

ATTACHMENT 6



**Procedures for the Issuance
of Right-of-Way Permits and
Regulations of Work Under Permit**

**PIMA COUNTY DEPARTMENT OF
TRANSPORTATION & FLOOD CONTROL DISTRICT**

ORDINANCE EFFECTIVE DATE: DECEMBER 3, 1998

PIMA COUNTY DEPARTMENT OF TRANSPORTATION
AND FLOOD CONTROL DISTRICT

Nov. 9, 1998

INFORMATION SUPPLEMENT

For information, the following numbers may be contacted:

1) General Information

A. For general information contact #740-6410

2) Inspections Services

A. To request an inspection on a Subdivision or for work under a Right of Way Permit, contact #740-2650.

B. To request an inspection/information related to a Capital Improvement Project, contact #740-2635.

C. To contact Department of Transportation Materials Testing Laboratory, contact #740-2637.

D. To contact the Department of Transportation Survey Section, contact #740-2629

E. To contact the Department of Transportation Maint./Operations Division, contact #740-2639.

F. To contact the Department of Transportation Traffic Operations Section, contact #740-2601

G. Development Services Subdivisions Coordinator, contact #740-6515

3) Plan Review

For Subdivision Plan review, contact the Development Review Section in Development Services #740-6586

For Contract Work Plan Review, contact Transportation Engineering, #740-6460

For Utilities Plan Review, contact the Utility Coordinator, #740-2678

4) Traffic Control

A. For Traffic Control Plan Review, contact #740-2650

5) Permit Information

For right-of-way permit information, contact the Permit
Section at Development Services, #740-6508

A. For Emergency Service after normal working
hours, contact #741-4900

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**PIMA COUNTY DEPARTMENT OF TRANSPORTATION
AND FLOOD CONTROL DISTRICT**

PROCEDURES FOR THE ISSUANCE OF A RIGHT-OF-WAY PERMIT AND

REGULATIONS OF THE WORK UNDER PERMIT

PURPOSE OF THESE PROCEDURES:

The purpose of these procedures is to acquaint all Contractors, Utility Companies and persons contemplating work within Pima County right-of-way with Permit regulations, inspection procedures, methods of trenching, backfilling, and pavement replacement.

EXISTING LAWS AND REGULATIONS:

All persons, contractors, firms, utility companies, or corporations shall keep themselves informed of all Pima County Ordinances and Regulations, and any State of Arizona or Federal laws which in any manner affect the work they shall be performing in public right-of-way.

PERMIT REQUIRED:

By Order and Resolution of the Board of Supervisors of Pima County, State of Arizona, any person, contractor, firm, utility company, or corporation desiring to dig any hole, drain, trench, or ditch in any street, alley, or thoroughfare, drainage way or drainage way easement, or remove or change any curb now or hereafter existing in Pima County, or place any item within Pima County right-of-way, shall first obtain written permission from the County Engineer of Pima County.

Certain provisions of the Flood plain and Erosion Hazard Management Ordinance (Pima County Ordinance No. 1994-FC2) require obtaining of a Flood plain Use Permit from the Flood plain Management Section, Department of Transportation and Flood Control District, located at Public Works Building, 201 N. Stone Avenue, 4th Floor.

PENALTY FOR NOT OBTAINING PERMIT:

Any person, contractor, firm, utility company, or corporation who does not obtain written permission to work in County right-of-way in the form of a Permit, is violation of the Pima County Code 10.44.050 and subject to civil and criminal penalties.

CONDITION FOR OBTAINING A PERMIT:

Before the issuance of a Right of Way permit, the applicant, his agent, or contractor may be required to comply with (a) through (f) of the following when, in the opinion of the Pima County Engineer, the scope of work requires such compliance.

- (a) Furnish evidence of insurance for public liability and property damage issued by an insurance company, authorized by the Insurance Department of Arizona to transact business in the State of Arizona.
- (b) Issue a statement holding the County harmless and free of liability from work performed under the authority of the permit.
- (c) Post an assurance bond to guarantee that the work covered by the permit will be completed in accordance with the latest edition of the Standard Details and Specifications for Public Improvements and Subdivision Street Standards.
- (d) Submit a Traffic Control Plan to the Subdivision/Permit Section for review.
- (e) Prove he is not delinquent in any payment due to Pima County for any reason.
- (f) Prepare plans and specifications for the proposed work to be performed. If required, these plans should show the subject area and adjacent areas, the existing conditions, the proposed work, and any changes to the existing conditions.
- (g) Provide an engineer's estimate of the cost of construction, or a current quotation from a licensed contractor, and a take-off of the lineal feet of the work to be performed.

PERMIT EXPIRATION:

The permit normally expires forty-five days after issuance. For work in progress and continuing 45 days after permit issuance, renewals may be given after a request is made by the applicant. A permit obtained for the construction of an approved subdivision is valid for 180 days. Permits for the construction of driveways and sidewalks are also valid for 180 days. The permit shall cover only the work as specifically outlined on the face of the permit

PERMIT FEE:

The fee for permits to be issued will be charged per the current fee schedule adopted by the Board of Supervisors, Page 32 of this Booklet. In the event an application for a permit is not made prior to the start of work, the normal permit fee will be triple. This penalty will be in addition to, not in place of, the portion of this article entitled "Penalty for Not Obtaining a Permit"

HOW TO APPLY FOR A PERMIT:

Right of Way permits will be issued by the Permit Section of the Development Services Department, City/County Public Works Building, 201 N. Stone, Tucson, Arizona 85701. A standard form permit will be issued to cover all possible construction within County right-of-way. For the purpose of administrative procedures, work within County right-of-way will be divided into major and minor improvement categories.

A major improvement will require plan review and written approval by Pima County prior to the issuance of any permit. A minor improvement may require plan review and is defined as work of a routine nature, such as maintenance of, repair of, or addition to an existing utility system.

A permit applicant for work classified as major improvement must obtain a permit over the counter at Development Services, Permit Section. For all major improvements, a plan review is required. Once the plan review is completed and approved, a Letter of Approval will be issued. If approval letters from various agencies (Wastewater Management, Arizona State Environmental Quality Department, etc.) or Transportation Department Divisions (Engineering, Flood Control, etc.) are required, they must be obtained prior to application for permit. Proof of approval is the applicant's responsibility.

A permit applicant for work classified as minor improvement must submit plans to the Right of Way Permit Section. Excavations or installations of 201 lineal feet or more require further plan review prior to the issuance of permit. Plan review may be required on any proposed excavation in Pima County Right of Way as determined by Pima County personnel.

Overweight/oversize vehicle permits will only be issued over the counter in the Development Services Permit Section, 201 N. Stone Avenue, 1st Floor

OCCUPATIONAL SAFETY AND HEALTH ACT:

The Pima County Department of Transportation recommends to the applicant, his agent, or contractor that he become completely aware of the Occupational Safety and Health Standards for the Construction Industry, September 1994, and subsequent revisions.

By authority of this Act, it is unlawful to require any laborer or mechanic employed in the performance of the job to work in surroundings or under working conditions, which are unsanitary, hazardous, or dangerous to his health or safety.

Particular attention should be focused on Subpart P dealing with excavations, trenching and shoring. Subpart P gives specific instructions regarding excavations and trenching requirements of this Standard.

A copy of this Act is available from the Arizona State Industrial Commission, Safety Office, 2675 East Broadway Boulevard, Tucson, Arizona.

PROTECTION OF PRIVATE PROPERTY:

The applicant for the permit, his agent, or the contractor shall protect from damage, utility conduits, sewer conduits, water conduits, lawns, shrubbery, trees, fences, structures, or other property encountered in his work. The applicant shall not trespass upon private property. It is the applicant's responsibility to determine the boundary between public right-of-way and private property. Prior to entering upon private property, the applicant shall secure written permission from the property owner or owners affected.

UTILITY LOCATION AND PROTECTION:

The applicant shall conduct his work in a manner which prevents any harm to existing utilities. Present State Law and provisions of the Occupational Safety and Health Act (OSHA) require everyone planning to dig in public streets, alleys, utility easements, and any other public right-of-way, to obtain underground locations of utilities in the area before they dig. For this service, the applicant should use the "Blue Stake Center" available for the Tucson Metropolitan and suburban areas of Pima County. The applicant should allow at least two (2) working days lead-time to locate utilities in the contemplated work area. Additional information, if required, regarding the "Blue stake" program will be given the applicant at the time he secures a permit. Blue stake Center telephone #745-2211.

