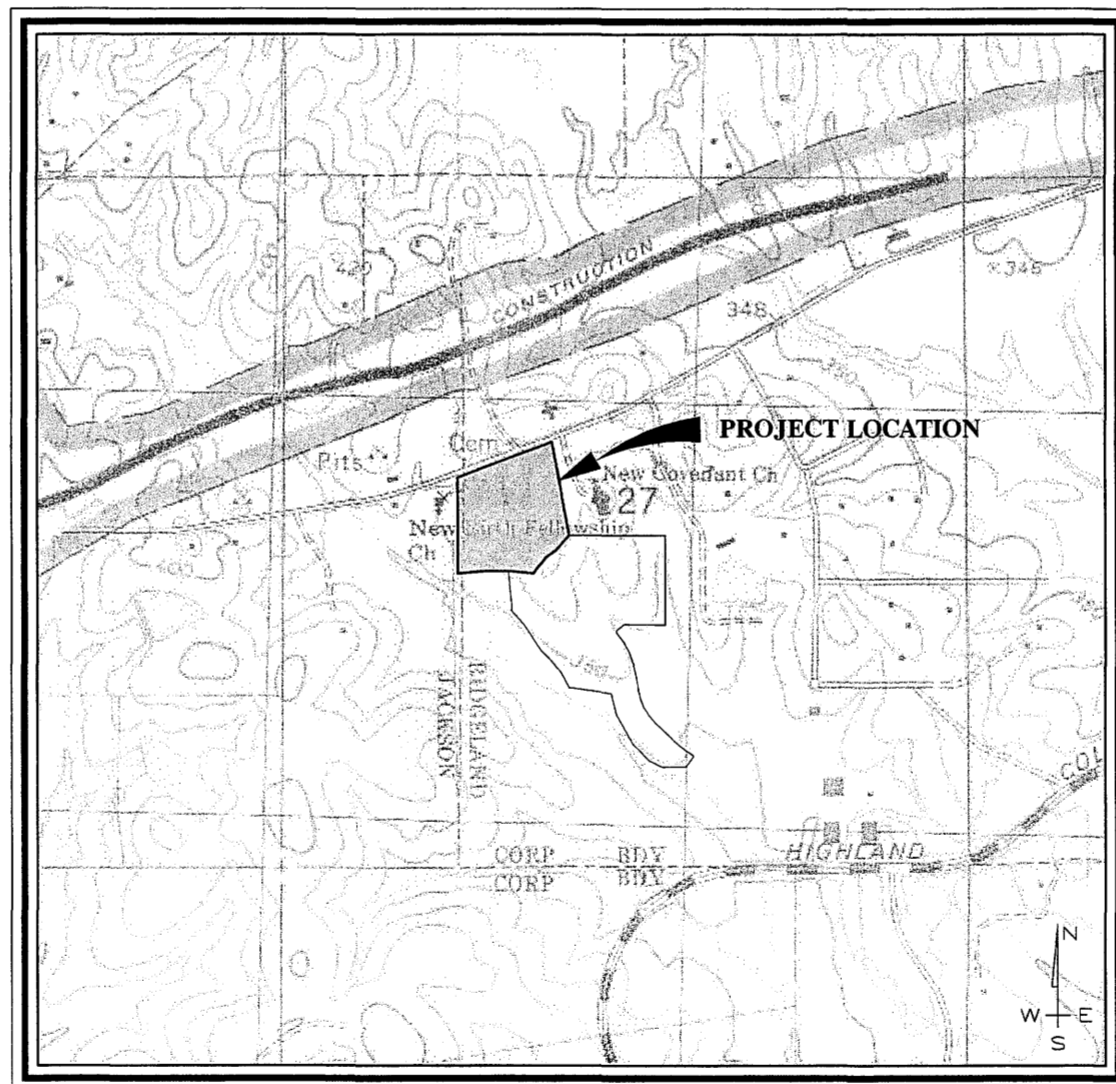
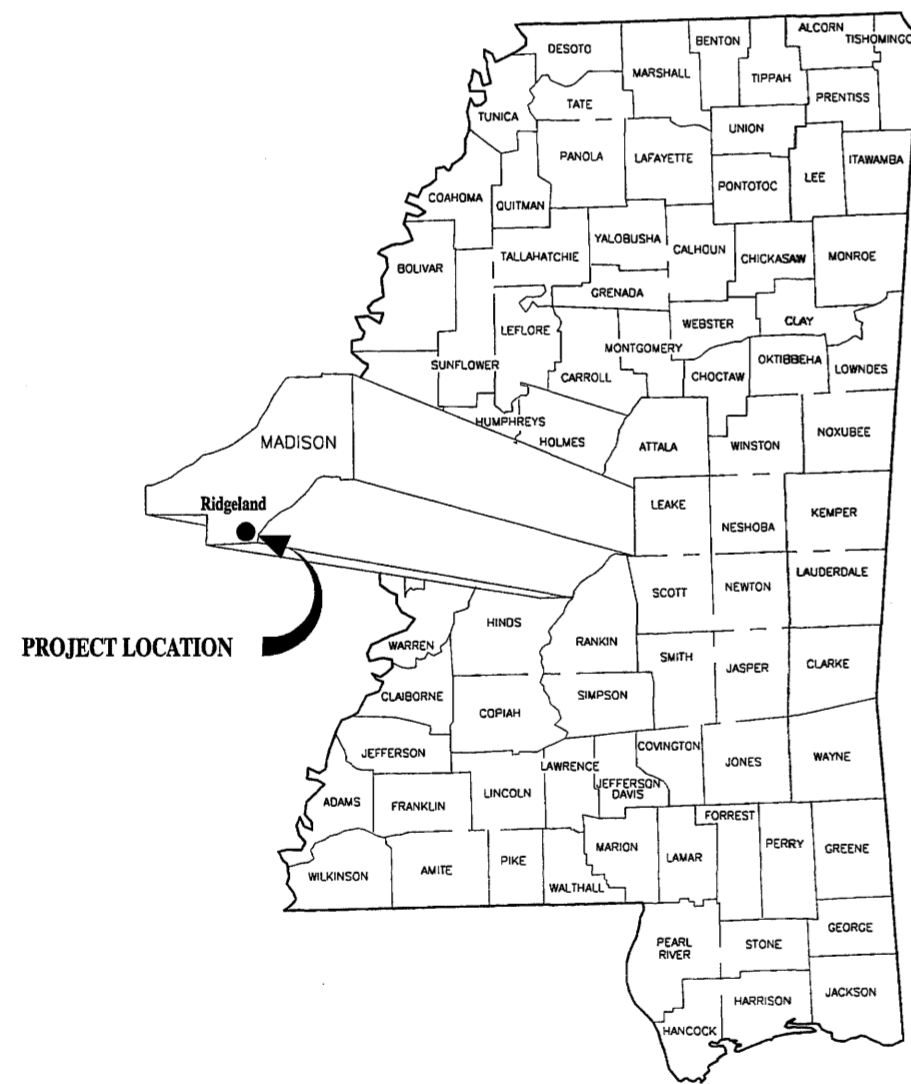
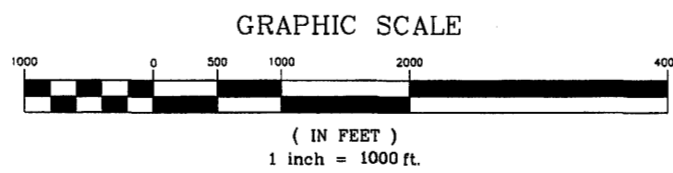


