

Ottawa County Road Commission

**Rules Governing The
Granting of Permits
For Utilities, Sidewalks,
& Non-Motorized Facilities**

**BOARD OF COUNTY ROAD COMMISSIONERS
COUNTY OF OTTAWA**

The following Rules were adopted by the Board of County Road Commissioners on January 9, 2003.

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I. GENERAL PROVISIONS

A person, organization or governing unit shall not undertake or conduct any of the following activities on or along roads within public road right-of-way unless a permit to allow such activity has been obtained from the Ottawa County Road Commission.

1. Construct, reconstruct, or relocate watermain or sanitary sewer.
2. Open cuts of roads, non-motorized facilities and sidewalks for service and main line connections, locating of other utilities and maintenance of facilities.
3. Road bores.
4. Installation of vaults, manholes, and other utility structures.
5. New poles and anchors or replacement of poles and anchors.
6. Placement of conduit or interduct.
7. Placement of new facility within existing conduit or interduct.
8. Service cable running parallel with right-of-way.
9. Buried cable – new and replacement of damaged cable.
10. Aerial cable – new plant.
11. Construct, reconstruct, or relocate a non-motorized facility, sidewalk or paved shoulder.

ANY ACTIVITY CARRIED OUT IN THE COUNTY RIGHT-OF-WAY WITHOUT A PERMIT IS SUBJECT TO ITS REMOVAL BY THE BOARD AT THE PROPRIETOR'S EXPENSE.

Failure to comply with the conditions set forth by the permit shall cause the Board, or its Engineer, to halt activities involved with the permit or the revocation thereof. Costs incurred by the Board in correcting non-compliance with terms and conditions set forth by the permit or the costs of correcting defective material or poor workmanship, as determined by the Engineer, shall be borne by the Proprietor.

Permit forms are available at the Ottawa County Road Commission at Rosy Mound Drive @ US-31, P.O. Box 739, Grand Haven, Michigan 49417.

A. Definitions

BOARD - The Board of County Road Commissioners of the County of Ottawa, State of Michigan.

ENGINEER – Engineering Director of the Board or any employee designated to act for him in implementing the Rules Governing the Granting of Permits for Utilities, Sidewalks, & Non-Motorized Facilities.

GOVERNING BODY - Local unit of government in which the construction activity will take place.

PROPRIETOR - Any person, firm, association, partnership, corporation, unit of government, or any combination thereof desiring access to or conducting any activity on a County Highway.

M.D.O.T. SPEC. - Michigan Department of Transportation, 2003 Interim Standard Specifications for Construction (or current edition) will be used except where noted.

B. Permit Requirements

1. Bonds

Bonds shall be required on all construction activity within the public road right-of-way to protect the Ottawa County Road Commission against the cost of completing construction or repairing deficiencies. Acceptable alternatives to bonds are cash, certified or cashier's checks and money orders made payable to the Ottawa County Road Commission. A \$1,000.00 individual project or yearly blanket bond shall be posted.

2. Indemnity and Certificates of Insurance

The Proprietor shall save harmless, defend and represent the Board and the Ottawa County Road Commission, its officers and employees against any and all claims for damages arising from operations covered by the permit. Certificates of insurance shall be required on utilities, sidewalks, and bike paths to ensure that the licensee and/or applicant can meet all claims, including damage or personal injury. General liability insurance carried by an applicant or licensee may be acceptable if it equals or exceeds current amounts specified by the Board. Insurance must be kept in force until the permitted construction is completed and approved. Failure to do so will be just cause for immediate suspension and/or cancellation of the permit.

The Ottawa County Road Commission, County of Ottawa, Board of County Road Commissioners and their officers, agents, and employees shall be named as additional insured on the Insurance Certificate.

3. Safety

The Proprietor shall provide and maintain all necessary precautions to prevent injury or damage to persons and property from operations covered by the permit and shall use warning devices in accordance with the current edition of the **Michigan Manual of Uniform Traffic Control Devices**.

II. UTILITY, SIDEWALK, AND NON-MOTORIZED FACILITY PERMITS

A. Permit Procedure

1. Application

Any person, organization or governing unit desiring to construct, reconstruct, or relocate an utility, sidewalk, or non-motorized facility within Ottawa County Road Commission right-of-way shall make application and secure a permit before beginning construction. The acceptable applicants for these permits are owners or agents, or a contractor employed by the owner. However, the owner or owner's agent and the contractor shall be required to sign the permit.

Applications for utility, sidewalk, or non-motorized facility permits shall be submitted in the manner prescribed by and on the appropriate forms supplied by the Engineer. Applications shall be accompanied by two (2) sets of plans or drawings.

The permit is fully executed and in force after the plans are approved and the permit signed by the owner or owner's agent, the contractor, and the Engineer.

