



City of Milpitas

Building & Safety Department

DESIGN GUIDELINES

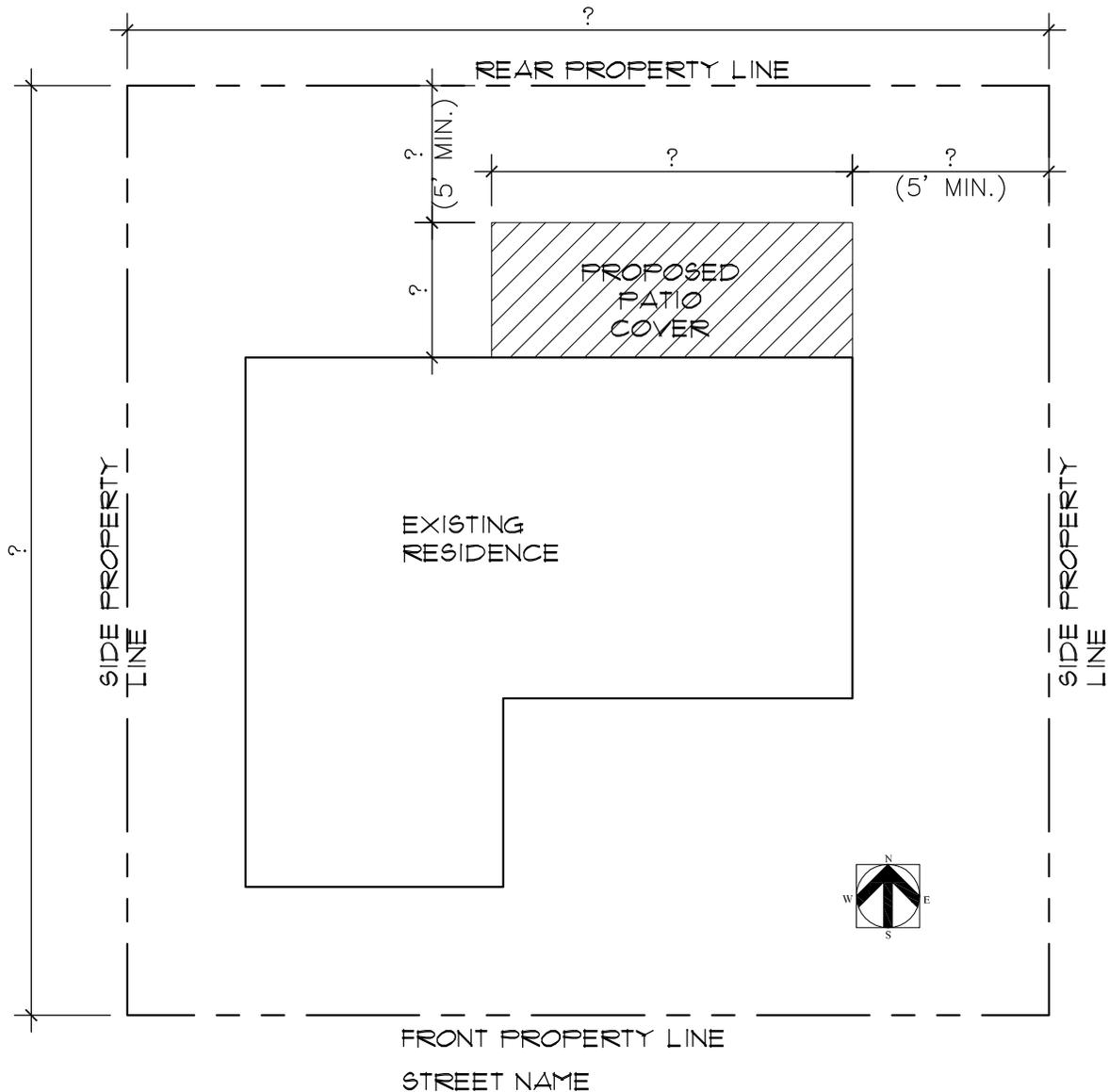
FOR

OPEN PATIO COVER



455 E. Calaveras Blvd.
Milpitas, CA 95035
408-586-3240
www.ci.milpitas.ca.gov

REV. JANUARY 2011



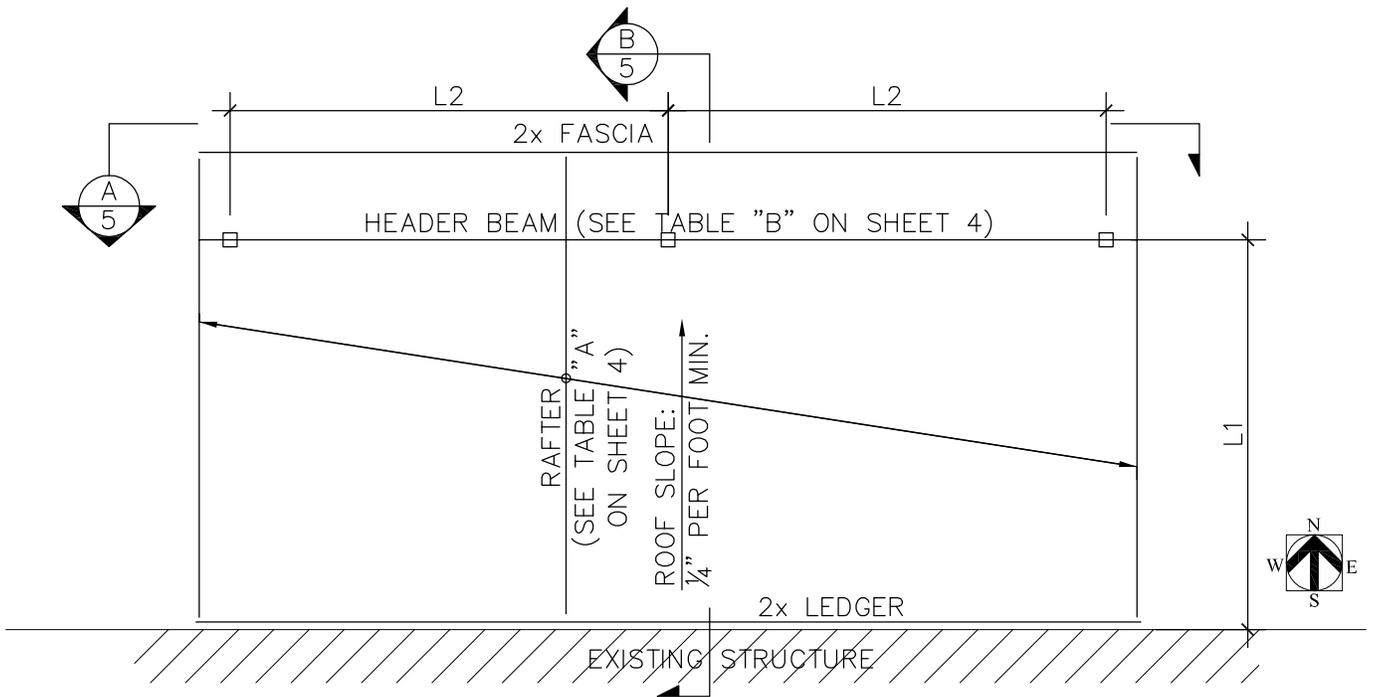
NOTE:

