SPECIAL SPECIFICATION
3035
Blade Level-Up with Asphalt Concrete

1. **Description**. Prepare the pavement for an asphalt concrete level-up. Place an asphalt concrete level-up course or courses and compact the courses at location shown on the plans or at location as directed. Repair the front slope to eliminate any drop off created by the level-up and place temporary pavement marker for lane lines.

2. **Materials.** Furnish all material(s) meeting the following requirement, unless otherwise shown on the plans.

   A. **Tack Coat:** Furnish CSS 1H, SS 1H, or a performance-graded (PG) binder with a minimum high-temperature grade of PG 58 for tack coat in accordance with Item 300, "Asphalts, Oils, and Emulsions" unless other types of asphalt are required on the plans. Do not dilute emulsified asphalts at the terminal, in the field, or at any other location before use. The Department may sample the tack coat to verify specification compliance.

   B. **Asphalt Concrete Mixture.** Furnish the types of asphalts concrete materials meeting one of Item 330, "Limestone Rock Asphalt," Item 334, "Hot-Mix Cold-Laid Asphalt Concrete Pavement, or Item 340, "Dense-Graded Hot-Mix Asphalt (Method)" The item, type and grade of aggregate, binder, and state aggregate classification (SAC) and other material requirements will be as shown on the plans when applicable.

   C. **Removable and Short-Term Markings**. Use raised pavement markers, removable prefabricated pavement markings, temporary flexible reflective roadway marker tabs, or other approved materials for removable and short-term markings. Do not use hot-applied thermoplastic or traffic paint for removable markings. Use removable prefabricated pavement markings on the final pavement surface when the plans specify removable markings that meet the requirements of DMS 8241. Reflective tabs shall meet the requirement of DMS 8442.

   D. **Material Furnished by the Department**. Pick up or load material furnish by the Department at locations shown on the plans or designated by the Engineer. Do not use any material furnished by the Department for any work not a part of the contract. Return all unused furnished materials to the Department upon completion of the work and prior to final payment to the location from which the materials were obtained.

3. **Equipment**. Furnish equipment to produce, haul, place, compact, and test the level up in accordance with Item 320, "Equipment for Asphalt Concrete Pavement." Maintain all equipment for the handling, mixing, and placing of all materials in good repair and operating condition, as approved. Replace any equipment found defective and affecting the quality of the paving mixture.

4. Construction Methods. Construct the level up in accordance with the following.

A. General. Transport, place and compact the specified paving mixture, in accordance with this Item and as approved. Place mixture when the roadway surface temperature is 60°F or higher unless otherwise approved. Measure the roadway surface temperature with a handheld infrared thermometer. Unless otherwise shown on the plans, place tack coat and mixture only when weather conditions and moisture conditions of the roadway surface are suitable in the opinion of the Engineer.

B Preparation of Surface. Before the placement of tack coat, prepare the roadway surface by removing traffic buttons or jiggle bars from the paved level-up area. Remove grass and turf from the edge of the pavement by using a motor grader blade. Thoroughly clean and sweep loose material from the roadway surface before the application of tack coat to the satisfaction of the Engineer. Patch potholes by cleaning the hole of loose material, placing tack coat in hole, placing level-up material in the hole, and compacting by approved means. Spread loose material uniformly across the toe of the slope.

C Tack Coat. Clean the surface before placing the tack coat. Unless otherwise approved, apply tack coat uniformly at the rate directed. The Engineer will set the rate between 0.04 and 0.10 gal. of residual asphalt per square yard of surface area. Apply a thin, uniform tack coat to all contact surfaces of curbs, structures, and joints. Prevent splattering of the tack coat when placed adjacent to curb, gutter, and structures. Roll the tack coat with pneumatic-tire roller when directed. The Engineer may use Tex-243-F to verify that the tack coat has adequate adhesive properties. The Engineer may suspend paving operations until there is adequate adhesion.

D Placement. Place the asphalt concrete mixture in accordance with this specification and the plans and with specifications of the asphalt concrete being used (Items 330, 334 or 340) or as directed. Windrow and pull the material across the entire patch or area to be leveled up not to exceed 1 in. lifts for cold laid asphalt concrete mixtures. Add the material in lifts and rolled until the desired grade can be reached. Do not exceed compacted lift thicknesses specified in Table 8 in Item 340.4.F, when placing hot laid asphalt concrete mixtures. Feather all edges including each end of the patch or level up into the existing pavement as to eliminate any bump left by excess material. This can be accomplished by using a motor grader or by hand, using asphalt rakes. Roll each lift until the roller does not tract the material.

