## LOCATION MAP INTERSTATE 70

## 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.
- The sediment control plan should be implemented before grading begins. No graded area is to remain bare without being seeded and mulched. When deemed necessary, positive steps should be exercised to prevent this soil from damaging adjacent properties and silting up all storm drainage systems whether on site or off
- 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, and ditches. 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 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 discing operation.
- Compaction equipment shall consist of tamping rollers, prieumatic-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.
- 10. 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.
- 11. 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
- 12. 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-1800 Compaction Test (ASTM-D|557). Natural slopes steeper than 1 vertical to 5 harizontal to receive fill shall have harizontal benches cut into the slopes before the placement of any fill. The width and height to be determined by the Solls 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.
- 13. 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.
- 14. 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.
- 15. All low places whether on site or off site should be graded to allow drainage. This may be accomplished with temporary ditches. Any off site drainage easements shall be acquired before off site grading operations begins.
- 16. All cut and fill slopes should be a maximum of 33% slope (3:1) after grading.
- 17. All fill including filled places under proposed storm and sanitary sewer lines and paved areas including trench backfills within and off the road right-of-way shall be compacted to 90% of maximum density as determined by the "Modified AASHTO T-180 Compaction Test (ASTM D1557)". All tests shall be verified by a Soils Engineer concurrent with grading and backfilling operations. The compacted fill shall be free of rutting and shall be non-yielding and non-pumping during proof rolling and compaction:
- 18. Fill placed within proposed street R.O.W. shall be compacted to 90% M.O.D. Proctor and be 2% below to 6% above optimum moisture content.
- 19. Soft soil in the bottom and banks of any existing or former pand 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.
- 20. Any wells and/or springs which may exist on this property should be located and sealed in a manner acceptable to the City of O'Follon.

## IMPROVEMENT PLANS-AS-BUILTS FOR WHITE AUTO BODY, INC.

A TRACT OF LAND BEING PART OF SECTION 28 OF TOWNSHIP 47 NORTH, RANGE 3 EAST CITY OF O'FALLON, MISSOURI

- 21. Temporary siltation control measures (structural) shall be maintained until vegetative cover is established at a sufficient density to provide erosion control on
- 22. If straw bales or silt fences are destroyed by heavy rains, vandalism, etc., they are to be replaced immediately by contractor.
- 23. 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.
- 24. All existing site improvements disturbed, damaged or destroyed shall be repaired or replaced to closely match preconstruction conditions.
- 25. All existing trash and debris on-site must be removed and disposed of off-site.
- 26. 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.
- 27. The total yardage of this project is based on a 15% shrinkage factor.
- 28. 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 prior to completion of the grading.
- 29. Earth quantities were obtained from aerial grid mapping with contours at two foot intervals, with a tolerance of plus or minus one foot or one-half (?) contour
- 30. The vertical grading tolerance shall be plus or minus 0.2 feet for all rough grading.
- 31. All construction and materials shall conform to City of O'Fallon, Standards and Specifications.
- 32. 48 hour notice shall be give to City of O'Fallon before construction of sanitary sewers, water mains, grading, storm sewers and before construction of pavement in order to allow scheduling of required inspections.
- 33. All standard curb inlets are to have front-of-inlet 2' (two feet) behind curb, within public right-of-way, unless otherwise noted.
- 34. All storm sewers shall be Reinforced A.S.T.M. C-76. Class III minimum, unless otherwise shown on the plans.
- 35. All storm sewer pipe in the right-of-way shall be reinforced concrete pipe (A.S.T.M. C-76, Class III minimum).
- 36. The use of High Density Polyethylene Corrugated Pipe with smooth interior wall will be permitted as an acceptable alternative to R.P.C. outside of the Public R/W. Pipe shall meet A.S.T.M. D-2321 A.A.S.H.T.O. M-294-921. Concrete Flored End Sections, Manholes and Inlet Structures shall be required.
- 37. All corrugated steel pipe shall conform to the requirements of AASHTO M-36 and shall be fully coated with bituminous material conforming to the requirements of AASHTO M-190. Corrugated steel pipe shall be helical pipe with reformed ends. Pipes shall be joined using either hugger bands with rubber o-ring gaskets or universal corrugated bands with sponge neoprene gaskets. All gasket materials shall conform to ASTM D-1056.
- 38. All grout for rip-rop shall be high slump ready-mix concrete.
- 39. Concrete Pipe Joints shall be M.S.D. Type "A" Approved Compression Joints and shall conform to the requirements of the Specification for Joints and Circular Concrete Sewer and Culvert Pipe, using flexible, watertight, rubber-type gaskets A.S.T.M. C-443. Band-Type Gaskets depending entirely on cement for adhesion and resistance to displacement during jointing shall not be used.
- 40. 8" P.V.C. sanitary sewer pipe shall meet the following standards: A.S.T.M. D-3034 SDR35, 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.
- 41. The Contractor shall prevent all storm/surface water, mud or construction debris from entering the existing sanitary sewer system.
- 42. The minimum vertical distance from the low point of the basement to the flowline of the sanitary sewer at the corresponding house connection shall not be less than two and one half feet (2 1/2') plus the diameter of the sanitary sewer.
- 43. All sanitary laterals shown on plan are to be constructed of 6 inch P.V.C. pipe.
- 44. All P.V.C. sanitary sewer pipe is to be SDR35 or equal with "clean 1/2" to 1" granular stone bedding", uniformly graded. This bedding shall extend from 6" below the bell of the pipe to 12" above the top of pipe.
- 45. Brick shall not be used on sanitary manholes.
- 46. All sanitary sewer manholes shall be waterproofed on the exterior in accordance with Missouri D.N.R. Specification 10CSR-8.120 (7) (E).
- 47. All pipes shall have positive drainage through manholes. No flat base structures are allowed.
- 48. All trench backfills under paved areas shall be granular backfill, and water jetted. All other trench backfills may be earth material (free of large clods or stones) and shall be water jetted.
- 49. All sewer tops built without elevations furnished by the Engineer will be the responsibility of the sewer contractor.

