

COMMERCIAL

GENERAL NOTES

- GN # 1 Driveway locations shall not interfere with the sidewalk handicap ramps, or curb inlet sumps
GN # 2 Sidewalks, curb ramps, ramps and accessible parking spaces shall be constructed in accordance with the current approved "American with Disabilities Act Accessibility Guidelines" (ADAAG) along with the required grades, construction materials, specifications and signage.
GN # 3 Truncated domes for curb ramps located in public right of way shall meet ADA requirements and shall be constructed using red pre cast truncated domes per pavement details.
GN # 4 Any proposed pavements or playground areas will need a separate permit from the Building Division.
GN # 5 The Contractor is responsible to call Missouri One Call and The City of O'Fallon for the location of utilities. Contact the City of O'Fallon (636) 379-3814 for the location of City maintained cable for street lights and traffic signals, all other utilities call Missouri One Call 1-800-DIG-RITE. 1-800-344-7483
GN # 6 All proposed utilities and/or utility relocations shall be located underground.
GN # 7 All proposed fencing requires a separate permit through the Planning and Development Division.
GN # 8 All construction operations and work zone traffic control within the right of way will follow MoDOT or M.U.T.C.D. standards whichever is more stringent.
GN # 9 All free standing signs shall be located a minimum of ten (10) feet away from any right of way line and/or property line and a minimum of three (3) feet from the back of curbing or sidewalk. All signs shall abide by the regulations for visibility at corners, including corners from driveways and the street it intersects per Section 400.280 of the O'Fallon Zoning Code.
GN # 10 All subdivision identification or directional sign(s) must have the locations and sizes approved and permitted separately through the Planning and Development Division.
GN # 11 Materials such as trees, organic debris, rubble, foundations, and other deleterious material shall be removed from the site and disposed of in compliance with all applicable laws and regulations.
GN # 12 Twenty-four (24) hours prior to starting any of the work covered by the above plans and after approval thereof, the developer shall make arrangements with the Construction Inspection Office to provide for inspection of the work, sufficient in the opinion of the City Engineer, to assure compliance with the plans and specifications as approved.
GN # 13 The City Engineer or their duly authorized representative shall make all necessary inspections of City infrastructure, escrow items or infrastructure located on the approved plans.

Erosion Control Notes

- EN # 1 The Permittee shall assume complete responsibility for controlling all siltation and erosion of the project area. The Permittee shall use whatever means necessary to control erosion and siltation including, but not limited to, staked straw bales and/or siltation fabric fences (possible methods of control are detailed in the plan). Control shall commence with the clearing operations and be maintained throughout the project until acceptance of the work by City of O'Fallon and as needed by MoDOT.
EN # 2 All erosion control systems are to be inspected and corrected weekly, especially within 48 hours of any rain storm resulting in one-half inch of rain or more.
EN # 3 Erosion control devices (silt fence, sediment basin, etc.) shall be in accordance with St. Charles County Soil and Water Conservation District Erosion and Sediment Control Guidelines.
EN # 4 This development is required to provide long term post construction BMP's such as: low impact design, source control and treatment controls that protects water quality and controls run off to maximum extent practical in compliance with Phase II Illicit Storm Water Discharge Guidelines.
EN # 5 Graded areas shall be seeded and mulched (strawed) within 14 days of stopping land disturbance activities.

Grading Notes

- GRN # 1 Developer must supply City construction inspectors with soil reports prior to and during site grading.
GRN # 2 All fill placed in areas other than proposed storm sewers, sanitary sewers, proposed roads, and paved areas shall be compacted from the bottom of the fill up in 8" lifts and compacted to 90% maximum density as determined by Modified AASHTO T-180 compaction test or 95% of maximum density as determined by the Standard Proctor Test AASHTO T-99.
GRN # 3 The surface of the fill shall be finished so it will not impound water.
GRN # 4 All sediment and detention basins are to be constructed during the initial phase of the grading operation or in accordance with the approved SWPPP.
GRN # 5 When grading operations are complete or suspended for more than 14 days, permanent grass must be established at sufficient density to provide erosion control on site.
GRN # 6 No slopes shall exceed 3 (horizontal) : 1 (vertical) unless otherwise approved by the soils report and specifically located on the plans and approved by the City Engineer.
GRN # 7 All low places whether on site or off shall be graded to provide drainage with temporary ditches.
GRN # 8 All existing wells on site shall be capped per DNR standards.

