# **NJSDA Model Schools Program** Materials and Systems Standards Manual

### **Construction Details Manual**

September 19, 2011

Issue Date: September 19, 2011

## NJSDA Model Schools Program Materials and Systems Standards Manual

### **Construction Details Manual**

## **Introduction & General Requirements**

Issue Date: September 19, 2011

Construction Details

Introduction & General Requirements

#### A. Introduction

The NJSDA's Model Schools Program's: "Materials and Systems Standards Manual" and "Construction Details Manual" have been developed in response to an ongoing internal effort to implement standardized designs for NJSDA projects. The use of standardized design elements has the potential to afford efficiencies in the design and construction of school facilities. Standardized design will facilitate expedited design reviews and code inspections for faster delivery of school projects.

The following is an excerpt from the New Jersey Schools Development Authority's (NJSDA) 2011 Capital Program Report dated March 2, 2011: Section 3: Implementation Approach, which is related to standardized systems & materials:

"In 2011, the NJSDA plans to pursue standardization through three phases". The third phase as stated in the Capital Program Report includes the "identification of standard systems and materials".

The NJSDA has proceeded with the continued development of design and construction guidance to assist the Professional Consultant Community. Based upon the directives above, the NJSDA has proceeded with the development of the "Materials and Systems Standards Manual" and "Construction Details Manual" which "identify standard materials and systems" to be implemented in conjunction with other procedures and their respective component parts to establish a "Standardized Model or Prototypical School Design Approach".

#### B. Model Schools Program: Materials and Systems Standards & Construction Details Manuals

The NJSDA's "Materials and Systems Standards Manual and Construction Details Manual" have been prepared for and shall apply to Public School Facilities Projects in the State of New Jersey that are managed by the New Jersey Schools Development Authority (NJSDA) as defined by the "Educational Facilities Construction and Financing Act" (EFCFA).

With the NJSDA's "Materials and Systems Standards Manual and Construction Details Manual", it is NJSDA's full intent to establish a uniform approach to School Facilities Project design such that we accomplish the following key goals:

- Attain parity amongst all New Jersey Abbott School Districts by the implementation of Model School or prototypical designs thru the use of standardized materials and systems.
- Establish an approach that requires the repeated use of defined materials and systems standards as a cost effective and common sense means of constructing all 21st Century Schools for New Jersey.
- Establish a means for NJSDA managed School Facilities Projects to be built in an educationally appropriate, community focused, cost effective, sustainable, energy efficient, safe, secure, clean, and environmentally friendly manner.

The NJSDA's "Materials and Systems Standards Manual" contains "Design Requirements" sections which define the materials and systems to be implemented; the "Construction Details Manual" contains related select key reference standardized construction details. The development and implementation of these requirements is one key step in establishing a new design and procedural norm for Pre-K through 12 school facilities while simultaneously establishing the NJSDA as one of the nation's key resources for knowledge relative to lessons learned in constructing School Facilities Projects for both urban and suburban areas.



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### B. Model Schools Program: Materials and Systems Standards & Construction Details Manuals (Continued)

The NJSDA's "Materials and Systems Standards Manual and Construction Details Manual" are living documents that will be updated and issued in phases as NJSDA project teams learn more efficient and effective ways to design and construct School Facilities Projects for New Jersey in the face of the specific environmental and site challenges that exist within the NJSDA Program. The development and issuance of "NJSDA's "Materials and Systems Standards Manual and Construction Details Manual" are centered around NJSDA's commitment to build on the Best Practices and lessons learned from our program, as well as the experiences of others throughout the nation, who have implemented the design of pre-K through 12 schools. Thus the related goals are to achieve cutting edge School Facilities Project design and to implement proven standards that have met the test of time.

NJSDA has integrated the goals and criteria above and has developed the "Materials and Systems Standards Manual and Construction Details Manual" to encourage design creativity. The manuals simultaneously provide guidance for uniformity in the overall approach to materials and systems selection during the design phases of a project. By implementing the elements included within the "Materials and Systems Standards Manual and Construction Details Manual", the Project Team will be taking a significant step forward in creating the physical conditions in which the learning process can thrive. This, in essence, is a key component of what defines a 21st Century School for New Jersey.

#### C. Organization of this document: Refer also to the Table of Contents and Sections herein

- 1. The "Design Requirements" sections which follow in the "Materials and Systems Standards Manual" utilize The Construction Specifications Institute's (CSI) "UniFormat: A Uniform Classification of Construction Systems and Assemblies, Levels 1-4" for their organization. Uniformat is a nationally recognized organizational format for construction materials and products grouped by assemblies, systems and component parts.
- 2. The "Construction Details Manual" contains select key "Standardized Construction Details" for the Materials and Systems recommended in the other manual. The construction details are also referenced with the same respective UniFormat section designations as the Design Requirements. These construction details are for reference only and are to be reviewed by the Design Consultant and its Sub-Consultants for applicability prior to inclusion in the construction documents for any respective project.

#### D. Content

- 1. The focus of the "NJSDA "Materials and Systems Standards Manual" is to require the Design Consultant and its Sub-Consultants to choose materials and systems defined therein. These standards have been developed around the requirements of NJSDA and New Jersey school districts by selecting high quality, durable products, and materials and systems which are easy to maintain, and reflect the budgetary constraints of a relatively low initial cost. The NJSDA's "Construction Details Manual", is a newly developed technical reference for the Design Consultant and its Sub-Consultants.
- 2. The materials and systems to be used in the design and construction of School Facilities Projects shall typically be limited to those materials and systems which are defined in these sections of the NJSDA's "Material and System Standards Manual" and associated "Design Requirements" sections.
- 3. All Design Consultants and their Sub-Consultants shall adhere to these NJSDA Model Schools: "Materials and Systems Standards Manual" and utilize the associated "Construction Details Manual" as a reference source, as applicable, in the design of contractually assigned specific School Facilities Projects. The standards herein apply to all Sub-Consultants, employees, and others retained by the



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#### D. Content (Continued)

Design Consultant; The Design Consultant shall be responsible for all actions of its Sub-Consultants and other team members in accordance with these standards.

- 4. ALL MATERIALS AND SYSTEMS INDICATED AS "SUBJECT TO APPROVAL BY THE NJSDA" MUST BE APPROVED BY THE NJSDA PRIOR TO THE FINAL ACCEPTANCE OF THE DESIGN DEVELOPMENT PHASE.
- 5. This document does not contain a complete or comprehensive reference to any ASTM, UL, or other standard testing method, nor does it contain a complete listing of ASTM and other quality assurance reference standards for any of the Materials or Systems Standards defined herein.
- 6. In the event that the Design Consultant or District requests substitution of a material or system other than those defined within the NJSDA Model Schools "Materials and Systems Standards Manual," and associated technical "Construction Details Manual", it is the Design Consultant and / or the District's responsibility to demonstrate to the NJSDA, utilizing the Variance Request Process defined below, that their suggested substitution is justifiable. The use of any materials and / or systems not identified in this document is subject to approval by the NJSDA.

#### E. Disclaimer

1. The drawings, details, tables, data, and other information in this product have been obtained from many sources, including government organizations, trade associations, suppliers of building materials, and professional Design Consultants or architectural firms and professional organizations. The NJSDA has made every reasonable effort to make this reference work accurate and authoritative, but does not warrant, and assumes no liability for, the accuracy or completeness of the content or its fitness for any particular purpose. It is the responsibility of the Design Consultant and its Sub-Consultants to apply their professional knowledge in the use of information contained in this product, to consult the original sources for additional information when appropriate.

#### F. General Requirements

- 1. As a general rule, Design Consultants and its Sub-Consultants shall conform to NJSDA's Design Requirements and the content herein.
- 2. The Design Consultant and its Sub-Consultants shall comply with all existing presiding codes adopted by the State of New Jersey Department of Community Affairs Division of Codes and Standards (<a href="http://www.nj.gov/dca/divisions/codes/index.html">http://www.nj.gov/dca/divisions/codes/index.html</a>) and all other Federal, State, County, Municipal, and Local codes, ordinances, laws, requirements, etc. having jurisdiction over this project. Renovations and restorations shall meet the requirements of the NJUCC and its Rehabilitation Sub-code and relevant amendments. In addition, the Design Consultant and its Sub-Consultants shall comply with all existing presiding requirements of the Department of Education, The Office of School Facilities; (<a href="http://www.state.nj.us/education/facilities/">http://www.state.nj.us/education/facilities/</a>) and related New Jersey Administrative Code (N.J. A.C.) Title 6A:26.
- 3. The Design Consultant and its Sub-Consultants shall only include in the Construction Documents products that meet 'Made in America' criteria as defined by the Federal Trade Commission.

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#### G. The Variance Request Process

- 1. In limited, defensible, special situations as defined below, if either the District or the Design Consultant proposes a design that varies from NJSDA's "Design Requirements" in the "Materials and Systems Standards Manual" and the "Construction Details Manual" and the content herein, approval must be obtained from the NJSDA by the Variance Request Process and shall meet the requirements listed below. The Design Consultant shall submit the required Variance Request Form (Refer to "Appendix B") and all support data and information as soon as possible but no later than end of the Design Development phase. The Design Consultant shall not incorporate the material, system, or technology in their construction documents until NJSDA approval has been granted.
- 2. The NJSDA will consider a proposal for a Variance Request under any or all of the following circumstances:
  - The proposed product, material, or system provides equal or better performance of all comparable characteristics at a savings, equal cost, or at a minimal incremental greater cost.
  - b. The proposed product is a new material, system or technology that has better performance characteristics.
  - c. The proposed product is a new material, system or technology is a standard product used by the district consistently in their schools and meets the requirements of a. above.

Note: The Variance Request Process does not apply to proprietary product requests which are addressed below in Section: I.

- 3. In order for the NJSDA to review a proposal for a Variance Request the following information must be provided by the District or the Design Consultant
  - a. A completed Variance Request Form found in Appendix "B".
  - b. A report or comparison with all justification, product performance data, literature, and analysis demonstrating how and why the proposed material or system alternative provides improved performance
  - c. If the proposed product is a new material, system or technology that has better performance characteristics, provide information about how long it has been available for application, where it has been used (preferably in other schools), and any resulting performance testing of the product in situ.
  - d. The total cost impact of this material, system, or technology as it applies to the specific school facilities project. A detailed construction cost estimate reflecting the level of development of the design solution should be presented in UniFormat 2011 or MasterFormat 2011 to facilitate comparison between the baseline alternative and various options selected.
- 4. The NJSDA shall, in its sole discretion, approve or reject the Variance Request in writing within 30 days. The Design Consultant shall not incorporate the material, system, or technology in their construction documents until NJSDA approval has been granted.
- 5. Completion and submission of a Variance Request Form and inclusion of a substituted material or system into the Contract Documents is the Design Consultant's sole responsibility and shall be

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Introduction & General Requirements

#### G. The Variance Request Process (Continued)

accomplished at no cost to the NJSDA for professional services associated with the Variance Request Process.

#### H. Sustainable/Green Design Criteria

- 1. The Design Consultant and its Sub-Consultants shall comply with the NJSDA's Sustainable/Green/USGBC LEED Design requirements and goals. Revised NJSDA Sustainable Design Guidance is currently under development. For new Design Consultant procurements refer to the respective contract for professional scope of services for Sustainable/Green/LEED Design Criteria and associated requirements. For earlier Design Consultant procurements refer to the associated contract and NJSDA guidance to Design Consultants for these requirements.
- 2. The focus of the content herein does not currently define specific materials' and systems' requirements or features with regard to sustainability and green design. However, the materials and systems defined herein may inherently have such features by the nature of their specified typical composition, components, use, assembly, application, or the requirements described herein.

#### I. Requirements for Specifications and Proprietary Specifications

- 1. The Design Consultant and its Sub-Consultants shall use the current version of MasterFormat (currently 2011) in the development of their School Facilities Projects' technical specifications.
- 2. The use of proprietary specifications is prohibited; therefore, whenever a "brand name" item is specified, the specification must list, by name, at least three (3) comparable manufacturers followed by the words "or approved equal". If these comparable "equal" manufacturers are not available, NJSDA must have previously approved the specifications prior to issuance for bids.
- 3. To ensure that the word "equal" cannot be misinterpreted in the course of bidding, the Design Consultant and their Sub-Consultants must thoroughly describe in the technical specifications all essential performance and/or physical features which must be incorporated into the specified item or system to meet its minimum functional needs and space limitations. Minor features of the preferred products that do not have an impact upon the product performance for this use shall not be specified as required criteria for bidding. Accessories and/or minor component associated with systems and/or assemblies, as defined by the current version of MasterFormat's designated specifications sections, may be identified as a single manufacturer followed by the words "or approved equal". The listed manufacturer of a minor product must not void any warranty offered by a company for a comprehensive system, not decrease performance or quality, and shall be compatible with the system or assembly which it may be part of.
- 4. Variances from this requirement may be granted, including restricting bids to certain select manufacturers, subject to the following stipulations:
  - a. No known readily available products, other than the specified, are capable of providing the salient physical, functional, and/or other characteristics, including cost, essential to the minimal needs of the Client School District.
  - b. Where existing systems are being extended (fire alarm, etc.) and single-system integrity can only be preserved or compatibility assured by resorting to the designated products. This applies to new construction, additions to existing buildings and when major renovations to an existing building are planned, if the School District has a 'District-Wide' system where the single system



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#### I. Requirements for Specifications and Proprietary Specifications (Continued)

integrity would be lost by adding an incompatible generic system. Focus for an exception to the requirement of a non-proprietary system should be prioritized by importance. Importance factors (from highest): Fire/Life Safety systems, Occupant Safety and Security, followed by long-term ease of building Operations and Maintenance.

c. The Design Consultant and its Sub-Consultants as well as the School District must request in writing to the NJSDA, a request for variance from the proprietary specification requirements at least thirty (30) days before inclusion in the Construction Documents. This request shall include a draft version of the proposed specification sections, any associated product cuts, data sheets, diagrams, pictures, or additional technical information necessary to completely describe the material or system for which the variance is requested and the relevant justification for this action.

d. Within ten (10) days of receipt, the request will be reviewed, and if approved, the NJSDA Project Manager will grant authorization in writing to proceed. Upon receipt of authorization, the Design Consultant shall include in the Construction Documents the name of the desired manufacturer to be used by the contractor in its base bid.

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## NJSDA Model Schools Program Materials and Systems Standards Manual

### **Construction Details Manual**

**Section B: Shell** 

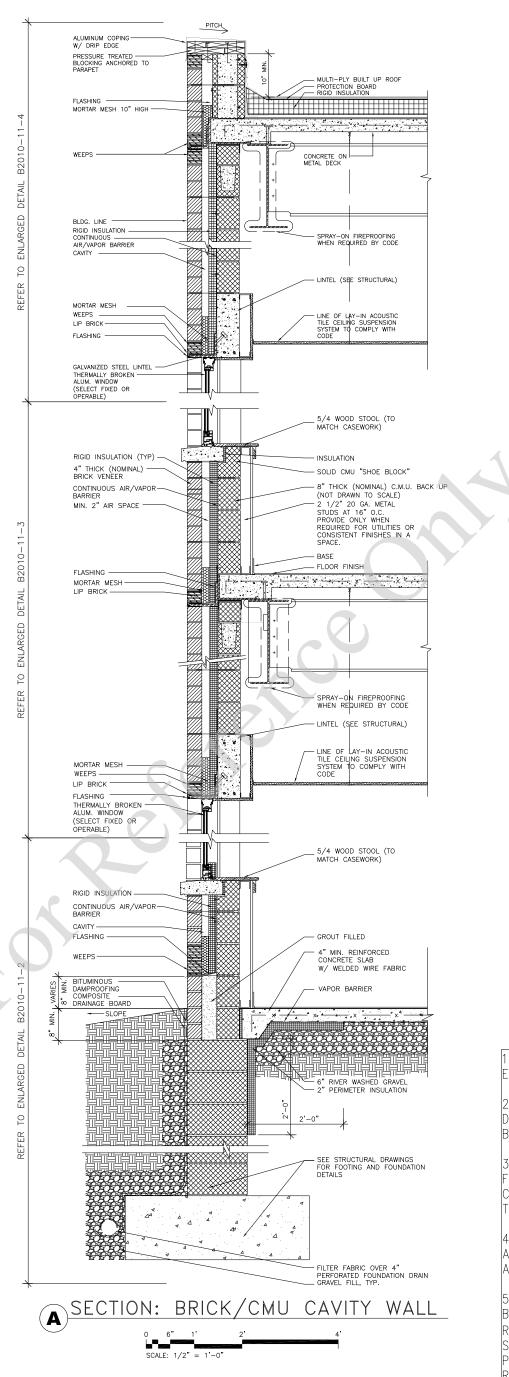
Issue Date: September 19, 2011

## NJSDA Model Schools Program Materials and Systems Standards Manual

### **Construction Details Manual**

Section B20: Vertical Exterior Enclosure

Issue Date: September 19, 2011



- USE THIS DETAIL FOR TYPICAL EXTERIOR WALLS REQUIRING PARAPETS.
- 2. COORDINATE WITH STRUCTURAL DRAWINGS, ARCHITECTURAL PLANS AND BUILDING ELEVATIONS.
- 3. THE DESIGNER SHALL NOT VARY FROM THE INDICATED METHOD OF CONSTRUCTION WITHOUT APPROVAL FROM THE NJSDA.
- 4. DESIGN OF COPING STONE HEIGHT AND CONFIGURATION MAY VARY FOR AESTHETIC CONDITIONS.
- 5. EXTERIOR MASONRY WALLS SHALL BE VERTICALLY REINFORCED WHEN REQUIRED W/ STEEL RE-BARS FOR SEISMIC AND OTHER FORCES PER PRESIDING CODES. DESIGNER IS RESPONSIBLE TO VERIFY NUMBER AND SPACING IN RELATION TO HEIGHT AND THICKNESS OF WALL.

Revision:





SDA Project #: M&SS

Drawn by:

Revision:

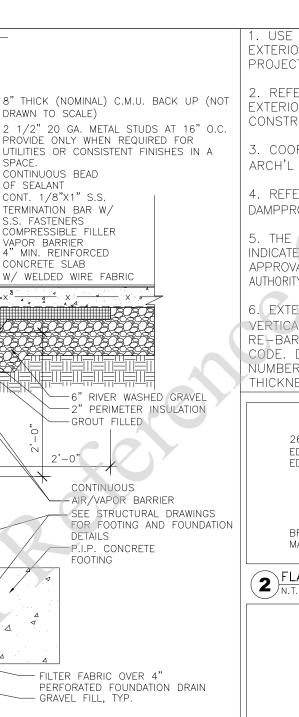
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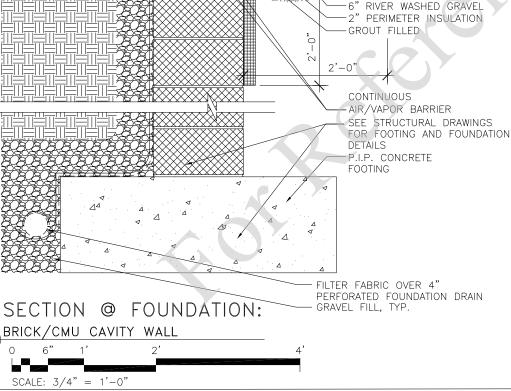
AS NOTED

NOT FOR CONSTRUCTION
REFER TO
DISCLAIMER

SECTION @ FOUNDATION: BRICK EXTERIOR CAVITY WALL W/ CMU BACKUP

B2010-11-02





DRAWN TO SCALE)

CONTINUOUS BEAD OF SEALANT

CONT. 1/8"X1" S.S.

S.S. FASTENERS COMPRESSIBLE FILLER

VAPOR BARRIER

CONCRETE SLAB

TERMINATION BAR W/

4" MIN. REINFORCED

W/ WELDED WIRE FABRIC

SPACE.

4" THICK (NOMINAL)

CONTINUOUS AIR/VAPOR

CAVITY

MORTAR MESH 10" HIGH

WIDTH TO MATCH CAVITY

BITUMINOUS

COMPOSITE

DAMPPROOFING

DRAINAGE BOARD

WEEPS -

FLASHING -

BRICK VENÈER

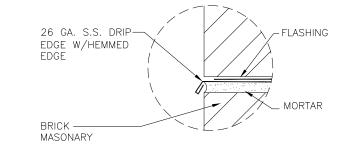
BARRIER

VARIES Z Z

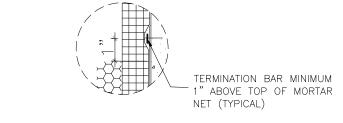
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RIGID INSULATION -

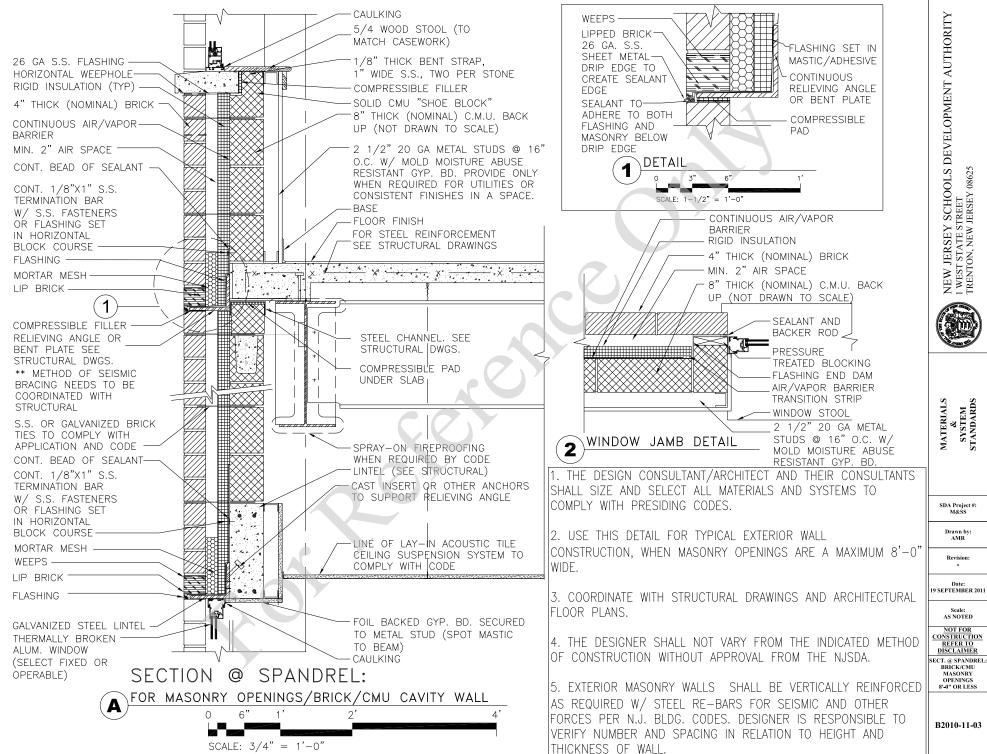
- USE THESE DETAILS AS A GUIDE FOR TYPICAL EXTERIOR WALL CONSTRUCTION. MODIFY TO SUIT PROJECT CONDITIONS.
- 2. REFER TO NJSDA DESIGN REQUIREMENT SB 2011 EXTERIOR MASONRY WALL FOR EXTERIOR WALL CONSTRUCTION.
- 3. COORDINATE WITH STRUCTURAL DRAWINGS AND ARCH'L FLOOR PLANS.
- 4. REFER TO THE NJSDA DESIGN REQUIREMENTS FOR DAMPPROOFING/ WATERPROOFING REQUIREMENTS.
- 5. THE DESIGNER SHALL NOT VARY FROM THE INDICATED METHOD OF CONSTRUCTION WITHOUT APPROVAL FROM THE NEW JERSEY SCHOOLS DEVELOPMENT AUTHORITY.
- 6. EXTERIOR MASONRY WALLS SHALL BE VERTICALLY REINFORCED WHEN REQUIRED W/ STEEL RE-BARS FOR SEISMIC FORCES PER PRESIDING CODE. DESIGNER IS RESPONSIBLE TO VERIFY NUMBER AND SPACING IN RELATION TO HEIGHT AND THICKNESS OF WALL.