- 50. Easements shall be provided for storm sewers, sanitary sewers, and all utilities on the record plat. See record plat for location, size, and width of easements.
- 51. Gas, water, and other underground utilities shall not conflict with the depth or horizontal location of existing and proposed sanitary and storm sewers including
- 52. Water main shall be Class 200, SDR 21 or "Ultra-Blue" PVC, installed with tracer tape and locator wire.
- 53. Fire hydrants shall be 6 inch 3 way with auxiliary valve, Mueller "Centurion" or Clow
- 55. Blow -off hydrants and water meters shall not be located in sidewals or driveways.
- 56. All streets within this set of improvement plans shall be Publicly maintained.
- 57. All streets and right-of-ways shown on these improvement plans will be dedicated to the City of O'Fallon for public use forever.
- 58. Sidewalk curb ramps, ramp 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 Project Engineer shall be notified by the contractor prior to any construction.
- 59. The most stringent of the above requirements shall apply.

LEGEND

EXISTING STORM SEWER

CONTROL EXISTING WOODED AREA

EXISTING CONTOUR

EXISTING SANITARY SEWER

EXISTING MANHOLE

EXISTING CL OR AL

EXISTING SIGN

EXISTING POST

EXISTING CRATE INLET

EXISTING WATER METER

EXISTING FIRE HYDRANT

EXISTING GUY WIRE

EXISTING PHONE BOX

EXISTING POWER POLE

DAS----- DAS-- DASTING GAS MAIN

WIR-WIR- EXISTING WATER MAIN

TELE --- EXISTING TELEPHONE CABLE

-UE-UE- EXISTING UNDERGROUND ELECTRIC

-CHE -- CHE -- EXISTING OVERHEAD ELECTRIC

EXISTING THEE

PROPOSED STORM SEWER

8" WATER PROPOSED WATER WAIN

(TBR)

USE IN PLACE

TO BE REMOVED

CEMERAL SURFACE DRAMAGE

PROPOSED SANITARY SEWER

PROPOSED LIGHT STANDARD

SAMITARY SEWER DESIGNATOR

STORM SEWER DESIGNATOR

PROPOSED FIRE HYDRANT

EXISTING LIGHT STANDARD

- minimum 5 spaces. 21,528 / 500= 43 spaces required 43 spaces shown 54. The contractor shall place the "steamer" outlet of the fire hydrant toward the street.
  - 10. The parking area will be 3" type "C" asphalt over 6 inches of compacted rack, with 6" concrete vertical curb. The sidewalks to be combination curb and sidewalk.

no side yard required (East side)

GENERAL NOTES

This site is served by: Union Electric Co. St. Charles Cos Co.

> City of O'Fallon Sewer District City of O'Fallon Water District

Fort Zumwalt School District

down cost type of standard.

Owner/Developer/Prepared for:

Side - 6 Feet (West side)

Site Setbocks:

Front - 25 Feet

Rear - 10 Feet

Parking Calculations

O'Fallon Fire Protection District

Proposed Auto Body Shop

R-1 Single Family Residential C-2 General Business District

Underground utilities have been plotted from available information and therefore.

All construction and materials will conform to current City of O'Fallon

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. These provisions shall in no way absolve any party.

from complying with the Underground Facility Safety and Damage Prevention Act,

Sufficient lighting will be provided for the parking area so that all locations will have at least one quarter of a foot condle of light. Light standards will be the

White Auto Body, Inc.

