EVEN WITH MODERN TRENDS THE BASICS STILL MATTER

So, What Are the Basics?

Ordinary cementitious mixes shrink

Concrete is alive, it breathes!

It fights attempted suffocation

Old Concrete has undergone Creep and Shrinkage

- Must be "unloaded" for load carrying repairs
- Working joints must be respected

Chemical Compatability

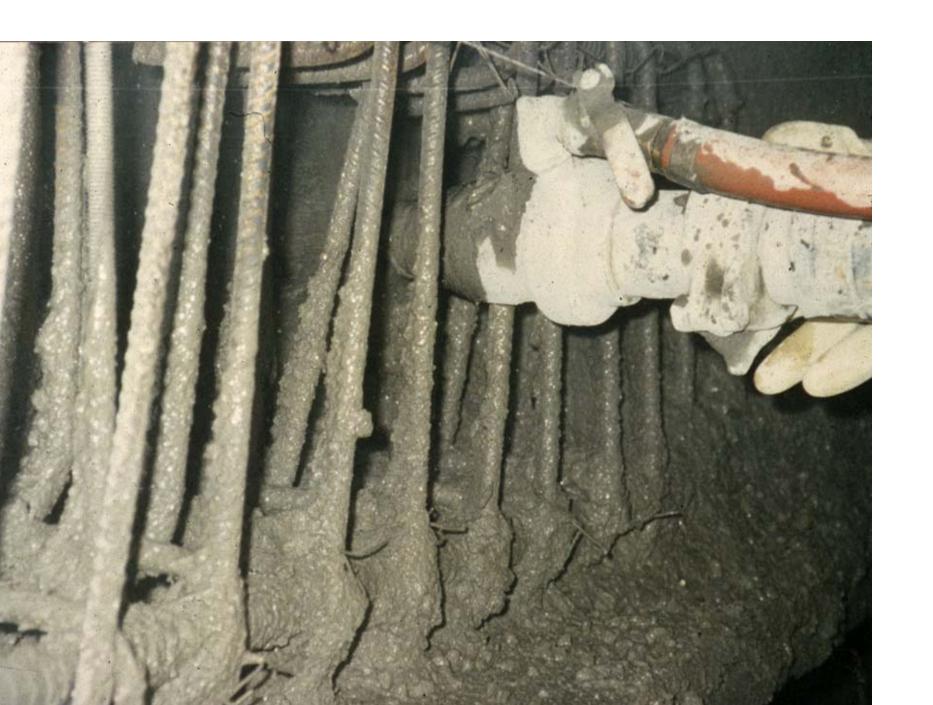
SHRINKAGE

