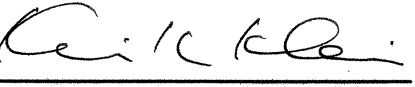


G E N E R A L N O T E S						FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS																								
						HAWAII	HAWAII	HWY-H-05-06	2008	40	64																								
<p><u>General:</u></p> <p>1. All material and workmanship shall conform to the drawings and the specifications, and shall conform to the International Building Code, 2003 edition, as adopted by the City and County of Honolulu.</p> <p>2. The Contractor shall be responsible for coordinating the work of all trades and shall verify all dimensions and conditions prior to starting work. All discrepancies, omissions or conflicts shall be reported to the Engineer and be resolved before proceeding with the work.</p> <p>3. All information shown on the drawings relative to existing conditions is given as the best present knowledge, but without guarantee of accuracy. Where actual conditions conflict with the drawings, they shall be reported to the Engineer so that the proper revisions may be made. Modification of details shall not be made without written approval of the Engineer.</p> <p>4. Drawings indicate general and typical details of construction. Where conditions are not specifically indicated but are of similar character to details shown, similar details of construction shall be used, subject to the review by the Engineer.</p> <p>5. All details designated as typical shall occur in addition to any other specific detail called out.</p> <p>6. All connections and construction conditions not specifically shown shall be detailed by the Contractor and shall be submitted to the Engineer for review. Details shall comply with the drawings and specifications, conform to current construction practices, and meet all requirements of the latest applicable building codes.</p> <p>7. Shop drawings required by the specifications shall be submitted to the Engineer for review prior to fabrication.</p> <p>8. During construction, the Contractor shall be responsible for the safety of the job site. The Contractor shall provide adequate shoring, bracing, guys, etc., in accordance with all safety ordinances.</p> <p>9. The Contractor shall be solely responsible for all excavation procedures, including lagging, shoring and protection of adjacent property, structures, streets, and utilities.</p> <p><u>Design Loads:</u></p> <p>1. Lateral loads</p> <p>A. Earthquake Ss = 1.25g, S1 = 0.42g, I = 1.0</p> <p>B. Wind105 mph, Exposure C, I = 1.0</p> <p>2. Live loads</p> <p>A. Roof20 psf</p> <p>B. Storage125 psf</p> <p><u>Earthwork and Foundation:</u></p> <p>1. The foundation design is based on soils recommendations report W.O. 07-4430 titled "Foundation Investigation, Honokaa Baseyard Improvements, 45-318 Ohia Street, Honokaa, Hawaii, TMK: 4-5-021:001," by Hirata and Associates Inc. dated September 26, 2007. A copy of the report is on file at the Engineer's office for review by the Contractor.</p>						<p>2. The foundation design is based on a bearing capacity of 3000 psf and all footings shall be founded on undisturbed weathered rock or newly placed granular structural fill.</p> <p>3. All footings shall be founded at least 24 inches below lowest adjacent grade or finish floor, whichever is lower. Volcanic ash exposed at the bottom of footing excavations shall be overexcavated to a minimum depth of 3 feet and backfilled with imported granular fill. Granular fill shall also extend a minimum 12" beyond the edge of footing.</p> <p>4. All footing excavations, fill and backfill operations shall be monitored and approved by the Engineer prior to the placement of any reinforcing steel or concrete. Contractor shall make appropriate arrangements for inspections as required.</p> <p>5. Clean and moisten footing trenches prior to pouring concrete.</p> <p>6. Do not place conduits and utility lines in footing trenches.</p> <p><u>Reinforcing steel:</u></p> <p>1. All reinforcing bars shall conform to ASTM A615, grade 60, unless noted otherwise. Ties and stirrups shall be grade 40.</p> <p>2. Welded wire fabric shall conform to ASTM A82 and A185.</p> <p>3. Minimum concrete clear cover:</p> <p>A. Concrete cast against earth 3"</p> <p>B. Concrete exposed to earth or weather</p> <p>1. #5 bar and smaller 2"</p> <p>2. #6 bar and larger. 2"</p> <p>4. Anchor bolts, dowels and other embedded items shall be securely tied in place before concrete is poured. Dowels shall match the size and spacing of the column and wall bars unless noted otherwise.</p> <p>5. Splices:</p> <p>A. All reinforcing shall be lapped 40 bar diameters or 24 inches minimum unless noted otherwise.</p> <p>B. All reinforcing shall be lapped as indicated. Where lap or splice locations are not specifically indicated, laps or splices shall be well staggered and be approved by the Engineer.</p> <p>6. Welding to reinforcing bars shall be prohibited except by specific authorization of the Engineer.</p> <p><u>Concrete:</u></p> <p>1. All concrete work shall conform to HDOT 2005 Standard Specifications.</p> <p>2. Aggregates shall conform to ASTM C33.</p> <p>3. Cement shall conform to ASTM C150, type I or II.</p> <p>4. All concrete unless otherwise noted shall be regular weight (150 pcf), hard rock type.</p> <p>5. Concrete strength class and maximum aggregate size shall be as follows:</p>						<p><u>Concrete: (Cont.)</u></p> <table><tr><th>Item</th><th>Concrete Class</th><th>Aggregate Size (in)</th></tr><tr><td>Footings</td><td>A</td><td>1"</td></tr><tr><td>Slabs-on-grade</td><td>A</td><td>3/4"</td></tr><tr><td>Sidewalks</td><td>A</td><td>3/4"</td></tr></table> <p>6. Placement of concrete shall be in conformance with HDOT 2005 Standard Specifications.</p> <p>7. Concrete shall be maintained in a moist condition for a minimum of five (5) days after placement. Alternate methods will be approved if satisfactory performance can be assured.</p> <p>8. Submit location of joints prior to placement. Joints shall be located to minimize the effects of shrinkage and placed at points of low stress.</p> <p>A. All interior slabs-on-grade shall be poured with crack control joints not more than 20'-0" apart or as indicated on the drawings.</p> <p>9. All construction joints shall be thoroughly cleaned, all laitance removed, thoroughly wetted, and slushed with a coat of neat cement immediately before placing new concrete.</p> <p>10. Synthetic fiber reinforcing shall conform to ASTM C 1116, Type III, 1/2 to 1-1/2 inches long, engineered and designed for use in concrete. Uniformly disperse in concrete mix at the rate of 1.5 pounds per cubic yard. Provide where indicated on Civil Drawings. Placement workability may be facilitated by use of admixtures as permitted in the specifications.</p> <p>11. Pipes other than electrical conduits shall not be embedded in structural concrete unless specifically approved. Pipes may pass through structural concrete in sleeves.</p> <p>12. The Contractor shall notify the Engineer 48 hours prior to the pouring of any structural concrete. No pour shall proceed without the consent of the Engineer.</p>						Item	Concrete Class	Aggregate Size (in)	Footings	A	1"	Slabs-on-grade	A	3/4"	Sidewalks	A	3/4"	<p><u>Framing Lumber:</u></p> <p>1. Framing lumber shall be Douglas Fir/Larch meeting the following minimum grades per WCLB specifications:</p> <p>2x4 plates, blocking. Construction</p> <p>2x joists, plates, blocking No. 1 / No. 2</p> <p>4x, 6x beams No. 1</p> <p>2. Structural plywood shall be Douglas Fir conforming to commercial standards PS1. Except as noted otherwise, provide the following minimum grade and nailing to all rafters, studs, plates, beams, etc.:</p> <p>A. 3/4" floor sheathing. . . . Struct. I, C-C, exterior with 8d @ 6" o.c. (T&G)</p> <p>All plywood shall bear the stamp of an APA certified mill. Lay all sheathing with face grain across supports, stagger panels.</p> <p>3. Maximum moisture content shall not exceed 19 percent for all structural members.</p> <p>4. All lumber shall be pressure treated with an approved process to protect against rot and insect damage.</p> <p>5. Minimum nailing shall comply with table 23-II-B-1 of the Uniform Building Code, unless noted otherwise.</p> <p>6. Bolt holes shall be nominal diameter of bolt plus 1/16 inch unless noted otherwise. Provide washers under heads and nuts of all bolts and lag screws bearing on wood. Provide oversize washers for anchor bolts on wood plates, typical.</p> <p>7. Provide 30# felt below all plates resting on concrete or masonry.</p> <p>8. Holes through plates, studs, and joists shall be centered in the member and shall not exceed 1/3 the member width. All holes shall be bored. Holes in joists shall be limited to the middle third of the span.</p> <p>9. Provide continuous 2x structural fascia at all eaves. Do not splice fascia within 12'-0" of corners.</p> <p>10. All pre-fabricated metal connectors shall be "Simpson Strong-tie" connectors with "ZMAX" galvanizing or approved equal. Follow the nailing schedule as specified by the manufacturer.</p>					
Item	Concrete Class	Aggregate Size (in)																																	
Footings	A	1"																																	
Slabs-on-grade	A	3/4"																																	
Sidewalks	A	3/4"																																	
<div><div><div>SURVEY PLOTTED BY DATE 1/08</div><div>DESIGNED BY MITSUNAGA & ASSOCIATES, INC. 1/08</div><div>CHECKED BY HWY-H 1/08</div></div><div><div>ORIGINAL PLAN</div><div>NOTE BOOK</div><div>No.</div></div></div>						<div><div><div>KEITH K. KALANI</div><div>LICENSED PROFESSIONAL ENGINEER</div><div>No. 6845-S</div><div>HAWAII, U.S.A.</div></div><div>Expires 4/30/10</div><div>THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION</div><div></div><div>MITSUNAGA & ASSOCIATES</div><div>NOTE: Contractor to check and verify dimensions at job before proceeding with work.</div></div> <div><div>STATE OF HAWAII DEPARTMENT OF TRANSPORTATION HIGHWAYS DIVISION</div><div>GENERAL NOTES</div><div>HONOKAA BASEYARD IMPROVEMENTS</div><div>Project No. HWY-H-05-06</div><div>Scale: As Noted Date: May 2008</div><div>SHEET No. S-1 OF S-9 SHEETS</div></div> <div>40</div>																													

G E N E R A L N O T E S

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAWAII	HWY-H-05-06	2008	41	64

Pre-engineered Building Notes:

- Rigid frames, posts, purlins, girts, decking, roofing, bracing, portal frames, columns, siding, canopies, flashings, trims, etc., shall be standard as per pre-engineered building manufacturer, unless noted otherwise on drawings.
- Design:
 - All framing elements indicated above shall be designed by the manufacturer.
 - Design shall be based on the following criteria:
Roof dead load plus frame weight
Roof live load20 psf per IBC 2003 (reducible)
Mezzanine live load125 psf per IBC 2003
Wind load 105 mph per IBC 2003, Exp. C, I=1.0
Seismic IBC 2003, Ss=1.25g, S1=0.42g, I=1.0
 - Design shall include a 5 psf roof collateral load, except when designing for wind uplift.
 - Design for seismic loads shall include the dead weight of the mezzanine plus 25% of the mezzanine design live load.
 - Calculated story drift for wind and seismic loads shall not exceed IBC 2003 requirements.
- Rigid frame column baseplates and anchor bolts shall be designed by the manufacturer. Baseplate size, bolt size and spacing shall be determined based on the shear and tensile capacity of the concrete supports assuming the concrete to be unreinforced.
- The manufacturer shall submit the following for review prior to starting fabrication:
 - Complete fabrication and erection drawings prepared and stamped by a structural engineer licensed in the State of Hawaii.
 - Complete framing and bracing calculations prepared and stamped by a structural engineer licensed in the State of Hawaii.

Metal Decking

- All metal deck shall be approved by the ICBO.
- Roof Deck:
 - Roof deck and accessories shall be formed from steel sheets conforming to ASTM A653 - SS grade 33 minimum.
 - The deck shall be galvanized in accordance with ASTM A653, class G-90, light commercial.
 - See plans for type, gage, and section properties.
 - Roof units shall be fastened to the steel framework at all supports by 3/4" diameter puddle welds spaced not more than 12" o.c. where two units lap, they shall be button punched at 3'-0" intervals or seam welded at 5'-0" o.c. maximum (minimum two welds per span).
- All metal deck gages shown on the roof plans assume a continuous deck spanning over three supports and shall be substantiated by the pre-engineered building manufacturer.

Structural Steel

- All structural and miscellaneous steel shall be fabricated and erected in accordance with AISC specifications for the design, fabrication and erection of structural steel for buildings, latest edition.
- All structural steel shapes and plates shall conform to ASTM A36.
- All welds shall conform to the "Standard Code for Arc and Gas Welding", of the American Welding Society and be done by certified welders. Unless a larger size of fillet weld is specified on the plans, provide the minimum size of weld per AISC chapter J, section J2 and table J2.4.
- Bolts shall be machine bolts conforming to ASTM A307, unless noted otherwise. High strength bolts conforming to ASTM A325 shall be used where specifically indicated.
- Pipe columns shall conform to ASTM A53, grade B, unless noted otherwise.
- Steel tubes shall conform to ASTM A500, grade B.
- Special inspection is not required for field welds. Field welds are designed at half stress, unless noted otherwise.
- Contractor shall submit shop drawings for review prior to fabrication.

Cold-Formed Steel Framing

- All work shall conform to the "Specification for the Design of Light Gage Cold Form Steel Structural Members" of the AISI.
- All framing shall conform to ASTM A653, SS grade 50, Class 1, G60 coating. Submit mill test results and fabricator certification.
- All section properties required in the plans shall be substantiated by calculations prepared by a licensed Engineer.
- Provide 30# felt below all metal stud walls, typical unless noted otherwise.

Special Inspections

- Special inspections shall be provided during construction in accordance with section 1704 of the International Building Code, 2003 edition (as amended by the City and County of Honolulu), including but not limited to the following types of work:
 - Concrete (except slabs-on-grade)
 - Reinforcing (except slabs-on-grade)
 - Anchor bolts and epoxy anchors
 - High strength bolts
- Cost of special inspections shall be borne by the State. The selection of the Special Inspector is subject to the review and Approval by the Engineer.
- The contractor shall notify the Engineer and the special inspector 48 hours prior to the placement of all work requiring special inspection as described above. Contractor shall make appropriate arrangements for inspections as required.
- No work requiring special inspection shall proceed without the approval of the Engineer and the Special Inspector. All discrepancies noted by the Special Inspector shall be brought to the immediate attention of the contractor for correction, then, if uncorrected, to the Engineer.
- Special inspections shall not relieve the General Contractor of his responsibilities to perform the work in accordance with the construction documents and to provide jobsite safety.

SURVEY PLOTTED BY	DATE
DESIGNED BY	1/08
TRACED BY	
DESIGNED BY	1/08
QUANTITIES BY	1/08
CHECKED BY	1/08
ORIGINAL PLAN	
NOTE BOOK	
No.	



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MITSUNAGA & ASSOCIATES
NOTE: Contractor to check and verify
dimensions at job before proceeding with work.

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

GENERAL NOTES

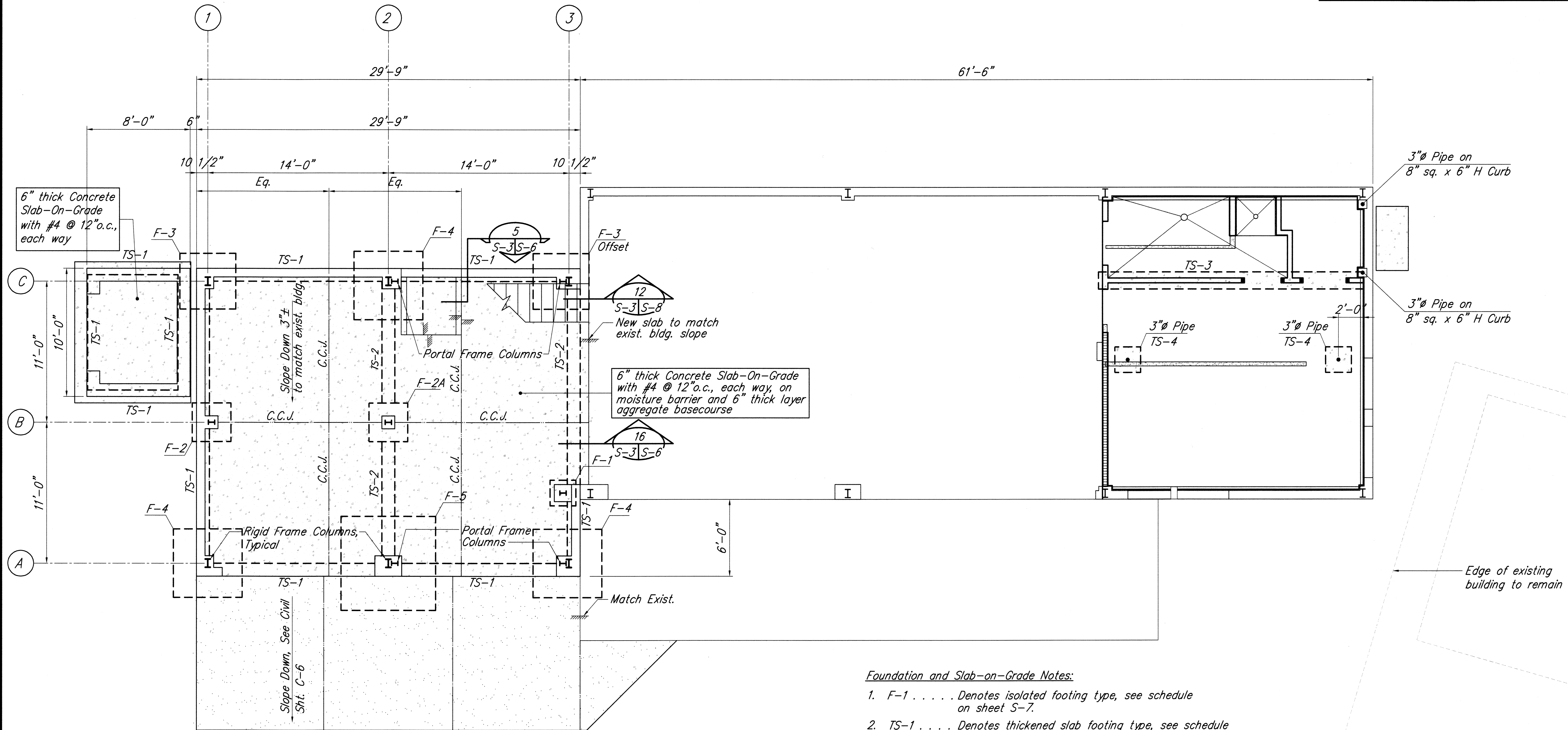
HONOKAA BASEYARD IMPROVEMENTS

Project No. HWY-H-05-06

Scale: As Noted Date: May 2008

SHEET No. 5-2 OF 5-9 SHEETS

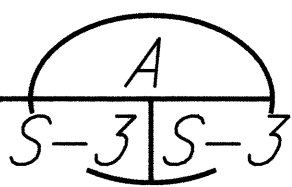
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAWAII	HWY-H-05-06	2008	42	64



Note:
All steel beams, columns, purlins, girts, siding, decking, bracing, and anchors shall be designed by the pre-engineered building manufacturer.

FOUNDATION and GROUND FLOOR PLAN

Sc: 1/4" = 1'-0"



Foundation and Slab-on-Grade Notes:

1. F-1 Denotes isolated footing type, see schedule on sheet S-7.
2. TS-1 Denotes thickened slab footing type, see schedule on sheet S-7.
3. C.J. Denotes control joint, see detail 3/S-6.
4. C.C.J. Denotes crack control joint, see detail 4/S-6.
5. E.J. Denotes expansion joint, see detail 6/S-6.
6. ● Denotes steel pipe column, see plan.
6. ■ Denotes double jamb studs.

