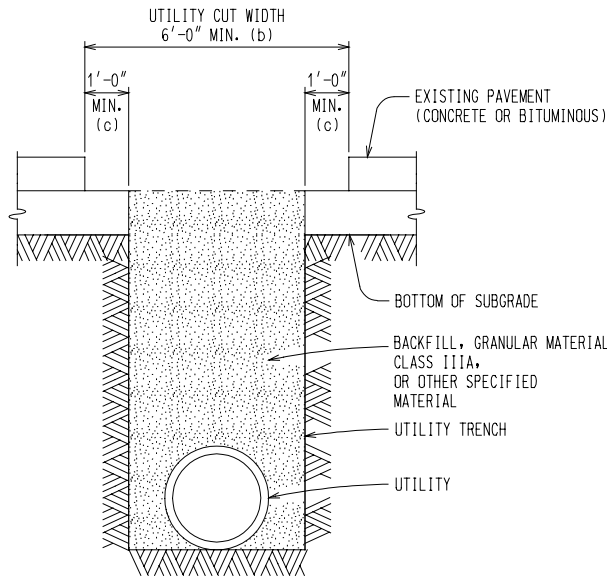


TYPICAL UTILITY CUT



CROSS - SECTION UTILITY CUT

NOTES:

UTILITY CUTS IN CONCRETE PAVEMENT SHALL BE SAWED FULL DEPTH. WHEN REPLACING PAVEMENT, REPLACE IN KIND AND THICKNESS UNLESS OTHERWISE INDICATED ON SHEET 2.

WHEN EXISTING MATERIAL OR GRANULAR MATERIAL IS USED FOR BACKFILL, THE BACKFILL SHALL BE PLACED IN LAYERS NOT TO EXCEED 9" IN THICKNESS, AND COMPACTED WITH A MECHANICALLY OPERATED HAND-HELD VIBRATING OR IMPACT TYPE COMPACTOR. WHEN CONTROLLED DENSITY IS CALLED FOR, BACKFILL AND COMPACTION SHALL BE ACCORDING TO THE CURRENT STANDARD SPECIFICATIONS.

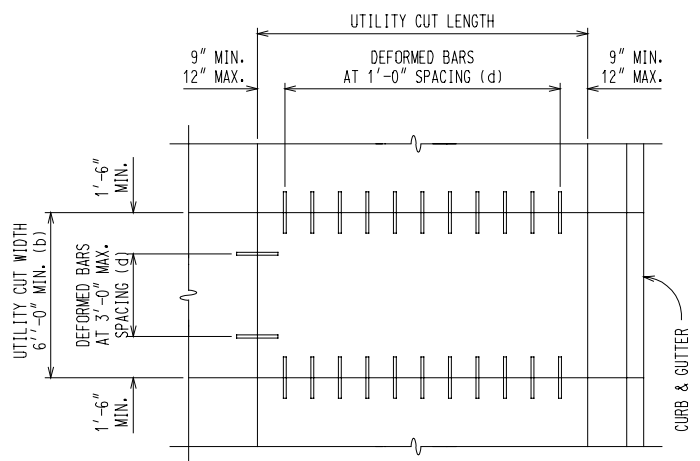
WHEN FLOWABLE FILL IS USED IN UTILITY TRENCHES ON SUCH BACKFILL SHALL BE FURNISHED AND PLACED ACCORDING TO THE ATTACHED SPECIAL PROVISION.

CONCRETE PAVEMENT REPLACEMENT SHALL CONTAIN 65 POUNDS OF STEEL REINFORCEMENT PER 100 SQUARE FEET OR 6" X 6" SIDEWALK MESH, FABRICATED OF NUMBER 6 WIRE, WEIGHING AT LEAST 42 POUNDS PER 100 SQUARE FEET, OR AS SPECIFIED, INSTALLED AT 3" DEPTH.

