ST. JOSEPH WEST HOSPITAL BUILDING ADDITION

LOT 2 OF ST. JOSEPH'S WEST PLAT ONE PART OF FRACTIONAL SECTIONS 26 & 27 TOWNSHIP 47 NORTH, RANGE 2 EAST ST. CHARLES COUNTY, MISSOURI

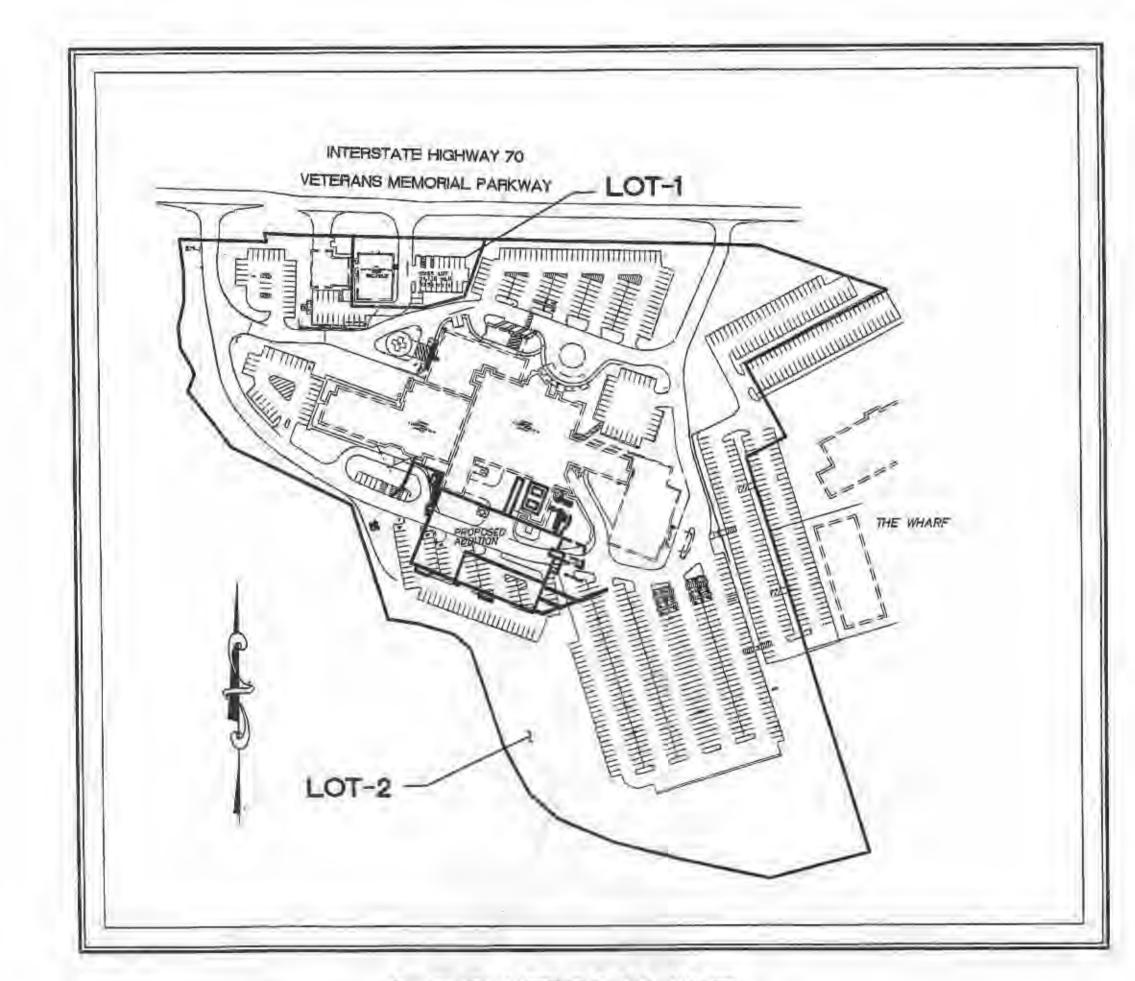




CITY OF LAKE SAINT LOUIS GENERAL NOTES

- Gas, water and other underground utilities shall not conflict with the depth or horizontal locations of existing and proposed sanitary and storm sewers,
- Underground utilities have been plotted from available information and, therefore, their locations must 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 grading or construction of improvements.
- 3. Palyvinyl Chloride (PVC) shall conform to the requirements of ASTM D-3034 Standard Specifications for the PSM Polyvinyl Chloride (PVC) Sewer Pipe and Fittings,
- 4. Storm sewers 18" in diameter or smaller shall be ASTM
- 5. Storm sewers 21" in diameter or larger shall be ASTM C-76, Class II.
- All storm sewer pipe under pavement, regardless of size; shall be reinforced concrete pipe (ASTM C-76, Class III) unless noted otherwise in the plans.
- 7. All filled places under buildings, proposed sanitary and storm sewer lines, and/or paved areas including trench backfills, and all earthen filled places within State, County, or City roads (Highways), shall be compacted to at least 90% of the maximum dry density as determined by the "Modified A.A.S.H.T.O. T-180 Compaction Test" (ASTM D-1557) unless otherwise specified by the local governing authority specifications. All tests will be verified by a soils engineer.
- All storm and sanitary trench backfills shall be water jetted. 1" clean rock compacted in place will be under paved areas.
- 9. Easements shall be provided for storm sewers, sanitary sewers, and all utilities on the record plat. See record plot for location and size of easements. This does not apply to building laterals.
- 10. No area shall be cleared without the permission of the City Engineer and Developer.
- 11. All grades shall be within 0.2 feet (more or less) of those shown on the grading plan.
- 12. No stope shall be greater than 3:1 and shall be either sodged ar seeded and mulched or stabilized as determined by the City Engineer.
- 13. Hazard markers will consist of three (3) standard specification, "Manual on Uniform Traffic Control Devices, end of roadway markers mounted on two (2) pound "U" channel sign post. Each marker shall consist of an eighteen (18) inch diamond reflectorized red panel. The bottom of each panel shall be mounted a minimum of four (4) feet above the elevation of the pavement surface.
- 14. All manhole and curb inlet tops built without elevations furnished by the Engineer will be the responsibility of the sewer contractor. At the lime of construction stakeout of the sewer lines, all curb and grate inluts will be face staked. If normal face stakes fall in line with sewer construction, the Engineer will set these stakes on a double offset. It shall be the responsibility of the sewer contractor to preserve all face stakes from
- 15. All standard street curb inlets to have front of inlet 2
- 15. The minimum vertical distance from the low point of the building to the flowline of a sanitary sewer at the corresponding building connection shall not be less than the diameter of the sanitary sewer plus a vertical distance not less than two and one-half feet (2-1/2").
- 17. Water lines, valves, sleeves, meters and etc., shall meet all specifications and installation requirements of the local governing authority.

- A.W.W.A. specification C-106 and/or C-108. The cast iron fittings shall conform to A.W.W.A. specification C-110. All rubber gasket joints for water cast fron pressure pipe and filtings shall conform to A.W.W.A. specification
- 19. All water hydrants and valves shall be cast iron and installed in accordance with plans and details.
- 20. All sanitary and storm sewers shall meet all specifications and Installation requirements of the local
- 21. All PVC water pipe shall have a minimum pressure rating of PR-200 or SDR-21.
- 22. All streets must meet the specifications and installation requirements of the City of Lake Saint Louis.
- 23. Manhale frame and cover shall be Clay and Bailey No. 2008 or Neenah R-1736 or Deeter 1315 or approved equal
- 24. The soil engineer shall be employed by the owner. The contractor shall notify the soils engineer at least two days prior to start of grading or paving, and at least ' day prior to resumption of work after any substantial
- 25. 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 of Loke Saint Louis specifications:
- 26. All water lines shall be laid at least 10 feet horizontally from any sanitary sewer, storm 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 ductile iron water pipe shall be joint 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, or any sewer or drain it crosses.
- 27. All manhole and inlet tops built without elevations furnished by the Engineer will be the responsibility of the sewer contractor.
- 28. The length of the concrete encasement around the P.V.C. sanitary sewers and the concrete storm sewers shall extend at least 5' into undisturbed soil to bridge the pipe across the trench backfill. Reinfarcing steel shall be placed in the concrete encasement for tensile strength
- 29. All construction and materials used shall conform to current City of Lake Saint Louis Standards. (Reference Appendix 1, A and B of City Code).
- 30. All PVC sanitary pipe is to have crushed stone bedding uniformly graded between 1" and 1/4" size. This bedding shall extend from 6" below the pipe to 7/10 of the pipe depth above the bottom of the pipe.
- 31. Erosion control shall not be limited to what is shown on the plan. The contractor shall take whatever means necessary to prevent siltation and erosion from entering adjacent roadways, properties and ditches. Such control might include channeling runoff into sediment basins, channeling runoff into areas where an extro right-of-way of straw bales are used. A silt fence might be considered if necessary, as directed by the City
- 32. The City of Lake Saint Louis shall be notified at least 48 hours prior to construction of sanitary sewers for coordination and inspection.



