



*Modules staged for delivery at the GA manufacturing facility.*



*Manufacturing takes place under roof in a PCI Certified plant with a trained and stable workforce.*



*“By utilizing a factory built product a much higher level of quality control is obtained. There is less chance of error due to internal control by the manufacturer. Bottom line, a finished delivered product is much better than one built in the field.”*

Paul Bonsall  
FreemanWhite

## FEATURES AND BENEFITS

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Tindall Corporation was an innovator in the manufacturing of precast concrete cells. Our precast, prestressed concrete modular building systems are an economical way to build or expand a prison or a jail. We are confident our product is an excellent choice due to security/ durability, speed, flexibility and cost when choosing construction methods.

### FEATURES AND BENEFITS AT A GLANCE

#### HORIZONTALLY CAST INSULATED BACK WALL

- Architectural finish capabilities are available.
- Thermal breaks are eliminated.
- Ability to fully insulate the exterior wall.
- Eliminates insulation migration.

#### SIX-SIDED WITH AN INTEGRAL FLOOR

- Includes an integral, precast, prestressed concrete floor with a steel form finish and balcony system.
- Eliminates shims and grouting inside the cell.
- Eliminates S.O.G. floor tolerance issues.

#### ENVIRONMENTALLY CONTROLLED PAINTING SYSTEM

- Cell interior walls and ceiling are coated in a controlled environment.
- Module curing and concrete moisture content is monitored and controlled prior to painting.
- Coatings are evaluated with ASTM certified tests.

#### FULLY UPFITTED UTILITY CHASE

- Components included are ready for connection by site contractors.
- Chase components offer uniformity of location and arrangement for ease of maintenance.
- Most trades do not have to enter cells to perform work.

#### MANUFACTURING IN A CONTROLLED ENVIRONMENT

- Quality control is easier to achieve when conducted under roof in a PCI Certified Plant.
- We have the same personnel conducting the same tasks to ensure consistency in product quality.
- Outside elements such as temperature, rain, humidity, wind and dust do not affect the product and the process due to manufacturing under roof.

# HORIZONTAL CAST EXTERIOR WALL

## WHY SPECIFY A HORIZONTALLY CAST EXTERIOR WYTHE/WALL?

1. Architectural Finish Capabilities
2. Eliminate Thermal Breaks
3. Ability To Fully Insulate Wall
4. Eliminate Insulation Migration, (control insulation placement to  $\pm 1/4"$ )

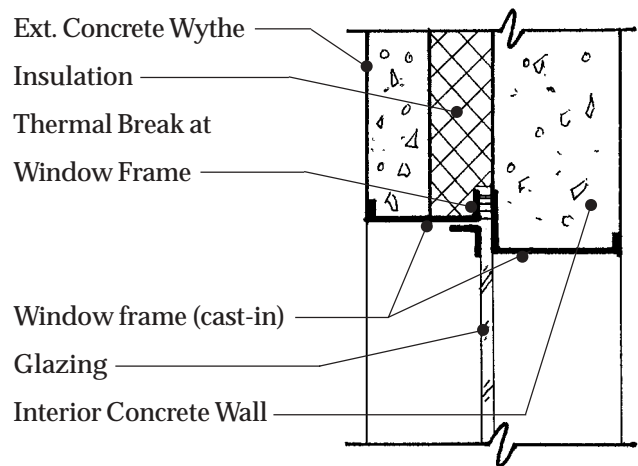
## FEATURES AND BENEFITS:

A consistent, high quality exterior finish can be obtained by utilizing a horizontal casting process. The process allows for uniform consolidation of the mix design and superior control of the wythe thickness, which eliminates vertical pour lines and allows for architectural finish capabilities.

Architectural finishes can be achieved at a reduced installed cost by incorporating one or more of the following; antique white cement, various aggregates, sandblasting, reveals, formliners or in-laid brick.

The potential risk of insulation migration to the interior or exterior wall surface can be eliminated by controlling the wythe thickness in a horizontal casting process (tolerance of  $\pm 1/4"$ ).

The entire exterior wall of the module can be insulated and a thermally broken window frame can be utilized. There are no solid areas of concrete between the exterior and the interior concrete wythes, which will improve heat loss and reduce costs.