1. PROVIDE PROJECT INFORMATION SUCH AS THE SCOPE OF WORK; THE STREET ADDRESS AND THE NAME OF THE LEGAL OWNER OF THE PROPERTY; THE NAME, ADDRESS AND TELEPHONE NUMBER OF THE PERSON WHO PREPARED THE PLANS.
2. SHOW LOT DIMENSIONS AND PROPOSED PATIO COVER DIMENSIONS, AREA, AND DISTANCE TO THE PROPERTY LINES.
3. CHECK WITH THE PLANNING DIVISION (408-586-3279) FOR BUILDING SETBACK REQUIREMENTS. OPEN PATIO COVER IN THE REAR YARD IS LIMITED CUMULATIVELY TO A TOTAL AREA NOT EXCEEDING THIRTY PERCENT (30%) OF THE AREA OF THE REQUIRED REAR YARD. PROJECTION OF EAVES SHALL NOT BE CLOSER THAN THREE (3) FEET TO ANY SIDE OR REAR LOT LINE. HOWEVER, ENCLOSED PATIO COVER SHALL ADHERE TO THE SAME SETBACK AS THE MAIN DWELLING. (MMC XI-10-54.08)
4. CHECK WITH THE ENGINEERING DEPARTMENT (408-586-3300) FOR LOCATION OF ANY EASEMENTS.

| REV. | DATE | BY: | SCALE: N.T.S. |
|------|---------|--------|--------------------------------|
| 1 | 2/24/10 | BYC | DATE: AUG 2009 |
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City of Milpitas
 Building & Safety Department
OPEN PATIO COVER
SAMPLE PLOT PLAN

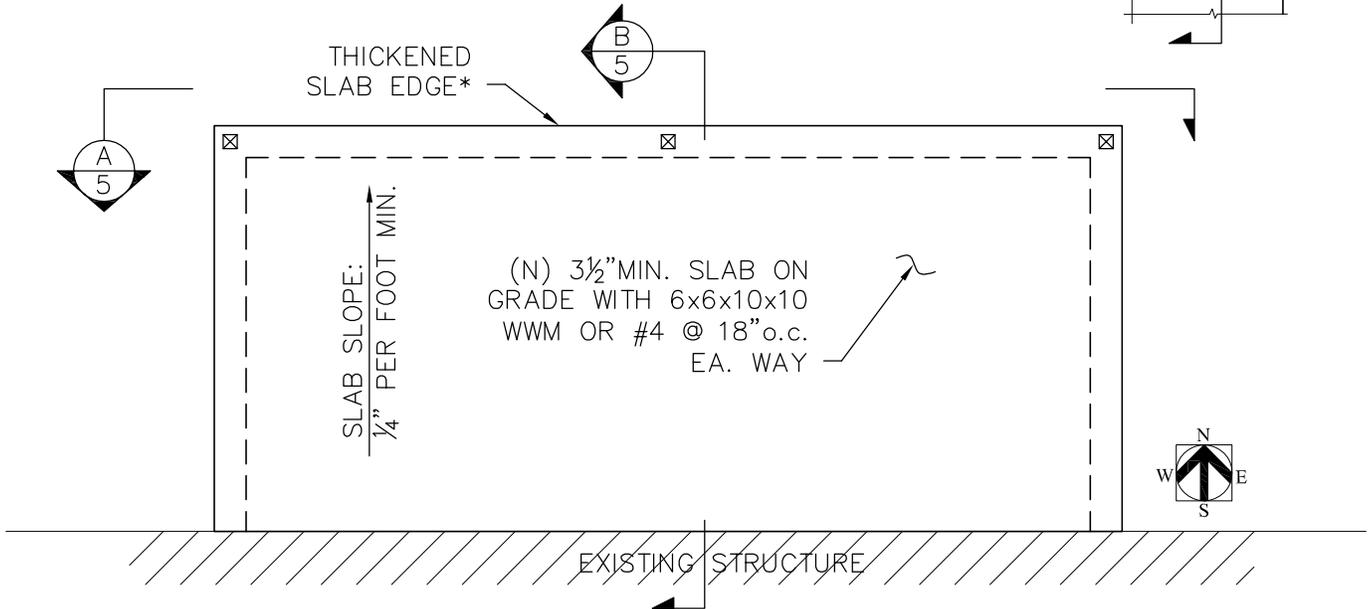
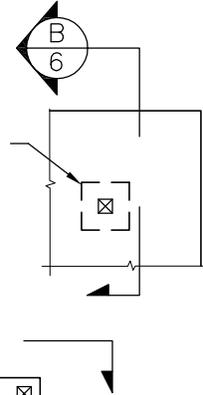
SHEET
1
 OF 8 SHEETS



