



### PRINCIPLES & STANDARDS:

1. All excavations, grading, or filling shall have a finished grade not to exceed a 3:1 slope (33%). Steeper grades may be approved by the designated official if the excavation is through rock or the excavation or the fill is adequately protected (a designed head wall or toe wall may be required). Retaining walls that exceed a height of four (4) feet shall require the construction of safety guards as identified in the appropriate section(s) of the adopted BOCA Codes and must be approved by the Building Department. Permanent safety guards will be constructed in accordance with the appropriate section(s) of the adopted BOCA Codes.
2. Sediment and erosion control plans for sites that exceed 20,000 square feet of grading shall provide for sediment or debris basins, silt traps or filters, staked straw bales or other approved measures to remove sediment from run-off waters. The basins or other approved measures to remove sediment from run-off waters. The basins or other approved measures to remove sediment from run-off waters shall be designed to be approved by the Designated Official. Temporary siltation control measures (structural) shall be maintained until vegetative cover is established at a sufficient density to provide erosion control on the site.
3. Where natural vegetation is removed during grading, vegetation shall be reestablished in such a density as to prevent erosion. Permanent type grasses shall be established as soon as possible during the next seeding period after grading has been completed.
4. When grading operations are completed or suspended for more than 30 days permanent grass must be established at sufficient density to provide erosion control on the site. Between permanent grass seeding periods, temporary cover shall be provided according to the City Engineer's recommendations. All finished grades (areas not to be disturbed by future improvements) in excess of 20% slopes (5:1) shall be mulched and tamped at the rate of 100 pounds per 1,000 square feet when seeded.
5. Provisions shall be made to accommodate the increased runoff caused by changed soils and surface conditions after grading. Unvegetated open channels shall be designed so that gradients result in velocities of 2 fps (feet per second) or less. Open channels with velocities more than 2 fps and less than 5 fps shall be lined with permanent vegetation by use of commercial erosion control blankets or lined with rock rip rap or concrete or other suitable materials as approved by the City Engineer. Detention basins, diversions, or other appropriate structures shall be constructed to prevent velocities above 5 fps.
6. The adjoining ground to development sites (lots) shall be provided with protection from accelerated and increased surface water, silt from erosion, and any other consequence of erosion. Run-off water from developed areas (parking lots, paved sites and buildings) above the area to be developed shall be directed to diversions, detention basins, concrete gutters and/or underground outlet systems. Sufficiently anchored straw bales may be temporarily substituted with the approval of the City Engineer.
7. Development along natural watercourses shall have residential lot lines, commercial or industrial improvements, parking areas or driveways set back a minimum of 25 feet from the top of the existing stream bank. The watercourse shall be maintained and made the responsibility of the subdivision trustee or in the case of a site plan by the property owner. Permanent vegetation should be left intact. Variances will include designed stream erosion control measures and shall be approved by the City Engineer. FEMA and U.S. Army Corps of Engineers guidelines shall be followed where applicable regarding site development areas designated as flood plains and wetlands.
8. All lots shall be seeded and mulched at the minimum rates defined in Appendix A or submitted before an occupancy permit shall be issued except that a temporary occupancy permit may be issued by the Building Department in cases of undue hardship because of unfavorable ground conditions.

#### VEGETATIVE ESTABLISHMENT For Urban Development Sites APPENDIX A

**Seeding Rates:**  
Permanent:  
Tall Fescue - 30 lbs./ac.  
Smooth Brome - 20 lbs./ac.  
Combined Fescue @ 15 lbs./ac. and Brome @ 10 lbs./ac.  
Temporary:  
Wheat or Rye - 150 lbs./ac. (3.5 lbs. per square foot)  
Oats - 120 lbs./ac. (2.75 lbs. per square foot)

**Seeding Periods:**  
Fescue or Brome - March 1 to June 1  
August 1 to October 1  
Wheat or Rye - March 15 to November 1  
Oats - March 15 to September 15

**Mulch Rates:**  
100 lbs. per 1,000 sq. feet (4,356 lbs. per acre)

**Fertilizer Rates:**  
Nitrogen 30 lbs./ac.  
Phosphate 30 lbs./ac.  
Potassium 30 lbs./ac.  
Lime 600 lbs./ac. ENM\*

\* ENM = effective neutralizing material as per State evaluation of quarried rock.

