ARTICLE 6

REQUIREMENTS FOR DESIGN AND CONSTRUCTION OF ROADS AND RELATED FACILITIES

601 General Requirements

The owner shall grade, drain, surface and otherwise improve the roadway of all streets shown on his Plat so as to provide reasonable access for vehicular traffic to each lot of the subdivision in accordance with the requirements of this Article.

The Village, in the interest of public safety and convenience, desires to keep points of access to any development abutting a major arterial to a minimum. Therefore, any such proposed development shall contain provisions for egress and ingress between such parcels or such access is to be attained from adjacent minor streets.

Curvilinear designs are encouraged with cul de sacs kept to a minimum. Straight sections of pavement 500 ft or longer are discouraged. Only 90 degree intersections are allowed. Intersection alignments are desired. The use of natural terrain is encouraged and natural resources should be preserved and maintained. Creative landscaping design for parkways and open space is desired. Interconnecting of adjacent subdivisions is encouraged.

602 Standard Specifications and Design Requirements

Whenever reference is made to *Standard Specifications*, it shall mean the *Standard Specifications for Road and Bridge Construction*, adopted July 1, 1994 by the Illinois Department of Transportation (IDOT), as amended.

Whenever reference is made to *Design Requirements*, it shall mean the *Schedule of Minimum Design Requirements for Subdivision Roads in the Village of Johnsburg* (Section 608 of this Article).

Whenever reference is made to the *Standard Specifications for Water and Sewer Main Construction in Illinois*, it shall mean the standards adopted in May 1986 by the ISPE, CECI, Illinois Municipal League and AGC of Illinois.

603 Classification of Roads

The Plan Commission and the Village Engineer shall classify each street shown on the Plat of Subdivision as to its functional use as follows.

603.1 Major Streets. Main entrance streets within a subdivision which will presently or may in the future provide access to 60 or more residential lots shall be classified as "Major Streets." Streets which are adjacent or provide access to schools, parks and major apartment complexes shall also be classified as "Major Streets."

603.2 Residential Streets. Streets providing access to residential property which are not classified as Major Residential Streets shall be classified as "Residential Streets."

603.3 Business Access and Industrial Access Streets. Streets providing access to commercial or industrial property shall be classified as "Business Access Streets" or "Industrial Access Streets", respectively.

604 Specifications for Subdivision Road Construction

The following specifications shall govern subdivision road construction in the Village of Johnsburg.

604.1 Excavation and Grading. Streets within the subdivision shall be excavated true to line and grade in accordance with applicable articles of *Section 202* of the *Standard Specifications*. Whenever unsuitable material is encountered in the sub grade, it shall be removed and replaced with pit run gravel or other acceptable granular material. The Village Engineer shall inspect and approve the sub grade prior to construction of the aggregate surface course. This shall be accomplished by use of a "proof roll" or other methods required by the Village Engineer. The Village requires a record drawing prepared by a license engineer/surveyor showing elevations after mass grading has been completed, and it must be reviewed by the Village Engineer prior to aggregate placement.

604.2 Aggregate Base Course. An aggregate base course Type B shall be constructed on each street in the subdivision to the width and compacted thickness as shown on the Design Requirements and in accordance with Section 351 of the Standard Specifications. The material used for the full depth of the course shall meet the requirements of *Subsection 704.04 of the Standard Specifications for Aggregate Base Course Type B.*

604.3 Bituminous Surface. A plant mix bituminous surface course of the width and type shown in the *Design Requirements* shall be constructed on all streets in the subdivision. The bituminous surface shall not be constructed until the aggregate base course has been completed and in place on the road for one winter season. This requirement may be waived by the Village Engineer only if an aggregate base Type B was constructed in accordance with *Section 351* of the *Standard Specifications*. In no case shall the bituminous surface be constructed until the aggregate surface course has been approved by the Village Engineer.

A. Preparation of Base. Immediately prior to construction of the bituminous surface, the aggregate base course shall be prepared in accordance with *Section 301* of the *Standard Specifications*.

B. Bituminous Surface Plant Mix (Class B). Bituminous surface plant mix shall be constructed in two lifts to the compacted thickness shown on the *Design Requirements* and in accordance with *Section 405* of the *Standard Specifications*.

C. Aggregate Shoulders Type B. Immediately after completion of the bituminous surface, the aggregate base course shall be edged with tapered aggregate shoulders 4 feet in width and constructed in accordance with *Section 481* of the *Standard Specifications*.

604.4 Drainage. Suitable ditches (see Design Requirements) shall be constructed along each side of the roadbed, and drainage structures shall be installed as necessary to ensure the satisfactory drainage of surface water throughout the subdivision and any area adjacent to it. The sizes of all drainage structures shall be computed by using accepted engineering methodology. All drainage structures shall be installed before surfacing material is placed.

A. Cross-road culverts shall have a minimum diameter of 18 inches and shall consist of metal with metal flared end sections that meet IDOT standards or concrete. Substitute materials may be permitted with the approval of Village Engineer and Village of Johnsburg.

B. All driveways entering upon new or proposed roads, existing roads, or roads already accepted by the Village, Township Road District or County shall utilize culverts comprised of metal with concrete ends of a size to be determined by the Village Engineer, County Superintendent of Highways or Township Highway Commissioner. In no event shall such culverts along new or proposed roads be less than 15 inches in diameter or less than 26 feet long. In existing subdivisions the size of the culvert shall be determined by the Village Engineer, but in no case shall it be less than 12 inches in diameter or less than 26 feet long. All culverts shall be comprised of metal with metal flared end sections that meet IDOT standards or concrete.

C. Pipe culverts shall meet the requirements of *Section 542* of the *Standard Specifications*.

When the developer is required to install curb and gutters by the Village, underground storm water sewer facilities shall be constructed along each side of the roadbed, and drainage structures shall be installed as necessary to ensure the satisfactory drainage of surface water throughout the subdivision and any area adjacent to it. The sizes of all drainage structures shall be computed by using accepted engineering methodology. All drainage structures shall be installed before surfacing material is placed.

604.5 Seeding. Prior to acceptance of any street, the shoulders and ditches shall be smoothed by dragging and planted with a seed mixture appropriate to the time of year in accordance with the recommendations of the USDA, Soil Conservation Service.

604.6 Signs. The subdivider shall furnish and erect all necessary signs, including street signs, as designated by the Village Engineer and Police Department. All signs shall be of a type approved by the Village Engineer and Police Department.

604.7 Concrete Curbs and Gutters. All village streets shall be constructed with an abutting curb assembly except in the Estate District (See Article 608.1 for curb and gutter criteria in Estate District). The design and construction of said curb whether rolled, barrier, V gutters or some other design will be dictated by topographical conditions or other special conditions and at the Village engineer's direction, unless such conditions exist which will counter the use of any such type of curb assembly. Concrete shall be designed to have a minimum 28-day strength of 3500 PSI except that not less than six bags of cement shall be used per cubic yard of concrete and shall satisfy the criteria for the State of Illinois Standard details and the Village details and shall be constructed in accordance with the applicable sections of the IDOT Standard Specifications latest revision then in effect which are incorporated herein by this reference.

604.8 Landscaping.

A. Street Trees. Along each side of any newly created street, the developer shall either plant or retain sufficient trees so that between the paved portion of the street and a line running parallel to and 25 feet from the paved portion of the street, there is for every 40 feet of street frontage at least one Type A tree or two Type B trees. If due to the presence of special topographical features, the location of driveways, or compliance with other standards in this Ordinance, the developer can not reasonably plant a tree or trees within the distance set out above, he may comply with the intent of the above standard by adding the deficient plantings to street trees required elsewhere on the same street.

The developer shall select trees that are appropriate for the location. Trees set out in *Appendix K* and entitled *Recommended Street Trees* are presumed to be appropriate; while those entitled *Not Recommended Street Trees* are resumed inappropriate. In selecting trees that are not on the list, the developer shall consider (1) the general suitability for the climate and soil conditions of this area, especially its hardiness and growth rate, (2) the ease of maintenance and resistance to pests and diseases, (3) the tolerance of urban conditions, particularly road salt and air pollution, (4) the suitability of its branching and foliage, especially the potential for low branching that might interfere with use of the streets by motor vehicles, and (5) the availability from local nurseries. Type B trees should be planted under overhead electric lines.

Type A and B trees shall have a minimum caliper at a height of 1 foot above the ground of at least 2.5 inches and 1.5 inches respectively. Except where the Village consents, the developer shall not plant trees within the street right-of-way. Nor shall he plant trees within any utility or municipal easement which prohibits planting, nor within areas needed for site distance.

Existing trees shall be protected and maintained, and new trees shall be planted and maintained in a manner consistent with standard horticultural and construction practices related to protecting trees in this area. Some

guidelines are set out in *Appendix K*. Trees in the right-of-way that die or are severely damaged prior to the street being accepted for dedication by the Village or other governmental entity shall be replaced by the developer. Trees that are placed outside the right-of-way that die or are severely damaged shall be replaced by the property owner.

A Type A tree is a larger deciduous tree; one that should have, when fully mature, a height of at least 45 feet. A Type B tree is a small deciduous tree; one that should have, when fully mature, a height of at least 20 feet.

B. Retention of Existing Trees. The developer shall retain to the maximum extent practical existing trees whose width is 18 inches and greater and significant clusters of trees with widths of 4 inches and greater.

C. Tree Survey. For the purpose of complying with the above requirements, the developer shall submit with his Tentative Plat a tree survey showing trees that meet the above requirements. Where the number of trees that would meeting the above requirement is so extensive as to impose an unfair burden on the developer, the developer may indicate the wooded areas by showing the approximate perimeter of the trunks constituting such an area and listing the types and sizes of trees within that perimeter. In any event the developer will clearly note any trees that meet the standards set out in (B) above and that lie within 25 feet of any right-of-way or within any other easement.

