

ENTRY FORM



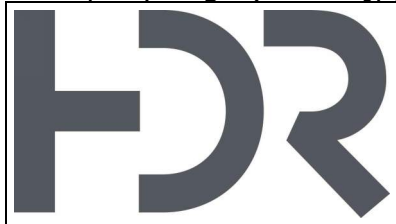
DVASE 2021 Excellence in Structural Engineering Awards Program

PROJECT CATEGORY (check one):

Buildings under \$5M		Buildings Over \$100M	<input checked="" type="checkbox"/>
Buildings \$5M - \$15M		Other Structures Under \$1M	<input type="checkbox"/>
Buildings \$15M - \$40M		Other Structures Over \$1M	<input type="checkbox"/>
Buildings \$40M - \$100M		Single Family Home	<input type="checkbox"/>

Approximate construction cost of facility submitted:	\$100M+
Name of Project:	Bristol-Myers Squibb - Modules M and N Addition
Location of Project:	Lawrenceville, New Jersey
Date construction was completed (M/Y):	March, 2020
Structural Design Firm:	HDR Inc.
Affiliation:	All entries must be submitted by DVASE member firms or members.
Architect:	HDR Inc.
General Contractor:	Lend Lease

Company Logo (insert .jpg in box below)



Important Notes:

- Please .pdf your completed entry form and email to bsagusti@barrhorstman.com.
- Please also email separately 2-3 of the best .jpg images of your project, for the slide presentation at the annual virtual presentation and for the DVASE website. Include a brief (approx. 4 sentences) summary of the project for the DVASE Awards Presentation with this separate email.

- Provide a concise project description in the following box (one page maximum). Include the significant aspects of the project and their relationship to the judging criteria.

Bristol-Myers Squibb is consolidating research operations to a new research facility located on their Lawrenceville, NJ campus. Modules M&N are located at the northern end of the Campus and provide a major entry point to the research complex connecting Modules M&N to all other modules through the circulation spine. The building addition consists of approximately 258,000 SF in two wings with a connecting Collaboration Hub. Module M&N houses multidisciplinary teams responsible for several research and design efforts pertaining to chemistry and biology within Bristol-Myers Squibb. The building is a reflection of BMS's new workplace and flexible laboratory standards with an emphasis on collaboration and interaction spaces configured throughout the building. The building is integrated into the vernacular of the campus with an exterior elevation including limestone and brick.

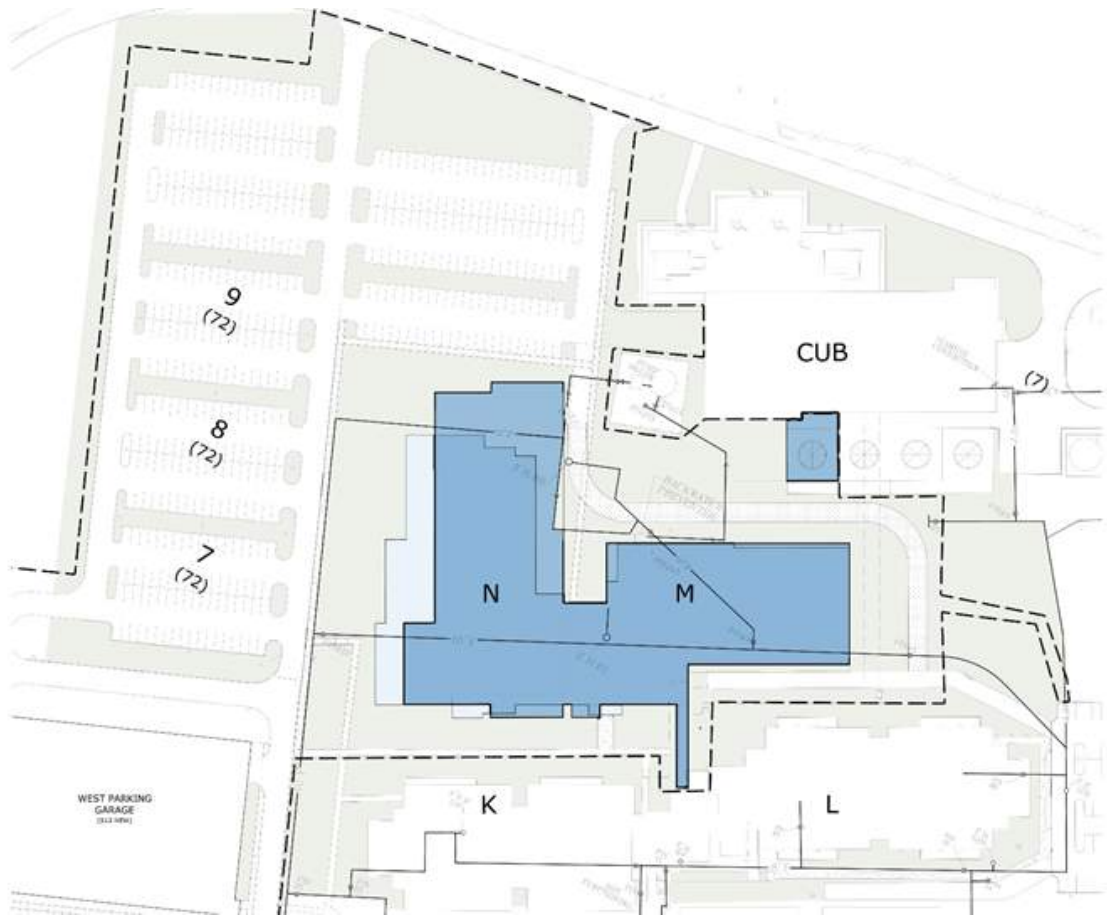
The addition is actually three separate structures all separated by expansion joints: Building M to the east, Building N to the west, and the circulation spine that joins both M and N to the existing campus central circulation. All three structures are primarily structural steel with composite slab on metal deck, with a mixture of concrete shear walls and moment frames for lateral stability. There is a large basement beneath building M and partially beneath building N that houses major mechanical systems and connects the addition into the existing campus infrastructure.

