Village of Glen Carbon

Residential Building Permit Application

Building & Zoning Department

151 N. Main Street

Glen Carbon, Il 62034

Phone 618-288-7502

FAX 618-288-1238

NOTICE TO ALL BUILDING PERMIT APPLICANTS

INFORMATION SHEET

GLEN CARBON BUILDING DEPARTMENT

1) **Complete both copies of application. (Incomplete forms are returned)**

2) **Date and SIGN both applications and bring them to the Building Department at Village Hall.**

3) **Two sets of plans are required including:**

   a) **Floor Plans**
   b) **Building Elevations**
   c) **Truss Layout Plans**
   d) **Site Plan**

4) **You're PERMIT to start construction along with a statement of charges and inspection information will be available for pick up in the Office of Building and Zoning provided your application is complete and meets Building and Zoning Regulations.**

5) **Payments for permits are required when permits are issued.**

6) **It is against the Laws established by Ordinance 521 to Use or Occupy (in whole or in part) any structure before being issued a CERTIFICATE OF USE AND OCCUPANCY.**

7) **Dumpsters and temporary restroom facilities cannot be placed on the street.**

8) **Commercial vehicles, trailers and equipment cannot be left on the street overnight.**

9) **Permits must remain visible and kept in good condition.**

Permit No._____

Zoning_____

Village of Glen Carbon Residential Building Permit Application

PART 1. GENERAL

Subdivision_____ Lot #_____

Project Address_____

Square Footage of Lot_____ Property I.D. #_____

PART 2. TYPE OF BUILDING

Types of Structures

- ☐ Single Family_____
- ☐ Two Family_____
- ☐ Multi Family_____
- ☐ No. of units_____
- ☐ Garage/Carport____
- ☐ Room Addition____

Type of Work

- ☐ New Construction_____
- ☐ Remodel_____
- ☐ Other_____
- ☐ Market Value of Improvement_____

Dimensions

No. of stories above foundation	
Square Feet first floor	
Square Feet all additional floors	
Square Feet of finished basement	
Total Square Feet to be finished	
Total Square Feet of basement	
Square Feet Garage	Carport
Number of Bedrooms	Number of bathrooms
Deck, Garage, Room Addition	
How will property be accessed	

Plumbing (indicate number)

W. Closets	Sinks
Bathtubs	Dishwasher
Showers	Disposal
Lav.	Water Heater
Floor Drain	Service Sink
Laundry Drain	Boiler
Roof Drain	Sump
Other	In Ground Sprinkler # of heads
Water service size	
Distance to upstream manhole	
Depth of Sewer Tap	

Mechanical

Heat

Quantity	Type
Flue	Type

Water Heater

Quantity	Type	Flue

Air Conditioner

Quantity	Type

Lawn Irrigation RPZ

Model_____ size_____

Location_____

Electrical (indicate amps of each)

Service

AMP	Wire

Total # of circuits

Dishwasher	Disposal
Washer	Water Heater
Range	Oven
Dryer	Motor

Communications unit

Sub Panel	Transformer
Elect. Heat	Total KW
Air Cond.	Total BTU
Gas Furnace	Ceiling Fans

All building drainage shall be day lighted above grade NO CLOSER than 10' from any sidewalk, street or other public infrastructure to minimize or remove the chance of undermining of sidewalks and roadways.

Contractor signature _____

	Contractor Name	Tel. Number	License Number	Date
Builder				
Electrical				
Plumbing				
Mechanical				
Roofer				
Other				

OWNER

Name_____

No._____ Street_____

City_____ State_____ Zip_____

Telephone_____

GENERAL CONTRACTOR

Name_____

No._____ Street_____

City_____ State_____ Zip_____

Telephone_____

DRIVEWAY, SIDEWALK & PARKING LOT STATEMENT

The owner and/or builder/developer with consultation of a qualified professional engineer will insure adequate compaction of grades under sidewalks, driveways and/or parking lots when installed over public road right-of-way and easements. The Village of Glen Carbon assumes no responsibility for any settlement or pavement damage and the owner and/or builder/developer hereby agrees to hold the Village of Glen Carbon harmless from any future costs or maintenance of said sidewalks, driveways and/or parking lots.

_____ _____

OWNER **BUILDER/DEVELOPER**

THE OWNER IF THIS STRUCTURE AND THE UNDERSIGNED AGREE TO CONFORM TO ALL APPLICABLE LAWS OF THIS JURSIDICTION AND AGREE NOT TO ALLOW ANY PERSON OR PERSONS TO USE OR OCCUPY THE ABOVE STRUCTURE BEFORE A FINAL INSPECTION HAS BEEN MADE AND APPROVED AND A CERTIFICATE OF USE AND OCCUPNACY HAS BEEN ISSUED FOR THIS STRUCTURE.

"IT IS THE APPLICANTS RESPONSIBILITY TO COMPLY WITH ANY SUBDIVISION COVENANTS AND RESTRICTIONS WHICH MAY ALSO APPLY TO YOUR PROPOSED CONSTRUCTION."

_____ _____

Date Signature of Owner or Legal Representative

THIS PERMIT IS GRANTED ON THE EXPRESS CONDITION THAT THE SAID CONSTRUCTION SHALL, IN ALL RESPECTS, CONFORM TO THE ORDINANCES OF THIS JURISDICTION, INCLUDING THE ZONING ORDINANCE, REGULATING THE CONSTRUCTION AND USE OF BUILDINGS, AND MAY BE REVOKED AT ANY TIME UPON VIOLATION OF ANY PROVISIONS OF SAID ORDINANCES.

_____ _____ _____

Date Approved Permit Fee

PLOT PLAN

1)Draw lot and show its dimensions

2)Show distances (setbacks) of all buildings to lot lines, dimensions (size) of building and lot. Indicate size and location of easements

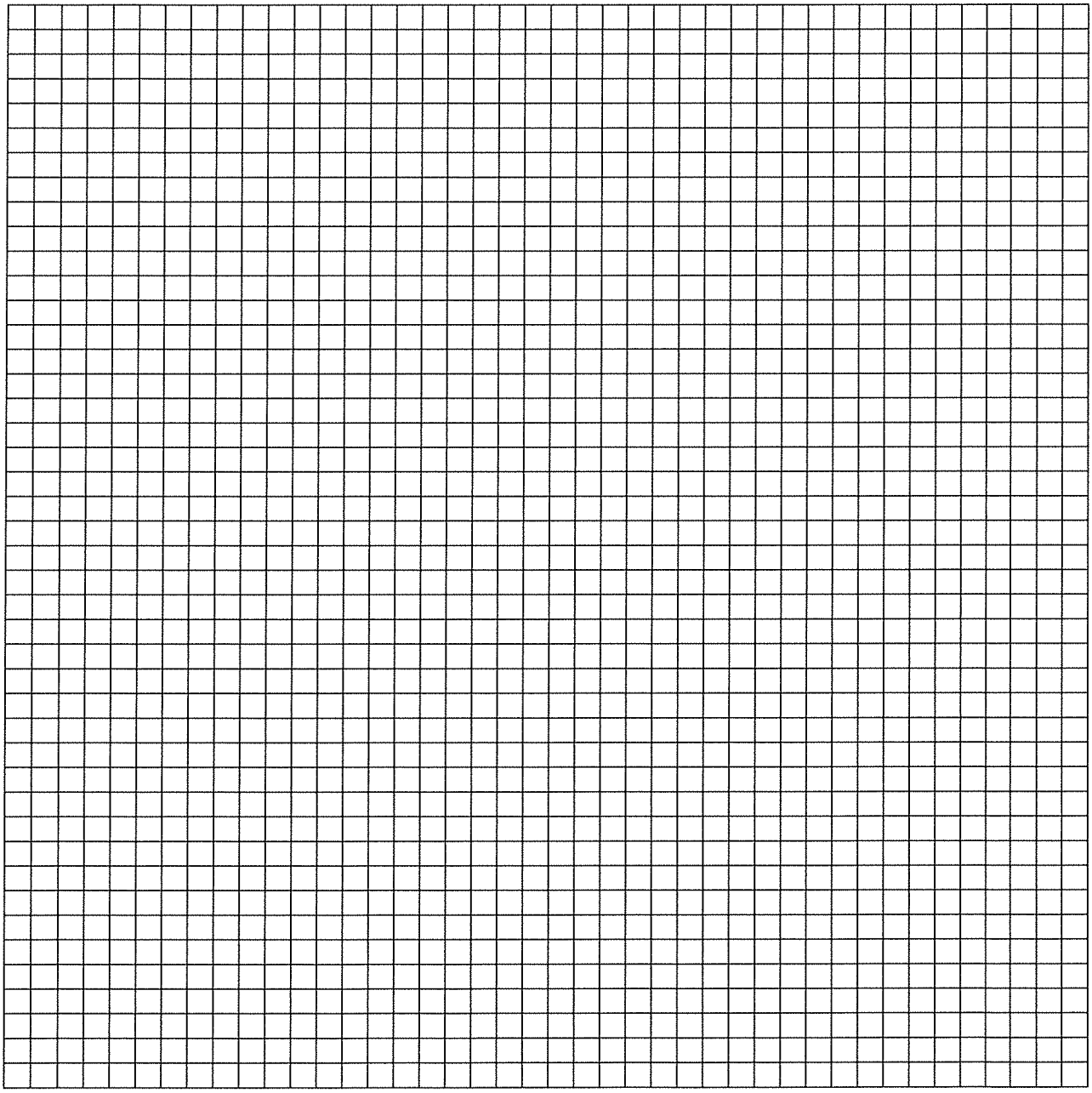
3)If corner lot, designate setback lines at both street locations

4)Indicate any additional out-buildings and all existing buildings with dimensions

5) Indicate location of proposed home

6)Indicate all streets and road names

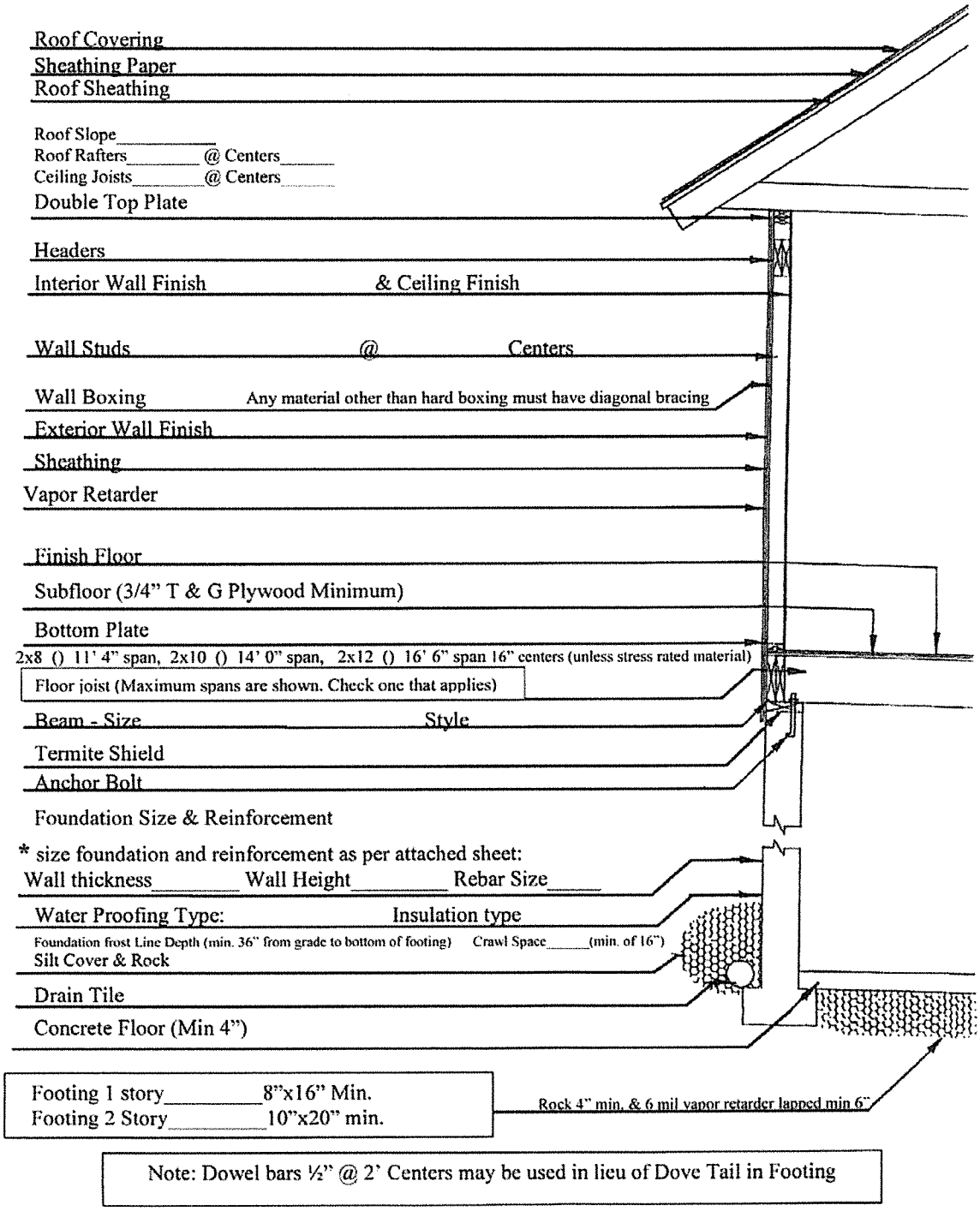
7) Indicate Arrow North



Specification Sheet

Village of Glen Carbon Building & Zoning

NOTE: List all Sizes & Materials



Note: Dowel bars ½" @ 2' Centers may be used in lieu of Dove Tail in Footing

EFFECTIVE FOR ALL BUILDING PERMITS-SINGLE FAMILY & COMMERCIAL AS OF JULY1, 1994

TEMPORARY WATER SERVICE AGREEMENT FOR CONSTRUCTION PURPOSES

The undersigned, for and in consideration of the Village of Glen Carbon, Illinois agrees to provide temporary water services to the premises described below, for construction purposes does agree to place on deposit with the Village of Glen Carbon, Illinois the sum of $350.00 cash under the terms and conditions set forth below:

1) Temporary water service will be supplied to the following location for construction purposes only and this agreement shall be offered within the first 45 days of construction provided water taps are paid.

LOT #:_____

Address:_____

_____

2) The Village of Glen Carbon agrees to refund the above referenced deposit without interest, except where said deposit is forfeited as provided in paragraph "3" below, after completion of all Building Code requirements and the issuance of a Certificate of Occupancy, less a deduction for any amounts due and owing for water charges incurred.

3) In the event that the undersigned, or any person or firm or corporation acting on behalf of the undersigned occupies, or permits the occupancy of the structure, indentified in paragraph "1" above prior to the issuance of the Certificate of Occupancy, then said $350.00 deposit shall be forfeited in full and the incurred charges for water services provided shall become immediately due and payable as an additional amount due payable to the Village of Glen Carbon, Illinois.

4) Should the undersigned forfeit the above deposit by occupying the structure or allowing the occupancy of the structure, then said forfeiture shall be deemed a waiver of the right to secure temporary water services in the future.

5) The Village of Glen Carbon, Illinois may terminate the temporary water service supplied to the above structure in the event of any emergency, in the event of occupancy of the premises prior to the issuance of a Certificate of Occupancy, and in the event of the suspension of construction for a period of 30 consecutive days.

Dated this_____day of_____, 20_____

_____ Village of Glen Carbon Representative

_____ Applicant for Temporary Water Service

I acknowledge receipt of_____, representing the original deposit of ($35.00) less any amounts applied to water charges due and owing, ($_____) if any.

