Bradford West Gwillimbury
A Growing Tradition

Town of Bradford West Gwillimbury
3541 Line 11, P.O. Box 160
Bradford, Ontario, Canada L3Z 2A8
Phone: 905-775-5369
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Building a Deck:

Decks are an extension of the main dwelling unit and as such must be designed and constructed to withstand all superimposed loads. The structure, supports, guards and stairs are regulated by the Ontario Building Code and setbacks to all property lines are regulated by provisions of the Town of Bradford West Gwillimbury Zoning By-Law.

A building permit is required for constructing a deck greater than $10m^2$ (107 sq. ft.) or that is attached to the house.
In order to obtain a building permit, a completed building permit application accompanied by two sets of construction drawings and a copy of the property survey must be submitted to the Building Division at 3543 Line 11, Bradford.

The submission of a Building Permit Application shall consist of:

1. Two copies of the site plan based on a recent survey, showing the location of the deck with proximity to all property lines, location of all structures on the property.
2. Two copies of the floor plans showing the size and spacing of the footing piers, size, spans and direction of beams, floor joists and decking.
3. Two copies of elevations showing the height of the deck, depth of footings, height and construction of guards, handrails and stairs, cross-section detail illustrating the connection of the deck to the house.

Homeowners are permitted to prepare their own designs if they can demonstrate compliance with the requirements of the Ontario Building Code. Any designer other than the owner, who prepares and takes responsibility for the design of the deck, must possess the mandatory technical qualifications prescribed under the Ontario Building Code.

Guards:
A guard is required when the difference in deck elevation above the finished grade exceeds 600mm (23 5/8").
Construction of guards must conform to the requirements of the Supplementary Standard SB-7 of the Ontario Building Code 2006.

Proprietary Products and Materials:
Composite decking and guard systems must have Building Materials Evaluation Commission (BMEC) approval to be permitted for construction use in Ontario. Steel, aluminum and glass railing systems must be designed in accordance with structural requirements of Part 4 (Division B) of the Ontario Building Code.

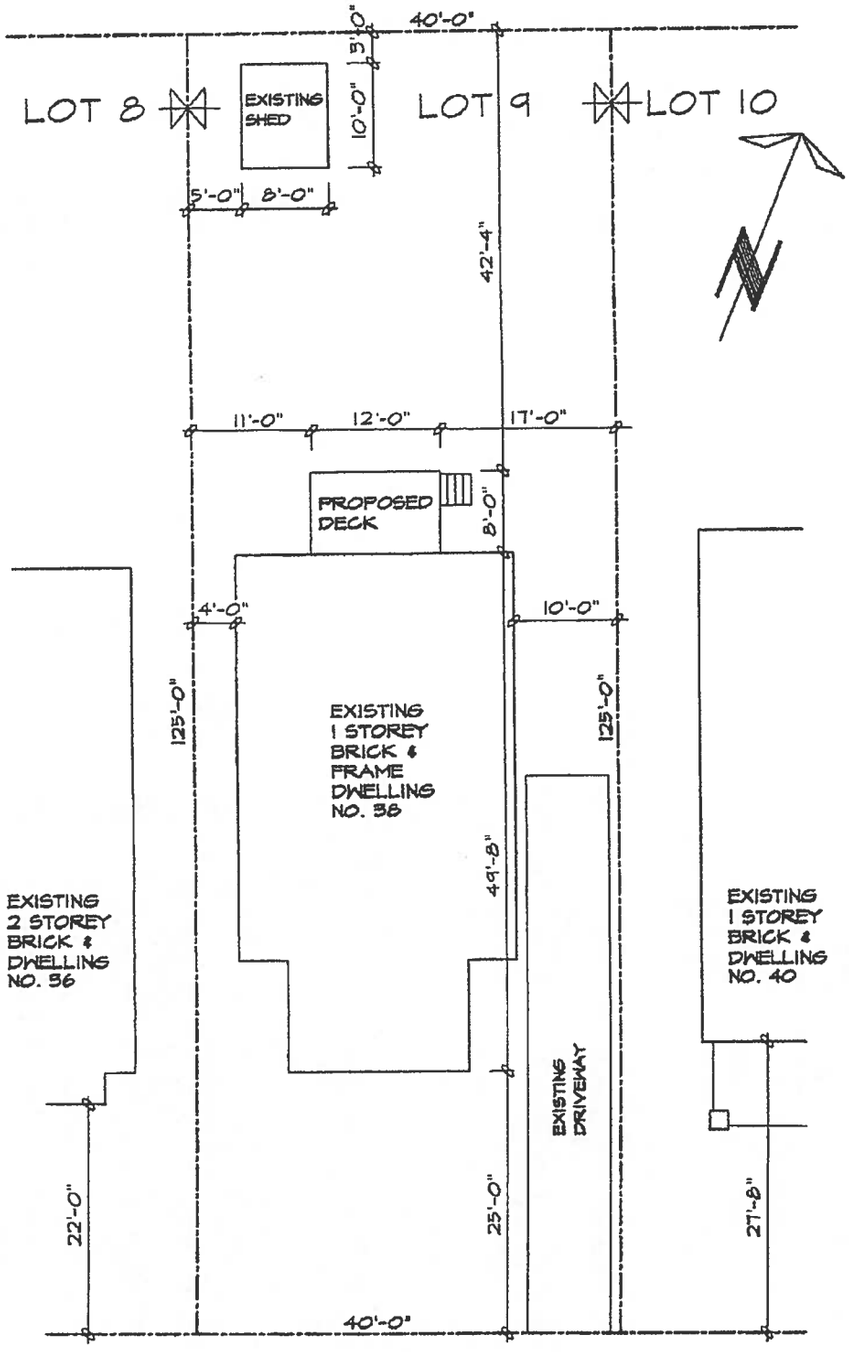
Deck Blocks:
Recent changes to the Ontario Building Code resulted in provisions that allow the use of deck blocks for construction of decks where:

- The deck is not attached to the house,
- Deck is not greater than $55m^2$ ($592 ft^2$),
- The difference in deck elevation above the finished grade exceeds 600mm (23 5/8"),
- The deck does not support a roof.