Legend:

- ... Denotes poured-in-place concrete.
- ... Denotes depressed slab areas.
- 0.00' Denotes top of footing elevation. top of footing elevation shall be -1.33' below finish floor, typical, unless noted otherwise.
- 0.00' Denotes elevation from finish floor to top of depressed slab



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**FOUNDATION and
GROUND FLOOR PLAN**

HONOKAA BASEYARD IMPROVEMENTS

Project No. HWY-H-05-06

Scale: As Noted Date: May 2008

SHEET No. S-3 OF S-9 SHEETS

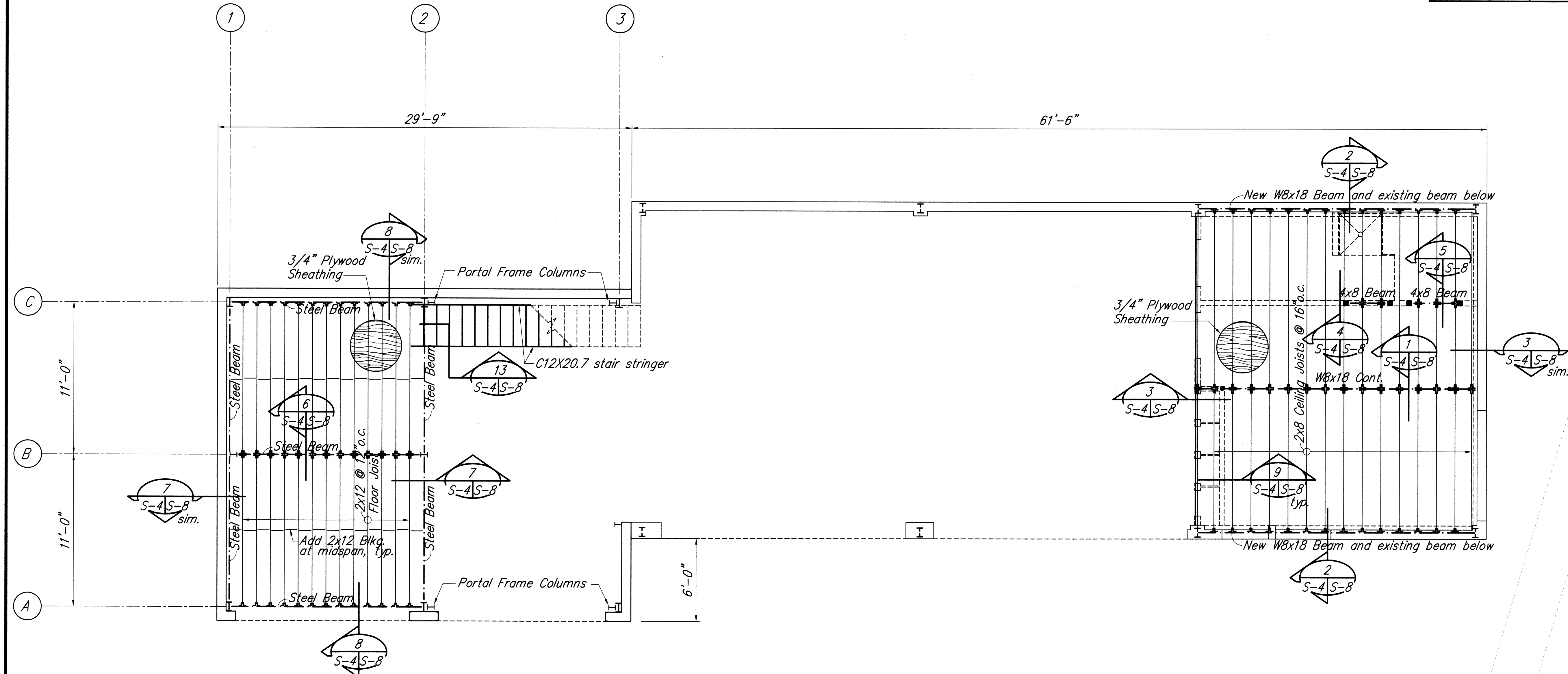
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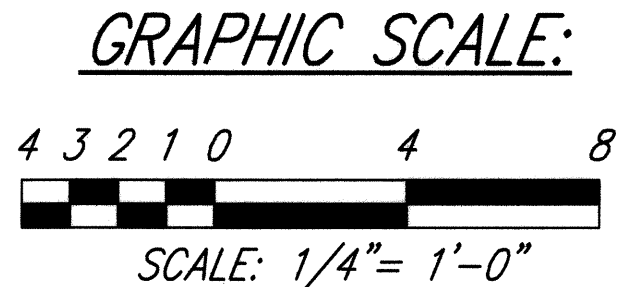
SCALE: 1/4" = 1'-0"

SURVEY PLOTTED BY	DATE
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TRACED BY	1/08
DESIGNED BY	1/08
QUANTITIES BY	1/08
CHECKED BY	1/08

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAWAII	HWY-H-05-06	2008	43	64



- Floor and Ceiling Notes:
1. Sheathing shall be 3/4" thick structural I plywood.
 2. JL Denotes Simpson JB28 hanger for 2x8 joists or JB212 hanger for 2x12 joist (or equal).
 3. Steel beams and columns shall be designed by the pre-engineered building manufacturer, unless indicated otherwise.
 4. All existing building conditions shall be field-verified prior to shop drawing fabrication.



ORIGINAL PLAN	DATE
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CHECKED BY	1/08
QUANTITIES BY	1/08
TRACED BY	1/08
DATE	1/08

MEZZANINE FRAMING PLAN

Sc: 1/4" = 1'-0"

A

S-4 S-4

KEITH K. KALANI

LICENSED PROFESSIONAL ENGINEER

No. 6645-S

HAWAII, U.S.A.

Expires 4/30/10

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KEITH K. KALANI

MITSUNAGA & ASSOCIATES

NOTE: Contractor to check and verify dimensions at job before proceeding with work.

STATE OF HAWAII

DEPARTMENT OF TRANSPORTATION

HIGHWAYS DIVISION

MEZZANINE FRAMING PLAN

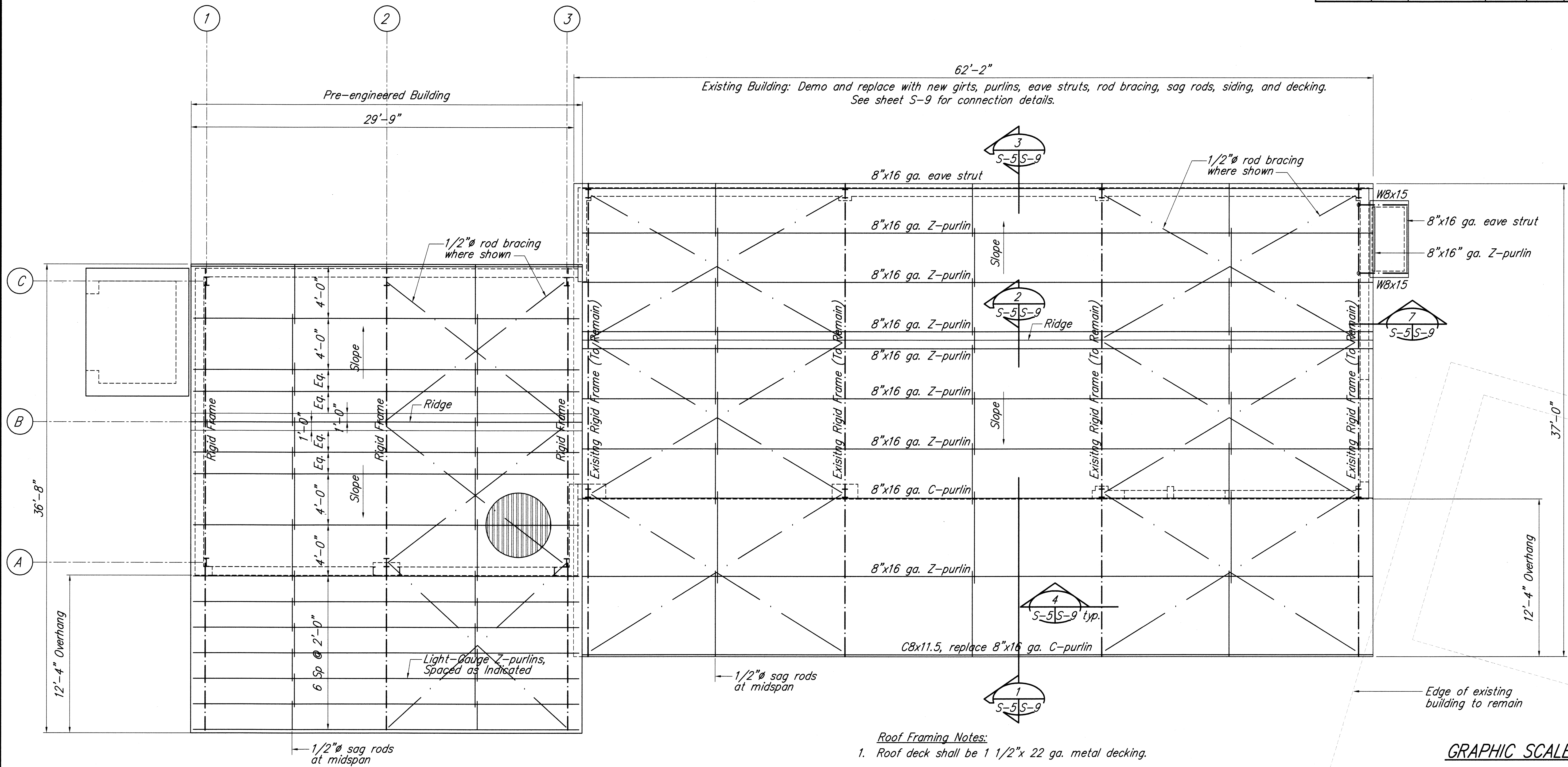
HONOKAA BASEYARD IMPROVEMENTS

Project No. HWY-H-05-06

Scale: As Noted Date: May 2008

SHEET No. S-4 OF S-9 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAWAII	HWY-H-05-06	2008	44	64

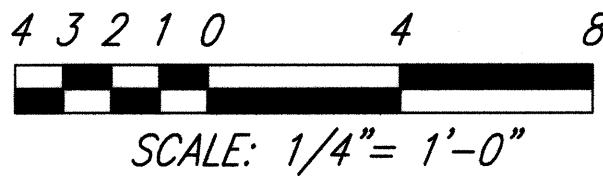


ROOF FRAMING PLAN
 Sc: 1/4" = 1'-0"

A
 S-5 | S-5

- Roof Framing Notes:**
- Roof deck shall be 1 1/2"x 22 ga. metal decking.
 - Purlins for pre-engineered building shall be 8" deep x 14 ga. Z-purlins spaced as shown (along slope of roof).
 - Provide 1/2" rod sag rods at mid-span of purlins, typical
 - Provide additional framing as necessary to support architectural, mechanical and electrical work.

GRAPHIC SCALE:



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QUANTITIES BY	1/08
CHECKED BY	1/08



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 HIGHWAYS DIVISION

ROOF FRAMING PLAN

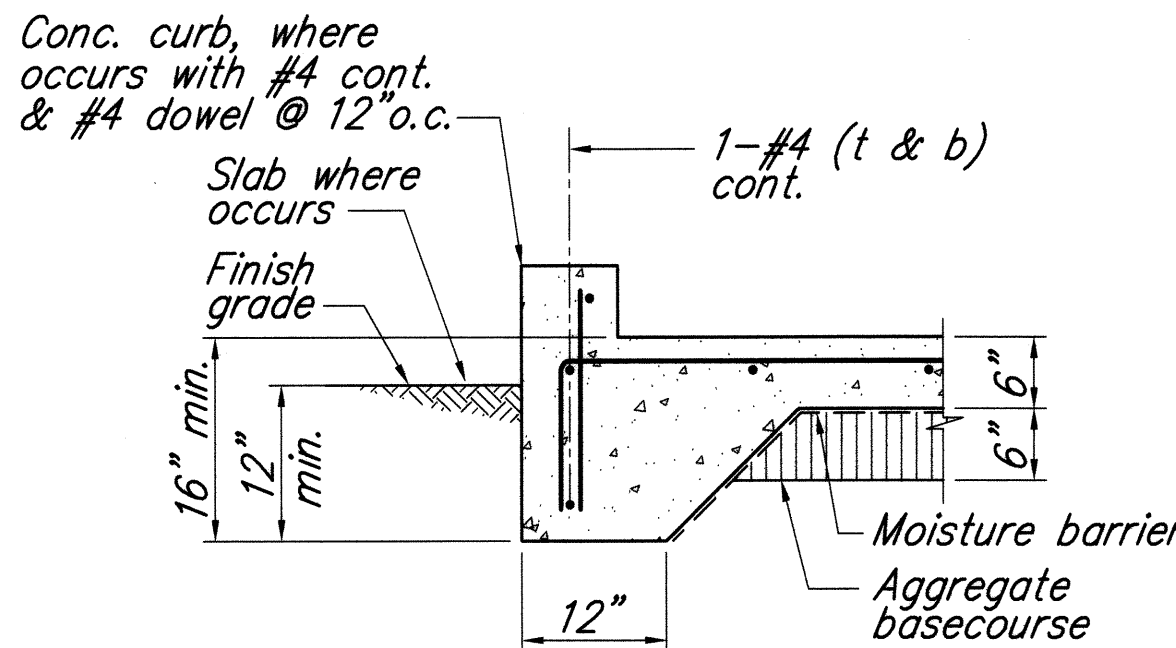
HONOKAA BASEYARD IMPROVEMENTS

Project No. HWY-H-05-06

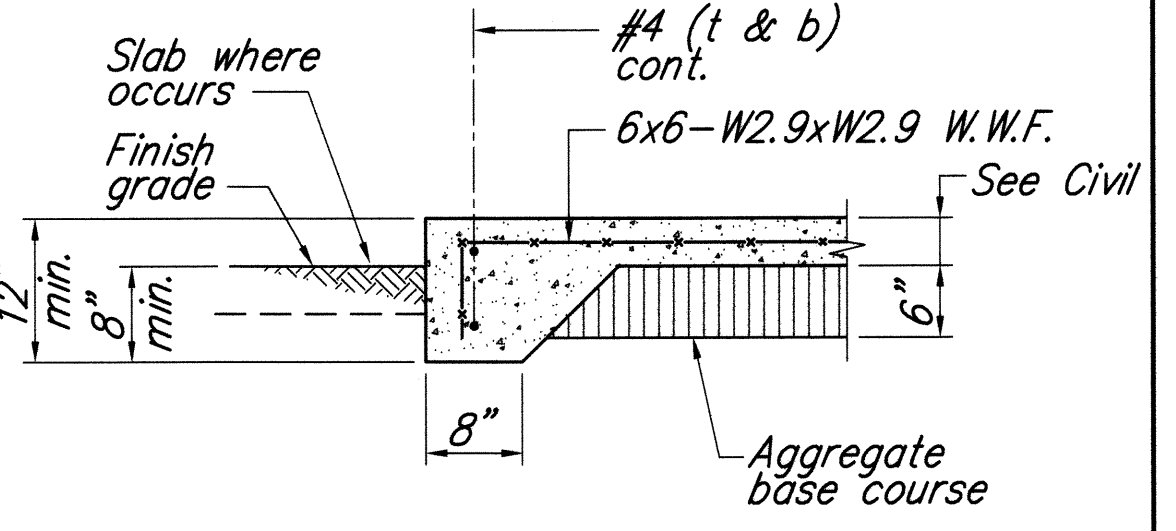
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SHEET No. S-5 OF S-9 SHEETS

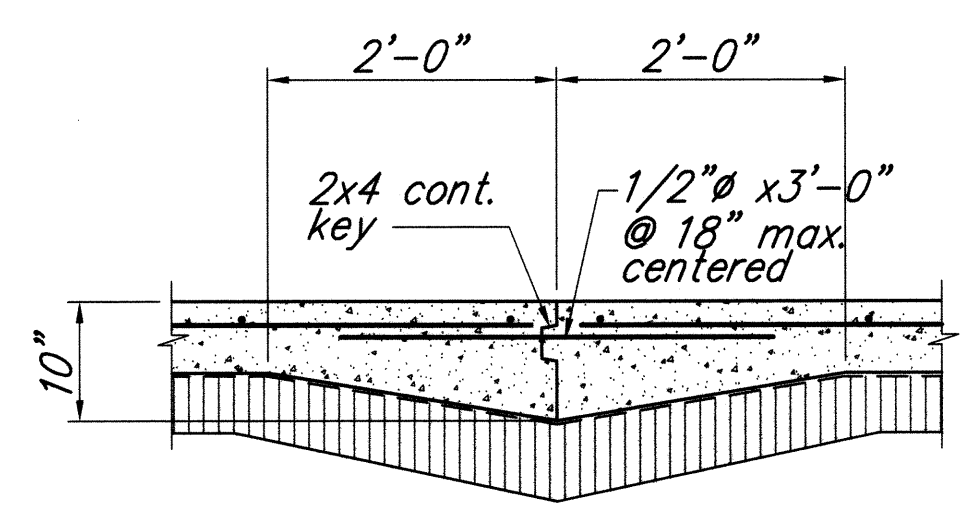
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HAWAII	HAWAII	HWY-H-05-06	2008	45	64



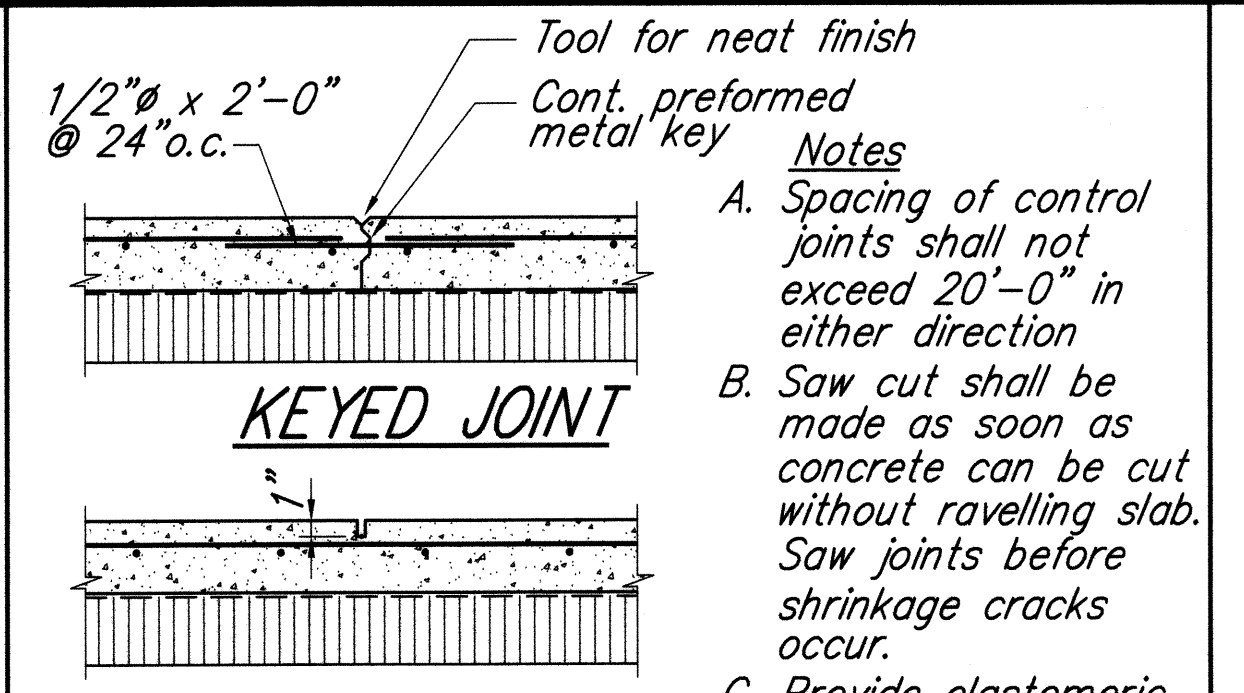
TYP. SLAB EDGE DET. (TS-1) SCALE: 3/4" = 1'-0" S-7 S-6



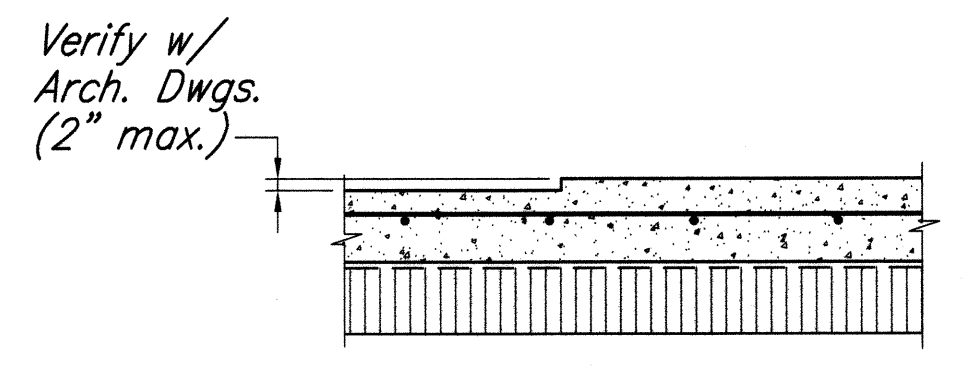
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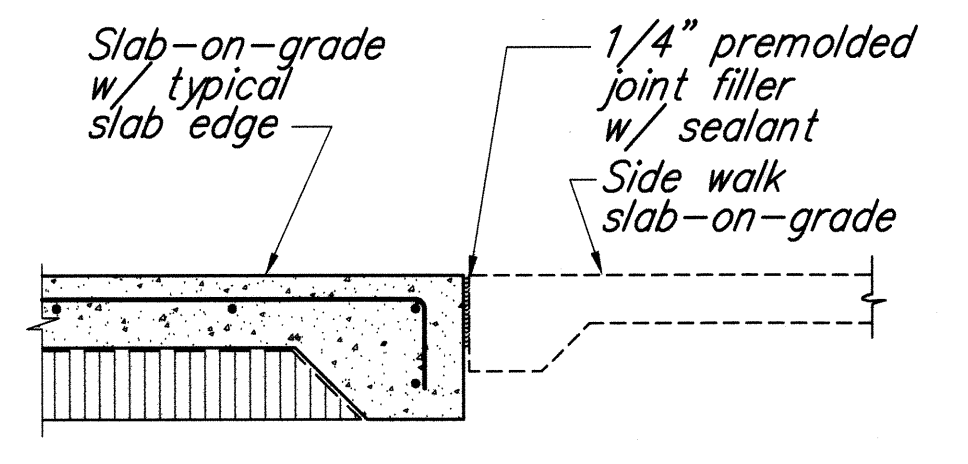
TYP. CONSTR. JOINT DET. (C.J.) SCALE: 3/4" = 1'-0" S-6 S-6



