PROPOSED COMMERCIAL BUILDING
272 BROADWAY SOMERVILLE, MASSACHUSETTS

GENERAL NOTES
1. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND PAYING FOR ALL PERMITS REQUIRED FOR THIS PROJECT.
2. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR MEANS, METHODS, TECHNIQUES,SEQUENCING, SCHEDULING AND SAFETY FOR THIS PROJECT.
3. ALL WORK SHALL BE PERFORMED IN CONFORMANCE TO THE MASSACHUSETTS STATE BUILDING CODE AND ALL OTHER APPLICABLE CODES AND LAWS.
4. THE CONTRACTOR SHALL VISIT THE SITE AND BE THOROUGHLY AQUATINTED WITH THE PROJECT PRIOR TO SUBMITTING A PRICE. ADDITIONAL MONEY WILL NOT BE GRANTED FOR WORK NOT CLARIFIED PRIOR TO BIDDING.SPECIFICATIONS OR FIELD CONDITIONS TO THE ARCHITECT IMMEDIATELY.
5. THE CONTRACTOR SHALL REPORT ANY DISCREPANCIES BETWEEN DRAWINGS SPECIFICATIONS OR FIELD CONDITIONS TO THE ARCHITECT IMMEDIATELY.
6. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING ANY WORK DAMAGED BY HIS FORCES WHILE PERFORMING THIS CONTRACT.
7. THE CONTRACTOR SHALL WARRANTEE HIS WORK FOR A PERIOD OF ONE YEAR FROM THE DATE OF FINAL COMPLETION.

FOUNDATION NOTES:
1. ALL FOUNDATION FOOTINGS SHALL BE CARRIED DOWN TO A MINIMUM OF 4'-0" BELOW FINISH GRADE, OR DEEPER, IF NECESSARY, TO OBTAIN A SAFE SOIL BEARING PRESSURE OF 2 TONS PER SQUARE FOOT, FOUNDATION DESIGN IS BASED ON ASSUMED SOIL BEARING CAPACITY OF 2 TONS PER SQUARE FOOT.
2. ALL FOOTINGS SHALL BE PLACED ON UNDISTURBED SOIL; OR, ON ENGINEERED BANK RUN GRAVEL FILL MATERIAL WITH A MINIMUM DRY DENSITY OF 95%.
3. ALL FOOTING SHALL BE POURED IN THE DRY ONLY.
4. NO FOOTING SHALL BE POURED ON FROZEN GROUND.
5. THE MINIMUM REINFORCING FOR ALL FOUNDATION WALLS SHALL BE 2-#6 BARS AT THE TOP AND BOTTOM, CONTINUOUS; OR, AS SHOWN ON DRAWINGS.
6. LAP ALL BARS 40 DIAMETERS AND PROVIDE CORNER BARS.
7. ALL REINFORCEMENT: ASTM A615-60, WWF A185.

CONCRETE NOTES:
1. ALL CONCRETE SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI.
2. MAXIMUM SLUMP SHALL NOT EXCEED 3"; AND MAXIMUM; COARSE AGGREGATE SIZE SHALL NOT EXCEED 3/4" IN DIAMETER.
3. ALL CONCRETE SLABS SHALL BE POURED IN 900 SQUARE FOOT PANELS, MAXIMUM; OR, PROVIDE CONTROL JOINTS BY SAW CUTTING THE SLAB WHILE THE CONCRETE IS STILL GREEN.

REINFORCING NOTES:
1. ALL REINFORCEMENT, EXCEPT FOR TIES AND STIRRUPS, SHALL CONFORM TO ASTM 615-60.
2. ALL REINFORCEMENT FOR TIES AND STIRRUPS SHALL CONFORM TO ASTM 615-40.
3. ALL WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185-70 SPECIFICATIONS.
4. ALL REINFORCEMENT SHALL BE INSPECTED AND APPROVED BY THE ARCHITECT OF HIS ENGINEER PRIOR TO THE PLACEMENT OF ANY CONCRETE.
5. THE CONTRACTOR SHALL SUBMIT A REPRODUCIBLE SEPIA AND FOUR PRINTS OF SHOP DRAWINGS: SHOWING ALL REINFORCING DETAILS, CHAIR BARS, HIGH CHAIRS, SLAB BOLSTERS, ETC. TO THE ARCHITECT FOR HIS APPROVAL. THE CONTRACTOR SHALL RECEIVE WRITTEN APPROVED SHOP DRAWINGS FROM THE ARCHITECT OR HIS ENGINEER PRIOR TO THE FABRICATION OF REINFORCEMENT.
6. CLEARANCES OF MAIN REINFORCING FROM ADJACENT CONCRETE SURFACES SHALL BE AS FOLLOWS:
   - A. FOOTINGS — 3 INCHES
   - B. SIDES OF FOUNDATIONS WALLS. EXPOSED FACES OF FOUNDATIONS. SIDES OF COLUMNS/PIERS, SLABS ON GRADE FROM TOP SURFACE — 2 INCHES
   - C. INTERIOR FACES OF FOUNDATIONS, TOP REINFORCING IN SLABS EXPOSED TO THE WEATHER — 1-1/2 INCHES
   - D. TOP STEEL OF INTERIOR SLABS — 1 INCHES
7. MAXIMUM DEVIATION FROM THESE REQUIREMENTS SHALL BE 1/4" OF SECTIONS 10" OR LESS, 1/2" FOR SECTIONS GREATER THAN 10".

NOTE: THERE HAS BEEN NO SOIL TESTING PROVIDED TO THIS OFFICE FOR THIS PROJECT. THE SOIL BEARING CAPACITY OF THIS FOUNDATION SYSTEM AS DESIGNED IS BASED ON A 2 TON MINIMUM SOIL BEARING CAPACITY. IF A SUITABLE SOIL THAT CAN NOT WITHSTAND A 2 TON BEARING CAPACITY IS NOT AVAILABLE, THAN THIS OFFICE SHOULD BE CONTACTED BY THE CONTRACTOR OR OWNER FOR A FOUNDATION REDESIGN.

MASONRY NOTES:
CEMENT
A. CEMENT SHALL BE AN AMERICAN PORTLAND CEMENT CONFORMING TO ASTM C-150, TYPE II OR TYPE III FOR COLD WEATHER CONSTRUCTION (GRAY OR WHITE AS APPROPRIATE).

MIX
A. THE MORTAR USED TO TUCK POINT THE JOINTS SHALL CONSIST OF ONE PART PORTLAND CEMENT, ONE PART TYPE S HYDRATED LIME, AND SIX PARTS SAND, PROPORTIONED BY VOLUME.

SAMPLE PANEL
A. A SECTION OF WALL SHALL BE POINTED FOR THE PURPOSE OF CHOOSING A DESIRED MORTAR COLOR, WHICH MATCHES THE EXISTING COLOR AND TO DEMONSTRATE THE SPECIFIED WORKMANSHIP, DEPTH, AND TOOLING OF THE JOINTS REQUIRED FOR USE ON THE JOB. CONTRACTOR SHALL CUT JOINTS AND LEAVE SECTION UNPOINTED UNTIL THE AUTHORITY CAN CHECK DEPTH OF CUT.
B. TWO OR MORE SAMPLE AREAS MAY BE REQUIRED BEFORE ONE IS APPROVED. AFTER APPROVAL OF ONE, THE OTHERS SHALL BE BROUGHT UP TO COLOR CONFORMANCE BY BRUSH GROUTING.

PREPARATION
A. CARBON AND DIRT SHALL BE REMOVED WITH DETERGENT AND STIFF BRUSHES, MOSS OR FUNGUS SHALL BE REMOVED WITH A SOLUTION OF BLEACH AND WATER.
B. ALL MORTAR THAT IS LOOSENED BY HAND TOOLS IS REQUIRED TO BE REMOVED.
C. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL AND REPLACEMENT OF ALL BRICKS MISSING, BROKEN, OR CRACKED AS PART OF THE CONTRACT WORK ON ALL BUILDING FACES DESIGNATED FOR POINTING. BRICKS REPLACED SHALL BE HARD-BURNED OF A TYPE AND SIZE TO MATCH EXISTING AS CLOSELY AS POSSIBLE.
D. THE JOINTS SHALL BE THOROUGHLY VACUUMED, BLOWN CLEAN, OR BRUSHED TO REMOVE ALL LOOSE MATERIALS, AND CLEANED WITH A HIGH PRESSURE HOSE STREAM. IF THE OPEN JOINTS CANNOT RECEIVE MORTAR FOR ANY REASON WITHIN A TWELVE (12) HOUR PERIOD AFTER REMOVAL OF EXISTING MORTAR, OR INCLEMENT WEATHER IS FORECAST WHICH MAY CAUSE A DELAY IN COMPLETING THE REPOINTING IN ANY ONE OR SEVERAL AREAS, THE CONTRACTOR SHALL COVER THE OPEN JOINTS WITH POLYETHYLENE COVERING OR OTHER SUITABLE MATERIAL IN ORDER TO AVOID WATER PENETRATION INTO THE BUILDING AND POSSIBLE WATER DAMAGE. THE CONTRACTOR SHALL SECURE THE PROTECTIVE COVERING WITH TAPE OR OTHER ACCEPTABLE METHODS, AND MAINTAIN THE COVERING UNTIL THE WORK CAN CONTINUE UNDER FAVORABLE WEATHER CONDITIONS. CUT OUT MORTAR JOINTS SHALL REMAIN OPEN UNTIL INSPECTED BY THE ARCHITECT. EXISTING MORTAR NOT REMOVED THOROUGHLY AS REQUIRED SHALL BE REASON FOR REJECTION BY THE ARCHITECT.

INSTALLATION
A. TO AVOID SHRINKAGE AND IMPROVE WORKABILITY, POINTING MORTAR SHALL BE PRE-HYDRATED. THOROUGHLY MIX ALL MORTAR INGREDIENTS DRY. WHEN READY FOR USE, MIX INGREDIENTS AGAIN AND ADD ONLY ENOUGH WATER TO PRODUCE A DAMP WORKABLE MIX WHICH WILL RETAIN ITS FORM WHEN PRESSED INTO A BALL. THE MORTAR SHALL BE KEPT IN THIS MOIST CONDITION FOR ONE TO TWO HOURS, AND THEN SUFFICIENT WATER ADDED TO BRING IT TO THE PROPER CONSISTENCY; THAT IS, SOMEWHAT DRIER THAN CONVENTIONAL MASONRY MORTAR.
B. TO INSURE A GOOD BOND TO THE EXISTING MORTAR, BRICK AND STONEWORK, WET THE EXISTING JOINTS THOROUGHLY BEFORE APPLYING FRESH MORTAR. THE JOINTS SHALL NOT RECEIVE MORTAR IF THERE IS EVIDENCE OF FREESTANDING WATER. IN SUCH CASES, ALLOW WATER TO SOAK INTO THE WALL. THE NEW MORTAR SHALL BE PACKED TIGHTLY IN 1/4" LAYERS UNTIL THE JOINT IS FILLED, THEN TOOLED TO A SMOOTH, CONCAVE SURFACE. NOTE CAREFULLY: FLUSH JOINTS WILL NOT BE ACCEPTABLE.
C. THE CONTRACTOR SHALL PROTECT EXISTING ROOFING, WINDOWS, DOORS, STONEWORK, FLASHING, CAULKING, TRIM AND OTHER MATERIALS DURING THE COURSE OF OPERATIONS. ALL DAMAGES CAUSED BY THE CONTRACTOR SHALL BE REPAIRED AT THEIR EXPENSE AND TO THE COMPLETE SATISFACTION OF THE ARCHITECT.
D. AFTER NEW MORTAR IS THOROUGHLY SET AND CURED, REMOVE LARGE PARTICLES OF MORTAR WITH WOOD PADDLES AND SCRAPERS PRIOR TO WETTING THE WALL. USE CHISELS OR WIRE BRUSHES AS NECESSARY WITH CARE TO PREVENT INJURY TO EXISTING BRICK AND STONEWORK. THE WALL AREAS WHERE POINTING HAS TAKE PLACE SHALL BE CLEANED WITH WATER TO FLUSH OFF ALL LOOSE MORTAR AND DIRT. THESE AREAS SHALL THEN BE SCRUBBED DOWN WITH A SOLUTION OF ONE HALF CUP TRISODIUM PHOSPHATE AND ONE HALF CUP OF HOUSEHOLD DETERGENT DISSOLVED IN ONE GALLON OF CLEAN WATER.

GUARANTEE
A. THE CONTRACTOR SHALL GUARANTEE HIS WORK, LABOR, AND MATERIALS IN WRITING FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF FINAL ACCEPTANCE OF THE BASE BID CONTRACT. SHOULD THE POINTED JOINTS EXECUTED UNDER THIS CONTRACT FAIL WITHIN THE GUARANTEED PERIOD AS DETERMINED BY THE ARCHITECT, THE CONTRACTOR SHALL MAKE SUITABLE REPAIRS INCLUDING AN ADDITIONAL APPLICATION OF THE LIQUID REPELLENT COATING AT HIS OWN EXPENSE.

CLEANUP
A. AT COMPLETION, REMOVE ALL EXCESS MATERIAL, DEBRIS, AND RUBBISH RESULTING FROM THE WORK OF THIS SECTION FROM THE JOB SITE. THE GROUNDS SHALL BE LEFT CLEAN.

MASONRY REPAIR SCOPE
1. Remove all grouting from cornice, sills, repoint all joints.
2. Pressure wash facade with "sureclean", by Waldo.
3. Repair areas as noted on drawings.
4. Tuck point entire masonry facade, caulk all exposed joints with sealant.
5. Caulk any exposed joints with a high performance, low modulus, multi-component, chemically cured polyurethane joint sealant conforming to Federal Specification TT-S-00227E, Class A, Type II and ASTM C920-79, Type M, Grade NS, Class 25 standards. Sealant shall be by Dymeric 511 as manufactured by Tremco or approved equal.

MASONRY LINTEL SCHEDULE:
Lintels over openings in bearing walls shall be as follows;or as noted on drawings.

Span of opening:	8" walls	10"-12" walls
less than 3'-0"	2 L'S 3 1/2 x 3 1/2 x 1/4	3L'S 3 1/2 x 3 1/2 x 1/4
up to 4'-0"	2 L'S 4 x 3 1/2 x 1/4	3L'S 4 x 3 1/2 x 1/4
up to 5'-0"	2L'S 5 x 3 1/2 x 1/4	3L'S 5 x 3 1/2 x 1/4
up to 6'-0"	2L'S 6 x 3 1/2 x 3/8	3L'S 6 x 3 1/2 x 3/8

LIGHT GAGE METAL FRAMING :
1. ALL WORK SHALL CONFORM TO THE FOLLOWING STANDARDS, LATEST EDITIONS:
   (A) AMERICAN IRON AND STEEL INSTITUTE (A.I.S.I.). DESIGN OF COLD FORM STRUCTURAL STEEL.
   (B) AMERICAN INSTITUTE OF STEEL CONSTRUCTION. MANUAL OF STEEL CONSTRUCTION.
   (C) AMERICAN WELDING SOCIETY (A.W.S.), STURCTURAL WELDING CODE-SHEET STEEL.
   (D) AMERICAN SOCIETY OFOR TESTING AND MATERIALS, (A.S.T.M.).
2. THE MORE STRINGENT REQUIREMENTS SHALL GOVERN IN CONFLICTS BETWEEN SPECIFIED CODES AND STANDARDS.

WOOD NOTES:
1. ALL LUMBER SHALL HAVE A MOISTURE CONTENT OF NOT MORE THAN 19%.
2. ALL FRAMING LUMBER SHALL BE #2 HEM-FIR, OR BETTER, HAVING A MINIMUM: FB=1,200 PSI, FV=70 PSI, E=1,300,000 PSI.
3. ALL L.V.L. LUMBER DENOTED ON PLANS SHALL HAVE A MINIMUM: FB=2,600 PSI, FV=285 PSI, E=1,900,000 PSI.
4. ALL JOIST SPANS SHALL HAVE ONE ROW OF 1" X 3: CROSS BRIDGING AT MID SPAN AND NOT MORE THAN 8'-0" O.C.
5. ALL STUD BEARING WALLS SHALL HAVE ONE ROW OF 2X HORIZONTAL BLOCKING AT 1/2 STUD HEIGHT, AND NOT MORE THAN 6'-0" O.C. MAXIMUM.
6. PROVIDE AND INSTALL ALL NECESSARY TIMBER CONNECTORS WITH ADEQUATE STRENGTH.
7. PROVIDE DOUBLE JOIST BELOW PARTITIONS PARALLEL TO JOIST FRAMING.
8. PROVIDE SOLID BRIDGING BELOW PARTITIONS PERPENDICULAR TO JOIST FRAMING.
9. PROVIDE SOLID BRIDGING BETWEEN JOIST FRAMING MEMBERS WHEN BEARING ON STUD PARTITIONS OR BEAMS.
10. PROVIDE A CONTINUOUS BAND JOIST AT EXTERIOR STUD WALLS.
11. PROVIDE DIAGONAL METAL STRAP BRACING AT ALL CORNERS AND WALL INTERSECTIONS, AT THE INSIDE FACE OF STUDS, FROM TOP PLATE TO FLOOR PLATE AT 45°. SIMPSON TYPE "CWB", OR EQUAL.
12. ALL BUILT-UP BEAMS SHALL BE BOLTED WITH 1/2" DIAMETER BOLTS, MEETING A307 STANDARDS, OR, AS NOTED ON DRAWINGS.