Mandatory Inspections:
Once the permit is obtained all work must be inspected at key stages of construction to ensure that construction is in accordance with the permit drawings and complies with the Ontario Building Code;

1. **Footing Inspection:** holes are inspected to verify the depth, diameter and spacing of the piers prior to placement of concrete.
2. **Framing Inspection:** carried out at completion of framing components including the connection to the house.
3. **Final Inspection:** required at the time of completion of the deck flooring, guards and stairs.

To arrange for an inspection, please contact the Building Division by phone (905) 775-5369 ext. 1500, by fax (905) 778-4343, or in person at 3541 Line 11, Bradford. Please reference the building permit number, project address, required inspection date, contact name and phone number.
While 48 hours notice is required, next day service can usually be achieved.



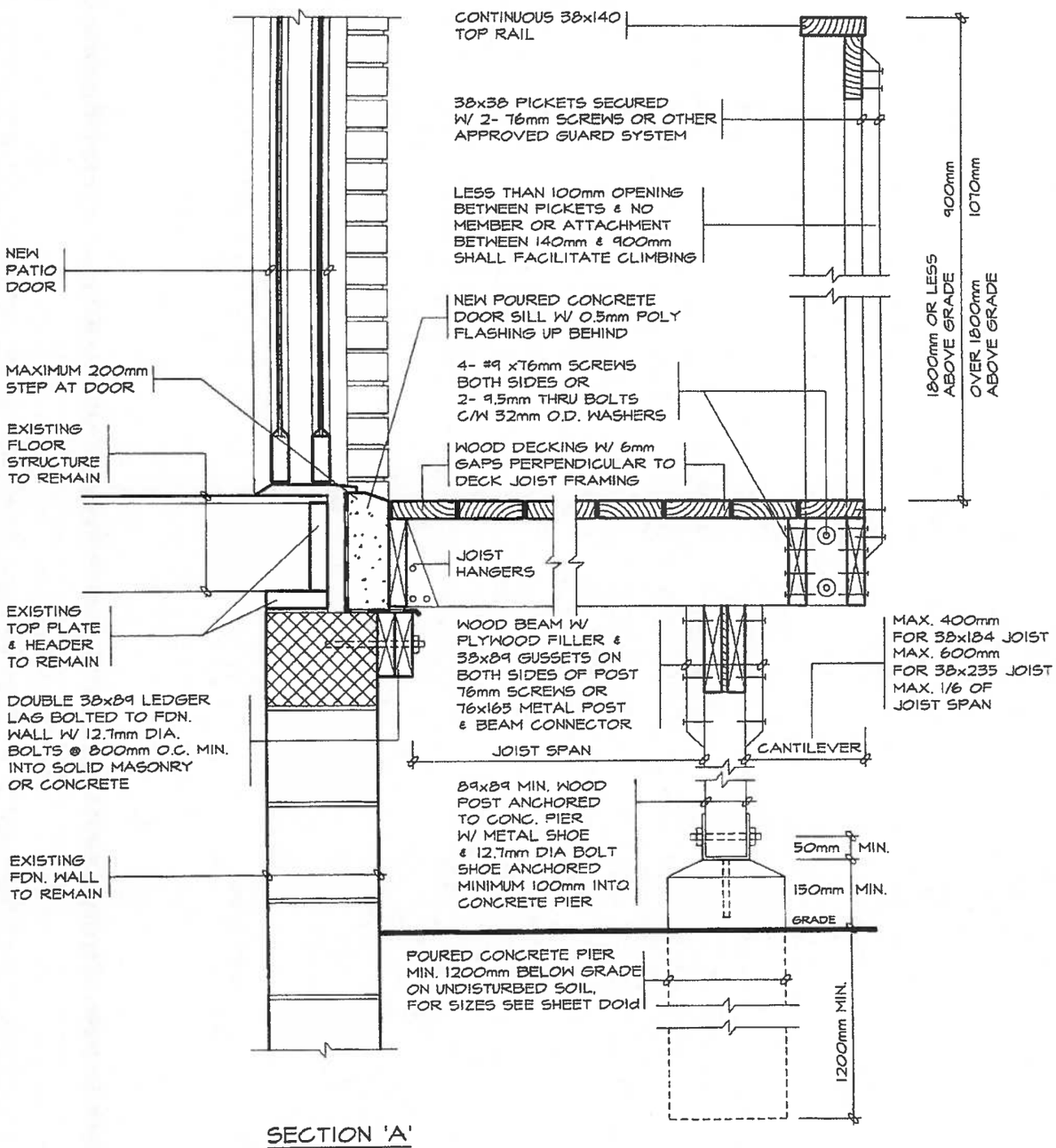
SITE PLAN

SCALE 1"= 15'-0"

