

10 HEADING

THE HEADINGS IN THIS PERMIT ARE MERE CATCHWORDS FOR THE CONVENIENCE OF THE READER AND DO NOT LIMIT OR RESTRICT THE APPLICATION OF THE PROVISIONS. THE SPECIAL PROVISIONS OF THIS PERMIT NEED TO BE READ TOGETHER FOR A COMPLETE UNDERSTANDING OF THE REQUIREMENTS.

11 HEADING - INSPECTION**I. INSPECTION****12 METRO - SUPERVISOR AND DRAINAGE**

The installation authorized in this permit will be inspected by {permit.inspectorInfo}. The applicant or its contractor will notify MnDOT's inspector at least two days prior to starting the installation. Any questions the applicant may have pertaining to MnDOT's storm water facilities shall be presented at this time. MnDOT's inspector will approve all highway materials prior to placement, and the total installation must meet with his/her satisfaction.

Attached is a drainage map that satisfies the requirements for MnDOT storm water utility locates per Minnesota Statutes 216D and Minnesota Rules 7560.0250. By acceptance of a permit from MnDOT, the applicant agrees that it, and all of its agents or contractors, shall use MnDOT's drainage map to identify the location of MnDOT drainage facilities as satisfaction of the requirements of Minnesota Statutes Ch. 216D and Minnesota Rules 7560.0250 with respect to MnDOT's storm water drainage facilities.

The applicant will provide its own inspector at all times while on trunk highway right of way.

13 OUTSTATE - SUPERVISOR OR METRO PROJECT ENGINEER

The installation authorized in this permit will be inspected by {permit.inspectorInfo}. The applicant or its contractor will notify MnDOT's inspector at least two days prior to starting the installation. MnDOT's inspector will approve all highway materials prior to placement, and the total installation must meet with his/her satisfaction.

The applicant will provide its own inspector at all times while on trunk highway right of way.

15 HEADING - ALL PERMITS**II. ALL PERMITS****16 ALL PERMITS**

The contractor performing the work must carry a copy of the issued utility permit while working on state highway right of way.

This permit is issued subject to the applicant's compliance with the Minnesota Pollution Control Agency's General National Pollution Discharge Elimination System (NPDES) Permit for Construction Activities and any other affected Governmental Agencies.

The applicant must comply with all local ordinances and required local permits.

The applicant must comply with measures to protect the environment, including but not limited to: protection measures for specimen trees and environmentally sensitive areas; steps required to preserve the scenic quality of the highway; erosion control measures; turf establishment; use and disposal of treated wood/trash/waste and asbestos; and the disposal of waste material outside of the right of way. More information can be found in the Environmental Requirements document at: http://dotapp7.dot.state.mn.us/cyberdocs_guest/quickstart.asp?show=view:1397164&noframes=yes

The applicant will preserve and protect all MnDOT facilities. If MnDOT determines that the applicant or its contractor has damaged any MnDOT facilities during its construction activities, the applicant will repair or replace these facilities to the satisfaction of the Assistant District Maintenance Engineer.

The applicant must preserve all existing survey monuments. If MnDOT determines that the applicant has disturbed or destroyed monuments during its construction activities, the applicant will accept full responsibility for all costs incurred in reestablishing the monuments.

Within 30 days of completing the installation, the applicant must furnish to the Assistant District Maintenance Engineer the Certificate of Completion Form (furnished with permit) and a set of "AS BUILT" plans as stated on the Certificate of Completion.

17 NO MATERIAL ON ROADWAY

The applicant will not deposit any material on the traveled roadway.

18 WORKING GEAR

All persons while performing authorized work on MnDOT Right of Way shall be required to wear a High Visibility Safety Garment that meets or exceeds ANSI/ISEA 107 2004 Standards for a Class 2 garment for daytime hours and a Class 3 garment with pants for nighttime hours or low light conditions. In addition, all persons shall be required to wear a high visibility soft cap or ANSI Z 89 approved hard hat while working on the MnDOT Right of Way.

20 HEADING - GSOC

III. Gopher State One Call

21 GOPHER STATE ONE CALL - ALL

It is the applicant's responsibility to utilize the "Gopher State One Call" excavation notice system required under Minnesota Statute Chapter 216D, 48 hours before performing any excavation (phone 811 or 651-454-0002 Twin Cities Metro Area or Toll Free 1-800-252-1166 or on the web at: www.gopherstateonecall.org/).

It is the Applicants/Operators responsibility to register its facilities with the GSOC system, per 216D statutes.

The applicant will coordinate its proposed installation with other existing facilities in the area. If working within State construction project limits the applicant will also coordinate with other proposed facilities in the area.

The contractor will mark proposed excavation with paint and flags, or in lieu of flags, with stakes. All flags and stakes must display the name and phone number of the contractor. All areas of proposed excavation will be considered "practical" under Minnesota State Statute 216D.05 (2).

The contractor must acquire a Positive Response confirmation from MnDOT for all proposed excavations when the Gopher State One Call indicates MnDOT utilities may be affected. The Contractor may call MnDOT Electrical Services Section (ESS) Dispatch Locating to confirm the status of MnDOT's Utility infrastructure. The contractor can contact MnDOT Electrical Services Section (ESS) Dispatch Locating at the following phone numbers: 651-366-5750 or 651-366-5751.

