29. A polishing pad for polishing a substrate, the polishing pad comprising:

a foundation layer having a global top surface and a transparent region;

a polishing surface layer attached to the global top surface of the foundation layer, the polishing surface layer having a polishing surface and a back surface; and

an opening disposed in the polishing pad from the polishing surface, but not through to the back surface~~,~~ of the polishing surface layer~~, the opening aligned with the~~ or not through the transparent region of the foundation layer, wherein the opening is a sloped slurry deflection feature comprising a single planar surface with an uppermost height at a first side of the opening sloping to a lowermost height at a second side of the opening.

30. The polishing pad of claim 29, wherein the entire foundation layer is transparent.

31. The polishing pad of claim 29, wherein the foundation layer has a first hardness, and the polishing surface layer has a second hardness different from the first hardness.

32. The polishing pad of claim 29, wherein the polishing surface layer is bonded directly to the foundation layer.

33. The polishing pad of claim 32, wherein the polishing surface layer is covalently bonded to the foundation layer.

34. The polishing pad of claim 29, wherein the polishing surface layer comprises a continuous layer portion with a plurality of polishing features protruding there from, the continuous layer portion attached to the foundation layer.