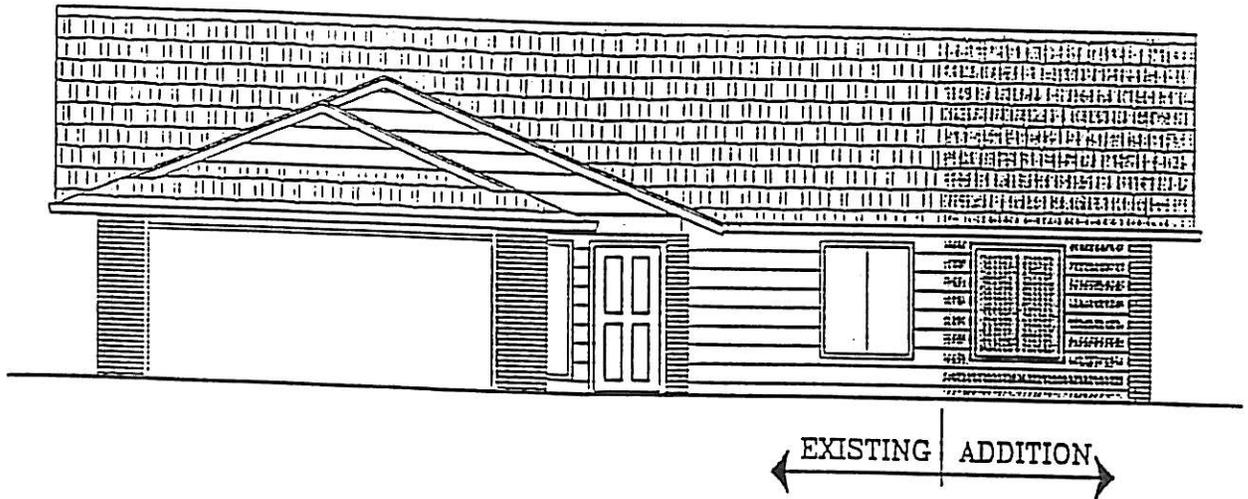


PUBLIC WORKS DEPARTMENT
BUILDING INSPECTION DIVISION



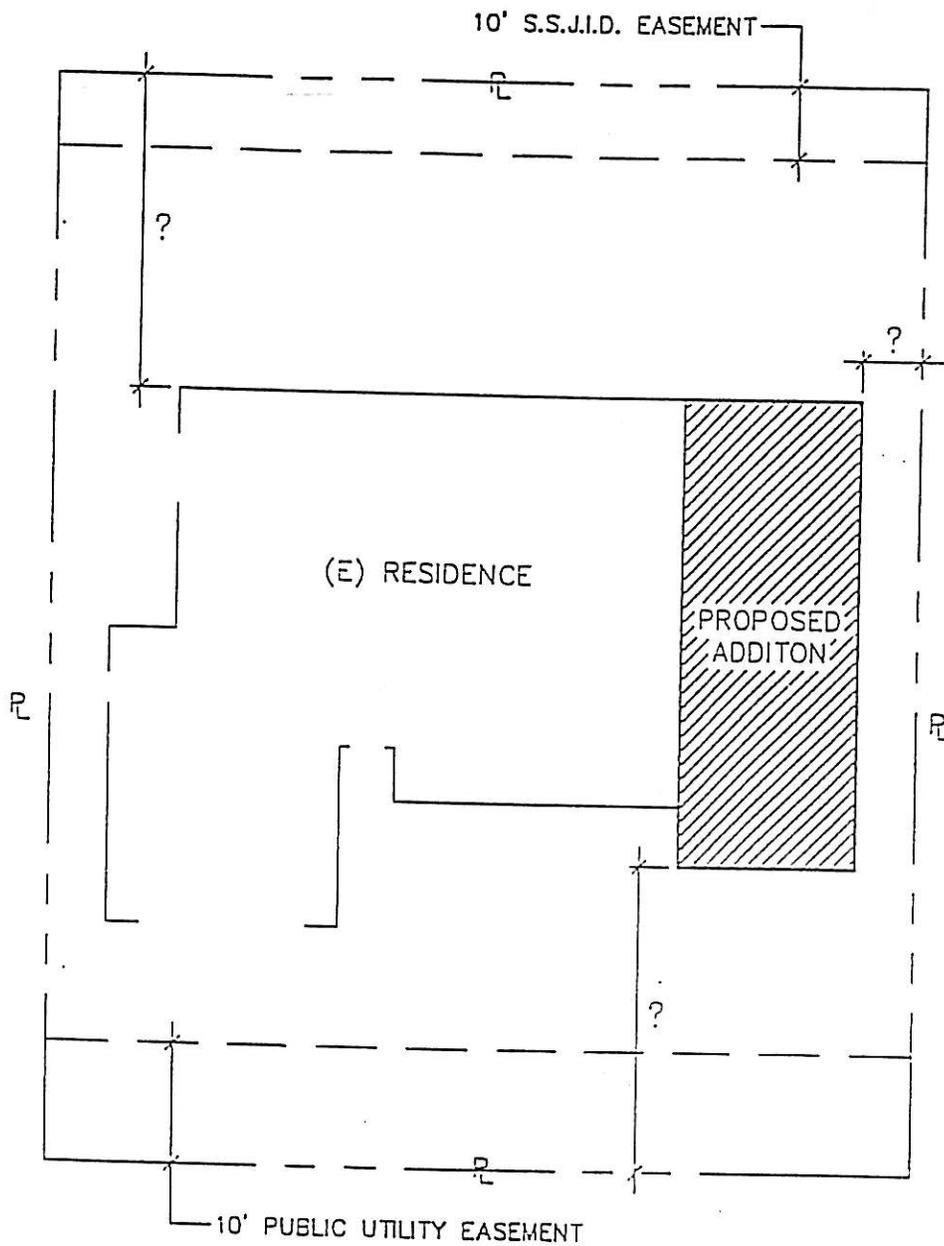
RESIDENTIAL ADDITION

TABLE OF CONTENTS

I.	Residential Addition Submittal Checklist	1
II.	Sample Site Plan	2
III.	Sample Floor Plan	3
IV.	Natural Light and Ventilation	
	A. Code Requirements	4
	B. Sample Analysis	5
V.	Construction Details	
	A. Attachment of New Footing to Existing Footing	6
	B. Wall Section with Raised Floor	7
	C. Wall Section with Slab Floor	8
	D. Span Tables/Allow Load	
	1. Ceiling Joist	9
	2. Floor Joist	9
	3. Rafters	10
	4. Nailing Schedule	12
VI.	Smoke Detectors	13
VII.	Electrical Receptacles, Switches, and Fixtures	13
VIII.	High Efficacy General Lighting	13
IX.	Energy Requirements	14
X.	Residential Plan Check Corrections Sheet	15