Take extreme care when using a vibratory roller on these lifts. The Engineer may restrict the use of a vibratory roller if there is a deterioration of the mat. After the final pass is made by the motor grader, use the flat-wheel roller until roller marks are removed and to seal the finished asphalt concrete mixture patch or level up.

E. Compaction. Compact the pavement thoroughly and uniformly with the necessary rollers to obtain the density, stability and cross section of the finished paving mixture, as specified in the plans and specifications and to the approval of the Engineer.

Begin rolling longitudinally at the sides and proceed toward the center, overlapping on successive trips by at least 1/2 the width of the rear wheel, when rolling with the three-wheel, tandem or vibratory rollers, unless otherwise directed. Offset alternate trips of the

roller. On superelevated curves, begin rolling at the low side and progress toward the high side.

When rolling with vibratory steel-wheel rollers, follow the manufacturer's recommendation unless directed otherwise. Roll with pneumatic tire roller as directed. Continue rolling until no further density can be obtained and all roller marks are eliminated. Compact thin irregular level-up courses as directed.

Avoid displacement of the mixture. To prevent adhesion of the surface mixture to the roller, keep wheels thoroughly moistened with water, but an excess of water will not be permitted. Allow motion of the roller to be slow enough at all times to avoid displacement of the mixture. If any displacement occurs, correct it at once by the use of rakes, and with fresh mixture where required. Do not allow roller to stand on pavement which has not been fully compacted. Take necessary precautions to prevent the dripping of gasoline, oil, grease or other foreign matter on the pavement, either when the rollers are in operation or when standing.

F. Hand Tamping. Hand tamp to thoroughly compact the edges of the pavement along curbs, headers, and similar structures and in locations that will not allow thorough compaction with the rollers.

G. Pulling Shoulders. Unless otherwise specified on the plan pull the front slope with the motor grader to make a smooth transition to the pavement surface and to eliminate any drop off between the asphalt surface level up and the front slope.

H. Lane Line. Unless otherwise shown on the plans place temporary lane line using reflective tabs on the level up areas each day before leaving the work area. Spacing is shown on the plans.

5. Surface Test. The Department will test drive the patch or level up to determine if adequate grade and riding surface has been achieved. If the ride is considered rough, by the Engineer, test ride quality of the pavement surface with a 10 ft. straightedge at locations directed by the Engineer. Take corrective action as directed by the Engineer on surface areas that have more than 3/16-in. variation between any 2 contacts on the 10 ft. straightedge.

6. Measurement. Level up asphalt concrete which includes asphalt, aggregate and additive will be measured for payment by one of the following methods.

1. Measure by square yard in place.

2. Measure by the ton of composite asphalt concrete, which includes asphalt, aggregate and additives. Measure the weight on scales in accordance with Item 520, "Weighing and Measuring Equipment."

3. TxDOT supplied materials may be measured by the cubic yard of composite asphalt concrete material in trucks to be applied on the road. The Engineer may require loaded material to be struck off for accurate measurement. The load will be documented by issue ticket, signed by the designated signatories for the Department.

7. Payment. Level up asphalt concrete which includes asphalt, aggregate and additive will be measured for payment by one of the following methods.

The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Blade Level-Up" of one of the following:

- "Limestone Rock Asphalt," of the type, grade and surface aggregate classification specified,
- "Hot-Mix Cold-Laid Asphalt Concrete Pavement," of the type, surface aggregate classification and asphalt binder specified,
- "Hot-Mix Asphalt," of the type, surface, aggregate classification, and binder specified, and with indication of who furnishes the material (the Contractor or State.)

This price is full compensation for cleaning the existing pavement, hauling and placing tack coat and asphalt concrete material, rolling and finishing, installing reflective tabs or removable stripes, pulling shoulders and for all manipulations, labor, tools, equipment, all material required to be furnished by the plans, and incidentals necessary to complete the work. Preparation of surface, such as but not limited to filling and compacting holes is subsidiary to the bid item in the contract unless otherwise shown on the plans.