

A SET OF CONSTRUCTION PLANS FOR O'FALLON CHURCH OF CHRIST

A TRACT OF LAND IN THE SOUTHWEST QUARTER OF
FRACTIONAL SECTION 28, TOWNSHIP 47 NORTH,
RANGE 3 EAST OF THE FIFTH PRINCIPAL MERIDIAN,
CITY OF O'FALLON, ST. CHARLES COUNTY, MISSOURI

PRINCIPALS & STANDARDS

- 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 excavator 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 City Building Department. Permanent safety guards will be constructed in accordance with the appropriate section(s) of the adopted BOCA Codes.
- 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. Temporary siltation control measures shall be maintained until vegetative cover is established at a sufficient density to provide erosion control on the site.
- 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 during the next seeding period after grading has been completed.
- 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.

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 100 pounds per 1,000 square feet when seeded.

- Provisions shall be made to accommodate the increased runoff caused by changed soils and surface conditions during and 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 established in permanent vegetation by use of commercial erosion control blankets or lined with rock riprap or concrete or other suitable materials. Detention basins, diversions or any other appropriate structures shall be constructed to prevent velocities above 5 fps.
- 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.
- 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 trustees or in the case of a site plan by the property owner. Permanent vegetation should be left intact. Variances will include designed streambank erosion control measures. FEMA and U.S. Army Corps of Engineers guidelines shall be applicable regarding site development areas designated as flood plains and/or wetlands.

- Sidewalks, curb ramps, ramp 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. 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.

BENCHMARKS

REFERENCE BENCHMARK: F-149 ELEV (USGS DATUM) 542.88
STANDARD DISK SET IN CONCRETE POST LOCATED IN THE
SOUTHWEST OF THE ST. MARY'S INSTITUTE YARD 40 FEET
EAST OF THE CENTER OF A STREET CROSSING AND 45 FEET
NORTH OF CENTERLINE OF THE MAIN TRACT OF WABASH
RAILROAD.

SITE BENCHMARK: ELEV 582.63
CHISELED "SQ" ON THE CURB AT NORTHWEST CORNER OF
SUBJECT PROPERTY.

SITE BENCHMARK: ELEV 578.56
CHISELED "L" ON NORTHWEST CORNER OF HEADWALL AT
SOUTHEAST CORNER OF THE INTERSECTION OF MOLLOY AND
OLD HIGHWAY 40.

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 silt up existing downstream storm drainage system.
- 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 diced prior to the placement of any fill. The Soils Engineer shall approve the dicing 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:

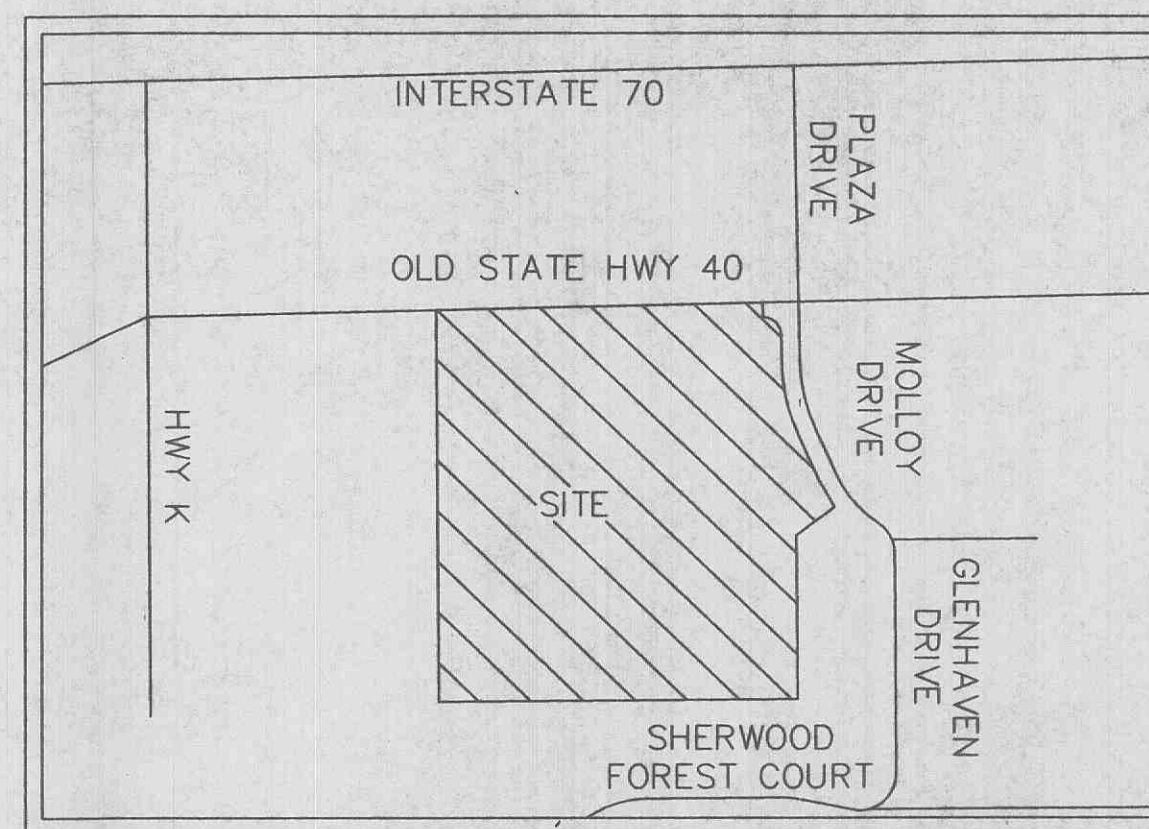
CATEGORY	MINIMUM PERCENT COMPACTION
Fill in building areas below footings	90%
Fill under slabs, walks, and pavement	90%
Fill other than building areas	90%
Natural subgrade	90%
Pavement subgrade	90%
Pavement base course	92%