RESIDENTIAL ROOM ADDITIONS / ALTERATIONS SUBMITTAL CHECKLIST

1. **Site Plan** - Show location of existing and proposed addition; Indicate distanced to the property line. Show location of any easements. (See Page 2 for sample of site plan.)
2. **Foundation Plan & Details** - Indicate footing sizes and attachment pf new construction to existing structures, etc. (See Pages 6,7,and 8.)
3. **Floor Plan** - Indicate use and sizes of new areas, door sizes, window sizes, headers, electrical outlets, light switches, FAU registers, plumbing fixtures, etc. Room adjoining proposed addition to be included. Indicate any window and doors, including theirs sizes and method of opening, which are affected by the addition. (See Pages 3,4, and 5.)
4. **Roof and Roof Framing Plan** - indicate roof slopes, Ridges, valleys, flashings overhangs, rafters, ceiling joist, blocking, etc. See sample construction details on Pages 7 and 7.
5. **Exterior Elevations** - Provide an elevation of each exterior wall. Indicate finish materials (stucco, siding, fire-treated shakes, etc.) Windows and door openings, plate straps, etc., and building heights.
6. **Structural Plan(s)** - Indicate framing member sizes, beam sizes, and construction details. (Note: This information may be provided on the floor plan, roof framing plan, sections, etc. - separate "structural" plans may not be necessary.)
7. **Engineer's Structural Calculations** - Two (2) sets may be required to justify proposed framing member and beam sizes, footing and reinforcement sizes, lateral resisting system ans connection. Calculations *are required* for two (2) story room additions.
8. **Energy Compliance Forms** - Two (2) sets will be required to indicate compliance with the California Energy Commission's requirements for residential addition construction. (See Page 14 for form/requirements.)



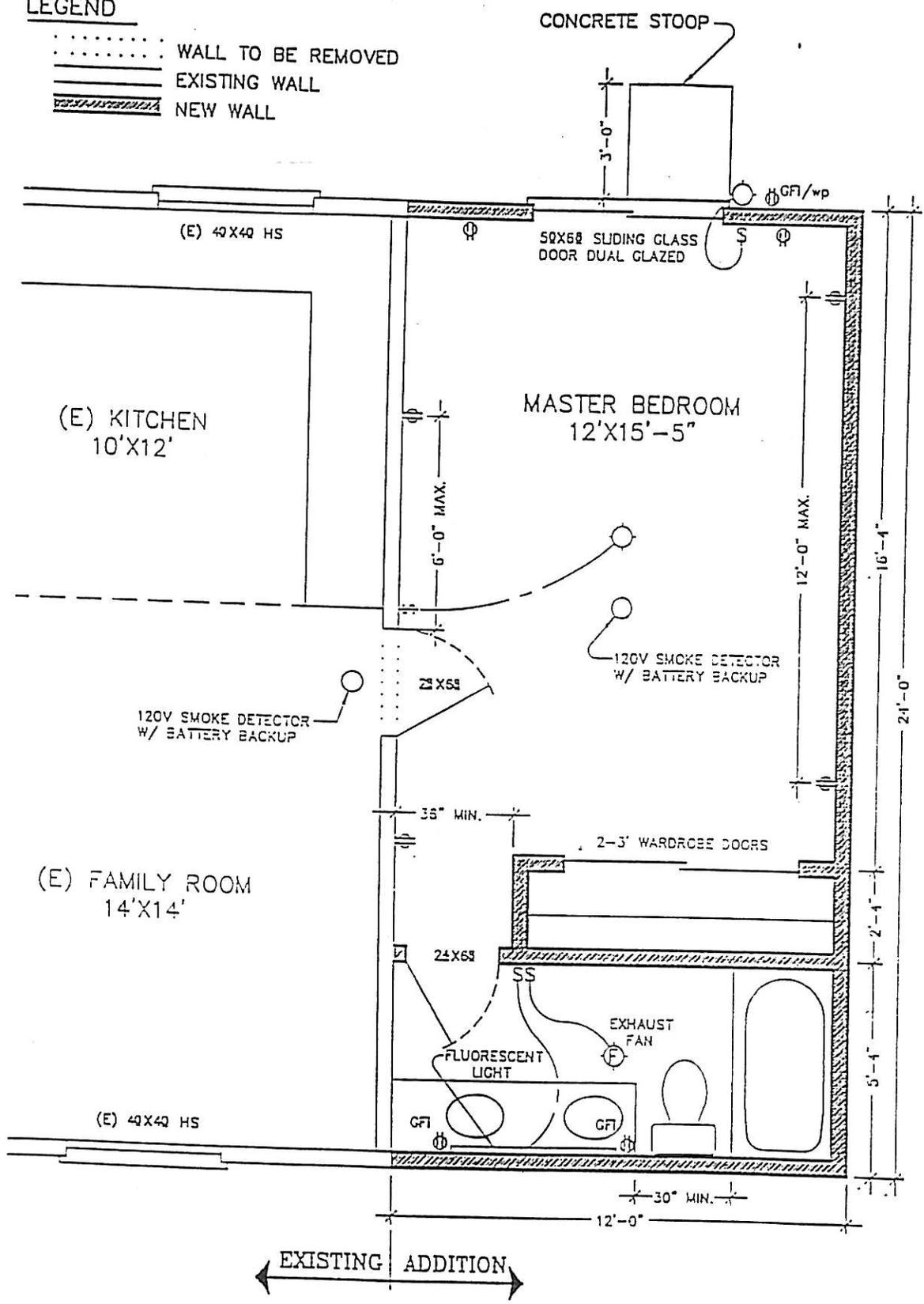
STREET NAME

NOTE:
CHECK WITH PLANNING AND DEVELOPMENT SERVICES DEPARTMENT
FOR BUILDING SETBACK REQUIREMENTS.

