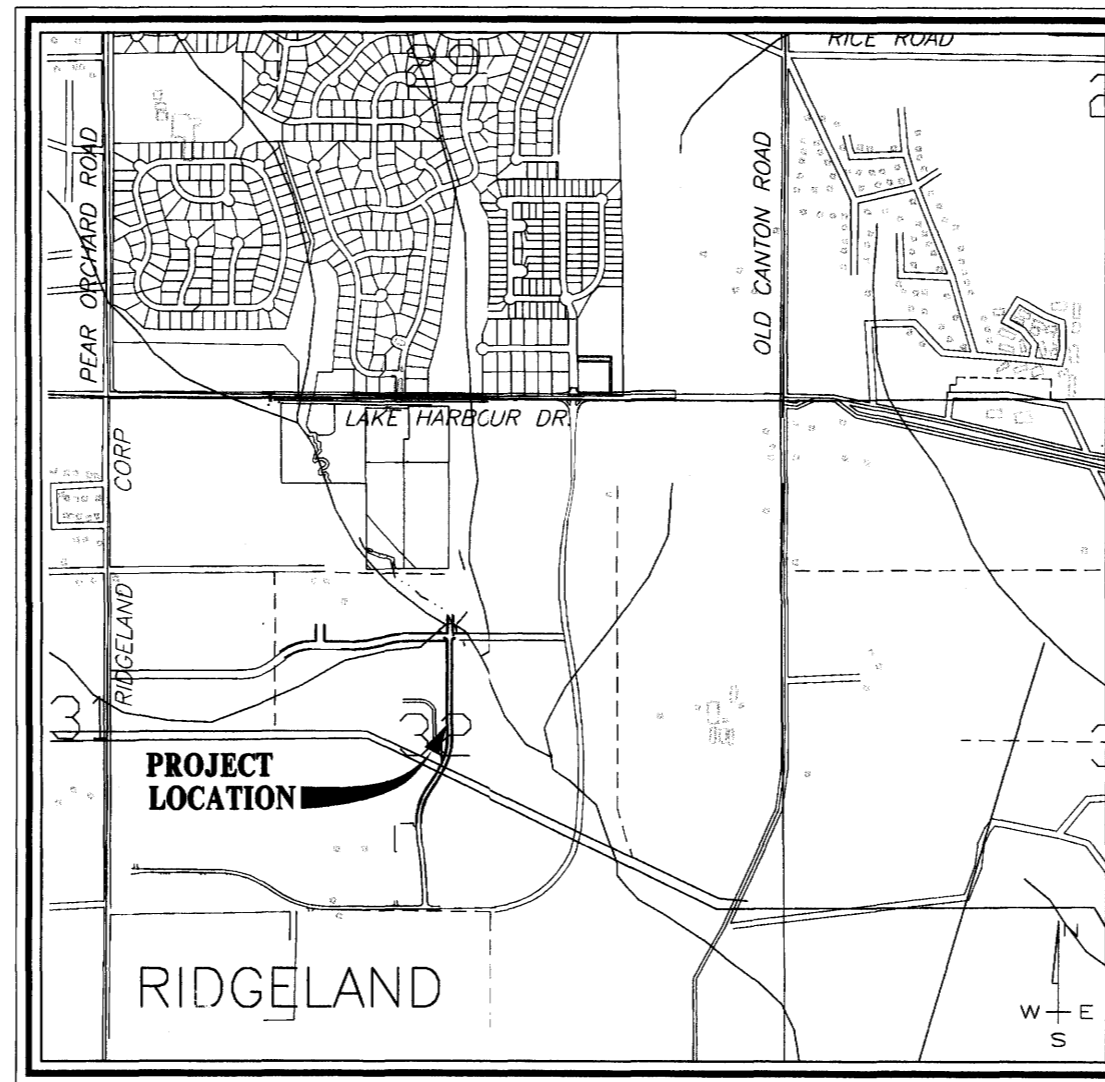


CONSTRUCTION PLANS
 FOR
 AN EXTENSION OF
AVERY BOULEVARD NORTH

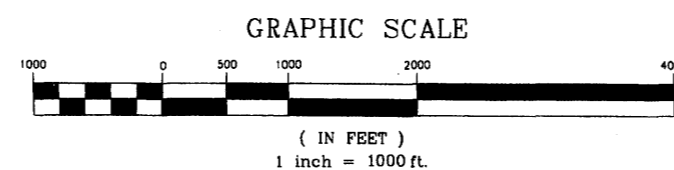
A SPECIAL IMPROVEMENTS PROJECT OF THE
 CITY OF RIDGELAND
 MADISON COUNTY, MISSISSIPPI

FOR

Colonial Heights Baptist Church
 Entergy Mississippi, Inc.
 Donald B. McGehee
 Virginia McGehee Friend



VICINITY MAP



RECORD DRAWING

BY: *R. James* DATE: *5/20/04*

Revised August 28, 2003

Prepared By:

STERLING
Consultants
 INCORPORATED
 CONSULTING ENGINEERS



PWP-00101

MATERIAL REQUIREMENTS

STREETS

CONCRETE FOR CURB AND GUTTER SHALL BE 3,000 PSI MINIMUM.

HOT BITUMINOUS PAVEMENT BASE COURSE MIXTURES AND MATERIALS SHALL MEET SPECIFICATION BB-1, TYPE 6 OF THE MISSISSIPPI STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.

HOT BITUMINOUS PAVEMENT SURFACE COURSE MIXTURES AND MATERIALS SHALL MEET SPECIFICATION SC-1, TYPE 8 OF THE MISSISSIPPI STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.

STORM DRAINAGE

PIPE - REINFORCED CONCRETE PIPE, ROUND ASTM C-76 OR ARCH, ASTM C-506. PIPE SHALL NOT HAVE LIFT HOLES.

JOINTS - JOINTS FOR ROUND PIPE SHALL BE RUBBER GASKETS. JOINTS FOR ARCH PIPE SHALL BE BITUMINOUS PLASTIC CEMENT OR PRE-FORMED JOINT COMPOUND. ALL JOINTS SHALL BE WRAPPED WITH 24" STRIP OF FILTER FABRIC AROUND OUTSIDE OF PIPE.

WATER

MAIN -	PVC C900 CLASS 150 OR DUCTILE IRON CLASS 52
JOINTS -	TYLON JOINTS WITH RUBBER GASKET ANSI/AWWA STANDARDS.
FITTINGS -	DUCTILE IRON, COMPACT FITTINGS MECHANICAL JOINT - ANSI/AWWA C153/A21.53-88. MECHANICAL JOINT FLANGES SHALL BE MEGA LUGS.
VALVES -	DUCTILE IRON METROSEAL 250 RESILIENT SEATED GATE VALVES - AWWA C509.
FIRE HYDRANT -	IMPROVED TRAFFIC TYPE W/ONE (1) 5-1/4" PUMPER AND TWO (2) 2-1/2" OPENINGS AS MANUFACTURED BY MUELLER COMPANY OR EQUAL, W/ NSF THREADS.
TRACE WIRE -	NO. 12 GAUGE, THHN, INSULATED FOR DIRECT BURY.
VALVE BOXES -	CAST IRON, 3 PIECE ADJUSTABLE STAMPED W/ "WATER".
SERVICE LINE -	1" MINIMUM, TYPE K COPPER, ASTM B88; POLYETHYLENE (PE), AWWA C901; OR POLYBUTYLENE (PB), AWWA C902.
SVC SADDLE -	FORD STYLE 304, OR APPROVED EQUAL.
CORP. STOPS -	MUELLER NO. H-15000 OR APPROVED EQUAL.
CURB STOPS -	1"x3/4" FORD #B43-342W
METER BOX -	PLASTIC METER BOX W/ METAL FLIP TOP READING COVER.
CASING -	0.250" STEEL
SPACERS -	POLYETHYLENE OR AS APPROVED.

SEWER

MAIN & SERVICE -	PVC, SDR-26, ASTM D-3034 OR DUCTILE IRON, PROTECTO 401 CERAMIC EPOXY LINED.
JOINTS -	SLIP ON W/LOCKED-IN RUBBER GASKET, ASTM F-477.
MANHOLES -	PRE CAST CONCRETE, ASTM C-478. COAL TAR EPOXY COATING REQUIRED ON INTERIOR AND EXTERIOR OF MANHOLE SECTIONS AND ON MANHOLE STEPS.
PIPE BOOTS -	KOR-N-SEAL MOLDED RUBBER CONNECTORS, OR EQUAL.
FRAME & COVER -	CAST IRON, ASTM A-78 OR EQUAL.

GENERAL NOTES

STREET

- STREET SUB GRADE AREAS WHERE EXPANSIVE CLAYS (CH) ARE ENCOUNTERED WITHIN 4' OF FINISHED GRADE SHALL BE UNDERCUT AND BACK FILLED AS REQUIRED TO SEPARATE PAVEMENT FROM EXPANSIVE CLAYS BY A MINIMUM 3' FOOT THICK LAYER OF SELECT SILTY CLAYS (CL) OR SANDY CLAYS (CL) HAVING A LIQUID LIMIT OF LESS THAN 40 AND A PI WITHIN THE RANGE OF 8 TO 20. THE BACK FILL AND FILL MATERIALS SHOULD BE SPREAD IN LOOSE LIFTS HAVING A MAXIMUM THICKNESS OF 9 IN. AND COMPACTED TO NOT LESS THAN 95 PERCENT OF STANDARD PROCTOR MAXIMUM DRY DENSITY (ASTM D 698) AT MOISTURE CONTENTS WITHIN 3 PERCENTAGE POINTS OF THE OPTIMUM MOISTURE CONTENT. STABILITY MUST BE EVIDENT DURING COMPACTION OF EACH LIFT BEFORE ANY SUBSEQUENT LIFTS OF FILL OR BACK FILL MATERIAL ARE ADDED.
- UNDERCUTTING, BACK FILLING, LIME TREATMENT (IF USED) AND MECHANICAL TRENCH COMPACTION SHALL EXTEND A MIN. OF 1 FOOT BEYOND BACK OF CURB OR EDGE OF PAVEMENT.
- PRIOR TO PLACING ASPHALT BASE MATERIAL, PAVING CONTRACTOR SHALL 1) FINE-GRADE THE SUB GRADE MATERIAL TO THE PROPER SECTION TO PERMIT PLACEMENT OF THE REQUIRED THICKNESS OF BASE COURSE; 2) COMPACT AND PROOF-ROLL SUB GRADE TO ACHIEVE STABILITY; AND 3) ENSURE REQUIRED SUB GRADE DENSITY HAS BEEN ACHIEVED AND VERIFIED BY SOILS TESTING LABORATORY.

CURB AND GUTTER

- CURB AND GUTTER SHALL BE 24" STANDARD ON INSIDE OF ISLANDS AND 24" ROLL OVER ALONG OUTSIDE OF STREETS. (SEE DETAIL).
- SUB GRADE BENEATH CURB AND GUTTER SHALL BE FINE GRADED AND COMPACTED TO ACHIEVE STABILITY UNDER PRESSURE OF THE REAR WHEEL LOADING OF A MOTOR GRADER MOVING SLOWLY OVER THE CURB AND GUTTER SUB GRADE.
- AFTER FORMS AND/OR CURB AND GUTTER STRING LINES HAVE BEEN SET AND BEFORE CONCRETE IS POURED, CONTRACTOR SHALL VERIFY THAT ALL GUTTERS DRAIN TO INLETS.
- EXPANSION JOINTS IN CURB AND GUTTER SHALL BE 1/2" JOINT MATERIAL PLACED AT 60' (MAXIMUM) INTERVALS.
- CONTRACTION JOINTS IN CURB AND GUTTER SHALL BE SCORED AT INTERVALS NOT GREATER THAN 10 FEET AND SPACED EQUALLY BETWEEN EXPANSION JOINTS.
- CURBS SHALL BE SCORED "W" FOR WATER AND "S" FOR SANITARY SEWER AT EACH LOT TO IDENTIFY LOCATION OF SERVICE LINES.

