WAHKIAKUM COUNTY
Building and Planning Department

David W. Hicks, Building and Planning Manager

BUILDING PERMIT PROCESS

1. Show proof of potable water to the Wahkiakum County Health Department located at 42 Elochoman Valley Road, Cathlamet, WA 98612 phone – (360) 795-6207.

2. Obtain a septic permit from the Wahkiakum County Health Department.

3. Apply for your building permit in the Building and Planning Department of Wahkiakum County, located on the 3rd floor of the County Courthouse. Be sure to bring proof of your septic permit, a site plan of the building site, two sets of construction plans (one can be in electronic format, PDF), your legal description, any engineering documentation (if required) and any Geotech documentation (if required). If you live in a flood area you may need to submit a Flood Elevation Certificate. A building permit will not be issued without the above information. All permit application parts can be submitted electronically, through email.

What do I need to turn in for a building permit?

You will need to submit two sets of construction drawings plans with your application; one copy should be in electronic format (PDF). These drawings must be scaled and show all proposed work and how you plan to comply with building codes and all other applicable regulations.

A complete set of building plans includes, but not limited to: Site plan, foundation plan, floor plan, and cross section.

The following is required on plans for new buildings and/or remodeling:

A. Site plan
   1. (See site plan sheet)

B. Foundation Plan
   I. Location and size of foundation walls and footings.
   2. Size, direction, and span of floor joists.
   3. Size, direction, and span of all supporting beams.
   4. Location and size of posts and size of supporting pads under posts.
   5. Use of areas if a basement is proposed.

C. Floor plan
   1. Location of all walls.
   2. Use of all areas, (i.e., kitchen, bedroom, etc.)
   3. Size and location of doors and windows.
   4. Location of plumbing fixtures and furnaces if applicable.
   5. Location and setbacks of wood stoves and pellet stoves.
   6. Type of primary heat.
   7. Location of smoke detectors.

D. Cross Section of Construction
   l. Size of footings.
   2. Thickness and height of foundation walls.
   3. Size and spacing of floor joists.
   4. Stud size and spacing, ceiling joist size, and spacing, roof pitch, ceiling height, exterior walls covering and interior wall covering.
   5. Truss and/or rafter size.
   6. Thickness and type of roof sheathing, and type of roofing.
   7. Thermal Value of roof, wall, and floor insulation.

E. Grading Plan
   I. Existing and proposed grading.
   2. Pad elevations, ground slope, drainage scheme and topographic plan drawn to l '-0" contours.
   3. Retaining walls and drainage systems, existing and proposed.

F. HVAC/Plumbing
   1. Show HVAC equipment and plumbing fixtures.
   2. Show exhaust fan locations.

G. Electrical Plan (Washington Dept of Labor & Industries)
   I. Outlets, fixtures, switches, and service panels.

H. Calculations
   I. Structural calculations.
   2. Energy calculations and forms.

I. Soil's report of Geologic Study.

WAHKIAKUM COUNTY
Building and Planning Department

David W Hicks, Building Inspector / Planner
Adam Vogt, GIS Technician/Cartographer

BUILDING PERMIT APPLICATION

Date Received: _____ Permit Issued: _____
Permit No.: _____ Permit Fee: _____

OWNER/APPLICANT INFORMATION

Applicant/Authorized Agent_____Daytime Phone (_____) _____
Mailing Address_____City_____State_____Zip Code_____
Email Address: _____
Property Owner_____Daytime Phone (_____) _____
Mailing Address_____City_____State_____Zip Code_____
Contractor Name_____License#_____Exp. Date_____Phone (_____) _____
Mailing Address_____City_____State_____Zip Code_____

PROPERTY INFORMATION

Project Adddress_____(city)_____
Section(s)_____Township_____Range_____Parcel No. _____PID_____

PROJECT INFORMATION

Please Check Application Type:

☐ Building Permit ☐ Mechanical Permit ☐ Plumbing Permit

PROJECT DESCRIPTION

Type of Construction _____ Sq. Ft. _____ # of Stories _____ # of Bedrooms _____
Water Supply _____ Sewage Disposal _____ Type of Heat _____ Fair Mkt Value _____
Is there any grading, filling, or excavation associated with this project? _____ Quantity (cubic yards): _____
(Including grading for road construction, site preparation and landscaping)

PLEASE PROVIDE A BASIC DESCRIPTION OF THE PROPOSED PROJECT

_____

_____

_____

Contact the Washington State Department of Commerce Lead Paint Program at (360) 586-5323 (LEAD) or visit www.commerce.wa..gov or email the lead program lbpinfo@commerce.wa.gov before renovating or remodeling activities in pre-1978 residential building or child occupied facilities to ensure your compliance with applicable Washington lead regulations.

I hereby certify that I am the owner or duly authorized agent of the owner for the purposes of this application. I further certify that I have read and examined this application and know the same to be true and correct. If any of the information provided on this application is incorrect, the permit of approval may be revoked

APPLICANTS SIGNATURE_____DATE_____

For Office use only: Open scan: _____ Completed scan: _____ Imported: _____ Indexed: _____

Wahkiakum County Building and Planning Department

VICINITY MAP MUST SHOW:

1. **Location of property** þ
2. **Directional arrow indicating north** þ
3. **Any adjacent property addresses and landmarks near subject property** ⇒ þ
4. **Nearest intersecting roads** þ

DO NOT USE SITE PLAN FRAME AS PROPERTY LINES!

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SITE PLAN MUST SHOW:

1. **Lot dimensions and property lines.**
2. **Directional arrow indicating north.**
3. **Road location and any existing or proposed driveways.**
4. **All proposed and existing structures, their dimensions and distances to each other, to property lines, and to centerline of road.**
5. **Location of soil test area, drainfield, reserve area, slope of land, well, and their distances to proposed structures or projects.**
6. **Location and amount of any fill or grading.**
7. **Location of address stake, if applicable.**
8. **All bodies of water, natural and manmade (streams, creeks, rivers, ditches, etc.), and distance to proposed structures or development.**
9. **All easements (utility, access, etc.)**
10. **Adjacent property addresses and uses.**
11. **Draw to scale, if possible.**

WAHKIAKUM COUNTY
Building and Planning Department

David W. Hicks, Building Inspector/Planner

Wahkiakum County Building Code Requirements

Codes

2021 International Building Code

2021 International Residential Code

2021 International Mechanical Code

2021 International Fire Code

2021 Uniform Plumbing Code (IAMPO)

2021 Washington State Energy Code

Washington State Amendments to the above codes

Minimum Design Requirements

Snow Level	25 PSF (roof)
Wind Load	85 MPH continuous
Wind Exposure	B & C (site specific)
Seismic Zone	D1 /D2

64 Main Street, P. O. Box 97 Cathlamet, Washington 98612 (360)795-3067 phone (360)795-0342 fax

2021 Washington State Energy Code – Residential
Prescriptive Energy Code Compliance for All Climate Zones in Washington
Single Family – New & Additions (effective March 15, 2024)

WASHINGTON STATE UNIVERSITY
Energy Program

Permit#			
Address or Lot & Block			
City		Zip	

These requirements apply to all the IRC building types, including detached one- and two-family dwellings and multiple single-family dwellings (townhouses).

