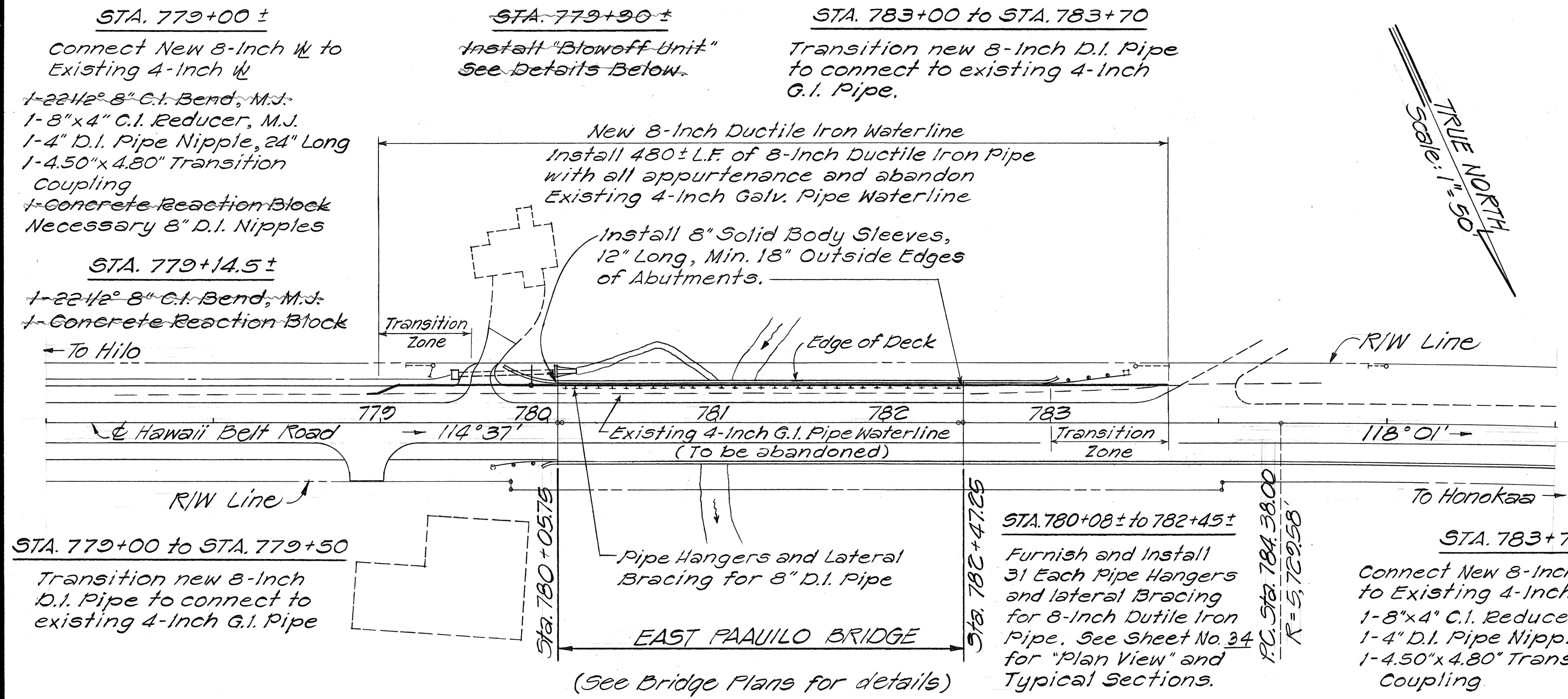
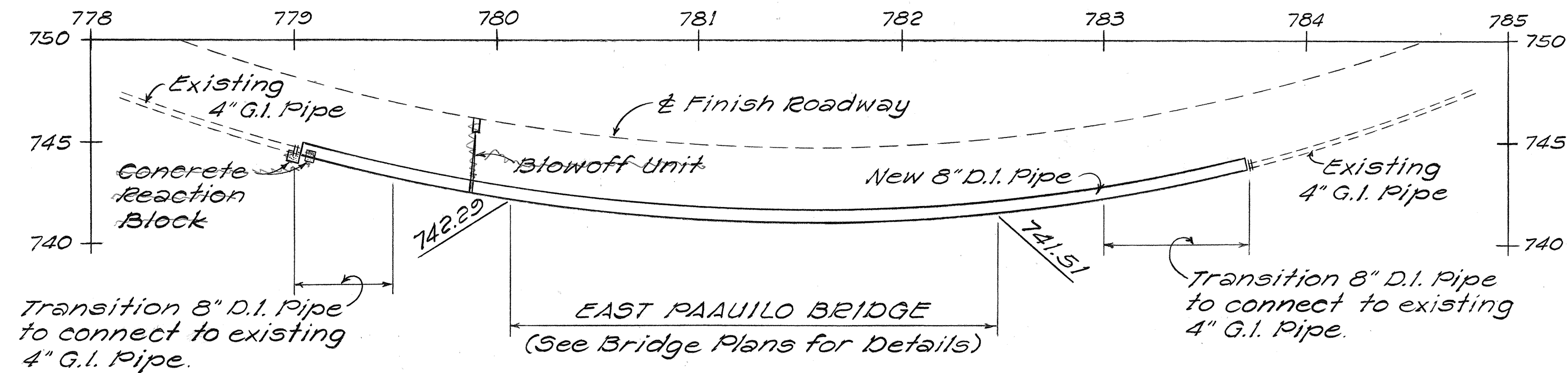


