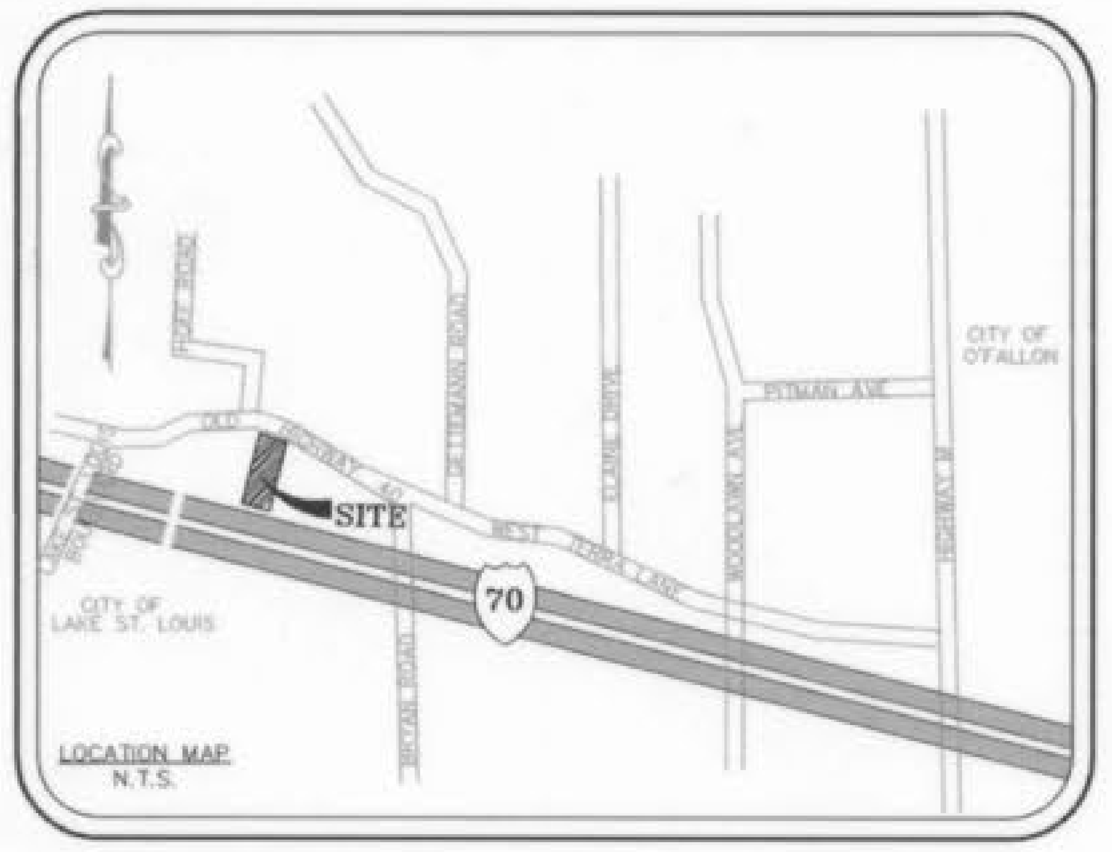


LEGEND

- UTILITY POLE
- IRON PIPE
- SANITARY MANHOLE
- SAN — SANITARY SEWER
- STM — STORM SEWER
- OHW — OVERHEAD UTILITY WIRES
- CMP — CORRUGATED METAL PIPE
- RCP — REINFORCED CONCRETE PIPE
- UGE — BURIED ELECTRIC
- BOLLARDS
- GAS METER
- SIGN
- W — WATER LINE
- G — GAS LINE
- GUY WIRE

A SET OF AS-BUILT PLANS FOR

FRED WEBER QUARRY

A TRACT OF LAND BEING PART OF U.S. SURVEY 1780 TOWNSHIP 47 NORTH, RANGE 2 EAST OF THE FIFTH PRINCIPAL MERIDIAN ST. CHARLES COUNTY, MISSOURI

GENERAL NOTES

1. Underground utilities have plotted from available information and therefore location shall be considered approximate only. The verifications 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 improvements.

2. Gas, water and other underground utilities shall not conflict with the depth or horizontal location of existing or proposed sanitary and storm sewers, including house laterals.

