

P.M.: STY
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PREV. OPR:
CURRENT TIME: May 08, 2003 - 3:34pm
LAST SAVED BY:
LAST MODIFIED: Thu, 01 May 2003 - 1:19pm
PREFIX: G:\DOT\H9601A\ACAD\
FILE: Dot196149a.dwg
BEGUN: 12/01/99
SCALE: 1"=1'

SURVEY DICTED BY	DATE
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QUANTITIES BY	
CHECKED BY	
ORIGINAL PLAN	
NOTEBOOK	
NO.	

SEWER NOTES

- All sewer construction shall be performed in accordance with the City's Standard Specifications, Sept. 1986, the Department of Public Works Standard Details, Sept. 1984, Current City Practices And Revised Ordinances of Honolulu, 1990, as Amended, and Design Standards of the Department of Wastewater Management Vol. 1, July 1993.
- In the event that any change in alignment or grade for the proposed sewers are required due to unforeseen conflict with other utilities, the engineer in charge or the maker of the plans shall be responsible for determining the required changes which are to be presented to the Wastewater Branch of the Department of Planning and Permitting for approval.
- The Contractor shall notify the Inspection Section, Wastewater Branch, Department of Design & Construction at 527-5842 or 523-4345 to arrange for inspection services and submit four sets of approved construction plans seven days prior to commencement of sewer work. The Contractor shall pay for all inspection costs.
- Crushed rock cradle is permitted where soil is stable. In areas of unstable soil, the maker of the plans and the Construction Engineer will determine the pipe support required.
- The underground pipes, cables, or ductlines known to exist by the engineer from his research of records are indicated on the plans. The Contractor shall verify the location and depth of the facilities and exercise proper care in excavating the area. The Contractor shall be responsible and shall pay for all damaged utilities.
- The Contractor shall be responsible for maintaining continuous sewer service to all affected areas during construction.
- The Consulting Engineer shall submit to the Department of Planning & Permitting mylar "As-built" tracings of the construction plans as actually constructed, showing all changes from the original plans.
- The Contractor shall be responsible for any sewage spills caused during construction. The Contractor shall notify the State Department of Health and utilize appropriate sampling and analyzing procedures. The Contractor shall be responsible for all public notifications and press releases.
- The Contractor shall install "Rainstopper" manhole inserts in all sewer manholes with type "SA" frame and cover.

SEWER NOTES - CONFINED SPACE

For entry by City Personnel, including Inspectors, into a permit required confined space as defined in 29 CFR part 1910.146(B), the Contractor shall be responsible for providing:

- All safety equipment required by the confined space regulations applicable to all parties other than the construction industry, to include, but not limited to, the following:
 - Full body harnesses for up to two personnel.
 - Lifeline and associated clips.
 - Ingress/egress and fall protection equipment.
 - Two-way radios (walkie-talkies) if out of line-of-sight.
 - Emergency (escape) respirator (10 minute duration).
 - Cellular telephone to call for emergency assistance.
 - Continuous gas detector (calibrated) to measure oxygen, hydrogen sulfide, carbon monoxide and flammables (capable of monitoring at a distance at least 20-feet away).
 - Personal multi-gas detector to be carried by inspector.
- Continuous forced air ventilation adequate to provide safe entry conditions.
- One Attendant/Rescue Personnel topside (two, if conditions warrant it).

THE GAS COMPANY NOTES

- The Gas Company gas pipelines in the project area are plastic coated and cathodically protected. The Contractor shall be extremely careful when working near these gas pipelines.
- Written clearances must be obtained from The Gas Company, Maps and Records Department, 515 Kamakee Street, at least five (5) working days prior to starting excavation near these gas pipelines.

Since gas line locations on field maps are approximate, the Contractor, after obtaining written clearance, shall call USA North a minimum of two (2) working days before starting excavation to arrange for field location of the existing gas pipelines. The telephone number is 1-800-227-2600.
- The Contractor shall excavate and backfill around gas pipelines in the presence of a The Gas Company representative. All backfill within six inches of any gas pipeline shall be select cushion material approved by The Gas Company.
- For relocation of any gas pipeline, the Contractor shall notify The Gas Company five (5) working days before starting work. The Contractor shall provide the necessary excavation and backfill, obtain traffic permits, and restore pavement, sidewalks, and other facilities. Any relocation of gas facilities shall be done by The Gas Company and paid for by the State.
- The Contractor shall notify The Gas Company immediately after any damage has been caused to existing gas pipelines, coatings or its cathodic protection devices. Repair work on such damage shall be done by The Gas Company and paid for by the Contractor.
- Minimum vertical and horizontal clearance between the gas pipelines and other pipelines, conduits, ductlines, or other facilities shall be 12 inches. Adequate support and protection for gas pipelines exposed in the trench shall be provided by the Contractor and approved by The Gas Company.
- The Contractor shall work in an expeditious manner in order to keep the uncovered gas pipelines exposed for as short a period of time as possible.

GTE HAWAIIAN TEL NOTES:

- The Contractor shall obtain an excavation permit clearance from Hawaiian Telephone Company (HTCO) Records Section located at 3239 Ualena Street, 3rd floor (ABY-3) two weeks prior to start of construction. Hours of business are 7:00 A.M. to 10:30 A.M. and 11:30 A.M. to 3:00 P.M., Monday thru Friday, except holidays.
- Should it become necessary, any work required to relocate HTCO facilities shall be done by HTCO. The Contractor shall provide the necessary excavation and backfill, arrange for traffic permits and restore side walk, pavement or other facilities and the Contractor shall be responsible for all coordination. For relocation of any telephone cables and/or duct lines, the Contractor shall notify HTCO five days before starting work.
- The Contractor shall notify HTCO at 546-1599 72-hours before starting excavation to tone and mark location of all existing telephone cables and/or duct lines.

APPROVED:

James W. Kosh... 6/19/03
Principal Executive, Maintenance Unit, BWS DD Date

Demaria M. Niek... 7/16/03
Chief, Wastewater Branch, D.P.P. WJ Date

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-7310(1)	2003	55	193

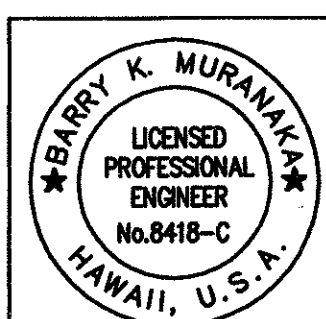
GTE HAWAIIAN TEL NOTES: (cont'd.)

- The Contractor shall exercise extreme caution when the excavation and construction crosses or is in close proximity to telephone facilities.
- All excavation within two feet of telephone cables shall be done by hand.
- Provide adequate support and protection for telephone cables and/or duct lines exposed in the trench. Such support and protection shall be approved by HTCO Inspector.
- The Contractor shall notify HTCO immediately at 611-"0" after any damages to HTCO cables, duct lines, pullboxes, manholes, handholes, poles and guys. The Contractor will be held liable for all damages to HTCO facilities shown on the plans or made known to him by field location.
- Repair work on damaged cables shall be done by HTCO and any other work involving existing underground facilities shall be done by the Contractor in the presence of HTCO Engineer or his representative. Cost for all repair work shall be done by the Contractor.
- The cost of any relocation of HTCO facilities done for the convenience of the Contractor shall be borne by the Contractor, unless otherwise noted.

**The Tables Below Refer to the New 1" Irrigation Meter Service, See Sheet 59, Note 12.

FLOW REQUIREMENTS			
	Fixture Units (FU)	Gallons Per Minute (GPM)	Gallons Per Day (GPD)
Domestic	-	-	-
Irrigation	125	50	4,700
Total	125	50	4,700

BWS ESTIMATE OF CHARGES	
DESCRIPTION OF WORK	ESTIMATE
1 1/2" DOMESTIC SERVICE	
1" Meter \$109 + \$180 =	\$289.00
Installation Charge	
WATER SYSTEM FACILITIES CHARGES	\$388.39 x 125 = \$48,548.75
SOURCE & TRANS.	
*CREDIT	
S/N	-
S/N	-
- FIRE SERVICE	
- Meter	-
Installation Charge	-
One-time Charge	-
TOTAL . . .	\$48,837.75



THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION
Expiration Date of the License: 04/30/04

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

UTILITY ADJUSTMENT NOTES

PUULOA ROAD IMPROVEMENTS
Kamehameha Hwy. to Salt Lake Blvd.
Federal Aid Project No. STP-7310(1)

Scale: As shown Date: May 2003

FED. ROAD DIST. NO.	STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAW.	STP-7310(1)	2003	56	193

P.M.: STY
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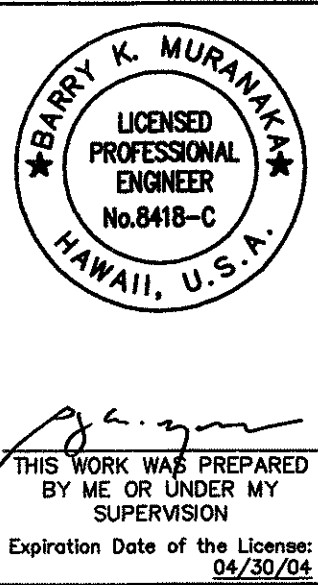
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BEGN: 12/01/99
SCALE: 1=1

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CHECKED BY	
ORIGINAL PLAN	
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No.	

- The existence and location of HECO's overhead and underground facilities as shown on the plans are from existing records of varying degrees of accuracy and are not guaranteed as shown. Therefore, the Contractor is to exercise extreme caution when the excavation crosses or is in close proximity of underground electrical facilities and maintain a minimum 13'-0" clearance while working close to and/or under HECO's overhead facilities.
- The Contractor shall comply with the State of Hawaii's Occupational Safety And Health Laws (DOSH) including all amendments.
- When trench excavation is adjacent to or beneath HECO's existing structures or facilities, the Contractor is responsible for:
 - Sheeting and bracing the excavation to prevent slides, cave-ins, and settlements.
 - Protecting existing structures or facilities with beams, struts, or under-pinning.
- For pole bracing instructions, the Contractor shall call the HECO District Construction Superintendent at Waiiau, phone 455-6233, a minimum of 72 hours in advance.
- Any work required to relocate HECO facilities shall be done by HECO and the Contractor shall be responsible for all coordination and for cost if applicable.
- Should it become necessary to temporarily relocate any HECO facilities to enable the Contractor to perform his work in a safe and expeditious manner in fulfilling his contract obligations, these temporary relocations will be done by HECO or by the Contractor under HECO's supervision, with all cost being borne by the Contractor.
- The Contractor shall be liable for any damages to HECO's facilities. Any damages to HECO's facilities will be reported immediately to HECO's Trouble Dispatcher at 543-7874.
- Existing HECO overhead and underground facilities as shown on these plans or whose approximate locations within the project boundaries have been made known by any reasonable means at any time to the Contractor shall be protected at all times by the Contractor during construction. Costs for damages to HECO facilities shall be borne by the Contractor. This repair work shall be done by HECO.
- The Contractor shall obtain all necessary permits. The Contractor shall contact HECO's Mapping and Records Division located at 820 Ward Avenue, 4th floor, two weeks prior to starting construction for field verification of HECO's underground facilities.
- All existing utility facilities shall remain in place until the temporary or permanent facilities are completed.
- All existing facilities shown are approximately only. Contractor shall verify their locations and make adjustments to any new or existing facilities as directed by the Engineer.
- All proposed manholes, pullboxes, conduits/ductlines, including riser bends, manhole frames and covers, and ground rods required within the road right-of-way shall be installed by the Contractor.

