

Guide for Homeowners

City of Willowick



Great Living on a Great Lake

*A comprehensive guide to the Point of Sale inspection process
with rules and recommendations for home improvements*

Revised September 2016

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PREFACE

The intent of this **GUIDE** is to serve as a home improvement aid, and to assist in the planning and execution of residential improvements. Furthermore, the City hopes to inform residents of the Point Of Sale Process.

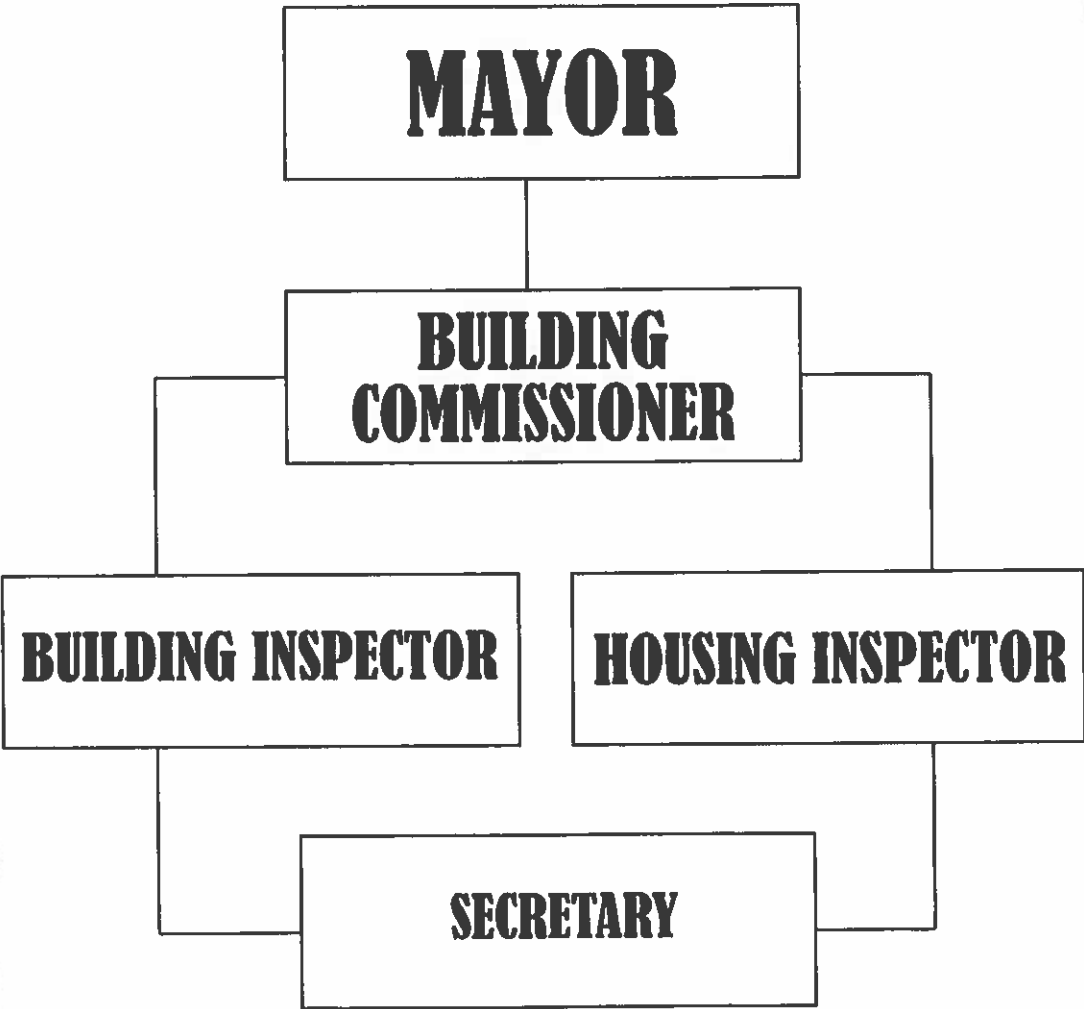
This **GUIDE** is divided into two sections. The First Section contains a written and graphic compilation describing the basic code and construction requirements of the City's Building Department. The section also serves to inform the homeowner of the City's Point Of Sale Inspection. It includes the Building and Housing Department's Organizational Diagram, as well as checklists to assist the homeowner in the recognition of typical problem areas, both interior and exterior. In addition, Section One contains a glossary of typical terms found in the housing/construction industry with a corresponding drawing to aid in the understanding of these terms. You will also find a comparison between Housing Codes and Building Codes in Section One.

Section Two contains detailed information and graphic examples of the most typical improvements encountered by our Building Department. These examples are intended to familiarize homeowners with typical conditions and problems found in these various types of construction. It is strongly recommended, however, that before undertaking remodeling you call Willowick's Building Department to avoid any potential problems. Section Two also includes Fire Safety, Crime Prevention tips and a word about weatherization.

NOTE:

This **GUIDE** is not a Codified Ordinance, but rather an aid to you in your planning endeavors. All improvements must conform to Willowick's zoning and building code requirements, and if you have any questions or problems, please consult the Building Department for assistance. 440-516-3000

BUILDING DEPARTMENT ORGANIZATION



BUILDING CODES VS HOUSING CODES

There are three basic differences between building and housing codes.
Before we get into these differences, let's look at what a code is.

A code, whether it is a building, housing or any other, is a list or collection of rules or laws that govern that particular subject. For example, the building code deals with building construction and the traffic code deals with traffic.

The best way to illustrate the difference in building and housing codes is to compare.

- 1) The building code governs the construction and or renovation of buildings and structures.
The housing code governs the maintenance of these buildings and structures.
- 2) The building code is enforced through a system of permits.
The housing code is enforced through a system of violations.
- 3) The building code regulates labor, materials and construction techniques.
The housing code regulates safety, sanitation and occupancy.

When a house is constructed, the builder must submit a set of plans to the building inspectors for their approval. Once the plans are approved the permits are issued. The building code now governs the materials and construction techniques needed to build this house. This is accomplished by the permit and inspection processes. When construction is complete the inspector issues a certificate of occupancy. From that time the building code is not the governing code. The housing code takes over.

Let's look at the building code as it relates to smoke detectors. It states "Smoke detectors shall be installed in each sleeping room or outside of each sleeping area in the immediate vicinity of the bedrooms and on each additional story of the dwelling, including basements and cellars".

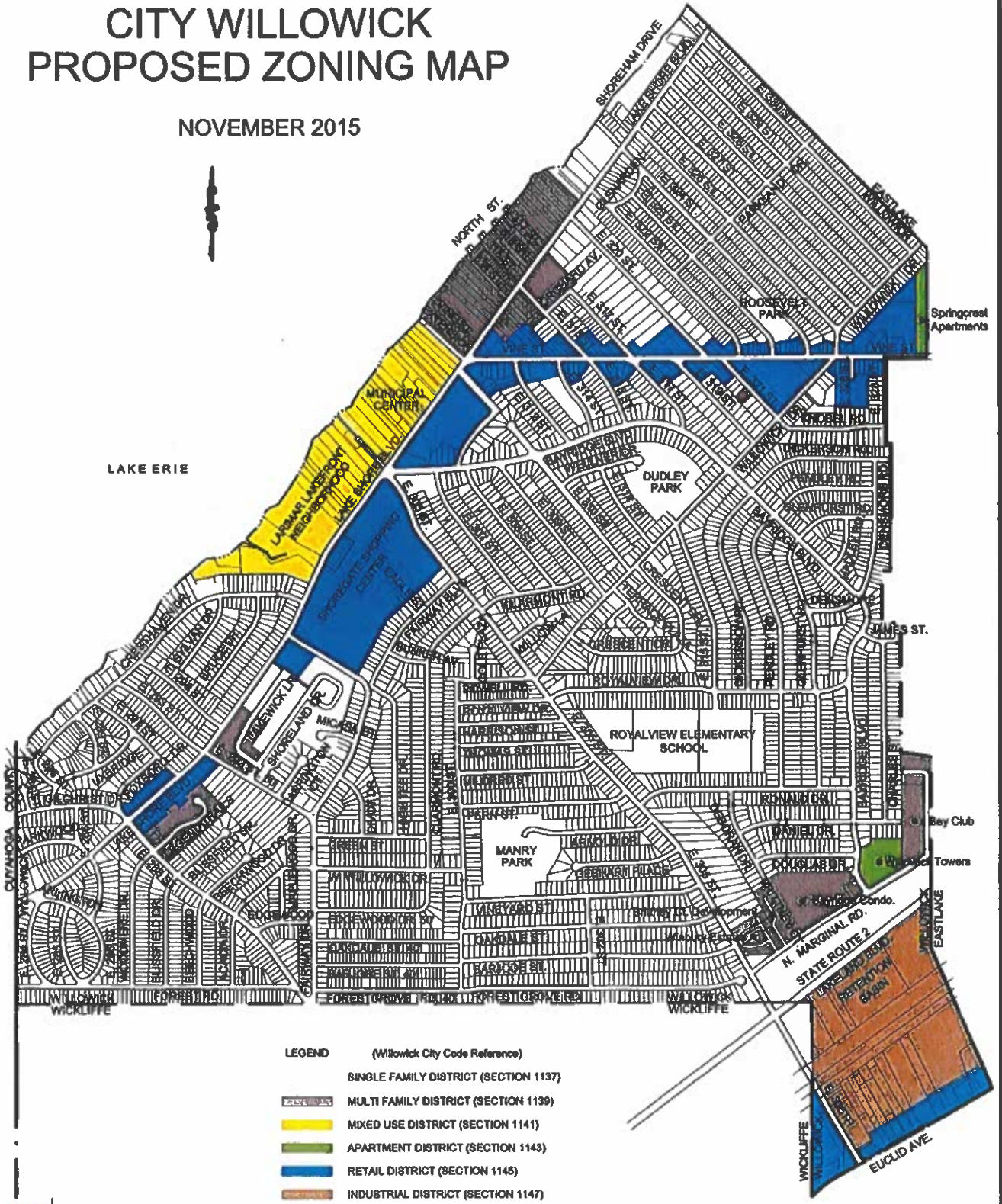
The housing code states "Fire protective signaling systems (smoke detectors) must be present and in the proper locations and in good working order at all times"
The building code says that they are required and where to install them.
The housing code states that they must be installed and be working at all times.

Originally when the plans for this house were reviewed by the building inspector, they showed all the locations for the smoke detectors, and through the permit process, these detectors were installed and inspected. In the years to come it will be the housing code, through the violation process that will ensure that those smoke detectors will be present and working. Smoke detectors are just one of many things that are subject to both the building and housing codes.

Both codes are important to any community. Without codes, buildings and structures would not be safely built or maintained, and the whole purpose of either code is to provide safe, healthy and clean environments in which to live, work and recreate.