SAMPLE SITE PLAN

LEGEND

-  WALL TO BE REMOVED
-  EXISTING WALL
-  NEW WALL



EXISTING ADDITION

FLOOR PLAN
SCALE 1/4" = 1'-0"

FLOOR PLAN

NATURAL LIGHT AND VENTILATION REQUIREMENTS (WINDOWS, DOORS, AND SKYLIGHTS)

LIGHT:

Habitable rooms within a dwelling unit shall be provided with natural light by means of exterior glazed openings with an area not less than one-tenth (1-10) of the floor area of such rooms with a minimum of ten (10) square feet.

VENTILATION:

Habitable rooms with in a dwelling unit shall be provided with natural ventilation by means of openable exterior openings with an area of not less than one-twentieth (1/20) of the floor area of such rooms with a minimum of five (5) square feet.

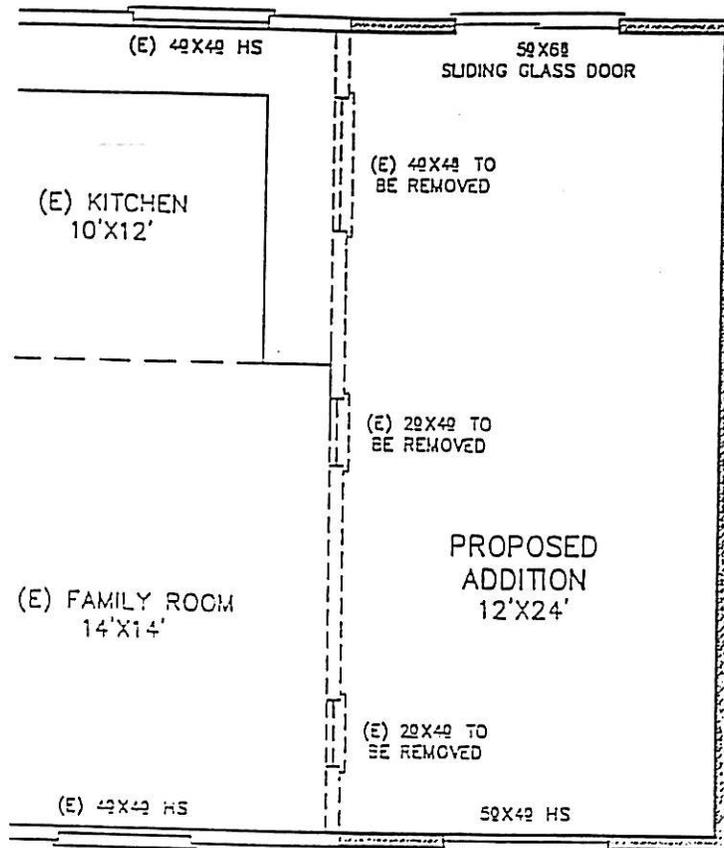
ROOMS ADJOINING PROPOSED ADDITION:

If there are windows and doors that are affected by the addition, rooms adjoining addition need to be reviewed for lighting and ventilation requirements same as for the new construction.

Note:

Provide floor plans of rooms adjoining addition. Indicate any windows and doors, including their sizes and method of opening, which are affected by the addition.

*See Example Next Page



ANALYSIS:

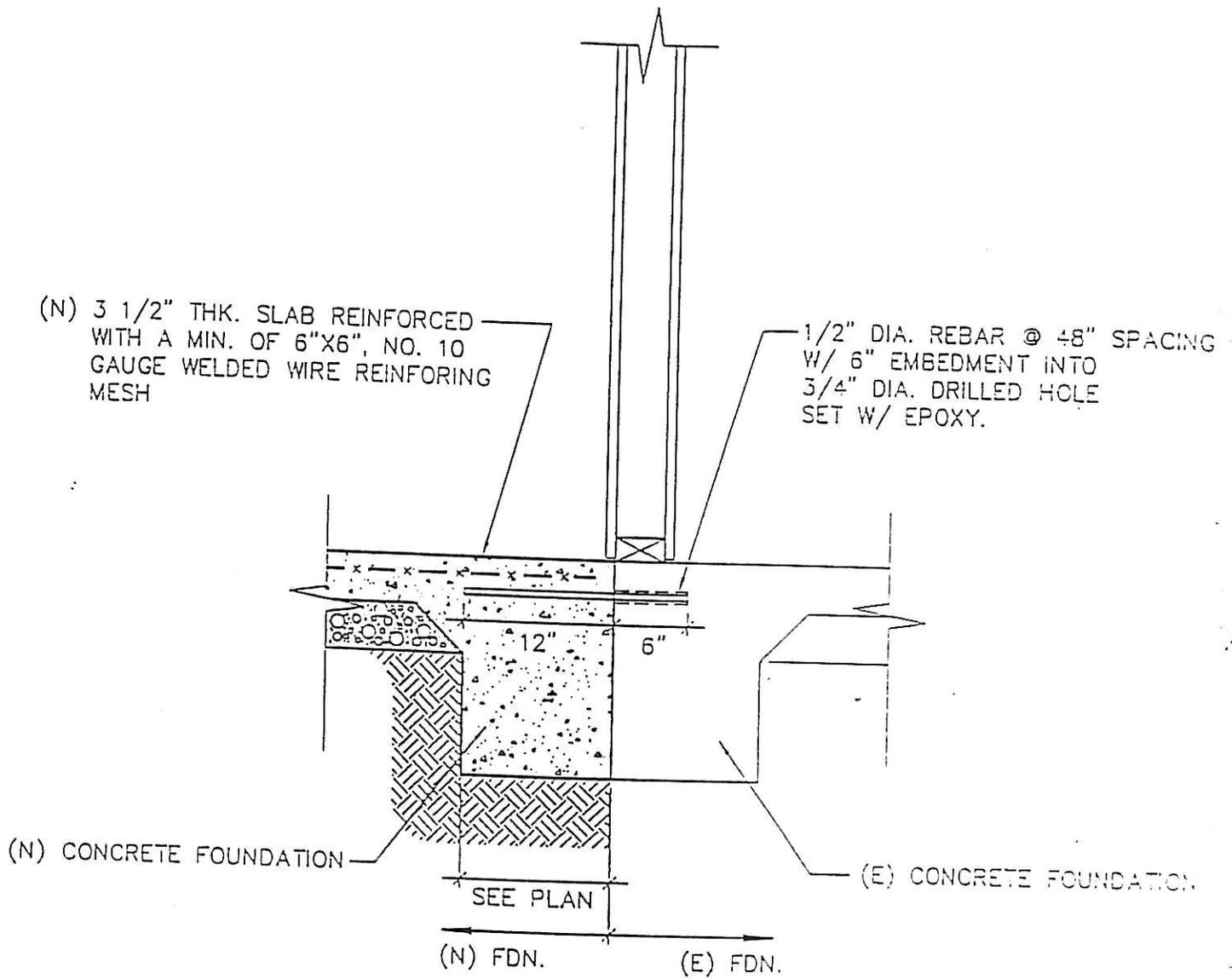
PROPOSED ADDITION: $12' \times 24' = 288 \text{ SQ.FT.}$
 LIGHTING REQUIREMENT: $288 \text{ SQ.FT.} \times 1/10 = 28.8 \text{ SQ.FT.}$
 VENTILATION REQUIREMENT: $288 \text{ SQ.FT.} \times 1/20 = 14.4 \text{ SQ.FT.}$
 PROPOSED LIGHTING: $5' \times 4' + 5' \times 6.67 = 53.35 \text{ SQ.FT.} > 28.8 \text{ OK!}$
 PROPOSED VENTILATION: $2.5' \times 4' + 2.5' \times 6.67 = 26.68 \text{ SQ.FT.} > 14.4 \text{ OK!}$