The use of the term "abandoned" in this permit document and the submitted sketches shall mean that the facility is "left in place, out of service", and the facility remains the responsibility of the utility owner.

25 HEADING - STATE CONSTRUCTION PROJECTS
IV. STATE CONSTRUCTION PROJECTS

26 ON A STATE PROJECT WITH EXISTING FACILITIES TO BE MOVED (N & O)

The applicant will complete the relocation in accordance with the Notice and Order.

27 ON A STATE PROJECT (UTILITY TO WORK WITH CONTRACTOR)

The applicant will coordinate the work and placement of the facility with the State's contractor and will not interfere with the State's operations. Upon completion of the facility construction, the applicant must restore drainage and slopes to the State's Project Engineer's satisfaction. If facility construction disturbs pollution control measures the State's contractor installed according to the National Pollutant Discharge Elimination System permit for the project the applicant must restore these measures to the State's Project Engineer's satisfaction.

30 HEADING - WORK HOURS AND ROAD CONDITIONS
V. WORK HOURS AND ROAD CONDITIONS

31 OUTSTATE - WORK HOURS

The applicant will not perform work that restricts or interferes with traffic between 12:00 Noon on the day preceding and 6:30 a.m. on the day following any consecutive combination of a Saturday, Sunday, and, when applicable, a Legal Holiday without the Assistant District Maintenance Engineer's written permission.

32 METRO - WORK HOURS

The applicant will not perform work that restricts or interferes with traffic between 12:00 Noon on the day preceding and 6:30 a.m. on the day following any consecutive combination of a Saturday, Sunday, and, when applicable, a Legal Holiday without the Assistant District Maintenance Engineer's written permission.

No work involving interference with or causing a distraction to traffic will be allowed from 6:00 a.m. to 9:00 a.m. and from 3:00 p.m. to 6:00 p.m. unless authorized by the MnDOT Metro Permit Inspector.

33 WEATHER AND ROAD CONDITION RESTRICTIONS

The applicant shall not perform any work or have any equipment on the roadway system (mainline, shoulder area, ditch bottoms) when weather or road conditions are hazardous due to snow, ice, rain or dust; when visibility is less than a 1/4 mile; or when winds or wind gusts prevent the safe operation of equipment. It is the applicant's responsibility to monitor local weather reports or MN511 to determine satisfactory working weather conditions. Minnesota road condition information is available at the web site www.511mn.org. Work may be shut down for weather and/or safety reasons at any time at the discretion of the Assistant District Maintenance Engineer.

35 HEADING - GENERAL
VI. GENERAL

36 MATERIALS ON R/W, ALL- EXCEPT METRO

The applicant must not place materials on highway right of way more than one week in advance of their use.

37 MARKERS FOR ALL EXCEPT SEWER & WATER LINES, AND AERIAL

The applicant will place markers at the right of way line where there is a change of direction and at driveways. Post mount markers will be a minimum of 36 inches above ground, and use a size and color the uniform color code recommends for that Utility.

38 KNOW FUTURE HIGHWAY CONSTRUCTION IS COMING (EXCEPT INTERSTATE ROADS)

This permit is granted with the condition that if the applicant must adjust, relocate, or remove its facilities because of trunk highway construction, the cost will be entirely at the applicant's expense.

39 EROSION CONTROL, ALL

Conditions may require temporary measures to control erosion and sedimentation. The applicant will install any temporary erosion measures concurrently with the operation or as soon as practicable. Temporary erosion controls are short lived devices such as straw bale structures, silt curtains, sediment traps or other means to temporarily protect the overall work prior to restoration of the

worksite. The Assistant District Maintenance Engineer will decide when these measures are required according to the 2018 MnDOT Standard Specification for Construction 2573.

40 RAILROAD, WHEN TH CROSSES RAILROAD

By this permit MnDOT has granted permission to the utility to occupy space within MnDOT's highway easement or highway right of way. A permit may also be required from the railroad for utility parallel installations or crossings of railroad property. It is the responsibility of the utility to contact the railroad and determine whether a permit from the railroad is required.

45 HEADING - AERIAL FACILITIES

VII. AERIAL FACILITIES

46 EXISTING AERIAL CABLE BEING REPLACED (REMOVAL REQUIREMENTS)

The applicant must remove all replaced aerial facilities no more than thirty days after completing the installation. If the applicant fails to remove the aerial facilities before the thirty-day deadline, the applicant must arrange with the Assistant District Maintenance Engineer to obtain a Misc. Work Permit (Form 1723) in all instances that the Assistant District Maintenance Engineer considers necessary.

47 AERIAL AND OTHER LARGE POWER LINE CROSSINGS (GUARD POLES)

The applicant will not place guard poles or substitutions on the right of way before conductor stringing without prior review and approval of the proposed installation by the Assistant District Maintenance Engineer.

48 HOUSE MOVING ROUTES ONLY - METRO (MINIMUM HEIGHT)

All aerial crossings on house moving routes must be a minimum height of 24 feet. If the applicant cannot meet this minimum clearance, it will bury the crossing at a minimum depth of 5 feet below the road surface. See the web site at: <http://www.dot.state.mn.us/cvo/oversize/maps.html> for further information.