Bradford West Gwillimbury

A Growing Tradition

Sample Site Plan



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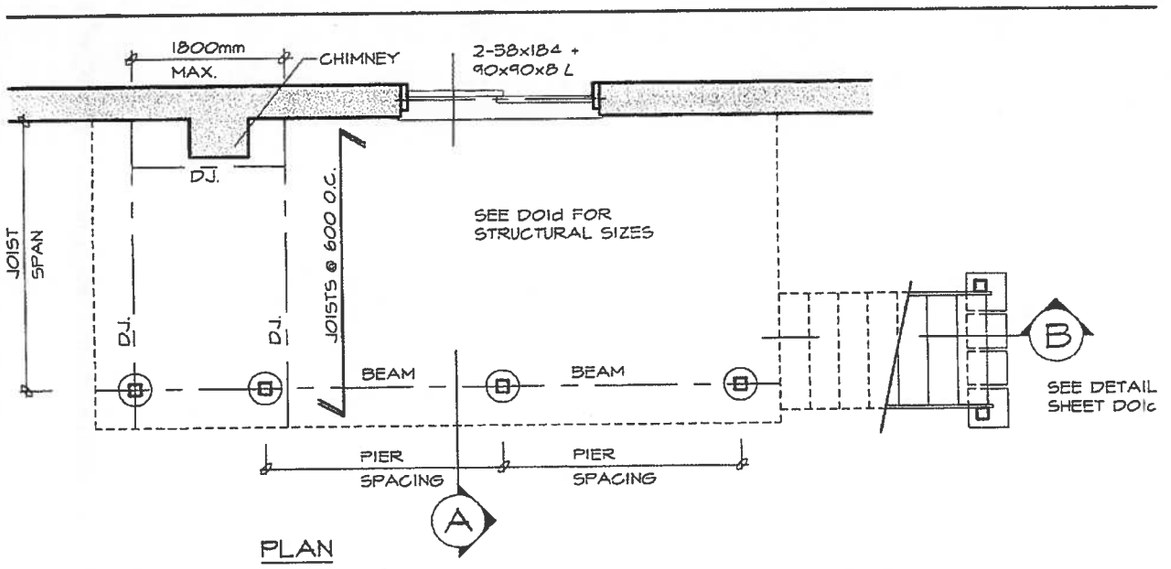


PLAN

TACBOC STANDARD DETAIL

TITLE

WOOD DECK

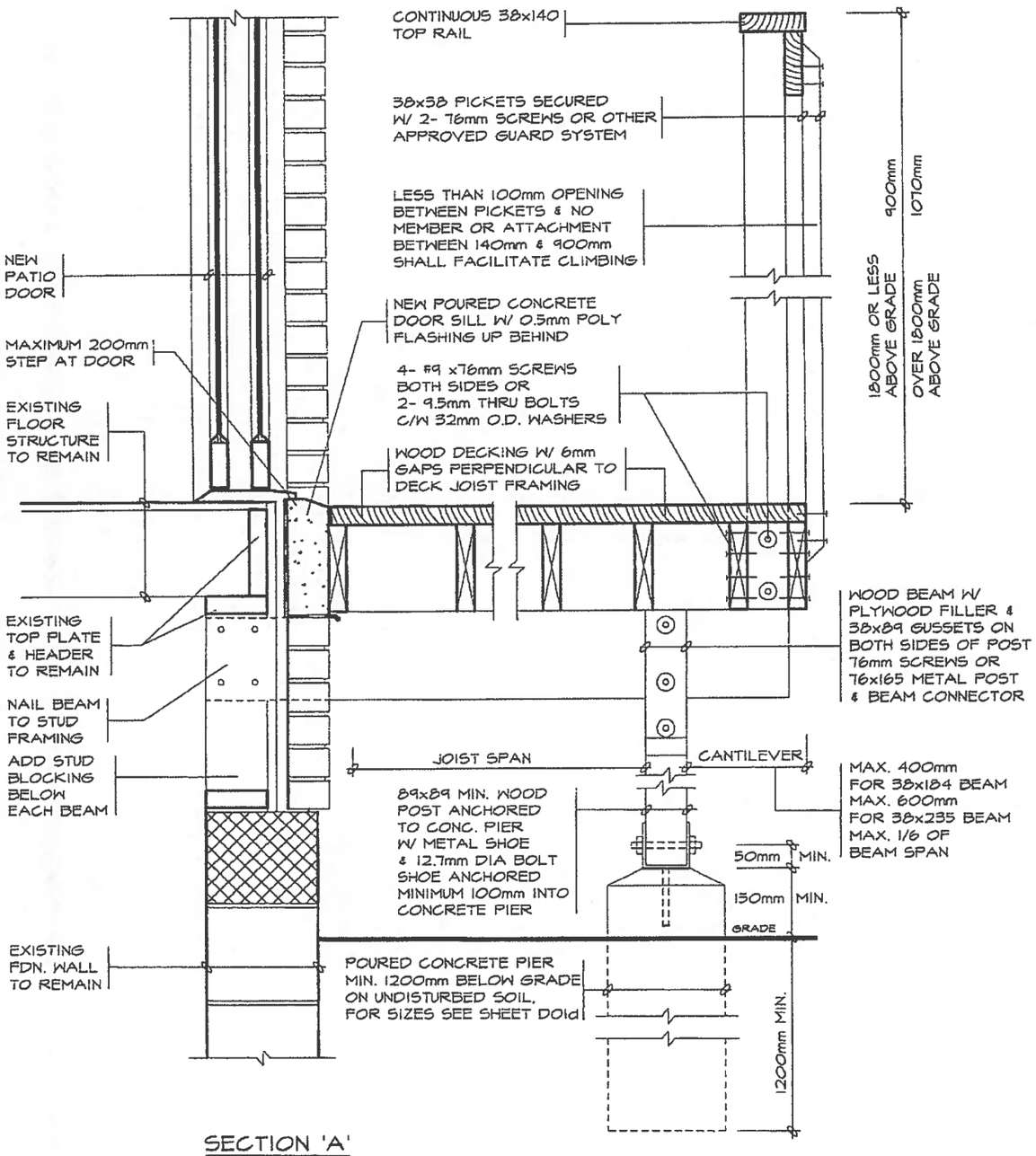
FIXED TO SOLID MASONRY FOUNDATION WALL

PLAN & SECTION

DWG. NO.

