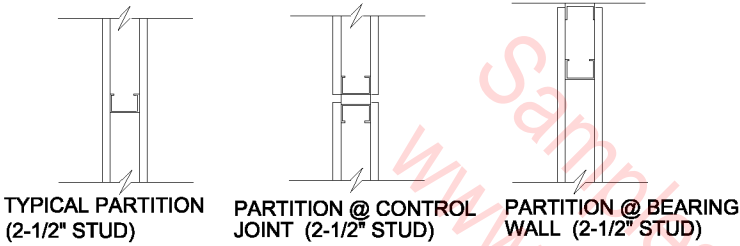


**2-1/2" METAL FRAME PARTITION**

**2-1/2" METAL FRAME PARTITION**



TYPICAL PARTITION  
(2-1/2" STUD)

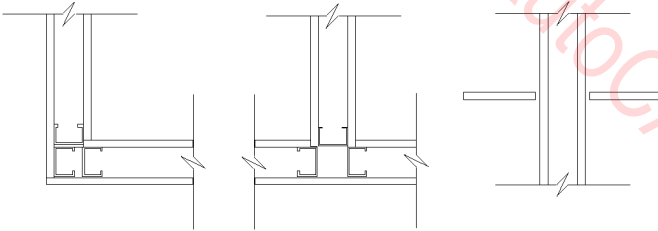
PARTITION @ CONTROL  
JOINT (2-1/2" STUD)

PARTITION @ BEARING  
WALL (2-1/2" STUD)

**NOTATION CHECKLIST, SAMPLE NOTES**

- METAL STUDS (SIZE & SPACING)
- METAL RUNNER/ANCHORS
- METAL TRACK/HEADER
- ADJACENT CEILING OR SLAB
- GYP SUM WALLBOARD
- LATH & PLASTER
- SPECIAL FINISHES/  
WATERPROOFING
- HOOKS/TRACKS
- WALL MOUNTED FIXTURES
- WALL ANCHORS/  
MOUNTING BRACKETS
- RAILINGS/WALL GUARDS
- THRU-WALL SLEEVE
- SEALANT/SOUND BARRIER/  
LEAD LINING
- JOINTS (CONTROL OR EXPANSION)
- ADJACENT FINISHES
- GYP SUM WALL BOARD
- WATER-RESISTANT GYP.BD.
- CORNER BEAD
- CONTROL JOINT
- SOUND ATTENUATION BLANKET
- RIGID INSULATION

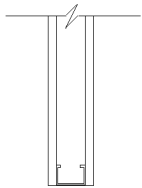
- PLYWOOD
- METAL WALL ANGLE @ CLG.
- FURRING CHANNEL
- METAL RUNNER
- SUSP. METAL FURRING CHANNEL
- METAL STUDS @ 24" O.C.
- METAL STUDS @ 16" O.C.
- STAGGER STUDS
- BRACING TO STRUCTURE
- STUD TO CLG. @ 48" O.C.
- CHASE WALL
- FLOOR TRACK
- SEALANT EACH SIDE
- RESILIENT BASE, 4"
- CONT. SPONGE RUBBER GASKET, 1/2" X 3" (@ clg.)
- SUSPENDED CEILING
- FASTEN METAL STUDS TO CLG. 'T'



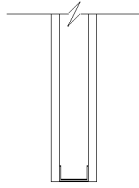
PARTITION @ CORNER  
(2-1/2" STUD)

PARTITION @ T INTER-  
SECTION (2-1/2" STUD)

TYPICAL PARTITION  
(2-1/2" STUD)

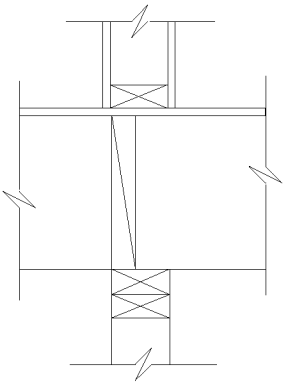


JAMB  
(2-1/2" STUD)

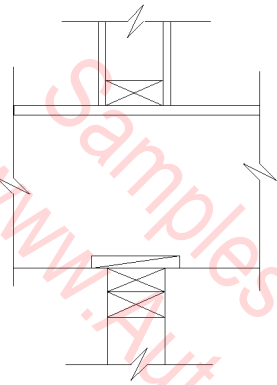


HEAD  
(2-1/2" STUD)

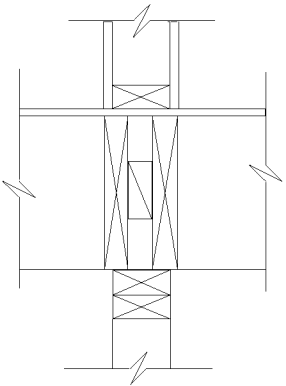
## 2X4 INTERIOR WALL FRAMING



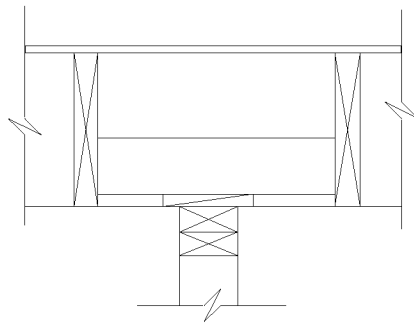
INTERIOR WALL  
FRAMING (2x4)



INTERIOR WALL  
FRAMING (2x4)



INTERIOR WALL  
FRAMING (2x4)



INTERIOR WALL  
FRAMING (2x4)

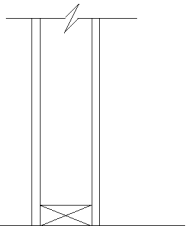
## 2X4 INTERIOR WALL FRAMING

### NOTATION CHECKLIST, SAMPLE NOTES

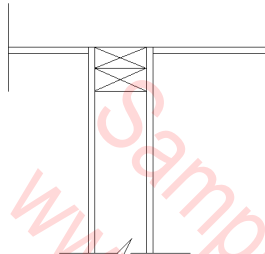
2 X STUDS @ " O.C.  
2 X BOTTOM PLATE  
SUBFLOOR  
2 X FLOOR JOISTS @ " O.C.  
2 X SOLID BLOCKING  
2 X DOUBLE TOP PLATE

INTERIOR:  
GYPSUM WALLBOARD  
LATH & PLASTER  
WOOD PANELING  
TILE  
SOUND INSULATION  
PLYWOOD SHEATHING  
SOUND ISOLATION PLATE  
SOUND ISOLATION CLIPS

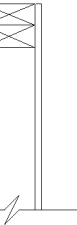
## 2X4 WOOD FRAME WALLS



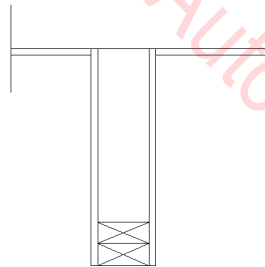
WALL @ FLOOR (2x4)



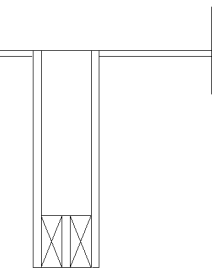
WALL @ CLG. (2x4)



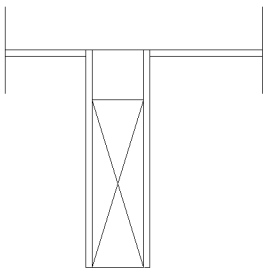
JAMB OR SILL (2x4)



HEAD (2x4)



HEADER (2x4)



HEADER (2x4)

## 2X4 WOOD FRAME WALLS

### NOTATION CHECKLIST, SAMPLE NOTES

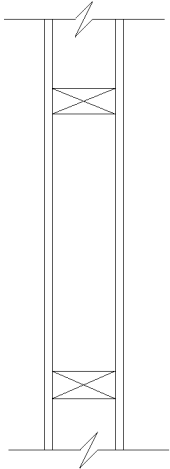
CEILING LINE @  
2 X STUDS @ "O.C.  
HEADER  
TRIM FOR CASED OPENING  
2 X BOTTOM PLATE  
2 X TOP PLATE  
BASE (FINISH BASE SIZE/MATERIAL)  
FINISH FLOOR

INTERIOR:  
GYPSUM WALLBOARD  
LATH & PLASTER  
WOOD PANELING  
TILE  
MASONRY VENEER  
RAILINGS/WALL GUARDS  
HOOKS/TRACKS  
ANCHORS/MOUNTING BRACKETS  
THRU-WALL SLEEVES  
PASS-THRU  
SOUND ISOLATION PLATE  
SOUND ISOLATION CLIPS

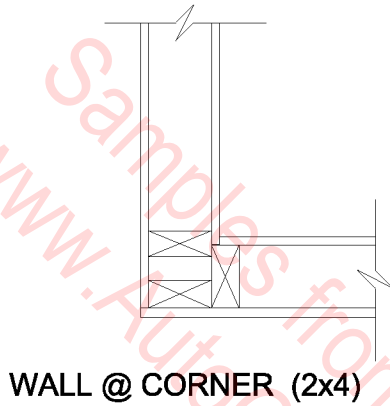
EXTERIOR:  
THERMAL INSULATION  
GYPSUM WALLBOARD SHEATHING  
WOOD SHEATHING  
MOISTURE BARRIER  
LATH & PLASTER/STUCCO  
WOOD SIDING  
MASONRY VENEER  
FLASHING/WATERPROOFING  
ANCHORS/MOUNTING BRACKETS  
THRU-WALL SLEEVES

SAMPLE NOTES:  
BATT INSULATION  
INSULATION BOARD  
WOOD SIDING  
15# FELT  
1/2" FOIL FACE INSULATION  
AIR SPACE  
1/2" X 6" BEVELED LAP SIDING  
1/2" PLYWOOD SHEATH  
PLYWOOD SIDING  
VAPOR BARRIER  
WOOD TRIM  
2 X JOISTS @ " O.C.  
2 X RAFTERS @ " O.C.  
BLOCKING  
FLASHING  
GYPSUM BOARD CEILING  
HARDWOOD STOPS  
HARDWOOD JAMB  
2 X 4 CONT. WOOD BLOCKING  
SOUND INSULATION  
PREFINISHED PANELING  
DOOR FRAME  
DOOR SIZE  
WOOD DRIP  
1 X WOOD STOP

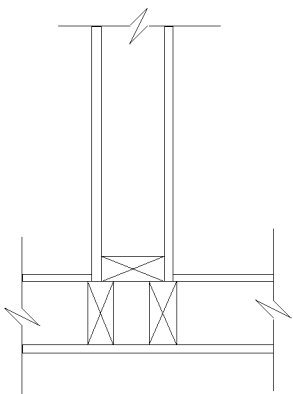
## 2x4 WOOD FRAMING



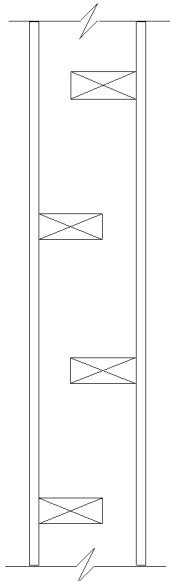
TYPICAL WALL  
(2x4) Plan



WALL @ CORNER (2x4)



WALL @ T  
INTERSECTION (2x4)



SOUND ISOLATION  
WALL (2x4)

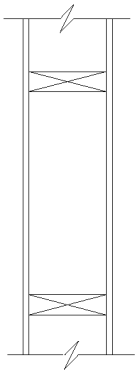
## 2X4 WOOD FRAMING

### NOTATION CHECKLIST, SAMPLE NOTES

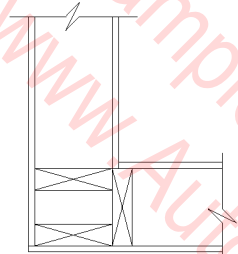
CEILING LINE @  
2 X STUDS @ " O.C.  
HEADER  
TRIM FOR CASED OPENING  
2 X BOTTOM PLATE  
2 X TOP PLATE  
BASE (FINISH BASE SIZE/MATERIAL)  
FINISH FLOOR

INTERIOR:  
GYPSUM WALLBOARD  
LATH & PLASTER  
WOOD PANELING  
TILE  
MASONRY VENEER  
RAILINGS/WALL GUARDS  
HOOKS/TRACKS  
ANCHORS/MOUNTING BRACKETS  
THRU-WALL SLEEVES  
PASS-THRU  
SOUND ISOLATION PLATE  
SOUND ISOLATION CLIPS

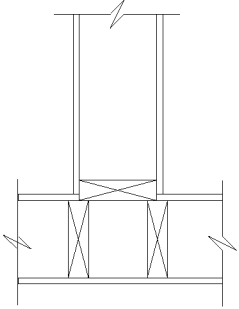
## 2X6 WOOD FRAME WALLS



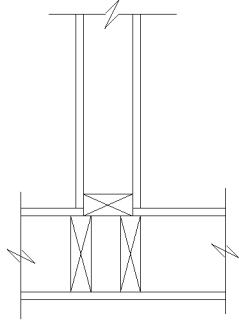
TYPICAL WALL (2x6)  
Plan



WALL @ CORNER (2x6)



WALL @ T INTERSECTION  
(2x6)



WALL @ T INTERSECTION  
(2X4 & 2x6)

## 2X6 WOOD FRAME WALLS

### NOTATION CHECKLIST, SAMPLE NOTES

CEILING LINE @  
2 X STUDS @ " O.C.  
HEADER  
TRIM FOR CASED OPENING  
2 X BOTTOM PLATE  
2 X TOP PLATE  
BASE (FINISH BASE SIZE/MATERIAL)  
FINISH FLOOR

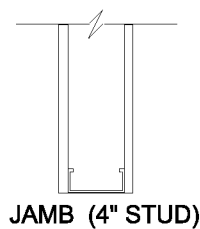
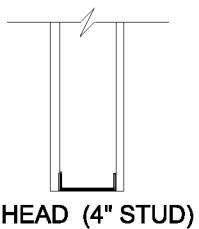
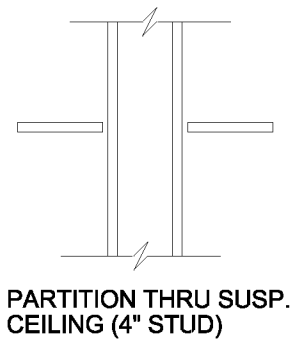
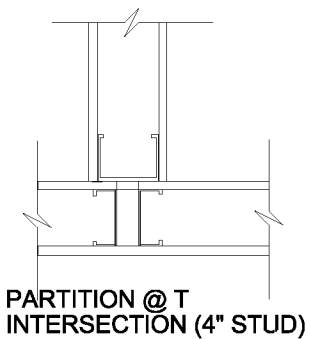
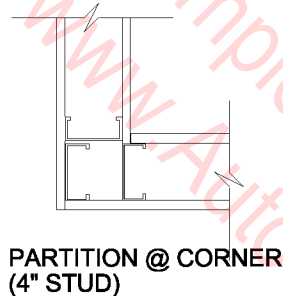
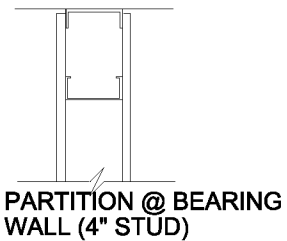
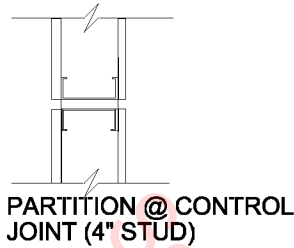
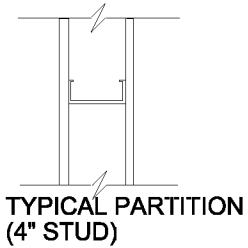
INTERIOR:  
GYPSUM WALLBOARD  
LATH & PLASTER  
WOOD PANELING  
TILE  
MASONRY VENEER  
RAILINGS/WALL GUARDS  
HOOKS/TRACKS  
ANCHORS/MOUNTING BRACKETS  
THRU-WALL SLEEVES  
PASS-THRU  
SOUND ISOLATION PLATE  
SOUND ISOLATION CLIPS

EXTERIOR:  
THERMAL INSULATION  
GYPSUM WALLBOARD SHEATHING  
WOOD SHEATHING  
MOISTURE BARRIER  
LATH & PLASTER/STUCCO  
WOOD SIDING  
MASONRY VENEER  
FLASHING/WATERPROOFING  
ANCHORS/MOUNTING BRACKETS  
THRU-WALL SLEEVES

SAMPLE NOTES:  
BATT INSULATION  
INSULATION BOARD  
WOOD SIDING  
15# FELT  
1/2" FOIL FACE INSULATION  
AIR SPACE  
1/2 X 6 BEVELED LAP SIDING  
1/2" PLYWOOD SHEATH  
PLYWOOD SIDING  
VAPOR BARRIER  
WOOD TRIM  
2 X JOISTS @ " O.C.  
2 X RAFTERS @ " O.C.  
BLOCKING  
FLASHING  
GYPSUM BOARD CEILING  
HARDWOOD STOPS  
HARDWOOD JAMB  
2 X 4 CONT. WOOD BLOCKING  
SOUND INSULATION  
PREFINISHED PANELING  
DOOR FRAME  
DOOR SIZE  
WOOD DRIP  
1 X WOOD STOP

## 4" METAL FRAME PARTITIONS

## 4" METAL FRAME PARTITIONS



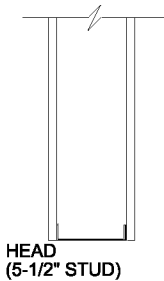
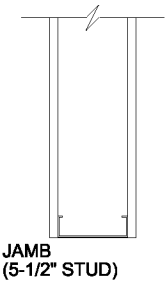
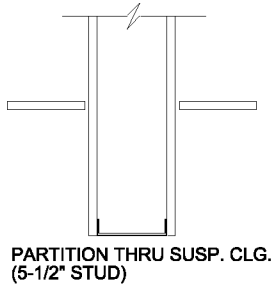
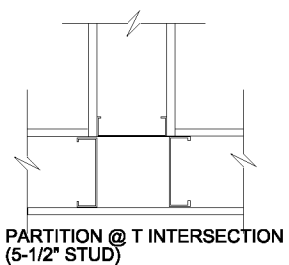
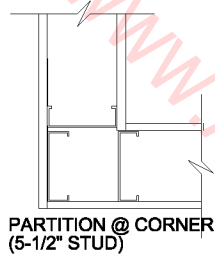
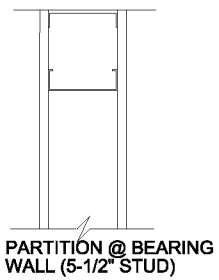
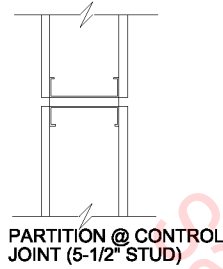
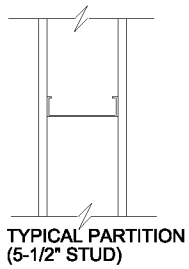
### NOTATION CHECKLIST, SAMPLE NOTES

METAL STUDS (SIZE & SPACING)  
 METAL RUNNER/ANCHORS  
 METAL TRACK/HEADER  
 ADJACENT CEILING OR SLAB  
 GYPSUM WALLBOARD  
 LATH & PLASTER  
 SPECIAL FINISHES/  
 WATERPROOFING  
 HOOKS/TRACKS  
 WALL MOUNTED FIXTURES  
 WALL ANCHORS/MOUNTING  
 BRACKETS  
 RAILINGS/WALL GUARDS  
 THRU-WALL SLEEVE  
 SEALANT/SOUND BARRIER/  
 LEAD LINING  
 JOINTS (CONTROL OR  
 EXPANSION)  
 ADJACENT FINISHES  
 GYPSUM WALL BOARD  
 WATER-RESISTANT GYP.BD.  
 CORNER BEAD  
 CONTROL JOINT

SOUND ATTENUATION BLANKET  
 RIGID INSULATION  
 PLYWOOD  
 METAL WALL ANGLE @ CLG.  
 FURRING CHANNEL  
 METAL RUNNER  
 SUSP. METAL FURRING  
 CHANNEL  
 METAL STUDS @ 24" O.C.  
 METAL STUDS @ 16" O.C.  
 STAGGER STUDS  
 BRACING TO STRUCTURE  
 STUD TO CLG. @ 48" O.C.  
 CHASE WALL  
 FLOOR TRACK  
 SEALANT EACH SIDE  
 RESILIENT BASE, 4"  
 CONT. SPONGE RUBBER  
 GASKET, 1/2" X 3" (@ clg.)  
 SUSPENDED CEILING  
 FASTEN METAL STUDS  
 TO CLG. 'T'

## 5-1/2" METAL FRAME PARTITION

## 5-1/2" METAL FRAME PARTITION

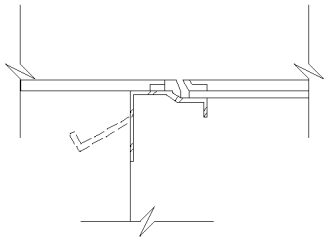


### NOTATION CHECKLIST, SAMPLE NOTES

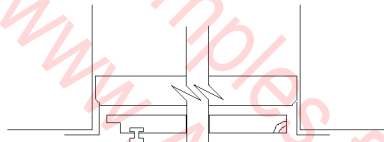
METAL STUDS (SIZE & SPACING)  
 METAL RUNNER/ANCHORS  
 METAL TRACK/HEADER  
 ADJACENT CEILING OR SLAB  
 GYPSUM WALLBOARD  
 LATH & PLASTER  
 SPECIAL FINISHES/  
 WATERPROOFING  
 HOOKS/TRACKS  
 WALL MOUNTED FIXTURES  
 WALL ANCHORS/MOUNTING  
 BRACKETS  
 RAILINGS/WALL GUARDS  
 THRU-WALL SLEEVE  
 SEALANT/SOUND BARRIER/  
 LEAD LINING  
 JOINTS (CONTROL OR EXPANSION)  
 ADJACENT FINISHES  
 GYPSUM WALL BOARD  
 WATER-RESISTANT GYP.BD.  
 CORNER BEAD  
 CONTROL JOINT  
 SOUND ATTENUATION BLANKET  
 RIGID INSULATION

PLYWOOD  
 METAL WALL ANGLE @ CLG.  
 FURRING CHANNEL  
 METAL RUNNER  
 SUSP. METAL FURRING CHANNEL  
 METAL STUDS @ 24" O.C.  
 METAL STUDS @ 16" O.C.  
 STAGGER STUDS  
 BRACING TO STRUCTURE  
 STUD TO CLG. @ 48" O.C.  
 CHASE WALL  
 FLOOR TRACK  
 SEALANT EACH SIDE  
 RESILIENT BASE, 4"  
 CONT. SPONGE RUBBER GASKET, 1/2" X 3" (@ clg.)  
 SUSPENDED CEILING  
 FASTEN MTL. STUDS TO CLG. 'T'

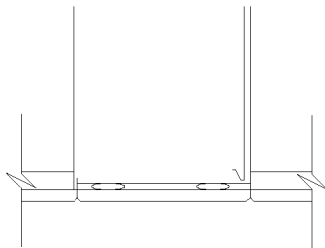
## ACCESS PANELS



ACCESS PANEL Floor



ACCESS PANEL Wall



ACCESS PANEL Ceiling

## ACCESS PANELS

### DETAIL DATA CHECKLIST

#### ACCESS PANELS

- \_\_ See manufacturers' catalogs for standard sizes, finishes, and materials. wood frame, metal frame, masonry, or concrete construction.
- \_\_ Detail drawings are included mainly to show special anchoring conditions--screws, anchor bolts, etc., in
- \_\_ See manufacturers' and suppliers' catalogs for detail design data and specifications.
- \_\_ See manufacturer's recommendations for special anchor requirements for different kinds of construction.

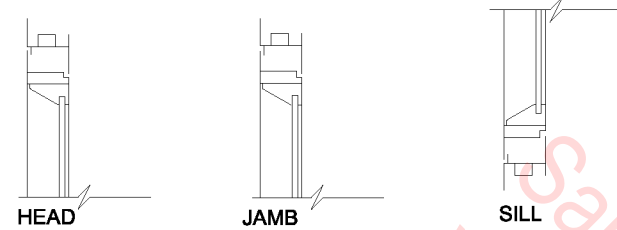
#### NOTATION CHECKLIST

- FINISH FLOOR
- SUBFLOOR/SLAB
- WALL CONSTRUCTION/FRAMING
- CEILING CONSTRUCTION
- CHANNEL/SUPPORT WIRES
- METAL FRAME/ANCHOR
- ACCESS PANEL
- HARDWARE

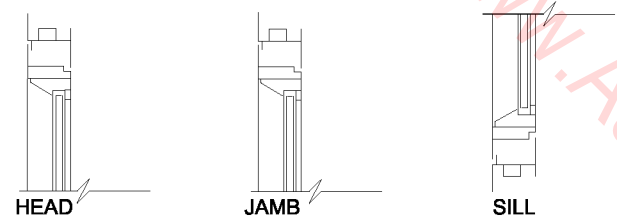


## ALUMINUM AWNING & CASEMENT WINDOWS

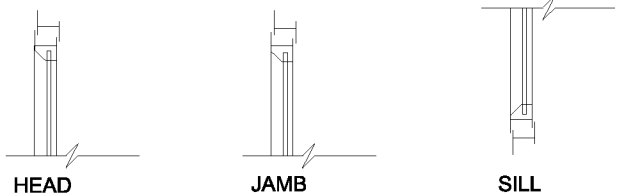
Aluminum Awning Window -- Single Glazed



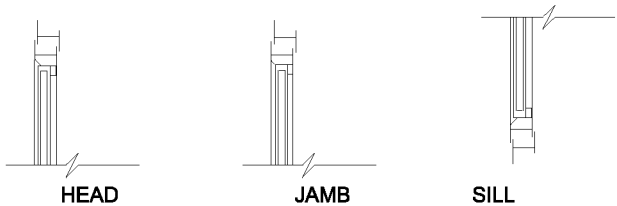
Aluminum Awning Window -- Double Glazed



Aluminum Casement -- Single Glazed



Aluminum Casement -- Double Glazed



## ALUMINUM AWNING & CASEMENT WINDOWS

### DETAIL DATA CHECKLIST

#### ALUMINUM AWNING & CASEMENT WINDOWS

- \_\_ See manufacturers' and suppliers' catalogs for standard sizes, detail design data, materials, and finishes.
- \_\_ Detail drawings are required mainly to show the relationship of windows to wall construction such as connections to wood frame, masonry, or concrete wall construction.
- \_\_ Details or window schedules should show rough-opening sizes and shim tolerance allowances (1/2" all around is a common allowance for shim space).
- \_\_ Details should show flashing and caulking at heads, jambs, and sills.
- \_\_ See manufacturers' recommendations for connections to varied wall construction.

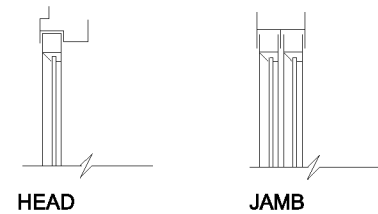
### NOTATION CHECKLIST, SAMPLE NOTES

WALL CONSTRUCTION  
 SHIM SPACE  
 DRIP CAP/WEATHERSTRIPPING/FLASHING  
 CAULKING/GROUT  
 FINISH HEAD/SILL/JAMB  
 WINDOW TYPE, MATERIAL & FINISH  
 HARDWARE/OPERATOR  
 VENT/WEEP HOLE/WIND GUARD  
 GLAZING: SINGLE/DOUBLE/REMOVABLE  
 SCREEN/SCREEN FRAME  
 CASING/TRIM/ADJACENT FINISH  
 ROUGH OPENING/FINISH OPENING

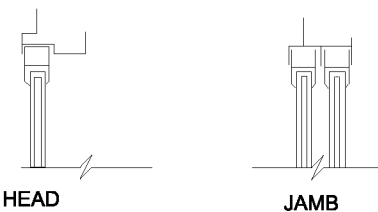
ANODIZED ALUM. TRIM  
 1/4" TEMP. GLASS  
 EXTRUDED ALUM. SILL TO MATCH WINDOW  
 METAL SILL BELOW  
 THERMOPANE INSULATING GLASS  
 SINGLE PANE GLASS  
 ALUM. HEAD, SEALANT BOTH SIDES  
 ALUM. SILL W/SEALANT EACH SIDE  
 WOOD NAILER  
 TREATED BLOCKING  
 1 X WOOD TRIM  
 METAL EDGE BEAD  
 STUD  
 GYPSUM WALLBOARD  
 FLASHING  
 SEALANT

## ALUMINUM DOUBLE HUNG WINDOWS

Aluminum Double Hung -- Single Glazed



Aluminum Double Hung -- Double Glazed



## ALUMINUM DOUBLE HUNG WINDOWS

### DETAIL DATA CHECKLIST

#### ALUMINUM DOUBLE HUNG WINDOWS

\_\_ See manufacturers' and suppliers' catalogs for standard sizes, detail design data, materials, and finishes.

\_\_ Detail drawings are required mainly to show the relationship of windows to wall construction such as connections to wood frame, masonry, or concrete wall construction.

\_\_ Details or window schedules should show rough-opening sizes and shim tolerance allowances (1/2" all around is a common allowance for shim space).

\_\_ Details should show flashing and caulking at heads, jambs, and sills.

\_\_ See manufacturers' recommendations for connections to varied wall construction.

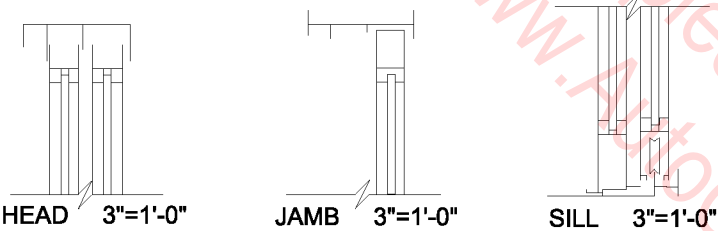
### NOTATION CHECKLIST, SAMPLE NOTES

WALL CONSTRUCTION  
SHIM SPACE  
DRIP CAP/WEATHERSTRIPPING/FLASHING  
CAULKING/GROUT  
FINISH HEAD/SILL/JAMB  
WINDOW TYPE, MATERIAL & FINISH  
HARDWARE/OPERATOR  
VENT/WEEP HOLE/WIND GUARD  
GLAZING: SINGLE/DOUBLE  
REMOVABLE SCREEN/SCREEN FRAME  
CASING/TRIM/ADJACENT FINISH  
ROUGH OPENING/FINISH OPENING

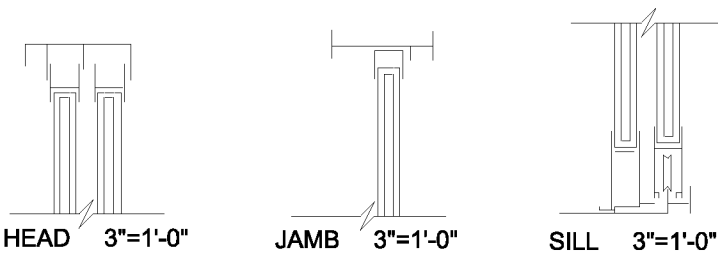
ANODIZED ALUM. TRIM  
1/4" TEMP. GLASS  
EXTRUDED ALUM. SILL TO MATCH WINDOW  
METAL SILL BELOW  
THERMOPANE INSULATING GLASS  
SINGLE PANE GLASS  
ALUM. HEAD, SEALANT BOTH SIDES  
ALUM. SILL W/SEALANT EACH SIDE  
WOOD NAILER  
TREATED BLOCKING  
1 X WOOD TRIM  
METAL EDGE BEAD  
STUD  
GYPSUM WALLBOARD  
FLASHING  
SEALANT

## ALUMINUM SLIDING GLASS DOORS

Aluminum Sliding Glass Door -- Single Glazed



Aluminum Sliding Glass Door -- Double Glazed



## ALUMINUM SLIDING GLASS DOORS

### DETAIL DATA CHECKLIST

#### ALUMINUM SLIDING GLASS DOORS

- \_\_\_ These are manufactured products provided in standard widths and heights.
- \_\_\_ Detail drawings are included mainly to show special anchoring conditions: Screws, anchor bolts, expansion bolts, etc., in wood frame, masonry, or concrete wall construction.
- \_\_\_ See manufacturers' and suppliers' catalogs for design data, details, and specifications.
- \_\_\_ See manufacturer's recommendations for wall and header anchors.

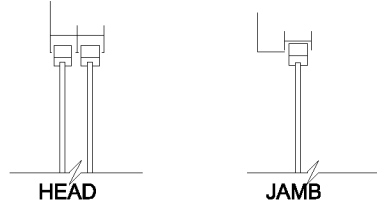
### NOTATION CHECKLIST, SAMPLE NOTES

#### WALL CONSTRUCTION

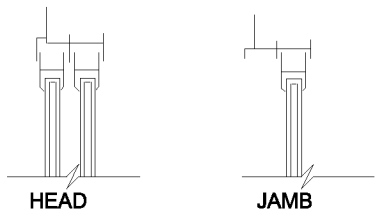
- SHIM SPACE
- DRIP CAP/WEATHERSTRIPPING/FLASHING
- CAULKING/GROUT/SEALANT
- FINISH HEAD/SILL/JAMB
- WINDOW TYPE, MATERIAL & FINISH
- HARDWARE/OPERATOR
- VENT/WEEP HOLE/WIND GUARD
- GLAZING: SINGLE/DOUBLE/REMOVABLE
- SCREEN/SCREEN FRAME
- CASING/TRIM/ADJACENT FINISH
- ROUGH OPENING/FINISH OPENING

# ALUMINUM SLIDING WINDOWS

## Aluminum Sliding -- Single Glazed



## Aluminum Sliding -- Double Glazed



# ALUMINUM SLIDING WINDOWS

## DETAIL DATA CHECKLIST ALUMINUM SLIDING WINDOWS

- \_\_\_ See manufacturers' and suppliers' catalogs for standard sizes, detail design data, materials, and finishes.
- \_\_\_ connections to wood frame, masonry, or concrete wall construction.
- \_\_\_ Detail drawings are required mainly to show the relationship of windows to wall construction such as
- \_\_\_ Details or window schedules should show rough-opening sizes and shim tolerance allowances
- \_\_\_ (1/2" all around is a common allowance for shim space).
- \_\_\_ Details should show flashing and caulking at heads, jambs, and sills.
- \_\_\_ See manufacturers' recommendations for connections to varied wall construction.

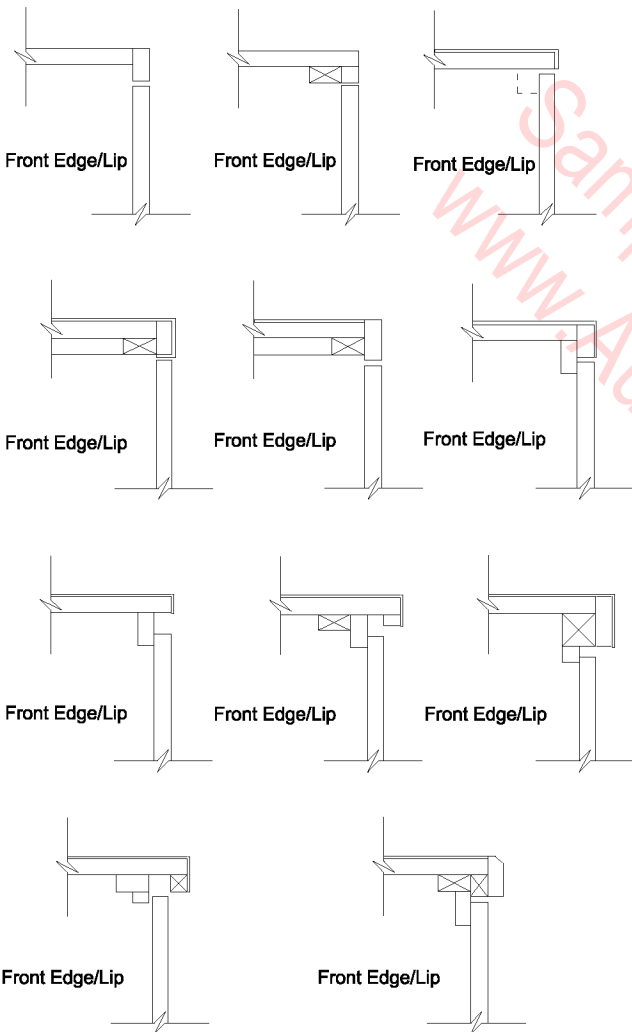
## NOTATION CHECKLIST, SAMPLE NOTES

- WALL CONSTRUCTION
- SHIM SPACE
- DRIP CAP/WEATHERSTRIPPING/FLASHING
- CAULKING/GROUT
- FINISH HEAD/SILL/JAMB
- WINDOW TYPE, MATERIAL & FINISH
- HARDWARE/OPERATOR
- VENT/WEEP HOLE/WIND GUARD
- GLAZING: SINGLE/DOUBLE/REMOVABLE
- SCREEN/SCREEN FRAME
- CASING/TRIM/ADJACENT FINISH
- ROUGH OPENING/FINISH OPENING

- ANODIZED ALUM. TRIM
- 1/4" TEMP. GLASS
- EXTRUDED ALUM. SILL TO MATCH WINDOW
- METAL SILL BELOW
- THERMOPANE INSULATING GLASS
- SINGLE PANE GLASS
- ALUM. HEAD, SEALANT BOTH SIDES
- ALUM. SILL W/SEALANT EACH SIDE
- WOOD NAILER
- TREATED BLOCKING
- 1 X WOOD TRIM
- METAL EDGE BEAD
- STUD
- GYPSUM WALLBOARD
- FLASHING
- SEALANT

## BASE CABINETS

## BASE CABINETS



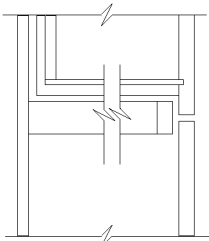
### NOTATION CHECKLIST, SAMPLE NOTES

FINISH SURFACE  
 PLYWOOD/PARTICLE BOARD  
 TRIM (MATERIAL & SIZE)  
 BLOCKING (MATERIAL & SIZE)  
 ADJACENT MATERIALS  
 HARDWARE/ANCHOR  
 DOOR/DRAWER  
 PROVIDE BLOCKING TO RECEIVE MILLWORK ITEMS  
 PLASTIC LAMINATE  
 3/4" PLYWD. TOP W/HDWD. EDGING  
 PLASTIC LAM. BACKING SHEET  
 PLASTIC LAM. TO EDGE & COVER BACKSPLASH,  
 PROVIDE END SPLASH @ WALLS  
 3/4" PLYWD. TOP, SIDES, DIVIDERS &  
 SHELVES W/ 1/2" X 3/4" HDWD. NOSE  
 FACE OF WALL  
 SPLASH  
 PLASTIC LAM. SCRIBE STRIP  
 3/4" PLYWD DIVIDERS  
 1/4" PLYWD. BACK  
 RECESS 1/4" HARDBOARD OR PLYWD. BACK  
 2 X 4 FRAMING  
 3/4" PLYWD. BOTTOM W/ WOOD EDGING  
 4" TOE SPACE

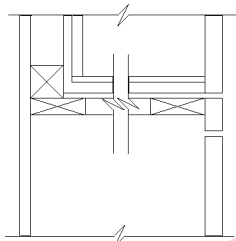
CHAMFERED TRIM PIECE  
 FLUSH DOORS, OAK VENEER ON PLYWD.  
 3/4" X 3-1/16" HARDWOOD EDGE, EASE EDGES  
 2 X 4 FRAME @ FLOOR  
 ADJUSTABLE SHELVES  
 RECESSED SHELF STANDARDS  
 SURFACE MOUNTED ADJ. SHELF STD'S. W/ BRACKETS  
 FIXED SHELF  
 3/4" PLYWD. SHELF W/ 1X2 SUPPORT CLEAT &  
 1 X 3 EDGE STRIP  
 1 X 12 SHELVES & BACKING  
 1 X 12 DIVIDER @ 44" O.C. MAX.  
 3/4" PLYWD. SHELVES W/ HDWD. EDGING  
 1 X 2 WD. SUPPORT @ WALL ANCHOR W/ 1/4" DIA.  
 TOGGLE BOLTS @ 24" O.C.  
 STEEL CHANNEL, ATTACHED TO END WALL,  
 W/ STUDS @ 1'-0" O.C. @ LAV. PERIMETER  
 DRAWER  
 SOLID WOOD DRAWER SIDES, HDWD. DRAWER  
 FRONTS  
 DRAWERS ON EXTENSION SLIDES  
 1/4" DRAWER BOTTOM  
 3/4" X 1-3/4" RAILS & STILES  
 SLIDING GLASS DOORS IN K-V TRACK,  
 PROVIDE FINGER PULLS & LOCK, SAFETY GLASS

**BASE CABINETS**

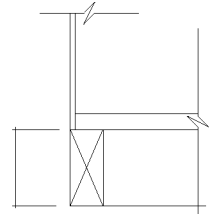
**BASE CABINETS**



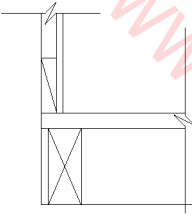
Door & Drawer



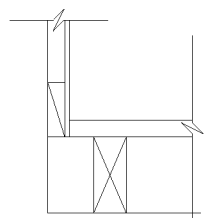
Door & Drawer



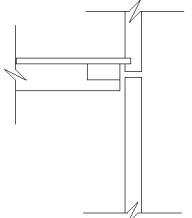
Back Base



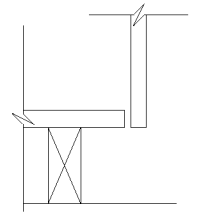
Back Base



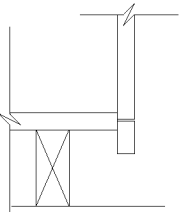
Back Base



Drawer



Front Base



Front Base

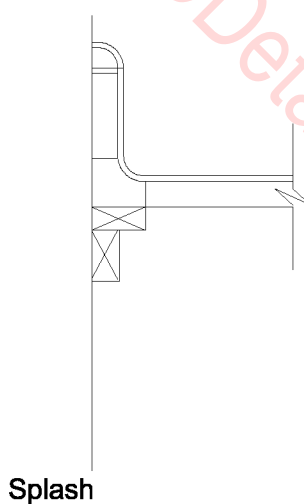
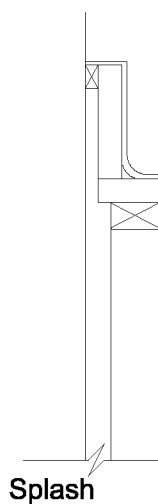
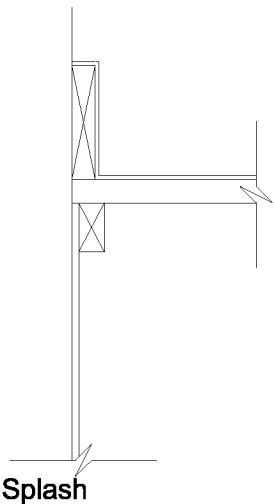
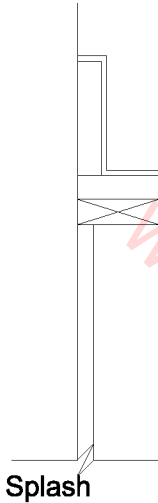
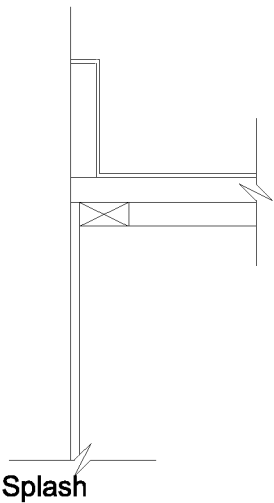
**NOTATION CHECKLIST,  
SAMPLE NOTES**

- FINISH SURFACE
- PLYWOOD/PARTICLE BOARD
- TRIM (MATERIAL & SIZE)
- BLOCKING (MATERIAL & SIZE)
- ADJACENT MATERIALS
- HARDWARE/ANCHOR
- DOOR/DRAWER
- PROVIDE BLOCKING TO RECEIVE MILLWORK ITEMS
- PLASTIC LAMINATE
- 3/4" PLYWD. TOP W/HARDWOOD. EDGING
- PLASTIC LAM. BACKING SHEET
- PLASTIC LAM. TO EDGE & COVER
- BACKSPLASH
  - PROVIDE END SPLASH @ WALLS
- 3/4" PLYWOOD TOP, SIDES, DIVIDERS & SHELVES W/1/2" X 3/4" HARDWOOD NOSE
- FACE OF WALL
- SPLASH
- PLASTIC LAM. SCRIBE STRIP
- 3/4" PLYWOOD DIVIDERS
- 1/4" PLYWOOD BACK
- RECESS 1/4" HARDBOARD OR PLYWOOD BACK
- 2 X 4 FRAMING

- 3/4" PLYWOOD BOTTOM W/HARDWOOD EDGING
- 4" TOE SPACE
- CHAMFERED TRIM PIECE
- FLUSH DOORS, OAK VENEER ON PLYWOOD
- 3/4" X 3-1/16" HARDWOOD EDGE, EASE EDGES
- 2 X 4 FRAME @ FLOOR
- ADJUSTABLE SHELVES
- RECESSED SHELF STANDARDS
- SURFACE MOUNTED ADJ. SHELF STD'S. W/BRACKETS
- FIXED SHELF
- 3/4" PLYWOOD SHELF W/1X2 SUPPORT CLEAT & 1 X 3 EDGE STRIP
- 1 X 12 SHELVES & BACKING
- 1 X 12 DIVIDER @ 44" O.C. MAX.
- 3/4" PLYWOOD SHELVES W/HARDWOOD EDGING
- 1 X 2 WD. SUPPORT @ WALL ANCHOR W/1/4" DIA. TOGGLE BOLTS @ 24" O.C.
- STEEL CHANNEL, ATTACHED TO END WALL W/ STUDS @ 1'-0" O.C. @ LAV. PERIMETER
- DRAWER
- SOLID WOOD DRAWER SIDES, HARDWOOD DRAWER FRONTS
- DRAWERS ON EXTENSION SLIDES
- 1/4" DRAWER BOTTOM
- 3/4" X 1-3/4" RAILS & STILES
- SLIDING GLASS DOORS IN K-V TRACK, PROVIDE FINGER PULLS & LOCK, SAFETY GLASS

Samples from  
[www.AutoCADDetails.net](http://www.AutoCADDetails.net)

## BASE CABINETS

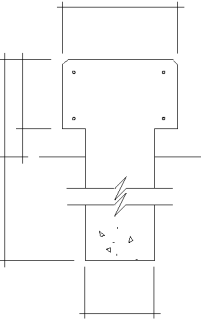


## BASE CABINETS

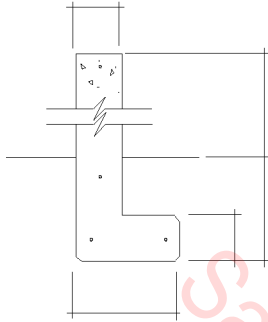
### NOTATION CHECKLIST, SAMPLE DETAILS

FINISH SURFACE  
 PLYWOOD/PARTICLE BOARD  
 TRIM (MATERIAL & SIZE)  
 BLOCKING (MATERIAL & SIZE)  
 ADJACENT MATERIALS  
 HARDWARE/ANCHOR  
 DOOR/DRAWER  
 PROVIDE BLOCKING TO RECEIVE MILLWORK ITEMS  
 PLASTIC LAMINATE  
 3/4" PLYWOOD TOP W/ HDWD. EDGING  
 PLASTIC LAM. BACKING SHEET  
 PLASTIC LAM. TO EDGE & COVER BACKSPLASH,  
 PROVIDE END SPLASH @ WALLS  
 3/4" PLYWOOD TOP, SIDES, DIVIDERS &  
 SHELVES W/1/2" X 3/4" HDWD. NOSE  
 FACE OF WALL  
 SPLASH  
 PLASTIC LAM. SCRIBE STRIP  
 3/4" PLYWOOD DIVIDERS  
 1/4" PLYWOOD BACK  
 RECESS 1/4" HARDBOARD OR PLYWOOD BACK  
 2 X 4 FRAMING  
 3/4" PLYWOOD BOTTOM W/ WOOD EDGING  
 CHAMFERED TRIM PIECE  
 FLUSH DOORS, OAK VENEER ON PLYWOOD  
 3/4" X 3-1/16" HARDWOOD EDGE, EASE EDGES  
 2 X 4 FRAME @ FLOOR  
 ADJUSTABLE SHELVES  
 RECESSED SHELF STANDARDS  
 SURFACE-MOUNTED ADJ. SHELF STD'S.  
 W/ BRACKETS  
 FIXED SHELF  
 3/4" PLYWOOD SHELF W/1X2 SUPPORT CLEAT &  
 1 X 3 EDGE STRIP  
 1 X 12 SHELVES & BACKING  
 1 X 12 DIVIDER @ 44" O.C. MAX.  
 3/4" PLYWD. SHELVES W/HARDWOOD EDGING  
 1 X 2 WOOD SUPPORT @ WALL ANCHOR W/1/4" DIA.  
 TOGGLE BOLTS @ 24" O.C.  
 STEEL CHANNEL, ATTACHED TO END WALL,  
 W/ STUDS @ 1'-0" O.C. @ LAV. PERIMETER  
 DRAWER  
 SOLID WOOD DRAWER SIDES, HDWD. DRAWER  
 FRONTS  
 DRAWERS ON EXTENSION SLIDES  
 1/4" DRAWER BOTTOM  
 3/4" X 1-3/4" RAILS & STILES  
 SLIDING GLASS DOORS IN K-V TRACK,  
 PROVIDE FINGER PULLS & LOCK, SAFETY GLASS

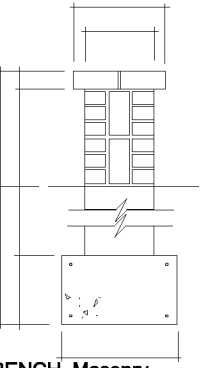
## BENCHES



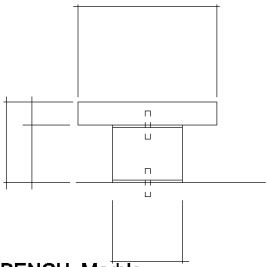
BENCH Concrete



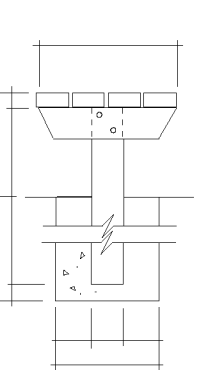
BENCH Concrete



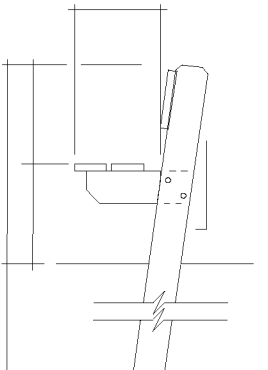
BENCH Masonry



BENCH Marble



BENCH Wood



BENCH Wood

## BENCHES

### DETAIL DATA CHECKLIST

#### BENCHES

- \_\_\_ Benches are often purchased ready-made, or fabricated as variations on common bench types and styles.
- \_\_\_ Detail drawings are included mainly to show desired bench sizes and types, and to indicate anchoring to the ground or pavement.
- \_\_\_ See manufacturers' recommendations for anchoring.
- \_\_\_ See manufacturers' and suppliers' catalogs for design data, details, and specifications.

### NOTATION CHECKLIST, SAMPLE NOTES

- MATERIAL SURFACE/FINISH
- FRAME/SUPPORT
- BOLTS/ANCHORS
- FINISH GRADE/PAVING
- FOOTING
- AGGREGATE BASE
- SUBGRADE
- #4 DOWEL IN 5/8" DIA. HOLE  
(tie CMU bench to supports to slab)
- PRECAST CONC. BENCH
- 3/4" CAMFER TYP. ALL CORNERS
- STEEL INBED PLATES @ 4'-0" O.C. SHIM & WELD  
(to connect precast bench to footing)
- SEALANT @ 1/2" FIBER JOINT
- #4 BARS CONT. (horiz. approx. 1' O.C.)
- #4 BARS VERT @ 3'-0" O.C.
- #4 BARS CONT. (@ bottom)
- REDWOOD SPACERS, GLUE TO SLAT
- WATERPROOF ADHESIVE

- REDWOOD SLATS
- 1/2" X 2" X 3" STL CHANNEL, PAINT 2 COATS FLAT ENAMEL
- CAP CHANNEL ENDS W/1/8" STEEL, WELD & GRIND SMOOTH
- NAILER W/ GLUED SPACERS ABOVE
- 3/4" CONT. CHAMFERED TOP EDGE
- 3/8" DIA GAL. THREADED STEEL ROD, COUNTER SINK NUT & WASHER, PLUG W/1" DIA. X 3/4" HRDWD. DOWEL
- SET W/WATERPROOF ADHESIVE
- 3/8" GAL. LAG BOLT
- 1/4" DIA X 3" LAG BOLT @ 4 X 4 SUPPORT
- 1/2" SOLID WD. SPACER @ 4 X 4 SUPPORT
- 2 X 4 TOE NAILED TO 4 X 4 & NAILED TO NEXT 2 X 4 THRU SPACER
- 2 X 8
- 4 X 4



# BENCHES

# BENCHES

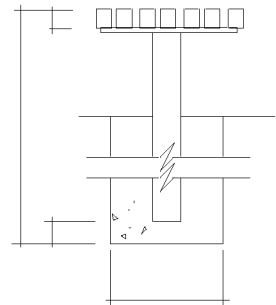
## DETAIL DATA CHECKLIST

### BENCHES

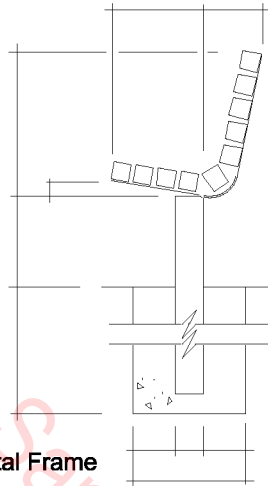
- \_\_\_ Benches are often purchased ready-made, or fabricated as variations on common bench types and styles.
- \_\_\_ Detail drawings are included mainly to show desired bench sizes and types, and to indicate anchoring to the ground or pavement.
- \_\_\_ See manufacturers' recommendations for anchoring.
- \_\_\_ See manufacturers' and suppliers' catalogs for design data, details, and specifications.

### NOTATION CHECKLIST, SAMPLE NOTES

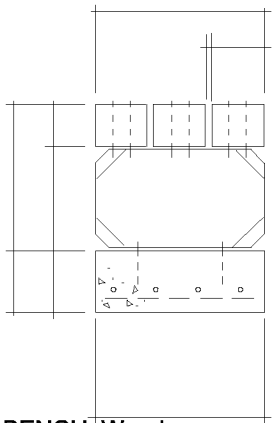
- MATERIAL SURFACE/FINISH
- FRAME/SUPPORT
- BOLTS/ANCHORS
- FINISH GRADE/PAVING
- FOOTING
- AGGREGATE BASE
- SUBGRADE
- #4 DOWEL IN 5/8" DIA. HOLE  
(tie CMU bench to supports to slab)
- PRECAST CONC. BENCH.
- 3/4" CAMFER TYP. ALL CORNERS
- STEEL INBED PLATES @ 4'-0" O.C. SHIM & WELD  
(to connect precast bench to footing)
- SEALANT @ 1/2" FIBER JOINT
- #4 BARS CONT. (horiz. approx. 1' O.C.)
- #4 BARS VERT @ 3'-0" O.C.
- #4 BARS CONT. (@ bottom)
- REDWOOD SPACERS, GLUE TO SLAT  
W/ WATERPROOF ADHESIVE
- REDWOOD SLATS
- 1/2" X 2" X 3" STL CHANNEL, PAINT 2 COATS FLAT ENAMEL
- CAP CHANNEL ENDS W/ 1/8" STEEL, WELD & GRIND SMOOTH
- NAILER W/ GLUED SPACERS ABOVE
- 3/4" CONT. CHAMFERED TOP EDGE
- 3/8" DIA GAL. THREADED STEEL ROD, COUNTER SINK NUT & WASHER, PLUG W/ 1" DIA. X 3/4" HRDWD.
- DOWEL  
SET W/ WATERPROOF ADHESIVE
- 3/8" GAL. LAG BOLT
- 1/4" DIA X 3" LAG BOLT @ 4 X 4 SUPPORT
- 1/2" SOLID WD. SPACER @ 4 X 4 SUPPORT
- 2 X 4 TOE NAILED TO 4 X 4 & NAILED TO NEXT 2 X 4 THRU SPACER
- 2 X 8
- 4 X 4
- 6 X 8 X 16 CMU W/ SOLID GROUT
- #4 DOWL (tie CMU bench to supports to slab)  
IN 5/8" DIA. HOLE



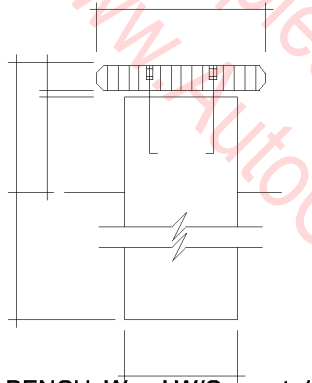
BENCH Wood W/Metal Frame



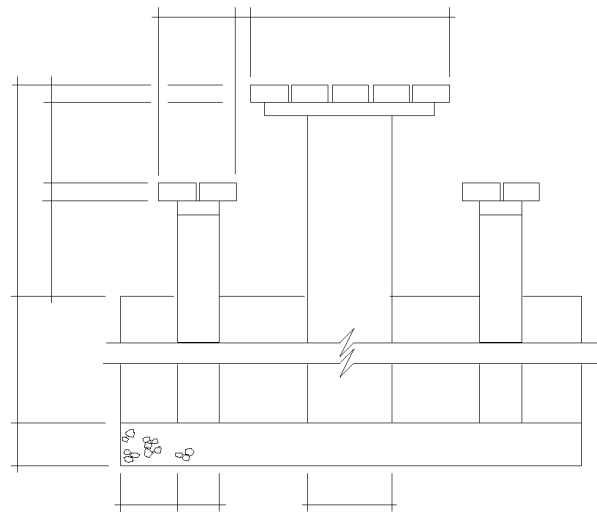
BENCH Wood W/Metal Frame



BENCH Wood W/Metal Frame

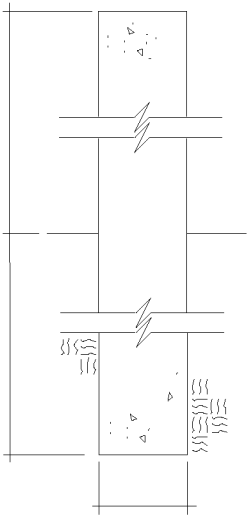


BENCH Wood W/Concrete/Masonry Base

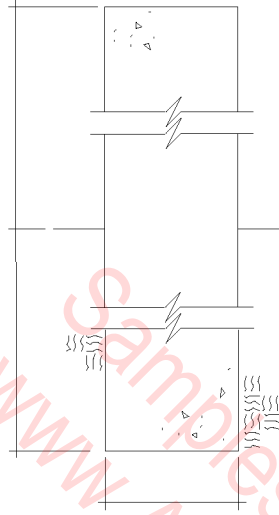


PICNIC TABLE & BENCHES

## BOLLARDS Conc.



CONCRETE BOLLARD



CONCRETE BOLLARD

## BOLLARDS Conc.

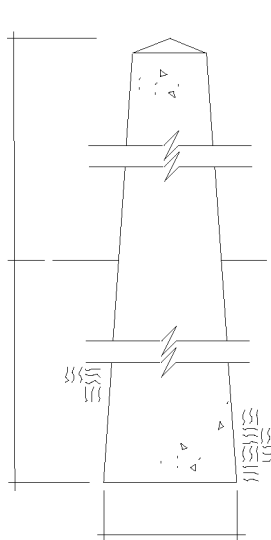
### DETAIL DATA CHECKLIST

#### BOLLARDS

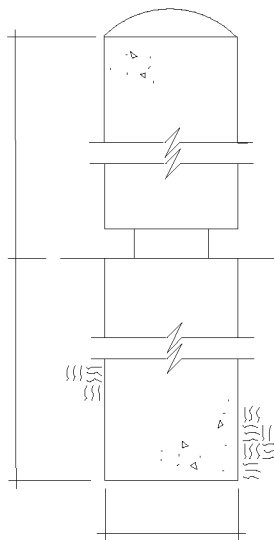
- Chamfer or round edges
- Add eye bolts or steel rings for chains
- Place rebar in the core of the bollard (vertically) for added strength

### NOTATION CHECKLIST, SAMPLE NOTES

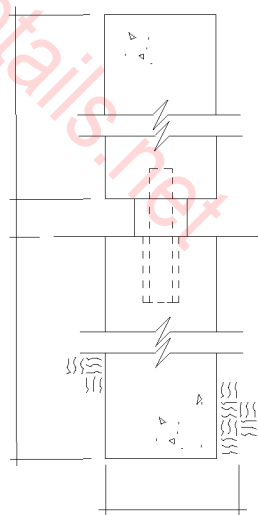
- POLE/BOLLARD (SIZE & MATERIAL)
- CAP/TOP SLOPE
- FINISH GRADE/PAVING
- BACKFILL/AGGREGATE/SAND
- AGGREGATE BASE
- SUBGRADE
- TOP RAIL PIPE (MATERIAL & SIZE)
- PIPE POST (SIZE & SPACING)
- INTERMEDIATE PIPE RAILS (SIZE & SPACING)
- PIPE SLEEVE/ANCHOR
- PAVING/SLAB/CURB
- 6" DIA. STEEL PIPE FILLED W/ CONC. GROUT  
(Typ. steel pipe dia.: 2" to 12")
- SLOPE TOP OF FOOTING  
(Typ. 1" min. above grade)
- 1'-6" DIA. CONC. FOOTING. (2'-3' ht. typ.)
- EXPANSION JOINT (@ adjacent paving)
- 1/8" STEEL PLATE CAP
- WELD & GRIND SMOOTH
- TREATED 6" DIA. WOOD POLE
- COMPACTED SAND FILL
- PRECAST CONC. FOUNDATION BLOCK
- LIGHT FIXTURES (where occur)



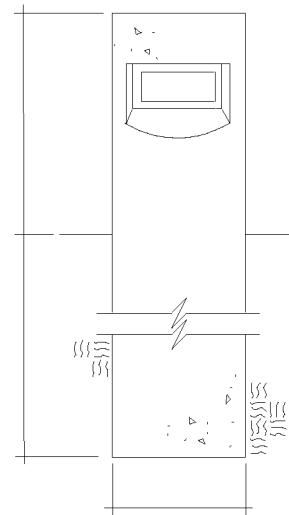
CONCRETE BOLLARD



CONCRETE BOLLARD

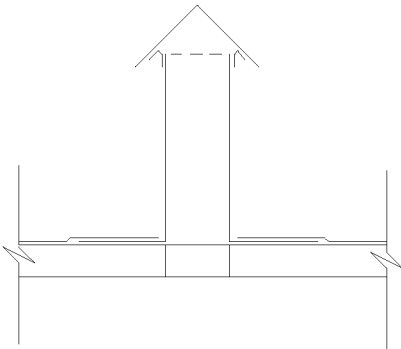


CONCRETE BOLLARD

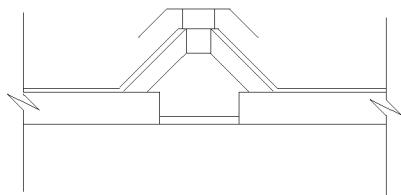


CONCRETE BOLLARD

## BREATHER VENTS



BREATHER VENT



BREATHER VENT

## BREATHER VENTS

### DETAIL DATA CHECKLIST

#### BREATHER VENT, ROOFING VENT, MEMBRANE VENT, RELIEF VENT

- Breather vents allow entrapped moisture to escape from layers of built-up roofing membranes
- They are manufactured items and should be sized and installed as per manufacturers' instructions, and roofing manufacturers' recommendations
- Some manufactured units close under exterior air pressure to prevent evaporated moisture in the air from reversing flow and entering the membrane through the vent

#### Sizes and installation:

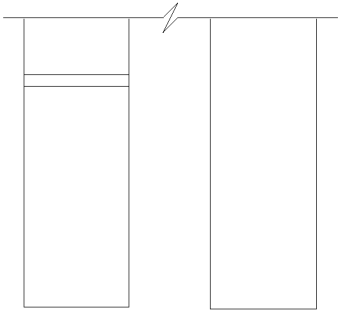
- Units are 4 to 6" diameter, 12" high
- Install on wood blocks or nailer atop roof substrate and even with roof insulation
- Mount on blocks or nailers with 1/2" vent holes at 2" o.c.
- Mount 12" to top of vent with sheet metal peaked cap above
- Provide bird screen to prevent nesting under cap

### NOTATION CHECKLIST, SAMPLE NOTES

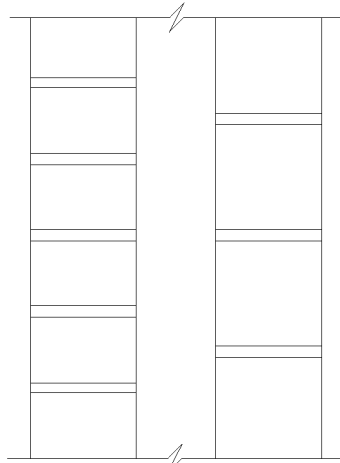
METAL HOOD & FASTENERS  
FLANGED METAL VENT STACK  
ROOFING SURFACE  
(TYPE, LAYERS & COVER MATERIAL)  
ROOFING DECK/INSULATION  
ROOF CONSTRUCTION  
GALV. PIPE W/TREADED END CAP  
METAL PIPE  
PREMOLDED PIPE SEAL  
SEALANT  
FLASHING FELT  
STAINLES STEEL CLAMPING RING  
WATER CUTOFF MASTIC  
CORE HOLE AS REQUIRED  
OPENINGS FOR ROOF VENTS TO BE PREFORMED  
ALLOW 1-1/2" MIN. CLEAR AIR PASSAGE TO VENT  
BUILT-UP ROOF  
RIGID INSULATION  
METAL DECKING

# BRICK & BLOCK CAVITY WALLS

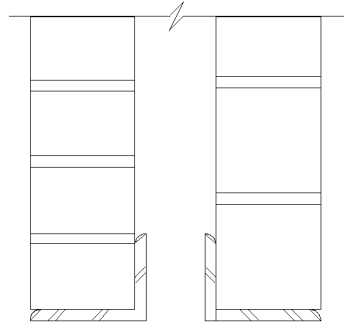
# BRICK & BLOCK CAVITY WALLS



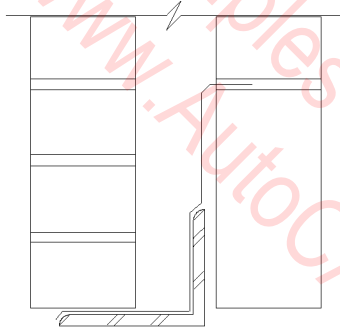
JAMB (10" CAVITY WALL)



VERTICAL SECTION (10" CAVITY WALL)

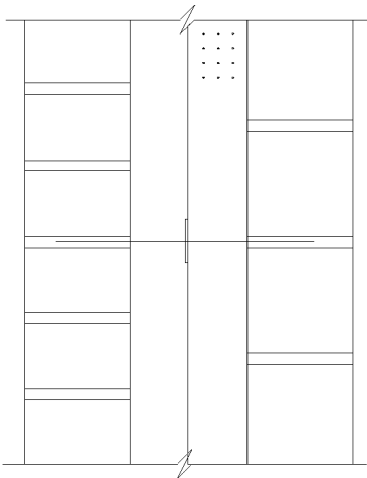


LINTEL (10" CAVITY WALL)



LINTEL (10" CAVITY WALL)

## FULL-SCALE GENERIC DETAILS



VERTICAL SECTION (INSULATED CAV. WALL)

### DETAIL DATA CHECKLIST

#### BRICK AND CONCRETE BLOCK WALLS

These wall section details are to be combined with related construction such as door frames, window frames, furred walls, wall mounted fixtures, and wall penetrations such as for pipe sleeves, access panels, etc.

Design limits of wall types, thickness and heights are strictly limited by most building codes, so consult your local code for the last word on preliminary design assumptions and final design.

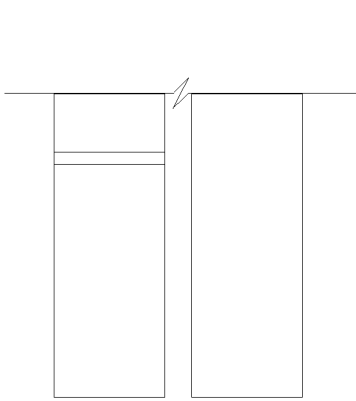
Also, see literature from the National Concrete Masonry Association, the Brick Institute of America, and the Construction Specifications Institute for complete engineering, specification, and construction application information.

### NOTATION CHECKLIST, SAMPLE NOTES

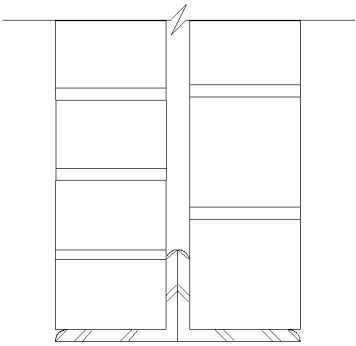
MASONRY UNIT TYPE & SIZE  
 MORTAR JOINT TYPE & SIZE  
 REINFORCING  
 HOOKS/TRACKS/WALL-MOUNTED FIXTURES  
 THRU-WALL SLEEVES  
 FLASHING/WATERPROOFING/CAULKING  
 METAL TIES  
 AIR SPACE/GROUT  
 RIGID INSULATION  
 WEEP HOLES  
 INTERIOR FURRING/FINISH  
 DOOR/WINDOW/LOUVER FRAME  
 LINTEL

CONCRETE BLOCK  
 4" LIGHTWEIGHT CONC. BLOCK  
 FACE BRICK  
 BRICK VENEER W/ METAL TIES TO STUD WALL  
 CONT. SEALANT  
 4" STARTER COURSE  
 CONT. FLASHING  
 FABRIC FLASHING SET IN REGLET  
 GROUT  
 SHIM  
 5" X 3" X 1/4" CONT. SHELF ANGLE  
 STEEL LINTEL ELEV.  
 STEEL ANGLE LINTEL  
 WEEP HOLES @ 32" O.C.  
 METAL STRAP ANCHORS EVERY 6TH COURSE  
 BRICK ANCHORS  
 VERT. CONT. ANCHOR SLOTS SPACED 2'-0" O.C.  
 #4 @ 16" O.C., GROUT CORES  
 REINF. @ 16" O.C. TYP.  
 1" RIGID INSULATION  
 FOAM INSULATION

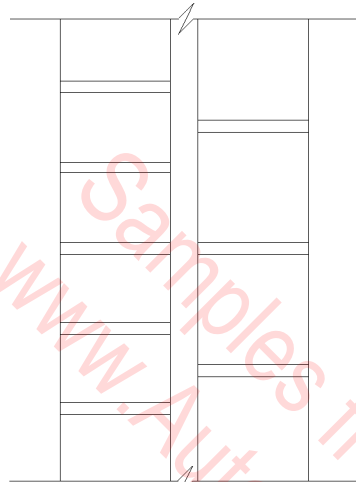
## BRICK & BLOCK CAVITY WALLS



JAMB (8" CAVITY WALL)



LINTEL (8" CAVITY WALL)



VERTICAL SECTION  
(8" CAVITY WALL)

## BRICK & BLOCK CAVITY WALLS

### DETAIL DATA CHECKLIST

#### BRICK AND CONCRETE BLOCK WALLS

These wall section details are to be combined with related construction such as door frames, window frames, furred walls, wall mounted fixtures, and wall penetrations such as for pipe sleeves, access panels, etc.

Design limits of wall types, thickness and heights are strictly limited by most building codes, so consult your local code for the last word on preliminary design assumptions and final design.

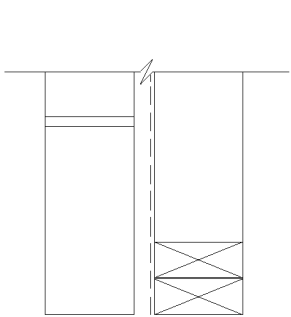
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### NOTATION CHECKLIST, SAMPLE NOTES

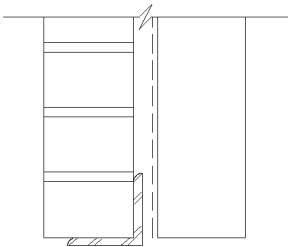
MASONRY UNIT TYPE & SIZE  
MORTAR JOINT TYPE & SIZE  
REINFORCING  
HOOKS/TRACKS/WALL-MOUNTED  
FIXTURES  
THRU-WALL SLEEVES  
FLASHING/WATERPROOFING/CAULKING  
METAL TIES  
AIR SPACE/GROUT  
RIGID INSULATION  
WEEP HOLES  
INTERIOR FURRING/FINISH  
DOOR/WINDOW/LOUVER FRAME  
LINTEL

CONCRETE BLOCK  
4" LIGHTWEIGHT CONC. BLOCK  
FACE BRICK  
BRICK VENEER W/ METAL TIES TO STUD WALL  
CONT. SEALANT  
4" STARTER COURSE  
CONT. FLASHING  
FABRIC FLASHING SET IN REGLET  
GROUT  
SHIM  
5" X 3" X 1/4" CONT. SHELF ANGLE  
STEEL LINTEL ELEV.  
STEEL ANGLE LINTEL  
WEEP HOLES @ 32" O.C.  
METAL STRAP ANCHORS EVERY 6TH COURSE  
BRICK ANCHORS  
VERT. CONT. ANCHOR SLOTS SPACED 2'-0" O.C.  
#4 @ 16" O.C., GROUT CORES  
REINF. @ 16" O.C. TYP.  
1" RIGID INSULATION  
FOAM INSULATION

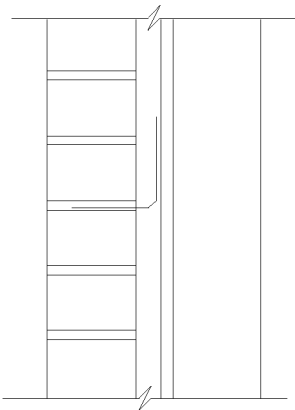
## BRICK VENEER



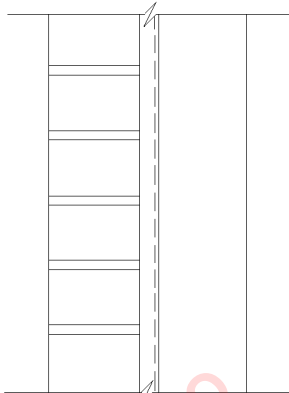
JAMB (4" BRICK VENEER)



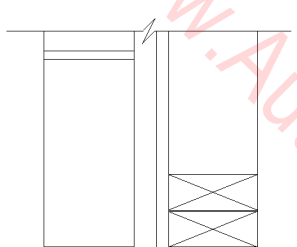
LINTEL (4" BRICK VENEER)



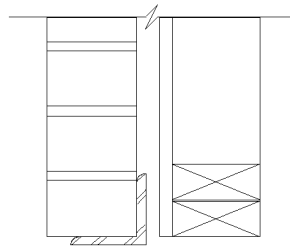
VERTICAL SECTION  
(4" BRICK VENEER)



VERTICAL SECTION  
(4" BRICK VENEER)



JAMB (4" BRICK VENEER)



LINTEL (4" BRICK VENEER)

## BRICK VENEER

### DETAIL DATA CHECKLIST

#### BRICK AND CONCRETE BLOCK WALLS

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### NOTATION CHECKLIST, SAMPLE NOTES

MASONRY UNIT TYPE & SIZE  
MORTAR JOINT TYPE & SIZE  
REINFORCING  
HOOKS/TRACKS/WALL MOUNTED  
FIXTURES  
THRU-WALL SLEEVES  
FLASHING/WATERPROOFING/CAULKING  
METAL TIES  
AIR SPACE/GROUT  
RIGID INSULATION  
WEEP HOLES  
INTERIOR FURRING/FINISH  
DOOR/WINDOW/LOUVER FRAME  
LINTEL

BATT INSULATION  
INSULATION BOARD  
WOOD SIDING  
15# FELT  
1/2" FOIL FACE INSULATION  
AIR SPACE  
1/2 X 6 BEVELED LAP SIDING  
1/2" PLYWOOD SHEATH  
PLYWOOD SIDING  
VAPOR BARRIER  
WOOD TRIM  
2 X JOISTS @ " O.C.  
2 X RAFTERS @ " O.C.  
BLOCKING  
FLASHING  
GYP. BD. CEILING  
HARDWOOD STOPS  
HARDWOOD JAMB  
2 X 4 CONT. WOOD BLOCKING  
SOUND INSULATION  
PREFINISHED PANELING  
DOOR FRAME  
DOOR SIZE  
WOOD DRIP  
1 X WOOD STOP  
SOUND ISOLATION PLATE  
SOUND ISOLATION CLIPS

CONCRETE BLOCK  
4" LIGHTWEIGHT CONC. BLOCK  
FACE BRICK  
BRICK VENEER W/ METAL TIES TO STUD WALL  
WEEP HOLES  
CONT. SEALANT  
4" STARTER COURSE  
CONT. FLASHING  
FABRIC FLASHING SET IN REGLET  
GROUT  
SHIM

STEEL LINTEL ELEV.  
STEEL ANGLE LINTEL  
WEEP HOLES @ 32" O.C.  
METAL STRAP ANCHORS EVERY 6TH COURSE  
HORIZ.  
BRICK ANCHORS  
VERT. CONT. ANCHOR SLOTS SPACED 2'-0" O.C.  
#4 @ 16" O.C. GROUT CORES  
REINF. @ 16" O.C. TYP.  
1" RIGID INSULATION  
FOAMED INSULATION

# BRICK WALLS

# BRICK WALLS

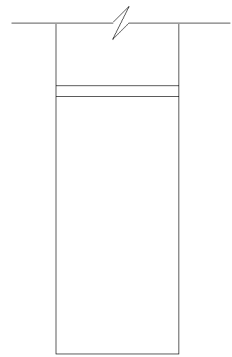
## DETAIL DATA CHECKLIST

### BRICK AND CONCRETE BLOCK WALLS

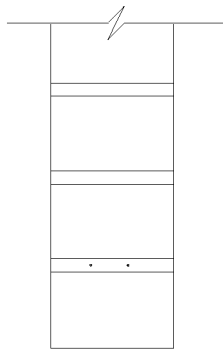
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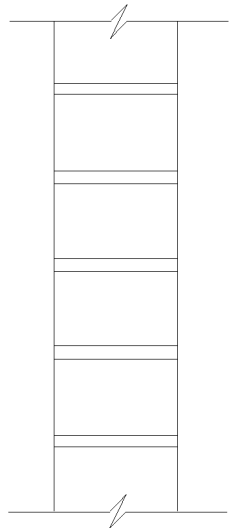
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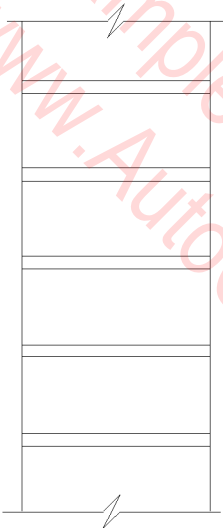
JAMB (4" BRICK)



LINTEL (4" BRICK)



VERTICAL SECTION (4" BRICK)

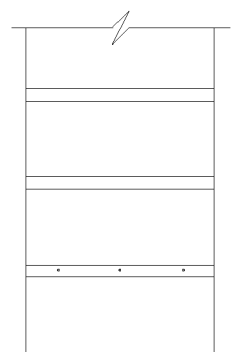


VERTICAL SECTION (6" SCR BRICK)

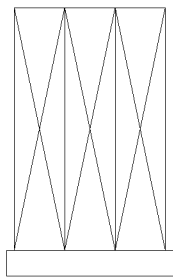
## NOTATION CHECKLIST, SAMPLE NOTES

- MASONRY UNIT TYPE & SIZE
- MORTAR JOINT TYPE & SIZE
- REINFORCING
- HOOKS/TRACKS/WALL-MOUNTED FIXTURES
- THRU-WALL SLEEVES
- FLASHING/WATERPROOFING/CAULKING
- INTERIOR FURRING/FINISH
- DOOR/WINDOW/LOUVER FRAME
- LINTEL

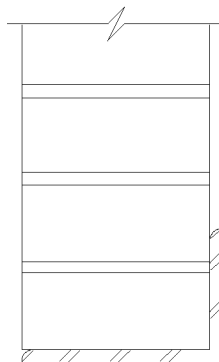
- STARTER COURSE
- FLASHING CONT.
- FABRIC FLASHING SET IN REGLET
- GROUT
- CONT. SHELF ANGLE
- STEEL LINTEL ELEV.
- STEEL ANGLE LINTEL
- BRICK ANCHORS
- HORIZ. JOINT REINF.