Dated this_____day of_____, 20____ SIGNED_____

REQUIRED ENERGY CODE COMPLIANCE

Public Act 096-0778 was signed into law on August 28, 2009 amending the Energy Efficient Commercial Building Act by including residential buildings and amending the name of the act to the Energy Efficient Building Act. The new requirements for residential buildings became effective on January 1st., 2012. The act established a statewide residential energy code, which requires that newly constructed residential buildings meet the minimum standards set forth in the most recent version of the International Energy Conservation Code (2012 IECC).

All new permit applications must contain a completed "Res-Check" evaluation based on the 2012 IECC showing compliance and the accompanying inspection report, or certified HERS rater. ***NOTE: builder/contractor must keep and place the certificate on the main panel prior to final inspection.***

Information on this web based program may be found at this link"
http://energycode.pnl.gov/REScheckWeb/
You will also be able to download and use the free software at this link:
http://www.energycodes.gov/rescheck/

It is the responsibility of the permit holder or owner to supply this documentation. All "Res-Check" data must show compliance with the minimum required 2012 International Energy Conservation Code.

Until the rough in has an approved rough in inspection, DO NOT REMOVE ANY LABELING FROM ANY EXTERIOR DOOR OR WINDOW. If the documentation is not in place the affected door or window must be replaced.

It is the responsibility of the permit holder to provide this department with any documentation or testing required to assure the project is in compliance with the requirements of the 2012 International Energy Conservation Code.

Signature_____
Owner or Legal Representative

Date_____

Minimum Energy Code Requirements

The references below are not all inclusive

- A permanent certificate shall be posted on or in the electrical distribution panel. The certificate shall not cover or obstruct the visibility of the circuit directory label.
- All basements shall have a R-10 continuous insulation factor on or a R-13 on the interior of the basement wall a minimum of 48" below grade. Exposed insulation must be covered by an approved product. "craft face" insulation must have drywall covering.
- The access from the conditioned space to the attic must have short wall insulated to the full depth of the attic insulation. The access lid must have attached full insulation to match the required attic insulation. The access cover must be weather stripped to seal against air infiltration.

ALL PENETRATIONS INTO THE UNCONDITIONED SPACE MUST BE SEALED. THIS INCLUDES ELECTRICAL BOXES, WIRING, PLUMBING, HEATING PENETRATIONS.

- Tyvek (and other approved comparable products) must be installed and taped as per the manufactures approved installation instructions.
- All heating & air conditioning equipment must be sized in accordance with chapter 3 & 6 of the 2012 International Mechanical Code.
- All duct work penetrating into an unconditioned area must be sealed and pressure tested as outlined in section the 2012 International Energy Conservation Code.
- All ducts, air handlers, filter boxes, and building cavities shall be sealed, joints and seams shall comply with the 2012 International Mechanical code section 603.9.
- Floor or wall systems cannot be used as ducts for pressure or return
- The thermostat for primary forced air furnace shall be a programmable thermostat.
- Recessed lighting in the building thermal envelope shall be sealed to limit air leakage between conditioned and unconditioned space.
- A minimum of 75% of all permanently installed lighting fixtures shall be high efficacy lamps. One bulb equals one fixture.
- All heated pools shall have a vapor retardant cover on or at the water surface. All pools heated to greater than 90°f shall have a pool cover with a minimum R-12.
- All hot water circulating systems shall be insulated to a minimum R-3, if a prescriptive path is followed.
- PRESCRIPTIVE PATH, hot water lines shall be insulated as outlined in section R403.4.2
- **ALL lines carrying fluid over 105 F or below 55 F shall be insulated (ie. AC linesets)**
- All exterior piping insulation shall be protected from weather, sun.
- Whole House ventilation is required.
- Blower door test is required.
- Eave baffles must be installed
- Attic knee walls, MUST be air sealed.
- Slab on grade or walk out basements, MUST have insulated footings or slabs.

A compliance report using software tools shall generate a report showing the proposed design complies, includes address and other identification of the residence, component identification, and inspection checklist showing results for standard reference design & proposed design, name of individual completing the report, name and version of the software compliance tool.

Reinforcing requirements for concrete walls

NOTE: You may drop **one size** of the required vertical reinforcing by reducing the distance by one half EXAMPLE: #5 on 48" centers could be reduced to #4 on 24" centers. A minimum of two rows of horizontal reinforcing will always be required. **Listings below are for soil class GM, GC, SM, SM-SC and ML at 45psf per foot of depth**
DEVIATIONS FROM THE LISTED GUIDE WILL BE REQUIRED TO SECURE A SEALED DRAWING FROM A LICENSED STRUCTURAL ENGINEER.

Maximum Wall Height	Unbalanced Backfill	Minimum Vertical Reinforcing Size & Spacing for a **8" Nominal Wall**
5 Feet	4 Feet	Not required
	5 Feet	Not required
6 Feet	4 Feet	Not required
	5 Feet	Not required
	6 Feet	Not required
7 Feet	4 Feet	Not required
	5 Feet	Not required
	6 Feet	Not required
	7 Feet	#5 at 46" o.c.
8 Feet	4 Feet	Not required
	5 Feet	Not required
	6 Feet	Not required
	7 Feet	#5 at 41" o.c.
	8 Feet	#6 at 43" o.c.
9 Feet	4 Feet	Not required
	5 Feet	Not required
	6 Feet	Note required
	7 Feet	#5 at 37" o.c.
	8 Feet	#6 at 38" o.c.
	9 Feet	#6 at 30" o.c.
10 Feet	4 Feet	Not required
	5 Feet	Not required
	6 Feet	Not required
	7 Feet	#6 at 48" o.c.
	8 Feet	#6 at 34" o.c.
	9 Feet	#6 at 27" o.c.
	10 Feet	#6 at 23" o.c.

Maximum Wall Height	Unbalanced Backfill	Minimum Vertical Reinforcing Size & Spacing for a **10" Nominal Wall**
5 Feet	4 Feet	Not required
	5 Feet	Not required
6 Feet	5 Feet	Not required
	6 Feet	Not required
	7 Feet	Not required
7 Feet	5 Feet	Not required
	6 Feet	Not required
	7 Feet	Not required
	8 Feet	Not required
8 Feet	4 Feet	Not required
	5 Feet	Not required
	6 Feet	Not required
	7 Feet	#5 at 41" o.c.
	8 Feet	#6 at 43" o.c.
9 Feet	4 Feet	Not required
	5 Feet	Not required
	6 Feet	Not required
	7 Feet	Not required
	8 Feet	#5 at 37" o.c.
	9 Feet	#6 at 41" o.c.
10 Feet	4 Feet	Not required
	5 Feet	Not required
	6 Feet	Not required
	7 Feet	Not required
	8 Feet	#6 at 47" o.c.
	9 Feet	#6 at 35" o.c.
	10 Feet	#6 at 29" o.c.

Maximum Wall Height	Unbalanced Backfill	Minimum Vertical Reinforcing Size & Spacing for a **12" Nominal Wall**
5 Feet	4 Feet	Not required
	5 Feet	Not required
6 Feet	4 Feet	Not required
	5 Feet	Not required
	6 Feet	Not required
7 Feet	4 Feet	Not required
	5 Feet	Not required
	6 Feet	Not required
	7 Feet	Not required
8 Feet	4 Feet	Not required
	5 Feet	Not required
	6 Feet	Not required
	7 Feet	Not required
	8 Feet	Not required
9 Feet	4 Feet	Not required
	5 Feet	Not required
	6 Feet	Not required
	7 Feet	Not required
	8 Feet	Not required
	9 Feet	Not required
10 Feet	4 Feet	Not required
	5 Feet	Not required
	6 Feet	Not required
	7 Feet	Not required
	8 Feet	Not required
	9 Feet	#4 at 48" o.c.
	10 Feet	#6 at 38" o.c.

The reinforcing and design information included here is for a maximum foundation wall height of nine feet (9'). Foundation walls greater than nine feet (9') must be designed and sealed by an Illinois Licensed Architect or Structural Engineer. The design must be submitted at the same time as the permit application.

Minimum required horizontal reinforcement in nominal concrete walls

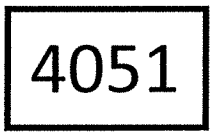
Maximum unsupported height of basement wall (feet)	**Location of horizontal reinforcement**
Equal to or less than 8'	One #4 bar within 12" of the top of the wall story and one #4 bar near mid-height of the wall story
Greater than 8"	One #4 bar within 12" of the top of the wall story and one #4 bar near third points in the wall story

The Following Codes are used by the Village of Glen Carbon

2012 International Building Code
2012 International Residential Code
2012 International Mechanical Code
2012 International Fuel Gas Code
2005 National Electrical Code
2004 Illinois Plumbing Code
Madison County Private Sewage Disposal Code
1997 Illinois Accessibility Code (note 2010 A.D.A. now an Illinois Requirement)
2004 N.F.P.A. 96 Commercial Cooking
U.L 197 Standard

Below you will find answers to commonly asked code questions. Please refer to the attached information sheet. Please call the Building Department at (618)- 288-7502 for other information and questions you may have that may not be covered. The information provided **is not all inclusive of adopted code requirements.**

- Building setback is twenty five feet (25') from front property line. Subdivision street right-of-ways are twenty five feet (25') from the center of the road right-of-way.
- Side setbacks are ten foot (10') minimum or ten percent (10%) of the lot width whichever is greater.
- Rear setback is twenty five feet (25') minimum
- Erosion control and siltation protection will be required to protect streets and other property owners from mud run off from residential construction sites. **(See attached section on Erosion Control).**
- In conformance with the Village of Glen Carbon, combustible materials and rubbish shall not be disposed of by burning on the premises anywhere within the Village of Glen Carbon.
- House numbers are required to be in place at the time of the final inspection.
- Buildings that have been assigned a street number must have the number visibly displayed in Arabic figures (i.e., 1, 2, 3, etc.) at least three inches (3") in height and each stroke must be ½" wide. Arabic figures are required because script numbering (i.e. one, two, three) can be difficult to read. Legible numbers are essential for rapid response emergency personnel.



- Minimum frost depth thirty six (36")
- A drainage system at the exterior of the foundation wall shall be installed at the base of the exterior side of the foundation wall. Drainage tiles may be ran to sump pump or away from the structure by gravity. Drain tiles must be covered with rock and straw or felt paper, unless an approved wicking system is installed. Sock covered tile will not be accepted without rock and silt barrier over rock.
- **Sump crock is required to have a gas tight lid and must be a minimum of two inches (2") above the finished floor.**
- Pins two feet (2') O.C. are required or use a key way in the footings. Set ½" x 12" foundation anchor bolts at a maximum of four foot (4') o.c., minimum of two in a wall, all bolts to be imbedded a minimum of eight inches (8") in the foundation and 2 ½" above the pour. **Provide a three inch (3"0 foundation washer and additional spacer washer on each bolt.** Bolts shall be a minimum of three inches (3") from inside surface of concrete for both brick veneer and log construction.
- Boxing shall continue to the sill plate or approved straps used to secure the wall system to the foundation
- **Steel foundation washers shall be placed between the foundation sill plate and the spacer with the nut to secure the plate. Washers shall be three inches (3") and 3/16" thick.**
- Framing portions of the structure must be six inches (6") above finished grade.
- Sills of all door openings between the garage and the dwelling shall be raised a minimum of four inches (4").
- Garages beneath dwellings shall be separated from the dwelling by a one hour (1) rated wall.
- In garages: ceilings, walls abutting the structure and the interior wall (both sides) shall be 5/8" fire rated drywall.
- Provide four inch (4") minimum step up to interior doors from garage. Drop slab four inches (4") at interior partitions for basement garages. Drop slab four inches (4") below top of house foundation if garage is attached. Door from garage to interior shall be 1 ¾" solid core. Slope concrete slab two inches (2") minimum towards overhead garage door.
- Solid wood or metal insulated door is required on all exterior doors, except a thermal sliding door for kitchen or patio access.

- From **April 1st. to October 1st.** to have an approved final and occupancy permit, yards must be graded, seeded and straw or sod in place or a signed contract from a landscaping company with a reasonable completion date submitted and erosion control in place. From **October 1st. to the end of March** a temporary approval will be considered depending on the weather conditions if erosion control is in place at the street and at adjoining finished parcels.
- ***Dumpsters and temporary restroom facilities cannot be placed on the street.***
- ***Commercial vehicles, trailers and equipment cannot be left on the street overnight.***
- ***Permits must remain visible, accessible and kept in good condition.***
- Mid-span bridging is required on all solid wood joists with spans greater than ten feet (10').
- All sill plates, plates or posts in contact with concrete floors, foundations or piers are **required** to be treated wood with **stainless steel or hot dipped galvanized** bolts or other approved anchors, including nuts, washers & spacers, ½" diameter or greater and a minimum of eight inches (8") in length.
- All nails and other fasteners used to secure framing members to treated plates shall be **stainless steel, hot dipped galvanized or other fasteners approved for the purpose intended.**
- **PIERS:** Minimum frost depth is thirty six (36")
  Minimum diameter for supporting deck is twelve (12") inches
  Minimum diameter for supporting small landings is ten (10") inches

Deck Framing General:

Post shall be connected to piers with use of a "post base" that provides an air space between the concrete pier and the post and secured with a foundation bolt.

Ledgers shall be attached to the structure with through bolts (carriage bolts) when the basement is not finished. "Fasten Master" or similar fasteners are approved for the purpose they are designed for. Either spacers or approved flashing methods (see enclosed details) must be used when attaching the "Ledger" to the primary structure. Use hangers when attaching the joist to the Ledger, and the rim joist to the floor joist when a cantilever of twenty four inches (24") or greater.

Handrails are required when a fourth (4) riser is reached

When handrails are required they **must have a graspable surface and designed in compliance with:**

R311.7.8.3 Handrail grip size. All required handrails shall be of one of the following types or provide equivalent graspability.

1. Type I. Handrails with a circular cross section shall have an outside diameter of at least 11/4 inches (32mm) and not greater than 2 inches (51 mm). If the handrail is not circular it shall have a perimeter dimension of at least 4 inches (102 mm) and not greater than 61/4 inches (160 mm) with a maximum cross section of dimension of 21/4 inches(57 mm).
2. Type II. Handrails with a perimeter greater than 61/4 inches (160mm)shall provide a graspable finger recess area on both sides of the profile. The finger recess shall begin within a distance of 3/4 inch (19mm) measured vertically from the tallest portion of the profile and achieve a depth of at least 5/16 inch (8 mm) within 7/8 inch (22 mm) below the widest portion of the profile. This required depth shall continue for at least 3/8 inch (10 mm) to a level that is not less than 13/4 inches (45 mm) below the tallest portion of the profile. The minimum width of the handrail above the recess shall be 11/4 inches (32mm)to a maximum of 23/4 inches (70 mm). Edges shall have a minimum radius of 0.01 inches (0.25 mm).

Stairs must terminate on concrete, not on dirt or other unstable surface.

Risers must be closed to a maximum of four inches (4") open

Any structure that is constructed with an opening for a door that leads to a deck, MUST construct and complete the deck. The opening (door) cannot be left as a blocked off opening for future construction of a prop0sed deck. This is required to receive a certificate of occupancy.

- **R314 Smoke Alarms**. Smoke alarms shall be installed in the following locations:
  1) In each sleeping room
  2) Within fifteen feet (15') outside each sleeping room, in the immediate vicinity
  3) On each additional floor/story of the dwelling, including basements but not including crawl spaces and attics. In dwellings or dwelling units with split levels and without intervening doors between adjacent levels, a smoke alarm installed on the upper level shall suffice for the adjacent lower level provided that the lower is less than one full story below the upper level.

