

**A SET OF SANITARY SEWER EXTENSION PLANS FOR  
COOL SPRINGS INDUSTRIAL  
DRIVE TRACT**  
A TRACT OF LAND IN FRACTIONAL SECTION 21,  
TOWNSHIP 47 NORTH, RANGE 3 EAST OF THE FIFTH PRINCIPAL MERIDIAN  
ST. CHARLES COUNTY, MISSOURI

**GENERAL NOTES**

1. According to the flood insurance rate map of the City of O'Fallon, Missouri, community panel number 290316 0235, e dated August 2, 1996) this property is within Zone A and within Zone X. Zone A is defined as an area within the 100 year flood zone, in which base flood elevations have not been determined. Zone X is defined as an area outside the 500 year flood plain.

2. Utilities:  
City of O'Fallon Sewer and Water (636) 240-2000  
AmerenUE Electric Company (636) 925-3242  
Laclede Gas Company (636) 946-8937  
CenturyTel Telephone Company (636) 332-7705  
O'Fallon Fire Department (636) 272-3493

3. 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.

4. All manhole tops built without elevations furnished by the Engineer will be the responsibility of the sewer contractor.

5. All P.V.C. 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.

6. All filled places, including trench backfills, under buildings, proposed storm and sanitary sewer lines and/or paved areas, shall be compacted to 90% maximum density as determined by the "Modified AASHTO T-180 Compaction Test," (A.S.T.M.-D-1557). All tests shall be verified by a soils engineer concurrent with grading and backfilling operations.

7. No area shall be cleared without the permission of the Project Engineer or City.

8. All construction and materials used shall conform to current City of O'Fallon Standards.

9. All P.V.C. sanitary sewer is to be SDR-35 or equal with clean 1/2" to 1" granular stone bedding uniformly graded. This bedding shall extend from 4" below the pipe, up for a total thickness of 12". Immediate backfill over pipe shall consist of same size "clean" or minus stone from the top of the bedding to 6" above the top of pipe.

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

11. Brick will not be used in the construction of sanitary sewer manholes.

12. City of O'Fallon shall be notified 48 hours prior to grading and/or construction for coordination and inspection.

13. All grades shall be within 0.2 feet of those shown on grading plan.

14. All trash and debris on-site, either existing or from construction, must be removed and properly disposed of off-site.

15. Where natural vegetation is removed during grading, vegetation shall be re-established in such a density as to prevent erosion.

16. Topographic information is per Bax Engineering Co.

17. Boundary information is per Bax Engineering Co.

18. The contractor is responsible for all job site safety and shall follow all government rules and regulations, particularly those of the Occupational Safety and Health Administration (OSHA).

19. 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 soils 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 tilling may be required to verify soil stability at the discretion of The City of O'Fallon.

20. Developer must supply the City Construction Inspectors with soil reports prior to or during site soil testing. The soil report will be required to contain the following information on the soil test curves (Proctor Reports) for projects within the City:

1. Maximum dry density
2. Optimum moisture content
3. Maximum and minimum allowable moisture content.
4. Curve must be plotted to show from a minimum of 90% Compaction and above as determined by the "Modified AASHTO-T-180 Compaction Test" (A.S.T.M.-D-1157) or % as determined by the "Standard from a minimum of 95% Proctor Test T-99, Method C" (A.S.T.M.-D-698). Proctor type must be designated on document.
5. Curve must have at least 5 density points with moisture content and locations listed on documents.
6. Specific gravity
7. National moisture content
8. Liquid limit
9. Plastic limit

21. 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 and/or the City of O'Fallon and/or MODOT. The Contractor's responsibilities include all design and implementation as required to prevent erosion and the depositing of silt. The Owner and/or the City of O'Fallon and/or MODOT may at their option direct the Contractor in his methods as deemed fit to protect property and improvements. Any depositing of silts or mud on new or existing pavement or in new or existing storm sewers or swales shall be removed after each rain and affected areas cleaned to the satisfaction of the Owner and/or the City of O'Fallon and/or MODOT.

