

Evolution of Deck Coating systems for Parking Structures using Polyurea

2019 PDA Conference
October 17 – 18, 2019
Hilton Orange County/Costa Mesa



IPW's 13-year history of polyurea and parking structures

Primers, base coat, intermediate coat and topcoats

2019 PDA Conference
October 17 – 18, 2019
Hilton Orange County/Costa Mesa



2006- 70,000 sf City of Cerritos City Hall Generation 1

- Remove existing urethane coatings with Terminators
- Surface grind and shot blast
- Chase cracks and fill with urethane caulk
- Prime 12 mils with 70% solids epoxy
- Install 45 mils traditional 350% elongation aromatic Polyurea
- Install 30 mils slow set hybrid Polyurea and broadcast aggregate
- Finish with 12 mils Aromatic Single Component Urethane Topcoat

2019 PDA Conference
October 17 – 18, 2019
Hilton Orange County/Costa Mesa



Prep



2019 PDA Conference
October 17 – 18, 2019
Hilton Orange County/Costa Mesa



Base coat 45 mils Polyurea



2019 PDA Conference
October 17 – 18, 2019
Hilton Orange County/Costa Mesa



Intermediate Coat-Slow set Polyurea



2019 PDA Conference
October 17 – 18, 2019
Hilton Orange County/Costa Mesa



Topcoat- Aromatic Urethane



2019 PDA Conference
October 17 – 18, 2019
Hilton Orange County/Costa Mesa



Combining and advancing technologies 2007 – Dodger Stadium Field Level-128,000 Generation 2

- Customer required a fast track solution to allow for waterproofing to be installed in shortest time possible. Polyurea was the solution.
- System developed used 100% solids epoxy primer, fast set Polyurea, slow set polyurea for leveling and to broadcast aggregate for isles, finished with Polyaspartic Topcoat.
- Polyaspartic development was evolving, 2007 version achieved extended working times allow for spray applications

2019 PDA Conference
October 17 – 18, 2019
Hilton Orange County/Costa Mesa





2019 PDA Conference
October 17 – 18, 2019
Hilton Orange County/Costa Mesa

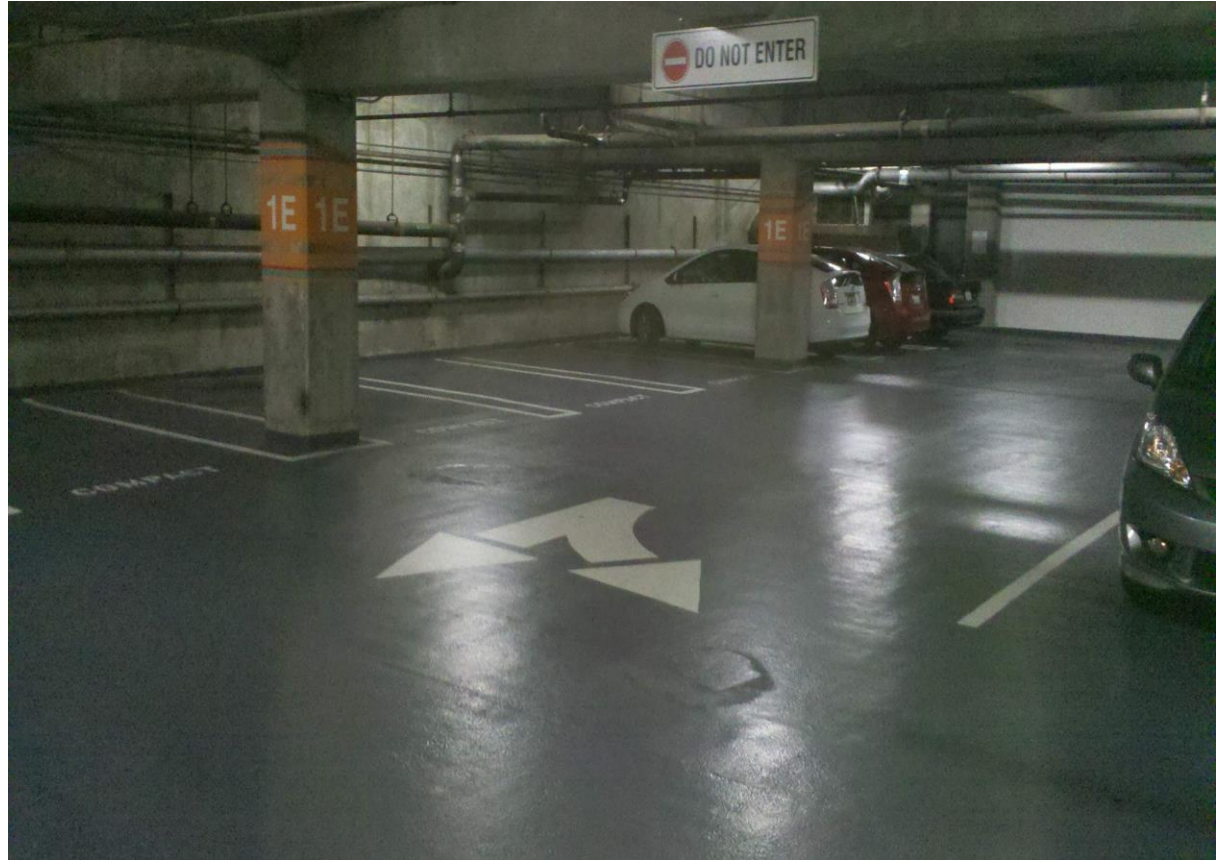


2008-Loyola Marymount College 20,000sf Generation 2

- Underground Parking Structure had classrooms on P-2 level with parking above.
- Deck coating completed when school was in session
- 2 Differences between Gen 1 and 2
 - 100% solids primer vs 80% solids
 - Polyaspartic Topcoat vs Aromatic Urethane

