

SECTION 14: LANDSCAPING AND BEAUTIFICATION

RULE 14.1 GENERAL PROVISIONS

- 14.1.1 The rules and guidelines contained in this section have been established to provide proper guidelines for the beautification of Wayne County roadways and to promote and protect the health, safety and welfare of the motoring public, pedestrians, other users and adjacent property owners.
- 14.1.2 A permit is required from the Permit Office to construct, place, remove, modify or maintain materials of any kind for the purposes of landscaping or beautification.

RULE 14.2 AUTHORIZED APPLICANT

- 14.2.1 The authorized applicant shall be an owner(s) of the property abutting the County right-of-way where the landscaping is proposed, by an agent of the abutting property owner(s) or by the municipality within which the project is located.

RULE 14.3 PERMIT REQUIREMENTS

- 14.3.1 An application shall be accompanied by four (4) sets of plans complying with the plan requirements detailed in Rule 2.5 of this manual and clearly indicating:
 - a) Type and location, limit and dimensions of project
 - b) Descriptions of proposed plant materials, ground coverings and above ground objects
- 14.3.2 Proposed and existing physical features including, but not limited to, pavement, curbs, shoulders, ditches, driveways, sidewalks, hydrants, manholes, poles and signs.
- 14.3.3 A municipal resolution will be required for the following type of projects:
 - a) Projects in which a municipality is the permit Applicant
 - b) Projects in which the proposed landscaping or beautification treatment extends in front of the property of an owner who is not the permit Applicant
 - c) Projects involving work in the median island of a divided County road
 - d) Projects involving the installation of street furniture, ornamental light poles, signs or similar above ground objects.
- 14.3.4 If a resolution is required, a certified copy of the resolution where the municipality approves the project and agrees to:
 - a) Maintain the permitted landscaping or beautification materials at no expense to the County
 - b) Indemnify the County, incorporating the provisions listed in Rule 11.2.1 of this manual.
 - c) Authorize a municipal official to sign the permit.

- 14.3.5 Permit Not Required - A permit is not required for the installation or maintenance of grass seed, sod or flowers less than fifteen (15") inches in height provided that the personnel and equipment involved do not occupy the traveled roadway or create or cause in any way a hazard or impedence to motorists or pedestrians.
- 14.3.6 Single Tree Permit - A property owner requesting permission to plant a single tree (only) in front of its property within a County road right-of-way should contact the Wayne County Forestry Office for information and permit application:

Wayne County Department of Public Services
Forestry Office - Merriman Yard Field Office
7651 Merriman Road
Westland Michigan 48185
Telephone: (313) 522-7370

- 14.3.7 Encroachment Permits - Architectural features such as awnings, marquees, mansard roofs or signs projecting into the County road right-of-way and supported by a building or other structure located outside of the road right-of-way may be permitted under an encroachment permit issued by the Permit Office. Permitted encroachments shall comply with the County's standards and procedures for allowable encroachments. These standards and procedures are presented in Section 12: *Encroachments Permits*, of this manual.

RULE 14.4 DESIGN STANDARDS

- 14.4.1 The placement of any structure, device or planting within a County road right-of-way may create a safety hazard or maintenance problem by obstructing sight distance at intersections, interfering with the unencumbered movement of pedestrians or cyclists, presenting a crash obstacle to emergency or errant off-road vehicle operation, visually distracting motorists, causing loose materials to be dispersed within the traveled way, obstructing drainage, preventing adequate storage space for plowed snow or promoting improper vehicle parking within the road right-of-way.
- 14.4.2 The purpose of the design standards presented in the following sections is to permit appropriate landscaping or beautification within a County road right-of-way without producing these adverse safety and maintenance effects.
- 14.4.3 The design standards identify permissible and non-permissible types of landscaping design and materials and establish criteria for determining minimum sight distance and horizontal clearance requirements.
- 14.4.4 Permissible Landscaping - Within the standards and guidelines contained in this document, the following landscaping or beautification features may be permitted in a County road right-of-way:
- a) Plantings including grass, ground cover, flowers, shrubs and trees;
 - b) Artificial shrubs and trees;
 - c) Street furniture such as benches, bicycle racks, trash receptacles, tree guards, ornamental light poles and planter boxes;
 - d) Earthen berms or mounds;