It should be remembered that not all-private utility companies participate in the "Blue Stake" program. In this instance, it is still the applicant's responsibility to arrange for location and protection of these utilities.

If, after field location, conflicts between the proposed work and the existing utilities are found, they must be resolved before starting work. The utility responsible for the conflict and the applicant shall endeavor to resolve the problem. When the safety of the public becomes endangered due to conflicts, the Pima County Department of Transportation may use its authority with the utility and the applicant to remedy the situation.

The applicant will also be responsible for damage done to utilities through their negligence. In the event of damage, the applicant should immediately contact the concerned utility company and arrange a satisfactory agreement for repair or replacement.

When working in the vicinity of signalized intersections, street lights, or flashing beacons, care shall be taken not to disrupt any aspect of such installations. Information regarding locations of underground conduits which service such facilities is available from the Traffic Operations Section, Electric Shop of the Pima County Department of Transportation. In the event of damage to these facilities due to the contractor's negligence, all costs incurred by the Pima County Department of Transportation will be billed to the permit applicant.

PROTECTION OF ANTIQUITIES:

Attention is called to Arizona Revised Statute ' 41-844 and other State and Federal laws pertaining to the protection and preservation of sites or objects of archaeological, paleontological, or historical interests which are encountered or unearthed in material pits, the roadway prism, or other excavation. The contractor shall stop work in the immediate vicinity of such features, protect it from damage or disturbance, and report promptly to the Director of the Arizona State Museum. Work shall not be resumed in the immediate area until the contractor is advised by the Director of the Arizona State Museum that study and/or removal of the feature or features has been completed.

ACCESS TO THE WORK AND PROGRESS OF THE WORK:

Access to the work or materials which are to be incorporated in the work shall be granted to authorized County personnel at all times. The County reserves the right to enter on to the work site at any time, for any purpose. County personnel in the interest of safety will notify the job foreman or superintendent whenever they enter a job site.

Once started, the progress of the work shall be continuous and expedient. The work shall not restrict access to any adjacent property longer than one working day. If necessary, steel planking shall be used to provide access. If the work is not progressing satisfactorily, the Pima County Engineer reserves the right to use the necessary equipment and manpower to complete any portion of the work in order to protect the safety and welfare of the public. The Pima County Engineer will notify the contractor in writing prior to any corrective action. The actual cost to the Pima County Department of Transportation for the corrective or emergency work will be billed to the permit applicant.

DUST CONTROL:

An Activity Permit must be obtained from Department of Environmental Quality of Pima County, located at 130 W. Congress, 3rd Floor, Telephone #740-6914, prior to the start of work which involves the possible generation of fugitive dust. (See Pima County Code 17.12.470, Activity Permits) That Section states as follows:

ACTIVITY REPORT. Pima County Code 17.12.470

- A. Except as provided in Subsection B of this section, no person shall cause or permit the use of any equipment for the purpose of land stripping, earthmoving, blasting (except blasting associated with individual source permit issued for mining) trenching or road construction or commence demolition or renovation of any structure as shown in Table 17.12.540 without first obtaining a permit from the control officer.
- B. In the case of an emergency, action may be taken to stabilize the situation before obtaining an activity permit. Upon stabilizing the emergency situation, an activity permit shall be obtained.
- C. The permit shall be valid for a period of not than three (3) months from the date of issue. The applicant may request a longer term, if the project length specified in a written contract is greater than three months. A copy of the contract shall be provided with the application. Activity permits issued for a period exceeding three months shall expire thirty (30) days after the contract deadline or one year from the date of issuance, whichever is greater.
- D. Permittee shall notify the control officer within five (5) working days of the start and completion of the project.
Ordinance 1995-87 21, 1995: Ordinance 1994-83 41, 1994:
Ordinance 1993-128 3 (part), 1993.

TRAFFIC CONTROL:

The applicant, his agent, or the contractor shall at all times insure the safety of the traveling public. He shall provide, install, and maintain traffic control devices as prescribed by the Manual on Uniform Traffic Control Devices, for Streets and Highways, Part 6, Federal Highway Administration, and when required, will also take such other measures of precaution as directed by the Pima County Engineer.

The Public Works Inspector will inspect all work locations for installations of traffic control devices. The Public Works Inspector has the authority to stop work and call a Sheriff's Deputy (Traffic) for the necessary citations whenever proper traffic control as set forth in the Traffic Control Manual for Highway Construction is not provided by the applicant.

Existing traffic signs, except Stop and Yield signs, which interfere with the work may be removed, stored, and reinstalled upon completion of the work. Any sign removed shall be carefully reinstalled to its original location and mounting height. Stop and Yield signs may not be altered or relocated without specific approval of the Public Works Inspector. All costs for any existing sign, marker, or device lost, defaced, damaged, or destroyed by the work will be billed to the permit applicant. (Reference Arizona Revised Statutes, Title 28, Transportation, Chapter 3, Article 3, Traffic Signs, Signals, and Markings.)

ALLOWABLE EQUIPMENT USAGE:

Only rubber tired equipment shall be used on asphalt or concrete pavement. Crawler equipment using street pads may be used on trenching machines.

Hydraulic outriggers on supports for a backhoe operation shall be equipped with rubber pads or blocked such that the asphalt surface shall not be damaged.

INSPECTION OF WORK:

All work within the right of way of dedicated streets, dedicated drainage ways, or public easements will be inspected by the Pima County Engineer or his designated representative.

The Department of Transportation Inspectors of the Field Engineering Division, are his designated representatives; they shall be notified prior to the start of work, during backfill operations, and when the work is completed. These Inspectors have the option of being present during any and all of the above mentioned operations to insure compliance with plans, specifications, or details. The Inspector shall have the authority to revoke the permit whenever it is clear that the plans, details, and specifications are not being followed.

HOW AND WHEN TO CALL FOR INSPECTIONS:

Prior to starting work the applicant should call the Pima County Department of Transportation Subdivision Permit Section, #740-2650, and give the permit number, anticipated starting time, type of work and work location at least 48 hours prior to starting work. The Tucson Metropolitan Area of Pima County is divided into Public Work Inspection Districts. The Inspector for the district in which the applicant is working will be notified to make the necessary inspections.

In the event of permanent pavement replacement, the applicant shall call the Department of Transportation and request an inspection prior to the placing of pavement. The above same information should be given prior to the start of work.

Routine inspection for subdivision and contract type work requests shall be made by calling the Pima County Department of Transportation Inspection Section and allowing 48 hours advance notice.

The Department of Transportation Inspectors have the following holidays and normally will not work on these days: New Year's Day, Martin Luther King, Jr./Civil Rights Day, Lincoln/Washington's Presidents Day, Memorial day, Independence Day, Labor Day, Columbus Day, Veterans' Day, Thanksgiving Day, and Christmas Day. Inspection services will not be offered on these days; therefore, the applicant should plan accordingly.

A list of telephone numbers to be contacted for information, inspection, or emergency service is shown on the attached Information Supplement on the front of this Booklet.

MATERIALS TESTING

The Pima County Department of Transportation will require acceptance testing of all materials used in any roadway construction or reconstruction within Pima County right-of-way to determine conformance to specifications. Testing will include, but not be limited to, compaction tests on backfill materials, subgrade, aggregate base course, concrete and asphaltic concrete. Quality assurance testing is the responsibility of the contractor.

STANDARD SPECIFICATIONS

All work and materials used in this Section shall be in

accordance with the requirements of the Standard Specifications for Public Improvements, 1994 Edition, Pima County/City of Tucson unless noted. These shall be referred to herein as the "Standard Specifications".

FEES

When an Inspections Fee is assessed, Pima County Department of Transportation will perform the testing of the materials being used.

When no Inspections Fees are charged, Pima County will require documentation of the trench backfill material testing. The permit applicant is responsible to obtain an ADOT inspected testing laboratory to perform gradation and compaction testing on the trench backfill to prove conformance with the Standard Specifications. Copies of the test results shall be submitted to the Inspections Section of Pima County Department of Transportation. Failure to comply may result in the removal of the backfill and replaced as per the Standard Specifications.

