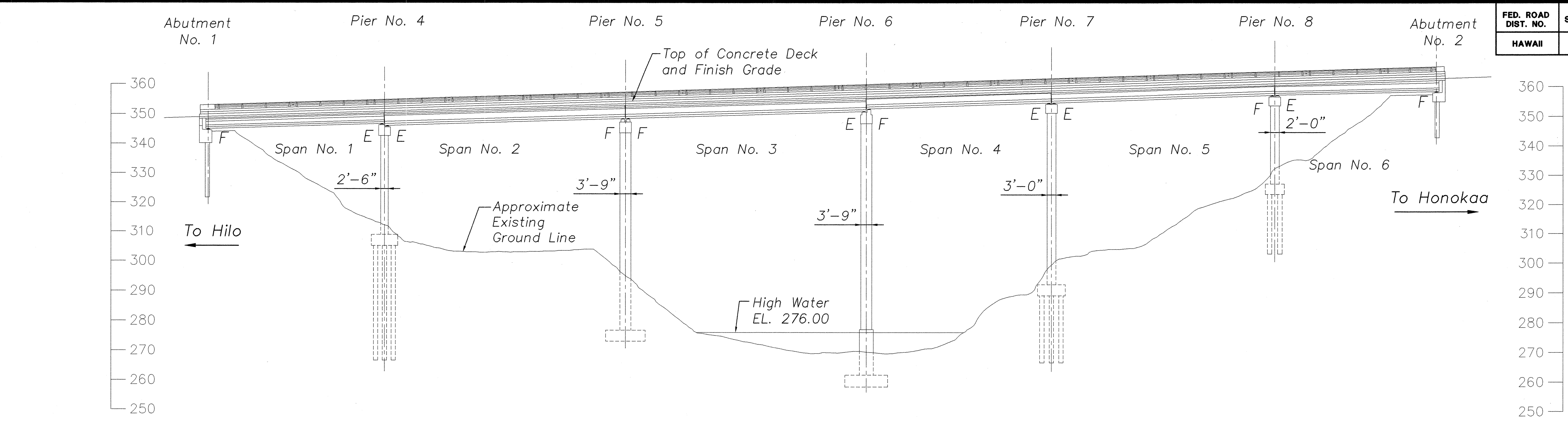


| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII | HAW. | BR-0100(57) | 2001 | 13 | 88 |

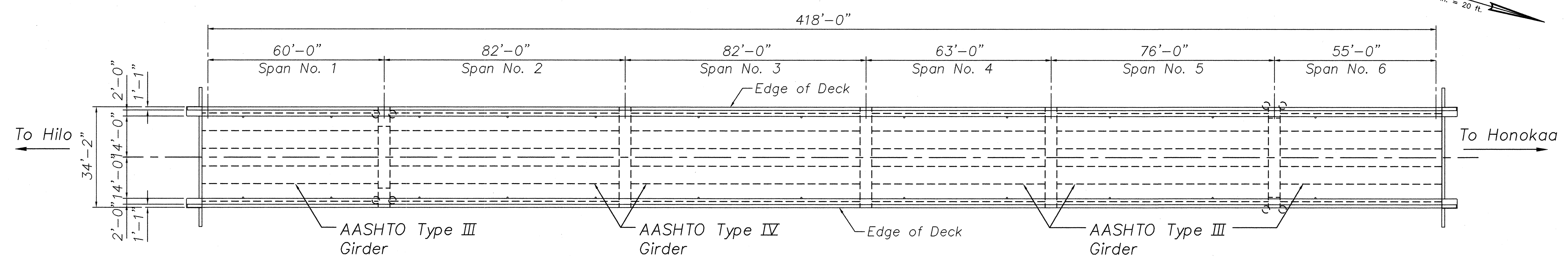


ELEVATION
Scale: 1" = 20'

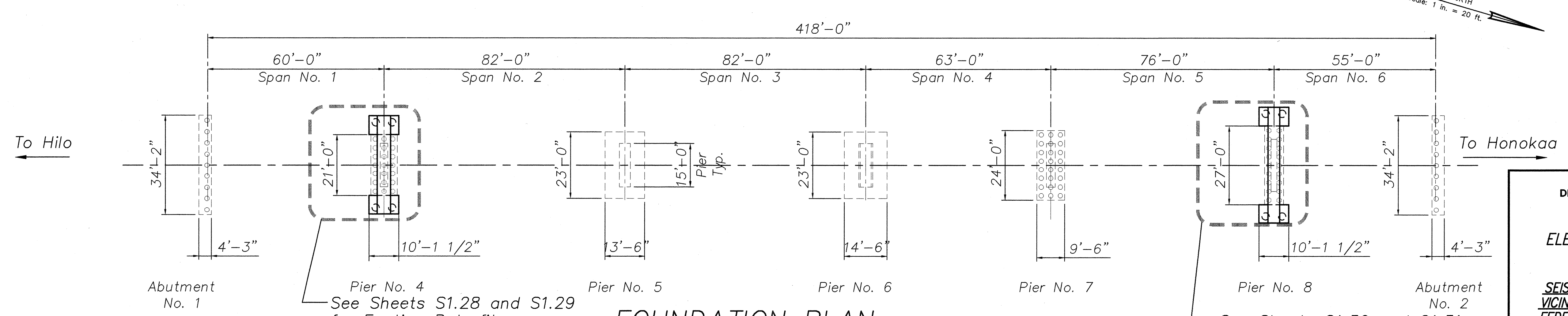
LEGEND

F Fixed End
E Expansion End

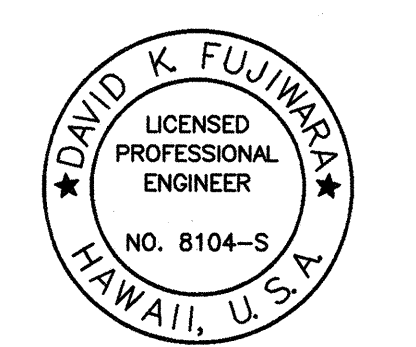
For Seismic Retrofit Table, See Sheet S1.2



DECK FRAMING PLAN
Scale: 1" = 20'



FOUNDATION PLAN
Scale: 1" = 20'



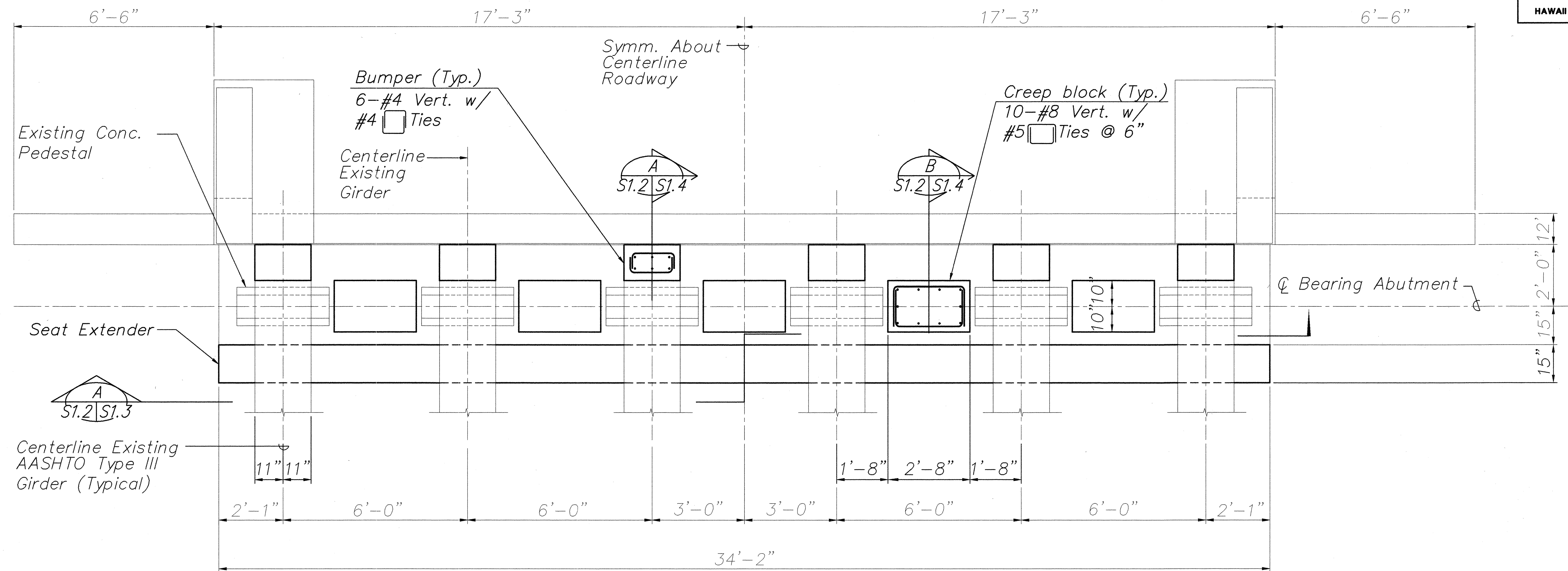
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
HANAWI BRIDGE
ELEVATION, DECK FRAMING AND
FOUNDATION PLANS
HAWAII BELT ROAD
SEISMIC RETROFIT OF VARIOUS BRIDGES
VICINITY OF PEPEKEO, HAWAII - UNIT 1
FEDERAL-AID PROJECT NO. BR-0100(57)
SCALE: AS NOTED
DATE: March 2001
SHEET No. S1.1 OF 76 SHEETS

13

| | |
|-------------------|-------|
| DATE | _____ |
| SURVEY PLOTTED BY | _____ |
| DRAWN BY | _____ |
| CHECKED BY | _____ |
| NOTED BY | _____ |
| QUANTITIES BY | _____ |
| ORIGINAL PLAN | _____ |
| NOTE BOOK | _____ |
| No. | _____ |

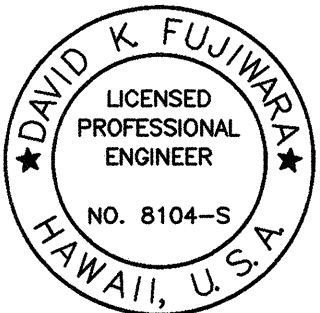
| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII | HAW. | BR-0100(57) | 2001 | ADD.14 | 88 |



ABUTMENTS NO. 1 & NO. 2 - PLAN
Scale: 1/2" = 1'-0"

| HANAWI BRIDGE RETROFITS | | | | |
|-------------------------------|---------------------------|----------|-------|--|
| ITEM | LOCATION | QUANTITY | | REFERENCE DRAWINGS |
| | | PER LOC. | TOTAL | |
| Creep block | Abutments No. 1 and No. 2 | 5 | 10 | S1.2, S1.3, S1.4 |
| Diaphragm | Abutments No. 1 and No. 2 | 5 | 10 | S1.3, S1.4 |
| Longitudinal Bumper | Abutments No. 1 and No. 2 | 6 | 12 | S1.2, S1.4 |
| Seat Extender | Abutments No. 1 and No. 2 | 1 | 2 | S1.2, S1.3, S1.4 |
| Creep block | Piers No. 4, 5, 6, 7, 8 | 10 | 50 | S1.5 to S1.9, S1.11 to S1.14, S1.16 to S1.20, S1.22 to S1.26 |
| Diaphragm | Piers No. 4, 5, 6, 7, 8 | 10 | 50 | S1.6 to S1.8, S1.12, S1.13, S1.17 to S1.19, S1.23, S1.24 |
| Footing | Piers No. 4, 8 | 1 | 2 | S1.1, S1.28, S1.29, S1.30, S1.31 |
| Seat Extender | Piers No. 4, 5, 6, 7, 8 | 12 | 60 | S1.5 to S1.9, S1.11 to S1.14, S1.16 to S1.20, S1.22 to S1.26 |
| Type II Dual Cable Restrainer | Piers No. 4, 5, 6, 7, 8 | 10 | 50 | S1.10, S1.15, S1.21, S1.27, S6.2, S6.3, S6.4 |

| | |
|-------------------|------|
| DATE | ____ |
| SURVEY PLOTTED BY | ____ |
| DRAWN BY | ____ |
| DESIGNED BY | ____ |
| CHECKED BY | ____ |
| NOTE BOOK | ____ |
| No. | ____ |



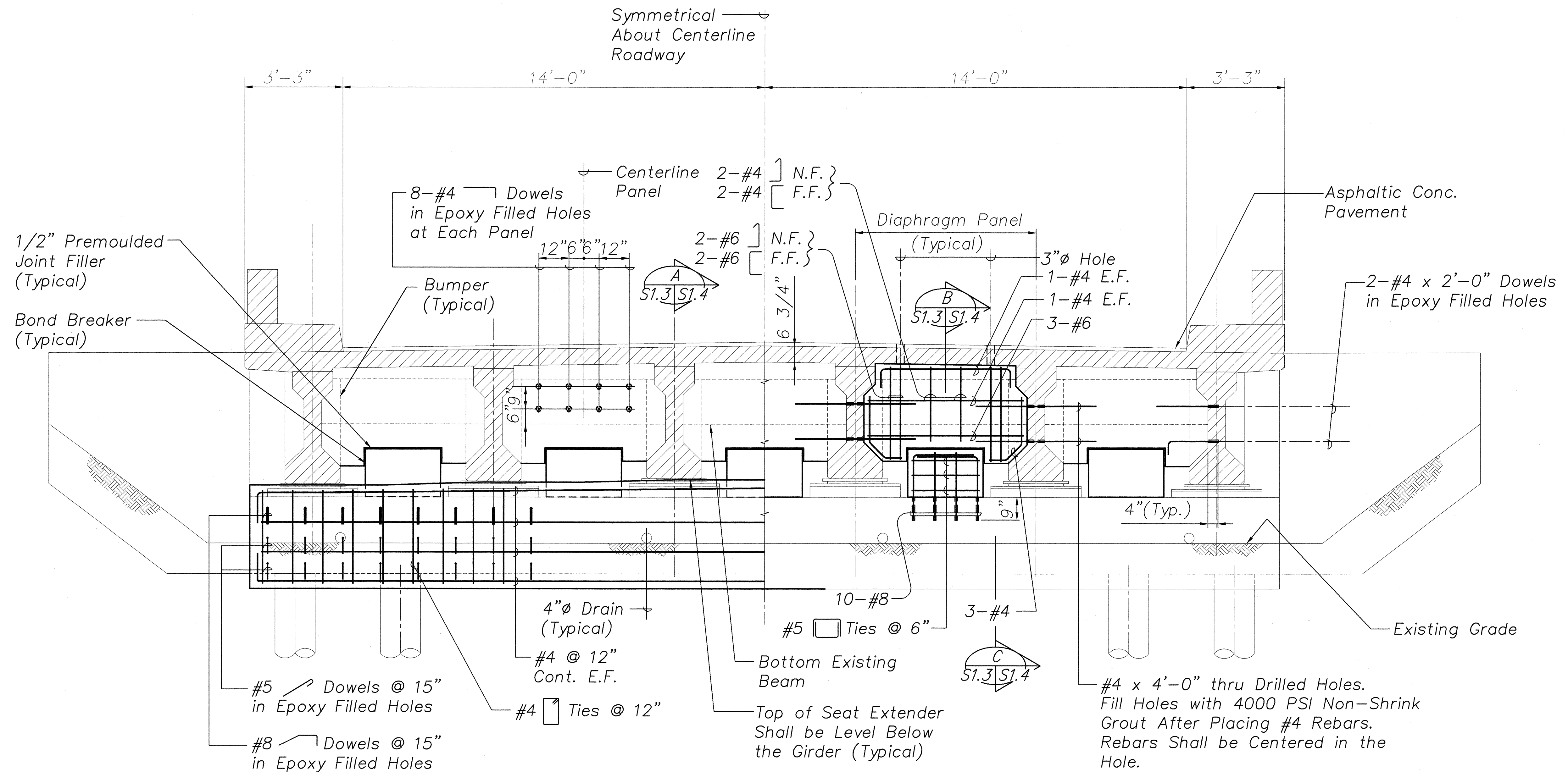
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| | |
|---------|--|
| 6/19/01 | Revise Location, Total and Reference Drawing Columns for Footing in Retrofit Table |
| DATE | REVISION |

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
HANAWI BRIDGE
ABUTMENTS NO.1 AND NO. 2
PLAN
HAWAII BELT ROAD
SEISMIC RETROFIT OF VARIOUS BRIDGES
VICINITY OF PEPEEKEO, HAWAII - UNIT 1
FEDERAL-AID PROJECT NO. BR-0100(57)

SCALE: AS NOTED
DATE: March 2001
SHEET No. S1.2 OF 76 SHEETS

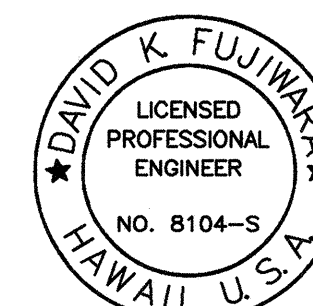
| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII | HAW. | BR-0100(57) | 2001 | 15 | 88 |



ABUTMENTS NO. 1 & NO. 2 - ELEVATION A
Scale: 1/2" = 1'-0"

NOTES:

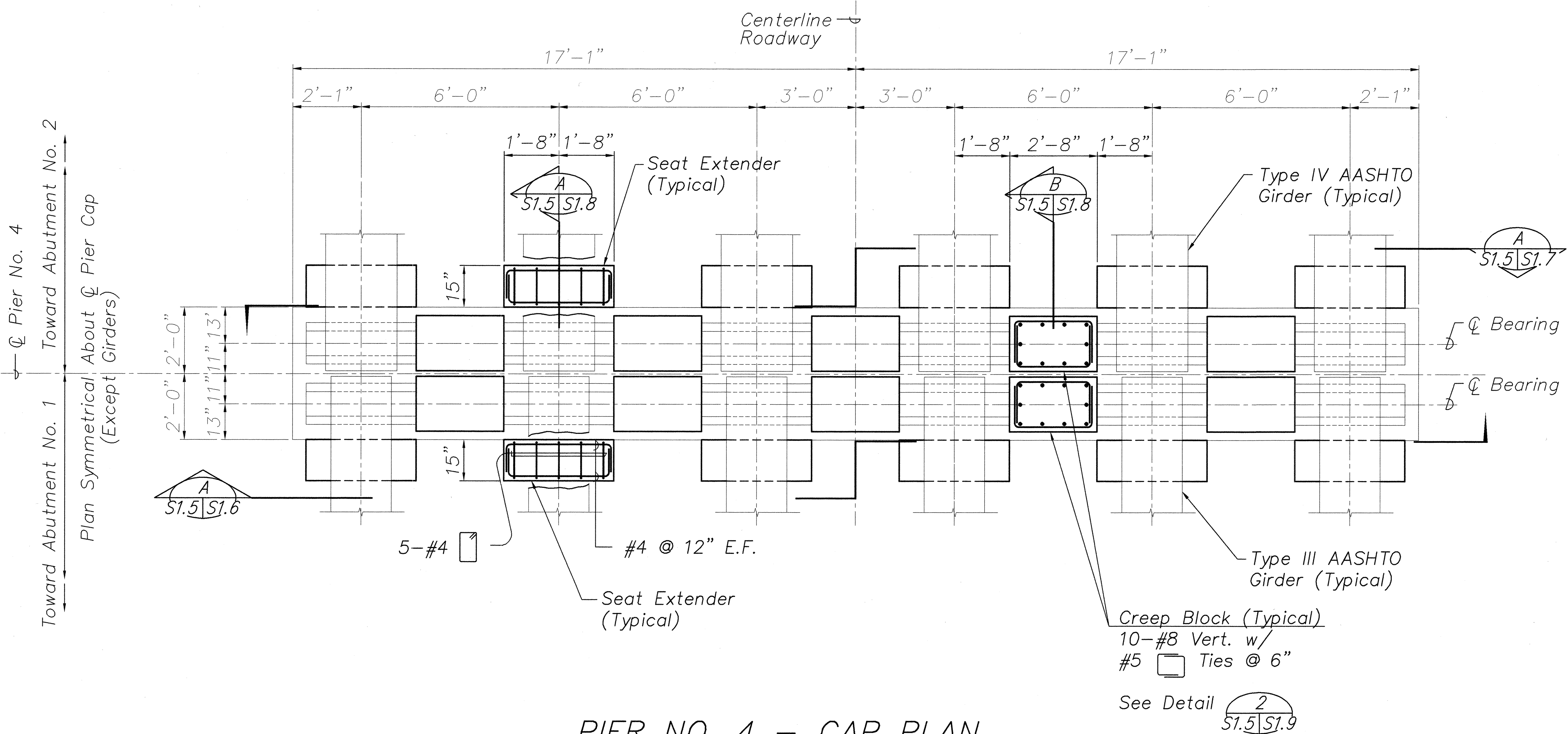
1. The Contractor Shall Verify All Controlling Field Dimensions Before Ordering or Fabricating Material.
2. Location of Drilled Holes Shown in Plans are Approximate. Prior to Placing Holes in Concrete, the Contractor Shall Locate All Reinforcing Steel and Adjust the Location of the Holes to Clear All Reinforcing Bars. Final Hole Locations are Subject to the Approval of the Engineer.



David K. Fujiwara
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
HAWAII BRIDGE
ABUTMENTS NO.1 AND NO. 2
ELEVATION
HAWAII BELT ROAD
SEISMIC RETROFIT OF VARIOUS BRIDGES
VICINITY OF PEPEKEO, HAWAII - UNIT 1
FEDERAL-AID PROJECT NO. BR-0100(57)
SCALE: AS NOTED DATE: March 2001
SHEET No. S1.3 OF 76 SHEETS

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII | HAW. | BR-0100(57) | 2001 | 17 | 88 |



PIER NO. 4 - CAP PLAN
Scale: 1/2" = 1'-0"

NOTES:

1. The Contractor Shall Verify All Controlling Field Dimensions Before Ordering or Fabricating Material.
2. Location of Drilled Holes Shown in Plans are Approximate. Prior to Placing Holes in Concrete, the Contractor Shall Locate All Reinforcing Steel and Adjust the Location of the Holes to Clear All Reinforcing Bars. Final Hole Locations are Subject to the Approval of the Engineer.

DAVID K. FUJIMURA
LICENSED PROFESSIONAL ENGINEER
NO. 8104-S
HAWAII, U.S.A.
David K. Fujimura
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
HANAWAI BRIDGE

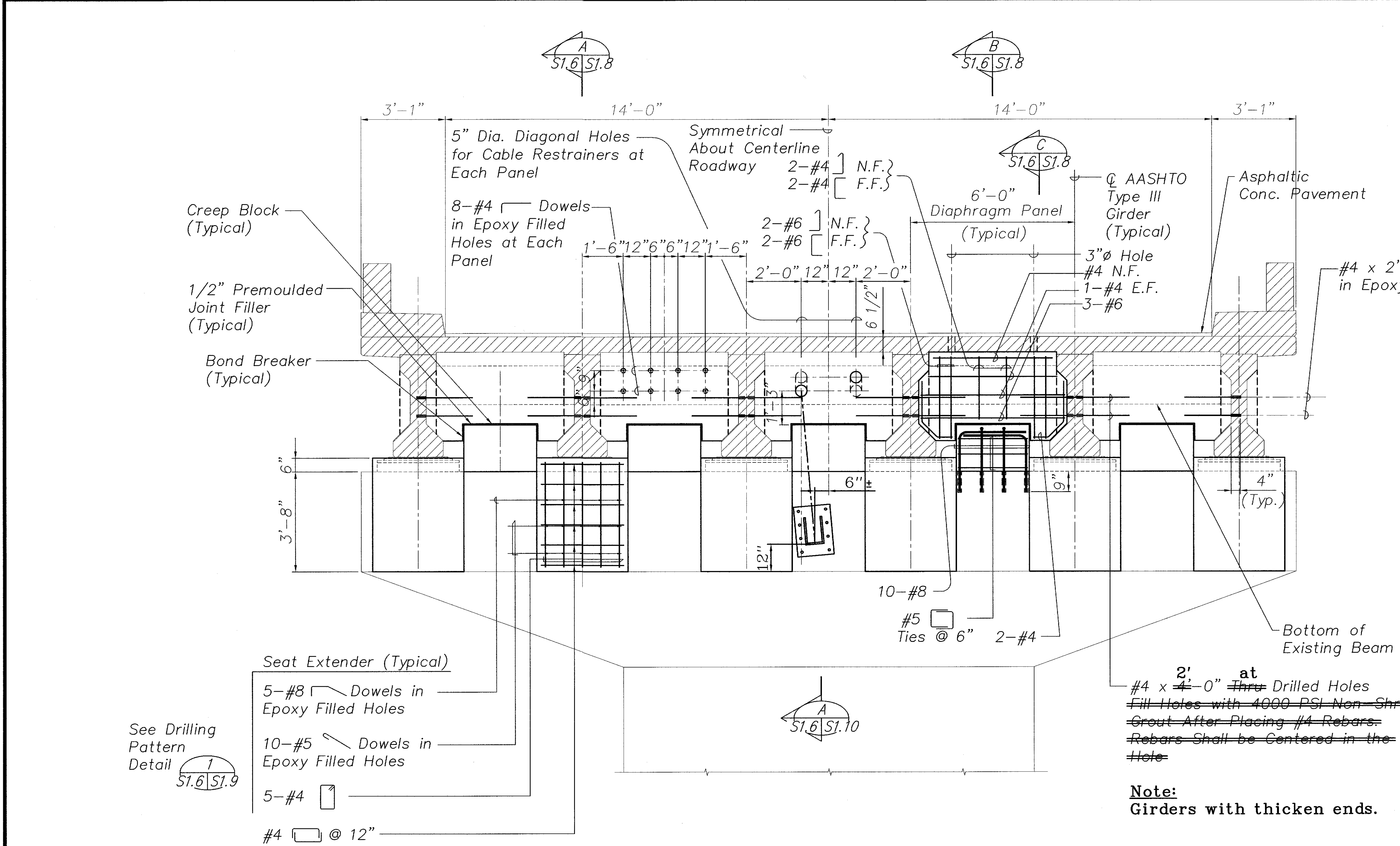
PIER NO.4 - CAP PLAN

HAWAII BELT ROAD
SEISMIC RETROFIT OF VARIOUS BRIDGES
VICINITY OF PEPEKEO, HAWAII - UNIT 1
FEDERAL-AID PROJECT NO. BR-0100(57)
SCALE: AS NOTED DATE: March 2001

SHEET No. S1.5 OF 76 SHEETS

| | |
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| SURVEY PLOTTED BY | DATE |
| DRAWN BY | |
| TRACED BY | |
| DESIGNED BY | |
| CHECKED BY | |
| ORIGINAL PLAN | |
| NOTE BOOK | |
| No. | |

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII | HAW. | BR-0100(57) | 2001 | 18 | 88 |



NOTES:

1. The Contractor Shall Verify All Controlling Field Dimensions Before Ordering or Fabricating Material.
2. Location of Drilled Holes Shown in Plans are Approximate. Prior to Placing Holes in Concrete, the Contractor Shall Locate All Reinforcing Steel and Adjust the Location of the Holes to Clear All Reinforcing Bars. Final Hole Locations are Subject to the Approval of the Engineer.

PIER NO. 4 - CAP ELEVATION
Scale: 1/2" = 1'-0"

| LEGEND FOR AS-BUILT POSTINGS | |
|------------------------------|-------------------------------------|
| | Squiggly line for as-built deletion |
| | Double line for as-built deletion |
| | Text for as-built posting |

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

HANAWAI BRIDGE

PIER NO.4 - CAP ELEVATION

HAWAII BELT ROAD

SEISMIC RETROFIT OF VARIOUS BRIDGES

VICINITY OF PEPEKEO, HAWAII - UNIT 1

FEDERAL-AID PROJECT NO. BR-0100(57)

SCALE: AS NOTED

DATE: March 2001

SHEET No. S1.6 OF 76

SHEETS

DAVID K. FUJIMURA

LICENSED PROFESSIONAL ENGINEER

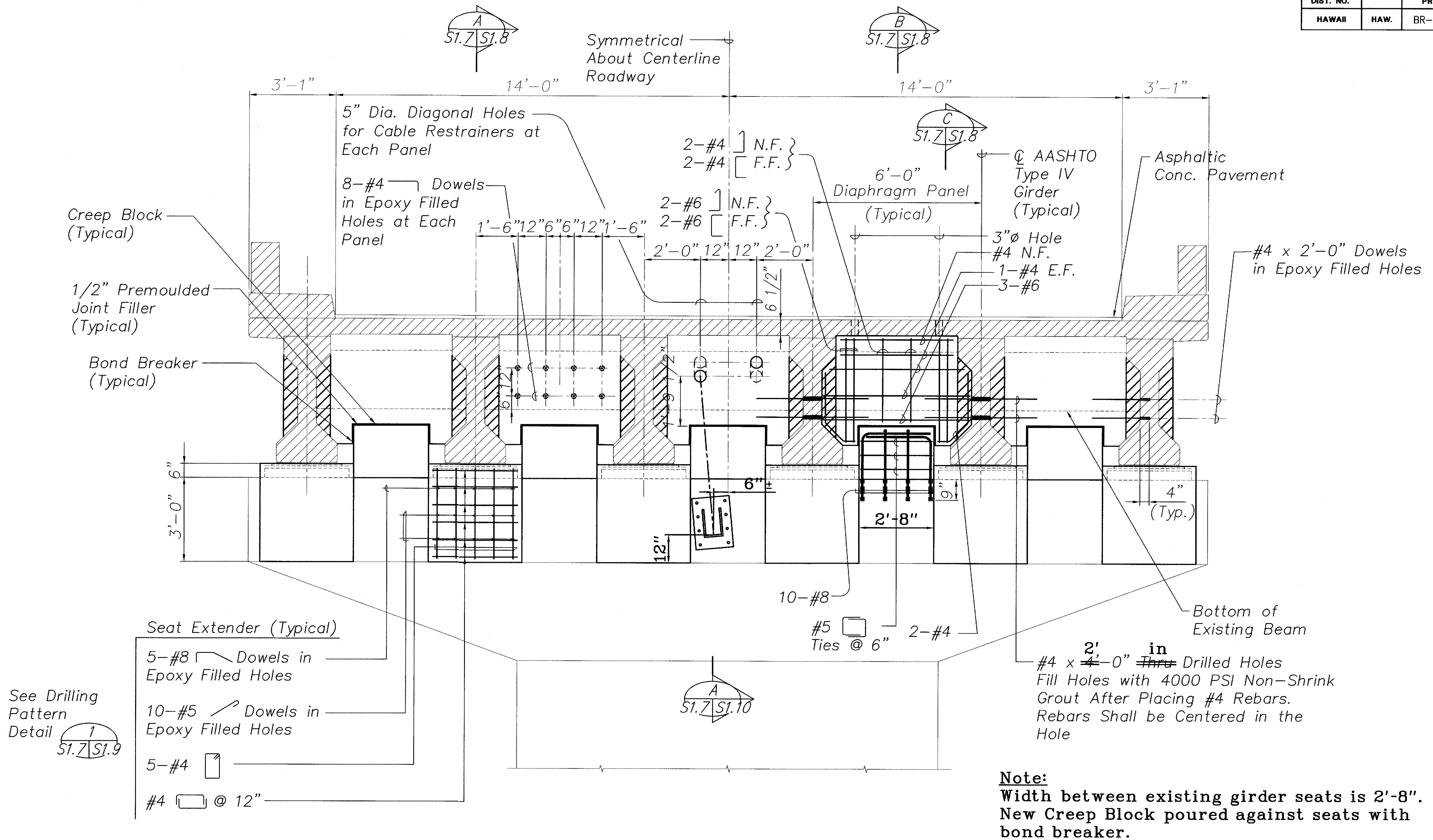
NO. 8104-S

HAWAII, U.S.A.

