SECTION 201 - CLEARING AND GRUBBING

201-3.01 Limits of Work Areas
This work, as stated in the Standard Specifications, consists of clearing, grubbing, removing and disposing of all trees, brush, stumps, fences, debris and miscellaneous structures not covered under other contract items, within the construction area and such other areas as specified or directed.

Safety and aesthetic interests relate to the proximity of trees to the traveled way. From a safety perspective:
1. collisions with trees are the leading cause of fatalities for run-off-the-road crashes,
2. the closer the trees are, the higher the crash rate is, and
3. the closer the trees are, the greater the accident severity is.

Roadside trees, shrubs and herbaceous plants provide seasonal aesthetic value to highway travelers, screen unsightly adjacent land uses for motorists and bicyclists, screen the highway from adjacent sensitive residential, recreational and commercial properties, and provide important wildlife habitat. Existing vegetation, including dead trees, provide food sources, nesting sites, refuge areas and travel corridors for many species of birds, mammals, amphibians and insects. Existing vegetation also serves to protect water quality and to stabilize the banks of streams, ponds and rivers.

There is no standard for clear zone area width that will provide a “safe condition”. Instead we try to provide as much clear zone as we reasonably can without adverse socio-environmental impacts. To aid the EIC in making decisions about width, the HDM states “It is desirable for the designer to note on the plans locations where it may be possible to conveniently provide more clear area than the Design Clear Zone Width”. Almost without exception, the wider a clear zone is, the safer the facility will be. At some point, of course, the safety benefits decline to less than the economic and aesthetic cost. The Engineer should coordinate the limits of vegetation to be saved with the Regional Landscape Architect.

For aesthetic and wildlife habitat reasons, avoid removing vegetation in even width bands for long stretches of roadway. This creates a monotonous appearance and degrades wildlife habitat. Trees and shrubs should be retained on uphill slopes, along stream corridors, at rock outcroppings, behind guide rail and in areas where there is no history of accidents. This will help to create a varying width clear zone that is more aesthetically pleasing. In no case should vegetation be cleared at a distance of greater than 50 feet, measured horizontally, from edge or pavement unless a documented accident history exists. The Engineer should coordinate the limits of vegetation to be saved with the Regional Landscape Architect and the Regional Environmental Contact.

The designer does not quantify clear zone widths. It would require a complex assessment involving traffic volumes, traffic speeds, vehicle types, embankment slopes, degrees of curvature, and environmental considerations. Obviously, there will be locations where special features limit the widths that can be cleared. There will be other locations where safe widths can be provided. In fact, there will be continuous variation in the widths that can be reasonably obtained over the length of the project. It has been viewed as impractical to describe and/or specify the construction of a continuously varying width of clear zone. The approach is to divide the roadside into stretches having similar roadside conditions and specify design clear zone widths for each segment on the plans. The design clear zone width, once established, represents our legal commitment to maintain that width in a cleared and safely transversable condition.

As a result of the permit work, ROW acquisition debates, discussions with environmental agencies and groups and public hearings, the Department should be in a good position to know where the efforts should be made to obtain more than the minimum width of clear area and where efforts should not be made.

The importance of designating carefully selected clear zone limits in wooded areas of the Adirondack and Catskill Parks and along parkways, scenic byways, signed bike routes, river and stream corridors,
SECTION 201 - CLEARING AND GRUBBING

designated scenic touring routes, and adjacent to public parks and wildlife management areas should be readily apparent. In these locations statewide, even greater consideration should be given to retaining existing woody vegetation. Doing a sensitive job under clearing and grubbing will be instrumental in improving the Department's environmental image and performance.

Often, formal and informal agreements on vegetation removal or retention have been made during planning and design with the regulatory and resource agencies, environmental groups and municipalities. The Engineer should ascertain from the Regional Design Engineer and the Regional Environmental Contact as to what commitments have been made. If these are not reflected in the contract documents, any conflicts between such commitments and the Department's safety standards should be resolved through the Construction Supervisor with direct involvement by the Regional Landscape/Environmental Unit.