

CITY OF DAYTON

Department of Public Works

RULES AND REGULATIONS FOR MAKING OPENINGS IN A PUBLIC WAY



DAYTON, OHIO

January 1, 2016

THE CITY OF DAYTON, OHIO DEPARTMENT OF PUBLIC WORKS

RULES AND REGULATIONS GOVERNING THE MAKING AND RESTORATION OF OPENINGS IN STREETS, ALLEYS, SIDEWALKS, PUBLIC WAYS, OR PLACES OF THE CITY OF DAYTON

The following Rules and Regulations have been adopted by the Director of the Department of Public Works under the authority of Sections 95.30 through 95.70 of the Revised Code of General Ordinances of the City of Dayton, Ohio, and have been approved by the City Manager.

The standards established by these Rules and Regulations shall apply to all work done either by contract or direct labor under the supervision of any utility company or City Department, Division, or Bureau involving an opening in a street, alley, sidewalk, public way or place. During the preparation of contract plans and specifications, all Departments of the City will give due consideration to the construction specifications contained herein and to the extent possible and feasible the provisions of these Rules and Regulations shall be incorporated in the contract.

In the event of any dispute as to the interpretation of these Rules and Regulations, the interpretation of the Director shall prevail.

The term “Specifications” means the current issue of the City of Dayton, Division of Civil Engineering, Construction & Material Specifications with amending Special Provisions.

All changes in this update will appear in red font.

SECTION 1 - PERMITS AND REPORTS REQUIRED

A permit is required for any and all work within the City of Dayton Right of Way.

No person, firm, utility, or corporation shall enter upon, in, or under, or occupy any street, alley, sidewalk, public way, or place for the purpose of making an excavation or opening for ditches, trenches, tunnels, vaults, manholes, and the like, or for the laying therein of pipes, wires, cables, conduits, and the like for construction, repair, or removing of building, or for any other purpose whereby the use of the public way shall be affected, without first obtaining a permit from the Director.

Where permits for such openings are authorized by the Director to be issued by any other City Department, Division, or Bureau, the permits shall contain adequate reference, incorporating these Rules and Regulations

Any City Department, Division, or Bureau performing City work by direct employment of labor is required to obtain a permit. A permit will be obtained by the City for City contract work in the public way affecting new service connections.

All Utilities, City Departments, Divisions, or Bureaus, shall file with the Director a daily report showing the location of all openings made by them in any street, alley, sidewalk, public way or place, falling under these Rules and Regulations. Plans and other information of the same form and extent, required of permittees, shall be filed with the Director.

Daily reports of work in progress will be supplied to the City of Dayton Division of Civil Engineering on approved forms and in the format specified by the Director. Daily Reports may be submitted by electronic mail or facsimile. City of Dayton Department of Public Works fax number is (937) 333-4077. An example of a daily report form on page 34 is attached in the rear of this book.

SECTION 2 - PERMIT APPLICATION AND PLAN

Permit applications may be obtained from the Department of Public Works, during regular business hours, Monday through Friday, except holidays. Application shall be made to Department of Building Services for sewer and water connections and to the Division of Civil Engineering for all other purposes. Permit applications shall be made on forms provided by the Director and shall give the location and dimension of the proposed opening; the purpose for which the opening is to be made; the kind of pavement or surface which is to be opened; the phone number of a crew leader or foreman who will be on the site; and the approximate time when the opening will be made. Permits will be issued only for openings to be made within one week of the date of issue unless special arrangements are made.

All application for modifications or reconstruction of mains, pipes, conduits, manholes and other important subsurface structures shall be accompanied by a plan and typical cross-sections that are drawn to scale. Plans will show as accurately as possible the location of existing underground structures, the location of the modified or reconstructed item, a cross-section of the existing pavement through which the cut is to be made, and the location of pertinent construction or dummy joints in the existing pavement.

For new work, four copies of the plans, profiles, and typical cross-sections drawn to scale shall be filed with the Director along with the permit application. These requirements shall be received at least seven days prior to the beginning of the proposed construction. A plan will not be necessary to commence emergency work but is it necessary to contact the Utility Inspector at 937-333-3859. A plan will not be necessary when repairing valve boxes, catch basins, or manholes but it is necessary to contact the Utility Inspector at 937-333-3859. Construction in accord with approved plans shall be a condition upon which a permit is issued. No unauthorized deviation will be permitted.

When changes in the plan have been authorized (“as built” plans) showing full details of the actually constructed work, these “as built” plans shall be filed in accordance with the Right of Way Ordinance, typically at the beginning of the next year. The failure to submit “as-built” plans will result in the assessment of a penalty of double the permit fee for the project, assessed prior to obtaining additional permits.

An applicant will be required to furnish satisfactory evidence that they have and will keep in full force and effect a liability insurance policy, furnishing to themselves and to the City of Dayton, Ohio, protection from claims arising out of the performance of any one person injured in any accident and with a total liability of \$2,000,000.00 for all persons injured in any one accident and in the amount of \$1,000,000.00 for each accident as compensation for damage caused to property other than the applicant’s. Approved plans, including the permit and traffic control notes, must be available on the project site at all times for inspection by the Utility Inspector.

Approved plans, including the permit and traffic control notes, must be available on the project site at all times for inspection by the Utility Inspector.

SECTION 3 - GENERAL CONSTRUCTION CONDITIONS

Specific sections, subsections and/or items of the Construction & Material Specifications called out in these Rules and Regulations are herewith incorporated as part of these Rules and Regulations. Where interpretation of the Construction & Material Specifications would require or indicate, “permittee” shall be substituted for “contractor”; “permit” for “contract”; and “Director” for “Engineer”. If a conflict is found between these Rules and Regulations and the Construction & Material Specifications, these Rules and Regulations shall control.

In addition to the provisions of this section, the following Sections of the Specifications apply:

- 105.05 No Personal Liability of Public Officials
- 105.06 No Waiver of Legal Rights
- 105.07 No Estoppel
- 106.01 Project Inspection
- 106.02 Rejection of Work
- 107.01 Construction Procedures
- 107.07 Construction Supervision
- 107.08 Protection of Project, Property and Utilities
- 107.09 Load Restrictions
- 107.11 Storage
- 107.12 Labor
- 107.13 Maintenance of Utilities
- 107.14 Maintenance of Traffic
- 107.15 Safety Precautions
- 107.17 Vehicle Damage Claims

- 107.18 Fire Hydrants
- 107.27 Environmental Protection
- 107.30 Other Permits
- 107.36 Explosives and Blasting
- 109.02 Responsibility of Contractor
- 109.04 Coordination of the City

The Director will decide all questions which may arise as to the quality and acceptability of the materials furnished and work performed and the rate of progress of the work; all questions which may arise as to the interpretation of the plans, Specifications, or Rules and Regulations; and all questions as to the acceptable fulfillment of the permit requirements on the part of the permittee.

All work performed and all materials furnished shall be in reasonable close conformity with the lines, grades, cross-sections, dimensions, and material requirements, including tolerances shown on plans or indicated in specifications. Materials used or the work performed not in reasonable close conformity with plans and specifications, resulting in an inferior or unsatisfactory product, shall be removed and replaced or otherwise corrected by and at the expense of the permittee.

Cooperation by Permittee/Contractor

The permittee shall have on the work site at all times as an agent, a competent representative, capable of reading and thoroughly understanding the plans and specifications and thoroughly experienced in the type of work being performed. The agent shall receive instructions from the Director or the Director's authorized representative. The permittee's agent shall have full authority to execute orders and directions of the Director without delay and to promptly supply materials, equipment, tools, labor, and incidentals that may be required.

Any person employed by the permittee or by any subcontractor who, in the opinion of the Engineer, does not perform work in a proper and skillful manner or is intemperate or disorderly shall, at the written request of the Engineer, be removed forthwith by the permittee or subcontractor employing such person, and shall not be employed again in any portion of the work without the approval of the Engineer. Should the permittee fail to remove such person or persons required above, the Engineer may suspend the work by written notice until the permittee complies with such orders.

Maintenance of Work Site

The permittee shall maintain the work during the period of construction and until the project is completed and accepted. This maintenance shall include continuous and effective work prosecuted day by day with adequate equipment and forces, to ensure that the roadway and other facilities open to the public are kept in a satisfactory condition at all times.

If the permittee at any time fails to maintain the work during construction, the Director will immediately notify the permittee of such failure. If the permittee fails to correct unsatisfactory maintenance condition within 24 hours after such notice, the Director may proceed to correct the maintenance deficiency and collect the cost thereof from the permittee.

Emergency Contact Phone Number

Permittees and/or their subcontractors shall provide the Utility Inspector with a twenty-four (24) hour emergency phone number. Personnel shall be available to respond to emergencies, such as displaced plates in the road, trench collapse, service outages, etc. If the contractor or subcontractor does not respond in a timely manner, or within 8 hours of the notification of an emergency notification, the Director shall have the emergency corrected by City forces at the permittees' expense.

Protection of Property

The permittee shall be responsible for the preservation of all public and private property. The permittee shall be responsible for all damages or injury of property of any character during prosecution of the work resulting from any act, omission, neglect or misconduct in manner or method of executing the work or at any time due to defective work or materials. Said responsibility will not be released until the project shall have been completed and accepted. When or where any direct or indirect damage or injury is done to public or private property, by or on account of any act, omission, neglect or misconduct in the execution of the work, or in the consequence of the non-execution thereof by the permittee, permittee shall restore at their own expense such property to a condition similar or equal to that existing before that damage or injury was done by repairing, rebuilding, or otherwise restoring as may be directed. Permittee shall make good such damage or injury in an acceptable manner.

All materials that do not conform to the requirements of the Specifications at the time they are used shall be considered unacceptable and shall be removed immediately from the site of the work unless otherwise instructed by the Director.

ADA Curb Ramps

Any street corner or existing handicap access ramp that is disturbed by utility work will be restored with a ramp in accordance with the Americans with Disabilities Act (ADA). This includes the installation of truncated domes for the visually impaired.