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

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII | HAW. | BR-0100(57) | 2001 | 19 | 88 |



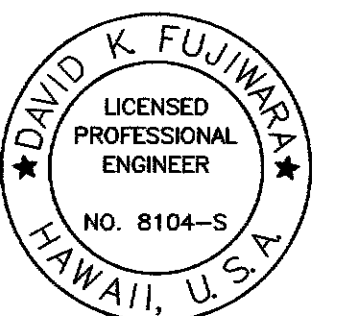
NOTES:

- The Contractor Shall Verify All Controlling Field Dimensions Before Ordering or Fabricating Material.
- Location of Drilled Holes Shown in Plans are Approximate. Prior to Placing Holes in Concrete, the Contractor Shall Locate All Reinforcing Steel and Adjust the Location of the Holes to Clear All Reinforcing Bars. Final Hole Locations are Subject to the Approval of the Engineer.

PIER NO. 4 - CAP ELEVATION
Scale: 1/2" = 1'-0"

| LEGEND FOR AS-BUILT POSTINGS | |
|------------------------------|-------------------------------------|
| | Squiggly line for as-built deletion |
| | Double line for as-built deletion |
| | Text for as-built posting |

Note:
Width between existing girder seats is 2'-8".
New Creep Block poured against seats with bond breaker.

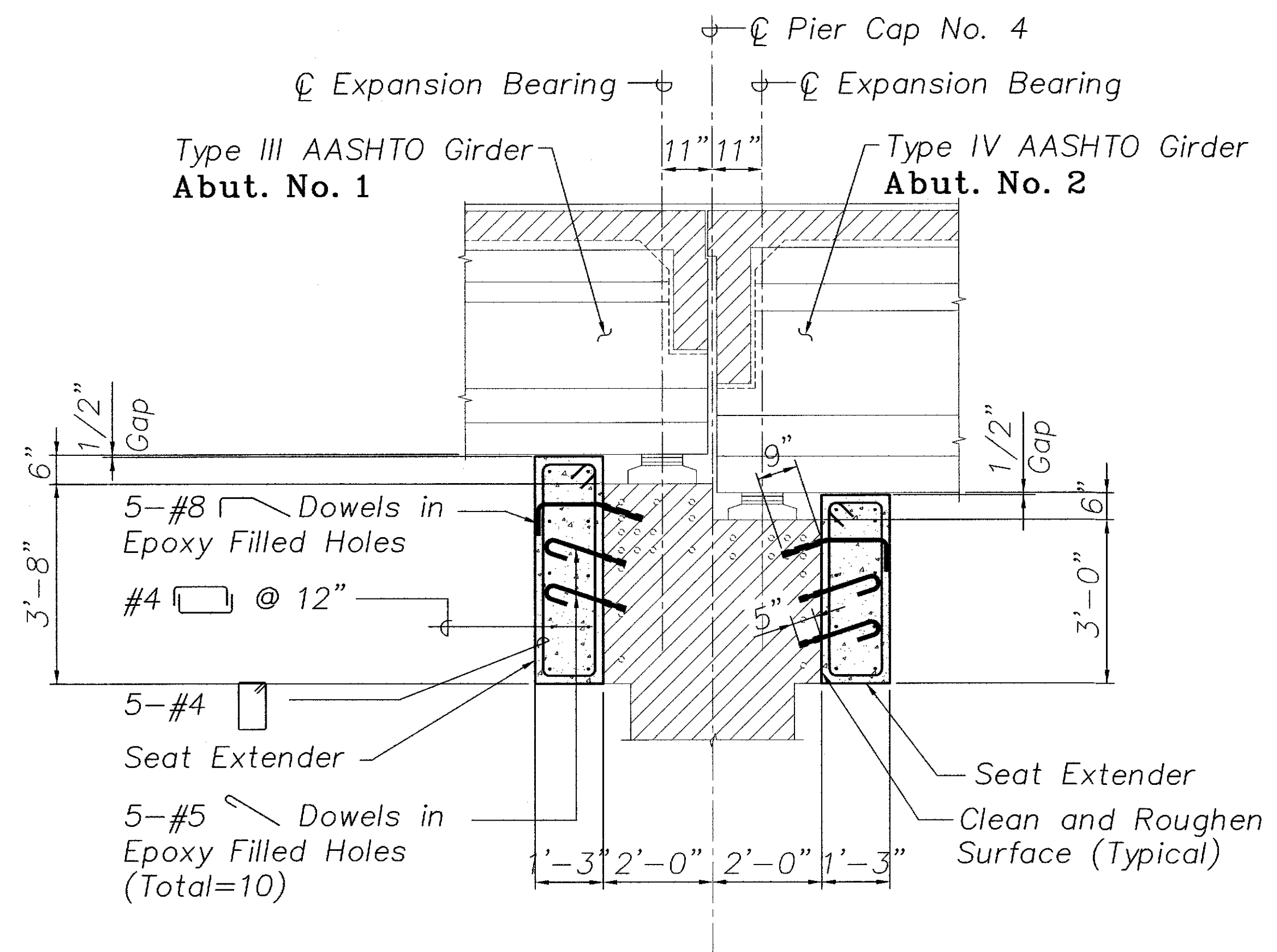


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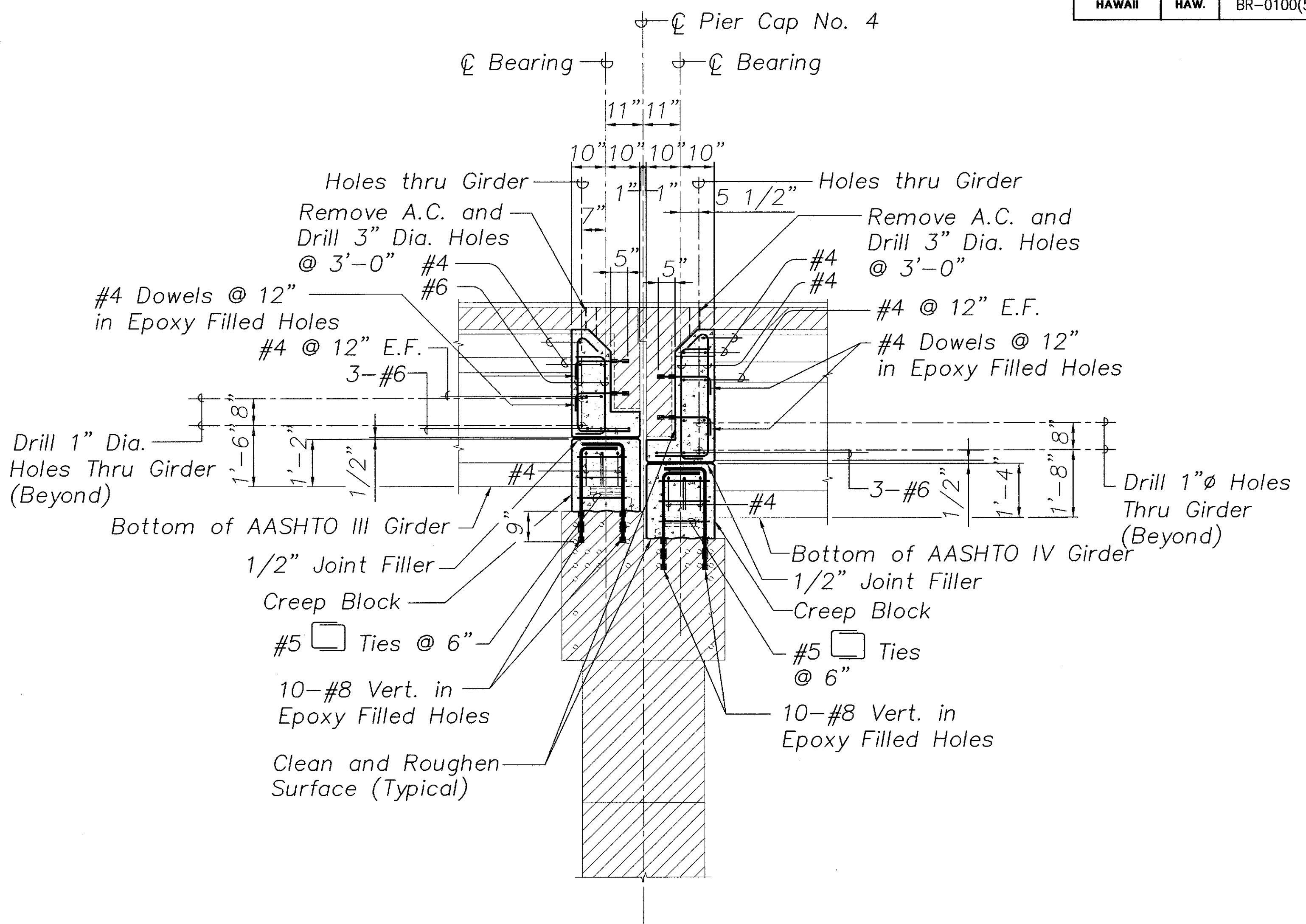
| |
|---|
| STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION HANAWAI BRIDGE PIER NO.4 - CAP ELEVATION HAWAII BELT ROAD SEISMIC RETROFIT OF VARIOUS BRIDGES VICINITY OF PEPEKEO, HAWAII - UNIT 1 FEDERAL-AID PROJECT NO. BR-0100(57) SCALE: AS NOTED DATE: March 2001 SHEET No. S1.7 OF 76 SHEETS |
|---|

"AS-BUILT"

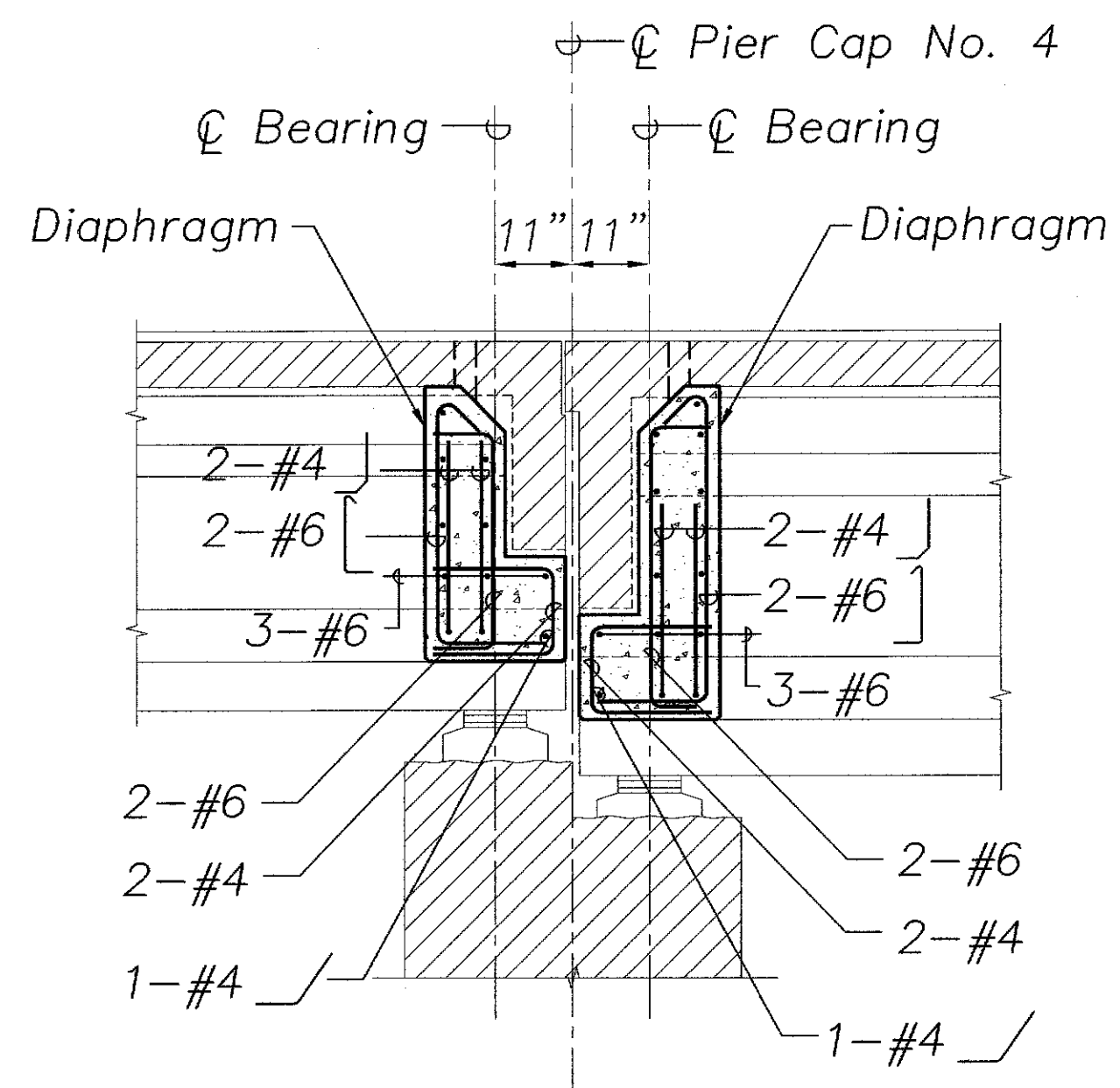
| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII | HAW. | BR-0100(57) | 2001 | 20 | 88 |



SECTION A
 Scale: 1/2" = 1'-0"
 S1.6, S1.7 S1.5 S1.8



SECTION B
 Scale: 1/2" = 1'-0"
 S1.6, S1.7, S1.9, S1.10 S1.5 S1.8



See Section S1.8 S1.7
 For Additional Details

SECTION C
 Scale: 1/2" = 1'-0"
 S1.7 S1.6 S1.8

NOTES:

1. The Contractor Shall Verify All Controlling Field Dimensions Before Ordering or Fabricating Material.
2. Location of Drilled Holes Shown in Plans are Approximate. Prior to Placing Holes in Concrete, the Contractor Shall Locate All Reinforcing Steel and Adjust the Location of the Holes to Clear All Reinforcing Bars. Final Hole Locations are Subject to the Approval of the Engineer.
3. When Pouring Concrete Thru 3" Diameter Holes There Shall Be No Void Spaces, Entrapped Air, or Entrapped Water.
4. After Pouring Concrete to Top of Deck, A.C. shall be Replaced to Original Elevation. Do not Place A.C. Until Concrete has Sufficiently Hardened.
5. For Lane Closures, see Specifications.
6. Drilling of 3" Diameter Holes and Removing and Replacing A.C. Shall be Considered Incidental to the Various Contract Items in the Contract.

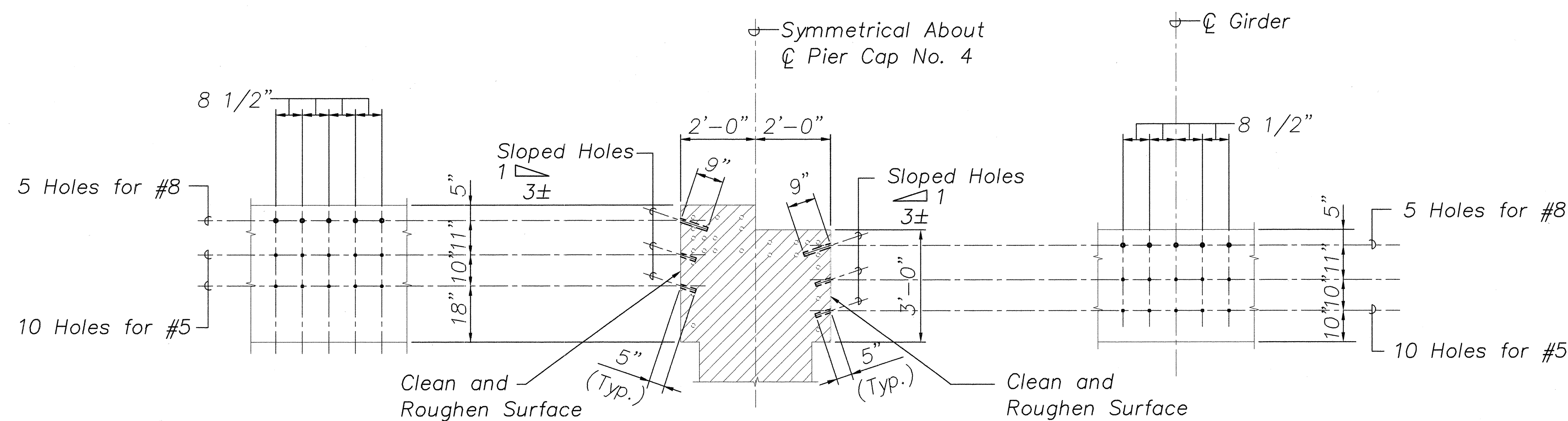
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|------------------------------|-------------------------------------|
| | Squiggly line for as-built deletion |
| | Double line for as-built deletion |
| | Text for as-built posting |

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| DRAWN BY | |
| CHECKED BY | |
| NOTE BOOK | |
| No. | |

DAVID K. FUJIMURA
 LICENSED PROFESSIONAL ENGINEER
 NO. 8104-S
 HAWAII, U.S.A.
David K. Fujimura
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STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
 HANAWAI BRIDGE
 PIER NO.4 - CAP SECTIONS
 HAWAII BELT ROAD
 SEISMIC RETROFIT OF VARIOUS BRIDGES
 VICINITY OF PEPEKEO, HAWAII - UNIT 1
 FEDERAL-AID PROJECT NO. BR-0100(57)
 SCALE: AS NOTED DATE: March 2001
 SHEET No. S1.8 OF 76 SHEETS

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII | HAW. | BR-0100(57) | 2001 | 21 | 88 |

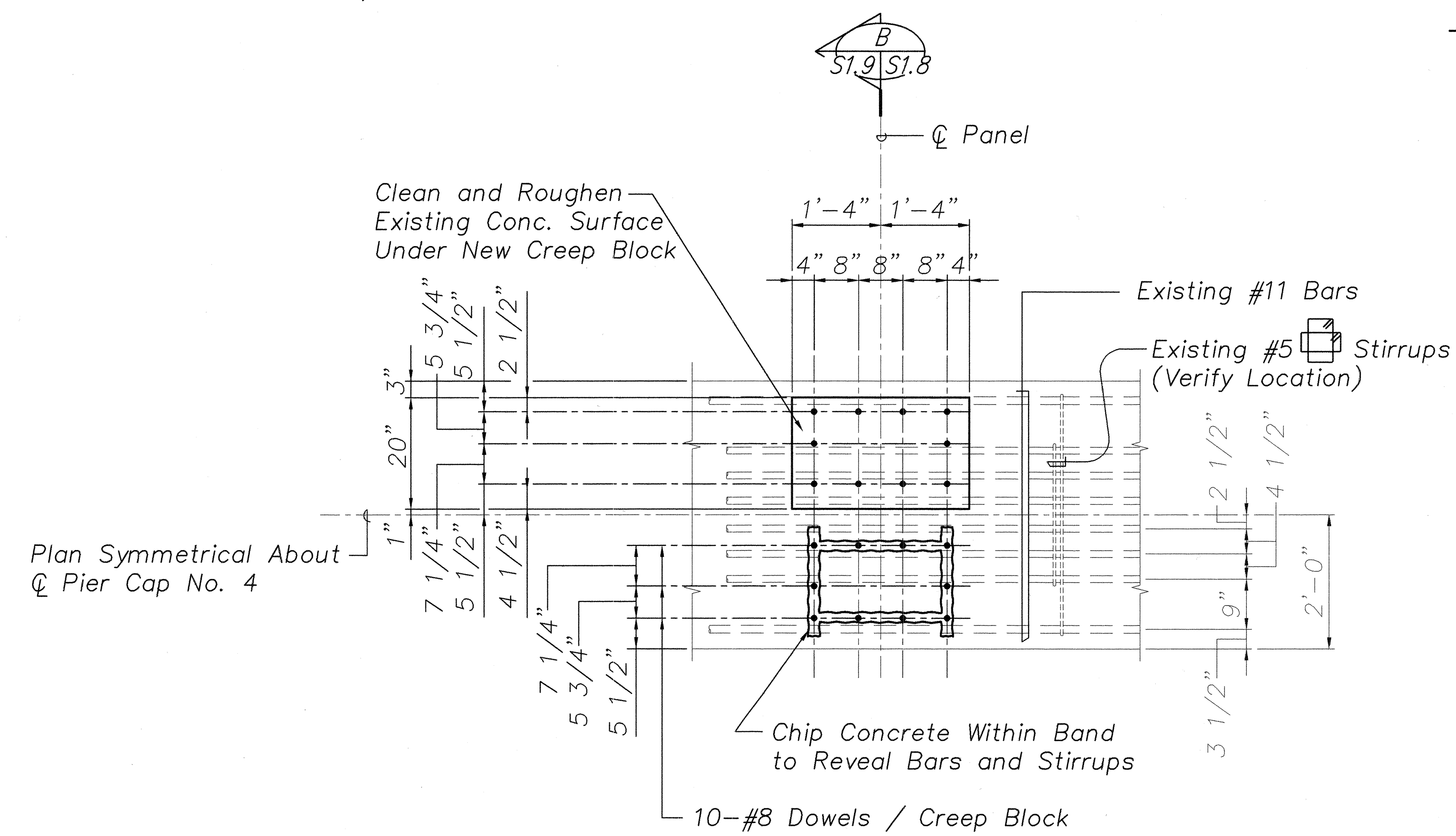


ELEVATION SECTION ELEVATION

TYPICAL DRILLING PATTERN AT PIER NO. 4 SEAT EXTENDER

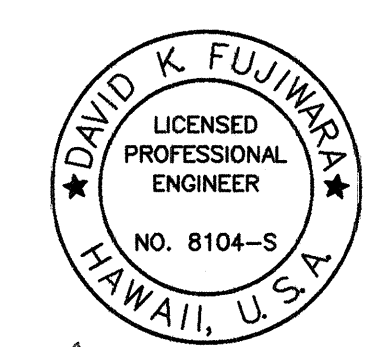
Scale: 1/2" = 1'-0"

1
S1.6 | S1.9
S1.7



WORK SEQUENCE

1. Chip Surface Concrete to Reveal Location of Top Bars and Stirrups. Existing Reinforcing Shall Remain Intact.
2. Notify Engineer Before Proceeding. He Will Make Necessary Adjustments to the Exact Location of the Dowels.
3. Drill Holes, Apply Epoxy Adhesive and Insert Dowels According to Manufacturer's Recommendations. The Full Strength of the Bars Shall be Developed.
4. Remove Excess Adhesive from Concrete Surface and Proceed with Remaining Work.



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STATE OF HAWAII
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HIGHWAYS DIVISION
HANAWAI BRIDGE
PIER NO.4 - DETAILS
HAWAII BELT ROAD
SEISMIC RETROFIT OF VARIOUS BRIDGES
VICINITY OF PEPEKEO, HAWAII - UNIT 1
FEDERAL-AID PROJECT NO. BR-0100(57)
SCALE: AS NOTED DATE: March 2001
SHEET No. S1.9 OF 76 SHEETS

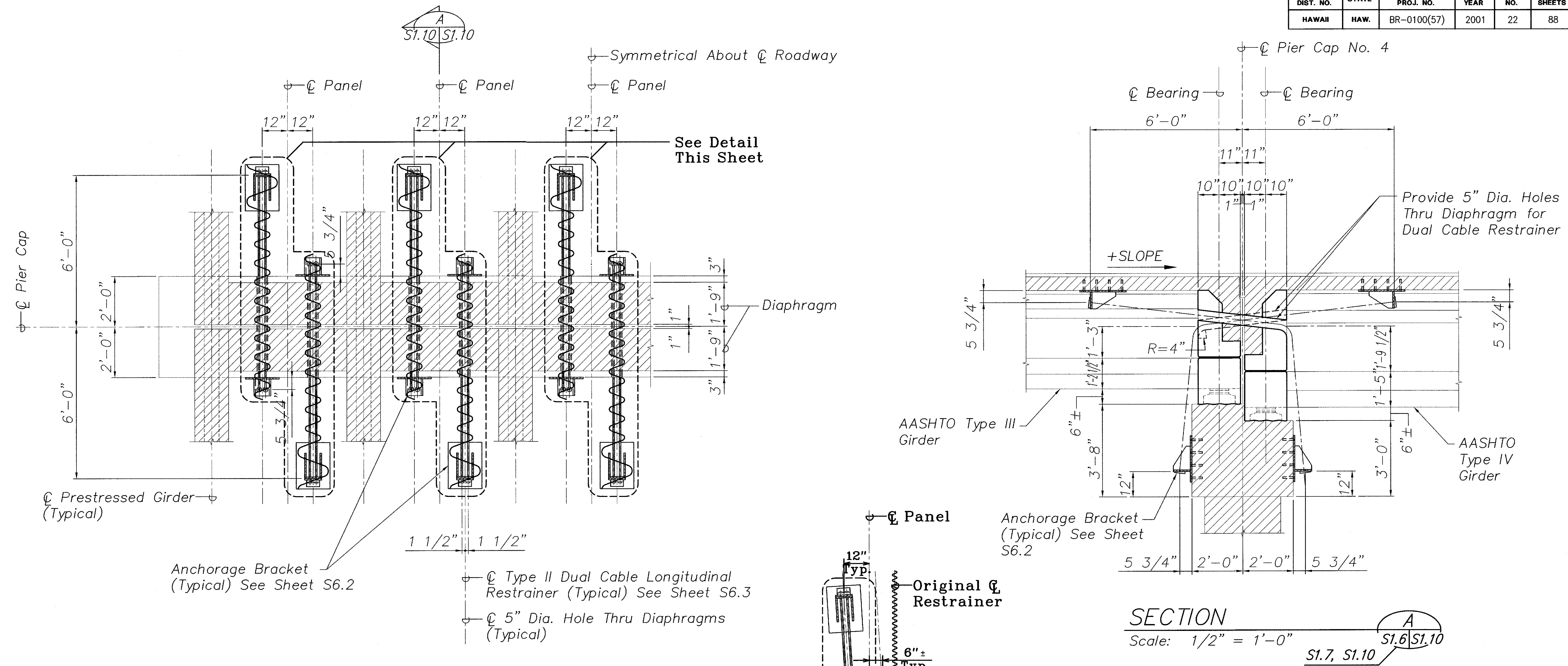
PIER NO. 4 CAP TYPE "A" (COL. 2'-6")
CREEP BLOCK DOWEL REINF. DETAIL

Scale: 3/4" = 1'-0"

2
S1.5 | S1.9

| | |
|-------------------|------|
| ORIGINAL PLAN | DATE |
| SURVEY PLOTTED BY | |
| DRAWN BY | |
| DESIGNED BY | |
| CHECKED BY | |
| NOTE BOOK | |
| No. | |

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII | HAW. | BR-0100(57) | 2001 | 22 | 88 |



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|---------------|-------|
| ORIGINAL PLAN | DATE |
| DRAWN BY | |
| CHECKED BY | |
| NOTED BY | |
| NO. | |

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 LICENSED PROFESSIONAL ENGINEER
 NO. 8104-S
 HAWAII, U.S.A.