LOCATION MAP

SITE BENCHMARK

"O" IN OPEN ON HYDRANT ± 19' NORTH OF THE AMBULANCE BUILDING. ELEVATION = 535.43

DEVELOPMENT NOTES

- 1 Area of Development, 16:47 gares. 1 Present Zonkie: "CB" Community District.
- 1 Proposed User Hospital (Medical Cilibos) 4 Waximum Height Repurement: 65 feet. 5. Site is served by or located in the following:

h. Sable T.V.

st. Water - St. Charles County Water District No. 2 b. Sanitary Severs - St. Charles County Water Dist. No. 2 and City of D'Fallon c. Gos d. Telephone - St. Charles Gas Company - Century Tal. - Lake Saint Louis Fire Protection District Electric 3 - Livre River Flectric - Instaville "R-4" School District q. School

DRAWING INDEX

Sheet	Description
C1	COVER SHEET
C2	SITE PLAN
C3	DEMOLITION PLAN
C4	PAVEMENT PLAN
C5	UTILITY PLAN
C6	GRADING PLAN
C7	SILTATION CONTROL PLAN
C8	SANITARY SEWER PROFILES AND DETAILS
C9	STORM SEWER PROFILES AND DETAILS
C10	SITE DETAILS
C11	SILTATION CONTROL DETAILS
C12	WATERLINE DETAILS
C13	DRAINAGE AREA MAP

LEGEND

-	Sanitary Sewer (Proposed)	M.H.)	Sanitary Structure	R.C.P.	Reinforced Concrete Pipe
	Sanitary Sewer (Existing)	(41)	Stor. Structure	C.M.F.	Corrugated Metal Pipe
	Starm Sewer (Proposed)		Test Hole	C.I.P.	Cost Iron Pipe
	Storm Sewer (Existing)	-SP	Power Pole	P.V.C.	Polyvinyl Chloride
-5w-	Water Line & Size	100	Light Standard	V.C.P.	Vitrified Clay Pipe
-EX W-	Existing water line	88	Double Water Meter Setting	V.A.	Van Accessible
₩ H	Tee & Volve	ob.	Single Water Meter Settling	C.O.	Clean Out
£	Сар	**	Hydrant	A.D.J.	Adjust To Grade
1.3	Lat or Building Number	9 8	Street Sign	T.B.R.	To Be Removed
-×-	Existing Fence Line	C.L	Curs Inlet	T.B.R.&R	To Be Removed & Relocated
houseway	Existing Tree Line	D.C.I	Double Curb Inlet	T.B.P.	To Be Protected
_	Existing Floodway	G.J.	Grate Inlet	T.B.A.	To Be Abandoned
~	Existing Flood Plain	A).	Area Inlet	B.C.	Base Of Curb
Year	Existing Contour	D.A.L	Double Area Inlet	T.C.	Top Of Curb
~	Proposed Contour	F.E.	Flored End Section	T.W.	Top Of Wall
B B B B B B B B B B B B B B B B B B B	All Weather Drive	E.P.	End Pipe	B.W.	Bottom Of Wall
1	Asphalt Pavement	E.D.	Energy Dissipator	E.W.	End Of Wall
	Concrete Pavement	M.H.	Manhole	U.N.O.	Unless Noted Otherwise
12.00	gonerate i avenuent	C.P.	Concrete Pipe	ox	Oxygen Line
		EXUS		(TYP)	Typical
			Site Lighting	FOV	Fuel Oil Vent
		SL	Site Lighting		

OWNER:

ST. JOSEPH'S HEALTH CENTER 300 FIRST CAPITOL DRIVE ST. CHARLES, MO 63301 CONTACT: MR. TED PIVIN PHONE: (636) 947-5000 FAX: (636) 947-5090



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1804 Borman Circle Drive St. Louis, MO 63146

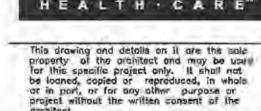
Rock Hill Mechanical Corp 524 Clark Avenue St. Louis, MO 63122 Kaiser Electric

1552 Fencorp Drive Fenton, MO 53026 Elicina (EJE) 305-1515 for (636) 305-7755 Omega Plumbing 760 St. François Street Florissont, MO 63031

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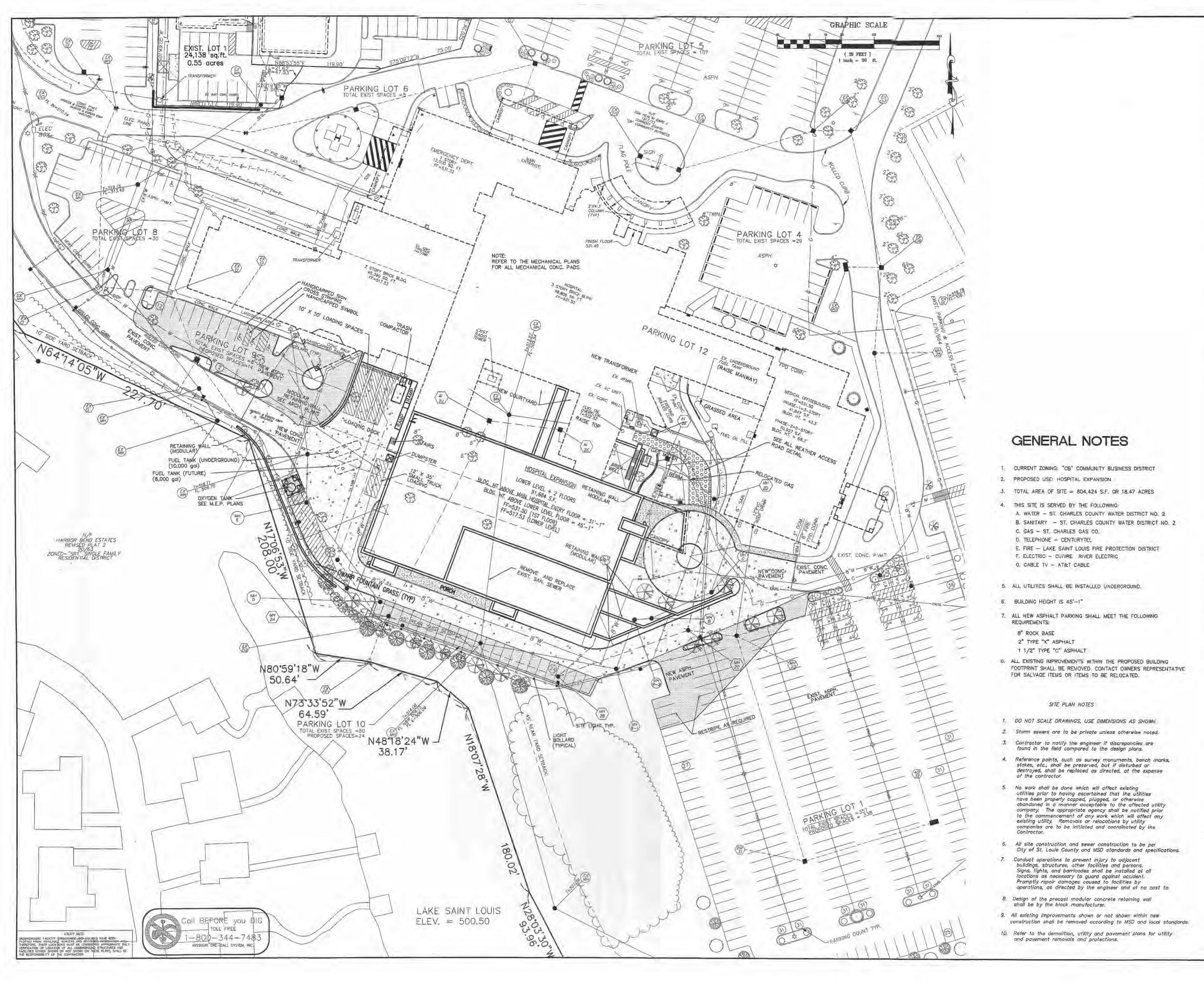
No.	Revision	Description	
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COVER SHEET

Project Number: Drawn By:

December 15, 2003

UNDERGROUND FACILITY STRUCTURES AND UTILINES HAVE & I'M
PLOTTED FROM AVAILABLE SURVEYS AND RECORDED INFORMATION AND,
DIEREFORE, THEIR LOCATIONS MUST IN CONSIDERED APPROXIMATE ONLY.
REREFICATION OF LOCATION OF ALL INDERFORMOUND STRUCTURES AND
FACILITIES EITHER SHOWN ON ROTI SHOWN ON THESE FLANS, SHALL HE
THE RESPONSIBILITY OF THE CONTRACTOR.