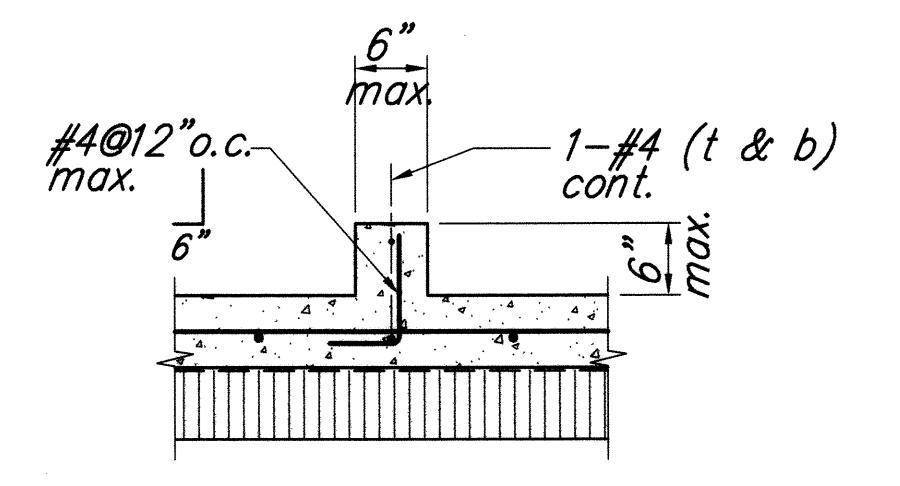
WEAKENED PLANE JOINT TYP. CRACK CONTROL JOINT DET. (C.C.J.) SCALE: 3/4" = 1'-0" S-6 S-6



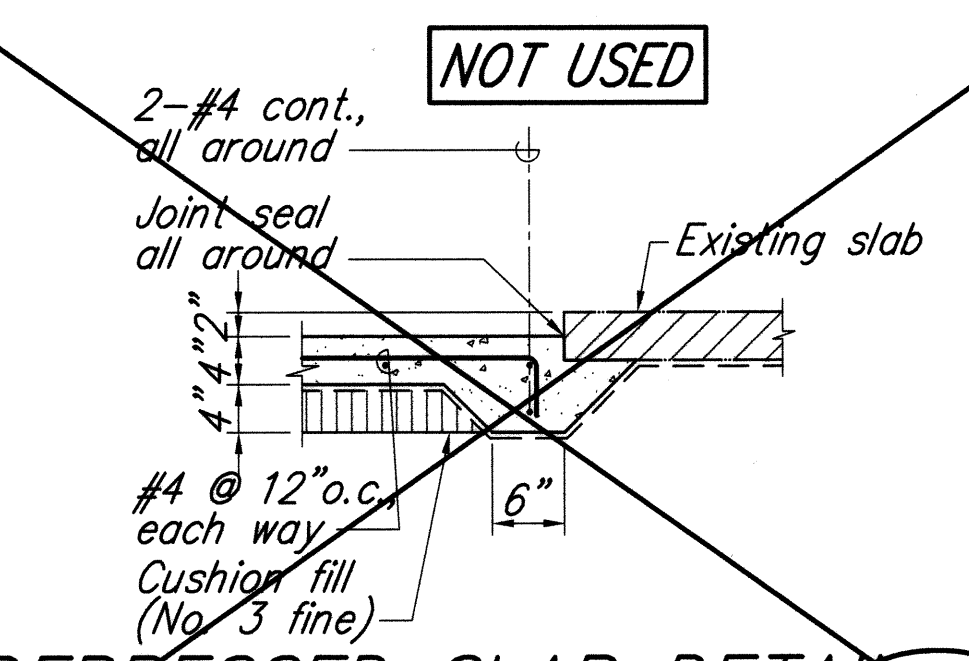
TYP. RAISED SLAB DET. SCALE: 3/4" = 1'-0" S-3 S-6



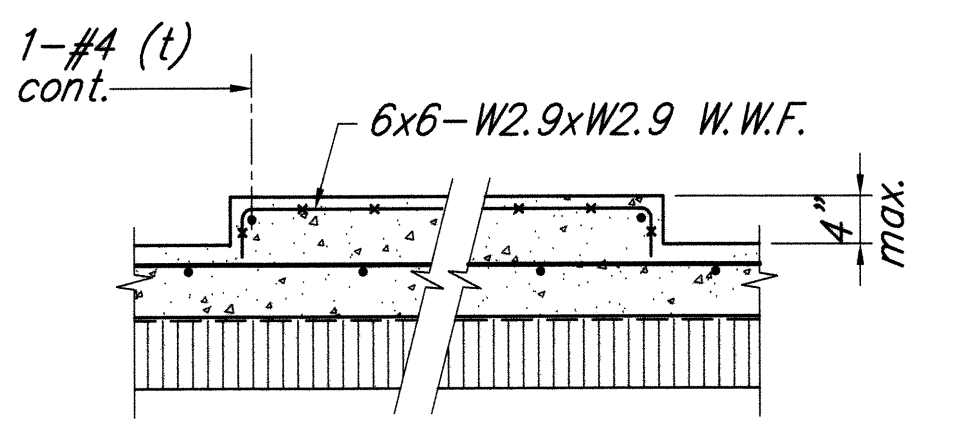
TYP. EXPANSION JOINT AT SLAB EDGE SCALE: 3/4" = 1'-0" S-6 S-6



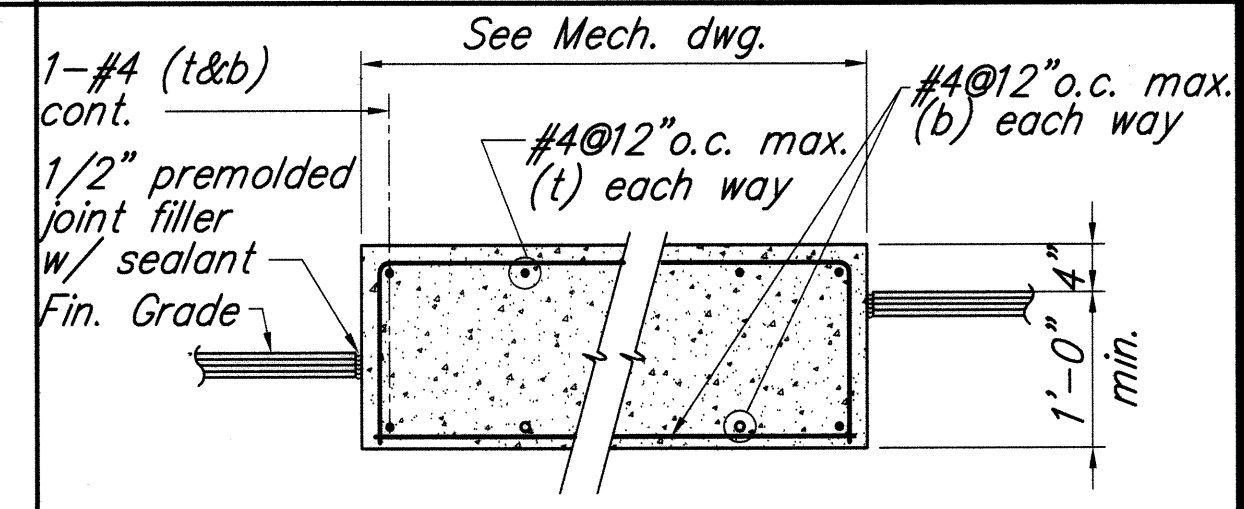
TYPICAL CURB DETAIL SCALE: 3/4" = 1'-0" S-6 S-6



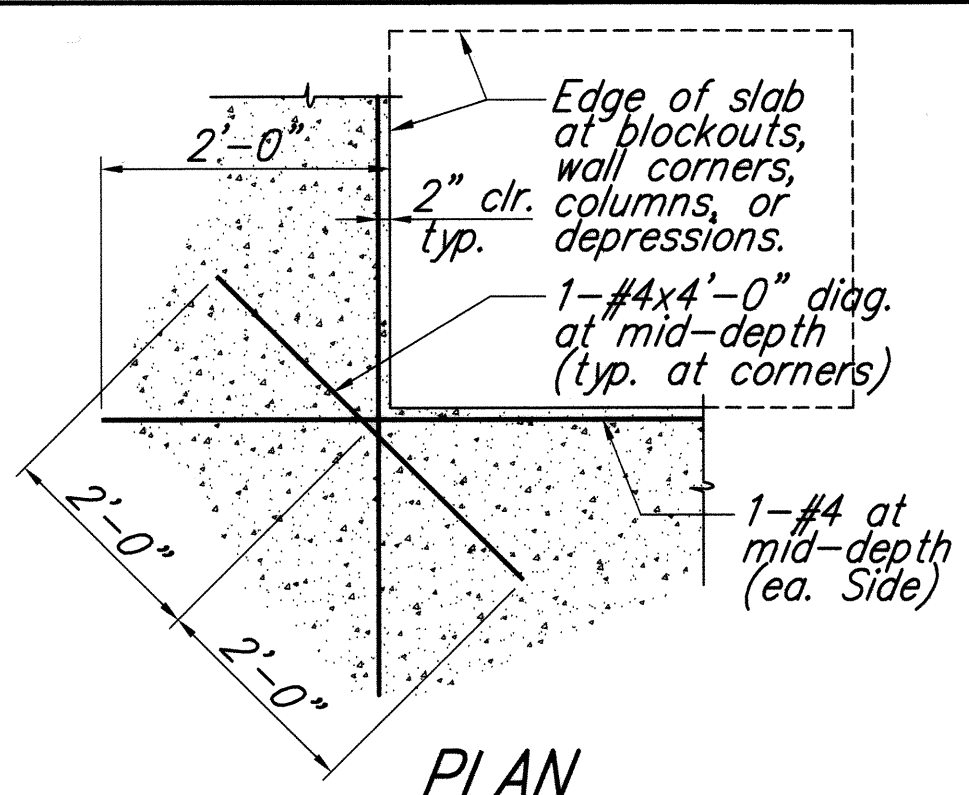
DEPRESSED SLAB DETAIL at SHOWER SCALE: 3/4" = 1'-0" S-6 S-6



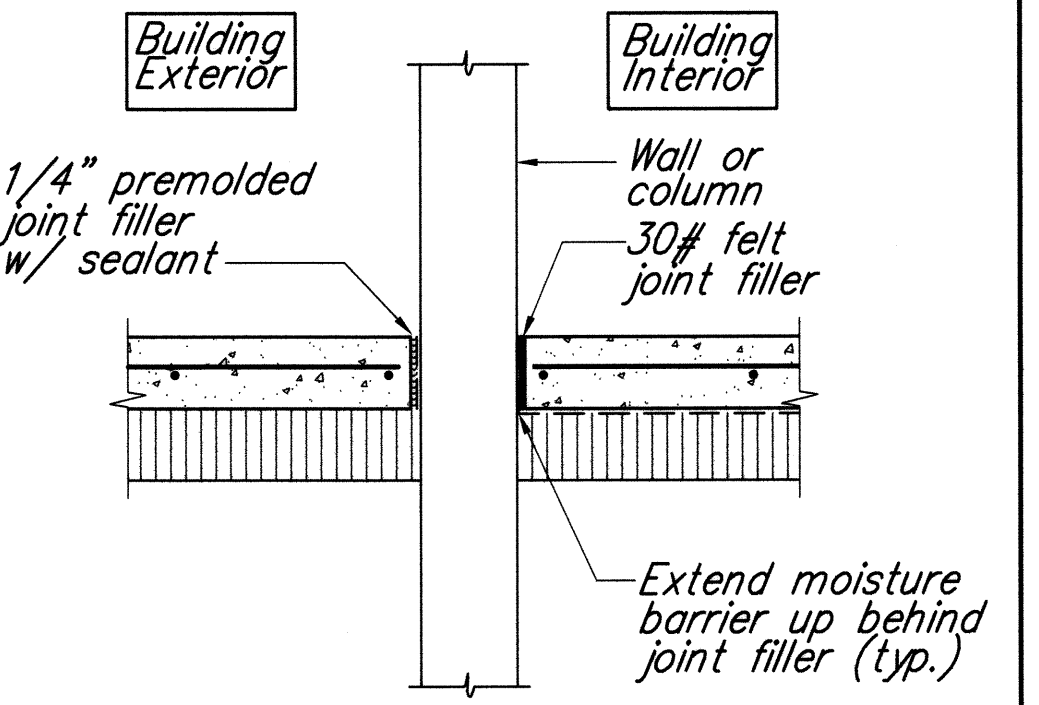
TYPICAL PAD DETAILS SCALE: 3/4" = 1'-0" S-6 S-6



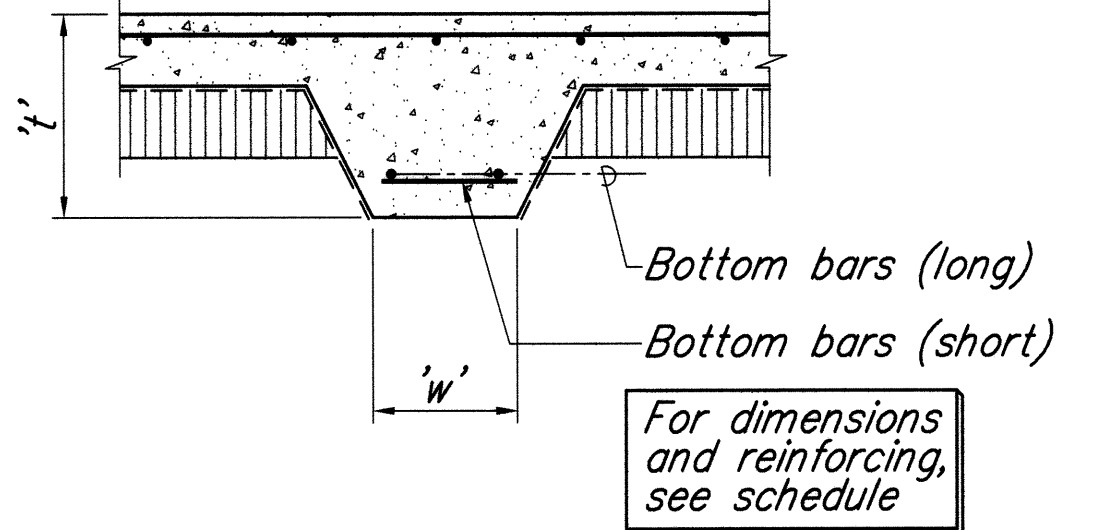
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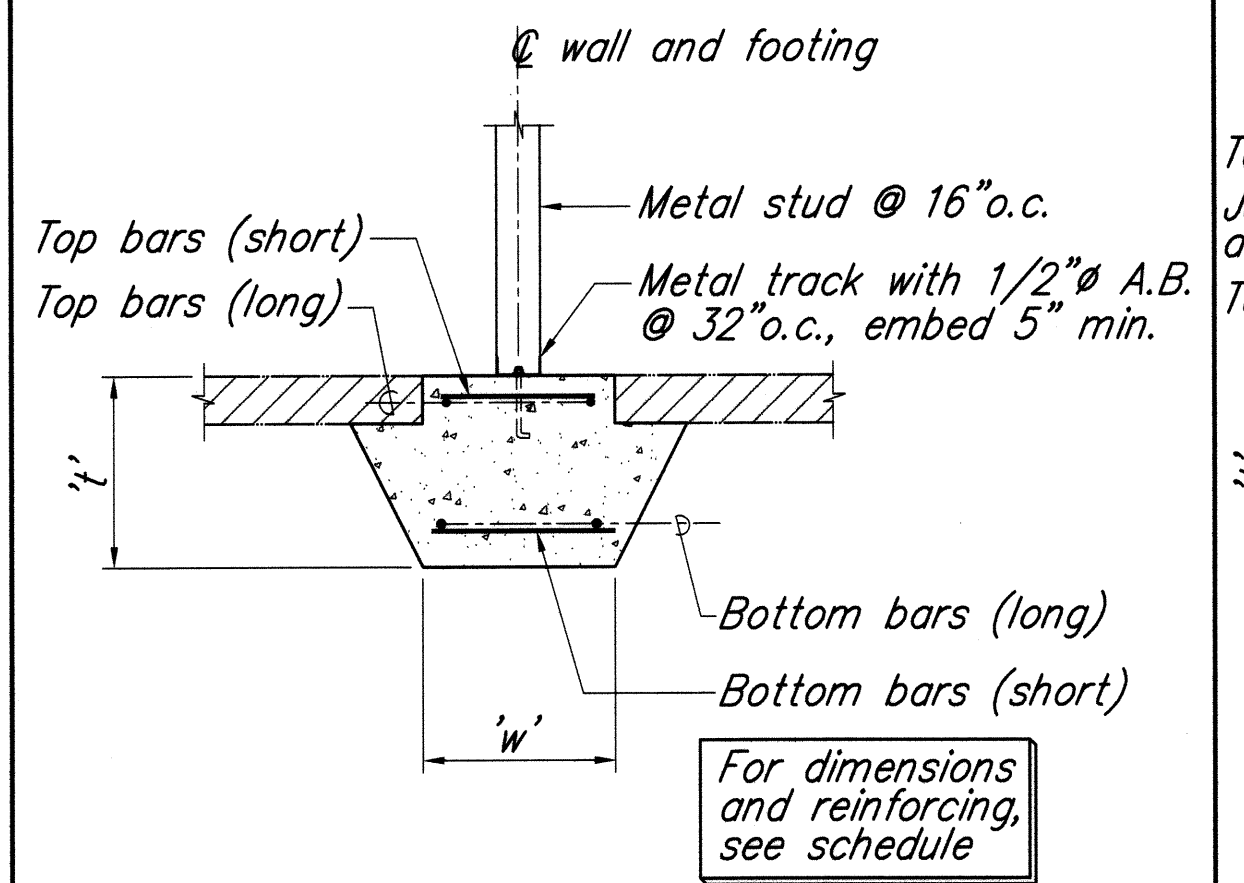
TYP. S.O.G. RE-ENTRANT CORNER / BLOCKOUT DETAIL SCALE: 3/4" = 1'-0" S-6 S-6