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STATE OF HAWAII
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 HIGHWAYS DIVISION
 HANAWI BRIDGE

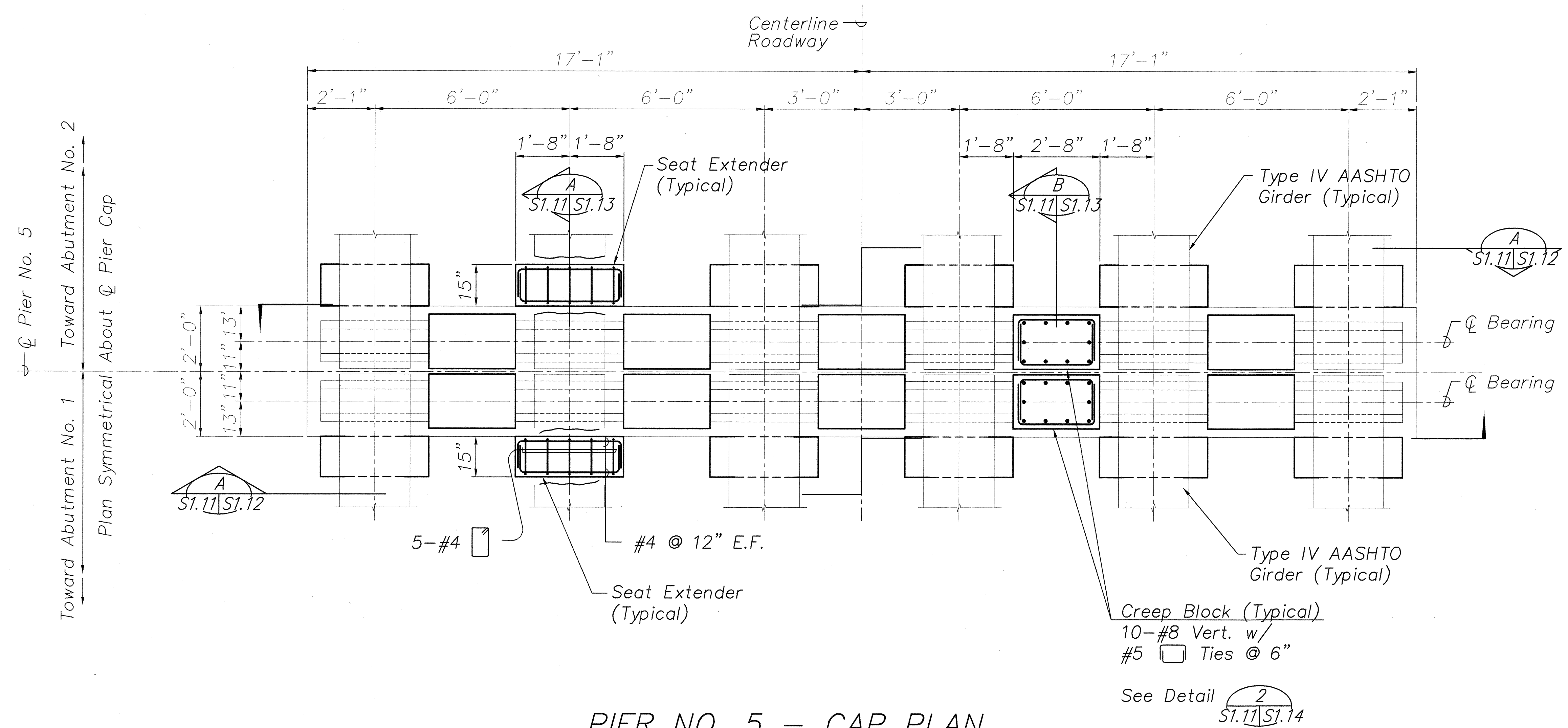
CABLE RESTRAINER SECTIONS

HAWAII BELT ROAD
 SEISMIC RETROFIT OF VARIOUS BRIDGES
 VICINITY OF PEPEKEO, HAWAII - UNIT 1
 FEDERAL-AID PROJECT NO. BR-0100(57)

SCALE: AS NOTED DATE: March 2001

SHEET No. S1.10 OF 76 SHEETS

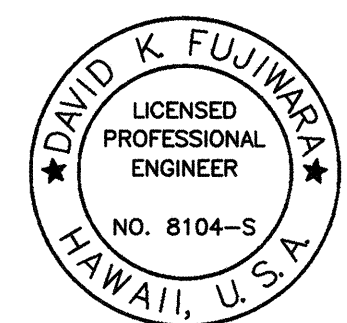
| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII | HAW. | BR-0100(57) | 2001 | 23 | 88 |



PIER NO. 5 - CAP PLAN
Scale: 1/2" = 1'-0"

NOTES:

1. The Contractor Shall Verify All Controlling Field Dimensions Before Ordering or Fabricating Material.
2. Location of Drilled Holes Shown in Plans are Approximate. Prior to Placing Holes in Concrete, the Contractor Shall Locate All Reinforcing Steel and Adjust the Location of the Holes to Clear All Reinforcing Bars. Final Hole Locations are Subject to the Approval of the Engineer.



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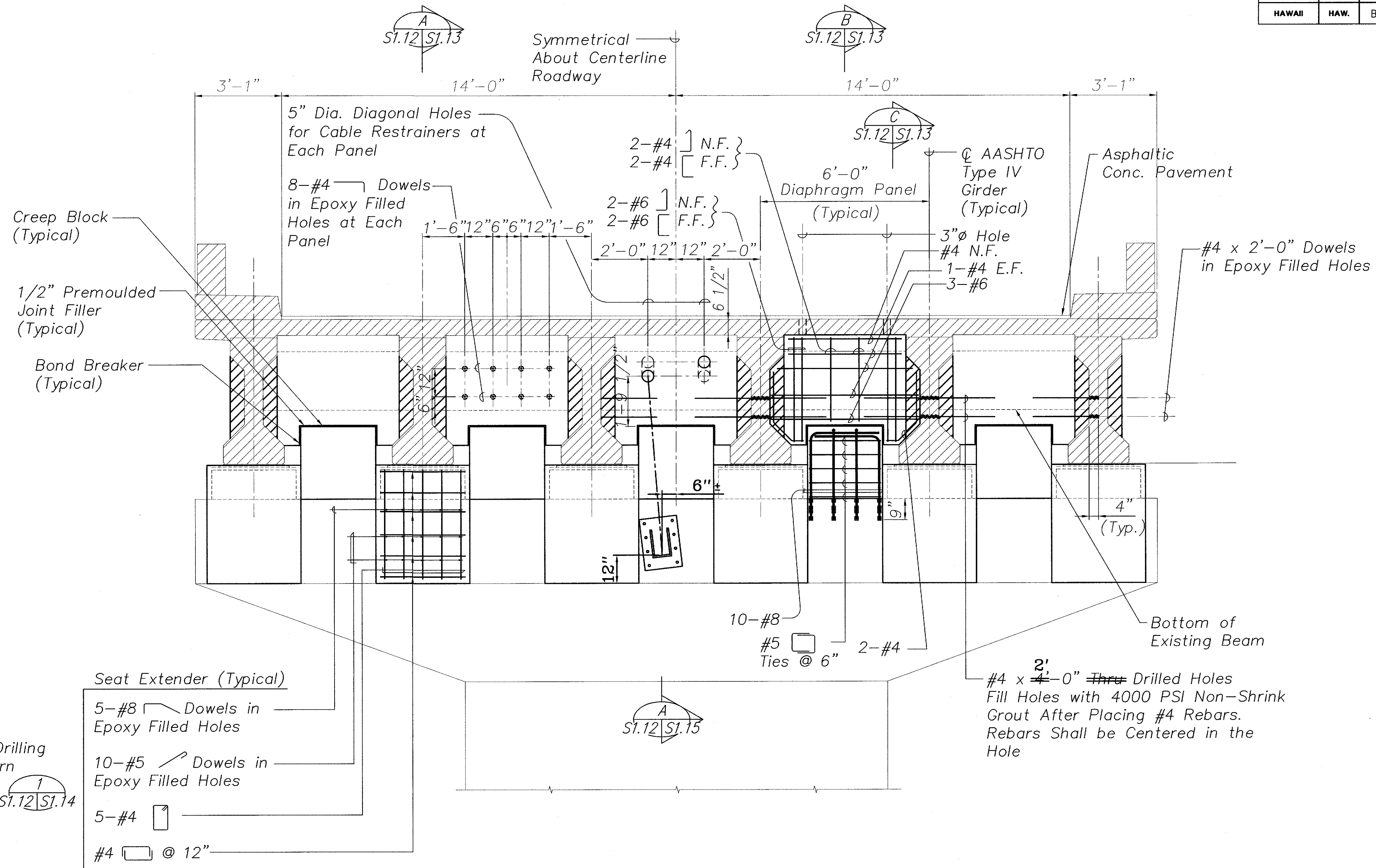
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
HANAWI BRIDGE

PIER NO.5 - CAP PLAN
HAWAII BELT ROAD
SEISMIC RETROFIT OF VARIOUS BRIDGES
VICINITY OF PEPEEKEO, HAWAII - UNIT 1
FEDERAL-AID PROJECT NO. BR-0100(57)

SCALE: AS NOTED
DATE: March 2001

| | | |
|---------------|-------------------|------|
| ORIGINAL PLAN | SURVEY PLOTTED BY | DATE |
| NOTE BOOK | DRAWN BY | |
| | DESIGNED BY | |
| | CHECKED BY | |
| No. | | |

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII | HAW. | BR-0100(57) | 2001 | 24 | 88 |



NOTES:

1. The Contractor Shall Verify All Controlling Field Dimensions Before Ordering or Fabricating Material.
2. Location of Drilled Holes Shown in Plans are Approximate. Prior to Placing Holes in Concrete, the Contractor Shall Locate All Reinforcing Steel and Adjust the Location of the Holes to Clear All Reinforcing Bars. Final Hole Locations are Subject to the Approval of the Engineer.

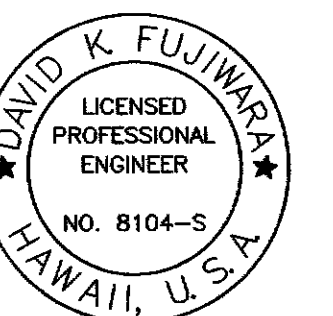
PIER NO. 5 - CAP ELEVATION

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

A
S1.11/S1.12

LEGEND FOR AS-BUILT POSTINGS

| | |
|----------------|-------------------------------------|
| | Squiggly line for as-built deletion |
| | Double line for as-built deletion |
| Roadway | Text for as-built posting |



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DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
HANAWI BRIDGE

PIER NO.5 - CAP ELEVATION

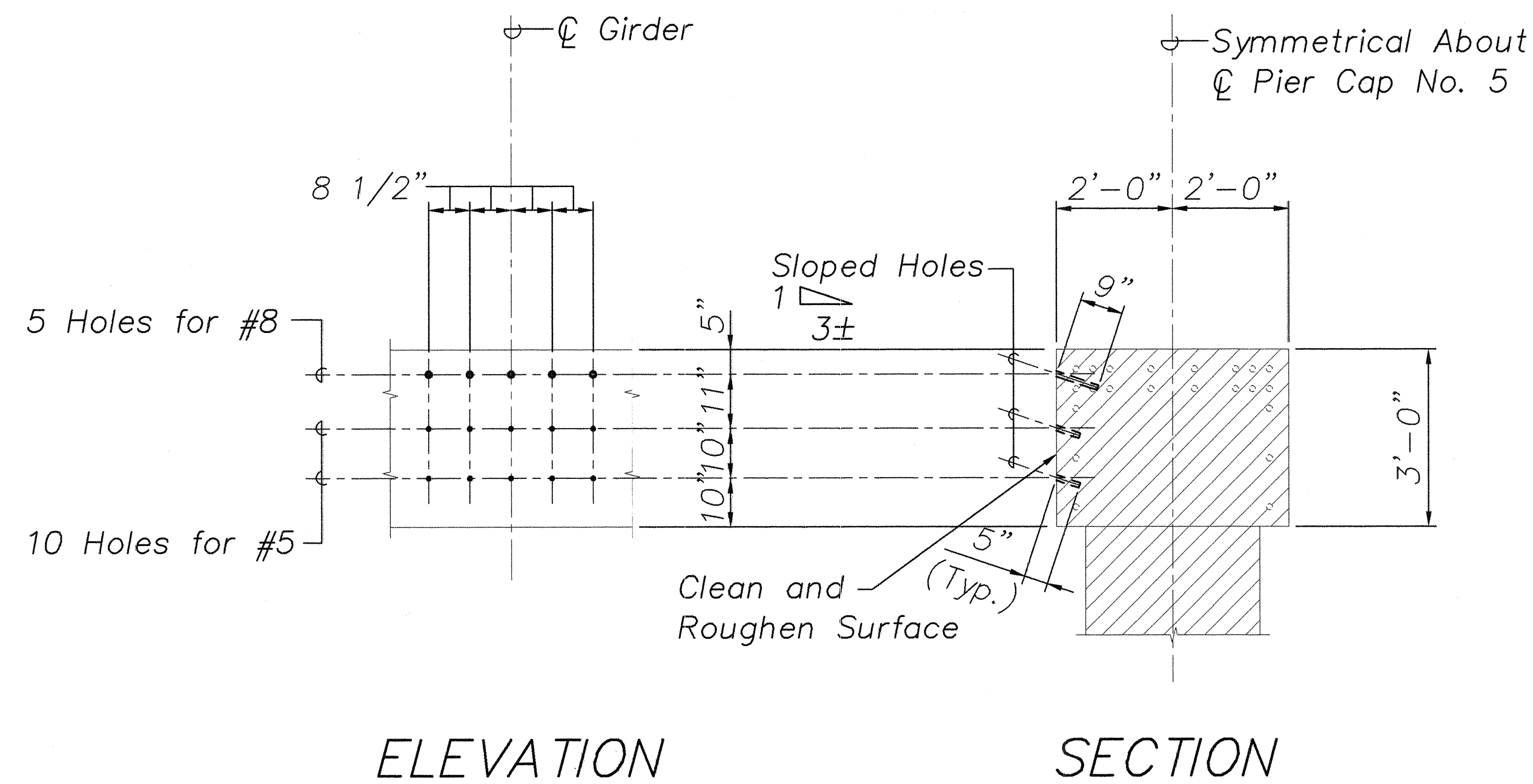
HAWAII BELT ROAD
SEISMIC RETROFIT OF VARIOUS BRIDGES
VICINITY OF PEPEKEO, HAWAII - UNIT 1
FEDERAL-AID PROJECT NO. BR-0100(57)

SCALE: AS NOTED DATE: March 2001

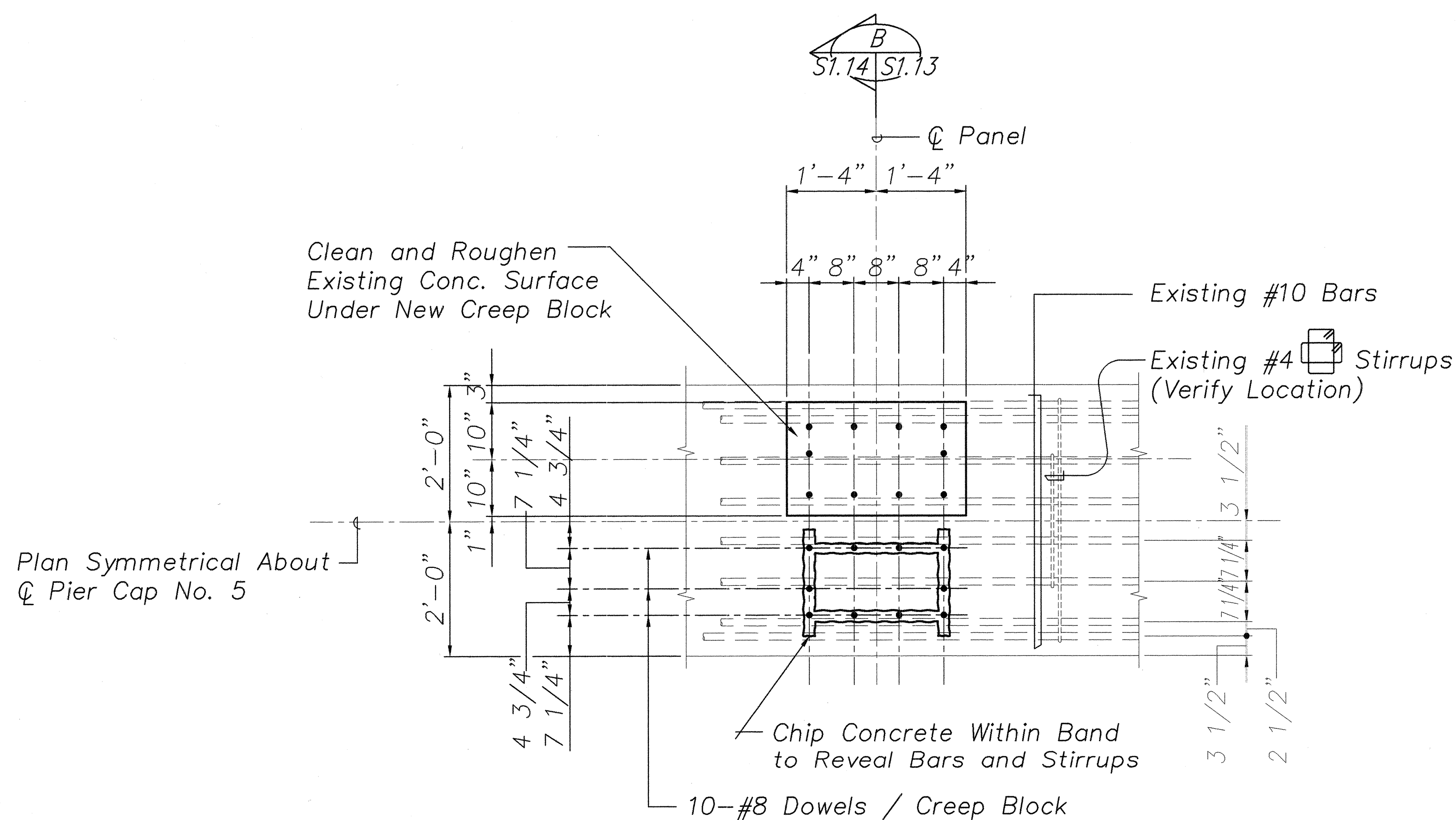
SHEET No. S1.12 OF 76 SHEETS

"AS-BUILT"

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII | HAW. | BR-0100(57) | 2001 | 26 | 88 |

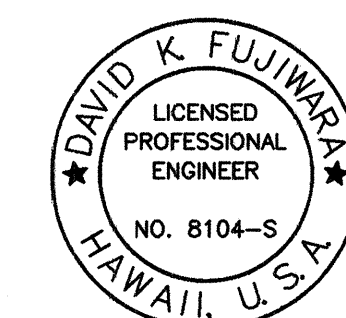


TYPICAL DRILLING PATTERN AT PIER NO. 5 SEAT EXTENDER 1
Scale: 1/2" = 1'-0" S1.12 | S1.14



WORK SEQUENCE

1. Chip Surface Concrete to Reveal Location of Top Bars and Stirrups. Existing Reinforcing Shall Remain Intact.
2. Notify Engineer Before Proceeding. He Will Make Necessary Adjustments to the Exact Location of the Dowels.
3. Drill Holes, Apply Epoxy Adhesive and Insert Dowels According to Manufacturer's Recommendations. The Full Strength of the Bars Shall be Developed.
4. Remove Excess Adhesive from Concrete Surface and Proceed with Remaining Work.



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PIER NO. 5 CAP TYPE "A" (COL. 3'-9")
CREEP BLOCK DOWEL REINF. DETAIL 2
Scale: 3/4" = 1'-0" S1.11 | S1.14

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DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
HAWAII BRIDGE

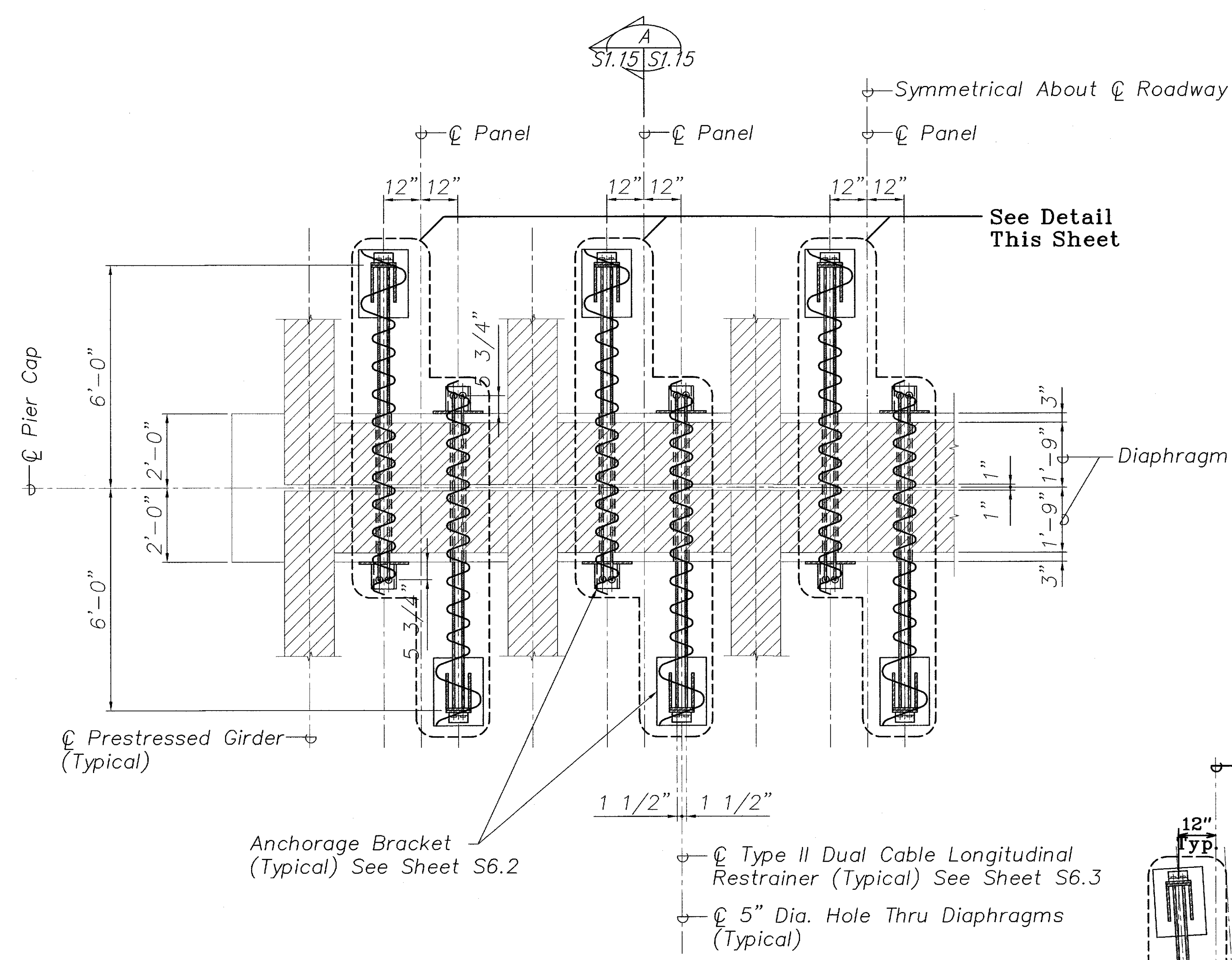
PIER NO.5 - CAP DETAILS

HAWAII BELT ROAD
SEISMIC RETROFIT OF VARIOUS BRIDGES
VICINITY OF PEPEKEO, HAWAII - UNIT 1
FEDERAL-AID PROJECT NO. BR-0100(57)

SCALE: AS NOTED DATE: March 2001

SHEET No. S1.14 OF 76 SHEETS

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII | HAW. | BR-0100(57) | 2001 | 27 | 88 |



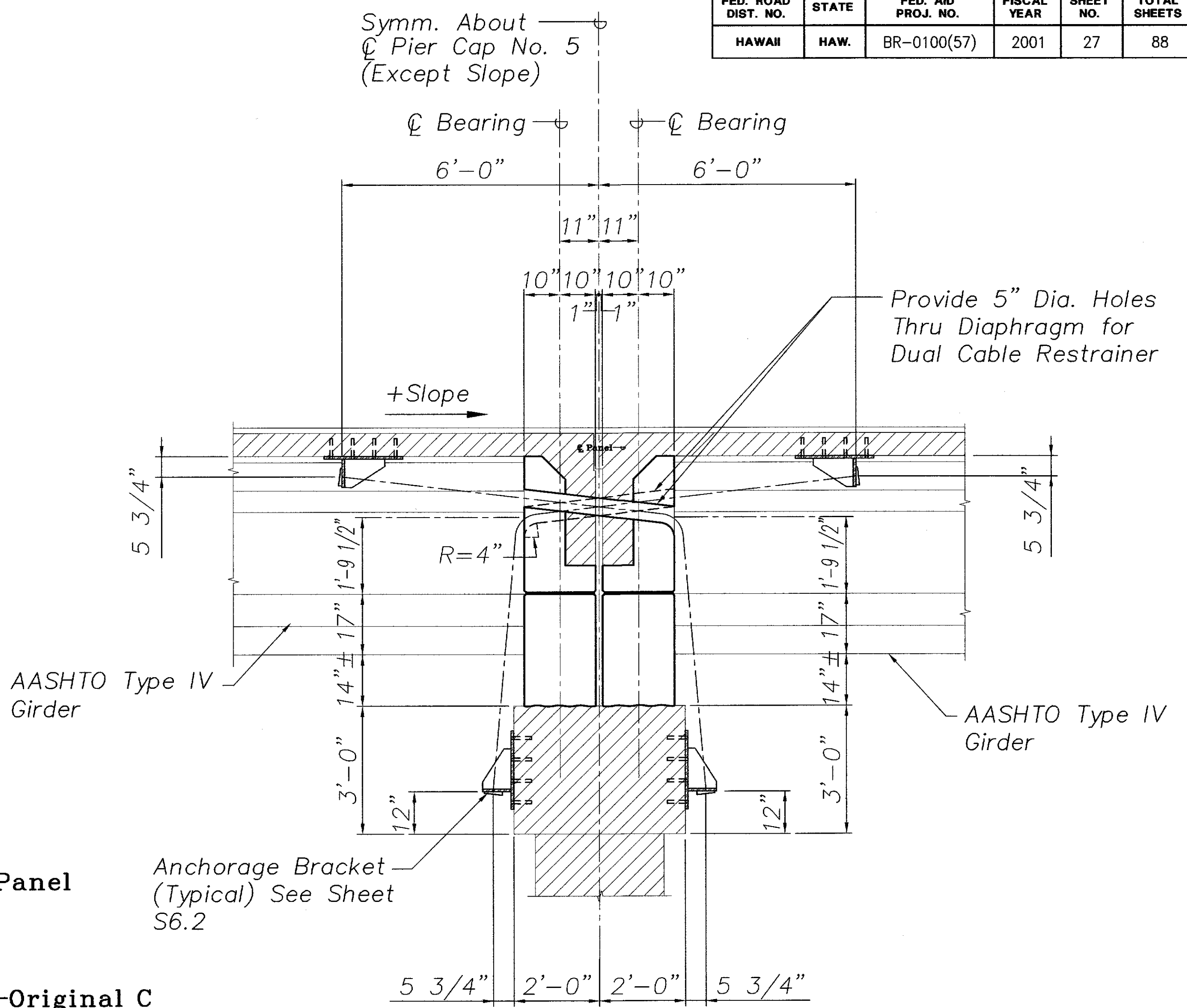
PLAN – PIER CAP RESTRAINER
 Scale: 1/2" = 1'-0"

NOTES:

1. The Contractor Shall Verify All Controlling Field Dimensions Before Ordering or Fabricating Material.
2. Location of Drilled Holes Shown in Plans are Approximate. Prior to Placing Holes in Concrete, the Contractor Shall Locate All Reinforcing Steel and Adjust the Location of the Holes to Clear All Reinforcing Bars. Final Hole Locations are Subject to the Approval of the Engineer.