STORM DRAINAGE & EROSION CONTROL

- ALL STORM DRAINAGE PIPE SHALL BE FLUSHED AND CLEARED OF ANY CONSTRUCTION MATERIALS AND/OR SEDIMENT UPON PROJECT COMPLETION.
- THE CONSTRUCTION EXIT SHALL BE MAINTAINED TO MINIMIZE EROSION AND TO PROVIDE A BUFFER FOR DEPOSITION OF MUD AND SEDIMENT. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED FROM VEHICLES OR SITE ONTO PUBLIC ROADWAYS MUST BE REMOVED IMMEDIATELY.
- SEDIMENT BARRIERS SHALL BE HAY BALES OR EROSION CONTROL FENCING PLACED IN ALL DRAINAGE WAYS TO PREVENT SEDIMENT FROM LEAVING THE CONSTRUCTION SITE.
- EACH CONTRACTOR PERFORMING ANY WORK REQUIRED BY THESE PLANS SHALL COMPLY WITH ALL REQUIREMENTS SPECIFIED IN THE STORM WATER POLLUTION PREVENTION PLAN INCLUDED HEREIN, INCLUDING WEEKLY INSPECTION REQUIREMENTS. COPIES OF THE INSPECTION REPORT FORMS ARE AVAILABLE FROM THE ENGINEER OR ON LINE @ WWW.DEQ.STATE.MS.US.

WATER & SEWER

- ALL WATER AND SANITARY SEWER CONSTRUCTION TO BE IN ACCORDANCE WITH THE CITY OF RIDGELAND STANDARD SPECIFICATIONS.
- WATER MAINS SHALL BE LAID AT LEAST 10' HORIZONTALLY AND 18" VERTICALLY FROM ANY SEWER OR MANHOLE (WATER OVER SEWER).
- WHERE WATER LINES CROSS OVER SEWER LINES, THE ABOVE REQUIREMENTS WILL BE WAIVED IF PIPE SEGMENTS ARE CENTERED TO PROVIDE MAXIMUM SPACING OF THE JOINTS OF BOTH WATER AND SEWER LINES AND A VERTICAL SEPARATION OF AT LEAST 18" (WATER OVER SEWER) IS MAINTAINED.
- SEWER SERVICE LINES SHALL BE 6"; SEWER MAINS SHALL BE 8" SDR-26 PVC.
- WATER SERVICE LINES SHALL BE 1" (OR AS OTHERWISE SHOWN FOR A PARTICULAR LOT) AND SHALL BE TERMINATED WITH 1" x 3/4" CURB STOP. WATER MAINS SHALL BE 8" OR 6" DUCTILE IRON OR C900, CLASS 150.
- SERVICES FOR WATER AND SEWER SHALL BE LOCATED AS SHOWN ON PLANS OR NEAR THE CENTER OF ALL LOTS WITH 10 FOOT SEPARATION. THE TERMINUS OF EACH SERVICE SHALL BE MARKED WITH A STEEL TEE POST WITH BLUE TIP FOR WATER AND RED TIP FOR SEWER. SEWER SERVICES SHALL DISCHARGE INTO MANHOLES WHERE PRACTICABLE.
- BACK FILL OF ALL TRENCHES UNDER EXISTING OR PROPOSED PAVEMENTS AND CURB AND GUTTER SHALL BE MECHANICALLY COMPACTED IN 9" MAXIMUM LOOSE LIFTS TO A MINIMUM OF 95% STANDARD PROCTOR PEAK DRY DENSITY.
- DEFLECTION TEST SHALL BE PERFORMED ON ALL FLEXIBLE SEWER PIPE. THE TEST SHALL BE CONDUCTED AFTER THE FINAL BACK FILL HAS BEEN IN PLACE AT LEAST 30 DAYS. DEFLECTION TEST SHALL BE RUN USING A RIGID BALL OR MANDREL HAVING A DIAMETER EQUAL TO 95% OF THE INSIDE DIAMETER OF THE PIPE. THE TEST SHALL BE PERFORMED WITHOUT MECHANICAL PULLING DEVICES.
- WATER MAINS SHALL BE INSTALLED WITH 4' MINIMUM COVER UNDER ROADWAY SECTIONS AND 3' MINIMUM COVER ELSEWHERE. IN AREAS WHERE MAINS ARE TO BE INSTALLED ADJACENT TO STREETS LOCATED IN A CUT SECTION, THE MINIMUM DEPTH SHALL BE 3' BELOW TOP OF CURB.
- CONTRACTOR SHALL MAINTAIN RECORDS DURING CONSTRUCTION OF HORIZONTAL AND VERTICAL LOCATION OF ALL WATER AND SEWER SERVICES FOR AS BUILT RECORDS.
- IRRIGATION/UTILITY SLEEVES SHALL BE INSTALLED WITH MAXIMUM 5' SEPARATION, MINIMUM 4' DEPTH AND STUBBED TO SURFACE, CAPPED AND MARKED FOR FUTURE USE.
- TRACER WIRE SHALL BE INSTALLED ON C-900 WATER MAINS.

INDEX TO DRAWINGS

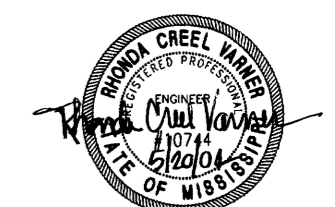
- COVER SHEET
- GENERAL NOTES AND INDEX TO DRAWINGS
- SITE LAYOUT PLAN
- STORM WATER POLLUTION PREVENTION PLAN
- PLAN AND PROFILE - AVERY BOULEVARD NORTH STA. 6+60.42 - STA. 13+50
- PLAN AND PROFILE - AVERY BOULEVARD NORTH STA. 13+50 - STA. 21+74.69
- STANDARD MISCELLANEOUS DETAILS
- STANDARD WATER DETAILS
- 371.1 MDOT STANDARD - BASIC CULVERT DRAWING SINGLE CELL HEIGHT 8 FT. SPANS 8-20 FT.
- 371.2 MDOT STANDARD - BASIC CULVERT DRAWING SINGLE CELL HEIGHT 8 FT. SPANS 8-20 FT.

LEGEND

	PROPERTY LINE AND CORNER
	LOT LINE
	RIGHT OF WAY LINE
	EASEMENT
	SETBACK LINE
	STREET AND ROW CENTER LINE
	CURB AND GUTTER
	EXISTING CONTOUR
	EXISTING SANITARY SEWER & MANHOLE
	EXISTING STORM SEWER & CATCH BASIN
	PROPOSED STORM SEWER & CATCH BASIN
	EXISTING WATER LINE
	PROPOSED WATER LINE
	PROPOSED WATER VALVE
	PROPOSED FIRE HYDRANT
	PROPOSED TEE
	PROPOSED REDUCER

RECORD DRAWING

BY: *R. Nann* DATE: 5/20/04

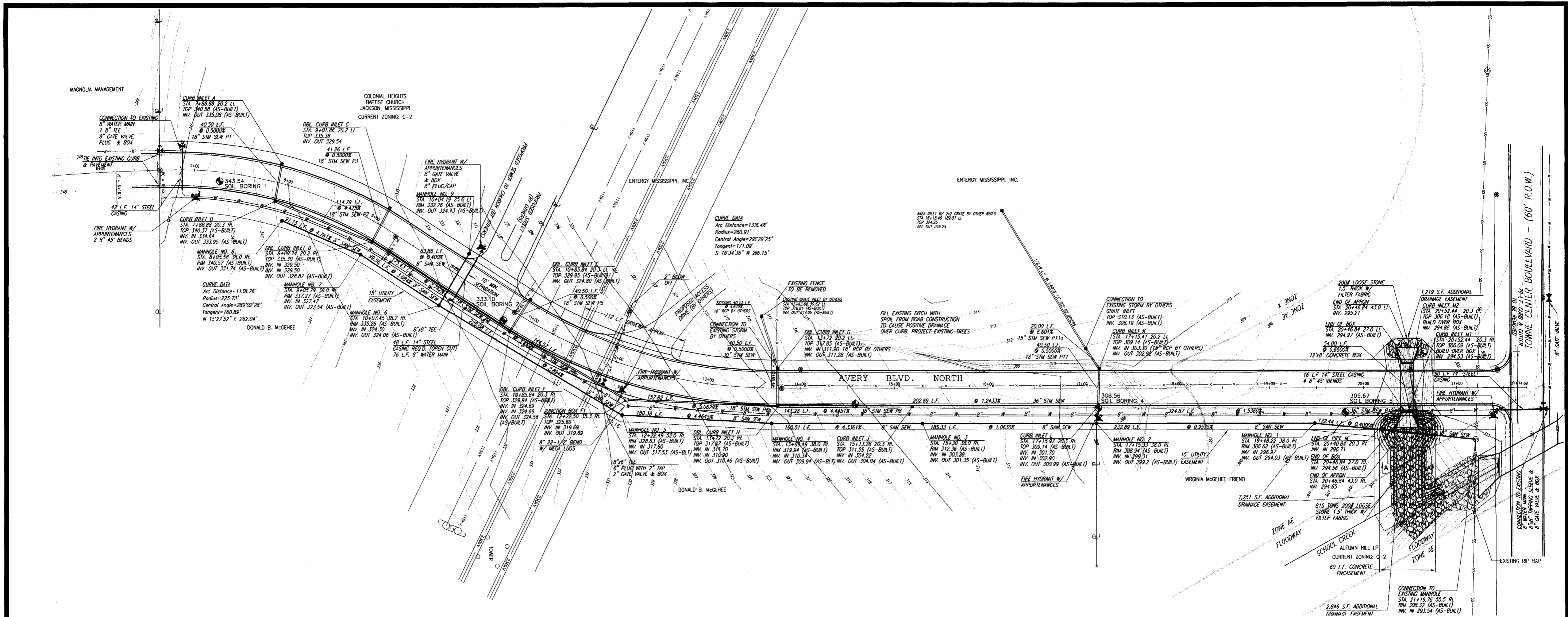


AN EXTENSION OF
AVERY BOULEVARD NORTH

GENERAL NOTES AND
INDEX TO DRAWINGS

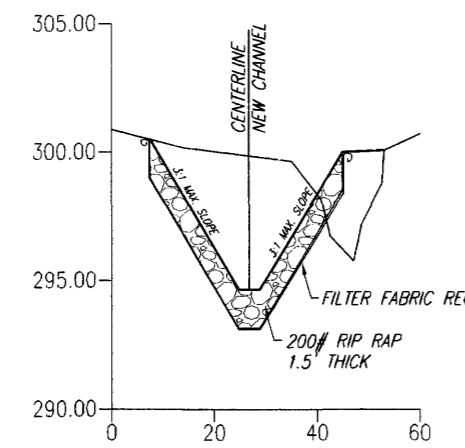
CITY OF RIDGELAND
MADISON COUNTY, MISSISSIPPI

DESIGN: RGV	DATE: 01/10/04	STERLING CONSULTANTS CONSULTING ENGINEERS	DRAWING NO.
DRAWN: GDB	DATE: 01/10/04		2 of 10
CHECK: RGV	DATE: 01/10/04	SCALE: AS SHOWN	

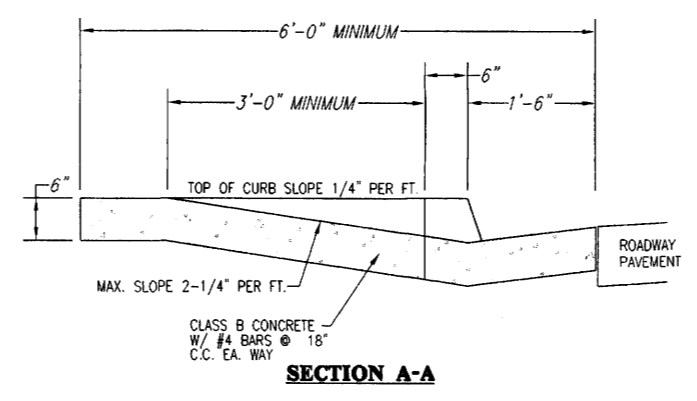


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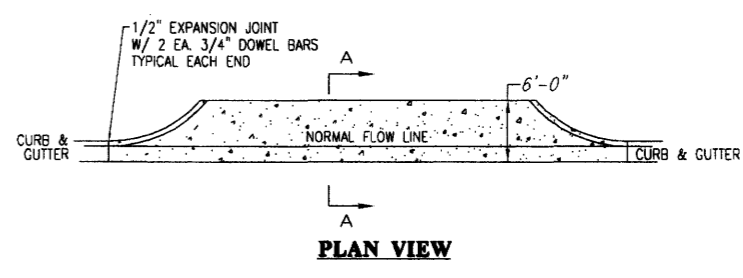
BY: *R. K. Harman* DATE: 5/12/04



