



City of Oakdale
1584 Hadley Avenue North
Oakdale, MN 55128

ENGINEERING SPECIFICATIONS CITY OF OAKDALE NO. 2104

REMOVING PAVEMENT AND MISCELLANEOUS STRUCTURES

PART 1 GENERAL

1.01 SUMMARY

A. Section Includes:

1. Removal and Disposal of:
 - a. Pavements
 - b. Sewers and appurtenances
 - c. Water main and appurtenances
 - d. Concrete curb and gutter.
 - e. Concrete driveway apron.
2. Salvaging of Designated Materials
 - a. Signs
 - b. Castings
 - c. Hydrants
 - d. Valves
3. Backfilling of Resulting Depressions
4. Pulverizing of existing bituminous pavement utilizing a machine (cold) process to provide a blended aggregate mixture of existing bituminous and aggregate base material.

B. Related Sections:

1. MN/DOT Section 2104: Removing Pavement and Miscellaneous Structures.
2. MN/DOT 2105: Excavation and Embankment
3. MN/DOT 2211: Aggregate Base

C. Method of Measurement:

1. General:
 - a. Only materials and items designated for removal will be measured.
 - b. Removal and salvage items will be measured separately as identified by the Item Name.
 - c. Integral curb shall be considered part of the pavement area.



- d. Includes multiple mobilizations.
2. Measurement by Area:
 - a. Surface of uniform thickness will be measured by area in square yards.
3. Measurement by Length:
 - a. Length measurements will be made along the longitudinal centerline.
 - b. Pipe measurements will be made to the center of structures and to the end of aprons.
 - c. Concrete pavement sawing will be measured along the staked cut line.
4. Measurement by Volume:
 - a. Volumes will be determined from field measurements of materials actually removed.
5. Measurement by Number (Complete unit):
 - a. Items will be measured separately by the number of units including appurtenances.
6. Salvage and Install Sprinkler System:
 - a. Measure by distance in feet.
 - b. Includes all labor, equipment and materials.
7. Salvage and install fence:
 - a. Measure by distance in feet.
 - b. Includes all labor, equipment and materials.
 - c. If fence cannot be salvaged and installed, provide new materials.
 - d. Fence can be removed and replaced instead of salvaged and installed at the Contractor's option upon approval by the Engineer.
8. Salvage Hydrant and Valve Assembly:
 - a. Measure by the unit.
 - b. Includes salvaging existing hydrant and valve, delivering to the Oakdale public works facility, and plugging the existing water main at the tee, if necessary.

D. Basis of Payment

1. Payment for acceptable quantities of pulverizing bituminous pavement shall be at the contract unit price as listed on the bid form. All associated work items shall be considered incidental.

1.02 REFERENCES

- A. MN/DOT 2232: Mill Pavement Surface
- B. MN/DOT 3138: Aggregate for Surface and Base Courses
- C. MN/DOT 3149: Granular Material



PART 2 PRODUCTS

2.01 SALVAGE BITUMINOUS AND CLASS 5

- A. The pulverized bituminous pavement and existing aggregate base blend shall meet MN/DOT 3138, Class 5 specifications for gradation, except that the 100% passing requirement will be increased to two (2) inches.

2.02 EQUIPMENT

- A. The machine utilized to pulverize the bituminous pavement shall have the following capabilities:
 - 1. Power operated.
 - 2. Capable of pulverizing Inplace bituminous materials as it is propelled along the roadway.
 - 3. Control dust and particular matter created by the grinding action.
 - 4. Control depth of cut.
 - 5. Variable speed to produce the desired results.

PART 3 EXECUTION

3.01 PREPARATION

- A. Sawing Pavement:
 - 1. Saw concrete pavement along removal lines through entire pavement thickness.
 - 2. Saw bituminous pavement along removal lines through entire pavement thickness.
 - 3. Produce a neat, square edge prior to restoration.
- B. Protect all Inplace structures and facilities not designated for removal.

3.02 PULVERIZING OPERATION

- A. The bituminous material pulverized by the operation will be used within the project or delivered to the Owner according to the construction documents.
- B. Pulverize pavement through the entire depth of existing bituminous and aggregate.



- C. Pulverize full depth bituminous pavement by whatever means necessary to utilize the material on the project as specified.
- D. Establish and maintain grade control as required.
- E. Vary machine speed to produce required aggregate blend.
- F. Incorporate screening and crushing capabilities to reduce or remove oversized particles.
- G. The Contractor will remove excessive oversized particles.
- H. Mixing of the pulverized bituminous pavement and Class 5 aggregate is permitted during pulverizing operation or after.
- I. Pulverized bituminous pavement will be compacted to provide temporary driving surface.

3.03 REMOVAL OPERATIONS

- A. Remove only structures and facilities that have been so marked by the Engineer.
- B. Complete all removal operations prior to adjacent new construction.
- C. Remove materials designated for salvage in a manner that will not result in damage. All damaged materials will be replaced at the Contractor's expense with no compensation by the Owner.
- D. Completely remove structures, which are designated for removal.
- E. Whenever possible, remove concrete to an existing joint.

3.04 DISPOSAL OF MATERIALS AND DEBRIS

- A. Stockpile all materials designated for salvage at locations approved by the Engineer.
- B. Dispose of all materials not designated for salvage in accordance with all applicable laws and ordinances.

3.05 BACKFILLING DEPRESSIONS

- A. Backfill all depressions resulting from removals in accordance with MN/DOT Section 2105: Excavation and Embankment.



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3.06 SALVAGED MATERIALS

- A. Salvaged materials not designated for reuse shall be delivered to the Oakdale Public Works garage, located at 1900 Hadley Avenue North.

3.07 INSTALLING SALVAGED MATERIALS

- A. Install all salvaged materials as shown in Plan Details, in locations as directed by the Engineer, and in accordance with the appropriate specification sections.

3.08 SALVAGE AND INSTALL FENCE

- A. Salvage existing fence as directed.
- B. Install salvaged fence as directed.
- C. Provide replacement materials as necessary.
- D. Meet or exceed quality of existing fence installation.
- E. Provide new fence at Contractor's option as approved by the Engineer.

3.09 RELOCATE SPRINKLER SYSTEM

- A. Salvage existing sprinkler pipe and appurtenances as directed.
- B. Install salvaged items as directed.
- C. Provide replacement materials as necessary.
- D. Meet or exceed quality of existing sprinkler system.

3.10 PROTECTION

- A. Locate and mark all Inplace structures within the pavement surface prior to construction operations.
- B. Repair or replace Inplace structures damaged or disturbed by the pulverizing operations.

3.11 STAGING



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- A. Pulverize existing pavement **no more than 21 calendar days prior** to new bituminous base course placement.

END OF SECTION