Instructions: This single-family project uses the requirements of the Prescriptive Path below to incorporate the minimum values listed. Based on the conditioned floor area of the structure, the number of required additional credits must be selected by the permit applicant.

Provide all information from the following tables in building permit drawings: Table R402.1.2 - Insulation and Fenestration Requirements by Component, Table R406.2 - Fuel Normalization Credits and R406.3 Energy Credits.

Authorized Representative Signature		***Date***	

All Climate Zones Table 402.1.3		
	R-Value [a]	**U-Factor** [a]
Fenestration U-Factor [b,j]	n/a	0.30
Skylight U-Factor [b]	n/a	0.50
Ceiling [e]	60	n/a
Wood Frame Wall [g,i]	20+5 or 13+10	n/a
Floor	30	n/a
Below Grade Wall [c,h]	10/15/21 int + 5TB	n/a
Slab [d,f] R-Value & Depth	10, 4 ft	n/a

a	R-values are minimums. U-factors and SHGC are maximums. When insulation is installed in a cavity which is less than the label or design thickness of the insulation, the compressed R-value of the insulation from Appendix Table A101.4 shall not be less than the R-value specified in the table
b	The fenestration *U*-factor column excludes skylights.
c	"10/15/21 +5TB" means R-10 continuous insulation on the exterior of the wall, or R-15 continuous insulation on the interior of the wall, or R-21 cavity insulation plus a thermal break between the slab and the basement wall at the interior of the basement wall. "10/15/21 +5TB" shall be permitted to be met with R-13 cavity insulation on the interior of the basement wall plus R-5 continuous insulation on the interior or exterior of the wall. "5TB" means R-5 thermal break between floor slab and basement wall.
d	R-10 continuous insulation is required under heated slab on grade floors. See Section R402.2.9.1.
e	For single rafter- or joist-vaulted ceilings, the insulation may be reduced to R-38 if the full insulation depth extends over the top plate of the exterior wall.
f	R-7.5 continuous insulation installed over an existing slab is deemed to be equivalent to the required perimeter slab insulation when applied to existing slabs complying with Section R503.1.1. If foam plastic is used, it shall meet the requirements for thermal barriers protecting foam plastics.
g	For log structures developed in compliance with Standard ICC 400, log walls shall meet the requirements for climate zone 5 of ICC 400.
h	Int. (intermediate framing) denotes framing and insulation as described in Section A103.2.2 including standard framing 16 inches on center, 78 percent of the wall cavity insulated and headers insulated with a minimum of R-10 insulation.
i	The first value is cavity insulation, the second value is continuous insulation. Therefore, as an example, "R13+10" means R-13 cavity insulation plus R-10 continuous insulation
j	A maximum U-factor of 0.32 shall apply to vertical fenestration products installed in buildings located above 4000 feet in elevation above sea level, or in windborne debris regions where protection of openings is required under Section R301.2.1.2 of the International Residential Code.

Each dwelling unit ***in a residential building*** shall comply with sufficient options from Table R406.2 (fuel normalization credits) and Table 406.3 (energy credits) to achieve the following minimum number of credits. To claim this credit, the building permit drawings shall specify the option selected and the maximum tested building air leakage, and show the qualifying ventilation system and its control sequence of operation.

1. Small Dwelling Unit: ..... **5.0 credits**
   Dwelling units less than 1500 square feet in conditioned floor area with less than 300 square feet of fenestration area. Additions to existing building greater than 500 square feet of heated floor area but less than 1500 square feet.
2. Medium Dwelling Unit: ..... **8.0 credits**
   All dwelling units that are not included in #1, #3 or #4.
3. Large Dwelling Unit: .....**9.0 credits**
   Dwelling units exceeding 5000 square feet of conditioned floor area.
4. Dwelling units serving Group R-2 occupancies: ..... **6.5 credits**
   Section R401.1 and residential building Section R202 for Group R-2.
5. Additions 150 square feet to 500 square feet: ..... **2.0 credits**

The drawings included with the building permit application shall identify which options have been selected and the point value of each option, regardless of whether separate mechanical, plumbing, electrical, or other permits are utilized for the project

Before selecting your credits on this Summary table, review the details in Table 406.3 (Single Family), on page 4.

Table R406.2 ENERGY EQUALIZATION CREDITS			
System Type	Description of Primary Heating Source	Credits - select ONE system type	
1	For combustion heating equipment meeting minimum federal efficiency standards for the equipment listed in Table C403.3.2(5) or C403.3.2(6)	0	☒
2	For an initial heating system using a heat pump that meets federal standards for the equipment listed in Table C403.3.2(2) and supplemental heating provided by electric resistance or a combustion furnace meeting minimum standards listed in Table C403.3.2(5)b found in the 2021 WSEC- COMMERCIAL ENERGY CODE	1.5	☐
3	For heating system based on electric resistance only (either forced air or Zonal)	0.5	☐
4[c]	For heating system using a heat pump that meets federal standards for the equipment listed in Table C403.3.2(2) or C403.3.2(9) or Air to water heat pump units that are configured to provide both heating and cooling and are rated in accordance with AHRI 550/590	3.0	☐
5	For heating system based on electric resistance with: 1. Inverter-driven ductless mini-split heat pump system installed in the largest zone in the dwelling, or 2. With 2kW or less total installed heating capacity per dwelling	2.0	☐

a. See Section R401.1 and residential building in Section R202 for Group R-2 scope.
b. The gas back-up furnace will operate as fan-only when the heat pump is operating. The heat pump shall operate at all temperatures above 38°F (3.3°C) (or lower). Below that "changeover" temperature, the heat pump would not operate to provide space heating. The gas furnace provides heating below 38°F (3.3°C) (or lower).
c. Additional points for the HVAC system are included in Table R406.3.

