

# JOHN HAY High School

# **GYMNASIUM FLOOR AND BLEACHER REPLACEMENT**

# INTERIOR ALTERATION

2075 STOKES BOULEVARD CLEVELAND, OH 44106





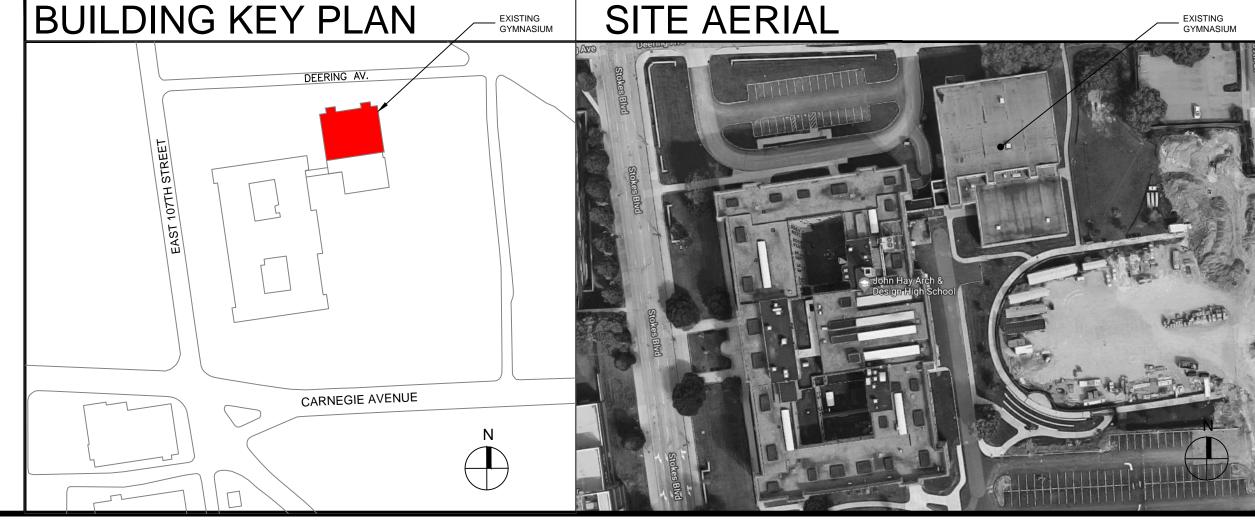
**OPERATIONS DEPARTMENT** MR. GARY SAUTTER, DEPUTY CHIEF CAPITAL PROGRAMS 1380 EAST SIXTH STREET FIFTH FLOOR CLEVELAND, OHIO 44114 OFFICE: 216.574.6379 FAX: 216.574.7190 EMAIL: Gary.D.Sautter@cmsdnet.net

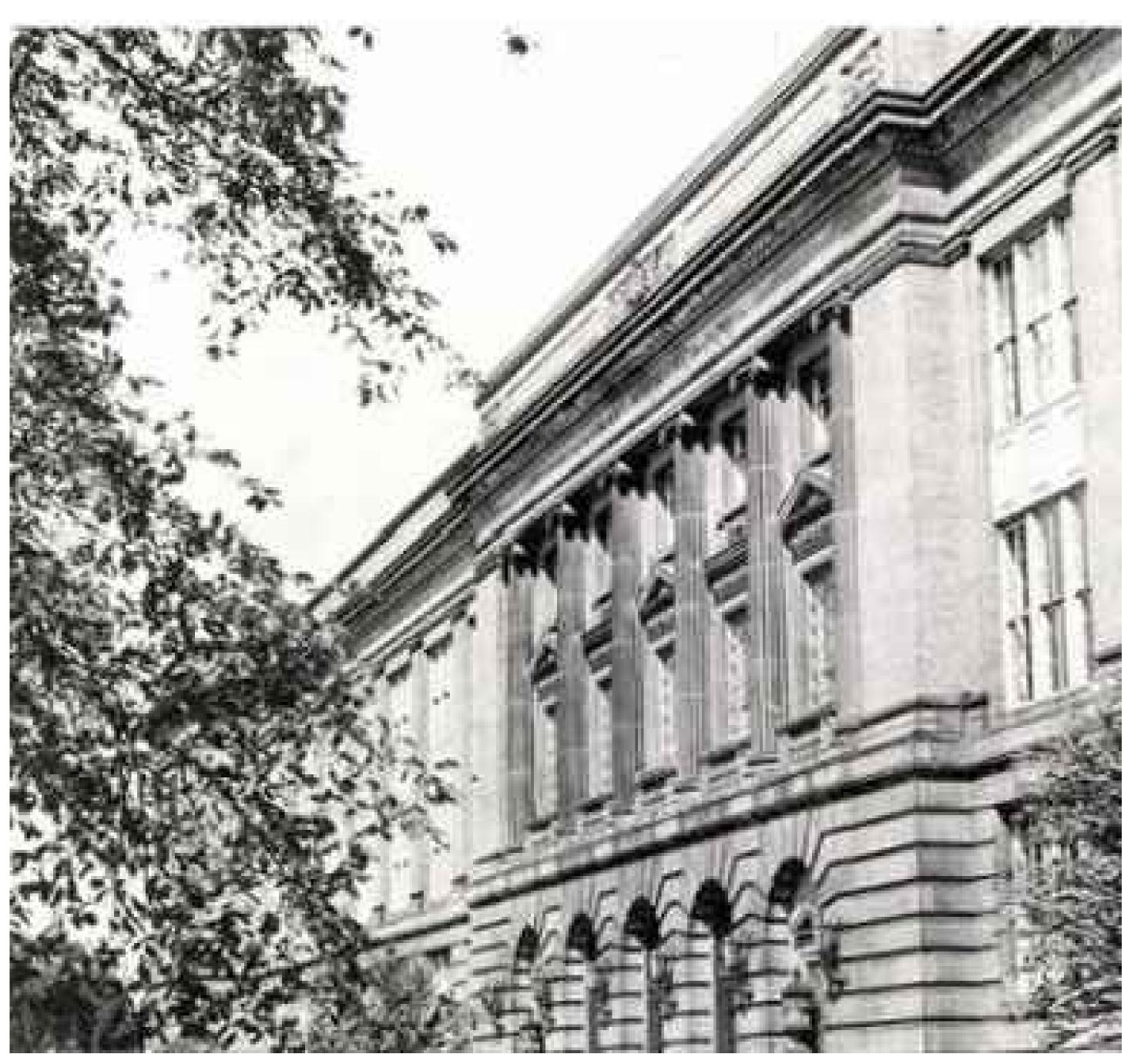
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 $\mathbf{U}$ UBIQUITOUS DESIGN, LTD. ARCHITECTS 3443 LEE ROAD

SHAKER HEIGHTS, OHIO 44120 P 216.752.4444 F 216.752.5011 ARCATEK@UDLTD.COM





HISTORIC PHOTOGRAPH

# A. PROJECT LOCATION:

- **B. DESCRIPTION AND USER** GROUP CLASSIFICATION OF BLDG:
- C. NATURE OF PROJECT:
- D. USE GROUP:
- E. OCCUPANT LOAD:
- G. CONSTRUCTION TYPE:
- H. WORK AREA LIMIT:
- . TYPE OF MECHANICAL:

# JOHN HAY HIGH SCHOOL 2075 STOKES BOULEVARD CLEVELAND, OHIO 44106

#### WE ARE SEEKING TO REMOVE AND REPLACE THE EXISTING THE DETERIORATED WOOD FLOOR AND BLEACHERS FOR THE BOARD OF EDUCATION

- INTERIOR ALTERATION [E] EDUCATION N / A F. PARKING SPACES COUNT: N / A III-B
  - FIRST LEVEL GYMNASIUM ONLY EXIST. FORCED AIR FURNACES

# **CODE INFORMATION**

# REFERENCED CODES

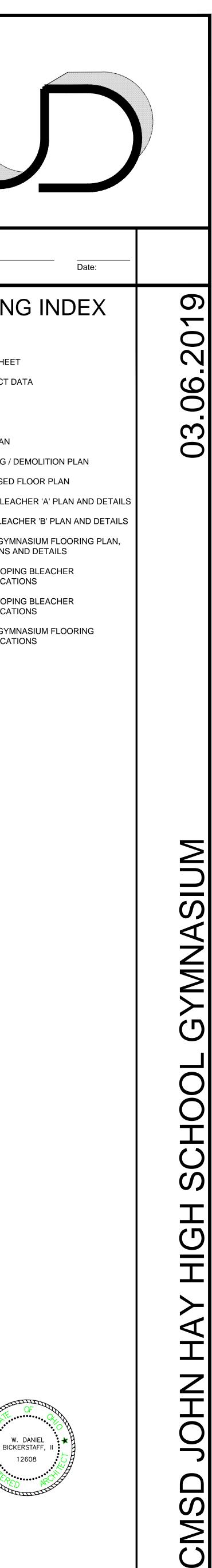
THE MORE STRINGENT CODE ALWAYS APPLIES. 2017 OHIO BUILDING CODE (OBC) 2017 OHIO MECHANICAL CODE (OMC) 2017 OHIO PLUMBING CODE (OPC) NFPA NATIONAL ELECTRICAL CODE 2017 LIFE SAFETY CODE, NFPA 101- 2017 2017 NFPA 13 SPRINKLER CODE 2017 DEPT. OF JUSTICE ADA STANDARDS FOR ACCESSIBLE DESIGN 2009 ICC/ANSI A117.1

MR. GARY SAUTTER

# DRAWING INDEX

T1.0	TITLE SHEET
PD1.0	PRODUCT DA
ARCHITEC	TURAL:
A1.0	SITE PLAN
A2.0	EXISTING / DE
A3.0	PROPOSED F
A4.0	WEST BLEAC
A5.0	EAST BLEACH
A6.0	WOOD GYMN, SECTIONS AN
A7.0	TELESCOPING SPECIFICATIO
8.0	TELESCOPINO SPECIFICATIO
9.0	WOOD GYMN

IN ALL CASES, IF THERE IS A DISCREPENCY BETWEEN CODE REQUIREMENTS, BETWEEN ANY REFERENCED CODES,



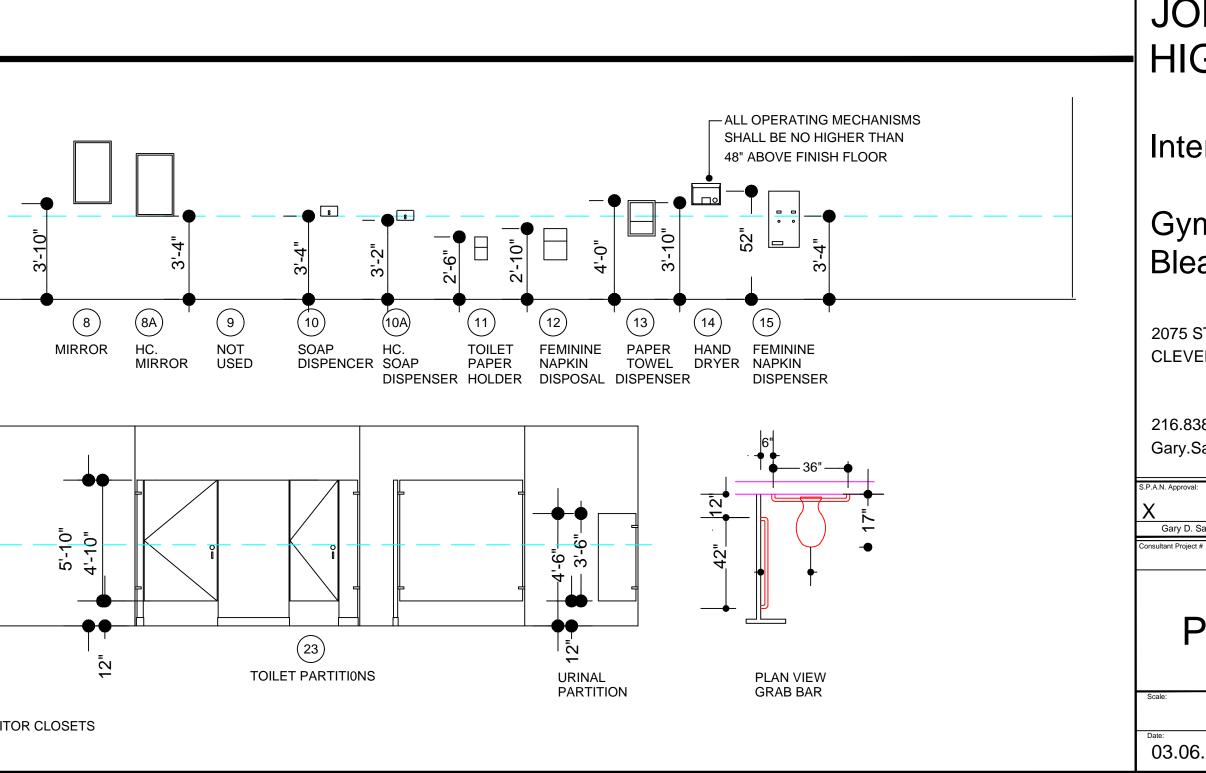
# SYMBOL LEGEND

EARTH		A A1	SECTION
POROUS FILL		A	
POURED CONCRET	ГЕ	A1	ELEVATION
CONCRETE BLOCK			MATERIAL NOTE
BRICK			DOOR NUMBER
STEEL		1	ROOM NUMBER
ROUGH WOOD			WALL TYPES
FINISHED WOOD			<b>REVISION NUMBER</b>
PLYWOOD			EXISTING DOORS
RIGID INSULATION			
BATT INSULATION			NEW DOORS
GYPSUM BOARD		A A1	ENLARGED PLAN
		EL 90.0'	VERTICAL ELEVATION