2019 PDA Conference
October 17 – 18, 2019
Hilton Orange County/Costa Mesa





2019 PDA Conference
October 17 – 18, 2019
Hilton Orange County/Costa Mesa



Lessons Learned

- Gen 1- Slow Set Hybrid Polyurea needs sun to heat and helped with cure.
- Wrong grade of sand increased topcoat consumption 50%

2019 PDA Conference
October 17 – 18, 2019
Hilton Orange County/Costa Mesa



2018 Gen 4-100% solids deck coating systems

- 100% solids Epoxy Primer at 6 mils
- 2nd coat of 100% solids Epoxy Primer at 6 mils with sand broadcasted to near or full refusal.
- 45-60 mils Polyurea
- 20 mils of intermediate wear coat (Urethane) with aggregate to refusal.
- Finish coat 16 mils Polyaspartic Topcoat

2019 PDA Conference
October 17 – 18, 2019
Hilton Orange County/Costa Mesa



Level P-1 Underground Parking Project Scope

1. Grind stripping lines and shot blast
2. Chase and repair cracks with Urethane sealant
3. Install 100% solids Epoxy primer at 10 mils and broadcast to refusal # 30/40 aggregate
4. Install 45 mils of Polyurea
5. Install 20 mils wear coat with washed round 2/16 aggregate broadcasted to refusal
6. Finish with 16 mils Polyaspartic

2019 PDA Conference
October 17 – 18, 2019
Hilton Orange County/Costa Mesa



Loyola Marymount University December 2018 Phase 2- 21,000 SF



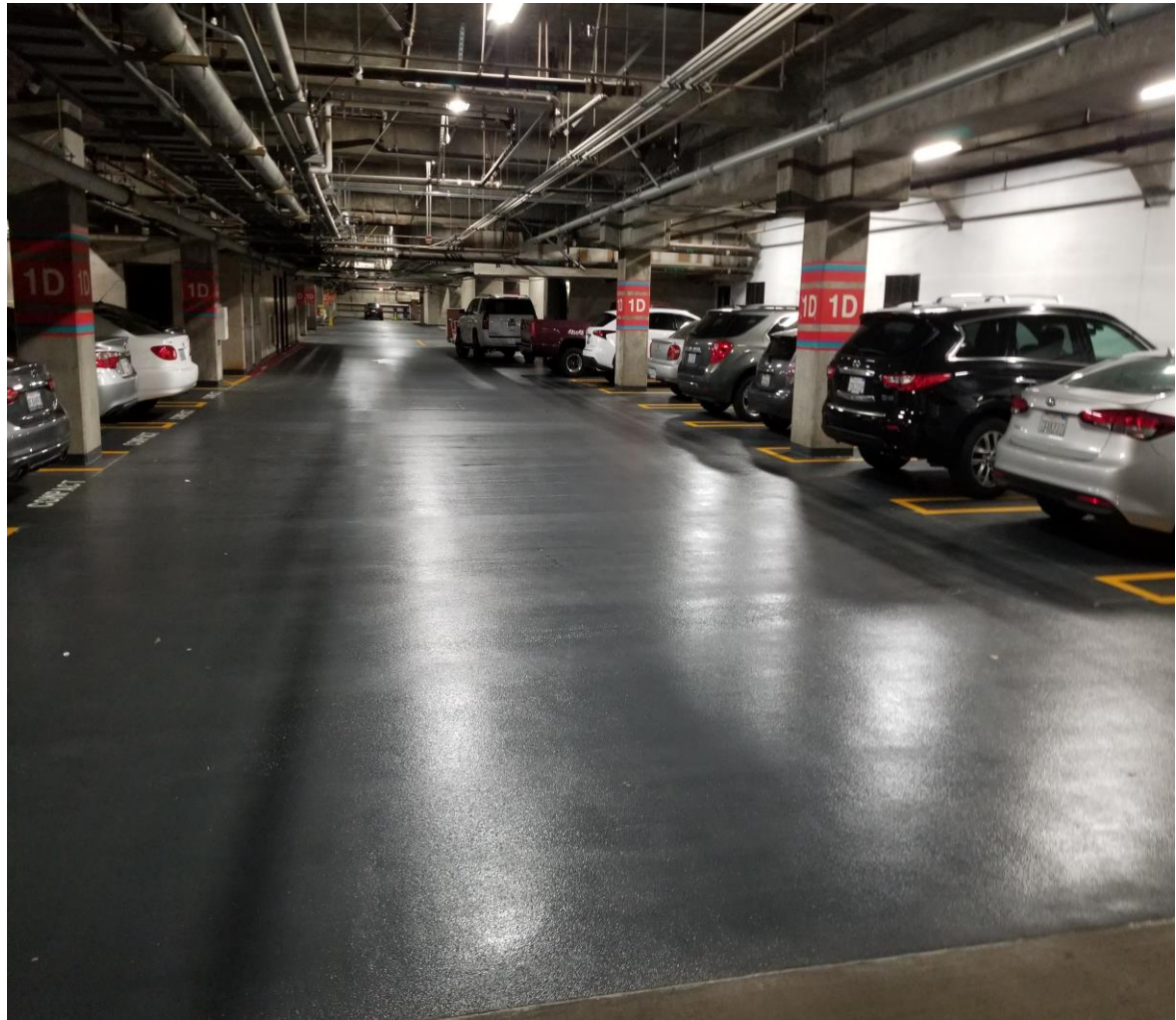
2019 PDA Conference
October 17 – 18, 2019
Hilton Orange County/Costa Mesa