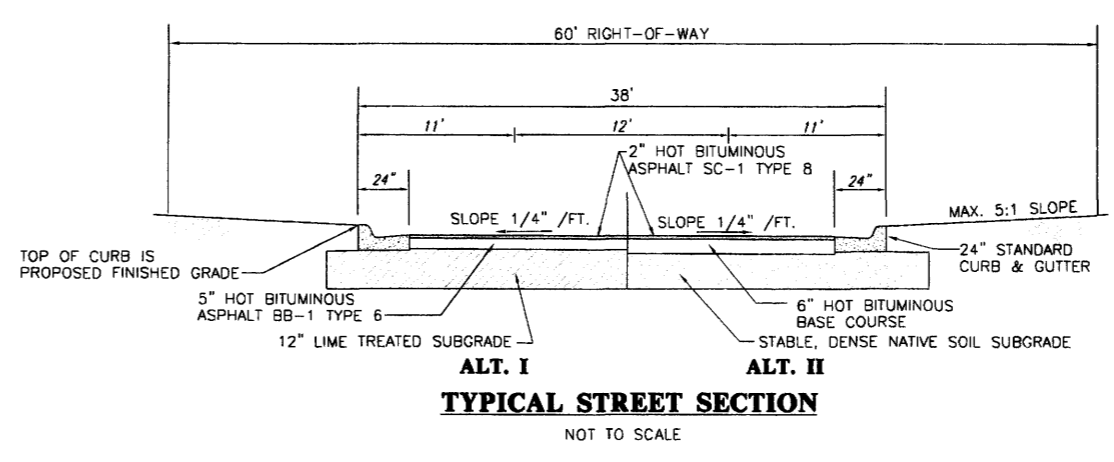
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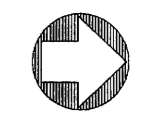
TYPICAL DRIVEWAY APRON SECTION
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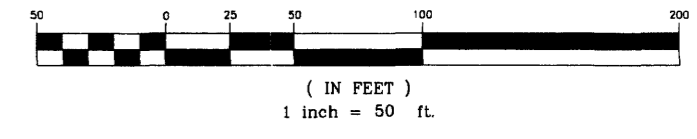
PLAN VIEW



TYPICAL STREET SECTION
NOT TO SCALE



GRAPHIC SCALE



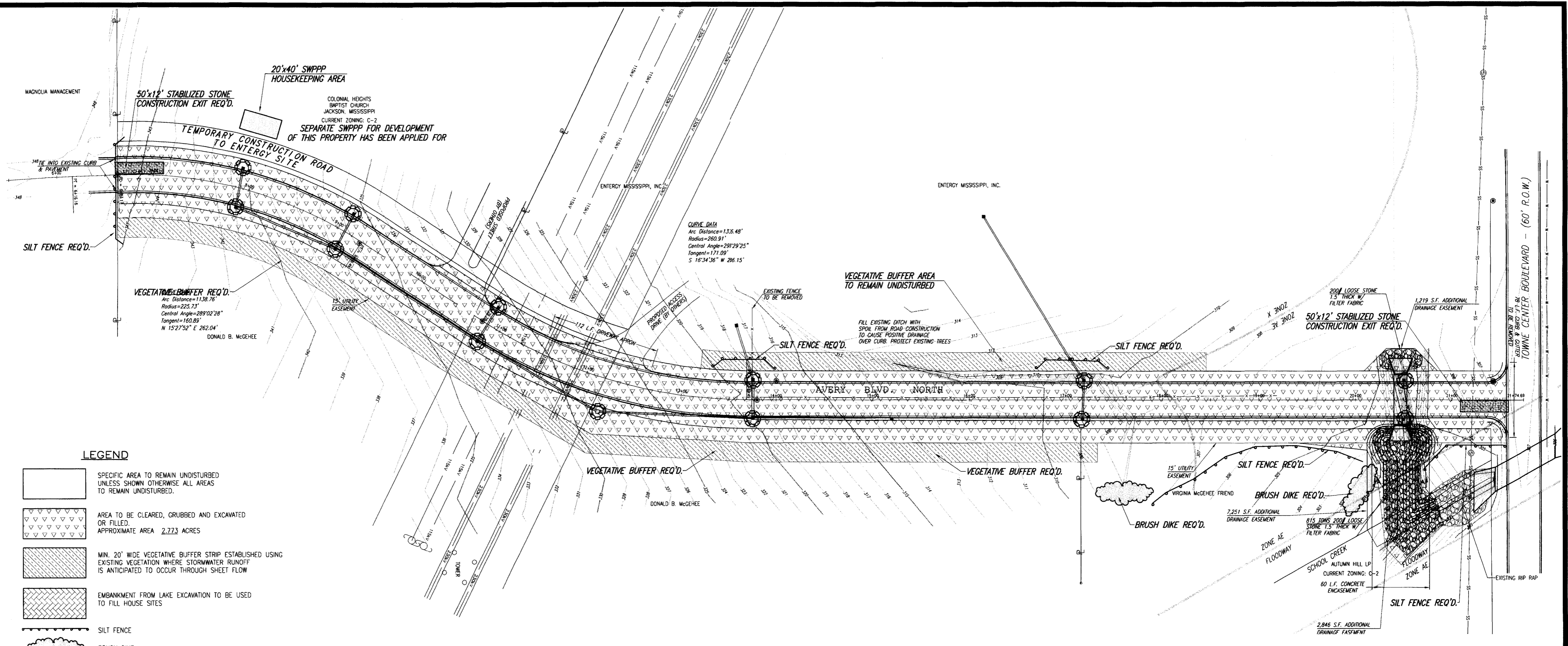
AN EXTENSION OF AVERY BOULEVARD NORTH

SITE LAYOUT PLAN

**CITY OF RIDGELAND
MADISON COUNTY, MISSISSIPPI**

DSGN: RCV	DATE: 01/14/04	STERLING CONSULTANTS CONSULTING ENGINEERS	DRAWING NO. 3 OF 10
DRWN: RCV	DATE: 04/16/04		
CHKD: RCV	DATE: 08/11/04		
SCALE: 1"=50'			

AS-BUILT PLANS	0DD	08/12/04
ADDRESS CITY COMMENTS	RDD	08/11/03
REVISION	BY	DATE



LEGEND

- SPECIFIC AREA TO REMAIN UNDISTURBED UNLESS SHOWN OTHERWISE ALL AREAS TO REMAIN UNDISTURBED.
- AREA TO BE CLEARED, GRUBBED AND EXCAVATED OR FILLED. APPROXIMATE AREA 2.723 ACRES
- MIN. 20' WIDE VEGETATIVE BUFFER STRIP ESTABLISHED USING EXISTING VEGETATION WHERE STORMWATER RUNOFF IS ANTICIPATED TO OCCUR THROUGH SHEET FLOW
- EMBANKMENT FROM LAKE EXCAVATION TO BE USED TO FILL HOUSE SITES
- SILT FENCE
- BRUSH DIKE
- HAY BALES
- STABILIZED STONE CONSTRUCTION EXIT DRIVE

STORM WATER POLLUTION PREVENTION PLAN

A. General. The measures and land treatments shown on this plan are applicable to land disturbance activities during infrastructure construction. Should adjoining sites be developed or improved during infrastructure construction, these measures shall be modified or supplemented as necessary to minimize off-site deposition of soil sediments arising from such additional development.

B. Erosion and Sediment Controls. All controls must be in accordance with the standards for manufacture and installation which are set forth in the 1994 edition of "Planning and Design Manual for the Control of Erosion, Sediment and Stormwater" published by the Mississippi Department of Environmental Quality and U.S. Department of Agriculture Natural Resources Conservation Agency.

C. Erosion and Sediment Minimization Practices During Construction.

- All contractors and subcontractors are to limit their activities and operations to those areas which must reasonably be occupied for safe and proper infrastructure construction. Areas inadvertently disturbed are to be promptly prepared and seeded.
- Contractors are specifically directed to preserve existing vegetation where possible and to employ those practices and methods which will minimize the erosion and off-site deposition of sediments. Contractors shall selectively implement temporary erosion and sediment control measures appropriate for the topography, type or soil, time of year, and anticipated duration of use.
- All contractors and subcontractors are to refrain from construction activities during those periods after heavy rainfalls when wet soil conditions cause mud to stick to vehicles leaving the site.
- Any contractor or subcontractor who fails or omits to employ and implement appropriate and practicable erosion and sediment control measures and practices or who intentionally or unintentionally destroys or damages any erosion or sediment control facility shall be responsible for damages to downhill property caused by erosion stemming from such failure, omission, or destruction and shall promptly clean or repair ditches, drainage culverts or inlets clogged or otherwise affected by such erosion.

- At the location(s) shown on this plan, or at such other location(s) suitable therefor which from time to time may be directed by the Engineer, there shall be established and maintained by each contractor on area designated the "SWPPP Housekeeping Area."
- The contractor performing the work required or implied on the Construction Plans of which this SWPPP is a part, during the period from the date the contractor mobilizes on the project site until the date his work is completely finished, shall weekly monitor, inspect, repair or replace within 24 hours of discovery, maintain and supplement as required each and all of the erosion control facilities required by this SWPPP. The contractor shall at least once each week inspect, repair, replace and maintain such controls even though the controls may have been installed by other contractor(s) or serve areas within the project site but outside of the contractor's immediate work area. The contractor shall erect, operate, maintain and monitor a rain gauge. Following any storm event in which the gauge indicates that more than three (3) inches of rain fell in a 24 hour period, or after any storm event which the Engineer indicates the necessity of so doing, as soon as field conditions allow, the contractor shall monitor, inspect, repair, replace, maintain and supplement as required any erosion controls which have failed to function as intended. The contractor shall file monthly with the Engineer a report of each such inspection on the form provided by the Engineer.
- Measures to be implemented Prior to Construction. Sediment basins, traps and barriers, perimeter dikes, vegetated buffer strips, and other erosion control measures intended to trap sediment on-site shall be constructed as the first step in grading, and shall be functional prior to disturbing upslope lands. The Clearing contractor shall
 - install fabric silt fencing at those locations shown on the plans, at such other locations downslope of large areas from which native vegetation is to be removed or substantially disturbed by infrastructure installation activities, and at additional locations designated by the Engineer;
 - install sediment barriers or brush dikes made using hay bales stacked across natural drainage ways situated inside and adjacent to the construction site at those locations indicated on the plans or as otherwise directed or appropriate;
 - mark with survey tape and/or pin flags specific individual or stands of trees which are to remain undisturbed and areas of vegetation suitable for serving as buffer strips along the lower perimeter of the construction site.

