1075-20-242 **Chris Hruska*** (chruska@uwm.edu), Department of Mathematical Sciences, University of Wisconsin–Milwaukee, PO Box 413, Milwaukee, WI 53201-0413, and **Kim Ruane**. *Local topology of boundaries for CAT(0) spaces with isolated flats.* Preliminary report.

We study CAT(0) spaces with isolated flats and the local topology of the boundary at infinity (with the visual topology). In particular, we prove a theorem characterizing exactly when the boundary is locally connected.

This theorem extends Swarup's result that the boundary of every hyperbolic group is locally connected. We illustrate our theorem with an example of a one-ended CAT(0) group with isolated flats whose boundary is not locally connected. We also prove that every group acting properly and cocompactly on a CAT(0) space with isolated flats is semistable at infinity.

Related results were obtained by Bowditch in the setting of relatively hyperbolic groups. However, the "relative boundary" studied by Bowditch is different from the CAT(0) boundary studied here. In particular, Bowditch's results on the relative boundary do not restrict the local connectivity of the CAT(0) boundary. (Received August 30, 2011)