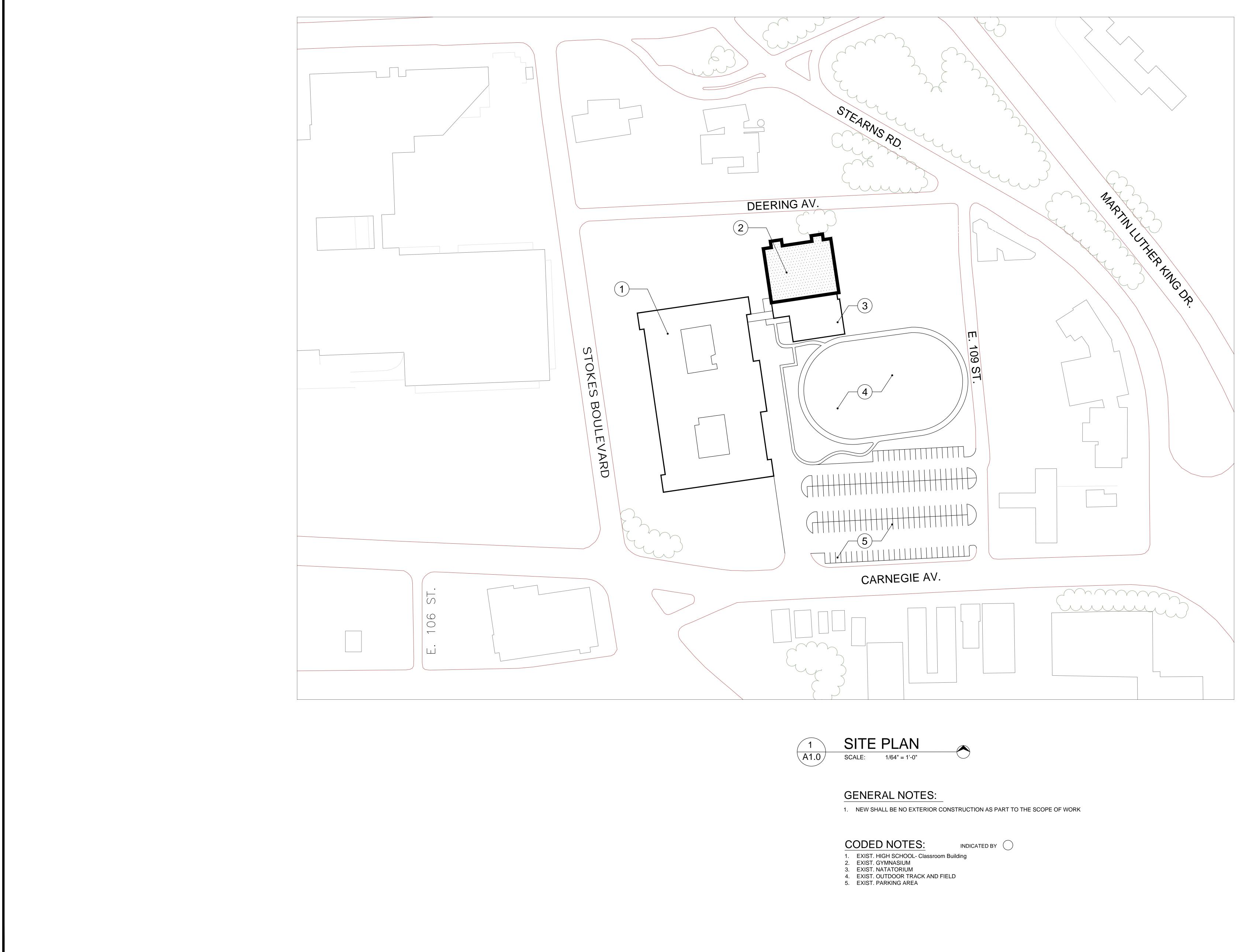
# ABBREVIATIONS

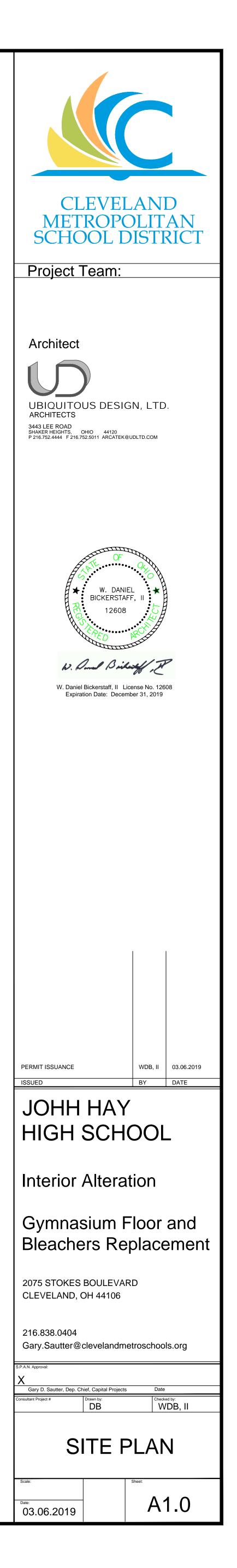
A/C	AIR CONDITIONING	FR	FIRE RESISTIVE	PL
ACT	ACOUSTIC(AL)	FRP	FIBER REINFORCED PANEL	PLBG
ADD	ADDENDUM	FS	FLOOR SINK	PT
ADJ	ADJACENT	FT	FOOT, FEET	PSF
	ABOVE FINISHED FLOOR	FUT		PSI
AFF		FUT	FUTURE	
ALUM		0.1	041105	PVC
ALT	ALTERNATE, ALTERNATIVE	GA	GAUGE	PWD
APPROV	APPROVED	GALV	GALVANIZED	
ARCH	ARCHITECT(URAL)	GB	GRAB BAR	QTY
AUTO	AUTOMATIC	GC	GENERAL CONTRACTOR	
		GR	GRILLE	
BD	BOARD	GWB	GYPSUM WALL BOARD	RAD
BET	BETWEEN	GYP	GYPSUM	RE
BLDG	BUILDING			REINF
BOT	BOTTOM	Н	HIGH	REQ
		HDCP	HANDICAPPED	RM
CAB	CABINET	HDW	HARDWARE	
CB	CERAMIC BASE	НМ	HOLLOW METAL	SAC
CFM	CUBIC FEET PER MINUTE	HOR	HORIZONTAL	SC
CG	CORNER GUARD	HR	HOUR	SCH
CLG	CEILING	HT	HEIGHT	SEC
CLR		HVAC	HEATING/VENTILATING/AC	SH
CTR		IIVAO	HEATING/VENTILATING/AC	SHT
COL	CENTER	IN		SIM
CONC	COLUMN	INCAND		SPEC
	CONCRETE	-		SQ
CONST	CONSTRUCTION	INCL	INCLUDE(ED), (ING)	SS
CONT	CONTINUE, CONTINUOUS	INFO	INFORMATION	STD
CONTR	CONTRACTOR	INS	INSULATION	STL
COORD	COORDINATE, COORDINATOR	INT	INTERIOR	STOR
COR	CORRIDOR	i <del>r</del>		
CRI	CASH REGISTER INSTALLER	JT	JOINT	STRUCT
CT	CERAMIC TILE			SUSP
		LAM	LAMINATE	SYM
וחח		LAV	LAVATORY	SV
DBL	DOUBLE	LB	POUND(S)	
DEM	DEMOLISH	LIN	LINEAL	TEN
DES	DESIGN(ER)	LT	LIGHT	T&G
DIA	DIAMETER			TEL
DIM	DIMENSION	MAINT	MAINTENACE	TEMP
DN	DOWN	MSY	MASONRY	THK
DR	DOOR	MAX		THRU
DTL	DETAIL	MC	MILLWORK CONTRACTOR	TYP
DWG	DRAWING	MECH	MECHANICAL	
	EAOL	MFGR	MANUFACTURER	UL
EA	EACH	MTL	METAL	UNFIN
EC	ELECTRICAL CONTRACTOR	MIN	MINIMUM	
EL	ELEVATION	MIR	MIRROR	VAR
ELECT	ELECTRIC, ELECTRICAL	MISC	MISCELLANEOUS	VERT
ENT	ENTRANCE	MR	MOISTURE RESISTANT	VIF
EQ	EQUAL	MNT	MOUNT(ED)	VIN
EQUIP	EQUIPMENT			
EWH	ELECTRIC WATER HEATER	NO	NUMBER	W
EXH	EXHAUST	NOM	NOMINAL	
EXIST	EXISTING	NTS	NOT TO SCALE	W/
EXT	EXTERNAL	···· •		W/O
		OC	ON CENTER	WC
FD	FLOOR DRAIN	OH	OVERHEAD	WD
FEC	FIRE EXTINGUISHER CABINET	OPP	OPPOSITE	WP(G)
FEX	FIRE EXTINGUISHER	OWN	OWNER	WR
FFE	FINISHED FLOOR ELEVATION	OZ	OUNCE(S)	
FIN	FINISHED			
FLUOR	FLUORESCENT			
FLOOR				
FLR FOS	FLOOR			NOTE: NOT A
103	FACE OF STUD			