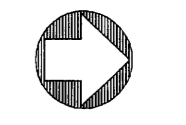
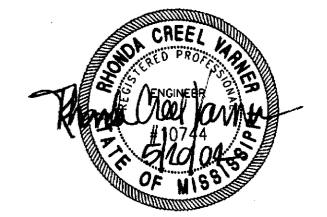
- grade, shape and otherwise prepare as on "SWPPP Housekeeping Area" an easily accessible area approximately 20' x 40' which drains to a sump at one end, and provide and erect a sign identifying the area as the "SWPPP Housekeeping Area." This area shall be prepared for use as the location of sanitary facilities for contractor's personnel, as the location of a trash receptacle for disposal of solid waste, and for use for other purposes such as equipment maintenance and concrete chute wash-off.
- Additional Measures to be Implemented During Construction.**
 - The Clearing Contractor shall salvage pine boughs and tree limbs and place same at appropriate locations to reinforce silt fences and/or form brush barriers.
 - The Contractor shall place a six inch thick, 12' wide, 50' long pad of stabilized crushed stone at the point shown on the plans where construction traffic should enter and leave the construction site.
 - Earthwork. Provided such is not potentially inconsistent with the grading plans, the Contractor shall grade and shape ground surfaces to divert stormwater flow away from disturbed ground surfaces and exposed soils and shall construct check dams, sediment retention basins and other designated or appropriate sediment controls.
 - Pipe Installation. The Contractor shall leave all backfilled trenches (except those situated under proposed pavements and curbs) slightly depressed to permit the collection and infiltration of stormwater, the retention of sediments, and the consolidation of backfill soils. Excess trench excavation shall be piled upslope of depressed trenches.
 - Drainage Pipe Installation. The Contractor shall construct inlet sediment traps using hay bales stacked around the openings of all inlets and and/or drainage culverts and shall construct outlet erosion mitigation and/or stormwater energy dissipation blocks using pre-mixed dry sand/aggregate/cement in cubic foot kraft paper bags at the discharge end of drainage culverts. Where drainage culverts are installed with a gap to accommodate the construction of area or curb inlets or junction boxes, the drainage pipe installation Contractor shall pour the structure bottom using ready-mix concrete prior to placing hay bales.

- Each contractor performing any work required or implied on the Construction Plans of which this SWPPP is a part, shall provide, use and maintain the facilities within the Housekeeping Area as required by this SWPPP. If Contractor has a requirement for the storage of potentially toxic materials such as fertilizers, chemicals, paints, solvents, etc., the contractor shall be required to provide and maintain within the Area a protected storage area for the storage of these items. The contractor shall be required to ensure that sanitary facilities are adequately maintained by a service enterprise in business for such purpose.
- Additional Measures to be Implemented After Street Paving.**
 - Finish Grading. The Contractor shall grade and shape all ground surface areas disturbed by infrastructure construction activities, remove all sediments collected in traps, and replace and/or restore as appropriate all erosion and sediment control facilities which should remain.
 - Grassing Contractor. The shall prepare, fertilize, seed and/or sod, and mulch if necessary all non-paved areas disturbed during infrastructure construction activities. The selected species of grass(es) to be sown shall be based on time of year, type of soil, and other relevant site conditions and shall be chosen to control erosion and survive seasonal conditions.
 - Pending the establishment of vegetative ground cover, the Contractor shall monitor the build up of sediments on street pavements which may occur following rainfalls and appropriately return same to the areas from which they eroded.
 - Any disturbed or denuded ground surface areas which will not be occupied again or within sixty (60) days shall be re-vegetated with seasonal grass or permanent grass as specified by the Engineer.
- Post Construction Procedures.**
 - Pending the establishment of vegetative ground cover, all practicable temporary and permanent erosion and sediment control facilities shall be inspected, maintained and repaired as necessary by the Contractor to assure the continued performance of their intended function.

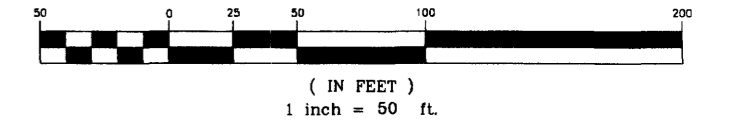
- The City and Owners shall carry forward all erosion control measures and facilities set forth in this SWPPP to ensure that successive builders and lot will take measures to prevent or mitigate sediment from leaving individual lots and parcels. Each benefited adjoining property owner will provide to each successive builder and lot owner a copy of this SWPPP. Each benefited adjoining property owner will require, by imposing deed restrictions or protective covenants, that successive builders and lot owners.
 - fully comply with all municipal and state land disturbance and erosion control ordinances, regulations and requirements, and
 - fully comply with so much of this SWPPP that is pertinent or appropriate for the lot or parcel conveyed to the builder or owner.
 - from the beginning of site preparation through the establishment of permanent vegetative cover, will maintain the property purchased in such a condition as to minimize off-site damage from erosion, sediment deposits and storm water.
 - acknowledge and agree that the Owners will not be held responsible for, and will be held harmless from, damages which may be suffered by the builder or lot owner, or other builders and lot owners, as a result of site preparation activities (including but not limited to lot grading and shaping) carried out in connection therewith by the builder or lot owner and/or their contractors and subcontractors.

RECORD DRAWING

BY: *[Signature]* DATE: *5/2/04*



GRAPHIC SCALE

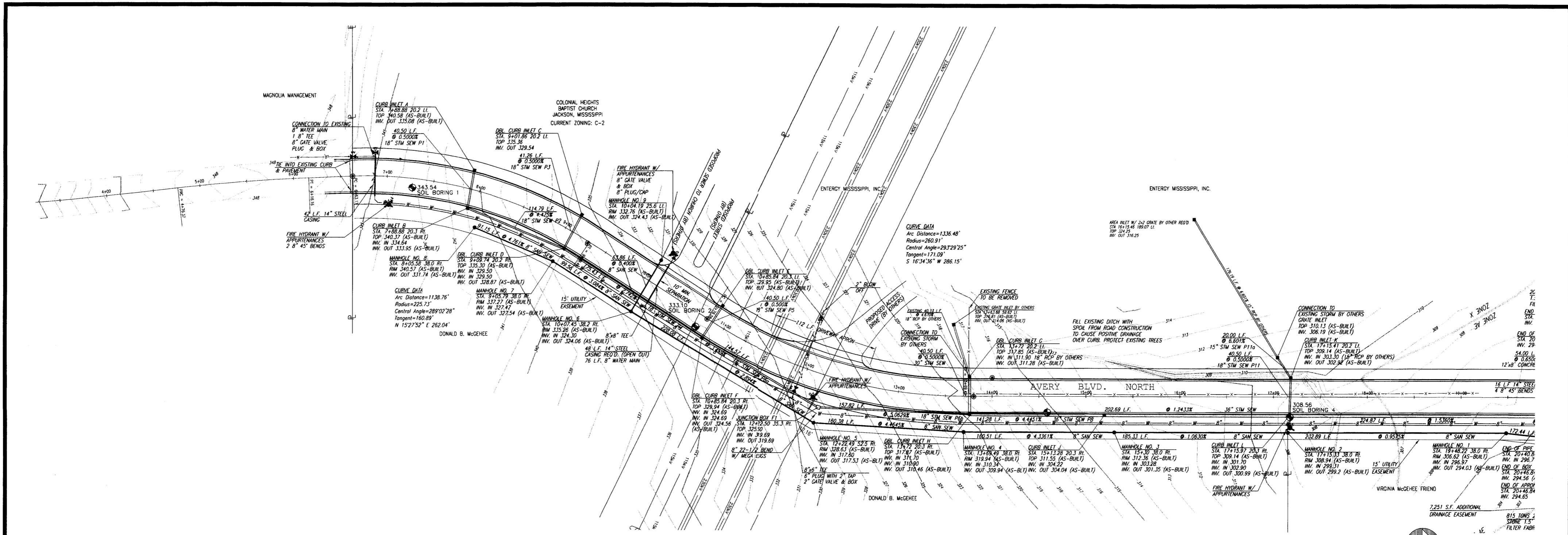


**AN EXTENSION OF
AVERY BOULEVARD NORTH**

**STORM WATER POLLUTION
PREVENTION PLAN**

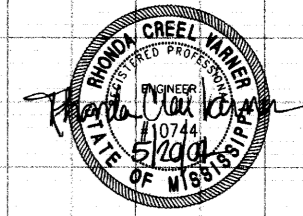
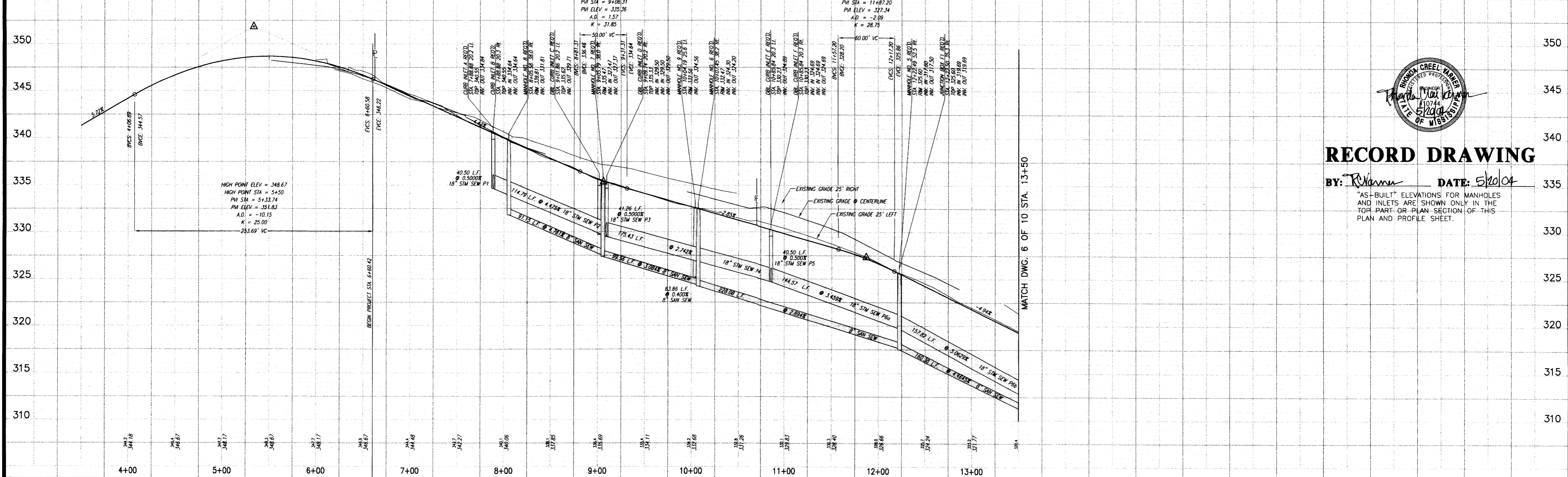
**CITY OF RIDGELAND
MADISON COUNTY, MISSISSIPPI**

DCGN: RCV	DATE: 05/14/04	STERLING CONSULTANTS CONSULTING ENGINEERS	DRAWING NO. 4 OF 10
DRWN: RDP	DATE: 04/16/04		
CHKD: RCV	DATE: 05/27/04		
SCALE: 1"=50'			



REVISION	BY	DATE
AS-BUILT PLANS	CRP	05/10/04
ADDRESS CITY COMMENTS	RDP	02/27/03

SCALE 1"=50' HORIZ.
1"= 5' VERT.



RECORD DRAWING

BY: *R. McGehee* DATE: 5/20/04

"AS-BUILT" ELEVATIONS FOR MANHOLES AND INLETS ARE SHOWN ONLY IN THE TOP PART OR PLAN SECTION OF THIS PLAN AND PROFILE SHEET.