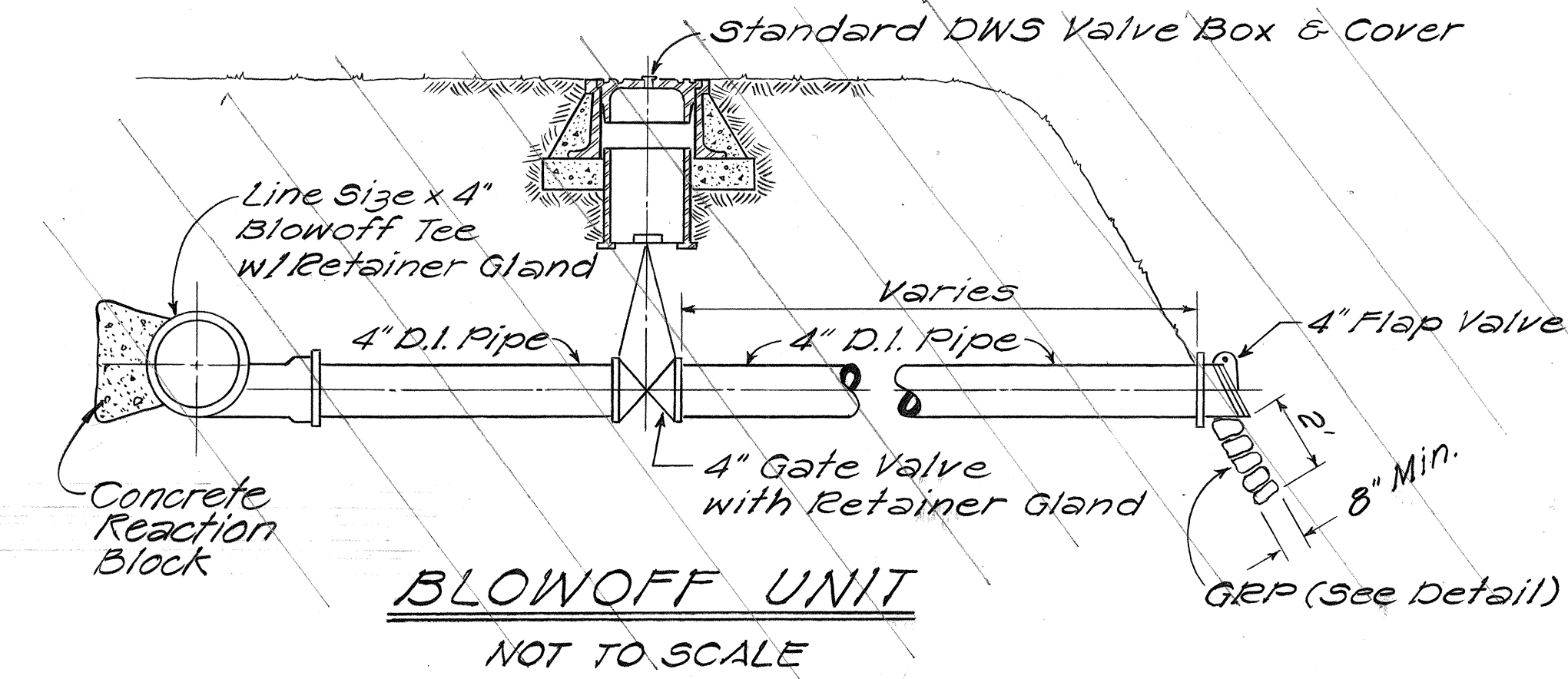
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	BRF-019-2(14)	1979	5	78



