

CITY OF PAPILLION
PUBLIC WORKS DEPARTMENT



**Regulations for Driveway and On-Street
Parking Location, Design, and Construction**

March 2021

REGULATIONS FOR DRIVEWAY and On-Street Parking LOCATION,
DESIGN, and CONSTRUCTION

Adopted by City Council Resolution R21-0XXX

March 16, 2021

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I. Introduction.

The purpose of this manual is to establish regulations for the location, number, and the design of driveway approaches that provide access from public streets and highways to private property. These policies and procedures conform closely to the recommended guidelines approved by the Institute of Transportation Engineers and the American Association of Street and Highway Transportation Officials (AASHTO). Further, the purpose of this manual is to establish regulation for the location and design of on-street parking.

II. Driveway Types.

A. Residential Driveway

An approach providing access to a single-family residence, to a duplex, or to a residential building containing four or fewer dwelling units.

B. Commercial Driveway

An approach providing access to a civic, commercial, or office building or a residential building containing more than four dwelling units.

C. Industrial Driveway

An approach providing access to an industrial or transportation use. An industrial driveway must accommodate a substantial number of truck units.

III. Permit – Required.

It is unlawful for any person to cut, break, remove, or alter any curbing, alley, driveway approach, sidewalk, or any vehicular access on any public right-of-way or construct a driveway approach in the City of Papillion and surrounding extra-territorial jurisdiction without a permit. Permits are issued by the Papillion Building Department after receiving approval of the City Engineer or their designee.

Applications for permits shall be on forms furnished by the Papillion Building Department, and shall specify the name of the applicant, the location of the property of which the driveway approach is to be repaired and/or constructed, and the number of linear feet to be repaired and/or constructed. A sketch or plot plan shall be submitted with each request. The plan shall indicate the proposed driveway construction, together with all existing street light standards, poles, signs, sidewalk boxes, fire hydrants, property lines, adjacent driveways, and any other obstructions. Minimum sight distance must be provided at all access points as described in Section VI-G.

IV. General Requirements.

Every driveway approach constructed or altered in the street right-of-way shall conform to the following regulations.

- A. For a parcel of land under one ownership, the driveway approaches serving such a parcel shall be closed or reconstructed to conform to the conditions of these regulations upon the occurrence of one or more of the following:

- (1) There is a land use change.
 - (2) Fifty percent (50%) or more of the total surface area of a parcel is cleared of the existing surface improvements.
 - (3) The structure that accommodates the primary use of the parcel is constructed, or is removed and reconstructed.
- B. No driveway approach shall be constructed or reconstructed within five feet (5') of any existing obstruction in the street right-of-way.
 - C. No driveway approach shall be constructed or reconstructed in such manner and in such location as, in the opinion of the City Engineer, the use thereof would constitute a hazardous condition.
 - D. Any adjustments to utility facilities, light standards, fire hydrants, catch basins, street signs, signals, underground conduits for street lighting or fire alarm systems, or other public improvements or installations which are necessary because of construction under a permit issued under these regulations shall be accomplished by the permittee without cost to the City.
 - E. All driveway approaches are to be constructed in accordance with City specifications and appropriate standard plates (see Appendix). The Building Department may furnish an inspector to inspect driveway approaches to be constructed, whose duties shall be to check the forms for alignment grade, and materials and to see that the work is done in accordance with the specifications of the City at the time of the issuance of the permit. All work for the construction of the driveway approach shall be fully completed within seventy two (72) hours after the start, weather permitting. In the event such work has not been completed, the City shall have the option of completing the work at the expense of the permittee.
 - F. The permittee shall request an inspection from the Building Department at least twenty-four (24) hours in advance of the time of the desired inspection.
 - G. The entrance angle for all driveway approaches shall be as near to ninety (90) degrees to the center line of the street as is possible. In no case shall the center line of the driveway intersect the center line of the street at an angle of less than sixty (60) degrees.
 - H. City public street right-of-way shall not be used for private-commercial purposes. A permit for the construction of a driveway approach shall not be issued unless vehicles which will be using said driveway approach can be parked entirely on private property.
 - I. No permit shall be issued for access to parking or loading areas that require backing maneuvers in a public street right-of-way except for residential uses on local and collector streets.
 - J. A property that has frontage on more than one street shall be permitted access only on those street frontages where the standards established in these regulations can be met. In the event that a property cannot be served by an access point that meets these standards, the City Engineer or their designee shall designate access point(s) based on

traffic safety and operational needs.