2. Requirements on Plans of Proposed Utility, Sidewalk, or Non-Motorized Facility(s)

All copies of utility, sidewalk, or non-motorized facility permit applications shall be accompanied by two (2) sets of plans or drawings clearly indicating the following features as the Ottawa County Road Commission may require:

- (a) Existing road pavement, ditches, drainage structures and controls, right-of-way and property lines, house/lot numbers, road appurtenances, medians (if existing) and dimensions thereof, and names of existing roads.
- (b) All utilities, both existing and proposed.
- (c) All proposed road crossings shall show the depth, diameter of bore and pipe.
- (d) All sidewalks and non-motorized facilities, both existing and proposed.
- (e) All roadside features, in addition to sidewalks or non-motorized facilities, to be constructed within the road right-of-way including roadside control island, curb, traffic signs, manholes, and poles.

- (f) North directional arrow and scale of drawing.
- (h) The location and elevation of the nearest United States Coastal and Geodetic Survey Bench marks used in establishing elevations.

3. Staking Requirements

Prior to the Ottawa County Road Commission reviewing permit applications the proposed utility, sidewalk, or non-motorized facility shall be staked in accordance to the following conditions:

- (g) Any project that is 400' in length or longer is required to have the running line staked.
- (h) Underground facilities will be staked at a maximum 200' intervals with stakes clearly marked with company name and distance from centerline.
- (i) If the project is less than 400' in length a beginning and ending stake will be required.
- (j) Road bores and utilities under the road pavement shall be staked on each side of the road.
- (k) Utility poles and anchors will be staked individually.
- (l) Utilities placed in conjunction with new roadway construction do not have to be staked.

4. Review Procedure

The Engineer will review the prepared application and field stakes for compliance to these rules and note any revisions necessary for approval. Transmittal of a completed permit, approved by the Engineer, or transmittal of a denied application constitutes action on the permit application.

5. Conditions of Issuance

All utility, sidewalk, or non-motorized facility permits issued in accordance with these rules shall be subject to the following conditions and limitations:

- (a) The Engineer reserves the right of inspection of any utility, sidewalk, or non-motorized facility construction within the public road right-of-way.
- (b) The Proprietor shall provide the appropriate permit fee according to the Permit Fee Schedule for the services required for the review and approval of plans and for any on-the-job inspections that are required.
- (c) The Engineer shall be given at least two days (excluding Saturdays, Sundays, and Holidays) notice prior to the commencement of any operation covered by the permit.
- (d) The Proprietor shall have a copy of the permit available at the site during construction.
- (e) The Proprietor shall surrender the permit, cease operation and surrender all rights there under, whenever notified to do so by the Engineer because of a default of any condition of the permit.
- (f) The Proprietor shall furnish all materials and bear all costs of necessary construction within the Ottawa County Road Commission right-of-way.
- (g) The Proprietor shall remove all surplus materials to an area outside of the limits of the public right-of-way unless the permit provides the manner of

disposal at locations within the right-of-way. Excavated material shall not be stockpiled so as to adversely affect safety of the traveling public.

- (h) All work authorized by the permit shall be completed to the satisfaction of the Engineer on or before the completion date specified in the permit. Any request for an extension of time of completion of work authorized by permit shall include reasons for the request. Approval of extension of time shall be based on extenuating circumstances indicating no neglect on the part of the applicant. Additional requirements may be imposed as a condition of an extension of time due to seasonal limitations and other considerations.

III. UTILITY CONSTRUCTION STANDARDS

A. Placement Rules and Regulations

The location of utilities within public right-of-way shall be in accordance with an established corridor plan. **(See Detail No. 1)**

1. Buried Electrical & Telephone

- (a) South and West side of the right-of-way.
- (b) Place at an approved distance of 1' to 7' from the right-of-way line.
- (c) Minimum depth for plowed or trenched main cable is 30" below ground or 30" below centerline of road, which ever is the lower elevation.
- (d) Minimum depth for services is 24" below ground or 24" below centerline of road, which ever is the lower elevation.
- (e) Minimum depth below a ditch or culvert crossing is 24".
- (f) Road crossing shall be at right angles to centerline and at a minimum depth of 48".
- (g) Bore pits shall maintain a minimum clearance of 7' from bituminous pavement.

2. Buried Gas

- (a) North and East side of right-of-way.
- (b) Place at an approved constant location of 6.5' from the right-of-way line.
- (c) Minimum depth for plowed or trenched main is 30" below ground or 30" below centerline of road, which ever is the lower elevation.
- (d) Minimum depth for services is 24" below ground or 24" below centerline of road, which ever is the lower elevation.
- (e) Minimum depth below a ditch or culvert crossing is 24".
- (f) Road crossing shall be at right angles to centerline and at a minimum depth of 48".
- (g) Bore pits shall maintain a minimum clearance of 7' from bituminous pavement.

3. Buried Cable TV

- (a) Place at an approved constant location of 6" from either side of the right-of-way line.
- (b) Minimum depth for plowed or trenched cable is 30" below ground or 30" below centerline of road, which ever is the lower elevation.
- (c) Minimum depth for services is 24" below ground or 24" below centerline of road, which ever is the lower elevation.
- (d) Minimum depth below a ditch or culvert crossing is 24".
- (e) Road crossing shall be at right angles to centerline and at a minimum depth of 48".
- (f) Bore pits shall maintain a minimum clearance of 7' from bituminous pavement.