Restoration of Property Pins and Survey Monuments

Corner stones, survey monuments, and land markers, if encountered in the performance of the work, shall be called to the attention of the Director and shall not be disturbed without the Director's consent. The permittee shall cooperate with the Director in protecting and preserving corner stones, land markers, and survey monuments. Disturbed property pins will be reestablished by a professional Surveyor, licensed by the State of Ohio, at the permittee's expense. A copy of the survey notes used for property pin restoration will be provided to the City of Dayton. Permittees will be

fined \$10,000.00 to reestablish vertical and horizontal control survey monuments disturbed by their operations.

Suspension of Work

The Director, due to public necessity, or other reasons, may order work suspended. Thereupon the permittee shall close or cover over openings, maintain boardwalks, crossings, barricades, and lights and other devices to properly protect the public and the work and to facilitate traffic movement. In the case of such stoppage of work during the permit term, the life of such permit shall be extended in the amount equal to that lost by the permittee in such manner, but the permittee shall not be entitled to damages on account of such stoppage of work.

Nighttime, Weekend, and Holiday Work

Chapter 94 Noise Pollution of the R.C.G.O. prohibits noise from construction activities between the hours of 10:00 pm to 7:00 am, except in case of urgent necessity in the interest of public health and safety.

Work on Holidays, Saturdays, Sundays, and at night is prohibited unless specific permission is granted by the City of Dayton. Requests to work on prohibited days and at night must be received by the Director twenty-four (24) hours in advance of the requested work dates. Requests to work on prohibited days may be included in the permit application.

SECTION 4 - SAFETY AND PROTECTION OF PROPERTY

The Contractor shall maintain both vehicular and pedestrian traffic in a reasonable manner, and comply readily with directions from the Director regarding the maintenance of traffic. The Contractor shall provide flaggers, and provide and maintain all traffic control devices where necessary except if specified differently in the Traffic Control Requirements on the Permit. Provision for maintenance of traffic shall be considered as an obligation of the Contractor.

Plates 8, 9, 10, and 11 attached in the rear of this book on pages 38, 39, 40, and 41 show four common maintenance of traffic control situations. Since it is not possible to show detailed standards of applications for all the situations that may arise, minimum standards are shown for the most common situations. The City of Dayton emphasizes that these are minimum standards for normal situations and additional protection must be provided where special complexities and hazards occur.

It is the intention to perform all of the required work with the least inconvenience and the maximum safety to the contractor and the traveling public. All maintenance of traffic shall be performed in accordance with the Ohio Manual of Uniform Traffic Control Devices (OMUTCD), latest edition, and section 614, City of Dayton, Construction and Material Specifications, Latest Edition.

The Contractor shall conduct the work in such a manner as to permit and provide access to abutting property and shall construct and maintain at the Contractor's expense

temporary walks, driveways, bridges, crossing as the Engineer considers necessary to accommodate the public and provide access to the property.

The Contractor shall at all times conduct the work as to assure the least possible obstruction to traffic. The safety and convenience of the general public and the residents along the street or project site and the protection of persons and property shall be provided for by the Contractor.

The Contractor shall provide and maintain safeguards, safety devices and protective equipment and take any other needed actions as may be necessary to protect the public and property in connection with their work. The presence of barricades, lights, or other traffic control devices provided and maintained by any party other than the Contractor, shall not relieve the Contractor of this responsibility.

All openings shall be properly sheeted and braced to protect the public, the contractors' workers, and property. All excavation shall be sheeted and braced in conformity with law and rules of regulatory agencies having jurisdiction.

Sheeting and bracing shall also be sufficient to protect surface and subsurface structures and to prevent the undermining of adjacent pavement, curb, sidewalk, and the like. Existing house connections, sewers, water mains, gas mains, conduit lines, drainpipes, and other utilities shall be supported across trenches until adequate sufficient backfilling is completed.

Sheeting and bracing shall be carefully removed as backfilling progresses, but if considered necessary by the Director, sheeting shall be left in place and cut off below the surface as directed. If pavement along side of the opening is or becomes undermined, the permittee shall, at permittee expense, remove such undermined pavement, the base or sub-base material if any, and other loose materials and shall properly replace them.

When a fire hydrant is to be used, a permit must be obtained from The City of Dayton Division of Water Engineering located at 320 West Monument Avenue. Contact The City of Dayton Division of Water Engineering at 333-3725. Only Fire Department hydrant wrenches may be used to open or close hydrants.

Whenever it becomes necessary to excavate under adjacent utility installations, including railway and railroad tracks, notification will be given to the affected utility. It shall be the duty of the permittee to properly protect such utility facilities. Permittees will not be permitted to build over and parallel to other utility facilities or permitted to use backfill material that has an unusually deleterious effect on subsurface pipes or structures.

Contact the Ohio Utilities Protection Service at 1-800-362-2764 two working days before digging. The limits of the proposed excavation site shall be marked with white

paint before calling the Ohio Utilities Protection Service. It will be necessary to contact individual utility companies that are not a member of OUPS, which include but are not limited to the following:

- City of Dayton Water Distribution (phone number 333-4900)
- City of Dayton Sewer Maintenance (phone number 333-4915)
- City of Dayton Traffic Signal Shop (phone number 333-2400)
- Greater Dayton Regional Transit Authority (phone number 425-8344)

Utilities shall mark their facilities with marking paint. The marking paint used should be environmentally friendly and fade reasonably quickly. Discretion shall be used when marking utilities to limit the amount of paint used. In sidewalks, decorative areas, and brick pavers where permanent repairs have been made after 30 days, pressure washing or sandblasting may be required by the Director to remove marking paint.

SECTION 5 - EMERGENCY WORK

Emergency work is defined as that work required to resolve, relieve, or eliminate a condition that poses a clear and immediate danger to life or health, or the probability of a significant loss of property. Examples would include collapse of pavement, possible explosion, loss of electric or gas service during winter, loss of telecommunications for business, and other situations as declared an emergency by the Director.

In case of emergency, when the City offices are closed, permits shall be obtained as soon as the City offices are open. Utilities and/or their subcontractors will notify the Utility Inspector at 937-333-3859 prior to beginning emergency work during normal business hours, Monday through Friday, 7:30 am - 4:00 pm. During non-business hours, utilities must report emergency work the next business day. Emergency work will not serve to relieve anyone from compliance with these Rules and Regulations, including insurance requirements.

Any emergency work in the public right-of-way that conflicts with proposed new construction by the City of Dayton will be relocated by the utility at their expense.

Other than an emergency, any work started prior to obtaining the required permits will have the permit fee doubled

SECTION 6 - MAKING OPENINGS IN THE PUBLIC WAY

The following are the classes of pavement and/or surface as used in these Rules and Regulations:

- Class 1 - Concrete Pavement
- Class 2 - Brick Wearing Course on Concrete Base
- Class 3 - Asphalt on Concrete Base
- Class 4 - Asphalt on Brick Base
- Class 5 - Asphalt Pavement on Stone or Gravel Base

- Class 6 - Gravel Roadway (plain or oiled)
- Class 7 - Concrete Sidewalks and Driveways
- Class 8 - Sodded Areas
- Class 9 - Unimproved Areas

No opening shall be made before all permits, materials, parts, and special fittings necessary to complete the work are on hand. Openings shall remain no longer than necessary to properly execute the work for which the openings are made. No opening shall be made, including any emergency work, before all necessary pedestrian and vehicular maintenance of traffic items have been installed.

The pavement surface along the edges of the openings, for pavement Classes 1, 2, 3, 4, 5, and 6, shall be cut full depth on neat straight lines. The paving materials shall be carefully broken out. Only methods and equipment that will insure little or no damage to the adjoining pavement shall be utilized. In cases of emergency work, if it is not feasible to saw before beginning the work, the sawing will need to be done during the pavement restoration phase of the work. The edges of the pavement opening below the saw cut shall be tapered slightly inward from the top to bottom. Other classes of pavement or surfaces shall be cut on neat straight lines.

The length, width, and location of trenches shall be under the control of the Director. Utility services or laterals will be constructed as nearly as possible at right angles to the line of the street. Utility mains shall be constructed as nearly as possible parallel to the curb or longitudinal joint lines of the street. Joints will not be allowed in the wheel path of a traffic lane.

The use of a "headache ball" or "pear drop" to break up or remove pavement, walks, or driveways, is prohibited.

Granular materials, broken concrete curb or walk; debris, etc. will not be stored on the pavement or in the public-right-of-way. Excavated material shall be removed and disposed of as excavated. Gravels encountered in excavation may be used for backfill providing it meets backfill material requirements.

Brick wearing courses shall not be saw cut. Brick wearing courses shall be retained and preserved for replacement use. After removing the brick wearing course, **if extra useable bricks are anticipated to remain after the final restoration, the Contractor shall work with the City to deliver these bricks to the City of Dayton Ottawa Yards for future use. The Contractor is to contact the Utility Inspector at 937-333-3859 to schedule and set up means to load and deliver the brick to Ottawa Yards.** If additional replacement paving brick is needed, it shall be obtained at the sole expense of the permit holder. Brick pavers in historical areas must be restored.

Gutters and catch basins are to be kept open and drainage maintained. When it is necessary to close a gutter or to cut off a catch basin, drainage must be maintained by the use of pumps or a flume.

The permittee shall be responsible for adequate maintenance of traffic, both pedestrian and vehicular. The permittee shall at all times provide and maintain access to fire hydrants, water valves, water service boxes, gas valves, gas service boxes, manholes, trash containers, dumpster, and other appurtenances. The permittee shall comply with Item 614 Maintaining Traffic, specifically sections 614.01 Description, 614.02 Traffic Facilities, 614.03 Traffic Control General, 614.05 Road Closed, 614.06 Detour Signing, 614.07 Traffic Maintained [except that the permittee will supply and erect necessary signs required to maintain and control traffic], and 614.08 Flaggers of the Specifications.

On main thoroughfares and in congested districts, there must be at all times sufficient traffic lanes open to permit a substantially normal flow of traffic. Unless this can be accomplished, work will be confined to the hours between 9:00 a.m. and 3:00 p.m., however, the Director may grant a change in hours. Traffic lanes shall be a minimum of ten (10) feet wide unless lanes of lesser width are approved by the Director. In case of emergency, arrangements are to be made with the Police Department so that officers may be assigned to handle traffic until facilities for traffic maintenance can be obtained and placed.