LINTEL (6" SCR BRICK)

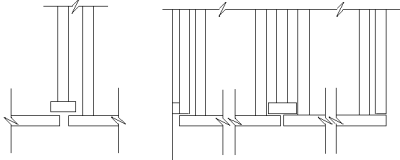


LINTEL (6" SCR BRICK)



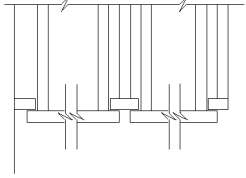
LINTEL (6" SCR BRICK)

## CABINET DRAWERS

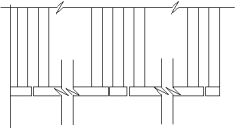


CABINET DOOR & DRAWER  
Horiz. Section

CABINET DRAWERS & FRAME  
Horiz. Section



CABINET DRAWERS & FRAME  
Horiz. Section



CABINET DRAWERS & FRAME  
Horiz. Section

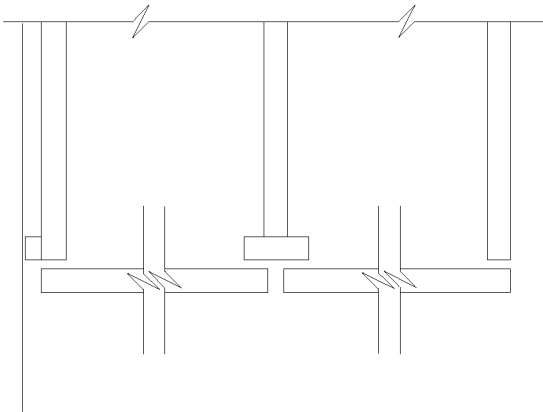
## CABINET DRAWERS

### NOTATION CHECKLIST, SAMPLE NOTES

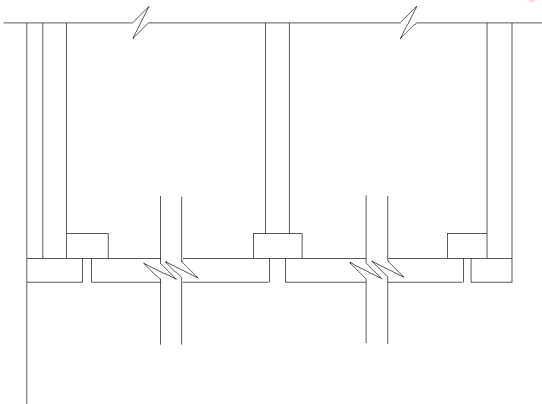
PLYWOOD/PARTICLE BOARD  
 DRAWER FACE FINISH SURFACE  
 DRAWER SIDES (MATERIAL & SIZE)  
 FACE FRAME (MATERIAL & SIZE)  
 CABINET SIDE PANELS (MATERIAL & THICKNESS)  
 TRIM (MATERIAL & SIZE)  
 BLOCKING (MATERIAL & SIZE)  
 ADJACENT MATERIALS  
 HARDWARE  
 PROVIDE BLOCKING TO RECEIVE MILLWORK ITEMS  
 PLASTIC LAMINATE  
 3/4" PLYWD. TOP W/ HDWD. EDGING  
 PLASTIC LAM. BACKING SHEET  
 PLASTIC LAM. TO EDGE & COVER BACKSPLASH,  
 PROVIDE END SPLASH @ WALLS  
 3/4" PLYWD. TOP, SIDES, DIVIDERS & SHELVES W/ 1/2" X 3/4" HDWD. NOSE  
 FACE OF WALL  
 SPLASH  
 PLASTIC LAM. SCRIBE STRIP  
 3/4" PLYWD DIVIDERS  
 1/4" PLYWD. BACK  
 RECESS 1/4" HARDBOARD OR PLYWD. BACK  
 2 X 4 FRAMING  
 3/4" PLYWD. BOTTOM W/ WOOD EDGING  
 CHAMFERED TRIM PIECE  
 FLUSH DOORS, OAK VENEER ON PLYWD.  
 3/4" X 3-1/16" HARDWOOD EDGE, EASE EDGES  
 2 X 4 FRAME @ FLOOR  
 ADJUSTABLE SHELVES  
 RECESSED SHELF STANDARDS  
 SURFACE MOUNTED ADJ. SHELF STD'S, W/ BRACKETS, FIXED SHELF  
 3/4" PLYWD. SHELF W/ 1/2" SUPPORT CLEAT & 1 X 3 EDGE STRIP  
 1 X 12 SHELVES & BACKING  
 1 X 12 DIVIDER @ 44" O.C. MAX.  
 3/4" PLYWD. SHELVES W/ HDWD. EDGING  
 1 X 2 W.D. SUPPORT @ WALL ANCHOR W/ 1/4" DIA. TOGGLE BOLTS @ 24" O.C.  
 STEEL CHANNEL, ATTACHED TO END WALL,  
 W/ STUDS @ 1'-0" O.C. @ LAV. PERIMETER  
 SOLID WOOD DRAWER SIDES, HDWD. DRAWER FRONTS  
 DRAWERS ON EXTENSION SLIDES  
 1/4" DRAWER BOTTOM  
 3/4" X 1-3/4" RAILS & STILES  
 SLIDING GLASS DOORS IN K-V TRACK,  
 PROVIDE FINGER PULLS & LOCK, SAFETY GLASS



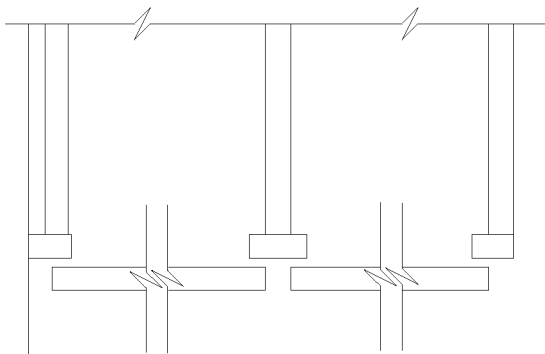
# CABINET DOORS



**CABINET DOORS & FRAME**  
Horiz. Section



**CABINET DOORS & FRAME**  
Horiz. Section



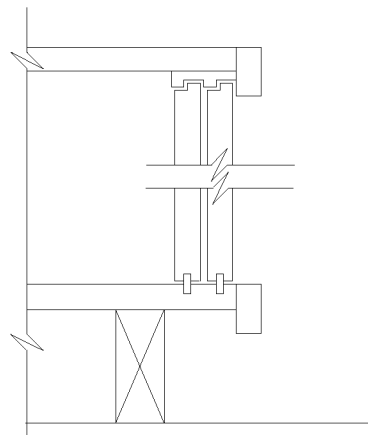
**CABINET DOORS & FRAME**  
Horiz. Section

# CABINET DOORS

## NOTATION CHECKLIST, SAMPLE NOTES

PLYWOOD/PARTICLE BOARD  
 DRAWER FACE FINISH SURFACE  
 DRAWER SIDES (MATERIAL & SIZE)  
 FACE FRAME (MATERIAL & SIZE)  
 CABINET SIDE PANELS  
 (MATERIAL & THICKNESS)  
 TRIM (MATERIAL & SIZE)  
 BLOCKING (MATERIAL & SIZE)  
 ADJACENT MATERIALS  
 HARDWARE  
 PROVIDE BLOCKING TO RECEIVE MILLWORK ITEMS  
 PLASTIC LAMINATE  
 3/4" PLYWD. TOP W/ HDWD. EDGING  
 PLASTIC LAM. BACKING SHEET  
 PLASTIC LAM. TO EDGE & COVER BACKSPLASH,  
 PROVIDE END SPLASH @ WALLS  
 3/4" PLYWD. TOP, SIDES, DIVIDERS &  
 SHELVES W/ 1/2" X 3/4" HDWD. NOSE  
 FACE OF WALL  
 SPLASH  
 PLASTIC LAM. SCRIBE STRIP  
 3/4" PLYWD. DIVIDERS  
 1/4" PLYWD. BACK  
 RECESS 1/4" HARDBOARD OR PLYWD. BACK  
 2 X 4 FRAMING  
 3/4" PLYWD. BOTTOM W/ WOOD EDGING  
 CHAMFERED TRIM PIECE

FLUSH DOORS, OAK VENEER ON PLYWD.  
 3/4" X 3-1/16" HARDWOOD EDGE, EASE EDGES  
 2 X 4 FRAME @ FLOOR  
 ADJUSTABLE SHELVES  
 RECESSED SHELF STANDARDS  
 SURFACE MOUNTED ADJ. SHELF STD'S. W/ BRACKETS  
 FIXED SHELF  
 3/4" PLYWD. SHELF W/ 1X2 SUPPORT CLEAT &  
 1 X 3 EDGE STRIP  
 1 X 12 SHELVES & BACKING  
 1 X 12 DIVIDER @ 44" O.C. MAX.  
 3/4" PLYWD. SHELVES W/ HDWD. EDGING  
 1 X 2 WD. SUPPORT @ WALL ANCHOR W/ 1/4" DIA.  
 TOGGLE BOLTS @ 24" O.C.  
 STEEL CHANNEL, ATTACHED TO END WALL,  
 W/ STUDS @ 1'-0" O.C. @ LAV. PERIMETER  
 DRAWER  
 SOLID WOOD DRAWER SIDES, HDWD. DRAWER  
 FRONTS  
 DRAWERS ON EXTENSION SLIDES  
 1/4" DRAWER BOTTOM  
 3/4" X 1-3/4" RAILS & STILES  
 SLIDING GLASS DOORS IN K-V TRACK,  
 PROVIDE FINGER PULLS & LOCK, SAFETY GLASS



**CABINET SLIDING DOORS**  
Vert. Section

# CARPET FLOORING

# CARPET FLOORING

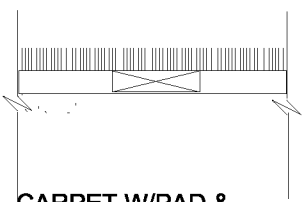
## DETAIL DATA CHECKLIST

### CARPET

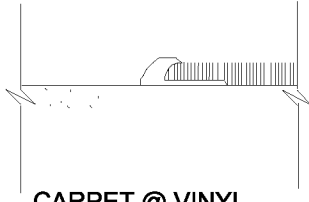
- Typical thickness 1/2" to 1"
- Be sure carpet notation in drawings corresponds to specifications
- Detailing is required only to show special flooring, base, or joint conditions
- Carpet application is sometimes incomplete, with very serious consequences; strictly enforce compliance with drawings, specifications, and manufacturers' instructions
- Carpet may have to be ordered before construction begins to assure delivery in time for occupancy, so carpet selection and specification may precede the rest of the documents

## NOTATION CHECKLIST, SAMPLE NOTES

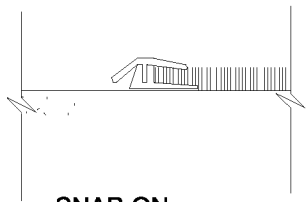
- CARPET
- PAD
- TACK STRIP
- REDUCER
- SUBFLOOR/SLAB
- GLUE DOWN CARPET
- CARPET & PAD W/TACK STRIPS
- FINISH CONC.
- BUILD UP CONC. FLOOR W/FLOORSTONE AS REQ'D.
- PLYWOOD SUBFLOOR
- PLYWOOD UNDERLAYMENT
- PARTICLE BOARD UNDERLAYMENT
- MASTIC
- ADHESIVE
- THRESHOLD
- REDUCER STRIP
- CARPET TILE JOINER
- CARPET EDGE STRIP



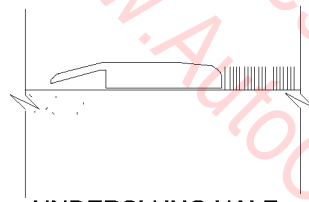
CARPET W/PAD & TACK STRIP



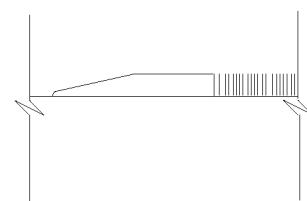
CARPET @ VINYL REDUCER



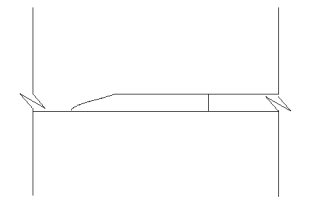
SNAP-ON CARPET EDGE



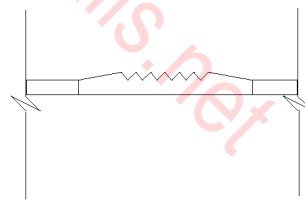
UNDERSLUNG HALF SADDLE



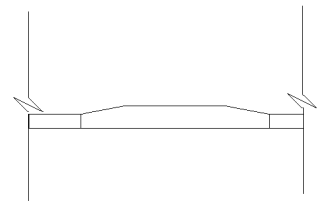
CARPET @ VINYL REDUCER



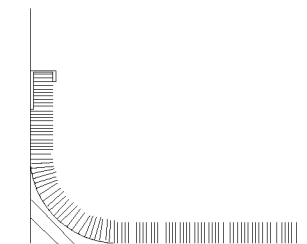
CARPET @ VINYL REDUCER



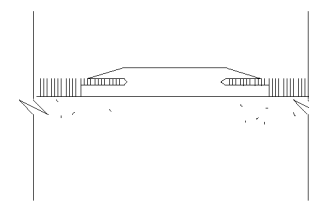
THRESHOLD



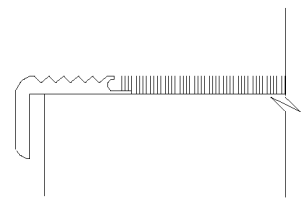
THRESHOLD/FEATURE STRIP



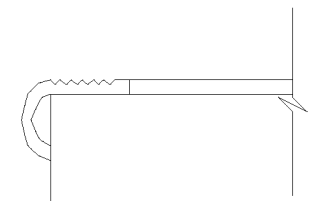
CARPET BASE



UNDERSLUNG SADDLE

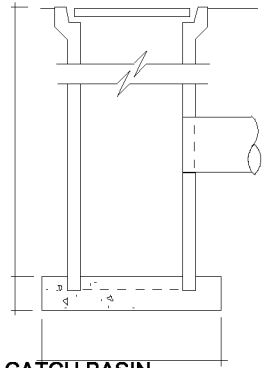


STAIR NOSING

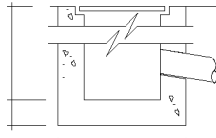


STAIR NOSING

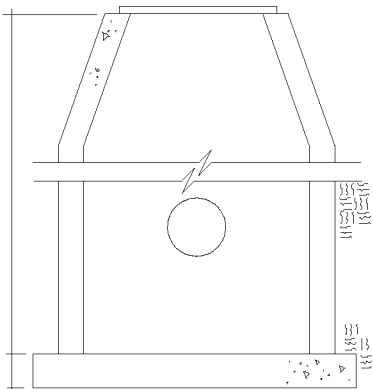
## CATCH BASINS



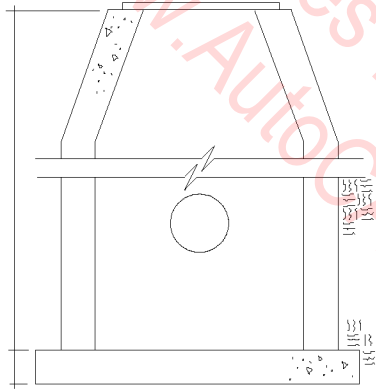
CATCH BASIN



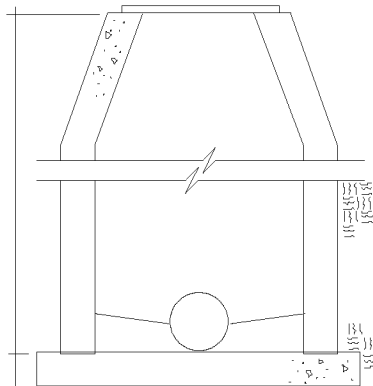
CATCH BASIN



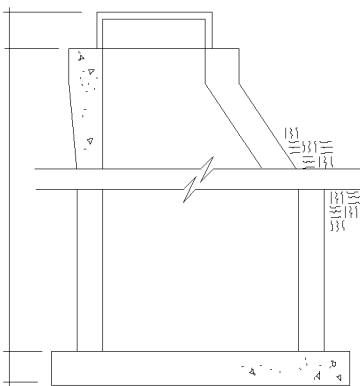
CATCH BASIN 6" Wall



CATCH BASIN 8" Wall



STORM DRAIN & MANHOLE



CATCH BASIN

## CATCH BASINS

### DETAIL DATA CHECKLIST

#### MANHOLES

- \_\_\_ Spaced 300' to 600' apart for inspection and maintenance (Also depends on sewer size and local standards)
- \_\_\_ Manhole walls for a combined or sanitary sewer may be:
  - \_\_\_ 8" brick
  - \_\_\_ 6" concrete
  - \_\_\_ 6" solid concrete manhole block or precast concrete units to depth of 12'
  - \_\_\_ Below 12' depth all brick and block walls shall be 12" thick
  - \_\_\_ Manholes over 12' deep shall also have a 12' thick base

#### INLETS AND CATCH BASINS

- \_\_\_ Choice of the unit is subject to local codes and practice
- \_\_\_ Spacing depends on the size and type of unit, and the slope of gutter or swale in relation to anticipated runoff
- \_\_\_ Walls may be:
  - \_\_\_ 8" brick
  - \_\_\_ 8" CMU
  - \_\_\_ 6" poured concrete
  - \_\_\_ 5" precast concrete

#### DRAIN INLET COVERS

- \_\_\_ Usually precast concrete or cast iron (also ductile iron)
- \_\_\_ Frames and grates available for light and heavy loading conditions

#### GRATES

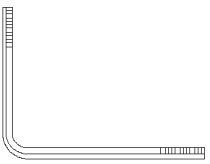
- \_\_\_ In areas of foot or bike traffic, grates must not allow penetration by:
  - \_\_\_ Heels
  - \_\_\_ Crutches
  - \_\_\_ Cane tips
  - \_\_\_ Tires
- \_\_\_ Must still provide sufficient drainage
- \_\_\_ Slotted grating may be used if slots run transverse to traffic direction

### NOTATION CHECKLIST, SAMPLE NOTES

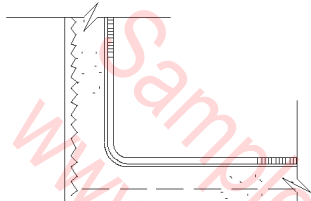
- FINISH GRADE/PAVING
- PAVING BASE
- METAL GRATING
- METAL GRATING FRAME
- PIPE (TYPE, SIZE, MATERIAL)
- CONCRETE BASE
- REINFORCING
- AGGREGATE
- BACKFILL
- COMPACTED SUBGRADE
- FLOW (show direction)
- #4 BARS @12" O.C. EACH WAY
- #3 BARS @10" O.C. EACH WAY

**CERAMIC TILE BASE & WAINSCOT**

**CERAMIC TILE BASE & WAINSCOT**



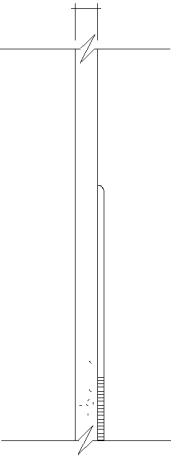
**CERAMIC TILE BASE**  
Thin-Set



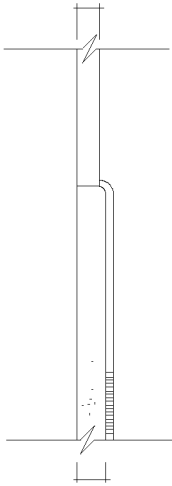
**CERAMIC TILE BASE**  
Cement Mortar

**NOTATION CHECKLIST,  
SAMPLE NOTES**

- |                                     |                          |
|-------------------------------------|--------------------------|
| FINISH FLOOR (MATERIAL & THICKNESS) | THINSET QUARRY TILE      |
| SETTING BED (MATERIAL & THICKNESS)  | QUARRY TILE              |
| JOINT SIZE                          | ROUND TOP COVE BASE      |
| FLOOR MEMBRANE/WATERPROOFING        | WATERPROOF GYPSUM BOARD  |
| SUBFLOOR/SLAB                       | ADHESIVE                 |
| REINFORCING                         | SETTING BED              |
| CERAMIC TILE                        | MORTAR BED W/REINFORCING |
| BOND COAT/MORTAR BED                | ANGLE EDGER              |
| SCRATCH COAT                        | THRESHOLD                |
| MEMBRANE                            | HARDWOOD DIVIDER STRIP   |
| WALL CONSTRUCTION                   | REDUCER STRIP            |
|                                     | DOOR                     |
|                                     | SILICONE SEALER          |
|                                     | SLOPE FROM CURB TO DRAIN |



**CERAMIC TILE WAINSCOT**  
Thin-Set



**CERAMIC TILE WAINSCOT**  
Cement Mortar

# CERAMIC TILE FLOOR

# CERAMIC TILE FLOOR

## NOTATION CHECKLIST, SAMPLE NOTES

- FINISH FLOOR  
(MATERIAL & THICKNESS)
- SETTING BED  
(MATERIAL & THICKNESS)
- JOINT SIZE
- FLOOR MEMBRANE/  
WATERPROOFING
- SUBFLOOR/SLAB
- REINFORCING
- CERAMIC TILE
- BOND COAT/MORTAR BED
- SCRATCH COAT
- MEMBRANE
- WALL CONSTRUCTION
- THINSET QUARRY TILE
- QUARRY TILE
- ROUND TOP COVE BASE
- WATERPROOF GYP. BD.
- ADHESIVE
- SETTING BED
- MORTAR BED W/REINFORCING
- ANGLE EDGER
- THRESHOLD
- HARDWOOD DIVIDER STRIP
- REDUCER STRIP
- DOOR
- SILICONE SEALER
- SLOPE FROM CURB TO DRAIN

CERAMIC TILE FLOOR  
Thin-Set

CERAMIC TILE FLOOR  
Thin-Set On Wood

CERAMIC TILE FLOOR  
Glass Mesh/Mortar

CERAMIC TILE FLOOR  
Cement Mortar On Wood

CERAMIC TILE FLOOR  
Cement Mortar

Samples from  
www.AutoCADDetails.net

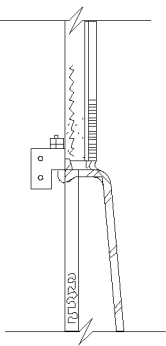
## CERAMIC TILE TUBS & RECEPTORS

## CERAMIC TILE TUBS & RECEPTORS

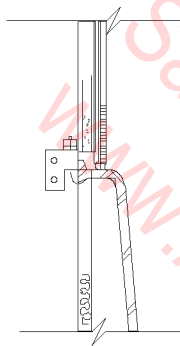
### NOTATION CHECKLIST, SAMPLE NOTES

CERAMIC TILE  
WALL CONSTRUCTION  
WALL FRAMING  
TUB HANGER  
TUB  
SETTING BED  
LATH/REINFORCING  
WATERPROOF MEMBRANE  
DRAIN

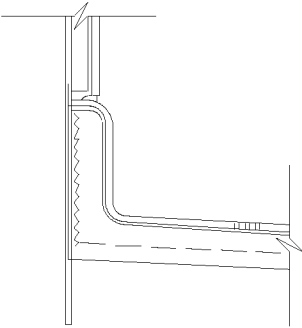
THINSET QUARRY TILE  
QUARRY TILE  
ROUND TOP COVE BASE  
CERAMIC CAP  
BULLNOSE CAP  
WATERPROOF GYPSUM BOARD  
ADHESIVE  
SETTING BED  
MORTAR BED W/REINFORCING  
ANGLE EDGER  
THRESHOLD  
HARDWOOD DIVIDER STRIP  
REDUCER STRIP  
DOOR  
SILICONE SEALER  
SLOPE FROM CURB TO DRAIN



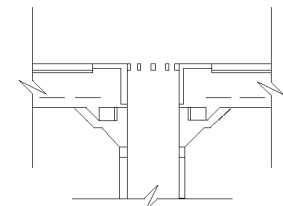
CERAMIC TILE WALL @ TUB  
Plaster Wall



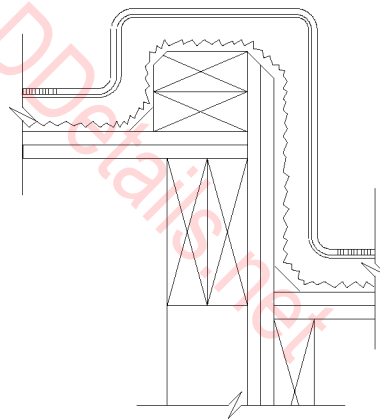
CERAMIC TILE WALL @ TUB  
Gypsum Board Wall



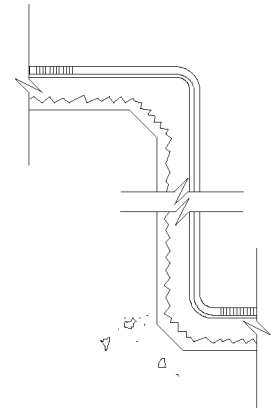
CERAMIC TILE BASE  
SHOWER RECEPTOR



CERAMIC TILE BASE  
FLOOR @ DRAIN



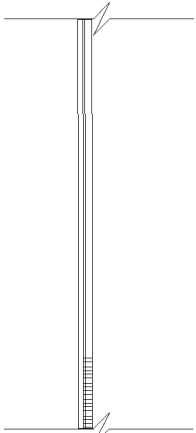
CERAMIC TILE TUB



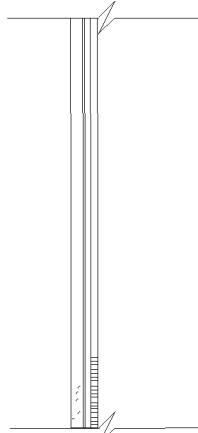
CERAMIC TILE TUB

# CERAMIC TILE WALLS

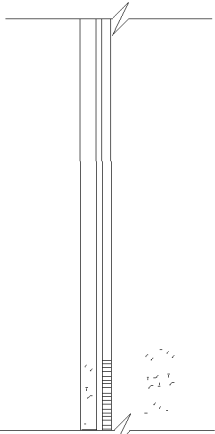
# CERAMIC TILE WALLS



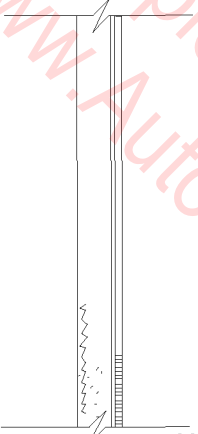
**CERAMIC TILE WALL**  
Thin-Set



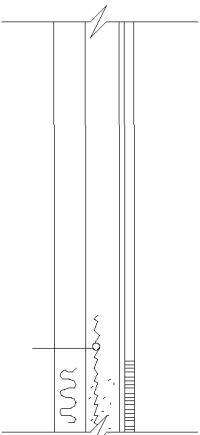
**CERAMIC TILE WALL**  
Leveling/Bond Coat



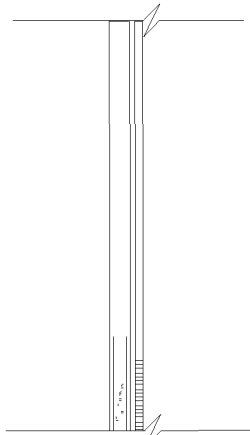
**CERAMIC TILE WALL**  
Cement Mortar



**CERAMIC TILE WALL**  
Lath/Plaster/Mortar



**CERAMIC TILE WALL**  
@ STEAM ROOM



**CERAMIC TILE WALL**  
Thin-Set on Gypsum Board

## NOTATION CHECKLIST, SAMPLE NOTES

- CERAMIC TILE
- ADHESIVE/DRY-SET
- BOND COAT/MORTAR BED
- SCRATCH COAT
- MEMBRANE
- WALL CONSTRUCTION
- THINSET QUARRY TILE
- QUARRY TILE
- ROUND TOP COVE BASE
- WATERPROOF GYPSUM BOARD
- ADHESIVE
- SETTING BED
- MORTAR BED W/REINFORCING
- ANGLE EDGER
- THRESHOLD
- HARDWOOD DIVIDER STRIP
- REDUCER STRIP
- DOOR
- SILICONE SEALER
- SLOPE FROM CURB TO DRAIN

Samples from  
[www.AutoCADDetails.net](http://www.AutoCADDetails.net)

# CHAIN LINK FENCE

# CHAIN LINK FENCE

## DETAIL DATA CHECKLIST

### CHAIN LINK FENCING

- \_\_\_ See manufacturer's data for:
  - \_\_\_ Size of pipe
  - \_\_\_ Size of mesh
  - \_\_\_ Depth of footing
  - \_\_\_ Standard spacing of posts
  - \_\_\_ Size and spacing of braces

### Special options:

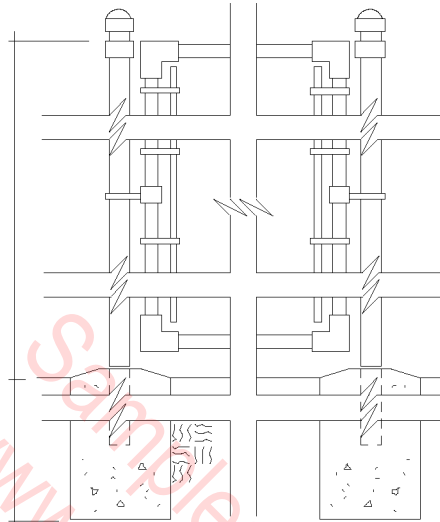
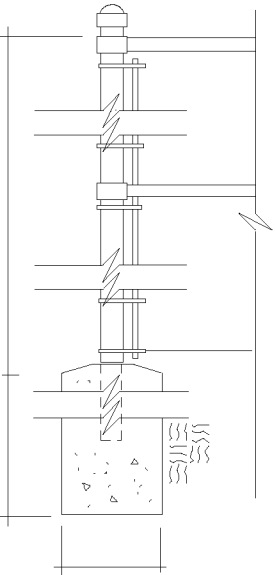
- \_\_\_ Gate size
- \_\_\_ Barbed wire type
- \_\_\_ Barbed wire extension arms
- \_\_\_ Number of wires

## NOTATION CHECKLIST, SAMPLE NOTES

- CHAIN LINK FENCE
- BARBED WIRE
- POST/POST CAP
- TENSION WIRE
- BRACE RAIL
- TIE ROD
- FINISH GRADE/PAVING
- FOOTING
- AGGREGATE BASE

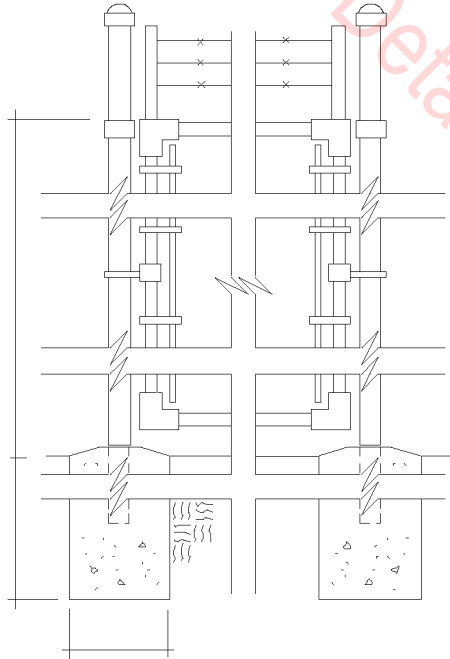
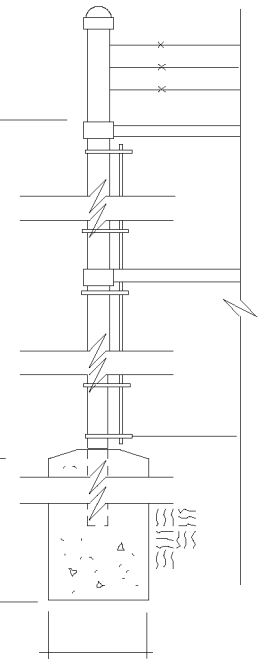
WISE CONNECTORS (connect groundwire to fencing/barbed wire)

- DOWN CONDUCTOR
- COPPER CONDUCTOR CABLE MIN. #6
- GROUND ROD MIN. 3/4" O.D.
- BY 8' LONG
- BOTTOM SALVAGE WIRE



CHAIN LINK FENCE

CHAIN LINK FENCE Gate



CHAIN LINK FENCE  
W/Barbed wire

CHAIN LINK FENCE Gate  
W/Barbed wire



## CHALKBOARDS & TACKBOARDS

## CHALKBOARDS & TACKBOARDS

### DETAIL DATA CHECKLIST

#### CHALKBOARDS & TACKBOARDS

\_\_\_ See manufacturers' catalogs for standard sizes, finishes, and materials.

\_\_\_ wood frame, metal frame, masonry, or concrete wall construction.

\_\_\_ Detail drawings are included mainly to show special anchoring conditions—screws, anchor bolts, etc., in

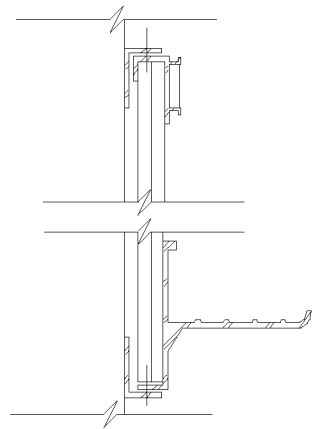
\_\_\_ See manufacturers' and suppliers' catalogs for detail design data and specifications.

\_\_\_ See manufacturer's recommendations for special anchor requirements for different kinds of construction.

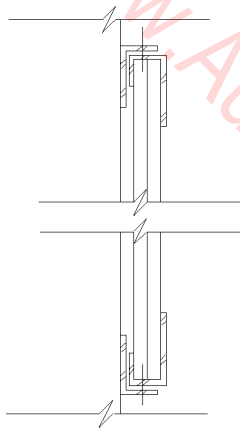
#### NOTATION CHECKLIST, SAMPLE NOTES

CORK TACKBOARD  
CHALKBOARD  
HARDBOARD BACK PANEL  
CHALK TRAY  
ANGLE BRACKETS/FASTENERS  
WALL CONSTRUCTION/FRAMING

TACK SURFACE  
WOOD GROUND  
STEEL SURFACE, ON BACKER BOARD  
WOOD BLOCKING @ STUD WALL  
METAL FRAME  
PERIMETER TRIM  
SCREW ON TRIM OVER WOOD GROUNDS  
CHALK TROUGH



CHALKBOARD



TACKBOARD

## CONCRETE BLOCK CAVITY WALLS

## CONCRETE BLOCK CAVITY WALLS

### DETAIL DATA CHECKLIST

#### BRICK AND CONCRETE BLOCK WALLS

These wall section details are to be combined with related construction such as door frames, window frames, furred walls, wall mounted fixtures, and wall penetrations such as for pipe sleeves, access panels, etc.

Design limits of wall types, thickness and heights are strictly limited by most building codes, so consult your local code for the last word on preliminary design assumptions and final design.

Also, see literature from the National Concrete Masonry Association, the Brick Institute of America, and the Construction Specifications Institute for complete engineering, specification, and construction application information.

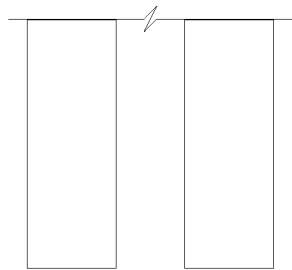
#### NOTATION CHECKLIST, SAMPLE NOTES

MASONRY UNIT TYPE & SIZE  
MORTAR JOINT TYPE & SIZE  
REINFORCING  
HOOKS/TRACKS/WALL MOUNTED FIXTURES  
THRU-WALL SLEEVES  
FLASHING/WATERPROOFING/CAULKING  
METAL TIES  
AIR SPACE/GROUT  
RIGID INSULATION  
WEEP HOLES

8" CONCRETE BLOCK, GROUT CORES FULL &  
BREAK OUT WEB AS REQ'D. FOR #4 BAR VERT.

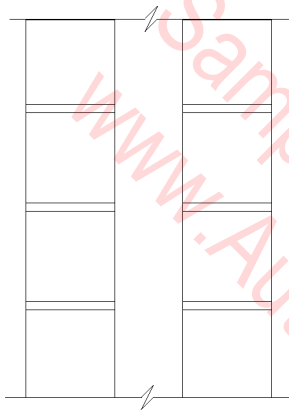
8" LINTEL BLOCK  
CONC. BLOCK  
FLASHING  
SEALANT  
CAULK  
#4 @ 48" O.C. ALTERNATE - GROUT REINF. CELLS  
#4 VERT. REINFORCEMENT @ 2'-0" O.C.  
HORIZ. JOINT REINF. @ 16" O.C.  
1/2" PREMOLDED JOINT FILLER  
EXTRUDED CONTROL JOINT FILLER  
FACE BRICK  
1" PERIMETER INSULATION  
BOND BEAM W/#5 CONT. @ 32" O.C.  
#4 CONT. IN BOND BEAM  
SASH BLOCK - EACH SIDE  
16 GA. STEEL MESH EVERY OTHER COURSE  
(@ masonry interior partition joint)  
INSULATION  
DISCONTINUE MASONRY REINF. @ CONTROL  
JOINT  
EXPANSION SHIELD

8" CONCRETE BLOCK  
CONC. SLAB  
SEE FOUNDATION PLAN FOR SLAB THICKNESS  
& FIN. FLOOR ELEV.  
SEE FOUNDATION PLAN FOR TOP OF FTG. ELEV.  
FLASHING  
#4 @ 48" O.C. ALTERNATE - GROUT REINF. CELLS  
HORIZ. JOINT REINF. @ 16" O.C.  
FINISH GRADE HEIGHT VARIES  
1/2" PREMOLDED JOINT FILLER  
EXTRUDED CONTROL JOINT FILLER  
FACE BRICK  
1" PERIMETER INSULATION  
BOND BEAM  
STEP FTG., SEE DETAIL

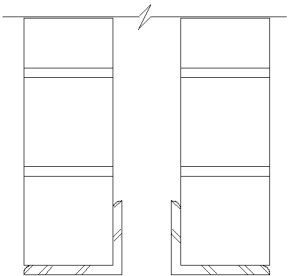


JAMB

(10" HMU CAVITY WALL)



VERTICAL SECTION  
(10" HMU CAVITY WALL)



LINTEL

(10" HMU CAVITY WALL)

## CONCRETE BLOCK FOUNDATION WALLS

## CONCRETE BLOCK FOUNDATION WALLS

### DETAIL DATA CHECKLIST

#### CONCRETE BLOCK FOUNDATION WALLS

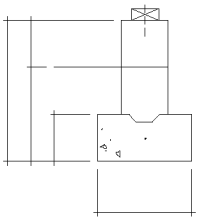
Design limits of unit masonry wall types, thickness and heights are strictly limited by most building codes, so consult your local code for the last word on preliminary design assumptions and final design.

Unless specially engineered, concrete block foundation walls should be limited to small, one-story residential or utility buildings.

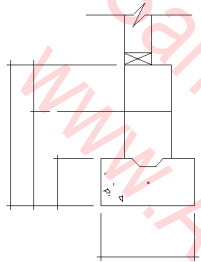
### NOTATION CHECKLIST, SAMPLE NOTES

MUDSILL W/ LEVELING GROUT  
ANCHOR BOLTS  
LEDGER  
ANCHOR FOR LEDGER  
GROUTED CONCRETE BLOCK  
FOUNDATION WALL REINFORCING  
CONCRETE FOOTING W/GROUT KEY  
CONCRETE FOOTING REINFORCING BARS  
INSULATION  
TERMITE SHIELD  
CRAWLSPACE  
RODENT BARRIER  
VAPOR BARRIER W/ SAND COVER  
GRADE  
DRAINAGE

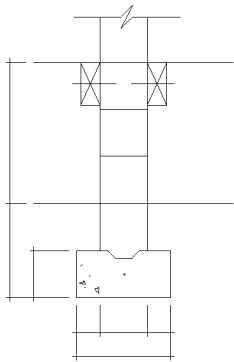
8" CONCRETE BLOCK  
CONC. SLAB  
SEE FOUNDATION PLAN FOR SLAB THICKNESS  
& FIN. FLOOR ELEV.  
SEE FOUNDATION PLAN FOR TOP OF FTG. ELEV.  
FLASHING  
#4 @ 48" O.C. ALTERNATE - GROUT REINF. CELLS  
HORIZ. JOINT REINF. @ 16" O.C.  
FINISH GRADE HEIGHT VARIES  
1/2" PREMOLED JOINT FILLER  
EXTRUDED CONTROL JOINT FILLER  
FACE BRICK  
1" PERIMETER INSULATION  
BOND BEAM



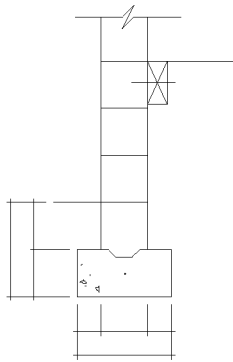
CONC. BLOCK  
FOUNDATION WALL  
1 Story



CONC. BLOCK  
FOUNDATION WALL  
1 Story



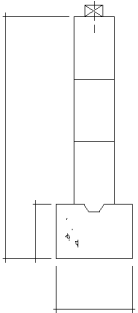
CONC. BLOCK  
FOUNDATION WALL  
1 Story



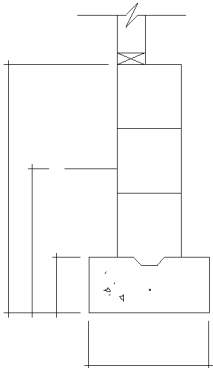
CONC. BLOCK  
FOUNDATION WALL  
1 Story

# CONCRETE BLOCK FOUNDATION WALLS

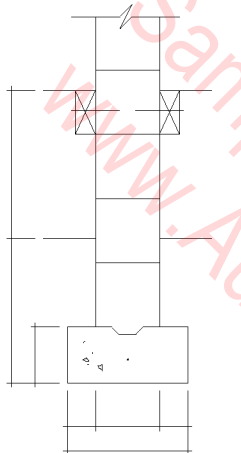
# CONCRETE BLOCK FOUNDATION WALLS



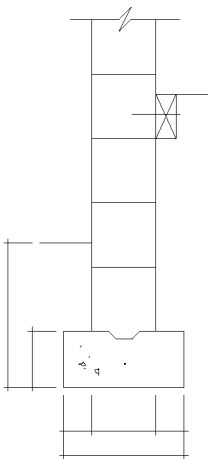
CONC. BLOCK FOUNDATION WALL  
2 Story



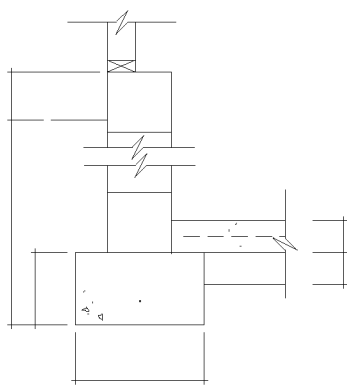
CONC. BLOCK FOUNDATION WALL  
2 Story



CONC. BLOCK FOUNDATION WALL  
2 Story



CONC. BLOCK FOUNDATION WALL  
2 Story



CONC. BLOCK FOUNDATION WALL  
Basement

## DETAIL DATA CHECKLIST

### CONCRETE BLOCK FOUNDATION WALLS

Design limits of unit masonry wall types, thickness and heights are strictly limited by most building codes, so consult your local code for the last word on preliminary design assumptions and final design. Unless specially engineered, concrete block foundation walls should be limited to small, one-story residential or utility buildings.

## NOTATION CHECKLIST, SAMPLE NOTES

MUDSILL W/ LEVELING GROUT  
ANCHOR BOLTS  
LEDGER  
ANCHOR FOR LEDGER  
GROUTED CONCRETE BLOCK  
FOUNDATION WALL REINFORCING  
CONCRETE FOOTING W/GROUT KEY  
CONCRETE FOOTING REINFORCING BARS  
INSULATION  
TERMITE SHIELD  
CRAWLSPACE  
RODENT BARRIER  
VAPOR BARRIER W/SAND COVER  
GRADE  
DRAINAGE

8" CONCRETE BLOCK  
12" CONCRETE BLOCK  
CONC. SLAB  
SEE FOUNDATION PLAN FOR SLAB THICKNESS & FIN. FLOOR ELEV.  
SEE FOUNDATION PLAN FOR TOP OF FTG. ELEV.  
FLASHING  
#4 @ 48" O.C. ALTERNATE - GROUT REINF. CELLS  
HORIZ. JOINT REINF. @ 16" O.C.  
FINISH GRADE HEIGHT VARIES  
1/2" PREMOLDED JOINT FILLER  
EXTRUDED CONTROL JOINT FILLER  
FACE BRICK  
1" PERIMETER INSULATION  
BOND BEAM

## CONCRETE BLOCK WALLS

## CONCRETE BLOCK WALLS

### DETAIL DATA CHECKLIST

#### BRICK AND CONCRETE BLOCK WALLS

These wall section details are to be combined with related construction such as door frames, window frames, furred walls, wall mounted fixtures, and wall penetrations such as for pipe sleeves, access panels, etc.

Design limits of wall types, thickness and heights are strictly limited by most building codes, so consult your local code for the last word on preliminary design assumptions and final design.

Also, see literature from the National Concrete Masonry Association, the Brick Institute of America, and the Construction Specifications Institute for complete engineering, specification, and construction application information.

### NOTATION CHECKLIST, SAMPLE NOTES

MASONRY UNIT TYPE & SIZE  
MORTAR JOINT TYPE & SIZE  
REINFORCING  
HOOKS/TRACKS/WALL MOUNTED FIXTURES  
THRU-WALL SLEEVES  
FLASHING/WATERPROOFING/CAULKING  
INTERIOR FURRING/FINISH  
DOOR/WINDOW/LOUVER FRAME  
LINTEL

8" CONCRETE BLOCK, GROUT CORES FULL &  
BREAK OUT WEB AS REQ'D. FOR #4 BAR VERT.

8" LINTEL BLOCK

CONC. BLOCK

FLASHING

SEALANT

CAULK

#4 @ 48" O.C. ALTERNATE - GROUT REINF. CELLS

#4 VERT. REINFORCEMENT @ 2'-0" O.C.

HORIZ. JOINT REINF. @ 16" O.C.

1/2" PREMOLDED JOINT FILLER

EXTRUDED CONTROL JOINT FILLER

FACE BRICK

1" PERIMETER INSULATION

BOND BEAM W/#5 CONT. @ 32" O.C.

#4 CONT. IN BOND BEAM

SASH BLOCK - EACH SIDE

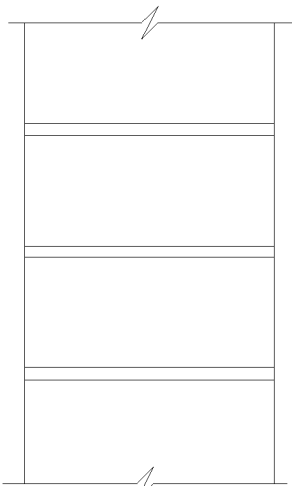
16 GA. STEEL MESH EVERY OTHER COURSE

(@ masonry interior partition joint)

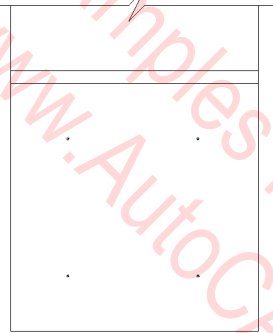
INSULATION

DISCONTINUE MASONRY REINF. @ CONTROL JOINT

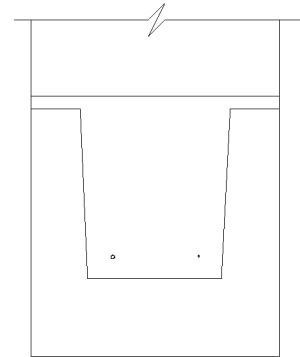
EXPANSION SHIELD



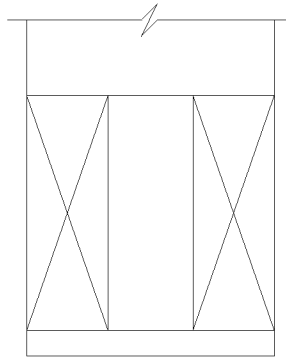
VERTICAL SECTION  
(8" HMU WALL)



LINTEL (8"  
HMU WALL)

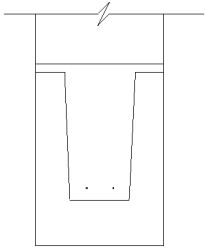


LINTEL (8" HMU WALL)

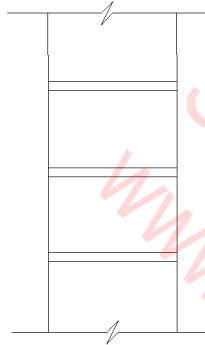


LINTEL (8" HMU WALL)

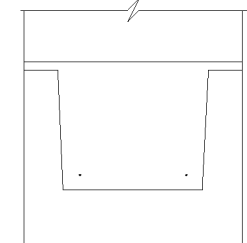
## CONCRETE BLOCK WALLS



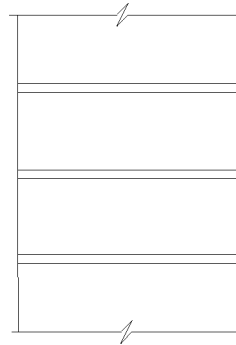
LINTEL (6" HMU WALL)



VERTICAL SECTION (6" HMU WALL)



LINTEL (10" HMU WALL)



VERTICAL SECTION (10" HMU WALL)

## CONCRETE BLOCK WALLS

### DETAIL DATA CHECKLIST

#### BRICK AND CONCRETE BLOCK WALLS

These wall section details are to be combined with related construction such as door frames, window frames, furred walls, wall mounted fixtures, and wall penetrations such as for pipe sleeves, access panels, etc.

Design limits of wall types, thickness and heights are strictly limited by most building codes, so consult your local code for the last word on preliminary design assumptions and final design.

Also, see literature from the National Concrete Masonry Association, the Brick Institute of America, and the Construction Specifications Institute for complete engineering, specification, and construction application information.

## CONCRETE BLOCK WALLS

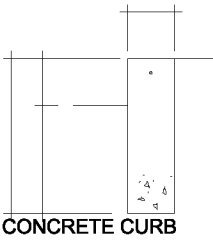
### NOTATION CHECKLIST, SAMPLE NOTES

MASONRY UNIT TYPE & SIZE  
MORTAR JOINT TYPE & SIZE  
REINFORCING  
HOOKS/TRACKS/WALL-MOUNTED FIXTURES  
THRU-WALL SLEEVES  
FLASHING/WATERPROOFING/CAULKING  
INTERIOR FURRING/FINISH  
DOOR/WINDOW/LOUVER FRAME  
LINTEL  
8" CONCRETE BLOCK, GROUT CORES FULL & BREAK OUT WEB AS REQ'D. FOR #4 BAR VERT.  
8" LINTEL BLOCK  
CONC. BLOCK  
FLASHING  
SEALANT  
CAULK  
#4 @ 48" O.C. ALTERNATE - GROUT REINF. CELLS  
#4 VERT. REINFORCEMENT @ 2'-0" O.C.  
HORIZ. JOINT REINF. @ 16" O.C.  
1/2" PREMOLDED JOINT FILLER  
EXTRUDED CONTROL JOINT FILLER  
FACE BRICK  
1" PERIMETER INSULATION  
BOND BEAM W/#5 CONT. @ 32" O.C.  
#4 CONT. IN BOND BEAM  
SASH BLOCK - EACH SIDE  
16 GA. STEEL MESH EVERY OTHER COURSE (@ masonry interior partition joint)  
INSULATION  
DISCONTINUE MASONRY REINF. @ CONTROL JOINT  
EXPANSION SHIELD

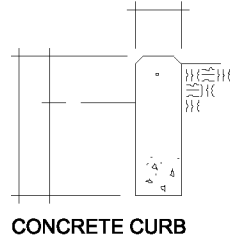
4" CMU  
6" CMU  
8" CMU  
12" CMU  
8" CMU, GROUT CORES FULL & BREAK OUT WEB AS REQ'D. FOR #4 BAR VERT  
8" LINTEL BLOCK  
CONC. BLOCK  
SEE FOUNDATION PLAN FOR SLAB THICKNESS & FIN. FLOOR ELEV.  
FLASHING  
SEALANT  
#4 @ 48" O.C. ALTERNATE - GROUT REINF. CELLS  
HORIZ. JOINT REINF. @ 16" O.C.  
1/2" PREMOLDED JOINT FILLER  
FACE BRICK  
1" PERIMETER INSULATION  
BOND BEAM W/#5 CONT. @ 32" O.C.  
#4 CONT. IN BOND BEAM  
EXTRUDED CONTROL JOINT FILLER  
SASH BLOCK - EACH SIDE  
16 GA. STEEL MESH EVERY OTHER COURSE (@ masonry interior partition joint)  
CAULK  
SEMI-RIGID INSULATION  
DISCONTINUE MASONRY REINF. @ CONTROL JOINT  
EXPANSION SHIELD  
#4 VERT. @ 2'-0" O.C., GROUT CELLS WHERE REBAR OCCURS  
#4 DOWEL @ 2'-0" O.C. W/ 4" HOOK @ BOTTOM  
#4 VERT. REINFORCEMENT @ 2'-0" O.C.  
METAL CLOSURE REQ'D @ EXPOSED DECK ONLY  
STUFF CAP W/ FIBERGLASS BLANKET INSUL.

# CONCRETE CURBS

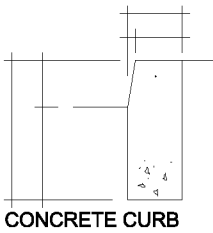
# CONCRETE CURBS



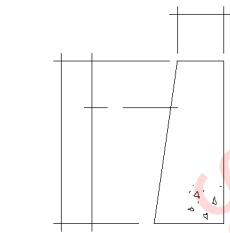
CONCRETE CURB



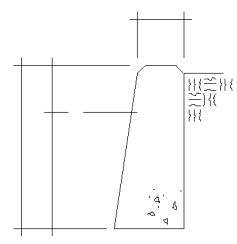
CONCRETE CURB



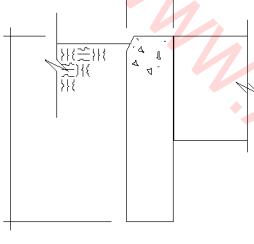
CONCRETE CURB



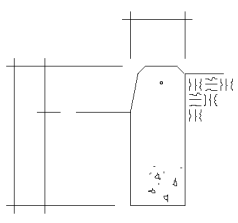
CONCRETE CURB



CONCRETE CURB



CONCRETE CURB



CONCRETE CURB

## DETAIL DATA CHECKLIST

### CONCRETE CURBS

- \_\_\_ Street curbs must usually follow local road department design standards
- \_\_\_ Exposed edges can be chamfered, tooled, or have a 1/2" to 1" radius
- \_\_\_ Reinforcing:
  - \_\_\_ Precast concrete curbs may have dowel pins and holes at alternate ends
  - \_\_\_ 2-#4 bars, one top and one bottom (continuous is common)
  - \_\_\_ May have #3 ties or stirrups at 32" to 36" o.c.
  - \_\_\_ 2 bars at the bottom of the footing may be needed
  - \_\_\_ Bars should have 2" cover
  - \_\_\_ When curb is continuous w/walk, woven wire mesh (WWM) may be turned down into curb
  - \_\_\_ Curb depth below grade varies from 12" to 24"
  - \_\_\_ Curb width varies from 5" to 7"
  - \_\_\_ Compact the subgrade
  - \_\_\_ Provide ample subgrade drainage
- \_\_\_ Expansion Joints:
  - \_\_\_ Two types needed:
    - \_\_\_ Joints in the curb itself
    - \_\_\_ Joints between curb and adjacent sidewalk
    - \_\_\_ Curb joints should occur at approximately 15' intervals and at all corners
    - \_\_\_ Provide 1/4" radius at edge of joints
- \_\_\_ Joint materials:
  - \_\_\_ 1/2" preformed expansion joint, held down 1" for sealant on top
  - \_\_\_ Heartwood redwood filler strip pour joint

## NOTATION CHECKLIST, SAMPLE NOTES

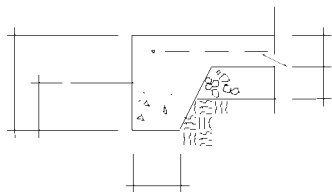
- CURB (TYPE & MATERIAL)
- REINFORCING
- FINISH GRADE/PAVEMENT
- CURB SLOPE/RADIUS/CAMFER
- PAVEMENT SLOPE
- AGGREGATE BASE
- COMPACTED SUBGRADE
- CONTROL/EXPANSION JOINTS (TYPE & SPACING)
- FINISH GRADE
- TOP OF CURB
- PAVEMENT
- CONCRETE
- 3/4" RADIUS ON ALL EXPOSED EDGES
- 1/2" RADIUS EDGE
- CONCRETE
- REBARS, CONT. TOP & BOTTOM; 2" MIN. COVER

- CONC. SIDEWALK
- CRUSHED AGGREGATE BASE
- 6" X 6" - 10 GAGE WIRE MESH
- CAULK
- JOINT SEALER
- EXPANSION JOINT
- EXPANSION JOINT MATERIAL
- BITUMINOUS EXP. JOINT FILLER
- RADIUS
- 3-#4 BARS CONT.
- 2-#5 REBARS CONT.
- BITUMINOUS PAVING
- COMPACTED GRANULAR BASE COURSE
- COMPACTED SUBGRADE OR STRUCTURAL BACKFILL
- 2" DIA. DRAIN PIPE THRU CURB

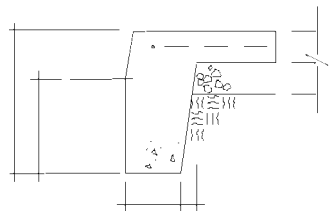
CONCRETE CURB

CONCRETE CURB

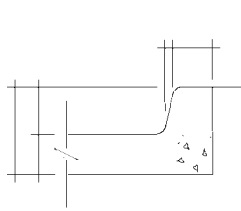
## CONCRETE CURBS



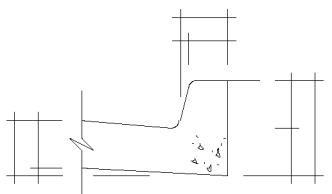
CONCRETE CURB & WALK



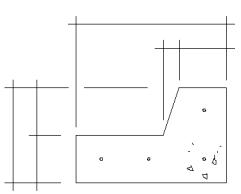
CONCRETE CURB & WALK



CONCRETE CURB & GUTTER



CONCRETE CURB & GUTTER



CONCRETE CURB & GUTTER

## CONCRETE CURBS

### DETAIL DATA CHECKLIST

#### CONCRETE CURBS

- Street curbs must usually follow local road department design standards
- Exposed edges can be chamfered, tooled, or have a 1/2" to 1" radius
- Reinforcing:
  - Precast concrete curbs may have dowel pins and holes at alternate ends
  - 2-#4 bars, one top and one bottom (continuous is common)
  - May have #3 ties or stirrups at 32" to 36" o.c.
  - 2 bars at the bottom of the footing may be needed
  - Bars should have 2" cover
- When curb is continuous w/walk, woven wire mesh (WWM) may be turned down into curb
- Curb depth below grade varies from 12" to 24"
- Curb widths vary: 5" to 7"
- Compact the subgrade
- Provide ample subgrade drainage
- Expansion Joints:
  - Two types needed:
    - Joints in the curb itself
    - Joints between curb and adjacent sidewalk
  - Curb joints should occur at approximately 15' intervals and at all corners
  - Provide 1/4" radius at edge of joints
- Joint materials:
  - 1/2" preformed expansion joint, held down 1" for sealant on top
  - Heartwood redwood filler strip pour joint

#### CONCRETE CURB & GUTTER

- Minimum gutter slope toward curb is 1-2
- Radius at curb nose and gutter can be 1" to 3"
- Space curb/gutter expansion joints no more than 30' apart
- An expansion joint or key is also needed where gutter meets paving
- Recommended reinforcing is 2 to 4 bars, #4 or #5
- Compact the subgrade
- Provide ample subgrade drainage

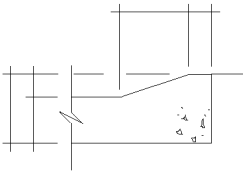
### NOTATION CHECKLIST, SAMPLE NOTES

CURB (TYPE & MATERIAL)  
 REINFORCING  
 FINISH GRADE/PAVEMENT  
 CURB SLOPE/RADIUS/CAMFER  
 PAVEMENT SLOPE  
 AGGREGATE BASE  
 COMPACTED SUBGRADE  
 CONTROL/EXPANSION JOINTS (TYPE & SPACING)  
 FINISH GRADE  
 TOP OF CURB  
 PAVEMENT  
 CONCRETE  
 3/4" RADIUS ON ALL EXPOSED EDGES  
 1/2" RADIUS EDGE  
 CONCRETE  
 REBARS, CONT. TOP & BOTTOM, 2" MIN. COVER  
 CONC. SIDEWALK  
 CRUSHED AGGREGATE BASE  
 6" X 6" - #10 GAUGE WIRE MESH

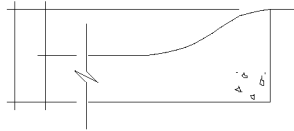
CAULK  
 JOINT SEALER  
 EXPANSION JOINT  
 1/2" EXPANSION JOINT MATERIAL  
 BITUMINOUS EXP. JOINT FILLER  
 RADIUS  
 3-#4 BARS CONT.  
 2-#5 REBARS CONT.  
 BITUMINOUS PAVING  
 COMPACTED GRANULAR BASE COURSE  
 COMPACTED SUBGRADE OR STRUCTURAL BACKFILL



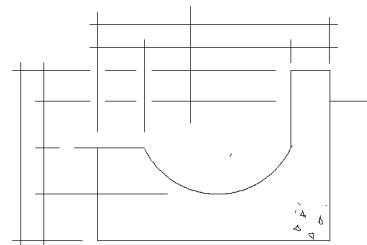
## CONCRETE CURBS



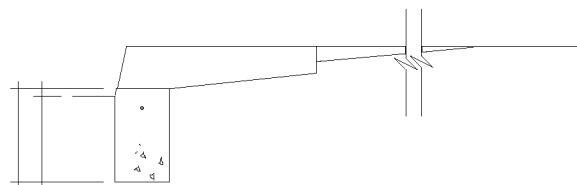
CONCRETE CURB & GUTTER Iowa Curb



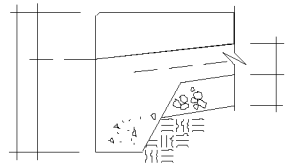
CONCRETE CURB & GUTTER Rolled Curb



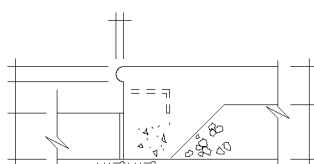
CONCRETE CURB & GUTTER W/Swale



DROPPED CONCRETE CURB & RAMP



CONCRETE CURB & RAMP



STEEL FACED CONCRETE CURB

## CONCRETE CURBS

### DETAIL DATA CHECKLIST

#### CONCRETE CURBS

- Street curbs must usually follow local road department design standards
- Exposed edges can be chamfered, tooled, or have a 1/2" to 1" radius
- Reinforcing:
  - Precast concrete curbs may have dowel pins and holes at alternate ends
  - 2-#4 bars, one top and one bottom (continuous is common)
  - May have #3 ties or stirrups at 32" to 36" o.c.
  - 2 bars at the bottom of the footing may be needed
  - Bars should have 2" cover
  - When curb is continuous w/walk, woven wire mesh (WWM) may be turned down into curb
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  - Compact the subgrade
  - Provide ample subgrade drainage
- Expansion Joints:
  - Two types needed:
    - Joints in the curb itself
    - Provide 1/4" radius at edge of joints
    - Joints between curb and adjacent sidewalk
    - Curb joints should occur at approximately 15' intervals and at all corners
  - Joint materials:
    - 1/2" preformed expansion joint, held down 1" for sealant on top
    - Heartwood redwood filler strip pour joint

#### CONCRETE CURB & GUTTER

- Minimum gutter slope toward curb is 1-2
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- Space curb/gutter expansion joints no more than 30' apart
- An expansion joint or key is also needed where gutter meets paving
- Recommended reinforcing is 2 to 4 bars, #4 or #5
- Compact the subgrade
- Provide ample subgrade drainage

#### CONCRETE PAVING

- Recommended thicknesses for concrete slabs are:
  - 4" for walks, patios, and drives
  - 5" to 6" for roads, public sidewalks, and areas with heavy vehicular traffic
  - Pour slab over a gravel base 4" to 8" thick, depending on thickness of concrete and nature of soil
  - Slope surface of slab 2 or 1/4" per lin. foot minimum
- Surface treatments:
  - To reduce slipperiness:
    - Broom finish
    - Spread abrasive grains on wet concrete
  - To achieve exposed aggregate surface:
    - Sandblast
    - Finish top slab with light water spray before curing and brushing
    - Reinforce slab with 4x4x4/4 or 6x6x10/10 woven wire mesh (WWM)
    - Provide 2" cover over the reinforcing
- Expansion Joints:
  - Placement varies with climate
  - Average 30' o.c. in walks
  - 15' to 20' squares in larger areas of concrete
  - Dowelling 1/2" to 1" diameter dowel in sleeve, graphite coated; 12" to 24" long, 12" to 36" o.c.
  - Gap in slab filled with preformed or poured joint filler
- Control Joints:
  - Can be tooled or saw cut
  - 1/8" thick nonferrous strip, or poured joint filler
  - Joint must be 1/4th of the depth of the slab to be effective
  - Edges of slab at joint should have 1/8" radius
  - Joints may be dowelled (as above), without sleeve

### NOTATION CHECKLIST,

#### SAMPLE NOTES

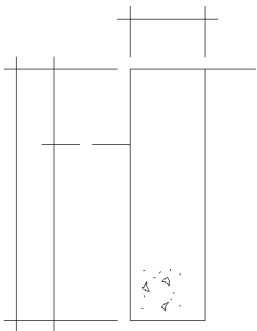
- CURB (TYPE & MATERIAL)
- REINFORCING
- FINISH GRADE/PAVEMENT
- CURB SLOPE/RADIUS/CAMFER
- PAVEMENT SLOPE
- AGGREGATE BASE
- COMPACTED SUBGRADE
- CONTROL/EXPANSION JOINTS (TYPE & SPACING)
- FINISH GRADE
- TOP OF CURB
- PAVEMENT
- CONCRETE
- 3/4" RADIUS ON ALL EXPOSED EDGES
- 1/2" RADIUS EDGE
- CONCRETE

REBARS, CONT. TOP & BOTTOM, @" MIN. COVER

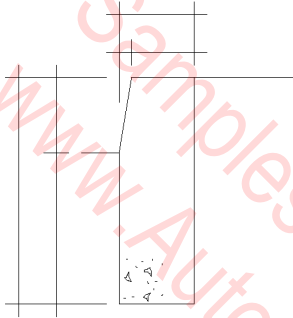
- CONC. SIDEWALK
- CRUSHED AGGREGATE BASE
- 6" X 6" - #10 GAUGE WIRE MESH
- CAULK
- JOINT SEALER
- EXPANSION JOINT
- 1/2" EXPANSION JOINT MATERIAL
- BITUMINOUS EXP. JOINT FILLER
- RADIUS
- 3-#4 BARS CONT
- 2-#5 REBARS CONT.
- BITUMINOUS PAVING
- COMPACTED GRANULAR BASE COURSE
- COMPACTED SUBGRADE OR STRUCTURAL BACKFILL
- 2" DIA. DRAIN PIPE THRU CURB

## CONCRETE CURBS

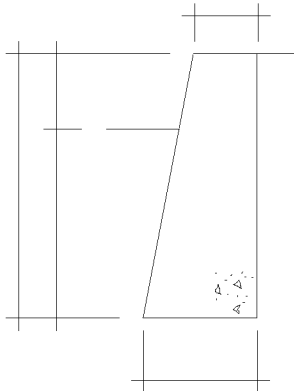
## CONCRETE CURBS



PRECAST CONCRETE CURB



PRECAST CONCRETE CURB



PRECAST CONCRETE CURB

### DETAIL DATA CHECKLIST

#### CONCRETE CURBS

- \_\_\_ Street curbs must usually follow local road department design standards
- \_\_\_ Exposed edges can be chamfered, tooled, or have a 1/2" to 1" radius
- \_\_\_ Reinforcing:
  - \_\_\_ Precast concrete curbs may have dowel pins and holes at alternate ends
  - \_\_\_ 2-#4 bars, one top and one bottom (continuous is common)
  - \_\_\_ May have #3 ties or stirrups at 32" to 36" o.c.
  - \_\_\_ 2 bars at the bottom of the footing may be needed
  - \_\_\_ Bars should have 2" cover
- \_\_\_ When curb is continuous w/walk, woven wire mesh (WWM) may be turned down into curb
  - \_\_\_ Curb depth below grade varies from 12" to 24"
  - \_\_\_ Curb width varies from 5" to 7"
  - \_\_\_ Compact the subgrade
  - \_\_\_ Provide ample subgrade drainage
- \_\_\_ Expansion Joints:
  - \_\_\_ Two types needed:
    - \_\_\_ Joints in the curb itself
    - \_\_\_ Joints between curb and adjacent sidewalk
    - \_\_\_ Curb joints should occur at approximately 15' intervals and at all corners
    - \_\_\_ Provide 1/4" radius at edge of joints
  - \_\_\_ Joint materials:
    - \_\_\_ 1/2" preformed expansion joint, held down 1" for sealant on top
    - \_\_\_ Heartwood redwood filler strip pour joint

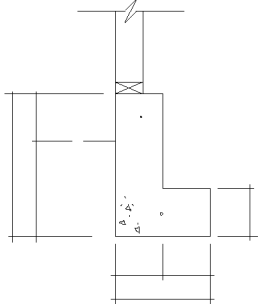
### NOTATION CHECKLIST, SAMPLE NOTES

CURB (TYPE & MATERIAL)  
 REINFORCING  
 FINISH GRADE/PAVEMENT  
 CURB SLOPE/RADIUS/CAMFER  
 PAVEMENT SLOPE  
 AGGREGATE BASE  
 COMPACTED SUBGRADE  
 CONTROL/EXPANSION JOINTS (TYPE & SPACING)

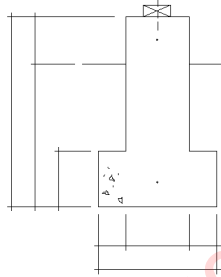
FINISH GRADE  
 TOP OF CURB  
 PAVEMENT  
 CONCRETE  
 3/4" RADIUS ON ALL EXPOSED EDGES  
 1/2" RADIUS EDGE  
 CONCRETE  
 REBARS, CONT. TOP & BOTTOM, 2" MIN. COVER  
 CONC. SIDEWALK

CRUSHED AGGREGATE BASE  
 6" X 6" - 10 GAUGE WIRE MESH  
 CAULK  
 JOINT SEALER  
 EXPANSION JOINT  
 1/2" EXPANSION JOINT MATERIAL  
 BITUMINOUS EXP. JOINT FILLER  
 RADIUS  
 3 - #4 BARS CONT.  
 2 - #5 REBARS CONT.  
 BITUMINOUS PAVING  
 COMPACTED GRANULAR BASE COURSE  
 COMPACTED SUBGRADE OR STRUCTURAL  
 BACKFILL  
 2" DIA. DRAIN PIPE THRU CURB

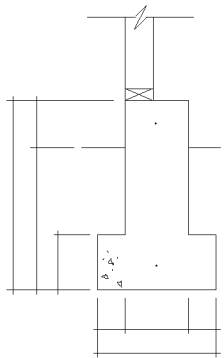
## CONCRETE FOOTINGS



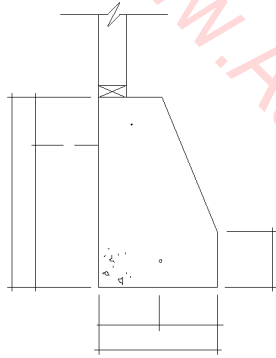
CONCRETE FOOTING  
1-Story



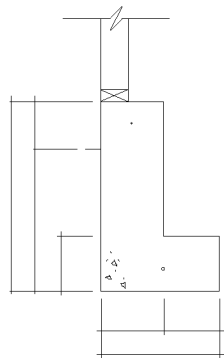
INTERIOR CONCRETE FOOTING  
2-Story



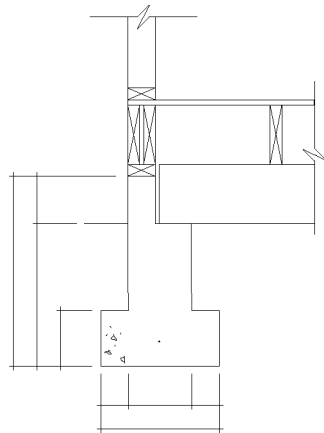
CONCRETE FOOTING  
2-Story



CONCRETE FOOTING  
2-Story



CONCRETE FOOTING  
2-Story



CONC. FOOTING W/GIRDER POCKET  
1 Story

## CONCRETE FOOTINGS

### NOTATION CHECKLIST, SAMPLE NOTES

2 X STUDS @ "O.C.  
 2 X PLATE  
 SUBFLOOR  
 2 X SOLID BLOCKING  
 2 X FLOOR JOISTS @ "O.C.  
 MUDSILL W/ LEVELING GROUT  
 ANCHOR BOLTS  
 REINFORCING BARS  
 EXTERIOR FINISH GRADE  
 INTERIOR FINISH GRADE--CRAWL SPACE  
 INSULATION  
 TERMITE SHIELD  
 RODENT BARRIER  
 VAPOR BARRIER W/ SAND COVER  
 FOOTING DRAIN TILE  
 CONCRETE SLAB  
 WELDED WIRE MESH REINFORCING  
 WATERPROOF MEMBRANE  
 CRUSHED ROCK OR TAMPED SAND  
 STEEL DOWELS  
 CONCRETE FOOTING  
 CONCRETE FOOTING REINFORCING BARS  
 FILLED & TAMPED EARTH

2" RIGID INSUL. (@foundation wall/grade beam )  
 DAMPROOFING (@foundation wall/grade beam )  
 #15 FELT (over fill surrounding drain tile)  
 4" DRAIN TILE, SLOPE 1/8" PER 12"  
 POROUS GRANULAR FILL (typ. min.: 12" above,  
 6" below, & 6" on sides of drain tile)  
 6" COMPACTED EARTH FILL  
 BACKFILL  
 FINISH GRADE ELEV.  
 FINISH FLOOR ELEV.  
 GRADE BEAM  
 CONC. FTG. W/#4 REBARS @12"O.C. EA. WAY  
 1/4" LEVELING PLATE ON  
 3/4" NON-SHRINK GROUT  
 3/4" DIA. ANCHOR BOLTS 14" LONG  
 1/2" DIA. ANCHOR BOLTS 10" LONG  
 #3 TIES @ 10" O.C.  
 2 X 4 KEYWAY  
 PEDESTAL  
 BOTTOM OF FOOTING ELEV.  
 COLUMN CENTER LINE  
 CONCRETE PIER  
 4 X 4 POST OR 4 X 8 BEAM ON COL. BASE

Samples from  
 www.AutoCADDetails.net

## CONCRETE FOOTINGS

## CONCRETE FOOTINGS

### DETAIL DATA CHECKLIST

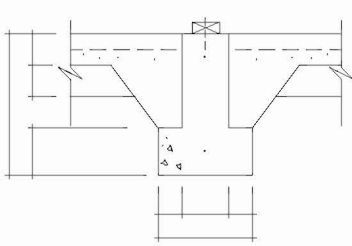
#### FOOTINGS WITH SLAB FLOORS

- I-shaped system
  - Two-pour system with foundation poured first and the slab afterward
  - Place joints at intersections between floor and wall plane
- Interior bearing footings
  - Depth should match exterior footings
  - Avoid unbalanced, concentrated interior/exterior wall loads on soil
- Interior nonbearing footings
  - Carry only the loads of walls above
  - Minimum thickness as required to accommodate anchor bolt—3" to 4" cover each side

