

**Amendments to the  
2021 International Building Code  
City of Merkel, Texas**

**The following sections, paragraphs, and sentences of the 2021 International Building Code are hereby amended as follows:**

Also included is Foundation Figure 18-1-E.

*Appendices excluded from adoption are as follows: A through O*

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**{Amend to read as follows,}**

**101.1 Title.** These regulations shall be known as the Building code of the City of Merkel, Texas, hereinafter referred to as “this code”.

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**{Amend to read as follows,}**

**101.4 Referenced codes.** The other codes specified in Sections 101.4.1 through 101.4.7 and referenced elsewhere in this code, when specifically adopted, shall be considered to be part of the requirements of this code to the prescribed extent of each such reference. Whenever amendments have been adopted to the referenced codes and standards, each reference to said code and standard shall be considered part of the requirements of this code.

(Reason: Legal wording to recognize locally adopted codes and amendments adopted with referenced codes.)

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**{Amend section heading as follow,}**

**Section 103** – Department of the Building Inspections Division.

(Reason: To clarify the division responsible for enforcement.)

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**{Amend to read as follows,}**

**103.1 Creation of enforcement Division.** The Building Inspections Division is hereby created and the Official in charge thereof shall be known as the Building Official.

**{Amend #1 and add item #14,}**

**105.2 Work exempt from permits.**

1. Edit last sentence to - 200 square feet.
14. When repairing or replacing roofing 5 squares or less.

(Reason: To match the regulations stated in the International Residential Code.)

**{Addition of sections 105.8, 105.9, and 105.10}**

**105.8 Trash and debris containment.** It is the responsibility of each permit holder to make provisions for the containment of building materials, construction debris, and all other trash and debris generated within the property boundaries. Blowing trash, paper, building materials packaging, and other construction site related debris allowed to collect or accumulate outside the property boundaries shall constitute a violation of this section of the code. Such violations shall be subject to enforcement provisions as provided in the code up to and including a stop work order, revocation of permit, and a fine. The particular chosen method, which may include, but not limited to, refuse container, roll offs, and fenced areas or other types of containment shall be provided and maintained by the permit holder.

**105.9 Bonds.** Any person desiring to engage in the business of general contractor, roofing contractor, or engage in the business of altering, repairing, constructing, demolishing, or moving houses or buildings, or any construction work generally followed by building contractors within the City of Merkel, shall first file with the building inspections division, a surety bond in the penal sum of \$75,000, payable to the City of Merkel and conditioned on a faithful performance of all of the provisions and regulations of the building code, this chapter, and all other ordinances of the city. The surety of such bond shall be a company authorized to transact business in the State of Texas. In the event the City has filed on the contractors bond within the past 3 years, the bond shall increase to the penal sum of \$150,000.

**105.10 Contractors registration required.** All contractors shall first file with the building inspections division of the City of Merkel as a registered contractor, as per section 8-161 of the Municipal Code, Article IV, License and Registrations.

**{Delete 2<sup>nd</sup> sentence and insert the following,}**

**107.1 General.** The construction documents shall be prepared by a registered design professional in accordance with the State of Texas Board of Architectural Examiners, Title 6, Subtitle B, chapter 1051, Texas Statute Occupational Code, and the Texas Engineering Practice

Act, Title 6, Subtitle A, Chapter 1001, Texas Statute, Occupational Code. In addition, buildings with a clear span exceeding 24' shall have the foundation and structural members designed by a professional engineer.

**{Add following at the end of paragraph,}**

**109.2 Schedule of permit fees.** Permit fees are set by Merkel City Council ordinance. Fees are located here <https://merkeltexas.com/code-enforcementbuilding-inspection/>. Fees published are subject to change at any time by Council action to ordinance.