- K. At locations where a drainage culvert is needed under the driveway approach, the person constructing the driveway approach shall install a drainage culvert of the proper size and elevation so that the driveway and culvert are capable of handling a fifty (50) year storm without flooding the adjacent street. A design calculation that is signed and sealed by a licensed engineer registered in the State of Nebraska shall be provided with the permit application for the drainage culvert and driveway.
- L. All driveway approaches shall be constructed of concrete with the following minimum thickness:

- Residential – Seven (7”) inches
- Commercial – Nine (9”) inches
- Industrial – Nine (9”) inches

V. Residential Access Design Requirements.

All residential driveway approaches hereafter constructed, relocated, or widened in the City or its extraterritorial jurisdiction shall comply with the following conditions:

A. Number of Driveways.

In any allowable location, no driveway throat width shall be less than ten feet (10’) feet wide or greater than thirty (30’) feet wide when measured at the public right-of-way. Frontages of sixty feet (60’) or less shall be limited to one (1) driveway. No more than two (2) driveways shall be provided to any single property tract except for corner properties.

B. Driveway Spacing.

Driveways serving a single parcel of property or serving any of several adjacent parcels under single ownership shall be separated by at least forty feet (40’) of full height curb; provided, however that townhouse and condominium developments are exempt from this requirement.

C. Driveway Corner Clearance.

The curb return for driveways serving corner lots shall be at least two feet (2’) from the tangent point of the corner radii of the intersecting street measured along the curb.

D. Driveway and Approach Design Standards.

Residential driveway widths and radii/flares shall comply with Table 1.

Table 1 – Residential Driveway Standards

Street	Throat Width (Feet)		Return (Feet)	
	Minimum	Maximum	Minimum	Maximum
Local	10	30	5 (flare)*	10 (radius)

Collector	10	30	5 (flare)	10 (radius)
Major	10	30	5 (flare)	20 (radius)

*For driveway widths twenty (20') feet or wider, the flare may be reduced to a three (3') foot minimum.

E. Driveway Location.

Residential driveways shall be located in a manner that does not conflict with roundabouts, splitter islands for roundabouts, and raised medians. Further, driveways should be located such that full turn movements are feasible. The City Engineer or his/her designee may authorize driveway locations with limited turn movements, if there is no feasible location for a driveway with full turn movements.

VI. Commercial/Industrial Access Design Requirements.

All commercial and industrial driveway approaches shall be constructed according to the following regulations:

A. Number of Driveways.

The number of driveways shall be limited to one, two-way driveway or a pair of one-way driveways for each parcel, except when any one or more of the following conditions exist.

- (1) Property frontages that are too narrow to satisfy the minimum driveway spacing criteria set forth in the following sections will require joint access locations at property lines: frontage roads, restricted movement driveway designs, or other modifications.
- (2) Shared driveways are encouraged and may be required unless an approved traffic study indicates the need for separate driveways or more than one driveway. Reciprocal ingress/egress easements will be required for all shared driveways.
- (3) If an approved traffic study indicates the need for more than one driveway, the City Engineer or his/her designee may approve additional driveways.

B. Driveway Spacing.

The distance between adjacent driveways (on the same or adjoining properties) shall be sufficient to allow vehicles to safely queue, accelerate, decelerate, and cross conflicting traffic streams without excessive interference with through traffic or traffic using adjacent driveways. Driveway spacing shall be such that alignment of driveways as prescribed by Section VI-J is achieved.

- (1) On major streets, a driveway spacing of three hundred (300') feet or more is desirable. Where this spacing cannot be attained, acceptable minimum spacing is shown in Table 2.

Table 2 – Minimum Driveway Spacing

Arterial Speed (MPH)	Minimum Separation (Feet)
25	105
30	125
35	150
40	185
45	230
50	275

- (2) Closer driveway spacing than those listed above may be granted by the City Engineer or his/her designee if the developer agrees to limit turning movements (i.e. right turns in and out) as required.
- (3) The minimum distance between two driveways on adjoining properties on collector and local streets shall be forty (40') feet. Such distance shall be measured from the end of each radii along the curb.
- (4) The radii of a commercial driveway shall not begin closer than the property line extended to the curb except for shared driveways.
- (5) Driveways to arterial streets will not be permitted for new developments. An internal street network serving properties shall be designed to accommodate access. Intersections with arterial streets shall be located in accordance with the Papillion Comprehensive Plan.