22. The Developer must supply City Construction Inspectors with soil reports prior to or during site soil testing. The soil reports are required to contain the following information on soil test curves (Proctor reports) for projects within the City:

1. Maximum dry density
  2. Optimum Moisture Content
  3. Maximum and minimum allowable moisture content.
  4. Curve must be plotted to show density from a minimum of 90% Compaction and above as determined by the "Modified AASHTO T-180 Compaction Test" (A.S.T.M.-D-1157) or from a minimum of 95% as determined by the "standard Proctor Test AASHTO T-99, Method C" (A.S.T.M.-D-698). Proctor type must be designated on document.
  5. Curve must have at least 5 density points with moisture content and sample locations listed on document.
  6. Specific Gravity
  7. National moisture content
  8. Liquid Limit
  9. Plastic Limit
- Be advised that if this information is not provided to the City's Construction Inspector, the City will not allow grading or construction activities to proceed on any project site.

23. All erosion control systems shall be inspected and necessary corrections shall be made within 24 hours of any rainstorm resulting in one-half inch of rain or more.

24. All graded areas that are to remain bare for over 2 weeks shall be seeded and mulched per DNR requirements.

25. Rip-Rap shown at flared end will be evaluated in the field after installation for effectiveness and field modified if necessary to reduce erosion on and off the site.

26. The location of all siltation control devices, silt fences and sedimentation basin, shall follow "St. Charles County Soil and Water Conservation District Erosion and Sediment Control" guidelines.

27. The edge of the trench should be kept 5' from the water main. Care should be taken as to leaving too much of the trench open and not backfilled.



**SHEET INDEX**

- 1 - COVER SHEET
- 2 - PLAN/PROFILE/DETAIL SHEET
- 3 - DETAILS SHEET

**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.

**LEGEND**

- C.I. CURB INLET
- D.C.I. DOUBLE CURB INLET
- A.I. AREA INLET
- M.H. MANHOLE
- F.E. FLARED END SECTION
- E.P. END PIPE
- C.P. CONCRETE PIPE
- R.C.P. REINFORCED CONCRETE PIPE
- C.M.P. CORRUGATED METAL PIPE
- C.I.P. CAST IRON PIPE
- P.V.C. POLY VINYL CHLORIDE (PLASTIC)
- C.O. CLEAN OUT
- FIRE HYDRANT
- STORM SEWER
- SANITARY SEWER
- STREET LIGHT
- EXISTING CONTOUR
- PROPOSED CONTOUR
- STREET SIGN
- NO PARKING SIGN
- WATER VALVE
- BLOW OFF ASSEMBLY
- FLOWLINE ELEVATION OF HOUSE CONNECTION
- FLOWLINE ELEVATION OF SEWER MAIN

**JHOOKER CONSTRUCTION**  
221 SPENCER ROAD, SUITE Q  
ST. PETERS, MO 63376  
636-696-0825

DISCLAIMER OF RESPONSIBILITY  
I hereby certify that the documents intended to be disseminated 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.

REVISIONS	
2-15-06	Per City Council

**BAX**

**ENGINEERING  
PLANNING  
SURVEYING**

221 Point West Blvd.  
St. Charles, MO 63301  
636-928-5552  
FAX 928-1718

**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: *Dick Bax* 2/15/06  
P.E./L.S. DATE



**U.S.G.S. BENCHMARK**

REFERENCE BENCHMARK (USGS):  
RM69 ELEV. 456.02  
CHISELED SQUARE ON TOP OF THE WINGWALL IN THE NORTHEAST CORNER OF OLD HIGHWAY 79 BRIDGE OVER BELLEAU CREEK.

SITE BENCHMARK: ELEV. 492.90  
FOUND OLD STONE AT THE NORTHWEST CORNER OF LOT 7 OF "COOL SPRINGS INDUSTRIAL PARK."



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

03/07/06
DATE
04-13117A
PROJECT NUMBER
1 OF 3
SHEET OF
13117AASB.dwg
FILE NAME
GMH
DRAWN
DRO
DESIGNED CHECKED

T.R. HUGHES BLVD.