WOOD LINTEL SCHEDULE:
Lintels over openings in bearing walls shall be as follows;or as noted on drawings.

Span of opening:	Size: 2x6 studs	Size: 2x4 studs
less than 4'-0"	3 - 2x4	2 - 2x4
up to 6'-0"	3 - 2x6	2 - 2x6
up to 8'-0"	3 - 2x8	2 - 2x8
up to 10'-0"	3 - 2x10	2 - 2x10

KEY
- SD — SMOKE DETECTOR
- HD — HEAT DETECTOR
- CO — CARBON MONOXIDE DETECTOR
- EL — EMERGENCY LIGHT
- H/S/P — HORN/ STROBE/ PULL STATION
- H/S — HORN/ STROBE
- 1 HOUR WALL(SEE W.T.1/A-3.1)
- F — FAN
- 45 MIN. DOOR
- FACP — FIRE ALARM CONTROL PANEL
- W — WINDOW TYPE
- 2 — 2 HOUR CLG. ABOVE (SEE C.T.1/A-3.1)
- FE — FIRE EXTINGUISHER

CODE SUMMARY
NEW TYPE 5A CONSTRUCTION
1 STORY
B USE GROUP
FULLY SPRINKLED
FULLY ALARMED
ZONE RC

Location
PROPOSED COMMERCIAL BUILDING
272 BROADWAY
SOMERVILLE, MA

Choo & Company Inc.
One Billings Road Quincy, MA 02171
617-786-7727 fax 617-786-7715

No.	Revision Date
	08-18-2010

Project No: 10063
Scale: AS NOTED
Date: 04-30-2010
Drawn By: SL

Drawing Name: COVER SHEET

Sheet No: A-0

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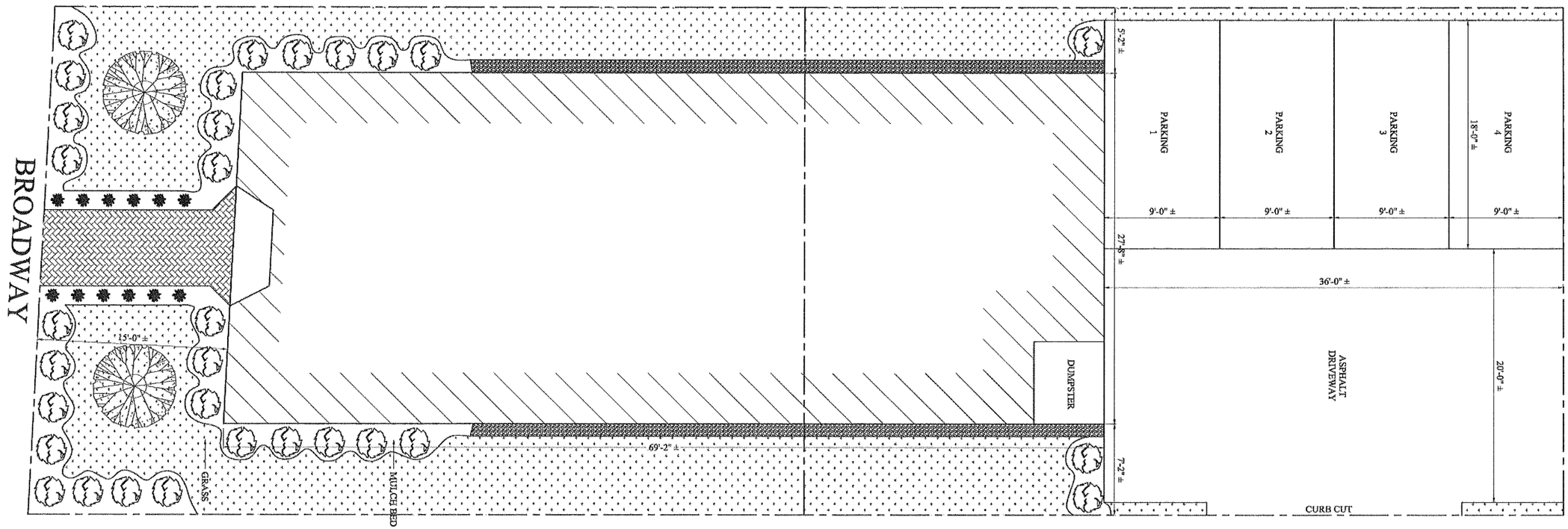
CITY CLERK'S OFFICE
SOMERVILLE, MA



1 PROPOSED ARCHITECTURAL SITE PLAN
1/4"=1'-0"

PROP. COMMERCIAL BUILDING
272 BROADWAY
SOMERVILLE, MA

Location

Groo & Company, Inc.
One Billings Road Quincy, MA 02171
617-786-7727 fax 617-786-7715

No.	Revision Date
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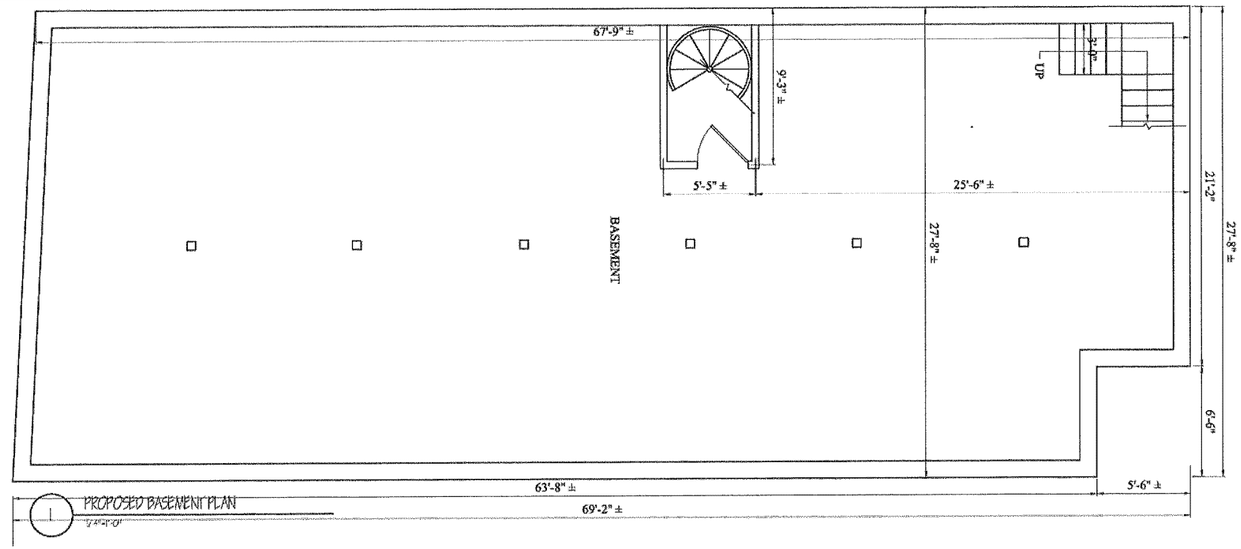
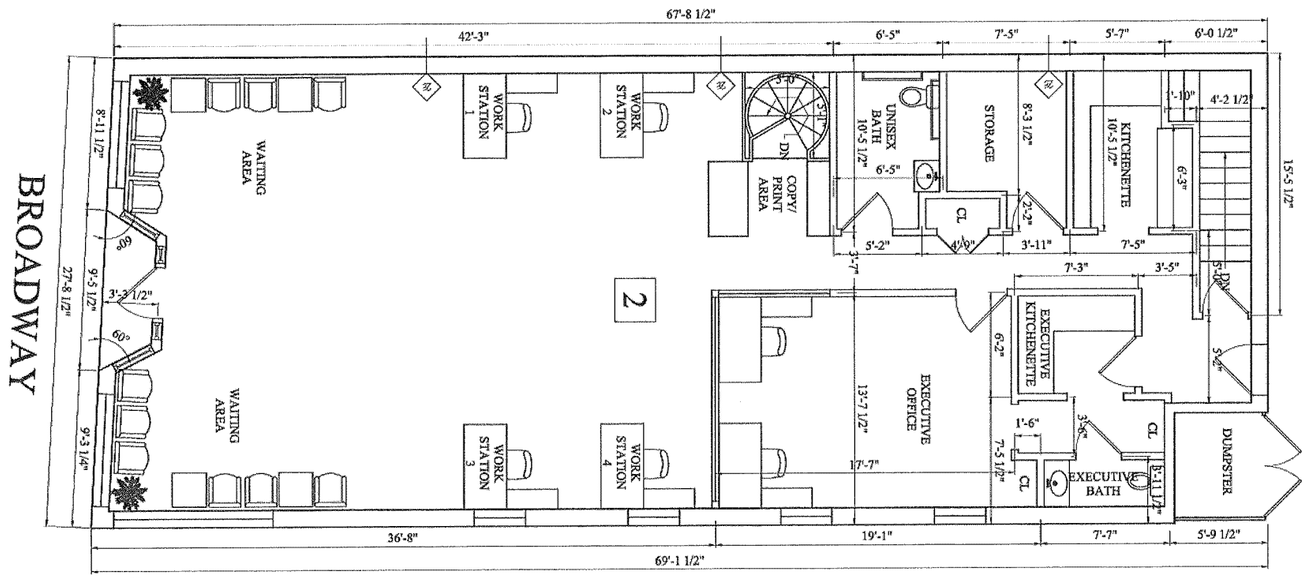
Project No: 10063
Scale: AS NOTED
Date: 04-15-2010
Drawn By: SL

Drawing Name: PROPOSED PLANS

Sheet No: A-1.0

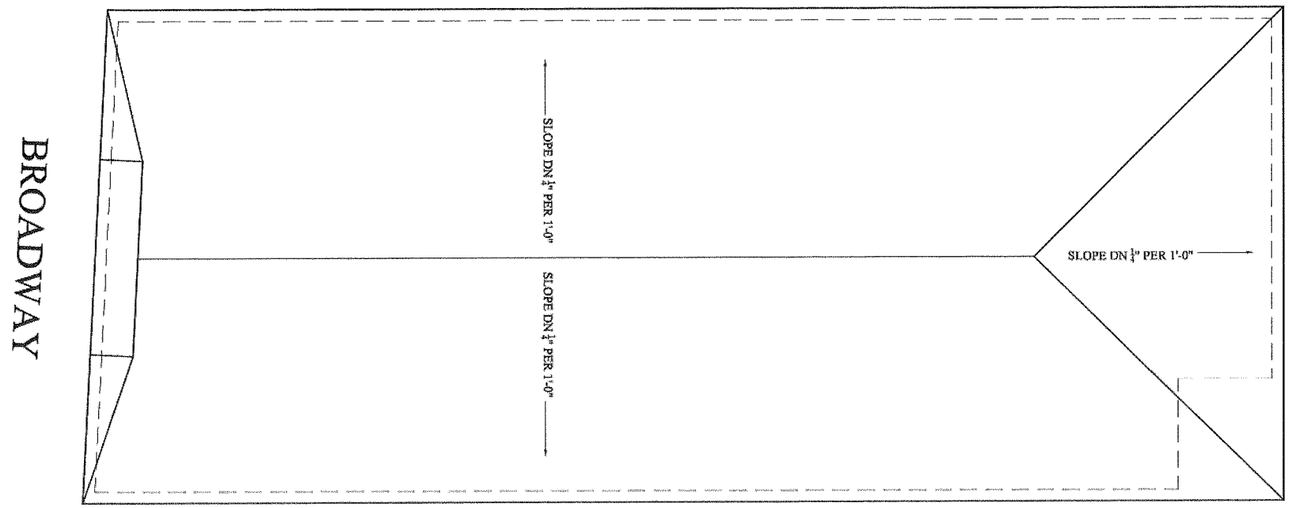


PROPOSED BASEMENT PLAN
1/4"=1'-0"



2 PROPOSED FIRST FLOOR PLAN
1/4"=1'-0"

PROP. COMMERCIAL BUILDING 272 BROADWAY SOMERVILLE, MA	Location	Choo & Company, Inc. One Billings Road Quincy, MA 02171 617-786-7727 fax 617-786-7715	No.	Revision Date 08-18-2010		Project No: 10063 Scale: AS NOTED Date: 04-15-2010 Drawn By: SL	Drawing Name PROPOSED PLANS	Sheet No. A-1.1



1 PROPOSED ROOF PLAN
1/4"=1'-0"

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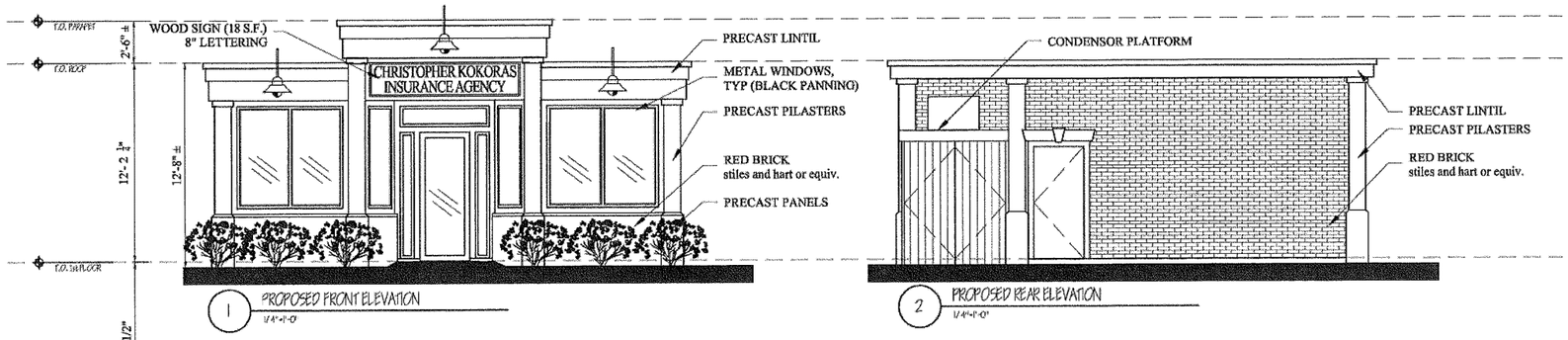
Revision Date
08-18-2010

Project No: 10063
Scale: AS NOTED
Date: 04-15-2010
Drawn By: SL

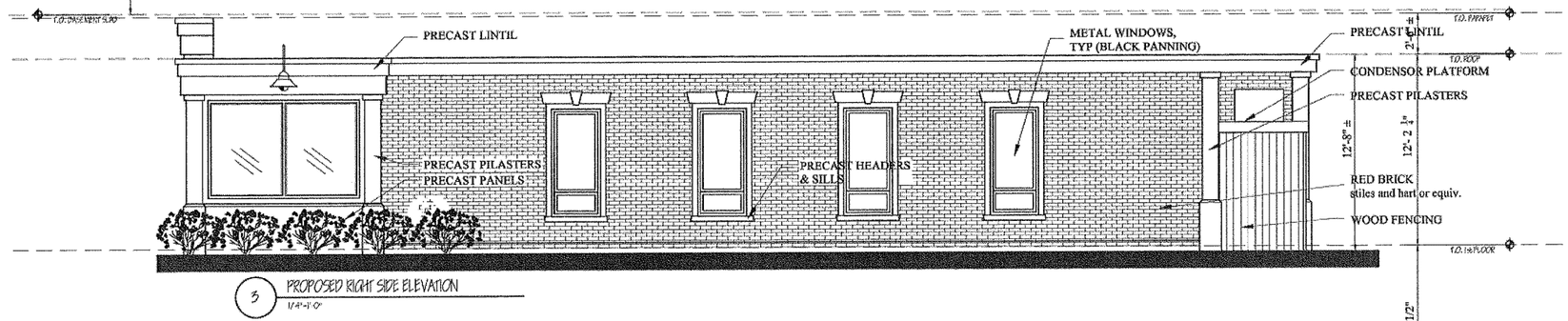
Drawing Name: PROPOSED PLANS

Sheet No.: A-1.2

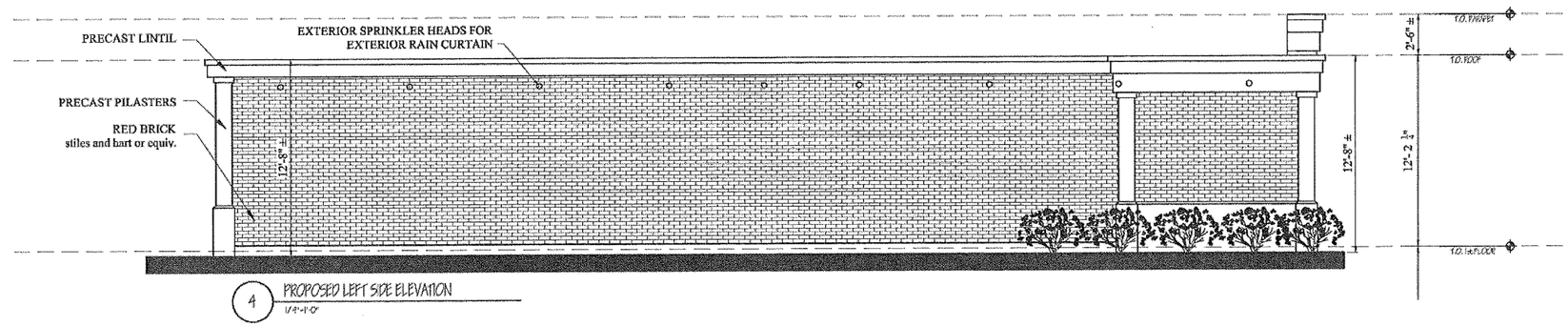


1 PROPOSED FRONT ELEVATION
1/4"=1'-0"

2 PROPOSED REAR ELEVATION
1/4"=1'-0"



3 PROPOSED RIGHT SIDE ELEVATION
1/4"=1'-0"



4 PROPOSED LEFT SIDE ELEVATION
1/4"=1'-0"

PROP. COMMERCIAL BUILDING
272 BROADWAY
SOMERVILLE, MA

Location

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No.	Revision Date
	04-21-2010
	05-20-2010
	08-18-2010

