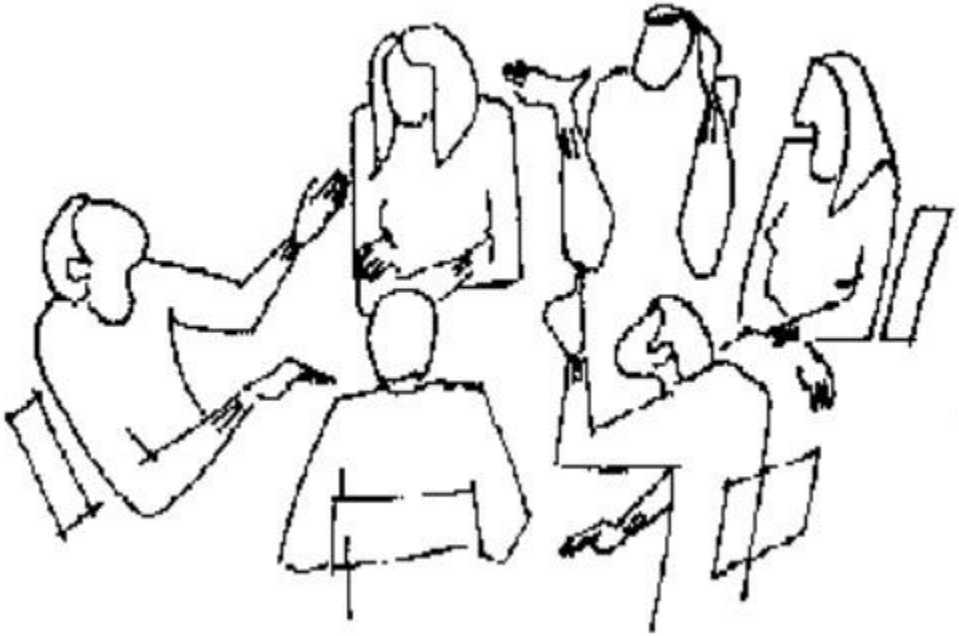
2016 – Annual MDSHA Asphalt Roundtables

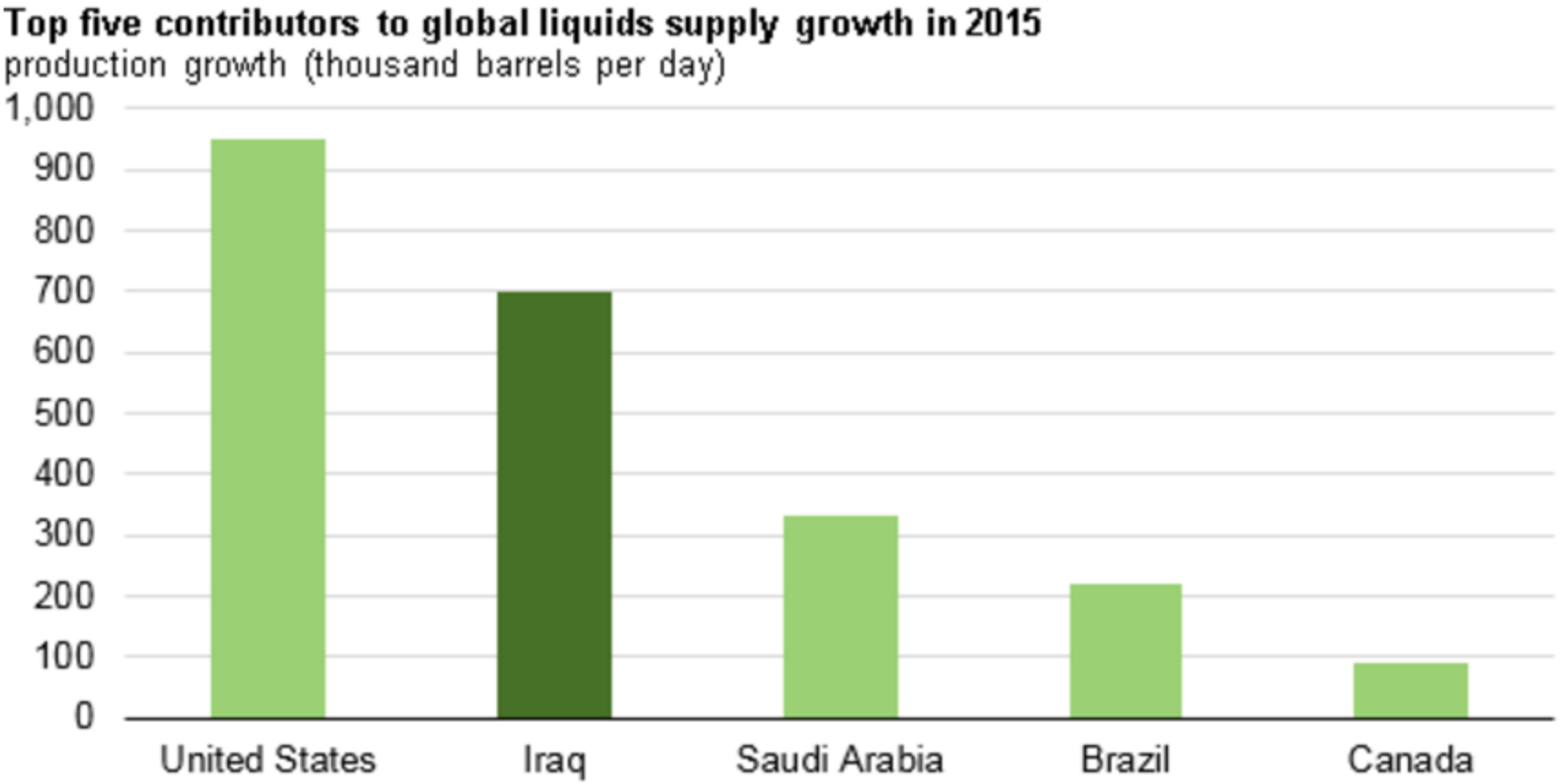


Marshall Klinefelter, MAA, 443-220-4954

Asphalt Supply

FEBRUARY 29, 2016

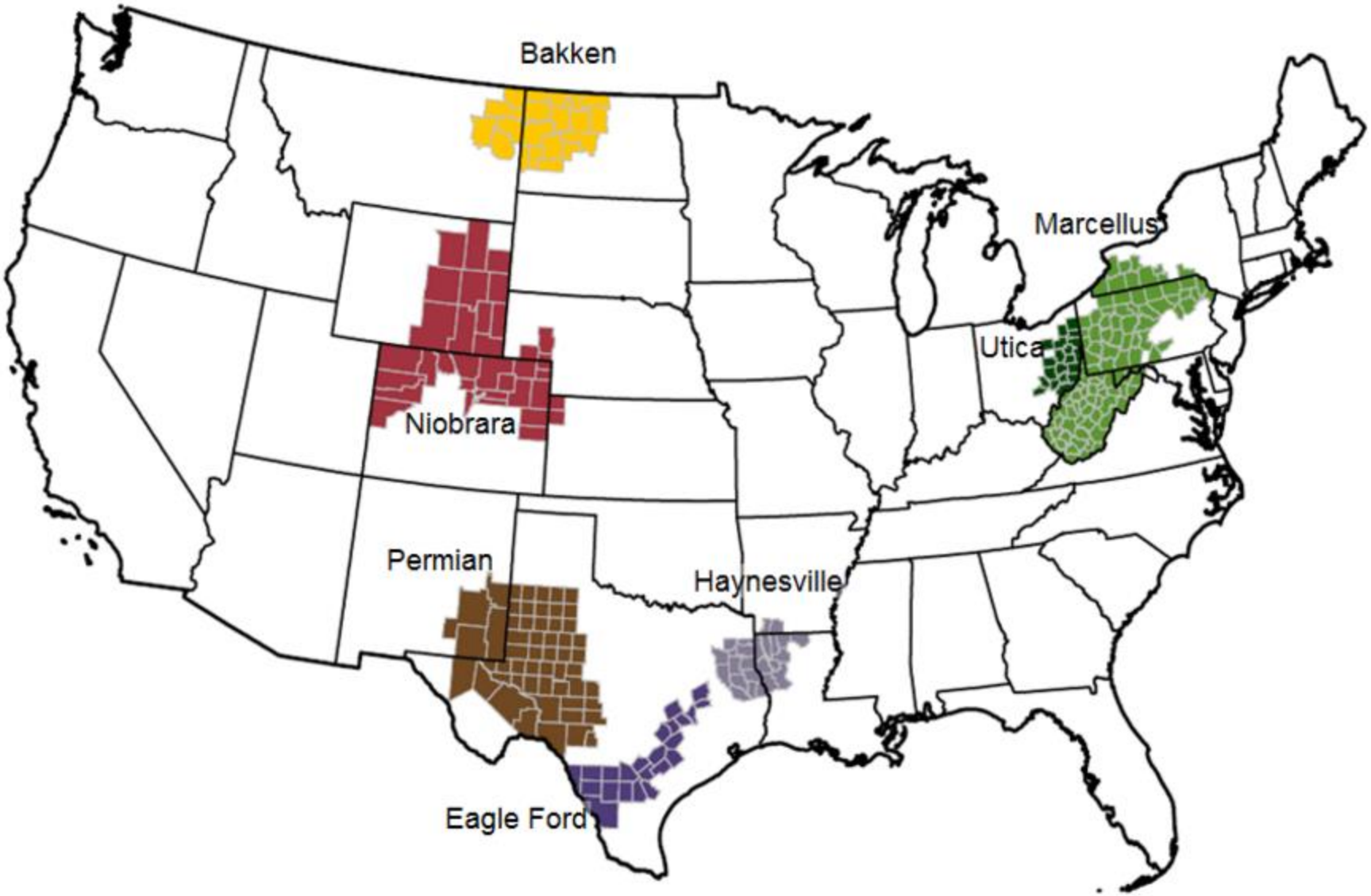
Iraq is second-leading contributor to global liquids supply growth in 2015