3. All existing site improvements disturbed, damaged or destroyed shall be repaired or replaced to closely match pre construction conditions.

4. All fill including places under proposed storm and sanitary sewer lines and paved areas within and off the road right-of-way shall be compacted to 90 percent of maximum density as determined by the "Standard Proctor Test (ASTM-D-698). All tests shall be verified by a Soils Engineer concurrent with grading and back filling operations. The compacted fill shall be free of rutting and shall be non-yielding and non-pumping during proof rolling and compaction. All trench backfills in paved areas shall be granular fill.

5. The contractor shall prevent all storm, surface water, mud and construction debris from entering the existing sanitary sewer system.

6. All sanitary sewer flowlines and tops built without elevations furnished by the engineer will be the responsibility of the sewer contractor.

7. All construction and materials shall conform to the current construction standards of the City of O'fallon.

8. The City of O'fallon shall be notified at least 48 hour prior to start of construction for coordination and inspection.

9. All sanitary sewer building connections have been designed so that the minimum vertical distances from the low point of the basement to the flowline of a sanitary sewer at the corresponding building connection is not less than the diameter of the pipe plus the vertical distance of 2-1/2 feet.

10. All sanitary sewer manholes shall be waterproofed on the exterior in accordance Missouri Dept. Of Natural Resources specifications 10 CSR-8.120(7)(E).

11. All PVC sanitary sewer pipe is to be SDR-35 or equal with "clean" 1/2 inch to 1 inch granular stone bedding uniformly graded. This bedding shall extend from 4 inches below the pipe to springline of pipe. Immediate back fill over pipe shall consist of same size "clean" or "minus" stone from springline of pipe to 6 inches above the top pipe.

12. All sanitary and storm sewer trench backfills shall be water jetted. Granular back fill will be used under pavement areas.

13. All pipes shall have positive drainage through manholes. No flat base structures are allowed.

14. Brick shall not be used on sanitary sewer manholes.

15. All PVC 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.

16. All sanitary and storm sewers shall meet all specifications and installation requirements of the local governing authority.

17. Storm sewers 18 inch diameter and smaller shall be A.S.T.M. C-14 unless otherwise shown on the plans.

18. Storm sewers 21 inch diameter and larger shall be A.S.T.M. C-76, Class II minimum, unless otherwise shown on the plans.

19. All storm sewer pipe in the right-of-way shall be reinforced concrete pipe (A.S.T.M. C-76, Class III minimum).

20. All storm sewer pipe shall be "O-ring" pipe.

21. All water lines shall be laid at least 10 feet horizontally from any sanitary sewer, or manhole. Whenever 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 18 inches 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.

22. All water lines shall be C-900 Class 200 P.V.C..

23. All sanitary sewer laterals shall be a minimum of 8 inches diameter.

24. Existing sanitary sewer service shall not be interupted.

25. Maintain access to all existing residential dirives and streets.

26. Pre-manufactured adapters shall be used at all P.V.C. to D.I.P. connections. Rubber boot / Mission type couplings will not be allowed.

27. Any permits, licenses, easements, or approvals required to work on public private properties or roadways are the responsibility of the developer.

28. The developer must supply City construction inspectors with soil reports prior to or during site soil testing.

29. All sidewalks, curb ramps, ramp 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.

30. All proposed fencing will require a separate permit through the Planning department.

31. All 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.

32. No new lighting is proposed for site.

CITY FILE NUMBER 98-59

GRADING NOTES

1. 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 back filling operations.

2. 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.

3. The Contractor shall notify the Soils Engineer at least two days in advance of the start of the grading operation.

4. All areas shall be allowed to drain. All low points shall be provided with temporary ditches.

5. 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 over the winter without being seeded and mulched. Care should be exercised to prevent soil from damaging adjacent property and silting up existing downstream storm drainage system.

6. Any existing trash and debris currently on this property must be removed and disposed of off-site.

7. Soft soil in the bottom and banks of any existing or former pond sites or tributaries 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.

8. 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.

9. 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.

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 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.

12. 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 acceptabiirty 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 percent above the optimum moisture control.

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. Fill and back fill should be compacted to the criteria specified in the following table:

16. All siltation control devices shall be inspected by the contractor after any rain of 1/2" or more with any appreciable accumulation of mud to be removed and siltation measures repaired where necessary.