If, in the opinion of the Director, proper facilities for maintenance of traffic and/or proper provisions for traffic control are not being provided by the permittee, the Director, twenty-four (24) hours after notice to the permittee, may take necessary steps to place traffic maintenance and traffic control facilities in proper condition. The cost thereof shall be collected from the permittee.

Street intersections must be kept open to traffic, sufficient space being provided for two (2) lanes of traffic unless an exception is granted by the Director. Steel plates or bridges of sufficient size shall be furnished to cover openings, and to provide crossings over trenches or new pavement on main thoroughfares and at important intersections. The plates or bridging shall be securely fastened in place to prevent movement. It shall remain in place when no work is being done on a particular length of opening on which it is used as a cover.

In the opinion of the Director, work shall be performed day and night and/or seven days a week when the location or nature of the work requires it. Work on Holidays, Saturdays, Sundays, and at night is prohibited unless specific permission is granted by the City of Dayton. Requests to work on prohibited days and at night must be received by the Director twenty-four (24) hours in advance of the requested work dates. Requests to work on prohibited days may be included in the permit application.

If at any time it becomes necessary to close a street, an additional permit must be obtained from the Director. The permittee shall notify the Police Department, Fire Department, and the Regional Transit Authority whenever a street is closed. The Director will establish any detour route.

Where the detour is extensive and requires signing or other temporary control, the Director will estimate the cost of the detour plan development, and the permittee shall be responsible for the cost thereof. The permittee shall be responsible for the cost of furnishing, erecting, maintaining, and removing regulatory, or warning signs, or traffic control devices on the detour route, as directed by the Director.

Openings in sidewalks, sodded, or unimproved areas in the public way shall be protected by suitable barricades, fences, or railings. Sufficient lights, signs and barricades shall be provided to clearly indicate the opening or other hazards.

Temporary walks or bridges, with guardrails or fences, shall be provided when it is necessary to block or close a sidewalk to pedestrian traffic. These walks or bridges shall be built of sufficient width and strength to accommodate the pedestrian traffic without danger to them.

SECTION 7 - BACKFILLING OF TRENCHES, OPENINGS, OR TUNNELS IN PAVEMENT

Backfill of trenches and other openings in Class 1, 2, 3, 4, 5, 6, and 7 pavements shall conform to the following requirements:

Materials to be used for backfill to the base or sub-base level shall be **ODOT Item 613 Low Strength Mortar Backfill (CDF – Controlled Density Fill) Type 1 or Type 2** in which the minimum curing time shall be twenty-four (24) hours for openings in thoroughfare streets. For openings in residential and all other streets, **Item 304 Aggregate Base of the City of Dayton Construction & Material Specifications or ODOT Item 411 Stabilized Crushed Aggregate** can be used for backfill to the base or sub-base level, as directed by the Director. **Zero slump concrete is not allowed at any time.** The material shall be compacted to a density satisfactory to the Director under and around pipes, conduits, etc. Truck tire tamping is not permitted at anytime. Lifts will not be in excess of six (6) inches when compaction is by tamping methods. If the opening will drain readily and is not in clay, the backfill may be consolidated with water. When consolidating with water, the material may be deposited in ponded water or it may be placed in layers not exceeding three (3) feet loose depth and each layer thoroughly saturated with water to the satisfaction of the Director.

ODOT Item 613 Low Strength Mortar Backfill (CDF – Controlled Density Fill) is the only acceptable backfill for trenches and is required in cold weather pavement restorations.

Backfill in trenches or other openings in the street right of way for Class 8 or 9 surfaces shall be as follows:

Materials acceptable for use in backfilling shall be soils or granular material, except cinders or ash, both free from frozen or frosted lumps. The soil or granular material shall conform to the requirements of Section 203.02 Roadway Excavation and

Embankment. Filling and compaction procedures for granular material shall be compacted to a density satisfactory to the Director under and around pipes, conduits, etc. Truck tire tamping is not permitted at any time. Lifts will not be in excess of six (6) inches when compaction is by tamping methods. Soil shall be placed in lifts not in excess of eight (8) inches and shall contain sufficient moisture to permit adequate compaction by tamping. Bucket tamping or truck tire tamping is not permitted. Soils containing excessive moisture as evidenced by elasticity or excessive deformations while being compacted shall not be utilized. All water soaked materials shall be removed from the openings before starting the fill operation.

Tunneling may be necessary or desirable where a pipe or conduit passes under curb, tracks, or other conduits. Where tunneling extends more than five (5) feet from an opening, permission to tunnel shall be obtained. When tunneling has been done, the permittee shall bed the item being installed in "sand fill" conforming to Section Special Fill material of the Specifications to a height of one (1) foot above the top of the item. Fill shall be wetted and tamped under and around the item in a thorough and careful manner. From the top of the sand fill to the roof of the tunnel, concrete of suitable consistency shall be thoroughly tamped in place to fill the entire space, and to afford a rigid support for the tunnel roof over its entire area. The concrete shall contain not less than three (3) sacks of cement per cubic yard. Bucket tamping and or truck tire tamping is not permitted.

Jacking small service pipes or boring a hole of sufficient size for these pipes shall be given preference to tunneling. If the bored hole is excessively large it shall be filled the same way as for tunneling.

Backfill around masonry/concrete structures shall follow partial completion of the work as closely as the type of construction will permit. Backfill materials shall be conforming to **ODOT Item 613 Low Strength Mortar Backfill (CDF – Controlled Density Fill) Type 1 or Type 2, Item 304, or ODOT Item 411 depending upon the roadway classification. Material immediately surrounding the structure shall conform to AASHTO M43 Size No. 57.** Materials beyond these limits shall have a particle size of not more than six (6) inches. The material shall be compacted to a density satisfactory to the Director in lifts not to exceed twelve (12) inches. Truck tire tamping is not permitted at anytime. If the opening drains readily and is not clay, backfill may be consolidation using water. When compacting with water the material may be deposited in ponded water or it may be placed in layers not exceeding three (3) feet in loose depth. Each layer shall be thoroughly saturated with water and consolidated to the satisfaction of the Director.

Where flexible, six (6) inch or larger size conduits with a 26 or larger SDR rating are installed under flexible type pavements with three (3) feet or less cover on the conduit, backfill material between the pipe envelope and sub-grade shall be Item 304, ODOT 411, **ODOT Item 613 Low Strength Mortar Backfill (CDF – Controlled Density Fill) Type 1 or Type 2 or better.**

SECTION 8 - REPLACEMENT OF PAVEMENT

Materials to be used and the method of replacement of all pavement disturbed in the making of openings in the public way shall be done in accordance with Specification Items:

305 Portland Cement Concrete Base
ODOT 442 Superpave Asphalt Concrete
451 Reinforced Portland Cement Concrete Pavement
452 Plain Portland Cement Concrete Pavement
453 Concrete Driveways
608 Walks, Wheelchair Ramps, and Steps
609 Curbs
and with these Rules and Regulations and the plans contained herein.

All pavements: asphalt or asphalt on concrete, must be cut back a minimum of 1' from the initial full depth saw cut to eliminate voids and undermined areas of unsupported pavement.

For pavements that are full depth asphalt, the contractor shall refer to Class 3 – Asphalt on Concrete Base as the process to perform the final restoration. The following streets are locations in which full depth asphalt is present, however if a street is in question, the contractor shall contact the Utility Inspector prior to restoration:

Brown Street from Oak Street to East Caldwell Street
Grand Avenue from Great Miami Boulevard to Forest Avenue
Philadelphia Drive from Hillcrest Avenue to Siebenthaler Avenue
Patterson Road from Wilmington Avenue to South Smithville Road
South Smithville road from Linden Avenue to Nordale Avenue

When performing the permanent restoration of the pavement, a radio frequency identification (RFID) tag shall be placed in the middle of the cut at a depth directed by the Engineer per pavement class. The Engineer will supply each Utility with a working RFID tag in which one (1) will be placed in each cut. If a cut is greater than fifty (50) feet in length or width, one (1) RFID tag will be placed at both ends of the restoration and at every fifty (50) foot interval, or as directed by the Engineer. In the event that the Engineer cannot read the RFID tag or one is not present within the cut, the Utility must replace the cut within thirty (30) calendar days of discovery.

When performing the restoration of a concrete driveway, driveway apron, or alley mouth, the contractor shall only use ODOT Class MS concrete. Vehicular and pedestrian access to all businesses and residences shall be maintained at all times except for a maximum closure time of three (3) calendar days for placement and curing.

In the event that permanent restoration for Class 1 through 7 pavements cannot proceed immediately after backfilling, a temporary restoration shall be made. Material conforming to Item 304 Aggregate Base, ODOT Item 411, or ODOT Item 613 Low Strength Mortar Backfill (CDF – Controlled Density Fill) Type 1 or Type 2 shall be placed from the base or sub-base level up to three (3) inches of the top of pavement.

No mounding of Item 304 or ODOT Item 411 shall take place. **Three (3) inches of asphalt concrete, ODOT Item 442 Superpave Asphalt Concrete,** shall be placed. The surface of the temporary restoration shall be smooth and level with the adjoining pavement. After the temporary restoration has been placed, the work area will be opened to traffic. The permittee will maintain the temporary restoration in a safe drivable condition until such time as the permanent restoration of the pavement is completed.

For any replacement of pavement restoration the first five steps will be the same for any Class 1 through Class 5 pavements. They are as follows:

- 1.) Contact Utility Inspector before beginning any work in the Public Right of Way. Utility Inspector's phone number 937-333-3859.
- 2.) Install appropriate traffic and pedestrian control devices, per OMUTCD and permit requirement. Approved plans, including the permit and traffic control notes, must be available on the project site at all times for inspection by the Utility Inspector.
- 3.) Makefull depth saw cut at right angle to or parallel to street centerline around area to be opened. It is necessary to remove any undermined areas at this time.
- 4.) Excavate for repair or installation, remove, and dispose of excavated material from job site. Streets having a brick wearing course will have the brick reinstalled. Brick that was removed shall be used in the reinstallation. **If useable brick remains, not to be used in the reinstallation, the Contractor shall contact the Utility Inspector to coordinate a means to load and deliver the brick to the City of Dayton Ottawa Yards.**
- 5.) Complete repair or installation.