PROPOSED ROADWAY, SIDEWALK  
 AND UTILITY EASEMENT TO CITY  
 OF O'FALLON

PROPOSED 10'W UTILITY EASEMENT TO CITY OF O'FALLON

CITY OF O'FALLON  
 338/199  
 ZONED P-R

COOL SPRINGS  
 INDUSTRIAL DRIVE  
 (VARIABLE WIDTH)

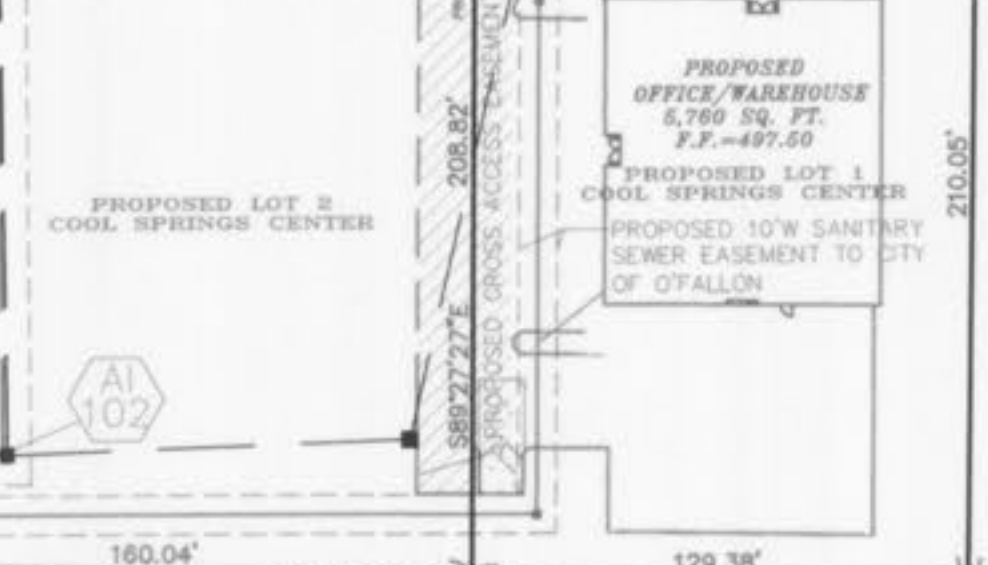
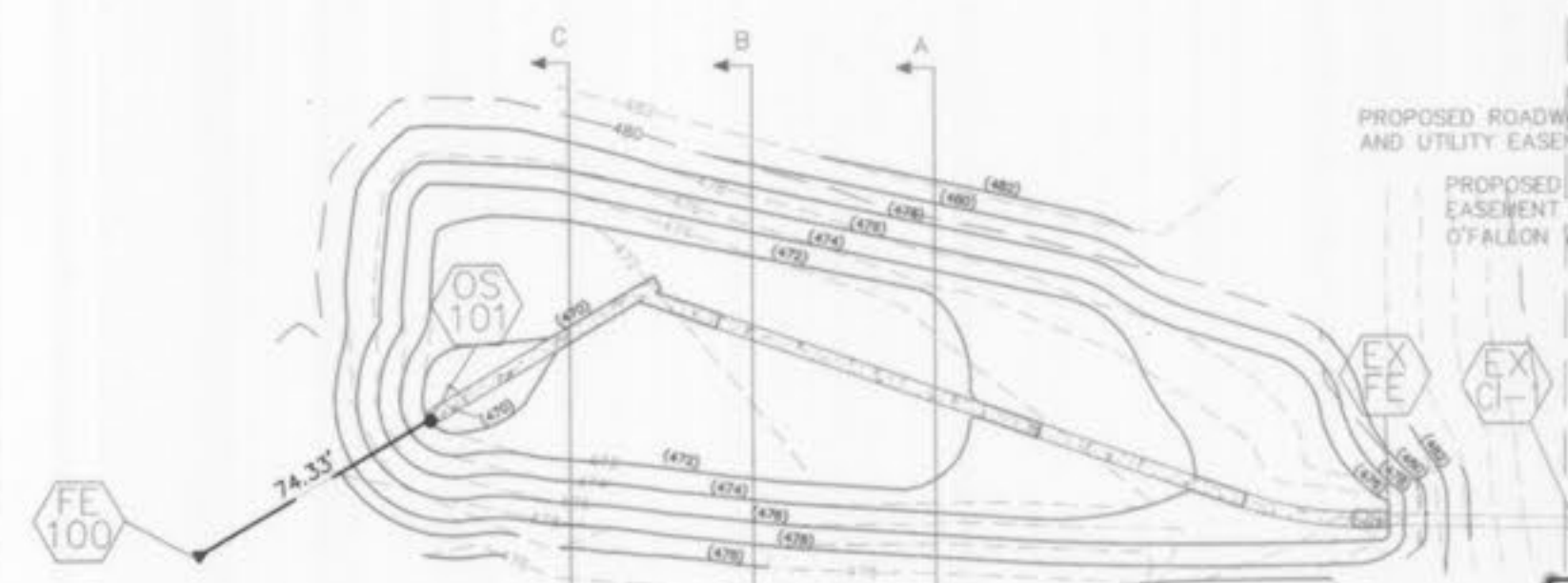
COOL SPRINGS  
 CENTER L.L.C.  
 4252/1666