B ROOF FRAMING PLAN

*THICKENED SLAB EDGE OR ISOLATED FOOTING IS NOT REQUIRED WHEN THE COLUMN LOAD DOES NOT EXCEED 750 LB (i.e. ~38 SQ FT TRIB. AREA)

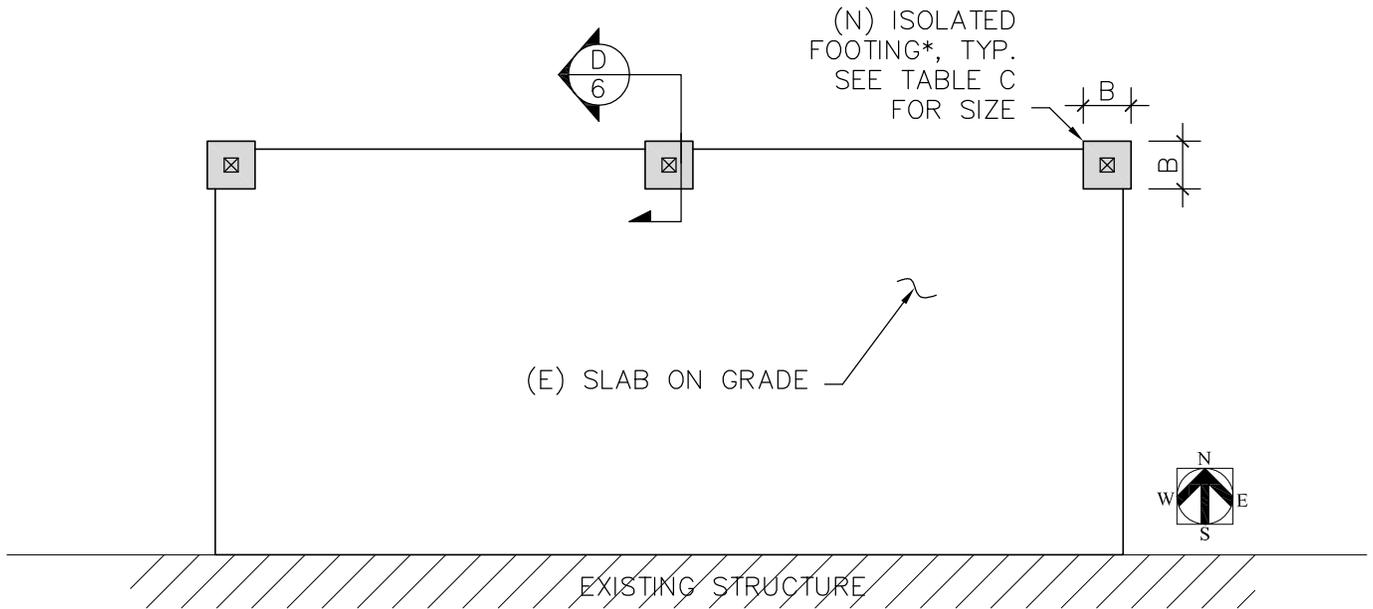
ISOLATED FOOTING* IS REQUIRED WHEN POST IS NOT LOCATED AT THE THICKENED SLAB EDGE



A FOUNDATION PLAN AT (N) PATIO SLAB

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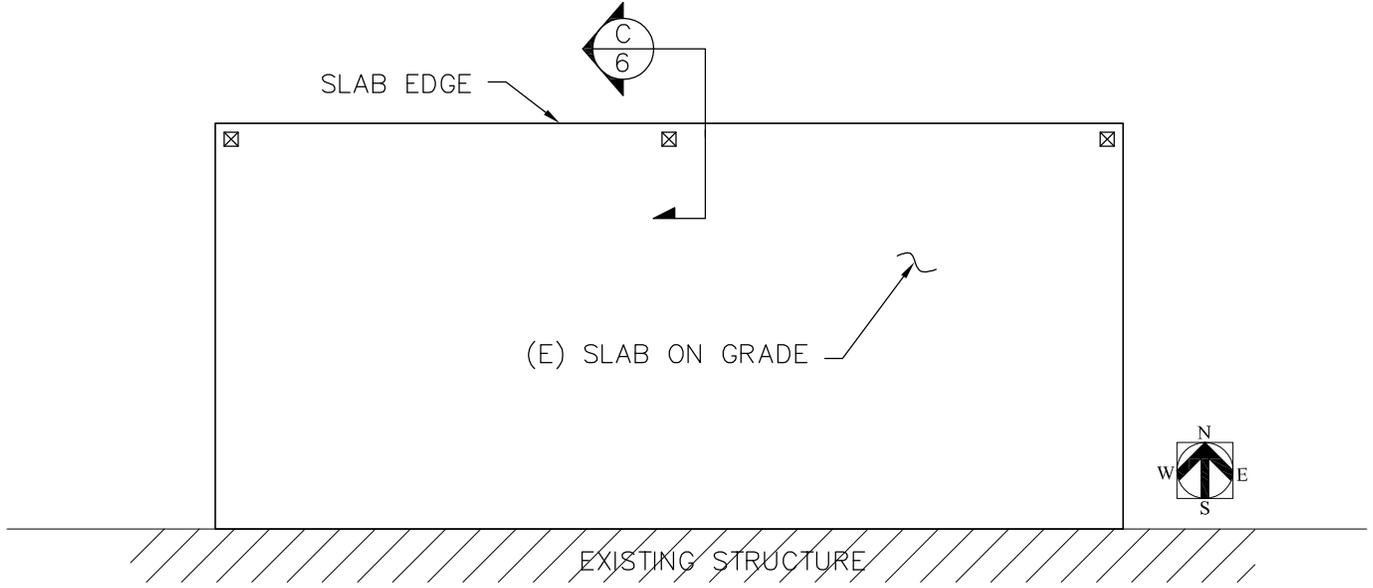
City of Milpitas
 Building & Safety Department
 OPEN PATIO COVER
 SAMPLE FOUNDATION AND FRAMING PLANS



* (N) FOOTING REQUIRED WHEN ANY ONE OF THE CONDITIONS IN DET. A OCCUR

(B) FOUNDATION PLAN AT (E) PATIO SLAB
 CASE 2: (N) FOOTING REQUIRED SCALE: N.T.S.

