

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 and/or construction of improvements.
- Erosion control shall not be limited to what is shown on the plans. The contractor shall take whatever means necessary to prevent siltation from entering adjacent roadways, properties, ditches and silt up all storm drainage systems on site and in receiving channels. Such control might include channeling runoff into sediment basins, channeling runoff into areas where an extra row of straw bales are used. A silt fence might be considered, if necessary.
- No area shall be cleared without permission of the developer.
- Owner/Developer assumes full responsibility as to the performance of the grading operation and assurance that all properties and City/County and State roads will be adequately protected.
- Soil preparation and re-vegetation shall be performed according to Appendix A of the Model Sediment and Erosion Control Regulations for Urban Development.
- Where natural vegetation is removed during grading, vegetation shall be re-established in such a density as to prevent erosion. Permanent type grasses shall be established as soon as possible or during the next seeding period after grading has been completed. Refer to Appendix A of St. Charles Soil and Water Conservation District - Model Sediment and Erosion Control Regulations.
- 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 unsuitable 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 approve the disking operation.
- Compaction equipment shall consist of tamping rollers, pneumatic-tired rollers, vibratory rollers or high speed impact type drum rollers acceptable to the Soils Engineer. The rollers shall be designed so as to avoid the creation of a layered fill without proper blending of successive fill layers.
- The developer must supply the City construction inspectors with soil reports prior to or during soil testing.
- 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 rejections 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 to at least 85 percent of the maximum density as determined by the Modified AASHTO T-180 Compaction Test (ASTM-D1557). 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% above the optimum moisture content.
- 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.
- All cut and fill slopes should be a maximum of 33% slope (3:1) after grading.
- All fill placed under proposed storm and sanitary sewer, proposed roads, and/or paved areas shall be compacted to 90% of maximum density as determined by the Modified AASHTO T-180 Compaction Test or 95% of maximum density as determined by the Standard Proctor Test AASHTO T-99. All fill placed in proposed roads shall be compacted from the bottom of the fill up. All test shall be verified by a soils engineer concurrent with grading and backfilling operations. Ensure the moisture content of the soil in fill areas is to correspond to the compactive effort as defined by the Standard or Modified Proctor Test. Optimum moisture content shall be determined using the same test that was used for compaction. Soil compaction curves shall be submitted to 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.
- Fill placed within proposed street R.O.W. shall be compacted to 90% M.O.D. Proctor and be no more than 3% above optimum moisture content. Soils compaction to be verified to be within these limits within this grading area.
- Soft soil in the bottom and banks of any existing or former pond site should be removed, spread out and permitted to dry sufficiently to be used as fill. None of this material should be placed in proposed right-of-way locations or on storm sewer locations.
- Temporary siltation control measures (structural) shall be maintained until vegetative cover is established at a sufficient density to provide erosion control on the site.
- If straw bales or silt fences are destroyed by heavy rains, vandalism, etc., they are to be replaced immediately by contractor.
- When grading operations are completed or suspended for more than thirty (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 Designated Official's recommendation. Refer to Appendix A of St. Charles Soil and Water Conservation District - Model Sediment and Erosion Control Regulations. All finished grades (areas not to be disturbed by improvement) in excess of 20% slopes (5:1) shall be mulched and tacked at the rate of 100 pounds per 1000 square feet when seeded.
- All erosion control systems shall be inspected and necessary corrections made within 24 hours of any rainstorm resulting in one-half inch of rain or more.
- 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.
- The total yardage of this project is based on a 15% ± shrinkage factor.
- The shrinkage factor is subject to change, due to soil conditions (types and moisture content), weather conditions, and the percentage of compaction actually achieved at the time of the year grading is performed. As a result, adjustments in final grade may be required. If adjustments need to be made, the contractor shall contact St. Charles Engineering and Surveying, Inc. prior to completion of the grading.
- The vertical grading tolerance shall be plus or minus 0.2 feet for all rough grading.
- The Contractor shall prevent all storm/surface water, mud or construction debris from entering the sanitary sewer system.
- All low places shall be graded to provide drainage with temporary ditches.
- The most stringent of the above requirements shall apply.
- City approval of Construction Site Plans does not mean that single family and two family dwelling units can be constructed on the lots without meeting the building setback as required by the zoning code.
- All proposed fencing requires a separate permit through the Planning Division.

ADDITIONAL GRADING NOTES

Sediment and erosion control shall not be limited to the measures shown on the plans. The contractor, with the approval of the City Inspector, shall utilize best management practices to prevent sediment from entering adjacent properties, roadways, storm sewers, and drainageways.

All filled places in proposed and existing St. Charles County roads (highways) shall be compacted from the bottom of the fill up to 90 percent maximum density as determined by the "Modified AASHTO T-180 Compaction Test" (ASTM D-1557). Paved areas in cuts shall meet the same compaction requirements. All tests shall be verified by the Soils Engineer concurrent with grading operations.