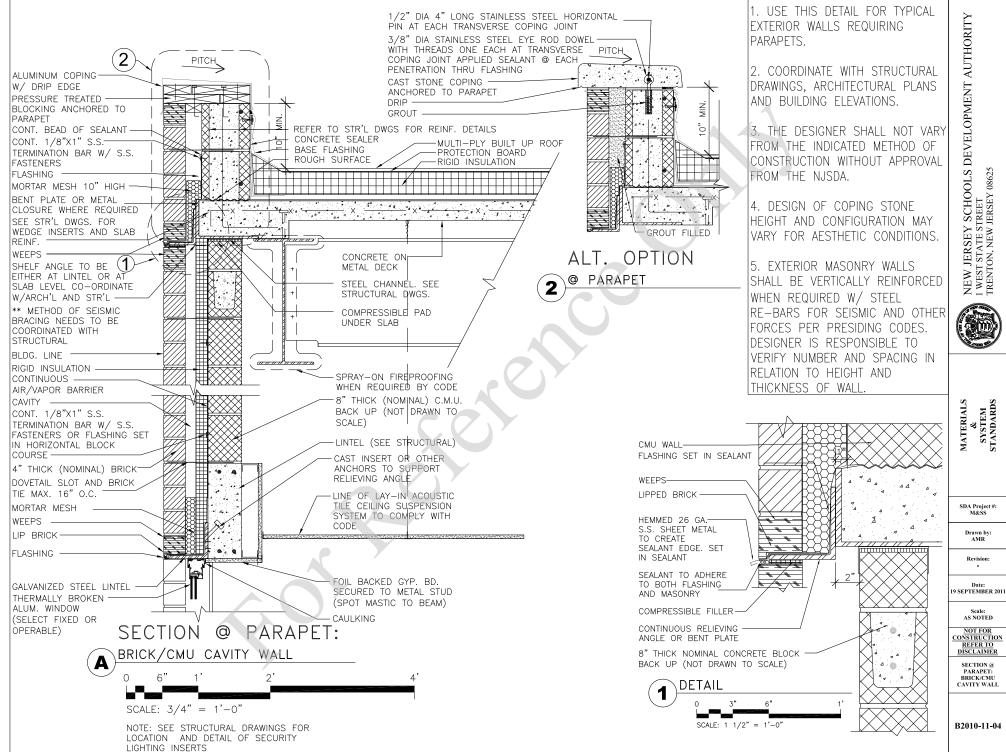


TERMINATION BAR DETAIL









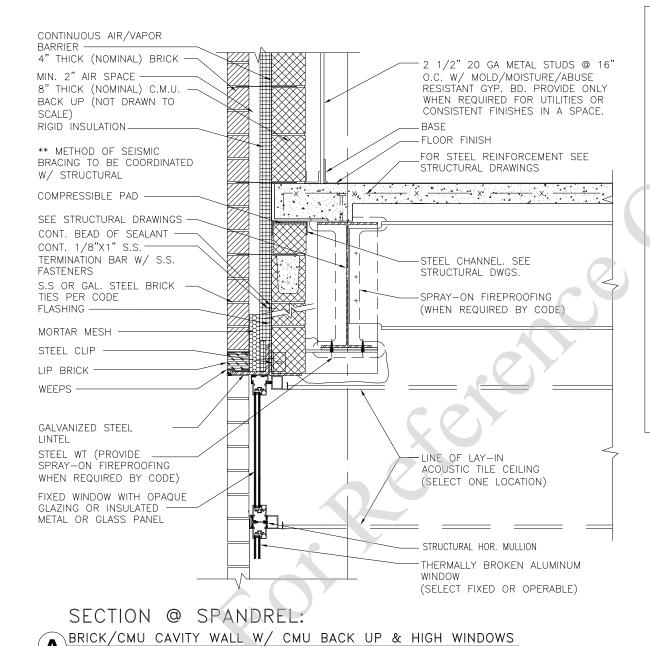
Date: 19 SEPTEMBER 2011

Scale: AS NOTED

NOT FOR CONSTRUCTION
REFER TO
DISCLAIMER

SECTION @ BRICK/CMU CAVITY WALL HIGH WINDOWS

B2010-11-05



SCALE: 3/4" = 1'-0"

- 1. COORDINATE WITH STRUCTURAL DRAWINGS AND ARCHITECTURAL FLOOR PLANS.
- 2. THE DESIGN CONSULTANT/ARCHITECT SHALL NOT VARY FROM THE INDICATED METHOD OF CONSTRUCTION WITHOUT APPROVAL FROM THE NJSDA.
- 3. THE DESIGN CONSULTANT/ARCHITECT AND THEIR CONSULTANTS SHALL SIZE AND SELECT ALL MATERIALS AND SYSTEMS TO COMPLY WITH PRESIDING CODES.
- 4. EXTERIOR MASONRY WALLS SHALL BE VERTICALLY REINFORCED WHEN REQUIRED W/ STEEL RE-BARS FOR SEISMIC AND OTHER FORCES PER ADOPTED N.J. BLDG. CODES. THE DESIGN CONSULTANT/ARCHITCT IS RESPONSIBLE TO VERIFY NUMBER AND SPACING IN RELATION TO HEIGHT AND THICKNESS OF WALL.
- 5. REFER TO NJSDA STANDARD DETAIL B2011-11-3 FOR DETAIL AT WINDOW JAMB.
- 5. LINTEL ASSEMBLY SUPPORT SHALL BE DESIGNED AND CLEARLY INDICATED ON THE STRUCTURAL/ARCHITECTURAL DRAWINGS.





SDA Project #: M&SS

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Revision:

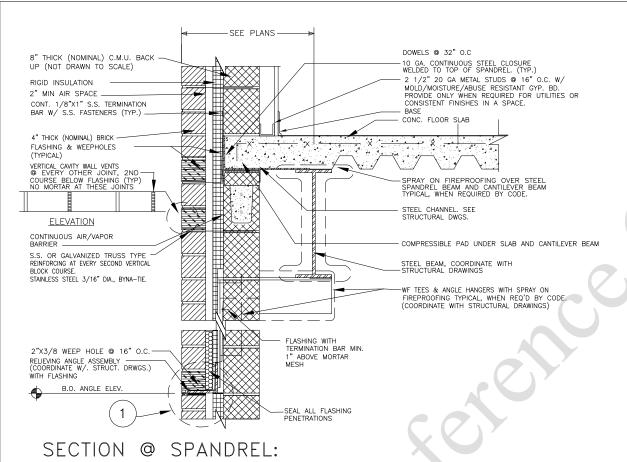
Date: 19 SEPTEMBER 2011

AS NOTED

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REFER TO
DISCLAIMER

SECTION @ SPANDREL: BRICK/CMII CAVITY WALL RELIEVING ANGLE

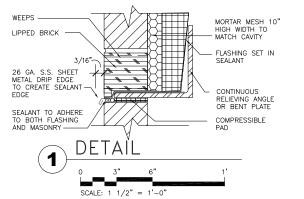
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- 1. USE THIS DETAIL FOR TYPICAL EXTERIOR WALL CONSTRUCTION, SPANDREL BEAM WITH A REINFORCED BACKUP WALL AND RELIEVING ANGLE.
- 2. REFER TO THE NJSDA DESIGN REQUIREMENTS FOR EXTERIOR MASONRY WALL CONSTRUCTION AND PRESIDING CODES.
- 3. COORDINATE WITH STRUCTURAL DRAWINGS AND ARCHITECTURAL FLOOR PLANS.
- 4. EXTERIOR MASONRY WALLS SHALL BE VERTICALLY REINFORCED WHEN REQUIRED W/ STEEL RE-BARS FOR SEISMIC AND OTHER FORCES PER PRESIDING CODES. ARCHITECT AND STRUCTURAL ENGINEER ARE RESPONSIBLE TO VERIFY NUMBER AND SPACING IN RELATION TO HEIGHT AND THICKNESS OF WALL.

BRICK/CMU CAVITY WALL





Date: 19 SEPTEMBER 2011

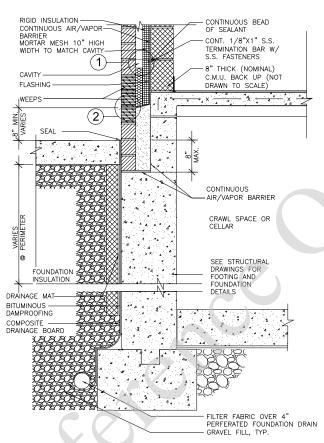
> Scale: AS NOTED

NOT FOR CONSTRUCTION REFER TO DISCLAIMER

SECTION @ FOUNDATION: BRICK

FOUNDATION: BRICK VENEER/CMU BACKUP W/ BSMNT.

B2010-11-07



SECTION @ FOUNDATION:



26 GA. S.S. DRIP
EDGE W/HEMMED
EDGE
BRICK
MASONARY

MORTAR





8" THICK (NOMINAL)

FLASHING OVER CONT. AIR/VAPO

BARRIER MEMBRANE. SEAL TOP

SEALANT BEAD, COVERED WITH

ADDITIONAL MEMBRANE MATERIAL.

EDGE OF FLASHING WITH TERMINATION BAR AND CONT.

COUNTERFLASHING STRIP OR

GROUT FILLED

CONTINUOUS

AIR/VAPOR BARRIER

CRAWL SPACE

SEE STRUCTURAL DRAWINGS FOR

FILTER FABRIC OVER 4"

FOOTING AND

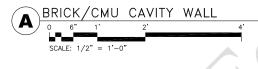
FOUNDATION DETAILS

OR CELLAR

AIR/VAPOR BARRIER

DRAWN TO SCALE)

C.M.U. BACK UP (NOT



INSULATION

CONTINUOUS — AIR/VAPOR BARRIER

CONT. BEAD OF

S.S. TERMINATION

10" HIGH WIDTH TO MATCH CAVITY

SEALANT

BAR W/SS

**FASTENERS** 

WEEPS-

FOUNDATION

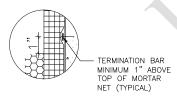
DRAINAGE MA

DAMPROOFING

DRAINAGE BOARD

COMPOSITE

CAVITY\_



TERMINATION BAR DETAIL
N.T.S.

1. USE THESE DETAILS AS A GUIDE FOR TYPICAL EXTERIOR WALL CONSTRUCTION. MODIFY TO SUIT PROJECT CONDITIONS.

2. REFER TO THE NJSDA DESIGN REQUIREMENT 4.2.1 EXTERIOR MASONRY WALL FOR EXTERIOR MASONRY CONSTRUCTION.

- 3. COORDINATE WITH STRUCTURAL DRAWINGS AND ARCH'L FLOOR PLANS.
- 4. REFER TO THE NJSDA DESIGN REQUIREMENTS FOR DAMPROOFING/WATERPROOFING REQUIREMENTS.
- 5. THE DESIGNER SHALL NOT VARY FROM THE INDICATED METHOD OF CONSTRUCTION WITHOUT APPROVAL FROM THE NJSDA.
- 6. EXTERIOR MASONRY WALLS SHALL BE VERTICALLY REINFORCED WHEN REQUIRED W/ STEEL RE-BARS FOR SEISMIC AND OTHER FORCES PER PRESIDING CODES. DESIGNER IS RESPONSIBLE TO VERIFY NUMBER AND SPACING IN RELATION TO HEIGHT AND THICKNESS OF WALL.

1. USE THIS DETAIL WHEN EXTERIOR



MATERIALS

SDA Project #: M&SS

Drawn by: LL

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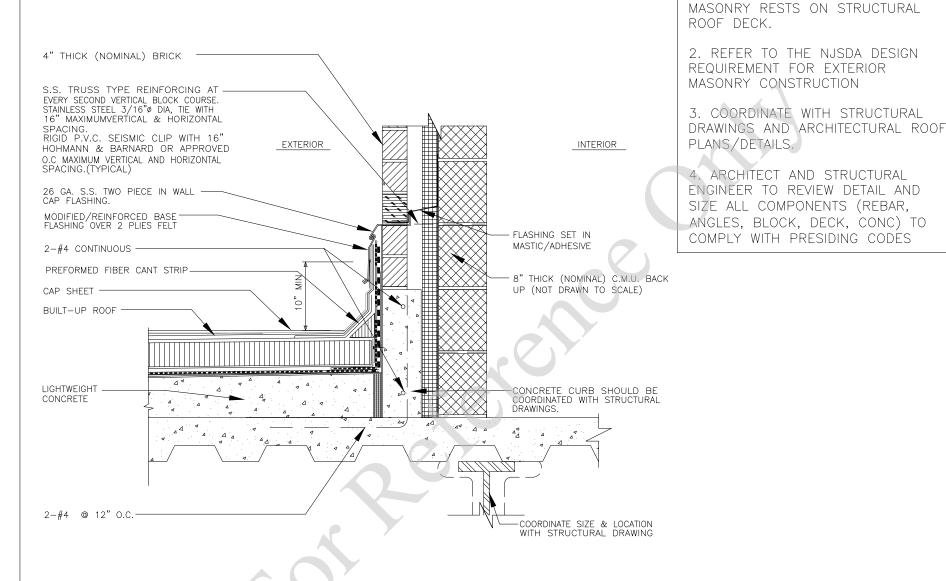
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REFER TO
DISCLAIMER

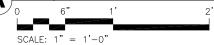
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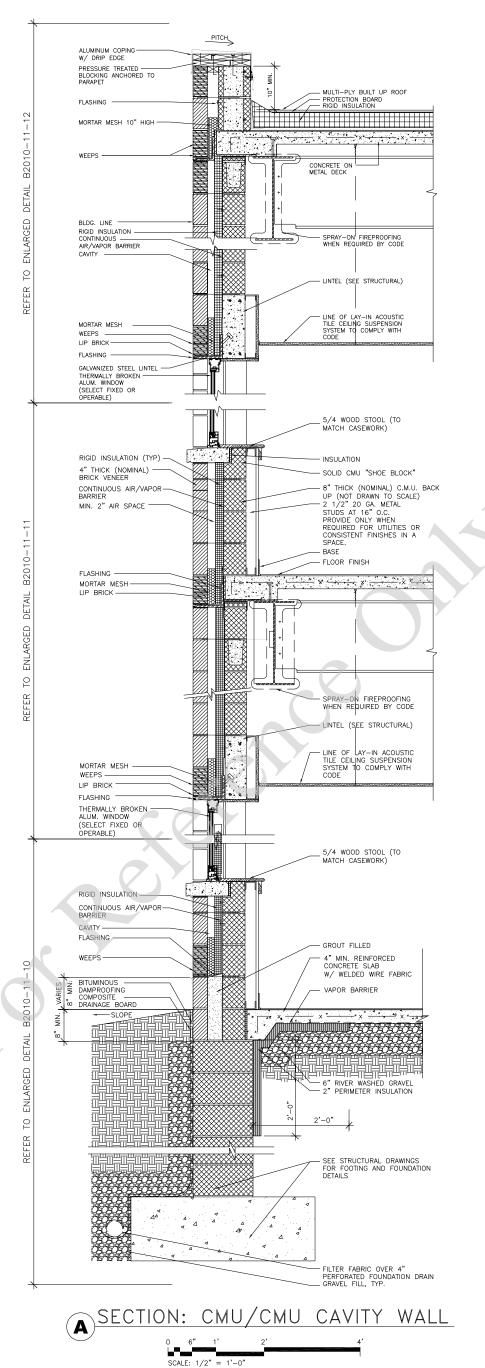
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BRICK/CMU CAVITY WALL @ MASONRY/CONCRETE ROOF CURB DETAIL





- 1. USE THIS DETAIL FOR TYPICAL EXTERIOR WALLS REQUIRING PARAPETS.
- 2. COORDINATE WITH STRUCTURAL DRAWINGS, ARCHITECTURAL PLANS AND BUILDING ELEVATIONS.
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SDA Project #: M&SS

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Date: 9 SEPTEMBER 201

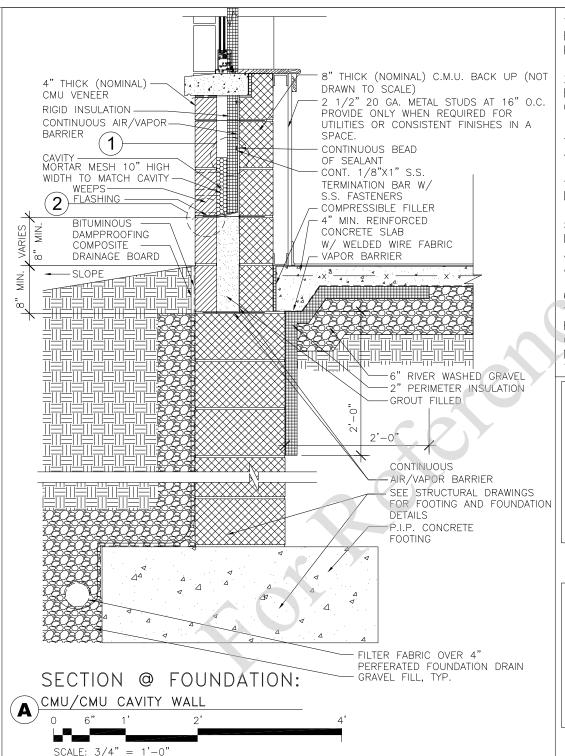
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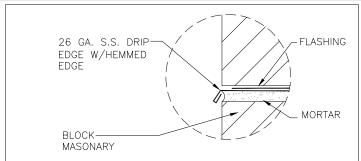
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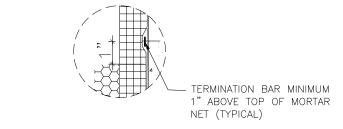




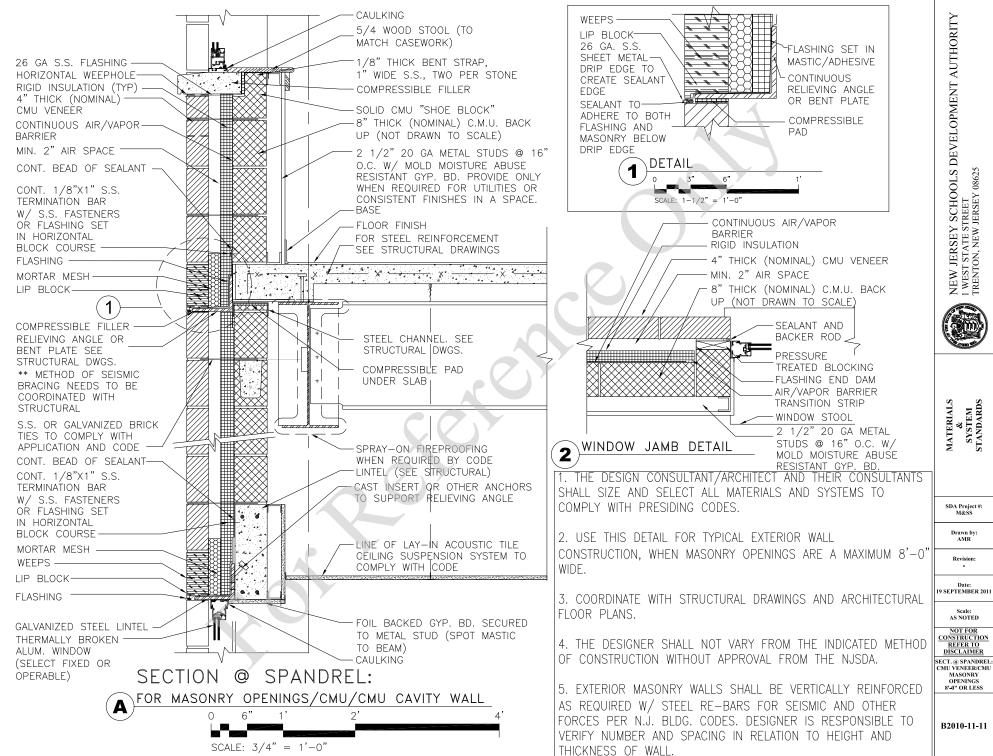
- 1. USE THESE DETAILS AS A GUIDE FOR TYPICAL EXTERIOR WALL CONSTRUCTION. MODIFY TO SUIT PROJECT CONDITIONS.
- 2. REFER TO NJSDA DESIGN REQUIREMENT SB 2011 EXTERIOR MASONRY WALL FOR EXTERIOR WALL CONSTRUCTION.
- 3. COORDINATE WITH STRUCTURAL DRAWINGS AND ARCH'L FLOOR PLANS.
- 4. REFER TO THE NJSDA DESIGN REQUIREMENTS FOR DAMPPROOFING/ WATERPROOFING REQUIREMENTS.
- 5. THE DESIGNER SHALL NOT VARY FROM THE INDICATED METHOD OF CONSTRUCTION WITHOUT APPROVAL FROM THE NEW JERSEY SCHOOLS DEVELOPMENT AUTHORITY.
- 6. EXTERIOR MASONRY WALLS SHALL BE VERTICALLY REINFORCED WHEN REQUIRED W/ STEEL RE-BARS FOR SEISMIC FORCES PER PRESIDING CODE. DESIGNER IS RESPONSIBLE TO VERIFY NUMBER AND SPACING IN RELATION TO HEIGHT AND THICKNESS OF WALL.