- The term "Engineer" for the utility companies shall also mean his delegated representative and/or utilities inspector of record.
- The term "pullbox" shall mean splice can, splice or service box, pullbox, or handhole.
- The term "manhole" shall mean any subsurface enclosure in which men must enter to work.
- The Contractor shall stakeout all facilities for verification by the utility involved and/or affected before proceeding.
- The location and depth of all manholes and pullboxes and the routing of all ductlines shall be verified by the utilities before excavation starts.
- The Contractor shall furnish and install all materials to complete the construction of the underground ductline system unless otherwise specified.
- All manholes, pullboxes, and ductlines to be installed in concrete shall be inspected and approved by the Utility Company before placing concrete. All HECO ducts shall be encased in concrete jacket unless otherwise specified. For HECO facilities, notify HECO's Inspection Division (phone: 543-5668) 48 hours before placing concrete.
- Manhole depths shown on plans refer to inside depth of manhole.
- The minimum depth of ductlines from finish grade to top of concrete encasement or cover is as follows:
 - within roadway: 3'-0"
 - within sidewalk area: 1'-6"
 - in private property: 1'-6"
- All completed ductlines shall be mandrel tested by the Contractor in the presence of the Utility Company's Inspector using the Utility Company's standard practice.
- The Contractor shall furnish and install a 1/8" polyolefin pull line in all completed ductlines after mandrel testing is completed.
- The Contractor shall furnish his construction schedule to HECO at least sixty (60) working days prior to starting any HECO work.
- The Contractor shall give HECO at least sixty (60) working days notice to proceed with its portion of the work.
- The Contractor shall give HECO at least seventy five (75) working days notice for any relocation work not shown on the plans. HECO shall not be responsible for delays that are beyond their control. All HECO temporary relocations not shown on the plans are at the Contractor's cost.
- Barricading of HECO's facilities, if required, shall be done by Contractor. Breaking into existing HECO facilities shall be done by HECO.
- HECO shall remove all existing HECO facilities except as noted on the plans.

- HECO shall be the joint pole removal company.
- Special note: the existing electrical cables in the area are energized and will remain energized during construction. Only HECO personnel are to handle these cables and erect temporary guards to protect these cables from damage. The Contractor shall exercise due care and precautions to avoid disturbance of energized cables and temporary guards and shall work cautiously at all times to avoid accidents. The Contractor shall coordinate his work with HECO's underground division and inspection division. (Phone: 543-7871).
- The following legend will be used interchangeably throughout this project:
 - HTCO or "t" for Hawaiian Telephone Co.
 - HECO or "e" for Hawaiian Electric Co.
 - Oceanic or "v" for Oceanic cablevision.
- Powerlines running in parallel with HTCO ductline shall not be installed above or below HTCO ductline.
- For assistance in providing proper support and protection of underground ductlines, the Contractor shall contact HECO's Underground Division at 543-7871, a minimum of 72 hours in advance. The cost for HECO's assistance will be at the Contractor's cost.
- The Contractor shall stake out all temporary and permanent new pole locations so as not to conflict with any existing or proposed utility. The Contractor shall be responsible for cost incurred by conflicting utilities.
- The Contractor shall install schedule 40 PVC conduit for all HECO ductline. No split ducts will be allowed. No notching of HECO boxes will be allowed.
- When excavating near utility poles, the Contractor shall protect, support, secure and take all other precautions to prevent damage to or leaning of these poles. Contractor is responsible for all costs to repair or straighten pole.
- The Contractor shall provide HECO two sets of as-built drawings showing the offsets, stationing and vertical elevation of the ductline(s) constructed.



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

UTILITY ADJUSTMENT NOTES

PUULOA ROAD IMPROVEMENTS
Kamehameha Hwy. to Salt Lake Blvd.
Federal Aid Project No. STP-7310(1)

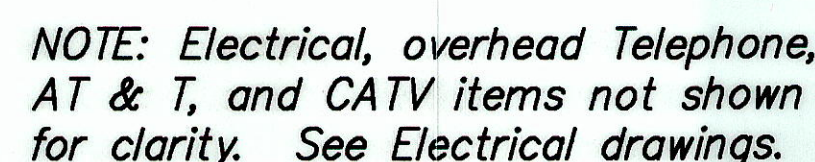
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SHEET NO. 56 OF 193 SHEETS

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LAST MODIFIED: Fri, 06 Jun 2003 - 2:49pm

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ORIGINAL PLAN	SURVEY PLOTTED BY _____ DATE _____
NOTEBOOK	DRAWN BY _____
	TRACED BY _____
	DESIGNED BY _____
	QUANTITIES BY _____
No. _____	CHECKED BY _____



PLAN
SCALE: 1" = 40'
TMK: 1-1-07



		
Principal Executive, Maintenance Unit,	B.W.S.	Date

<i>Dennis M. Nakamura</i>	7/16/
Chief, Wastewater Branch, D.P.P. W	Date



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
UTILITY ADJ. PLAN & PROFILE
STA. 30+00 TO END
*PUULOA ROAD IMPROVEMENTS
Kamehameha Hwy. to Salt Lake Blvd
Federal Aid Project No. STP-7310(1)*

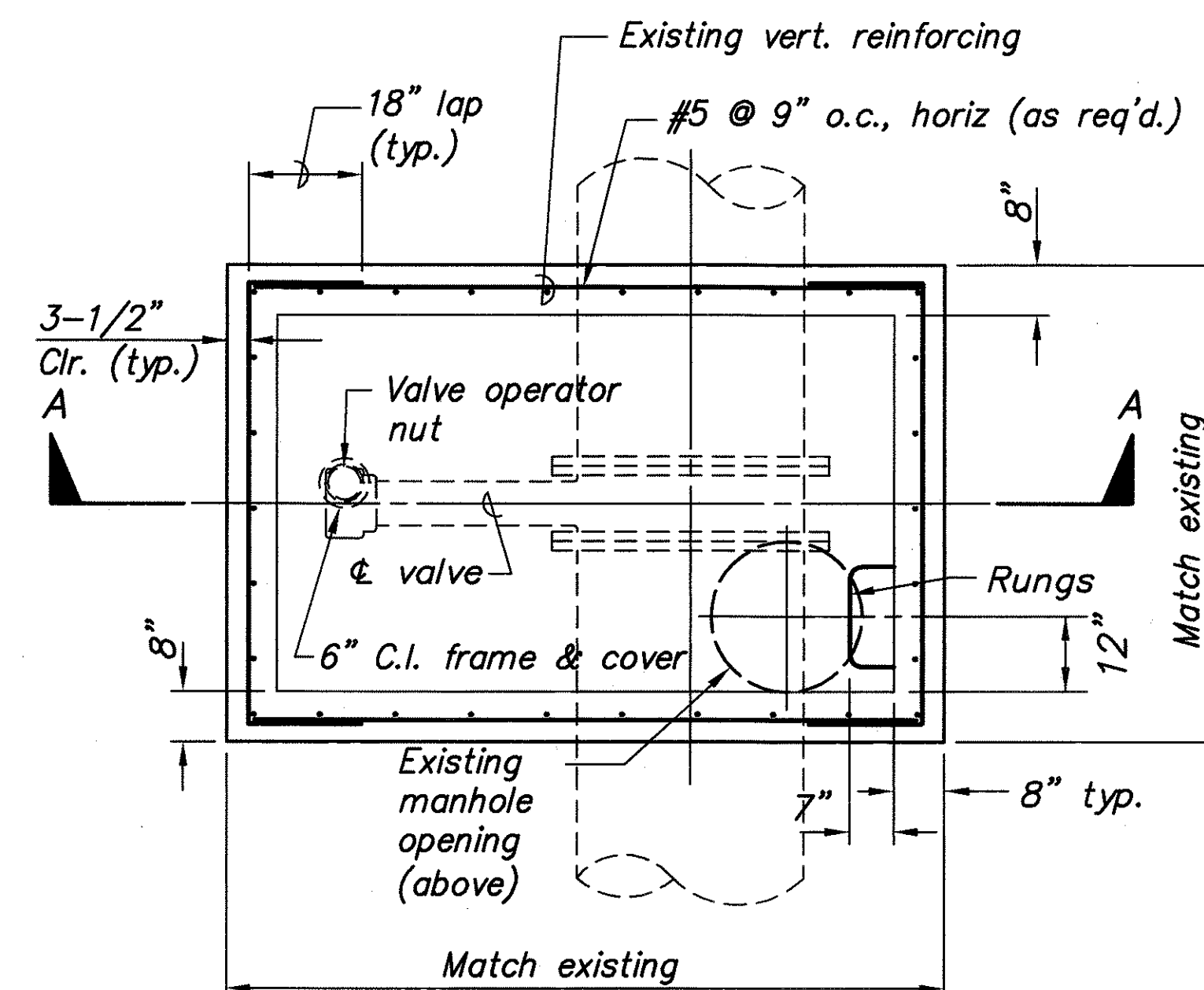
Scale: As shown Date: May 2003
SHEET NO. 58 OF 193 SHEETS

"AS-BUILT"