2019 PDA Conference
October 17 – 18, 2019
Hilton Orange County/Costa Mesa





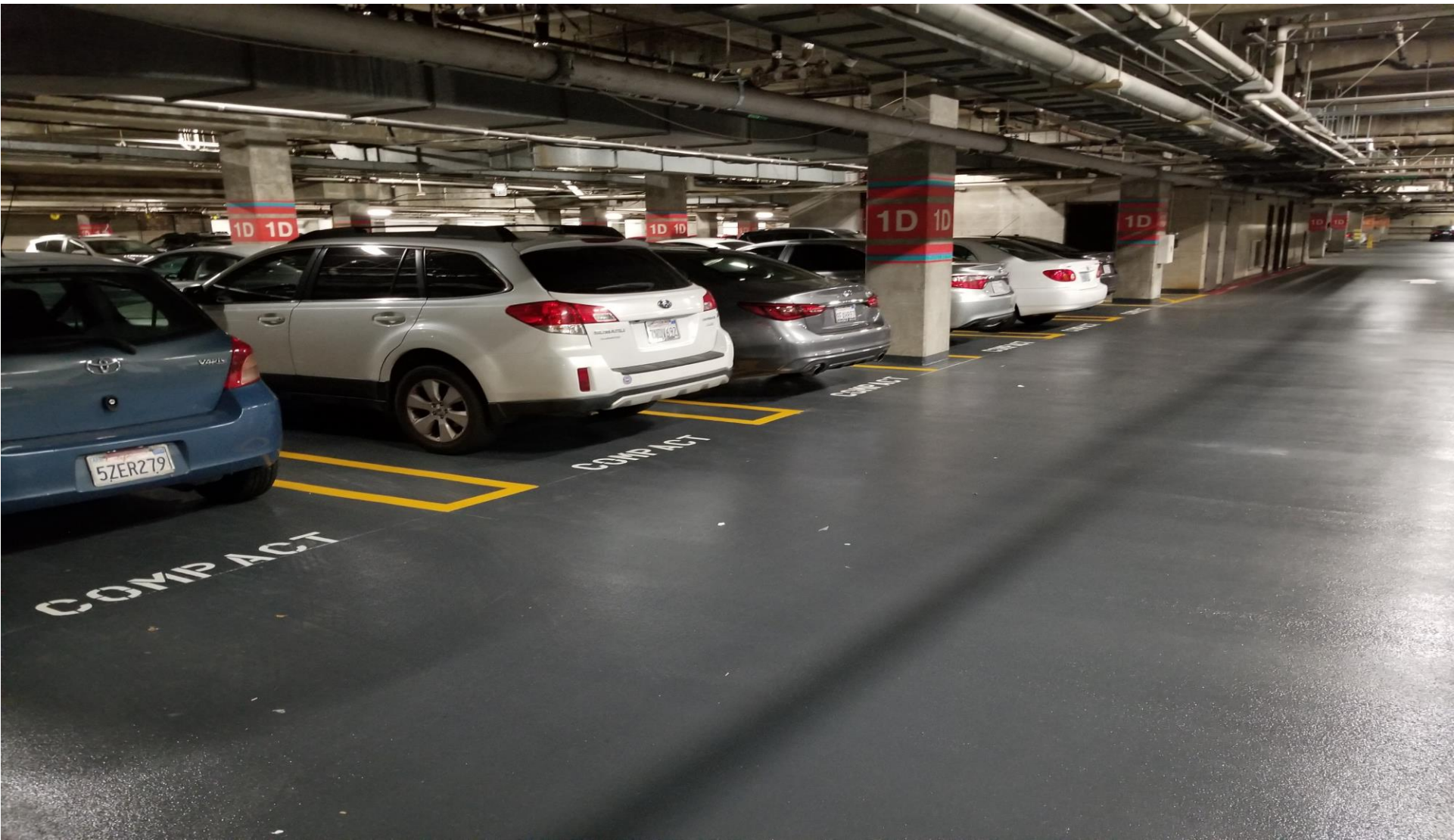
2019 PDA Conference
October 17 – 18, 2019
Hilton Orange County/Costa Mesa