4. Poles and Guy Wires

- (a) Place at an approved location of 7' from either side of the right-of-way line.
- (b) Wood poles shall maintain a minimum clearance of 10' from bituminous pavement.
- (c) Fiberglass poles shall maintain a minimum clearance of 6' from bituminous pavement.
- (d) No poles are allowed in the bottom of ditch or shoulder of the road.
- (e) Only one pole line shall be allowed within the right-of-way.

5. Fiber Optics

- (a) Place at an approved constant location between 0'-3' from the right-of-way line.
- (b) South and West side of the right-of-way for Telephone.
- (c) Either side of the right-of-way for Cable TV.
- (d) Minimum depth shall be 36" below ground or 36" below centerline of road, which ever is the lower elevation.
- (e) When crossing any drain, ditch, or drainage structure during installation of fiber optic cable and/or conduit, maintain a minimum of 4' of cover below solid bottom.
- (f) All road crossings shall be bored at right angles to centerline and at a minimum depth of 48". Pits are to be placed at least 7' from the edge of the pavement.

6. Aerial Wire and Cables

- (a) Place at an approved constant location of 7' from either side of the right-of-way line.
- (b) The vertical clearance of wires, conductors, and cables over county roadways shall not be less than required by Rule 232 of The National Electric Safety Code, except that the underclearance for an unloaded sag with no wind at 60 degrees shall not be less than 18 feet.

7. Water Main

- (a) North and East side of right-of-way.
- (b) Place at an approved constant location of 4' from right-of-way line. (On residential subdivision roads the main shall be placed at 11' from right-of-way line.)
- (c) Minimum depth for plowed or trenched main is 60" below ground or 60" below centerline of road, which ever is the lower elevation.
- (d) Minimum depth for services is 60" below ground or 60" below centerline of road, which ever is the lower elevation.
- (e) Road crossing are to be at right angles to centerline and at a minimum depth of 60".
- (f) Bore pits shall maintain a minimum clearance of 7' from bituminous pavement.

8. Sanitary Sewer

- (a) South and West side of right-of-way.
- (b) Place at an approved constant location of 8' from right-of-way centerline for a gravity sewer main. (On primary or section line roads the gravity sewer shall be placed at 11' from right-of-way centerline.)
- (c) Place at an approved constant location of 12' from right-of-way centerline for a sanitary sewer force main when constructed in conjunction with sanitary sewer. (When constructed separate of gravity sewer the sanitary sewer force main shall be placed at 18' from right-of-way centerline.)
- (d) Minimum depth for plowed or trenched main is 60" below ground or 60" below centerline of road, which ever is the lower elevation.

- (e) Minimum depth for services is 60" below ground or 60" below centerline of road, whichever is the lower elevation.
- (f) Road crossings are to be at right angles to centerline and at a minimum depth of 60".
- (g) Bore pits shall maintain a minimum clearance of 7' from bituminous pavement.

B. Road Cuts and Reconstruction

If the proposed utility project involves road cuts and/or road reconstruction the following shall be required:

1. General

The Engineer may, if the public safety requires immediate action, grant permission to make an emergency road cut or excavation before a permit is issued.

Transverse crossing of recently paved or resurfaced roads by utility main or service lead construction shall be bore and jacked, in lieu of open cut construction.

In all cases other than sidewalk or bike path construction the permit applicant for a road cut shall notify the Engineer a minimum of two working days prior to the time when the work is proposed to commence so, if necessary, arrangements may be made to have an inspector present while the work is in progress.

Whenever a part of a block, square or section of curb, sidewalk, or driveway is broken or damaged by the person making any excavation or opening in or under any street, road or within any public right-of-way, the entire block, square or section shall be removed to the score, groove or saw cut line and replaced or reconstructed. Where the line of cut would be less than two feet from an existing expansion or weakened plane joint, the concrete shall be removed to that joint.

At no time shall more than 200 feet of trench be opened and incompletely backfilled during working hours. The remainder of the area of trenching operation shall be available for safe vehicular and pedestrian traffic at all times. The Engineer may allow special exceptions.

An approved bituminous patching mixture shall be placed on all openings within the roadway surface at the close of each working day. The Engineer may grant an exception if the road is completely reconstructed. Minimum requirements for temporary pavement shall be a bituminous patching mixture conforming to MDOT Specification Section 503, as approved by the Engineer. The Proprietor shall properly maintain temporary pavement in a safe condition at all times until permanent pavement is placed. Each party making street openings shall routinely check their temporary pavement. All temporary patches made between November 15 and April 15 shall be checked at least every fourteen days and repairs made as needed.

If the paving surface adjacent to the road opening may be damaged where trenches are made parallel to the road, or where a number of cross trenches are laid in close proximity to one another, or where the equipment used may cause such damage, the Engineer may require the resurfacing of such road, instead of patching, if the total area of the proposed patch (or probably damaged area) exceeds twenty-five percent of the total pavement surfacing area.

The final pavement surface shall be placed within fourteen days of the completion of construction within the right-of-way, as specified herein. All cuts made in the off season (November 15 to April 15) shall be completed before June 15 of the following season. Any permittee found in violation of these requirements will be denied additional permits until all openings produced by that permittee have been properly repaired.

Any operation in the right-of-way not covered by these Specifications, submitted with this permit, shall be done in accordance with the instructions of the Engineer.