49 AERIAL MINIMUM CLEARANCE AND DOWN GUYS

The minimum aerial clearance must be 22 feet on all road crossings. If the applicant cannot meet this minimum clearance, it must bury the crossing at a minimum depth of 5 feet below the road surface.

All down guys and anchors, including breakaway types, must be placed out of the MnDOT clearzone.

50 AERIAL POWER, GROUNDING

The applicant shall design, construct, and operate the power line in a manner that the maximum induced steady-state short-circuit current shall be limited to five milliamperes, root mean square (rms) alternating current between the ground and any non-stationary object within the highway right of way, including but not limited to large motor vehicles and maintenance or construction supplies, equipment or vehicles. The applicant shall ensure that all fixed metallic objects on or adjacent to the highway right of way, including but not limited to signs, light standards and fences that parallel or cross the right of way, are properly grounded to the extent necessary to limit the induced shortcircuit current between ground and the object so as not to exceed one milliampere rms under steady-state conditions of the power line and to comply with the ground fault conditions specified in the National

Electric Safety Code. The applicant shall be responsible for the maintenance of these obligations for as long as the aerial power line remains in operation and shall, on a regular basis, inspect all fixed metallic objects for proper grounding.

51 AERIAL RELOCATE

This permit is granted with the condition that if the applicant must adjust, relocate, or remove its facilities within existing non-interstate highway right-of-way (subject to this permit, including but not limited to the "blow-out" of wires over the trunk highway right-of-way) because of any improvements or changes on all or any part of said non-interstate right-of-way, the cost for such adjustment, relocation, or removal will be entirely at the applicant's expense. Within interstate right of way, Minnesota Statutes and Rules will prevail in regards to cost.

60 HEADING - BURIED FACILITIES
VIII. BURIED FACILITIES

61 FIELD STAKE - ALL

The applicant will field stake the proposed installation as to location and elevation. The State's inspector will inspect the line in the field before installation starts.

63 CABLE CONSTRUCTION (EQUIP AT R/W)

The applicant will place all pedestals, transformer cabinets, or underground vaults at the right of way line or on private property. The State's inspector must approve all exceptions to this provision prior to their installation.

**64 FIBER OPTIC CABLE CONNECTIONS ON THE I-94 FIBERWAY (CONNECT MN PROJECT)
(LOCATION OF FACILITIES)**

The applicant must install all above ground or buried pedestals, vaults and transformer cabinets, excluding those for MnDOT use, outside of the right of way and on private property. The state's inspector must approve all exceptions prior to installation. The applicant must bundle conduits that cross MnDOT right of way.

**65 WHEN WORKING AROUND MNDOT FIBER - ANYWHERE MNDOT MAY HAVE FIBER,
CAMERAS, SIGNALS**

The applicant will use extreme caution when working around MnDOT fiber optic cables. The cable is typically a direct buried armored cable, placed approximately 36 inches deep, with a stretchable, orange warning tape, approximately 12 inches below the surface.

The applicant will hand dig when exposing the MnDOT fiber optic cable. The applicant will seal all nicks or abrasions of the cable jacket with a rubber splicing tape and seal all nicks or abrasions that penetrate the jacket to the armor with a cast epoxy kit. 3M Scotchcast kits Scotch #23 rubberized splicing materials are approved repair kits. Prior to making repairs the applicant must contact the Traffic Management Center construction pager, 612-640-6815.

The applicant will not exceed the bending radius while handling and rerouting the cable. The allowable bending radius is 20 times the diameter of the cable.

When construction occurs over the fiber optic cable, the applicant must protect the cable by placing either a split RSC or a split PVC encased in concrete (approximately 1 foot square) over the entire length of the cable affected by the work.

The applicant can contact the Traffic Management Center construction pager, 612-640-6815, Monday through Friday, 6:00 a.m. to 4:30 p.m. for information regarding work around the fiber optic cable.

66 DEEP TRENCHING, POWER & TELEPHONE MANHOLES, WATERMAIN AND SEWER (SHEET AND SHORE)

According to OSHA requirements, the applicant must sheet and shore all excavations, trenching and/or jacking and boring pits. The applicant will not leave any trench unsheeted overnight.

68 PARALLEL FACILITIES AND CROSSINGS (JACK OR BORE OTHER HARD SURFACED ROADS) - AS NEEDED

The applicant will jack or bore all public roads and hard surfaced entrances at a minimum depth of 5 feet below the road surface.

69 ALL BURIED CROSSING (RULES REFERENCE)

The applicant must jack or bore installation pursuant to the requirements of Paragraph (1), Section F of the Rules and Regulations or Minnesota Rules part 8810.3600, paragraph 1 and restrict open trenching to the five foot (10 foot on freeways) minimum beyond the shoulders of each roadway to the right of way line. If obstructions in the roadbed force the applicant to discontinue or abandon jacking or augering operations, the applicant must grout any voids the operations caused to the State inspector's satisfaction. The applicant will not use jetting equipment.