CITY WILLOWICK PROPOSED ZONING MAP

NOVEMBER 2015



LEGEND	(Willowick City Code Reference)
[Grey Box]	SINGLE FAMILY DISTRICT (SECTION 1137)
[White Box]	MULTI FAMILY DISTRICT (SECTION 1139)
[Yellow Box]	MIXED USE DISTRICT (SECTION 1141)
[Green Box]	APARTMENT DISTRICT (SECTION 1143)
[Blue Box]	RETAIL DISTRICT (SECTION 1145)
[Orange Box]	INDUSTRIAL DISTRICT (SECTION 1147)

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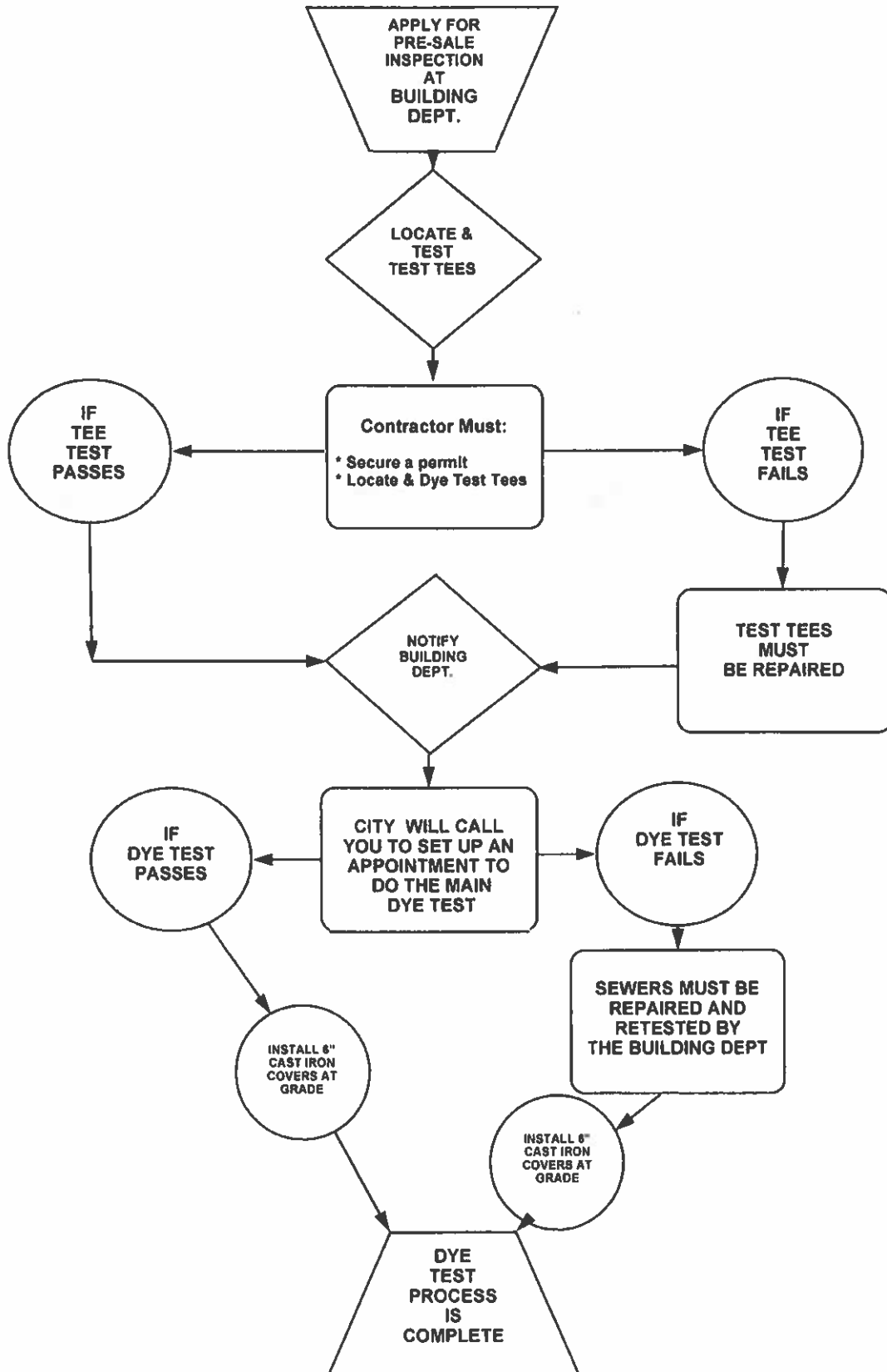
SECTION ONE

POINT OF SALE PROCESS

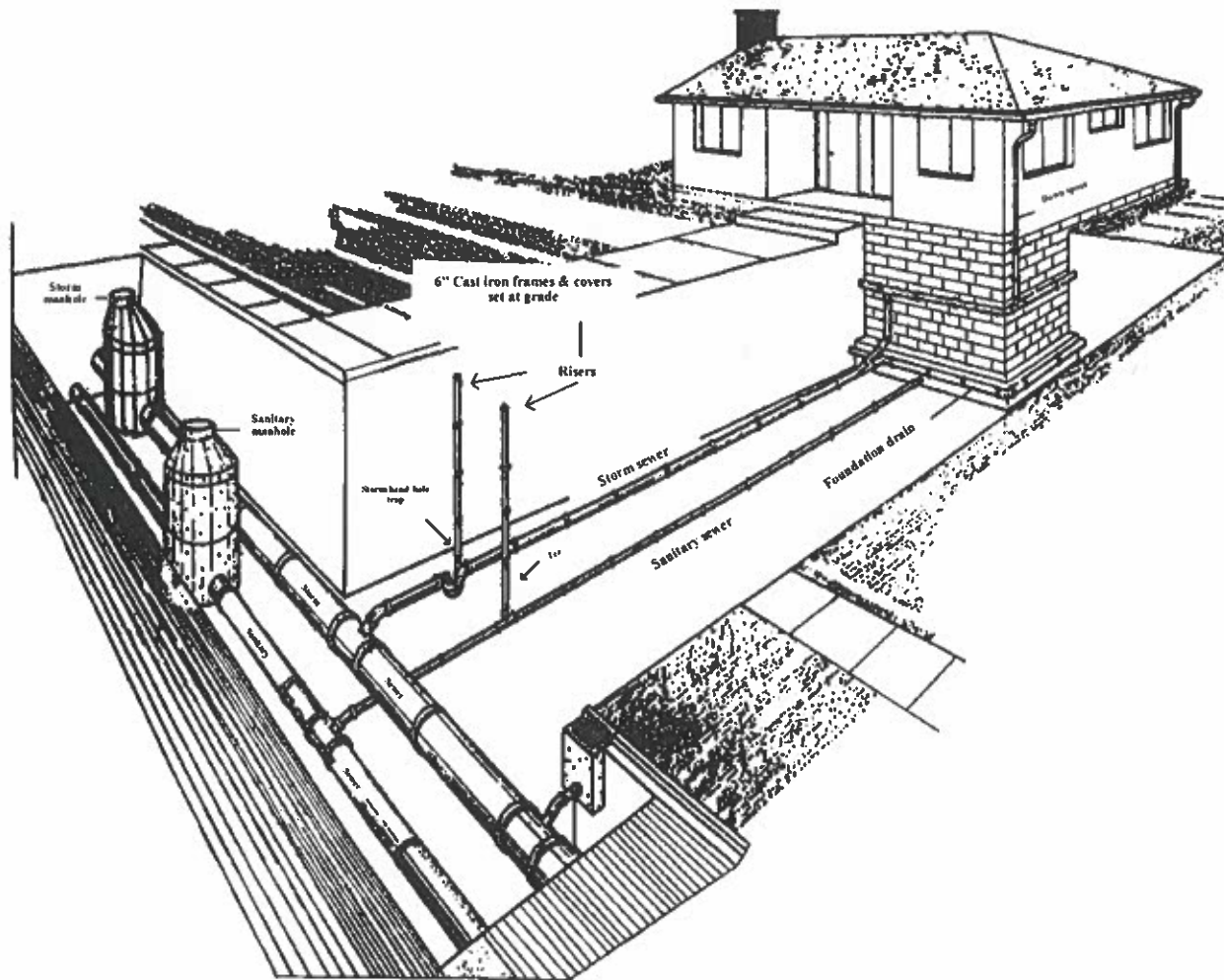
Willowick's Point-of-Sale inspection consists of four components: sewer dye test, sidewalk and apron inspection, smoke/CO2 detector inspection and R.I.T.A. taxes are checked. Briefly, the City's Point-Of-Sale Process requires the homeowner to have the property inspected prior to sale.

- 1) Applications for inspection are available at the Building Department Office Monday through Friday, 8:00 a.m. to 5:00 p.m. Applications can be signed by the homeowner or their legal agent.
- 2) Once application is made the Building Inspector will conduct the Sidewalk/Apron Inspection. If the sidewalks or apron are found to be in violation, the Building Inspector will mail you a report outlining which areas need to be addressed.
- 3) When an application is made you will receive information about the Sewer Dye Test and the Smoke/CO2 inspection. You will also receive an up-to-date list of registered contractors.
- 4) A copy of your application is forwarded to the Finance Department. R.I.T.A. City taxes are checked to make sure that you are up to date on your City taxes.
- 5) The Sewer Dye Test is completed in two stages.
 - A) Test Tees (vertical pipes will allow direct access to your storm and sanitary sewers) must be located and uncovered. These Test Tees must be brought up to grade and 6" cast iron rings with covers installed. A preliminary tee test must be preformed before the Main Dye Test. This preliminary tee test is done by A registered contractor. If the preliminary test passes the Building Inspector will order the Main Dye Test. If the preliminary tee test fails (one leaks into the other) then repairs must be made and retested before the Main Dye Test can be ordered. The reason for the preliminary tee test is to ensure that a true dye test can be done.
 - B) The Main Dye Test is performed by the city. The Service Department will contact you to set up an appointment to perform the Main Dye Test. If the test passes, no further action is needed. If the test fails (one sewer system leaking into the other), repairs must be made and a retest with the Building Department representative present.
- 6) The Smoke and CO2 Detector Inspection is done by the Fire Department. You can contact the Fire Department at 585-1202 to set up an appointment to have your Smoke/CO2 Inspection. Smoke detectors are required in all sleeping areas or outside in the immediate vicinity of all sleeping areas and on each level of the house including basements. CO2 detectors are required in the immediate vicinity of all sleeping areas.

DYE TEST PROCEDURE



BASIC SEWER SYSTEM



Storm Sewer System - is everything outside of the house, downspouts, driveway drains and rear yard/surface drains. The storm line is trapped at the test tee.

Sanitary Sewer System - is every inlet inside of the house, sinks, toilets, tubs/showers, etc. The sanitary line is trapped at each fixture inside the house.

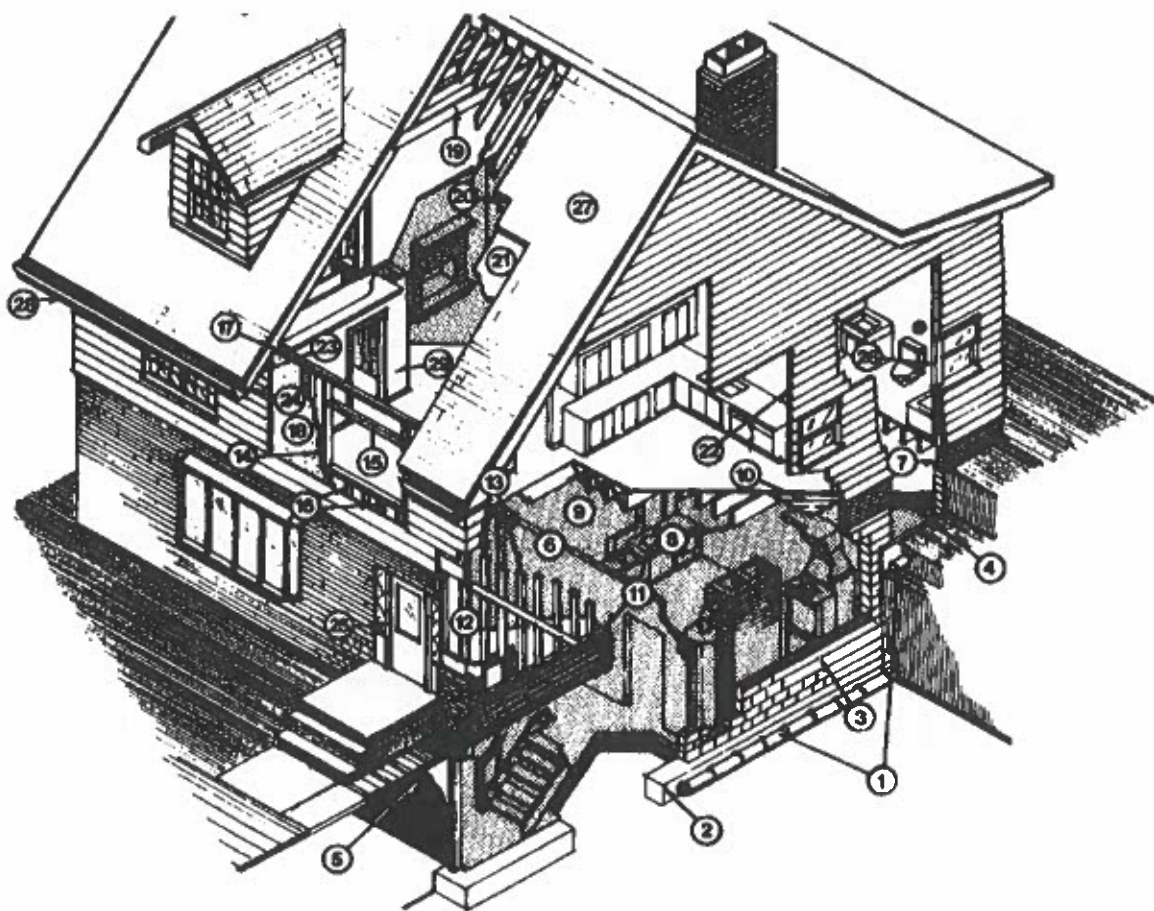
Traps - are devices designed to store a chamber of water which creates a vapor lock to stop the odor/gases from reentering the inlet.