PROPOSED LOT 3  
 COOL SPRINGS CENTER

PERMANENT DRAINAGE EASEMENT  
 AS SHOWN ON PLAN OF  
 17' WIDE DUE  
 (NO REQUIRED DATA OBTAINED FOR  
 THIS EASEMENT)  
 SLOTTED EASEMENT TO BE  
 VACATED PER FUTURE AREA

PROPERTY N/F  
 O'FALLON PUBLIC  
 FACILITIES AUTHORITY  
 2285/1241  
 PARCEL 2  
 LOT 1  
 OZZIE SMITH BALL PARK  
 ZONED R-1 PUD

NOTE:  
 ALL EASEMENTS ARE EXISTING UNLESS OTHERWISE NOTED.  
 ALL SANITARY, STORM AND WATER LINES ARE PROPOSED UNLESS OTHERWISE NOTED.



LOT 8

LOT 7  
 COOL SPRINGS INDUSTRIAL PARK  
 PLAT 1  
 P.B.36 PG.44

PROPERTY N/F  
 O'FALLON PUBLIC  
 FACILITIES AUTHORITY  
 2285/1241  
 PARCEL 2

OZZIE SMITH BALL PARK  
 ZONED P-R

LOT 9  
 PROPERTY N/F  
 COOL SPRINGS INVESTMENTS, LLC  
 3280/119

PROPERTY N/F  
 KEIPP PROPERTIES LLC  
 2837/1401  
 ZONED I-1

PROPERTY N/F  
 MARK AND JOAN MILBURN  
 2974/20

LOT 10

LOT 6

N/F  
 COOL SPRINGS INVESTMENTS, L.L.C.  
 3280/1119

LOT 5

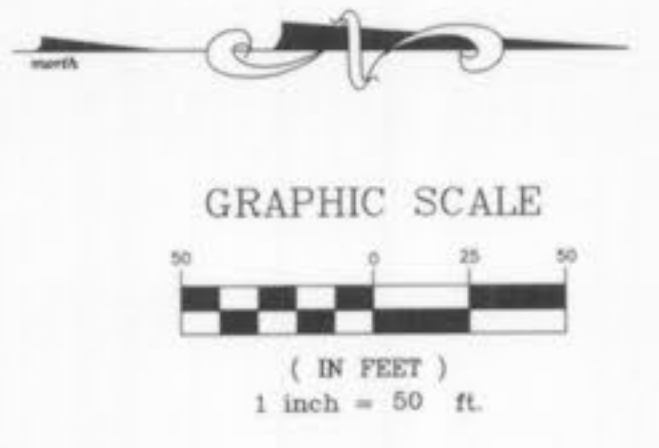
COMMON GROUND  
 DETENTION AREA  
 UTILITY EASEMENT