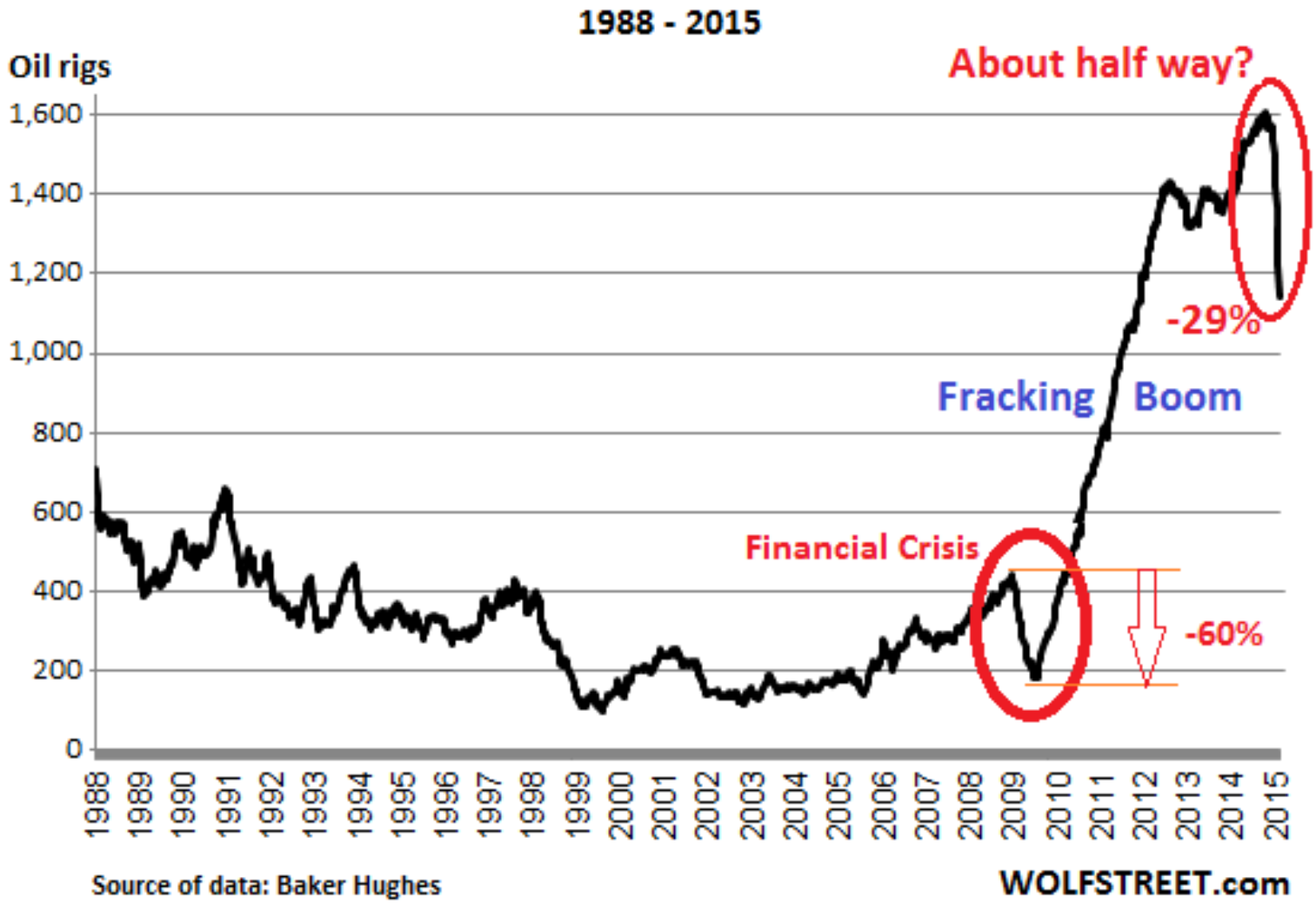
Source: U.S. Energy Information Administration, *Short-Term Energy Outlook*
Note: The estimates include crude oil, lease condensate, natural gas liquids, biofuels, coal-to-liquids, gas-to-liquids, and refinery processing gain.

New-well production per rig by region | Production by region

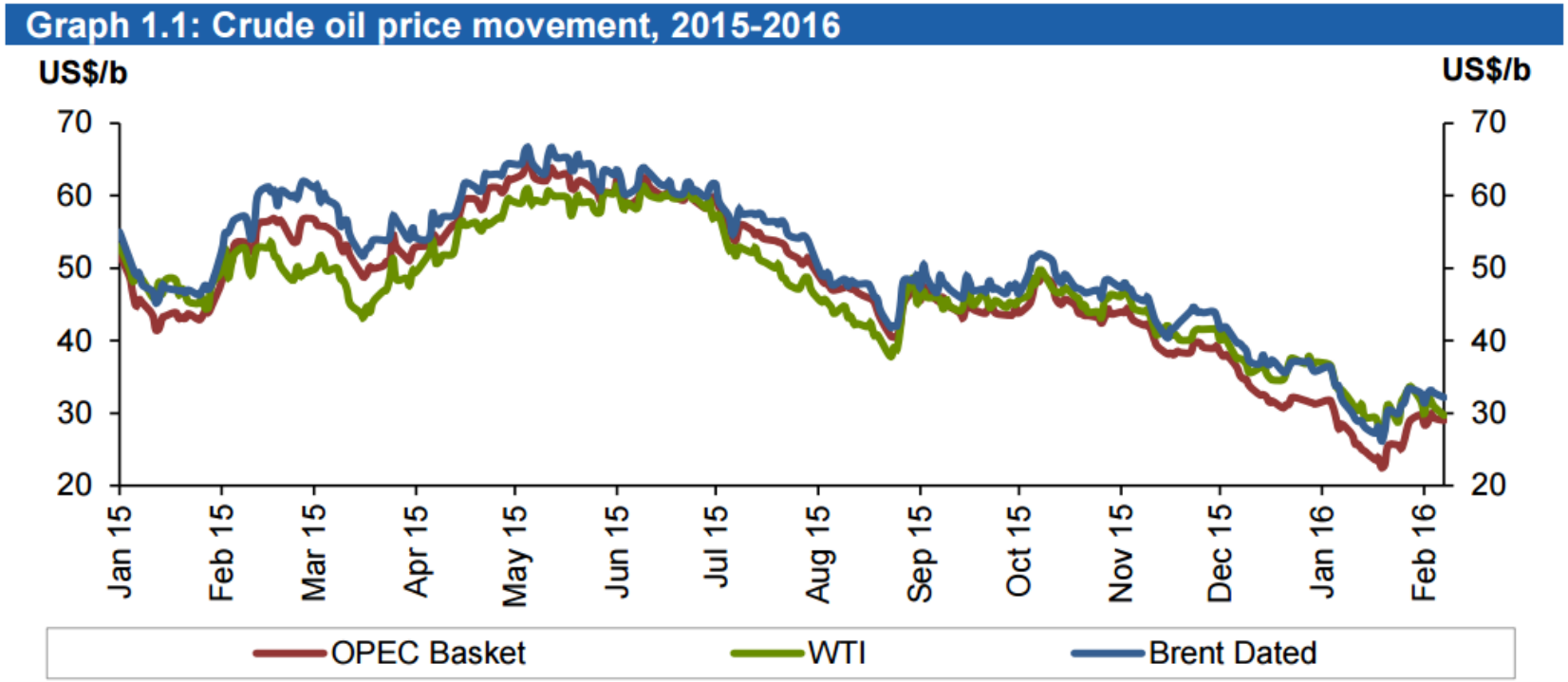
Region	New-well oil production per rig barrels/day March 2016	April 2016	change
Bakken	746	752	6
Eagle Ford	820	830	10
Haynesville	27	27	-
Marcellus	65	65	-
Niobrara	778	803	25
Permian	438	444	6
Utica	310	324	14
Rig-weighted average	516	528	12


