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DRAWING RELEASE HISTORY		
TYPE	DATE	DESCRIPTION
APPROVAL DRAWINGS	10/25/2010	FOR APPROVAL- NOT FOR CONSTRUCTION

**GENERAL NOTES**

**MATERIALS**

3 PLATE WELDED SECTIONS  
 COLD FORMED LIGHT GAGE SHAPES  
 BRACE RODS  
 HOT ROLLED MILL SHAPES  
 HOT ROLLED ANGLES  
 HOLLOW STRUCTURAL SECTION (HSS)  
 CLADDING

**ASTM DESIGNATION**

A529, A572, A1011, A1018  
 A653, A1011  
 A572, A510  
 A36, A529, A572, A588, A709, A992  
 A529, A572, A588, A709, A992  
 A500  
 A653, A792

GRADE 55  
 GRADE 60  
 GRADE 50  
 GRADE 36 OR 50  
 GRADE 50  
 GRADE B  
 GRADE 50 OR GRADE 80

**A325 & A490 BOLT TIGHTENING REQUIREMENTS**

IT IS THE RESPONSIBILITY OF THE ERECTOR TO ENSURE PROPER BOLT TIGHTNESS IN ACCORDANCE WITH APPLICABLE REGULATIONS. SEE RCSC SPECIFICATION FOR STRUCTURAL JOINTS USING A325 OR A490 BOLTS FOR MORE INFORMATION. SEE ERECTION GUIDE FOR BOLT TIGHTENING INSTRUCTIONS. THE FOLLOWING CRITERIA MAY BE USED TO DETERMINE THE BOLT TIGHTNESS (I.E.-SNUG TIGHT OR PRE-TENSION) UNLESS REQUIRED OTHERWISE BY LOCAL JURISDICTION OR CONTRACT.

ALL A490 BOLTS SHALL BE "PRE-TENSIONED". A325 BOLTS IN PRIMARY FRAMING AND BRACING CONNECTIONS MAY BE "SNUG-TIGHT" EXCEPT AS FOLLOWS;

- PRE-TENSION A325 BOLTS IF BUILDING SUPPORTS A CRANE GREATER THAN 5 TON CAPACITY.
- PRE-TENSION A325 BOLTS IF BUILDING SUPPORTS MACHINERY THAT CREATES VIBRATION, IMPACT, OR STRESS REVERSALS ON CONNECTIONS.
- PRE-TENSION A325 BOLTS IF LOCATED IN HIGH SEISMIC AREAS. FOR IBC BASED CODES; HIGH SEISMIC IS DESIGN CATEGORY D, E OR F. SEE CODES AND LOADS SECTION BELOW FOR DETAILS.
- PRE-TENSION ANY CONNECTION WITH DESIGNATION A325-SC. SLIP CRITICAL (SC) CONNECTIONS MUST BE FREE OF PAINT, OIL OR OTHER MATERIALS THAT REDUCE FRICTION AT CONTACT SURFACES. GALVANIZED OR LIGHTLY RUSTED SURFACES ARE ACCEPTABLE.

IN CANADA, ALL A325 AND A490 BOLTS SHALL BE "PRE-TENSIONED", EXCEPT FOR SECONDARY MEMBERS AND FLANGE BRACES.

SECONDARY MEMBERS AND FLANGE BRACE CONNECTIONS ARE ALWAYS "SNUG TIGHT", UNLESS INDICATED OTHERWISE IN ERECTION DRAWING DETAILS.

**CODES AND LOADS**

WHEN MULTIPLE BUILDINGS ARE INVOLVED, SPECIFIC LOAD FACTORS FOR DIFFERING OCCUPANCIES, BUILDING DIMENSIONS, HEIGHTS, FRAMING SYSTEMS, ROOF SLOPES, ETC., MAY RESULT IN DIFFERENT LOAD APPLICATION FACTORS THAN INDICATED BELOW. SEE CALCULATIONS FOR FURTHER DETAILS.