**{Add following at end of paragraph,}**

**109.4 Work commencing before permit issuance.** Any person who commences work on a building, structure, electrical, gas, mechanical, or plumbing system without first obtaining the required permits shall be subject to an additional fee established by the building official that shall be in addition to the required permit fee. The investigation fee shall be equal to the amount of the permit fee required by the Code, however subsequent work commenced within 12 months of the previous violation shall be assessed a ten times fee.

*(Reason: To clarify specific penalties for such violations..)*

**{Delete paragraph and insert the following,}**

**109.6 Refunds.** The building official shall authorize refunding of any fee paid hereunder in which was erroneously paid or collected. The building official may authorize refunding of not more than 80 percent of the permit fee paid when no work has been done under a permit issued in accordance with this code. The building official shall not authorize refunding of any fee paid except on written application filed by the permit holder not later than 180 days after the date of fee payment.

*(Reason: Clarification of interpretation.)*

**{Addition of section,}**

**109.7 Re-inspection Fee.** A fee as established by city council ordinance may be charged when:

1. The inspection called for is not ready when the inspector arrives;
2. No building address clearly posted;
3. The building is locked or work otherwise not available for inspection when called;
4. The job site is red-tagged twice for the same item;
5. The original red tag has been removed from the job site.

6. Failure to maintain erosion control, trash control or tree protection.

Any re-inspection fees assessed shall be paid before any more inspections are made on that job site.

*(Reason: This fee is not a fine or penalty but is designed to compensate for time and trips when inspections are called for when not ready.)*

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**{Amend to read as follows;}**

**113.1 General.** In order to hear and decide appeals of order, decisions or determinations made by the Building official relative to the application and interpretation of this code, appeals may be heard by the Merkel City Council.

*(Reason: To clarify appropriate board set by municipality.)*

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**{115.4; amend last sentence as follows:}**

**115.4 Failure to Comply.** A stop work order release fee in the amount of \$200.00 shall be paid prior to work commencing.

*(Reason: To clarify the penalty.)*

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**{Section 202; amend definition of Ambulatory Care Facility as follows:}**

**AMBULATORY CARE FACILITY.** Buildings or portions thereof used to provide medical, surgical, psychiatric, nursing or similar care on a less than 24-hour basis to individuals who are rendered incapable of self-preservation by the services provided ~~or staff has accepted responsibility for care recipients already incapable.~~ This group may include but not be limited to the following:

- Dialysis centers
- Sedation dentistry
- Surgery centers
- Colonic centers
- Psychiatric centers

*(Reason: To clarify the range of uses included in the definition. [Explanatory note related to **Ambulatory Care Facilities:** This group of uses includes medical or dental offices where persons are put under for dental surgery or other services. Section 903.2.2 will now require such uses to be sprinklered if on other than the floor of exit discharge or if four or more persons are put under on the level of exit discharge. Recommend (1.) jurisdictions document any pre-existing non-conforming conditions prior to issuing a new C of O for a change of tenant and, (2.) On any*

medical or dental office specify on C of O the maximum number of persons permitted to be put under general anesthesia. It is recommended that before a Certificate of Occupancy is issued, a letter of intended use from the business owner shall be included and a C of O documenting the maximum number of care recipients incapable of self- preservation allowed.)

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**{Amend last sentence to read as follows:}**

**603.1.3 Electrical.** shall be permitted when installed in accordance with the limitations of the Electrical Code as adopted by the City of Merkel.

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**{Add following sentence to end of paragraph.}**

**1010.2.4 Locks and latches.**

4. The provision is not applicable when 3.2 of this section is applied, provided the manually operated flush bolts are openable or released without the use of a key or tool. A sign as stated in 3.2 shall be placed on both active and inactive doors.

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**{Add exception 6.}**

**1020.2 Construction.**

**Exceptions: 6.** In a group B Office building with more than 1 means of egress, corridor walls and ceilings need not be of fire resistance construction within office spaces of a single tenant when the space is equipped with an approved automatic smoke detection system within the corridor. The actuation of any detector shall activate alarms audible in all areas of the served corridor. The smoke detection system shall be connected to the building fire alarm system where such is provided.