EXISTING KITCHEN: $10' \times 12' = 120 \text{ SQ.FT.}$
 LIGHTING REQUIREMENT: $120 \text{ SQ.FT.} \times 1/10 = 12 \text{ SQ.FT.}$
 VENTILATION REQUIREMENT: $120 \text{ SQ.FT.} \times 1/20 = 6 \text{ SQ.FT.}$
 (E) WINDOW: $4' \times 4' = 16 \text{ SQ.FT.} > 12 \text{ SQ.FT.} - \text{OK!}$
 $2' \times 4' = 8 \text{ SQ.FT.} > 6 \text{ SQ.FT.} - \text{OK!}$

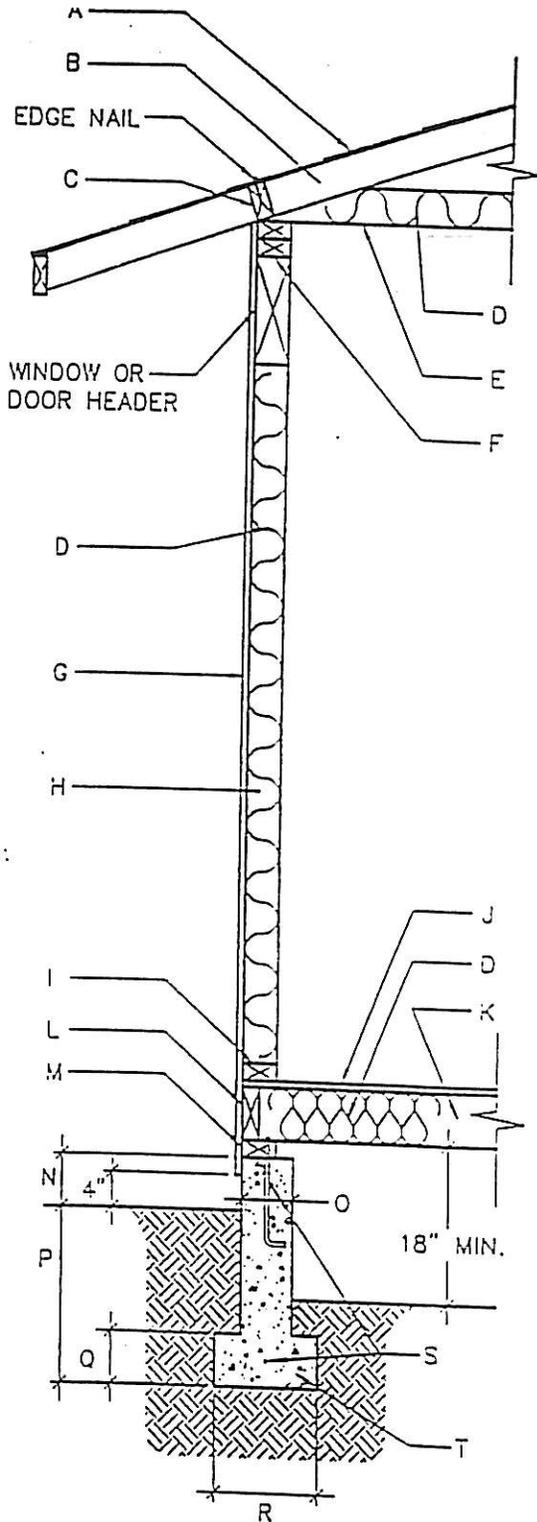
EXISTING FAMILY ROOM $14' \times 14' = 196 \text{ SQ.FT.}$
 LIGHTING REQUIREMENT: $196 \text{ SQ.FT.} \times 1/10 = 19.6 \text{ SQ.FT.}$
 VENTILATION REQUIREMENT: $196 \text{ SQ.FT.} \times 1/20 = 9.8 \text{ SQ.FT.}$
 (E) WINDOW: $4' \times 4' = 16 \text{ SQ.FT.} < 19.6 \text{ SQ.FT.}, \text{ IT'S NOT OK!}$

THEREFORE, ADDITIONAL WINDOW OR ENLARGING (E) WINDOW IS REQUIRED.

SAMPLE ANALYSIS



ATTACHMENT OF NEW FOOTING TO EXISTING FOOTING



A-ROOF COVERING ON 15# FELT PAPER ON
 PLYWOOD OR 1"X4" SKIP SHEATHING
 PLYWOOD EDGE NAIL - 8d @ 6" O.C.
 _____" THICK, _____ SHEATHING.