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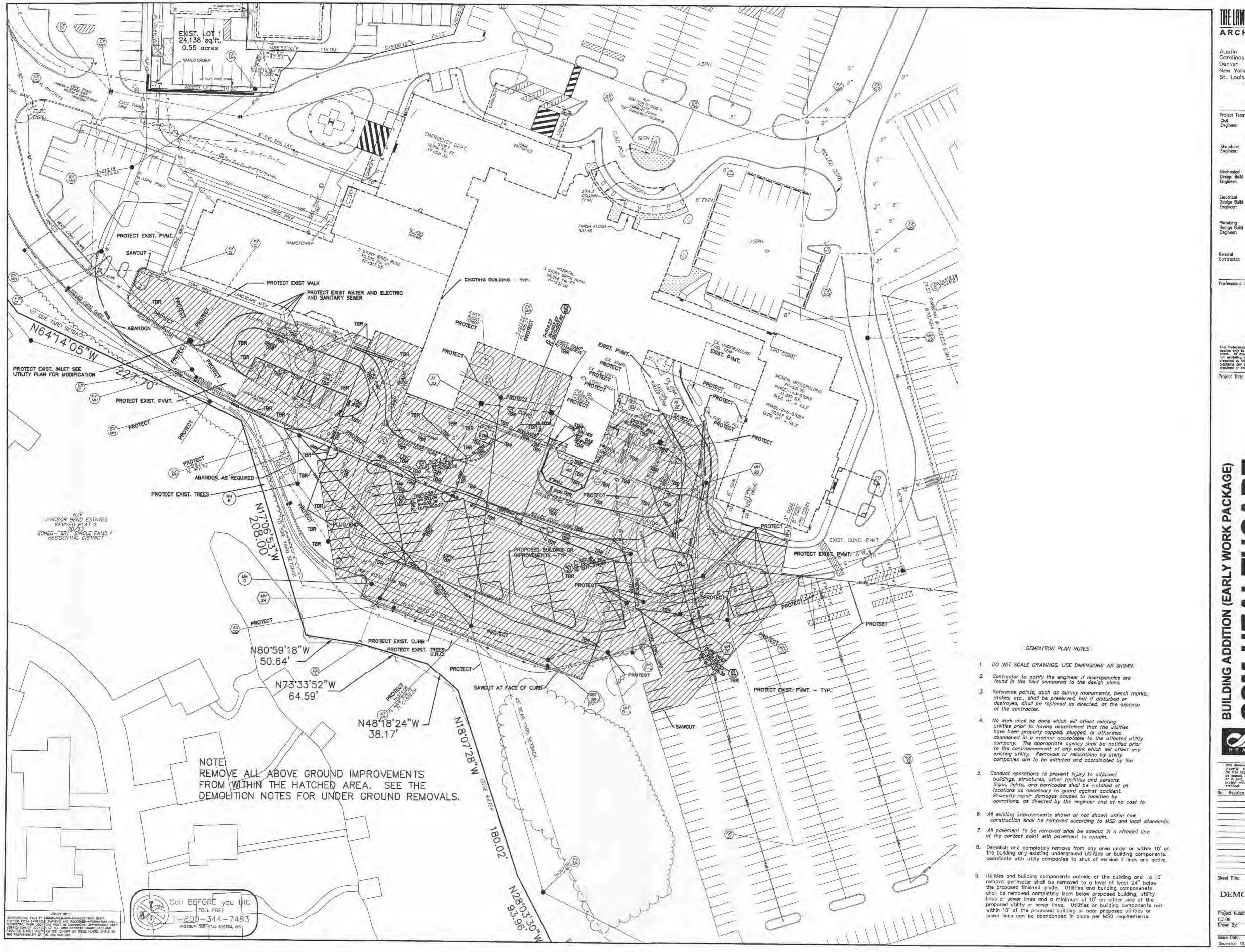
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December 15, 2003

SITE PLAN

Project Number: 03106 Drawn By: Sheet Number: Issue Date: C2 OF 13



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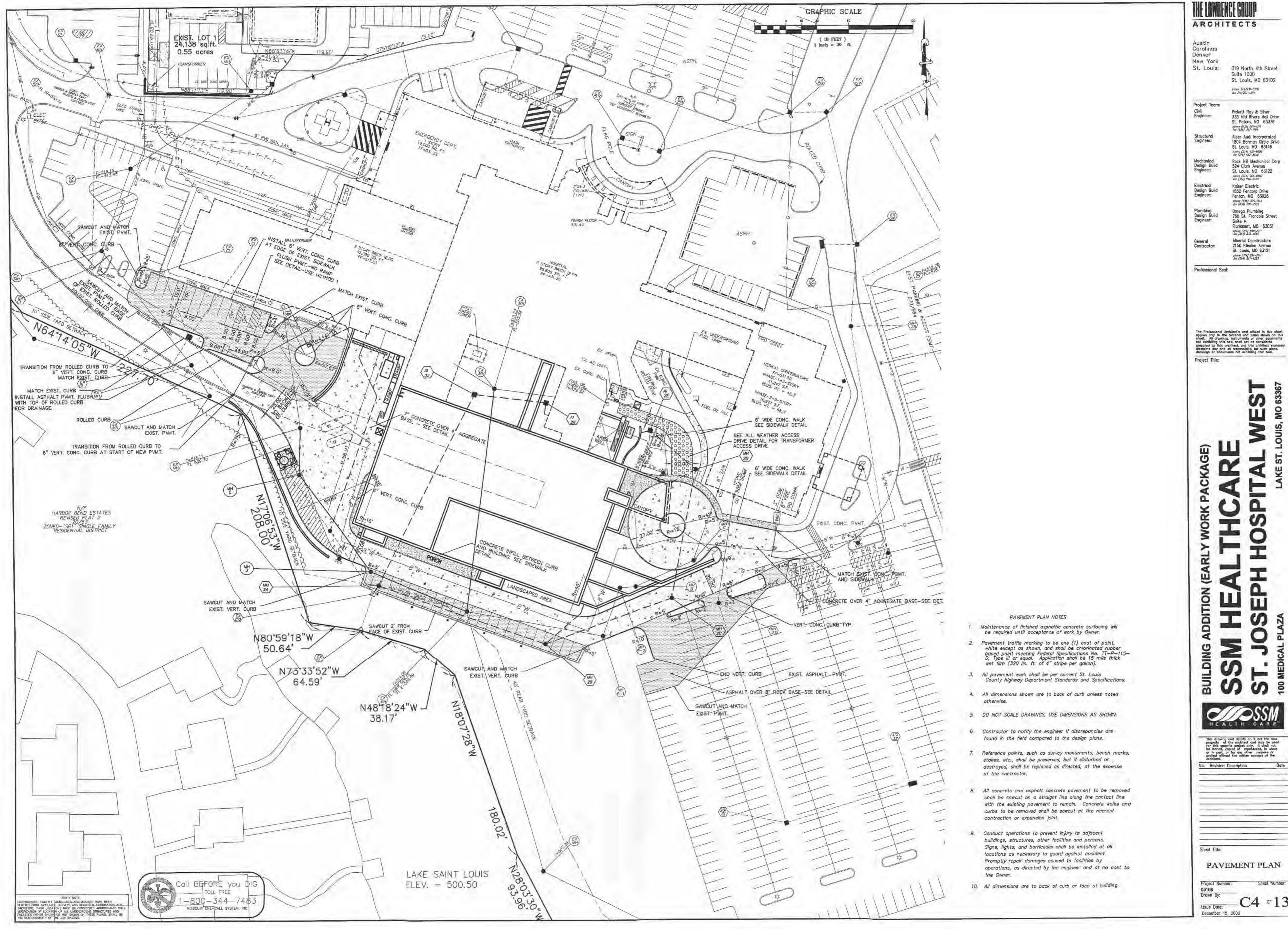
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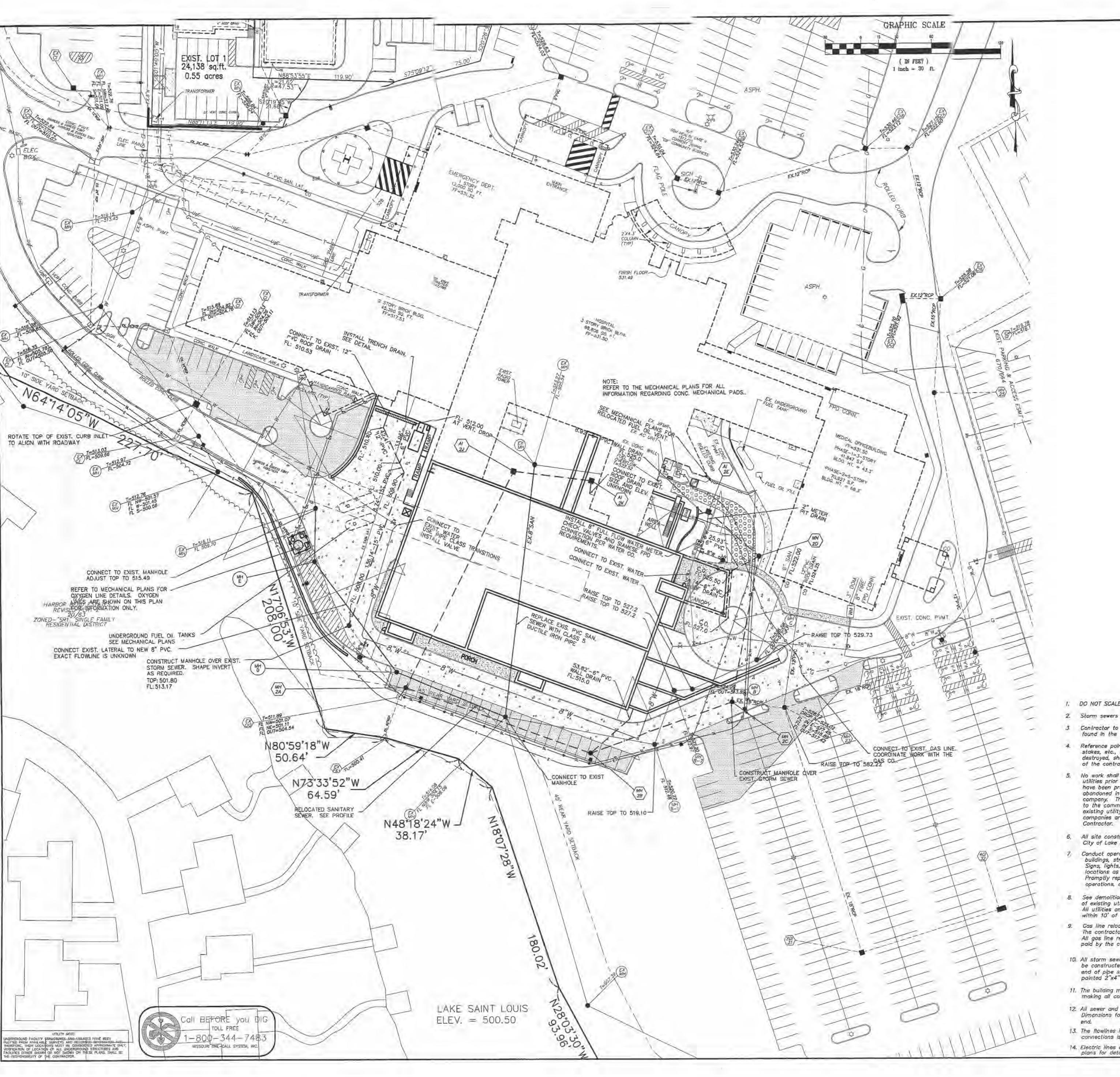
No. Revision Description

DEMOLITION PLAN

Drawn By:

Issue Dote: December 15, 2003







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phone 3/4/231-5700 Yes 3/4/231-0816

Project Team:

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NOILIO

DING

1. DO NOT SCALE DRAWINGS, USE DIMENSIONS AS SHOWN.

UTILITY PLAN NOTES

Storm sewers are to be private unless otherwise noted.