NOTE: ALL EXISTING STORM SEWER INLETS SHALL INDICATE THAT NO WASTE IS TO BE DUMPED INTO THE EXISTING STORM SEWER SYSTEM. IF MATERIALS SUCH AS TREES, ORGANIC DEBRIS, RUBBLE, FOUNDATIONS AND OTHER DELETERIOUS MATERIAL ARE NOT TO BE REUSED, THEY SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN COMPLIANCE WITH ALL APPLICABLE LAWS AND REGULATIONS.

Grading Notes Continued

- GRN # 10 All trench back fills under paved areas shall be granular back fill, and compacted mechanically.
GRN # 11 Site grading.
a. Within City right-of-way. Material is to be placed in eight (8) inch to twelve (12) inch loose lifts and compacted per the approved compaction requirements.
b. Outside of City right-of-way. Material is to be placed in eight (8) inch to twelve (12) inch loose lifts and compacted per the approved compaction requirements.

Sanitary Sewer Notes

- SAN # 1 All sanitary sewer installation is to be in accordance with M.S.D. 2007 standards and specifications except as modified by the City of O'Fallon Ordinances.
SAN # 2 Brick shall not be used in the construction of sanitary sewer structures.
SAN # 3 Connections of all sanitary structures are to be made with A-Lock joint or equal.
SAN # 4 All sanitary laterals shall be a minimum of 4" residential, 6" commercial diameter pipe.
SAN # 5 All sanitary mains shall be a minimum of 8" diameter pipe.
SAN # 6 All sanitary sewer line with a slope greater than 20% will require concrete cradle or concrete collar.
SAN # 7 All manholes built within the 100 year flood plain must have lock type watertight manhole covers.
SAN # 8 All sanitary sewer mains must have a minimum of 42" cover.
SAN # 9 When sanitary mains cross over storm line the sanitary main must be ductile iron pipe for 10 feet on each side of the crossing.
SAN # 10 Encase with concrete both sanitary and storm sewer at crossing when storm sewer is within 18 inches above sanitary sewer.
SAN # 11 The sanitary sewers should run diagonally through the side yards to minimize any additional utility easements required.
SAN # 12 All sanitary sewer structures shall be waterproofed on the exterior in accordance to Missouri DNR specifications 10CSR-8.120 (7)(E).
SAN # 13 All sanitary sewer pipe shall be SDR35 or equal.
SAN # 14 All sanitary sewer manholes and pipes will be tested to the following specifications.
SAN # 15 Add 1" minus rock back fill to all sanitary sewer and all other utilities that lie within the 1:1 shear plane of the road.