Summary of Table R406.3				
Options	*Energy Credit Option Descriptions*	*Credits – limited to one energy option from each category* [d]		*Comments:*
1.1	Efficient Building Envelope	0.5	☐	
1.2	Efficient Building Envelope	1.0	☐	
1.3	Efficient Building Envelope	1.5	☐	
1.4	Efficient Building Envelope	2.5	☐	
2.1	Air Leakage Control and Efficient Ventilation	1.0	☐	
2.2	Air Leakage Control and Efficient Ventilation	1.5	☐	
2.3	Air Leakage Control and Efficient Ventilation	2.0	☐	
3.1[a]	High Efficiency HVAC	1.0	☐	
3.2[a]	High Efficiency HVAC	0.5	☐	
3.3[a,c,d]	High Efficiency HVAC	0.5	☐	
3.4[a,d]	High Efficiency HVAC	1.5	☐	
3.5[d]	High Efficiency HVAC	1.5	☐	
3.6[a]	High Efficiency HVAC	1.0	☐	
3.7[a,d,e]	High Efficiency HVAC	2.0	☐	
3.8[a,d]	High Efficiency HVAC	1.0		
3.9	High Efficiency HVAC	1.5	☐	
3.10[f]	High Efficiency HVAC	2.5		
3.11[c]	High Efficiency HVAC	0.5	☐	
4.1	High Efficiency HVAC Distribution System	0.5	☐	
5.1	Efficient Water Heating	0.5	☐	
5.2	Efficient Water Heating	0.5	☐	
5.3	Efficient Water Heating	0.5	☐	
5.4	Efficient Water Heating	1.0	☐	
5.5	Efficient Water Heating	1.5	☐	
5.6	Efficient Water Heating	2.0	☐	
5.7	Efficient Water Heating	2.5	☐	
5.8	Efficient Water Heating	2.5	☐	
6.1	Renewable Electric Energy (4.5 credits max)	0.5-4.5	0.0	
7.1	Appliance Package	0.5	☐	
		Total Credits	0.0	Calculate Total

a. An alternative heating source sized at a maximum of 0.5 Watts/ft2 (equivalent) of heated floor area or 500 Watts, whichever is bigger, may be installed in the dwelling unit.
b. See Section R401.1 and residential building in Section R202 for Group R-2 scope.
c. Option 3.11 can only be taken with Options 3.1 and 3.3. To qualify to claim Option 3.11 with 3.3, the system shall be a 1-2 speed heat pump system. Variable capacity heat pumps are ineligible from claiming this option.
d. This option may only be claimed if serving System Type 4 or 5 from Table R406.2.
e. Primary living areas include living, dining, kitchen, family rooms, and similar areas.
f. Option 3.10 may only be taken with Efficient Water Heating Options 5.1 or 5.2. Equipment sizing for space heating shall be calculated as provided in Section R403.7 with increased capacity to provide a minimum of 75 percent of peak hot water demand or shall be sized in accordance with approved manufacturer's specifications or guidance. Supplementary heat for water heating system shall be in accordance with Section R403.5.7.

SETBACK REQUIREMENTS
FOR
RESIDENTIAL DEVELOPMENTS

1. HOUSE: Setbacks from property lines and water courses

   30’ from mean high water lines (SMMP)
   5’ from side lot lines (WCBS)
   15’ from road r/w lines (WCPW)

2. SEPTIC TANK & DRAINFIELDS

   100’ from mean high water line for drain fields (WHD)
   50’ from mean high water line for septic tank (WHD)

3. UNCOVERED PORCH, DECKS OR STEPS

   10’ from mean high water line (SMMP)
   5’ from side lot lines (WCBS)
   15’ from road r/w lines (WCPW)

4. GARAGES AND SHOPS

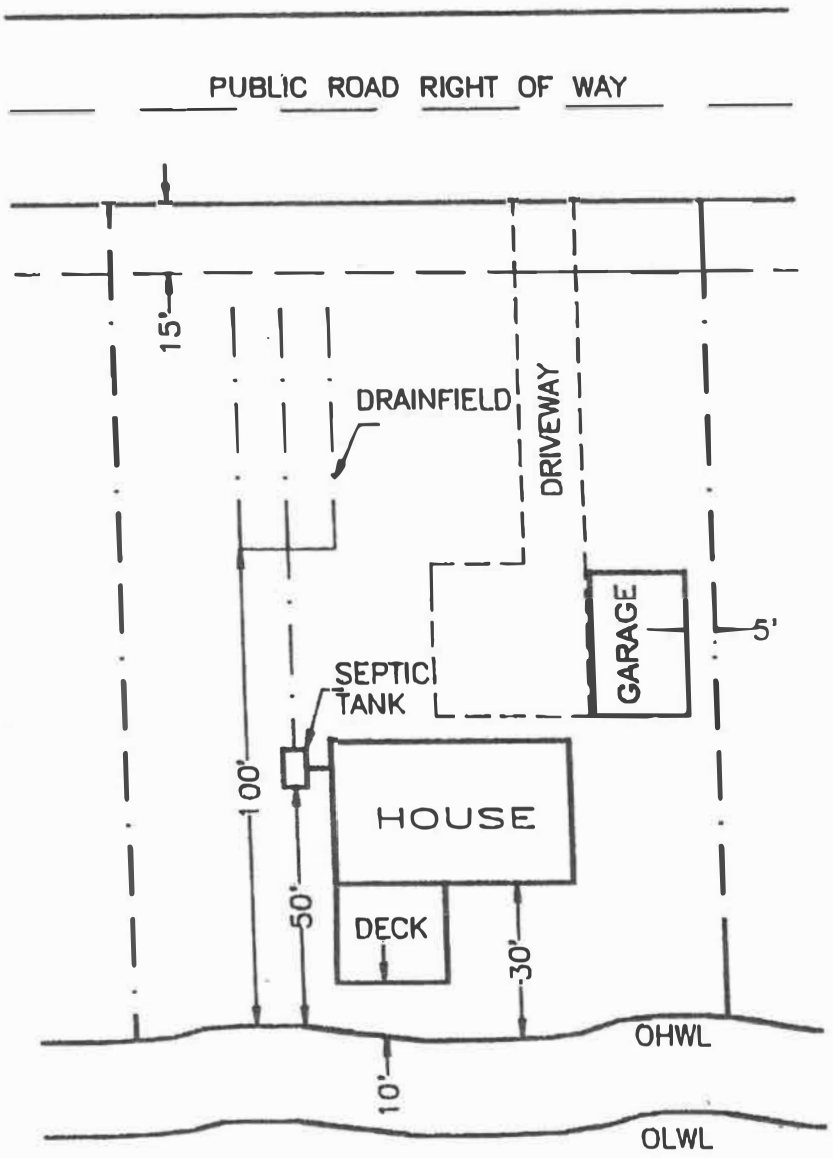
   30’ from mean high water lines (SMMP)
   5’ from side lot lines (WCBS)
   15’ from road r/w lines (WCPW)