Any wells and/or springs which may exist on this property shall be located and sealed in a manner acceptable to the City of O'Fallon Engineering Department.

All trash and debris on-site, either existing or from construction, must be removed and properly disposed of off-site.

Soft soils in the bottom and banks any existing or former pond sites or tributaries or 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 location.

All excavations, grading, or filling shall have a finished grade not to exceed a 3:1 slope (33%).

Temporary siltation control measures (structural) shall be maintained until vegetative cover is established at a sufficient density to provide erosion control on the site.

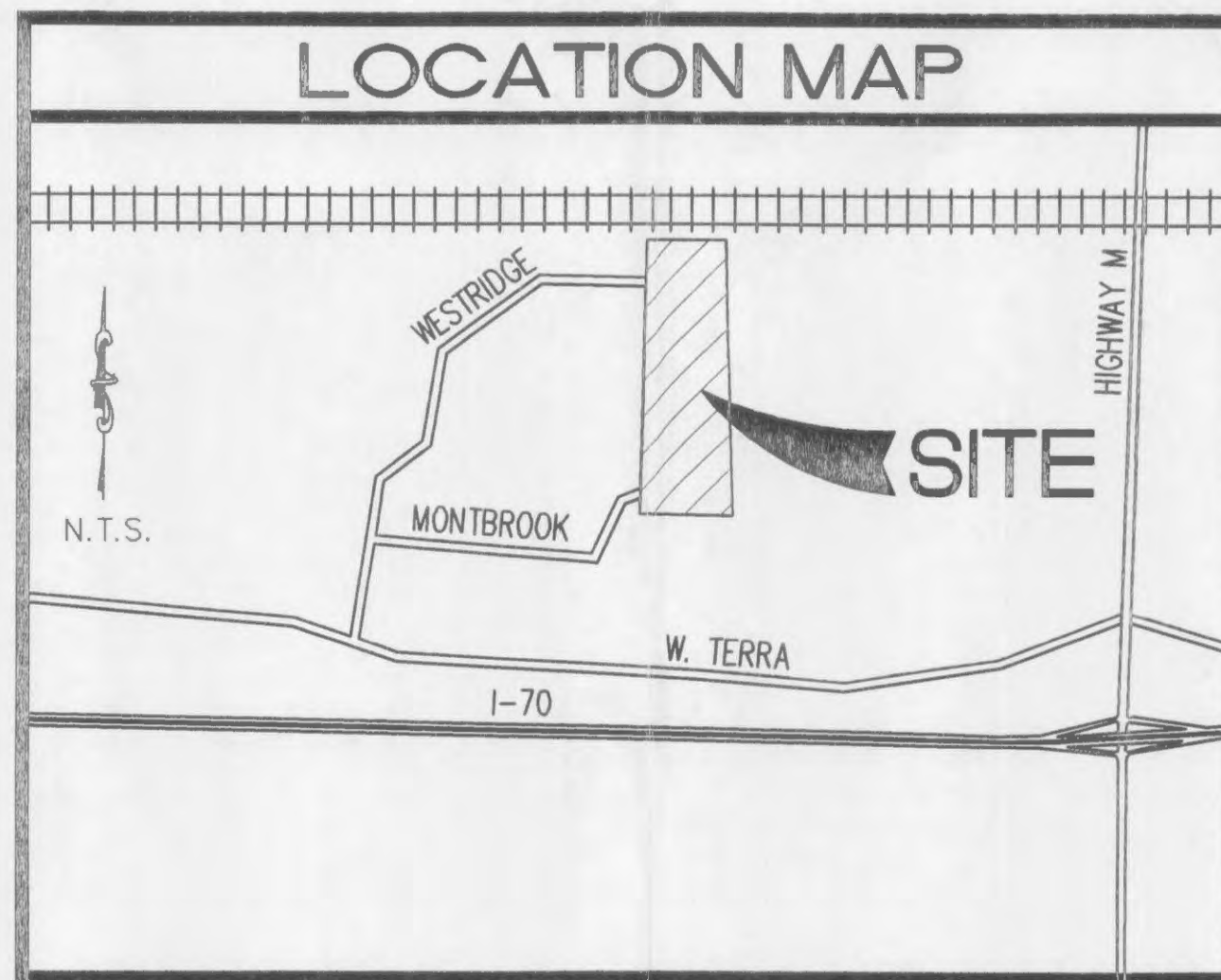
Upon completion of storm sewers, siltation control shall be provided around all open sewer inlets and shall remain until the disturbed drainage areas have been properly stabilized.

All finished grades (areas not to be disturbed by future improvement) in excess of 20% slopes (5:1) shall be mulched and tacked at the rate of 1 pound per 1,000 square feet when seeded.