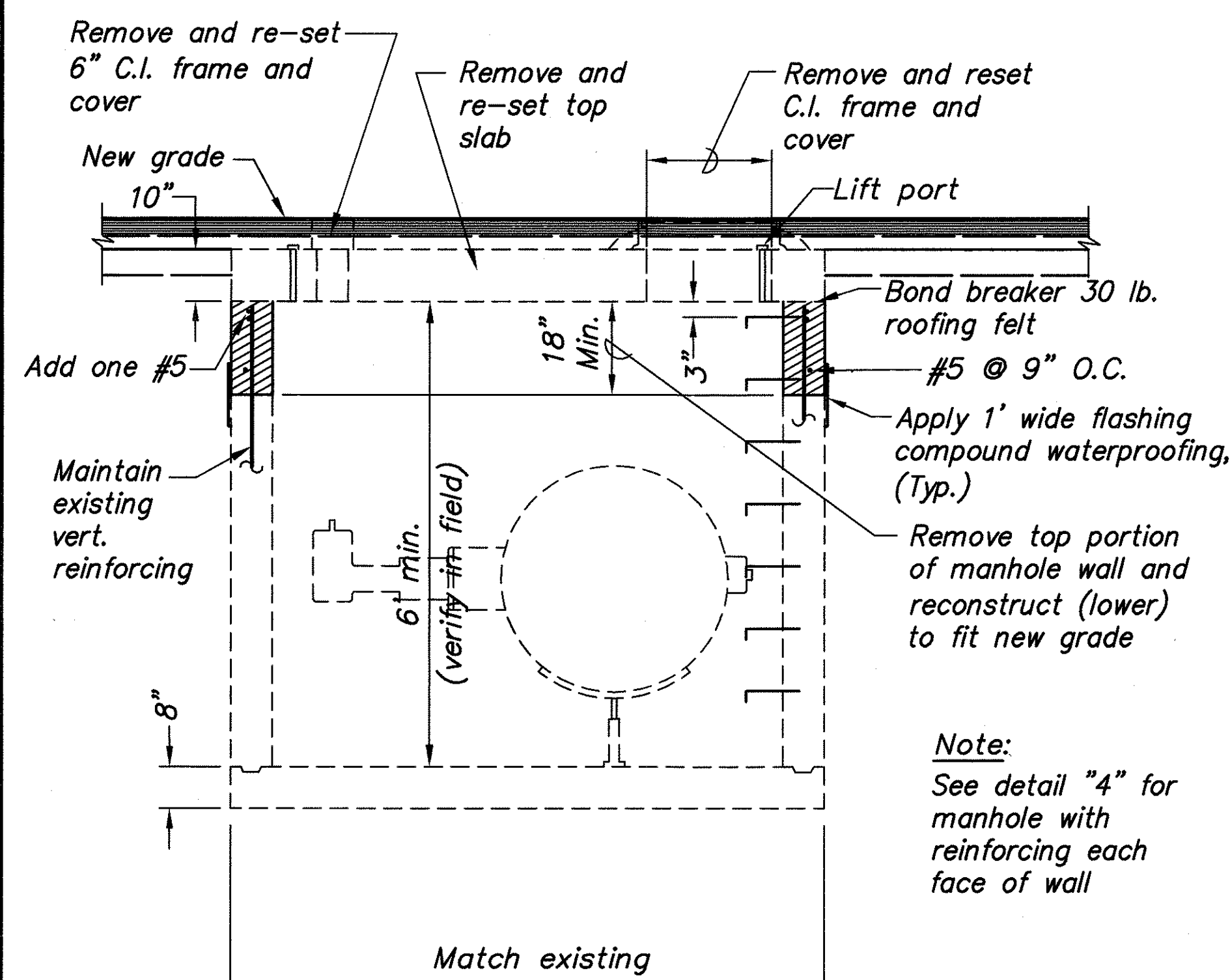

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PLAN

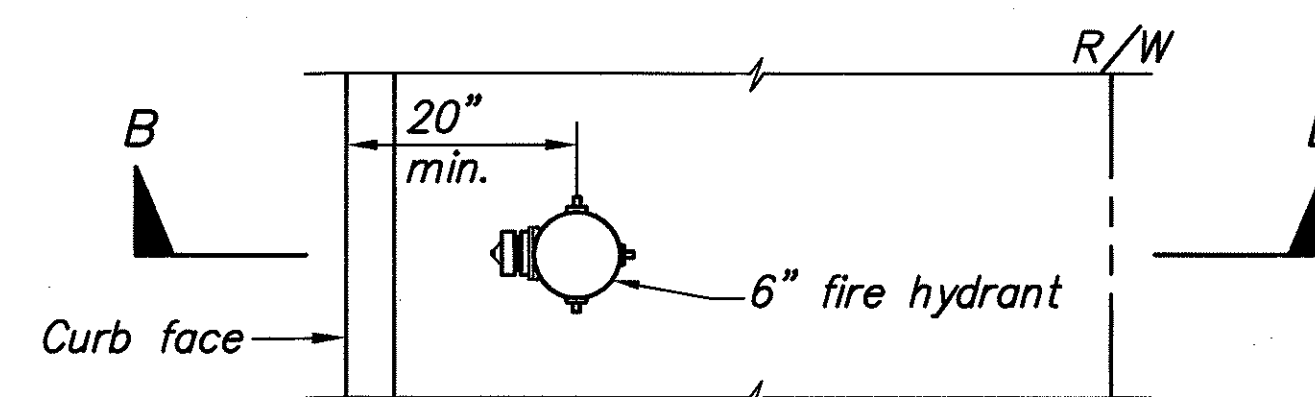


SECTION A-A

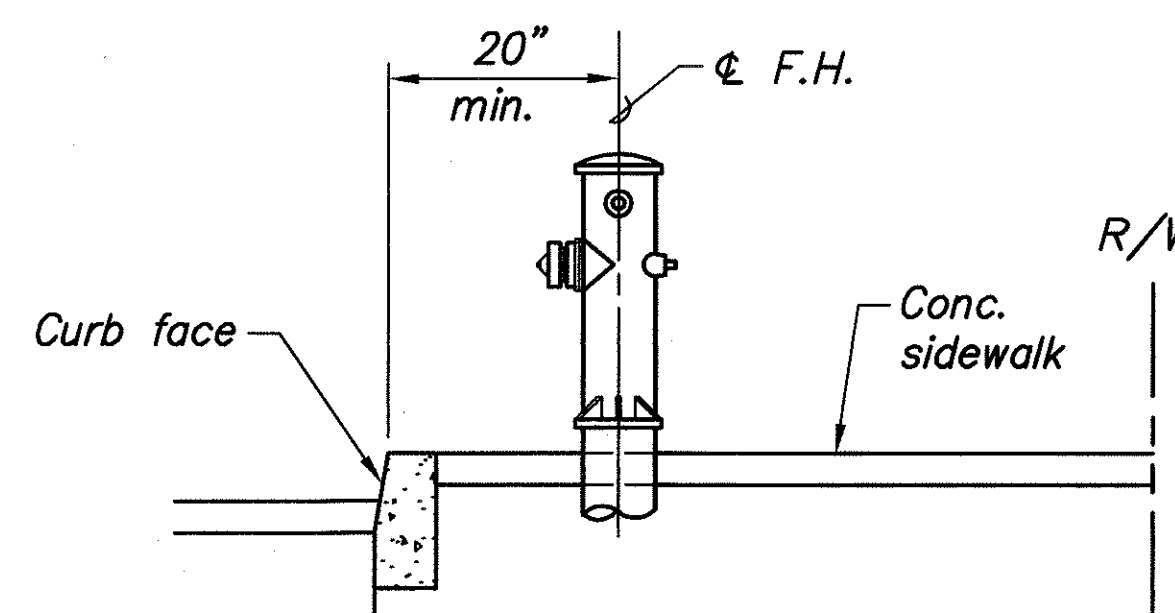
TYPICAL DETAIL FOR LOWERING
TYPE "A" MANHOLE SLAB

Scale: $1/2'' = 1'-0''$

1	
61	61



PLAN



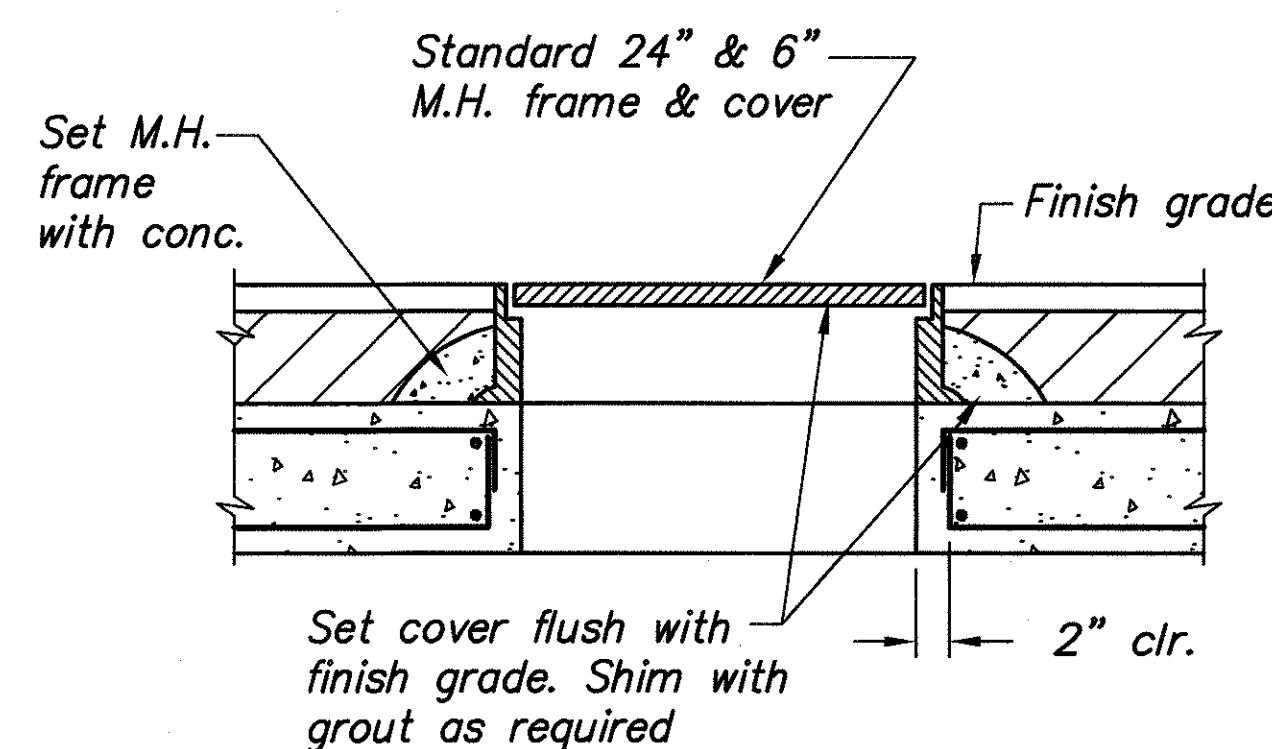
SECTION B-B

DETAIL AT FIRE HYDRANT

Not to Scale

57, 58, 59, 60

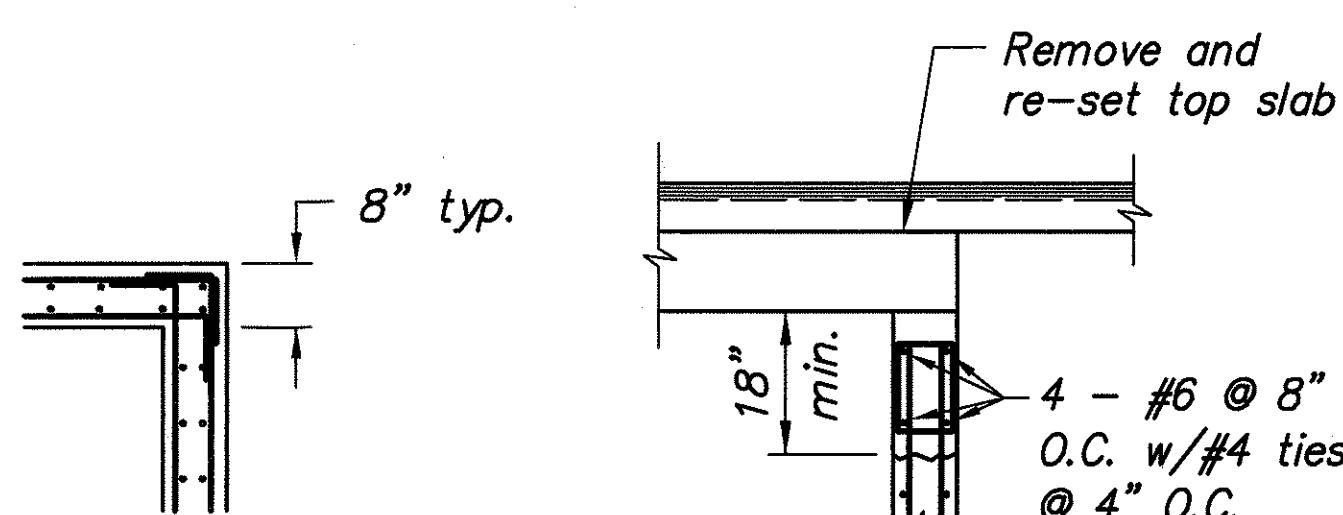
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24" & 6" MANHOLE
SETTING DETAIL (

