

**A SET OF CONSTRUCTION PLANS FOR A
PARKING LOT ADDITION**
A TRACT OF LAND BEING ALL OF
LOT 5 OF "LIBERTY INDUSTRIAL PARK
P.B. 40 PGS. 261-262
IN THE SOUTHWEST QUARTER OF SECTION 24,
TOWNSHIP 47 NORTH, RANGE 2 EAST OF
THE FIFTH PRINCIPAL MERIDIAN,
ST. CHARLES COUNTY, MISSOURI

**STANDARD SYMBOLS
& ABBREVIATIONS**

TREE OR BUSH	⊙
LIGHT POLE	⊙
SANITARY SEWER & MANHOLE	⊙
STORM SEWER & INLET	⊙
MAILBOX	⊙
ELECTRIC LINE	—E—
GAS LINE	—G—
WATER LINE	—W—
TELEPHONE LINE	—T—
CABLE TV LINE	—CATV—
OVERHEAD WIRE	—OHW—
UTILITY POLE	⊙
UTILITY POLE W/ DOWN GUY	⊙
FIRE HYDRANT	⊙
WATER VALVE	⊙
WATER METER	⊙
GAS VALVE	⊙
ROAD SIGN	⊙
TELEPHONE PEDESTAL	⊙
FENCE	—X—

**A SET OF CONSTRUCTION PLANS FOR
A PARKING LOT ADDITION**

PREPARED FOR:
MUSM, LLC
2209 DROSTE
ST. CHARLES, MO. 63301
636-949-0680

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 design 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 14 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 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.
5. 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 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 trustees or in the case of a site plan by the property owner. Permanent vegetation should be left intact. Variances will include designed stream bank 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 sodded 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 - 80 lbs./ac.
Smooth Brome - 100 lbs./ac.
Combined Fescue @ 40 lbs./ac. and Brome @ 50 lbs./ac.

Temporary:
Wheat or Rye - 150 lbs./ac. (3.5 lbs. per 1,000 square feet)
Oats - 120 lbs./ac. (2.75 lbs. per 1,000 square feet)

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.
Phosphorus 30 lbs./ac.
Potassium 30 lbs./ac.
Lime 600 lbs./ac. ENM*

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

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 90% of the 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 tests shall be verified by a soils engineer concurrent with grading and backfilling operations. All filled places in proposed roads shall be compacted from the bottom up. All test shall be verified by a soil engineer concurrent with grading and backfilling operations. Ensure the moisture content of the soil in the 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.
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 (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. 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 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.
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 paving to be in accordance with St. Charles County standards and specifications except as modified by the City of O'Fallon ordinances.
12. 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.
13. All graded areas that are to remain bare for over 2 weeks shall be seeded and mulched per DNR requirements.
14. 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 be 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.

GRADING NOTES:

1. All areas shall be allowed to drain. All low points shall be provided with temporary ditches.
2. Any existing trash and debris currently on this property must be removed and disposed of off-site.
3. All siltation control devices shall be inspected by the contractor within 24 hours after any rain of 1/2" or more with any appreciable accumulation of mud to be removed and siltation measures repaired where necessary.
4. No slope shall be steeper than 3(Horizontal):1(Vertical). All slopes shall be sodded or seeded and mulched.
5. The location of and details for all siltation control devices (silt fences and sediment basins) must follow the "St. Charles County Soil and Water Conservation District Erosion and Sediment Control" guidelines.

**ESTIMATED CONSTRUCTION &
GRADING SCHEDULE**

-INSTALL EROSION CONTROL	09/21/09
-SUBGRADE CONSTRUCTION	09/21/09 - 09/22/09
-PAVEMENT CONSTRUCTION	09/22/09 - 09/23/09
-FINISH GRADING, SEED AND MULCH	09/14/09

NOTE: DATES MAY VARY DUE TO INCLEMENT WEATHER.

A PERIOD OF ONE (1) YEAR FROM THE DATE OF THE PLANNING DEPARTMENT'S APPROVAL OF THE SITE PLAN IS PERMITTED. ANY COMPLETION DATE LONGER THAN THE ONE (1) YEAR PERIOD, OR AN EXTENSION OF THE TIME THEREOF, MUST BE REQUESTED IN WRITING BY THE DESIGN CONSULTANT AND APPROVED BY BOTH THE DIRECTOR OF PLANNING AND THE CITY ENGINEER.

NOTE: TEMPORARY VEGETATION TO BE IN PLACE DURING THE WINTER UNTIL THE TIME PERMANENT SEEDING AND MULCH CAN BE COMPLETED.

PLANNING AND ZONING CONDITIONS

1. Provide top of wall and ground elevations for the proposed retaining wall at the northeast corner of the building. Evaluate the need to extend the wall to resolve any 3:1 slope issues.
2. The Planning and Zoning Commission allowed portions of the new pavement area to be constructed without curbing. The construction plans shall identify the areas without curbing and provide water runoff calculations.
3. Show the locations of all the roof drains along the south side of the building. Will they discharge and flow over the pavement or be piped under it?
4. Provide a note that the dumpster will need to be relocated into the trash enclosure, the fence reinstated and the area will need to be cleaned up of all debris.
5. Provide information that the existing detention basin is sized for the current 100 year storm event due to the site being in the Perdue Creek Watershed and release rates will not increase due to the additional impervious area.

