

# A SET OF IMPROVEMENT PLANS FOR AVONDALE HEIGHTS PLAT NINE

A TRACT OF LAND BEING PART OF "DARDENNE FARMS PLAT THREE"  
A SUBDIVISION ACCORDING TO THE PLAT THERETO RECORDED IN PLAT BOOK 27,  
PAGE 77 OF THE ST. CHARLES COUNTY RECORDS, PART OF U.S. SURVEY 67,  
PART OF FRACTIONAL SECTION 9, AND PART OF SECTION 4,  
TOWNSHIP 46 NORTH, RANGE 3 EAST OF THE FIFTH PRINCIPAL MERIDIAN,  
CITY OF O'FALLON, ST. CHARLES COUNTY, MISSOURI

## GRADING NOTES

- A Geotechnical Engineer shall be employed by the owner and be on site during grading operations. All soils tests shall be verified by the Geotechnical Engineer concurrent with the grading and backfilling operations.
- The grading contractor shall perform a complete grading and compaction operation as shown on the plans, stated in these notes, or reasonably implied there from, all in accordance with the plans and notes as interpreted by the Geotechnical Engineer.
- The Contractor shall notify the Soils Engineer at least two days in advance of the start of the grading operation.
- All areas shall be allowed to drain. All low points shall be provided with temporary ditches.
- A sediment control plan that includes monitored and maintained sediment control basins and/or straw bales should be implemented as soon as possible. No graded area is to be allowed to remain bare without being seeded and mulched. Care should be exercised to prevent soil from damaging adjacent property and silting up existing downstream storm drainage system.
- Debris and foundation material from any existing on-site building or structure which is scheduled to be razed for this development must be disposed of off-site.
- All trash and debris on site, either existing or from construction, must be removed and properly disposed of off-site.
- Soft soil in the bottom and banks of any existing or former pond sites or tributaries or on any sediment basins or traps should be removed, spread out and permitted to dry sufficiently to be used as fill. None of this material should be placed in proposed public right-of-way locations or on any storm sewer locations.
- Site preparation includes the clearance of all stumps, trees, bushes, shrubs, and weeds; the grubbing and removal of roots and other surface obstructions from the site; and the demolition and removal of any man-made structures. The material shall be properly disposed of off-site. Topsoil and grass in the fill areas shall be thoroughly disced prior to the placement of any fill. The Soils Engineer shall observe the discing operation.
- Compaction equipment shall consist of tamping rollers, pneumatic-tired rollers, vibratory roller, or high speed impact type drum rollers acceptable to the Soils Engineer. The roller shall be designed so as to avoid the creation of a layered fill without proper blending of successive fill layers.
- The Soils Engineer shall observe and test the placement of the fill to verify that specifications are met. A series of fill density tests will be determined on each lift of fill. Interim reports showing fill quality will be made to the Owner at regular intervals.
- The Soils Engineer shall notify the Contractor of rejection of a lift of fill or portion thereof. The Contractor shall rework the rejected portion of fill and obtain notification from the Soils Engineer of its acceptance prior to the placement of additional fill.
- All areas to receive fill shall be scarified to a depth of not less than 6 inches and then compacted in accordance with the specifications given below. Natural slopes steeper than 1 vertical to 5 horizontal to receive fill shall have horizontal benches, cut into the slopes before the placement of any fill. The width and height to be determined by the Soils Engineer. The fill shall be loosely placed in horizontal layers not exceeding 8 inches in thickness and compacted in accordance with the specifications given below. The Soils Engineer shall be responsible for determining the acceptability of soils placed. Any unacceptable soils placed shall be removed at the Contractor's expense.
- The sequence of operation in the fill areas will be fill, compact, verify acceptable soil density, and repetition of the sequence. The acceptable moisture contents during the filling operation are those at which satisfactory dry densities can be obtained. The acceptable moisture contents during the filling operation in the remaining areas are from 2 to 8 percent above the optimum moisture control.
- The surface of the fill shall be finished so that it will not impound water. If at the end of a days work it would appear that there may be rain prior to the next working day, the surface shall be finished smooth. If the surface has been finished smooth for any reason, it shall be scarified before proceeding with the placement of succeeding lifts. Fill shall not be placed on frozen ground, nor shall filling operations continue when the temperature is such as to permit the layer under placement to freeze.
- Fill and backfill should be compacted to the criteria specified in the following table:

CATEGORY	MINIMUM PERCENT COMPACTION
Fill in building areas below footings	90%
Fill under slabs, walks, and pavement	90%
Fill other than building areas	88%
Natural subgrade	88%
Pavement subgrade	90%
Pavement base course	90%

Measured as a percent of the maximum dry density as determined by modified Proctor Test (ASTM-D-1557).

Moisture content must be within 2 percent below or 4 percent above optimum moisture content if fill is deeper than 10 feet.