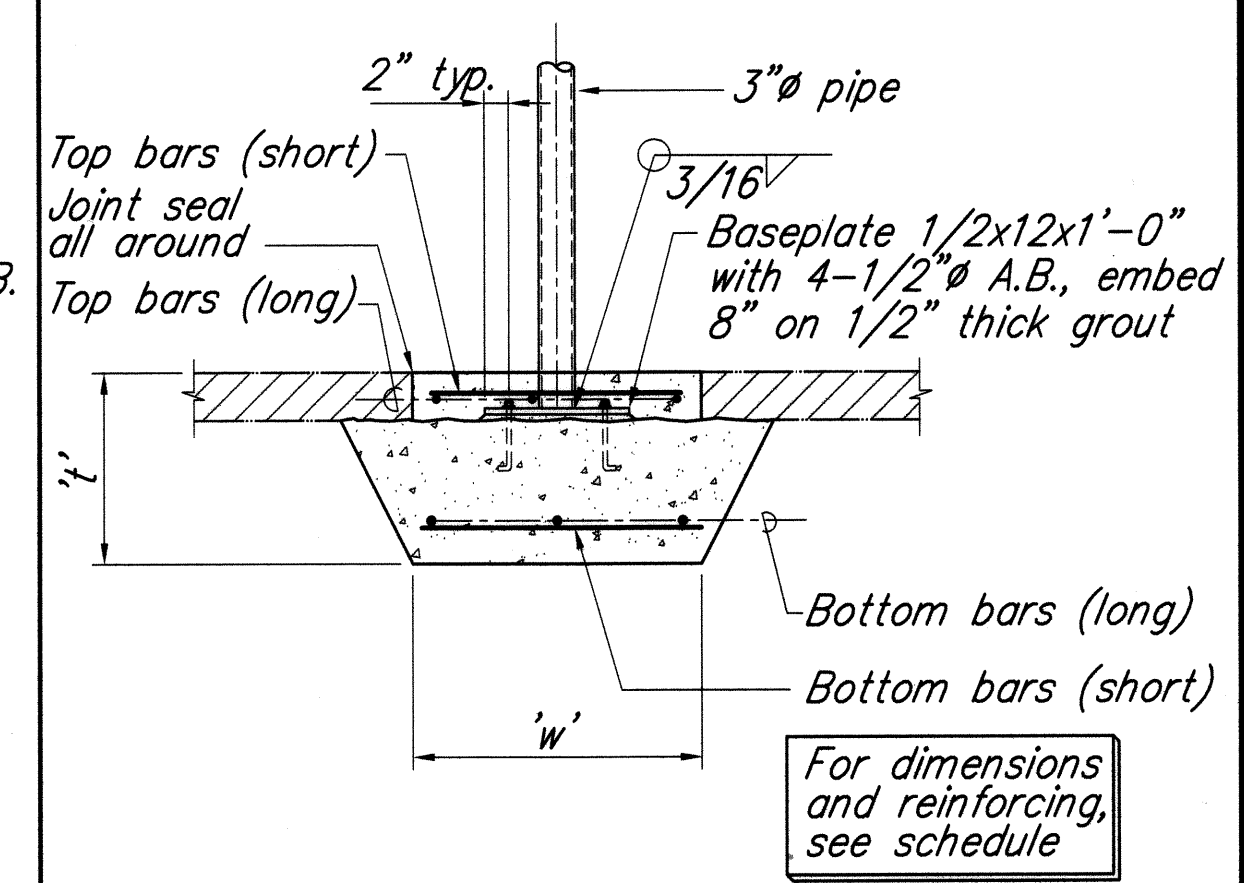
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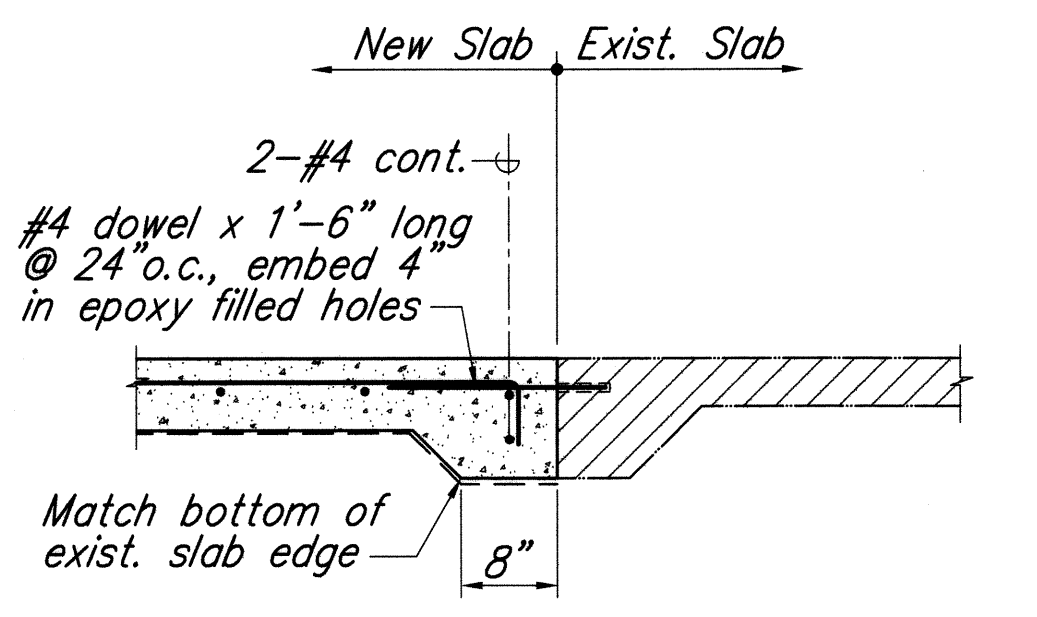
TS-2 THICKENED SLAB FOOTING DET. SCALE: 3/4" = 1'-0" S-7 S-6



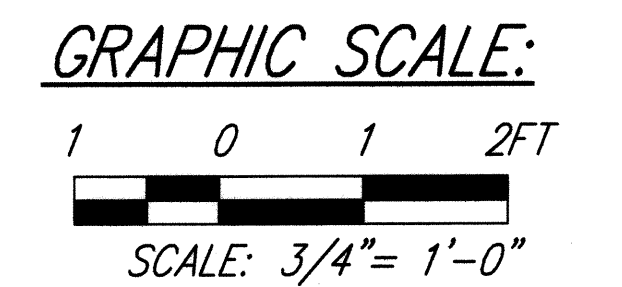
TS-3 THICKENED SLAB FOOTING DET. SCALE: 3/4" = 1'-0" S-7 S-6



TS-4 THICKENED SLAB FOOTING DET. SCALE: 3/4" = 1'-0" S-7 S-6



SLAB to EXISTING SLAB DET. SCALE: 3/4" = 1'-0" S-3 S-6

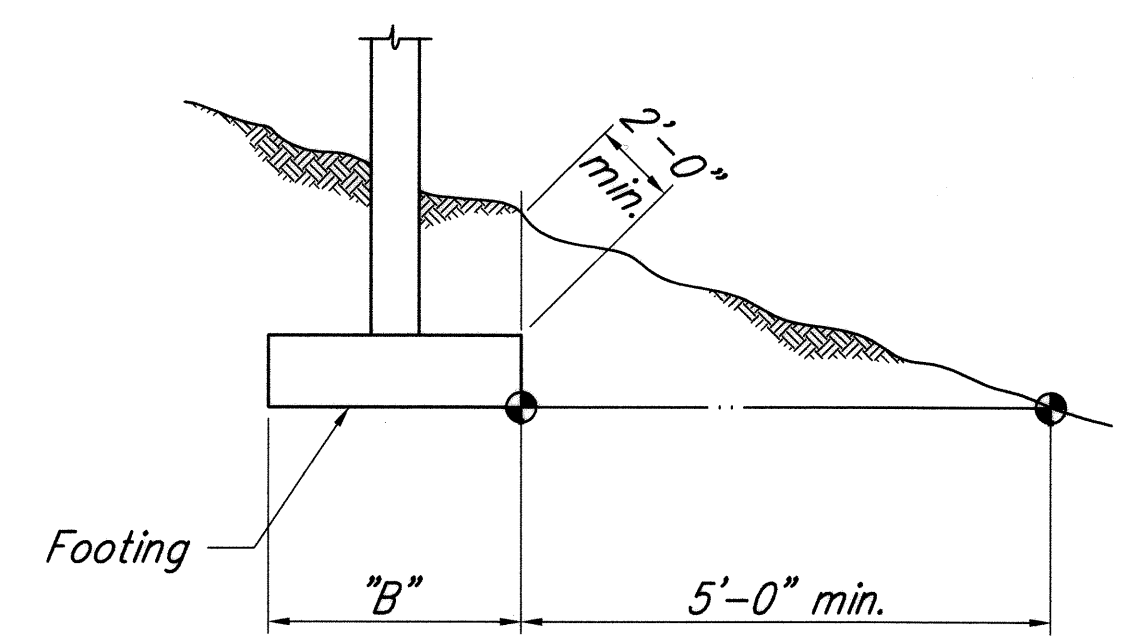


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MITSUNAGA & ASSOCIATES
NOTE: Contractor to check and verify dimensions at job before proceeding with work.

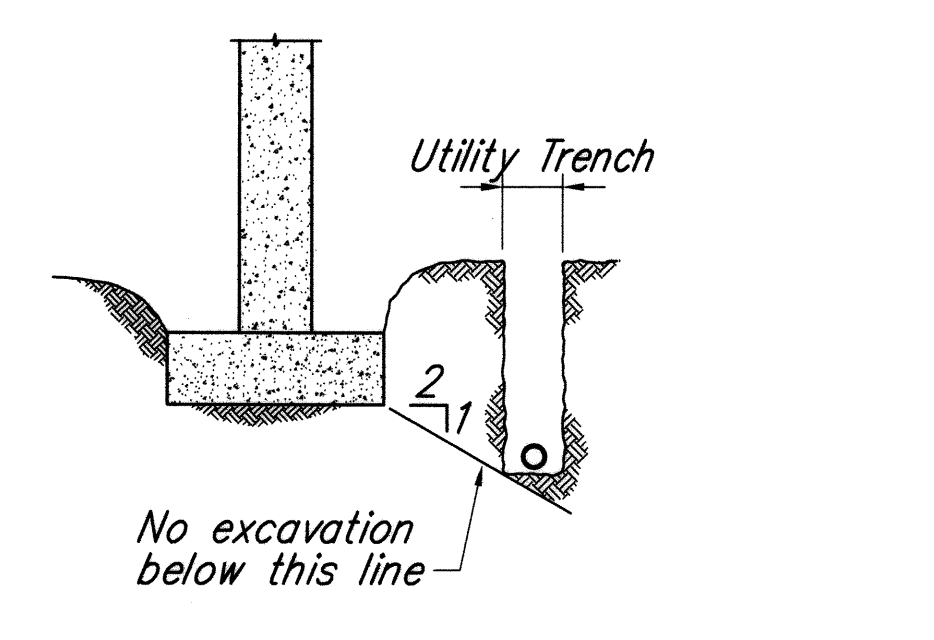
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
TYPICAL SLAB-ON-GRADE DETAILS
HONOKAA BASEYARD IMPROVEMENTS
Project No. HWY-H-05-06
Scale: As Noted Date: May 2008
SHEET No. S-6 OF S-9 SHEETS

ORIGINAL PLAN	DATE	1/08
DRAWN BY	CAO	
DESIGNED BY	MITSUNAGA & ASSOCIATES, INC.	
QUANTITIES BY	MITSUNAGA & ASSOCIATES, INC.	
CHECKED BY	HWY-H	

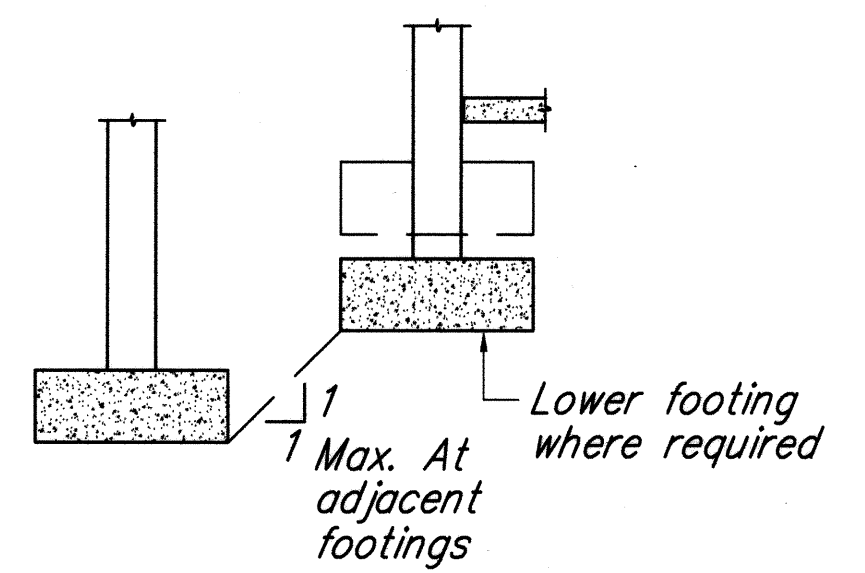
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAWAII	HWY-H-05-06	2008	46	64



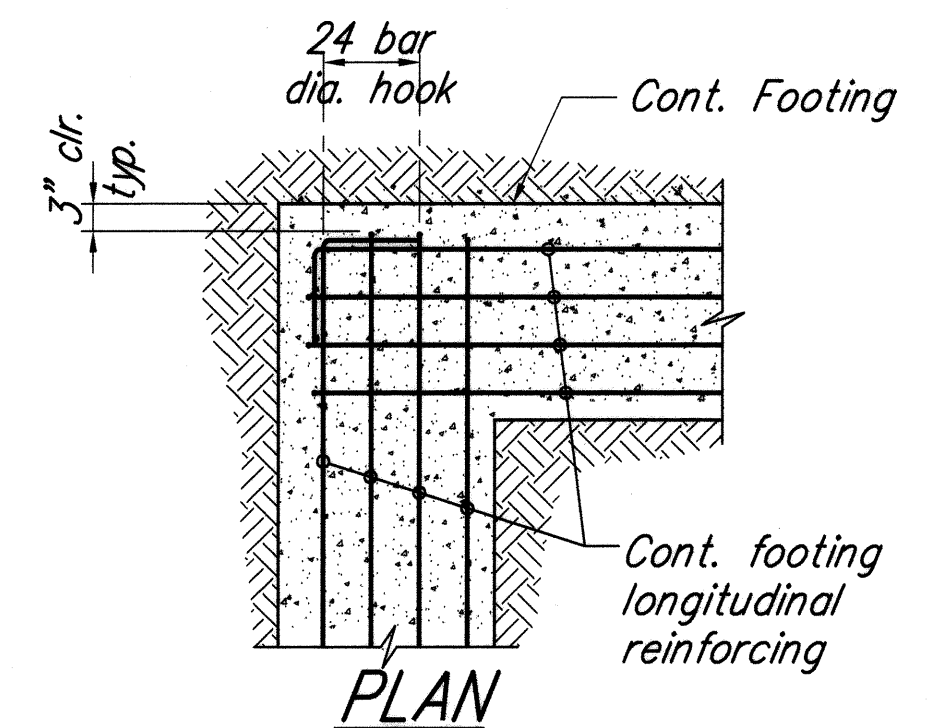
TYP. FTG. LOCATION AT SLOPE
N.T.S. S-7/S-7



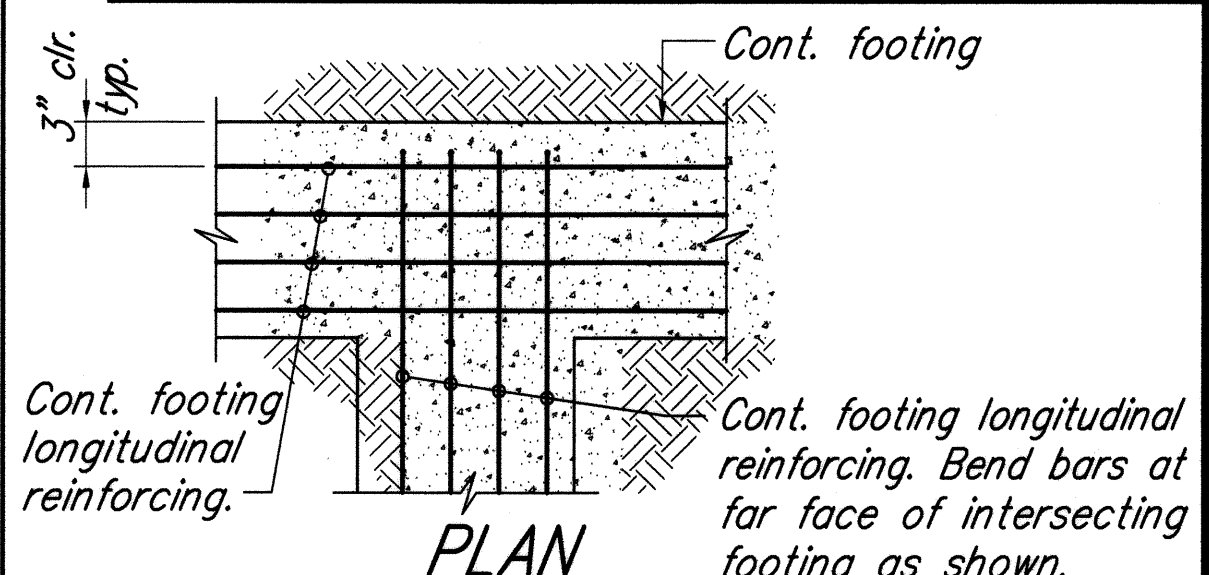
UTILITY TRENCH ADJACENT TO FOOTING
N.T.S. S-7/S-7



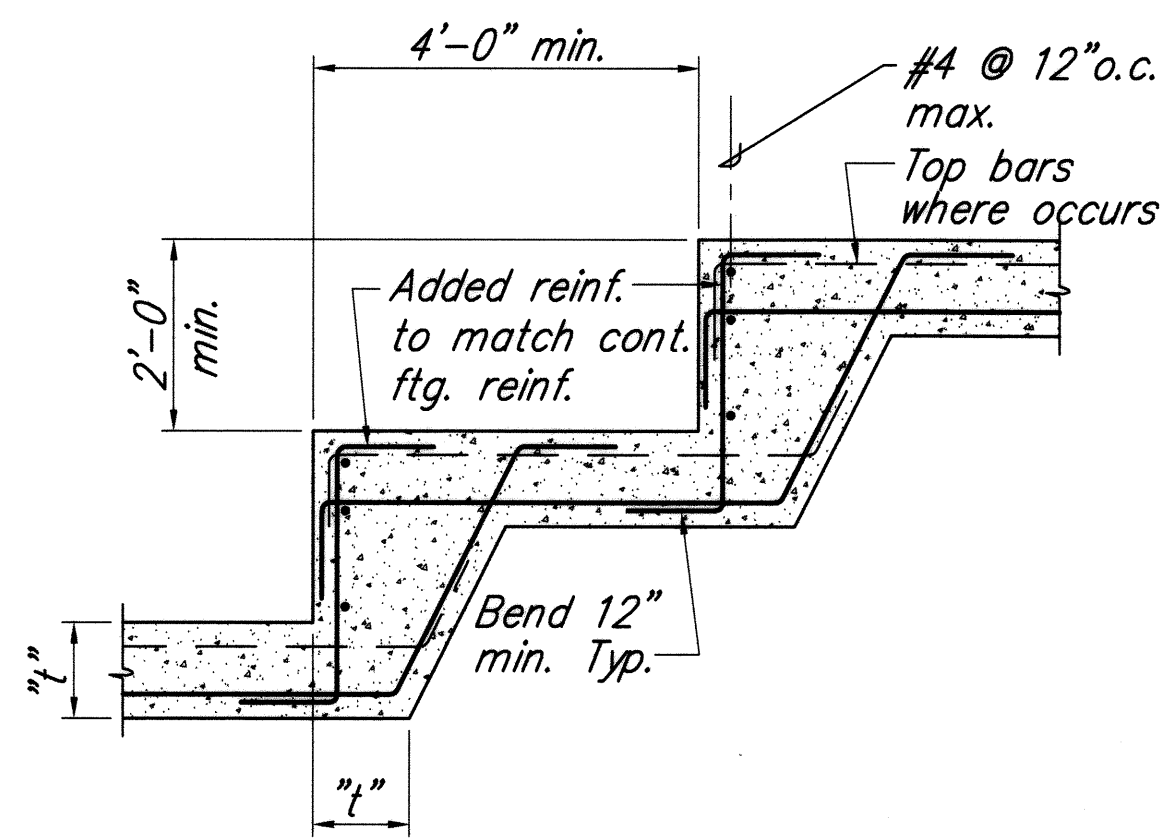
TYP. ADJACENT FOOTING DETAIL
N.T.S. S-7/S-7



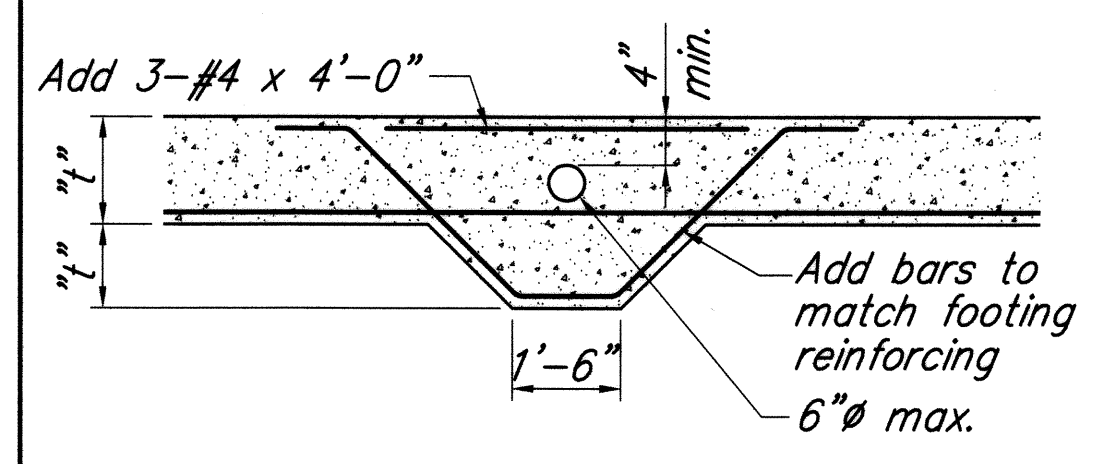
CONT. THK. SLAB CORNER DETAIL
SCALE: 3/4" = 1'-0" S-7/S-7