C Type II Dual Cable Longitudinal Restrainer
 C 5" Dia. Hole Thru Diaphragms
 Original C Restrainer

PLAN - PIER CAP RESTRAINER
 Scale: 1/2" = 1'-0"



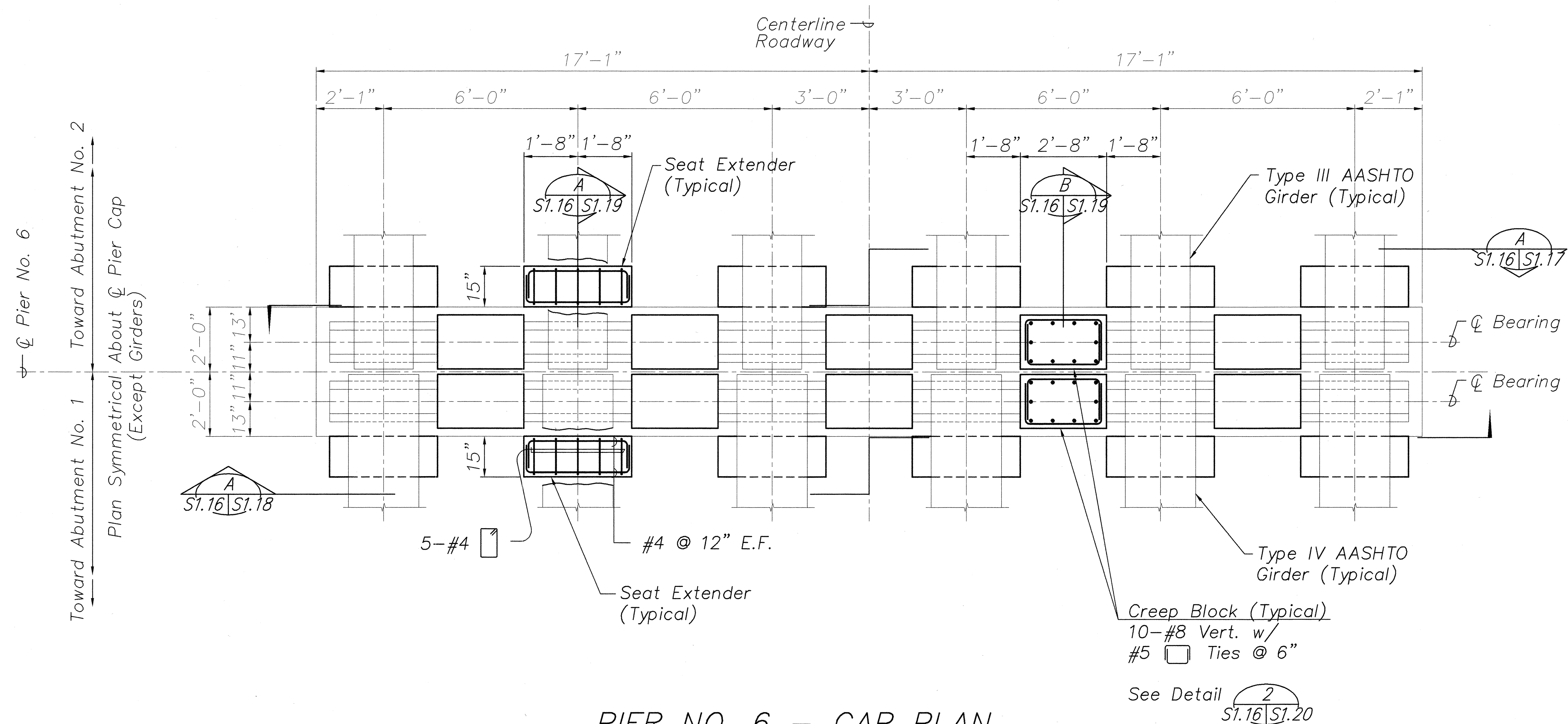
SECTION
 Scale: 1/2" = 1'-0"

| LEGEND FOR AS-BUILT POSTINGS | |
|------------------------------|-------------------------------------|
| | Squiggly line for as-built deletion |
| | Double line for as-built deletion |
| | Text for as-built posting |

DAVID K. FUJIMURA
 LICENSED PROFESSIONAL ENGINEER
 NO. 8104-S
 HAWAII, U.S.A.
 THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
 HANAWI BRIDGE
 PIER NO. 5
 CABLE RESTRAINER SECTIONS
 HAWAII BELT ROAD
 SEISMIC RETROFIT OF VARIOUS BRIDGES
 VICINITY OF PEPEKEO, HAWAII – UNIT 1
 FEDERAL-AID PROJECT NO. BR-0100(57)
 SCALE: AS NOTED DATE: March 2001

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII | HAW. | BR-0100(57) | 2001 | 28 | 88 |

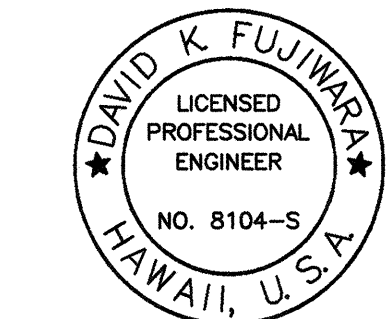


PIER NO. 6 - CAP PLAN
Scale: 1/2" = 1'-0"

NOTES:

1. The Contractor Shall Verify All Controlling Field Dimensions Before Ordering or Fabricating Material.
2. Location of Drilled Holes Shown in Plans are Approximate. Prior to Placing Holes in Concrete, the Contractor Shall Locate All Reinforcing Steel and Adjust the Location of the Holes to Clear All Reinforcing Bars. Final Hole Locations are Subject to the Approval of the Engineer.

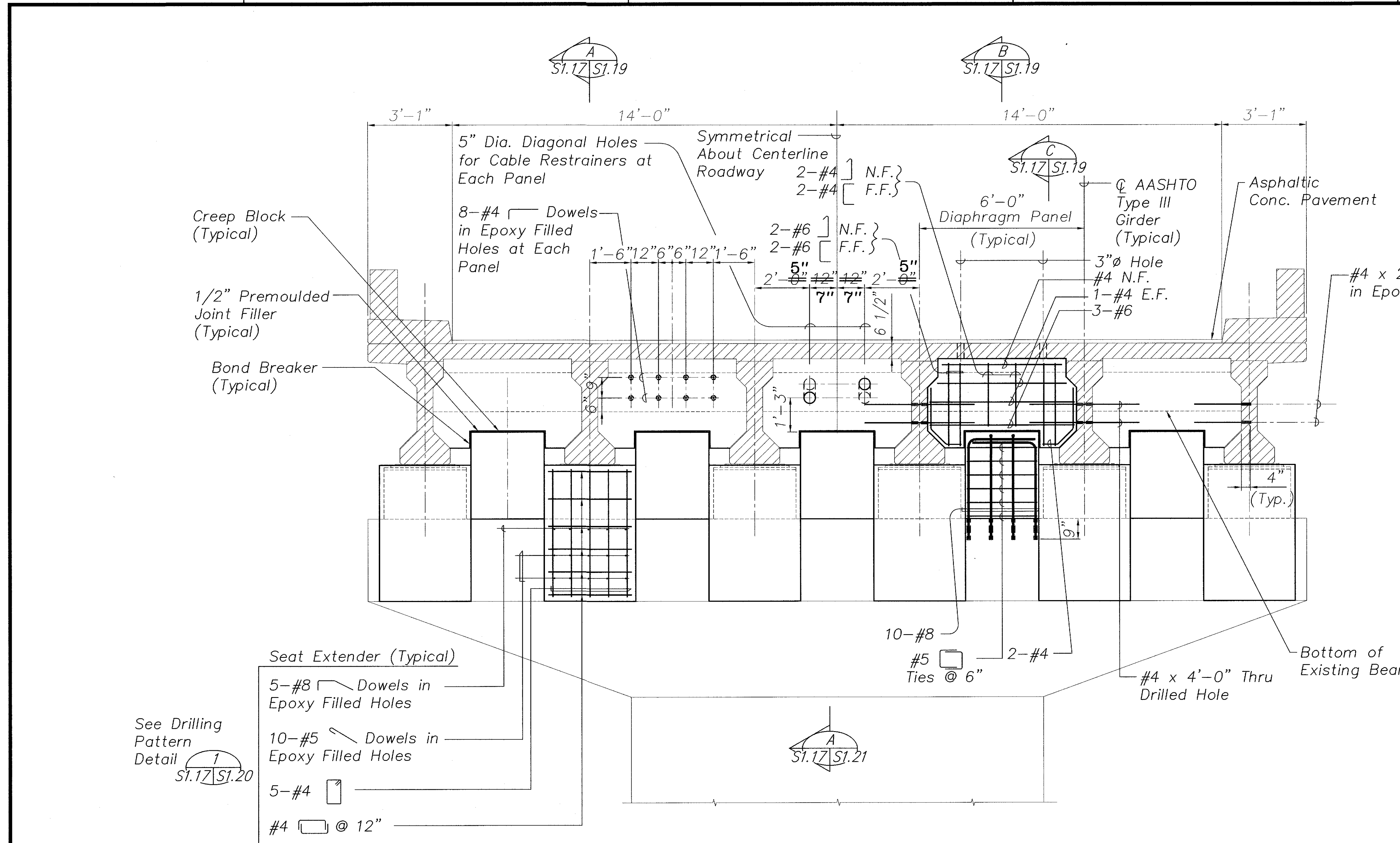
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|-------------------|------|
| SURVEY PLOTTED BY | DATE |
| DRAWN BY | |
| TRACED BY | |
| CHECKED BY | |
| ORIGINAL PLAN | |
| NOTE BOOK | |
| No. | |



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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
HANAWI BRIDGE
PIER NO. 6 - CAP PLAN
HAWAII BELT ROAD
SEISMIC RETROFIT OF VARIOUS BRIDGES
VICINITY OF PEPEKEO, HAWAII - UNIT 1
FEDERAL-AID PROJECT NO. BR-0100(57)
SCALE: AS NOTED
DATE: March 2001
SHEET No. S1.16 OF 76 SHEETS

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII | HAW. | BR-0100(57) | 2001 | 29 | 88 |



NOTES:

1. The Contractor Shall Verify All Controlling Field Dimensions Before Ordering or Fabricating Material.
2. Location of Drilled Holes Shown in Plans are Approximate. Prior to Placing Holes in Concrete, the Contractor Shall Locate All Reinforcing Steel and Adjust the Location of the Holes to Clear All Reinforcing Bars. Final Hole Locations are Subject to the Approval of the Engineer.

PIER NO. 6 - CAP ELEVATION
Scale: 1/2" = 1'-0" A
S1.16 S1.17

| LEGEND FOR AS-BUILT POSTINGS | |
|------------------------------|-------------------------------------|
| | Squiggly line for as-built deletion |
| | Double line for as-built deletion |
| Roadway | Text for as-built posting |

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

HANAWI BRIDGE

PIER NO. 6 - CAP ELEVATION

HAWAII BELT ROAD

SEISMIC RETROFIT OF VARIOUS BRIDGES

VICINITY OF PEPEEKEO, HAWAII - UNIT 1

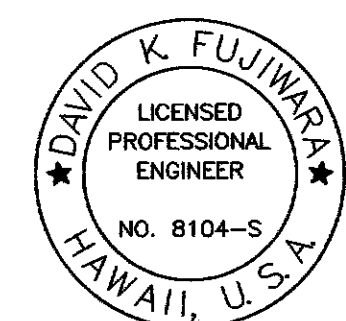
FEDERAL-AID PROJECT NO. BR-0100(57)

SCALE: AS NOTED

DATE: March 2001

SHEET No. S1.17 OF 76 SHEETS

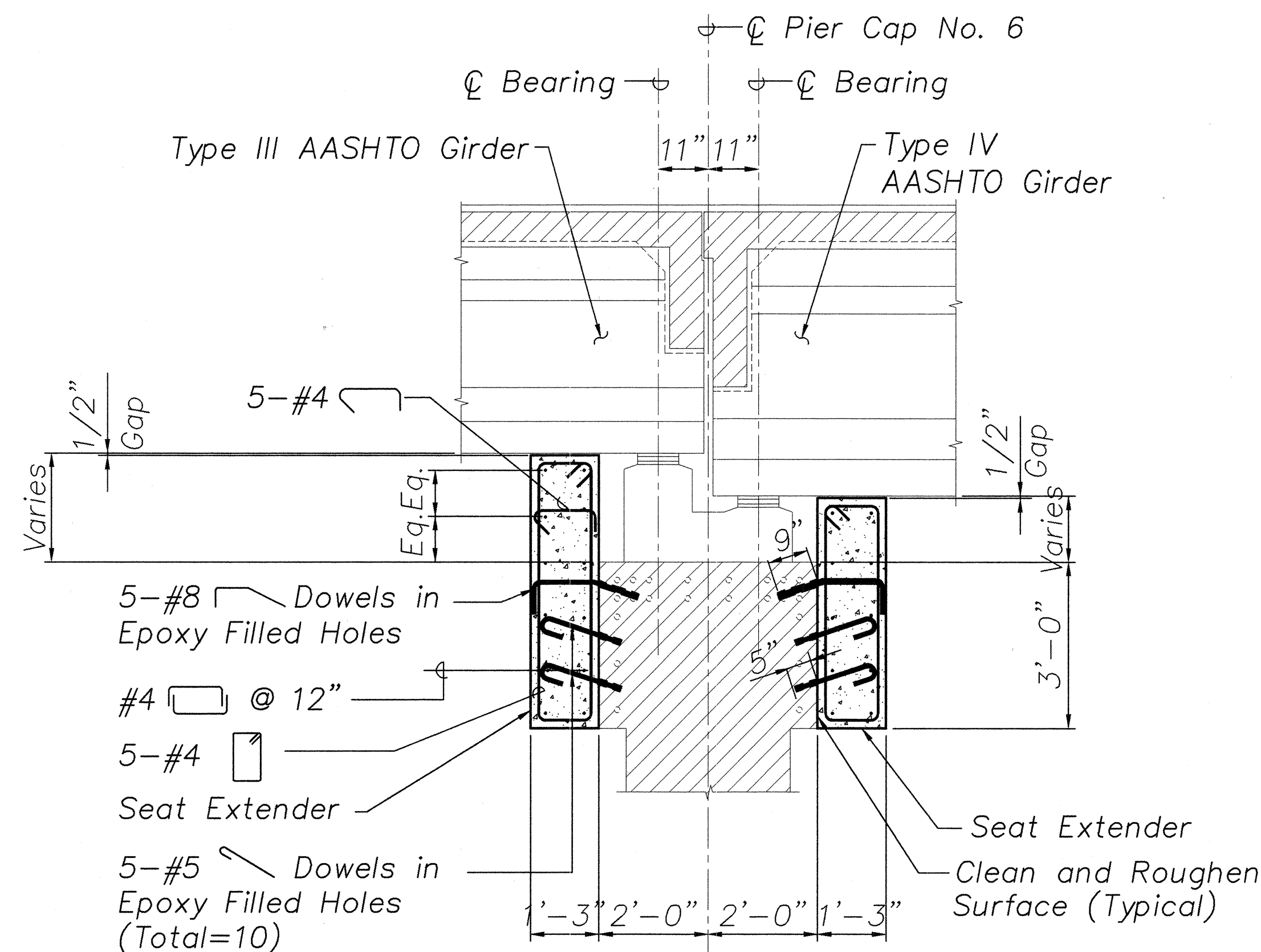
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| SURVEY PLOTTED BY | DATE |
| DRAWN BY | |
| TRACED BY | |
| DESIGNED BY | |
| CHECKED BY | |
| ORIGINAL PLAN | |
| NOTE BOOK | |
| No. | |



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"AS-BUILT"

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII | HAW. | BR-0100(57) | 2001 | 31 | 88 |

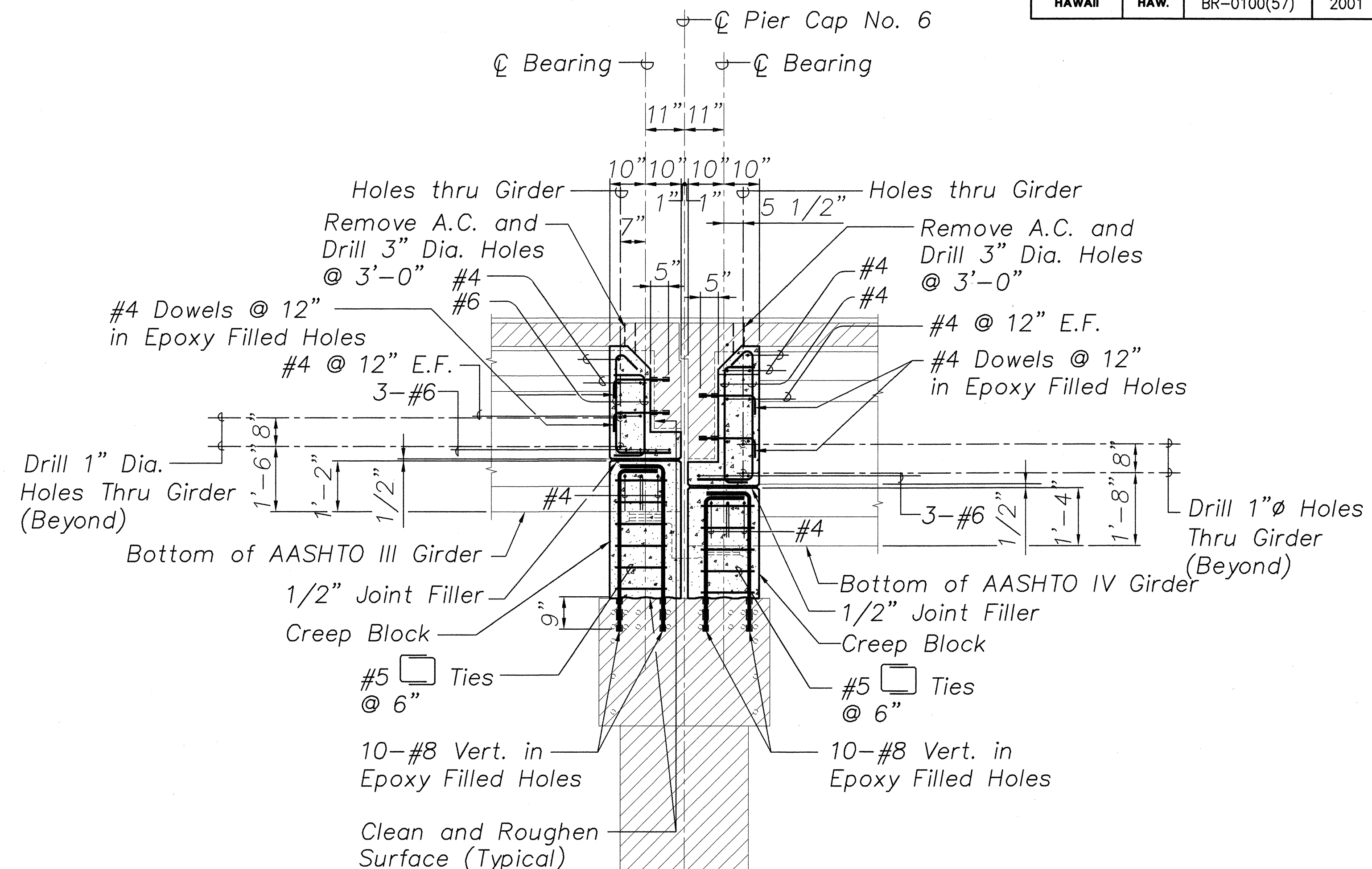


SECTION A

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

S1.17, S1.18

S1.16 S1.19

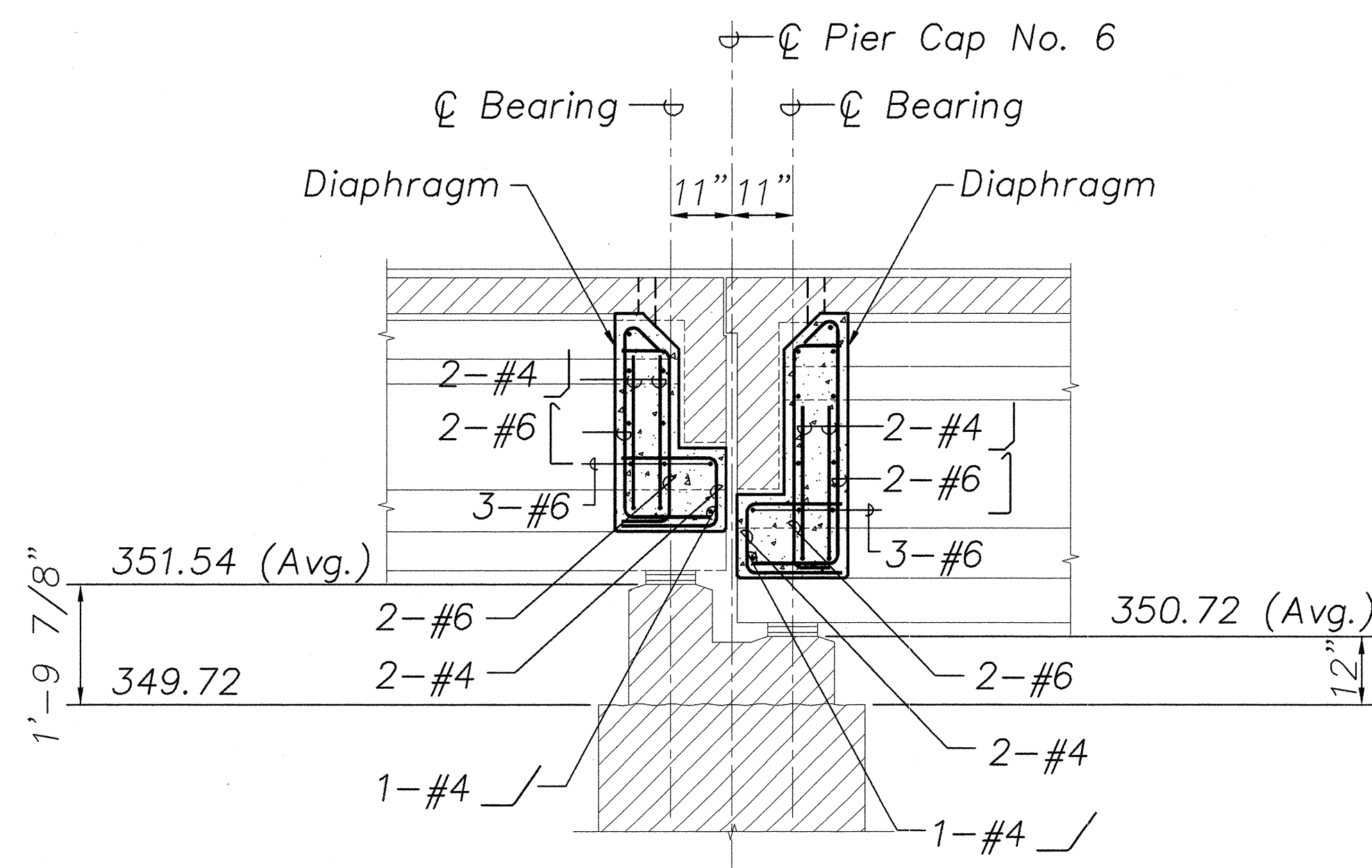


SECTION B

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

S1.17, S1.18, S1.19, S1.20

S1.16 S1.19



SECTION C

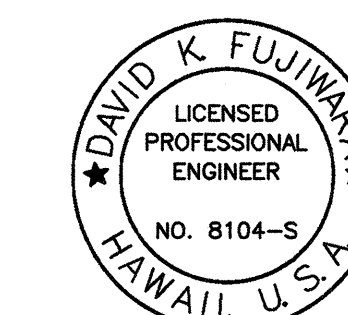
Scale: 1/2" = 1'-0"

S1.18

S1.17 S1.19

NOTES:

1. The Contractor Shall Verify All Controlling Field Dimensions Before Ordering or Fabricating Material.
2. Location of Drilled Holes Shown in Plans are Approximate. Prior to Placing Holes in Concrete, the Contractor Shall Locate All Reinforcing Steel and Adjust the Location of the Holes to Clear All Reinforcing Bars. Final Hole Locations are Subject to the Approval of the Engineer.
3. When Pouring Concrete Thru 3" Diameter Holes There Shall Be No Void Spaces, Entrapped Air, or Entrapped Water.
4. After Pouring Concrete to Top of Deck, A.C. shall be Replaced to Original Elevation. Do not Place A.C. Until Concrete has Sufficiently Hardened.
5. For Lane Closures, see Specifications.
6. Drilling of 3" Diameter Holes and Removing and Replacing A.C. Shall be Considered Incidental to the Various Contract Items in the Contract.



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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
HANAWI BRIDGE

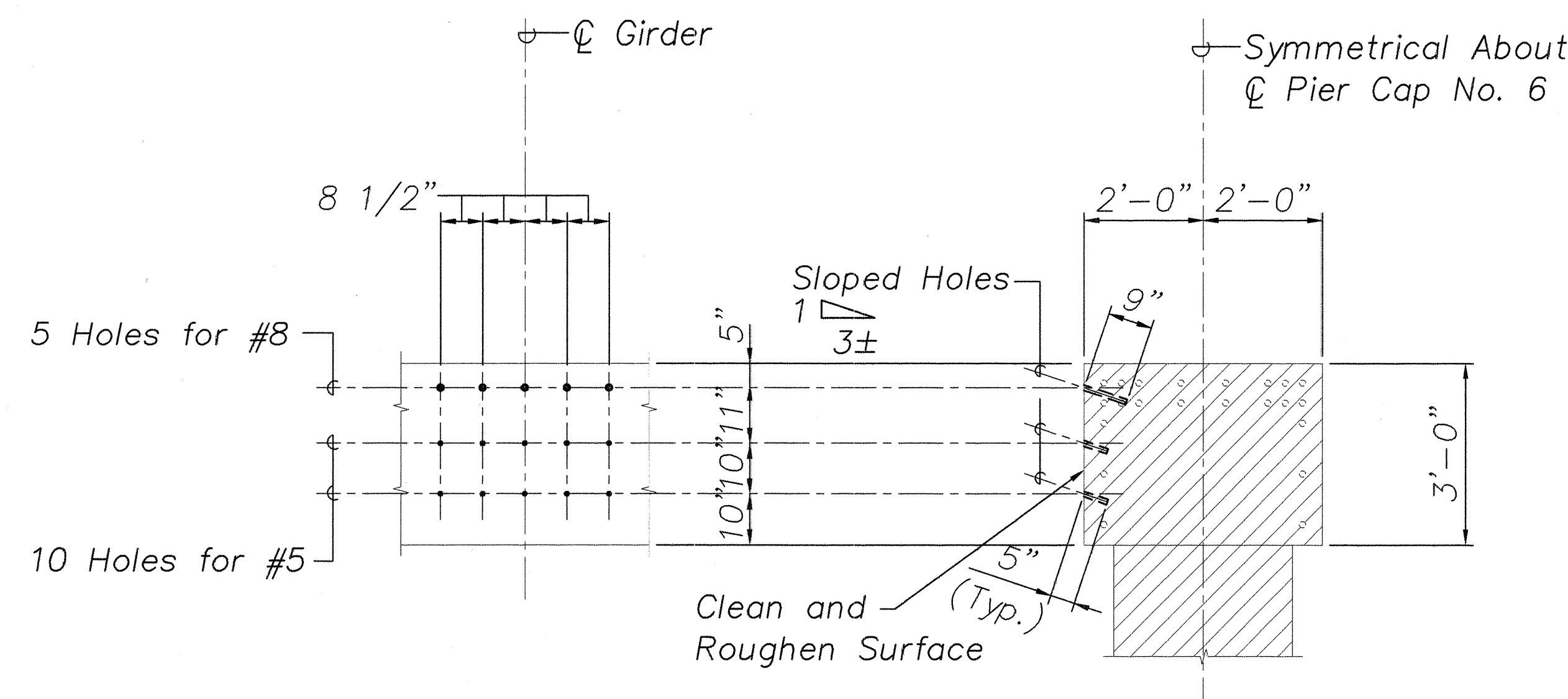
PIER NO. 6 - CAP SECTIONS

HAWAII BELT ROAD
SEISMIC RETROFIT OF VARIOUS BRIDGES
VICINITY OF PEPEKEO, HAWAII - UNIT 1
FEDERAL-AID PROJECT NO. BR-0100(57)

SCALE: AS NOTED DATE: March 2001

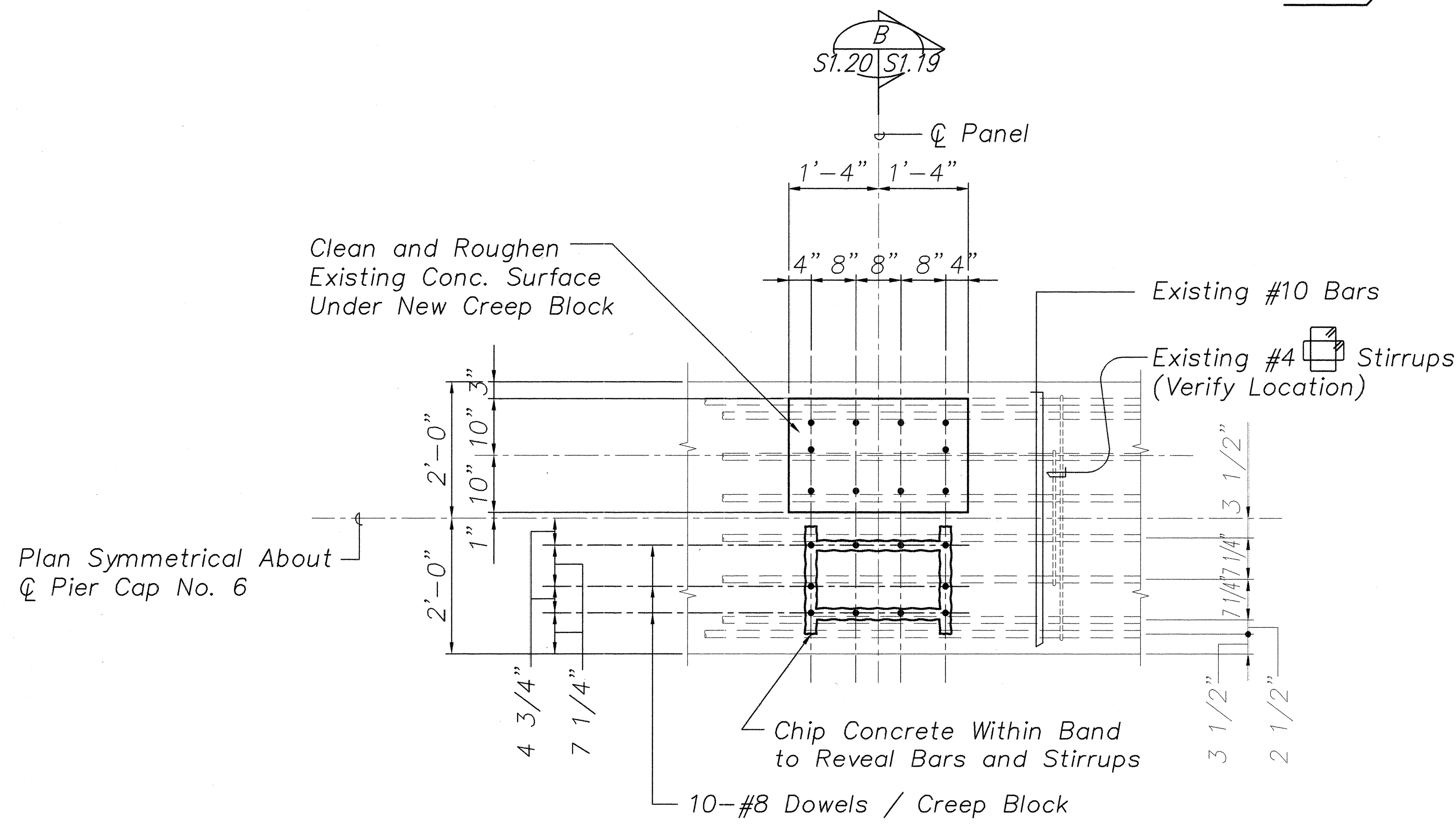
SHEET No. S1.19 OF 76 SHEETS

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII | HAW. | BR-0100(57) | 2001 | 32 | 88 |



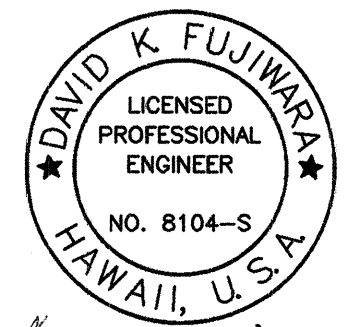
ELEVATION SECTION

TYPICAL DRILLING PATTERN AT PIER NO. 6 SEAT EXTENDER
Scale: 1/2" = 1'-0" 1
S1.17 S1.20
S1.18



WORK SEQUENCE

1. Chip Surface Concrete to Reveal Location of Top Bars and Stirrups. Existing Reinforcing Shall Remain Intact.
2. Notify Engineer Before Proceeding. He Will Make Necessary Adjustments to the Exact Location of the Dowels.
3. Drill Holes, Apply Epoxy Adhesive and Insert Dowels According to Manufacturer's Recommendations. The Full Strength of the Bars Shall be Developed.
4. Remove Excess Adhesive from Concrete Surface and Proceed with Remaining Work.