When more than one smoke alarm is required to be installed within an individual dwelling unit the alarm device shall be interconnected in such a manner that the activation of one alarm will activate all of the alarms in the individual unit. The alarm shall be clearly audible in all bedrooms over background noise levels with all intervening doors closed. All smoke alarms shall be listed and installed in accordance with the provisions of this code and the household fire warning of NFPA 72

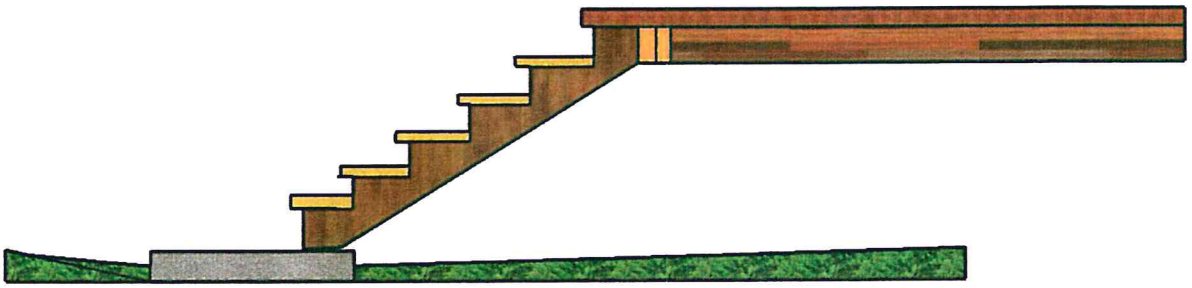
Carbon Monoxide Detectors (C.O.) are required in every dwelling that has a fuel burning device (propane or natural gas), fire place or attached garage.

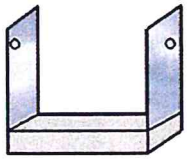
- Alterations, repairs and additions. When interior alterations, repairs or additions requiring a permit occur, or when one or more sleeping rooms are added or created in existing dwellings, the individual dwelling unit shall be provided with smoke alarms located as required for new dwellings: the smoke alarms shall be interconnected and hard wired.

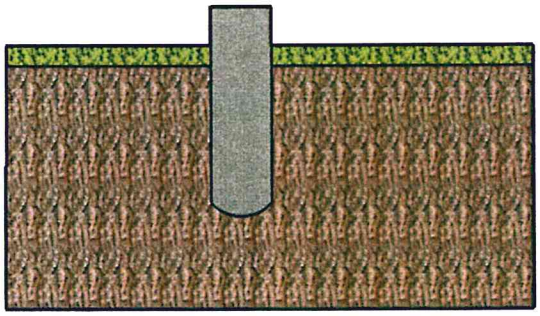
  Exceptions: 1. Smoke alarms in existing areas shall not be required to be interconnected and hard wired where alterations or repairs do not result in the removal of interior walls or ceiling finishes exposing the structure, unless there is an attic, crawl space, or a basement available which could provide access for hard wiring and interconnection without the removal of interior finishes. 2. Repairs to the exterior surfaces of dwellings are exempt from the requirements of this section.
- Power Source. In new construction, the required smoke alarms shall receive their primary power from the building wiring when such wiring is served from a commercial source, and when primary power is interrupted, shall receive power from a battery. Wiring shall be permanent and without a disconnecting switch other than those required for over-current protection. Smoke alarms shall be permitted to be battery operated when installed in buildings without commercial power or in buildings that undergo alterations, repairs or additions regulated by section **R313.1.1**
- Foam plastic sheathing insulation shall be nailed with one inch (1") head nails on twenty four (24") O.C.
- Ventilation required of all crawl spaces, as outlined in the 2003 International Residential Code
- Open sided stairways shall not be permitted. A frame wall covered with drywall will be required on both sides of the stairs with a handrail on one side of the stairs, or handrails and guardrails on open sides of stairways shall have intermediate rails which will not allow passage of an object four (4") or more inches in diameter. (**Section R312 Guards: R312.1- Guards required.** Porches, balconies or raised floor surfaces located more than thirty inches (30") above the floor or grade below shall have guards not less the thirty six inches (36") in height. Open sides of stairs with a total rise of more than thirty inches (30") above the floor or grade below shall have guards not less than thirty four inches (34") in height measured vertical from the nosing of the tread. Porches and decks which are enclosed with insect screening shall be provided with guards where the walking surface is located more the thirty inches (30") above the floor or grade below.

  Guard opening limitations. Required guards on open sides of stairways, raised floor areas, balconies and porches shall have intermediate rails or ornamental closures which do not allow passage of a sphere four inches (4") in diameter. **Exceptions:** 1 Triangular openings formed by the riser, tread and bottom rail of a guard at the open side of a stairway are permitted to be of such a size that a sphere six inches (6") cannot pass through. 2 Openings for required guards on the sides of stair treads shall not allow a sphere four & three eights (4 3/8") to pass through.
- **Handrails are required on all steps when a fourth riser is reached. Handrails shall be mounted thirty four inches (34") to thirty eight inches (38") above and parallel to a line touching the front stair nosing. The maximum space between balusters (vertical pickets) shall be four inches (4").**
- Chimneys shall extend at least two feet (24') higher than any portion of the building within ten feet (10'), but shall not be less than three feet (3') above the point where the chimney passes through the roof. Maintain two inch (2") clearance from chimney to any combustible.
- **"H" clips** or other blocking shall be used on half inch (1/2") roof sheathing used with trusses on twenty four (24") centers
- Single family residential and multi-family residential shall have paved driveways in place prior to occupancy
- Driveways shall be paved to the curb or paved to public right-of-way. **See section on driveways on this permit packet.** All concrete driveways shall be installed in conformance with attached specification sheet.
- As of June 1st. 2013 in Illinois the (420 ILCS 52/) Radon Resistant Construction Act. Is law, passive radon systems are required in all new residential construction. Radon-control methods required in all new dwellings regulated by this code shall be constructed using the radon-control features set forth in Appendix F
- Before submitting application contact Public Works Department to determine sewer tap location. This information must be included with your application.
- Draft stops shall be placed above all fireplaces. Two inch clearance is required between pre-fab vents for fireplaces and all wood members with a sheet metal sleeve to close the gap. Draft stops are required on <u>all</u> fireplace vents regardless if the stack is inside or in an outside wall.
- **Draft stops are required in suspended ceilings and open floor trusses so that any one open area will not exceed one thousand (1,000) square feet per Section R502.12**
- **Fire stop all interconnections between wall areas and floor per Section R302.11**
- Finish grade shall slope away from building at one inch (1") per foot for a distance of eight (8') feet
- Provide gutters and downspouts with elbows at bottom and splash blocks. Do not connect down spouts or drain tile to sanitary sewer.
- Hallways shall be no less than three feet (3') feet wide
- One egress window is required in each bedroom. Each egress window above grade must have a minimum net clear opening of five point one (5.1) square feet. Egress windows sills shall be no more than forty four (44") above finished grade. Egress windows shall have a minimum vertical height of twenty four (24") inches. Egress windows shall have a minimum opening width of twenty (20") inches. ***<u>Egress windows below grade must have a net clear opening of 5.7 sq. ft.</u>***
- Wood placed in a foundation pour for nailing strips shall not extend below grade

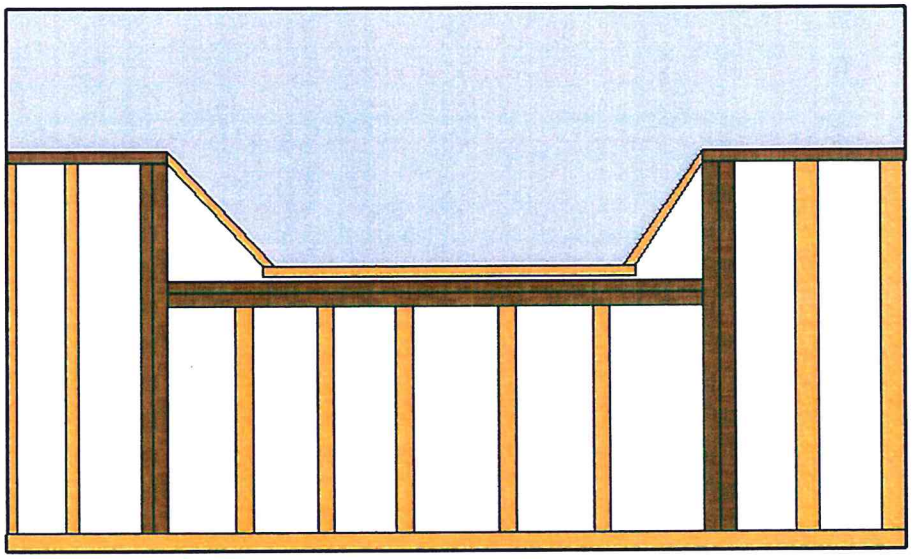
If four risers are reached a graspable handrail is required on one side of the steps. If a height of 30" (thirty inches) above any grade below is reached on the steps or any portion of the deck guard rails are required on both sides of the steps and on the deck.



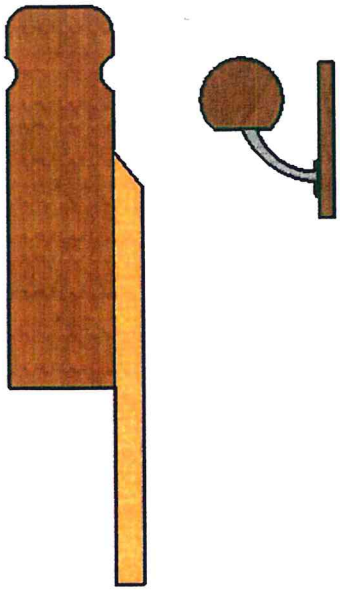




Ledgers cannot be attached to a bay, unless the bay framing is constructed of full nominal sized lumber, NOT engineered lumber. If engineered lumber is in place for the structure framing the framing of the deck must be self supporting as illustrated below.



Examples of graspable handrails



General framing size spans for a single floor only

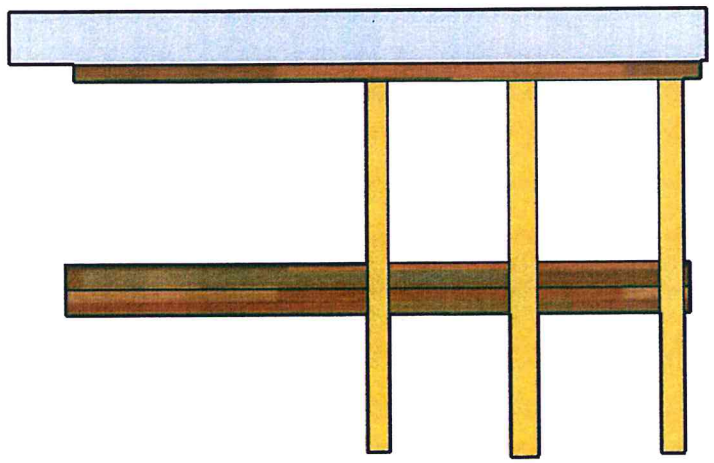
Joist Spacing inches	Grade & Species	2 x 6	2 x 8	2 x 10	2 x 12
12	#2 southern pine	10'-9"	14'-2"	18'-0"	21'-9"
16	#2 southern pine	9'-9"	12'-10"	16'-1"	18'-0"
24	#2 southern pine	8'-6"	11'-0"	13'-1"	15'-5"

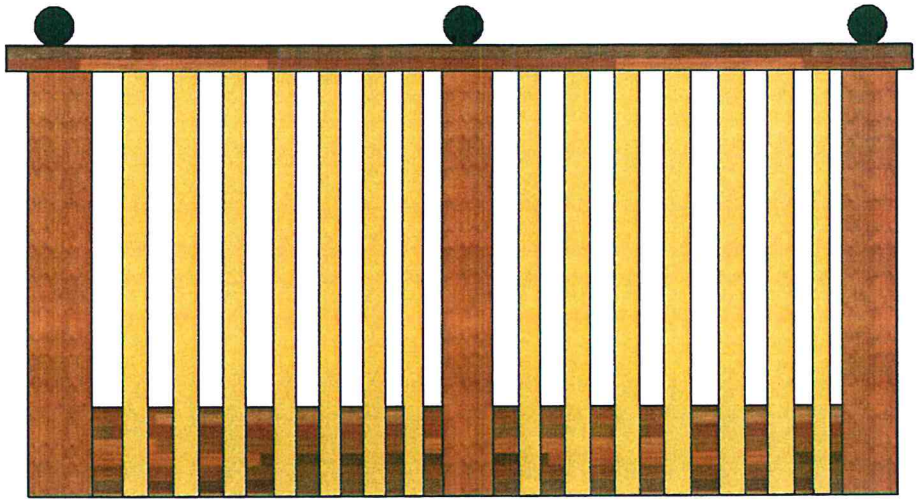
General Beam Spans

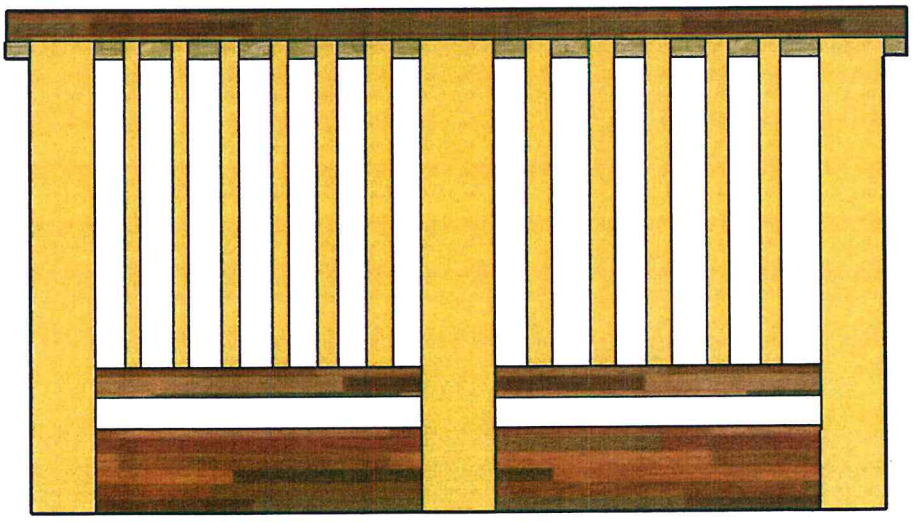
	Number	Size	Span
Beams supporting one floor	*2*	*2"x6"*	4'-6"
	2	*2"x8"*	5'-9"
	2	2"x10"	7'-0"
	2	2"x12"	8'-1"
	3	2'x8"	7'-2"
	3	2"x10"	8'-9"
	3	2"x12"	10'-2"
	4	2"x8"	9'-0"
	4	2"x10"	10'-1"
	4	2"x12"	11'-9"

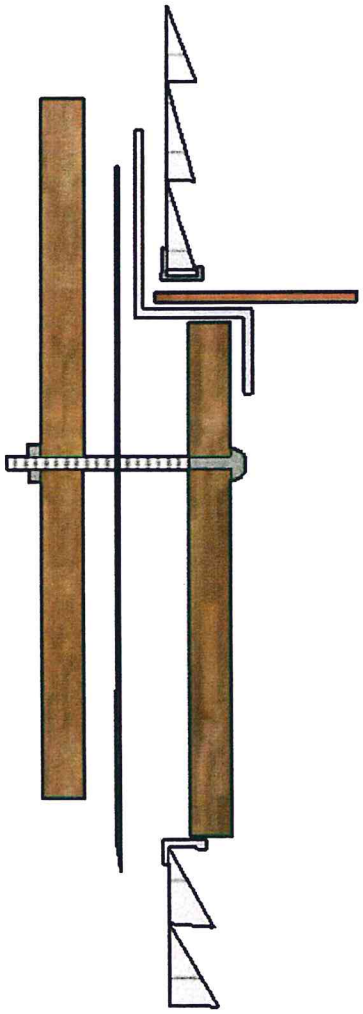
A 24" (twenty four inch) cantilever is allowed without the use of joist hangers, beyond 24" joist hangers must be utilized.