70 CROSSING OF PIPES AND CASINGS (6 INCHES IN DIAMETER AND LARGER) (GROUT AND JACK SPECS AND VOID FILL)

The applicant will use a simultaneous grouting and jacking or boring procedure. The jacking system must have an integral grouting and casing tube with positive piston pressure on the grout throughout the jacking operations.

All voids caused by jacking or boring shall be filled by pressure grouting. The grout material shall consist of a sand-cement slurry with a maximum 28-day compressive strength of 1000 psi and a minimum amount of water to assure satisfactory placement.

71 ALL LARGE CROSSINGS, JACKING OR BORING (NOT DIRECTIONAL BORING) (SPECS)

The applicant must use a boring and jacking machine that:

- * Is fixed rail type.
- * Has the capability to control the flow of material at the face.
- * Has the ability to conform to the line and grade and the size and shape of the liner or casing.
- * Is able to grout the outside of the casing.

MnDOT must approve the lead cutting edge of the boring and jacking machine before work begins. If the applicant will use an auger, MnDOT must approve the type and head location before work begins.

MnDOT must approve all types of grout and backfill material.

MnDOT must approve the length of casing.

MnDOT must approve the final elevations of manholes or any structures.

If a void develops, the applicant must stop jacking or boring until the void is filled by a MnDOT approved method.

The applicant will not jack or bore below the watertable until it has been dewatered.

The applicant will place Piezometers in locations required by MnDOT.

The applicant will use a shield with some method to control the flow of materials when jacking pipe and the shield or machine must conform to the size and shape of the pipe.

72 CASING LENGTH (CROSSINGS WITH CASINGS, JACKED OR BORED)

Encasement must be provided under center medians, from top of backslope to top of backslope for cut sections, five feet beyond toe of slope and under fill sections, five feet beyond face of curb in urban sections and all side streets, and five feet beyond any structure where the line passes under or through.

73 DEWATERING PLAN (ALL LARGE INSTALLATIONS DEEP TRENCH DEPTH WITH POSSIBLE WATER)

For any dewatering or pumping operations, the applicant must submit a detailed plan for approval to the Assistant District Maintenance Engineer.

74 ALL FACILITIES, EXCEPT POWER (MINIMUM DEPTH)

The applicant will place all buried utility facilities at a minimum depth of 36 inches.

Facilities that cross ditches will be placed at a minimum of 36 inches below the original ditch grade.

75 ALL BURIED CROSSINGS (MINIMUM DEPTH)

The applicant will place all buried crossings at a minimum depth of 5 feet below the road surface.

When crossing under high tension cable guard rail, guard rail on either side of bridges (bull pen), and/or end treatment posts a minimum depths of 10 feet below the road surface is required.

76 ALL PLASTIC PIPES 4" AND GREATER PLACED BY OPEN TRENCH METHOD, EXCEPT GAS DISTRIBUTION (ASTM STD)

The applicant will perform all plastic pipe installation procedures according to ASTM D 2774 (Pressure Pipe) or ASTM D 2321 (Non Pressure Pipe).

79 PIPE BURSTING PART 1

The pipe bursting contractor shall be certified and satisfactorily trained by the pipe bursting system manufacturer and shall be a licensed installer of the manufacturer's pipe bursting system.

A contingency plan must be developed for unforeseen obstructions that stop or delay the operation, unforeseen deflections, the development of excessive surface heaving or subsidence, the repair to damaged existing utility installations, or the spot repair of the existing line being burst.

The utility will have a Minnesota Department of Health (MDH) certified asbestos consultant on site to inspect exposed pipe prior to bursting operations (unless documentation can be provided that identifies the type of pipe originally installed as having no asbestos material) and in accordance with the following. Contractor must contact the MnDOT inspector to coordinate on site MDH certified asbestos inspector two (2) days in advance of exposing pipe at bursting pits.

* No bursting operations shall begin until MDH certified asbestos inspector validates that that the pipe exposed at the insertion and receiving pit is non asbestos containing pipe.

* If no asbestos containing material is found by the MDH certified asbestos inspector, the inspector will document, notify the MnDOT inspector, and file, then bursting operation can proceed.

* If suspect asbestos containing material is found along a segment, a minimum of 3 samples per suspect material will be obtained.

* If laboratory analysis indicates non-asbestos containing materials, document and file, and bursting operations can proceed.

* If laboratory analysis indicates asbestos containing material along a segment pipe bursting will not be allowed

The pipe bursting tool shall increase the external dimensions sufficiently, causing breakage of the existing pipe at the same time expanding the surrounding ground. Simultaneously, the new pipe, directly attached to the expander, shall also move forward. Follow the manufacturer's specifications for what size tool should be used in what diameter of pipe, as well as parameters of what size tool for percentage of upsize allowed. The bursting head shall incorporate a shield/expander to prevent

collapse of the hole ahead of the pipe insertion.

Pipe bursting shall not be allowed when another unprotected utility or facility is within 2.5 feet from the bursting head.

80 PIPE BURSTING PART 2

Access pits shall be placed and located to minimize the total number of pulls and maximize the length of pipe replaced per pull, and within the constraints of the maintaining service. Access pits shall be located at points near specific repair locations whenever possible.