- CONDITIONS FOR USING (E) SLAB FOR COLUMN SUPPORT:
1. MIN. 3½" SLAB THK.
 2. SLAB IN GOOD CONDITIONS
 3. COLUMN LOAD DOES NOT EXCEED 750 LB (~38 SQ FT TRIB. AREA)



(A) FOUNDATION PLAN AT (E) PATIO SLAB
 CASE 1: NO FOOTING REQUIRED SCALE: N.T.S.

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City of Milpitas
 Building & Safety Department
 OPEN PATIO COVER
 SAMPLE FOUNDATION PLAN AT (E) SLAB

NOTES:

| TABLE "A" | | |
|---|-----------|---------|
| RAFTER SPANS "L1" (DOUGLAS FIR LARCH #2 OR BETTER) | | |
| SIZE | SPACING | SPAN |
| 2x4 | 12" o.c. | 10'-0" |
| | 16" o.c. | 8'-9" |
| | 24" o.c. | 7'-0" |
| | 32" o.c.* | 6'-3"* |
| 2x6 | 12" o.c. | 15'-9" |
| | 16" o.c. | 13'-9" |
| | 24" o.c. | 11'-3" |
| | 32" o.c.* | 9'-6"* |
| 2x8 | 12" o.c. | 20'-0" |
| | 16" o.c. | 18'-3" |
| | 24" o.c. | 14'-9" |
| | 32" o.c.* | 12'-9"* |
| 2x10 | 12" o.c. | 20'-0" |
| | 16" o.c. | 20'-0" |
| | 24" o.c. | 19'-0" |
| | 32" o.c.* | 16'-3"* |
| 2-2x4 OR 4x4 | 24" o.c. | 10'-0" |
| | 32" o.c.* | 8'-9"* |
| | 48" o.c.* | 7'-0"* |
| 2-2x6 OR 4x6 | 24" o.c. | 15'-9" |
| | 32" o.c.* | 13'-9"* |
| | 48" o.c.* | 11'-3"* |
| 2-2x8 OR 4x8 | 24" o.c. | 20'-0" |
| | 32" o.c.* | 18'-3"* |
| | 48" o.c.* | 14'-9"* |

* SPACING AND SPAN DENOTED BY ASTERISKS ARE FOR LATTICE TYPE PATIO COVER ONLY.

- LAG SCREWS MUST FULLY ENGAGE A WOOD STUD OR RIM JOIST AND BE PROVIDED WITH APPROPRIATE WASHERS.
- THESE TABLES ARE APPLICABLE TO OPEN PATIO COVER ONLY, NOT FOR ENCLOSED PATIO ENCLOSURE.
- PATIO COVER IN HILLSIDE AREAS SHALL BE DESIGNED BY CALIFORNIA LICENSED ARCHITECT OR ENGINEER FOR A 3-SECOND GUST MINIMUM WIND SPEED OF 95 MPH AND EXPOSURE C
- ALL WEATHER EXPOSED WOOD MEMBERS SHALL BE NATURALLY DURABLE OR PRESSURE TREATED.
- ALL FASTENERS IN CONTACT WITH PRESSURE TREATED WOOD SHALL BE HOT DIP GALVANIZED OR STAINLESS STEEL.
- WOOD POSTS, RAFTERS AND BEAMS SHALL BE DOUGLAS FIR LARCH NO. 2 OR BETTER.
- CONCRETE COMPRESSIVE STRENGTH SHALL BE 3000psi MIN. AND REINFORCEMENT YIELD STRENGTH SHALL BE 40ksi MIN.
- ALL METAL CONNECTORS AND HARDWARE SHALL MEET AN APPROVED STANDARD FOR ITS INTENDED USE AND BE INSTALLED PER MANUFACTURER'S INSTRUCTIONS.
- THIS GUIDELINE IS FOR MAX. COLUMN LOAD NOT TO EXCEED 750 POUNDS.
- THE INFORMATION PROVIDED IN THIS DESIGN GUIDE CARRIES NO IMPLIED OR INFERRED GUARANTEE AGAINST FAILURE OR DEFECTS. BY USING THIS DESIGN GUIDE, THE CONTRACTOR/OWNER ACCEPTS THE FULL RESPONSIBILITY OF RISK. ALTERNATE DESIGN MAY BE USED WHEN PROVIDED WITH WET STAMPED AND SIGNED STRUCTURAL CALCULATIONS & DETAILS BY A CALIFORNIA LICENSED ENGINEER OR ARCHITECT.