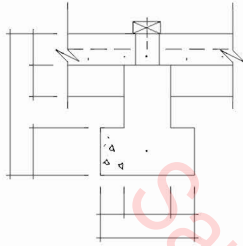
#### NOTATION CHECKLIST, SAMPLE NOTES

2 X STUDS @ "O.C.  
 2 X PLATE  
 SUBFLOOR  
 SOLID BLOCKING  
 2 X FLOOR JOISTS @ "O.C.  
 MUDDSILL W/ LEVELING GROUT  
 ANCHOR BOLTS  
 REINFORCING BARS  
 EXTERIOR FINISH GRADE  
 INTERIOR FINISH GRADE—CRAWL SPACE  
 INSULATION  
 TERMITE SHIELD  
 RODENT BARRIER  
 VAPOR BARRIER W/ SAND COVER  
 FOOTING DRAIN TILE  
 CONCRETE SLAB  
 WELDED WIRE MESH REINFORCING  
 WATERPROOF MEMBRANE  
 CRUSHED ROCK OR TAMPED SAND  
 STEEL DOWELS  
 CONCRETE FOOTING  
 CONCRETE FOOTING REINFORCING BARS  
 FILLED & TAMPED EARTH  
 CONC. SLAB, SEE PLAN FOR REINF.  
 6" COMPACTED FILL  
 6" MIN. GRAVEL  
 REINFORCING BARS  
 CONT. ANGLES EMBEDDED IN SLAB  
 W/ANCHORS  
 VAPOR BARRIER  
 NEW COMPACTED FILL  
 4" CONC. SLAB W/ 6X6 #10/10 W.W.M.  
 6" CONC. SLAB, SEE FOUNDATION PLAN  
 FOR REINF.  
 #3 @ 12" O.C.  
 #4 @ 16" O.C. EACH WAY  
 FORMED METAL KEYED JOINT  
 1 X 2 SHEAR KEY  
 DOWELS X @ O.C.  
 1/8" SAWED JOINT, FILL W/ JOINT FILLER  
 1/4" X 1/4" SAWED EXP. CONTRACTION JOINT  
 1/2" ISOLATION JOINT W/ SEALER  
 1/2" PREFORMED EXP. JOINT FILLER  
 STOP SLAB REINF. @ JOINT.  
 FINISH FLOOR  
 1/2" PREMOLDED FILLER & SEALANT  
 SEALANT  
 CONTROL JOINT OR CONSTRUCTION JOINT  
 2 X 4 SOLE ON 30# FELT

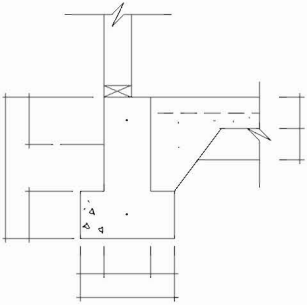
2" RIGID INSUL. (@foundation wall/grade beam )  
 DAMPROOFING (@foundation wall/grade beam )  
 #15 FELT (over fill surrounding drain tile)  
 MIN #12 RAG ROOFING FELT (over fill @drain)  
 4" PERFERATED PIPE, 1/8" PER FOOT  
 MIN. SLOPE TO OUTLET OR DAYLIGHT  
 4" DRAIN TILE SLOPE 1/8" PER 12"  
 POUROUS GRANULAR FILL (typ. min.: 12" above,  
 6" below, & 6" on sides of drain tile)  
 6" COMPACTED EARTH FILL  
 BACKFILL  
 FINISH GRADE ELEV.  
 FINISH FLOOR ELEV.  
 GRADE BEAM  
 CONC. FTG. W/#4 @ 12" O.C. EA. WAY  
 1/4" LEVELING PLATE ON  
 3/4" NON-SHRINK GROUT  
 BASE PLATE & LEVELING PLATE, SEE SCHED.  
 3/4" DIA. ANCHOR BOLTS 14" LONG  
 #3 TIES @ 10" O.C.  
 #4 CONT.  
 2 X 4 KEYWAY  
 PEDESTAL  
 BOTTOM OF FOOTING EL.  
 FOOTING, SEE PLAN FOR MARK / SEE  
 SCHED FOR SIZE & REINF.  
 COLUMN CENTER LINE  
 CONCRETE PIER  
 4 X 4 POST OR 4 X 8 BEAM ON COL. BASE



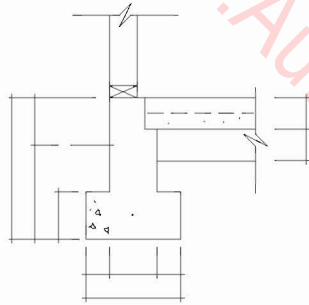
CONCRETE FOOTING W/  
SLAB 1 Story



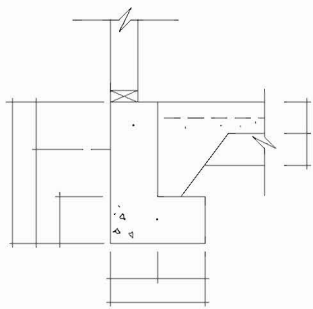
CONCRETE FOOTING  
W/SLAB 1 Story



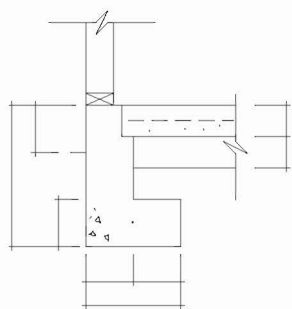
CONCRETE FOOTING  
W/ SLAB 1 Story



CONCRETE FOOTING  
W/ SLAB 1 Story

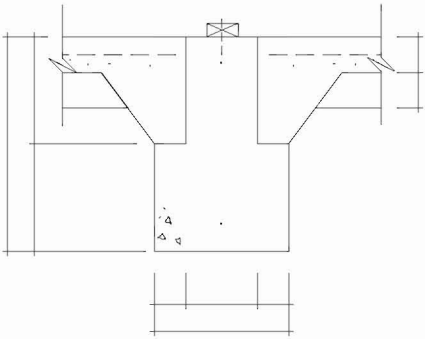


CONCRETE FOOTING W/  
SLAB 1 Story

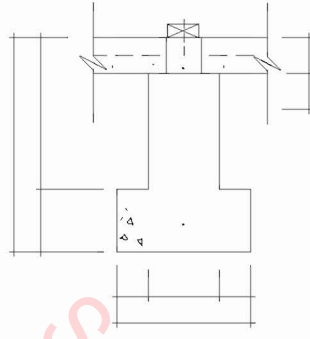


CONCRETE FOOTING W/  
SLAB 1 Story

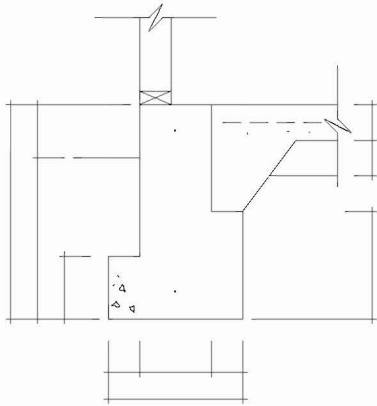
## CONCRETE FOOTINGS



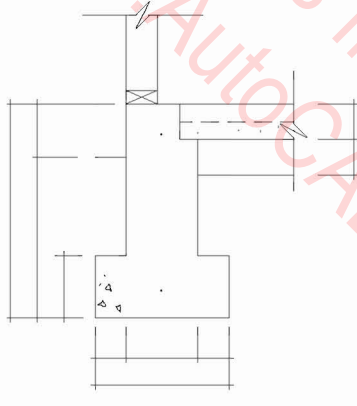
CONCRETE FOOTING W/  
SLAB 2 Story



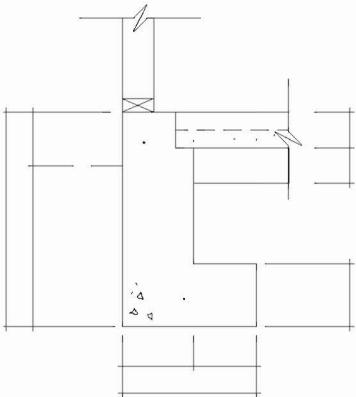
CONCRETE FOOTING W/  
SLAB 2 Story



CONCRETE FOOTING  
W/ SLAB 2 Story



CONCRETE FOOTING  
W/ SLAB 2 Story



CONCRETE FOOTING  
W/ SLAB 2 Story

## CONCRETE FOOTINGS

### DETAIL DATA CHECKLIST

#### FOOTINGS WITH SLAB FLOORS

- I-shaped system
- Two-pour system with foundation poured first and the slab afterward
  - Place joints at intersections between floor and wall plane
- Interior bearing footings
  - Depth should match exterior footings
  - Avoid unbalanced, concentrated interior/exterior wall loads on soil
- Interior nonbearing footings
  - Carry only the loads of walls above
  - Minimum thickness as required to accommodate anchor bolt—3" to 4" cover each side

### NOTATION CHECKLIST

- 2 X STUDS @ "O.C.
- 2 X PLATE
- SUBFLOOR
- 2 X SOLID BLOCKING
- 2 X FLOOR JOISTS @ "O.C.
- MUDSILL W/ LEVELING GROUT
- ANCHOR BOLTS
- REINFORCING BARS
- EXTERIOR FINISH GRADE
- INTERIOR FINISH GRADE—CRAWL SPACE
- INSULATION
- TERMITE SHIELD
- RODENT BARRIER
- VAPOR BARRIER W/ SAND COVER
- FOOTING DRAIN TILE
- CONCRETE SLAB
- WELDED WIRE MESH REINFORCING
- WATERPROOF MEMBRANE
- CRUSHED ROCK OR TAMPED SAND
- STEEL DOWELS
- CONCRETE FOOTING
- CONCRETE FOOTING REINFORCING BARS
- FILLED & TAMPED EARTH

# CONCRETE FOOTINGS

# CONCRETE FOOTINGS

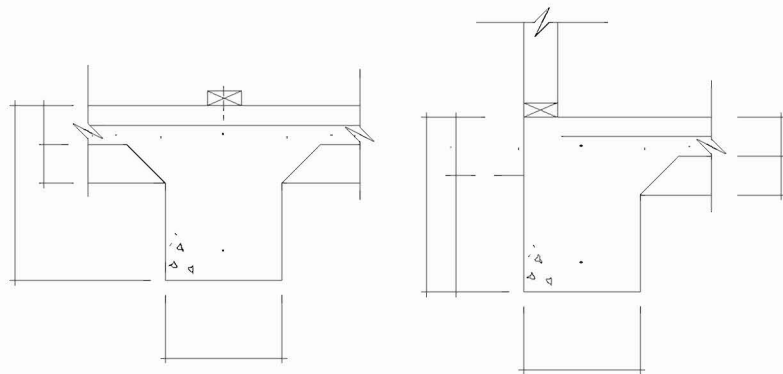
## DETAIL DATA CHECKLIST

### FOOTINGS WITH SLAB FLOORS

- T-shaped system
- Two-pour system with foundation poured first and the slab after
- Place joints at intersections between floor and wall plane
- Interior bearing footings
  - Depth should match exterior footings
  - Avoid unbalanced, concentrated interior/exterior wall loads on soil
- Interior nonbearing footings
  - Carry only the loads of walls above
  - Minimum thickness as required to accommodate anchor bolt—3" to 4" cover each side

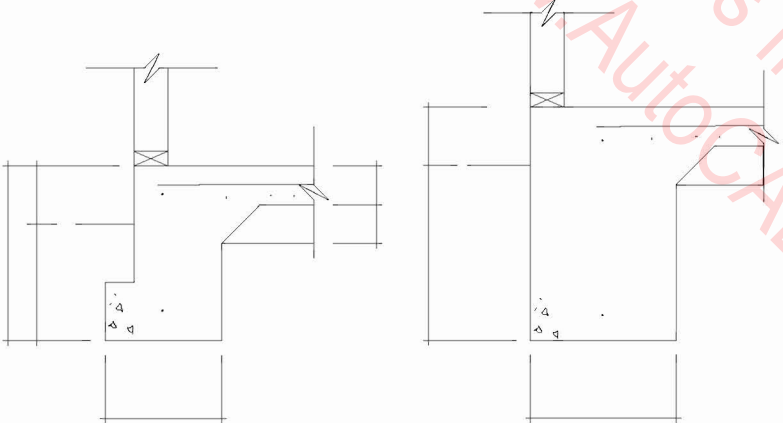
## NOTATION CHECKLIST

- 2 X STUDS @ "0.C.
- 2 X PLATE
- SUBFLOOR
- 2 X SOLID BLOCKING
- 2 X FLOOR JOISTS @ "0.C.
- MUDSILL W/ LEVELING GROUT
- ANCHOR BOLTS
- REINFORCING BARS
- EXTERIOR FINISH GRADE
- INTERIOR FINISH GRADE—CRAWL SPACE
- INSULATION
- TERMITE SHIELD
- RODENT BARRIER
- VAPOR BARRIER W/ SAND COVER
- FOOTING DRAIN TILE
- CONCRETE SLAB
- WELDED WIRE MESH REINFORCING
- WATERPROOF MEMBRANE
- CRUSHED ROCK OR TAMPED SAND
- STEEL DOWELS
- CONCRETE FOOTING
- CONCRETE FOOTING REINFORCING BARS
- FILLED & TAMPED EARTH



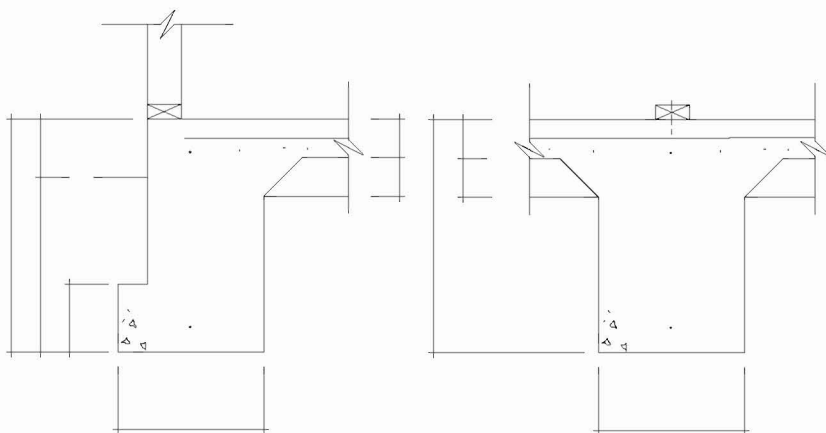
CONCRETE FOOTING & SLAB 1 Story

CONCRETE FOOTING & SLAB 1 Story



CONCRETE FOOTING & SLAB 1 Story

CONCRETE FOOTING & SLAB 2 Story



CONCRETE FOOTING & SLAB 2 Story

CONCRETE FOOTING & SLAB 2 Story

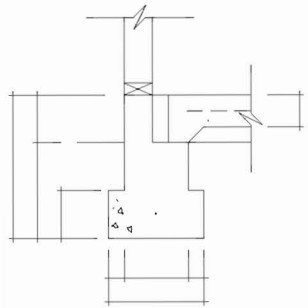
## CONCRETE FOOTINGS

## CONCRETE FOOTINGS

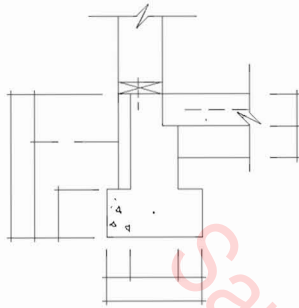
### NOTATION CHECKLIST

2 X STUDS @ "O.C.  
 2 X PLATE  
 SUBFLOOR  
 2 X SOLID BLOCKING  
 2 X FLOOR JOISTS @ "O.C.  
 MUDSILL W/ LEVELING GROUT  
 ANCHOR BOLTS  
 REINFORCING BARS  
 EXTERIOR FINISH GRADE  
 INTERIOR FINISH GRADE--CRAWL SPACE  
 INSULATION  
 TERMITE SHIELD  
 RODENT BARRIER

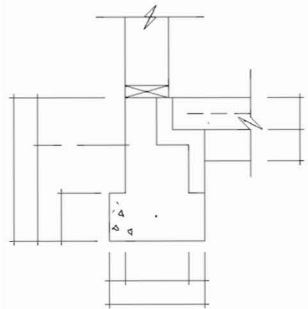
VAPOR BARRIER W/ SAND COVER  
 FOOTING DRAIN TILE  
 CONCRETE SLAB  
 WELDED WIRE MESH REINFORCING  
 WATERPROOF MEMBRANE  
 CRUSHED ROCK OR TAMPED SAND  
 STEEL DOWELS  
 CONCRETE FOOTING  
 CONCRETE FOOTING REINFORCING BARS  
 FILLED & TAMPED EARTH



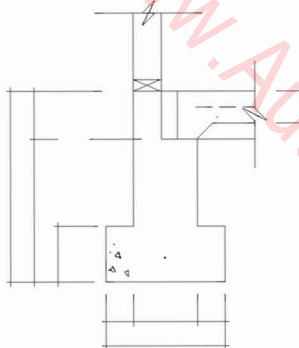
CONCRETE FOOTING  
W/ SLAB 1 Story



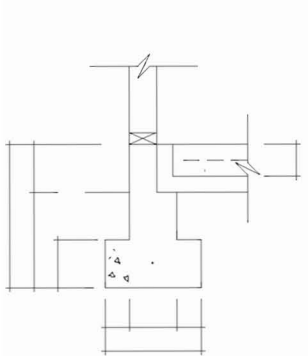
CONCRETE FOOTING  
W/SLAB 1 Story



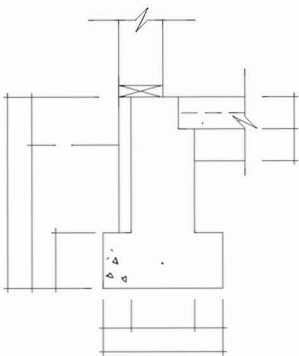
CONCRETE FOOTING  
W/SLAB 1 Story



CONCRETE FOOTING  
W/SLAB 2 Story



CONCRETE FOOTING  
W/SLAB 1 Story

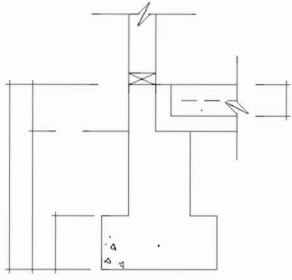


CONCRETE FOOTING  
W/SLAB 2 Story

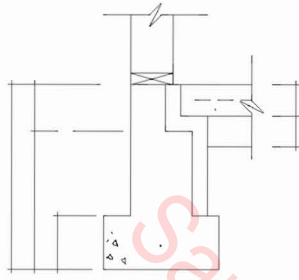


## CONCRETE FOOTINGS

## CONCRETE FOOTINGS



CONCRETE FOOTING  
W/SLAB 2 Story

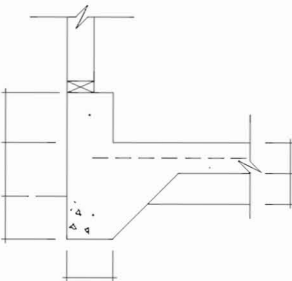


CONCRETE FOOTING  
W/SLAB 2 Story

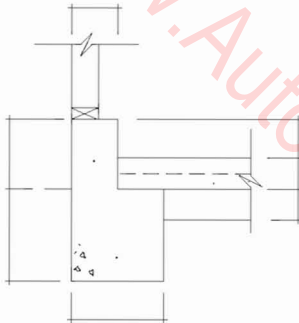
### NOTATION CHECKLIST

2 X STUDS @ "O.C.  
 2 X PLATE  
 SUBFLOOR  
 2 X SOLID BLOCKING  
 2 X FLOOR JOISTS @ "O.C.  
 MUDSILL W/ LEVELING GROUT  
 ANCHOR BOLTS  
 REINFORCING BARS  
 EXTERIOR FINISH GRADE  
 INTERIOR FINISH GRADE—CRAWL SPACE  
 INSULATION  
 TERMITE SHIELD  
 RODENT BARRIER

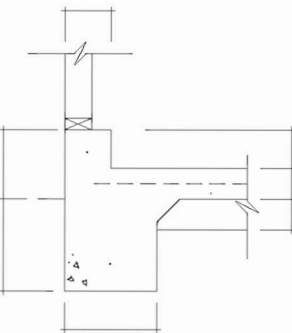
VAPOR BARRIER W/ SAND COVER  
 FOOTING DRAIN TILE  
 CONCRETE SLAB  
 WELDED WIRE MESH REINFORCING  
 WATERPROOF MEMBRANE  
 CRUSHED ROCK OR TAMPED SAND  
 STEEL DOWELS  
 CONCRETE FOOTING  
 CONCRETE FOOTING REINFORCING BARS  
 FILLED & TAMPED EARTH



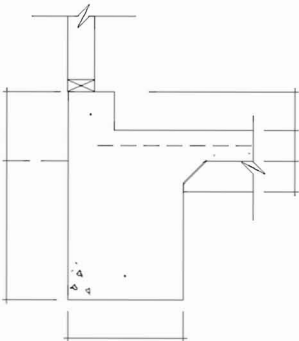
CONC. FOOTING & SLAB  
Garage 1 Story



CONC. FOOTING  
W/SLAB Garage 1 Story



CONC. FOOTING & SLAB  
Garage 1 Story

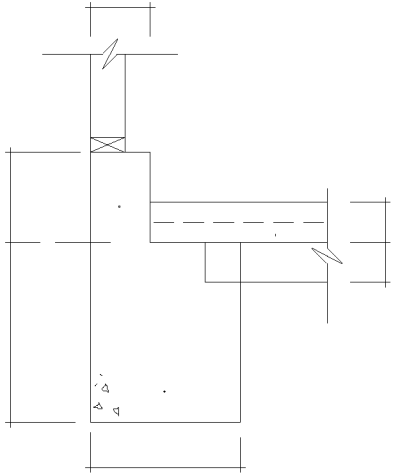


CONC. FOOTING & SLAB  
Garage 2 Story

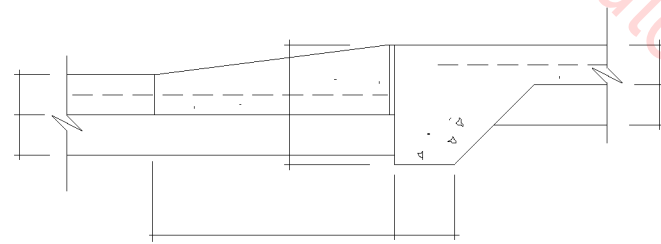


# CONCRETE FOOTINGS

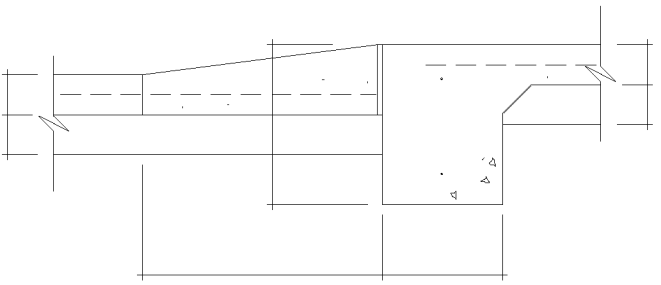
# CONCRETE FOOTINGS



CONC. FOOTING W/SLAB  
Garage 2 Story



CONC. FOOTING/SLAB  
W/APRON Garage



CONC. FOOTING/SLAB  
W/APRON Garage

## DETAIL DATA CHECKLIST

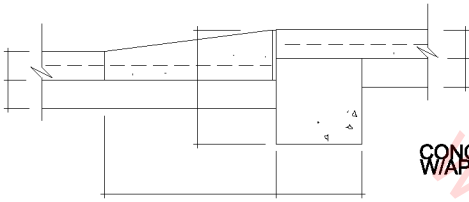
### GARAGE SLABS

- 5" or 6" thick instead of 4"
- Slope slab to garage door and apron or to floor drain
- Slope apron slab 1" to 3" to driveway
- Separate apron from driveway slab with 1/2" construction joint

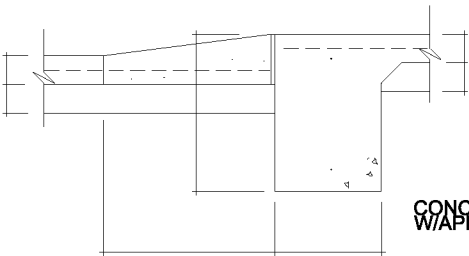
## NOTATION CHECKLIST, SAMPLE NOTES

- 2 X STUDS @ "O.C.
- 2 X PLATE SUBFLOOR
- 2 X SOLID BLOCKING
- 2 X FLOOR JOISTS @ "O.C.
- MUDSILL W/ LEVELING GROUT
- ANCHOR BOLTS
- REINFORCING BARS
- EXTERIOR FINISH GRADE
- INTERIOR FINISH GRADE--CRAWL SPACE INSULATION
- TERMITE SHIELD
- RODENT BARRIER
- VAPOR BARRIER W/ SAND COVER
- FOOTING DRAIN TILE
- CONCRETE SLAB
- WELDED WIRE MESH REINFORCING
- WATERPROOF MEMBRANE
- CRUSHED ROCK OR TAMPED SAND
- STEEL DOWELS
- CONCRETE FOOTING
- CONCRETE FOOTING REINFORCING BARS
- FILLED & TAMPED EARTH
- 2" RIGID INSUL. (@foundation wall/grade beam )
- DAMPROOFING (@foundation wall/grade beam)
- #15 FELT (over fill surrounding drain tile)
- 4" DRAIN TILE, SLOPE 1/8" PER 12"
- POROUS GRANULAR FILL (typ. min.: 12" above, 6" below, & 6" on sides of drain tile)
- 6" COMPACTED EARTH FILL BACKFILL
- FINISH GRADE ELEV.
- FINISH FLOOR ELEV.
- GRADE BEAM
- CONC. FTG. W/#4 REBARS @12"O.C. EA. WAY
- 1/4" LEVELING PLATE ON 3/4" NON-SHRINK GROUT
- 3/4" DIA. ANCHOR BOLTS 14" LONG
- #3 TIES @ 10" O.C.
- 1/2" DIA. ANCHOR BOLTS 10" LONG
- 2 X 4 KEYWAY PEDESTAL
- BOTTOM OF FOOTING ELEV.
- COLUMN CENTER LINE
- CONCRETE PIER
- 4 X 4 POST OR 4 X 8 BEAM ON COL. BASE
- CONC. SLAB, SEE PLAN FOR REINF.
- 6" COMPACTED FILL
- 6" MIN. GRAVEL
- REINFORCING BARS
- CONT. ANGLES EMBEDDED IN SLAB W/ ANCHORS
- VAPOR BARRIER
- NEW COMPACTED FILL
- 4" CONC. SLAB W/ 6X6-#10 W.W.M.
- 6" CONC. SLAB, SEE FOUNDATION PLAN FOR REINF.
- #3 @ 12" O.C.
- #4 @ 16" O.C. EACH WAY
- FORMED METAL KEYED JOINT
- 1 X 2 SHEAR KEY
- DOWELS X @ O.C.
- 1/8" SAWED JOINT, FILL W/ JOINT FILLER
- 1/4" X 1/4" SAWED EXP. CONTRACTION JOINT.
- 1/2" ISOLATION JOINT W/ SEALER
- 1/2" PREFORMED EXP. JOINT FILLER
- CONTROL JOINT OR CONSTRUCTION JOINT
- STOP SLAB REINF. @ JOINT.
- FINISH FLOOR
- SEALANT
- 2 X 4 SOLE ON 30
- # FELT
- SLOPE APRON TO DRAIN AT SIDE

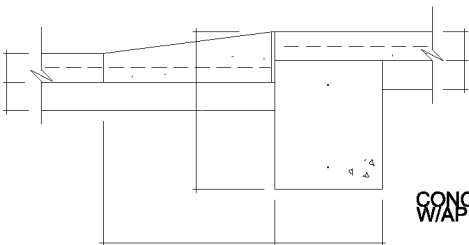
## CONCRETE FOOTINGS



CONC. FOOTING/SLAB  
W/APRON Garage



CONC. FOOTING/SLAB  
W/APRON Garage 2 Story



CONC. FOOTING/SLAB  
W/APRON Garage 2 Story

## CONCRETE FOOTINGS

### DETAIL DATA CHECKLIST

#### GARAGE SLABS

- 5" or 6" thick instead of 4"
- Slope slab to garage door and apron or to floor drain
- Slope apron slab 1" to 3" to driveway
- Separate apron from driveway slab with 1/2" construction joint

### NOTATION CHECKLIST, SAMPLE NOTES

- 2 X STUDS @ "O.C.
- 2 X PLATE
- SUBFLOOR
- 2 X SOLID BLOCKING
- 2 X FLOOR JOISTS @ "O.C.
- MUDSILL W/ LEVELING GROUT
- ANCHOR BOLTS
- REINFORCING BARS
- EXTERIOR FINISH GRADE
- INTERIOR FINISH GRADE—CRAWL SPACE
- INSULATION
- TERMITE SHIELD
- RODENT BARRIER
- VAPOR BARRIER W/ SAND COVER
- FOOTING DRAIN TILE
- CONCRETE SLAB
- WELDED WIRE MESH REINFORCING
- WATERPROOF MEMBRANE
- CRUSHED ROCK OR TAMPED SAND
- STEEL DOWELS
- CONCRETE FOOTING
- CONCRETE FOOTING REINFORCING BARS
- FILLED & TAMPED EARTH
- 2" RIGID INSUL. (@foundation wall/grade beam )
- DAMP-PROOFING (@foundation wall/grade beam)
- #15 FELT (over fill surrounding drain tile)
- 4" DRAIN TILE SLOPE 1/8" PER 12"
- POROUS GRANULAR FILL (typ. min.: 12" above,  
6" below, & 6" on sides of drain tile)
- 6" COMPACTED EARTH FILL
- BACKFILL
- FINISH GRADE ELEV.
- FINISH FLOOR ELEV.
- GRADE BEAM
- CONC. FTG. W/#4 REBARS @12"O.C. EA. WAY
- 1/4" LEVELING PLATE ON
- 3/4" NON-SHRINK GROUT
- 3/4" DIA. ANCHOR BOLTS 14" LONG
- 1/2" DIA. ANCHOR BOLTS 10" LONG
- #3 TIES @ 10" O.C.
- 2 X 4 KEYWAY
- PEDESTAL

- BOTTOM OF FOOTING EL.
- COLUMN CENTER LINE
- CONCRETE PIER
- 4 X 4 POST OR 4 X 8 BEAM ON COL. BASE
- CONC. SLAB, SEE PLAN FOR REINF.
- 6" COMPACTED FILL
- 6" MIN. GRAVEL
- REINFORCING BARS
- CONT. ANGLES EMBEDDED IN SLAB W/ ANCHORS
- VAPOR BARRIER
- NEW COMPACTED FILL
- 4" CONC. SLAB W/ 6X6-#10 W.W.M.
- 6" CONC. SLAB, SEE FOUNDATION PLAN FOR REINF.
- #3 @ 12" O.C.
- #4 @ 16" O.C. EACH WAY
- FORMED METAL KEYED JOINT
- 1 X 2 SHEAR KEY
- DOWELS 5" @ "O.C.
- 1/8" SAWED JOINT, FILL W/ JOINT FILLER
- 1/4" X 1/4" SAWED EXP. CONTRACTION JOINT.
- 1/2" ISOLATION JOINT W/ SEALER
- CONTROL JOINT OR CONSTRUCTION JOINT
- 1/2" PREMOULDED FILLER & SEALANT
- STOP SLAB REINF. @ JOINT.
- FINISH FLOOR
- SEALANT
- 2 X 4 SOLE ON 30# FELT
- SLOPE APRON TO DRAIN AT SIDE

## CONCRETE FOOTINGS W/BRICK VENEER

## CONCRETE FOOTINGS W/ BRICK VENEER

### DETAIL DATA CHECKLIST

#### FOOTINGS WITH MASONRY WALLS

- Considerations for developing a footing for a masonry wall:
  - Weight being supported
  - Soil condition
  - Two wythes of bricks with solid grout in between rest on footing or on wall
  - Use a key, or notched area at top of footing, to secure masonry wall

### NOTATION CHECKLIST, SAMPLE NOTES

2 X STUDS @ "0.C.  
 2 X PLATE  
 SUBFLOOR  
 2 X SOLID BLOCKING  
 2 X FLOOR JOISTS @ "0.C.  
 MUDSILL W/ LEVELING GROUT  
 ANCHOR BOLTS  
 REINFORCING BARS  
 EXTERIOR FINISH GRADE  
 INTERIOR FINISH GRADE—CRAWL SPACE  
 INSULATION  
 TERMITE SHIELD  
 RODENT BARRIER  
 VAPOR BARRIER W/ SAND COVER  
 FOOTING DRAIN TILE  
 CONCRETE SLAB  
 WELDED WIRE MESH REINFORCING  
 WATERPROOF MEMBRANE  
 CRUSHED ROCK OR TAMPED SAND  
 STEEL DOWELS  
 CONCRETE FOOTING  
 CONCRETE FOOTING REINFORCING BARS  
 FILLED & TAMPED EARTH

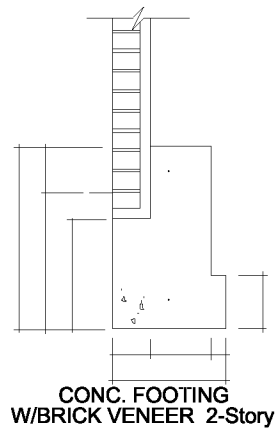
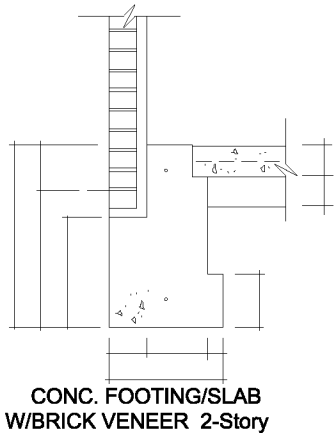
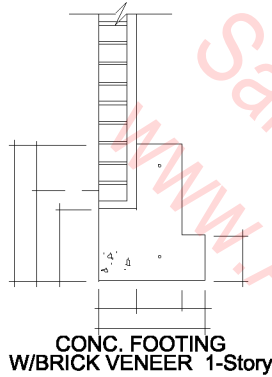
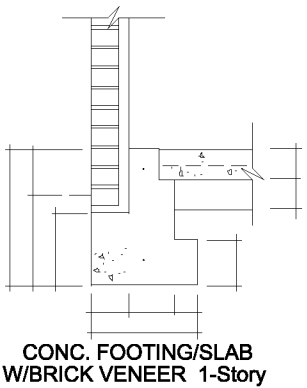
4" CONCRETE BLOCK  
 4" LIGHTWEIGHT CONC. BLOCK  
 FACE BRICK  
 BRICK VENEER W/ METAL TIES TO STUD  
 WALL  
 WEEP HOLES  
 CONT. SEALANT  
 4" STARTER COURSE  
 CONT. FLASHING  
 FABRIC FLASHING SET IN REGLET  
 GROUT  
 SHIM  
 5" X 3" X 1/4" CONT. SHELF ANGLE  
 STEEL LINTEL ELEV.  
 STEEL ANGLE LINTEL  
 WEEP HOLES @ 32" O.C.

2" RIGID INSUL. (@ foundation wall/grade beam )  
 DAMPROOFING (@ foundation wall/grade beam)  
 #15 FELT (over fill surrounding drain tile)  
 4" PERFORATED PIPE, 1/8" PER FOOT  
 MIN. SLOPE TO OUTLET OR DAYLIGHT  
 4" DRAIN TILE, SLOPE 1/8" PER 12"  
 POROUS GRANULAR FILL (typ. min.: 12" above,  
 6" below, & 6" on sides of drain tile)

6" COMPACTED EARTH FILL  
 BACKFILL  
 FINISH GRADE ELEV.  
 FINISH FLOOR ELEV.  
 BOTTOM OF FOOTING ELEV.  
 GRADE BEAM  
 CONC. FTG. W/#4@12"O.C. EA. WAY  
 1/4" LEVELING PLATE ON  
 3/4" NON-SHRINK GROUT  
 BASE PLATE & LEVELING PLATE, SEE SCHED.

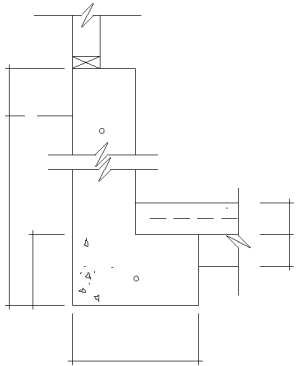
3/4" DIA. ANCHOR BOLTS 14" LONG  
 #3 TIES @ 10" O.C.  
 #4 CONT.  
 2 X 4 KEYWAY  
 PEDESTAL  
 COLUMN CENTER LINE  
 CONCRETE PIER  
 4 X 4 POST OR 4 X 8 BEAM ON COL. BASE  
 CONC. SLAB, SEE PLAN FOR REINF.  
 6" COMPACTED FILL  
 6" MIN. GRAVEL  
 REINFORCING BARS  
 CONT. ANGLES EMBEDDED IN SLAB W/ ANCHORS  
 VAPOR BARRIER  
 NEW COMPACTED FILL  
 4" CONC. SLAB W/ 6X6 #10 W.W.M.  
 6" CONC. SLAB, SEE FOUNDATION PLAN FOR

REINF.  
 #3 @ 12" O.C.  
 #4 @ 16" O.C. EACH WAY  
 FORMED METAL KEYED JOINT  
 1 X 2 SHEAR KEY  
 DOWELS X @ "0.C.  
 1/8" SAWED JOINT, FILL W/ JOINT FILLER  
 1/4" X 1/4" SAWED EXP. CONTRACTION JOINT.  
 1/2" ISOLATION JOINT W/ SEALER  
 1/2" PREFORMED EXP. JOINT FILLER  
 1/2" PREMOLDED FILLER & SEALANT  
 CONTROL JOINT OR CONSTRUCTION JOINT  
 STOP SLAB REINF. @ JOINT.  
 FINISH FLOOR  
 SEALANT  
 2 X 4 SOLE ON 30# FELT

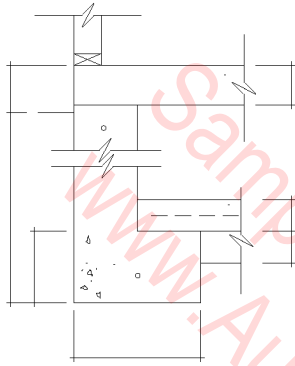


## CONCRETE FOUNDATION WALLS

## CONCRETE FOUNDATION WALLS



CONC. FOUNDATION WALL  
Basement

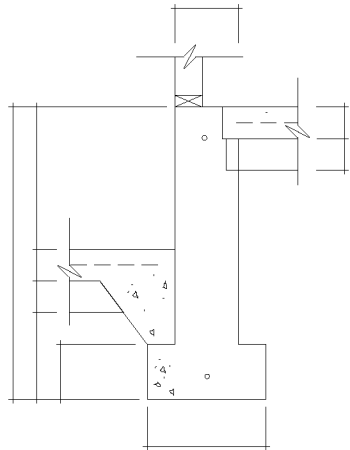


CONC. FOUNDATION WALL  
Basement/Slab 1st. Fl.

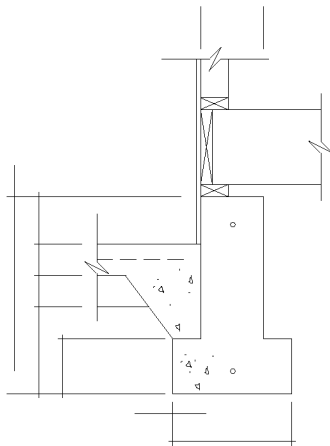
### NOTATION CHECKLIST, SAMPLE NOTES

2 X STUDS @ "O.C.  
2 X PLATE  
SUBFLOOR  
2 X SOLID BLOCKING  
2 X FLOOR JOISTS @ "O.C.  
MUDSILL W/ LEVELING GROUT  
ANCHOR BOLTS  
CONCRETE FOUNDATION WALL  
NAILER  
CONSTRUCTION JOINT  
STEEL DOWELS  
WELDED WIRE MESH REINFORCING  
WATERPROOF MEMBRANE  
CRUSHED ROCK OR TAMPED SAND  
CONCRETE FOOTING  
CONCRETE FOOTING REINFORCING  
BARS  
FILLED & TAMPED EARTH  
VAPOR BARRIER W/SAND COVER  
FOOTING DRAIN TILE

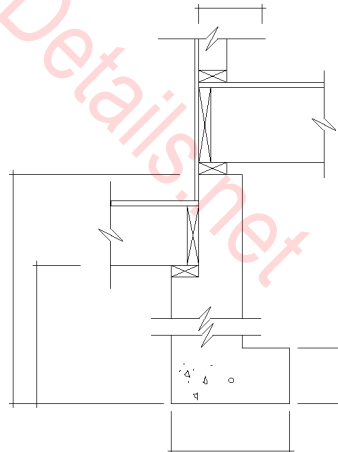
2" RIGID INSUL. (@ foundation wall)  
DAMPROOFING (@ foundation wall)  
#15 FELT (over fill surrounding drain tile)  
4" PERFORATED PIPE, 1/8" PER FOOT MIN. SLOPE  
4" DRAIN TILE, SLOPE 1/8" PER 12"  
POROUS GRANULAR FILL  
6" COMPACTED EARTH FILL  
BACKFILL  
FINISH GRADE ELEV.  
FINISH FLOOR ELEV.  
CONC. FTG. W/#4 REBARS @ 12" O.C. EA. WAY.  
2 X 4 KEYWAY  
BOTTOM OF FOOTING ELEV.  
FOOTING, SEE PLAN FOR MARK / SEE  
SCHED. FOR SIZE & REINF.  
#5 @ 10" O.C. HORIZ.  
#5 @ 7" O.C. VERT. EXTEND THRU PIERS  
PROVIDE CORNER BARS @ ALL EXT. & INT.  
CORNERS  
CONCRETE FOUNDATION WALL  
DBL. 2 X 6 TOP PLATE  
2 X 6 SILL W/ POWER DRIVEN ANCHORS 48" O.C.  
PVC WATERSTOP TYP @ CONSTRUCTION JOINT  
SEE SPECS FOR WATERPROOFING



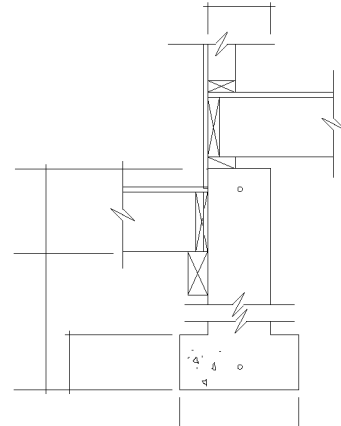
CONC. FOUNDATION WALL  
Split Level



CONC. FOUNDATION WALL  
Split Level

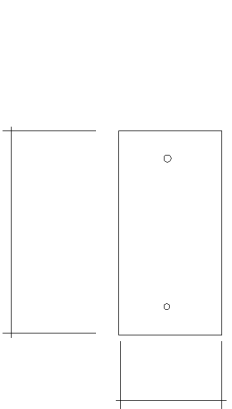


CONC. FOUNDATION WALL  
Split Level

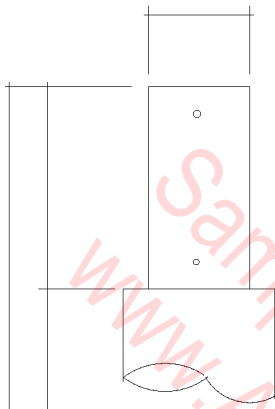


CONC. FOUNDATION WALL  
Split Level

## CONCRETE GRADE BEAMS



CONCRETE  
GRADE BEAM



CONCRETE GRADE  
BEAM @ PIER

## CONCRETE GRADE BEAMS

### DETAIL DATA CHECKLIST

#### GRADE BEAMS

- \_\_\_ Use to bridge piles or piers and/or transfer loads on slopes to stable support system
- \_\_\_ Grade beams are typically cast in place in grade and supported by pilings that rest on stable soil
- \_\_\_ Grade beam sizes and spans are determined by structural engineering as per soil conditions and weight of structure
- \_\_\_ Frequency, depth and size of pilings are determined by structural engineering as per soil conditions and weight of structure

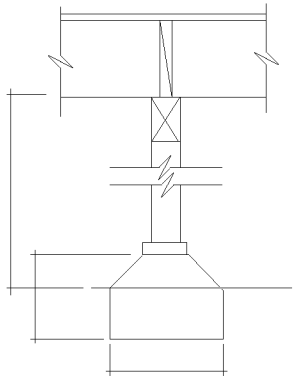
#### FOOTINGS AND GRADE BEAMS

- \_\_\_ Note elevation points of bottoms & tops of footings
- \_\_\_ Note elevation points and identification of existing grade, finish grade, and compacted grade
- \_\_\_ Note reference to foundation plan for footing and grade elevations
- \_\_\_ Show cripple wall/floor joist framing
- \_\_\_ Redwood or pressure treated wood mudsill: 2x4, 2x6 typical sizes
- \_\_\_ Use non-shrink grout atop foundation wall to level the wood mudsill
- \_\_\_ Mudsill anchor bolts
- \_\_\_ Cast-in-place bolts, 1/2" diameter, 10" long @ 6' o.c., starting 1/2" from corners
- \_\_\_ Space bolts so they don't occur under joists or wall studs
- \_\_\_ Power driven bolts or anchors are sometimes used at spacings such as 32" o.c. or 48' o.c.
- \_\_\_ Redwood or pressure-treated ledgers @ foundation walls
- \_\_\_ Post to girder connections
- \_\_\_ Metal post straps, T strap ties, and plywood gussets are typical
- \_\_\_ See local code for span/spacing tables and nailing schedule
- \_\_\_ Floor joists, joist hangers, subfloor
- \_\_\_ Double floor joists, header joists
- \_\_\_ Usually included at thru-floor openings
- \_\_\_ Under parallel partitions
- \_\_\_ At bathtubs and other concentrated loads
- \_\_\_ Flashing
- \_\_\_ Use as protective covering to prevent water entry
- \_\_\_ Use to channel rain water that enters back to the outside
- \_\_\_ Use as a barrier between dissimilar materials that may corrode each other
- \_\_\_ Building paper flashing--15# typical
- \_\_\_ Metal Flashing--No. 26 gauge galvanized sheet metal typical; affords protection while being easy to cut and form on the jobsite
- \_\_\_ Reinforcing bars
- \_\_\_ #4 bars, continuous, centered within 4" of the top and bottom of the footing are typical
- \_\_\_ Minimum clearance from reinforcing bars to outside surface of concrete is 3" but 4" is preferred

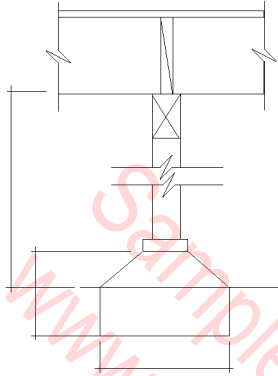
### NOTATION CHECKLIST, SAMPLE NOTES

CRIPPLE WALL  
 2 X STUDS @ "O.C.  
 2 X MUD SILL W/ LEVELING GROUT  
 ANCHOR BOLTS  
 CONCRETE GRADE BEAM  
 REINFORCING BARS  
 INSULATION  
 FINISH GRADE  
 EXISTING GRADE  
 CONCRETE PIER W/ STEEL DOWEL  
 TERMITE SHIELD  
 CRAWL SPACE  
 RODENT BARRIER  
 VAPOR BARRIER W/ SAND COVER  
 DRAIN TILE

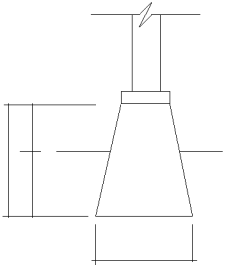
## CONCRETE PIERS



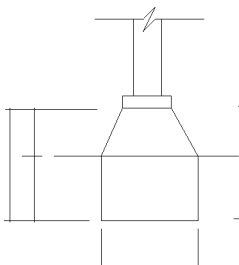
CONCRETE PIER  
W/FLOOR FRAMING



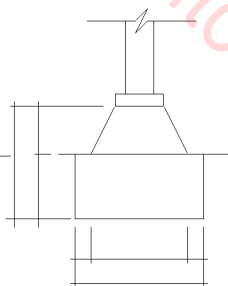
CONCRETE PIER  
W/FLOOR FRAMING



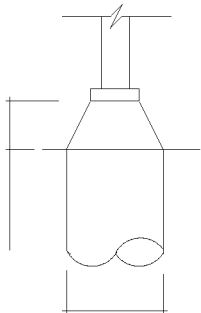
CONCRETE  
PIER W/POST



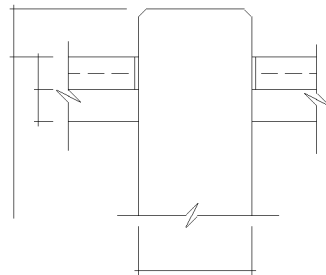
CONCRETE  
PIER  
W/POST



CONCRETE PIER  
W/POST



CONCRETE PIER  
W/POST



CONCRETE  
PIER @ SLAB

## CONCRETE PIERS

### DETAIL DATA CHECKLIST

#### CONCRETE PIERS

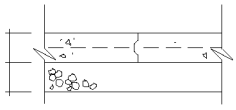
- Pier sizes:
  - 14"x14" typical for single-story residential work
  - 16"x16" typical for two-story
- Pier typically with lower square base and upper truncated pyramid shape
- Truncated portion usually precast
- Base portion may be precast or poured on site below grade
- If wood post exceeds 2' in height, lateral bracing may be needed
- Redwood or pressure-treated wood cap atop pier: 2x6x6 or 2x8x8 cap is typical as nailer
- Redwood or pressure-treated wood post girder support: 6x6 or 8x8 is typical as per girder size
- If using non-rot resistant wood posts, add non-corrosive metal barrier to protect base of post
- Steel dowel at pier and post recommended where building subject to lateral loads
- Post to girder connection: Metal post straps, T strap ties, and plywood gussets are typical
- Girders provide intermediate supports to reduce span of floor joists
- Girders typically supported by wood posts on concrete piers
- Codes typically require wood girders to be minimum 12" above grade
- Typical residential girder size is 4 x 6

### NOTATION CHECKLIST,

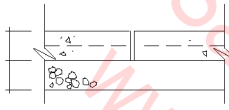
#### SAMPLE NOTES

- 2 X FLOOR JOISTS @ "O.C.
- X GIRDER
- X POST
- WOOD PIER CAP
- STEEL DOWEL
- CONCRETE PIER
- TERMITE SHIELD
- CRAWL SPACE
- RODENT BARRIER
- VAPOR BARRIER W/ SAND
- COVER
- GRADE
- STEEL COLUMN
- 1" GROUT
- BOTTOM/BASE PLATE ELEV.
- TOP CONC. ELEV.
- FINISH FLOOR ELEV.
- PIER, SEE SCHEDULE
- REBARS, FOR SIZE & NUMBER SEE SCHEDULE
- FOOTING SEE SCHEDULE
- DOWELS, SEE SCHEDULE
- BOTTOM/FOOTING ELEV., SEE SCHEDULE
- FOOTING SIZE VARIES: SEE PLAN
- SEE SCHEDULE FOR SIZE, THICKNESS, & REINF.
- ANCHOR BOLTS
- TOP OF PIER ELEV.

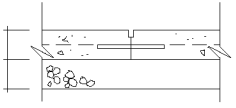
## CONCRETE SLABS ON GRADE



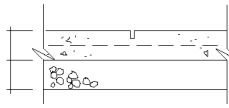
CONCRETE SLAB ON GRADE  
T & G Joint



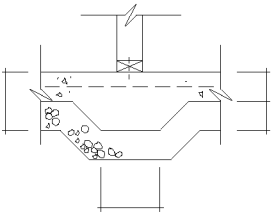
CONCRETE SLAB ON GRADE  
Butt Jt.



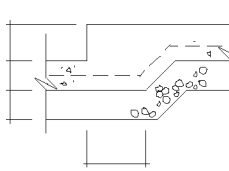
CONCRETE SLAB ON GRADE  
Construction Joint



CONCRETE SLAB ON GRADE  
Control Joint



CONCRETE SLAB & FOOTING



CONCRETE SLAB ON GRADE

## CONCRETE SLABS ON GRADE

### DETAIL DATA CHECKLIST

#### CONCRETE SLABS & FOOTINGS

- \_\_\_ Slab on grade & reinforcing
  - \_\_\_ Light frame buildings typically have a 4" thick slab w/ 6"x6" #10 welded wire mesh
  - \_\_\_ Larger building slabs are 6" and thicker as required by floor loads and soil conditions
- \_\_\_ Slab sub-base
  - \_\_\_ Typically 4" of crushed rock over undisturbed earth
  - \_\_\_ Tamp or otherwise compact loose soil as per engineer's recommendation
  - \_\_\_ Add a layer of polyethylene over the rock sub-base to prevent excessive loss of water from the slab concrete mix
- \_\_\_ Slab control joints
  - \_\_\_ Typically tool-cut to 1/3rd slab depth every 20' both ways to direct and control cracks
  - \_\_\_ Provide control joints around piers and columns
- \_\_\_ Slab construction joints
  - \_\_\_ Typically required at 20' to 30' max. both ways and at intersections with other construction
- \_\_\_ Doweled joints
  - \_\_\_ For movement joints, use graphite or other lubrication at one end for a bond break that facilitates free expansion and contraction
  - \_\_\_ Use dowels to connect two different pours of concrete
  - \_\_\_ Size and space dowels as per engineer's recommendations
  - \_\_\_ Put short rods into first slab and leave exposed for second adjacent pour
- \_\_\_ Garage slabs
  - \_\_\_ 5" or 6" thick instead of 4"
  - \_\_\_ Slope slab to garage door and apron or to floor drain
  - \_\_\_ Slope apron slab 1" to 3" to driveway
  - \_\_\_ Separate apron from driveway slab with 1/2" construction joint

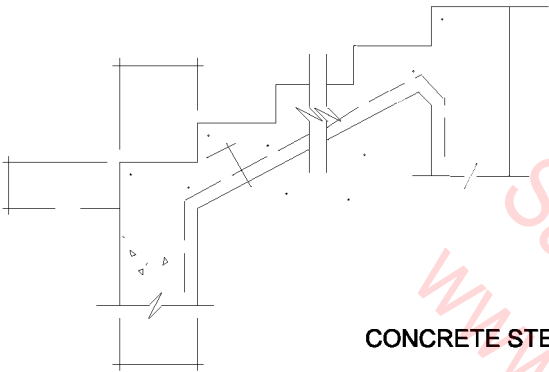
### NOTATION CHECKLIST, SAMPLE NOTES

JOINT—CONTROL/CONSTRUCTION/EXPANSION  
 CONCRETE SLAB  
 WELDED WIRE MESH REINFORCING  
 STEEL DOWEL CONNECTORS  
 WATERPROOF MEMBRANE  
 CRUSHED ROCK OR TAMPED SAND  
 FILLED & TAMPED EARTH

CONC. SLAB, SEE PLAN FOR REINF.  
 8" COMPACTED FILL  
 8" MIN. GRAVEL  
 REINFORCING BARS  
 CONT. ANGLES EMBEDDED IN SLAB W/ ANCHORS  
 VAPOR BARRIER  
 NEW COMPACTED FILL  
 4" CONC. SLAB W/ 6"x6" #10 W.W.M.  
 6" CONC. SLAB, SEE FOUNDATION PLAN FOR  
 REINF.  
 #3 @ 12" O.C.  
 #4 @ 16" O.C. EACH WAY  
 FORMED METAL KEYED JOINT  
 1 X 2 SHEAR KEY  
 DOWELS X @ O.C.  
 1/8" SAWED JOINT, FILL W/ JOINT FILLER  
 1/4" X 1/4" SAWED EXP. CONTRACTION JOINT.  
 1/2" ISOLATION JOINT W/ SEALER  
 1/2" PREFORMED EXP. JOINT FILLER  
 CONTROL JOINT OR CONSTRUCTION JOINT  
 STOP SLAB REINF. @ JOINT.  
 FINISH FLOOR  
 SEALANT  
 2 X 4 SOLE ON 30# FELT

## CONCRETE STEPS

## CONCRETE STEPS

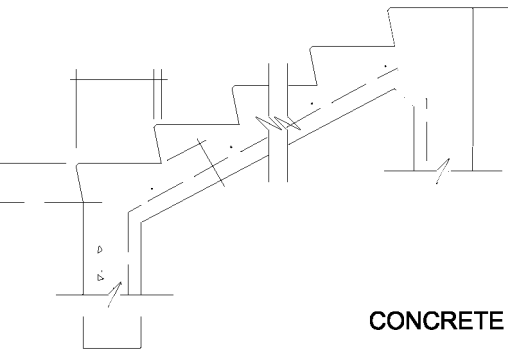


CONCRETE STEPS

### DETAIL DATA CHECKLIST

#### CONCRETE OR BRICK STEPS

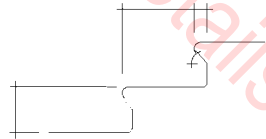
- Slope treads 1/4" toward the front for drainage
- Reinforce concrete steps with #3 or #4 bars @ 12" o.c. both ways
- Reinforce nose with metal nosing
- Treads should have a nonslip treatment (abrasive or broom finish)
- Call out radius on the nose, if any (1/4" is common)
- Call out finish for face of steps (i.e., stone rubbed)
- Provide expansion joint between steps and adjacent walks (top and bottom of stairs)
- Provide expansion joints at sides next to walls or building
- No single riser allowed in any run of walkway or ramp (use 3 minimum risers in any group)
- Provide handrail at every run of steps; 32" to 33" height or as required by code
- Provide night lighting at public steps
- Provide a ramp alternative near all changes in grade that require stairs



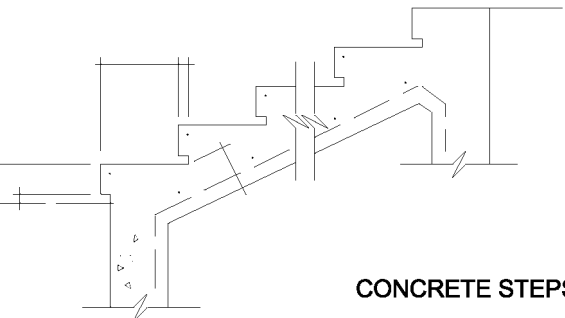
CONCRETE STEPS

### NOTATION CHECKLIST, SAMPLE NOTES

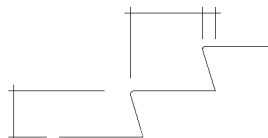
- CONCRETE FINISH
- REINFORCING
- SLOPE FOR DRAINAGE
- METAL NOSING
- FINISH GRADES/PAVING
- HANDRAIL
- HANDRAIL POST PIPE
- SLEEVE/ANCHOR
- AGGREGATE BASE
- COMPACTED SUBGRADE



CONCRETE STEPS For  
Handicapped (ANSI)



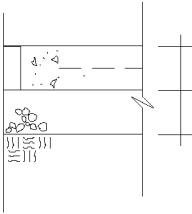
CONCRETE STEPS



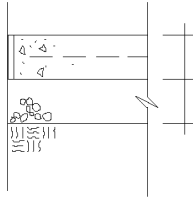
CONCRETE STEPS For  
Handicapped



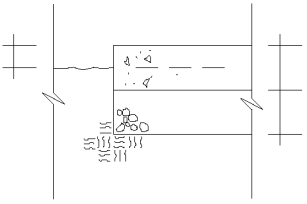
## CONCRETE WALKS & PAVING



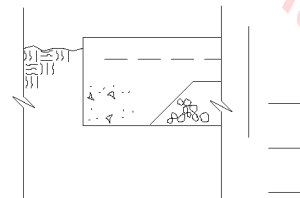
CONCRETE WALK/PAVING  
Redwood Joint



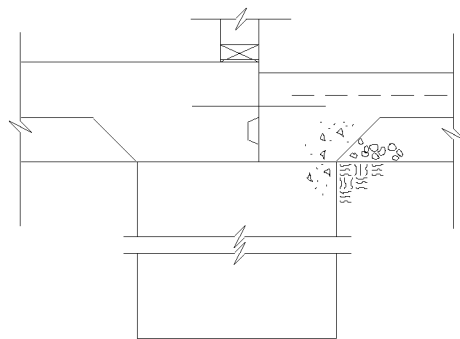
CONCRETE WALK/PAVING  
Expansion Joint



CONCRETE  
WALK/PAVING @  
EDGE



CONCRETE  
WALK/PAVING @  
EDGE



CONCRETE WALK/PAVING  
@ BLDG FOOTING

## CONCRETE WALKS & PAVING

### DETAIL DATA CHECKLIST

#### CONCRETE PAVING

- Recommended thicknesses for concrete slabs are:
  - 4" for walks, patios, and drives
  - 5" to 6" for roads, public sidewalks, and areas with heavy vehicular traffic
- Pour slab over a gravel base 4" to 8" thick, depending on thickness of concrete and nature of soil
- Slope surface of slab 2 or 1/4" per lin. foot minimum
- Surface treatments:
  - To reduce slipperiness:
    - Broom finish
    - Spread abrasive grains on wet concrete
  - To achieve exposed aggregate surface:
    - Sandblast
    - Finish top slab with light water spray before curing and brushing
- Reinforce slab with 4x4x4/4 or 6x6x10/10 woven wire mesh (WWM)
- Provide 2" cover over the reinforcing
- Expansion Joints:
  - Gap in slab filled with premolded or poured joint filler
  - Placement varies with climate
  - Average 30' o.c. in walks
  - 15' to 20' squares in larger areas of concrete
  - Dowelling 1/2" to 1" diameter dowel in sleeve, graphite coated; 12" to 24" long, 12" to 36" o.c..
- Control Joints:
  - Can be tooled or saw cut
  - 1/8" thick nonferrous strip, or poured joint filler
  - Joint must be 1/4 of the depth of the slab to be effective
  - Edges of slab at joint should have 1/8" radius
  - Joints may be dowelled (as above), without sleeve

#### CONCRETE & GUTTERS

- Minimum gutter slope toward curb is 1 to 2
- Radius at curb nose and gutter can be 1" to 3"
- Space curb/gutter expansion joints no more than 30' apart
- An expansion joint or key is also needed where gutter meets paving
- Recommended reinforcing is 2 to 4 bars; #4 or #5
- Compact the subgrade
- Provide ample subgrade drainage

#### NOTATION CHECKLIST, SAMPLE NOTES

##### PAVING (TYPE, MATERIAL & FINISH)

- SLOPE
- REINFORCING
- FINISH GRADE
- CONTROL/EXPANSION JOINTS  
(TYPE & SPACING)

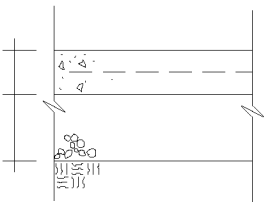
##### AGGREGATE BASE COMPACTED SUBGRADE

- ORIGINAL GRADE
- FINISH GRADE
- PROVIDE CROWN IN CENTER FOR DRAINAGE  
SLOPE 1/4" PER FOOT, TYP.
- CONCRETE W. 6 X 6 - #10 GAUGE WIRE MESH
- REDWOOD HEARTWOOD JOINT FILLER STRIP
- 1/2" EXPANSION JOINT

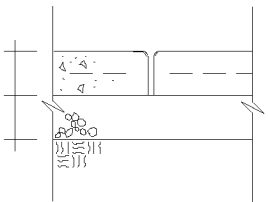
##### JOINT SEALANT & JOINT FILLER ROD

- JOINT FILLER BOARD
- 1" DIA (3/4" to 1" typ.) X 18" DOWEL BARS
- 12" O.C. ACROSS SLAB
- (@ EXP. ITS.) PAINT & OIL ONE END OF DOWEL
- EXPANSION JOINT FILLER MATERIAL @ 16" O.C.
- MAX.
- PRE-MOLDED EXPANSION JOINT @ 20'-0" O.C. TYP.
- PAVING BRICKS IN SETTING BED
- SLOPE TO DRAIN AS INDICATED ON PLANS
- SLAB REINF., SEE
- VAPOR BARRIER
- COMPACTED GRANULAR FILL
- 4" PEA GRAVEL
- SAND CUSHION
- COMPACTED EARTH FILL AS REQ'D.
- COMPACTED SUBGRADE OR STRUCTURAL BACKFILL

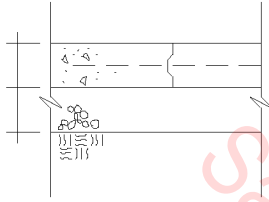
## CONCRETE WALKS & PAVING



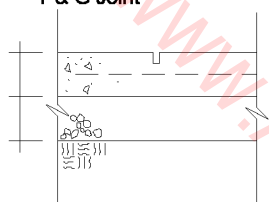
CONCRETE WALK/PAVING



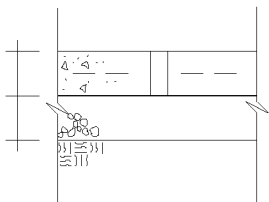
CONCRETE WALK/PAVING  
Butt Joint



CONCRETE WALK/PAVING  
T & G Joint



CONCRETE WALK/PAVING  
Control Joint



Redwood Divider

## CONCRETE WALKS & PAVING

### DETAIL DATA CHECKLIST

#### CONCRETE PAVING

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    - Spread abrasive grains on wet concrete
  - To achieve exposed aggregate surface:
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    - Finish top slab with light water spray before curing and brushing
- Reinforce slab with 4x4x4/4 or 6x6x10/10 woven wire mesh (WWM)
  - Provide 2" cover over the reinforcing
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  - Can be tooled or saw cut
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  - Joint must be 1/4 of the depth of the slab to be effective
  - Edges of slab at joint should have 1/8" radius
  - Joints may be dowelled (as above), without sleeve

#### CONCRETE & GUTTERS

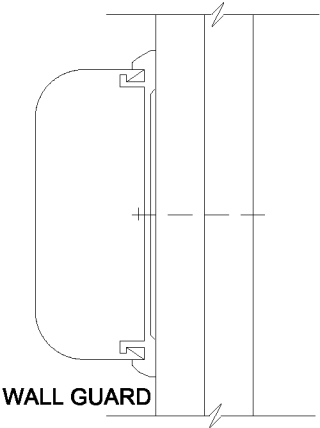
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- Recommended reinforcing is 2 to 4 bars; #4 or #5
- Compact the subgrade
- Provide ample subgrade drainage

### NOTATION CHECKLIST, SAMPLE NOTES

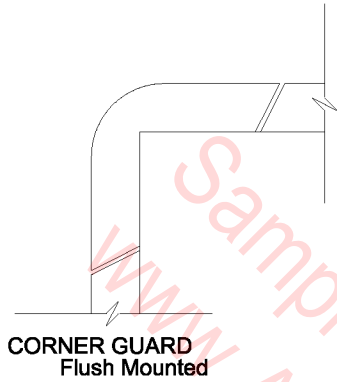
- PAVING (TYPE, MATERIAL & FINISH)
- SLOPE
- REINFORCING
- FINISH GRADE
- CONTROL/EXPANSION JOINTS (TYPE & SPACING)
- AGGREGATE BASE
- COMPACTED SUBGRADE
- ORIGINAL GRADE
- FINISH GRADE
- PROVIDE CROWN IN CENTER FOR DRAINAGE
- SLOPE 1/4" PER FOOT, TYP.
- CONCRETE W. 6 X 6 - 10 GAUGE WIRE MESH
- CONC. SLAB W. 6 X 6 X #10/#10
- CONC. WALK W/ 6 X 6 10/10 W.W.M.
- REDWOOD HEARTWOOD JOINT FILLER STRIP
- TOOLED JOINTS @ 6'-0" O.C.
- 1/2" EXPANSION JOINT
- JOINT SEALANT & JOINT FILLER ROD
- JOINT FILLER BOARD
- 1" DIA (3/4" to 1" typ.) X 18" DOWEL BARS
- 12" O.C. ACROSS SLAB
- @ exp. jts. PAINT & OIL ONE END OF DOWEL

- EXPANSION JOINT FILLER MATERIAL @ 16" O.C. MAX.
- GALV. METAL KEYWAY W/ EDGE EXPOSED
- GALV. METAL STAKE PIN
- DUMMY JOINTS @ 5'-0" O.C.
- PRE-MOLDED EXPANSION JOINT @ 20'-0" O.C. TYP.
- PAVING BRICKS IN SETTING BED
- SLOPE TO DRAIN AS INDICATED ON PLANS
- BRICK ROWLOCK PAVER
- SLAB REINF., SEE
- VAPOR BARRIER
- COMPACTED GRANULAR FILL
- 4" PEA GRAVEL
- SAND CUSHION
- COMPACTED EARTH FILL AS REQ'D.
- COMPACTED SUBGRADE OR STRUCTURAL
- BACKFILL
- 6" CRUSHED AGGREGATE BASE (@ 6" conc. paving)
- 6" CRUSHED AGGREGATE BASE (@ 2" asphalt paving)

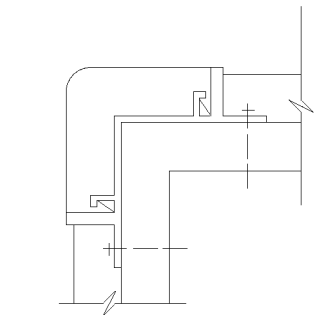
## CORNER GUARDS



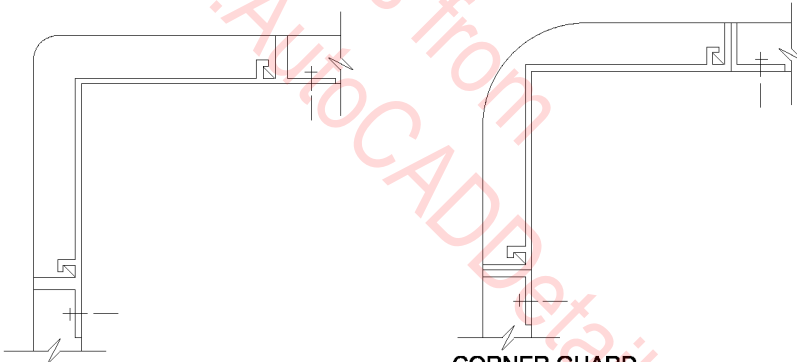
WALL GUARD



CORNER GUARD  
Flush Mounted



CORNER GUARD  
Flush Mounted



WALL GUARD  
Flush Mounted

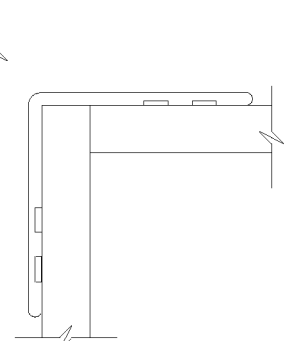
## DETAIL DATA CHECKLIST

### CORNER GUARDS

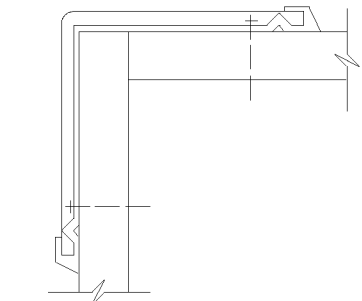
- See manufacturers' catalogs for standard sizes, finishes, and materials.
- Detail drawings are included mainly to show special anchoring conditions—screws, anchor bolts, etc., in wood frame, metal frame, masonry, or concrete wall construction.
- See manufacturers' and suppliers' catalogs for detail design data and specifications.
- See manufacturer's recommendations for special anchor requirements for different kinds of construction.

### NOTATION CHECKLIST

- CORNER GUARD (TYPE & MATERIAL)
- ADHESIVE/FASTENERS
- WALL CONSTRUCTION

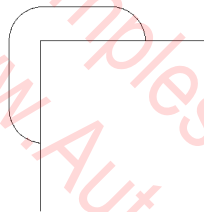
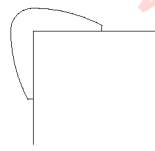
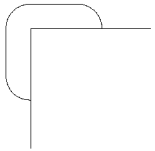


CORNER GUARD  
Surface Mounted



CORNER GUARD  
Surface Mounted

### CORNER GUARDS



WOOD CORNER GUARD  
FULL SIZE

WOOD CORNER GUARD  
FULL SIZE

WOOD CORNER GUARD  
FULL SIZE

### CORNER GUARDS

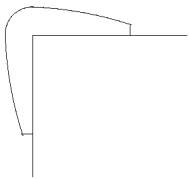
#### DETAIL DATA CHECKLIST

##### CORNER GUARDS

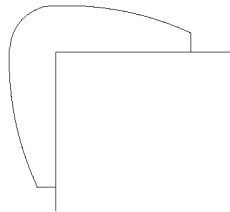
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#### NOTATION CHECKLIST

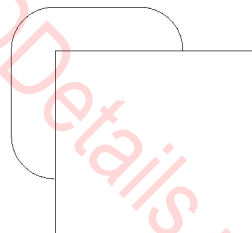
- CORNER GUARD (TYPE & MATERIAL)
- ADHESIVE/FASTENERS
- WALL CONSTRUCTION



WOOD CORNER GUARD  
FULL SIZE

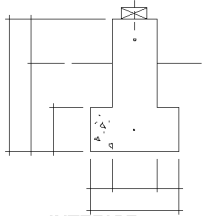


WOOD CORNER GUARD  
FULL SIZE

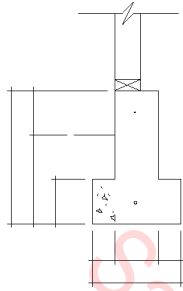


WOOD CORNER GUARD  
FULL SIZE

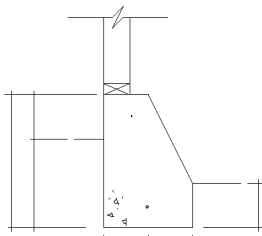
## CRAWL SPACE ACCESS & CONC. FOOTINGS



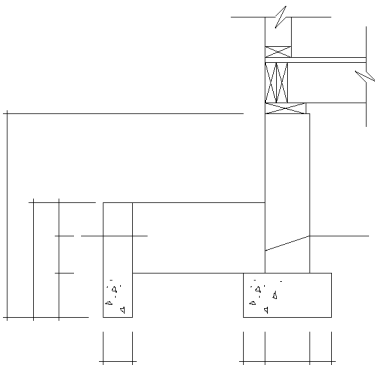
INTERIOR  
CONCRETE  
FOOTING 1-Story



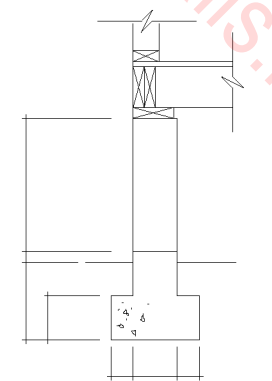
CONCRETE  
FOOTING  
1-Story



CONCRETE FOOTING  
1-Story



FOUNDATION CRAWL SPACE  
ACCESS/AREAWAY  
1 Story



FOUNDATION CRAWL SPACE  
ACCESS  
1 Story

## CRAWL SPACE ACCESS & CONC. FOOTINGS

### DETAIL DATA CHECKLIST

#### CRAWL SPACE

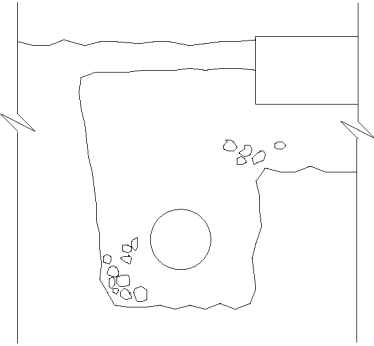
- Crawl space & access
- 24"x18" access is typical with continuous footing below and double joists or header above
- In wet soil areas, provide vapor barrier with sand cover over soil to block ground water evaporation
- In areas infested with rodents, apply a 1" to 2" layer of mesh-reinforced cement on ground
- Typical crawl space ventilation
- Add termite shields and/or other insect barriers as required by local conditions
- 16" x 8" screen or louver vents between joists
- Provide 2 sq. ft. of ventilation for each 25 sq. ft. of crawl space area
- Clearances to grade—typical minimum allowable distances:
- Provide one vent within 3' of each building corner
- Floor joists—minimum 18" to finish grade.
- Wood girders—minimum 12" to finish grade.
- Exterior finish—minimum 8" to finish grade.
- Greater clearances are recommended to allow for soil build-ups during and after construction
- Provide greater clearances for special extra-moist conditions, regional insect infestation, etc.