Not to Scale

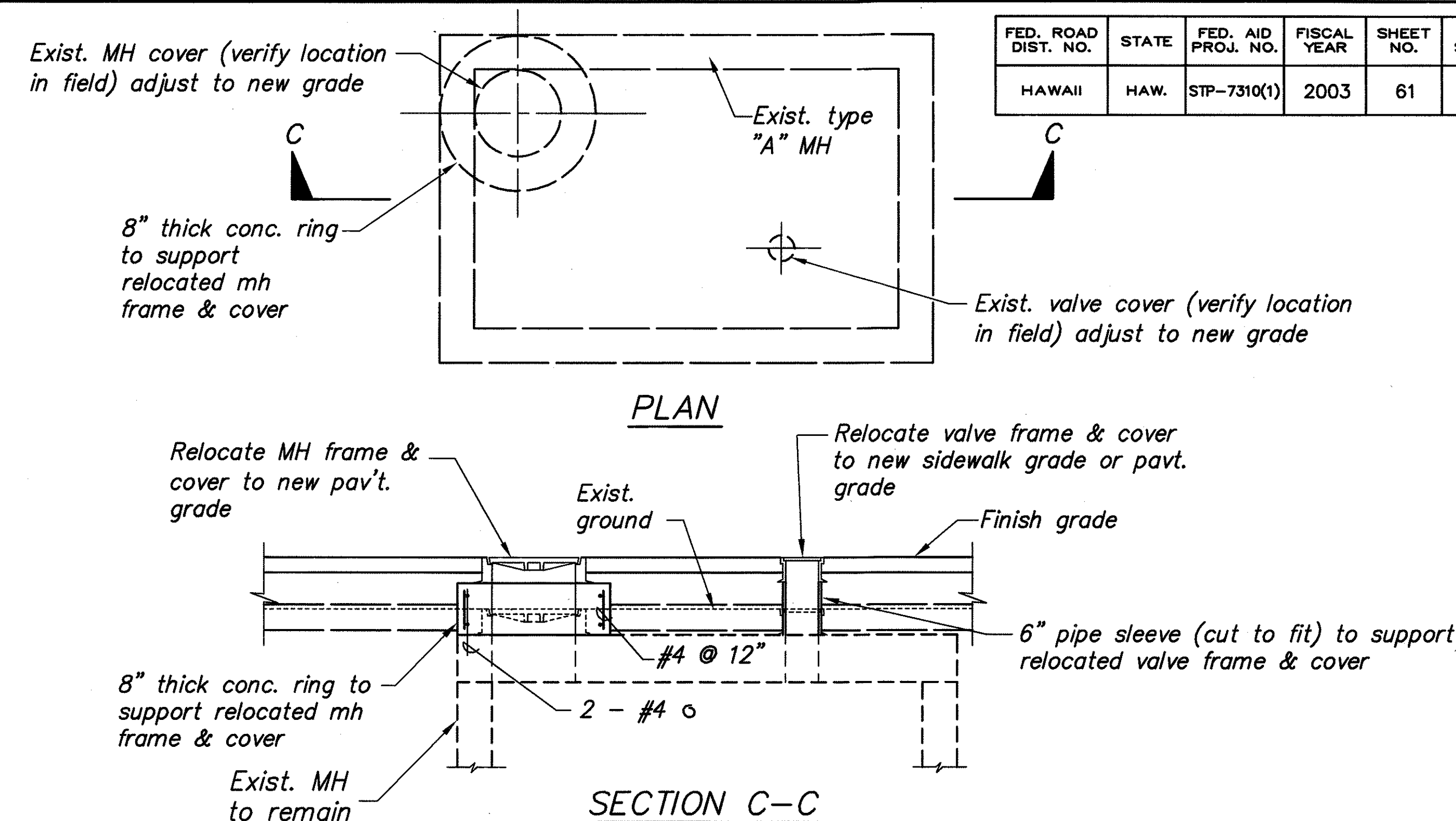
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1	61



PLAN - CORNER
REINFORCING

TYPICAL REINFORCING DETAIL FOR
EXIST. TYPE "A" MANHOLE WITH
REINF. EACH FACE OF WALL

Not to Scale

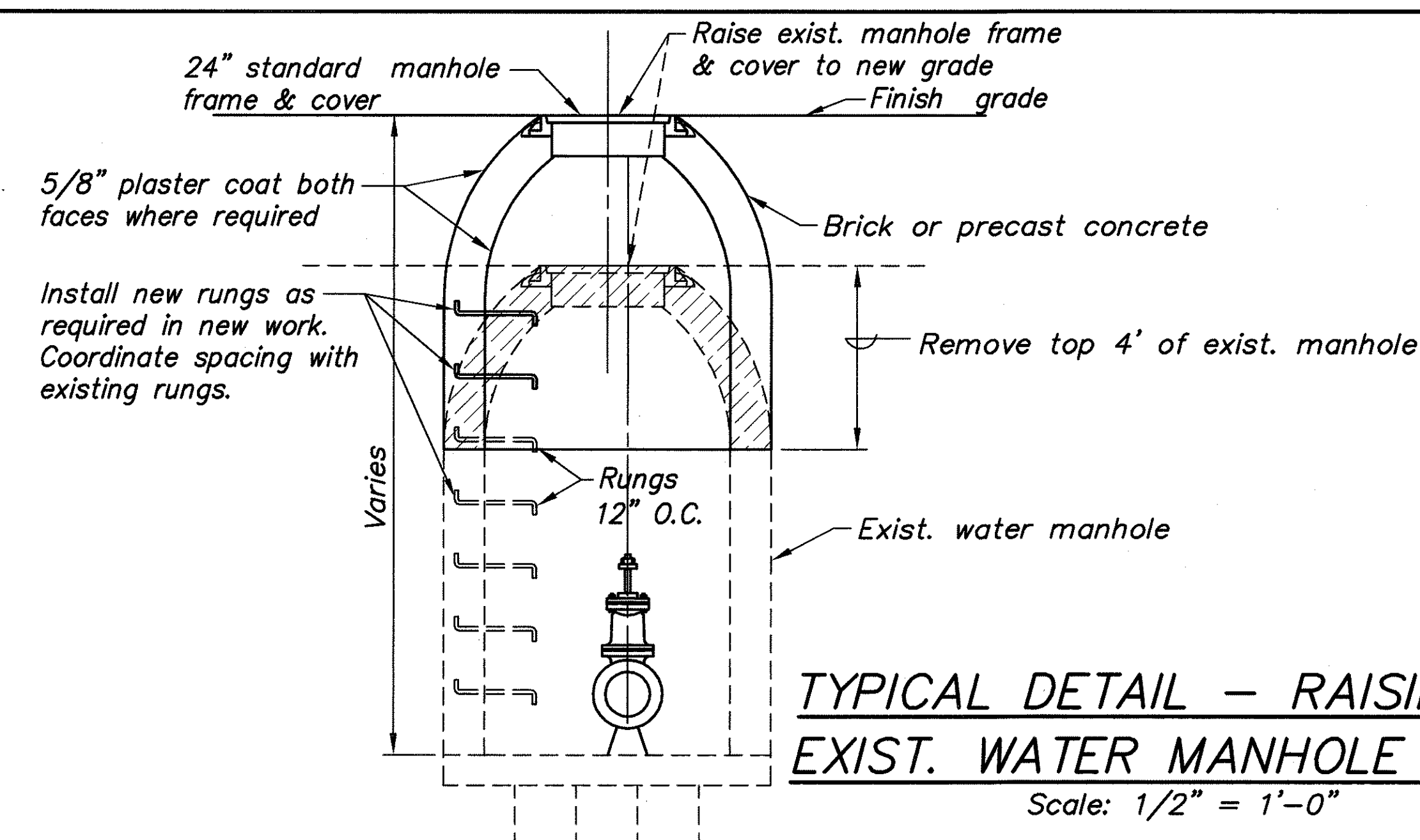
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PLAN

SECTION C-C

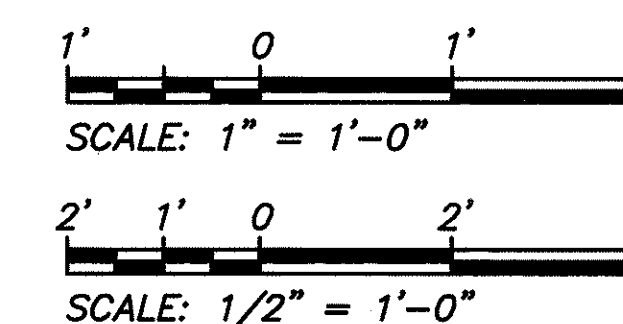
TYPICAL DETAIL FOR RAISING TYPE "A"
MANHOLE FRAME AND COVER (

Scale: $1/2'' = 1'-0''$

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TYPICAL DETAIL - RAISING
EXIST. WATER MANHOLE TOP

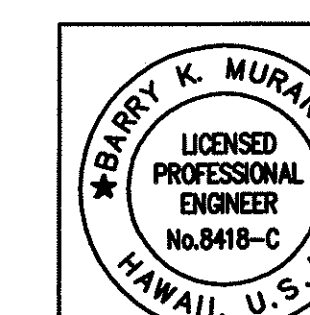
Scale: $1/2'' = 1'-0''$

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APPROVED:

Joseph W. Kashner
Principal Executive, Maintenance Unit, B.W.S.