After completing the first five steps shown, it is now necessary to follow the directions shown on Plates 1, 2, 3, 4, or 5 depending upon type of pavement being restored.

CLASS 1 – CONCRETE PAVEMENT

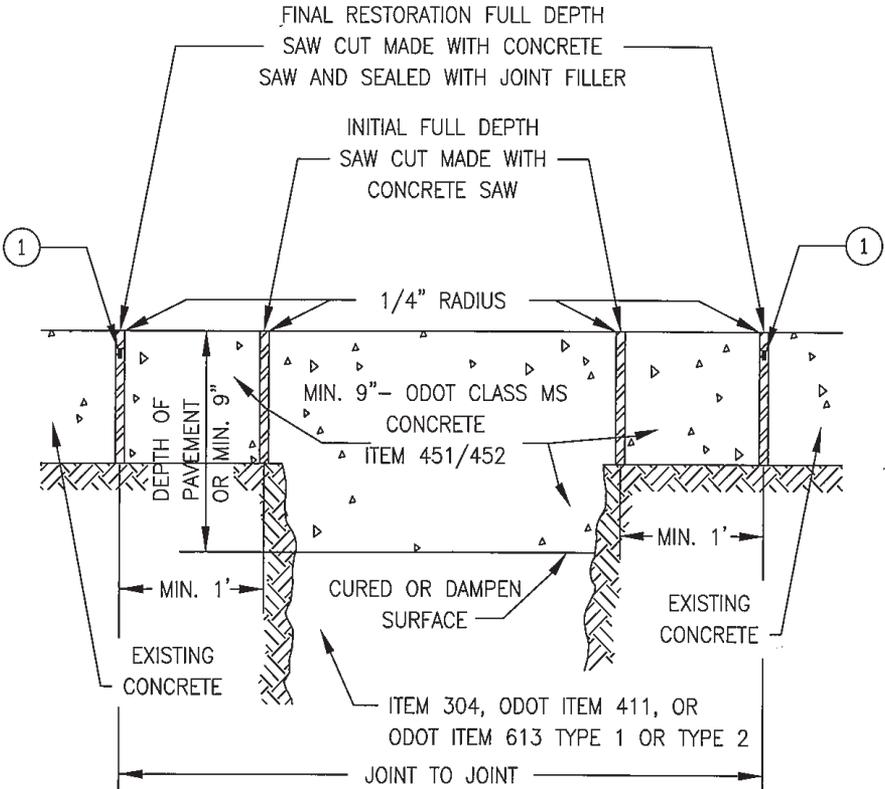
For the first 5 steps of Class 1 Concrete Pavement restoration see page 14.

- 1.) Backfill to sub-grade using ODOT Item 613 Low Strength Mortar Backfill (CDF – Controlled Density Fill) Type 1 or Type 2 with care to satisfactorily compact around and under pipes, conduits, etc. if the street is considered a thoroughfare. For all other streets, backfill to sub-grade using Item 304 Aggregate Base from the City of Dayton CMS or ODOT Item 411 Stabilized Crushed Aggregate compacted in lifts not to exceed six (6”) inches. Backfill is not to be left in the street overnight. If using ODOT Item 613, allow the CDF to cure at least twenty-four (24) hours.
- 2.) Whole concrete pavement slab replacement, either joint to joint or joint to edge of pavement is required. Partial replacement of a concrete pavement slab may be allowed if approval is granted from the Director’s representative.
- 3.) Prepare base to receive concrete. Remove fill to depth required and place or replace base material as needed. Vibrate with plate compactor or roller. Loose and broken pavement shall be removed and necessary dowel bars or rebar shall be installed.
- 4.) Place and vibrate concrete, finished to match existing pavement. Contractor shall use ODOT Class MS concrete and allow for two (2) days to cure. If the temperature is forecasted to be 40°F or lower during any part of the day the concrete shall be covered with sheeting, mats, blankets, or an approved equal. Contractor may use ODOT Item 499 Concrete FS as required by permit or with permission from the Director.
- 5.) Place one (1) RFID tag in the middle of both transverse construction joints prior to sealing. Seal joints before opening to traffic with Item 705.04 Hot Applied Joint Sealer..
- 6.) Contractor shall maintain traffic control measures until pavement is out of cure and reopened to traffic.

Class 1 pavement restoration shall be used when openings are made in concrete bus pads. Fiber is required and shall contain 5 lbs. per cubic yard of Novomesh™ HPP Macro-Synthetic Fibers produced by SI Concrete Systems or approved equal.

Plate One represents a typical section for this class of pavement restoration.

PLATE 1 (MINIMUM REQUIREMENT)



PAVEMENT RESTORATION

CLASS I - CONCRETE PAVEMENT (INCLUDES BUS PAD RESTORATION)

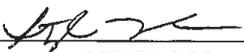
① RFID TAG - PLACE IN THE MIDDLE OF BOTH CONSTRUCTION TRANSVERSE JOINTS PRIOR TO SEALING.

*ITEM 304 OR ODOT ITEM 411 SHALL ONLY BE USED IN RESIDENTIAL STREETS.

*FIBER IS REQUIRED IN BUS PAD RESTORATION AND SHALL CONTAIN 5 LBS. PER CUBIC YARD OF NOVOMESH[™] HPP MACRO-SYNTHETIC FIBERS PRODUCED BY SI CONCRETE SYSTEMS OR AN APPROVED EQUAL.

DAYTON, OHIO
NO SCALE
DATE - JANUARY 1, 2016

APPROVED BY


DEPUTY DIRECTOR

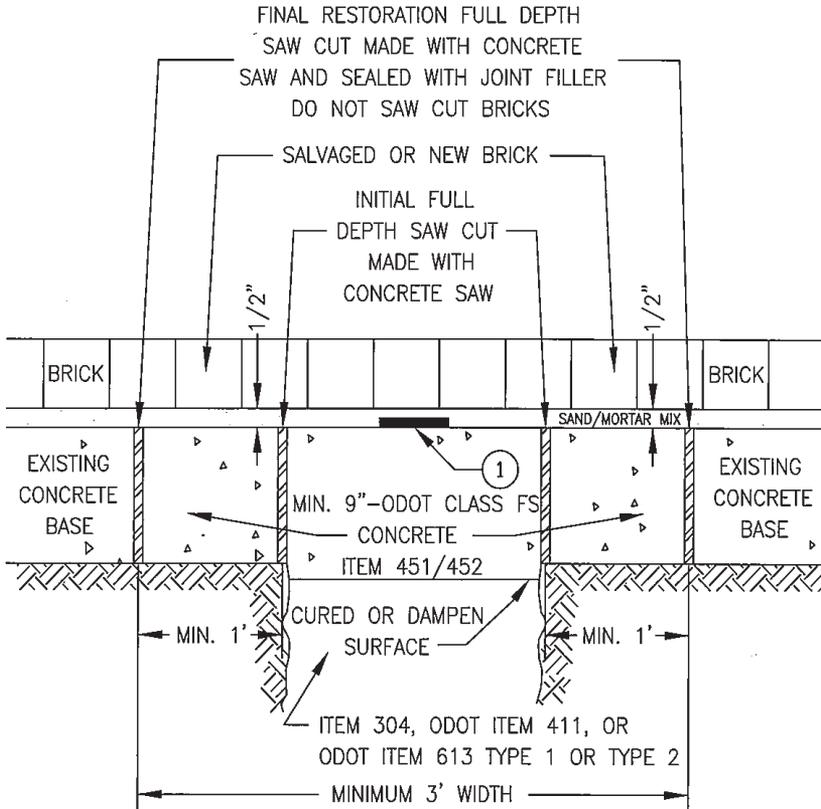
CLASS 2 – BRICK WEARING COURSE ON CONCRETE BASE

For the first 5 steps of Class 2 Brick Wearing Course on Concrete Base restoration see page 14.

- 1.) All streets having a brick wearing course will have the brick reinstalled. Brick that was removed shall be used in the reinstallation. **If extra brick is needed to complete the restoration, the Contractor may purchase brick from the City of Dayton Division of Street Maintenance at a cost of \$5/brick. Please coordinate this work and payment with the Utility Inspector. If useable extra brick is left over after the excavation, the Contractor is to coordinate with the Utility Inspector the means to deliver this brick back to the City of Dayton Ottawa Yards for future use.**
- 2.) Backfill to sub-grade using ODOT Item 613 Low Strength Mortar Backfill (CDF – Controlled Density Fill) Type 1 or Type 2 with care to satisfactorily compact around and under pipes, conduits, etc. if the street is considered a thoroughfare. For all other streets, backfill to sub-grade using Item 304 Aggregate Base from the City of Dayton CMS or ODOT Item 411 Stabilized Crushed Aggregate compacted in lifts not to exceed six (6”) inches. Backfill is not to be left in the street overnight. If using ODOT Item 613, allow the CDF to cure at least twenty-four (24) hours.
- 3.) Re-saw edge of trench as directed, a minimum of one (1’) foot from initial full depth saw cut, remove any undermined areas of pavement, curb, or sidewalk. Where limits of opening come within three (3’) feet of any existing joint or edge of pavement slab, pavement shall be removed to joint or edge of pavement slab. Only one additional longitudinal joint may be placed in a lane of traffic and this joint must fall within the middle third of the lane. When a diagonal cut is needed, it will be necessary to remove the entire concrete panel, joint to joint.
- 4.) Prepare grade/opening to receive concrete. Remove fill to depth required and place or replace material as needed. Vibrate with plate compactor or roller. Loose or broken pavement shall be removed and necessary dowel bars or rebar shall be installed. Contractor is to match existing depth of concrete base, a minimum of nine (9”) inches.
- 5.) Place and vibrate concrete. **Contractor shall use ODOT Class FS concrete and allow for four (4) hours to cure.** If the temperature is forecasted to be 40°F or lower during any part of the day the concrete shall be covered with sheeting, mats, blankets, or an approved equal.
- 6.) **After of the concrete base, place one (1) RFID tag in the middle of the restoration and then** set salvaged or new brick pavers with a 3:1 sand/mortar mix with a depth of ½ inches. Brick pavers shall be flush within a ¼” using a ten (10’) foot straightedge. Additional bricks outside of the opening may have to be adjusted to accomplish the ¼” requirement using a ten (10’) foot straightedge.
- 7.) Contractor shall maintain traffic control measures until pavement is out of cure and reopened to traffic

Plate Two represents a typical section for this class of pavement restoration.