ACCEPTANCE OF WORK:

The work performed under permit will be accepted for maintenance by the Pima County Department of Transportation after certification by the Department's Inspectors that the work has been done according to plans, details, specifications, and requirements of the permit.

As stated previously, the Department of Transportation Inspector has the option of being present during any operation of pavement cutting and patching. Since Pima County is a large county and the Department has a limited number of Inspectors, it will be impossible for an inspector to be present during all operations. We will accept minor improvement construction projects and street cut repairs which have not been completely inspected by our Inspector, provided obvious defects in workmanship and materials are not present. Items such as excessive settlement, premature raveling, and faulty pavement replacement will not be accepted. The Pima County Department of Transportation will give written notice to the permit applicant to replace or repair the faulty pavement replacement or backfill. Failure of the applicant or his contractor to perform the repair within a reasonable time may result in either Pima County obtaining a contractor to complete the necessary repairs and bill the applicant at the established repair rates, or failure to comply may result in Pima County instituting legal action pursuant to the Arizona Revised Statute ' 28-7053 and 28-7054.

Neither inspection of the work nor the testing shall remove the Permit Applicant or his contractor's responsibility to warrant proper workmanship and quality control of the completed work.

PAVEMENT CUTTING:

The cutting of existing asphaltic concrete pavement shall be done with a spade type pneumatic pavement cutter, saw, or other equipment capable of a neat vertical cut. Ripping of the pavement which may cause uplift or peeling shall not be allowed.

No cutting on new construction which is five (5) years or less old shall be done without approval by Pima County. A request shall be made to Pima County for cutting new constructed roadways, and proper authorization by Pima County must be given prior to cutting roadways less than five (5) years old.

Pavement patches shall be made on pavement cuts as per Detail No. 216, Utility Trench Pavement Patch, Standard Details for Public Improvements.

Concrete pavement, curbs, and sidewalks shall be cut with a concrete saw to at least a third of the depth of the slab before breaking and removal. Materials removed from the pavement, curb, or sidewalk cut shall be disposed of as per the engineer's approval.

OPEN TRENCH:

Two way traffic must be maintained at all times unless special arrangements have been made with the Pima County Department of Transportation. Trenching operations crossing a traveled roadway must be segmented as shown on Detail Supplement, pages 18 and 19, to maintain two way traffic.

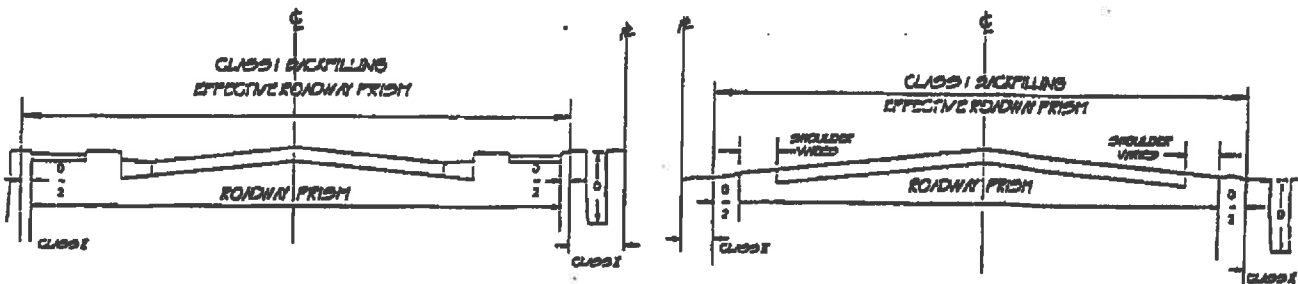
Trenching or open trench parallel to a roadway shall not exceed the distance from the edge of one crossing street to the edge of the next crossing street, or a length no greater than 300 lineal feet maximum.

TRENCH MATERIAL:

Trench material (bedding, shading, backfill) shall be divided into two classes: Class I is required for any excavation within the effective roadway prism. Class II material shall be permitted outside the effective roadway prism.

Backfilling shall be divided into two classes, Class I and Class II. Class I is required for any excavation within the effective roadway prism. Class II backfilling shall be permitted outside the effective roadway prism.

For the purpose of this Article, the effective roadway prism for a fully developed section shall be defined as the area used as the traveled road, the area under the curbs, the area from back of curb to outside edge of sidewalk, and an area one-half the depth of the trench from the outside edge of the sidewalk. If the roadway consists of strip paving and shoulders, the effective roadway prism shall consist of the area used as the traveled road, the roadway shoulders, and the area one-half the depth of the trench from the outside edge of the shoulder.



Class I bedding, shading, and backfill conforming to the requirements of the Standard Specifications shall be placed in lifts not exceeding eight (8) inch lifts of premoistened material and mechanically compacted to a minimum 95% of the testing laboratory maximum density (Section 501).

Class II material can be any material not containing trash, or organic material. Trench material may be placed in eighteen inch lifts and, if the material is granular in nature, it may be compacted by water settling with a jetting probe if approved by the Engineer. Flooding shall not be permitted.

Class II material in the road right-of-way but outside the road prism shall be compacted to a minimum 90% of the laboratory maximum density. In public easements not subject to vehicular traffic the compaction shall be a minimum of 85% of the maximum laboratory density.

Trench material compaction tests will be performed in accordance with ADOT 225-227, 230, and 232, a minimum of every third lift, at least one every 500 feet.

The Pima County Department of Transportation Inspector may also order load tests to be performed to determine the suitability of the backfill before paving. Such tests are to be performed with a vehicle of approximately eighteen thousand-pound axle loads. Excessive movement or settlement of backfill shall be cause for rejection of the work.

TEMPORARY PAVEMENT:

In the event the contractor elects not to make the permanent pavement repair immediately after backfilling and compaction, he shall provide a temporary one-inch thick cold-mix asphalt patch over the area or areas which will ultimately receive a permanent patch. He will also be responsible to assure the temporary patch is maintained at all times. A permanent patch shall be placed within fifteen (15) calendar days of the initial work or sooner if requested, in writing, to do so by the County Engineer or his representative.

PAVEMENT REPLACEMENT STANDARD DETAILS:

Whenever existing pavement is cut and removed it shall be replaced in accordance with a Type 1, Type 2, or a Type 3 patch, as per the Standard Details for Public Improvements, Standard Detail No. 216

It will be mandatory to use a Type 3 pavement replacement on any existing concrete roadway, when the trench width is no more than 4'-0".

A Type 1 pavement replacement patch will be required on any roadway, which is not concrete, within Pima County when the trench width is no more than 4'-0".

A Type 2 pavement replacement patch will be required when the trench widths exceed 4'-0".

If a pavement cut is made in the roadway, parallel to the centerline, within either traffic lane, that lane shall require a full lane pavement replacement and a single chip and seal application on the full width of the roadway.

If a pavement cut is made in the roadway, parallel to the centerline, which is within the center of the roadway, or disturbs both lanes, pavement replacement shall be the full width of the roadway. If only the edge of the roadway is disturbed, a pavement patch is required per the Standard and that one lane shall require a single chip and seal application.

For excavations made in the roadway shoulder, the surface materials will be replaced with aggregate base course. For all other excavations inside the right-of-way, but outside the roadway prism, the surface material will be replaced with material of equal quality.

Permanent pavement replacement may be performed by the contractor, provide the pavement materials from an approved materials plant, and work is performed per the Standard Construction Methods and Specifications.