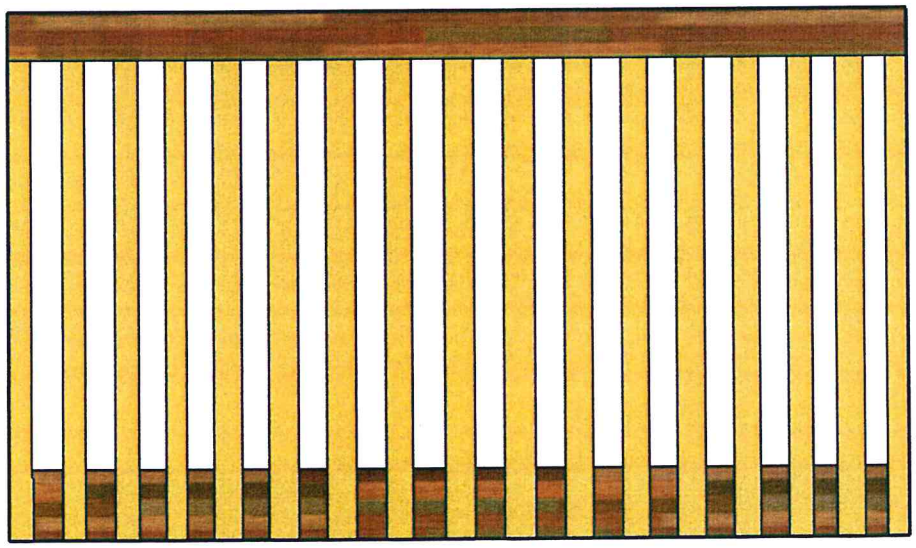
Cantilevers beyond 24" (twenty four inches) must be designed to account for the uplift forces encountered when standing on the outboard side of the deck. The backspan ration of any cantilever shall be 3 to 1. Tabulated uplift values are permitted to be reduced by multiplying by a factor equal to 3 divided by the actual backspan ration provided (3/backspan ration)

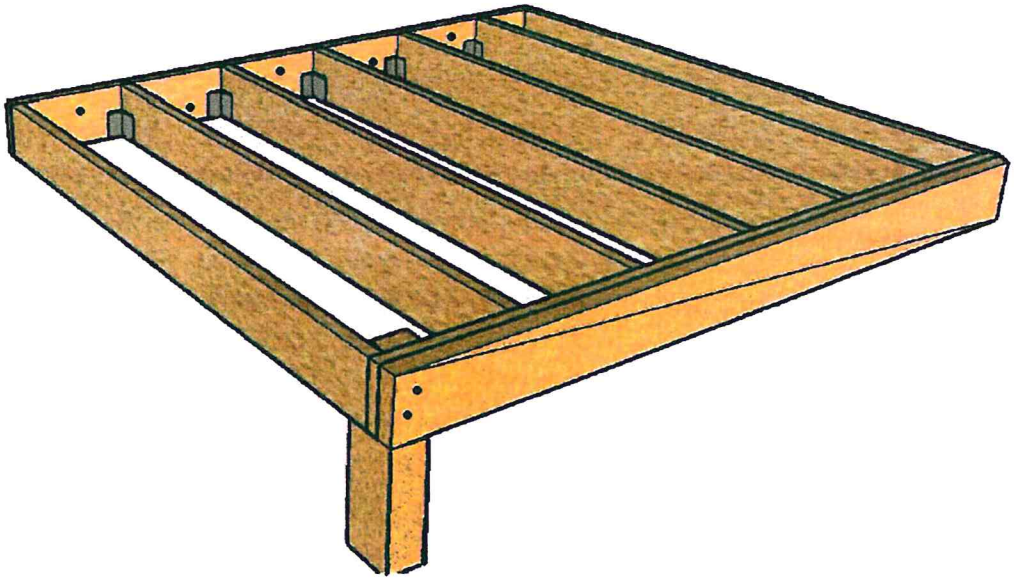


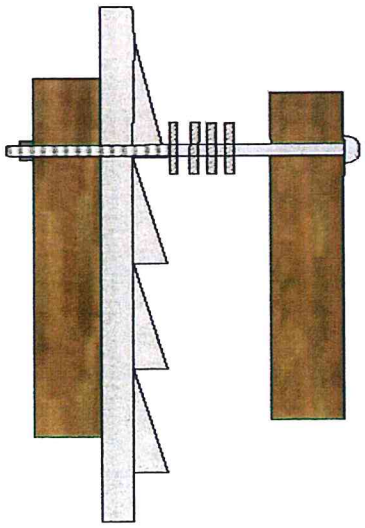




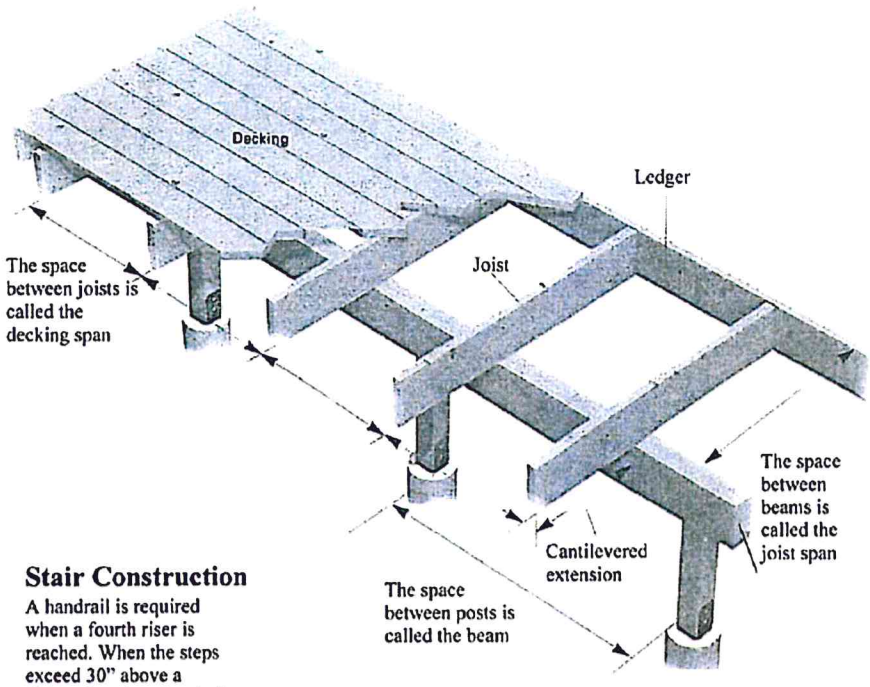






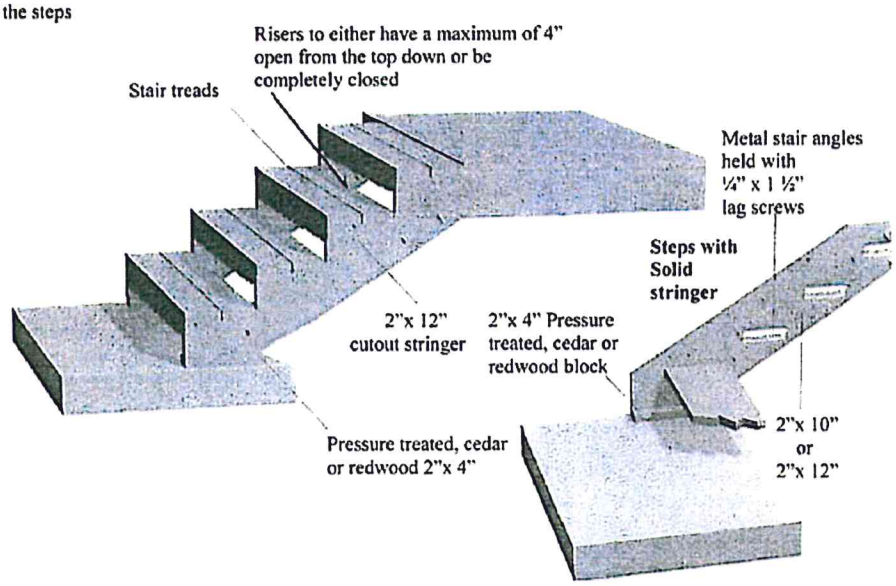


Basic Deck Components



Stair Construction

A handrail is required when a fourth riser is reached. When the steps exceed 30" above a finished grade, a handrail must be on both sides of the steps



- **Any basement or attic with habitable space (any finished area other than a bathroom or closet) must have an approved emergency escape and rescue opening per Section R310**
  Windows:
  Sill height of window not to exceed forty four (44")
  Minimum opening area five point seven (5.7) square feet
  Minimum opening height twenty four (24") inches
  Minimum opening width twenty (20") inches

  Window Wells/Area Wells:
  Required where window opening sill height is below grade
  Horizontal dimensions minimum nine (9') square feet (width X projection)
  Horizontal projection minimum thirty six (36")

  Ladders:
  Required on window wells deeper than forty four (44") inches and must be permanently attached
  Ladder may encroach up to six (6") inches into well
  Step distance between rungs maximum eighteen (18") inches
  Minimum width twelve (12") inches
  Rungs shall project a minimum of three (3") inches from the wall

  Grates:
  Shall be removable without special tools

- **Regarding" Basement Insulation Materials & Methods**

  R302.10.1 Insulation. Insulation materials, including facings, such as vapor retarders and vapor-permeable membranes installed within floor/ceiling assemblies, roof/ ceiling assemblies, wall assemblies, crawl spaces and *attics* shall have a flame spread index not to exceed 25 with an accompanying smoke-developed index not to exceed 450 when tested in accordance with ASTM E 84 or UL 723.

  Further information on this can be found form the "North American Insulation Manufactures Association " http://www.naima.org publication #B1402, "Recommendations for Insulation in Residential and other Light-Frame Construction (Fiber Glass Home Insulation), or by contacting the company that manufactures the brand of insulation you wish to install.

PLUMBING

- All plumbing shall be in conformance with the 2004 Illinois State Plumbing Code. Listed below are some points as well as adopted requirements that are above the State Plumbing Code.
- All circulating hot water systems shall be insulated to at least an "R2". Circulating Systems shall include an automatic or manual shut off switch that can turn off the pump when the system is not in use.
- A **six (6") inch schedule forty (40) clean out is required within five (5') feet outside the foundation wall**
- C.P.V.C. may be used for cold or hot water inside the foundation wall
- **Water service must be installed by an Illinois Licensed Plumber**
- Any portion of the D.W.V. system greater the ten (10') feet from a vented portion of the D.W.V. system shall be vented back into the D.W.V. system.
- Cap off all portion of the D.W.V. system that are roughed in for future use
- All tub or tub/shower faucets shall have approved scald guard, hot limit stop faucet or thermostatically controlled faucet installed
- All D.W.V. fittings installed in the venting system shall be installed in such a way as to minimize friction loss or air movement
- Support all D.W.V. piping every four (4') feet
- All sump crocks shall be set a minimum of two (2") inches above the finished floor and shall be gas tight
- All vent piping shall have a minimum fall of one eighth (1/8") per foot
- All temporary water shall have an approved backflow prevention device installed where a hose thread connection exists
- Water softener or water heater flex connectors shall not installed in the water supply system if the inside diameter does not meet the requirements of the plumbing code
- Water softener overflow and regeneration drain shall be indirect over the floor or hub drain
- Provide water softener information on final to allow a determination if proper backflow prevention has been installed
- **Type "K" copper water service is required from the meter to the house shut off. Plastic water service lines will not be accepted.**
- Water service entry to be sealed through the foundation wall
- All manhole lids, water meter lids, fire hydrant flanges shall be above grade

- All backflow prevention devices that require testing must have a completed test report provided to this Department before or at the time of the final inspection, or the occupancy will not be approved
- **A completed rough-in of the plumbing system will include connecting all of the D.W.V. system and complete installation of the water distribution system. The water distribution system must be pressure tested and a gauge present on the water system that is holding pressure at the time of the rough-in inspection. The water heater need not be installed at the time of the rough-in inspection.**
- Dumpsters and temporary restroom facilities cannot be placed on the street
- Permits must remain visible, accessible and in good condition at all times
- Commercial vehicles, trailers and equipment cannot be parked on the street overnight

Heating, Ventilation & Air Conditioning

- H.V.A.C. inspections will be part of the rough plumbing and finished plumbing inspection. All references shall be made to the 2012 International Mechanical Code.
- No P.V.C. from the plumbing system shall run through or into any part of the ductwork
- Installation instructions shall be left with the furnace to refer to at the final inspection
- Install all venting as per the manufactures installation instructions
- All drains shall not pose a tripping hazard
- All drains shall be secured and drain indirectly into the floor drain or hub drain
- Combustion air must be provided for furnaces and other fuel burning devices in confined areas
- Gas service under one (1") inch shall be laid out and submitted to this department before installation
- Return air consideration shall be given to all room with a door separation from the main living area. EXCEPTION: Kitchen, laundry, bathrooms.
- **Garages shall not have a forced air duct from the furnace that supplies that home**
- **Ductwork outside of the thermal envelope must be insulated to a minimum of R-8 and must be pressure tested**
- All ducts, air handlers, return air drops, take offs and boots shall be sealed
- Draft stop around all ducts and vents penetrating between floors and within chases
- Install combustion air for all solid fuel burning fireplaces
- When installing a gas fireplace follow the manufactures installation instructions
- Provide combustion air for gas clothes dryers. Clothes dryer exhaust shall be in compliance with the 2012 International Mechanical Code. **ALL vents must be of material approved for the use intended.**
- Relief ports on gas meter regulators shall be no less than thirty six (36") inches measured horizontally from any opening window, air intake or source of ignition
- Seal around point of entry of the gas service and line-sets
- On the rough in cap off all openings in the fuel lines
- Cap off filter rack on the furnace
- Pressure test all concealed gas piping. Install gas piping as per the 2003 International Residential Code Chapter 24
- Pipe all bath fan vents to the exterior and end with a termination kit

Electrical_ 2005 National Electrical Code

Below you will find answers to commonly asked questions. Please refer to the attached information sheet. The answers provided are not all inclusive of the code requirements. Please call the Building Department at (618)-288-7502 for other information and questions you may have that are not addressed here.

