

SECTION 055
SPECIFICATIONS - RESTORATION

1.0 General

All costs for restoration shall be the responsibility of the Contractor and included in the unit bid items. Where no specific bid item covers the restoration expense, it shall be considered part of the contract amount.

Restoration of all property, public and private, damaged or disturbed by the work shall be completed as soon as possible after installation of sanitary sewer pipe and appurtenances and shall progress as backfilling progresses. If restoration work has not been completed after ten (10) days after receipt of written notice to complete restoration, the District may have the work completed by others and the Contractor shall be responsible for the costs of such restoration.

Where consideration is given to a property owner in lieu of restoration, a written release for both the Contractor and the District must be secured from the property owner and presented to the District.

2.0 Roadway Restoration

Trench backfilling, and providing of a temporary driving surface, shall be completed promptly to minimize inconvenience to traffic and local property owners. The Contractor shall contact local property owners prior to the start of construction to arrange temporary access to driveways. Trench backfilling shall be completed in accordance with Section 047 of these specifications.

Removal of the full width of lanes shall be required when directed by the Engineer, when specified on a permit issued by the agency with jurisdiction over the right-of-way in question, or as required in these specifications. All other existing pavement shall be sawed straight and true at least one (1) foot past the disturbed trench area through the full depth of existing pavement base. If a proposed saw-cut is within three (3) feet of an existing pavement joint, the cut shall be made at the pavement joint. Any damage to the existing roadway beyond the limits of the Contractor's saw cut, caused by Contractor activity, shall be the responsibility of the Contractor and repaired at the Contractor's expense to the satisfaction of the Engineer.

Circumstances where roadway restoration of the full lane width is not required include locations where the roadway base material is not concrete and the roadway is not within an Illinois Department of Transportation (IDOT) right-of-way. For example, in City of Peoria right-of-ways, roadways that have an existing brick base shall not be removed and replaced for the full width of pavement; however, if a City of Peoria roadway has a concrete base, removal and replacement shall be from joint to joint.

Roadway restoration shall be as required in Section 442.05 of the IDOT Specifications. A Class B patch shall be specified for removal and replacement of pavements that have a rigid-type base and require replacement of the base with Portland cement concrete except that full lane width patches will be as described above. A Class D patch shall be specified for removal and replacement of pavements that have a flex-type base and require replacement with bituminous materials.

Permanent resurfacing shall be done promptly after completion of the project. If, in the judgment of the Engineer, immediate permanent surface restoration is not possible, a temporary dust free driving surface shall be provided. Judgement of where and when all temporary surfaces shall be provided shall rest with the Engineer and he shall also determine the frequency of the temporary surface maintenance. All costs for such temporary surface work shall be paid by the Contractor and the cost shall be considered incidental to the contract amount.

Removal of existing pavement, surface restoration and the placing of a base course shall be paid for per lineal foot along the line of sewer replaced and under the material unit item specified by the Engineer. A Detail Drawing of the requirements for roadway restoration in the City of Peoria is provided either on the drawings and/or in Section 095 of the specifications.

Roadway restoration shall be in conformance with both these specifications and those of IDOT's "Standard Specifications for Road and Bridge Construction", latest edition, or as directed in permits issued by IDOT.

Liability for restoration shall be with the Contractor and the Contractor shall also be responsible for securing such permits, bonds, or licenses as may be required by any private or public agency having authority in the area.

2.1 Roadway Base Course

When trench backfill has been sufficiently compacted as determined by the Engineer, the Contractor shall provide approved base course materials, installation, equipment, testing, etc., in accordance these specifications and those of IDOT. When in conflict, the IDOT specifications shall take precedence.

When a gravel base course is required, the IDOT specifications for aggregate base course, Type A, shall govern, except for the subsections regarding methods of payment and the basis of payment. The material used shall be IDOT gradation CA-6, crushed stone, and from a local source all approved by the Engineer.

When a Portland cement concrete rigid base course is required, the IDOT Specifications for Portland concrete cement (PCC) base course shall govern, except for those subsections regarding method of payment and basis of payment. Generally, the class of concrete used for the construction of roadway base courses shall be class PP in accordance with Article 1020.04 of the IDOT Specifications; however, class PV may be used as directed by the Engineer.

When a bituminous (flexible) base course material is required, the IDOT specifications for bituminous base course shall govern, except for those subsections regarding method of payment and basis of payment.