Contractor to notify the engineer if discrepancies are found in the field compared to the design plans.

Reference points, such as survey monuments, bench marks, stakes, etc., shall be preserved, but if disturbed or destroyed, shall be replaced as directed, at the expense of the contractor.

No work shall be done which will affect existing utilities prior to having ascertained that the utilities have been properly capped, plugged, or otherwise abandoned in a manner acceptable to the affected utility company. The appropriate agency shall be notified prior to the commencement of any work which will affect any existing utility. Removals or relocations by utility companies are to be initiated and coordinated by the

All site construction and sewer construction to be per City of Lake Saint Louis and MSD standards and specifications.

Conduct operations to prevent injury to adjacent buildings, structures, other facilities and persons. Signs, lights, and barricades shall be installed at all locations as necessary to guard against accident.
Promptly repair damages caused to facilities by
operations, as directed by the engineer and at no cost to

See demolition plan for extent of removals. Removal or abandonment of existing utilities or sewer shall be per MSD Standard Specifications.
 All utilities and sewers shall be completely removed if located under or within 10' of the proposed building.

Gas line relocation shall be performed by the gas co.
The contractor shall coordinate gas line relocation with the gas co.
All gas line relocation costs such as trenching and backfill shall be paid by the contractor.

10. All storm sewer, sanitary sewer and water connections shall be constructed to within 5' of the face of building. The end of pipe shall be capped watertight and marked with a painted 2"x4" labelled with the lines size and type.

The building mechanical contractor shall be responsible for making all connections to the morked and capped ends of lines.

12. All sewer and utility dimensions are to the center of the structure. Dimensions for storm sewer flared ends is to the end of the flared

The flowlines indicated at building storm sewer and sanltary sewer connections is the elevation at 5' from the building.

Electric lines are shown for information only, refer to the electrical plans for details.

UTILITY PLAN

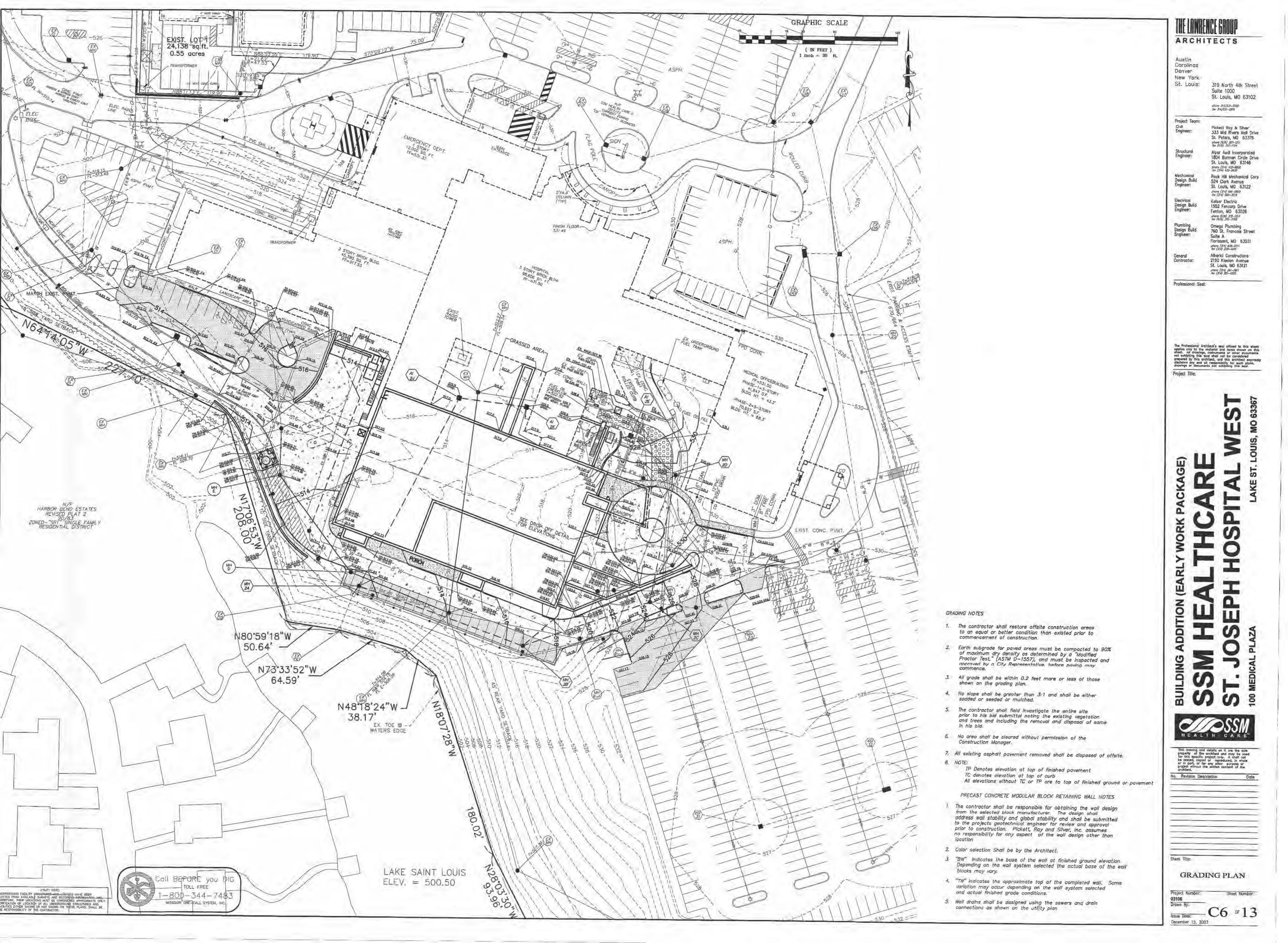
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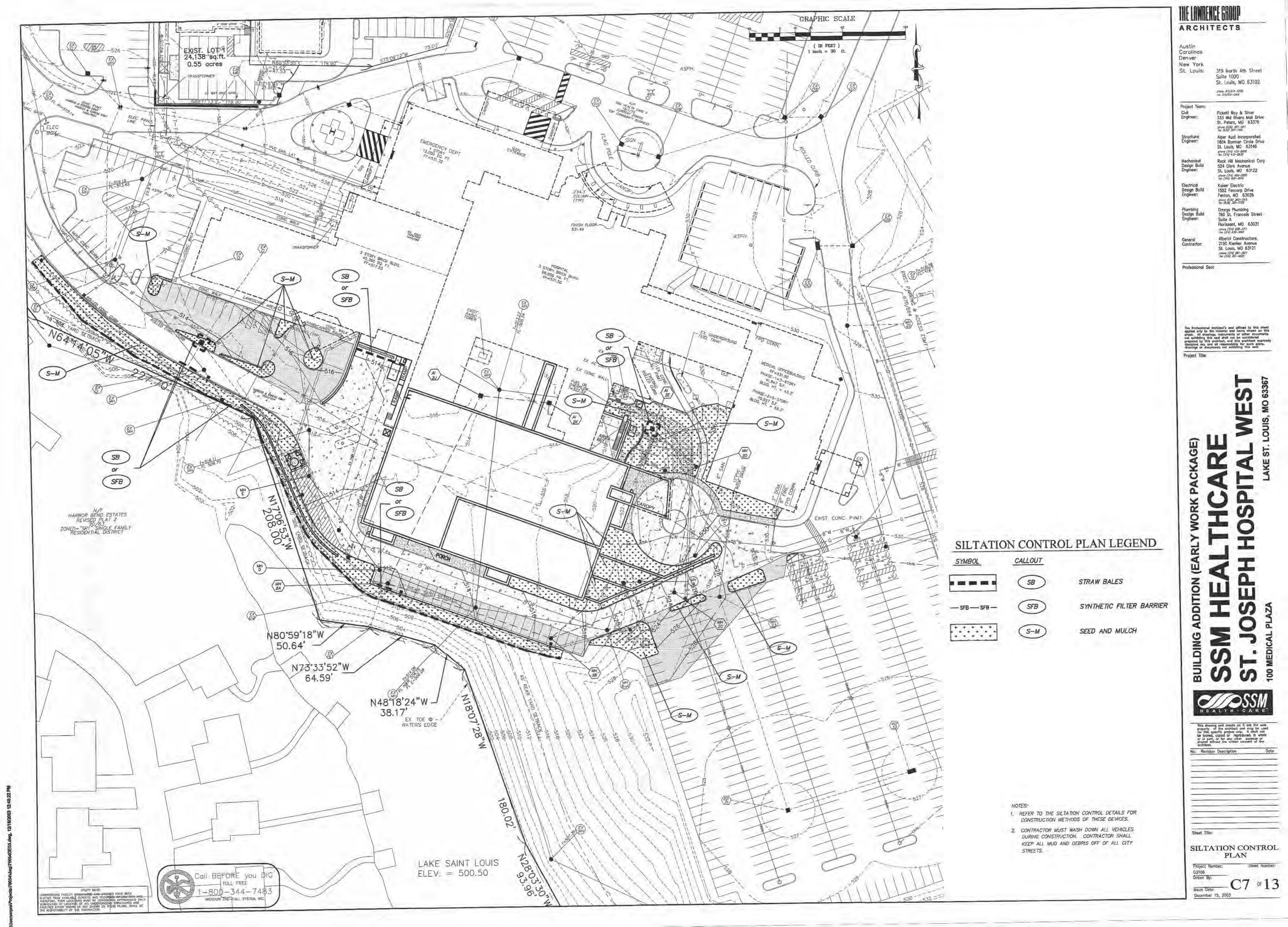
No. Revision Description