PROPERTY N/F  
 COOL SPRINGS INVESTMENTS, LLC  
 3280/119 LOT 11

LOT 4

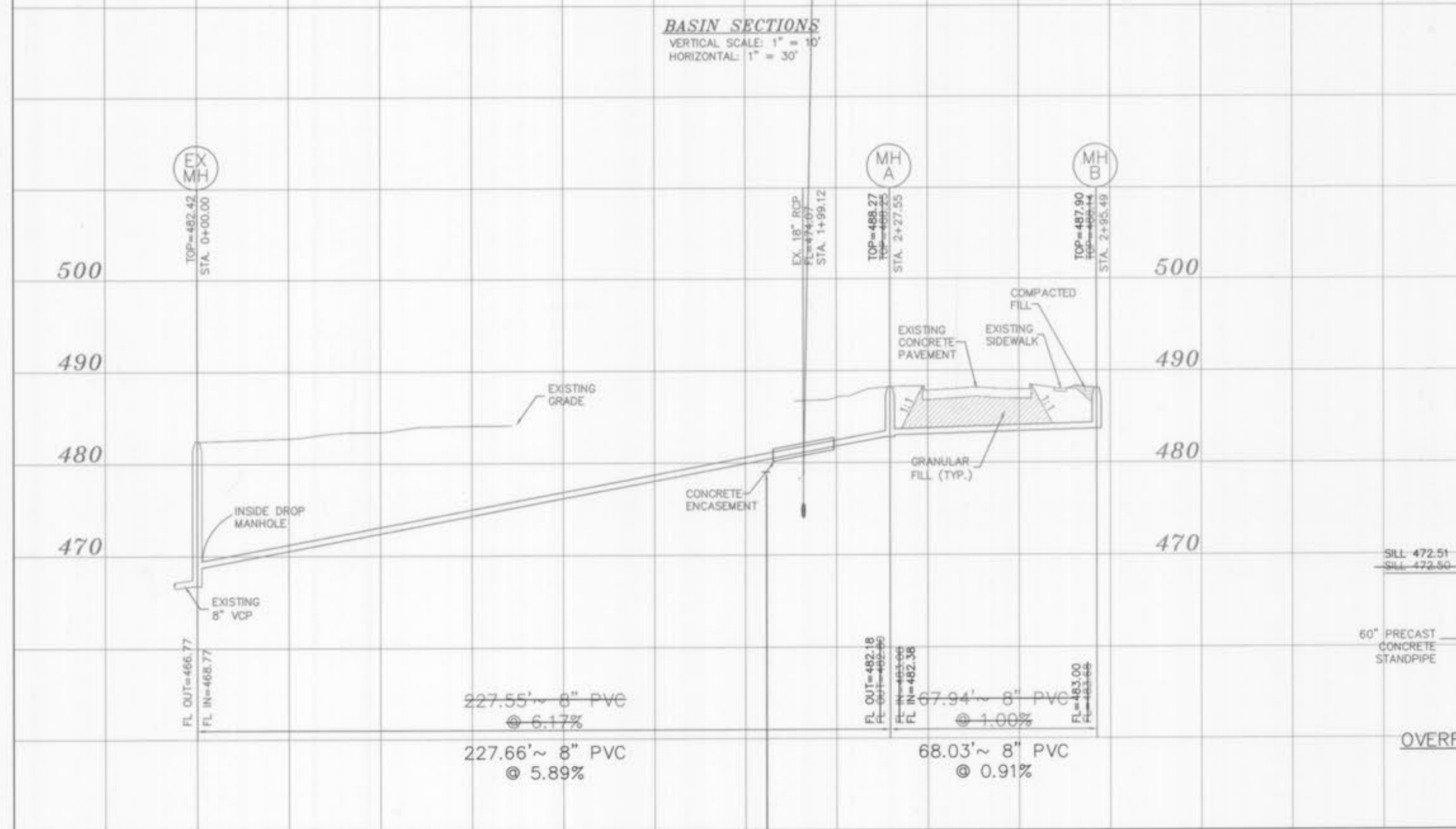
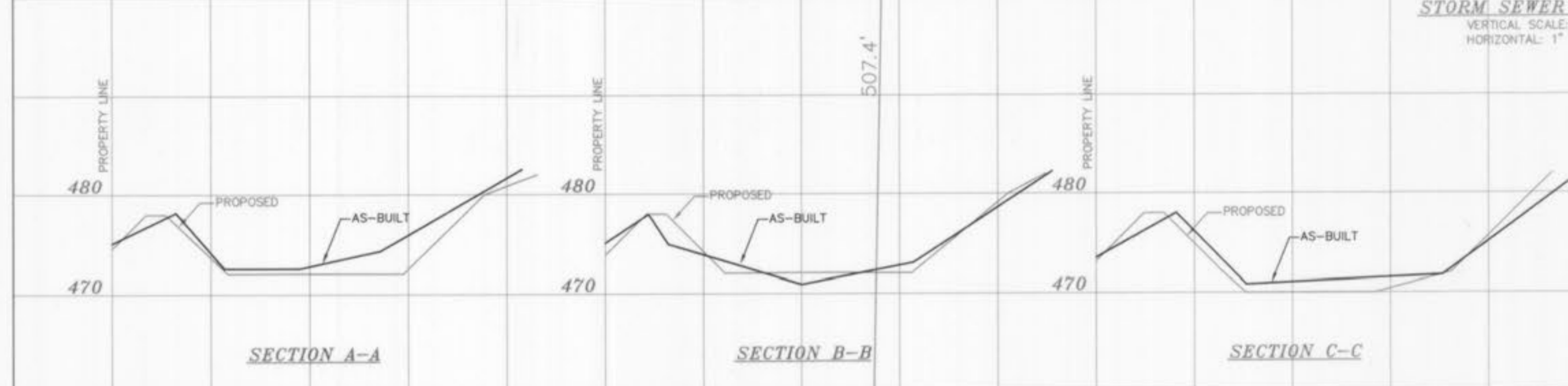