Storm Sewer Notes

- STM # 1 All Storm Sewer installation is to be in accordance with M.S.D. 2007 standards and specifications except as modified by the City of O'Fallon ordinances.
STM # 2 Brick shall not be used in the construction of storm sewer structures.
STM # 3 A 5/8" trash bar shall be installed horizontally in the center of the opening(s) in all curb inlets and area inlets.
STM # 4 HDPE pipe is to be N-12WT or equal and to meet ASTM F1417 water tight field test.
STM # 5 Encase with concrete both sanitary and storm sewer at crossing when storm sewer is within 18 inches above sanitary sewer.
STM # 6 The storm sewers should run diagonally through the side yards to minimize any additional utility easements required.
STM # 7 All concrete pipes will be installed with O-ring rubber type gaskets.
STM # 8 Connections of all storm structures are to be made with A-lock joint or equal.
STM # 9 Pre cast concrete inlet covers are not to be used.
STM # 10 The swale in the detention basins shall have a minimum 1% longitudinal slope and be lined with a permanent erosion control blanket that will allow infiltration of storm water.
STM # 11 All storm sewer shall be reinforced concrete pipe or H.D.P.E. pipe.
STM # 12 The discharge point of all flared end sections shall be protected by rip rap or other approved means.
STM # 13 Rip rap shown at flared end sections will be evaluated in the field by the Engineer, Contractor, and City Inspectors after installation for effectiveness and field modified, if necessary to reduce erosion on and off site.
STM # 14 Add 1" minus rock back fill to all storm sewer that lie within the 1:1 shear plane of the road.

Water Notes

- WN # 1 Fire hydrants shall be a maximum of 600' apart.
WN # 2 Coordinate with the water company on the location of water meters.
WN # 3 All water main must have a minimum of 42" of cover.
WN # 4 Provide water valves to isolate the system.
WN # 5 All water mains shall be class 200 SDR 21 or equal with locator/tracer wires.
WN # 6 DISINFECTING:
Disinfecting shall be accomplished by placing sufficient hypo chlorite granule (HTH) in each section of pipe to achieve a chlorine residual in the pipeline, upon initial filling, of 50 mg/L (PPM).
WN # 7 PRESSURE TESTING:
Immediately following disinfection, the piping shall be pumped to a pressure (at the lowest point in the project) of 150 psi or higher where the working pressure is higher than 150 PSI as determined by the City.

- WN # 8 All tops for valves, meters, and manholes are to be constructed to within 1 inch (0.08') of finish grade.
Water Notes
WN # 10 BACTERIOLOGICAL TESTING:
After satisfactory disinfection and pressure testing, a sample shall be taken by the contractor in the presence of a City representative and submitted to a laboratory approved by the Missouri Department of Natural Resources and the City for bacteriological analysis.

Water Notes

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After satisfactory disinfection and pressure testing, a sample shall be taken by the contractor in the presence of a City representative and submitted to a laboratory approved by the Missouri Department of Natural Resources and the City for bacteriological analysis.
Roadway Notes
RN # 1 All paving (public and private) to be in accordance with 2006 St. Charles County Standards and Specifications except as modified by the City of O'Fallon ordinances.
RN # 2 If the intersection does not have a curb, then the curb on the new entrance shall begin 10' from the edge of the existing road.
RN # 3 Provide 6" of concrete over 4" of MoDot type 1 or type 5 aggregate rock or asphalt equivalent for minor residential streets per City Code 403.370.
RN # 4 Multi-use trail (where required) shall have a minimum of 3" type "C" Asphalt over 4" aggregate base per City requirements.
RN # 5 Type C (BP-1) Compaction requirements shall be 98% minimum density according to St. Charles Co. Standard Specifications.
RN # 6 Provide pavement striping at any point where the multi-use trail crosses existing or proposed pavement.
RN # 7 All street sub-outs over a certain length will require a temporary turnaround.
RN # 8 All sub grade in cut or fill shall be compacted to conform to the City of O'Fallon Compaction requirements.

- RN # 9 Material Testing And Frequency:
1. Concrete.
a. Cylinders/compressive strength.
b. Percent air and temperature.
c. Slump.
d. If concrete is batched from more than one (1) plant then the aforementioned frequencies will be applicable to each plant.
2. Sub grade and base.
a. Proof roll as described in Section 405.210(B).
b. One (1) compaction test per two hundred fifty (250) sq. ft. of mainline paving, three (3) tests per intersection, five (5) tests within cul-de-sacs and one (1) test per repair slab.
c. Gradation test for sub base material.
d. Asphalt.
e. One (1) set of compaction tests per two hundred fifty (250) sq. ft. of mainline.
f. One (1) set includes three (3) tests across the paved lane at the same station.
g. One (1) bulk density test per paving operation.

