

DIVISION ST

Section		Page
No.	Item	No.
ST-1	(2104) REMOVING MISCELLANEOUS STRUCTURES	1-ST
ST-2	(2564) TRAFFIC SIGNS AND DEVICES	3-ST

DELETE WHEN DONE: To Update Table of Contents Right Click on the index above and choose Update Field. If given a choice choose "Update Entire Table".

I hereby certify that the Special Provisions for traffic sign construction (Division ST) contained in this proposal were prepared by me or under my direct supervision and that I am a duly licensed Professional Engineer under the laws of the State of Minnesota.

Engineer Name

Lic. No. **XXXXXX** Date _____

DIVISION ST

ST-1 (2104) REMOVING MISCELLANEOUS STRUCTURES

This work shall consist of removing or salvaging miscellaneous structures in accordance with the provisions of Mn/DOT 2104 and the following:

ST-1.1 CONSTRUCTION REQUIREMENTS

The Contractor shall give 14 calendar days advance notice to Dave DeSutter, General Manager, Minnesota Logos, at 952-895-8079 to have him arrange to remove the Logo signs designated in the Plan as "SALVAGE BY OTHERS".

The Contractor shall give 14 calendar days advance notice to Jeffrey Streeter at 651-366-5191 or Dave Tody at 651-366-4373 to have him arrange to remove the **Exit** signs designated in the Plan as "SALVAGE BY OTHERS". **Use for existing signs that have slip bases.**

A Remove Sign Type C and Type D

NOTE: the Contractor shall schedule the work so that no sign is removed (that is being replaced by a new sign) unless the new sign is installed the same work day. Use for sign replacement projects.

For each mast arm mounted sign being removed, the Contractor shall remove the bracketing and hardware attaching each sign panel to the traffic signal mast arm.

For each sign mounted on a light fixture, the Contractor shall remove the bracketing and hardware attaching each sign panel to the light fixture.

For each bridge rail mounted sign being removed, the Contractor shall remove the bridge rail mounted sign structure and mounting hardware and fill anchorage holes in concrete with epoxy grout.

For each bridge mounted sign being removed, the Contractor shall remove the sign panel, mounting hardware and bridge mounted sign structure and fill anchorage holes in concrete with epoxy grout and plug holes in steel with galvanized high strength steel bolts, washers and nuts upon removal of the bridge mounted sign structure.

B Remove Sign Type Special

The Contractor shall completely remove the entire street name sign structure, including concrete footings.

C Salvage Sign Type C and Type D

The Contractor shall inform the Engineer or his representative of any damaged in place sign panel prior to salvaging so a deduction will not be made.

When salvaging a sign panel, the Contractor shall remove the nuts, bolts and washers in such a manner so as not to damage the sign panel, and dispose of the sign structure and nuts, bolts and washers. If the Contractor damages any sign panel, he shall dispose of the damaged, and fabricate a new, sign panel in accordance with Mn/DOT 2564.2F and Section ST-2 of these Special Provisions, at no cost to the Department **or City of __, __ County.**

The salvaged sign panels, which will be installed under Install Sign Type __, should be stored in a manner to prevent damage to the aluminum sign panels and the sign sheeting materials. The Contractor shall NOT:

Store sign panels laying on the ground

Allow reflective surfaces to come in contact with dirt, water and grass

Store sign panels covered with plastic or a tarp

D Salvage Sign Type Special

The Contractor shall inform the Engineer or his representative of any damaged in place sign prior to salvaging so a deduction will not be made.

When salvaging each sign, the Contractor shall salvage the sign post with the bracket assembly and street name plates attached. If the Contractor damages any sign post, bracket assembly and/or street name plates, he shall dispose of the damaged, and fabricate a new, sign post, bracket assembly and/or street name plates marker in accordance with Mn/DOT 2564.2F and Section ST-2 of these Special Provisions, at no cost to the Department *or City of __, __ County.*

The salvaged signs, which will be installed under Install Sign Type Special, should be stored in a manner to prevent damage to the sign post, bracket assembly and street name plates. The Contractor shall NOT:

- Store sign panels laying on the ground
- Allow reflective surfaces to come in contact with dirt, water and grass
- Store sign panels covered with plastic or a tarp

E Salvage Sign Panel Type C

The Contractor shall inform the Engineer or his representative of any damaged in place sign panel prior to salvaging so a deduction will not be made.