Lateral - is the connecting line from the house to the main sewer located under the street.

Main - is the primary line located under the street where all laterals are emptied into to.

THE BASIC PARTS OF A HOUSE

The following Diagram and Glossary will familiarize the homeowner with those terms and corresponding items most commonly used in the building trades for home additions and



- | | |
|--------------------------------|---------------------|
| 1. DRAIN TILE | 16. CRIPPLE STUD |
| 2. FOOTING | 17. TOP PLATE |
| 3. FOUNDATION WALL | 18. WALL SHEATHING |
| 4. MUD SLAB (at Crawl Space) | 19. CEILING JOIST |
| 5. DAMPPROOFING/WATERPROOFING | 20. RAFTER |
| 6. FLOOR GIRDER | 21. ROOF SHEATHING |
| 7. MUD SILL | 22. SIDING |
| 8. FLOOR JOIST | 23. SOFFIT |
| 9. BRIDGING | 24. FASCIA |
| 10. SUBFLOOR | 25. DOOR JAMB |
| 11. BOTTOM PLATE OR SOLE PLATE | 26. WINDOW CASING |
| 12. CORNER STUDS | 27. FINISH ROOF |
| 13. FRAMING STUDS | 28. GUTTER |
| 14. JACK STUD | 29. INTERIOR FINISH |
| 15. HEADER | |

BASIC RECOMMENDATIONS FROM THE BUILDING DEPARTMENT

The building department issues permits, and inspects work and materials to insure that all construction conforms with the Ohio Residential Code and the Ordinances of the City of Willowick. Permits are required for new construction and improvements of existing facilities. Following are some examples that require permits.

ADDITIONS
ALL ALTERATIONS
AIR CONDITIONER
BATH REMODELING/FIXTURES
DECKS
CONCRETE (SERVICE WALKS/PATIO)
DRIVEWAYS/SIDEWALKS/APRONS
ELECTRICAL(ANY)
FENCES
FIREPLACES/WOOD BURNERS
FIRE REPAIRS
FOUNDATIONS (REBUILDS)
FURNACE/BOILER
GARAGES
GAS LINES
GRADE CHANGE (ANY)
HEATER SPACE/UNIT

KITCHEN REMODELING
MASONRY REPAIRS
NEW STRUCTURE
PATIOS/PORCHES
PLUMBING FIXTURES
DEMO HOUSE/GARAGE/TOOLSHED
ROOFS/GUTTERS
SIDING
SATELLITE RECEIVERS (2' OR MORE)
SEWER REPAIRS/YARD AND APRON DRAINS
SIGNS
SURFACING/RESURFACING
SWIMMING POOLS
TOOL SHEDS
WATERPROOFING
*** PLUMBING/HOT WATER TANK PERMITS ARE
ISSUED AT THE LAKE COUNTY HEALTH DEPT**

Permits may be obtained at the Building Department at the Willowick's Service & Building Center
Monday through Friday from 8:00 am to 5:00 p.m.

***All plumbing permits and plumbing inspections are handled by the Lake County Health Department. They can be contacted by calling 440-350-2543.**

Sign permits are required for temporary outdoor signs including: contractor and real estate. All permanent sign permits are subject to The Building Departments approval.

INSPECTIONS

The person to whom a permit has been issued shall be responsible for requesting inspections of work completed at each of the following stages of construction before covering or concealing work:

- A. Inspection of footer, sidewalks, driveway, apron, patio etc. before pouring of concrete.
- B. Installation of footing drains, building drains and building sewers.
- C. Completion of foundation and waterproofing.
- D. During the framing of the superstructure.
- E. The completion of rough in the ***plumbing**, electrical wiring and gas piping.
- F. After the insulation is installed, but before closing in of all structural elements.
- G. After drywall is installed .
- H. Upon the final completion of the structure.

TIPS FROM YOUR BUILDING DEPARTMENT

BE SURE

Decide what improvements and conveniences are most needed and desired for your enjoyment and better living.

PRICE

Get two or three estimates from reputable contractors for your anticipated project.

REGISTERED CONTRACTORS

All contractors who work in Willowick must register. Registration requires that a contractor provide the city with proof of insurance and a contractor's bond. This **is not a recommendation**, if you have a question about a contractor's standing in the city, please call the Building Department.

DON'T RUSH

Avoid snap judgments. Obtain references from other neighbors who have selected the same contractor.

AGREEMENT

Your contractor should give you a written agreement on plans, specifications and cost and a time limit.

HOME REMODELING

Homeowners who do their own remodeling must obtain required permits from the Building Department. Contractors are responsible to register with the City of Willowick and obtain permits for work done for homeowners.

BUILDING CODE

The purpose of the Code is to provide minimum standards to safeguard life, health, property and public welfare. Any and all planned improvements must follow this code.

TIME LIMIT

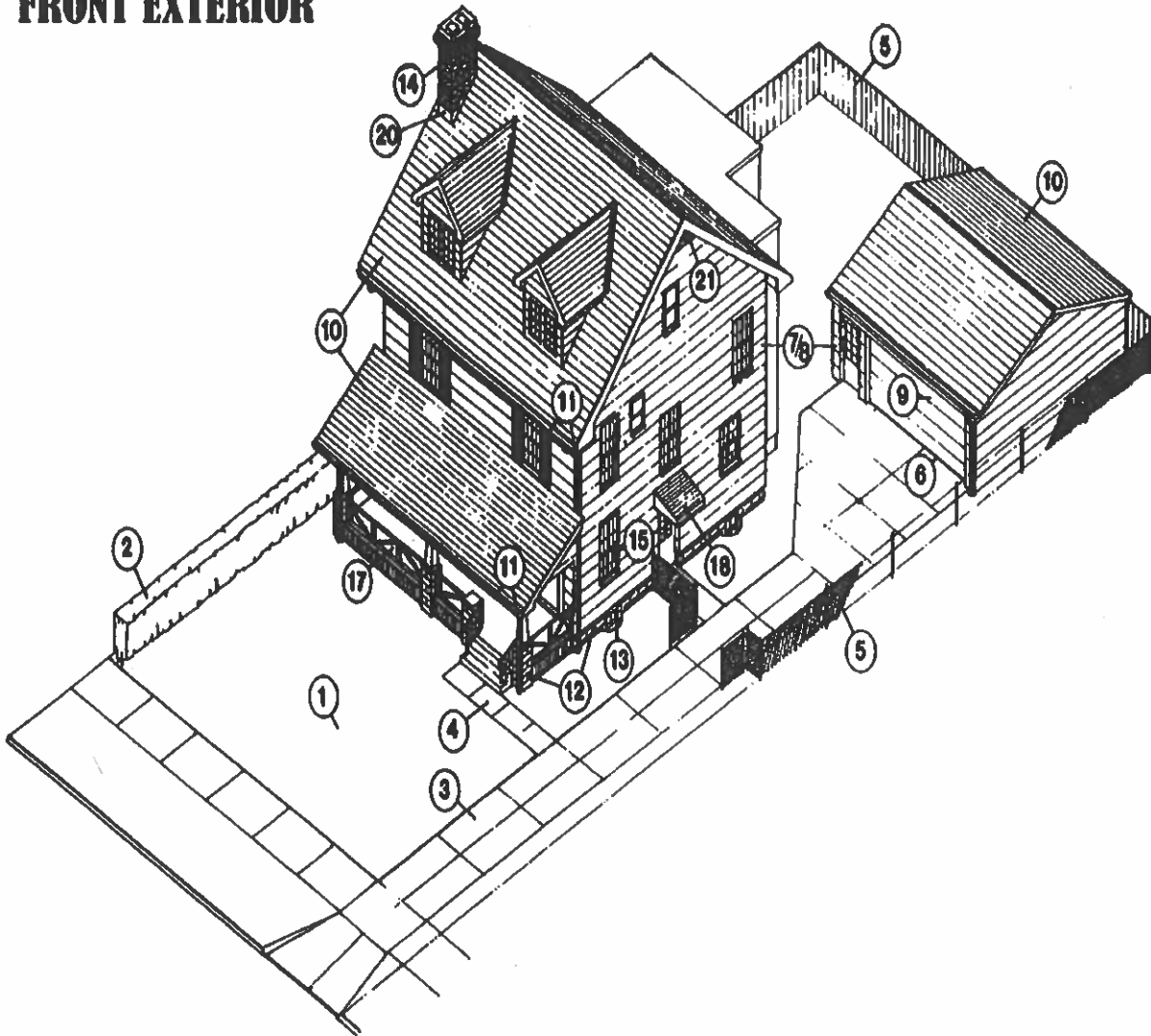
Any permit issued for new structures shall become invalid unless the work authorized by it is commenced within six (6) months after its issuance or if the work authorized by such permit is suspended or abandoned for a period of one (1) year after the time the work is commenced, provided that for cause, one or more extensions of time for periods not exceeding ninety (90) days may be allowed in writing by the Building Commissioner. Garage permits become invalid in one year, while all other provisions stated above stay the same.

REMEMBER

Contractors doing work on a residence are not allowed to place construction waste on the tree lawn for city disposal. They are to take away all construction waste at their own expense.

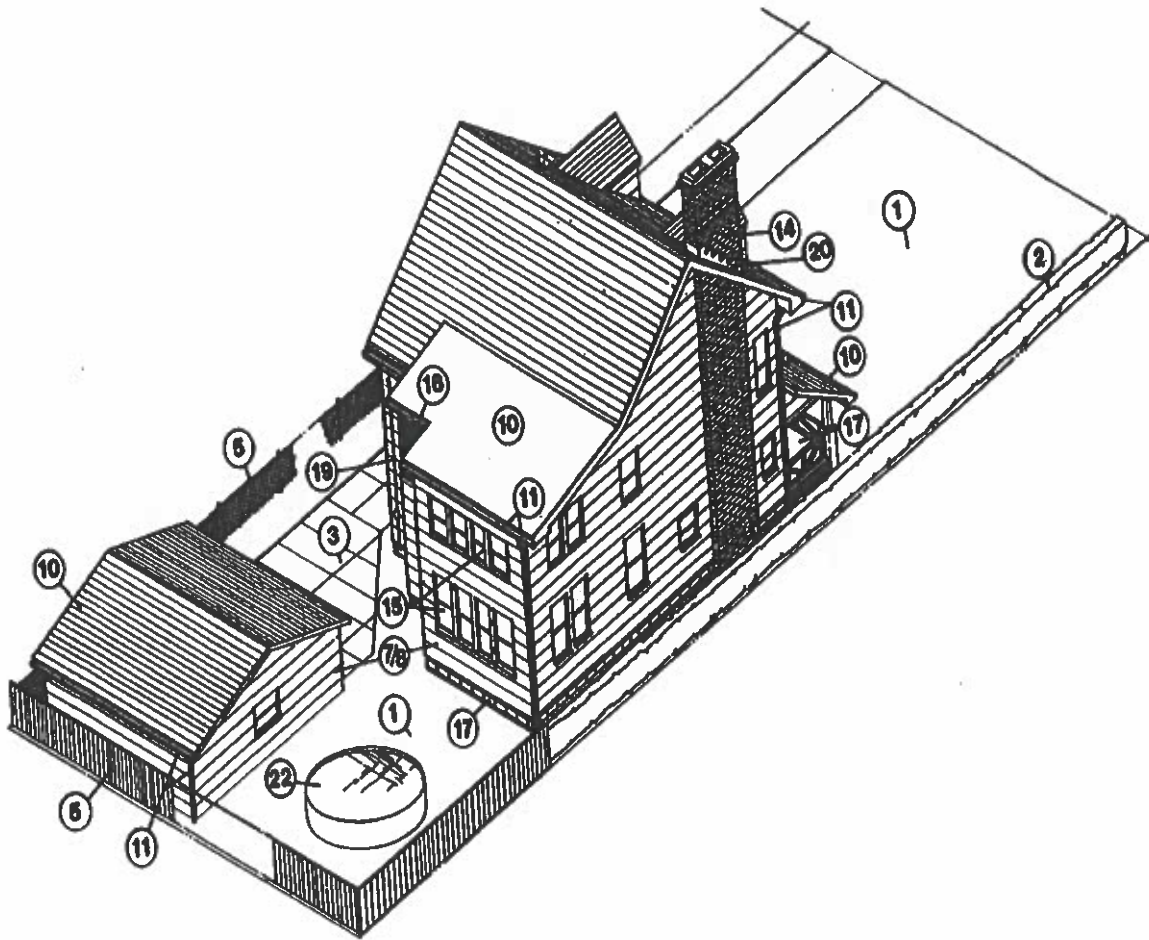
Homeowners who have done their own work and wish to dispose of building materials at the Service Center's dumpster will be required to show their building permit.