Settlement/Heaving Monitoring

* The method used shall minimize the movement of the ground in front of, above, and surrounding the

boring operation; and will minimize subsidence of the surface above and in the vicinity of the boring.

* Potential heave or settlement shall be monitored at each edge of right of way, each shoulder point, each edge of pavement, the edge of each lane (or centerline for two lane roads), and otherwise at 50 foot intervals along the pipe centerline.

* A survey shall be performed one day prior to initiating this operation at each required monitoring location. A similar survey shall then be performed at each location, on a daily basis, until the permitted activity has been completed. All survey readings shall be recorded to the nearest one-hundredth (0.01) of a foot. Digital photographs of the pavement conditions shall also be taken prior to and after the pipe installation

*All operations shall stop immediately whenever monitored points indicate a vertical change in elevation of 1/2 inch or more, or any surface disruption is observed. The Contractor shall then immediately report the amount of settlement/disturbance to the MnDOT Inspector.

90 HEADING - BURIED POWER LINES

IX. BURIED POWER LINES

91 BURIED POWER (DEPTHS AND SEPARATION REQUIREMENTS)

The applicant will place the higher voltage cables at the greater depth at crossings of other facilities. The separation will be one foot, except for the random lay of joint facilities in a common trench. The depth must meet code requirements.

Parallel facilities will be placed at a minimum depth of 42 inches (48 inches preferred).

Facilities that cross ditches will be placed at a minimum of 42 inches below the original ditch grade. The applicant will place lower voltage cables for street lighting systems at a minimum depth of 24 inches.

95 HEADING - BURIED GAS FACILITIES AND PIPELINES

X. BURIED GAS FACILITIES AND PIPELINES

96 GAS FACILITIES (NO ABOVE GROUND VALVES OR REGULATORS ON R/W)

The applicant will not place above ground valves or regulators on the highway right of way.

97 GAS FACILITIES (VENT PIPES AT R/W)

The applicant will place all vent pipes at the right of way line or on private property.

98 CROSSING ELEVATIONS OF LARGE PIPELINES (6" AND LARGER) UNDER PRESSURE (LIQUID) (AS BUILT ELEVATION

No more than 30 days after completing the installation, the applicant will furnish the Assistant District Maintenance Engineer with "AS BUILT" elevations at each end of the facility, or right of way lines if a complete crossing, and/or at all changes of direction in the facility. Longitudinal installations require elevations at every break in grade or at intervals not to exceed 200 feet. These elevations must be of Sea Level Datum 1929 tied into the U.S. Level Net. The applicant will identify elevation points by highway stationing and the distance out from the centerline of in-place or proposed roadways.

99 LARGE GAS PIPELINES (6" AND LARGER) CROSSING WITH NO CASING (POLICY REFERENCE)

The applicant must comply with the applicable requirements pertaining to this crossing as stated in the MnDOT Utility Accommodation and Coordination Manual, Utility Accommodation Section pages 26 to 28.

105 HEADING - BURIED WATER HEADING
XI. BURIED WATER

106 WATER FACILITIES (NO ABOVE GROUND VALVES OR REGULATORS ON R/W)
The applicant will not place above ground valves or regulators on the highway right of way.

110 HEADING - TRAFFIC CONTROL
XII. TRAFFIC CONTROL

111 OPEN TRENCHING WITH OR WITHOUT DETOUR (DETOUR APPROVAL AND HALF ROADWAY OPEN TASKS)

The applicant may detour traffic with the Assistant District Maintenance Engineer's prior approval. The applicant or its contractor must prepare and maintain the detour at its own cost.

When no detour is required the applicant must perform the following tasks to keep half of the traveled roadway open to traffic at all times: trench and sheet half of the roadbed, lay utility facility, backfill and surface the trench, and restore traffic before disturbing the other half of the roadbed.

113 ALL BURIED FACILITIES (MAINTAIN TWO WAY TRAFFIC)
The applicant must maintain two-way traffic at all times.

116 AERIAL (LANE CLOSURE, LAW ENFORCEMENT OFFICER AND ADVANCE SIGNING)

Aerial Facilities will not interfere with traffic at any time unless prior approval from the District Permit Office has been received. Additionally the applicant will notify the permit office at least 48 hours before a lane closure or for any other interference to traffic flow. The applicant will provide uniformed law enforcement officers with appropriately equipped vehicles to provide traffic control for aerial crossings of trunk highways. Traffic may only stop for five minutes, or as directed by the uniformed law officer. The applicant must use advance signing that conforms to Minnesota's "Temporary Traffic Control Zone Layouts Field Manual" (January 2018). (See website at: www.dot.state.mn.us/trafficeng/publ/index.html).

117 ALL PERMITS (CLEAR ZONE, TRAFFIC CONTROL DEVICES, & LAYOUT, FLAGGER REQUIREMENT)

Any permanent signs or permanent traffic barriers (including crash cushions) installed on the State Highway system must be deemed crashworthy under the American Association of State Highway and Transportation Officials (AASHTO) "Manual for Assessing Safety Hardware, 2016 (MASH-16)".