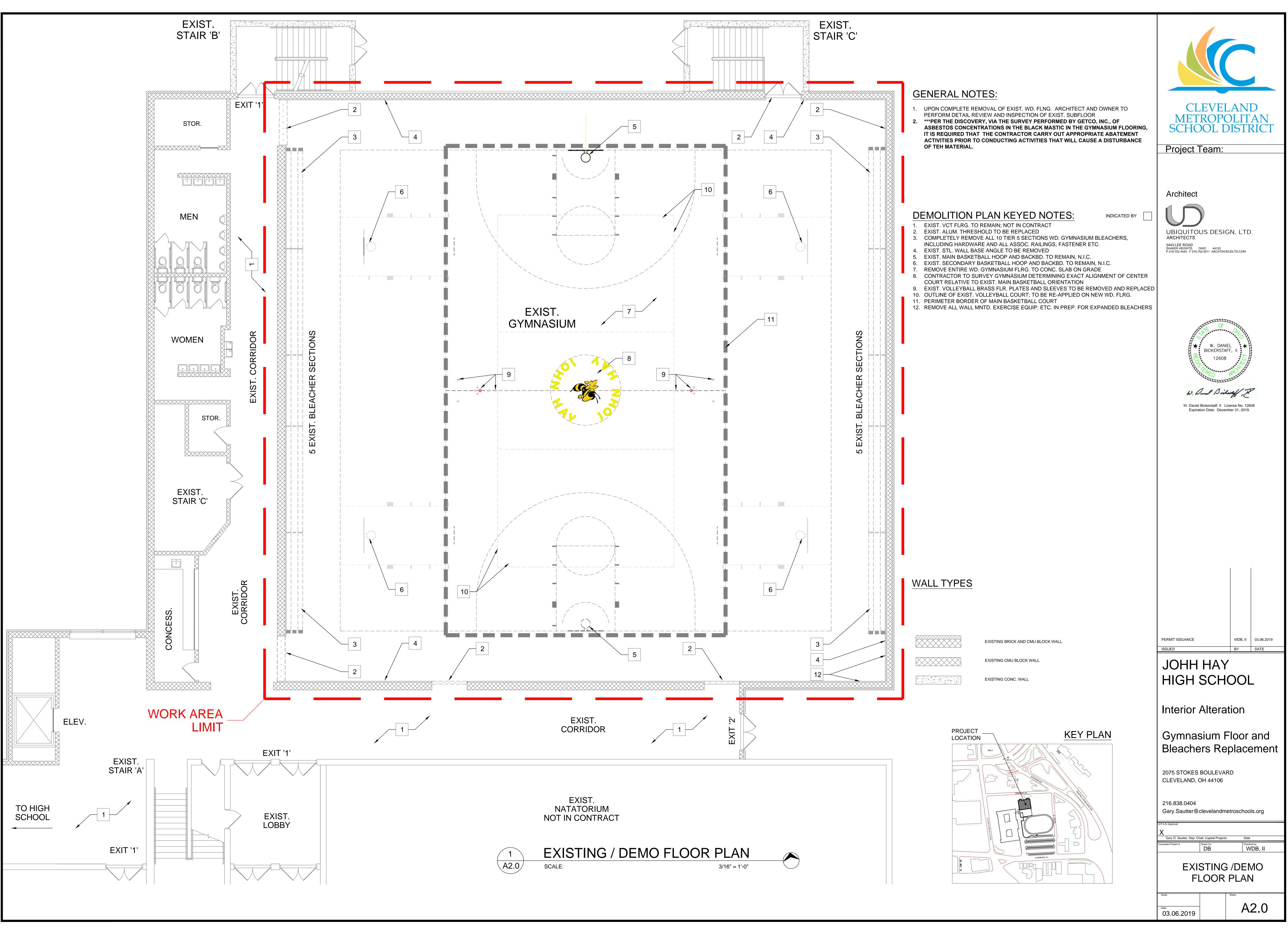
		BUILDING AND CODE INFORMATION	
		(BASED ON 2017 OHIO BUILDING CODE) CHAPTER 3- USE AND OCCUPANCY CLASSIFICATION	
		302.1.1       INCIDENTAL USE AREAS         STORAGE ROOMS > 100 S.F 1 HR. SEPARATION OR AUTO, FIRE EXTINGUISH, SYS.       CHAPTER 21-       MASONRY         WASTE/LINEN COLLECTION ROOMS > 100 S.F 1 HR. SEPARATION OR AUTO, FIRE EXTINGUISH, SYS.       2103.1       CONC. MASONRY UNITS TO CONFORM TO ASTM C90         SYS.       SYS.	
		308.3 USE GROUP E EDUCATION CHAPTER 4- SPECIAL DETAILED REQUIREMENTS BASED ON USE AND OCCUPANCY N/A CHAPTER 22- STEEL N/A	N. SC
		CHAPTER 5- GENERAL BUILDING HEIGHTS AND AREAS NUMBER OF STORIES THREE 2303.2 FIRE-RETARDANT TREATED WOOD SHALL BEAR I.D. MARK OF AN A	APPROVED Proj
		CHAPTER 6- TYPE OF CONSTRUCTION 602.2 TYPE III-B	
		TABLE 601 FIRE-RESISTANCE RATINGS STRUCTURAL FRAME 0-HR. (W/ SPRINKLERS) BEARING WALLS 0-HR. (W/ SPRINKLERS) O-HR. (W/ SPRINKLERS)	Arch
		CHAPTER 26 - PLASTIC	
		709.0 SMOKE BARRIERS TO HAVE 1-HR. FIRE-RESISTANCE RATING, 20 -MIN. RATING FOR OPENING PROTECTIVE, OPP. SWINGING DOORS ACROSS CORRIDORS 715.3 OPENING PROTECTIVE RATINGS PER TABLE 715.3 OPENING PROTECTIVE RATINGS PER TABLE 715.3	UBIQ
		COMPONENTS, EQUIPMENT, AND SYSTEMS DESIGNED AND CONST ACCORDANCE WITH NFPA 70 803.5 INTERIOR WALL / CEILING FINISH REQUIREMENTS PER TABLE 803.5 CHAPTER 28 MECHANICAL SYSTEMS	TRUCTED IN P 216.752.44
		805.1CURTAINS, DRAPERIES, HANGINGS, OTHER DECORATIVE MATERIALS TO BE FLAME RESISTANT; COMBUSTIBLE DECORATIONS SHALL BE FLAME-RETARDANT	NITH THE
		CHAPTER 9- FIRE PROTECTION SYSTEMS 903.2.5 AUTO, SPRINKLER SYSTEM REQUIRED (MODIFY EXISTING) 903.3 COMPLY WITH NFPA 13 CHAPTER 29- PLUMBING SYSTEMS 2902.1 MINIMUM FACILITIES PER TABLE 2902.1	
		906.1 FIRE EXTINGUISHERS REQUIRED 907.2.6 MANUAL FIRE ALARM SYSTEM (EXISTING) N/A	
		CHAPTER 10- MEANS OF EGRESS 1003.2 7" MINIMUM CEILING HEIGHT 1003.3.3 4" MAX. PROJECTION BETWEEN THE HEIGHTS OF 27" AND 80" CHAPTER 31- SPECIAL CONSTRUCTION N/A OLAPTER 30- ENOROLINE NTO THE DUBLIC DIGUT. OF MAX	
		1003.4 SLIP-RESISTANT FLOOR FINISH 1004.1 NUMBER OF OCCUPANTS (PER TABLE 1004.1.2): SEE TITLE SHEET 1006.1 MEANS OF EGRESS ILLUMINATION REQUIRED AT ALL TIMES BUILDING IS OCCUPIED 1006.1 MEANS OF EGRESS ILLUMINATION REQUIRED AT ALL TIMES BUILDING IS OCCUPIED	
		1008.1.1 32 MIN. WIDTH FOR MEANS OF EGRESS DOORS, MAX. WIDTH 48 ; DOORS USED FOR EXIT SIGNS REQUIRED, NO POINT IN CORR. > 100" FROM AN EXIT SIGN 1013.2.2 HABITABLE ROOMS TO HAVE DIRECT ACCESS TO AN EXIT ACCESS TO AN EXIT ACCESS CORRIDOR	GUISHER, AND
		1015.1200' MAX. EXIT ACCESS TRAVEL DISTANCECHAPTER 34-EXISTING STRUCTURES1016.296" CORRIDOR WIDTH WHERE REQUIRED FOR BED MOVEMENTN/A1016.320' MAX. DEAD-END CORRIDOR LENGTHN/A1016.4EXIT ACCESS CORRIDORS SHALL NOT SERVE AS AIR DUCTS/PLENUMS	
		CHAPTER 11- ACCESSIBILITY COMPLY WITH ACCESSIBILITY GUIDELINES	
		CHAPTER 12- INTERIOR ENVIRONMENT COMPLY WITH VENTILATION, TEMP. CONTROL, LIGHTING, DIMENSION REQUIREMENTS	
PL PLBG	PLASTIC LAMINATE PLUMBING	CHAPTER 13- ENERGY EFFICIENCY COMPLY WITH "ASHRAE ENCY. 1" OR "INTERNATIONAL ENERGY CONSERVATION CODE"	
PT PSF PSI	PAINTED(ED) POUNDS PER SQUARE FOOT POUNDS PER SQUARE INCH	CHAPTER 14- EXTERIOR WALLS N/A (EXISTING)	
PVC PWD	POLYVINYL CHLORIDE PLYWOOD	CHAPTER 15- ROOF ASSEMBLIES AND ROOFTOP STRUCTURES N/A (EXISTING)	
QTY	QUANTITY	CHAPTER 16- STRUCTURAL DESIGN 1607.1 LIVE LOAD- 100 PSF UNIFORM LOAD (CORRIDORS); 50 PSF UNIFORM LOAD (OFFICES)	
RAD RE REINF REQ RM	REFERENCE, REFER TO REINFORCEMENT REQUIRE(ED), (MENT) ROOM	1607.7 HANDRAILS TO RESIST LOAD OF 50# PER FT., CONCENTRATED LOAD OF 200#; GRAB BARS AND SHOWER SEATS TO RESIST CONCENTRATED LOAD OF 250# CHAPTER 17- STRUCTURAL TESTS AND SPECIAL INSPECTIONS N/A	
SAC SC	SUSPENDED ACOUSTICAL CLG SOLID CORE	CHAPTER 18- SOILS AND FOUNDATIONS N/A (EXISTING)	
SCH SEC SH SHT	SCHEDULE SECTION SHELF, SHELVING SHEET	CHAPTER 19- CONCRETE N/A	PERMIT ISSI
SIM SPEC SQ	SINELT SIMILAR SPECIFICATION(S) SQUARE		ISSUED
SS STD STL	STAINLESS STEEL STANDARD STEEL		JOH HIG
STOR STRUCT SUSP SYM	STORAGE STRUCTURE, STRUCTURAL SUSPEND(ED) SYMETRIC(AL)	8'-0" GUIDELINES FOR TOILET ROOMS	
SV	SHEET VINYL TENANT		
T&G TEL TEMP	TOUNGE AND GROOVE TELEPHONE TEMPERATURE		Gym Blea
THK THRU TYP	THICK(NESS) THROUGH TYPICAL	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	
UL UNFIN	UNDERWRITERS LABORATORY UNFINISHED	SINK HC. TOILET HC. URINAL HC. N/A N/A MIRROR MIRROR HC. NOT SOAP HC. TOILET FEMININE PAPER HAND FEMININE SINK TOILET URINAL URINAL N/A N/A MIRROR MIRROR USED DISPENCER SOAP PAPER NAPKIN TOWEL DRYER NAPKIN DISPENSER HOLDER DISPOSAL DISPENSER DISPENSER	2075 ST CLEVEL
VAR VERT VIF	VARIABLE, VARIES VERTICAL VERIFY IN FIELD		216.838 Gary.Sa
VIN	VINYL WIDE		S.P.A.N. Approval: X Gary D. Sau
W/ W/O WC	WITH WITHOUT WATER CLOSET		Consultant Project #
WD WP(G) WR	WOOD WATERPROOF(ING) WATER RESISTANT		P
		HC. GRAB SHOWER ROD WATER MOP COLLET PARTITIONS URINAL PLAN VIEW SHOWER BAR AND CURTAIN COOLER HANGER BAR SEAT NOTE:	Scale:
	ALL ABBREVIATIONS AND SYMBOLS ARE AWINGS CONTAINED IN THIS SET	PROVIDE IN ALL JANITOR CLOSETS	Date: 03.06.2