2. Bituminous Mixtures

The bituminous mix design shall be furnished to the Engineer for review and approval. A minimum of three working days is required for the review of the mix design. The Engineer reserves the right to request validation of mix designs developed for previous construction seasons.

The contractor shall be responsible for the production and quality control of the bituminous mixture furnished and placed. The contractor will test not less than one sample per day's production at the bituminous plant. The Proprietor's Engineer and Laboratory will monitor these tests, and their results.

In order to verify the contractors testing and assure end result compliance, splits of the samples used for quality control testing shall be made available to the Engineer for verification and acceptance testing. The Engineer reserves the right to take independent samples for verification and acceptance testing at the plant or at the project site.

3. Concrete Mixtures

The concrete mix design shall be furnished to the Engineer for review and approval. A minimum of three working days is required for the review of the mix design. The Engineer reserves the right to request validation of mix designs developed for previous construction seasons.

The Proprietor's Engineer or Laboratory shall mold compressive strength cylinders and perform slump and air entrainment tests in accordance with M.D.O.T. Spec. 701.03.F. One set of tests shall be performed each day that concrete curb and gutter or sidewalk is placed.

The concrete test results shall be submitted to the Engineer within one week of the field and laboratory test dates.

4. Compaction Requirements

The following densities shall be obtained on road construction by standard methods of compaction:

Embankment 95% of Maximum Unit Weight - M.D.O.T. Spec. 205.03.H.
Subbase 95% of Maximum Unit Weight – M.D.O.T. Spec. 301.03.
Aggregate Base 98% of Max. Unit Weight – M.D.O.T. Spec 302.03.A.
Bit. Surface 97% of Max. Unit Weight – M.D.O.T. Spec. 502.03.G.

The minimum frequencies of tests for density control are as follows:

- (a) Trench Backfill – 1 test per layer of backfill per run of pipe, between structures. Minimum 1 test per lateral, unless waived by Engineer.
- (b) Structure Backfill – 1 test per layer of backfill at each structure, unless waived by Engineer.
- (c) Subbase – 1 test per 400 linear feet of roadway.
- (d) Aggregate Base – 1 test per 400 linear feet of roadway.
- (e) Bituminous Surface – 1 test per 400 linear foot of bituminous course.

Compaction test results are to be submitted to the Engineer within one week of the test date.

5. Inspection

The Proprietor's Engineer shall provide daily inspections during construction operations. An IDR (Inspectors Daily Report) shall be submitted to the Engineer within one week of the inspection date. **(See Detail No. 4)**

Periodic inspections during construction by the Engineer shall not relieve the Proprietor's Engineer of any of his obligations. These periodic inspections are to verify that proper construction methods are being utilized in their various stages of construction.

6. Preconstruction Meeting

A preconstruction meeting shall be held at least one week prior to commencement of the work. The following personnel shall be notified of this meeting: Ottawa County Road Commission, Township, Ottawa County Drain Commissioner, the utility companies and other agencies affected by the proposed construction.

At this meeting, matters pertinent to the project schedule, daily reports, material testing, inspection, utility coordination, traffic control, soil erosion control, and other items will be discussed and reviewed.

C. Pavement Removal

The location of disposal areas and the proper disposal of asphalt and concrete shall be the responsibility of the Proprietor. At no time shall stockpiles of excavated material remain overnight on public right-of-way.

Cutting of bituminous surfaces for removal shall be by saw or jackhammer or other methods approved by the Engineer and shall have a clean, straight, vertical edge without disturbance to the adjacent pavement. Backhoe teeth, jackhammers equipped with spike points, and backhoe-mounted wheel cutters are not acceptable for cutting pavement edges, however, they may be used to break up pavement within the section to be removed. All pavement cuts shall be made perpendicular to, or parallel with, the centerline of the pavement. Pavements less than three years old may only be cut in the case of an emergency, and only with the approval of the Engineer.

For final patches required as a result of utility construction or repair, the existing pavement shall be removed to provide for a replacement of not less than one foot wider and longer than the utility trench on each side. All final patches (patches in the wearing course of asphalt) shall be rectangular. If these removals will result in existing pavement of less than five feet wide from the patch to a lane line, gutter edge-of-metal, or existing patch, this existing pavement shall also be removed to the lane, gutter edge-of-metal, or existing patch.

Any damage to the adjacent pavement, pavement base, subbase, or utility structures caused as a result of the removal of the bituminous surface shall be repaired.

Prior to filling the excavated areas with patching material, if the base has become damp/wet due to rain or due to the construction operations, it shall be dried by aerating or other approved method(s). Prior to patch placement, the excavation(s) shall be cleaned with compressed air to remove dirt and loose material. The base shall then be recompacted with a vibratory plate compactor or other approved method(s), and the exposed edges of each patch shall be tacked. No excavated areas will be allowed to remain open overnight and shall be properly refilled to grade with an approved bituminous patching material.

Butt joints shall be saw cut straight, cleaned and tacked prior to bituminous paving.

D. Maintenance and Restoration of Right-of-Way

1. Shoulder Resoration

Road shoulders shall be restored to the same type (paved, gravel, or earth), width, slope, and thickness as existed prior to the start of the work.