Chal.
Date



STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

UTILITY ADJUSTMENT DETAILS

PUULOA ROAD IMPROVEMENTS
Kamehameha Hwy. to Salt Lake Blvd.
Federal Aid Project No. STP-7310(1)

Scale: As shown

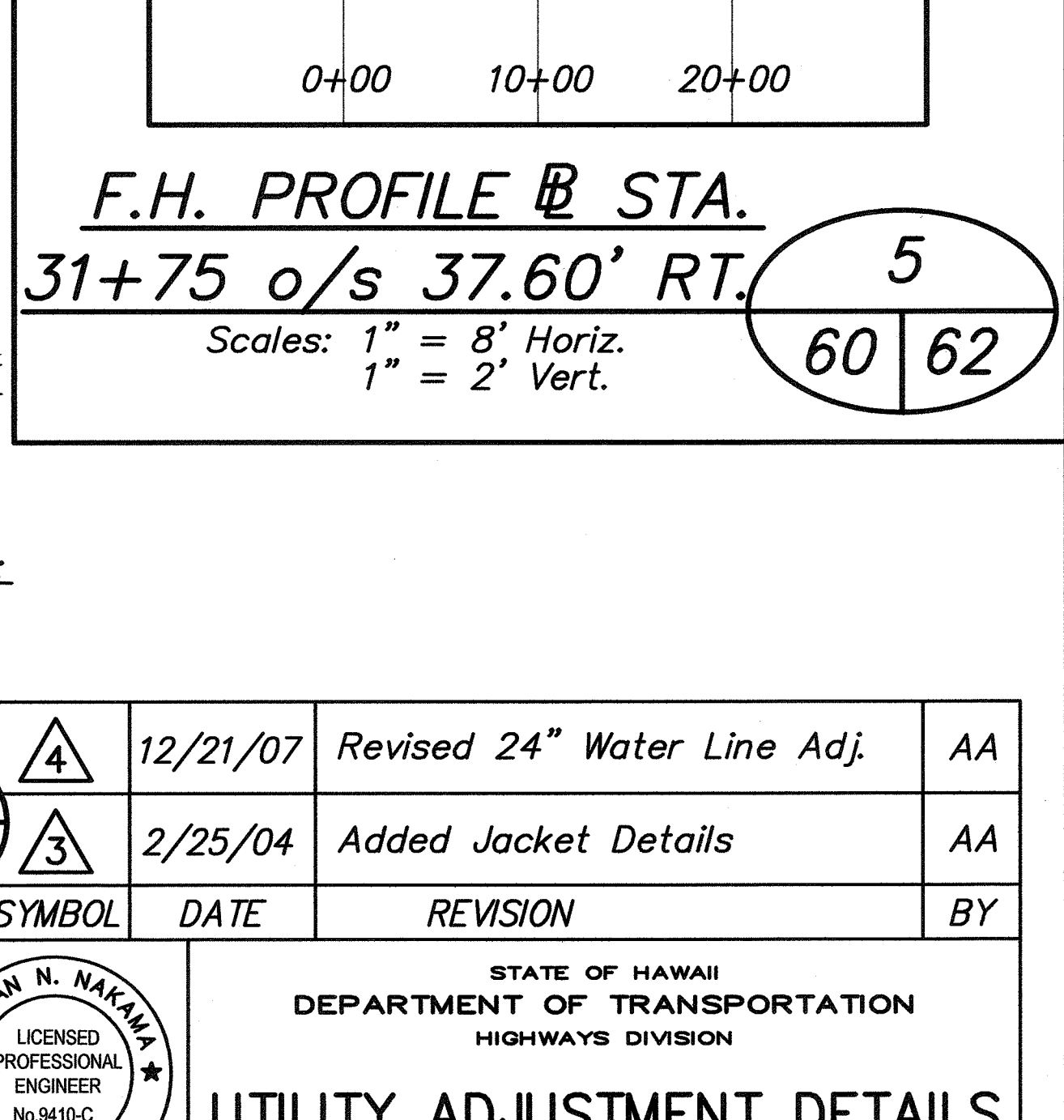
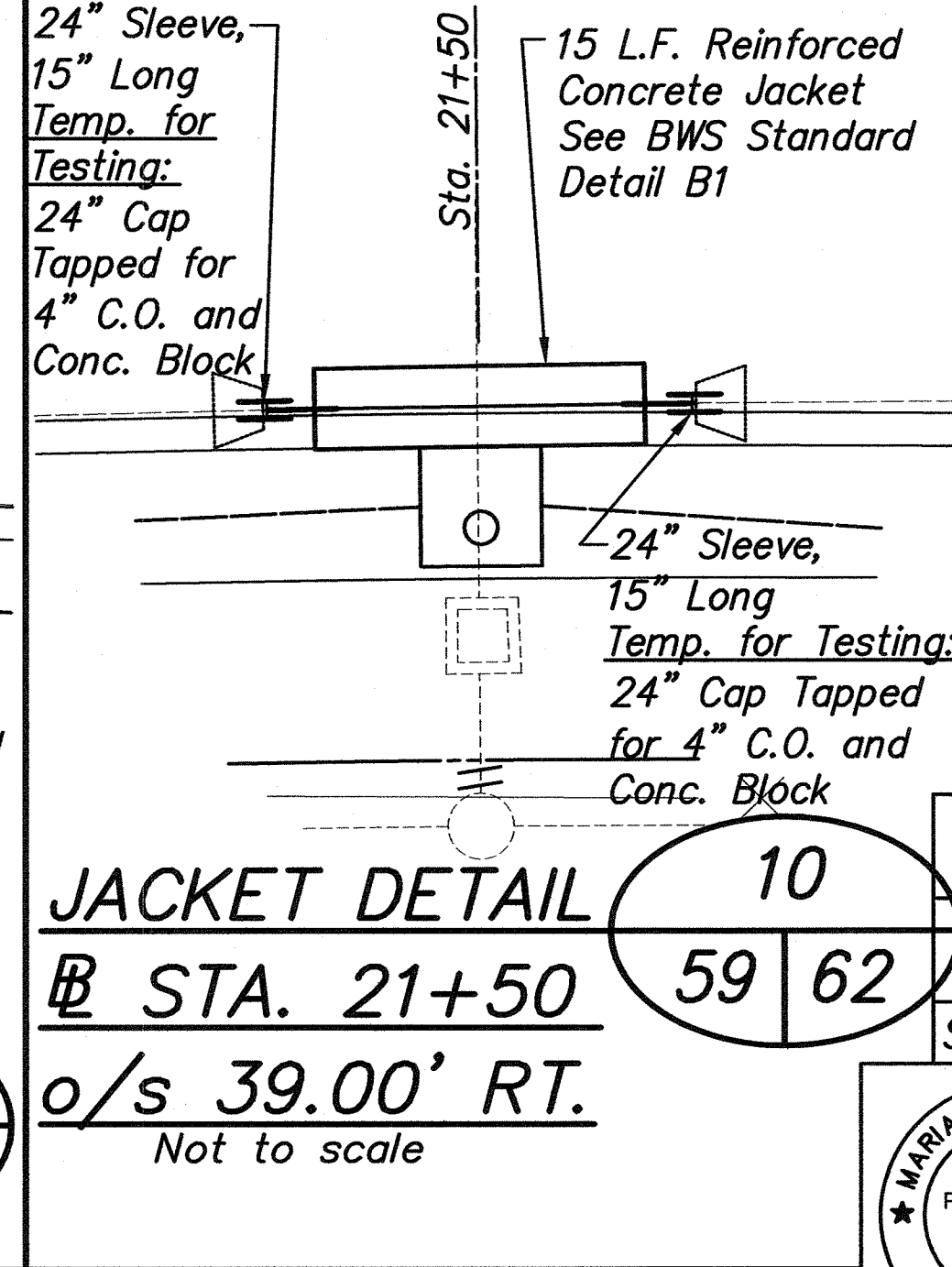
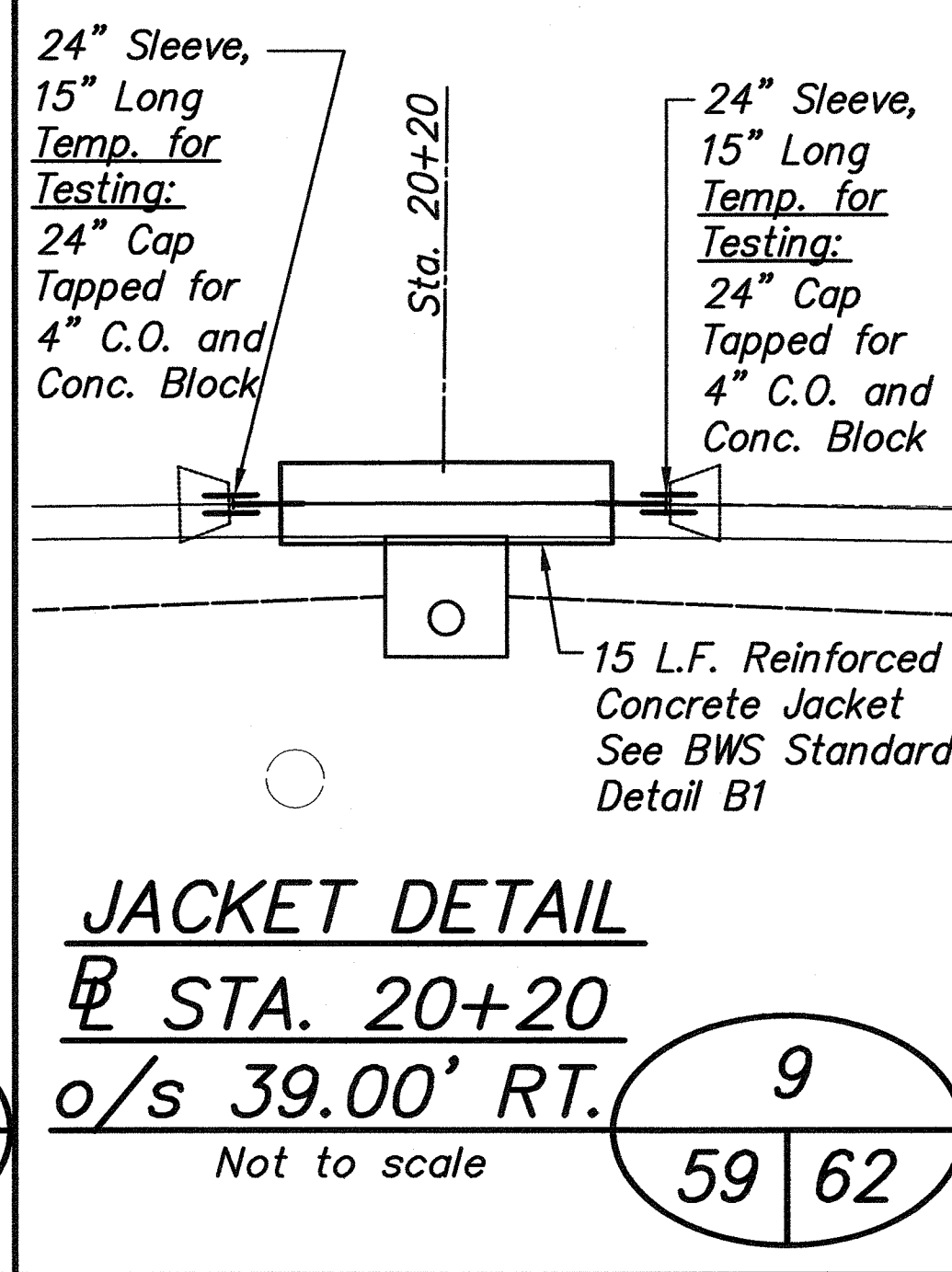
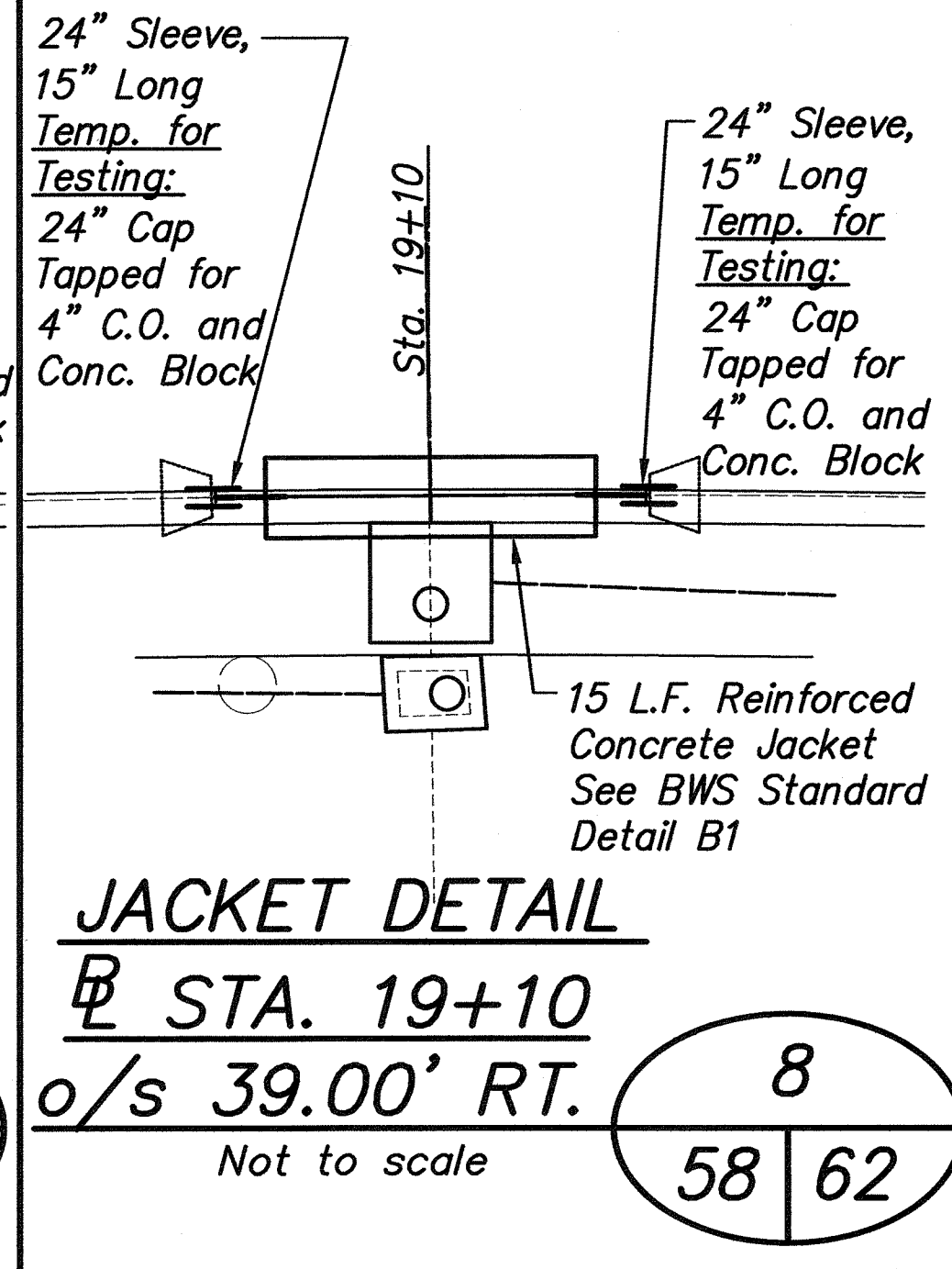
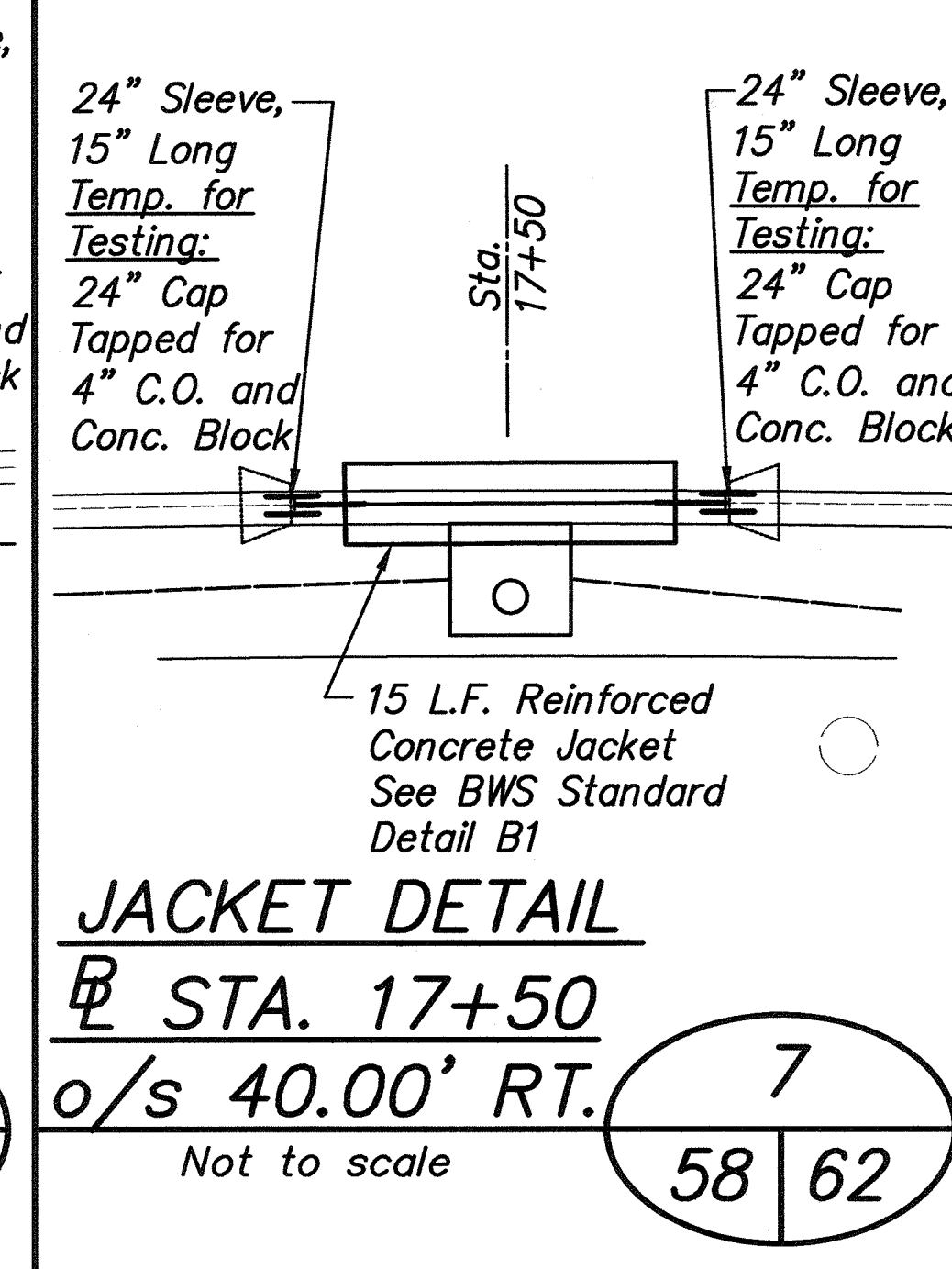
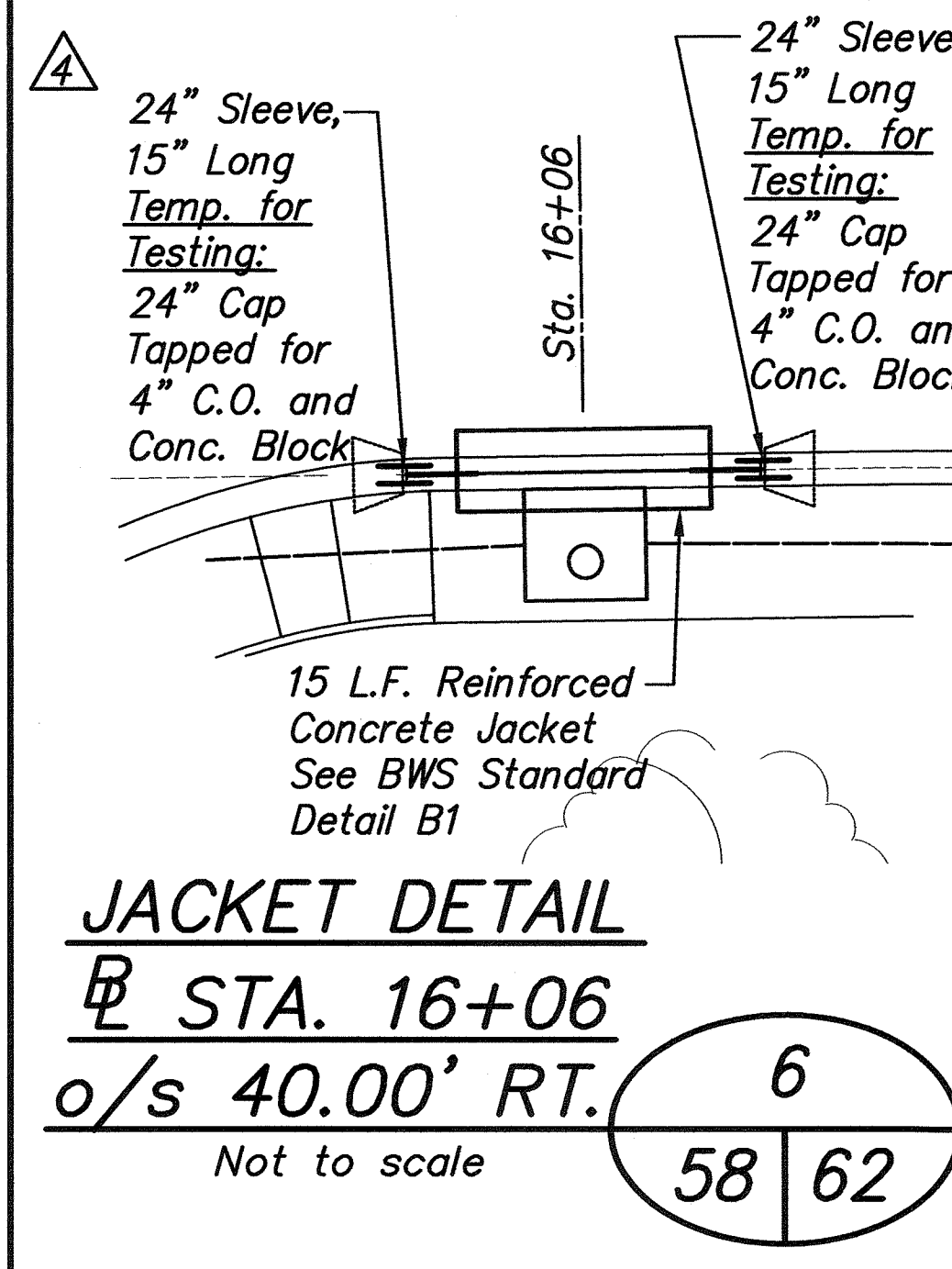