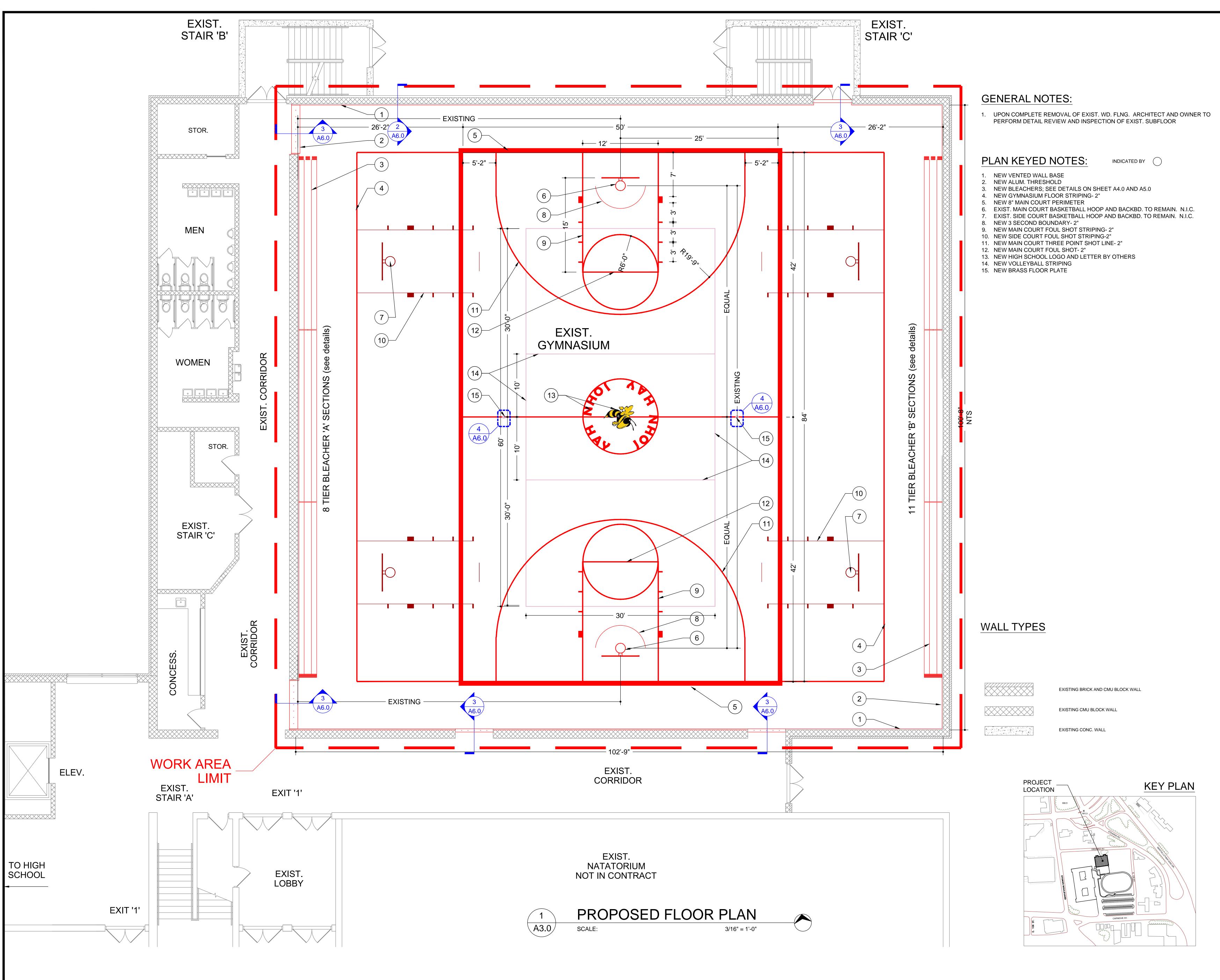
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W. Daniel Bickerstaff, II L Expiration Date: Dece			
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STOKES BOULEVARD /ELAND, OH 44106			
338.0404 Sautter@clevelandmetroschools.org			
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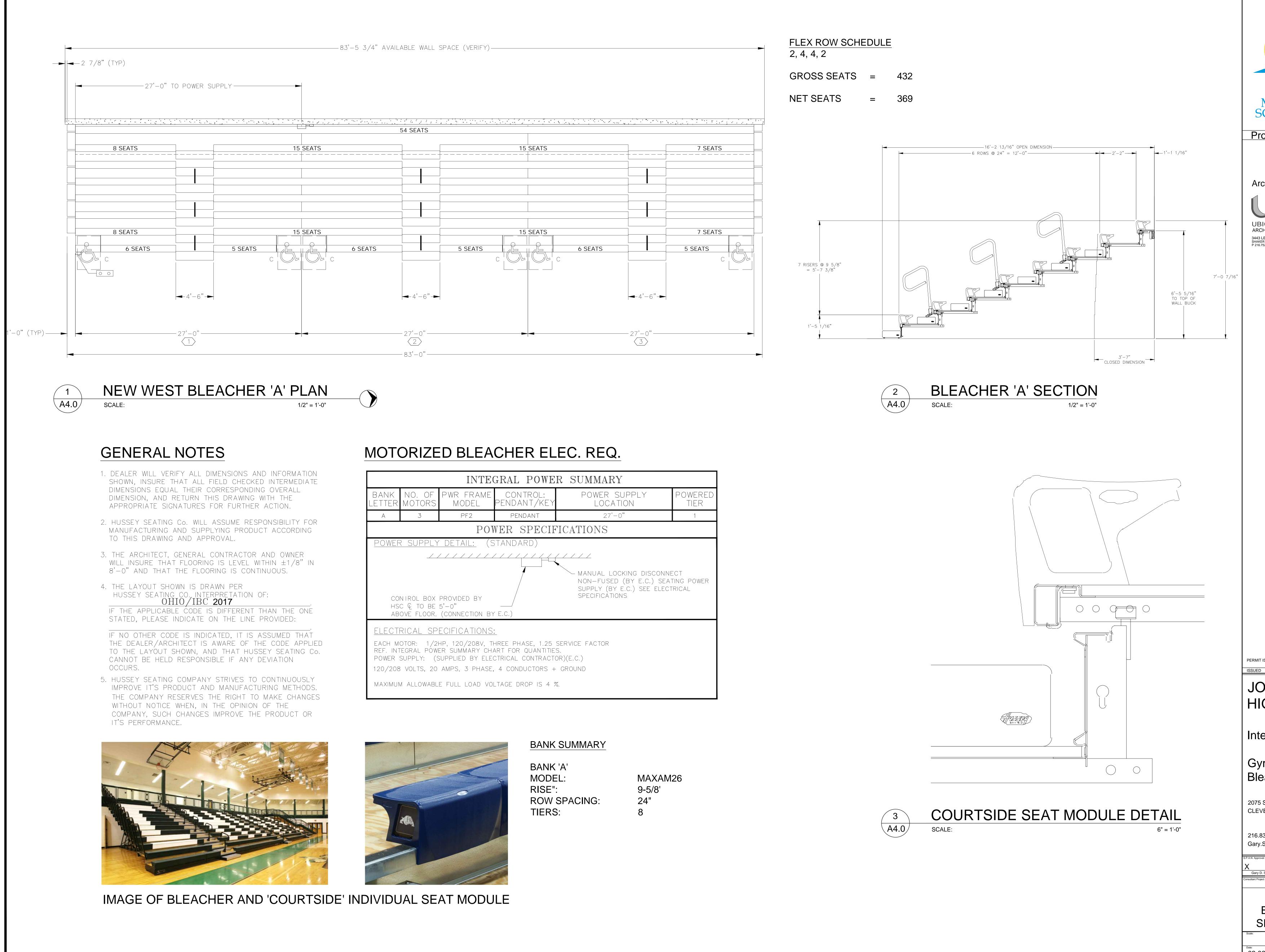




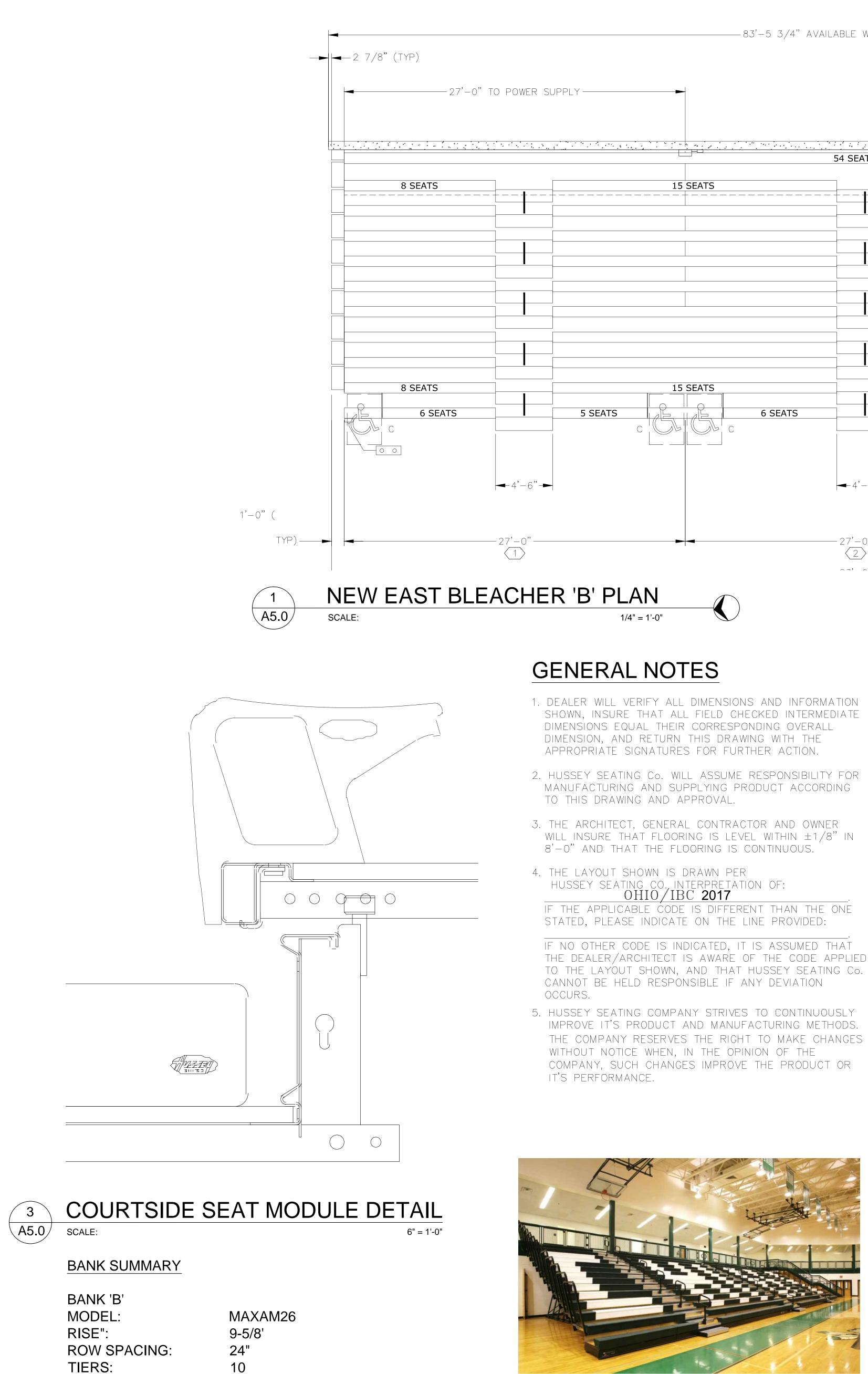
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PERMIT ISSUANCE	WDB, II 03.06.2019 BY DATE			
JOHH HAY HIGH SCHOOL				
Interior Altera	tion			
Gymnasium Floor and Bleachers Replacement				
2075 STOKES BOULEVARD CLEVELAND, OH 44106				
216.838.0404 Gary.Sautter@clevelandmetroschools.org				
S.P.A.N. Approval: X Gary D. Sautter, Dep. Chief, Capital Projects Consultant Project # Drawn by:	Checked by:			
PROPC FLOOR				
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chitect Solutions desired IQUITOUS DESIR HITECTS LEE ROAD R HEIGHTS, OHIO 44120 '52.4444 F 216.752.5011 ARCATEK				
W. Daniel Bickerstaff II. I	AFF, II			
W. Daniel Bickerstaff, II License No. 12608 Expiration Date: December 31, 2019				
ISSUANCE	WDB, II 03.06.2019			
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STOKES BOULEVARD /ELAND, OH 44106 338.0404				
Sautter@clevelandmetroschools.org				
Sautter, Dep. Chief, Capital Projects       Date         act #       Drawn by:       Checked by:         DB       WDB, II         NEW WEST         BLEACHER 'A' PLAN         SECTIONS & DETAILS				
6.2019	Sheet: A4.0			

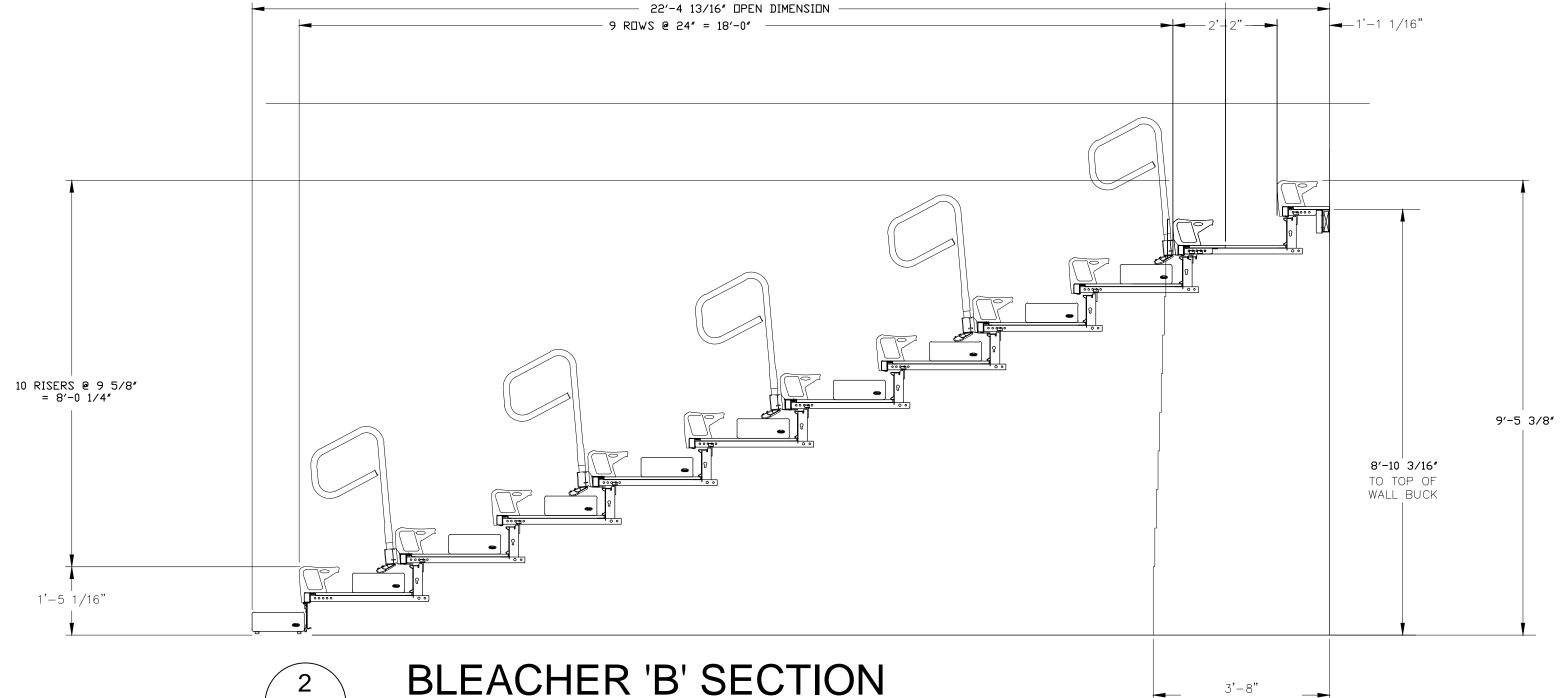


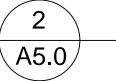
83'-5 3	3/4" AVAILABLE WALL S	PACE (VERIFY)		
SUPPLY				
	54 SEATS			· · · · · · · · · · · · · · · · · · ·
15 SEATS			15 SEATS	
15 SEATS			15 SEATS	
5 SEATS 6 SE/		5 SEATS		6 SEATS
		C		U SEATS
	<b>→</b> 4'-6" <b>→</b>			
	27'-0" 2			
ER 'B' PLAN				

THE DEALER/ARCHITECT IS AWARE OF THE CODE APPLIED TO THE LAYOUT SHOWN, AND THAT HUSSEY SEATING Co.

