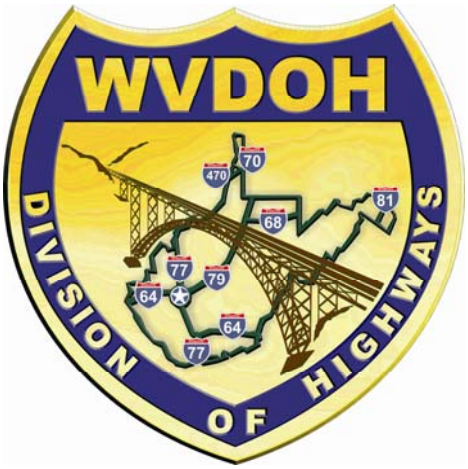

ACCOMMODATION OF UTILITIES ON HIGHWAY RIGHT OF WAY AND ADJUSTMENT AND RELOCATION OF UTILITY FACILITIES ON HIGHWAY PROJECTS

June 2007

ACCOMMODATION OF UTILITIES

ON

HIGHWAY RIGHT OF WAY

AND

ADJUSTMENT AND RELOCATION

OF

UTILITY FACILITIES

ON

HIGHWAY PROJECTS

Prepared By:
Railroads and Utilities Unit
Division of Highways
West Virginia Department of Transportation
June 15, 2007

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THE WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
CHARLESTON, WEST VIRGINIA

ABSTRACT FROM THE RECORDS OF THE
COMMISSIONER'S ORDERS
DATED

June 15, 2007

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DIVISION DIRECTORS

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SECRETARY OF STATE

PUBLIC SERVICE COMM.

WHEREAS, the West Virginia Division of Highways, acting by and through its Commissioner has promulgated rules and regulations for accommodating utilities on State highway right-of-way under the authority of Chapter 17, Article 2A, and does at this time desire the adoption of said rules and regulations.

NOW, THEREFORE, the Commissioner, upon recommendation of the Engineering Division Director and Deputy State Highway Engineer – Development, hereby **ORDERS** the **ADOPTION** of the attached policy on the Accommodation of Utilities on Highway Right-of-Way and Adjustment and Relocation of Utility Facilities on Highway Projects as the official manual of the West Virginia Division of Highways.

The manual Accommodation of Utilities on Highway Right-of-Way and Adjustment and Relocation of Utility Facilities on Highway Projects supersedes the Accommodation of Utilities on Highway Right-of-Way and Adjustment and Relocation of Utility Facilities on Highway Projects adopted by the Commissioner's Order dated December 1, 2003. This order amends the December 1, 2003 Order only in regard to the superseding of the manual.

The policy on the Accommodation of Utilities on Highway Right-of-Way and Adjustment and Relocation of Utility Facilities on Highway Projects is in compliance with the official Code of West Virginia of 1931, as amended, Chapter 17, Articles 1, 2A, 4 and 16, to establish rules pertaining to the use of State road right-of-way and adjacent areas

Entered this 15th day of June, 2007

Paul A. Mattox, Jr.

Paul A. Mattox, Jr., P. E.
Secretary of Transportation/
Commissioner of Highways

STATE OF WEST VIRGINIA
WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

Given under my hand and seal of the Division of Highways, I do hereby certify that the foregoing is a true abstract from the Orders of the West Virginia Commissioner of Highways entered of record on June 15, 2007.

Kay Hutchinson

Division of Highways

DEFINITIONS OF TERMS

AVERAGE DAILY TRAFFIC - The average 24-hour volume during a stated period divided by the number of days in that period. Commonly abbreviated as ADT.

BACKFILL - Suitable material, compacted as specified, around and over a pipe, conduit or casing.

BEDDING - Organization of soil or other suitable material to support a pipe.

BORING - As in jacking but auger can be forward of pipe.

BRIDGE - A structure, including supports, erected over a depression or an obstruction, such as water, a highway or a railway and having a track or passage for carrying traffic or other moving loads, and having an opening measured along the center of roadway of more than 20 feet (6.1m) between undercopings of abutments or spring lines of arches, or extreme ends of openings for multiple boxes; it may also include multiple pipes, where the clear distance between openings is less than half of the smaller contiguous opening.

CARRIER - Pipe directly enclosing a transmitted liquid or gas.

CASING - A larger pipe enclosing a carrier.

CLEAR ROADSIDE POLICY - The policy employed to increase safety, improve traffic operation and enhance the appearance of highways by designing, constructing, and maintaining highway roadsides as free as practical from physical obstructions above the ground such as trees, drainage structures, massive sign supports, utility poles, and other ground-mounted obstructions.

CLEAR ZONE - The roadside border area, starting at the edge of the traveled way, free of above ground obstructions, and available for use by errant vehicles.

COATING - Material applied to or wrapped around a pipe.

CONDUIT - An enclosed tubular runway for protecting wires or cables.

CONTROLLED ACCESS - The condition where the right of owners or occupants of abutting land or other persons lose access, light, air or view in connection with a highway which is fully or partially controlled by the Division of Highways.

COVER - Depth to top of pipe, conduit or casing below grade of roadway, ditch, or ground surface, whichever is the lowest elevation.

CULVERT - Any structure not classified as a bridge, which provides an opening under the roadway.

DIRECT BURIAL - Installing an underground cable or wire by plowing.

EXPRESSWAY - A divided arterial highway for through traffic, which serves major intrastate and interstate travel.

FEEDER ROAD - Serves community to community travel and/or collects and feeds traffic to higher systems.

FREE BORING - Boring without casing.

FREEWAY - An expressway with full control of access.

FRONTAGE ROAD - A local street or road auxiliary to and located on the side of an arterial highway for service to abutting property and other adjacent areas and for control of access.

GROUNDED - Electrical conductor connected to earth or to some extended conducting body which serves as a conductor instead of the earth.

GROUT - A cement mortar or slurry using fine sand.

HIGHWAY - A general term denoting a public way for purposes of vehicular travel including the entire area within the right of way.

JACKING - Forcing an open-ended pipe through the soil with an auger to transport soil back to the pit. No fluids allowed.

MANHOLE - An opening in an underground system which permits access for the purpose of making installations, inspections, repairs, connections, and tests.

MEDIAN - The portion of a divided highway separating the traveled ways for traffic in opposite directions.

MOLE - An air driven mechanical device which self-propels without casing.

PAVED ROAD – A road with a concrete or asphalt surface.

PERMIT - The document by which the Division of Highways regulates and/or gives approval of the use and occupancy of highway right of way.

PLOWING - Direct burial of utility lines by means of a "plow" type mechanism which breaks the ground, places the utility line and closes the break in the ground in a single operation.

PRESSURE - Relative internal pressure in psi (pounds per square inch), kPa (kilopascals).

PRIOR RIGHTS – When another entity has acquired ownership or right of way previous to the Division acquiring ownership or right of way on coincidental real estate.

PUNCHING - Installation of casing or carrier pipe by constant force on a horizontal plain.

RIGHT OF WAY - A general term denoting land, property or interest therein; usually in a strip, acquired for or devoted to transportation purposes and under control of the Division of Highways.

RIGID PIPE - Pipe designed for diametric deflection of less than 1%.

ROAD - See HIGHWAY.

ROADSIDE - A general term denoting the area adjoining the outer edge of the roadway. Extensive areas between the roadways of a divided highway may also be considered roadside.

ROADWAY - The portion of a highway, including shoulders, for vehicular use. A divided highway has two or more roadways.

SCENIC OVERLOOK - A roadside area beyond the shoulder provided for motorists to stop their vehicles. Primarily used for safely viewing the scenery.

SERVICE DROP – A non - longitudinal installation to a customer that generally attaches to a singular pole within Division right of way.

SERVICE TAP – A non-longitudinal installation to a customer.

SHARED RESOURCE PROJECT - A project undertaken by the West Virginia Department of Transportation, Division of Highways with a public/private company to achieve the goal of meeting the communication needs of each, including revenue to support these communication needs. A shared resource project may utilize highway right of way and/or private right of way.

STATE LOCAL SERVICE ROAD - Localized arterial and spur roads which provide land access and socioeconomic benefits to abutting properties.

STREET - See HIGHWAY.

TELECOMMUNICATIONS PROVIDER – Any company, or part of a company, providing telecommunications services.

TELECOMMUNICATIONS SERVICES – The offering of telecommunications for a fee directly to the public

or to such classes of users as to be effectively available directly to the public.

TELECOMMUNICATIONS FACILITY – Material, lines, switch boxes and other physical items necessary for the transmission of telecommunications services.

TRAVELED WAY - The portion of the roadway for the movement of vehicles, exclusive of shoulders.

TRENCHED - Installed in a narrow open excavation.

TRUNK LINE ROAD - Serves as major city to city travel.

UNPAVED ROAD – A road with a dirt, stone or tar and chip surface.

UNSUITABLE MATERIAL - Ashes, refuse, vegetable, organic or any other material determined unsuitable by the District Engineer or his authorized representative.

UNTRENCHED - Installed without breaking ground or pavement surface, such as by jacking or boring.

VENT - Appurtenance to discharge gaseous build-up from casings.

CHAPTER 1
ACCOMMODATION OF UTILITIES
ON
HIGHWAY RIGHT OF WAY

INTRODUCTION

The West Virginia Department of Transportation, Division of Highways (WVDOT/DOH) has the responsibility of maintaining the right of way of State highways to preserve the operational safety, integrity, and function of the highway facility. Since the manner in which utilities cross or otherwise occupy State highway right of way can materially affect the integrity, safe operation, maintenance and appearance of the highway, it is necessary that such occupancy be authorized and regulated.

West Virginia Code, Chapter 17, Article 16, Section 6, and Chapter 17, Article 4, Section 8, provide that no opening shall be made in any State highway, nor shall any structure be placed therein or thereover, nor shall any structure which has been so placed, be changed or removed, except in accordance with a permit from the Division of Highways. No highway shall be dug up for laying or placing pipes, sewers, poles or wires, or for other purposes and no obstructions shall be placed thereon without a written permit. The work shall be done under the supervision and to the satisfaction of the Division of Highways and the entire expense of replacing the highway in accordance with our specifications shall be paid by the applicant.

It is in the public interest for utility facilities to be accommodated on the right of way of State highways when such occupancy does not interfere with the free and safe flow of traffic, impair the highway or its scenic appearance and does not conflict with the provisions of Federal, State or Local laws or this accommodation policy.

The policy herein has been outlined in the interest of developing and preserving safe roadsides and minimizing possible interference and impairment to the highway, its structures, appearance, operation and maintenance.

APPLICATION

This policy applies to all individually, publicly and privately owned utilities, including but not limited to electric, communication, gas, oil, petroleum products, chemical, water, steam, sewage and similar facilities that are to be accommodated, adjusted or relocated within State highway right of way.

CONSIDERATIONS

This policy provides regulations for the process, review, approval, location, installation, adjustment and maintenance of utilities on State highway right of way. The conditions and regulations contained herein are not subject to the applicant's interpretation.

Where law or orders of public authority or industry codes prescribe a higher degree of protection than provided by this policy, the higher degree of protection should prevail.

This policy also prohibits longitudinal occupancy inside the controlled access right of way, by any utility, on any type of highway, which is fully or partially controlled, except telecommunications companies may be permitted to locate underground fiber optic facilities within fully or partially controlled access right of way in accordance with the federal Telecommunications Act of 1996, as amended, upon such terms as are acceptable to the West Virginia Division of Highways and Federal Highway Administration, as established by legislative rule.

GENERAL CONSIDERATIONS

LOCATION

The Division of Highways will, in no way, be responsible for any accidental damage to a utility facility placed within highway right of way as a result of maintenance or construction activities performed by the Division of Highways. Every effort shall be made by the applicant to place their facilities in accordance with the guidelines and regulations in this manual to preclude the possibility of damage, minimize adjustments to accommodate planned future highway improvements and to permit servicing with a minimum of interference to the traveling public.

In all cases, full consideration shall be given to sound engineering principles, overall economic aspects, and protection of the integrity and scenic appearance of the highway, maintenance operations and the safety of the traveling public.

The horizontal and vertical location of utility lines within the highway right of way should conform with the clear roadside policies applicable for the type of highway and specific conditions of the particular highway section involved. Installation of valve boxes in the ditch line will not be permitted. Meters of any kind should not be installed on the right of way. Except as provided above for Telecommunications facilities, utility installations will not be allowed longitudinally inside controlled access right of way including the median.

Manholes are not to be located in the pavement or shoulder of any Expressway, Trunk line or Feeder highway. Exceptions may be made on streets at locations where manholes are essential parts of

existing lines that are permitted to remain in place under existing and proposed highways. They may be retained or installed on State Local Service roads. If, for a legitimate reason, a manhole is in the pavement it is not to be placed in the wheel path of vehicles and will be installed with the lid flush with the pavement. Likewise, manholes located in paved shoulders will also be installed flush with the shoulder pavement. Manholes placed in unpaved shoulders shall have the cover 6 inches (150 mm) below the finished shoulder elevation. Manholes will only be permitted in the ditch line when no other alternative exists. Manholes so placed shall have 12 inches (300 mm) of cover below the normal flow line of the ditch.

In expanding areas along controlled access highways, utilities should install distribution or feeder line crossings, spaced as needed to serve consumers along either or both sides of the highway to minimize the need of crossings for service connections. In areas where utility services are not available within a reasonable distance along the side of a controlled access highway, crossings for utility service connections may be permitted. To the extent feasible and practical, utility installations crossing the highway should be perpendicular to the highway alignment.

DESIGN

The person, firm or corporation requesting use of Division of Highways' right of way is responsible for the design of the facility to be installed within the highway right of way or attached to a highway structure. The Division of Highways will be responsible for review and approval of the proposal with respect to the location, construction materials used, procedures for and manner of installation or attachment.

Approval of any installation does not constitute liability on the Division of Highways' part for improperly engineered or installed facilities. Neither will the Division of Highways be responsible for changes in right of way lines or designations which render the approved design useless.

All utility installations should be of durable materials relatively free from routine servicing and maintenance requirements and, as a minimum, meet the following current requirements:

1. Electric power and communication facilities should conform with the National Electrical Safety Code.

2. Waterlines should conform with the specifications of the American Water Works Association and the State Department of Health.

3. Sewer lines should conform to regulations of the State Department of Health.

4. Pressure pipelines should conform with the applicable sections of the American National Standards Institute; Title 49 CFR, Parts 192, 193, and 195 and applicable industry codes.

5. Liquid petroleum pipelines should conform with applicable recommended practice of the American Petroleum Institute for pipeline crossings under railroads and highways.

Any pipeline carrying hazardous materials shall conform to the rules and regulations of the U. S. Department of Transportation governing the transportation of such materials.

No sewage or other obnoxious effluents shall be discharged into any highway ditch line or storm drainage structure.

Utility facilities should be of a design, subject to reasonable consideration of engineering and economic feasibility, compatible with the scenic appearance of the specific highway section involved.

New installations or adjustments of existing utility lines, particularly those located underground or attached to structures, should be planned so as to minimize hazards and interference with highway traffic.

CONDITIONS OF ACCOMMODATION

If any facility is placed on, over, through or under the right of way of any State highway without an approved permit or utility agreement and the owner, after ten days notice refuses to remove same, then the Division of Highways may cause removal at the owner's expense. Nothing herein will prevent the Division of Highways from immediately removing any installation, which creates a hazard to public safety, use, construction or maintenance of any highway.

The following general conditions and stipulations are given concerning the use and occupancy of highway right of way by permit or utility agreement:

1. Full information, including a plan view shown on Division of Highways' plans when such plans are available, shall be given pertaining to all work to be done. A cross-sectional view of the highway will be required for underground or aerial crossings. (Appendix A, Figures 1 and 2) Any video tape of the permitted work area shall be copied and provided to the Division of Highways at the time the video is taken.

2. All underground facilities will be installed so that they can be located when requested. Locator tape will be used in accordance with the following:

   Red - Electric Lines
   Yellow - Gas, Oil, Steam, Petroleum, etc.
   Orange - Communication Lines
   Blue - Water

Green - Sanitary Sewers

The recommended location of the tape is 18 inches (450 mm) below the surface directly above the installation.