PLATE 2 (MINIMUM REQUIREMENT)



PAVEMENT RESTORATION

CLASS 2 - BRICK WEARING COURSE ON CONCRETE BASE

① RFID TAG - PLACE IN SAND/MORTAR MIX ON CONCRETE BASE.

*ITEM 304 OR ODOT ITEM 411 MAY ONLY BE USED IN RESIDENTIAL STREETS.

*SEE CITY OF DAYTON URBAN DESIGN GUIDELINES FOR BRICK STREETS FOR MORE INFORMATION.

*DO NOT SAW CUT BRICKS.

DAYTON, OHIO
NO SCALE
DATE - JANUARY 1, 2016

APPROVED BY

[Signature]
DEPUTY DIRECTOR

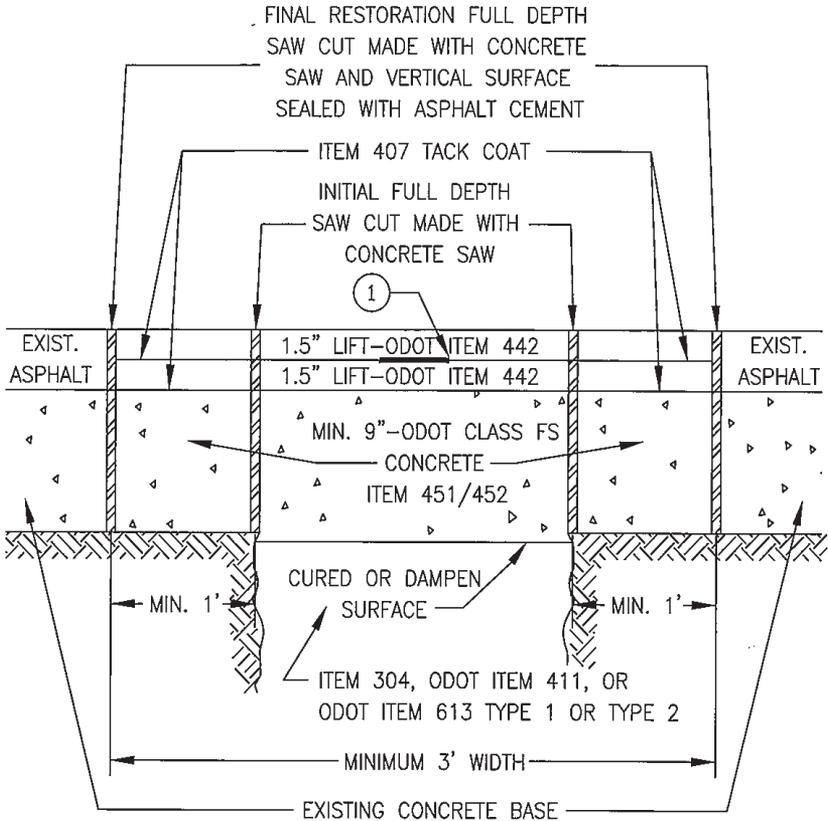
CLASS 3 – ASPHALT ON CONCRETE BASE

For the first 5 steps of Class 3 Asphalt on Concrete Base restoration see page 14.

- 1.) Backfill to sub-grade using **ODOT Item 613 Low Strength Mortar Backfill (CDF – Controlled Density Fill) Type 1 or Type 2** with care to satisfactorily compact around and under pipes, conduits, etc. if the street is considered a thoroughfare. For all other streets, backfill to sub-grade using **Item 304 Aggregate Base from the City of Dayton CMS or ODOT Item 411 Stabilized Crushed Aggregate** compacted in lifts not to exceed six (6”) inches. Backfill is not to be left in the street overnight. If using ODOT Item 613, allow the CDF to cure at least twenty-four (24) hours.
- 2.) Re-saw edge of trench as directed, a minimum of one (1’) foot from initial full depth saw cut, remove any undermined areas of pavement, curb, or sidewalk. Where limits of opening come within three (3’) feet of any existing joint or edge of pavement slab, pavement shall be removed to joint or edge of pavement slab. Only one additional longitudinal joint may be placed in a lane of traffic and this joint must fall within the middle third of the lane. When a diagonal cut is needed, it will be necessary to remove the entire concrete panel, joint to joint.
- 3.) Prepare grade/opening to receive concrete. Remove fill to depth required and place or replace material as needed. Loose or broken pavement shall be removed and necessary dowel bars or rebar shall be installed. Contractor is to match existing depth of concrete base, a minimum of nine (9”) inches.
- 4.) Place and vibrate concrete. **Contractor shall use ODOT Class FS concrete and allow for four (4) hours to cure.** If the temperature is forecasted to be 40°F or lower during any part of the day the concrete shall be covered with sheeting, mats, blankets, or an approved equal.
- 5.) For asphalt overlay on concrete base apply Item 407 tack coat. **Two courses of ODOT Item 442 Superpave Asphalt Concrete shall be placed.** Place one (1) RFID tag in the middle of the restoration in between the intermediate and surface lift of the asphalt prior to placement of surface course. No mounding of materials shall take place. Vibrate with plate compactor or roller. Bucket tamping or truck tire tamping is not permitted at anytime.
- 6.) **Seal joints before opening to traffic with Item 705.04 Hot Applied Joint Sealer.**
- 7.) Contractor shall maintain traffic control measures until pavement is out of cure and reopened to traffic.

Plate Three represents a typical section for this class of pavement restoration. Plate Three also represents the typical section for pavement restoration in a full depth asphalt street.

PLATE 3 (MINIMUM REQUIREMENT)



PAVEMENT RESTORATION CLASS 3 – ASPHALT ON CONCRETE BASE

① RFID TAG – PLACE IN BETWEEN EACH LIFT OF 442 ASPHALT.

*ITEM 304 OR ODOT ITEM 411 MAY ONLY BE USED IN RESIDENTIAL STREETS.

DAYTON, OHIO
NO SCALE
DATE – JANUARY 1, 2016

APPROVED BY


DEPUTY DIRECTOR

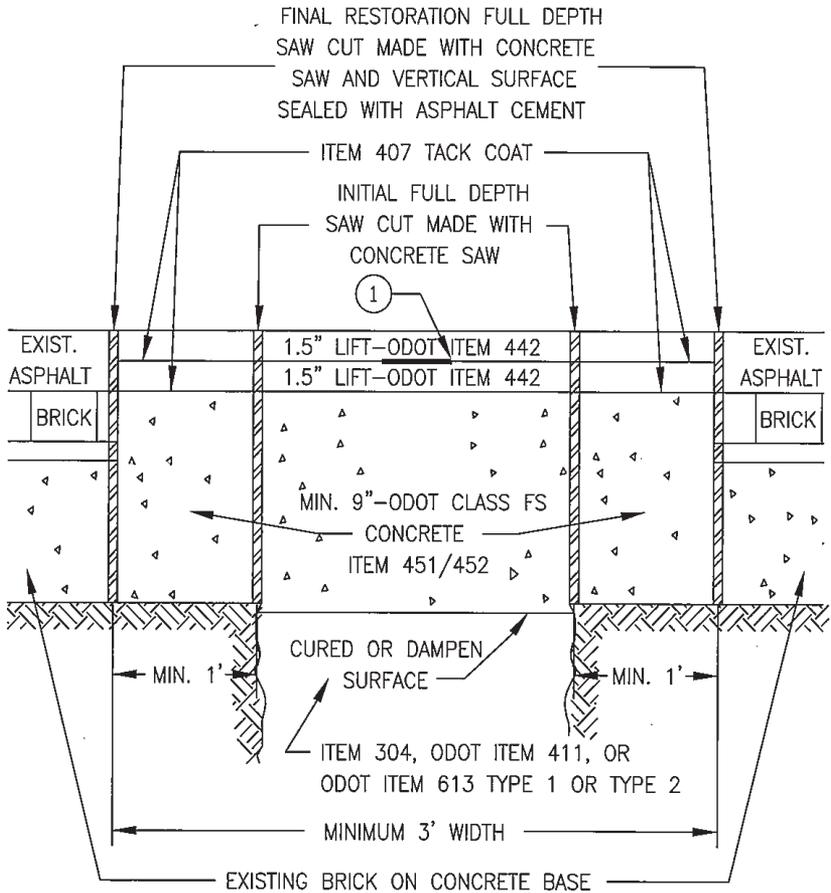
CLASS 4 – ASPHALT ON BRICK BASE

For the first 5 steps of Class 4 Asphalt on Brick Base restoration see page 14.

- 1.) Backfill to sub-grade using ODOT Item 613 Low Strength Mortar Backfill (CDF – Controlled Density Fill) Type 1 or Type 2 with care to satisfactorily compact around and under pipes, conduits, etc. if the street is considered a thoroughfare. For all other streets, backfill to sub-grade using Item 304 Aggregate Base from the City of Dayton CMS or ODOT Item 411 Stabilized Crushed Aggregate compacted in lifts not to exceed six (6”) inches. Backfill is not to be left in the street overnight. If using ODOT Item 613, allow the CDF to cure at least twenty-four (24) hours.
- 2.) Re-saw edge of trench as directed, a minimum of 1 foot from initial full depth saw cut, remove any undermined areas of pavement, curb, or sidewalk. Where limits of opening come within 3 feet of any existing joint or edge of pavement slab, pavement shall be removed to joint or edge of pavement slab. Only one additional longitudinal joint may be placed in a lane of traffic and this joint must fall within the middle third of the lane. When a diagonal cut is needed, it will be necessary to remove the entire concrete panel, joint to joint
- 3.) Prepare grade/opening to receive concrete. Remove fill to depth required and place or replace material as needed. Vibrate with plate compactor or roller. Loose or broken pavement shall be removed and necessary dowel bars or rebar shall be installed. Contractor is to match existing depth of concrete base, a minimum of nine (9”) inches. If brick is not to be replaced, base pavement shall be poured to within three (3”) inches of existing top of pavement.
- 4.) Place and vibrate concrete. Contractor shall use ODOT Class FS concrete and allow for four (4) hours to cure. If the temperature is forecasted to be 40°F or lower during any part of the day the concrete shall be covered with sheeting, mats, blankets, or an approved equal.
- 5.) For asphalt overlay on concrete base apply Item 407 tack coat. Two course of ODOT Item 442 Superpave Asphalt Concrete shall be placed. Place one (1) RFID tag in the middle of the restoration in between the intermediate and surface lift of asphalt prior to placement of surface course. No mounding of materials shall take place. Vibrate with plate compactor or roller. Bucket tamping or truck tire tamping is not permitted at any time.
- 6.) Seal joints before opening to traffic with Item 705.04 Hot Applied Joint Sealer.
- 7.) Contractor shall maintain traffic control measures until pavement is out of cure and reopened to traffic..