- (a) Gravel shoulders that are removed during construction are to be replaced with MDOT 23A compacted gravel. If the shoulder had a sand subbase, it shall also be replaced.
- (b) Gravel shoulders which are not removed but contaminated, rutted, or otherwise damaged shall be restored by removing the contaminated material and replacing it with MDOT 23A gravel to the original thickness, width, slope, and flush with the road surface. If the road is resurfaced, sufficient gravel shall be added to bring the shoulder up to the new surface elevation.
- (c) If the shoulders were grass covered they shall be so restored to a stable condition.
- (d) If all or a portion of the shoulder is paved, the paved shoulder shall be replaced with a bituminous mixture approved by the Engineer. The edge of roadway shall be trimmed to present a smooth edge for attachment of the paved shoulder and treated with a bond coat. The width and cross-section of the paved shoulder shall be replaced to match the existing.

2. Drainage Restoration

- (a) All road drainage shall be restored as soon as possible following construction operations. Ditches, ditch slopes and other areas within right-of-way shall be restored to meet the current Ottawa County Road Commission standards, unless otherwise noted or shown on approved plans.
- (b) All culverts and ditch enclosures removed shall be replaced with approved materials and re-laid in proper position and elevation. Culverts and other drainage structures that are damaged but not removed during construction operations shall be fully repaired to the satisfaction of the Engineer or be replaced in accordance with current Ottawa County Road Commission standards. Grading or ditching may be required near the inlet or outlet in order to re-establish drainage beyond that shown on approved plans.
- (c) The Proprietor is responsible for restoration or re-establishment of drainage patterns or systems disturbed by the work or construction operations.

3. Topsoil, Seeding, and Mulch

The methods and time of seeding and mulching shall meet the requirements of the M.D.O.T. Spec. 816. All disturbed areas shall be covered with three (3) inches of fertile topsoil.

E. Reconstruction Design

The pavement cross-section for reconstruction projects shall be designed in accordance with latest edition of the Ottawa County Road Commission's Standards and Specifications for *Plat, Condominium, and Public Road Development* or **Details 2 and 3** of this publication.

IV. SIDEWALK AND NON-MOTORIZED FACILITY CONSTRUCTION STANDARDS

A. Sidewalks

Sidewalk construction shall be in accordance with section 803 of the MDOT Specifications.

1. Location and Width

The sidewalk shall be 5' in width and the outside edge located 1' from the right-of-way line.

Sidewalk elevations shall be determined by the existing elevation of the road. Construct the property side of the sidewalk at 6" above the centerline of the road.

2. Grade

Sidewalks are to have a transverse grade of 2% (1/4" per foot) draining toward the road.

The maximum allowed longitudinal grade shall be 5%. This grade shall not be exceeded unless the road grade is of a steeper grade, in which case the longitudinal sidewalk grade shall not exceed the road grade.

3. Surface Material Requirements and Specifications

Sidewalks shall meet the following aggregate base course requirements and shall be hard surfaced with concrete materials as listed below:

- (a) **Aggregate Base Course** - M.D.O.T. Spec. 302
 - Material - 22A
 - Gradation - M.D.O.T. 902-1 Minimum 25% crushed
 - Thickness - 6" compacted in place.

- (b) **Concrete Surface** - M.D.O.T. Spec. 802
 - Material - 5 sack mix design
 - Thickness - 4"
 - 6" through residential driveways
 - 8" through industrial driveways

4. Surface Drainage

All existing drainage shall be accommodated with the construction of new sidewalk. All connections to existing storm sewer systems shall be approved by the Ottawa County Drain Commission.

B. Non-Motorized Facilities

Non-motorized facility construction shall be in accordance with section 806 of the MDOT Specifications.

1. Location and Width

The non-motorized facility shall be 8' in width and the outside edge located 1' from the right-of-way line.

Non-motorized facility elevations shall be determined by the existing elevation of the road. Construct the property side of the non-motorized facility at 6" above the centerline of the road.

2. Grade

Non-motorized facilities are to have a transverse grade of 2% (1/4" per foot) draining toward the road.

The maximum allowed longitudinal grade shall be 5%. This grade shall not be exceeded, unless the road grade is of a steeper grade, in which case the longitudinal non-motorized facility grade shall not exceed the road grade.

3. Vertical and Horizontal Curves

Non-motorized facilities shall be designed in accordance with the requirements of the AASHTO – Guide for Development of New Bicycle Facilities (1991 or current edition).

4. Surface Material Requirements and Specifications

Non-motorized facilities shall meet the following aggregate base course requirements and shall be hard surfaced with either bituminous or concrete materials as listed below:

- (a) **Aggregate Base Course** - M.D.O.T. Spec. 302
 - Material - 22A
 - Gradation - M.D.O.T. 902-1 Minimum 25% crushed
 - Thickness - 6" compacted in place.