2019 PDA Conference
October 17 – 18, 2019
Hilton Orange County/Costa Mesa





2019 PDA Conference
October 17 – 18, 2019
Hilton Orange County/Costa Mesa



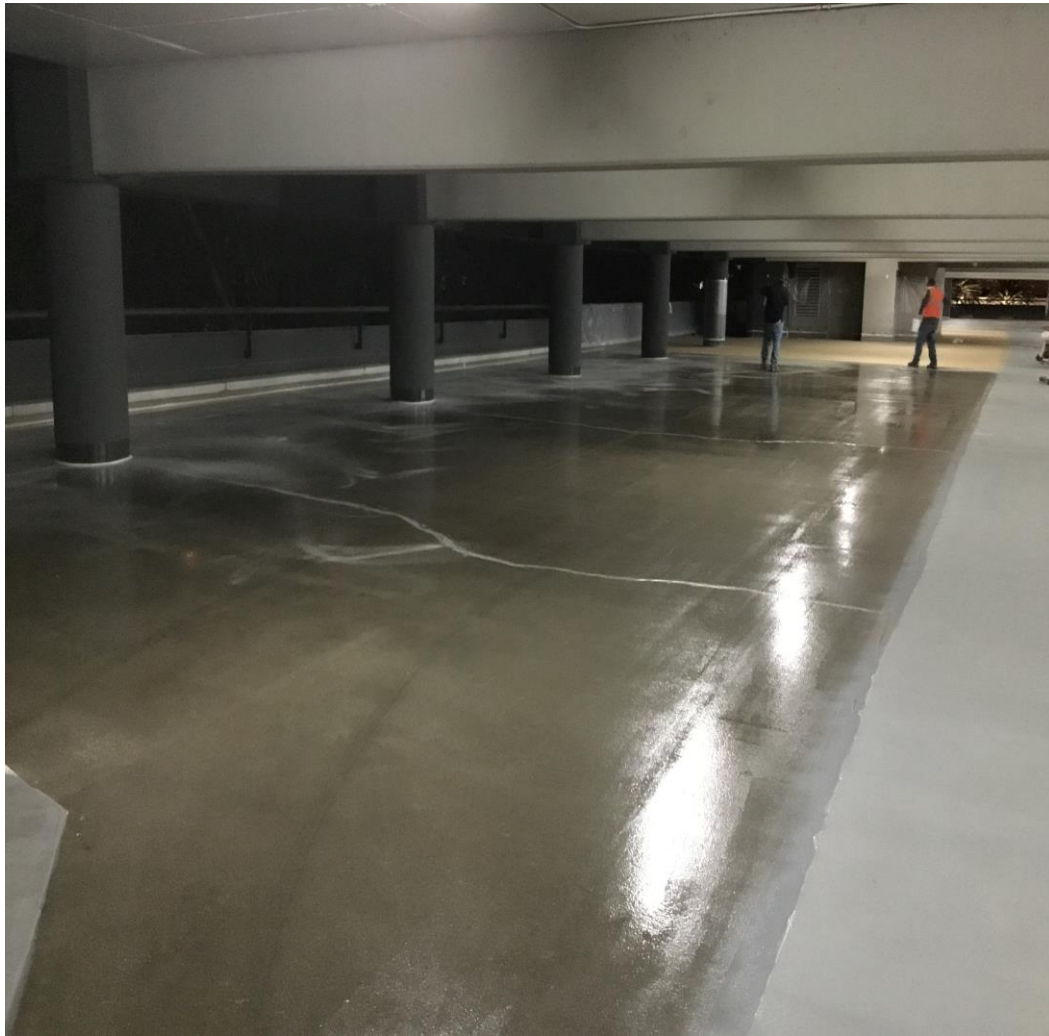
NBC-Universal Hollywood

5th floor parking deck over Production studio

- 24,000 sf parking deck
- Remove parking bumpers, degrease with water extraction
- Grind off parking lines and shot blast
- Chase and repair cracks with Urethane sealant
- Install 100% solids Epoxy primer at 10 mils and broadcast to refusal # 30/40 aggregate
- Install 45 mils of Polyurea
- Install 20 mils wear coat with washed round 2/16 aggregate broadcasted to refusal
- Finish with 16 mils Polyaspartic