Plate Four represents a typical section for this class of pavement restoration..

PLATE 4 (MINIMUM REQUIREMENT)



PAVEMENT RESTORATION CLASS 4 – ASPHALT ON BRICK BASE

① RFID TAG – PLACE IN BETWEEN EACH LIFT OF 442 ASPHALT.

*ITEM 304 OR ODOT ITEM 411 MAY ONLY BE USED IN RESIDENTIAL STREETS.

*SEE CITY OF DAYTON URBAN DESIGN GUIDELINES FOR BRICK STREETS FOR MORE INFORMATION.

DAYTON, OHIO
NO SCALE
DATE – JANUARY 1, 2016

APPROVED BY


DEPUTY DIRECTOR

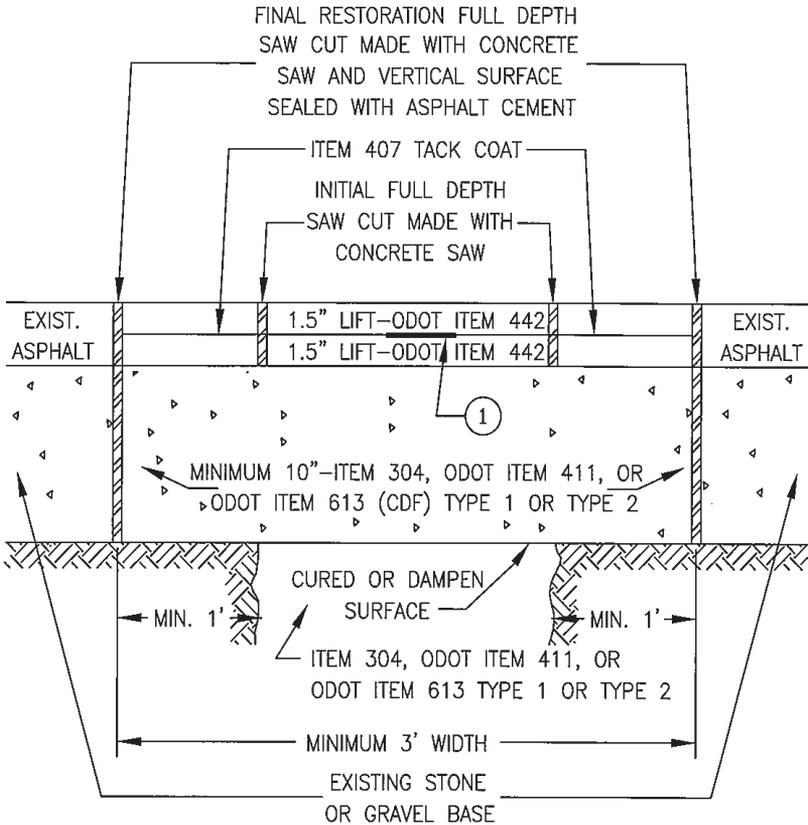
CLASS 5 – ASPHALT PAVEMENT ON STONE OR GRAVEL BASE

For the first 5 steps of Class 5 Asphalt Pavement on Stone or Gravel Base restoration see page 14.

- 1.) Backfill to sub-grade using **ODOT Item 613 Low Strength Mortar Backfill (CDF – Controlled Density Fill) Type 1 or Type 2** with care to satisfactorily compact around and under pipes, conduits, etc. if the street is considered a thoroughfare. For all other streets, backfill to sub-grade using **Item 304 Aggregate Base** from the City of Dayton CMS or **ODOT Item 411 Stabilized Crushed Aggregate** compacted in lifts not to exceed six (6”) inches. Backfill is not to be left in the street overnight. If using **ODOT Item 613**, allow the CDF to cure at least twenty-four (24) hours.
- 2.) Re-saw edge of trench as directed, a minimum of one (1’) foot from initial full depth saw cut, remove any undermined areas of pavement. Where limits of opening come within three (3’) feet of any existing joint or edge of pavement, pavement shall be removed to joint or edge of pavement.
- 3.) Place and vibrate a ten (10”) inch section of **ODOT Item 613 Low Strength Mortar Backfill (CDF – Controlled Density Fill) Type 1 or Type 2**, **Item 304 Aggregate Base Material** from the City of Dayton Construction and Material Specifications, or **ODOT Item 411 Stabilized Crushed Aggregate**, thoroughly compacted in 2-5” lifts. Vibrate with a plate compactor or roller
- 4.) **Pavement replacement shall consist of two 1-½” courses of ODOT Item 442 Superpave Asphalt Concrete.** The asphalt intermediate course shall be placed over **the cured low strength mortar base or compacted aggregate base.** Place one (1) RFID tag in the middle of the restoration in between the intermediate and surface lift of asphalt prior to placement of surface course. No mounding of materials shall take place. Compact with plate compactor or roller. Bucket tamping or truck tire tamping is not permitted at anytime. Surface course may be placed at a later date, within one week, weather permitting. Place **Item 407 Tack Coat** if surface course is placed at a later date. Asphalt surface course shall be flush with existing asphalt surface course within a ¼” using a ten (10’) foot straightedge..
- 5.) **Seal joints before opening to traffic with Item 705.04 Hot Applied Joint Sealer.**
- 6.) Contractor shall maintain traffic control measures until pavement is out of cure and reopened to traffic.

Plate Five represents a typical section for this class of pavement restoration..

PLATE 5 (MINIMUM REQUIREMENT)



PAVEMENT RESTORATION CLASS 5 – ASPHALT ON STONE OR GRAVEL BASE

① RFID TAG – PLACE IN BETWEEN EACH LIFT OF 442 ASPHALT.

*ITEM 304 OR ODOT ITEM 411 MAY ONLY BE USED IN RESIDENTIAL STREETS.

DAYTON, OHIO
NO SCALE
DATE – JANUARY 1, 2016

APPROVED BY

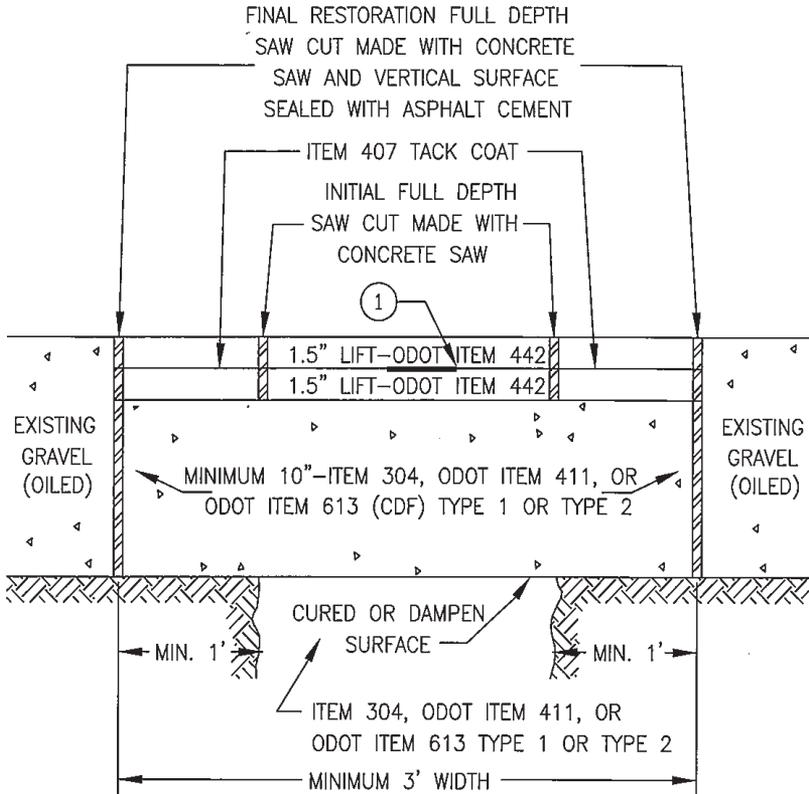
[Signature]
DEPUTY DIRECTOR

CLASS 6 – GRAVEL ROADWAY (PLAIN OR OILED)

- 1.) Contact Utility Inspector before beginning any work in the Public Right of Way. Utility Inspector's phone number 937-333-3859.
- 2.) Install appropriate traffic and pedestrian control devices, per OMUTCD and permit requirements.
- 3.) Excavate for repair or installation, remove and dispose of excavated material from job site.
- 4.) Complete repair or installation.
- 5.) Backfill to sub-grade using **ODOT Item 613 Low Strength Mortar Backfill (CDF – Controlled Density Fill) Type 1 or Type 2** with care to satisfactorily compact around and under pipes, conduits, etc. if the street is considered a thoroughfare. For all other streets, backfill to sub-grade using **Item 304 Aggregate Base** from the City of Dayton CMS or **ODOT Item 411 Stabilized Crushed Aggregate** compacted in lifts not to exceed six (6") inches. Backfill is not to be left in the street overnight. If using ODOT Item 613, allow the CDF to cure at least twenty-four (24) hours.
- 6.) Saw-cut edge of trench as directed, remove any undermined areas.
- 7.) Place and vibrate a ten (10") inch section of **ODOT Item 613 Low Strength Mortar Backfill (CDF – Controlled Density Fill) Type 1 or Type 2**, **Item 304 Aggregate Base Material** from the City of Dayton Construction and Material Specifications, or **ODOT Item 411 Stabilized Crushed Aggregate**, thoroughly compacted in 2-5" lifts. Vibrate with a plate compactor or roller.
- 8.) **Pavement replacement shall consist of two 1-½" courses of ODOT Item 442 Superpave Asphalt Concrete.** The asphalt intermediate course shall be placed over **the cured low strength mortar base or compacted aggregate base.** Place one (1) RFID tag in the middle of the restoration in between the intermediate and surface lift of asphalt prior to placement of surface course. No mounding of materials shall take place. Compact with plate compactor or roller. Bucket tamping or truck tire tamping is not permitted at any time. Surface course may be placed at a later date, within one week, weather permitting. Place **Item 407 Tack Coat** if surface course is placed at a later date. Asphalt surface course shall be flush with existing asphalt surface course within a ¼" using a ten (10') foot straightedge.
- 9.) **Seal joints before opening to traffic with Item 705.04 Hot Applied Joint Sealer.**
- 10.) Contractor shall maintain traffic control measures until restoration is complete and reopened to traffic.