B-MANUFACTURED TRUSSES OR RAFTERS
 RAFTERS: 2"X____" @ _____" O.C.
 (SEE PAGE 10 FOR ALLOWABLE SPAN FOR RAFTERS)
 PROVIDE TRUSS CALCULATIONS IF TRUSSES ARE USED.

C-BLOCKING OR EAVE VENTS WITH 16d NAILS @
 8" O.C. TO DBL. TOP PLATE.

D-MINIMUM REQUIRED INSULATION OR BETTER
 CEILING: R-____, WALL: R-____
 FLOOR: R-____ (SEE PAGE 14 FOR REQUIRED
 INSULATION)

E-CEILING JOIST: 2"X____ @ _____" O.C.
 (SEE PAGE 9 FOR ALLOWABLE SPAN FOR
 CEILING JOIST)

F-DOUBLE TOP PLATE (MIN. 48" SPLICE) WITH
 12 - 16d NAILS @ EA. SIDE OF SPLICE.

G-SIDING MATERIAL: _____

H-STUD WALL WITH 2"X____" STUDS AT 16" O.C.

I- WALL SILL PLATE WITH 16d NAILS @ 8" O.C.
 TO RIM JOIST.

J-FLOOR SHEATHING: _____" THK., _____ SHEATHING.

K-FLOOR JOISTS OR FLOOR TRUSSES,
 JOIST 2"X____" @ _____" O.C. (SEE PAGE 9 FOR
 ALLOWABLE SPAN FOR FLOOR JOISTS).

L-2"X____" RIM JOIST WITH 16d NAILS @ 8" O.C.
 TO BOTTOM PLATE.

M-BOTTOM PLATE (PRESSURE TREATED WHEN IN
 CONTACT WITH CONCRETE) W/ 1/2"X10" A.B. AT
 6' O.C. MAX. (MIN TWO BOLTS PER SILL SECTION)

N-6" MINIMUM CLEARANCE TO GRADE.

O-6" FOR ONE STORY
 8" FOR TWO STORY

P-12" FOR ONE STORY
 18" FOR TWO STORY

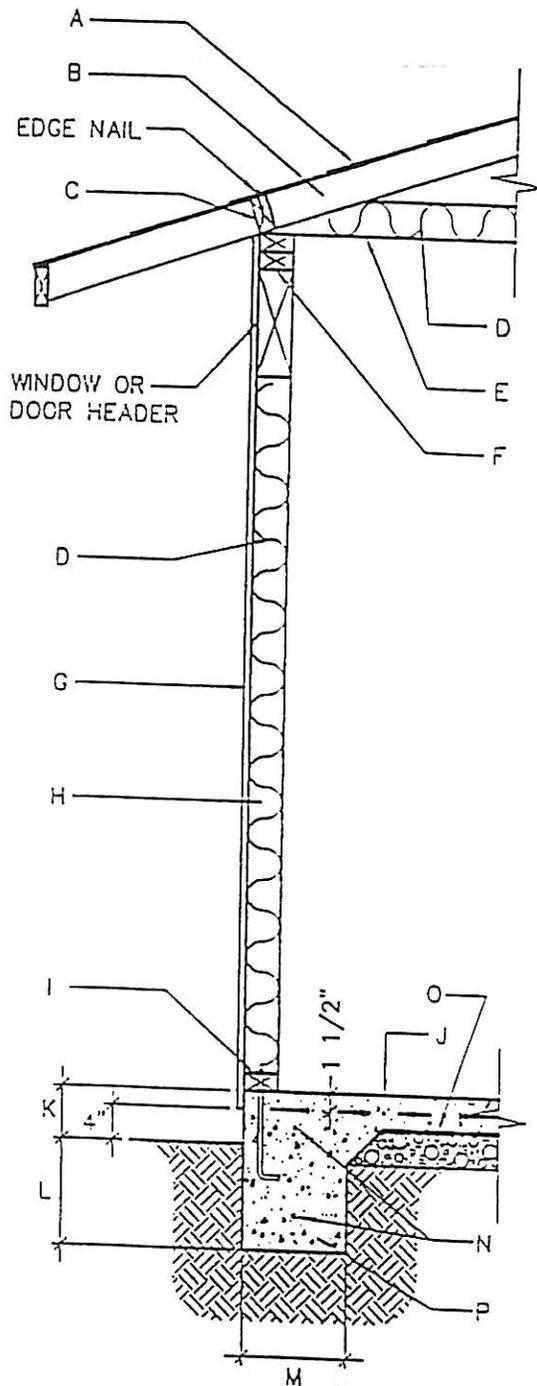
Q-6" FOR ONE STORY
 7" FOR TWO STORY

R-12" FOR ONE STORY
 15" FOR TWO STORY

S-2-#4 REINFORING BARS (CONTINUOUS)

T-CONCRETE FOUNDATION

RAISED FLOOR CONSTRUCTION SECTION



- A-ROOF COVERING ON 15# FELT PAPER ON PLYWOOD OR 1"x4" SKIP SHEATHING
PLYWOOD EDGE NAIL - 8d @ 6" O.C.
_____ " THICK, _____ SHEATHING.
- B-MANUFACTURED TRUSSES OR RAFTERS
RAFTERS: 2"x_____" @ _____" O.C.
(SEE PAGE 10 FOR ALLOWABLE SPAN FOR RAFTERS)
PROVIDE TRUSS CALCULATIONS IF TRUSSES ARE USED.
- C-BLOCKING OR EAVE VENTS WITH 16d NAILS @ 8" O.C. TO DBL. TOP PLATE.
- D-MINIMUM REQUIRED INSULATION OR BETTER
CEILING: R-_____, WALL R-_____
(SEE PAGE 14 FOR THE REQUIRED INSULATION)
- E-CEILING JOIST: 2"x_____" @ _____" O.C.
(SEE PAGE 9 FOR ALLOWABLE SPAN FOR CEILING JOIST)
- F-DOUBLE TOP PLATE (MIN. 48" SPLICE) WITH 12 - 16d NAILS @ EA. SIDE OF SPLICE.
- G-SIDING MATERIAL: _____
- H-STUD WALL WITH 2"x_____" STUDS AT 16" O.C.
- I-BOTTOM PLATE (PRESSURE TREATED WHEN IN CONTACT WITH CONCRETE) W/ 1/2"x10" AB. AT 6" O.C. MAX. (MIN TWO BOLTS PER SILL SECTION)
- J-3 1/2" CONCRETE SLAB 2000 PSI MIN. REINFORCED WITH A MIN. OF 6"x6" NO. 10 GAUGE WELDED WIRE REINFORCING MESH.
- K-6" MINIMUM CLEARANCE TO GRADE
- L-12" FOR ONE STORY
18" FOR TWO STORY
- M-12" FOR ONE STORY
15" FOR TWO STORY
- N-2-#4 REINFORCING BARS (CONTINUOUS)
- O-VAPOR BARRIER
- P-CONCRETE FOUNDATION

