

Introduced by: Mayor at Request of Road
Service Area Board
Date: 03/13/01
Hearing: 04/17/01
Action: Enacted
Vote: 9 Yes, 0 No

**KENAI PENINSULA BOROUGH
ORDINANCE 2001-06**

AN ORDINANCE AMENDING KPB 14.06, ROAD CONSTRUCTION STANDARDS

WHEREAS, the Kenai Peninsula Borough Road Service Area board, after its annual certification of roads for maintenance underwent a review of the maintenance standards; and

WHEREAS, certain standards need to be clarified and updated; and

WHEREAS, some housekeeping amendments are made so that provisions will be consistent with the remainder of the code, and formatting, sentence construction, and grammar are corrected; and

WHEREAS, the road service area board recommended the following changes to the construction standards at its February 13, 2001 meeting;

NOW, THEREFORE, BE IT ORDAINED BY THE ASSEMBLY OF THE KENAI PENINSULA BOROUGH:

SECTION 1. That KPB 14.06.020 is hereby amended as follows:

All roads within a subdivision must meet or exceed the design requirements of KPB [20.20.010—20.20.260] Title 20 in effect at the time of application for maintenance in order to be certified for road maintenance and in order to remain in the road maintenance program, unless an exception is granted under KPB 14.06.130.

SECTION 2. That KPB 14.06.030 is hereby amended as follows:

The borough adopts the standards for construction of [LOCAL] service area roads contained in [THE PUBLICATION “ROAD CONSTRUCTION STANDARDS” DATED JANUARY 11, 2000, AS SET OUT AT THE END OF] this chapter. Should there be a conflict between the [KPB] road construction standards in KPB 14.06 and those contained in the subdivision ordinance [STANDARDS] or other chapters of the borough code, the [ROAD] KPB 14.06 standards shall control.

SECTION 3. That the Road Construction Standards are hereby amended as follows:

[APPENDIX A. ROAD CONSTRUCTION STANDARDS]

[I.] 14.06.080. Road Construction Standards—Introduction.

A. Overview. The [FOLLOWING] criteria set forth in KPB 14.06.080-200 for the construction of local roads within the Kenai Peninsula Borough represent a minimum standard of construction. Roads shall be built to the highest standard practicable within economical constraints. A right-of-way construction permit prior to construction is required. No roads will be [ACCEPTED] certified for maintenance before June 1 or after October 15 of each year.

B. Application. An application for maintenance shall be submitted on a form approved by the Road Service Area (RSA). Applications for road maintenance must be made pursuant to policies adopted by the RSA Board. Applications for maintenance of existing roads shall be subject to inspection by the RSA. Such inspection may include test holes every 150 feet; engineering analysis of road geometry, drainage, and general adequacy for anticipated traffic; and an as-built survey of the road scaled by a professional land surveyor registered in the State of Alaska under AS 8.48. Applicant shall be responsible for the costs associated with inspection.

[II. DEFINITIONS.] 14.06.090. Road Construction Standards—Construction Categories.

A. Roads shall be constructed for specific traffic volumes and levels of service appropriate for the category of road set forth below. There are four categories of roads. Individual roads shall be constructed in accordance with the standard for the category of road being constructed.

1. Category I: A cul-de-sac road or other minor road, both of which serve less than 15 lots.
2. Category II: A road which serves between 15 and 40 lots.
3. Category III: A road which serves between 41 and 100 lots.
4. Category IV: A road that serves greater than 100 lots.

[III.] 14.06.100. Road Construction Standards—Road Widths.

Category of Road	Minimum Width (Feet)*	Maximum Width (Feet)*
I	20	28
II	22	28
III	26	28
IV	28	28

(*Shoulder to shoulder)

[IV.] 14.06.110. Road Construction Standards—Structures/Bridges.

Bridges, bottomless culverts, walls and other structures on roads certified for borough maintenance shall be in accordance with the current "Standard Specifications for Highway Bridges" (16th edition) and in accordance with the "Policy on Geometric Design of Highways and Streets" (1994). Plans, prepared and stamped by a licensed professional civil engineer, shall be submitted to the RSA Board prior to acceptance of the road for maintenance.

[V.] 14.06.120. Road Constructions Standards—Construction Standards for Maintenance Certification.

A. Typical section. Gravel roads shall be constructed in accordance with the Typical Section (see Drawing A-1 attached) and Table A. Additional requirements are:

1. Roads must be contiguous with the existing road system maintained by the borough and the state. All roads must be on a dedicated right-of-way and must be built along the right-of-way centerline. Minimum right-of-way width [IS TO] shall be 60 feet, enabling utilities to be installed outside the edge of roadside ditches. Minimum width for culs-de-sac serving no more than six lots which cannot be further subdivided is 50 feet.
2. All organic material shall be stripped and removed to a minimum depth of four feet below finished grade. If geotextile is utilized over organics, then the depth of subbase must be three feet minimum or greater as required for stable embankment.
3. Extraction of material between the ditch lines for any purpose other than excavation to subgrade is prohibited.
4. Geotextile shall be placed over all subgrade soils consisting of silts or clays with a frost classification of F-4 (U.S. Corps of Engineers.)
5. The roadway embankment shall be placed in lifts and compacted to not less than 90% of maximum density. Maximum density shall be determined by AASHTO T 180, Method D.
6. In place [OR USEABLE] of usable excavation material meeting the specifications of the required embankment material may be utilized in lieu of borrow.