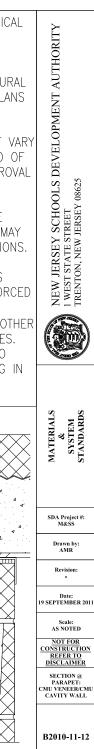


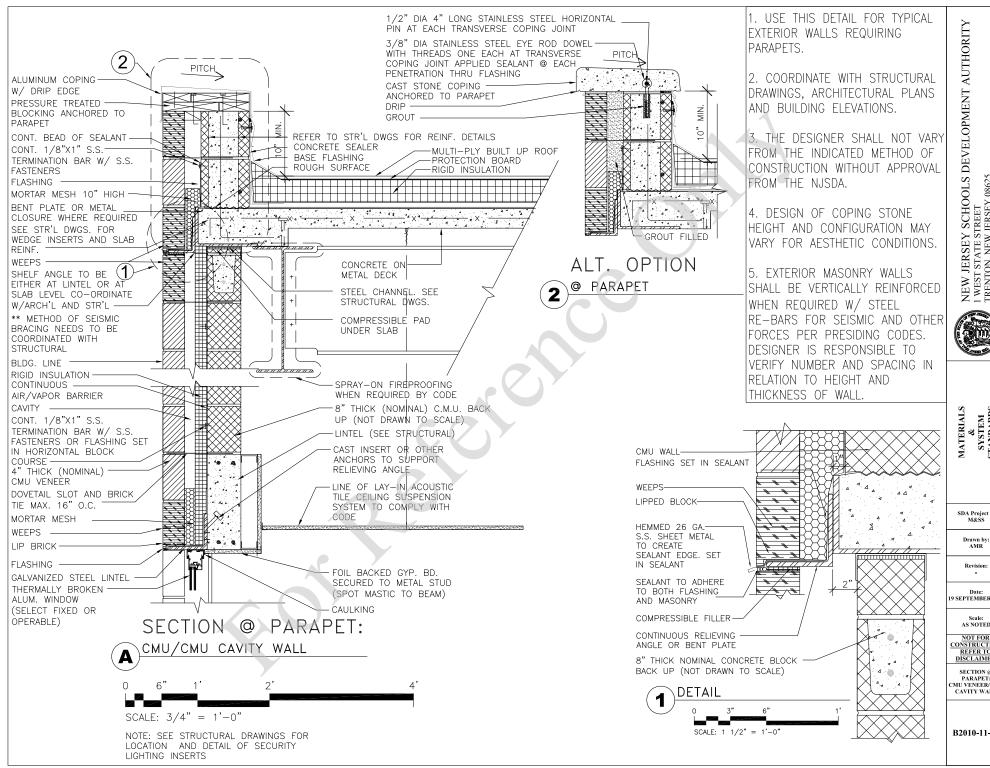




TERMINATION BAR DETAIL









MATERIALS
&
SYSTEM
STANDARDS

SDA Project #: M&SS

Drawn by:

Revision:

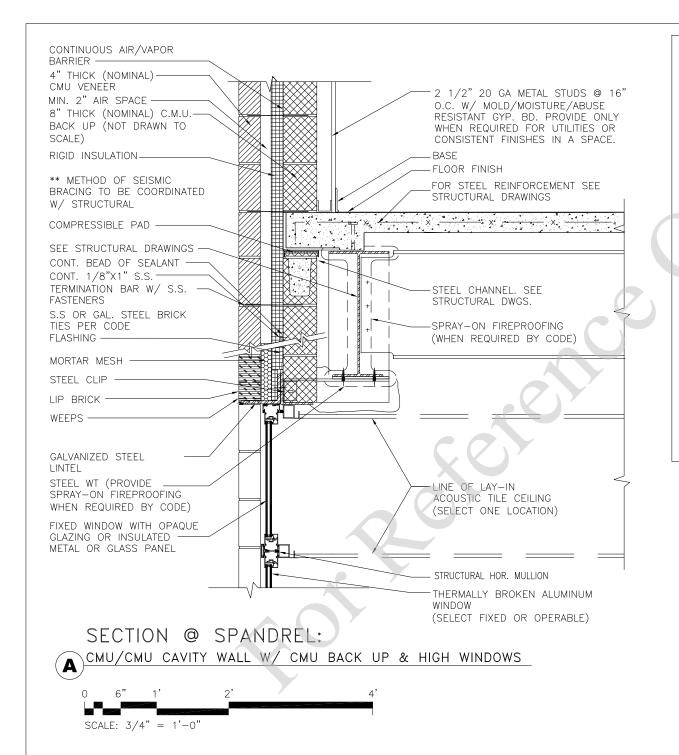
Date: 19 SEPTEMBER 201

> Scale: AS NOTED

NOT FOR CONSTRUCTION REFER TO DISCLAIMER

SECTION @ SPANDREL: CMU VENEER/CMU CAVITY WALL HIGH WINDOWS

B2010-11-13



- 1. COORDINATE WITH STRUCTURAL DRAWINGS AND ARCHITECTURAL FLOOR PLANS.
- 2. THE DESIGN CONSULTANT/ARCHITECT SHALL NOT VARY FROM THE INDICATED METHOD OF CONSTRUCTION WITHOUT APPROVAL FROM THE NJSDA.
- 3. THE DESIGN CONSULTANT/ARCHITECT AND THEIR CONSULTANTS SHALL SIZE AND SELECT ALL MATERIALS AND SYSTEMS TO COMPLY WITH PRESIDING CODES.
- 4. EXTERIOR MASONRY WALLS SHALL BE VERTICALLY REINFORCED WHEN REQUIRED W/STEEL RE—BARS FOR SEISMIC AND OTHER FORCES PER ADOPTED N.J. BLDG. CODES. THE DESIGN CONSULTANT/ARCHITCT IS RESPONSIBLE TO VERIFY NUMBER AND SPACING IN RELATION TO HEIGHT AND THICKNESS OF WALL.
- 5. REFER TO NJSDA STANDARD DETAIL B2011-11-11 FOR DETAIL AT WINDOW JAMB.
- 5. LINTEL ASSEMBLY SUPPORT SHALL BE DESIGNED AND CLEARLY INDICATED ON THE STRUCTURAL/ARCHITECTURAL DRAWINGS.

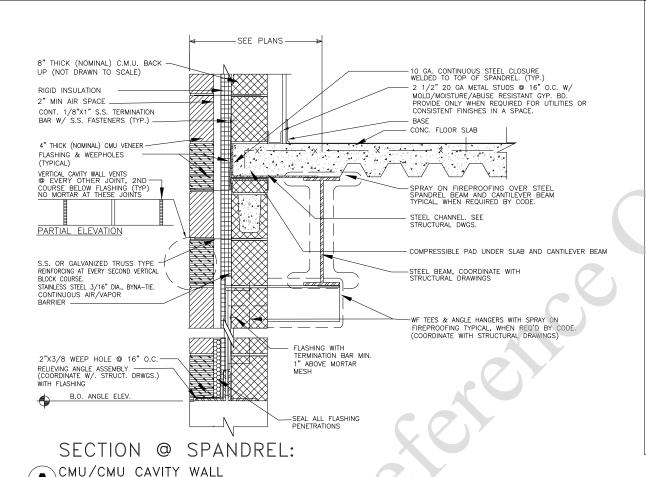
Date: 19 SEPTEMBER 2011

> Scale: AS NOTED

NOT FOR CONSTRUCTION REFER TO DISCLAIMER

SECT. @ SPANDREL: BRICK/CMU CAVITY WALL RELIEVING ANGLE

B2010-11-14



SCALE: 3/4" = 1'-0"

- 1. USE THIS DETAIL FOR TYPICAL EXTERIOR WALL CONSTRUCTION, SPANDREL BEAM WITH A REINFORCED BACKUP WALL.
- 2. REFER TO THE NJSDA DESIGN REQUIREMENTS FOR EXTERIOR MASONRY WALL CONSTRUCTION AND PRESIDING CODES.
- 3. COORDINATE WITH STRUCTURAL DRAWINGS AND ARCHITECTURAL FLOOR PLANS.
- 4. EXTERIOR MASONRY WALLS SHALL BE VERTICALLY REINFORCED WHEN REQUIRED W/ STEEL RE-BARS FOR SEISMIC AND OTHER FORCES PER PRESIDING CODES. ARCHITECT AND STRUCTURAL ENGINEER ARE RESPONSIBLE TO VERIFY NUMBER AND SPACING IN RELATION TO HEIGHT AND THICKNESS OF WALL.
- 6. ARCHITECT AND STRUCTURAL ENGINEER TO REVIEW, DETAIL AND SIZE ALL COMPONENTS (REBAR, ANGLES, BLOCK, ETC. TO COMPLY WITH PRESIDING CODES.)

1. USE THESE DETAILS AS A GUIDE

FOR TYPICAL EXTERIOR WALL

PROJECT CONDITIONS.

CONSTRUCTION. MODIFY TO SUIT

2. REFER TO THE NJSDA DESIGN

3. COORDINATE WITH STRUCTURAL

4. REFER TO THE NJSDA DESIGN

REQUIREMENTS FOR DAMPROOFING/ WATERPROOFING REQUIREMENTS.

5. THE DESIGNER SHALL NOT VARY

FROM THE INDICATED METHOD OF

6. EXTERIOR MASONRY WALLS

FROM THE NJSDA.

CONSTRUCTION WITHOUT APPROVAL

BE VERTICALLY REINFORCED WHEN

SEISMIC AND OTHER FORCES PER

RESPONSIBLE TO VERIFY NUMBER AND SPACING IN RELATION TO HEIGHT

PRESIDING CODES. DESIGNER IS

AND THICKNESS OF WALL.

REQUIRED W/ STEEL RE-BARS FOR

DRAWINGS AND ARCH'L FLOOR PLANS

REQUIREMENT 4.2.1 EXTERIOR

MASONRY WALL FOR EXTERIOR

MASONRY CONSTRUCTION.

SHALL

Date: 19 SEPTEMBER 201

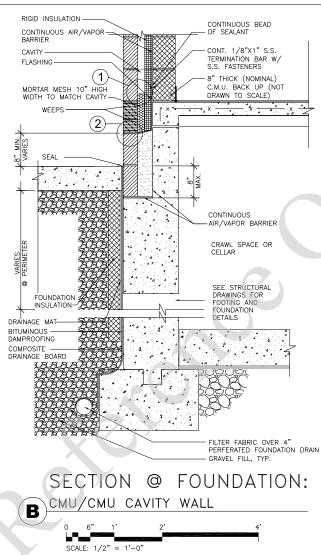
AS NOTED

NOT FOR

CONSTRUCTION
REFER TO
DISCLAIMER

SECTION @ FOUNDATION BRICK CMI VENEER/CMU BACKUP W/ BSMNT

B2010-11-15



FILTER FABRIC OVER 4" PERFERATED FOUNDATION DRAIN

B" THICK (NOMINAL)

C.M.U. BACK UP (NOT

DRAWN TO SCALE)

FLASHING OVER CONT. AIR/VAPO

BARRIER MEMBRANE, SEAL TOP

SEALANT BEAD, COVERED WITH

COUNTERFLASHING STRIP OR ADDITIONAL MEMBRANE MATERIAL.

GROUT FILLED

CONTINUOUS AIR/VAPOR BARRIER

CRAWL SPACE

SEE STRUCTURAL

DRAWINGS FOR

FOOTING AND

FOUNDATION DETAILS

OR CELLAR

EDGE OF FLASHING WITH TERMINATION BAR AND CONT

AIR/VAPOR BARRIER

SECION @ FOUNDATION:

CMU/CMU CAVITY WALL SCALE: 1/2" = 1'-0"

RIGID

CAVITY

INSULATION

CONTINUOUS

AIR/VAPOR BARRIER

CONT. BEAD OF SEALANT

S.S. TERMINATION

BAR W/ S.S. FASTENERS

MORTAR MESH

10" HIGH WIDTH

TO MATCH CAVITY

FLASHING

WEEPS

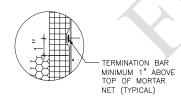
FOUNDATION

VARIES PERIMETER

DRAINAGE MAT BITUMINOUS

DAMPROOFING COMPOSITE

DRAINAGE BOARD



TERMINATION BAR DETAIL

FLASHING DETAIL

26 GA. S.S. DRIP--FLASHING EDGE W/HEMMED MORTAR BRICK MASONARY

1. USE THIS DETAIL WHEN EXTERIOR

MASONRY RESTS ON STRUCTURAL





MATERIALS

SDA Project #: M&SS

Drawn by: LL

Revision:

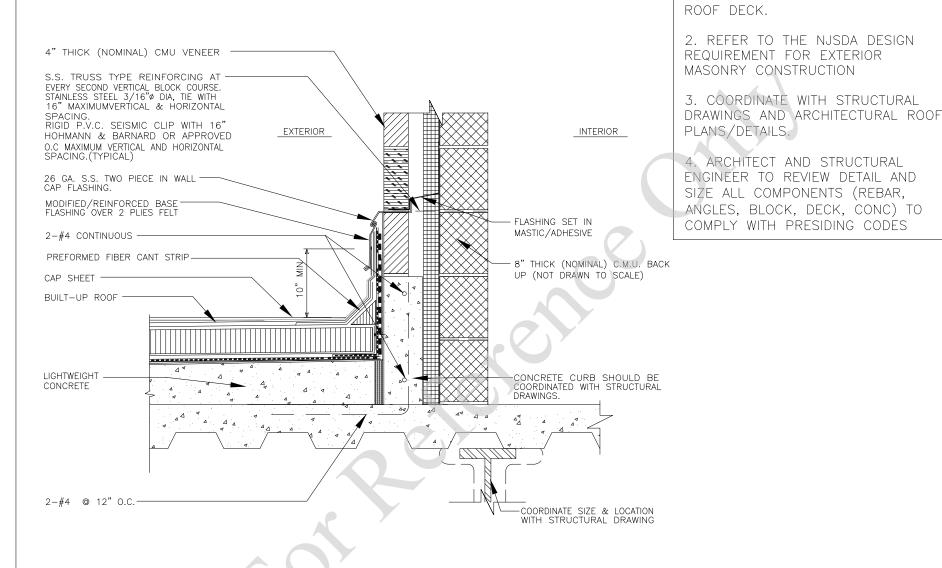
Date: 19 SEPTEMBER 2011

Scale: AS NOTED

NOT FOR CONSTRUCTION
REFER TO
DISCLAIMER

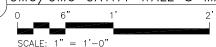
SECTION @ ROOF: CAVITY WALL CURB BUILT-UP ROOF @WALL

B2010-11-16



SECTION @ ROOF:

CMU/CMU CAVITY WALL @ MASONRY/CONCRETE ROOF CURB DETAIL

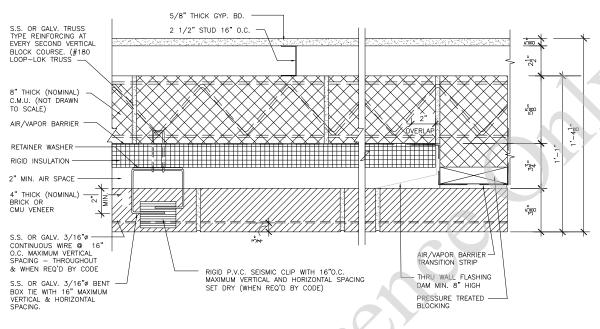


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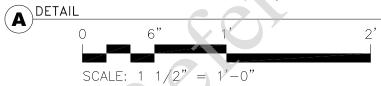
NOT FOR CONSTRUCTION REFER TO DISCLAIMER

PARTIAL PLAN: BRICK/CMU VENEER/CMU CAVITY WALL

B2010-11-17



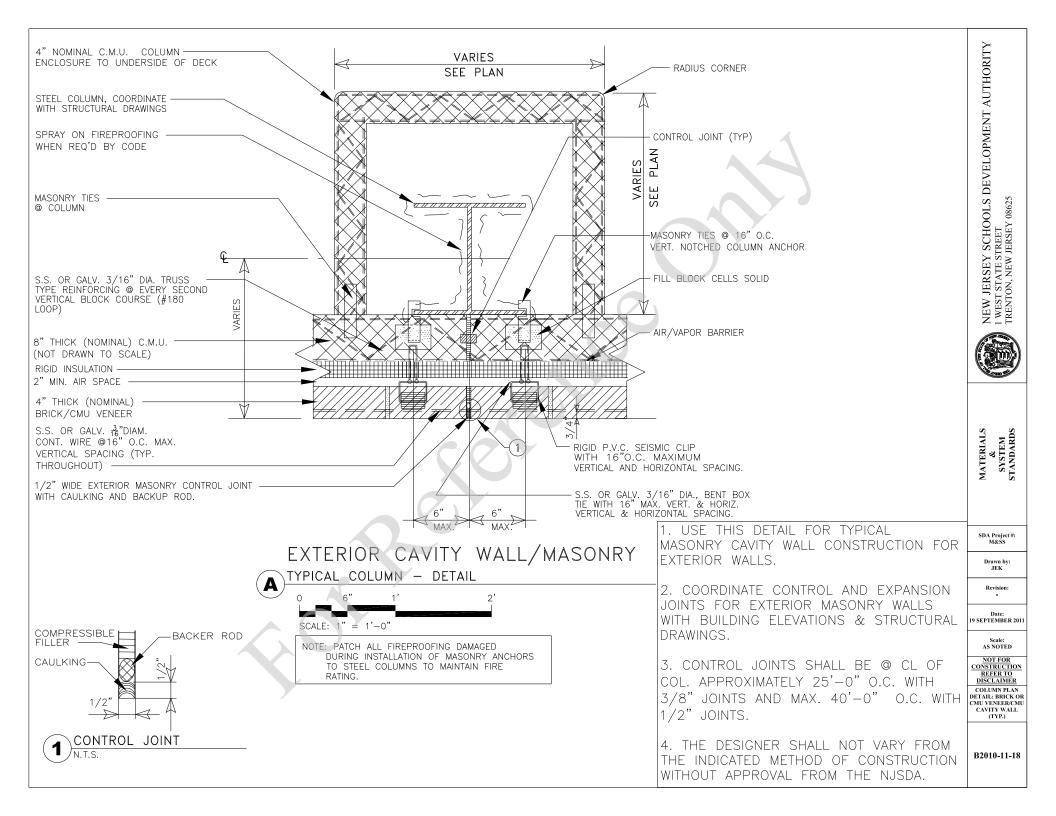
### EXTERIOR CAVITY WALL/MASONRY

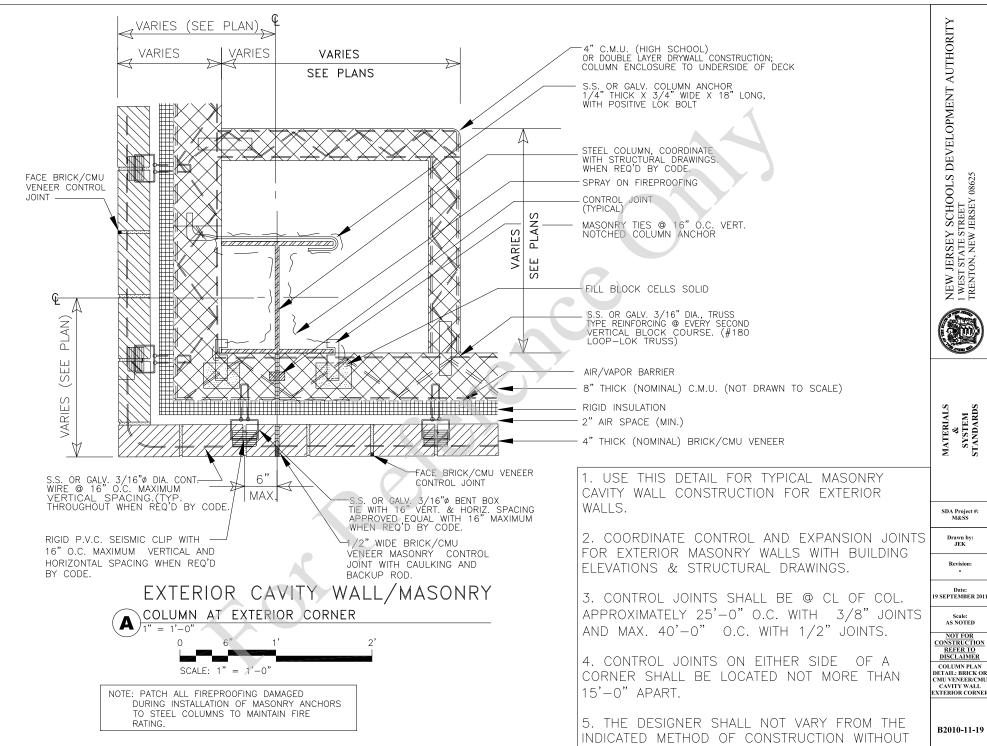


1. REFER TO THE NJSDA DESIGN REQUIREMENT FOR EXTERIOR MASONRY WALL CONSTRUCTION.

2. COORDINATE CONTROL AND EXPANSION JOINTS FOR EXTERIOR MASONRY WALLS WITH BUILDING ELEVATIONS & STRUCTURAL DRAWINGS.

3. THE DESIGNER SHALL NOT VARY FROM THE INDICATED METHOD OF CONSTRUCTION WITHOUT APPROVAL FROM THE NJSDA.



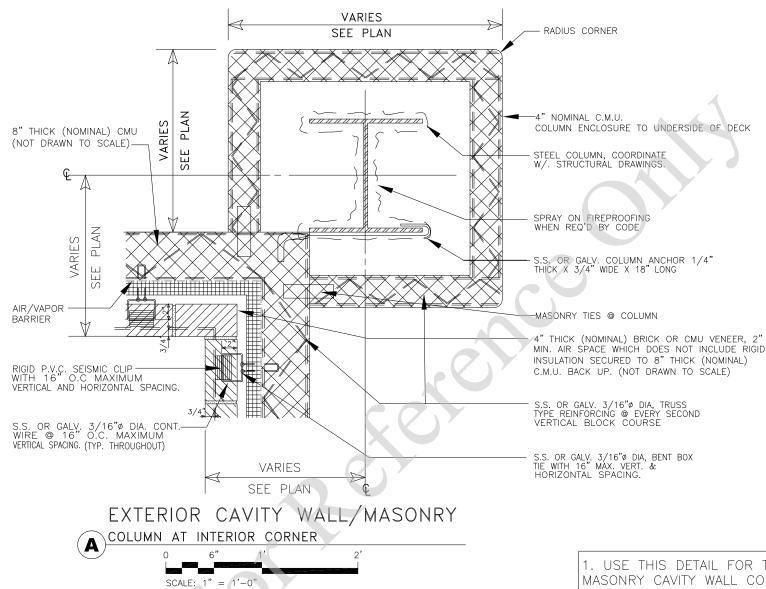


APPROVAL FROM NJSDA.