D01a

2007



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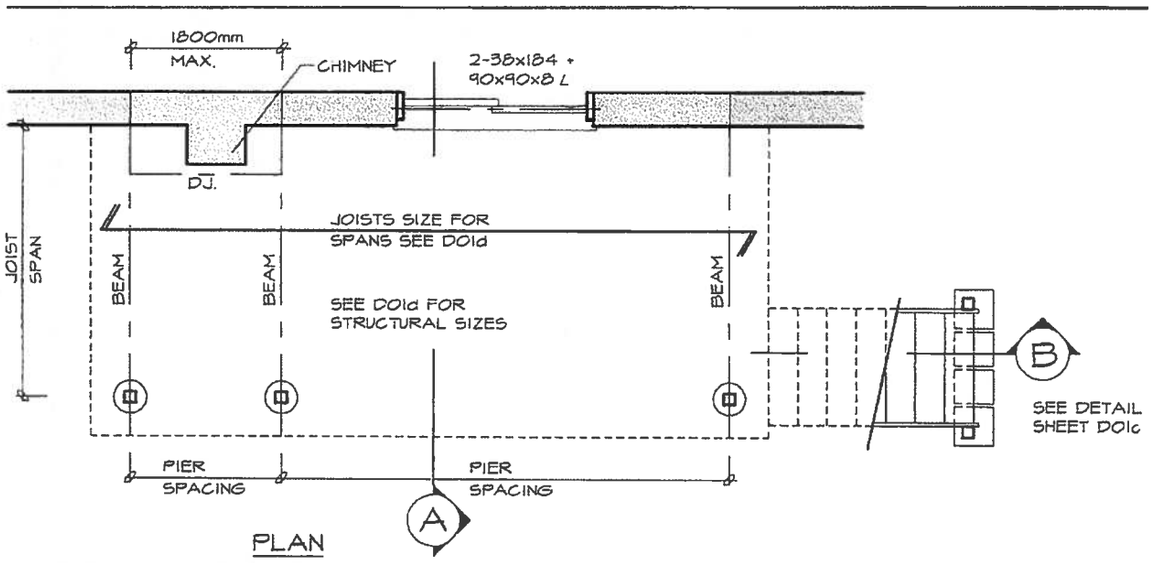
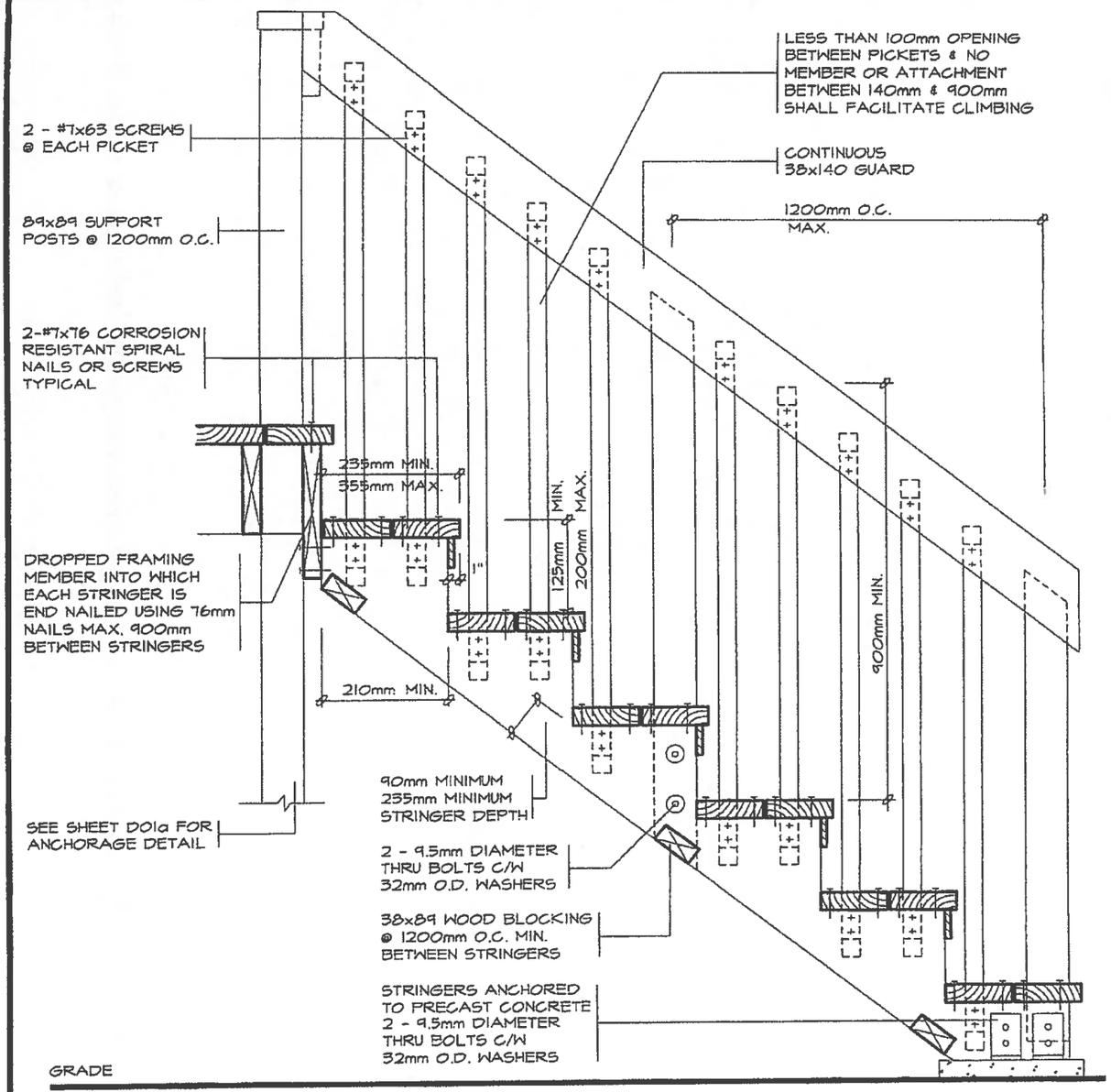