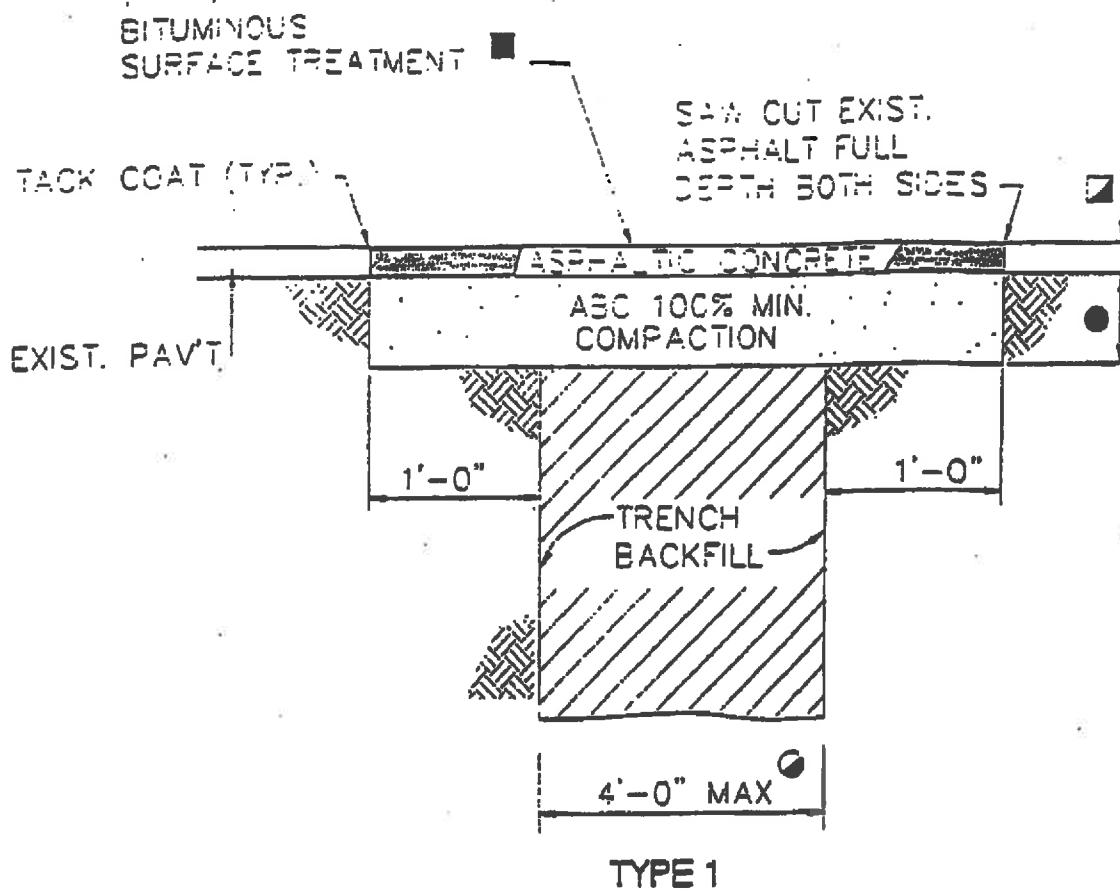
CLEANUP:

The work site shall be maintained in a neat and acceptable condition. Care shall be taken to prevent spillage on streets and roadways over which hauling is done, and any such spillage shall be cleaned up immediately. All waste materials shall be removed and the general condition of the site shall be as good or better than before construction. Final approval of the cleanup shall be given by the Department of Transportation Inspector.

EXCAVATION IN AN UNPAVED ROADWAY:



Excavation in an unpaved roadway where the wearing surface is native material shall be regulated to minimize particulate air pollution from becoming airborne as fugitive dust. Unpaved roadways, where excavation or grading has taken place, shall be restored to their original condition. If the roadway surface has been treated with a dust palliative, the restored surface shall be treated with a palliative of equal suppressing capacity.

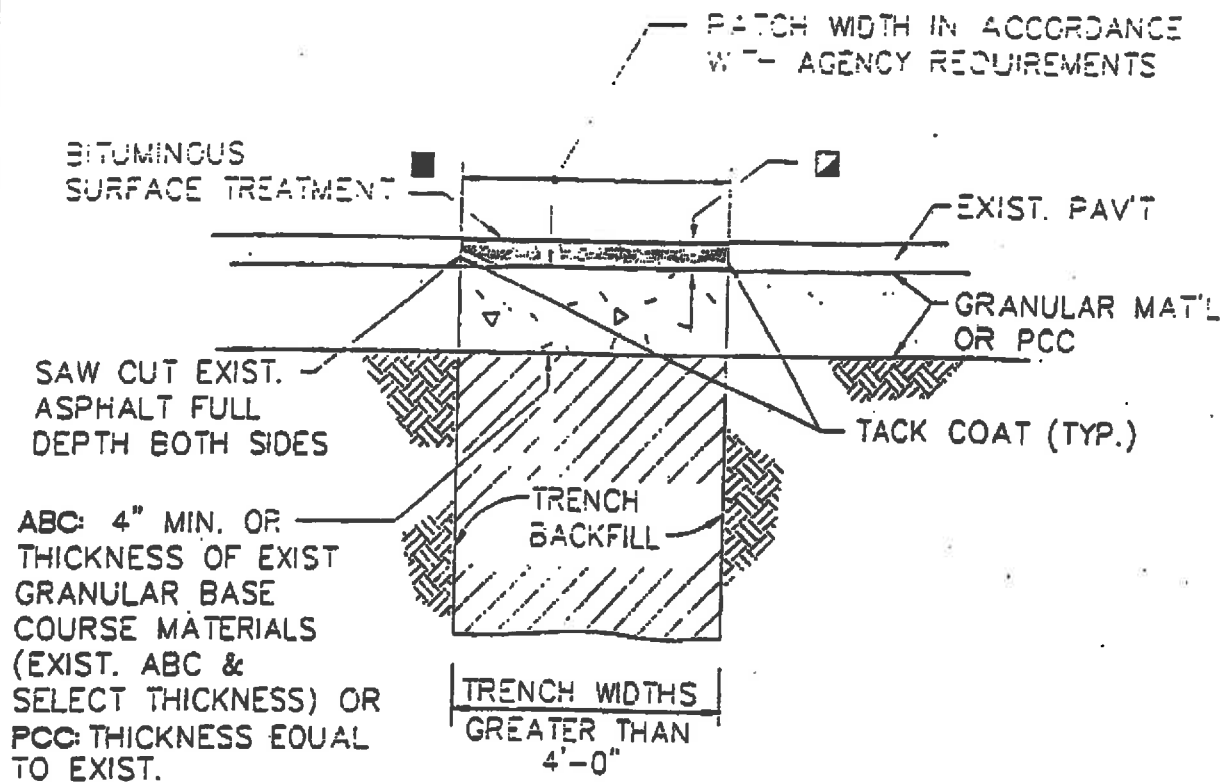
In no case, shall the trench backfill be water settled. The minimum allowable surface treatment for unpaved roads shall be to add water until the surface soil layer is at optimum moisture and fairly well compacted.



- FOR TRENCH WIDTHS EXCEEDING 4' REFER TO TYPE 2 DETAIL
- ▣ 2" MINIMUM OR THICKNESS OF EXISTING PAVEMENT WHICHEVER IS GREATER
- REQUIRED ONLY FOR LONGITUDINAL TRENCHES WITH WIDTHS GREATER THAN 6'
- 4" MINIMUM ABC OR THICKNESS OF EXISTING GRANULAR BASE COURSE MATERIALS (E.G. ABC & SELECT MATERIAL) WHICHEVER IS GREATER