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**{Delete chapter sections in its entirety and add the following.}**

## **Chapter 11 Accessibility**

**1101.1 Scope.** Accessibility shall be in accordance with the Texas Accessibility Standards.

(Reason: To guide customers to the proper regulatory authority and standards.)

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**{1404.3.1 add following after exceptions.}**

**1404.3.1 Class I and II vapor retarders.** In all framed walls, floors, and roof/ceilings compromising elements of the building thermal envelope, a vapor retarder, when installed, shall be installed in a manner so as to not trap moisture.

(Reason: To clarify the importance of proper drainage of condensate etc.)

{Insert the following sub-section}

**1801.2 Minimum footing and foundation design.** Footings and foundations shall be built in accordance with “Figure 18-1.E” for structures not required to be designed by a professional engineer and not exceeding 2 stories in height.

(Reason: To provide a minimum design standard for smaller structures such as accessory buildings etc. that is best suited for the soils located within the boundaries of the City of Merkel.

Add new sentence to the beginning of section.

**1808.7.4 Foundation elevation.** *When structures are more than 25 feet from the street gutter on graded sites .....*

{Delete section and add to read as follows,}

**2701.1 Scope.** This chapter governs the electrical components, equipment and systems used in buildings and structure covered by this code. Electrical components, equipment and systems shall be designed and constructed in accordance with the provisions of the Electrical Code as adopted by the City of Merkel.

{Chapter 29 – delete sub-section 2902.4.1}

**2902.4.1 Directional signage.**

(Reason: Not common practice for the Big Country)

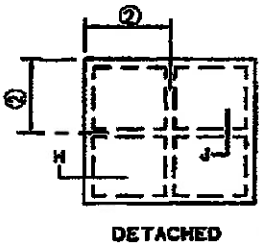
{Delete this section and add the following,}