5. PARKING LOT

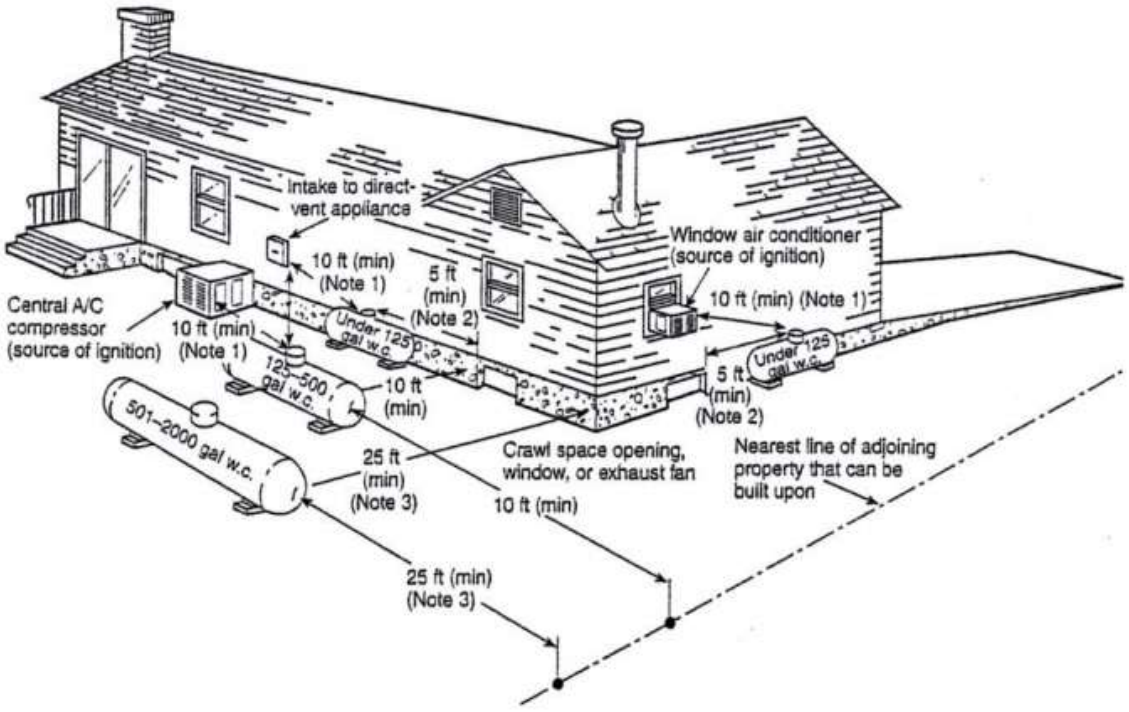
   50’ from mean high water line (SMMP)

** NOTE In some situations, setback distances may be reduced by either a variance or by talking to the department requiring the setback

SMMP = Shoreline Management Master Plan
WCBS = Wahkiakum County Building Section
WCPW = Wahkiakum County Public Works
WHD = Wahkiakum Health Department


PUBLIC ROAD RIGHT OF WAY
15'
DRAINFIELD
DRIVEWAY
GARAGE
5'
SEPTIC TANK
100'
HOUSE
50'
DECK
30'
OHWL
10'
OLWL

Propane Tank Setbacks



Regardless of its size, any ASME container filled on site must be located so that the filling connection and fixed maximum liquid level gauge are at least 10 ft from any external source of ignition (e.g., open flame, window A/C, compressor), intake to direct-vented gas appliance, or intake to a mechanical ventilation system.

This distance may be reduced to no less than 10 ft for a single container of 1200 gal (4.5 m^3) water capacity or less, provided such container is at least 25 ft from any other LP-Gas container of more than 125 gal (0.5 m^3) water capacity.

Revised 11/12/2008

Framing Lumber Specifications

Stress rated framing members shall be used which Equal or exceed the follow specifications.
If lower grade lumber is used, excessive deflection may occur.
Fiber Stress in Bending(fb)=875 psi (BASE VALUE) Modules of Elasticity (E) = 1,400 ps

First Floor Joists

40 lbs. Live Load
10 lbs. Dead Load

SIZE	INCHES O.C.	MAX. SPAN
2 x 6	12”	10’-3”
	16”	9’-4”
2 x 8	12”	13’-6”
	16”	12’-3”
2 x 10	12”	17’-3”
	16”	15’-5”
	24”	12’-7”
2 x 12	12”	20’-7”
	16”	17’-10”
	24”	14’-7”

Second Floor Joists

30 lbs. Live Load
10 lbs. Dead Load

SIZE	INCHES O.C.	MAX. SPAN
2 x 6	12”	11’-3”
	16”	10’-3”
2 x 8	12”	14’-11”
	16”	13’-6”
2 x 10	12”	19’-0”
	16”	17’-2”
	24”	14’-1”
2 x 12	12”	23’-0”
	16”	19’-11”
	24”	16’-3”

Ceiling Joists

20 lbs. Live Load
10 lbs. Dead Load

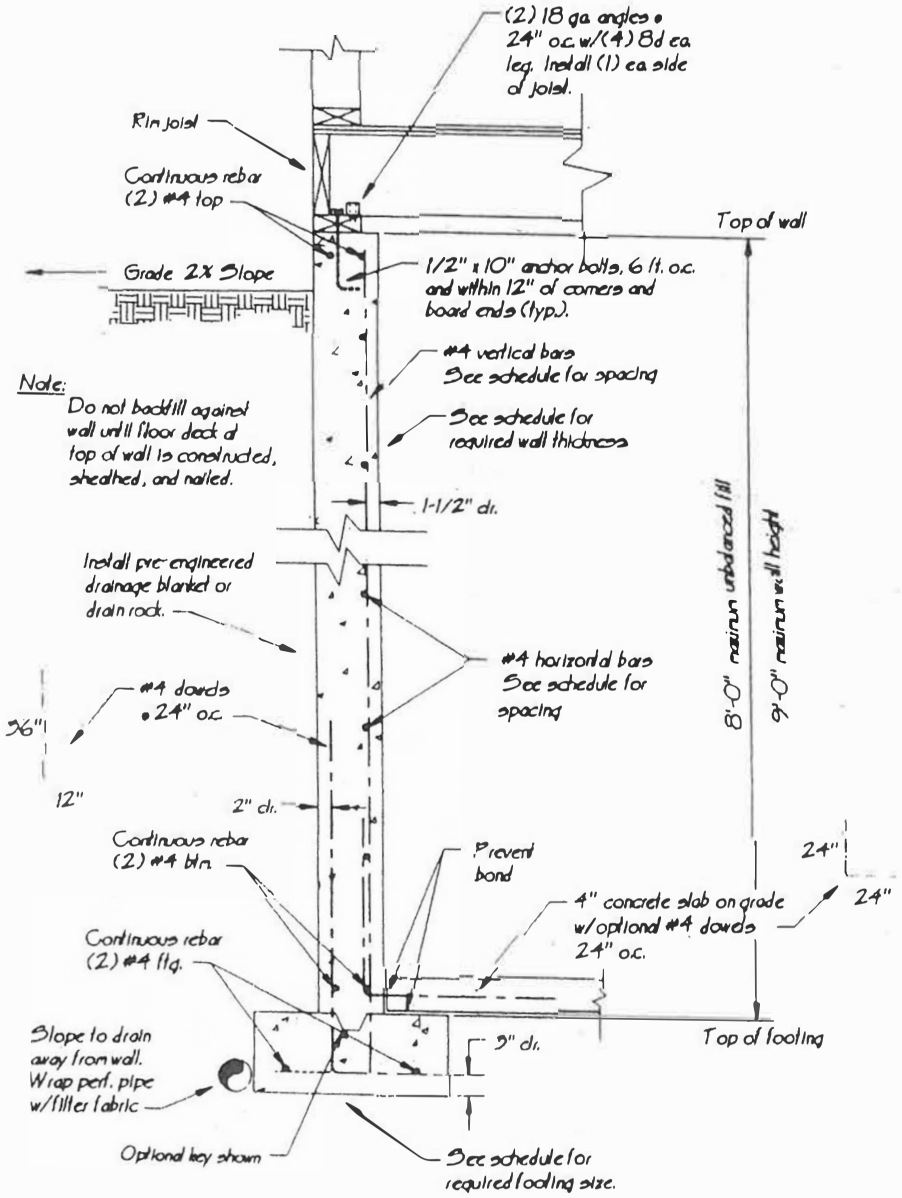
SIZE	INCHES O.C.	MAX. SPAN
2 x 4	12”	9’-5”
	16”	8’-7”
	24”	7’-2”
2 x 6	12”	14’-9”
	16”	12’-10”
	24”	10’-6”
2 x 8	12”	18’-9”
	16”	16’-3”
	24”	13’-3”
2 x 10	12”	22’-11”
	16”	19’-10”
	24”	16’-1”
2 x 12	12”	26’-6”
	16”	23’-0”
	24”	18’-8”