CMU VENEER/CMI

COLUMN PLAN DETAIL: BRICK OR CMU VENEER/CMU CAVITY WALL INTERIOR COLUMN

B2010-11-20



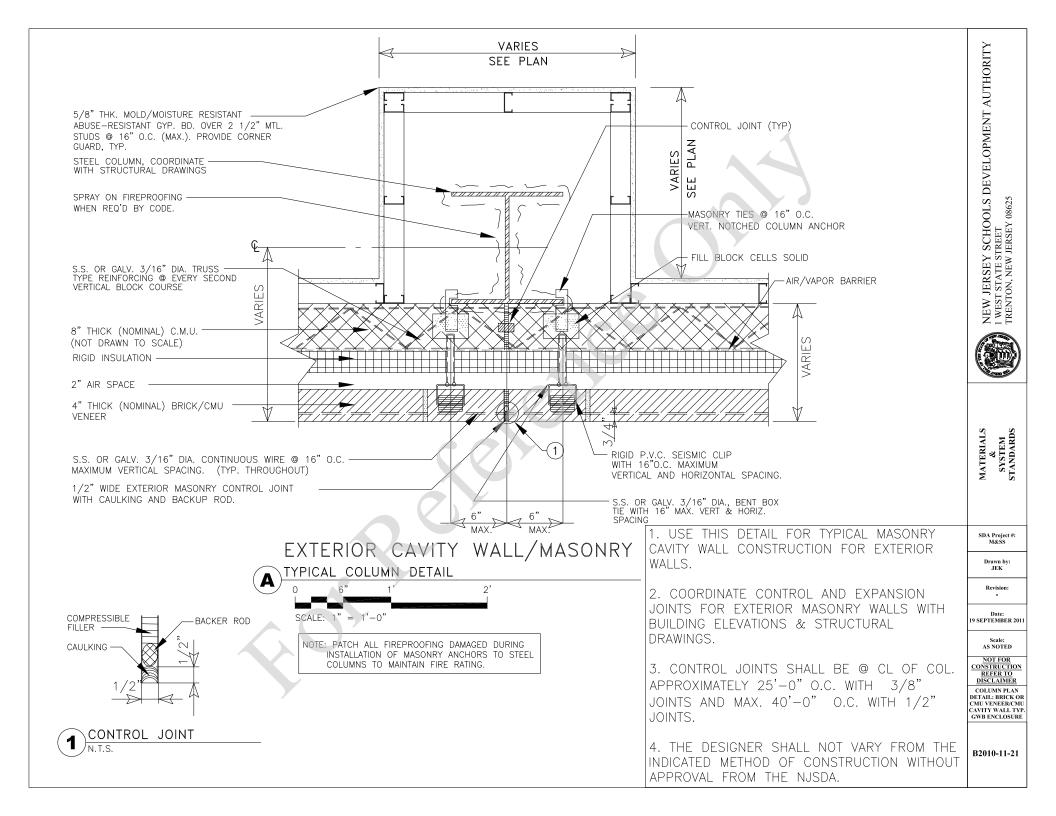
NOTE: PATCH ALL FIREPROOFING DAMAGED

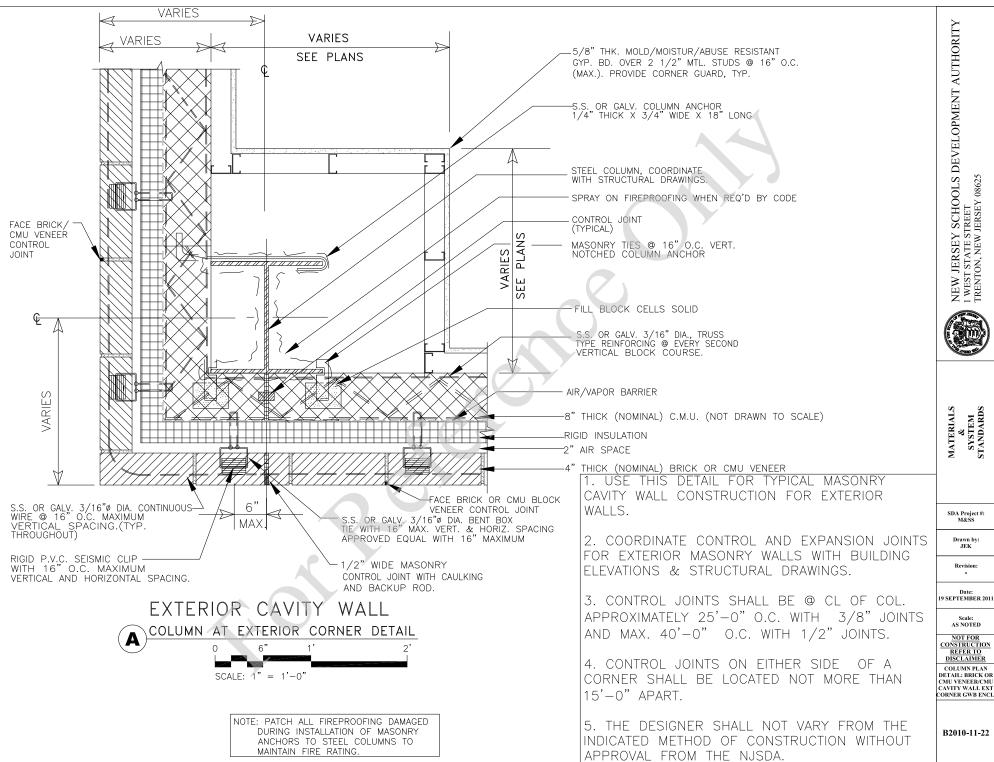
RATING.

DURING INSTALLATION OF MASONRY ANCHORS

TO STEEL COLUMNS TO MAINTAIN FIRE

- 1. USE THIS DETAIL FOR TYPICAL MASONRY CAVITY WALL CONSTRUCTION FOR EXTERIOR WALLS.
- 2. COORDINATE CONTROL AND EXPANSION JOINTS FOR EXTERIOR MASONRY WALLS WITH BUILDING ELEVATIONS & STRUCTURAL DRAWINGS.
- 3. THE DESIGNER SHALL NOT VARY FROM THE INDICATED METHOD OF CONSTRUCTION WITHOUT APPROVAL FROM THE NJSDA.







MATERIALS
&
SYSTEM
STANDARDS

SDA Project #: M&SS

> Drawn by: LL

Revision:

Date: 19 SEPTEMBER 2011

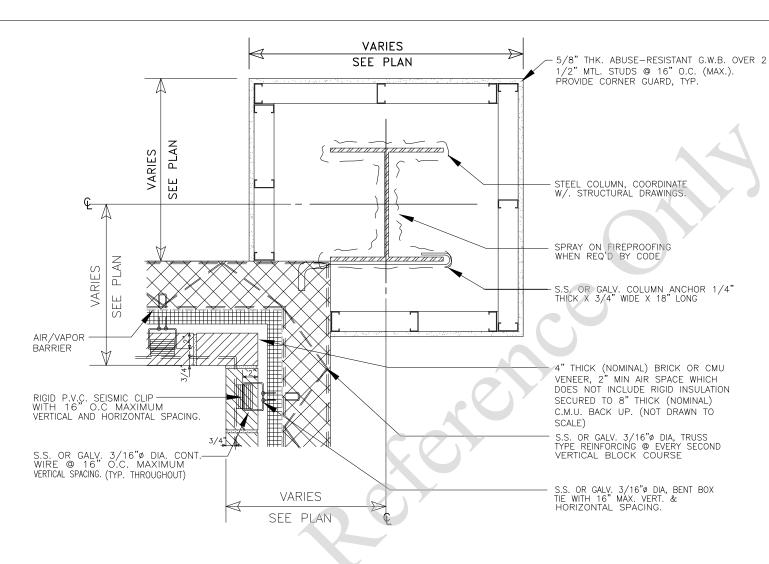
> Scale: AS NOTED

NOT FOR

CONSTRUCTION
REFER TO
DISCLAIMER

COLUMN PLAN DETAIL: BRICK OR CMU VENEER/CMU CAVITY WALL INT. CORNER GWB ENCL.

B2010-11-23



EXTERIOR CAVITY WALL/MASONRY

COLUMN AT INTERIOR CORNER



NOTE: PATCH ALL FIREPROOFING DAMAGED DURING INSTALLATION OF MASONRY ANCHORS TO STEEL COLUMNS TO MAINTAIN FIRE RATING.

1. USE THIS DETAIL FOR TYPICAL MASONRY CAVITY WALL CONSTRUCTION FOR EXTERIOR WALLS.

2. COORDINATE CONTROL AND EXPANSION JOINTS FOR EXTERIOR MASONRY WALLS WITH BUILDING ELEVATIONS & STRUCTURAL DRAWINGS.

3. THE DESIGNER SHALL NOT VARY FROM THE INDICATED METHOD OF CONSTRUCTION WITHOUT APPROVAL FROM THE NJSDA.

1. STONE HEIGHT DIMENSIONS ARE

2. DESIGN OF COPING STONE HEIGHT

REPLACEMENT OR REPAIR OF EXISTIGN

MASONRY PARAPETS OR COPINGS.

CONDITIONS OTHER THAN THOSE INDICATED ABOVE MUST BE APPROVED

4. USE OF THIS DETAIL FOR

AND CONFIGURATION MAY VARY FOR

MINIMUM FOR STANDARD STONE.

AESTHETIC CONDITIONS

BY THE NJSDA.

3. USE THIS DETAIL FOR

Drawn by: LL

Revision:

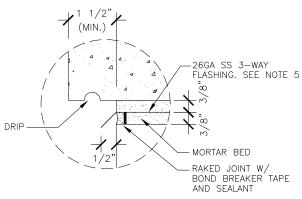
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AS NOTED

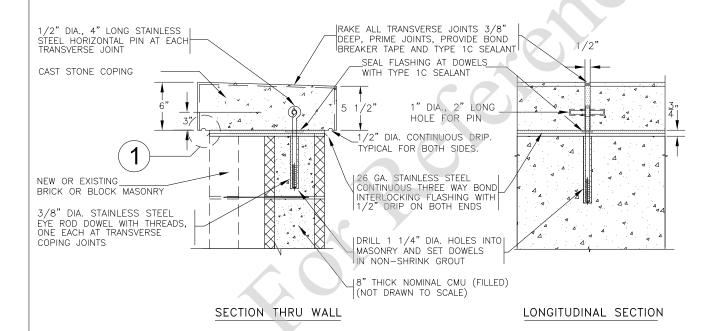
NOT FOR CONSTRUCTION
REFER TO
DISCLAIMER

PARTIAL SECTION BRICK OR CMU VENEER COPING STONE DETAIL

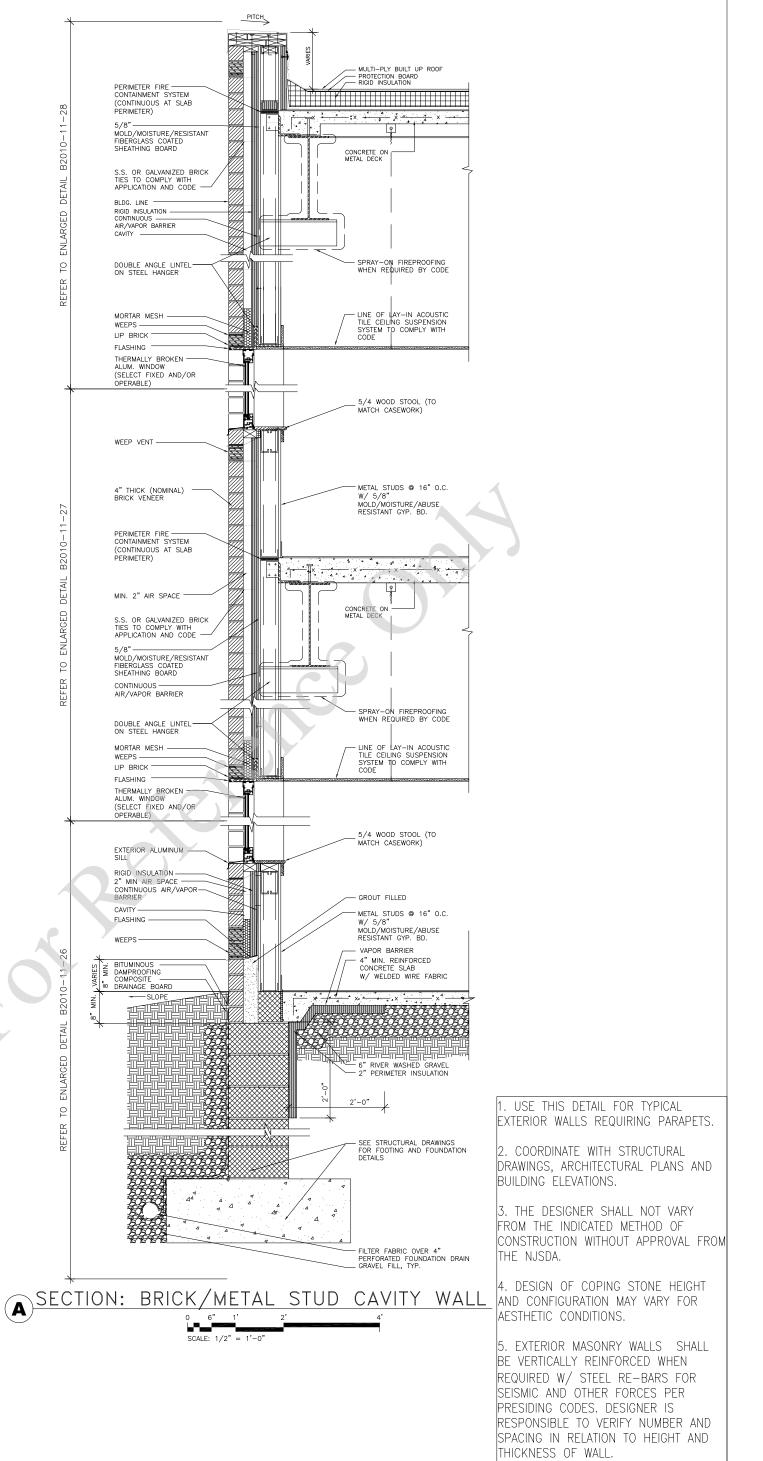
B2010-11-24



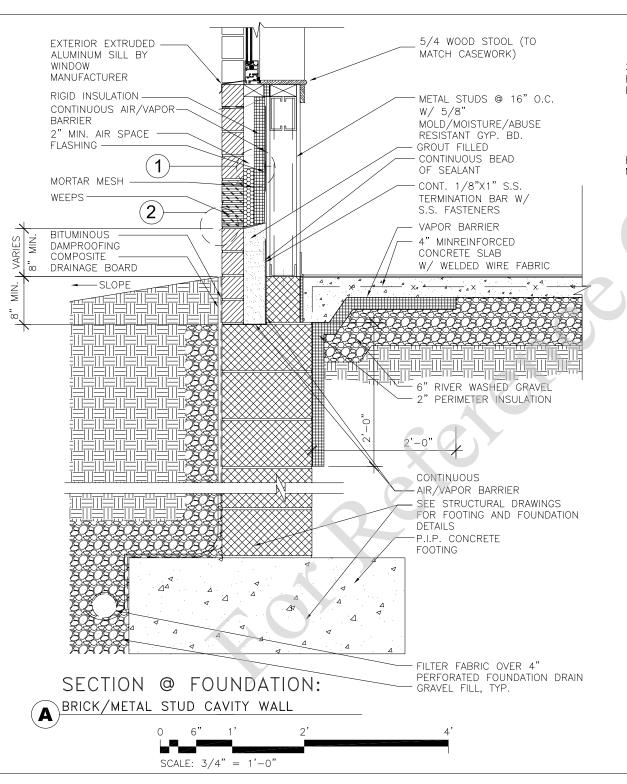












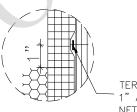
26 GA. S.S. DRIP

EDGE W/HEMMED EDGE

BRICK

MASONARY

FLASHING DETAIL
N.T.S.



TERMINATION BAR MINIMUM 1" ABOVE TOP OF MORTAR NET (TYPICAL)



1. USE THESE DETAILS AS A GUIDE FOR TYPICAL EXTERIOR WALL CONSTRUCTION. MODIFY TO SUIT PROJECT CONDITIONS.

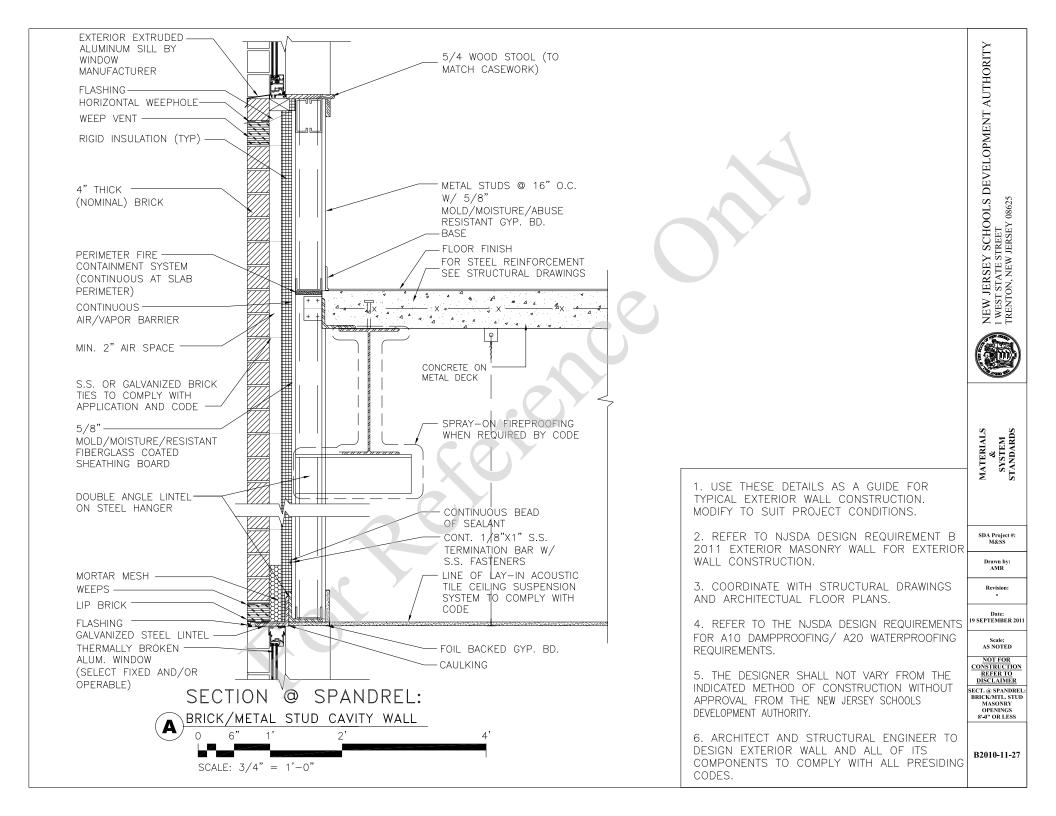
2. REFER TO NJSDA DESIGN REQUIREMENT B 2011 EXTERIOR MASONRY WALL FOR EXTERIOR WALL CONSTRUCTION.

3. COORDINATE WITH STRUCTURAL DRAWINGS AND ARCHITECTUAL FLOOR PLANS.

4. REFER TO THE NJSDA DESIGN REQUIREMENTS FOR A10 DAMPPROOFING/ A20 WATERPROOFING REQUIREMENTS.

5. THE DESIGNER SHALL NOT VARY FROM THE INDICATED METHOD OF CONSTRUCTION WITHOUT APPROVAL FROM THE NEW JERSEY SCHOOLS DEVELOPMENT AUTHORITY.

6. ARCHITECT AND STRUCTURAL ENGINEER TO DESIGN EXTERIOR WALL AND ALL OF ITS COMPONENTS TO COMPLY WITH ALL PRESIDING CODES.