REFER TO NOTES
SHEET 4 OF 4

ISSUED:		STANDARD DETAIL UTILITY TRENCH PAVEMENT PATCH		DETAIL NO.
1/93				216
REVISED:				SHEET 1 OF 4

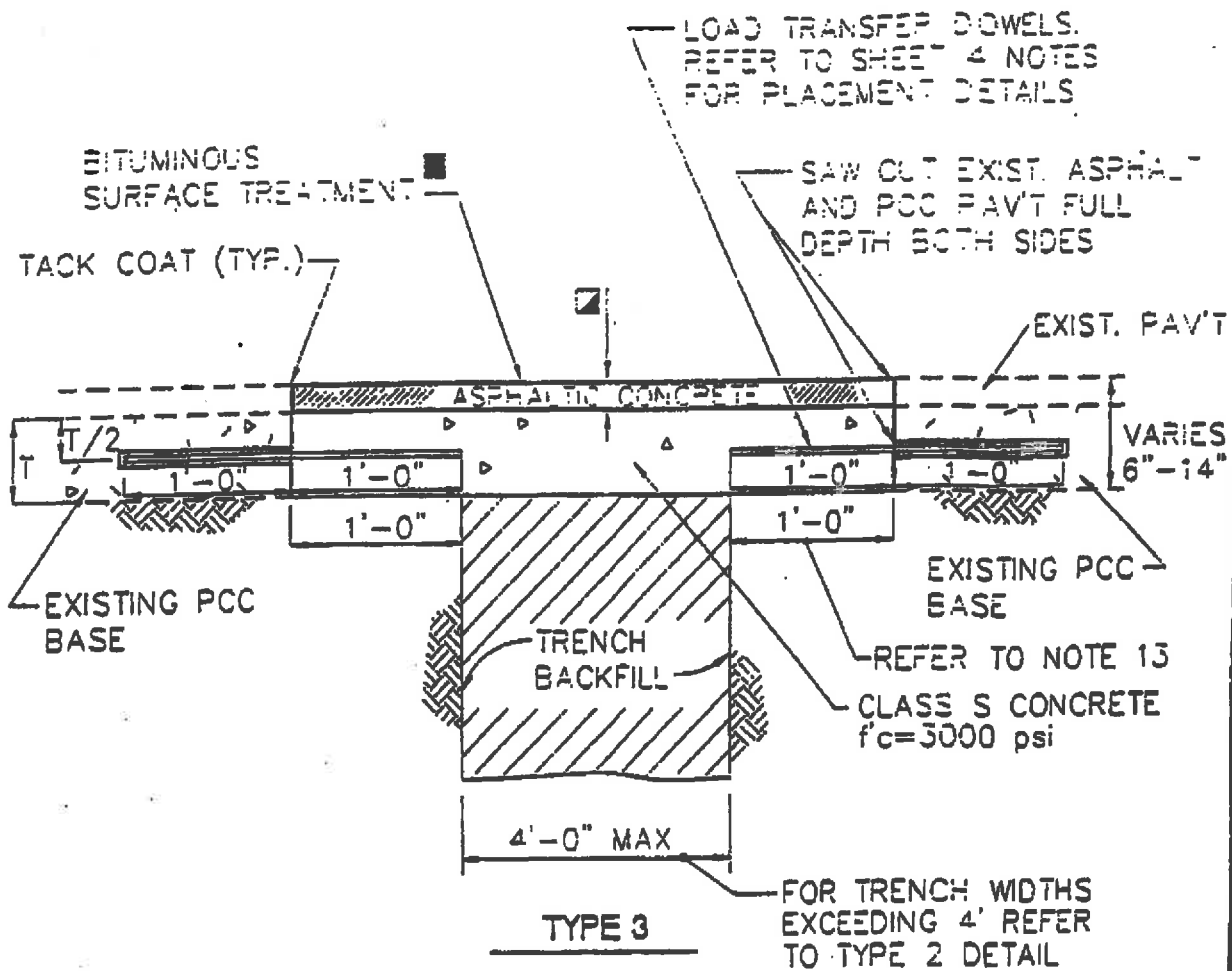


TYPE 2

- 2" MINIMUM OR THICKNESS OF EXISTING ASPHALT PAVEMENT WHICHEVER IS GREATER
- REQUIRED ONLY FOR LONGITUDINAL TRENCHES WITH WIDTHS GREATER THAN 6'



REFER TO NOTES
SHEET 4 OF 4

ISSUED:		STANDARD DETAIL		DETAIL NO.
1/93		UTILITY TRENCH PAVEMENT PATCH		216
REVISED				SHEET 2 OF 4



- 2" MINIMUM OR THICKNESS OF EXISTING ASPHALT PAVEMENT WHICHEVER IS GREATER
- REQUIRED ONLY FOR LONGITUDINAL TRENCHES WITH WIDTHS GREATER THAN 6'

REFER TO NOTES
SHEET 4 OF 4


ISSUED:		STANDARD DETAIL		DETAIL NO.
1/93		UTILITY TRENCH PAVEMENT PATCH		216
REVISED				SHEET 3 OF 4

NOTES:

1. MATERIAL AND COMPACTION REQUIREMENTS FOR PIPE BEDDING/SHADING SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS FOR THE APPLICABLE UTILITY PIPE.
2. TRENCH BACKFILL SHALL COMMENCE 1 FOOT ABOVE THE TOP OF PIPE AND SHALL BE PER SECTION 923-2.
3. BACKFILL COMPACTION REQUIREMENTS SHALL BE PER SECTION 923-3.07.
4. THE 1 FOOT TRENCH 'SHOULDER' AREAS SHALL BE DELETED FOR TYPE 2 TRENCHES.
5. ABC SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 303-2.
6. PORTLAND CEMENT CONCRETE SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 1006.
7. ASPHALTIC TACK MATERIAL SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 1005.
8. ASPHALTIC CONCRETE SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 406 FOR THE TYPE SPECIFIED.
9. BITUMINOUS TREATMENTS SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 404 FOR THE TYPE SPECIFIED.
10. LOAD TRANSFER DOWELS FOR JOINTS TRANSVERSE TO THE ROADWAY CENTERLINE SHALL BE SMOOTH STEEL DOWELS IN ACCORDANCE WITH THE REQUIREMENTS OF SECTION 1003. DOWELS SHALL BE SIZED AND SPACED AS FOLLOWS:

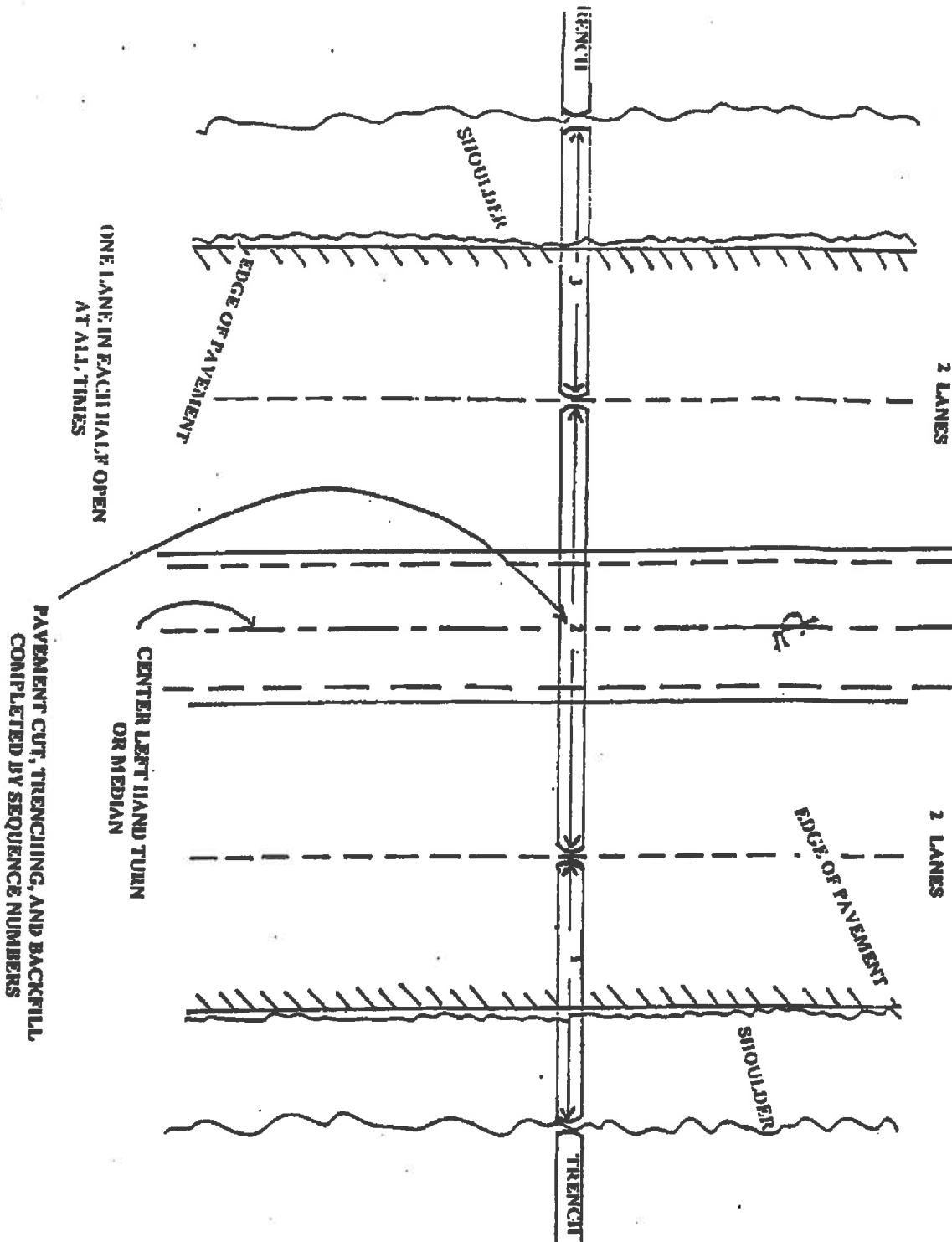
<u>PCCP THICKNESS</u>	<u>DOWEL SIZE</u>	<u>DOWEL LENGTH</u>	<u>DOWEL SPACING</u>
6"	#5	12"	18"
7"	#6	15"	15"
8"	#8	15"	12"
10" AND UP	#10	15"	12"