FRONT EXTERIOR



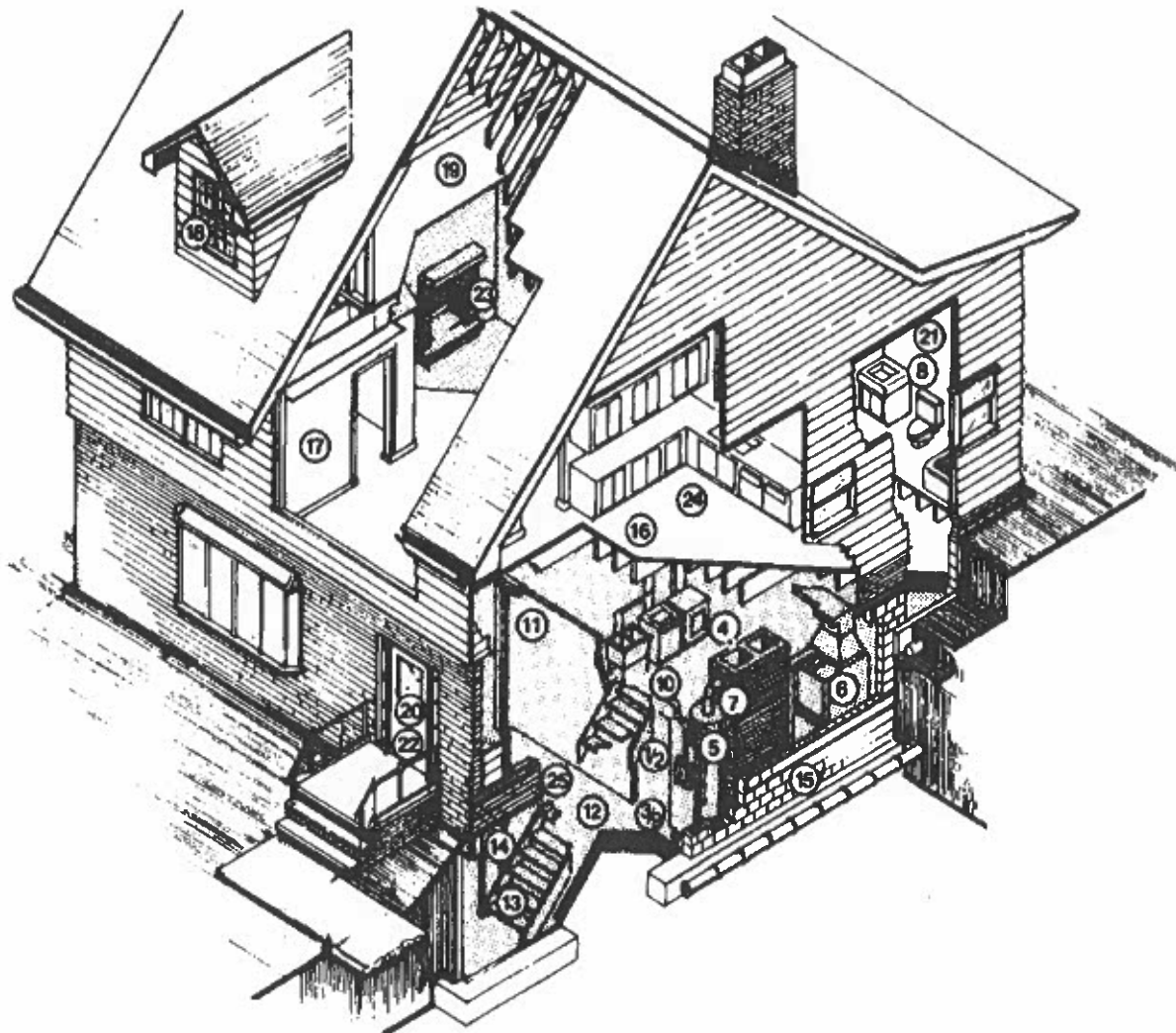
1. **YARD AREA** - Check for lawn overgrowth, noxious weeds, insect and rodent harborage, diseased trees, debris and litter.
2. **SHRUBBERY** - Check for overgrowth and ensure adequate clearance with public right-of-way.
3. **DRIVEWAY** - Check for severely spalled or broken concrete and uneven asphalt.
4. **PRIVATE SIDEWALK** - Check for severely spalled or cracked sidewalk concrete, and raised or sunken slabs.
5. **FENCES** - Check for structural stability, general appearance and zoning code compliance.
6. **GARAGE FLOOR** - Check for severely spalled, cracked or heaved concrete floors.
7. **PAINT** - Check for blistering, peeling or shabby appearance.
8. **SIDING and TRIM** - Check siding and trim for damage or decay.
9. **GARAGE DOORS** - Check operating parts for excessive wear and check condition of glass.
10. **ROOFS** - Check for damaged, missing or loose shingles and damaged flashing.
11. **GUTTERS and DOWNSPOUTS** - Check connections to drainage systems and inspect condition of material composition of gutters.

REAR EXTERIOR



12. **FOUNDATION ABOVE GRADE (MASONRY)** - Check for defective block (concrete) or brick; Check steps and stoops for cracks, spalling or improper anchorage. Check for weathertight mortar joints. (Openings for piping, wiring, etc., must be weathertight.)
13. **WINDOW WELLS** - Check for blockage of drains and inspect general condition of wells.
14. **CHIMNEY** - Check joints, brick, flashing, weather wash and draft deflector.
15. **DOORS and WINDOWS** - Check units for proper operation and inspect for any worn parts.
16. **SCREENING** - Check for torn or unfastened screening.
17. **PORCHES** - Check general condition of porch decks, railings and ceilings.
18. **CANOPIES** - Check where canopy meets structure for open joints. Check for deterioration of wood parts and loose flashing.
19. **ELECTRICAL WIRING** - Check exterior fixtures and outlets for waterproof construction. Check for proper clearance of overhead wiring and inspect for proper connection.
20. **FLASHING** - Examine for looseness between chimney, roof and flashing material.
21. **LOUVERS** - Must be open for ventilation but screened to keep out insects. Check caulking.
22. **SWIMMING POOLS** - Check yard for fencing, overhead wiring above pool and electrical hookup. Check general appearance and for zoning code compliance.

INTERIOR CUTAWAY



1. **ELECTRICAL WIRING** - Check electrical installation for adequate service and general condition of wiring. Look through the house for frayed cords, loose connections, malfunctioning switches and outlets.
2. **FUSE PANEL** - Check electrical fuse panels for proper fusing (proper match of amperage for intended service on line.)
3. **GROUNDING** - Check to see that all circuits are properly grounded and the water meter is bonded.
4. **CLOTHES DRYER** - Check appliance to make sure it is grounded (electrically) properly and that it has a disconnecting capability that is readily accessible.
5. **WATER HEATER** - Check to see that energy supply to this appliance is installed properly and guarded with required safety devices.
6. **HEATING APPLIANCES** - Check furnace, boiler, heat pump or other heating appliances and the fuel supply for proper installation and required safety devices.

INTERIOR CUTAWAY

7. **FLUE CONNECTION** - Check to see that appliances have code required flues and that they are properly connected to the chimney.
8. **PLUMBING FIXTURES** - Check that fixtures have been properly installed and connected to hot and cold water supply lines. Check for leaky faucets.
9. **WATER LINES** - Check condition of water lines and inspect for leakage. Check for sweating and insulation.
10. **FLOOR DRAINS** - Check to see that drain strainers are installed and that the traps are properly sealed.
11. **STRUCTURAL MEMBERS** - Check columns, beams and wood members for general condition and deflection (sag or bow).
12. **BASEMENT FLOOR** - Check for severely spalled, cracked, heaved or water damaged concrete floors.
13. **BASEMENT STAIRS** - Check to see that stringers and treads are in sound condition and securely fastened. Check all landings for proper support.
14. **HANDRAILS** - Check all stairs to see that they are properly equipped with firmly fastened handrails.
15. **FOUNDATION WALLS** - Check interior of foundation for weathertight construction and structural soundness.
16. **FLOORING** - Check floors for general contour and excessive weakness or damage. Bath floors must be covered with a water resistant material.
17. **PLASTER** - Check plaster and drywall for excessive cracking, lath separation, holes or other damage.
18. **INTERIOR TRIM** - Check interior trim around doors and windows for possible joint separation which could lead to heat loss.
19. **ATTIC** - Look for evidence of roof leaks, also openings that permit entry of bats or other pests. Inspect insulation, rafters, ventilation openings, chimney and side walls. Check screening of louvers.
20. **WINDOWS** - Check for difficulty of operation, cracked or broken panes, sash cords or chains in need of replacement, faulty or hard to operate locks or latches, worn weatherstripping.
21. **BATHROOM** - Note dripping faucets, leaking shower heads, malfunctioning flush valves, inadequate hot water supply.
22. **DOORS** - Inspect for sticking or sagging doors, faulty or hard to operate locks or latches. Inspect weatherstripping.
23. **FIREPLACE** - Check dampers, firebox, hearth, grate and irons, screens and mantelpiece for any damage.
24. **KITCHEN** - Examine appliance wiring: check ventilator fan for accumulation of dust and grime.
25. **BASEMENT WINDOWS** - Those on grade or slightly above grade should be examined for deterioration and weathertightness, even if the foundation is concrete. Check glass block for deteriorated mortar joints.

PLAN REVIEW BOARD

The Plan Review Board (PRB) is comprised of the Building Official, Police Chief, Fire Chief, City Engineer and the Mayor's Designee. The purpose of the PRB is to review plans that are pertinent to any development, redevelopment or occupancy within Willowick. The PRB meets on the second and fourth Thursdays of each month. This group acts as an advisory board that reports to City Council. Present at all PRB meetings you will find a representative of the City's Law Department. The PRB meets at 3:00 p.m. in the conference room at the Willowick Service & Building center at 31230 Vine Street. Requests to the PRB with the required fee may be submitted to The Plan Review Board Secretary Monday - Friday 8:00 a.m. - 5:00 p.m. at the Service and Building Center.

When should you apply to the Plan Review Board?

- 1 - If you are planning on opening a new business or if you are buying an existing business in Willowick.
- 2 - If you are planning an expansion, addition and/or alteration of your present business.
- 3 - If you are planning to add a new product line or service to your business.
- 4 - If you are proposing land development of private property.

Any questions pertaining to The Plan Review Board may be directed to the Secretary at 440-516-3000

BOARD OF ZONING APPEALS

Willowick's Board of Zoning Appeals is comprised of five residents each with a special knowledge or skill relating to the Zoning and/or Building Code. The "BZA" is a recommendatory board, the actual grant or denial of your request will be made by Willowick's City Council usually at the following City Council meeting.

If you were advised by either The Building Inspector or The Planning Commission that a variance to the Building or Zoning code is needed or you are applying for a special use permit, the following procedure should be followed:

- 1 - A request for a variance form is required. The forms are on file with the Secretary's office located at The Willowick Service Center at 31230 Vine Street. The Service Center's hours are 7:30 a.m. until 4:30 p.m. Monday through Friday. The building inspector will determine what portion of the Code is applicable and what variances are needed. A site plan (bird's eye view drawing) should accompany the request along with a check for the required fee made payable to The City of Willowick.
- 2 - If you are requesting a Conditional Use Permit, the necessary application and required fee would be submitted to the Board of Zoning Appeals Secretary. This will be a public hearing, and needs to be published in the newspaper at least 10 days prior to the meeting.
The Board of Zoning Appeals meets on the 2nd Wednesday of every month at 7:30 p.m. in the Council Chambers at City Hall, 30435 Lake Shore Blvd. All requests, required site plans and required fee must be in the hands of the Secretary one week prior to the date of the meeting. Requests received after the deadline will be held over to the following month's meeting.

