

2014 PTI Convention May 4-6 Norfolk, VA

QUALITY OF PT SYSTEMS

A PTI STRATEGIC PRIORITY

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PTI President

President CCL USA

2014 PTI Convention May 4-6 Norfolk, VA

CONVENTION HIGHLIGHTS

- **May 3-4 : Certification Workshops**
- **May 4-6 : Committee Meetings**
- **May 5-6 : Technical Sessions**
- **May 5 : PTI Awards**
- **May 7 : Board of Directors meeting**

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PTI MISSION STATEMENT

Established in 1976, the Post-Tensioning Institute is recognized as the world-wide authority on post-tensioning.

*PTI is dedicated to expanding post-tensioning applications through marketing, education, research, teamwork, and code development **while advancing the quality, safety, efficiency, profitability, and use of post-tensioning systems.***

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DEFINITION OF QUALITY

how good or bad something is
“Merriam- Webster ”

Simply put, a quality item (an item that has quality) has the ability to perform satisfactorily in service and is suitable for its intended purpose
“Wikipedia”

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Q_{pts} : QUALITY OF PT STRUCTURE

Q_{pr} : QUALITY OF PRODUCTS USED

Q_c : QUALITY OF THE CONSTRUCTION PROCESS

$$Q_{pts} = \sum_{i=1}^n (Q_{pr}^i + Q_c^i)$$

**MAXIMIZE Q_{pts} by Maximizing
 Q_{pr} and Q_c**

STATISTICS

Based on tonnage reported by members only

- About 5000 buildings in the US in the last decade.**
- About 500 bridges buildings in the US in the last decade.**
- And a lot of residential building foundations**