SLAB FLOOR CONSTRUCTION FOOTING

SPAN TABLES BASED ON DOUGLAS FIR-LARCH LUMBER AS GRADED BY THE WESTERN WOOD PRODUCTS ASSOCIATION (WWPA) AND TABLE 23-1-X-1. OTHER SPECIES MAY CALCULATE DIFFERENTLY.
UNIFORM BUILDING CODE-1994

TABLE 23 - I - V - J - 1 - ALLOWABLE SPANS FOR FLOOR JOISTS, 40# PER SQ.FT. LIVE LOAD, NOT TO EXCEED L/360.
STRENGTH: 40# L.L. ÷ 10# D.L. = FIBER STRESS VALUE

SIZE	SPACING	GR. NO. 1 $E=1.7 \times 10^6$	GR. NO. 2 $E=1.6 \times 10^6$	DESIGN VALUE-BENDING F_b		
				GRADE	NO.-1	NO.-2
3 X 6	12"	10' - 11"	10' - 9"	2X6	1495	1310
	16"	9' - 11"	9' - 9"			
	19.2"	9' - 4"	9' - 0"	2X8	1380	1210
	24"	8' - 8"	8' - 1"			
2 X 6	12"	14' - 5"	14' - 2"	2X10	1265	1105
	16"	13' - 1"	12' - 7"			
	19.2"	12' - 3"	11' - 6"	2X12	1150	1005
	24"	11' - 0"	10' - 4"			
2 X 10	12"	18' - 5"	17' - 8"	2X12	1150	1005
	16"	16' - 6"	15' - 5"			
	19.2"	14' - 11"	14' - 0"	2X12	1150	1005
	24"	13' - 5"	12' - 7"			
2 X 12	12"	21' - 11"	21' - 0"	2X12	1150	1005
	16"	19' - 1"	18' - 0"			
	19.2"	17' - 0"	15' - 6"	2X12	1150	1005
	24"	15' - 4"	14' - 9"			

TABLE NO. 23 - I - V - W - 3 - ALLOWABLE SPANS FOR CEILING JOISTS USING DOUGLAS FIR-LUMBER USING SHEETROCK FINISH, NOT TO EXCEED L/240 SPAN 10# L.L ÷ 5# D.L. ALSO USE FOR ACCESSORY AND AG. BLDGS. WITH METAL ROOFING.

SIZE	SPACING	GR. NO. 1 $E=1.7 \times 10^6$	GR. NO. 2 $E=1.6 \times 10^6$	DESIGN VALUE-BENDING F_b		
				GRADE	NO.-1	NO.-2
2 X 4	12"	12' - 8"	12' - 5"	2X4	1725	1510
	16"	11' - 6"	11' - 3"			
	24"	10' - 0"	9' - 10"	2X6	1495	1310
2 X 6	12"	19' - 11"	19' - 6"			
	16"	18' - 1"	17' - 8"			
	24"	15' - 9"	14' - 10"	2X10	1265	1105
2 X 8	12"	- -	25' - 8"			
	16"	23' - 10"	23' - 0"			
	24"	20' - 1"	18' - 9"	2X12	1150	1005
2 X 10	12"	- -	- -			
	16"	- -	- -			
	24"	26' - 0"	15' - 6"	2X12	1150	1005

¹SPAN SHALL BE LIMITED BY AVAILABLE LENGTHS. SPLICING IS NOT PERMITTED.

TABLE 23 - I - V - R - 9 - ALLOWABLE SPANS FOR HIGH SLOPE RAFTERS, OVER 3 IN 12, LIGHT TILE, NOT TO EXCEED L/180 SPAN, 20# L.L. ÷ 15# D.L.

SIZE	SPACING	GR. NO. 1 $E=1.7 \times 10^6$	GR. NO. 2 $E=1.6 \times 10^6$	DESIGN VALUE-BENDING F_b		
				GRADE	NO.-1	NO.-2
2 X 4	12"	11' - 2"	10' - 6"	2X4	2155	1885
	16"	9' - 8"	9' - 0"	2X6	1870	1635
	24"	7' - 11"	7' - 5"			
2 X 6	12"	16' - 4"	15' - 3"	2X8	1725	1510
	16"	14' - 1"	13' - 3"	2X10	1580	1385
	24"	11' - 7"	11' - 5"			
2 X 8	12"	20' - 11"	19' - 6"	2X12	1440	1260
	16"	18' - 1"	16' - 10"			
	24"	14' - 9"	13' - 9"			
2 X 10	12"	25' - 5"	23' - 10"	L.L. - 7 DAY DURATION SECTION 2304.3.4		
	16"	22' - 0"	20' - 7"			
	24"	18' - 0"	16' - 10"			

TABLE 23 - I - V - R - 7 - ALLOWABLE SPANS FOR HIGH SLOPE RAFTERS, OVER 3 IN 12, LIGHT ROOF COVERING, NOT TO EXCEED L/180 SPAN, 20# L.L. ÷ 10# D.L.