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| | |
|-------------------|-------|
| DATE | _____ |
| SURVEY PLOTTED BY | _____ |
| DESIGNED BY | _____ |
| TRACED BY | _____ |
| NOTE BOOK | _____ |
| QUANTITIES BY | _____ |
| CHECKED BY | _____ |
| No. | _____ |

PIER NO. 6 CAP TYPE "A" (COL. 3'-9")
CREEP BLOCK DOWEL REINF. DETAIL
Scale: 3/4" = 1'-0" 2
S1.16 S1.20

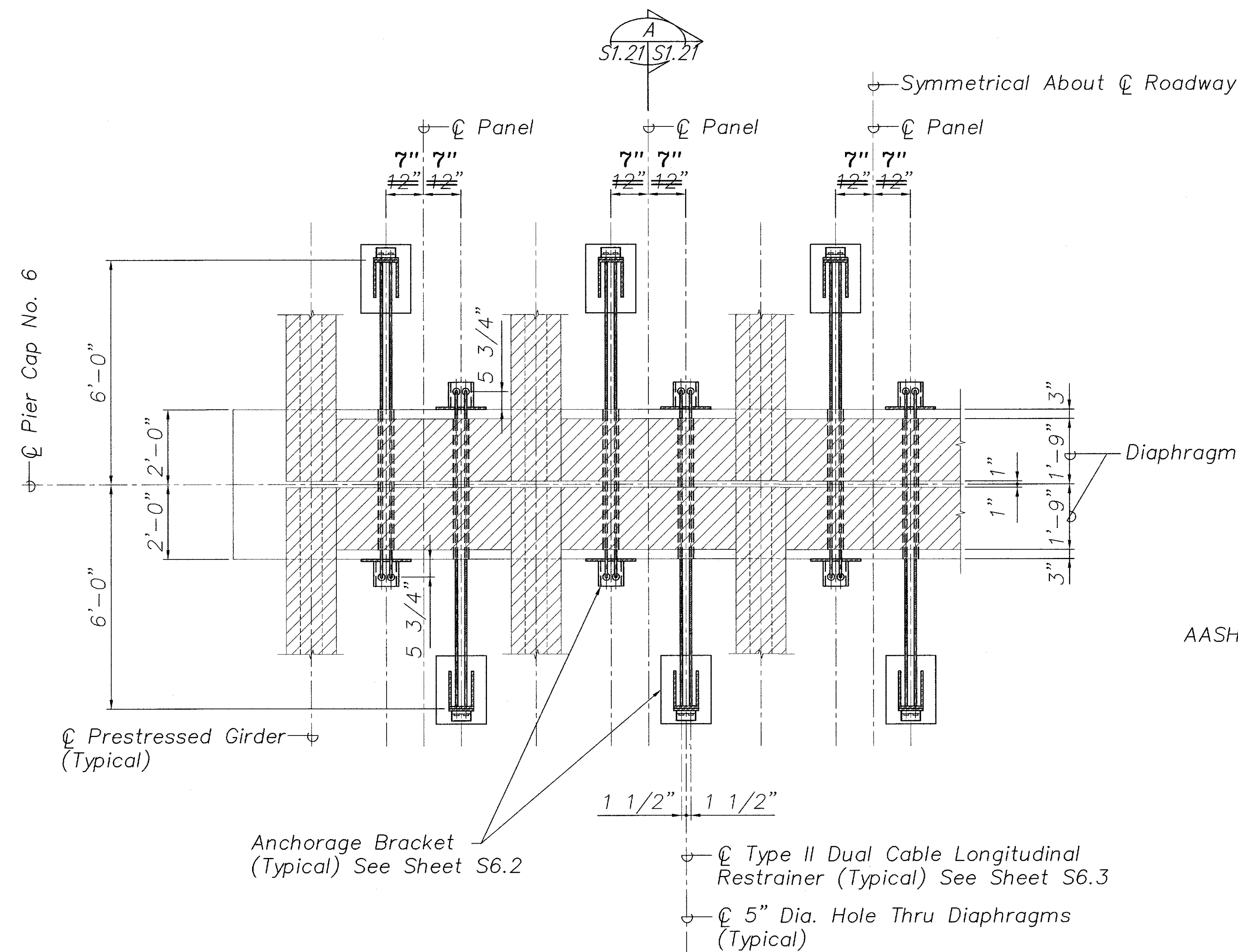
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
HANAWI BRIDGE

PIER NO. 6 - DETAILS
HAWAII BELT ROAD
SEISMIC RETROFIT OF VARIOUS BRIDGES
VICINITY OF PEPEKEO, HAWAII - UNIT 1
FEDERAL-AID PROJECT NO. BR-0100(57)

SCALE: AS NOTED
DATE: March 2001

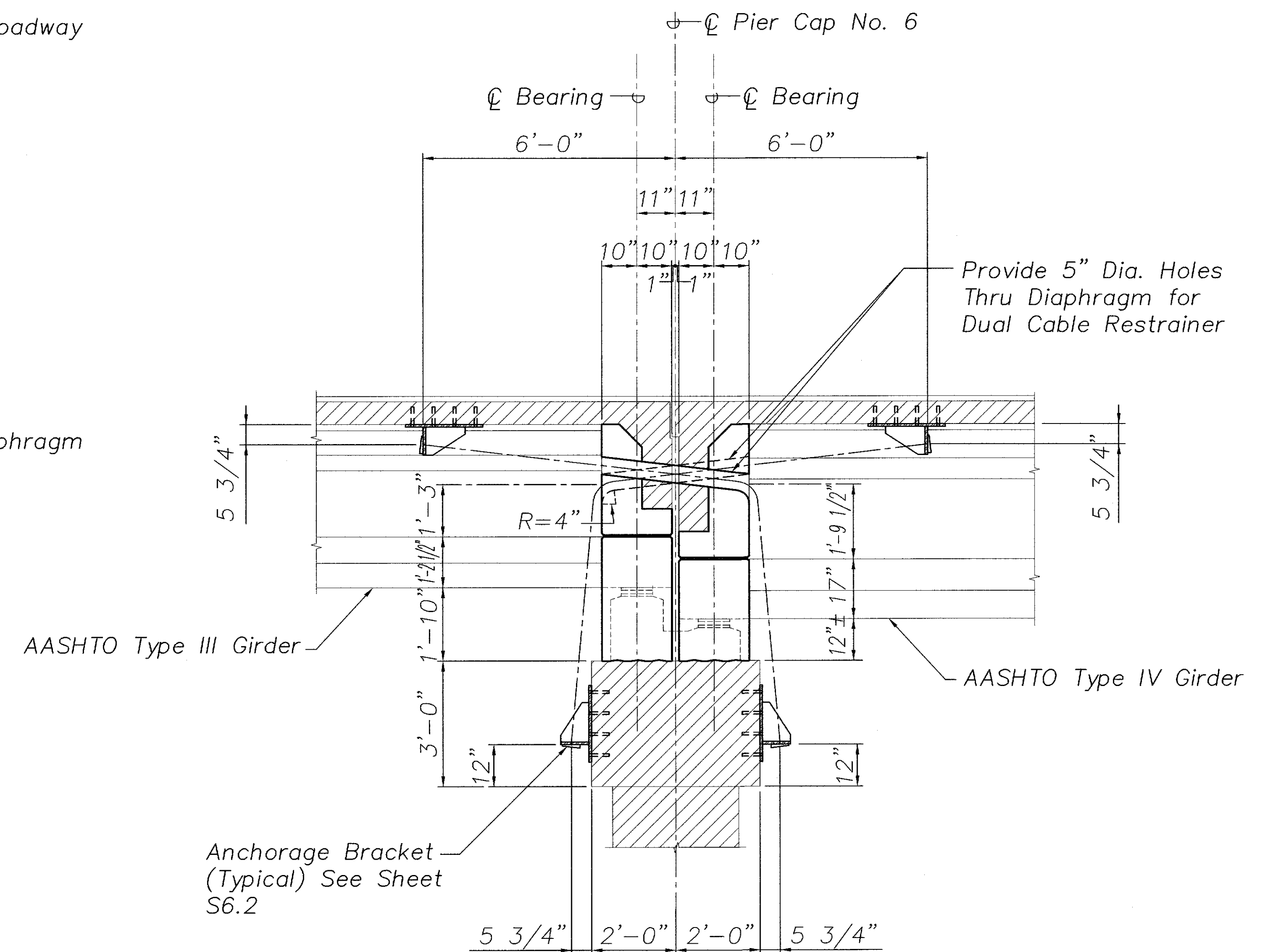
SHEET No. S1.20 OF 76 SHEETS

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII | HAW. | BR-0100(57) | 2001 | 33 | 88 |



PLAN - PIER CAP RESTRAINER

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



SECTION

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

S1.17, S1.21

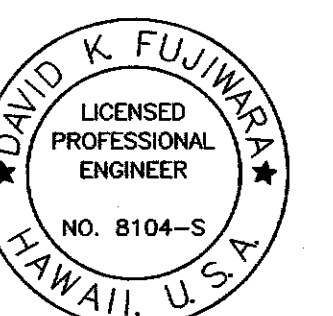
NOTES:

- The Contractor Shall Verify All Controlling Field Dimensions Before Ordering or Fabricating Material.
- Location of Drilled Holes Shown in Plans are Approximate. Prior to Placing Holes in Concrete, the Contractor Shall Locate All Reinforcing Steel and Adjust the Location of the Holes to Clear All Reinforcing Bars. Final Hole Locations are Subject to the Approval of the Engineer.

| | |
|---------------|------|
| ORIGINAL PLAN | DATE |
| NO. | |

| LEGEND FOR AS-BUILT POSTINGS | |
|------------------------------|-------------------------------------|
| | Squiggly line for as-built deletion |
| | Double line for as-built deletion |
| Roadway | Text for as-built posting |

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
HANAWI BRIDGE
PIER NO. 6
CABLE RESTRAINER SECTIONS
HAWAII BELT ROAD
SEISMIC RETROFIT OF VARIOUS BRIDGES
VICINITY OF PEPEEKEO, HAWAII - UNIT 1
FEDERAL-AID PROJECT NO. BR-0100(57)
SCALE: AS NOTED DATE: March 2001
SHEET No. S1.21 OF 76 SHEETS

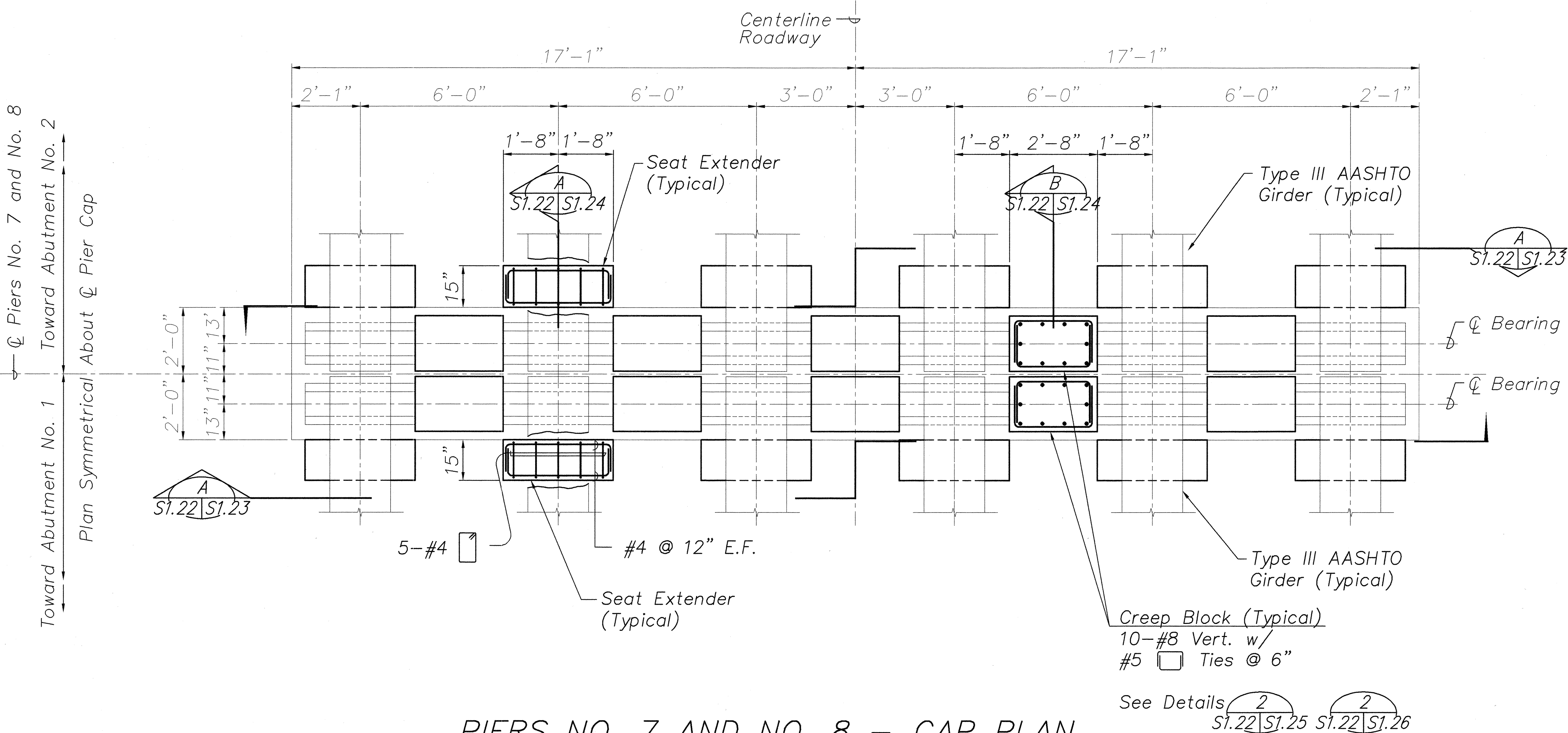


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"AS-BUILT"

33

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII | HAW. | BR-0100(57) | 2001 | 34 | 88 |



PIERS NO. 7 AND NO. 8 – CAP PLAN
 Scale: 1/2" = 1'-0"

NOTES:

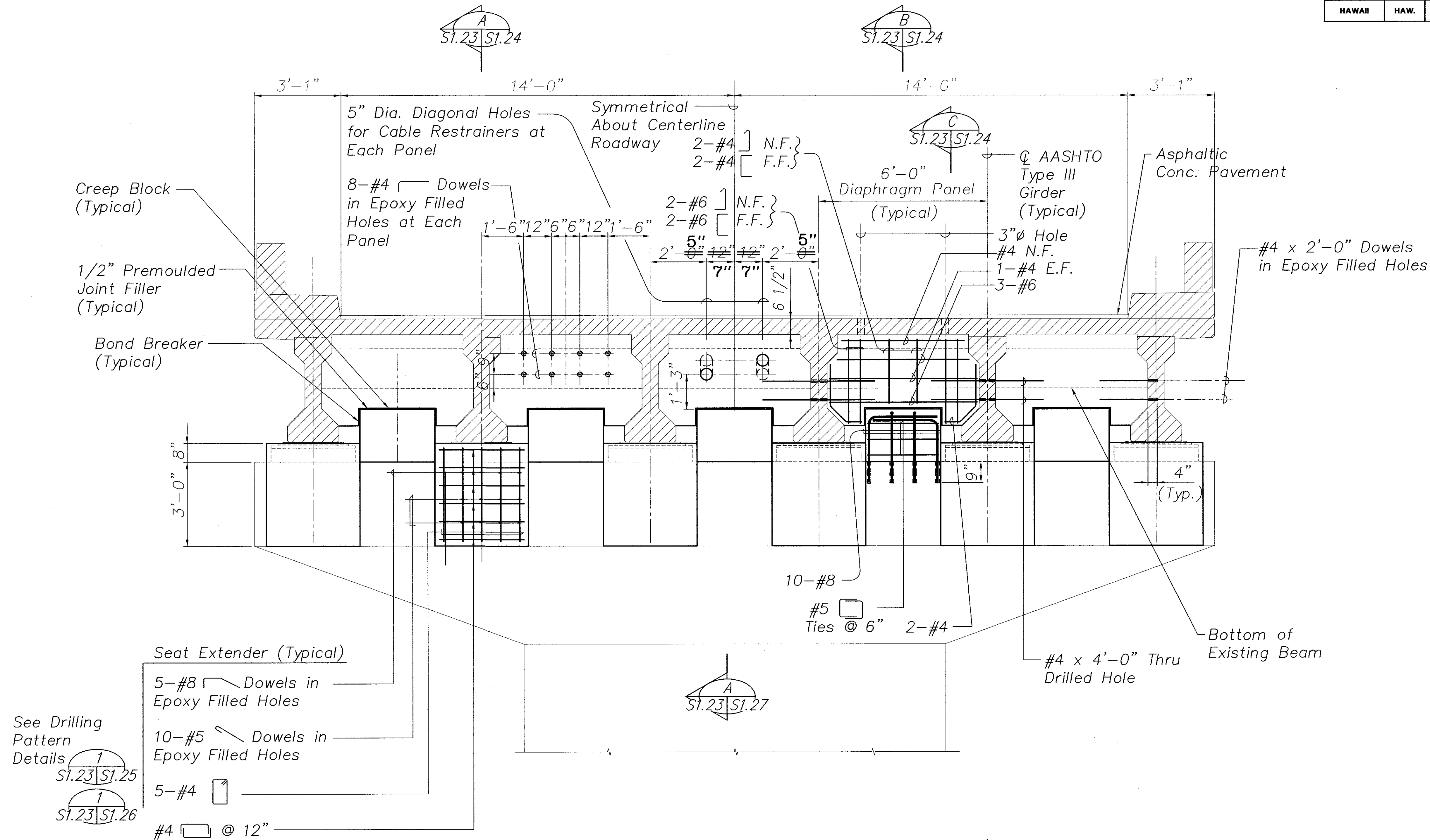
1. The Contractor Shall Verify All Controlling Field Dimensions Before Ordering or Fabricating Material.
2. Location of Drilled Holes Shown in Plans are Approximate. Prior to Placing Holes in Concrete, the Contractor Shall Locate All Reinforcing Steel and Adjust the Location of the Holes to Clear All Reinforcing Bars. Final Hole Locations are Subject to the Approval of the Engineer.

DAVID K. FUJIMURA
 LICENSED PROFESSIONAL ENGINEER
 NO. 8104-S
 HAWAII, U.S.A.
David K. Fujiwara
 THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION.

STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
 HANAWA BRIDGE
 PIERS NO. 7 AND NO. 8
 CAP PLAN
 HAWAII BELT ROAD
 SEISMIC RETROFIT OF VARIOUS BRIDGES
 VICINITY OF PEPEKEO, HAWAII – UNIT 1
 FEDERAL-AID PROJECT NO. BR-0100(57)
 SCALE: AS NOTED DATE: March 2001
 SHEET No. S1.22 OF 76 SHEETS

| | |
|-------------------|------|
| SURVEY PLOTTED BY | DATE |
| DRAWN BY | |
| TRACED BY | |
| NOTED BY | |
| CHECKED BY | |
| ORIGINAL PLAN | No. |
| NOTE BOOK | |

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII | HAW. | BR-0100(57) | 2001 | 35 | 88 |



NOTES:

1. The Contractor Shall Verify All Controlling Field Dimensions Before Ordering or Fabricating Material.
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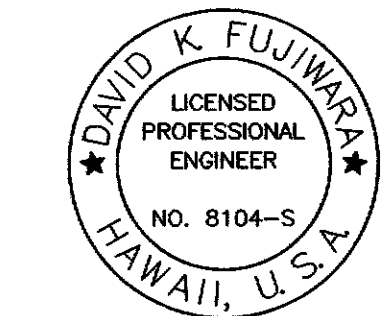
PIERS NO. 7 AND NO. 8
CAP ELEVATION

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

A
S1.22 S1.23

LEGEND FOR AS-BUILT POSTINGS

- Squiggly line for as-built deletion
- Double line for as-built deletion
- Roadway Text for as-built posting

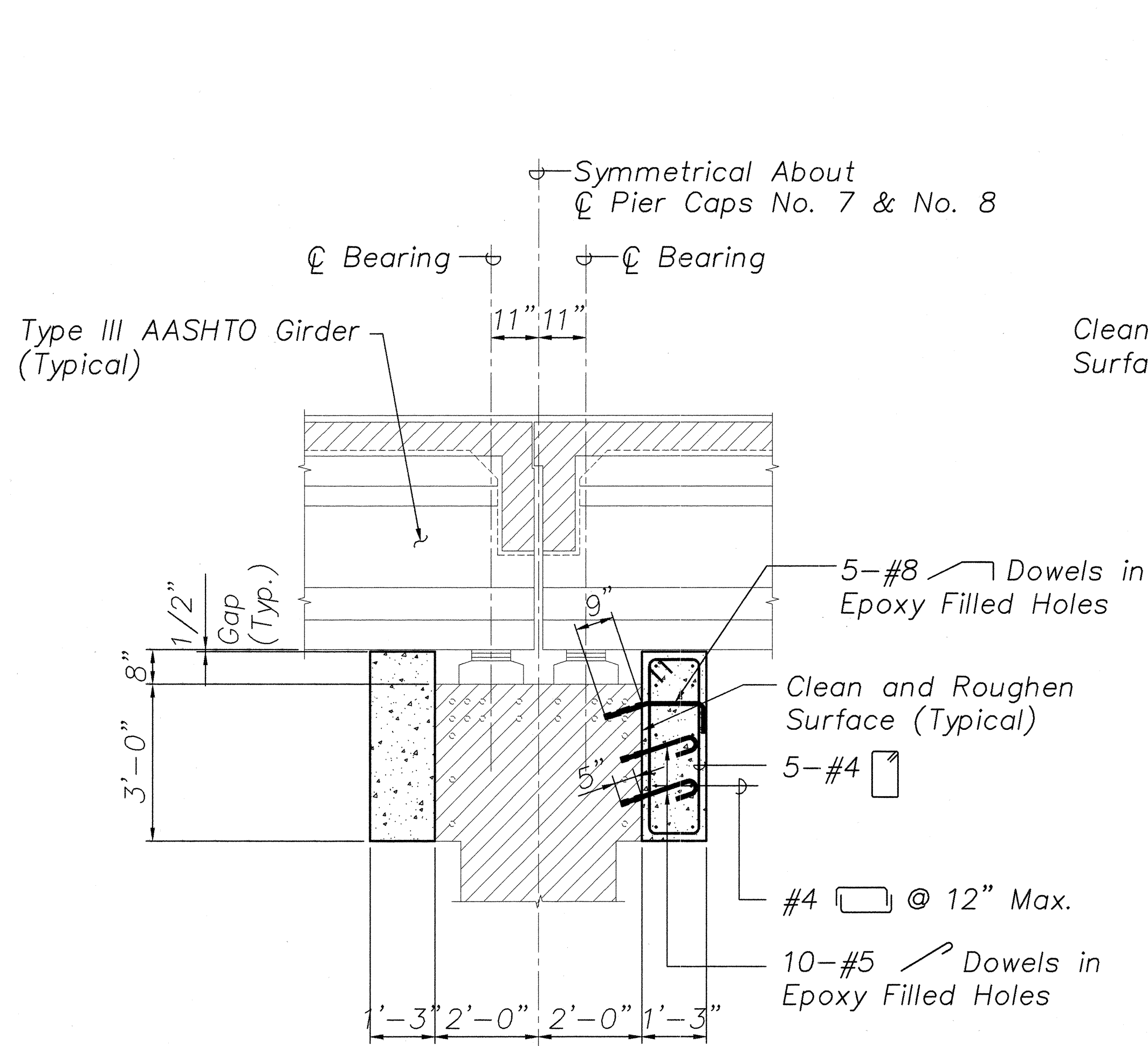


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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
HANAWI BRIDGE
PIERS NO. 7 AND NO. 8
CAP ELEVATION
HAWAII BELT ROAD
SEISMIC RETROFIT OF VARIOUS BRIDGES
VICINITY OF PEPEKEO, HAWAII - UNIT 1
FEDERAL-AID PROJECT NO. BR-0100(57)
SCALE: AS NOTED DATE: March 2001
SHEET No. S1.23 OF 76 SHEETS

"AS-BUILT"

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII | HAW. | BR-0100(57) | 2001 | 36 | 88 |



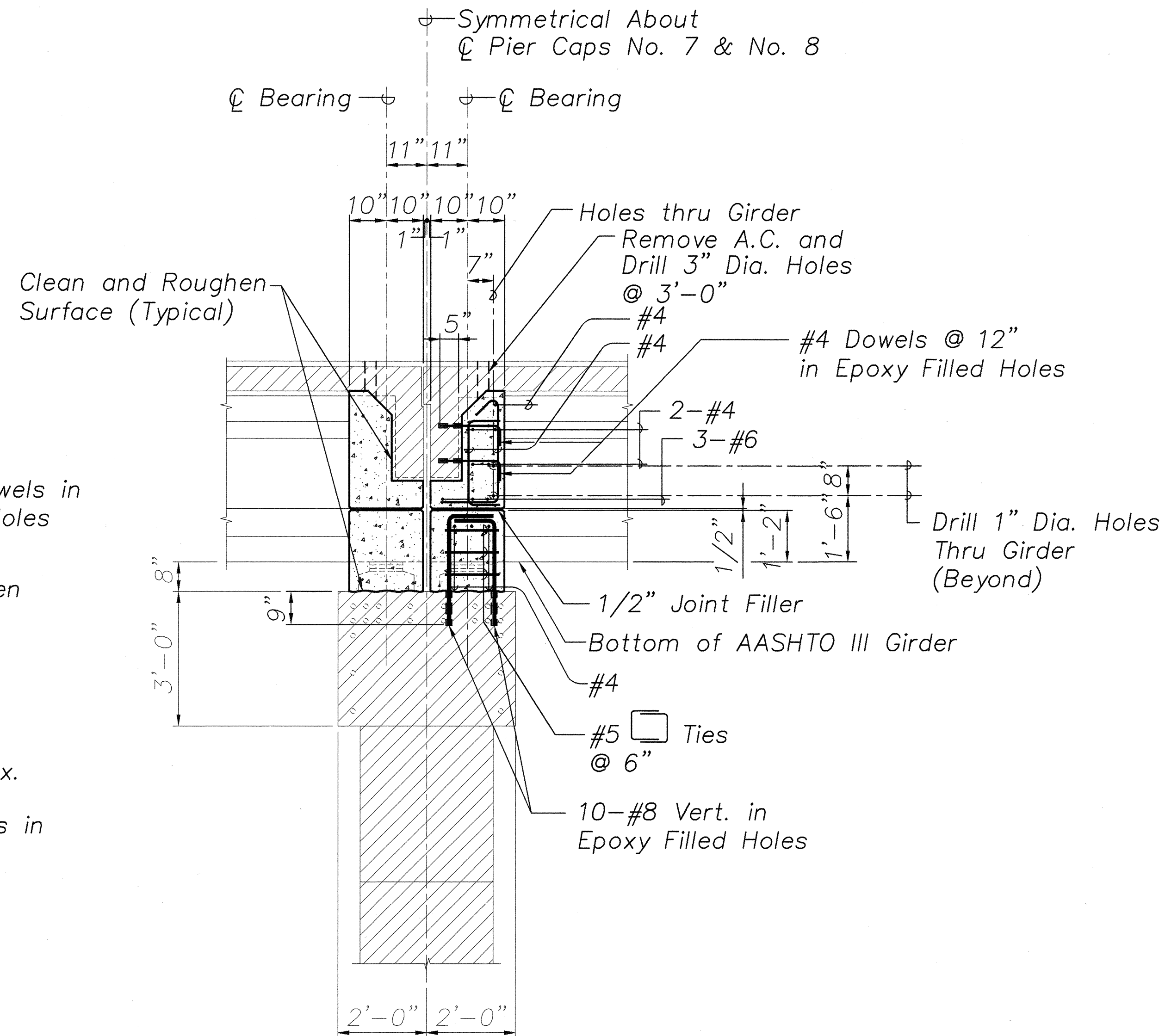
SECTION A

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

S1.23 S1.22 S1.24

NOTES:

1. The Contractor Shall Verify All Controlling Field Dimensions Before Ordering or Fabricating Material.
2. Location of Drilled Holes Shown in Plans are Approximate. Prior to Placing Holes in Concrete, the Contractor Shall Locate All Reinforcing Steel and Adjust the Location of the Holes to Clear All Reinforcing Bars. Final Hole Locations are Subject to the Approval of the Engineer.