2.2 Roadway Permanent Surface Restoration

Except where otherwise directed by the Engineer, roadways, including benching and filling for same, shall be restored to the original grades and surface. Roadway permanent surface restoration shall conform to the following:

2.2.1 Aggregate Surface Courses - Unimproved roadways or driveways having aggregate surface courses shall be restored with a like surface placed over the entire roadway or driveway. The IDOT Specifications for placement of an Aggregate Surface Course shall govern except as noted in these specifications. Type A surface course, in accordance with Section 402 of the IDOT Specifications shall apply. The material shall be crushed stone, taken from a local source approved by the Engineer. The surface shall be reshaped to grade and compacted in place to the satisfaction of the Engineer.

2.2.2 Seal Coated Surfaces - Improved surfaces having a chip and seal surface shall be restored by first scarifying its entire width.

The Contractor shall then use a tiller or pulverizer to reduce the scarified material to a small

usable size that can be incorporated into the base course. The entire driveway surface shall then be graded and crown established. Base course shall then be compacted with a minimum of a ten (10) ton steel drum roller or a vibrator steel drum of equal capacity. A final two (2) inches of IDOT gradation CA-6 crushed stone leveling surface shall then be added, and compacted. The chip and seal-wearing surface shall be placed as follows:

Required Equipment:

1. Pressure Distributor;
2. Self-propelled Aggregate Spreader;
3. Pneumatic tired roller;
4. Mechanical Sweeper.

Application material and rate for the three (3) steps (Prime, Cover and Seal) shall be as follows:

1. Prime MC-30, 0.30 gallons per square yard (gal./sy);
2. Cover AC-2.5, 0.30 gal./sy;
3. Seal AC-2.5, 0.28 gal./sy.

Note: The Engineer shall vary the rate in the field as required.

Cover coat & seal coat aggregate shall be spread at the approximate rate of twenty-five (25) pounds per square yard (lbs./sy). Aggregate shall conform to the Graduation of CA-16 as per current IDOT Standard Specifications for Road and Bridge Construction.

Improved roadways having a chip and seal surface shall be repaired in accordance with these specifications, the City of Peoria roadway restoration requirements illustrated in Section 095 and IDOT specifications or permits.

2.2.3 Bituminous Binder and Surface Courses, Class I - Improved bituminous roadways or driveways shall be restored in accordance with Section 406 of the IDOT Specifications, unless otherwise directed by the Engineer or by directions contained within a permit issued by the Agency having jurisdiction over the right-of-way in question. Subsections regarding methods of measurement and basis of payment shall not be applicable. All equipment is subject to the approval of the Engineer.

Reclaimed asphalt pavement materials shall not be permitted for use.

The prime on brick, concrete, or bituminous base shall be RC-70, applied at a rate in accordance with the IDOT Specifications. Prime on aggregate bases shall be MC-30, also applied at a rate in accordance with the IDOT Specifications. The mixture used for cracks, joints and flangeways shall be per IDOT Specifications. The leveling binder, binder course, and surface course shall be Class I, Type 1. The Engineer may specify a mixture design or elect to have the Contractor recommend a mix design based on specific applications.

Bituminous surface courses shall be three (3) inches thick. The Engineer may require the material to be placed in a 1½-inch scratch coat and a 1½ inch surface coat depending on the condition of the base. Unless required by the Engineer, a test strip shall not be performed.

2.2.4 Concrete Roadway Surfaces - Improved roadways with a concrete surface shall be restored in accordance with IDOT specifications for Class B pavement patching, Section 442 and Section 420, unless specified otherwise by the Engineer. The subsections of the IDOT

Specifications that pertain to methods of measurement and basis of payment shall not be applicable. For the purpose of these specifications, a Class B patch shall not necessarily mean a pavement patch along the full width of a lane, but can refer to a patch cut narrower than full lane width depending on field conditions.

2.2.4.1 Reinforcement

Joints shall be as defined in, and constructed in accordance to and in locations dictated by, Section 420 of the IDOT Specifications.

At locations of transverse contraction joints, smooth, #6, epoxy-coated steel dowel bars shall be inserted into tie holes placed at eighteen (18) inch centers. Dowel bars used in transverse contraction joints shall be eighteen (18) inches in length and inserted nine (9) inches into the existing pavement. Spacing of dowel bars shall begin six (6) inches from the edge of the pavement, or longitudinal sawed joint, and continue until six (6) inches from the opposite longitudinal sawed joint. Transverse contraction joints shall be made between new pavement and existing pavement along lines perpendicular to the direction of traffic and at spacing per IDOT Specifications. Where the Contractor removes a transverse contraction joint, a new one shall be constructed per IDOT Specifications at that location upon reconstruction.

