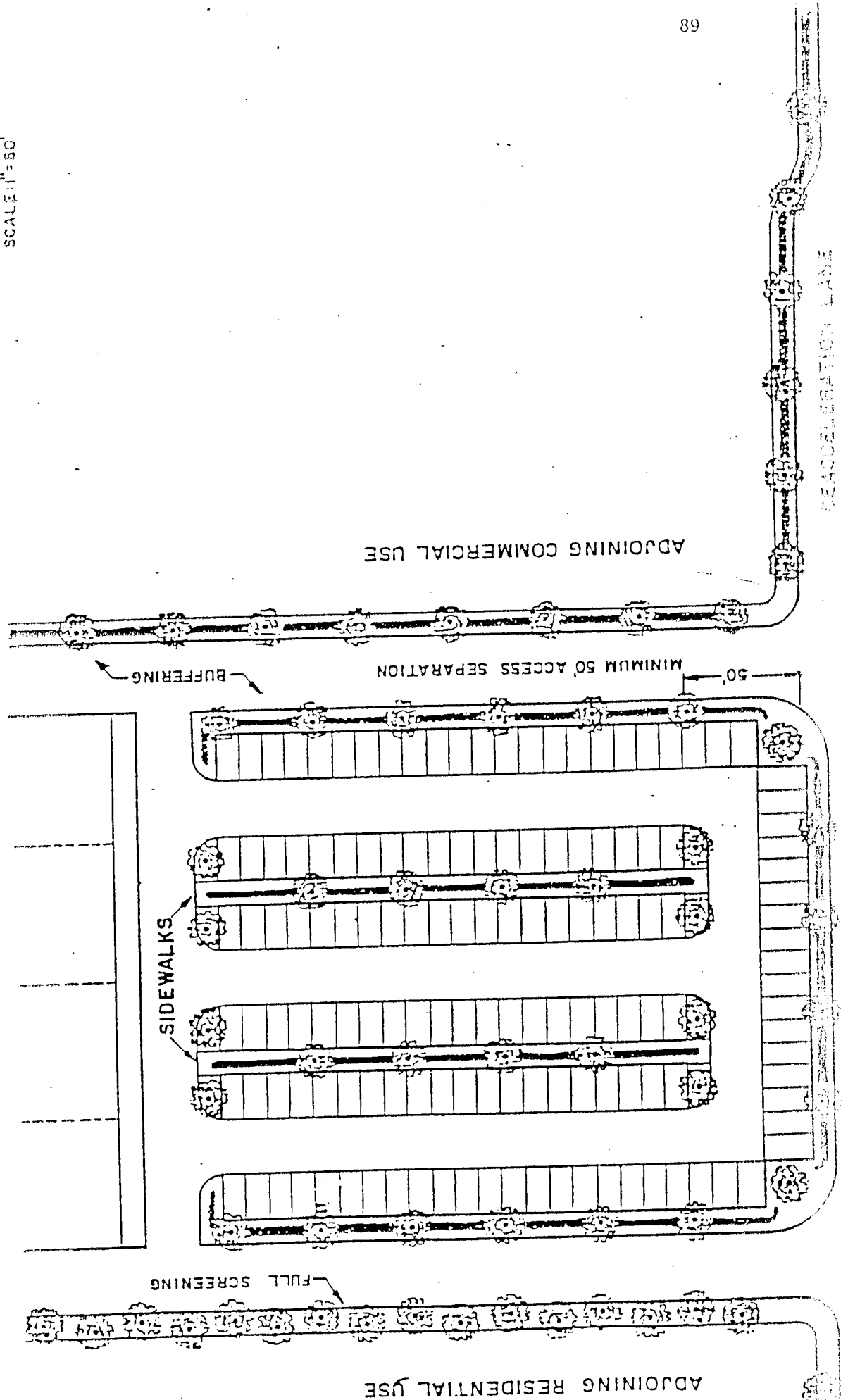


PLATE I

TYPICAL LARGE PARKING LOT

SCALE 1" = 50'



CHAPTER V - LAND SUBDIVISION

ARTICLE I - PLAT DETAILS AND INFORMATION REQUIREMENTS

Section 5.1 Minor Subdivision and Sketch Plats

All minor subdivisions and sketch plats shall fulfill the information requirements of this Section prior to review by the approving authority.

- A. The plat shall be prepared under the supervision of and be signed and sealed by a licensed New Jersey Land Surveyor, Professional Planner, Professional Engineer, or Registered Architect.
- B. The plat shall be based on tax map information or some other similarly accurate base at a scale of not more than 1 inch equals 200 feet to enable the entire tract to be shown on one sheet.
- C. The following information shall be shown or included on the sketch plat, unless waived by the Planning Board:
 1. A key map at a scale in which one inch equals not more than 1000 feet showing the entire subdivision and its relation to all features within one-half mile of the limits of the subdivision.
 2. Certificate from tax collector that all taxes are paid to date.
 3. Name and address of owner, subdivider, and person preparing plat.
 4. The names of all adjoining property owners as disclosed by the most recent tax records.
 5. The tax map sheet, block, and lot numbers.
 6. The location of that portion which is to be subdivided in relation to the entire tract.
 7. All existing and proposed streets within or adjoining the proposed subdivision with the right-of-way width clearly indicated.
 8. The proposed location of any driveways or other entrances onto a public street.
 9. All existing structures, and wooded areas, with the portion to be subdivided and within two hundred (200) feet thereof.
 10. All proposed lot lines and lot lines to be eliminated by the proposed subdivision shall be clear-

ly indicated.

11. The location, size and direction of flow of all streams, brooks, drainage structures and drainage ditches in the area to be subdivided or within two hundred (200) feet of the subdivision.
12. The location and width of all existing and proposed utility easements in the area to be subdivided.
13. The zoning classification of the property and all additional information necessary to show compliance with the applicable zoning requirements.
14. Acreage of the entire tract, the area being subdivided, and the area of each lot created.
15. Appropriate lot dimensions, drawing scale, and north arrow.
16. For all applications involving the creation of more than two lots, spot elevations on lot corners, and for any application where found necessary by the Planning Board, sufficient topography information for a proper determination of requirements, but not exceeding the topographic information requirement applicable to preliminary major subdivision applications.
17. For any application where found necessary by the Planning Board to assure that there is no adverse effect upon the development or provision of access to the remainder of tract, a rough indication of an acceptable layout of the remainder of the tract.

- D. Minor Subdivision Filing. A plat containing all of the above information which is reviewed and approved as a minor subdivision may be filed as a plat if it is a certified survey that contains the signatures of the Chairman and Planning Board Secretary and meets the requirements of the Map Filing Law.

Section 5.2 Preliminary Plat

A development application which is classified as a major subdivision shall not be considered complete until the information requirements of this section have been fulfilled unless waived by the Planning Board.

- A. The preliminary plat shall be clearly and legibly drawn or reproduced in black on white at a scale of not less than one inch equals fifty feet. It shall be prepared under the supervision of and be signed and sealed by a

licensed New Jersey land surveyor and any engineering design work shall be done by a licensed New Jersey professional engineer.