Bakken
Marcellus
Utica
Niobrara
Permian
Haynesville
Eagle Ford

28 Year US Oil Drilling Rigs

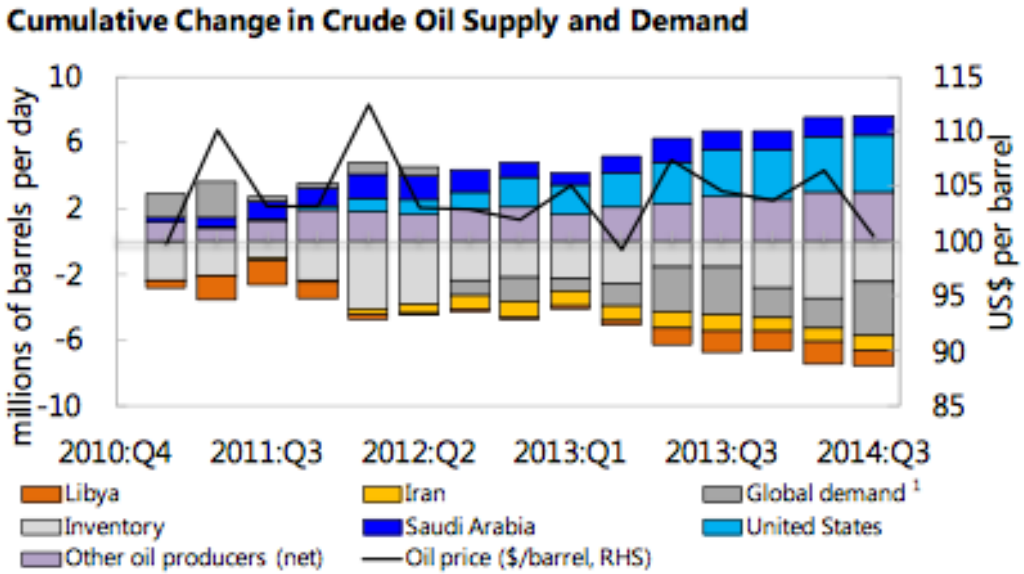


Short-Term Crude Oil Price Movement

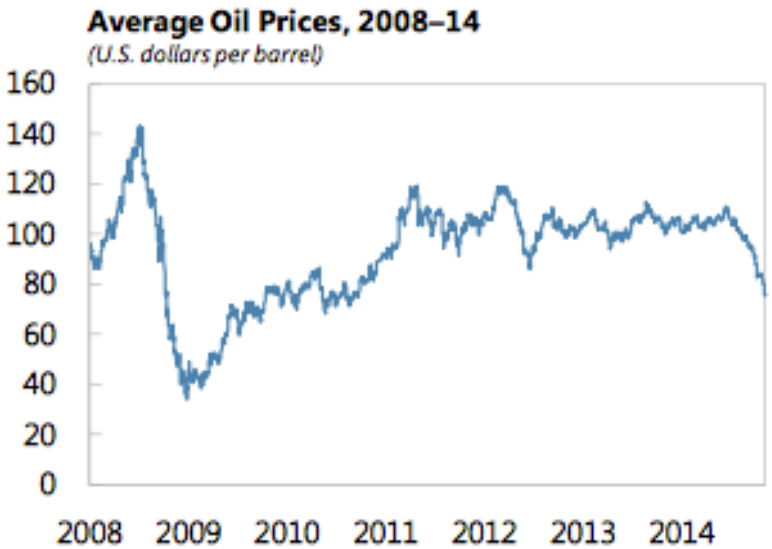


Source: OPEC Secretariat.