### NOTATION CHECKLIST, SAMPLE NOTES

- 2 X STUDS @ "O.C.
- 2 X PLATE
- SUBFLOOR
- 2 X SOLID BLOCKING
- 2 X FLOOR JOISTS @ "O.C.
- MUDSILL W/ LEVELING GROUT
- ANCHOR BOLTS
- REINFORCING BARS
- EXTERIOR FINISH GRADE
- INTERIOR FINISH GRADE—CRAWL SPACE
- INSULATION
- TERMITE SHIELD
- RODENT BARRIER
- VAPOR BARRIER W/ SAND COVER
- FOOTING DRAIN TILE
- CONCRETE SLAB
- WELDED WIRE MESH REINFORCING
- WATERPROOF MEMBRANE
- CRUSHED ROCK OR TAMPED SAND
- STEEL DOWELS
- CONCRETE FOOTING
- CONCRETE FOOTING REINFORCING BARS
- FILLED & TAMPED EARTH

- 2 X STUDS @ "O.C.
- 2 X BOTTOM PLATE
- SUBFLOOR
- DOUBLE 2 X HEADER
- 2 X FLOOR JOISTS @ "O.C.
- MUD SILL @ FOUNDATION WALL
- CRAWL SPACE ACCESS OPENING
- GRADE
- AREAWAY
- AREAWAY CONCRETE RETAINING WALL
- 2" RIGID INSULATION (@ foundation wall or grade beam)
- DAMP-PROOFING (@ foundation wall or grade beam)
- #15 FELT (over fill surrounding drain tile)
- 4" DRAIN TILE, SLOPE 1/8" PER 12"
- POROUS GRANULAR FILL (minimum: 12" above, 6" below, & 6" on either side of drain tile)
- BACKFILL

## DRAINAGE Paving Edge



DRAIN @ PAVING EDGE

## DRAINAGE Paving Edge

### DETAIL DATA CHECKLIST

#### DRAINAGE

\_\_\_ Types of pipe for subsurface drains are:

\_\_\_ Corrugated metal

\_\_\_ Flexible plastic

\_\_\_ Concrete

\_\_\_ Clay tile

\_\_\_ Asbestos cement

\_\_\_ Rigid plastic

\_\_\_ Porous and unperforated

\_\_\_ Install perforated drain with holes facing down

\_\_\_ Drainpipe should be sloped to a sump or outfall

\_\_\_ Grade filter material above and around drainpipe

\_\_\_ Depth and spacing of subdrains depends on soil type (see civil engineering handbook tables)

\_\_\_ Trench drains should slope to a drainpipe

### NOTATION CHECKLIST, SAMPLE NOTES

FINISH GRADE/PAVING

PAVING BASE

METAL GRATING

METAL GRATING FRAME

PIPE (TYPE, SIZE, MATERIAL)

CONCRETE BASE

REINFORCING

AGGREGATE

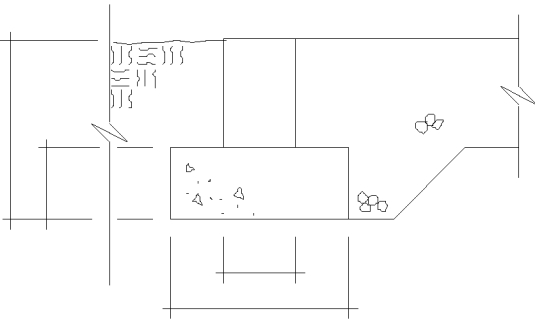
BACKFILL

COMPACTED SUBGRADE

GRADE

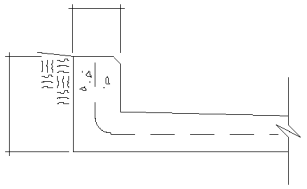
4" PERFORATED PIPE, 1/8" PER FOOT MIN. SLOPE  
TO OUTLET OR DAYLIGHT

PAVEMENT

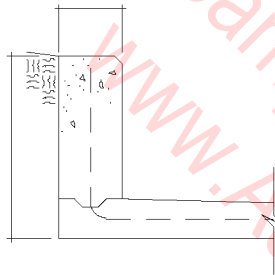


DRAIN @ PAVING EDGE

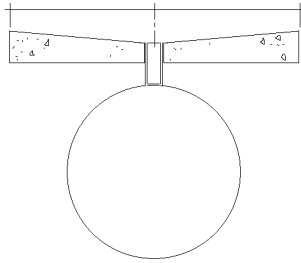
## DRAINAGE Flumes & Inlets



DRAINAGE FLUME/SPILLWAY



DRAINAGE FLUME/SPILLWAY



SLOTTED DRAINPIPE & GRATE

## DRAINAGE Flumes & Inlets

### DETAIL DATA CHECKLIST

#### CONCRETE FLUMES

- Depth and slope of flume depend on drainage load (see civil engineering handbook tables)
- Exposed edges can be chamfered, tooled, or have a 1/2" to 1" radius
- Reinforcing:
  - Precast concrete curbs may have dowel pins and holes at alternate ends
  - Two #4 bars, one top and one bottom, continuous is common.
  - May have #3 ties or stirrups at 32" to 36" o.c.
  - Two bars at the bottom of the footing may be needed
  - Bars should have 2" cover
- When curb is continuous w/paving, woven wire mesh (WWM) may be turned down into curb
- Compact the subgrade
- Provide ample subgrade drainage
- Expansion Joints
  - Two types needed:
    - Joints in the curb itself
    - Joints between curb and adjacent paving
- Curb joints should occur at approximately 15' intervals, and at all corners
- Provide 1/4" radius at edge of joints
- Materials
  - 1/2" preformed expansion joint, held down 1" for sealant on top
  - Heartwood redwood filler strip pour joint, 1/2" flexcell

#### GRATES

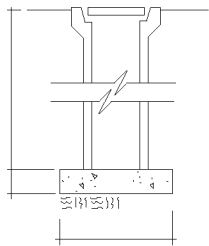
- In areas of foot or bike traffic, grates must not allow penetration by:
  - Heels
  - Crutches
  - Cane tips
  - Tires
- Must still provide sufficient drainage
- Slotted grating may be used if slots run transverse to traffic direction

### NOTATION CHECKLIST,

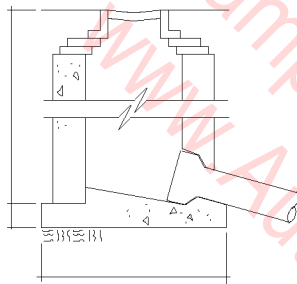
#### SAMPLE NOTATION

- FINISH GRADE/PAVING
- PAVING BASE
- METAL GRATING
- METAL GRATING FRAME
- PIPE (TYPE, SIZE, MATERIAL)
- CONCRETE BASE
- REINFORCING
- AGGREGATE
- BACKFILL
- COMPACTED SUBGRADE
- BROOM FINISH CONCRETE
- TOOLED EDGE CONCRETE
- SLOTTED DRAINPIPE GRATE
- 6 X 6-10/10 WWM WELD TO GRATE @ 24" O.C.
- INLET FRAME & GRATE
- SLOPE FLOOR TO OUTLET

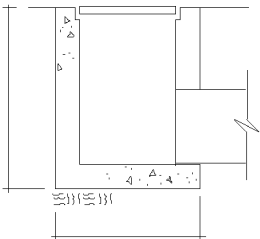
## DRAINAGE Inlets



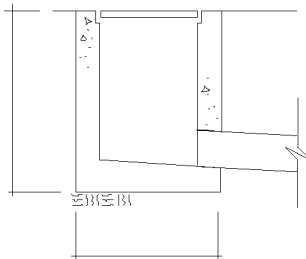
DRAIN INLET



DRAIN INLET



DRAIN INLET



DRAIN INLET

## DRAINAGE Inlets

### DETAIL DATA CHECKLIST

#### MANHOLES

- Spaced 300' to 600' apart for inspection and maintenance (Also depends on sewer size and local standards)
- Manhole walls for a combined or sanitary sewer may be:
  - 8" brick
  - 6" concrete
- 6" solid concrete manhole block or precast concrete units to depth of 12'
- Below 12' depth all brick and block walls shall be 12" thick
- Manholes over 12' deep shall also have a 12' thick base

#### INLETS AND CATCH BASINS

- Choice of the unit is subject to local codes and practice
- Spacing depends on the size and type of unit, and the slope of gutter or swale in relation to anticipated runoff
- Walls may be:
  - 8" brick
  - 8" CMU
  - 6" poured concrete
  - 5" precast concrete

#### DRAIN INLET COVERS

- Usually precast concrete or cast iron (also ductile iron)
- Frames and grates available for light and heavy loading conditions

#### GRATES

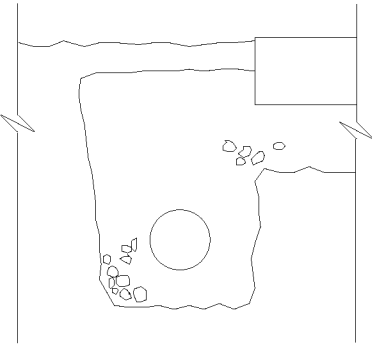
- In areas of foot or bike traffic, grates must not allow penetration by:
  - Heels
  - Crutches
  - Cane tips
  - Tires
- Must still provide sufficient drainage
- Slotted grating may be used if slots run transverse to traffic direction

### NOTATION CHECKLIST, SAMPLE NOTES

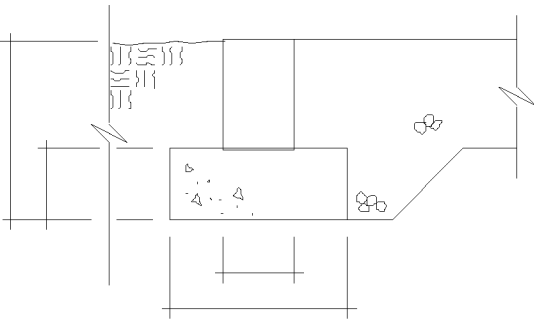
- |                             |                     |
|-----------------------------|---------------------|
| FINISH GRADE/PAVING         | BROOM FINISH        |
| PAVING BASE                 | CONCRETE            |
| METAL GRATING               | TOOLED EDGE         |
| METAL GRATING FRAME         | CONCRETE            |
| PIPE (TYPE, SIZE, MATERIAL) | GRADE               |
| CONCRETE BASE               | INLET FRAME & GRATE |
| REINFORCING                 | PAVEMENT            |
| AGGREGATE                   | SLOPE FLOOR TO      |
| BACKFILL                    | OUTLET              |
| COMPACTED SUBGRADE          |                     |



## DRAINAGE Paving Edge



DRAIN @ PAVING EDGE



DRAIN @ PAVING EDGE

## DRAINAGE Paving Edge

### DETAIL DATA CHECKLIST

#### DRAINAGE

— Types of pipe for subsurface drains are:

- Corrugated metal
- Flexible plastic
- Concrete
- Clay tile
- Asbestos cement
- Rigid plastic
- Porous and unperforated

— Install perforated drain with holes facing down

— Drainpipe should be sloped to a sump or outfall

— Grade filter material above and around drainpipe

— Depth and spacing of subdrains depends on soil type (see civil engineering handbook tables)

— Trench drains should slope to a drainpipe

### NOTATION CHECKLIST, SAMPLE NOTES

FINISH GRADE/PAVING

PAVING BASE

METAL GRATING

METAL GRATING FRAME

PIPE (TYPE, SIZE, MATERIAL)

CONCRETE BASE

REINFORCING

AGGREGATE

BACKFILL

COMPACTED SUBGRADE

GRADE

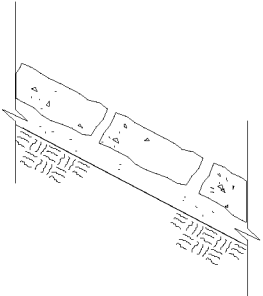
4" PERFORATED PIPE, 1/8" PER FOOT MIN. SLOPE

TO OUTLET OR DAYLIGHT

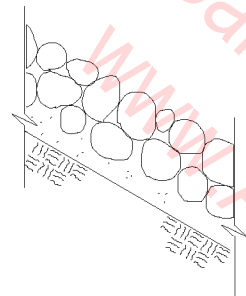
PAVEMENT

**EROSION CONTROL Concrete, Stone, Wood Grid**

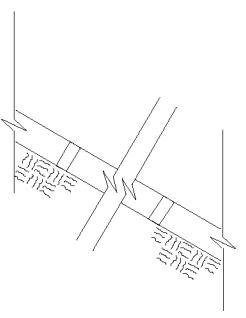
**EROSION CONTROL Concrete, Stone, Wood Grid**



**EROSION CONTROL  
Concrete**



**EROSION CONTROL  
Stone**



**EROSION CONTROL  
Wood Grid**

**DETAIL DATA CHECKLIST**

**EROSION CONTROL**

- Slopes up to 2:1, use stone, broken concrete, or wood grid
- Slopes up to 1:1, use stone or broken concrete set on mortar and with mortar between joints

**OR**

- Use precast unit (concrete with voids for soil)
- Steep slopes, use retaining walls (see later section)

**STONE EROSION CONTROL**

- Use 4" to 8" diameter round stone
- Hand place on a 3" sand bed

**BROKEN CONCRETE EROSION CONTROL**

- Each piece should be a minimum of 1' square and 4" thick
- Joints should be tight sand or mortar at least 1" wide
- Set peices on a 2" sand bed

**WOOD GRID EROSION CONTROL**

- Lay 2x4s across the slope at 3' spacing; lay 1x4 ties at 8' o.c.
- Fill grid spaces with topsoil and sod or seed, wood chips, gravel, or ground cover

**PRECAST UNITS EROSION CONTROL**

- Set on a 2" sand bed; fill voids with topsoil

**NOTATION CHECKLIST,  
SAMPLE NOTATION**

- PAVER UNITS
- SETTING BED
- SLOPE
- COMPACTED SUBGRADE

## DETAIL DATA CHECKLIST

## METAL STUD WALLS

- \_\_\_ Studs shown in this series are steel members in the sizes indicated in the detail titles
- \_\_\_ Metal wall manufacturers' instructions and details for these products are very comprehensive; use the data here as a preliminary design guide
- \_\_\_ Partition notation mainly consists of naming the various components such as:
  - \_\_\_ Metal studs:
    - \_\_\_ Channel,
    - \_\_\_ "C"
    - \_\_\_ Open web
    - \_\_\_ Nailable
    - \_\_\_ Floor and ceiling tracks
    - \_\_\_ Tracks connecting to other wall construction
    - \_\_\_ Jamb anchor clips
    - \_\_\_ Bolt or toggle bolt connection to ceiling
    - \_\_\_ Movement sleeve at ceiling
    - \_\_\_ Sealant at top and bottom tracks
    - \_\_\_ Horizontal 3/4" channel stiffeners:
      - \_\_\_ At door jambs
      - \_\_\_ Above door heads
    - \_\_\_ Usually within 12" of other wall openings

## FINISH WALL CONSTRUCTION

- \_\_\_ Gypsum wallboard and other finish material manufacturers provide comprehensive instructions and details for their products; use the data here as a preliminary guide.
- \_\_\_ Building codes provide extensive instructions on fireproofing requirements; those requirements have evolved from many years of fire experience and should be followed with extreme care.
  - \_\_\_ Common wall finishes combined with metal frame partitions include:
    - \_\_\_ -3/8" plywood paneling
    - \_\_\_ -3/8" gypsum wallboard
  - \_\_\_ Interior Single Layer:
    - \_\_\_ -1/2" gypsum wallboard
    - \_\_\_ -5/8" gypsum wallboard
    - \_\_\_ -3/4" 7/8" 1" metal lath and plaster
  - \_\_\_ Interior Double Layer:
    - \_\_\_ -2 - 3/8" gypsum wallboard
    - \_\_\_ -2 - 1/2" gypsum wallboard
    - \_\_\_ -2 - 5/8" gypsum wallboard
    - \_\_\_ -1/2" gypsum wallboard plus 3/8" plywood paneling
    - \_\_\_ -3/8" gypsum lath plus 1/2" plaster (7/8")
    - \_\_\_ -3/8" gypsum lath plus 5/8" plaster (1")
    - \_\_\_ -3/8" gypsum lath plus 3/4" plaster (1-1/8")
- \_\_\_ Gypsum Wallboard Walls & Ceilings. Special types of gypsum wallboard that might be noted in details include:
  - \_\_\_ -1 type X for fire resistance
  - \_\_\_ -Water resistant
  - \_\_\_ -Waterproof
  - \_\_\_ -Sound deadening
  - \_\_\_ -Insulative foil backed
- \_\_\_ Gypsum wallboard assembly components commonly identified in detail drawing notes include:
  - \_\_\_ -Corner beads
  - \_\_\_ -Edge trim
  - \_\_\_ -Corner guards
  - \_\_\_ -Edge trim sealant @ floor and ceiling
  - \_\_\_ -Resilient channels
  - \_\_\_ -Angle clip reinforcement @ ceilings
- \_\_\_ Lath & Plaster Walls & Ceilings. Plaster coats sometimes identified in large scale details are:
  - \_\_\_ -Scratch coat
  - \_\_\_ -Brown coat
  - \_\_\_ -Finish coat
- \_\_\_ Lath and plaster components commonly identified in detail notation include:
  - \_\_\_ -Expanded metal lath
  - \_\_\_ -Wire lath
  - \_\_\_ -Gypsum lath
  - \_\_\_ -Base screeds
  - \_\_\_ -Corner beads
  - \_\_\_ -Edge casing beads
  - \_\_\_ -Grounds
  - \_\_\_ -Picture mouldings
  - \_\_\_ -Window stools
  - \_\_\_ -Corner lath reinforcement
  - \_\_\_ -Control joints

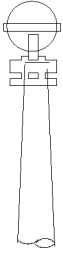
Other wall and ceiling finishes that might be noted include veneer plaster, sprayed acoustical surface, fabric or carpet, vinyl, laminated plastic, etc. Such applied finishes may be named in details but are commonly referenced to the finish schedule and specifications.

## OTHER DETAIL AND NOTATION DATA THAT MAY BE USED WITH THESE DETAILS

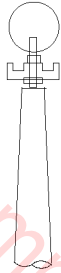
- \_\_\_ Wall-related detail items:
  - \_\_\_ -Mirrors
  - \_\_\_ -Attached casework
  - \_\_\_ -Shelving
  - \_\_\_ -Tack and chalk boards
  - \_\_\_ -Ornamental trim, casings, and special moldings
  - \_\_\_ -Casework at end walls and jambs
  - \_\_\_ -Coves and valances
  - \_\_\_ -Signs and support backing
  - \_\_\_ -Recessed compartments
  - \_\_\_ -Pass-thru openings
  - \_\_\_ -Access panels
  - \_\_\_ -Louvers or vents

# FLAGPOLES

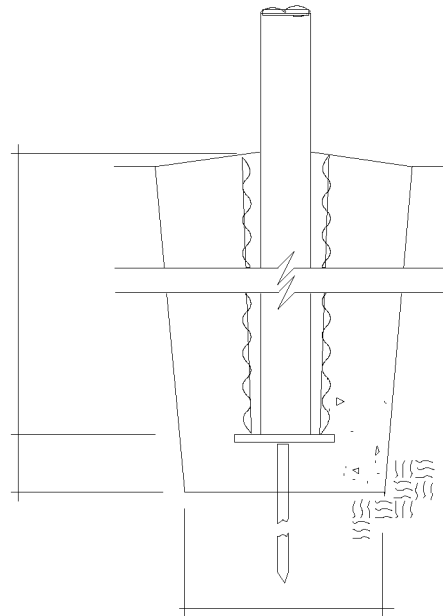
## FULL-SCALE GENERIC DETAILS



FLAGPOLE Crown



FLAGPOLE Crown



FLAGPOLE Base

# FLAGPOLES

## DETAIL DATA CHECKLIST

### FLAGPOLE BASE

- \_\_\_ Footing dimensions are determined by the height of the pole
- \_\_\_ See manufacturer's recommendations on footing/height ratio
- \_\_\_ Place pole in corrugated tube, and pack with dry sand
- \_\_\_ Ground the flagpole for lightning protection
- \_\_\_ Pole anchorage as per manufacturer's requirements

## NOTATION CHECKLIST, SAMPLE NOTES

- POLE
- METAL COLLAR/BASE CAP
- CORRUGATED STEEL SLEEVE/GROUT TUBE
- BASE PLATE
- LIGHTNING ARRESTOR/GROUND SPIKE
- FOOTING
- BACKFILL
- SUBGRADE
- SATIN BRUSHED ALUM. BALL
- WATERPROOF CEMENT
- LEVELING WOOD WEDGES
- TAMPED, DRY FINE SAND
- 16 GA. GALV. CORRUGATED STEEL TUBE @ FOOTING
- METAL PIPE SLEEVE
- CONCRETE BASE
- PLATE SUPPORT WELDED TO SPIKE
- 3/4" DIA. STEEL LIGHTNING GROUND SPIKE; WELD TO PLATE
- CONCRETE FOOTING

## FLASH: FLASHING AT PARAPETS

The primary cost of flashing is labor, so the best materials add little to the cost of this crucially important part of construction.

Commonly used flashing materials:

Copper

Lead

Zinc

Aluminum

Galvanized steel

Plastic

Copper-backed paper

Building paper felt and impregnated fabric

Parapet flashing typically consists of two overlapping L sections:

One L section is attached to the roof

The other is counterflashing, an inverted L that fits into a parapet reglet and slips down over the top of the lower base flashing

26 gauge flashing is commonly used because it affords good protection while still being thin enough to bend, form, and work with comfortably

Base flashing is bent upwards at 45 degrees to avoid sharp corners that might split the metal or roofing

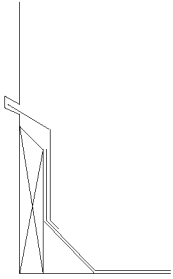
Minimum flashing width for most flashing situations is 8"

Any extended lengths of flashing requires expansion joints

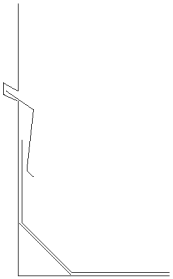
Refer to the Manual of standards of the Sheet Metal and Air

Conditioning Contractors National Association for varied detail conditions and installation standards

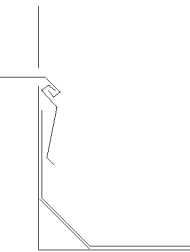
## FLASHING @ PARAPETS



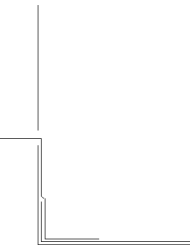
FLASHING @ CONCRETE  
PARAPET



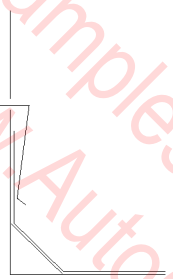
FLASHING @ CONCRETE  
PARAPET



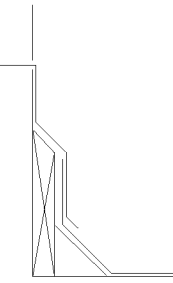
FLASHING @  
MASONRY PARAPET



FLASHING @  
MASONRY PARAPET



FLASHING @ MASONRY  
PARAPET



FLASHING @  
MASONRY PARAPET



FLASHING @  
PARAPET

## FLASHING @ PARAPETS

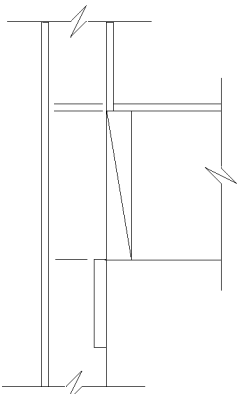
### NOTATION CHECKLIST, SAMPLE NOTES

PARAPET WALL CONSTRUCTION  
REGLET  
FLASHING/COUNTERFLASHING  
CANT/NAILER  
ADHESIVE/SEALANT/CAULKING  
ROOFING SURFACE  
(TYPE, LAYERS & COVER MATERIAL)  
ROOF DECK/INSULATION  
ROOF CONSTRUCTION  
COPING

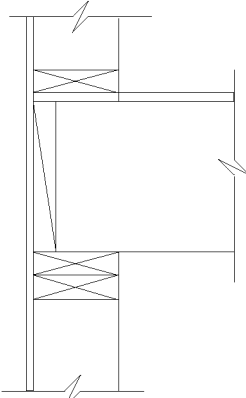
SAMPLE NOTES:  
24 GA. CLIP-ON FLASHING, ATTACH @  
CTR. OF EA. PIECE  
2 X 4 TREATED PLATE, 1/2" EXP. BOLTS  
@ 24" O.C.  
2 X 10 WOOD BLKG., SECURE TO MTL.  
STUD & BRICK W/1/2" DIA. ANCHOR  
BOLT 8" LONG @ 48" O.C.  
MANUFACTURED REGLET & FLASHING  
SYSTEM  
G.I. FLASHING  
ELASTOMERIC FLASHING  
BASE FLASHING OVER PLATE  
FLASHING APPLIED W/ ADHESIVE  
LEAD OR ALUMINUM FLASHING  
CONT. CLEAT  
SHIM (to slope)  
BASE FLASHING NAILS @ 8" O.C.  
WEDGE & SEAL  
FLASHING JOINT SET IN ROOFING CEMENT  
METAL CAP FLASHING  
S.S. FLASHING INTO PRESET REGLET  
FLASH. REGLET, BEND DOWN AFTER INSTALLING  
FLASH. TIGHT AGAINST WALL  
METAL FLASHING SET IN MORTAR BED  
METAL CLIP @ 3'-0" O.C.  
COMPOSITION FLASHING  
BUILT-UP ROOFING  
BASE SHEET INSULATION  
FELT VAPOR BARRIER  
FILL, PITCH TO DRAIN  
WOOD BLOCKING  
NAILABLE CANT  
CONT. 4" HIGH CANT

## FLOOR @ WALL

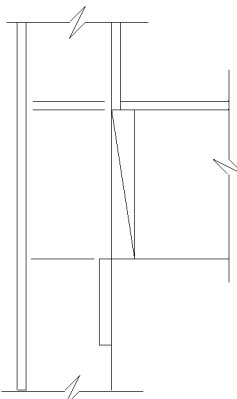
## FLOOR @ WALL



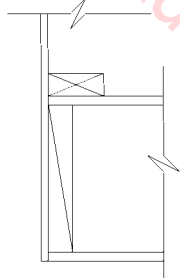
EXTERIOR WALL @ FLOOR  
(2x4) Balloon Frame



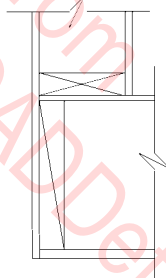
EXTERIOR WALL @ FLOOR  
(2x6)



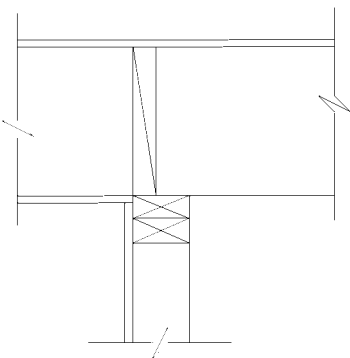
EXTERIOR WALL @ FLOOR  
(2x6) Balloon Frame



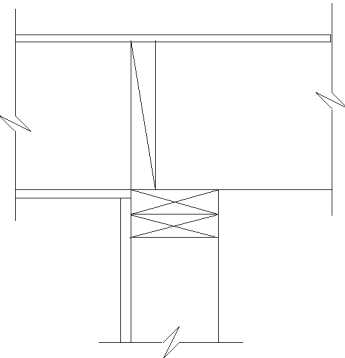
CANTILEVERED FLOOR  
@ WALL (2x4)



CANTILEVERED FLOOR  
@ WALL (2x6)



CANTILEVERED FLOOR @  
EXT. WALL (2x4)



CANTILEVERED FLOOR  
@ EXT. WALL (2x6)

### NOTATION CHECKLIST, SAMPLE NOTES

CEILING LINE @  
2 X STUDS @ " O.C.  
HEADER  
TRIM FOR CASED OPENING  
2 X BOTTOM PLATE  
2 X TOP PLATE  
BASE (FINISH BASE SIZE/MATERIAL)  
FINISH FLOOR

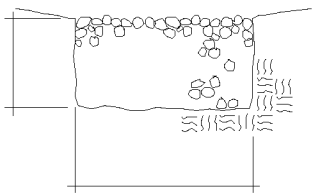
INTERIOR:  
GYPSUM WALLBOARD  
LATH & PLASTER  
WOOD PANELING  
TILE  
MASONRY VENEER  
RAILINGS/WALL GUARDS  
HOOKS/TRACKS  
ANCHORS/MOUNTING BRACKETS  
THRU-WALL SLEEVES  
PASS-THRU  
SOUND ISOLATION PLATE  
SOUND ISOLATION CLIPS

EXTERIOR:  
THERMAL INSULATION  
GYPSUM WALLBOARD SHEATHING  
WOOD SHEATHING  
MOISTURE BARRIER  
LATH & PLASTER/STUCCO  
WOOD SIDING  
MASONRY VENEER  
FLASHING/WATERPROOFING  
ANCHORS/MOUNTING BRACKETS  
THRU-WALL SLEEVES

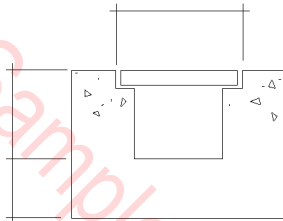
BATT INSULATION  
INSULATION BOARD  
WOOD SIDING  
15# FELT  
1/2" FOIL FACE INSULATION  
AIR SPACE  
1/2" X 6" BEVELED LAP SIDING  
1/2" PLYWOOD SHEATH  
PLYWOOD SIDING  
VAPOR BARRIER  
WOOD TRIM  
2 X JOISTS @ " O.C.  
2 X RAFTERS @ " O.C.

BLOCKING  
FLASHING  
GYPSUM BOARD CEILING  
HARDWOOD STOPS  
HARDWOOD JAMB  
2 X 4 CONT. WOOD BLOCKING  
SOUND INSULATION  
PREFINISHED PANELING  
DOOR FRAME  
DOOR SIZE  
WOOD DRIP  
1 X WOOD STOP

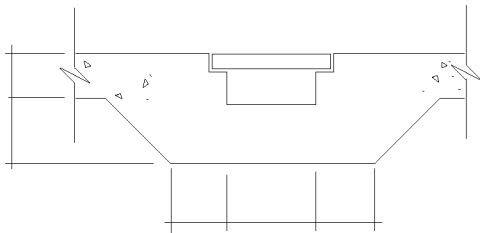
## FRENCH & TRENCH DRAINS



FRENCH DRAIN



TRENCH DRAIN



TRENCH DRAIN

## FRENCH & TRENCH DRAINS

### DETAIL DATA CHECKLIST

#### DRAINAGE

- \_\_\_ Types of pipe for subsurface drains are:
  - \_\_\_ Corrugated metal
  - \_\_\_ Flexible plastic
  - \_\_\_ Concrete
  - \_\_\_ Clay tile
  - \_\_\_ Asbestos cement
  - \_\_\_ Rigid plastic
  - \_\_\_ Porous and unperforated
- \_\_\_ Install perforated drain with holes facing down
- \_\_\_ Drainpipe should be sloped to a sump or outfall
- \_\_\_ Grade filter material above and around drainpipe
- \_\_\_ Depth and spacing of subdrains depends on soil type (see civil engineering handbook tables)
- \_\_\_ Trench drains should slope to a drainpipe

#### DRAIN INLET COVERS

- \_\_\_ Usually precast concrete or cast iron (also ductible iron)
- \_\_\_ Frames and grates available for light and heavy loading conditions
  - \_\_\_ Shapes available:
    - \_\_\_ Round
    - \_\_\_ Rectangular
    - \_\_\_ Square
    - \_\_\_ Linear

#### GRATES

- \_\_\_ In areas of foot or bike traffic, grates must not allow penetration by:
  - \_\_\_ Heels
  - \_\_\_ Crutches
  - \_\_\_ Cane tips
  - \_\_\_ Tires
- \_\_\_ Must still provide sufficient drainage
- \_\_\_ Slotted grating may be used if slots run transverse to traffic direction

### NOTATION CHECKLIST, SAMPLE NOTATION

FINISH GRADE/PAVING  
 PAVING BASE  
 METAL GRATING  
 METAL GRATING FRAME  
 CONCRETE BASE  
 REINFORCING  
 AGGREGATE  
 BACKFILL  
 COMPACTED SUBGRADE



# FURRING: METAL FURRING -- WALLS & CEILINGS

## DETAIL DATA CHECKLIST

### METAL FURRING

\_\_\_ Typically consists of metal furring strips added to rough wall or ceiling construction for attachment of lath or gypsum wall board

\_\_\_ A typical gypsum board support system:

\_\_\_ Hanger wires are typically spaced 48" o.c. and within 6" of the end of carrying channel

\_\_\_ Hanger wires support 1-1/2" carrying channels set at 48" o.c. and within 6" of walls

\_\_\_ 7/8" metal furring channels are supported at right angles to the carrying channels

\_\_\_ Furred spaces may be used for chases and soffits and are constructed of combinations of wood or metal studs and furring strips

\_\_\_ See manufacturers' recommendations regarding attachment of hanger wire and furring strips to various types of substructure

\_\_\_ Common wall finishes combined with metal framed partitions and furring include:

--3/8" plywood paneling

--3/8" gypsum wallboard

--1/2" gypsum wallboard

--5/8" gypsum wallboard

--3/4" 7/8" 1" metal lath and plaster

--2 - 3/8" gypsum wallboard

--2 - 1/2" gypsum wallboard

--2 - 5/8" gypsum wallboard

--1/2" gypsum wallboard plus 3/8" plywood paneling

--3/8" gypsum lath plus 1/2" plaster (7/8")

--3/8" gypsum lath plus 5/8" plaster (1")

--3/8" gypsum lath plus 3/4" plaster (1 1/8")

Gypsum Wallboard Walls & Ceilings -- special types of gypsum wallboard that might be required:

--Sound deadening

--Type X for fire resistance

--Insulative foil backed

--Water resistant

--Waterproof

Gypsum wallboard assembly components commonly identified in detail drawing notes include:

--Corner beads

--Edge trim

--Corner guards

--Edge trim sealant @ floor and ceiling

--Resilient channels

--Angle clip reinforcement @ ceilings

Lath and plaster components commonly identified in detail notation include:

--Expanded metal lath

--Wire lath

--Gypsum lath

--Control joints

--Base screeds

--Corner beads

--Edge casing beads

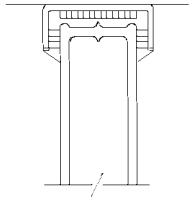
--Grounds

--Picture mouldings

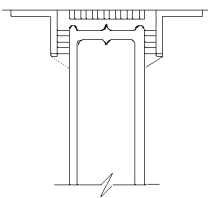
--Window stools

--Corner lath reinforcement

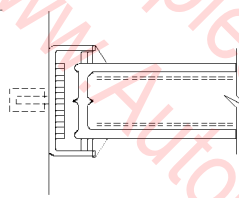
## GLASS BLOCK



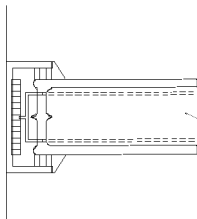
GLASS BLOCK Head



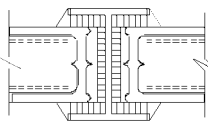
GLASS BLOCK Head



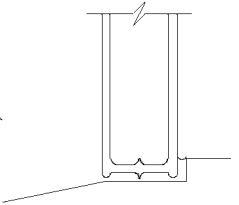
GLASS BLOCK Jamb



GLASS BLOCK Jamb



GLASS BLOCK Stiffener



GLASS BLOCK Sill

## GLASS BLOCK

### DETAIL DATA CHECKLIST

#### GLASS BLOCK

Basic use and characteristics:

Use as panels or wall inserts as light diffusers for exterior screens and interior partitions

Typical block sizes

3-7/8" thick x :

5-3/4" square

7-3/4" square

11-3/4" square

Visible inside joint typically 1/4" thick, exterior joint 5/8" max.

For non-bearing partitions or infill

Laid only in stackbond

Provide movement joints and anchors as per manufacturers' instructions

Maximum panel sizes

Let into wall frame: 24' long, 20' high without intermediate mullions (or max. area of 144 sq. ft.)

Anchored to wall: 10' x 10' without intermediate mullions (or max. area of 100 sq. ft.)

Wall anchors

Metal strips to fasten glass block panels to adjacent walls

Typically 1-3/4" wide x 24" x 20 gauge galvanized steel strips

Wall ties

Galvanized wire reinforcing lattice laid through horizontal mortar joints

Typically spaced at 24"

Not to extend across vertical movement joints

Provide wall expansion strips at heads and jambs

Details vary with manufacturer; see manufacturers' data on:

Special molded patterns

Diffusion characteristics (directed light such as exterior light directed to ceiling)

Modular patterning for integration with brick and concrete block

Expansion joints and strips

Mullions and stiffeners

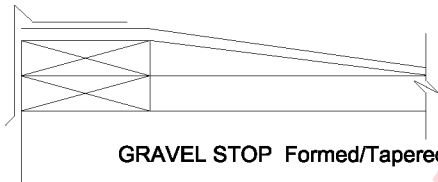
### NOTATION CHECKLIST,

### SAMPLE NOTES

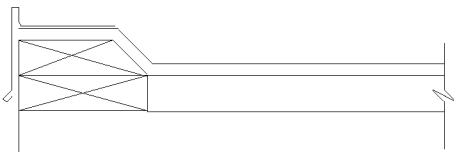
METAL  
CHANNEL/ANGLE  
ANCHOR  
FLASHING  
EXPANSION STRIP  
CAULKING  
JOINT REINFORCING

OAKUM  
EXPANSION STRIP  
ASPHALT EMULSION  
PANEL REINFORCING  
PANEL ANCHOR  
HOOKED WIRE ANCHOR  
ROOFERS FELT  
GALV. DOVETAIL ANCHOR  
DOVETAIL ANCHOR SLOT @ 24"  
O.C.

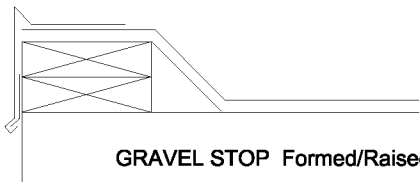
## GRAVEL STOPS



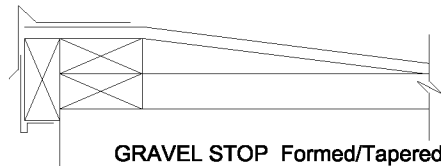
GRAVEL STOP Formed/Tapered Edge



GRAVEL STOP Formed/Raised Edge



GRAVEL STOP Formed/Raised Edge



GRAVEL STOP Formed/Tapered Edge/Soffit

## GRAVEL STOPS

### DETAIL DATA CHECKLIST

#### GRAVEL STOPS

Materials: Sheet metal such as coated galvanized steel or copper nailed to roof substrate, wide variety of materials and finishes available. Gauges and sizes:

4" to 8" high lip at fascia 24 gauge for 4" to 5" lip 22 gauge for 6" to 8" lip

16 oz. copper 4" to 6" lip 20 oz. copper 7" to 8" lip.

Provide expansion joints to allow for: 1/2" thermal movement in a 40' length of galvanized steel

1/2" movement for 40' copper 3/4" movement for 40' aluminum

Set one side of overlapping joint fasteners in mastic so that one half adheres and the other half is free to allow thermal movement

If fascia lip of gravel stop is 4" or higher, apply continuous interlocking cleat at bottom of stop at vertical edge to secure against wind uplift

Use neoprene or similar watertight washer where cleats are nailed to wall

Install on raised curb with 1" minimum top lip

Trouble spots:

Gravel stops that are not above ponding line are subject to water infiltration

Concealed gravel stops that stop at the top of a wall rather than over-hanging are subject to leaks

Direct nailing or attachment of coping to wall surface doesn't allow for differential movement

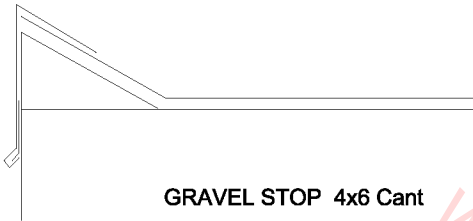
### NOTATION CHECKLIST, SAMPLE NOTES

METAL GRAVEL STOP  
CANT/NAILER  
CLEAT/EDGE STRIP/FASCIA PLATE  
ROOFING SURFACE  
(TYPE, LAYERS & COVER MATERIAL)  
ROOF DECK/INSULATION  
ROOF CONSTRUCTION  
ROOF FASCIA  
EXTRUDED ALUM. FASCIA  
TREATED CANT  
TREATED 2 X 6 MIN. BOLTED TO STRUCTURE  
TREATED WOOD BLOCKING  
ELASTOMERIC SEALANT ALONG ENTIRE LENGTH  
OF FLASH, TYPICAL  
COMPRESSIBLE FILLER RD.  
STEEL ANGLE, SEE STRUCTURAL

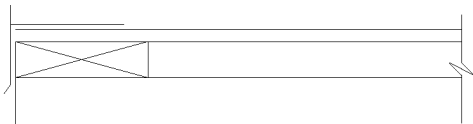
### MEMBRANE BASE FLASHING CONT. TO COVER

CANT & WOOD BLKG.  
6" MIN. BASE FLASHING  
SECOND PLY TO LAP OTHER PLY'S FULL LENGTH OF  
CANT  
FLASHING APPLIED W/ADHESIVE  
LEAD OR ALUMINUM FLASHING  
CONT. CLEAT  
SEALANT  
SHIM (to slope)  
BASE FLASHING NAILS @ 8" O.C.  
SEALANT  
COMPOSITION FLASHING  
BUILT-UP ROOFING  
BASE SHEET INSULATION  
VAPOR BARRIER  
FILL, PITCH TO DRAIN  
NAILABLE CANT  
CONT. 4" HIGH CANT

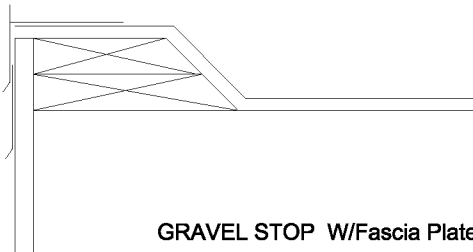
## GRAVEL STOPS



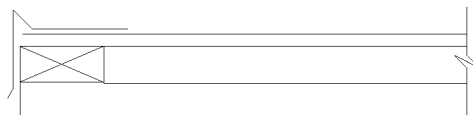
GRAVEL STOP 4x6 Cant



GRAVEL STOP Extruded



GRAVEL STOP W/Fascia Plate



GRAVEL STOP Formed

## GRAVEL STOPS

### DETAIL DATA CHECKLIST

#### GRAVEL STOPS

Materials: Sheet metal such as coated galvanized steel or copper nailed to roof substrate, wide variety of materials and finishes available. Gauges and sizes:

\_\_\_ 4" to 8" high lip at fascia \_\_\_ 24 gauge for 4" to 5" lip \_\_\_ 22 gauge for 6" to 8" lip  
 \_\_\_ 16 oz. copper 4" to 6" lip \_\_\_ 20 oz. copper 7" to 8" lip.

Provide expansion joints to allow for: \_\_\_ 1/2" thermal movement in a 40' length of galvanized steel

\_\_\_ 1/2" movement for 40' copper \_\_\_ 3/4" movement for 40' aluminum

\_\_\_ Set one side of overlapping joint fasteners in mastic so that one half adheres and the other half is free to allow thermal movement

\_\_\_ If fascia lip or gravel stop is 4" or higher, apply continuous interlocking cleat at bottom of stop at vertical edge to secure against wind uplift

\_\_\_ Use neoprene or similar watertight washer where cleats are nailed to wall

\_\_\_ Install on raised curb with 1" minimum top lip

#### Trouble spots:

\_\_\_ Gravel stops that are not above ponding line are subject to water infiltration

\_\_\_ Concealed gravel stops that stop at the top of a wall rather than over-hanging are subject to leaks

\_\_\_ Direct nailing or attachment of coping to wall surface doesn't allow for differential movement

### NOTATION CHECKLIST, SAMPLE NOTES

METAL GRAVEL STOP

CANT/NAILER

CLEAT/EDGE STRIP/FASCIA PLATE

ROOFING SURFACE

(TYPE, LAYERS & COVER MATERIAL)

ROOF DECK/INSULATION

ROOF CONSTRUCTION

ROOF FASCIA

EXTRUDED ALUM. FASCIA

TREATED CANT

TREATED 2 X 6 MIN. BOLTED TO STRUCTURE

TREATED WOOD BLOCKING

ELASTOMERIC SEALANT ALONG ENTIRE LENGTH

OF FLASH, TYPICAL

COMPRESSIBLE FILLER RD.

STEEL ANGLE, SEE STRUCTURAL

MEMBRANE BASE FLASHING CONT. TO COVER

CANT & WOOD BLKG.

6" MIN. BASE FLASHING

SECOND PLY TO LAP OTHER PLY'S FULL LENGTH OF

CANT

FLASHING APPLIED W/ADHESIVE

LEAD OR ALUMINUM FLASHING

CONT. CLEAT

SEALANT

SHIM (to slope)

BASE FLASHING NAILS @ 8" O.C.

SEALANT

COMPOSITION FLASHING

BUILT-UP ROOFING

BASE SHEET INSULATION

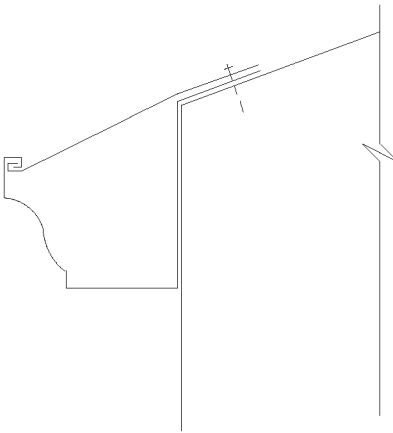
VAPOR BARRIER

FILL, PITCH TO DRAIN

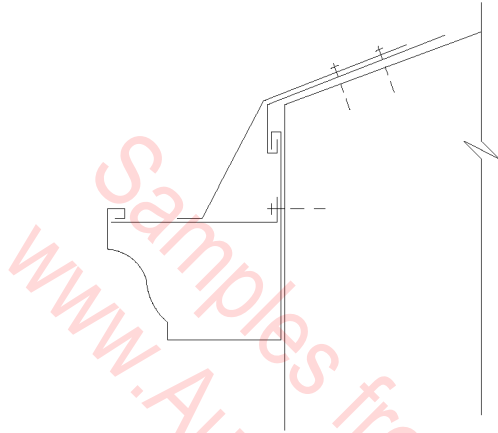
NAIABLE CANT

CONT. 4" HIGH CANT

# GUTTERS



METAL GUTTER Ogee

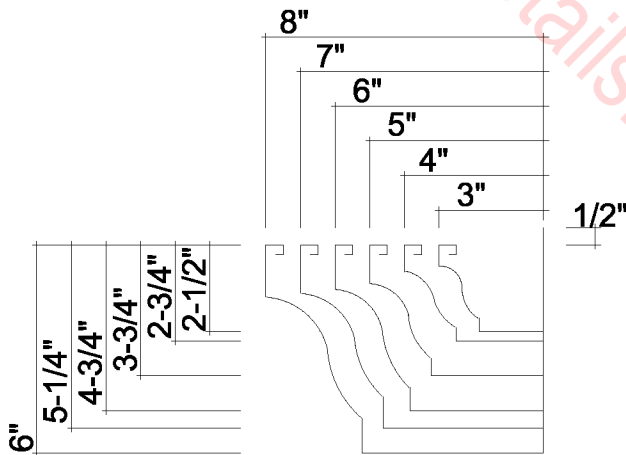


METAL GUTTER Ogee

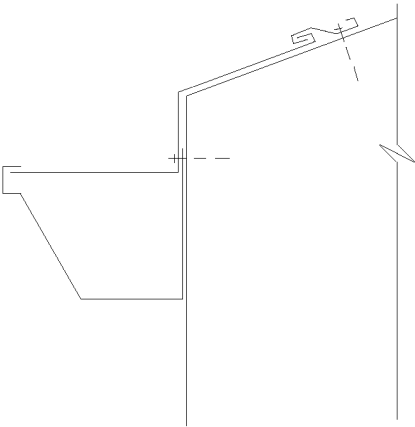
# GUTTERS

## NOTATION CHECKLIST, SAMPLE DETAILS

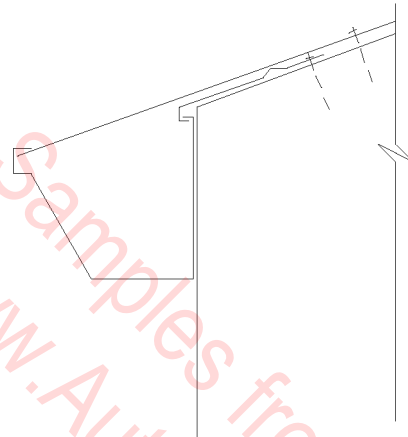
- GUTTER
- HANGER
- BRACKET
- METAL GRAVEL STOP
- CANT/NAILER
- CLEAT/EDGE STRIP/FASCIA PLATE
- PARAPET WALL CONSTRUCTION
- REGLET
- FLASHING/COUNTERFLASHING
- ADHESIVE/SEALANT/CAULKING
- ROOFING SURFACE  
(TYPE, LAYERS & COVER MATERIAL)
- ROOF DECK/INSULATION
- ROOF CONSTRUCTION
- 1/16" x 1" SHEET METAL GUTTER  
SPACER @ 6'-0" O.C.
- SHEET METAL GUTTER
- CONT. SHEET METAL CLEAT
- BLOCKING
- RIVETS
- OPTIONAL GUTTER PROFILE
- 1/8" x 1" SHT. MTL. GUTTER  
BRACKET @ 3'-0" O.C.
- DOWNSPOUT
- SPLASH BLOCK



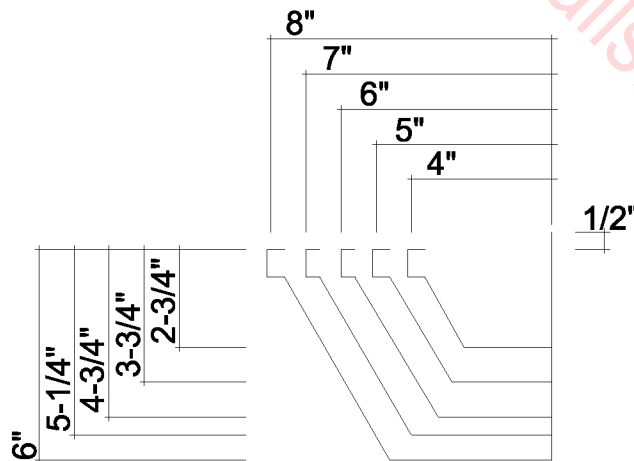
# GUTTERS



**METAL GUTTER**  
Beveled



**METAL GUTTER**  
Beveled

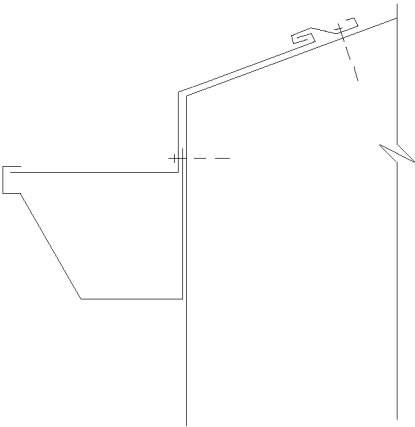


# GUTTERS

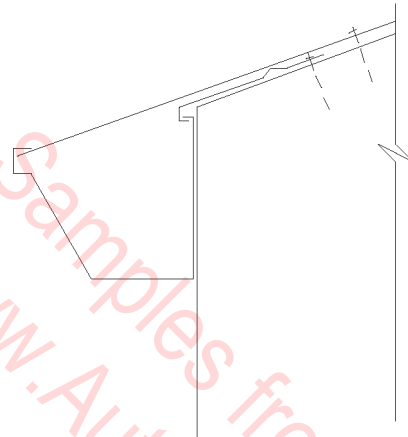
## NOTATION CHECKLIST, SAMPLE NOTES

- GUTTER
- HANGER
- BRACKET
- METAL GRAVEL STOP
- CANT/NAILER
- CLEAT/EDGE STRIP/FASCIA PLATE
- PARAPET WALL CONSTRUCTION
- REGLET
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- RIVETS
- OPTIONAL GUTTER PROFILE
- 1/8" X 1" SHT. MTL. GUTTER
- BRACKET @ 3'-0" O.C.
- DOWNSPOUT
- SPLASH BLOCK

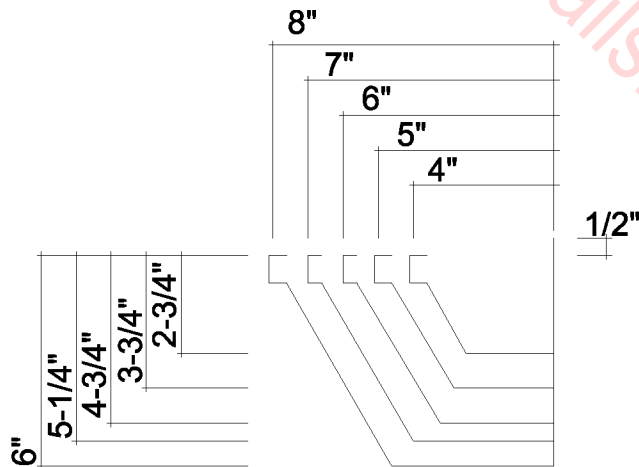
# GUTTERS



**METAL GUTTER**  
Beveled



**METAL GUTTER**  
Beveled

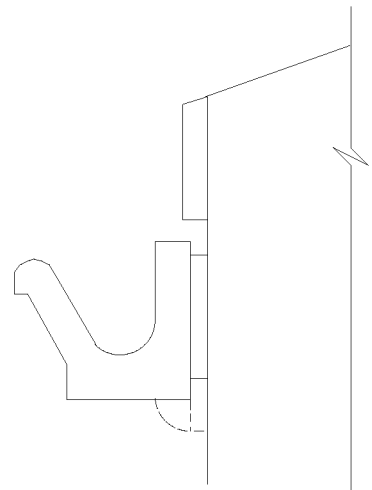


# GUTTERS

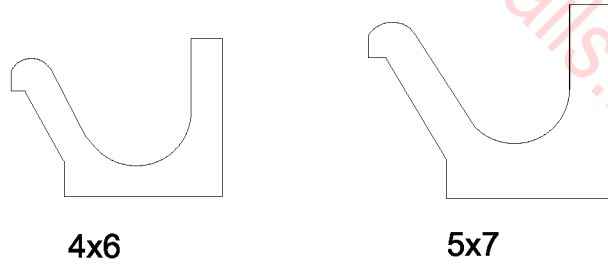
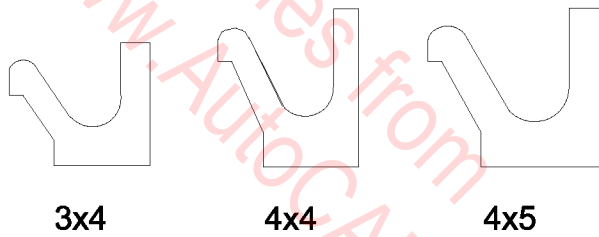
## NOTATION CHECKLIST, SAMPLE NOTES

- GUTTER
- HANGER
- BRACKET
- METAL GRAVEL STOP
- CANT/NAILER
- CLEAT/EDGE STRIP/FASCIA PLATE
- PARAPET WALL CONSTRUCTION
- REGLET
- FLASHING/COUNTERFLASHING
- ADHESIVE/SEALANT/CAULKING
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- (TYPE, LAYERS & COVER MATERIAL)
- ROOF DECK/INSULATION
- ROOF CONSTRUCTION
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- SHEET METAL GUTTER
- CONT. SHEET METAL CLEAT
- BLOCKING
- RIVETS
- OPTIONAL GUTTER PROFILE
- 1/8" X 1" SHT. MTL. GUTTER
- BRACKET @ 3'-0" O.C.
- DOWNSPOUT
- SPLASH BLOCK

# GUTTERS (Wood Gutters Included)



WOOD GUTTER Ogee



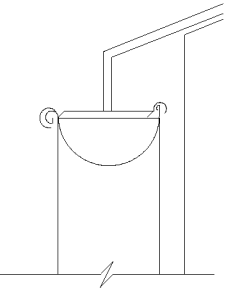
## NOTATION CHECKLIST, SAMPLE NOTES

- GUTTER
- HANGER
- BRACKET
- METAL GRAVEL STOP
- CANT/NAILER
- CLEAT/EDGE STRIP/FASCIA PLATE
- WALL CONSTRUCTION
- REGLET
- FLASHING/COUNTERFLASHING
- ADHESIVE/SEALANT/CAULKING
- ROOFING SURFACE  
(TYPE, LAYERS & COVER MATERIAL)
- ROOF DECK/INSULATION
- ROOF CONSTRUCTION

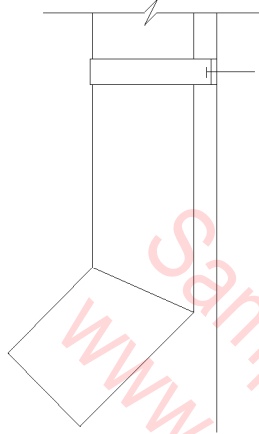


# GUTTERS

# GUTTERS



METAL GUTTER

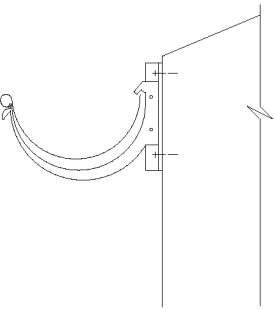


METAL GUTTER

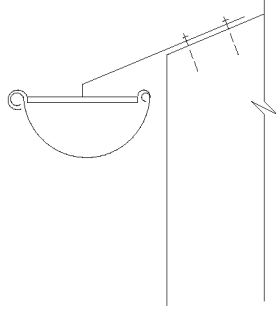
## NOTATION CHECKLIST, SAMPLE NOTES

- GUTTER
- HANGER
- BRACKET
- METAL GRAVEL STOP
- CANT/NAILER
- CLEAT/EDGE STRIP/FASCIA PLATE
- PARAPET WALL CONSTRUCTION
- REGLET
- FLASHING/COUNTERFLASHING
- ADHESIVE/SEALANT/CAULKING
- ROOFING SURFACE
- (TYPE, LAYERS & COVER MATERIAL)
- ROOF DECK/INSULATION
- ROOF CONSTRUCTION

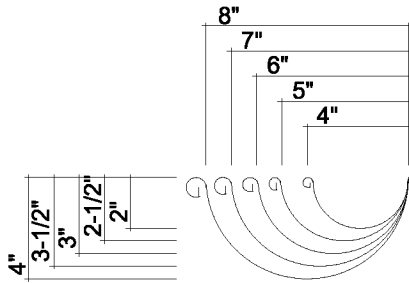
- SAMPLE NOTES:  
 1/16" x 1" SHEET METAL GUTTER  
 SPACER @ 6'-0" O.C.  
 SHEET METAL GUTTER  
 CONT. SHEET METAL CLEAT  
 BLOCKING  
 RIVETS  
 OPTIONAL GUTTER PROFILE  
 1/8" x 1" SHT. MTL. GUTTER  
 BRACKET @ 3'-0" O.C.  
 DOWNSPOUT  
 SPLASH BLOCK



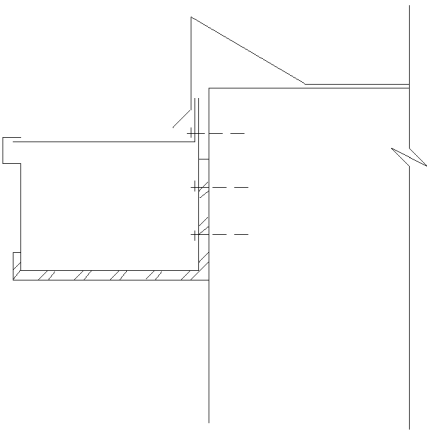
METAL GUTTER Half Round



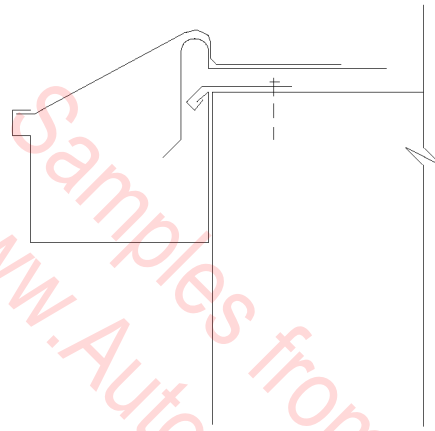
METAL GUTTER Half Round



# GUTTERS



**METAL GUTTER**  
Rectangular

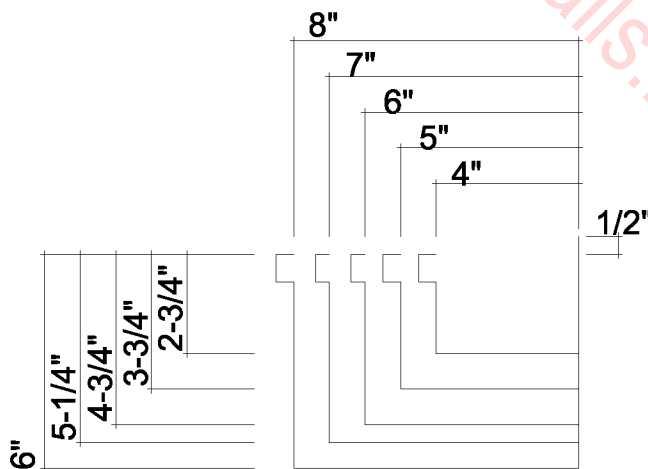


**METAL GUTTER**  
Rectangular

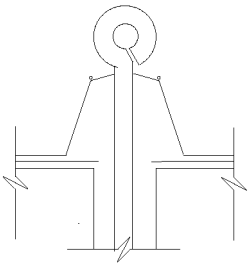
# GUTTERS

## NOTATION CHECKLIST, SAMPLE NOTES

- GUTTER
- HANGER
- BRACKET
- METAL GRAVEL STOP
- CANT/NAILER
- CLEAT/EDGE STRIP/FASCIA PLATE
- WALL CONSTRUCTION
- REGLET
- FLASHING/COUNTERFLASHING
- ADHESIVE/SEALANT/CAULKING
- ROOFING SURFACE  
(TYPE, LAYERS & COVER MATERIAL)
- ROOF DECK/INSULATION
- ROOF CONSTRUCTION
- 1/16" x 1" SHEET METAL GUTTER  
SPACER @ 6'-0" O.C.
- SHEET METAL GUTTER
- CONT. SHEET METAL CLEAT
- BLOCKING
- RIVETS
- OPTIONAL GUTTER PROFILE
- 1/8" X 1" SHT. MTL. GUTTER  
BRACKET @ 3'-0" O.C.
- DOWNSPOUT
- SPLASH BLOCK



## GUY WIRE CONNECTION



GUY WIRE CONNECTION

## GUY WIRE CONNECTION

### DETAIL DATA CHECKLIST

#### GUY WIRE

Guy wire connections are usually an afterthought; a way of securing add-on equipment on a rooftop after it's built. It's not good construction practice to penetrate the roof with connectors of any sort and especially connectors that will be subject to stress and possible movement.

If they must be included, they're handled as pitch pockets: enclosed, caulk-filled holes around the penetrating guy-wire eyebolt. Hot- or cold-applied caulk such as bitumin with fiber filler is poured and/or packed around the penetration.

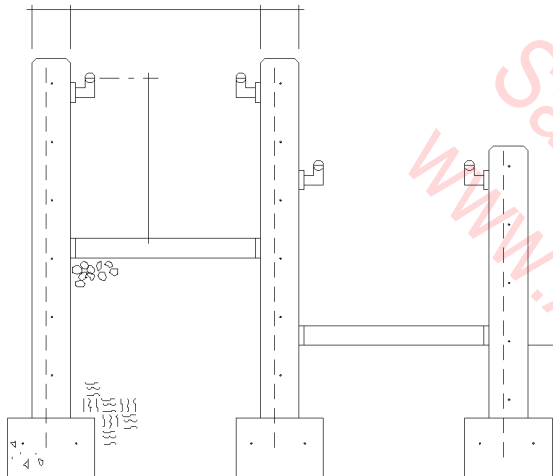
Coordinate the detailing for such work closely with the structural engineers and make sure the operation is covered in the roofing preconstruction meeting. This work should be part of the roofing contract and included in the roofing warranty.

### NOTATION CHECKLIST, SAMPLE NOTES

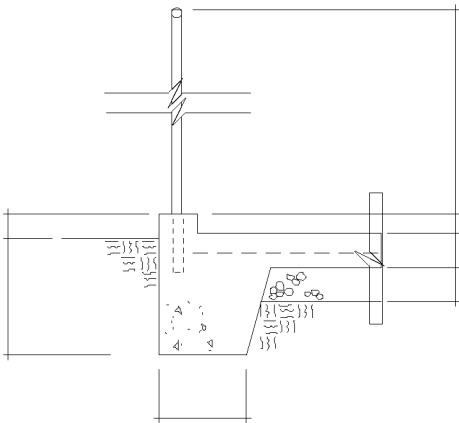
EYE BOLT (MATERIAL & SIZE)  
MOLDED FLASHING/METAL DAM  
SEALER/PITCH  
ROOFING SURFACE  
(TYPE, LAYERS & COVER MATERIAL)  
ROOFING DECK/INSULATION  
ROOF CONSTRUCTION

3/4" STAINLESS STEEL EYEBOLT  
W/1" DIA. EYE  
POURABLE SEALER  
MOLDED FLASHING  
GALV. METAL DAM  
MEMBRANE IN CONTACT W/POURABLE SEALER  
ROOFING MEMBRANE  
TREATED WOOD BLOCKING  
METAL DECK  
FILLER

## HANDICAP RAMPS



HANDICAP RAMP



HANDICAP RAMP

## HANDICAP RAMPS

### DETAIL DATA CHECKLIST

#### RAMPS

- \_\_\_ See building code and handicap design regulations for slope and handrail requirements
- \_\_\_ 8 slope is typically maximum for wheelchairs for up to 30'
- \_\_\_ Provide curbs 4" to 6" high at each side of ramps to prevent side runaways or tipping of wheelchairs
- \_\_\_ Provide nonslip treatment (abrasive surface or broom finish applied across width of ramp)

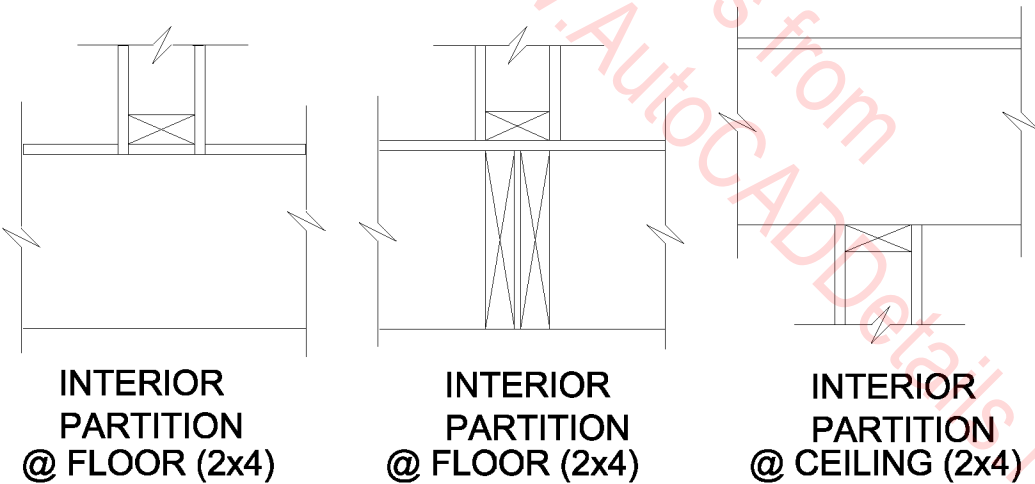
#### HANDICAP RAMPS

- \_\_\_ Handicap ramps must usually be as per the governing agency's design standards and specifications.
- \_\_\_ Design standards, specifications and detail drawings are usually provided and referenced by the governing agency .

### NOTATION CHECKLIST, SAMPLE NOTES

- CONCRETE WALLS/RAMP
- REINFORCING
- HANDRAILS/BRACKETS
- CAMFER
- AGGREGATE BASE
- COMPACTED SUBGRADE
- SEALANT
- FOOTINGS
- 1/4" GROOVES, 3/4" O.C.
- STIFF BROOM FINISH ON RAMP SURFACE
- TEXTURED CONCRETE
- COURSE BROOM FINISH
- CONC. GUTTER
- CURB TAPER BEYOND
- 1/2" EXP. JOINT
- 1/2" JOINT FILLER MATERIAL
- TOP OF CURB
- REINFORCING
- RAMP DOWN

## INTERIOR PARTITION @ FLOOR /CEILING

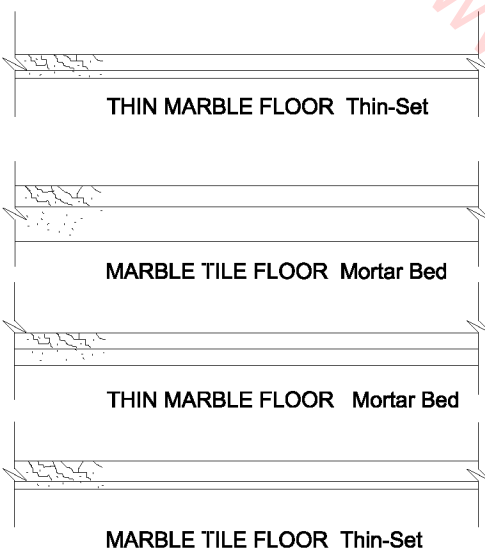


### NOTATION CHECKLIST, SAMPLE NOTES

SUBFLOOR  
2 X FLOOR JOISTS @ " O.C.  
2 X SOLID BLOCKING  
2 X DOUBLE TOP PLATE  
2 X STUDS @ " O.C.

INTERIOR:  
GYPSUM WALLBOARD  
LATH & PLASTER  
WOOD PANELING  
TILE  
SOUND INSULATION  
PLYWOOD SHEATHING

## MARBLE TILE FLOORS



## MARBLE TILE FLOORS

### DETAIL DATA CHECKLIST

#### MARBLE FLOORING

Typical thicknesses are 7/8" and 1-1/4"

Joints are typically 1/16" thick

Typical marble tile size ranges are 8" x 16", 12" x 12", and 10" x 20"

Marble comes in hundreds of varieties, in five classes and four grades:

Classes are Travertine, Dolomite, Calcite, Onyx, and Serpentine, see supplier's catalogs for flooring

characteristics and recommendations

Grading is according to uniformity of appearance: A, B, C, and D; A being best

Provide a stable substrate; movement of substrate will cause cracks

Provide complete, compact bedding beneath marble tile slabs to avoid bending stresses and cracking

Don't use marble floors in restrooms or other areas where it would be exposed to acids or alkaline substances

Don't use polished marble near exterior doors, restrooms or other areas where floors may be wet and slippery

Marble can be dangerously slippery and shouldn't be used on stairs or ramps

### NOTATION CHECKLIST, SAMPLE NOTES

FINISH FLOOR (MATERIAL & SIZE)

SETTING BED (MATERIAL & SIZE)

JOINT SIZE

FLOOR

MEMBRANE/WATERPROOFING

SUBFLOOR/SLAB

REINFORCING

MARBLE TILE

FINISH CONC.

PLYWOOD UNDERLAYMENT

PLYWOOD SUBFLOOR

PARTICLE BOARD UNDERLAYMENT

MASTIC

BOND COAT

ADHESIVE

SETTING BED

MORTAR BED W/REINFORCING

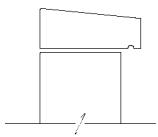
ANGLE EDGER

THRESHOLD

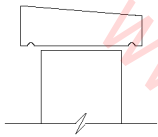
DIVIDER STRIP

REDUCER STRIP

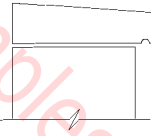
### MASONRY COPINGS



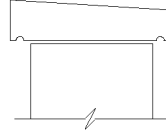
MASONRY COPING (8" Parapet)



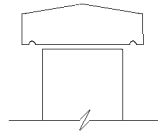
MASONRY COPING (8" Parapet)



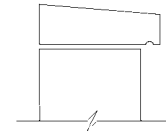
MASONRY COPING (12" Parapet)



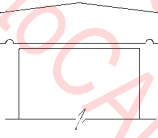
MASONRY COPING (12" Parapet)



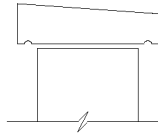
MASONRY COPING (8" Parapet)



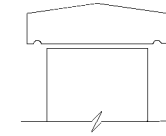
MASONRY COPING (10" Parapet)



MASONRY COPING (12" Parapet)



MASONRY COPING (10" Parapet)



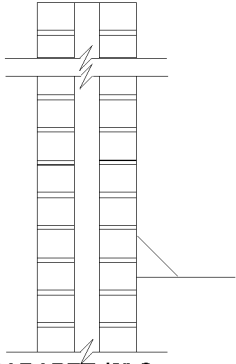
MASONRY COPING (10" Parapet)

### MASONRY COPINGS

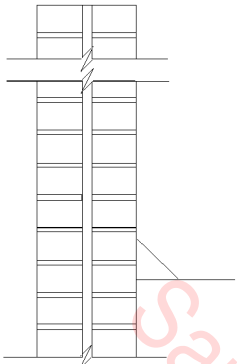
- NOTATION CHECKLIST,
- SAMPLE NOTES
- COPING (TYPE, MATERIAL & SIZE)
- SETTING BED
- ANCHOR/DOWELS
- DRIP EDGE
- NAILER
- FLASHING/COUNTERFLASHING
- PARAPET CONSTRUCTION
- COPING STONE
- JOINT COVER
- TIE BACK ANCHOR
- CANT
- ROOFING

## MASONRY PARAPETS

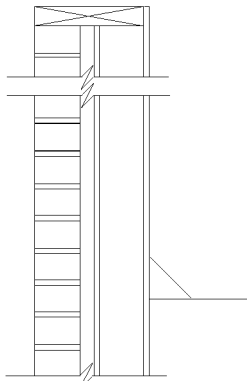
## MASONRY PARAPETS



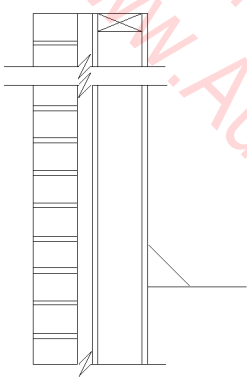
PARAPET (8" Cav.  
Wall-3" Brick)



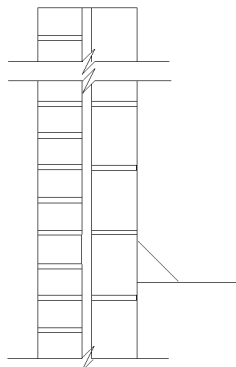
PARAPET (8"  
Wall-4" Brick)



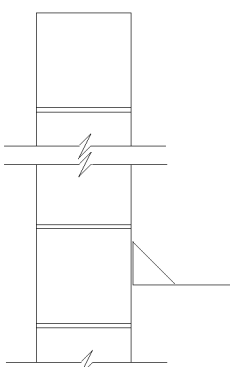
PARAPET (4" Brick  
& Metal Frame)



PARAPET (4" Brick &  
Wood Frame)



PARAPET (8" Wall-4"  
Brick & 4" HMU)



PARAPET (8"  
HMU Wall)

### DETAIL DATA CHECKLIST

#### BRICK AND CONCRETE BLOCK WALLS

Design limits of wall types, thickness and heights are strictly limited by most building codes, so consult your local code for the last word on preliminary design assumptions and final design.

Also, see literature from the National Concrete Masonry Association, the Brick Institute of America, and the Construction Specifications Institute for complete engineering, specification, and construction application information.

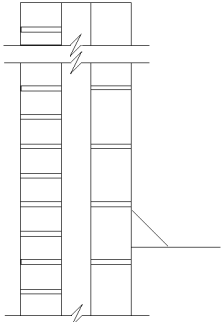
### NOTATION CHECKLIST, SAMPLE NOTES

COPING/CAP FLASHING  
PARAPET WALL CONSTRUCTION  
FLASHING/COUNTERFLASHING  
WEEP  
ANCHORS/TIES  
SEALANT/CAULKING  
CANT  
ROOFING SURFACE  
(TYPE, LAYERS & COVER MATERIAL)  
ROOF DECK INSULATION  
ROOF CONSTRUCTION/FRAMING

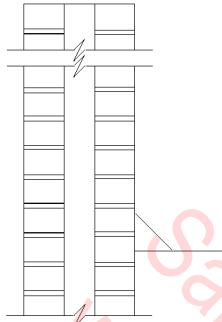
FACE BRICK  
METAL COPING SET W/ MASTIC SEALANT @  
SPLICE JOINTS  
BASE FLASHING  
TWO-PIECE METAL FLASHING  
BRICK ANCHORS  
CONT. 4" CANT  
1" X 4" PREFORMED CANT  
BLOCKING  
RIGID THICK INSULATION  
FOAMED-IN INSULATION  
VAPOR BARRIER  
1/2" PREMOLDED FILLER  
5# FELT ON GYPSUM SHEATHING ON  
METAL STUDS @ 2'-0" O.C.  
BRICK VENEER W/METAL TIES TO STUD WALL  
WOOD BLKG. SECURED TO METAL STUD &  
BRICK W/1/4" DIA. BOLT @ 48" O.C.



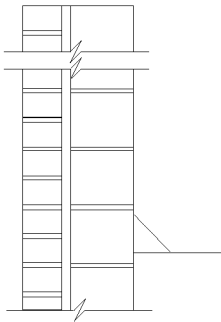
## MASONRY PARAPETS



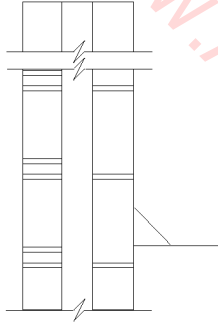
PARAPET (10" Cav.  
Wall-4" Brick)



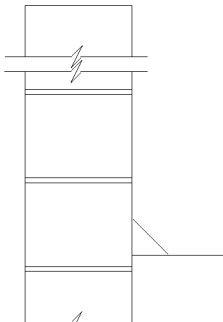
PARAPET (10" Cav.  
Wall-4" Brick &  
6" HMU)



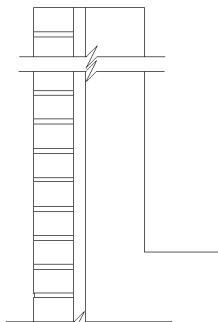
PARAPET (10"  
Wall-4" HMU)



PARAPET (10" Wall-4"  
Brick & 6" HMU)



PARAPET (10" HMU Wall)



PARAPET (10"  
Wall-Brick & Conc.)

## MASONRY PARAPETS

### DETAIL DATA CHECKLIST

#### BRICK AND CONCRETE BLOCK WALLS

Design limits of wall types, thickness and heights are strictly limited by most building codes, so consult your local code for the last word on preliminary design assumptions and final design.

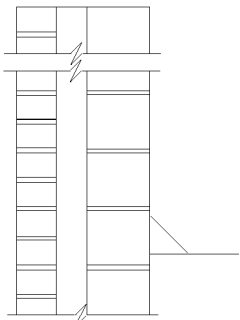
Also, see literature from the National Concrete Masonry Association, the Brick Institute of America, and the Construction Specifications Institute for complete engineering, specification, and construction application information.

### NOTATION CHECKLIST, SAMPLE NOTES

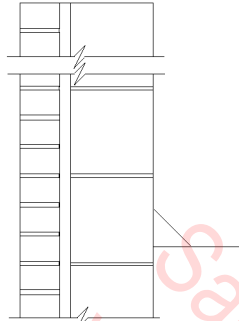
COPING/CAP FLASHING  
PARAPET WALL CONSTRUCTION  
FLASHING/COUNTERFLASHING  
WEEP  
ANCHORS/TIES  
SEALANT/CAULKING  
CANT  
ROOFING SURFACE  
(TYPE, LAYERS & COVER MATERIAL)  
ROOF DECK INSULATION  
ROOF CONSTRUCTION/FRAMING  
FACE BRICK  
METAL COPING SET W/ MASTIC  
SEALANT @  
SPLICE JOINTS  
BASE FLASHING  
TWO-PIECE METAL FLASHING  
BRICK ANCHORS  
CONT. 4" CANT  
1" X 4" PREFORMED CANT  
BLOCKING  
RIGID THICK INSULATION  
FOAMED-IN INSULATION  
VAPOR BARRIER  
1/2" PREMOLDED FILLER

CONCRETE BLOCK  
4" LIGHTWEIGHT CONC. BLOCK  
FACE BRICK  
BRICK VENEER W/METAL TIES TO STUD WALL  
WEEP HOLES  
CONT. SEALANT  
4" STARTER COURSE  
CONT. FLASHING  
FABRIC FLASHING SET IN REGLET  
GROUT  
SHIM  
5" X 3" X 1/4" CONT. SHELF ANGLE  
STEEL LINTEL ELEV.  
STEEL ANGLE LINTEL  
WEEP HOLES @ 32" O.C.  
METAL STRAP ANCHORS EVERY 6TH COURSE  
HORIZ.  
BRICK ANCHORS  
VERT. CONT. ANCHOR SLOTS SPACED 2'-0" O.C.  
#4 @ 16" O.C. GROUT CORES  
REINF. @ 16" O.C. TYP.  
1" RIGID INSULATION  
FOAMED INSULATION

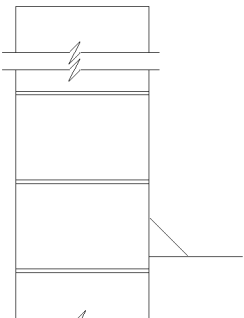
## MASONRY PARAPETS



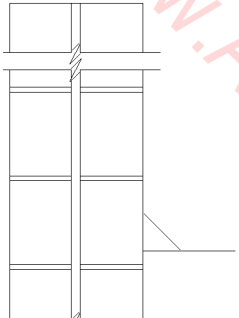
PARAPET  
(12" Cav. Wall-4" Brick & 6" HMU)



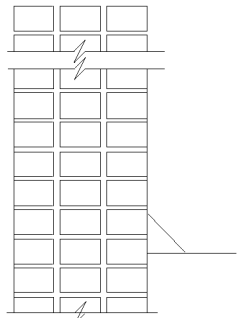
PARAPET  
(12" Wall-4" Brick & 8" HMU)



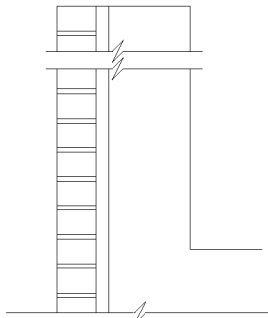
PARAPET (12" Wall-6" HMU)



PARAPET (12" HMU Wall)



PARAPET (12" Wall-4" Brick)



PARAPET (12" Wall-Brick & Conc.)