There will be no work within the clear zone and no pipe materials, equipment or other objects stored within the clear zone without the prior approval of the Assistant District Maintenance Engineer. Any work approved within the clear zone or objects stored within the clear zone must be protected by a traffic barrier. If the pit or excavation is open overnight the applicant must use appropriately applied temporary traffic barrier to protect it. The clear zone is defined in the "Temporary Traffic Control Zone Layouts Field Manual" (January 2018). (See website at:

www.dot.state.mn.us/trafficeng/publ/index.html). If temporary traffic barrier is used, it will be placed according to the "MnDOT Temporary Barrier Guidance Manual" (December 2018). (See website at:

<http://www.dot.state.mn.us/trafficeng/workzone/doc/Temporary%20Barrier%20Guidance%20Manual%20181129.pdf>) Any temporary traffic barrier (including crash cushions) must be deemed crashworthy under MASH-16.

The applicant will furnish, install, and maintain all required traffic control devices according to Minnesota's "Temporary Traffic Control Zone Layouts Field Manual" (January 2018)(see website at: www.dot.state.mn.us/trafficeng/publ/index.html), while performing the construction authorized by this permit. All temporary traffic control devices used must be deemed crashworthy under MASH-16, with exceptions as stated in MnDOT Technical Memorandum No. 19-03-T-01 Crashworthy Requirements for Temporary Traffic Control Devices. (See memo at: <http://dotapp7.dot.state.mn.us/edms/download?docId=2434220>)

Any person acting as a Flagger for permitted work shall have attended a training session taught by a MnDOT Qualified Flagger Trainer within the twelve months immediately preceding the start date of all flagging activity. A Flagger shall receive a Flagger Qualification Card, signed by a MnDOT Qualified Flagger Trainer, upon successful completion of this training. During all flagging activity, a Flagger must carry a signed Flagger Qualification Card on that Flagger's person and be in possession of a current Minnesota Flagging Handbook. The Minnesota Flagging Handbook is available from MnDOT Qualified Flagger Trainers or from a MnDOT District Office.

If the temporary traffic control zone is to remain in place for more than 3 days or involves a detour, road closure or a situation where the typical layouts do not apply, the applicant will prepare a specific Traffic Control Plan for MnDOT approval prior to the start of any construction.

125 HEADING - RESTORATION HEADING
XIII. RESTORATION

126 ALL LARGE PIPES & PIPELINES IF IT APPLIES (TESTING LIQUIDS DISPOSAL)

The applicant will dispose of all water and other liquids used in testing outside the roadbed in a manner the State's inspector approves. The applicant will drain any saturated soils in the pipeline tie in area of the roadbed, or if necessary, remove and replace with suitable material that the State's inspector approves. The applicant will not place and compact backfill material in layers that exceed 12 inches.

127 ALL RESTORATION OF TRENCH (BACKFILLING AND COMPACTION)

The applicant will use material removed from the trench and/or inspection hole for backfilling, if suitable. The applicant will remove all rocks from the trench and/or inspection hole. No rock shall be replaced in the trench or inspection hole, but shall be removed from the site by the applicant. To secure satisfactory compaction, backfilling will consist of approved material tamped mechanically (maximum 12 inch layers). The applicant must immediately repair the shoulders and roadways disturbed by these operations with suitable and approved material to conform to existing grades. The applicant must restore drainage and slopes. The applicant must restore any settlement.

128 OPEN TRENCHING OF SURFACED AND/OR GRADED MNDOT ROADS (BACKFILLING AND COMPACTION)

The applicant will use material removed from the trench and/or inspection hole for backfilling, if suitable. The applicant will compact and consolidate all backfill material in the upper three feet of the grading cross section of the roadbed by mechanical means to a density which is 100% of the maximum density of the material specified as defined in the 2014 MnDOT Standard Specification for Construction 2105. The applicant will compact backfill material below the upper three feet of the grading cross section of the roadbed to 95% density as defined above. The applicant or its contractor will provide any additional material required to backfill to the original grade at no expense to the State. The applicant must restore any settlement.

130 OPEN TRENCHING OF SURFACED MNDOT ROAD (PAVEMENT REQUIREMENTS)

The applicant must extend the pavement opening one foot beyond each edge of the trench and extend to all existing cracks or joints located five feet or less from the edge of the trench. The pavement must be cut with a saw and to such depth that will assure a clean break. The replacement pavement slab will be to existing grade and cross section. Until such time that MnDOT decides to repair or

replace the surrounding roadway sections the applicant is responsible for the repair and maintenance of the replaced road section. The replaced road section is to be built with a road life that is the same or better than the surrounding roadway sections.

Bituminous Pavement repairs shall be made in accordance with MnDOT Specification 2360. A minimum of 6 inches of aggregate base Class 5 shall be placed under the bituminous pavement. The District Permits Office should be consulted for the specific mix design requirements of the bituminous pavement.

Concrete Pavement slab replacements shall be made in accordance with the MnDOT Concrete Pavement Rehabilitation Program and Special Provisions. A memo outlining the procedures can be found at: www.dot.state.mn.us/materials/concretedocs/2012%20cpr%20memo.pdf

The repair details can be found at: www.dot.state.mn.us/materials/concretepavement.html. The most typical repairs are the Type CD-HV and the Type CX.