604.9 Street Lighting. Every development shall provide street lighting in accordance with a plan designed by the utility company, or using the below guidelines promulgated by the *Illuminating Engineering Society of North America*, as set out in the *IES Lighting Handbook--Application Handbook* (New York, IES, 1987).

	Commercial		Intermediate		Residential	
Street Hierarchy	Lux	FC	Lux	FC	Lux	FC
Major Streets	12	1.2	9	0.6	6	0.6
Collector Streets	8	0.8	6	0.6	4	0.4
Local Streets	6	0.6	5	0.5	3	3

FC means foot candle

For purposes of this Section, major streets are the part of the roadway system that serve as the principal network for through traffic flow. Local streets are used primarily for direct access to residential, commercial, industrial and other abutting property. Collector streets serve traffic between major and local roadways.

Notwithstanding the above, every street intersection shall have at least one streetlight placed in such a manner as to adequately light the intersection. Furthermore, whenever blocks exceed 500 feet in length, an additional streetlight shall be provided.

Unless otherwise approved by the Village, all street lighting shall be installed and maintained by ComEd using standard ComEd fixtures and poles. Where there is a choice of poles, fixtures and size of luminaire, the Village shall make the final selection. The Village has adopted Com Ed's model entitled "Acorn" as the street light standard for all subdivision street lighting. Said poles shall be twelve feet in height with 150 watt metallic halite bulbs. All costs associated with the installation of the ComEd street lighting equipment shall be paid by the developer.

All streetlights shall be on at dusk and off at dawn. Streetlights shall be controlled by a photo cell mounted on top of the luminaire. The height and shielding of lighting standards shall provide proper lighting without hazard to drivers of nuisance to residents, and the design of lighting standards shall be of a type appropriate to the municipality. Streetlight standards shall be installed 30 inches behind the back of curb except where the distance between the curb and sidewalk prohibits this location.

Lighting for safety shall be provided along walkways, between buildings and in parking areas that have or could be expected to have significant night traffic. Spotlights, if used, shall be placed on standards pointing toward the building and positioned so as not to interfere with the use of adjacent properties.

Yard lighting shall be required in all newly developed subdivisions. The Village has adopted the Com Ed's model entitled "Acorn" as the yard lighting standard for all new subdivisions. Said poles shall be 8 feet in height, utilizing bulbs not to exceed 75 watts.

604.10 Sidewalks.

A. Concrete sidewalks, 5' wide, 5" in depth over 4" aggregate base shall be required on both sides of a street in all subdivisions except Estate Zoning subdivisions which require sidewalks on one side of the street only. Sidewalks shall be installed prior to the issuance of any building permit for the subdivision. The ramps and depressed curbs shall be designed and constructed in accordance with the latest revision to the Illinois Accessibility Code. See Detail L.

B. Five foot wide concrete sidewalks are required for all lots in a Business, Commercial, Industrial, Retail or Special District zoning district classification.

C. The Village Board may require that concrete sidewalks be provided elsewhere than as required above, where considered necessary to public safety due to anticipated concentration of pedestrian traffic.

D. Concrete sidewalks shall be installed in accordance with the most recently revised IDOT specifications which are hereby incorporated by this reference.

E. Handicapped ramps shall be installed where directed by the Village and in accordance with the Americans with Disabilities Act.

605 Road Plans: Development and Approval

Before a Final Plat may be approved by the Plan Commission, the following procedure must be completed.

605.1 Road Requirements. Complete road plans, prepared by a registered professional engineer, shall be submitted. The road plans shall show sufficient data to ensure compliance with the above requirements for roads and roadside drainage facilities, and must meet the minimum requirements set forth in *Appendix D*.

605.2 Estimate of Cost. A complete and detailed estimate of cost, prepared by a registered professional engineer, shall be submitted. The cost estimate shall set forth all items of work to be performed and the estimated cost thereof.

605.3 Road Approval. The road plans and cost estimates shall be reviewed and approved by the Plan Commission and the Village Engineer. Plans which appear unworkable and estimates which appear inadequate will not be approved.

605.4 Road Construction Security. When the road plans and both cost estimates have been approved, the owner shall obtain good and sufficient security to ensure that the road construction will be completed and the roads will be maintained until accepted. The security furnished shall meet the requirements of *Appendix J*.

605.5 Dedication of Land Burdened by Prescriptive Easement. In the event that any portion of the land encompassed by a final plat of subdivision or adjacent thereto and owned by the developer is a public highway by prescription, or is otherwise utilized by the public as a road, street or highway, such area shall be dedicated to the Village in fee simple title and the final plat shall contain the language and signatures necessary as to effect such dedication as set forth in the Plat Act.

606 Roads: Construction, Maintenance and Acceptance

606.1 Beginning Road Construction. No road construction work shall be started until a Final Plat has been approved by the Board of Trustees and recorded.

606.2 General Supervision. The subdivider shall employ a registered professional engineer who shall be responsible for establishing the proper lines and grades for all earth work and drainage and shall exercise general supervision as construction progresses. For the purpose of this Section, general supervision shall mean sufficient overseeing of the project to assure that construction of the engineering improvements is accomplished substantially in accordance with the approved plans and specifications.

606.3 Completion Schedule. All construction items, except the bituminous surface and seeding, shall be completed within one year after approval of the Final Plat. The bituminous surface and seeding shall be completed within 18 months after approval of the Final Plat. Only under extreme conditions may a Letter of Credit be extended. Any extension must first be

approved by the Board of Trustees. It shall be the obligation of the developer to request such an extension in a timely manner.

606.4 Road Maintenance. The subdivider shall be responsible for maintaining all roads in the subdivision until such roads have been accepted by the appropriate highway authority. Maintenance, which shall include snow plowing, shall be adequate to ensure ingress and egress to all lots which have been sold.

606.5 Work Inspection During Construction. Subdivision roads will not be accepted by the Village Engineer until all construction detail in the plans has been completed. It is the responsibility of the subdivider to consult with the Village Engineer before the work has begun to afford the Village Engineer an opportunity to inspect the work as construction progresses.

Approval by the Village Engineer or the Village's inspector shall not be deemed acceptable of such roads or other improvements by the Village. Acceptance shall only be by motion of the Village Board.

606.6 Siltation and Roadway Flooding. When roadside drainage facilities include drywells, adequate precaution shall be taken to ensure against siltation until protective vegetation has been established in the ditches, and overflow provisions shall be provided to prevent roadway flooding.

607 Existing Subdivisions: Acceptance of Roads

If roads in existing subdivisions connect with roads dedicated to the public and are made to comply with the provisions of this Ordinance, they may be accepted and maintained by the Village in accordance with *Section 6-325* of the *Illinois Highway Code*. The Village Engineer shall be consulted before beginning construction on such roads in existing subdivisions. In addition, as a condition precedent to the issuance of a building permit for a lot, the applicant shall deposit with the Village a road bond issued by a surety licensed in the State of Illinois and approved by the Village in favor of the Village in the amount of $10,000.00. The road bond shall be utilized by the Village to reimburse it for any damage to Village roads, streets or other public improvements damaged by the applicant, the applicant's contractors, agents, employees or other parties retained in connection with the construction process on the relevant lot.

608 Schedule for Minimum Design Requirements for Subdivision Roads.

608.1 Minimum Design Requirements. The following minimum design requirements shall apply to subdivision roads in the Village.

Section 10 Article 608.1
Schedule of Minimum Design Requirements for Subdivision Roads

Access	Residential Streets	Major Streets	Business/Industrial Streets
Right-of-Way	60' minimum. (See Notes 1&4) See typical section for various options.	60' minimum. (See Notes 1&4) See typical section for various options.	60' minimum. (See Notes 1&4) See typical section for various options.

Horizontal Alignment	250' radius minimum at centerline	361' radius minimum at centerline	431' radius minimum at centerline
Vertical Alignment	8% maximum (See note No. 2) 2% minimum or 1% curb and gutter.	5% maximum (See note No. 2) 1% minimum with curb and gutter.	5% maximum (See note No. 2) 1% minimum with curb and gutter.
Ditch Slope	2% minimum 1% may be considered if under drain is used.	2% minimum 1% may be considered if under drain is used.	2% minimum 1% may be considered if under drain is used.
Aggregate Base Course	12" minimum thickness. Extend 2' beyond edge of pavement and 1' beyond curb and gutter. See typical section for details.	12" minimum thickness. Or Combination of bituminous materials. Extend 2' beyond edge of pavement and 1' beyond curb and gutter. See typical section for details.	12" minimum thickness. Or Combination of bituminous materials. Extend 2' beyond edge of pavement and 1' beyond curb and gutter. See typical section for details.
Bituminous Surface Course	3" minimum placed in two lifts. See details/typical section for various options and specifications.	3" minimum placed in two lifts. See details/typical section for various options and specifications.	3" minimum placed in two lifts. See details/typical section for various options and specifications.
Road width	See typical section for details and widths for various applications.	See typical section for details and widths for various applications.	See typical section for details and widths for various applications.
Cul-de-Sacs	Minimum diameter 140' of right-of-way. Minimum diameter 100' of pavement.	Minimum diameter 140' of right-of-way. Minimum diameter 100' of pavement	Minimum diameter 140' of right-of-way. Minimum diameter 100' of pavement
Shoulder Width	2' minimum in Estate Zoning. See typical section for various details.	4' minimum in Estate Zoning. See typical section for various details.	4' minimum in Estate Zoning. See typical section for various details.
Roadway Ditches	24" deep V-type. See typical section for various details.	24" deep V-type. See typical section for various details.	24" deep V-type. See typical section for various details.
Maximum Earth Slopes for Ditches	Front 4:1 Back 4:1 (See Note 3)	Front 4:1 Back 4:1 (See Note 3)	Front 4:1 Back 4:1 (See Note 3)
Curb and Gutter	24" rolled curb/gutter B6.12 at entrances extended 100' minimum into development. B6.12 at intersection radii. Mountable curbs or v-gutters will be reviewed on a case by case basis. Curb and gutter is required for roads with a 5% slope or greater or roads extended through	B6.12 minimum Or M6.12 minimum See Detail K	B6.12 minimum Or M6.12 minimum See Detail K

	existing wooded areas or sensitive areas to minimize impacts. See Detail H for Estate Zoning areas and Detail K for all other areas.		