## MASONRY PARAPETS

### DETAIL DATA CHECKLIST

#### BRICK AND CONCRETE BLOCK WALLS

Design limits of wall types, thickness and heights are strictly limited by most building codes, so consult your local code for the last word on preliminary design assumptions and final design.

Also, see literature from the National Concrete Masonry Association, the Brick Institute of America, and the Construction Specifications Institute for complete engineering, specification, and construction application information.

### NOTATION CHECKLIST, SAMPLE NOTES

COPING/CAP FLASHING  
PARAPET WALL CONSTRUCTION  
FLASHING/COUNTERFLASHING  
WEEP  
ANCHORS/TIES  
SEALANT/CAULKING  
CANT  
ROOFING SURFACE  
(TYPE, LAYERS & COVER MATERIAL)  
ROOF DECK INSULATION  
ROOF CONSTRUCTION/FRAMING

METAL COPING SET W/ MASTIC SEALANT @  
SPLICE JOINTS ONLY  
2 X 10 WOOD BLKG. SECURED TO METAL STUD &  
BRICK W/ 1/4" DIA. BOLT 8" LONG @ 48" O.C.  
BASE FLASHING  
TWO-PIECE METAL FLASHING  
FACE BRICK  
FOAMED-IN INSULATION  
BRICK ANCHORS  
CONT. 4" H. CANT  
1" X 4" PREFORMED CANT  
BLOCKING  
2-1/4" THICK INSULATION  
VAPOR BARRIER  
1/2" PREMOLDED FILLER  
5# FELT ON 2" GYPSUM SHEATHING ON  
4" METAL STUDS @ 2'-0" O.C.  
BRICK VENEER W/METAL TIES TO STUD WALL

## MASONRY YARD WALLS

## MASONRY YARD WALLS

### DETAIL DATA CHECKLIST

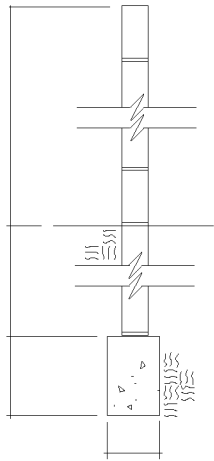
#### CONCRETE MASONRY UNIT YARD WALLS

- Concrete footings
  - Top of footing below the frost line
  - Minimum footing:
    - 10" deep
    - 16" wide
  - 2 #3 continuous rebars
  - Provide cap or coping
  - Use Type S mortar for resistance to horizontal forces
  - Joints—tooled S or V mortar joints for maximum weatherproofing
  - Expansion joints—vertical joints at 50' minimum
  - For an 8" CMU wall, use a 12" CMU pilaster
  - Place horizontal reinforcing at 24" o.c., continuous through the pilaster
  - Dowel wall to concrete footing with #4 dowels at 24" o.c.
  - Fill block cells with grout at each dowel
- OR
- Bond beams at top of wall with #5 continuous, at 32" o.c.

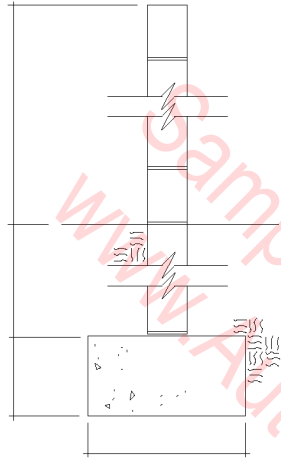
### NOTATION CHECKLIST, SAMPLE NOTES

TOP OF WALL ELEVATION  
 FINISH GRADE/PAVING  
 WALL CAP (TYPE & SIZE)  
 MASONRY UNITS (TYPE & SIZE)  
 REINFORCING  
 EXPANSION JOINTS (TYPE & SPACING)  
 FOOTING  
 AGGREGATE BASE  
 SUBGRADE  
 FOOTING DRAIN

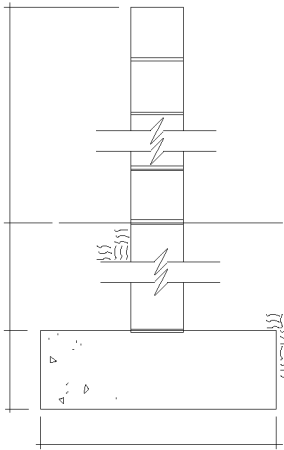
HORIZ. CONT. REINF.  
 FOOTING (Reinf. typ for a 1' x 3' ftg.-  
 3 #3 cont. & #3 bars x 2'-6" @ 12" O.C.)  
 #4 DOWEL @ 24" O.C. (Typ. tie from block  
 wall to ftg.-90° angle 30" vertical & 12"  
 horiz. into ftg.)  
 FILL CELL W/ GROUT @ EACH DOWEL (block  
 walls)  
 WEEP HOLES @ 48" O.C.  
 EXPANSION JOINTS  
 CONC. BLK. PILASTER



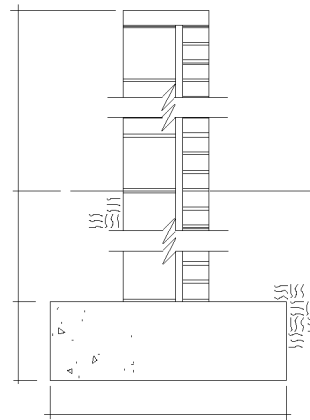
YARD WALL 4" HMU



YARD WALL 6" HMU

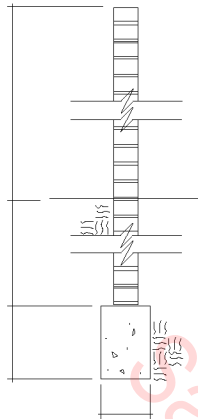


YARD WALL 8" HMU



YARD WALL 4" Brick/8" HMU

## MASONRY YARD WALLS

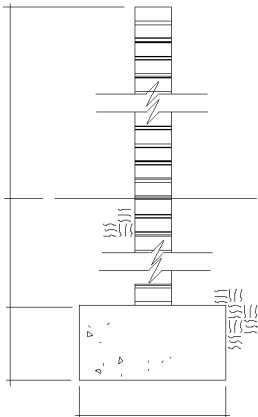


YARD WALL 4" Brick

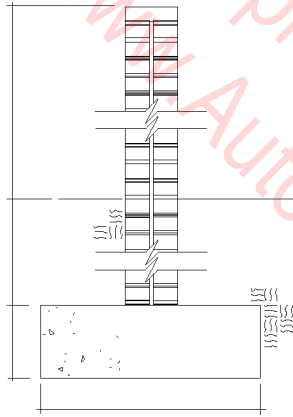
## MASONRY YARD WALLS

### DETAIL DATA CHECKLIST

- BRICK YARD WALLS**
- Use SW grade brick for weather resistance
  - Concrete footings
    - Top of footing below the frost line
    - Minimum footing:
      - 10" deep
      - 16" wide
      - 2 #3 continuous rebars
  - Provide cap or coping:
    - Concrete
    - Stone
    - Rowlock brick
  - Use Type S mortar for resistance to horizontal forces
  - Joints—tooled S or V mortar joints for maximum weatherproofing
  - Expansion joints—vertical joints at 50' minimum
  - Reinforcing—horizontal truss-type wire reinforcing every 6th course
  - In areas of heavy wind (10 psf or greater):
    - Straight brick walls no higher than 3/4 of the wall thickness squared (4' for an 8" wall)
    - Use buttresses, offsets, piers for added support
    - Add vertical reinforcing as per Brick Institute handbook



YARD WALL 6" Brick



YARD WALL Double 4" Brick

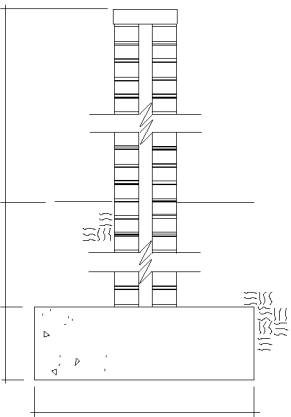
### NOTATION CHECKLIST, SAMPLE NOTES

- TOP OF WALL ELEVATION
- FINISH GRADE/PAVING
- WALL CAP (TYPE & SIZE)
- MASONRY UNITS (TYPE & SIZE)
- REINFORCING
- EXPANSION JOINTS (TYPE & SPACING)
- FOOTING
- AGGREGATE BASE
- SUBGRADE
- FOOTING DRAIN

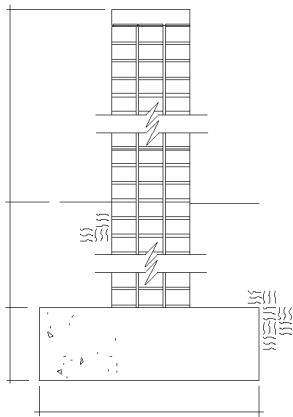
- HORIZ. CONT. REINF.
- FOOTING (reinf. - typ for a 1' x 3' ftg. - 3 #3 cont. & #3 bars x 2'-6" @ 12" O.C.)
- #4 DOWEL @ 24" O.C. (Typ. tie from block wall to ftg. - 90° angle 30" vertical & 12" horiz. into ftg.)
- FILL CELL W/ GROUT @ EACH DOWEL (block walls)
- WEEP HOLES @ 48" O.C.
- EXPANSION JOINTS
- CONC. BLK. PILASTER

## MASONRY YARD WALLS

### FULL-SCALE GENERIC DETAILS continued

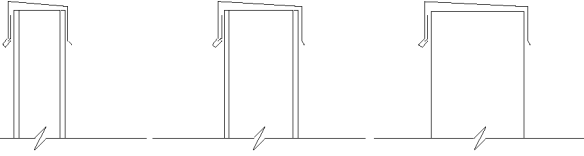


YARD WALL 10" Brick Cavity Wall



YARD WALL Triple 4" Brick

## METAL COPINGS



METAL COPING  
Formed (4" Parapet)

METAL COPING  
Formed (6" Parapet)

METAL COPING  
Formed (8" Parapet)

## METAL COPINGS

### DETAIL DATA CHECKLIST

METAL COPINGS Materials, sizes and gauges:

- \_\_\_ 4" to 12" coping width: 24-ga. galvanized steel, 16-oz. copper, 26-ga. stainless steel, .232 alum.
- \_\_\_ 13" to 18" coping width: 22-ga. galvanized steel, 20-oz. copper, 24-ga. stainless steel, .040 alum.

\_\_\_ Provide expansion joints to allow for:

- \_\_\_ 1/2" thermal movement in a 40' length of galvanized steel
- \_\_\_ 1/2" movement for 40' copper
- \_\_\_ 3/4" movement for 40' aluminum

\_\_\_ Apply continuous interlocking cleats at bottom of coping at vertical edge to secure against wind uplift

\_\_\_ Use neoprene or similar watertight washer where cleats are nailed to wall

Trouble spots:

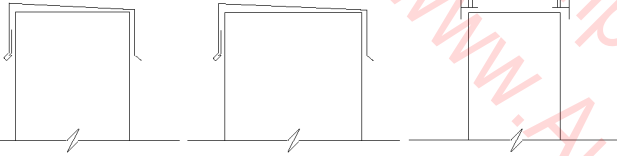
- \_\_\_ Corrosion from use of dissimilar metals, especially incompatible connectors
- \_\_\_ Direct nailing or attachment of coping to wall surface that doesn't allow for differential expansion and contraction

### NOTATION CHECKLIST, SAMPLE NOTES

FORMED METAL COPING  
CLEAT  
NAILER  
SEALANT/CAULKING  
EXTRUDED METAL  
COPING  
ANCHOR BOLT  
COVER PLATE  
GUTTER BAR  
COPING  
PREFIN. ALUM. COPING  
FLASHING OVER COPING

METAL CAP  
CLIP ON FLASHING, ATTACH @ CTR. OF EA. PIECE  
MTL. COPING, SET W/MASTIC SEALANT @ SPLICE  
JTS. ONLY  
MANUFACTURED COPING & FLASHING SYSTEM  
G.I. FLASHING  
ELASTOMERIC FLASHING  
BASE FLASHING OVER PLATE  
FLASHING APPLIED W/ADHESIVE  
LEAD OR ALUMINUM FLASHING  
CONT. CLEAT  
SEALANT  
SRIM (to slope)

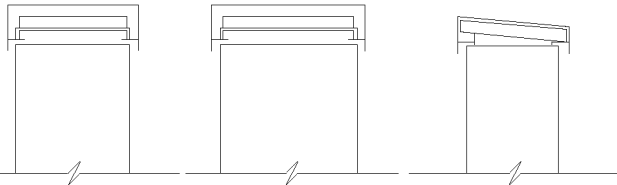
Sample from  
[www.AutocADDetails.net](http://www.AutocADDetails.net)



METAL COPING  
Formed (10" Parapet)

METAL COPING  
Formed (12" Parapet)

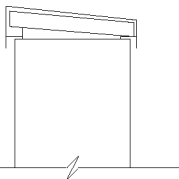
METAL COPING  
Extruded (8" Parapet)



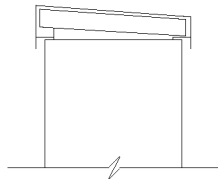
METAL COPING  
Extruded (10" Parapet)

METAL COPING  
Extruded (12" Parapet)

METAL COPING  
Extruded (8" Parapet)



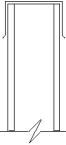
METAL COPING  
Extruded (10" Parapet)



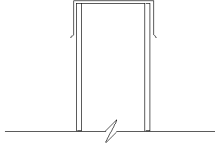
METAL COPING  
Extruded (12" Parapet)

## METAL COPINGS

## METAL COPINGS



METAL COPING  
Formed (4" Parapet)



METAL COPING  
Formed (6" Parapet)

### DETAIL DATA CHECKLIST

METAL COPINGS\*Materials, sizes and gauges:

- \_\_\_ 4" to 12" coping width: 24-ga. galvanized steel, 16-oz. copper, 26-ga. stainless steel, .232 alum.
- \_\_\_ 13" to 18" coping width: 22-ga. galvanized steel, 20-oz. copper, 24-ga. stainless steel, .040 alum.
- \_\_\_ Provide expansion joints to allow for:
  - \_\_\_ 1/2" thermal movement in a 40' length of galvanized steel
  - \_\_\_ 1/2" movement for 40' copper
  - \_\_\_ 3/4" movement for 40' aluminum
- \_\_\_ Apply continuous interlocking cleats at bottom of coping at vertical edge to secure against wind uplift
- \_\_\_ Use neoprene or similar watertight washer where cleats are nailed to wall

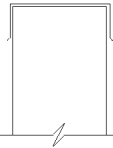
Trouble spots:

- \_\_\_ Corrosion from use of dissimilar metals, especially incompatible connectors
- \_\_\_ Direct nailing or attachment of coping to wall surface that doesn't allow for differential expansion and contraction

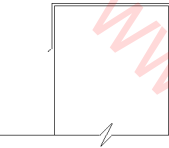
### NOTATION CHECKLIST, SAMPLE NOTES

FORMED METAL COPING  
CLEAT  
NAILER  
SEALANT/CAULKING  
EXTRUDED METAL  
COPING  
ANCHOR BOLT  
COVER PLATE  
GUTTER BAR  
COPING  
PREFIN. ALUM. COPING  
FLASHING OVER COPING

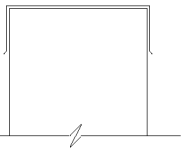
METAL CAP  
CLIP ON FLASHING, ATTACH @ CTR. OF EA. PIECE  
MTL. COPING, SET W/MASTIC SEALANT @ SPLICE  
JTS. ONLY  
MANUFACTURED COPING & FLASHING SYSTEM  
G.I. FLASHING  
ELASTOMERIC FLASHING  
BASE FLASHING OVER PLATE  
FLASHING APPLIED W/ADHESIVE  
LEAD OR ALUMINUM FLASHING  
CONT. CLEAT  
SEALANT  
SHEIM (to slope)



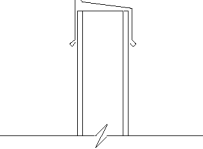
METAL COPING  
Formed (8" Parapet)



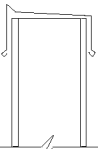
METAL COPING  
Formed (10" Parapet)



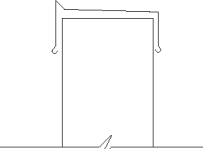
METAL COPING  
Formed (12" Parapet)



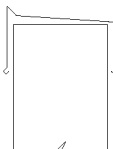
METAL COPING  
Formed (4" Parapet)



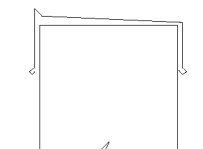
METAL COPING  
Formed (6" Parapet)



METAL COPING  
Formed (8" Parapet)

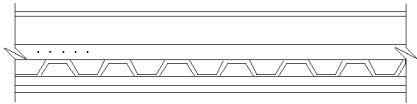


METAL COPING  
Formed (10" Parapet)

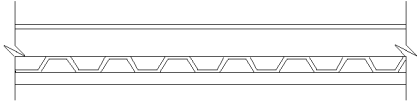


METAL COPING  
Formed (12" Parapet)

## METAL DECKS



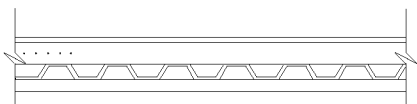
METAL DECK Steel Deck W/Insul. & Slab



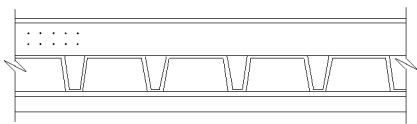
METAL DECK Steel Deck W/Insul. & Slab



METAL DECK Steel Deck W/Insul. Conc.



METAL DECK Steel Deck W/Rigid Insul.



METAL DECK Steel Deck W/3" Insul.

## METAL DECKS

### DETAIL DATA CHECKLIST

#### METAL DECKS FOR FLOORS AND ROOFS

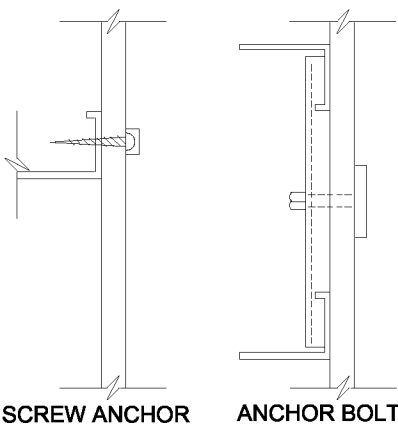
- Typically used in steel framed buildings atop open web steel joists
  - Painted or galvanized to prevent corrosion
  - Welded wire steel mesh for temperature reinforcement if using lightweight insulating concrete
- Component sizes:
- "Centering" metal, 22, 24, 26 gauge with 2-1/2" to 4" wide corrugation, 1" deep, spans 2' to 10'
  - Narrow rib deck: 6" rib centers, 1-1/2" deep, 30" wide panels, spans 4' - 8'
  - Intermediate rib deck: 6" rib centers, 1-1/2" deep, 30" wide panels), spans 5' - 10'
  - Wide rib deck: 8" rib centers, 3" deep, 24" wide panels, spans 10' - 16'
  - Lengths to 48'
  - Attach metal decking to framing every 36" minimum

### NOTATION CHECKLIST, SAMPLE NOTES

ROOFING SURFACE  
(TYPE, LAYERS & COVER MATERIAL)  
ROOF SLAB  
METAL DECK  
ROOF DECK INSULATION  
ROOF CONSTRUCTION/FRAMING

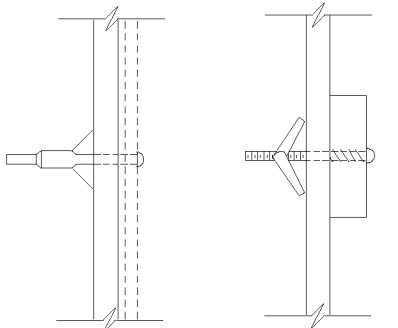
CONCRETE  
LIGHTWEIGHT CONCRETE  
GALV. CORRUGATED METAL DECKING  
CORR. METAL  
PLATE STIFFENER  
FILLER  
CLOSURE STRIP  
BOLT W/NEOPRENE WASHER  
SHEET METAL FLASHING W/FASTENERS & EXP. SHIELDS @ 12" O.C., STAGGERED, PROVIDE  
NEOPRENE WASHERS  
METAL ANGLE  
EXP. BOLTS @ 24" O.C.

## METAL FASTENINGS



SCREW ANCHOR

ANCHOR BOLT



MOLLY BOLT

TOGGLE BOLT

## METAL FASTENINGS

### NOTATION CHECKLIST, SAMPLE NOTES

WALL FRAMING  
 WALL FINISH  
 CONNECTOR  
 CONNECTOR REINFORCING  
 ATTACHED FIXTURE  
 ANCHOR TO BLOCK WALL W/EXPANSION ANCHORS  
 HEX NUT  
 WASHER  
 TOP PAD  
 MALE/FEMALE FASTENER THRU PRE-DRILLED HOLES  
 3/4" DIA. BOLT & LEAD PLUG  
 THRU BOLT

### DETAIL DATA CHECKLIST

#### METAL FASTENINGS

Wall-mounted fixtures and equipment are often packaged with the required anchors and fastenings so, in general, details only show generic dash- or dot-line indications of screw or bolt attachments.

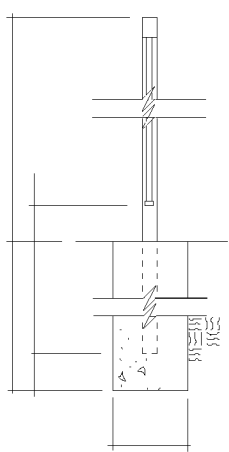
Adequate backing, framing, blocking, or other mount supports are the most crucial aspect of detailing and constructing wall-hung fixtures, and the most common point of failure. The best rule is to over-design the attachment system as long as it isn't oversized for the item to be attached or for the support framing and backing systems.

#### Component sizes:

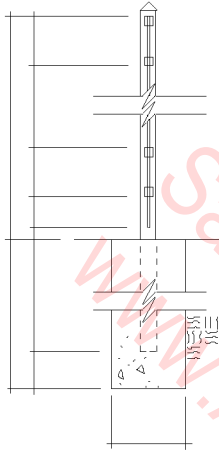
- Lag bolts, machine bolts, and carriage bolts come in 1/4", 3/8", 1/2", 5/8", 7/8" and 1" diameters
- Screws and bolts are commonly sized in 1/8" increments from 1/4" diameter to 1-1/4"
- Lengths of bolts range from 1" to 12"
- Lengths of wood screws range from 1/4" to 6"
- Toggle bolts and Molly bolts are for connections through the surfaces of hollow walls (a spring or tumbler activated expansion device opens when the bolt is turned to grip the fastener to the wall)
- Lag bolts and expansion shields are for insertion in masonry walls (a lead or fiber casing in a pre-drilled hole will expand to grip the masonry wall when a lag bolt or machine bolt is locked in)



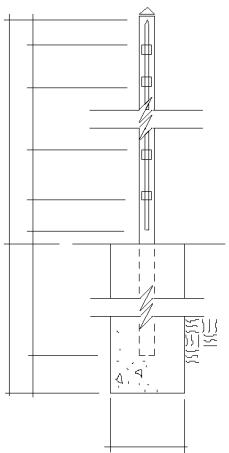
## METAL FENCES



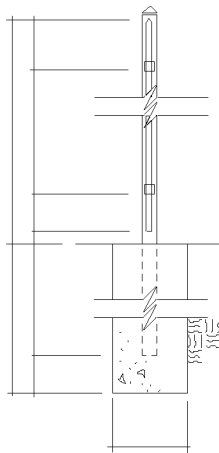
METAL FENCE



METAL FENCE



METAL FENCE



METAL FENCE

## METAL FENCES

### DETAIL DATA CHECKLIST

#### METAL FENCES

- \_\_\_ Metal fences are usually purchased ready-made, or fabricated as variations on common metal fence types and styles.
- \_\_\_ Detail drawings are included mainly to show desired sizes and types and to indicate anchoring to the ground or pavement.
- \_\_\_ See manufacturers' and suppliers' catalogs for design data, details, and specifications.
- \_\_\_ See manufacturers' recommendations for anchoring.

### NOTATION CHECKLIST, SAMPLE NOTES

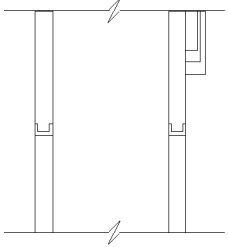
INTERMEDIATE RAILS  
NEWALS  
POST  
POSTCAP  
PIPE SLEEVE/ANCHOR  
FOOTING  
BACKFILL  
SUBGRADE

12" DIA. CONC. FOOTING  
COMPACTED FILL (below footing)  
COMPACTED EARTH FILL  
METAL POSTS (extend 6" typ. thru conc. footing,  
max. spacing typ. 6'-7')

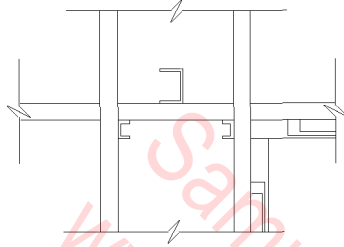
www.AutoCADDetails.net

## METAL FRAME CHASE WALLS

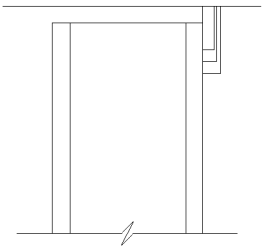
## METAL FRAME CHASE WALLS



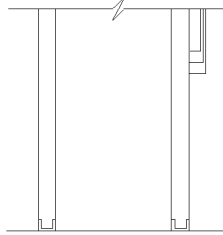
5" CHASE WALL Plan



CHASE WALL @ THRU SUSP. CLG.



CHASE WALL @ CLG. OR SLAB



CHASE WALL @ FLOOR

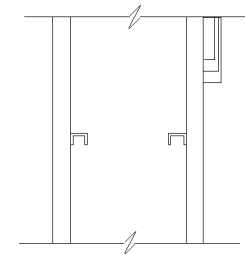
### DETAIL DATA CHECKLIST

#### METAL FRAME CHASE WALLS

#### NOTATION CHECKLIST, SAMPLE NOTES

CHANNEL FLOOR RUNNER  
 BASE (FINISH BASE SIZE/MATERIAL)  
 FINISH FLOOR/SUBFLOOR/SLAB  
 ADJACENT SLAB OR CEILING  
 CEILING RUNNER  
 CHANNEL STUDS  
 CROSS TIES/WIRE TIES  
 GYPSUM WALLBOARD  
 LATH & PLASTER  
 SPECIAL FINISHES/WATERPROOFING  
 HOOKS/TRACKS/WALL-MOUNTED  
 FIXTURES  
 WALL ANCHORS/MOUNTING BRACKETS  
 RAILINGS/WALL GUARDS  
 THRU-WALL SLEEVES  
 GYPSUM BOARD  
 FIRE CODE GYP.BD.  
 WATER-RESISTANT GYPSUM BOARD  
 GYP.BD, TYPE 'X'.

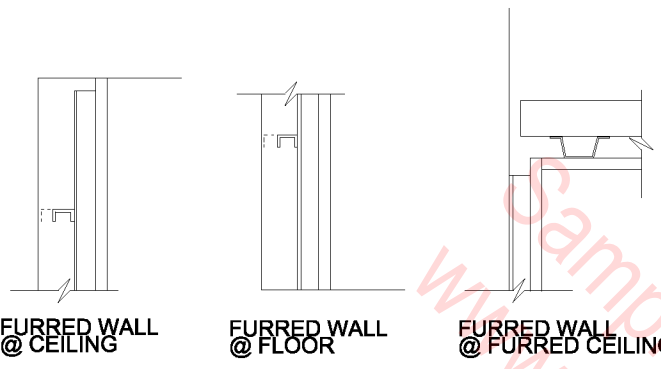
CORNER BEAD  
 CONTROL JOINT  
 TYPE 'X' CORE BOARD  
 SOUND ATTENUATION BLANKET  
 RIGID INSULATION  
 PLYWOOD  
 CERAMIC TILE  
 MTL. WALL ANGLE @ CEILING  
 MTL. RUNNER  
 MTL. STUDS @ "O.C.  
 STAGGER STUDS  
 BRACING TO STRUCTURE  
 STUD TO CEILING @ "O.C.  
 CHASE WALL  
 FLOOR TRACK  
 SEALANT EACH SIDE  
 RESILIENT BASE  
 CONT. SPONGE RUBBER GASKET (@ clg.)  
 SUSPENDED CEILING  
 FASTEN MTL. STUDS TO CLG. 'T'



CHASE WALL @ BRACING Sect.

**METAL FURRING -- WALLS & CEILINGS**

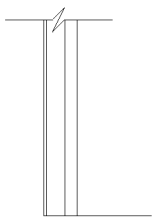
**METAL FURRING -- WALLS & CEILINGS**



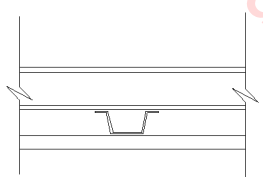
**FURRED WALL @ CEILING**

**FURRED WALL @ FLOOR**

**FURRED WALL @ FURRED CEILING**



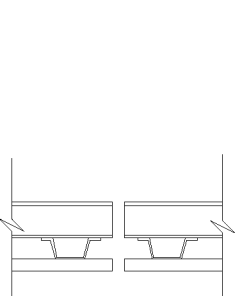
**FURRED WALL @ FLOOR**



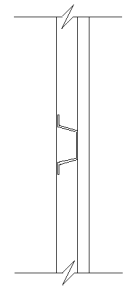
**FURRED CEILING**

**NOTATION CHECKLIST, SAMPLE NOTES**

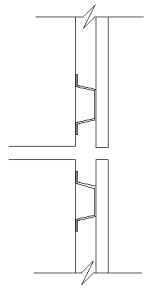
- HANGER WIRE
- 1-1/2" CARRYING CHANNEL
- 3/4" FURRING CHANNEL
- ADJACENT WALL CONSTRUCTION
- CHANNEL STUDS
- FURRING STUDS/BRACKET/TIE
- GYPSUM WALLBOARD
- LATH & PLASTER
- SPECIAL FINISHES/WATERPROOFING
- HOOKS/TRACKS/WALL-MOUNTED FIXTURES
- WALL ANCHORS/MOUNTING BRACKETS
- BASE (FINISH BASE SIZE/MATERIAL)
- CHANNEL FLOOR RUNNER/ANCHORS
- FINISH FLOOR/SUBFLOOR/SLAB
- GYPSUM WALLBOARD
- WATER-RESISTANT GYP. BD.
- GYPSUM BOARD, TYPE 'X'
- CORNER BEAD
- CONTROL JOINT
- SOUND ATTENUATION BLANKET
- RIGID INSULATION
- PLYWOOD
- METAL WALL ANGLE @ CLG.
- FURRING CHANNEL
- METAL RUNNER
- SUSP. MTL. FURRING CHANNEL
- METAL STUDS @ 24" O.C.
- METAL STUDS @ 16" O.C.
- STAGGER STUDS
- BRACING TO STRUCTURE
- STUD TO CLG. @ 48" O.C.
- CHASE WALL
- FLOOR TRACK
- SEALANT EACH SIDE
- RESILIENT BASE, 4"
- CONT. SPONGE RUBBER GASKET, 1/2" X 3" (@ clg.)
- SUSPENDED CEILING
- FASTEN METAL STUDS TO CLG. 'T'



**FURRED CEILING @ EXPANSION JOINT**



**FURRED WALL Plan @ EXPANSION JOINT**



**FURRED WALL @ EXPANSION JOINT**

Samples from  
[www.AutoCADDetails.net](http://www.AutoCADDetails.net)

## METAL HANDRAILS

## METAL HANDRAILS

### DETAIL DATA CHECKLIST

#### HANDRAILS, BRACKETS, AND ANCHORS

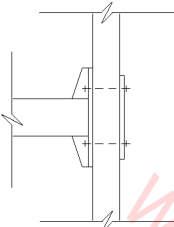
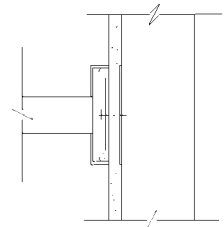
##### Wall connection systems include:

- Horizontal steel stud fastened to vertical metal wall studs; anchor handrail through wall with expansion bolts
- Steel plate welded to wall studs
- Metal spacer set in plaster wall with space for expansion bolt insert
- Expansion bolts in concrete or masonry walls threaded end connection for handrail support
- Cast in place brackets, such as for newels and handrail posts supported at the edge of landings and floor slabs
- Wall-mounted handrails must be at least 1-1/2" from the wall and not intrude on the legally required stair width
- All railings must be able to sustain a load of 200 pounds applied in any way at any point
- Ends of handrails must be turned into newel posts, floors, to walls
- See manufacturers' catalogs and building code requirements for additional detailing instructions, references, and sample notation

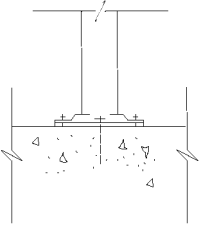
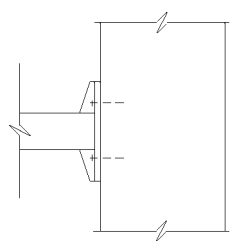
### NOTATION CHECKLIST, SAMPLE NOTES

HANDRAIL (MATERIAL & SIZE)  
 HANDRAIL SUPPORT  
 ANCHOR TO WALL (TYPE & SIZE)  
 WALL CONSTRUCTION/FRAMING  
 PIPE RAILING, WELD & GRIND JOINTS SMOOTH,  
 PAINTED  
 PIPE HANDRAIL, WELDED CONNECTION,  
 GRIND SMOOTH, PAINTED  
 STD. MET. PIPE CONT. TOP RAIL  
 PIPE VERT. SUPPORTS @ 4'-0" O.C.  
 MAX. SPACING  
 INTERMEDIATES  
 1-1/2" PIPE RAILING, HORIZ. & VERT. ALL  
 JOINTS TO BE WELDED, GRIND SMOOTH  
 STEEL PIPE SLEEVE  
 FLOOR LINE  
 WELD ALL AROUND, TYP.  
 3" DIA. X 1/4" THICK BEVELED STEEL PLATE  
 STEEL PIPE SLEEVE, FILL W/MOLTEN LEAD

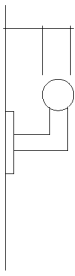
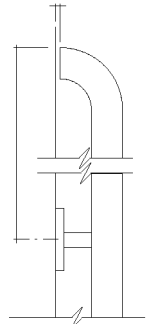
COUNTERSUNK HOLE FOR POURING LEAD;  
 INSERT 1/4" FLAT HEAD METAL SCREW INTO LEAD-  
 SEAL JOINT WITH NON-PREFORMED JOINT SEALANT  
 BEFORE PAINTING  
 GROUT FILL BEHIND BRACKET  
 STAINLESS STEEL BOLT THRU STEEL PLATE  
 METAL BRACKETS @ 4'-0" O.C. MAX. & WITHIN  
 12" OF ENDS  
 SUPPORTS @ 4'-0" O.C.  
 MAX. SPACING  
 ANCHOR BOLTS  
 DEFORMED BAR, WELD TO PLATE, GROUT IN PLACE  
 BED PLATE IN SEALANT FOR EXTERIOR USE  
 STEEL STUD WALL BLOCKING  
 CAST WALL BRACKET @ 4'-0" O.C., SECURE TO CONC.  
 WALL W/ANCHOR BOLTS INTO EXT.  
 SHIELDS. USE LAG SCREWS @ STL. STUD CONST.  
 WALL BRACKET  
 METAL SPACER  
 METAL BACKING  
 EXPANSION BOLTS



RAILING @ WOOD FRAME WALL RAILING @ METAL PARTITION



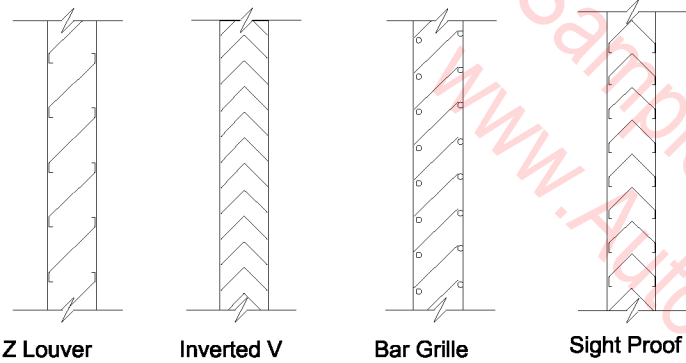
RAILING @ MASONRY OR CONCRAIL POST @ SLAB



STAIR HANDRAIL Wall-Mounted STAIR HANDRAIL Wall-Mounted

## METAL LOUVERS

Metal Louvers -- 2" Wide



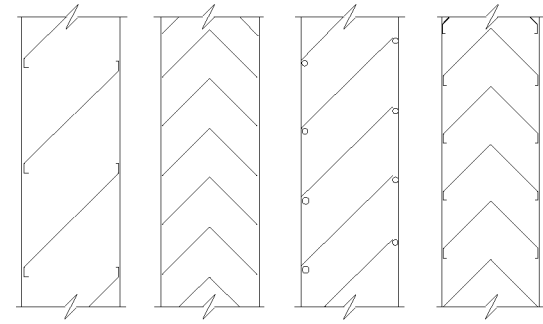
Z Louver

Inverted V

Bar Grille

Sight Proof

Metal Louvers -- 4" Wide



Z Louver

Inverted V

Bar Grille

Sight Proof

## METAL LOUVERS

### DETAIL DATA CHECKLIST

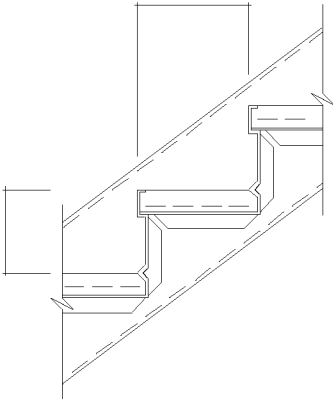
#### METAL LOUVERS

- See manufacturers' catalogs for standard sizes, finishes, and materials.
- Detail drawings are included mainly to show special anchoring conditions—screws, anchor bolts, etc., in wood frame, metal frame, masonry, or concrete wall construction.
- See manufacturers' and suppliers' catalogs for detail design data and specifications.
- See manufacturer's recommendations for special anchor requirements for different kinds of construction.

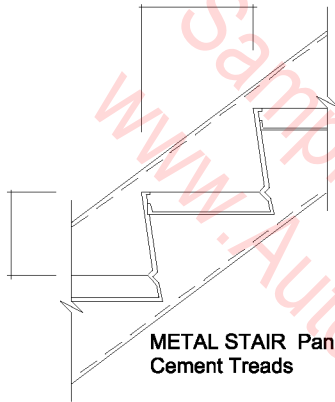
#### NOTATION CHECKLIST

- SEALANT
- CHANNEL FRAME
- ANCHOR
- INSECT SCREEN/BIRD SCREEN
- WEEP HOLES

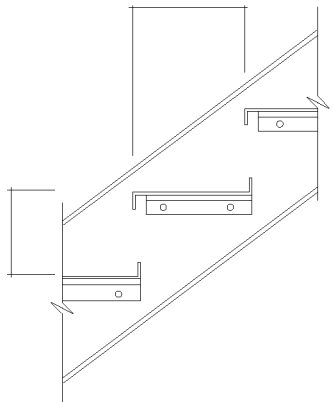
## METAL STAIRS



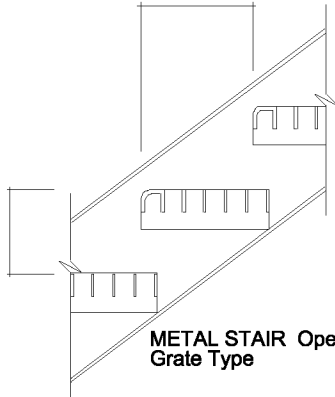
METAL STAIR Pan Type,  
Cement Treads



METAL STAIR Pan Type,  
Cement Treads



METAL STAIR Open Riser,  
Steel Tread



METAL STAIR Open Riser,  
Grate Type

## METAL STAIRS

### DETAIL DATA CHECKLIST

#### STEEL STAIRS

Steel stairs are required for incombustible fire exits, often fabricated to order in specialty shops and shipped to the site for installation. See your building code for design requirements.

#### Component sizes:

- Typical stringer is C12 (12" channel) or C10, 15.3 steel
- Steel channel at edge of reinforced concrete landings to match stringer size
- 1/4" thick steel plate angle connectors
- 5/8" diameter bolt connections to structure or welded to steel framing
- Two 1/2" or 5/8" anchor bolts through plate at base of each stringer for floor connection

#### Treads:

- Pan type with cement and non-slip surface
- Provide landings at every 15 risers maximum
- Non-slip steel – ribbed, perforated, checkered, or grate – with open riser
- Precast concrete on brackets atop stringer or on angles welded to channel stringer

#### Design rules of thumb:

- An overall stair angle of 30 to 35 degrees is most comfortable to use
- Treads and risers must not vary in size over 1/8" at any point in the run
- Optimum riser size is 7 to 7-1/2" with optimal tread of 9-1/2" to 10-1/2"
- Provide dirt-blocking angle "sanitary cove" at bottom edges of closed risers

### NOTATION CHECKLIST, SAMPLE NOTES

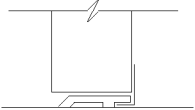
#### CONCRETE TREAD/REINFORCING

STEEL PAN  
STEEL CARRIER ANGLE  
CHANNEL STRINGER  
OPEN GRATE TREAD  
STEEL CHANNEL STRINGER  
ANCHORS/TREAD SUPPORT  
FIN. FLOOR ELEV.  
PRECAST TERRAZZO  
CEMENT  
MESH REINFORCING  
POURED IN PLACE TREADS  
STEEL PAN STAIR  
STEEL STAIR TREAD  
SAFETY ABRASIVE NOSING  
CHECKERED PLATE NOSING  
1" SETTING BED, TREADS & RISERS  
REINFG. MESH, ATTACH W/TACK WELDS  
TO MTL. CUT MORTAR BED & REINF.  
@ JUNCTURE OF TREAD & RISER  
CHANNEL, SEE STRUCTURAL DWGS.

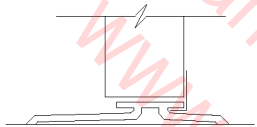
STEEL GRATING WITH BEARING BARS &  
CROSS BARS  
CHANNEL STRINGER  
1/4" BOLTS  
EXPANSION BOLTS  
STEEL PLATE  
BOLT @ EA. END & 2" O.C. RISER WORK

POINT  
PLUG WELDS  
STEEL ANGLE  
COUNTERSUNK BOLT  
CONT. 3" X 3" X 1/4" ANCHOR TO  
WALL W/3/4" DIA. ANCHOR BOLTS  
WELD TO PLATE @ WALL  
PLATFORM SUPPORT TEE  
CHANNEL HEADER BY STAIR MFR.  
CARRIER ANGLE  
STEEL PAN SUBPLATFORM  
ANCHOR BOLTS 18" O.C. @ PLATFORM  
& ONE UNDER EACH TREAD @ STAIR  
1-1/2" DIA. PIPE RAILING; WELD TO  
CHANNEL

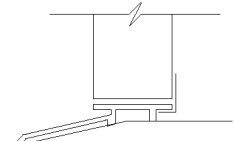
## METAL THRESHOLDS



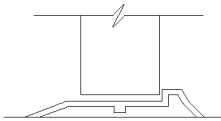
EXTERIOR THRESHOLD  
Interlocking



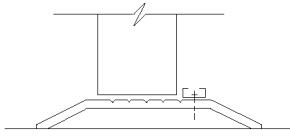
EXTERIOR THRESHOLD  
Interlocking



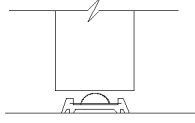
EXTERIOR THRESHOLD  
Interlocking



EXTERIOR THRESHOLD Flat  
Saddle



EXTERIOR THRESHOLD  
Flat W/Latch Track



EXTERIOR THRESHOLD  
Vinyl Insert

## METAL THRESHOLDS

### DETAIL DATA CHECKLIST

#### THRESHOLDS

Note: You can combine these threshold details with varied flooring details in this book to create many special combinations.

See manufacturers' and suppliers' catalogs for standard sizes, detail design data, materials, and finishes.

Thresholds are primarily to hide the joint-line at changes in flooring and block weather, air infiltration and sound.

Detail drawings are mainly to show:

- The profile of thresholds
- Floor construction
- Change in floor materials at joint lines
- Connection to the floor
- Exterior caulking, flashing, weatherstripping
- Required special sound or light insulation
- See manufacturers' recommendations for connections to varied floor construction.

### NOTATION CHECKLIST, SAMPLE NOTES

DOOR TYPE  
HOOK STRIP  
BUMPER STRIP  
CAULKING OR PAN W/WEEP

DOOR, SEE DOOR SCHEDULE  
THRESHOLD  
METAL THRESHOLD SET IN CAULK  
SADDLE & PLATE SIZE VARY W/HINGE SIZE  
ANCHORS  
GROUT  
SEALANT  
SET IN MASTIC  
FRAME STOP  
BUMPER STRIP  
FLOORING, SEE FINISH SCHEDULE  
FINISH FLOOR  
SETTING BED

# METAL TOILET PARTITIONS

# METAL TOILET PARTITIONS

## DETAIL DATA CHECKLIST

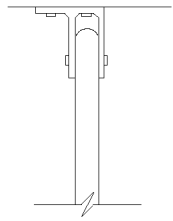
### METAL TOILET PARTITIONS

- \_\_\_ See manufacturers' catalogs for standard sizes, finishes, and materials.
- \_\_\_ Detail drawings are included mainly to show special anchoring conditions—screws, anchor bolts, etc., in wood frame, metal frame, masonry, or concrete wall construction.
- \_\_\_ See manufacturers' and suppliers' catalogs for detail design data and specifications.
- \_\_\_ See manufacturer's recommendations for special anchor requirements for different kinds of construction.

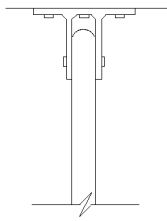
## NOTATION CHECKLIST, SAMPLE NOTES

BRACKET  
FASTENERS  
STALL PARTITION  
PILASTER  
TRIM  
ANCHOR  
DOOR HINGE/LATCH  
FLOOR CONSTRUCTION  
CEILING CONSTRUCTION

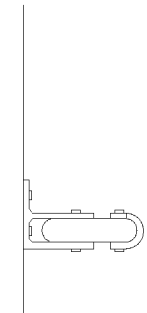
STEEL CHANNEL CONT. @ PARTITIONS, DRILL  
BOTTOM FOR SUPPORT BOLTS BY PARTITION MFR.  
CEILING LINE  
PROVIDE DRILLED HOLE, SLEEVE & INSERT @ CLG.  
TO SUPPORT BOLT PENETRATION AS REQ'D.  
TOILET PARTITION & CLG.-MOUNTED ASSEMBLY  
BY PARTITION MFR.  
TOILET PARTITION BOLT ASSEMBLY  
BRACE TO STRUCTURE ABOVE  
CEILING-HUNG UNITS



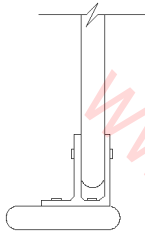
METAL TOILET PARTITION



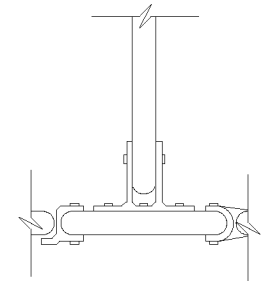
METAL TOILET PARTITION



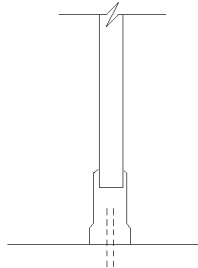
METAL TOILET PARTITION  
@ Wall



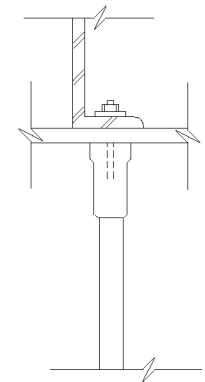
METAL TOILET PARTITION  
@ Pilaster



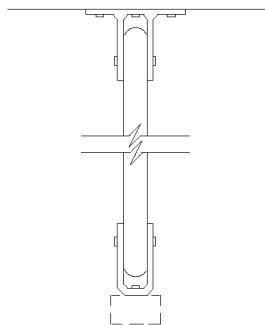
METAL TOILET PARTITION  
@ Door



METAL TOILET PARTITION  
@ Floor



METAL TOILET PARTITION  
@ Ceiling



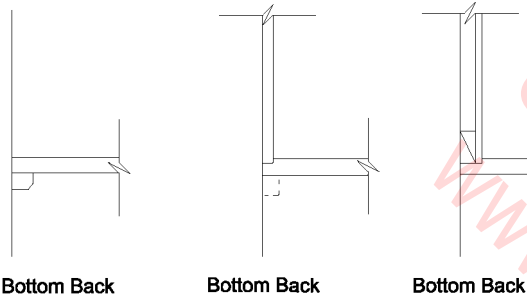
METAL TOILET PARTITION  
@ Wall & Post

Samples from  
www.AutocADDetails.net



## OVERHEAD CABINETS

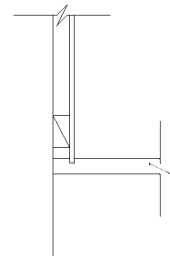
## OVERHEAD CABINETS



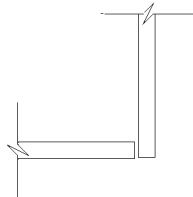
Bottom Back

Bottom Back

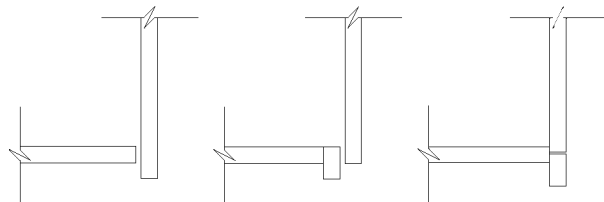
Bottom Back



Bottom Back



Bottom Front



Bottom Front

Bottom Front

Bottom Front

### NOTATION CHECKLIST, SAMPLE NOTES

FINISH SURFACE  
PLYWOOD/PARTICLE BOARD  
TRIM (MATERIAL & SIZE)  
BLOCKING (MATERIAL & SIZE)  
ADJACENT MATERIALS  
HARDWARE/ANCHOR  
DOOR/DRAWER  
PROVIDE BLOCKING TO RECEIVE MILLWORK  
ITEMS  
PLASTIC LAMINATE  
3/4" PLYWD. TOP W/ HDWD. EDGING  
PLASTIC LAM. BACKING SHEET  
PLASTIC LAM. TO EDGE & COVER BACKSPLASH,  
PROVIDE END SPLASH @ WALLS  
3/4" PLYWD. TOP, SIDES, DIVIDERS &  
SHELVES W/ 1/2" X 3/4" HDWD. NOSE  
FACE OF WALL  
SPLASH  
PLASTIC LAM. SCRIBE STRIP  
3/4" PLYWD DIVIDERS  
1/4" PLYWD. BACK  
RECESS 1/4" HARDBOARD OR PLYWD. BACK  
2 X 4 FRAMING  
3/4" PLYWD. BOTTOM W/ WOOD EDGING  
CHAMFERED TRIM PIECE  
FLUSH DOORS, OAK VENEER ON PLYWD.

3/4" X 3-1/16" HARDWOOD EDGE, EASE EDGES  
2 X 4 FRAME @ FLOOR  
ADJUSTABLE SHELVES  
RECESSED SHELF STANDARDS  
SURFACE MOUNTED ADJ. SHELF STD'S. W/ BRACKETS  
FIXED SHELF  
3/4" PLYWD. SHELF W/ 1X2 SUPPORT CLEAT &  
1 X 3 EDGE STRIP  
1 X 12 SHELVES & BACKING  
1 X 12 DIVIDER @ 4" O.C. MAX.  
3/4" PLYWD. SHELVES W/ HDWD EDGING  
1 X 2 WD. SUPPORT @ WALL ANCHOR W/ 1/4" DIA.  
TOGGLE BOLTS @ 24" O.C.  
STEEL CHANNEL, ATTACHED TO END WALL  
W/ STUDS @ 1'-0" O.C. @ LAV. PERIMETER  
DRAWER  
SOLID WOOD DRAWER SIDES, HDWD. DRAWER  
FRONTS  
DRAWERS ON EXTENSION SLIDES  
1/4" DRAWER BOTTOM  
3/4" X 1-3/4" RAILS & STILES  
SLIDING GLASS DOORS IN K-V TRACK,  
PROVIDE FINGER PULLS & LOCK, SAFETY GLASS

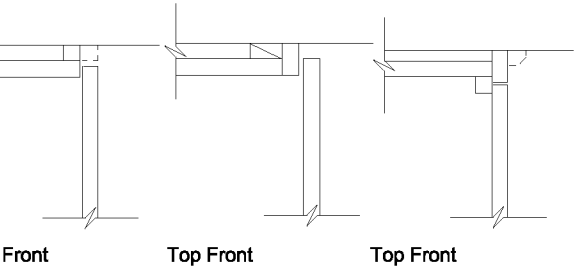
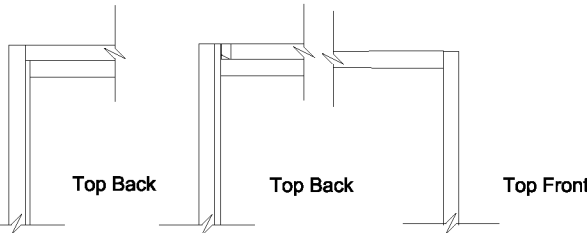
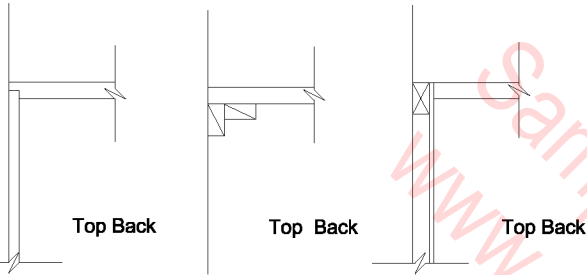
## OVERHEAD CABINETS

## OVERHEAD CABINETS

### NOTATION CHECKLIST, SAMPLE NOTES

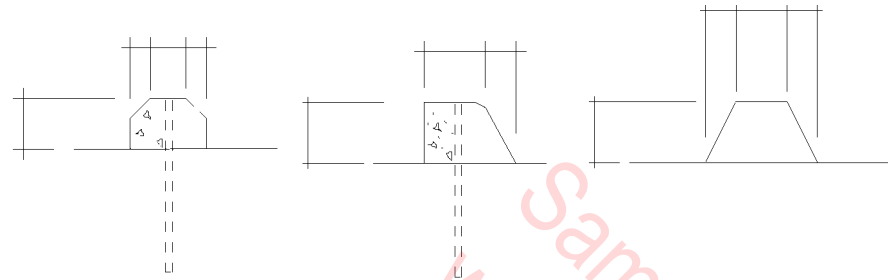
FINISH SURFACE  
 PLYWOOD/PARTICLE BOARD  
 TRIM (MATERIAL & SIZE)  
 BLOCKING (MATERIAL & SIZE)  
 ADJACENT MATERIALS  
 HARDWARE/ANCHOR  
 DOOR/DRAWER  
 PROVIDE BLOCKING TO RECEIVE MILLWORK ITEMS  
 PLASTIC LAMINATE  
 3/4" PLYWOOD TOP W/HARDWOOD EDGING  
 PLASTIC LAM. BACKING SHEET  
 PLASTIC LAM. TO EDGE & COVER BACKSPLASH,  
 PROVIDE END SPLASH @ WALLS  
 3/4" PLYWOOD TOP, SIDES, DIVIDERS &  
 SHELVES W/1/2" X 3/4" HARDWOOD NOSE  
 FACE OF WALL  
 SPLASH  
 PLASTIC LAM. SCRIBE STRIP  
 3/4" PLYWOOD DIVIDERS  
 1/4" PLYWOOD BACK  
 RECESS 1/4" HARDBOARD OR PLYWOOD BACK  
 2 X 4 FRAMING  
 3/4" PLYWOOD BOTTOM W/WOOD EDGING  
 CHAMFERED TRIM PIECE

FLUSH DOORS, OAK VENEER ON PLYWOOD  
 3/4" X 3-1/16" HARDWOOD EDGE, EASE EDGES  
 2 X 4 FRAME @ FLOOR  
 ADJUSTABLE SHELVES  
 RECESSED SHELF STANDARDS  
 SURFACE MOUNTED ADJ. SHELF STD'S. W/ BRACKETS  
 FIXED SHELF  
 3/4" PLYWD. SHELF W/1X2 SUPPORT CLEAT &  
 1 X 3 EDGE STRIP  
 1 X 12 SHELVES & BACKING  
 1 X 12 DIVIDER @ 44" O.C. MAX.  
 3/4" PLYWOOD SHELVES W/HARDWOOD EDGING  
 1 X 2 WD. SUPPORT @ WALL ANCHOR W/1/4"  
 DIA. TOGGLE BOLTS @ 24" O.C.  
 STEEL CHANNEL ATTACHED TO END WALL  
 W/ STUDS @ 1'-0" O.C. @ LAV. PERIMETER  
 DRAWER  
 SOLID WOOD DRAWER SIDES, HARDWOOD DRAWER  
 FRONTS  
 DRAWERS ON EXTENSION SLIDES  
 1/4" DRAWER BOTTOM  
 3/4" X 1-3/4" RAILS & STILES  
 SLIDING GLASS DOORS IN K-V TRACK  
 PROVIDE FINGER PULLS & LOCK, SAFETY GLASS



Sample.com  
 www.AutocADDetails.net

## PARKING BUMPER



PARKING BUMPER  
Precast Concrete

PARKING BUMPER  
Precast Concrete

PARKING BUMPER  
Asphalt

## PARKING BUMPER

### DETAIL DATA CHECKLIST

#### PARKING BUMPERS

- Precast concrete
  - 3/4" chamfer is typical
  - Available in 4' to 5' lengths
  - Anchor with 3/4" round, 24" long pipe anchor, 2 per bumper
- OR
- Use 2 #5 bars, 18" long
- Water drains may also be provided in longer bumpers (3-1/2"x 1-1/2" holes at bottom of bumper)
- Doweled Curb
  - Form on paving surface
  - Reinforce with #4 bars vertically @ 4' o.c.
- Extruded Curb
  - Epoxy to paved surface
- Asphalt
  - Typical size is 8"x8"

### NOTATION CHECKLIST, SAMPLE NOTES

#### BUMBER CURB(TYPE & MATERIAL)

DOWEL/ANCHOR

MASTIC

PAVING/BASE/SUBGRADE

(A typ. width of wheelstop 6' to 7',  
typ. ht. 6" to 7-1/2", typ. depth 8" to 10"  
w/ angled or chamfered sides)  
(typ. rebar location 12" to 18" from each end)

3/4" CHAMFER

PRECAST CONC. WHEEL STOP W/ #5 DIA. DIAGONAL

REBAR REINF., SECURE W/

2 - 5/8" X 1'-0" REBAR DOWELS

2 - 3/4" HOLES THRU CURB

W/ 2 - #5 BARS 18" LONG

3000 PSI CONC. W/ 3 - #3 BARS

PAINTED STRIPES

PARKING STALL

2 - 1/2" (ht.) X 3-1/2" WATER DRAINS

20" FROM EACH END

ASPHALTIC CURB CONT.

PRECAST BUMPER W. ANCHOR, 5/8" X 16" STL

PIN @ EACH END

(for wood)

1/2" CARRIAGE BOLTS

3" X 10" BEVEL TOP EDGE(rail)

6" X 6" H 20.0 (posts: ht / fig. varies,

for example -21" ht. above fin. grade,

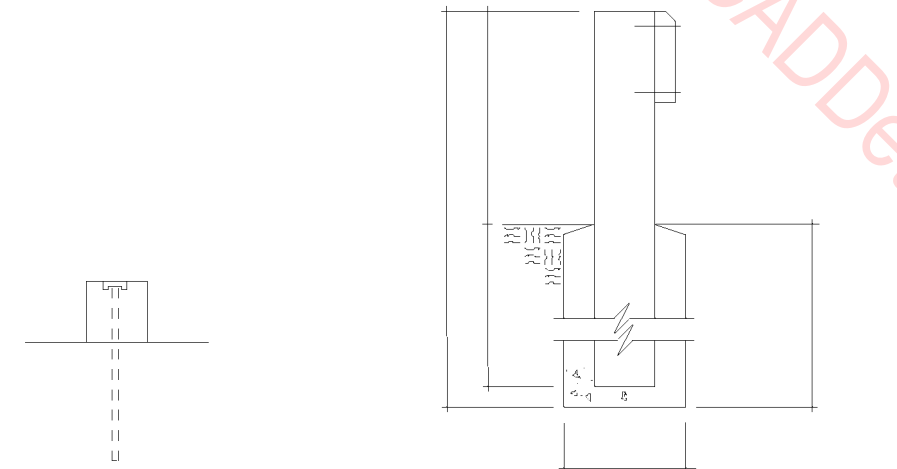
in 24" conc. fill in form below grade)

PAINTING NOTE: BUMPER GUARD - WHITE,

POSTS - BLACK,

NAMEPLATES - BLACK ON WHITE,

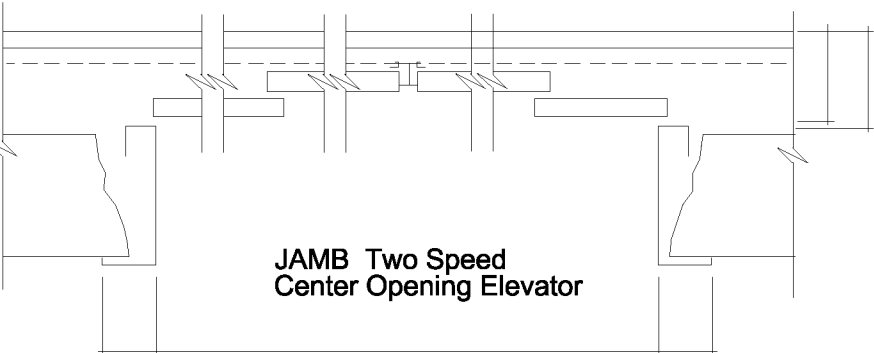
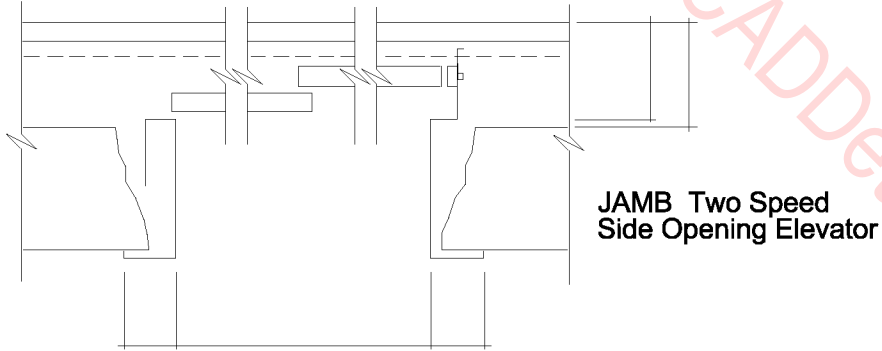
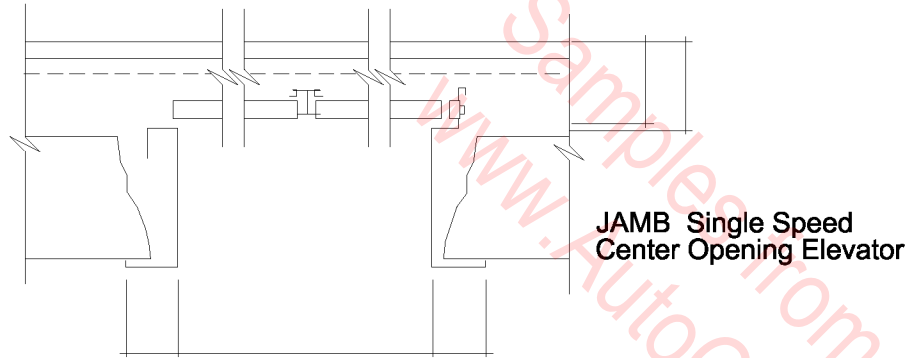
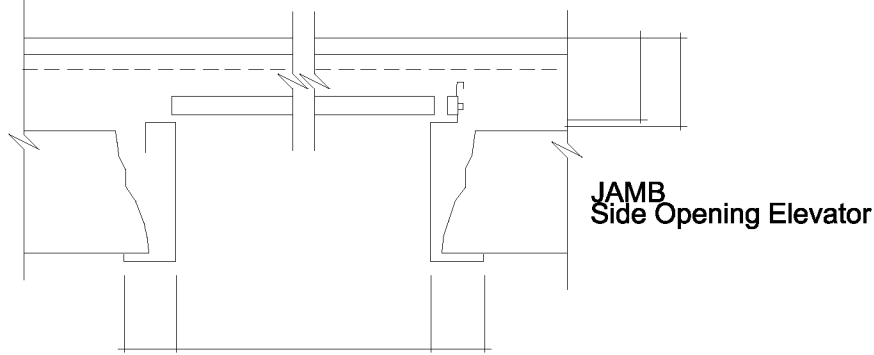
UPPER CASE LETTERS 1-1/2" HIGH



PARKING BUMPER Wood

PARKING BUMPER GUARD Wood

# PASSENGER ELEVATORS

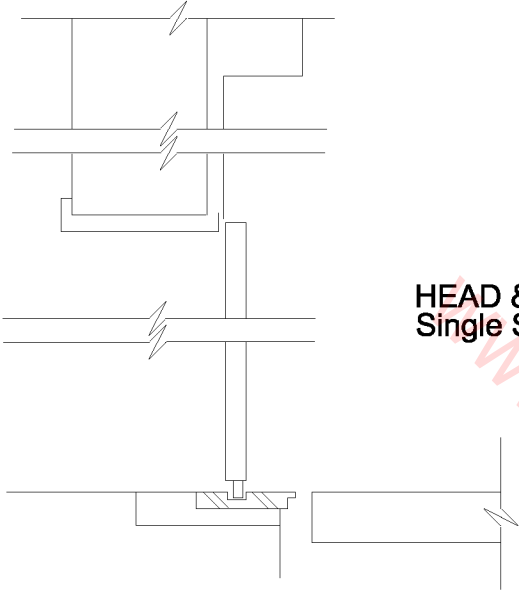


# PASSENGER ELEVATORS

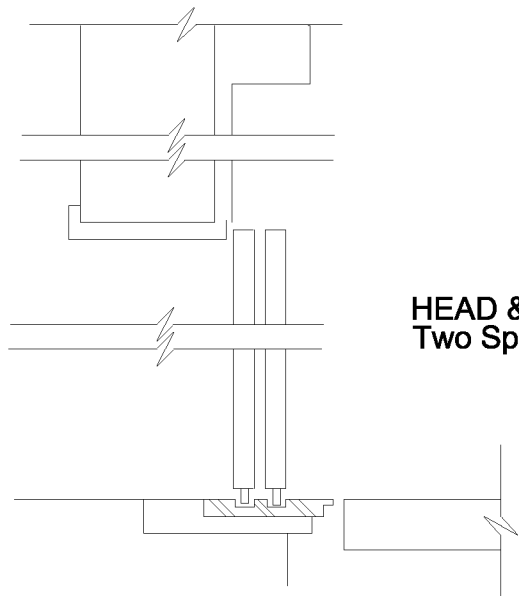
## NOTATION CHECKLIST:

- FINISHED SILL PROJECTION
- PLATFORM
- RUNNING CLEARANCE
- STRUCTURAL SILL
- FASCIA
- FINISHED HEADER/JAMB/THRESHOLD

## PASSENGER ELEVATORS



HEAD & SILL  
Single Speed Center & Side Opening



HEAD & SILL  
Two Speed Center & Side Opening

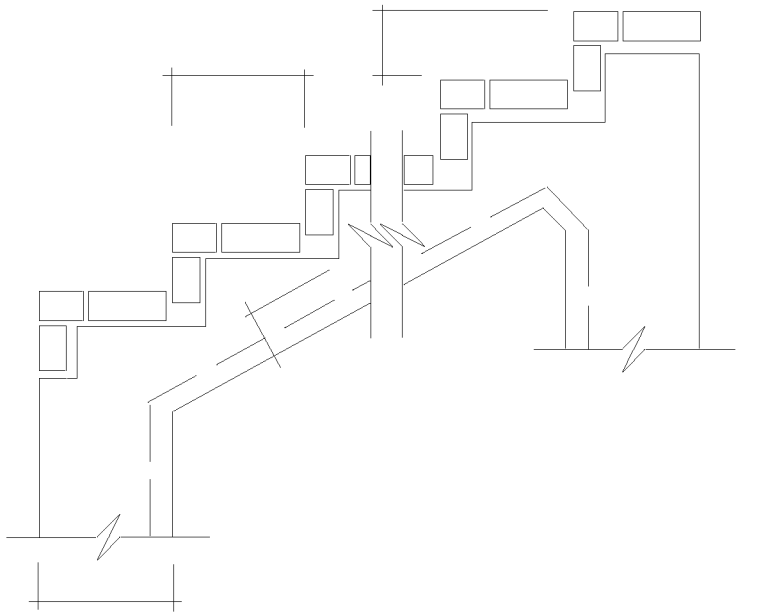
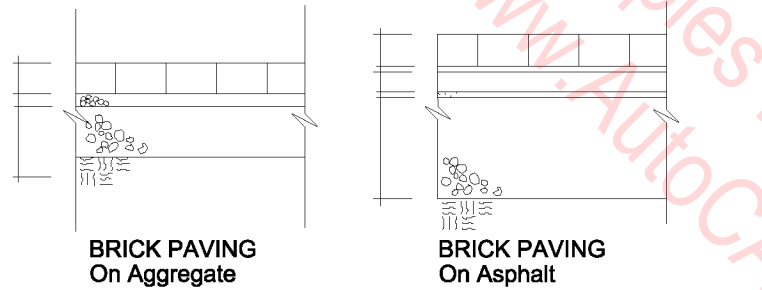
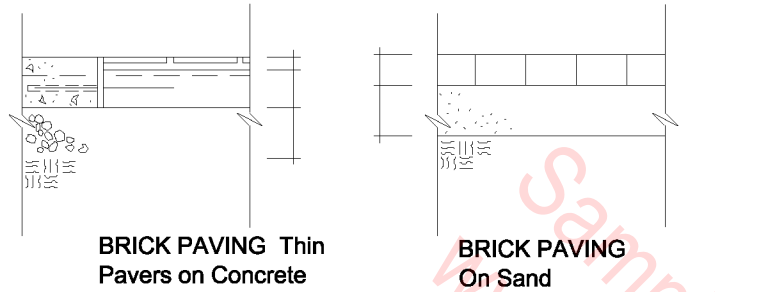
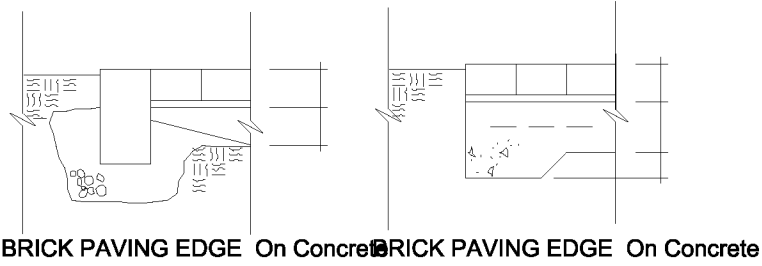
## PASSENGER ELEVATORS

### NOTATION CHECKLIST

- FINISHED SILL PROJECTION
- PLATFORM
- RUNNING CLEARANCE
- STRUCTURAL SILL
- FASCIA
- FINISHED HEADER/JAMB/THRESHOLD

# PAVING & PAVERS

# PAVING & PAVERS



## BRICK PAVING

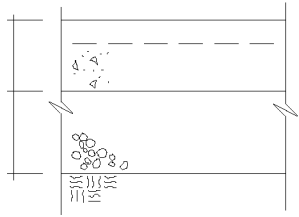
- Sizes:
  - 4x4, 4x8, 4x12, 6x6, 8x8, 12x12
  - Hexagons: 5-3/4, 8, and 12 inches
  - Depth 1-1/8" to 2-1/4"
- Waterproof by placing brick over:
  - 15 lb. roofing felt, over 1/2" to 1" stone screenings, over 4" gravel
  - OR
  - Over 2 neoprene tack coat over 3/4" bituminous setting bed, over cutback asphalt primer, over a concrete slab
- May be laid with:
  - Mortar joints
  - Require careful tooling to block moisture
  - Sand poured into the joints
  - Nothing in the joints
- Lay over:
  - 3" or thicker concrete slab
  - Over 3/4" mortar setting bed
  - 4" asphaltic concrete
  - Over 3/4" bituminous setting bed
  - 2" to 4" sand base
  - Over 15 lb. felt
  - Over firm soil
  - Brush dry sand into joints
  - Tamp and level sand
  - Add mix of cement with sand for tighter joints
- Provide solid border board support or joints will open and pavers will dislodge

## NOTATION CHECKLIST, SAMPLE NOTES

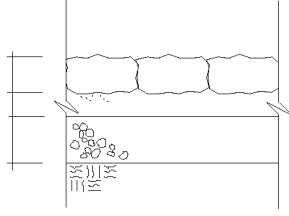
- PAVER UNITS
- SETTING BED
- CONCRETE
- REINFORCING
- SOFF
- CONTROL/EXPANSION JOINTS (TYPE & SPACING)
- AGGREGATE BASE
- COMPACTED SUBGRADE
- ORIGINAL GRADE
- FINISH GRADE
- PROVIDE CROWN IN CENTER FOR DRAINAGE
- SLOPE 1/4" PER FOOT, TYP.
- CONCRETE W. 6 X 6 - 10 GAUGE WIRE MESH
- CONC. SLAB W. 6 X 6 X #10#10
- CONC. WALK W/ 6 X 6 10/10 W.W.M.
- REDWOOD HEARTWOOD JOINT FILLER STRIP
- TOOLED JOINTS @ 8'-0" O.C.
- 1/2" EXPANSION JOINT
- JOINT SEALANT & JOINT FILLER ROD
- JOINT FILLER BOARD
- 1" DIA (3/4" to 1" typ.) X 18" DOWEL BARS
- 12" O.C. ACROSS SLAB
- (@ exp. its.) PAINT & OIL ONE END OF DOWEL
- EXPANSION JOINT FILLER MATERIAL @ 16" O.C. MAX.
- GALV. METAL KEYWAY W/ EDGE EXPOSED
- GALV. METAL STAKE PIN
- DUMMY JOINTS @ 5'-0" O.C.
- PRE-MOLDED EXPANSION JOINT @ 20'-0" O.C. TYP.
- PAVING BRICKS IN SETTING BED
- SLOPE TO DRAIN AS INDICATED ON PLANS
- BRICK ROWLOCK PAVER
- SLAB REINF., SEE
- VAPOR BARRIER
- COMPACTED GRANULAR FILL
- 4" PEA GRAVEL
- SAND CUSHION
- COMPACTED EARTH FILL AS REQ'D.
- COMPACTED SUBGRADE OR STRUCTURAL BACKFILL
- 8" CRUSHED AGGREGATE BASE (@ 6" conc. paving)
- 6" CRUSHED AGGREGATE BASE (@ 2" asphalt paving)
- IRON ORE BASE

# PAVING & PAVERS

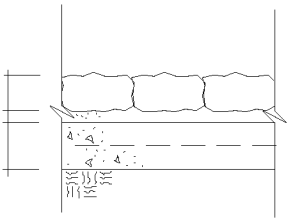
## FULL-SCALE GENERIC DETAILS



**CONCRETE  
PAVING 6"  
Driveway**



**ASPHALT BLOCK  
PAVING On  
Sand/Gravel**



**ASPHALT BLOCK  
PAVING On  
Concrete**

# PAVING & PAVERS

## DETAIL DATA CHECKLIST

### CONCRETE PAVING

- Recommended thicknesses for concrete slabs are:
  - 4" for walks, patios, and drives
  - 5" to 6" for roads, public sidewalks, and areas with heavy vehicular traffic
- Pour slab over a gravel base 4" to 8" thick, depending on thickness of concrete and nature of soil
- Slope surface of slab 2 or 1/4" per lin. foot minimum
- Surface treatments:
  - To reduce slipperiness:
    - Broom finish
    - Spread abrasive grains on wet concrete
  - To achieve exposed aggregate surface:
    - Sandblast
    - Finish top slab with light water spray before curing and brushing
- Reinforce slab with 4x4x4/4 or 6x6x10/10 woven wire mesh (WWM)
- Provide 2" cover over the reinforcing
- Expansion Joints:
  - Placement varies with climate
  - Average 30' o.c. in walks
  - 15' to 20' squares in larger areas of concrete
- Dowelling:
  - 1/2" to 1" diameter dowel in sleeve, coated with graphite; 12" to 24" long, 12" to 36" o.c.
- Cap in slab filled with premolded or poured joint filler
- Control Joints:
  - Can be tooled or saw cut
  - 1/8" thick nonferrous strip, or poured joint filler, or no filling
  - Joint must be 1/4 of the depth of the slab to be effective
  - Edges of slab at joint should have 1/8" radius
  - Joints may be dowelled (as above), without sleeve

### ASPHALT CONCRETE PAVERS

- Sizes for concrete:
  - 4x8, 8x8, 6x12, 12x18, 12x24, 18x18, 24x24 square; 24x30, 24x36, and 24" hexagon
  - Depth: 2" to 4"
- OR
- Lay pavers over 2" of sand, over 2" to 5" of gravel
- Over 3/4" bituminous setting bed, over a concrete slab
- Lay interlocking concrete pavers with sand-filled joints over 1-1/2" of sand, over 2 courses of gravel (8")
- Asphalt sizes: 5x12, 6x12, 8x8, and 8" hexagon
- Depth: 1-1/4" to 3"
- Provide solid border edge support, or joints will open and pavers will dislodge

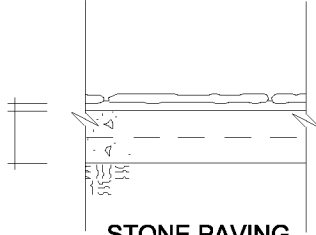
## NOTATION CHECKLIST, SAMPLE NOTES

- PAVER UNITS
- SETTING BED
- CONCRETE
- REINFORCING
- SLOPE
- CONTROL/EXPANSION JOINTS (TYPE & SPACING)
- AGGREGATE BASE
- COMPACTED SUBGRADE
- ORIGINAL GRADE
- FINISH GRADE
- PROVIDE CROWN IN CENTER FOR DRAINAGE
- SLOPE 1/4" PER FOOT, TYP.
- CONCRETE W. 6 X 6 - 10 GAUGE WIRE MESH
- CONC. SLAB W. 6 X 6 X #10/#10
- CONC. WALK W/ 6 X 6 10/10 W.W.M.
- BEDWOOD HEARTWOOD JOINT FILLER STRIP
- TOOLED JOINTS @ 6'-0" O.C.
- 1/2" EXPANSION JOINT
- JOINT SEALANT & JOINT FILLER ROD
- JOINT FILLER BOARD
- 1" DIA (3/4" to 1" typ.) X 18" DOWEL BARS
- 12" O.C. ACROSS SLAB
- (@ exp. fts.) PAINT & OIL ONE END OF DOWEL
- EXPANSION JOINT FILLER MATERIAL @ 16" O.C. MAX.
- GALV. METAL KEYWAY W/ EDGE EXPOSED
- GALV. METAL STAKE PIN
- DUMMY JOINTS @ 5'-0" O.C.
- PRE-MOLDED EXPANSION JOINT @ 20'-0" O.C. TYP.
- PAVING BRICKS IN SETTING BED
- SLOPE TO DRAIN AS INDICATED ON PLANS
- BRICK ROWLOCK PAVER
- SLAB REINF., SEE
- VAPOR BARRIER
- COMPACTED GRANULAR FILL
- 4" PEA GRAVEL
- SAND CUSHION
- COMPACTED EARTH FILL AS REQ'D.
- COMPACTED SUBGRADE OR STRUCTURAL BACKFILL
- 8" CRUSHED AGGREGATE BASE (@ 6" conc. paving)
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- IRON ORE BASE

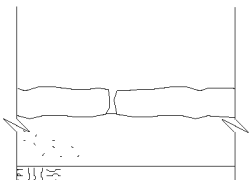
## PAVING & PAVERS



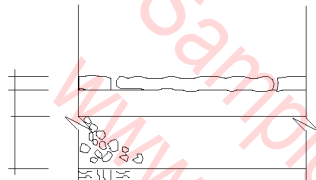
**STONE PAVING**  
On Concrete



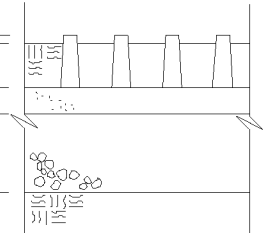
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On Concrete



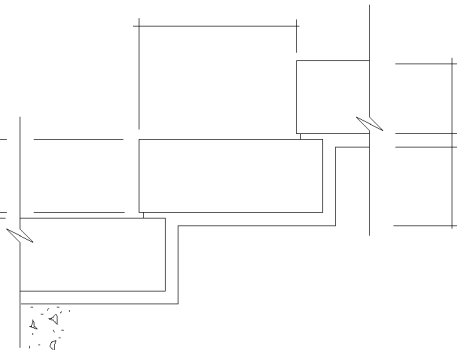
**STONE PAVING**  
On Sand



**STONE PAVING**  
On Sand/Gravel



**CONCRETE BLOCK**  
GRID PAVERS



**STONE STEPS** On Concrete

## PAVING & PAVERS

### DETAIL DATA CHECKLIST

#### STONE PAVING

- Granite paver sizes:
  - 4x4, 4x8, 5x8, 8x8, 12x12
  - Depths: 2", 3", 4", and 10"
- Install granite on rigid base and mortar for stability and/or if there will be heavy traffic
- Install on flexible base for light traffic
- Slate sizes:
  - 4" min. widths x random lengths
  - Depths: 3/4" to 2-1/2"
- Install slate on flexible base with no mortar; keep well drained
- Stone thickness in general:
  - 3/4" thick if laid on mortar setting bed
  - 1-1/2" minimum thickness if laid on sand
- Provide solid border edge support, or joints will open and pavers will dislodge

### NOTATION CHECKLIST, SAMPLE NOTES

PAVER UNITS  
 SETTING BED  
 CONCRETE  
 REINFORCING  
 SLOPE  
 CONTROL/EXPANSION JOINTS (TYPE & SPACING)  
 AGGREGATE BASE  
 COMPACTED SUBGRADE

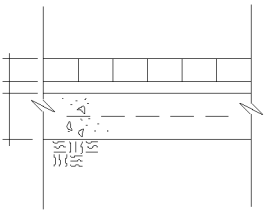
ORIGINAL GRADE  
 FINISH GRADE  
 PROVIDE CROWN IN CENTER FOR DRAINAGE  
 SLOPE 1/4" PER FOOT, TYP.  
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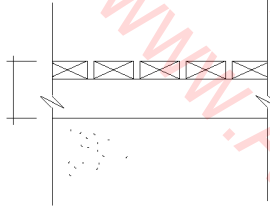


## PAVING & PAVERS

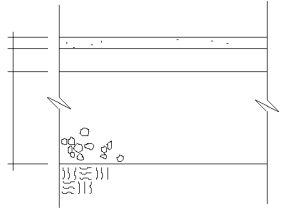
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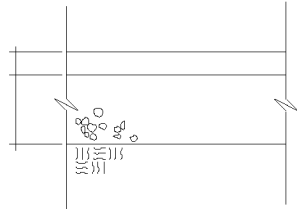
**WOOD BLOCK  
PAVING On Concrete**



**WOOD PLANK  
WALKWAY**



**ASPHALTIC  
CONCRETE PAVING**



**ASPHALT PAVING**

### DETAIL DATA CHECKLIST

**WOOD BLOCK OR TIMBER SECTIONS PAVERS**  
 — Preservative treated  
 — 2" minimum depth crosscut, 3" minimum rip cut  
 — Timber sections 4" to 6" thick are common  
 — Lay in 4" sand bed

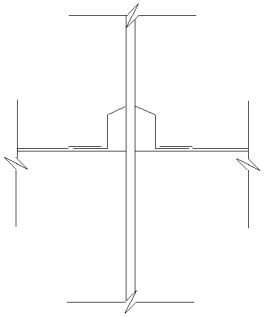
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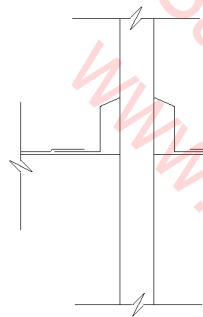
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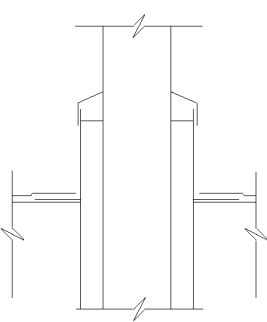
## PITCH POCKETS



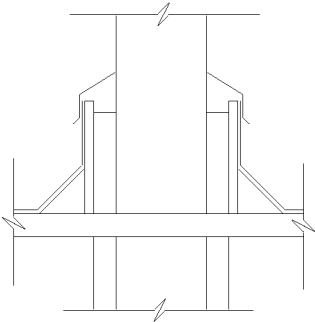
PITCH POCKET Conduit



PITCH POCKET Pipe



PITCH POCKET Pipe or Structural



PITCH POCKET Pipe or Structural

## PITCH POCKETS

### DETAIL DATA CHECKLIST

#### PITCH POCKETS

Pitch pockets are enclosed caulk-filled holes or pans around a pipe, conduit, or structural support that penetrates a roof.