CONSTRUCTION PLANS FOR WRENFIELD PART TWO CITY OF RIDGELAND MADISON COUNTY, MISSISSIPPI



VICINITY MAP
SCALE: 1"=1000'



**A DEVELOPMENT OF
GRACE PROP., LLC**

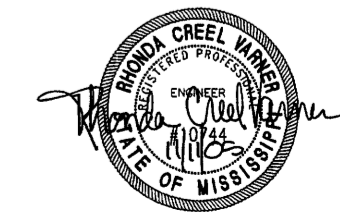
RECORD DRAWING

BY: R. Namer DATE: 11/11/05

This set of record drawings includes as-built information for water, sanitary sewer, streets and storm drainage improvements installed in order to provide service and access for Lots 1 through 11, 54 & 59. These lots are being platted as Wrenfield Part 2A. Upon completion of the water, sanitary sewer, storm drainage and street improvements for the remainder of Wrenfield Part Two (Lots 55 through 58 and 60 through 66), which will be platted as Wrenfield Part 2B, an updated set of these record drawings will be provided that will include as-built information for all infrastructure improvements shown on these plans.

Prepared By:

STERLING
Consultants
INCORPORATED
CONSULTING ENGINEERS



PW07-05046

REVISION	BY	DATE
AS-BUILT PLANS FOR PART 2A ONLY	GDD	11/01/05

GENERAL NOTES

1. The controlling technical specifications for items comprising a part of this project are the standard specifications and requirements of the Accepting Jurisdictions. In addition, the descriptions, references, notes and standards stated on or included in these Construction Plans and the requirements of any document which is a part, by attachment or reference, of the Construction Plans shall be applicable. All materials used shall be new, manufactured by a recognized manufacturer, enjoy a good reputation for performing as intended over time, and if applicable, shall be those specific brands, types, etc., specified by the Accepting Jurisdiction. A manufacturer's recommendations for handling and installing its materials shall also be followed. In those instances where there may be a conflict among requirements, the more restrictive shall control unless expressly permitted otherwise by the Engineer, but in no event shall the standards and requirements of the Accepting Jurisdictions be knowingly not achieved.

2. No activity is to be performed in any manner which is not in compliance with any requirement of an Accepting Jurisdiction or Approval Agency. No activity is to be performed in any manner which may be deemed unsafe or improper by the Engineer or any federal, state, county or local agency or authority lawfully exercising jurisdiction in such matters, including without limitation OSHA. No activity is to be performed in any manner which is not in conformance with the predominately prevailing methods, procedures or manner for similar work in the Accepting Jurisdiction in central Mississippi. All activities are to be performed in a safe and proper manner in order to ensure acceptance of the facilities by the Engineer, Owner, Accepting Jurisdiction and Approving Agencies.

3. A contractor must verify through Mississippi One-Call and the local jurisdictions the existence and location of any and all utility facilities within the project site and must conduct its activities and operations to protect the integrity and operation of utility facilities at all times.

4. A contractor shall furnish, install and maintain any necessary traffic control barriers, signage and/or signals which may be required by the Engineer, Owner, Accepting Jurisdiction, the City, the County and/or the Mississippi Department of Transportation whenever its activities and operations may affect traffic on city or county streets or state highways.

5. A contractor shall adhere to the requirements of the Storm Water Pollution Prevention Plan and the related permit(s) issued for this Project by the Mississippi Department of Environmental Quality (DEQ) and/or U.S. Department of the Army Corps of Engineers.

With respect to bedding flexible sanitary and storm sewer pipes, the installation embedment requirements shall be that specified by the manufacturer of the pipe. The prevailing practice has been and is that Class IV bedding is normally acceptable. However, the moisture content of the soil being used must be properly and carefully controlled. If the soils available from the trench excavation are too wet or are otherwise unsuitable, Class III bedding material must be used.

MATERIAL REQUIREMENTS

STREETS

- Concrete for curb and gutter shall be 3,000 psi minimum. see curb and gutter detail.
- 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.
- See typical street section detail.

STORM DRAINAGE

- Pipe - Reinforced concrete pipe, round ASTM C-76 or arch, ASTM C-506 without lifting holes. Storm drainage pipe in the locations marked HDPE (N-12) may be high density polyethylene corrugated pipe with an integrally formed smooth inner wall. Manufactured by ADS in compliance with the requirements for test methods, dimensions, and markings found in AASHTO designations M252 and M294. In all other locations, storm drainage pipe shall be reinforced concrete pipe.
- Joints - Joints for round concrete 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.
- Curb Inlets and Junction Boxes - Precast concrete, ASTM C-478 or concrete block construction.
- Curb Inlet castings - Vulcan RCB- 7 or equal as approved by accepting jurisdiction and engineer.
- Raised Grate Inlet Assembly - ADS NP-C1 domed inlet assembly No. B35

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 Metrosal 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 guage, 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 A-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. Cool 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 - Sast iron, ASTM A-78 or equal.