C. Driveway Corner Clearance.

Minimum corner clearances for a thirty (30) MPH operating speed shall comply with Tables 3 and 4. Higher speed conditions shall require greater clearance than that shown. The minimum corner clearance on major and collector streets at signalized intersections shall be one hundred (100') feet from the projection of the intersection street curb line extended to the driveway radius point.

Table 3 – Minimum Corner Clearance – Signalized Intersection Control

Item	Major (LF)	Collector (LF)	Local (LF)
A	230	175	60
B	115	100	60
C	230	175	60
D	230	175	60
E	75	0	0

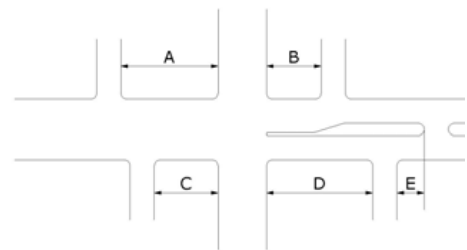
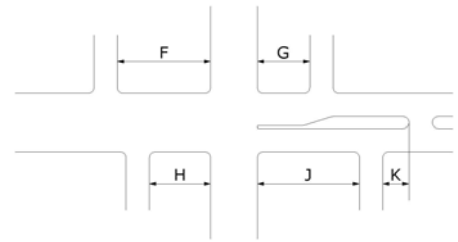


Table 4 – Minimum Corner Clearance – Stop Sign Intersection Control

Item	Major (LF)	Collector (LF)	Local (LF)
F	115	75	60
G	85	85	60
H	115	85	60
J	115	75	60
K	75	0	0



D. Driveway and Approach Design Standards.

Commercial and industrial driveway widths and radii shall comply with Table 5 and Table 6, respectively. One-way driveways shall be signed in accordance with the Manual on Uniform Traffic Control Devices for Streets and Highways. This signing shall be the responsibility of the property owner.

Table 5 – Commercial Driveway

Street	Throat Width (Feet)		Return Radii (Feet)	
	Minimum	Maximum	Minimum	Maximum
Local	22 16*	30 16*	10	20
Collector	25 16*	35 20*	10	20
Major	25 16*	35 20*	15	30

* Throat widths for one-way driveways.

Table 6 – Industrial Driveway**

Street	Throat Width		Return Radii	
	Minimum	Maximum	Minimum	Maximum
Any	30	40	25	40

** The industrial driveway requirements are for driveways used by trucks. Industrial driveways for passenger vehicles only shall use the same requirements as a commercial driveway on a major street.

E. Right Turn Deceleration Lane.

Right turn deceleration lanes shall be constructed with the drive approach on all commercial and industrial driveways that either:

- (1) Accesses a major street with a posted speed of forty (40) mph or greater.
- (2) Any development that generates over one hundred (100) vehicles per hour (two-

way).

Right turn deceleration lanes shall have a minimum length of one hundred and fifty (150') feet of full width paving, plus a taper appropriate for the design speed of the street.

F. Left Turn Deceleration Lane.

Left turn deceleration lanes (left turn storage lanes) may be required with the drive approach on all commercial/industrial driveways on all streets that do not have a designated left turn lane. The need for a left turn deceleration lane will be analyzed based on the design hour volume of left turning vehicles verses opposing through traffic. Left turn deceleration lanes shall have a minimum length of one hundred and fifty (150') feet of full width paving, plus a taper appropriate for the design speed of the street.

G. Minimum Sight Distance.

Sight distance, as shown in Table 7, is designed to enable vehicles to:

- (1) When turning left or right, accelerate to the operating speed of the street without causing approaching vehicles to reduce speed by more than ten (10) miles per hour.
- (2) When turning left, clear the near half of the street without conflicting with vehicles approaching from the left.

The distance requirements are based on a three and a half (3.5') foot driver eye height and four and a quarter (4.25') foot object height for passenger cars. The sight distance requirements for trucks will be considerably longer than for the passenger vehicle. These relationships for trucks (SU, WB-50) can be derived using appropriate assumptions for vehicle acceleration rates and turning paths.

When the criteria for sight distances cannot be met, the safe sight distance can be reduced by prohibiting left turns by all vehicles. This restricts the turning movements to right turns in and out of a driveway.