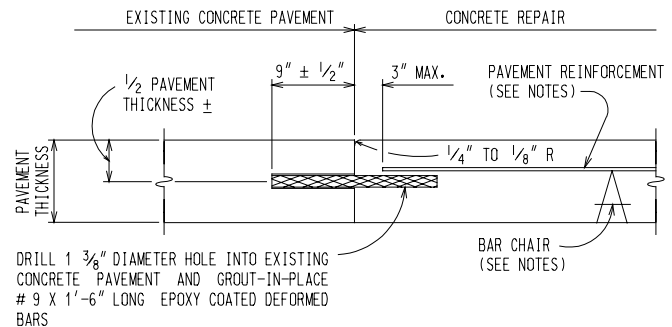
STEEL REINFORCEMENT IS REQUIRED FOR ALL CONCRETE REPAIRS AND SHALL BE SUPPORTED ON DOWEL BAR ENDS AND BAR CHAIRS (FULL WIDTH OF REINFORCEMENT WITH 3 1/2" MAXIMUM SPACING). A MINIMUM OF ONE BAR CHAIR PER REPAIR IS REQUIRED.

WHEN ANY CUT IS CLOSER THAN 2' TO THE LOGITUDINAL JOINT, EXTEND THE CUT TO THE JOINT. JOINTS IN WHEEL TRACKS SHOULD BE AVOIDED. IF CUT IS CLOSER THAN 6' TO A TRANSVERSE JOINT, EXTEND THE CUT TO THE JOINT. PAVEMENT CUTS SHALL BE PERPENDICULAR TO THE LONGITUDINAL JOINT. THE DISTANCE BETWEEN UTILITY CUTS SHALL BE 6' OR MORE.

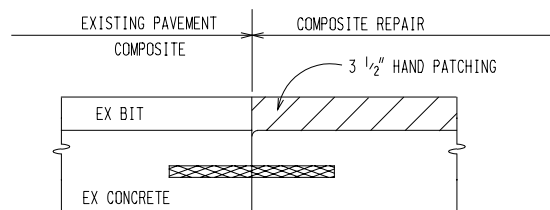
- (a) DOES NOT APPLY TO OBSERVATION HOLES THAT ARE 9 SQUARE FEET OR LESS. FOR CONCRETE PAVEMENT, FILL HOLE WITH BACKFILL COMPACTED TO 95% DENSITY AND REPLACE SLAB WITH REINFORCED CONCRETE. IF COMPACTION DOES NOT MEET 95% DENSITY DEFORMED EPOXY COATED BARS WILL BE REQUIRED.
- (b) ALSO APPLIES TO DISTANCE FROM END OF TRENCH TO UTILITY CUT.
- (c) DEFORMED BARS SHALL CONFORM TO THE "TIED JOINT, Trg" DETAIL.
- (d) DEFORMED BARS USED IN Trg JOINTS SHALL BE EPOXY COATED ACCORDING TO THE CURRENT STANDARD SPECIFICATIONS.



PLAN VIEW PAVEMENT REPLACEMENT (CONCRETE PAVEMENT OR CONCRETE BASE COURSE)



TIED JOINT, Trg, Concrete



TIED JOINT, Trg, Composite

DEFORMED BARS SHALL BE GROUTED INTO EXISTING PAVEMENT WITH A GROUT SELECTED FROM THE QUALIFIED PRODUCTS LIST FOUND IN MDT'S "MATERIALS SAMPLING GUIDE".

WHEN CONSTRUCTING THE FIRST POUR OF A CAST-IN-PLACE PAVEMENT REPAIR LESS THAN 20' LONG, THE Trg TIED JOINT SHOULD BE PLACED ON THE END CLOSEST TO THE APPROACHING TRAFFIC AND SHALL EXTEND ACROSS THE ADJACENT LANE REPAIRS ON THE SAME END.

IF COLD PATCH MATERIAL IS USED IN LIEU HOT-MIX ASPHALT FOR A WINTER PATCH, THIS MATERIAL SHALL BE REMOVED AS SOON AS PRACTICABLE IN WARMER WEATHER AND REPLACED WITH PERMANENT PATCH OF HOT-MIX MATERIAL.