Rafters

20 lbs. Live Load
10 lbs. Dead Load

SIZE	INCHES O.C.	MAX. SPAN
2 x 6	12”	15’-10”
	16”	13’-9”
	24”	11’-13”
2 x 8	12”	20’-2”
	16”	17’-5”
	24”	14’-3”
2 x 10	12”	24’-6”
	16”	21’-3”
	24”	17’-4”
2 x 12	12”	28’-6”
	16”	24’-8”
	24”	20’-2”

Residential One Story Minimum Foundation Size and Steel Reinforcement Requirements



Section - (Bsmt. Wall)

No scale

Wall Height	Required Wall Thickness	Footing Size	Bar Size	Vertical Bars	Horizontal Bars
2'	6"	6"x16"	#4	48" o.c.	18" o.c.
3'	6"	6"x16"	#4	48" o.c.	18" o.c.
4'	8"	8"x18"	#4	12" o.c.	16" o.c.
5'	8"	8"x18"	#4	12" o.c.	16" o.c.
6'	8"	9"x20"	#4	12" o.c.	16" o.c.
7'	8"	9"x20"	#4	12" o.c.	16" o.c.
8'	8"	10"x24"	#4	12" o.c.	16" o.c.

Notes:

The above standards assume a minimum soil capacity of 1,500 psf, a 2% soil surface grade away from the building for a minimum of eight (8) feet, and relatively non-expansive soil conditions. If unusual field conditions exist, engineering may be required.

These minimum standards apply only to walls which are restrained at both the top and bottom. Engineering is required for steel placement in cantilevered retaining walls.

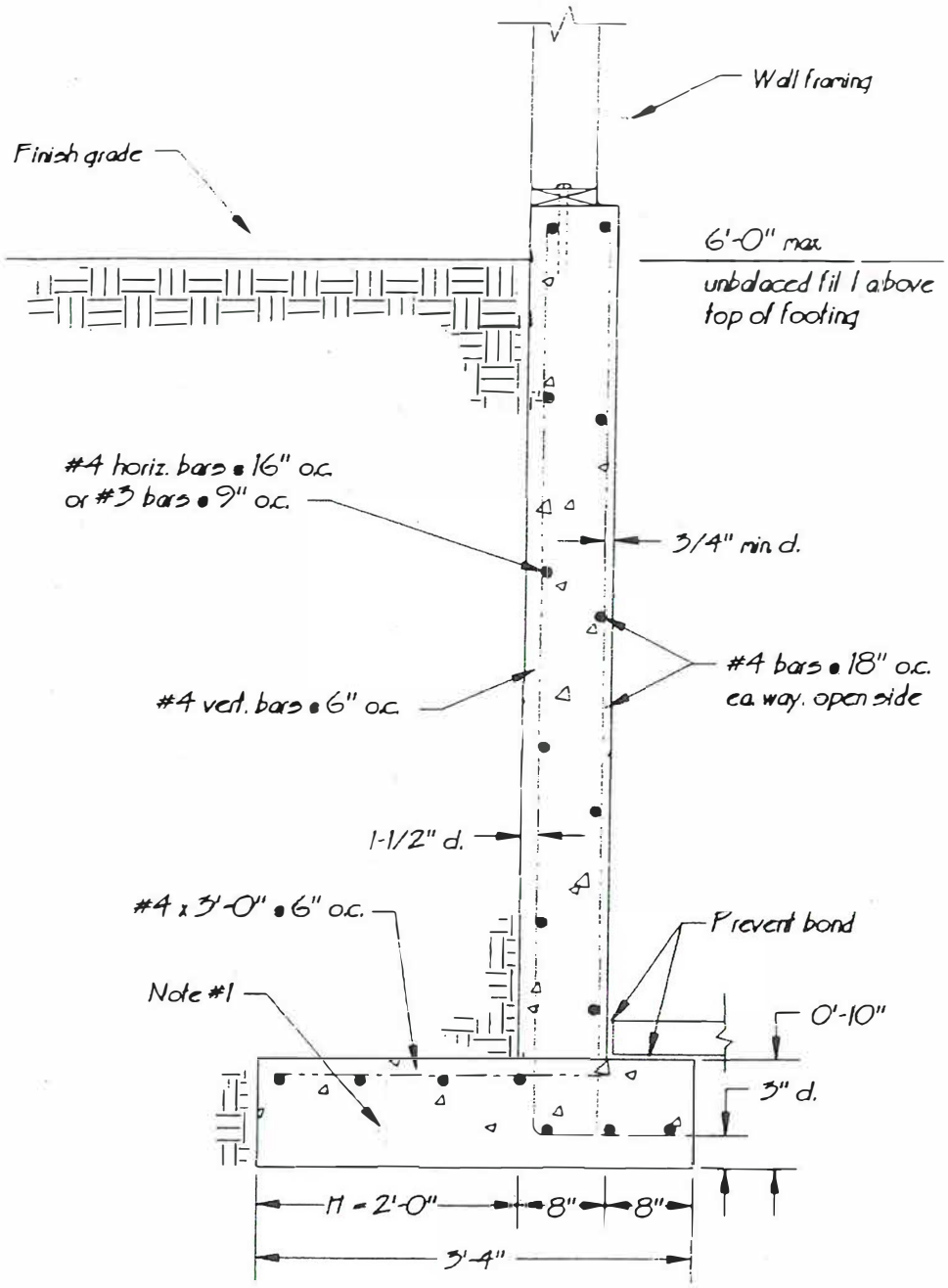
Concrete: 3000psi (28 day)

Rebar: Grade 40

If optional #5 rebar is used in the foundation wall then horizontal and vertical grid spacing is 18 inches o.c.