- Results in Cracks
- Shrinkage disrupts bond
- Causes early repair failure



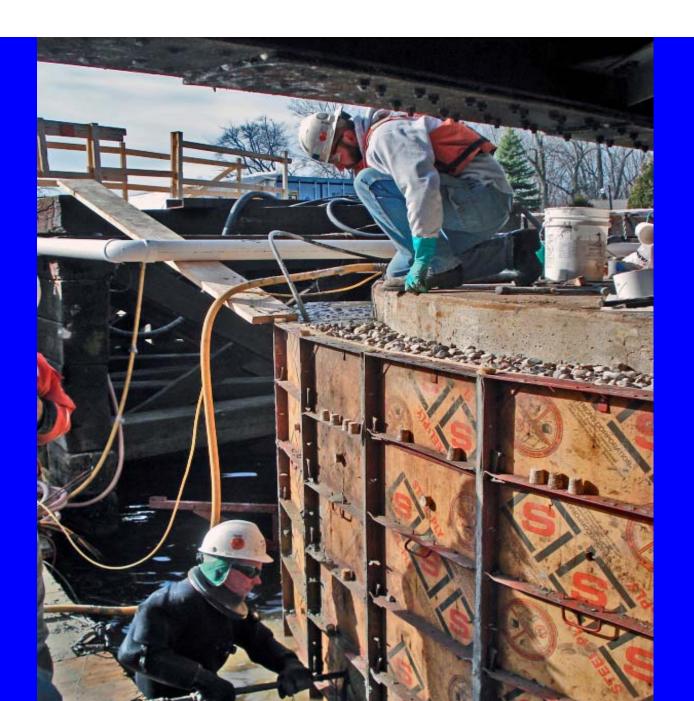






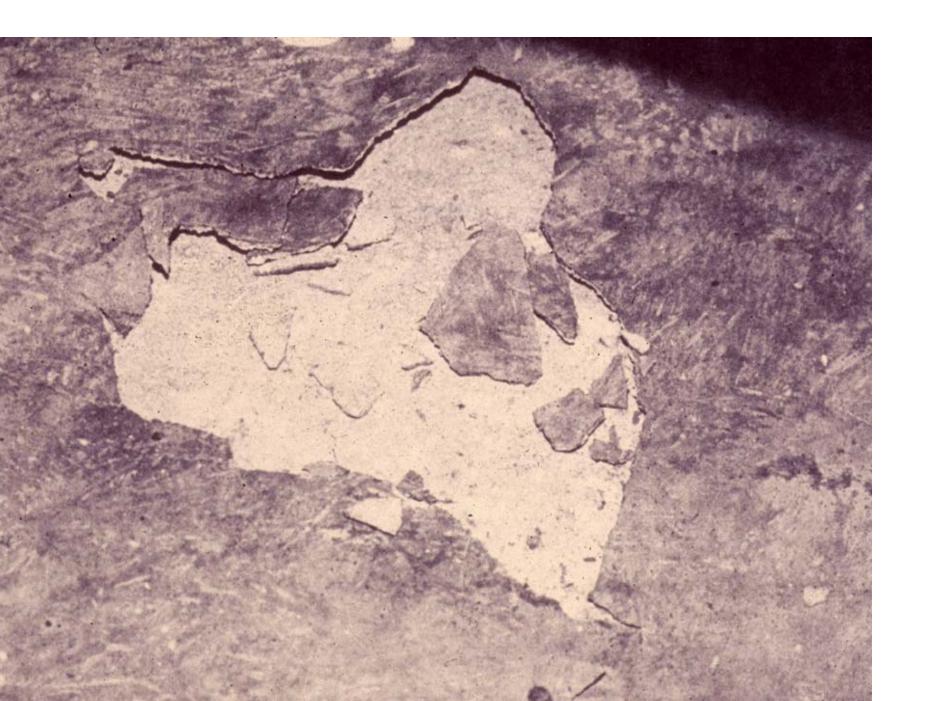




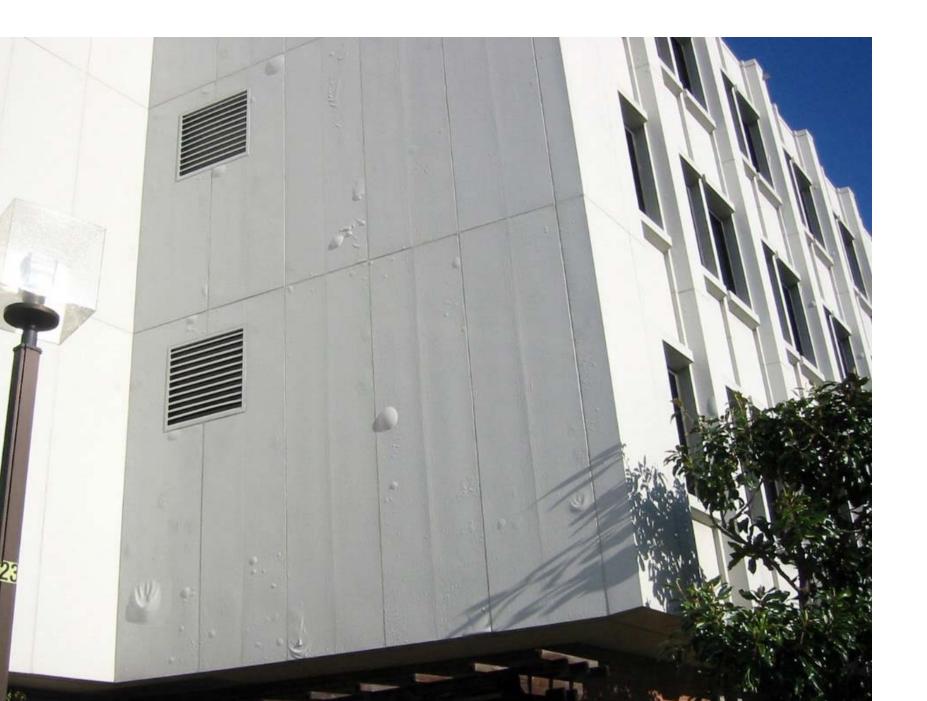


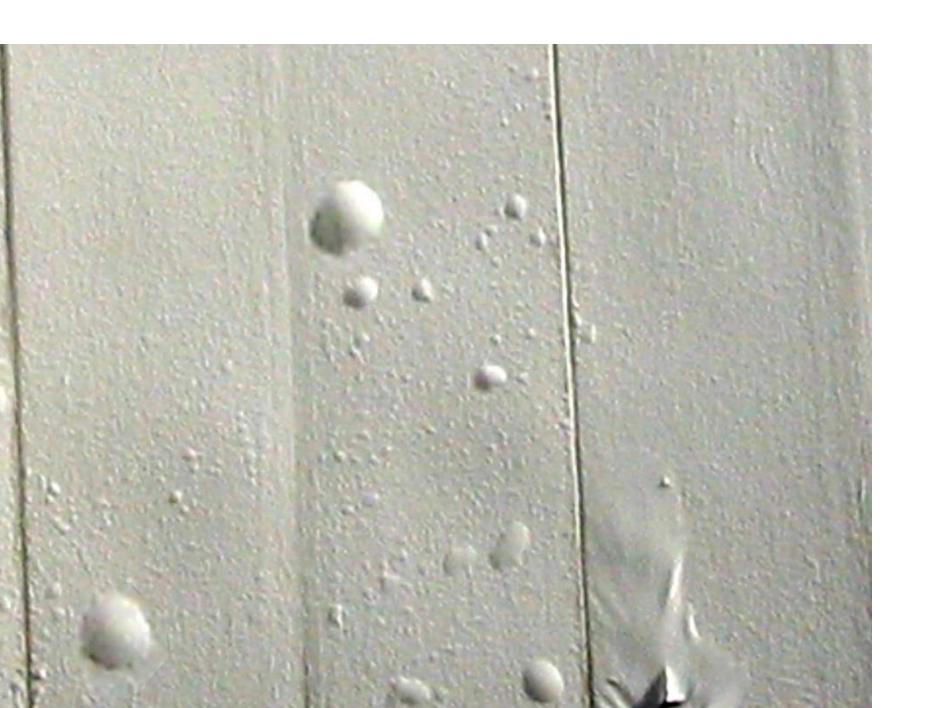
CONCRETE IS ALIVE

- It fights attempted suffocation
- It breaths air (moisture vapor) in
- It expels moisture vapor