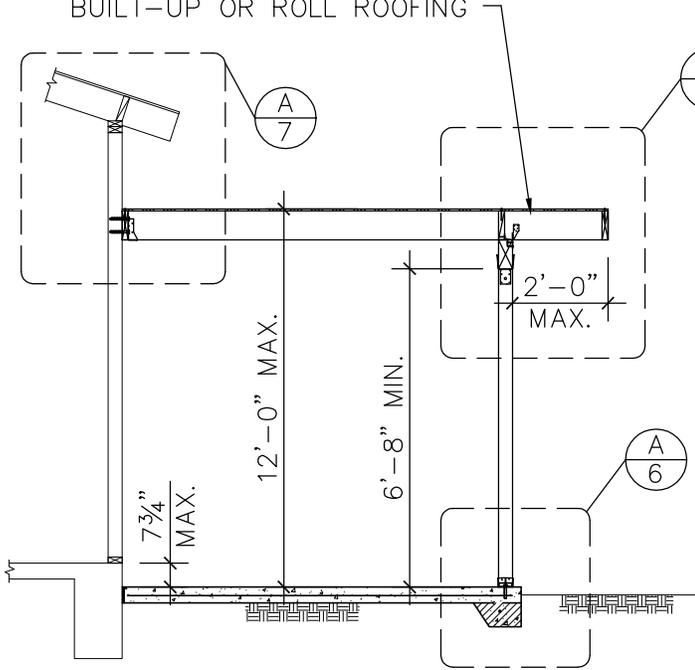
| RAFTER SPAN | TABLE "B" | | TABLE "C" | TABLE "D" | TABLE "E" |
|------------------------|--|----------------|-----------------|-------------------------|---|
| | HEADER SIZE & SPANS "L2" (DOUGLAS FIR LARCH #2 OR BETTER) | | FOOTING SIZE | THRU' BOLTS | LEDGER LAG SCREW |
| | HEADER | | | | |
| | SPAN | SIZE | | | |
| UP TO 12'-0" | 9'-3" | 2-2x6 OR 4x6 | 12"SQ. x 12"DP. | (2)-1/2"φ @ 1/2" o.c. | (1)-1/2"φ x 6 1/2" LONG @ 16" o.c. STAGG. |
| | 12'-0" | 2-2x8 OR 4x8 | 13"SQ. x 12"DP. | (2)-5/8"φ @ 2 1/2" o.c. | |
| | 15'-6" | 2-2x10 OR 4x10 | 14"SQ. x 12"DP. | (2)-5/8"φ @ 3 1/2" o.c. | |
| | 18'-0" | 2-2x12 OR 4x12 | 15"SQ. x 12"DP. | (2)-3/4"φ @ 4 1/2" o.c. | |
| 12'-1" TO 20'-0" | 7'-0" | 2-2x6 OR 4x6 | 14"SQ. x 12"DP. | (2)-1/2"φ @ 1/2" o.c. | (2)-3/8"φ x 4 1/2" LONG @ 16" o.c. |
| | 9'-3" | 2-2x8 OR 4x8 | 15"SQ. x 12"DP. | (2)-5/8"φ @ 2 1/2" o.c. | |
| | 12'-0" | 2-2x10 OR 4x10 | 16"SQ. x 12"DP. | (3)-1/2"φ @ 2 1/2" o.c. | |
| | 14'-6" | 2-2x12 OR 4x12 | 18"SQ. x 12"DP. | (3)-5/8"φ @ 3" o.c. | |

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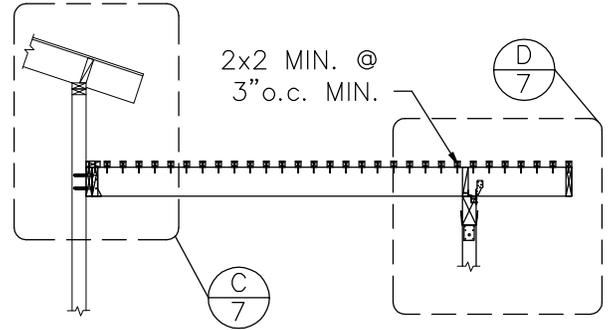
City of Milpitas
 Building & Safety Department
 OPEN PATIO COVER
 SAMPLE SPAN TABLE