- B. The plat shall be prepared in compliance with the design standards of this ordinance and shall show or be accompanied by the following information in addition to all that required for a sketch plat.
1. Accurate bearings, headings, and other boundary details.
 2. All required front, side, and rear setback lines.
 3. Specimen trees having a diameter in excess of twenty-four (24) inches.
 4. Any structures of historic significance within 200 feet of the subdivision and a statement of the impact of the development on the historic structure.
 5. Topographic contours at two foot intervals for slopes averaging 5% or greater and one foot contours for slopes less than 5%. Elevations or contours need not be shown, however, for those portions of any parcel to be retained by the subdivider in an undeveloped state that are more than 200 feet from the lots being created. Contours should show existing ground elevations and proposed elevations in any areas to be regarded.
 6. Streets. Cross sections and centerline profiles of proposed streets within the subdivision and existing streets which abut the subdivision.
 7. Watercourses. All existing and proposed watercourses shall be shown accompanied by the following information:
 - a. When a stream is proposed for alteration, improvement or relocation or when a drainage structure or fill is proposed within the floodway of an existing stream, evidence of submission of the improvement to the Division of Water Resources shall accompany the subdivision.
 - b. Cross sections of watercourses and or drainage swales at an approximate scale showing the extent of the floodplain, top of bank normal water level, and bottom elevations at the following locations:

1. At any point where a watercourse crosses the boundary of a subdivision.
 2. At fifty (50) foot intervals for a distance three hundred (300) feet upstream and downstream of any proposed culvert or bridge within or adjacent to the subdivision.
 3. Immediately upstream and downstream of any point of junction of two (2) or more watercourses.
 4. At a maximum of three hundred (300) foot intervals along all watercourses which run through or adjacent to the subdivision.
- c. When ditches, streams, brooks, or watercourses are to be altered, improved or relocated, the method of stabilizing slopes and the measures to control erosion and siltation as well as typical cross sections and profiles shall be shown on the plat or accompany it.
 - d. The boundaries of the floodplains within or adjacent to the subdivision.
8. Drainage
- a. Preliminary plans and profiles at a scale of one inch equals fifty feet (1"=50') horizontally and one inch equals five feet (1"=5') vertically of all proposed and existing storm sewers, drainage swales, and streams within the subdivision together with the locations, sizes, elevations, and capacities of any existing storm drain, ditch, or stream to which the proposed facility will be connected.
 - b. The location and extent of any proposed groundwater recharge basins, retention basins, or other water conservation devices.
 - c. When deemed necessary by the Planning Board, all drainage calculations used for the design of the storm drainage system and the documents indicating conformance to the standards in this Chapter shall be submitted.
9. Utilities. Preliminary plans and profiles of proposed utility layouts shall be at a scale of not more than one inch equals fifty feet (1"=50')

horizontally and one inch equals five feet (1"=5') vertically showing connections to existing and proposed utility systems.

10. On site sewage disposal. The results and location of all percolation tests and test borings shall be shown on the plat. At a minimum, a test boring and percolation test shall be taken for every four lots. When deemed necessary by the Planning Board to determine the suitability of the soil to support new construction, further percolation tests shall be submitted. Any subdivision or part thereof which does not meet the established sewage treatment requirements of Chapter 199 as revised shall not be approved unless the proposed remedy to overcome such a situation is approved by the appropriate local, county, or state agencies.
11. A copy of any protective covenants or deed restrictions applying to the land being subdivided.
12. The location of poles, distance from intersections and illumination factors for all street lighting.

Section 5.3 Final Plat

- A. The final plat shall be drawn in ink on tracing cloth or its equivalent, at a scale of not less than one inch equals 50 feet and in compliance with all the provisions of the "Map Filing Law". The final plat shall be submitted in the following form: The original or equivalent duplicate, one translucent tracing cloth or its equivalent copy, two cloth prints, and ten black on white prints.
 1. All information listed in, Section 5.1, C(1-7).
 2. Tract boundary lines, right-of-way lines of streets, street names, easements and other right-of-way land to be reserved or dedicated to public use, all lot lines and other site lines, with accurate dimensions, bearings or detection angles, and radii arcs and central angles of all curves.
 3. The purpose of any easement, or land reserved or dedicated to public use, shall be designated, and the proposed use of sites other than residential, shall be noted.
 4. New blocks and lots shall be numbered so as to conform with the Borough Tax Map.
 5. Minimum building setback line on all lots and other sites.

6. Cross sections, profiles, and established grades of all streets as approved by the Borough Engineer.
7. Plans and profiles of all storm and sanitary sewers and water mains as approved by the Borough Engineer.
8. Certificate from tax assessor that all taxes are paid to date.
9. A statement by the Borough Engineer that he is in receipt of a map showing all utilities and exact location and elevation identifying those portions already installed and those to be installed and that the subdivider has installed all improvements in accordance with the requirements of these regulations, or has filed a corporate surety bond, a certified check, returnable to the subdivider after full compliance, or any other type of surety approved by the governing body and approved as to form by the Borough Solicitor, which is in sufficient amount to assure the installation and maintenance of improvements. The provisions of NJSA 40:55D-53 shall govern said bonds and the completion, inspection, and approval of said improvements and the payment of inspection fees.

ARTICLE II - IMPROVEMENT AND DESIGN STANDARDS

A developer shall comply with the following requirements and principles of land subdivision to encourage proper development patterns and the provision of adequate facilities and services in the Borough.

Section 5.4 General Requirements

- A. No subdivision shall be approved unless all lots abut an improved street as defined by this Ordinance. Any request for relief from this provision shall conform to the procedures of the N.J.S.A. 40:55D-30 or N.J.S.A. 40:55D-60.
- B. Any proposed subdivision determined by the Board to be creating, imposing, aggravating or leading to the possibility of an adverse effect upon the property in question or adjacent properties may be required to be revised to remove such adverse effect prior to further review. Where the remaining portion of the tract is of sufficient size to be subdivided further, the applicant may be required to submit a sketch of the entire remaining portion to indicate a feasible plan whereby the proposed subdivision and subsequent subdivisions will not create any such adverse effect.

Section 5.5 Streets and Roads

A. General Design Considerations

1. All proposed streets in a subdivision of land shall be classified as either a Loop Street, a Cul-de-Sac Street or a Township Collector as defined on Plates II, III, and IV.
2. Loop Streets, Cul-d-Sac Streets, and other existing minor streets shall be so designed and integrated into the circulation pattern of the subdivision and the immediate area so as to discourage through traffic.
3. Township Collectors shall be designed to provide for the extension and connection of existing streets except when such a connection will result in a major diversion of traffic from Major Collectors or Arterials through the subdivision.
4. When a subdivision adjoins land susceptible to being subdivided, suitable provisions shall be made for optimum access of the remaining and/or adjoining tract to existing or porposed streets within the proposed subdivision.
5. Access shal be designed in all major subdivisions according to the following standards:
 - a. All major subdivisions bounded by Arterials, Major Collectors, and minor Collectors as defined by the Functional Classification System contained within the approved Borough Master Plan shall control access to said streets by having all driveways intersect Marginal Service streets, parallel streets, or streets intersecting said Arterials, Major Collectors, and County-Local Roads.
 - b. When a subdivision of five (5) or more lots borders on an existing Borough street, or County-Local road reverse frontage or a marginal service road may be required.
 - c. When a proposed street (Township Collector) will serve more than fifty (50) lots in a fully developed subdivision, all driveways within that subdivision shall intersect Loop Streets, Cul-de-Sac Streets or Marginal service roads.
6. All subdivisions which control access to existing Borough or County roads by reverse frontage or marginal service roads shall construct an adequate

TYPICAL CUL-DE-SACS

SCALE: 1" = 150'

