

SECTION 02746

HYDRATED LIME

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Products and procedures for incorporating hydrated lime into all asphalt mixes.

1.2 REFERENCES

- A. AASHTO M 303: Lime for Asphalt Mixtures
- B. AASHTO T 26: Quality of Water to be Used in Concrete
- C. AASHTO T 84: Specific Gravity and Absorption of Fine Aggregate
- D. AASHTO T 85: Specific Gravity and Absorption of Coarse Aggregate
- E. AASHTO T 255: Total Moisture Content of Aggregate by Drying
- F. ASTM C 110: Physical Testing of Quicklime, Hydrated Lime, and Limestone
- G. ASTM C 1097: Hydrated Lime for Use in Asphaltic-Concrete Mixtures

1.3 QUALITY ASSURANCE

- A. Prequalification: Hydrated Lime, through UDOT's Quality Management Plan for Hydrated Lime.

PART 2 PRODUCTS

2.1 HYDRATED LIME

- A. Hydrated Lime: Meet AASHTO M 303, Type I, as specified.
 - 1. Conform physical requirements to ASTM C 1097, subparagraph d.1.
 - 2. Use test method ASTM C 110, paragraph 5.4.

2.2 WATER

- A. Potable Water. AASHTO T 26

PART 3 EXECUTION

3.1 APPLICATION

- A. Add hydrated lime to all asphalt pavement mixes.
 - 1. Add the determined quantity of lime, following mix design.
 - 2. Base the amount of hydrated lime used on the dry weight of the aggregate.
 - 3. Use either Method A or B, following AASHTO T 84, AASHTO T 85, and AASHTO T 255, unless Method B is called for in the bid schedule.
- B. Method A: Lime Slurry: One part lime and three parts water by weight.
 - 1. Maintain the lime slurry mix in a malted milk consistency.
 - 2. Deliver lime slurry to the twin shaft pugmill for mixing with aggregate.
- C. Method B: Lime and Aggregate Stockpile Marination:
 - 1. Marinate the aggregate in the stockpile for 24 hours.
- D. Mixing Methods A and B: Provide a horizontal twin shaft pugmill.
 - 1. Adjust mixing paddles in the pugmill so that the aggregate being discharged is completely coated by the lime slurry.
 - 2. Do not allow volume of material in the pugmill to extend above the vertical position of the blade tips.

3.2 CONTROLLING AND MONITORING

- A. Control the lime batching operation by the Program Logic Control (PLC) System based upon production set up data.
- B. Monitor the following aspects and record on the computer data log printout:
 - 1. Display target and actual rates.
 - 2. Belt weight bridge for lime.
 - 3. Locked-in water meter.
 - 4. Meter to transfer lime slurry.
 - 5. Closed end loop to mainframe computer.

3.3 QUALITY CONTROL

A. Tolerance Controls

1. Tolerance lime weight vessel static calibration " 1.5 percent.
2. Dynamic delivery calibration " 1.5 percent.
3. Inlet flow meter " 2 percent.
4. Discharge flow meter " 1.5 percent.

B. Verification

1. Submit to the Engineer Post Lottman Data on Hot Mix Asphalt.
2. Meet the system Tensile Stress Requirement.

END OF SECTION