

## Appendix C: Upper Bern Township Subdivision and Land Development Ordinance

### Summary Chart of Street Design Standards and Specifications

Design Standards and Specifications <sup>(1)</sup>	Minor or Local Access Street	Cul-De-Sac Street	Minor or Major Collector <sup>(2)</sup>	Arterial <sup>(2)</sup>	Service Street or Access Drive
<b>Design Speed</b>	25 MPH	25 MPH	35 MPH	55 MPH	15 MPH
<b>Right-of-Way Width</b>	50 feet	50 feet	60 feet	100 feet	33 feet
<b>Cartway Width</b>	24 feet	24 feet	24 feet	12 feet per travel lane	24 feet
<b>Minimum Centerline Grade</b>	1 percent	1 percent	1 percent	1 percent	1 percent
<b>Maximum Centerline Grade</b>	10 percent	10 percent	8 percent	8 percent	10 percent
<b>Maximum Grade within 100 feet of an Intersection</b>	5 percent	5 percent	5 percent	5 percent	5 percent
<b>Crown of Road or Cross Slope from Centerline</b>	2.083 percent	2.083 percent	2.083 percent	2.083 percent	2.083 percent
<b>Maximum Horizontal Curve</b>	150 feet	150 feet	300 feet	500 feet	100 feet
<b>Maximum Vertical Curve</b>	200 feet	200 feet	300 feet	400 feet	150 feet
<b>Separation Distance between Intersections</b>	200 feet	200 feet	500 feet	1,000 feet	100 feet
<b>Minimum Curb Radius</b>	20 feet	20 feet	30 feet	40 feet	15 feet
<b>Clear Sight Triangle</b>	75 feet	75 feet	100 feet	150 feet	50 feet
<b>Minimum Sight Distance</b>	Refer to Appendix D of this Ordinance for the minimum requirements for sight distance. Upper Bern Township and/or the Pennsylvania Department of Transportation may require additional sight distance than those referenced in Appendix D by considering the functional classification of the road, traffic volumes, vehicular speed, pedestrian movements, land use and other relevant site conditions.				
<b>Street Construction and Improvement Specifications</b>	Refer to Appendix F of this Ordinance for the standards and specifications for street construction.				
<b>Street Names, Street Signs and Street Lights</b>	Refer to Appendix F of this Ordinance for the requirements for street names, street signs and streetlights.				
<b>Curb and Sidewalk Improvement Specifications</b>	Refer to Appendix F of this Ordinance for the standards and specifications for curbs and sidewalks.				
<b>Other Requirements</b>	In addition to the general requirements specified within this summary chart, the Upper Bern Township Engineer or Planning Consultant may identify other requirements for subdivision and land development, which have been adopted or referenced within this Ordinance.				

**General Notes and References:**

- (1) The design standards and specifications referenced on this summary chart are intended to consider the public health, safety and general welfare, and shall be applied as such by the Upper Bern Township Board of Supervisors, Planning Commission, Engineer and Planning Consultant in reviewing all subdivision and land development plans.
- (2) Where collector or arterial roads are to be owned and maintained as state roads, the Pennsylvania Department of Transportation may apply optional design standards and specifications for the design and construction of streets.

## Upper Bern Township Subdivision and Land Development Ordinance

### Minimum Sight Distance Requirements at Street Intersections (measured in feet)

Average Centerline Road Grade		Speed Limit of Intersecting Street (Miles Per Hour or MPH)						
		25 MPH	30 MPH	35 MPH	40 MPH	45 MPH	50 MPH	55 MPH
<b>Positive Road Grade to Intersection</b>	<b>+ 10 %</b>	135	177	221	274	330	392	454
	<b>+ 9 %</b>	136	178	224	277	334	397	461
	<b>+ 8 %</b>	137	180	226	280	339	403	468
	<b>+ 7 %</b>	138	182	228	284	343	409	475
	<b>+ 6 %</b>	139	183	231	287	348	415	482
	<b>+ 5 %</b>	140	185	233	291	353	422	490
	<b>+ 4 %</b>	142	187	236	295	358	429	499
	<b>+ 3 %</b>	143	189	239	299	364	436	508
	<b>+ 2 %</b>	144	191	242	304	370	444	517
	<b>+ 1 %</b>	145	194	245	309	376	453	527
<b>Flat Grade: 0 %</b>		147	196	249	314	383	462	538
<b>Negative Road Grade to Intersection</b>	<b>- 1 %</b>	148	199	252	319	390	471	550
	<b>- 2 %</b>	150	201	256	325	396	481	562
	<b>- 3 %</b>	151	204	260	331	406	492	576
	<b>- 4 %</b>	153	207	265	338	415	504	590
	<b>- 5 %</b>	155	210	269	345	425	517	606
	<b>- 6 %</b>	157	214	275	352	435	531	622
	<b>- 7 %</b>	159	217	280	360	447	546	641
	<b>- 8 %</b>	161	221	286	369	459	563	661
	<b>- 9 %</b>	164	226	292	379	472	581	682
	<b>- 10 %</b>	166	230	299	389	487	600	706

Note 1: The positive or negative road grade approach to the intersection shall be the average centerline grade within 300 feet of the centerline of the intersecting street.

Note 2: Sight distance measurements shall be made in each direction from a point 10 feet from the edge of the cartway and 3.5 feet above the road surface to a point 3.5 feet above the centerline of the road.

Note 3: Where the provisions established within this chart are less than the sight distance requirements and/or safe stopping distance requirements established by the American Association of State Highway and Transportation Officials (AASHTO) and the Pennsylvania Department of Transportation, the more restrictive requirements shall apply.

Note 4: Upper Bern Township and/or the Pennsylvania Department of Transportation may require additional sight distance than those referenced on this chart by considering the functional classification of the road, traffic volumes, vehicular speed, pedestrian movements, land use and other relevant site conditions.