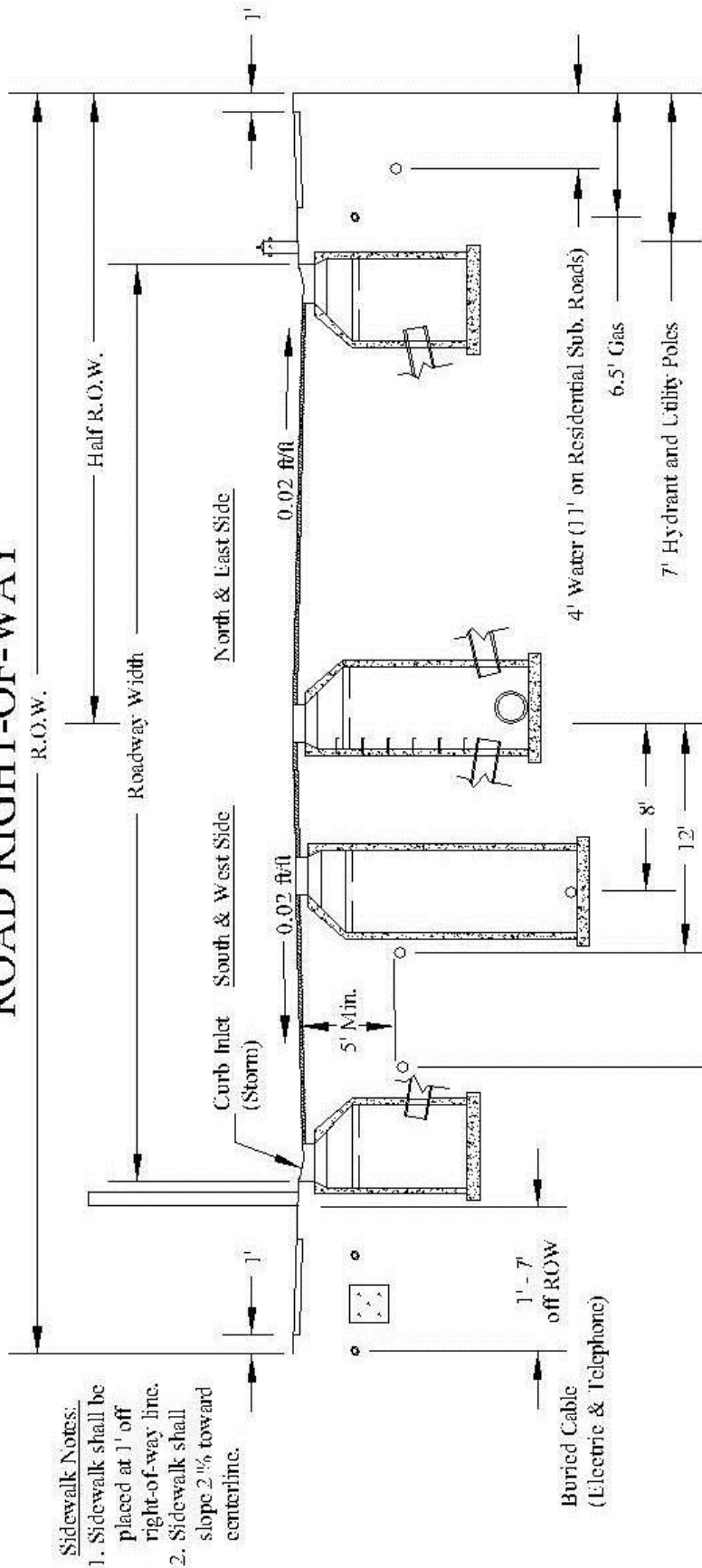
- (b) **Bituminous Surface** - M.D.O.T. Spec. 500
 - Material - Bituminous Mixture 13A Leveling
 - Bituminous Mixture 36A Surface
 - Thickness - 2 1/2" 275#/Sq. Yd. Min.
 - Asphalt Cement - Performance Grade 58-28
 - Temperature & Seasonal Limitations Table 502.03.J

- (c) **Concrete Surface** - M.D.O.T. Spec. 802
 - Material - 5 sack mix design
 - Thickness - 4"
 - 6" through residential driveways
 - 8" through industrial driveways

5. Surface Drainage

All existing drainage shall be accommodated with the construction of non-motorized facilities. All connections to existing storm sewer systems shall be approved by the Ottawa County Drain Commission.

TYPICAL UTILITY LOCATION WITHIN ROAD RIGHT-OF-WAY



Sidewalk Notes:
 1. Sidewalk shall be placed at 1' off right-of-way line.
 2. Sidewalk shall slope 2% toward centerline.

Cable and Electric Notes:
 1. C.A.T.V. at 6" from either side of R.O.W.
 2. Fiber Optic Cable to be at 0'-3" off right-of-way line. Minimum depth of 36" below centerline elevation. (Only if easement cannot be obtained.)
 3. Buried Cable at 1'-7" (Electric & Telephone) off right-of-way line.

Sanitary Notes:
 1. Sanitary sewer force main located at 12' when constructed in conjunction with sanitary sewer main.
 2. Sanitary sewer force main located at 18' when constructed separate of gravity sewer.
 3. Gravity sanitary sewer located at 11' when constructed on primary or major section line roads. **The gravity sanitary sewer may shifted to accommodate a mandated center of manhole casing location of 11'.**

Water Notes:
 1. Water main shall be placed a minimum of 60" below centerline elevation.