SDA Project #: M&SS

> Drawn by: AMR

Revision:

Date: 9 SEPTEMBER 201

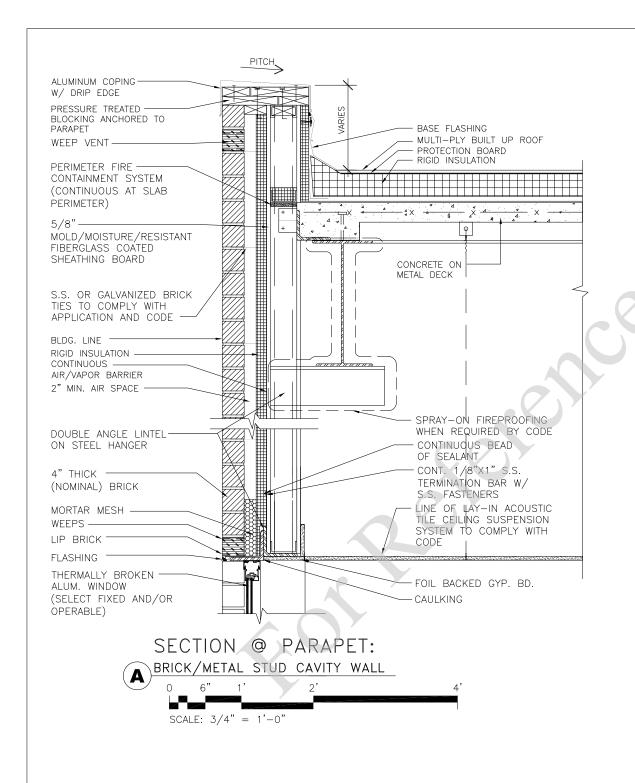
> Scale: AS NOTED

AS NOTED

NOT FOR CONSTRUCTION REFER TO DISCLAIMER

PARAPET: BRICK/MTL. TUDCAVITY WALL

B2010-11-28



1. USE THESE DETAILS AS A GUIDE FOR TYPICAL EXTERIOR WALL CONSTRUCTION. MODIFY TO SUIT PROJECT CONDITIONS.

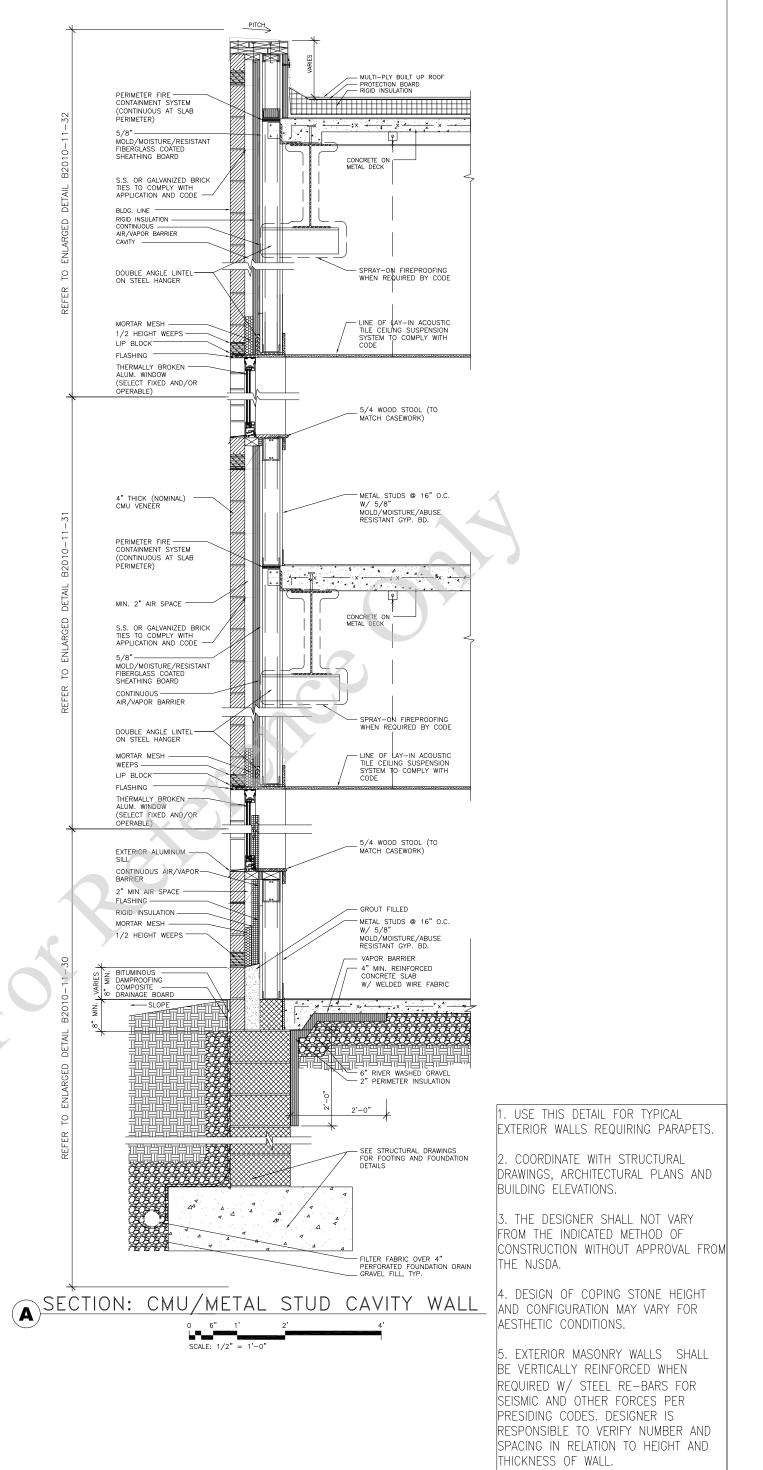
2. REFER TO NJSDA DESIGN REQUIREMENT B 2011 EXTERIOR MASONRY WALL FOR EXTERIOR WALL CONSTRUCTION.

3. COORDINATE WITH STRUCTURAL DRAWINGS AND ARCHITECTUAL FLOOR PLANS.

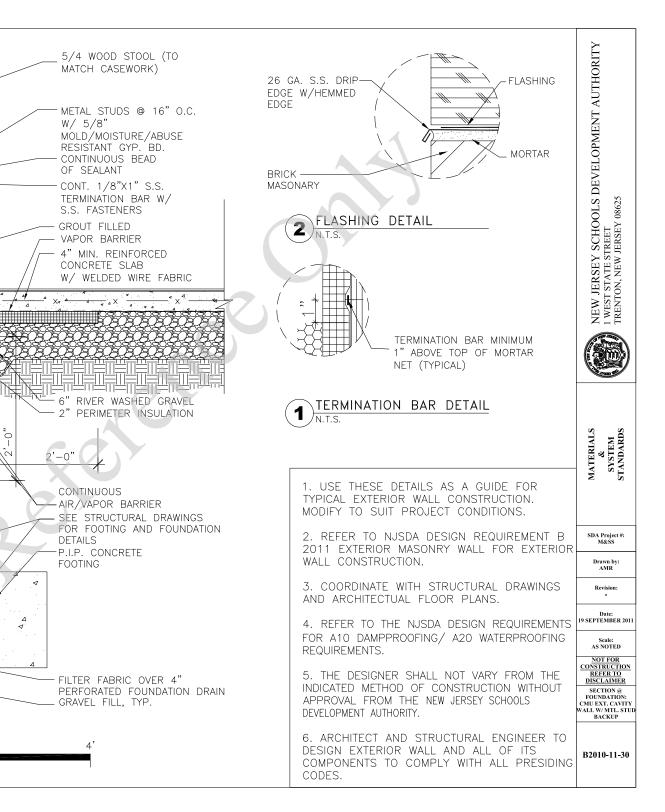
4. REFER TO THE NJSDA DESIGN REQUIREMENTS FOR A10 DAMPPROOFING/ A20 WATERPROOFING REQUIREMENTS.

5. THE DESIGNER SHALL NOT VARY FROM THE INDICATED METHOD OF CONSTRUCTION WITHOUT APPROVAL FROM THE NEW JERSEY SCHOOLS DEVELOPMENT AUTHORITY.

6. ARCHITECT AND STRUCTURAL ENGINEER TO DESIGN EXTERIOR WALL AND ALL OF ITS COMPONENTS TO COMPLY WITH ALL PRESIDING CODES.



B2010-11-29



EXTERIOR EXTRUDED ALUMINUM SILL BY

4" THICK (NOMINAL)

CONTINUOUS AIR/VAPOR

RIGID INSULATION -

2" MIN. AIR SPACE

1/2 HEIGHT WEEP

MANUFACTURER

CMU VENEÈR

WINDOW

BARRIER

FLASHING

MORTAR MESH

BITUMINOUS

COMPOSITE

**DAMPROOFING** 

DRAINAGE BOARD

— SLOPE

SECTION @ FOUNDATION:

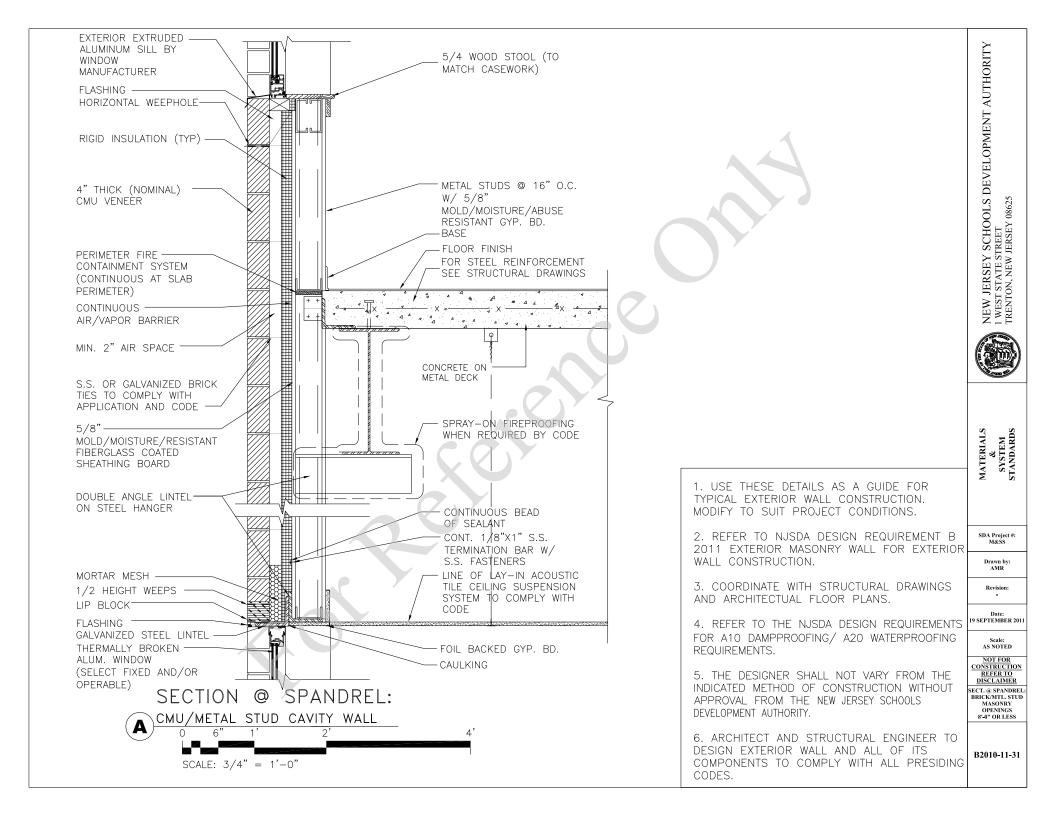
SCALE: 3/4" = 1'-0"

CMU/METAL STUD CAVITY WALL

VARIES

Ζ Σ

· 00







2. REFER TO NJSDA DESIGN REQUIREMENT B 2011 EXTERIOR MASONRY WALL FOR EXTERIOR

3. COORDINATE WITH STRUCTURAL DRAWINGS AND ARCHITECTUAL FLOOR PLANS.

4. REFER TO THE NJSDA DESIGN REQUIREMENTS FOR A10 DAMPPROOFING/ A20 WATERPROOFING

INDICATED METHOD OF CONSTRUCTION WITHOUT DEVELOPMENT AUTHORITY.

6. ARCHITECT AND STRUCTURAL ENGINEER TO DESIGN EXTERIOR WALL AND ALL OF ITS COMPONENTS TO COMPLY WITH ALL PRESIDING CODES.

1. USE THESE DETAILS AS A GUIDE FOR TYPICAL EXTERIOR WALL CONSTRUCTION. MODIFY TO SUIT PROJECT CONDITIONS.

WALL CONSTRUCTION.

REQUIREMENTS.

5. THE DESIGNER SHALL NOT VARY FROM THE APPROVAL FROM THE NEW JERSEY SCHOOLS

SDA Project #: M&SS

Drawn by: AMR

Revision:

Date: 9 SEPTEMBER 2011

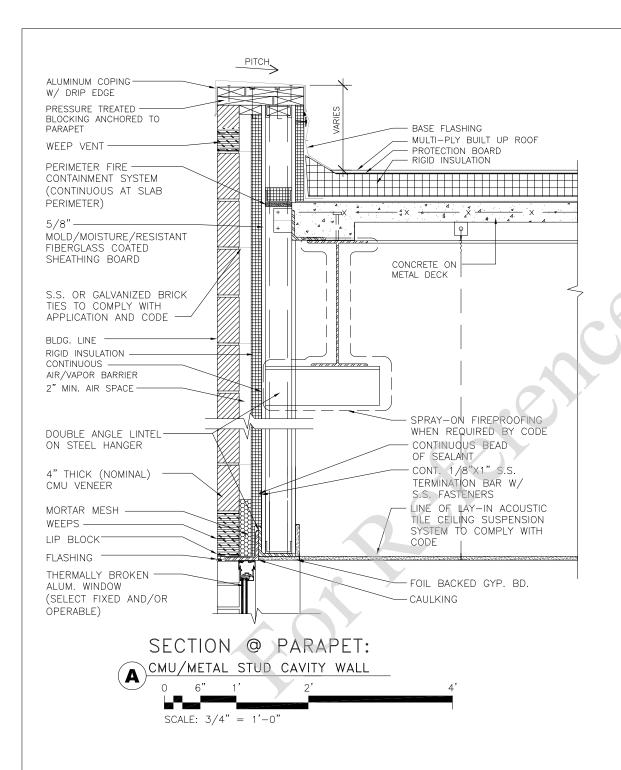
Scale: AS NOTED

NOT FOR

CONSTRUCTION REFER TO DISCLAIMER

PARAPET: BRICK/MTL. TUDCAVITY WALI

B2010-11-32



# NJSDA Model Schools Program Materials and Systems Standards Manual

### **Construction Details Manual**

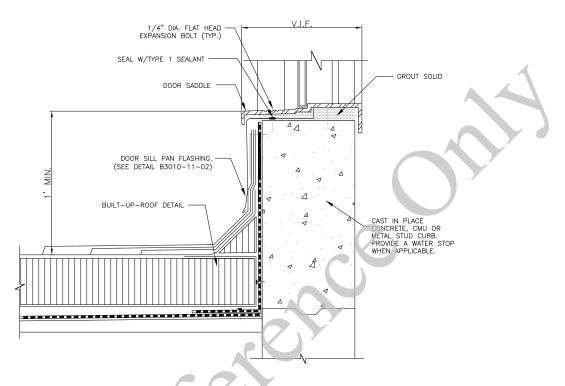
Section B30: Horizontal Exterior Enclosure

Issue Date: September 19, 2011

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DOOR SADDLE

B3010-11-01



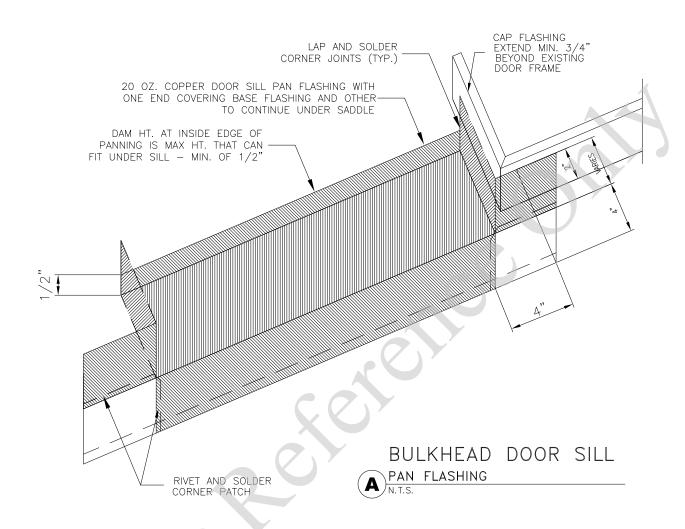




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BULKHEAD DOOR SILL PAN FLASHING

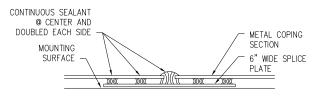
B3010-11-02



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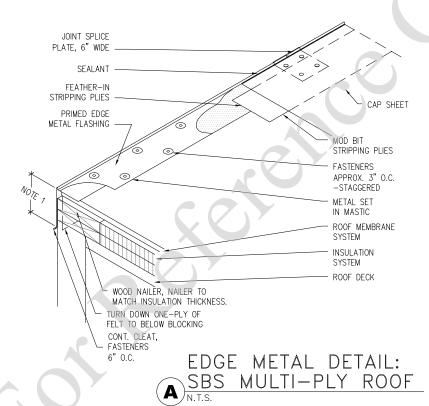
EDGE METAL DETAIL

B3010-11-03



### TYPICAL SECTION



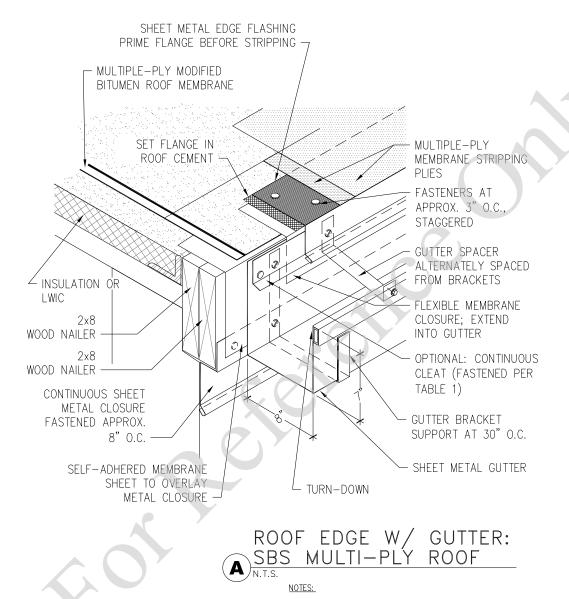


NOTES:

1. FIELD VERIFY REQ'D FASCIA DIMENSION. EXTEND MIN. 1" OVER TOP OF FINISHED EXTERIOR WALL MATERIAL.

ROOF EDGE W/GUTTER

B3010-11-04

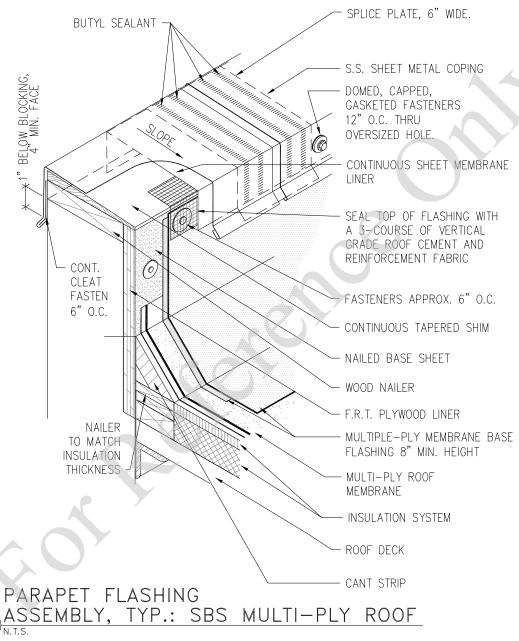


1. ATTACH WOOD FASCIA NAILER W/ (2) ROWS, RECESSED LAG BOLTS, 18" O.C.

NOT FOR CONSTRUCTION REFER TO DISCLAIMER

PARAPET FLASHING ASSEMBLY, TYP

B3010-11-05



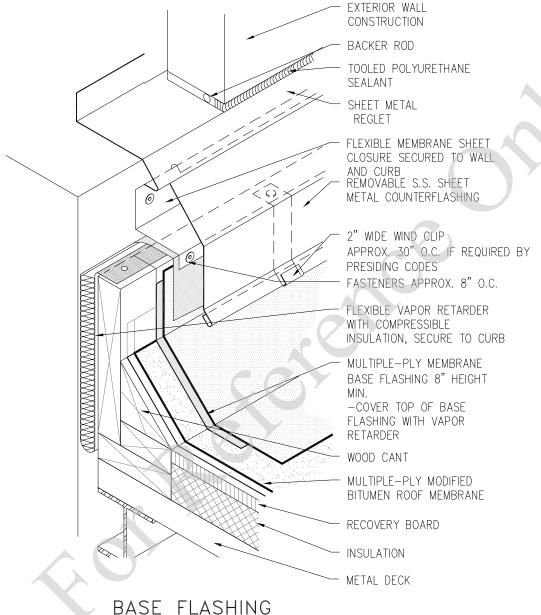
NOTES:

1. FIELD VERIFY COPING DIMENSIONS.

NOT FOR CONSTRUCTION REFER TO DISCLAIMER

BASE FLASHING @ WALL EXP. JOINT

B3010-11-06



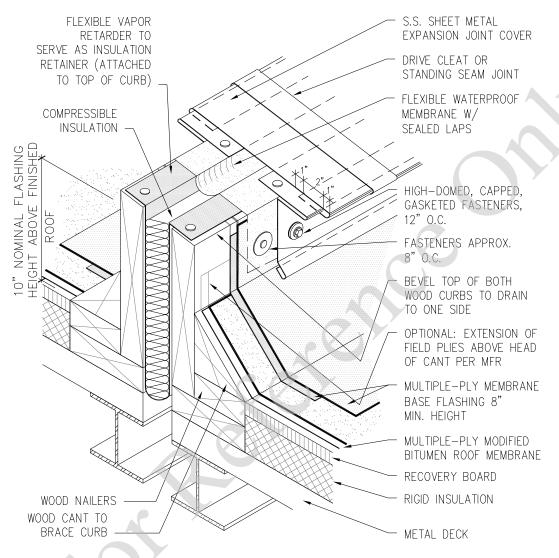
WALL EXP. JOINT: SBS MULTI-PLY ROOF

NOTES:

1. SCREW FASTEN COUNTERFLASHING TO REGLET WHERE REGLET DAMAGE CAN OCCUR OR SECURE FOLDED LOCK CAN NOT BE OBTAINED.

EXPANSION JOINT WITH METAL COVER

B3010-11-07



### EXPANSION JOINT METAL COVER: SBS MULTI-PLY ROOF

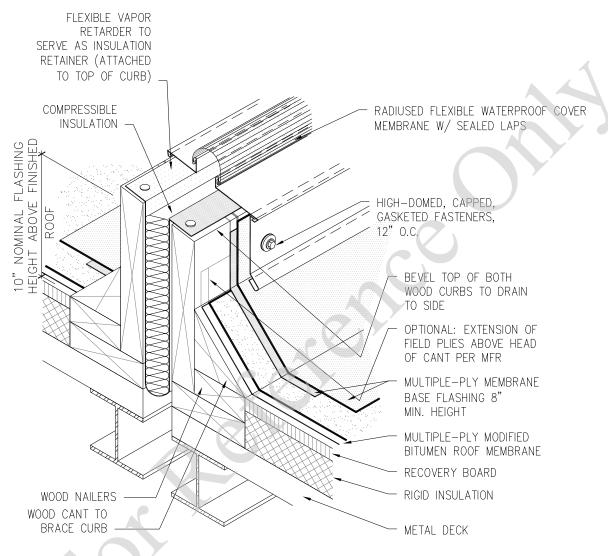
#### NOTES:

- 1. EXPANSION JOINT SHALL ACCOMMODATE MIN. 1" MOVEMENT.
- 2. FLASHING REQUIREMENTS TYPICAL FOR BOTH SIDES OF EXPANSION JOINT.