AN EXTENSION OF AVERY BOULEVARD NORTH
CITY OF RIDGELAND
MADISON COUNTY, MISSISSIPPI

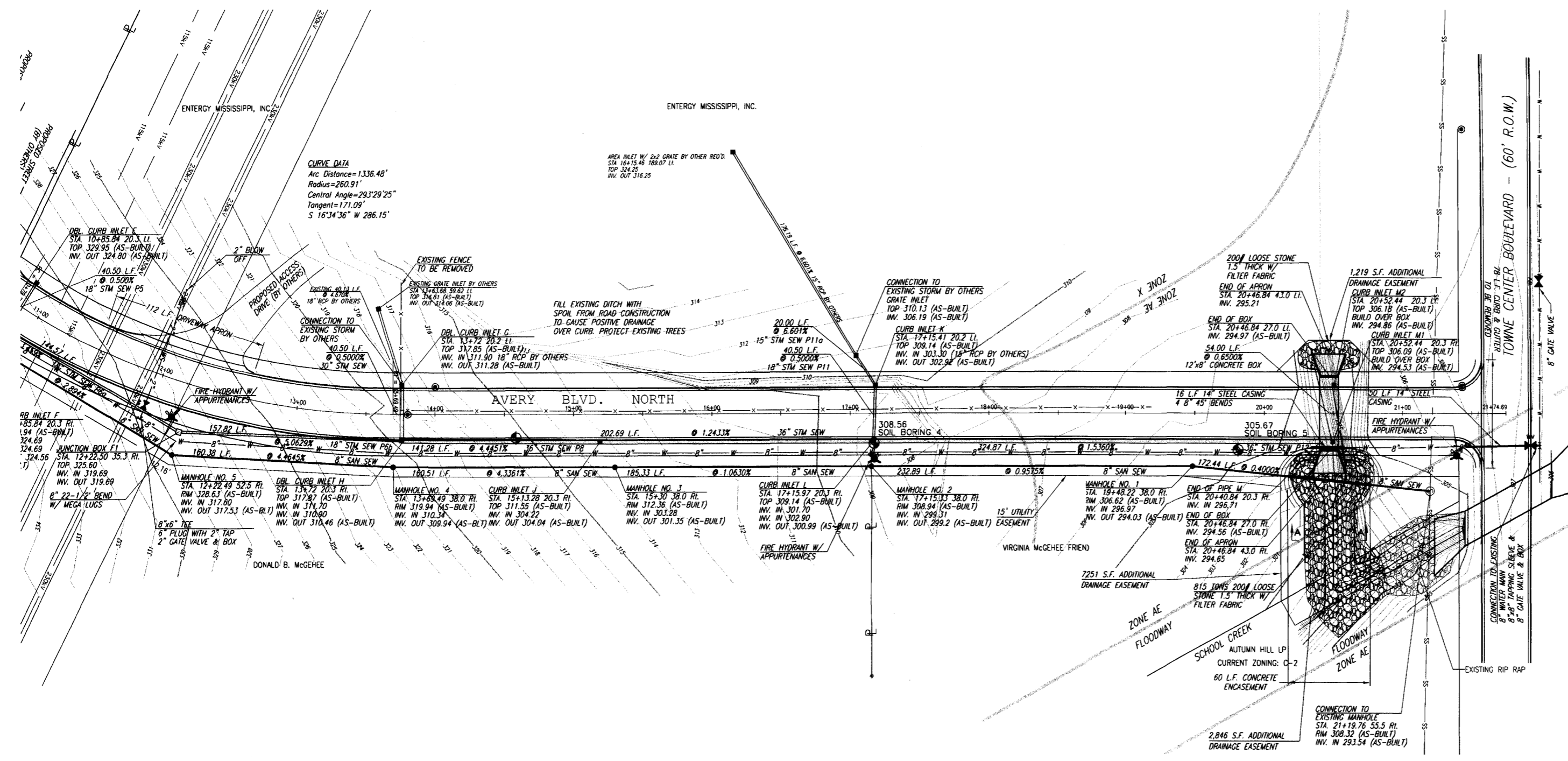
PLAN AND PROFILE - AVERY BOULEVARD NORTH
STA. 6+60.42 - STA. 13+50

Prepared For:
CITY OF RIDGELAND AND
ABN PARTIES TO THE AGREEMENT

Designed By: RGV DATE: 05/10/04
Drawn By: RDP DATE: 04/19/04
Checked By: RGV DATE: 02/27/03
Scale: 1"=50' HORIZ. 1"=5' VERT.

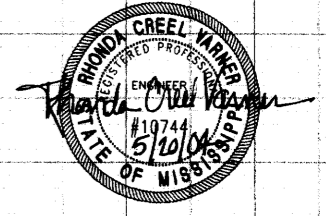
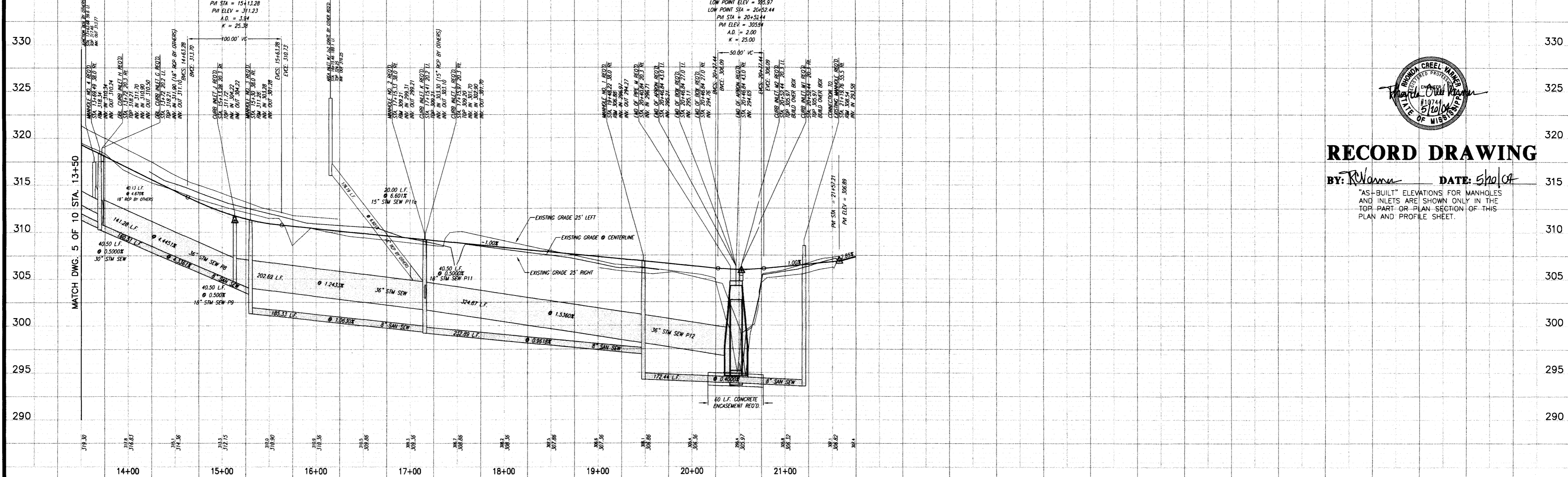
STERLING CONSULTANTS
Drawing No. 5 of 10

C:\drawings\energy-road\end-001.dwg, Plan Profile, 5/20/2004 12:26:45 PM, Ginny Bates, 11, Sterling Consultants, Inc.



REVISION	BY	DATE
AS-BUILT PLANS	RDP	05/10/04
ADDRESS CITY COMMENTS	RFB	02/27/05

SCALE 1"=50' HORIZ.
1"= 5' VERT.



RECORD DRAWING

BY: *RWilliams* DATE: *5/10/04*
 "AS-BUILT" ELEVATIONS FOR MANHOLES AND INLETS ARE SHOWN ONLY IN THE TOP PART OR PLAN SECTION OF THIS PLAN AND PROFILE SHEET.

AN EXTENSION OF AVERY BOULEVARD NORTH
 CITY OF RIDGELAND
 MADISON COUNTY, MISSISSIPPI

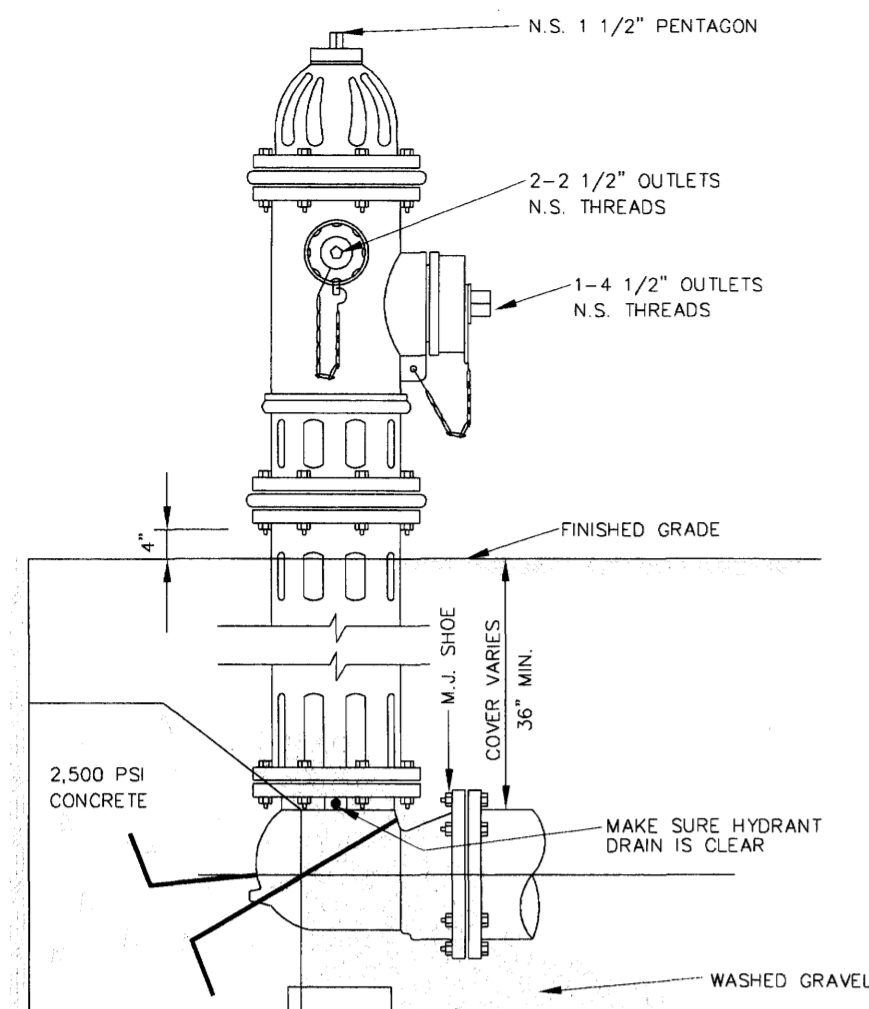
PLAN AND PROFILE - AVERY BOULEVARD NORTH
 STA. 13+50 - STA. 21+74.69

Prepared For:
 CITY OF RIDGELAND AND
 ABN PARTIES TO THE AGREEMENT

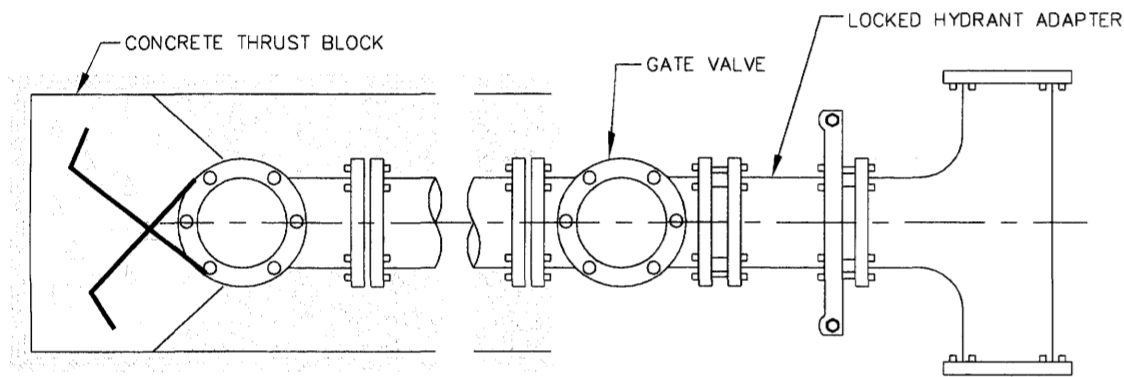
Designed By: REV	DATE: 05/10/04
Drawn By: RDP	DATE: 04/19/05
Checked By: REV	DATE: 02/27/05
Scale: 1"=50' HORIZ	1"=5' VERT