Project No: 10063
Scale: AS NOTED
Date: 04-15-2010
Drawn By: SL

Drawing Name: PROPOSED PLANS

Sheet No. A-2.1

2010 OCT 28 P 2:18

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SOMERVILLE, MA

Location

PROPOSED COMMERCIAL BUILDING
272 BROADWAY
SOMERVILLE, MA

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No.	Revision Date
	08-18-2010

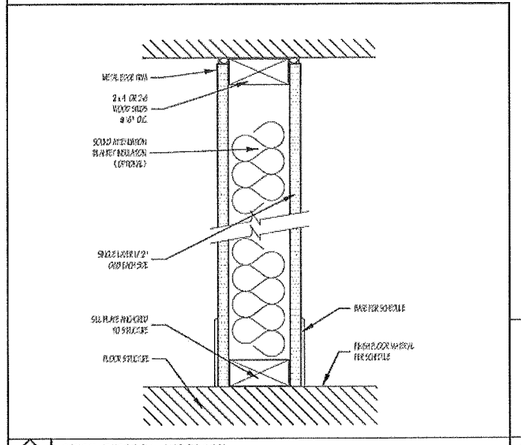
Project No: 10063
Scale: AS NOTED
Date: 04-30-2010
Drawn By: SL

Drawing Name

DETAIL SHEET

Sheet No.

A-3.1



0 TYPICAL PARTITION - WOOD STUD
SCALE: 3"=1'-0"

Design No. U371
Bearing Wall Rating — 2 Hr.
Finish Rating — 41 Min.