Table 7 – Sight Distance for Passenger Vehicles Exiting from Private Accesses.

Speed (MPH)	Minimum Sight Distance Both Directions (Feet)*	Minimum Sight Distance Right-in, Right-out driveway (Feet)
25	280	240
30	335	290
35	390	335
40	445	385
45	500	430
50	555	480
55	610	530

* Measured from the driver's eye ten (10') feet from the edge of traveled way or pavement edge.

H. Driveway profiles.

Profiles shall be designed to permit entrance and exit maneuvers at desirable speeds and provide sufficient underbody clearance for typical passenger cars. Driveway profiles with the fewest and least severe grade changes are preferred.

I. Restricted Movement Driveway Designs.

When necessary for the safe and efficient movement of traffic, the City Engineer may require access points to provide for only limited turning movements (e.g. right turns only). The restriction of turning movements shall not affect the number and location of access points as specified elsewhere.

Figure 1, Figure 2, and Figure 3 establish the minimum design for limited movement driveways. Deceleration lanes may be required to be incorporated in the design.

Figure 1: Right-In Right-Out, Left-In Driveway Design

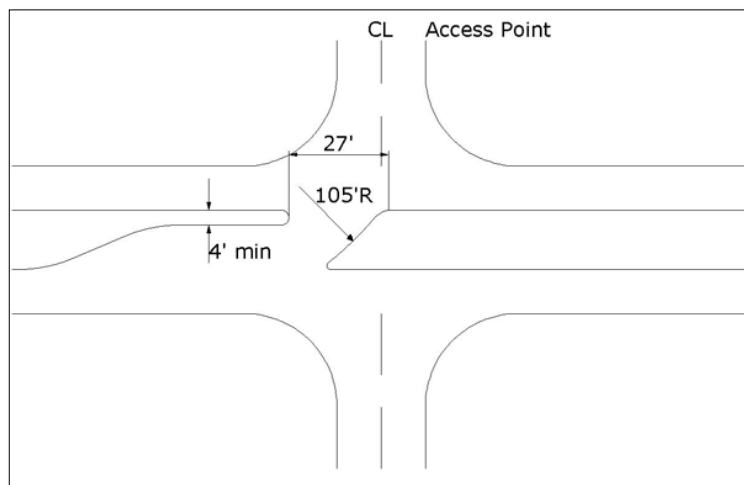


Figure 2: Right-In Right-Out Driveway Design

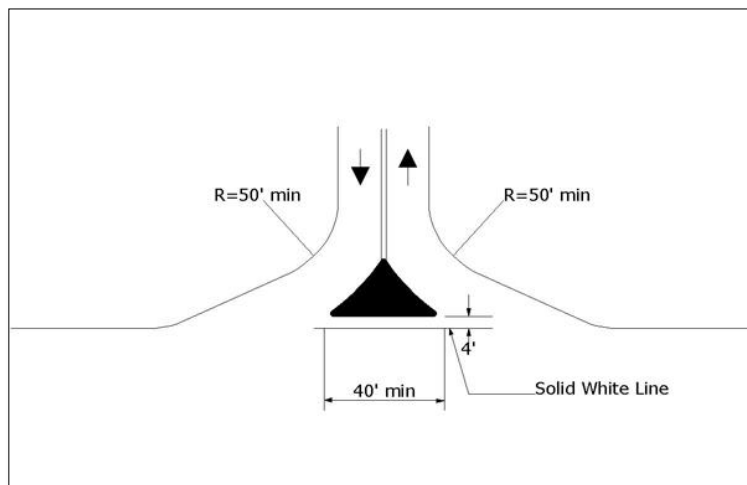
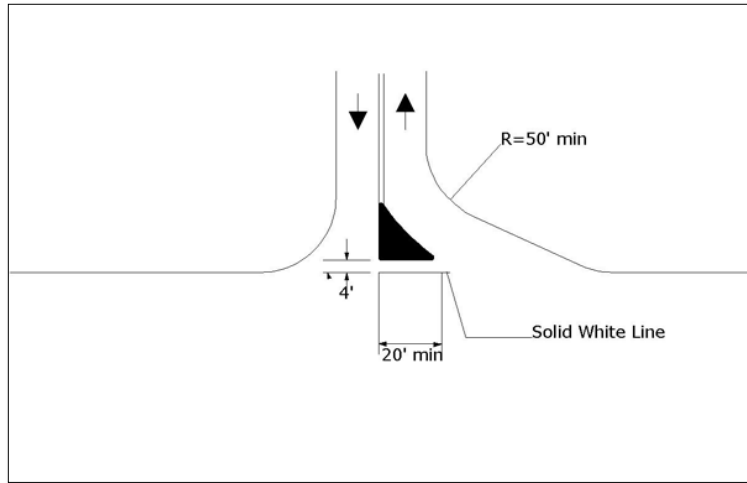