3. The applicant agrees to hold the State harmless on account of any damages to persons or property, which may arise during the progress of or by reason of the work performed.

4. Facilities should be kept in a good state of repair both in structure and appearance.

5. The installation shall be relocated, adjusted or removed by the applicant, at no cost to the Division of Highways, when required for improvement of the highway, unless the provisions of West Virginia Code, Chapter 17, Article 4, Section 17b, c or d apply.

6. The applicant agrees to protect at all times, its employees, equipment and the traveling public in accordance with the current edition of the manual, "Traffic Control for Street and Highway Construction and Maintenance Operations", published by the Division of Highways.

   The highway must be adequately maintained for the safe and convenient use of the traveling public. Erection and maintenance of all required warning devices, barricades and danger signals, including keeping them operational and clean is the responsibility of the applicant.

7. Any work performed during the presence or absence of the Division of Highways' inspector in no way relieves the applicant of his responsibility for proper installation and accountability to the Division of Highways.

PERMIT PROCESS

The following provisions are given concerning the use and occupancy of the highway right of way by permit:

1. All requests to perform utility work within Division of Highways' right of way shall be made on Form MM 109, dated February 2005 or most current, except when such work is covered by a utility agreement. Permit forms can be obtained from our District offices. (Appendix E)

2. The permit application shall be submitted to the District Engineer of the District in which

the work is to be performed.

3. Applicant shall submit the original and four copies, including sketches acceptable to Division of Highways, sufficient to show the nature of work to be performed. It is the responsibility of the applicant to determine if the proposed installation conflicts with other existing facilities currently using the right of way and to construct its proposed facilities without damaging said existing facilities.

4. The permit application shall be submitted in the name of and executed by the owner/operator of the facility. An application may not be submitted in the name of a contractor of the owner, or in the name of a person being serviced by the facility.

5. Applicant, if required, shall deposit with Division of Highways a bond, certified check or money order to cover any possible damage the Division of Highways may sustain by reason of the granting of any permit. This includes any expenses incurred in restoring said highway to its original condition and/or the proper repair of any and all damages that may result within one year from the date of the completion of authorized work. Following that time, the applicant may request the bond be released. After the effective date of this manual, all accommodations of utilities on the Division of Highways' rights of way, whether said right of way is designated as controlled access or noncontrolled access, may be subject to a fee, as established by legislative rule.

Any of the above requirements not met at the time an application is received by the Division of Highways will cause the application to be returned to the applicant for completion.

PERMIT PROVISIONS

1. Applicant shall notify the District Engineer or his authorized representative at least 48 hours in advance of the date that work will begin. Failure to comply will cause cancellation of permit.

2. Applicant shall perform all work in a manner satisfactory to Division of Highways. Damage to highway resulting from work authorized under an approved permit shall promptly be repaired by applicant. Unsatisfactory repairs may be corrected by Division of Highways or its authorized agent and the cost thereof paid by applicant.

3. Applicant shall notify the District Engineer or his authorized representative when the work covered by an approved permit is complete.

4. Any deviation from the approved permit must be authorized by the District Engineer or his

authorized representative prior to making such changes.

5. Division of Highways reserves the right to cancel the permit at any time should the applicant fail to comply with the terms and conditions under which it was granted.

MAINTENANCE OF FACILITIES ON NONCONTROLLED ACCESS RIGHT OF WAY

All facilities are to be maintained and serviced in accordance with the conditions of the original permit and this manual. A blanket permit may be issued to a utility on an annual basis for maintenance of existing facilities.

Maintenance activities for overhead installations should be limited to:

1. Clearing of vegetation and trimming of trees around overhead utility lines.
2. Placing or replacing cross arms or transformers on existing poles.
3. Replacement or repair of cable at the same capacity.
4. Replacing existing poles with same size and no nearer the traveled way.
5. Overhead lighting maintenance.
6. Emergency repairs as defined in this manual.
7. Service drop installation.
8. Other activities as approved by the Division.

Maintenance activities for underground installations outside of the traveled way should be limited to:

1. Leak repair.
2. Service tap installation.
3. Cathodic protection repair.
4. Emergency repairs as defined in this manual.
5. Accessing or modifying parts of an existing underground facility within conduit or through an existing manhole as long as no new surface opening is required.
6. Other activities as approved by the Division.

All work performed under this permit should be diagramed and provided to the Utilities Supervisor prior to the work occurring or as soon as reasonably possible for emergency repairs. Work orders or other documentation of work performed should be provided to the Utility Supervisor on a weekly basis, or other written schedule agreed to by both parties.

EMERGENCY REPAIRS

An emergency would exist anytime the public services of a group of individuals were interrupted;

when the safety of the public is endangered by a damaged utility such as a ruptured gas line or when there is a possibility that damage might occur to public or private property unless immediate corrective action is taken. The Applicant should notify Charleston Central Communications at (304)558-3028 or (304)558-2998 of the location. Then, at the applicant's sole risk and responsibility, repair the damaged facilities. Appropriate safety methods and devices must be used to give adequate warning and protection to persons and property.

MAINTENANCE OF FACILITIES ON CONTROLLED ACCESS RIGHT OF WAY

Utilities are to be located in such a manner that they can be serviced without access from the through roadways or connecting ramps. Telecommunication companies located within controlled access right of way shall adhere to the clear roadside policy, use the Manual on Uniform Traffic Control Devices to properly maintain traffic, apply the Divisions Workzone Safety and Mobility Policy, and traffic safety regulations that may be deemed necessary by the Division, and shall compensate the Division for inspection cost.

PRESERVATION, RESTORATION AND CLEANUP

DISTURBED AREAS

The size of the disturbed area shall be kept to a minimum. Construction methods, erosion control and revegetation along the length of the construction area must be in accordance with Division of Highways specifications. Unsatisfactory restoration work shall promptly be corrected by the applicant. If necessary, the restoration work will be corrected by the Division of Highways and the cost thereof paid by the applicant.

DRAINAGE

Care must be taken to avoid disturbing existing drainage facilities. Underdrain and outlets are to be provided for entrapped water.

SPRAYING, CUTTING AND TRIMMING TREES

In general, only *light* trimming will be permitted. No tree larger than 4 inches (100 mm) may be cut down without *prior* approval of the District Engineer or his authorized representative. When the complete removal of a tree is absolutely necessary, it will be cut flush with the ground. If the stump is removed, the hole is to be properly backfilled. All cut debris, refuse and waste shall be removed from the right of way and the area site graded and revegetated to the satisfaction of the District Engineer or his authorized representative.

TELEVISION CABLES

Television cable companies may apply for a permit to locate their facilities within public rights of way. They are also subject to the same restrictions as public utilities (West Virginia Code, Chapter 24 D, Article 1).

However, any and all costs to move or relocate television cable facilities should be the responsibility of the cable company in all situations.

PIPELINES

GENERAL

BACKFILL REQUIREMENTS

The following backfilling specification is to be used in connection with any utility work performed within highway right of way.

After the casing, conduit or other underground facility is installed, the trench is to be backfilled. All backfill material shall: be free from particles larger than 3 inches (75 mm); not be frozen; contain no cinders, ashes, refuse, organic, vegetable or other like matter; nor any other material deemed unsuitable by the District Engineer or his authorized representative. Care shall be taken to compact the material under the haunches of the casing, conduit pipe or other facility and to place the backfill evenly on each side. The backfill material shall be deposited in the trench for its full width in layers not exceeding 4 inches (100 mm) after compaction. This method shall be followed until the trench is fully backfilled. The target percentage of dry density for the backfill material will be 95% or the density of the existing material, as evidenced by testing, if the existing density is lower than 95%. In areas outside the limits of the traveled way and shoulders, compaction to the density of the original ground is sufficient.

All backfill material and compaction requirements shall be in accordance with the specifications in this manual and subject to Division of Highways approval. Evidence of proper compaction by testing will be the responsibility of the applicant. The testing shall be 1 (one) per day or every 500 lineal feet (150m) or as determined by the District Engineer or his authorized representative.

Appropriate aggregate base course and/or aggregate shoulder stone is to be placed on the shoulder at a thickness equal to 6 inches (150 mm) or its original thickness whichever is greater. Paved shoulders shall be repaved.

LENGTH OF OPEN TRENCH

The length of open trench, related shoulder and ditch line shall not exceed that which must be properly restored by the end of each workday.

BLASTING

Blasting will not be permitted within highway right of way unless it is established that there is no feasible alternate. Each case must include provisions for adequate protection of the highway facility, the safety of the traveling public and any nearby residents. The length and location of *each* shot must be approved by the District Engineer or his authorized representative. All shooting will be done by a licensed "shooter". A copy of his license will be on site at all times.

CROSSINGS

GENERAL

Locations which are generally unsuitable for pipeline crossings include deep cuts; near footings of bridges and retaining walls; at cross drains where the flow of water or stream bed may be obstructed; or within basins of an underpass drained by a pump if the pipeline carries a liquid. No pipe, conduit or other facility shall be placed in any manner inside or across the ends of any drainage pipe or culvert. Crossings should be located as near perpendicular to the highway alignment as practical.

Open cut methods will not be employed for existing pavements except when approved by the District Engineer or his authorized representative. For the purpose of this section, a paved road is one which has been treated with at least 2 inches (50 mm) of hot-laid bituminous concrete, has been paved with portland cement concrete or has a "tar and chip" surface. Where crossings have been approved for open cut, pavement replacement shall promptly be made in accordance with Repaving Pipe Trenches (Appendix B, Figure 3).

COVER

The minimum required depth of cover for a crossing is 3 feet (.9 m). The critical control for cover on a pipeline crossing is the low point in the highway cross-section; usually the bottom of the longitudinal ditch. When measuring cover over pipes, the commonly specified surfaces are the top of pavement, natural ground, or the flow line of drainage ditches. A protective coating is considered part of the pipe. When the carrier is encased, cover is measured to the top of the casing.

CASING

It is recognized that a definite policy on the encasement of pipelines must take into account many inconclusive variables, not the least of which is the progressive improvements being made in the pipeline industry for strengthening and protecting carrier pipes. An arbitrary policy of requiring casing for all highway crossings is too expensive for both the utility consumer and the highway user.

Casing will not be required as follows:

1. In municipal sections when not feasible.

2. 1-1/4 inches (32 mm) or less diameter copper or steel pipe.

3. Plastic pipe, meeting requirements of ASTM, D2513, Type 2306, 1-1/4 inches or less nominal diameter.

4. Pipe, including but not limited to steel; cast iron; ductile iron; rigid plastic, and concrete, all in a thickness capable of sustaining live and dead load requirements of the Division of Highways. The design calculations must be submitted for approval by the Division of Highways.

5. Under unpaved roads unless otherwise directed by the District Engineer or his authorized representative.

However, considering past experience and current appraisal of future hazard, it is not considered prudent to waive all casing requirements. Since the Division of Highways is responsible for the safety of the traveling public and the structural integrity of the roadway, the burden of proof is on the utility if it contends that, for any particular location, casing is unnecessary.

Therefore, a policy intended to insure reasonable protection to the highway and traveling public is established by the following:

1. All pipelines crossing under paved State highways must be placed in a casing of larger diameter for a length adequate to permit repair or replacement of the carrier pipe in accordance with Profile View on the Roadway Cross Section (Appendix A, Figure 2).

2. Casing may include complete or partial enclosure designed to protect the carrier, lighten its burden, facilitate its insertion and withdrawal or guarantee integrity of the earth structure. Material for required casing shall be steel pipe of standard manufacture with joints welded

around the entire circumference of the pipe, reinforced concrete pipe, rigid plastic pipe, or poured portland cement concrete, provided they are able to sustain the live and dead loads as currently used by the Division of Highways.

3. Casing should extend a minimum of 5 feet (1.5 m) beyond the projected toe of fill slopes as shown in Appendix A, Figure 2. Length requirements for flat areas or sections with a ditch or curb are shown in sections B and C of Appendix A, Figure 2. The lateral distance between the surfaced area of the highway, including paved shoulders, and the portal limits of excavation should be a minimum of 5 feet (1.5 m) if the excavation is bulkheaded, and not less than the vertical difference in elevation between the surfaced area of the highway and the bottom of the trench if the excavation is not bulkheaded. Where extenuating circumstances preclude the attainment of this requirement, consideration will be given to alternate proposals, which insure the structural integrity of the highway and its operations.

4. When boring or jacking casing pipe under the highway, care must be taken to minimize annular voids and overbreaks. Pressure grout must be used for abandoned pipes, unused holes, overbreaks and voids.

5. Installation of casing pipe 2 inches (50 mm) or less in diameter or carrier pipe 1-1/4 inches (32 mm) or less in diameter will be permitted by punching, free boring or the use of a "mole". Use of liquids or chemicals during installation will not be permitted.

MARKERS, VENTS & APPURTENANCES

Markers, vents, drains, and shut-offs are appurtenances to pipeline installation. Pipeline crossings other than service lines shall be identified by permanent markers. These markers shall furnish sufficient information to enable identification and contact with the owner. Casing pipe 4 inches (100 mm) in diameter and larger shall be sealed and if carrying combustibles will be provided with a screened vent. Vent standpipes and location markers should be located outside the clear zone. They should not interfere with maintenance of the highway nor be concealed by vegetation. The preferred location is at the fence or right of way line or in a protected location.

LONGITUDINAL INSTALLATIONS

GENERAL

Longitudinal installations, other than in municipal sections, should be parallel to the pavement; preferably adjacent to the right of way line. The nearest edge of trench should be a minimum of 5 feet (1.5 m) from the edge of pavement, traveled way, toe of slope or curb line, when practical. Where possible to do so for any length of 500 feet (150 m) or more, a greater distance will be expected. The trench should not be deeper than the distance from the edge of the pavement, curb, paved shoulder, toe of slope, or back of ditch, than to the nearest edge of the trench unless a bulkhead is used. The minimum depth of cover on all longitudinal lines shall be 2.5 feet (0.75 m).

Longitudinal placing of pipelines under the traveled lanes is discouraged. It will only be considered as a last resort, and if the applicant provides detailed plans, which verify there is no feasible location outside the pavement. Restoration of such pipe trenches will be in accordance with Repaving Pipe Trenches (Appendix B, Figure 3) and may require complete replacement of at least one lane of pavement.

All pavement damaged by equipment, blasting or by the installation of pipe will promptly be repaired to the satisfaction of the Division of Highways; a full width pavement overlay may be required. Alternate pavement restoration will be considered if the design is submitted in writing by the applicant. Sufficient time must be given for a complete review by Division of Highways.

Municipal sections will be handled on an individual basis in a manner consistent with the prevailing limitations. Whenever practical, pipelines should be placed under the sidewalk. If this space is not available, the parking lanes should be used.

Pressure pipelines over 150 psi (1030 kPa) will be considered individually to determine if they will present a danger to the public.

EXCAVATED MATERIAL

Material removed from the trench shall not be stockpiled or stored within 2 feet (0.6 m) of the pavement edge or in a highway ditch line.

ELECTRIC, COMMUNICATION LINES AND TELEVISION CABLES

All permits issued by the West Virginia Division of Highways shall be subject to the following criteria:

(1) No permit will be issued after the effective date of this manual for installations or adjustments that may interfere with established clear zone or clear roadside policies. The distance from the edge of the traveled way to the proposed installation as approved in the permit is the effective minimum offset established for the installation. The roadside policy will vary amongst the various roadways in this state due to topography, roadway conditions, and other considerations related to the protection of the traveling public.
(2) All permits are subject to the limitation of available space on the right of way existing at the time of application.
(3) All permit applications are subject to rejection by the Division for non-compliance with the requirements contained in this manual, or if the Division in its application of reasonable management practices, determines that granting the applicants permit would hinder or impinge upon the maintenance of highway right of way.

Telecommunications providers who seek to locate in ground or underground facilities within controlled access right of way will be required to provide compensation to the Division for costs incurred as a result of use and occupancy of the right of way, and they will be required to comply with all other applicable requirements of the federal Telecommunications Act of 1996, as amended.