1. Wood Studs — Nom 2 by 4 in. spaced 16 in. OC, effectively cross-braced.
2. Gypsum Board* — 5/8 in. thick, two layers applied either horizontally or vertically. Inner layer attached to studs with 1 1/8 in. long Type S steel screws spaced 12 in. OC. Outer layer attached to studs over inner layer with 2 in. long Type S steel screws spaced 12 in. OC offset 8 in. from base layer. Vertical joints located over studs. Wallboard and the overall ultra-low-mass interior surface layer supplied as Outer layer. All joints covered with joint tape and compound, and fastener heads filled with joint compound. As an alternate, 1200 lb/m³ (bulk) gypsum vermiculite core may be applied to the exterior surface of standard wallboard base layer. Joints to be staggered. Wallboard other than 48 in. wide must be applied horizontally.
NATIONAL GYPSUM CO — Types FE-C, FEN-C, FSW, FSW-C, FSW-G, FSVR-C, Gold Bond® XP Type X Gypsum Board
3. Joints and fasteners — Finish in accordance with recommendations of gypsum board manufacturer.
THERMAFIBER INC — Type SAFB
4. Optional Sheathing — Cut to fit and tightly friction fitted between studs, with edges resting on the face of the gypsum board. Not required to be attached to studs.
5. Wood Structural Panel Sheathing — Optional (not shown), but if used, 5/8 in. (15.9 mm) thick, 4 ft wide, min grade "sheathing" or "structural 1" sheathing, or exterior glue plywood sheathing, or other plywood sheathing panels identified for use in fire-resistive assemblies. Applied vertically with edges centered over studs. Nails or staples spaced 6 in. OC along panel edges and 12 in. OC at intermediate studs. Nails or staples shall be corrosion resistant and shall penetrate studs or other framing members at least 1 1/2 in. Where plywood sheathing is used on both sides of wall, nails or staples on opposite sides shall be offset from each other so as not to be driven into the same stud.
6. Structural Studs Nailing — Nom 1 by 4 in. (25 by 102 mm) or Metal galvanized steel nailing plates over gypsum sheathing to wood studs with 1 1/4 in. by 7 in. steel screws spaced 7 in. OC. (Note: If optional wood structural panel sheathing is used, fastener length shall be increased such that screws penetrate studs by the thickness of the sheathing plus 1 1/4 in.)
7. Steel Studs — Nom 3 5/8 in. (92 mm) wide, 0.0329 in. (0.84 mm) thick, spaced 24 in. OC. Studs shall be cut 1/2 in. (13 mm) shorter than the clear span between the floor and roof runners. Studs shall be installed by first compressing them into the runner at one end and then inserting the other end.
8. Fiberglass Batts — Optional, 3 1/2 in. (89 mm) thick, 0.6 pcf (9.6 kg/m³) density, friction fitted between studs.
9. Resilient Channels — Optional, 25 gauge, 1/2 in. (12.7 mm) deep, spaced 24 in. OC, attached to studs with one 1 in. long Type S screw at each intersection. Gypsum board attached to resilient channels with 1 in. long Type S screws spaced 12 in. OC.
10. Gypsum Board* — 5/8 in. thick, two layers applied either horizontally or vertically. Inner layer attached to studs with 1 1/8 in. long Type S steel screws spaced 12 in. OC. Outer layer attached to studs over inner layer with 2 in. long Type S steel screws spaced 12 in. OC offset 8 in. from base layer. Vertical joints located over studs. Wallboard and the overall ultra-low-mass interior surface layer supplied as Outer layer. All joints covered with joint tape and compound, and fastener heads filled with joint compound. As an alternate, 1200 lb/m³ (bulk) gypsum vermiculite core may be applied to the exterior surface of standard wallboard base layer. Joints to be staggered. Wallboard other than 48 in. wide must be applied horizontally.
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16. Fiberglass Batts — Optional, 3 1/2 in. (89 mm) thick, 0.6 pcf (9.6 kg/m³) density, friction fitted between studs.
17. Resilient Channels — Optional, 25 gauge, 1/2 in. (12.7 mm) deep, spaced 24 in. OC, attached to studs with one 1 in. long Type S screw at each intersection. Gypsum board attached to resilient channels with 1 in. long Type S screws spaced 12 in. OC.
18. Gypsum Board* — 5/8 in. thick, two layers applied either horizontally or vertically. Inner layer attached to studs with 1 1/8 in. long Type S steel screws spaced 12 in. OC. Outer layer attached to studs over inner layer with 2 in. long Type S steel screws spaced 12 in. OC offset 8 in. from base layer. Vertical joints located over studs. Wallboard and the overall ultra-low-mass interior surface layer supplied as Outer layer. All joints covered with joint tape and compound, and fastener heads filled with joint compound. As an alternate, 1200 lb/m³ (bulk) gypsum vermiculite core may be applied to the exterior surface of standard wallboard base layer. Joints to be staggered. Wallboard other than 48 in. wide must be applied horizontally.
NATIONAL GYPSUM CO — Types FE-C, FEN-C, FSW, FSW-C, FSW-G, FSVR-C, Gold Bond® XP Type X Gypsum Board
19. Joints and fasteners — Finish in accordance with recommendations of gypsum board manufacturer.
THERMAFIBER INC — Type SAFB
20. Optional Sheathing — Cut to fit and tightly friction fitted between studs, with edges resting on the face of the gypsum board. Not required to be attached to studs.
21. Wood Structural Panel Sheathing — Optional (not shown), but if used, 5/8 in. (15.9 mm) thick, 4 ft wide, min grade "sheathing" or "structural 1" sheathing, or exterior glue plywood sheathing, or other plywood sheathing panels identified for use in fire-resistive assemblies. Applied vertically with edges centered over studs. Nails or staples spaced 6 in. OC along panel edges and 12 in. OC at intermediate studs. Nails or staples shall be corrosion resistant and shall penetrate studs or other framing members at least 1 1/2 in. Where plywood sheathing is used on both sides of wall, nails or staples on opposite sides shall be offset from each other so as not to be driven into the same stud.
22. Structural Studs Nailing — Nom 1 by 4 in. (25 by 102 mm) or Metal galvanized steel nailing plates over gypsum sheathing to wood studs with 1 1/4 in. by 7 in. steel screws spaced 7 in. OC. (Note: If optional wood structural panel sheathing is used, fastener length shall be increased such that screws penetrate studs by the thickness of the sheathing plus 1 1/4 in.)
23. Steel Studs — Nom 3 5/8 in. (92 mm) wide, 0.0329 in. (0.84 mm) thick, spaced 24 in. OC. Studs shall be cut 1/2 in. (13 mm) shorter than the clear span between the floor and roof runners. Studs shall be installed by first compressing them into the runner at one end and then inserting the other end.
24. Fiberglass Batts — Optional, 3 1/2 in. (89 mm) thick, 0.6 pcf (9.6 kg/m³) density, friction fitted between studs.
25. Resilient Channels — Optional, 25 gauge, 1/2 in. (12.7 mm) deep, spaced 24 in. OC, attached to studs with one 1 in. long Type S screw at each intersection. Gypsum board attached to resilient channels with 1 in. long Type S screws spaced 12 in. OC.
26. Gypsum Board* — 5/8 in. thick, two layers applied either horizontally or vertically. Inner layer attached to studs with 1 1/8 in. long Type S steel screws spaced 12 in. OC. Outer layer attached to studs over inner layer with 2 in. long Type S steel screws spaced 12 in. OC offset 8 in. from base layer. Vertical joints located over studs. Wallboard and the overall ultra-low-mass interior surface layer supplied as Outer layer. All joints covered with joint tape and compound, and fastener heads filled with joint compound. As an alternate, 1200 lb/m³ (bulk) gypsum vermiculite core may be applied to the exterior surface of standard wallboard base layer. Joints to be staggered. Wallboard other than 48 in. wide must be applied horizontally.
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27. Joints and fasteners — Finish in accordance with recommendations of gypsum board manufacturer.
THERMAFIBER INC — Type SAFB
28. Optional Sheathing — Cut to fit and tightly friction fitted between studs, with edges resting on the face of the gypsum board. Not required to be attached to studs.
29. Wood Structural Panel Sheathing — Optional (not shown), but if used, 5/8 in. (15.9 mm) thick, 4 ft wide, min grade "sheathing" or "structural 1" sheathing, or exterior glue plywood sheathing, or other plywood sheathing panels identified for use in fire-resistive assemblies. Applied vertically with edges centered over studs. Nails or staples spaced 6 in. OC along panel edges and 12 in. OC at intermediate studs. Nails or staples shall be corrosion resistant and shall penetrate studs or other framing members at least 1 1/2 in. Where plywood sheathing is used on both sides of wall, nails or staples on opposite sides shall be offset from each other so as not to be driven into the same stud.
30. Structural Studs Nailing — Nom 1 by 4 in. (25 by 102 mm) or Metal galvanized steel nailing plates over gypsum sheathing to wood studs with 1 1/4 in. by 7 in. steel screws spaced 7 in. OC. (Note: If optional wood structural panel sheathing is used, fastener length shall be increased such that screws penetrate studs by the thickness of the sheathing plus 1 1/4 in.)
31. Steel Studs — Nom 3 5/8 in. (92 mm) wide, 0.0329 in. (0.84 mm) thick, spaced 24 in. OC. Studs shall be cut 1/2 in. (13 mm) shorter than the clear span between the floor and roof runners. Studs shall be installed by first compressing them into the runner at one end and then inserting the other end.
32. Fiberglass Batts — Optional, 3 1/2 in. (89 mm) thick, 0.6 pcf (9.6 kg/m³) density, friction fitted between studs.
33. Resilient Channels — Optional, 25 gauge, 1/2 in. (12.7 mm) deep, spaced 24 in. OC, attached to studs with one 1 in. long Type S screw at each intersection. Gypsum board attached to resilient channels with 1 in. long Type S screws spaced 12 in. OC.
34. Gypsum Board* — 5/8 in. thick, two layers applied either horizontally or vertically. Inner layer attached to studs with 1 1/8 in. long Type S steel screws spaced 12 in. OC. Outer layer attached to studs over inner layer with 2 in. long Type S steel screws spaced 12 in. OC offset 8 in. from base layer. Vertical joints located over studs. Wallboard and the overall ultra-low-mass interior surface layer supplied as Outer layer. All joints covered with joint tape and compound, and fastener heads filled with joint compound. As an alternate, 1200 lb/m³ (bulk) gypsum vermiculite core may be applied to the exterior surface of standard wallboard base layer. Joints to be staggered. Wallboard other than 48 in. wide must be applied horizontally.
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35. Joints and fasteners — Finish in accordance with recommendations of gypsum board manufacturer.
THERMAFIBER INC — Type SAFB
36. Optional Sheathing — Cut to fit and tightly friction fitted between studs, with edges resting on the face of the gypsum board. Not required to be attached to studs.
37. Wood Structural Panel Sheathing — Optional (not shown), but if used, 5/8 in. (15.9 mm) thick, 4 ft wide, min grade "sheathing" or "structural 1" sheathing, or exterior glue plywood sheathing, or other plywood sheathing panels identified for use in fire-resistive assemblies. Applied vertically with edges centered over studs. Nails or staples spaced 6 in. OC along panel edges and 12 in. OC at intermediate studs. Nails or staples shall be corrosion resistant and shall penetrate studs or other framing members at least 1 1/2 in. Where plywood sheathing is used on both sides of wall, nails or staples on opposite sides shall be offset from each other so as not to be driven into the same stud.
38. Structural Studs Nailing — Nom 1 by 4 in. (25 by 102 mm) or Metal galvanized steel nailing plates over gypsum sheathing to wood studs with 1 1/4 in. by 7 in. steel screws spaced 7 in. OC. (Note: If optional wood structural panel sheathing is used, fastener length shall be increased such that screws penetrate studs by the thickness of the sheathing plus 1 1/4 in.)
39. Steel Studs — Nom 3 5/8 in. (92 mm) wide, 0.0329 in. (0.84 mm) thick, spaced 24 in. OC. Studs shall be cut 1/2 in. (13 mm) shorter than the clear span between the floor and roof runners. Studs shall be installed by first compressing them into the runner at one end and then inserting the other end.
40. Fiberglass Batts — Optional, 3 1/2 in. (89 mm) thick, 0.6 pcf (9.6 kg/m³) density, friction fitted between studs.
41. Resilient Channels — Optional, 25 gauge, 1/2 in. (12.7 mm) deep, spaced 24 in. OC, attached to studs with one 1 in. long Type S screw at each intersection. Gypsum board attached to resilient channels with 1 in. long Type S screws spaced 12 in. OC.
42. Gypsum Board* — 5/8 in. thick, two layers applied either horizontally or vertically. Inner layer attached to studs with 1 1/8 in. long Type S steel screws spaced 12 in. OC. Outer layer attached to studs over inner layer with 2 in. long Type S steel screws spaced 12 in. OC offset 8 in. from base layer. Vertical joints located over studs. Wallboard and the overall ultra-low-mass interior surface layer supplied as Outer layer. All joints covered with joint tape and compound, and fastener heads filled with joint compound. As an alternate, 1200 lb/m³ (bulk) gypsum vermiculite core may be applied to the exterior surface of standard wallboard base layer. Joints to be staggered. Wallboard other than 48 in. wide must be applied horizontally.
NATIONAL GYPSUM CO — Types FE-C, FEN-C, FSW, FSW-C, FSW-G, FSVR-C, Gold Bond® XP Type X Gypsum Board
43. Joints and fasteners — Finish in accordance with recommendations of gypsum board manufacturer.
THERMAFIBER INC — Type SAFB
44. Optional Sheathing — Cut to fit and tightly friction fitted between studs, with edges resting on the face of the gypsum board. Not required to be attached to studs.
45. Wood Structural Panel Sheathing — Optional (not shown), but if used, 5/8 in. (15.9 mm) thick, 4 ft wide, min grade "sheathing" or "structural 1" sheathing, or exterior glue plywood sheathing, or other plywood sheathing panels identified for use in fire-resistive assemblies. Applied vertically with edges centered over studs. Nails or staples spaced 6 in. OC along panel edges and 12 in. OC at intermediate studs. Nails or staples shall be corrosion resistant and shall penetrate studs or other framing members at least 1 1/2 in. Where plywood sheathing is used on both sides of wall, nails or staples on opposite sides shall be offset from each other so as not to be driven into the same stud.
46. Structural Studs Nailing — Nom 1 by 4 in. (25 by 102 mm) or Metal galvanized steel nailing plates over gypsum sheathing to wood studs with 1 1/4 in. by 7 in. steel screws spaced 7 in. OC. (Note: If optional wood structural panel sheathing is used, fastener length shall be increased such that screws penetrate studs by the thickness of the sheathing plus 1 1/4 in.)
47. Steel Studs — Nom 3 5/8 in. (92 mm) wide, 0.0329 in. (0.84 mm) thick, spaced 24 in. OC. Studs shall be cut 1/2 in. (13 mm) shorter than the clear span between the floor and roof runners. Studs shall be installed by first compressing them into the runner at one end and then inserting the other end.
48. Fiberglass Batts — Optional, 3 1/2 in. (89 mm) thick, 0.6 pcf (9.6 kg/m³) density, friction fitted between studs.
49. Resilient Channels — Optional, 25 gauge, 1/2 in. (12.7 mm) deep, spaced 24 in. OC, attached to studs with one 1 in. long Type S screw at each intersection. Gypsum board attached to resilient channels with 1 in. long Type S screws spaced 12 in. OC.
50. Gypsum Board* — 5/8 in. thick, two layers applied either horizontally or vertically. Inner layer attached to studs with 1 1/8 in. long Type S steel screws spaced 12 in. OC. Outer layer attached to studs over inner layer with 2 in. long Type S steel screws spaced 12 in. OC offset 8 in. from base layer. Vertical joints located over studs. Wallboard and the overall ultra-low-mass interior surface layer supplied as Outer layer. All joints covered with joint tape and compound, and fastener heads filled with joint compound. As an alternate, 1200 lb/m³ (bulk) gypsum vermiculite core may be applied to the exterior surface of standard wallboard base layer. Joints to be staggered. Wallboard other than 48 in. wide must be applied horizontally.
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51. Joints and fasteners — Finish in accordance with recommendations of gypsum board manufacturer.
THERMAFIBER INC — Type SAFB
52. Optional Sheathing — Cut to fit and tightly friction fitted between studs, with edges resting on the face of the gypsum board. Not required to be attached to studs.
53. Wood Structural Panel Sheathing — Optional (not shown), but if used, 5/8 in. (15.9 mm) thick, 4 ft wide, min grade "sheathing" or "structural 1" sheathing, or exterior glue plywood sheathing, or other plywood sheathing panels identified for use in fire-resistive assemblies. Applied vertically with edges centered over studs. Nails or staples spaced 6 in. OC along panel edges and 12 in. OC at intermediate studs. Nails or staples shall be corrosion resistant and shall penetrate studs or other framing members at least 1 1/2 in. Where plywood sheathing is used on both sides of wall, nails or staples on opposite sides shall be offset from each other so as not to be driven into the same stud.
54. Structural Studs Nailing — Nom 1 by 4 in. (25 by 102 mm) or Metal galvanized steel nailing plates over gypsum sheathing to wood studs with 1 1/4 in. by 7 in. steel screws spaced 7 in. OC. (Note: If optional wood structural panel sheathing is used, fastener length shall be increased such that screws penetrate studs by the thickness of the sheathing plus 1 1/4 in.)
55. Steel Studs — Nom 3 5/8 in. (92 mm) wide, 0.0329 in. (0.84 mm) thick, spaced 24 in. OC. Studs shall be cut 1/2 in. (13 mm) shorter than the clear span between the floor and roof runners. Studs shall be installed by first compressing them into the runner at one end and then inserting the other end.
56. Fiberglass Batts — Optional, 3 1/2 in. (89 mm) thick, 0.6 pcf (9.6 kg/m³) density, friction fitted between studs.
57. Resilient Channels — Optional, 25 gauge, 1/2 in. (12.7 mm) deep, spaced 24 in. OC, attached to studs with one 1 in. long Type S screw at each intersection. Gypsum board attached to resilient channels with 1 in. long Type S screws spaced 12 in. OC.
58. Gypsum Board* — 5/8 in. thick, two layers applied either horizontally or vertically. Inner layer attached to studs with 1 1/8 in. long Type S steel screws spaced 12 in. OC. Outer layer attached to studs over inner layer with 2 in. long Type S steel screws spaced 12 in. OC offset 8 in. from base layer. Vertical joints located over studs. Wallboard and the overall ultra-low-mass interior surface layer supplied as Outer layer. All joints covered with joint tape and compound, and fastener heads filled with joint compound. As an alternate, 1200 lb/m³ (bulk) gypsum vermiculite core may be applied to the exterior surface of standard wallboard base layer. Joints to be staggered. Wallboard other than 48 in. wide must be applied horizontally.
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59. Joints and fasteners — Finish in accordance with recommendations of gypsum board manufacturer.
THERMAFIBER INC — Type SAFB
60. Optional Sheathing — Cut to fit and tightly friction fitted between studs, with edges resting on the face of the gypsum board. Not required to be attached to studs.
61. Wood Structural Panel Sheathing — Optional (not shown), but if used, 5/8 in. (15.9 mm) thick, 4 ft wide, min grade "sheathing" or "structural 1" sheathing, or exterior glue plywood sheathing, or other plywood sheathing panels identified for use in fire-resistive assemblies. Applied vertically with edges centered over studs. Nails or staples spaced 6 in. OC along panel edges and 12 in. OC at intermediate studs. Nails or staples shall be corrosion resistant and shall penetrate studs or other framing members at least 1 1/2 in. Where plywood sheathing is used on both sides of wall, nails or staples on opposite sides shall be offset from each other so as not to be driven into the same stud.
62. Structural Studs Nailing — Nom 1 by 4 in. (25 by 102 mm) or Metal galvanized steel nailing plates over gypsum sheathing to wood studs with 1 1/4 in. by 7 in. steel screws spaced 7 in. OC. (Note: If optional wood structural panel sheathing is used, fastener length shall be increased such that screws penetrate studs by the thickness of the sheathing plus 1 1/4 in.)
63. Steel Studs — Nom 3 5/8 in. (92 mm) wide, 0.0329 in. (0.84 mm) thick, spaced 24 in. OC. Studs shall be cut 1/2 in. (13 mm) shorter than the clear span between the floor and roof runners. Studs shall be installed by first compressing them into the runner at one end and then inserting the other end.
64. Fiberglass Batts — Optional, 3 1/2 in. (89 mm) thick, 0.6 pcf (9.6 kg/m³) density, friction fitted between studs.
65. Resilient Channels — Optional, 25 gauge, 1/2 in. (12.7 mm) deep, spaced 24 in. OC, attached to studs with one 1 in. long Type S screw at each intersection. Gypsum board attached to resilient channels with 1 in. long Type S screws spaced 12 in. OC.
66. Gypsum Board* — 5/8 in. thick, two layers applied either horizontally or vertically. Inner layer attached to studs with 1 1/8 in. long Type S steel screws spaced 12 in. OC. Outer layer attached to studs over inner layer with 2 in. long Type S steel screws spaced 12 in. OC offset 8 in. from base layer. Vertical joints located over studs. Wallboard and the overall ultra-low-mass interior surface layer supplied as Outer layer. All joints covered with joint tape and compound, and fastener heads filled with joint compound. As an alternate, 1200 lb/m³ (bulk) gypsum vermiculite core may be applied to the exterior surface of standard wallboard base layer. Joints to be staggered. Wallboard other than 48 in. wide must be applied horizontally.
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67. Joints and fasteners — Finish in accordance with recommendations of gypsum board manufacturer.
THERMAFIBER INC — Type SAFB
68. Optional Sheathing — Cut to fit and tightly friction fitted between studs, with edges resting on the face of the gypsum board. Not required to be attached to studs.
69. Wood Structural Panel Sheathing — Optional (not shown), but if used, 5/8 in. (15.9 mm) thick, 4 ft wide, min grade "sheathing" or "structural 1" sheathing, or exterior glue plywood sheathing, or other plywood sheathing panels identified for use in fire-resistive assemblies. Applied vertically with edges centered over studs. Nails or staples spaced 6 in. OC along panel edges and 12 in. OC at intermediate studs. Nails or staples shall be corrosion resistant and shall penetrate studs or other framing members at least 1 1/2 in. Where plywood sheathing is used on both sides of wall, nails or staples on opposite sides shall be offset from each other so as not to be driven into the same stud.
70. Structural Studs Nailing — Nom 1 by 4 in. (25 by 102 mm) or Metal galvanized steel nailing plates over gypsum sheathing to wood studs with 1 1/4 in. by 7 in. steel screws spaced 7 in. OC. (Note: If optional wood structural panel sheathing is used, fastener length shall be increased such that screws penetrate studs by the thickness of the sheathing plus 1 1/4 in.)
71. Steel Studs — Nom 3 5/8 in. (92 mm) wide, 0.0329 in. (0.84 mm) thick, spaced 24 in. OC. Studs shall be cut 1/2 in. (13 mm) shorter than the clear span between the floor and roof runners. Studs shall be installed by first compressing them into the runner at one end and then inserting the other end.
72. Fiberglass Batts — Optional, 3 1/2 in. (89 mm) thick, 0.6 pcf (9.6 kg/m³) density, friction fitted between studs.
73. Resilient Channels — Optional, 25 gauge, 1/2 in. (12.7 mm) deep, spaced 24 in. OC, attached to studs with one 1 in. long Type S screw at each intersection. Gypsum board attached to resilient channels with 1 in. long Type S screws spaced 12 in. OC.
74. Gypsum Board* — 5/8 in. thick, two layers applied either horizontally or vertically. Inner layer attached to studs with 1 1/8 in. long Type S steel screws spaced 12 in. OC. Outer layer attached to studs over inner layer with 2 in. long Type S steel screws spaced 12 in. OC offset 8 in. from base layer. Vertical joints located over studs. Wallboard and the overall ultra-low-mass interior surface layer supplied as Outer layer. All joints covered with joint tape and compound, and fastener heads filled with joint compound. As an alternate, 1200 lb/m³ (bulk) gypsum vermiculite core may be applied to the exterior surface of standard wallboard base layer. Joints to be staggered. Wallboard other than 48 in. wide must be applied horizontally.
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75. Joints and fasteners — Finish in accordance with recommendations of gypsum board manufacturer.
THERMAFIBER INC — Type SAFB
76. Optional Sheathing — Cut to fit and tightly friction fitted between studs, with edges resting on the face of the gypsum board. Not required to be attached to studs.
77. Wood Structural Panel Sheathing — Optional (not shown), but if used, 5/8 in. (15.9 mm) thick, 4 ft wide, min grade "sheathing" or "structural 1" sheathing, or exterior glue plywood sheathing, or other plywood sheathing panels identified for use in fire-resistive assemblies. Applied vertically with edges centered over studs. Nails or staples spaced 6 in. OC along panel edges and 12 in. OC at intermediate studs. Nails or staples shall be corrosion resistant and shall penetrate studs or other framing members at least 1 1/2 in. Where plywood sheathing is used on both sides of wall, nails or staples on opposite sides shall be offset from each other so as not to be driven into the same stud.
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79. Steel Studs — Nom 3 5/8 in. (92 mm) wide, 0.0329 in. (0.84 mm) thick, spaced 24 in. OC. Studs shall be cut 1/2 in. (13 mm) shorter than the clear span between the floor and roof runners. Studs shall be installed by first compressing them into the runner at one end and then inserting the other end.
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82. Gypsum Board* — 5/8 in. thick, two layers applied either horizontally or vertically. Inner layer attached to studs with 1 1/8 in. long Type S steel screws spaced 12 in. OC. Outer layer attached to studs over inner layer with 2 in. long Type S steel screws spaced 12 in. OC offset 8 in. from base layer. Vertical joints located over studs. Wallboard and the overall ultra-low-mass interior surface layer supplied as Outer layer. All joints covered with joint tape and compound, and fastener heads filled with joint compound. As an alternate, 1200 lb/m³ (bulk) gypsum vermiculite core may be applied to the exterior surface of standard wallboard base layer. Joints to be staggered. Wallboard other than 48 in. wide must be applied horizontally.
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83. Joints and fasteners — Finish in accordance with recommendations of gypsum board manufacturer.
THERMAFIBER INC — Type SAFB
84. Optional Sheathing — Cut to fit and tightly friction fitted between studs, with edges resting on the face of the gypsum board. Not required to be attached to studs.
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87. Steel Studs — Nom 3 5/8 in. (92 mm) wide, 0.0329 in. (0.84 mm) thick, spaced 24 in. OC. Studs shall be cut 1/2 in. (13 mm) shorter than the clear span between the floor and roof runners. Studs shall be installed by first compressing them into the runner at one end and then inserting the other end.
88. Fiberglass Batts — Optional, 3 1/2 in. (89 mm) thick, 0.6 pcf (9.6 kg/m³) density, friction fitted between studs.
89. Resilient Channels — Optional, 25 gauge, 1/2 in. (12.7 mm) deep, spaced 24 in. OC, attached to studs with one 1 in. long Type S screw at each intersection. Gypsum board attached to resilient channels with 1 in. long Type S screws spaced 12 in. OC.
90. Gypsum Board* — 5/8 in. thick, two layers applied either horizontally or vertically. Inner layer attached to studs with 1 1/8 in. long Type S steel screws spaced 12 in. OC. Outer layer attached to studs over inner layer with 2 in. long Type S steel screws spaced 12 in. OC offset 8 in. from base layer. Vertical joints located over studs. Wallboard and the overall ultra-low-mass interior surface layer supplied as Outer layer. All joints covered with joint tape and compound, and fastener heads filled with joint compound. As an alternate, 1200 lb/m³ (bulk) gypsum vermiculite core may be applied to the exterior surface of standard wallboard base layer. Joints to be staggered. Wallboard other than 48 in. wide must be applied horizontally.
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THERMAFIBER INC — Type SAFB
92. Optional Sheathing — Cut to fit and tightly friction fitted between studs, with edges resting on the face of the gypsum board. Not required to be attached to studs.
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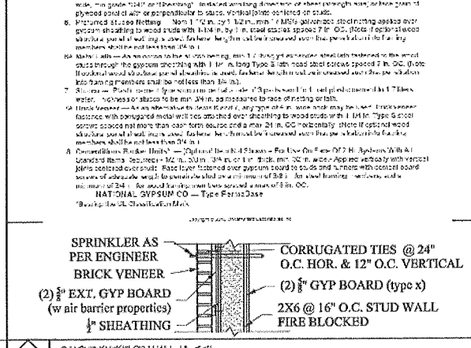
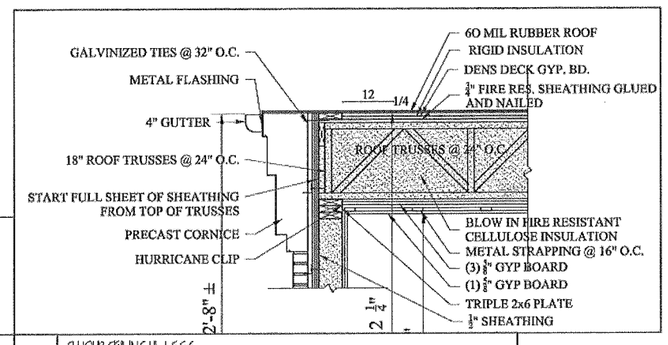
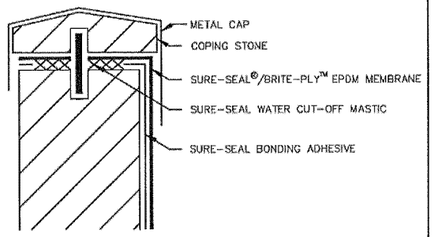
98. Gypsum Board* — 5/8 in. thick, two layers applied either horizontally or vertically. Inner layer attached to studs with 1 1/8 in. long Type S steel screws spaced 12 in. OC. Outer layer attached to studs over inner layer with 2 in. long Type S steel screws spaced 12 in. OC offset 8 in. from base layer. Vertical joints located over studs. Wallboard and the overall ultra-low-mass interior surface layer supplied as Outer layer. All joints covered with joint tape and compound, and fastener heads filled with joint compound. As an alternate, 1200 lb/m³ (bulk) gypsum vermiculite core may be applied to the exterior surface of standard wallboard base layer. Joints to be staggered. Wallboard other than 48 in. wide must be applied horizontally.
NATIONAL GYPSUM CO — Types FE-C, FEN-C, FSW, FSW-C, FSW-G, FSVR-C, Gold Bond® XP Type X Gypsum Board
99. Joints and fasteners — Finish in accordance with recommendations of gypsum board manufacturer.
THERMAFIBER INC — Type SAFB
100. Optional Sheathing — Cut to fit and tightly friction fitted between studs, with edges resting on the face of the gypsum board. Not required to be attached to studs.