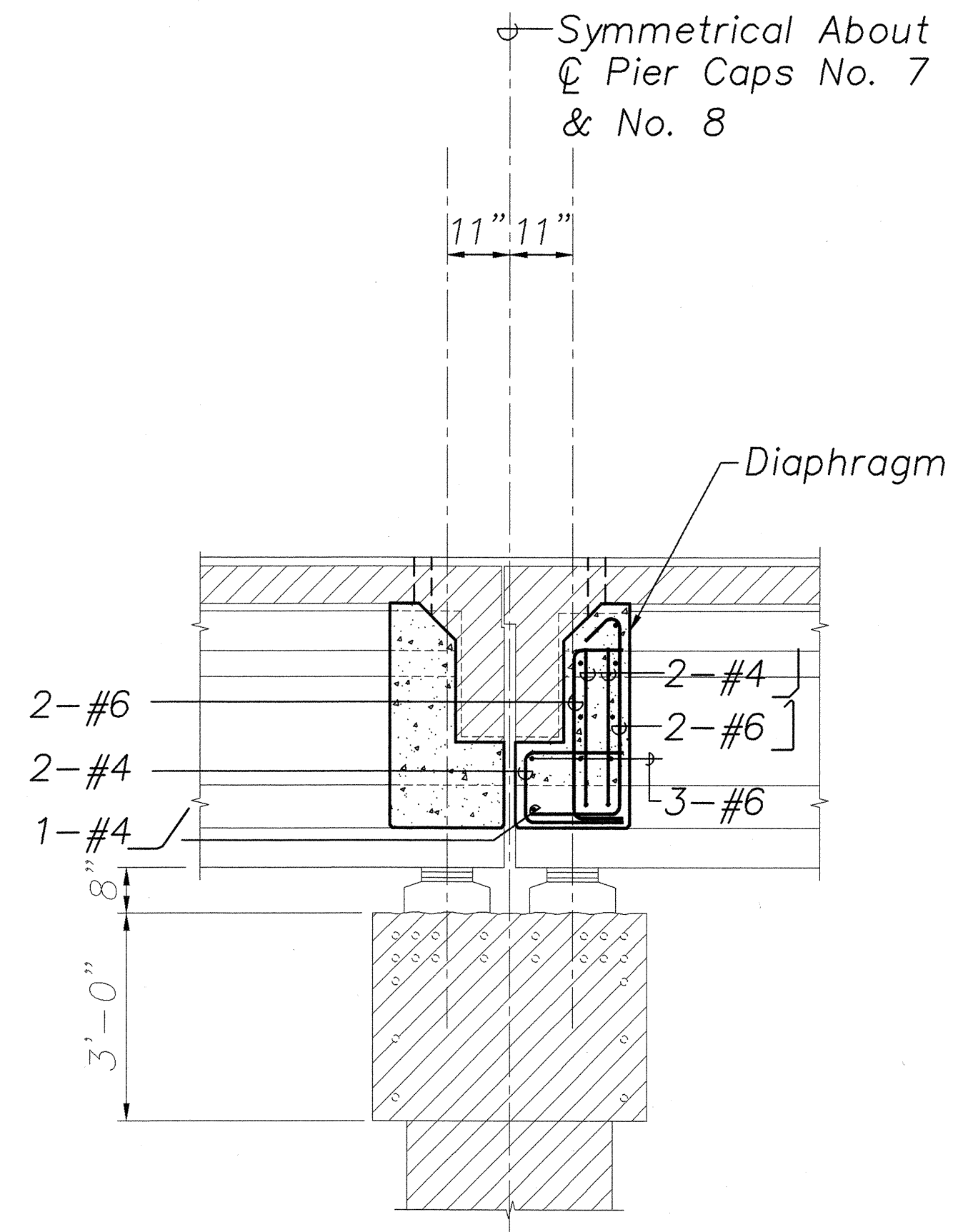


SECTION B

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

S1.23 S1.24 S1.25 S1.26

3. When Pouring Concrete Thru 3" Diameter Holes There Shall Be No Void Spaces, Entrapped Air, or Entrapped Water.
4. After Pouring Concrete to Top of Deck, A.C. shall be Replaced to Original Elevation. Do not Place A.C. Until Concrete has Sufficiently Hardened.
5. For Lane Closures, see Specifications.
6. Drilling of 3" Diameter Holes and Removing and Replacing A.C. Shall be Considered Incidental to the Various Contract Items in the Contract.

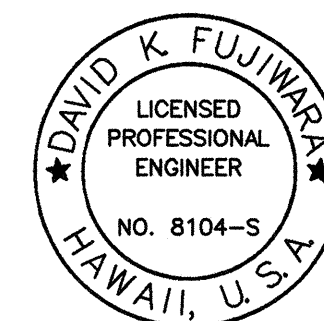


See Section S1.23 S1.24 S1.24
For Additional Details

SECTION C

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

S1.23 S1.24



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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HANAWI BRIDGE

PIERS NO. 7 AND NO. 8

CAP SECTIONS

HAWAII BELT ROAD

SEISMIC RETROFIT OF VARIOUS BRIDGES

VICINITY OF PEPEKEO, HAWAII - UNIT 1

FEDERAL-AID PROJECT NO. BR-0100(57)

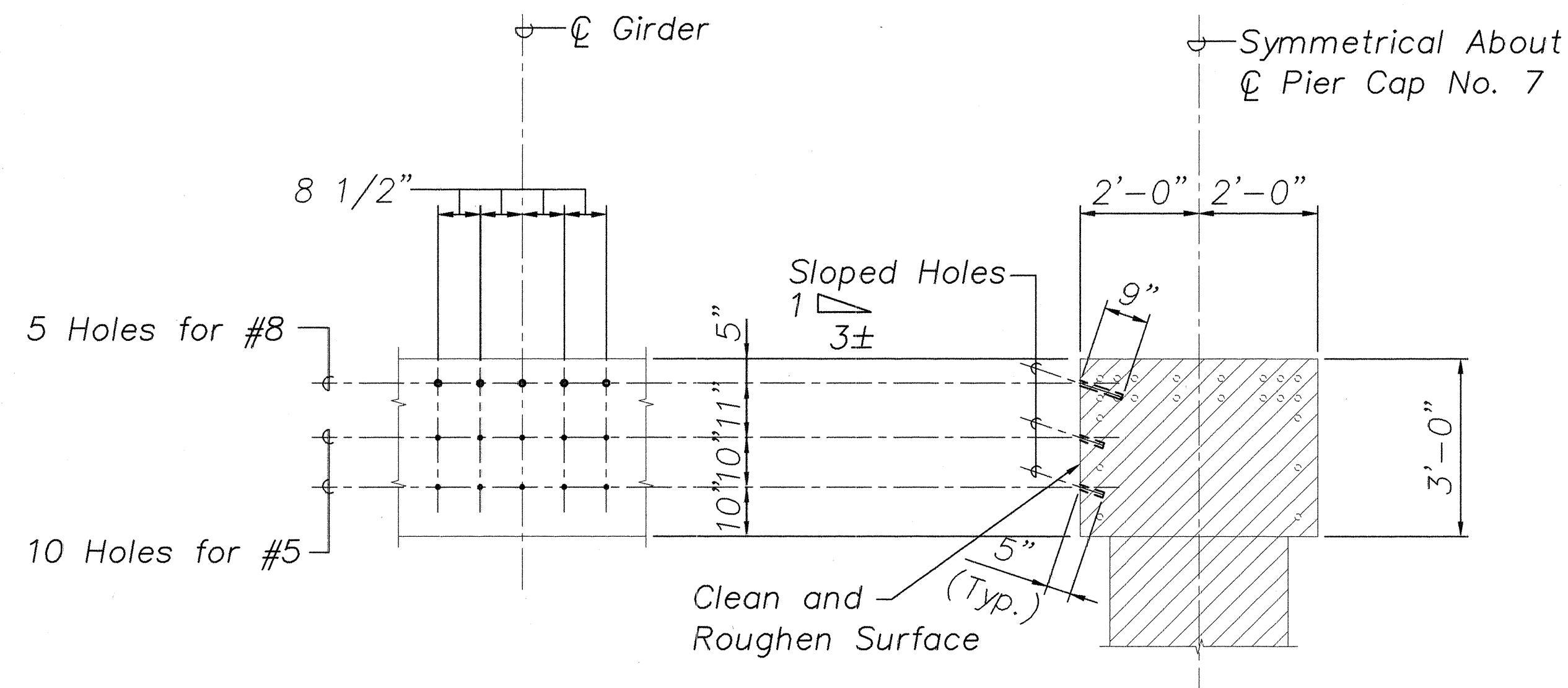
SCALE: AS NOTED

DATE: March 2001

SHEET No. S1.24 OF 76 SHEETS

| | |
|-------------------|-------|
| DATE | _____ |
| SURVEY PLOTTED BY | _____ |
| DRAWN BY | _____ |
| DESIGNED BY | _____ |
| CHECKED BY | _____ |
| ORIGINAL PLAN | _____ |
| NOTE BOOK | _____ |
| No. | _____ |

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII | HAW. | BR-0100(57) | 2001 | 37 | 88 |



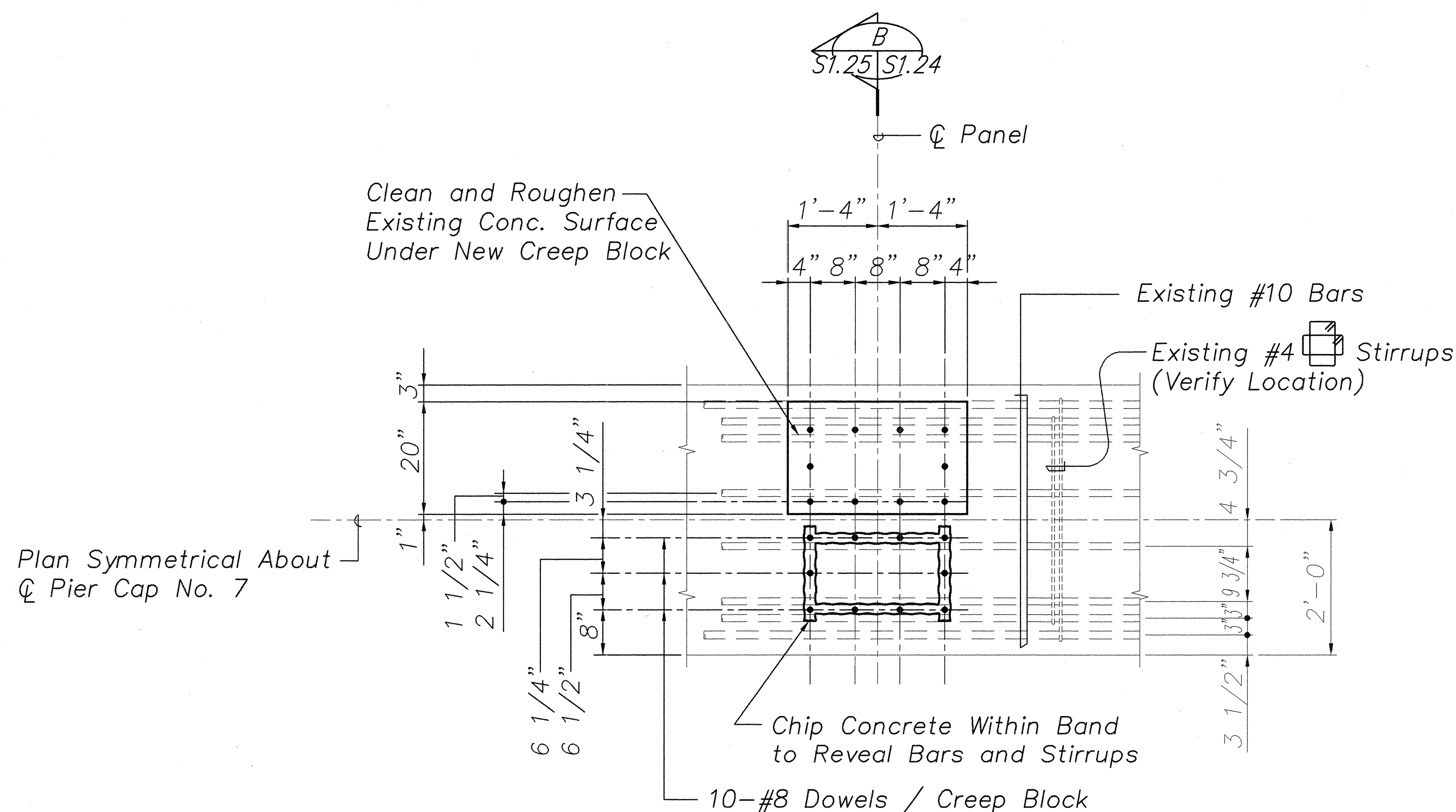
ELEVATION

SECTION

TYPICAL DRILLING PATTERN AT PIER NO. 7 SEAT EXTENDER

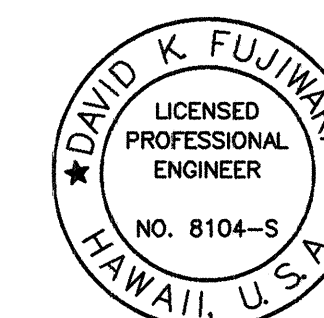
Scale: 1/2" = 1'-0"

1
S1.23 S1.25



WORK SEQUENCE

1. Chip Surface Concrete to Reveal Location of Top Bars and Stirrups. Existing Reinforcing Shall Remain Intact.
2. Notify Engineer Before Proceeding. He Will Make Necessary Adjustments to the Exact Location of the Dowels.
3. Drill Holes, Apply Epoxy Adhesive and Insert Dowels According to Manufacturer's Recommendations. The Full Strength of the Bars Shall be Developed.
4. Remove Excess Adhesive from Concrete Surface and Proceed with Remaining Work.



THIS WORK WAS PREPARED BY
ME OR UNDER MY SUPERVISION.

PIER NO. 7 CAP TYPE "B" (COL. 3'-0")
CREEP BLOCK DOWEL REINF. DETAIL

Scale: 3/4" = 1'-0"

2
S1.22 S1.25

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
HANAWI BRIDGE

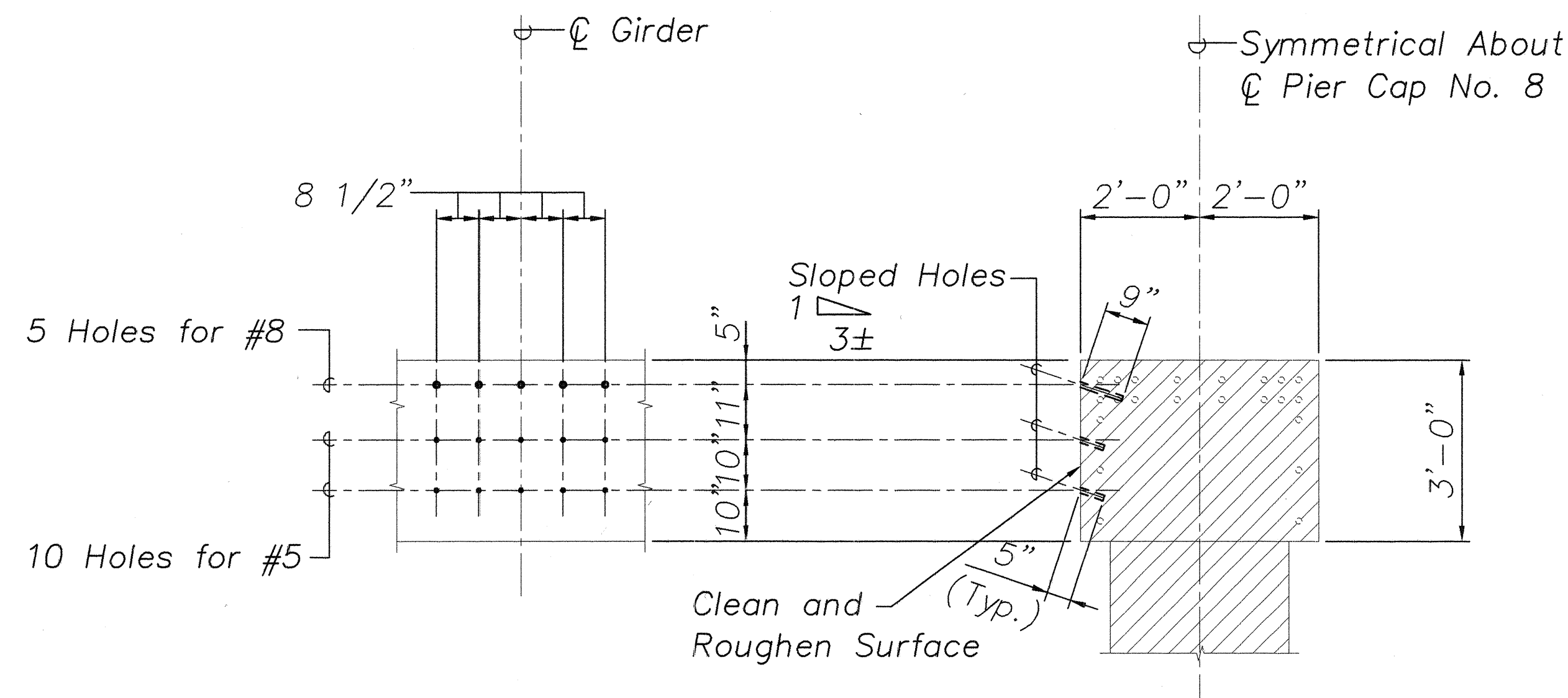
PIER NO. 7 - DETAILS

HAWAII BELT ROAD
SEISMIC RETROFIT OF VARIOUS BRIDGES
VICINITY OF PEPEKEO, HAWAII - UNIT 1
FEDERAL-AID PROJECT NO. BR-0100(57)

SCALE: AS NOTED DATE: March 2001

SHEET No. S1.25 OF 76 SHEETS

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII | HAW. | BR-0100(57) | 2001 | 38 | 88 |



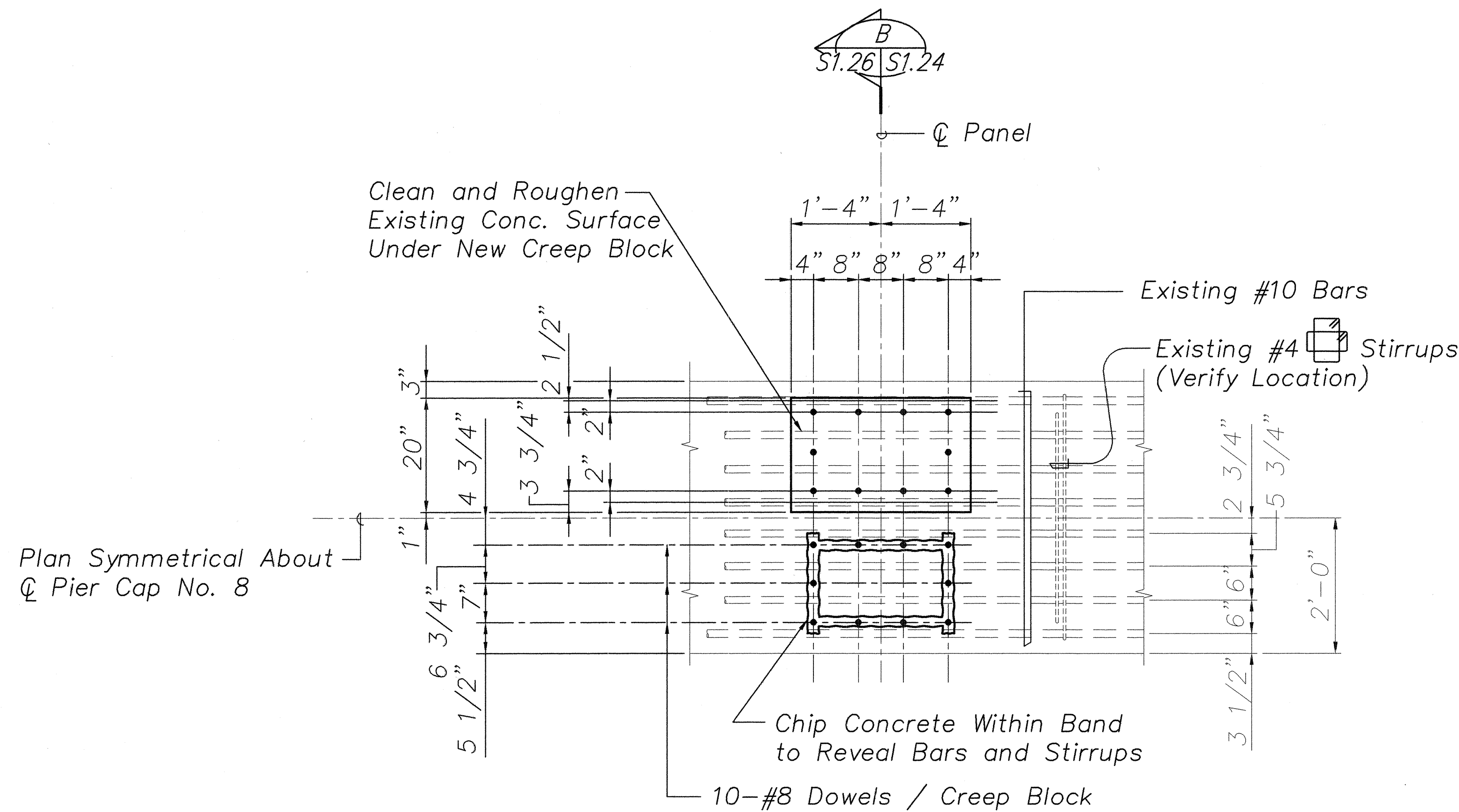
ELEVATION

SECTION

TYPICAL DRILLING PATTERN AT PIER NO. 8 SEAT EXTENDER

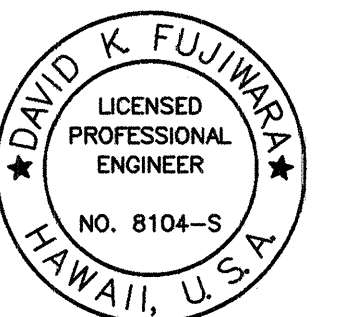
Scale: 1/2" = 1'-0"

1
S1.23 | S1.26



WORK SEQUENCE

1. Chip Surface Concrete to Reveal Location of Top Bars and Stirrups. Existing Reinforcing Shall Remain Intact.
2. Notify Engineer Before Proceeding. He Will Make Necessary Adjustments to the Exact Location of the Dowels.
3. Drill Holes, Apply Epoxy Adhesive and Insert Dowels According to Manufacturer's Recommendations. The Full Strength of the Bars Shall be Developed.
4. Remove Excess Adhesive from Concrete Surface and Proceed with Remaining Work.



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ME OR UNDER MY SUPERVISION.

PIER NO. 8 CAP TYPE "B" (COL. 2'-0")
CREEP BLOCK DOWEL REINF. DETAIL

Scale: 3/4" = 1'-0"

2
S1.22 | S1.26

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
HAWAII BRIDGE

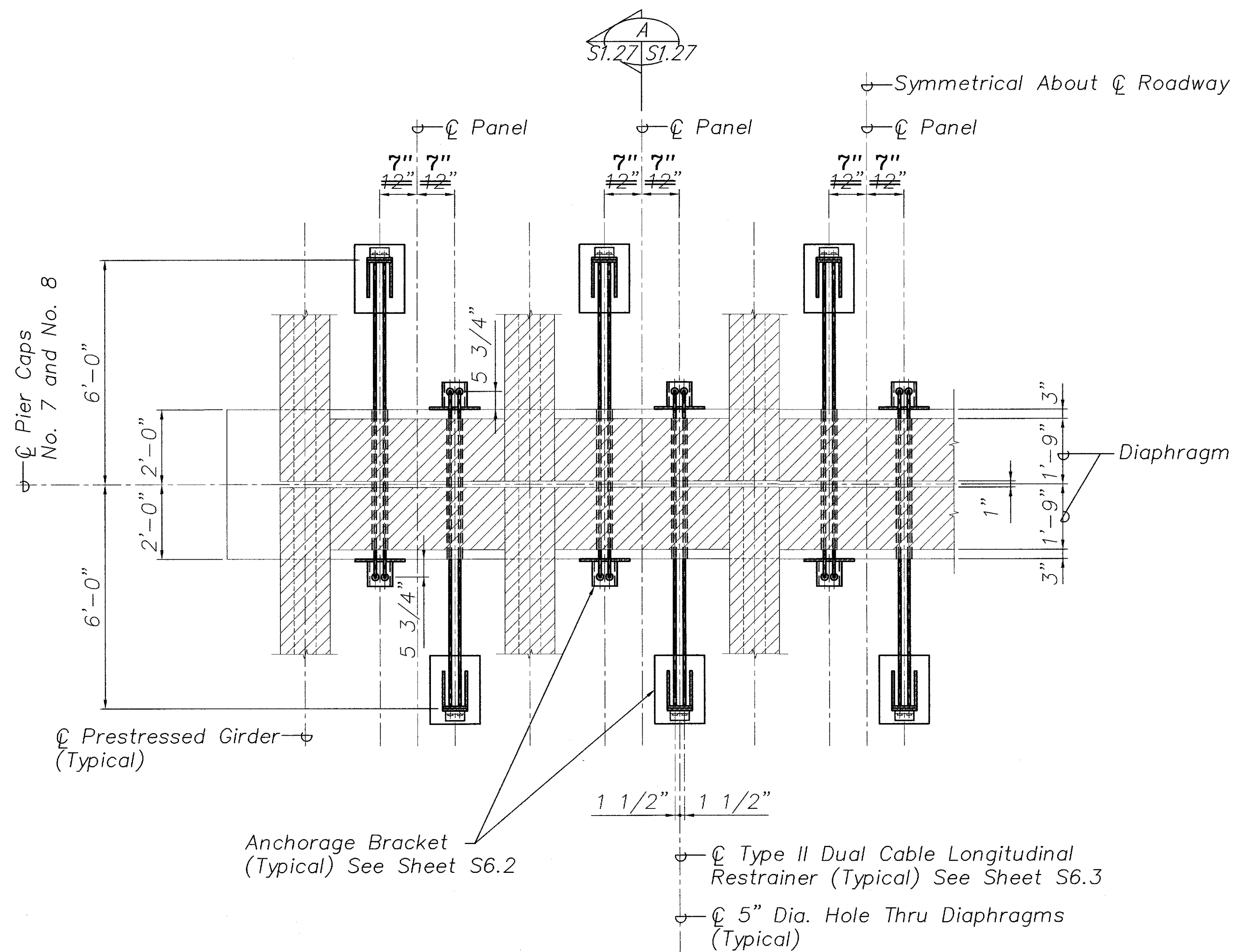
PIER NO. 8 - DETAILS

HAWAII BELT ROAD
SEISMIC RETROFIT OF VARIOUS BRIDGES
VICINITY OF PEPEEKEO, HAWAII - UNIT 1
FEDERAL-AID PROJECT NO. BR-0100(57)

SCALE: AS NOTED DATE: March 2001

SHEET No. S1.26 OF 76 SHEETS

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII | HAW. | BR-0100(57) | 2001 | 39 | 88 |

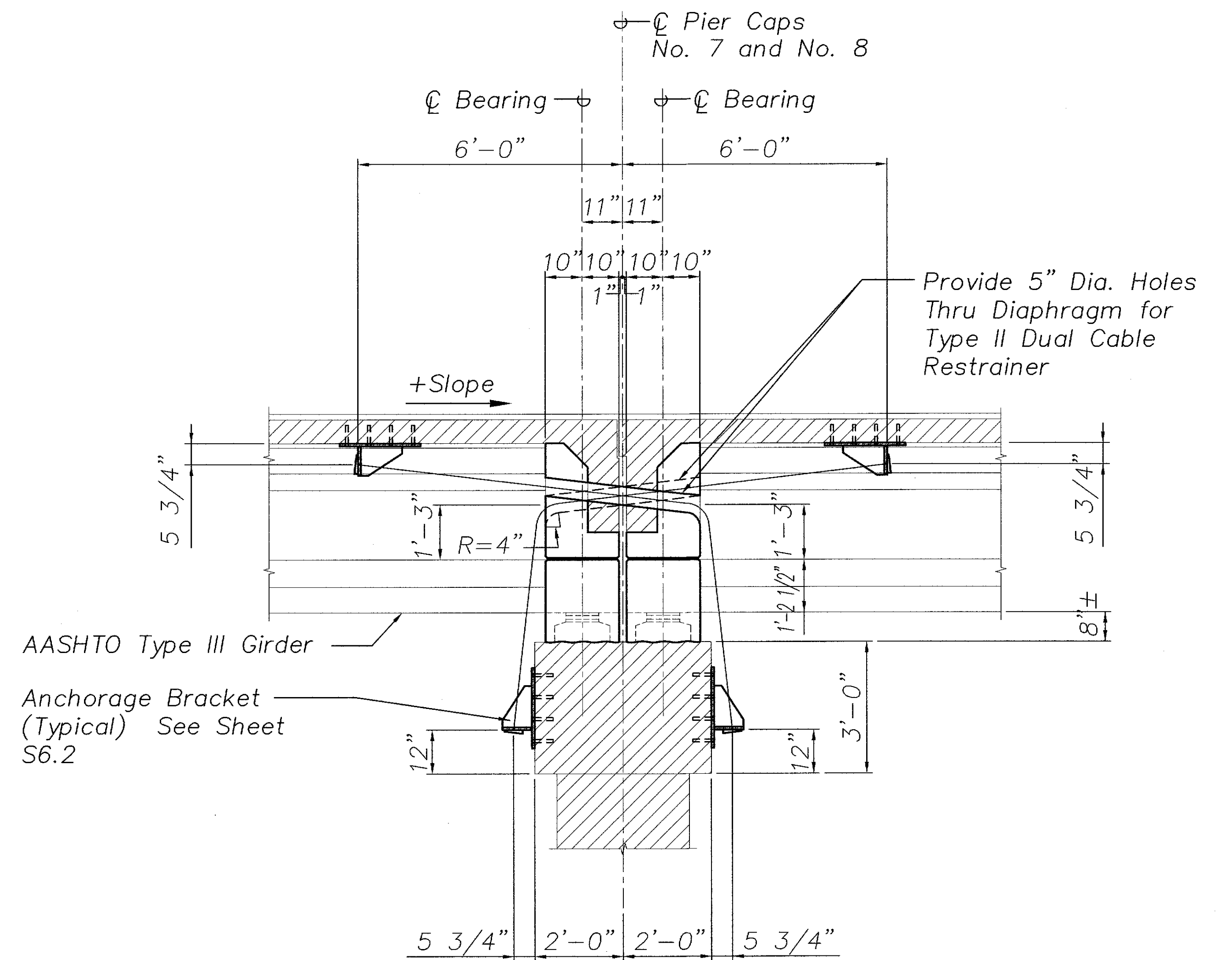


PLAN - PIER CAP RESTRAINER

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

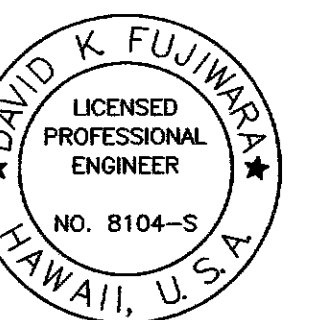
NOTES:

1. The Contractor Shall Verify All Controlling Field Dimensions Before Ordering or Fabricating Material.
2. Location of Drilled Holes Shown in Plans are Approximate. Prior to Placing Holes in Concrete, the Contractor Shall Locate All Reinforcing Steel and Adjust the Location of the Holes to Clear All Reinforcing Bars. Final Hole Locations are Subject to the Approval of the Engineer.