PLANNING COMMISSION

The Planning Commission is a board of seven residents committed to the development of The City of Willowick. The Planning Commission acts as an advisory board to the Mayor and City Council. Development of our lands is just one function of the Planning Commission. Presently the Commission is working on a "Master Plan" for Willowick. The Planning Commission meets on the second Monday of every month at 7:30 p.m. in Council Chambers at Willowick City Hall. Requests to appear on the Planning Commission Agenda must be in writing to the "Chairman". State the purpose of the request and accompany the letter with a check in the amount of the required fee made payable to the City of Willowick. **Deadline for submittal is no later than 5:00 p.m. ten (10) days prior to the meeting.** Any questions pertaining to The Planning Commission may be directed to the Secretary at 440-516-3000.

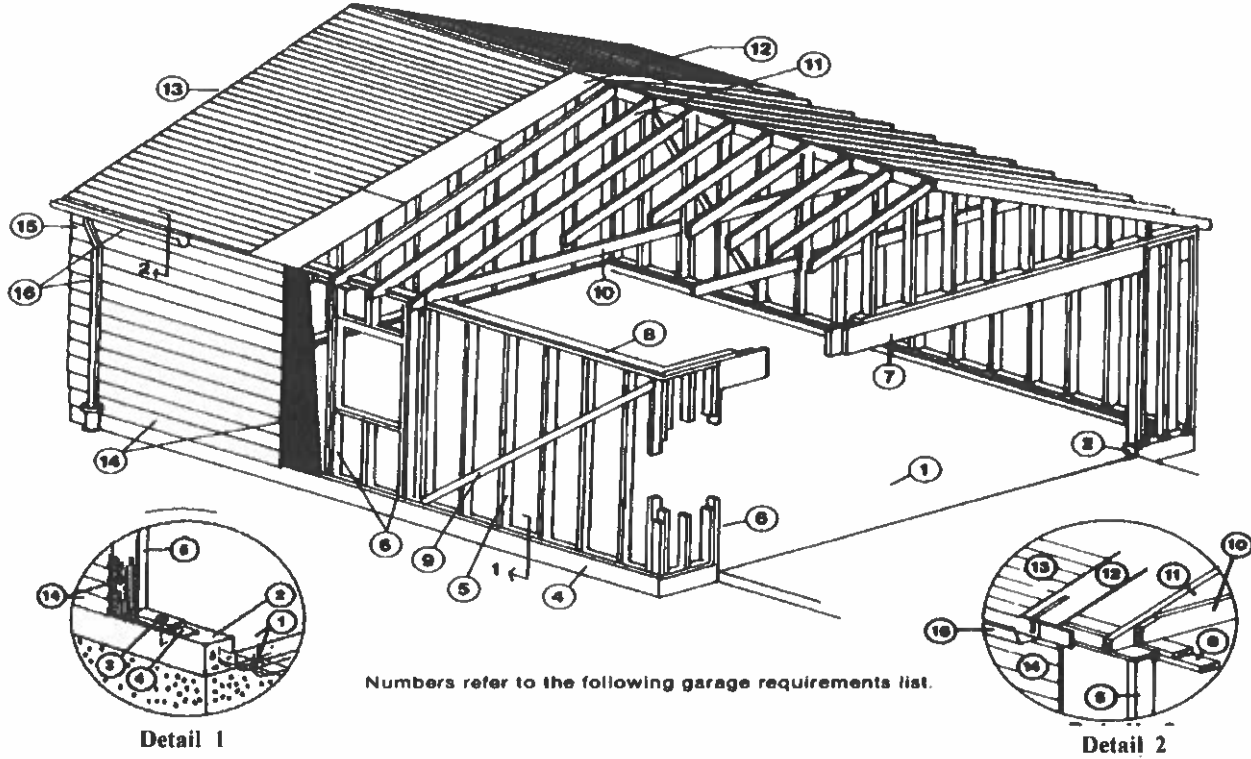
When should you appear before the Planning Commission?

If you are proposing widening, extension or excavation of streets and other public places.

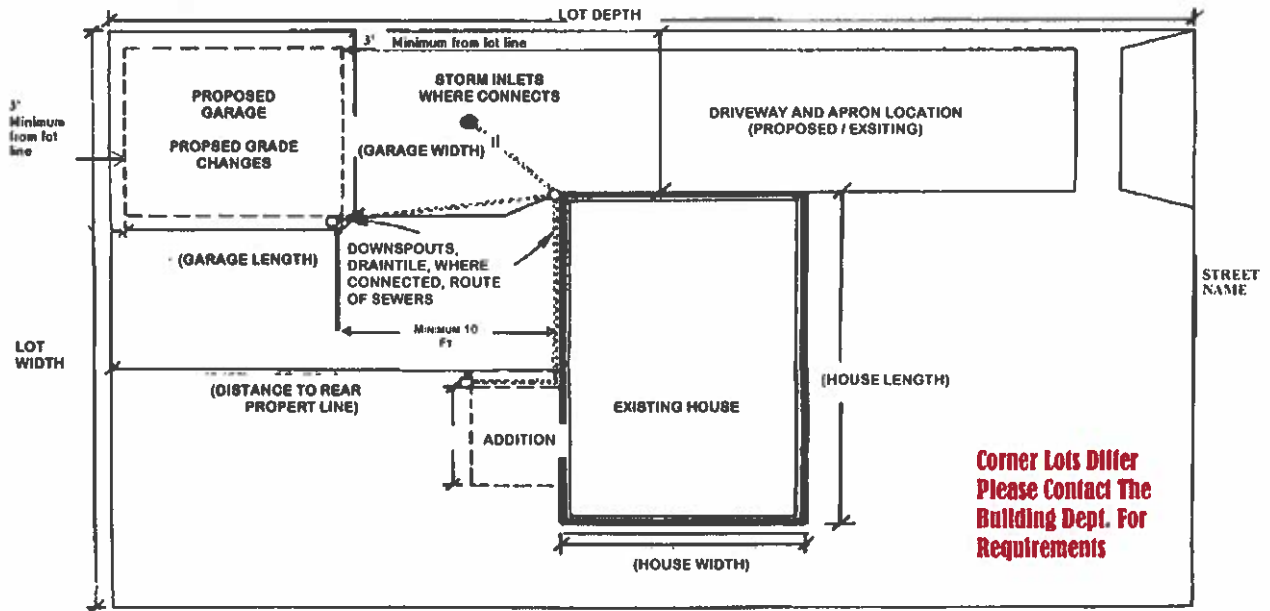
If you desire to change the zoning classification of parcel (s) of property.

SECTION 2

GARAGE CONSTRUCTION



PLOT PLAN FOR GARAGE CONSTRUCTION (this diagram is just an example)



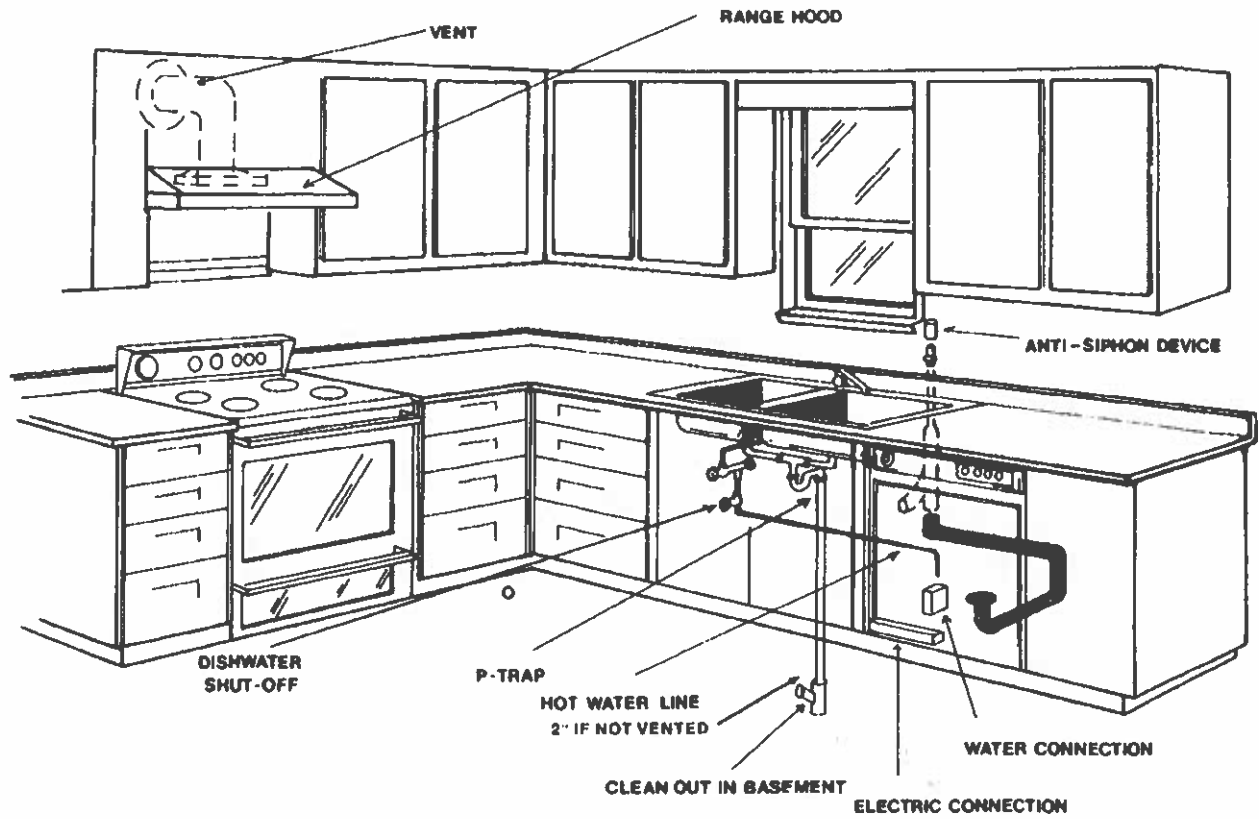
CONSTRUCTION CONFORMANCE REQUIREMENTS FOR GARAGES

1. Before construction can begin, a building permit must be obtained from the Building Department. When applying for a permit, plot plans (2) (a birds eye view drawing) specifying the property lines (width and length of lot), the size of house, the measurement from rear of the house to property lines and where the proposed garage is to be built is required. The plot plan must include size of new garage, distances from property lines and from other structures, and where the existing driveway is located. (See example of plot plan)
2. Two complete sets of construction drawings are needed.
3. A demolition permit is required if an old garage is to be torn down.