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.

All construction shall conform to the design recommendations as outlined above, pending a future soils investigation.

- 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 through 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 ditches 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.



LOCATION MAP

NOT TO SCALE

SHEET INDEX

- SHEET 1.....COVER SHEET
SHEET 2.....SITE PLAN
SHEET 3.....GRADING PLAN
SHEET 4.....DRAINAGE AREA MAP
SHEET 5.....PROFILE SHEET
SHEET 6.....CONSTRUCTION DETAIL SHEET
SHEET 7.....CONSTRUCTION DETAIL SHEET

GRADING QUANTITIES:

10,236 C.Y. CUT (INCLUDES 15% SHRINKAGE)
10,236 C.Y. FILL
BALANCED

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

LANDSCAPE LEGEND

- QTY. 13 INDICATES PROPOSED HARDWOOD TREE (ashes, oaks, maples, birches, sweet gum) (Minimum 2" caliper)
 - QTY. 39 INDICATES PROPOSED EVERGREEN TREE (firs, pines, cypress, larch, spruce) (Minimum 6' in height)
 - QTY. 9 INDICATES EXISTING HARDWOOD TREE
 - QTY. 48 INDICATES PROPOSED EVERGREEN SHRUB (mugo pines, yews, junipers, hollies, boxwoods) (Minimum 4' in height)
 - QTY. 92 INDICATES PROPOSED ORNAMENTAL SHRUB (mugo pines, yews, junipers, hollies, boxwoods) (Minimum 4' in height)
- LANDSCAPING AS DEPICTED IS SUBJECT TO FINAL DESIGN BY A QUALIFIED LANDSCAPE DESIGNER