When salvaging a sign panel, the Contractor shall remove the nuts, bolts and washers in such a manner so as not to damage the sign panel. If the Contractor damages the sign panel, he shall dispose of the damaged, and fabricate a new, sign panel in accordance with Mn/DOT 2564.2F and Section ST-2 of these Special Provisions, at no cost to the Department *or City of __, __ County.*

The salvaged sign panel, which will be installed under Install Sign Panel Type C, should be stored in a manner to prevent damage to the aluminum sign panels and the sign sheeting materials. The Contractor shall NOT:

- Store sign panels laying on the ground
- Allow reflective surfaces to come in contact with dirt, water and grass
- Store sign panels covered with plastic or a tarp

F Salvage Sign Panel Type Special

(use if mounting above Type C sign on U-channel post—not permitted in Metro)

The Contractor shall inform the Engineer or his representative of any damaged in place sign panel prior to salvaging so a deduction will not be made.

When salvaging street name sign panels, the Contractor shall salvage the street name plates *(note if there are two plates mounted back to back)* and bracket assembly with the sign panels remaining attached to the bracket assembly, and the mounting hardware attaching the bracket assembly to the flanged channel sign post(s). If the Contractor damages any bracket assembly and/or street name plates, he shall dispose of the damaged, and fabricate a new, bracket assembly and/or street name plates in accordance with *City of __, __ County* specifications, Mn/DOT 2564.2F and Section ST-2 of these Special Provisions, at no cost to the Department *or City of __, __ County.*

The salvaged sign panel, including bracket assembly and mounting hardware, which will be installed under Install Sign Panel Type Special, should be stored in a manner to prevent damage to the aluminum sign panels and the sign sheeting materials. The Contractor shall NOT:

- Store sign panels laying on the ground
- Allow reflective surfaces to come in contact with dirt, water and grass
- Store sign panels covered with plastic or a tarp

G Salvage Delineator and Marker

The Contractor shall inform the Engineer or his representative of any damaged in place delineator or marker prior to salvaging so a deduction will not be made.

When salvaging a delineator or marker, the Contractor shall remove the nuts, bolts and washers in such a manner so as not to damage the delineator or marker, and dispose of the sign structure and nuts, bolts and washers. If the Contractor damages any delineator or marker, he shall dispose of the damaged, and fabricate a new, delineator or marker in accordance with Mn/DOT 2564.2F and Section ST-2 of these Special Provisions, at no cost to the Department *or City of __, __ County*.

Salvaged delineators and markers, which will be installed under Install Delineator and Install Marker, should be stored in a manner to prevent damage to the aluminum sign panels and the sign sheeting materials. The Contractor shall NOT:

- Store sign panels laying on the ground
- Allow reflective surfaces to come in contact with dirt, water and grass
- Store sign panels covered with plastic or a tarp

ST-1.2 METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Payment for Item No. 2104.509 (REMOVE SIGN TYPE __) at the contract price per EACH shall be compensation in full for all work, material and costs involved in performing the work as specified above and in the Plan.

Payment for Item No. 2104.523 (SALVAGE SIGN TYPE __), (SALVAGE SIGN PANEL TYPE __), (SALVAGE DELINEATOR) and (SALVAGE MARKER) at the contract price per EACH shall be compensation in full for all work, material and costs involved in performing the work as specified above and in the Plan.

ST-2 (2564) TRAFFIC SIGNS AND DEVICES

Traffic signs shall be constructed in accordance with the provisions of Mn/DOT 2564, except as modified below:

ST-2.1 MATERIALS

Sign Face and Sign Legend Materials

All signs, markers and delineators, including the numerals on M1-5A Route Markers and M1-5B Type Overlays, shall be fabricated with either Sign Sheeting for Rigid Permanent Signs, Delineators and Markers (Type IX or Type XI), except as specified below:

Sign face material for certain warning signs specified in Mn/DOT 2564.2F3 shall be fluorescent yellow green reflective sheeting.

Sign face material for all other warning signs, yellow markers and yellow delineators shall be fluorescent yellow reflective sheeting, except for the following:

Sign face material for yellow Delineators Type Cylinder Style shall be flexible ASTM Type III MD retroreflective sheeting.

Sign face material for sign panels with brown background shall be white reflective sheeting. Sign legend material for these sign panels shall be brown electronic cuttable (EC) film in accordance with Mn/DOT 2564.2F4. Before applying the brown EC film to the sign face material, the Contractor shall:

Cut and weed out all legend and border (specified on the sign panel detail[s]) in the Plan) from the brown EC film – do NOT cut and weed out the brown EC film that will be covered by Sign Panels Type Overlay (route markers, etc.).

Apply the weeded brown EC film to the sign face material (white reflective sheeting).

Apply the brown EC film “corner” pieces that are located outside the border that fill in the square corners of the sign panel.

Sign face material for the M1-5A Route Marker and the M1-5B Type Overlay shall be as specified in Mn/DOT 2564.2F3.

Sign face material for X4-2 Hazard Markers shall be non-reflectorized black.

Sign face material for white Delineators Type Cylinder Style shall be ASTM Type V or ASTM Type VII MD reflective sheeting.