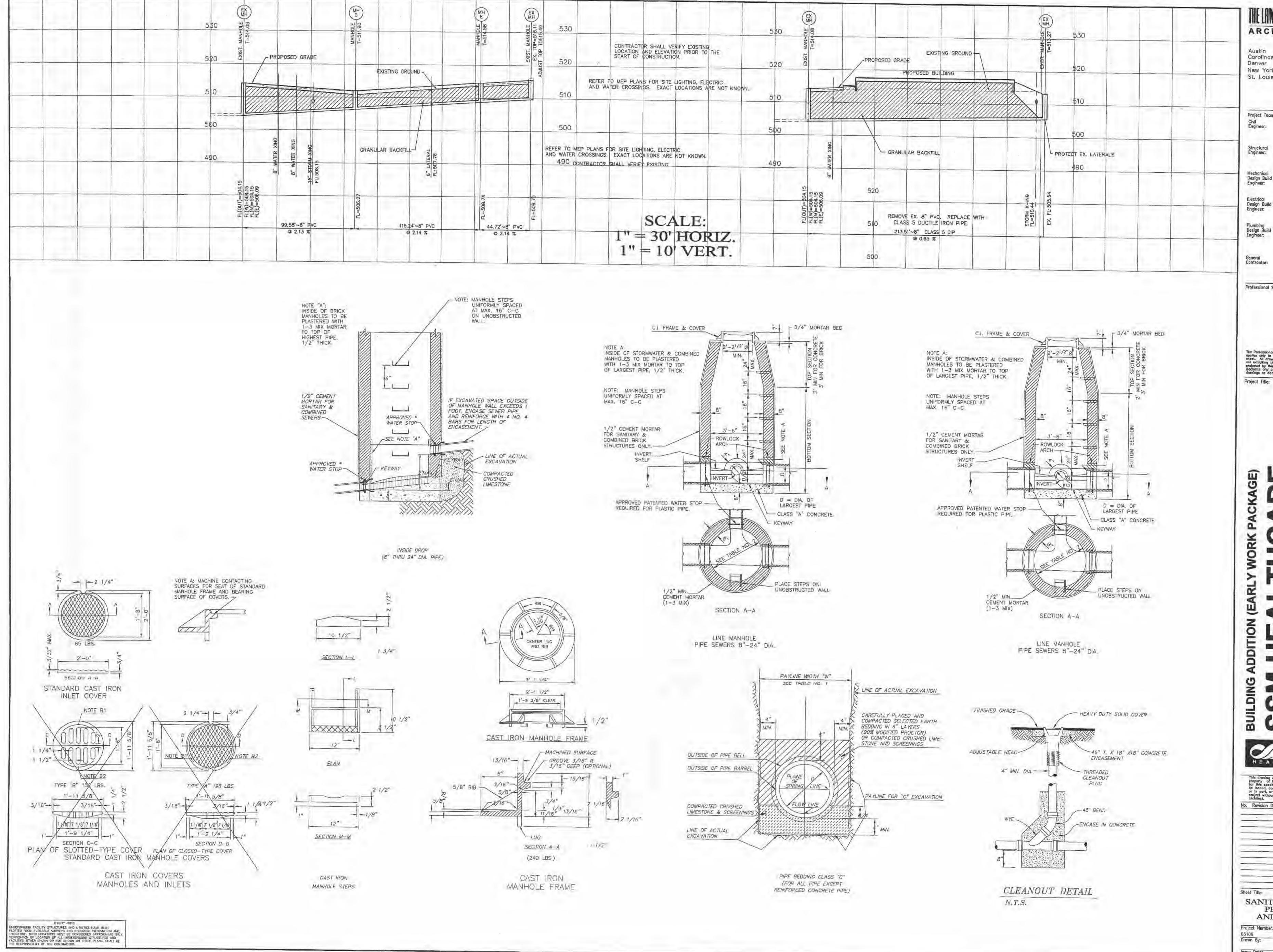
Sheet Title:

December 15, 2003

Sheet Number: Project Number:







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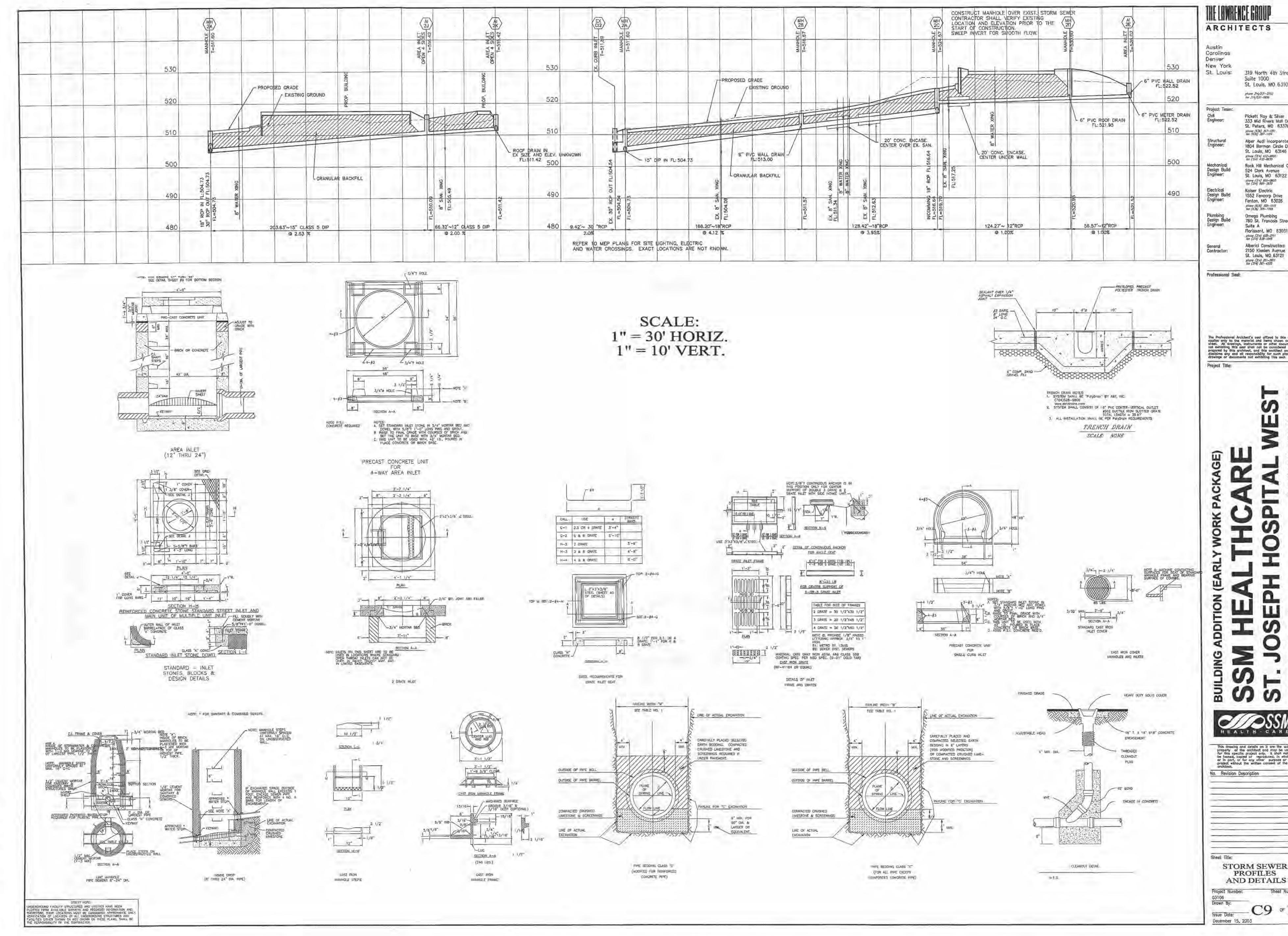
No. Revision Description

Shoet Title: SANITARY SEWER PROFILES

AND DETAILS

Project Number: Sheet Number: 03106
Drown By:

Issue Date: C8 OF 13 December 15, 2003



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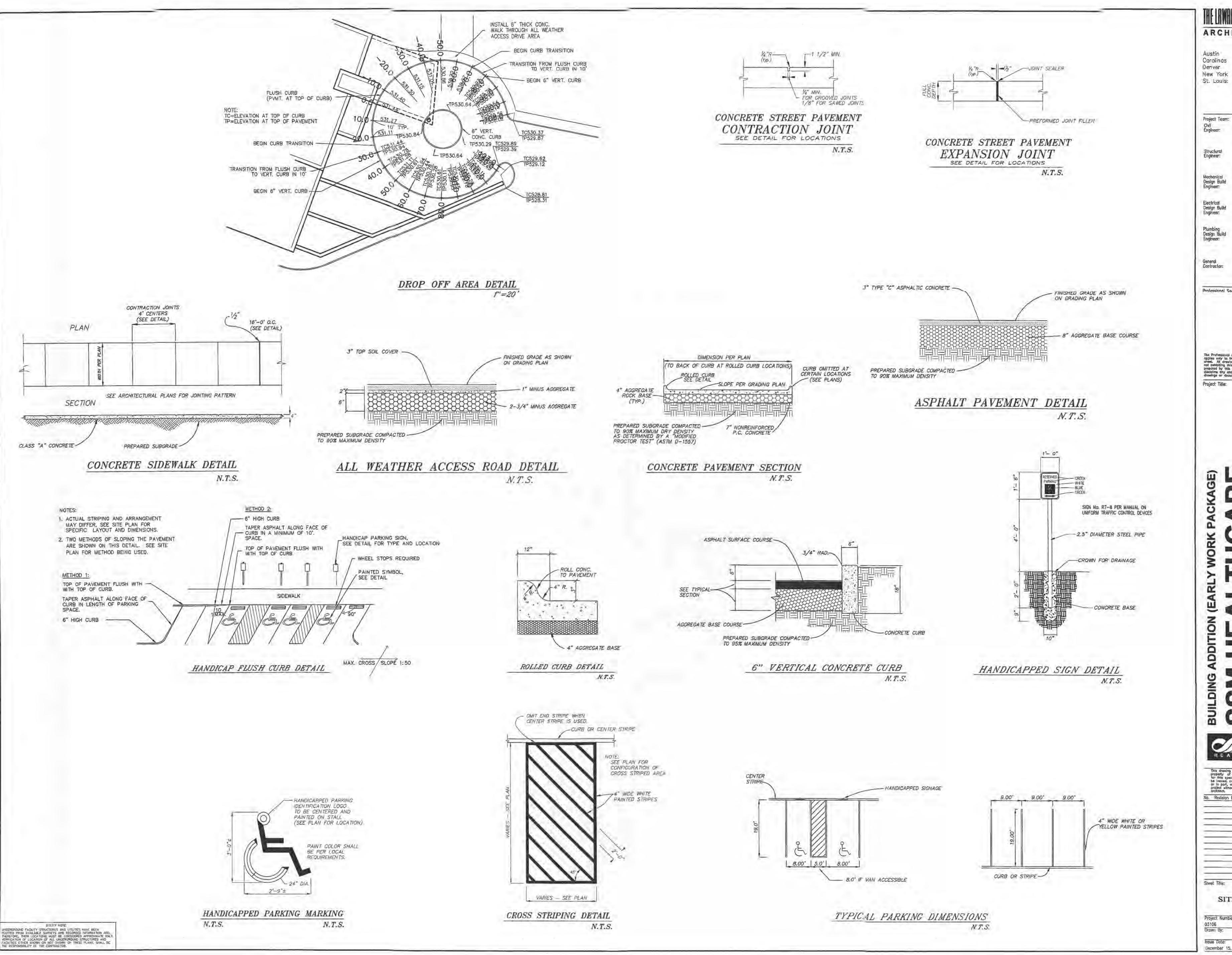
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STORM SEWER PROFILES AND DETAILS



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No. Revision Description

SITE DETAILS

Project Number: Sheet Number: Issue Date: C10 of 13

December 15, 2003

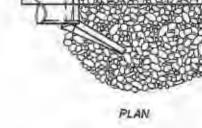
Seeding Roles: Permanent.

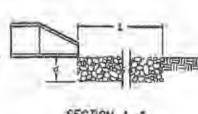
Tall Fescue - 30 lbs./ac. Smooth Brome - 20 lbs./ac

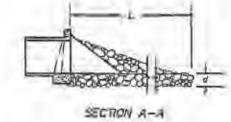
Fertilizer rates: Nitrogen 30 lbs./ac. Phosphate 30 lbs./ac. Fotossium 30 lbs./qc

3. d=1.5' times the maximum stone

4. Apron lining must extend into a







SECTION A-A PIPE OUTLET TO FLAT AREA

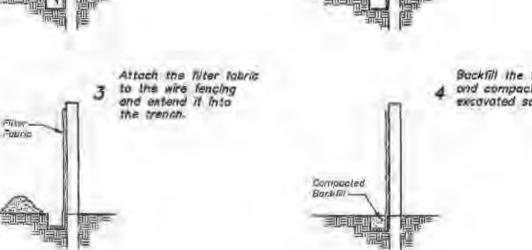
PIPE OUTLET TO WELL-DEFINED CHANNEL

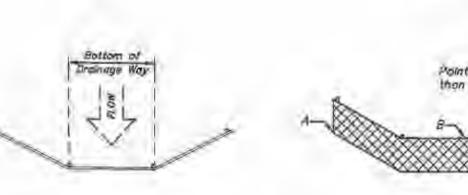
APPENDIX F For Urban Development Sites

Sediment deposits should be removed after each storm event. They must be removed when deposits reach approximately half the height of the barrier.

Any sediment deposits remaining in place after the silt fence or filter barrier is no longer required shall be dressed to conform with the existing grade, prepared and seeded.







FLAN

For Urban Development Sites

SFB

APPENDIX A

Combined: Fescue @ 15 lbs./ac. and Brome @ 10 lbs./ac

Temporary

Wheat or Rye - 150 lbs./oc. (3.5 lbs. per square foot)
Dats - 120 lbs./oc. (2.75 lbs. per square foot) Seeding Periods:

Fescue or Brome - March I to June I August 1 to October

Wheat or Fye - March 15 to November 1 - March 15 to September 15 Mulch rotes: 100 lbs. per 1,000 sq. ft. (4,356 lbs. per acre)

Lime 600 lbs./ac. ENM"

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

Apron lining may be rip-rap or concrete.

EXISTING

PAVEMENT

FILTER CLOTH

EXISTING

CONSTRUCTION SPECIFICATIONS

Stone Size: Use 2" stone or reclaimed or recycled concrete equivalent.

5. Filter Cloth: Will be placed over the entire area prior to placing of the

6. Surface Water: All surface water llowing or diverted toward construction entrances shall be piped across the entrance. If piping is impractical,

7. Maintenance: The entrance shall be maintained in a condition which will

This may require periodic top dressing with additional stone as conditions

All sediment spilled, dropped, washed or tracked onto the public right-

onto the existing pavement. When washing is required, it shall be done

9. Periodic inspection and needed maintenance shall be provided after each rain.

VEHICLE WASHDOWN AREA

3. Washing: Wheels shall be cleaned to remove sediment prior to entrance

demand and repair and/or cleanout of any measures used to trap sediment.

on an area stabilized with stone and which drains into an approved sediment

CALLOUT

WD

Place and stake

stakes per bale.

Backfill and compact the

the barrier to prevent piping

A excavated soil as shown

on the uphill side of

2 straw bales, two

prevent tracking or flowing of sediment anto existing pavement.

stone. Filter will not be required on a single family residence lot.

a mountable berm with a 5:1 slape will be permitted.

PAVEMENT

GROUND

2. Langth: As required, but not less than 40 fest.

of-way must be removed immediately.

SYMBOL

trapping device.

Excavate a trench 4° deep and the

width of a straw

Wedge loose straw

between bales to

create a continuous

ELEVATION

Placement and Construction of a Straw Bale Barrier

APPENDIX C

For Urban Development Sites

STRAW BALE BARRIERS

CALLOUT

SB

Outlets for diversions must be stable. Stable outlets consist of grass waterways, earthen channels with capacity adequate to prevent gully erosion, grade stabilization structures or other practices as approved by the Designated Official.

Coarse Aggregate ---

APPENDIX B

For Linban Development Situs

DIVERSIONS

Combination Diversion - Slope Fill Slope-

(05-1)

(05-3)

09-1

Used at the top of a fill slope.

Earth Ridge Diversion

General use.

-min

-

Combination Diversion

Gravel Ridge Diversion

Used around the perimeter of a construction site.

-Compacted Soll

- Excavated Channel

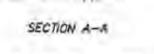
I Thickness: Not less than six (6) inches. 4. Width: twenty six (20) foot minimum.

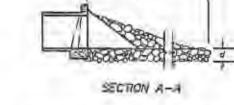
L is the length of the rip-rop. (L=10' x Dia. of pipe in feet)

diameter but not less than 5 inches









WITH NO DEFINED CHANNEL

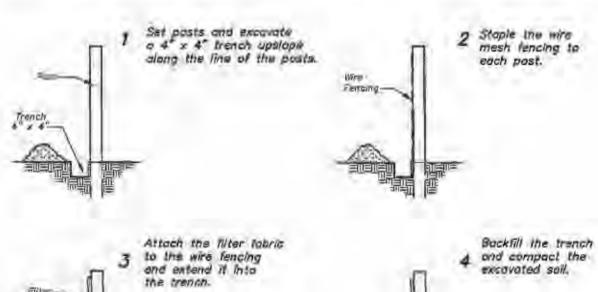
Pipe Outlet Conditions

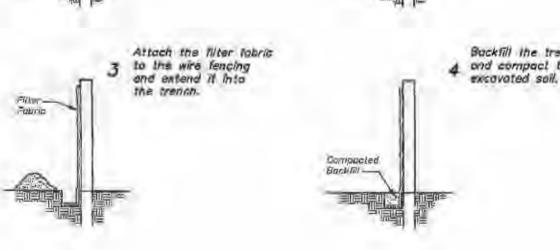
OUTLET PROTECTION

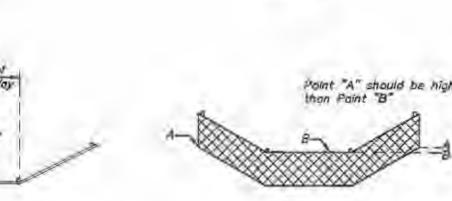
MAINTENANCE

f. Filter barriers shall be inspected immediately after each rainfall and at least daily during prolonged rainfall. Any required repairs shall be made immediately.