TYPICAL EXTERIOR WALL SECTION

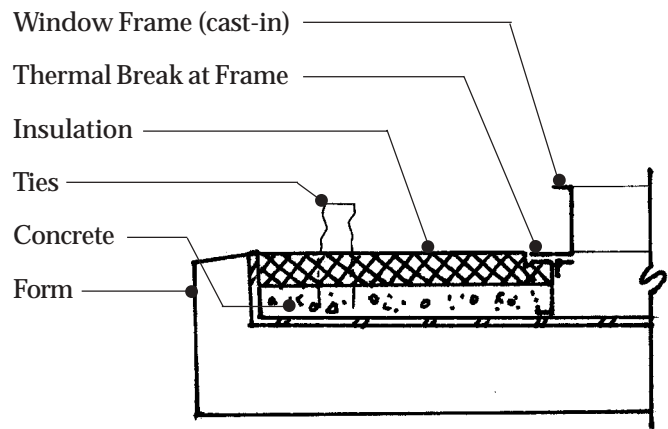


## THE PROCESS

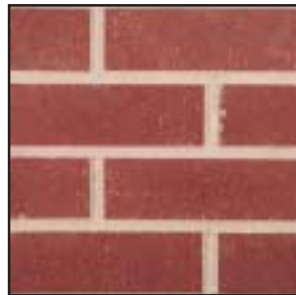
The horizontal casting of the exterior wythe is the first of three primary castings in the six-sided cell module manufacturing process. Horizontal casting allows for superior quality control while providing added value to the architect, owner and contractor at a reduced installed cost.

Following are a few steps in the casting process:

1. The exterior wall form is set up in the horizontal position: windows placed, architectural treatments applied and steel reinforcement is set.
2. The concrete face mix is poured and the form is vibrated to achieve proper consolidation and wythe thickness.
3. Insulation is cut to exact size and placed on top of the concrete.
4. Ties are inserted through the insulation and into the wet concrete.
5. The concrete is cured and incorporated into the casting of the cell module.



**FORM SECTION**  
**CONCRETE, INSULATION AND WINDOW**



**TYPICAL EXTERIOR FINISHES**

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*With Tindall cell modules, "it's going to come in way under Budget."*

- Crandle Bray  
Commission Chairman  
Clayton County, Georgia

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# Tindall

TINDALL CORPORATION

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# SIX-SIDED WITH AN INTEGRAL FLOOR

## WHY SPECIFY A SIX-SIDED MODULE WITH AN INTEGRAL FLOOR?

1. Ability to obtain a consistent, flat, uniform floor surface which can be set to the required finish floor elevation.
2. Eliminates S.O.G. floor tolerance issues in the field.
3. All shims and grouting is done under the floor in the field (not inside the cell where it is accessible).
4. Modules can be sealed to deter entry during delivery and construction.
5. Ability to compress schedules, saving time and money while reducing risk.

## FEATURES AND BENEFITS:

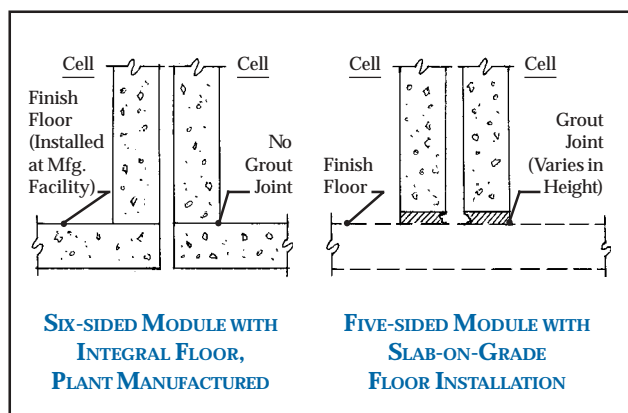
The structure includes a precast, prestressed floor with a flat and uniform steel form finish and eliminates the need for cell floors to be trowelled in the field.

The six-sided module reduces S.O.G. floor tolerance and quality control issues in the field by eliminating excessive joints in the cells and/or the need to grind the floor to meet elevation requirements.

