

City of Celina 972-382-2111 112 N. Colorado Celina TX 75009

Helpful Tips for Successful Residential Inspections

Summary

This guideline has been prepared to assist the builder, designer, and his/her field supervisor. Builders are encouraged to share the content of this guideline with their administrative staff, architects, engineers, subcontractors, and material suppliers.

****NOTE: This guideline should not be interpreted as all-inclusive. It is to be used as a guideline only. This guideline will be available online and will be updated periodically to reflect building code changes, newly adopted ordinances, and any other information pertinent to residential construction. All builders currently building residential structures within the city of Celina will be responsible for obtaining the most current publications available.

Please log in to MyGov for all inspection requests. Inspection requests must be made by 3:30pm for next business day inspections.

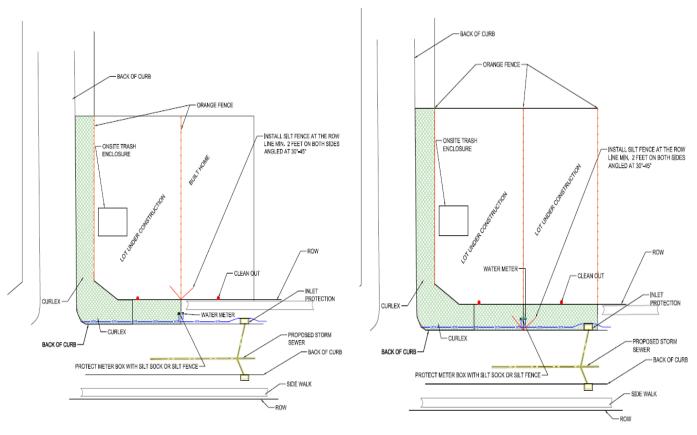
SWPPP Maintenance Inspections

- 1. 4' wide Curlex or equal ground cover at the curb street or alley way
- 2. 4' high windscreen all along the 2 sides if existing fence is in place windscreen does not have to be install in those areas and if no fence or alley in back of the lot must have windscreen installed
- 3. 2' high silt fence is required where slope conditions
- 4. Must have 8'x4' trash bin on site after slab is poured
- 5. Must have temporary sanitary facilities at a rate 1 for every 10 workers/ one per 2 lots max



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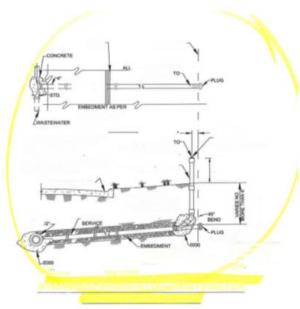


MAIN SEWER TAP (Include Main Sewer Tap info along with SWPPP Inspection)



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DO NOT REMOVE THE SDR 35 WYE AT THE LATERAL, ALSO DO NOT REMOVE THE CONCRETE CRADLE

T-Pole

- 1. Address must be posted on the T-pole brace.
- 2. Ground fault protection (GFCI) on all outlets.
- 3. Pole must be braced in two directions and grounded.
- 4. Plugs and breakers must be located in a weather proof enclosure.
- 5. Neutral bar must be bonded to the panel.
- 6. Maximum meter base height shall be 6'
- 7. Aluminum wire is NOT ALLOWED for branch circuits
- 8. Must have working clearance in front of t-pole.

Plumbing Rough

- 1. Address must be posted on site.
- 2. Proper fittings used in system. See *Main Sewer Tap* instructions on previous page.
- 3. Properly size vents, traps, and trap arms.
- 4. Minimum 1" water service with cut-off valve. There shall be a full open valve near the entrance of the water service into the building and one outside the meter (not in sidewalk) on the exterior.
- 5. Hose-bib with tamper proof vacuum breaker installed. Water line must be tested and tight under water pressure not less than the working pressure of the system. For piping systems other than plastic, by an air test of not less than 50 PSI.



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- 6. Sewer line shall be 4" minimum with the same size double cleanout just before it enters the building. The connection to the sewer stub out shall be glued.
- 7. Drain lines shall be installed to comply with the 2018 IRC (or the current IRC adopted by Celina).
- 8. Island fixture venting shall be per local amendment, which requires foot loop vent.
- 9. All glue joints will have purple primer.
- 10. A water test is required on all drain lines.
- 11. Copper lines must be sleeved or taped where exposed to concrete.
- 12. All underground PVC and copper shall be bedded with sand.
- 13. Form board survey (with Top of Forms listed on survey) will be uploaded to mygov before this inspection. Form survey should also show proposed driveway slope (Maximum 12%).