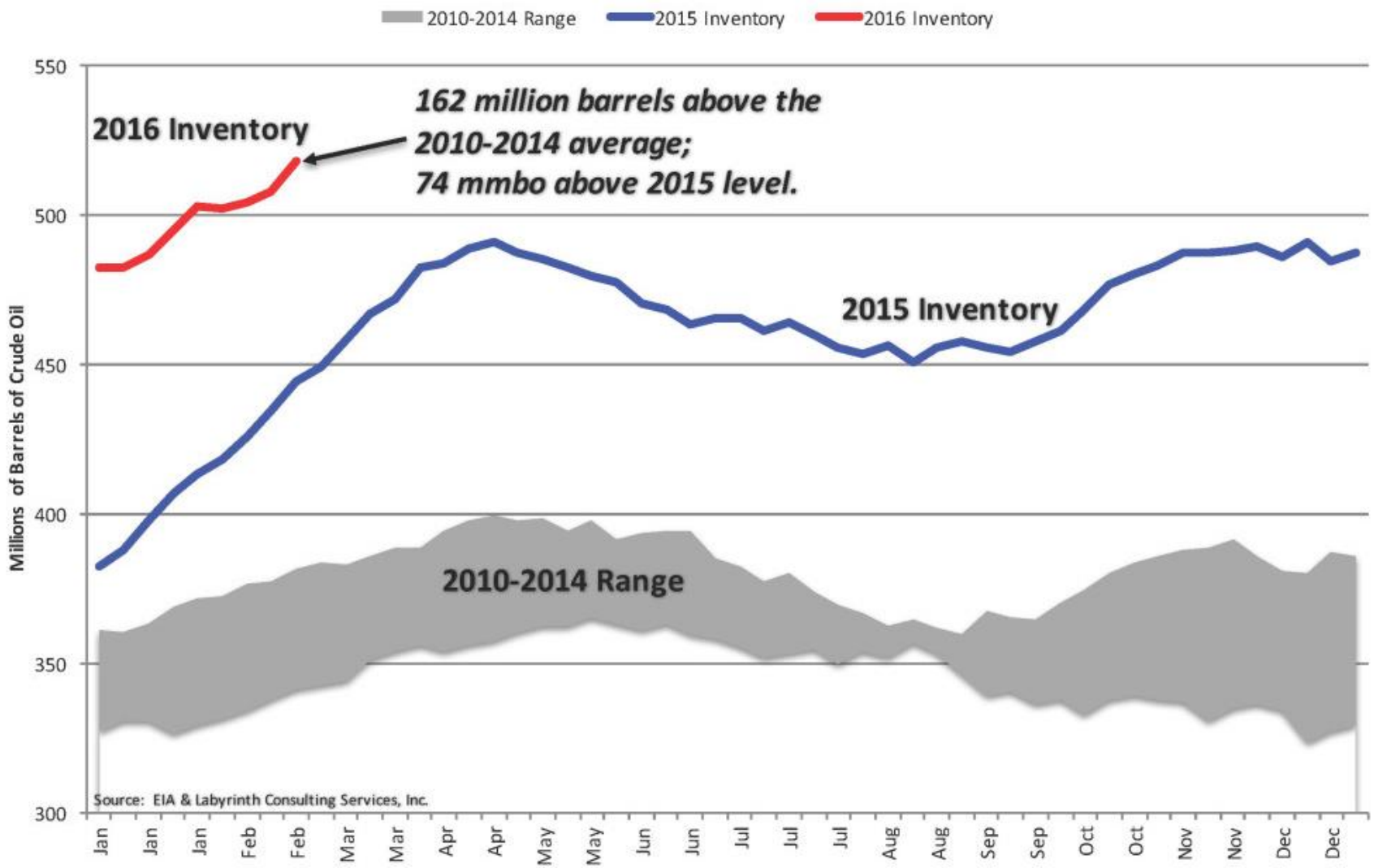
Long-Term Trends



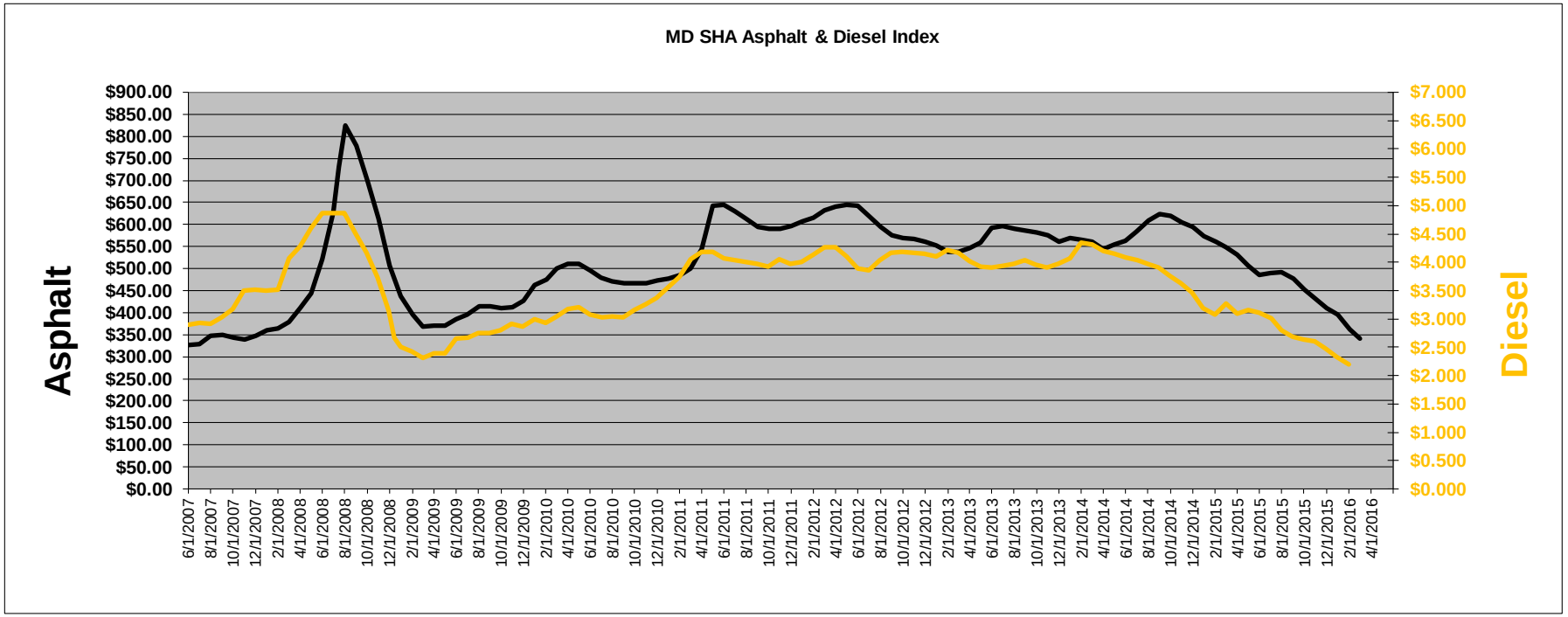
[1]A negative value suggests an increase in global demand and vice versa.
Sources: Bloomberg, L.P.; International Energy Agency; and IMF staff calculations.



US Crude Oil Stocks



Maryland SHA Asphalt Index

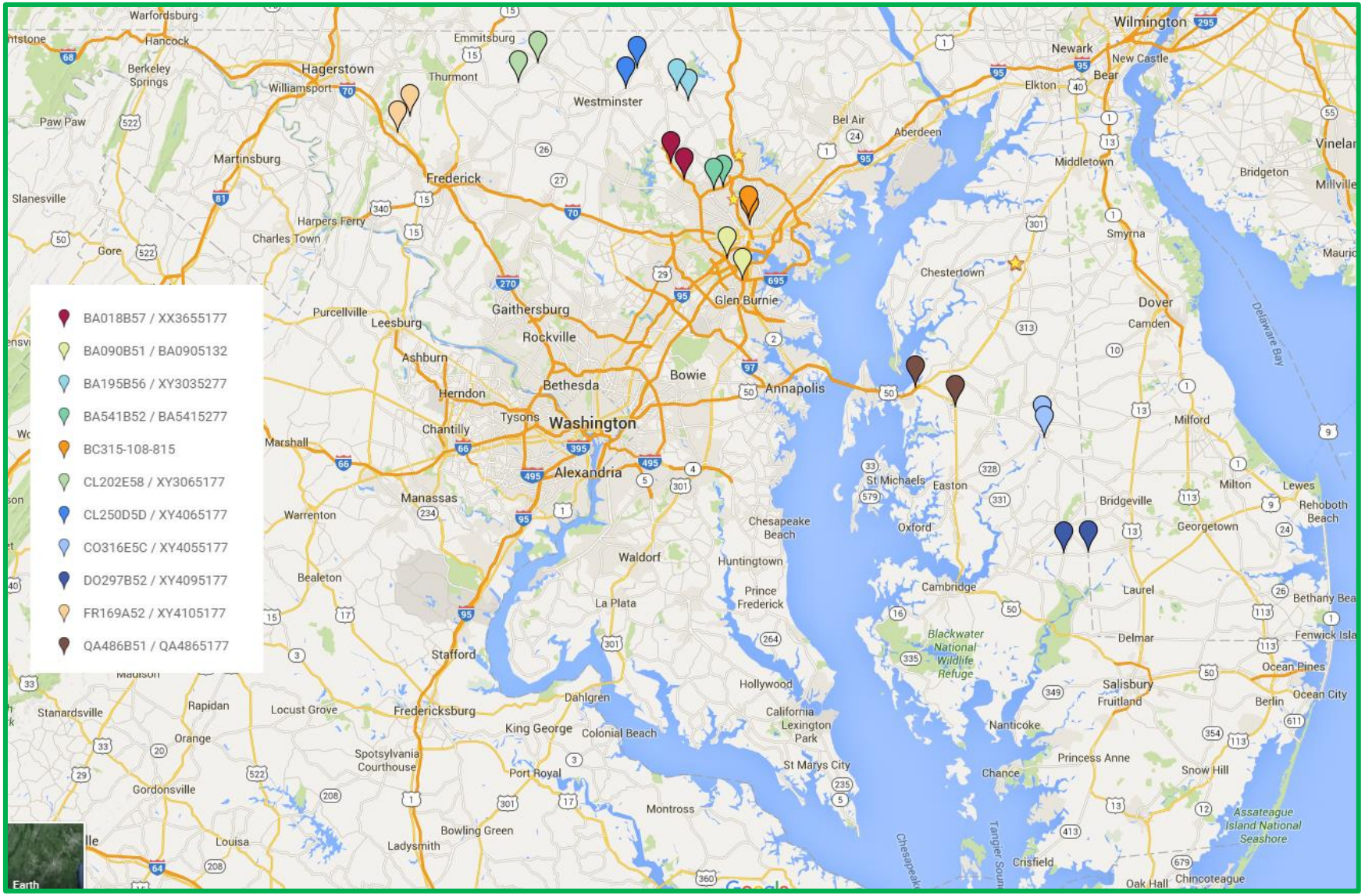


Maryland Asphalt Association
Maryland State Highway Adm.
2016 Paving Conference

54TH

SHA
State Highway
Administration

2015Quality Paving Awards



BA018B57 / XX3655177 I-795 Owings Mills Blvd. to 2000’ N. of Franklin Blvd. P. Flanigan & Sons, Inc.