SHEET
4
 OF 8 SHEETS

1/2" PLYWOOD WITH 8d @ 6" o.c.
E.N. & @ 12" o.c. F.N. WITH
BUILT-UP OR ROLL ROOFING



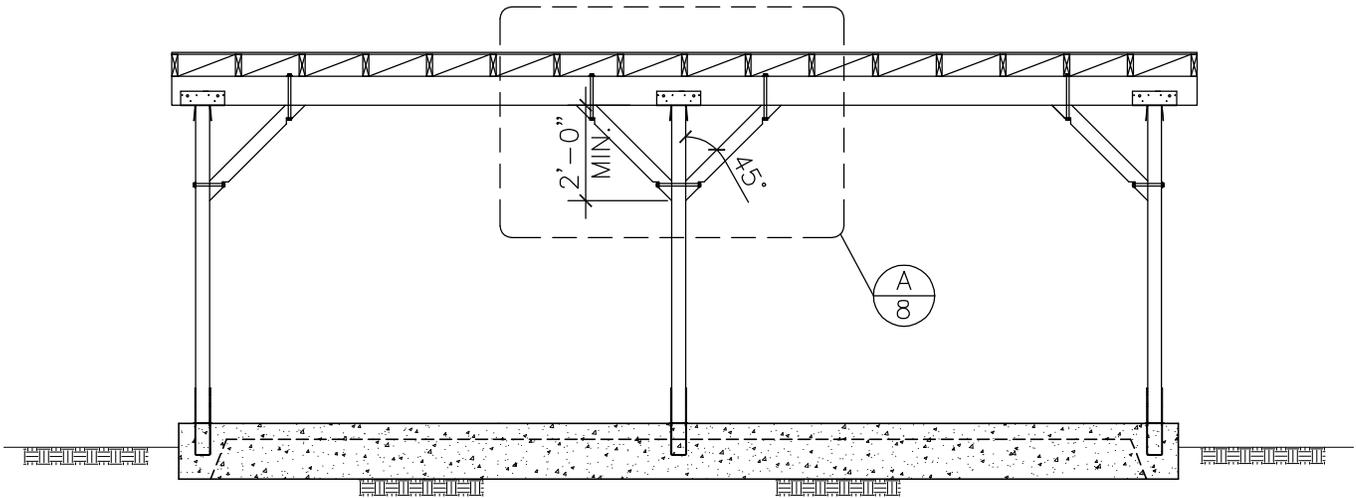
SOLID COVER OPTION



LATTICE COVER OPTION

B PATIO COVER SECTION

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



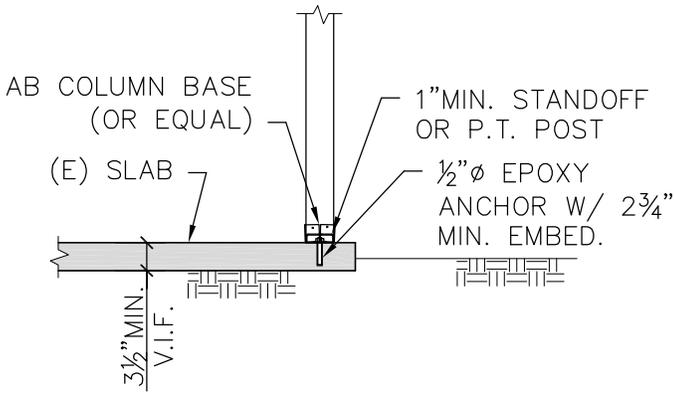
A PATIO COVER ELEVATION

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

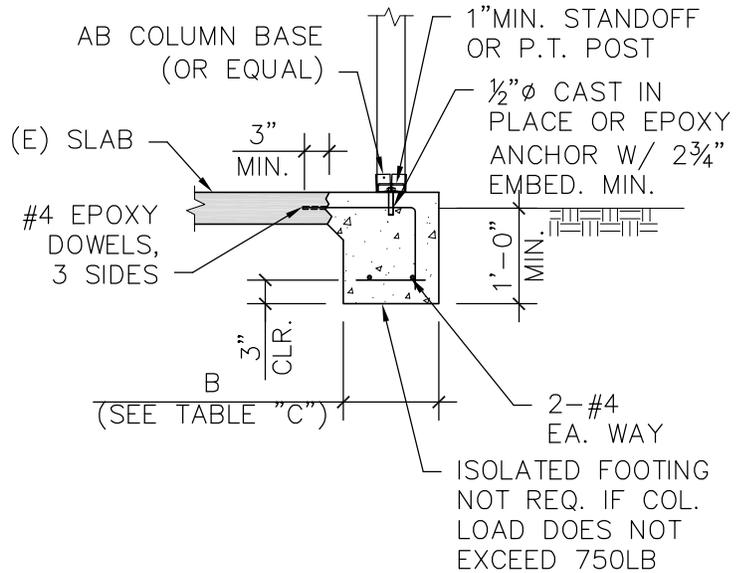
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City of Milpitas
Building & Safety Department
OPEN PATIO COVER
SAMPLE SECTIONS AND ELEVATION

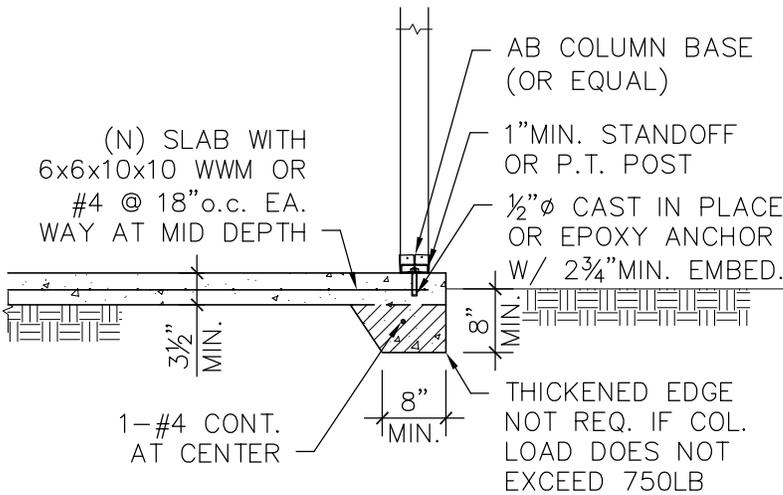
SHEET
5
OF 8 SHEETS



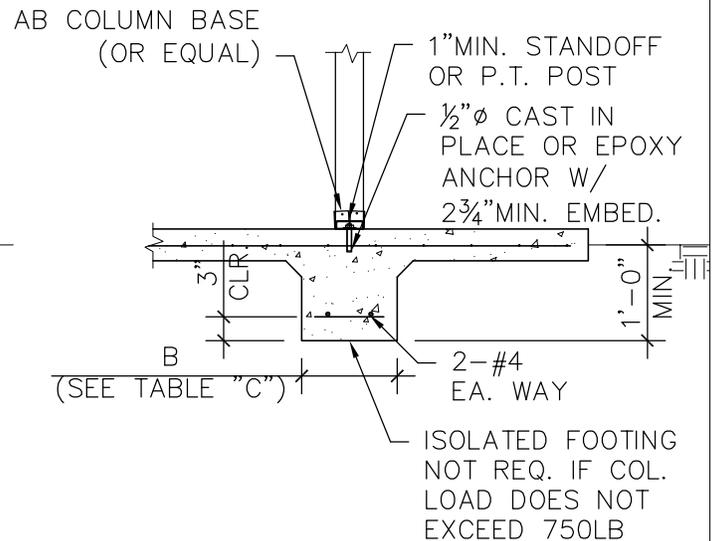
C (N) POST TO (E) SLAB DETAIL
SCALE: 1/2" = 1'-0"



D (N) ISOLATED FOOTING AT (E) SLAB DETAIL
SCALE: 1/2" = 1'-0"