At locations of longitudinal sawed joints, smooth, #6, epoxy-coated steel dowel bars shall be inserted into tie holes placed at thirty (30) inch centers. Dowel bars used in longitudinal sawed joints shall be twenty-four (24) inches long and inserted twelve (12) inches into the existing pavement.

If provided, joint construction may also be as shown on detail drawings included on the plan sheets.

Dowel bars shall be anchored into tie holes by use of a two-part epoxy specifically formulated for such applications. Application of the epoxy anchor shall be per the IDOT Specifications and the manufacturer's recommendations.

Materials, placement, etc., of concrete wire reinforcements and wire reinforcement supports shall be as detailed in both Section Three (3) of ACI 301 and the IDOT Specifications. When in conflict, the IDOT Specifications shall govern. The submittals required in subsections 3.1.1.1 through 3.1.1.3 of ACI 301 shall not be required unless specifically requested by the Engineer. Steel welded, plain wire fabric shall not be less than six (6) inches x six (6) inches x W2.9 x W2.9 in conformance with both ASTM A185 and ASTM A82. The Contractor shall submit to the Engineer the manufacturer's certification that the steel welded wire fabric has been tested in accordance with and meets the requirements of ASTM A185 and ASTM A82.

Epoxy-coated reinforcing bars shall conform to ASTM A775. The Engineer may request a manufacturer's certification of compliance with ASTM A775.

2.2.4.2 Concrete Replacement Surface

All work associated with the placement of concrete pavements, including, but not limited too, materials, concrete proportioning, formwork, transportation of materials, concrete placement, curing, finishing, protection, etc., shall be as detailed in both the pavement

patching requirements of the IDOT Specifications and Section 091 of these specifications, unless otherwise directed by the Engineer.

The depth of a replacement concrete slab shall match that of the existing roadway, but shall not be less than six (6) inches in depth in accordance with the City of Peoria pavement restoration detail included in Section 095 of these specifications. The depth of a patch shall not be less than the thickness that existed before construction.

All joints between the new pavement and that existing shall be sealed in accordance with Section 420 of the IDOT Specifications.

Where specified by the Engineer, the Contractor shall use the concrete mix specified in Section 701.05 (e)(2)(c) of the IDOT Specifications. The mix shall be modified in accordance with the specifications to account for temperature variations. Unless otherwise specified by the Engineer, the Contractor shall be allowed to maintain overnight traffic control at sites where the special mix is used.

2.2.4.3 Forms

Forms shall be in accordance with Section 1103 of the IDOT Specifications.

The design, engineering and construction of forms shall be the responsibility of the Contractor. He shall design the forms to adequately support and safely carry the load of the concrete without deflection. The Contractor shall be responsible for any injury or damage arising from inadequate forms or from premature removal of formwork.

2.2.5 Cold Mix - When approved by the Engineer, improved alleys with an existing sealed surface located within the City of Peoria, and elsewhere specified by the Engineer, shall be restored with no less than three (3) inches of cold patch material, as manufactured by Sylvax Corp., or an approved equal.

2.3 Opening Roadway to Traffic

Pavement patching shall proceed in accordance with the IDOT specifications for opening roadways to traffic. The guidelines detailed in Section 701.05 (e) shall apply, except that both multi-lane construction zones and complete roadway closures shall be allowed only with the approval of the Engineer. If traffic control guidelines that allow for either multi-lane construction or roadway closures are included in a permit issued by an agency with jurisdiction over a right-of-way in question, then these guidelines shall govern construction included under the scope of the permit.

Construction live loads shall not be placed on concrete until the conditions of Article 701.05 (e)(2) of the IDOT Specifications have been met. The special mixture referred to in this section of the IDOT Specifications shall only be allowed upon the direction of the Engineer.

3.0 Restoration of Concrete Sidewalks, Curbs, Gutters and Medians

Concrete sidewalks, curbs, gutters and medians shall be replaced to the satisfaction of the Engineer or his Representative. If the City of Peoria has jurisdiction over the right-of-way in question, then their specifications shall govern, unless otherwise noted by the Engineer; else, the IDOT specifications shall govern, except for any portions altered by an IDOT issued permit.

If specified in the City of Peoria specifications, sidewalks, curbs and gutters shall be removed and replaced as a single monolithic unit.

Forms shall be as detailed in Section 1103 of the IDOT Specifications.

Curb, gutter and median restoration within IDOT right-of-way shall be as specified in Section 606 of the IDOT Specifications, except those subsections regarding methods of measurement and basis of payment.

Sidewalk restoration within IDOT right-of-way shall be as specified in Section 424 of the IDOT Specifications, except those subsections regarding methods of measurement and basis of payment.

