1. Call to order – welcome (Belarbi)
2. Attendees self-introduction: name and affiliation (Group)
3. Approval of the agenda (Belarbi)
4. Approval of meeting minutes of Fall 2018, Las Vegas, NV (Belarbi)
5. Summary of ACI318-19 code changes related to ACI 445/318E efforts
   - Strut-and-Tie Method (Klein)
   - Punching Shear Design of Two-Way Slabs and Footings (Ospina)
   - One-Way Shear Design (Sanders)
6. Subcommittee reports and on-going 445 activities (Sub-Committee Chairs)
   - 445-A Strut and Tie, and Update on STM Ballot/Document (Sanders)
   - 445-B Seismic Shear (Pujol)
   - 445-C Slab Shear (Ospina)
   - 445-D Beam Database (Reineck/Fitik)
   - 445-E Torsion (Sneed)
7. Future technical sessions (Group and Sub-committee Chairs)
   - Fall 2019 (Cincinnati, OH) – Oct. 20-24, 2019
     None
   - Spring 2020 (Chicago/Rosemont, IL) – Mar. 29-Apr. 2, 2020
     “Topics related to the ACI318-19 Code Change Proposals” (Belarbi)
   - Fall 2020 (Raleigh, NC) – Oct. 25-29, 2020
     “Torsion Design Examples” (Sneed/Greene)
   - Spring 2021 (Baltimore, MD) - Mar. 28-Apr. 1, 2021
     “Strut-and-Tie Method Guide” (Sanders/Lubell/Novak)
8. Liaison Reports
   ACI445/421/352- (Polak/Hammill)
9. Technical presentations (15 mns for presentations and 2 mns for Q/A)
   “Cracking and Size Effects in Reinforced Concrete” by Evan C. Bentz
10. New business (Open)
    Discussions on “Look Ahead” and future activities/goals of 445 (main and subs)
11. Next meeting and wrap-up (Belarbi)
12. Adjourn (Belarbi)
Committee Mission:
Develop and report information on the analysis and design of concrete members subjected to shear and/or torsion in combination with bending and axial force, including prestressing.

Goals:
1. Assist 318-affiliated committees and subcommittees to address life-safety issues and to make other improvements in the ACI 318 Building Code
2. Develop a committee document that provides guidance for the use of the strut-and-tie method as a full member design procedure
3. Complete the review and distribution of a database of punching shear test data; Assess shortcomings in current punching shear provisions and provide evaluation of improved approaches
4. Merge the beam shear database efforts of members of 445 for the development and distribution of complete (collection) databases for researchers and of reduced size (selected) databases for use in the evaluation of design code provisions
5. Support ACI 318 affiliated committees to develop improved two-way and one-way shear design provisions
6. Develop a new 445 committee document on torsion that presents design examples for challenging torsion design and assessment problems
7. Work with ACI committee 446 in examining the roles of fracture and non-fracture bases for design provisions
8. Work even more closely with other national and international agencies to advance the state-of-the-art
9. Sponsor sessions focused on the dissemination of committee work.
445-0A - Shear & Torsion - Strut & Tie

Committee Mission
   Develop and report information on Strut-and-Tie Models.

Goals:
   1. Develop "STM Guidelines Document for 318"
   2. Develop Change Proposals for Consideration of 318E
**Committee Mission:**
Determine the extent to which provisions for design primarily against shear failure need to be modified for cyclic loads

**Goals:**
1. Compile and vet data on the response of walls for the NEES shearwall database
2. Identify models currently available to estimate
   i. stiffness
   ii. shear strength of walls and columns and compare to wall and column databases
3. Evaluate current provisions for shear failure for members subjected to cyclic loads based on results of Goal 2
4. Propose methods to estimate drift capacity of walls and columns
**Committee Mission**
Support 445 in activities related to punching shear and facilitate discussions on punching shear and punching shear code change proposals

**Goals:**
1. Develop punching databanks
2. Organize an international session jointly with fib
3. Publication of an SP
Committee Mission:
Develop databases of shear tests on structural concrete members for research and code development purposes

Goals:
1. Maintain and update existing databases
2. Develop databases for PC beams with and without stirrups
3. Develop databases for
   i. non-slender RC beams w & w/o stirrups
   ii. deep beams with vertical and horizontal reinforcement
   iii. RC beams with axial loads w & w/o stirrups
   iv. lightweight RC and PC beams w & w/o stirrups
Committee Mission:
Develop and report information on the analysis and design of concrete member subjected to torsion in combination with shear, bending, and axial force, including prestressing

Goals: 1)
   1. Develop a collection of additional examples of torsion in structural concrete
   2. Support 445 and 318-E on issues involving torsion
   3. Maintain report on Torsion in Structural Concrete (445.R-12)
# Meeting Schedule by Time

<table>
<thead>
<tr>
<th>SUNDAY March 24</th>
<th>TIME</th>
<th>ROOM</th>
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<tbody>
<tr>
<td>445-0A</td>
<td>9:30a- 12:30p</td>
<td>C-2104 A</td>
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<tr>
<td>445-0B</td>
<td>9:30a – 11:30a</td>
<td>H-Lauzon</td>
</tr>
<tr>
<td>445-0E</td>
<td>12:30p – 2:00p</td>
<td>C-203</td>
</tr>
<tr>
<td>445-0C</td>
<td>1:00p - 3:00p</td>
<td>H-Courville</td>
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<tr>
<td>445-0D</td>
<td>2:00p - 5:00p</td>
<td>C-305</td>
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<table>
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<tr>
<th>MONDAY March 25</th>
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<tr>
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<table>
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<tr>
<th>TUESDAY March 26</th>
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<tbody>
<tr>
<td>318-0E</td>
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<table>
<thead>
<tr>
<th>WEDNESDAY March 27</th>
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<tbody>
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<td>318</td>
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# Meeting Schedule by Committee/Subcommittee

<table>
<thead>
<tr>
<th>COMMITTEE</th>
<th>DAY</th>
<th>TIME</th>
<th>ROOM</th>
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<tbody>
<tr>
<td>318</td>
<td>Wed</td>
<td>8:00a-6:00p</td>
<td>C-200 A</td>
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<tr>
<td>318-0E</td>
<td>Tue</td>
<td>7:30a-12:30p</td>
<td>C-307A</td>
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<tr>
<td>445-Main</td>
<td>Mon</td>
<td>2:00p – 6:00p</td>
<td>C-206 A</td>
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<tr>
<td>445-0A</td>
<td>Sun</td>
<td>9:30a- 12:30p</td>
<td>C-2104 A</td>
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<tr>
<td>445-0B</td>
<td>Sun</td>
<td>9:30a – 11:30a</td>
<td>H-Lauzon</td>
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<tr>
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<td>Sun</td>
<td>1:00p - 3:00p</td>
<td>H-Courville L</td>
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<tr>
<td>445-0D</td>
<td>Sun</td>
<td>2:00p - 5:00p</td>
<td>C-305</td>
</tr>
<tr>
<td>445-0E</td>
<td>Sun</td>
<td>12:30p — 2:00p</td>
<td>C-203</td>
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445-0E meeting is cancelled for Spring 2019 ACI Convention