<u>Foundation Pre-Pour / Strap-Tie Hold Downs</u>

- 1. Address must be posted on t-pole.
- 2. Block outs for tubs and showers must be in place.
- 3. Must have water test on DWV piping.
- 4. Rough grading for positive drainage away from slab must be done after concrete placement and removal of forms.
- 5. Exposed copper must be sleeved and protected.
- 6. Install concrete encased electrode (UFER) ground in concrete 20'
- 7. LSTHD/STHD shall be properly installed per the manufacturer instructions at this time (this will be required) if on plans with no alternatives
- 8. Sleeve PVC through beams with pipe sleeve 2 pipe sizes larger. Sleeve to run from pad to pad. Protect PVC Rises through slab. Protect water supply inside forms.
- 9. This inspection is only to verify that all drain, waste, and vent piping under slab going vertical is protected with a wrap and that all piping going horizontal between beams is protected with sleeves and or wrapping. Per 2018 IRC Section P2602, specifically P2603.3 and P2603.4

Engineer letter required to be uploaded prior to scheduling the Exterior Sheathing/Framing/MEP

Exterior Sheathing/ Framing/MEP

- 1. Engineer framing inspection letter to be uploaded into MyGov folder.
- 2. Vapor Barrier Must be installed at brick ledge behind sheathing.
- 3. Tape around all doors and windows and seal all seams, holes and penetrations through sheathing.
- 4. Wrap all exposed wood in brick pockets.
- 5. 8'x4' trash bin is required to be on site at this inspection.
- 6. All bottom plates on masonry or concrete foundations will be pressure treated. Plates shall be secured by ½" diameter anchor bolts 6' on center and within 12" of the ends, and a minimum 2 per board. In compliance with the 2018 IRC or per engineer plans.



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- 7. Lumber grade, joist and rafter spans must comply w/ 2018 IRC and installed per span charts and engineer plans.
- 8. Rafters and ceiling joist 2 x 12 and larger shall be blocked at points of bearing, and 2 x 12 and larger shall have bridging at intervals not exceeding 8'.
- 9. Purlin bracing must be the same size as the rafter with 2 x 4 braces installed 4' on center at not less than a 45-degree angle. Braces over 8' in length shall be braced.
- 10. Fur downs, chimney(s), ceilings of different heights, arches, vertical and horizontal spaces over 10' in length must be fire blocked.
- 11. Openings from garage to sleeping room not permitted. Separation between the garage & residence & its attic area require minimum ½" gypsum board applied to the garage side with opening protection not less than 1-3/8" solid or honeycomb core steel or 20-minute fire rated door. Habitable rooms above garage shall be separated by minimum 5/8" Type X gypsum board or equivalent.
- 12. Stairs, landings, handrails and guardrails must comply with section R311.7 of the 2018 IRC.
- 13. Metal fireplaces shall be installed according to the manufacturer's instructions.
- 14. Provide insulation stop around metal chimneys and flue pipes to prevent accumulation.
- 15. Brick ties must be in place where applicable.
- 16. Pull down stairs for access to attics shall have a 300 pound per tread load capacity. Pull down stairs must be deployed for all inspectors that require attic access.
- 17. Vapor barrier must be in place at brick ledge behind sheathing.
- 18. Verify fire blocking installed between rafters for lots that have 5' side yard setbacks.
- 19. Verify safety-glazing locations for all windows.
- 20. Verify joist hangers, stud shoes and mechanical connections.