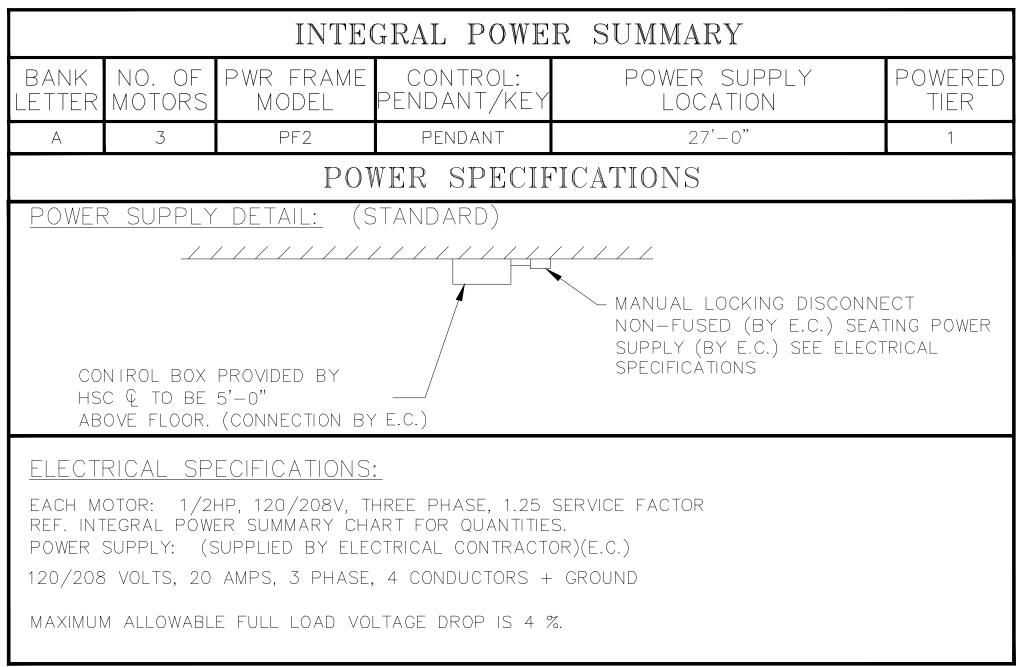


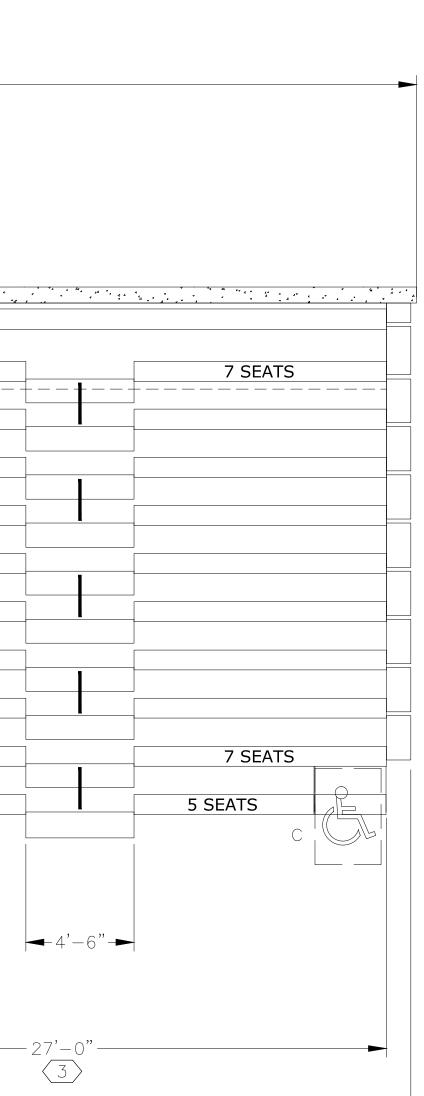
IMAGE OF BLEACHER AND 'COURTSIDE' INDIVIDUAL SEAT MODULE





SCALE:



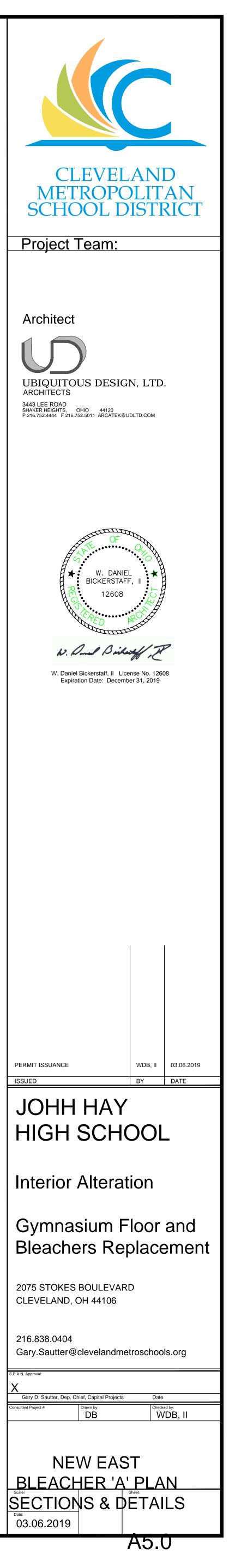


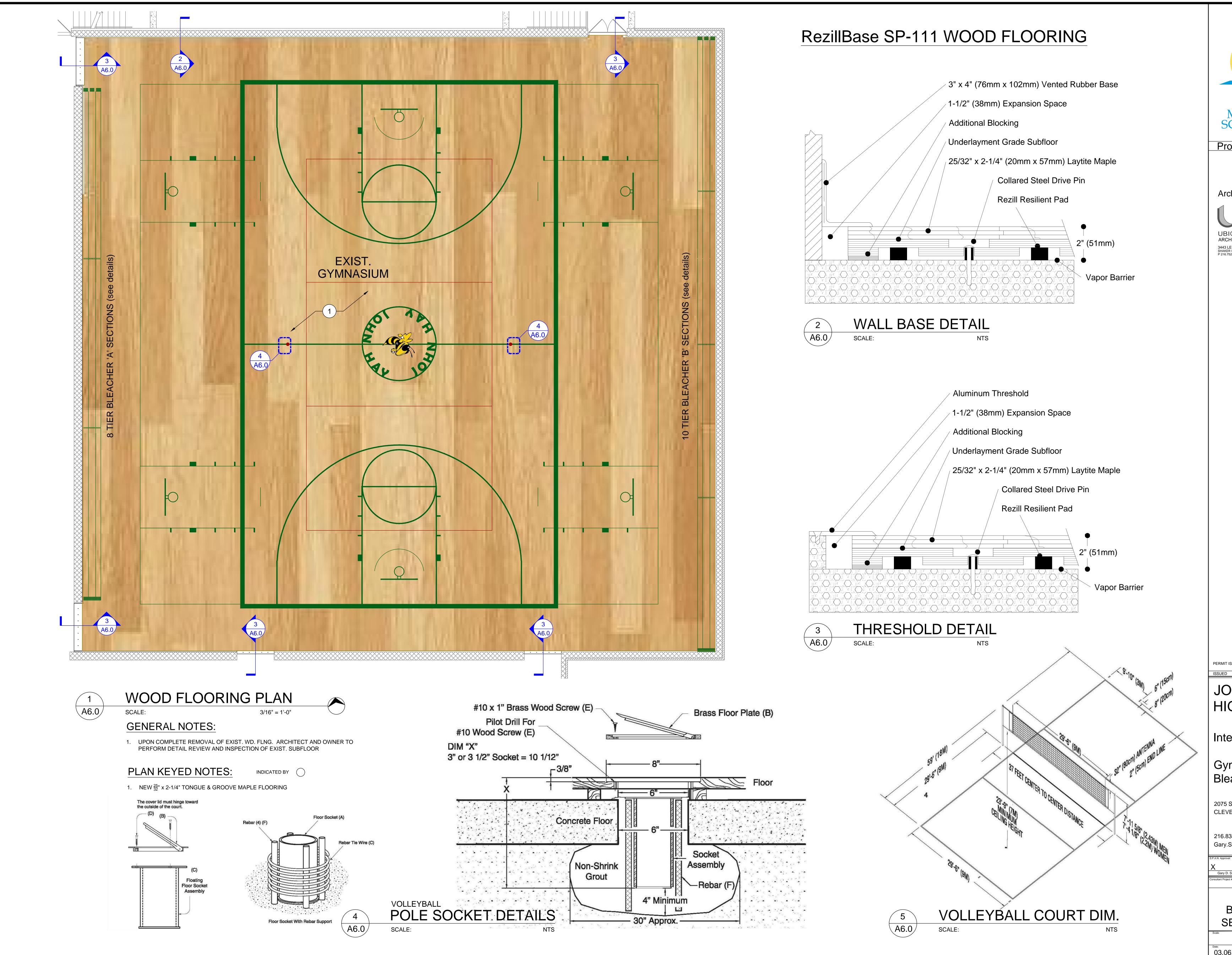
<u>FLEX ROW SCHI</u> 2, 4, 4, 2	EDUL	-
GROSS SEATS	=	595
NET SEATS	=	496

1/2" = 1'-0"

3'-8" CLOSED DIMENSION

# MOTORIZED BLEACHER ELEC. REQ.





03.06

CLEVEI METROPO CHOOL I	OLITAN				
HITECTS LEE ROAD ER HEIGHTS, OHIO 44120	IQUITOUS DESIGN, LTD. HITECTS				
W. DAN BICKERSTA 12608 W. DAN BICKERSTA	AFF, II				
Expiration Date: December 31, 2019					
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STOKES BOULEVARD /ELAND, OH 44106 338.0404					
Sautter@clevelandmetroschools.org					
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BLEACHER ECTIONS &					
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## TELESCOPING GYM SEATS SPECIFICATIONS

# PART 1 GENERAL

# 1.01 SUMMARY

A. Section Includes: Telescoping Gym Seating includes, either manually or electrically operated systems of multiple-tiered seating rows comprising of seat, deck components, understructure that permits closing without requiring dismantling, into a nested configuration for storing or for moving purposes.

# Typical applications include the following: a. Wall Attached Telescoping Bleacher

- B. Related Sections:
- Division 9 finishes sections for adequate floor & wall construction for operation of Telescoping Gym Seats. Flooring shall be level and rear wall plumb within 1/8" in 8'-0. Maximum bleacher force on the floor, of a 27'0" section, shall be a static point load of less than 300 psi.

C. Alternates: This section specifies alternates for Telescoping Gym Seat products. Refer to Part 2 products for alternate products.

2. Division 16 Electrical sections for electrical wiring and connections for electrically operated Telescoping Gym Seats.

A. BIDDER QUALIFICATIONS
1) Bidders are required to be an authorized dealer or manufacturer for equipment proposed which on a day-to-day basis regularly provide the equipment offered. Bidders are further advised that only standard production models or standard options will be acceptable for award. Equipment offered shall be currently manufactured on an active assembly line. The State is only interested in proven equipment; provided, installed, and serviced by Authorized Dealers capable of providing references.

## 2) INSTALLER QUALIFICATIONS:

Bleacher installer shall be Factory Certified by the Manufacturer. Proof of Factory Certified Installation \_Certificate shall be provided along with the Invitation to Bid. Failure to provide this information shall result in rejection of bid. (No Exceptions Taken)

### 3.) SERVICE CAPABILITY:

The Bleacher Contractor must be able to show proof of full time service capability by factory certified technicians directly employed by the Bleacher Contractor. Sub-Contractors of the Bleacher Contractor or Factory Technicians located outside of the State do not qualify under this service response requirement. Adequate and satisfactory availability of repair parts and supplies, and ability to meet warranty and service requirements are a requirement of this Invitation to Bid. The State reserves the right to satisfy itself by inquiry or otherwise as to bidder's capabilities in this regard. A four (4) to eight (8) hour maximum on-site repair response is required during normal working hours, 8 a.m. to 5 p.m. weekdays (excluding holidays) All Full Time Service Personnel shall be Factory Authorized and Trained. Proof of Service Capability along with a listing of service parts regularly maintained in inventory shall be provided along with the Invitation for Bid. Failure to provide this information shall result in rejection of bid.