B. Project specific design. A project specific design may be submitted if prepared and sealed by a licensed professional civil engineer. The design shall include typical section(s), centerline plan and profile. The design shall provide for adequate drainage. The design shall be based on a soils investigation with test holes at least every 500 linear feet. A report shall be submitted with test hole logs and soil analyses. Project specific designs are subject to approval by the RSA Board prior to construction. The RSA Board may require a project-specific as-built, engineering analysis and design to address existing or proposed roads.

C. Alternate construction method. Alternate construction methods may be utilized for Category I and Category II roads where soil, economic and other conditions are such that the standard typical section is not practical. It is the developer's responsibility to construct a functional road that will be suitable for traffic and maintenance operations. Final acceptance by the RSA will be based on inspection and performance testing. Roads constructed under this alternate method must meet the following requirements:

1. A RSA application must be filed prior to start of construction.

2. The road must meet the minimum requirements shown on the Alternate Typical Section (see Drawing A-2 attached).
3. Three inspections are required by the RSA, consisting of initial, midway and final inspections. The final inspection will be conducted one year after the initial application, during the summer season when the subgrade and roadbed are frost free. Photographic documentation will be done by the RSA representative.
4. The applicant must provide the means to conduct a proof roll test during the final inspection. The proof roll test will consist of a fully loaded 12 cubic yard end dump truck traversing the road as directed by the inspector. The minimum proof rolling is full length of the road, on both lanes. If excessive rutting, greater than three inch depth tracks, occurs, remedial work will be required. The RSA representative will designate the defective areas in a written report.
5. Winter maintenance only will be provided during the interim period for one year.

[D.] 14.06.130. Road Construction Standards—Exceptions.

A. Standards. The RSA Board may make an exception to the standard requirements under the following conditions:

1. Compliance with the standard is not economically feasible considering topography, location, and width of right-of-way; traffic volume; traffic flow; or other physical characteristics;
2. The applicant did not cause the condition upon which the request for the exception is based;
3. Substantial compliance with the standards is the most practical means of meeting the objectives of KPB 14.06 [AND APPENDIX A], and strict compliance would result in rejection of the road for borough maintenance; and
4. Alternate treatments or conditions, if required by the RSA Board, will bring the road into substantial compliance with these standards.

B. Board action. The burden is on the applicant to meet the above factors and demonstrate to the RSA board that granting the exception will not undermine the objectives of the standards. The board may deny, modify, or grant the requested exception.

[VI.] 14.06.140. Road Construction Standards—Alignment.

A. Vertical Alignment. Roads shall be constructed in a manner such that grades shall not exceed 6 percent on arterial roads and 10 percent on all other roads, nor 4 percent within 100 feet of any intersection.

B. Horizontal Alignment. Horizontal alignment shall meet the requirements of KPB 20.20.120, 20.20.130 and 20.20.140. Roads shall be constructed along the centerline of the right-of-way and shall have curves meeting the minimum radius requirements of not less than 300 feet for right-of-ways 100 feet in width or more, and not less than 200 feet on all other roads.

C. Clear zone. There shall be a roadside clear of hazardous objects or conditions for a distance consistent with the speed, traffic volume, and geometric conditions of the site. Roads shall be constructed with a minimum clear zone of 6.5 feet. Where hazardous physical features exist which cannot be located outside the clear zone, alternative treatments such as guardrails may be required.

[C]D. Turnarounds. Roads designed to have one end closed, either permanently or temporarily, shall be constructed with a suitable turnaround with a minimum radius of 25 feet. Dedicated cul-de-sacs shall be constructed with a minimum radius of 30 feet. The turnaround shall be constructed to a 4 percent grade or less.

[D]E. Intersections. Street intersections shall be constructed as nearly at right angles as possible. A minimum unobstructed sight distance of 150 feet shall be provided unless a definite finding by the board that a lesser distance is appropriate due to topography, traffic flow or other physical characteristics. Appropriate warning signs may be required by the board if an exception to site distance is granted.

Road intersections shall be constructed with a minimum return radius of 20 feet. Where acute intersections are provided, return radii shall be increased appropriately.

[VII.] 14.06.150. Road Construction Standards—Drainage and Culvert Material.

Roads shall be constructed to prevent ponding of runoff waters in roadside ditches. Drainage ditches shall be constructed such that runoff waters will be conveyed to natural drainage courses, ditches or waterways, or other man-made drainage courses. Outfalls shall be constructed to prevent excessive siltation of riparian habitats, channel erosion or other drainage to public or private property. The RSA Board may require engineering analysis and design for locations susceptible to flooding, excessive siltation, or other natural conditions potentially damaging to the right-of-way, adjacent property, or water courses and water bodies. A roadway cross culvert shall be minimum diameter of 18 inches and driveway culverts shall be a minimum of 12 inches. [ALL C]Culverts, coupling bands and special sections shall be corrugated steel pipe, with a minimum of 16 gauge. Plastic culverts are acceptable if they meet AASHTO Standard Section 706-2.07 corrugated polyethylene pipe, AASHTO M 294, Type S.