Electrical Rough

- 1. No aluminum or copper clad aluminum conductors are permitted on branch circuits.
- 2. Check panel for size, bonding, and bonding bushing.
- 3. Panel must be grounded to concrete encased electrode (UFER).
- 4. Receptacles are required to be located so that no point in a wall space is more than 6 feet from a receptacle.
- 5. Two separate 20AMP circuits are required in the kitchen.
- 6. GFCI required on all outdoor, bathroom, garage, and kitchen, bar sink, hydro massage bathtubs, spa, hot tub, and bathhouse receptacles.
- 7. Romex must be stapled within 8" of a non-metallic box.
- 8. Metal boxes shall be grounded and Romex secured to the box.
- 9. All Romex in an air duct must be sleeved.
- 10. All single family dwellings must have a service disconnecting means located on the exterior.
- 11. Smoke detector alarms shall be installed in each sleeping room at least 3' from any air vent, outside each sleeping area in the immediate vicinity of the bedroom, any room with doors installed such as



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media, study or similar type, and on each additional story of the dwelling including basements. When more than one is required the alarm devices shall be interconnected in such a manner that the actuation of one alarm will activate all alarms. Installed per 2018 IRC and 2020 NEC requirements and manufactures instructions.

- 12. Carbon Monoxide detectors shall be installed at every floor level as close to each bedroom as possible and must be installed per 2018 IRC and 2020 NEC requirements and manufactures installation instructions.
- 13. Cover electrical panels from paint or drywall overspray during construction.
- 14. Spa motor and plug shall accessible and the GFCI be protected and the motor bonded.
- 15. All branch circuits that supply 125 volt 15 & 20 amp receptacles in dwelling unit bedrooms shall be ARC Fault protected.
- 16. All insulation in walls, ceilings, ductwork, and windows shall comply with the 2018 IRC.
- 17. Gas lines shall be bonded at entrance or at water heater visible at inspection.
- 18. Ceiling-suspended fan outlets must be rated at 70lbs.

<u>Mechanical Rough</u>

Metal ducts must be mechanically fastened by means of at least three sheet metal screws or rivets equally spaced around the joint and are made airtight by approved tapes, mastics or gaskets.

- 1. Flex ducts shall be installed and supported in accordance with the manufacturer's installation instructions.
- 2. Condensate drains must be tied into a working p-trap. P-Trap must be insulated.
- 3. Attic coils must have a secondary condensate drain pan with a minimum 3/4" drain to discharge outside over a window.
- 4. The electric wiring in return air plenums must be in metallic conduit, with termination in metal boxes.
- 5. Exhaust fan ducts shall terminate outside. Metal duct is required in concealed spaces.
- 6. The dryer vent metal duct maximum length is 35' with only 2 90 degree bends (2'shall be deducted for each 90 degree turn), where fittings are to be used, and the maximum length shall be reduced per Table G2439.5.5.1 or per manufactures installation instructions. The duct must terminate outside with a backdraft damper.
- 7. Insulation for A/C ducts and refrigerant lines must meet the 2018 IECC requirements.
- 8. Mechanical storage equipment areas shall comply with the 2018 IECC.
- 9. All wood burning/ gas fireplaces must have fresh air intake from the outside the structure.
- 10. All plenum spaces must be in compliance with the 2018 IRC requirements.

Plumbing Top Out

- 1. All vents must extend through the roof a minimum of 6" with flashing properly installed.
- 2. All plumbing shall be installed per the 2018 IRC.
- 3. There shall be a minimum of 1 outside anti siphon protected hose bib in front and 1 at the rear.
- 4. There shall be a full open valve near the entrance of the water service into the building on the exterior.



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- 5. Check for proper use and size of fittings, trap size, trap arms and vents.
- 6. All copper lines and stub outs shall be strapped and supported.
- 7. All horizontal drains installed through 2x4's shall have stud shoes installed.
- 8. Cleanouts must be installed above arm tie-ins.
- 9. Nail guards shall be used where pipes penetrate walls and plates
- 10. All water pipes in exterior walls or within 12" of an exterior wall.
- 11. All water heaters must be in an approved drip pan with a drain. Water heaters in a garage must be elevated 18" above the floor and protected from physical damage. Pressure and temperature relief drains shall be run full size in rigid copper or CPVC pipe and terminate without threads.
- 12. Appliance vents shall be installed minimum 1" from any combustible material for double walled pipe.
- 13. Working water test on supply lines required (min 40psi-max 80psi) is required on DWV and a 5' head pressure for drains.
- 14. Approved shower pans must be installed, tested, and weep holes shall be open.
- 15. Gas valve required within 6' of fireplace for emergency purposes on Masonry, Decorative or Factory-Built Fireplaces.
- 16. Gas piping shall be tested with a diaphragm gauge and test pressure shall be to local amendments.
- 17. Gas piping shall be bonded.
- 18. Gas piping shall not be run in return air ducts or combustion air openings.
- 19. Combustion air outlets will be installed within 12" of ceiling and within 12" of the floor for fuel fired appliances in enclosed spaces.
- 20. All hose-bibs must be frost proof and protected when passing through masonry material.
- 21. Water heater installation shall comply with 2018 IECC regulations.
- 22. Gas fireplace requires a cly valve.