SITE DEVELOPMENT PLANS

SHEFFIELD FOREST

A TRACT OF LANDS BEING PART OF THE NORTHEAST QUARTER OF SECTION 29 AND THE SOUTHEAST QUARTER OF SECTION 20, TOWNSHIP 47 NORTH, RANGE 3 EAST OF THE FIFTH PRINCIPAL MERIDIAN, St. CHARLES COUNTY, MISSOURI



SITE BENCHMARK: ELEV -542.804
 USGS REFERENCE MARK F148 BRASS VERTICAL MARK DISK STAMPED "F149 1935" SET IN A 6 INCH SQUARE CONCRETE MONUMENT, PROJECTING ABOUT 2.5 INCHES ABOVE THE GROUND SURFACE. THIS STATION IS LOCATED IN THE NORTHEAST ANGLE OF A RAILROAD CROSSING AT NORTH MAIN STREET, SOUTH OF THE ENTRANCE TO THE CITY OF O'FALLON MUNICIPAL CENTRE. IT IS 465 FEET NORTH OF THE CENTER OF THE TRACKS; 2.4 FEET EAST OF GUY POLE; 9.3 FEET EAST OF THE EAST EDGE OF SIDEWALK AND 5.7 FEET SOUTHEAST OF A PLASTIC BURIED CABLE MARKER & PEDESTAL.

THIS PROPERTY IS SERVICED BY THE FOLLOWING UTILITY COMPANIES:
 CITY OF O'FALLON SANITARY DISTRICT
 AMERN UE
 ST. CHARLES GAS COMPANY
 CITY OF O'FALLON WATER DISTRICT
 CENTURYTEL TELEPHONE COMPANY
 CITY OF O'FALLON FIRE PROTECTION DISTRICT
 FORT ZUMWALT SCHOOL DISTRICT

ACCORDING TO FIRM FLOOD INSURANCE RATE MAP 29183C0237 E DATED AUGUST 2, 1996, THIS SITE IS IN ZONE X. THIS SITE IS NOT WITHIN THE 100-YEAR FLOODPLAIN.

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 (possible 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 may at their option direct the Contractor in his methods as deemed fit to protect property and improvements. Any depositing of silts or mud on new or existing pavement or in new or existing storm sewers or swales 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.

INDEX

- TITLE SHEET
- GRADING PLAN
- DETAILS
- TREE PRESERVATION

LEGEND

	SANITARY STRUCTURE	C.O.	CLEAN OUT
	STORM STRUCTURE	T.B.R.	TO BE REMOVED
	TEST HOLE	T.B.R. & R.	TO BE REMOVED & RELOCATED
	POWER POLE	T.B.P.	TO BE PROTECTED
	LIGHT STANDARD	T.B.A.	TO BE ABANDONED
	C.I.	B.C.	BASE OF CURB
	D.C.I.	T.C.	TOP OF CURB
	G.I.	T.W.	TOP OF WALL
	A.I.	TYP.	TYPICAL
	D.A.I.	U.N.O.	UNLESS NOTED OTHERWISE
	F.E.	U.I.P.	USE IN PLACE
	E.P.		EXISTING CONTOUR
	E.D.		PROPOSED CONTOUR
	M.H.		TREE LINE
	R.C.P.		SAN. SEWER (EXISTING)
	C.M.P.		SAN. SEWER (PROPOSED)
	C.I.P.		STORM DRAIN (EXISTING)
	PVC		STORM DRAIN (PROPOSED)
	VCP		PHONE BOX
	GUY WIRE		IRON PIPE
	SIGN		WATER LINE, SIZE
	POST		HYDRANT
	WATER METER		CONCRETE PAVEMENT
	SILT FENCE		PLACED RIP-RAP W/UNDERLAIN FABRIC
	DIVERSION SWALE		DITCH CHECK
	PROVIDE DITCH CHECKS EVERY 150'		

3/22/05
 Inspectors Copy (Field)
APPROVED
 ASK

RECEIVED
 MAR 14 2005
 ENGINEERING DEPARTMENT

SHEFFIELD FOREST
 TITLE SHEET
 GRADING PLAN

ST. CHARLES ENGINEERING & SURVEYING, INC.
 801 S. FIFTH STREET, SUITE 202
 ST. CHARLES, MO 63801
 TEL: (636) 947-0607 FAX: (636) 947-2443

S E I S



DEVELOPER

TITAN HOMES, INC.
 7417 MEXICO ROAD, SUITE 102
 St. Peters, Missouri 63376
 636-970-7789

The responsibility for the professional engineering liability on this project is hereby limited to the set of plans authenticated by the seal, signature and date hereunder attached. Responsibility is disclaimed for all other engineering plans involved in the project and specifically excludes revisions after this date unless reauthenticated.

ORDER NO. 03-1656
 DATE 3/09/05
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