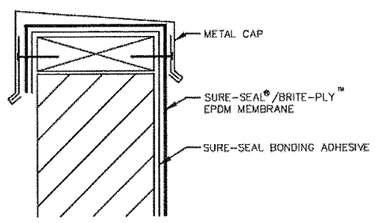
2E 2 HOUR EXTERIOR WALL UL 371
SCALE: 3"=1'-0"


GALVINIZED TIES @ 32" O.C.
METAL FLASHING
4" GUTTER
18" ROOF TRUSSES @ 24" O.C.
START FULL SHEET OF SHEATHING FROM TOP OF TRUSSES
PRECAST CORNICE
HURRICANE CLIP
60 MIL RUBBER ROOF
RIGID INSULATION
DENS DECK GYP. BD.
3/4" FIRE RES. SHEATHING GLUED AND NAILED
12 1/4
ROOF TRUSSES @ 24" O.C.
BLOW IN FIRE RESISTANT CELLULOSE INSULATION
METAL STRAPPING @ 16" O.C.
(3) 5/8" GYP BOARD
(1) 5/8" GYP BOARD



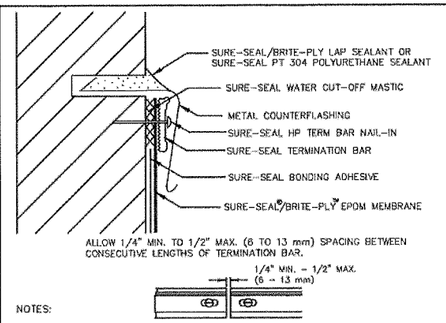
COPING STONE TERMINATION

1



CAP FLASHING TERMINATION

2

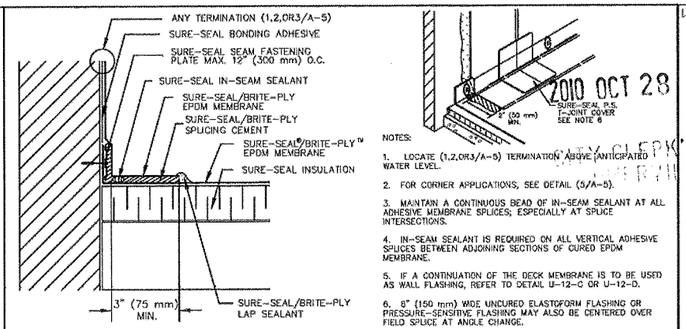


NOTES:

1. APPLY ON HARD SMOOTH SURFACE ONLY; NOT FOR USE ON WOOD.
2. WATER CUT-OFF MASTIC MUST BE HELD UNDER CONSTANT COMPRESSION.
3. DO NOT WRAP COMPRESSION TERMINATION AROUND CORNERS.

COUNTERFLASHING TERMINATION

3

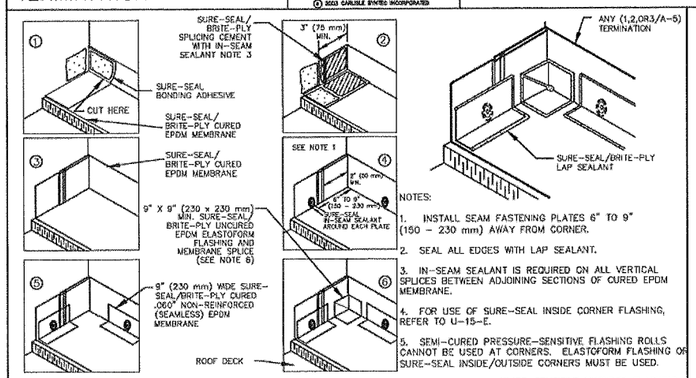


NOTES:

1. LOCATE (1,2,OR3/A-5) TERMINATION ABOVE ANTICIPATED WATER LEVEL.
2. FOR CORNER APPLICATIONS, SEE DETAIL (5/A-5).
3. MAINTAIN A CONTINUOUS BEAD OF IN-SEAM SEALANT AT ALL ADHESIVE MEMBRANE SPLICES; ESPECIALLY AT SPLICE INTERSECTIONS.
4. IN-SEAM SEALANT IS REQUIRED ON ALL VERTICAL ADHESIVE SPLICES BETWEEN ADJOINING SECTIONS OF CURED EPDM MEMBRANE.
5. IF A CONTINUATION OF THE DECK MEMBRANE IS TO BE USED AS WALL FLASHING, REFER TO DETAIL U-12-C OR U-12-D.
6. 9" (150 mm) WIDE UNCURED ELASTOFORM FLASHING OR PRESSURE-SENSITIVE FLASHING MAY ALSO BE CENTERED OVER FIELD SPLICE AT ANGLE CHANGE.
7. POLYMER SEAM PLATES ARE REQUIRED IN LIEU OF SEAM FASTENING PLATES FOR MECHANICALLY-FASTENED ROOFING SYSTEMS OVER STEEL DECKS.
8. SecurTAPE MAY BE USED IN LIEU OF SPLICING CEMENT.

PARAPET/CURB CURED EPDM

4

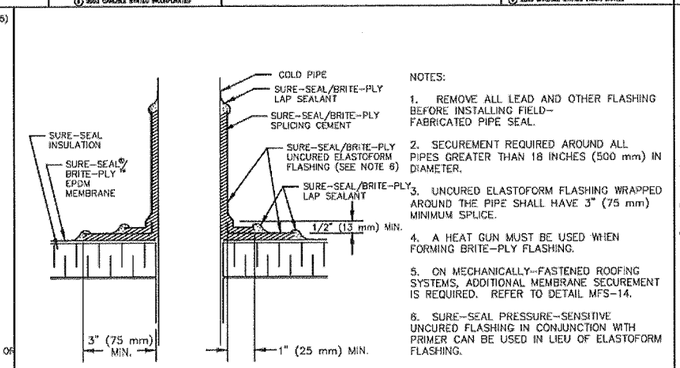


NOTES:

1. INSTALL SEAM FASTENING PLATES 6" TO 9" (150 - 230 mm) AWAY FROM CORNER.
2. SEAL ALL EDGES WITH LAP SEALANT.
3. IN-SEAM SEALANT IS REQUIRED ON ALL VERTICAL SPLICES BETWEEN ADJOINING SECTIONS OF CURED EPDM MEMBRANE.
4. FOR USE OF SURE-SEAL INSIDE CORNER FLASHING, REFER TO U-15-E.
5. SEMI-CURED PRESSURE-SENSITIVE FLASHING ROLLS CANNOT BE USED AT CORNERS. ELASTOFORM FLASHING OR SURE-SEAL INSIDE/OUTSIDE CORNERS MUST BE USED.
6. SURE-SEAL PRESSURE-SENSITIVE UNCURED FLASHING IN CONJUNCTION WITH PRIMER CAN BE USED IN LIEU OF ELASTOFORM FLASHING.

INSIDE CORNER CONTINUOUS EPDM WALL FLASHING

5

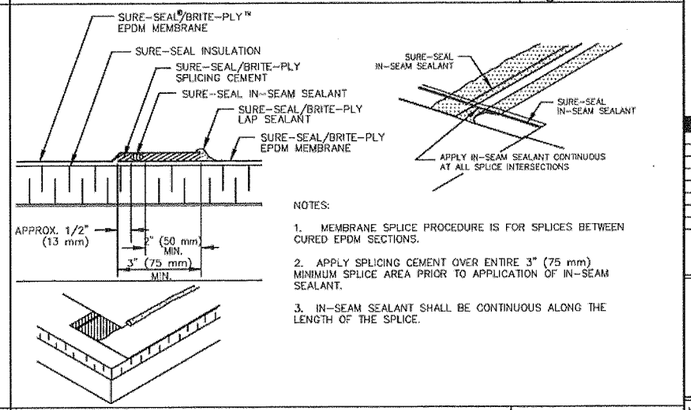


NOTES:

1. REMOVE ALL LEAD AND OTHER FLASHING BEFORE INSTALLING FIELD-FABRICATED PIPE SEAL.
2. SECUREMENT REQUIRED AROUND ALL PIPES GREATER THAN 18 INCHES (500 mm) IN DIAMETER.
3. UNCURED ELASTOFORM FLASHING WRAPPED AROUND THE PIPE SHALL HAVE 3" (75 mm) MINIMUM SPLICE.
4. A HEAT GUN MUST BE USED WHEN FORMING BRITE-PLY FLASHING.
5. ON MECHANICALLY-FASTENED ROOFING SYSTEMS, ADDITIONAL MEMBRANE SECUREMENT IS REQUIRED. REFER TO DETAIL MFS-14.
6. SURE-SEAL PRESSURE-SENSITIVE UNCURED FLASHING IN CONJUNCTION WITH PRIMER CAN BE USED IN LIEU OF ELASTOFORM FLASHING.

FIELD FABRICATED PIPE SEAL

6

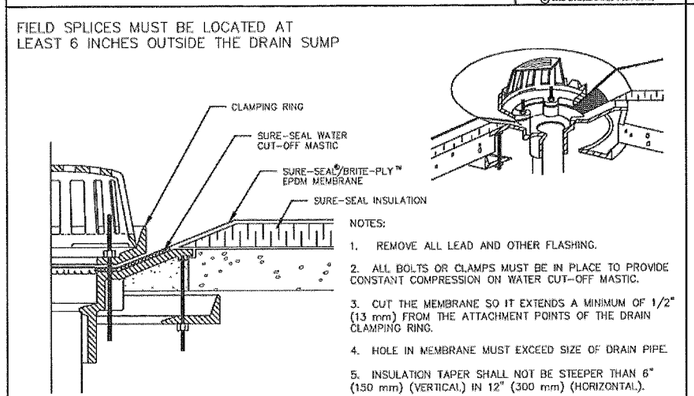


NOTES:

1. MEMBRANE SPLICE PROCEDURE IS FOR SPLICES BETWEEN CURED EPDM SECTIONS.
2. APPLY SPLICING CEMENT OVER ENTIRE 3" (75 mm) MINIMUM SPLICE AREA PRIOR TO APPLICATION OF IN-SEAM SEALANT.
3. IN-SEAM SEALANT SHALL BE CONTINUOUS ALONG THE LENGTH OF THE SPLICE.

MEMBRANE SPLICE WITH SPLICING CEMENT

7

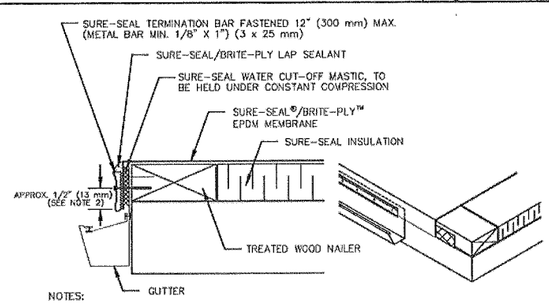


NOTES:

1. REMOVE ALL LEAD AND OTHER FLASHING.
2. ALL BOLTS OR CLAMPS MUST BE IN PLACE TO PROVIDE CONSTANT COMPRESSION ON WATER CUT-OFF MASTIC.
3. CUT THE MEMBRANE SO IT EXTENDS A MINIMUM OF 1/2" (13 mm) FROM THE ATTACHMENT POINTS OF THE DRAIN CLAMPING RING.
4. HOLE IN MEMBRANE MUST EXCEED SIZE OF DRAIN PIPE.
5. INSULATION TAPER SHALL NOT BE STEEPER THAN 6" (150 mm) (VERTICAL) IN 12" (300 mm) (HORIZONTAL).
6. ROOF DRAIN SIZE AND NUMBER OF DRAINS SHALL BE IN ACCORDANCE WITH LOCAL CODES.

ROOF DRAIN

8

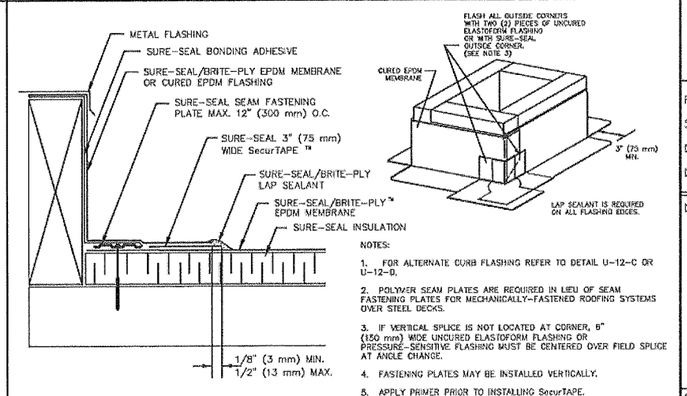


NOTES:

1. FASTENER PATTERN OF METAL BAR MUST PROVIDE CONSTANT COMPRESSION ON WATER CUT-OFF MASTIC.
2. WHEN REINFORCED MEMBRANE IS USED, ENSURE FASTENER PENETRATES REINFORCEMENT.

METAL BAR TERMINATION

9



NOTES:

1. FOR ALTERNATE CURB FLASHING REFER TO DETAIL U-12-C OR U-12-D.
2. POLYMER SEAM PLATES ARE REQUIRED IN LIEU OF SEAM FASTENING PLATES FOR MECHANICALLY-FASTENED ROOFING SYSTEMS OVER STEEL DECKS.
3. IF VERTICAL SPLICE IS NOT LOCATED AT CORNER, 6" (150 mm) WIDE UNCURED ELASTOFORM FLASHING OR PRESSURE-SENSITIVE FLASHING MUST BE CENTERED OVER FIELD SPLICE AT ANGLE CHANGE.
4. FASTENING PLATES MAY BE INSTALLED VERTICALLY.
5. APPLY PRIMER PRIOR TO INSTALLING SecurTAPE.
6. SPLICING CEMENT MAY BE USED IN LIEU OF SecurTAPE.

CURB FLASHING

10

Location

PROPOSED COMMERCIAL BUILDING
272 BROADWAY
SOMERVILLE, MA

Choo & Company, Inc.
One Billings Road Quincy, MA 02171
617-786-7727 fax 617-786-7715

No.	Revision Date

Project No: 10063
Scale: AS NOTED
Date: 04-30-2010
Drawn By: SL

Drawing Name:

DETAIL SHEET

Sheet No.