Except where they are expressly exempted from the requirements and rules of this manual, telecommunication providers will comply with and observe all other restriction and requirements contained within this manual.

Telecommunication providers, as defined in this manual will be eligible to apply for permits for access of their telecommunications facilities, as defined in this manual, on West Virginia Division of Highways right of way. This access shall be on existing utility poles and generally in the areas where other utility companies are accommodated. In addition to a written permit application as outlined in this manual, the applicant for such access shall provide the following:

(1) A copy of the applicant's certificate of convenience from the West Virginia Public Service Commission.
(2) A lease or other agreement providing the telecommunications company with the right to occupy the existing utility poles of utility companies.

Telecommunication providers, as defined in this manual, do not have to provide proof that they have the power of eminent domain.

All other applicants for permits to occupy the right of way shall provide:

(1) Proof of regulation by the West Virginia Public Service Commission.
(2) Proof that they have the power of eminent domain.

OVERHEAD

GENERAL

The safety, maintenance, efficiency and appearance of the highway are enhanced by keeping the space between the edge of shoulder or curbline and the right of way line as free as practical from obstacles. The width and suitability of this space must be considered in locating poles, guys and related facilities along the highway. Where the road makes a curve and the line overhangs the road without crossing from one side to the other, all crossing and longitudinal clearance criteria must be met.

TYPE OF CONSTRUCTION

Longitudinal installations within highway right of way should be limited to single pole type of construction. Joint-use single pole construction is encouraged, as indicated by Rule 222 of Part 2 of the National Electrical Safety Code where more than one aerial utility is involved. This is of particular significance at locations where right of way widths approach the minimum needed for safe operations or maintenance requirements or where separate installations may require extensive removal or alteration of trees. Any construction detail not specifically covered herein must meet the current requirements of the National Electrical Safety Code.

Self-supporting poles, towers and/or dead-end construction should be employed at all crossings of the highway. The prime concern is the safety and appearance of the crossing. It is necessary to assure that structures will not fall or let conductors drop on the highway. The National Electrical Safety Code, Section 24 through 26, sets forth the strengths required for grades of construction for different situations. Construction that complies with this part of the Code will meet the Division of Highways' requirements.

No lines shall be attached to trees or any other items not specifically designed and constructed for such purposes. Any pole to be abandoned must be completely removed and hauled away except when abandonment is part of a utility agreement.

VERTICAL CLEARANCE

The minimum vertical clearance for overhead electric and communication lines should conform with the current National Electrical Safety Code. (See Appendix A, Figure 1 and Appendix C, Figure 4.)

LOCATION

Poles and related facilities should be located as far as practical from the edge of pavement. As a minimum, the poles should be located outside the applicable clear zone for the highway section involved. This location is to be consistent with the standards applied to the elimination of other obstacles. On curbed sections in urban areas the utilities should be located as far as practical behind the face of the curb and where feasible, behind the sidewalk. Exception to these clearances may be made where poles are of a breakaway type design or poles and guys can be placed at proper locations behind guardrails, deep drainage ditches, toe or top of steep slopes, retaining walls and other similarly protected locations.

The nature and extent of highway development and the ruggedness of the terrain being traversed are controlling factors for locating poles, guys and related facilities near the right of way line.

Location of overhead utility installations along highways with narrow right of way or on urban streets with abutting improvements are special cases. These must be resolved in a manner consistent with the prevailing limitations and conditions. Before locating the utility at other than the right of way line, consideration should be given to designs employing self-supporting, armless, single pole construction with vertical alignment of wires or cables or other techniques permitted by government or industry codes that are conducive to a safe traffic environment.

Where irregular shaped portions of the right of way are involved, variances in location from the right of way line may be allowed to maintain a uniform alignment for longitudinal installations.

SERVICE DROPS AND GUY WIRES

Guy wires to ground anchors and stub poles shall not be placed between a pole and the traveled way where they would occupy the clear zone. No poles, stubs for guys or anchors should be located in such a manner as to interfere with highway maintenance activities.

Installations made in accordance with an approved permit or utility agreement cover future construction of service drops and guy wires where no new poles or stubs are to be located within the highway right of way, provided the installation conforms with this manual. The utility shall contact the District Utility Supervisor's office prior to making the installation.

UNDERGROUND

GENERAL

All the regulations previously outlined for pipelines shall be applied to underground installations of electric and communication lines, except as indicated below.

CROSSINGS

Buried cable crossing under paved roads will require conduit, having a minimum nominal diameter of 2 inches (50 mm). The conduit length and depth shall be the same as required for pipeline encasement in Profile View on the Roadway Cross Section (Appendix A, Figure 2). On unpaved roads, if the direct burial or plowing method is used, the depth of bury shall be a minimum of 3 feet (0.9 m).

LONGITUDINAL INSTALLATIONS

The burying of cable along the paved road may be by direct burial or trenching methods maintaining a minimum offset of 5 feet (1.5 m) when practical and a minimum depth of 2.5 feet (0.75m). Cable buried along unpaved roads must be outside the traveled way. If rock or hard shale is encountered, the depth of direct bury may be reduced if *prior* approval is obtained from the District Engineer or his authorized representative.

Backfilling of the direct burial furrow shall be done with suitable random material free from rock or debris, which could create a void during compaction. Unless otherwise specified by the District Engineer or his authorized representative, the spoil removed by the plow will be placed over the furrow and tracked down with the vehicle. This operation will be repeated until the area of the furrow is thoroughly compacted. Where trenching methods are used, backfilling will be done in accordance with the requirements shown on page 8 under "Pipelines".

INSTALLATIONS ON HIGHWAY STRUCTURES

GENERAL

Attaching utility lines to a highway structure can affect the safe operation of traffic and the integrity and routine maintenance of the structure. Where it is feasible to locate utility lines elsewhere, attachment to highway structures is discouraged. However, where other locations prove to be extremely difficult, unsafe and/or unreasonably costly, consideration will be given for attaching a utility line to a highway structure.

Requests for attachment must be accompanied by a complete explanation of the circumstances creating the need for the proposed attachment. Also, it must include a detailed breakdown (Labor-Equipment-Material) of estimated costs for all alternate location studies done and all reasons that none are feasible.

The method of attachment should conform to logical engineering considerations for preserving the highway structure, its maintenance, appearance and provide safety for both the traveling public and the utility. The following considerations apply:

1. Since highway structure designs and site conditions vary, the adoption of standardized methods to accommodate utility facilities on structures is not feasible. Each proposed attachment will be considered on its individual merits.

2. The attachment of pipelines carrying combustible transmittants will not be permitted except for distribution type natural gas pipelines carrying 60 psi (415 kPa) or less.

3. Attachment of a utility will not be considered unless the structure in question is adequate to support the additional weight without any traffic load reduction and can accommodate the facility without compromising highway features, including reasonable ease of structure maintenance.

4. Installations, which would inhibit access to any structural part for painting or repair, will not be allowed.

5. The installation must maintain minimum appropriate vertical clearances.

6. Manholes will not be allowed in bridge decks.

7. Support rollers, saddles and hangers should be padded or coated to muffle vibration.

8. Electric and communication lines shall be insulated, grounded and carried in protective conduit from exit of ground to reentry.

EXISTING BRIDGES

An application for the placement of any installation on an existing bridge shall be accompanied by a complete description of the work involved and plans reflecting same. This information must include the weight per lineal foot of each line and details of the proposed method of attachment. The following conditions apply:

1. As a general rule, welding to main steel members or anchoring to the concrete deck, parapet or sidewalk will not be approved.

2. All installations shall be placed below the elevation of the bridge floor.

3. Trenching in the vicinity of piers or abutments shall be kept a sufficient distance from footings to prevent undercutting or sloughage of material from under the footing into the trench.

4. Any application involving reduction of existing waterway area will not be approved.

NEW BRIDGES

The placement of utility lines or other facilities on new bridges will be approved only in accordance with the following conditions:

1. The applicant is responsible for obtaining any desired information regarding the Division of Highways' proposed construction schedule.

2. The applicant shall submit complete plans and specifications of their proposed installation, including the weight per lineal foot and detail drawings, prior to Division of Highways' completion of plans and specifications for the proposed bridge or drainage structure.

3. The applicant shall bear all related engineering and construction costs incurred by the Division of Highways.

SCENIC ENHANCEMENT

GENERAL

The type and size of utility facilities and the manner and extent to which they are permitted along or within highway right of way can materially alter the scenic appearance and view of highway roadsides and adjacent areas. For these reasons additional controls are applicable in certain areas that have been acquired or set aside for their scenic quality. Such areas include scenic strips, overlooks, rest areas, recreation areas, and the right of way of highways adjacent thereto or which pass through parks and historic sites.

NEW INSTALLATIONS

Underground installations will not be permitted within such areas unless they *do not* require extensive removal or alteration of trees or other natural features visible to the traveling public and *do not* impair the visual quality of the land being traversed.

Aerial installations should be avoided at such locations where there is a feasible and prudent alternative. Such installations will be considered only when:

1. Other locations are unusually difficult, unreasonably costly or undesirable from the standpoint of visual quality.

2. Placing the facility underground is not feasible or is unreasonably costly.

3. The proposed installation can be made employing suitable designs and materials, which will give adequate attention to the visual qualities of the area being traversed.

CHAPTER 2
POLICY AND PROCEDURES

FOR ADJUSTMENT AND RELOCATION

OF PRIVATELY OWNED PUBLIC

AND PUBLICLY OWNED PUBLIC

UTILITY FACILITES ON HIGHWAY PROJECTS

INTRODUCTION

The West Virginia Department of Transportation, Division of Highways engages in construction of highway projects, including federal-aid highway projects, which necessitate adjustment or relocation of railroad and utility facilities.

The procedures outlined herein have been developed in the interest of facilitating the coordination necessary when railroad and utility relocations are required in conjunction with highway projects.

APPLICATION

This policy applies to all railroad and public utility facilities including, but not limited to, electric, communication, gas, oil, petroleum products, water, steam, sewage, drainage and other similar commodities.

SCOPE

This policy sets forth the procedures to be followed for the adjustment or relocation of railroads and utilities on highway projects.

UTILITIES

PUBLIC UTILITY

A Public Utility is a business or enterprise performing an essential public service, such as supplying gas, water, electricity, communication, or transportation, and is either operated and/or regulated by the Federal, State, or local government. A Public Utility has the right of eminent domain by which it can appropriate private property for public use by the payment of just compensation.

A television cable company is not considered to be a public utility for the purpose of this chapter (West Virginia Code 24 D, Article 1).

Privately owned Public Utilities affected by highway construction or maintenance activities will be reimbursed from the State Road Fund ONLY when said utility has prior rights or interests in the affected area.

WEST VIRGINIA CODE - UTILITY REIMBURSEMENT

Chapter l7, Article 4, Section l7b, of the West Virginia Code covers the Relocation of Public Utility Lines to Accommodate Highway Projects and states that:

(a) " Whenever the division reasonably determines that any public utility line or facility located upon, across or under any portion of a state highway needs to be removed, relocated or adjusted in order to accommodate a highway project, the division shall give to the utility reasonable notice in writing as mutually agreed, but not to exceed eighteen months directing it to begin the physical removal, relocation or adjustment of such utility obstruction or interference at the cost of the utility, including construction inspection costs and in compliance with the rules of the division and the provisions of article three, chapter twenty-nine-a of this code.

(b) If the notice is in conjunction with a highway improvement project, it will be provided at the date of advertisement or award. Prior to the notice directing the physical removal, relocation or adjustment of a utility line or facility, the utility shall adhere to the division's utility relocation procedures for public road improvements which shall include, but not be limited to, the following:

(1) The division will submit to the utility a letter and a set of plans for the proposed highway improvement project;

(2) The utility must within a reasonable time submit to the division a written confirmation acknowledging receipt of the plans and a declaration of whether or not its facilities are within the proposed project limits and the extent to which the facilities are in conflict with the project;

(3) If the utility is adjusting, locating or relocating facilities or lines from or into the division's right-of-way, the utility must submit to the division plans showing existing and proposed locations of utility facilities.

(4) The utility's submission shall include with the plans a work plan demonstrating that the utility adjustment, location or relocation will be accomplished in a manner and time frame established by the division's written procedures and instructions. The work plan shall specify the order and calendar days for removal, relocation or adjustment of the utility from or within the project site and any staging property acquisition or other special requirements needed to complete the removal, relocation or adjustment. The division shall approve the work plan, including any requests for compensation, submitted by a utility for a highway improvement project if it is submitted within the established schedule and does not adversely affect the letting date. The division will review the work plan to ensure compliance with the proposed improvement plans and schedule.

(c) If additional utility removal, relocation, or adjustment work is found necessary after the letting date of the highway improvement project, the utility shall provide a revised work plan within thirty calendar days after receipt of the division's written notification of the additional work. The utility's revised work plan shall be reviewed by the division to ensure compliance with the highway project or improvement. The division shall reimburse the utility for work performed by the utility that must be performed again as the result of a plan change on the part of the division.

(d) Should the utility fail to comply with the notice to remove, relocate or adjust, the utility is liable to the division for direct contract damages, including costs, fees, penalties or other contract charges, for which the division is proven to be liable to a contractor caused by the utility's failure to timely remove, relocate or adjust, unless a written extension is granted by the division. The utility shall not be liable for any delay or other failure to comply with a notice to remove, relocate or adjust that is not solely the fault of the utility, including but not limited to the following:

(1) The division has not performed its obligations in accordance with the division's rules;

(2) The division has not obtained all necessary rights-of-way that affect the utility;

(3) The delay or other failure to comply by the utility is due to the division's failure to manage schedules and communicate with the utility;

(4) The division seeks to impose liability on the utility based solely upon oral communications or communications not directed to the utility's designated contact person;

(5) The division changes construction plans in any manner following the notice to remove or relocate and the change affects the utility's facilities; or,

(6) Other good cause, beyond the control of and not the fault of the utility, including but not limited to, labor disputes, unavailability of materials on a national level, act of God, or extreme weather conditions.

(e) In order to avoid construction delays and to create an efficient and effective highway program, the division may schedule program meetings with the public utility on a quarterly basis to assure that schedules are maintained."

(f) The commissioner of highways is hereby authorized to include within the cost of highway construction the cost of relocation necessarily incurred by any public utility which has prior rights, and any pipeline company subject to the jurisdiction of the Federal Energy Regulatory Commission which has prior rights, in relocating any public utility line, pipeline or facility as a result of the construction of any fully or partially controlled access highway as a part of the national highway system as authorized by the Federal Highway Administration. Privately owned public utilities located within state highway right of way by permit are not eligible for reimbursement of relocation costs which are required due to a Division construction improvement or maintenance project.

Chapter 17, Article 4, Section 17d covers the relocation of public utility lines and public service districts utility lines on state highway construction projects and states that:

"Whenever the Commissioner of Highways determines that any public utility line owned by a county or municipal governmental body located upon, across or under any portion of a state highway needs to be relocated in order to accommodate a highway project for which proportionate reimbursement of the cost is not available from any federal program, the commissioner shall notify the public utility owning or operating the facility which shall relocate the same in accordance with this section, and the cost of the relocation shall be paid out of the state road fund."

For the purpose of this section, the term "cost of relocation" includes the entire amount paid by the utility, exclusive of any right-of-way costs incurred by the utility, properly attributable to the relocation after deducting there from any increase in the value of the new facility and salvage value derived from the old facility. Any notice required by this section is sufficient if given by registered mail or certified mail, return receipt requested, addressed to any officer of the utility or to an individual if the person to whom notice is required is an individual.

PROPORTIONATE SHARE REIMBURSEMENT

In those cases where only a portion of a Utility's relocation cost qualifies for reimbursement by the State, the determination of proportionate share, exclusive of right of way, will be based on the percentage of the existing facility, which qualifies for reimbursement. The percentage so developed on the existing line will be applied to the cost of the relocation. Percentages are usually developed from linear footage. The determination of proportionate share for right of way will be a ratio of the linear feet of existing right of way to linear feet of proposed right of way, never to exceed one.