- e) Aggregate materials, such as rounded gravel or crushed stone, grouted in place;
- f) Underground lawn sprinkling systems;
- g) Decorative or maintenance paving including back of curb splash strips;
- h) City or township identification signs;
- i) On local roads within a subdivision, one subdivision identification sign, per entrance. If the entrance has a boulevard, the sign shall be placed in the boulevard area.
- j) Temporary banners or decorative devices conforming to Wayne County rules in Rule 11.5: *Special Events Permits*.
- k) Commemorative statues or plaques
- l) Specific rules and conditions regarding these permitted landscaping features are included in subsequent sections.

14.4.5 Non-Permissible Landscaping

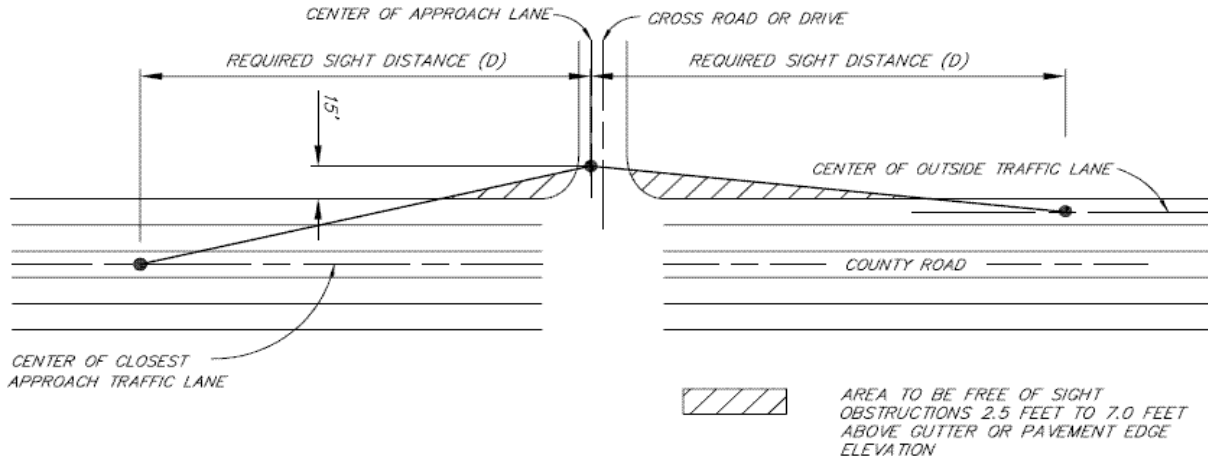
The following landscaping features are not permitted within the Wayne County road right-of-way:

- a) Boulders, railroad ties, fences, gates, playground equipment, decorative statues, concrete bumper blocks and similar miscellaneous above ground objects;
- b) Signs other than official road signs, city, township or subdivision name signs or signs affixed to buildings in accordance with Wayne County encroachment standards as stated in Section 12: *Encroachments Permits*;
- c) Sign poles or billboards;
- d) Loose materials of any kind;
- e) Surface paving for purposes of parking in the road right-of-way;
- f) Flashing lights or fixed lights which may be distracting to motorists or confused with traffic control devices;
- g) Steps, terraces or curbs other than road curbs or driveway curbs;
- h) Any structure or device used to promote or display commercial goods or services or to disseminate political information;
- i) Plantings, walls, signs, entrance markers or other structural elements will not be permitted within clear vision areas, sight distance or sight distance triangles at driveways or road approaches;
- j) Landscaping that interferes with drainage facilities, easements or access to such facilities for maintenance purposes;

14.4.6 Sight Distance

- a) Above ground landscaping materials shall not be placed at or near the intersection of a County road with another road or driveway so as to obstruct or partially obstruct required intersection sight distance. The required obstruction-free sight triangle for intersecting roads and driveways under posted or implied STOP control or under traffic signal control is defined in Figure 14.1. This sight triangle shall be clear of all unnecessary sight obstructions for vertical elevations between 2.5 feet and 7.0 feet above gutter or edge of pavement elevation.