- RN # 10 Approval Of Sub grade And Base (Sub base).
RN # 11 In all fill areas in the roadways, soil tests shall be submitted and approved by the City Engineer for each foot of fill and at least one (1) test and an average of one (1) test within every two hundred (200) feet.
RN # 12 No traffic will be allowed on new concrete pavement until it has cured for seven (7) days and it reaches three thousand five hundred (3,500) psi within 28 days.
RN # 13 Prior to placement of aggregate base material on sub grade and prior to placement of pavement on base material, the sub grade and base must be proof-rolled with a fully loaded (ten (10) ton load) tandem truck or equivalent tire vehicle.
RN # 14 Sub grade and base beneath pavements shall be compacted to St. Charles County Highway Department specifications.
RN # 15 The entire width and length conform to line, grade and cross section shown on the plans or as established by the engineer.
RN # 16 Utility Work Prior To Mass Construction.
RN # 17 Equipment Calibration.
RN # 18 All permanent traffic control will be per M.U.T.E.D. or MoDot standards.
RN # 19 All traffic signals, street signs, sign post, backs and bracket arms shall be painted black using Carboline Rust Bond Penetrating Sealer SG on Carboline 133 UB paint (or equivalent as approved by City of O'Fallon and MoDOT).

Flood plain Information

FP # 1 A flood plan development application from the City is required for any work within the flood plain limits.

Retaining Walls: Terraced and Vertical

- RW # 1 A permit is required for all retaining walls that are 48 inches or taller in height, measured from the top of the footing to the top of the wall or for walls that support a surcharge load or that alters the channelized drainage of any lot or drainage area.
RW # 2 Retaining walls will not be allowed in public right-of-way without written approval from the City Engineer.
RW # 3 Any retaining wall more than thirty (30) inches tall which supports a walking surface that is within two (2) feet of the wall will require a guard on the retaining wall.
RW # 4 Retaining walls that alter the channeled drainage of any lot or drainage area shall not be constructed without prior approval and permitting from the City of O'Fallon Engineering Department regardless of the height of the wall.
RW # 5 See section 405.275 of the City code for additional design requirements.

Provide a marking on the storm sewer inlets. The City will allow the following markers and adhesive procedures only as shown in the table below or an approved equal. "Peel and stick" adhesive pads will not be allowed.

Table with 5 columns: Manufacturer, Size, Adhesive, Style, Message (Part #), Website. Rows include ACT International and DAS Manufacturing, Inc.



NORTHERN 13,225-LEFT CHAMFER DRIVE-THRU STORE NUMBER: 6477 SEC HIGHWAY N AND HIGHWAY K O'FALLON, MO PROJECT TYPE: NEW CONSTRUCTION DEAL TYPE: FEE FOR SERVICE CS PROJECT NUMBER: 57110

PREMIER CIVIL ENGINEERING Wentzville 1165 Wentzville Parkway Suite 103 Wentzville, MO 63398 Phone (314) 926-7444 Fax (314) 926-7457 Missouri State Certificate of Authority #LC09091128

ENGINEERS AUTHENTICATION This responsibility for the professional engineering liability on this project is hereby limited to the seal of plans authenticated by the seal, signature, and date of the Professional Engineer. Responsibility is disclaimed for all other engineering plans involved in this project and specifically excludes revisions after the date unless re-authenticated.



STEVE MARION P.E. ENGINEER PE200001185

Developer / Owner Information CEDARWOOD DEVELOPMENT, INC 1765 MERRIMAN ROAD AKRON, OH 44313 CONTACT: RON DINARDO OFFICE: (330) 836-9971 City of O'Fallon Commercial Notes

P+Z No. 26-11 APPROVED 12.11.11 City No.

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