The developer shall comply with current Tree Preservation Ordinance Number 1689 and provide landscaping as set forth in Article 23 of the City of O'Fallon zoning ordinances.

20% of existing trees or 15 trees per acre shall remain whichever is greater.  
20% of existing tree masses = 0.02 Ac.  
Existing Tree Masses = 0.11 Ac.  
Existing Tree Mass to Remain = 0.02 Ac.  
No proposed trees needed to meet requirement.

### LANDSCAPE LEGEND

QTY. (10) ~ INDICATES PROPOSED EVERGREEN SHRUB  
(mugo pines, yews, junipers)

\*\*LANDSCAPING AS DEPICTED IS SUBJECT TO FINAL\*\*  
DESIGN BY A QUALIFIED LANDSCAPE DESIGNER

### O'FALLON NOTES

1. Underground utilities have been plotted from available information and therefore their locations shall be considered approximate only. The verification of the location of all underground utilities, either shown or not shown on these plans shall be the responsibility of the contractor, and shall be located prior to any grading or construction of the improvements.
2. All filled places under proposed storm and sanitary sewer, proposed roads, and/or paved areas shall be compacted to 95% of the maximum density as determined by the Modified AASHTO T-180 Compaction Test, or 100% of maximum density as determined by the standard Proctor Test AASHTO T-99. All fill placed in proposed roads shall be compacted with grading and backfilling operations. The moisture content of the soil in the fill areas is to correspond to the compactive effort as defined by the same test that was used for compaction. Soil compaction curves shall be determined by the City of O'Fallon prior to the placement of fill. Proof rolling may be required to verify soil stability at the discretion of the City of O'Fallon.
3. No area shall be cleared without the permission of the Project Engineer.
4. The City of O'Fallon shall be notified 48 hours prior to construction for coordination and inspection.
5. All existing site improvements disturbed, damaged or destroyed shall be repaired or replaced to closely match pre-construction conditions.
6. All construction and materials shall conform to the current construction standards of the City of O'Fallon.
7. Any permits, licenses, easements, or approvals required to work on public or private properties or roadways are the responsibility of the developer.
8. No slopes shall exceed 3(Horizontal) : 1(Vertical).
9. The Contractor shall assume complete responsibility for controlling all siltation and erosion of the project area. The Contractor shall use whatever means necessary to control erosion and siltation including, but not limited to, staked straw bales and/or siltation fabric fences (positive methods of control are detailed in the plan). Control shall commence with grading and be maintained throughout the project until acceptance of the work by the Owner and/or the City of O'Fallon and/or MODOT. The Contractor's responsibilities include all design and implementation as required to prevent erosion and the depositing of silt. The Owner and/or the City of O'Fallon and/or MODOT are responsible for any depositing of silt or mud on new or existing pavement or in new or improved areas. Any depositing of silt or mud on new or existing pavement or in new or improved areas shall be removed after each rain and affected areas cleaned to the satisfaction of the Owner and/or the City of O'Fallon and/or MODOT.
10. Erosion control systems shall not be limited to what is shown on the plan. Whatever means necessary shall be taken to prevent siltation and erosion from entering natural streams and adjacent roadways, properties and ditches.
11. All building-mounted lights shall be pointed downward and fully screened to prevent light from shining over onto adjacent properties.
12. All roof-to-mechanical units are shown screened by parapet wall and ground mounted units screened with materials and/or landscaping.
13. The Developer must supply City Construction Inspectors with soil reports prior to or during site soil testing.
14. All paving to be in accordance with St. Charles County standards and specifications except as modified by the City of O'Fallon ordinances.
15. All sidewalks, curb ramps, ramps and accessible parking spaces shall be constructed in accordance with the current approved "Americans with Disabilities Act Accessibility Guidelines" (ADAAG) along with the required grades, construction materials, specifications and signage. If any conflict occurs between the above information and the plans, the ADAAG guidelines shall take precedence and the contractor prior to any construction shall notify the Project Engineer. Ensure at least one 8' wide handicap access aisle is provided and curb ramps do not project into handicap access aisles.
16. Brick shall not be used in the construction of storm or sanitary sewer structures.
17. The Contractor shall ensure all storm and sanitary sewer joint shall be gasketed O-Ring Type.
18. Lighting values will be reviewed on the site prior to the final occupancy inspection. Corrections will need to be made if not in compliance with City standards.
19. All proposed fencing requires a separate permit through the Planning Division.
20. All sign locations and sizes must be approved separately through the Planning Division.