[VIII.] 14.06.160. Road Construction Standards—Typical Section Materials.

A. Subbase. Subbase shall contain no muck, frozen materials, roots, sod or other deleterious matter. It shall have a liquid limit not greater than 25 and plasticity index not greater than 6 as determined by AASHTO T89 and T90.

the project site, and if the asphalt is not in accordance with the certified analysis he may reject the materials.

The asphalt required by these specifications shall conform to the requirements of The Asphalt Institute for the type and grade and shall comply with ADOT/PF specifications used in the area.

The contractor/developer, at their own expense, will be required to perform [THREE] field tests measuring aggregate gradation and fracture, asphalt content and compaction [(95%)]. Test results shall be in conformance with pavement mix design requirements and shall be stamped by an Alaska licensed professional civil engineer.

The prepared base shall meet the standards for a Category III road. Inspection of the subbase, by a RSA approved party, is required prior to paving.

C. Certification of Design. The RSA requires the asphalt pavement mix design be submitted and stamped by an Alaska licensed professional civil engineer. Process quality control records for aggregate shall be submitted with the asphalt pavement mix design.

D. Other Specifications. The RSA will use the same specifications previously cited to address seal coat, prime coat, paving geotextile and recycled asphalt paving.

[X.] 14.06.180. Road Construction Standards—Signs.

A. General Information. [1.] Sign location, type of installation, and sign removal will be [ON] as designated by the Roads Director consistent with these standards and RSA Board policy.

B. Street name signs. Street name signage shall be installed by developers of new roads, following the specifications set forth in the “Alaska Sign Design Specifications.”

[2.] C. Speed signs. Speed signage and parking signage shall comply with the requirements of KPB 12.02 and KPB 14.40, respectively, and RSA Board policy.

[3.] D. Unauthorized signage. Unauthorized signs located in the Kenai Peninsula Borough right-of-way may be removed by the RSA.

[4.] E. Vandalism. The removal, defacing and or destruction of RSA signs will be punished to the fullest extent of the law.

[XI.] 14.06.190. Road Construction Standards—Fee Schedule.

The RSA Board may establish a fee schedule to recover costs related to road standard implementation or inspection.

SECTION 4. That KPB 14.06.200 is hereby enacted to read as follows:

14.06.200. Road Construction Standards—Definitions.

For purposes of this chapter, the following definitions apply:

“AASHTO” means “American Association of State Highway and Transportation Officials.”

“Arterial road” means a road intended to carry traffic from local and subdivision roads to major highways. Such roads primarily accommodate relatively large volumes of traffic for relatively long distances at relatively high speeds.

“Board” means the Kenai Peninsula Borough Road Service Area Board, unless otherwise specified.

“Collector road” means roads which provide both land access and carry traffic from local or subdivision roads to arterial or major highway systems.

“Local roads” means internal subdivision roads or a road designed and intended to serve local areas. Such roads primarily accommodate land access to abutting property. Local roads feed traffic into collector and arterial street systems.

“Road construction standards” means the minimal standards set forth in this chapter for the purposes of certification for RSA maintenance.

“Subcollector road” means a local road which also provides through traffic service between local roads and collector, arterial, or major highway roads.

SECTION 5. That KPB 14.32.020 is hereby amended as follows:

A. Special assessments may be levied under this chapter only for the improvement of existing collector and subcollector roads in public rights-of-way up to five miles in length to meet or exceed local road construction standards set forth in KPB [14.06.030] 14.06.080-200.

SECTION 6. That KPB 14.40.040(A)(2) is hereby amended as follows:

2. Seasonal permits may be issued to someone holding a State of Alaska contractor’s license. Such permits shall be valid from May 1 through November 15 of each year for all projects a contractor is construction to the typical section under [KPB 14.06, ROAD CONSTRUCTION STANDARDS, V(A)] KPB 14.06.120(A).

SECTION 7. That KPB 21.44.210(D)(12)(d)(x) is hereby amended as follows:

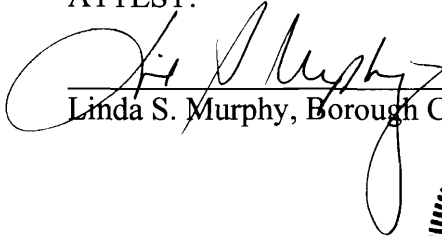
- x. All roads must be constructed to Kenai Peninsula Borough road construction standards, [KPB 14.06, APPENDIX A, ROAD CONSTRUCTION STANDARDS] KPB 14.06.080-200.

SECTION 8. That this ordinance shall take effect immediately upon its enactment.

ENACTED BY THE ASSEMBLY OF THE KENAI PENINSULA BOROUGH THIS 17TH DAY OF APRIL, 2001.


Timothy Navarre, Assembly President

ATTEST:


Linda S. Murphy, Borough Clerk

