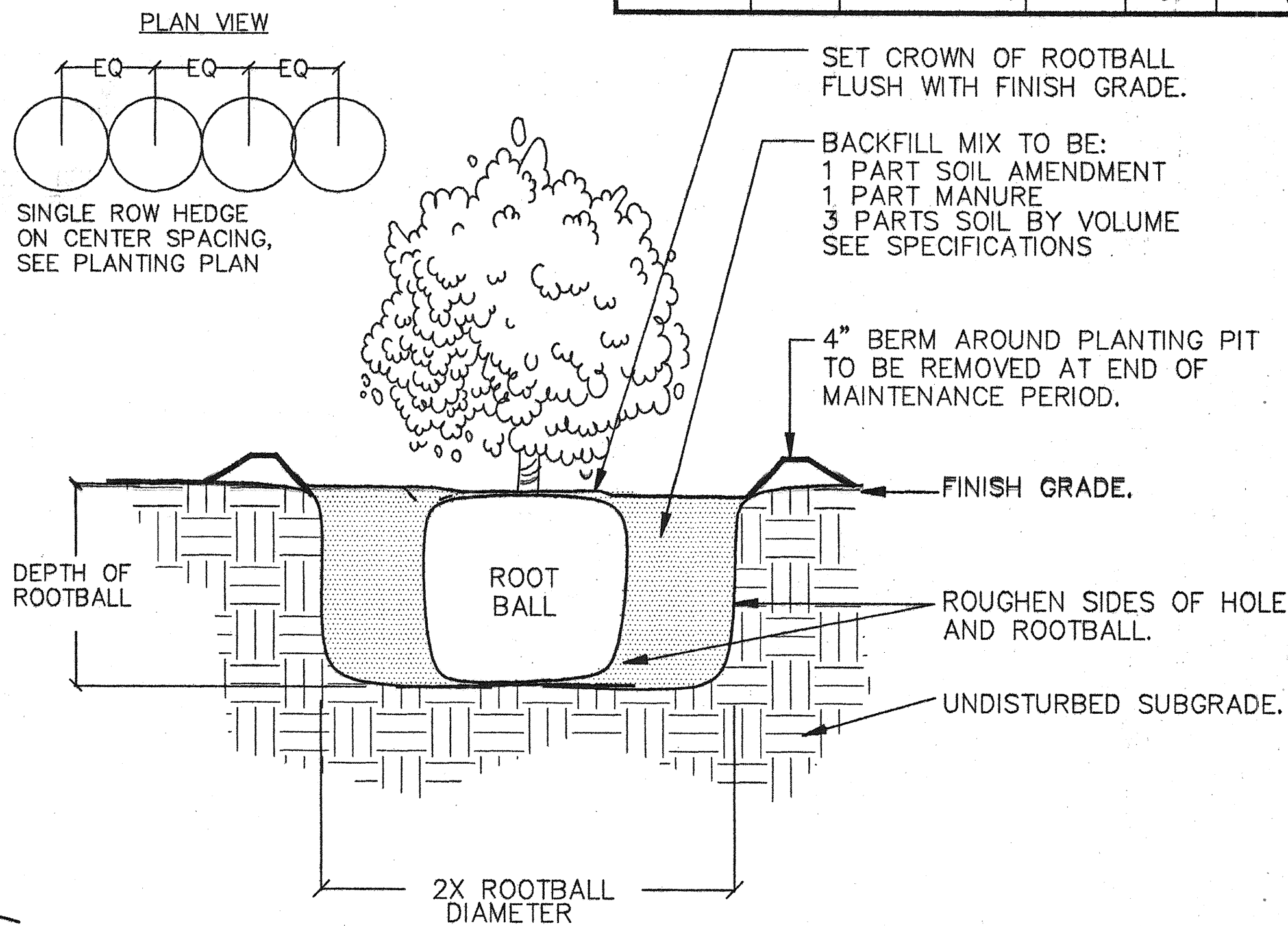
SHEET No. 1 OF 2 SHEETS



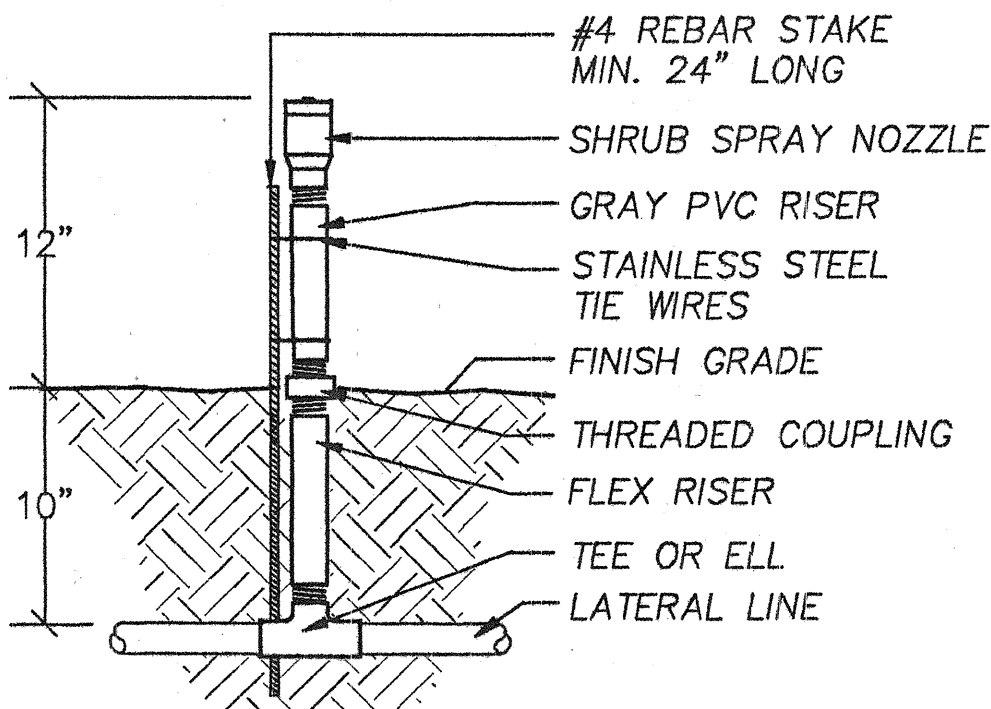
TREE TRANSPLANTING DETAIL
NO SCALE



TREE GUYING DETAIL
NOT TO SCALE



SHRUB PLANTING DETAIL
NOT TO SCALE



SPRAY HEAD ON RISER
NOT TO SCALE

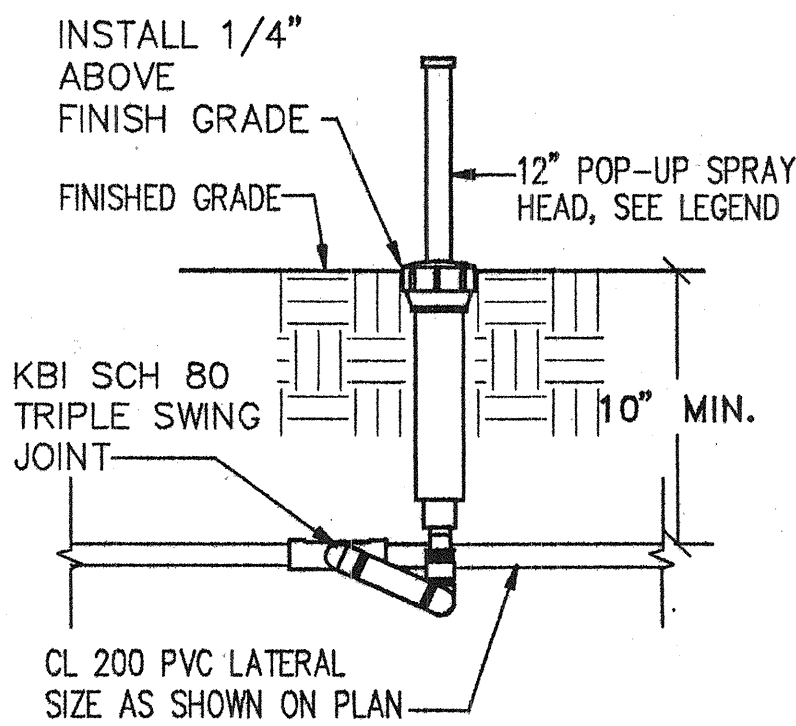
PLANT LEGEND

QTY	UNIT	DESCRIPTION	REMARKS
9	ea	MONKEYPOD TREE	Relocate existing trees to temporary nursery prior to grading and to final position following grading.
322	ea	PINK HIBISCUS	3 gallon, 30" height, species to match existing.
26,000 sf		WEDELIA TRILOBATA	Rooted Cutting, triangular spacing, 10" on center.

Quantities indicated on the Plant Legend are approximate. Planting Plans shall have precedence over the Plant Legend. Contractor to furnish adequate quantities to complete work shown on the Planting Plans.