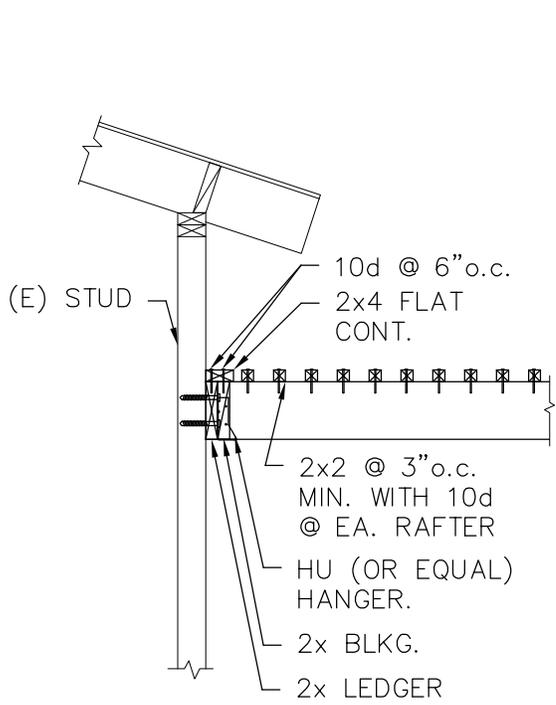
A (N) PATIO SLAB THICKENED EDGE DETAIL
SCALE: 1/2" = 1'-0"



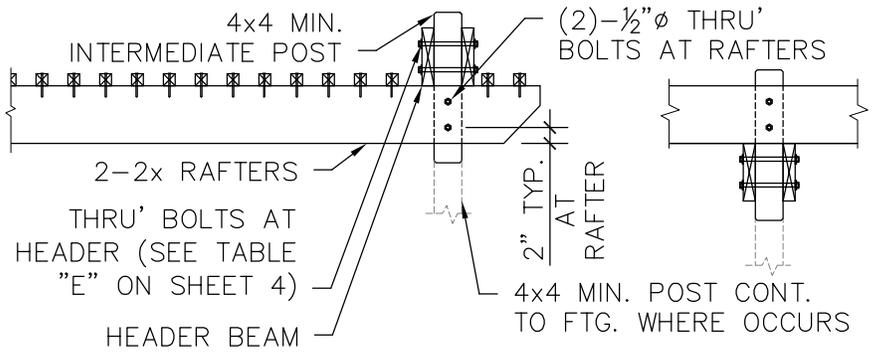
B (N) ISOLATED FOOTING IN (N) PATIO SLAB
SCALE: 1/2" = 1'-0"

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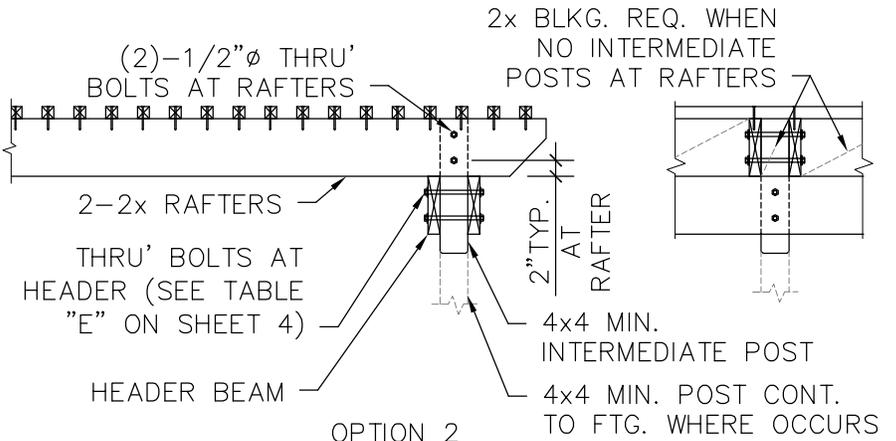
City of Milpitas
 Building & Safety Department
 OPEN PATIO COVER
 SAMPLE DETAILS



NOTE:
SEE DET. A/7 FOR
DETAILS NOT SHOWN.

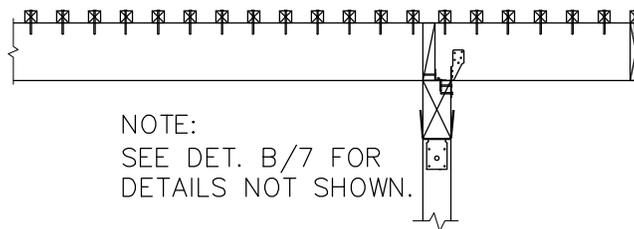


OPTION 3 - INVERTED HEADER



OPTION 2

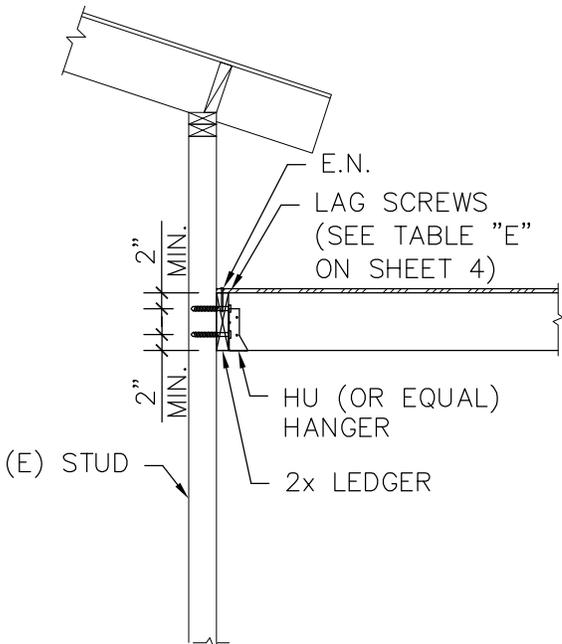
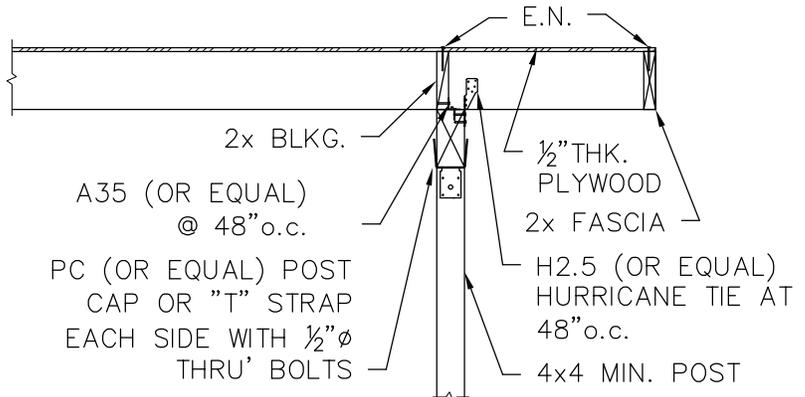
C LEDGER DETAIL (LATTICE COVER) SCALE: 1/2"=1'-0"



NOTE:
SEE DET. B/7 FOR
DETAILS NOT SHOWN.