### ESTIMATED GRADING & CONSTRUCTION SCHEDULE

-CLEARING	7/1/08 - 7/3/08
-INSTALL EROSION CONTROL	7/7/08
-GRADING	7/8/08 - 7/11/08
-BUILDING CONSTRUCTION	7/14/08 - 10/17/08
-UTILITY CONSTRUCTION	7/14/08 - 9/19/08
-PAVEMENT CONSTRUCTION	9/22/08 - 10/17/08
-FINISH GRADING, SEED AND MULCH	10/20/08 - 10/24/08

NOTE: DATES MAY VARY DUE TO INCLEMENT WEATHER.

### GRADING QUANTITIES:

1,952 C.Y. FILL (INCLUDES 8% SHRINKAGE)  
3,100 C.Y. CUT (INCLUDES SUBGRADES)  
1,148 C.Y. HEAVY

THE ABOVE GRADING QUANTITY IS APPROXIMATE ONLY, NOT FOR BIDDING PURPOSES. CONTRACTOR SHALL VERIFY QUANTITIES PRIOR TO CONSTRUCTION.

# A SET OF CONSTRUCTION PLANS FOR A COOL SPRINGS CENTER A TRACT OF LAND IN FRACTIONAL SECTION 21, TOWNSHIP 47 NORTH, RANGE 3 EAST OF THE FIFTH PRINCIPAL MERIDIAN ST. CHARLES COUNTY, MISSOURI

### O'FALLON NOTES (CONTINUED)

21. All sign post and backs and bracket arms shall be painted black using Carboline Rustbond Penetrating Sealer SG and Carboline 133 HB paint (or equivalent as approved by the City of O'Fallon and MODOT). Sign designating street names shall be on the opposite side of the street from traffic control signs.
22. All new utility lines shall be located underground.
23. All erosion control systems shall be inspected and necessary corrections shall be made within 24 hours of any rainstorm resulting in one-half inch of rain or more.
24. All graded areas that are to remain bare for over 2 weeks shall be seeded and mulched per DNR requirements.
25. Rip-rap shown at flared ends will be evaluated in the field after installation for effectiveness and field modifications if necessary to reduce erosion on and off-site.
26. Marking to be provided on storm sewer inlets. The City will allow the following markers and adhesive procedures only as shown in the table below. "Peel and Stick" adhesive pads will not be allowed.

Manufacturer	Size	Adhesive	Style	Message (Part #)	Website
ACP International	3 7/8"	Epoxy	Crystal Cap	No Dumping Drains To Waterways (SD-W-C)	www.acpinternational.com
DAS Manufacturing, Inc.	4"	Epoxy	Standard	No Dumping Drains To Stream (#SDS)	www.dasmanufacturing.com
27. Developer must supply City Construction Inspectors with soil reports prior to or during site soil testing. The soil report will be required to contain the following information on soil test curves (Proctor reports) for projects within the City:
  1. Maximum dry density
  2. Optimum moisture content
  3. Maximum and minimum allowable moisture content
  4. Curve must be plotted to show density from a minimum of 90% Compaction and above as determined by the Modified AASHTO T-180 Compaction Test\* (A.S.T.M.-D-1557) or from a minimum of 95% as determined by the Standard Proctor Test AASHTO T-99, Method C\* (A.S.T.M.-D-598). Proctor type must be designated on document.
  5. Curve must have at least 5 density points with moisture content and sample locations listed on document.
  6. Specific gravity.
  7. Natural moisture content.
  8. Liquid limit.
  9. Plastic limit.