### 1.02 REFERENCES

- A. National Fire Protection Association (NFPA)
- 1. NFPA 102 Standard for Assembly Seating, Tents and Membrane Structures.
- B. American Welding society (AWS):
- AWS D1.1 Structural Welding Code Steel.
   AWS D1.3 Structural Welding Code Sheet Steel.
- C. American Institute of Steel Construction (AISC):
- 1. AISC Design of Hot Rolled Steel Structural Members.
- D. American National Standards Institute (ANSI)
- E. American Iron & Steel Institute (AISI):1. AISI Design Cold Formed Steel Structural Members
- 0
- F. Aluminum Association (AA):
- 1. AA Aluminum Structures, Construction Manual Series.
- G. American Society for Testing Materials (ASTM):1. ASTM Standard Specification for Properties of Materials.
- H. National Forest Products Association (NFoPA):1. NFoPA National Design Specification for Wood Construction.
- I. Southern Pine Inspection Bureau (SPIB):
- 1. SPIB Standard Grading Rules for Southern Pine.
- J. National Bureau of Standards/Products Standard (NBS/PS):
   1. PS1 Construction and Industrial Plywood.
- K. Americans with Disability Act (ADA)

1. ADA - Standards for Accessible Design.

- 1.03 MANUFACTURER'S SYSTEM ENGINEERING DESCRIPTION
- A. Structural Performance: Engineer, fabricate and install telescopic gym seating systems to the following structural loads without exceeding allowable design working stresses of materials involved, including anchors and connections. Apply each load to produce maximum stress in each respective component of each gym seat unit.
- 1. Design Loads: Comply with NFPA 102, 1992 Edition, Chapter 5 for design loads.
- B. Manufacturer's System Design Criteria:
- 1. Gymnasium seat assembly; Design to support and resist, in addition to it's own weight, the following forces:
- a. Live load of 120 lbs per linear foot on seats and deckingb. Uniformly distributed live load of not less than 100 lbs per sq. ft. of gross horizontal projection.
- c. Parallel sway load of 24 lbs. per linear foot of row combined with (b.) above
- d. Perpendicular sway load of 10 lbs. per linear foot of row combined with (b.) above
- Hand Railings, Posts and Supports: Engineered to withstand the following forces applied separately:
   a. Concentrated load of 200 lbs. applied at any point and in any direction.
- b. Uniform load of 50 lbs. per foot applied in any direction.
- 3. Guard Railings, Post and Supports: Engineered to withstand the following forces applied separately:
- a. Concentrated load of 200 lbs. applied at any point and in any direction along top rail.b. Uniform load of 50 lbs. per foot applied horizontally at top rail and a simultaneous uniform load of 100 lbs. per foot applied vertically downward.
- 4. Member Sizes and Connections: Design criteria (current edition) of the following shall be the basis for calculation of member sizes and connections:
- a. AISC: Manual of Steel Constructionb. AISI: Specification for Design of Cold Formed Steel
- Structural Members
- c. AA: Specification for Aluminum Structuresd. NFOPA: National Design Guide For Wood Construction.
- 1.04 SUBMITTALS
- A. Section Cross-Reference: Required submittals in accordance with "Conditions of the Contract" and Division 1 General Requirements sections of this "Project Manual."
- 1. Project list: Ten (10) seating projects of similar size, complexity and in service for at least five (5) years.
- C. Shop Drawings: Indicate Telescoping Gym Seat assembly layout. Show seat heights, row spacing and rise, aisle widths and locations, assembly dimensions, anchorage to supporting structure, material types and finishes.
- Wiring Diagrams: Indicate electrical wiring and connections.
   Graphics Layout Drawings: Indicate pattern of contrasting or matching seat colors

B. Project Data: Manufacturer's product data for each system. Include the following:

1. Deviations: List of deviations from these project specifications, if any.

- D. Samples: Seat materials and color finish as selected by Architect from manufacturers offered color finishes.
  E. Manufacturer Qualifications: Certification of insurance coverage and manufacturing experience of manufacturer, and copy of a telescopic load test to all loads described in 1.03 above, observed by a qualified independent testing laboratory, and certified by a registered professional structural engineer verifying the integrity of the manufacturer's geometry design and base structural assumptions.
- F. Installer Qualifications: Installer qualifications indicating capability, experience, and official Certification Card issued by manufacturer of telescopic seating.
- G. Engineer Qualifications: Certification by a professional engineer registered in the state of manufacturer that the equipment to be supplied meets or exceeds the
- design criteria of this specification. H. Operating/Maintenance Manuals: Provide to Owner maintenance manuals. Demonstrate operating procedures, recommended maintenance and inspection program.
- I. Warranty: Manufacturers standard warranty documents.

- 1.05 QUALITY ASSURANCE
- A. Seating Layout: Comply with current NFPA 102 Standard for Assembly seating, Tents, and Membrane Structures, and specifically with Folding and Telescopic Seating, except where additional requirements are indicated or imposed by authorities having jurisdiction.
- B. Welding Standards & Qualification: Comply with AWS D1.1 Structural Welding Code Steel and AWS D1.3 Structural Welding Code Sheet Steel.
- C. Insurance Qualifications: Mandatory that each bidder submit with his bid an insurance certificate from the manufacturer evidencing the following insurance coverage:
  1. Workers Compensation including Employers Liability with the following limits:
- \$500,000.00 (US) Each Accident
  - \$500,000.00 (US) Disease Policy Limit \$500,000.00 (US) Disease - Each Employee
- 2. Commercial General Liability including premises/ operations, independent contractors and products completed operations liability. Limits of liability shall not be less than \$5,000,000.00 (US).
- D. Manufacturer Qualifications: Manufacturer who has a minimum of 40 years of experience manufacturing telescoping gym seats and can demonstrate continual design enhancement and 25-year minimum product life-cycle support of telescopic seating.
- E. Installer Qualifications: Engage experienced Installer who has specialized in installation of telescoping gym seat types similar to types required for this project and who carries an official Certification Card issued by telescoping gym seat manufacturer.
- F. Engineer Qualifications: Engage licensed professional engineer experienced in providing engineering services of the kind indicated that have resulted in the successful installation of telescoping bleachers similar in material, design, fabrication, and extent to those types indicated for this project.
- 1.06 DELIVERY, STORAGE AND HANDLING
- A. Deliver telescopic gym seats in manufacturers packaging clearly labeled with manufacturer name and content.
- B. Handle seating equipment in a manner to prevent damage.
- C. Deliver the seating at a scheduled time for installation that will not interfere with other trades operating in the building.

### 1.07 PROJECT CONDITIONS

A. Field Measurements: Coordinate actual dimensions of construction affecting telescoping bleachers installation by accurate field measurements before fabrication. Show recorded measurements on final shop drawings. Coordinate field measurements and fabrication schedule with construction progress to avoid delay of Work.

#### 1.08 WARRANTY

- A. Manufacturer's Product Warranty: Submit manufacturer's standard warranty form for telescoping bleachers. This warranty is in addition to, and not a limitation of other rights Owner may have under Contract Documents.
- Warranty Period: Five years from Date of Acceptance.
   Beneficiary: Issue warranty in legal name of project Owner.
- 3. Warranty Acceptance: Owner is sole authority who will determine acceptance of warranty documents.
- 1.09 MAINTENANCE AND OPERATION
- A. Instructions: Both operation and maintenance shall be transmitted to the Owner by the manufacturer of the seating or his representative.
- B. Service: Maintenance and operation of the seating system shall be the responsibility of the Owner or his duly authorized representative, and shall include the following:
- 1. Operation of the Seating System shall be supervised by responsible personnel who will assure that the operation is in accordance with the manufacturer's instructions
- 2. Only attachments specifically approved by the manufacturer for the specific installation shall be attached to the seating.
- 3. An annual inspection and required maintenance of each seating system shall be performed to assure safe conditions. At least biannually the inspection shall be performed by a professional engineer or factory qualified service personnel.

#### PART 2 - PRODUCTS

### 2.01 MANUFACTURERS

- A. Manufacturer: Hussey Seating Company, U.S.A.
- 1. Address: North Berwick, Maine, 03906
- Telephone: (207) 676-2271; Fax: (207) 676-9690
   Product: MAXAM Telescopic Gym Seat System by Hussey Seating Company
- a. Model: MAXAM26 Series Telescopic Gym Seats, adjustable row spacing in two inch increments from 22 inches to 26 inches
- b. Row Rise Spacing: 9 5/8"c. Aisle Type: intermediate aisle steps with center hand rails
- d. Seat Type: 10" Courtside Collection
- 1) Seat color finish: manufacturers 15 standard for Courtside Collection
- e. Rail Type: Self-storing end rails and Auto Rotating Aisle Rail 1.) Rail color finish: Black
- f. Operation: Electric
- 1) Electrical Power System: Integral power with pendant control operation, limit switches

Bank A	Bank B
83'0″	100' 1-1/2"
(3)@4'6″	(2)@4'10-1/2" and (2)@4'8-1/4"
8	10
24″	24″
9-5/8″	9-5/8″
16' 2-13/16″	20'2-13/16"
3'7″	3' 8″
7'0-7/16″h	8'7-11/6″h
	83'0" (3)@4'6" 8 24" 9-5/8" 16' 2-13/16" 3'7"

5. Miscellaneous Product Accessories: 8'l Scorer's Table, Safety End Curtain (Bank A Only)

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6. Handicap Seating Provisions: Provide first tier modular recoverable Flex-rows only as indicated on drawing

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B. Other Acceptable Manufacturers: Will be considered if in compliance with these specifications. Deviations must be submitted with bid in order that a fair and proper evaluation be made. Those bidders not submitting a list of deviations will be presumed to have bid as specified.

#### 2.02 ALTERNATES A. Base Bid:

i. Net Capacity:

- Base Bid Product: Hussey Seating
   Base Bid Product Accessories: as specified below
- B. Alternate No. #1: In lieu of providing base bid product, provide the following:1. Alternate Product: Interkal
- 2. Alternate Product Accessories: as specified below
- C. Alternate No. #2: In lieu of providing base bid product, provide the following:
  1. Alternate Product: Irwin Seating
  2. Alternate Product Accessories: as specified below

#### 2.03 MATERIALS

- A. Lumber: ANSI/Voluntary Product 20, B & B Southern Pine
- B. Plywood: ANSI/Voluntary Product PS1, APA A-C Exterior Grade.
- C. Structural Steel Shapes, Plates and Bars: ASTM A 36.
- D. Uncoated Steel Strip (Non-Structural Components): ASTM A569, Commercial Quality, Hot-Rolled Strip.
- E. Uncoated Steel Strip (Structural Components): ASTM A570 Grade 33, 40, 45, or 50, Structural Quality, Hot-Rolled Strip.
- F. Uncoated Steel Strip (Structural Components): ASTM A607 Grade 45 or 50, High-Strength, Low Alloy, Hot-Rolled Strip.
- G. Galvanized Steel Strip: ASTM A653 Grade 40, zinc coated by the hot-dip process, structural quality.
- H. Structural Tubing: ASTM A500 Grade B, cold-formed.
- I. Polyethylene Plastic: ASTM D 1248, Type III, Class B; molded, color-pigmented, textured, impact-resistant, structural formulation; in color indicated or, if not otherwise indicated, as selected by Architect from manufacturer's standard colors.
- J. Fasteners: Vibration-proof, of size and material standard with manufacturer.

# 2.04 UNDERSTRUCTURE FABRICATION

## A. Frame System:

- 1. Wheels: Not less than 5" diameter by 1 1/4" with non-marring soft rubber face to protect wood and synthetic floor surfaces, with molded-in sintered iron oil-impregnated bushings to fit 3/8" [10] diameter axles secured with E-type snap rings.
- 2. Lower Track: Continuous Positive Interglide System interlocks each adjacent CPI unit using an integral, continuous, anti-drift feature and through-bolted guide at front to prevent separation and misalignment. CPI units at end sections of powered banks and manual sections shall contain a Low Profile Posi-Lock LX to lock each row in open position and allow unlocking automatically. Provide adjustable stops to allow field adjustment of row spacings.
- 4. Slant Columns: High tensile steel, tubular shape.
- 5. Sway Bracing: High tensile steel members through-bolted to columns.
- Deck Stabilizer: High tensile steel member through-bolted to nose and riser at three locations per section. Interlocks with adjacent stabilizer on upper tier using low-friction nylon roller to prevent separation and misalignment. Incorporates multiple stops to allow field adjustment of row spacings.
   Deck Support: Securely captures front and rear edge of decking at rear edge of nose beam and lower edge of riser beam for entire length of section.