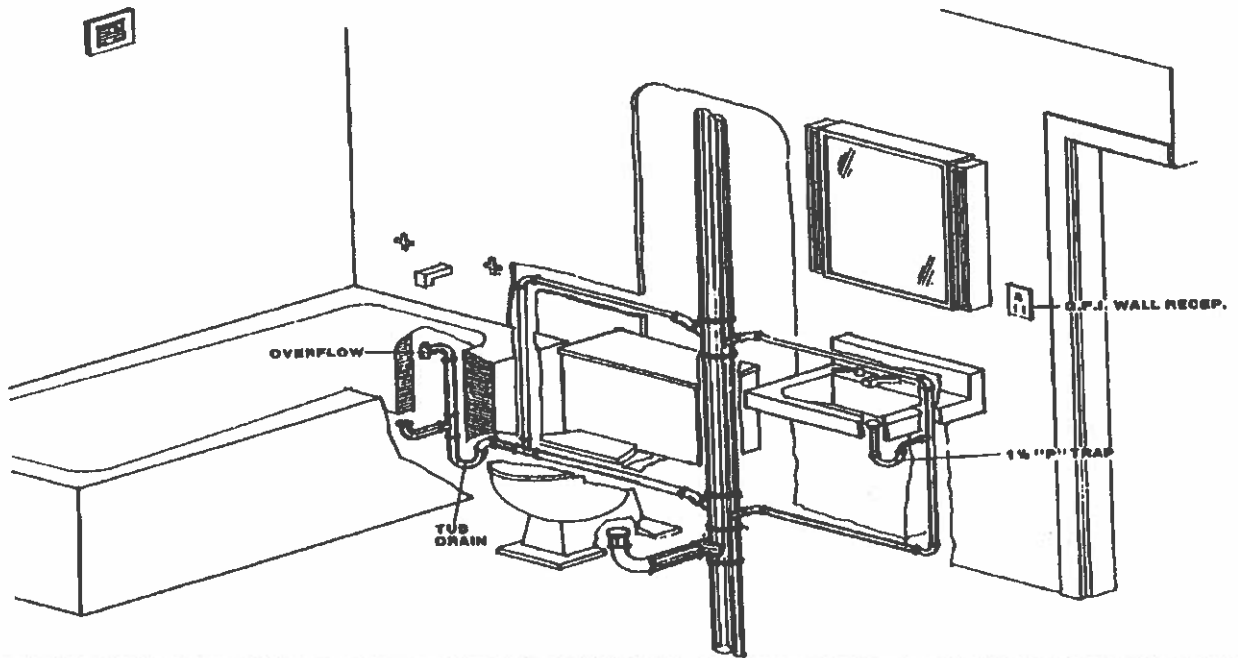
GARAGE CONSTRUCTION REQUIREMENTS

1. Garage floors shall be concrete with a minimum thickness of 4 inches and shall be placed on compacted granular fill. Garage footing shall be 12 inches by 12 inches. 12 inches by 42 inches for attached garage or garages larger than 600 sq. ft. Reinforcement in the form of one # 5 or Two #4 bars in the middle third of footing depth. The garage cannot be larger than 24 feet X 24 feet and no higher than 15 feet.
2. A curb 8 inches above finished grade and 6 inches wide, shall be formed and poured integrally with the floor slab.
3. Anchor bolts (which secure the garage framing to the concrete pad) shall be placed 12 inches from each corner and a maximum of 6 feet apart. Minimum 2 bolts per plate.
4. Before anchoring the bottom treated plate, a 1/2 inch bedding sill seal shall be applied to the curb top to assure a level condition.
5. Garage framing studs shall be spaced 16 inches on-center. Corners shall be constructed with double studs.
6. All openings shall have double studding (one full length and one jack stud).
7. Garage door headers shall be a minimum of two 2 x 12's nailed together with a 1/2 inch plywood flitch plate between.
8. Top plates shall be doubled and shall lap each other at corners to tie walls together.
9. Wind bracing shall be installed at all corners. Bracing must extend into the top and bottom plates.
10. Ceiling ties, sized according to the length of span, may be 2 x 6 or 2 x 8 nominal lumber. Maximum spacing of ceiling ties shall be 48 inches on center.
11. Roof rafters shall be spaced 16 inches on center with 1/2" sheathing. Trusses may be placed 24 inches on center with 5/8" sheathing with clips.
12. Roof sheathing shall be a minimum 1/2". Clips must be used with 5/8" sheathing.
13. Roof covering may be asphalt shingles, minimum 235 pounds in weight and must be installed over 15 pounds in weight felt paper. NOTE: Most common roof pitch for gable roofs is a 4/12 and 5/12.
14. Primed hardboard siding, cedar lap siding, redwood siding, aluminum or vinyl siding may be installed over sheathing. Plywood on corners with cellotex center walls or O.S.B are both acceptable wall sheathing.
15. Garages of all types shall have gutters and downspouts.
16. Downspouts are required to connect into a storm sewer.

KITCHEN REMODELING



BATHROOM REMODELING



REQUIREMENTS FOR REMODELING A KITCHEN

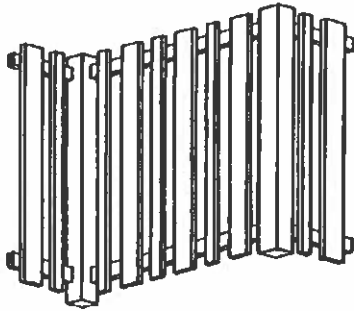
1. Before remodeling a kitchen, permits must first be obtained from the Building Department.
NOTE: When a kitchen is enlarged in square footage, a plot plan and drawing must be presented when applying for the permit to determine zoning requirements.
2. Permits to be obtained are:
 - Building - for structural changes
 - Plumbing - for kitchen sinks water and gas piping.
 - Electrical - for new receptacles, lighting fixtures and electrical appliances.
3. When an existing kitchen is completely remodeled, the entire room is to be brought up to current code standards.
4. Before concealing wiring and plumbing, call the Building or Health Department for an inspection.
5. Electrical:
 - All electrical permits and electrical inspections will be handled by the Willowick Building Department.
6. Plumbing:
 - a. The kitchen sink unvented waste line shall be 2 inches in diameter (unless the developed length exceeds 15 feet, then the fixture must be vented) and may be of plastic (ABS or PVC Schedule 40).
 - b. The vertical waste, terminating in the cellar, shall have clean-out at the base of the stack.
 - c. The trap located under the sink shall be a 1-1/2 inch "P" trap.
 - d. If a dishwasher is installed and is connected to the same waste line as the sink, an "air gap" device shall be installed and located above the rim of the sink on the counter top.

**** All Plumbing Permits and Inspections are through The Lake County Health Department ****

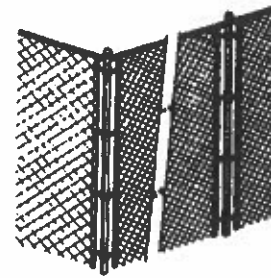
REQUIREMENTS FOR REMODELING A BATHROOM

1. Before remodeling a bathroom, permits must first be obtained from the Building Department.
2. Permits to be obtained are:
 - Building - For structural changes.
 - Electrical - For new receptacles, lighting fixtures and any electrical appliances.
 - Plumbing - For any replacement of plumbing fixtures (tubs, lavs and toilets).
3. When an existing bathroom is completely remodeled, the entire room is to be brought up to current code standards.
4. Electrical:
 - All electrical permits and electrical inspections will be handled by the Willowick Building Department.
5. Plumbing:
 - All plumbing permits and plumbing inspections will be handled by the Lake County Health Department.

FENCE CONSTRUCTION



Board On Board



Chain Link

REQUIREMENTS FOR FENCE CONSTRUCTION

Fences shall be erected and conform to all items listed below and all other applicable City Ordinances and Codes.

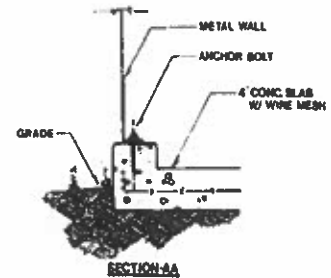
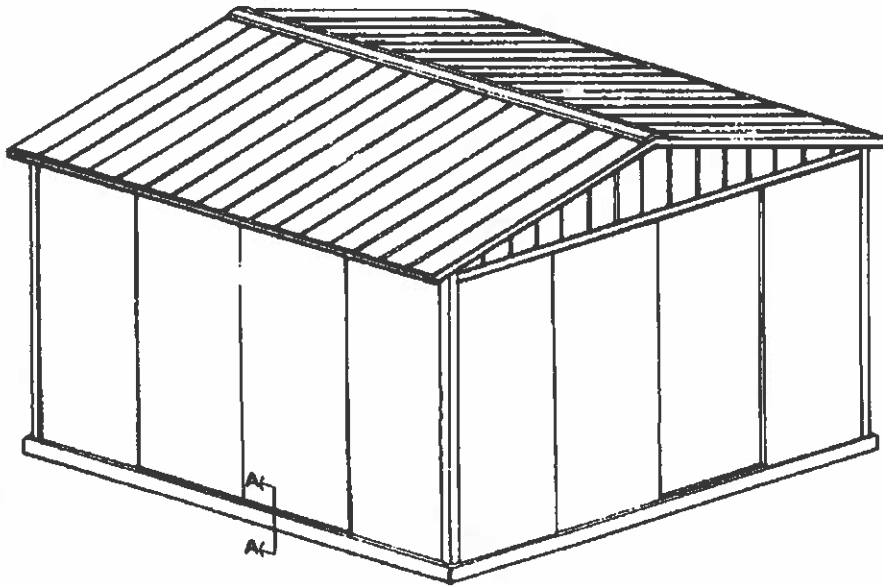
1. Before constructing any fence, a permit shall first be obtained from the Building Department. A permit for a "living fence" (hedges, shrubs, bushes or plants) is not required. When applying for a permit, a sketched plot plan (a bird's eye view drawing) of where the proposed fence will be installed and all property lines is required.
2. All fences must be installed on owner's property. Responsibility to locate property lines is that of the homeowner.
3. Fences, not in excess of 6 feet as measured above the natural grade, may be of the types shown above.
4. No electrified fences or barbed wire fences shall be permitted. When installing Chain Link type fencing both the top and bottom must have finished edges (no sharp ends).
5. The City of Willowick requires that the exterior or finished side of fence face the adjacent property or the public and that the unfinished or post side shall face the interior of property.
6. No fences shall be erected or placed between the rear building line and the street line and no "living fence", designated in this area, shall exceed 3 feet in height above grade. "Living Fences", located at intersections, shall not exceed 3 feet in height.
7. All fences shall be maintained in good condition so as not to become unsightly, unsafe, a nuisance or detrimental to the surrounding area.

If the house has a side entrance, the fence may be installed 2 feet forward of the entrance toward the front building line.

ALL FENCE POSTS SHALL BE INSTALLED TO A DEPTH OF 42" AND SET IN CONCRETE TO WITHIN 2" OF GRADE.

REQUIREMENTS FOR TOOL SHEDS

Codified Ordinance
Chapter 1171



1. Before erecting a tool shed structure, a permit must first be obtained from the Building Department. Upon making application for a permit a plot plan (bird's-eye view drawing) is required.
2. The tool shed must meet all zoning regulations regarding location on rear property. Example: 3' from rear and side property lines, 10' from any dwelling or attached garage.
3. The foundation for tool sheds may be concrete or 4 inches of compacted gravel. Tool sheds larger than 120 square feet and /or of metal construction shall be erected on a 4 inch concrete base with a 4 inch curb with embedded anchor bolts. See: [Section AA above](#)
4. The maximum size for any tool shed shall be 10 feet by 12 feet or 120 square feet. The maximum height shall be 10 feet.
5. If the structure is of wood construction, framing studs shall be on 16" or 24" centers.
6. Siding or an exterior plywood siding sheet may be installed directly over the framing studs, omitting sheathing or felt paper.
7. Roofing may be of asphalt shingles or rolled roofing, over 1/2 inch sheathing. Roofing may also be of prefabricated corrugated metal or other approved material. Doors may be of wood or metal
8. Complete metal prefab tool sheds are acceptable for this type of structure.
9. Plastic tool sheds shall be anchored pursuant to the manufacturer's instructions.
10. Roof drainage (gutters) may be required, depending on the slope of the roof and the location of the tool shed and, if so, downspouts must divert water onto owner's own property.

HOT WATER HEATER INSTALLATION

Before installing a hot water heater a plumbing permit shall be obtained from the Lake County Health Dept. 440-350-2543

GAS PIPING

All permanent gas appliances shall be installed with rigid black iron pipe. Gas shutoff valve shall be installed upstream of the union and within 6 feet. of the appliance. No bushings, soldered fitting or cast iron fittings shall be used and no bends are permitted in rigid pipe. Where gas piping enters the control valve, a drip leg or condensation leg shall be installed.

FLUE

Flues shall be full size from the gas appliance to the chimney. All flue pipe joints shall be gas tight and the flue pipe shall be sealed at the chimney. Galvanized metal flue piping shall not be lighter than 26 gauge for 3 inch - 6inch. Aluminum or black flue piping is prohibited. Flue piping shall not be pitched downward.

DRAIN SPIGOT

All hot water tanks shall be equipped with a drain spigot.

CONTROL VALVE

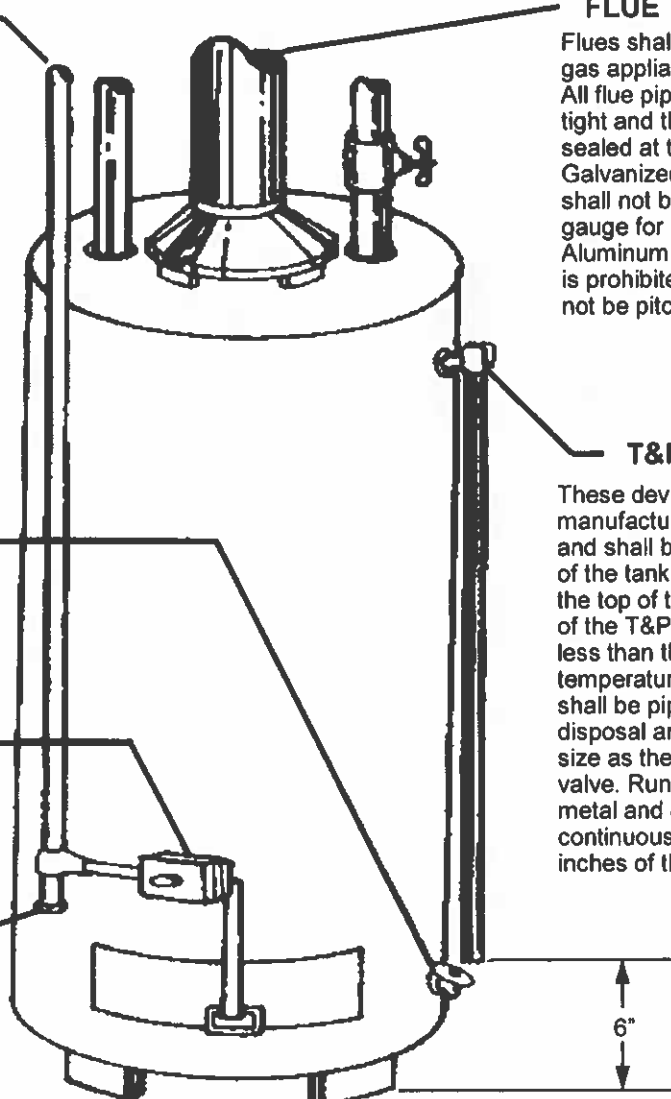
All hot water tanks shall be equipped with an automatic pilot of the complete shutoff type.