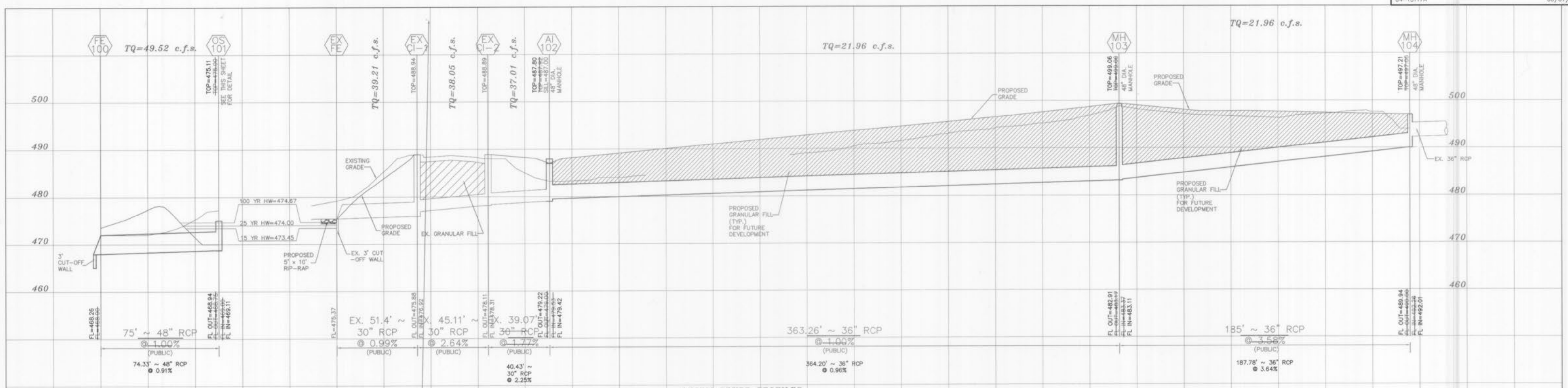
15

KING'S CROSSING  
 PLAT TWO  
 P.B. 37 PGS. 14-15



AS-BUILTS ADDED MARCH 2006.