17. No slope shall be steeper than 3(Horizontal):1(Vertical). All slopes shall be sodded or seeded and mulched.

CATEGORY	MINIMUM PERCENT COMPACTION
Fill in building areas below footings	95%
Fill under slabs, walks, and pavement	95%
Fill other than building areas	90%
Natural sub grade	90%
Pavement sub grade	90%
Pavement base course	90%

Measured as a percent of the maximum dry density as determined by Standard Proctor Test (ASTM-D-698).
Moisture content must be within 2 percent below or 4 percent above optimum moisture content if fill is deeper than 10 feet.

18. 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). The contractor's responsibilities include all design and implementation as required to prevent erosion and the

PRINCIPALS & 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 County 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 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 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 that 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.

9. All outside trash containers, HVAC units, electric, telephone and gas meters satelite dishes, rooftop mechanical apperatus, and outdoor storage areas shall be thoroughy screened with materials and/or landscaping to conceal the visibility of such items from the view of rights-of-way and/or adjacent properties as reviewed and approved by the planning divisions.

10. The developer shall comply with articles 26 performance standards.

11. The developer shall comply with the current comprehensive plan for The City of O'fallon.

12. Tree preservation and landscape requirements per City of O'fallon zoning ordinances will be provided prior to construction.

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
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.
Phosphate 30 lbs./ac.
Potassium 30 lbs./ac.
Lime 600 lbs./ac. ENM*
* ENM = effective neutralizing material as per State evaluation of quarried rock.

DEVELOPMENT NOTES

1. Area of Tract: 1.75 Acres
2. Existing Zoning: I-2
3. Proposed Use: Office
4. Area of Building: 3,307 Sq. Ft.
5. The required height and building setbacks are as follows:
   - Minimum Front Yard: 30 feet
   - Minimum Side Yard: 25 feet
   - Minimum Rear Yard: 50 feet
   - Maximum Height of Building: 50 feet
6. Owner under contract: Fred Weber, 2320 Creve Coeur Mill Rd., Maryland Heights, MO 63043, (314) 344-0070
7. Site is served by:
   - Sewer: City of O'fallon
   - Electric: Ameren UE
   - Laclede Gas Company
   - Water District #2
   - GTE Telephone Company
   - Fort Zumwalt School District
   - O'Fallon Fire Protection District
8. Flood Plain Note:
   Per the flood insurance rate map (F.I.R.M.) map number 29183C0220-E, effective date august 2, 1996, the surveyed tract lies in an area designated as zone "X" (area determined to be outside the 500-year floodplain.)
9. Topographic information is per Topographic Survey By BAX Engineering.
10. Parking Required:
    Office — 3,307/300 x 1 = 12 parking spaces required
    Total = 12 parking spaces required
    parking provided = 12 spaces with 1 handicap space
11. SITE COVERAGE CALCULATIONS:
    BUILDING = 3,307 SQ. FT.
    PAVEMENT = 37,205.83 SQ. FT.
    GREEN SPACE = 35,717.17 SQ. FT.
12. INTERIOR LANDSCAPING CALCULATIONS:
    12 SPACES X 270 SQ. FT. X 0.06 = 194.40
    194.40 SQ. FT. REQUIRED INTERIOR LANDSCAPING
    2,223 SQ. FT. INTERIOR LANDSCAPING PROVIDED

REFERENCE BENCHMARK ELEVATION 557.98
"O" IN OPEN ON FIRE HYDRANT, 20' WEST OF THE CENTERLINE OF LONE STAR DRIVE AND 50' SOUTH OF THE SOUTH ENTRANCE TO PPG O'FALLON ASSEMBLY CENTER.

SITE BENCHMARK ELEVATION 545.65
"O" IN OPEN ON FIRE HYDRANT, 40' SOUTH OF THE NORTH SERVICE ROAD (OLD HWY 40) AND 20' WEST OF THE ENTRANCE TO 1800 OLD HWY. 40.