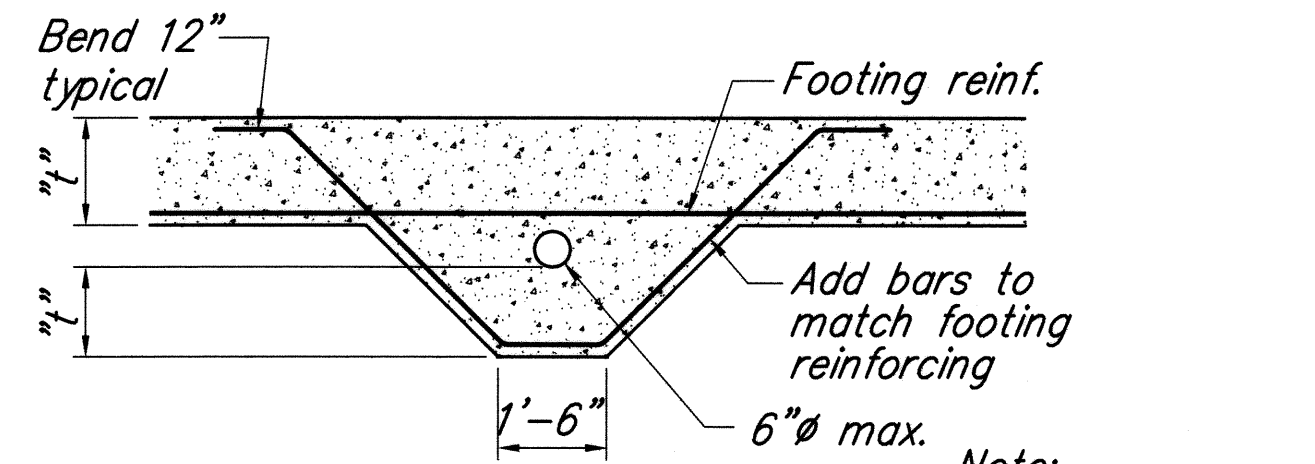
CONT. THK. SLAB INTERSECTION DET.
SCALE: 3/4" = 1'-0" S-7/S-7



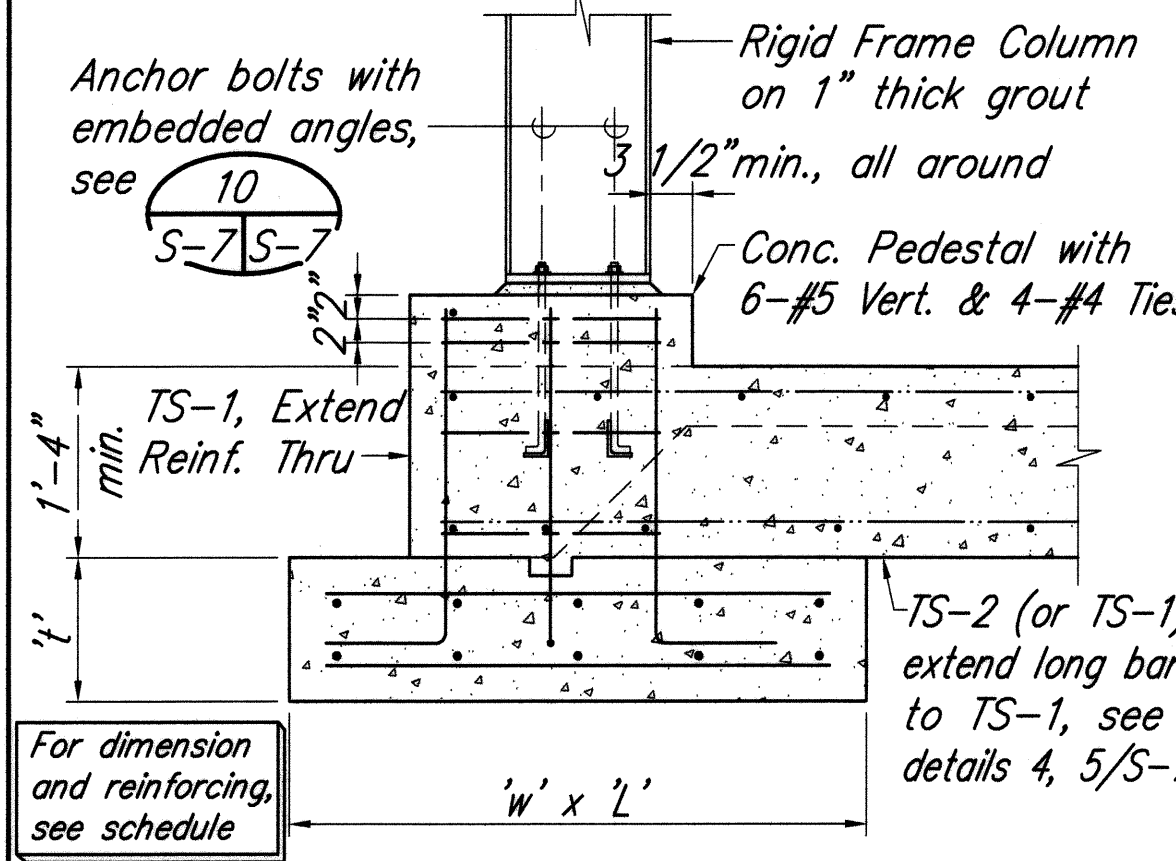
TYP. STEPPED FTG. DETAIL
N.T.S. S-7/S-7



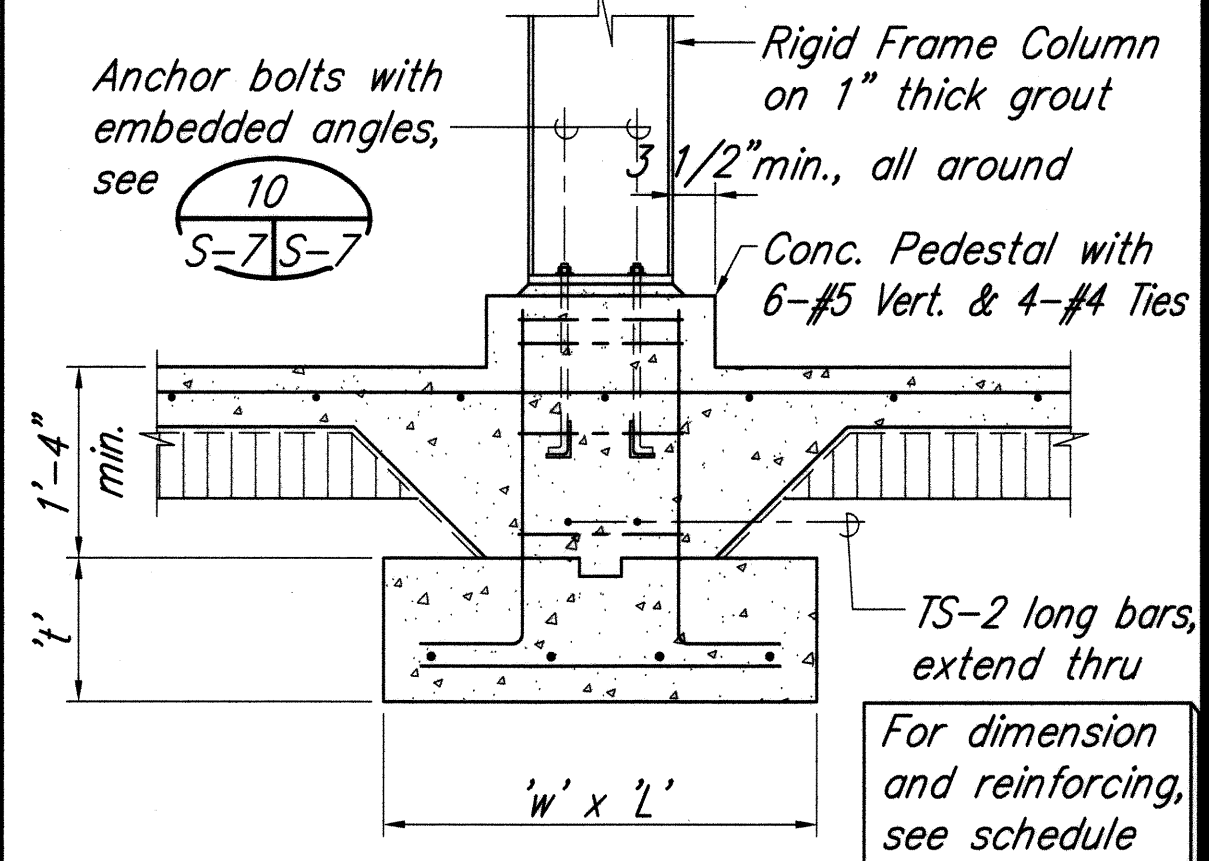
TYPICAL FOOTING PENETRATION
N.T.S. S-7/S-7



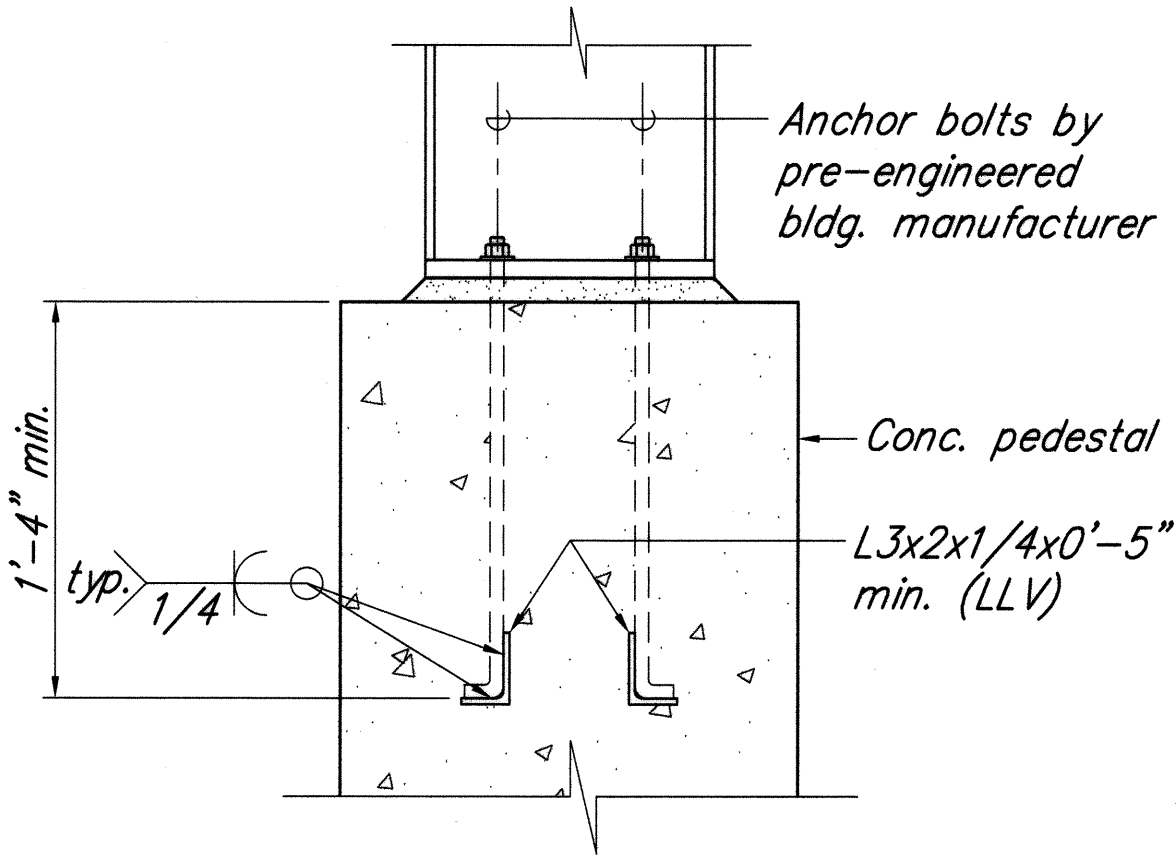
Note:
1. Provide sleeve at all penetrations.
2. Do not penetrate column footings.



TYP. FOOTING DETAIL
SCALE: 3/4" = 1'-0" S-7/S-7



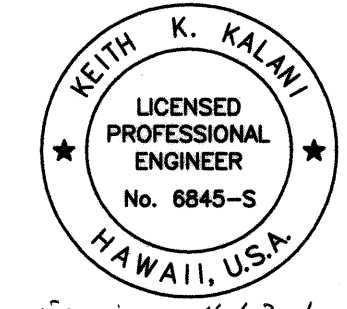
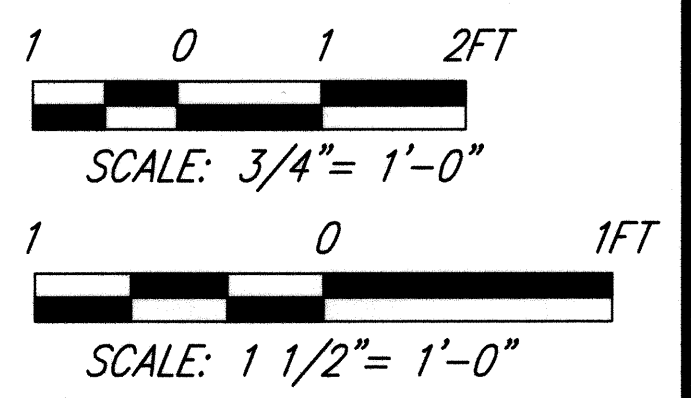
F-2A FOOTING DETAIL
SCALE: 3/4" = 1'-0" S-7/S-7



EMBEDDED ANGLE DETAIL
SCALE: 1 1/2" = 1'-0" S-7/S-7

FOUNDATION SCHEDULE									
Ftg. Mark	Size			't' Thick- Ness(in)	Reinforcement		Reinforcement		Reference Detail or Section
	'w' Width	'L' Length	'A'		Top bars		Bottom bars		
					Short	Long	Short	Long	
TS-1	1'-0"	Cont.		16"	#4@24"oc	2-#4	#4@16"oc	2-#4	1/S-7/S-6
TS-2	1'-0"	Cont.		16"	-	-	#4@16"oc	2-#4	13/S-7/S-6
TS-3	1'-4"	Cont.		16"	#4@16"oc	2-#4	#4@16"oc	2-#4	14/S-7/S-6
TS-4	2'-0"	2'-0"		16"	3-#4	3-#4	3-#4	3-#4	15/S-7/S-6
F-1	2'-0"	2'-0"		12"	3-#4	3-#4	3-#4	3-#4	8/S-7/S-7
F-2	3'-0"	3'-0"		12"	4-#4	4-#4	4-#4	4-#4	8/S-7/S-7
F-2A	3'-0"	3'-0"		12"	4-#4	4-#4	4-#4	4-#4	8/S-7/S-7
F-3	4'-4"	4'-4"		12"	5-#4	5-#4	5-#4	5-#4	8/S-7/S-7
F-4	5'-4"	5'-4"		16"	6-#5	6-#5	6-#5	6-#5	8/S-7/S-7
F-5	7'-4"	7'-4"		16"	8-#5	8-#5	8-#5	8-#5	8/S-7/S-7

GRAPHIC SCALE:

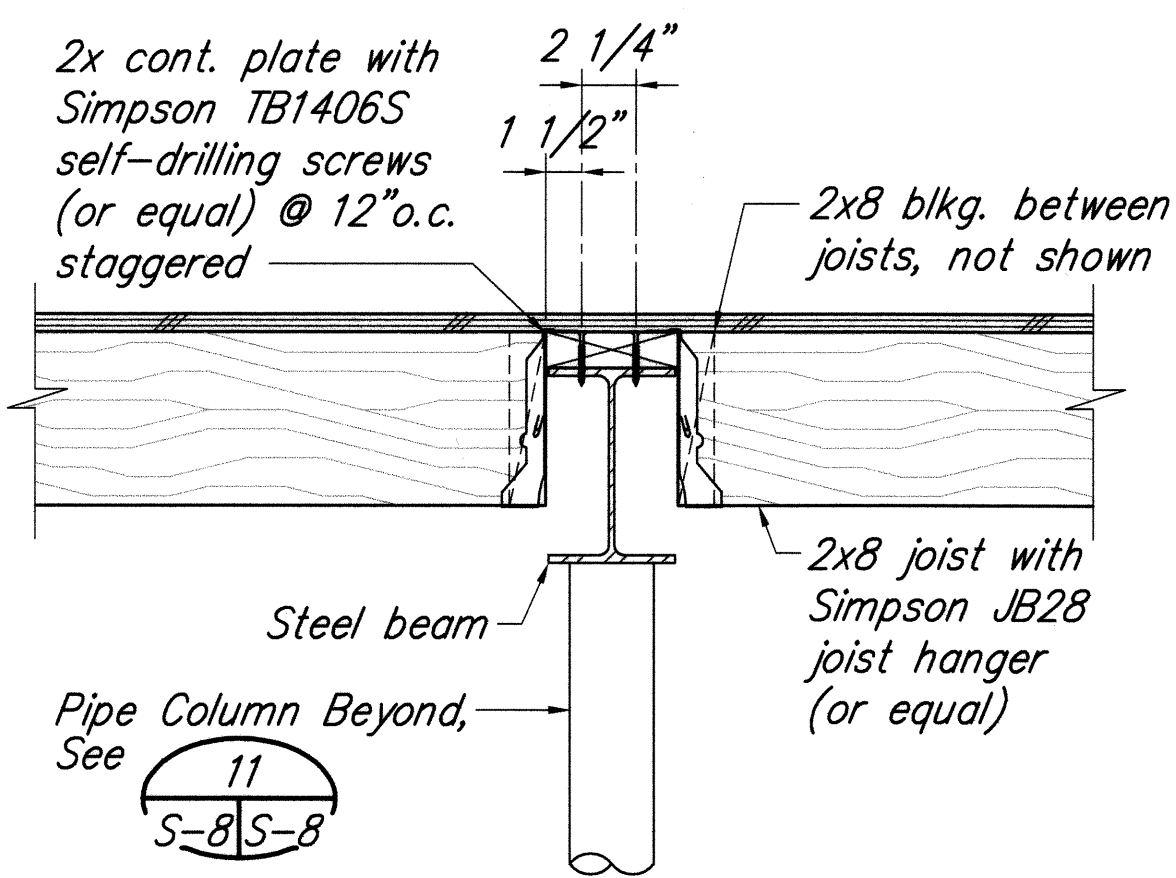


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MITSUNAGA & ASSOCIATES
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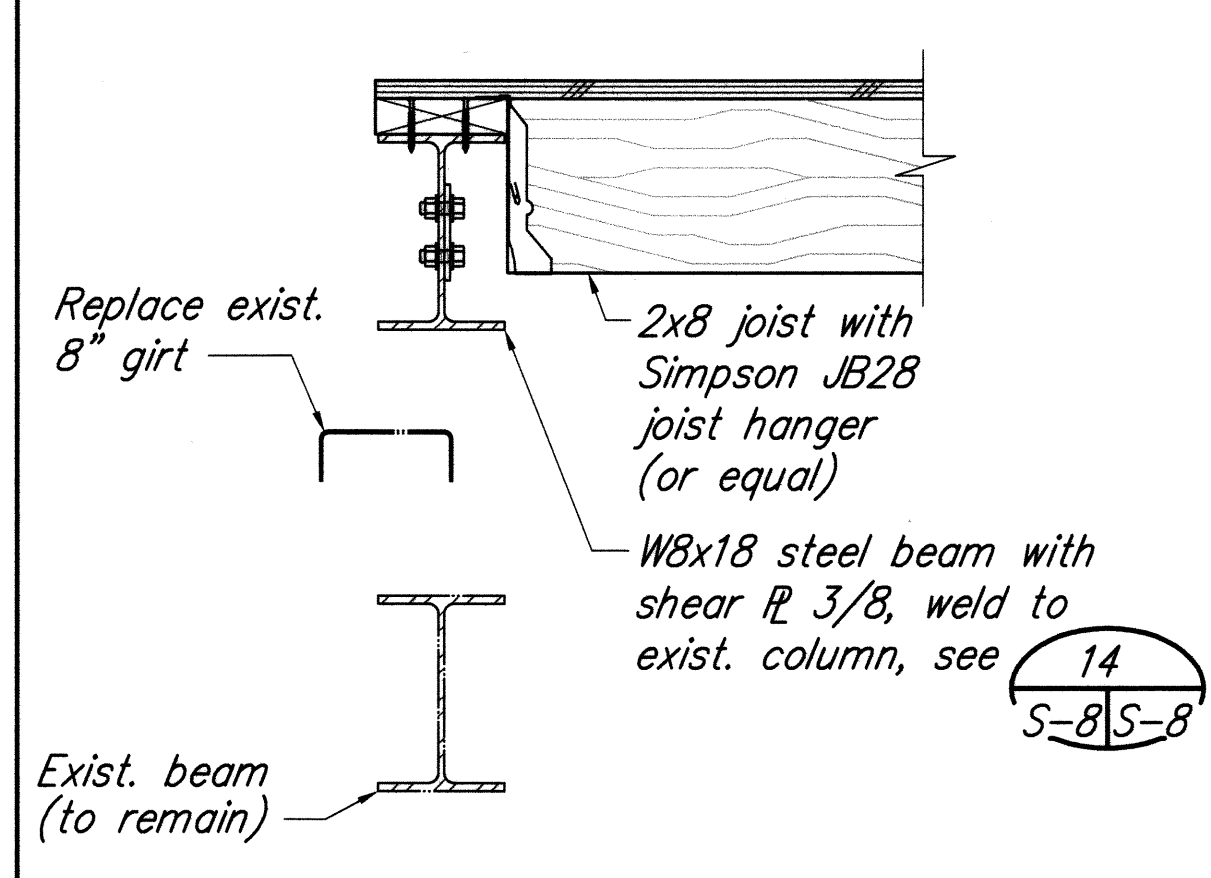
STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
TYPICAL FOUNDATION
DETAILS and SCHEDULE
HONOKAA BASEYARD IMPROVEMENTS
Project No. HWY-H-05-06
Scale: As Noted Date: May 2008
SHEET No. S-7 OF S-9 SHEETS

DATE	1/08
SURVEY PLOTTED BY	MB
DESIGNED BY	MITSUNAGA & ASSOCIATES, INC.
QUANTITIES BY	MITSUNAGA & ASSOCIATES, INC.
CHECKED BY	MB
ORIGINAL PLAN	
NOTE BOOK	
No.	