- Separate grounds shall be provided for all circuits, unless specifically exempted. Ground wires shall be attached to metal boxes with screws or approved clips.
- All new replaced electrical service panels must be bonded to the metal water service (replacements if service is accessible). If flexible gas piping is installed, per the manufactures installation instructions a bonding wire may be required. An additional bonding jumper is required between the cold and hot water piping above the water heater. Section 250.104 N.E.C.
- **At the time of the "footing pre-pour", a concrete encased electrode must be in place. A concrete encased electrode consists of one of the following:** a bare section of rebar, a zinc coated rod or a #4 AWG bare copper wire of twenty foot or greater in length. The grounding electrode must be suspended two (2") inches from the bottom of the footing. The grounding electrode must be connected to the ground rod with an approved connector suitable for burial. The ground rod bonding the grounding electrode may be installed at the time of the pre-pour. If the ground rod is not installed at the time of the pre-pour inspection enough #4 bare copper wire must be left to allow for future connection to the ground rod. The Concrete Encased Electrode connection to the ground rod must be visible at a later date if not connected to the ground rod during the pre-pour inspection.
- **The NMS cable (romex) used in walls shall be covered with drywall or other protective approved wall covering material**
- **NMS cable has been prohibited for use in all commercial projects.**
- G.F.C.I. circuits or receptacles are required in bathrooms and on hydro-massage bathtubs
- G.F.C.I. circuits or receptacles are required in kitchens when the receptacle is within six (6') feet of a water source
- G.F.C.I. circuits or receptacles are required in laundry rooms when the receptacle is within six (6') feet of a water source
- G.F.C.I. circuits or receptacles are required in all 120 volt commercial kitchen receptacles
- G.F.C.I. circuits or receptacles are required for 125 volt 15 amp & 20 amp receptacles installed in outdoor public places
- G.F.C.I. circuits or receptacles are required for 125 volt 15 amp & 20 amp circuits supplying boat hoists
- G.F.C.I. circuits or receptacles are required on receptacles located over bare concrete floors such as in a garage or unfinished basement floor, with the exception of receptacles that are not readily accessible for, de-icing equipment that is on a dedicated circuit for equipment and appliances that cannot be easily moved. A minimum of one G.F.C.I. receptacle must be installed in an un-finished basement.
- G.F.C.I. circuits or receptacles must be installed to serve exterior receptacles with the exception of receptacles that are not easily accessible, for de-icing equipment that is on a dedicated circuit.
- G.F.C.I. circuits or receptacles must be installed for receptacles located in crawl spaces or accessory buildings
- **ARC FAULT CURCUIT INTERRUPTER PROTECTION: Dwelling unit Bedrooms.** All 120volt, single phase, 15 and 20 amp branch circuits supplying outlets in dwelling unit bedrooms shall be protected by a listed arc-fault circuit interrupter. FPN: for information on types of arc-fault circuit interrupters, see UL 1699-1999, standard for arc-fault interrupters. EXCEPTION: The location of the arc-fault circuit interrupter shall be permitted to be at other than the origin of the branch circuit in compliance with (a) and (b): (a) the arc-fault interrupter installed within 1.8m (6ft.) of the branch circuit over current device as measured along the branch circuit conductors. (b) The circuit conductors between the branch circuit over current devices and the arc-fault circuit interrupter shall be installed in a metal raceway or a coble with a metallic sheath.
- No Aluminum wire will be accepted
- No wiring smaller than #12 AWG will be approved, EXCEPTION: 314 wiring for an individual switch leg
- Electrical "hook up" inspections will require circuit breaker boxes to be made up with breakers and home run connections complete
- All drops in basements, including receptacles not contained within a wall and covered with drywall or other approved protective wall covering material shall be installed in conduit or MC cable that starts up inside the floor system. The main service entry cable or feeders from the meter base to the main panel must be installed in conduit at all times, unless approved shielded entry cable is utilized.
- A separate disconnecting means shall be located within site from and readily accessible for all water heating, air conditioning and all other permanently connected devices.
- All heating and air conditioning equipment shall have a service receptacle located within twenty five (25') feet of the equipment

- All wire bored through joists and rafters unless installed in conduit, or if contained within an attic area where the vertical height is less the thirty (30") inches. Wires ran in attics may be secured alongside of the truss or rafter alongside of a catwalk a capable of protecting the wire from damage.
- A sixteenth inch (1/16") steel plate is required to protect wiring from damage laid in a notch or wiring bored through members that are less than one & one half (1 1/2") from the face of the member
- Distribution panel must have a single disconnect. An exterior disconnect is required if the main panel is not immediately inside the structure behind the meter base.
- Receptacle outlets installed in the kitchen shall be supplied by not less than two (2) branch circuits
- No more than two receptacles and one light are permitted per circuit on kitchen counters
- Refrigerators require a receptacle on its own circuit
- Minimum entrance cable for residential use: 100 amp-#4, 200amp-#2/0, 225amp-#3/0, 400amp-#500MCM
- Smoke detectors are required on all levels of a home, within every sleeping room and within fifteen (15') feet of every sleeping room. When more than one smoke detector is required to be installed within an individual dwelling unit the alarm device shall be interconnected in such a manner that the activation of one alarm will activate all of the alarms in the individual unit. The alarm shall be clearly audible in all bedrooms over background noise levels with all doors closed. All smoke alarms shall be listed and installed in accordance with the provisions of this code and the household fire warning equipment provisions of NFPA 72.
- **R314.3.1 Alterations, repairs and additions.** When *alterations*, repairs or *additions* requiring a *permit* occur, or when one or more sleeping rooms are added or created in existing *dwellings*, the individual *dwelling unit* shall be equipped with smoke alarms located as required for new *dwellings*.
  Exceptions:
  1. Work involving the exterior surfaces of *dwellings*, such as the replacement of roofing or siding, or the *addition* or replacement of windows or doors, or the *addition* of a porch or deck, are exempt from the requirements of this section.
  2. Installation, *alteration* or repairs of plumbing or mechanical systems are exempt from the requirements of this section.
- **R314.4 Power source.** Smoke alarms shall receive their primary power from the building wiring when such wiring is served from a commercial source, and when primary power is interrupted, shall receive power from a battery. Wiring shall be permanent and without a disconnecting switch other than
- those required for overcurrent protection.
  that undergo alterations, repairs, or additions regulated by section R313.1.1
- Carbon Monoxide detectors are required in every dwelling that has solid fuel source, natural or propane gas fuel source, wood burning fireplace or attached garage. The required carbon monoxide detector shall be installed within 15' of every sleeping room.
- Switches and receptacles are not permitted in cold air returns
- Three way switches are required to control lighting at stairs on lower level and upper ends of stairs when more than 6 steps are involved. Three way switches are required when exiting from a bedroom down a hallway that adjoins a stairway to another level or other area of a dwelling.
- Receptacles and switches are not permitted within five feet (5') of bathtubs or showers
  EXCEPTION: air activated switches that do not contain high voltage wiring are allowed to be within five feet (5') of a bathtub or shower.

All electrical meters that are inspected, will be tagged by a Building Inspector on the meter base. This will let AMEREN or Southwest Electric COOP know the service has passed inspection. In addition, an inspection approval form will be sent to AMEREN.

It shall be the customer's responsibility to notify AMEREN or South West COOP of any new or changes in existing electrical service. When a customer secures a permit from this department, they will have to contact the power company, as well as the Building Inspector, to coordinate service changes. The power company has indicated that all work request orders should be scheduled with them at the time of initial contact by the customer.

Ameren Approved Metering Devices Section 1100
A list of approved customer provided manufacturer's meter devices catalog number in section 1100 of Ameren Illinois Manual has been removed and posted separately from the manual due to constant changes. To get the latest catalog number information for the devices, please use the website information below.

www.ameren.com/ under business partners-construction services
http://www.ameren.com/source/ConstServ/pages/ADC_ElectricalServicerequirements.asp

Overhead Electrical Service Clearances

Vertical Clearance from Ground Service-drop conductors, where not in excess of 600 volts, nominal, shall have the following minimum clearance from final grade:

(1) 3.0 m (10 ft) — at the electric service entrance to buildings, also at the lowest point of the drip loop of the building electric entrance, and above areas or sidewalks accessible only to pedestrians, measured from final grade or other accessible surface only for service-drop cables supported on and cabled together with a grounded bare messenger where the voltage does not exceed 150 volts to ground **Less the exception listed in section 600 Overhead Services figure 600-2A of the Ameren Electrical Service Manual page attached to this application.**

(2) 3.7 m (12 ft) — over residential property and driveways, and those commercial areas not subject to truck traffic where the voltage does not exceed 300 volts to ground

(3) 4.5 m (15 ft) — for those areas listed in the 3.7-m (12-ft) classification where the voltage exceeds 300 volts to ground

(4) 5.5m (18 ft) — over public streets, alleys, roads, parking areas subject to truck traffic, driveways on other than residential property, and other land such as cultivated, grazing, forest, and orchard.

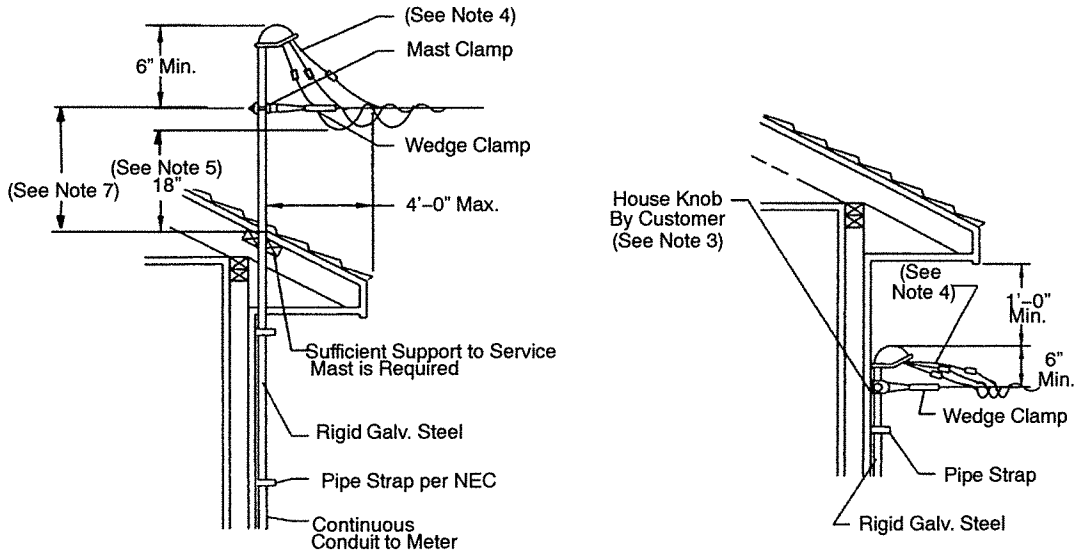
Recommended size for service conductor from meter base up through mast and from meter base into main panel and bonding jumper 1/0,3 wire NON-RESIDENTIAL service

AMP Rating	Conductor	Bonding Jumper	Conduit Size
100 A.	C.U. #3	C.U. #8	See Ameren sheet 600-4 attached
200 A.	C.U. # 3/0	C.U. #4	See Ameren sheet 600-4 attached

Recommended size for service conductor from meter base up through mast and from meter base into main panel and bonding jumper 1/0,3 wire RESIDENTIAL service

AMP Rating	Conductor	Bonding Jumper	Conduit Size
100 A.	C.U. # 4	C.U. #8	See Ameren sheet 600-4 attached
200 A.	C.U. #2/0	C.U. #4	See Ameren sheet 600-4 attached

MAXIMUM ATTACHMENT HEIGHT FOR STEEL CONDUIT MAST DEADEND FOR STANDARD SERVICE DROP FIGURE 600–2A



NOTES:

1. Before installing electrical facilities, check for compliance with local codes as well as NEC.
2. The screw of the knob shall be imbedded at least 2" into a vertical stud or masonry of the house. Another acceptable attachment such as clevis, bolt and backing plate may be substituted.
3. Approximately 36" or longer of conductor will extend from weatherhead.
4. #2 triplex cable shall not be used where the span length exceeds 140' and 1/0 and 4/0 triplex and quadruplex shall not exceed 100 ft.
5. 18" minimum permitted within 6 feet of service mast, providing voltage between conductors does not exceed 600V, the service mast is no more than 4' from the edge of the roof, and the service is terminated at the service mast.
6. Refer to Section 800 for required clearances.
7. Heights greater than shown in Table 1 are possible provided that adequate guying and support are provided and approved by Ameren.
8. The conduit size specified are the minimum required for either conduit fill or strength required to support the overhead service, whichever is greater.

Table 1
Maximum Attachment Height Above Roof (Note 8)

Amperes	Phase	Service Drop Conductor	2" Rigid Steel Conduit	2 1/2" Rigid Steel Conduit	3" Rigid Steel Conduit
100 A	1	#2 Al, Triplex	2'2"	4'1"	–
200 A	1	#2 Al, Triplex	2'2"	4'1"	–
200 A	3	1/0 Al, Quadruplex	–	4'0"	–
320 A	1	4/0 Al. Triplex	–	3'2"	4'0"
320 A	3	4/0 Al, Quadruplex	–	–	4'0"

Section 700
Underground Services

700.01 GENERAL

1. Customers contemplating underground services should contact the Company as soon as possible so that the necessary arrangements, cost determinations, engineering, estimating, customer requirements and installation of facilities can be completed by the desired date.
2. Customer conduit options and requirements vary, based upon class of customer, (residential vs. non–residential) location of the installation (MO. vs. Ill.) and finished surface area above cables. (dirt vs. pavement) Contact Company for specifics.
3. Where the Company installs or has an underground system, only underground services will be available.
4. In an area with an overhead distribution system, customers may request an underground service. Each request for such service will be evaluated on an individual basis. The Company reserves the right to refuse underground service where it does not conform to good engineering practices.
5. Any removal of obstructions or restoration of sod or other landscaping features which become necessary as a result of the installation, maintenance or replacement of service connection cable shall be the customers' responsibility.
6. Developer shall furnish:
   (1) All easements required for installation, operation and maintenance of Company facilities and clearly staked property corners.
   (2) Cable routes shall be clear of all obstructions and within 6" of final grade.
7. DRAWINGS
   7.1 SERVICE CABLE AND METER CONNECTIONS SINGLE FAMILY DWELLING RESIDENTIAL
   Figure 700–1A
   7.2 EQUIPMENT – CONNECTIONS SERVICE CABLE AND METER CONNECTIONS MULTIPLE FAMILY DWELLING FOR 2 TO 6 METERS
   Figure 700–2A
   7.3 TYPICAL VERTICAL GANGED METER STACK UNDERGROUND SERVICE BY AMEREN
   Figure 700–3A

700.02 COMPANY OWNED RESIDENTIAL SERVICE INSTALLATIONS

A. Direct Buried (Illinois ONLY)

1. The customer will provide and install the meter socket(s) or enclosures and the line–side riser conduit of Schedule 40 or greater, electrical grade PVC. This line conduit shall extend from the metering enclosure to a minimum of 18" below the ground line.
2. The customer provided conduit described in the previous item shall include a PVC male adapter, lock nut, and insulated bushing at the metering enclosure. If the required expansion coupling includes a male terminal adapter end, only the lock nut and insulated bushing are required. At the below grade end of the conduit, a PVC male adapter and insulated bushing, or PVC coupling, or PVC end bell shall be installed to protect the direct buried cable.
3. Protection from mechanical damage and future access shall be provided and installed by customer for cable under paved surfaces such as public or private driveways, roadways, streets, alleys, sidewalks, patios, etc. by installation of conduit at a depth of 24".
4. Direct buried underground service cables are not permitted under a pool, spa, or hot tub or under the area extending 5 feet horizontally from the inside wall of a pool.
5. The cable route must be cleared of all obstructions, both above and below grade, and within 6" of final grade for Company installations.
6. Customer must mark all property lines that Company requires for service installations.
7. Cable shall have a minimal burial depth of 24".
8. The maximum service length shall be determined by the Company. It is the customers' responsibility to secure information from the Company pertaining to allowable lengths for service installations.