SECTION

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



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LEGEND FOR AS-BUILT POSTINGS

| | |
|---------|-------------------------------------|
| | Squiggly line for as-built deletion |
| | Double line for as-built deletion |
| Roadway | Text for as-built posting |

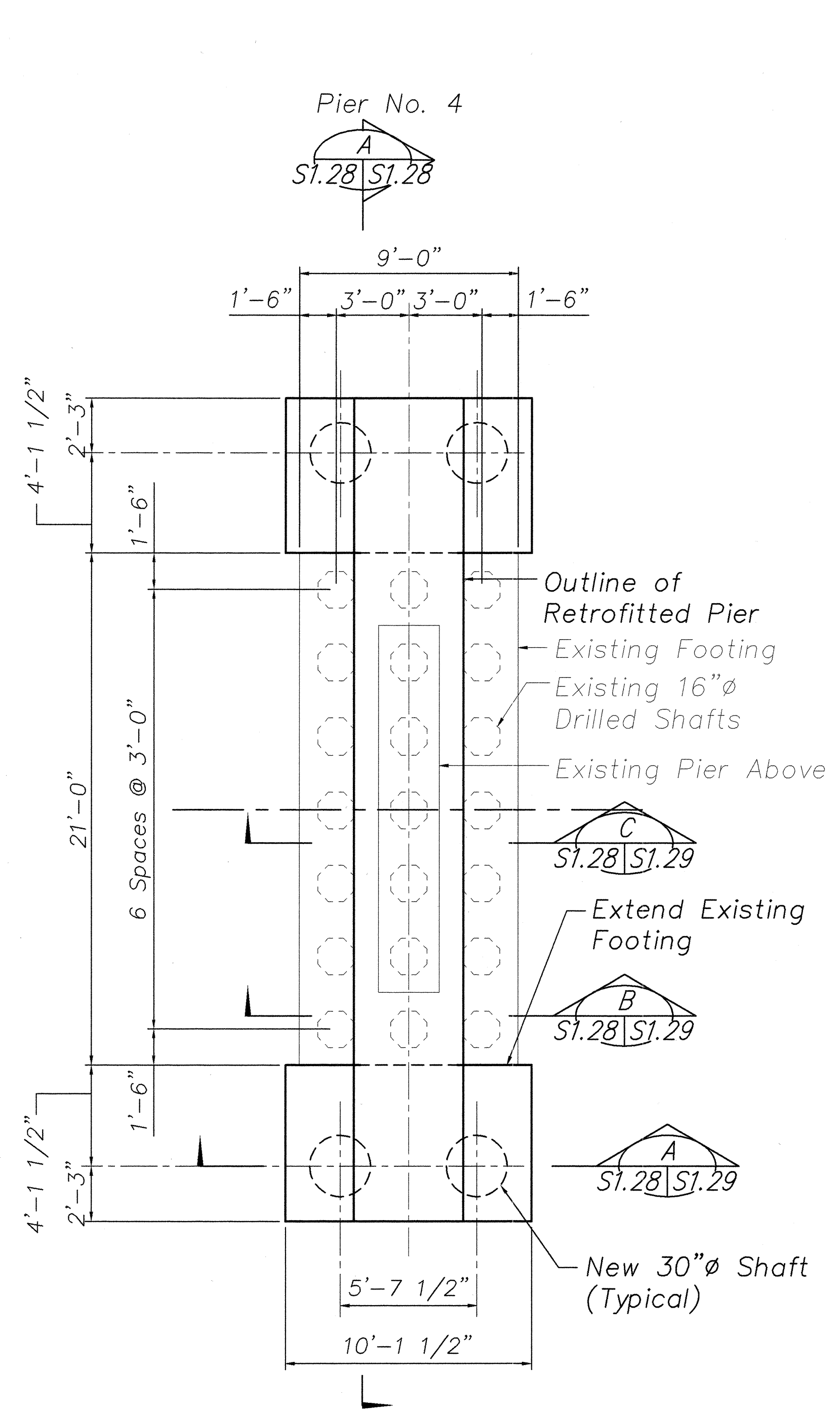
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
HANAWI BRIDGE
PIERS NO. 7 AND NO. 8
CABLE RESTRAINER SECTIONS
HAWAII BELT ROAD
SEISMIC RETROFIT OF VARIOUS BRIDGES
VICINITY OF PEPEEKEO, HAWAII - UNIT 1
FEDERAL-AID PROJECT NO. BR-0100(57)

SCALE: AS NOTED DATE: March 2001

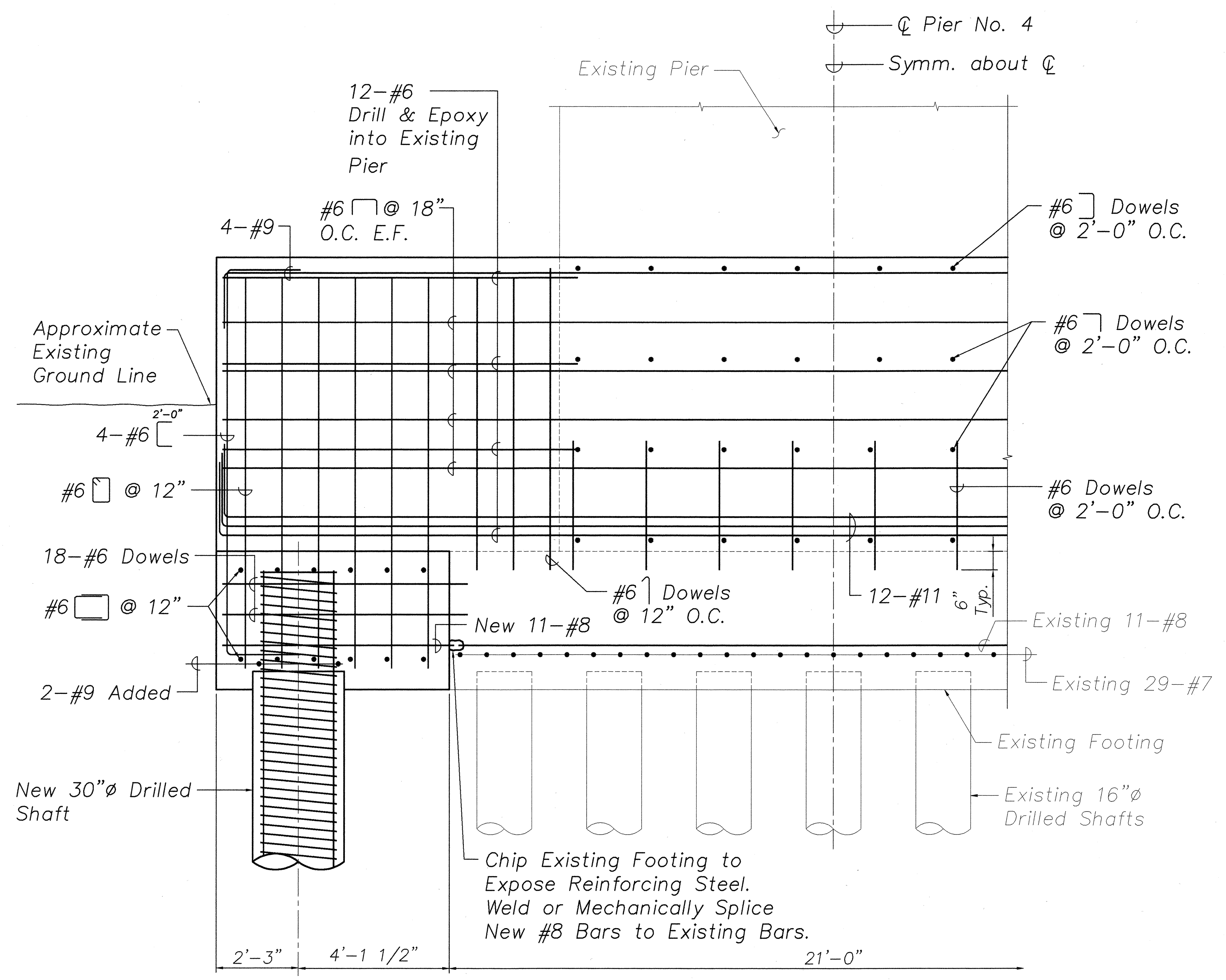
SHEET No. S1.27 OF 76 SHEETS

"AS-BUILT"

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII | HAW. | BR-0100(57) | 2001 | 40 | 88 |

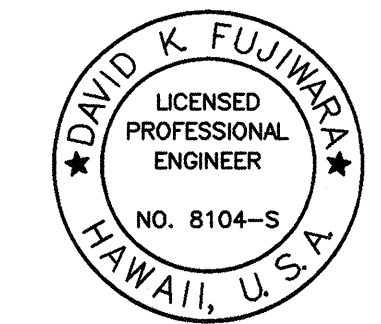


PILE CAP PLAN 1
 SCALE: 1/4" = 1'-0" S1.28 S1.28



ELEVATION - PILE CAP A
 Scale: 1/2" = 1'-0" S1.28 S1.28

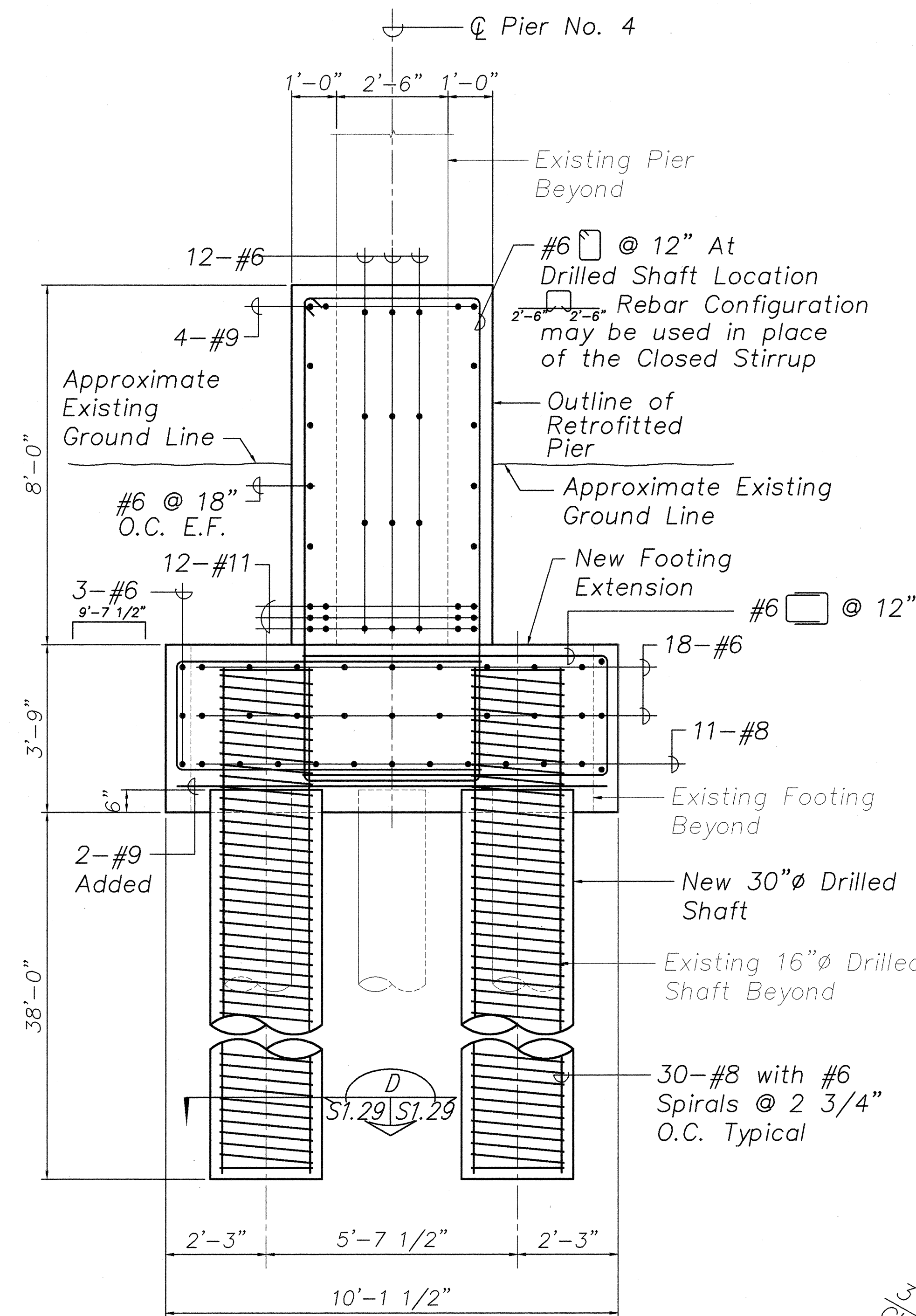
| | | |
|---------------|-------------------|------|
| ORIGINAL PLAN | SURVEY PLOTTED BY | DATE |
| | DRAWN BY | |
| | TRACED BY | |
| | NOTED BY | |
| NOTE BOOK | CHECKED BY | |
| | No. | |



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STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
 HANAWA BRIDGE
 PIER NO. 4
 PLAN & ELEVATION
 HAWAII BELT ROAD
 SEISMIC RETROFIT OF VARIOUS BRIDGES
 VICINITY OF PEPEKEO, HAWAII - UNIT 1
 FEDERAL-AID PROJECT NO. BR-0100(57)
 SCALE: AS NOTED DATE: March 2001

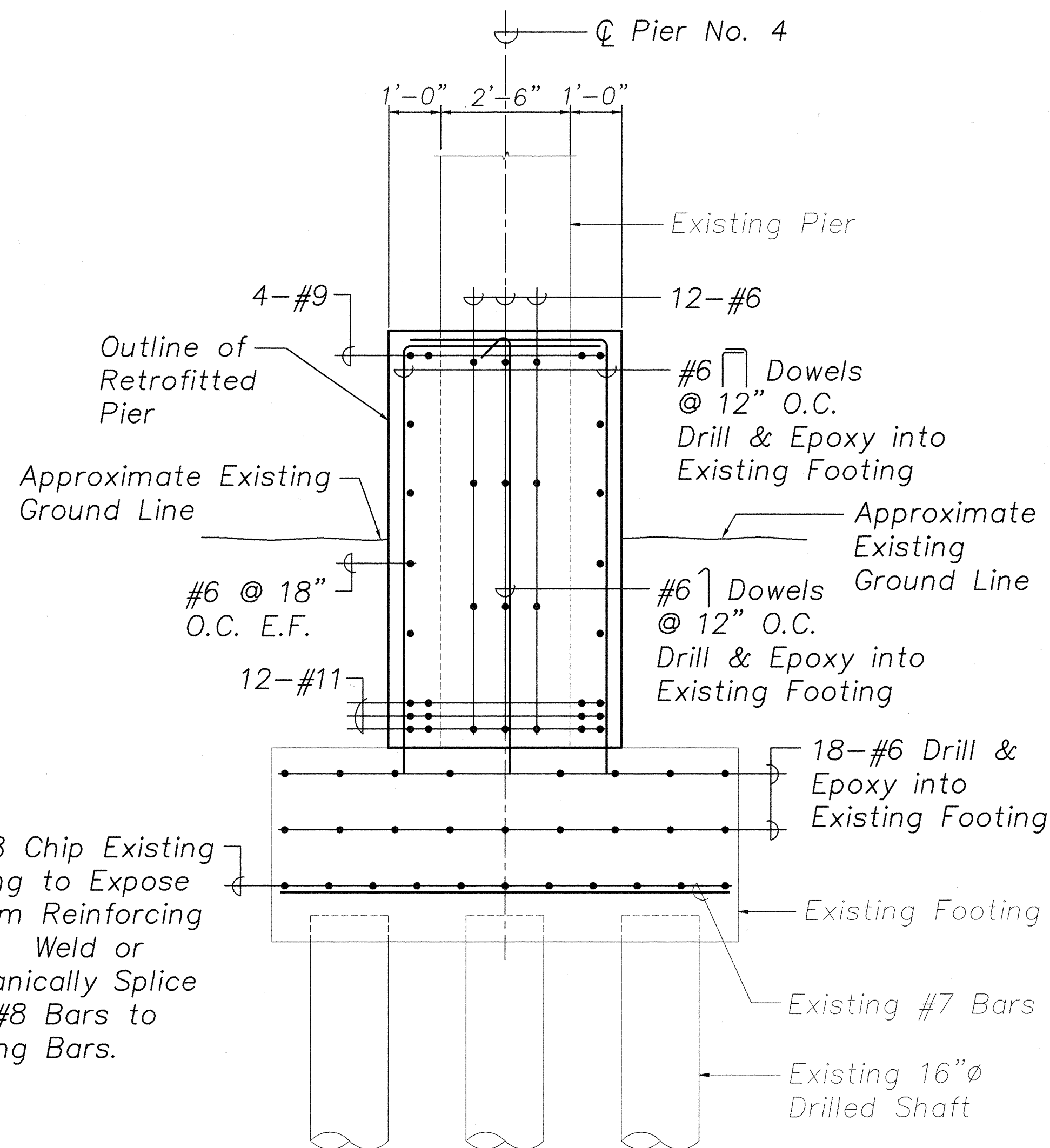
| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII | HAW. | BR-0100(57) | 2001 | 41 | 88 |



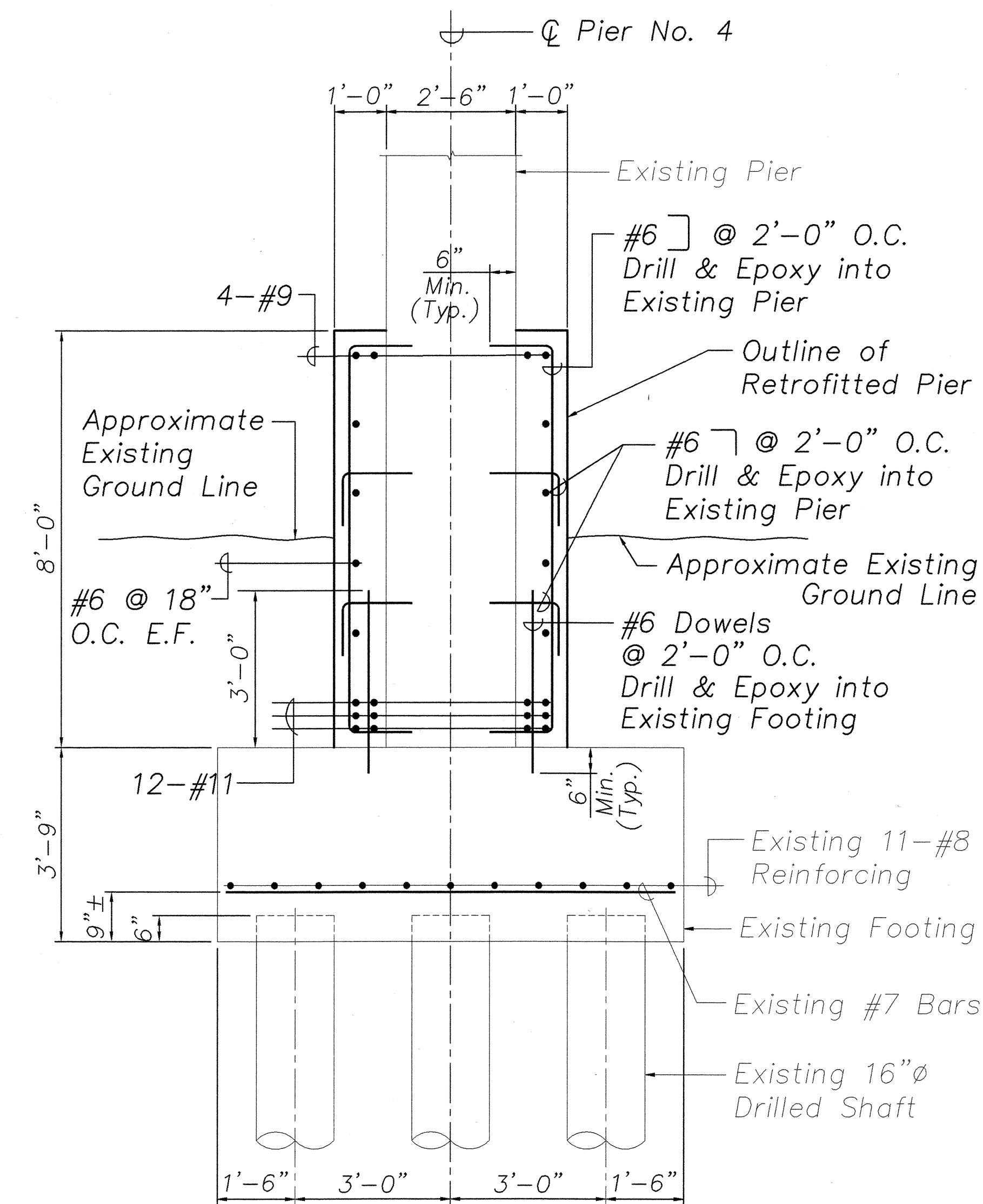
SECTION - PILE CAP A
Scale: 1/2" = 1'-0" S1.28 S1.29

Note:

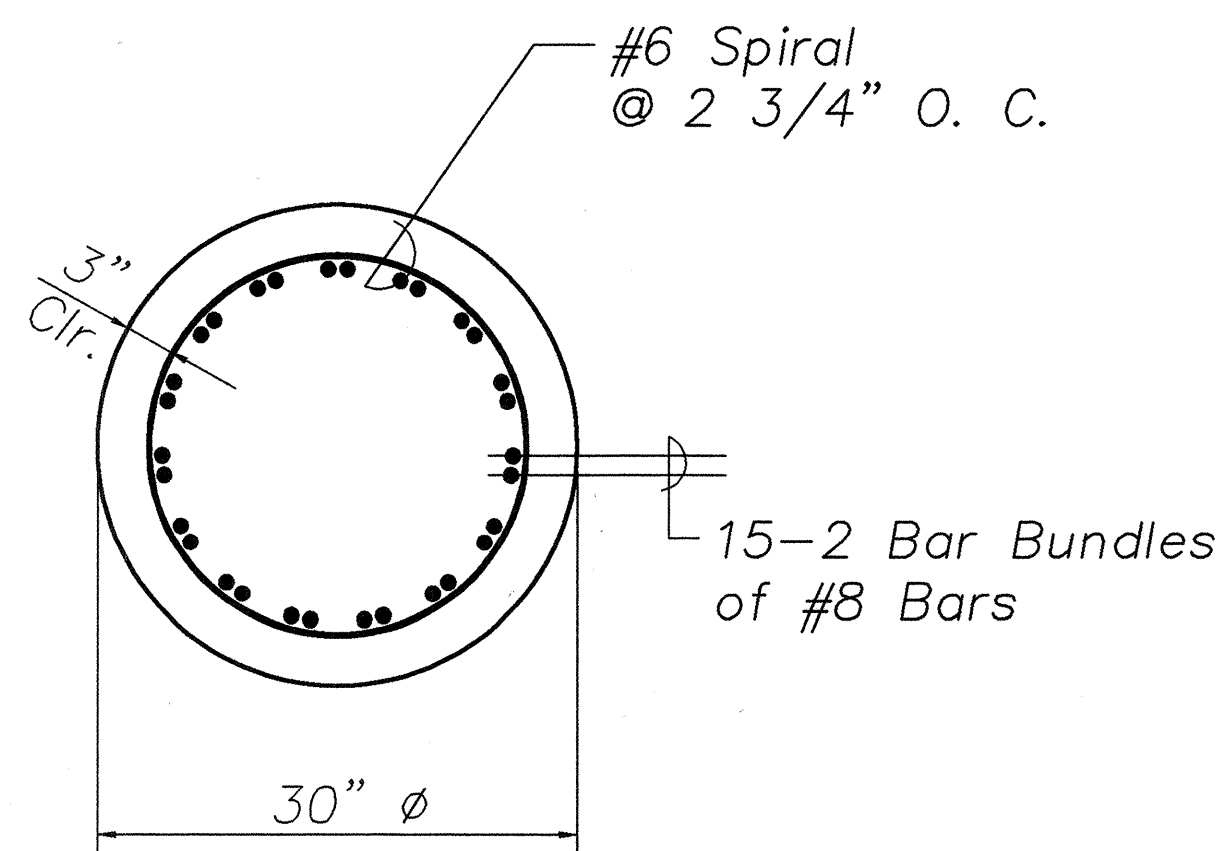
The final 5'-0" of the drilled shafts are socketed into rock. The drilled shafts may be terminated at a shorter length than shown as directed by the engineer.



SECTION - PILE CAP B
Scale: 1/2" = 1'-0" S1.28 S1.29



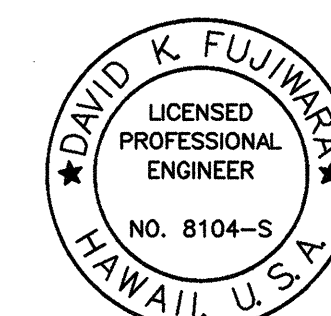
SECTION - PILE CAP C
Scale: 1/2" = 1'-0" S1.28 S1.29



SECTION D
Scale: 1" = 1'-0" S1.29 S1.29

Notes:

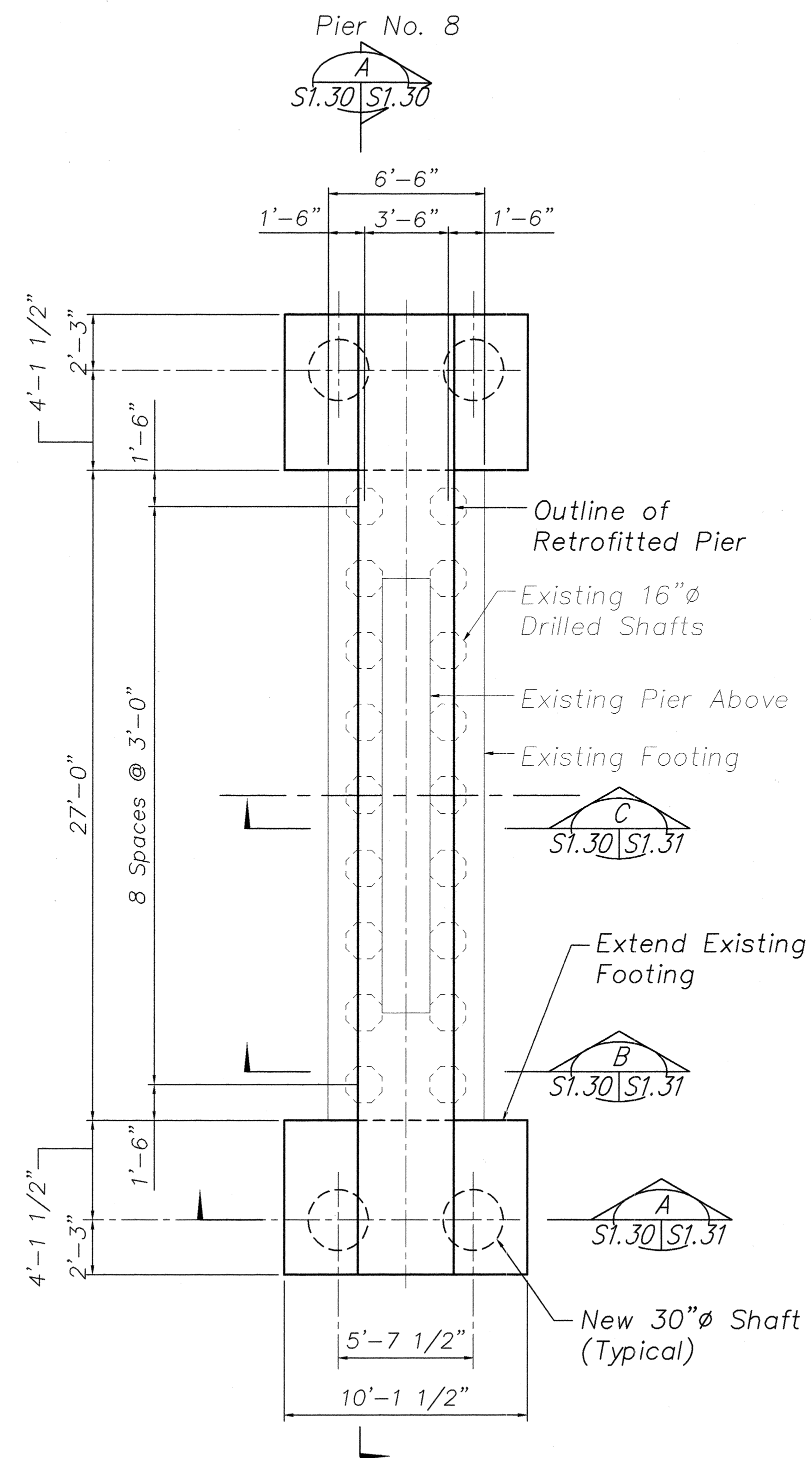
1. Weld or mechanical splice shall develop 125% of the Specified Yield Strength of the rebar.
2. Welded rebars shall be ASTM A706 bars.
3. Epoxied dowels shall be embedded a minimum of 6" into existing concrete and shall be a minimum of 6" from any free edge in which the hole is drilled unless otherwise noted.