7 Months + Winter

CO316E5C / XY4055177 MD 404 Choptank Bridge to Legion Rd. Allan Myers

BA090B51 / BA0905132 I-695 I-895 to I-95 Gray & Son, Inc.

QA486A51 / QA4865177

Rural Areas too…

10 years later…

504.03.08 Joints Construct joints as directed and as follows:

a) Stagger longitudinal and transverse joints in successive courses so that one is not directly above the other.

b) Stagger transverse joints by the length of the paver.

c) Stagger longitudinal joints at least 6 in. and arrange so that the longitudinal joint in the top course is within 6 in. of the line dividing the traffic lanes.

d) Construct joints in a manner that provides a continuous bond between the old and new surfaces.

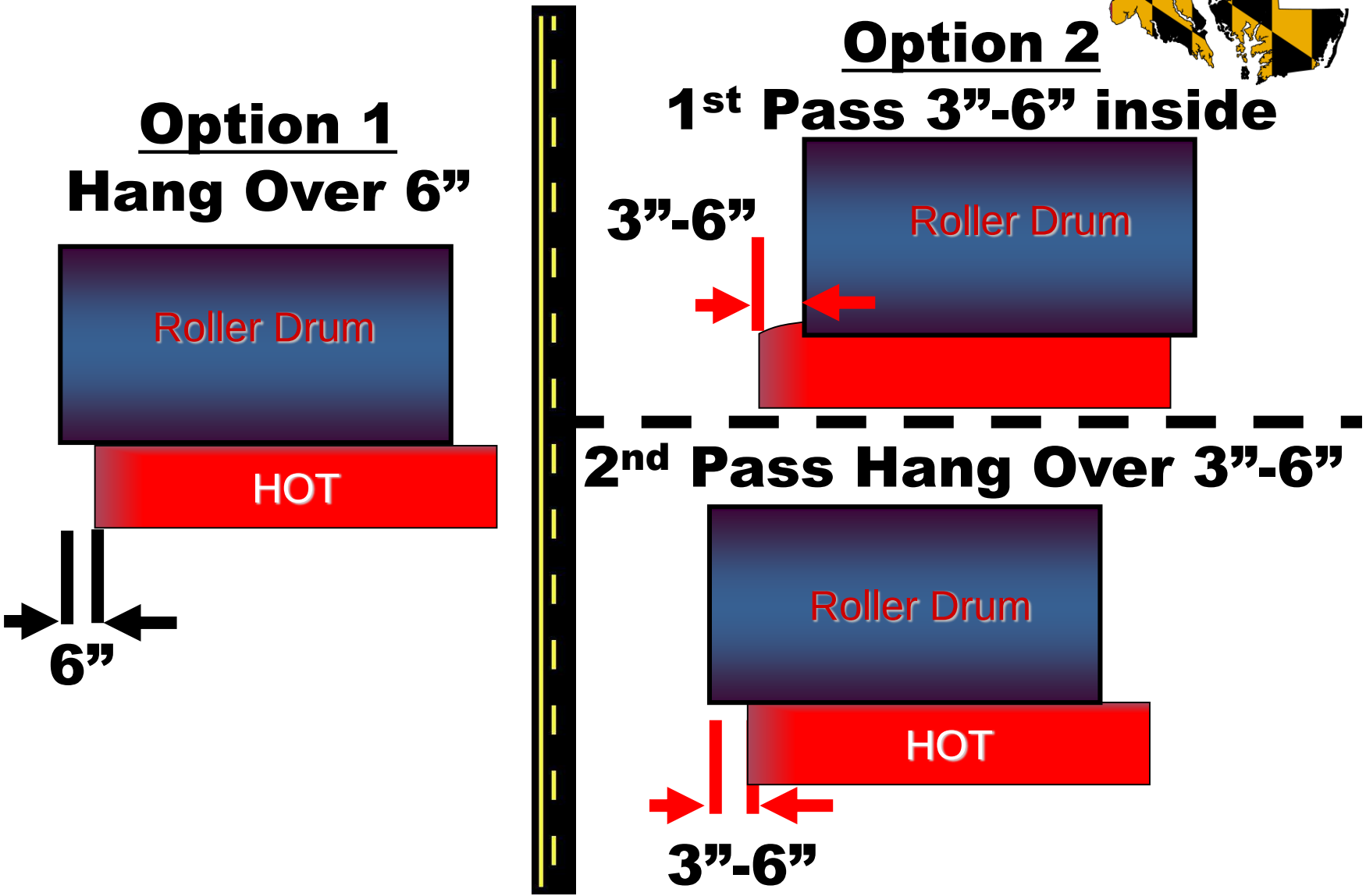
e) Overlap the existing pavement 1 to 1.5 in. when constructing longitudinal joints adjacent to existing asphalt pavements.

f) The initial longitudinal roller pass shall be on the uncompacted hot mat and 6 in. to 1 ft. from the joint. The successive roller pass shall compact the overlapped material and the 6 in. to 1 ft. material simultaneously.

g) Apply tack coat to joints as directed. Cut back the edge of the existing pavement for its full depth at transverse joints when placing a surface course, and apply tack coat material as directed.

h) Apply tack coat to all contact surfaces before placing the mix against curbs, gutters, headers, manholes, etc.