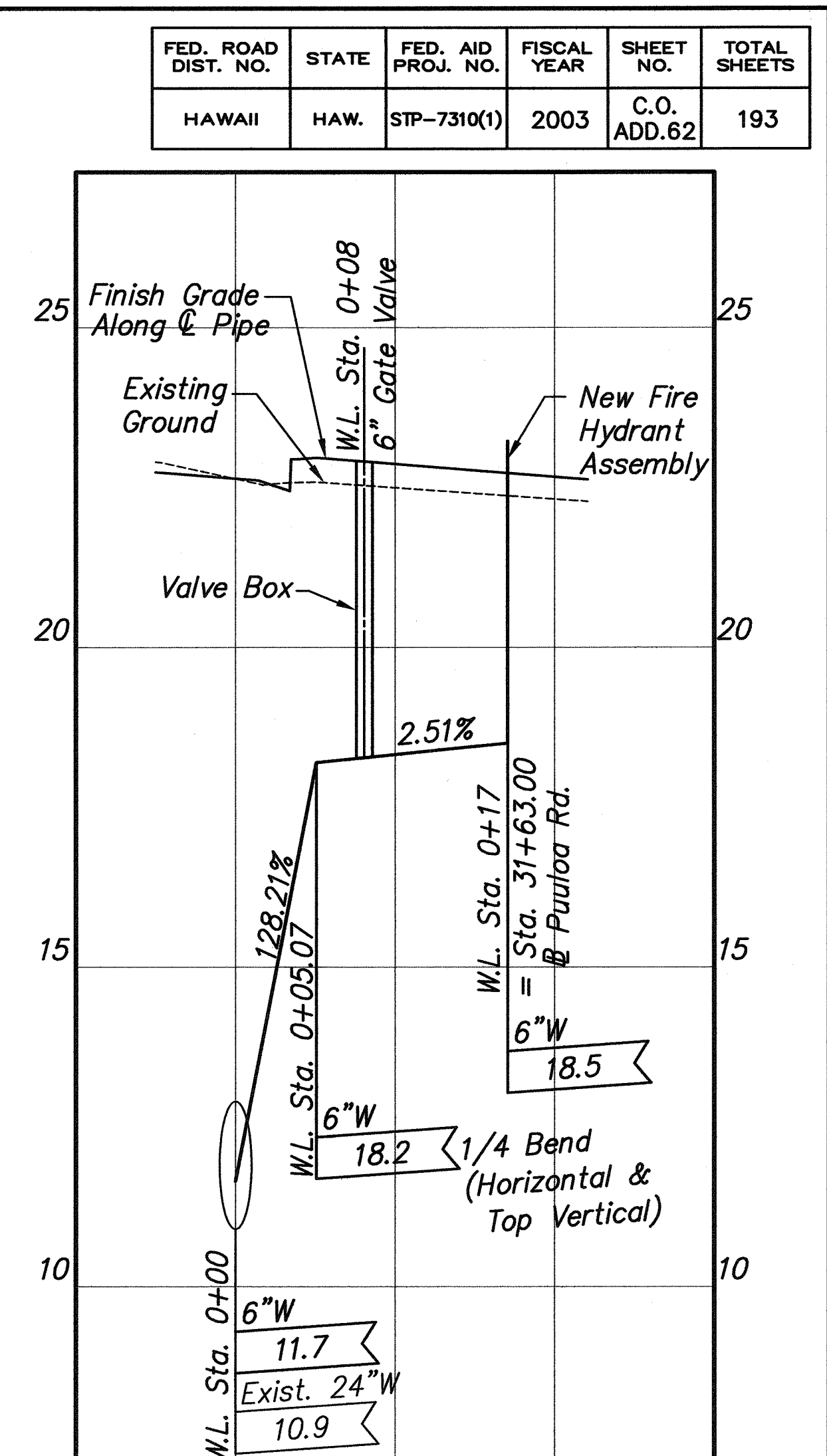
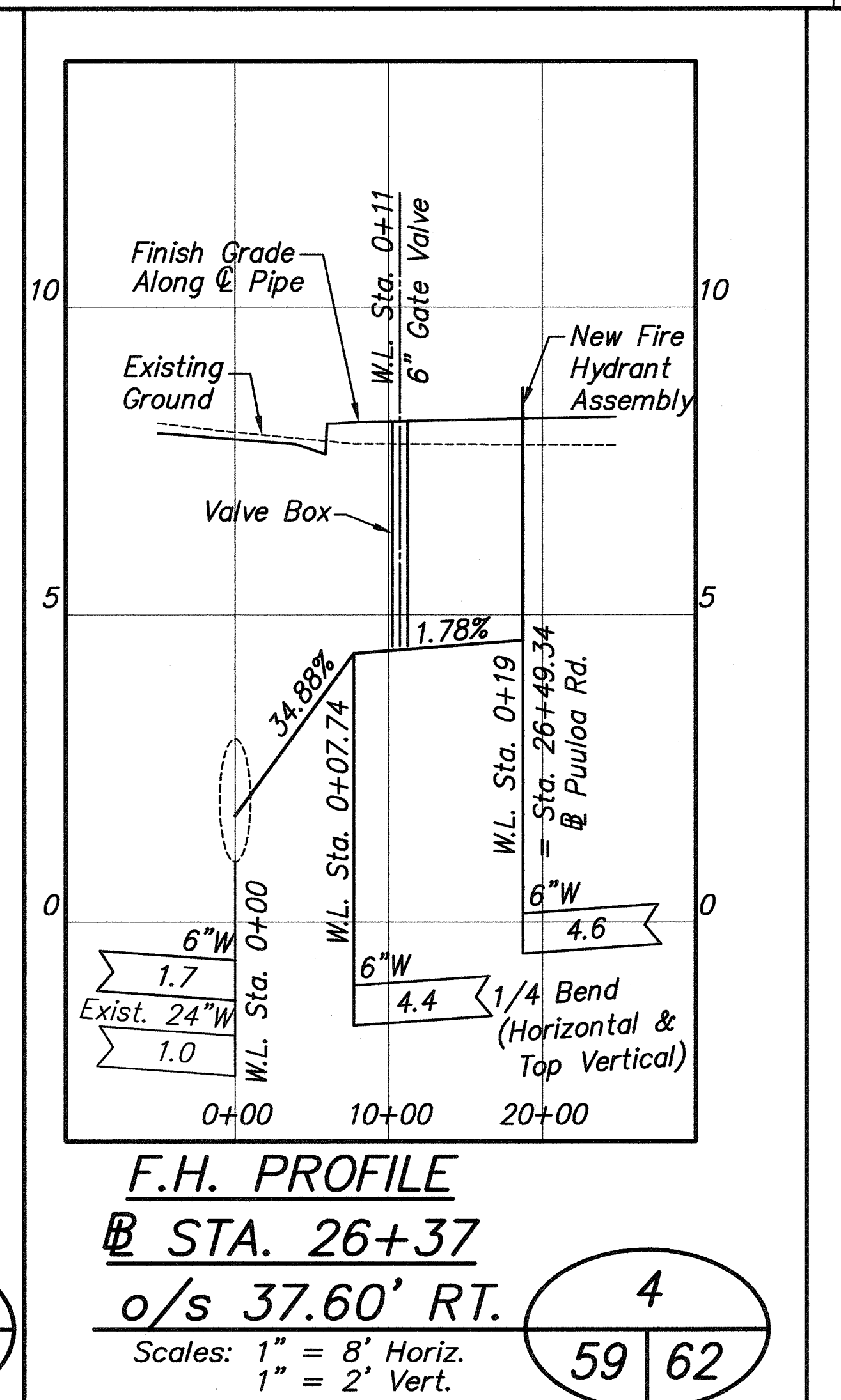
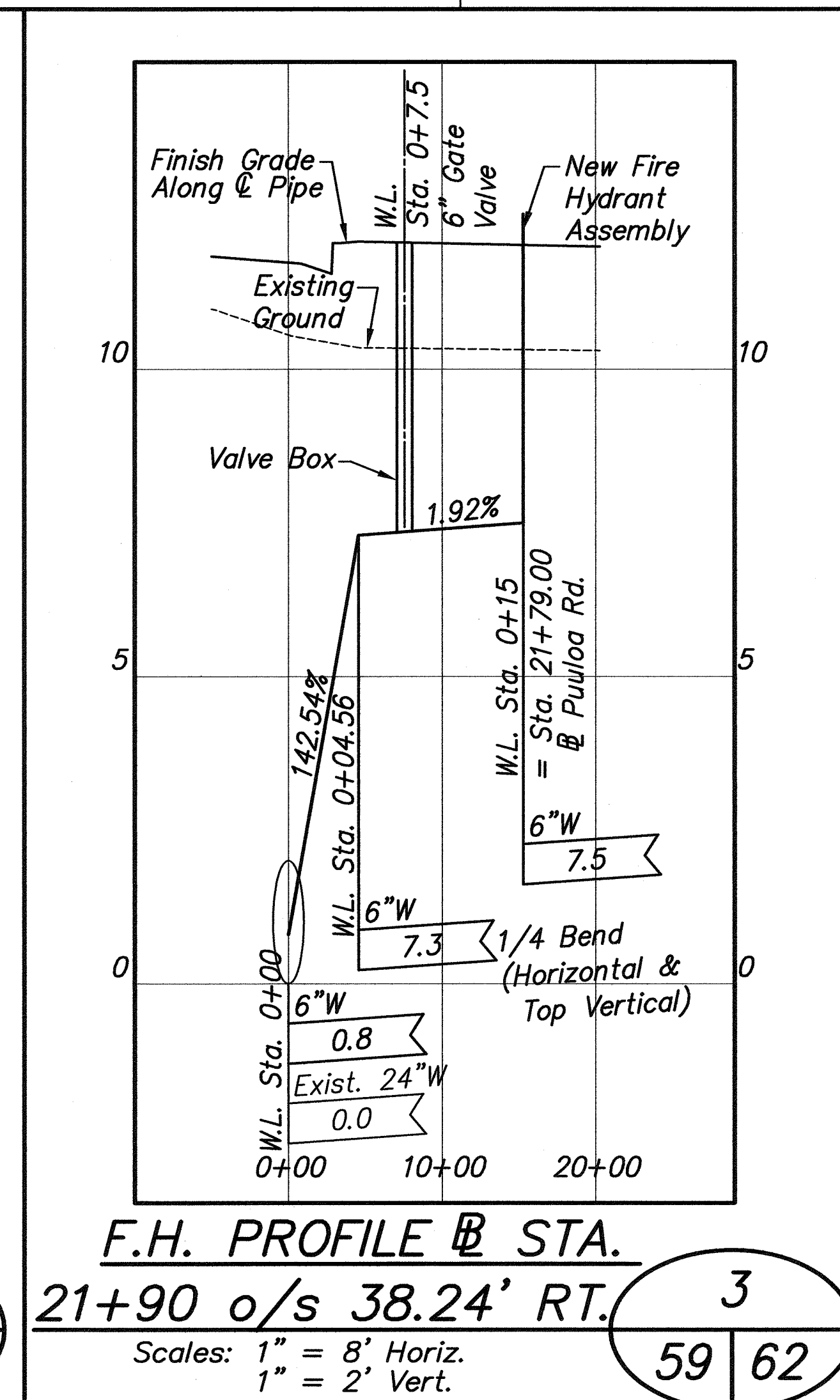
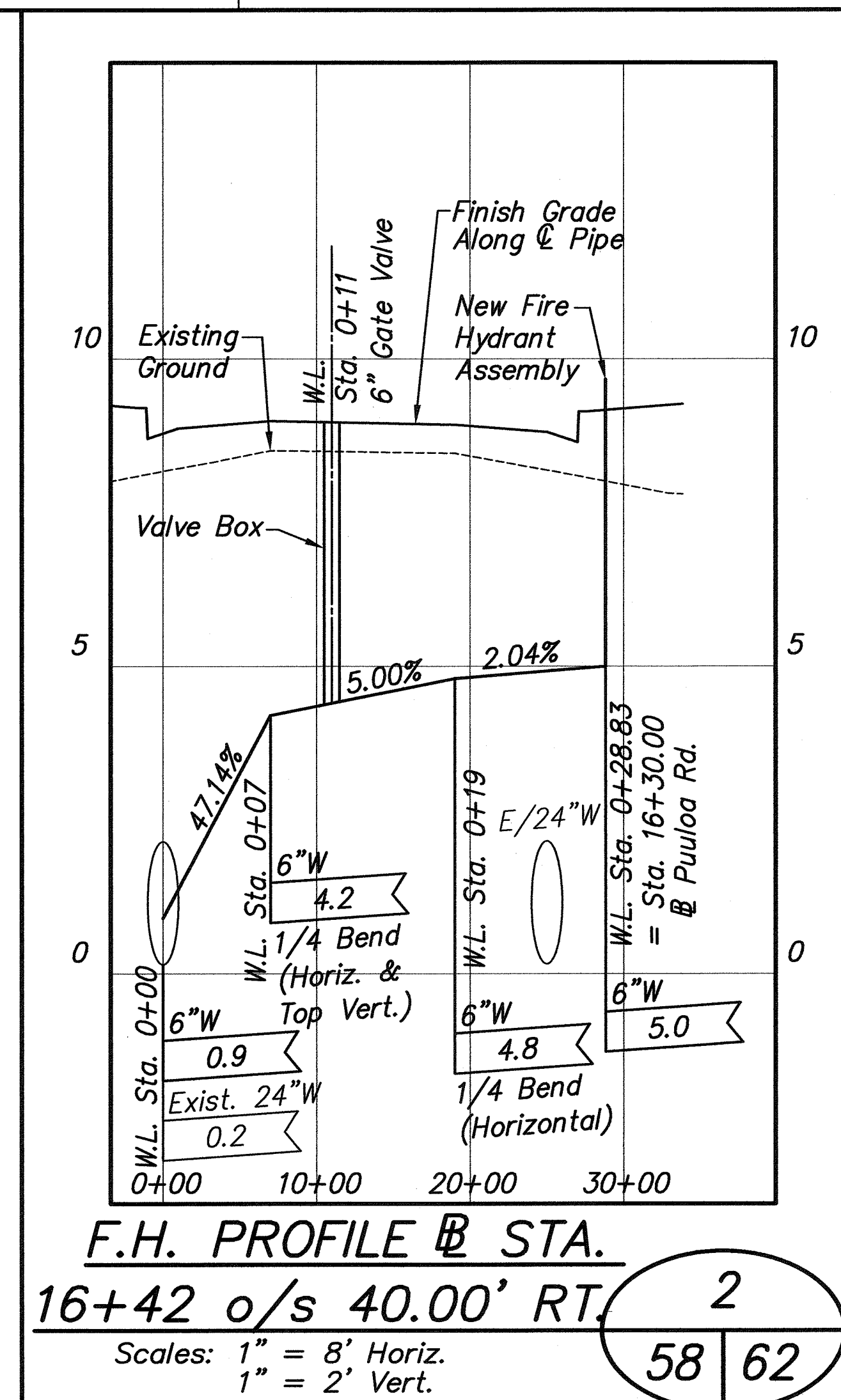
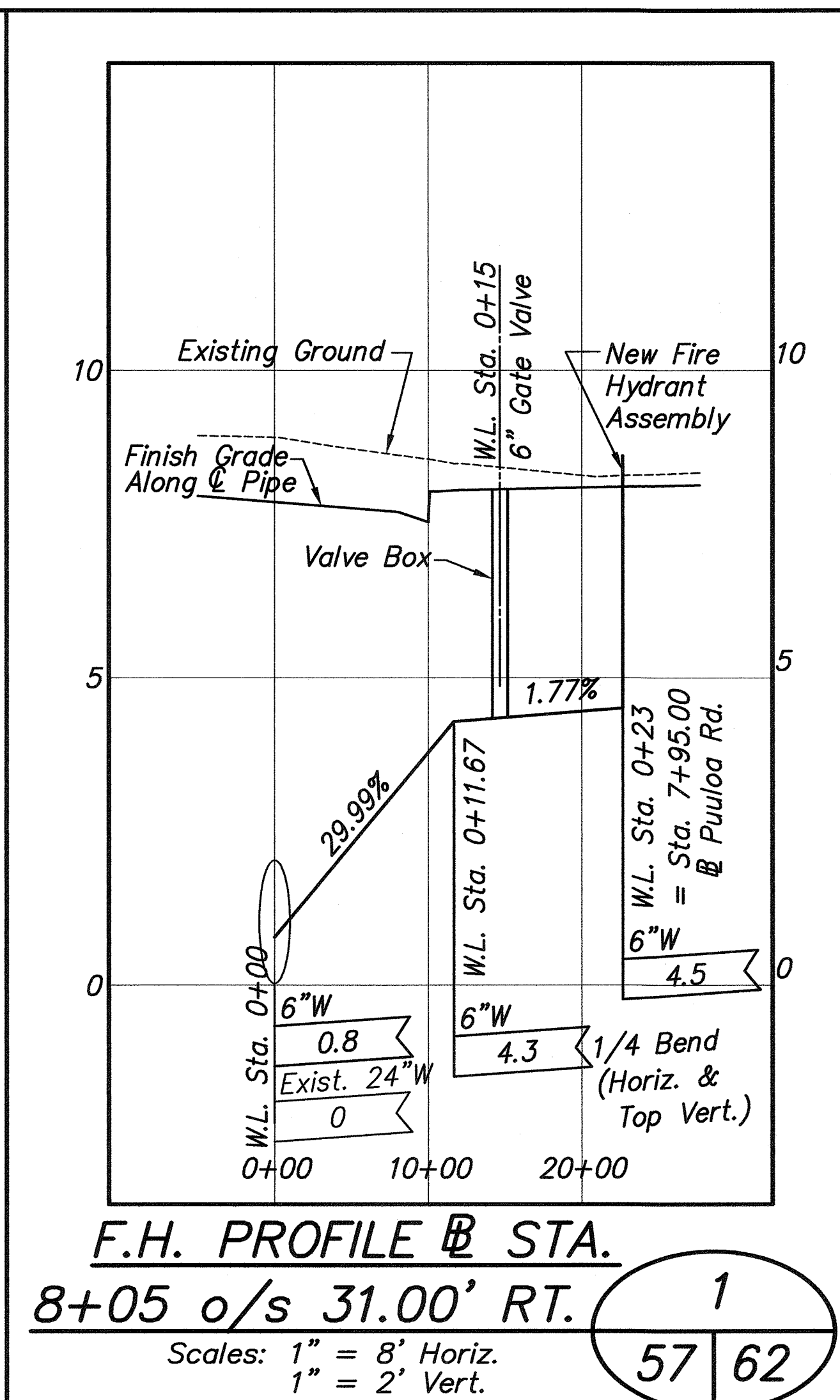
Date: May 2003