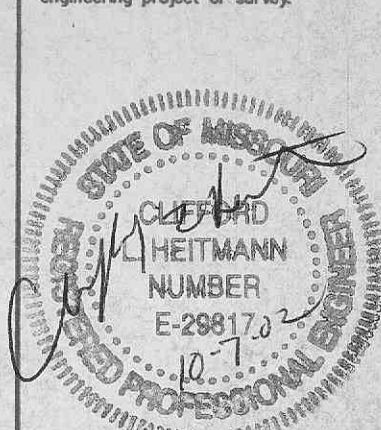
DEVELOPMENT NOTES

- Area of Tract: 6.04 Acres (6.17 Acres prior to the 0.13 Acres dedicated to ROW)
- Present Zoning: C-2 General Business
- Proposed Use: Church
- Area of Building: 21,056 Sq. Ft. (2 stories)
- Building Address: 8576 Veterans Memorial Parkway O'Fallon, MO 63366
- Site is served by:
City of O'Fallon Water: 636-327-5102
City of O'Fallon Sewer: 636-327-5101
Union Electric Company: 314-724-4423
GTE Telephone Company: 314-332-7623
St. Charles Gas Company: 800-344-7483
O'Fallon Fire Protection District: 636-272-3493
- Parking Required:
One (1) space per 3 seats or 6 feet of bench length
Total spaces required = 150
Total spaces provided = 158 (Including 8 HC space)
- Building Setbacks are as follows:
Front Yard: 25 Feet
Side Yard: 10 Feet when adjacent to Residential
Rear Yard: 10 Feet when adjacent to Residential
- According to the Flood Insurance Rate Map of the City of O'Fallon, Missouri (Community Panel Number 29183C0237-E Dated August 2, 1996), this property lies within Zone X. Zone X is defined as an area of minimal flood hazard.
- Site Coverage Calculations:
Building: 10,528 Sq. Ft.
Pavement: 84,430 Sq. Ft.
Green Space: 173,752 Sq. Ft.
- All utilities to be underground. No utility poles are to be added.
- All fencing will require a separate permit through the planning Division.
- Landscaping Proposed: See Landscape Legend

GENERAL NOTES

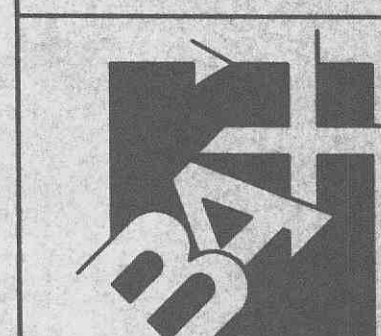
- Underground utilities have been plotted from available information and therefore their locations shall be considered approximate only. The verification of the location of all underground utilities, either shown or not shown on these plans shall be the responsibility of the contractor, and shall be located prior to any grading or construction of the improvements.
- All 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). Provide a copy of all compaction test results to the City of O'Fallon Engineering Department.
- All trench backfills under paved areas shall be granular back fill 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 grades shall be within 0.2 feet of those shown on the grading plan.
- No slope shall be steeper than 3:1. All slopes shall be sodded or seeded and mulched.
- All construction and materials used shall conform to current City of O'Fallon standards.
- All mechanical equipment to be screened from public view.
- Siltation control to be provided as directed by the City of O'Fallon.
- Proposed building will comply with current American Disability Act requirements.
- See architectural drawing for all building dimensions, service connections, details, etc.
- All utilities shown are existing unless otherwise noted. All new utilities shall be located underground.
- All dimensions are to back of curb unless otherwise noted.
- 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. (See tree inventory and Landscape legend.)
- The developer shall comply with current Article 13 Performance Standards.
- The developer shall comply with the Tree Preservation Ordinance.
- All construction methods and practices to conform with OSHA Standards.
- Illumination attributable to exterior lighting, as measured at the property line, shall not exceed 0.5 foot-candles. Lighting values will be reviewed on site prior to the final occupancy inspection. Corrections will need to be made if not in compliance with City standards.
- All signage to be permitted separately.

DECLARATION OF RESPONSIBILITY
I hereby certify that the documents intended to be authorized by my seal are limited to this sheet, and I hereby disclaim any responsibility for all other drawings, specifications, estimates, reports or other documents or instruments relating to or intended to be used for any part or parts of the architectural or engineering project or survey.



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DATE	REVISIONS
04-23-02	CITY COMMENTS
06-22-02	O'FALLON FIRE DIST
06-06-02	CLIENT REVISIONS
07-19-02	CITY COMMENTS
09-13-02	CITY COMMENTS
10-02-02	CITY COMMENTS
10-07-02	LIGHT REVISIONS



ENGINEERING
PLANNING
SURVEYING
1052 South Cloverleaf Drive
St. Peters, MO. 63376-6444
636-928-5552
FAX 928-1718

03-13-02
DATE
99-10763A
PROJECT NUMBER
1 OF 7
SHEET OF
10763ACON.DWG
FILE NAME
R/JH
DRAWN
CLH CLH
DESIGNED CHECKED



CALL BEFORE
YOU DIG!
1-800-DIG-RITE

10-8-02
APPROVED

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OCT 08 2002
CITY OF O'FALLON, MO

FILE NUMBER: 99-138.03

Bldg. Inspector