The project's elegant architectural design obscured many of the structural challenges that the team had to overcome, including:

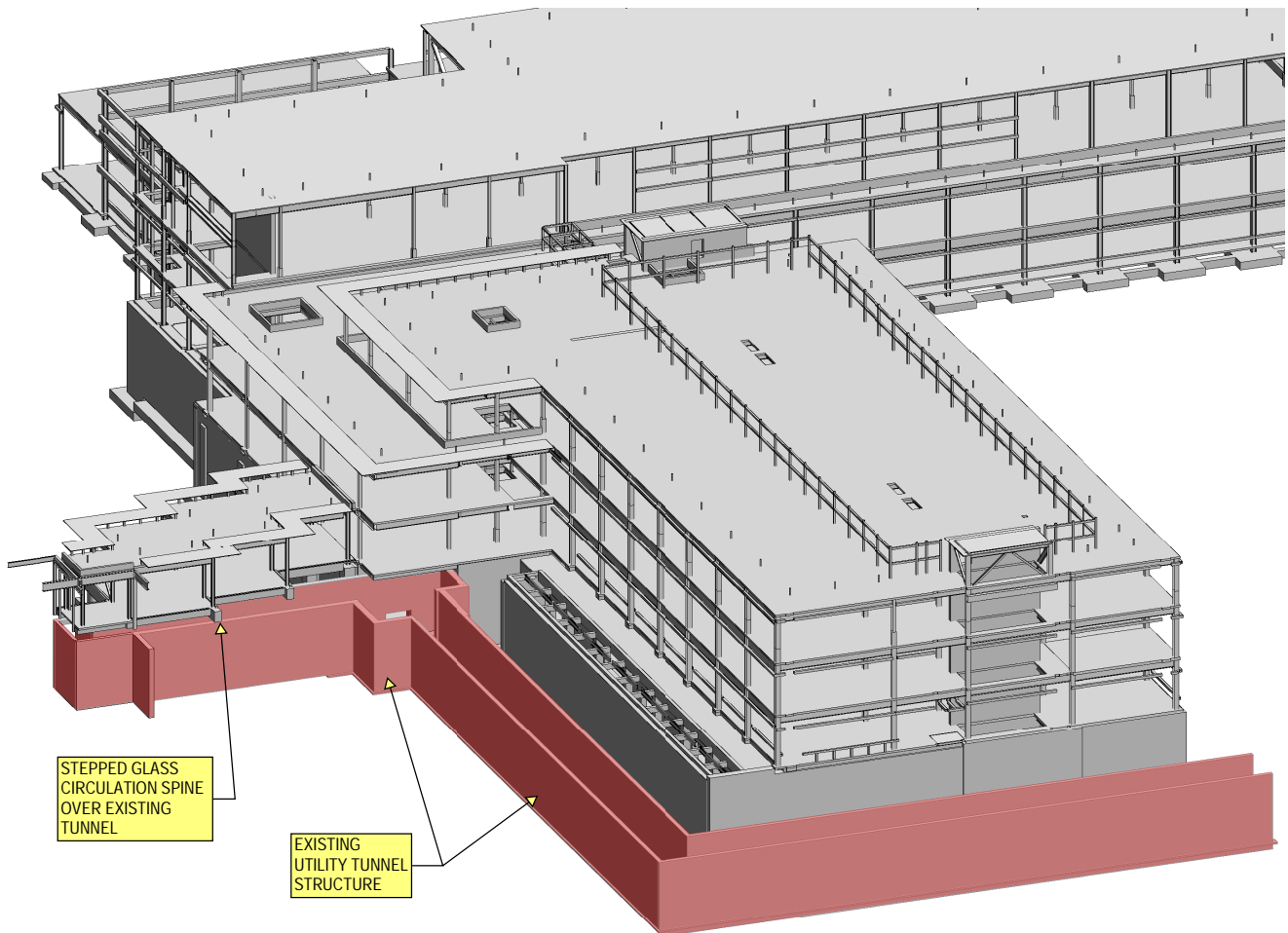
1. The circulation spine was built above an existing utility tunnel, the top of the existing concrete lid being less than 2 feet below the finished first floor elevation. The utility tunnel needed to remain operational during the entire construction process as it supplied the campus with its main infrastructure. A network of grade beams and concrete pier foundations allowed the circulation spine structure to be built bridging over the existing tunnel. The circulation spine takes the form of offset blocks to gently guide the occupants from the main hub of the addition back to the central spine of the existing campus.
2. Within the main atrium and gathering space of the new addition, a 27 foot long monumental stair links the 3rd floor with the main level. The stair consists of two wrapped HSS members, perforated steel treads, and glass rails.
3. 3 bays of the N Building were required to be constructed and finished prior to the rest of the structure in order to bring critical infrastructure online. This area required careful attention to detail in both the partially constructed, as well as the finished state.
4. The basement of the M Building was dug 23 feet below finished grade into hard rock. Temporary shoring was required due to the adjacency to site elements and construction activities.
5. The shear walls were originally designed as traditionally formed and erected cast-in-place single walls. Once the contractor came on board, they proposed changing the shear walls from cast-in-place to precast. This design change was able to save the project money and also reduce the construction schedule with minimal changes to the design drawings.
6. In an effort to match the visual flow of the rest of the campus and to meet some of the project's energy requirements, the architectural façade had a number of complicated material changes and shading elements. The architects utilized brick, limestone, curtain wall, and metal panel, transitioning between the elements as required to fit the site and programmatic requirements.