9. Company will install, own and maintain the residential service cable.

B. Continuous Conduit (Missouri – REQUIRED, Illinois – OPTIONAL)

1. The customer will provide and install the meter socket(s) or enclosures and line-side riser conduit of Schedule 40 or greater, electrical grade PVC. This conduit shall include a PVC male adapter, lock nut, and insulated bushing at the metering enclosure. If the required expansion coupling includes a male terminal adapter end, only the lock nut and insulated bushing are required.
2. The service riser to the meter enclosure shall include an expansion coupling that allows for a 8" fall.
3. Customer installed conduit shall be installed along the shortest route, and the number of bends shall be kept to a minimum. There shall be a maximum of 3–90 degree, 24" radius bends for 2–1/2" conduit or 36" radius for 3" conduit installation. Minimum bending radius is 24".
4. All sections shall be securely fastened together using standard grade cement.
5. Minimum burial depth in trenchable earth is 24". In rock or untrenchable soil the depth may be reduced to 12". Depths of less than 12" are not permitted.
6. If it is not possible to achieve uniformity in the trench bottom it must be over-excavated 4" to 6" and the bottom refilled with good quality properly compacted bedding material. Approved materials: Sand, limestone screenings, concrete slurry or concrete.
7. Conduit seals on customer service conduit are the customers' responsibility.
8. Service conduits extension to an energized pedestal or padmounted transformer shall be terminated as follows:
   8.1 In Illinois, terminate 18" from the face of the equipment. Coordination with the Company is required to arrange for Company to complete the trenching and installation of customer provided conduit and bend.

   8.2 In Missouri, attach conduit to the previously installed flexible conduit marked by the red marker. After removing the cover, plug and conduit marker, join the flexible conduit to the rigid conduit using standard grade cement.
9. For customer conduit extensions to overhead poles, Company will designate the quadrant of the pole for the customer to stub up the conduit bend. In Illinois, customer will provide a 10 ft section of Schedule 80 electrical grade PVC conduit and the length of Schedule 40 electrical grade PVC conduit required to reach the secondary level of the pole. In Missouir, this material will be provided by Company. Actual installation of the conduit varies by Ameren area. Contact your local Ameren representative for direction.
10. Customer shall install and secure at each end, a pulling tape of adequate strength for pulling in the service conductor.
11. The Company will install, own and maintain the residential service cable.
12. DRAWINGS
    12.1 CONTINOUS SERVICE CONDUIT INSTALLATION CONNECTION TO PEDESTAL, TRANSFORMER, OR POLE AMEREN SERVICE CABLE (Illinois ONLY) Figure 700-4A
    12.2 CUSTOMER OWNED AND INSTALLED SERVICE CONDUIT CONNECTION TO PEDESTAL OR TRANSFORMER (Missouri RESIDENTIAL SUBDIVISIONS) Figure 700-5A

700.03 NON-RESIDENTIAL SERVICE INSTALLATIONS

A. General

The developer of non-residential property is required to install the total conduit system within the boundaries of the development project. Construction requirements are stated in "Specification for Developer Installed Commercial Underground Distribution Facilites" which should be secured from appropriate Company Division Operating Center when first considering such development plans.

All proposed customer installed underground facilites and configuration (conduit, manholes, and equipment pads) that contain Company facilities shall be designed by the company prior to installation.

1. Ameren will no longer install non–residential underground services.
2. Customer conduit shall be a minimum of Schedule 40, electrical grade PVC.
3. Secondary voltages, 24" minimum burial depth, 24" minimum radius bends.
4. Primary voltages, 36" minimum burial depth, 36" minimum radius bends.

B. Service from a pole

Installation of company Transformers on Customer Property, Customer shall provide sufficient space for transformers, switches, and related equipment adjacent to paved surfaces intended for normal vehicular traffic or parking, for the purpose of installing or changing Company equipment

1. Customer shall furnish, own and maintain all of the materials for the service to the Company's conductors.
2. For a direct buried cable installation, the customer shall install their facilities to the quadrant of the pole designated by the Company.
3. For a continuous conduit, the customer shall extend the facilities to the pole and include a 90 degree conduit bend for the base of the pole at a Company designated location.
4. Customer shall supply sufficient cable to reach the Company's conductor, and in Illinois also furnish all conduits, couplings, adaptors and brackets for attachment to pole.
5. Multiple conduits on a pole will require standoff brackets, supplied by Ameren.
6. Installation of facilities on the Company pole must be coordinated with local Company personnel. Company will make final connections.

C. Service from a Padmounted Transformer

1. Customer shall furnish, own and maintain all of the materials for the service to the Company's padmounted transformer and provide sufficient space for transformers, switches, and related equipment adjacent to paved surfaces intended for normal vehicular traffic or parking, for the purpose of installing or changing Company equipment.
2. The customer must provide adequate conductor for connection to the transformer terminals, typically 6' above the transformer pad.
3. Coordination with Company on conduit and cable installation shall be done prior to any installations.
4. Company personnel shall complete the service connection.

D. Service from a pedestal

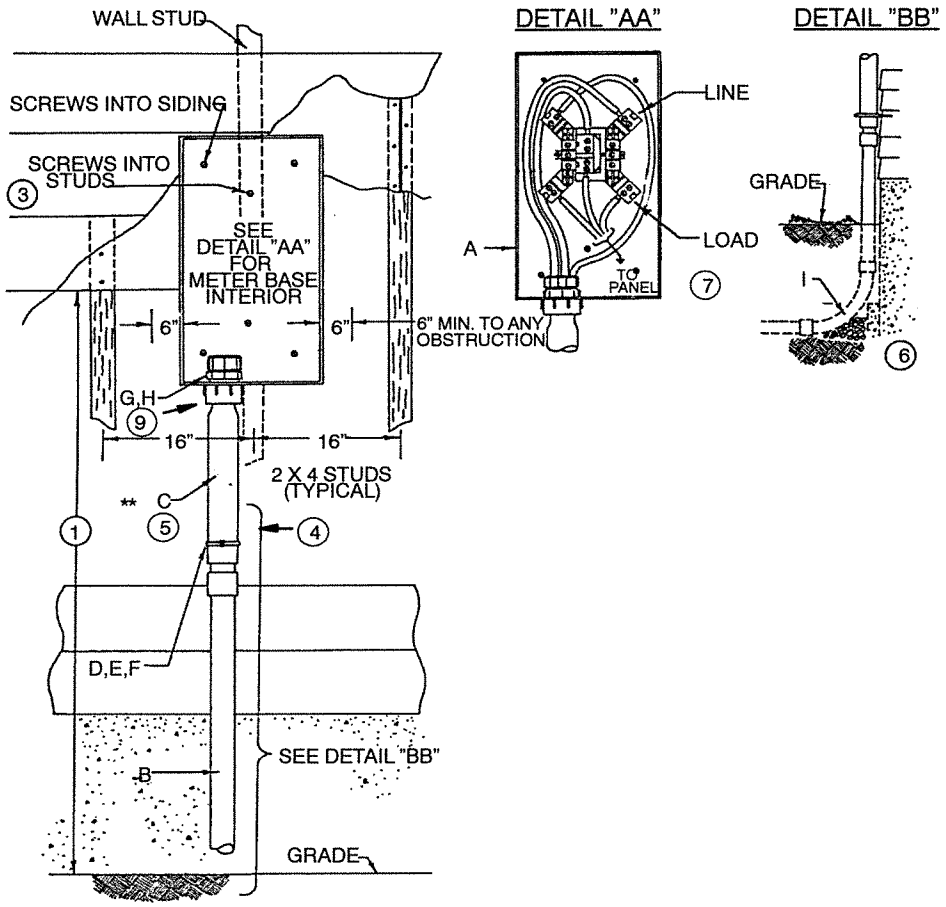
1. Customer shall furnish, own and maintain all of the materials for the service to the Company's pedestal.
2. Customer's direct buried installations shall stop 18" from the pedestal and an additional 6' of cable shall be left for connection to the pedestal terminations. The Company will complete trenching for direct buried installations.
3. For continuous conduit installations, the conduit shall, with the cooperation of the Company, be extended with a 90 degree conduit bend and protective bushing into the base of the pedestal with adequate additional cable left for connection to the terminals.
4. Company will complete the service connection in all cases.

E. DRAWING

CUSTOMER OWNED AND INSTALLED SERVICE CABLE CONNECTION TO PEDESTAL OR TRANSFORMER, OR POLE NON RESIDENTIAL
Figure 700–6A

SERVICE CABLE AND METER CONNECTIONS
SINGLE FAMILY DWELLING
RESIDENTIAL

Figure 700–1A



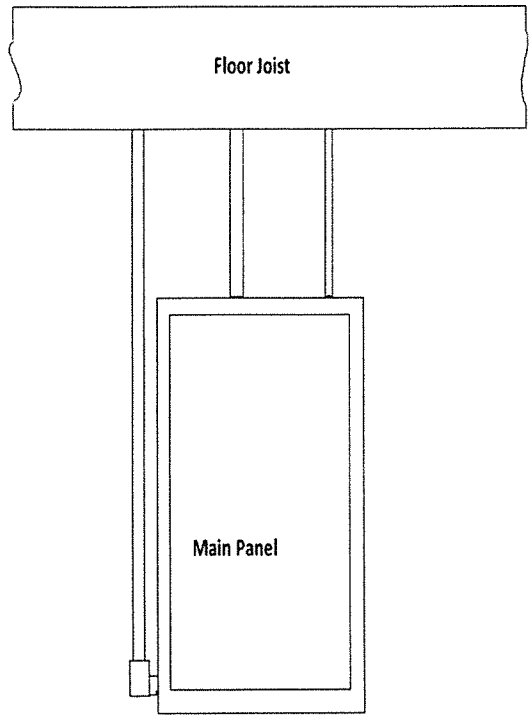
See notes and material list next page.

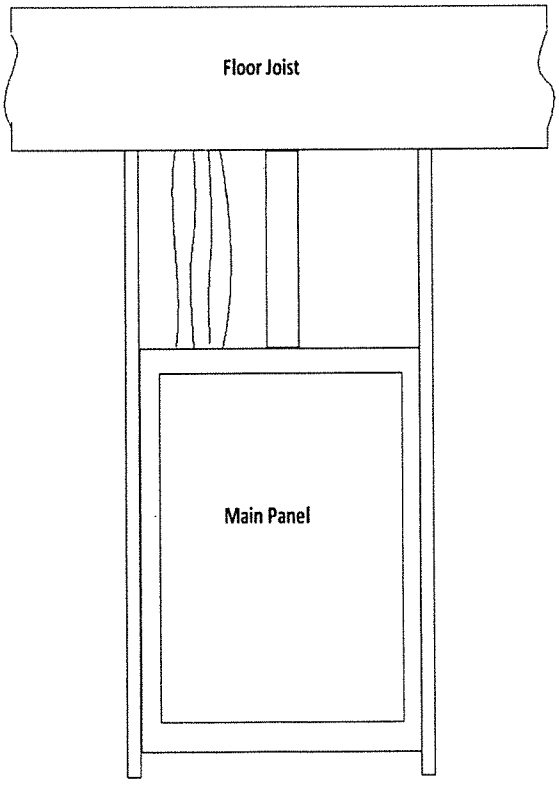
NOTES:

1. See Section 200 of the Service Manual for mounting height, approved locations and requirements for mechanical protection.
2. All materials except the supply cables shall be furnished, installed and connected by customer.
3. The meter socket shall be secured to solid wood, use #14 x 3" wood screws. In brick, use expansion shields and lag screws.
4. The conduit hanger shall be securely fastened, preferably by a lag screw into the floor joist. If attached to the foundation, a lead expansion shield shall be used. An alternative to the expansion shield is a stud shot into the foundation.
5. When back filled, expansion coupling "C" shall be installed in the middle of travel range. The expansion coupling is only required for continuous conduit.
6. The area underneath the bend shall consist of good quality fill material and dirt free of debris. The area shall be compacted around the foundation wall. Acceptable fill materials: Sand, limestone screenings, concrete slurry, concrete.
7. Approved NEC ground required.
8. For services 200 amps or less, 2–1/2" electrical grade Schedule 40 PVC conduit, expansion coupling, bends, and connectors shall be used. For services 201 amps to 400 amps., 3 inch Schedule 40 PVC conduit, expansion coupling, bends, and connectors shall be used.
9. Customer riser shall enter left knock–out of meter base.

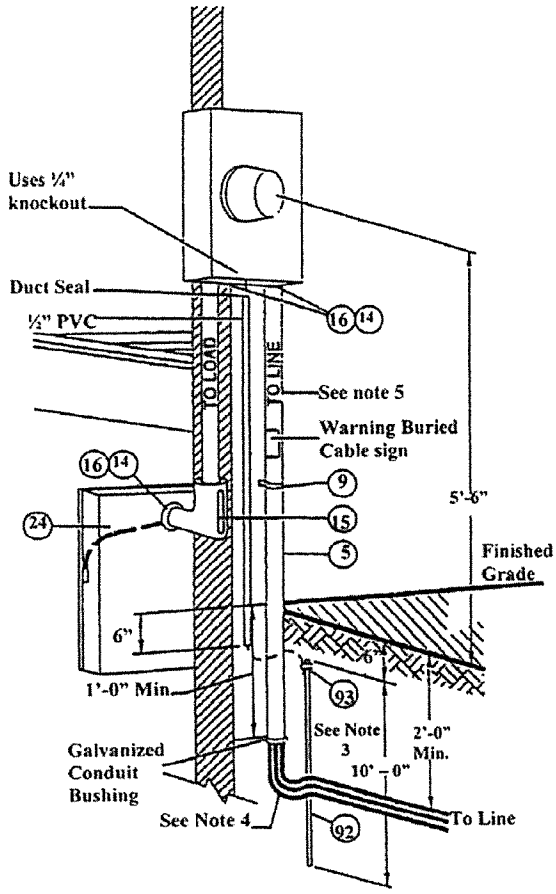
SERVICE CABLE AND METER CONNECTIONS
SINGLE FAMILY DWELLING
RESIDENTIAL
Material List for Figure 700–1A

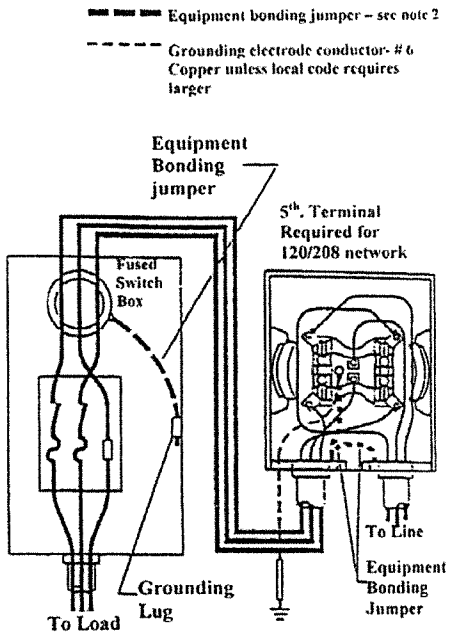
	MATERIAL FURNISHED AND INSTALLED BY CUSTOMER FOR SERVICE INSTALLED IN CONDUIT
A	Socket, Meter, 200 or 400 Amps (Class 320 Amps Meter)
B	Conduit, electrical grade Sch 40 PVC or greater, 2–1/2" or 3"
C	Coupling, Expansion, Sch 40, PVC, 8" Fall, 2–1/2" or 3"
D	Hanger, Conduit
E	Screw, Lag
F	Shield, Expansion
G	Nut, Lock, 2–1/2" or 3"
H	Insulated Bushing, Conduit 2–1/2" or 3"
I	Bend, Conduit, 90 Deg., 24" Radius, electrical grade Sch 40, PVC or greater, 2–1/2" or 36" Radius for 3", when required.