- Expands and contracts with temperature change







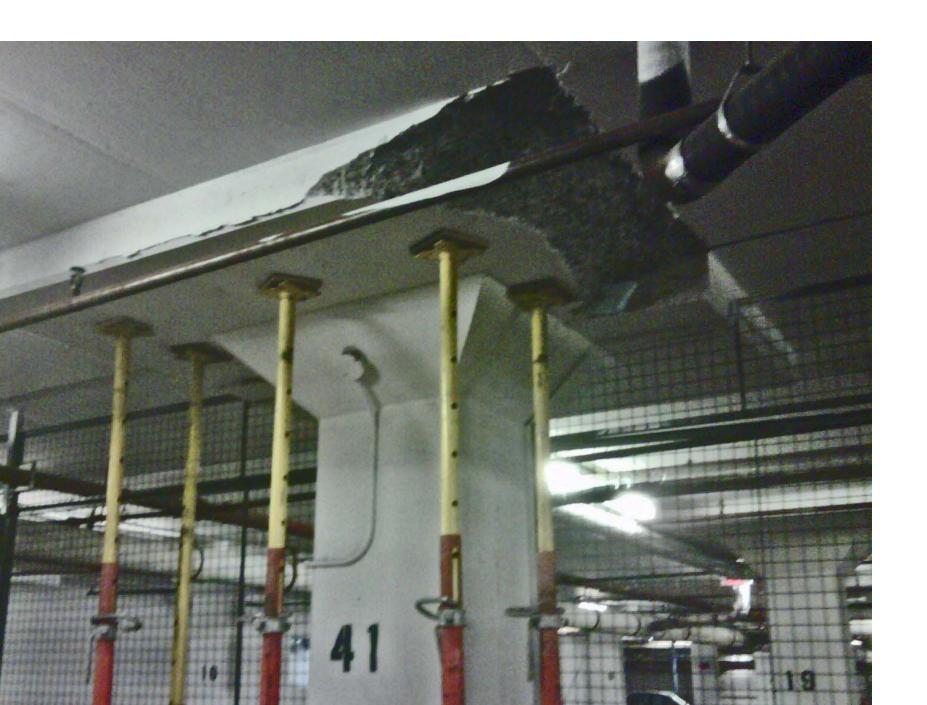


CREEP AND SHRINKAGE

Old concrete compresses/shrinks under load Must relieve internal stresses before new patch Respect existing joints









CHEMICAL/PHYSICAL COMPATABILITY

- Chemically compatible
- Physically compatible
 - Stiffness (Elastic modulus)
 - Thermal expansion