Building Brick Tie

- 1. Ties must be at less No 22 US gage x 7/8" corrugated or No 9 gage wire and shall have a hook embedded in mortar joint (R703.7.4.1)
- 2. Should be installed 32" on center horizontally and 24" on center vertically (R703.7.4.1)
- 3. If there is a wall opening greater than 16" in either dimension ties should be placed around perimeter of the openings and shall be spaced no more than 3' on center and no more than 12" from opening (R702.4.1.1)

Masonry Fireplace

- 1. There must be a minimum of a 2" clearance from combustible construction.
- 2. Firebox walls must be minimum 10" of solid brick or 8" where a firebrick w ¼" joints max lining is used.
- 3. A metal damper shall be installed a minimum 8" above the top of the fireplace opening.



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- 4. A minimum 4" thick concrete or masonry hearth and a minimum 2" thick hearth extension supported by non-combustible material.
- 5. Factory built fireplaces shall be installed in accordance with manufactures instruction.

Sheetrock

- 1. Nailed on 16" center framing [R702.3.5]
 - A. 3/8" sheetrock must be nailed off 7" apart 3/8" min to $\frac{1}{2}$ " max from edges on the ceilings and 8" apart min 3/8" min to $\frac{1}{2}$ " max on the edges on the walls
 - B. ½" sheetrock must be nailed off 7" apart 3/8" min to ½" max from edges on the ceilings and 8" apart min 3/8" min to ½" max on the edges on the walls
 - C. 5/8" sheetrock must be nailed off 7" apart 3/8" min to $\frac{1}{2}$ " max from edges on the ceilings and 8" apart min 3/8" min to $\frac{1}{2}$ " max on the edges on the walls
- 2. Screws on 16" center framing [R702.3.5]
 - A. 3/8" sheetrock must be nailed off 12" apart 3/8" min to $\frac{1}{2}$ " max from edges on the ceilings and 16" apart min 3/8" min to $\frac{1}{2}$ " max on the edges on the walls
 - B. $\frac{1}{2}$ " sheetrock must be nailed off 12" apart 3/8" min to $\frac{1}{2}$ " max from edges on the ceilings and 16" apart min 3/8" min to $\frac{1}{2}$ " max on the edges on the walls
 - C. 5/8" sheetrock must be nailed off 12" apart 3/8" min to $\frac{1}{2}$ " max from edges on the ceilings and 16" apart min 3/8" min to $\frac{1}{2}$ " max on the edges on the walls
- 3. Perimeter Blocking on ceilings must have 2" to nail to on edges of sheet rock [R702.3.7(2)]
- 4. Water-resistant gypsum board to be used in any adhesive applications of tile or other nonabsorbent finishes where used on the ceiling ½" most have 12" center between joist and 5/8" can be on 16" centers. Not permitted in tub or showers areas (R702.3.8)
- 5. Fiber-cement, fiber-mat reinforced cementitious backer units, glass mat gypsum backers and fiber-reinforced gypsum backers shall be used in as backers for wall tile in tub and shower areas and wall panels in shower areas
- 6. Type-X must be used in garage ceilings beneath habitable rooms shall be nailed off on 6" center and min of 3/8" to ½" on the edges.

Insulation and Energy Compliance

1. Third party inspection required for all inspections and certificate of compliance form with inspection report must be uploaded to mygov before building final can be scheduled.



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Fence Post Inspection

- 1. Call in fence post inspection prior to placement of concrete.
- 2. For houses located on corner lots, the fence must be 15' from front of curb.
- 3. Fence must be cedar board on board with decorative cap when facing R.O.W.
- 4. All fences must be installed smooth side out.

