SCHEDULE OF PROPOSAL ITEMS

ITEM NO	DESCRIPTION	UNIT	QUANTITY

GENERAL NOTES

CRITERIA

THE CONTRACTOR SHALL BE GOVERNED BY THE STANDARDS AND REQUIREMENTS OF THE FOLLOWING PUBLICATIONS, EXCEPT AS MODIFIED BY THE SPECIAL PROVISIONS OF THIS CONTRACT.

DESIGN

F H W A - "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", 2003 MILLENNIUM EDITION AND SUBSEQUENT REVISIONS. (M.U.T.C.D.)

A A S H T O - "HIGHWAY SAFETY DESIGN AND OPERATIONS GUIDE" -1997

A·A S H T O - "STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS LUMINAIRES AND TRAFFIC SIGNALS", 2001 EDITION (CATEGORY II FOR ALL STRUCTURES).

MARYLAND STATE HIGHWAY ADMINISTRATION - "MARYLAND SUPPLEMENT TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES," - 1997 EDITION AND SUBSEQUENT REVISIONS.

MATERIALS AND CONSTRUCTION

MARYLAND STATE HIGHWAY ADMINISTRATION - "STANDARD SPECIFICATIONS FOR CONSTRUCTION & MATERIALS", 2001 EDITION AND SUBSEQUENT SUPPLEMENTS.

DESIGN WIND

65 MPH - WOOD SUPPORTS
90 MPH - OVERHEAD AND CANTILEVER STRUCTURES } DISTRICT 1, 2, 5 & 6 (GARRETT COUNTY ONLY)

60 MPH - WOOD SUPPORTS
80 MPH - OVERHEAD AND CANTILEVER STRUCTURES } DISTRICTS 3, 4, 6 (EXCEPT GARRETT COUNTY) & 7

80 MPH - GROUND MOUNT SIGN STEEL SUPPORT - ALL DISTRICTS

DESIGN. STRESS

SOIL BEARING PRESSURE - S = 3,000 P.S.F. (ASSUMED)
SEE MATERIAL & CONSTRUCTION ABOVE AND SPECIAL PROVISIONS FOR DESIGN STRESSES FOR STRUCTURAL STEEL, ALUMINUM, REINFORCING STEEL AND CONCRETE.

CHAMFER

ALL EXPOSED EDGES OF CONCRETE SHALL HAVE A 3/4" X 3/4" CHAMFER.

CLASSIFICATION OF SIGNS

SIGNS ARE DIVIDED INTO TWO (2) GENERAL CATEGORIES.

1 GUIDE SIGNS
- A) STRUCTURAL TYPES
  - OH - OVERHEAD
  - C - CANTILEVER
  - GM - GROUND MOUNT, BREAKAWAY OR NON-BREAKWAY
  - BM - BRIDGE MOUNTED
- B) PANELS
  - MATERIAL - EXTRUDED ALUMINUM
  - COPY - DEMOUNTABLE
    - 1) BUTTON REFLECTOR (REVISIONS TO EXISTING SIGNS)
    - 2) HIGH INTENSITY (NEW SIGNS AND REVISIONS TO EXISTING SIGNS)

2 STANDARD SIGNS (REGULATORY, WARNING, ETC.)
- A) STRUCTURAL TYPES
  - WOOD SUPPORTS
  - GALVANIZED STEEL 'U' CHANNEL
- B) PANELS
  - MATERIAL - SHEET ALUMINUM
  - COPY - NON-DEMOUNTABLE

IDENTIFICATION OF SIGNS AND PANELS

GUIDE SIGNS

EACH GUIDE SIGN IS IDENTIFIED BY A SIGN NUMBER ON THE PLANS AND IN THE TABULATIONS. PANELS ON GUIDE SIGNS ARE IDENTIFIED WITH A NUMBER AND WHERE VARIATIONS OCCUR, A LOWER CASE LETTER.

STANDARD SIGNS

STANDARD SIGNS ARE IDENTIFIED BY PANEL NUMBERS AND ARE CLASSIFIED AS FOLLOWS
- R - REGULATORY
- W - WARNING
- M - ROUTE MARKERS AND ACCESSORIES
- D - DESTINATION AND MILEAGE PANELS
- S - SCHOOL

PANELS SHALL BE DESIGNATED TO AGREE WITH MARYLAND STANDARD SIGN BOOK.