PLAN ~ NEW 8" WATERLINE
Scale: 1"=50'



PROFILE FOR 8-INCH D.I. PIPE
STA. 779+00 to STA. 783+70
NOT TO SCALE



GRP DETAIL
NOT TO SCALE

WATERLINE NOTES

1. All work shall conform to the Department of Water Supply "Standards for Water System" dated March 1969, as amended.
2. The contractor shall inform the D.W.S. Engineer 72 hours prior to the beginning of any waterline work and one week prior to any connection, chlorination, shut-off or relocation work.
3. All work and material furnished by the D.W.S. shall be paid for in accordance with Utility Agreement No. 678.
4. All existing waterline, waterline appurtenances and other utility locations shown on the plans are obtained from the latest reliable sources. The contractor shall be responsible to verify the exact location of all utilities in the field and shall bear all cost for damages done unto them during the contract period.
5. All hookups to existing waterlines shall be done by D.W.S. personnel. The contractor shall provide all excavation, backfill, road repair, traffic control, and equipment to lift materials.
6. Where water shut-off of more than 3 hours becomes necessary, the contractor, at his own cost, shall provide temporary bypass line, size of which shall be determined by the D.W.S. Engineer. The D.W.S. Engineer also reserves the right to require bypass lines regardless of the expected water shut-off period, if it is deemed necessary.
7. Minimum horizontal clearance between waterlines and other utilities shall be 8 feet for road right-of-ways of 50' or less and 10' for road right-of-ways of more than 50'; minimum verticle clearance between waterline and other utilities shall be 6", provided concrete jackets are used and 1" if no concrete jackets are used. In all applicable instances, the waterlines shall be at a grade higher than other utilities.
8. The waterline shall be tested at a minimum of 225 PSI at the low point by the contractor under D.W.S. supervision.
9. The contractor shall be responsible for the chlorination of the water system and shall bear all cost. The persons engaged to do the chlorination work must be licensed by the State of Hawaii and approved by the Department of Health.
10. All pipe materials as called for in the plans, excluding concrete reaction blocks, shall be provided by the D.W.S. and shall be picked up by the contractor at the D.W.S. Base Yard at 889 Leilani Street, Hilo, Hawaii. The cost of hauling of all pipe materials to and from the job site shall be considered incidental to the installation of the new water system.
11. Concrete Reaction Blocks shall not be measured for and shall be considered incidental to installing the new 8-Inch Ductile Iron Pipe. Each block shall be a minimum of one (1) cubic yard or as directed by Engineer.

Approved: E. W. John Date: 9/15/78
Manager, Dept. of Water Supply

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

**NEW 8" WATERLINE
PLAN, PROFILE & NOTES**

Hawaii Belt Road
East Paauiilo Bridge Replacement
F.A.P. No. BRF-019-2(14)

Scale: As Shown Date: Sept. 1978

SHEET NO. 1 OF 1 SHEETS