Be advised that if this information is not provided to the City's Construction Inspector the City will not allow grading or construction activities to proceed on any project site.
28. Trees, organic debris, rubble, foundations and other deleterious material shall be removed for the site and disposed in compliance with all applicable laws and regulations. Landfill tickets for such disposal shall be maintained on file by the developer. Burning on site shall be allowed only by permit from the local fire district. If a burn pit is proposed the location and mitigation shall be shown on the grading plan and documented by the soils engineer.
29. HDPE pipe is to be N-12WT or equal and to meet ASTM F1417 water tight field test.
30. If there are any physical changes to MODOT's right of way, such as grading or entrance modification, MODOT requests the opportunity to review the plans, there may be improvements to the roadway required to support the proposed development within MODOT's Access Management Guidelines.
31. Traffic control to be per MODOT or MUTCD whichever is most stringent.
32. All requirements of Planning and Zoning Commission are addressed.
33. Connections to all sanitary or storm structures to be made with A-lock joint or equal.
34. There is adequate capacity of the offsite storm sewer system.
35. Water mains have a minimum of 42" of cover.

### U.S.G.S. BENCHMARK

REFERENCE BENCHMARK (USGS):  
RM69 ELEV. 458.02  
CHISELED SQUARE ON TOP OF THE WINGWALL IN THE NORTHEAST CORNER OF OLD HIGHWAY 79 BRIDGE OVER BELLEAU CREEK.  
SITE BENCHMARK: ELEV. 492.90  
FOUND OLD STONE AT THE NORTHWEST CORNER OF LOT 7 OF "COOL SPRINGS INDUSTRIAL PARK".

### SHEET INDEX

- SHEET 1 COVER SHEET
- SHEET 2 SITE PLAN
- SHEET 3 GRADING PLAN
- SHEET 4 SWPPP
- SHEET 5 PRE-DRAINAGE AREA MAP
- SHEET 6 POST-DRAINAGE AREA MAP
- SHEET 7 PROFILES
- SHEET 8 CONSTRUCTION DETAILS
- SHEET 9 CONSTRUCTION DETAILS
- SHEET 10 CONSTRUCTION DETAILS

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MISSOURI  
CALL BEFORE YOU DIG

STANDA & ABE  
TREE OR BUSH  
LIGHT POLE  
SANITARY SEWER & MANHOLE  
STORM SEWER & INLET  
MAILBOX  
ELECTRIC LINE  
GAS LINE  
WATER LINE  
TELEPHONE LINE  
CABLE TV LINE  
OVERHEAD WIRE  
UTILITY POLE W/ DOWN GUY  
FIRE HYDRANT  
WATER VALVE  
GAS VALVE  
ROAD SIGN  
TELEPHONE PEDESTAL  
FENCE