IRRIGATION LEGEND

SYMBOL	DESCRIPTION	MANUF.	MODEL NO.	RAD	GPM	PSI	SEE SHEET / DETAIL
	SHRUB SPRAY NOZZLE ON RISER Half Circle Pattern	TORO	570S-15H	15'	1.65	30	SPRAY HEAD ON RISER
	GEAR DRIVE ROTOR HEAD ON HIGH POP-UP BODY Part Circle Pattern	TORO	S700HP-PC-7.5-LA	37'	5.92	30	12" POP UP SPRAY HEAD
	EXISTING SPRINKLER HEAD TO REMAIN						
	EXISTING CONTROLLER TO REMAIN						
	EXISTING CONTROL VALVE TO REMAIN						
	EXISTING MAIN LINE TO REMAIN						
	EXISTING LATERAL LINE TO REMAIN						
	EXISTING LATERAL LINE TO BE CAPPED OFF						
	NEW LATERAL LINE						CLASS 200 PVC



NOTE: CONTRACTOR TO SEE MANUFACTURER'S INSTRUCTIONS FOR INSTALLING AND ADJUSTING IRRIGATION HEADS.
12" POP-UP SPRAY HEAD
NOT TO SCALE

TREE PROTECTION NOTES

- All existing trees which are not designated to be relocated shall remain and shall be protected during construction. Contractor shall construct a 6' high temporary fence to enclose the area under the existing tree canopy. In no case shall any vehicle or equipment be permitted to be stored within the enclosed area. The fence shall remain in place until final planting operations are completed.
- No Storage of materials or topsoil shall be allowed within the fenced tree protection area.
- Any trenching within the rootzone of any tree shall be done by hand. Any tree roots encountered smaller than 2 inches shall be cut clean with approved tree pruning tools. Tree roots 2 inches and larger shall not be cut unless directed the Engineer. Route pipes to alternate location to avoid conflicts.
- Any grading within the dripline of existing trees shall be limited to 6 inches of cut or fill from the original grade.
- Contractor shall be responsible for replacement of any existing tree damaged due to operations related to construction. Replacement trees must be of same species and size and must meet the approval of the Engineer.

IRRIGATION NOTES

- Contractor shall inspect the site conditions prior to commencing with the work. Any discrepancies or unusual conditions shall be brought to the attention of the Engineer. By commencing with the work, The Contractor accepts existing conditions and responsibility for maintaining those conditions.
- The irrigation system shown on the plans is diagrammatic and subject to minor adjustments due to unanticipated field conditions. Adjust all systems to assure proper coverage and to avoid any conflicts between irrigation systems, planting, utilities and architectural elements.
- Test and verify the operation of the existing irrigation system. Any discrepancies shall be brought to the immediate attention of the Engineer.
- The irrigation systems are designed to operate at the pressure listed for the sprinkler types listed on the Irrigation Legend. The Contractor shall adjust all valves to ensure that the furthest sprinkler head on each circuit operates at the pressure shown.
- Contractor shall install all equipment according to local codes and per manufacturer's specifications.
- Flush and clean out all circuits prior to installation of nozzles.
- Coordinate all work on the existing irrigation system with the current landscape maintenance contractor(s) of the properties.

GENERAL PLANTING NOTES

- All work shall performed by persons familiar with planting work and under the supervision of a qualified planting foreman. Work in progress is to be coordinated with the Engineer as areas become available for planting.
- Contractor shall be responsible for verifying all quantities, measurements and site conditions including the location of all on-site utilities and irrigation piping and wiring before commencing with the work. Contractor shall also be responsible for the repair of any utilities damaged due to operations associated with construction.
- It is the responsibility of the Contractor to provide and install the necessary landscape materials in quantities sufficient to fulfill the design at the spacing specified and as described on the Plan.
- Shrub and tree pits shall be dug prior to moving plants to their respective locations. All tree pits shall be water tested prior to planting to assure that water will drain. Notify the Engineer in writing of all soil or drainage conditions encountered during planting operations which the Contractor considers detrimental to growth of plant material.
- The Landscape Contractor shall take all reasonable precautions to coordinate work and to minimize damage to completed grading, irrigation, and related work.
- Guy wires, stakes and flagging shall be maintained and replaced if necessary by the Contractor until the tree is able to stand by itself at which time the Contractor shall remove these materials from the site.
- No. 9 gauge galvanized steel wire shall be used for guying all relocated trees.
- All planting, backfill and guying materials shall be considered incidental to planting and transplanting and will not be measured for payment.



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Lester H. Inoué
Signature
14 Nov. 97

STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION	
CONSTRUCTION NOTES	
KUNIA ROAD WIDENING; AND H-1, KUNIA I.C. RAMP KO WIDENING F.A.I. PROJECT NO. IM-STP-0750(10)	
SCALE: AS NOTED	DATE: FEBRUARY 1999
SHEET No. 2 OF 2 SHEETS	