Engineering calculations are based on a single story home with a basement including a 20 foot floor span and 40 foot roof truss span.

Revised 4/96



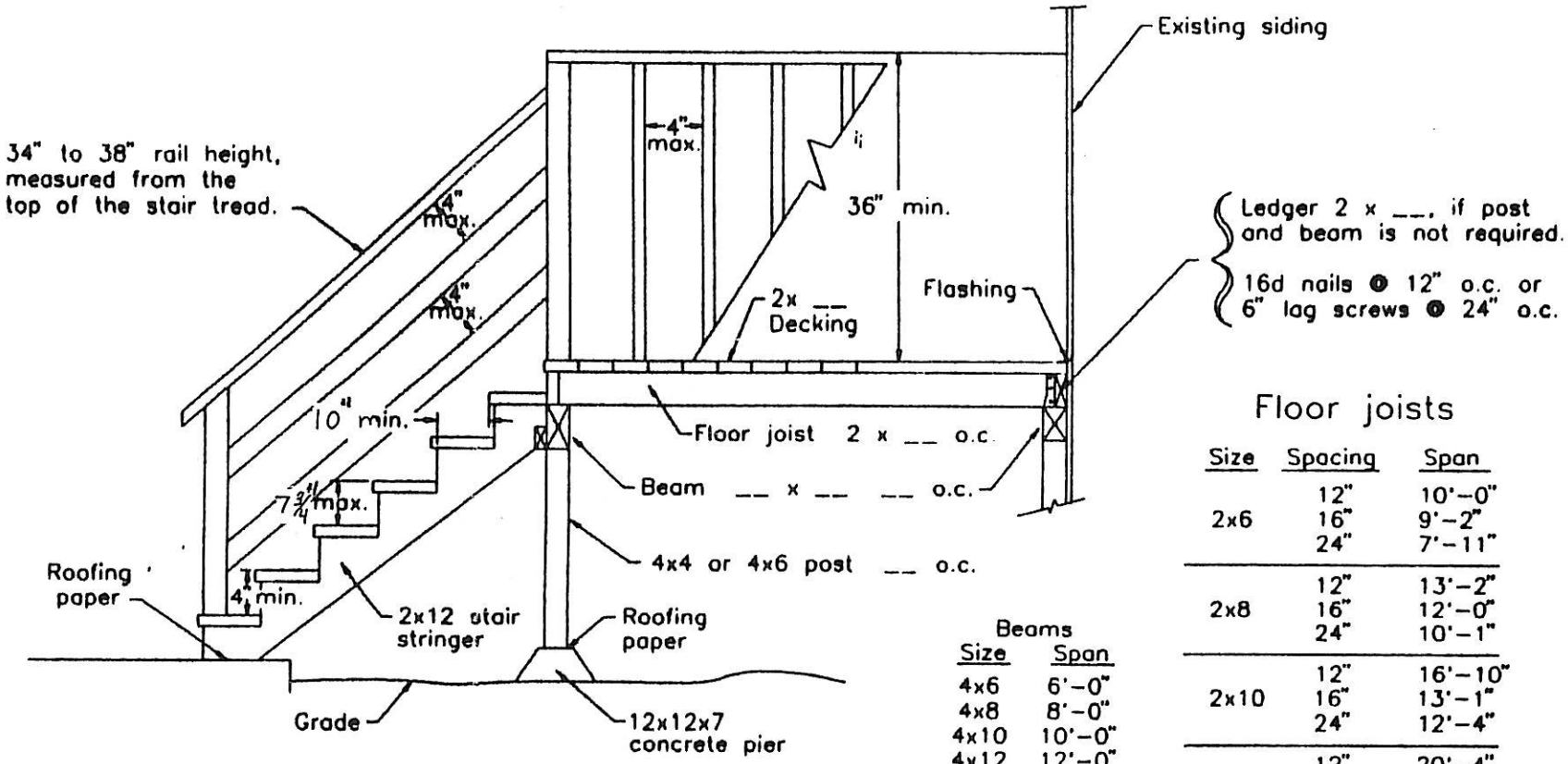
Section - "Bsmt Wall" w/ out top support

no scale

Note #1 - Reduce M = 1'-0" for 4'-0"
unbalanced fill height.

Revised 4/96

Residential deck construction



Floor joists

Size	Spacing	Span
2x6	12"	10'-0"
	16"	9'-2"
	24"	7'-11"
2x8	12"	13'-2"
	16"	12'-0"
	24"	10'-1"
2x10	12"	16'-10"
	16"	13'-1"
	24"	12'-4"
2x12	12"	20'-4"
	16"	17'-6"
	24"	14'-4"

Beams

Size	Span
4x6	6'-0"
4x8	8'-0"
4x10	10'-0"
4x12	12'-0"
4x14	14'-0"
4x16	16'-0"

Note:

If deck is more than 48" above grade, contact the building department about positive connections between posts and beams, posts and concrete piers, and diagonal bracing.

Name _____ Permit # _____

Approved by _____ Date _____ revised 7/95

SHED TYPE ROOF

(carport, deck/patio cover, wood shed, etc...)