Figure 14-1



INTERSECTION SIGHT TRIANGLE

INTERSECTION SIGHT DISTANCE			
		INTERSECTION SIGHT DISTANCE FOR PASSENGER CARS	
DESIGN SPEED	STOPPING SIGHT DISTANCE	CALCULATED (FT)	DESIGN (FT)
15	80	165.4	170
20	115	220.5	225
25	155	275.6	280
30	200	330.8	335
35	250	385.9	390
40	305	441.0	445
45	360	496.1	500
50	425	551.3	555
55	495	606.4	610
60	570	661.5	665
65	645	716.6	720
70	730	771.8	775
75	820	826.9	830
80	910	882.0	885

Intersection sight distance shown is for a stopped passenger car to turn left onto a two-lane road with no median and grades 3 percent or less. For other conditions, the time gap must be adjusted and required sight distance recalculated.

DESIGN INTERSECTION SIGHT DISTANCE LEFT TURN FROM STOP

DESIGN VEHICLE	TIME GAP AT (t)(SECONDS) AT DESIGN SPEED OF MAJOR ROAD
PASSENGER CAR	7.5
SINGLE UNIT TRUCK	9.5
COMBINATION TRUCK	11.5

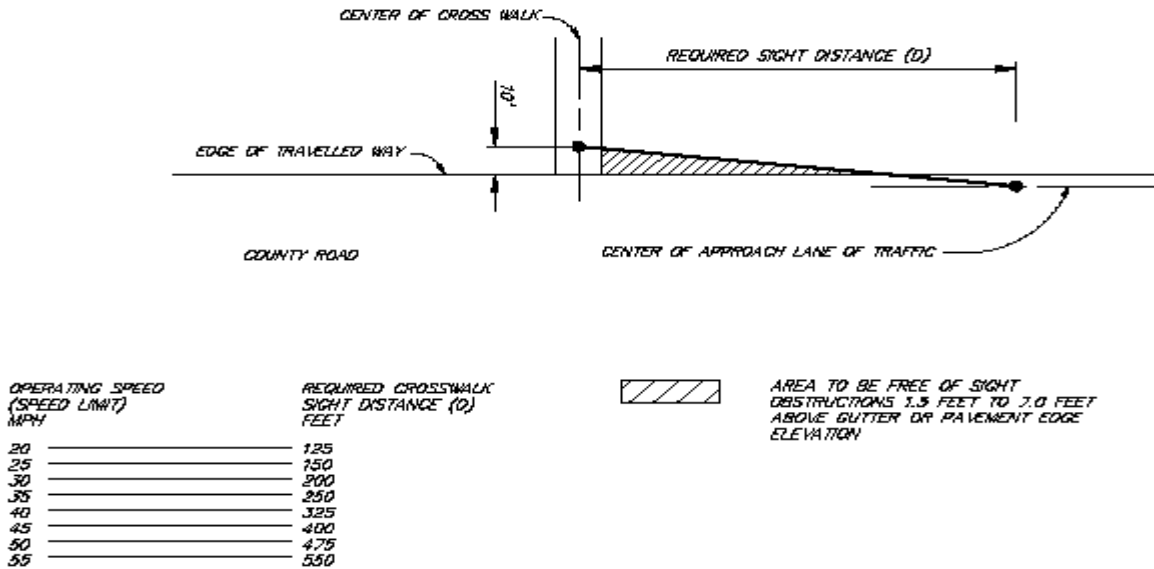
Time gaps are for a stopped vehicle to turn left onto a two-lane road with no median and 3 percent grade loss. The table for values requires adjustments as follows:

For Multilane roads:
 For left turns onto two-way roads with more than two lanes, add 0.5 seconds for passenger cars or 0.7 for trucks for each additional lane, from the left, in excess of one, to be crossed by the turning vehicle.