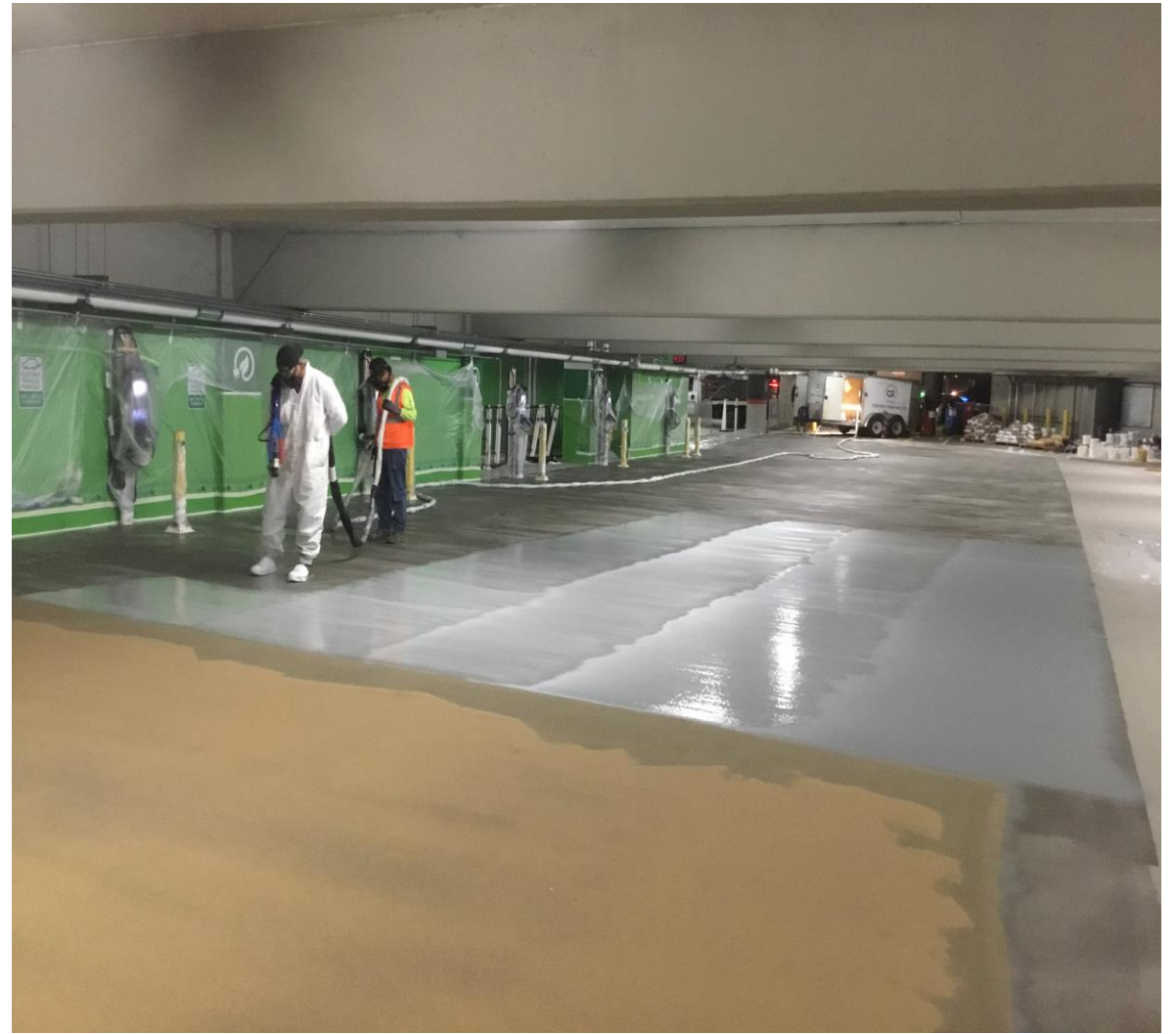
2019 PDA Conference
October 17 – 18, 2019
Hilton Orange County/Costa Mesa





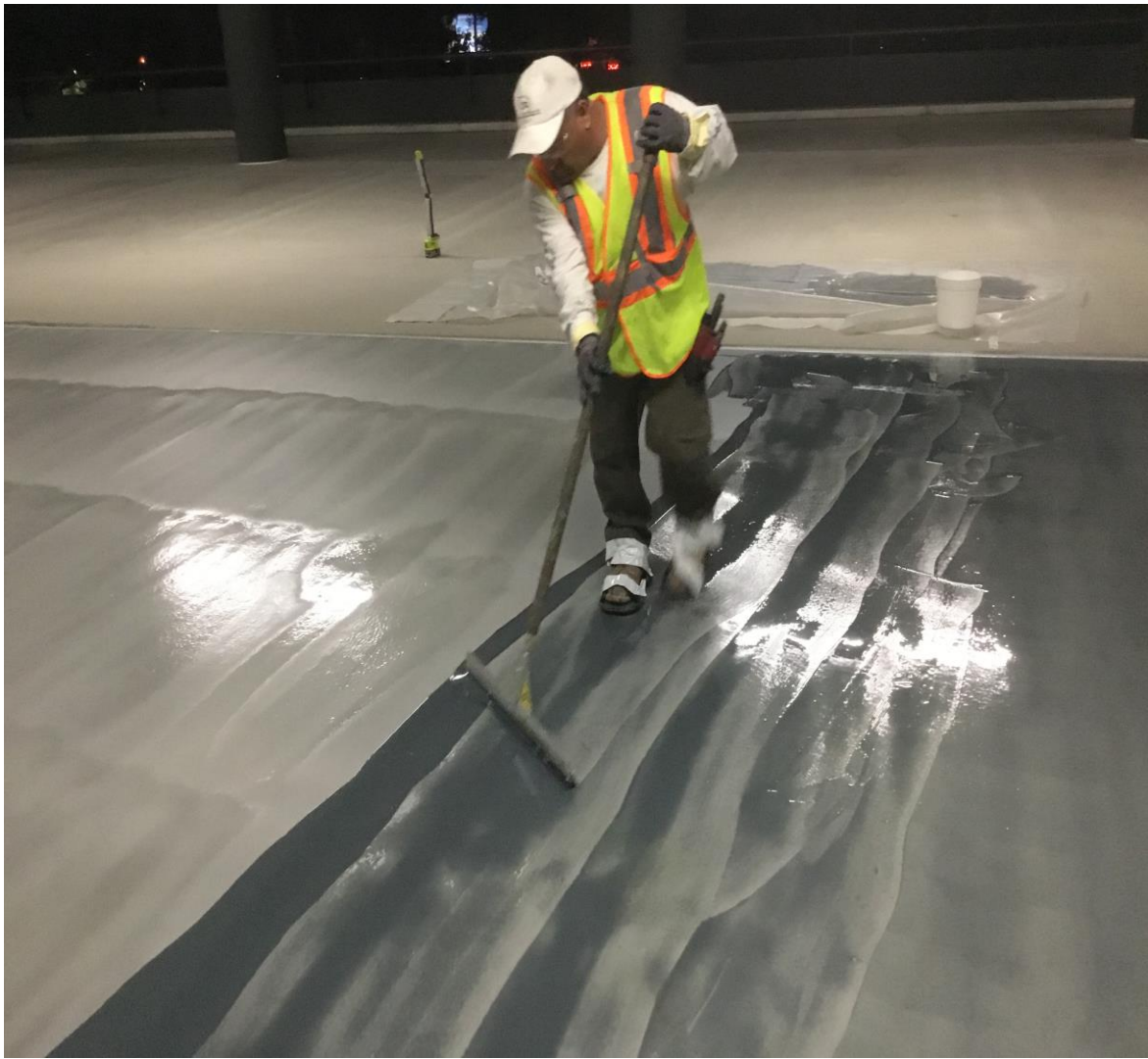
2019 PDA Conference
October 17 – 18, 2019
Hilton Orange County/Costa Mesa