REIMBURSEMENT OF PRIVATELY OWNED PUBLIC UTILITIES

The Commissioner shall utilize the following criteria when establishing eligibility for reimbursement:

"Construction or Improvement Projects. Relocation costs of privately owned public utilities, when prior rights can be demonstrated to the Division of Highways, are eligible for reimbursement if the costs are required due to a Division construction or improvement project.

Construction or Improvement projects, for the purpose of determining reimbursement eligibility, are generally all projects programmed with a separate Division "Authorization Number". The project, however, must alter the existing functionality of the highway involved in order to be eligible for reimbursement under this section. Examples of these types of projects include, but are not limited to: new highways, highway realignments, landslide corrections involving realignment of the highway, intersection improvements, bridge replacements, major bridge renovations involving deck replacement, and other projects as deemed eligible by the Commissioner. Projects performed under blanket Division authorizations (a single authorization representing multiple projects) that alter the functionality of the highway involved shall be considered eligible for reimbursement.

Maintenance Activities. Relocation costs of privately owned public utilities, located within State highway right-of-way by permit, are not eligible for reimbursement if the costs are the result of maintenance activities by the Division.

Maintenance activities, for the purpose of determining reimbursement eligibility, are activities performed by the Division that do not alter the existing functionality of the highway involved. Examples of these types of activities include, but are not limited to: surface improvements not affecting highway alignment, landslide corrections not affecting highway alignment, emergency repairs, bridge repairs not involving total deck replacement, drainage improvements to existing drainage structures, signal and lighting installations and improvements, painting, striping and signing work, routine maintenance, and other required activities as determined by the Commissioner.

Applicability. This rule applies to all eligible projects on which the privately owned public utility incurs reimbursable costs after May 4, 2001 (the effective date of this rule)."

FEDERAL-AID POLICY GUIDE

The Federal government may reimburse the States for a varying percentage of the funds incidental to the construction of Federal-aid Highways.

Payment of the proportionate share of the cost by the Federal government is contingent upon strict compliance by all parties with certain procedures set forth in the Federal Highway Administration's Federal-aid Policy Guide (hereinafter called FAPG), 23 CFR, 645A and 23 CFR, 645B and all supplements and amendments thereto. These FAPG's define the procedures the Division of Highways must require of utilities in order to be eligible to collect its proportionate share of the funds spent for utility relocation.

UTILITIES ON HIGHWAY RIGHT OF WAY

The Division of Highways has promulgated a portion of this manual entitled "Accommodation of Utilities on Highway Right of Way", which addresses the issues of utility facilities occupying highway right of way.

The regulations therein have been outlined in the interest of developing and preserving safe roadsides and of minimizing possible interference and impairment to the highway, its safe operation, structures, appearance and maintenance.

PERMITS

When the proposed relocated facility is to be within highway right of way and the Division of Highways is not liable for any of the incurred cost, a permit is required. (See Chapter 1)

Authority for the promulgation of regulations and issuance of permits to enter upon and under State Highway Right of Way is given in Chapter 17, Article 16, Section 6, and Chapter 17, Article 4, section 8 of the West Virginia Code.

TYPES OF UTILITY AGREEMENTS

When the Division of Highways is liable for any of the incurred cost of a required relocation, an agreement is required.

FAPG 23 CRF, 645A establishes a functional framework to provide a working liaison between the Division of Highways and the utility. It does not specifically prescribe the form of the written agreement between the Division of Highways and the utility, but does specify certain essential elements necessary to all such agreements where Federal-aid participation in the cost is requested.

Master Agreements are in effect with most utility companies with which the Division of Highways requires frequent relocations. These Agreements contain the specifications, regulations, and provisions required in conjunction with work performed on all highway projects. A transmittal letter is submitted by the Company, along with plans, profiles, cross sections, description of work, bill of materials, an Estimate of Utility Costs (Appendix E, Form RW 8.01), and any other support necessary to explain these costs. This package is referred to as Supporting Data.

The original and six (6) copies of the Supporting Data are submitted by the utility company for each project. The transmittal letter and copies must be signed in ink and indicate that the work will be done in accordance with the provisions of the Master Agreement and contain its date.

When a company does not have a master agreement and Federal-aid is involved, a long form agreement conforming to the requirements of FAPG, 23 CFR, 645A must be used.

If a company does not have a master agreement and the project is 100% State funded, a Utility Agreement (Appendix E, Form RW 8.03) is used. The original and three (3) copies of these agreements are required.

Letter agreements are used when a standard Utility Agreement is not necessary. This type of agreement is used with municipalities and public service districts when the relocations are designed by the Division of Highways or a consultant and built by our contractor. It is in the form of a letter from the Division of Highways to the utility. The recipient of the letter indicates approval of the contents by signing the letter in a space provided thereon, and returning the letter to the Division of Highways, after which it becomes an agreement.

PLAN, PROFILE, CROSS SECTION AND LEGENDS FOR AGREEMENTS AND PERMITS:

Plans, cross sections and/or profiles are required for all proposed utility installations on State highway right of way. These should be shown on Division of Highways' Plans when possible.

Four sets of the plans should be color-coded. The following legend and color code is preferred. Other plan symbols and/or colors may be used, if the legend explaining them is clear.

Green	Existing Locations
Red	Relocated Facilities
X----X---X---X----X	Remove or Abandon
Orange	Temporary Relocation

DISTRICT RESPONSIBILITY

For all projects designed at the district level, the district designer is responsible to have all existing utilities shown on the plans. He is also responsible to have those locations verified by the owner.

The District Utility Supervisor is responsible for notifying and providing plans to each affected utility. On projects where the Division of Highways is not responsible for relocation cost, the District Utility Supervisor will ensure that a permit is obtained for the relocations within the highway right-of-way. Each utility permittee shall provide a schedule for the necessary work to the Railroads and Utilities Unit.

When the Division of Highways is liable for any part of the relocation cost, the District Utility Supervisor will notify the Utilities Section of the Engineering Division for their handling of the agreement with the affected utility or railroad.

UTILITIES SECTION RESPONSIBILITY

The Utilities Section is responsible for all liaison incidental to the negotiation, preparation, processing, review and recommendation of approval of all utility and railroad agreements.

UTILITIES SECTION ORGANIZATION

RAILROADS AND UTILITIES UNIT LEADER
SECRETARY
REGIONAL COORDINATORS - RAILROADS AND UTILITIES

The Regional Coordinators are responsible for obtaining all agreements on projects in their area involving all public utilities and railroads. The Regional Coordinators are directly responsible to the Railroads and Utilities Unit Leader.

LIAISON

Liaison is defined as a form of appreciation of the views and problems of others and taking necessary steps toward making an overall plan, compatibly resolving or compromising all considerations.

For the purposes of this Chapter, liaison pertains to the relationship between the divisions of the Division of Highways, its engineering consultants, railroads, utilities, and the Federal Highway Administration.

PURPOSE OF LIAISON

To avoid unnecessary delay and cost in the construction of highway improvements, it is desirable that railroad and utility companies are advised in advance of project scheduling. This will allow sufficient time to design the necessary adjustments, appropriate money within their budgetary programming, procure the necessary materials and equipment, and schedule and perform the work required. It is equally desirable that railroad and utility companies advise the Division of Highways of plans for major new construction and major changes in their existing facilities. Adjustments of railroad and utility facilities could then be accomplished so as to minimize interference with highway improvements.

LIAISON POLICY

Railroad and utility relocation liaison procedures have been adopted by the Division of Highways. These procedures are generally in conformance with those suggested by the Liaison Committee of the International Right of Way Association. It will be most helpful if all railroad and utility companies can adopt the liaison procedures outlined in the following pages of this chapter.

UTILITIES

DIVISION OF HIGHWAYS ADVANCE PLANNING PROCEDURE

Division of Highways will:

1. When requested by a Utility Company, furnish a tentative construction program covering a period of one year, if possible. Information will include route, location, and nature of improvement and probable dates of construction. The information is confidential and the

Division of Highways will not be held to any firm commitments.

2. When highway alignment studies are underway, contact affected utilities for comments as to the feasibility of changes to reduce or eliminate utility relocation costs.

3. Furnish affected utilities with preliminary plans at the earliest possible date and determine eligibility for reimbursement.

4. If a highway consultant is involved, follow the procedure set forth in the Section Highway Consultant Utility Agreement Action.

UTILITY ADVANCE PLANNING PROCEDURE
Utility will:

1. Review with Division of Highways, plans for major new construction or changes in existing facilities to avoid conflicts with highway planning.

2. When advised by Division of Highways that a highway route is under study, promptly furnish related data concerning facilities in the area.

3. Cooperate with Division of Highways' District on all highway Maintenance and District Design projects, determine eligibility for reimbursement, and coordinate relocation of facilities.

4. Advise, in writing, the name and address of person in the company to be notified.

DIVISION OF HIGHWAYS PRELIMINARY PLANNING PROCEDURE
Division of Highways will:

1. As soon as usable plans are available, conduct a field check of the project to determine the location of all existing utility facilities.

2. After the field check, submit two copies of the preliminary plans to affected utilities with the request to verify or correct the ownership and location of existing utility facilities as shown thereon.

UTILITY PRELIMINARY PLANNING PROCEDURE
Utility will:

1. When requested, participate and cooperate with Division of Highways in field checks.

2. Promptly check the verification plans, indicate any additions or deletions on one (1) set and return it to Division of Highways.

3. Furnish, if requested, a "windshield" estimate of cost for the relocation.

ALTERNATES CONSIDERED

The economics of highway location and utility adjustment are studied to obtain the most economical or desirable solution to the problems. Where appropriate, the factors to be studied shall be the cost of underground versus overhead facilities, or the cost of moving a facility versus readjusting the road alignment.

Once plans are firm, they are sent to the affected utilities with the request that agreements or permits be prepared and submitted to the Division of Highways.

DIVISION OF HIGHWAYS-UTILITY AGREEMENT ACTION
Division of Highways will:

1. Provide to the person designated by each affected utility an authorization for preliminary engineering and replacement right-of-way. As soon as possible, provide useable plans to Company and request an estimate of cost and proposed relocation plan.

2. Notify each Utility of all changes in construction plans, which involve its facilities.

3. Review submission of the plans and estimates of each utility as to location of replaced facilities and conflict with construction details. Also check for conflicts with proposed locations of other utilities. Review proposed agreements as to eligibility for participation in accordance with Utility Agreement Check List (Appendix E, Form RW 8.08), and as set forth in FAPG 23 CFR, 645A.

4. Allocate funds in conformity with Summary of Utility Costs (Appendix E, Form RW 8.02).

5. Where applicable, request Alternate Procedure approval as outlined in FAPG 23 CFR, 645A.

6. Have utility relocations shown on highway construction plans.

7. Process agreement for approval within the Division of Highways.

8. Upon request, authorize the purchase of materials not in stock, which have an extended delivery date.

9. Notify the Utility in writing to begin actual relocation work at the earliest possible date.

10. Document prosecution of work on a weekly basis until the relocation is complete.

11. The Utility Section will obtain betterment agreements, when required, for upgraded water and sewer line relocations designed by Division of Highways' Engineering Division or Consultant.

12. Prepare Utility Status Report (Appendix E, Form RW 8.04), which shows for each utility the estimated work completion dates or indicates coordination is required.

13. After letting the contract, conduct a preconstruction conference with Division of Highways' Contractor and affected Utilities. The purpose of this conference with regard to utilities is to determine the Contractor's sequence of operation and clarify work coordination.

14. If there are revisions necessary to the Utility's relocation plans after the project begins, or additional work required because of changes in the highway construction plans, provide proper written authority to the Utility.

HIGHWAY CONSULTANT-UTILITY AGREEMENT ACTION

When Consulting Engineers develop highway plans, their procedure will be:

1. Locate by field surveys, available maps or other means all existing public and private utilities affected by the proposed construction.

2. Submit plans to each Utility showing their existing facilities and request verification of ownership and location. If verification is not promptly received from the utility, the consultant will renew the request and advise the Division of Highways.

3. Upon receiving verification of ownership and location from a utility, submit to the Division of Highways, a request that the affected utilities be authorized preliminary engineering. A copy of Division of Highways' authorization letter will be sent to the consultant.

4. Promptly notify each Utility of any changes in construction plans, which involve its facilities.

5. Promptly review submission of the relocation plans of each Utility as to location of replaced facilities and conflict with construction details or proposed locations of other Utilities.

6. Be able to discuss all proposed utility relocations at the final field review. On any major or complicated utility relocation, the consultant may request a special session for utilities. A representative from each utility will be invited.

7. Incorporate all utility relocations, including profiles and cross sections view, into the plans.

8. Furnish the Division of Highways with minutes of all meetings and copies of all correspondence between consultant and utility.

COMPANY-UTILITY AGREEMENT ACTION

Utility company will:

1. Designate a specific representative for the Division of Highways to contact.

2. Upon receiving preliminary engineering authorization and plans, promptly proceed with the preparation of utility relocation plans. Use Request for Right of Way to be Staked (Appendix E, Form RW 8.07), if right of way stakeout is needed.

3. Submit the Utility Agreement to the Utilities Unit for approval after the relocation plans have been approved by the Division of Highways.

4. In the event the relocation requires material, which is not in stock, or may have an extended delivery date, make an early request for authorization to order same.

5. Within ten (10) working days of receipt of a properly executed Utility Agreement provide a schedule for the work and, use Notice of Commencement or Completion of Work (Appendix E, Form RW 8.05) to notify the appropriate Assistant District Engineer, Construction, when work will commence. Proceed with the necessary work and use this same form to notify the District when work is completed.

6. Complete all physical work possible prior to the start of highway construction.

7. Participate in the preconstruction conference and coordinate all work as required.

8. Make no change from that shown in the approved Utility Agreement nor do any additional

work without authorization from the Utilities Unit Leader.

9. Keep necessary records during construction and furnish all information requested by Division of Highways. Using Notice of Disposal of Recovered Materials (Appendix E, Form RW 8.06), notify the appropriate Assistant District Engineer, Construction, of any material salvaged. If none, so state on form.

UTILITY CONSULTANT ACTION

When not adequately staffed to perform the design of facilities to accommodate proposed highway projects, the Utility Company may employ engineers, architects and others for required engineering and allied services. The Division of Highways will participate in the amounts paid, provided that the amounts are not based on a percentage of the cost of relocation. The Utility and its Consultant shall agree in writing as to the services to be provided and the fees and arrangements therefore.

The use of such services will require prior approval by Division of Highways and should be requested as follows:

1. Utility to furnish Division of Highways:

   a. A statement that Utility is not adequately staffed to perform the required design.

   b. Qualifications of Consultant.

   c. An executed utility-consultant agreement containing:

      1) List of consultant's staff by classification with pay scale per hour.

      2) Estimate of time and cost for the work.

      3) Certificate of Consultant.

2. Division of Highways to review the:

   a. Qualifications of the individual or firm.

   b. Reasonableness of the rates and fee as compared to the standard rates in the area for similar services by other consulting engineers. The complexity of the work, time allowed and other factors affecting the cost will be considered.

c. Adequacy of the agreement and Certificate.

The approval of a Consultant shall be on a project-by-project basis.

That fee developed shall be considered a ceiling. The amount paid will be the actual amount expended. Any anticipated overrun shall be subject to Division of Highways' approval prior to incurring such cost. Such overrun approval shall be based on supporting information furnished by the utility.

The Division of Highways will also participate in the cost of such services performed under existing written continuing contracts where it is demonstrated that such work is regularly performed for the utility in its own work under the same contract. No prior approval is necessary; however, the Division of Highways should be notified that work will be done in this manner.

Reimbursement for the costs incurred will be contingent upon the application of normal audit procedures and the acceptability of the costs established thereby.

RAILROADS

RAILROAD-HIGHWAY PROJECTS

There are four general types of highway projects, which involve railroads; grade crossing, overhead bridge, railroad underpass, and highway parallel and adjacent to the railroad. Such projects require railroad agreements to cover the new highway construction, relocation of railroad facilities, or the installation of protective warning devices. In the event that no force account work is performed by the Railroad, the Division of Highways may reimburse the railroad for preliminary engineering costs incurred in the review of Division of Highways' plans.