11. DEFORMED TIE BARS SHALL BE USED IN TRENCH PATCHES LONGITUDINAL TO THE ROADWAY CENTERLINE WHEN THE TRENCH LENGTH IS GREATER THAN 50 FEET. TIE BARS SHALL BE 24 INCHES LONG. DEFORMED NO. 4 BARS FOR PCCP LESS THAN 8 INCHES THICK AND NO. 5 BARS IF 8 INCHES THICK OR MORE. TIE BARS SHALL BE PLACED 30 INCHES CENTER-TO-CENTER.
12. HOLES SHALL BE DRILLED 1 FOOT INTO THE EXISTING SLAB FOR TIE BARS AND 7 INCHES FOR DOWELS. HOLES SHALL BE OF A DIAMETER SUFFICIENT TO ACCOMMODATE THE TIE BAR ANCHORAGE OR DOWEL CAP. TIE BARS SHALL BE ANCHORED WITH AN APPROVED HIGH VISCOSITY EPOXY.
13. IF THE CONCRETE SLAB REMAINING NEXT TO A LONGITUDINAL OR TRANSVERSE JOINT IS LESS THAN 6 FEET AT ITS NARROWEST WIDTH, REMOVE AND REPLACE THE EXISTING CONCRETE TO THE JOINT.

ISSUED:		STANDARD DETAIL		DETAIL NO.
1/93		UTILITY TRENCH PAVEMENT PATCH		216
REVISED				SHEET 4 OF 4

FOUR LANE HIGHWAY DIVIDED

NO DIVERTING OF TRAFFIC TO OPPOSITE LANE

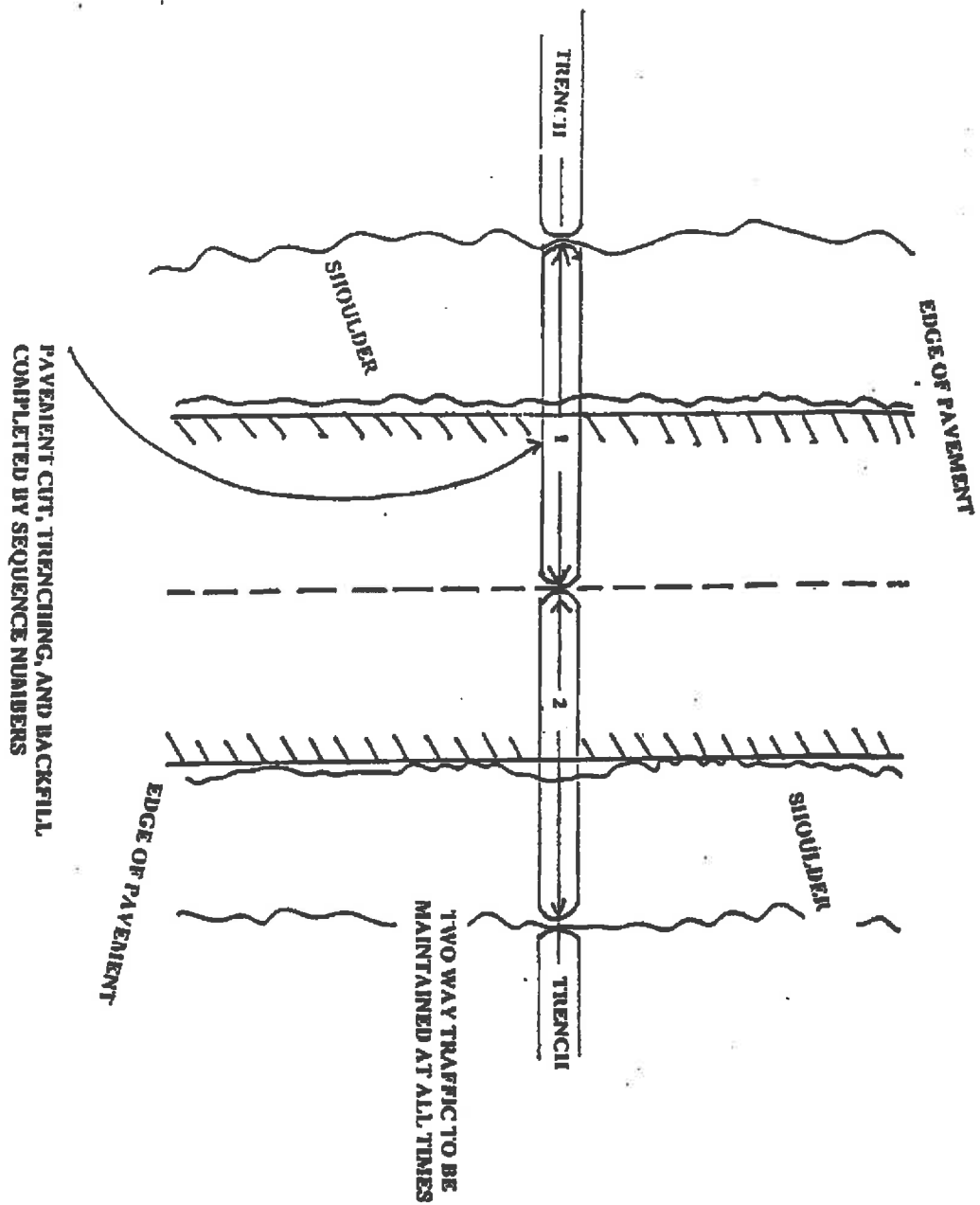


PIMA COUNTY DEPARTMENT OF TRANSPORTATION

DETAIL - TRENCHING ACROSS PAVEMENT

FOUR LANE DIVIDED ROADWAY

TWO LANE HIGHWAY



PIMA COUNTY DEPARTMENT OF TRANSPORTATION

DETAIL - TRENCHING ACROSS PAVEMENT

TWO LANE ROADWAY

PIMA COUNTY DEPARTMENT OF TRANSPORTATION

SPECIFICATIONS SUPPLEMENT NUMBER 1

ASPHALTIC CONCRETE

SPECIFICATIONS:

The work embraced herein shall be done in accordance with the City/County Standard Specifications, 1994 Edition, together with these Specification Supplements which are additional to and may supersede portions of the Standard Specifications.

GENERAL REQUIREMENTS:

The base or sub-base upon which the asphaltic concrete is to be placed shall be prepared and maintained smooth, firm, and in reasonable close conformity to the lines, grades, and dimensions established or shown on the plans.

When asphaltic concrete is being placed on a primed or paved surface, the surface to be paved shall be swept clear of loose dirt and other objectionable material.

A light coat of bituminous material (tack coat) shall be applied as directly to edges or vertical surfaces against which asphaltic concrete is to be placed.

MATERIALS:

The asphaltic concrete and mineral aggregate shall conform to the requirements of Section 406, Mix No. 2, unless otherwise designated by the Engineer and shall be approved Pima County Department of Transportation or Arizona Department of Transportation mixes. The asphaltic cement shall meet the requirements of PG Grade 70-10 oils.

Gradation/Percent Passing of the Sieve Analysis shall be as follows:

<u>Sieve Size</u>	<u>Percent Passing</u>
3/4 inch	100
1/2 inch	90-100
3/8 inch	70-85
#4	54-68
#8	44-52
#40	13-23
#200	3-8

SPECIFICATIONS SUPPLEMENT NUMBER 1
ASPHALTIC CONCRETE
PAGE TWO

PLACING AND FINISHING:

The asphaltic concrete shall be placed at a minimum of 250 degrees Fahrenheit and may be spread by hand. Asphaltic Concrete shall be compacted in lifts not to exceed three (3) inches in thickness.

COMPACTION:

Rolling shall be accomplished by means of tandem steel wheel rollers, vibratory steel wheel rollers, pneumatic rollers, or a combination of any or all three. All rollers must be approved by the Engineer prior to the start of construction.