SIZE	SPACING	GR. NO. 1 $E=1.7 \times 10^6$	GR. NO. 2 $E=1.6 \times 10^6$	DESIGN VALUE-BENDING F_b		
				GRADE	NO.-1	NO.-2
2 X 4	12"	11' - 1"	10' - 9"	2X4	2155	1885
	16"	10' - 1"	9' - 9"	2X6	1870	1635
	24"	8' - 6"	7' - 11"			
2 X 6	12"	17' - 5"	16' - 7"	2X8	1725	1510
	16"	15' - 5"	14' - 4"	2X10	1580	1385
	24"	12' - 6"	11' - 8"			
2 X 8	12"	22' - 5"	20' - 11"	2X12	1440	1260
	16"	19' - 5"	18' - 1"			
	24"	15' - 10"	14' - 10"			
2 X 10	12"	- -	25' - 8"	L.L. - 7 DAY DURATION SECTION 2304.3.4		
	16"	23' - 10"	22' - 22"			
	24"	19' - 5"	13' - 1"			

TABLE 25 - I - V - R - 1 - ALLOWABLE SPANS FOR LOW SLOPE RAFTERS, 3 IN 12 OR LESS.
NO CEILING, NOT TO EXCEED L/240, 20# L.L. ÷ 10# D.L.

SIZE	SPACING	GR. NO. 1 $E=1.7 \times 10^6$	GR. NO. 2 $E=1.6 \times 10^6$	DESIGN VALUE-BENDING F_b		
				GRADE	NO.-1	NO.-2
2 X 6	12"	15' - 11"	15' - 4"	2X4	2155	1885
	16"	14' - 2"	13' - 9"	2X6	1870	1635
	24"	12' - 4"	12' - 4"			
2 X 8	12"	20' - 11"	20' - 3"	2X8	1725	1510
	16"	18' - 9"	18' - 1"	2X10	1580	1385
	24"	15' - 10"	14' - 10"			
2 X 10	12"	- -	25' - 8"	2X12	1440	1260
	16"	23' - 9"	22' - 2"			
	24"	19' - 5"	18' - 2"			
2 X 12	12"	- -	- -	L.L. - 7 DAY DURATION SECTION 2304.3.4		
	16"	- -	- -			
	24"	22' - 6"	22' - 1"			

TABLE 23 - I - X - 1 - VALUES FOR JOIST AND RAFTERS - VISUALLY GRADED
 LUMBER - (Continued)

SPECIES AND GRADE	SIZE (Inches) x 25.4 for mm	DESIGN VALUE IN BENDING " F_b " psi			MODULUS OF ELASTICITY " E " psi	GRADING RULES AGENCY
		Normal Duration	Snow Loading	7-day Loading		
		x 0.00583 for N ' mm ²				
DOUGLAS FIR-LARCH						
Select Structural No. 1 and better No. 1 No. 2 No. 3 Stud Construction Standard Utility	2 x 4	2,500	2,875	3,125	1,900,000	WCLIB WWPA
		1,985	2,280	2,480	1,800,000	
		1,725	1,985	2,155	1,700,000	
		1,510	1,735	1,885	1,600,000	
		865	990	1,080	1,400,000	
		855	980	1,065	1,400,000	
		1,150	1,325	1,440	1,500,000	
		635	725	790	1,400,000	
315	365	395	1,300,000			
Select Structural No. 1 or better No. 1 No. 2 No. 3 Stud	2 x 6	2,170	2,495	2,710	1,900,000	
		1,720	1,975	2,150	1,800,000	
		1,495	1,720	1,870	1,700,000	
		1,310	1,505	1,635	1,600,000	
		750	860	935	1,400,000	
		775	895	970	1,400,000	
Select Structural No. 1 or better No. 1 No. 2 No. 3	2 x 8	2,000	2,495	2,500	1,900,000	
		1,585	1,825	1,985	1,800,000	
		1,380	1,585	1,725	1,700,000	
		1,210	1,390	1,510	1,600,000	
690	795	865	1,400,000			
Select Structural No. 1 or better No. 1 No. 2 No. 3	2 x 10	1,835	2,110	2,295	1,900,000	
		1,455	1,675	1,820	1,800,000	
		1,265	1,455	1,580	1,700,000	
		1,105	1,275	1,385	1,600,000	
635	725	790	1,400,000			
Select Structural No. 1 or better No. 1 No. 2 No. 3	2 x 12	1,670	1,920	2,085	1,900,000	
		1,325	1,520	1,655	1,800,000	
		1,150	1,325	1,440	1,700,000	
		1,005	1,155	1,260	1,600,000	
		575	660	720	1,400,000	

CONNECTION	NAILING
1. Joist to sill of girder, toenail	3-8d
2. Bridging to joist, toenail each end	2-8d
3. 1" x 6" subfloor of less to each joist, face nail	2-8d
4. Wider than 1" x 6" subfloor to each joist, face nail	3-8d
5. 2" subfloor to joist of girder, blind and face nail	2-16d
6. Sole plate to joist or blocking, typical face nail	16d at 16' o.c.
Sole plate to joist or blocking, at brace wall panels	3-16 per 16"
7. Too plate to stud, end nail	2-16d
8. Stud to sole plate	4-8d, toenail or 2-16, end nail
9. Double studs, face nail	16d at 24" o.c.
10. Doubled top plates, typical face nail	16d at 16" o.c.
Double top plates, lap splice	8-16d
11. Blocking between joist or rafters to top plate, toenail	3-8d
12. Rim joist to too plate, toenail	8d at 6" o.c.
13. Too plates, laps and intersections, face nail	2-16d
14. Continuous header, two pieces	16d at 16" o.c. along each edge
15. Ceiling joist to plate, toenail	3-8d
16. Continuous header to stud, toenail	4-8d
17. Ceiling joist, laps over partitions, face nail	3-16d
18. Ceiling joist to parallel rafters, face nail	3-16d
19. Rafters to plate, toenail	3-8d
20. 1" brace to each stud and plate, face nail	2-8d
21. 1" x 8" sheathing or less to each bearing, face nail	2-8d
22. Wider than 1" x 8" sheathing to each bearing, face nail	3-8d
23. Built-up corner studs	16d at 24" o.c.
24. Built-up girder and beams	20d at 32" o.c. at top and bottom and staggered 2-20d at ends and at each splice
25. 2" planks	2-16d at each bearing
26. Wood structural panels and particle boards	
Subfloor, roof and wall sheathing (to framing):	
1/2" and less	6d ³
16/32" - 3/4"	8d ⁴ or 6d ⁵
7/8" - 1"	8d ³
1 1/8" - 1 1/4"	10d ⁴ or 8d ⁵
Combination subfloor-underlayment (to framing):	
3/4" and less	6d ⁵
7/8" - 1"	8d ⁵
1 1/8" - 1 1/4"	10d ⁴ or 8d ⁵
27. Panel siding (to framing):	
1/2" or less	6d ⁵
5/8"	8d ⁵
28. Fiberboard sheathing:	
1/2"	No. 11 ga ⁸ 6d ⁴
25/32"	No. 16 ga ⁹ No. 11 ga ⁸ 6d ⁴ No. 16 ga ⁹
29. Interior paneling	
1/4"	6d ¹⁰
3/8"	6d ¹¹