RAILROAD-HIGHWAY AGREEMENTS

The railroad agreement must adhere to the following documents:

1. Federal Highway Administration's FAPG, 23 CFR, 140I, Reimbursement for Railroad Work.

2. Federal Highway Administration's FAPG, 23 CFR, 646B, Railroad-Highway Projects.

3. Federal Highway Administration's Manual on Uniform Traffic Control Devices.

4. Road and Motor Vehicle Laws of West Virginia.

5. Rules and Regulations of the Division of Highways.

The railroad agreement covering the construction of a new highway project should contain:

1. The name of the parties to the agreement and date.

2. A description of the project and the appropriate project number.

3. A detailed statement of the work to be performed by each party.

4. Itemized force account estimate, material list and sketches for work to be performed by the railroad.

5. Amount of participation of cost by each party.

6. Where applicable, provisions covering the right of entry and acquisition of railroad property or property rights.

7. Reference to FAPG, 23 CFR, 140I, 646A and 646B on Federal-aid projects.

8. Form, duration and amount of any needed insurance.

9. Maintenance provisions.

10. Signatures of officials of the parties to the agreement.

11. When required, approval of Federal Highway Administration.

If the agreement is for preliminary engineering only, Items 6, 8, and 9 can be deleted.

DIVISION OF HIGHWAYS AGREEMENT ACTION
Division of Highways shall:

1. Provide authorization for preliminary engineering and furnish project plans. Arrange, when necessary, for a meeting with railroad representatives on the project to study the extent of the work on its property or affecting its facilities. Determine the following so that final plans can be completed:

    a. Limits of work.

b. Horizontal and vertical clearances.

c. Drainage.

d. Miscellaneous items.

2. Prepare an agreement between Division of Highways and railroad to cover work to be performed and outline the responsibility of each party. Send same to the railroad.

3. Review all comments and coordinate such revisions as necessary to finalize an agreement.

4. Upon receipt of executed agreement from the railroad, execute same on behalf of the Division of Highways.

5. Submit the railroad agreement to the Federal Highway Administration for approval on all projects on the National Highway System.

6. Return one signed copy of the agreement to the railroad and distribute remaining copies accordingly.

7. Authorize the railroad to proceed with Force Account Work and to notify District personnel prior to commencement of work. This prior notification will insure that the records necessary for reimbursement will be developed.

Specific cases where the District is not notified prior to commencement of work by the Railroad should be brought to the attention of Utilities Unit Leader. The Railroad's Chief Engineer will be notified.

RAILROAD COMPANY AGREEMENT ACTION
Railroad shall:

1. Determine the extent of work to be done by its forces.

2. Submit to Division of Highways plans and an itemized estimate of the cost involved.

3. Review and execute agreement. If it is not satisfactory, resolve discrepancies in order to finalize the agreement. After execution, return agreement to Division of Highways.

4. Upon receipt of authorization to proceed with Force Account Work and prior to the

commencement of work, notify the Assistant District Engineer, Construction, when work will commence. Notice of Commencement or Completion of Work (Appendix E, Form RW 8.05) will be used for this purpose.

GENERAL

DIRECTION OF WORK PERFORMED UNDER AGREEMENTS AND PERMITS AS A RESULT OF A HIGHWAY PROJECT

Work under an agreement must not be performed prior to notification of approval by the Utilities Unit Leader.

The inspection of the work outlined in Railroad and Utility Agreements is a District responsibility. The District locations, addresses, and phone numbers are shown in Appendix D. Copies of all approved agreements are sent to the appropriate Assistant District Engineer, Construction.

If the Company does not start operations when authorized or delays performance of its work, direct contact shall be made by the District Utility Supervisor with the local Company representative. The Railroads and Utilities Unit shall be notified of the occurrence by the District Utility Supervisor and will also contact the designated representative for the company.

PRECONSTRUCTION CONFERENCES

Immediately following the awarding of a highway contract, a preconstruction conference is held wherein the District Engineer, or his representative, and the Contractor meet with representatives of each involved railroad and utility to verify the schedule provided after Notice to Proceed for coordination of the work. Procedures for this conference, usually held at a District office, are given in the Division of Highways' Construction Manual. This Manual indicates that full notes of the meeting are to be taken, proofread, typed, and distributed at the earliest possible date to those in attendance. This procedure will permit corrections of any errors in the notes and will make this document important in the event of future questions or problems.

INSPECTION AND RECORDS OF WORK PERFORMED UNDER PERMIT AND BY AGREEMENT

The purpose of inspection is to insure that the work is performed in substantial compliance with the agreement and document information, which will assist in an audit by representatives of the Division of Highways or the Federal Highway Administration.

The Division of Highways' Construction Manual provides that the Engineer or Inspector in charge of the project must keep detailed records regarding the amount of labor, material, and equipment used and materials salvaged. This enables a crosscheck when invoices are rendered.

The inspector assigned to observe reimbursable operations should be familiar with the agreement before the work starts. If at all possible, the inspector should be present at the preconstruction conference

so as to be fully informed.

The inspector assigned to observe operations should be familiar with the permit before the work starts.

Inspector's Daily Utilities Report (Appendix E, Form SC-453) is to be filled out by the inspector observing the work. Both the Utility representative and the Division of Highways Inspector shall agree and sign the form at the end of each day's operation. If either representative refuses to sign the form, or is unavailable, a notation to that effect should be made in the space provided for his signature.

Where feasible, a daily running total of materials used and/or removed should be carried in simple form, which will facilitate final review upon job completion.

Before any recovered material is disposed of by sale, scrap, or reuse, the Utility must notify the appropriate Assistant District Engineer, Construction, in writing, on Notice of Disposal of Recovered Materials (Appendix E, Form RW 8.06). The results of the inspection, along with the inventory and condition of materials recovered, shall be entered into the Diary. It is important that any substantial change in the amount and/or character of materials actually recovered as compared with those estimated in the Utility Agreement be noted and explained in the Diary.

The District Utilities Supervisor is responsible for reviewing the completed report and notifying the Railroads and Utilities Unit if a schedule change is anticipated.

The original reports, along with Notice of Commencement or Completion of Work and Notice of Disposal of Recovered Materials (Appendix E, Forms RW 8.05 and RW 8.06), and a summary of materials used are bound together in a hardback folder and become the Diary. A title page must be inserted which includes the following information:

1. Railroad or utility Involved.

2. District Number.

3. State Project Number.

4. Federal Right of Way Project Number.

5. Federal Construction Project Number.

6. County.

7. Starting and Completion Dates of company work.

Sufficient notation should be made in the Construction Project Master Diary referring to the Utility Diary or reports for the detailed account of utility relocation work when in conjunction with a Highway Project.

Upon completion of the utility work, the District Utility Supervisor should review the completed Diary with the inspector who observed the utility work. This Diary should be checked against the completed as built plans and the agreement. Any comments or exceptions that arise during the final check should be carefully recorded.

The Utility Diary and as-built plans, along with an accompanying transmittal letter should then be forwarded to the Auditing Division. An additional copy of utility as-built plans shall be submitted to the Project Supervisor. A notice of completion of work shall be provided to the Railroads and Utilities Unit.

INSPECTION OF WORK PERFORMED UNDER PERMIT

On projects where the Division of Highways is not responsible for relocation costs and the work is done under permit, the Inspector must insure that the work is properly performed in accordance with the permit and sketches accompanying same.

On active highway projects, the District Utility Supervisor should send a copy of the permit to the Project Engineer.

SELF CERTIFICATION OF UTILITY INSTALLATION UNDER PERMIT

In addition to the other requirements of this manual a Utility choosing to exercise this option shall ensure the following:

1. The utility must submit in writing requesting this option with a letter from the Independent Inspector signed and stamped by a registered Professional Engineer in the state of WV verifying their services. These will accompany the original permit (mm-109) submitted to the District Utility Supervisor.

2. The utility must provide a Performance Bond for each permit submitted. Actual amount to be determined by the WVDOH District Engineer/Manager or his Authorized Representative. (Approximately $2 per linear foot for initial estimates, not to be less than $5000.)

3. A letter from said Independent Engineer/Consulting Firm (Independent of said utility) shall accompany the original permit confirming that they have reviewed/approved the plans and design of said permit and will provide full time inspection and testing with qualified personnel.

4. One original and four copies of the permit (mm-109), plans, cross sections, profile view, area map, utility consultant letter, and description of the work to be performed will be submitted by the applicant to the District Utility Supervisor for review.

5. The Engineer/Consulting Firm shall be responsible for compaction tests (One lot per 500 lf = five sub-lots).

6. No work shall begin until said permit is reviewed and approved by the District and received by the utility.

7. A copy of the approved permit shall be kept at the work site at all times by the utility.

8. The permit holder will assume full responsibility for placement of the utility, restoration of WVDOH Right of Way to the original condition or to a condition that exceeds the original.

9. The permit holder shall assume full responsibility for the maintenance of traffic as provided by the most current manual.

10. The permit holder shall be responsible for any other permits required by West Virginia State Law.

11. The permit holder shall hold the state harmless from any liability for injury to persons or damage to property on or off Division of Highways right of way during the construction of said project. Any work performed during the of the Division of Highway's inspector in no way relieves the applicant of his responsibility for proper installation and accountability to the Division of Highways.

12. Minimum qualifications for inspectors shall be; NICET Level II certification, Fairmont State College Level II certification, or the equivalent with minimum experience of five (5) years in the Utility or Construction field. This information will be made available to the WVDOH.

13. WVDOH may perform quality assurance inspection to ensure minimum requirements are being met and quality control is in place. These inspections shall be charged to the Utilities Authorization for the Blanket Permit.

14. The District Manager/Engineer reserves the right to revoke the permit at any time for any technical or policy related reason.

15. The Utility Permittee will lose the option of Self Certification if it or its Engineer/Consulting Firm are determined by the Division not to be responsible or are issued continued written warnings are issued for non-compliance of these minimum requirements. A written course of corrective action will be required to be submitted to and approved by the Utilities Supervisor for reinstatement of this option.

16. Upon completion of work the Independent Inspector shall certify in writing, signed and stamped by the responsible engineer, that the WVDOH conditions and policy have been met.

17. A Substantial Completion Review shall be conducted by the Utility Permittee or its Contractor, the Utility Permittee's Engineer/Consulting Firm and the WVDOH Utilities Supervisor at the time all

work has been completed.

18. A Final Review will be performed after one (1) year after which the applicant may request the bond be released.

BILLING PROCEDURES

All invoices are to be submitted directly to the District Engineer of the District in which the work is performed. (See map in Appendix D).

All invoices must contain: state project number, federal right of way project number (where applicable); project description and county; date of agreement, and the amount of the invoice, showing credit for any previously received partial payments.

Partial invoices may be submitted for actual costs incurred up to, but not exceeding, the amount shown in the approved agreement, and must be clearly marked PARTIAL INVOICE.

Final invoices are required to be submitted within six (6) months after all chargeable work covered by the agreement has been completed. The Utility or Railroad shall submit the final invoice, with complete support documentation, signed by an authorized representative. Final invoices cannot be paid until they have been audited.

PROJECT CLOSURE

The District Utility Supervisor will ensure final invoices are submitted in a timely manner. After final invoices have been paid, or work complete for one year and appropriate notice given to the involved utilities or railroad, the project will be closed.

INDEX

INDEX

APPENDIX A

PROFILE VIEW ON THE ROADWAY CROSS SECTION "AERIAL"

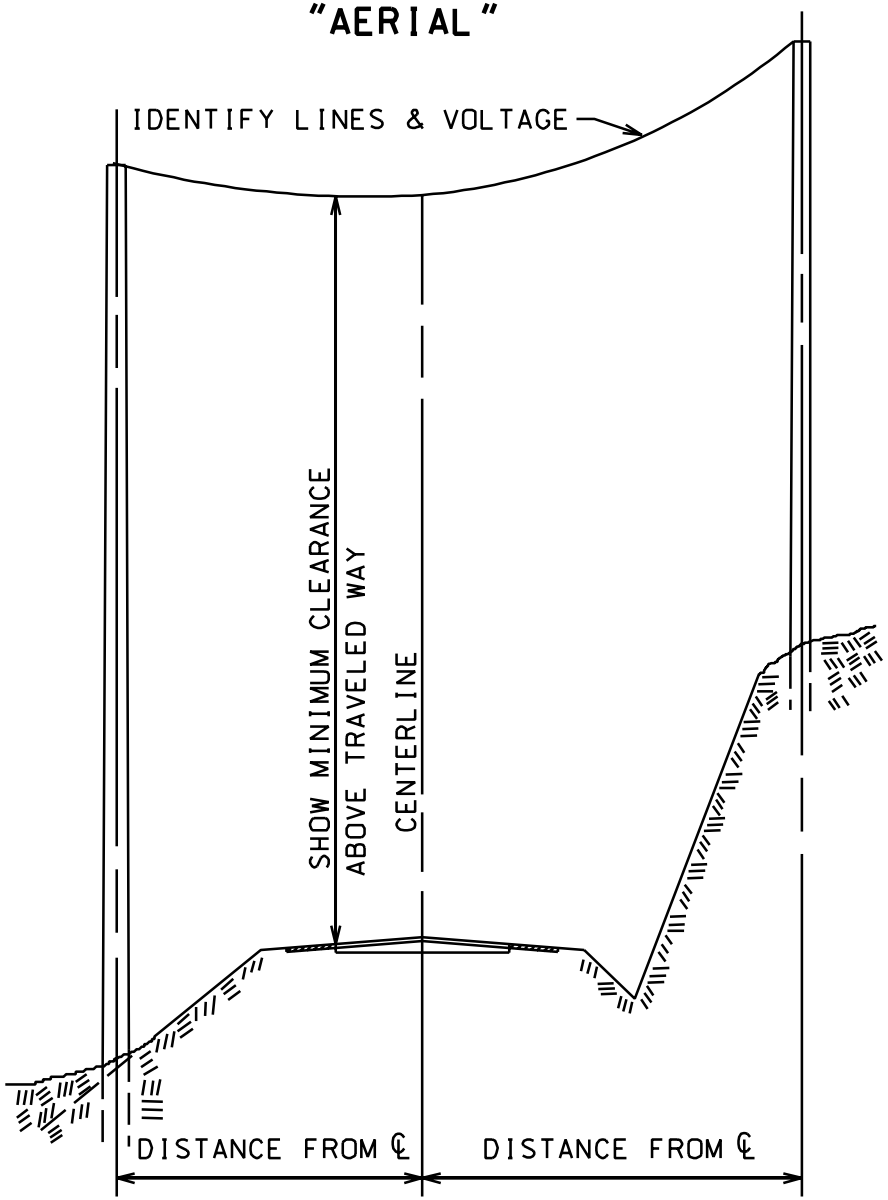
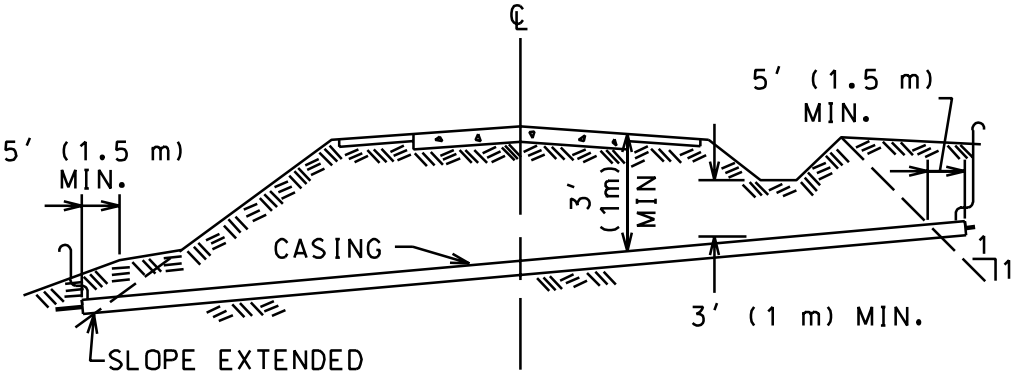
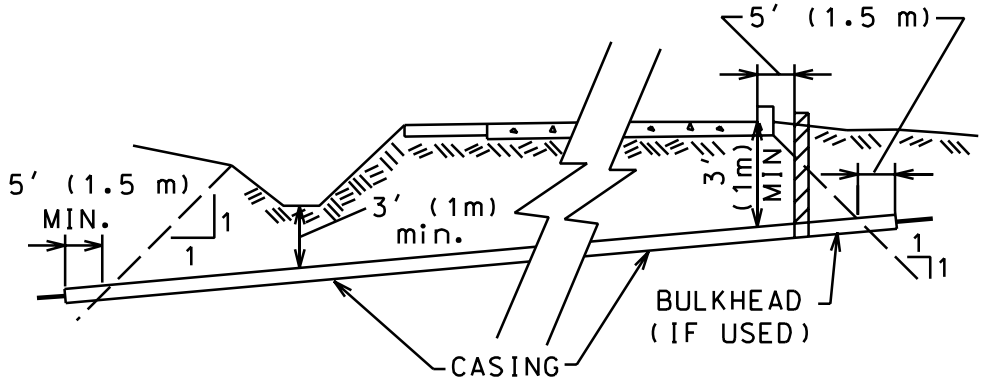