Figure 3: Right-In Right-Out, Left-Out Driveway Design



J. Driveway Alignment.

The location of access to properties on opposite sides of major and collector roadways shall be coordinated so that they do not interfere with each other. Driveways directly opposite of each other are desirable. However, if this is not possible, the resulting “T” configurations must be equally distanced between the opposing driveways when deemed feasible by the City Engineer, provided, however, that all “T” configurations shall be spaced a minimum of one hundred (100’) feet apart on collectors, and two hundred (200’) feet apart on major streets. This may be modified based on streets existing through traffic and the trip generation of the site. In no case will a spacing of less than seventy five (75’) feet be acceptable on arterial streets.

VII. Drive-Through/Drive-In Facilities Storage Requirements

Locations that provide drive-through or drive-in services are subject to minimum storage requirements. The purpose of minimum storage requirements is to ensure that vehicles can queue on site without blocking access to parking areas, public sidewalks or streets. Table 9 shows the minimum storage requirements for various land uses. Land uses not listed shall provide on-site storage for a minimum of two vehicles, or as determined by an engineering study. Further, the City Engineer with the favorable recommendation of the Planning Director may adjust the stacking requirements for specific projects, provided that the applicant submits a traffic analysis prepared by a professional traffic engineer licensed in Nebraska demonstrating that such reduction is appropriate to the function of the project.

In addition to the storage requirements identified in Table 9, all drive-through services must provide adequate alternative runaround access for vehicles not in the drive-through lane.

Table 9: Drive-Through/Drive-In Lane Stacking Requirements

Type of Operation	Minimum Stacking Space*
Financial Services with Drive-Up Tellers	4 vehicles per window or kiosk
Financial Services with Drive-Up ATM	4 vehicles per ATM station

Self-service or automatic car wash	Entrance: 4 vehicles per bay Exit: 1 vehicle per bay
Fast food restaurant and Coffee Shop	Without menu boards: 4 vehicles in front of service windows With separate menu boards and service windows: A sum of 6 vehicles behind the menu board plus 2 behind the first service windows.
Drive-up pharmacies, dry cleaning, or other drive-up personal services	2 vehicles per service window
Gas stations	2 vehicles per pump
Gated parking lot, community entrance, or overhead door	1 vehicle per gate or door on local streets. 2 vehicles per gate or door on collector streets.

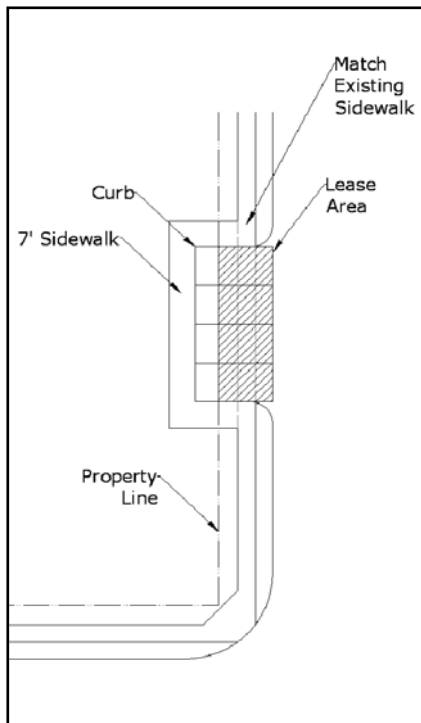
* Storage requirements include the vehicle being served. Vehicle storage should not be located in setback areas where parking of vehicles is prohibited. Allow twenty (20') feet per vehicle storage.

VIII. On-street parking requirements

When authorized by the City and subject to the terms and conditions of any corresponding lease, applicants wanting to construct on-street parking either fully within public right-of-way or partially within public right-of-way similar to what is shown on Figure 4 shall follow these requirements.