**3103.1 General.** Reference section 108 of this code.

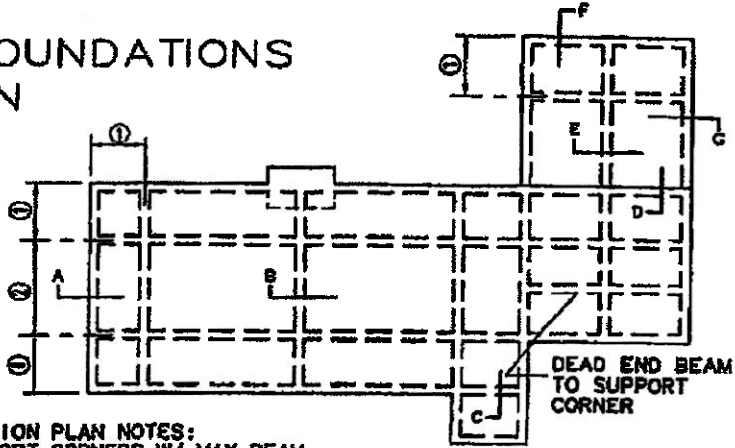
**END**

**FIGURE 18-1-E**

**CONCRETE FOUNDATIONS  
SAMPLE PLAN**

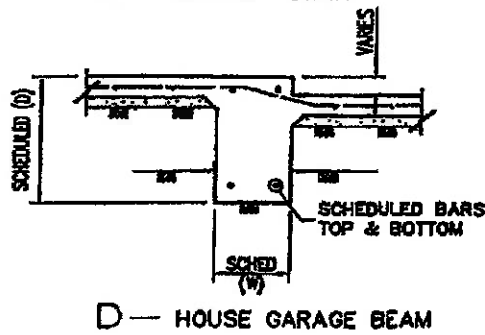
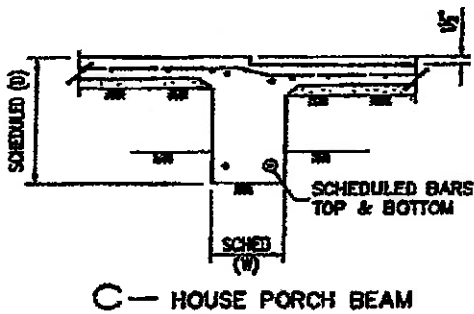
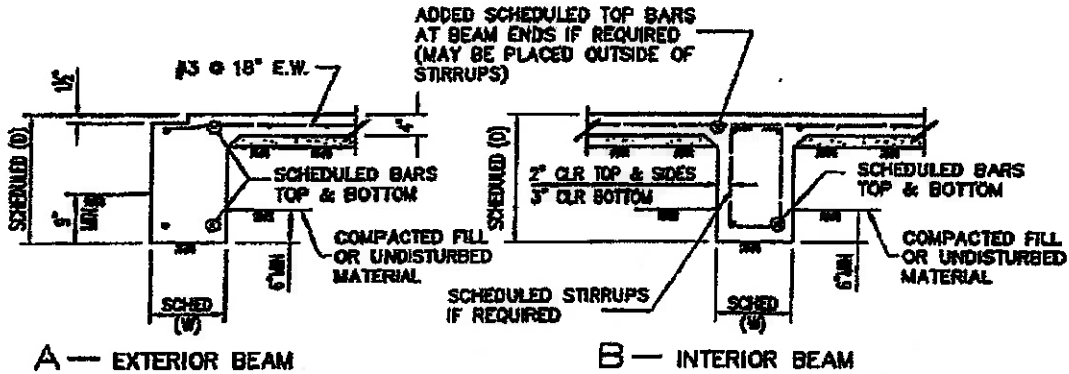


DETACHED

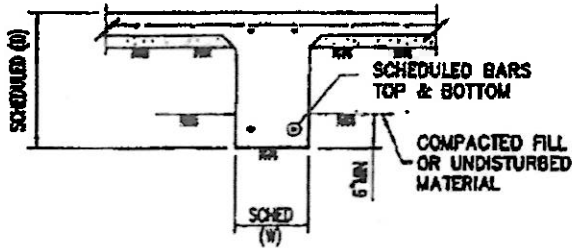


**FOUNDATION PLAN**  
NTS

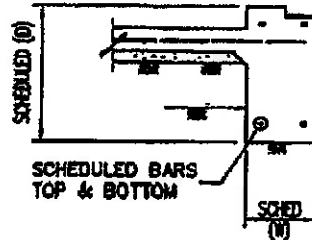
- FOUNDATION PLAN NOTES:**  
 1. SUPPORT CORNERS W/ MAX BEAM SPACING OF 6'-0" IN EACH DIRECTION  
 2. MAX BEAM SPACING TO BE 16'-0"