Notes:

Note 1: Wider right-of-way may be required if deemed necessary by the Plan Commission or the Village Engineer

Note 2: Maximum length vertical curves consistent with good engineering practice and compatible with the terrain shall be used between changes in grade.

Note 3: Earth slopes shall be as flat as possible and shall in all cases be carried to the property line. Construction easements shall be indicated on the Plat at locations where additional width is required to meet slope requirements.

Note 4: The minimum right-of-way width for Arterial Roads, including but not limited to Bay Road, Spring Grove Road, Johnsburg-Wilmot Road, Ringwood Road, Pioneer Road, Broadway Road, Miller Road, Chapel Hill Road and Riverside Drive shall be 100 feet and Illinois Route 31 shall be a minimum of 120 feet. However, in no event shall any dedicated street, road or right-of-way be less than 60 feet in width.

Note 5: See Details A, B and C for typical road section options for residential zoned district.

Note 6: See Details D, E, F and G for typical road section options for Major Streets and Business/Industrial Streets.

General Note: Return radii at all intersections shall be a minimum of 30 feet back of curb in residential areas and a minimum of 50 feet in commercial, industrial and retail areas based on truck turning. Corner lots shall have radii such that the distance from the edge of the pavement to the right-of-way line is approximately 20 feet.

608.2 Street Frontage. Any lot created after the effective date of this Ordinance shall have a minimum street frontage as set out below.

District	Minimum Frontage (Ft)
E1, E3, E5	90
All Others	75

The minimum street frontage may be reduced along the outside curve of roads with following radius by the following percentage:

Radius of Curve Along Right-of-Way	Percent Reduction
Over 4,000 feet	0
2,199 to 4,000 feet	10
1,101 to 2,000 feet	15
826 to 1,100 feet	20
651 to 825 feet	25
526 to 650 feet	30
431 to 525 feet	35
361 to 430 feet	40
301 to 360 feet	45
251 to 300 feet	50
Under 251 feet	60

608.3 Alleys. Alleys are not required. Lots cannot front on an alley. Where alleys are provided, they shall not be less than 20 feet wide and shall conform to road requirements for construction.

608.4 Street Names. All streets shall be named, and in the case of branching streets, the line of departure from one street to another shall be shown. Each street shall have a unique name which will not duplicate any other in the same or adjoining township. The use of parallel streets with the same name differentiated only by compass direction shall not be permitted. A loop road shall have only one street name for the entire loop.

609 Underground Utilities: Installation and Restoration

609.1 Coordination of Utility and CATV Companies. It is recommended that the developer keep all utility and CATV companies appraised of progress on the subdivision, and coordinate his construction activities with those of the utility and CATV companies.

609.2 Restoration of Ditches and Turf. If underground utility installation cannot be completed prior to final grading and seeding, it shall be the responsibility of the developer to restore ditches and turf following installation of underground utilities.

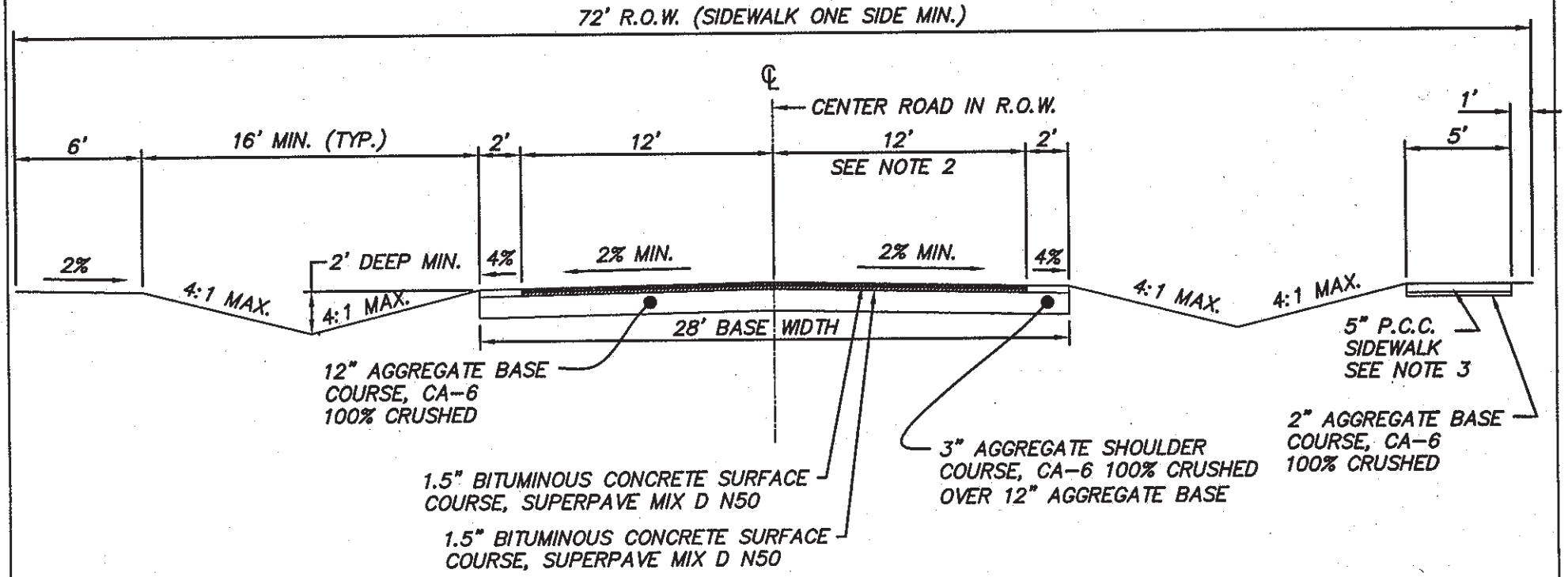
609.3 Replacement of Aggregate Surface Course. Utility companies shall not dig trenches across any roads after placement of the aggregate surface course unless complete restoration, meeting the approval of the Village Engineer, is provide.

609.4 Utility Line and Transformer Box Placement. All utility lines shall be placed underground in easements along rear lot lines of the subdivision or as otherwise allowed by the Village Board. Conduits and/or cables shall be placed within the easements or dedicated public

ways in a manner which will not conflict with other underground services. All transformer boxes shall be located so as not to be unsightly or hazardous to the public.

610 Occupancy Permit

A Certificate of Occupancy for any building or structure shall not be issued unless all the requirements in this Article pertaining to design and construction of roads and roadside drainage facility have been complied with.

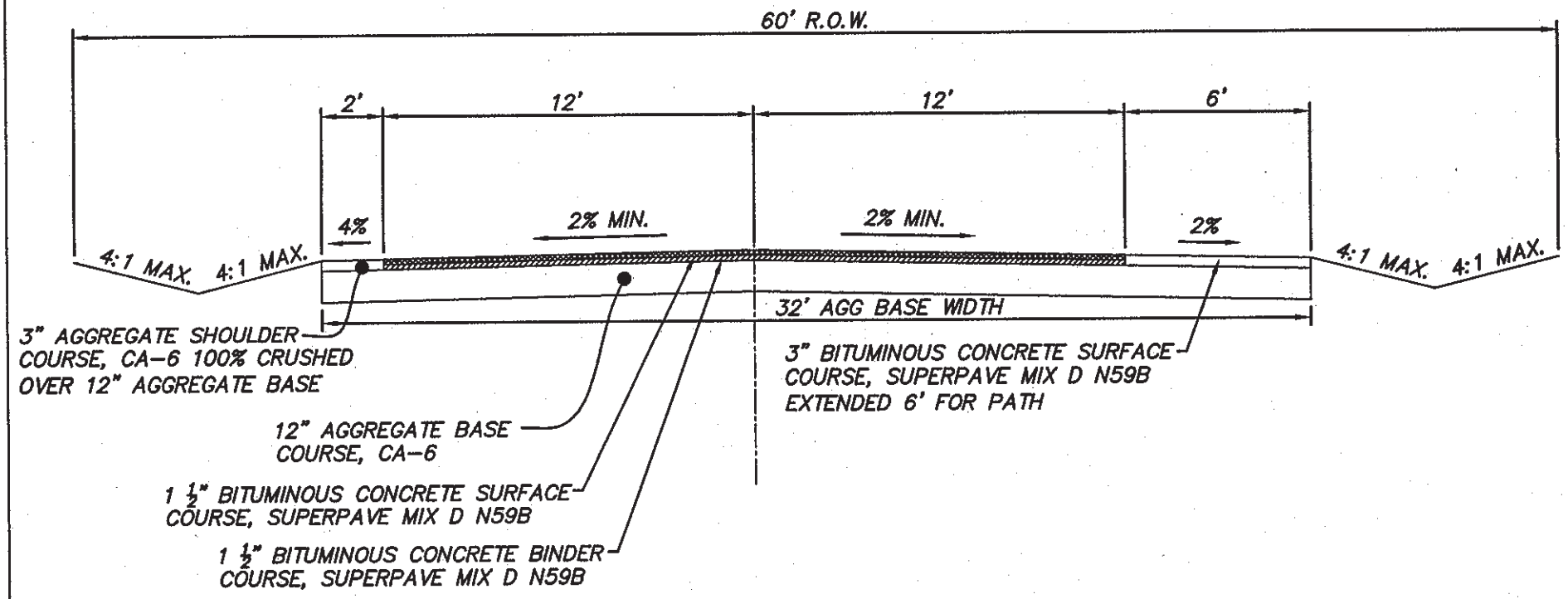


NOTE:
1. 22" PAVEMENT WIDTH IS ALLOWED IF CURB & GUTTER IS USED.
2. 24" MIN. IS USED IN CONJUNCTION WITH 2' SHOULDER DETAIL
3. SIDEWALK IS REQUIRED ON ONE SIDE AT A MIN. IN ESTATE ZONING.