## GENERAL NOTES

- 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.
- All manhole tops & flowlines built without elevations furnished by the Engineer will be the responsibility of the sewer contractor.
- 8" P.V.C. sanitary sewer pipe shall meet the following standards. A.S.T.M.-D-3034 SDR-35, with wall thickness compression joint A.S.T.M.-D-3212. An appropriate rubber seal waterstop as approved by the sewer district shall be installed between P.V.C. pipe and masonry structures.
- All filled places, including trench backfills, under buildings, proposed storm and sanitary sewer lines and/or paved areas, shall be compacted to 90% maximum density as determined by the "Modified AASHTO T-180 Compaction Test," (A.S.T.M.-D-1557). All filled places within public roadways shall be compacted to 95% of maximum density as determined by the "Standard Proctor Test AASHTO T-99, Method C" (A.S.T.M.-D-698).
- All trench backfills under paved areas shall be granular backfill, and shall be compacted to 90% of the maximum density as determined by the "Modified AASHTO T-180 Compaction Test," (A.S.T.M.-D-1557). All other trench backfills may be earth material (free of large clods or stones). All trench backfills shall be water jetted.
- All sanitary house connections have been designed so that the minimum vertical distance from the low point of the basement to the flow line of a sanitary sewer at the corresponding house connection is not less than the diameter of the pipe plus the vertical distance of 2 1/2 feet.
- No area shall be cleared without the permission of the Project Engineer.
- All P.V.C. sanitary sewer is to be SDR-35 or equal with clean 1/2" to 1" granular stone bedding uniformly graded. This bedding shall extend from 4" below the pipe to the springline of the pipe. Immediate backfill over pipe shall consist of same size "clean" or minus stone from springline of pipe to 6" above the top of pipe.
- All soils test shall be verified by a Soils Engineer concurrent with the grading and backfilling operations.
- Easements shall be provided for sanitary sewers, and all utilities on the Record Plat. See Record Plat for location and size of easements.
- Maintenance and upkeep of the common ground area shall be the responsibility of the developer and/or successors.
- A 25' building line shall be established along all Public Rights-Of-Way.
- All water lines shall be laid at least 10 feet horizontally, from any sanitary sewer, storm sewer, or manhole. 18" vertical clearance from outside of pipe to outside of pipe shall be maintained wherever water lines must cross sanitary sewers, laterals, or storm drains. The water line shall be laid at such an elevation that the bottom of the water line is above the top of the drain or sewer. A full length of water pipe shall be centered over the sewer line to be crossed so that the joints will be equally distant from the sewer and as remote therefrom as possible. This vertical separation shall be maintained for that portion of the water line located within 10 feet horizontally, of any sewer or drain it crosses.
- All PVC water pipe shall conform to A.S.T.M.-D-2241, SDR 21 Standard Specification for P.V.C. Pressure Pipe, 200 P.S.I. working pressure for water, with approved joint.
- Water lines, valves, sleeves, meters, and fittings shall meet all specifications and installation requirements of Public Water Supply District No. 2 of St. Charles County.
- All water hydrants and valves shall be ductile iron and installed in accordance with plans and details. All ductile iron pipe for water mains shall conform to A.W.W.A. Specifications C-106 and/or C-108. The ductile iron fittings shall conform to A.W.W.A. Specification CC-110. All rubber gasket joints for water ductile iron pressure pipe and fittings shall conform to A.W.W.A. Specification C-111.
- All sanitary manholes shall be waterproofed on the exterior in accordance with Missouri Department of Natural Resources specifications 10 CSR-8.120 (7)E.
- Brick will not be used in the construction of sanitary sewer manholes.
- All pipes shall have positive drainage through manholes. No flat base structures are allowed.
- The City of O'Fallon and Duck Creek Sanitary District shall be notified 48 hours prior to construction for coordination and inspection.
- Gas, water and other underground utilities shall not conflict with the depth or horizontal location of existing or proposed sanitary or storm sewers, including water laterals.
- All existing site improvements disturbed, damaged or destroyed shall be repaired or replaced to closely match pre-construction conditions.
- The contractor shall prevent all storm, surface water, mud and construction debris from entering the existing sanitary sewer system.
- All construction and materials shall conform to the current construction standards of the City of O'Fallon and Duck Creek Sanitary District.
- All sanitary and storm sewer trench backfills shall be water jetted. Granular backfill will be used under pavement areas.