4.0 Temporary Sidewalk Surface Restoration

Damaged sidewalks shall be temporarily restored by laying a surface of wooden planks two (2) inches thick, suitably fastened and flush with the adjacent sidewalk or by such other means as directed by the Engineer. Judgment of where and when all temporary surfaces shall be provided shall rest with the Engineer and he shall also determine the frequency of the temporary surface maintenance. The Contractor shall pay all costs for such temporary surface work and the cost shall be incidental to the contract price.

5.0 Restoration of Driveways

The IDOT Specifications for pavement patching, Class B, shall apply when restoring driveways. Driveways shall be removed and replaced to the nearest available existing joint beyond the trench limits. Unless otherwise specified, driveways shall be replaced with the same thickness as the existing drive way, but no less than six (6) inches, with Class PV, PCC in accordance with the applicable IDOT Specifications. Dowel bars and tie holds, in accordance with Article 2.2.4.1 of this Section, shall be used where directed by the Engineer. Concrete materials, placement, curing and finishing shall be as required in Section 091 of these specifications.

Control joints shall be spaced at intervals not exceeding 10 feet with a minimum depth of cut equal to one quarter of the slab thickness. A centerline control joint is required for driveways greater than 12 feet in width. Where new construction abuts existing structures (i.e. garage floors, brick veneer walls, fence posts, etc.) an isolation joint extending the full depth of the concrete slab shall be required.

If applicable, any sidewalk, curb and gutter replacement associated with the restoration of a driveway shall be in accordance with Article 3.0 of this Section.

6.0 Restoration in Non-Roadway Areas

The Contractor shall dispose of bushes, trees or other debris cleared by the Contractor in undeveloped areas; additionally, particular attention shall be given to the immediate removal of all excavated and other materials from areas adjacent to the sewer trench.

Where sewers are constructed in private easements, in parkways or other public right-of-ways outside of roadways, the disturbed areas shall be replaced with either sod or by seeding and mulching as specified either on the plans or as directed by the Engineer. In undeveloped areas, the restoration shall consist of grading to the original contours, scarifying and seeding with fast growing coarse grasses to provide cover and to prevent erosion. Any erosion control measures required shall be as specified by the Engineer. Seeding and sodding shall conform to Section 059 of these specifications.

Where lawn areas are to be restored the backfilled material shall be thoroughly soaked with water so as to

cause it to settle as completely as possible and to minimize settlement after the work is completed. Through such areas the backfilling shall be brought to an elevation six (6) inches from the top of the ground and the balance of the trench shall then be filled up with select topsoil. Adjacent lawns scarred or injured in any way shall also be cultivated and pulverized and dressed smoothly with select topsoil.

Where it is necessary in the construction of this improvement to remove or disturb existing structures, fences, or other improvements, said structures, fences, or other improvements shall be restored promptly and to as good a condition as that existing prior to being disturbed.

All trees, shrubs, gardens, lawns, drives and other such surface objects shall be protected and preserved as much as possible and where disturbed shall be replaced or repaired and left in as good condition as before the work was started.

Particular attention shall be given to the immediate removal of all excavated and other materials from areas adjacent to the sewer trench.

Within the mandatory warranty period on the work performed by the Contractor as detailed in these specifications, the Contractor shall be responsible for all subsequent landscaping associated with repair of the work performed. This shall include, but not be limited to, reseeding, resodding and the correction of settled backfill if ordered by the Engineer. The Contractor shall not request additional compensation for such work.

7.0 Agricultural Surface Restoration

Disturbance of existing agricultural areas shall be minimized. Restoration of those agricultural areas disturbed shall be performed in accordance with this specification.

Agricultural areas shall be restored using as much of the original topsoil as possible. Before extensive disturbance of an agricultural area, existing topsoil shall be removed and isolated from other materials and placed in stockpiles that are protected from weather and erosion. No other materials shall be allowed to be mixed or stockpiled with topsoil materials, including cobbles, aggregate materials, construction debris, waste debris, refuse, or any subsurface earthen materials that are not part of the overlying layer of topsoil.

After disturbance is complete, restoration shall be performed using the stockpiled reserves of topsoil and any additional topsoil materials necessary to compensate for losses. Topsoil materials shall be placed such that compaction is minimized. The depth of the placed layer of topsoil shall be equal to the existing depth of topsoil at the area of disturbance; however, the layer of topsoil placed shall not be less than twelve (12) inches.

If additional topsoil materials external to the area of disturbance are required for completion of the restoration, the quality of the imported material shall be comparable to that within the general area of the disturbance.

END OF SECTION