All shims and grouting is under the finish floor, which reduces field Q.C. issues and security/maintenance concerns of grout joints in the cells.

Other trades (Mechanical, Electrical and Plumbing), may not have to have all underground work complete prior to setting cell modules. This can save substantial time and money.

Each module can be sealed shut during shipping and installation. In addition, site access to the cells during construction can be controlled. This greatly reduces site damage and cell clean up.



# THE PROCESS

Each module includes a prestressed concrete floor, which allows the module to span from the exterior foundation to the dayroom foundation. After grading the site and preparing the foundation, Tindall's erection team arrives on site to install the 50,000 pound modules.



Blockout in foundation for site MEP (Mechanical, Electrical, Plumbing) utilities to be installed after module erection.

Vapor barrier & washed stone placed between the foundation walls.



Shim Stack

Core Hole

Foundation



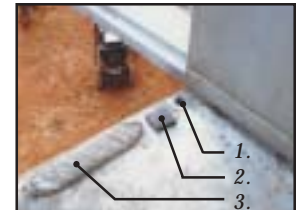
*The six sided module provides superior security and structural integrity.*



Insulated Exterior Wall

Prestressed Floor

Foundation



1. Core hole filled with grout
2. Shim stack
3. Grout

Shim stacks are set to the proper elevation and grout is placed prior to setting the next mezzanine level module.

*Up to 40 cells can be erected in a day!*

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*"The simplicity of the system is beneficial to everyone from the Architect to the General Contractor. If you can compress the construction schedule by two months you can save a lot of money."*

- Paul Bonsall  
FreemanWhite

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# ENVIRONMENTALLY CONTROLLED PAINTING SYSTEM

## WHY IS OUR ENVIRONMENTALLY CONTROLLED PAINT SYSTEM EFFECTIVE?

1. Painting is controlled in an enclosed environment. No wind, dust, or severe temperature changes to contend with.
2. Concrete temperature and moisture are controlled and monitored prior to painting.
3. Temporary cell lighting is utilized while coating interior walls and ceilings.
4. Coating is evaluated by ASTM tests.

## FEATURES AND BENEFITS:

Our paint process is managed by plant supervision under roof in our manufacturing facility. We do not have the risk of climate and weather interference.

With the use of a mechanical enclosure for our paint system, we have the capabilities to maintain and control our process for consistency in use and application.

The cell interior walls and ceiling are typically coated with an epoxy, DFT (dry film thickness) of 8.0 to 10.0 mils. The coating process includes primer/filler and a finish coat. Back rolling is utilized to achieve a stipple finish.

On a routine basis, the coatings are evaluated using ASTM certified tests.

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*“We were looking for the most cost-efficient way to build single-cell housing units. We looked at virtually every system known to man, and none of them could compete with precast .”*

- Chief of Facilities Management,  
FL Department of Corrections

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# FULLY UPFITTED UTILITY CHASE

## TINDALL'S FULLY UPFITTED UTILITY CHASE FEATURES:

1. Factory installed utility chase components.
2. Uniform and consistent location of components.
3. Components and systems are factory tested.
4. Complete drawings and specifications available.

## FEATURES AND BENEFITS:

Tindall modules include factory installed utility chase components that are ready for connection in the field by site contractors.

The chase is designed to provide uniform and consistent locations for chase components. This simplifies site connections, future maintenance, and can reduce overall project costs and compress project schedules.

All the components and systems are factory tested in our plant manufacturing facility. The following is performed on the utility chases prior to shipment:

- Wiring and fixtures are function tested with design voltage.
- Waste water plumbing and pressure water plumbing are air tested to 90 PSI.
- All plumbing components are function tested with water at 50 PSI

Most trades do not have to enter the cells to perform their work, allowing the cells to remain clean during the construction process.



*"We have an excellent relationship with Tindall. The product is absolutely great. By Tindall putting everything together, the cell module far exceeded anything else offered. We used their standard module with a few modifications. They were extremely flexible in this approach. We found that other cell manufacturers could not meet this requirement. A big advantage we found in the cell modules was the fact that they were fully upfitted. We would welcome the opportunity to work with Tindall anytime, anywhere."*

Jim Stewart, President  
Stewart, Cooper, Newell Architects

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