For minor road approaches:
 If the approach grade is an upgrade that exceeds 3 percent, add 0.2 seconds for each percent grade for left turns.

- b) The required obstruction-free sight triangle for the intersection of a County road with a marked or unmarked crosswalk is defined in Figure 14.2. This triangle shall be clear of all sight obstructions for vertical elevations between 1.5 feet and 7.0 feet above gutter or edge of pavement elevation.

Figure 14-2



CROSSWALK SIGHT TRIANGLE

14.4.7 Horizontal Clearance

- a) All above ground landscaping materials shall be placed and maintained to provide the minimum horizontal clearances shown in the following table. Clearances greater than those indicated may be required if warranted by site conditions.

Table 14-1

Minimum Horizontal Clearance to Permissible Roadside Obstructions			
FACILITY	POSTED SPEED LIMIT (MPH)	ON-STREET PARKING	MIN HORIZONTAL CLEARANCE
ROAD, UNCURBED	40		46' FROM ROAD C/L; OUTSIDE OF DITCH SECTION
ROAD, UNCURBED	35		10' FROM ROAD EDGE OF SHOULDER; OUTSIDE OF DITCH SECTION
ROAD, CURBED	40		15' FROM FACE OF CURB
ROAD, CURBED	30-35	No	9' FROM FACE OF CURB
ROAD, CURBED	25	No	5' FROM FACE OF CURB
ROAD, CURBED	35	Yes	3' FROM FACE OF CURB
UNPAVED ROAD			1'-4' FROM EDGE OF SHOULDER; OUTSIDE OF DITCH SECTION
DRIVE, CURBED			3' FROM FACE OF CURB
DRIVE, UNCURBED			6' FROM EDGE OF PAVEMENT
SIDEWALK			2' FROM EDGE OF SIDEWALK
BICYCLE PATH			3' FROM EDGE OF PATH

RULE 14.5 CLEAR ZONE GUIDE

- 14.5.1 A Clear Zone is the total roadside border area, starting at the edge of the traveled way, available for safe use by errant vehicles. This area may consist of a shoulder, a recoverable slope, a non-recoverable slope, and/or a clear run-out area. The desired minimum width is dependent upon traffic volumes and speeds and on the roadside geometry. Simply stated, it is an unobstructed, relatively flat area beyond the edge of the traveled way that allows a driver to safely stop or regain control of a vehicle that leaves the traveled way.

The Clear Zone Guide for Wayne County Roads, as listed or described is intended as a guideline for those responsible for the design, construction and maintenance of County roads. The guide will have application to new construction, reconstruction or widening of roads. The guide will be applicable to resurfacing, restoration and rehabilitation (RRR) projects, where it is practical to adjust or correct existing conditions. The use of the guide requires engineering judgment and interpretation, with regard to traffic volume, type of traffic, traffic speed, type of road and function of the road.

The guide is intended to follow the current AASHTO "Guide for Selecting and Designing Traffic Barriers" (Yellow Book), and the AASHTO "Policy on Geometric Design of Highways and Streets." The AASHTO Yellow Book is recognized as the national guideline on highway clearances and barrier design, but this guide primarily has application for high-speed, high traffic volume facilities.

The Wayne County Clear Zone Guide has minimum widths that vary with speed and traffic volumes. Also, different widths are indicated for rural open shoulder, for curbed urban conditions, and for heavier business-commercial areas, as allowed for the AASHTO Policy on Geometric Design.