Compaction shall be accomplished using tandem steel wheel rollers, vibratory steel wheel rollers, pneumatic rollers, or any combination thereof. All compaction equipment shall be adequate to accomplish the required density and shall be approved by the Engineer prior to the start of paving.

The asphaltic concrete shall be compacted to a minimum 95% of the laboratory compacted density as determined by ADOT 410C. Cores shall be taken to indicate pavement compaction. Care shall be taken by the contractor not to cause cracking or other damage to the existing and new pavement. Pavements which have been damaged shall be removed and replaced.

SURFACE TOLERANCES:

The pavement surface shall not vary more than one-eighth inch from the lower edge of a ten foot straightedge when the straightedge is placed parallel to the centerline of the roadway.

The contractor shall have an approved metal straightedge, ten feet long, on the site during all paving operations.

PIMA COUNTY DEPARTMENT OF TRANSPORTATION

SPECIFICATIONS SUPPLEMENTS NUMBER 2

AGGREGATE BASE COURSE

SCOPE:

Aggregate Base Course shall consist of furnishing and placing an aggregate material as a base for pavement or surface course for alleys or roadway shoulders.

SPECIFICATIONS:

The work embraced herein shall be done in accordance with City/County Standard Specifications, 1994 Edition, Section 303, together with these Specifications Supplements which are additional to and may supersede portions of the Standard Specifications.

MATERIALS:

Aggregate for aggregate bases shall consist of stone, gravel or other approved inert material of similar characteristics, and shall be clean and free from vegetable matter and other deleterious substances. The gradation and maximum plasticity index shall be as follows:

<u>Sieve Size</u>	<u>Percent Passing</u>	<u>Maximum P. I.</u>
1"	100	
3/4"	90-100	5
1/4"	45- 75	
#200	2- 10	

The sum of the PI and the percent passing the #200 sieve shall be a minimum of 5.

PLACING AND FURNISHING:

The Aggregate Base may be placed by hand when it is impractical to place by mechanical methods. After final compaction, the surface of the Aggregate Base Course shall be in close conformity to the lines, grades, and dimensions established, or shown on the plans.

Aggregate base material shall be placed in uniform layers not to exceed six inches in compacted thickness. The finished surface shall not vary by more than one-half inch from the required grade and cross-section.

**SPECIFICATIONS SUPPLEMENT NUMBER 2
AGGREGATE BASE COURSE
PAGE TWO**

COMPACTION:

Compaction shall be accomplished by means of approved mechanical devices. All compaction devices must be approved by the Pima County Engineer prior to the start of construction.

Each layer of Aggregate Base Course shall be compacted to a minimum of 100% of the maximum density as determined by the applicable test method in the Arizona Department of Transportation Materials Testing Manual.

PIMA COUNTY DEPARTMENT OF TRANSPORTATION

SPECIFICATIONS SUPPLEMENTS NUMBER 3

SELECT MATERIAL

SCOPE:

Select material shall consist of furnishing and placing an aggregate material as a sub-base for pavement.

SPECIFICATIONS:

The work embraced herein shall be done in accordance with the City/County Standard Specifications, 1994 Edition, Section 501, together with these Specification Supplements which are additional to and may supercede portions of the Standard Specifications.

MATERIALS:

In the roadway prism, material placed below finish subgrade elevation, designated as select material, shall conform to the requirements of Section 501-2.06 of the Standard Specifications. The gradation shall be as follows:

<u>Sieve Size</u>		<u>Percent Passing</u>
3	inch	100
3/4	inch	60-100
#8		35-80
#200		Sum of percent passing #200 sieve, plus P.I. is less or equal to 25.

With the Engineer's approval, aggregate base course material may be used below finish subgrade.

COMPACTION:

The select material shall be compacted to a minimum of 95% of the maximum density as determined by the applicable methods in the Arizona Department of Transportation Materials Testing Manual.

PIMA COUNTY DEPARTMENT OF TRANSPORTATION

SPECIFICATIONS SUPPLEMENT NUMBER 4

DOUBLE CHIP SEAL

SCOPE:

Double chip seal shall consist of furnishing and placing a liquid or emulsified asphalt and crushed cover aggregate in two (2) courses to form a pavement replacement surface course.

SPECIFICATIONS:

The work embraced herein shall be done in accordance with the City/County Standard Specifications, 1994 Edition, Section 404, together with these Specification Supplements which are additional to and may supersede portions of the Standard Specifications.

GENERAL REQUIREMENTS:

The surface to be seal coated shall be thoroughly cleaned prior to applying the bituminous material or slurry.

The aggregate shall be uniformly and immediately spread over the freshly applied bituminous materials by means of a self-propelled, continuous feed aggregate spreader. The cover material shall be wet, but free of running water at the time of spreading.

Traffic of all types shall be kept off the seal coat until it has had time to set

TIME OF APPLICATION AND WEATHER CONDITIONS:

Liquid or emulsified asphalt shall be applied only when the surface is dry. The ambient temperature at the time of application shall be 70 degrees Fahrenheit and rising.

MATERIALS:

<u>Sieve Size</u>	<u>Percent Passing</u>
3/8 Inch	100
No. 4	0-25
No. 8	0- 5
No. 200	0- 2

The percent of crushed faces shall be at least 70% when tested in accordance with the requirements of Arizona Test Method 212.

**SPECIFICATIONS SUPPLEMENT NUMBER 4
DOUBLE CHIP SEAL
PAGE TWO**

The Flakiness Index shall be a maximum of 25.

Bituminous material shall be cationic rapid set emulsified asphalt Type CRS-2, or unless specified in the Special Provisions.

PLACING AND FINISHING:

The bituminous material shall be applied in conformance with Section 404 of the Standard Specifications. A self-propelled bituminous distributor truck must meet the approval of the County Engineer.

The bituminous material shall be applied at a rate of 0.25 - 0.30 gallon per square yard for each application. This rate may be adjusted to fit field conditions as per the Pima County Engineer.

The cover aggregate shall be applied in conformance with Section 404 of the Standard Specifications. The cover aggregate may be spread by hand methods when approved by the Pima County Engineer.

The cover aggregate shall be spread at 25 pounds per square yard for each application immediately after the bituminous material has been applied. This rate may be adjusted to fit field conditions as directed by the Pima County Engineer.

ROLLING:

The cover aggregate shall be rolled as soon as it has been spread over the bituminous material. Rolling shall be accomplished by pneumatic tire roller(s). The roller(s) to be used shall be approved by the Pima County Engineer prior to the start of work.

A minimum of three (3) passes shall be required to complete the rolling process.

REMOVING LOOSE COVER MATERIAL:

All loose cover material shall be removed from the paved surface by brooming, in not less than 4 hours nor more than 36 hours after application.

Brooming shall be done by power brooms of the rotary type, equipped, maintained, and operated so that the bristles are of reasonably uniform length and capable of cleaning without gouging or tearing the surface.

SPECIFICATIONS SUPPLEMENT NUMBER 4
DOUBLE CHIP SEAL
PAGE THREE

Brooming may be accomplished by hand methods when approved by the Pima County Engineer.

PIMA COUNTY DEPARTMENT OF TRANSPORTATION

SPECIFICATIONS SUPPLEMENT NUMBER 5

COLD MIX ASPHALT

SCOPE:

Cold Mix Asphalt shall consist of furnishing and placing a mixture of an aggregate material and a bituminous material to form a temporary pavement replacement surface course.

GENERAL REQUIREMENTS:

The base or sub-base upon which the cold mix asphalt is to be placed shall be prepared and maintained smooth, firm, and in reasonable close conformity to the lines, grades, and dimensions as shown in the plans.

WEATHER AND MOISTURE CONDITIONS:

No cold mix asphalt shall be placed when the weather is foggy or rainy, or when the base on which the material is to be placed contains moisture in excess of the optimum.

SPECIFICATIONS:

The work embraced herein shall be done in accordance with the City/County Standard Specifications, 1944 Edition, Section 1005, together with these Specification Supplements which are additional to and may supersede portions of the Standard Specifications.