2019 PDA Conference
October 17 – 18, 2019
Hilton Orange County/Costa Mesa





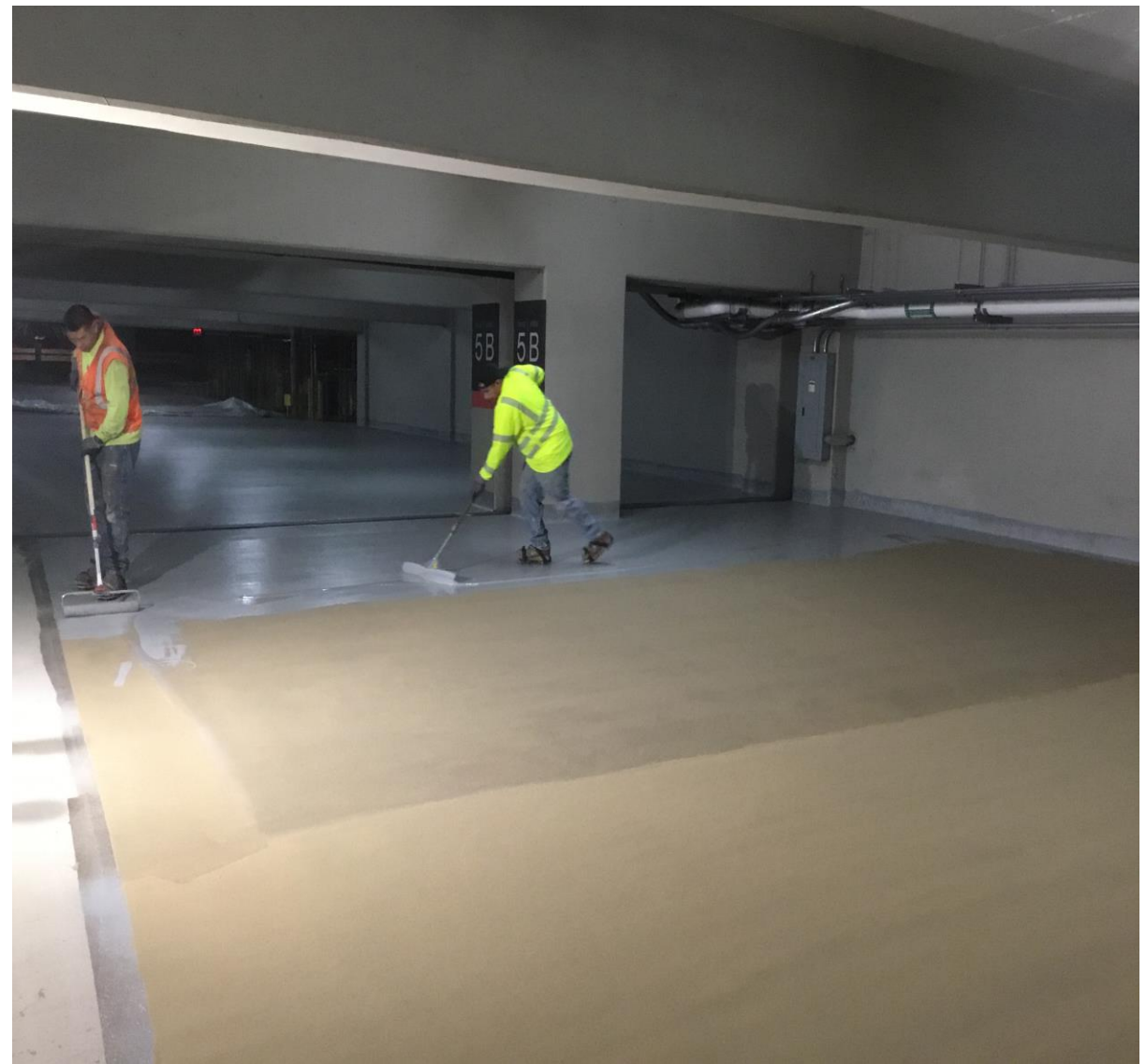
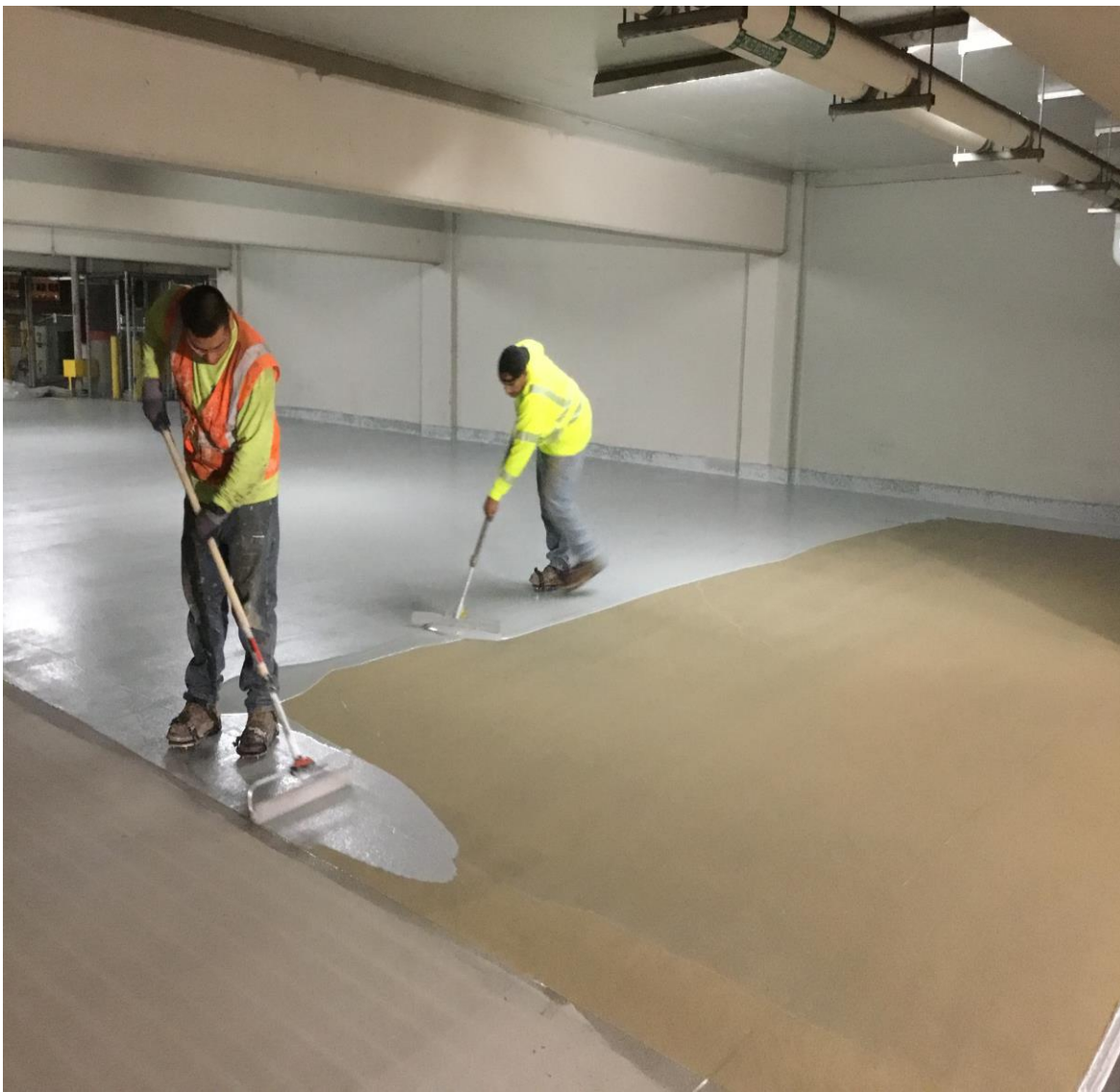
2019 PDA Conference
October 17 – 18, 2019
Hilton Orange County/Costa Mesa





2019 PDA Conference
October 17 – 18, 2019
Hilton Orange County/Costa Mesa





2019 PDA Conference
October 17 – 18, 2019
Hilton Orange County/Costa Mesa





2019 PDA Conference
October 17 – 18, 2019
Hilton Orange County/Costa Mesa





2019 PDA Conference
October 17 – 18, 2019
Hilton Orange County/Costa Mesa





2019 PDA Conference
October 17 – 18, 2019
Hilton Orange County/Costa Mesa



2017- Hollywood Gateway

Loading Dock & Roadway over parking structure

32,000 sf

Remove parking bumpers, degrease with water extraction

Remove existing urethane coating and shot blast

Chase and repair cracks with Urethane sealant

Repair spalls using Rapid Set Cement based high strength mortar

Install 100% solids Epoxy primer

Install 2nd coat of 100% solids Epoxy primer at 8 mils and broadcast to refusal # 30/40 aggregate