Sign legend material for colors other than black may be screened in accordance with Mn/DOT 3352.2A5c.

Sign legend material for black legend shall be in accordance with Mn/DOT 3352.2A5c or Mn/DOT 3352.2A5d.

Sign legend material for Hazard Marker X4-2 shall be fluorescent yellow reflective sheeting.

The retroreflective sheeting types and qualified products used for rigid permanent signs, markers and delineators can be found at: <http://www.dot.state.mn.us/products/index.html>.

ST-2.2 CONSTRUCTION REQUIREMENTS

The Contractor shall install Department furnished warning stickers on new Type C and D sign panels in accordance with Mn/DOT 2564.3H. The Contractor shall give 30 days advance notice to **Jeff Streeter at 651-366-5191 (Metro, for other districts, use maintenance area sign supervisor)** prior to picking up the Department furnished warning stickers.

The Contractor shall notify Dave DeSutter, General Manager, Minnesota Logos, at 952-895-8079 to have him arrange to install the Logo signs designated in the Plans as “INSTALLED BY OTHERS”.

Mn/DOT 2564.3U – ADD the following at the end of this section:

For all other signs being replaced under this contract, the Contractor shall schedule the work so that a new Type C or Type D sign (that is replacing a sign being removed) is installed the same work day that the in place sign is removed. *Use for sign replacement projects.*

For each new single or set of reference post marker(s), the Contractor shall:

Furnish and install a new 3 lb/ft. flanged channel post at the location to be determined in the field by the Engineer and at the offset detailed in the Plan.

Attach the new marker or set of markers to the sign post with stainless steel bolts, nuts and washers and nylon washers at the mounting height detailed in the Plan. If two markers are mounted back to back, install a nylon washer against the face of each marker to prevent damage to the sheeting materials.

For each new reference post marker attached to a new Type C or Type D sign structure, the Contractor shall attach the marker, at the mounting height designated in the Plan, to the left sign post with new mounting hardware detailed in the Plan.

For each salvaged delineator or marker, the Contractor shall:

Furnish and install a new 3 lb/ft. flanged channel post at the location to be determined in the field by the Engineer and at the offset detailed in the Plan.

Attach the salvaged delineator or marker to the flanged channel post with new mounting hardware at the mounting height detailed in the Plan.

The Contractor shall install each salvaged Sign Type Special, at the location to be determined in the field by the Engineer, at the same embedment depth as the salvaged sign.

For salvaged street name sign panels, the Contractor shall attach the salvaged bracket assembly (with the street name plates attached), with the salvaged mounting hardware, to the sign post(s) as directed by the Engineer. The bottom of the bracket assembly shall be mounted a minimum of six inches above the Type C sign panel. (use spec if mounting street name sign above Type C sign on U-channel post)

For each Sign Panel Type Special, the Contractor shall furnish and install street name plates, bracket assemblies and mounting hardware, and sign posts as detailed in the Plan. The location of each sign post will be determined in the field by the Engineer.

ST-2.3 POST AWARD DATA (if requested by the district)

SignCAD Millennium (Program Version 8.24) panel layout files for panel layouts shown in the plan are available electronically upon project award. To request these files, please contact NAME at email.address@state.mn.us or PHONE NUMBER.

Mn/DOT believes the electronic data it will provide is accurate, but MnDOT provides no guarantee or warranty, express or implied, concerning the accuracy of the data and the Contractor shall not act in reliance on the data without verifying the data against the contract documents. The documents originally provided with the Contract remain the basis of the Contract, and the electronic data that will be provided at the Request of the Contractor is provided only for the convenience of the Contractor. Therefore, if use of this data causes an error, omission, unacceptable work, or work not in conformance with the contract documents, then any costs to the Contractor to make corrections as a result of this error will not be considered "extra work", and the Contractor will not be entitled to an adjustment of contract time.

ST-2.4 METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Payment for Item No. 2564.531 (SIGN PANELS TYPE _) at the contract price per SQUARE FOOT shall be compensation in full for all work, materials and costs involved in performing the work as specified above and in the Plan.

Payment for Item No. 2564.550 DELINEATOR TYPE __), Item No. 2564.551 (REFERENCE POST MARKER), Item No. 2564.552 (HAZARD MARKER X4-2), Item No. 2564.553 (CLEARANCE MARKER X4-4), Item No. 2564.554 (SNOW PLOW MARKER X4-5), and Item No. 2564.555 (END OF ROADWAY MARKER X4-11) at the contract price per EACH shall be compensation in full for all work, materials and costs involved in performing the work as specified above and in the plan.

Payment for Item No. 2564.602 (INSTALL DELINEATOR), (INSTALL MARKER), and (INSTALL SIGN TYPE SPECIAL) at the contract price per EACH shall be compensation in full for all work, materials and costs involved in performing the work as specified above and in the Plan.