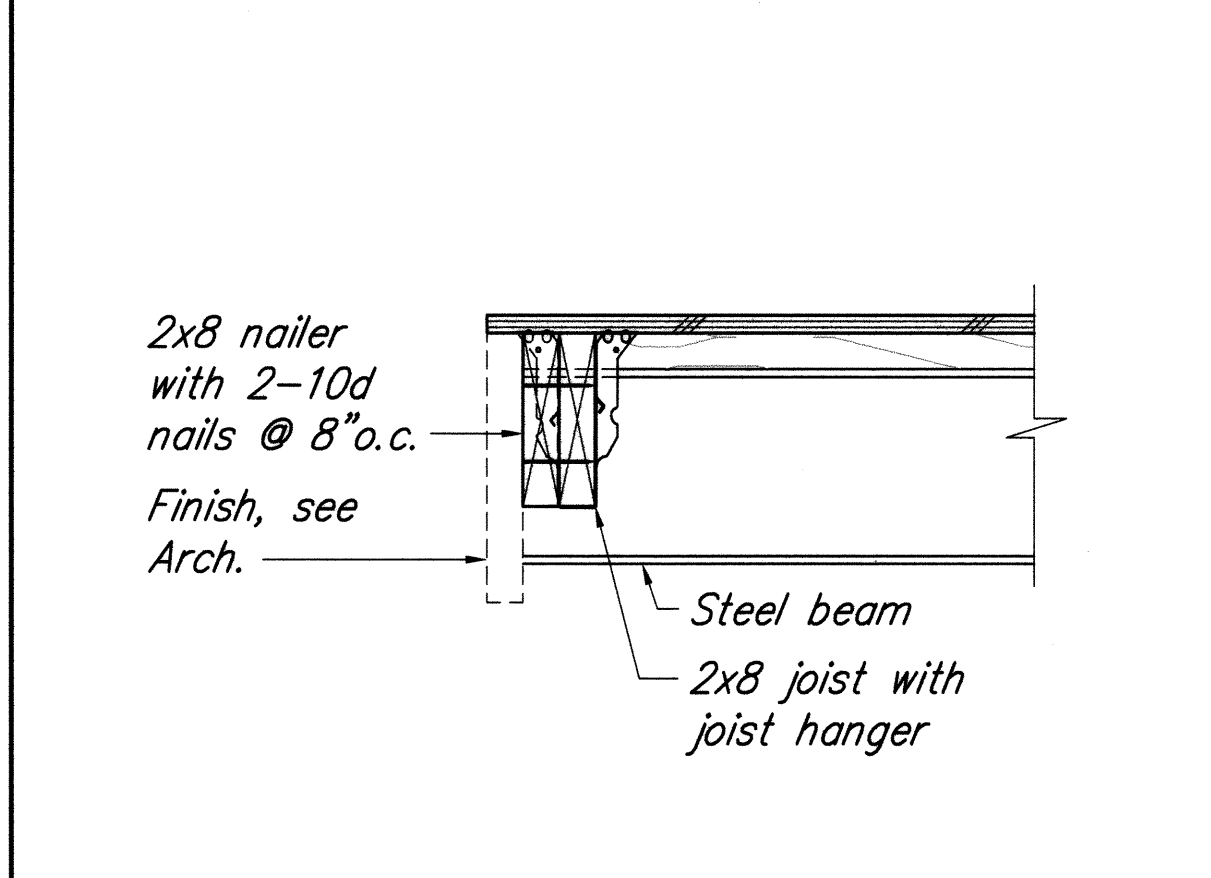
FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAWAII	HWY-H-05-06	2008	47	64



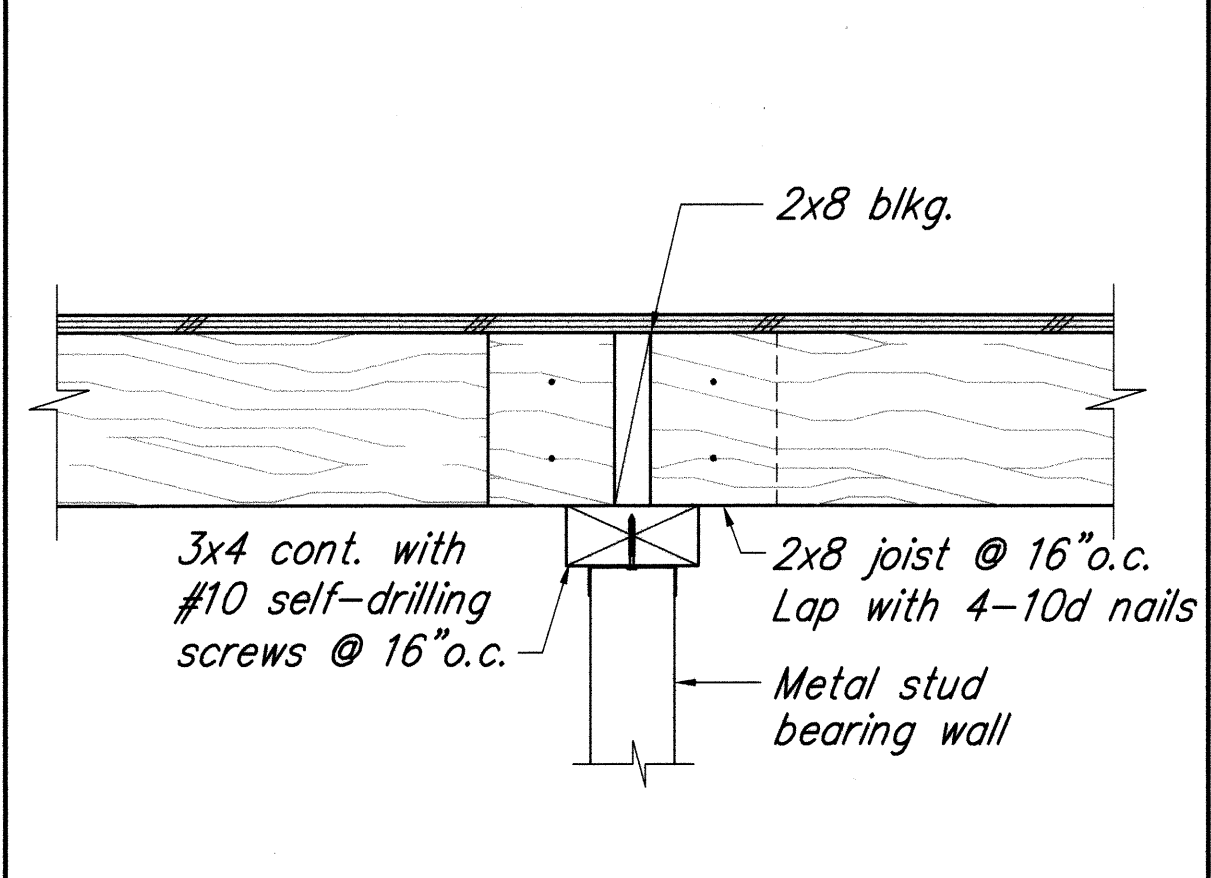
2x8 JOIST to BEAM
DETAIL SCALE: 1 1/2" = 1'-0" 1
S-4 S-8



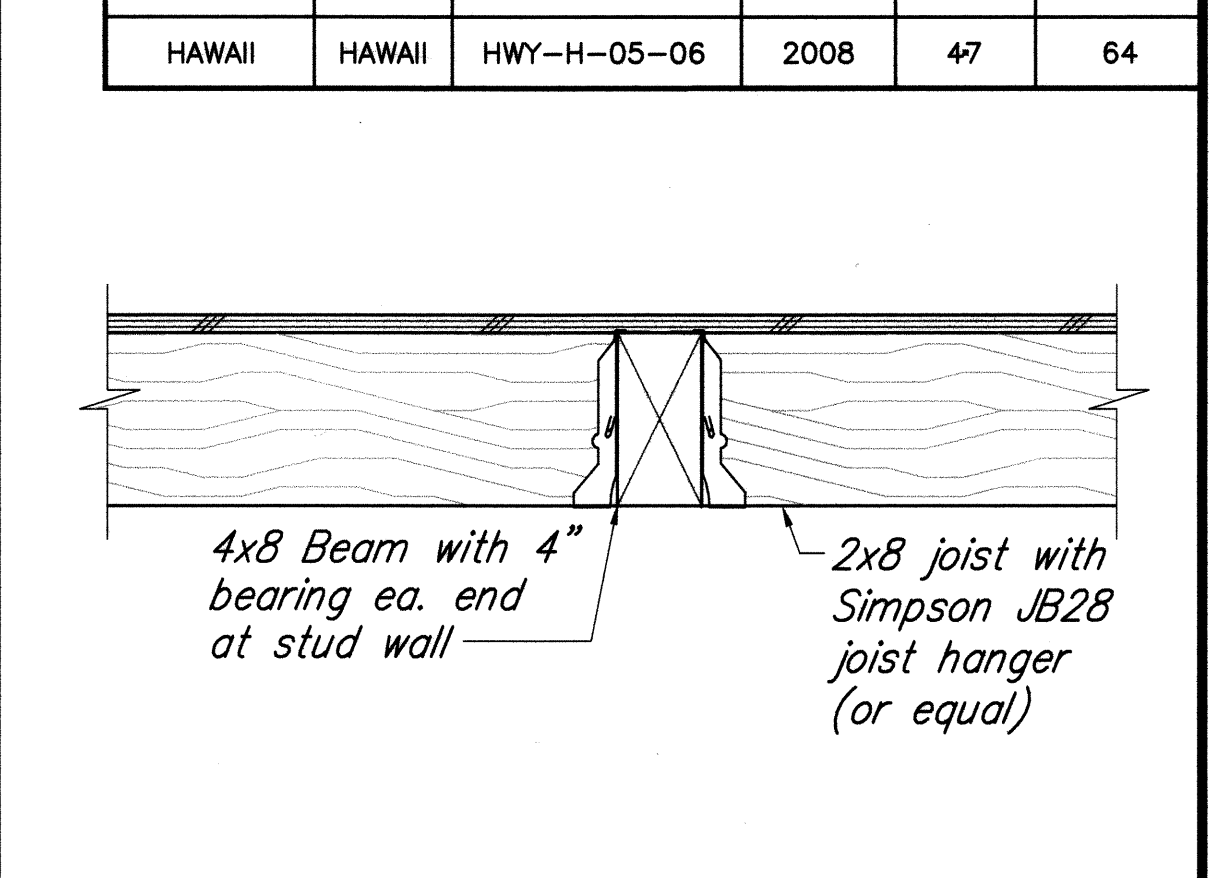
2x8 JOIST to BEAM
DETAIL SCALE: 1 1/2" = 1'-0" 2
S-4 S-8



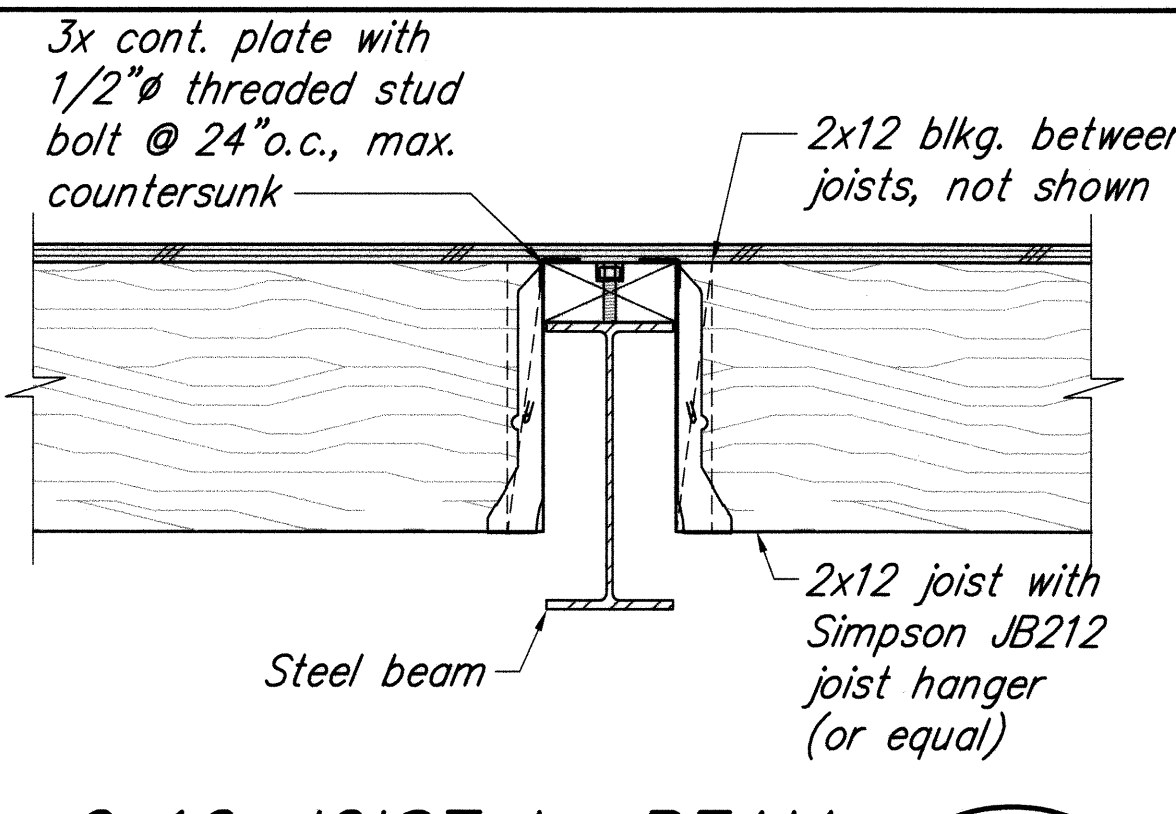
2x JOIST to BEAM
DETAIL SCALE: 1 1/2" = 1'-0" 3
S-4 S-8



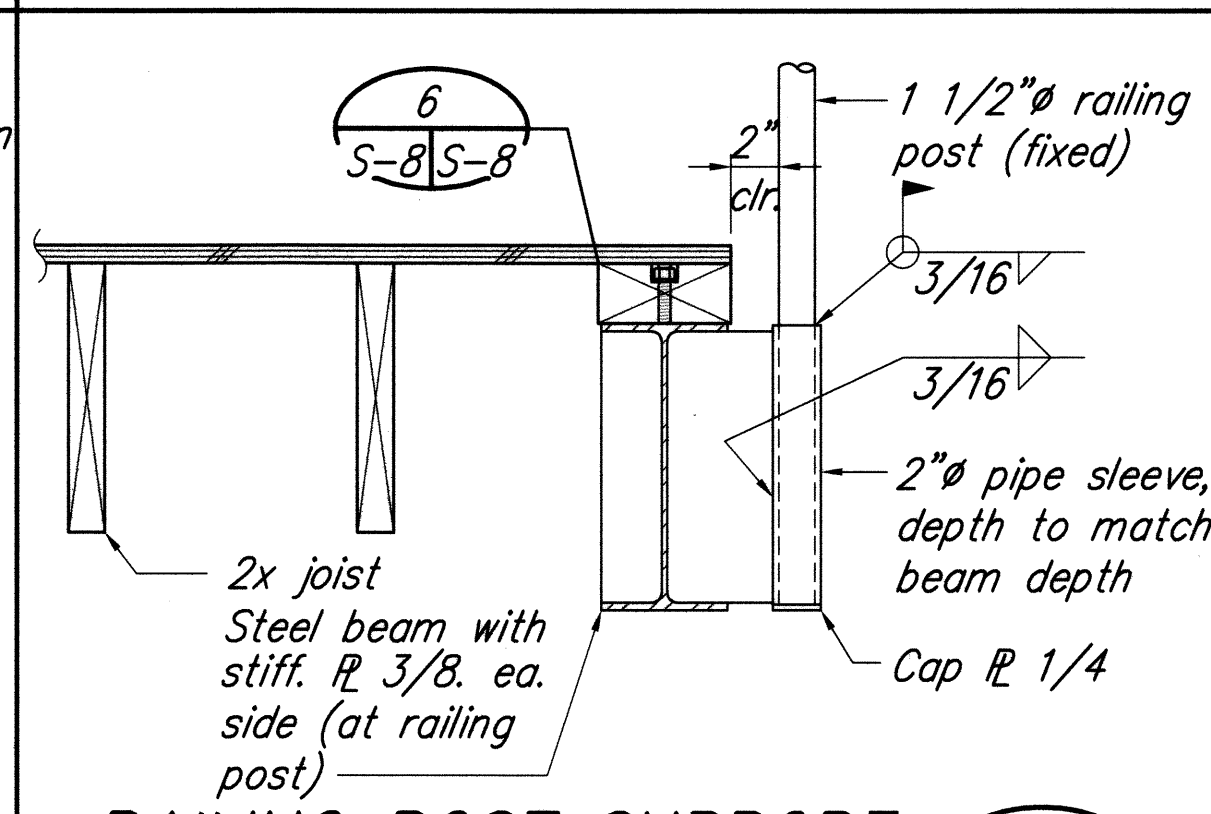
2x JOIST to STUD WALL
DETAIL SCALE: 1 1/2" = 1'-0" 4
S-8 S-8