The MnDOT 2302 Concrete Pavement Rehabilitation (CPR) Special Provisions are located at: www.dot.state.mn.us/pre-letting/prov/pdf/sp2005.pdf

132 RESTORE ENTRANCES (ALL THAT APPLY)

The applicant will satisfactorily restore all entrances it disturbs during the operations.

133 RESTORE CURB AND/OR SIDEWALK TO ADA STANDARDS - ALL THAT APPLY

The applicant will satisfactorily restore all curb and/or sidewalk it disturbs during its operations. Any disturbed pedestrian curb ramps and sidewalk shall be constructed to the new ADA (American Disability Act) standards based on guidance found in the MnDOT Curb and Ramp Guidelines Document at: www.dot.state.mn.us/ada/pdf/curbramp.pdf. Further information can be found at the MnDOT website: www.dot.state.mn.us/ada/design.html

134 DRAINAGE CONCERNS - ALL

The applicant will locate and stake all drainage tile lines to location and elevation.

The applicant will restore all drainage structures it removes or damages to a condition as good as or better than before operations began.

135 FENCING CONCERNS - ALL AS NEEDED

The applicant will replace or restore all permanent fencing it removes or damages during the operations.

The applicant must place temporary fencing until permanent fencing is replaced or restored.

136 TOPSOIL, SEED & SOD - ALL AS NEEDED

All areas disturbed by the applicant shall be restored with a minimum of 6" of topsoil (according to MnDOT Standard Specification 3877 Table 1 Common Topsoil Borrow), then sodded or seeded. Seed or sod should be the same as/or compatible with the existing turf cover. If the areas are to be seeded, a MnDOT seed mixture comparable to the existing turf along with Category 3 blanket with all natural netting and stitching shall be used according to MnDOT Specification 2575.

When frozen conditions prevent the applicant from completing turf restoration the applicant must temporarily stabilize the disturbed area. Use seed mix 22-111 following the winter seeding method and type 1 mulch following the winter mulching method in the 2018 MnDOT Standard Specification for Construction section 2575. The applicant is responsible for completing final turf restoration prior to May 15 of the following spring.

137 FILLING LEFT-IN-PLACE OUT-OF-SERVICE PIPES (6" AND LARGER)

All pipes 6 inches and larger left-in-place out-of-service shall be filled by pressure grouting. The grout material shall consist of a sand-cement slurry with a maximum 28-day compressive strength of 1000 psi and a minimum amount of water to assure satisfactory placement.

140 HEADING - VEGETATION

XIV. VEGETATION

141 TREE & PLANT CARE - ALL THAT APPLY

The applicant will replace in kind all plants or trees it removes or damages during its operations. The Assistant District Maintenance Engineer must approve all tree trimming or clearing.

The applicant will dispose of trees, brush, stumps, roots, and other debris or byproducts by chipping, tub grinding, or marketing. Chip/mulch can be used as erosion control for the project, however, any mulch/chip and debris not used will be removed from the right-of-way. If stumps are not ground out, they must be cut no higher than 3 inches above the ground line and treated with an herbicide to inhibit re-sprouting. If the stump is treated, the applicant must submit a record of herbicide application to the Assistant District Maintenance Engineer. Dispose of ash, pine, elm, and oak wilt infected trees in accordance with proper forestry disposal standards that prevent spreading insects and disease pests.

Do not market ash trees to the wood-using industries or individuals without having an Emerald Ash Borer compliance agreement with the Minnesota Department of Agriculture. Do not make ash or non-coniferous species with bark attached available to the public for use as firewood from the quarantined area. Do not transport entire ash trees, limbs, branches, logs, chips, ash lumber with bark, stumps, and roots outside of a quarantined county without fulfilling the requirements of an Emerald Ash Borer compliance agreement with the Minnesota Department of Agriculture. Contact the Minnesota Department of Agriculture to speak with a regulatory official and visit the Minnesota Department of Agriculture Emerald Ash Borer website to determine the quarantine area.

Dispose of ash trees in accordance with the following:

- (1) The Emerald Ash Borer compliance agreement, and
- (2) Use the ash wood chips within the construction limits for erosion control, construction exit pads, or landscaping purposes.

To prevent the spread of oak wilt, the applicant will avoid all wounds to oak trees during April, May and June. If the applicant's operations result in wounds to oak trees during these months, including roots, the applicant must immediately treat wounds with a latex based paint.

The applicant will protect all specimen trees and other plants that are designated to remain during operations with fencing when necessary. The applicant will place temporary fencing prior to starting any utility work and leave in its original position until all work is completed.

Except as designated by the Assistant District Maintenance Engineer, the applicant may not store material, equipment, vehicles, or carry on any construction operation inside the dripline of any tree.

On trees designated to remain during operations, the applicant will cleanly and immediately cut off any roots it exposes or damages inside the critical root zone area and immediately place topsoil over the exposed area. If the applicant wounds a tree designated to remain, they must notify the Assistant District Maintenance Engineer.

For more information see the Environmental Requirements document found at:
www.dot.state.mn.us/utility/guidance.html

142 TREE TRIMMING AND/OR CLEARING - ONLY IF INDICATED ON APPLICATION - TIMING REQUIREMENT

Permittee must follow the MnDOT / USFWS tree clearing guidelines found at:
<http://dotapp7.dot.state.mn.us/edms/download?docId=1812444>.