OPTION 1

D BEAM DETAIL (LATTICE COVER) SCALE: 1/2"=1'-0"

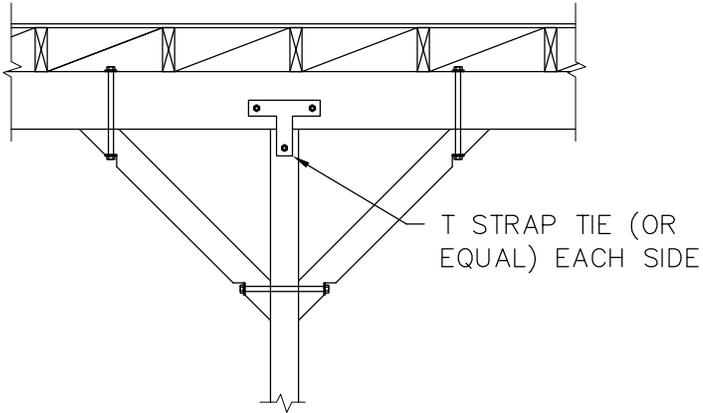


A LEDGER DETAIL (SOLID COVER) SCALE: 1/2"=1'-0"

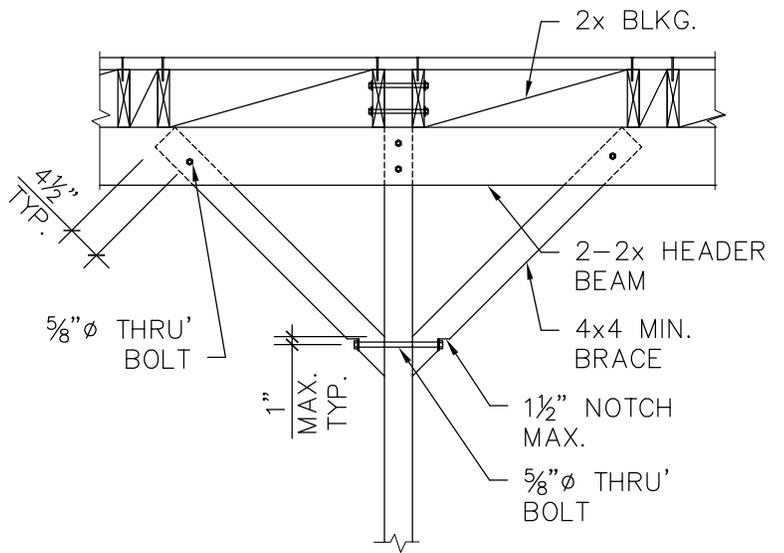
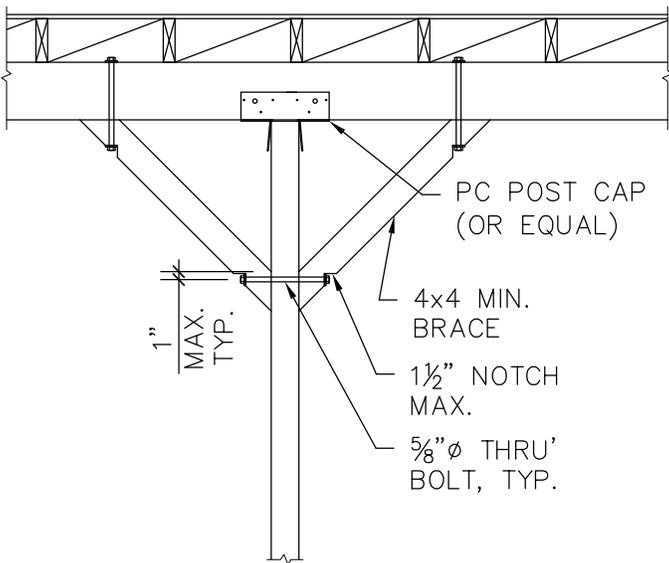
B BEAM DETAIL (SOLID COVER) SCALE: 1/2"=1'-0"

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City of Milpitas
Building & Safety Department
OPEN PATIO COVER
SAMPLE DETAILS



T STRAP TIE OPTION



ALTERNATIVE OPTION

A BRACE DETAIL

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

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 OPEN PATIO COVER
 SAMPLE DETAILS

SHEET
8
 OF 8 SHEETS



CITY OF MILPITAS

BUILDING AND SAFETY DEPARTMENT

455 East Calaveras Boulevard, Milpitas, CA 95035-5479 – Tel. 408.586.3240, Fax 408.586.3285

www.ci.milpitas.ca.gov

CITY OF MILPITAS DISCLAIMER

The City of Milpitas has provided design guidelines to the public for informational purposes. These guidelines are sufficient to meet the Building Code requirements and obtain a City permit. However, the guidelines were drafted to fit generic design and building conditions, not project specific conditions.

I, the undersign, expressly acknowledge and agree that any and all use of the City of Milpitas Building & Safety Department Design Guidelines is at my sole risk. Neither the City of Milpitas nor any of its respective employees, agents, or officials warrant that access to and use of the Guidelines will be free from failure or defects. Nor does the City of Milpitas offer any warranty for the results that may be obtained from using the Guidelines or for the accuracy, reliability or design of any information provided by the Guidelines.

Print Name

Company

Signature

Plan Check No.

Date