### DEVELOPMENT NOTES

1. Area of Tract: Lot 2A 0.70 Acres  
Lot 2B 0.75 Acres  
Total: 1.45 Acres
2. Existing Zoning: C-2 General Business District (City of O'Fallon)
3. Proposed Use: Lot 2A - Vet Clinic  
Lot 2B - Day Care (Authorized for 104 kids by state of Missouri)
4. The proposed height and lot setbacks are as follows:  
Minimum Front Yard: 25 feet  
Minimum Side Yard: 0 feet (6' when abutting residential)  
Minimum Rear Yard: 0 feet
5. Owner of property: Lot 2A Cool Springs Center, L.L.C.  
221 Spencer Road, Suite Q  
St. Peters, MO 63376  
636-696-0825  
Lot 2B M.R. Bathe Electric  
1023 Cool Springs Ind. Dr.  
O'Fallon, Mo. 63366  
636-240-7716
6. Site is served by:  
City of O'Fallon Water 636-272-6818  
AmeriEnergy Company 1-800-55-ASKUE  
Laclede Gas Company 636-946-0352  
City of O'Fallon Sewer 636-272-6818  
Verizon/Century Telephone Company 636-332-3718  
O'Fallon Fire Department 636-272-3493  
City of O'Fallon 636-240-2000
7. The City of O'Fallon shall be contacted for utilities located under its maintenance and responsibility.
8. According to the flood insurance rate map of the City of O'Fallon, Missouri, community panel number 290316 0235 dated August 2, 1996) this property is within Zone A and within Zone X. Zone A is defined as an area within the 100 year flood zone, in which base flood elevations have not been determined. Zone X is defined as an area outside the 500 year flood plain.  
\* These Parcels have been removed from Zone A per a LOMR dated April 27, 2006 Case number 06-07-B447A.
9. Topographic information is per Box Engineering.  
Boundary information is per Box Engineering.
10. Parking Calculations:  
Vet Clinic: 1 space per 200 s.f. of floor area.  
Day Care: 1 space per employee + 1 space per 6 kids  
Bike rack: 1 space per 15 parking spaces, min. 4 spaces  
Vet = 4,200 / 200 = 21 spaces required + 4 Bike rack spaces  
Day Care provided (Including 2 handicap spaces) + 4 Bike rack spaces  
26 spaces provided (Including 2 handicap spaces) + 4 Bike rack spaces  
Day Care = 13 employees, 104 kids = 13 spaces + 104 kids / 6 = 30.33-31 spaces required + 4 Bike rack spaces  
31 spaces provided (Including 2 handicap spaces) + 4 Bike rack spaces
11. The developer will comply with current Tree Preservation Ordinance Number 1689 and provide landscaping as set forth in Article 23 of the City of O'Fallon Zoning Ordinances. All trees on this site to be planted after grading of lots 2A and 2B, therefore tree preservation is not required.
12. Landscaping Calculations:  
1 tree per 40 feet of street frontage.  
698.58 / 40 = 17.46  
17 street trees required  
17 provided  
No interior parking lot landscaping required if parking area width is less than 65'
13. Detention is provided off-site to the south.
14. Developer will keep all public roadways used to access this site clear of dirt, rock, sediment and other debris during all grading operations.
15. All sanitary laterals and sanitary mains crossing under roadways must have the proper rock backfill and to required compaction.
16. Lighting plan to be provided by qualified lighting consultant upon construction submittal.
17. Variance BA-V-06-06 was approved for no buffer yard requirement.
18. Site Coverage:  
Day Care: Site = 32,670.71 s.f.  
Building = 7,200 s.f. = 22% coverage  
Pavement = 14,392.33 s.f. = 44% coverage  
Greenspace = 11,078.38 s.f. = 34% coverage  
Vet Clinic: Site = 30,519.69 s.f.  
Building = 4,200 s.f. = 14% coverage  
Pavement = 13,726 s.f. = 45% coverage  
Greenspace = 12,593.69 s.f. = 41% coverage
19. The Veterinary Clinic will provide veterinary services only. There will be no grooming, breeding, boarding or other kenneling services on site, unless the applicant petitions the City for a Conditional Use Permit.
20. Site to comply with NPDES Phase II Storm Water Requirements.
21. All construction methods and practices to conform with OSHA Standards.
22. All sign post and bracket arms shall be painted using Carboline Rustbond Penetrating Sealer SG and Carboline 133 HB paint (or equivalent as approved by City and MODOT). Signs designating street name shall be on the opposite side of the street from traffic control signs.
23. All sanitary laterals and sanitary mains crossing under roadways must have the proper rock backfill and to required compaction.
24. Truncated domes for curb ramps shall meet ADA requirements and shall be constructed using red pre cast truncated domes such as those manufactured by Armor Title or approved equal.
25. Estimated Sanitary flow from this site: 2,070 G.P.D.

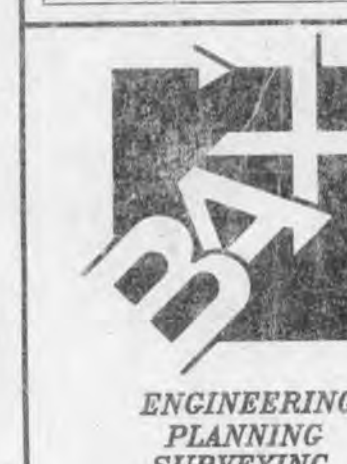
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JUL 30 2008  
CONSTRUCTION INSPECTION  
CITY OF O'FALLON



REVISIONS

05-29-08	Per City Comments
06-24-08	Per City Comments
07-09-08	Per City Comments



ENGINEERING  
PLANNING  
SURVEYING

221 Point West Blvd.  
St. Charles, MO 63501  
636-928-5552  
FAX 928-1718

04/23/08  
DATE  
04-13117B&C  
PROJECT NUMBER  
1 OF 10  
SHEET OF  
13117Bcon.dwg  
FILE NAME  
KWL  
DRAWN  
SAS CLH  
DESIGNED CHECKED

P & Z #1105.06, #1105.06.01,  
#1105.06.02 APPROVED 3-21-08

Cons. inspected