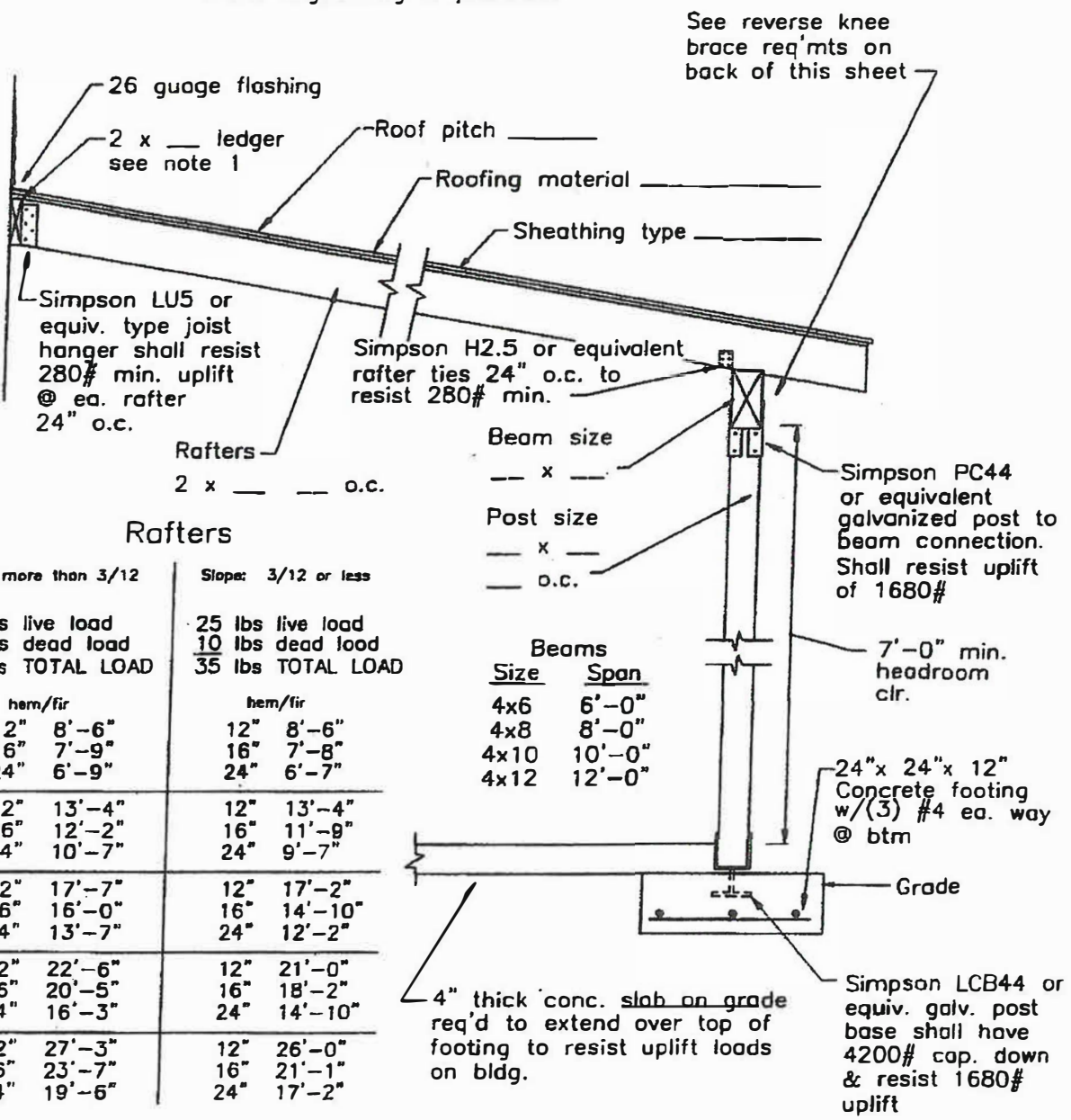
No Wall Framing Allowed

Name _____ Permit # _____ Date _____

Notes:

1.) If used in conjunction with manufactured housing, then roof structure shall be self supporting to withstand gravity and lateral forces.

2.) This structure is limited to a maximum height of 10'–0", maximum width of 20'–0", and a maximum bay width of 12'–0" unless engineering is provided.



Beams

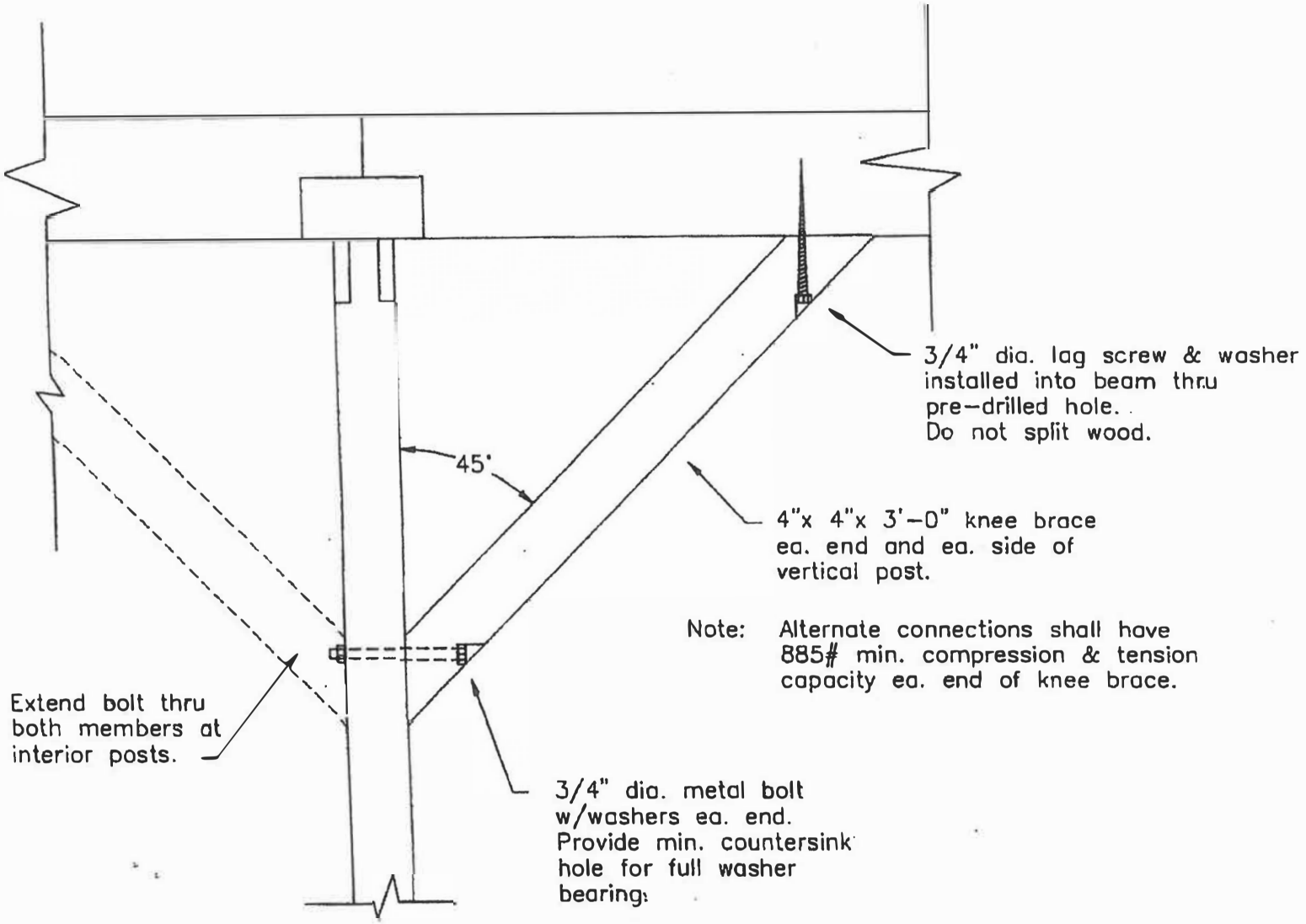
Size	Span
4x6	6'–0"
4x8	8'–0"
4x10	10'–0"
4x12	12'–0"