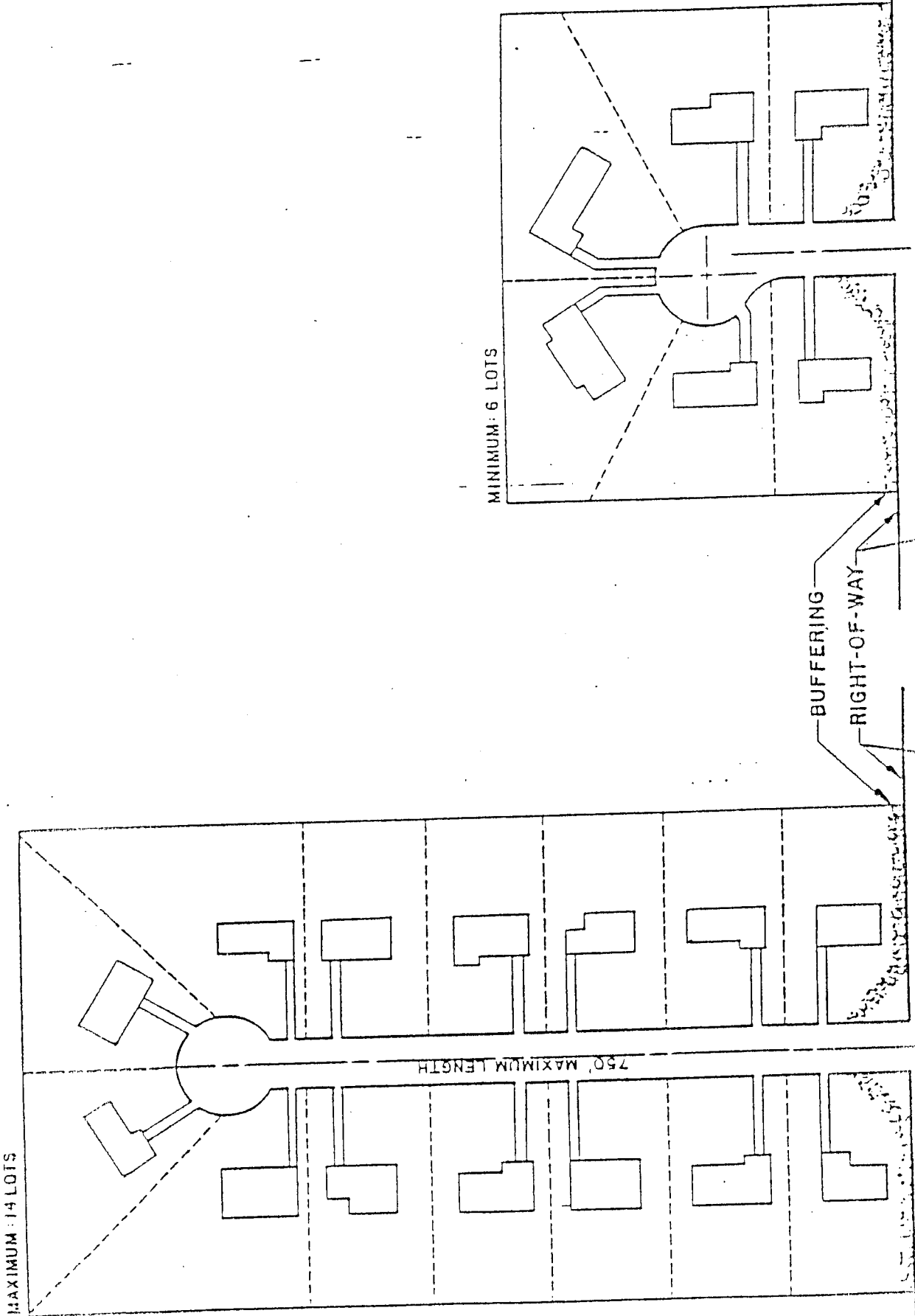


PLATE 3
LOOP STREET

SCALE 1"=100'

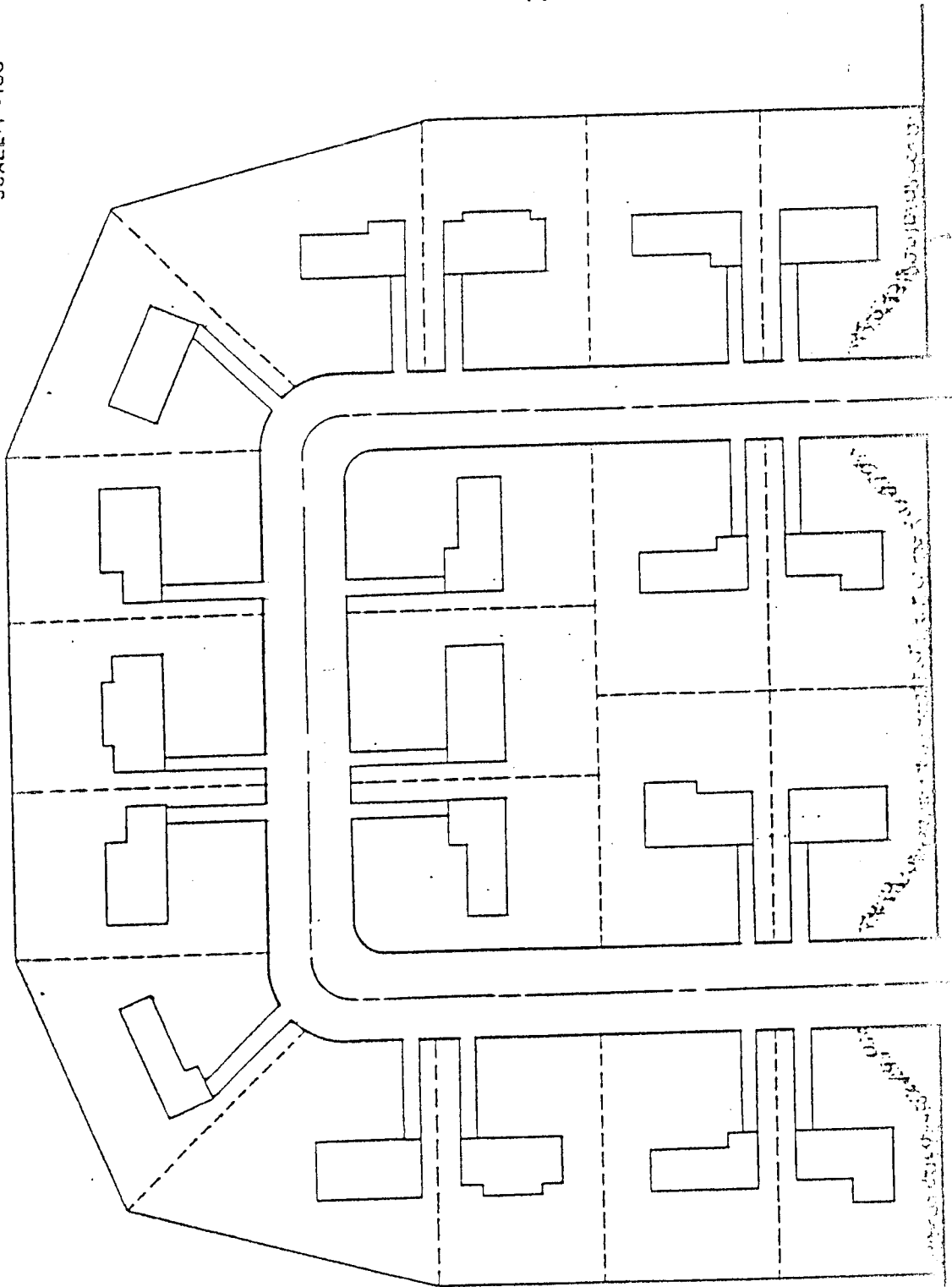
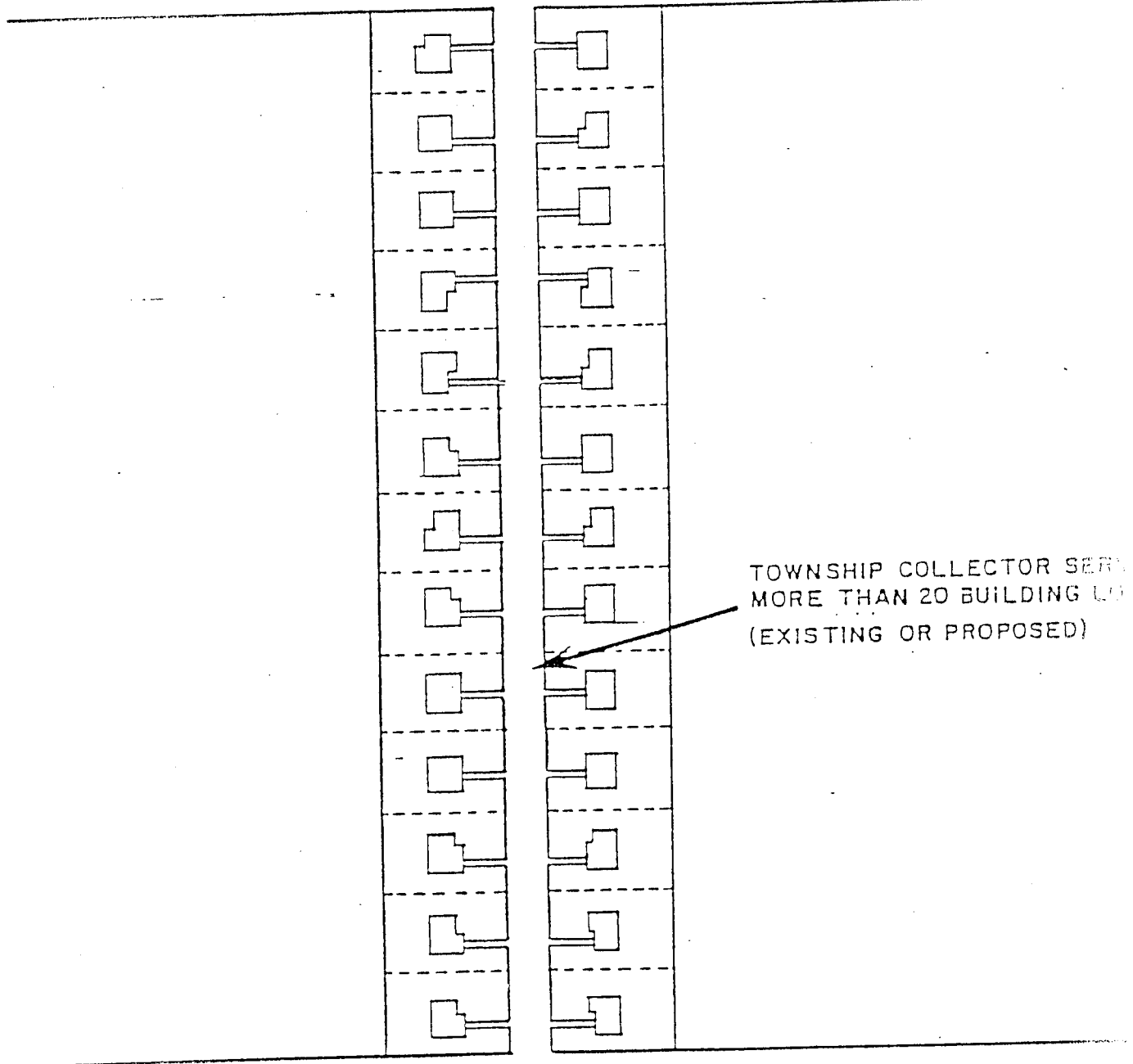