NOT FOR CONSTRUCTION REFER TO DISCLAIMER

EXPANSION JOINT WITH NEOPRENE COVER

B3010-11-08



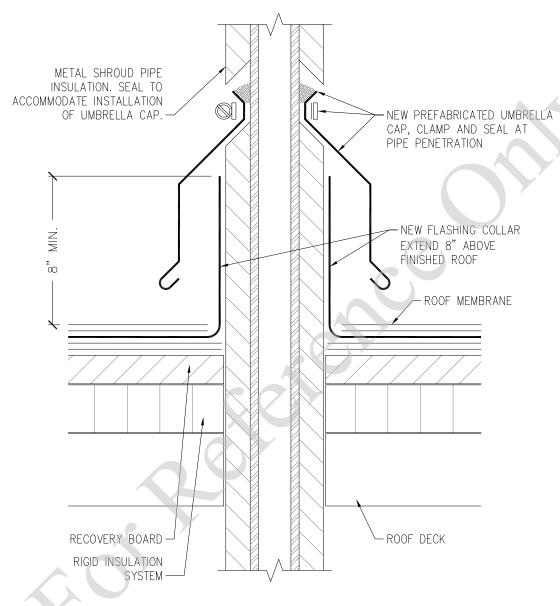
### EXPANSION JOINT WITH NEOPRENE COVER: SBS MULTI-PLY ROOF

#### NOTES:

- 1. EXPANSION JOINT SHALL ACCOMMODATE MIN. 1" MOVEMENT.
- 2. FLASHING REQUIREMENTS TYPICAL FOR BOTH SIDES OF EXPANSION JOINT.

INSULATED PIPE PENETRATION

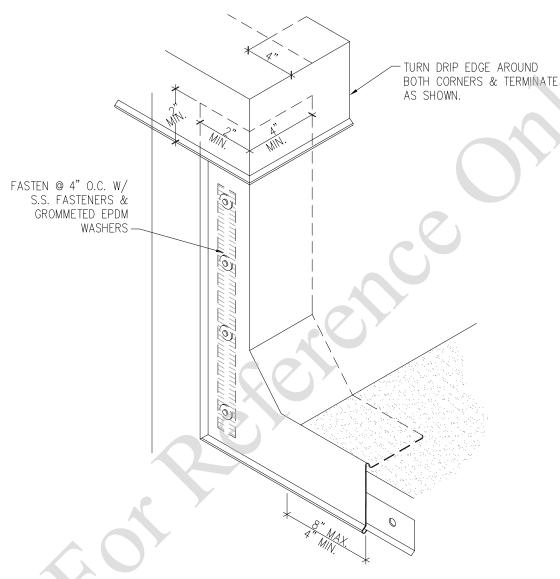
B3010-11-09



INSULATED PIPE PENETRATION:
SBS MULTI-PLY ROOF

EAVE WALL CLOSURE

B3010-11-10



EAVE WALL CLOSURE: SBS MULTI-PLY ROOF

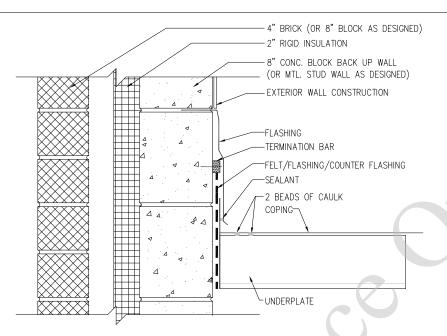
NOTES:

1. INSTALL EAVE CLOSURE OVER FINISHED INTERPLIES. STRIP IN & INSTALL GRANULATED CAP MEMBRANE.

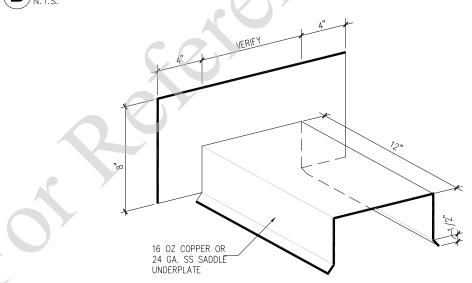
NOT FOR CONSTRUCTION REFER TO DISCLAIMER

COPING SADDLE AT WALL

B3010-11-11



#### SECTION AT EXTERIOR WALL TRANSITION TO LOWER WALL B

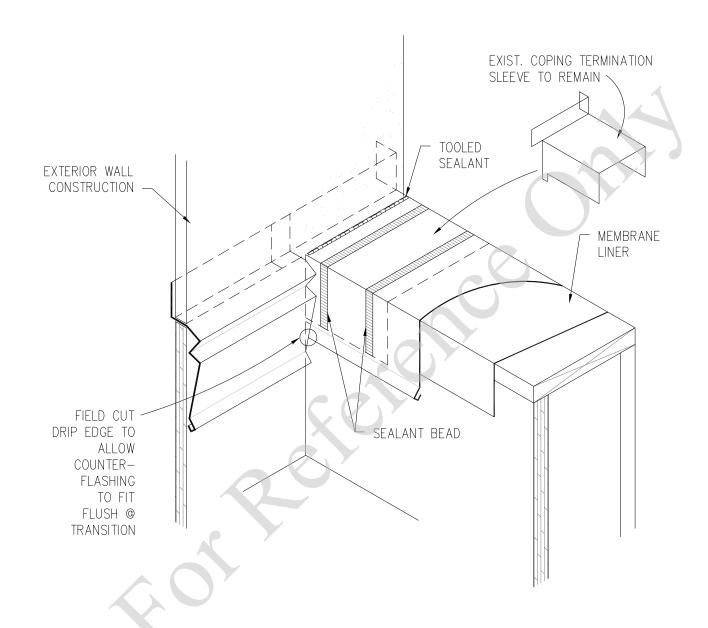


SADDLE AT WALL NOTES:

- 1. INSTALL SADDLE PRIOR TO INSTALLING WALL UNDERLAYMENT & FINISH SYSTEM.
- 2. INSTALL COPING MEMBRANE PRIOR TO INSTALLING SADDLE.

COPING TERMINATION, TYP.

B3010-11-12

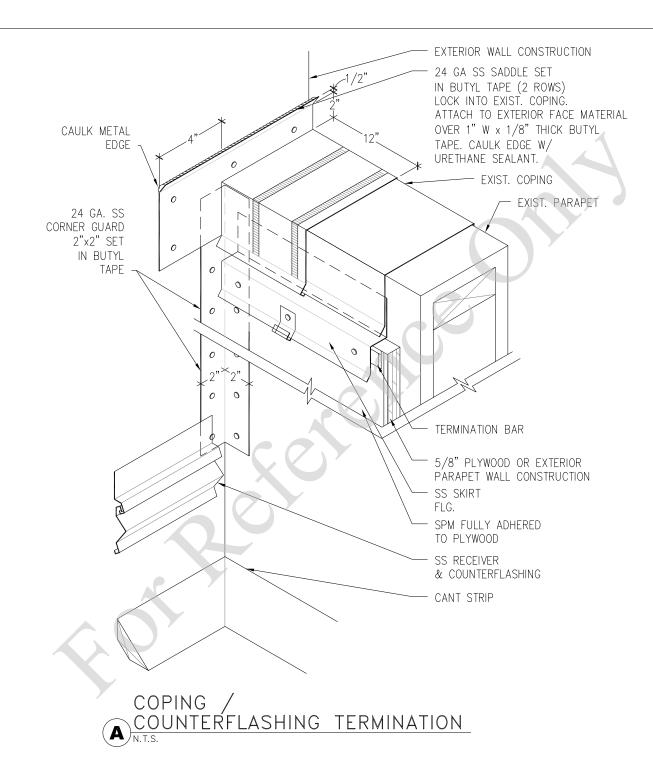


COPING TERMINATION, TYP.

NOT FOR CONSTRUCTION REFER TO DISCLAIMER

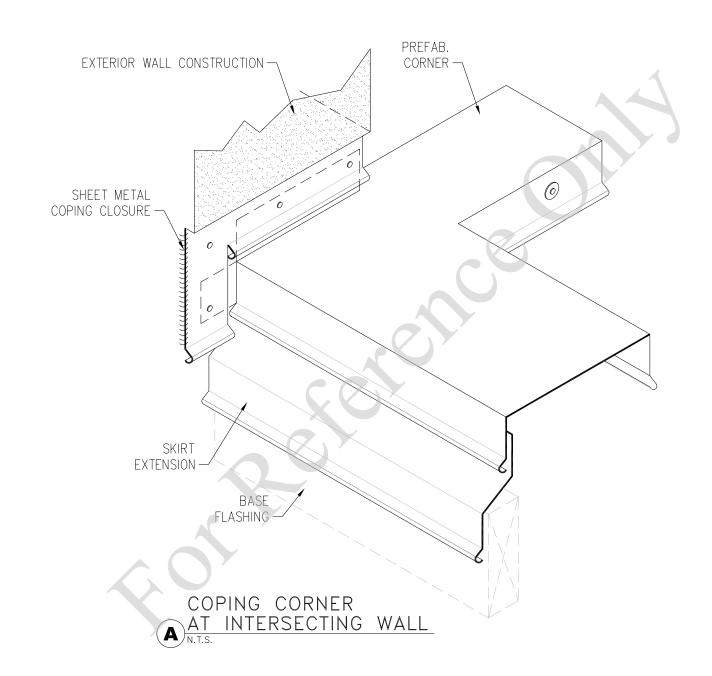
COPING / COUNTERFLASHING TERMINATION

B3010-11-13



COPING CORNER AT WALL

B3010-11-14



# NJSDA Model Schools Program Materials and Systems Standards Manual

### **Construction Details Manual**

**Section C: Interiors** 

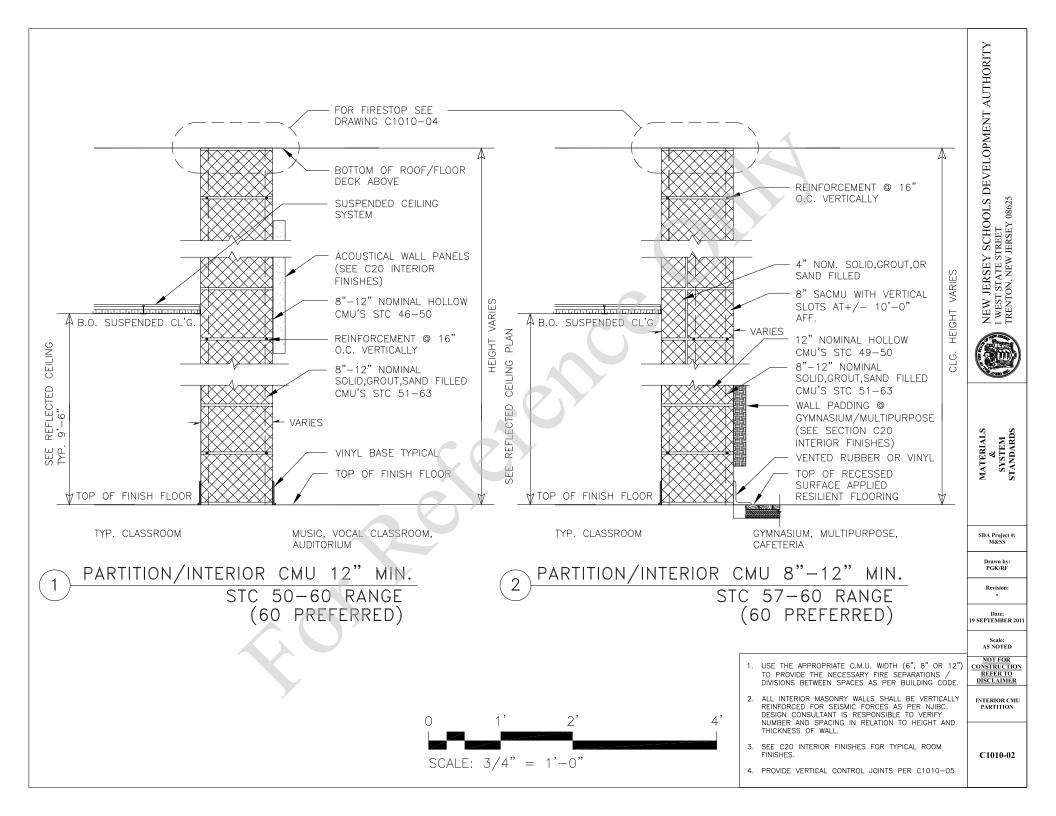
Issue Date: September 19, 2011

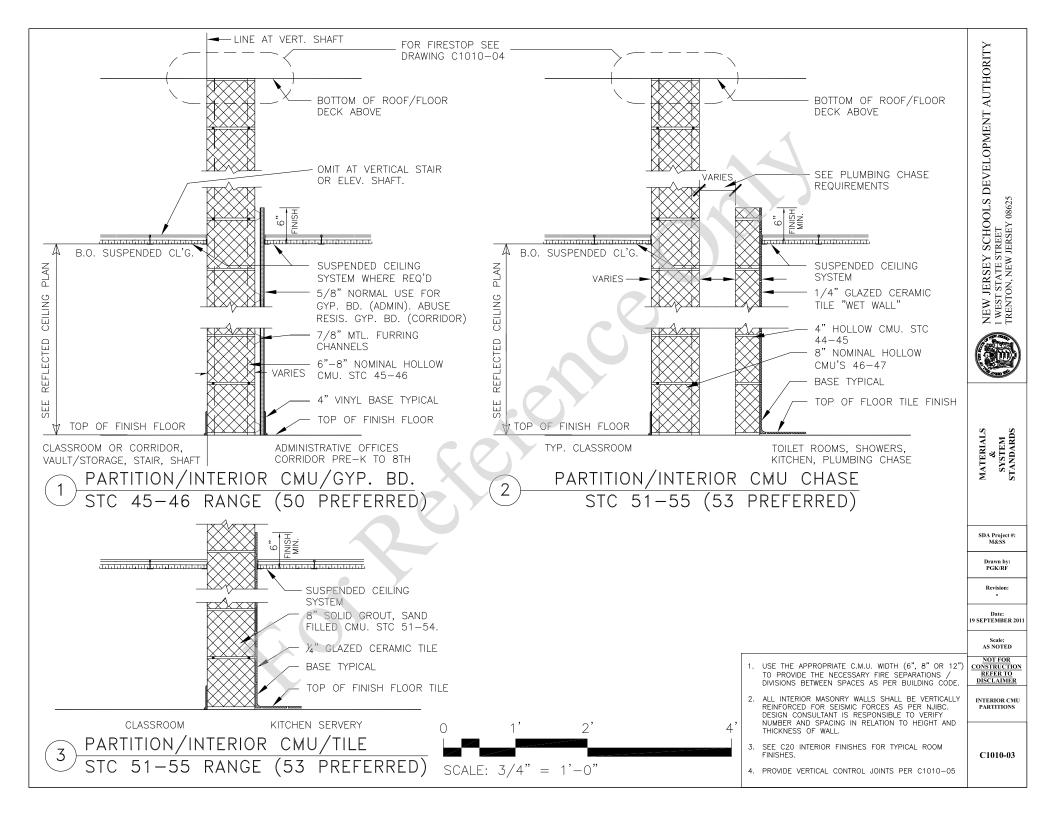
# NJSDA Model Schools Program Materials and Systems Standards Manual

### **Construction Details Manual**

**Section C10: Interior Construction** 

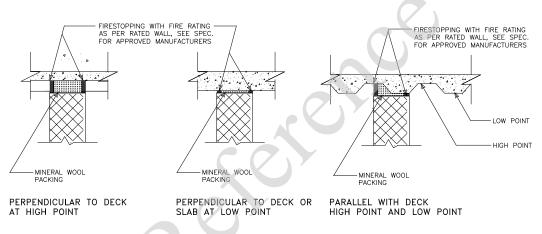
Issue Date: September 19, 2011



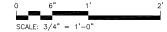


INTERIOR CMU PARTITION FIRESTOPPING

C1010-04



INTERIOR MASONRY HEADWALL FIRE STOP AT ROOF/FLOOR/DECK ABOVE DETAIL



 FIRESTOPPING SHALL BE INSTALLED AS PER MANUFACTURER'S RECOMMENDED METHODS FOR THE REQUIRED FIRE RATING

2. ALTERNATE METHODS OF FIRESTOPPING MUST CONFORM TO U.L. REQUIREMENTS AND TO THE PREVAILING BUILDING CODE.

3. JOINT MUST FOLLOR FOR DECK DEFLECTION

OF A WALL ASSEMBLY.

1.) DETAILS ARE FOR NON-LOAD BEARING

3.) CONTROL JOINT IS MAX. 1/2" WIDE.

OR 25' O.C., WHICHEVER IS LESS.

2.) FIRESTOPPING DETAIL IS FOR MIN. 4 1/2"

4.) LOCATE VERTICAL CONTROL JOINTS AT A DISTANCE NOT MORE THAN 1.5x WALL HEIGHT

WÁLLS.

THICK WALL.

INTERIOR CMU CONTROL JOINTS

CONTROL JOINTS

C1010-05

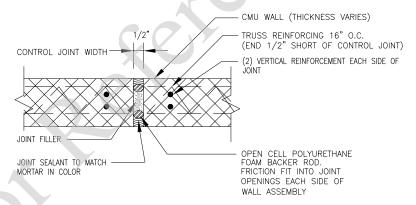
CMU WALL (THICKNESS VARIES)

TRUSS REINFORCING 16" O.C.
(END 1/2" SHORT OF CONTROL JOINT)

(2) VERTICAL REINFORCEMENT EACH SIDE OF JOINT)

FIRESTOPPING AND SEALANT AS PER MANUFACTURERS'S RECOMMENDATIONS, SEALANT TO MATCH MORTAR IN COLOR.

## 2) CONTROL JOINT DETAIL FOR FIRE RATED WALLS NOT TO SCALE



CONTROL JOINT DETAIL FOR NON-FIRE RATED WALLS
NOT TO SCALE





MATERIALS
&
SYSTEM
STANDARDS

SDA Project #: M&SS

> Drawn by: PGK/RF

Revision:

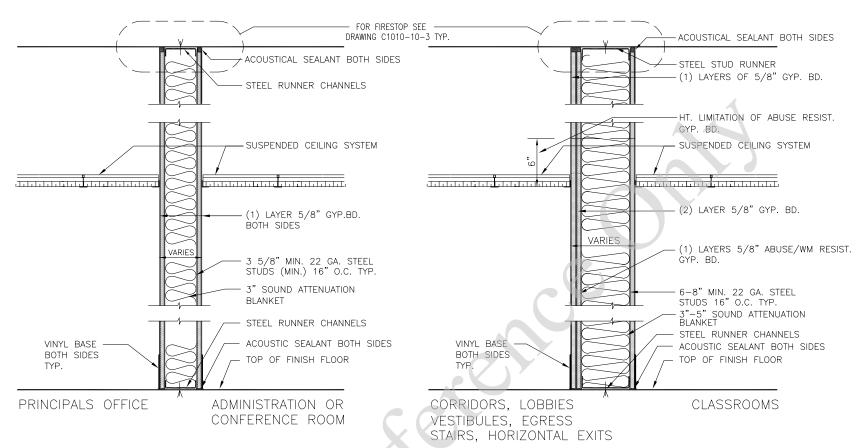
Date: 19 SEPTEMBER 2011

> Scale: AS NOTED

NOT FOR CONSTRUCTION REFER TO DISCLAIMER

INTERIOR NSLGF PARTITIONS

C1010-06



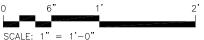
1 PARTITION/INTERIOR GYP. BD. STC 45-49 (50 PREFERRED)

3" SOUND ATTENUATION
BLANKET (SIM. DETAIL 1)
(1) LAYER 5/8" GYP.BD.
BOTH SIDES TO 6" ABOVE
FINISH CEILING SYSTEM

STEEL STUD PARTITION
(SEE SIM. NOTES DETAIL 1)

ADMINISTRATION

PARTITION/INTERIOR GYP. BD. (ALT.)



STC 45

1. FOR SIZE OF STEEL STUDS VERIFY WITH STRUCTURAL HEIGHT LIMITATIONS SET BY CODE.

PARTITION/INTERIOR GYP. BD. 6-8" MIN.

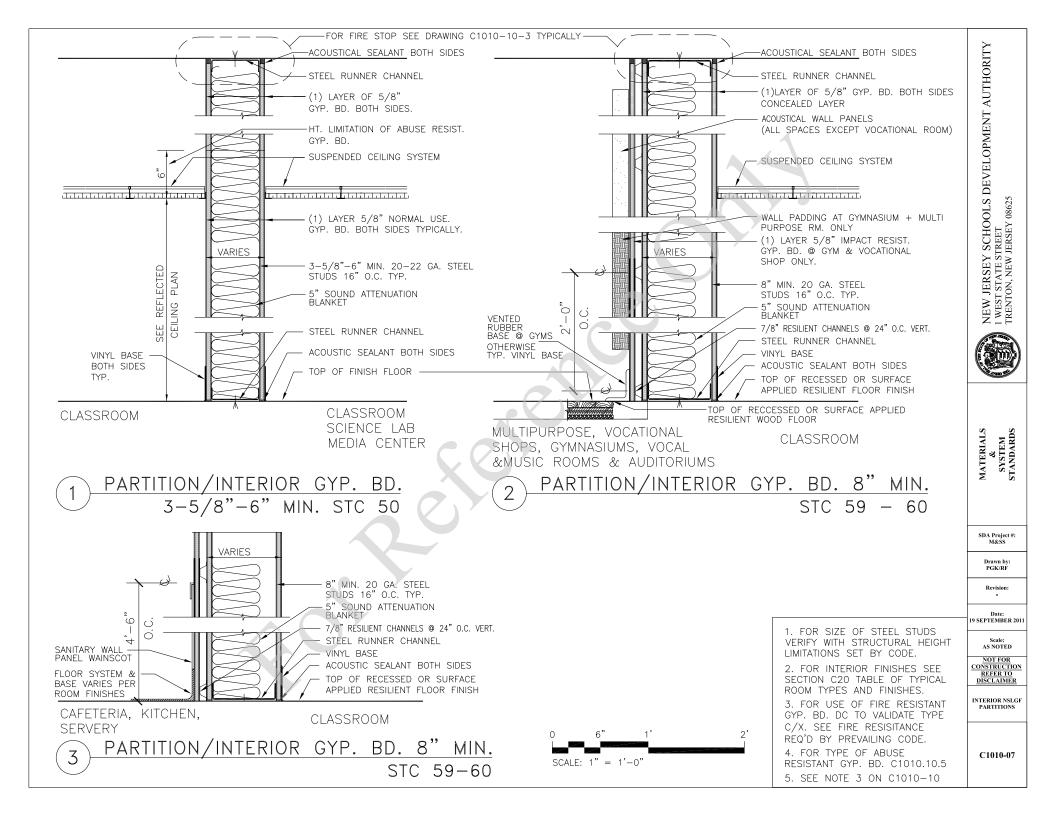
2. FOR INTERIOR FINISHES SEE SECTION C20 TABLE OF TYPICAL ROOM TYPES AND FINISHES.