Meter Release

- 1. Wires in meter base shall have anti-oxidant applied to the aluminum wires.
- 2. Meter base connected to the panel with a metal conduit shall be bonded.
- 3. Bond the neutral bus to the panel.
- 4. No aluminum or copper clad aluminum conductors are permitted on branch circuits.
- 5. Approved colored wires only to the hot lugs.
- 6. Proper size feeder wires to the panel.
- 7. Proper identification of the neutral wire
- 8. Two forms of grounding will be required from 2020 NEC Sec. 250.52; Concrete-Encased Electrode and Rod and Pipe Electrode.
- 9. Label the panel including location of the bonds.
- 10. Check cold water bond if applicable.
- 11. Gas piping bond.
- 12. Complete all wiring and install all fixtures including cover plates.
- 13. Check jet tubs for GFCI and proper bonding.
- 14. Weather proof covers installed on exterior plugs.
- 15. Light fixtures at all exits.
- 16. Check for proper gauge and pressure test on gas line.
- 17. Stairway for access to attic units w/ a minimum 300-pound capacity and a 24" catwalk w/ 30" platform in front of the unit. Attic ladder must be deployed for all inspections requiring attic access.
- 18. Furnace units and water heater set shall include vents through roof.
- 19. Attic ventilation sufficient for combustion air requirements.
- 20. All gas terminations must have shut off valves and capped or properly connected if installed.
- 21. Conduit and disconnect must be installed for A/C condensers. Disconnects require proper clearance.
- 22. HVAC equipment must be installed, wired, and gas in place.
- 23. Home should be 100% dried in on the exterior.

Flatwork

1. Sidewalks shall be 5' wide, located within the right of way 2' from the property line or 1' inside the property in the sidewalk easement as shown plat, and shall have ½" per foot slope (2%) from property line to curb.

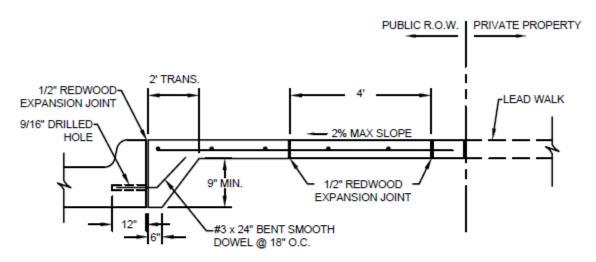
RVSD 4/29/2022



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- 2. Expansion joints are required abutting existing concrete and every 20'.
- 3. #4 rebar required at 18" on center each way. Smooth dowel rods at existing concrete and expansion joints shall have greased caps.
- 4. Sidewalk control joints required at 5' on center.
- 5. There shall be 2" of cushion sand at all flatwork.
- 6. Any lead walks from the public sidewalk to back of curb will have to be installed per detail below.



RESIDENTIAL LEAD WALK DETAIL N.T.S.

- 7. Water meter boxes must be flush to final grade and meters and fittings must be fully accessible.
- 8. Barrier free ramps shall comply with Americans with Disabilities Act (ADA) and city of Celina standards.
- 9. Approach (Curb to public sidewalk) slope shall be 10% maximum. Driveway slope (public sidewalk to garage) shall be no more than 12% maximum.
- 10. Drive approaches must be 6" in depth and reinforced with #4 rebar dowelled into existing concrete at 18" on center.
- 11. Skim coats (Ardex or similar) shall not be used.
- 12. City sewer cleanouts located in driveway must have cast iron cleanout installed at time of inspection



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- 13. City sewer cleanouts shall not be located in public sidewalks. If they are they must be offset with 1/16th (22.5 degree) bend fittings.
- 14. Greenspaces less than 12" in width from public sidewalks to existing concrete shall be connected with concrete at no more than 2% maximum slope.
- 15. There shall be no more than 5% running slope when connecting to existing sidewalks.
- 16. Valve boxes (Plumbing / Irrigation), electrical boxes, etc. shall not be located in city sidewalks or drive approaches.

Final Document Verification

1. Final Grade survey, sprinkler double check test, termite protection form, energy inspection, backflow report, third party insulation inspection with pass results, engineer letter for foundation compliance to design must be uploaded into the Final Document Packet folder in MyGov.

Finals include building, electrical, mechanical, plumbing, fence, and irrigation.