Plate Six represents a typical section for this class of pavement restoration.

PLATE 6 (MINIMUM REQUIREMENT)



PAVEMENT RESTORATION

CLASS 6 - GRAVEL ROADWAY (PLAIN OR OILED)

① RFID TAG - PLACE IN BETWEEN EACH LIFT OF 442 ASPHALT.

*ITEM 304 OR ODOT ITEM 411 MAY ONLY BE USED IN RESIDENTIAL STREETS.

DAYTON, OHIO
NO SCALE
DATE - JANUARY 1, 2016

APPROVED BY

[Signature]
DEPUTY DIRECTOR

CLASS 7 – CONCRETE SIDEWALKS AND DRIVEWAYS

All sidewalks, curbs, and driveways that have been cut, removed, damaged, tilted, undermined, settled, or defaced as a result of construction shall be replaced. All removals shall be from joint to joint. Cuts in driveways shall be considered the same as cuts in Class 1 pavement for the purpose of determining extent of removal and shall be replaced as such. All replacements of sidewalks and driveways shall be done in accordance with Items 452 Concrete Alley Mouths, 453 Concrete Driveways, 608 Walks, Wheelchair Ramps, and Steps, and 609 Curb of the Specifications. All driveways, alley mouths, and wheelchair ramps shall be restored as a monolithic structure.

In the restoration of concrete walks and drives, in addition to the question of serviceability and durability of restoration, the matter of the appearance will be considered in determining the area to be restored, regardless of the size of the opening. The restoration of complete sidewalk blocks will be required, unless otherwise approved by the Director. Cuts at the joints shall be made with a concrete saw and the new work shall be joined with the existing in a neat and workmanlike manner. The surface finish shall be the same as the surrounding concrete.

CLASS 8 – SODDED AREAS

In the performance of this work, the following Specification Sections shall apply::

- 653.04 Preparation of Sub-grade
- 653.05 Placing and Spreading Topsoil
- 659.09 Seeding and Mulching
- 660.01 Description
- 660.02 Sod
- 660.03 Lifting Sod
- 660.04 Preparation of Areas to be Sodded
- 660.05 Placing Sod
- 660.06 Placing Sod on Slopes
- 660.07 Placing Sod in Ditches
- 660.08 Watering

Replacement shall extend not only to the actually disturbed area, but also to any adjacent area that may have become injured or destroyed during the work. If the existing sod is removed and is not injured, it may be used in replacement. Any damaged sod will only be replaced by a hydro seed application. Before placing the hydro seed, two (2) inches of processed topsoil shall be placed and spread. Topsoil shall be a soil material free from refuse which can or has obviously sustained healthy grass.

CLASS 9 – UNIMPROVED AREAS

In the performance of this work, the following Specification Sections shall apply:

- 653.04 Preparation of Sub-grade
- 653.05 Placing and Spreading Topsoil
- 659.09 Seeding and Mulching
- 660.01 Description
- 660.02 Sodding
- 660.03 Lifting Sod
- 660.04 Preparation of Areas to be Sodded
- 660.05 Placing Sod
- 660.06 Placing Sod on Slopes
- 660.07 Placing Sod in Ditches
- 660.08 Watering

Replacement shall extend not only to the actually disturbed area, but also to any adjacent area that may have become injured or destroyed during the work. If the existing sod is removed and is not injured, it may be used in replacement. Any damaged sod will only be replaced by a **hydro seed application**. Before placing **the hydro seed**, two (2) inches of processed topsoil shall be placed and spread. Topsoil shall be a soil material free from refuse which can or has obviously sustained healthy grass.

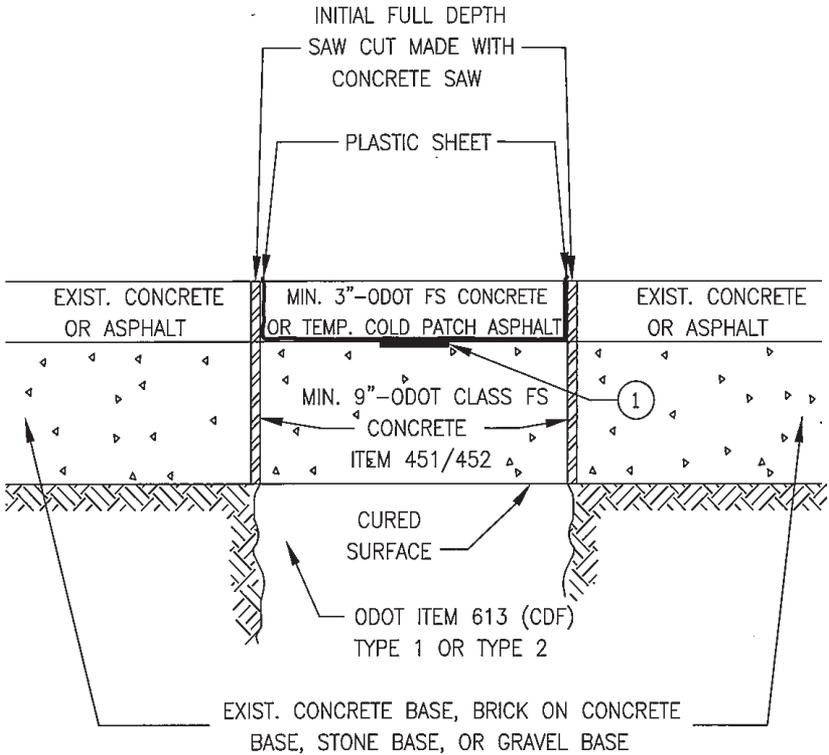
SECTION 9 – COLD WEATHER REPAIRS

When hot asphalt is not available to make permanent pavement repairs, the following repairs will be required:

- 1.) Item 613 Low Strength Mortar Backfill (CDF – Controlled Density Fill) **Type 1 or Type 2** will be required for backfill of trench unless an otherwise specified material is approved by the Director. **Allow the CDF to cure at least twenty-four (24) hours.**
- 2.) Install and vibrate nine (9) inches of **ODOT Class FS** concrete base (if applicable).
- 3.) **For cold weather temporary repairs, place one (1) RFID tag in the middle of the restoration in between the cured base concrete course and the bond breaker. When making permanent restorations, refer to the respective pavement classification (Class 1, 2, 3, 4, 5, or 6) for permanent RFID requirements.**
- 4.) Install plastic sheeting as a bond breaker between the base and the surface course.
- 5.) Place a minimum three (3) inch temporary **concrete surface course using ODOT Class FS concrete and allow four (4) hours to cure or temporary cold patch asphalt.** If the temperature is forecasted to be 40°F or lower during any part of the day the concrete shall be covered with sheeting, mats, blankets, or an approved equal. **If temporary cold path asphalt is used, no mounding of the material shall take place. Compact with a plate compactor or roller. Bucket tamping or truck tire tamping is not permitted at any time.**
- 6.) Before May 15th remove temporary surface. Depending upon type of pavement see either Class 3, 4, 5, or 6 for final restoration requirements.

Plate Seven represents a typical restoration during cold weather repairs..

PLATE 7 (MINIMUM REQUIREMENT)



COLD WEATHER TEMPORARY PAVEMENT RESTORATION FOR USE WHEN HOT ASPHALT IS NOT AVAILABLE

① RFID TAG - PLACE IN BETWEEN CURED BASE CONCRETE & BOND BREAKER.

DAYTON, OHIO
NO SCALE
DATE - JANUARY 1, 2016

APPROVED BY



DEPUTY DIRECTOR

SECTION 10 - REPLACEMENT IN KIND

If brick pavement is encountered, either surface or base, the permittee must ask the Director as to the replacement requirements. Normally, all surface brick will be replaced with paving brick. If brick is to be re-laid, it shall be placed in accordance with Plate 2 and Plate 4. Brick replacement must be level with existing brick, within a ¼" using a ten (10') foot straightedge.

If the asphalt surface course is greater than three (3) inch thickness, the permittee must replace an equal thickness of asphalt while referring to page 19: Class 3 – Asphalt on Concrete Base, unless approval from the Director's representative is granted. The Director's representative will review each occurrence on a case-by-case basis, and advise the permittee of replacement requirements.

SECTION 11 - CLEANUP

Upon completion of the work, all equipment and materials, tools, toolboxes, temporary buildings, excavated materials, and the like, shall be promptly removed from the street, alley, or public way. The surface of the street, sidewalks, lawns and private property shall be cleaned, leaving the same in as neat, clean, and usable condition as originally found. Trees or shrubs damaged or removed shall be replaced by a variety and size satisfactory to the Director and in accordance with Item 661 Planting Trees and Shrubs.

SECTION 12 - NOTIFICATION OF COMPLETION OF EXCAVATION AND COMPLETION OF REPLACEMENT WORK

The permittee or the City Department, Division, or Bureau making an opening falling under these Rules and Regulations shall notify the utility inspector upon completion of their work. They shall also notify the Director when a tunnel, cut, or trench is ready for backfilling or repaving so an inspection can be made.

SECTION 13 - MAINTENANCE OR REPLACEMENT GUARANTEE/ NOTICE OF DEFICIENCY

If any settlement occurs after final pavement has been placed, for any reason, for any length of time, the work shall be repaired by the permittee at their cost immediately upon notification. Settlement of a ¼" or greater using a ten (10') foot straightedge will be in need of repair.