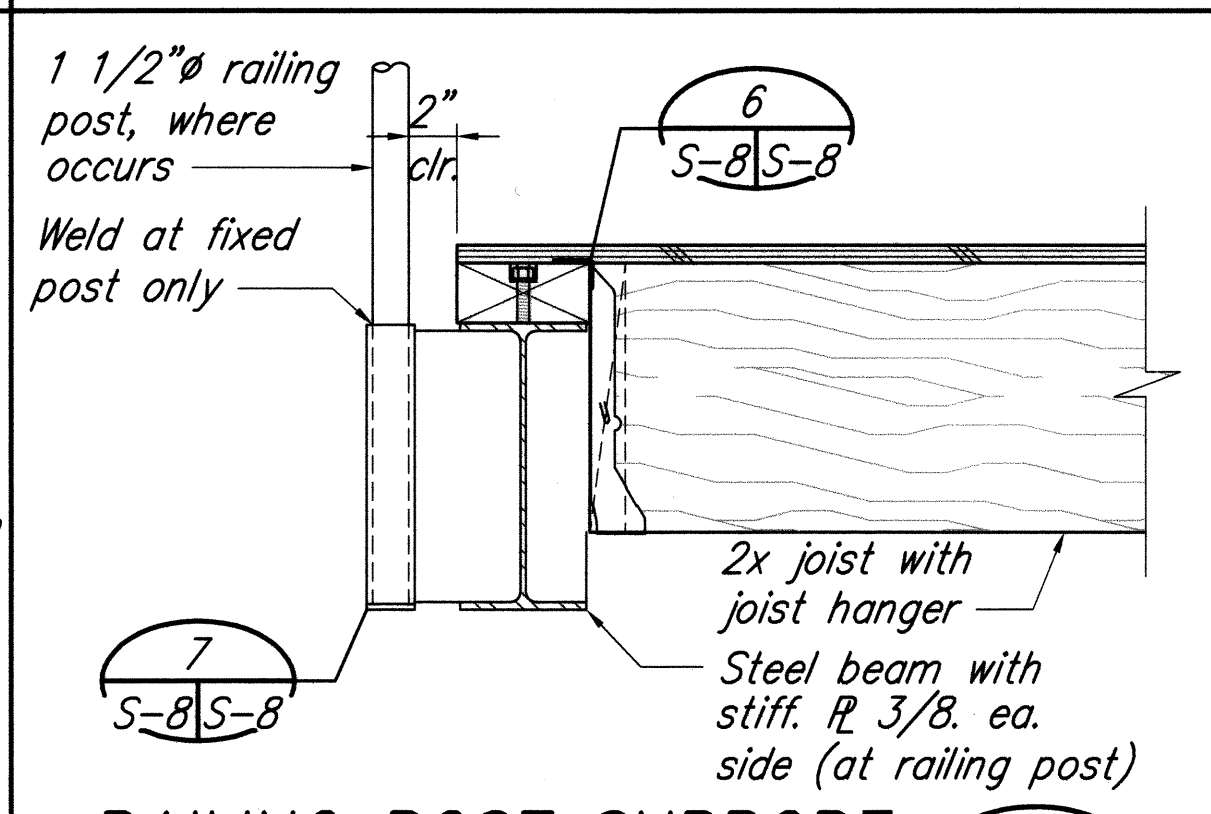
2x JOIST to WOOD BEAM
DETAIL SCALE: 1 1/2" = 1'-0" 5
S-4 S-8



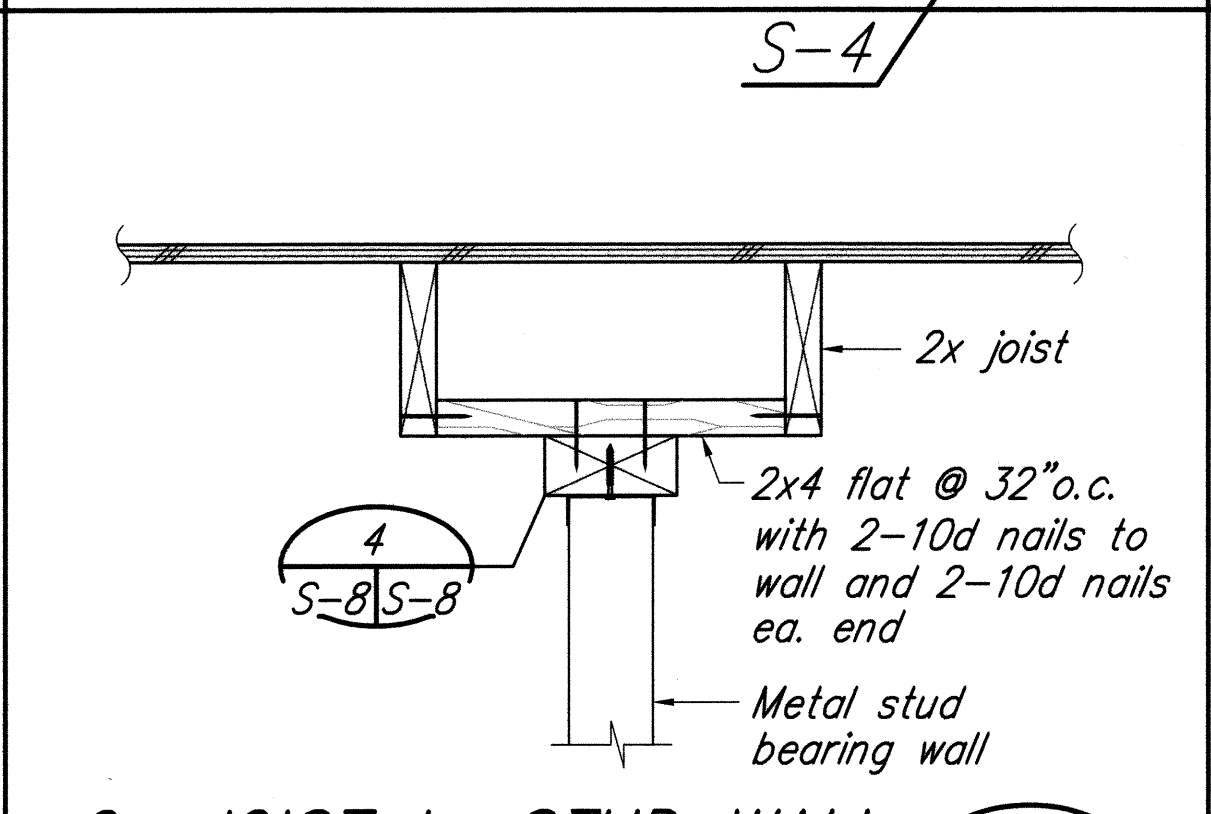
2x12 JOIST to BEAM
DETAIL SCALE: 1 1/2" = 1'-0" 6
S-8 S-8



RAILING POST SUPPORT
DETAIL SCALE: 1 1/2" = 1'-0" 7
S-8 S-8

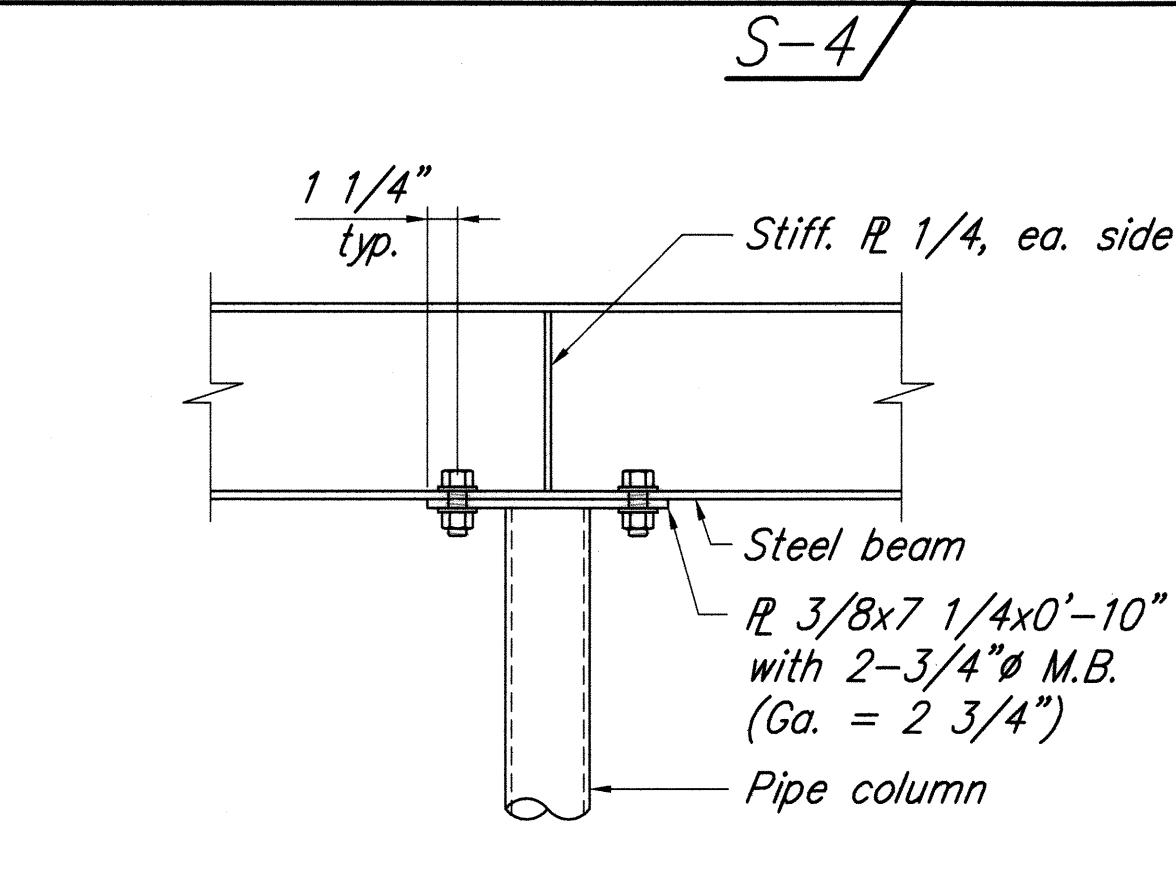


RAILING POST SUPPORT
DETAIL SCALE: 1 1/2" = 1'-0" 8
S-8 S-8

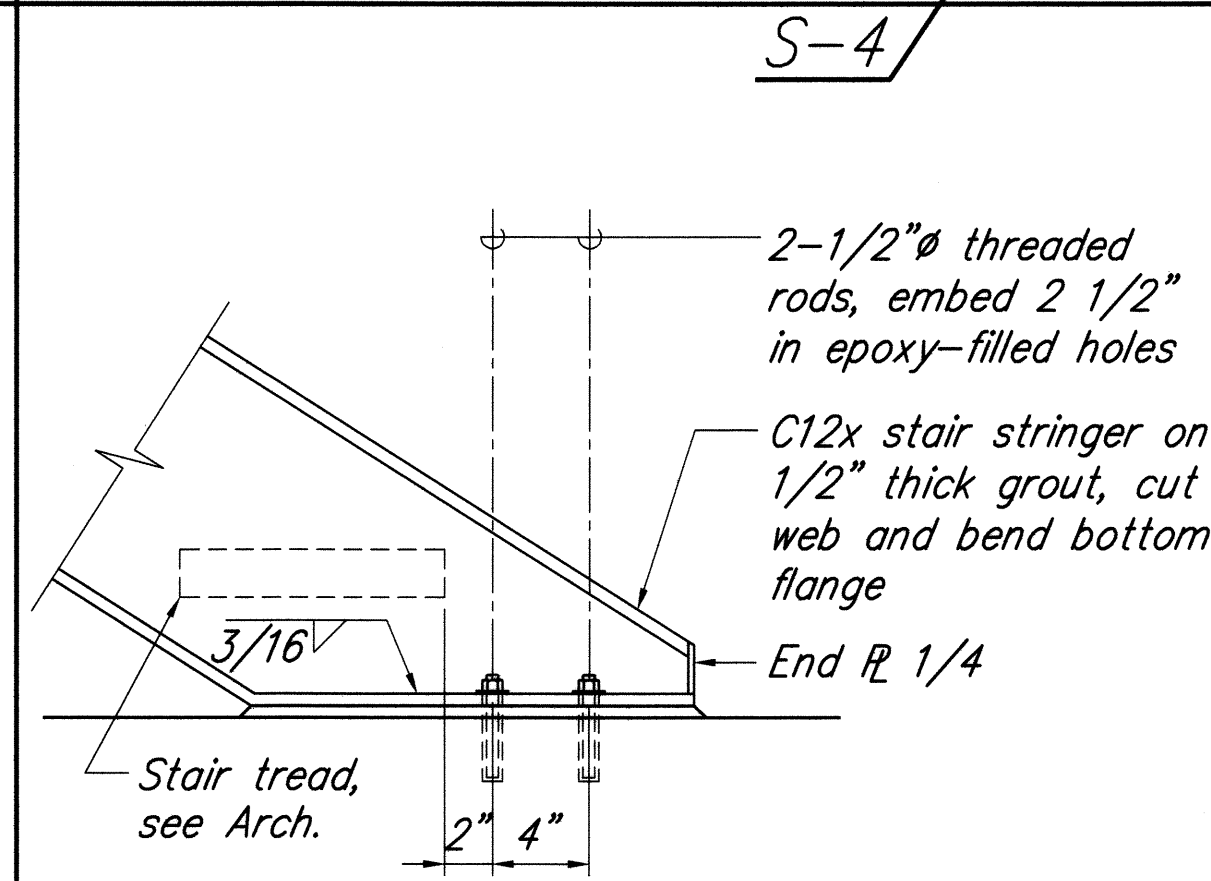


2x JOIST to STUD WALL
DETAIL SCALE: 1 1/2" = 1'-0" 9
S-4 S-8

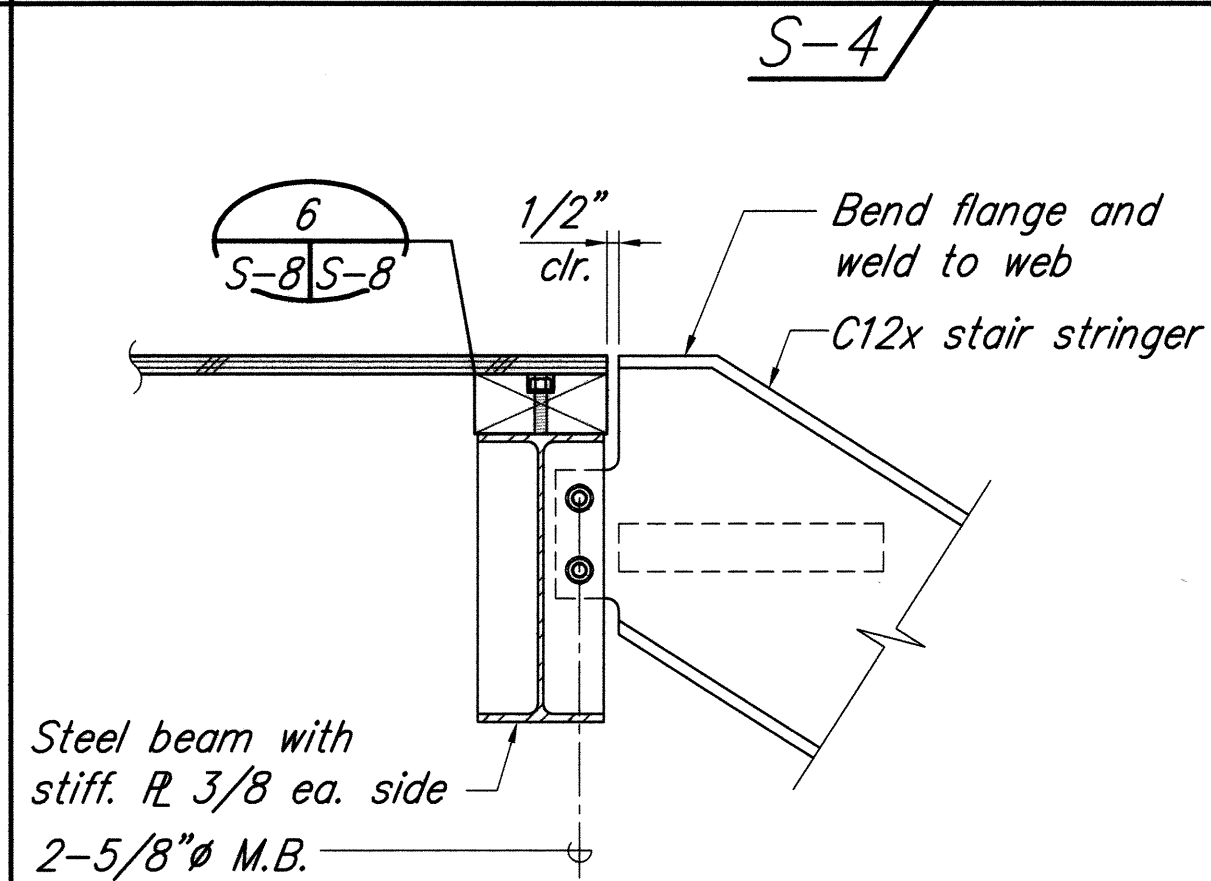
NOT USED
10
S-8 S-8



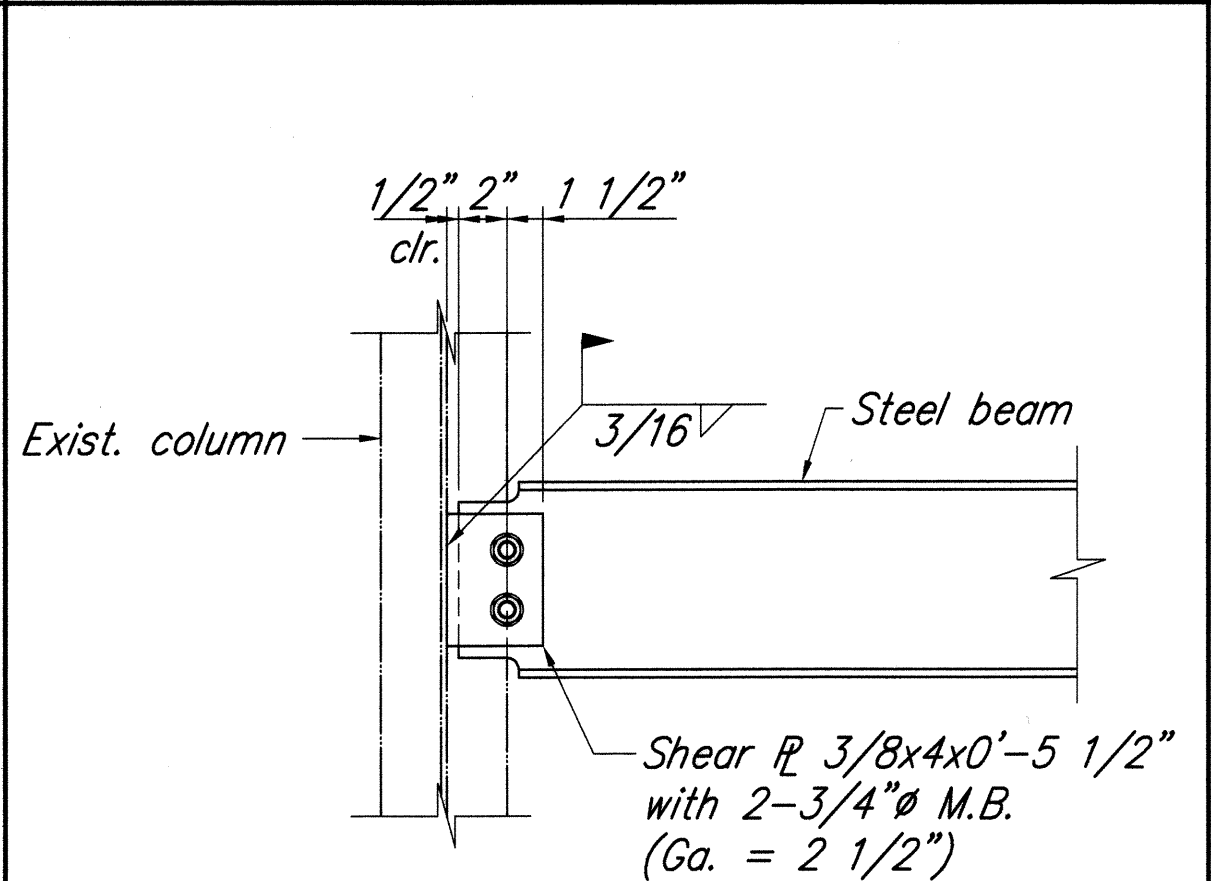
STEEL BEAM to COLUMN
DETAIL SCALE: 1 1/2" = 1'-0" 11
S-8 S-8



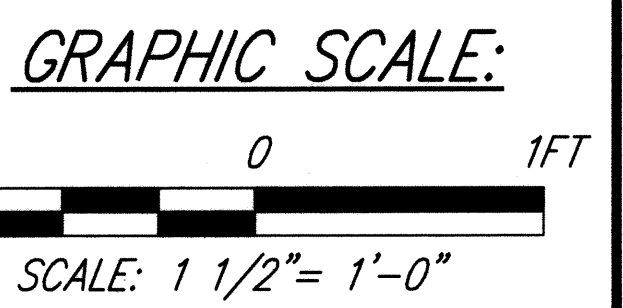
STAIR STRINGER BASE
DETAIL SCALE: 1 1/2" = 1'-0" 12
S-3 S-8



STAIR STRINGER to BEAM
DETAIL SCALE: 1 1/2" = 1'-0" 13
S-4 S-8



STEEL BEAM to EXIST. COL.
DETAIL SCALE: 1 1/2" = 1'-0" 14
S-8 S-8



DATE	1/08
SURVEY PLATTED BY	CAO
DESIGNED BY	MITSUNAGA & ASSOCIATES, INC.
QUANTITIES BY	MITSUNAGA & ASSOCIATES, INC.
CHECKED BY	HWY-H
ORIGINAL PLAN	
NOTE BOOK	
No.	