Village of Johnsburg	REVISIONS NO.	BY	DATE
PUBLIC WORKS DEPARTMENT			

DETAIL A – STREET CROSS SECTION, RESIDENTIAL, MINOR/CUL-DE-SAC

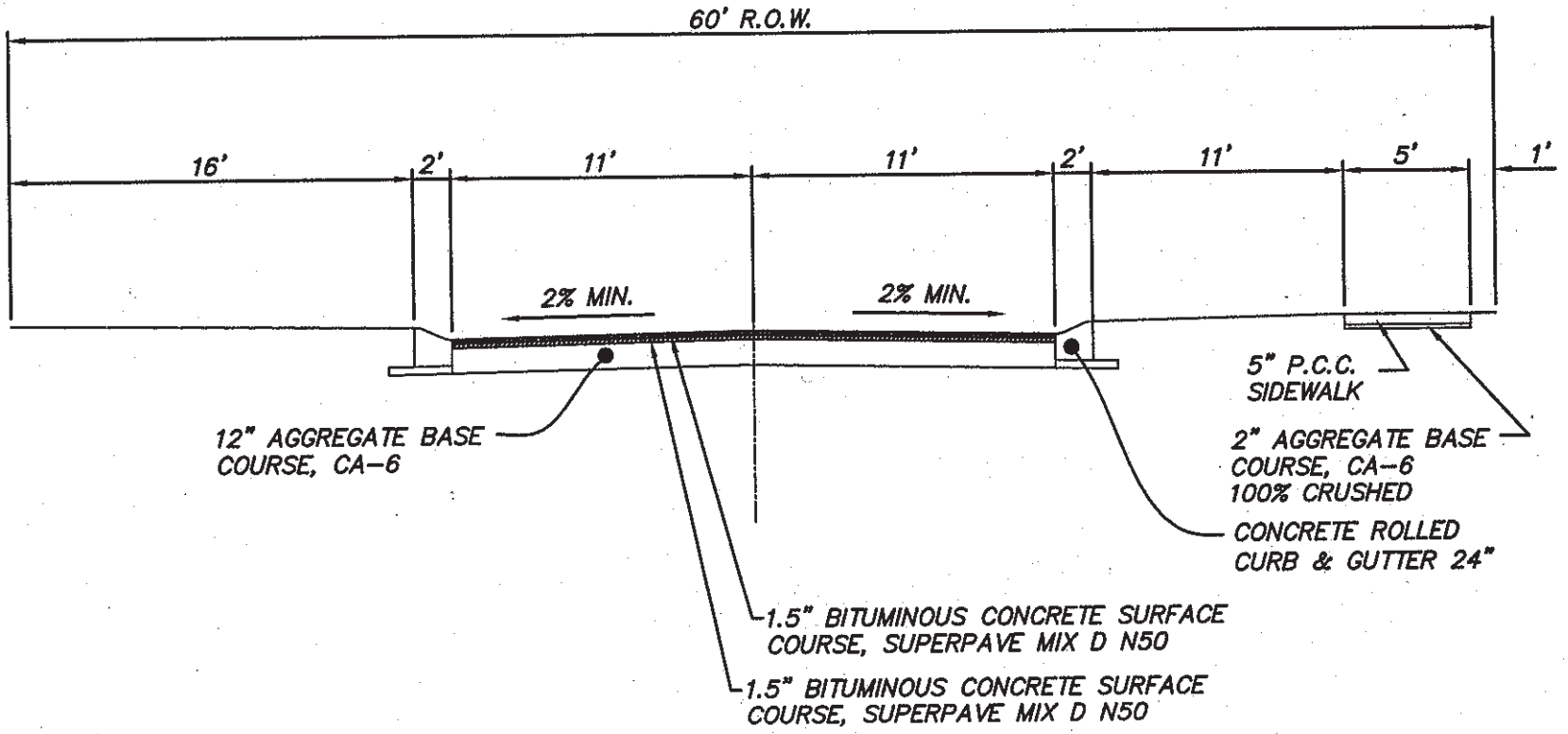
12/04



Village of Johnsburg	REVISIONS NO.	BY	DATE
PUBLIC WORKS DEPARTMENT			

DETAIL B – STREET CROSS SECTION RESIDENTIAL, MINOR/CUL-DE-SAC W/ PEDESTRIAN PATH ADJACENT TO PAVMENT

12/04



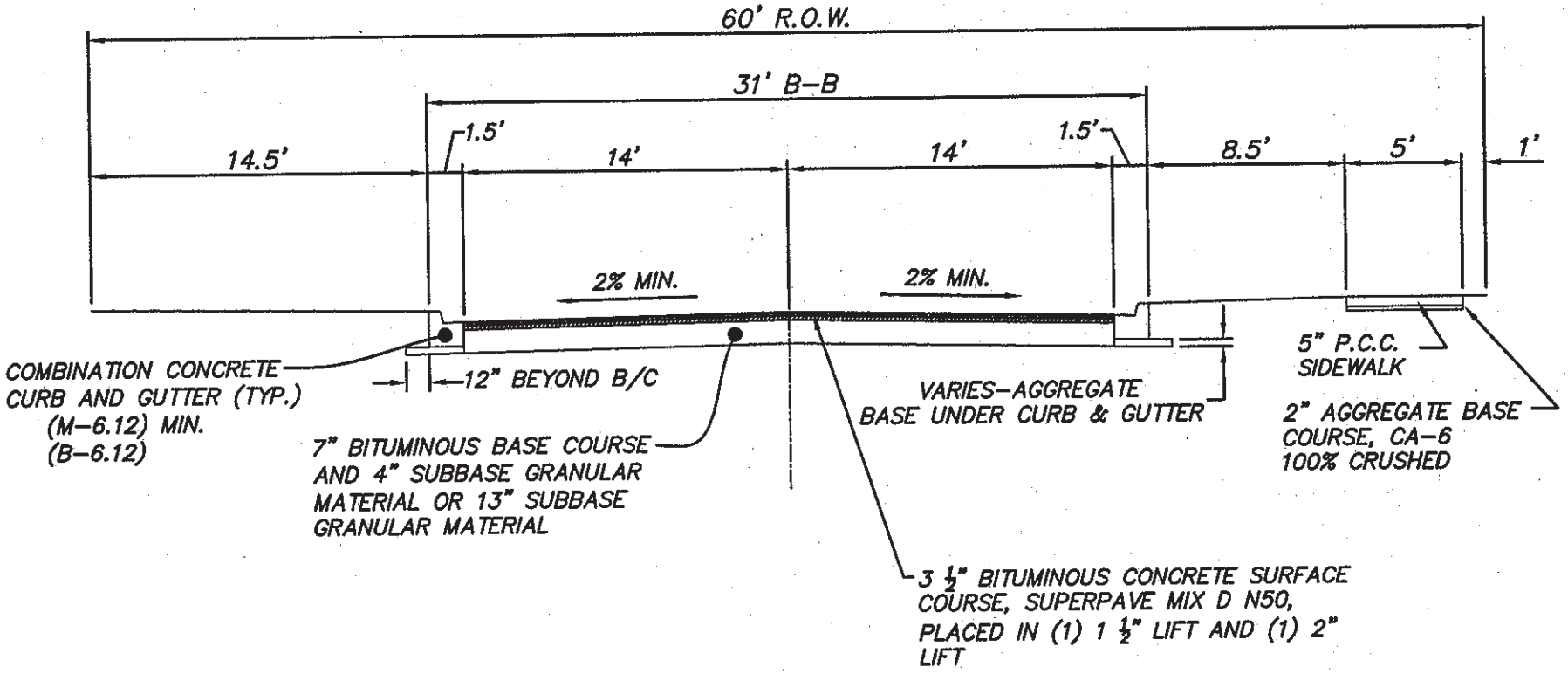
NOTE:
-CURB & GUTTER IS REQUIRED IN 2 DU/AC DEVELOPMENTS
-1 DU/AC SEE CURB & GUTTER NOTES AT RIGHT

CURB & GUTTER DETAILS
1. B-6.12 CURB & GUTTER IS REQUIRED AT ALL ENTRANCES & EXTENDED INTO DEVELOPMENT A MIN. OF 100'
2. B-6.12 CURB & GUTTER IS REQUIRED AT ALL INTERSECTION RADII.
3. CURB & GUTTER IS REQUIRED ON ALL ROADS OF 5% OR GREATER SLOPE TYPE OF CURB BY DESIGN ENGINEER
4. CURB & GUTTER IS REQUIRED WHEN EXTENDING A ROAD THRU EXISTING WOODED AREAS/AND OR TO MINIMIZING IMPACTS TO SENSITIVE AREAS.