## DEVELOPMENT NOTES

- Area of plat: 98.44 Acres (Total Site)  
14.70 Acres (Plat Seven)  
22.25 Acres (Plat Eight)  
23.81 Acres (Plat Nine)
- Proposed Zoning: R-1 (City of O'Fallon)
- Proposed Use: Single Family Homes
- Number of Lots Proposed: 29 Lots (Plat Seven)  
43 Lots (Plat Eight)  
61 Lots (Plat Nine)
- The proposed height and lot setbacks are as follows:  
Minimum Front Yard: 25 feet  
Minimum Side Yard: 5 feet  
Minimum Rear Yard: 25 feet  
Minimum Lot Area: 10,000 square feet  
Maximum Height of Building: 2 1/2 stories or 35 feet
- Current Owner & Developer of Property:  
TJC Development, Inc.  
631 Avondale Drive  
St. Peters, MO 63376
- Site is served by:  
Duckett Creek Sanitary District  
AmerenUE  
St. Charles Gas Company  
St. Charles County Public Water District No. 2  
Verizon Telephone Company  
Fort Zumwalt School District  
O'Fallon Fire Protection District
- Flood Plain exists on this site per F.I.R.M. #29183 C 0239E, dated Aug. 2, 1996. See plan for limits of the 100 Year Flood Plain and the 100 Year Floodway.
- Topographic information is per aerial topography by Walker & Associates and field topography by Bax, Engineering Co., Inc.
- Boundary information is per Box Engineering during June, 1999.
- All local streets will be constructed to City of O'Fallon standards. Streets will consist of 26 foot wide concrete pavement with integral rolled curb centered in a 50 foot right-of-way. Minimum radius shall be 150 feet.
- All cul-de-sacs and bubbles will have pavement radii of 42 feet with right-of-way radii of 54 feet. Street intersections shall have a minimum rounding radius of 25 feet with pavement radii of 37 feet.
- Minimum street grades shall be 1%.
- A 4 foot wide concrete sidewalk shall be constructed on one side of streets where indicated.
- All homes shall have a minimum of 2 off-street parking places with 2-car garages.
- All utilities must be located underground. Except for 3 phase electric which will be overhead.
- The developer realizes that they 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. Additional lighting may be required by the City of O'Fallon.
- The following lots are susceptible to street movement: 594, 595, 596, 597, 598, 599, 600, 601, 604, 605, 607, 687, 688, 689, 690, 692, 699, 705, 706, 707, 708, 709, 716, 720, 721.
- Calculations in accordance to the Tree Preservation Ordinance: (For Entire Development)  
Existing trees 15.92 acres  
x 20% 3.18 acres  
Saved trees 2.92 acres  
Trees removed 13.15 acres  
Trees Replaced - 0.26 acres x 15 Trees/acre = 4 Trees  
(Street Tree Requirements for 72 Lots)  
1 Tree per lot & 2 per corner lot = 86 Trees
- Detention for this development to be provided by Retention Basins "A" and "B".
- Corner lots along Fallon Parkway (Collector Road) shall have driveway access to secondary streets only.
- Parking will not be allowed on the north side of O'Fallon Parkway.
- All proposed fencing requires a separate permit through the Planning Division. Fencing is not proposed in these plans.
- All proposed signs must be approved separately through the Planning Division.
- All existing creeks and streams will have an associated storm water easement that will be provided on the Record Plat.
- Sidewalks, curb ramps, and accessible parking spaces shall be constructed in accordance with the current approved "American with Disabilities Act Accessibility Guidelines" (ADAAC) along with the required grades, construction materials, specifications and signage. If any conflict occurs between the above information and the plans the ADAAC guidelines shall take precedence and the contractor prior to any construction shall notify the Project Engineer.
- Written verification of compliance with the construction plans shall be required by the Developer per section 405.120 of City of O'Fallon Code.
- Street trees to have a minimum of 2" caliper per O'Fallon standards. Species to be selected by homebuilder from O'Fallon Tree Planting Guide. Street trees to be maintained by the Home Owner's Association per subdivision C.C. & R.'s.
- Where ground is disturbed within the 60' wide drainage easement permanent hardy vegetation shall be established.

### 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  
Wheat or Rye - August 1 to October 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.

## REFERENCE BENCHMARK

R.M. #74 - ELEV.=493.07 (U.S.G.S. DATUM)  
CHISELED SQUARE ON TOP OF EAST CONCRETE HEADWALL  
OF BIRDIE HILLS ROAD BRIDGE OVER TRIBUTARY NO. 2  
(APPROXIMATELY 500 FEET SOUTH OF EISENHOWER DRIVE)

## SITE BENCHMARK

ELEV.=507.68 (U.S.G.S. DATUM)  
OLD CROSS CL-CR CHRISTINA MARIE DRIVE AND JACQUELINE CIRCLE  
KENSINGTON PLACE SUBDIVISION



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## SHEET INDEX

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PREPARED FOR: TJC DEVELOPMENT, INC.  
631 AVONDALE DRIVE  
ST. PETERS, MISSOURI  
(636) 978-9200



### REVISIONS

7/5/03	CITY COMMENTS
7/23/03	D.C.S.D. COMMENTS
8/8/03	CITY COMMENTS

ENGINEERING  
PLANNING  
SURVEYING

1052 South Cloverleaf Drive  
St. Peters, MO. 63376-6445  
636-928-5552  
FAX 928-1718

05-12-03  
DATE

95-7230S  
PROJECT NUMBER

1 OF 23  
SHEET

7230SCON.DWG  
FILE NAME

JML  
DRAWN

RLA MGG  
DESIGNED CHECKED