*If a “tree” has a diameter of 3” or greater at 4.5’ aboveground no tree clearing allowed June 1 to August 15, inclusive on MnDOT right-of-way.

*Clearing greater than or equal to one (1) acre, or 20 + individual trees, on MnDOT right-of-way must occur during the winter months (Nov. 1 to March 31, inclusive).

*Clearing less than one (1) acre, or less than 20 individual trees, on MnDOT right-of-way may occur August 16 to May 31, inclusive, if within 100’ from the roadway surface. Clearing trees beyond 100’ of the roadway surface must occur during the winter months (Nov. 1 to March 31, inclusive).

143 RUSTY-PATCHED BUMBLE BEE -- HIGH POTENTIAL ZONE

Any damage to vegetation or soil caused by the applicant will be the responsibility of the applicant to repair. This project is located within a U.S. Fish and Wildlife Service identified High Potential Zone for the rusty-patched bumble bee. Bare ground caused by the operation will require reseeding using native seed mixes, except areas historically maintained as mowed lawn. Permittee may use MnDOT approved native seed mixes identified in the MnDOT Seeding Manual. Alternative native seed mixes may be used with prior written approval by the MnDOT Wildlife Ecologist. All seed mixes must contain native milkweed species.

145 HEADING - MISCELLANEOUS - ALL (USE FOR BONDS)
XV. MISCELLANEOUS

146 SPECIAL CASE FACILITIES ON FREEWAY (HARDSHIP)

MnDOT will charge the applicant for any additional identifiable costs incurred by the Department in accommodating existing utility facilities during maintenance operations and reconstruction projects. These costs include but are not limited to the following:

1. Design
 - A. Data collection.
 - B. Determination of the different phases of the reconstruction project.
2. Reconstruction
 - A. Cost to work around the utility.
 - B. Delays caused by the utility's inability to move their facility.
 - C. Construction claims due to delays.
3. Maintenance
 - A. Delays in maintenance due to the failure to locate their facility.

The applicant agrees to waive all future claims to relocation costs caused by any maintenance or reconstruction of the transportation system that require the utility to relocate its facilities. Violation of any conditions of the permit in any of the above conditions may be cause to revoke the permit.

147 ALL FACILITIES THAT DO NOT HAVE A CONTINUING BOND

The applicant or its contractor must furnish a certified check or surety bond in the amount of {permit.space_or_fmt_bond_amt}, in favor of the State of Minnesota, Commissioner of Transportation.

148 CITY OF MINNEAPOLIS (ADD BRAD BLACKHAWK TO CC ON WORK SHEET)

This permit is approved but subject to the further recommendations of the City of Minneapolis. Contact Utility Connection at 612 673 2451.

149 ST CLOUD AREA PERMITS (COPY TO SCOTT SCHRIEBER CITY OF ST CLOUD, 400 2ND ST S, 56301

The applicant must comply with all local ordinances and required local permits.

ST CLOUD AREA PERMITS (COPY TO SCOTT SCHRIEBER CITY OF ST CLOUD, 400 2ND ST S, 56301)

150 DISTRICT 3B - MAINTENANCE SUPERVISOR TO CONTACT

Applicant must contact the Sub Area Maintenance Supervisor, _____, at phone number _____, 24 hours prior to starting work to make sure that your work does not interfere with any State Maintenance Work going on in the area.

151 ROADSIDE VEGETATION MANAGEMENT REQUIREMENTS - ONLY IF MEMO

ROADSIDE VEGETATION MANAGEMENT (RVM) REQUIREMENTS:

There is potential impact to vegetation on MnDOT Right of Way. The attached Memo and RVM photo(s) show these locations. Follow the requirements in the RVM Memo and shown on the photo(s). Changes in the permitted alignment must be approved by the District Permits Office prior to any work in the field.

DIRECTIONAL BORING UNDER TREE ROOTS IS REQUIRED

152 CULTURAL RESOURCES REQUIREMENTS - ONLY IF MEMO

CULTURAL RESOURCES (CRU) REQUIREMENTS:

There is potential impact to a cultural resource on MnDOT Right of Way. The attached Memo describes this location. Follow all requirements in the attached Cultural Resources Memo. Changes in the permitted alignment must be approved by the Cultural Resources Unit prior to any work in the field.

153 CONTAMINATED AND REGULATED MATERIALS REQUIREMENTS - ONLY IF MEMO

CONTAMINATED AND REGULATED MATERIALS (C&RM) REQUIREMENTS:

There is potential impact to contamination on MnDOT Right of Way. Follow all requirements in the attached memo. Changes in the permitted alignment must be approved prior to any work in the field.

154 THREATENED AND ENDANGERED SPECIES REQUIREMENT - ONLY IF MEMO

THREATENED AND ENDANGERED SPECIES (TES) REQUIREMENTS:

There is potential impact to a threatened and/or endangered species on MnDOT Right of Way. Follow all requirements in the attached Memo. Changes in the permitted alignment must be approved by the Threatened and Endangered Species Unit prior to any work in the field.