DRIP LEG

Prevents dirt particles and moisture from entering burners and controls.

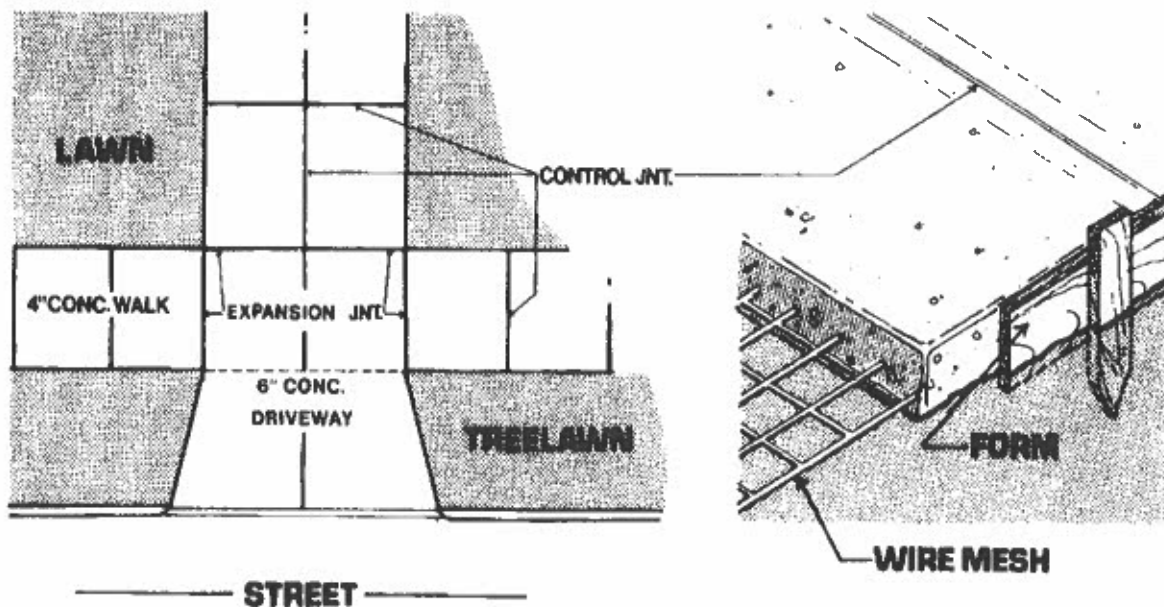
T&P VALVE

These devices shall be manufacturer marked Z21.22 and shall be located on the side of the tank, or within 3 inches of the top of the tank. The capacity of the T&P valve shall not be less than the B.T.U. input. All temperature and relief valves shall be piped to a safe point of disposal and shall be the same size as the outlet of the relief valve. Run off pipe shall be metal and must be installed in a continuous length within 6 inches of the floor.



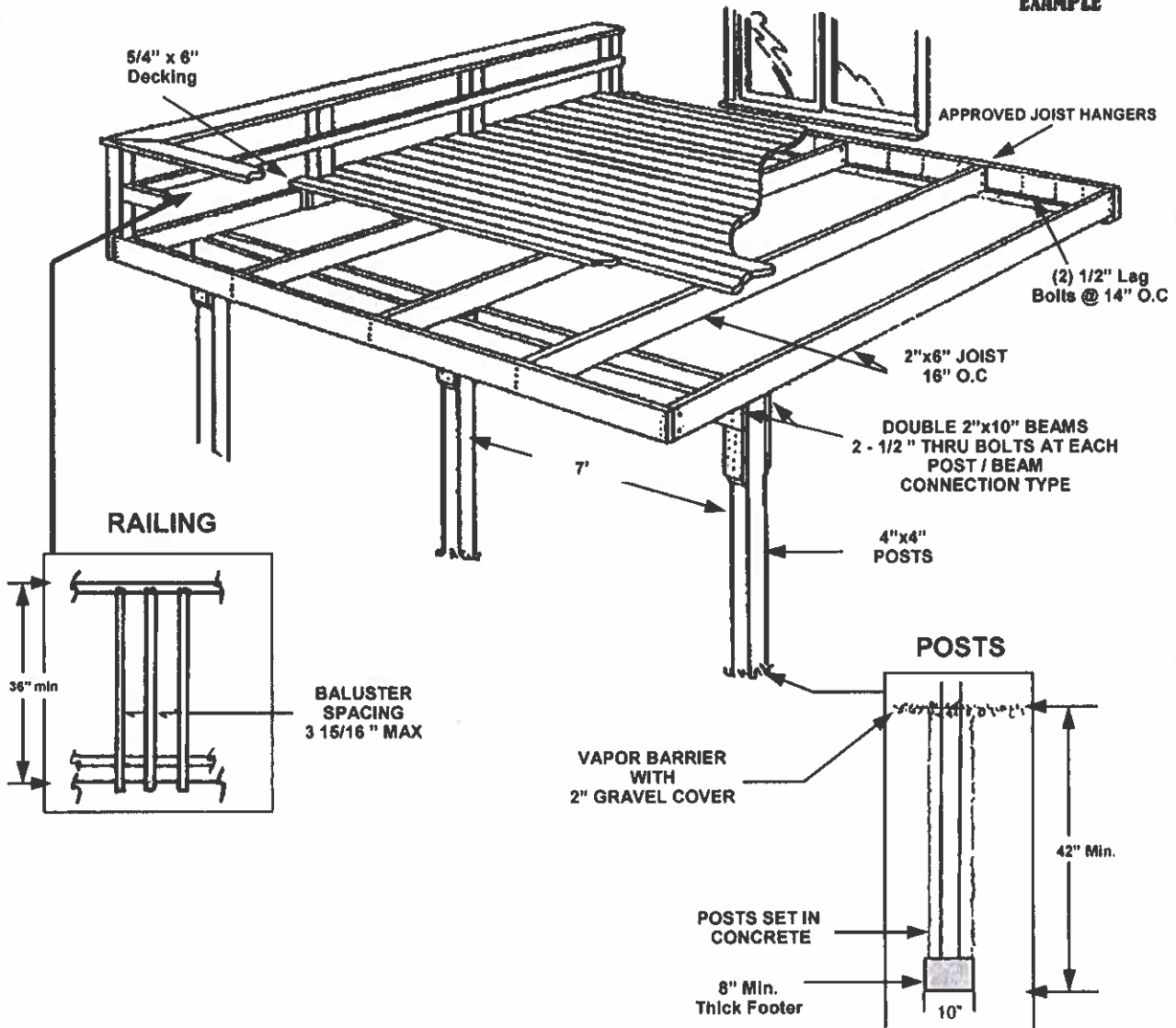
REQUIREMENTS FOR DRIVEWAY INSTALLATION

1. Before installing or resurfacing any driveway, a permit must first be obtained from the Building Department.
2. Driveways may be constructed of concrete or bituminous asphalt. Sidewalks and street aprons shall be constructed of concrete.
3. Catch basins (driveway drains) are required for driveway aprons (the section of driveway between the rear of house and front of garage). Catch basins shall be a minimum of 12 inches in diameter, and must be at least 42 inches deep. Garage downspouts must be tied in when a garage apron is replaced. Surface water from driveways must not be allowed to run off onto any neighboring property.
4. Expansion joints spaced no more than 30 feet on center are required in concrete driveways. Control joints (to help in controlling cracks) should be provided at 10 feet on center.
5. Concrete shall be placed on 4 inches of compacted granular fill with a minimum thickness of 4 inches. Street aprons and the sections of sidewalks between street aprons and driveway shall have a minimum thickness of 6 inches.
6. When a driveway apron is replaced a "lip" or "rise" is required where the apron meets the curb (house side of curb). This "lip/rise" shall be $\frac{3}{4}$ inches high for asphalt streets and $1 \frac{1}{2}$ inches for concrete streets. **Note: Do Not Remove Any Curb.**
7. Wire mesh or fiber mesh is required in all driveways.
8. Sidewalks and aprons shall have a magnesium float finish with a hand trowel to produce a swirl pattern, then if desired a broom finish can be applied.



DECK CONSTRUCTION

EXAMPLE

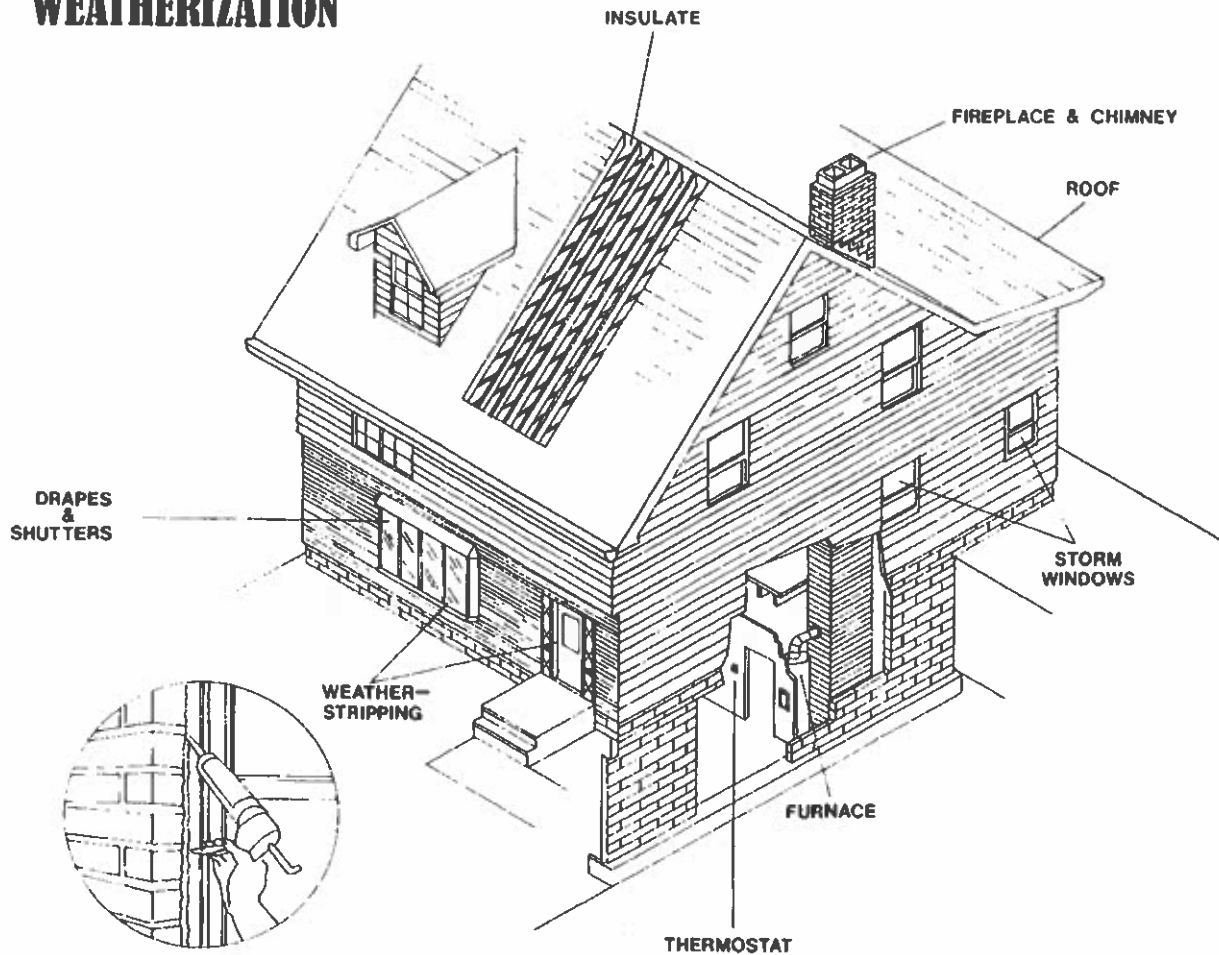


DECK CONSTRUCTION REQUIREMENTS

Patio decks are becoming the most common improvement that the property owners themselves are attempting to encounter. Decks should be designed to accommodate the family's needs and be constructed of lasting materials and be safe and sound.