For existing, older roads which are begin resurfaced, rehabilitated or restored; the clear distances in the guide are "desirable", but not always achievable. The relocation or removal of obstacles is not always possible or cost-effective. The review of accident history and accident potential may be conducted for particular locations or hazards.

High severity obstructions within the clear zone, such as bridge railings, piers and abutment should always be treated or protected. Other hazards to be considered for shielding or removal include utility poles, large trees, culverts, large pipes, embankments, stream crossings, deep ditches and commercial encroachments.

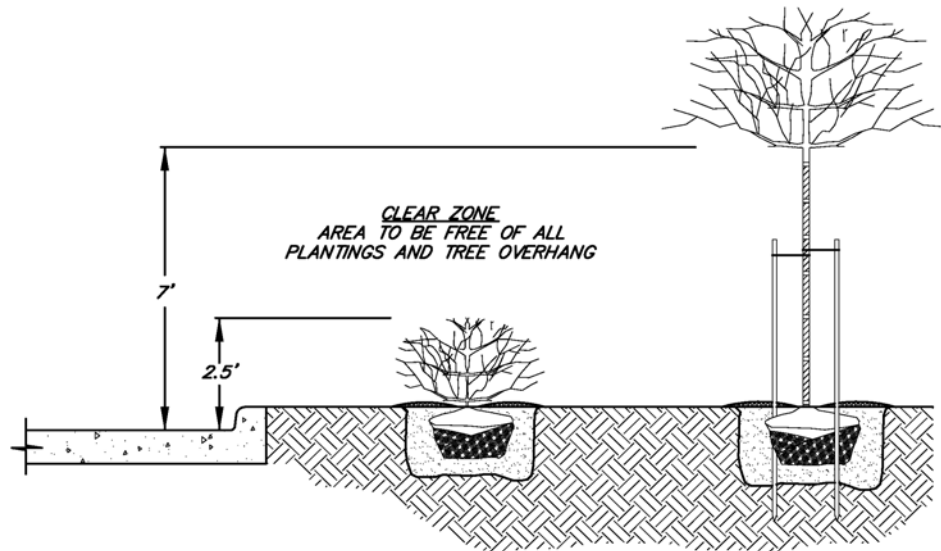
The attached chart for Clear Zone minimum width is to be applied as a guideline for removal or protection of hazardous objects. The application of the Clear Zone Minimum Width Guide should be determined individually for specific road, resurfacing and maintenance improvement projects.

Table 14-2

WAYNE COUNTY ROAD CLEAR ZONE MINIMUM WIDTH GUIDE				
PRIMARY ROAD TRAFFIC COUNT	SPEED	RURAL OPEN SHOULDER	URBAN CURB	(CBD) URBAN COMMERCIAL BUSINESS W/PARKING
ADT over 6000: Arterial or Major Collector Road	55 to 60	30	--	--
	45 to 50	20	14	--
	35 to 40	15	10	3
	25 to 30	10	6	2
ADT 2000 to 6000: Arterial or Major Collector Road	55 to 60	24	--	--
	45 to 50	16	12	--
	35 to 40	12	8	3
	25 to 30	8	5	2
ADT 800 to 2000: Arterial or Major Collector Street	55 to 60	18	--	--
	45 to 50	12	--	--
	35 to 40	9	5	--
	25 to 30	6	2	--
LOCAL ROAD TRAFFIC COUNT	SPEED	RURAL OPEN SHOULDER	URBAN CURB	(CBD) URBAN COMMERCIAL BUSINESS W/PARKING LANE
ADT 2000 to 6000: Arterial or Major Collector Road	55 to 60	24	--	--
	45 to 50	16	12	--
	35 to 40	12	8	3
	25 to 30	8	5	2
ADT 800 to 2000: Arterial or Major Collector Street	55 to 60	18	--	--
	45 to 50	12	--	--
	35 to 40	9	5	--
	25 to 30	6	2	--
ADT under 800: Rural Collector Residential	55 to 60	12	--	--
	45 to 50	10	--	--
	35 to 40	8	4	--
	25 to 30	5	2	--
The minimum widths given are to be adjusted upward for curves and embankments.				
NOTES:				
1. Any light poles located within the clear zone must be of a break-away design.				
2. For CBD's without a parking lane, use the guide for urban curb.				
3. These dimensions may be reduced based on R.O.W. availability and building locations.				
4. Measurements quoted in feet				

