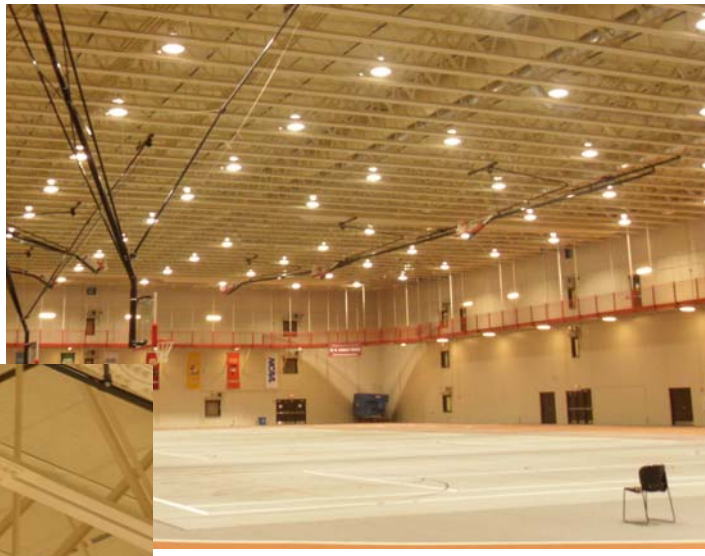
JOB PROFILE

NORTHCENTRAL COLLEGE FIELD HOUSE\DORMITORY - NAPERVILLE, IL

Architect: Buchar, Mitchell & Bajt Architects Inc. - Joliet, IL

General Contractor: Mustang Construction - Naperville, IL

Tectum Distributor: Distribution Resources



NCC needed both a new dorm and a new field house, so architect Tom Buchar, AIA, NCARB, Tom Buchar & Associates, Inc. of Joliet, proposed a precast concrete design for a 198,000-sq.-ft. residential/recreational center, with an acoustical,

structural roof deck. The four-story building (with 12-ft.-high ceilings) would house a 265-bed (159-room) dormitory surrounding a 62,000-sq.-ft. field house.

7 1/4" Tectum E Structural Roof Deck was the product of choice to provide structural capabilities and control noise. Tectum E composite panels were chosen for this job due to the panel's ability to provide acoustics, insulation and a nailable surface in one product.

LEED CERTIFIED GOLD

The tightly insulated building should attain LEED Gold certification from the U.S. Green Building Council. The structure incorporates a geo-exchange heat pump system and radiant floor heat along with a Tectum E Acoustical, Insulated Roof Deck.

The Tectum E Roof Deck contributed to various LEED Gold credits. Please see back page for more information.

Acoustical Rating

Tectum Roof Decks provide noise reduction coefficients from .55 to .80. The use of Tectum structural roof decks will lower the overall reverberation to under 2.5 seconds.

Cost

By using Tectum Roof Deck, the college had considerable savings due to the composite panel and one-step ease of installation.

TECTUM INC
The Noise Control Solution
P.O. BOX 3002 NEWARK, OH 43058 • 105 S. 6TH ST. NEWARK, OH 43055

TECTUM ROOF DECK DESIGN GUIDELINES

DESIGN LOAD DATA**

Span in inches based on nominal 3" wide structural support members deflection L/240 or less.
Contact Tectum Inc. for recommended spans when used in high-humidity applications.