PLATE 4

TOWNSHIP COLLECTOR

EXISTING COUNTY OR TOWNSHIP COLLECTOR



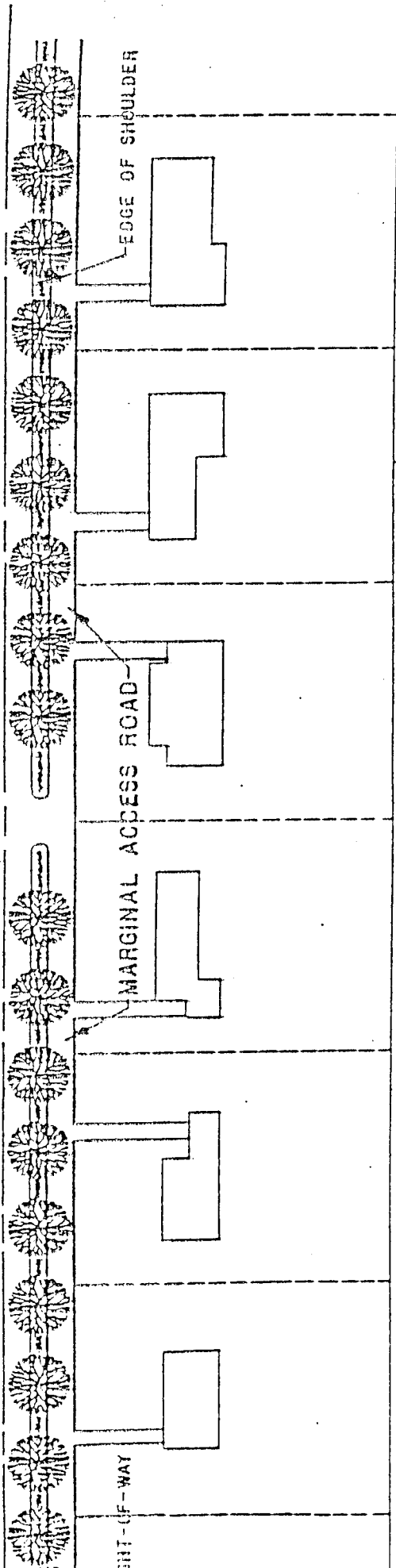
TOWNSHIP COLLECTOR SERVED
MORE THAN 20 BUILDING UNITS
(EXISTING OR PROPOSED)

EXISTING COUNTY OR TOWNSHIP COLLECTOR

SCALE: 1" = 200 FT.

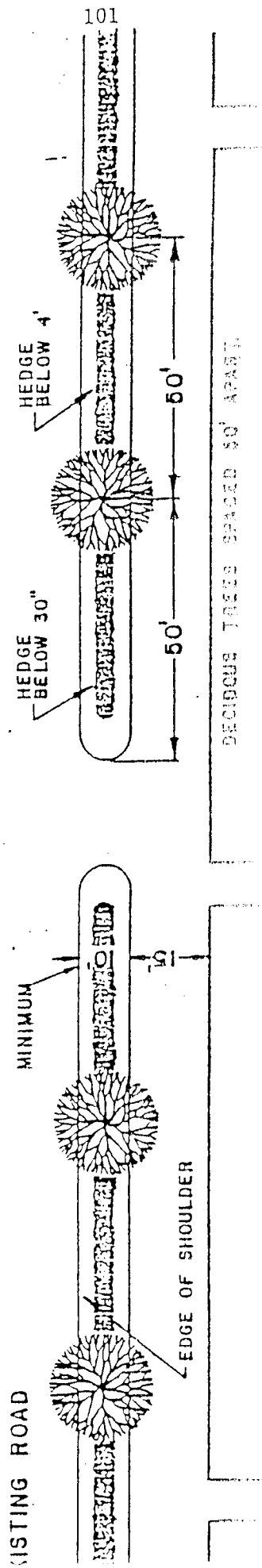
MARGINAL ACCESS

EXISTING COUNTY OR TOWNSHIP ROAD



SCALE: 1" = 100'

DETAIL OF MEDIAN & MARGINAL ACCESS ROAD



buffer between the development and the existing street. The buffer for reverse frontage shall consist of densely planted nursery grown trees to a depth of twenty (20) feet as indicated on Plate V. Plate VI indicates the required landscaped area for marginal service roads.

7. No subdivision showing reserve strips controlling access to streets or another area, either developed or undeveloped, shall be approved except where the control and disposal of land compromising such strips has been given to the governing body after recommendation by the Planning Board.
 8. A subdivision that adjoins or includes existing Borough streets that do not conform to the right-of-way widths specified in the Borough Master Plan in the street cross section requirements of this Ordinance, shall dedicate the additional land needed to conform to the right-of-way standards. If the subdivision is along one (1) side of the road, one-half (1/2) of the required extra width shall be dedicated.
 9. A Cul-de-Sac shall provide access to a minimum of six (6) lots and a maximum of fourteen (14) lots. No Cul-de-Sac shall exceed 750 feet in length. The minimum radius of a Cul-de-Sac turnaround shall be fifty (50) feet in zoning districts with a minimum lot width of 150 feet or more and sixty (60) feet in zoning districts with a lot width requirement of less than 150 feet. The right-of-way radius of the turnaround shall be sixty (60) feet and seventy (70) feet for these respective zoning districts. No Cul-de-Sac turnaround shall exceed a radius of seventy (70) feet except if an adequate landscaped circle is provided in which two-way traffic is maintained.
- B. Specific Design Requirements. The following specific design requirements shall be met in the construction of new streets or the improvement of existing streets:
1. When connecting street lines deflect from each other at any one point by more than ten (10) degrees they shall be connected by a curve with a radius conforming to standard engineering practice so that the minimum sight distance shall be not less than one hundred (100) feet for Cul-de-Sac, one hundred fifty (150) feet for Loop Streets, and not less than three hundred (300) feet for Collectors and Arterials.
 2. A tangent of at least two hundred (200) feet long shall be introduced between reverse curves on

arterial and collector streets.

