## **Comparison Quality Photographs of Tire Impressions**

## Maine State Police Crime Laboratory – Latent Print Section

## Supplies:

- Digital SLR camera
- Sync cord

External flash

- Detachable lens capable of being set to 35mm or 50mm
- Tripod

 Scale (L-scale preferred) and Tape measure

## Steps:

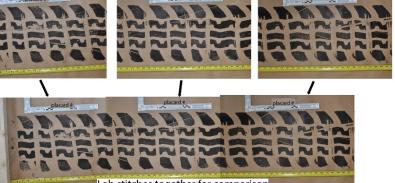
- 1. Take documentation photographs (overall, midrange, close-up), first without, then with evidence markers.
- 2. Place scale <u>next to</u>, and <u>at the same level</u>, as the impression you want to photograph.
- 3. Set camera image format to RAW (or RAW + JPEGfine)
- 4. Set camera mode to Aperture Priority ("A" or "Av" depending on your camera)
  - a. Set f-stop to at least 5.6 (8 is a great "catch-all")
- 5. Put camera on tripod.
- 6. Adjust the camera on the tripod so the camera back or front of lens is <u>parallel</u> to the impression.
- 7. Attach the sync cord between the camera and the flash (if using a slave flash, you'll have to prevent the pop-up fill flash on the camera from firing so tape it or hold it down or block that flash)
- 8. Set focal length of lens:
  - a. Cropped frame sensor = set lens to 30-35mm
  - b. Full frame sensor = set lens to 50mm
- 9. Focus on the impression by adjusting the tripod (not the lens)
- 10. Hold flash at arms-length, at an angle, directed at the impression.
- 11. Take at least three photos with the flash from at least three different orientations to the impression (e.g., 12:00, 3:00, 6:00, and 9:00). Be careful of tripod legs obstructing the flash.
- 12. For long impressions:
  - a. Stretch tape measure beside and along the length of the impression to be photographed.
  - b. Take overlapping comparison quality photographs (be sure to include scale and ID in each photo).
  - c. The Lab uses the tape measure to stitch the complete impression together for comparison.

E.g., Photo 1: 1" to 12", Photo 2: 10" to 22", Photo 3: 20" to 32"



Comparison Quality Photograph

Take overlapping photos of long impressions



Lab stitches together for comparison