A-3.3

RECOMENDED FASTENING SCHEDULE

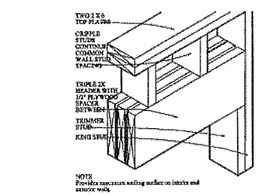
BUILDING ELEMENT	NAIL SIZE AND TYPE	NUMBER AND LOCATION
STUD TO SOLE PLATE	8D COMMON 16D COMMON	4 TOE-NAIL OR 2 DIRECT-NAIL
STUD TO CAP PLATE	16D COMMON	2 TOE-NAIL OR 2 DIRECT-NAIL
DOUBLE STUDS	10D COMMON	12" O.C. DIRECT
CORNER STUDS	16D COMMON	24" O.C. DIRECT
SOLE PLATE TO JOIST OR BLOCKING	16D COMMON	16" O.C.
DOUBLE CAP PLATE	10D COMMON	16" O.C. DIRECT
CAP PLATE LAPS	10D COMMON	2 DIRECT-NAIL
RIBBON STRIP, 6" OR LESS	10D COMMON	2 EACH DIRECT BEARING
RIBBON STRIP, 8" OR MORE	10D COMMON	3 EACH DIRECT BEARING
ROOF RAFTER TO PLATE	8D COMMON	3 TOE-NAIL
JACK RAFTER TO RIDGE	16D COMMON	2 TOE-NAIL OR DIRECT-NAIL
JACK RAFTER TO HIP	10D COMMON 16D COMMON	3 TOE-NAIL OR 2 DIRECT-NAIL
FLOOR JOISTS TO SILLS (NO CEILING JOISTS)	10D COMMON 10D COMMON	9 DIRECT OR 3 DIRECT
FLOOR JOISTS TO SILLS (WITH CEILING JOISTS)	10D COMMON	2 DIRECT
FLOOR JOISTS TO SILL OR GIRDER	8D COMMON	3 TOE-NAIL
LEDGER STRIP	16D COMMON	3 EACH DIRECT
CEILING JOISTS TO PLATE	16D COMMON	3 TOE-NAIL
CEILING JOISTS CLAPS OVER PARTITIONS	10D COMMON	3 DIRECT-NAIL
CEILING JOISTS (PARALLEL TO RAFTER)	10D COMMON	3 DIRECT
COLLAR BEAM	10D COMMON	3 DIRECT
BRIDGING TO JOISTS	8D COMMON	2 EACH DIRECT END
DIAGONAL BRACE (TO STUD AND PLATE)	8D COMMON	2 EACH DIRECT BEARING
T&L BEAMS TO HEADERS (WHEN NAILING PERMITTED)	20D COMMON	1 EACH END 4 SQ. FT. FLOOR AREA
HEADER BEAMS TO TRIMMERS	20D COMMON	1 EACH END 8 SQ. FT. FLOOR AREA
1" ROOF DECKING (OVER 6" IN WIDTH)	8D COMMON 8D COMMON	2 EACH DIRECT RAFTER 3 EACH DIRECT RAFTER
1" SUBFLOORING (8" OR LESS)	8D COMMON	2 EACH DIRECT JOIST
1" SUBFLOORING (8" OR MORE)	8D COMMON	3 EACH DIRECT JOIST
2" SUBFLOORING	16D COMMON	2 EACH DIRECT JOIST
1" WALL SHEATHING (8" OR LESS IN WIDTH)	8D COMMON	2 EACH DIRECT STUD
1" WALL SHEATHING (OVER 8" IN WIDTH)	8D COMMON	3 EACH DIRECT STUD
PLYWOOD ROOF & WALL SHEATHING (1/2" OR LESS) (5/8" OR GREATER) (5/16", 3/8", OR 1/2") (OVER 6" IN WIDTH)	6D COMMON 8D COMMON 16 GAUGE GALVANIZED WIRE STAPLES, 3/8" MINIMUM CROWN, LENGTH OF 1" PLUS PLYWOOD THICKNESS SAME AS WHERE ONLY ABOVE	6" O.C. DIRECT EDGES & 12" O.C. INTERVENE 6" O.C. DIRECT EDGES & 12" O.C. INTERVENE 4" O.C. EDGES & 8" O.C. INTERVENE 2 1/2" O.C. EDGES & 5" O.C. INTERVENE
PLYWOOD SUBFLOORING (1/2") (5/8", 3/4") (1", 1 1/8") (1/2") (5/8")	6D COMMON OR 6D ANNULAR OR SPIRAL THREAD 8D COMMON OR 8D ANNULAR OR SPIRAL THREAD 10D COMMON OR 8D RING SHANK OR 8D ANNULAR OR SPIRAL THREAD 16D GALVANIZED WIRE STAPLES 3/8" MINIMUM CROWN, 1 3/8" LENGTH	6" O.C. DIRECT EDGES & 10" O.C. INTERVENE 6" O.C. DIRECT EDGES & 10" O.C. INTERVENE 6" O.C. DIRECT EDGES & 6" O.C. INTERVENE 4" O.C. EDGES & 7" O.C. INTERVENE 2 1/2" O.C. EDGES & 4" O.C. INTERVENE
BUILT-UP GIRDERS AND BEAMS	20D COMMON	32" O.C. DIRECT
CONTINUOUS HEADER TO STUD	8D COMMON	4 TOE-NAIL
CONTINUOUS HEADER, TWO PIECES	16D COMMON	16" O.C. MATCH
1/2" FIBERBOARD SHEATHING	11/2" GALVANIZED ROOFING NAIL OR 16 GAUGE STAPLE, 11/2" LONG MINIMUM CROWN OF 7/16"	3" O.C. EXTERIOR EDGE 6" O.C. INTERVENE
25/32" FIBER BOARD SHEATHING	13/4" GALVANIZED ROOFING NAIL OR 8D COMMON NAIL OR 16 GAUGE STAPLE, 11/2" LONG WITH MIN. CROWN OF 7/16"	3" O.C. EXTERIOR EDGE 6" O.C. INTERVENE
GYPSUM SHEATHING	10 GAUGE 1 3/4" LARGE HEAD CORROSION-RESISTANT	4" O.C. EDGE 8" O.C. INTERMEDIATE
PARTICLE BOARD UNDERLAYMENT (1/4"-3/4")	6D ANNULAR THREADED	6" O.C. DIRECT EDGES 10" O.C. INTERMEDIATE
PARTICLE BOARD ROOF AND WALL SHEATHING 1/2" OR LESS	6D COMMON	6" O.C. DIRECT EDGES 12" O.C. INTERMEDIATE
5/8" OR GREATER	8D COMMON	6" O.C. DIRECT EDGES 12" O.C. INTERMEDIATE
PARTICLE BOARD SUBFLOORING (5/8" OR GREATER)	8D COMMON	6" O.C. DIRECT EDGES 12" O.C. INTERMEDIATE
SHINGLES, WOOD*	NO. 14 GA GALVANIZED CORROSION RESISTIVE	2 EACH BEARING
WEATHERBOARDING	8D COMMON	2 EACH BEARING

NOTE *: SINGLE NAILS SHALL PENETRATE NOT LESS THAN 3/4" INTO NAILING STRIPS, SHEATHING OR SUPPORTING CONSTRUCTION EXCEPT AS OTHERWISE PROVIDED IN 780 CMR 1225 A.4.

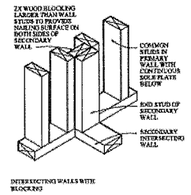
SIDE-LOADED APPLICATIONS

NUMBER OF MEMBERS	MAXIMUM UNIFORM SIDE LOAD (PLF)							
	NAILED		1/2" DIA. THROUGH BOLT [4]			5/8" DIA. THROUGH BOLT [3]		
	2 ROWS 16d SINKERS @ 12" O.C.	3 ROWS 16d SINKERS @ 12" O.C.	2 ROWS @ 24" O.C. STAGGERED	2 ROWS @ 12" O.C. STAGGERED	2 ROWS @ 6" O.C. STAGGERED	2 ROWS @ 24" O.C. STAGGERED	2 ROWS @ 12" O.C. STAGGERED	2 ROWS @ 6" O.C. STAGGERED
1-3/4" VERSA-LAM (DEPTHS OF 18" AND LESS)								
2	470	705	505	1010	2020	560	1120	2020
3 OR	350	525	375	755	1515	420	840	1685
4 OR	USE BOLT SCHEDULE		335	670	1345	370	745	1495
3-1/2" VERSA-LAM								
2 OR	USE BOLT SCHEDULE		855	1715	N/A	1125	2250	N/A
1-3/4" VERSA-LAM (DEPTHS OF 24")								
NUMBER OF MEMBERS	NAILED		1/2" DIA. THROUGH BOLT [4]			5/8" DIA. THROUGH BOLT [3]		
	3 ROWS 16d SINKERS @ 12" O.C.	4 ROWS 16d SINKERS @ 12" O.C.	3 ROWS @ 24" O.C. 6" STAGGERED	3 ROWS @ 18" O.C. 6" STAGGERED	3 ROWS @ 12" O.C. 4" STAGGERED	3 ROWS @ 24" O.C. 8" STAGGERED	3 ROWS @ 18" O.C. 6" STAGGERED	3 ROWS @ 12" O.C. 4" STAGGERED
2	705	940	755	1010	1515	840	1120	1685
3 OR	525	705	565	755	1135	630	840	1260
4 OR	USE BOLT SCHEDULE		505	670	1010	560	745	1120

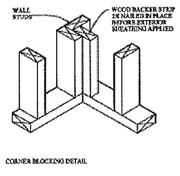
1. DESIGN VALUES APPLY TO DOUGLAS FIR-LARCH NO. 1 AND #2 AND SOUTHERN PINE NO. 1 AND #2 GRADES HAVING SPECIFIC GRAVITY OF 0.50 OR GREATER. A WASHER NOT LESS THAN 0.229 INCH BY 3 INCHES BY 3 INCHES OR STANDARD CUT WASHER SHALL BE PLACED BETWEEN THE WOOD AND THE BOLT HEAD AND BETWEEN THE WOOD AND THE NUT. THE DISTANCE FROM THE CENTER OF THE BOLT HOLE TO THE END OR EDGE OF THE MEMBER SHALL BE AT LEAST 2" FOR 1/2" BOLTS AND 3 1/2" FOR 5/8" BOLTS. BOLT HOLES SHALL BE 1/32" TO 1/16" LARGER THAN THE BOLT DIAMETER.
2. SEE NAIL SCHEDULE FOR NAILS NOT SHOWN.
3. 7" WIDE BEAMS MUST BE TOP-LOADED OR LOADED FROM BOTH SIDES (LESSER SIDE SHALL BE NO LESS THAN 25% OF OPPOSITE SIDE).



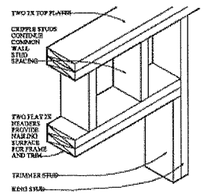
2X6 BEARING WALL HEADER DETAIL
N.T.S.



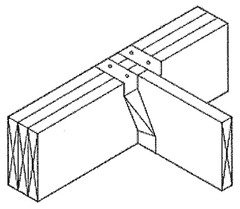
INSULATED WALL DETAILS
1"=1'-0"



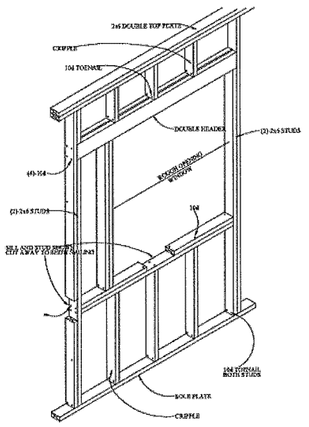
INSULATED WALL DETAILS
1"=1'-0"



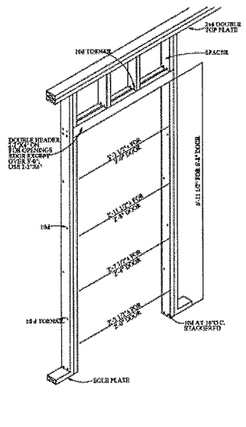
2X_ PARTITION WALL HEADER DETAIL
N.T.S.



WOOD JOISTS SUPPORTED ON WOOD GIRDERS
1"=1'-0"



WINDOW OPENING DETAIL
1"=1'-0"



DOOR OPENING DETAIL
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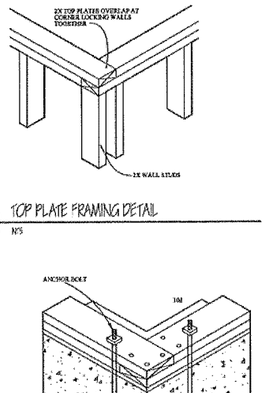
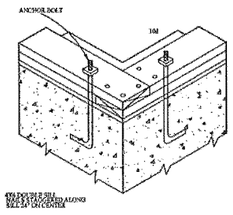
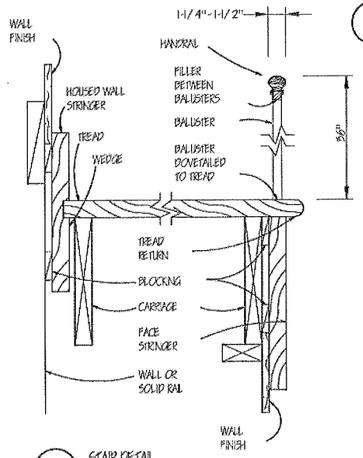


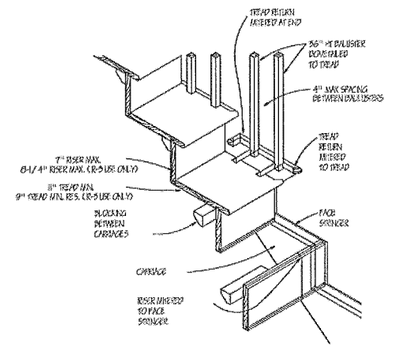
TOP PLATE FRAMING DETAIL
N.T.S.



SILL FOR PLATFORM FRAMING DETAIL
1"=1'-0"



STAIR DETAIL
N.T.S.



STAIR DETAIL
N.T.S.

2010 OCT 28 P 2:18

CITY CLERK'S OFFICE
SOMERVILLE, MASS.

Location

PROPOSED COMMERCIAL BUILDING
272 BROADWAY
SOMERVILLE, MA

Choo & Company, Inc.
One Billings Road Quincy, MA 02171
617-786-7727 fax 617-786-7715

No.	Revision Date

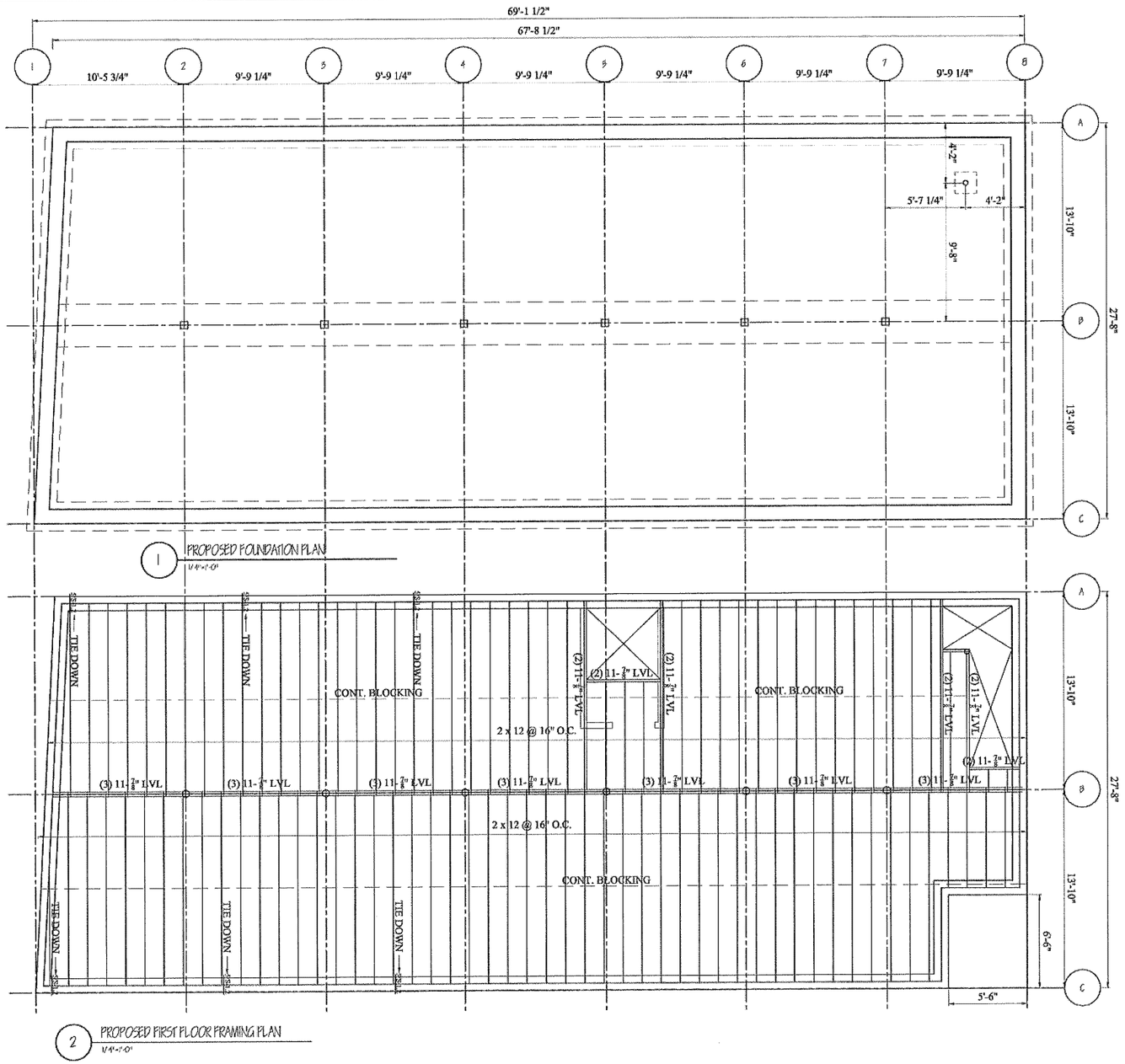
Project No: 10063
Scale: AS NOTED
Date: 04-30-2010
Drawn By: SL

Drawing Name:

DETAIL SHEET

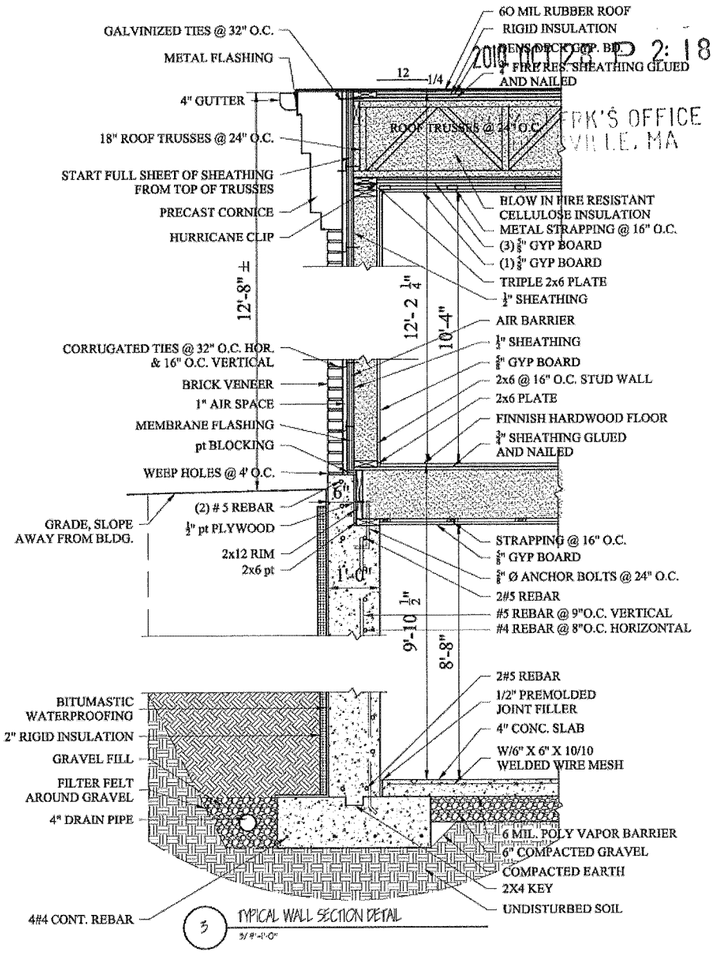
Sheet No.