3. Longitudinal grades on Township Collectors or roads of higher functional classification shall not exceed four (4) percent. The longitudinal grade of any other local street shall not exceed eight (8) percent. All changes in grade shall be connected by vertical curves of at least fifty (50) feet for each two (2) percent (or portion thereof) difference in grade to insure proper sight distance which will conform to good engineering practice.
4. The longitudinal grade of any street shall not be less than one-half (1/2) of one (1) percent. Grades between one-half (1/2) of one (1) percent and one (1) percent may require monolithic curb and gutter construction to insure adequate drainage.

C. Intersections

1. Street intersections shall be at a minimum angle determined by the road classification. All intersections shall be at ninety (90) degrees except that Cul-de-Sac or Loop Streets which intersect a Township Collector or County-Local Road shall have a minimum angle of seventy five (75) degrees and a Cul-de-Sac which intersects a Loop Street shall have a minimum angle of sixty (60) degrees.
2. No more than two (2) streets shall meet or intersect at any one point and the centerline of both intersecting streets shall pass through a common point. Any two (2) intersections shall be separated by the following distances:

Classification	Minimum Distance Between Intersections
Arterials, County Collectors	350 feet
Township Collectors, County-Local	250 feet
Loop Streets, Cul-de-Sacs	200 feet

Whenever two (2) roads of different functional classification intersect, the minimum separation standards of the more important road shall be followed.

3. The maximum grades of all intersections shall be three (3) percent except that intersections involving only Borough Collectors or other local streets shall have a maximum grade of four (4) percent.
4. The block corners or intersections shall be

rounded at the curblines with the street having the highest radius requirement determining the minimum standard for all curb lines.

Classification	Radius
Arterials, County Collectors	40 feet
Township Collectors, County-Local	30 feet
Loops, Cul-de-Sacs	20 feet

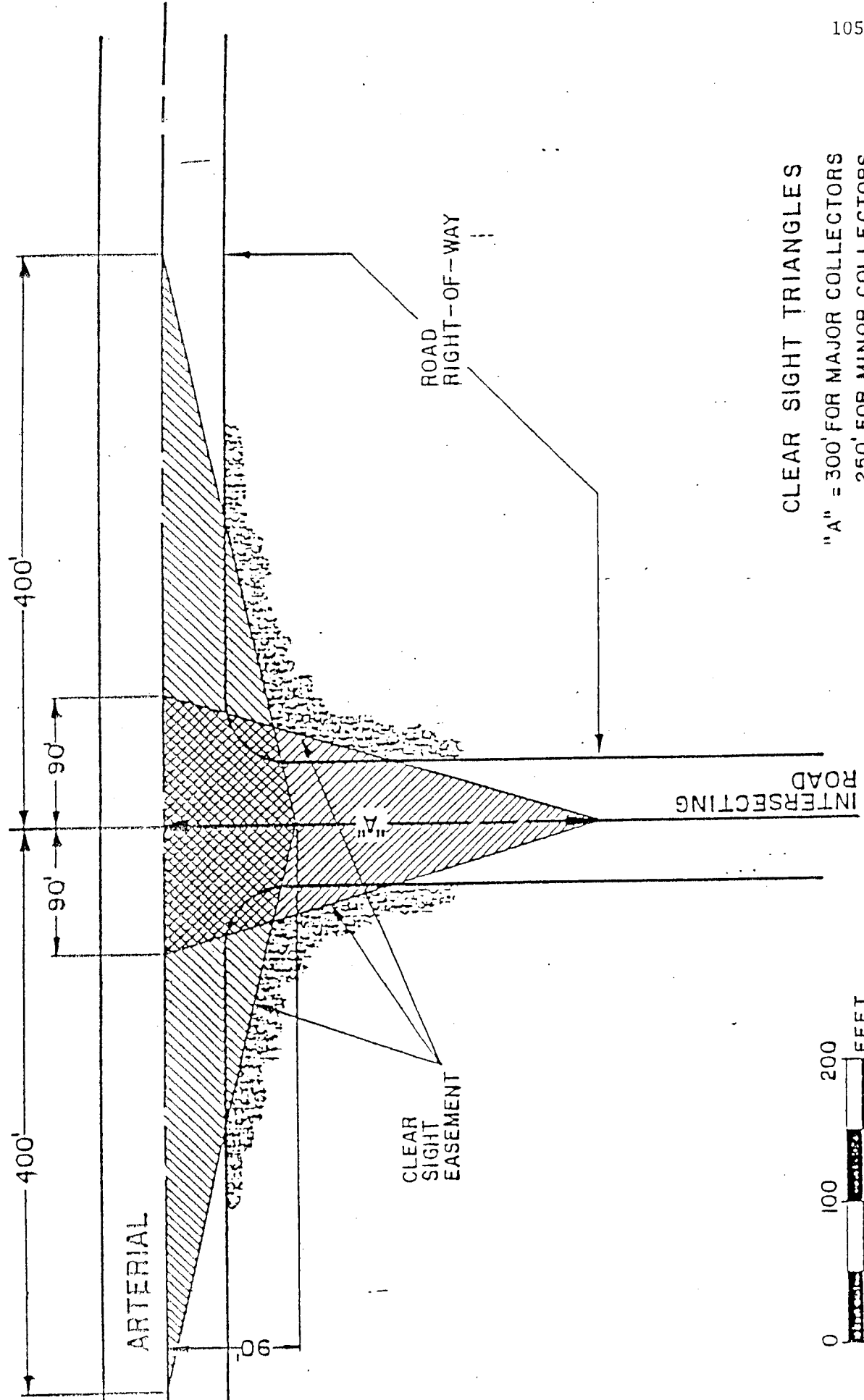
5. For each major and minor subdivision, clear sight triangle easements shall be required at all intersections in addition to the right-of-way requirement described above. Within such triangles, no vision-obstructing object shall be permitted which exceeds a height of thirty (30) inches above the elevation of the intersecting streets except for street lighting standards. The sight triangle is defined as the area of vision which enables a motorist entering a road to perceive oncoming vehicles and which enables oncoming vehicles to perceive the entering vehicle. This area is bounded by the intersecting street lines and the straight line connecting "sight points", one each located on the two intersecting street centerlines. Sight points are defined as being the following distances from the intersection:

Classification	Distance
Arterials	400 feet
County Major Collectors	300 feet
County Minor Collectors	250 feet
Township Collectors, County-Local	200 feet
Loop Streets	150 feet
Cul-de-Sacs	110 feet

These points are to be connected to a point ninety (90) feet from the intersection of the street centerlines. Plates V - X illustrates the required sight triangle easements. The sight easement shall describe two overlapping triangles whenever the intersecting roads are of Township Collector or above functional classification. The easement for intersections involving Cul-de-Sac or Loop streets shall only include the sight triangle needed for the motorist entering the intersection street.