Building Code: 2009 North Carolina State Building Code (NC09)  
 Based on Building Code: 2006 International Building Code  
 Gym: Building Use: Hazardous / Special Occupancy, Collateral Gravity: 20.00 psf (Not Including bldg wt)  
 Mechanical Room: Building Use: Hazardous / Special Occupancy, Collateral Gravity: 20.00 psf (Not Including bldg wt)  
 Classrooms: Building Use: Hazardous / Special Occupancy, Collateral Gravity: 20.00 psf (Not Including bldg wt)

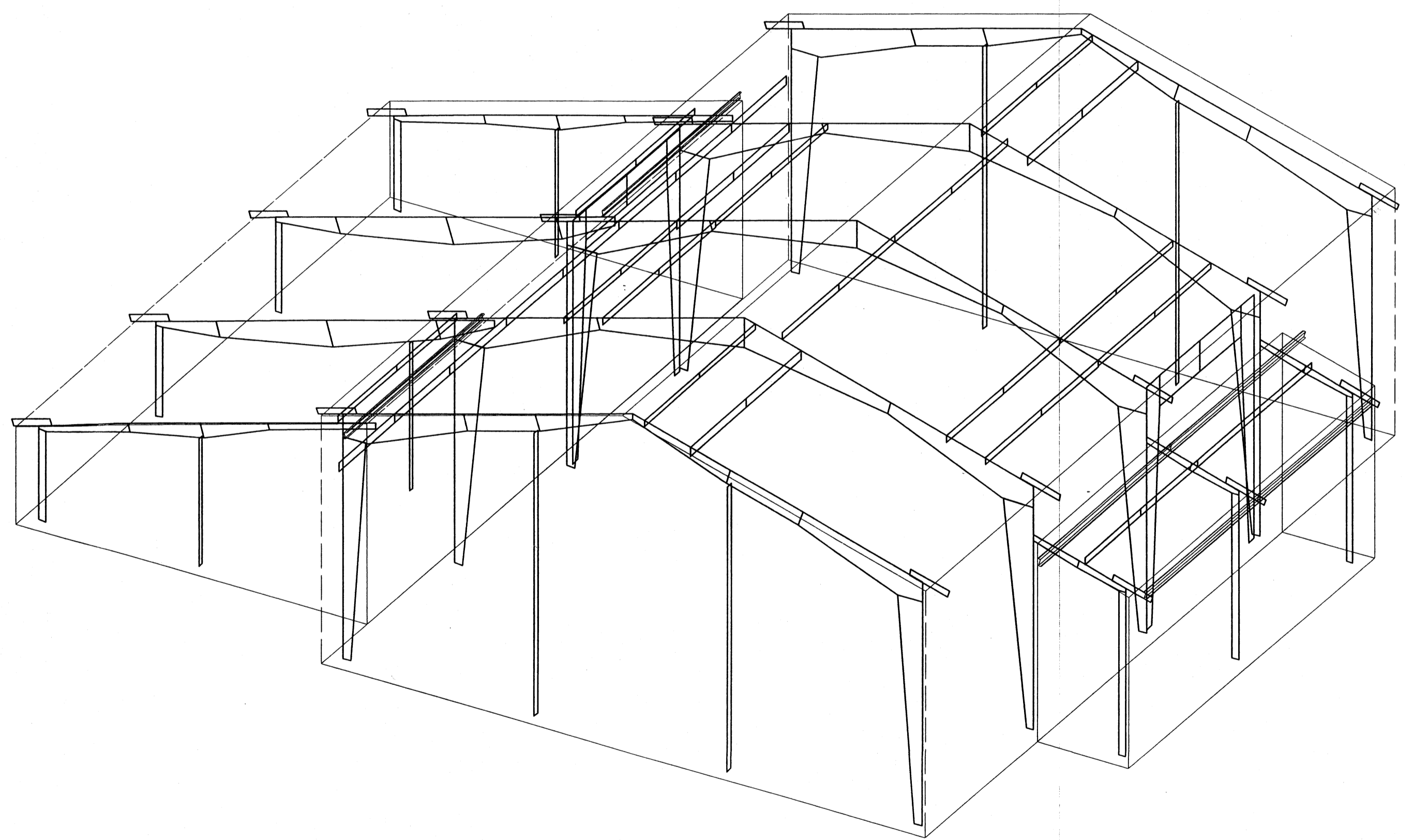
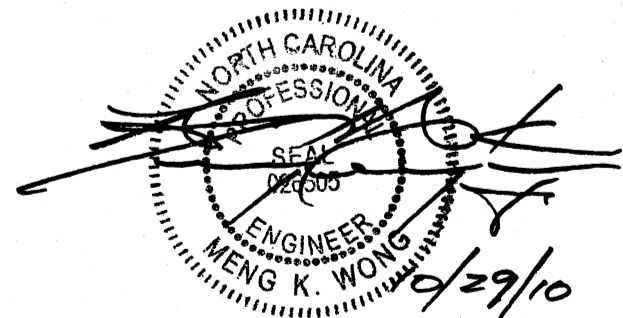
LIVE LOADS AND RAINFALL  
 Live Load 20.00 psf (Reducible)  
 Rainfall: 8.00 inches per hour