WHEN THE PATCH IS AGGERGATE AND BITUMINOUS, THE ASPHALTIC MIXTURE SHALL BE EITHER A 13A OR 36A. COMPACTION SHALL BE ACCOMPLISHED BY MEANS OF A POWERED ROLLER OR VIBRATOR COMPACTOR.

WHEN CURB, CURB AND GUTTER, VALLEY GUTTER AND/OR SHOULDERS ARE REMOVED OR DAMAGED AS PART OF THE UTILITY CUT, THEY SHALL BE REPAIRED OR REPLACED IN KIND USING LANE TIES AND REINFORCEMENT WHERE REQUIRED: SEE STANDARD PLAN R-30 SERIES FOR CURB AND GUTTER, R-33 SERIES FOR VALLEY GUTTER, AND R-112 SERIES FOR SHOULDERS-FREEWAYS. LANE TIES SHALL BE INSTALLED AT ONE-HALF THE THICKNESS ± 3/4" OF THE LEAST THICK CONCRETE STRUCTURE (PAVEMENT, CURB AND GUTTER, VALLEY GUTTER OR SHOULDER).

EXCESS EXCAVATED MATERIAL SHALL BE PROMPTLY REMOVED. WHEN MATERIALS AND EQUIPMENT ARE STORED, THE AREA USED SHALL BE RESTORED TO ITS ORIGINAL CONDITION.

THE USE OF TEMPORARY TAPE MARKINGS WILL BE ALLOWED DURING CONSTRUCTION. EXISTING PAVEMENT MARKINGS WILL BE REPLACED IN KIND AS SOON AS POSSIBLE. EXISTING MARKINGS WHICH CAUSE DRIVER CONFUSION SHALL BE REMOVED.

UTILITIES - PERMITS SECTION
REAL ESTATE DIVISION



PERMIT NO. _____
TRUNKLINE _____
NAME OF PERMIT _____
APPLICANT _____

PERMIT ATTACHMENT FOR
UTILITY CUTS, TRENCHES AND
PAVEMENT REPLACEMENT

04-11-01
PLAN DATE

PA-01

SHEET
01 OF 02

THESE PROVISIONS, AS SPECIFIED, ARE PART OF MDOT FORM #2205,
INDIVIDUAL APPLICATION AND PERMIT
FOR USE OF STATE TRUNKLINE RIGHT OF WAY.

Location of Description:

The following details shown on this drawing are incorporated into the permit as indicated:

Pavement Shall be Replaced by:

- Concrete (6 Sacks /CYD.)
- High Early Strength Concrete (9 Sacks /CYD.)
- Rapid Set Concrete
- Hot-Mix Bituminous over Aggregate Base Course
- Temporary Cold Patch
- Hot-Mix Bituminous over Bituminous Base Course
- Hot-Mix Bituminous over Concrete Base Course
- Other - Specify:-----

If Concrete Pavement:

- Deformed Bars (R-44 Series)
- Lane Tie-Pavement Repair (R-44 Series)
- Load Transfer (Dowel Basket, R-40 Series) Replacement Required (if Removed)
- Steel Reinforcement - 42 Lbs. / 100 ft2 (Sidewalk Mesh)
- Steel Reinforcement - 65 lbs / 100 ft2


Backfill Required:

- Existing Material
- Granular Material (Clean Sand)
- Flowable Fill for Utility Trenches (See Attached Special Provision)
- Other - Specify:-----

Density Requirement:

- 9" Layers with Hand Vibrator Compaction
- Controlled Density (Inspection Required)
- Controlled Density (Certified Density Records Required)

Special Requirements:

UTILITIES - PERMITS SECTION REAL ESTATE DIVISION 	PERMIT NO. _____ TRUNKLINE _____ NAME OF PERMIT _____ APPLICANT _____	PERMIT ATTACHMENT FOR UTILITY CUTS, TRENCHES AND PAVEMENT REPLACEMENT		
	04-11-01 PLAN DATE	PA-01	SHEET 02 OF 02	