Village of Johnsburg	REVISIONS NO.	BY	DATE
PUBLIC WORKS DEPARTMENT			

DETAIL C - STREET CROSS SECTION, RESIDENTIAL, MINOR/CUL-DE-SAC

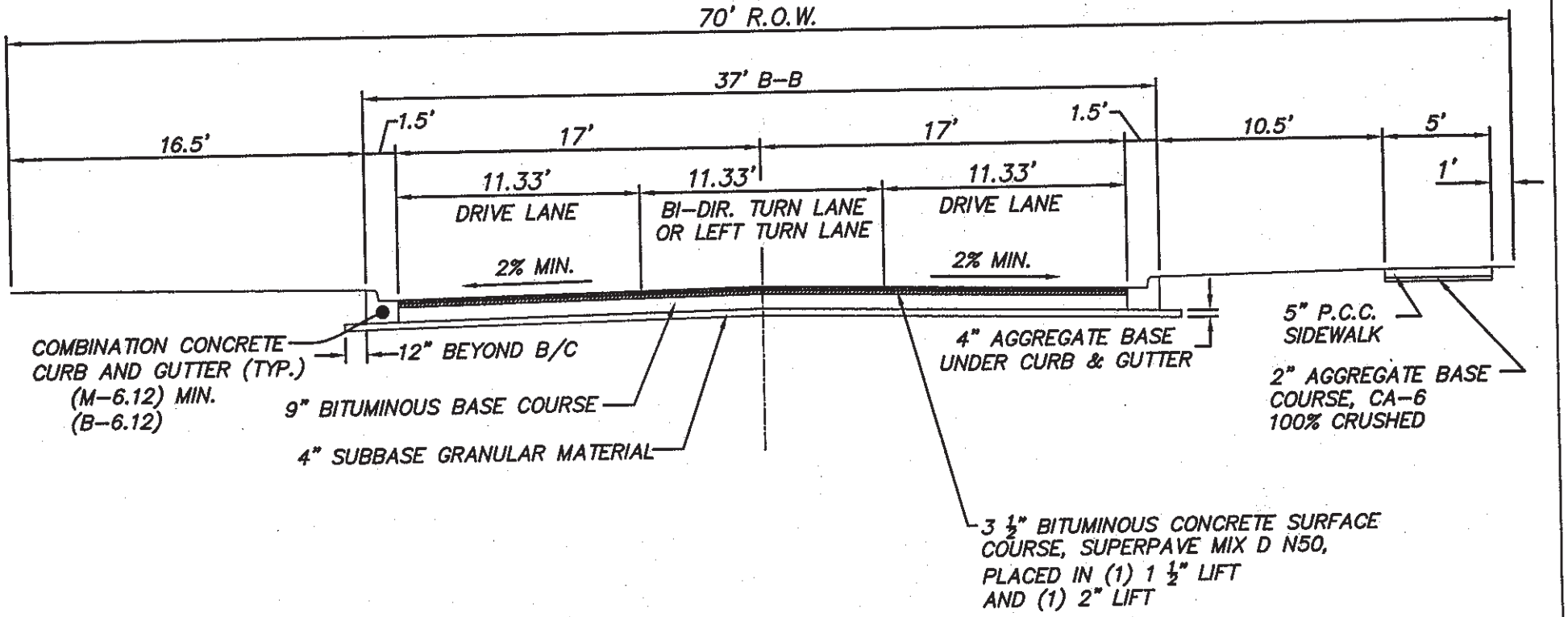
12/04



Village of Johnsburg	REVISIONS NO.	BY	DATE
PUBLIC WORKS DEPARTMENT			

DETAIL D – STREET CROSS SECTION, 31' COLLECTOR

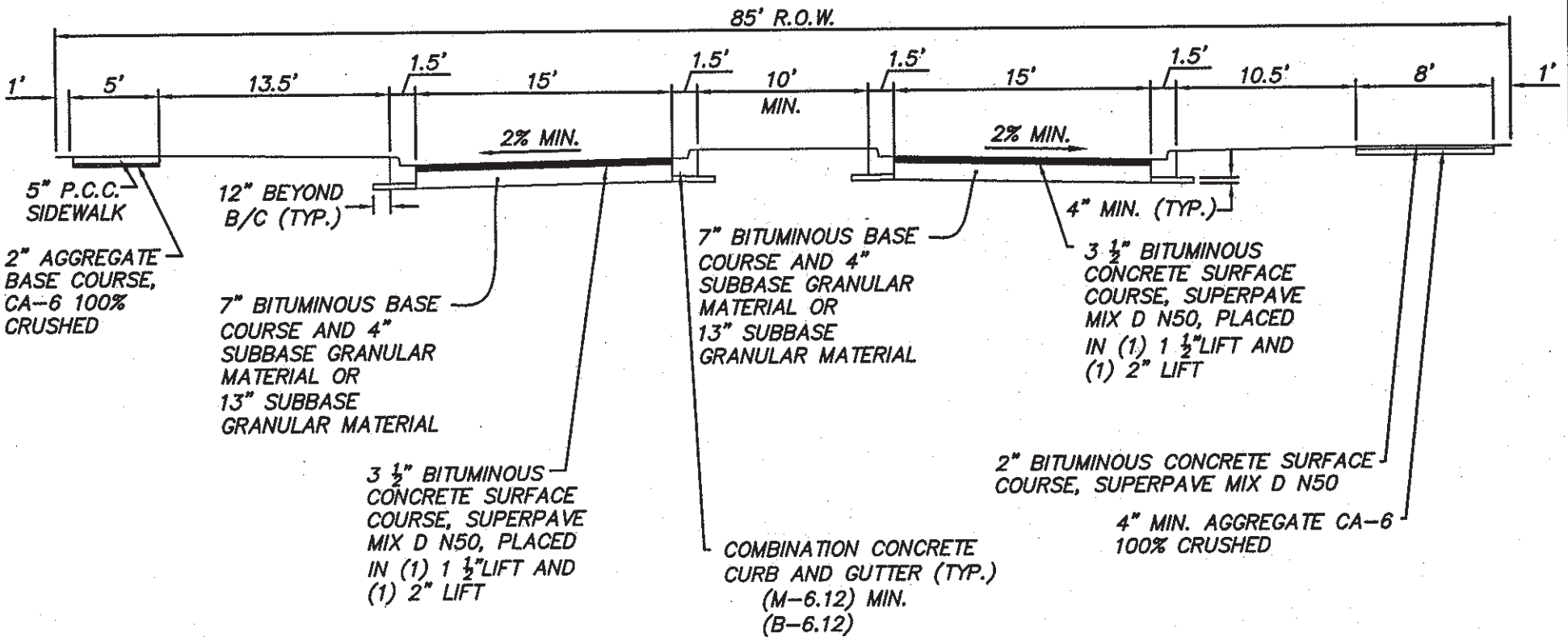
12/04



Village of Johnsburg	REVISIONS NO.	BY	DATE
PUBLIC WORKS DEPARTMENT			

DETAIL E – STREET CROSS SECTION, 37' MINOR ARTERIAL

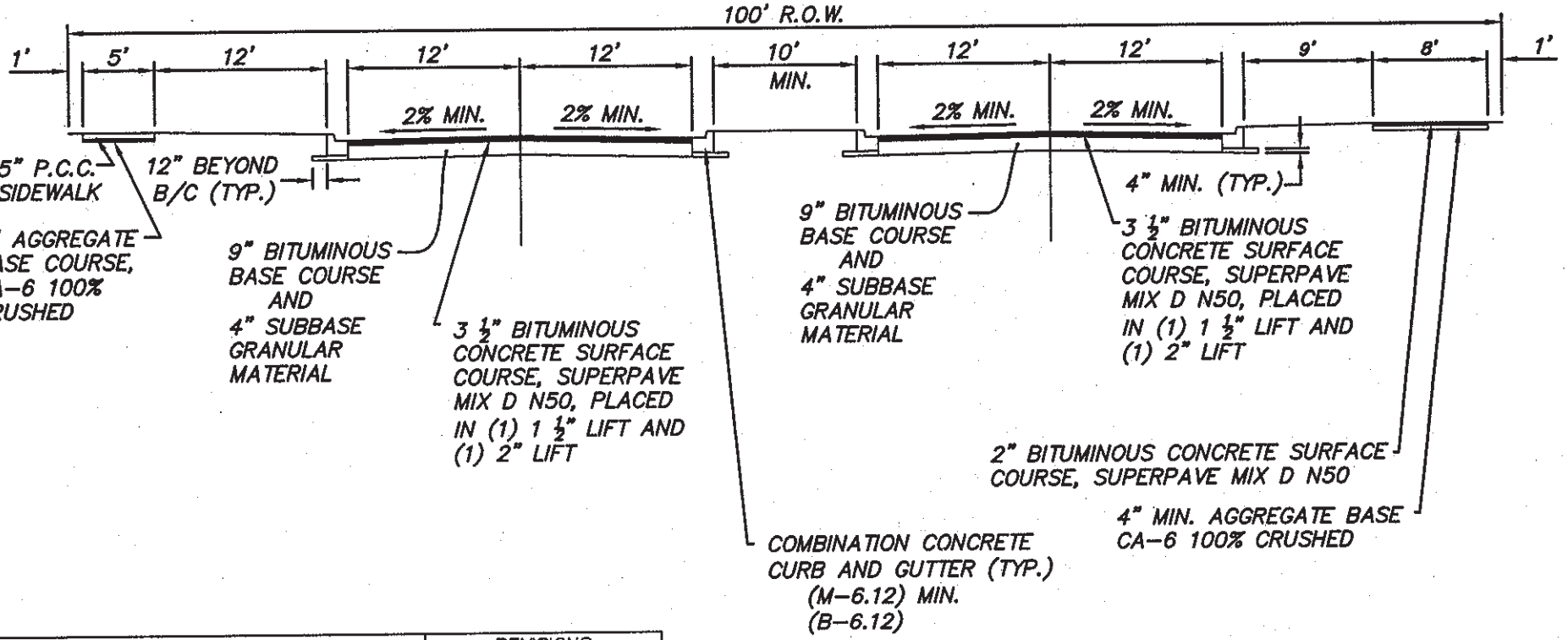
12/04



Village of Johnsburg	REVISIONS NO.	BY	DATE
PUBLIC WORKS DEPARTMENT			