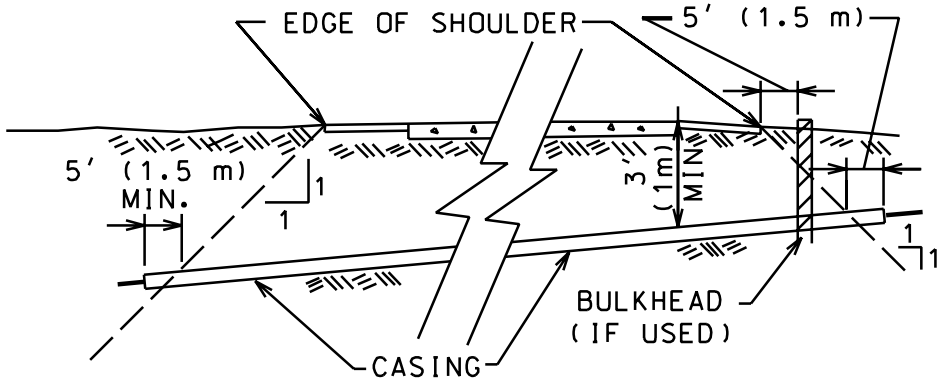
FIGURE 1



A. NORMAL CUT OR FILL SECTION



B. SECTION WITH DITCH OR CURB



C. SECTION WITHOUT DITCH

FIGURE 2

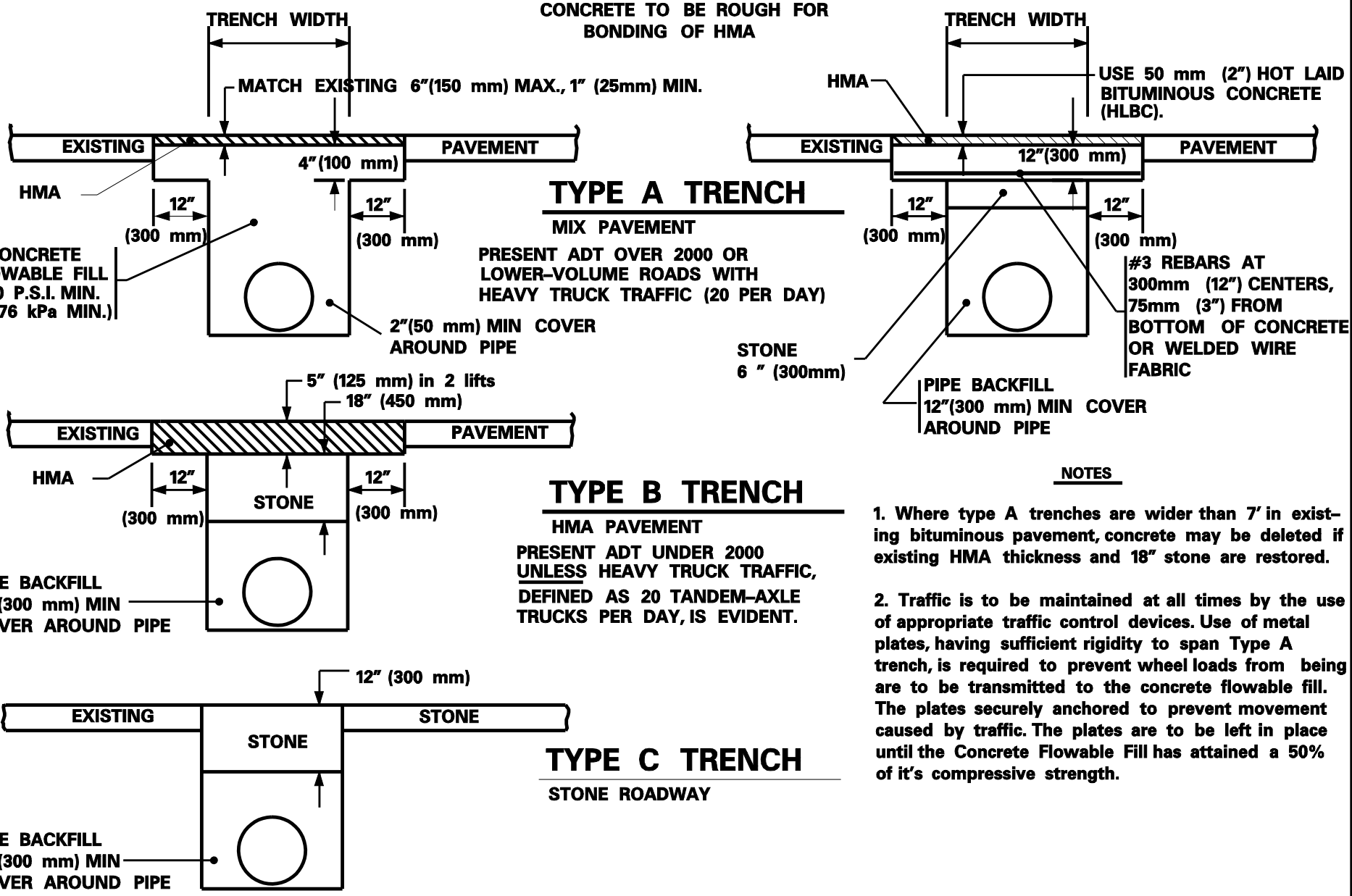


FIGURE 3

NOTES

1. Where type A trenches are wider than 7' in existing bituminous pavement, concrete may be deleted if existing HMA thickness and 18" stone are restored.

2. Traffic is to be maintained at all times by the use of appropriate traffic control devices. Use of metal plates, having sufficient rigidity to span Type A trench, is required to prevent wheel loads from being are to be transmitted to the concrete flowable fill. The plates securely anchored to prevent movement caused by traffic. The plates are to be left in place until the Concrete Flowable Fill has attained a 50% of it's compressive strength.

TYPE D TRENCH

CONCRETE PAVEMENT

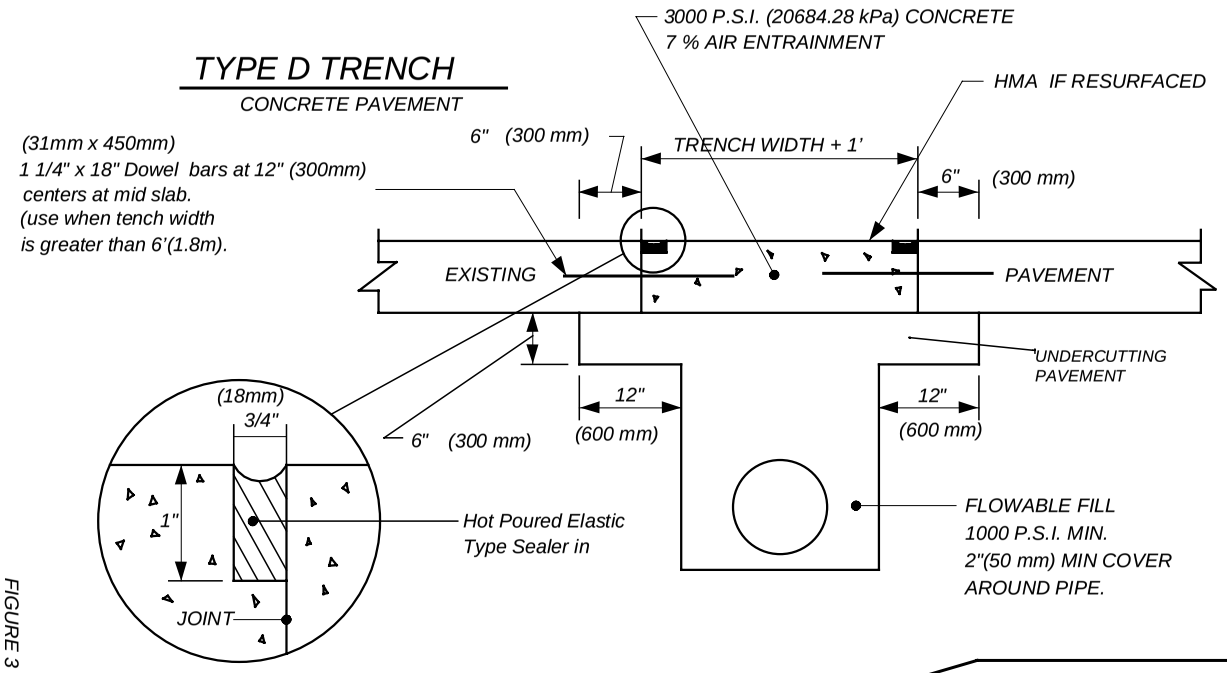


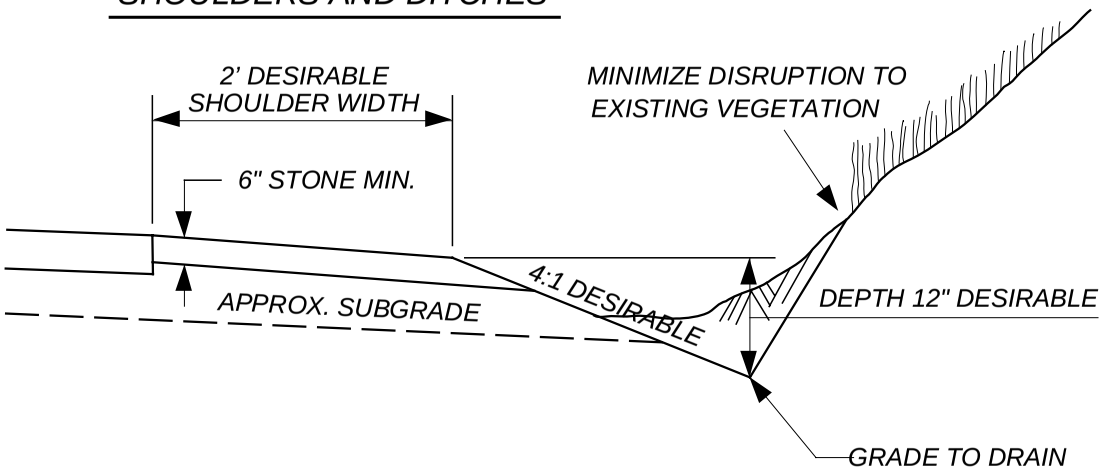
FIGURE 3

JOINT SEALER DETAIL

NOTES

1. Traffic is to be maintained at all times by the use of appropriate traffic control devices. Use of metal plates, having sufficient rigidity to span the trench, is required to prevent wheel loads from being transmitted to the Concrete. The plates are to be securely anchored to prevent movement caused by traffic. The plates are to be left in place until the Flowable Fill has attained a 50% of its compressive strength.

SHOULDERS AND DITCHES



NOTES

This operation is intended to be shaping and/or reconstruction of the shoulder and ditchline after the instillation of the utility facility. This operation also includes cleaning of existing structures, outlets and inlets.

The width of the shoulder shall be a minumum of the existing shoulder width prior to construction. However additional width shall be provided when sufficient area is available without compromising the required ditch.

The depth of the ditch shall be a minimum of the existing depth prior to construction. However the slope from the shoulder edge to the bottom of the ditch should not exceed a 4 to 1 slope and the depth of the ditch should not be less than 12 inches. If the 4 to 1 slope and the 12 inch minimum depth cannot be met then the 4 to 1 slope shall control.

APPENDIX C

MINIMUM VERTICAL CLEARANCE OF WIRE ABOVE GROUND

ACROSS AND ALONG ROADS

(RULE 232 OF NATIONAL ELECTRICAL SAFETY CODE)

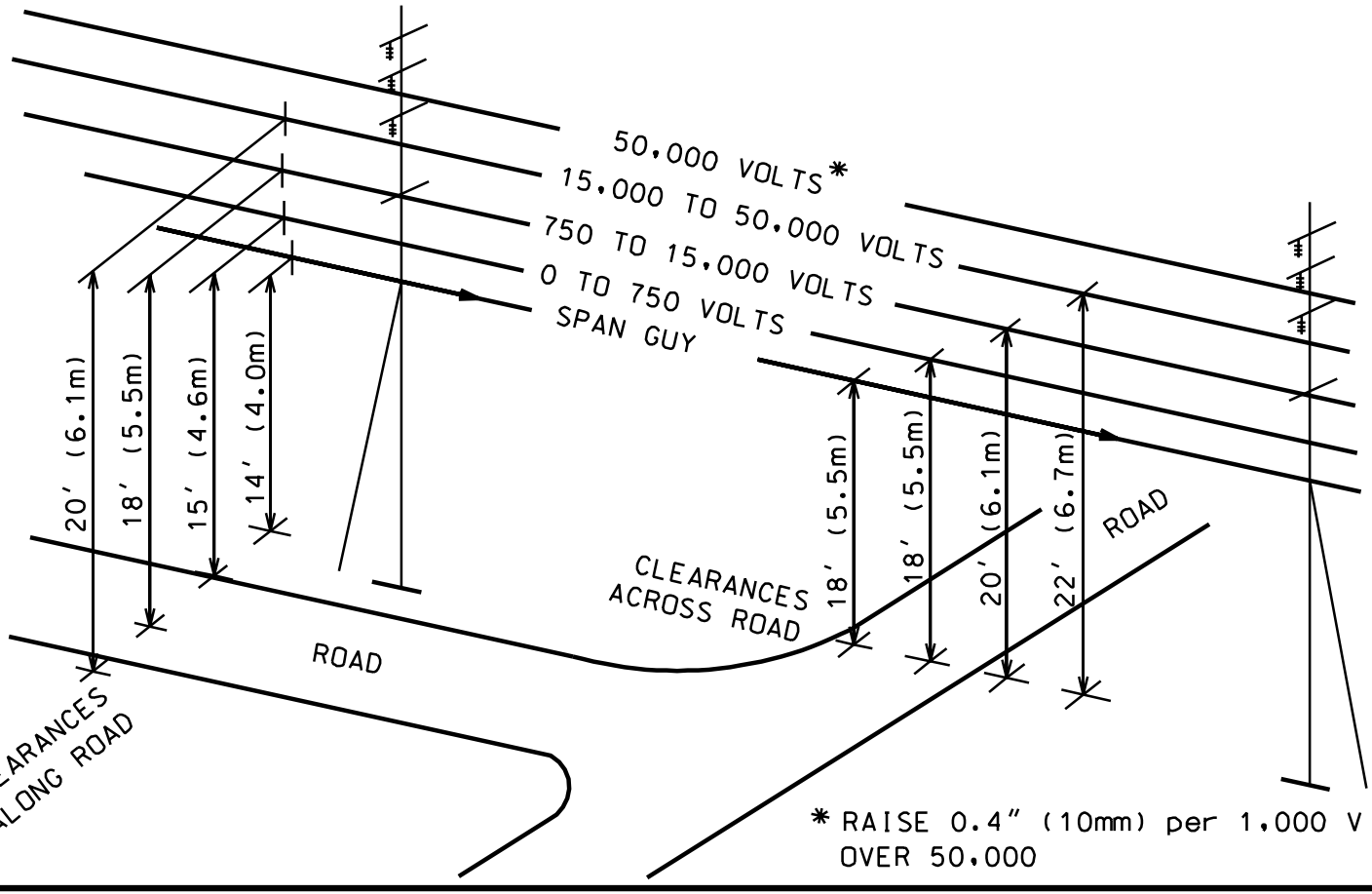


FIGURE 4

APPENDIX D

DISTRICT ONE

Division of Highways
District One
1334 Smith Street
Charleston, WV 25301
(304)558-3001