Joints – Unsupported Edge

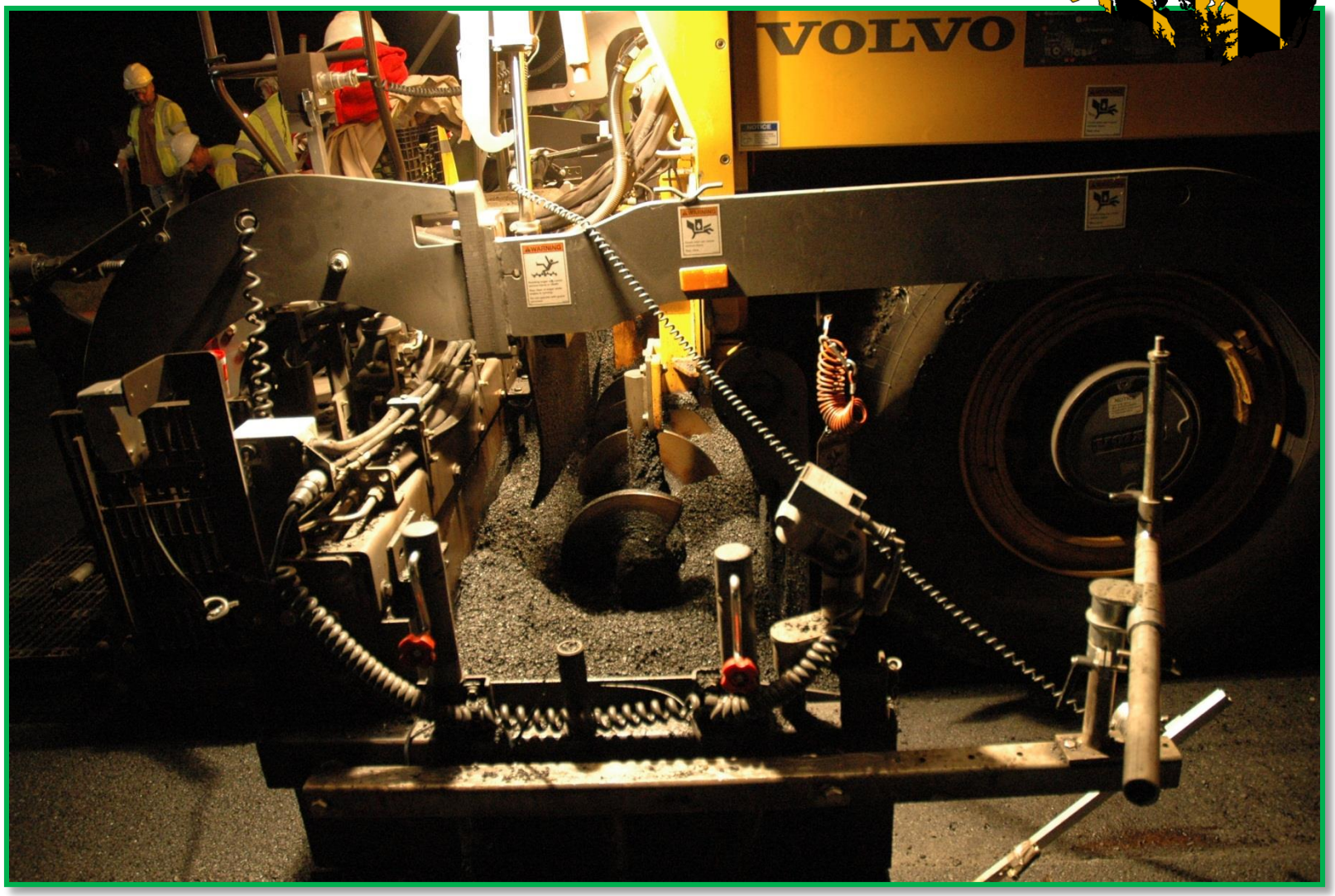


The Maryland Method

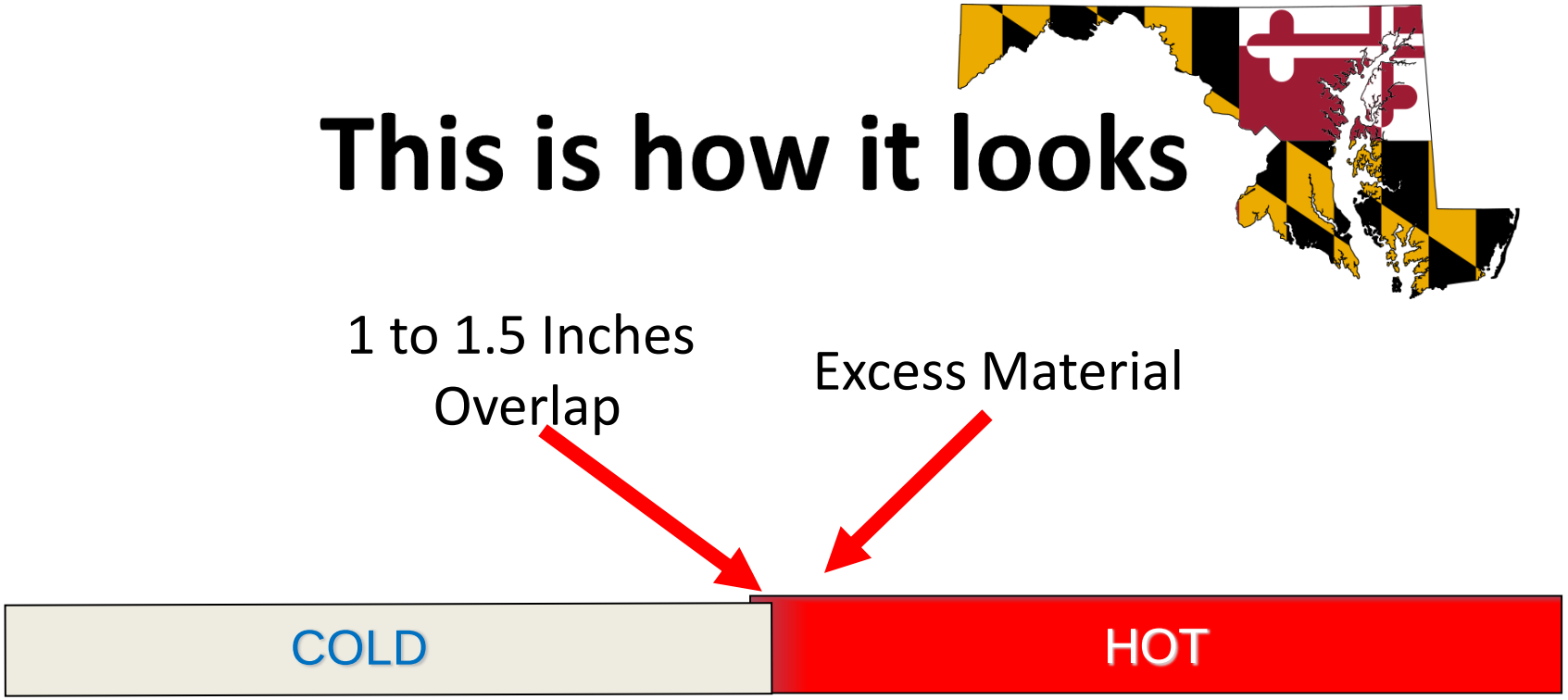
Longitudinal joints constructed adjacent to the existing HMA pavements shall overlap the existing pavement 1” to 1.5”

1 to 1.5 Inches

End Gate Placement



This is how it looks



Teamwork

If a screed operator has his gate strike off set correctly, maintaining the 1”-1.5” overlap and the paver operator is maintaining a straight line, the lute operator job is easy. If not, he has this……

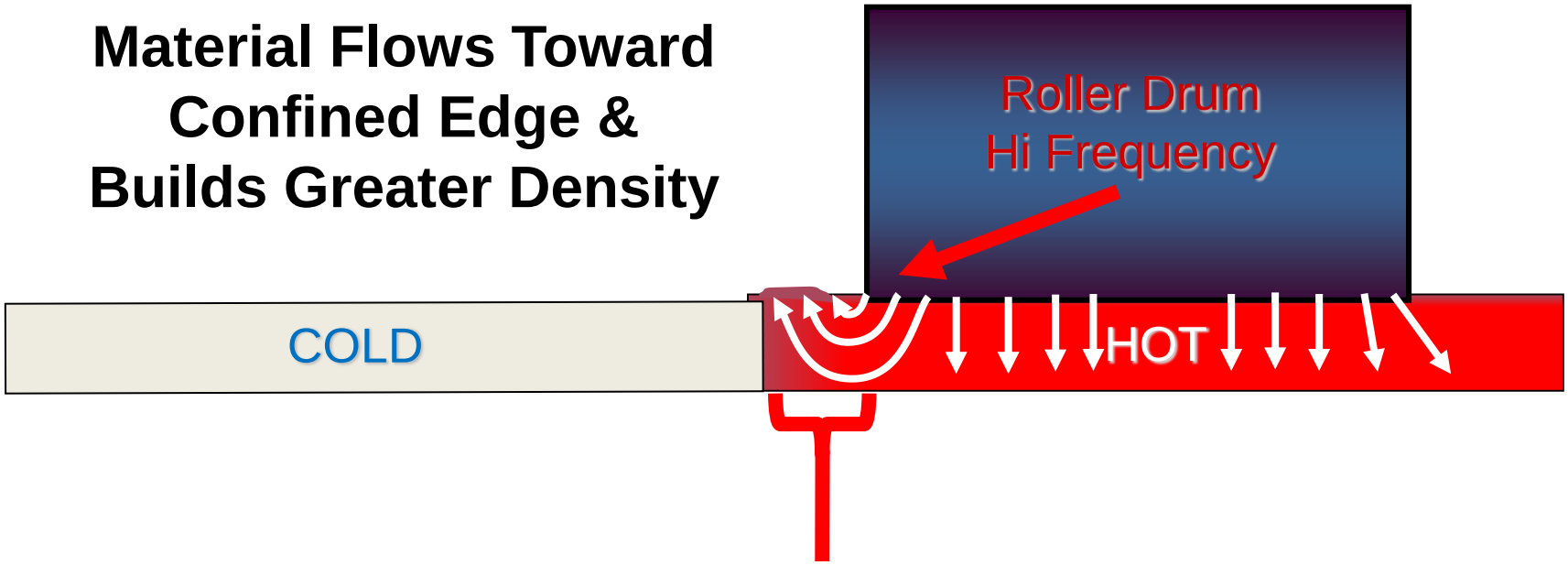
“Bump” the Joint

“Now it is up to the roller operator to show his stuff”

The initial longitudinal roller pass shall be on the uncompacted hot mat and 6 inches to 1 foot from the joint.