Floor Joist
Main Panel


Floor Joist
Main Panel

120/240 VOLT OR 120/208 VOLT 1O 3 WIRE
100/200 AMP UG SOCKET ON BUILDING





Wiring Diagram

Notes:

1. Before installing electrical facilities check compliance with local codes as well as the N.E.C.

2. Customer to install conduit, pull & terminate wiring from main breaker box to the load side-or bottom side of meter socket. Customer to install and terminate the grounding electrode conductor and equipment bonding jumpers as shown. Ameren IP will pull and terminate to top terminals of meter socket-line side conductor. All conduit and conductor to be sized by tables on back and note #5.

3. NEC approved clamp. Leave uncovered until after inspection.

4. Entrance conductors must be looped as shown.

5 Always consult the local Ameren IP area office for proper line side conduit size. If a riser is part of a duct run, a larger size conduit may be required.

Glen Carbon Building & Zoning
151 North Main
P.O. Box 757
Glen Carbon, Illinois 62034
Phone: (618)-288-7502 : FAX (618)-288-1238

EROSION CONTROL

As a permit holder, you are required by Village Ordinance to prevent erosion onto public roads, right-of-ways, water ways & other private property.

In addition, you are required to put in place a temporary rock driveway to allow for trucks to pull onto the lot without getting into mud and tracking it onto the street. You are responsible, and should require your sub-contractors and delivery trucks to use this temporary drive.

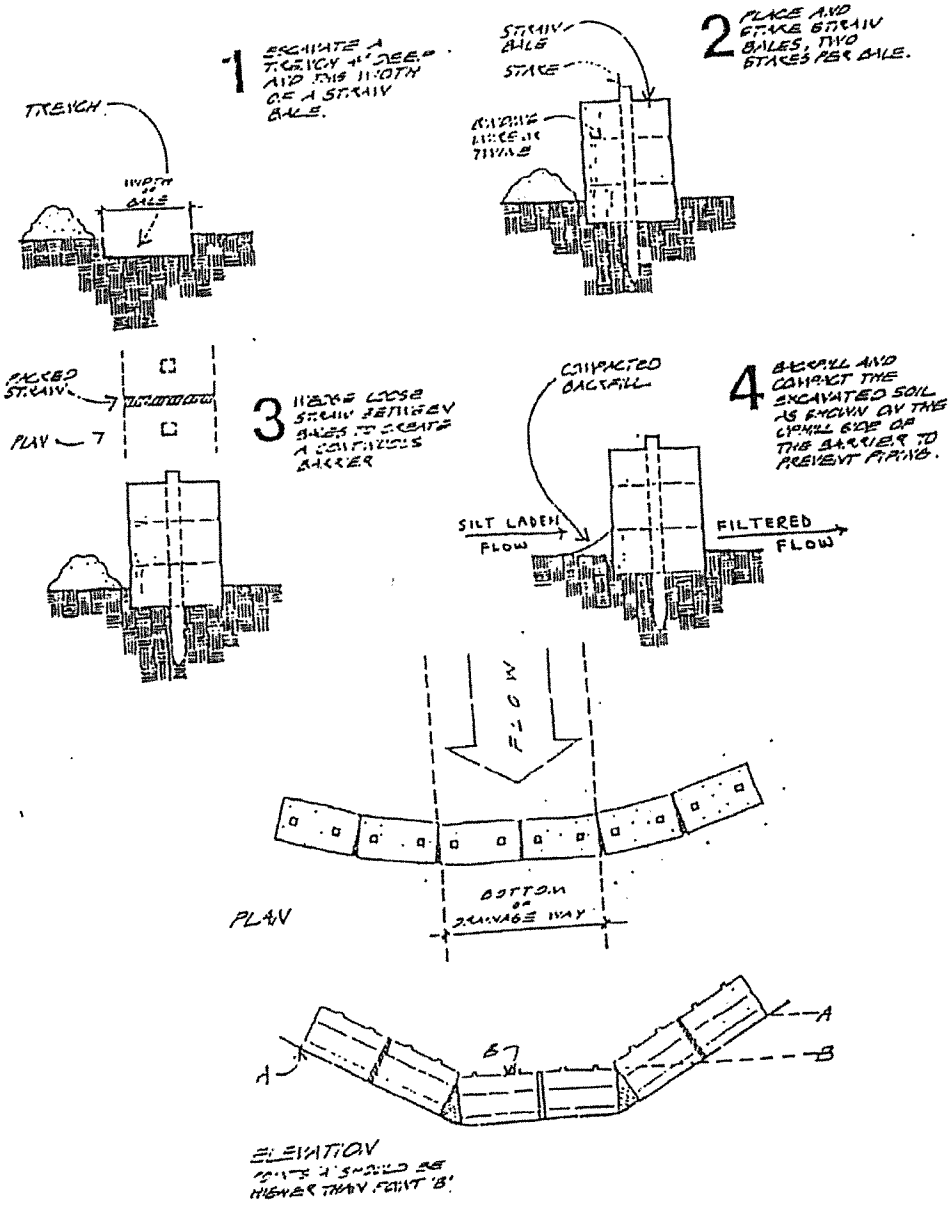
You are required to erect siltation fencing and other needed steps such as a temporary driveway to control erosion for your site PRIOR TO BREAKING GROUND

The Village of Glen Carbon Sediment Control and Erosion Control Ordinance was passed in September of 1992 in an effort to minimize soil erosion and related damage to the existing terrain, drainage areas, water-ways, etc... Failure to comply with this Ordinance will result in violation of the Ordinance and a possible stop work order. In the event that the appropriate erosion control measures are not taken, an inspector from the Building & Zoning Department may contact you or a Stop Work Order may be posted with an accompanying diagram showing the problem area. Work is not to continue once a Stop Work Order has been posted until the erosion control problem has been inspected and approved by the Building & Zoning Department. Working while a Stop Work Order is in effect is a violation of Village Ordinance #99-35 and removal of a Stop Work Order by anyone other than an official representative of the Building & Zoning Department is a violation of State Statue 50 ILSC 810/2.

ACCEPTED EROSION CONTROL BARRIERS are straw bales and silt (filter fabric) fences. The following pages of this notice outline the guidelines for straw bale and silt fence applications and installations. Copies of the Ordinance and statute are also available at this office. If you have questions feel free to contact this office.

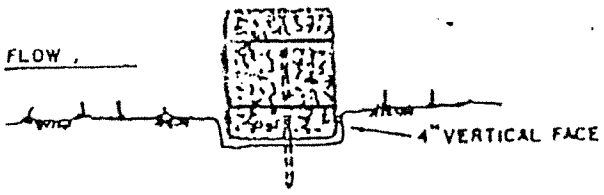
Your cooperation is appreciated and your neighbors, the ones most affected, will also appreciate your efforts to keep their neighborhood clean and neat.

APPENDIX C



Placement and Construction of a Straw Bale Barrier

STRAW BALE DIKE

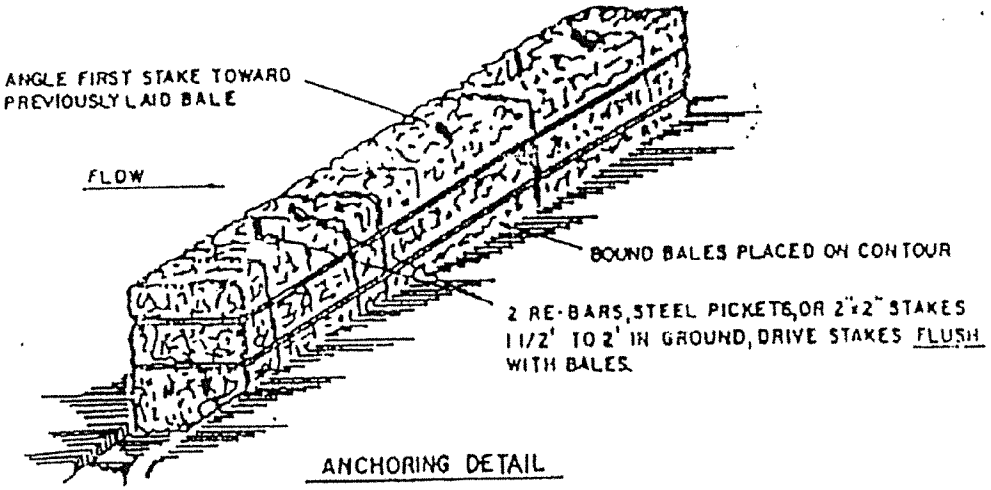


BEDDING DETAIL

STANDARD SYMBOL

SBD

SBD - DENOTES STRAW BALE DIKE



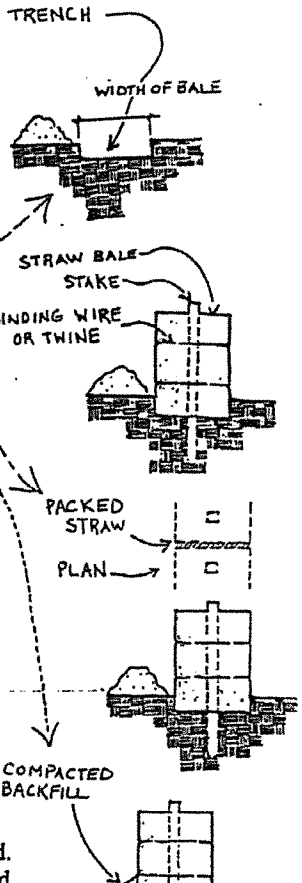
ANCHORING DETAIL

CONSTRUCTION SPECIFICATIONS

1. BALES SHALL BE PLACED AT THE TOE OF A SLOPE OR ON THE CONTOUR AND IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
2. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF (4) INCHES, AND PLACED SO THE BINDINGS ARE HORIZONTAL.
3. BALES SHALL BE SECURELY ANCHORED IN PLACE BY EITHER TWO STAKES OR RE-BARS DRIVEN THROUGH THE BALE. THE FIRST STAKE IN EACH BALE SHALL BE DRIVEN TOWARD THE PREVIOUSLY LAID BALE AT AN ANGLE TO FORCE THE BALES TOGETHER. STAKES SHALL BE DRIVEN FLUSH WITH THE BALE.
4. INSPECTION SHALL BE FREQUENT AND REPAIR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
5. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

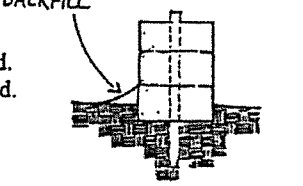
STRAW BALES - Sheet Flow Applications:

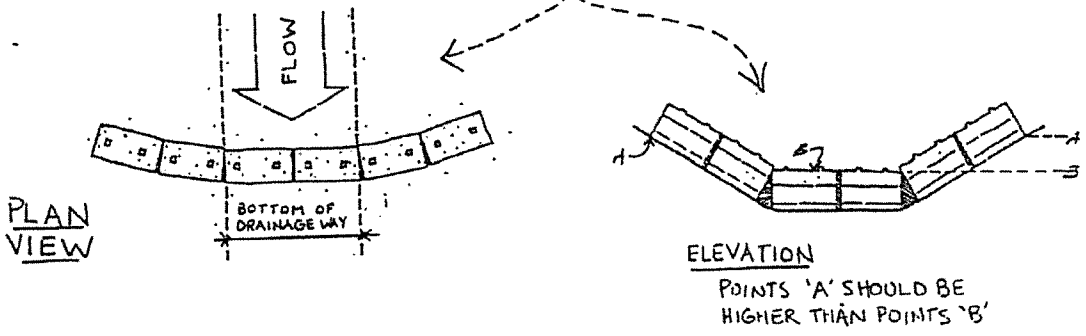
1.) Bales shall be aligned in a single row, length-wise on the contour, with ends of adjacent bales tightly abutting one another.
2.) Bales shall be either wire-bound or string-tied, with bindings oriented around the sides of the bales to prevent deterioration of the bindings.
3.) A trench shall be excavated the width of a bale and the length of the proposed barrier to a minimum depth of 4 inches.
4.) Bales shall be staked and chinked (filled by wedging), and excavated soil shall be backfilled against the barrier so that soil level conforms to the downhill side ground level and is built up to 4 inches against the uphill side.
5.) Each bale shall be secured by at least two stakes, the first being driven toward the previously laid bale to minimize gaps between bales. Any gaps existing despite this effort shall be chinked with loose straw or other appropriate material.
6.) Inspection shall be frequent and repair or replacement shall be made promptly as needed.
7.) Straw bales shall be removed when they have served their usefulness, but not before the upslope areas have been permanently stabilized.



STRAW BALES - Channel Flow Applications:

1.) Bales shall be placed in a single row, length-wise, perpendicular to the contour with ends of adjacent bales tightly abutting one another.
2.) Remaining steps shall be taken just as in sheet flow application. Special care shall be taken when chinking bales which do not meet flush end-to-end. If proper chinking cannot be done in this case, bale ends shall be overlapped.
3.) For channel flow, the barrier shall extend to a length at which the bottoms of the end bales are higher than the top of the lowest middle bale to avoid flow of sediment-laden runoff around the bales.





MADISON COUNTY SOIL AND WATER CONSERVATION DISTRICT

EROSION CONTROL FOR HOME BUILDERS

SOIL EROSION IS A SERIOUS AND EXPENSIVE PROBLEM IN MADISON COUNTY

Soil erosion and sedimentation go hand-in-hand. Both are serious problems to lot owners and the community in general. Erosion removes topsoil and creates gullies greatly increasing the cost of establishing grass.

Lot owners can have a significant effect on the water quality of our community

Sediment that leaves a construction site clogs roads, fills culverts, storm sewers, road ditches and chokes vegetation. Sediment also pollutes streams, rivers and lakes. It spoils wildlife and fish habitat. Sediment is expensive to remove once it has settled in the bottom of a lake.

HOW MUCH SOIL EROSION OCCURS FROM A BUILDING LOT?

The following information provides some low cost, practical methods that a lot owner can use to minimize the erosion and resulting sedimentation that results from the development of a parcel of land.

It is not uncommon for building lots to experience over 15 tons of soil loss to erosion during the home building phase

In our area, a moderately sloping lot that has been stripped of vegetation and left bare from March through October while building in going on, can expect to lose about 5 to 15 tons of soil due to erosion. The soils we have in Madison County are high in clay and silt content. They erode very easily. When soils erode, the silt portion of the soil settles out in roads, ditches, ponds and lakes. The clay particles stay in suspension and can cause a body of water to appear brown and muddy.

This valuable top soil, when in place is the foundation for the lawn and other plantings. When eroded this sediment is now a serious pollutant.

The first rule of erosion control is to keep the time the lot is void of vegetation to a minimum. Insist that your builder only disturb the least amount of area as possible at any given time.

TEMPORARY SEEDING AND MULCHING

The most cost effective method to control erosion is to quickly establish a temporary seeding with an adequate mulch

Vegetative methods of erosion control are the least expensive and usually the most effective. Establishing grass protects the soil from the impact of falling rain and holds the soil in place. Temporary seeding and mulch provide a quick cover to control erosion before the final grading and landscaping has occurred.

SEEDING

An adequate seed bed should be prepared first by raking or roto-tiling.

Here are some good mixtures to establish a temporary seeding.

Species	Rate per 1000 sq. ft.	Seeding Dates
Oats	3 pounds	Early Spring – July 1
Cereal Rye	3 pounds	Early Spring - Oct. 15
Wheat	3 pounds	Early Spring – Oct. 15
Perennial Ryegrass	6 pounds	Early Spring – Oct. 15

Mulch provides immediate erosion control and should be applied any time during the year

MULCHING

The seed should also be applied with an adequate cover of mulch. The mulch acts as an immediate barrier to protect the soil as the grass is getting established. It is the single most important measure a lot owner should do to control erosion.