COMPONENT 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, and mechanical trench compaction shall extend a min. of 2 feet beyond back of curb. Lime treatment (if used) shall extend a minimum of 1 foot beyond back of curb.
- 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; 3) ensure required sub grade density has been achieved and verified by soils testing laboratory; and 4) ensure subgrade is acceptable to accepting jurisdiction.

CURB AND GUTTER

- Curb and gutter shall be 24" roll back, except islands shall be standard. (See details).
- 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.
- Intersection curb radii shall be 20' measured to back of curb unless otherwise shown.
- 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.
- Concrete for curb and gutter shall be 3,000 psi minimum.

SIDEWALKS

- 48" sidewalks shall be constructed by the builder on each lot after all utility services are installed and the site has been graded and shaped to its finished topography. Sidewalks are not a part of this project unless a pay item.

STORM DRAINAGE

- All storm drainage pipe and inlets shall be flushed and cleared of any construction materials and/or sediment upon project completion.

EROSION CONTROL

- The construction exit shall be maintained to minimize erosion and deposition off-site of sediment. All materials spilled, dropped, washed or tracked from vehicles or site onto public roadways must be removed immediately.
- Curb and area inlet sediment traps shall consist of hay bales fully surrounding each inlet.
- Each contractor performing any work required by these plans shall comply with all requirements specified on 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 & SANITARY SEWER

- All water and sanitary sewer construction to be in accordance with the City of Madison standard specifications.
- Sewer service pipes shall be 6" SDR-26 PVC; Sewer mains shall be 8" SDR-26 PVC.
- Guidelines for Positioning Sanitary Sewer Services.
 - Sanitary sewer services are installed prior to water services.
 - To aid in finding, inspecting and maintaining (cleaning out) sanitary sewer services, if there is a manhole at a low corner of a lot (or if there is a manhole across the street from the lot), sewer services are to connect (with a boot) at and drain into the manhole.
 - In those circumstances where a manhole is not located on a low lot corner, sewer services are to connect (using a tee) and installed to drain to the sewer main and extended in the direction of the lot at the location on the lot where the pipe will cross the lot line approximately ten(10) feet from the center of the lot on whichever side of the lot's center is lower.
 - Enough full thirteen (13) foot long joints are to be installed to insure that the upsewer end of the pipe falls within the lot.
 - Sewer services are to terminate about six (6) feet deep (unless another depth is more appropriate given the depth of the manhole and/or sewer, the topography of the lot, the probable location of the dwelling to be built on the lot and the necessity of avoiding storm sewers).
 - The upsewer end of sewer services are to be properly capped, marked with a red-tipped steel tee post, and located by horizontal measurement from the two (2) closest lot corners. If the sanitary sewer service connects to a sewer main, the distance from the nearest downstream manhole to the connection tee is to be measured. These measurements are to be recorded on the Contractor's "as-built" plans.
- 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 maximum dry density.
- Deflection tests 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 tests 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.
- Contractor shall maintain records during construction of horizontal and vertical location of all water and sewer services for as built records.
- Water mains shall be laid at least ten (10) feet 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.
- Water service lines shall be 1" (or as otherwise shown for a particular lot) and shall be terminated with 1"x3/4" curb stop. Water mains shall be 8" or 6" ductile iron or C900, Class 150.
- Services for all water and sewer shall be located as shown on plans or near the center of all lots with ten (10) foot separation. The terminus of each service shall be marked with a steel tee post with a blue tip for water and red tip for sewer. Sewer services shall discharge into manholes where practical.
- Water mains shall be installed with four (4) foot minimum cover under roadway sections and three (3) foot minimum cover elsewhere. In areas where mains are to be installed adjacent to the streets located in a cut section, the minimum depth shall be three (3) foot below top of curb.
- Irrigation/utility sleeves shall be installed with maximum five (5) foot separation, minimum four (4) foot depth and stubbed to surface, capped and marked for future use.
- Tracer wire shall be installed on C-900 water mains.