- D. Street Construction Standards. All subdivisions shall be served by paved public streets with an all weather base and pavement with an adequate crown. All new streets and improvements to existing streets shall adhere to the following standards:

PLATE 7

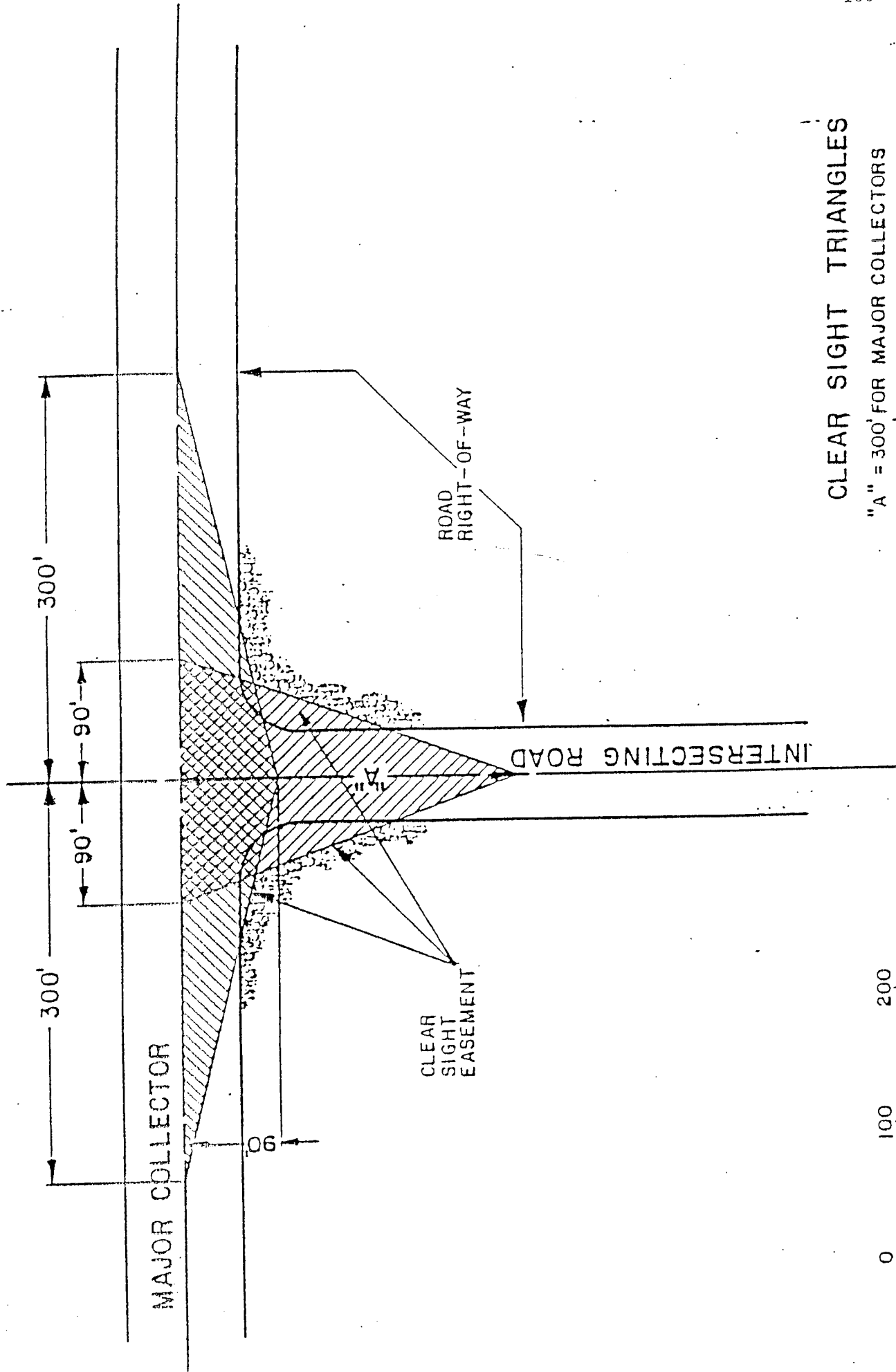


CLEAR SIGHT TRIANGLES

- "A" = 300' FOR MAJOR COLLECTORS
- 250' FOR MINOR COLLECTORS
- 200' FOR TOWNSHIP COLLECTORS,
- COUNTY-LOCAL ROADS
- 150' FOR LOOP STREETS
- 90' CUL-DE-SACS

NOTE: THE SIZE OF EACH ROAD'S RIGHT-OF-WAY IS DEPENDENT UPON ITS FUNCTIONAL CLASSIFICATION.

PLATE 8



CLEAR SIGHT TRIANGLES

- "A" = 300' FOR MAJOR COLLECTORS
- 250' FOR MINOR COLLECTORS
- 200' FOR TOWNSHIP COLLECTORS,
- COUNTY-LOCAL ROADS
- 150' FOR LOOP STREETS

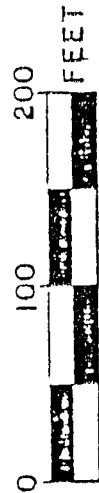
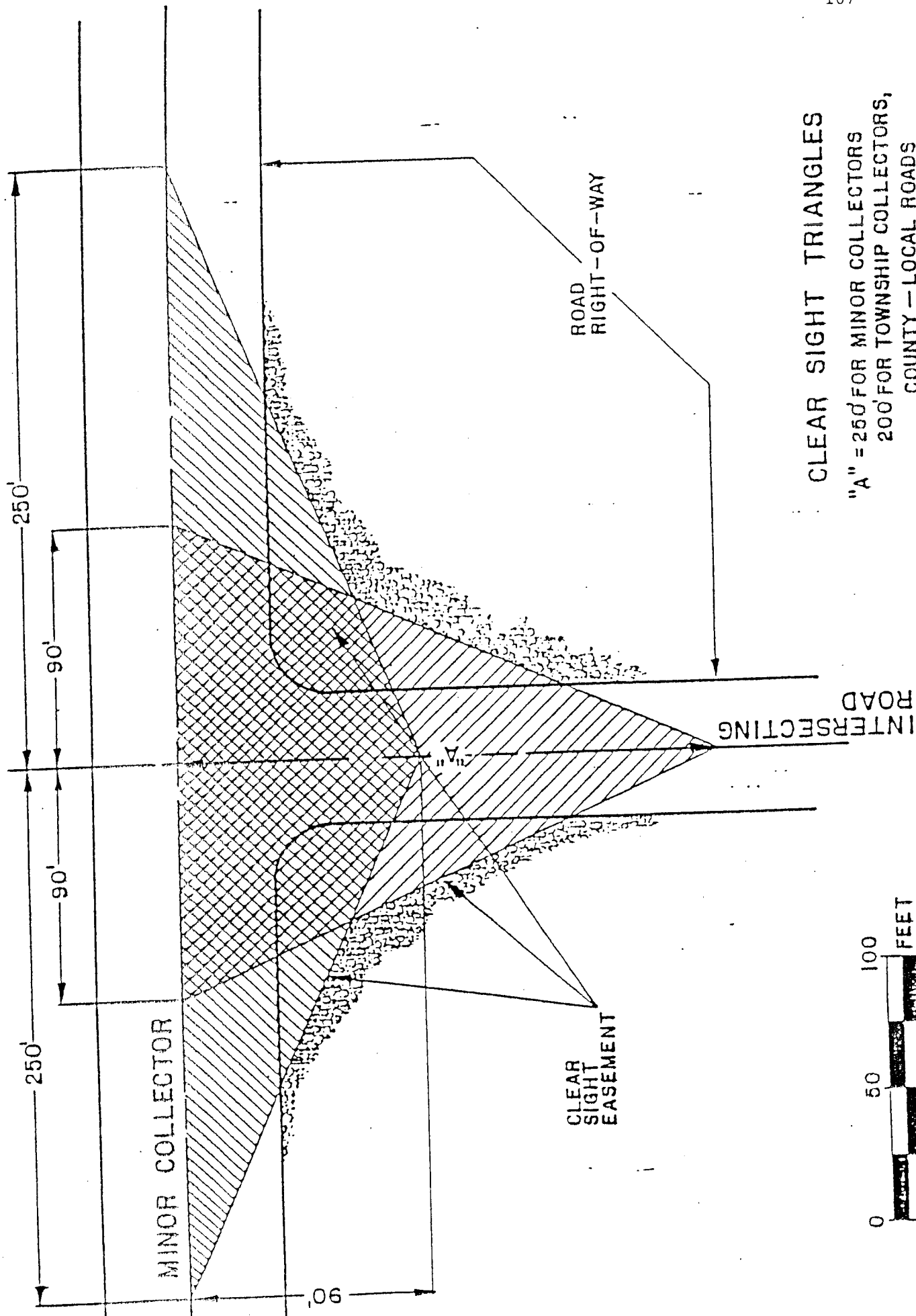
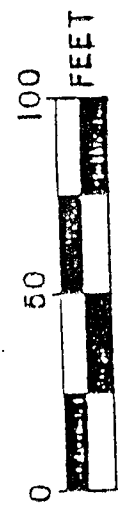