PLAN

TACBOC
STANDARD DETAIL

TITLE
WOOD DECK
FIXED TO BRICK VENEER & WOOD FRAMING
PLAN & SECTION

DWG. NO.
D01b
2007



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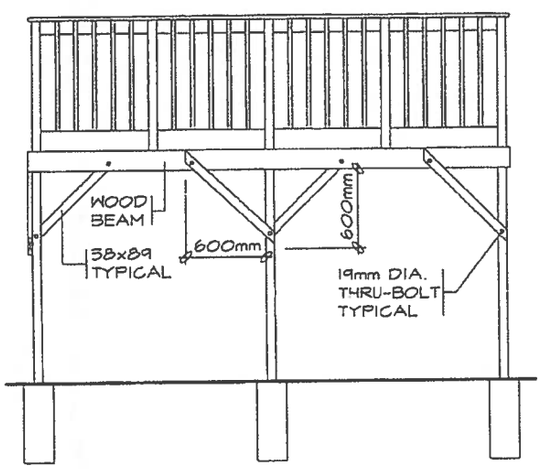
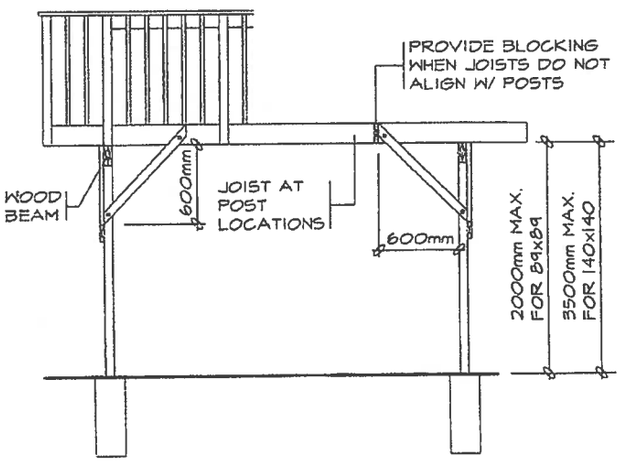


BRACING PARALLEL TO BEAM



BRACING PERPENDICULAR TO BEAM

FREE STANDING DECKS GREATER THAN 600mm ABOVE GRADE SHALL RESIST LATERAL LOADING & MOVEMENT. ALL POSTS MUST BE BRACED WHERE THE SUPPORTED AREA EXCEEDS THOSE LISTED IN THE TABLE ON D01d

TACBOC
STANDARD DETAIL

TITLE
WOOD DECK
STAIR SECTION
LATERAL SUPPORT FOR FREE STANDING DECKS

DWG. NO.
D01c
2007

POSTS SUPPORTING DECK & ROOF

POST SIZE (mm)	MAXIMUM HEIGHT (M) SEE NOTE 7	SUPPORTED ROOF AREA (M2) ROOF SNOW LOAD (kPa)				
		1.0	1.5	2.0	2.5	3.0
89x89	1.0	6.65	5.91	5.32	4.83	4.43
	1.5	3.63	3.23	2.90	2.64	2.42
	2.0	1.93	1.71	1.54	1.40	1.28
140x140	2.0	8.38	7.45	6.70	6.09	5.58
	2.5	5.72	5.08	4.57	4.15	3.80
	3.0	3.89	3.46	3.11	2.83	2.59
	3.5	2.70	2.40	2.16	1.96	1.80

POSTS SUPPORTING DECKS

POST SIZE (mm)	MAXIMUM HEIGHT (M) SEE NOTE 7	SUPPORTED DECK AREA (M2) ROOF SNOW LOAD (kPa)				
		1.0	1.5	2.0	2.5	3.0
89x89	1.0	10.86	10.86	10.43	8.71	7.48
	1.5	5.93	5.93	5.69	4.76	4.09
	2.0	3.15	3.15	3.02	2.53	2.17
140x140	2.0	13.67	13.67	13.13	10.98	9.43
	2.5	9.32	9.32	8.96	7.48	6.43
	3.0	6.35	6.35	6.10	5.10	4.38
	3.5	4.41	4.41	4.23	3.54	3.04

	JOIST SPAN (mm)	PIER SIZE (mm) PIER SPACING (mm)				BEAM SIZE PIER SPACING (mm)				JOIST SIZE
		1200	1800	2400	3000	1200	1800	2400	3000	
75 kPa	1800	200Φ	250Φ	300Φ	350Φ	2/38x140	2/38x140	2/38x184	2/38x235	38x140
	2400	250Φ	300Φ	350Φ	400Φ	2/38x140	2/38x184	2/38x235	2/38x286	38x140
	3000	300Φ	350Φ	400Φ	450Φ	2/38x140	2/38x184	2/38x235	2/38x286	38x184
	3660	300Φ	350Φ	400Φ	450Φ	2/38x140	2/38x184	2/38x235	2/38x286	38x235
120 kPa	1800	200Φ	200Φ	250Φ	250Φ	2/38x140	2/38x140	2/38x184	2/38x235	38x140
	2400	200Φ	250Φ	250Φ	300Φ	2/38x140	2/38x184	2/38x235	2/38x286	38x140
	3000	200Φ	250Φ	300Φ	350Φ	2/38x140	2/38x184	2/38x235	2/38x286	38x184
	3660	250Φ	300Φ	350Φ	350Φ	2/38x140	2/38x184	2/38x235	2/38x286	38x235
190 kPa	1800	200Φ	200Φ	200Φ	200Φ	2/38x140	2/38x140	2/38x184	2/38x235	38x140
	2400	200Φ	200Φ	200Φ	250Φ	2/38x140	2/38x184	2/38x235	2/38x286	38x140
	3000	200Φ	200Φ	250Φ	300Φ	2/38x140	2/38x184	2/38x235	2/38x286	38x184
	3660	200Φ	250Φ	300Φ	300Φ	2/38x140	2/38x184	2/38x235	2/38x286	38x235