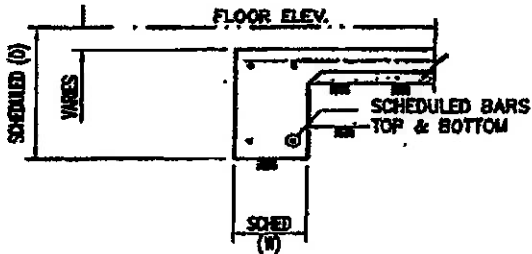
**FOUNDATION DETAILS**  
NTS



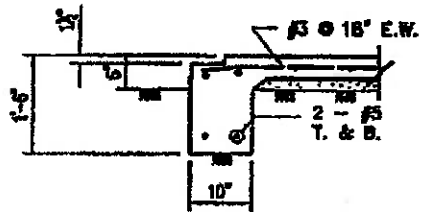
**E** — GARAGE INTERIOR BEAM



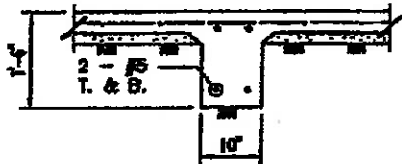
**F** — GARAGE EXTERIOR BEAM



**G** — GARAGE EXTERIOR BEAM AT ENTRANCE



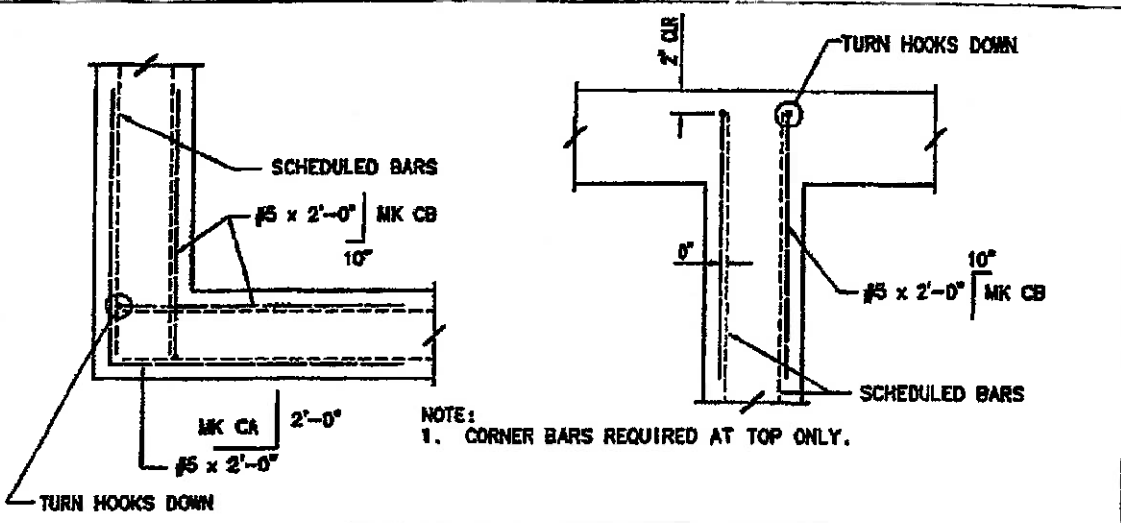
**H** — EXTERIOR BEAM DETACHED BLDG.



**J** — INTERIOR BEAM DETACHED BLDG.

**GARAGE, PORCH, & DETACHED BLDG  
FOUNDATION DETAILS**





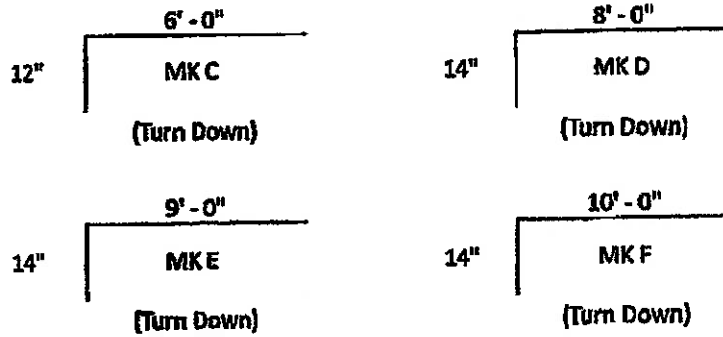
TYPICAL CORNER BARS

FOUNDATION CORNER BARS  
R.T.S.