KEITH K. KALANI
LICENSED PROFESSIONAL ENGINEER
No. 6845-S
HAWAII, U.S.A.

Expires 4/30/10

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MITSUNAGA & ASSOCIATES
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

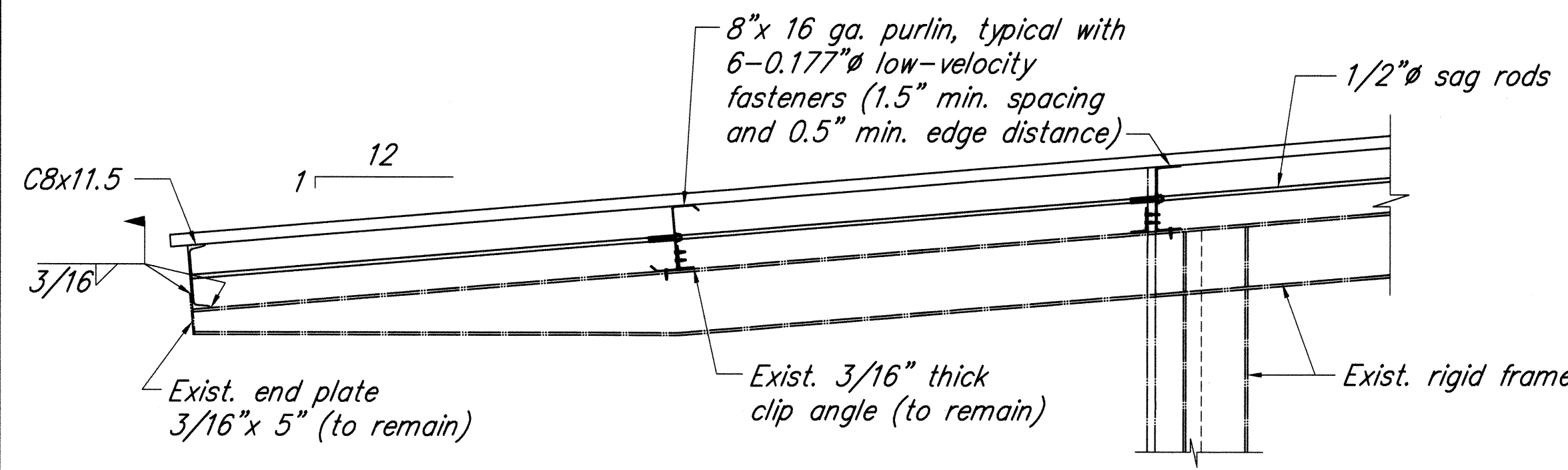
TYPICAL DETAILS

HONOKAA BASEYARD IMPROVEMENTS
Project No. HWY-H-05-06

Scale: As Noted Date: May 2008

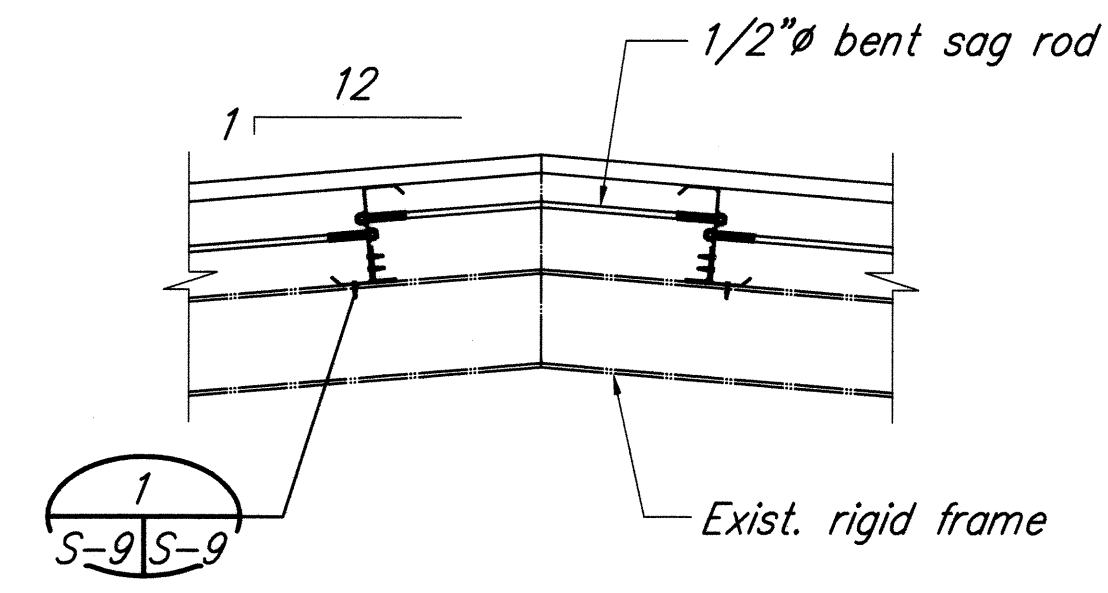
SHEET No. S-8 OF S-9 SHEETS

FED. ROAD DIST. NO.	STATE	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
HAWAII	HAWAII	HWY-H-05-06	2008	48	64



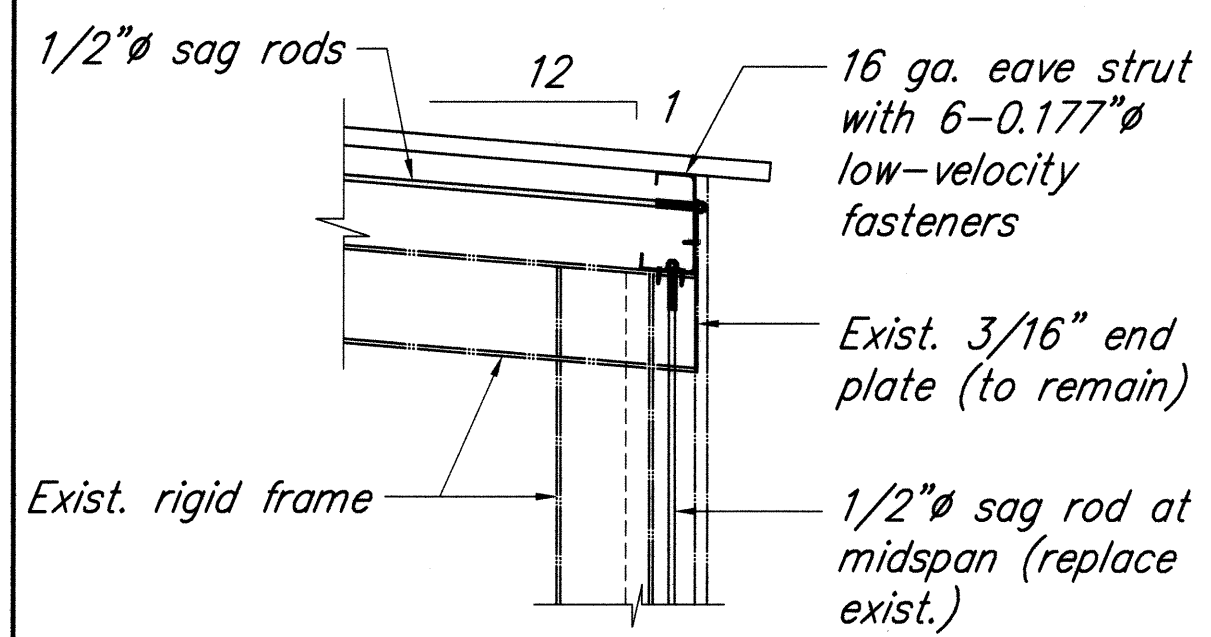
TYPICAL OVERHANG at EXISTING ROOF

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



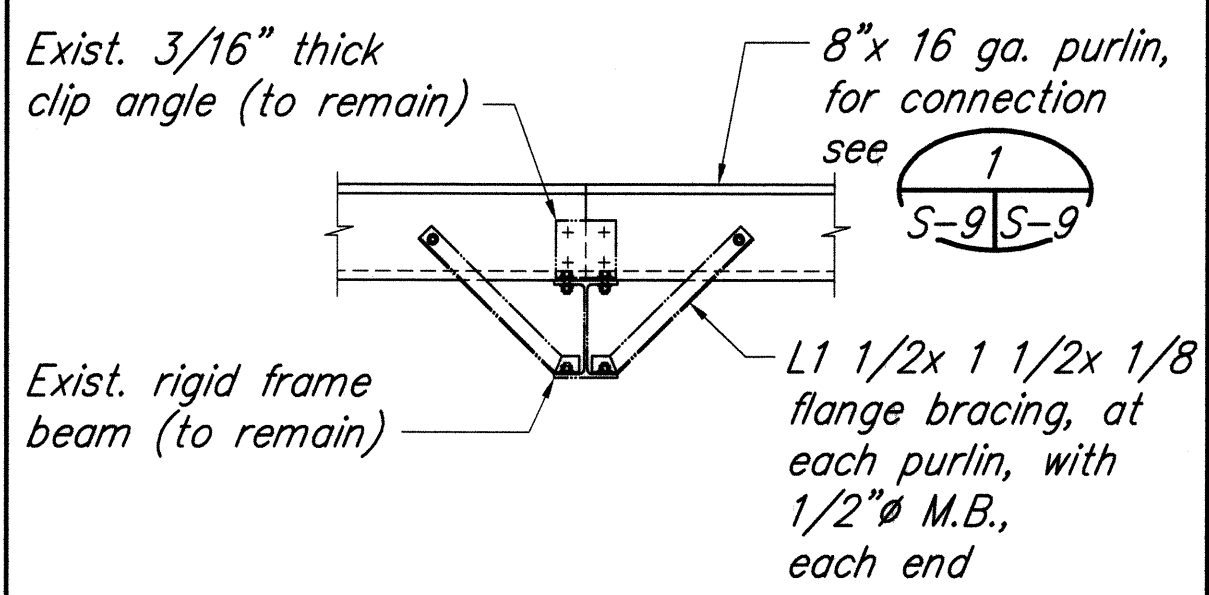
EXIST. RIDGE DETAIL

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



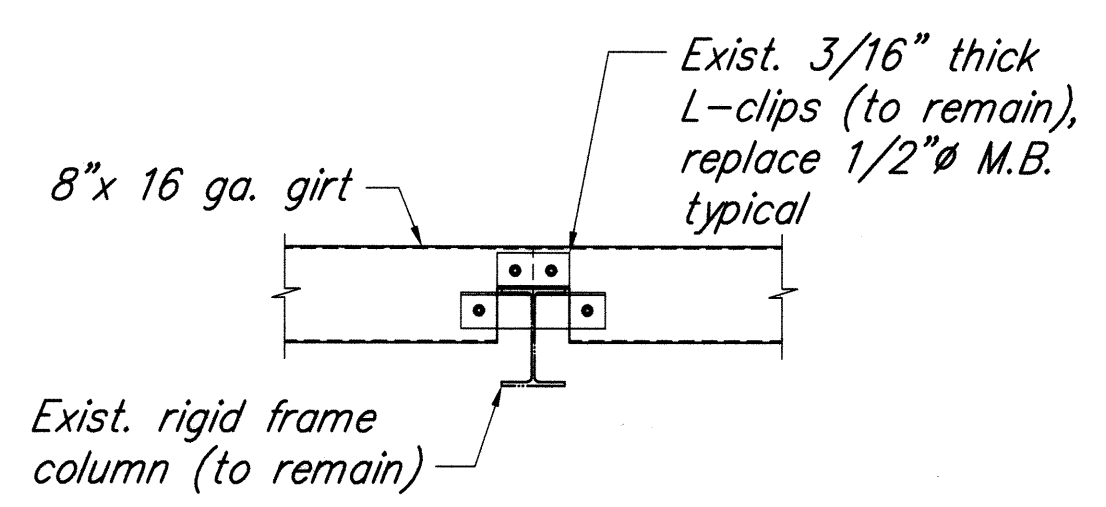
EAVE STRUT CONN. DETAIL

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



TYP. FLANGE BRACING DETAIL

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

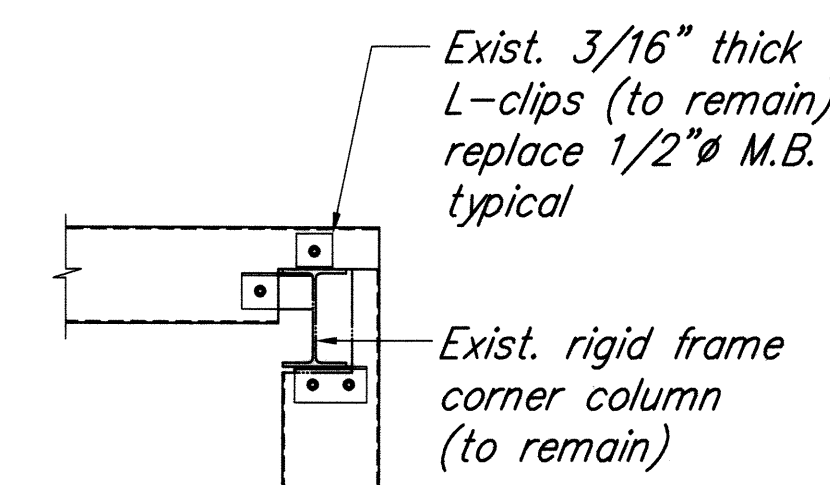


PLAN

TYP. GIRT to COLUMN

DETAIL

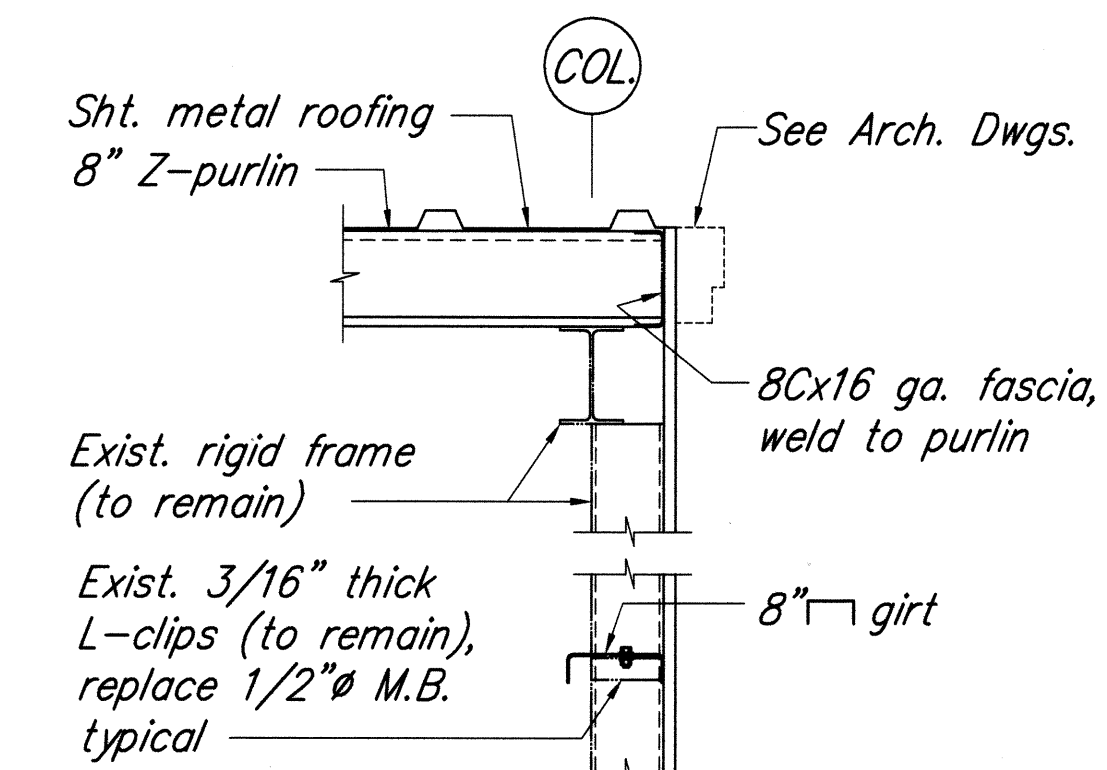
SCALE: 3/4" = 1'-0"



TYP. GIRT to COLUMN

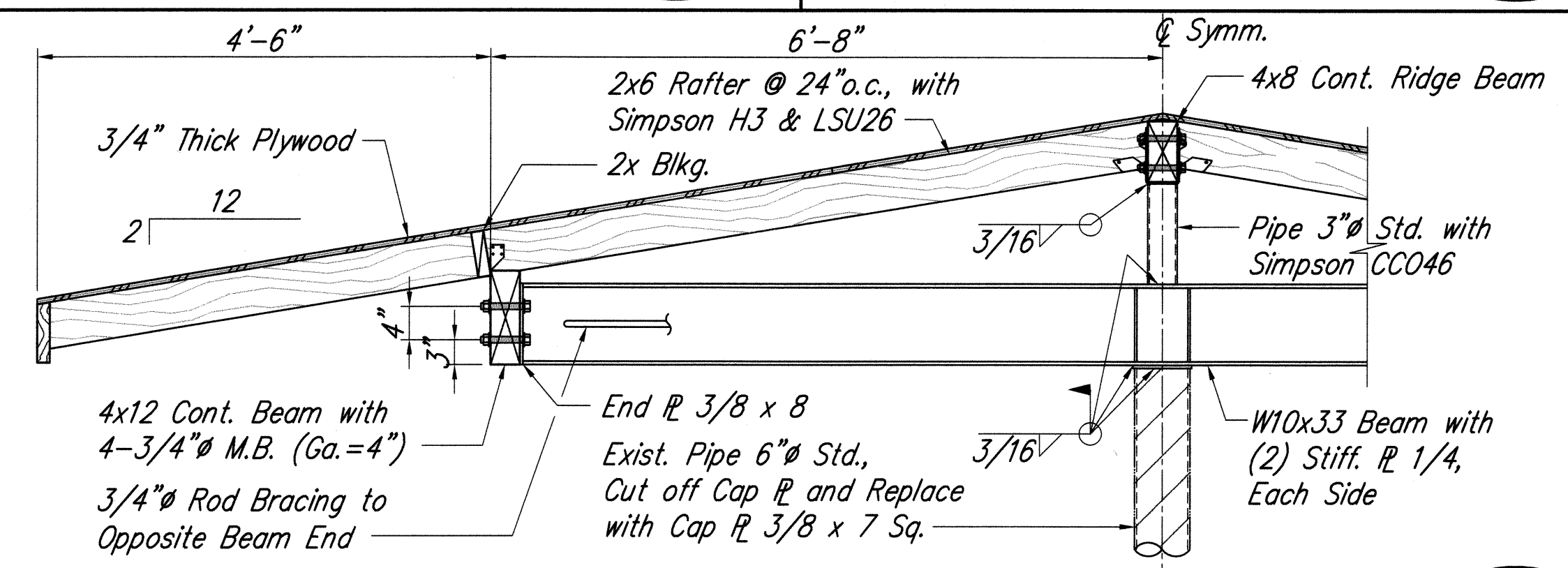
DETAIL

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



TYP. END WALL DETAIL

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



NEW GAS CANOPY ROOF SECTION

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

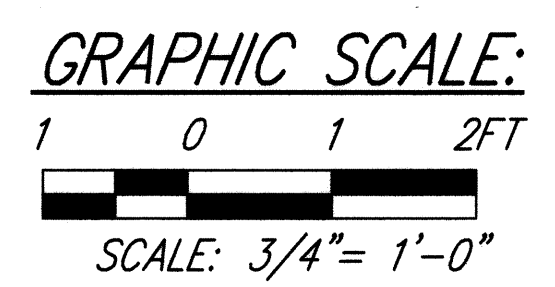
8
A-20 S-9

SURVEY PLOTTED BY	DATE
DESIGNED BY	1/08
QUANTITIES BY	1/08
CHECKED BY	1/08



Expires 4/30/10
THIS WORK WAS PREPARED BY
ME OR UNDER MY SUPERVISION

MITSUNAGA & ASSOCIATES
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STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION
EXTERIOR BUILDING
CONNECTION DETAILS
HONOKAA BASEYARD IMPROVEMENTS
Project No. HWY-H-05-06
Scale: As Noted Date: May 2008
SHEET No. S-9 OF S-9 SHEETS