14.5.2 Figure 14-3 shows allowable landscaping within the clear zone.

Figure 14-3



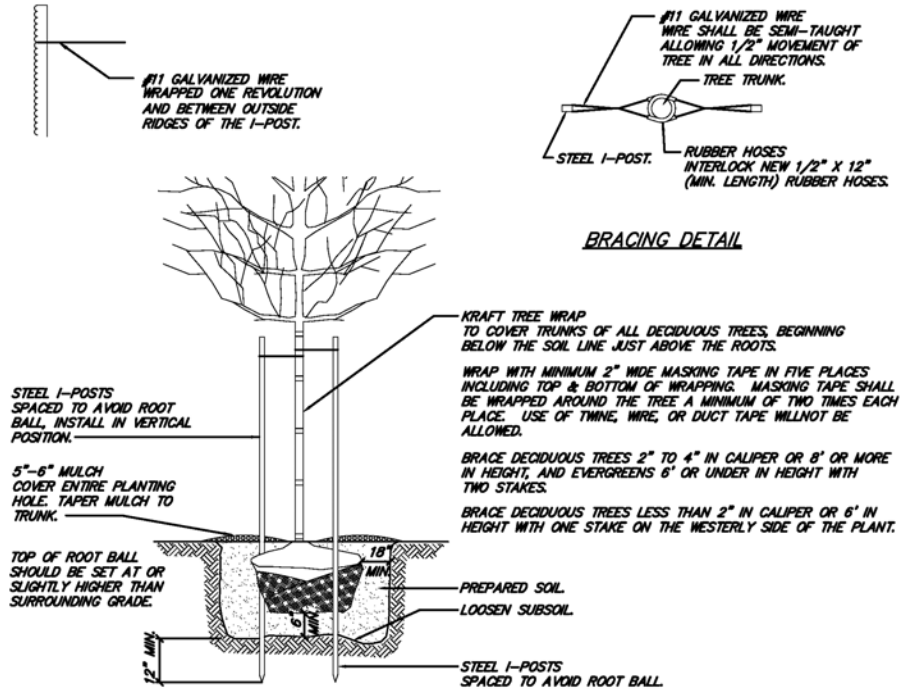
RULE 14.6 LANDSCAPING FEATURES

14.6.1 Trees and Shrubs

- a) The species and size of all natural trees and shrubs proposed for placement in the County road right-of-way shall be approved by the County's Forestry Office. The Forestry Office shall also be consulted on the proposed spacing of trees and shrubs and on the design of grouped or "cluster" plantings. A copy of the Wayne County "Tree Selection Guide" is included as Appendix B. Technical questions regarding tree planting requirements should be directed to the Forestry Office at (313) 522-7370.
- b) Trees with branches overhanging a sidewalk or bicycle path shall be "headed up" and maintained to provide a minimum under clearance of eight (8') feet. Trees shall be planted a minimum distance of four (4') feet from any paved surface and shall also comply with the horizontal clearance standards presented in Table 14-1.
- c) Trees or shrubs shall not be placed so as to obstruct the line of sight from a motorist to a road sign and, in no case, shall be placed within ten (10') feet of a road sign in the "upstream" direction.