LANDSCAPE LEGEND
& TREE INVENTORY

~Seventeen (17)~Glauco Juniper
~MIN. Height 6 feet
~Twelve (12)~18" JAPANESE YEW
A: 0 TREE TO BE REMOVED
B: 0 TREES TO BE SAVED
C: 17 TREES PROPOSED

GRADING QUANTITIES:

10,069 C.Y. CUT (INCLUDES SUBGRADES)
3,683 C.Y. FILL (INCLUDES 15% SHRINKAGE)
6,386 C.Y. HEAVY

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

SHEET INDEX

1 OF 3 COVER SHEET
2 OF 3 SITE PLAN
3 OF 3 PROFILES

SEWER MEASUREMENTS

THE EXISTING SEWER LENGTHS, SIZES, FLOWLINES, DEPTHS OF STRUCTURES AND SEWERS AND LOCATIONS WITH RESPECT TO EXISTING OR PROPOSED EASEMENTS HAVE BEEN MEASURED. THE RESULTS OF THOSE MEASUREMENTS ARE SHOWN ON THIS SET OF FINAL MEASUREMENT PLANS.

ALL PUBLIC SEWERS ARE LOCATED WITHIN DESIGNATED EXISTING OR PROPOSED EASEMENTS EXCEPT AS FOLLOWS:

SIGNED: [signature]
P.E./L.S.
5/5/04 **DATE**

KANKOLENSKI
NUMBER LS-2197

AS-BUILTS NOTE:

ALL DISTANCE AND SLOPE CALCULATIONS ARE FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.

AS-BUILTS ADDED APRIL 2004

PREPARED FOR: FRED WEBER, INC.
2320 CREVE COEUR MILL ROAD
MARYLAND HEIGHTS, MISSOURI 63043-8501
314-344-0070

REVISIONS

5-3-04	AS-BUILTS

ENGINEERING
PLANNING
SURVEYING

1052 South Cloverleaf Drive
St. Peters, MO. 63376-6445
314-928-5552
FAX 928-1718

4-20-04
DATE

84-1628F
PROJECT NUMBER

1 OF 3
SHEET OF

1628F-ASB.DWG
FILE NAME

SLH
DRAWN CHECKED

Fred weber Quarry App May 12/04 ARK

AS-BUILT SITE PLAN

FRED WEBER

84-1628F

4-20-04

LOT 11A
7,694 SF.
0.177 AC.
PROPERTY
N/F
OSCAR WILSON ENGINES
2196/1202
LOCATOR #2-145-671

LOT 11
212,746 SF.
4.884 AC.
PROPERTY N/F
OSCAR WILSON
ENGINES/PARTS INC
2196/1202
LOCATOR #2-145-6715-00-11

HOFF ROAD

LONE STAR (60'W) DRIVE

WEST TERRA LANE

NORFOLK AND SOUTHERN RAILROAD

*NO ENTRY ALLOWED ONTO WEST TERRA LANE AT THIS ENTRANCE. THIS WILL BE THE MAIN ENTRY POINT FOR TRUCKS AS THEY LOAD GRAVEL HERE AND PROCEED TO THE ADJACENT LOT WISH THE SCALES IN ORDER TO WEIGH THE LOADS. THE TRUCKS WILL THEN LEAVE AT THE ENTRANCE TO THE EAST AND PROCEED ONTO WEST TERRA LANE. SIGNALS TO BE MODIFIED TO ACCOMMODATE ENTRANCE ONLY. IT SHALL BE THE RESPONSIBILITY OF THE DEVELOPER TO MODIFY SIGNALS

EXISTING GRAVEL PILE

NEW GRAVEL PILE EDGE

TRUCK SCANNER UNITS

TD 106

45.73

MH 105

AIR RELEASE VALVE TO BE INSTALLED AT THIS LOCATION

384.46

EX MH

DIRECTIONAL BORE UNDER EXISTING WEST TERRA LANE

1-1/4"PVC FORCE MAIN BEGIN TO RISE TOWARD ENGING STRUCTURE FL =596.00

1-1/4"PVC FORCE MAIN FL =538.00

1-1/4"PVC FORCE MAIN FL =543.71

BORE UNDER EXISTING RAILROAD TRACKS

NEW 10' WIDE SANITARY EASEMENT

FIBER OPTIC LINES UNDER PAVEMENT THE PROPER UTILITY COMPANIES WILL HAVE TO LOCATE BEFORE BORING CAN COMMENCE

AREA PREVIOUSLY USED AS HOFF ROAD R/W

249.04 (STORM)

268.20 (SAN.)