Single Story Beam Schedule								
Plasticity Indices (PI)	Exterior Beams			Interior Beams				
	Beam Size W X D	No.	Size & Locn	Beam Size W X D	No.	Size & Locn	Added Top Each End	Stirrups Each End
25 or Less	10 X 24	2	#5 T	10 X 24	2	#5 T	NOT REQUIRED	NOT REQUIRED
		2	#5 B		2	#5 B		
26 to 35	10 X 26	2	#6 T	10 X 26	2	#6 T	1 - #6 MK A	NOT REQUIRED
		2	#6 B		2	#6 B		
36 to 45	12 X 28	2	#6 T	12 X 28	2	#6 T	1 - #7 MK B	7 - #3 @ 12"
		2	#6 B		2	#6 B		



Two Story Beam Schedule								
Plasticity Indices (PI)	Exterior Beams			Interior Beams				
	Beam Size W X D	No.	Size & Locn	Beam Size W X D	No.	Size & Locn	Added Top Each End	Stirrups Each End
25 or Less	10 X 28	2	#6 T	10 X 28	2	#6 T	1 - #6 MK C	4 - #3 @ 12"
		2	#6 B		2	#6 B		
26 to 30	12 X 28	2	#6 T	12 X 28	2	#6 T	2 - #7 MK D	5 - #3 @ 12"
		2	#6 B		2	#6 B		
31 to 35	12 X 30	2	#7 T	12 X 30	2	#7 T	2 - #7 MK E	6 - #3 @ 12"
		2	#7 B		2	#7 B		
36 to 45	12 X 34	2	#7 T	12 X 34	2	#7 T	2 - #7 MK F	7 - #3 @ 12"
		2	#7 B		2	#7 B		



**General Notes:**

- Use fill with P.I. (Plasticity Index) not to exceed 20: except where water table is encountered, use gravel, crushed stone or comparable material.
- Exterior and interior beams shall be a minimum depth below natural grade of 6". (Exception: when the exterior are placed on a compacted fill of 90% standard proctor density beams shall not be required to extend below natural grade, but shall be required to extend below finished grade a minimum of 6" into the compacted fill.) Exterior beams shall have a minimum of 9" of cover from the bottom of the beam. (See Detail A)
- All concrete shall be of a design mix to have a 28-day compressive strength of 3,000 p.s.i.
- Dead end beams not allowed except for corner support beams. Corner support beams shall pass through one intersecting beam and may dead end after connecting with the next intersecting beam. (See Detail on Concrete Foundation Sample Plan)
- All beam and slab reinforcing shall maintain minimum clearance of 2" from exterior forms on sides.
- All beam and slab reinforcing shall maintain minimum clearance of 3" from bottom of beams.
- Beam reinforcing shall be tied and supported every 4' - 0" minimum.
- Top corner reinforcing steel (bars) required at all perimeter beams. (See Typical Corner Bar Detail)
- LAP splices shall be in accordance with the following:
  - LAP #3 reinforcing steel (3/8" diameter bars) minimum 15"
  - LAP #4 reinforcing steel (1/2" diameter bars) minimum 20"
  - LAP #5 reinforcing steel (5/8" diameter bars) minimum 25"
  - LAP #6 reinforcing steel (3/4" diameter bars) minimum 30"
  - LAP #7 reinforcing steel (7/8" diameter bars) minimum 35"
- Anchor bolts - spacing 6' 0" O.C. (On Center) maximum. 12" from corners. 1/2" X 8" minimum size bolts.
- Provide chairs or other suitable supports for slab and beam reinforcing.
- All reinforcing except #3 reinforcing steel shall conform to ASTM grade 60-type steel. #3 reinforcing steel may be grade 40-type steel.
- Minimum slab thickness to be 4" and minimum reinforcing to be #3 bars at 18" B.W. (Both Ways)
- Beam sizes, spacing and reinforcing steel (bars) shall conform to the beam schedule. P.I (Plasticity Index) shall be determined for each proposed building site in accordance with the United States Department of Agriculture Soil Conservation Services Soil Survey of Taylor County, Texas, 1976. Exception: One soil test per 2500 square foot of foundation footprint shall be collected and tested by an approved testing agency. Spacing of multiple tests shall be in accordance with accepted engineering practices. Foundations for structures resting on soils with a P.I. greater than 40 shall be designed by an engineer licensed by the State of Texas.
- A foundation plan shall be required for all construction.