Rafters

		Slope: more than 3/12 25 lbs live load 7 lbs dead load 32 lbs TOTAL LOAD hem/fir	Slope: 3/12 or less 25 lbs live load 10 lbs dead load 35 lbs TOTAL LOAD hem/fir
2x4	12"	8'–6"	8'–6"
	16"	7'–9"	7'–8"
	24"	6'–9"	7'–7"
2x6	12"	13'–4"	13'–4"
	16"	12'–2"	11'–9"
	24"	10'–7"	9'–7"
2x8	12"	17'–7"	17'–2"
	16"	16'–0"	14'–10"
	24"	13'–7"	12'–2"
2x10	12"	22'–6"	21'–0"
	16"	20'–5"	18'–2"
	24"	16'–3"	14'–10"
2x12	12"	27'–3"	26'–0"
	16"	23'–7"	21'–1"
	24"	19'–6"	17'–2"

Approved by _____ Date _____

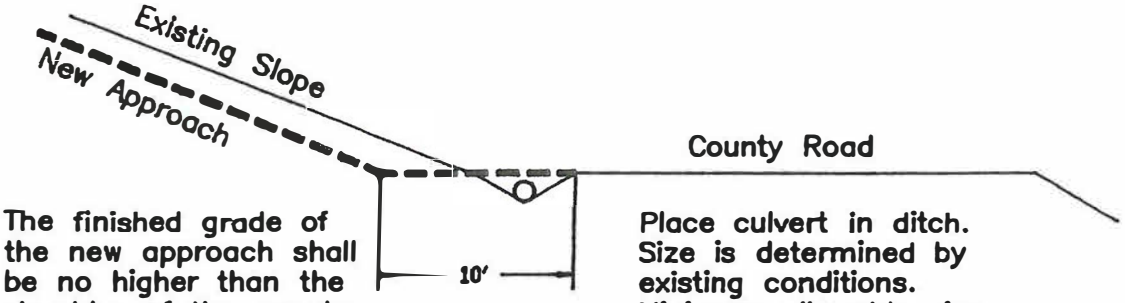
revised 5/96



Detail "Knee Brace"

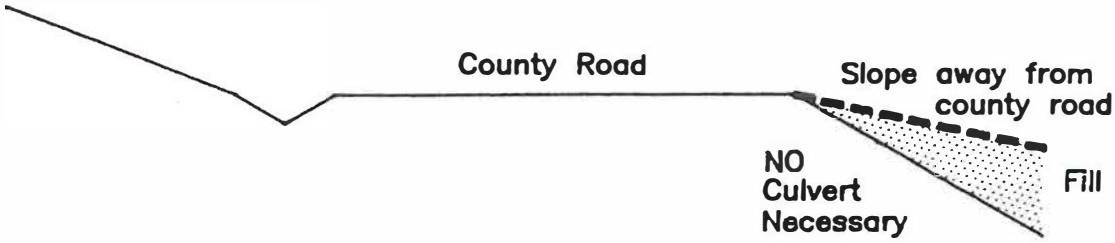
no scale

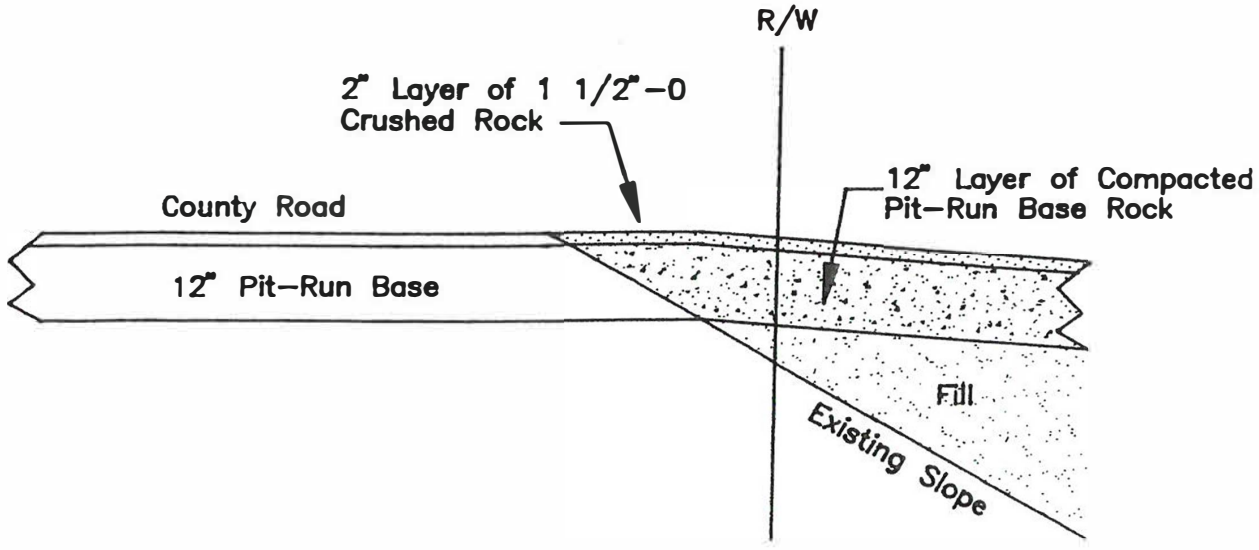
STANDARDS
FOR
ROAD APPROACH PERMITS



The finished grade of the new approach shall be no higher than the shoulder of the county road.

Place culvert in ditch. Size is determined by existing conditions. Minimum allowable size is 12 inches in diameter.





UTILITY TRENCH RESTORATION

1. In general utility cuts through existing pavement will be discouraged. It will not be permitted unless it can be shown that alternatives such as boring or jacking are not possible due to conflicts or soil conditions.

2. Backfill shall be compacted in 6-inch lifts. The top 18-inches shall be high quality crushed rock. An immediate cold mix patch shall be placed. A permanent hot mix asphalt patch shall be placed in asphalt roads within 30-days. Joints shall be sealed with AR-4000. As an alternative, controlled density fill may be used to backfill the trench.

3. Pavement overlay of 0.10 feet thickness, full width, may be required on asphalt surfaces less than 10 years old.