Ideally, pipes, conduit, or structural supports should not penetrate a roof surface. Such penetrations require extra maintenance and are likely to be a source of leaks. In general, the best rule is to avoid roof-mounted equipment as much as possible.

If such work has to be done, the connections should be in the form of well-caulked and sealed pockets. Hot- or cold-applied bitumin with fiber filler is poured or packed around the penetration, sometimes in a galvanized steel pitch pan. Then it's covered with flashing and a cap or counterflashing and integrated with the roofing seal. Coordinate the detailing for such work with the structural engineers and make sure it's reviewed during the roofing preconstruction meeting.

This work should be part of the roofing contract and included in the roofing warranty.

### NOTATION CHECKLIST, SAMPLE NOTES

PIPE/STRUCTURAL SUPPORT  
(MATERIAL & SIZE)

CAP FLASHING

PITCH PAN/PITCH WELL

PITCH FLASHING COMPOUND

CANT/NAILER

ROOFING SURFACE

(TYPE, LAYERS & COVER MATERIAL)

ROOFING DECK/INSULATION

ROOF CONSTRUCTION

PITCH POCKET FILLED BY ROOFER

SEALANT

GALV. METAL UMBRELLA, ROUND,

W/DRAW BAND

GALV. METAL PITCH POCKET FILLED

W/FLASHING CEMENT

GALV. PITCH PAN, STRIPPED IN, FILL W/PITCH

24 GA. GALV. STEEL CAP FLASHING,

WELD OR SEAM ALL SEAMS & JOINTS

24 GA. GALV. STEEL PITCH PAN,

EXTEND FLANGE 4" ONTO ROOF

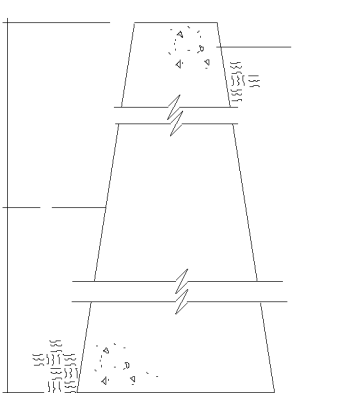
NAILERS

BASE FLASHING

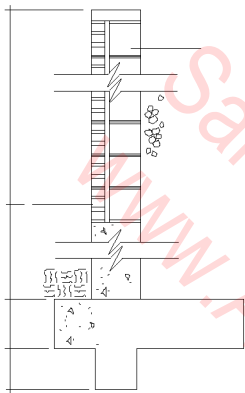
INSULATION CANT

RIGID INSULATION

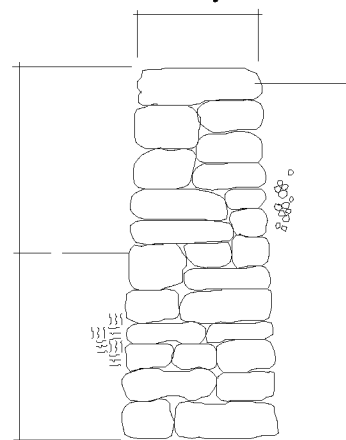
## RETAINING WALLS



**CONCRETE RETAINING WALL Gravity**



**MASONRY RETAINING WALL  
Brick & HMU**



**DRY STONE RETAINING WALL**

## RETAINING WALLS

### DETAIL DATA CHECKLIST

#### RETAINING WALLS

\_\_\_ Ground slope of 45 degrees or greater requires cribbing or retaining walls

\_\_\_ Walls to 3' high—simple concrete, wood, or planter walls OK

\_\_\_ Walls over 3' —L, T retaining walls or gravity wall

\_\_\_ Waterproof the earth fill side of wall

\_\_\_ Backfill with gravel, with drainpipe above the footing

\_\_\_ Pipe should drain to storm sewer (may be connected to building footing drains)

\_\_\_ Place filter cloth between gravel and soil backfill

\_\_\_ Use Type S mortar for resistance to horizontal forces

**BRICK AND BLOCK MASONRY RETAINING WALLS (For walls with minimum horizontal loads only)**

\_\_\_ Use SW grade brick for weather resistance

\_\_\_ Top of footing below the frost line

\_\_\_ Provide cap or coping

\_\_\_ Joints—tooled S or V mortar joints for maximum weatherproofing

\_\_\_ Expansion joints—vertical joints at 50' minimum

\_\_\_ Horizontal and vertical reinforcing as per Brick Institute handbook

#### DRY STONE GRAVITY RETAINING WALLS

\_\_\_ Tilt stones into the hill

\_\_\_ Batter the wall 2" high

\_\_\_ Base typically 16" wide

\_\_\_ Backfill with gravel, with drainpipe along base of wall at bottom of gravel

### NOTATION CHECKLIST, SAMPLE NOTES

TOP OF WALL ELEVATION

FINISH GRADES

ORIGINAL GRADE (DASHED)

EXPANSION JOINTS (TYPE & SPACING)

MASONRY UNIT (TYPE & SIZE)

REINFORCING

WEEP HOLES (SIZE & SPACING)

AGGREGATE DRAIN BED

DRAIN PIPE/DRAIN TILE

COMPACTED SUBGRADE/STRUCTURAL BACKFILL

FOOTING

DAMPPROOFING

POROUS BACKFILL

AGGREGATE BASE

## RETAINING WALLS

## RETAINING WALLS

### DETAIL DATA CHECKLIST

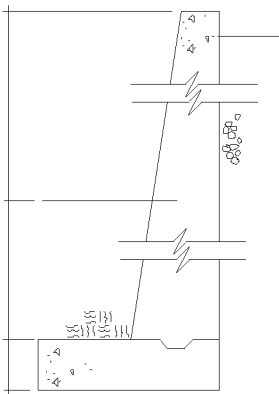
#### CONCRETE RETAINING WALLS

- Ground slope of 45 degrees or greater requires cribbing or retaining walls
- Walls to 3' high—simple concrete, wood, or planter walls OK
- Walls over 3' --L, T retaining walls or gravity wall
- Place bottom of footing at frost line
- Provide 3" minimum cover for rebar
- Provide 3" diameter weep holes at 4' o.c. (maximum 10' apart)
- Anchor wall segments to each other at movement joints with:
  - Install 1/2" vertical expansion joints every 50'
  - OR
  - Install contraction joints every 25' (1" wide tapered to 1/2" depth)
  - Seal expansion and contraction joints with waterstops
  - Tapered 2x4 formed vertical key in first pour
  - 1/2" horizontal steel rods, 12" long min. @ 12" spacings with movement sleeves on one side
- Waterproof the earth fill side of wall
- Backfill with gravel, with drainpipe above the footing
- Pipe should drain to storm sewer (may be connected to building footing drains)
- Place filter cloth between gravel and soil backfill

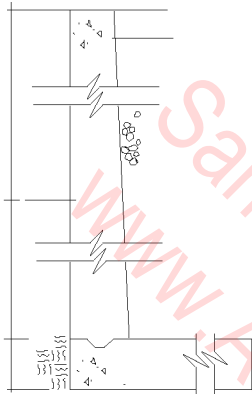
#### NOTATION CHECKLIST,

#### SAMPLE NOTES

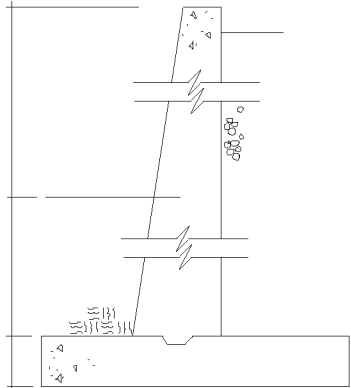
- TOP OF WALL ELEVATION
- FINISH GRADES
- ORIGINAL GRADE (DASHED)
- EXPANSION JOINTS (TYPE & SPACING)
- MASONRY UNIT (TYPE & SIZE)
- REINFORCING
- WEEP HOLES (SIZE & SPACING)
- AGGREGATE DRAIN BED
- DRAIN PIPE/DRAIN TILE
- COMPACTED SUBGRADE/STRUCTURAL BACKFILL
- FOOTING
- DAMP PROOFING
- POROUS BACKFILL
- AGGREGATE BASE



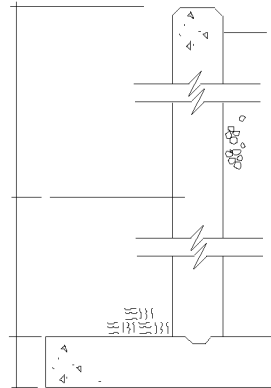
CONCRETE  
RETAINING WALL L  
Type



CONCRETE RETAINING  
WALL L Type



CONCRETE RETAINING  
WALL T Type



CONCRETE  
RETAINING WALL T  
Type

## ROOF CURBS

## ROOF CURBS

### DETAIL DATA CHECKLIST

#### ROOF CURBS

— Curbs are to prevent water entry to roof expansion joints, skylights, roof hatches, etc.

— Curb materials:

— Wood sleepers nailed or bolted to roof substrate

— Concrete sections

— Prefabricated metal

— Installation:

— Curbs are placed prior to finish roofing

— Finish roofing is installed up and usually over the top of the curb

— Curb top is covered with a metal cap, coping, or similar flashing

Work must be coordinated with roofing, may be part of the roofing contract and, if possible, included in the roofing warranty. It must be reviewed as part of the roofing preconstruction meeting.

### NOTATION CHECKLIST, SAMPLE NOTES

CURB (TYPE, MATERIAL & SIZE)

METAL CAP/FLASHING

CANT/NAILER

ROOFING SURFACE

(TYPE, LAYERS & COVER MATERIAL)

ROOFING DECK/INSULATION

ROOF CONSTRUCTION

2 X WOOD FRAME

ROOF CURB

PREFABRICATED ROOF CURB W/2 X 2 WOOD

NAILER & INSUL. TREATED WOOD NAILER

2 X NAILERS

THRU-BOLT TO ANGLE

STEEL ANGLE

SEALANT

EXTEND ROOFING FELTS TO TOP OF CURB

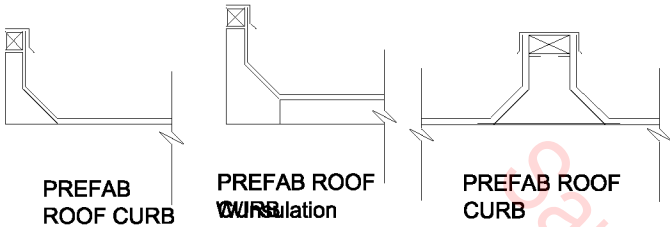
26 GA. FLASHING

ELASTOMERIC FLASHING

CAP FLASHING

ROOFING MEMBRANE & FLASHING

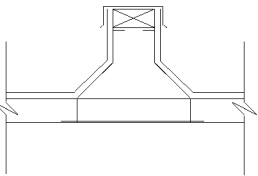
CANT



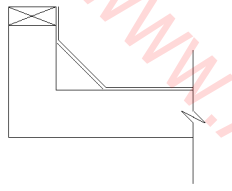
PREFAB  
ROOF CURB

PREFAB ROOF  
CURB  
W/Insulation

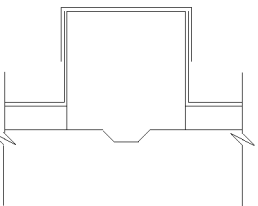
PREFAB ROOF  
CURB



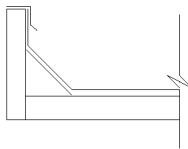
PREFAB ROOF CURB  
W/Insulation



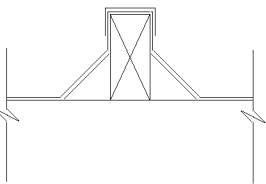
CONCRETE ROOF  
CURB



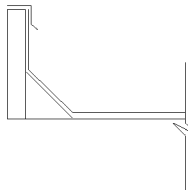
CONCRETE ROOF  
CURB



WOOD OR PREFAB ROOF CURB  
W/Insulation



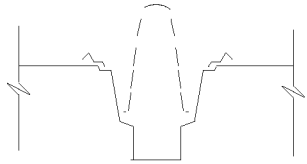
WOOD SLEEPER ROOF  
CURB



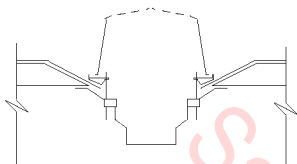
WOOD OR PREFAB ROOF  
CURB

## ROOF DRAINS

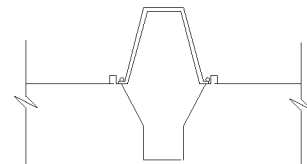
## ROOF DRAINS



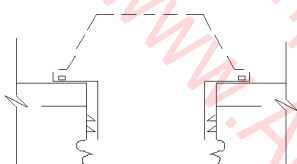
ROOF DRAIN



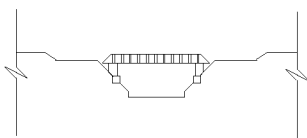
ROOF DRAIN



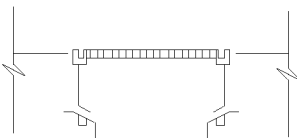
ROOF DRAIN



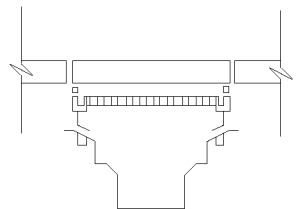
ROOF DRAIN



ROOF DRAIN



ROOF DRAIN



ROOF DRAIN

### DETAIL DATA CHECKLIST

#### ROOF DRAINS

Recommend 1/2" slope per linear foot as minimum slope for built-up roof construction. Roof drains at columns, midspan of long-span roof trusses, and perimeter of roof may end up at high points due to framing deflection, wood frame shrinkage, concrete frame shrinkage or creep, or building settlement. Include more and larger roof drains to help compensate for these common circumstances. Drains will be selected and sized by your plumbing consultant and may be installed as part of the plumbing contract or the roofing contract. In any case the work has to be coordinated with roofing and be reviewed during the roofing preconstruction meeting.

#### Drain types:

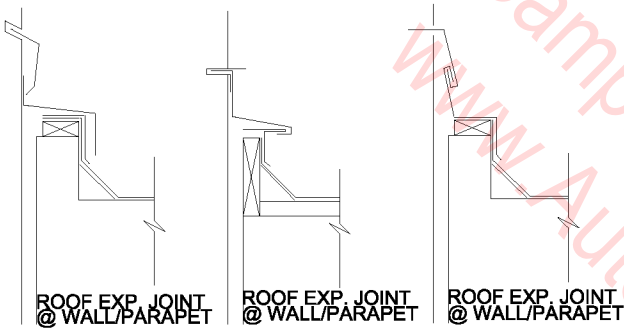
- High strainer, narrow and wide, to block debris from entering the drains
- Bellows connection, allows differential movement
- Flat drain for flat roof areas or roof paving where there will be foot traffic

### NOTATION CHECKLIST, SAMPLE NOTES

DRAIN STRAINER  
 FLASHING CLAMP/GRAVEL STOP  
 FLASHING  
 ROOFING SURFACE  
 (TYPE, LAYERS & COVER MATERIAL)  
 ROOFING DECK/INSULATION  
 ROOF CONSTRUCTION  
 ROOF DRAIN AS SPECIFIED, OPENINGS FOR  
 ROOF DRAINS TO BE PREFORMED  
 STRAINER BASKET DRAIN GUARD  
 STRAINER  
 CLAMPING RING  
 WATER CUTOFF MASTIC  
 DECK FLANGE  
 NEOPRENE FLEXIBLE BELLOWS BODY  
 SCREW TYPE CLAMP  
 NO-HUB CONNECTION  
 MEMBRANE ROOFING  
 BUILT-UP ROOF  
 RIGID INSULATION  
 PRECAST CONC. SLAB ON STEEL DECKING

**ROOF EXPANSION JOINTS @ WALLS/PARAPETS**

**ROOF EXPANSION JOINTS @ WALLS/PARAPETS**



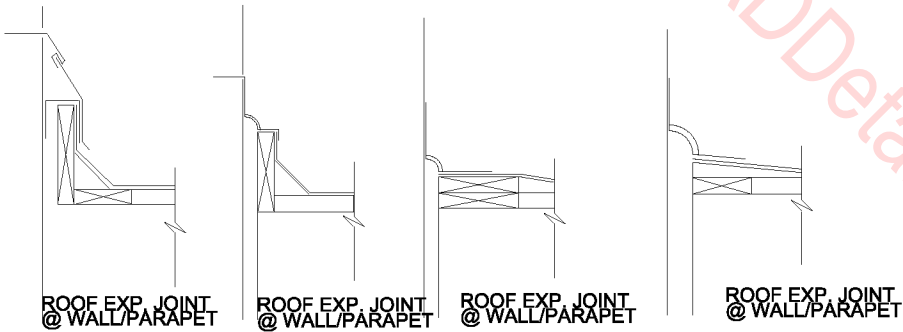
**NOTATION CHECKLIST,  
SAMPLE NOTES**

EXPANSION JOINT COVER  
CANT/NAILER/BLOCKING  
ADHESIVE/SEALANT/CAULKING  
ROOFING SURFACE  
(TYPE, LAYERS & COVER MATERIAL)  
ROOF DECK/INSULATION  
ROOF CONSTRUCTION  
COPING

**SAMPLE NOTES:**

24 GA. CLIP-ON FLASHING, ATTACH @ CTR. OF EA. PIECE  
2 X TREATED PLATE, 1/2" EXP. BOLTS @ 24" O.C.  
2 X 10 WOOD BLKG., SECURE TO MTL.  
STUD & BRICK W/1/2" DIA. ANCHOR BOLT 8" LONG @ 48" O.C.  
MANUFACTURED REGLET & FLASHING SYSTEM  
G.I. FLASHING  
ELASTOMERIC FLASHING  
BASE FLASHING OVER PLATE

FLASHING APPLIED W/ADHESIVE  
LEAD OR ALUMINUM FLASHING  
CONT. CLEAT  
SHIM (to slope)  
BASE FLASHING NAILS @ 8" O.C.  
WEDGE & SEAL  
FLASHING JOINT SET IN ROOFING CEMENT  
METAL CAP FLASHING  
S.S. FLASHING INTO PRESET REGLET  
FLASH. REGLET, BEND DOWN AFTER INSTALLING  
FLASH TIGHT AGAINST WALL  
METAL FLASHING SET IN MORTAR BED  
METAL CLIP @ 3'-0" O.C.  
COMPOSITION FLASHING  
BUILT-UP ROOFING  
BASE SHEET INSULATION  
FELT VAPOR BARRIER  
FILL, PITCH TO DRAIN  
WOOD BLOCKING  
NAILABLE CANT  
CONT. 4" HIGH CANT



## ROOF EXPANSION JOINTS

## ROOF EXPANSION JOINTS

### DETAIL DATA CHECKLIST

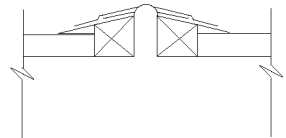
#### ROOF EXPANSION JOINT COVERS

- Expansion joints consist of:
- An opening or separation across a building to allow for movement, typically 1/2" to 1" wide
  - A waterstop between the separated structures
  - A premolded expansion joint filler
  - A block or curb to keep the joint above the roof surface and block water from entering the joint
  - An expansion joint cover
- Type A are best quality covers for most roofing conditions
- Expansion joint cover types:
- Type A: aluminum, stainless steel, or copper
  - Type B: elastomeric such as neoprene, with metal flanges
- For intersection of roof slab and parapets or walls
- Type C: plastic low profile cover
- Not recommended except for minimal joints such as intermediate expansion joints for membrane

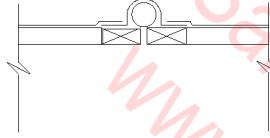
### NOTATION CHECKLIST, SAMPLE NOTES

EXPANSION JOINT COVER  
 FLASHING/FLEXIBLE FLASHING  
 CANT/NAILER/BLOCKING  
 ADHESIVE/SEALANT/CAULKING  
 ROOFING SURFACE  
 (TYPE, LAYERS & COVER MATERIAL)  
 ROOFING DECK/INSULATION  
 ROOF CONSTRUCTION  
 WIDTH OF JOINT  
 BASE FLASHING, EXTEND. OVER TOP OF  
 NAILER  
 EXP. JT. COVER, SET FLANGES IN PLASTIC  
 CEMENT  
 FLEXIBLE JT. COVER.  
 24 GA. STAINLESS STEEL COPING  
 ALUM. COPING  
 ALUM. COUNTERFLASHING  
 COMPRESSIBLE INSULATION  
 BATT INSULATION  
 FIBER GLASS INSULATION  
 FIBER GLASS EXPANSION  
 TREATED NAILERS

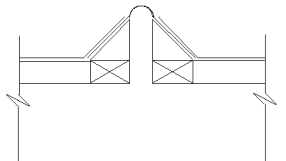
CONT. FIRE RETARD. WOOD BLOCKING  
 2 PIECES TREATED WOOD BLOCKING CONT. W/3/8"  
 BOLTS @ 24" O.C., FILL VOID W/LOOSE  
 INSULATION  
 BASE FLASH IN FULL BED OF PLASTIC CEMENT  
 FIBER GLASS CLOTH EMBEDDED IN & COVERED  
 W/PLASTIC CEMENT  
 FIBER CANT  
 4" CANT STRIP CONTINUOUS  
 FLASHING FELTS  
 STEEL ANGLE



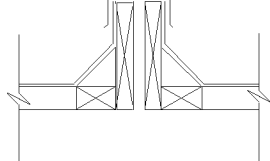
ROOF EXPANSION  
JOINT Flexible Cover



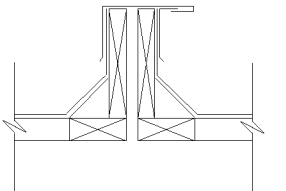
ROOF EXPANSION  
JOINT Flexible Cover



ROOF EXPANSION  
JOINT Flexible Cover



ROOF EXPANSION  
JOINT Flexible Cover

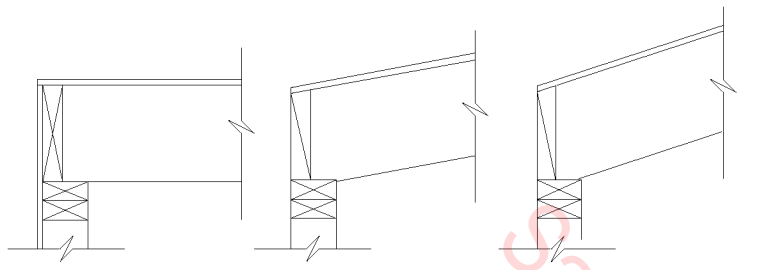


ROOF EXPANSION  
JOINT Metal Cover

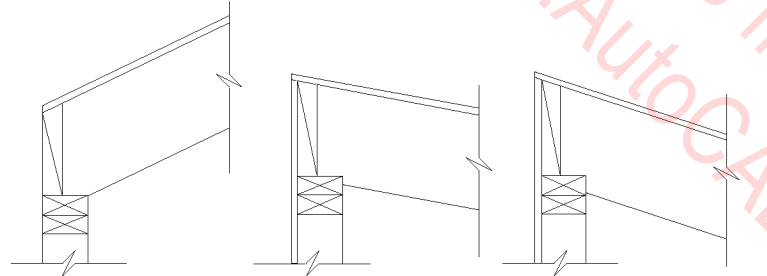


**ROOF FLUSH @ WALL (2 X 4 FRAMING)**

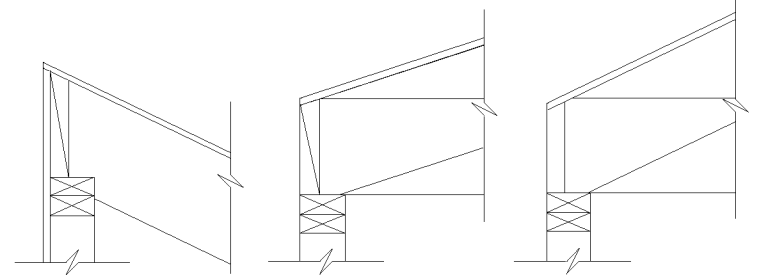
**ROOF FLUSH @ WALL (2 X 4 FRAMING)**



**ROOF FLUSH @ WALL (2x4) Flat**      **ROOF FLUSH @ WALL (2x4) 2:12 Slope**      **ROOF FLUSH @ WALL (2x4) 4:12 Slope**



**ROOF FLUSH @ WALL (2x4) 6:12 Slope**      **ROOF FLUSH @ WALL (2x4) 2:12 Slope**      **ROOF FLUSH @ WALL (2x4) 4:12 Slope**



**ROOF FLUSH @ WALL (2x4) 6:12 Slope**      **ROOF FLUSH @ WALL (2x4) 4:12 Slope**      **ROOF FLUSH @ WALL (2x4) 6:12 Slope**

**NOTATION CHECKLIST, SAMPLE NOTES**

ROOFING  
 ROOF SHEATHING  
 FLASHING/WATERPROOFING  
 2 X JOISTS @ 16" O.C.  
 2 X BLOCKING/NAILER  
 2 X DOUBLE TOP PLATE  
 2 X STUDS @ 16" O.C.  
 FASCIA/TRIM

INTERIOR:  
 GYPSUM WALLBOARD  
 LATH & PLASTER  
 WOOD PANELING  
 TILE

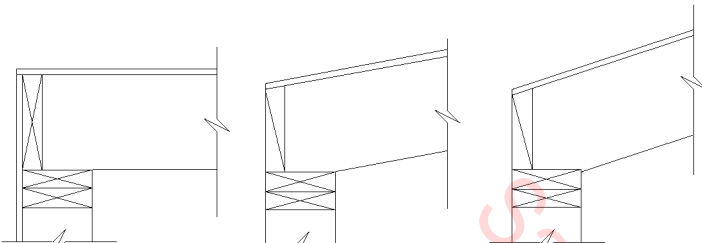
EXTERIOR:  
 THERMAL INSULATION  
 GYPSUM WALLBOARD  
 SHEATHING  
 WOOD SHEATHING  
 MOISTURE BARRIER  
 LATH & PLASTER/STUCCO  
 WOOD SIDING  
 MASONRY VENEER

EXTERIOR continued:  
 ROOF PITCH  
 BUILT-UP ROOFING  
 ROOFING SHINGLE  
 ROOF SHEATHING  
 ROOF PLANKS  
 RIDGE BOARD  
 METAL STRAP  
 METAL PLATE  
 ROOF BEAM  
 RAFTER  
 BEVELED RAFTER  
 NOTCHED RAFTER  
 RAFTER TIE  
 STRAP @ EACH RAFTER  
 CEILING JOISTS  
 ATTIC FLOOR  
 TOP PLATE  
 TYING  
 SCREEN VENT  
 INSULATION  
 SOFFIT  
 GUTTER  
 CEILING

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**ROOF FLUSH @ WALL (2 X 6 FRAMING)**

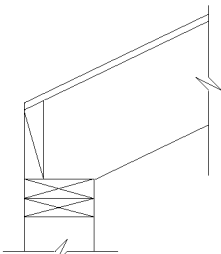
**ROOF FLUSH @ WALL (2 X 6 FRAMING)**



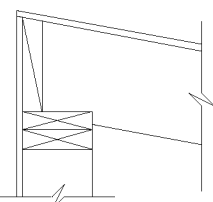
**ROOF FLUSH @ WALL (2x6) Flat**

**ROOF FLUSH @ WALL (2x6) 2:12 Slope**

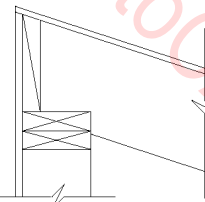
**ROOF FLUSH @ WALL (2x6) 4:12 Slope**



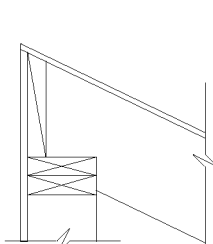
**ROOF FLUSH @ WALL (2x6) 6:12 Slope**



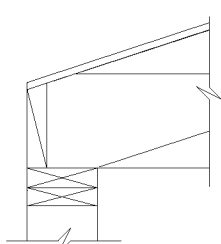
**ROOF FLUSH @ WALL (2x6) 2:12 Slope**



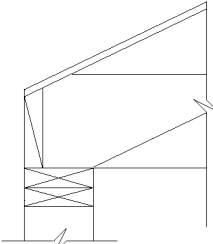
**ROOF FLUSH @ WALL (2x6) 4: 12 Slope**



**ROOF FLUSH @ WALL (2x6 6:12 Slope**



**ROOF FLUSH @ WALL (2x6) 4:12 Slope**



**ROOF FLUSH @ WALL (2x6) 6:12 Slope**

**NOTATION CHECKLIST, SAMPLE NOTES**

**ROOFING**  
 ROOF SHEATHING  
 FLASHING/WATERPROOFING  
 2 X JOISTS @ " O.C.  
 2 X BLOCKING/NAILER  
 2 X DOUBLE TOP PLATE  
 2 X STUDS @ " O.C.  
 FASCIA/TRIM

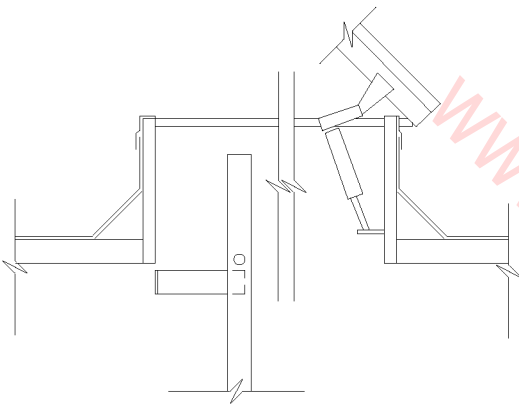
**INTERIOR:**  
 GYPSUM WALLBOARD  
 LATH & PLASTER  
 WOOD PANELING  
 TILE

**EXTERIOR:**  
 THERMAL INSULATION  
 GYPSUM WALLBOARD  
 SHEATHING  
 WOOD SHEATHING  
 MOISTURE BARRIER  
 LATH & PLASTER/STUCCO  
 WOOD SIDING  
 MASONRY VENEER

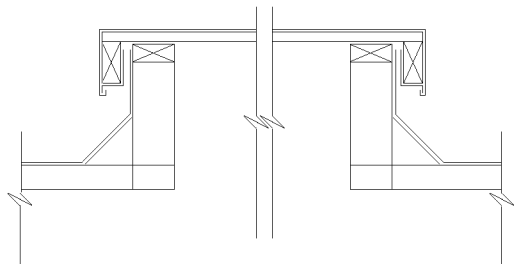
**EXTERIOR continued:**  
 ROOF PITCH  
 BUILT-UP ROOFING  
 ROOFING SHINGLE  
 ROOF SHEATHING  
 ROOF PLANKS  
 RIDGE BOARD  
 METAL STRAP  
 METAL PLATE  
 ROOF BEAM  
 RAFTER  
 BEVELED RAFTER  
 NOTCHED RAFTER  
 RAFTER TIE  
 STRAP @ EACH RAFTER  
 CEILING JOISTS  
 ATTIC FLOOR  
 TOP PLATE  
 TYING  
 SCREEN VENT  
 INSULATION  
 SOFFIT  
 GUTTER  
 CEILING

Samples from  
[www.AutocADDetails.net](http://www.AutocADDetails.net)

## ROOF HATCHES



ROOF HATCH & SCUTTLE



ROOF HATCH

## ROOF HATCHES

### DETAIL DATA CHECKLIST

#### ROOF HATCHES AND SCUTTLES

- See manufacturers' catalogs for choices of sizes, fittings, and special detail conditions
- Check building code fire and smoke control restrictions regarding hatches
- Check whether curb roof supports are built-in to the manufactured units or whether curbs have to be detailed and installed separately
- A framed opening should be provided to receive roof hatch unit, coordinate with the structural drawings
- Check whether the manufactured unit includes all required flashing, counter flashing, and blocking for flashing

#### Common trouble spots:

- Insufficient height above roof to block water entry, particularly from ice-dam water ponding in freezing weather
- Location in low or ponding area of roof
- Insufficient flashing and counter flashing

### NOTATION CHECKLIST, SAMPLE NOTES

ROOF HATCH & HARDWARE  
 SCUTTLE SIZE  
 FLASHING  
 CANT/NAILER  
 METAL LADDER  
 ROOFING SURFACE  
 (TYPE, LAYERS & COVER MATERIAL)  
 ROOFING DECK/INSULATION  
 ROOF CONSTRUCTION  
 CEILING CONSTRUCTION

ROOF SCUTTLE  
 INSULATED HATCH DOOR  
 ROOF HATCH 2'-6" X 4'-6"  
 MANUFACTURED ROOF HATCH  
 4" CANT  
 BUILT-UP ROOF  
 SINGLE PLY MEMBRANE  
 STEEL ANGLE  
 DECK CLOSURE  
 LADDER  
 RIGID INSULATION  
 RIGID INSULATION BASE FLASHING  
 FOLD-DOWN STAIR  
 CEILING JOISTS

## ROOF LADDERS

## ROOF LADDERS

### DETAIL DATA CHECKLIST

#### VERTICAL LADDER OR ROOF LADDER

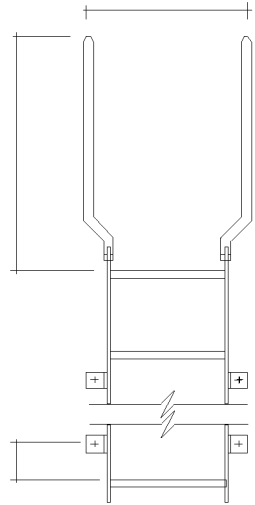
Roof ladders are usually selected prefabricated from a stock catalog or fabricated to order at a specialist metal shop.

- Treads: 1" steel pipe or 3/4" steel bars
- Width: 18" minimum, 24" preferred
- Top handrail, or grab bars, spaced 24" apart
- Top of handrail or grab bars 3'-6" high minimum
- Mount vertical stringer 7" from wall
- Roof ladder at parapet must include a metal grid stepping platform above the parapet supported by the handrail or grab bars

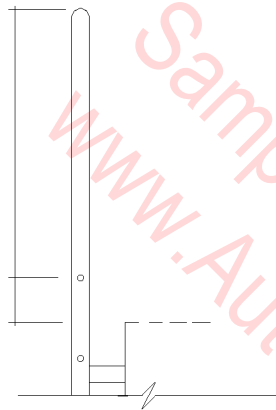
### NOTATION CHECKLIST, SAMPLE NOTES

TOP RAIL  
 PARAPET COPING/CAP  
 PARAPET CONSTRUCTION  
 LADDER RUNGS (SIZE & SPACING)  
 BENT BAR BRACKET  
 ANCHORS TO WALL

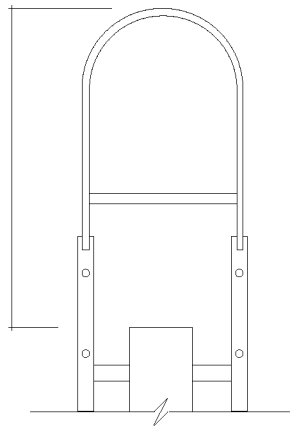
TOP OF COPING  
 PLUG WELD  
 EXP. BOLT  
 BENT BAR BRACKET; WELD TO  
 LADDER  
 1-1/4" PIPE  
 WELD ALL AROUND CLOSED END  
 3/4" DIA. RUNGS 1'-0" O.C.  
 2-1/2" X 3/8" FLAT BAR  
 2-1/2" X 3/8" BENT BAR BRACKET



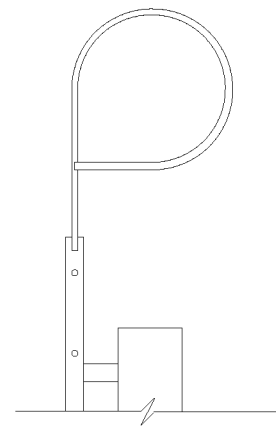
ROOF LADDER



ROOF LADDER

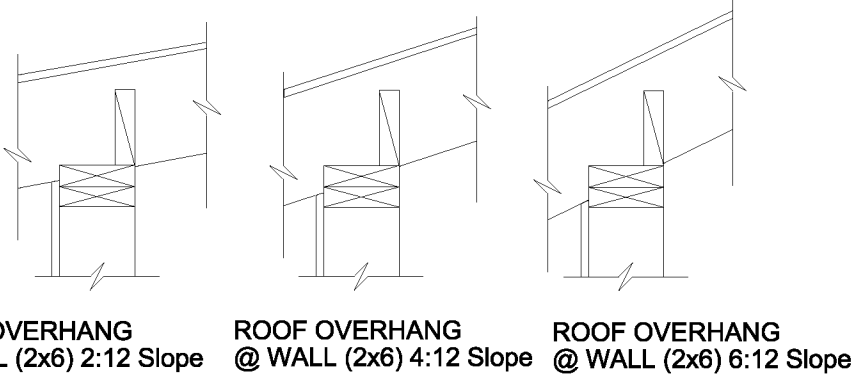
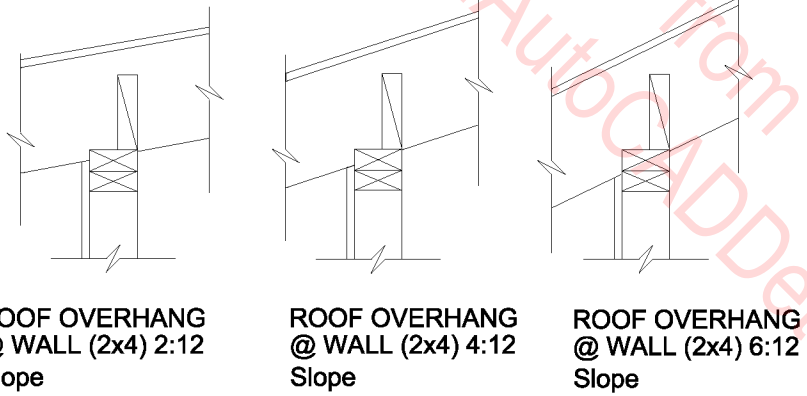
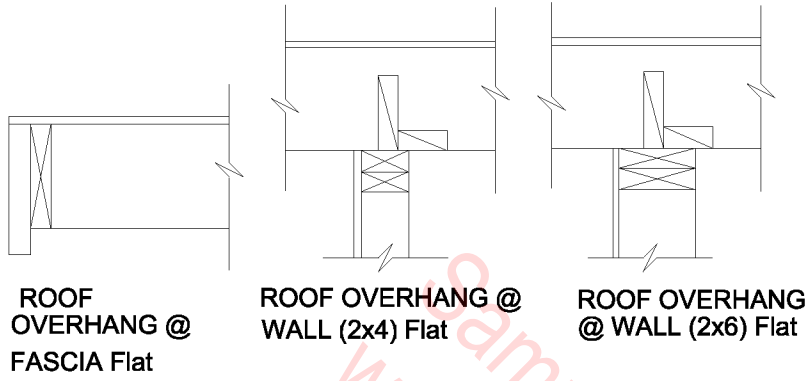


ROOF LADDER



ROOF LADDER

## ROOF OVERHANG



## ROOF OVERHANG

### NOTATION CHECKLIST, SAMPLE NOTES

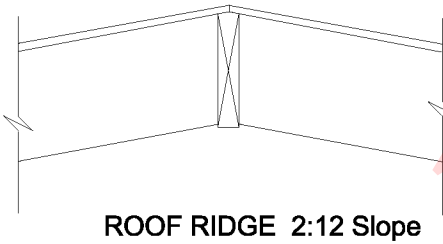
ROOFING  
 ROOF SHEATHING  
 FLASHING/WATERPROOFING  
 2 X JOISTS @ " O.C.  
 2 X BLOCKING /NAILER  
 2 X DOUBLE TOP PLATE  
 2 X STUDS @ " O.C.

INTERIOR:  
 GYPSUM WALLBOARD  
 LATH & PLASTER  
 WOOD PANELING  
 TILE

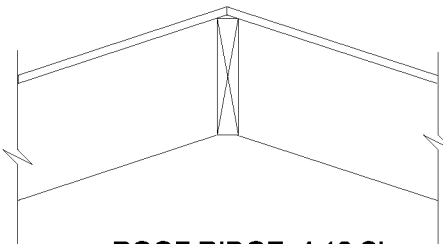
EXTERIOR:  
 THERMAL INSULATION  
 GYPSUM WALLBOARD  
 SHEATHING  
 WOOD SHEATHING  
 MOISTURE BARRIER  
 LATH & PLASTER/STUCCO  
 WOOD SIDING  
 MASONRY VENEER  
 VENTILATION

EXTERIOR continued:  
 ROOF PITCH  
 BUILT-UP ROOFING  
 ROOFING SHINGLE  
 ROOF SHEATHING  
 ROOF PLANKS  
 RIDGE BOARD  
 METAL STRAP  
 METAL PLATE  
 ROOF BEAM  
 RAFTER  
 BEVELED RAFTER  
 NOTCHED RAFTER  
 RAFTER TIE  
 STRAP @ EACH RAFTER  
 CEILING JOISTS  
 ATTIC FLOOR  
 TOP PLATE  
 TYING  
 SCREEN VENT  
 INSULATION  
 SOFFIT  
 CEILING

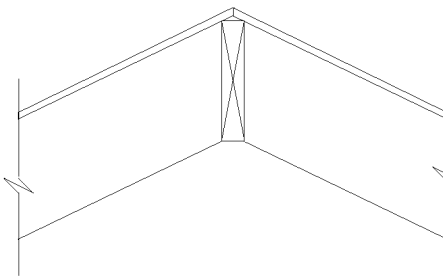
## ROOF RIDGE



ROOF RIDGE 2:12 Slope



ROOF RIDGE 4:12 Slope



ROOF RIDGE 6:12 Slope

## ROOF RIDGE

### NOTATION CHECKLIST, SAMPLE NOTES

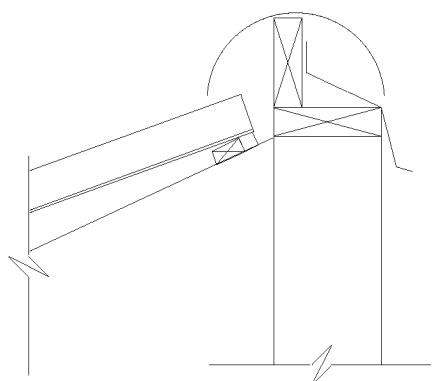
ROOFING  
ROOF SHEATHING  
FLASHING/WATERPROOFING  
2 X JOISTS/RAFTERS @ " O.C.  
RIDGE BEAM  
ROOF PITCH  
BUILT-UP ROOFING  
ROOFING SHINGLE  
ROOF SHEATHING  
ROOF PLANKS  
RIDGE BOARD  
METAL STRAP  
METAL PLATE  
ROOF BEAM

RAFTER  
BEVELED RAFTER  
NOTCHED RAFTER  
RAFTER TIE  
STRAP @ EACH RAFTER  
CEILING JOISTS  
ATTIC FLOOR  
TOP PLATE  
TYING  
SCREEN VENT  
INSULATION  
SOFFIT  
GUTTER  
CEILING

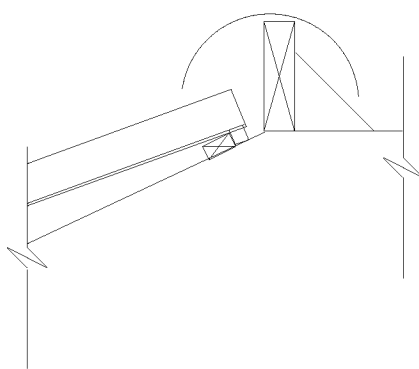
www.AutoCADDetails.net

# ROOFING TILE

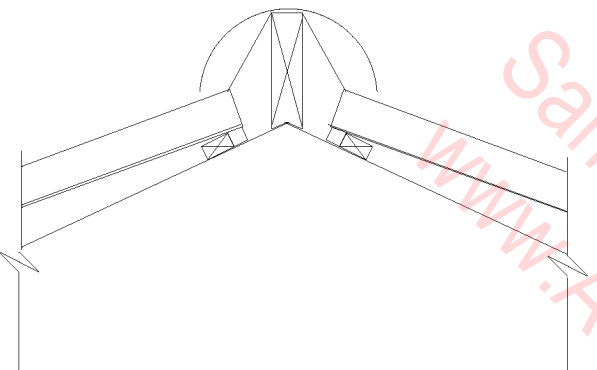
# ROOFING TILE



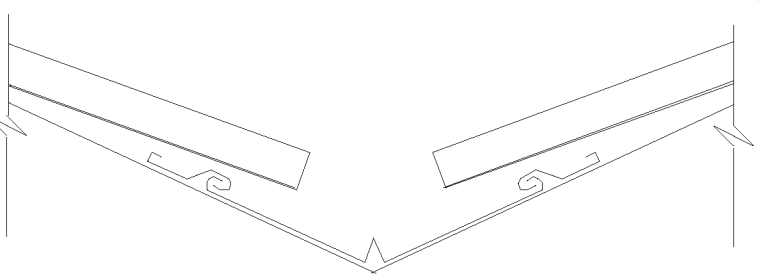
ROOFING TILE S  
Parapet Ridge



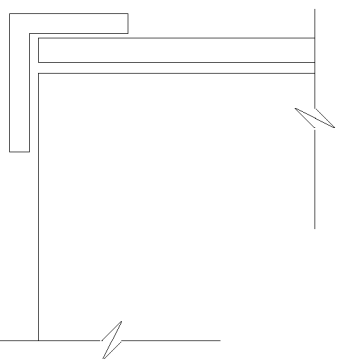
ROOFING TILE S Tile @  
Flat Ridge



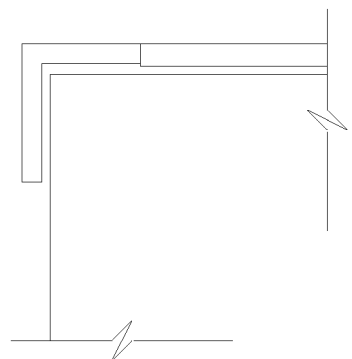
ROOFING TILE  
S Tile @ Ridge



ROOFING TILE  
Curved Tile @ Valley



FLAT ROOFING  
TILE Rake



FLAT ROOFING TILE  
Rake

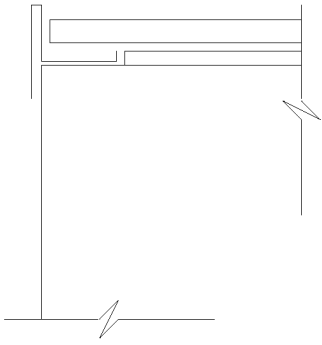
## NOTATION CHECKLIST, SAMPLE NOTES

- RIDGE TILE
- NAILER
- CEMENT
- FIELD TILE
- GRAVEL STOP
- FLASHING
- NAILER
- FASCIA
- BUILDING FELT
- ROOF DECK/INSULATION
- ROOF CONSTRUCTION
- SLOPE
- ELASTIC CEMENT
- TOP FIXTURE
- EAVE CLOSURE
- WOOD DECKING
- CONCRETE ROOF
- PLASTER LATH
- RAKE
- END BAND
- DECK MOULD
- STARTER
- CLEATS
- ROOF EDGE
- CAP FLASHING
- VALLEY FLASHING
- CANT STRIP

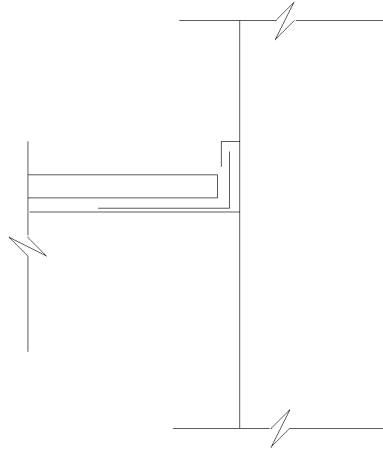
Samples from  
[www.AutoCADDetails.net](http://www.AutoCADDetails.net)

# ROOFING TILE

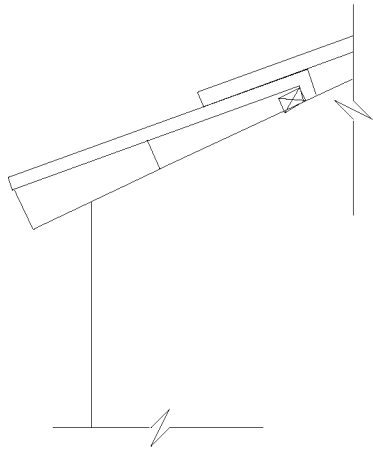
# ROOFING TILE



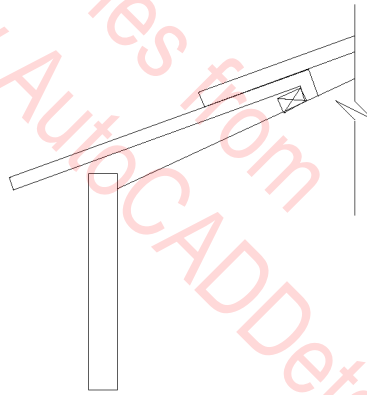
**FLAT ROOFING TILE**  
Rake Flashing



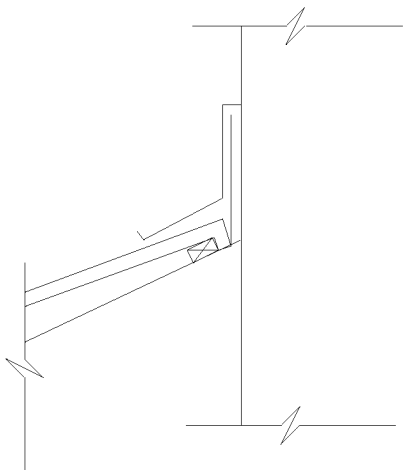
**FLAT ROOFING TILE**  
Flashing @ Wall



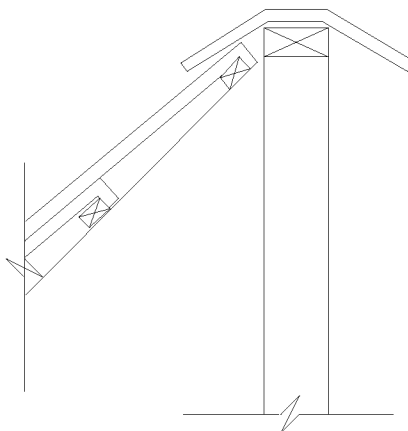
**FLAT ROOFING TILE**  
Eave



**FLAT ROOFING TILE**  
Eave



**FLAT ROOFING TILE**  
Flashing @ Wall



**FLAT ROOFING TILE**  
Parapet Ridge

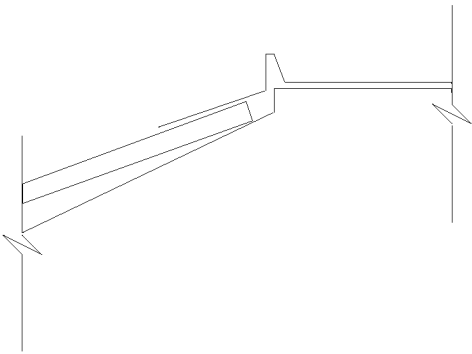
## NOTATION CHECKLIST, SAMPLE NOTES

- RIDGE TILE
- NAILER
- CEMENT
- FIELD TILE
- GRAVEL STOP
- FLASHING
- NAILER
- FASCIA
- BUILDING FELT
- ROOF DECK/INSULATION
- ROOF CONSTRUCTION
- SLOPE
- ELASTIC CEMENT
- TOP FIXTURE
- EAVE CLOSURE
- WOOD DECKING
- CONCRETE ROOF
- PLASTER LATH
- RAKE
- END BAND
- DECK MOULD
- STARTER
- CLEATS
- ROOF EDGE
- CAP FLASHING
- VALLEY FLASHING
- CANT STRIP

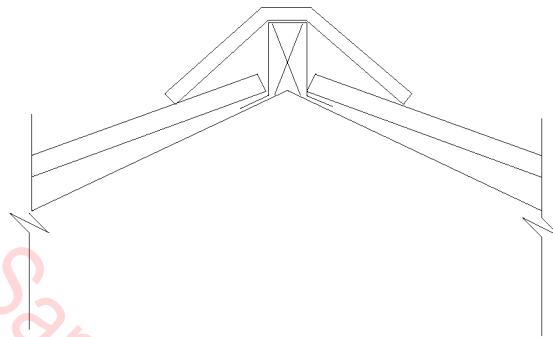
Samples from  
[www.AutocADDetails.net](http://www.AutocADDetails.net)



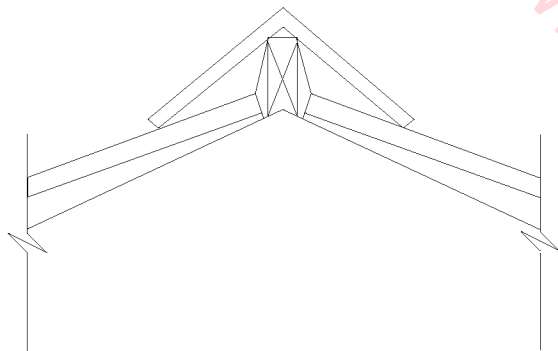
## ROOFING TILE



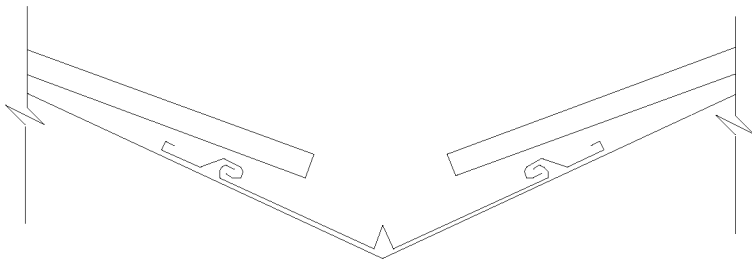
**FLAT ROOFING TILE**  
Flat Roof Ridge



**FLAT ROOFING TILE**  
Ridge Piece



**FLAT ROOFING TILE**  
Ridge Piece



**FLAT ROOFING TILE**  
Valley

## ROOFING TILE

### NOTATION CHECKLIST, SAMPLE NOTES

RIDGE TILE  
NAILER  
CEMENT  
FIELD TILE  
GRAVEL STOP  
FLASHING  
NAILER  
FASCIA  
BUILDING FELT  
ROOF DECK/INSULATION  
ROOF CONSTRUCTION  
SLOPE  
ELASTIC CEMENT  
TOP FIXTURE  
EAVE CLOSURE  
WOOD DECKING  
CONCRETE ROOF  
PLASTER LATH  
RAKE  
END BAND  
DECK MOULD  
STARTER  
CLEATS  
ROOF EDGE  
CAP FLASHING  
VALLEY FLASHING  
CANT STRIP

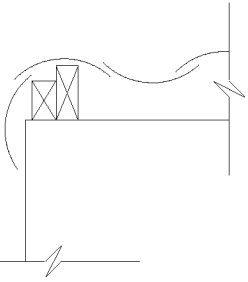
## ROOFING TILE

## ROOFING TILE

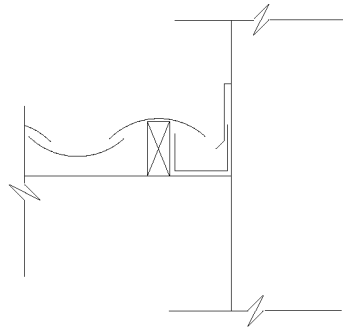
### NOTATION CHECKLIST, SAMPLE NOTES

RIDGE TILE  
 NAILER  
 CEMENT  
 FIELD TILE  
 GRAVEL STOP  
 FLASHING  
 NAILER  
 FASCIA  
 BUILDING FELT  
 ROOF DECK/INSULATION  
 ROOF CONSTRUCTION  
 SLOPE  
 ELASTIC CEMENT

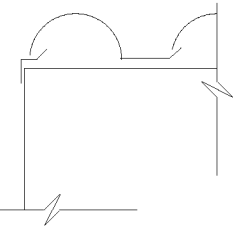
TOP FIXTURE  
 EAVE CLOSURE  
 WOOD DECKING  
 CONCRETE ROOF  
 PLASTER LATH  
 RAKE  
 END BAND  
 DECK MOULD  
 STARTER  
 CLEATS  
 ROOF EDGE  
 CAP FLASHING  
 VALLEY FLASHING  
 CANT STRIP



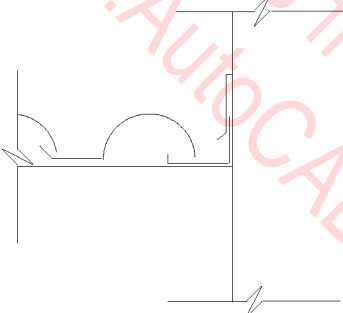
ROOFING TILE Curved S  
Tile @ Rake



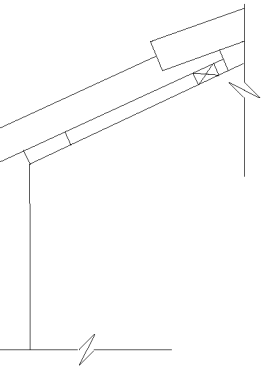
ROOFING TILE Curved S  
Tile @ Wall



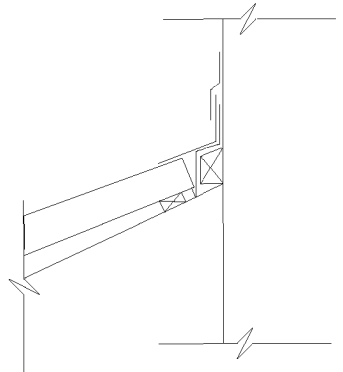
ROOFING TILE Curved  
Tile @ Rake



ROOFING TILE Curved  
Tile @ Wall



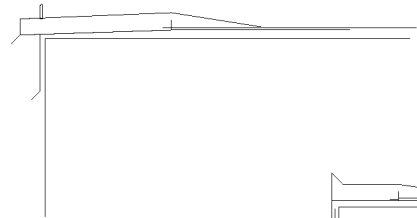
ROOFING TILE Curved  
Tile @ Eave



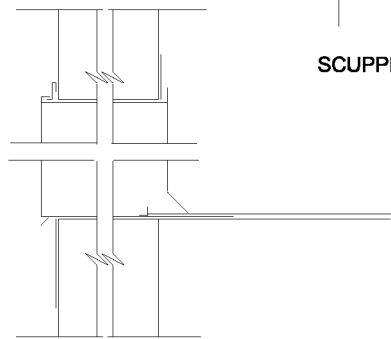
ROOFING TILE  
Curved Tile @ Wall

Samples from  
[www.AutoCADDetails.net](http://www.AutoCADDetails.net)

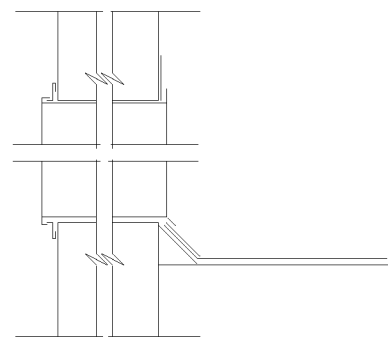
## SCUPPERS



SCUPPER @ ROOF EDGE



SCUPPER THRU PARAPET



OVERFLOW SCUPPER THRU PARAPET

## SCUPPERS

### DETAIL DATA CHECKLIST

#### SCUPPERS

Scuppers are non-corrosive sheet-metal channels or box tubes to direct water off a roof or through a parapet. Overflow scuppers are a must in parapet roofs. Position these to drain away rain water that may be backed up and blocked by clogged roof drains.

Provide at least one, preferably two, to drain rain water out to an area that won't be harmed by intermittent spillover.

Well-flashed and caulked 26 gauge galvanized steel or comparable copper construction is typical.

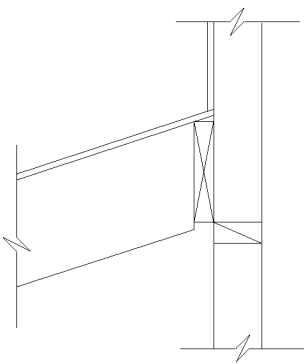
### NOTATION CHECKLIST, SAMPLE NOTES

GUTTER  
HANGER  
BRACKET  
METAL GRAVEL STOP  
CANT/NAILER  
CLEAT/EDGE STRIP/FASCIA PLATE  
PARAPET WALL CONSTRUCTION  
REGLET  
FLASHING/COUNTERFLASHING  
ADHESIVE/SEALANT/CAULKING  
ROOFING SURFACE  
(TYPE, LAYERS & COVER MATERIAL)  
ROOF DECK/INSULATION  
ROOF CONSTRUCTION

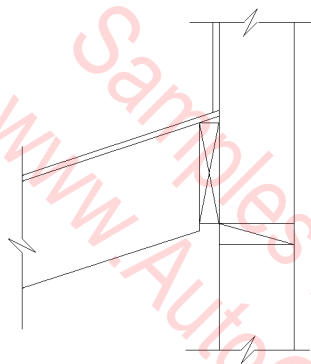
SAMPLE NOTES:  
EDGE OF ROOF MEMBRANE  
FASCIA COVER  
STAINLESS STEEL TUBE LINER  
CONDUCTOR HEAD, MIN. 2" WIDER THAN SCUPPER  
PROVIDE 3" OVERLAP TO GO OVER ADJ. FIBER CANT  
CAULK & MAKE WEATHER TIGHT  
GALV. SHEET METAL OVERFLOW SCUPPER,  
SOLDER ALL JOINTS  
GALV. SHEET METAL SCUPPER & HEADER  
TREATED WOOD BLOCKING  
ELEV. OF ROOF  
SEALANT ALL AROUND  
EMBED FLANGES COMPLETELY IN PLAS. CEMENT  
FIBER GLASS CLOTH IN PLAS. CEM.  
FEATHERED EDGE STRIP  
TAPERED EDGE STRIP

**SHED ROOF @ WALL/ROOF @ PARAPET**

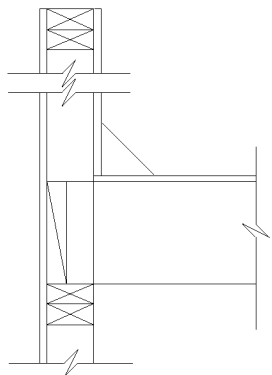
**SHED ROOF @ WALL/ROOF @ PARAPET**



**SHED ROOF @ WALL  
(2 X 4) 4:12 Slope**



**SHED ROOF @ WALL  
(2 X 6) 4:12 Slope**



**ROOF @ PARAPET WALL**

**NOTATION CHECKLIST,  
SAMPLE NOTES**

2 X STUDS @ " O.C.  
2 X SOLID BLOCKING/NAILER  
ROOFING  
ROOF SHEATHING  
FLASHING/WATERPROOFING,  
2 X JOISTS/RAFTERS @ " O.C.  
LEDGER

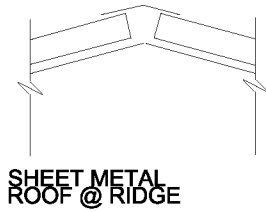
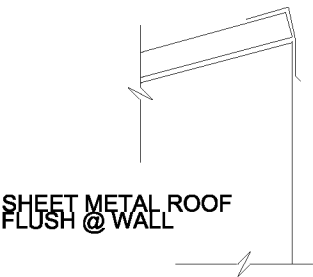
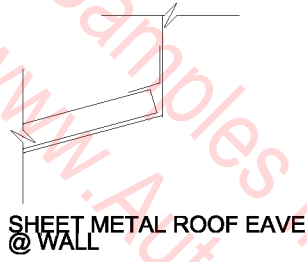
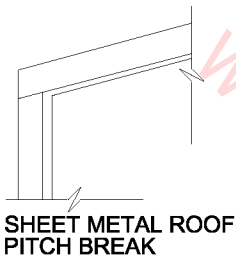
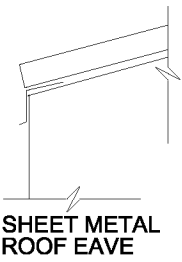
INTERIOR:  
GYPSUM WALLBOARD  
LATH & PLASTER  
WOOD PANELING  
TILE

EXTERIOR:  
THERMAL INSULATION  
GYPSUM WALLBOARD SHEATHING  
WOOD SHEATHING  
MOISTURE BARRIER  
LATH & PLASTER/STUCCO  
WOOD SIDING  
MASONRY VENEER  
ROOF PITCH

EXTERIOR continued:  
BUILT-UP ROOFING  
ROOFING SHINGLE  
ROOF SHEATHING  
ROOF PLANKS  
RIDGE BOARD  
METAL STRAP  
METAL PLATE  
ROOF BEAM  
RAFTER  
BEVELED RAFTER  
NOTCHED RAFTER  
RAFTER TIE  
STRAP @ EACH RAFTER  
CEILING JOISTS  
ATTIC FLOOR  
TOP PLATE  
TYING  
SCREEN VENT  
INSULATION  
SOFFIT  
GUTTER  
CEILING

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## SHEET METAL ROOFING



## SHEET METAL ROOFING

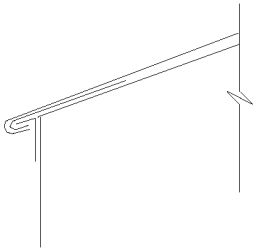
### NOTATION CHECKLIST, SAMPLE NOTES

FLAT SEAM  
 BATTEN  
 FLASHING  
 STANDING SEAM  
 SNAP CAP ANCHOR CLIP  
 CLEAT  
 METAL ROOFING  
 ROOFING FELT  
 ROOF DECK/INSULATION  
 ROOF CONSTRUCTION  
 PREFAB RIDGE PIECE

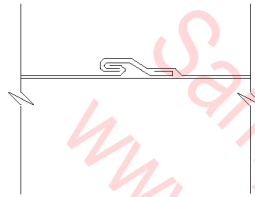
MTL. ROOFING, 1-1/2" W. X 2" H. BATTEN @ 24" O.C.  
 METAL ROOFING HIP COVER  
 PLYWOOD SHEATHING  
 TYPE "W" VALLEY CONT. FLASH. BY MTL.  
 ROOFING MFR.  
 CLOSURE BY MTL. ROOFING MFR.  
 PEAK LAP BY MTL. ROOFING MFR.  
 26 GA. GALV. MTL. ROOFING, CLIP & SEAM

## SHEET METAL ROOFING

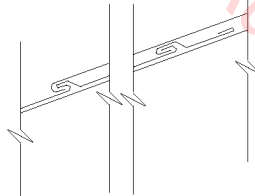
## SHEET METAL ROOFING



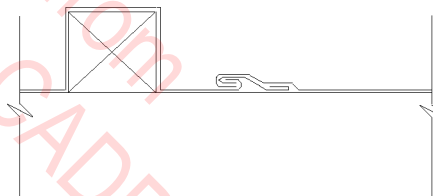
SHEET METAL ROOF  
Flat Seam @ Eave



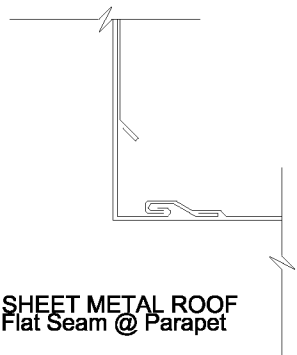
SHEET METAL ROOF  
Flat Seam



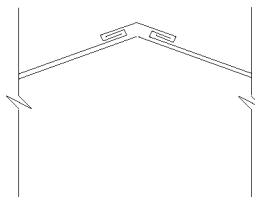
SHEET METAL ROOF  
Flat Seam



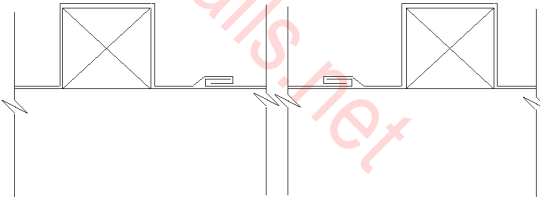
SHEET METAL ROOF  
Flat Seam & Batten



SHEET METAL ROOF  
Flat Seam @ Parapet



SHEET METAL ROOF  
Flat Seam @ Ridge



SHEET METAL ROOF Flat  
Seam & Batten

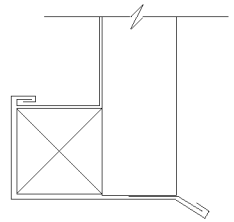
### NOTATION CHECKLIST, SAMPLE NOTES

FLAT SEAM  
BATTEN  
FLASHING  
STANDING SEAM  
SNAP CAP ANCHOR CLIP  
CLEAT  
METAL ROOFING  
ROOFING FELT  
ROOF DECK/INSULATION

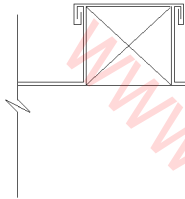
ROOF CONSTRUCTION  
PREFAB RIDGE PIECE  
METAL ROOFING HIP COVER  
PLYWOOD SHEATHING  
MTL. ROOFING, 1-1/2" W. X 2" H. BATTEN @ 24" O.C.  
TYPE "W" VALLEY CONT. FLASH. BY MTL.  
ROOFING MFR.  
CLOSURE BY MTL. ROOFING MFR.  
PEAK LAP BY MTL. ROOFING MFR.  
26 GA. GALV. MTL. ROOFING, CLIP & SEAM

## SHEET METAL ROOFING

## SHEET METAL ROOFING



SHEET METAL ROOF  
Batten @ Eave

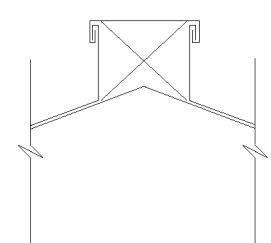


SHEET METAL ROOF  
Batten Seam

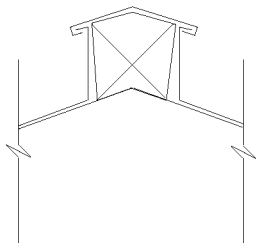
### NOTATION CHECKLIST, SAMPLE NOTES

FLAT SEAM  
BATTEN  
FLASHING  
STANDING SEAM  
SNAP CAP ANCHOR CLIP  
CLEAT  
METAL ROOFING  
ROOFING FELT  
ROOF DECK/INSULATION

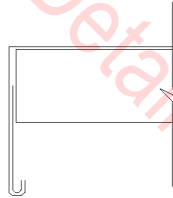
ROOF CONSTRUCTION  
PREFAB RIDGE PIECE  
METAL ROOFING HIP COVER  
PLYWOOD SHEATHING  
MTL. ROOFING, 1-1/2" W. X 2" H. BATTEN @ 24" O.C.  
TYPE "W" VALLEY CONT. FLASH. BY MTL.  
ROOFING MFR.  
CLOSURE BY MTL. ROOFING MFR.  
PEAK LAP BY MTL. ROOFING MFR.  
26 GA. GALV. MTL. ROOFING, CLIP & SEAM



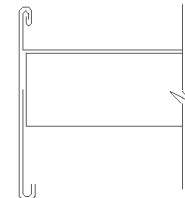
SHEET METAL ROOF  
Batten Seam @ Ridge



SHEET METAL ROOF  
Batten Seam @ Ridge

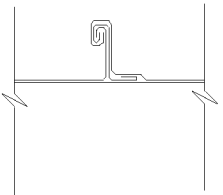


SHEET METAL ROOF  
Standing Seam @ Eave

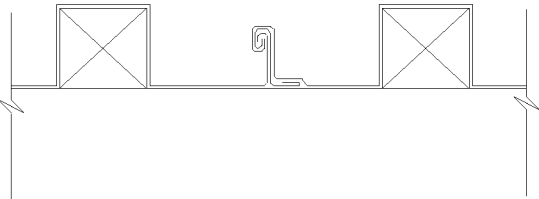


SHEET METAL ROOF  
Standing Seam @ Eave

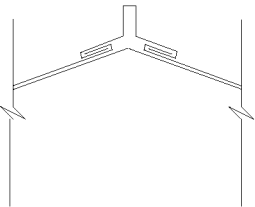
## SHEET METAL ROOFING



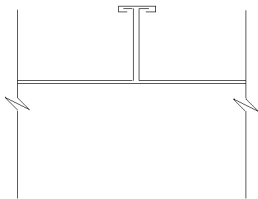
SHEET METAL ROOF Standing Seam



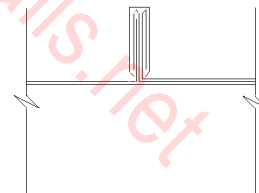
SHEET METAL ROOF Standing Seam @ Batten



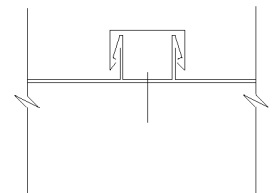
SHEET METAL ROOF Ridge Piece



SHEET METAL ROOF Prefab Standing Seam



SHEET METAL ROOF Prefab Standing Seam



SHEET METAL ROOF Prefab Batten

## SHEET METAL ROOFING

### NOTATION CHECKLIST, SAMPLE NOTES

FLAT SEAM  
BATTEN  
FLASHING  
STANDING SEAM  
SNAP CAP ANCHOR CLIP  
CLEAT  
METAL ROOFING  
ROOFING FELT  
ROOF DECK/INSULATION

ROOF CONSTRUCTION  
PREFAB RIDGE PIECE  
METAL ROOFING HIP COVER  
PLYWOOD SHEATHING  
MTL. ROOFING, 1-1/2" W. X 2" H. BATTEN @ 24" O.C.  
TYPE "W" VALLEY CONT. FLASH. BY MTL.  
ROOFING MFR.  
CLOSURE BY MTL. ROOFING MFR.  
PEAK LAP BY MTL. ROOFING MFR.  
26 GA. GALV. MTL. ROOFING, CLIP & SEAM

Samples from  
www.AutoCADDetails.net



## SHIPS LADDER

## SHIPS LADDER

### DETAIL DATA CHECKLIST

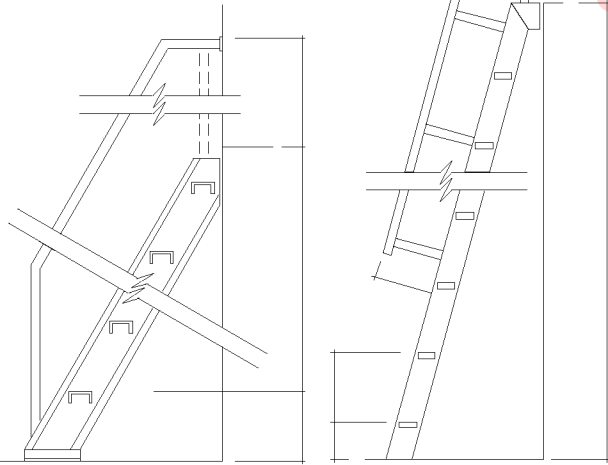
#### SHIPS LADDER

Metal ships ladders are typically used in tight spaces in mechanical rooms or industrial spaces. They're usually selected prefabricated from a stock catalog or fabricated to order at a specialist metal shop.