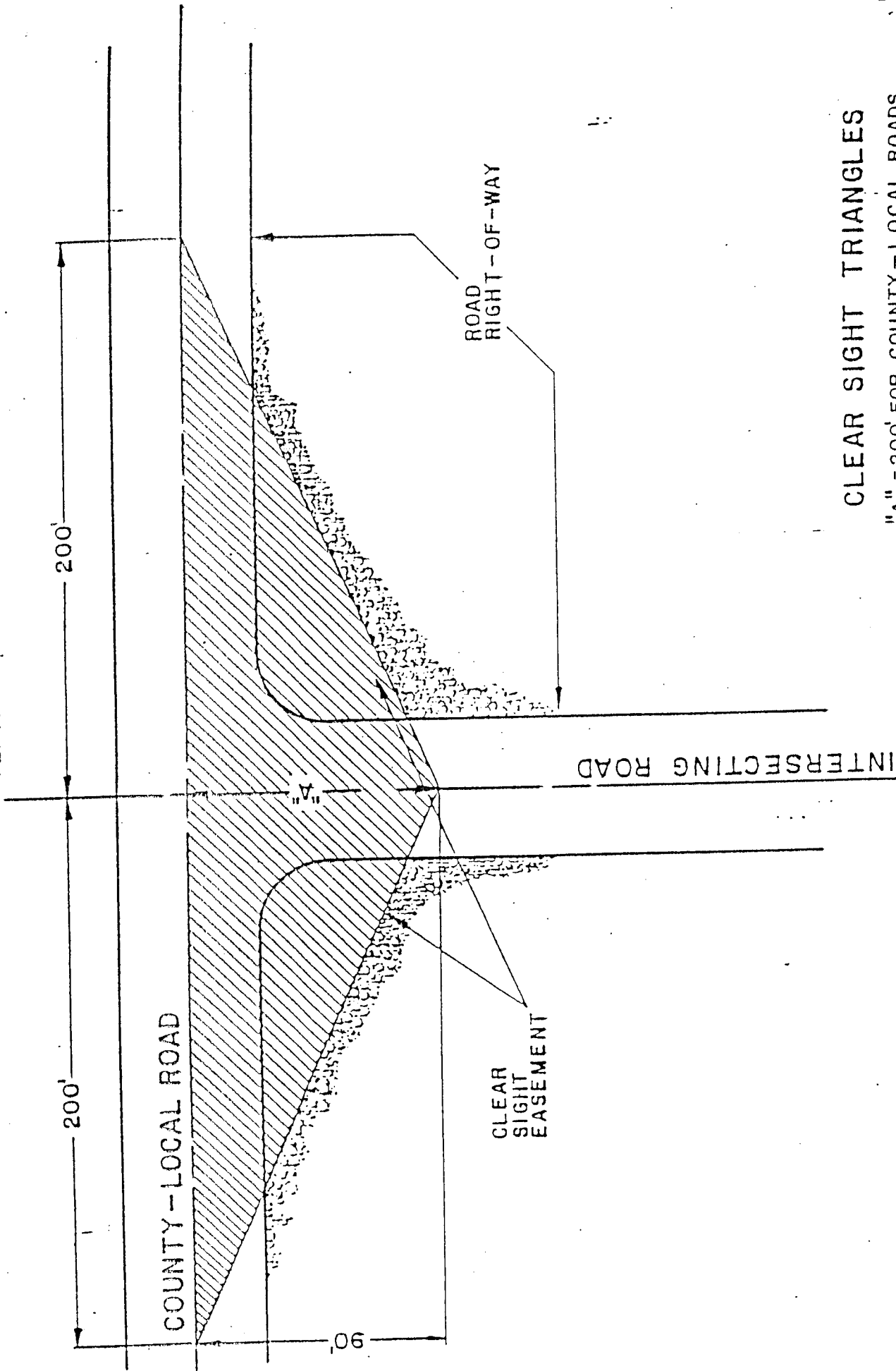
PLATE 9



CLEAR SIGHT TRIANGLES

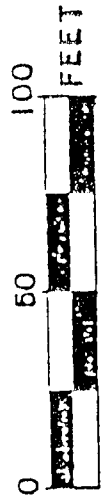
- "A" = 250' FOR MINOR COLLECTORS
- 200' FOR TOWNSHIP COLLECTORS,
- COUNTY — LOCAL ROADS
- 150' FOR LOOP STREETS
- 100' FOR DWL — DE — STREETS





CLEAR SIGHT TRIANGLES

- "A" = 200' FOR COUNTY-LOCAL ROADS,
TOWNSHIP COLLECTORS
- 150' FOR LOOP STREETS
- 110' FOR CUL-DE-SAC STREETS



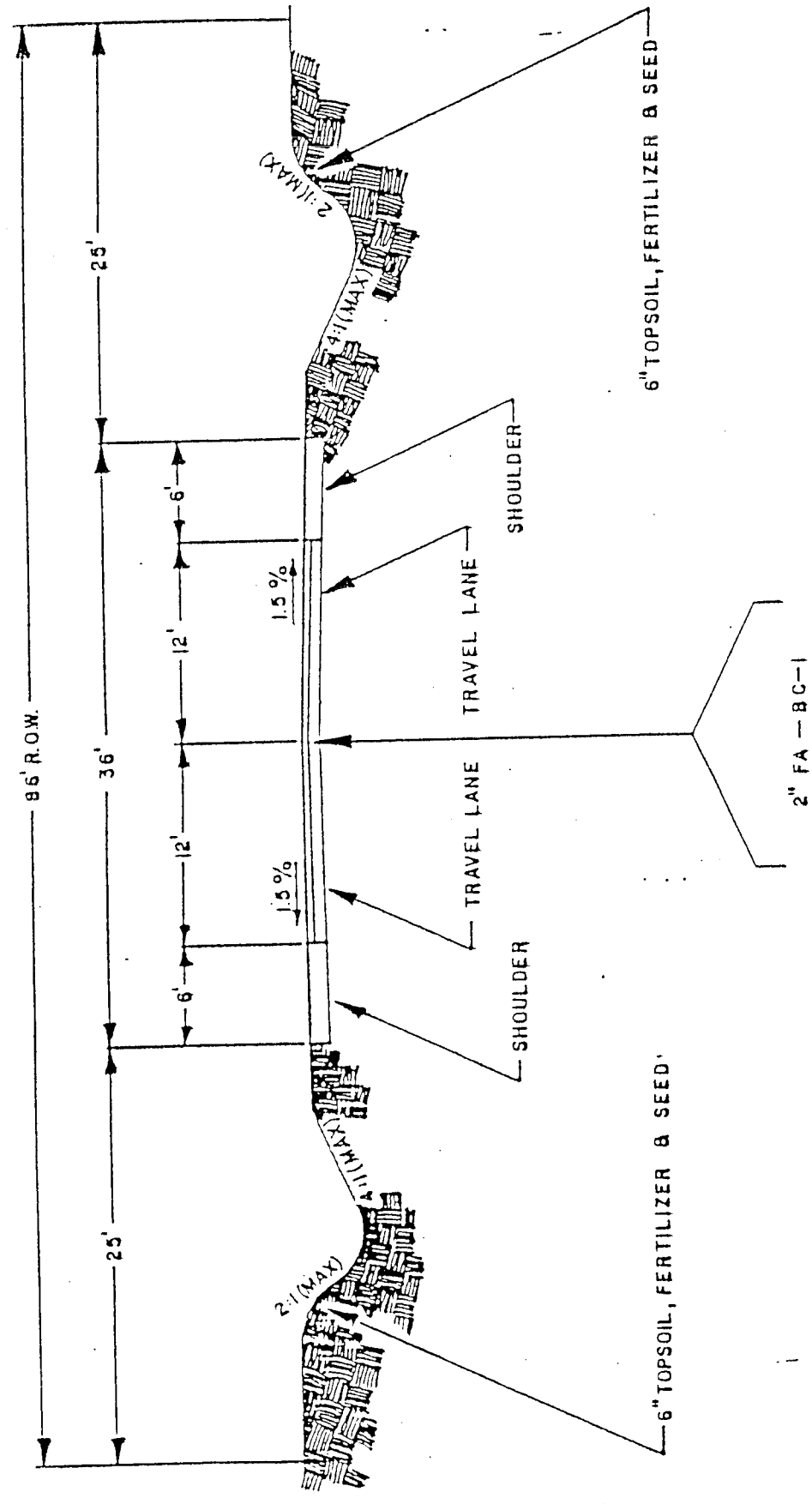
1. The minimum pavement width shall be in accordance with the following standards and as illustrated on Plates XI - XVI:

Type of Street	Lanes		Shoulders		
	#	Width	Width	Type(1)	
County Major Collector	2	12'	6'	1	86'
County Minor Collector	2	12'	6'	2	66'
County Local	2	11'	6'	2	50'
Township Collector (2)	2	11'	6'	1	50'
Loop	2	11'	5'	1	50'
Cul-de-Sac	2	11'	3'	1	50'

1. Shoulder Types:
 - 1 - Paved
 - 2 - Application, oil & stone and gravel
2. In areas proposed for less intense development (minimum lot sizes over 1 acre), the minimum shoulder shall be compacted gravel with oil.
2. All new and existing streets shall be constructed or improved to fulfill the above minimum requirements. The subdivider shall be responsible for improving only one-half (1/2) of the street immediately adjacent to the subdivision, except in cases where offsite contributions are required. If offsite contributions are required the subdivider may be responsible for improving more than one half (1/2) of the street and other nearby streets or intersections.
3. Deceleration and Acceleration lanes shall be constructed outside of the normal cartway as determined necessary by the Borough Engineer.
4. The minimum total asphalt surface thickness for all pavements shall be three and one half (3 1/2) inches of FABC-2, mix No. 5, Two (2) inches to be laid and used as running surface until all settlement is completed, then brought to final grade with a one and one half (1 1/2) inch overlay and such additional material as shall be needed to compensate for settlement. The minimum subbase shall be four (4) inches of soil aggregate Type 5, Class A, or, as an alternate subbase, with Planning Board approval, six (6) inches of soil aggregate Type 2, Class B. No bituminous concrete pavement shall be laid until the existing subbase has been prepared and thoroughly compacted with an approved roller.
5. The minimum requirements of any new street shall be in accordance with the specifications and pro-

PLATE II

MAJOR COLLECTOR (RURAL)



4" BITUMINOUS STABILIZED BASE

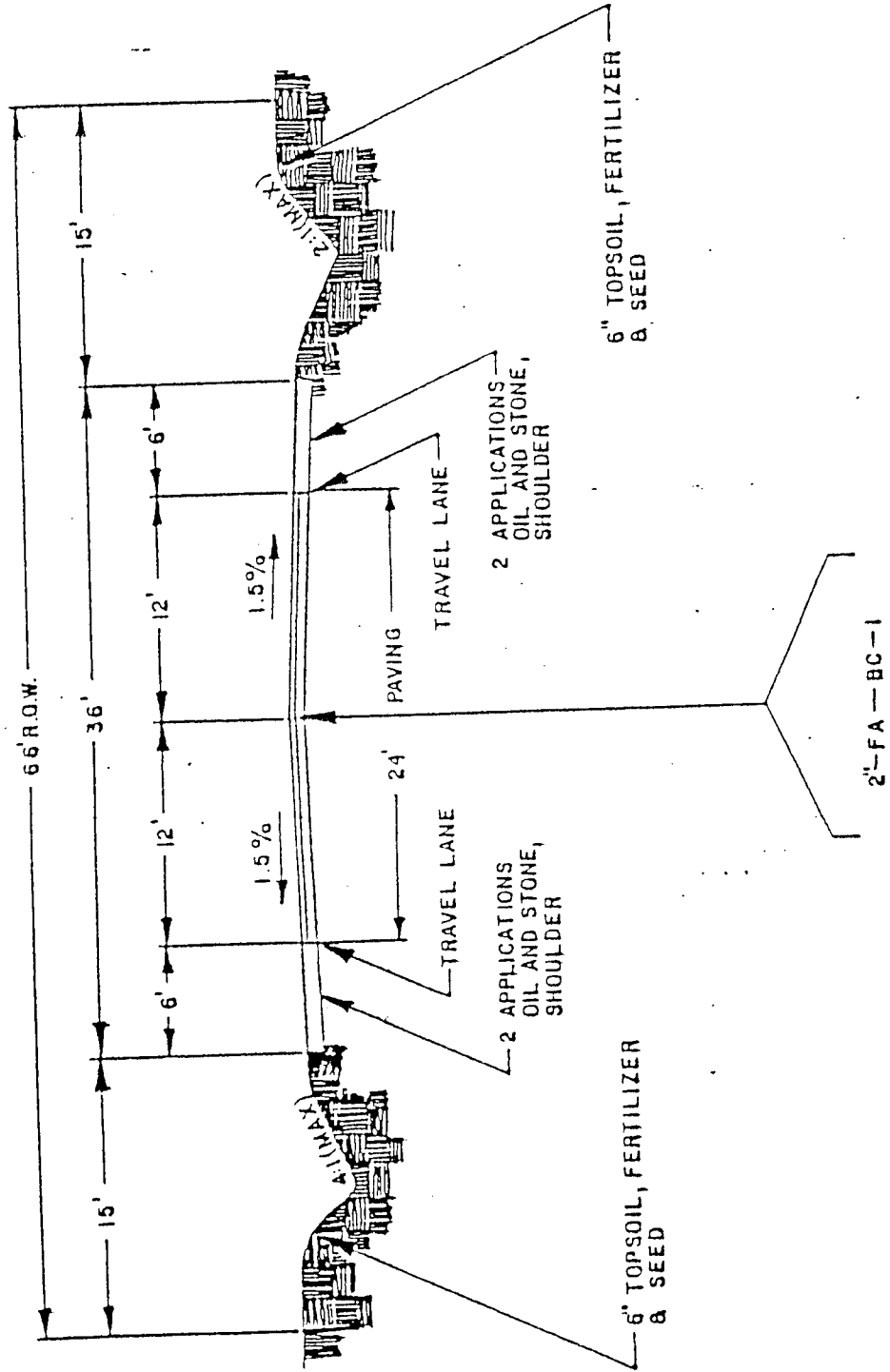
6" GRAVEL BASE COURSE, OR QUARRY BLEND ON STABLE SUBGRADE

2" FA - BC-1

6" TOPSOIL, FERTILIZER & SEED

6" TOPSOIL, FERTILIZER & SEED

PLATE 12 MINOR COLLECTOR (RURAL)



6" TOPSOIL, FERTILIZER
& SEED

2" FA — BC — 1

2" BITUMINOUS STABILIZED BASE

6" GRAVEL BASE COURSE, OR QUARRY CLEANED ON STONE SPREAD

6" TOPSOIL, FERTILIZER
& SEED

2 APPLICATIONS
OIL AND STONE,
SHOULDER

TRAVEL LANE

PAVING

TRAVEL LANE

2 APPLICATIONS
OIL AND STONE,
SHOULDER

TRAVEL LANE

TRAVEL LANE