ADDED STRUCTURE FF 111

EONE MODEL #2010-158 GRINDER PUMP AT THIS LOCATION

MH 100

15.74

FF 99

88.72 (STORM)

96.61 (STORM)

79.92

PROPERTY N/F
FRED WEBER, INC.

20' WIDE EASEMENT GRANTED TO THE CITY OF O'FALLON FOR PUBLIC UTILITIES BK. 1145 PG. 544

CONCRETE ENCASE WATER LINE

WATER VALVE

FENCE LINE 0.1' EAST

EXISTING ELECTRIC SERVICE TO BE ROUTED UNDERGROUND

SANITARY CLEANOUT TOP = 560.60 FL = 560.58

MH A

92.06 (STORM)

173.72 (SAN.)

CLEANOUT FL=545.01

FL=548.00

2500 WEST TERRA LANE O'FALLON 63366

5,307 SQ.FT. OFFICE FF=553.00

102.95

GI 101

10'WIDE UTILITY EASEMENT (SHOWN HATCHED)

GI 102

ADDED STRUCTURE GI 108

44.15

ADDED STRUCTURE GI 109

44.00

ADDED STRUCTURE GI 110

75.88

83.65

TD 103

1 STORY METAL BUILDING FINISH FLOOR 564.55

CONCRETE

SANITARY CLEANOUT TOP = 564.58 FL = 555.58

TRUCKER'S BUILDING FF=564.00

STORM RUNOFF IS NOT TO DRAIN OVER TOP OF WALL A DRAINAGE SWALE IS TO BE PROVIDED IN ORDER TO STOP ANY DRAINAGE FROM SPILLING OVER RETAINING WALL

PROPERTY N/F
FRED WEBER, INC.
BK. 1011 PG. 356

GRAPHIC SCALE

(IN FEET)
1 inch = 40 ft.