# B. Deck System:

- Section Lengths: Each bank shall contain sections not to exceed 27'-0" in length with a minimum of two supporting frames per row, each section.
   Nose beam and Rear Riser beam: Nose beam shall be continuously roll-formed closed tubular shape of ASTM A653 grade 40. Riser beam shall be continuously roll-formed with no steel edges exposed to spectator after product assembly.
- 3. Attachment: Through-Bolted fore/aft to deck stabilizers, and frame cantilevers.
- 4. Decking: 5/8", AC grade clear-top-coated tongue and groove Southern Yellow Pine; or BC grade polyethylene-top-coated tongue and groove Douglas Fir plywood; both of interior type with exterior glue, 5-ply, all plies with plugged crossbands, produced in accordance with National Bureau of Standards PS-1-97. PanelLam or Poly Deck (high density overlay) is Unacceptable. Plywood shall be cut and installed with top, center and bottom ply grain-oriented from front of deck to rear of deck (nose beam to riser beam). Adjacent pieces shall be locked together with tongue and groove joint from front to rear of deck. Longest unsupported span: MAXAM 26, 21 ½"
- 5. Deck End Overhang: Not to exceed frame support by more than 5'-7".
- 2.05 SEATING FABRICATION COORDINATE BELOW PARAGRAPHS WITH SEAT SELECTION

A. Plastic Seat System - Courtside Collection XC10 (10")

- Hussey Courtside Collection Series embodies the latest leading edge innovations in linear telescopic seating modules. Courtside seats utilize a harmonious blend of advanced ergonomic principals, architecturally appealing design, safety, value and performance.
- 1. Seat Modules: 18" long assembled, gas assisted injection-molded, high density, 100% recyclable HDPE (high density polyethylene) modules in monochromatic colors providing, dual textured scuff resistant 10" wide seat surface with ½" minimum interlock on seat and face. Unit structural tested to 600 lbs occupant load.

#### Courtside XC10 Seat Module 2. XC10 - 10" Comfort Profile

- $\checkmark$  10" wide continuous comfort curve style bench seat
- Ergonomically contoured forward "waterfall" edge for enhanced spectator comfort and minimization of sensitive pressure point area, regardless of leg
  positioning.
- $\checkmark$  Fore & Aft contoured seat surface for uniform support and minimize high pressure points under the buttocks.
- ✓ Seat height ranges from deck to t/o seat range from 16-1/8" to 18-1/8"
- $\checkmark$  21-1/2" clear foot space area, regardless of leg positioning.
- 3. Integrally molded end caps at aisle end locations for clean finished appearance.
- 4. Integrally molded recess pockets to accept seat number and row letters.
- 5. Integrally molded rear closure panel at back of seat to allow for "continuous clean sweep" of debris at deck level and minimized visibility of structural ribbing.
   6. Seat Attachment: Each plastic seat module shall be securely anchored by a 12 ga steel clamp bracket that provides a steel-to-steel, through bolted attachment to the front nose beam of the bleacher. Attachment eliminates fore / aft movement of the seat module on the nose beam.

### 2.06 SHOP FINISHES

- A. Understructure: For rust resistance, steel understructure shall be finished on all surfaces with black "Dura-Coat" enamel. Understructure finish shall contain a silicone additive to improve scratch resistance of finish.
- B. Wear Surfaces: Surface subject to normal wear by spectators shall have a finish that does not wear to show different color underneath:
- 2. Decking shall have use-surfaces to receive both a sealer coat and wear-resistant high gloss clear urethane finish. Optional decking to have 0.030" laminated polyethylene wear surface.
- 3. Injection Molded Courtside seats shall be per manufacturer standard 15 colors.

1. Steel nosing and rear risers shall be pre-galvanized with a minimum spangle of G-60 zinc plating.

C. Railings: Steel railings shall be finished with powder-coated semi - gloss black or optional 15 standard colors to match plastic seat color.

#### 2.07 FASTENINGS

- A. Welds: Performed by welders certified by AWS standards for the process employed.
- B. Structural Connections: Secured by structural bolts with prevailing torque lock nuts, free-spinning nuts in combination with lock washers, or Riv-nuts in combination with lock washers.

#### 2.08 ELECTRICAL OPERATION

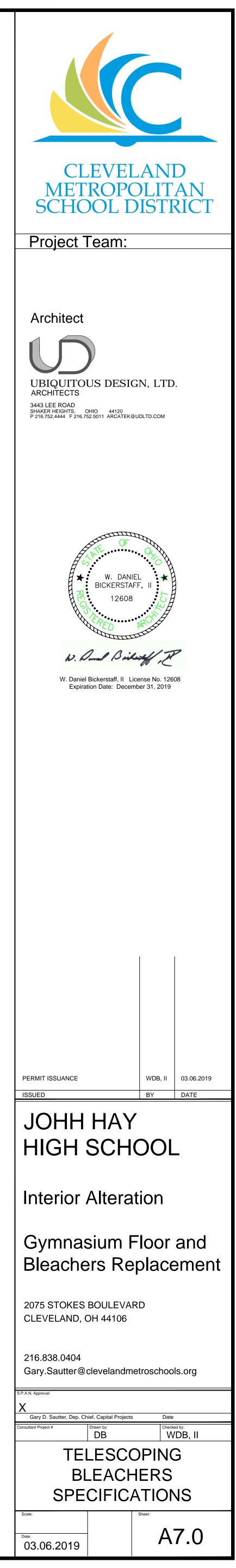
- A. Integral Power
- 1. Default operation shall be with a removable pendant control unit which plugs into seating bank for tethered operator management of stop, start, forward, and reverse control of the power operation. Other modes of operation are optional.

2. Furnish and install Hussey PF(1/2/3/4), an integral automatic electro mechanical powered frame propulsion system, to open and close telescopic seating.

a. Each unit for PF(1/2/3/4) is driven by a 1/2 horsepower, 1725 RPM motor.

# (1)208V 3 Phase:

- (a) This 1.25 Service Factor motor runs on 208V at 60 Hz and draws a full load current of 2.2 amperes. The required power supply shall be 3 asynchronous phases of 120 Volts each, plus neutral plus ground, each with 20 Amp capacity.
- (b) This system shall be UL Listed in its entirety (motors, circuit protection, motor controls, user interface, enclosures, conductors and connectors all evaluated and approved for correct sizing and compatibility under maximum rated load on the motors) under UL Product Category FHJU, titled Electrical Drive and Controls for Folding and Telescopic Seating.
- 3. Limit Switches: Furnish and install both open and closed limit switches for the integral power system. The limit switches will automatically stop integral power operation when seating has reached the fully extended or closed position.
- A. Power operation shall utilize a combination of contactors and limit switches to insure the wiring is not energized except during operation. Straight wired electric system is not allowed.
- 4. Electrical: Seating Manufacturer shall provide all wiring within seating bank including pendant control.
  a. Each unit for PF(1/2/3/4) is power operated by a 1/2 horsepower, 1725 R.P.M., 208 Volts, 50/60 Hz., three phase 1.25 service factor motor. This motor draws a full load current of 2.2 amperes. Power supply required shall be 120/208 volts three phase 5 wire plus ground service with 20 amps. Motors, housing, and wiring
- shall be installed and grounded in complete accord with the National Electrical Code.b. The electrical contractor shall provide required power source with no greater than 4% voltage drop at the seatings' junction box. The electrical contractor shall perform all wiring connections in junction box that are attached to or a part of the building.



# TELESCOPING GYM SEATS SPECIFICATIONS (con.)

PART 1 PRODUCTS (con.)

2.10 ACCESSORIES

Standard Telescopic Seating Accessories

- A. Flex-Row: Provide first row modular recoverable seating units to be utilized by persons in wheelchairs and able-bodied persons. Each Flex-Row unit shall have an unlock handle for easy deployment if wheelchair or team seating access is needed. Unlock handle shall lock the bleacher seats into position when fully opened.
- 1. Provide a black full-surround steel skirting with no more than 3/4" floor clearance for safety and improved aesthetics.
- 2. Provide a black injection molded end cap for the nose beam for safety and improved aesthetics. 3. Provide a mechanical positive lock when the Flex-Row system is in the open and used position.
- 4. Flex-Row modular units are designed to achieve multi-use front row seating to accommodate team seating, ADA requirements and facility specific requirements. Flex-Row units are available in modular units from 2 to 7 seats wide as well as full section widths.
- B. Permanent Handicap Cut-Outs: ARE NOT ACCEPTABLE
- C. Front Aisle Steps: Provide at each vertical aisle location front aisle step. Front steps shall engage with front row to prevent accidental separation or movement. Steps shall be fitted with four non-skid rubber feet each 1/2" in diameter. Blow molded end caps shall have full radius on all four edges. Quantity and location as indicated.
- D. Non-Slip Tread: Provide at front edge of each aisle location an adhesive-backed abrasive non-slip tread surface.
- E. Foot Level Aisles: Provide deck level full width vertical aisles located as indicated.
- F. Intermediate Aisle Steps: Intermediate aisle steps shall be of boxed fully enclosed type construction. Blow molded end caps shall have full radius on all four edges. Step shall have adhesive-backed abrasive non-slip tread surface. Quantity and location as indicated.
- G. Intermediate Automatic Rotating Aisle Handrails: Provide single pedestal mount handrails 34" high with terminating mid rail. Permanently attached handrail shall rotate in a permanently mounted socket for rail storage. Rail shall automatically rotate, lock in the use position, unlock and rotate back to the stowed position as the gym seats open and close. Ends of the handrail shall return to the post, and not extend away from it. Rails having openings to avoid interference with closed decks are not acceptable.
- H. Provide Safety End Curtains fabricated of vinyl-coated 14oz Polyester fabric on open ends of telescopic seating to prevent unauthorized access to the understructure of the bleachers. Curtains to be permanently attached to wall or rear closure panel and secured to individual rows of seating. Curtain to open with seating unit into taught secure configuration and fold automatically as seating unit closes .
- I. Scorer's Table: one 8' x 18" x 30" scorer's table. Table top shall be Gray textured blow molded polymer 2" in thickness with eased edges for reduced pressure points and improved ergonomics. The Integral 16 Ga. cantilevered comfort C-style leg design provides ample clear space and stability during use and folds for ease of storage on the seating deck. The structure is finished in a speckled gray. The table is portable and may be used on any seating row or flat floor surface
- J. Self Storing End Rails: Provide steel self-storing 42" high above seat, end rail with tubular supports and intermediate members designed with 4" sphere passage requirements

# Safety Accessories: Provide the following safety features:

- 1. Coin Round or Roll all edges of exposed metal on top and underneath Bleacher to eliminate sharp edges. Provide safety ease edges, coined edges, or rounded edges for the bleacher understructure components as follows. Diagonal or X braces and deck support or deck stabilizers. Systems provided with sharp edges or corners, to be rounded off in the field and field painted.
- 2. Provide plastic end cap on nose metal at Bank ends to close off edges to prevent spectator injury.
- 3. Provide plastic end cap on back of deck supports on 1 <sup>st</sup> 7 Rows to prevent spectator injury.
- 4. On 1<sup>st</sup> Row, provide front and side skirt boards any where there is an exposed end to prevent players/balls from sliding underneath the 1 <sup>st</sup> Row. 5. Provide metal cover over motor chains and wheels to protect chains from debris and provide a safety switch that if cover is taken off the power system will not work.
- 6. Provide metal end deck cover on each row to cover exposed edge of plywood at the ends of the bleachers.
- 7. Powered frames systems without a metal protective housing, covering drive chain and drive wheels are not permitted under this specification

PART 3 - EXECUTION

## 3.01 EXAMINATION

A. Verification of Conditions: Verify area to receive telescoping gym seats are free of impediments interfering with installation and condition of installation substrates are acceptable to receive telescoping gym seats in accordance with telescoping gym seats manufacturer's recommendations. Do not commence installation until conditions are satisfactory.

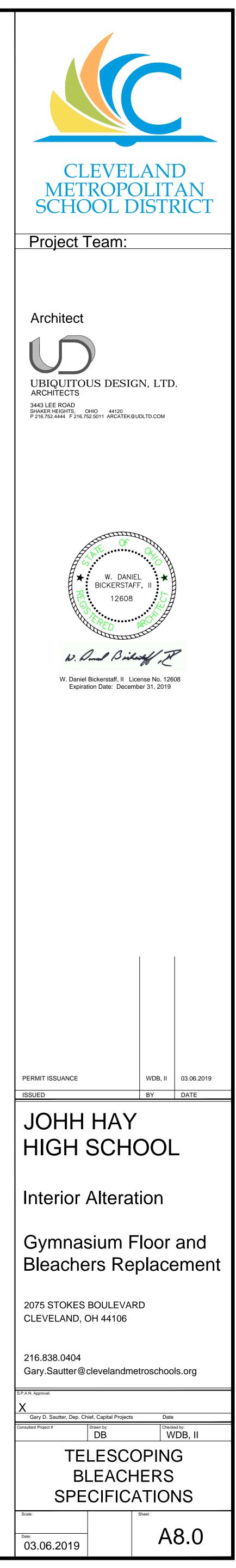
# 3.02 INSTALLATION

- A. Manufacturer's Recommendations: Comply with telescoping gym seats manufacturer's recommendations for product installation requirements.
- B. General: Manufacturer's Certified Installers to install telescoping gym seats in accordance with manufacturer's installation instructions and final shop drawings. Provide accessories, anchors, fasteners, inserts and other items for installation of telescoping gym seats and for permanent attachment to adjoining construction.
- 3.03 ADJUSTMENT AND CLEANING
- A. Adjustment: After installation completion, test and adjust each telescoping gym seats assembly to operate in compliance with manufacturer's operations manual.
- B. Cleaning: Clean installed telescoping gym seats on both exposed and semi-exposed surfaces. Touch-up finishes to restore damage or soiled surfaces.