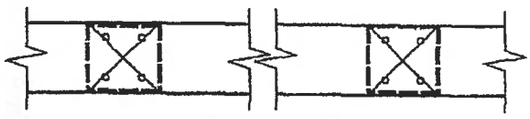
GENERAL NOTES

1. SITE PLAN OR SURVEY IS REQUIRED SHOWING ALL LOT LINES & DIMENSIONS SIZE & LOCATION OF ALL EXISTING BUILDINGS, LOCATION & SIZE OF DECK
2. LUMBER NO. 2 SPF OR BETTER, WOOD POSTS MIN. 89x89 (SOLID). USE CORROSION RESISTANT SPIRAL NAILS OR SCREWS.
3. DECK IS NOT PERMITTED TO BE SUPPORTED ON BRICK VENEER
4. CONCRETE PIERS SHALL BEAR ON UNDISTURBED SOIL. THE BEARING CAPACITY OF THE SOIL SHALL BE DETERMINED PRIOR TO CONSTRUCTION
5. PROVIDE A HANDRAIL 900mm HIGH ON STAIRS IF MORE THAN THREE RISERS.
6. FOR SUPPORTED AREAS WHICH EXCEED THOSE LISTED IN THESE TABLES THE POSTS SHALL BE BRACED AS SHOWN ON D01C
7. MAXIMUM HEIGHT REFERS TO THE HEIGHT OF THE POST FROM THE TOP OF THE PIER TO THE DECK SURFACE

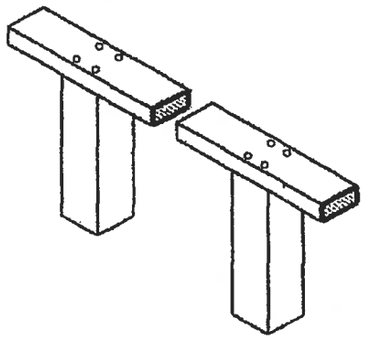
TACBOC
STANDARD DETAIL

TITLE
WOOD DECK
TABLES & NOTES

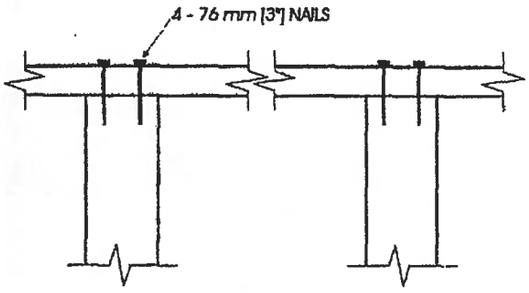
DWG. NO.
D01d
2007



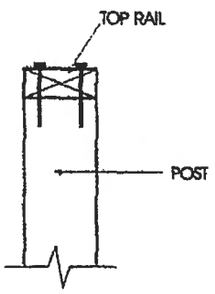
PLAN



AXONOMETRIC



FRONT ELEVATION



SIDE ELEVATION

Notes:

1. *The top rail must be continuous. Use Detail EA-5 at the end spans, where continuity ends.*

MAXIMUM SPAN OF RAIL BETWEEN POSTS	
Species	Maximum Span, m (ft-in)
Douglas Fir-Larch, Hem-Fir, Spruce-Pine-Fir	1.52 (5'-0")
Northern Species	1.52 (5'-0")
Column 1	2

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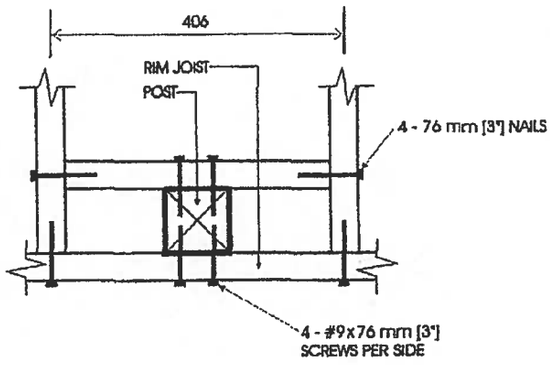
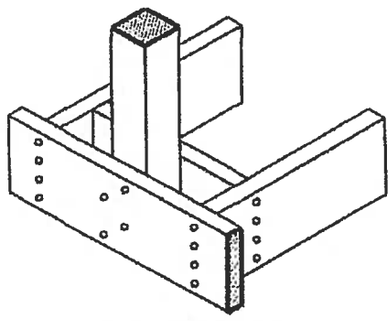
Detail EA-1

Exterior Connection: Top Rail Nailed to Post



PLAN



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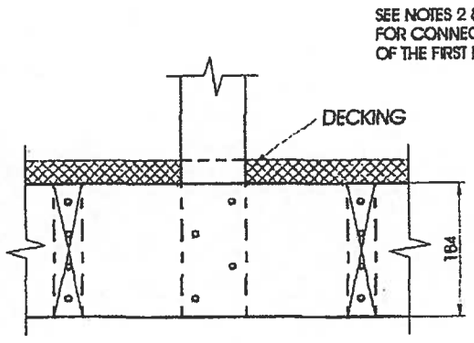
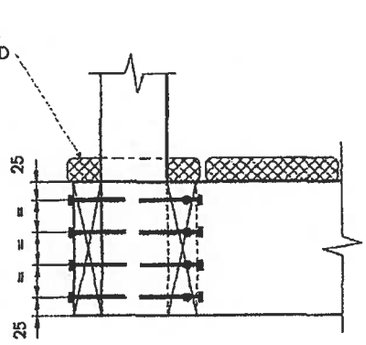