Straw is the most widely used mulch. It should be applied at a rate of about 90 pounds per 1000 square feet. Straw can be applied by hand or applied mechanically by use of a straw blower.

The straw must be anchored by one of the following methods:

- Mulch anchoring tool such as a crimper or disc
- Plastic mulch netting, properly stapled in place.
- Liquid mulch binder
- As an alternative to these, water can be applied to keep the mulch in place

Another type of mulch are erosion control blankets. These are prefabricated rolls of natural or synthetic fiber material that is sandwiched between permanent or degradable netting. Strips of the blanket are rolled down the hill and anchored to the soil with degradable staples.

SEDIMENT CONTROL BY USE OF SILT FENCE

Silt fences are a type of sediment filter. They are installed around the perimeter of a construction site and around the inlets to storm sewers. Their purpose is to remove sediment from the runoff water leaving the site. When installed properly they can remove about 40% of the silt from the water. Silt fences are a mesh fabric that allows water to pass through it but retains some of the silt.

Here are some of the factors that go into a successful installation:

Silt fences can be effective as a sediment retention device

- The lower end of the mesh fiber should be trenched into the ground about 8 inches.
- Wooden stakes should support the fence and should be installed every 5 feet.
- They should not be used where water will concentrate into a gully.
- Silt fence should be installed prior to soil disturbance.

STRAW BALES AS A METHOD TO CATCH SEDIMENT

As a last resort, straw bales can be installed to catch some sediment from a construction site. Straw bales are not effective methods and frequently fail. However, if properly installed and maintained, they can offer some sediment retention for a limited time.

Here are some tips to properly install straw bales.

A row of straw bales if installed properly can trap a small amount of sediment. They should be used as a last resort only.

- The bales should be placed in a single row, with the ends tightly butted together.
- The row of bales should extend upslope far enough so the trapped sedi ment laden water cannot flow around the ends of the barrier.
- The barrier should be trenched into the ground about 4 inches to prevent water from running under the bales.
- The row of bales should be backfilled with soil to further prevent water from running under or around the row of bales.

MADISON COUNTY SOIL
AND WATER
CONSERVATION
DISTRICT

P.O. Box 482
7205 Marine Road
Edwardsville, IL. 62025

Phone: 618-656-5188
Phone: 618-656-5166
Fax 618-656-5187

DOWNSPOUT EXTENDERS

As soon as gutters and downspouts are in place, extensions of the downspouts should be installed. These should extend to a grass or paved area in order to minimize erosion. They can be removed once the lawn is established.

WHERE TO GET HELP

Minimizing soil erosion is much more cost effective then catching sediment as the soil washes off of a building site

Keeping soil on construction sites is vastly cheaper than cleaning up the sediment caused by soil erosion. When sediment is allowed to run off construction sites the community bears the burden of cleaning up the choked streams, culverts, ditches, lakes and ponds.

The methods covered here have proved to be effective in many communities throughout Illinois.

Controlling soil erosion is one of the most positive environmental actions a homeowner can do

For more information about erosion control methods and sediment pollution control methods for building sites contact::

The Madison County Soil and Water Conservation District or the
U.S. Department of Agriculture, Natural Resources Conservation Service
7205 Marine Road
Edwardsville, IL. 62025

phone 656-5166

IV. Sidewalks

Sidewalks along the accessible route shall be constructed in accordance with ANSI standards (Sections 4.2 thru 4.5). Where practical, these ANSI standards should also be used for other sidewalks built as part of the project which are not on the accessible route in order to provide for future changes in accessible routes. Special attention is directed towards the following items:

A. Width - The normal width for sidewalks constructed as part of a highway project is four (4) feet. However, because of restrictions such as poles, right-of-way, etc., this width at times may be reduced; but the minimum unrestricted width at any point along an accessible route shall be 36 inches. If a sidewalk width less than 60 inches is used for some distances, passing spaces of at least 60 inches by 60 inches shall be provided at reasonable intervals not to exceed 200 feet.

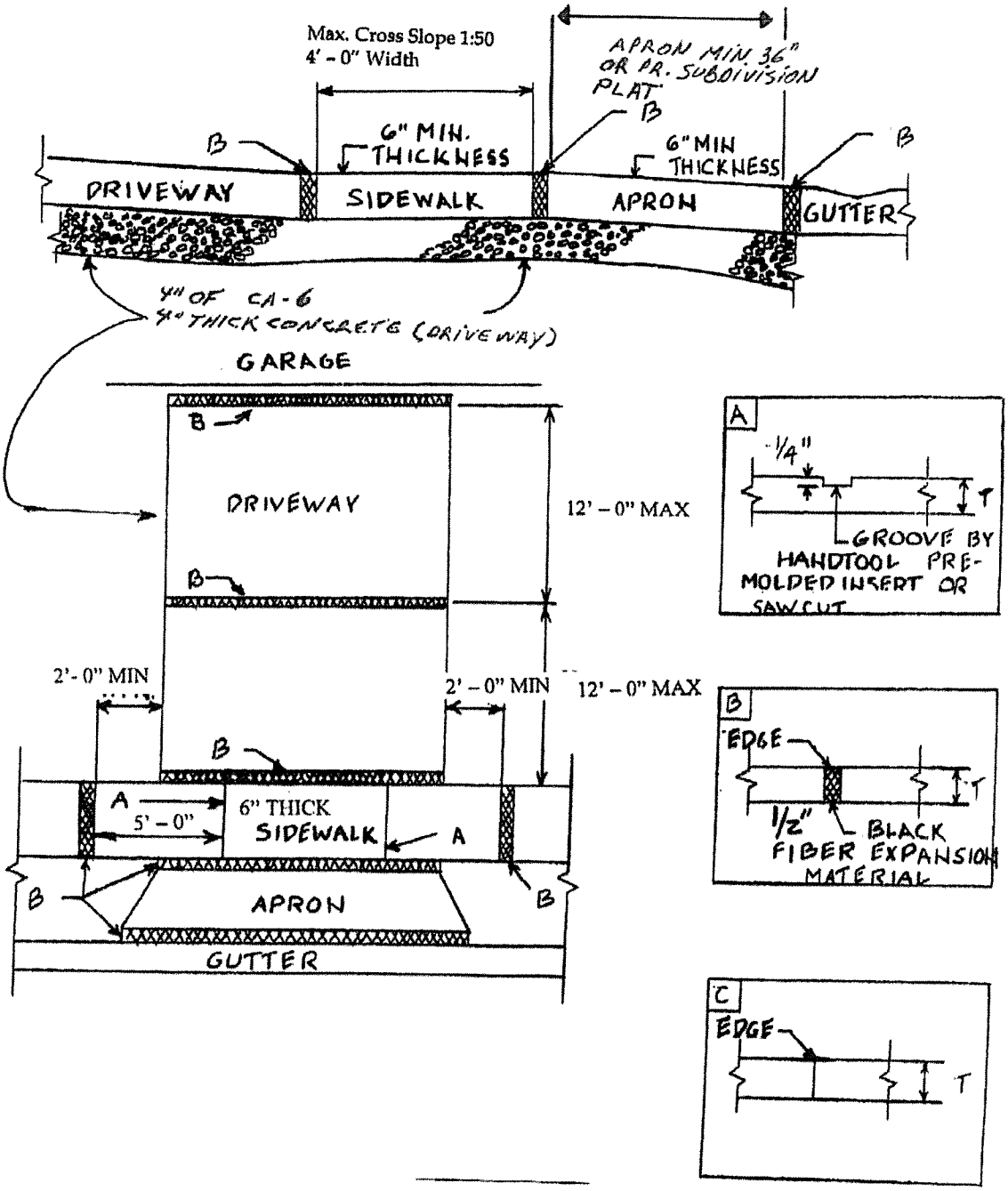
B. Longitudinal Slope - The longitudinal slope of the sidewalk on an accessible route shall not exceed 1:20. Any sidewalks on an accessible route with slopes greater than 1:20 shall be considered ramps and shall comply with ANSI standards (Section 4.8). A sidewalk complying with these ramp standards shall have a maximum slope of 1:12 with a maximum rise for any sidewalk of 30 inches. In certain cases where existing conditions prohibit the use of a 1:12 slope or less, sidewalks should be constructed using the least slope possible. When determining the accessible route for the project, such situations should be avoided (See Section II).

C. Cross Slope - The cross slope of the sidewalk on an accessible route shall not exceed 1:50. Where driveways or alleys intersect with sidewalks, the design priority shall be given to the sidewalk and not the driveway or alley. This may also require ramping the sidewalk down to the driveway. Such ramps shall not exceed a 1:12 longitudinal slope.

D. Protruding Objects - Objects such as signs shall not protrude more than four (4) inches into the walking area when the headroom below the object is less than 80 inches. At no time may these protruding objects reduce the clear width of the accessible route below 36 inches.

E. Drainage Structures - Drainage structures such as manholes or inlet grates should not normally be placed within the walking area of an accessible route. However, at times, ground topography is such that it is unavoidable. When drainage structures must be placed in the walking area, they shall have spaces no greater than 1/2 inch in one direction. If the grating has an elongated opening, it shall be placed so that the long dimension is perpendicular to the dominant direction of travel.

VILLAGE OF GLEN CARBON
RESIDENTIAL SIDEWALK AND DRIVEWAY ENTRANCE



NOTE:

1. Expansion joint must totally isolate adjacent concrete.
2. **Additional expansion joints must be placed at every 12-foot driveway panel.**
3. Sub-base must be compacted to 95% of the standard laboratory density.
4. **The owner and/or Builder/Developer with consultation of a qualified professional engineer will insure adequate compaction of grades under sidewalks and driveways when installed over public road right-of-way and easements.**
5. ADA handicapped ramps should be installed at intersections with an expansion joint separating the ramp from the gutter.

Village of Glen Carbon
Public Works Department
151 North Main
P.O. Box 757
Glen Carbon, Illinois 62034
Phone (618)-288-1200 : FAX (618)-288-1238

Building Sewers

1) The Builder shall obtain the location of the service lateral or tee connection from the Public Works Department

2) The Builder should verify elevation of service lateral before beginning construction

3) There shall be at least a three foot (3') difference in elevation between the basement floor or the lowest floor elevation in the invert of the public sanitary sewer at the point of connection. Where such a structure is constructed with a basement floor of lowest floor elevation less than three feet (3') above the public sewer invert elevation, it shall be served by a sewage ejector discharging through a line that raises a minimum of three feet (3') above the invert of the public sewer. (Article III section 9 of Ordinance 8733A).

4) All building sewers shall be a minimum of six inches (6"0 in diameter

5) Cleanouts

   A) Cleanouts shall not be more than one hundred feet (100') apart
   B) A cleanout shall be installed within five feet (5') outside the basement or foundation wall. This outside cleanout must be a six inch (6"0 schedule 40 P.V.C. cleanout.
   C) All remaining outside cleanouts shall be a minimum of six inches (6") diameter S.D.R. 35 gasket joint type
   D) There shall never be more than ninety degrees (90 ^{o}) worth of accumulated bends between cleanouts or between sewer main and first cleanout a single ninety degree (90 ^{o}) bend is not allowed. To obtain this, the builder must use two (2) forty five degree (45 ^{o}) bends separated by a two foot (2') length of pipe.

6) All building sewers within five feet (5') of the basement or foundation wall shall be constructed with schedule forty (40) P.V.C. pipe with glued joints

7) All building sewers outside of the five foot (5') requirement shall be constructed with P.V.C. S.D.R. thirty five (35) gasket joint pipe

INSPECTION PROCEDURE
GLEN CARBON BUILDING DEPARTMENT

The inspections listed below are **MANDATORY** and must be made in sequence as listed below. The building administrator must approve any variation to this sequence.

ALL bearers of building permits are **required** to give inspectors **24 hours** to complete the following inspections prior to commencing with further work.

BILDING PERMITS MUST BE POSTED
CALL 618-288-7502 FOR ALL INSPECTIONS (except Sewer Tap)

1) _____ **PRE POUR-** Footing before it is poured (this includes a mono pour). Property lines must be located, staked and strung to show setbacks from footings (brick ledges must be allowed for in dimensions). Sediment & Erosion control and a Temporary Rock Drive must also be in place at this time. ***The concrete encased electrode must be in place.***
2) _____ **PRE-POUR FOUNDATION INSPECTION-** After footing is poured when the reinforcement is installed in the concrete forms. ***See application information for required amounts of reinforcement.***
3) _____ **POST POUR FOUNDATION INSPECTION-** After foundation wall is poured, waterproofed, drainage system installed and ***exterior basement insulation is installed if applicable.*** Exterior basement wall insulation must be a minimum **"R-10"** value. **The sill plate must be in place and bolted down now or when the under-floor plumbing is installed.**
4) _____ **UNDER-FLOOR PLUMBING INSPECTION-** Before rock backfill over plumbing and the concrete floor is poured. **A vapor barrier must be installed on top of the rock before the floor is poured.**
5) _____ **ROUGH PLUMBING & ROUGH H.V.A.C. INSPECTION- Before** insulation & drywall are installed and after ALL traps, vents, water lines and drains are installed and ***tested***. After all cold air returns, heat ducts, concealed gas lines & exhaust vents are installed (***concealed gas lines must be tested***).
6) _____ **ROUGH WIRING & ROUGH FRAMING INSPECTION- Before** insulation & drywall are installed and after ALL electrical lines are run, boxes are in place, heating and plumbing rough is completed.
7) _____ **INSULATION INSPECTION-** ***After all mechanical inspections have been approved and prior to the installation of drywall or lathe.***
8) _____ **DRYWALL OR LATHE INSPECTION-** After drywall is installed and before it is taped or plastered.
9) _____ **SEWAGE DISPOSAL SYSTEM-** (Madison County)- SEPTIC SYSTEM* A permit must be obtained from Madison County and the approved inspection report shall be provided to this Department.
10) _____ **SEWER HOOK-UP INSPECTION (CALL JOHN LEEZY @ 288-2661)-** After the line is run but before back-fill. Sewer tap location must be approved by Public Works Department before tapping sewer.
11) _____ **ELECTRICAL HOOK-UP INSPECTION-** After meter base & main panel is installed. COVER OF THE MAIN PANEL MUST BE OFF, ALL ELECTRICAL CONNECTIONS IN THE MAIN PANEL MUST BE COMPLETE. **(METER HOOK-UP WILL BE APPROVED WHEN ALL ABOVE INSPECTIONS ARE APPROVED).**
12) _____ **SIDEWALK & DRIVEWAY INSPECTION- Sub-grade and Form Work** ***To be in place and in compliance with the information included in the Building Permit Packet, prior to pouring concrete.*** *It is the responsibility of the permit holder to assure ALL PORTIONS of the driveway & sidewalk , if disturbed by a public utility installation foundation installation and/or water or sewer installation, have been backfilled and compacted to assure a* ***stable base*** *is in place for the sidewalk & driveway.*
13) _____ **FINAL OCCUPANCY INSPECTION-** After the structure is complete and before it is used or occupied. (Final Inspection includes: **Finished Plumbing, H.V.A.C., Electrical, Building & Site Inspection).**

IT IS AGAINST THE LAWS OF THE VILLAGE OF GLEN CARBON TO USE OR OCCUPY (IN WHOLE OR IN PART) ANY STRUCTURE BEFORE THE FINAL INSPECTION AND UNTIL THE CERTIFICATE OF USE AND OCCUPANCY HAVE BEEN ISSUED BY THE BUILDING OFFICIAL