STATE OF MISSOURI
JAMES A. LAMBERT
2005015
REGISTERED LAND SURVEYOR

5/5/04

CITY FILE NUMBER 98-59

AS-BUILTS ADDED APRIL 2004

2/3

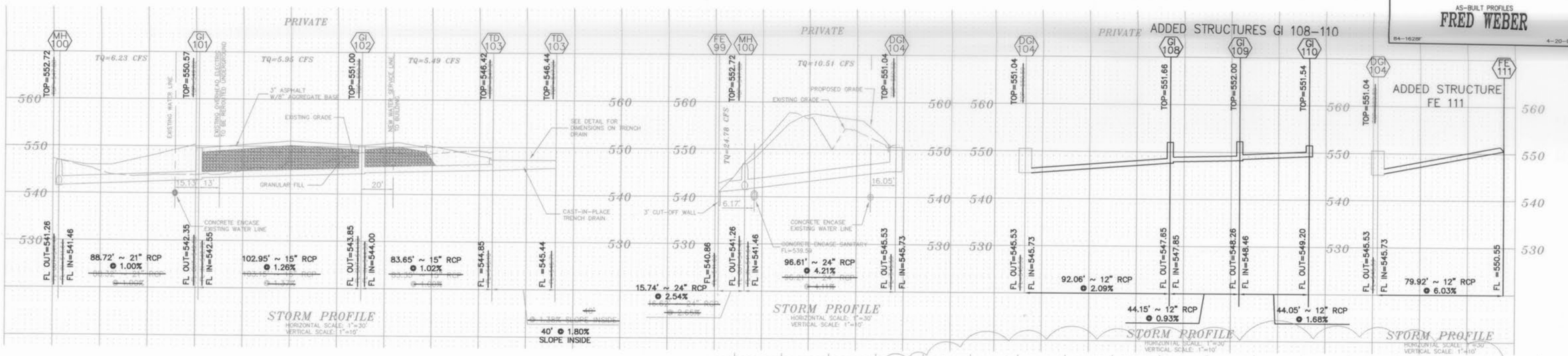
Fred Weber Quarry App 5/12/04 ARC

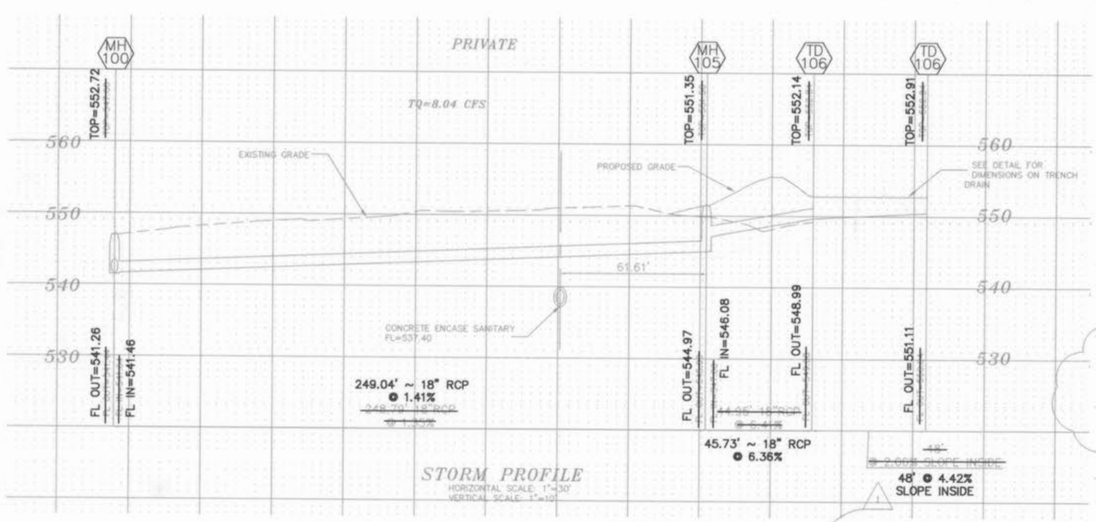
AS-BUILT PROFILES

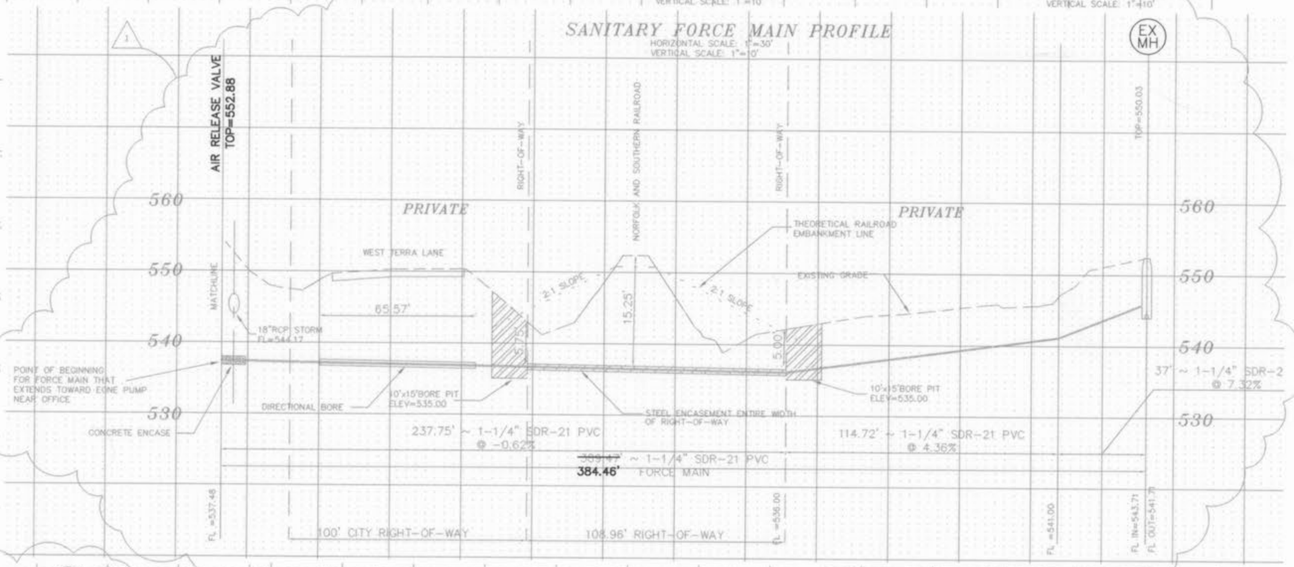
FRED WEBER

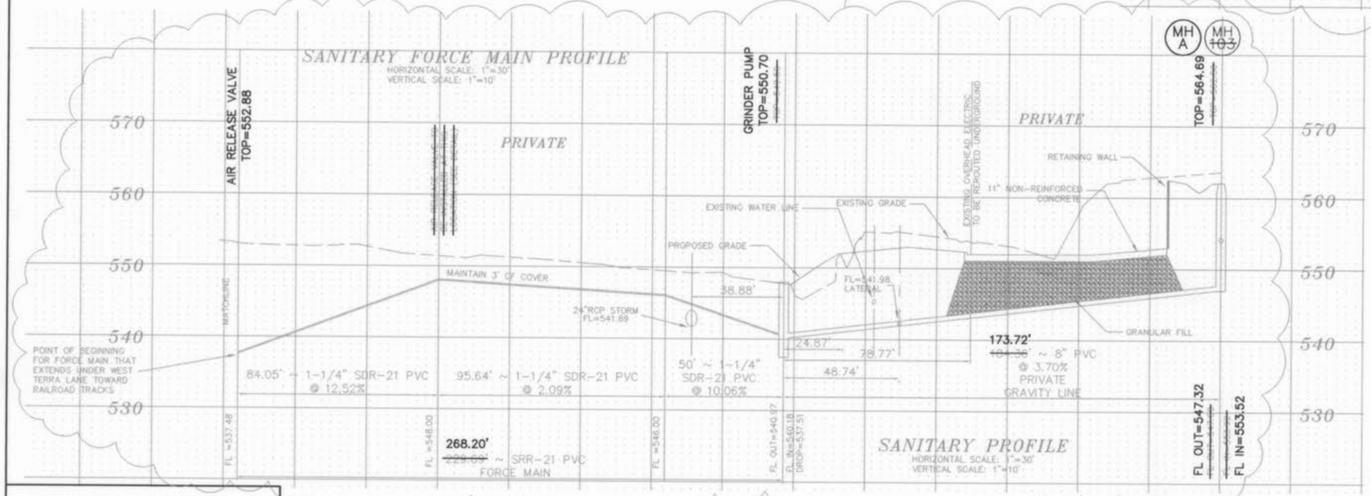
84-1628F

4-20-04









FORCE MAIN NOTES:

1. BORING UNDER ROAD AND RAILROAD TRACKS TO BE DONE BY ARROW BORING COMPANY.
2. ALL UTILITY COMPANIES TO VERIFY UTILITIES UNDER WEST TERRA LANE AND NOTE DEPTHS BEFORE ANY BORING CAN BE COMMENCE.
3. FORCE MAIN IS TO BE 1-1/4" PVC TYPE SDR-21 AND NO EXCEPTIONS WILL BE TAKEN.
4. STEEL ENCASEMENT WILL BE UTILIZED AT THE RAILROAD BORE AND PROPER REINFORCING MUST BE USED. SEE DETAIL FOR PROPER PLACEMENT.