UNBONDED SYSTEMS

Extrusion &
Fabrication

Strand and
Hardware

Installation,
Stressing &
Capping

GROUTED SYSTEMS

PT systems &
hardware

Strand &
Ducts

Installation,
Stressing &
Grouting

MISC

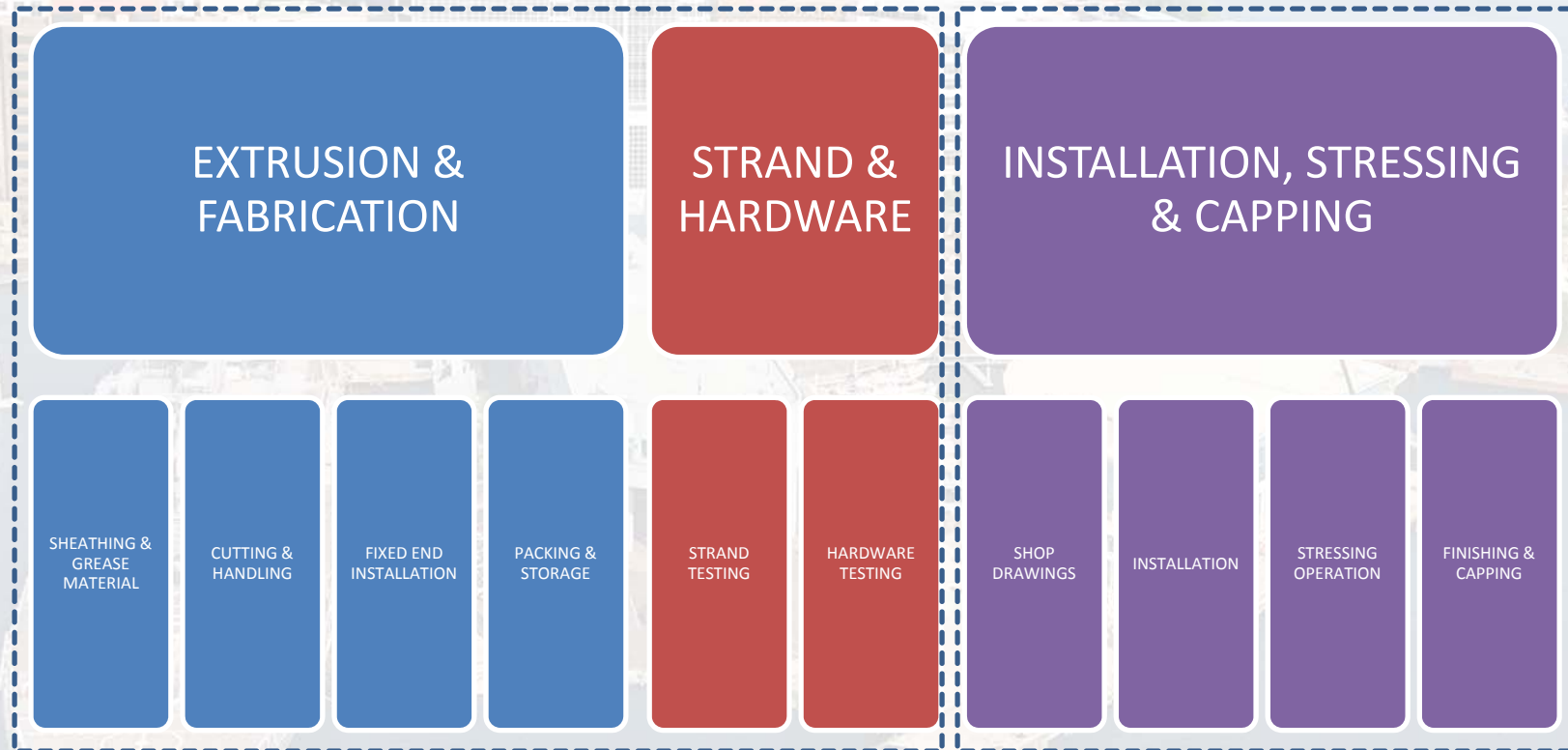
Barrier Cable
Systems

Repair &
Rehabilitation



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UNBONDED SYSTEMS



COVERED BY ANSI ACCREDITED
PTI PLANT CERTIFICATION

COVERED BY PTI FIELD
PERSONNEL CERTIFICATION

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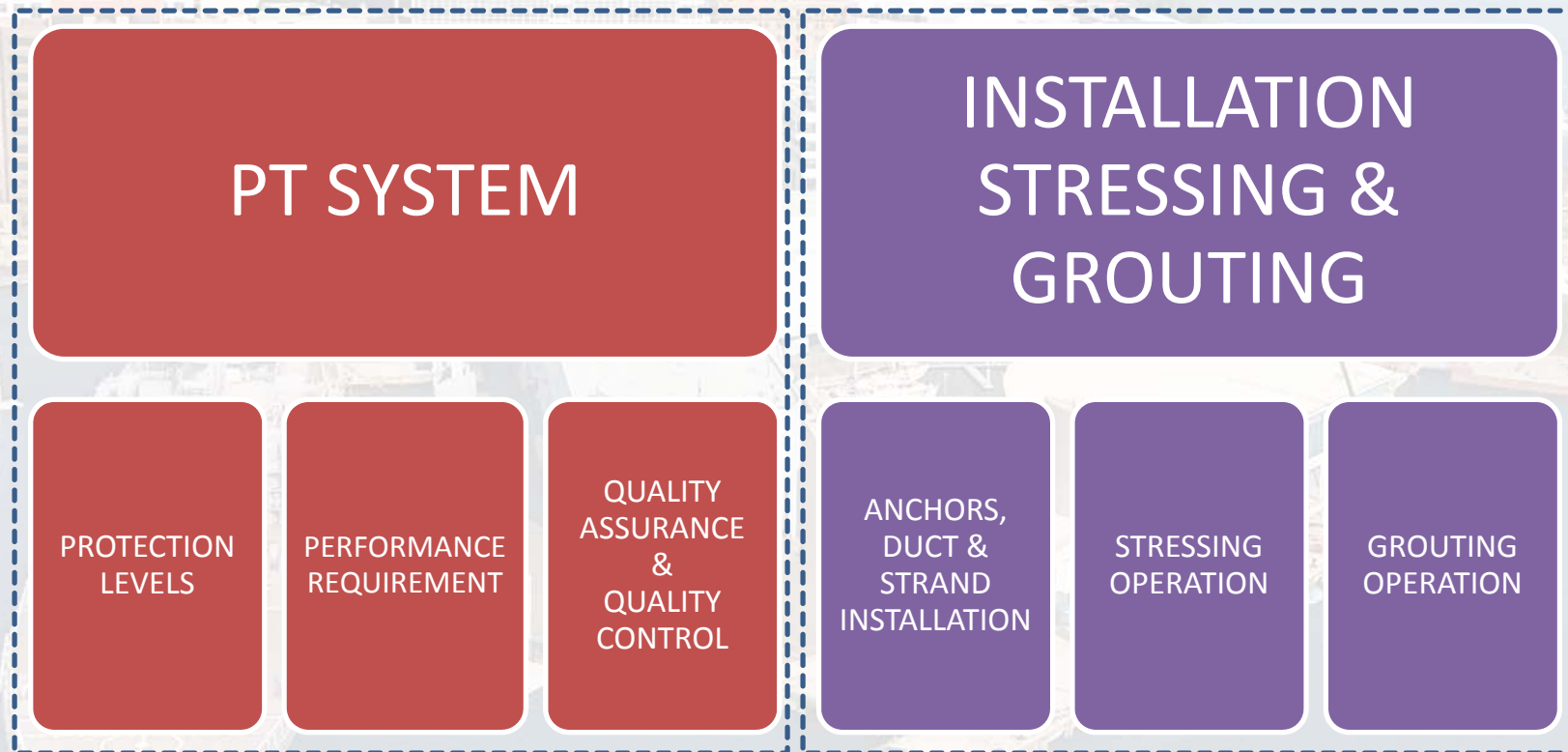