- 60 degree mounting angle is typical
- Width: 18" minimum, 24" preferred
- Treads of checkered plate or open grating steel to ensure non-slip surface and prevent accumulation of slippery substances such as water and grease
- Tread-to-tread height is 12" maximum, 10" preferred
- Stringers are from stock steel channels
- Anchor the stringers to floor and wall construction with minimum 3/4" diameter expansion bolts, pre-set bolts, or through-bolts
- 1" or larger diameter pipe rail at one or both sides

### NOTATION CHECKLIST

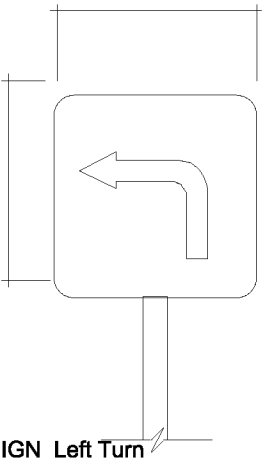
PIPE RAIL  
METAL TREADS  
STRINGER  
TREAD BRACKETS  
ANGLE  
WALL ANCHOR/FLOOR  
ANCHOR



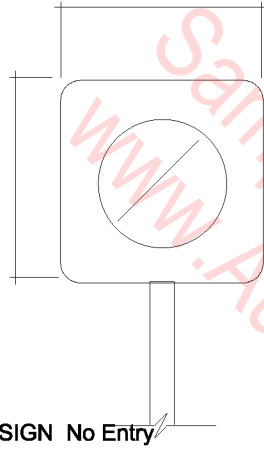
SHIPS LADDER

SHIPS LADDER

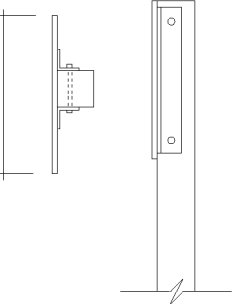
## SIGNS



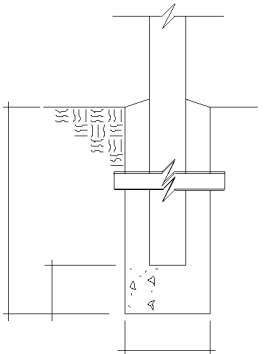
SIGN Left Turn



SIGN No Entry



SIGN POST & SIGN CONNECTION



SIGN POST FOOTING

## SIGNS

### DETAIL DATA CHECKLIST

#### SIGNS

- Street and directional signs are usually purchased ready-made or fabricated as variations on common sign types and styles.
- Local highway and street jurisdictions usually provide exact design standards and specifications, and to indicate anchoring to the ground or pavement.
- Detail drawings are included mainly to show desired sizes and types
- Besides data provided by governing agencies, see manufacturers' and suppliers' catalogs for additional design data, details, and specifications.
- See manufacturers' recommendations for anchoring.

### NOTATION CHECKLIST, SAMPLE NOTES

- SIGN (MATERIAL & FINISH)
- SIGN POST (MATERIAL, SIZE & SHAPE)
- BOLTS/ANCHOR
- FINISH GRADE/PAVING/SLAB/CURB
- SUBGRADE
- 1-3/4" X 3" BRONZE ANODIZED ALUM STANDARD
- 4 X 4 CEDAR POST
- 2" DIA GALVANIZED STEEL PIPE
- BLUE LETTERS, SYMBOLS, & BORDER ON WHITE BACKGROUND
- CONCRETE FOOTING
- FOOTING/PIPE SLEEVE
- BACKFILL/AGGREGATE/SAND

## SKYLIGHTS

## SKYLIGHTS

### DETAIL DATA CHECKLIST

#### SKYLIGHTS

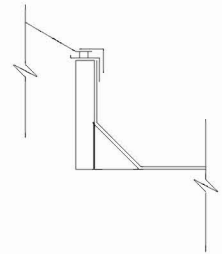
Skylights are usually installed as ready-made manufactured units so most detailing and installation will be as per manufacturers' recommendations. The catalogs provide numerous options of glazing types, fixed or operable, single or double glazing, etc. Skylight design is highly regulated, so consult all applicable building code standards.

- Extruded aluminum frame with integral base and acrylic dome is typical
- Square and rectangular units are typically sized at from 2' to 8' in each direction
- Curbs are required to block penetration of water, ice and snow at roof level
- Curbs may be integral or designed as part of roof construction
- Materials and sizes:**
- Double glazing helps mitigate condensation
- Exposed gaskets will fail due to solar and weather exposure
- Provide sloping gutters between adjacent skylights to drain condensation

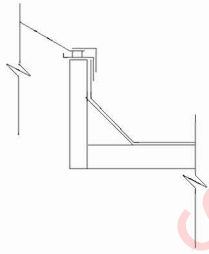
### NOTATION CHECKLIST, SAMPLE NOTES

FRAME  
 FRAME CONDENSATE GUTTER/WEEP HOLES  
 CURB  
 CANT/NAILER  
 SEALANT/CAULKING  
 ROOFING SURFACE  
 (TYPE, LAYERS & COVER MATERIAL)  
 ROOFING DECK/INSULATION  
 ROOF CONSTRUCTION  
 PLASTIC SKYLIGHT  
 45D SQUARE PYRAMID DOUBLE GLAZED  
 SKYLIGHT SYSTEM  
 COVER METAL FRAME TO AVOID CONDENSATION  
 ACRYLIC PLASTIC SKYLIGHT W/EXTRUDED ALUM.  
 CURB FRAME & CONDENSATE GUTTER

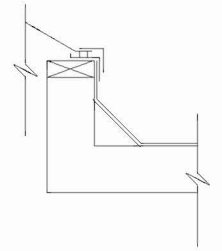
ALUM. FRAME BY SKYLIGHT MFR., INSTALL  
 AS PER MFR'S. INSTRUCTIONS  
 ALUM. INNER LINER  
 CONT. APRON FLASHING  
 MEMBRANE FLASHING  
 TOP LINE OF CURB  
 MULLION  
 WOOD CURB  
 ALUM. CURB  
 4 X 4 CANT  
 WOOD BLOCKING  
 STEEL ANGLE  
 PERIMETER OPENING CHANNEL  
 MEMBRANE ROOFING  
 BUILT-UP ROOF  
 RIGID INSULATION  
 ROOF JOISTS  
 CEILING



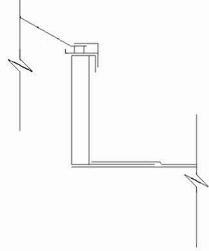
SKYLIGHT Pyramid--  
Wood or Prefab Curb



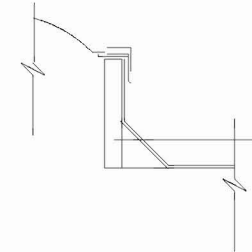
SKYLIGHT Pyramid--  
Insulated Deck



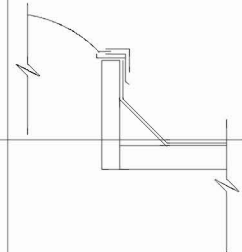
SKYLIGHT Pyramid--  
Concrete Curb



SKYLIGHT Pyramid--  
Integral Curb



SKYLIGHT Single Dome--  
Wood or Prefab Curb



SKYLIGHT Single Dome--  
Insulated Deck

## SKYLIGHTS

## SKYLIGHTS

### DETAIL DATA CHECKLIST

#### SKYLIGHTS

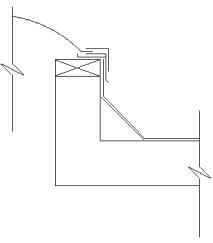
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  - Curbs may be integral or designed as part of roof construction
  - Provide sloping gutters between adjacent skylights to drain condensation
  - Double glazing helps mitigate condensation
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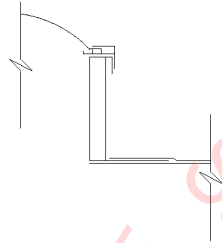
### NOTATION CHECKLIST, SAMPLE NOTES

FRAME  
 FRAME CONDENSATE GUTTER/WEEP HOLES  
 CURB  
 CANT/NAILER  
 SEALANT/CAULKING  
 ROOFING SURFACE  
 (TYPE, LAYERS & COVER MATERIAL)  
 ROOFING DECK/INSULATION  
 ROOF CONSTRUCTION  
 PLASTIC SKYLIGHT  
 45D SQUARE PYRAMID DOUBLE GLAZED  
 SKYLIGHT SYSTEM  
 COVER METAL FRAME TO AVOID  
 CONDENSATION  
 ACRYLIC PLASTIC SKYLIGHT W/EXTRUDED ALUM.  
 CURB FRAME & CONDENSATE GUTTER

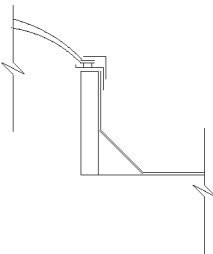
ALUM. FRAME BY SKYLIGHT MFR., INSTALL  
 AS PER MFR'S INSTRUCTIONS  
 ALUM. INNER LINER  
 CONT. APRON FLASHING  
 MEMBRANE FLASHING  
 TOP LINE OF CURB  
 MULLION  
 WOOD CURB  
 ALUM. CURB  
 4 X 4 CANT  
 WOOD BLOCKING  
 STEEL ANGLE  
 PERIMETER OPENING CHANNEL  
 MEMBRANE ROOFING  
 BUILT-UP ROOF  
 RIGID INSULATION  
 ROOF JOISTS  
 CEILING



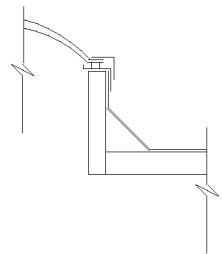
SKYLIGHT Sngl. Dome--  
Concrete Curb



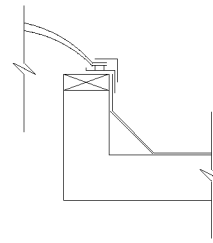
SKYLIGHT Sngl. Dome--  
Integral Curb



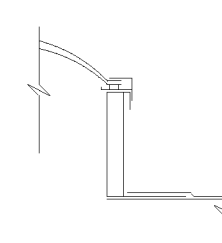
SKYLIGHT Dbl. Dome--  
Wood or Prefab Curb



SKYLIGHT Dbl. Dome--  
Insulated Deck

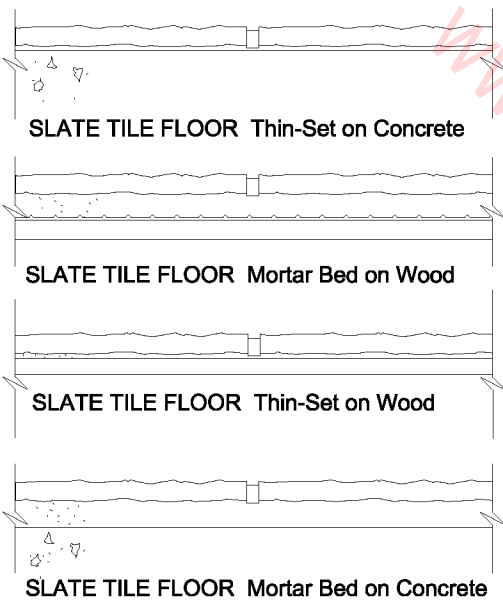


SKYLIGHT Double Dome--  
Concrete Curb



SKYLIGHT Double Dome--  
Integral Curb

## SLATE TILE FLOORS



## SLATE TILE FLOORS

### DETAIL DATA CHECKLIST

#### SLATE FLOORING

- Typical slate flagstone thickness is 7/8"
- Slate flagstone comes in three types:
  - Square, four edges sawn
  - Irregular, two edges sawn
  - Irregular, no edges sawn
- Slate floor tile thicknesses are typically 1/2" to 1-1/4"
- Thicker floors are for the heavier traffic areas
- Follow supplier's recommendations for thickness in different floor traffic conditions
- Typical slate floor tile sizes are 6", 10" and 12", widths are 6" to 9", thicker panels are up to 24" square
- Provide complete, compact bedding beneath stone tile slabs to avoid bending stresses and cracking
- Slate is brittle and subject to damage from impact or bending stress
- Provide a stable substrate; movement of substrate will cause cracks in stone at mortar joints

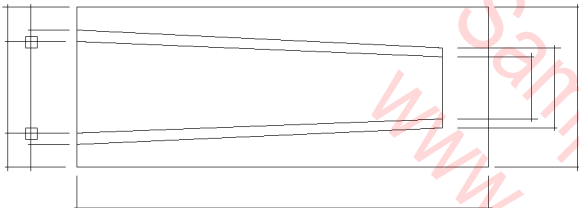
### NOTATION CHECKLIST, SAMPLE NOTES

FINISH FLOOR (MATERIAL & SIZE)  
 SETTING BED (MATERIAL & SIZE)  
 JOINT SIZE  
 FLOOR  
 MEMBRANE/WATERPROOFING  
 SUBFLOOR/SLAB  
 REINFORCING

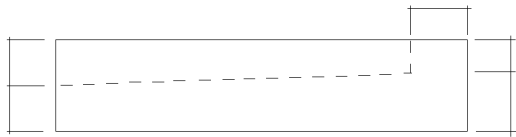
SLATE TILE  
 FINISH CONC.  
 BUILD UP CONC. FLOOR W/FLOORSTONE AS REQ'D.  
 PLYWOOD UNDERLAYMENT  
 PLYWOOD SUBFLOOR  
 PARTICLE BOARD UNDERLAYMENT  
 MASTIC  
 BOND COAT  
 ADHESIVE  
 SETTING BED  
 MORTAR BED W/REINFORCING  
 ANGLE EDGER  
 THRESHOLD  
 DIVIDER STRIP  
 REDUCER STRIP

## SPLASH BLOCKS

### FULL-SCALE GENERIC DETAILS

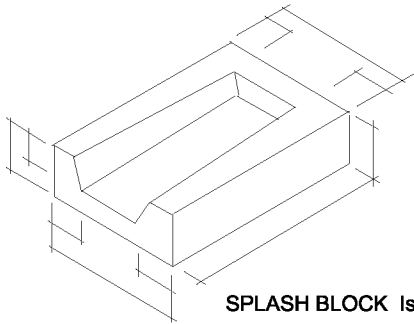


SPLASH BLOCK Top View



SPLASH BLOCK Side View

NOTATION CHECKLIST,  
SAMPLE NOTES  
PRECAST SPLASH BLOCK  
GRAVEL OR PAVEMENT DRAIN  
DOWNSPOUT



SPLASH BLOCK Isometric

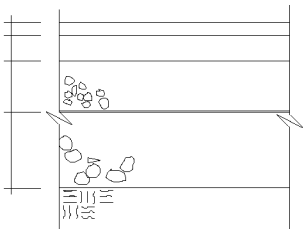
## SPLASH BLOCKS

### DETAIL DATA CHECKLIST

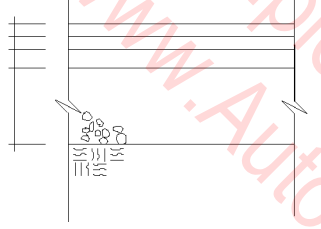
#### SPLASH BLOCKS

- Splash blocks are usually bought as prefabricated units from landscape supply houses and don't normally require true construction or fabrication detailing.
- Detail drawings are included mainly to show desired sizes and types of blocks and show their relationship to roof drain downspouts.

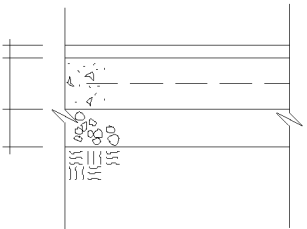
## SPORTS PAVING



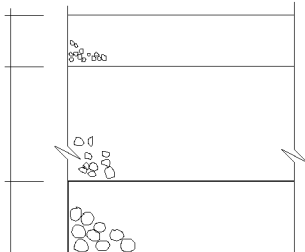
TENNIS COURT PAVING



SYNTHETIC TRACK PAVING



SYNTHETIC SPORTS PAVING



CINDER TRACK

## SPORTS PAVING

### DETAIL DATA CHECKLIST

#### SPORTS PAVING

- \_\_\_ Sports paving must be specified with considerable precision; details are mainly to show thicknesses and layering of materials.
- \_\_\_ Consult CSI master specifications and athletic facilities handbooks for design standards required for specific sports and specific site and weather conditions.
- \_\_\_ Also, see manufacturers' and suppliers' catalogs for design data, details, and specifications.

### NOTATION CHECKLIST, SAMPLE NOTES

TENNIS COURT:  
 COLOR COAT  
 LEVELING COURSE  
 BINDER  
 AGGREGATE  
 GRAVEL  
 COMPACTED SUBGRADE

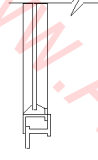
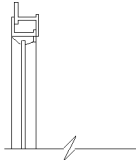
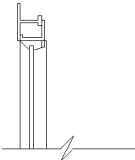
CINDER TRACK:  
 FINE CINDERS  
 MEDIUM CINDER COURSE  
 BASE COURSE

SYNTHETIC SPORTS PAVING:  
 RESILIENT SURFACE  
 CONCRETE SLAB  
 REINFORCING  
 AGGREGATE BASE  
 COMPACTED SUBGRADE

SYNTHETIC TRACK:  
 RESILIENT SURFACE  
 WEARING COURSE  
 LEVELING COURSE  
 BASE COURSE  
 COMPACTED SUBGRADE

## STEEL AWNING WINDOWS

Steel Awning Window -- Single Glazed

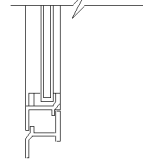
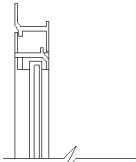
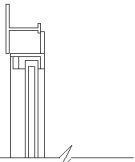


HEAD

JAMB

SILL

Steel Awning Window -- Double Glazed



HEAD

JAMB

SILL

## STEEL AWNING WINDOWS

### DETAIL DATA CHECKLIST

#### STEEL AWNING WINDOWS

Note: You can combine these generic window details with varied exterior wall construction details in this book to create many hundreds of possible special combinations.

- See manufacturers' and suppliers' catalogs for standard sizes, detail design data, materials, and finishes.
- Detail drawings are required mainly to show the relationship of windows to wall construction such as connections to wood frame, masonry, or concrete wall construction.
- Details or window schedules should show rough-opening sizes and shim tolerance allowances (1/2" all around is a common allowance for shim space).
- Details should show flashing and caulking at heads, jambs, and sills.
- See manufacturers' recommendations for connections to varied wall construction.
- See the Detail Data Checklist for Windows and Glazing at the beginning of this chapter for more information.

### NOTATION CHECKLIST, SAMPLE NOTES

WALL CONSTRUCTION  
SHIM SPACE  
DRIP CAP/WEATHERSTRIPPING/FLASHING  
CAULKING/GROUT  
FINISH HEAD/SILL/JAMB  
WINDOW TYPE, MATERIAL & FINISH  
HARDWARE/OPERATOR  
VENT/WEEP HOLE/WIND GUARD  
GLAZING: SINGLE/DOUBLE/REMOVABLE  
SCREEN/SCREEN FRAME  
CASING/TRIM/ADJACENT FINISH  
ROUGH OPENING/FINISH OPENING

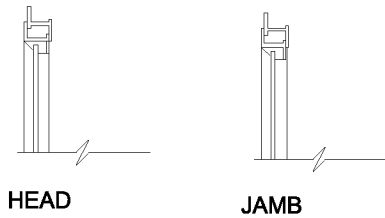
STEEL WINDOW SYSTEM  
METAL SILL BELOW  
THERMOPANE INSULATING GLASS  
SINGLE PANE GLASS  
HEAD, SEALANT BOTH SIDES  
SILL W/SEALANT EACH SIDE  
WOOD NAILER  
TREATED BLOCKING  
1 X WOOD TRIM  
METAL EDGE BEAD  
STUD  
FLASHING  
SEALANT



## STEEL CASEMENT WINDOWS

## STEEL CASEMENT WINDOWS

Steel Casement -- Single Glazed



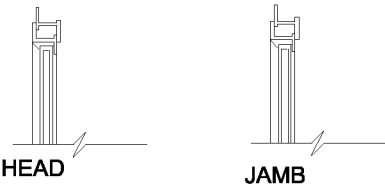
### DETAIL DATA CHECKLIST

#### STEEL CASEMENT WINDOWS

Note: You can combine these generic window details with varied exterior wall construction details in this book to create many hundreds of possible special combinations.

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- Details or window schedules should show rough-opening sizes and shim tolerance allowances (1/2" all around is a common allowance for shim space).
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Steel Casement -- Double Glazed



### NOTATION CHECKLIST, SAMPLE NOTES

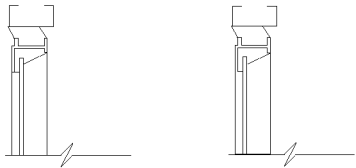
WALL CONSTRUCTION  
 SHIM SPACE  
 DRIP CAP/WEATHERSTRIPPING/FLASHING  
 CAULKING/GROUT  
 FINISH HEAD/SILL/JAMB  
 WINDOW TYPE, MATERIAL & FINISH  
 HARDWARE/OPERATOR  
 VENT/WEEP HOLE/WIND GUARD  
 GLAZING: SINGLE/DOUBLE/REMOVABLE  
 SCREEN/SCREEN FRAME  
 CASING/TRIM/ADJACENT FINISH  
 ROUGH OPENING/FINISH OPENING

STEEL WINDOW SYSTEM  
 METAL SILL BELOW  
 THERMOPANE INSULATING GLASS  
 SINGLE PANE GLASS  
 HEAD, SEALANT BOTH SIDES  
 SILL W/SEALANT EACH SIDE  
 WOOD NAILER  
 TREATED BLOCKING  
 1 X WOOD TRIM  
 METAL EDGE BEAD  
 STUD  
 FLASHING  
 SEALANT

## STEEL PIVOTED WINDOWS

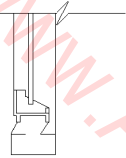
## STEEL PIVOTED WINDOWS

Steel Pivoted -- Single Glazed



HEAD

JAMB



SILL

### DETAIL DATA CHECKLIST

#### STEEL PIVOTED WINDOWS

Note: You can combine these generic window details with varied exterior wall construction details in this book to create many hundreds of possible special combinations.

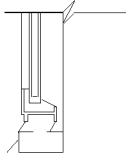
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- Details or window schedules should show rough-opening sizes and shim tolerance allowances (1/2" all around is a common allowance for shim space).
- Details should show flashing and caulking at heads, jambs, and sills.
- See manufacturers' recommendations for connections to varied wall construction.

Steel Pivoted -- Double Glazed



HEAD

JAMB



SILL

### NOTATION CHECKLIST, SAMPLE NOTES

WALL CONSTRUCTION  
SHIM SPACE  
DRIP CAP/WEATHERSTRIPPING/FLASHING  
CAULKING/GROUT  
FINISH HEAD/SILL/JAMB  
WINDOW TYPE, MATERIAL & FINISH  
HARDWARE/OPERATOR  
VENT/WEEP HOLE/WIND GUARD  
GLAZING: SINGLE/DOUBLE/REMOVABLE  
SCREEN/SCREEN FRAME  
CASING/TRIM/ADJACENT FINISH  
ROUGH OPENING/FINISH OPENING

STEEL WINDOW SYSTEM  
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THERMOPANE INSULATING GLASS  
SINGLE PANE GLASS  
HEAD, SEALANT BOTH SIDES  
SILL W/SEALANT EACH SIDE  
WOOD NAILER  
TREATED BLOCKING  
1 X WOOD TRIM  
METAL EDGE BEAD  
STUD  
FLASHING  
SEALANT

## STONE CURBS, PAVING EDGES

## STONE CURBS, PAVING EDGES

### DETAIL DATA CHECKLIST

#### STONE CURBS & GUTTER CURBS

- Stone curb sections come in precut lengths, such as 12' long, straight and curved
- Set stones without mortar in tamped gravel
- Granite is often used in extreme climate areas
- Use expansion joint material such as mastic board at each joint
- Provide backup support such as poured concrete as backing at each joint to help prevent overturning
- Compact the subgrade
- Provide ample subgrade drainage

### NOTATION CHECKLIST,

#### SAMPLE NOTES

CURB FINISH (TYPE & MATERIAL)

FINISH GRADE/PAVEMENT

CURB SLOPE/RADII/CAMFER

PAVEMENT SLOPE

AGGREGATE BASE

COMPACTED SUBGRADE

CONTROL/EXPANSION JOINTS

(TYPE & SPACING)

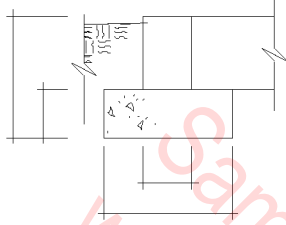
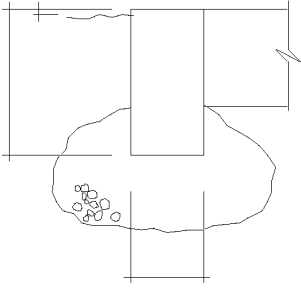
SEE SITE PLAN FOR MATERIAL &

FINISH GRADE @ PAVING

SLOPE GRANITE CURBING 45D

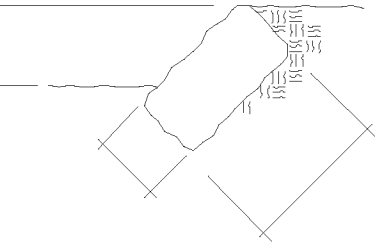
VERTICAL GRANITE CURBING

COMPACTED BANK RUN GRAVEL BASE

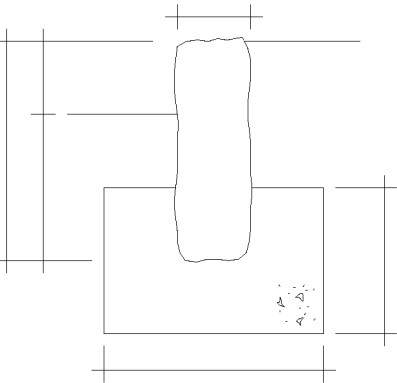


STONE CURB

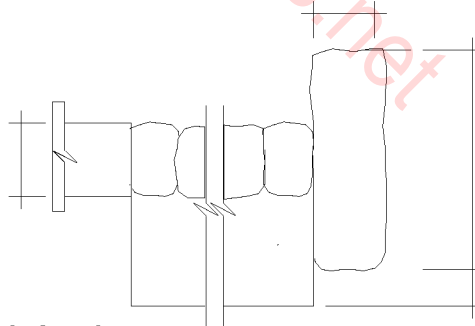
STONE CURB



STONE CURB

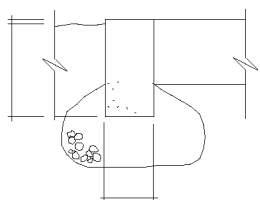


STONE CURB

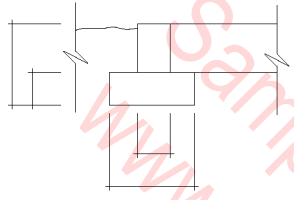


STONE CURB

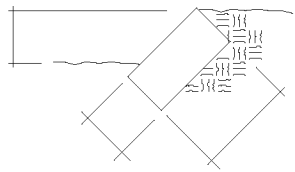
## STONE CURBS, PAVING EDGES



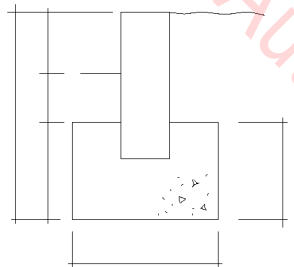
STONE CURB



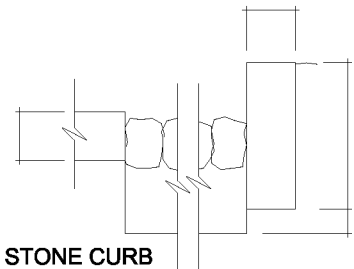
STONE CURB



STONE CURB



STONE CURB



STONE CURB

## STONE CURBS, PAVING EDGES

### DETAIL DATA CHECKLIST

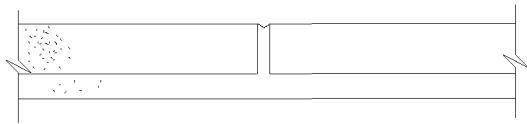
#### STONE CURB & GUTTER CURBS

- Stone curb sections come in precut lengths, such as 12' long, straight and curved
- Set stones without mortar in tamped gravel
- Granite is often used in extreme climate areas
- Use expansion joint material such as mastic board at each joint
- Provide backup support such as poured concrete as backing at each joint to help prevent overturning
- Compact the subgrade
- Provide ample subgrade drainage

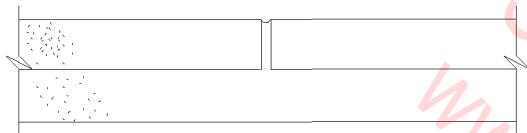
### NOTATION CHECKLIST, SAMPLE NOTES

- CURB FINISH (TYPE & MATERIAL)
- FINISH GRADE/PAVEMENT
- CURB SLOPE/RADI/CAMFER
- PAVEMENT SLOPE
- AGGREGATE BASE
- COMPACTED SUBGRADE
- CONTROL EXPANSION JOINTS (TYPE & SPACING)
- SEE SITE PLAN FOR MATERIAL & FINISH GRADE @ PAVING
- SLOPE GRANITE CURBING 45D
- VERTICAL GRANITE CURBING
- COMPACTED BANK RUN GRAVEL BASE

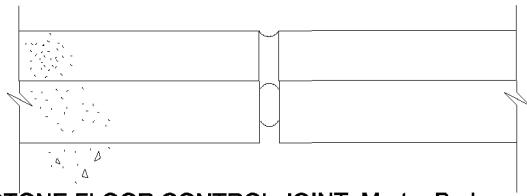
## STONE FLOORS



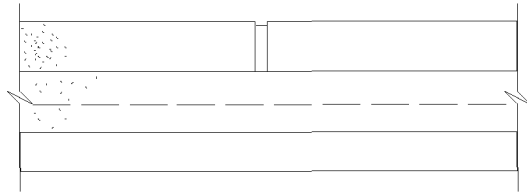
STONE FLOOR Thin-Set



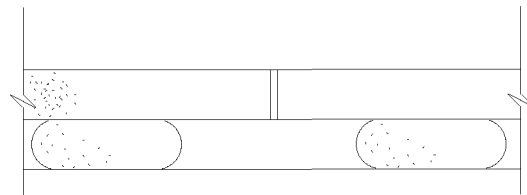
STONE FLOOR Mortar Bed



STONE FLOOR CONTROL JOINT Mortar Bed



STONE FLOOR Mortar Bed On Wood



STONE FLOOR W/OPEN JOINTS Mortar Pads

## STONE FLOORS

### DETAIL DATA CHECKLIST

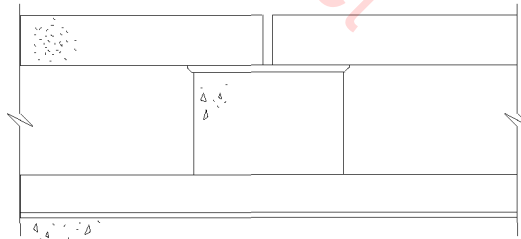
#### STONE FLOORS

- Thick stone flooring is mainly used for exterior paving and finished roof decks
- Granite paver thicknesses are typically 2" to 3", typical sizes are 4" x 4", 4" x 8", 5" x 8", 8" x 8", and 12" x 12"
- See stone suppliers' catalogs for variations in thicknesses and stone sizes, bedding support, and application
- Follow suppliers' details, specifications, and application instructions carefully
- Open-joint paving is used to allow drainage of rain water to the slab or roofing beneath the finish stone surface

### NOTATION CHECKLIST, SAMPLE NOTES

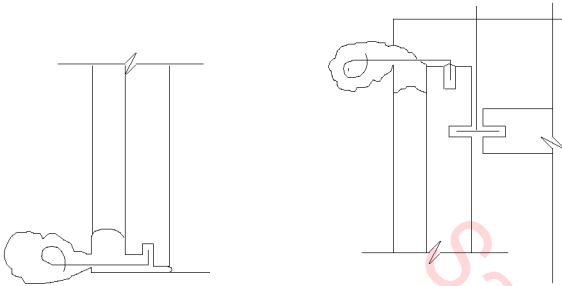
FINISH FLOOR (MATERIAL & SIZE)  
 JOINT SIZE  
 BOND COAT/MORTAR BED  
 FLOOR  
 MEMBRANE/WATERPROOFING  
 SUBFLOOR/SLAB  
 REINFORCING  
 SEALANT/FILLER STRIP  
 STONE  
 MARBLE TILE  
 GRANITE FLOORING  
 FINISH CONC.  
 BUILD UP CONC. FLOOR  
 W/FLOORSTONE AS REQ'D.

PLYWOOD UNDERLAYMENT  
 PLYWOOD SUBFLOOR  
 PARTICLE BOARD UNDERLAYMENT  
 MASTIC  
 BOND COAT  
 ADHESIVE  
 SETTING BED  
 MORTAR BED W/REINFORCING  
 ANGLE EDGER  
 THRESHOLD  
 DIVIDER STRIP  
 REDUCER STRIP

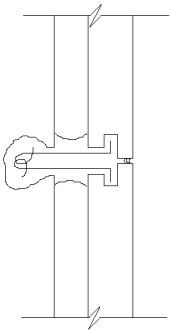


STONE FLOOR W/OPEN JOINTS Pedestal

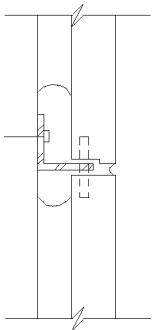
## STONE VENEER



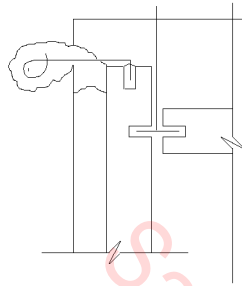
**STONE VENEER @ BASE**  
Wire Anchor



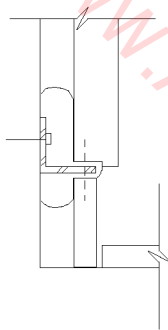
**STONE VENEER @ VERT. JOINT**  
Wire Anchor



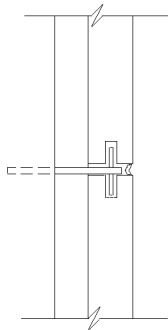
**STONE VENEER @ HORIZ. JOINT**  
Steel Angle



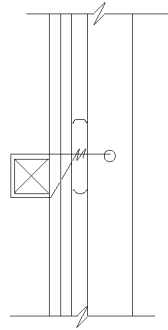
**STONE VENEER @ CEILING**  
Wire Anchor



**STONE VENEER @ BASE**  
Steel Angle



**STONE VENEER**  
Dovetail Joint



**STONE VENEER**  
Wire Tie to Wood Stud

## STONE VENEER

### DETAIL DATA CHECKLIST

#### STONE MASONRY VENEER

- Facing panels or unit stone, typical sizes
  - Limestone -- 7/8", 2-1/4", 3", thick; 5' x 14' typical maximum panel
  - Marble -- 1/2" to 2" thick; 6' x 7' typical maximum panel
  - Granite -- 1-1/4" and thicker; 4' x 10' typical maximum panel
  - Slate -- 1", 1-1/2" thick; 4' x 8' typical maximum panel
- Water resistance
  - Limestone -- Low water resistance (middle grade absorption by weight max. = 7.5)
  - Marble -- High water resistance (absorption by weight max. = .75)
  - Granite -- Very high water resistance (absorption by weight max. = .04)
  - Slate -- High water resistance (absorption by weight max. = .25 exterior)
- Contact suppliers and trade associations for data and consultation on anchoring systems

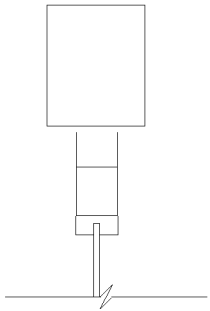
### NOTATION CHECKLIST,

#### SAMPLE NOTES

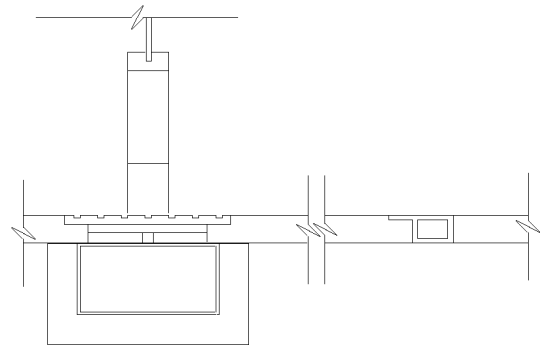
STONE (TYPE & THICKNESS)  
ANCHOR/TIE (TYPE, MATERIAL & SIZE)  
MORTAR BED  
ADJACENT WALL MATERIAL  
WALL CONSTRUCTION/FRAMING  
04450 STONE VENEER

TIE WIRE, CEMENTED INTO HOLES  
PIN ANCHOR  
DOVETAIL INSERT  
DOVETAIL ANCHOR  
THREADED INSERT & EYE BOLT & STRIP LINER  
LOOP TIE THRY DRILLED HOLE  
STRIP LINER WITH DOWELS  
STRIP HANGER  
THREADED ROSETTE  
RELIEF ANGLE & ANCHOR  
WELD TO CLIP

## STOREFRONT AUTOMATIC DOORS



HEAD @ AUTOMATIC DOOR CLOSER



SILL Double Acting

## STOREFRONT AUTOMATIC DOORS

### DETAIL DATA CHECKLIST

#### AUTOMATIC DOORS

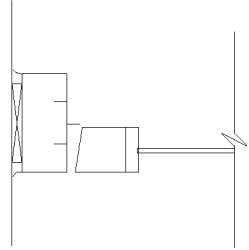
- See manufacturer's catalogs for standard sizes, finishes, and materials.
- Detail drawings are included mainly to show special anchoring conditions—screws, anchor bolts, etc., in wood frame, metal frame, masonry, or concrete construction.
- See manufacturers' and suppliers' catalogs for detail design data and specifications.
- See manufacturer's recommendations for special anchor requirements for different kinds of construction.

#### NOTATION CHECKLIST

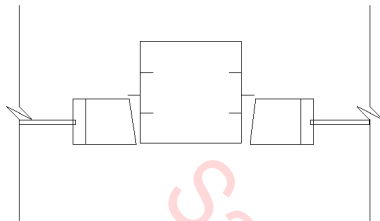
- DOOR GLAZING
- DOOR FRAME
- THRESHOLD
- RECESSED MAT
- AUTOMATIC DOOR OPERATOR
- CONCRETE SLAB RECESS

## STOREFRONT DOORS

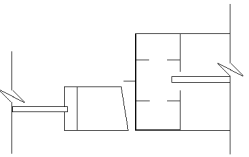
## STOREFRONT DOORS



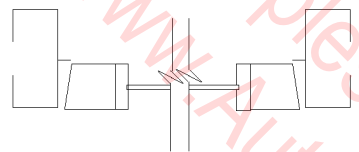
**JAMB @ WALL**  
Single Acting



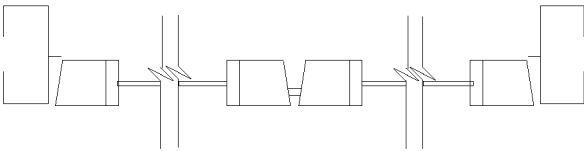
**MULLION JAMB**  
Single Acting



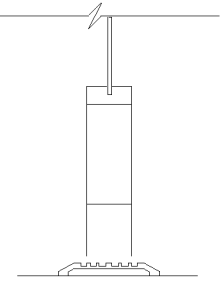
**JAMB @ SIDE LIGHT**  
Single Acting



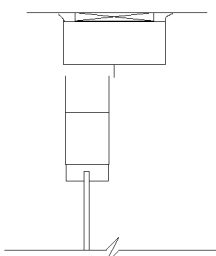
**MULLION JAMBS**  
Single Acting



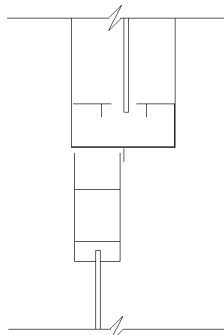
**MULLION JAMBS**  
Paired Single Acting



**SILL**  
Single Acting



**HEAD**  
Single Acting



**HEAD @ TRANSOM**  
Single Acting

### NOTATION CHECKLIST, SAMPLE NOTES

SINGLE GLAZED DOOR  
THRESHOLD SET IN FULL BED OF  
CAULKING  
DOOR SWEEP  
WEATHERSTRIPPING @ HEAD & JAMB  
JAMB STIFFENERS, FULL HT. OF JAMB  
FLOOR MATERIAL  
HOLLOW METAL FRAME  
BASE ANCHOR  
STOPS  
SINGLE GLAZING  
THERMOPANE INSULATING GLASS  
FRAMING  
HEADER

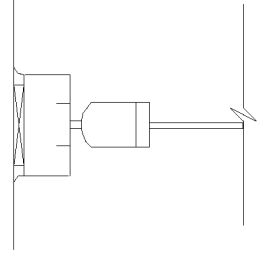
WALL CONSTRUCTION  
ANCHORS  
ADJACENT FINISHES  
SHIM SPACE  
CAULKING  
FRAME TYPE, MATERIAL & SIZE  
DOOR FRAME  
BEAD  
GLAZING: SINGLE/DOUBLE  
GASKET  
BRACING

www.AutocADDetails.net

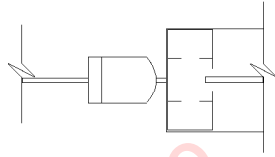


## STOREFRONT DOORS

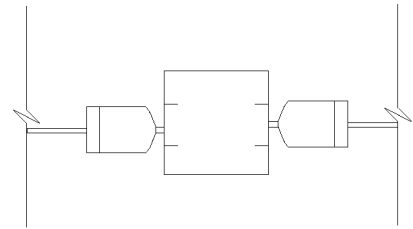
## STOREFRONT DOORS



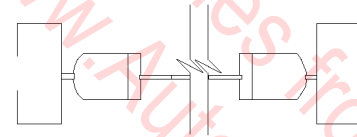
**JAMB @ WALL**  
Double Acting



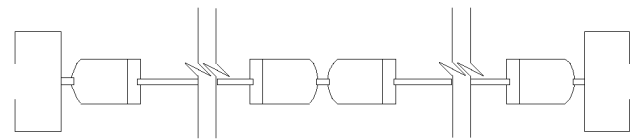
**JAMB @ SIDE LIGHT**  
Double Acting



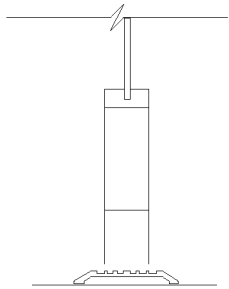
**MULLION JAMB**  
Double Acting



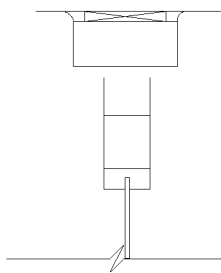
**MULLION JAMBS**  
Double Acting



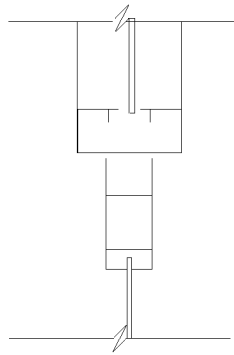
**MULLION JAMBS**  
Paired Double Acting



**SILL**  
Double Acting



**HEAD**  
Double Acting



**HEAD @ TRANSOM**  
Double Acting

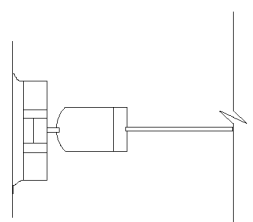
### NOTATION CHECKLIST, SAMPLE NOTES

WALL CONSTRUCTION  
ANCHORS  
ADJACENT FINISHES  
SHIM SPACE  
CAULKING  
FRAME TYPE, MATERIAL & SIZE  
DOOR FRAME  
BEAD  
GLAZING: SINGLE/DOUBLE  
GASKET  
BRACING

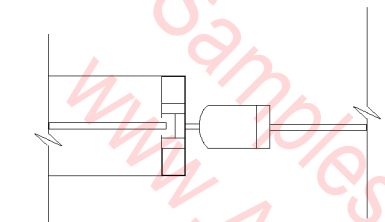
SINGLE GLAZED DOOR  
THRESHOLD SET IN FULL BED OF CAULKING  
DOOR SWEEP  
WEATHERSTRIPPING @ HEAD & JAMB  
JAMB STIFFENERS, FULL HT. OF JAMB  
FLOOR MATERIAL  
HOLLOW METAL FRAME  
BASE ANCHOR  
STOPS  
SINGLE GLAZING  
THERMOPANE INSULATING GLASS  
FRAMING  
HEADER

www.AutocADDetails.net

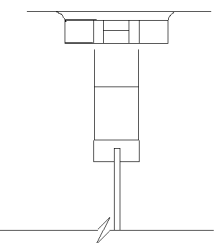
**STOREFRONT DOORS**



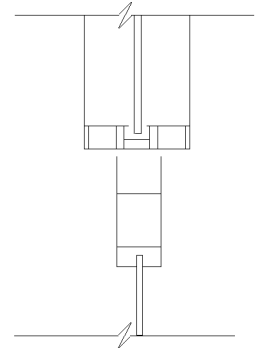
**JAMB @ WALL  
(Narrow) Double Acting**



**JAMB @ WALL  
(Narrow) Double Acting**



**HEAD  
(Narrow) Double Acting**



**HEAD @ TRANSOM  
(Narrow) Double Acting**

**STOREFRONT DOORS**

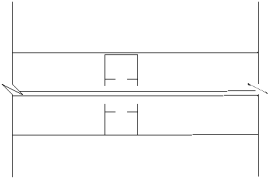
**NOTATION CHECKLIST,  
SAMPLE NOTES**

- WALL CONSTRUCTION
- ANCHORS
- ADJACENT FINISHES
- SHIM SPACE
- CAULKING
- FRAME TYPE, MATERIAL & SIZE
- DOOR FRAME
- BEAD
- GLAZING: SINGLE/DOUBLE
- GASKET
- BRACING

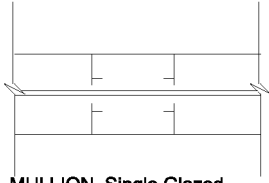
- SINGLE GLAZED DOOR
- THRESHOLD SET IN FULL BED OF CAULKING
- DOOR SWEEP
- WEATHERSTRIPPING @ HEAD & JAMB
- JAMB STIFFENERS, FULL HT. OF JAMB
- FLOOR MATERIAL
- HOLLOW METAL FRAME
- BASE ANCHOR
- STOPS
- SINGLE GLAZING
- THERMOPANE INSULATING GLASS
- FRAMING
- HEADER

Samples from  
www.AutocADDetails.net

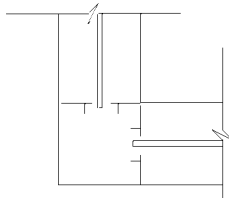
**STOREFRONT WINDOWS**



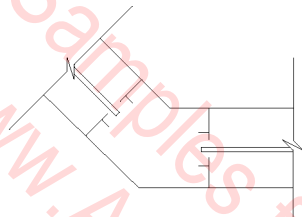
**VERTICAL GLAZING BAR**  
Single Glazed



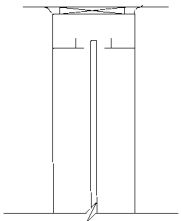
**MULLION** Single Glazed



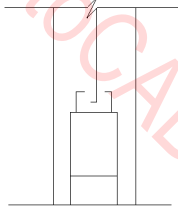
**CORNER MULLION** Single Glazed



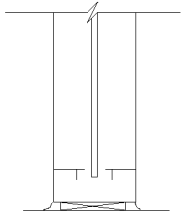
**ANGLE CORNER MULLION** Single Glazed



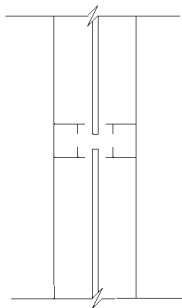
**MULLION @ WALL**  
**MULLION HEAD**  
Single Glazed



**BASE @ SIDE LIGHT**  
Single Glazed



**MULLION BASE**  
Single Glazed



**HORIZONTAL GLAZING BAR**  
Single Glazed

**STOREFRONT WINDOWS**

**NOTATION CHECKLIST:**

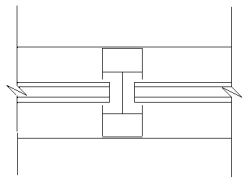
- FRAME TYPE, MATERIAL & SIZE
- GLAZING: SINGLE/DOUBLE
- GASKET
- BEAD
- SHIM SPACE
- CAULKING
- WALL CONSTRUCTION
- ANCHORS
- ADJACENT FINISHES

**SAMPLE NOTATION:**

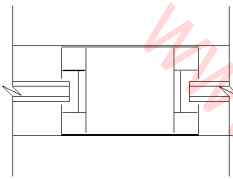
- FLOOR MATERIAL
- HOLLOW METAL FRAME
- BASE ANCHOR
- STOPS
- SINGLE GLAZING
- THERMOPANE INSULATING GLASS
- FRAMING
- HEADER

Samples from  
[www.AutocADDetails.net](http://www.AutocADDetails.net)

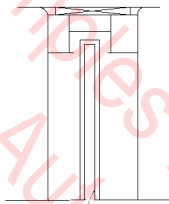
### STOREFRONT WINDOWS



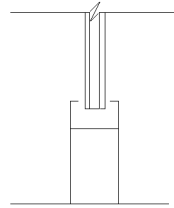
**VERTICAL GLAZING BAR**  
Double Glazed



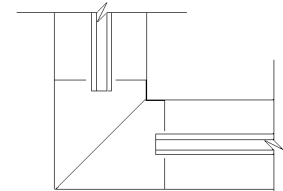
**MULLION**  
Double Glazed



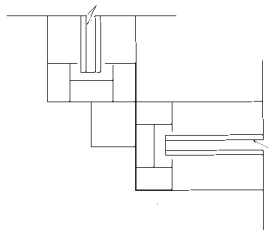
**MULLION @ WALL**  
**MULLION HEAD**  
Double Glazed



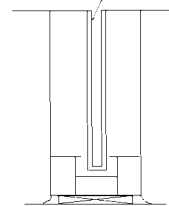
**BASE @ SIDE LIGHT**  
Double Glazed



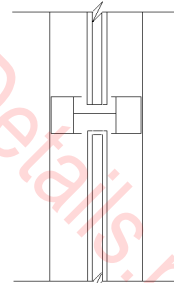
**CORNER MULLION**  
Double Glazed



**CORNER MULLION**  
Double Glazed



**MULLION BASE**  
Double Glazed



**HORIZONTAL GLAZING BAR**  
Double Glazed

### STOREFRONT WINDOWS

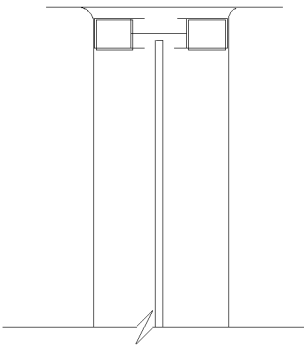
#### NOTATION CHECKLIST, SAMPLE NOTES

FRAME TYPE, MATERIAL & SIZE  
GLAZING: SINGLE/DOUBLE  
GASKET  
BEAD  
SHIM SPACE  
CAULKING  
WALL CONSTRUCTION  
ANCHORS  
ADJACENT FINISHES

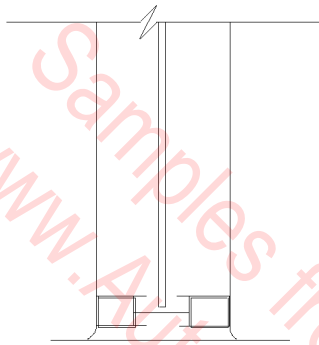
FLOOR MATERIAL  
HOLLOW METAL FRAME  
BASE ANCHOR  
STOPS  
SINGLE GLAZING  
THERMOPANE INSULATING  
GLASS  
FRAMING  
HEADER

# STOREFRONT WINDOWS

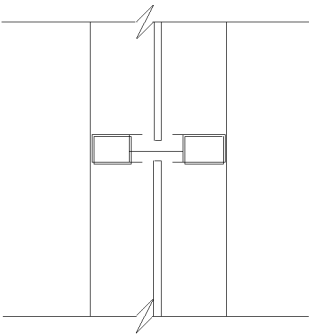
# STOREFRONT WINDOWS



**MULLION @ WALL**  
**MULLION HEAD**  
Single Glazed



**MULLION BASE**  
Single Glazed

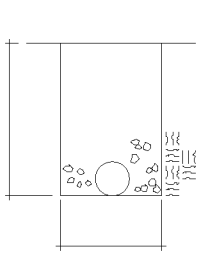


**HORIZONTAL GLAZING BAR**  
Single Glazed

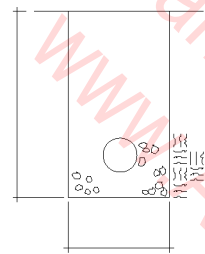
## NOTATION CHECKLIST, SAMPLE NOTES

- FRAME TYPE, MATERIAL & SIZE
- GLAZING: SINGLE/DOUBLE
- GASKET
- BEAD
- SHIM SPACE
- CAULKING
- WALL CONSTRUCTION
- ANCHORS
- ADJACENT FINISHES
- FLOOR MATERIAL
- HOLLOW METAL FRAME
- BASE ANCHOR
- STOPS
- SINGLE GLAZING
- THERMOPANE INSULATING
- GLASS
- FRAMING
- HEADER

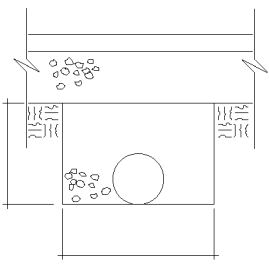
# SUBDRAINS & UNDERDRAINS



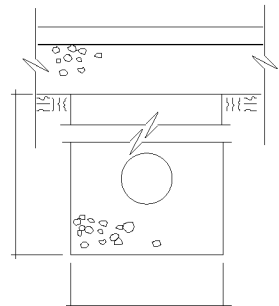
SUBDRAIN



SUBDRAIN



PAVEMENT UNDERDRAIN



PAVEMENT UNDERDRAIN

# SUBDRAINS & UNDERDRAINS

## DETAIL DATA CHECKLIST

### DRAINAGE

- Types of pipe for subsurface drains are:
  - Corrugated metal
  - Flexible plastic
  - Concrete
  - Clay tile
  - Asbestos cement
  - Rigid plastic
  - Porous and unperforated
- Install perforated drain with holes facing down
- Drainpipe should be sloped to a sump or outfall
- Grade filter material above and around drainpipe
- Depth and spacing of subdrains depends on soil type (see civil engineering handbook tables)
- Trench drains should slope to a drainpipe

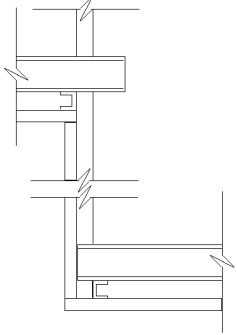
### DRAIN INLET COVERS

- Usually precast concrete or cast iron (also ductile iron)
- Frames and grates available for light and heavy loading conditions
- Shapes available:
  - Round
  - Rectangular
  - Square
  - Linear

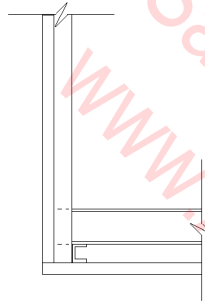
## NOTATION CHECKLIST, SAMPLE NOTES

- PAVING BASE
- FINISH GRADE/PAVING
- AGGREGATE
- BACKFILL
- COMPACTED SUBGRADE
- DRAINPIPE/DRAIN TILE

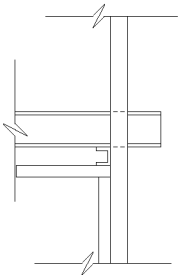
## SUSPENDED CEILINGS



SUSPENDED CEILING @  
SOFFIT



SUSPENDED CEILING @  
SOFFIT



SUSPENDED CEILING @  
FURRED WALL

## SUSPENDED CEILINGS

### DETAIL DATA CHECKLIST

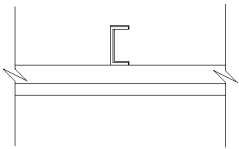
#### SUSPENDED CEILINGS

- There are many varied suspended ceiling systems and products; see manufacturers' catalogs for recommendations for specifications, detailing, and application.
- A typical gypsum board support system:
  - Hanger wires are typically spaced 48" o.c. and within 6" of the end of carrying channel
  - Hanger wires support 1-1/2" carrying channels set at 48" o.c. and within 6" of walls
  - 7/8" metal furring channels are supported at right angles to the carrying channels
- Integrated lighting and acoustical tile systems come complete with all hardware and accessories.
- Use manufacturers' shop drawings as guides for any special customized detailing of a selected product.
- See manufacturers' recommendations regarding attachment of hanger wire to various types of overhead construction.

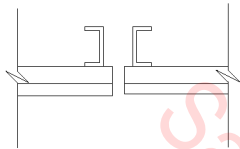
### NOTATION CHECKLIST, SAMPLE NOTES

- HANGER WIRE
- 1-1/2" CARRYING CHANNEL
- MAIN RUNNER
- CROSS TEE
- CEILING TILE
- 3/4" FURRING CHANNEL
- GYPSUM WALLBOARD
- LATH & PLASTER
- SPECIAL FINISHES
- CORNER BEAD
- TRACKS/ANCHORS/FIXTURES
- HANGER WIRES, 3 TURNS AROUND ITSELF
- MAIN BEAM, SUPPORT W/HANGER WIRE
- ACOUSTICAL TILE CLG.
- CAULK GYPSUM BOARD AROUND CLG.
- PENETRATIONS
- 'S' SCREW
- METAL WALL ANGLE
- SECURE METAL WALL TRIM TO CLG.
- SUSPENSION SYSTEM (not wall)
- LINE @ WALL
- BATT INSULATION
- PROVIDE FIRE DAMPERS WHERE DUCTS PENETRATE ENVELOPE
- LIGHT FIXTURES

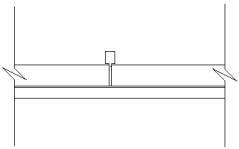
## SUSPENDED CEILINGS



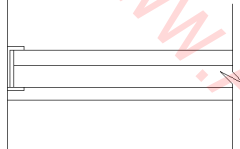
SUSPENDED CEILING  
@ CARRYING CHANNEL



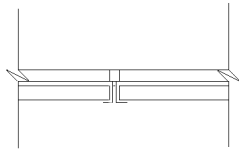
SUSPENDED CEILING  
@ EXPANSION JOINT



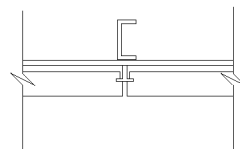
SUSPENDED GYPSUM  
WALLBOARD CEILING



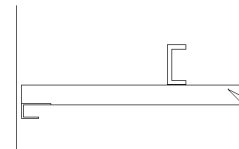
SUSPENDED GYPSUM  
WALLBOARD CEILING @ WALL



EXPOSED GRID FOR  
CEILING TILE



CONCEALED GRID FOR  
CEILING TILE



SUSPENDED PLASTER CEILING  
@ WALL

## SUSPENDED CEILINGS

### DETAIL DATA CHECKLIST

#### SUSPENDED CEILINGS

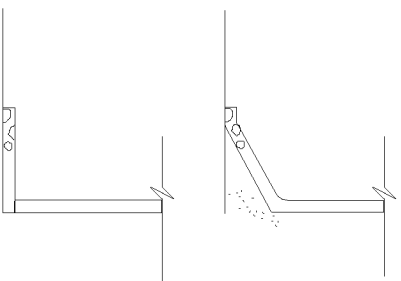
- There are many varied suspended ceiling systems and products; see manufacturers' catalogs for recommendations for specifications, detailing, and application.
- A typical gypsum board support system:
  - Hanger wires are typically spaced 48" o.c. and within 6" of the end of carrying channel
  - Hanger wires support 1-1/2" carrying channels set at 48" o.c. and within 6" of walls
  - 7/8" metal furring channels are supported at right angles to the carrying channels
  - Integrated lighting and acoustical tile systems come complete with all hardware and accessories.
  - Use manufacturers' shop drawings as guides for any special customized detailing of a selected product.
  - See manufacturers' recommendations regarding attachment of hanger wire to various types of overhead construction.

### NOTATION CHECKLIST, SAMPLE NOTES

- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>HANGER WIRE</li> <li>1-1/2" CARRYING CHANNEL</li> <li>MAIN RUNNER</li> <li>CROSS TEE</li> <li>CEILING TILE</li> <li>3/4" FURRING CHANNEL</li> <li>GYPSUM WALLBOARD</li> <li>LATH &amp; PLASTER</li> <li>SPECIAL FINISHES</li> <li>CORNER BEAD</li> <li>TRACKS/ANCHORS/FIXTURES</li> <li>HANGER WIRES, 3 TURNS AROUND ITSELF</li> <li>MAIN BEAM, SUPPORT W/HANGER WIRE</li> </ul> | <ul style="list-style-type: none"> <li>ACOUSTICAL TILE CLG.</li> <li>CAULK GYPSUM BOARD AROUND CLG.</li> <li>PENETRATIONS</li> <li>'S' SCREW</li> <li>METAL WALL ANGLE</li> <li>SECURE METAL WALL TRIM TO CLG.</li> <li>SUSPENSION SYSTEM (not wall)</li> <li>LINE @ WALL</li> <li>BATT INSULATION</li> <li>PROVIDE FIRE DAMPERS WHERE DUCTS</li> <li>PENETRATE ENVELOPE</li> <li>LIGHT FIXTURES</li> </ul> |
|---|---|

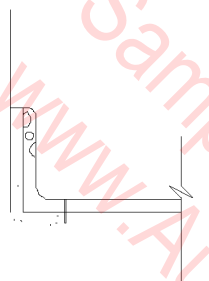


## TERRAZZO BASES & FLOORS

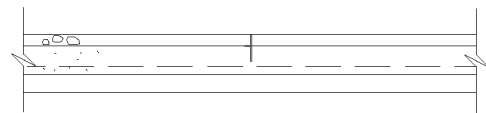


TERRAZZO  
BASE Straight

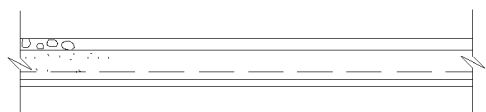
TERRAZZO BASE  
Splayed



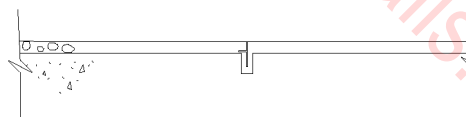
TERRAZZO BASE  
Coved



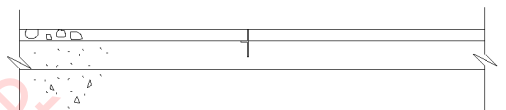
TERRAZZO FLOOR Setting Bed  
On Wood



TERRAZZO FLOOR  
Sand Cushion



TERRAZZO FLOOR On  
Concrete



TERRAZZO FLOOR Setting  
Bed On Concrete

## TERRAZZO BASES & FLOORS

### DETAIL DATA CHECKLIST

#### TERRAZZO

- Follow manufacturers' instructions with extreme care in detailing, specifications, and construction
- Cracking is extremely common in terrazzo, strictly follow all manufacturers instructions regarding divider and expansion strips
- Terrazzo is extremely slippery and dangerous when wet; never use it where it might be exposed to moisture and foot traffic at the same time
- Substrate for terrazzo has to be completely stable; solid concrete slabs preferred
- Typical terrazzo thickness is 1/2" over 2" underbed over concrete slab
- Thin-set terrazzo topping thickness is 1/4"
- Sand cushion terrazzo is 1/2" topping over 2" underbed over 1/4" sand cushion over slab

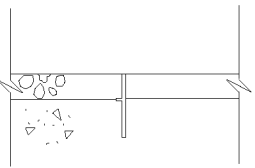
### NOTATION CHECKLIST, SAMPLE NOTES

FINISH FLOOR (MATERIAL & SIZE)  
SETTING BED (MATERIAL & SIZE)  
JOINT SIZE/TYPE  
FLOOR  
MEMBRANE/WATERPROOFING  
SUBFLOOR/SLAB  
REINFORCING  
BASE (MATERIAL & SIZE)  
BASE HEIGHT & THICKNESS  
ADJACENT WALL MATERIAL  
WALL MEMBRANE/WATERPROOFING

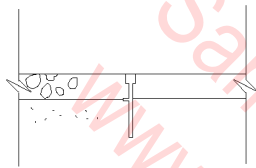
TERRAZZO BED  
FINISH CONC.  
MASTIC  
BOND COAT  
ADHESIVE  
SETTING BED  
MORTAR BED W/REINFORCING  
ANGLE EDGER  
THRESHOLD  
DIVIDER STRIP  
REDUCER STRIP

## TERRAZZO FLOORS

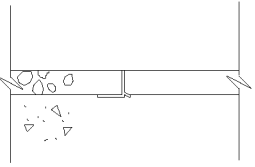
## TERRAZZO FLOORS



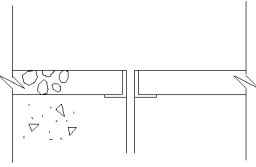
Thin Top Divider Strip



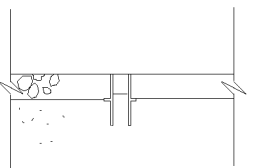
Heavy Top Divider Strip



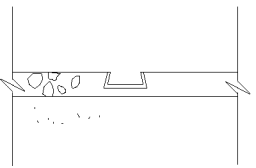
"L" Divider Strip



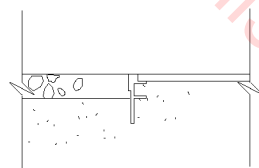
Double Angle Divider Strip



Expansion Strip



Abrasive Channel Strip



"L" Divider Strip

### DETAIL DATA CHECKLIST

#### TERRAZZO

- Follow suppliers' instructions with extreme care in detailing, specifications, and construction
- Cracking is extremely common in terrazzo, strictly follow all manufacturer's instructions regarding divider and expansion strips
- Substrate for terrazzo has to be completely stable; solid concrete slabs preferred
- Terrazzo is extremely slippery and dangerous when wet; never use it where it might be exposed to moisture and foot traffic at the same time
- Thin-set terrazzo topping thickness is 1/4"
- Typical terrazzo thickness is 1/2" over 2" underbed over concrete slab
- Sand cushion terrazzo is 1/2" topping over 2" underbed over 1/4" sand cushion over slab

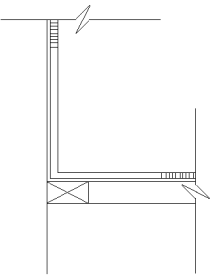
### NOTATION CHECKLIST, SAMPLE NOTES

- FINISH FLOOR (MATERIAL & SIZE)
- SETTING BED (MATERIAL & SIZE)
- JOINT SIZE/TYPE
- FLOOR
- MEMBRANE/WATERPROOFING
- SUBFLOOR/SLAB
- REINFORCING
- BASE (MATERIAL & SIZE)
- BASE HEIGHT & THICKNESS
- ADJACENT WALL MATERIAL
- WALL MEMBRANE/WATERPROOFING
- TERRAZZO BED
- FINISH CONC.