DETAIL F – STREET CROSS SECTION, COLLECTOR BOULEVARD

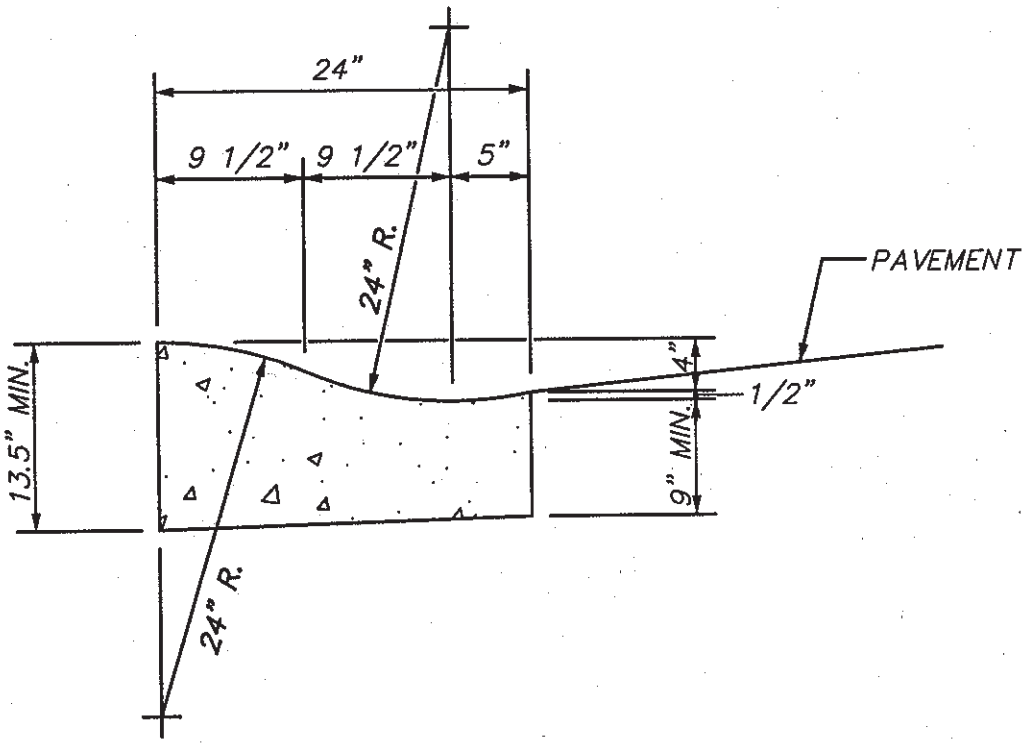
12/04



Village of Johnsburg	REVISIONS NO.	BY	DATE
PUBLIC WORKS DEPARTMENT			

DETAIL G – STREET CROSS SECTION, ARTERIAL BOULEVARD

12/04



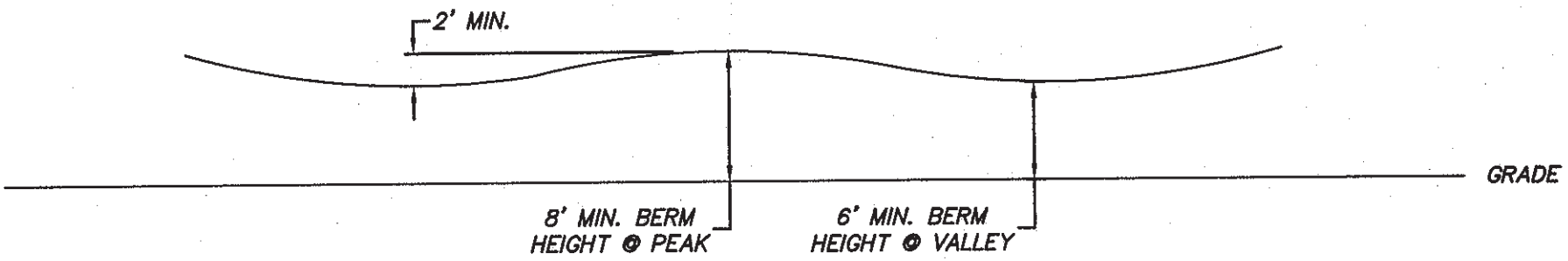
NOTES

1. ALL WORK AND MATERIAL SHALL CONFORM TO ASTM A615, A615M, C 309, AND D1752. BROOM FINISH EXPOSED SURFACE.
2. CONSTRUCTION JOINT SPACING 10' MAX
3. EXPANSION JOINTS AS PER STD. ASTM D–1752.

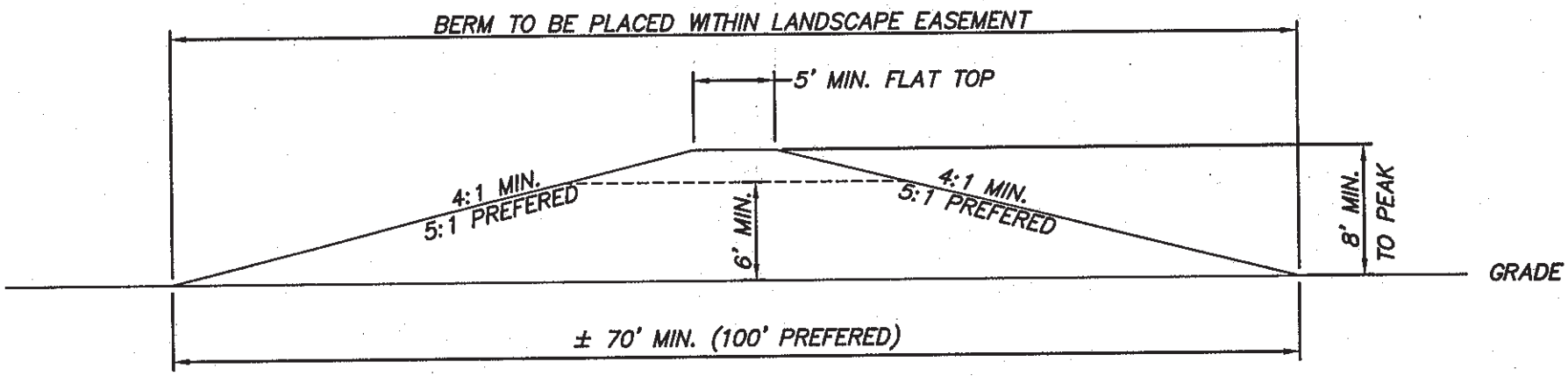
Village of Johnsburg	REVISIONS NO.	BY	DATE.
PUBLIC WORKS DEPARTMENT			