OTTAWA COUNTY ROAD COMMISSION

DETAIL NO. 1

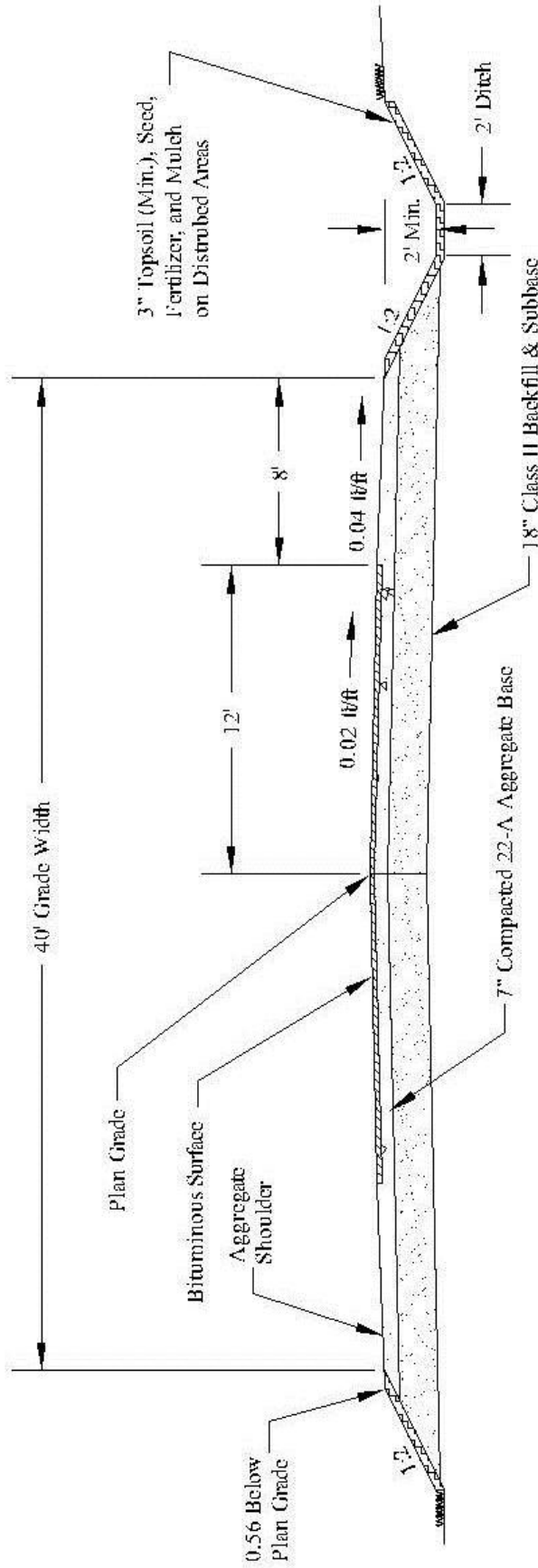
REV. NO.

DR. BY: BAI
 CH. BY: TP

SCALE: NONE
 DATE:

TYPICAL UTILITY LOCATION WITHIN
 ROAD RIGHT-OF-WAY

TYPICAL RECONSTRUCTION SECTION FOR 2-LANE ROADWAYS WITH MORE THAN 1000 ADT



- Notes:
1. This street section will have a spring weight reduction of 35 %.
 2. The top of the bituminous surface will be built to a minimum of 3' above the high water table.
 3. Bituminous thickness shall be determined by the Ottawa County Road Commission.
 4. The roadway shall be centered within the right-of-way.

OTTAWA COUNTY ROAD COMMISSION

DETAIL NO. 2

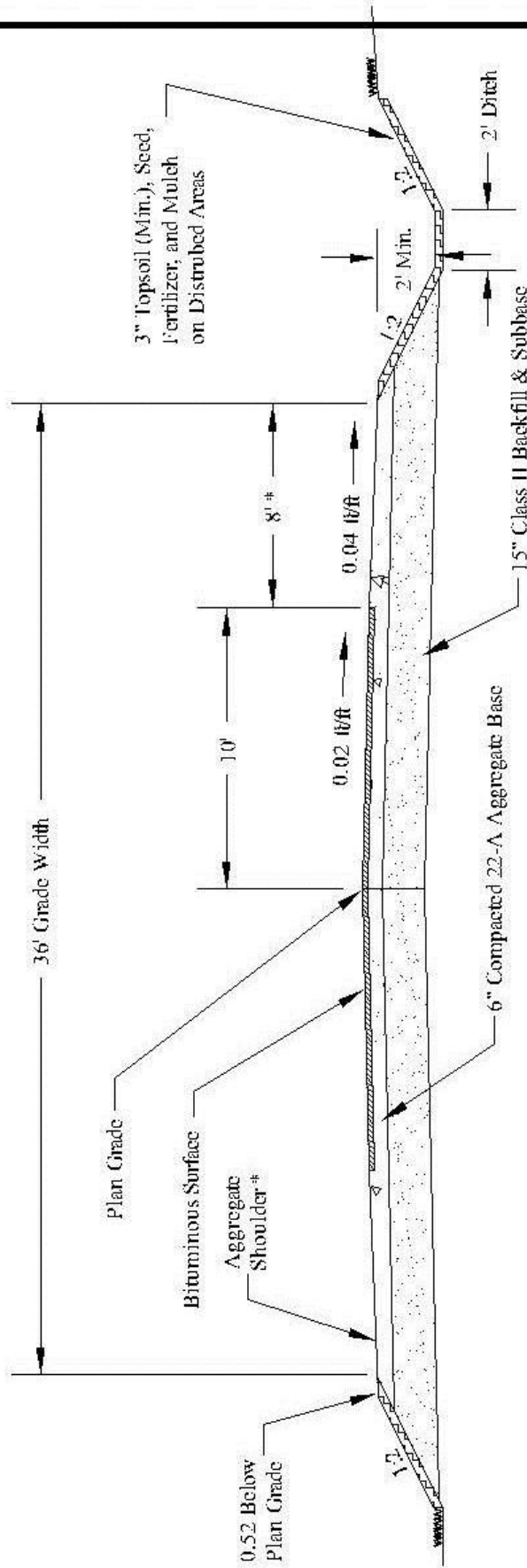
REV. NO.