- 1. Smoke and CO2 detector(s) shall be operational and installed in the proper locations including interconnection.
- 2. Texas basements will require detectors to be pre-wired.
- 3. Attic access must be installed and have a catwalk to furnaces and/or water heaters.
- 4. Door hardware shall be installed.
- 5. Weather stripping must be installed on all exterior doors and attic access openings.
- 6. All windows shall be operational and shall not be cracked or broken. Verify safety glazing locations.
- 7. A/C equipment to be operational and mounted on level concrete pad raised at least 3" above grade.
- 8. Combustion air openings shall be installed in all mechanical rooms that contain gas fired appliances.
- 9. Check electrical panel for breaker sizes and labeling.
- 10. AFCI's and GFCI's must be operable at all installations.
- 11. Disconnect for A/C correct size and labeled with proper clearance. 125-volt receptacle accessible and within 25'.
- 12. List location of cold water ground in panel legend.
- 13. Cold water, gas piping bond, and ground rod clamps must be tight.
- 14. All receptacles, switches, fixtures, and appliances shall be installed and completed including covers.
- 15. Check gas fixtures for proper valves, connectors, flue pipe and clearances.
- 16. Check for traps and hot and cold water connection at all fixtures.
- 17. Air gap fittings at dishwasher are not required if the dishwasher has one included.
- 18. Address must be installed in a location visible from the street.
- 19. Sidewalks shall be installed and free of chips and cracks.
- 20. Driveways (number of spaces should match garage width).
- 21. Fences (materials, setbacks, kickboards, corner lot enhancements, etc.).
- 22. Landscape shall be installed (city of Celina requirements).



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- 23. Sod (all disturbed soil areas need re-vegetation).
- 24. Architectural materials compliance.
- 25. All outstanding fees must be paid before requesting Final inspection
- 26. Water meter/valve boxes must be set to grade and cleaned out so connections/valves are visible.
- 27. Double-check valve must be installed by on private property not in the public R.O.W.
- 28. Window screens must be installed.
- 29. Blown insulation must be in place with certification paperwork.
- 30. House must be move in ready. Lot and street must be clean from debris and mud.
- 31. Dryer duct box need sticker stating duct size and developed length.
- 32. Final grade should slop away from home to property line and to the street. No lot-to-lot drainage allowed.
- 33. Skim coat not allowed for sidewalk repairs, if sidewalk is damaged (structural cracks, scratches and chips more than .25") shall be removed and replaced.
- 34. All water meters shall be connected to the radio read and free from any damages.
- 35. Seal all exterior penetrations.
- 36. Check for weep holes at brick.

Construction Site Standards for City of Celina Builders

These guidelines have been created in order to establish uniform standards for the installation and maintenance of required systems. This is to be considered the standard for all residential building sites within the city limits and the ETJ.

Due to variances in site elevations and grade, some sites may have modified standards in order to meet the requirements.

Standards

<u>Porta-let</u> All residential sites are required to have 1 porta-let per lot; with the exception that if one builder is building on side by side lots 1 porta-let may serve both lots. Porta-lets must be maintained in sanitary condition and must be removed prior to issuance of the CO.

<u>Trash Bin</u> Trash bins are required on all construction sites. On residential lots, the minimum requirements are 3-sided OSB or plywood bins. Industrial refuse containers are permitted, but cannot be located in street or curb areas. Welded wire or fabric material trash bins are not acceptable. The garage may be used for storage of excess building material and refuse until final inspection, in which case it must be emptied and clean. No Excess building material or debris will be allowed on the lot.

<u>Debris Fence Barriers</u> All lots and sites are required to set up debris fence barriers to help contain lightweight materials and debris to the project site. Debris fence may be removed when the project is ready for the final inspection.



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Erosion Control Systems All residential lots must maintain properly installed silt fence, curlex, and storm drain inlet protection for the duration of land disturbing activities, i.e. grading, excavating, and primary construction, etc. Silt fences and curlex may be moved out of the way for excavation and other activities such as final grade, but must be replaced until sod or other approved soil stabilization devices are in place. Vegetation must be located on both the front and back of the lot in order to remove the erosion controls and obtain a CO.

<u>Address and Signs</u> All lots must have a company/builder sign located at the front and back of the lot facing the street. The lot address must be clearly posted and be easily seen from the street at the front and rear of all new structures prior to requesting first inspection. This requirement is the result of an adopted fire code, which will allow instant identification of locations for emergency access. Addresses painted on the curb are not acceptable. It is highly recommended that independent and private builders include a contact number on their sign.