Install 60 mils of Polyurea

Install 20 mils wear coat with washed round 1/120 aggregate broadcasted to refusal

Install Topcoat with 16 mils Polyaspartic

Install backer rod and 2 component sealant to control joints

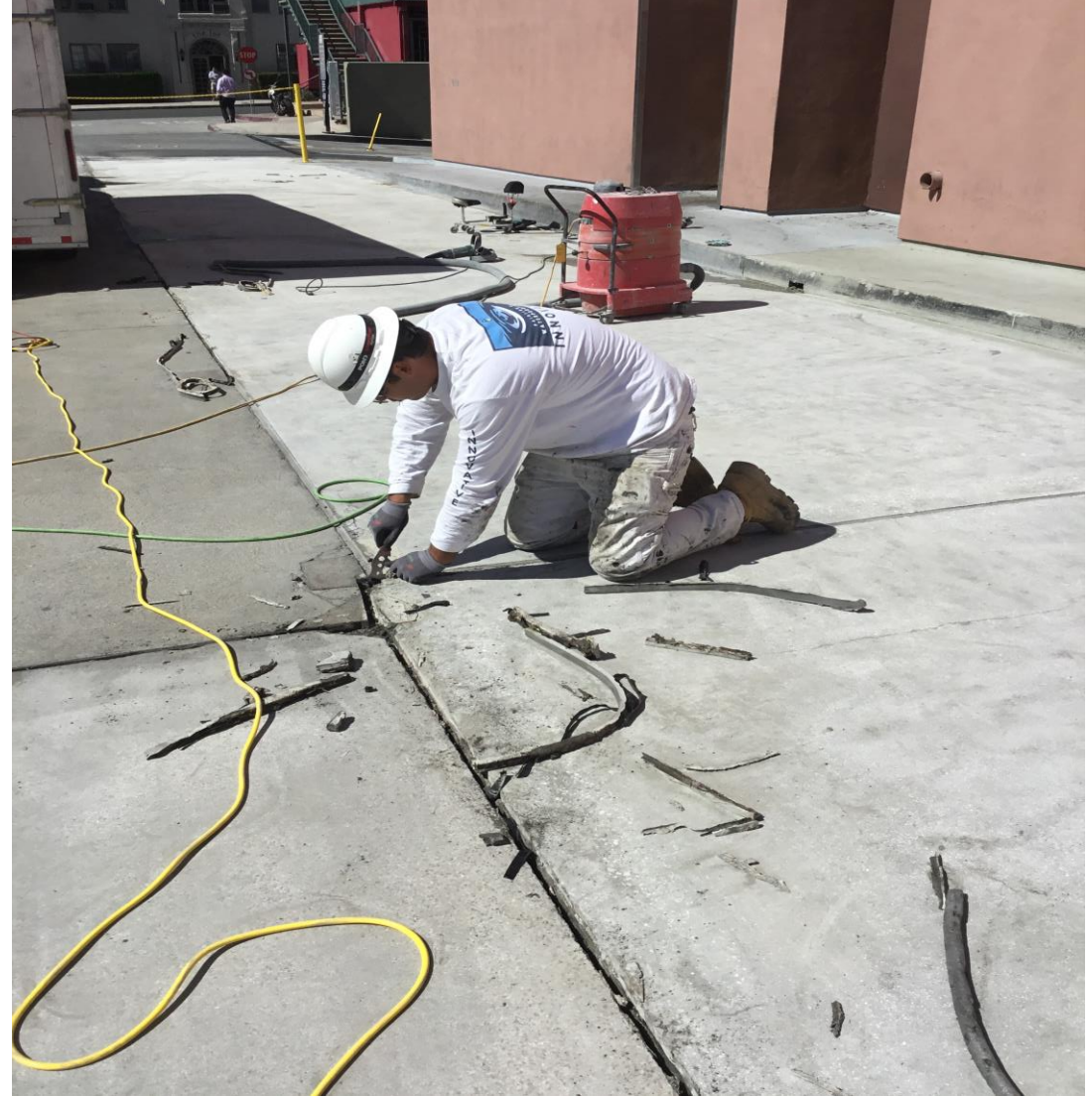
2019 PDA Conference
October 17 – 18, 2019
Hilton Orange County/Costa Mesa





2019 PDA Conference
October 17 – 18, 2019
Hilton Orange County/Costa Mesa





2019 PDA Conference
October 17 – 18, 2019
Hilton Orange County/Costa Mesa





2019 PDA Conference
October 17 – 18, 2019
Hilton Orange County/Costa Mesa





2019 PDA Conference
October 17 – 18, 2019
Hilton Orange County/Costa Mesa





2019 PDA Conference
October 17 – 18, 2019
Hilton Orange County/Costa Mesa





2019 PDA Conference
October 17 – 18, 2019
Hilton Orange County/Costa Mesa





2019 PDA Conference
October 17 – 18, 2019
Hilton Orange County/Costa Mesa





2019 PDA Conference
October 17 – 18, 2019
Hilton Orange County/Costa Mesa





INNOVATIVE PAINTING & WATERPROOFING

Thank you
Don Dancey

2019 PDA Conference
October 17 – 18, 2019
Hilton Orange County/Costa Mesa