- Common or box nails may be used except where otherwise stated.
- Nails spaced at 6 inches on center at edges, 12 inches at intermediate supports except 6 inches at all supports where spans are 48 inches or more. For nailing of wood structural panel and particle board diaphragms and shear walls, refer to Section 2314.3. Nails for wall sheathing may be common, box or casing.
- Common or deformed shank.
- Common.
- Deformed shank.
- Corrosion-resistant siding or casing nails conforming to the requirements of Section 2325.1.
- Fasteners spaced 3 inches on center at exterior edges and 6 inches on center at intermediate supports.
- Corrosion-resistant roofing nails with 7/16-inch-diameter head and 1 1/2-inch length for 1/2-inch sheathing and 1 3/4-inch length for 25/32-inch sheathing conforming to the requirements of Section 2325.1.
- Corrosion-resistant staples with nominal 7/16-inch crown and 1 1/8-inch length for 1/2-inch sheathing and 1 1/2-inch length for 25/32-inch sheathing conforming to the requirements of Section 2325.1.
- Panel support at 16 inches (20 inches if strength axis in the long direction of the panel, unless otherwise marked). Casing or finish nails spaced 6 inches on panel edges, 12 inches at intermediate supports.
- Panel supports at 24 inches. Casing or finish nails spaced 6 inches on panel edges, 12 inches at intermediate supports.

SMOKE DETECTOR

A smoke detector must be installed in each bedroom and in the hallway leading to a bedroom.

Existing bedrooms and hallways leading to an existing bedrooms may use battery operated smoke detectors.

Smoke detectors in new bedrooms or hallways must ne connected to the house wiring and must also have a battery backup.

Show location of each smoke detector on the plans.

RECEPTACLES, SWITCHES, AND FIXTURES

Show location of all electrical receptacles, switches, and fixtures.

- A. Receptacles must be spaced not more than 12 feet apart, with the first outlet not more than six (6) feet from the door, fireplace, or similar opening. Every wall section at two feet (2') wide or greater requires at least one receptacle.
- B. Receptacle outlet shall be install installed in hallways ten feet (10') or more in length.
- C. Receptacles in bathrooms (adjacent to each basin), within six feet (6') of kitchen sink, outdoors with direct grade level access and in garages and basements shall be GFI protected.
- D. Receptacles in kitchens and dining areas shall be installed at each counter space so that no point along the wall line is more than 24-inches, measures horizontally from a receptacle outlet in that space. Island and peninsular counter tops 12-inches or wider shall have at least one receptacle for each four feet (4') of counter top.
- E. All rooms, halls, and exterior doors must have a switch controlling a light fixture or receptacle.

HIGH EFFICACY GENERAL LIGHTING

Provide on high efficacy general light (flourescent light) in new bathrooms and kitchen. High efficacy lighting shall be at least 40 lumens per watt on individual switch circuit, and shall be controlled by most accessible switch location.

PRESCRIPTIVE ENERGY STANDARDS FOR ROOM ADDITIONS

REQUIREMENTS FOR ADDITION LESS THAN 100 SQUARE FEET	REQUIREMENTS FOR ADDITIONS BETWEEN 100 SQUARE FEET AND 999 SQUARE FEET	REQUIREMENTS FOR ADDITIONS 1,000 SQUARE FEET OR MORE
BUILDING INSULATION Ceiling = R-19 Wall = R-13 Crawl Space = R-19	BUILDING INSULATION Ceiling = R-38 Wall = R-13 Crawl Space = R-19	BUILDING INSULATION Ceiling = R-38 Wall = R-19 Crawl Space = R-19
MAXIMUM ALLOWABLE GLAZING SQUARE FEET 'DUAL GLAZE' Room Addition _____ sq.ft. Max. Allow. Glazing = 50 sq.ft. Proposed Glazing = _____	MAXIMUM ALLOWABLE GLAZING SQUARE FEET 'DUAL GLAZE' Room Addition _____ sq.ft. Addition _____ sq.ft. x 0.16 = _____ Removed Glazing(+)= _____ Max. Allow. Glazing*= _____ Proposed Glazing = _____	MAXIMUM ALLOWABLE GLAZING SQUARE FEET 'DUAL GLAZE' Room Addition _____ sq.ft. Addition _____ sq.ft. x 0.16 Max. Allow. Glazing = _____ Proposed Glazing = _____

* For a 100 to 999 sq. ft. addition: In calculating the maximum allowable glazing, area of an glazing removed from the existing building because of the addition can be added to the allowed glazing for the addition which is 16% of the added floor area.

SAMPLE ANALYSIS:

- A. 500 sq. ft. Addition, removing 2 - 40x40 windows, installing 1 - 60x68 sliding glass door and 2 - 60x50 sliding glass windows:

Building Insulation Required: Ceiling = R-38, Wall = R-13 and Crawl Space = R-19

Allowable Glazing (16%): 500 sq. ft. x 0.16 = 80 sq.ft.

Removable Glazing: 2 x 4 x 4 = 32 sq.ft.

Maximum Allowable Glazing: = 112 sq.ft.

Proposed Glazing: 6 x 6.67 + 2 x 6 x 5 = 100 sq.ft. less than 112 sq. ft. OK!

- B. 1200 sq.ft. Addition, removing 2 - 40x40 windows, installing 2 - 50x68 sliding glass door, 4 - 50x40 sliding glass windows and 4 - 20x40 fixed glass windows.

Building Insulation Required: Ceiling = R-38, Wall = R-19 and Crawl Space = R-19

Max. Allow. Glazing (16%): 1200 sq. ft. x 0.16 = 192 sq.ft.

Proposed Glazing: 2 x 5 x 6.67 + 4 x 5 x 4 + 4 x 2 x 4 = 178.7 sq.ft. less than 192 sq.ft. OK!