Drawing No.
6 of 10



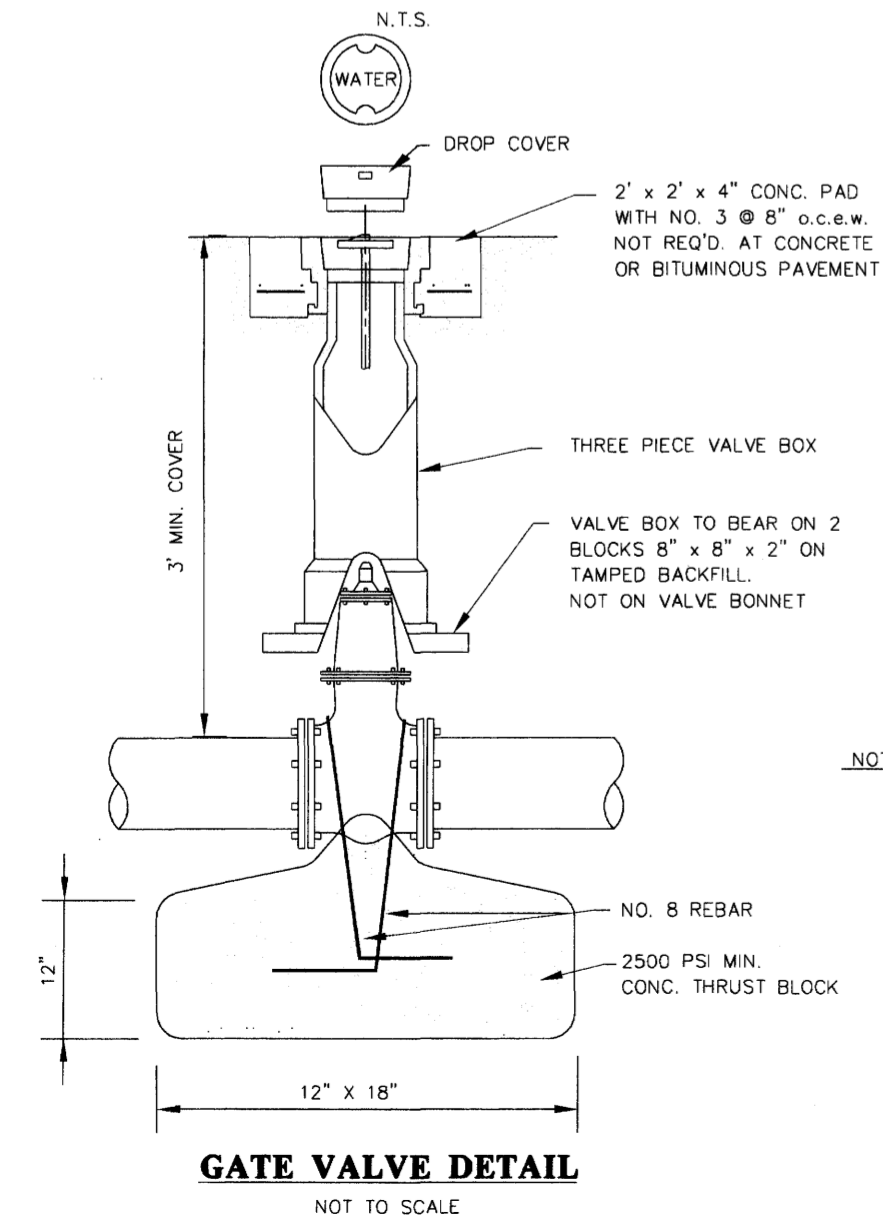
ELEVATION



PLAN

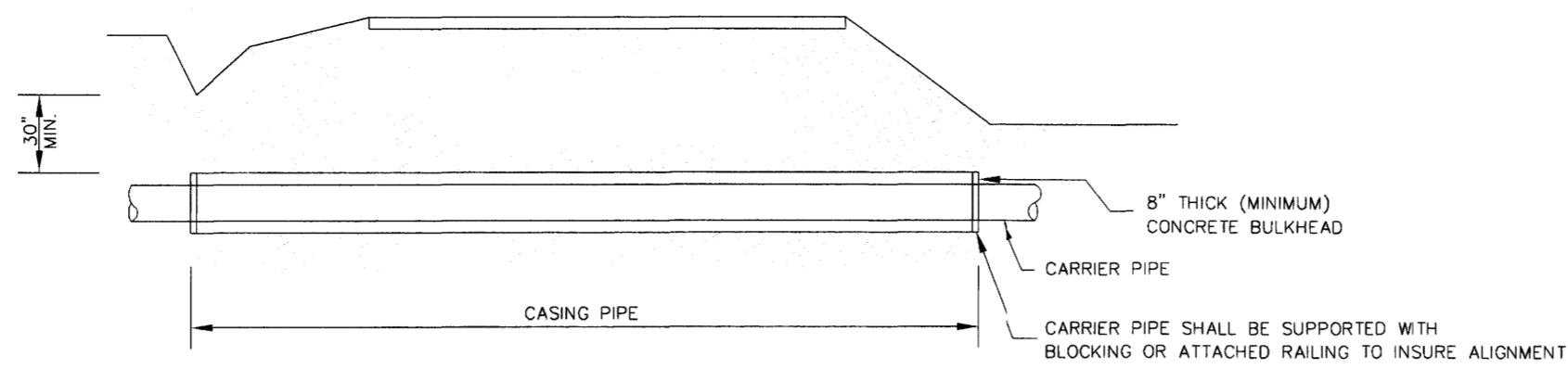
TYPICAL FIRE HYDRANT INSTALLATION

NOTE: GATE VALVES WILL BE REQUIRED ON ALL FIRE HYDRANT LEGS.



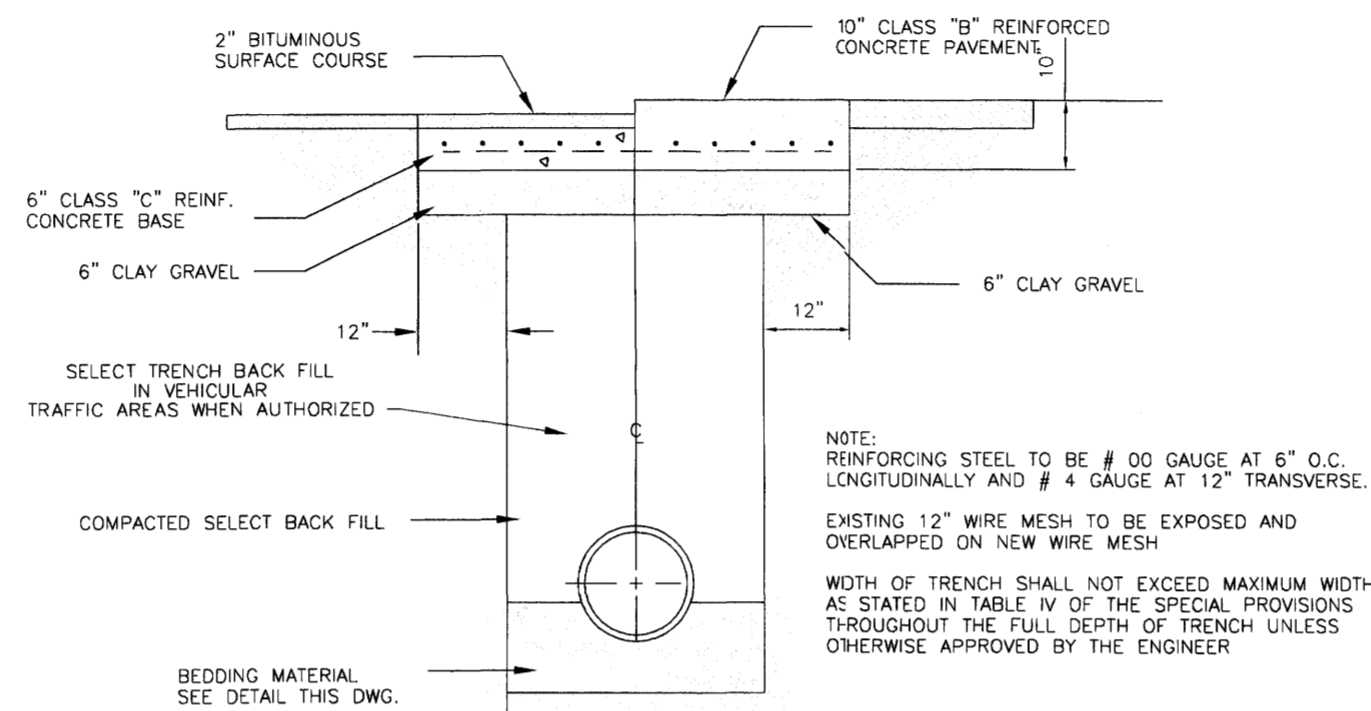
GATE VALVE DETAIL

NOT TO SCALE



TYPICAL BORE SECTION

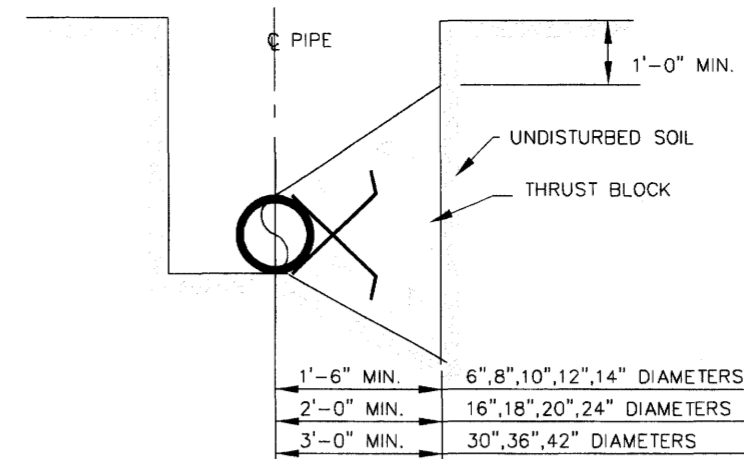
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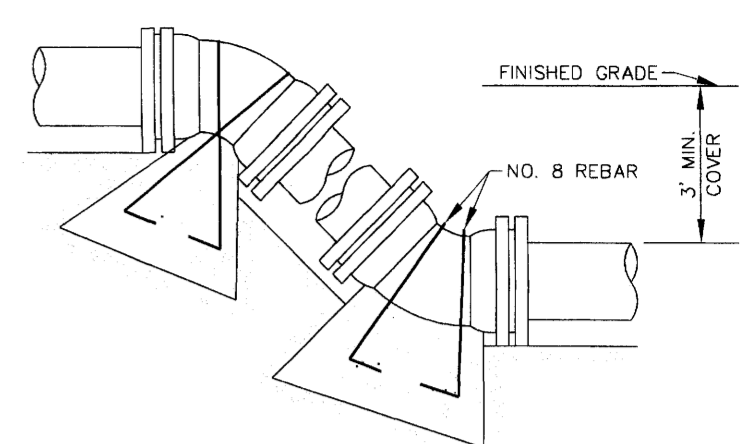
TYPICAL ROADWAY SECTION