Floriscont, MO 63031

(314) 839-1114

8300 N. Lindbergh Blvd.

946-8937

332-7623

281-2858 272-3493

Sidewalk 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 Project Engineer shall be notified by the contractor prior to any construction.

1 Parking space for each 500 square feet of floor area.

- The developer shall comply with current tree preservation ordinance No. 1689 as set forth in article 23 of the City of O'Fallon Zoning Ordinance. Total Existing trees prair to development: 55 tree's Proposed removal of 21 tree's.
- Total required replacement = 21 x 20% = 5 tree's Total tree's to be planted = 21 conifers + 3 Dogwoods = 24 new tree's
- Interior Parking Lat Calculations for Landscaping Proposed Auto Body Shop
  - 43 Porking Spaces v 270 square feet x 6% = 697 signore feet required, 2350 square feet shaws
- According to the preliminary flood insurance rate map for St. Charles County (Dated August 2, 1996) Map Number 29185c0241E. This site is not in the 100 year flood piels.
- Total area of site = 2.021 Acres
- 1 space for over 5,000 square feet of building and 1 for each additional 20,000 square feet. Not square footoge = 21,525 - 3,000 = 16,528 square feet 2 Leading spaces required 2 Leading spaces provided
- All filled places, including trench backfills, under buildings, propaged storm and sonitary sever lines, and/or paved Areas, shall be compacted to 90% of the maximum density as determined by the "hipdited AASHTO T-180 Compaction Test", (A.S.T.M.-D-1567). All filled places eithin public roadways shall be compacted to 95% of the maximum density as determined by the "Standard Proctor Test ASSHTO T-99, Bethod "C" (A.S.T.M. D-698).
- All trench bookfills under powed areas shall be granular backfill, and shall be compacted to 90% of the maximum density as determined by the "Madified AASHTO T-180 Compaction Test," (A.S.T.M.-D-1557), All other trench backfills may be earth material (free of large clads or stones) and shall be water leifed.
- All existing buildings and or structures shall be razed and removed from site.
- Ground sign shall be 1 pole (max, 30' in height), 70 sq. ff. per face, and requires
- a separate permit and approval Septic tank shall be pumped dry, hale punched in bottom, and shall be lifted with sand. Sides shall be broken off to a minimum of 2 feet below any improvement.
- Article 23 Landscaping for Linement, 200° street trantage / 42 × 5 trans required and shown 50,076 landscape area / 500 + 17 fram required Total required trees= 22 trains Total shown = 34 trees (including existing, other than existing trees to remain along north property line,)
- 23. Fences and all signs require a separatil permit
- The root zone of the trees that are proposed to remain shall be protected to avoid damage during construction.
- All utilities shall be located underground

Nov. 5, 1997 SANITARY & STORM AS-BUIL (AS SHOWN ON PROFILES)