A-3.2

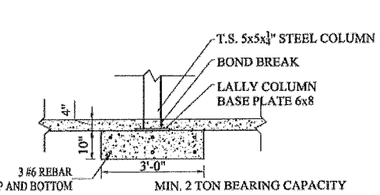


1 PROPOSED FOUNDATION PLAN
1/4"=1'-0"

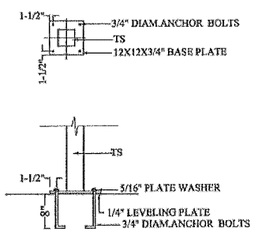
2 PROPOSED FIRST FLOOR FRAMING PLAN
1/4"=1'-0"



3 TYPICAL WALL SECTION DETAIL
3/4"=1'-0"



4 TYPICAL INTERIOR FOOTING SECTION DETAIL
1/2"=1'-0"



5 TYPICAL B.P. DETAIL
1/2"=1'-0"

PROP. COMMERCIAL BUILDING
272 BROADWAY
SOMERVILLE, MA

Location

Choo & Company, Inc.
One Billings Road Quincy, MA 02171
617-786-7727 fax 617-786-7715

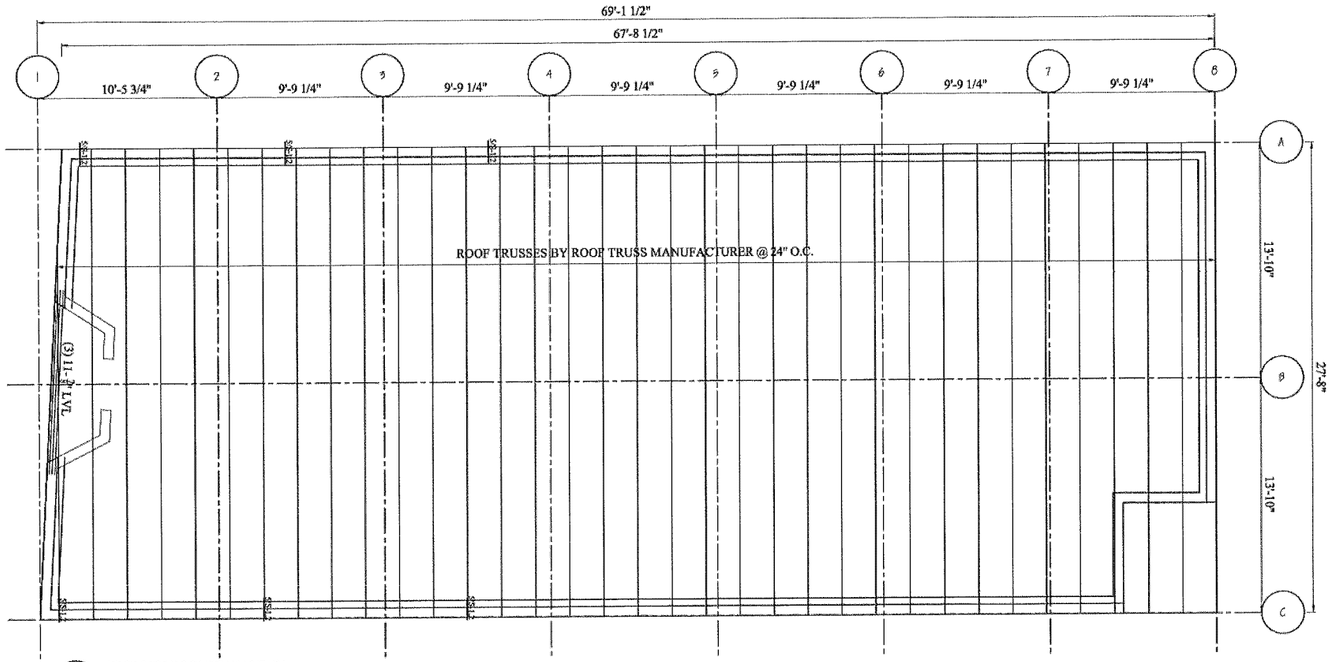
No.

Revision Date
05-20-2010
08-18-2010

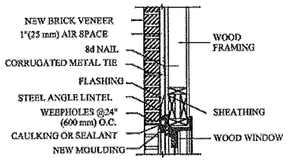
Project No: 10063
Scale: AS NOTED
Date: 04-15-2010
Drawn By: SL

Drawing Name: PROPOSED PLANS

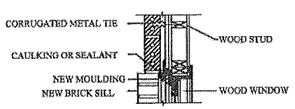
Sheet No.: S-1.1



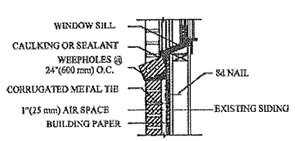
1 PROPOSED ROOF FRAMING PLAN
1/4"=1'-0"



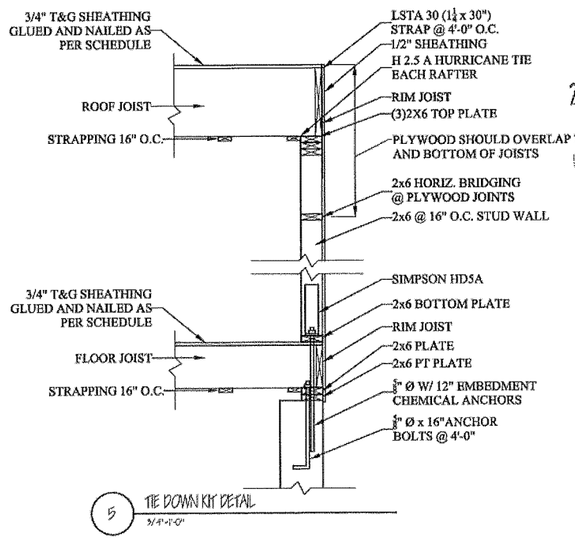
2 MASONRY LINTL DETAIL
NTS



3 MASONRY JAMB DETAIL
NTS



4 MASONRY SILL DETAIL
NTS



5 TIE DOWN KIT DETAIL
3/4"=1'-0"

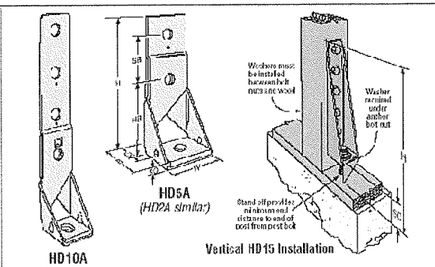
Holdowns are used to transfer tension loads between floors, to tie purlins to masonry or concrete, etc. Use HDAs and HDs for overturning requirements and other applications to transfer tension loads.

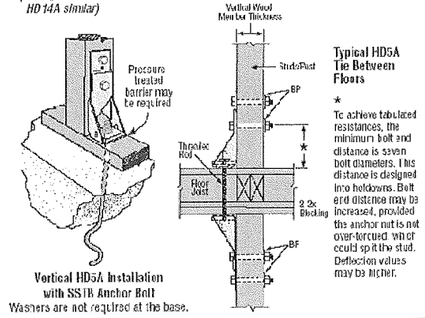
All HDAs and the HD15 are self-jigging, ensuring code-required minimum 7 bolt diameter distance from the end of the wood member to the centre of the first bolt hole. (cL=0.75)

HD9A, HD8A, HD10A and HD14A's seat design allows greater installation adjustability. An overall width of 3½" for the HD9A, HD8A and HD10A, and 3⅛" for the HD14A provides an easy fit in a standard 2x4 wall.

HDA SPECIAL FEATURES:
- Single piece non-welded design results in higher capacity.
- Load Transfer Plate eliminates the need for a seat washer.
- Fewer inspection problems.

MATERIAL: See table
FINISH: HD2A, 5A, 8A, 9A, 10A, 14A galvanized. HD8A may be ordered HDG: check with factory. HD15—Simpson gray paint
INSTALLATION: • Use all specified fasteners. See General Notes.
- For an improved connection, use a steel nylon locking nut or a thread adhesive on the anchor bolt.
- Bolt holes shall be a minimum of 1/32" to a maximum of 1/16" larger than the bolt diameter (per 10.4.1.2 CSA O86-01).
- Standard washers are required between the base plate and anchor nut (HD15 only), and on stud bolt nuts against the wood. The Load Transfer Plate is an integral part of the HDA holdown and no washer is required. See page 22 for BP/LBP Bearing Plates.
- See SSTB Anchor Bolts, Simpson 's Anchoring Systems and Additional Anchorage Designs for anchorage options. The design engineer may specify any alternate anchorage calculated to resist the factored tensile load for a specific job
- Locate an wood member to maintain a minimum distance of seven bolt diameters, distance is automatically maintained when end of wood member is flush with the bottom of the holdown.
- To tie multiple 2x members together the designer must determine the fasteners required to join members to act as one unit without splitting. See page 15 for SDS values.
- For holdowns, per ASTM test standards, anchor bolt nut should be finger-tight plus ⅙ to ⅓ turn with a hand wrench, with consideration given to possible future wood shrinkage. Care should be taken to not over-torque the nut. Impact wrenches should not be used.
- Stud bolts should be snugly tightened.





Vertical HD5A Installation with SSTB Anchor Bolt
Washers are not required at the base.

PROP. COMMERCIAL BUILDING
272 BROADWAY
SOMERVILLE, MA

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No.	Revision Date
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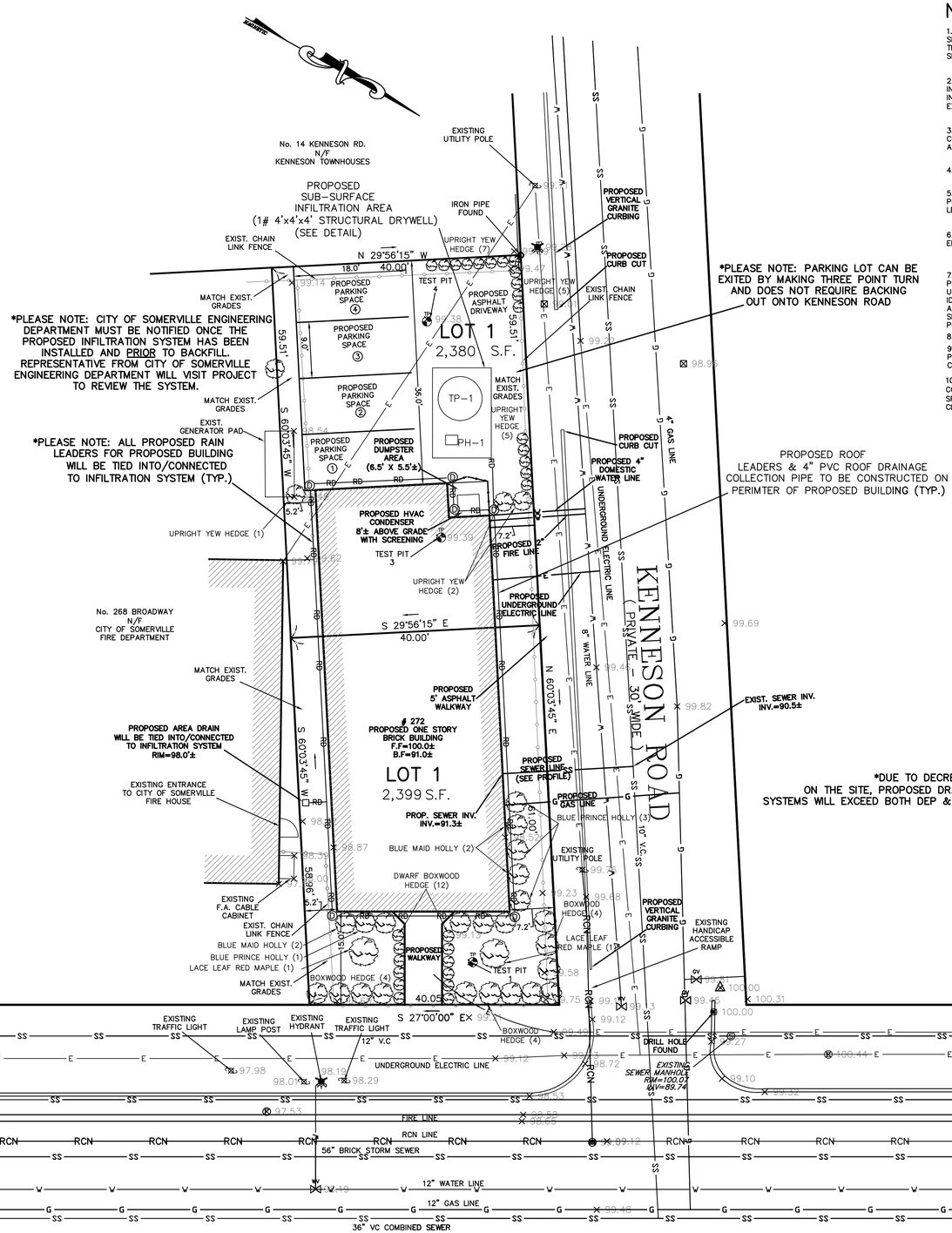
Drawing Name: PROPOSED PLANS

Sheet No.: S-1.2

EXISTING LEGEND

SS	SEWER LINE
S	SEWER MANHOLE
W	WATER LINE
	DRAIN LINE
	UTILITY POLE
GV	GAS VALVE
OHE	OVERHEAD ELECTRIC SERVICE
WV	WATER VALVE
	CATCH BASIN
	FENCE
143	CONTOUR LINE (MJR)
144	CONTOUR LINE (MNR)
103.97	SPOT GRADE
D	DRAIN MANHOLE
	HYDRANT
	TREE



*PLEASE NOTE: PARKING LOT CAN BE EXITED BY MAKING THREE POINT TURN AND DOES NOT REQUIRE BACKING OUT ONTO KENNESON ROAD

*DUE TO DECREASE IN IMPERVIOUS SURFACE ON THE SITE, PROPOSED DRAINAGE SYSTEM & RECHARGE/DETENTION SYSTEMS WILL EXCEED BOTH DEP & CITY OF SOMERVILLE STORM WATER GUIDELINES.

GRAPHIC SCALE

10 0 5 10 20 40

(IN FEET)
1 inch = 10 ft.