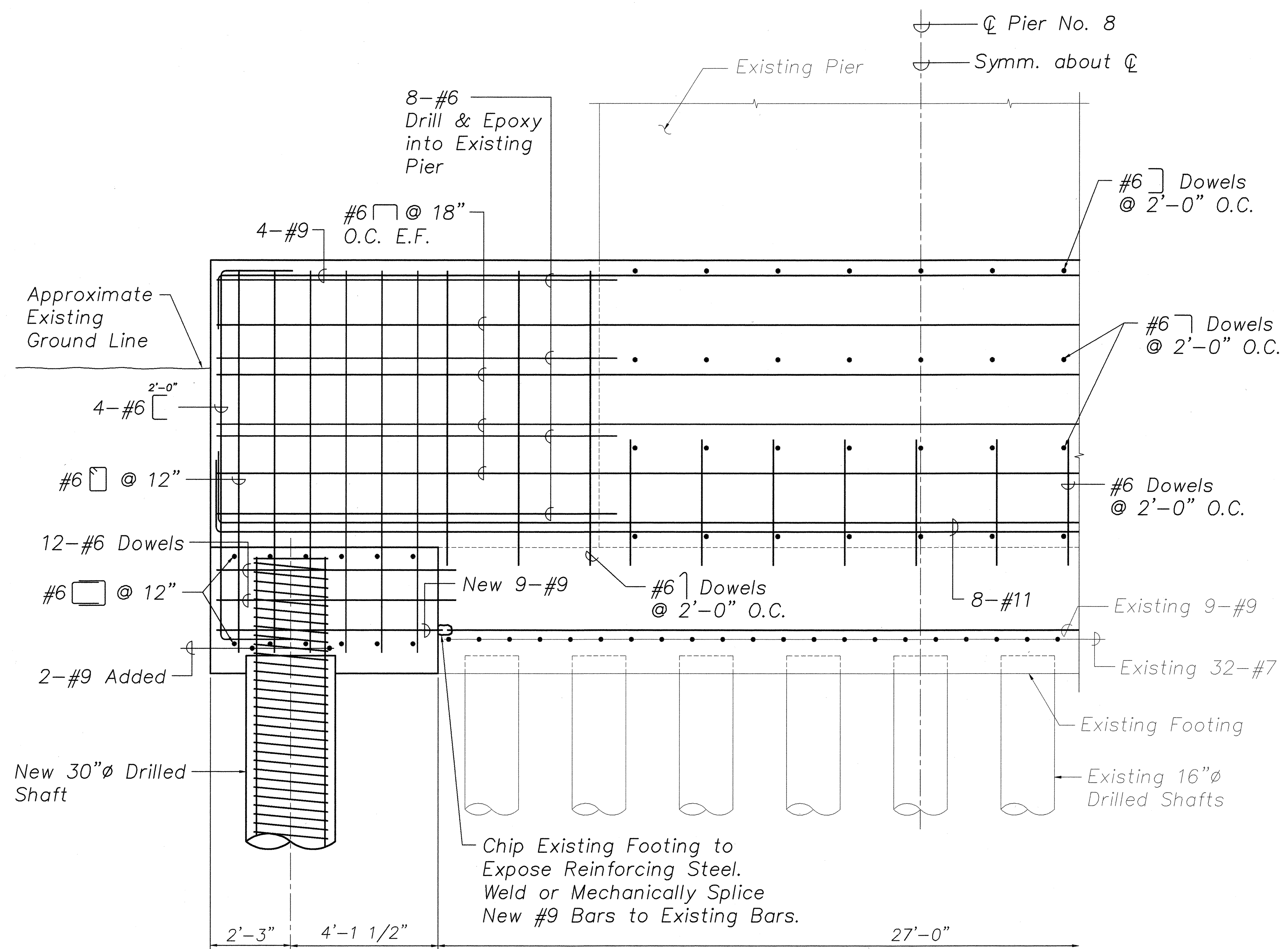
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
HANAWI BRIDGE
PIER NO. 4
SECTIONS
SEISMIC RETROFIT OF VARIOUS BRIDGES
VICINITY OF PEPEKEO, HAWAII - UNIT 1
FEDERAL-AID PROJECT NO. BR-0100(57)
SCALE: AS NOTED DATE: March 2001
SHEET No. S1.29 OF 76 SHEETS

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII | HAW. | BR-0100(57) | 2001 | 42 | 88 |

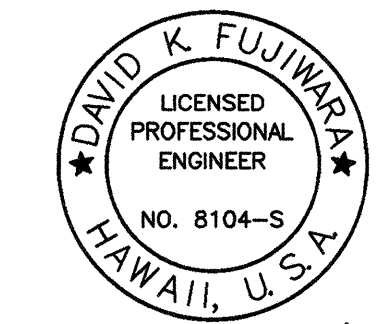


PILE CAP PLAN 1
 SCALE: 1/4" = 1'-0" S1.1 | S1.30



ELEVATION - PILE CAP A
 Scale: 1/2" = 1'-0" S1.30 | S1.30

| | | |
|---------------|-------------------|------|
| ORIGINAL PLAN | SURVEY PLOTTED BY | DATE |
| NOTE BOOK | DRAWN BY | |
| | DESIGNED BY | |
| | CHECKED BY | |
| No. | | |

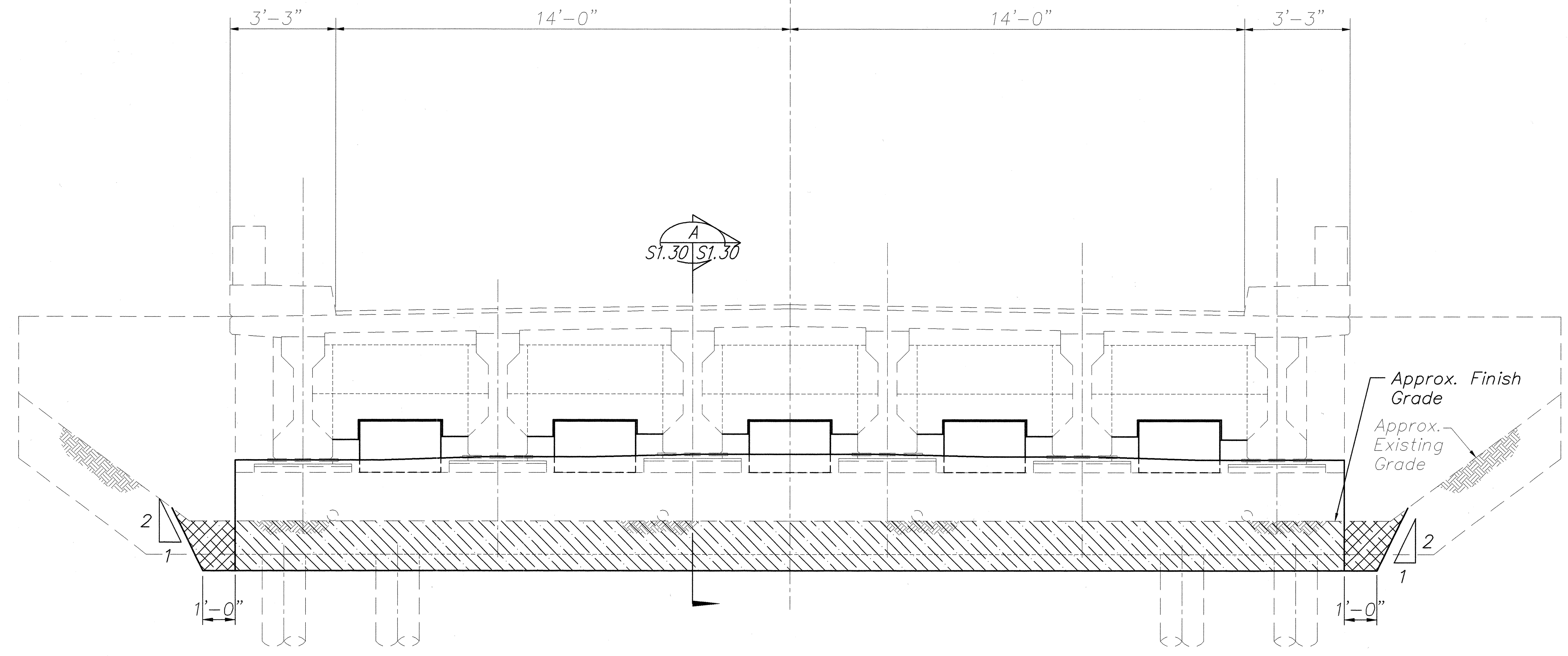


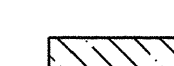
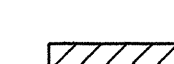
David K. Fujiwara
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
HANAWI BRIDGE
PIER NO. 8
PLAN & ELEVATION
HAWAII BELT ROAD
SEISMIC RETROFIT OF VARIOUS BRIDGES
VICINITY OF PEPEEKEO, HAWAII - UNIT 1
FEDERAL-AID PROJECT NO. BR-0100(57)

SCALE: AS NOTED
DATE: March 2001

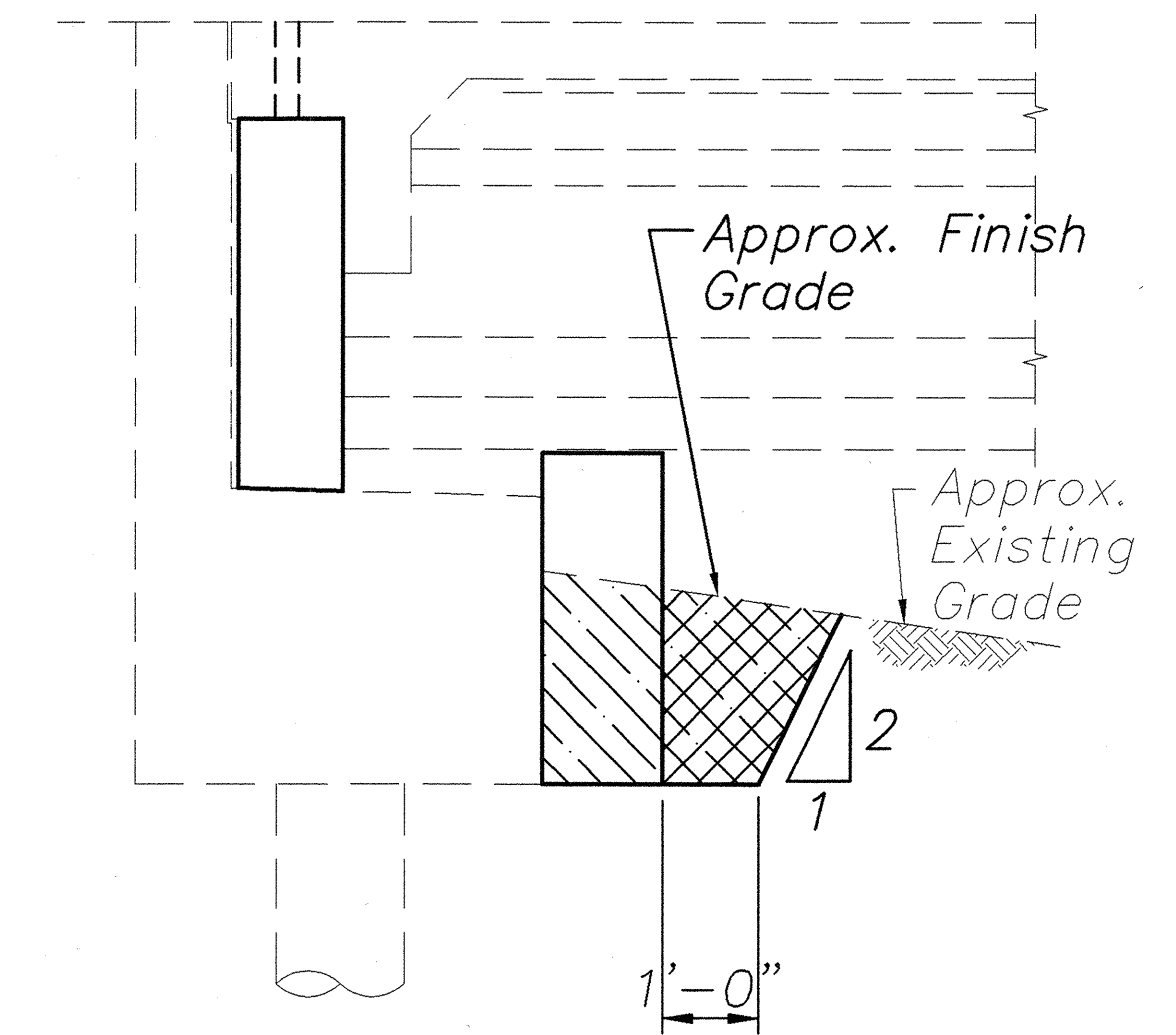
| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII | HAW. | BR-0100(57) | 2001 | 44 | 88 |

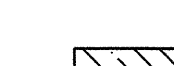
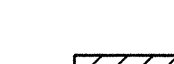


 Structure Excavation
 Structure Backfill

ELEVATION – ABUTMENTS NO. 1 & NO. 2

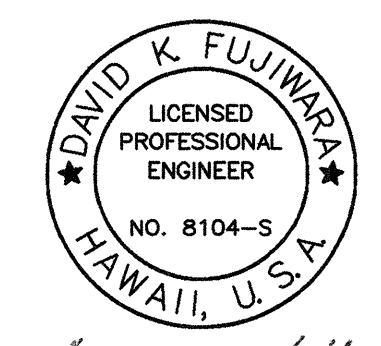
STRUCTURE EXCAVATION / BACKFILL PAY LIMITS
 Scale: 1/2" = 1'-0"



 Structure Excavation
 Structure Backfill

SECTION
 Scale: 1/2" = 1'-0" A
S1.30 | S1.30

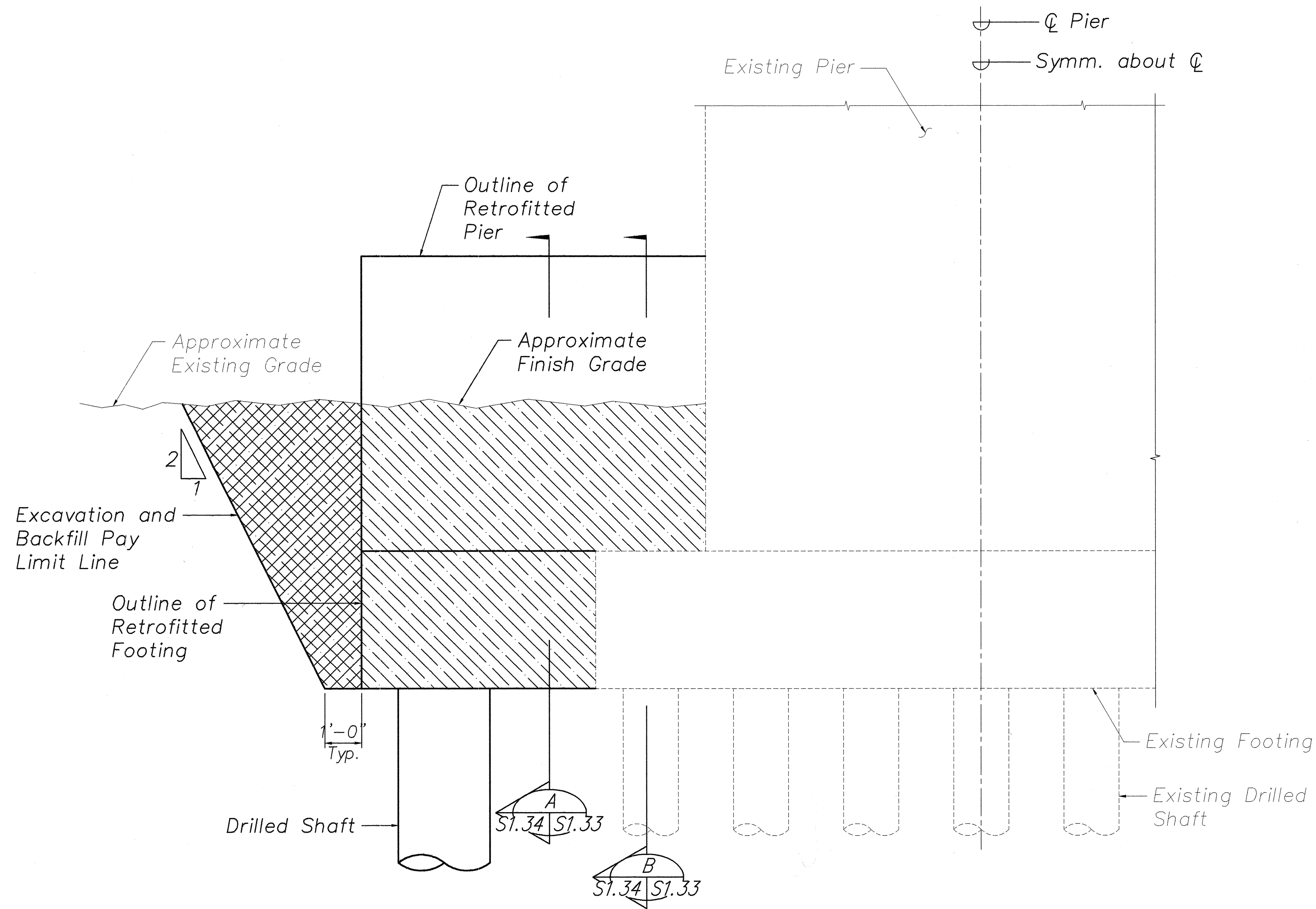
| | | |
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| ORIGINAL PLAN | SURVEY PLOTTED BY | DATE |
| NOTE BOOK | DRAWN BY | " " |
| | DESIGNED BY | " " |
| | CHECKED BY | " " |
| No. | | |



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STATE OF HAWAII
 DEPARTMENT OF TRANSPORTATION
 HIGHWAYS DIVISION
 HAWAII BRIDGE
 ABUT.S NO. 1 AND NO. 2-STRUCTURE
 EXCAVATION/BACKFILL PAY LIMITS
 HAWAII BELT ROAD
 SEISMIC RETROFIT OF VARIOUS BRIDGES
 VICINITY OF PEPEEKEO, HAWAII – UNIT 1
 FEDERAL-AID PROJECT NO. BR-0100(57)
 SCALE: AS NOTED DATE: March 2001
 SHEET No. S1.32 OF 76 SHEETS

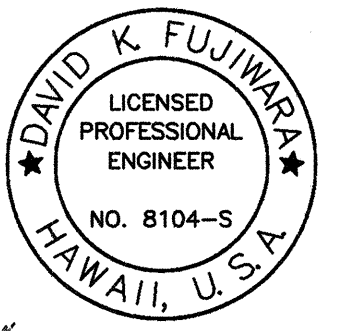
| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII | HAW. | BR-0100(57) | 2001 | 45 | 88 |



SECTION A
Scale: 1/2" = 1'-0" S1.33 | S1.33

Structure Excavation
Structure Backfill

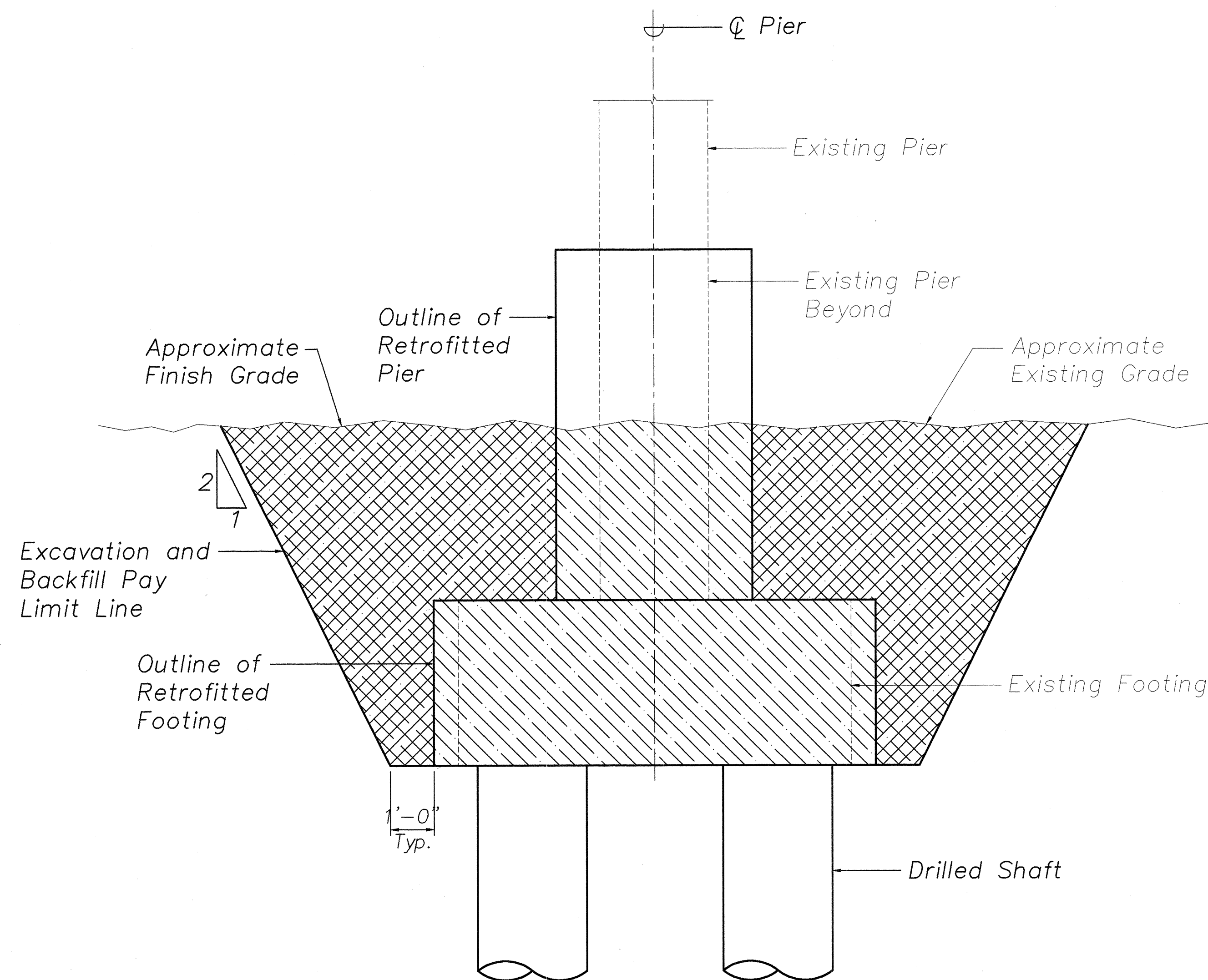
| | |
|-------------------|-------|
| DATE | _____ |
| SURVEY PLOTTED BY | _____ |
| DRAWN BY | _____ |
| TRACED BY | _____ |
| CHECKED BY | _____ |
| NOTE BOOK | _____ |
| No. | _____ |



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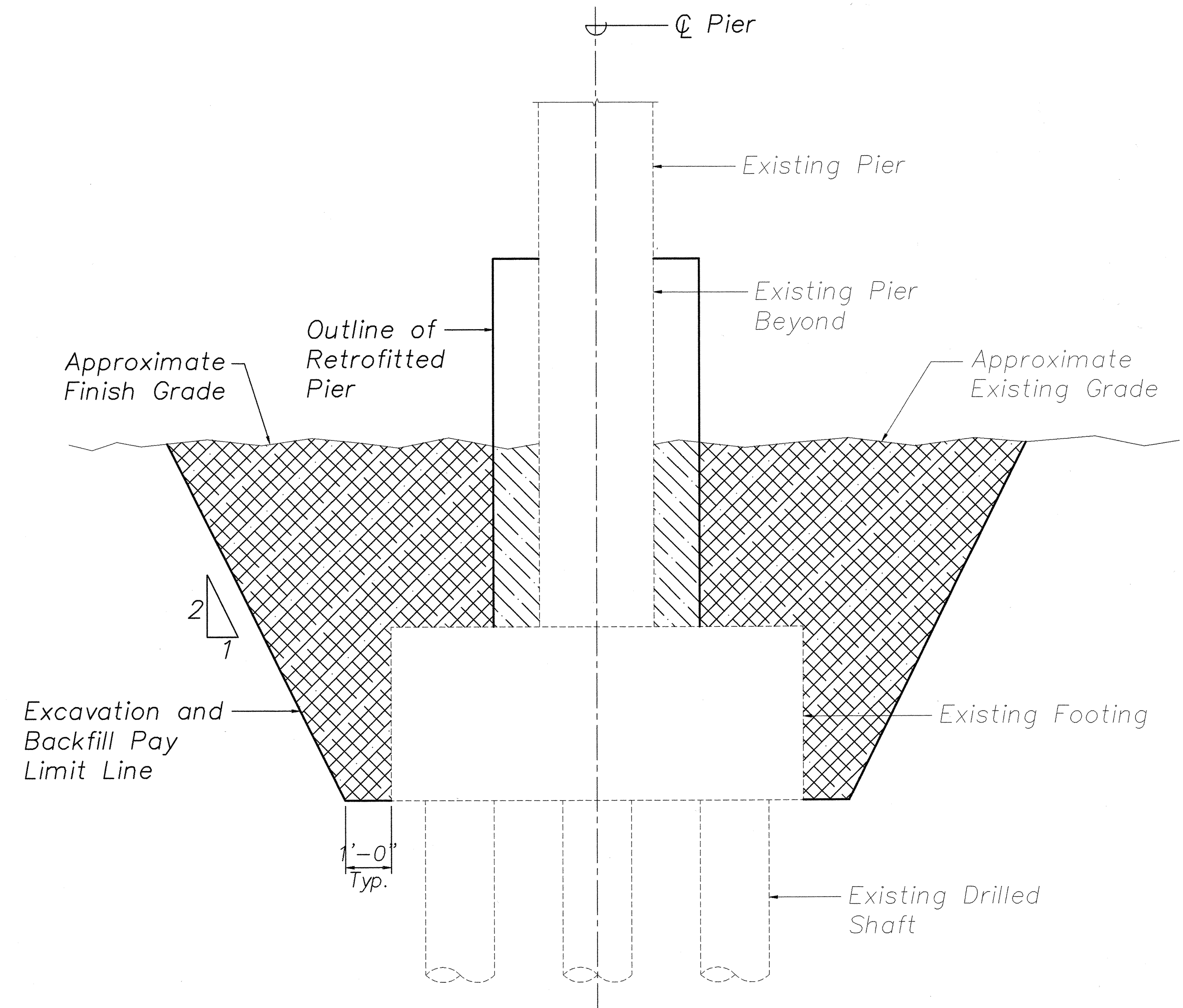
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
HANAWI BRIDGE
PIERS NO. 4 AND NO. 8
STRUCTURE EXCAVATION/BACKFILL PAY LIMITS
HAWAII BELT ROAD
SEISMIC RETROFIT OF VARIOUS BRIDGES
VICINITY OF PEPEKEO, HAWAII - UNIT 1
FEDERAL-AID PROJECT NO. BR-0100(57)
SCALE: AS NOTED DATE: March 2001
SHEET No. S1.33 OF 76 SHEETS

| FED. ROAD DIST. NO. | STATE | FED. AID PROJ. NO. | FISCAL YEAR | SHEET NO. | TOTAL SHEETS |
|---------------------|-------|--------------------|-------------|-----------|--------------|
| HAWAII | HAW. | BR-0100(57) | 2001 | 46 | 88 |

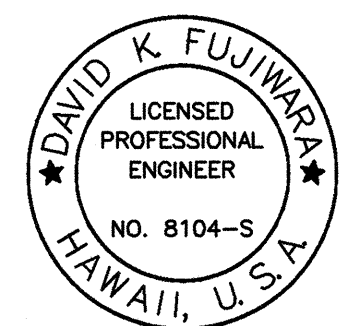


SECTION AT
RETROFITTED FOOTING A
Scale: 1/2" = 1'-0" S1.34 S1.34

- Structure Excavation
- Structure Backfill



SECTION AT
EXISTING FOOTING B
Scale: 1/2" = 1'-0" S1.34 S1.34



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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

HANAWI BRIDGE

PIERS NO. 4 AND NO. 8

STRUCTURE EXCAVATION/BACKFILL PAY LIMITS

HAWAII BELT ROAD

SEISMIC RETROFIT OF VARIOUS BRIDGES

VICINITY OF PEPEKEO, HAWAII - UNIT 1

FEDERAL-AID PROJECT NO. BR-0100(57)

SCALE: AS NOTED DATE: March 2001

SHEET No. S1.34 OF 76 SHEETS

| | | |
|-------------------------------|-------------------------|------------|
| ORIGINAL PLAN NOTE BOOK | SURVEY PLOTTED BY _____ | DATE _____ |
| | DRAWN BY _____ | _____ |
| | TRACED BY _____ | _____ |
| | QUANTITIES BY _____ | _____ |
| | CHECKED BY _____ | |
| | No. _____ | |