PANEL LAYOUT AND ALPHABETS

1. GUIDE SIGN PANEL LAYOUTS ARE BASED ON THE A.A.S.H.T.O. MANUALS NOTED ABOVE.
2. STANDARD SIGN PANEL LAYOUTS ARE BASED ON THE M.U.T.C.D. WITH SPECIFICATIONS DETAILED IN THE MARYLAND STATE HIGHWAY ADMINISTRATION PUBLICATION, "STANDARD SIGN BOOK", AVAILABLE THROUGH THE SHA CASHIER'S OFFICE.

REFLECTORIZATION

BACKGROUNDS, BORDERS, TEXTS AND ALL OTHER ELEMENTS OF SIGN PANELS SHALL BE REFLECTORIZED EXCEPT WHERE NOTED.

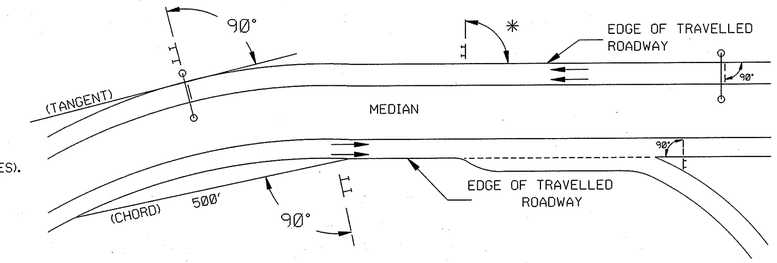
SIGN LOCATIONS

1. GUIDE SIGNS ARE LOCATED ON THE PLANS BY DIMENSION TO SURVEY STATIONS, OR WHEN NECESSARY, TO IDENTIFIABLE PHYSICAL FEATURES.
2. ALL CHANGES IN THE LOCATIONS OF SIGNS AS SHOWN ON THE PLAN SHALL HAVE THE PRIOR APPROVAL OF THE ENGINEER.

EXISTING UTILITIES

THE ENGINEER DOES NOT WARRANT OR GUARANTEE THE ACCURACY OR COMPLETENESS OF UTILITY INFORMATION SHOWN ON THE PLAN. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE AND PROTECT ALL EXISTING FACILITIES WHICH MIGHT BE AFFECTED BY THIS WORK OR HIS OPERATION.

ORIENTATION OF SIGN FACES



* UNDER 30 FEET FROM TRAVELLED ROADWAY TO NEAR EDGE OF SIGN - 93° TO AVOID SPECULAR REFLECTION AS INDICATED IN 813.03 OF THE MARYLAND STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MATERIALS.

OVER 30 FEET FROM TRAVELLED ROADWAY TO NEAR EDGE OF SIGN - 90°

ROADSIDE SIGNS

1. VERTICAL ALIGNMENT
   POSITION PANEL SO FACE IS PLUMB.
2. HORIZONTAL ALIGNMENT (SEE DIAGRAM ABOVE)
   - A). ON STRAIGHT ROADWAY SECTIONS, ANGLE OF SIGN FACE TO ROADWAY VARIES WITH DISTANCE FROM TRAVELLED ROADWAY TO NEAR EDGE OF SIGN - SEE DIAGRAM.
   - B). ON THE INSIDE OF HORIZONTAL CURVES, POSITION SIGN SO FACE OF PANEL MAKES AN ANGLE OF 90° WITH A CHORD BETWEEN A POINT ON NEAR EDGE OF PAVEMENT AT SIGN LOCATION AND A POINT ON EDGE OF PAVEMENT 500' IN ADVANCE OF SIGN.
   - C). ON THE OUTSIDE OF HORIZONTAL CURVES, POSITION SIGN SO FACE OF PANEL IS AT RIGHT ANGLES TO THE TANGENT OF THE CURVE AT THE SIGN LOCATION.
   - D.) POSITIONING OF SIGNS AT GORES AND RAMP SEPARATIONS IS REFERRED TO THE NORMAL EDGE OF THE MAINLINE ROADWAY.