NOT TO SCALE

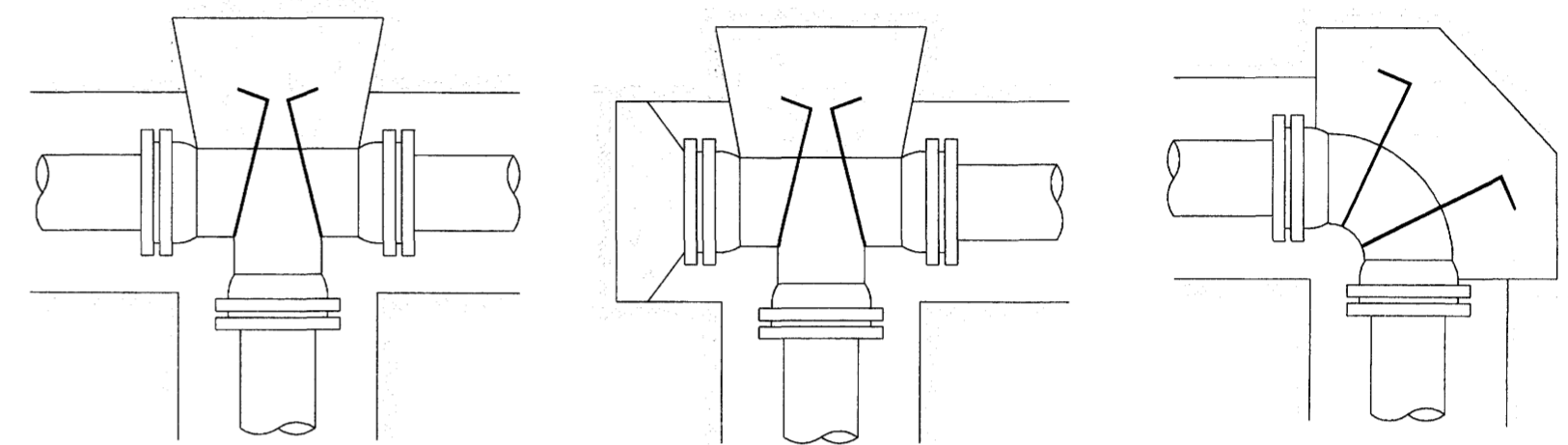
NOTE: REINFORCING STEEL TO BE # 00 GAUGE, AT 6" O.C. LONGITUDINALLY AND # 4 GAUGE AT 12" TRANSVERSE.
EXISTING 12" WIRE MESH TO BE EXPOSED AND OVERLAPPED ON NEW WIRE MESH
WIDTH OF TRENCH SHALL NOT EXCEED MAXIMUM WIDTH AS STATED IN TABLE IV OF THE SPECIAL PROVISIONS THROUGHOUT THE FULL DEPTH OF TRENCH UNLESS OTHERWISE APPROVED BY THE ENGINEER



TYPICAL CROSS SECTION



VERTICAL BENDS



TYPICAL THRUST BLOCKING IN WATER MAINS AND SEWAGE FORCE MAINS

NOTE: ALL THRUST BLOCKS 2,500 PSI CONCRETE AGAINST UNDISTURBED EARTH

BEARING AREA IN SQ. FT.

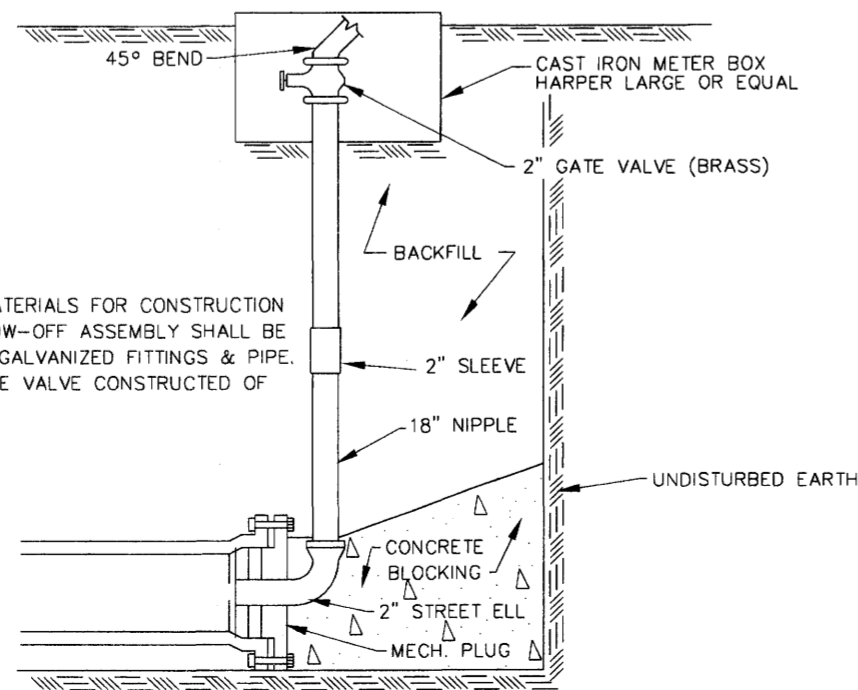
VERTICAL BENDS

NOMINAL PIPE DIAMETER (IN)	DEAD-END OR TEE	90° BEND	45° BEND	22 1/2° BEND	11 1/4° BEND	NOMINAL PIPE DIAMETER (IN)	DEAD-END OR TEE	90° BEND	45° BEND	22 1/2° BEND	11 1/4° BEND
6	2.5	3.0	2.0	2.0	2.0	6	—	—	26.0(1.0)	14.0(.5)	7.0(.3)
8	4.0	6.0	3.0	2.0	2.0	8	—	—	45.0(1.7)	25.0(.9)	13.0(.5)
10	6.0	9.0	5.0	2.5	2.0	10	—	—	68.0(2.5)	37.0(1.4)	19.0(.7)
12	9.0	11.0	6.0	3.5	2.0	12	—	—	97.0(3.6)	52.0(1.9)	27.0(1.0)
14	12.0	18.0	9.0	5.0	2.5	14	—	—	130(4.8)	70.0(2.6)	36.0(1.3)
16	16.0	22.5	12.0	6.0	3.0	16	—	—	168(6.2)	91.0(3.4)	46.0(1.7)
18	20.0	28.0	15.0	8.0	4.0	18	—	—	211(7.8)	114(4.2)	58.0(2.2)
20	24.5	34.0	19.0	10.0	5.0	20	—	—	259(9.6)	140(5.2)	72.0(2.6)
24	35.0	49.0	27.0	14.0	7.0	24	—	—	370(13.7)	200(7.4)	102(3.8)
30	54.0	76.0	41.0	21.0	10.0	30	—	—	568(21.1)	308(11.4)	156(5.8)
36	77.0	108.0	59.0	30.0	15.0	36	—	—	814(30.1)	440(16.3)	225(8.3)
42	104.0	146.0	79.0	40.0	20.0	42	—	—	1100(40.7)	595(22.0)	303(11.2)

VOLUME OF BLOCKS INCLUDING SOIL LOAD CU. FT. (CU. YDS.)

NOTE: ABOVE VALUES CALCULATED USING P=100 AND ALLOWANCE. SOIL BRG. = 1500 PSF. FOR DIFFERENT P, MULTIPLY ABOVE VALUES BY P/100. FOR DIFFERENT SOIL BRG, MULTIPLY ABOVE VALUES BY 1500/S.B.

NOTE: ABOVE VALUES REPRESENT THE VOLUME OF BLOCKS INCLUDING SOIL LOAD IN CU.FT. (CU.YDS.) THE VALUES WERE CALCULATED USING A P=100 PSI AND A S.F.=1.5. FOR DIFFERENT P, MULTIPLY VALUES BY P/100.



TYPICAL BLOW-OFF ASSEMBLY

N.T.S.

NOTE: ALL MATERIALS FOR CONSTRUCTION OF BLOW-OFF ASSEMBLY SHALL BE OF 2" GALVANIZED FITTINGS & PIPE. 2" GATE VALVE CONSTRUCTED OF BRASS.

PIPE SIZE "D" (IN.)	TRENCH WIDTH "B" (FT.)	TRENCH VOLUME PER FOOT OF DEPTH (CV/LF)	BEDDING QUANTITIES (CY/LF)			BACKFILL QUANTITIES (TO ONE FOOT ABOVE TOP OF PIPE) (CY/LF)		
			CLASS C	CLASS B	CLASS A	CLASS C	CLASS B	CLASS A
4	2.50	0.074	0.054	0.053	0.048	0.13	0.12	0.12
6	2.50	0.074	0.056	0.057	0.051	0.13	0.12	0.13
8	2.50	0.093	0.058	0.062	0.054	0.14	0.12	0.14
10	3.00	0.111	0.072	0.081	0.069	0.18	0.16	0.18
12	3.50	0.130	0.085	0.10	0.087	0.22	0.19	0.22
15	3.75	0.139	0.098	0.12	0.10	0.25	0.21	0.25
18	4.00	0.148	0.11	0.14	0.12	0.28	0.24	0.27
21	4.25	0.157	0.11	0.17	0.16	0.31	0.26	0.30
24	4.50	0.167	0.13	0.17	0.17	0.34	0.28	0.33
27	4.75	0.176	0.14	0.19	0.20	0.37	0.31	0.36
30	5.00	0.185	0.16	0.21	0.23	0.40	0.33	0.39
33	5.50	0.204	0.18	0.25	0.28	0.46	0.38	0.45
36	5.75	0.213	0.19	0.28	0.31	0.49	0.41	0.48
42	6.25	0.231	0.22	0.33	0.39	0.55	0.46	0.54
48	7.00	0.259	0.26	0.42	0.49	0.66	0.55	0.64
54	7.50	0.278	0.29	0.48	0.58	0.72	0.60	0.71
60	8.00	0.296	0.33	0.55	0.68	0.78	0.66	0.77
66	8.75	0.324	0.37	0.66	0.82	0.90	0.76	0.89
72	9.25	0.343	0.41	0.74	0.90	0.96	0.82	0.96
78	9.75	0.361	0.45	0.82	1.05	1.03	0.89	1.03
84	10.50	0.389	0.50	0.95	1.22	1.16	1.00	1.16

SCHEDULE OF BEDDING AND BACKFILL QUANTITIES

RECORD DRAWING

BY: *R. Hanna* DATE: *5/20/04*



AN EXTENSION OF
AVERY BOULEVARD NORTH

STANDARD WATER DETAILS

CITY OF RIDGELAND
MADISON COUNTY, MISSISSIPPI

DRGN: RCV DATE: 04/11/03
DRWN: RDB DATE: 04/11/03
CHRD: RCV DATE: 04/11/03
SCALE: AS SHOWN
DRAWING NO. 8 OF 10
STERLING CONSULTANTS CONSULTING ENGINEERS