LEGEND

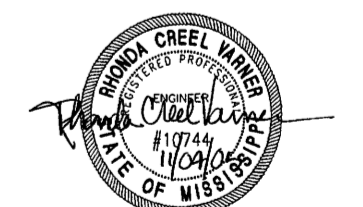
—————	PROPERTY LINE
—————	LOT LINE
—————	RIGHT OF WAY LINE
-----	EASEMENT
.....	SETBACK LINE
.....	CENTER LINE
—————	EDGE OF PAVEMENT
—————	BACK OF CURB
—————	EXISTING CONTOUR
—————	PROPOSED SANITARY SEWER & MANHOLE
—————	PROPOSED STORM SEWER & CATCH BASIN
—————	EXISTING SANITARY SEWER
—————	WATER LINE
—————	PROPOSED WATER VALVE
—————	PROPOSED FIRE HYDRANT
—————	PROPOSED TEE
—————	EXISTING UTILITY POLE
—————	DRAINAGE FLOW

INDEX TO DRAWINGS

- COVER SHEET
- GENERAL NOTES AND INDEX TO DRAWINGS
- STREET & LOT LAYOUT
- SANITARY SEWER LAYOUT
- STORM DRAINAGE LAYOUT
- STORM WATER POLLUTION PREVENTION PLAN
- PLAN AND PROFILE - ENTRANCE INBOUND LANE WRENFIELD WAY STA. 0+31.60 - STA. 10+14.83
PLAN AND PROFILE - TRAFFIC CIRCLE ONE STA. 2+28.70 - STA. 3+92.86 (IN) AND TRAFFIC CIRCLE ONE STA. 2+28.70 - STA. 3+69.28 (OUT)
- PLAN AND PROFILE - WEST ENTRANCE STA. 0+00.00 - STA. 1+77.53
PLAN AND PROFILE - TRAFFIC CIRCLE TWO STA. 7+26.46 - STA. 8+78.83 (IN) AND TRAFFIC CIRCLE TWO STA. 7+26.46 - STA. 8+78.83 (OUT)
PLAN AND PROFILE - WRENFIELD DRIVE STA. 0+00.00 - STA. 6+44.00
- PLAN AND PROFILE - WILLMINGTON DRIVE STA. 0+79.67 - STA. 7+63.30
- PLAN AND PROFILE - STORM OUTFALL B @ WEST ENTRANCE STA. 0+00 - STA. 1+71.38
PLAN AND PROFILE - STORM OUTFALL A1 STA. 0+00 - STA. 5+37.30
PLAN AND PROFILE - STORM OUTFALL A2 STA. 0+00 - STA. 1+48.47
PLAN AND PROFILE - STORM OUTFALL A2 STA. 0+00 - STA. 1+01.60
- STORM WATER POLLUTION PREVENTION MEASURE DETAILS
- STANDARD WATER DETAILS
- STANDARD SANITARY SEWER DETAILS
- STANDARD STORM SEWER DETAILS