STORM SEWER HEADWATER CALCULATIONS
FOR GRATE INLETS

	DGI	GI
	$Q_i = 3.09 d^{1.5}$	Q
	P=15 UNBLOCKED P=7.5 50% BLOCKED	P=10 UNBLOCKED P=5 50% BLOCKED
DOUBLE GRATE INLET 104		
Q_i = 10.51		
DEPTH UNBLOCKED = 0.38'		
DEPTH 50% BLOCKED = 0.60'		
SINGLE GRATE INLET 101		
Q_i = 0.28		
DEPTH UNBLOCKED = 0.04'		
DEPTH 50% BLOCKED = 0.07'		
SINGLE GRATE INLET 102		
Q_i = 0.46		
DEPTH UNBLOCKED = 0.06'		
DEPTH 50% BLOCKED = 0.10'		

STATE OF MISSOURI
WILLIAM SCOTT KANKOLENSKI
NUMBER 2217
REGISTERED LAND SURVEYOR

5/5/04

STATE OF MISSOURI
WILLIAM SCOTT KANKOLENSKI
NUMBER 2217
REGISTERED LAND SURVEYOR

STORM HYDRAULICS

CITY FILE NUMBER 98-59

AS-BUILTS ADDED APRIL 2004

3/3

Fred Weber Quarry App 5/12/04 ABC