If, after notification by the Director, the permittee fails to commence the repairs forthwith, the Director may order such repairs as may be necessary. The cost thereof shall be collected from the permittee. In any event, if an exceedingly dangerous condition is found, the Director may make emergency repairs, the cost of which shall be billed to and collected from the permittee.

Division of Civil Engineering will send a Notice of Deficiency (NOD) for cuts that settle, need repairs, or lacks a readable RFID tag. The accumulation of three (3) Notices of Deficiency in a twelve (12) month period will require a meeting with the Director of the Department of Public Works to determine cause for the deficiency. A fourth NOD within a twelve-month period will result in the suspension of street cutting privileges for the offending subcontractor, foreman, or crew leader.

SECTION 14 - PAYMENT OF COSTS INCURRED BY THE DIRECTOR

Failure of the permittee to promptly pay the cost of work done by the Director under the provision of these Rules and Regulations may result in the Director withholding future permits until the cost are paid and/or result in legal action as available to the Director.

SECTION 15 - OPENING PAVEMENT LESS THAN **FIVE (5) YEARS OLD**

Ordinarily, permits will not be issued to open Class 1 through 5 pavements or surfaces before **five** calendar years after the year of construction has expired. If approval is granted and a permit is issued to open such pavement classes before the restricted period passes, an additional charge will be made for such opening.

The surcharge for transverse pavement openings [being at more than a 45 degree angle to the centerline or curb or longitudinal joint lines of a street] shall be \$1,000.00 if within the calendar year of construction and the first succeeding calendar year. Also it will be necessary to pave from **longitudinal joint to longitudinal joint**, fifty (50') feet on each side of the pavement opening occurring within the calendar year of construction and the succeeding calendar year. Asphalt shall be placed with an asphalt paver. Asphalt rollers shall also be used to properly compact the placed asphalt. Time between the asphalt grinding process and paving the lane width shall be no more than **three (3)** days. If the grinding process removes existing pavement markings it will be necessary to paint back pavement markings that match the type destroyed. Traffic Engineering will approve any layout marks before permanent painting takes place.

The additional charge for transverse pavement openings performed within the **second and third succeeding calendar years** of construction is \$750.00 and within the **fourth and fifth succeeding calendar years** of construction is \$500.00. All surcharges shall be paid at the time the permit is issued and are subject to change.

The surcharge for longitudinal pavement openings [being up to a 45 degree angle to the centerline or curb or longitudinal joint lines of a street] shall be \$1,000.00 for each one hundred (100') feet or part thereof if performed within the calendar year of construction and the first succeeding calendar year. Also it will be necessary to pave the entire road width (curb to curb), fifty (50') feet on each side of the pavement

opening occurring within the calendar year of construction and the succeeding calendar year. Asphalt shall be placed with an asphalt paver. Asphalt rollers shall also be used to properly compact the placed asphalt. Time between the asphalt grinding process and paving the lane width shall be no more than three (3) days. If the grinding process removes existing pavement markings it will be necessary to paint back pavement markings that match the type destroyed. Traffic Engineering will approve any layout marks before permanent painting takes place.

The additional charge for longitudinal pavement openings performed within the second to third succeeding calendar years of construction is \$750.00 and within the fourth to fifth succeeding calendar years of construction is \$500.00. All surcharges shall be paid at the time the permit is issued and are subject to change.

The additional surcharge fees shall be waived by the Director when the Utility repaves the entire limits of work (from first restoration to last restoration) with the boundary limits directed by the Engineer, at full roadway width. The method for this work will be in similar manner as described above in which asphalt rollers shall be used to properly compact the placed asphalt. Time between the asphalt grinding process and paving the roadway width shall be no more than three (3) days. If the grinding process removes existing pavement markings it will be necessary to paint back pavement markings that match the type destroyed. Traffic Engineering will approve any layout marks before permanent painting takes place.

SECTION 16 - OPENINGS AND RESTORATION OF PAVEMENT BY CITY

Plumbers will not be permitted to cut and/or open Class 1 through Class 6 pavements for the purpose of installing sewer, gas, or water laterals, or services. If plumbers desire to have the Director perform opening and restoration work on Class 7 through 8 pavements or surfaces, suitable arrangements shall be made at the time of application for the permit.

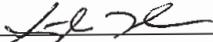
If others than plumbers desire to have the Director perform any opening and restoration work, or when it appears to be advisable that the Director do this work, suitable arrangements shall be made at the time of the application for the permit.

The charge for all openings and restoration work for sewer, gas or water service work done by the City shall be based upon the latest schedule of prices published by the Director of Water

SECTION 17 - APPROVAL

These Rules and Regulations are hereby declared to be in full force and effect on and after January 1, 2016. All prior issues are hereby repealed.

Approved by:



Stephen J. Finke
Deputy Director



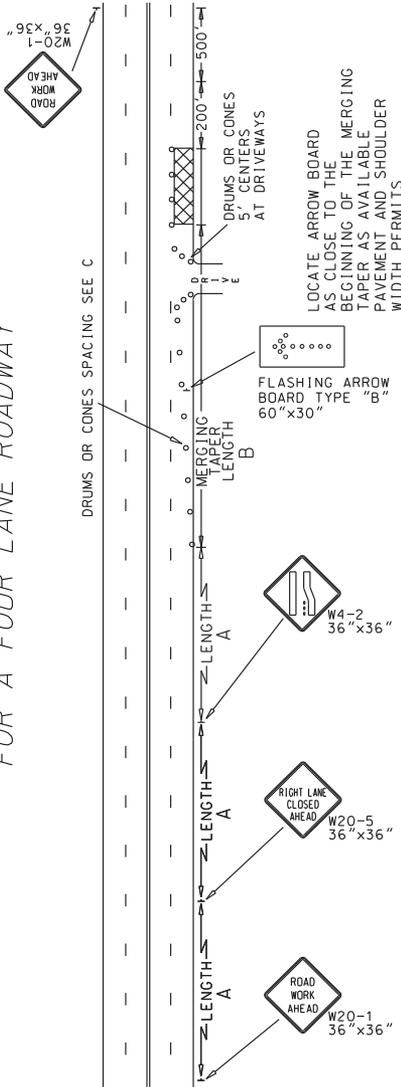
Shelley Dickstein
Interim City Manager



Frederick M. Stovall, Director
Department of Public Works

PLATE 8
(MINIMUM REQUIREMENT)

TYPICAL SINGLE LANE CLOSURE DRAWING
FOR A FOUR LANE ROADWAY



WARNING SIGN SPACING

LESS THAN 45 MPH = 200'
GREATER THAN 45 MPH = 350'

B

MERGING TAPER LENGTHS

20-25 MPH = 125'
30-40 MPH = 320'
45-55 MPH = 600'

A

DRUMS OR CONES

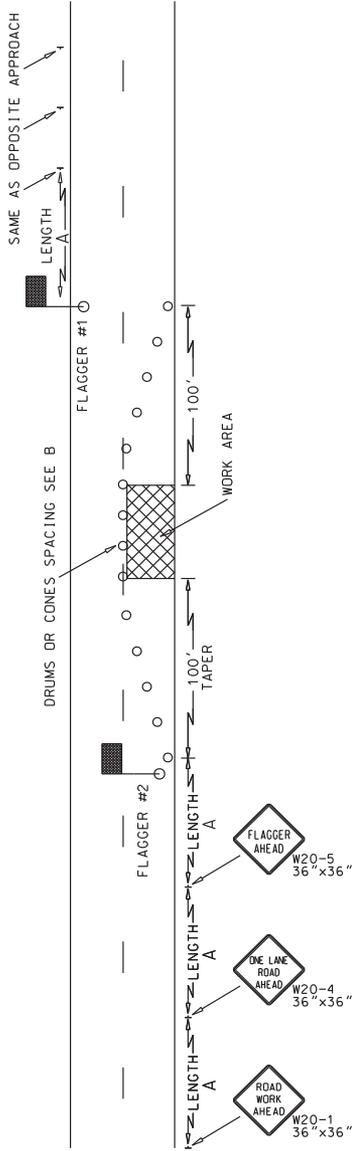
REFLECTIVE DRUMS SHALL BE USED AS CHANNELIZING DEVICES FOR A NIGHT LANE CLOSURE. REFLECTIVE CONES (28" MINIMUM HEIGHT) MAY BE USED FOR DAYLIGHT CLOSURES. DRUM OR CONE SPACING BELOW. NOTE CLOSER SPACING AT DRIVES, ETC.

20-25 MPH = 20'
30-40 MPH = 25'
45-55 MPH = 30'

C

PLATE 9
(MINIMUM REQUIREMENT)

TYPICAL SINGLE LANE CLOSURE FOR A
TWO LANE ROADWAY WITH FLAGGERS



WARNING SIGN SPACING
 LESS THAN 45 MPH = 200'
 GREATER THAN 45 MPH = 350'

A

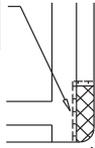
DRUMS OR CONES
 REFLECTIVE DRUMS SHALL BE USED AS CHANNELIZING DEVICES FOR A NIGHT LANE CLOSURE. REFLECTIVE CONES (28" MINIMUM HEIGHT) MAY BE USED FOR DAYLIGHT CLOSURES. DRUM OR CONE SPACING BELOW. NOTE CLOSER SPACING AT DRIVES, ETC.
 20-25 MPH = 20'
 30-40 MPH = 25'
 45-55 MPH = 30'

B

PLATE II
(MINIMUM REQUIREMENT)

TYPICAL SIDEWALK AND CROSSWALK CLOSURES

R9-10
24" x 12"



WHEN CLOSING A SIGNALIZED
CROSSWALK THE PEDESTRIAN
SIGNALS SHALL BE COVERED
SO THE INDICATIONS
ARE NOT VISIBLE.



R9-10
24" x 12"



USE A SUFFICIENT NUMBER
OF TYPE I BARRICADES OR
DRUMS TO COMPLETELY
CLOSE THE WORK AREAS.



R9-10
24" x 12"



R9-9
24" x 12"



R9-9
24" x 12"



R9-10
24" x 12"