Boone, Clay
Kanawha, Mason
Putnam

DISTRICT TWO

Division of Highways
District Two
P. O. Box 880
Huntington, WV 25712
(304)528-5625

Cabell, Lincoln
Logan, Mingo
Wayne

DISTRICT THREE

Division of Highways
District Three
624 Depot Street
Parkersburg, WV 26102
(304)420-4645

Calhoun, Jackson
Pleasants, Ritchie
Roane, Wirt, Wood

DISTRICT FOUR

Division of Highways
District Four
P. O. Box 4220
Clarksburg, WV 26302-4220
(304)842-1550

Doddridge, Harrison
Marion, Monongalia
Preston, Taylor

DISTRICT FIVE

Division of Highways
District Five
P. O. Box 99
Burlington, WV 26710
(304)289-3521

Berkeley, Grant
Hampshire, Hardy
Jefferson
Mineral, Morgan

DISTRICT SIX

Division of Highways
District Six
1 DOT Drive
Moundsville, WV 26041
(304)843-4008

Brooke, Hancock
Marshall, Ohio
Tyler, Wetzel

DISTRICT SEVEN

Division of Highways
District Seven
P. O. Drawer 1228
Weston, WV 26452
(304)269-0414

Barbour, Braxton
Gilmer, Lewis
Upshur, Webster

DISTRICT EIGHT

Division of Highways
District Eight
P. O. Drawer 1516
Elkins, WV 26241
(304)637-0215

Pendleton
Pocahontas
Randolph, Tucker

DISTRICT NINE

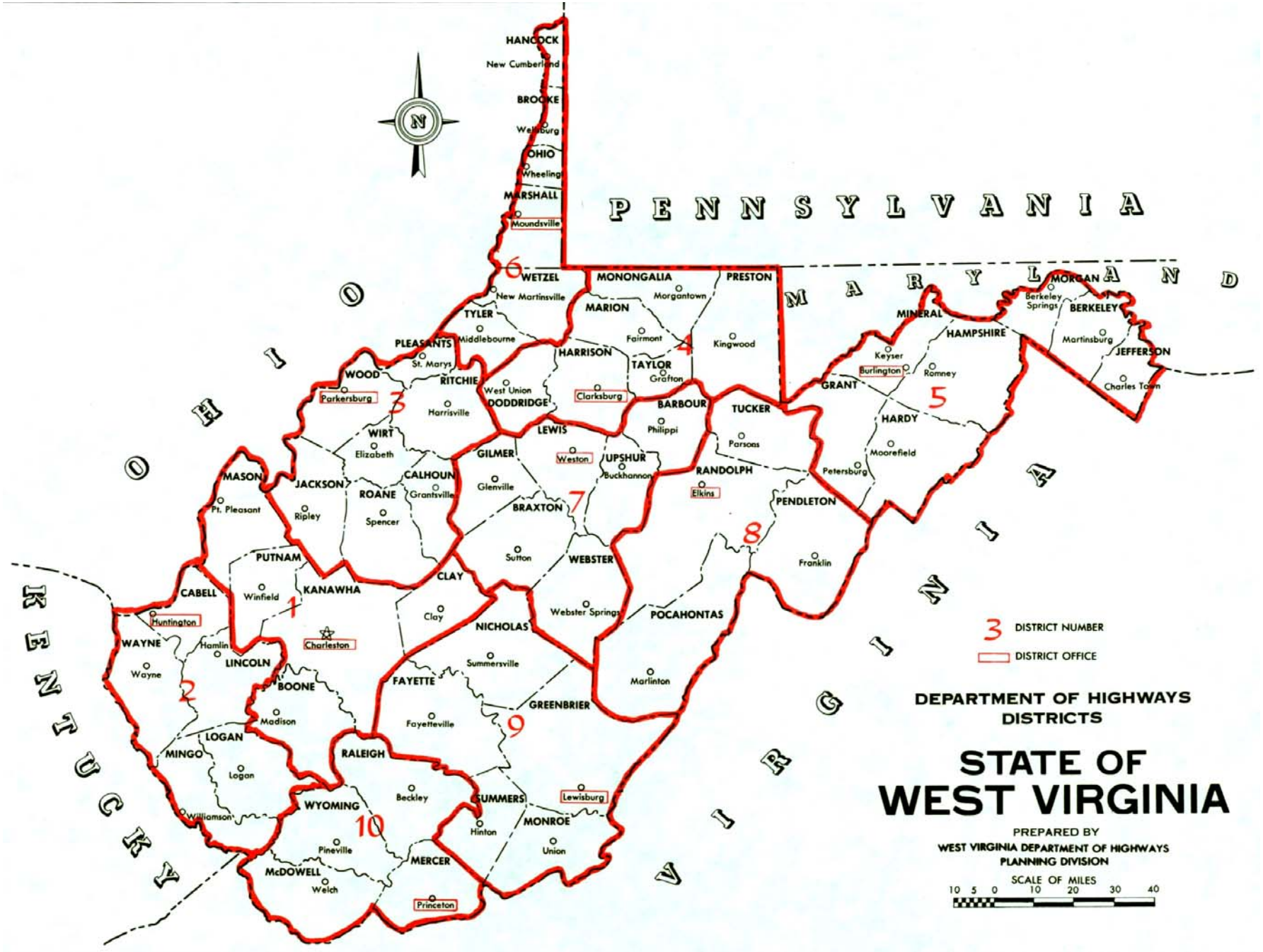
Division of Highways
District Nine
103 ½ Church Street
Lewisburg, WV 24901
(304)647-7450

Fayette
Greenbrier
Monroe, Nicholas
Summers

DISTRICT TEN

Division of Highways
District Ten
270 Hardwood Lane
Princeton, WV 24740
(304)487-5228

McDowell, Mercer
Raleigh, Wyoming


HANCOCK
New Cumberland
BROOKE
Wellsburg
OHIO
Wheeling
MARSHALL
Moundsville
PENNSYLVANIA
WETZEL
New Martinsville
MONONGALIA
Morgantown
PRESTON
Kingwood
MARION
Fairmont
TYLER
Middlebourne
PLEASANTS
St. Marys
HARRISON
Clarksburg
TAYLOR
Grafton
WOOD
Parkersburg
RITCHIE
West Union
DODDRIDGE
Harrisville
BARBOUR
Philippi
TUCKER
Parsons
LEWIS
Weston
GILMER
Glenville
UPSHUR
Buckhannon
RANDOLPH
Elkins
WIRT
Elizabeth
MASON
Pt. Pleasant
JACKSON
Ripley
ROANE
Spencer
CALHOUN
Grantsville
BRAXTON
Sutton
WEBSTER
Webster Springs
PENDLETON
Franklin
POCAHONTAS
Marlinton
PUTNAM
Winfield
KANAWHA
Charleston
CLAY
Clay
NICHOLAS
Summersville
CABELL
Huntington
WAYNE
Wayne
Hamlin
LINCOLN
BOONE
Madison
FAYETTE
Fayetteville
GREENBRIER
LOGAN
Logan
MINGO
RALEIGH
Beckley
SUMMERS
Hinton
Lewisburg
MONROE
Union
WYOMING
Pineville
Williamson
MERCER
Princeton
McDOWELL
Welch
MARYLAND
MORGAN
Berkeley Springs
BERKELEY
Martinsburg
JEFFERSON
Charles Town
MINERAL
HAMPSHIRE
Keyser
Burlington
Romney
GRANT
HARDY
Moorefield
Petersburg
1
2
3
4
5
6
7
8
9
10
3 DISTRICT NUMBER
DISTRICT OFFICE
DEPARTMENT OF HIGHWAYS
DISTRICTS
STATE OF
WEST VIRGINIA
PREPARED BY
WEST VIRGINIA DEPARTMENT OF HIGHWAYS
PLANNING DIVISION
SCALE OF MILES
10 5 0 10 20 30 40

APPENDIX E

WEST VIRGINIA DEPARTMENT OF TRANSPORTAITON
DIVISION OF HIGHWAYS

ESTIMATE OF UTILITY COSTS

STATE PROJECT NO.: _____ R/W PROJECT NO.: _____

PROJECT DESCRIPTION: _____ , _____ COUNTY

DATE OF MASTER AGREEMENT: _____ DATE OF SUPPORTING DATA: _____

UTILITY: _____

ADDRESS: _____

CITY: _____

A. PRELIMINARY ENGINEERING

1. Labor
   - (a) Salary and Wages _____
   - (b) Additives _____
   - (c) Personal Expense _____ _____
2. Supplies _____
3. Transportation _____
4. Contract _____

TOTAL _____

B. TEMPORARY CONSTRUCTION

1. Labor
   - (a) Salary and Wages _____
   - (b) Additives _____
   - (c) Personal Expense _____ _____

2. Material

(a) New Material _____

(b) Handling _____

(c) Credit or Salvage _____ _____

3. Equipment

(a) Company Owned _____

(b) Rented _____ _____

4. Contract _____

TOTAL _____

C. PERMANENT CONSTRUCTION

1. Labor

(a) Salary and Wages _____

(b) Additives _____

(c) Personal Expense _____ _____

2. Material

* (a) New Material _____

** (b) Salvage _____

(c) Handling _____ _____

3. Equipment

(a) Company Owned _____

(b) Rented _____ _____

4. Contract _____

TOTAL _____

* From Bill of Material

** From Schedule of Salvage

D. CONSTRUCTION ENGINEERING AND INSPECTION

1. Labor

(a) Salary and Wages _____

(b) Additives _____

(c) Personal Expense _____

2. Supplies _____

3. Transportation _____

4. Contract _____

TOTAL _____

E. ACCOUNTING

1. Labor

(a) Salary and Wages _____

(b) Additives _____

(c) Personal Expense _____ _____

2. Supplies _____

3. Transportation _____

TOTAL _____

F. OVERHEADS NOT INCLUDED IN ADDITIVES

[See FAPG, 23 CFR 645.105(h) and 23 CFR 645.117(d)]

1. General Administration _____

G. * BETTERMENTS _____

* From Schedule of Betterments

H. TOTAL RELOCATION COST (A + B + C + D + E + F - G) _____

I. DETERMINATION OF PROPORTIONATE SHARE FOR RELOCATION PORTION OF PROJECT

1. * Length on the DOH Right-of-Way _____

2. * Length on the Private Right-of-way _____

3. * Total Length to be Relocated _____

(a) Divide Line I1 by Line I3 _____

(b) Divide Line I2 by Line I3. _____

3. COMPANY SHARE (Multiply Line H by Line I3a) _____

4. DIVISION SHARE (Multiply Line H by Line I3b) _____

* Length is existing length.

J. RIGHT OF WAY ACQUISITION

1. Labor _____

(a) Salary and Wages _____

(b) Additives _____

(c) Personal Expense _____

(d) Contract _____ _____

2. Supplies _____

3. Transportation _____

4. Land or Easements _____

TOTAL RIGHT-OF-WAY _____

K. DETERMINATION OF PROPORTIONATE SHARE FOR RIGHT-OF-WAY PORTION OF PROJECT

1. Length on Private Right-of-Way Existing Condition _____

2. Length on the Private Right-of-way Proposed Condition _____

   (a) * Divide Line K1 by Line K2. _____

3. DIVISION SHARE (Multiply Total section J by Line K2a) _____

4. COMPANY SHARE (Subtract Line K4 from Total section J) _____

* Value shall not exceed one.

L. TOTAL PROJECT COST

1. COMPANY SHARE (add Line I3 and Line K4) _____

2. **DIVISION SHARE (add Line I4 and Line K3)** _____

(FOR DEPARTMNENT USE ONLY)

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUMMARY OF UTILITY COSTS

Date: _____

State Project No. _____ Date of Agreement: _____

R/W Project No. _____ Utility: _____

County: _____

Reimbursement percentage for relocation exclusive of right-of-way cost = _____%.
Reimbursement ratio for right-of-way cost = _____.

ITEM	AMOUNT
Preliminary Engineering	$ _____
Relocation	_____
SUBTOTAL	$ _____ x _____% = $ _____
Right of Way	_____
SUBTOTAL	$ _____ x _____ = $ _____

AMOUNT FOR AUTHORIZATION . . . . . $ _____

RW 8.02 (Revised 7/2007)

THIS AGREEMENT, made this ____ day of _____, 2007, by and between _____, hereinafter referred to as "_____", and WEST VIRGINIA DEPARTMENT OF TRANSPORTATION, DIVISION OF HIGHWAYS, hereinafter referred to as DEPARTMENT.

W I T N E S S E T H:

WHEREAS, DEPARTMENT proposes to construct a portion of _____, State Project No. _____, Federal Project No. _____, Right of Way, and Federal Project No. _____, Construction, in _____County, to cross or affect certain facilities of _____. The DEPARTMENT has determined that _____'s facilities hereinafter referred to shall be relocated in order to accommodate the construction of the aforesaid Federal-Aid Project and has been given due notice of such determination. _____ has been requested to design relocations and/or relocate its facilities. DEPARTMENT is obligated to reimburse _____for its actual cost for designing its existing facilities to conform with DEPARTMENT'S improvements.

WHEREAS, the design cost of the work herein contemplated is to be financed from funds provided by the State and expended under Federal regulations; and

WHEREAS, under the conditions hereof Federal-Aid funds are eligible to pay a share of said cost.

NOW, THEREFORE, for and in consideration of the sum of ONE DOLLAR ($1.00), cash in hand paid by each party to the other, receipt of which each party hereby acknowledges, and the mutual promises and obligations hereinafter stated, _____and DEPARTMENT do hereby mutually covenant and agree as follows:

(1) _____is not adequately staffed or equipped to perform the necessary design and relocation with its own forces. It is, therefore, authorized but not required to contract such work.

(2) _____ agrees to design or have designed the relocation of its facilities affected by this project.

(3) _____ agrees to prepare estimates for the design of its facilities to be relocated to conform to the new highway improvement.

(4) _____ agrees to provide DEPARTMENT the complete

relocation plans of its facilities for incorporation into DEPARTMENT'S project plans.

(5) DEPARTMENT will, at project expense, have its contractor perform all work necessary to relocate and/or adjust _____ facilities to conform to said design.

(6) After the casing, conduit or other underground facility is installed, the trench is to be backfilled. All backfill material shall: be free from particles larger than 75 mm (3"); not be frozen, contain no cinders, ashes, refuse, organic, vegetable or other like matter; nor any other material deemed unsuitable by the District Engineer or his authorized representative. Care shall be taken to compact the material under the haunches of the casing, conduit pipe or other facility and to place the backfill evenly on each side. The backfill material shall be deposited in the trench for its full width in layers not exceeding 100 mm (4") after compaction. This method shall be followed until the trench is fully backfilled. The target percentage of dry density for the backfill material will be 95% or the density of the existing material, as evidenced by testing, if the existing density is lower than 95%. In areas outside the limits of the traveled way and shoulders, compaction to the density of the original ground is sufficient. All backfill material and compaction requirements shall be in accordance with the DEPARTMENT'S Specifications and subject to DEPARTMENT'S approval. Evidence of proper compaction by testing will be the responsibility of the DEPARTMENT. The testing shall be 1 (one) per day or every 150 m (500 lineal feet) or as determined by the District Engineer or his authorized representative.

(7) _____agrees to save DEPARTMENT harmless from any damage to persons or property of the general public that may be occasioned during the course of the work involved and attributable to the acts of _____, its consultant or contractor.