Maryland Method

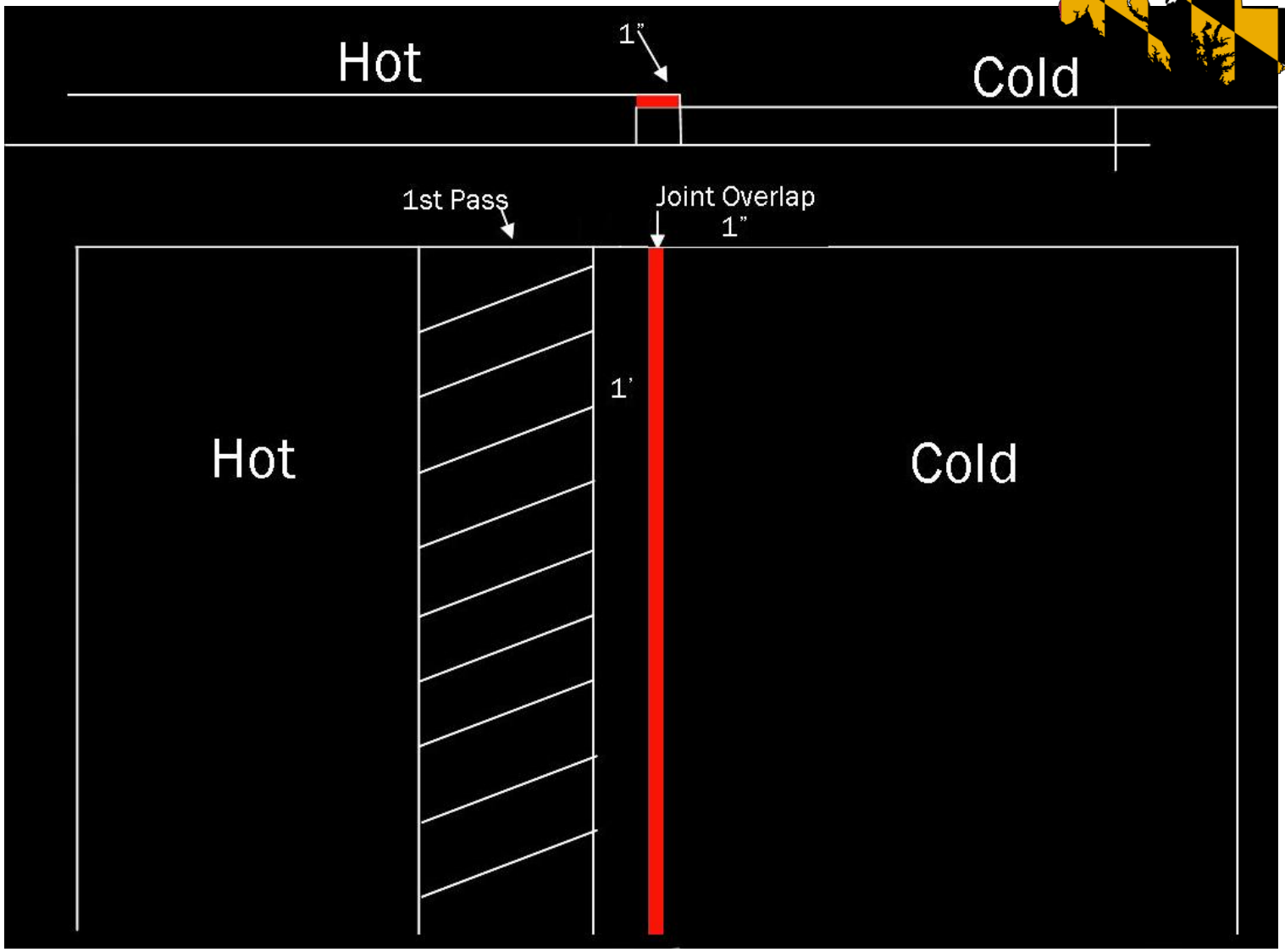
Material Flows Toward Confined Edge & Builds Greater Density



6” to 12” Inches

Looking Good

504.03.08 Joints

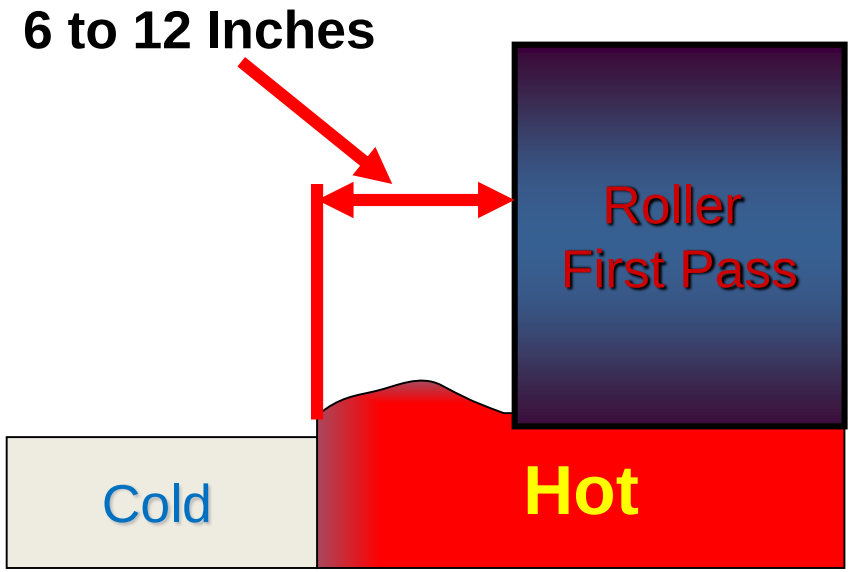


Now the Next Step

The successive roller pass shall compact the overlapped material and the 6” to 1 foot material simultaneously.