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.



BAX PROJECT NAME : COOL SPRINGS INDUSTRIAL GRADING  
 BAX PROJECT NO. : 04-13117A  
 DESIGN DATE : 12-01-05  
 DESIGNED BY : CMF  
 FILENAME: 04-13117A

UPP STR	LOW STR	DIA	UPPER FL LN	LOWER FL LN	PS	UPPER ST EL	UPPER DEPTH	UPPER HY EL	LOWER HY EL	HYDR GRADE	FR HEAD	VEL	VEL HEAD	JUNC LOSS	TURN LOSS	TQ	PIPE CAP	REMARKS
MH104	MH103	36	489.00	489.07	3.58	499.00	0.16	490.84	482.53	.00110	0.20	3.11	0.15	0.15	0.00	21.96	125.27	1
MH103	AT102	36	483.17	479.53	1.00	499.00	14.98	484.02	482.42	.00110	0.39	3.11	0.15	0.08	0.08	21.96	65.29	2
AT102	EX CI-2	30	479.22	476.31	1.77	487.80	5.69	482.11	480.80	.00810	0.33	7.54	0.88	0.85	0.10	37.01	58.51	3
EX CI-2	EX CI-1	36	478.11	476.82	2.64	488.88	7.79	481.10	479.42	.00860	0.39	7.75	0.93	0.67	0.62	38.05	66.62	4
EX CI-1	EX VP	31	475.88	475.37	0.59	488.94	11.39	477.55	473.45	.00350	0.18	5.55	0.48	0.50	0.00	39.21	66.44	5
EX VP	EP100	75	468.75	468.00	1.00	475.00	2.67	472.33	472.00	.00120	0.09	3.94	0.24	0.24	0.00	49.52	142.64	6

\* INDICATES CRITICAL DEPTH

BAX PROJECT NAME : ASB COOL SPRINGS CENTER  
 BAX PROJECT NO. : 04-13117A ASB  
 DESIGN DATE : 03-29-06  
 DESIGNED BY : CAL  
 SUBMITTED: 03-29-06  
 FILENAME: 04-13117A ASB

UPP STR	LOW STR	DIA	UPPER FL LN	LOWER FL LN	PS	UPPER ST EL	UPPER DEPTH	UPPER HY EL	LOWER HY EL	HYDR GRADE	FR HEAD	VEL	VEL HEAD	JUNC LOSS	TURN LOSS	TQ	PIPE CAP	REMARKS
MH104	MH103	36	489.94	483.11	3.64	497.21	6.43	490.78	486.10	.00110	0.20	3.11	0.15	0.15	0.00	21.96	127.22	1
MH103	AT102	36	482.91	479.42	0.96	499.06	14.98	484.08	482.42	.00110	0.39	3.11	0.15	0.10	0.10	21.96	65.29	2
AT102	EX CI-2	40	479.22	476.31	2.25	487.80	5.69	482.11	480.80	.00810	0.33	7.54	0.88	0.86	0.11	37.01	61.58	3
EX CI-2	EX CI-1	45	478.11	476.82	2.53	488.89	9.01	479.88	479.42	.00860	0.39	7.75	0.93	0.67	0.00	38.05	64.57	4
EX CI-1	EX VP	31	475.88	475.37	0.99	488.94	11.12	477.82	473.45	.00910	0.47	7.99	0.99	0.09	0.00	39.21	48.86	5
EX VP	EP100	75	468.94	468.00	1.25	475.11	2.78	472.33	472.00	.00120	0.09	3.94	0.24	0.24	0.00	49.52	160.82	6

\* INDICATES CRITICAL DEPTH



AS-BUILTS ADDED MARCH 2006.

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