NOTES

1. THE CONTRACTOR SHALL REPORT TO THE OWNER AND ENGINEER OF ANY SIGNIFICANT VARIATIONS IN EXISTING SITE CONDITIONS FROM THOSE SHOWN ON THESE PLANS. ANY PROPOSED REVISIONS TO THE WORK, IF REQUIRED BY THESE SITE CONDITIONS, SHALL NOT BE UNDERTAKEN UNTIL REVIEWED AND APPROVED

2. THE CONTRACTOR NEEDS TO NOTIFY THE ENGINEERING DIVISION 48-HOURS IN ADVANCE AND SCHEDULE AN APPOINTMENT TO HAVE THE SEWER SYSTEM INSPECTED. THE SYSTEM & UTILITIES MUST BE FULLY EXPOSED FOR THE INSPECTOR. ONCE THE INSPECTOR IS SATISFIED, THE SYSTEM

3. IN ORDER TO PROTECT THE PUBLIC SAFETY DURING CONSTRUCTION, THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING AND MAINTAINING AT ALL TIMES ALL NECESSARY SAFETY DEVICES AND PERSONNEL, WARNING LIGHTS,

4. ALL WORK SHALL CONFORM TO CITY OF SOMERVILLE GENERAL

5. THE CONTRACTOR SHALL REGULARLY INSPECT THE PERIMETER OF THE PROPERTY TO CLEAN UP AND REMOVE LOOSE CONSTRUCTION DEBRIS BEFORE IT LEAVES THE SITE. ALL DEMOLITION DEBRIS SHALL BE PROMPTLY REMOVED FROM

6. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSTITUTE EROSION CONTROL MEASURES ON AN AS NECESSARY BASIS, SUCH THAT

7. THE LOCATION OF UNDERGROUND UTILITIES AS REPRESENTED ON THESE PLANS IS BASED UPON PLANS AND INFORMATION PROVIDED BY THE RESPECTIVE UTILITY COMPANIES OR MUNICIPAL DEPARTMENTS SUPPLEMENTED BY FIELD IDENTIFICATION WHEREVER POSSIBLE. NO WARRANTY IS MADE AS TO THE ACCURACY OF THESE LOCATIONS OR THAT ALL UNDERGROUND UTILITIES ARE SHOWN. THE CONTRACTOR SHALL CONTRACT DIG SAFE AT LEAST 72 HOURS PRIOR TO THE START OF CONSTRUCTION. DIG SAFE TELEPHONE NUMBER IS

8. REFER TO ARCHITECTURAL PLANS FOR EXACT BUILDING DIMENSIONS.

9. PAVEMENT AREA SHALL BE PAVED TO A THICKNESS AS SHOWN ON THE PLANS MEASURED AFTER COMPACTION, WITH A BINDER COURSE AND TOP COURSE OF CLASS I BITUMINOUS CONCRETE PAVEMENT, TYPE I-1.

10. THE AGGREGATE SHALL BE COMPOSED, MIXED AND LAID HOT IN TWO COURSES AS SPECIFIED IN THE "COMMONWEALTH OF MASSACHUSETTS STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES", 1988 EDITION. SECTION 460 FOR CLASS I BITUMINOUS CONCRETE PAVEMENT, AS SPECIFICALLY SET FORTH IN

11. ALL AREAS TO BE PLANTED WITH GRASS SHALL BE TREATED WITH 100 POUNDS OF GROUND LIMESTONE PER 1000 SF OF AREA PLANTED. ALL AREAS TO BE PLANTED WITH GRASS SHALL BE FERTILIZED WITH 10-10-10 AT THE RATE OF 1,000 POUNDS PER ACRE OR AS REQUIRED BY SOIL TEST. 40 OF THE NITROGEN SHALL BE IN ORGANIC FORM.

12. ALL LANDSCAPED AREAS TO BE LOAMED AND SEEDED SHALL HAVE THE

PERENNIAL RYE	25%
KENTUCKY BLUE	25%
CREEPING RED FESCUE OR	
PENNLAWN FESCUE	50%

SEED AT THE RATE OF 5#/1000 SF

13. ALL AREAS INDICATED TO BE LOAMED AND SEEDED SHALL HAVE A MINIMUM OF 4 INCHES OF TOPSOIL SPREAD EVENLY THROUGHOUT. PROVIDE EROSION CONTROL MEASURES AS NECESSARY TO PROVIDE SLOPE STABILITY UNTIL VEGETATION IS ESTABLISHED.

14. ALL EXISTING PAVING TO BE DISTURBED SHALL BE CUT ALONG A STRAIGHT LINE THROUGH ITS ENTIRE THICKNESS. BUTT THE NEW PAVING INTO THE EXISTING PAVEMENT TO REMAIN.

15. DATUM IS CITY OF SOMERVILLE BASE

16. PRIOR TO OCCUPANCY PERMIT BEING ISSUED, AN AS-BUILT PLAN SHOULD BE SUBMITTED TO THE ENGINEERING DEPARTMENT IN BOTH DIGITAL FORMAT AND IN HARD COPY. THE PLAN SHOULD SHOW ALL UTILITIES AND FINAL GRADES, AND EASEMENTS & FINAL GRADING.

17. IF A CERTIFICATE OF OCCUPANCY IS REQUESTED PRIOR TO ALL SITE WORK BEING COMPLETED, THE APPLICANT WILL BE REQUIRED TO POST A CERTIFIED BANK CHECK IN THE AMOUNT TO COVER THE REMAINING WORK. THE CITY ENGINEER SHALL DETERMINE THE VALUE OF THE UNCOMPLETED WORK.

18. NO EXCAVATION IS ALLOWED WITHIN ANY CITY RIGHT-OF-WAY BETWEEN NOVEMBER 15TH AND APRIL 15TH. IF AN EMERGENCY EXISTS OR THERE ARE EXTENUATING CIRCUMSTANGES, APPLICANT MAY SEEK PERMISSION FOR SUCH WORK FROM THE CITY ENGINEER. IF PERMISSION IS GRANTED, SPECIAL CONSTRUCTION STANDARDS WILL BE APPLIED. APPLICANT OR APPLICANT'S REPRESENTATIVE MUST CONTACT THE CITY OF SOMERVILLE ENGINEERING DEPARTMENT PRIOR TO START OF WORK FOR CLARIFICATION.

19. THE EXISTING SEWER SERVICES SHALL BE CUT AND CAPPED AT THE MAIN AND BE COMPLETELY REMOVED FROM THE SITE AND PROPERLY BACK FILLED. THE ENGINEERING DIVISON MUST INSPECT THIS WORK; FAILURE TO HAVING THIS WORK INSPECTED MAY RESULT IN THE DELAY OF ISSUANCE OF THE UTILITY CONNECTION PERMIT.

20. THE APPLICANT WILL HAVE TO APPLY FOR A STREET OPENING & UTILITY CONNECTIONS PERMITS AS WELL AS A SIDEWALK CROSSING PERMIT WITH THE D.P.W.

21. THE PROPOSED SEWER LINE WILL NEED TO BE PRESSURE TESTED PRIOR TO ACCEPTANCE.

22. WITH THE EXCEPTION OF GAS UTILITY SERVICES, ALL UTILITY TRENCHES WITHIN ANY CITY OF SOMERVILLE RIGHT-OF-WAY WILL BE BACKFILLED WITH TYPE IE (EXCAVATABLE) CONTROLLED DENSITY FILL, AS SPECIFIED BY THE CITY OF SOMERVILLE ENGINEERING SPECIFICATIONS.

23. APPROVAL OF THIS PLAN BY THE CITY OF SOMERVILLE ENGINEERING DIVISION IMPLIES THAT THE PLAN MEETS THE MINIMAL DESIGN STANDARDS OF THE CITY OF SOMERVILLE. HOWEVER, THE ENGINEERING DIVISION MAKES NO REPRESENTATIONS AND ASSUMES NO RESPONSIBILITY FOR THE DESIGN(S) IN TERMS OF SUITABILITY FOR THE PARTICULAR SITE CONDITIONS OR OF THE FUNCTIONABILITY OR PERFORMANCE OF ANY ITEMS CONSTRUCTED IN ACCORDANCE WITH THE DESIGN(S). THE CITY OF SOMERVILLE ASSUMES NO LIABILITIES FOR DESIGN ASSUMPTION, ERRORS OR OMISSIONS BY THE ENGINEER OF RECORD.

NOTES:

1. TOPOGRAPHIC INFORMATION SHOWN ON THIS PLAN IS THE RESULT OF A FIELD SURVEY PERFORMED BY SLANEYSIDE LAND SURVEYORS ON 09-05-10.

2. DEED REFERENCE BOOK 52421, PAGE 350 MIDDLESEX SOUTH REGISTRY OF DEEDS.

3. THIS PLAN IS NOT INTENDED TO BE RECORDED.

4. ELEVATIONS SHOWN ARE CITY OF SOMERVILLE DATUM.

DESCRIPTION OF PROPOSED TREES/PLANTS
*PLEASE SEE ACCOMPANYING PLAN A-1.0 FOR EXACT TREE LOCATIONS

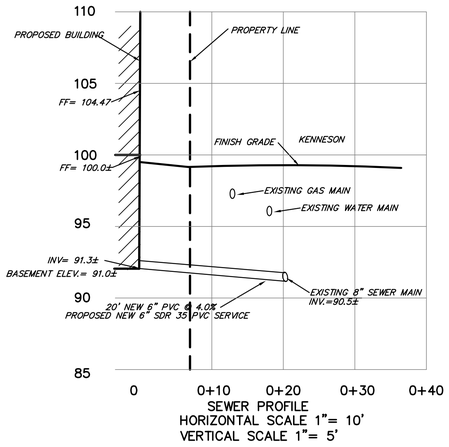
1. BLUE MAID HOLLY (6) 2 FT
2. BLUE PRINCE HOLLY (5) 2 FT
3. LACE LEAF RED MAPLE (2) 2.5 FT
4. BOXWOOD HEDGE (12) 2 FT
5. DWARF BOXWOOD HEDGE (12) 1 FT
6. UPRIGHT YEW HEDGE (17) 3 FT

272 BROADWAY SOMERVILLE, MA

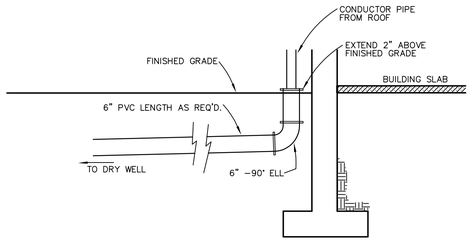
SCALE: 1'=10'
DATE: 09/09/10

SITE PLAN BY SLANEYSIDE LAND SURVEYORS

BRIGHTON, MA
TEL: 857-891-7478

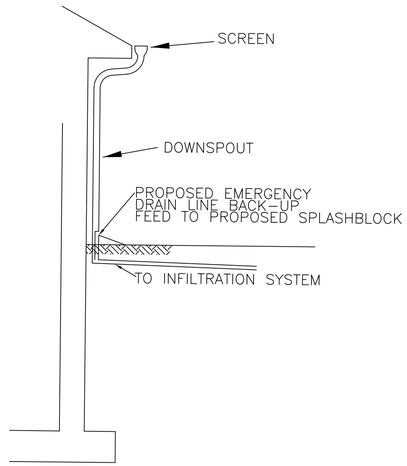


SEWER PROFILE
HORIZONTAL SCALE 1"= 10'
VERTICAL SCALE 1"= 5'

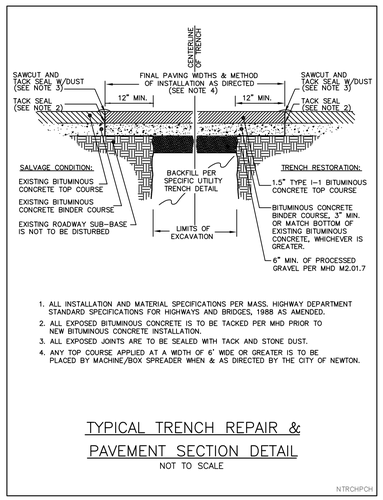


ROOF DRAIN CONNECTION DETAIL

NOT TO SCALE	(ROOF-DRAIN-CONNECTION)	



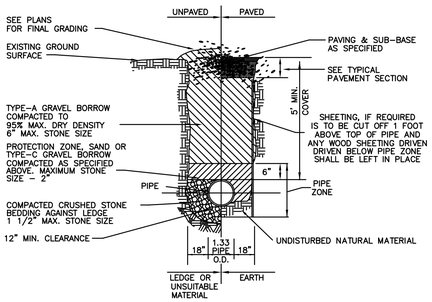
PROPOSED ROOF LEADER DETAIL
N.T.S.



1. ALL INSTALLATION AND MATERIAL SPECIFICATIONS PER MASS. HIGHWAY DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES, 1988 AS AMENDED.
2. ALL EXPOSED BITUMINOUS CONCRETE IS TO BE TACKED PER MHD PRIOR TO NEW BITUMINOUS CONCRETE INSTALLATION.
3. ALL EXPOSED JOINTS ARE TO BE SEALED WITH TACK AND STONE DUST.
4. ANY TOP COURSE APPLIED AT A WIDTH OF 6" WIDE OR GREATER IS TO BE PLACED BY MACHINE/BOX SPREADER WHEN & AS DIRECTED BY THE CITY OF NEWTON.

TYPICAL TRENCH REPAIR & PAVEMENT SECTION DETAIL
NOT TO SCALE

NTRCHPCH

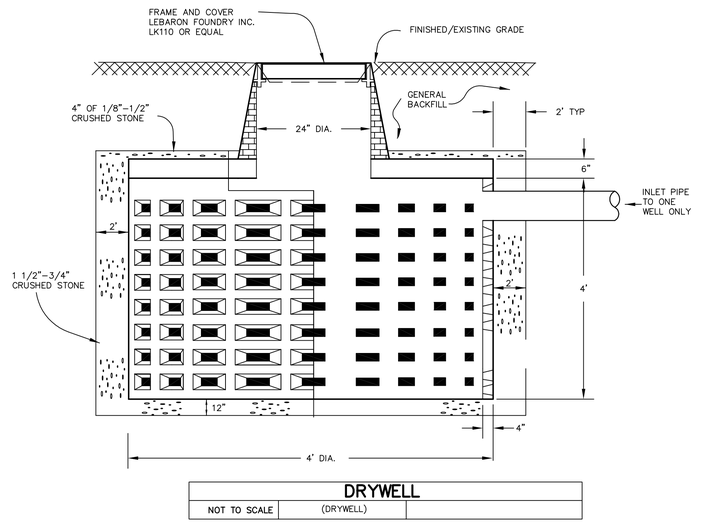


1. GRAVEL BORROW SHALL CONFORM TO MASS HIGHWAY SPECIFICATION M1.03.0
2. CRUSHED STONE BEDDING SHALL CONFORM TO MASS HIGHWAY SPECIFICATION M2.01.1

* SUITABILITY OF MATERIAL IS TO BE DETERMINED BY THE CITY OF SOMERVILLE.

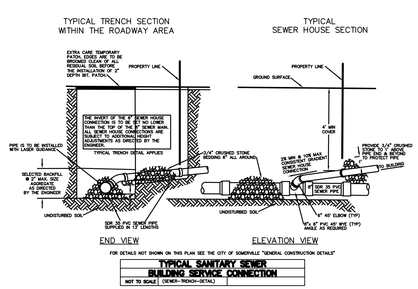
TYPICAL TRENCH DETAIL

NOT TO SCALE	(TYP-W-TRENCH-DETAIL)	CITY OF SOMERVILLE STANDARD DETAIL



DRYWELL

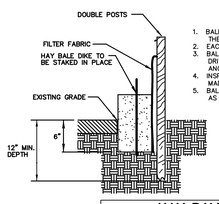
NOT TO SCALE	(DRYWELL)	



FOR DETAILS NOT SHOWN ON THIS PLAN SEE THE CITY OF SOMERVILLE "GENERAL CONSTRUCTION DETAILS"

TYPICAL SANITARY SEWER BUILDING SERVICE CONNECTION

NOT TO SCALE	(SEWER-TRENCH-DETAIL)	



CONSTRUCTION SPECIFICATIONS

1. BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4".
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY STAKES OR RE-BARS DRIVEN THROUGH THE BALES. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARD PREVIOUSLY LAID BALE TO FORCE BALES TOGETHER.
4. INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
5. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

HAY BALE LINE DETAIL

NOT TO SCALE		

EROSION CONTROL NOTES

1. AT THE END OF CONSTRUCTION ALL DRAINAGE STRUCTURES ARE TO BE CLEANED OF SILT, STONES AND OTHER DEBRIS.

2. DURING CONSTRUCTION THE EROSION CONTROL MEASURES SHALL BE INSPECTED ONCE PER WEEK AND WITHIN 24 HOURS OF ANY STORM EVENT GENERATING MORE THAN 1/2" OF RAINFALL. THE EROSION CONTROL MEASURES SHALL BE CLEANED REGULARLY AND ADJUSTED IF NECESSARY TO ENSURE THAT NO SILT OR DEBRIS LEAVES THE SITE.

272 BROADWAY
SOMERVILLE, MA

SCALE: 1'=10'
DATE: 09/09/10

SITE
PLAN
BY
SLANEYSIDE LAND SURVEYORS

BRIGHTON, MA
TEL: 857-891-7478