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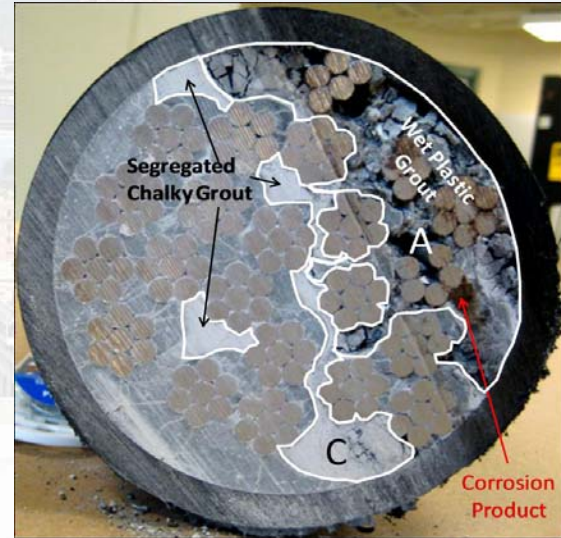
GROUTED SYSTEMS



COVERED BY THE NEW
PTI/ASBI M50.3-12 SPECS

COVERED BY M50.3-12 & PTI FIELD
PERSONNEL CERTIFICATION

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WHAT IS THE PTI DOING TO ENSURE THE HIGHEST QUALITY OF POST TENSIONING SYSTEMS ?



POST-TENSIONING INSTITUTE®
Stressing the Stronger Concrete Solution

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An aerial photograph of Norfolk, Virginia, showing the harbor, city skyline, and a large ship docked at a pier. The image is faded to serve as a background for the text.

QUALITY OF POST TENSIONING SYSTEMS IS A STRATEGIC PRIORITY FOR THE PTI



POST-TENSIONING INSTITUTE®
Stressing the Stronger Concrete Solution

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1. Stronger ANSI accredited plant certification program
2. Require Encapsulation for all structures governed by ACI 318



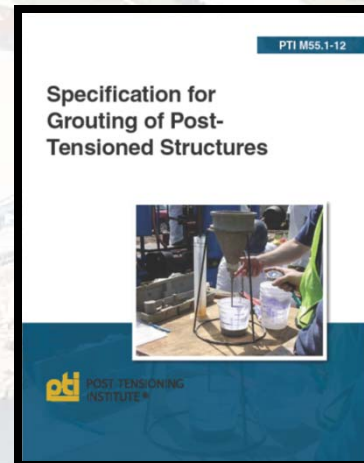
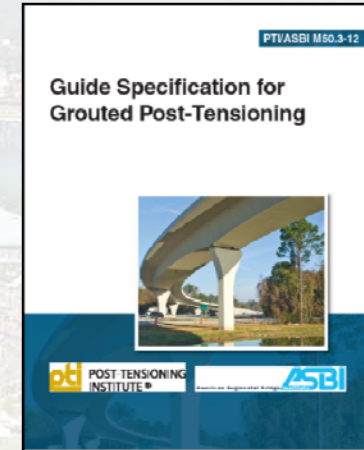
Tendons used in all applications governed by ACI 318 shall be encapsulated in conformance with the requirements of 2.2.6.

The intent of this requirement is to maximize the durability of post-tensioning tendons used in all applications governed by ACI 318, regardless of environmental classification. Encapsulated tendons provide additional protection of the prestressing steel regardless of location of the structure or exposure to moisture intrusion from any source.

3. Increase the frequency and locations of field personnel certification.



4. Created a new Guide for Grouted PT in association with ASBI
5. Updated Specification for grouting of PT structures to deal with the latest findings regarding packaged grouts
6. Created a research fund that can be used to fund studies aimed at increasing the quality of PT structures
7. And much more



NEXT STEPS

1. **Ask committees to identify areas for improvement in all fields and processes**
2. **Put together an action plan to address those areas**
3. **Create an award program to reward high quality**
4. **Strengthen relationship with allied industry groups and agencies**

CONCLUSION

1. **QUALITY IS NOT A DEFINITION OR AN EQUATION .
QUALITY IS A CULTURE.**
2. **GOOD QUALITY DOES NOT COST MORE MONEY. IT
ACTUALLY COSTS LESS.**
3. **QUALITY IS NOT THE RESPONSIBILITY OF ONE
ENTITY. IT SHOULD BE A TEAM FOCUS**
4. **PTI MEMBERS AT ALL LEVELS RECOGNIZE THE
IMPORTANCE OF QUALITY AND ARE COMMITTED
TO MAKING**

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QUALITY OF PT STRUCTURES

A PTI STRATEGIC PRIORITY