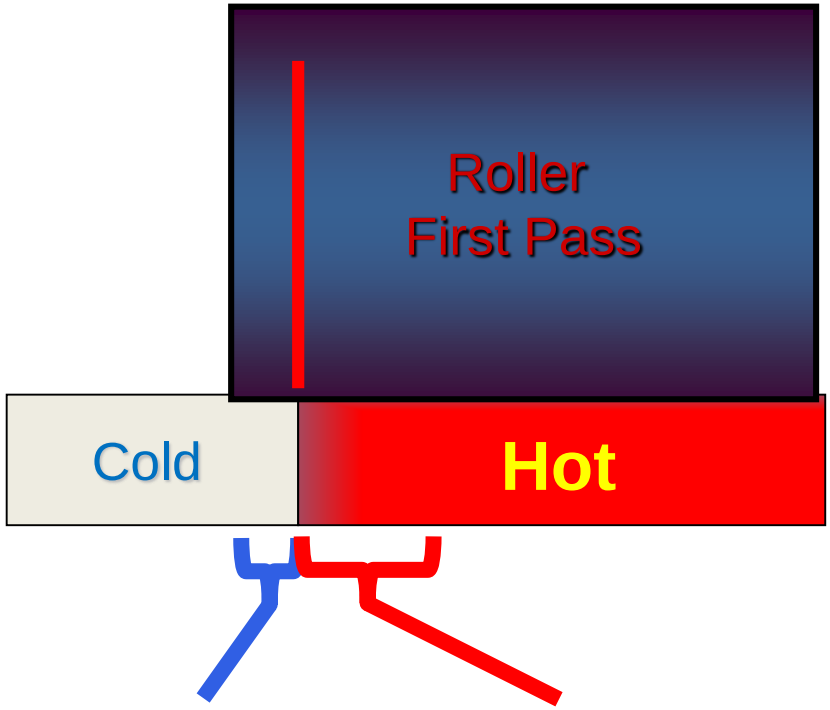
It's Not That Complicated

First Pass



Creates a Confined Edge & Raised Area

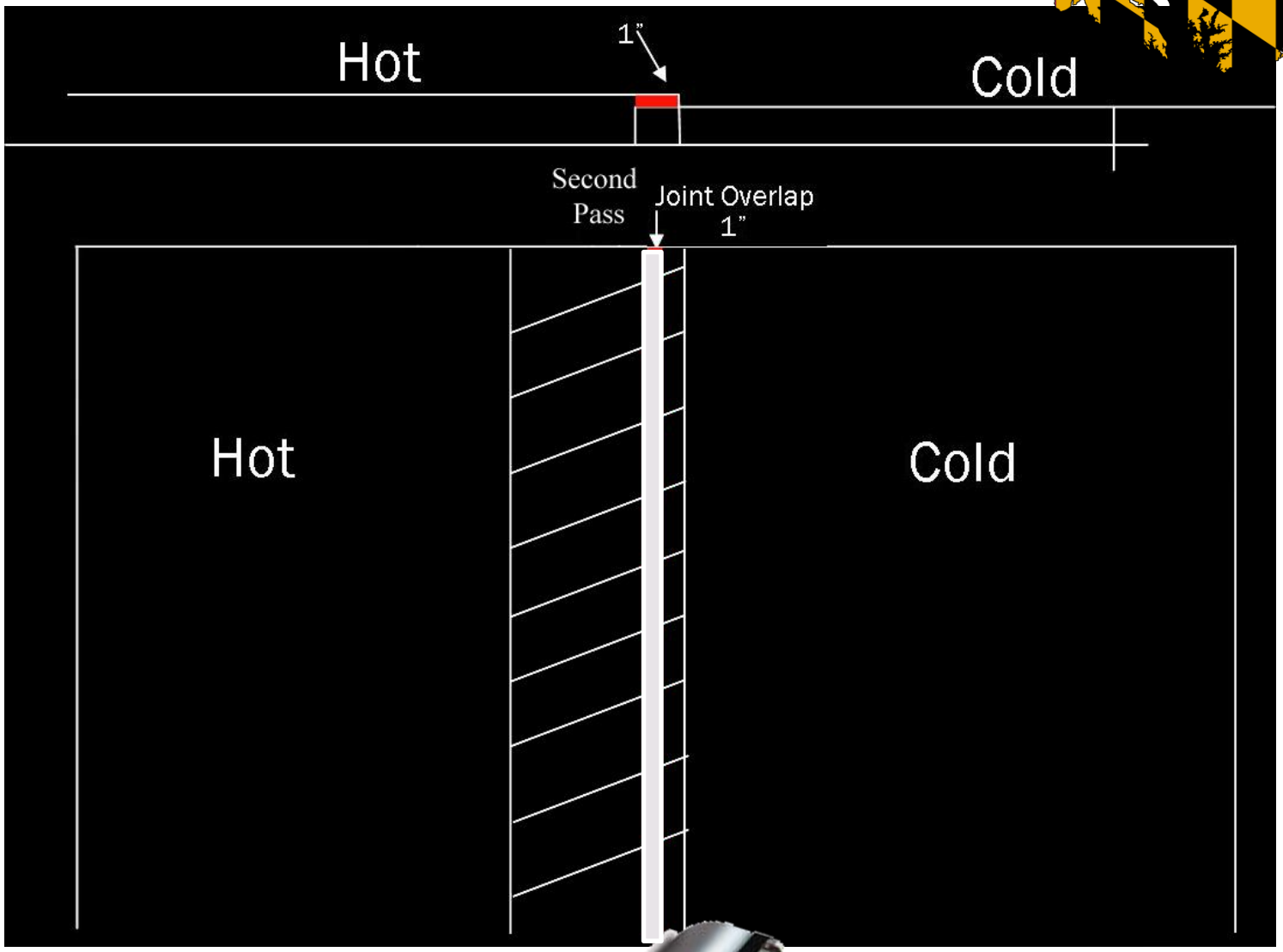
Second Pass



1" to 1.5" Inches + Remaining Uncompacted

Second Pass

504.03.08 Joints

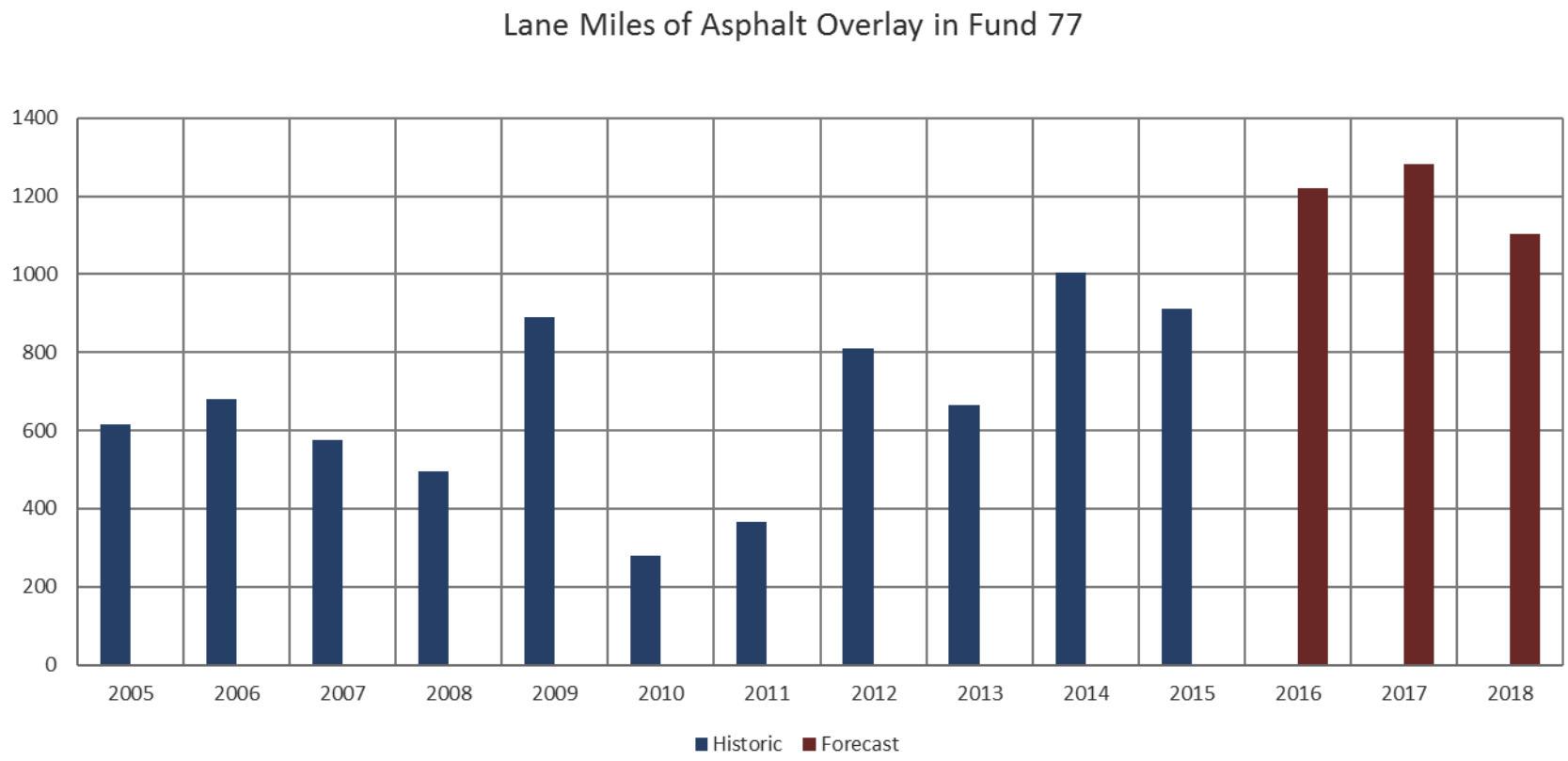


The Resulting Joint

The Resulting Joint

The Resulting Joint

Why are Good Joints ***So*** Important?



Remain Calm – Pave On!