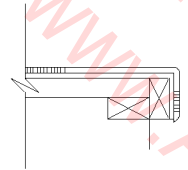
- PLYWOOD UNDERLAYMENT
- PLYWOOD SUBFLOOR
- PARTICLE BOARD UNDERLAYMENT
- MASTIC
- BOND COAT
- ADHESIVE
- SETTING BED
- MORTAR BED W/REINFORCING
- ANGLE EDGER
- THRESHOLD
- DIVIDER STRIP
- REDUCER STRIP

## TILE COUNTERTOPS

## TILE COUNTERTOPS



**TILE COUNTERTOP**  
 Splash/Thin Set

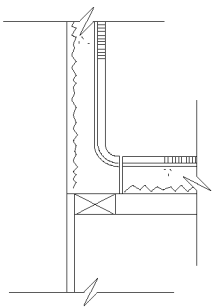


**TILE COUNTERTOP**  
 Lip/Thin Set

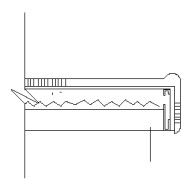
### NOTATION CHECKLIST, SAMPLE NOTES

- TILE SURFACE
- ADHESIVE
- BOND COAT
- MORTAR BED
- METAL LATH
- MEMBRANE
- PLYWOOD/PARTICLE BOARD
- TRIM (MATERIAL & SIZE)
- BLOCKING (MATERIAL & SIZE)
- ADJACENT MATERIALS
- THINSET QUARRY TILE
- QUARRY TILE
- ROUND TOP COVE BASE
- CERAMIC CAP

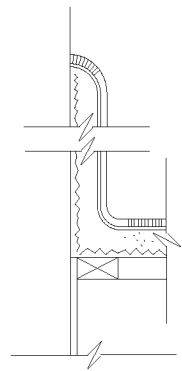
- BULLNOSE CAP
- WATERPROOF GYPSUM BOARD
- ADHESIVE
- SETTING BED
- MORTAR BED W/REINFORCING
- ANGLE EDGER
- THRESHOLD
- HARDWOOD DIVIDER STRIP
- REDUCER STRIP
- DOOR
- SILICONE SEALER
- SLOPE FROM CURB TO DRAIN



**TILE COUNTERTOP**  
 Splash/Mortar Bed



**TILE COUNTERTOP**  
 Lip/Mortar Bed



**TILE COUNTERTOP**  
 Splash/Mortar Bed

# TILE: CERAMIC TILE FLOOR

## DETAIL DATA CHECKLIST

### CERAMIC TILE

- Mosaic tiles are 1" x 1", 1" x 2", 2" x 2" and 1/4" thick
- Glazed wall tiles are 4-1/4" x 4-1/4", 4-1/4" x 6", and 6" x 6"; typically 5/16" thick
- Quarry tiles and floor pavers are 2-3/4" x 6", 4" x 4", 4" x 6", 6" x 6", 6" x 9", 9" x 9"; 1/2" to 3/4" thick
- Wall tile on wood frame walls:
  - Apply with waterproof glue over water resistant backing such as gypsum wallboard
  - Sometimes applied on cement mortar on metal or gypsum lath over wood frame
  - When using gypsum wallboard tile backing in wet rooms, use water proof or water resistant grade
- Tile on concrete or masonry walls:
  - Walls must be stable, not subject to extremes of expansion/contraction, soil movement, etc.
  - Primary variations of tile setting are:
    - Mortar method on wood or metal frame: 3/4" to 1-1/2" mortar bed over scratch coat, lath and felt
    - Mortar method on masonry: 3/4" to 1-1/2" mortar bed over scratch coat
    - Thin-set over masonry or concrete: tile over 1/8" to 1/4" thick dry set mortar
  - Adhesive method: Tile over 1/16" adhesive over primed solid backing
  - Cement mortar scratch coat is typically 3/4", with a leveling coat of 1/4" to 1/2"
  - Reinforce floor mortar to prevent cracking
  - Tile flooring substrate may have to be recessed to allow for different adjacent finish-floor thicknesses
  - Floor reinforced mortar bed is typically 1-1/4" thick
  - Quarry tile and pavers are typically 1/2" to 1-1/2" thick
  - Promenade tile are 1" x 6" x 9" in size
- See tile manufacturers' and suppliers' catalogs for recommended detailing, specifications, and application of tile to different types of wall and floor surfaces

## TREE PLANTERS

## TREE PLANTERS

### DETAIL DATA CHECKLIST

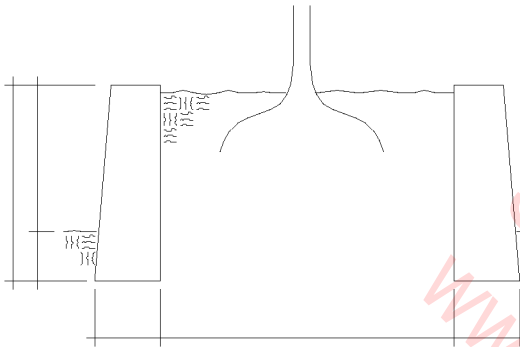
#### TREE PLANTING

- Hole should be twice the diameter of the container
- Break subsoil with a pick or otherwise scar the walls of the hole to aid poor penetration
- Soil ball should rest on firm soil to avoid settling
- Remove burlap from the top of the ball (not necessary to remove from all around root ball)
- Backfill hole with original soil
- OR
- Use topsoil, peat moss and cow manure in 9" layers, watering each level until settled
- Do not tamp
- Ground line should be the same as, or slightly lower on the tree, than it was at the nursery
- The water levee around the tree should be 2' to 4' in diameter
- The berm around levee should be 4" high
- Cover levee and berm with 2" of mulch
- Remove any shoots on the trunk within 6" of the soil
- Trunk may be wrapped with tree wrap
- Where tree is planted in a hollow, provide a "land drain" if necessary to dispose of surplus water (clean rubble acts as a soakaway)
- Securely stake each tree
- Use 10 ga. twisted wire with a garden hose to wrap around the trunk

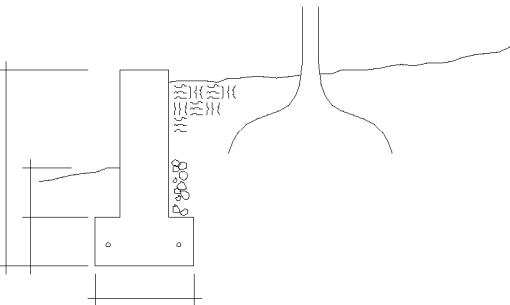
### NOTATION CHECKLIST, SAMPLE NOTES

- TREE/TREEBALL
- FINISH GRADE
- WATER BASIN
- WATER LEVEE
- CONTAINER OUTLINE
- FIBER MAT
- AGGREGATE BASE
- BACKFILL
- SUBGRADE
- TREE GUY/STAKE
- REINFORCING
- WEEPHOLES (SIZE & SPACING)
- AGGREGATE DRAIN BED
- DRAIN PIPE/DRAIN TILE
- COMPACTED SUBGRADE/STRUCTURAL BACKFILL
- ORIGINAL GRADE (shown dashed)
- POROUS BACKFILL
- 3" MULCH LAYER (where applicable)

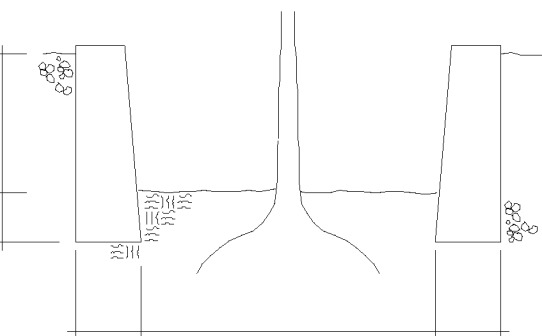
- SPECIFIED SOIL MIX
- DRIP EMITTER
- MICRO TUBING
- DRIP LINE
- GRAVEL SUMP
- PLANT ROOT BALL AT GRADE AS IN NURSERY
- REMOVE CONTAINER FROM ROOT BALL
- RIGID INSULATION
- PLANTER WALL
- DRAINAGE LAYER
- 2 STRANDS #12 GAUGE GALV. WIRE
- FLAG GUY WIRES FOR VISIBILITY W. YELLOW PLASTIC RIBBON, 2 PER WIRE
- CUT WIRE BELOW SOD
- 2" X 2" X 2" WOOD STAKE, 3 PER TREE, DRIVE STAKES FLUSH WITH FINAL GRADE
- NEW 3/4" RUBBER GARDEN HOSE AROUND TREE
- 3" GALV. TURNBUCKLE
- WRAP ENTIRE TRUNK W/ APPROVED MATERIAL TO SECOND BRANCH. SECURE @ 2' INTERVALS W/ GRAFTING CORD



TREE PLANTER ABOVE GRADE

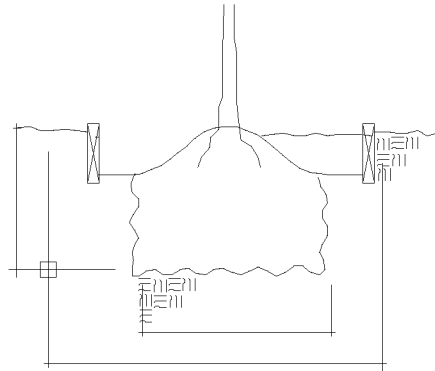


TREE PLANTER ABOVE GRADE

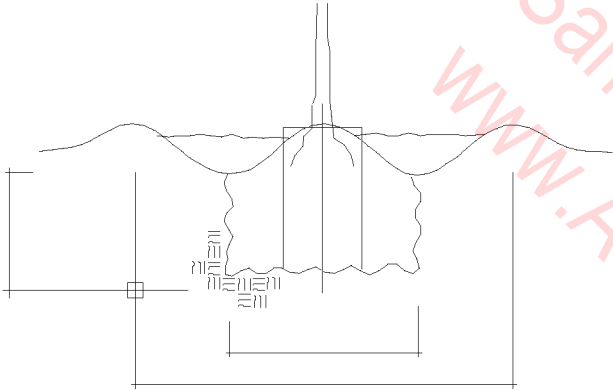


TREE PLANTER BELOW GRADE

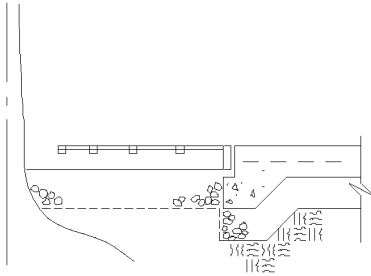
## TREE PLANTERS



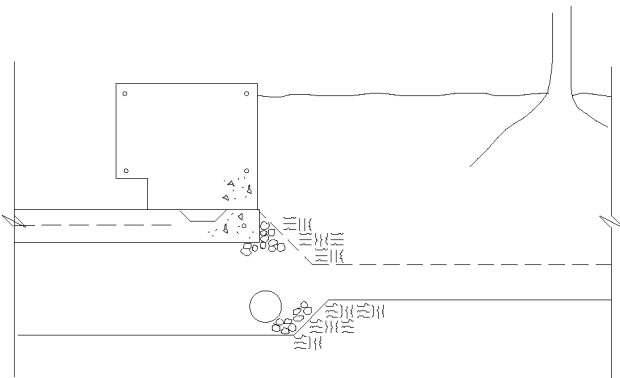
TREE PLANTING



TREE PLANTING



TREE PLANTING GRATE



TREE PLANTER BENCH WALL

## TREE PLANTERS

### DETAIL DATA CHECKLIST

#### TREE PLANTING

- Hole should be twice the diameter of the container
- Break subsoil with a pick or otherwise scar the walls of the hole to aid penetration
- Soil ball should rest on firm soil to avoid settling
- Remove burlap from the top of the ball (not necessary to remove from all around root ball)
- Backfill hole with original soil

#### OR

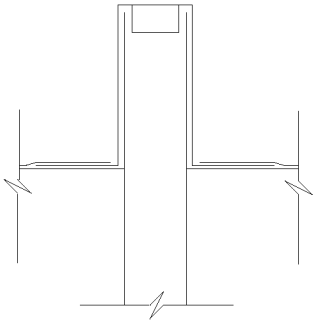
- Use topsoil, peat moss and cow manure in 9" layers, watering each level until settled
- Do not tamp
- Ground line should be the same as, or slightly lower on the tree, than it was at the nursery
- The water levee around the tree should be 2' to 4' in diameter
- The berm around levee should be 4" high
- Cover levee and berm with 2" of mulch
- Remove any shoots on the trunk within 6" of the soil
- Trunk may be wrapped with tree wrap
- Where tree is planted in a hollow, provide a "land drain" if necessary to dispose of surplus water (clean rubble acts as a soakaway)
- Securely stake each tree
- Use 10 ga. twisted wire with a garden hose to wrap around the trunk

### NOTATION CHECKLIST, SAMPLE NOTATION

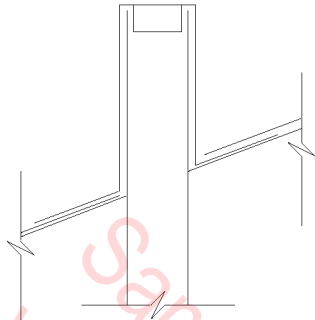
TREE/TREEBALL  
 FINISH GRADE  
 WATER BASIN  
 WATER LEVEE  
 CONTAINER OUTLINE  
 FIBER MAT  
 AGGREGATE BASE  
 BACKFILL  
 SUBGRADE  
 TREE GUY/STAKE  
 REINFORCING  
 WEEPHOLES (SIZE & SPACING)  
 AGGREGATE DRAIN BED  
 DRAIN PIPE/DRAIN TILE  
 COMPACTED SUBGRADE/  
 STRUCTURAL BACKFILL  
 ORIGINAL GRADE (shown dashed)  
 POROUS BACKFILL  
 3" MULCH LAYER (where applicable)  
 SPECIFIED SOIL MIX

DRIP EMITTER  
 MICRO TUBING  
 DRIP LINE  
 GRAVEL SUMP  
 PLANT ROOT BALL AT GRADE AS IN NURSERY  
 REMOVE CONTAINER FROM ROOT BALL  
 RIGID INSULATION  
 PLANTER WALL  
 DRAINAGE LAYER  
 2 STRANDS #12 GAUGE GALV. WIRE  
 FLAG GUY WIRES FOR VISIBILITY W. YELLOW  
 PLASTIC RIBBON - 2 PER WIRE  
 CUT WIRE BELOW SOD  
 2" X2" X 2" WOOD STAKE, 3 PER TREE, DRIVE  
 STAKES FLUSH WITH FINAL GRADE  
 NEW 3/4" RUBBER GARDEN HOSE AROUND TREE  
 3" GALV. TURNBUCKLE  
 WRAP ENTIRE TRUNK W/ APPROVED MATERIAL  
 TO SECOND BRANCH. SECURE @  
 2' INTERVALS W/ GRAFTING CORD

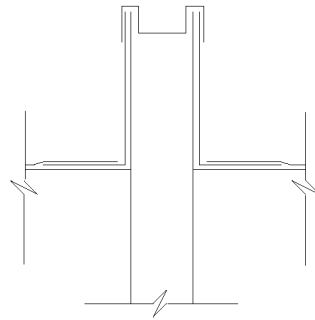
# VENT FLASHING



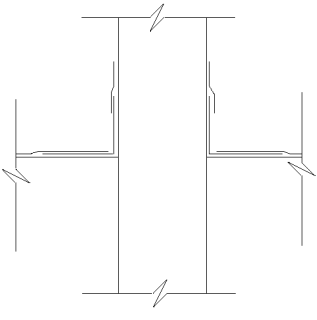
**VENT FLASHING**  
Sleeve Type



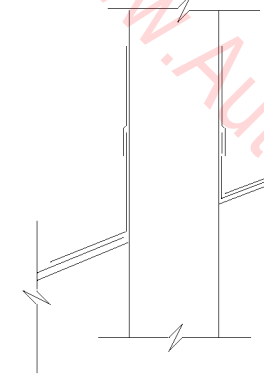
**VENT FLASHING**  
Sleeve Type



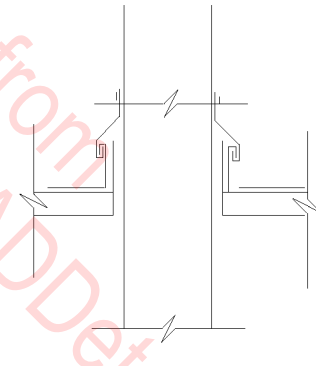
**VENT FLASHING**  
Sleeve Type



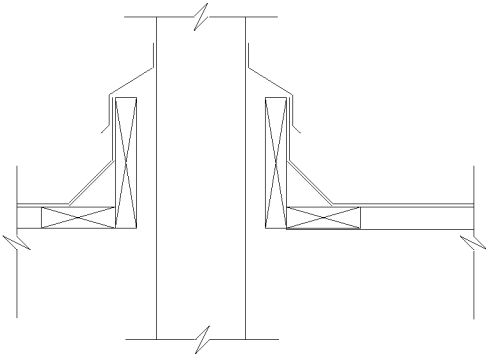
**VENT FLASHING**  
Sleeve Type



**VENT FLASHING**  
Collar Type



**VENT FLASHING**  
Collar Type



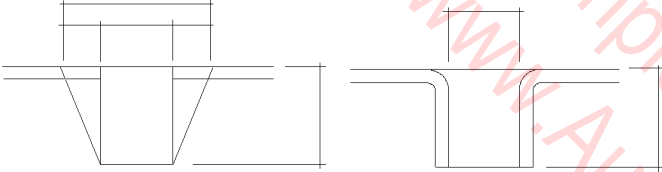
**VENT FLASHING**  
Collar Type

# VENT FLASHING

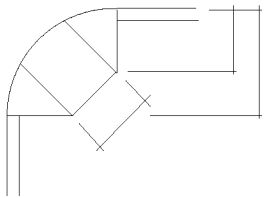
- NOTATION CHECKLIST,**  
**SAMPLE NOTES**
- VENT PIPE/STACK  
(TYPE, SIZE & MINIMUM HEIGHT)
  - SLEEVE FLASHING
  - COLLAR FLASHING
  - INNER FLANGE
  - ADHESIVE/SEALANT/CAULKING
  - ROOFING SURFACE  
(TYPE, LAYERS & COVER MATERIAL)
  - ROOF DECK/INSULATION
  - ROOF CONSTRUCTION
  - METAL VENT
  - PREMOLDED PIPE SEAL
  - SEALANT
  - FLASHING FELT
  - STAINLES STEEL CLAMPING RING
  - WATER CUTOFF MASTIC
  - CORE HOLE AS REQUIRED
  - OPENINGS FOR VENTS TO BE  
PERFORMED
  - BUILT-UP ROOF
  - ROOF PLYS UNDER CAP
  - FACTORY CURB
  - RIGID INSULATION
  - METAL DECKING
  - DUCT

## WHEELCHAIR RAMPS

### FULL-SCALE GENERIC DETAILS



WHEELCHAIR RAMP/CURB CUT WHEELCHAIR RAMP/CURB CUT



WHEELCHAIR RAMP/CURB CUT Corner

## WHEELCHAIR RAMPS

### DETAIL DATA CHECKLIST

#### RAMPS

- \_\_\_ See building code and handicap design regulations for slope and handrail requirements
- \_\_\_ 8 slope is typically maximum for wheelchairs for up to 30'
- \_\_\_ Provide curbs 4" to 6" high at each side of ramps to prevent side runaways or tipping of wheelchairs
- \_\_\_ Provide nonslip treatment (abrasive surface or broom finish applied across width of ramp)

## WHEELCHAIR RAMPS

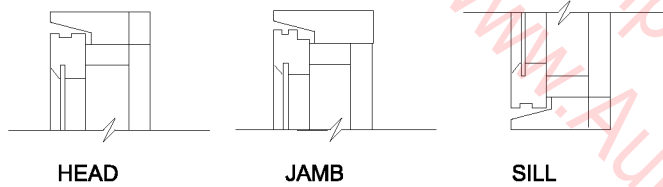
### NOTATION CHECKLIST, SAMPLE NOTES

- CURB TYPE
- CONCRETE RAMP FINISH
- CONCRETE RAMP SLOPE
- 1/4" GROOVES, 3/4" O.C.
- STIFF BROOM FINISH ON RAMP SURFACE
- TEXTURED CONCRETE
- COURSE BROOM FINISH
- WARP AS REQ'D.
- CONC. GUTTER
- CURB TAPER BEYOND
- 1/2" EXP. JOINT
- 1/2" JOINT FILLER MATERIAL
- TOP OF CURB
- REINFORCING
- SEE \_\_\_\_\_ FOR HEIGHT & WIDTH OF CURB CUT
- RAMP DOWN

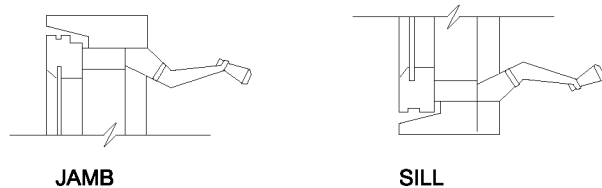


## WOOD AWNING WINDOWS

Wood Awning Window -- Single Glazed



Wood Awning Window W/Operator -- Single Glazed



## WOOD AWNING WINDOWS

### DETAIL DATA CHECKLIST

#### WOOD AWNING WINDOWS

- Wood windows are especially subject to moisture damage and warping; they require extra care throughout design, detailing, and specification, and extra protection during construction.
- See manufacturers' and suppliers' catalogs for standard sizes, detail design data, materials, and finishes.
- Detail drawings are required mainly to show the relationship of windows to wall construction such as connections to wood frame, masonry, or concrete wall construction.
- Details or window schedules should show rough-opening sizes and shim tolerance allowances (1/2" all around is a common allowance for shim space).
- Details should show flashing and caulking at heads, jambs, and sills.
- See manufacturers' recommendations for connections to varied wall construction.

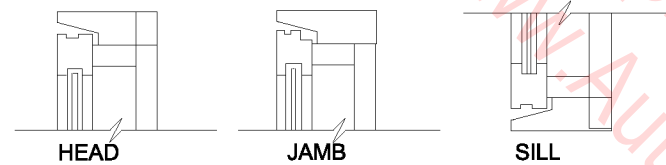
### NOTATION CHECKLIST, SAMPLE NOTES

WALL CONSTRUCTION  
 SHIM SPACE  
 DRIP CAP/WEATHERSTRIPPING/FLASHING  
 CAULKING/GROUT  
 FINISH HEAD/SILL/JAMB  
 WINDOW TYPE, MATERIAL & FINISH  
 HARDWARE/OPERATOR  
 VENT/WEEP HOLE/WIND GUARD  
 GLAZING: SINGLE/DOUBLE/REMOVABLE  
 SCREEN/SCREEN FRAME  
 CASING/TRIM/ADJACENT FINISH  
 ROUGH OPENING/FINISH OPENING  
 WOOD AWNING WINDOW  
 WOOD WINDOW  
 WOOD STOP, 1/2" X 1"

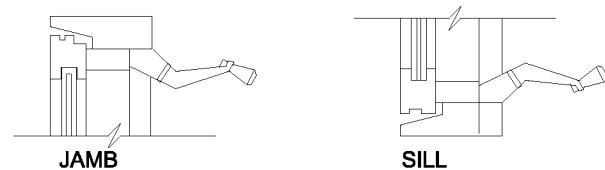
2 X WOOD NAILER  
 1/4" GLASS  
 3/4" JAMB  
 CAULK OR SEALANT  
 WOOD CASING  
 2" WOOD DRIP  
 WOOD STOOL  
 X HEADER  
 3/4" WOOD FASCIA  
 1/3" WOOD TRIM  
 1 X INTERIOR CASING  
 1 X 8 WOOD SIDING  
 1/2" INSUL. BOARD  
 5/8" GYPSUM BOARD  
 BRICK VENEER  
 EYE HOOK W/EYE SCREW  
 SCREEN MOLDING

## WOOD AWNING WINDOWS

### FULL-SCALE GENERIC DETAILS Wood Awning Window -- Double Glazed



### Wood Awning Window W/Operator -- Double Glazed



## WOOD AWNING WINDOWS

### DETAIL DATA CHECKLIST

#### WOOD AWNING WINDOWS

- Wood windows are especially subject to moisture damage and warping; they require extra care throughout design, detailing, and specification, and extra protection during construction.
- See manufacturers' and suppliers' catalogs for standard sizes, detail design data, materials, and finishes.
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- Details should show flashing and caulking at heads, jambs, and sills.
- See manufacturers' recommendations for connections to varied wall construction.

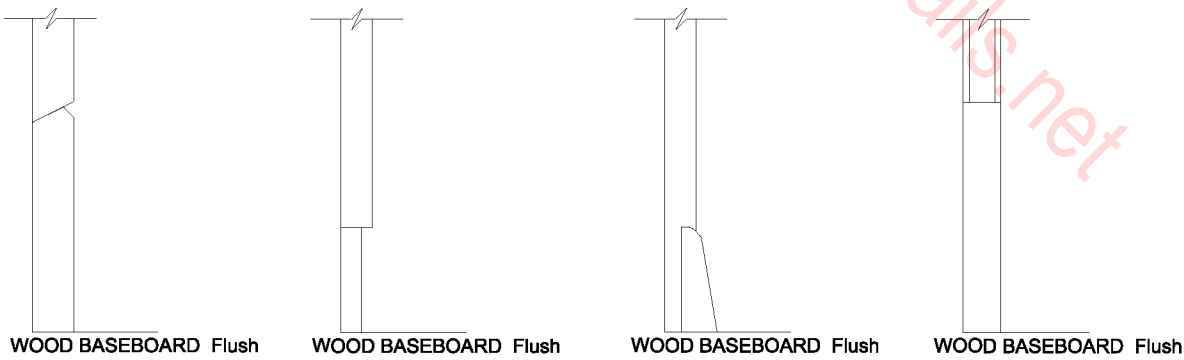
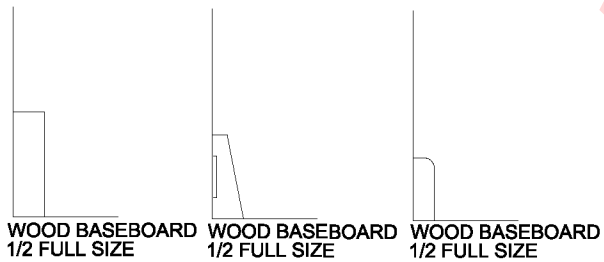
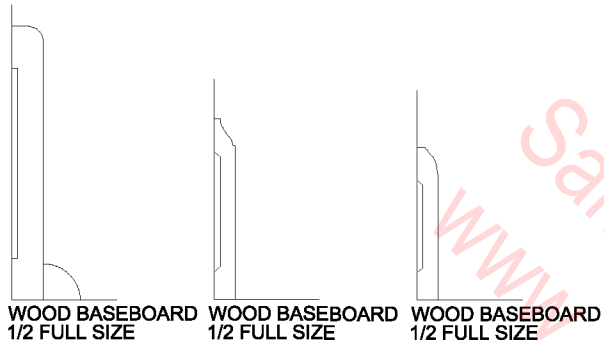
## WOOD AWNING WINDOWS

### NOTATION CHECKLIST, SAMPLE NOTES

WALL CONSTRUCTION  
 SHIM SPACE  
 DRIP CAP/WEATHER STRIPPING/FLASHING  
 CAULKING/GROUT  
 FINISH HEAD/SILL/JAMB  
 WINDOW TYPE, MATERIAL & FINISH  
 HARDWARE/OPERATOR  
 VENT/WEEP HOLE/WIND GUARD  
 GLAZING: SINGLE/DOUBLE/REMOVABLE  
 SCREEN/SCREEN FRAME  
 CASING/TRIM/ADJACENT FINISH  
 ROUGH OPENING/FINISH OPENING  
 WOOD AWNING WINDOW  
 WOOD WINDOW  
 WOOD STOP, 1/2" X 1"

2 X WOOD NAILER  
 1/4" GLASS  
 3/4" JAMB  
 CAULK OR SEALANT  
 WOOD CASING  
 2" WOOD DRIP  
 WOOD STOOL  
 X HEADER  
 3/4" WOOD FASCIA  
 1/3" WOOD TRIM  
 1 X INTERIOR CASING  
 1 X 8 WOOD SIDING  
 1/2" INSUL. BOARD  
 5/8" GYPSUM BOARD  
 BRICK VENEER  
 EYE HOOK W/EYE SCREW  
 SCREEN MOLDING

## WOOD BASEBOARDS



## WOOD BASEBOARDS

### DETAIL DATA CHECKLIST

#### BASEBOARDS

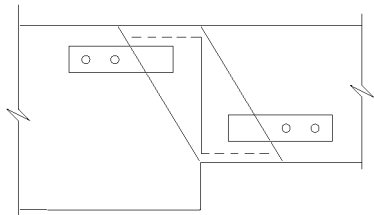
- \_\_\_ Baseboards are manufactured in a large variety of standard sizes and profiles; see suppliers' catalogs for all the options available
- \_\_\_ When choosing a baseboard design or material, consider maintenance needs
- \_\_\_ Provide hardness and surface finish resistance to damage from:
  - \_\_\_ Cleaning equipment
  - \_\_\_ Furniture legs
  - \_\_\_ Floor cleaning chemicals.
- \_\_\_ Some contractors will attempt to use up scrap baseboard material by piecing together short lengths of baseboard
- \_\_\_ Specify or note that all baseboards be installed full length and continuous without joints in any run

### NOTATION CHECKLIST, SAMPLE NOTES

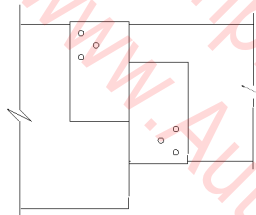
- BASE (MATERIAL & TYPE)
- BASE HEIGHT & THICKNESS
- ADJACENT WALL MATERIAL
- WALL MEMBRANE/WATERPROOFING
- ADJACENT FLOOR MATERIAL
- FLOOR
- MEMBRANE/WATERPROOFING
- SUBFLOOR/SLAB
- SEALANT/ADHESIVE
- FASTENERS
- TRIM/SHOE MOLD
- BLOCKING STRIP
- EDGE TRIM

**WOOD BEAM SPLICE &  
WOOD BEAM @ GLUE LAM BEAM**

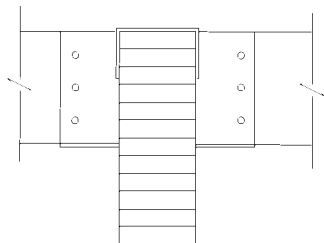
**WOOD BEAM SPLICE &  
WOOD BEAM @ GLUE LAM BEAM**



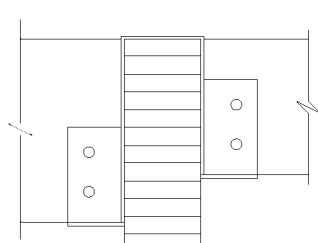
**WOOD BEAM SPLICE**



**WOOD BEAM @ SPLICE**



**WOOD BEAM @ GLU LAM**



**WOOD BEAM @ GLU LAM**

**DETAIL DATA CHECKLIST**

**POST AND BEAM CONSTRUCTION**

**WOOD POST AND BEAM CONNECTORS**

Connector types:

- Nailed metal side plates
- For light framing with minimal lateral forces
- Bolted metal side plates
- Sizes and spaces of bolts as per code or engineering calculations
- U plate connector, nailed or bolted as required by engineering calculations or manufacturer's tables
- Sheet metal connector, sized and nailed as required by engineering calculations or manufacturer's tables

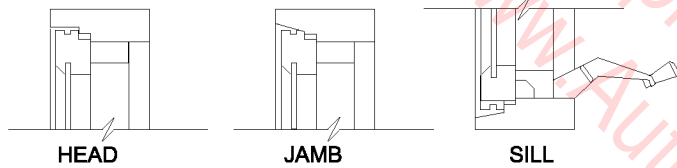
**NOTATION CHECKLIST,  
SAMPLE NOTES**

- X WOOD BEAM
- X WOOD BEAM
- STEEL HINGE CONNECTOR
- BOLT CONNECTORS
- STEEL SADDLE HANGER

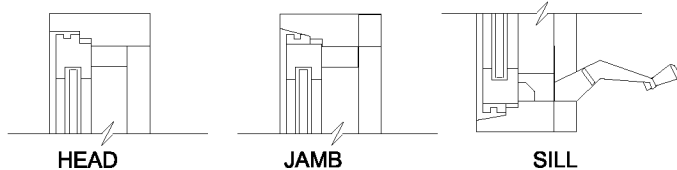
- FLUSH TOP SURFACE
- SUPPORTED BEAM
- CANTILEVERED BEAM

## WOOD CASEMENT WINDOWS

### Wood Casement -- Single Glazed



### Wood Casement -- Double Glazed



## WOOD CASEMENT WINDOWS

### DETAIL DATA CHECKLIST

#### WOOD CASEMENT WINDOWS

- \_\_\_ Wood windows are especially subject to moisture damage and warping; they require extra care throughout design, detailing, and specification, and extra protection during construction.
- \_\_\_ See manufacturers' and suppliers' catalogs for standard sizes, detail design data, materials, and finishes.
- \_\_\_ Detail drawings are required mainly to show the relationship of windows to wall construction such as connections to wood frame, masonry, or concrete wall construction.
- \_\_\_ Details or window schedules should show rough-opening sizes and shim tolerance allowances (1/2" all around is a common allowance for shim space).
- \_\_\_ Details should show flashing and caulking at heads, jambs, and sills.
- \_\_\_ See manufacturers' recommendations for connections to varied wall construction.

### NOTATION CHECKLIST, SAMPLE NOTES

WALL CONSTRUCTION  
 SHIM SPACE  
 DRIP CAP/WEATHERSTRIPPING/FLASHING  
 CAULKING/GROUT  
 FINISH HEAD/SILL/JAMB  
 WINDOW TYPE, MATERIAL & FINISH  
 HARDWARE/OPERATOR  
 VENT/WEEP HOLE/WIND GUARD  
 GLAZING: SINGLE/DOUBLE/REMOVABLE  
 SCREEN/SCREEN FRAME  
 CASING/TRIM/ADJACENT FINISH  
 ROUGH OPENING/FINISH OPENING  
 CASEMENT WOOD WINDOW  
 WOOD WINDOW  
 WOOD STOP, 1/2" X 1"

2 X WOOD NAILER  
 1/4" GLASS  
 3/4" JAMB  
 CAULK OR SEALANT  
 WOOD CASING  
 2" WOOD DRIP  
 WOOD STOOL  
 X HEADER  
 3/4" WOOD FASCIA  
 1/3" WOOD TRIM  
 1 X INTERIOR CASING  
 1 X 8 WOOD SIDING  
 1/2" INSUL. BOARD  
 5/8" GYP. BD.  
 BRICK VENEER  
 EYE HOOK W/ EYE SCREW  
 SCREEN MOLDING

## WOOD CURBS & EDGE STRIPS

## WOOD CURBS & EDGE STRIPS

### DETAIL DATA CHECKLIST

#### WOOD CURBS

- Use redwood, cedar, cypress or treated wood
- Sizes:
  - 2x6, 2x8, 6x6, 6x8, and railroad ties
- Hold wood curbs in place with wood stakes, rebar or bolts
- Stakes may be 1x2, 2x2, 2x3, or 2x4, 16" to 24" long, 24" to 48" o.c., and/or at ends of timbers
- Use 2 20d ga. nails per stake
- For rebar, use a #4 bar, 18" long at each end of timber
- Form a pocket around the bar and fill it with concrete

#### WOOD BORDER BOARDS AND EDGE STRIPS

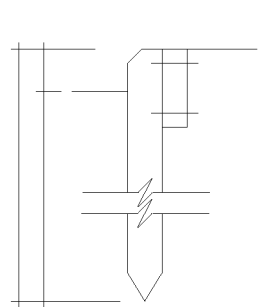
- Use redwood, cedar, cypress or treated wood
- Use 2X4s for straight runs
- Use laminated 1/2" x 4" redwood strips for curves
- Use heavier timber wood curbs to restrain larger planter or paver areas and for mowing curbs

## WOOD CURBS & EDGE STRIPS

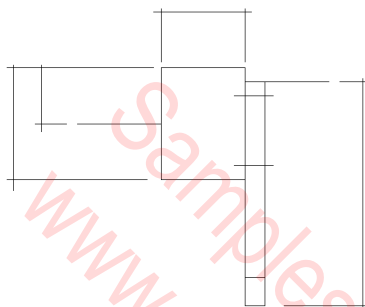
### NOTATION CHECKLIST, SAMPLE NOTES

FINISH GRADE/PAVING/PLANTING BED  
 WOOD CURB/PAVING EDGE  
 PAVING BASE  
 SUBGRADE  
 STAKES (MATERIAL, SIZE & SPACING)

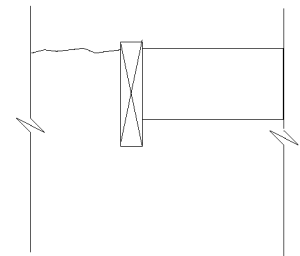
FINISH GRADE  
 ASPHALT - SEE SITE PLAN FOR THICKNESS & BASE  
 2 X EDGING, TREATED  
 2 X CONST. HEART REDWOOD HEADER  
 2 X 2 X 18" LONG CONST. HEART REDWOOD STAKES  
 2 X 2 STAKES @ 3'-0" O.C., TREATED  
 ALL JOINTS TO OCCUR @ STAKES, NAIL HEADER  
 TO STAKE W/ 2 - 8 d GALV. NAILS



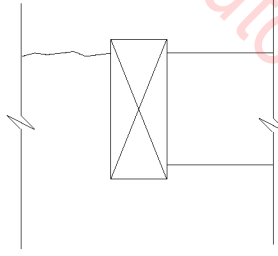
WOOD CURB



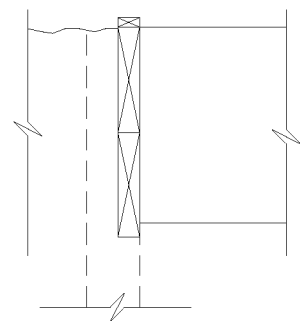
WOOD CURB



WOOD EDGE STRIP



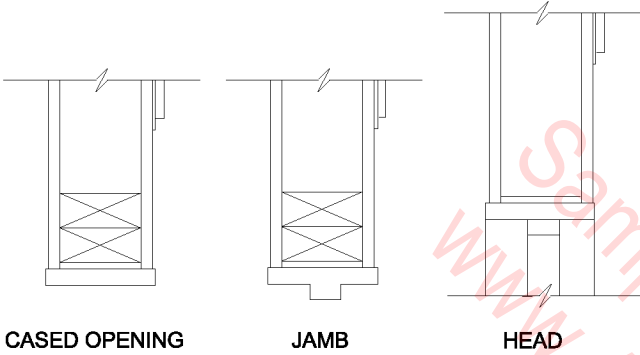
WOOD EDGE STRIP



WOOD EDGE STRIP

## WOOD DOORS AND DOOR FRAMES

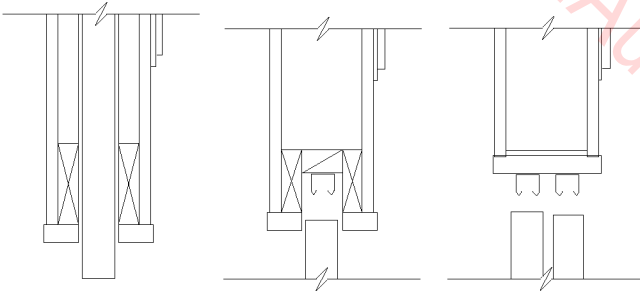
## WOOD DOORS AND DOOR FRAMES



CASED OPENING

JAMB

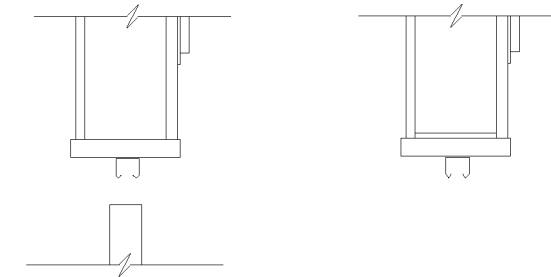
HEAD



POCKET DOOR

POCKET DOOR HEAD

DOUBLE SLIDING DOOR HEAD



BI-FOLD DOOR HEAD

ACCORDION DOOR HEAD

### DETAIL DATA CHECKLIST

#### Pocket and Sliding Doors

- Usually made of standard hollow or solid core doors with top-mounted hanging slider hardware
- 3/16" to 1/4" clearance is normally provided between the face of the door and the pocket recess framing and trim
- Floor tracks and door pull hardware are referenced in specifications, general notes, or door hardware schedule than for a regular interior door.
- Trim at the header is usually designed to hide the hanging hardware so rough opening to header may be higher

#### Bifold Door

- Sometimes includes bottom pivot and special hardware
- Trim may be required as in preceding note
- Magnetic or other surface-mounted catch may be used and so noted

#### Accordion door

- These are bought as manufactured units, either in standard sizes or custom sizes
- Usually a vinyl covered metal frame door surface-mounted in a cased opening
- Magnetic or other surface-mounted catch may be used and so noted

### NOTATION CHECKLIST, SAMPLE NOTES

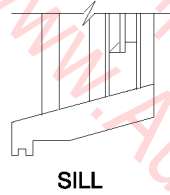
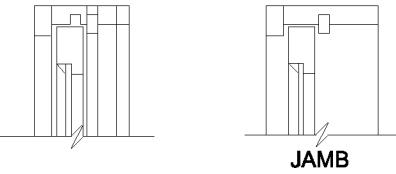
WALL CONSTRUCTION  
SHIM SPACE  
FINISH HEAD/JAMB  
ADJACENT FINISHES  
CASING/TRIM  
DOOR TYPE, MATERIAL & FINISH  
FIXTURES/ATTACHMENTS/HARDWARE  
ROUGH OPENING/FINISH OPENING

DBL. 2 X 4 HEADER  
BLOCKING  
X WOOD CASING  
WOOD TRIM  
MOULDING  
STEEL ANGLE  
PREHUNG DOOR UNIT  
THRESHOLD  
1/2" X 1-1/2" WOOD STOP  
GYPSUM WALLBOARD  
VENEER

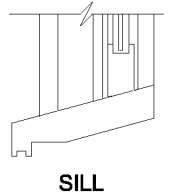
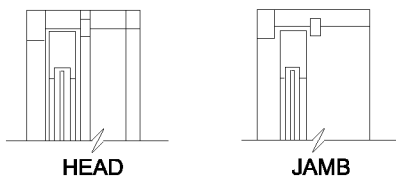
## WOOD DOUBLE HUNG WINDOWS

## WOOD DOUBLE HUNG WINDOWS

Wood Double Hung -- Single Glazed



Wood Double Hung -- Double Glazed



### DETAIL DATA CHECKLIST DOUBLE HUNG WINDOWS

- Wood windows are especially subject to moisture damage and warping; they require extra care throughout design, detailing, and specification, and extra protection during construction.
- See manufacturers' and suppliers' catalogs for standard sizes, detail design data, materials, and finishes.
- Details or window schedules should show rough-opening sizes and shim tolerance allowances (1/2" all around is a common allowance for shim space).
- Detail drawings are required mainly to show the relationship of windows to wall construction such as connections to wood frame, masonry, or concrete wall construction.
- Details should show flashing and caulking at heads, jams, and sills.
- See manufacturers' recommendations for connections to varied wall construction.

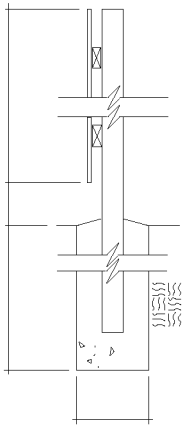
### NOTATION CHECKLIST, SAMPLE NOTES

WALL CONSTRUCTION  
 SHIM SPACE  
 DRIP CAP/WEATHERSTRIPPING/FLASHING  
 CAULKING/GROUT  
 FINISH HEAD/SILL/JAMB  
 WINDOW TYPE, MATERIAL & FINISH  
 HARDWARE/OPERATOR  
 VENT/WEEP HOLE/WIND GUARD  
 GLAZING: SINGLE/DOUBLE/REMOVABLE  
 SCREEN/SCREEN FRAME  
 CASING/TRIM/ADJACENT FINISH  
 ROUGH OPENING/FINISH OPENING  
 DOUBLE HUNG WOOD WINDOW  
 WOOD STOP, 1/2" X 1"  
 2 X WOOD NAILER

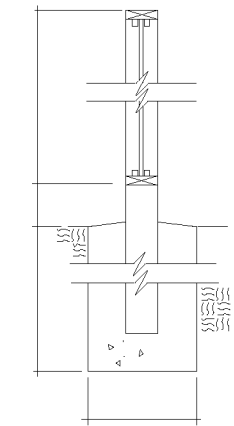
1/4" GLASS  
 3/4" JAMB  
 CAULK OR SEALANT  
 WOOD CASING  
 2" WOOD DRIP  
 WOOD STOOL  
 X HEADER  
 3/4" WOOD FASCIA  
 1/3" WOOD TRIM  
 1 X INTERIOR CASING  
 1 X 8 WOOD SIDING  
 1/2" INSUL. BOARD  
 5/8" GYP. BD.  
 BRICK VENEER  
 EYE HOOK W/EYE SCREW  
 SCREEN MOLDING



## WOOD FENCING



WOOD FENCE



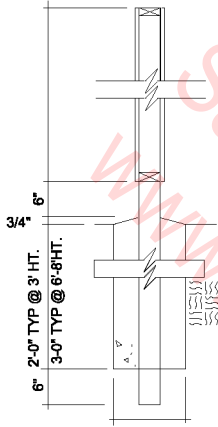
WOOD FENCE

## WOOD FENCING

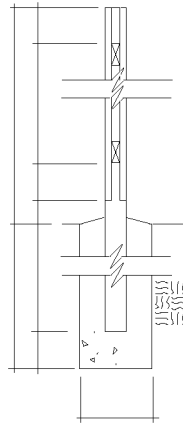
### DETAIL DATA CHECKLIST

#### WOOD FENCING

- Footings for posts should be below frost line
- Below grade, wrap posts with a layer of building paper
- AND
- Set in a 12" diameter concrete collar on compacted fill
- OR
- Set on concrete footing or concrete piers with angles or straps to anchor and support posts
- OR
- Rest the post on gravel (cleats optional)
- AND
- Fill in the hole with compacted fill
- Add a stone layer on top of fill if needed for stability
- Common materials sizes:
- 4x4 posts 8' long for 5' to 6' height
- Supports for 2x4 rails laid flat for clear spans at 4' maximum
- 2x4 rails on edge can span 6' without sagging
- Use dados, lap joints, bolting, and galvanized connectors in detailing
- Avoid butt joints and toenailing
- Use offsets and buttress supports in long lengths subject to wind pressure
- Fence gates are subject to heavy loads and abuse, so use extra-heavy post supports, cross bracing, and heavy-duty hardware
- Slope tops of posts to drain water
- Slope rails or add drain holes to avoid accumulation of water at joints



WOOD FENCE

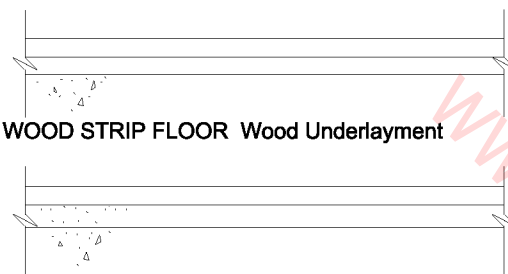


WOOD FENCE

- NOTATION CHECKLIST,
- SAMPLE NOTES
- WOOD POST (SIZE & SPACING)
- WOOD FRAMING/NAILERS
- BOARDS/PANELS (TYPE, SIZE, FINISH & SPACING)
- TRIM
- BOLTS/ANCHORS
- FINISH GRADE/PAVING
- FOOTING
- BACKFILL/AGGREGATE/SAND

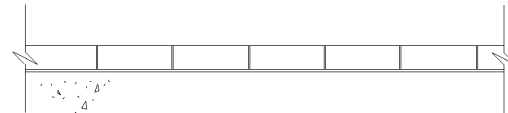
- 2 X 4 CONTINUOUS RAIL (cedar/redwood/treated)
- 1 X 8 BOARDS (cedar/redwood/treated)
- BOARDS - OVERLAP EDGES 1/2" @
- ALTERNATE SIDES
- 4 X 4 POSTS @ 8' O.C.
- 12" DIA. CONC. FOOTING
- WRAP POSTS BELOW GRADE W/BUILDING PAPER
- COMPACTED FILL (below footing)
- COMPACTED EARTH FILL (sometimes in lieu of conc. footing, @ wood posts min. 3'-0" below grade)
- WOOD POSTS (treated/extend. 6" typ. thru conc. footing, max. spacing typ. 6'-7')
- 45D CUT (@ top of wood posts)

## WOOD FLOORS

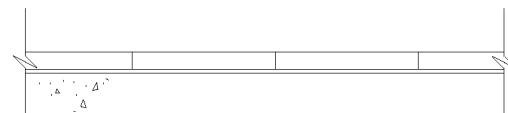


WOOD STRIP FLOOR Wood Underlayment

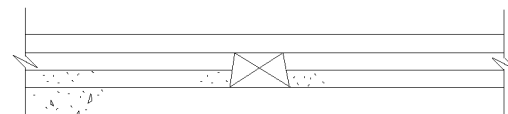
RESILIENT WOOD FLOOR



WOOD STRIP BLOCK FLOOR On Concrete Slab



WOOD PARQUET FLOOR



WOOD STRIP FLOOR On Cement Topping

## WOOD FLOORS

### DETAIL DATA CHECKLIST

#### WOOD FLOORING

- Hardwood thickness typically 3/8" to 3/4"
- Industrial wood block or strip is typically 2-1/2" to 4" thick
- Plank or strip flooring on concrete may be laid on:
  - Wood sleepers or nailers
  - Rubber-base adhesive
  - Asphalt mastic
- Wood sleepers or nailers are preferred when installing wood floors over concrete slabs to permit ventilation and prevent moisture swelling and/or decay
- Wood sleepers can be attached to concrete with power fasteners or mounted in an adhesive bed and the flooring
- Wood flooring over concrete slab on grade requires a vapor barrier under the slab and between slab
- See manufacturers' catalogs for varied sizes, species, colors, finishes, and applications of wood flooring

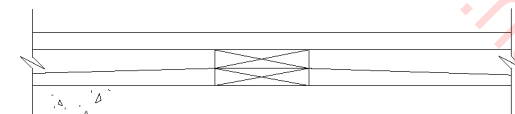
### NOTATION CHECKLIST, SAMPLE NOTES

FINISH FLOOR (MATERIAL & SIZE)  
SLEEPER  
MORTAR BED  
ADHESIVE SETTING BED  
UNDERLAYMENT/MEMBRANE  
SUBFLOOR/SLAB

HARDWOOD FLOORING  
HARDWOOD PARQUET FLOORING  
CONCRETE  
PLYWOOD UNDERLAYMENT  
PARTICLE BOARD UNDERLAYMENT  
PLYWOOD SUBFLOOR  
MASTIC  
ADHESIVE  
SAND & POLISH



WOOD STRIP INDUSTRIAL FLOOR

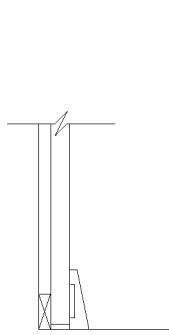


RESILIENT WOOD FLOOR On Slab On Grade

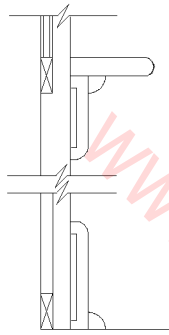


WOOD BLOCK INDUSTRIAL FLOOR

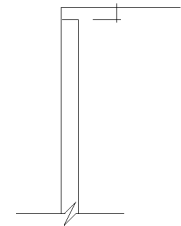
## WOOD PANELING



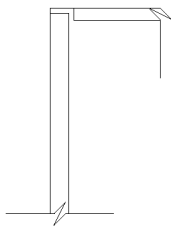
WOOD PANELING @ BASE



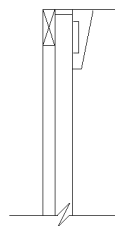
WOOD PANELING @ BASE & WAINSCOT



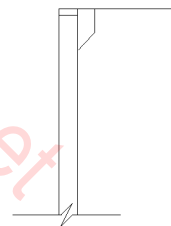
WOOD PANELING @ CEILING



WOOD PANELING @ CEILING



WOOD PANELING @ CEILING



WOOD PANELING @ CEILING

## WOOD PANELING

### DETAIL DATA CHECKLIST PANELING

Paneling can be applied to wood or metal framing with or without furring. Use furring strips or channels for thermal or acoustic isolation, or to compensate for uneven wall construction. Use wood or metal furring when installing panels over masonry walls. 1 x 2 wood furring over masonry is typical spaced at 16" vertically and horizontally.

Grades of hardwood plywood paneling:

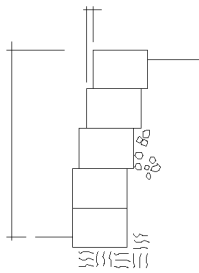
- Premium and Good: Minimum flaws, for stain finish
- Sound: For paint finish
- Utility: Some visible defects, unmatched, for paint finish
- Backing: Many flaws, not for visible use
- Thicknesses: 1/8" to 1", in 1/16" or 1/8" layers
- Textures and finishes come in wide variety; see the suppliers' catalogs

### NOTATION CHECKLIST, SAMPLE NOTES

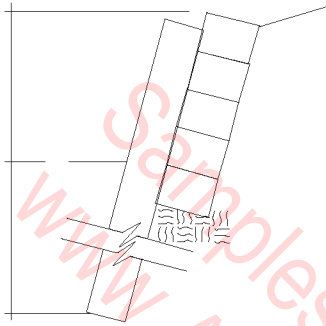
PANEL (MATERIAL & THICKNESS)  
FURRING/BLOCKING (TYPE & SIZE)  
AIR SPACE  
TRIM (TYPE & SIZE)  
ADJACENT MATERIALS  
LINE OF WALL  
LINE OF CEILING  
WALL CONSTRUCTION  
CEILING CONSTRUCTION

BOOK MATCH VENEER  
SLIP MATCH VENEER  
V MATCH VENEER  
RANDOM MATCH VENEER  
FURRING STRIPS  
BLOCK ALL UNSUPPORTED  
EDGES  
FILL SPLICES BETWEEN FURRING  
RECESSED JOINT  
V JOINT  
BUTT JOINT  
OUTSIDE MITERED CORNER

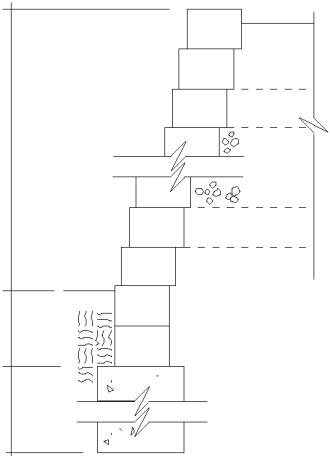
## WOOD PLANTERS/RETAINING WALL



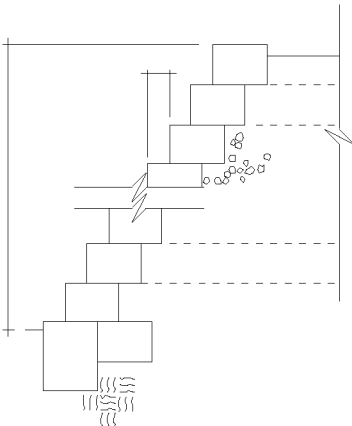
**WOOD RETAINING WALL**  
Battered/Low



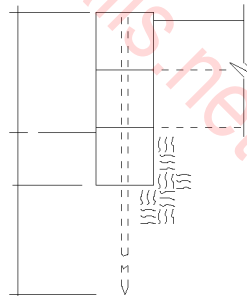
**WOOD RETAINING WALL**  
Sloped/Low



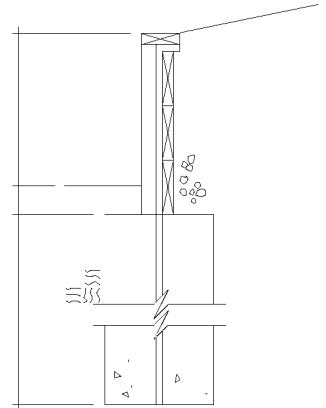
**WOOD RETAINING WALL**  
Battered/High



**WOOD RETAINING WALL**  
Battered/High



**WOOD  
PLANTER/RETAINING  
WALL**



**WOOD  
PLANTER/RETAINING  
WALL**

## WOOD PLANTERS/RETAINING WALL

### DETAIL DATA CHECKLIST

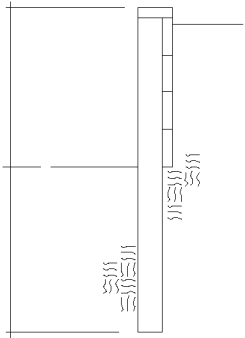
#### WOOD RETAINING WALLS

- Stack timbers horizontally
- Support and anchor timbers with:
  - Vertical timbers
  - Concrete piers
  - Vertical steel I-beams
- Tie timbers vertically with min. 2 #4 bars per tie, in 1/2" drilled hole
- Tie back into slope with 10' o.c. deadman ties
- Where necessary, use vertical rods at 4' o.c.
- Provide gravel backfill behind filter cloth
- Vertical wood members may be OK for walls up to 4' high, without surcharge, if planted 4' deep

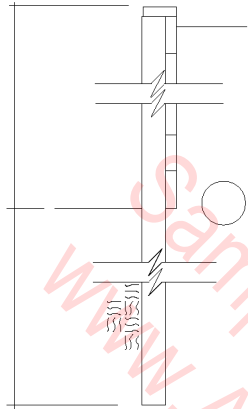
### NOTATION CHECKLIST, SAMPLE NOTES

- TOP OF WALL ELEVATION
- FINISH GRADES
- ORIGINAL GRADE (DASHED)
- TIMBER UNITS (TYPE & SIZE)
- BOLTS/ANCHORS/DOWELS
- STEEL ROD/WOOD TIE BACKS ('DEADMAN')
- AGGREGATE DRAIN BED
- DRAIN PIPE/DRAIN TILE
- COMPACTED SUBGRADE/STRUCTURAL
- BACKFILL
- FOOTING
- AGGREGATE BASE
- POROUS BACKFILL

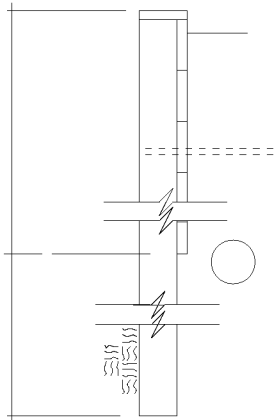
## WOOD PLANTERS/RETAINING WALLS



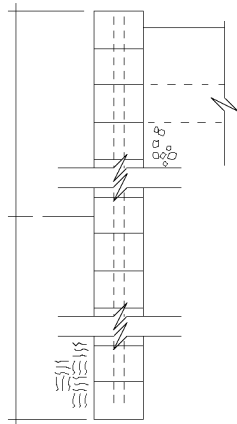
WOOD RETAINING WALL To 2' High



WOOD RETAINING WALL 2' to 4' High



WOOD RETAINING WALL 4' + High



WOOD RETAINING WALL 6x8 TIMBER/LOW

## WOOD PLANTERS/RETAINING WALLS

### DETAIL DATA CHECKLIST

#### POST AND BOARD RETAINING WALLS

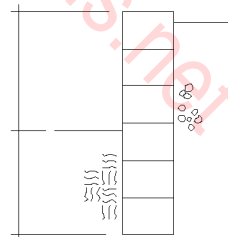
- \_\_\_ Set posts as deep as the wall is high
- \_\_\_ Walls under 2' high don't require weep holes or drains
- \_\_\_ For low walls, weep holes drilled into wall may be used instead of drains
- \_\_\_ Where drain is needed, run a 6" pipe along back of wall at base
- \_\_\_ Walls over 4' high may have their posts tied back to a concrete deadman with a horizontal rod bolted through

#### WOOD RETAINING WALLS

- \_\_\_ Stack timbers horizontally
- \_\_\_ Support and anchor timbers with:
  - \_\_\_ Vertical timbers
  - \_\_\_ Concrete piers
  - \_\_\_ Vertical steel I-beams
- \_\_\_ Tie timbers vertically with min. 2 #4 bars per tie, in 1/2" drilled hole
- \_\_\_ Tie back into slope with 10' o.c. deadman ties
- \_\_\_ Where necessary, use vertical rods at 4' o.c.
- \_\_\_ Provide gravel backfill behind filter cloth
- \_\_\_ Vertical wood members may be OK for walls up to 4' high, without surcharge, if planted 4' deep

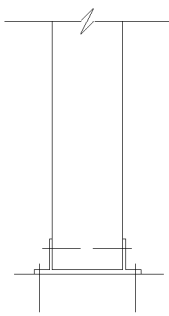
### NOTATION CHECKLIST, SAMPLE NOTES

- TOP OF WALL ELEVATION
- FINISH GRADES
- ORIGINAL GRADE (DASHED)
- TIMBER UNITS (TYPE & SIZE)
- BOLTS/ANCHORS/ DOWELS
- STEEL ROD/WOOD TIE BACKS ('DEADMAN')
- AGGREGATE DRAIN BED
- DRAIN PIPE/DRAIN TILE
- COMPACTED SUBGRADE/STRUCTURAL BACKFILL
- FOOTING
- AGGREGATE BASE
- POROUS BACKFILL

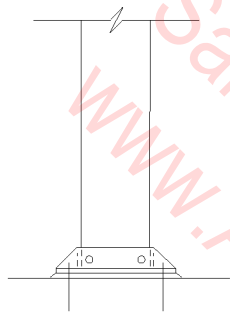


WOOD RETAINING WALL 6x8 Timber/Low

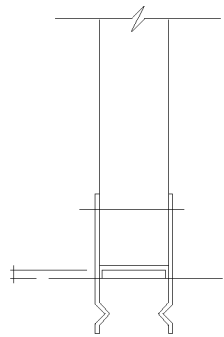
## WOOD POST @ BASE



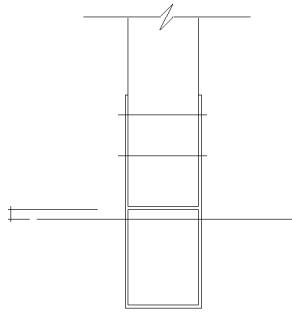
WOOD POST @ BASE



WOOD POST @ BASE



WOOD POST @ BASE



WOOD POST @ BASE

## WOOD POST @ BASE

### DETAIL DATA CHECKLIST

#### POST AND BEAM CONSTRUCTION

#### BASE CONNECTORS FOR WOOD POSTS

Wood post nominal and actual sizes

4 x 4 = 3-1/2" x 3-1/2"

6 x 6 = 5-1/2" x 5-1/2"

8 x 8 = 7-1/2" x 7-1/2"

Base types:

Base plate with side plates

Precast metal shoe plate

U plate embedded in concrete

H plate embedded in concrete

Provide approx. 3/4" leveling grout under base plate on concrete slabs or footings

Embed 1/2" anchor bolts with hook ends into concrete slab or footing

Use galvanized steel connectors

Size and number of bolts, nails, and other connectors as required by engineering calculations

Match the fitted base support size to wood post size

Don't use oversized base connectors and try to compensate with wood wedges or shims

### NOTATION CHECKLIST, SAMPLE NOTES

X WOOD POST

STEEL BASE

WEEP HOLES

BOLTS TO SLAB

CONCRETE SLAB

CONCRETE FOOTING

CONCRETE PEDESTAL

SLOPE TOP OF FOOTING TO

DRAIN

STEEL PIN

MOISTURE BARRIER

TOP OF FLOOR SLAB

ELEVATION

WELDED STEEL BASE

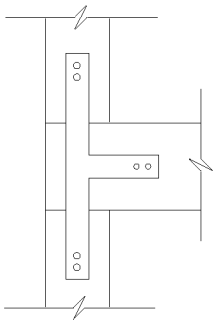
PLATE

ANCHOR

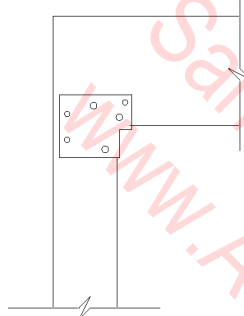
BEARING PLATE

STEEL 'U'-STRAP

### WOOD POST @ BEAM



WOOD POST @ BEAM



WOOD POST @ BEAM

### WOOD POST @ BEAM

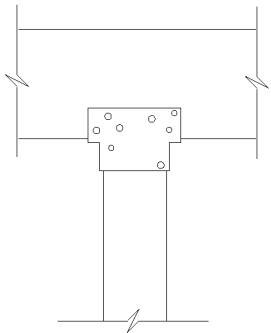
#### DETAIL DATA CHECKLIST

#### POST AND BEAM CONSTRUCTION WOOD POST AND BEAM CONNECTORS

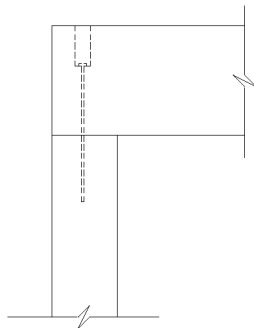
- \_\_\_ Connector types:
  - \_\_\_ Nailed metal side plates
  - \_\_\_ For light framing with minimal lateral forces
  - \_\_\_ Bolted metal side plates
- \_\_\_ Sizes and spaces of bolts as per code or engineering calculations
- \_\_\_ U plate connector, nailed or bolted as required by engineering calculations or manufacturer's tables
- \_\_\_ Sheet metal connector, sized and nailed as required by engineering calculations or manufacturer's tables

#### NOTATION CHECKLIST, SAMPLE NOTES

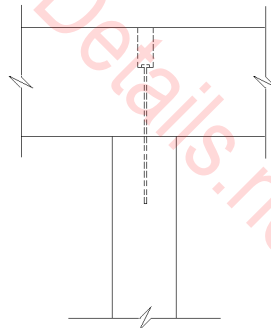
- X WOOD BEAM
- X WOOD POST
- STEEL POST CAP
- BOLT/NAIL CONNECTORS
- STEEL STRAP TIE
- CROSS RAFTERS
- BOLTS
- HOLES FOR BOLTS
- STEEL PLATE
- FULL WELD BOTH CORNERS
- MACHINE BOLTS W/ COUNTERSUNK HEADS & NUTS, HOLES PLUGGED
- SPLICE PLATE
- BEAM HANGER



WOOD POST @ BEAM



WOOD POST @ BEAM Concealed Anchor



WOOD POST @ BEAM Concealed Anchor

### WOOD POST @ BEAM

### WOOD POST @ BEAM

#### DETAIL DATA CHECKLIST

#### POST AND BEAM CONSTRUCTION

#### WOOD POST AND BEAM CONNECTORS

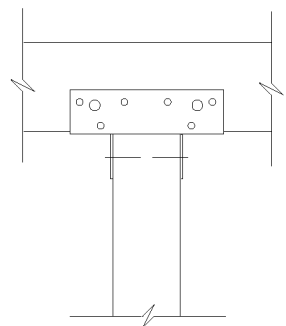
Connector types:

- Nailed metal side plates
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- Bolted metal side plates
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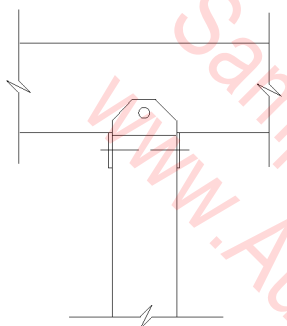
#### NOTATION CHECKLIST, SAMPLE NOTES

- X WOOD BEAM
- X WOOD POST
- STEEL POST CAP
- BOLT/NAIL CONNECTORS
- STEEL STRAP TIE
- CROSS RAFTERS
- BOLTS

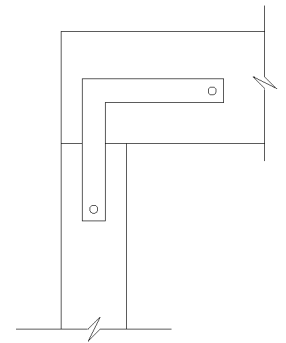
- HOLES FOR BOLTS
- STEEL PLATE
- FULL WELD BOTH CORNERS
- MACHINE BOLTS W/COUNTERSUNK HEADS  
& NUTS, HOLES PLUGGED
- SPLICE PLATE
- BEAM HANGER



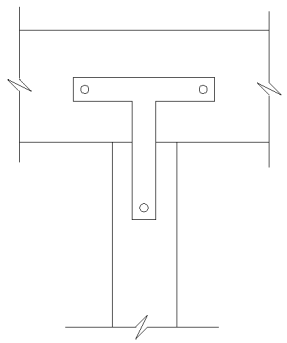
WOOD POST @ BEAM



WOOD POST @ BEAM



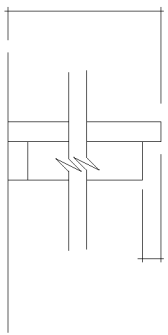
WOOD POST @ BEAM



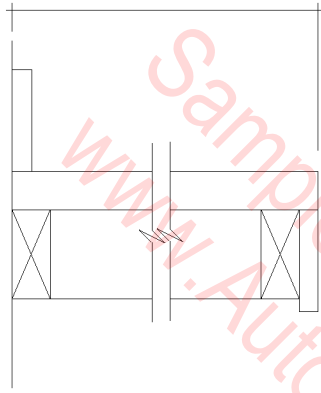
WOOD POST @ BEAM



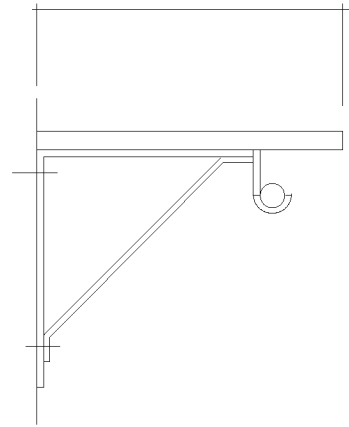
## WOOD SHELVING



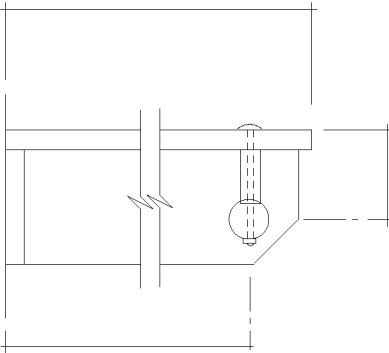
SHELF Fixed



SHELF Counter



WARDROBE POLE & SHELF



WARDROBE POLE & SHELF

## WOOD SHELVING

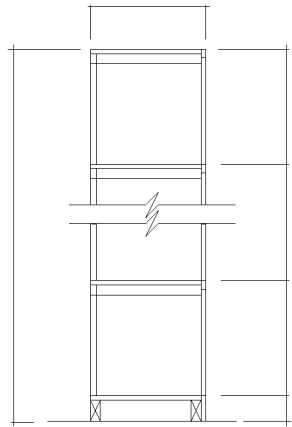
### NOTATION CHECKLIST, SAMPLE NOTES

FINISH SURFACE  
PLYWOOD/PARTICLE BOARDS  
TRIM (MATERIAL & SIZE)  
BLOCKING (MATERIAL & SIZE)  
ADJACENT MATERIALS  
HARDWARE/ANCHOR  
SHELF (MATERIAL, SIZE & FINISH)  
POLE (MATERIAL & SIZE)  
POLE SUPPORT/BRACKET  
BLOCKING (MATERIAL & SIZE)  
WALL MATERIAL

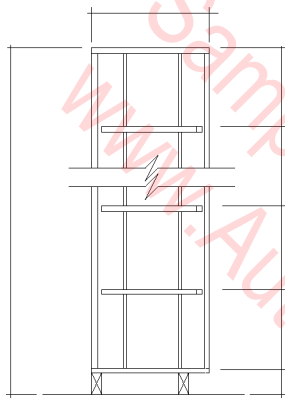
2 X 4 CONT., FRAME INTO SIDE WALLS  
3/4" CORE MATERIAL, TOP & FRONT  
SOLID BLOCKING BEHIND SHELF  
PLASTIC LAMINATE TOP, EDGES, FRONT, SELF  
EDGE  
FACE OF WALL  
CHROME ROD  
SHELF & ROD BRACKET MAX. SPACING @ 4'-0"  
5'-0" ABOVE FINISHED FLOOR

## WOOD SHELVING, BASE CABINET

## WOOD SHELVING, BASE CABINET



STANDING SHELVES Fixed

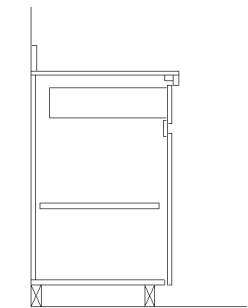


STANDING SHELVES Adjustable

### NOTATION CHECKLIST, SAMPLE NOTES

FINISH SURFACE  
PLYWOOD/PARTICLE BOARDS  
TRIM (MATERIAL & SIZE)  
BLOCKING (MATERIAL & SIZE)  
ADJACENT MATERIALS  
HARDWARE/ANCHOR  
DOOR/DRAWER  
SHELF (MATERIAL, SIZE & FINISH)  
BLOCKING (MATERIAL & SIZE)  
WALL MATERIAL

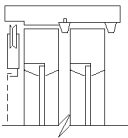
2 X 4 CONT., FRAME INTO SIDE WALLS  
3/4" CORE MATERIAL, TOP & FRONT  
SOLID BLOCKING BEHIND SHELF  
PLASTIC LAMINATE TOP, EDGES, FRONT, SELF  
EDGE  
FACE OF WALL  
CHROME ROD  
SHELF & ROD BRACKET MAX. SPACING @ 4'-0"  
5'-0" ABOVE FINISHED FLOOR



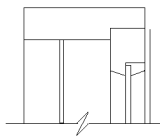
TYPICAL BASE CABINET & DRAWER

## WOOD SLIDING GLASS DOORS AND WINDOWS

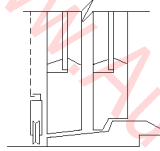
### Wood Sliding. Glass Door -- Single Glazed



HEAD 3"=1'-0"

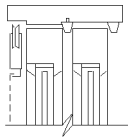


JAMB 3"=1'-0"

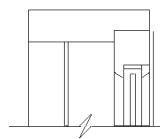


SILL 3"=1'-0"

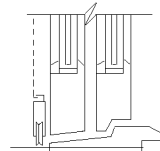
### Wood Sliding. Glass Door -- Double Glazed



HEAD 3"=1'-0"



JAMB 3"=1'-0"



SILL 3"=1'-0"

## WOOD SLIDING GLASS DOORS AND WINDOWS

### DETAIL DATA CHECKLIST

#### WOOD SLIDING GLASS DOORS & WINDOWS

Note: You can combine these generic window details with varied exterior wall construction details to create many hundreds of possible special combinations.

- \_\_\_ Wood windows are especially subject to moisture damage and warping; they require extra care throughout design, detailing, and specification, and extra protection during construction.
- \_\_\_ See manufacturers' and suppliers' catalogs for standard sizes, detail design data, materials, and finishes.
- \_\_\_ Detail drawings are required mainly to show the relationship of windows to wall construction such as connections to wood frame, masonry, or concrete wall construction.
- \_\_\_ Details or window schedules should show rough-opening sizes and shim tolerance allowances (1/2" all around is a common allowance for shim space).
- \_\_\_ Details should show flashing and caulking at heads, jambs, and sills.
- \_\_\_ See manufacturers' recommendations for connections to varied wall construction.

### NOTATION CHECKLIST

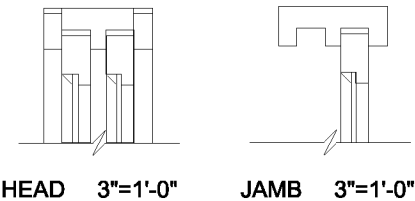
WALL CONSTRUCTION  
 SHIM SPACE  
 DRIP CAP/WEATHERSTRIPPING/FLASHING  
 CAULKING/GROUT  
 FINISH HEAD/SILL/JAMB  
 WINDOW TYPE, MATERIAL & FINISH  
 HARDWARE/OPERATOR  
 VENT/WEEP HOLE/WIND GUARD

### SAMPLE NOTES

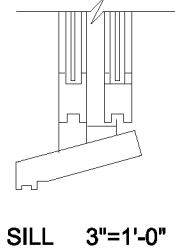
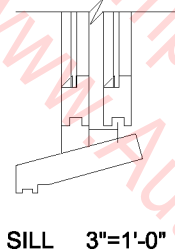
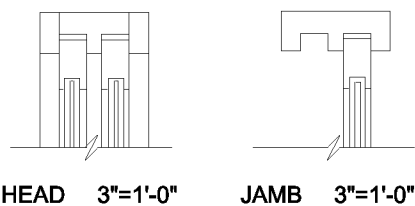
GLAZING: SINGLE/DOUBLE/REMOVABLE  
 SCREEN/SCREEN FRAME  
 CASING/TRIM/ADJACENT FINISH  
 ROUGH OPENING/FINISH OPENING

## WOOD SLIDING WINDOWS

### Wood Sliding -- Single Glazed



### Wood Sliding -- Double Glazed



## WOOD SLIDING WINDOWS

### DETAIL DATA CHECKLIST

#### WOOD SLIDING WINDOWS

Note: You can combine these generic window details with varied exterior wall construction details in this book to create many hundreds of possible special combinations.

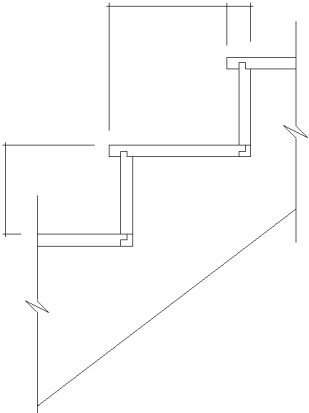
- Wood windows are especially subject to moisture damage and warping; they require extra care throughout design, detailing, and specification, and extra protection during construction.
- See manufacturers' and suppliers' catalogs for standard sizes, detail design data, materials, and finishes.
- Detail drawings are required mainly to show the relationship of windows to wall construction such as connections to wood frame, masonry, or concrete wall construction.
- Details or window schedules should show rough-opening sizes and shim tolerance allowances (1/2" all around is a common allowance for shim space).
- Details should show flashing and caulking at heads, jambs, and sills.
- See manufacturers' recommendations for connections to varied wall construction.

### NOTATION CHECKLIST, SAMPLE NOTES

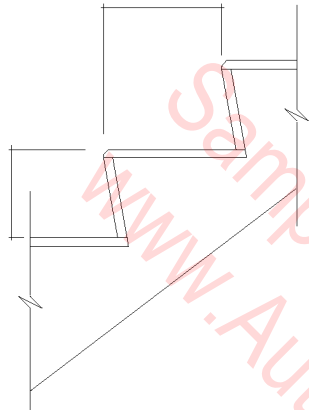
WALL CONSTRUCTION  
 SHIM SPACE  
 DRIP CAP/WEATHERSTRIPPING/FLASHING  
 CAULKING/GROUT  
 FINISH HEAD/SILL/JAMB  
 WINDOW TYPE, MATERIAL & FINISH  
 HARDWARE/OPERATOR  
 VENT/WEEP HOLE/WIND GUARD  
 GLAZING: SINGLE/DOUBLE/REMOVABLE  
 SCREEN/SCREEN FRAME  
 CASING/TRIM/ADJACENT FINISH  
 ROUGH OPENING/FINISH OPENING  
 SLIDING WOOD WINDOW  
 WOOD WINDOW  
 WOOD STOP, 1/2" X 1"

2 X WOOD NAILER  
 1/4" GLASS  
 3/4" JAMB  
 FLASHING, UP 8" MIN.  
 WOOD CASING  
 2" WOOD DRIP  
 WOOD STOOL  
 WOOD HEADER  
 WOOD FASCIA  
 WOOD TRIM  
 INTERIOR CASING  
 WOOD SIDING  
 INSUL. BOARD  
 GYPSUM WALLBOARD  
 EYE HOOK W/EYE SCREW  
 SCREEN MOLDING

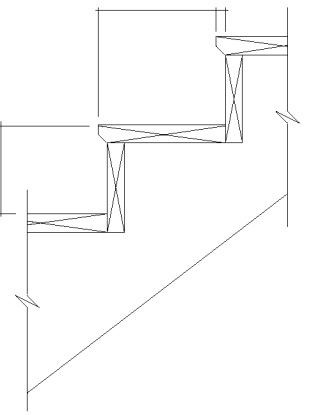
## WOOD STAIRS



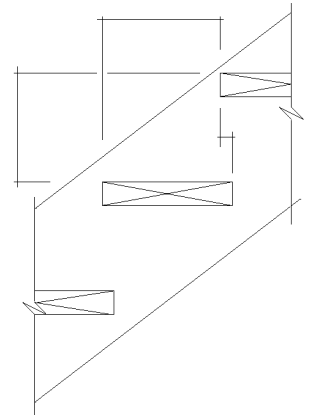
WOOD STAIR TREAD  
& RISER Closed



WOOD STAIR TREAD  
& RISER Closed



WOOD STAIR TREAD  
& RISER Closed



WOOD STAIR TREAD  
& RISER Open

## WOOD STAIRS

### DETAIL DATA CHECKLIST

#### WOOD STAIRS

Stairs may be shop built and installed as a unit. Use the design and construction standards of Architectural Woodwork Institute.

#### Rules of thumb:

- Provide landing at every 15 risers maximum
- Stair angle of 30 to 35 degrees is most comfortable
- Treads and risers must not vary in size over 1/8" or they'll cause accidents
- Optimum riser size is 7 to 7-1/2" with optimal tread of 9-1/2" to 10-1/2"
- Minimum residential stair width is 36", 44" to 48" preferred

#### Handrails:

- Height: 30" to 34"
- Balcony or landing guardrail: 42"
- Handrail or guardrail stiles: 9" minimum spacing.
- Turn end of handrail into newel post, to floor or to wall
- Wood tread and risers, use minimum 3/4" actual thickness
- Attach wood treads and risers with screw connections and glue to prevent movement and squeaks
- Wood stringers are usually cut from 2 x 12
- Two side stringers are mandatory and one center stringer recommended
- Provide fire blocking across stringer in closed riser with exposed soffit

### NOTATION CHECKLIST, SAMPLE NOTES

#### TREADS & RISERS

#### EASTENERS

#### STRINGER (TYPE & SIZE)

#### BLOCKING

#### FURRING/SOFFT

#### 3/4" PLYWD. TREADS & RISERS

#### 2 X 12 TREAD

#### 1 X 8 RISER

#### 1 X 2 NOSE

#### RESILIENT SQUARE SAFETY NOSE

#### 3/4" X 3/4" QUARTER ROUND NOSING

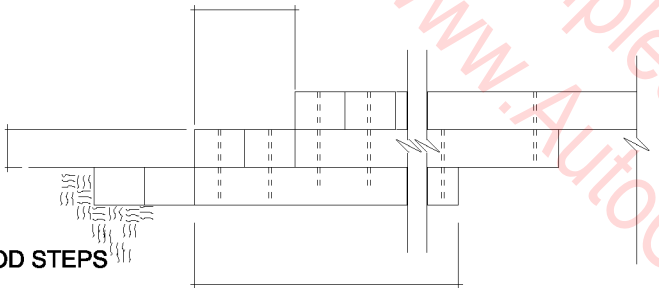
#### 2 X 12 STRINGERS, 1 @ CENTERLINE & 2 @ EA. SIDE

#### 2 X 12 STRINGERS

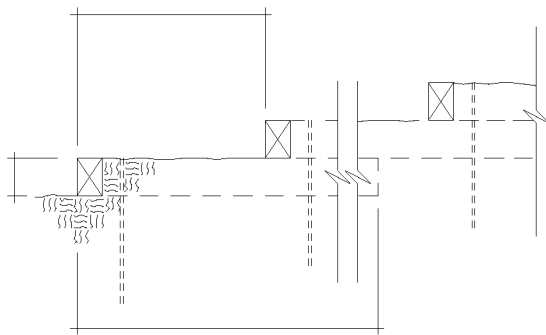
#### STRINGERS FROM 2 X 12'S @ 16" O.C.

#### OAK BASE, OAK TREAD

## WOOD STEPS (LANDSCAPING)



WOOD STEPS



WOOD STEPS

## WOOD STEPS (LANDSCAPING)

### DETAIL DATA CHECKLIST

#### WOOD STEPS

- Treated lumber or redwood<sup>^</sup>
- Nail wood treads and risers together with galvanized nails
- Anchor heavy timbers or railroad ties into compacted grade with steel rods
- 3/4" to 1" round, 24" to 36" long steel rods set 12" from each end
- No single riser allowed in any run of walkway or ramp (use 3 minimum risers in any group)

#### WOOD CURBS

- Use redwood, cedar, cypress or treated wood
- Sizes:
  - 2x6, 2x8, 6x6, 6x8, and railroad ties
- Hold wood curbs in place with wood stakes, rebar or bolts
- Stakes may be 1x2, 2x2, 2x3, or 2x4, 16" to 24" long, 24" to 48" o.c., and/or at ends of timbers
  - Use 2 20d ga. nails per stake
  - For rebar, use a #4 bar, 18" long at each end of timber
  - Form a pocket around the bar and fill it with concrete

### NOTATION CHECKLIST, SAMPLE NOTES

- FINISH GRADE/PAVING/PLANTING BED
- WOOD CURB/PAVING EDGE
- PAVING BASE
- SUBGRADE
- STAKES (MATERIAL, SIZE & SPACING)