FRONT ELEVATION



SIDE ELEVATION

Notes:

1. Decking is omitted from the plan view and the axonometric view for clarity.
2. Fasten 25 mm x 140 mm (5/4" x 6" nominal) outer deck board to rim joist with 63 mm (2½") nails at 300 mm (12").
3. Fasten 25 mm x 140 mm (5/4" x 6" nominal) outer deck board to floor joist with 1 - 63 mm (2½") nail at each joist.
4. The post may be positioned anywhere between the joists.
5. #9 screws may be replaced by #8 screws if the maximum spacing between posts is not more than 1.20 m (3'-11").
6. Dimensions shown are in mm unless otherwise specified.

MAXIMUM SPACING BETWEEN POSTS	
Species	Maximum Spacing, m (ft-in)
Douglas Fir-Larch, Hem-Fir, Spruce-Pine-Fir	1.56 (5'-1")
Northern Species	1.20 (3'-11")
Column 1	2

Bradford West Gwillimbury

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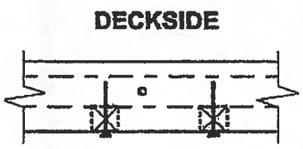
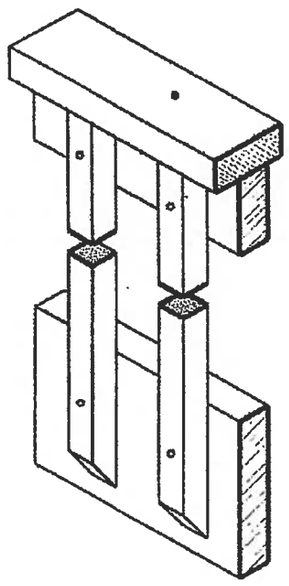
Detail EB-2

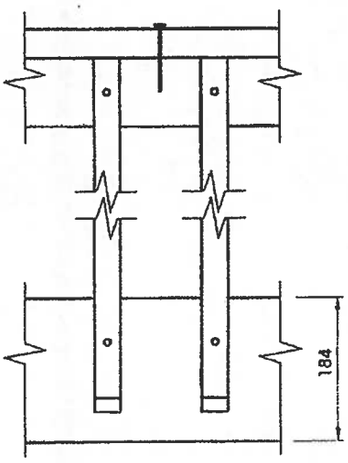
Exterior Connection: Post Screwed to Rim Joist



PLAN



AXONOMETRIC



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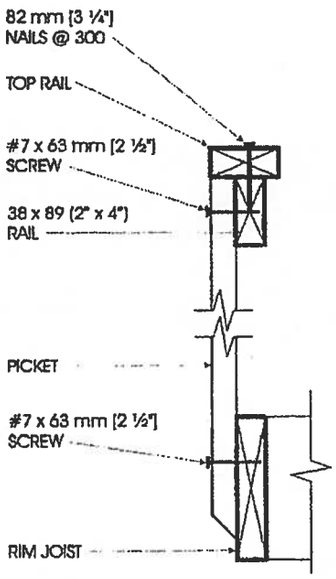


SIDE ELEVATION

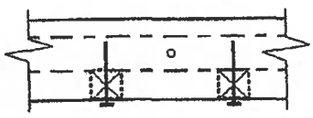
Note:
1. Dimensions shown are in mm unless otherwise specified.

Bradford West Gwillimbury

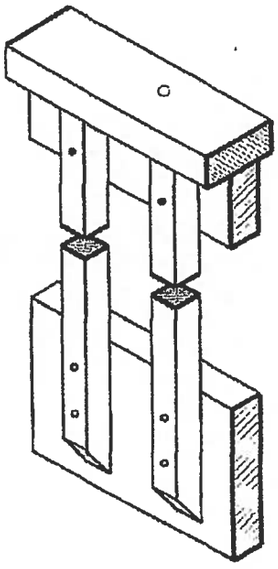
A Growing Tradition

Detail EC-4

Exterior Connection: Infill Picket Screwed to Top Rail and Rim Joist



PLAN



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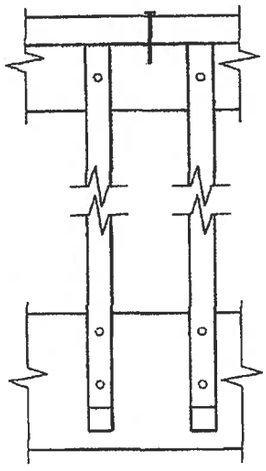

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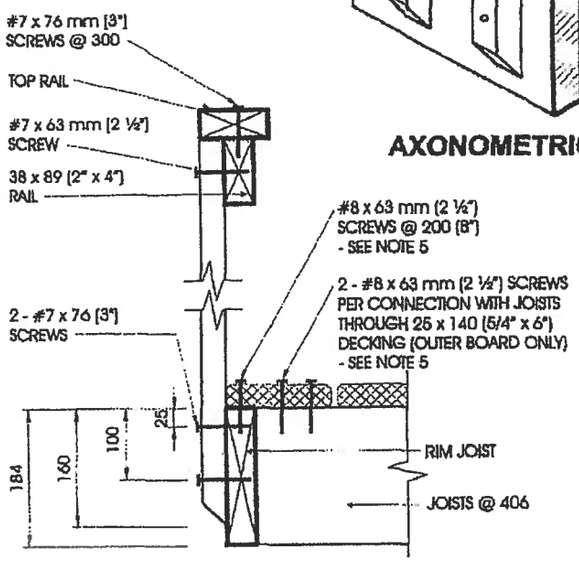

SIDE ELEVATION

Notes:

1. Provide a suitable post, return, or solid support at each end of the guard.
2. Wood for cantilevered pickets shall be Douglas Fir-Larch, Spruce-Pine-Fir, or Hem-Fir Species.
3. Fasten rim joist to each floor joist with 3 - 82 mm (3¼") nails.
4. *Dimensions shown are in mm unless otherwise specified.*
5. The outer deck board shall not be less than 140 mm (6" nominal) wide. Where 38 mm (2" nominal) thick boards are used, the length of the wood screws shall be not less than 76 mm (3").