2. Should the fabric decompose or become ineffective prior to the end of the expected unable life and the barrier still be necessary. the fabric shall be replaced promptly:







ELEVATION

Placement and Construction of a Synthetic Filter Barrier

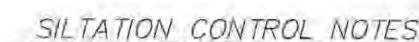
APPENDIX D

SYMBOL

CALLOUT

-SFB-SFB-

SYNTHETIC FILTER BARRIERS



- Installation of all sediment and erasion control shall be implemented as the first step of grading and within seven (7) days of grubbing.
- Inspection of siltation control shall take place at least once every seven (7) days and within 24 hours of any rain event. Any repairs
- required shall begin immediately. A Missouri State Operating Permit that sprecifically indentifies the site must be obtained from the Missouri Department of Natural Resources

prior to any clearing, grubbling or grading that results in destruction

- 4. The contractor shall keep and maintain records of all siltation control inspections, repairs, installation or relevant activities on the jobsite or main office for a period of three years. These records shall be available for inspection by Missouri Department of Natural Resources or local authorities having jurisdiction.
- All disturbed areas which remain unworked for 30 days or more shall be stabilized with seeding and mulching per appendix A or per the project specifications whichever is more stringent. If seasonal conditions prohibit seeding, mulching or matting shall be installed
- 6. All slopes or drainage channels, once constructed to final grade shall be seededand mulched or otherwise stabilized within 7 days. Every effort shall be made to prevent erosion in these areas.
- 7. Silt fences inlet protection devices shall be installed immediately around each inletonce inlet construction is completed.
- 8. All siltation control devices shall remain in place until upslope areas have been permanently stabilized.

STRAW BALE SILTATION CONTROL SPECIFICATIONS

Sheet Flow Applications:

of the root zone.

- Bales shall be placed in a single row, lengthwise on the contour, with both ends of adjacent bales tightly abutting one another.
- 2. All bales shall either be wire bound or string tied. Straw bales shall be installed so that the bindings are oriented around the sides ratheer than along the tops and bottoms of the bales to prevent deterioration of the bindings.
- 3. The barrier shall be entrenched and backfilled. A trench shall be excavated the width of the bale and the length of the barrier o minimum of 6 inches. After the bales are staked and chinked, the excavated material shall be backfilled against the barrier. Backfill soil shall conform to the ground level on the downhill side and shall be built up to 4 inches against the uphill side.
- 4. Each bale shall be secuely anchored by at least two stakes driven through bale. The first stake in each bale shall be driven toward the previously laid bale to force the bales together. Stakes shall be driven deep enough into the ground to secuely anchor the bales.
- 5. The gaps between the bales shall be chinked with straw to prevent water from escaping between the bales. Loose straw scattered over the area immediatley uphill from a straw bale barrier tends to increase barrier efficiency.
- 6. Inspection shall be frequent and repair or replacement shall be made as promptly as needed.
- Straw bale barriers shall be removed when they have served their usefullness but not before upslope areas have been stabilized.

Straw Bale Maintenance:

- 1. Straw bales shall be inspected immediately after each rainfall and at least daily during prolonged rainfall.
- 2. Close attention shall be paid to the repair of damaged straw bale barriers, end runs and barrier undercutting.
- 3. Should straw bales decompose or become ineffective prior to the end of construction and are still necessary, the straw bales shall be promptly replaced.
- 4. Sediment deposits shall be removed after each rainfall. They must be removed when the level of deposition reaches approximately one - half of the height of the barrier.
- 5. Any sediment deposits remaining in place after the straw bale barrier is no langer required shall be dressed to conform to the existing grade, prepared and seeded.

Synthetic Filter Barrier Specifications (Silt Fence):

- 1. Silt fence shall be wooven geotextile fabric Mirall 100X or equal.
- 2. Fabric shall be entrenched and backfilled. A trench shall be excavated a minimum of 6 Inches deep for the length of the fence. The excavated material shall be backfilled against the fence.
- 3. Fence height shall be a minimum of 2 feet above grade, with fabric installed along the contour and on the upslope side of the stakes.
- 4. Silt fence shall be used only on sheet flow conditions.
- 5. Sill fences shall be installed around all storm sewer structures.

Silt Fence Maintenance:

- 1. Sift fence shall be inspected immediately after each rainfall and at least daily during prolonged rainfall.
- 2. Close attention shall be paid to the repair of damaged silt fence barriers, and runs and barrier undercutting.
- 3. Should silt fence become ineffective prior to the end of construction and are still necessary, the straw bales shall be promptly replaced.
- 4. Sediment deposits shall be removed after each rainfall. They must be removed when the level of deposition reaches approximately one - half of the height of the fence.
- 5. Any sediment deposits remaining in place after the silt fence barrier is no longer required shall be dressed to conform to the existing grade, prepared and seeded.