DETAIL H – ROLLED CURB & GUTTER ESTATE ZONING

12/04



ELEVATION VIEW

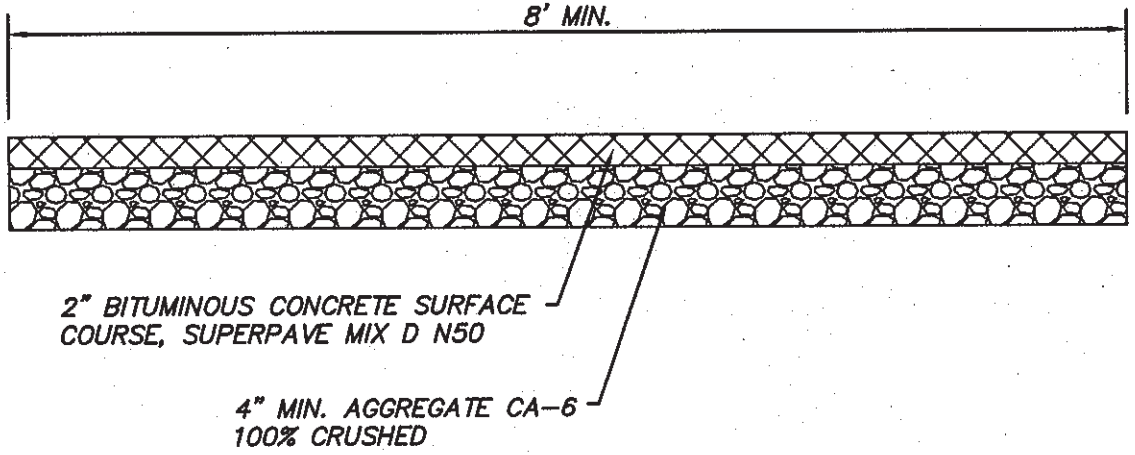


SECTION VIEW

Village of Johnsburg	REVISIONS NO.	BY	DATE
PUBLIC WORKS DEPARTMENT			

DETAIL 1 – BERM DETAILS

12/04

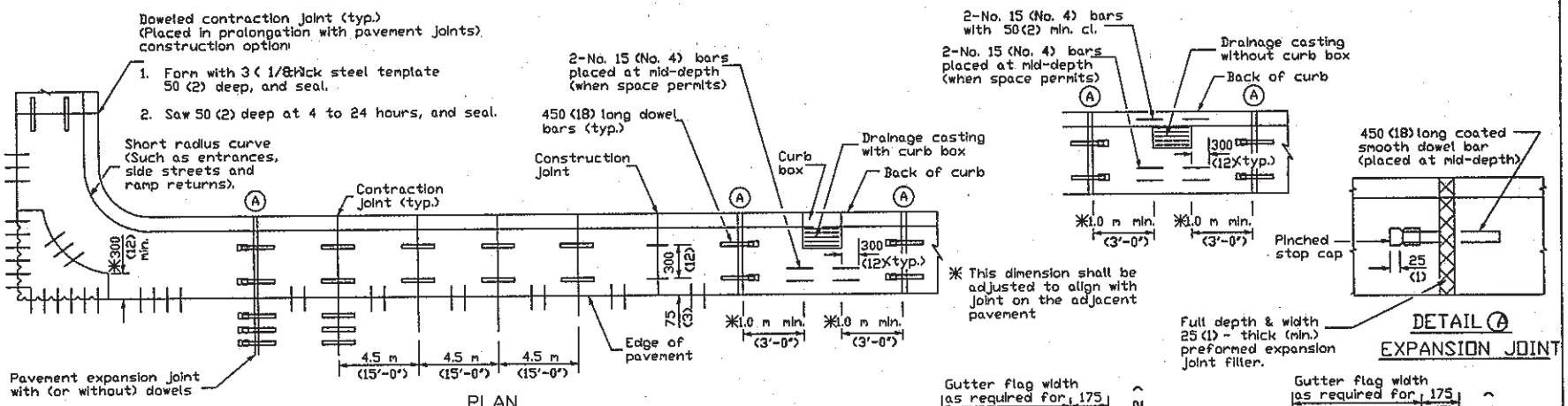


* IF VEHICULAR TRAFFIC IS ANTICIPATED, SURFACE COURSE INCREASES TO 3" BASE COURSE TO 10" MIN.

Village of Johnsburg	REVISIONS NO.	BY	DATE
PUBLIC WORKS DEPARTMENT			
APPENDIX C ENCLOSURE 1.0			

DETAIL J – PATH CROSS SECTION

12/04

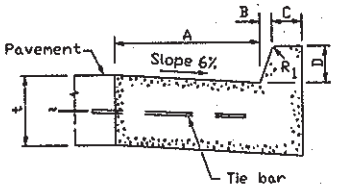


PLAN

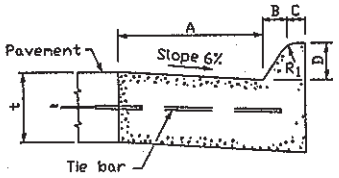
ADJACENT TO PCC PAVEMENT OR PCC BASE COURSE

DETAIL (A)

EXPANSION JOINT



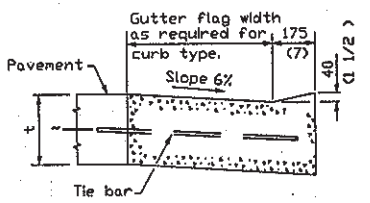
BARRIER CURB



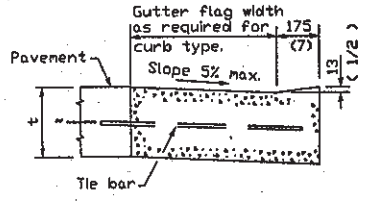
MOUNTABLE CURB

TABLE OF DIMENSIONS BARRIER CURB					
TYPE	A	B	C	D	R_1
B-15.30 (B-6.12)	300 (12)	25 (1)	150 (6)	150 (6)	25 (1)
B-15.45 (B-6.18)	450 (18)	25 (1)	150 (6)	150 (6)	25 (1)
B-15.60 (B-6.24)	600 (24)	25 (1)	150 (6)	150 (6)	25 (1)
B-22.30 (B-9.12)	300 (12)	50 (2)	125 (5)	225 (9)	25 (1)
B-22.45 (B-9.18)	450 (18)	50 (2)	125 (5)	225 (9)	25 (1)
B-22.60 (B-9.24)	600 (24)	50 (2)	125 (5)	225 (9)	25 (1)

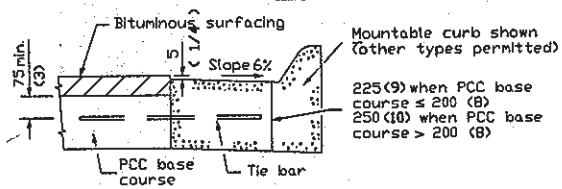
TABLE OF DIMENSIONS MOUNTABLE CURB						
TYPE	A	B	C	D	R_1	R_2
M-5.15 (M-2.06)	150 (6)	50 (2)	100 (4)	50 (2)	75 (3)	50 (2)
M-5.30 (M-2.12)	300 (12)	50 (2)	100 (4)	50 (2)	75 (3)	50 (2)
M-10.15 (M-4.06)	150 (6)	100 (4)	75 (3)	100 (4)	75 (3)	NA
M-10.30 (M-4.12)	300 (12)	100 (4)	75 (3)	100 (4)	75 (3)	NA
M-10.45 (M-4.18)	450 (18)	100 (4)	75 (3)	100 (4)	75 (3)	NA
M-10.60 (M-4.24)	600 (24)	100 (4)	75 (3)	100 (4)	75 (3)	NA
M-15.15 (M-6.06)	150 (6)	150 (6)	50 (2)	150 (6)	50 (2)	NA
M-15.30 (M-6.12)	300 (12)	150 (6)	50 (2)	150 (6)	50 (2)	NA
M-15.45 (M-6.18)	450 (18)	150 (6)	50 (2)	150 (6)	50 (2)	NA
M-15.60 (M-6.24)	600 (24)	150 (6)	50 (2)	150 (6)	50 (2)	NA



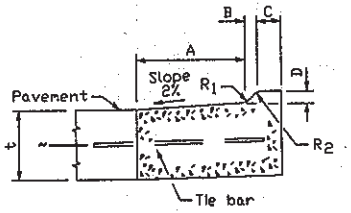
DEPRESSED CURB (TYPICAL)



DEPRESSED CURB ADJACENT TO CURB RAMP ACCESSIBLE TO THE DISABLED



ADJACENT TO PCC BASE COURSE AND BITUMINOUS SURFACING



M-5.15 (M-2.06) and M-5.30 (M-2.12)

GENERAL NOTES

The bottom slope of combination curb and gutter constructed adjacent to pcc pavement shall be the same slope as the subbase or 6% when subbase is omitted.

t = Thickness of pavement.

Longitudinal joint tie bars shall be No. 20 (No. 6) at 600 mm (24") centers in accordance with details for longitudinal construction joint shown on Standard 420001.

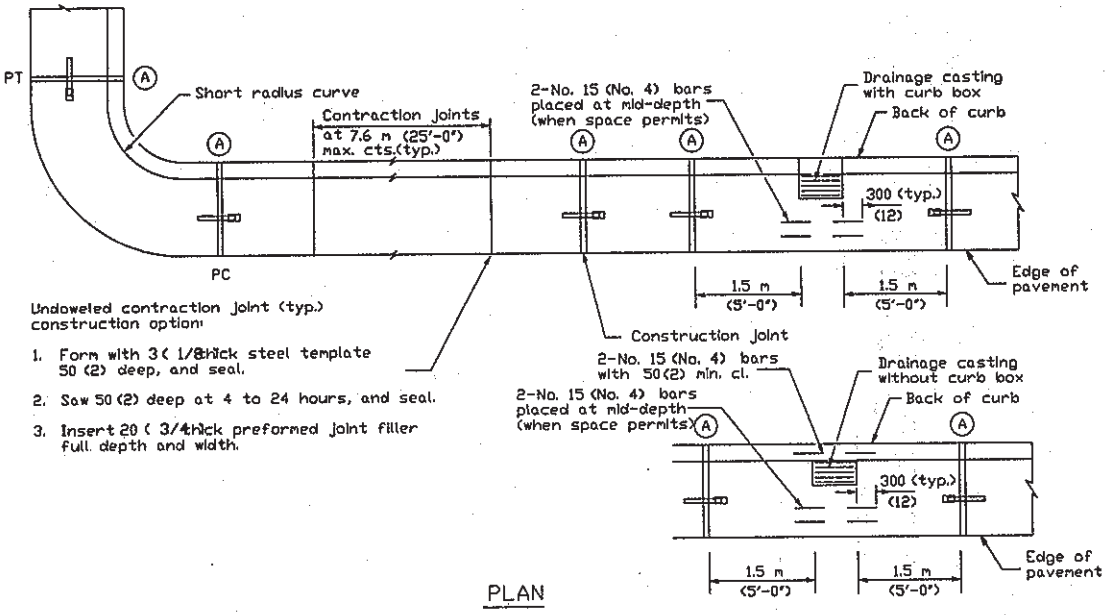
A minimum clearance of 50 mm (2") between the end of the tie bar and the back of the curb shall be maintained.

All dimensions are in millimeters (inches) unless otherwise shown.