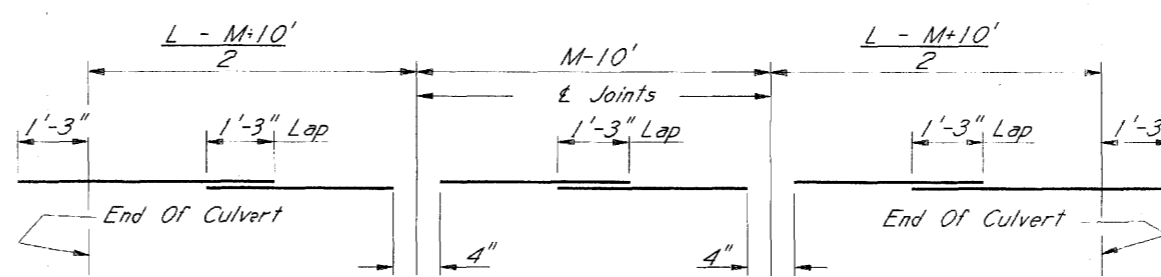
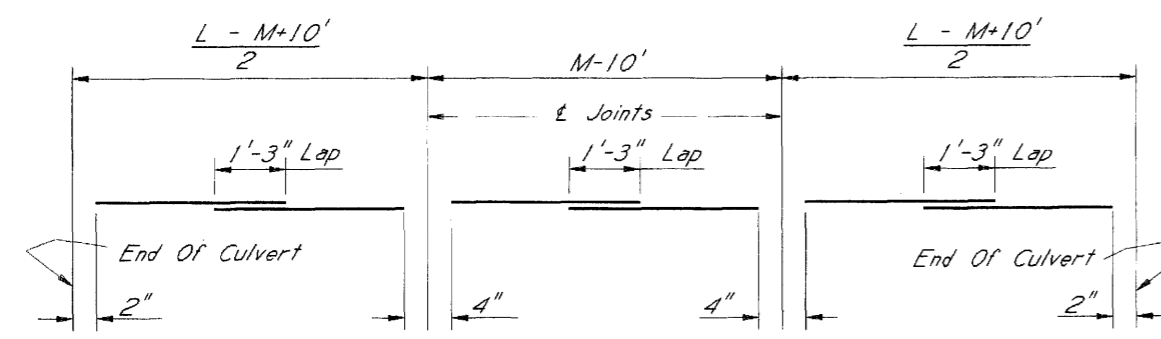
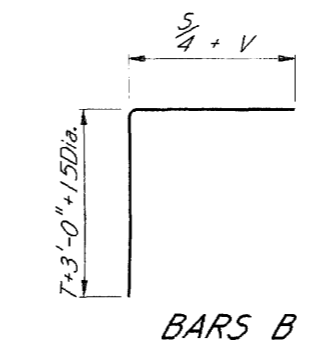
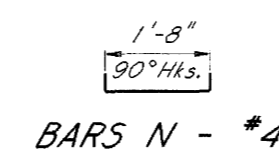
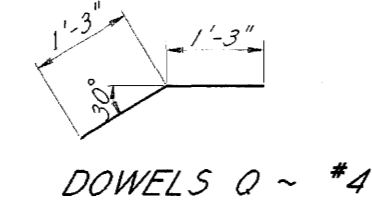
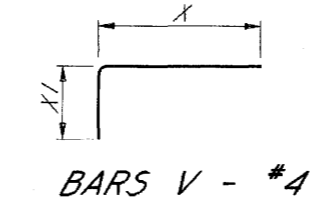
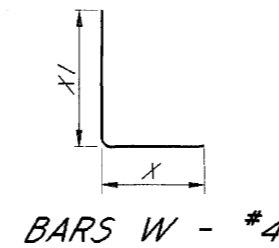
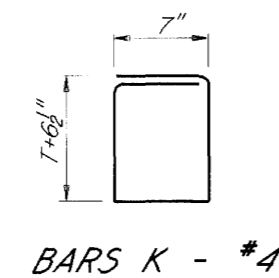
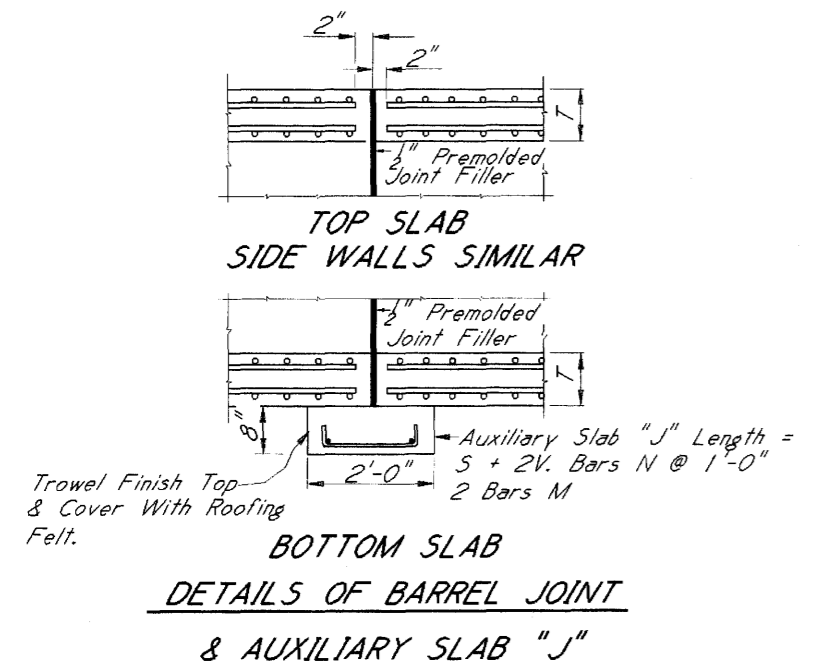
BAR LIST FOR BARREL (L = 150 FT.) PARAPETS & 4 AUXILIARY SLABS (2 "J's" & 2 "W's")

CLEAR SPAN	BARS "A"				BARS "B"				DOWELS "O" ~ #4		SPACERS "OS" ~ #4		SETS OF BARS "AST" #4		SETS OF BARS "ASB" #4		SETS OF BARS "BS" #4		BARS "H" #4		SETS OF BARS "HS" #4		BARS "K" #4		BARS "L" #4		BARS "M" #4		BARS "N" #4	
	NO.	SIZE	SPAC.	LGTH.	NO.	SIZE	SPAC.	LGTH.	NO.	LGTH.	NO.	LGTH.	NO.	LGTH.	NO.	LGTH.	NO.	LGTH.	NO.	LGTH.	NO.	LGTH.	NO.	LGTH.	NO.	LGTH.	NO.	LGTH.	NO.	LGTH.
8'	552	#6	6 1/2"	9'-1"	1104	#5	6 1/2"	8'-2"	32	2'-6"	4	7'-7"	8	152'-9"	8	155'-7"	28	152'-9"	204	7'-7"	8	152'-9"	16	4'-4"	4	9'-1"	8	9'-0"	40	2'-2"
10'	552	#6	6 1/2"	11'-2"	1104	#5	6 1/2"	8'-9"	32	2'-6"	4	7'-7"	10	152'-9"	10	155'-7"	32	152'-9"	204	7'-7"	8	152'-9"	20	4'-5"	4	11'-1"	8	11'-1"	48	2'-2"
12'	600	#6	6"	13'-3"	1200	#5	6"	9'-5"	32	2'-6"	4	7'-7"	12	152'-9"	12	155'-7"	32	152'-9"	204	7'-7"	8	152'-9"	24	4'-7"	4	13'-1"	8	13'-2"	56	2'-2"
14'	684	#6	5 1/2"	15'-5"	1368	#5	5 1/2"	10'-1"	32	2'-6"	4	7'-7"	14	152'-9"	14	155'-7"	36	152'-9"	204	7'-7"	8	152'-9"	28	4'-10"	4	15'-1"	8	15'-4"	64	2'-2"
16'	576	#7	6 1/2"	17'-7"	1152	#6	6 1/2"	10'-11"	32	2'-6"	4	7'-7"	16	152'-9"	16	155'-7"	36	152'-9"	204	7'-7"	8	152'-9"	32	5'-0"	4	17'-1"	8	17'-6"	72	2'-2"
18'	480	#7	7 1/2"	19'-9"	960	#7	7 1/2"	11'-9"	32	2'-6"	4	7'-7"	18	152'-9"	18	155'-7"	40	152'-9"	204	7'-7"	8	152'-9"	36	5'-2"	4	19'-1"	8	19'-8"	80	2'-2"
20'	534	#8	6 3/4"	21'-11"	1068	#7	6 3/4"	12'-5"	32	2'-6"	4	7'-7"	20	152'-9"	20	155'-7"	40	152'-9"	204	7'-7"	8	152'-9"	40	5'-4"	4	21'-1"	8	21'-10"	88	2'-2"

BAR LISTS FOR WINGS & APRONS

BAR SIZE	NO. REQUIRED							DIM. X	DIM. XI	LENGTH
	SPAN									
	8'	10'	12'	14'	16'	18'	20'			
T1 #4	2	2	2	2	2	2	2			5+1'-0"
T2 #4	2	2	2	2	2	2	2			5+2'-2"
T3 #4	2	2	2	2	2	2	2			5+3'-4"
T4 #4	2	2	2	2	2	2	2			5+4'-6"
T5 #4	2	2	2	2	2	2	2			5+5'-8"
T6 #4	2	2	2	2	2	2	2			5+6'-10"
T7 #4	2	2	2	2	2	2	2			5+8'-0"
T8 #4	2	2	2	2	2	2	2			5+9'-2"
T9 #4	2	2	2	2	2	2	2			5+10'-4"
T10 #4	2	2	2	2	2	2	2			5+11'-6"
T11 #4	2	2	2	2	2	2	2			5+12'-8"
T12 #4	2	2	2	2	2	2	2			5+13'-10"
T13 #4	2	2	2	2	2	2	2			5+15'-0"
T14 #4	2	2	2	2	2	2	2			5+16'-2"
T15 #4	6	6	6	6	6	6	6			5+17'-0"
U #4	12	12	12	12	12	12	12			16'-1"
V1 #4	20	24	28	32	36	40	44	14'-2"	1'-8"	15'-10"
V2 #4	4	4	4	4	4	4	4	12'-3"	1'-8"	13'-11"
V3 #4	4	4	4	4	4	4	4	10'-6"	1'-8"	12'-2"
V4 #4	4	4	4	4	4	4	4	8'-10"	1'-8"	10'-6"
V5 #4	4	4	4	4	4	4	4	7'-1"	1'-8"	8'-9"
V6 #4	4	4	4	4	4	4	4	5'-5"	1'-8"	7'-1"
V7 #4	4	4	4	4	4	4	4	3'-8"	1'-8"	5'-4"
W1 #5	16	16	16	16	16	16	16	4'-6"	W+6'-7"	W+11'-1"
W2 #5	12	12	12	12	12	12	12	4'-1"	W+5'-8"	W+9'-9"
W3 #5	8	8	8	8	8	8	8	3'-8"	W+4'-9"	W+8'-5"
W4 #4	8	8	8	8	8	8	8	3'-4"	W+3'-11"	W+7'-3"
W5 #4	8	8	8	8	8	8	8	3'-0"	W+3'-0"	W+6'-0"
W6 #4	8	8	8	8	8	8	8	2'-8"	W+2'-2"	W+4'-10"
W7 #4	8	8	8	8	8	8	8	2'-4"	W+1'-4"	W+3'-8"
W8 #4	8	8	8	8	8	8	8	2'-0"	W+6"	W+2'-6"
Y1 #4	4	4	4	4	4	4	4			2'-11"
Y2 #4	4	4	4	4	4	4	4			5'-3"
Y3 #4	4	4	4	4	4	4	4			7'-7"
Y4 #4	4	4	4	4	4	4	4			9'-10"
Y5 #4	4	4	4	4	4	4	4			12'-2"
Y6 #4	4	4	4	4	4	4	4			14'-5"
Y7 #4	8	8	8	8	8	8	8			16'-7"

@ NOTE: The Number And Length Of Bars Are Listed For Sets Of Bars Composed Of Sections As Shown In Bar Bending Details See Elevation Of Culvert For Number Of Sections.



BAR BENDING DETAILS
 Dimensions Are Out To Out.

GENERAL NOTES:
 Specifications: Mississippi Standard Specifications For Road And Bridge Construction, 1990.
 All Concrete Shall Be Class B.
 Concrete Surfaces Shall Be Finished In Accordance With Sub-Section 804.03.19.
 Expansion Joint Material Shall Be Bituminous Fiber Type Unless Otherwise Noted.
 All Exposed Corners Shall Be Chamfered 3/4".
 Reinforcing Steel Shall Be Placed 1" Clear Minimum From The Surface Of The Concrete And Shall Be Adequately Supported From The Forms.
 All Bars Shall Be Accurately Spaced And Securely Wired At Each Intersection Before Placing Concrete.
 Horizontal Construction Joints Shall Be Placed Only At The Locations Shown, And The Concrete Shall Be Allowed To Set A Minimum Period Of Two Hours Before Continuing The Pour.
 Auxiliary Slabs W And Vertical Construction Joints At The Wings Shall Be Placed In All Culverts Regardless Of Length.
 The Quantities Shown Will Be Used As A Basis For Final Payment Unless This Drawing Is Modified.

NOTE: The Diagrams For Bars ASB, AST And BS Are For A Culvert Length Greater Than 140 Ft. And Equal To Or Less Than 190 Ft. With A Median Of 40 Ft. Thru 60 Ft. For Conditions Other Than These, Use Sections As Shown On Elevation Of Culvert.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION			
BASIC CULVERT DRAWING			
SINGLE CELL			
		HEIGHT	8 FT.
		SPANS	8-20 FT.
			WORKING NUMBER
			IBS-8-2W
			SHEET NUMBER
			371.2
DATE	DESIGNED	CHECKED	ISSUED
	NA	BJJ	TMT
	ALT	07-11-97	08-01-97