U.S.G.S. BENCHMARKS

ORIGINAL REFERENCE BENCHMARK - RM46 ELEV. 469.17 "CHISELED SQUARE" ON TOP OF ABUTMENT AT SOUTHWEST CORNER OF HOFF ROAD BRIDGE OVER PERDUQUE CREEK. THIS BENCHMARK HAS BEEN REPLACED FROM NEW BRIDGE CONSTRUCTION AT THIS TIME.

SITE BENCHMARK ELEV=569.20 OLD IRON ROD AT THE NORTHWEST CORNER OF PROPERTY CONVEYED TO PERMIAN HOLDINGS, INC., DEED BOOK 2349, PAGE 545, ST. CHARLES COUNTY RECORDS.

DEVELOPMENT NOTES:

1. Area of tract: 1.66 Acres
Disturbed Area: 0.39 Acres
2. Existing Zoning: I-2 Heavy Industrial (City of O'Fallon)
3. Proposed Use: Parking and Storage Lot
4. Area of Existing Building: 15,000 sq.ft.
5. Required building & parking setbacks:
Front yard 30 feet
Side yard 25 feet
Rear yard 50 feet
Max Building Height 50 feet
Parking 10 feet along lot perimeter
6. This property is served by the following utilities:
Electric: AmerenUE Electric Co. (636) 639-8312
Telephone: CenturyTel Telephone Co. (636) 332-7318
Gas: Laclede Gas Co. (314) 688-5417
Water: City of O'Fallon Water (636) 281-2858
Sewer: City of O'Fallon Sewer (636) 281-2858
Fire District: O'Fallon Fire (636) 272-3493
7. Flood Note:
Per F.I.R.M. Flood Insurance Rate Map of St. Charles County, Mo (Community Panel Number 28183C0210F Dated March 17, 2003), this property is within Zone X. Zone X is defined as an area outside the 500 year flood plain.
8. Current Owner:
Susan Davis
52 Gastor Branch Lane
Wentzville, Mo. 63385
9. Site Coverage: Total Site = 72,440 sq. ft.
Building = 15,000 sq. ft. - 20.7%
Pavement/Gravel = 33,588 sq. ft. - 46.4%
Green Space = 23,852 sq. ft. - 32.9%
10. Parking required: 1 space per 300 s.f. office space, 1 space per 1,000 s.f. of warehouse plus 1 space per employee
Office: 2,400 sq.ft. = 8 spaces
Warehouse: 12,600 sq.ft. = 13 spaces
2 Employees = 2 spaces
Total parking provided = 23 spaces (12 existing, 11 proposed)
11. All paving to be in accordance with St. Charles County Standards and Specifications except as modified by the City of O'Fallon Ordinances.
12. Detention for this site was provided as part of Lone Star Industrial Park.
13. All siltation control devices shall follow St. Charles County Soil and Water Conservation District Erosion and Sediment Control Guidelines.
14. No additional exterior lighting is proposed. If any lighting is proposed in the future a photometric plan shall be submitted that is in compliance with city standards.
15. A separate permit will be obtained for the fence per city and fire district requirements.
16. The existing dumpster to be relocated into the existing trash enclosure. The fence to be reinstated and the area to be cleaned up of all debris.
17. All sign locations and sizes must be approved separately through the Planning Division.
18. Storm water runoff calculations for 100 year storm:
Increase in Impervious Area to Downstream Basin = 13,968 s.f. (0.32 Acres)
Approximate existing flow to Basin = 990 c.f.s.
1.00 c.f.s./990 c.f.s. = 0.10% increased flow to Basin
19. Tree Preservation Calculations:
Trees to be removed = 0
Trees to be replaced = 0

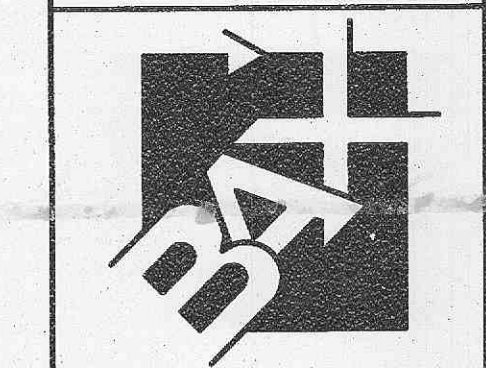
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I hereby specify that the documents intended to be authenticated by my seal are limited to this sheet, and I hereby disclaim any responsibility for all other Drawings, Specifications, Estimates, Reports or other documents or instruments relating to or intended to be used for any part or parts of the architectural or engineering project or survey.



Signature: _____
Printed: Clifford L. Heitmann
City Engineer
Date: _____
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REVISIONS

DATE	CITY COMMENTS
08/28/09	CITY COMMENTS
09/02/09	CITY COMMENTS



**ENGINEERING
PLANNING
SURVEYING**

221 Point West Blvd.
St. Charles, MO 63301
636-928-6562
FAX 928-1718

08-14-09	DATE
00-11060F	PROJECT NUMBER
1	SHEET OF 2
11060F.con.dwg	FILE NAME
KLW/CLM	DRAWN
JCM	CLH
DESIGNED	CHECKED



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