1. Before constructing a deck, a building permit must first be obtained from the Building Department. At the time of application for the permit a plot plan (bird's eye view drawing), showing lot measurements, length and width of house and the size of deck, must be submitted. Also needed is two complete sets of construction drawings.
2. Lumber to be used may be pressure treated or untreated structural lumber which then must be painted or stained to withstand the weather. Untreated post shall be treated with a preservative on the portion that will be below grade.

WEATHERIZATION



WEATHERIZATION: SUGGESTIONS AND RECOMMENDATIONS

1. FURNACE

Regular service of your furnace is necessary for peak operating efficiency. One of the major causes of energy waste is due to faulty or inefficient heating systems. Before the heating season begins you should:

- A. Have the filter cleaned monthly and replaced yearly.
- B. Have burners checked for burning efficiency and have them cleaned.
- C. Oil furnace fan and check temperature setting for maximum efficiency.
- D. Check all ducts for leaks and take necessary measures to correct them. Duct tape is the most frequently used product in sealing duct leaks. Also insulate all ducts exposed to unheated areas
- E. If furnace must be replaced, consult the local utility for information on the newest energy efficient heating systems.

F. Install an energy saving flue damper which can save 20% of furnace heat loss.

G. Baseboard floor registers should be equipped with deflectors to force warm air to the floor. This spreads around the warm air and decreases furnace heating cycles.

2. THERMOSTATS

A faulty thermostat will make adjusting the proper setting difficult. For example, your thermostat may be set at 68 degrees, but the furnace will click on at 75 degrees. To avoid this and other problems, consider the following:

A. Have repairman clean and check the thermo-control.

B. Make certain thermostat is located away from direct sunlight and warm air ducts.

C. Consider purchasing a new energy-efficient thermostat with built-in timer. This thermostat automatically lowers the temperature setting at night and raises it in the morning

3. FIREPLACE AND CHIMNEY

A fireplace is a "heat thief". Even with a roaring fire, more energy goes up the smoke stack than heats the house. In fact, a strong "updraft" will actually pull heat out of your house. To eliminate this concern, do the following:

A. Glass enclose your hearth.

B. Explore the use of special grates or piping which throws the heat from the fire into the room.

C. A Styrofoam plug, or a commercial plug cut to fit, will eliminate this problem when no fire is lit.

4. DRAPES AND SHUTTERS

As soon as the sun goes down, pull all drapes and shutters together. This eliminates much of the heat loss due to infiltration. During the day (especially on the south side of the house) remove any object which blocks out the sun. A significant amount of direct sunlight will warm a room to the point where furnace ducts may be closed to that room during the day.

5. WEATHERSTRIPPING

You may call it decorative trim, but in actuality it is probably the fourth most important energy-saving hardware in the home. Weather-strips are on every window and door in the house. Their purpose is to prevent cold air from infiltrating the house. If on a windy day you feel a draft around the door or indoor, it means your weather-stripping needs to be adjusted or replaced.

6. ROOF

The roof of your home can be a good indicator of heat loss. On a day when snow has accumulated on the roof, check to see where snow is melting. These spots are probably where heat is escaping. Also, a dark style of shingle will absorb more heat from the sun than a lighter or reflective style.

7. STORM WINDOWS

Storm windows should prevent most cold air from penetrating the home. But storm windows which are not hung properly, or which do not fit perfectly, will further frustrate your attempts to conserve energy. To accurately check the efficiency of your storm windows see if air blows inward with each breeze. If it does, you know that heat is escaping.

- A. Caulk and seal storm window.
- B. Readjust weatherstripping and mortite all cracks. If infiltration still persists, then
- C. Consider the use of visquine (vinyl or plastic sheets) on the outside of window. This may not be the most attractive solution, but it is the least expensive.

The best solution to this problem is to have new energy-efficient thermo-windows installed. These windows are double and triple-glazed. The frames are made of materials which have a high tolerance to the cold.

8. INSULATION

Homeowners out of necessity insulate their homes. Heat rises, and then when infiltration occurs, the warm air is moved rather quickly up and out of the house. In Northeast Ohio the recommended insulation is at least 6 1/2 inches thick, with an R-value of "19". There are various types of insulation designed for different uses. For example: roll insulation without a vapor barrier should be used for lay-in of attic rafters. This method can be applied when an attic is unused or unheated. Staple insulation is used for the joists, with the foil facing the room. Insulation should also be stapled to the basement ceiling. This will help keep the dampness from penetrating the floor of your living quarters. This application of insulation is recommended for unheated basements only.

Other applications of insulation include:

- A. All exposed heat ducts.
- B. Hot water pipes which are exposed to the cold.
- C. All crawl spaces.
- D. Around the foundation (where the house meets the cement block in the basement).
- E. Blow-in insulation in northern and western exposed walls.
- F. Around hot water heaters.

MISCELLANEOUS WEATHERIZATION TIPS

- A. Caulk all foundation cracks.
- B. Caulk the cracks between clapboard siding.
- C. Caulk around water spigots, exterior meters and antenna wire outlets.
- D. Insulate electrical plug receptacles where needed.
- E. Weatherstrip garage door if garage is heated.
- F. Door to unheated attic and basement should be weatherstripped and fit with door sweeps.
- G. Shrubs and trees (when planted on the north and west sides of the house) serve as wind breaks, reducing infiltration.
- H. The use of humidifiers to keep the air moist and eliminate evaporation which can make you feel cold.
- I. Common sense, as always, can be applied to energy conservation. Dress warmly, and when saying goodbye to guests, do so with the door closed.

FIRE SAFETY

- FOR THE REST OF YOUR LIFE



IF YOUR CLOTHES CAUGHT FIRE -

STOP - If you are walking or running

DROP - To the floor or ground

ROLL - To smother the flames

CRAWL LOW IN SMOKE -

Fires can reach 1500 degrees. It's about 500 degrees at the floor level, so crawl on your hands and knees because you only have a few seconds to get outside before the heat gets to you.

E.D.I.T.H. -

EXIT DRILLS IN THE HOME - Practice a home fire drill with a designated meeting place outside. **Once out side, do not go inside a burning building for any reason.**

CHILDREN AND MATCHES -

All children are curious about fire. If you have matches or cigarette lighters at home, keep them out of sight and out of reach from children at all times.

SMOKE & CARBON MONOXIDE DETECTORS -

Every home needs to be equipped with a working detector. Test the unit weekly and change the battery at least once a year.

HOTEL- MOTEL FIRE SAFETY -

When on vacation know the locations of the exits from your room. Count the number of steps it takes to reach the closest exit from your room should you have to leave in an emergency.

HEATING & HEAT SOURCES -

Keep combustibles at least 2 feet away from the furnace, hot water tank and any portable heater. During cleaning seasons change the furnace filter every month.

FLAMMABLE LIQUIDS AND GASES -

Gasoline, kerosene, paint thinners and propane gas are to be stored outside of the home in a garage or shed and **NEVER** in any basement.



KITCHEN FIRES -

Keep the stove top surface free of all burnable items. Have a pot lid handy should a pan of food or cooking oil start on fire. Do not put water on grease or oil fires. Do not wear loose fitting clothing while cooking.

ELECTRICAL FIRES -

Overloaded circuits, using more electricity than the wires will carry will cause a fire. Check extension cords if they feel warm you are drawing too much electricity, unplug the cord from the outlet. Check extension cords to see that they are not cracked, frayed or brittle. **NEVER** put a cord under any carpets or mats. When not in use unplug appliances such as hair driers, coffee pots and curling irons.

BURNING CANDLES -

Never leave a burning candle unattended. Keep combustibles at a safe distance from the flame.

SAFE SMOKING HABITS -

If you must smoke, **NEVER** smoke in bed. Keep ashtrays away from upholstered furniture and curtains.

FIRE EXTINGUISHERS -

Learn how to use a fire extinguisher. They are for small fires only. Always call the Fire Department if you smell smoke or see flames even if you have extinguished the fire, often the fire will re-ignite by itself.

CRIME PREVENTION TIPS



- 1 - Become familiar with the neighbors who live in close proximity to you.
- 2 - When new families move into your neighborhood, introduce yourself to them.
- 3 - Report any problems with utilities, wire, lights, etc. to the utility companies or the police.
- 4 - Do not allow strangers into your home to demonstrate products they are selling or if they should ask to use the phone. Offer to make a call for them but do not let them in the house.
- 5 - Solicitors who are working in the City of Willowick must have a permit issued from City Hall. If someone comes to your home to sell something, ask to see their permit. If they do not have one, report them to the police department.
- 6 - Whenever you see an unrecognizable person or a group of people loitering or congregating in your neighborhood, please report this to the police department.
- 7 - If you have received annoying phone calls, harassing phone calls or hang-up calls, please report this to the police department and to the phone company.
- 8 - Whenever you see something that looks suspicious, such as an unfamiliar car or truck parked in your neighborhood, try to obtain a license number and call the police department.
- 9 - If you are going to be away from home for any reason, be sure to let a neighbor or family member know so they can check your home occasionally. Remember to stop mail and newspaper delivery until you return. Also notify the police department and let them know when you are leaving and when you will return so that they also can check your home periodically.



SUGGESTIONS FOR ANIMAL CONTROL

BEES -

Bees on private property are the owners responsibility. Public right of ways and city property call 585-0963. If you plan on dealing with the bees yourself instead of calling an exterminator, take 2 tablespoons of 50% malathion and mix with 1/2 pint of water. Gray football hornets nests can also be doused with bleach. Be sure this is done after dark.

DOGS -

Complaints regarding dogs running loose or barking will be enforced by City Ordinances and citations will be issued for failure to comply. Please call the Police Department at 585-1234. Problems with dogs r cats defecating or urinating on your property or problems with neighbors who are not keeping their yards free of feces will also be issued a citation. Call the Building Department at 516-3000 or the Lake County Health Department at 440-350-2543 if these problems exist.

OPOSSUM -

An opossum is a sluggish animal common in our city. The opossum prefers to live in wood piles, hollow logs, under tool sheds, etc. Usually active at night. Has poor daylight vision. Low "I.Q.". They are good climbers and even better procreators. If you have problems with opossums call the Service Department.

RACCOONS -

Raccoons are excellent climbers - able to scale downspouts, brickwalls, chimneys, etc. They love open chimneys and the best protection you have is to cap your chimney. They are desperate fighters. A ten pound raccoon can go through a 3 1/2 inch hole. Residents are not permitted to kill any animal within the city. The use of firearms or poison is a violation of the law. Call the Service Department at 585-0963 with any problems with raccoons.

SKUNKS -

Skunks are nocturnal and love to live under tool sheds, wood piles, porches, steps, old garages and rock piles by burrowing up to 6 feet underground. Skunks eat small rodents, snakes, insects and grubs. They are excellent rat catchers. They burrow into lawns leaving holes 4 to 5 inches in diameter. Males are loners but females will share a den with other families. Our local striped skunk can not spray if lifted off the ground. If you are having problems with skunks call the Service Department.

SQUIRRELS -

Squirrels are dangerous and destructive rodents. They fall into chimneys, sit in gutters and gnaw holes in the roof. Trim all branches at least 6 feet from roof lines. A 2 foot wide band of metal wrapped around the trunk will keep the pests out of your trees. |

PIGEONS -

The main problem here is mites multiply in pigeon waste. Please don't set out poison. Above all don't feed them. If you have a problem with pigeons you may set out traps.

RABBITS -

Rabbits love your garden. Circle your garden with chicken wire or lay out 3 foot lengths of garden hose between greens as they are scared of snakes.

WARNING: NEVER TOUCH OR HANDLE INJURED ANIMALS... THEY BITE!

If you have any questions concerning animals you can contact the County Animal Warden at 350-2640