- The following 5 pages (maximum) can be used to portray your project to the awards committee through photos, renderings, sketches, plans, etc...



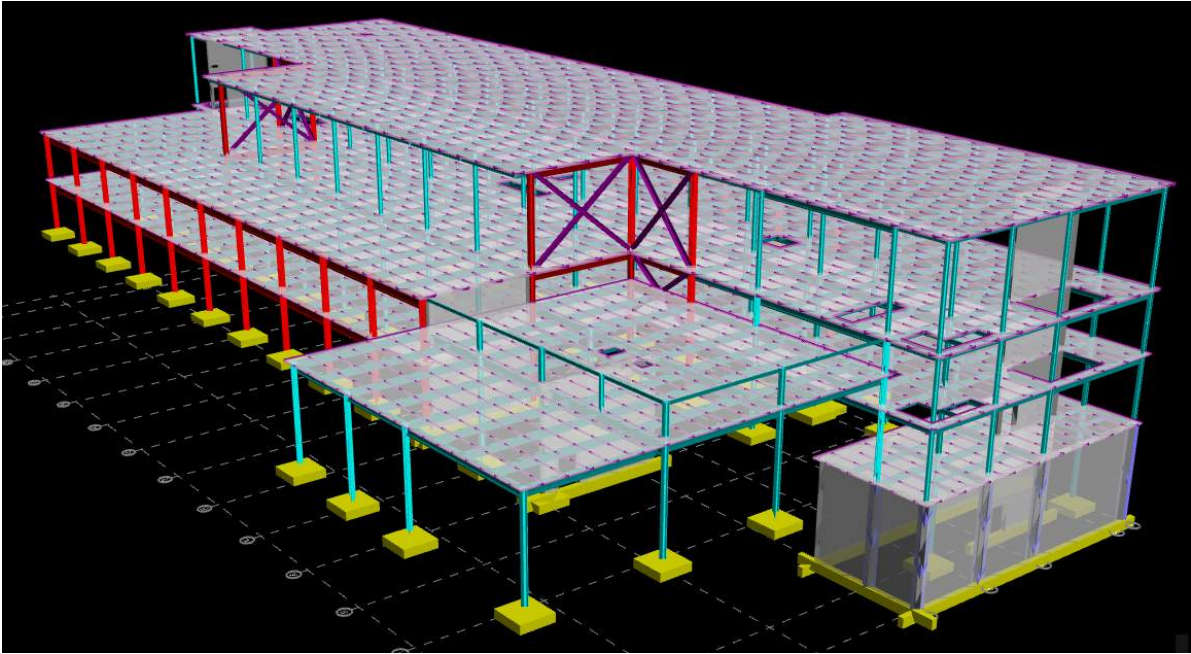


CAMPUS PLAN OVERVIEW

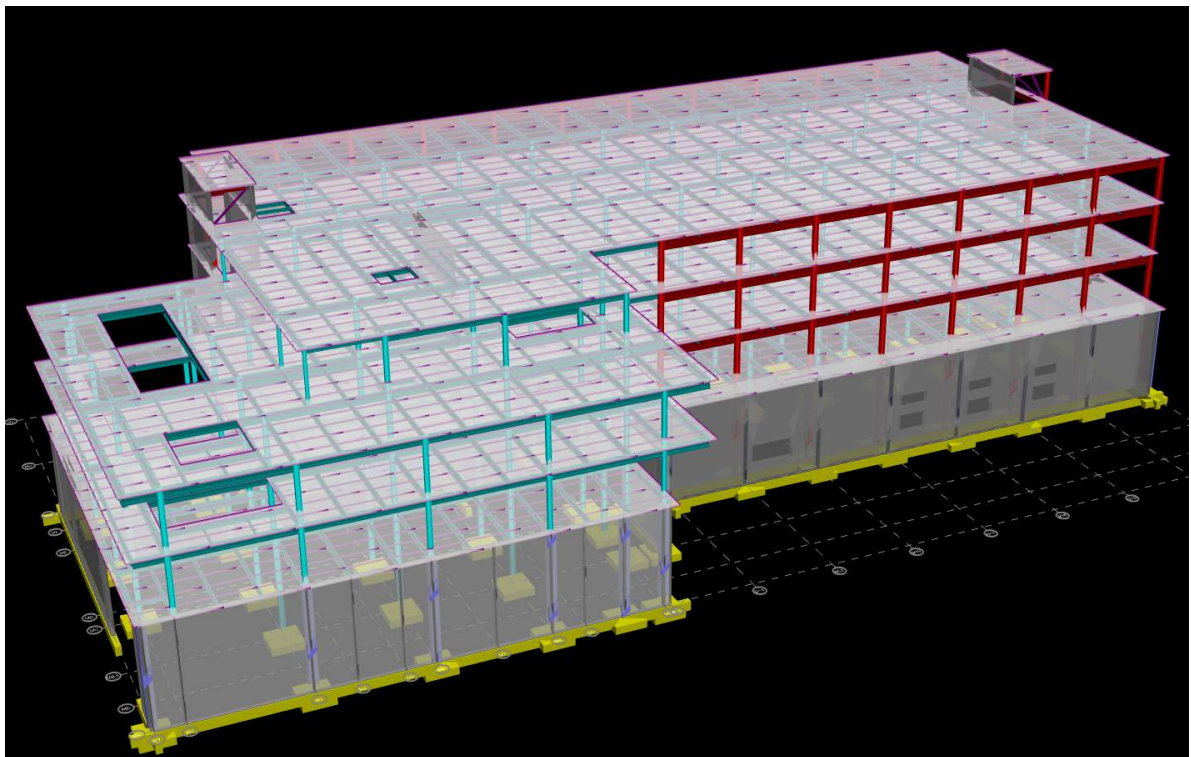


STRUCTURE ISOMETRIC

BUILDING N LOOKING EAST



BUILDING M LOOKING NORTH





STEEL SUPERSTRUCTURE WITH PRECAST SHEAR WALL



CENTRAL COLLABORATION HUB
WITH MONUMENTAL STAIR




OVERALL CONSTRUCTION VIEW OF N BUILDING
WITH PRECAST SHEAR WALL AND M BUILDING IN
THE DISTANCE ON THE LEFT

By signing, signatory agrees to the following and represents that he or she is authorized to sign for the structural design firm of record.

All entries become the property of DVASE and will not be returned. By entering, the entrant grants a royalty-free license to DVASE to use any copyrighted material submitted.

If selected as an award winner, you may be offered the opportunity to present your project at a DVASE breakfast seminar. Would you be willing to present to your colleagues? ☒ **YES** ☐ **NO**

Submitted by:

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