SNOW LOAD  
 Ground Snow: 15.00 psf, Flat Roof Snow: 11.55 psf  
 Snow Exposure Category (Factor): 2 Partially Exposed (1.00)  
 Snow Importance: 1.100 Thermal Category (Factor): Heated (1.00)

WIND LOAD  
 The 'All Heights' Method is Used - User Modified  
 Wind Speed: 90.00 mph, Wind Exposure: C  
 Basic Wind Pressure: 20.94 psf  
 Wind Importance Factor: 1.150, Ft= Topographic Factor: 1.0000  
 Wind Enclosure: Enclosed, 0.180  
 Note: All windows, doors, skylights and other covered openings must be designed for the specified above wind loads

EARTHQUAKE DESIGN DATA  
 Lateral Force Resisting Systems using Equivalent Force Procedure  
 Mapped Spectral Response - Ss: 18.00 %g, S1: 7.50 %g  
 CONCRETE FOUNDATIONS Compressive Strength (Min.) - f'c: 3000 psi  
 Seismic Performance / Design Category: B (See Bolt Tightening Note Above)  
 Seismic Snow Load: 0.00 psf  
 Seismic Importance: 1.250  
 Soil Profile Type: Stiff soil (D, 4)  
 Design Spectral Response - Sds: 0.1920, Sd1: 0.1200

Ordinary Steel Moment Frames  
 Frame Redundancy Factor: 1.0000  
 Framing R-Factor: 3.0000, Frame Seismic Factor (%): 0.0800, Design Base Shear = 0.0800 W  
 Ordinary Steel Concentric Braced Frames  
 Brace Redundancy Factor: 1.0000  
 Bracing R-Factor: 3.0000, Brace Seismic Factor (%): 0.0800, Design Base Shear = 0.0800 W



VP Buildings 3200 Players Club Circle Memphis TN 38125

THE VP ENGINEER'S SEAL APPLIES ONLY TO THE WORK PRODUCT OF VP AND DESIGN AND PERFORMANCE REQUIREMENTS SPECIFIED BY VP. THE VP ENGINEER'S SEAL DOES NOT APPLY TO THE PERFORMANCE OR DESIGN OF ANY OTHER PRODUCT OR COMPONENT FURNISHED BY VP EXCEPT TO ANY DESIGN OR PERFORMANCE REQUIREMENTS SPECIFIED BY VP.

THIS DRAWING, INCLUDING THE INFORMATION HEREON, REMAINS THE PROPERTY OF VP BUILDINGS. IT IS PROVIDED SOLELY FOR ERECTING THE BUILDING DESCRIBED IN THE APPLICABLE PURCHASE ORDER AND SHALL NOT BE MODIFIED, REPRODUCED OR USED FOR ANY OTHER PURPOSE WITHOUT PRIOR WRITTEN APPROVAL OF VP BUILDINGS.

THE GENERAL CONTRACTOR AND/OR ERECTOR IS SOLELY RESPONSIBLE FOR ACCURATE, GOOD QUALITY WORKMANSHIP IN ERECTING THIS BUILDING IN CONFORMANCE WITH THIS DRAWING, DETAILS REFERENCED IN THIS DRAWING, ALL APPLICABLE VP BUILDINGS ERECTION GUIDES, AND INDUSTRY STANDARDS PERTAINING TO PROPER ERECTION, INCLUDING THE CORRECT USE OF TEMPORARY BRACING.



**COVER SHEET**

BUILDER	Harrod and Associates
CUSTOMER	
LOCATION	Franklinton, North Carolina
PROJECT	Granville Co. Schools
BUILDERS PO#	



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DATE	10/25/2010
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