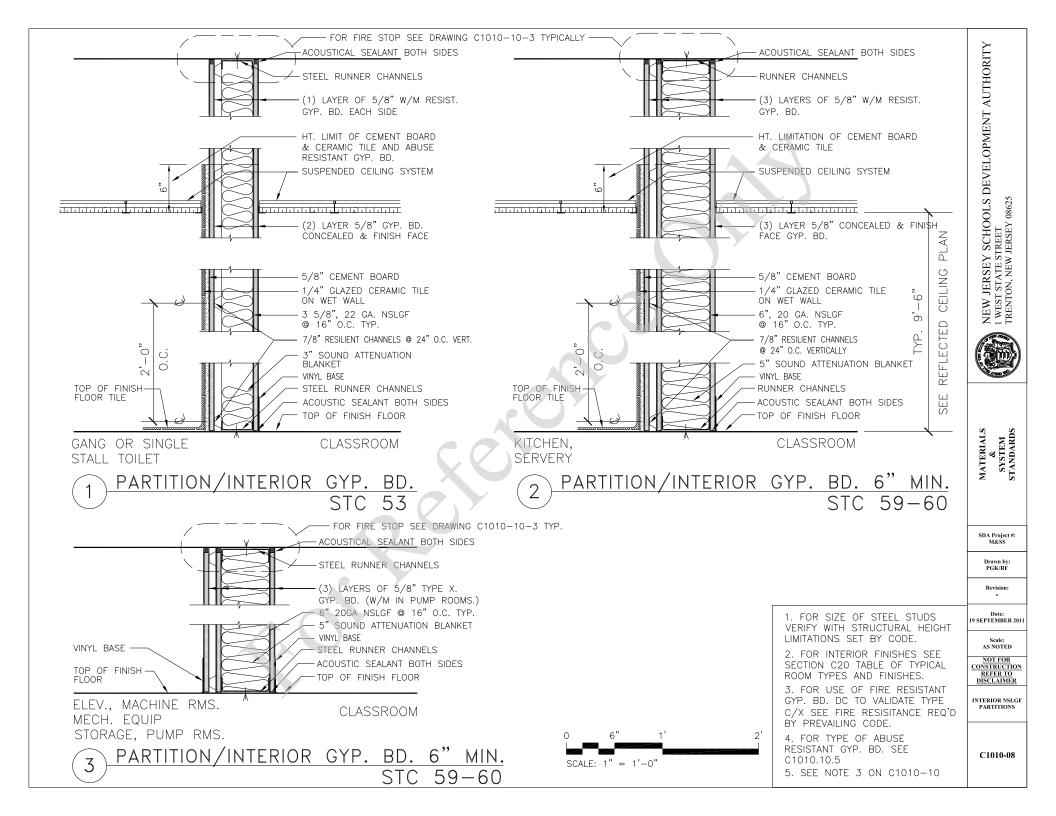
3. FOR USE OF FIRE RESISTANT GYP. BD. DC TO VALIDATE TYPE C/X. SEE FIRE RESISITANCE REQ'D BY PREVAILING CODE.

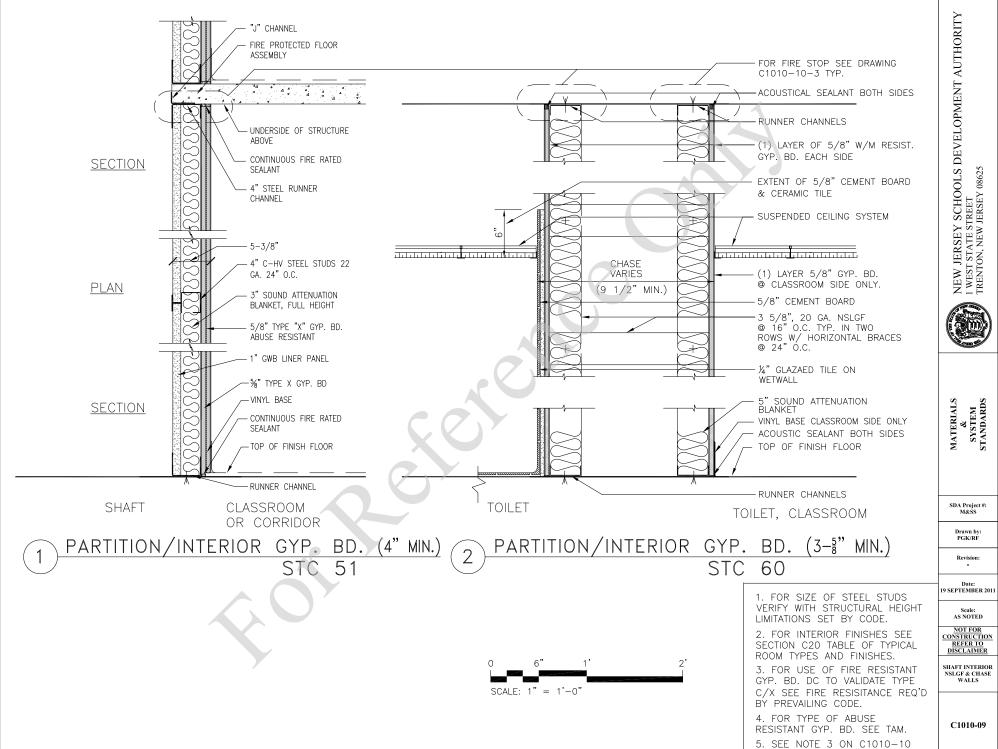
4. FOR TYPE OF ABUSE RESISTANT GYP. BD. SEE C1010.10.5

5. SEE NOTE 3 ON C1010-10

(ALI.)







INTERIOR NSLGF PARTITION FIRESTOPPNG

C1010-10

MINERAL WOOL PACKING BOTTOM OF METAL DECK HIGH POINT FIRESTOPPING BOTH SIDES WITH FIRE RATING AS PER RATED WALL, SEE SPEC. LOW POINT FOR APPROVED 3" MAXIMUM MANUFACTURERS STEEL STUD AT 16" O.C. -5/8" GYPSUM BOARD TYPE X FIRE RATED ASSEMBLY STEEL RUNNER BLANKET INSULATION CHANNEL

PERPENDICULAR WITH DECK - HIGH OR LOW POINTS

STEEL STUD PARTITION/METAL DECK FIRESTOPPING

DETAIL

FIRESTOPPING BOTH SIDES
WITH FIRE RATING AS PER
RATED WALL, SEE SPEC.
FOR APPROVED
MANUFACTURERS

STEEL STUD AT 16" O.C.

5/8" GYPSUM BOARD TYPE X
FIRE RATED ASSEMBLY
BLANKET INSULATION

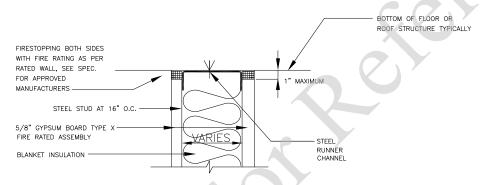
STEEL RUNNER
CHANNEL

воттом ог

PARALLEL WITH DECK - HIGH AND LOW POINTS

STEEL STUD PARTITION/METAL DECK FIRESTOPPING

DETAIL



PERPENDICULAR WITH DECK - HIGH OR LOW POINTS

STEEL STUD PARTITION/FLOOR OR ROOF STRUCTURE FIRESTOPPING DETAIL

0 3" 6" SCALE: 1-1/2" = 1'-0"  FIRESTOPPING SHALL BE INSTALLED AS PER APPROVED TESTING AGENCY & MANUFACTURER'S RECOMMENDED METHODS FOR THE REQUIRED FIRE RATING OF A WALL ASSEMBLY

MINERAL WOOL PACKING

- 2. ALTERNATE METHODS OF FIRESTOPPING MUST CONFORM ASTM TO U.L. REQUIREMENTS OF THE PRESIDING CODE.
- 3. PROVIDE SLIP OR CUSHION TYPE JOINT BETWEEN METAL FRAMING AND STRUCTURE AS RECOMMENDED BY MANUFACTURER TO PREVENT TRANSFER LOADS OR MOVEMENT OF PARTITIONS.

Date: 19 SEPTEMBER 2011

> Scale: AS NOTED

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FRAME TYPICAL HOLLLOW METAL FRAME ELEVATIONS

C1030-01

1 H.M. FRAME SINGLE DOOR 2 H.M. FRAME DOUBLE DOOR

> 0 1' 2' 4' 8' SCALE: 3/8" = 1'-0"

- 1. THE DESIGN CONSULTANT SHALL COORDINATE HOLLOW METAL (H.M.) FRAME ELEVATIONS WITH DOOR SIZES, ARCHITECTURAL FLOOR PLANS, AND DOOR SCHEDULES.
- 2. VISION PANELS ADJACENT TO (1)HR OR (3/4)HR FIRE RATED DOORS SHALL BE LIMITED IN SQ. INCHES BY PREVAILING CODES
- 3. GLASS VISION PANELS IN 20 MIN. OR NON. RATED OPENINGS SHALL BE UNLIMITED IN AREA.
- 4. ALL VISION PANELS SHALL BE 1/4' SAFETY GLASS AS PER THE PREVAILING CODES.
- 5. FRAME ELEVATIONS TO BE OF MODULAR DESIGN CONSISTENT WITH CMU MODULAR PLANNING LAYOUTS
- 6. ALL H.M. FRAMES MUST BE APPROVED BY THE NJ SDA.
- 7. THE H.M. FRAMES DEPICTED ARE TO BE MINIMAL STANDARDS AND SHALL NOT LIMIT THE DESIGN CONSULTANT FROM THE NECESSARY H.M. FRAME TYPES TO MEET THE REQUIREMENTS OF THE SPECIFIC DESIGN.





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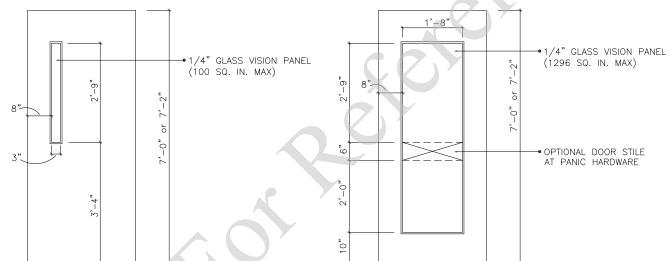
> DOOR TYPES ELEVATIONS

C1030-02

AS REQ'D TYPICALLY FOR ALL DOORS (3'-0" MIN.)1/4" VISION PANEL (100 SQ. IN. MIN.) FOR ALL STUDENT **UPPER** INSTRUCTIONAL SPACES IN DOOR **.**6 EXCESS OF 300 SQ FT. OR OPTION TO DUCH DOOR FOR 7 Ñ PRE-K, K C.R. TOILETS. Î, OR. S. .0-.0-LOWER DOOR

1 TYPICAL DOOR TYPE

2 TYPICAL DUTCH DOOR TYPE (PRE-K, K CLASSROOMS)



3 TYPICAL FIRE DOOR (1 HR RATED)

4 TYPICAL FIRE DOOR (3/4 HR RATED)



COORDINATE DOOR ELEVATIONS WITH ARCHITECTURAL FLOOR PLANS, DOOR FRAMES, DOOR DETAILS, DOOR SCHEDULES AND SPECIFICATIONS FOR HARDWARE.

1. THE DESIGN CONSULTANT SHALL

- 2. VISION PANELS IN CROSS CORRIDOR DOORS, VESTIBULE DOORS, STAIR DOORS AND OTHER MEANS OF EGRESS SHALL BE LOCATED AT THE LATCH SIDE OF THE DOOR.
- VISION PANELS IN 3/4 1 1/2 HR RATED DOORS SHALL BE EITHER FIRE PROTECTED RATED GLAZING OR WIRE GLASS COMPLYING WITH PREVAILING CODES.
- 4. VISION PANELS IN 20 MIN OR NON RATED DOORS SHALL BE UNLIMTED IN SIZE.
- 5. ALL VISION PANELS SHALL BE 1/4" SAFETY GLASS AS PER PREVAILING CODES.
- 6. ALL DOOR ELEVATIONS MUST BE APPROVED BY THE NJSDA.
- 7. THE DOOR DEPICTED ARE INTENDED TO BE MINIMAL STANDARDS AND SHALL NOT LIMIT THE DESIGN CONSULTANT FROM DESIGNING THE NECESSARY DOOR TYPES TO MEET THE REQUIREMENTS OF THE SCHOOL DISTRICT, DOE, SDA & PREVAILING CODES.
- 8. VISION GLASS SHALL BE PROVIDED AT APPROPRIATE SIZES & HEIGHTS FOR INTENDED AGE GROUP & ROOM USES.

\* VARIES

C.M.U. / C.M.U.

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

\* VARIES

C.M.U. / C.M.U.

JAMB

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

SEE ARCHITECTURAL PLANS FOR WIDTH OF PARTITION WALLS.

1 15/16"

1 15/16"

1 15/16"

H.M. DOOR FRAME

1 15/16"

\H.M. DOOR FRAME

DETAIL

DETAIL

SEALANT TYP

\* NOTE:

SEALANT TYP.

BOND BEAM (PER

-SEALANT TYP.

STRUCTURAL DRAWINGS)

-14 GA. STEEL FRAME

INTERIOR

ADJUSTABLE MASONRY

ANCHOR 3 PER JAMB

-14 GA. STEEL FRAME

INTERIOR

THE DESIGN CONSULTANT SHALL USE

THESE DETAILS WITH DOOR SCHEDULES

ARCHITECTURAL FLOOR PLANS, DOOR

FRAMES, DOOR ELEVATIONS, DOOR DETAILS AND OTHER DOOR FRAME

DETAILS.

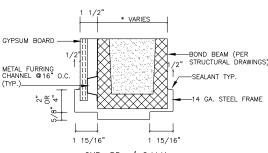
THESE MASONRY DETAILS FOR ALL INTERIOR DOOR FRAME OPENINGS.

2. THE DESIGN CONSULTANT SHALL USE

SEALANT TYP.

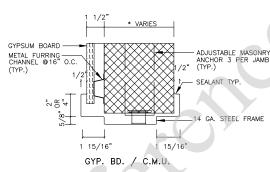
HOLLOW METAL JAMB & HEAD @ CMU PARTITIONS

C1030-03

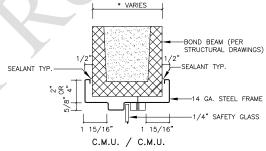


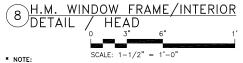
H.M. DOOR FRAME / INTERIOR DETAIL

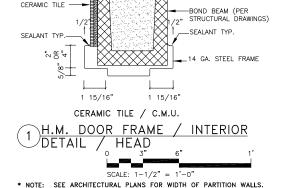
\* NOTE: SEE ARCHITECTURAL PLANS FOR WIDTH OF PARTITION WALLS.









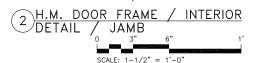


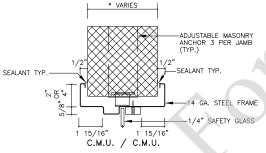
\* VARIES

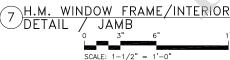
\* VARIES ADJUSTABLE MASONRY CERAMIC TILE -ANCHOR 3 PER JAMB (TYP.) SEALANT TYP. SEALANT TYP.

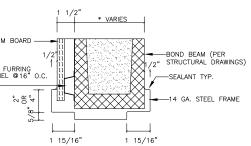
14 GA. STEEL FRAME

1 15/16' 1 15/16 CERAMIC TILE / C.M.U.



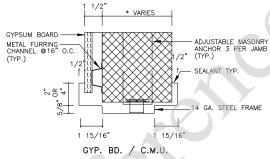






GYP. BD. / C.M.U.

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



SEE ARCHITECTURAL PLANS FOR WIDTH OF PARTITION WALLS.

THE DESIGN CONSULTANT SHALL USE THESE GB-NSLGF DETAILS FOR ALL INTERIOR DOOR FRAME OPENINGS. 2. THE DESIGNER SHALL COORDINATE THESE DETAILS WITH DOOR SCHEDULES ARCHITECTURAL FLOOR PLANS, DOOR

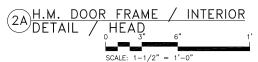
FRAMES, DOOR ELEVATIONS, DOOR DETAILS AND OTHER DOOR FRAME

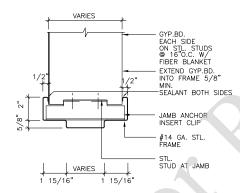
DETAILS.

HOLLOW METAL JAMB & HEAD @ METAL STUD PARTITIONS

C1030-04

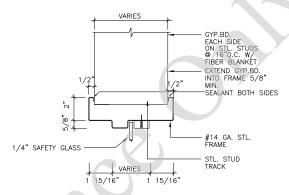
VARIES GYP.BD. EACH SIDE ON STL. STUDS @ 16"O.C. W/ FIBER BLANKET EXTEND GYP.BD. INTO FRAME 5/8" -SEALANT BOTH SIDES #14 GA. STL. FRAME STL. STUD TRACK VARIES 1 15/16" 1 15/16"



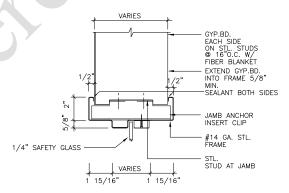


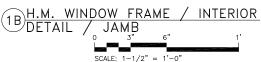


\* NOTE: SEE ARCHITECTURAL PLANS FOR WIDTH OF PARTITION WALLS.

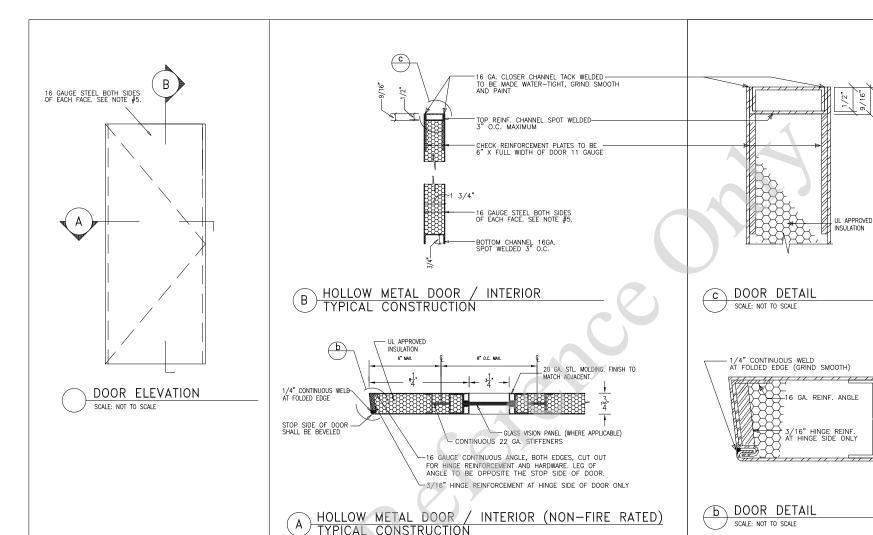








\* NOTE: SEE ARCHITECTURAL PLANS FOR WIDTH OF PARTITION WALLS.



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

NEW JERSEY SCHOOLS DEVELOPMENT AUTHORITY I WEST STATE STREET TRENTON, NEW JERSEY 08625

MATERIALS
&
SYSTEM
STANDARDS

SDA Project #: M&SS

Drawn by:

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HOLLOW METAL DOOR

C1030-05

1. THE GLAZING INDICATED IN THIS DETAIL IS FOR ILLUSTRATIVE PURPOSES ONLY. THE CONTRACTOR SHALL REFER TO DOOR ELEVATIONS AND DETAILS FOR THE REQUIRED GLAZING FOR EACH DOOR TYPE.

2. ALTHOUGH THE WIDTH OF DOORS MAY VARY, THE SPACING OF STIFFENERS MAY NOT EXCEED 8" ON CENTERS.

3. UNIVERSAL DOORS ARE NOT

ACCEPTABLE FOR ALL PROJECTS.

4. ALL INDICATED GAUGES ARE BASED
ON U.S. STANDARD GAUGE FOR HOT
AND COLD ROLLED STEEL SHEETS.

6. THE DESIGN CONSULTANT SHALL USE THIS FOR ALL INTERIOR HOLLOW METAL DOORS.

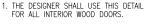
7. APPROVAL FOR ALTERNATE METHODS
OF CONSTRUCTION MUST BE OBTAINED, IN
WRITING, FROM THE NJSDA.



CONSTRUCTION
REFER TO
DISCLAIMER

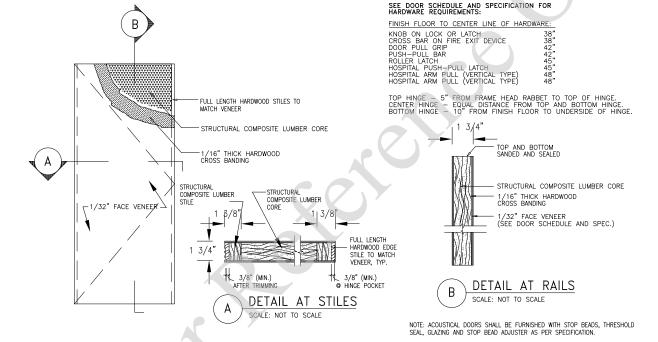
WOOD DOOR

C1030-06



SCALE: NOT TO SCALE

- 2. APPROVAL FOR ALTERNATE METHODS OF CONSTRUCTION MUST BE OBTAINED, IN WRITING, FROM THE SDA.
- 3. ALL INTERIOR PAIRS OF DOORS TO HAVE FIXED MULLIONS. HOWEVER, PAIRS OF DOORS FOR THE DELIVERY OF FURNITURE AND EQUIPMENT SHALL HAVE REMOVABLE MULLIONS.
- 4. THE DESIGNER SHALL INDICATE IN THIS DETAIL OR THE DOOR SCHEDULE THE TYPE OF FINISH THE EXPOSED DOOR SURFACE (FACE VENEER) SHALL RECEIVE (EG. PAINTED OR TRANSPARENT FINISH)



WOOD DOOR / INTERIOR (NON-FIRE RATED)

TYPICAL (5-PLY) CONSTRUCTION

# NJSDA Model Schools Program Materials and Systems Standards Manual

## **Construction Details Manual**

**Section C20: Interior Finishes** 

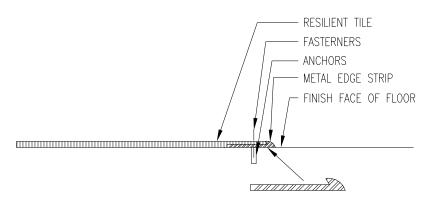
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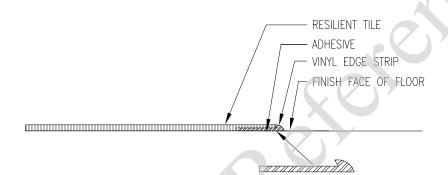
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METAL & RESILIENT EDGE STRIPS / RESILIENT FLOORING-DETAILS

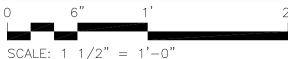
C2030-11-01







RESILIENT EDGE STRIP RESILIENT FLOORING



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

1. THE DESIGNER SHALL USE THIS DETAIL WHEN THERE IS A TRANSITION FROM RESILIENT FLOORING TO AN UNFINISHED FLOOR SURFACE (IE. CEMENT FLOOR).