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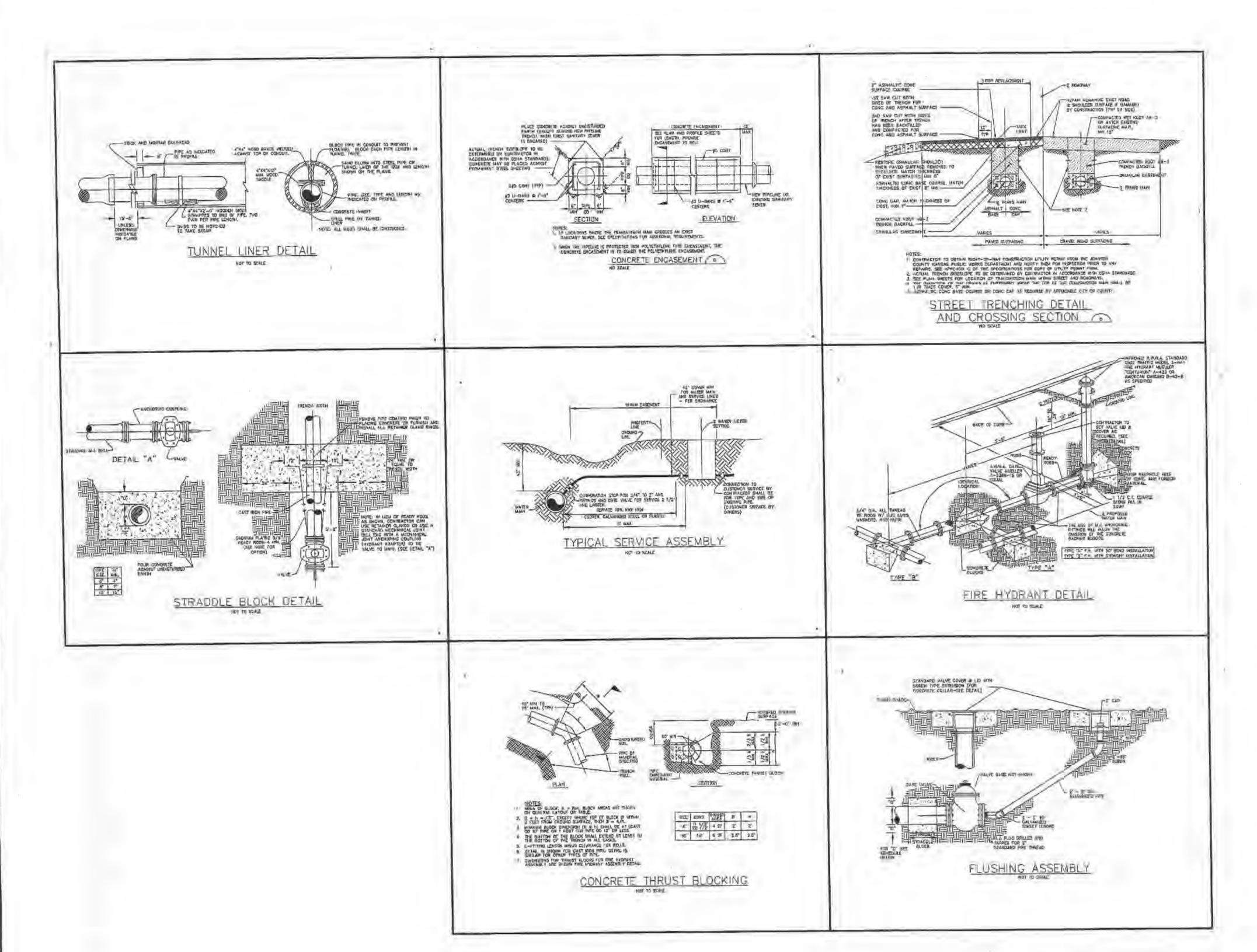
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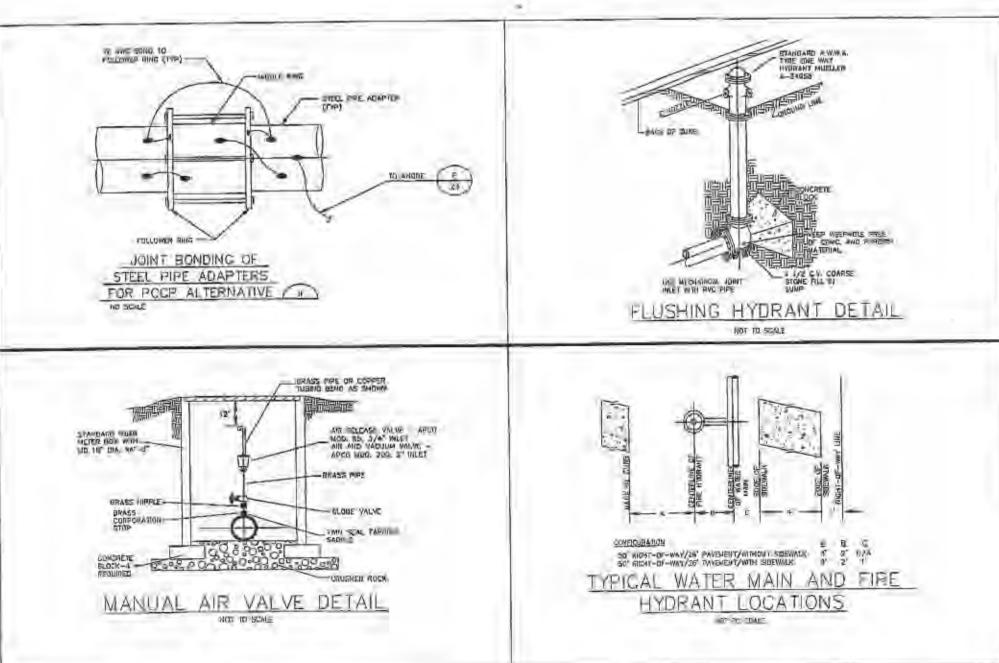
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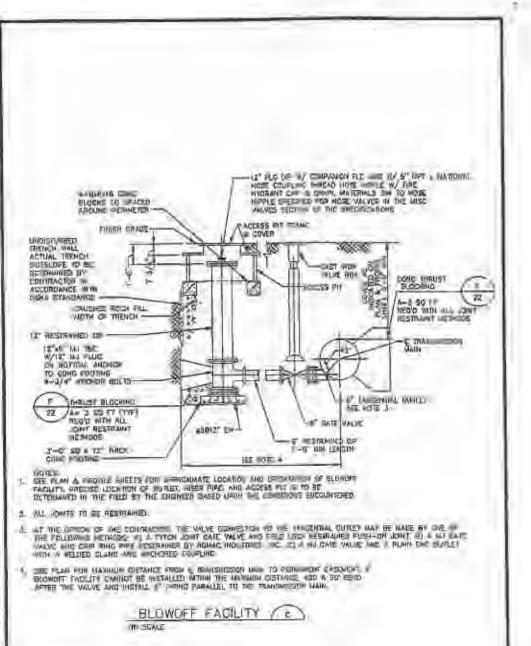
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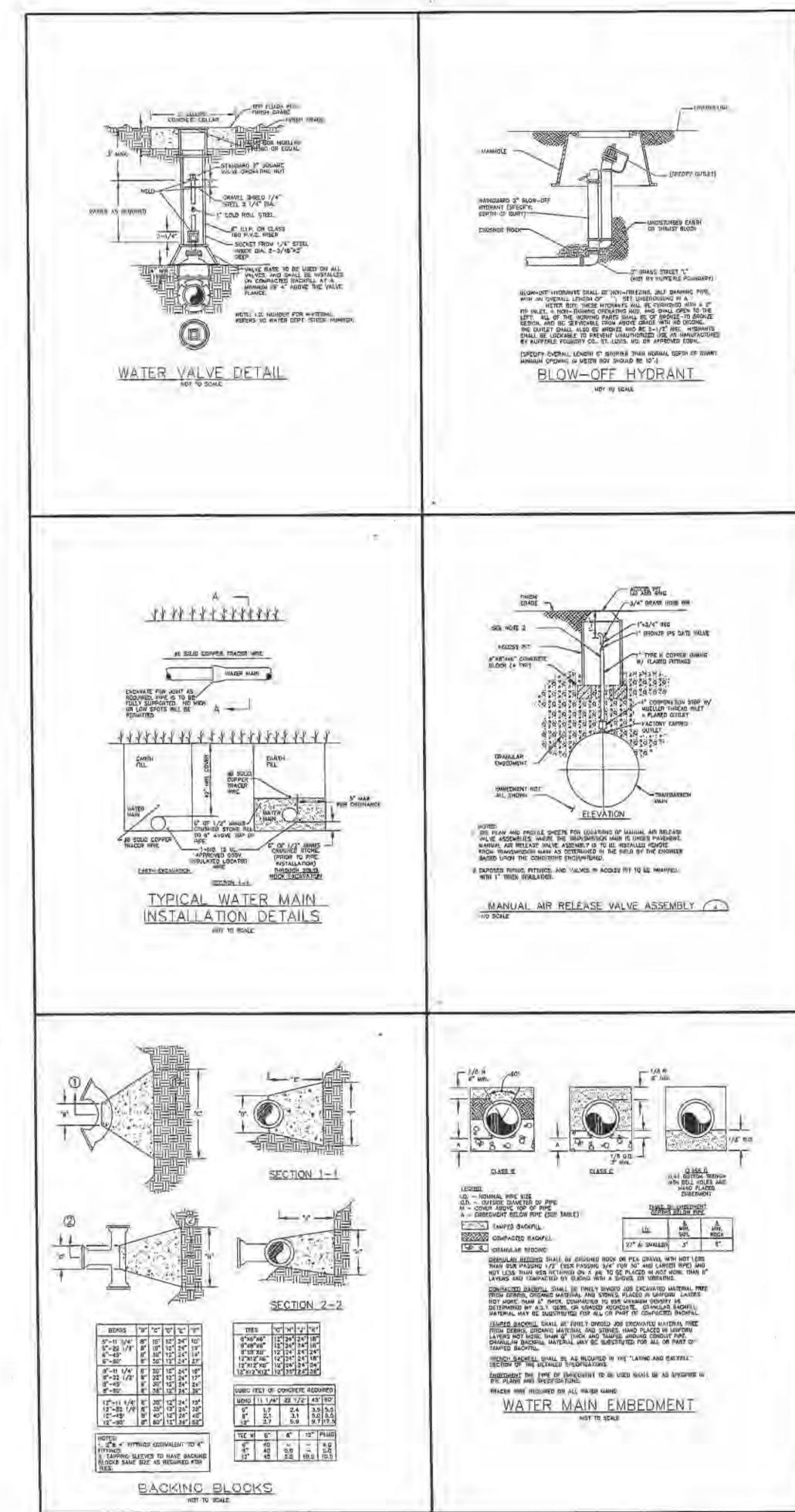
SILTATION CONTROL DETAILS Project Number: Sheet Number:

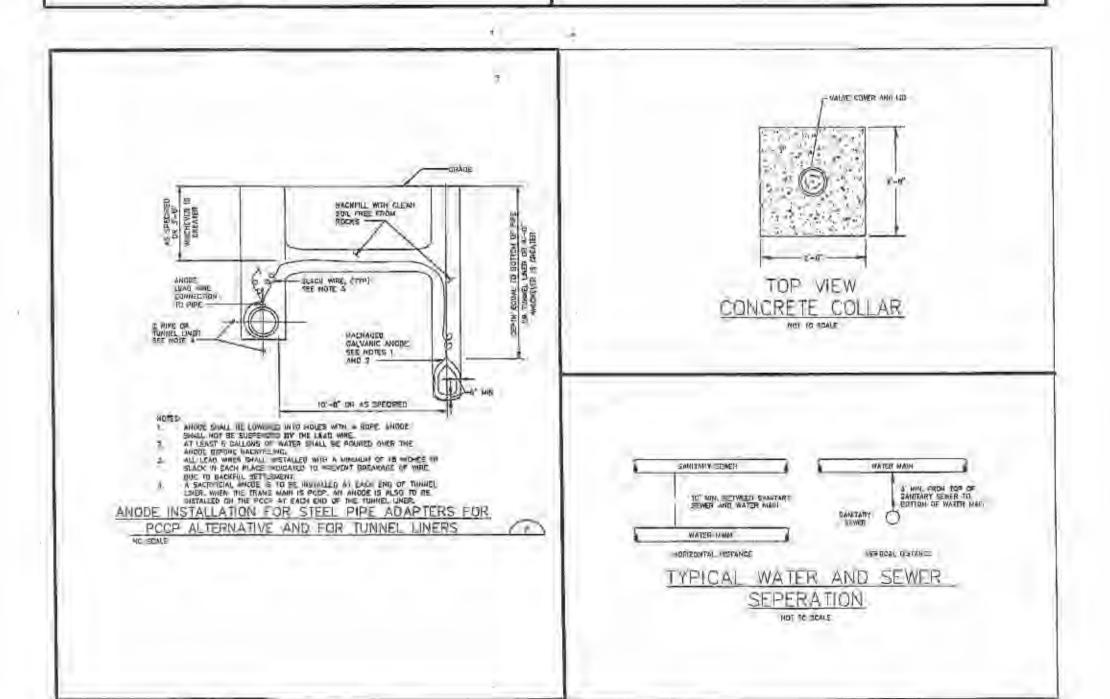
December 15, 2003













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BUILDIN



No. Revision Description

Sheet Title:

WATER LINE DETAILS Project Number: Sheet Number: Drawn By:

Issue Date: December 15, 2003

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