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

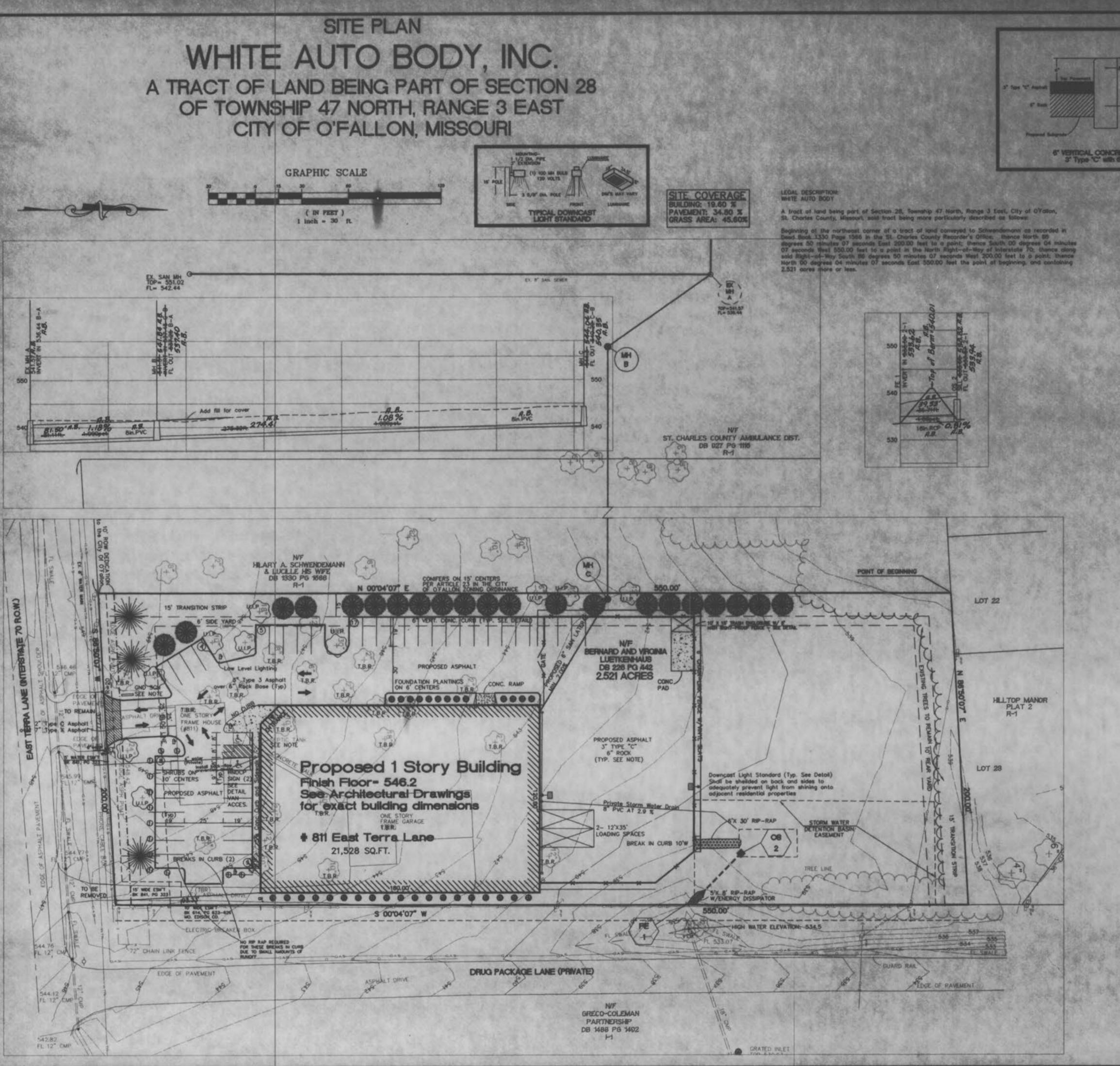
REVISED -00-10-101, 05/45/65 SHEET 1 OF 7 CIA ST. CHARLES ENGINEERING & SURVEYING

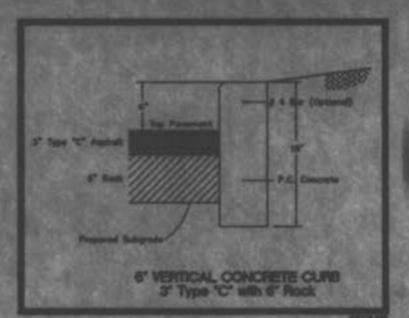
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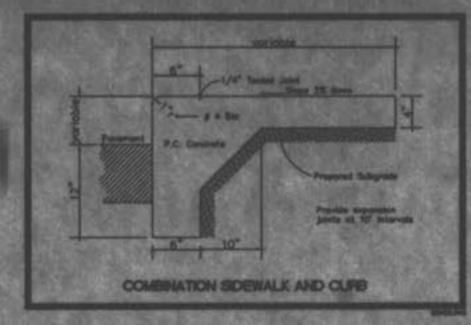
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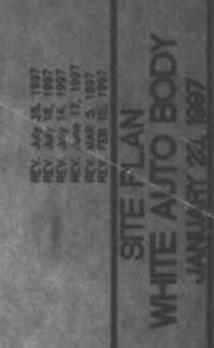
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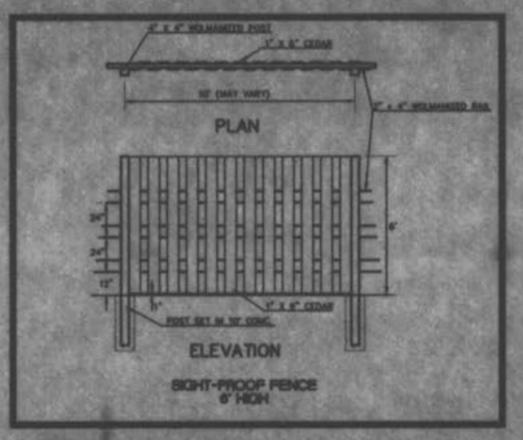
801 S. FIFTH STREET, SUITE 202 ST. CHARLES, MO 63301 TEL:(814) 947-0607 PAX:(815) 947-2448











LANDSCAPE			
SYMBOL	TYPE	SIZE	NUMBER
	CONIFER	е нідн	21
0	RED BARBERRY	1 GAL	и
•	BARBERRY SHRUB	1 GAL	32
	WHITE DOGWOOD	2-1/2" CAL (MIN)	1