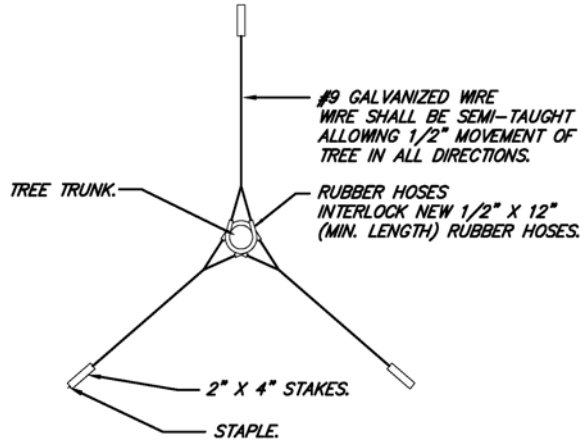
14.6.2 Plant deciduous trees as shown in Detail "A".

Figure14-4



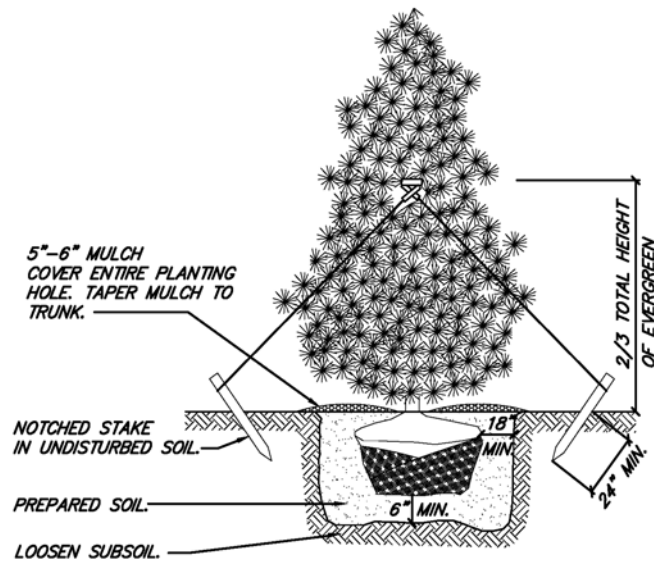
Plant evergreen trees as shown in Detail "B".

Figure 14-5



TRIPOD GUYING DETAIL

GUY EVERGREENS OVER 4" CALIPER OR 6' IN HEIGHT WITH THE TRIPOD METHOD.



GUYING TRIPOD METHOD

EVERGREEN TREE PLANTING DETAIL (N.T.S.)
PLANTING DETAIL "B"

14.6.3 "Streetscape" - Street Furniture

Permitted street furniture shall be located in accordance with sight distance and horizontal clearance standards. Street furniture shall be located only on paved surfaces and shall be securely fixed in place. A six (6') foot minimum walkway, free of all above ground obstructions, shall be maintained for pedestrian traffic.

14.6.4 Earthen Berms or Mounds

14.6.5 All permitted earthen berms or mounds must conform to sight distance and horizontal clearance standards. The maximum height of a berm shall not exceed thirty (30") inches above gutter or edge of pavement elevation. The maximum slope of the berm shall not exceed one (1') foot in three (3') feet. Berms shall not be permitted if surface drainage is adversely affected or if there is undue interference with existing or future sidewalks, storm sewers, utility fixtures, fire hydrants or road signs.

14.6.6 Splash Strips

14.6.7 Permitted splash strips shall be two (2') feet in width and shall consist of four (4") inches of HMA or four (4") inches of plain concrete placed immediately behind and in contact with the curb.

14.6.8 Paving

- a) On curbed roadways, paving between the curb and right-of-way line can be permitted to facilitate maintenance or enhance roadside appearance. Such paving shall consist of four (4") inches of HMA, four (4") inches of plain concrete or two (2") inches of HMA on a six (6") inch aggregate base.
- b) Paving between the curb and right-of-way line for the purpose of parking motor vehicles shall not be permitted. Paving between the curb and right-of-way line that encourages or facilitates motor vehicle parking shall not be permitted.