MATERIALS:

Mineral Aggregate gradation shall be as follows:

<u>Sieve Size</u>	<u>Percent Passing</u>
3/8"	100
# 4	70-100
# 8	45- 70
# 40	20- 40
#100	5- 15
#200	3- 8

Mineral aggregate shall consist of crushed gravel, rock, natural sand, sand prepared from rock, or other approved inert material with similar characteristics that conform to the gradation as shown above. The liquid asphalt (cut-back asphalt) shall be Grade

SPECIFICATIONS SUPPLEMENT NUMBER 5
COLD MIX ASPHALT
PAGE TWO

MC-250 or MC-800. The amount to be used shall be 6.5 to 7.5% of the total mixed material.

PLACING AND ROLLING:

The Cold Mix asphalt may be spread by hand.

Rolling shall be accomplished by means of a tandem steel wheel roller(s), vibratory roller(s), pneumatic roller(s), or other approved rolling methods.

SURFACE TOLERANCES:

The surface shall be as uniform as possible and not cause excessive discomfort to the traveling public.

CONTRACTOR'S RESPONSIBILITIES:

The contractor shall be responsible for maintaining the temporary patch until it is removed to install a permanent patch.

Permanent pavement repair shall be performed within fifteen (15) calendar days of the initial work or sooner if requested in writing to do so by the Pima County Engineer or his authorized representative.

PIMA COUNTY DEPARTMENT OF TRANSPORTATION

SPECIFICATIONS SUPPLEMENT NUMBER 6

MISCELLANEOUS ITEMS

TACK COAT:

Tack Coat shall conform to Section 404-3.15 of the latest edition of the Standard Specification for Public Improvements.

Tack Coat shall consist of a CSS-1 or CSS-1h emulsified asphalt diluted 50/50 with water.

Tack Coat shall be applied to all joints (faces) of the pavement cut immediately prior to surfacing. Tack Coat shall be applied to the surface of asphaltic concrete when placed in compacted lifts.

Tack Coat shall be applied at a rate of 0.10 gallon per square yard.

Tack Coat may be applied by hand method when approved by the Pima County Engineer.

GRANULAR BACKFILL MATERIAL:

Granular Backfill Material shall mean material for which the sum of plasticity index and the percent of the material passing a # 200 sieve shall not exceed 25. Test methods shall be in accordance with the Arizona Department of Transportation Materials Testing Manual.

PIMA COUNTY DEPARTMENT
OF TRANSPORTATION AND FLOOD CONTROL DISTRICT
RIGHT OF WAY PERMIT FEE SCHEDULE

1. Public Right-of-Way Improvement Permit Fee

- a. Base permit fee for work
in the public right of way: \$45.00
- b. Driveway repairs and installation and
unimproved property improvements
up to 5 feet by 5 feet: \$25.00
- c. Fees for general right-of-way improvements. The permit fees for
all utility work, sidewalk installation, street excavation,
improvements to unimproved portions of public right of way, curb
cuts, driveway installations, and repairs, are as follows:
 - 200 lineal feet or less: Base permit fee(\$45.00)
 - 201 to 300 lineal feet: \$60.00
 - 301 to 500 lineal feet: \$80.00
 - 501 to 2500 lineal feet: \$80.00, plus \$14.00 for
each additional 100 ln.
ft. or fraction thereof
above 500 lineal feet.
 - 2501 lineal feet and above: \$360.00, plus \$80.00
for each additional 100
lineal feet or fraction
thereof above 2501
lineal feet.
- d. All other work: The permit fee for all other
type of work in the public right-of-way , such
as concrete structures, guard rail, slope
protection, drainage channel work, roadway
upgrading, etc: Base permit fee(\$45.00)

- 2. Construction inspection fee.** In addition to the permit fee listed above a five percent (5%) construction inspection fee is required for any and all construction, reconstruction, improvement, repair, modification or removal of any transportation or flood control improvements within a public right-of-way. The construction inspection fee is calculated based on the total cost of the construction covered under the permit. The construction inspection fee is in addition to the right-of-way permit fees listed above.

Utility and telecommunications exception. The construction inspection fee does not apply to a permit for utility and telecommunications systems work done within public rights-of-way, provided, however, the number and detail of inspections performed by the County do not exceed those routinely conducted for utility work. The utility contractor shall provide to Pima County all necessary product material testing reports and product acceptance testing reports prepared by a Materials Testing laboratory approved by Arizona Department of Transportation. A copy of all laboratory test reports shall be submitted to Permit Inspections Section of the Department of Transportation promptly for all work done under this permit.

a. There is no separate inspection fees for review of construction materials test reports.

b. Addition inspections or complex review plan review: \$35.00/hr.

3. **Telephone or mail-in application:** No additional charge

4. **Oversize/overload vehicle permit:** \$15.00/Single-trip, one load
\$45.00/30-day permit

5. **Permit renewal:** \$25.00

6. **Permit and Right-of-way Work Standards Booklets** \$2.50 each

7. **Permit applicability.** A permit covers only contiguous construction and the work to be done as one (1) continuous operation.

8. **Permit expiration.** Permits for work done pursuant to an approved subdivision improvement plan expire one hundred and eighty (180) days after the date of issuance. All other permits expire forty-five (45) days after the date of issuance. A permit may be renewed one time only, upon payment of the permit renewal fee. All right-of-way use permits must be renewed prior to or within 1 day after the date of permit expiration.

9. **Fee for commencement of work without a permit.** If any work within a public right-of-way is commenced prior to obtaining a permit, the fee for the permit is triple the applicable amount. The triple fee is not an offset to, or waiver of any costs, fines or penalties which may be assessed pursuant to Pima County Code Section 10.44.050

11/09/98

UTILITY PLAN CHECKLIST

**For
Right-Of Way Permits**



**Phil Reed
Utility Coordinator
Pima County
Development Services :
Right-Of-Way Permit Section**

Utility Plan Checklist by: P. J. Reed - 10/27/00

PCDOT requires that all work within public right-of-way conform to current County/City Standards and specifications - 1994 Edition. Utility plans/sketches will be needed when applying for individual Right-of-Way Use Permits. The plans/sketches are reviewed for compliance with laws regulating the use of public right-of-way, and for impacts on existing vegetation, archeological sites, or existing or proposed: paved or unpaved roadways, drainage patterns, culverts, structures, bridges, traffic signals, and other public or private improvements.

For above ground utility systems:

- Show the proposed alignment.
- Show the offset distance from existing right-of-way, or edge of existing road pavement, or edge of graded roadway.
- Show dimensions to each above ground pedestal and transformer.
- Placement of new utility facilities should be as close to the existing right-of-way line as possible, (generally approximately 5' off the edge of ROW).
- Show distance from any above ground utility facilities, poles, pedestals transformers, juncture boxes, and manholes, to adjacent vehicle paths, turn radii at existing drives, or nearby intersections.
- Generally, there should be a minimum vehicle safety clear zone of 20' from edge of travel lane, to face of such installations.
- Show the distance/spacing between proposed poles.

For under ground utility systems:

- Show the proposed trench length, width, and depth of cover.
- Show the offset distance from existing right-of-way, or edge of existing road pavement, or edge of graded roadway.
- Show and dimension the length, and width of pavement cuts and patches.
- Show proposed or existing utility system manholes, and pull boxes.
- Show depths of cover proposed over cable, pipelines, or conduit.
- Show type of conduit or pipeline material and its diameter.
- Show proposed juncture boxes, water meter boxes, or similar flush to the surface type boxes. Do not be place within, or close to, driveways, vehicle paths, washes, or roadways

For Above Ground and Below Ground Utility Systems:

Show the following culture along the proposed utility system alignment when these features will be directly, or indirectly, impacted by the utility installation and related construction activities:

- Dirt and paved roads, and their widths.
- Street names.
- Indicate if public or private streets.
- Alleys and their widths.
- Minor washes, drainage ways, and their widths.
- Vegetation, trees, and cacti, and existing landscaping.
- Mailboxes.
- Riprapped areas.
- Adjacent paved or concrete apron areas.
- Major washes and their widths.
- Improved washes, and their type, paved, concrete, or earth.
- Driveways and access roads.
- Adjacent fences, walls, and buildings.
- Adjacent City or Town Limits.

Prior to the start of work the contractor or Utility Company will need a Right-of-Way Use Permit from Pima County Development Services, 1st floor, 201 North Stone Avenue. Three project plans/sketches and the appropriate permit fee are required.

- For Permit Information please call ROW Permits Section @ 740-6508.
- For additional sketch information please call P. Reed @ 740-6880.

*Robert Johnson
or
Ted Roberts.*