(8) _____ agrees that the method of developing the cost of work performed under this agreement shall be in accordance with the work order accounting procedures as prescribed by the Public Service Commission of West Virginia and Federal-Aid Policy Guide 23 CFR 645A and B, and supplements and amendments thereto.

(9) Upon execution of this agreement by both parties by endorsement hereon, the DEPARTMENT will, by written notice, authorize _____ to

proceed with work. _____agrees to prosecute such work diligently to completion.

(10) Upon completion of such facility relocation, _____agrees to maintain its facilities located within DEPARTMENT'S right of way in accordance with DEPARTMENT'S current manual "Accommodation of Utilities on Highway Right of Way" and when applicable, Paragraph (7) of the American Association of State Highway and Transportation Officials' publication "Policy on the Accommodation of Utilities Within Freeway Right-of-Way" and supplements and amendments thereto.

(11) NONDISCRIMINATION OF EMPLOYEES: The _____ further agrees as follows: During the performance of work under this agreement, _____ and any of its contractors shall provide equal employment opportunities for all qualified persons and shall not discriminate against any employee or applicant because of race, color, religion, sex, national origin or disability. The _____ and its contractors shall comply with the Executive Orders of the Governor of the State of West Virginia, dated October 16, 1963 and December 15, 1965, The Presidential Executive Order Number 11246 as amended by Executive Order Number 11375 and as supplemented in Department of Labor Regulations Title 41 Code of Federal Regulations, Part 60 and the Civil Rights Act of 1964 as amended.

During the performance of this agreement, the _____, for itself, its assignees, and successors in interest (hereinafter called _____) shall agree as follows:

(A) Compliance with Regulations: The _____ shall comply with the Regulations of the Department of Transportation relative to nondiscrimination in federally assisted programs of the Department of Transportation (Title 49, Code of Federal Regulations, Part 21 through Appendix H and Title 23 Code of Federal Regulations 710.405(b), hereinafter referred to as the Regulations), which are herein incorporated by reference and made a part of this agreement.

(B) Nondiscrimination: The _____, with regard to the work performed by it after award and prior to completion of the work, shall not discriminate on the grounds of race, color, religion, sex, national origin or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment.

The _____ shall not participate either directly or indirectly in the discrimination prohibited by Section 21.5, Title 49 of the Regulations, including employment practices when the contract covers a program set forth in Appendix B, Title 49 of the Regulations.

(C) Solicitations for Contractors, Including Procurement of Materials and Equipment: In all solicitations either by competitive bidding or negotiation by the _____ for work to be performed under a contract, including procurement of materials or equipment, each potential contractor or supplier shall be notified by the _____ of the _____'s obligations under the agreement and the regulations relative to nondiscrimination on the grounds of race, color, religion, sex, national origin or disability.

(D) Information and Reports: The _____ shall provide all information and reports required by the regulations, or orders and instruction issued pursuant thereto, and shall permit access to its books, facilities, as may be determined by the Department to be pertinent to ascertain compliance with such regulations, orders and instructions.

Where any information required of a _____ is in the exclusive possession of another who fails or refuses to furnish this information, the _____ shall so certify the Department as appropriate, and shall set forth what efforts it has made to obtain the information.

(E) Sanctions for Noncompliance: In the event of the _____'s noncompliance with the nondiscrimination provisions of this agreement, the Department shall impose such agreement sanctions as it may determine to be appropriate, including, but not limited to:

(1) Withholding of payments to the _____ under this agreement until the _____ complies, and/or

(2) Cancellation, termination, or suspension of the agreement in whole or part.

(F) Incorporation of Provisions: The _____ shall include the provisions of paragraphs (A) through (F) in every contract, including procurement of materials and leases of equipment, unless exempt by the regulations, order, or instruction issued pursuant thereto. The _____ shall take such action with respect to any contract or procurement as the Department may direct as a means of enforcing such provisions including sanctions for noncompliance; provided, however, that in the event a _____ becomes involved in or is threatened with litigation with a contractor or supplier, as a result of such direction, the _____ may request the Department to enter into such litigation to protect the interest of the Department; and, in addition, the _____ may request the United States to enter into such litigation to protect the interest of the United States.

These provisions shall be fully and effectively enforced, and failure to comply therewith shall be regarded as a material breach of this agreement.

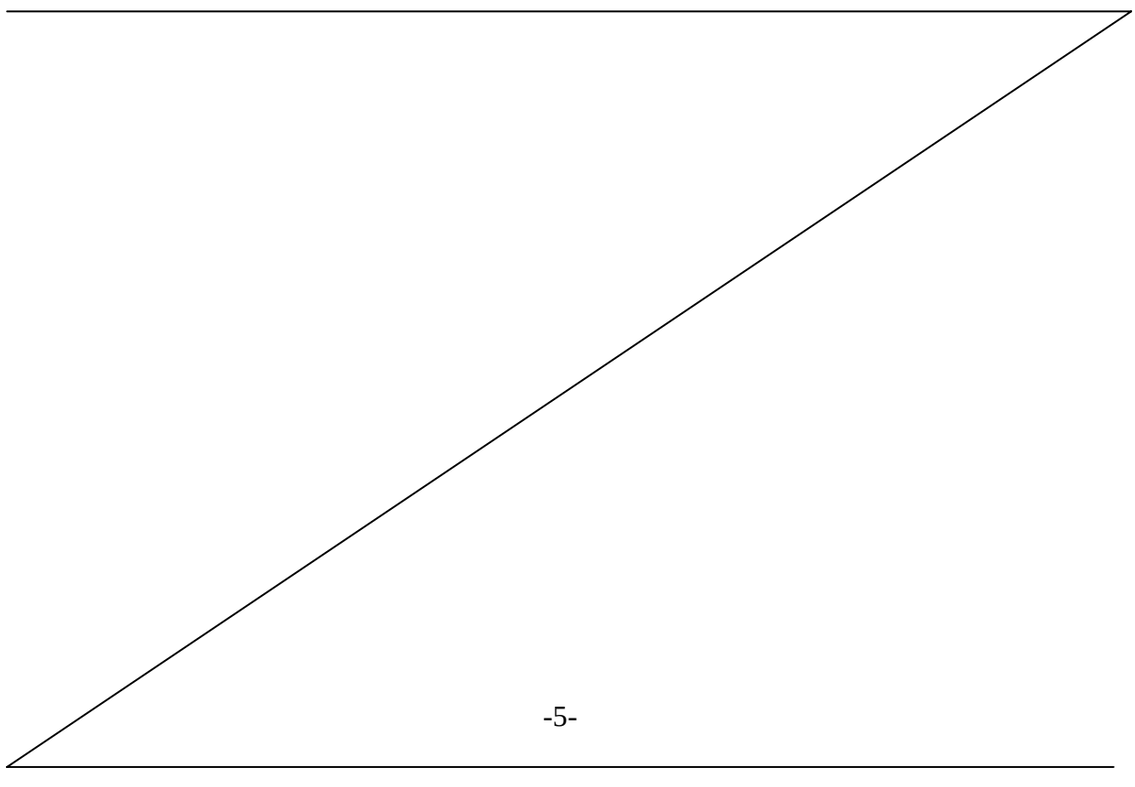
(12) The terms "Total actual cost" and "Actual costs" are hereby defined to include, for final reimbursement, all actual costs incurred and monies expended for the various

categories enumerated in the estimate attached hereto, including insurance premium cost, and further shall include reasonable and customary costs which cannot be estimated, anticipated or approved in advance for final reimbursement.

(13) After completion of the work as herein provided and upon receipt of proper billing, DEPARTMENT shall reimburse _____ for its actual cost incurred for the work performed hereunder as described in schedules attached hereto and made a part hereof, not including any bettering of facilities and giving proper allowances for materials salvaged.

(14) _____ agrees that DEPARTMENT and the Federal Highway Administration, US Department of Transportation, shall have the right to inspect all work done under this agreement during the course of this project and inspect and audit all records of _____. Additionally, _____ agrees to retain all records concerning the aforementioned work for a period of three (3) years following receipt of final payment from DEPARTMENT.

(15) Upon completion of such facility relocation and after reimbursement therefor has been received, _____ shall release unto DEPARTMENT all its right, title and interest in and to the property which accommodated the old facilities which were situated within the right of way limits of the highway project for which the relocation was made.



IN WITNESS WHEREOF, _____ and DEPARTMENT have caused their respective names to be signed and their respective seals affixed hereto by their duly authorized officers.

_____

By _____

Its _____

ATTEST:

By _____

Its _____

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION,
DIVISION OF HIGHWAYS

By _____

Its Deputy State Highway Engineer –Development

ATTEST:

By _____

Its _____

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

UTILITY STATUS REPORT

State Project No. _____ Name of Project _____

Right of Way Project No. _____ County _____

Construction Project No. _____ Date _____

UTILITY	DATES INDICATED FOR COMPLETION ARE ESTIMATED – THE ACTUAL COMPLETION MAY VARY FORTY-FIVE DAYS	STATUS

NOTE: Contractor shall notify Miss Utility @ 1-800-245-4848 to locate underground utilities before start of construction.

Prepared by _____
For Utilities Engineer

RW 8.04 (Revised 1/1/2000)

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

NOTICE OF COMMENCEMENT OR COMPLETION OF WORK

Date: _____

State Project No.: _____

R/W Project No.: _____

Const. Project No.: _____

County: _____

Agreement Date: _____

Mr. _____
Assistant District Engineer, Construction
West Virginia Department of Transportation
Division of Highways

_____, West Virginia

This is to advise that work *will be commenced/was completed on the above captioned project on _____.

_____
Name of Utility or Railroad

By: _____
Title

*Circle One

RW 8.05 (Revised 8/18/89)

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

NOTICE OF DISPOSAL OF RECOVERED MATERIALS

Date: _____

State Project No.: _____

R/W Project No.: _____

Const. Project No.: _____

County: _____

Agreement Date: _____

Mr. _____
Assistant District Engineer, Construction
West Virginia Department of Transportation
Division of Highways

_____, West Virginia

Dear Sir:

In accordance with FAPG, 23 CFR 645.117(e)(iv)(2), this is to advise that we intend to dispose of material recovered from the captioned project.

These materials may be inspected at _____, where they will be held until _____.
(10 days notice required)

If you wish to arrange for an inspection and inventory of these materials, please contact:

_____
Name and Title

_____
Street

_____
City

Very truly yours,

_____
Name of Utility or Railroad

By: _____
Title

RW 8.06 (Revised 10/1/93)

REQUEST FOR RIGHT OF WAY TO BE STAKED

DATE: _____

TO: WV DOT/DOH
Utilities Engineer
Engineering Division
Building 5, Room 662
1900 Kanawha Boulevard, East
Charleston, WV 25305-0430

SUBJECT: State Project No. _____

Right of Way Project No. _____

Construction Project No. _____

County: _____

This is to request the following locations be staked on the above referenced project:

Description	From Station	To Station	Left Side	Right Side

Comments:

_____ By: _____, _____
Name of Utility Title

RW 8.07 (Revised 8/1/98)

(FOR DEPARTMENT USE ONLY)

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

UTILITY AGREEMENT CHECK LIST

AGREEMENT TYPE	YES	NO
MASTER AGREEMENT		
FEDERAL-AID		
SUPPLEMENTAL		
REVISION		

State Project No. _____

R/W Project No. _____

County _____

Date of Agreement _____

Utility _____

	OK	N/A	COMMENTS
I. AGREEMENT:			
A. Original and 6 copies			
B. Copy of prior rights			
II. AGREEMENT CONTENT (Standard on Master Agmts):			
A FAPG, 23 CFR 645A and 645B			
B. Work Order accounting procedure			
C. Release of right, title and interest in land			
D. Nondiscrimination clauses			
E. AASHTO, Paragraph 7			
F. Backfilling Specifications			
G. Save Harmless clause			
III. SUPPORTING DATA:			
A Transmittal letter			
B. Project description			
C. R/W 8.01			
D. Bill of materials			
E. Schedule of salvage			
F. Schedule of betterment			
G. Determination of proportionate share			
H. Existing facilities description			
I. Proposed work description			
1. Explanation of any contract work			
2. Explanation of any temporary work			
J. Plans			
1. Legend, color coded			
2. Existing and proposed facilities			
3. Profiles and/or cross sections			
4. Satisfies Accommodation Policy			
5. R/W width indicated or statement			

IV. COMMENTS: _____

_____

Reviewed and recommended by: _____ Date: _____

RW 8.08 (Revised 9/4/2002)

Inspector's Daily Utility Report

FORM SC-453 Rev. 10/95 — **WEST VIRGINIA DIVISION OF HIGHWAYS** — Report No. _____

Project/Permit No.	District	County	Weather	Date

Utility/Permittee	Authorization/Agreement Date	1. Work Force

2. Location and Description of Work _____

Equipment		Materials		
3. Vehicle Description	Hours	4. Type		5. Qty & Unit

LABOR 6. Name/No. of Workmen	Classification	Hours Each

TOTAL MAN HOURS WORKED

Contractor's Name and Address

Utility Representatives Signature:

7. Remarks

D.O.H. Inspector's Time _____ Hours
Begin _____ End _____ Miles _____ ED _____
Inspector's Signature _____

Checked By: _____ Date _____
Entered on As-Built Plans By: _____ Date _____
Approved By: _____ Date _____

DIRECTIONS CONCERNING FORM SC-453

1. Indicate name of party performing the work and designate as principal permit holder, prime contractor or subcontractor.

2. Indicate the location or locations at which work is performed. Give station, offset, route number, etc.

3. Indicate type of vehicle and/or license number.

4. Indicate "S" for Salvaged material, "I" for Installed material.

5. Indicate the amount of material used and the unit in which the material is measured. Example: 60.5 l.f., 47 sq. ft.

6. Indicate first initial and last name of each work person.

7. Under Remarks:
   a) Include all tests taken by number, type, and the result of each.
   b) Include a statement as to when work starts and is completed.
   c) Include an explanation in full detail of all new work in addition to the original agreement, including minor changes.
   d) Include sketch if necessary.
   e) Indicate disposition of recovered materials.
   f) If additional space is required, indicate that additional information is attached. DO NOT WRITE on the back of this form.

NOTE: **A. A copy of each report is to be given to the Project Field Office involved. The Original is to go to District Utilities Office. A separate report is to be made out for each utility.**

B. A report is to be made out for periods of no work, and signed by the inspector so there is no time lapse in the diary.

SPECIAL NOTE: As-built utility locations should be shown on the as-built plans maintained in the Project Field Office.

WEST VIRGINIA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
INSPECTOR'S SUPPLEMENTAL DATA WORKSHEET

AUTHORIZATION _____	**ATTACHMENT TO IDR** _____
PROJECT _____	**DATE** _____

DESCRIPTION OF WORK
(RECORD SUFFICIENT DATA TO SHOW THAT WORK IS BEING PERFORMED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND THAT THE DAILY REPORT WITH ANY ATTACHMENTS IS AN ADEQUATE RECORD TO DOCUMENT THE QUANTITY AND QUALITY OF MATERIALS AND WORKMANSHIP. INCLUDE WORKERS BY CLASSIFICATION; TYPE OF EQUIPMENT USED AND HOURS WORKED).

LINE	

NOTES REQUIRING PRS ENTRY
(DOCUMENT INSTRUCTIONS TO CONTRACTOR; SPECIAL PROBLEMS; INVOICE OR CT NUMBERS FOR DELIVERED MATERIALS IF NOT INCLUDED ON THE ATTACHMENT(S)).

SEQ	

OC 442A

PREPARED BY _____
Signature

SKETCH (INCLUDE MEASUREMENTS AND CALCULATIONS)

EACH MEASUREMENT IS TO BE DENOTED AS (1) FIELD; (2) PLAN OR (3) CALCULATED

CALCULATED BY _____
Signature

INSPECTOR _____
Signature

SKETCH (INCLUDE MEASUREMENTS AND CALCULATIONS)

EACH MEASUREMENT IS TO BE DENOTED AS (1) FIELD; (2) PLAN OR (3) CALCULATED

CALCULATED BY _____
Signature

INSPECTOR _____
Signature