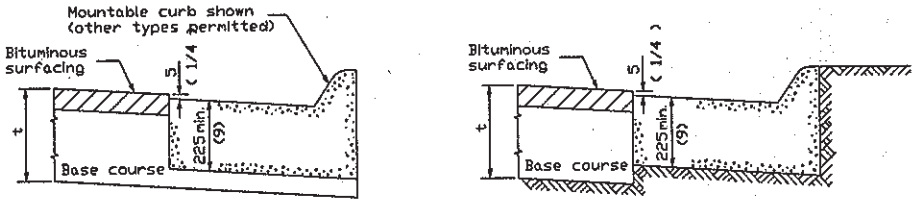
DETAIL K

CONCRETE CURB TYPE B AND COMBINATION CONCRETE CURB AND GUTTER

STANDARD 606001-01



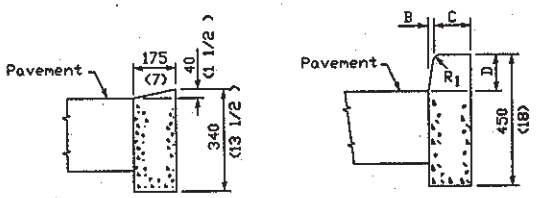
PLAN



ON DISTURBED SUBGRADE

ON UNDISTURBED SUBGRADE

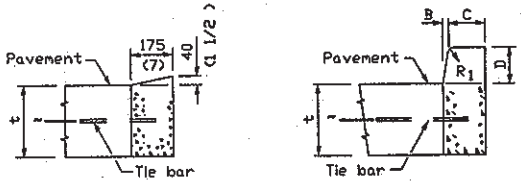
ADJACENT TO FLEXIBLE PAVEMENT



DEPRESSED CURB

BARRIER CURB

ADJACENT TO FLEXIBLE PAVEMENT



DEPRESSED CURB

BARRIER CURB

ADJACENT TO PCC PAVEMENT OR PCC BASE COURSE

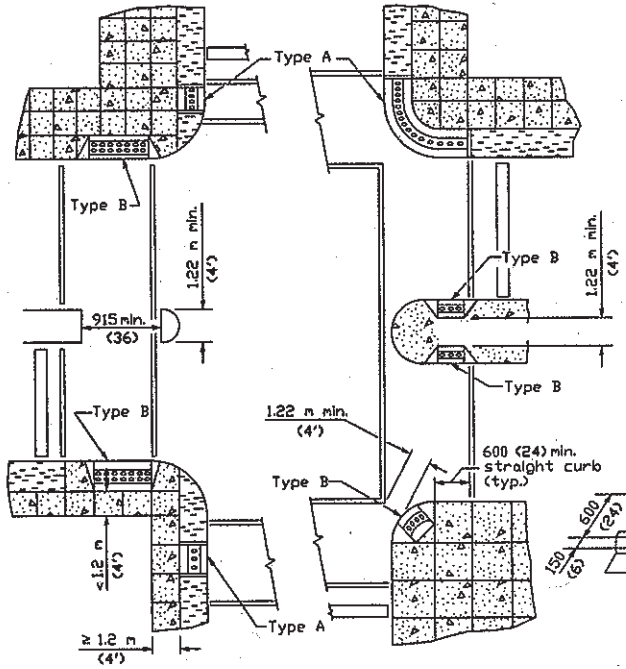
CONCRETE CURB TYPE B

All dimensions are in millimeters (inches) unless otherwise shown.

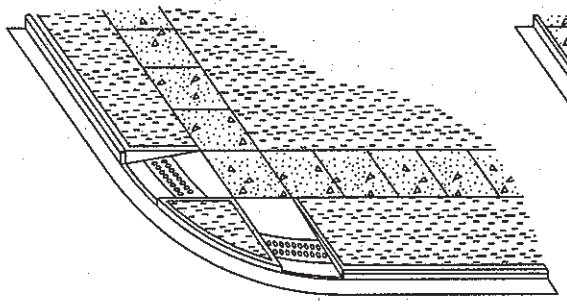
DETAIL K-1

CONCRETE CURB TYPE B
AND COMBINATION
CONCRETE CURB AND GUTTER
(Sheet 2 of 2)

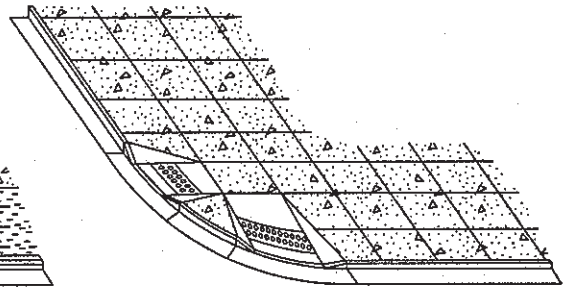
STANDARD 606001-01



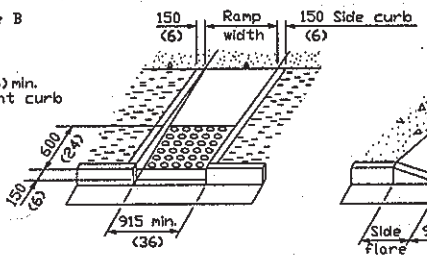
RECOMMENDED LOCATION OF RAMPS



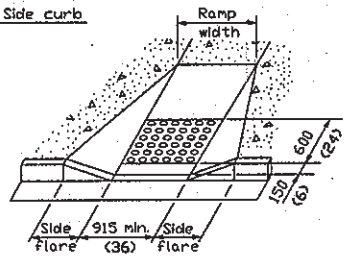
TYPE A RAMPS



TYPE B RAMPS

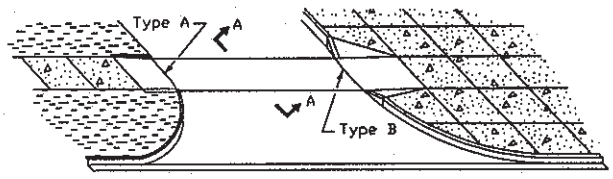


TYPE A

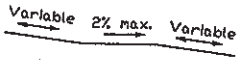


TYPE B

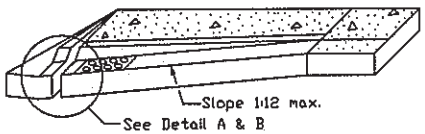
DETAILS OF RAMPS



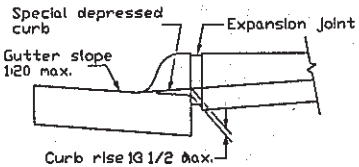
RAMPS AT ALLEY OR DRIVEWAY



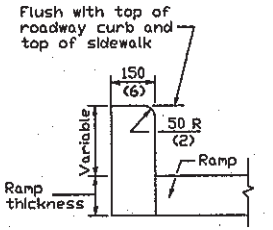
SECTION A-A



RAMP PROFILE

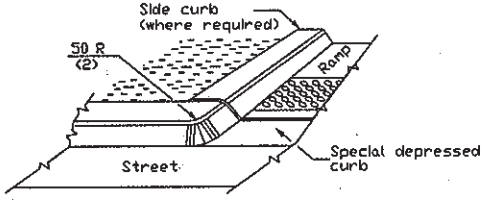


DETAIL A



DETAIL OF SIDE CURB

(Side curb may be constructed monolithically with ramp)



DETAIL B

LEGEND

- Sidewalk
- Ramp
- Detectable Warnings
- Non walking area

GENERAL NOTES

The maximum slope of the side flare for Type B ramps shall be 1:10; however, if the width of the landing area between the top of the ramp and an obstruction is less than 1.2 m (4'-0") then the maximum slope shall be 1:12.

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).

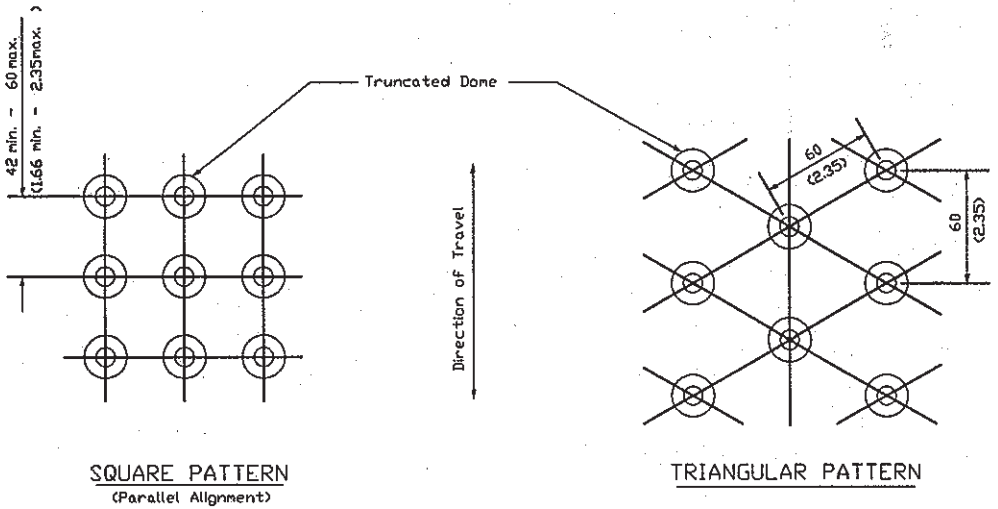
All dimensions are in millimeters (inches) unless otherwise shown.

DETAIL L

CURB RAMPS FOR SIDEWALKS

(Sheet 1 of 2)

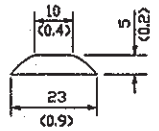
STANDARD 424001-03



SQUARE PATTERN
(Parallel Alignment)

TRIANGULAR PATTERN

DETECTIBLE WARNINGS DETAIL



TRUNCATED DOME DETAIL

All slope ratios are expressed as units of vertical displacement to units of horizontal displacement (V:H).

All dimensions are in millimeters (inches) unless otherwise shown.

DETAIL L-1

CURB RAMPS
FOR SIDEWALKS

(Sheet 2 of 2)

STANDARD 424001-03