# 3.04 PROTECTION

A. General: Provide final protection and maintain conditions, in a manner acceptable to manufacturer and installer to ensure telescoping gym seats are without damage or deterioration at time of substantial completion.

END OF SECTION



CONNER REZILLBASE WOOD GYMNASIUM FLOORING SPECIFICATIONS

SECTION 09642

PART 1 GENERAL

# CONNOR REZILLBASE

Page 4 of 4

# 1.1 DESCRIPTION

- A. Related work specified under other sections.1. CONCRETE SUBFLOORS-SECTION 03\_\_\_
- a. (Specify or Delete) Slab depression shall be:
- 2" (51mm) for Standard Profile SP-11 & SP-111 subfloor with 25/32" (20mm) flooring.
   1-5/8" (41mm) for Reduced Profile RP-111 subfloor with 25/32" (20mm) flooring surface.

1-3/4" (44mm) for Reduced Profile - RP-221 & RP-222 subfloor with 25/32" (20mm) flooring surface.

b. The general contractor shall furnish and install the concrete subfloor depressing the slab sufficiently to accommodate the floor system. The slab shall be steel troweled and finished smooth to a tolerance of 1/8" (3mm) in any 10' (3 meter) radius by the general contractor. High spots shall be ground level, and low spots filled in with approved leveling compound by the general contractor to the full approval of the installer (Flooring Contractor).

c.Concrete slab aggregate shall be 3/4" (19mm) screen crushed limestone or similar type material (no river gravel or pea gravel), free of curing agents. Concrete shall develop an average of 3,500-PSI (246 Kg/cm) compression after 28 days.

2. MEMBRANE WATERPROOFING - SECTION 07\_\_\_

a. Concrete subfloors on or below grade shall be adequately waterproofed beneath the slab and at the perimeter walls and on earth side of below grade walls by general contractor using suitable type membrane.
 **3.** THRESHOLDS - SECTION 08\_\_\_\_

GAME STANDARD INSERTS - SECTION 11\_\_\_

# **1.2 REFERENCES**

A. MFMA - Maple Flooring Manufacturers Association

#### 1.3 QUALITY ASSURANCE A. Manufacturer

1. Manufacturer of resilient flooring shall be a firm specializing in manufacturing products specified in this section.

- 2. Manufacturer of flooring and subfloor components must be ISO 14001:2015 Certified.
- Basis of design shall be "RezillBase" sports floor system as provided by Connor Sports, www.connorfloor.com, (800-833-7144).
   Materials other than those listed must be approved 10 days prior by written addendum. Materials from non-approved manufacturers will not be accepted.
- B. Installer (Flooring Contractor)

The complete installation of the flooring system, as described in the scope of these specifications, shall be carried out by an experienced installer (Flooring Contractor), and the work shall be performed in accordance with most recent installation instructions of the manufacturer.
 Installer (Flooring Contractor) shall be liable for all matters related to installation for a period of one year after the floor has been substantially installed and completed.

### C. Performance Testing

Floor system shall have been independently evaluated according to established performance standards for the athletic flooring industry.
 Compliance of athletic floor standard(s) for specified system as provided by Connor Sports at www.connorsports.com.

- \_\_\_\_\_
- **1.4 SUBMITTALS A. Specification** - Submit Connor RezillBase specification sheets.
- **B.** Sample Submit one sample of specified system, if requested by architect.
- C. Maintenance Literature Upon completion of floor installation, send to owner, attendants or individuals in charge and responsible for the upkeep of the building a CARE CARD. This card spells out care and maintenance instructions including temperature and humidity ranges for areas where flooring is installed.

## **1.5 WORKING CONDITIONS**

- A. The wood flooring specified herein shall not be installed until all masonry, painting, plaster, tile, marble and terrazzo work is completed, and overhead mechanical trades and painters have finished in the wood floor areas. The building shall be enclosed and weathertite.
   B. The construct subfloor abell he determined dry by industry stendard testing precedures. free of foreign meterials and turned over to the installer (Electing Contractor).
- B. The concrete subfloor shall be determined dry by industry standard testing procedures, free of foreign materials and turned over to the installer (Flooring Contractor) broom clean. Moderate room temperature of 65 degrees (18 degrees Celsius) or more shall be maintained a week preceding and throughout the duration of the work. Humidity conditions within the building shall approximate the humidity conditions that will prevail when the building is occupied.
   C. Permanent heat, light and ventilation shall be installed and operating during and after installation, maintaining a range of temperature and humidity compatible with the
- expected low and high moisture content of the flooring. The wood moisture content range is determined by the flooring contactor based on the facility's mechanical controls and/or geographical location. **D.** Flooring must be stored in a dry, well-ventilated area, not in contact with masonry, to acclimate to building conditions and shall be installed at moisture content
- compatible with the normally expected environmental range of temperature and relative humidity achieved while the facility is occupied.
- E. General Contractor shall lock floor area after floor is finished to allow proper curing time. If general contractor or owner requires use of gym after proper curing time, he shall protect the floor by covering with non-marring Kraft paper or red rosin paper with taped joints until acceptance by owner of complete gymnasium floor.
   F. Working conditions as described above shall be followed. Variations and substitutions shall be submitted for approval to the architect who shall advise Connor of the
- same.

# 1.6 HUMIDITY CONTROL

A. Since all wood flooring will expand and contract as relative humidity varies, it is important to minimize extremes between low and high. Hardwood flooring is manufactured at moisture content most compatible with a 35%-50% relative humidity range. Geographical regions and available mechanicals determine the typical range of temperature and humidity for each facility. Maintaining a 15% fluctuation between highest and lowest average indoor relative humidity provides limited shrinkage and growth. Facility managers should make use of available HVAC systems to prevent excessive tightening and shrinkage of flooring.

#### 1.7 WARRANTY

- A. Connor warrants that the materials it has supplied will be free from manufacturing defects for a period of one year. The foregoing warranty is in lieu of and excludes all other warranties not expressly set forth herein, whether express or implied in operation of law or otherwise, including, but not limited to, any implied warranties of merchantability or fitness. This warranty is expressly limited to the flooring materials (goods) supplied by Connor. This warranty does not cover floor damage caused (wholly or in part) by fire, winds, floods, moisture, other unfavorable atmospheric conditions or chemical action, nor does it apply to damage caused by ordinary wear, misuse, abuse, negligent or intentional misconduct, aging, faulty building construction, concrete slab separation, faulty or unsuitable subsurface or site preparation, settlement of the building walls or faulty or unprofessional installation of Connor flooring systems.
- **B.** Connor shall not be liable for incidental or consequential losses, damages or expenses directly or indirectly arising from the sale, handling or use of the materials (goods) or from any other cause relating thereto, and their liability hereunder in any case is expressly limited to the replacement of materials (goods) not complying with this agreement, or at their elections, to the repayment of, or crediting buyer with, an amount equal to the purchase price of such materials (goods), whether such claims are for breach of warranty or negligence. Any claim shall be deemed waived by buyer unless submitted to Connor in writing within 30 days from the date buyer discovered, or should have discovered, any claimed breach.

## PART 2 - PRODUCTS

- 2.1 MATERIALS
- A. Vapor Barrier 6-mil (0.2mm) polyethylene.
- B. Subfloor Construction1. SP Standard Profile (Specify below or Delete)
- a. SP-11 Factory assembled UL-APA plywood, slotted surface, Connor resilient Rezill pads.
- b. SP-111 Factory assembled UL-APA plywood, slotted surface, Connor resilient Rezill pads, collared
- steel drive pin concrete anchorage.
   RP Reduced Profile (Specify below or Delete)
- a. RP-111 Factory assembled UL-APA plywood, slotted surface, Connor Rezill R4 resilient pads, collared
- steel drive pin concrete anchorage.
- RP-221 Factory machined APA plywood, full surface, Connor Rezill Cushions, collared steel drive pin concrete anchorage.
- c. RP-222 Factory machined APA plywood, full surface, Connor Rezill Cushions, sectional steel channel
- anchorage. **C. Flooring** (Connor Laytite Maple)
- 1. 25/32" X 2-1/4" (20mm x 57mm), Second & Better Grade, Northern Hard Maple Flooring, TGEM, MFMA Grade marked and stamped as manufactured by Connor Sports, Amasa, MI.
- Optional sizes and grades (Specify above or Delete) a. Sizes 25/32" X 1-1/2" (20mm x 38mm)
- b.Grades First Grade, Third Grade
- 3. Option (Specify or Delete) Manufactured flooring profile shall include 1/64" (0.4mm) side edge crush bead.
- 4. FSC Certified (Specify or Delete) Hard maple flooring shall be certified as harvested from managed forest in compliance with the Forest Stewardship Council program.
- D. Fasteners
- 1. Slotted Subfloor Fasteners: (Specify or Delete)
- a. 1" (25mm) coated staples when installing Standard Profile (SP) subfloor panels.
  b.3/4" (19mm) coated staples when installing Reduced Profile (RP) panels.
- Flooring Fasteners: (Specify or Delete)
- a. 2" (51mm) barbed cleats or coated staples when installing Standard Profile (SP) subfloor.
- b.1-1/2" (44mm) barbed cleats or coated staples when installing Reduced Profile subfloor.Concrete: (Specify or Delete)
- a. For Collared Steel Drive Pins: 2-1/2" (64mm), (or length as dictated by site conditions achieving
- minimum 900 lbs. (408.6 Kg) pullout strength).
- b.For 16-ga Hat Channel: 1-1/4" (32mm) long steel drive pins, (or length as dictated by site conditions achieving minimum 900 lbs. (408.6 Kg) pullout strength).
   E. Finish Materials Connor oil modified polyurethane seal and finish or equal.
   E. Game Lines Come Line point shall be compatible with finish.
- **F. Game Lines** Game line paint shall be compatible with finish.
- G. Wall Base 3" X 4" (76mm x 102mm), heavy duty, molded, vented cove base with pre-molded outside corners.
   H. Protective Floor Cover (Specify or Delete) Provide court tiles selected from manufacturer's standard dimensions and colors.

## PART 3 - EXECUTION

## 3.1 EXECUTION

A. Inspect concrete slab for proper tolerance and dryness. Report any discrepancies to general contractor and architect in writing.

B. Concrete slab shall be broom cleaned by general contractor.
 C. Installer (Flooring Contractor) shall document all working conditions provided in General specifications prior to commencement of installation.

# 3.2 INSTALLATION

A. Subfloor 1 Cover concrete wit

Cover concrete with poly, sealing and lapping joints a minimum of 6" (152mm).
 Subfloor Panels:

- a. Slotted Surface (Specify or Delete) -Install RezillBase subfloor panels at right angle to finish flooring, starting along an end wall, working left to right. Provide 1-1/2" (38mm) expansion voids at perimeter and at all vertical obstructions. Allow 1/4" (6mm) space between ends of abutted panels. Stagger subfloor panels when beginning each row to create a brick pattern throughout the subfloor. Apply and slightly angle subfloor staples 12" (305mm) on center to secure adjacent panels on all ends and sides while maintaining 2-3/8" (60mm) spacing between sides of upper subfloor panels. Install solid blocking at doorways, under bleachers in the stacked position, and below portable goals.
- b. Full Surface (Specify or Delete)
- Arrange subfloor panels in a staggered brick pattern diagonally to finished flooring direction with panel ends offset 48" (1219mm) in alternating rows. Provide nominal 1/4" (6mm) spacing between panel edges and provide 1-1/2" (38mm) expansion voids at perimeter and at all vertical obstructions. Install sold blocking at doorways, under bleachers in the stacked position and below portable goals. Align panels with channel slots perpendicular to flooring direction.
   Concrete Anchorage:
- a. Collared Steel Drive Pins (Specify or Delete) -
- Insert washers and bushings onto drive pins and soundly secure to concrete without overtightening. b. Steel Hat Channel (Specify or Delete) -
- Apply a secure concrete anchorage pin at each channel location.
- B. Maple Flooring
- 1. Install maple flooring by power nailing or stapling approximately 12" (305mm) on center (through double layer when installing slotted subfloor) with end joints properly driven together.
- If required, size joints between flooring strips to allow for intermediate expansion in accordance with local humidity conditions.
   Provide 1-1/2" (38mm) expansion voids at perimeter and at all vertical obstructions.
- 3.3 FINISHING
- A. Maple Flooring
- Machine sand with coarse, medium, and fine paper to a smooth, even and uniform surface.
   Remove sanding dust from entire surface by tack or vacuum.
- 3. Inspect entire area of floor to ensure that surface is acceptable for finishing, clean and completely free from sanding dust.
- Apply two (2) coats of approved seal and two (2) coats of approved finish per manufacturer's instructions.
   Buff and clean floor between coats.
- 6. Games Lines: Apply game lines as indicated on drawings, between seal and first coat of finish.

3.4 BASE INSTALLATION

A. Install vent cove base to walls with base cement or screws. Use pre-molded outside corners and mitered inside corners.

3.5 CLEANING

A. Remove excess and waste materials from the area of work.

END OF SECTION 09642