System	Thickness***	Wt. (psf)***	Product	24"	30"	36"	38"	40"	42"	44"	48"	50"	52"	54"	60"	66"	72"	84"	96"
Plank	2"	3.5	I	130	75	50	45	40	35										
	2 1/2"	4.5	I	150	120	80	70	60	50	45	35								
	3"	5.3	I	200	125	102	91	82	74	65	50	45	40	35					
LS	2"	3.8	I	130	75	75	75	70	64	57	50	45	40	35					
Plank	2 1/2"	4.7	I	150	120	120	120	114	103	93	77	70	65	60	50	35			
	3"	5.5	I	200	125	125	125	125	120	115	110	104	96	88	71	58	50		
Comp.	3 1/2"	4.4	III	200	180	165	150	135	125	115	95	85	75	70	60	55	50		
Plank	4"	4.6	III		200	195	175	155	140	120	110	100	95	85	70	60	50	35	
T-III	5"	5.0	III						200	175	135	125	115	105	85	70	60	50	35
	6", 7"	5.2	III								200	180	170	160	150	125	105	75	60
	8", 9", 10"	5.5	III												200	165	136	100	75
NS	2 1/2"	4.7	NS	200	125	100	90	80	74	65	50								
Plank	3"	5.6	NS	200	195	135	120	110	100	90	75	70	65	60	50				
	3 1/2", 4"	6.4	NS		200	195	175	155	140	120	110	100	95	85	70	60	50		
E	2 3/4"	4.4	E	200	125	100	90	80	74	65	50								
Plank	3 1/2"	4.5	E	200	150	135	120	110	100	90	75	70	65	60	50				
	4"	4.6	E	200	180	165	150	135	125	115	95	85	75	70	60	55	50	35	
	5"	5.0	E		200	195	175	155	140	120	110	100	95	85	70	65	60	45	
	6", 7"	5.2	E								200	180	170	160	150	125	105	75	60
	8", 9", 10"	5.5	E												200	165	130	100	75

** All published design loads are based on minimum safety factor of four. For example, 50 psf design load has an ultimate load of 200 psf.

*** Thickness and weight are nominal. For loads greater than 200 lbs., contact Tectum Inc.

ENVIRONMENTAL STATEMENT

Tectum panels are made from sustainable domestic, renewable raw materials. The wood fibers (excelsior) used in Tectum panels come from Wisconsin Aspen trees. The Wisconsin Aspen is a self-propagating type tree. When cut, a new tree will begin to grow back from its root structure. In addition, all Wisconsin Aspen used for Tectum is air-dried. No drying kilns are used. The wood is stored in ranks to age naturally. No chemicals are used in the production of any excelsior purchased by Tectum Inc.

Tectum Inc. only purchases excelsior from a single source that is affiliated with both the Forest Stewardship Council (FSC) and the Sustainable Forestry Initiatives (SFI) programs. These programs are a comprehensive system of objectives and performance measures that integrate the perpetual growing and harvesting of trees with the protection of wildlife, plants, soil and water quality. All loggers are trained to adhere to FSC and SFI principles.

Magnesium oxide is mixed with magnesium sulfate (Epsom salts) to form the primary binder. Tectum Inc. manufactures the magnesium sulfate solution on site using waste material that has been generated since production began in 1949. The secondary binder is composed of sodium silicate and calcium carbonate (limestone). All of the water used in the manufacture of Tectum is captured and recycled.

TECTUM PRODUCTS AND LEED

Tectum products may contribute to the following LEED credit areas:

EA Prerequisite 2: Fundamental Energy Performance
EA Credit 1: Optimized Energy Performance
MR Credits 2.1 and 2.2: Construction Site Waste Management
MR Credits 4.1 and 4.2: Recycled Content
MR Credit 7: Certified Wood
EQ Prerequisite 3: Minimum Acoustical Performance
EQ Credit 3.1 and 3.2: Construction IAQ Plans
EQ Credit 4.1: Low-Emitting Materials, Adhesives and Sealants
EQ Credit 4.4: Low-Emitting Materials, Composite Wood & Agrifiber Products
EQ 10: Mold Prevention (LEED for Schools)
EQ Credit 11: Low-Impact Cleaning and Maintenance Equipment Policy (LEED for Schools)
ID 1 - 1.4: Innovation in Design

For complete information about Tectum products and LEED, please see our Marketing Bulletins M-81 (Tectum Products and LEED Certification) and M-83 (Tectum Products and LEED Q & A) or our Environmental Statement. All of these materials are available online at www.tectum.com.