Goals

• Preconstruction planning and contract terms & conditions

• Demonstrate how weather impacts construction activities

• Describe various remediation techniques

• Summary

• Q & A
THE CHALLENGES OF WEATHER

Mary’s Gone Crackers, Reno NV – 93 weather delay days including 30 snow days
Impact: Initial projected completion date: 12/15/16; actual completion date: 4/17/17

Dow Chemical, Baton Rouge LA – 1st 12 months recorded 90.54” of rain (wettest year in Baton Rouge’s history)
Impact: Initial projected completion date: 12/21/16; actual completion date: 2/10/17

Hyde Park, Inglewood CA – 58 rain delay days to date
Impact: Initial projected completion date: 7/11/17; adjusted projected completion date: 10/11/17
NCAR WORKSHOP PRESENTATION
Preconstruction Planning & Contract Terms and Conditions

• Prepare detailed budgets and schedules

• Identify top 5 major risk categories

• Negotiate terms and conditions to mitigate risk

• Flow down language
LACEY CREEK

Downer’s Grove, IL
• **Project description**: 110,000 SF; 3-story senior living facility with 120 units

• **Project start date**: 4/15/2015

• **Project original completion date**: 7/29/2016

• **Actual completion date**: 9/1/2016

• **Weather Challenges**:  
  • 42.5 weather delay days
Saturated soil impacting earthwork
Field notes mapping a solution

1. Repair Silt Fence on downstream side
2. Add controlled discharge point with dual silt fences
3. Add silt bags w/ gravel base
4. Add ditch checks using hay bales
5. Add filter on inlet at construction entrance
6. Add stone at construction entrance
7. Pump from surface level of the pond

Photo of solution
Snow delay
MEDLINE
McDonough, GA
• **Project description**: 1,100,673 SF warehouse/distribution facility including 17,500 SF office space with structural mezzanines above; Tilt wall construction; State of the art “Goods-To-Person” inventory pick technology; LEED Silver construction

• **Award**: AGC Build Georgia for Innovative Scheduling (2017)

• **Project start date**: 5/29/2015

• **Project original completion date**: 6/23/2016

• **Actual completion date**: 6/20/2016

• **Weather Challenges**: Rain
7-ELEVEN HQ
Farmer’s Brach, TX
Project description: 325,000 SF office BTS, 24 acre site; 3 & 4-story tilt, steel framed; punched openings and curtainwall skin

Project start date: 6/16/2014

Project original completion date: 9/16/2015

Actual completion date: 12/14/2015

Weather Challenges:
• Unexpected record levels of rainfall
• May – August 7.45” of rain, 14.5 days lost, 5.5 contract days lost
• Experienced 38 consecutive days of rain

Impact:
• Management of excessive water and saturated soils
Excessive rain
Area A flooded and mud. Dewatering
Jan 23, 2015, 10:42 AM
Lime and gravel
Example, Days over 30°C by US County

NOAA Seasonal Forecast Ensemble
Issued April
For June-July-Aug 2017

(Visualization: Tableau)
Climate-i Construction

Visualization: Tableau
Q & A