SHEET NO. 61 OF 193 SHEETS

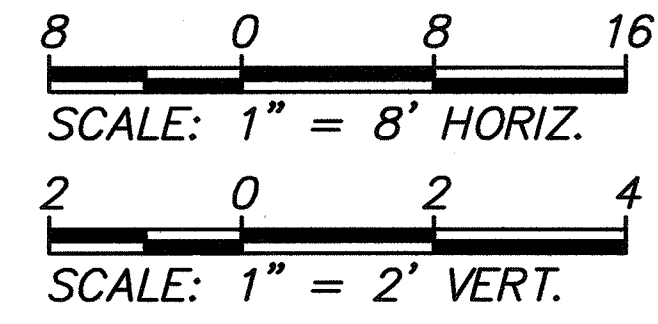
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SCALE: 1"=1'

DATE	
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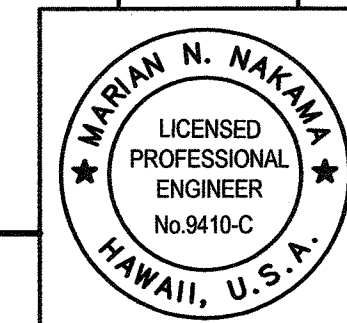
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APPROVED:

Signature
Principal Executive, Maintenance Unit, B.W.S.

7/24/08
Date



4	12/21/07	Revised 24" Water Line Adj.	AA
3	2/25/04	Added Jacket Details	AA
SYMBOL	DATE	REVISION	BY
STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION			
UTILITY ADJUSTMENT DETAILS			
PUULOLO ROAD IMPROVEMENTS Kamehameha Hwy. to Salt Lake Blvd. Federal Aid Project No. STP-7310(1)			
Scale: As shown Date: May 2003			
SHEET NO. 62 OF 193 SHEETS			

C.O. ADD. 62