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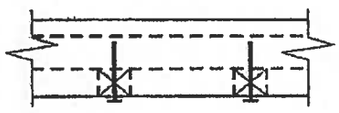
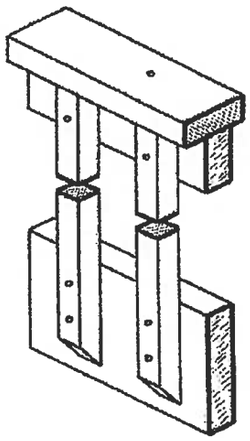
Detail ED-1

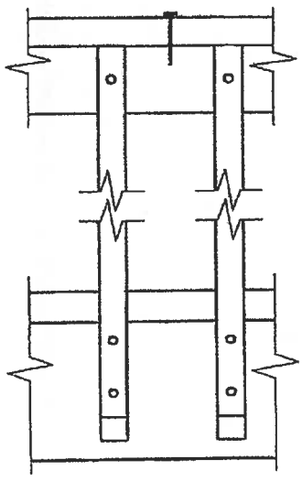
Exterior Connection: Cantilevered Picket Screwed to Rim Joist



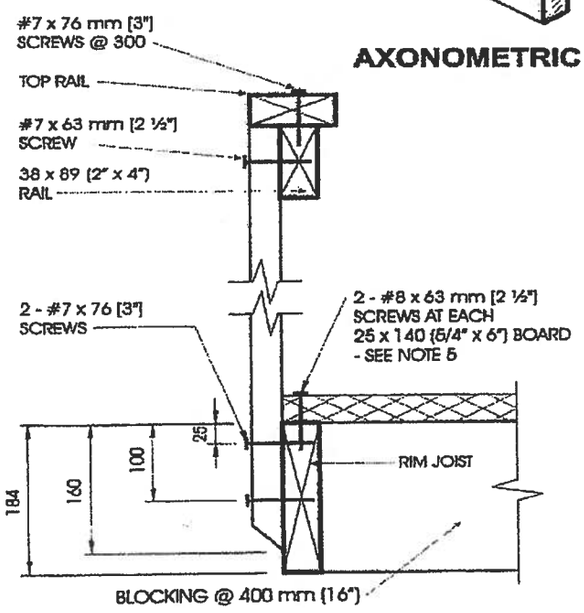
PLAN



AXONOMETRIC



FRONT ELEVATION



SIDE ELEVATION

Notes:

1. Provide a suitable post, return, or solid support at each end of the guard.
2. Wood for cantilevered pickets shall be Douglas Fir-Larch, Spruce-Pine-Fir, or Hem-Fir Species.
3. Fasten rim joist to blocking with 3 - 82 mm (3¼") nails.
4. Dimensions shown are in mm unless otherwise specified.
5. Where 38 mm (2" nominal) thick boards are used, the length of the wood screws shall be not less than 76 mm (3").

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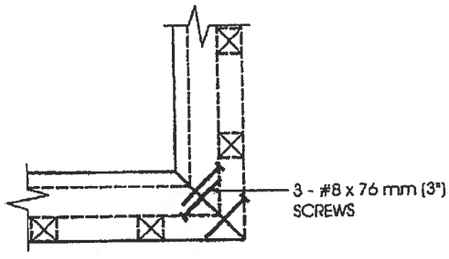
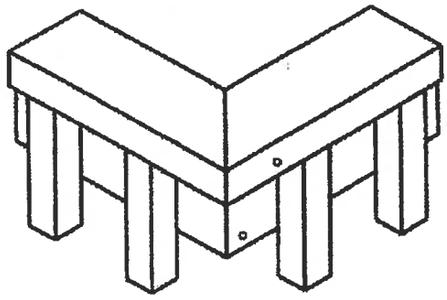
Detail ED-2

Exterior Connection: Cantilevered Picket Screwed to Rim Joist, Guard Parallel to Floor Joists

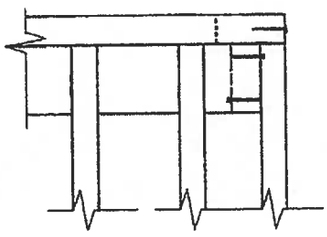


PLAN TOP RAIL

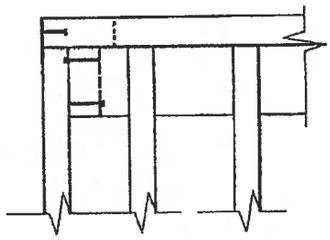


AXONOMETRIC

ONE FASTENER IN HORIZONTALLY ORIENTATED PORTION OF TOP RAIL
AND TWO IN VERTICALLY ORIENTATED PORTION.



FRONT TOP RAIL



SIDE TOP RAIL

Notes:

1. Screws fastening pickets are omitted for clarity.
2. Provide a minimum of 10 pickets beyond the return if end restraint of the guard is provided by this return detail only.

Bradford West Gwillimbury

A Growing Tradition

Detail ED-5

Exterior Connection: Corner Joint