- (1) Plans must be prepared by an Engineer registered in the State of Nebraska, and submitted to the Public Works Department as Public Improvement Plans with the proper bonds and insurance requirements. The plans need to meet the following minimum requirements:
 - a. Slope the parking area to drain to the street.
 - b. Paving material must be minimum seven (7") inch concrete with curb and gutter.
 - c. Minimum parking stall dimensions shall be nine (9') feet by twenty (20') feet.
 - d. Refer to City of Omaha Standard Plate 1-70 for curb removal and expansion joint details.
- (2) A seven (7') foot sidewalk shall be installed on the curb side of the parking stalls, and a public access easement granted over the new sidewalk. Such sidewalk shall connect to the existing sidewalks.
- (3) No more than eighty percent (80%) of the lot's front footage may be used for parking.
- (4) At least one (1) street tree shall be planted for every five hundred (500) square feet of parking. A landscape plan must be submitted to the Planning Department for approval.
- (5) Parking area shall be open to the public unless the space is leased. The area of parking within right-of-way is subject to lease from the City. Contact the Planning Department for information regarding lease applications.
- (6) Private maintenance of the parking area is required. The City will not make repairs or remove snow from on-street parking areas.

Figure 4: On-Street Parking



IX. Deviation from Regulations.

Permission to deviate from the requirements and regulations of these regulations may be granted only where unusual conditions or strict adherence to these regulations would cause unusual and extreme hardship.

X. Other Jurisdictions.

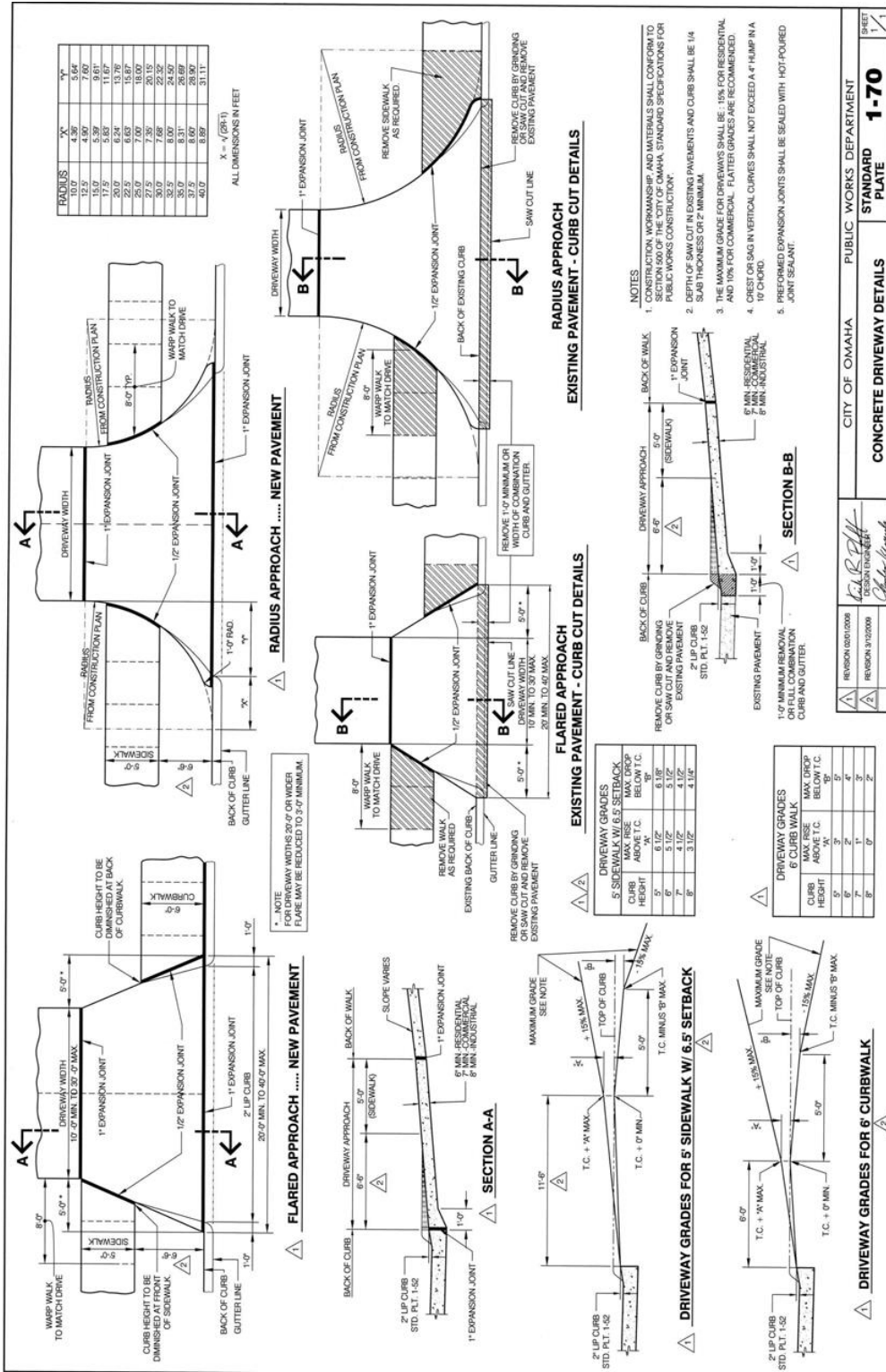
Access onto State Highways in the City Limits and within the City's extra-territorial jurisdiction, and on County roads within the City's extra-territorial jurisdiction shall be subject to the approval of the City of Papillion and the respective State or County jurisdiction.