OVERHEAD SIGNS

1. VERTICAL ALIGNMENT
   POSITION PANELS FOR ALL OVERHEAD STRUCTURES SO THAT PANEL FACE IS PLUMB.
2. OVERHEAD SIGN STRUCTURES SHALL NOT BE ERECTED WITHOUT ATTACHING LUMINARIES SUPPORTS AND/OR SIGN.
3. HORIZONTAL ALIGNMENT
   - A). POSITION ALL OVERHEAD SIGNS SO THAT THE FACE OF THE PANEL IS AT RIGHT ANGLES TO THE NORMAL EDGE OF ROADWAY, IF ON A STRAIGHT ROADWAY SECTION.
   - B). POSITION ALL OVERHEAD SIGNS SO THAT THE FACE OF THE PANEL IS AT RIGHT ANGLES TO THE TANGENT OF THE CURVE AT SIGN LOCATION, IF ON A HORIZONTAL CURVE.
   - C). POSITIONING OF SIGNS AT GORES AND RAMP SEPARATIONS IS REFERRED TO THE NORMAL EDGE OF THE MAINLINE ROADWAY.
4. VERTICAL CLEARANCE
   - A). OVERHEAD SIGNS SHALL HAVE A MINIMUM VERTICAL CLEARANCE OF 17'-9" FROM ROADWAY TO THE BOTTOM OF LIGHT FIXTURES. ALL LIGHT FIXTURES ARE TO BE AT THE SAME ELEVATION ONLY ON AESTHETIC STRUCTURES.
   - B). IF THE CONTRACTOR CANNOT OBTAIN 17'-9" (SEE 3A) CLEARANCE, HE IS TO CEASE WORK AND CONTACT THE PROJECT ENGINEER FOR FURTHER INSTRUCTIONS. THE PROJECT ENGINEER MAY CONTACT THE TRAFFIC ENGINEERING DIVISION FOR ASSISTANCE.
   - C). ON UNLIT OVERHEAD SIGNS, THE MINIMUM CLEARANCE TO BOTTOM OF SIGN: 20'-9".

PROJECT REQUIREMENTS

1. ALL NEW SIGNS ON THIS PROJECT ARE TO HAVE NON-REFLECTIVE (BLACK COPY) OR HIGH-INTENSITY REFLECTIVE (ALL OTHER COLORS) SHEETING BACKGROUND AND COPY. REFLECTIVE SHEETING SHALL BE TYPE III ENCAPSULATED LENS REFLECTIVE ELEMENT MATERIAL.
2. ALL NEW EXTRUDED ALUMINUM PANELS ARE TO HAVE DEMOUNTABLE COPY.
3. ALL NEW SHEET ALUMINUM SIGNS ARE TO HAVE NON-DEMOUNTABLE COPY.
4. THE FOLLOWING MINIMUM THICKNESS SHALL BE USED FOR THE APPROPRIATE WIDTH OF SHEET ALUMINUM BLANKS.

LONGEST DIMENSION	MINIMUM THICKNESS
UP TO 12"	0.040"
GREATER THAN 12" TO 24"	0.063"
GREATER THAN 24" TO 36"	0.080"
GREATER THAN 36" TO 48"	0.100"
OVER 48"	0.125"

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
MD 28 (NORBECK ROAD) AT WINTERGATE DRIVE
SIGNING, MARKING AND LIGHTING

APPROVALS	REVISIONS
TEAM LEADER: Jeffrey A. Herkel for MCH	
ASST. DIV. CHIEF: Amy H. Beall for JS 12/21/05	
DIVISION CHIEF: Wanda Wood 1/3/06	
OFFICE DIRECTOR: 1/5/06	

GENERAL NOTES AND PROPOSALS

SCALE NONE DATE 10/2005 CONTRACT NO. M06285187

DESIGNED BY SM
DRAWN BY AMT
CHECKED BY BAB
F.A.P. NO. SEE TITLE SHEET
COUNTY MONTGOMERY
LOGMILE 15002828.27–15002828.43
T.I.M.S. NO. H082
TOD NO.

DRAWING NO. SN-1 OF SHEET NO. 15 OF 18

PLOTTED: 12/12/2005
FILE: I:\PROJECTS\11294\17-MD28\SIGNING\PSN-1000_MD31.DGN

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BY: THOMPSMA