DR. BY: BAI
CH. BY: TP

SCALE: NONE
DATE:

TYPICAL RECONSTRUCTION SECTION FOR 2-LANE ROADWAYS WITH MORE THAN 1000 ADT

TYPICAL RECONSTRUCTION SECTION FOR 2-LANE ROADWAYS WITH LESS THAN 1000 ADT



- Notes:
1. This street section will have a spring weight reduction of 35 %.
 2. The top of the bituminous surface will be built to a minimum of 3' above the high water table.
 3. Bituminous thickness shall be determined by the Ottawa County Road Commission.
 4. The roadway shall be centered within the right-of-way.

* 3" Topsoil (Min.), Seed, Fertilizer, and Mulch may be utilized for part of the shoulder width. This shall be determined by the Ottawa County Road Commission.

OTTAWA COUNTY ROAD COMMISSION

DETAIL NO:
3

REV. NO.:

DR. BY: BAI
CH. BY: TP

SCALE: NONE
DATE:

TYPICAL RECONSTRUCTION SECTION FOR 2-LANE ROADWAYS WITH LESS THAN 1000 ADT

ADDENDUM #1

To

OTTAWA COUNTY ROAD COMMISSION

RULES GOVERNING THE

GRANTING OF PERMITS

FOR UTILITIES, SIDEWALKS,

& NON-MOTORIZED FACILITIES

Adopted by the Board of County Road Commissioners, County of Ottawa February 26, 2004
Effective Date February 26, 2004

On Page 1, Section I B. 1. Bonds

Delete and replace with:

Bonds shall be required on all construction activity within the public road right-of-way to protect the Ottawa County Road Commission against the cost of completing construction or repairing deficiencies. Acceptable alternatives to bonds are cash, certified or cashier's checks and money orders made payable to the Ottawa County Road Commission.

A \$10,000.00 individual bond shall be required for all road cuts and/or road reconstruction work within the public road right-of-way. This bond shall be held for a period of one year upon the completion of the restoration of the road cuts and/or reconstruction work.

A \$1,000.00 individual project or yearly blanket bond shall be posted for all other utility work within the public road right-of-way.

On Page 3, Section II. A. 2. Requirements on Plans of Proposed UtilityFacilities(s)

Add New Subsection

(i) Existing soil and groundwater conditions.

On Page 4, Section III A. Placement Rules and Regulations

Add New Paragraph After First Sentence.

All underground utility crossings of paved roads shall be done by an approved method of boring. If a crossing cannot be bored due to extenuating circumstances, the Engineer may approve an open cut road crossing.

ADDENDUM #2

To

OTTAWA COUNTY ROAD COMMISSION

RULES GOVERNING THE

GRANTING OF PERMITS

FOR UTILITIES, SIDEWALKS,

& NON-MOTORIZED FACILITIES

Adopted by the Board of County Road Commissioners, County of Ottawa
Effective Date: October 1, 2007

On Page 10, Section IV. A. Sidewalks

Add New Subsection

5. Sidewalk Ramps

Sidewalk ramps shall be provided in accordance with the American with Disabilities Act of 1990 (ADA) and the Rehabilitation Act of 1973 (Section 504) as amended. Sidewalk ramps shall conform to the current MDOT Standard Plan or Special Detail for Sidewalk Ramp Details R-28 and shall be required for all sidewalks crossing:

- (a) Commercial Driveways
- (b) Private Roadways
- (c) Public Roadways

On Page 11, Section IV. B. Non-Motorized Facilities

Add New Subsection

6. Sidewalk Ramps

Sidewalk ramps shall be provided in accordance with the American with Disabilities Act of 1990 (ADA) and the Rehabilitation Act of 1973 (Section 504) as amended. Sidewalk ramps shall conform to the current MDOT Standard Plan or Special Detail for Sidewalk Ramp Details R-28 and shall be required for all sidewalks or non-motorized facilities crossing:

- (a) Commercial Driveways
- (b) Private Roadways
- (c) Public Roadways