XI. Appeals.

Any person aggrieved by the issuance, denial, or cancellation of any permit issued under the provision of this section may appeal any issuance, denial or cancellation to the Board of Adjustment by submitting a Board of Adjustment application to the Planning Department.

APPENDIX A

Driveway Standards



CITY OF OMAHA PUBLIC WORKS DEPARTMENT
STANDARD PLATE 1-70
CONCRETE DRIVEWAY DETAILS

REVISION 02/2008
 REVISION 03/2008
 DESIGN ENGINEER: [Signature]
 CITY ENGINEER: [Signature]

SHEET 1/1
 ISSUE DATE: MARCH 26, 2003

APPENDIX B

Glossary of Terms

Alley – A dedicated public right-of-way, other than a street, which provides only a secondary means of access to abutting property, the right-of-way of which is twenty feet (20') or less in width.

Curbside – Sidewalk paved immediately behind the curb.

Deceleration Lane – A speed change lane including tapered areas for the deceleration of vehicles leaving the through traffic lanes. These deceleration lanes shall also include a taper.

Driveway (Driveway Approach) – The area, construction, or improvement between the edge of the street or proposed curb line and the property line, to provide ingress and egress for vehicles from the alley, street, or roadway to a definite area of the private property. This is also called the driveway approach.

Driveway Return – The flare or radius that connects the edge or throat of a driveway with the edge of the nearest travel lane.

Driveway Width (Throat) – That portion of the street curbing that is removed, excluding driveway returns or transitions, to provide ingress to the egress from abutting property. This is also called the driveway throat.

Frontage – The distance along the street right-of-way line of a single property or development within the property lines. Corner property at an intersection would have a separate frontage along each street.

Intersection – The area embraced within the prolongation or connection of the lateral curb lines or, if none, then the lateral boundary lines of the roadways of two (2) or more roadways which join one another, or approximately at right angles, or the area within which vehicles traveling upon different roadways joining at any other angle may come in conflict.

Sidewalk – That portion of the road right-of-way outside the roadway, which is improved for the use of pedestrian traffic.

Sight Distance – Drivers ability to see an object at a safe distance, which assumes the driver's eye is three and three quarters (3.75') feet above the ground and the object is two (2) feet above the ground for stopping sight distance and three and three quarters (3.75') feet above the ground for passing and sight triangle distances.

Street – A public way for the purpose of vehicular and pedestrian travel which affords a primary means of access to the abutting properties. All streets are functionally classified in the following categories in the City of Papillion Comprehensive Plan.

Arterial (or Major) Street – A street which provides for through traffic movement between and around streets with direct access to abutting property, subject to necessary

control of entrances, exits, and curb use.

Collector Street – A street which provides for traffic movement between arterials and local streets, with direct access to abutting property.

Local Street – A street which provides direct access to abutting land and local traffic movement, whether in business, industrial, or residential land.

Right-of-Way – A strip of land taken or dedicated for use as a public way. In addition to the roadway, right-of-way normally incorporates the curbs, lawn strips, sidewalks, lighting, and drainage facilities, and may include special features (as required by the topography or treatment), such as grade separation, landscaped areas, viaducts, and bridges.

Traffic – Pedestrians, vehicles, and other conveyances, either singly or together, while using any street, alley, or roadway for purposes of travel