2. THE DESIGNER SHALL USE THE "METAL EDGE STRIP" IN ALL HIGH TRAFFIC AREAS.



MATERIALS

SDA Project #: M&SS

Drawn by: PGK/ AR

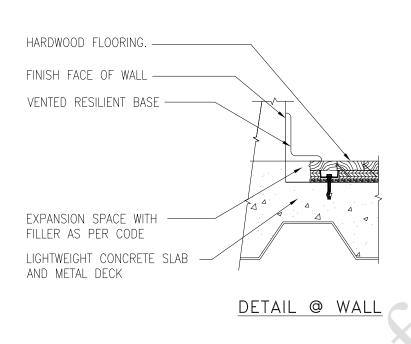
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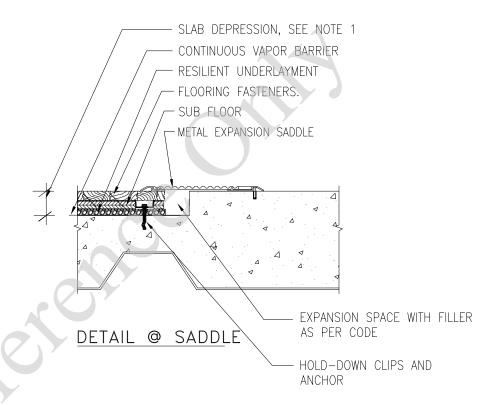
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ANCHORED WOOD

C2030-11-02



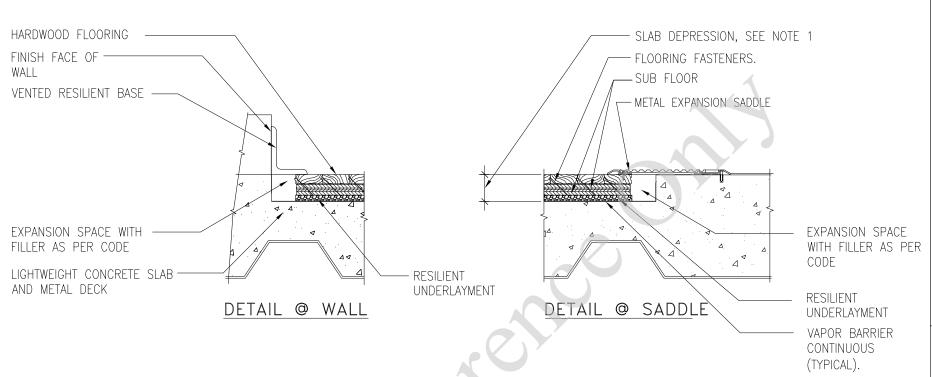


ANCHORED WOOD FLOOR DETAILS

SCALE:  $1\frac{1}{2}$ " = 1'-0"

1. COORDINATE SLAB DEPRESSION WITH WOOD FLOOR MANUFACTURER'S SPECIFICATION AND STRUCTURAL DRAWINGS.

- 2. COORDINATE PAINTED GAME LINES AND INSERTS FOR GYM EQUIPMENT ON GYM ROOM LAYOUT.
- 3. REFER TO DESIGN REQUIREMENT C3020-E-19 FLOOR TYPES FOR TYPES/LOCATIONS OF WOOD FLOORS.
- 4. REFER TO MANUFACTURER'S SPCIFICATION AND SYSTEM DETAILS FOR SPECIFIC DESIGN REQUIREMENTS



FLOATING WOOD FLOOR DETAILS

O 6" 1' 2'

SCALE:  $1\frac{1}{2}$ " = 1'-0"

1. COORDINATE SLAB DEPRESSION WITH WOOD FLOOR MANUFACTURER'S SPECIFICATION AND STRUCTURAL DRAWINGS.

- 2. COORDINATE PAINTED GAME LINES AND INSERTS FOR GYM EQUIPMENT ON GYM ROOM LAYOUT.
- 3. REFER TO DESIGN REQUIREMENT C3020E-19 FLOOR TYPES FOR TYPES/LOCATIONS OF WOOD FLOORS.
- 4. REFER TO MANUFACTURERS SPECIFICATION AND SYSTEM DETAILS FOR SPECIFIC DESIGN REQUIREMENTS

SDA Project#: M&SS

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Revision:

Date: 19 SEPTEMBER 2011

> Scale: AS NOTED

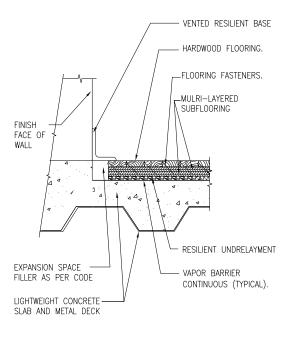
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FLOATING WOOD FLOOR DETAILS

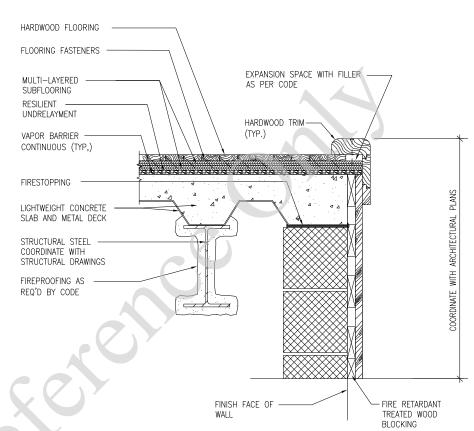
C2030-11-03

FLOATING WOOD FLOOR @ STAGE PLATFORM DETAILS

C2030-11-04



REAR OF STAGE / PLATFORM



FRONT OF STAGE / PLATFORM

#### 1 FLOATING WOOD FLOOR @ STAGE / PLATFORM - DETAILS



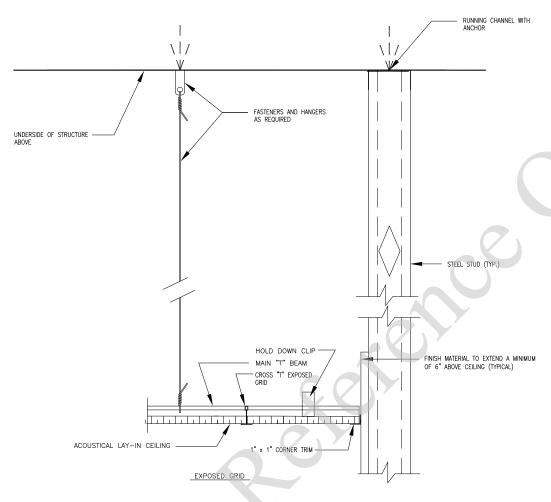
#### NOTE:

1. PROVIDE RESILIENT UNDERLAYMENT FOR FLOATING WOOD FLOOR @ PLATFORM / STAGES OVER OCCUPIED SPACES EXCEPT WHERE INDICATED IN DESIGN DETAIL C30, SEE SIMILAR DETAIL C3020-11-02.

- 1. COORDINATE SLAB DEPRESSION WITH WOOD MANUFACTURER SPECIFICATION AND STRUCTURAL DRAWINGS.
- 2. USE THIS DETAIL FOR TYPICAL AUDITORIUM STAGES / PLATFORMS.
- 3. REFER TO DESIGN REQUIREMENT C3020E-19 FLOOR TYPES FOR TYPES/LOCATIONS OF WOOD FLOORS.
- 4. REFER TO MANUFACTURERS SPECIFICATIONS AND SYSTEM DETAILS FOR SPECIFIC DESIGN REQUIREMENTS

ACOUSTIC LAY-IN TILE SUSPENDED CEILING

C2050-11-01



ACOUSTICAL LAY-IN TILE SUSPENDED CEILING

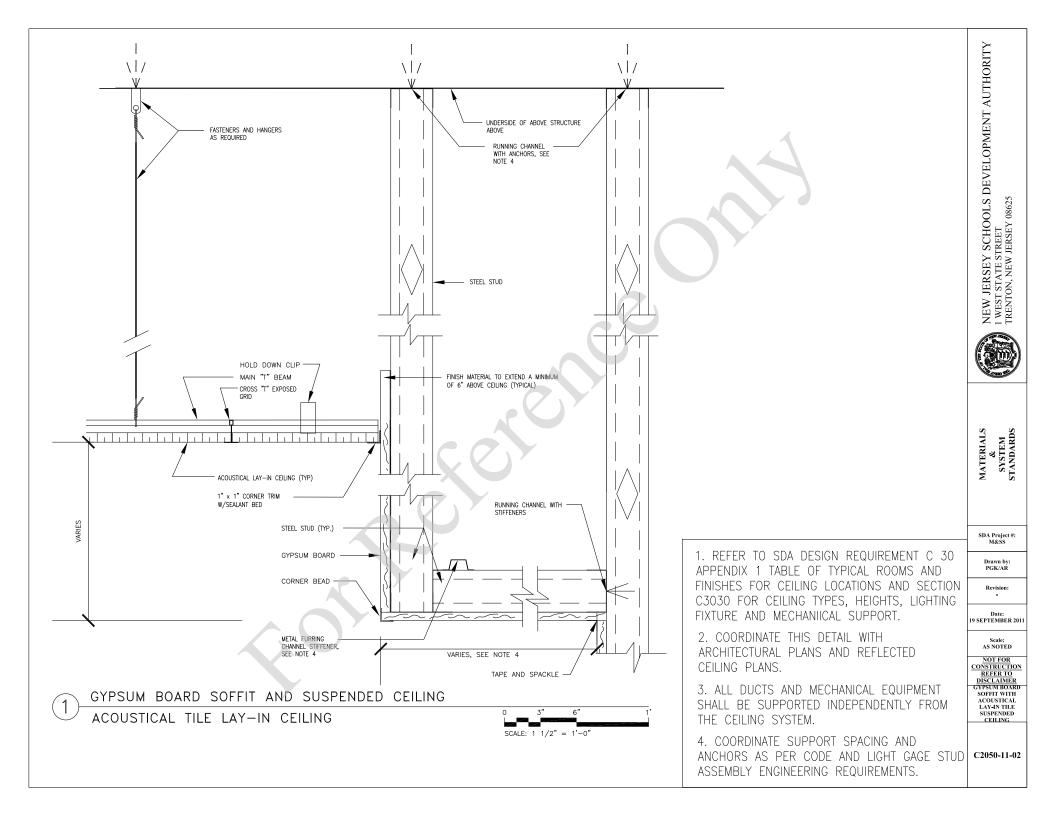
EXPOSED GRID



1. REFER TO SDA DESIGN REQUIREMENT C 30 APPENDIX 1 TABLE OF TYPICAL ROOMS AND FINISHES FOR CEILING LOCATIONS AND SECTION C3030 FOR CEILING TYPES, HEIGHTS, LIGHTING FIXTURE AND MECHANIICAL SUPPORT.

2. COORDINATE THIS DETAIL WITH ARCHITECTURAL PLANS AND REFLECTED CEILING PLANS.

3. ALL DUCTS AND MECHANICAL EQUIPMENT SHALL BE SUPPORTED INDEPENDENTLY FROM THE CEILING SYSTEM.





MATERIALS

SDA Project #: M&SS

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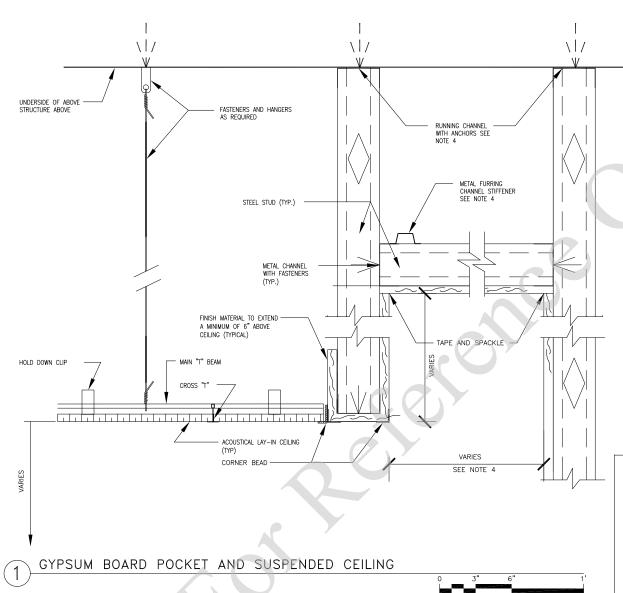
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NOT FOR CONSTRUCTION
REFER TO
DISCLAIMER
GYPSUM BOARD POCKET WITH

ACOUSTICAL LAY-IN TILE SUSPENDED CEILING

C2050-11-03



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

1. REFER TO SDA DESIGN REQUIREMENT C 30 APPENDIX 1 TABLE OF TYPICAL ROOMS AND FINISHES FOR CEILING LOCATIONS AND SECTION C3030 FOR CEILING TYPES, HEIGHTS, LIGHTING FIXTURE AND MECHANIICAL SUPPORT.

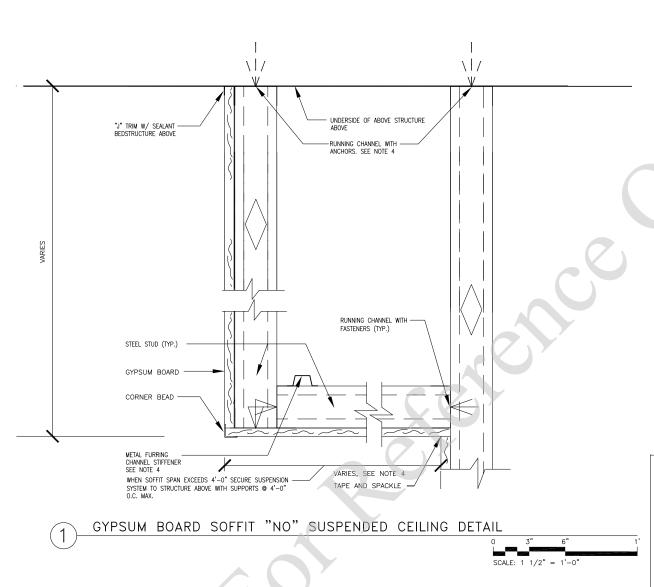
2. COORDINATE THIS DETAIL WITH ARCHITECTURAL PLANS AND REFLECTED CEILING PLANS.

- 3. ALL DUCTS AND MECHANICAL EQUIPMENT SHALL BE SUPPORTED INDEPENDENTLY FROM THE CEILING SYSTEM.
- 4. IN LIEU OF THE DETAIL ILLUSTRATED A GYPSUM BOARD CEILING MAY BE SUPPORTED BY APPROPRIATELY SIZED LIGHT GAGE GALVANIZED METAL OR GRID, TEE FRAMING SYSTEM.

NOT FOR CONSTRUCTION REFER TO DISCLAIMER

GYPSUM BOARD SOFFIT WITH NO SUSPENDED CEILING

C2050-11-04



1. REFER TO SDA DESIGN REQUIREMENT C 30 APPENDIX 1 TABLE OF TYPICAL ROOMS AND FINISHES FOR CEILING LOCATIONS AND SECTION C3030 FOR CEILING TYPES, HEIGHTS, LIGHTING FIXTURE AND MECHANIICAL SUPPORT.

- 2. COORDINATE THIS DETAIL WITH ARCHITECTURAL PLANS AND REFLECTED CEILING PLANS.
- 3. ALL DUCTS AND MECHANICAL EQUIPMENT SHALL BE SUPPORTED INDEPENDENTLY FROM THE CEILING SYSTEM.
- 4. IN LIEU OF THE DETAIL ILLUSTRATED A GYPSUM BOARD CEILING MAY BE SUPPORTED BY APPROPRIATELY SIZED LIGHT GAGE GALVANIZED METAL OR GRID, TEE FRAMING SYSTEM.

1. REFER TO SDA DESIGN REQUIREMENT C 30

C3030 FOR CEILING TYPES, HEIGHTS, LIGHTING

APPENDIX 1 TABLE OF TYPICAL ROOMS AND FINISHES FOR CEILING LOCATIONS AND SECTION

FIXTURE AND MECHANIICAL SUPPORT.

ARCHITECTURAL PLANS AND REFLECTED

3. ALL DUCTS AND MECHANICAL EQUIPMENT SHALL BE SUPPORTED INDEPENDENTLY FROM

4. IN LIEU OF THE DETAIL ILLUSTRATED A GYPSUM BOARD CEILING MAY BE SUPPORTED BY APPROPRIATELY SIZED LIGHT GAGE

GALVANIZED METAL OR GRID, TEE FRAMING

2. COORDINATE THIS DETAIL WITH

CEILING PLANS.

SYSTEM.

THE CEILING SYSTEM.

Drawn by: PGK/AR

Revision:

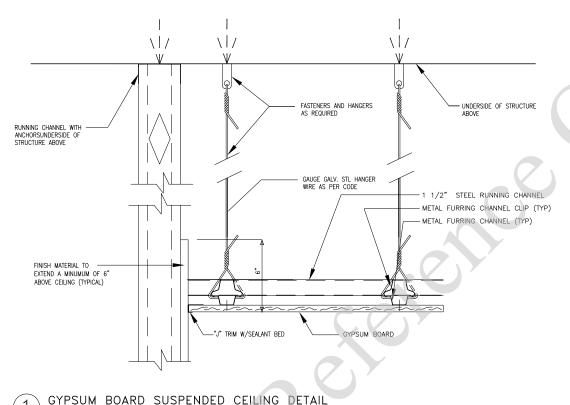
Date: 19 SEPTEMBER 2011

Scale: AS NOTED

NOT FOR CONSTRUCTION REFER TO DISCLAIMER

GYPSUM BOARD SUSPENDED CEILING

C2050-11-05



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

# NJSDA Model Schools Program Materials and Systems Standards Manual

## **Construction Details Manual**

**Section G: Building Sitework** 

Issue Date: September 19, 2011

# NJSDA Model Schools Program Materials and Systems Standards Manual

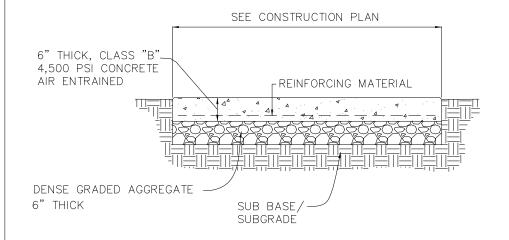
## **Construction Details Manual**

**Section G20: Site Improvements** 

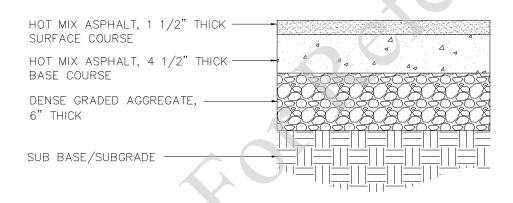
Issue Date: September 19, 2011

PAVING AND SURFACING

G2012-11-1



#### REINFORCED CONCRETE PAVEMENT NOT TO SCALE



### BITUMINOUS PAVEMENT DETAIL

NOT TO SCALE

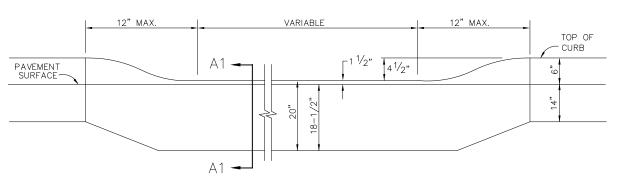


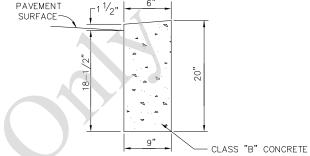
Scale: AS NOTED

NOT FOR CONSTRUCTION REFER TO DISCLAIMER

CURBS, GUITTERS AND DRAINS

G2013-11-1



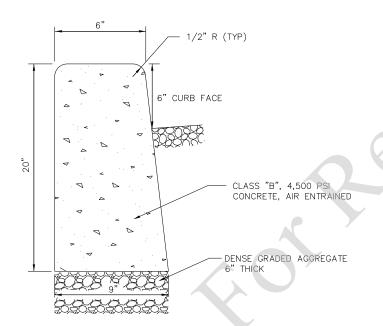


SECTION A1-A1

1. A HALF INCH EXPANSION JOINT OF A NON-EXTRUDABLE, BITUMASTIC MATERIAL SHALL BE PLACED ON 20 FT. CENTERS MAXIMUM.

NOTES:

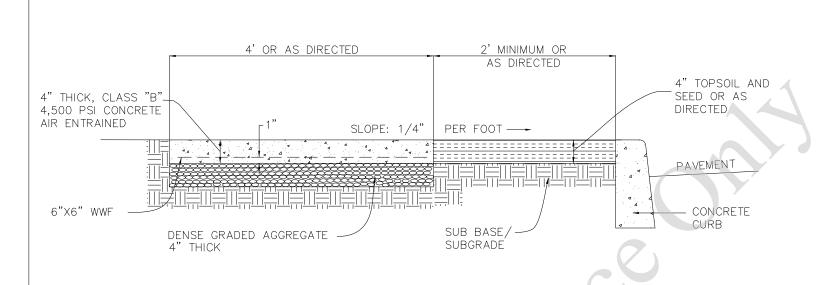
DEPRESSED CONCRETE CURB DETAIL

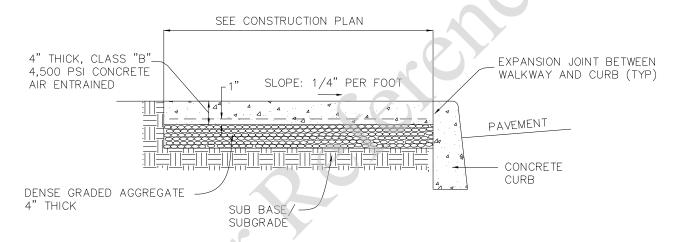


9" X 20" CONCRETE CURB DETAIL

NOT TO SCALE

G2031-11-1





CONCRETE WALKWAY DETAIL

NOT TO SCALE