RECORD DRAWING

BY: *R. Namu* DATE: 11/04/05

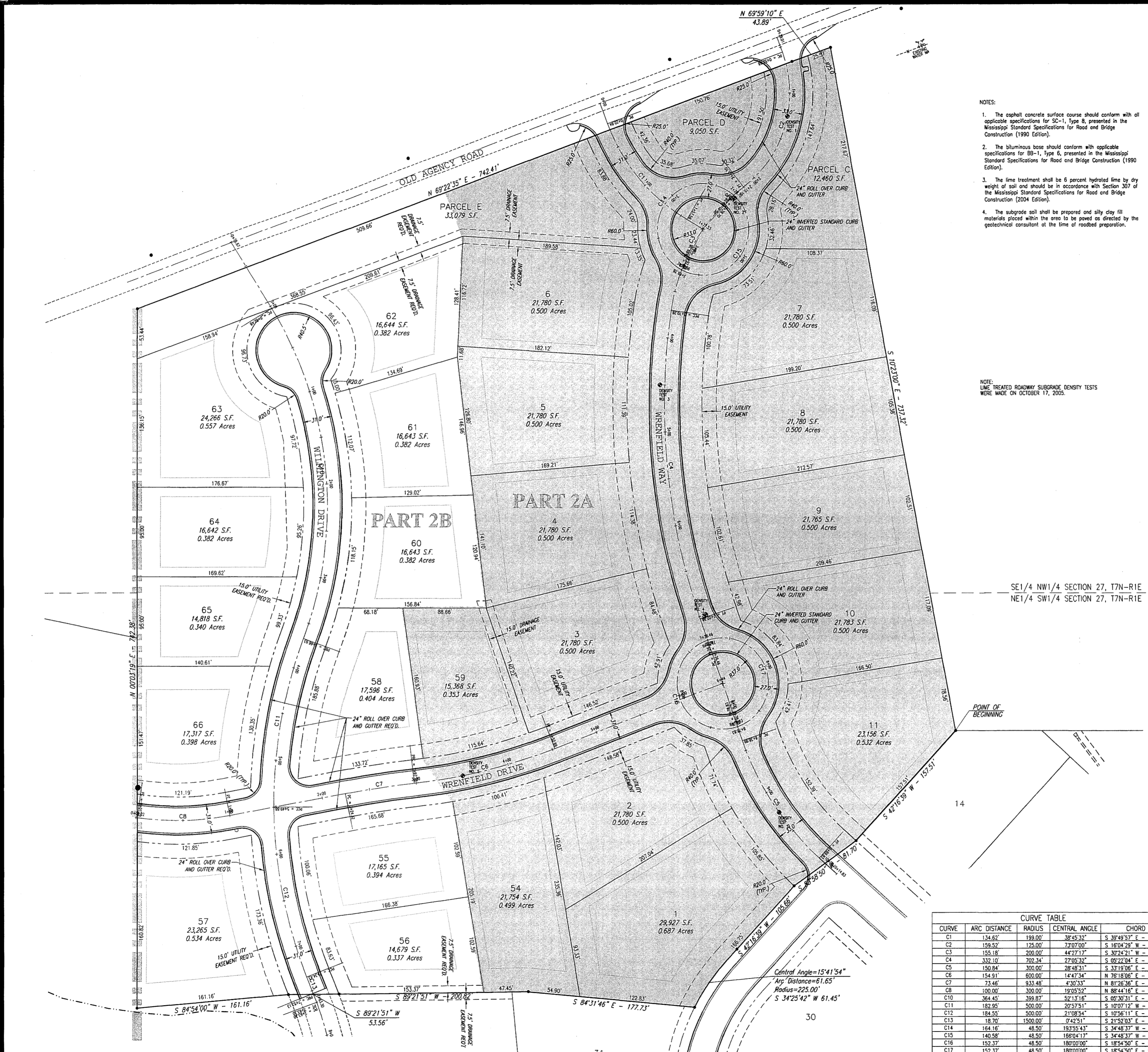


WRENFIELD PART TWO
A DEVELOPMENT OF
GRACE PROP., LLC

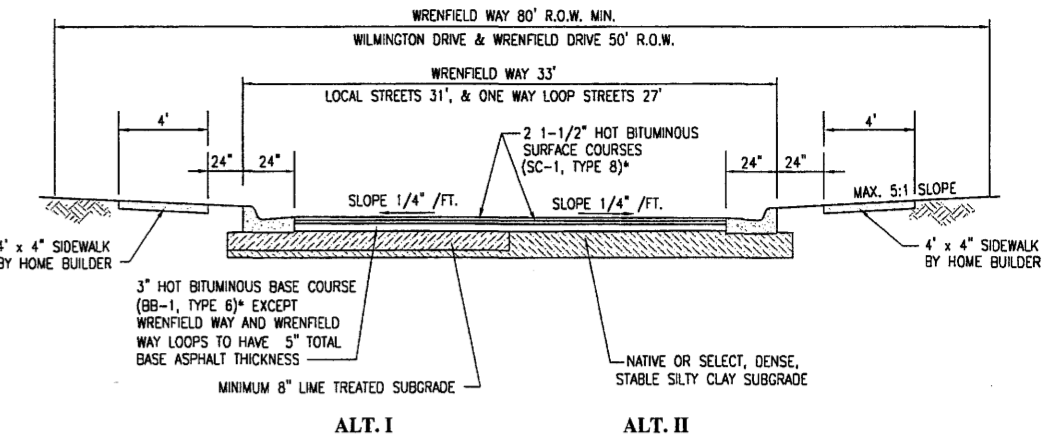
GENERAL NOTES AND INDEX TO DRAWINGS

CITY OF RIDGELAND
MADISON COUNTY, MISSISSIPPI

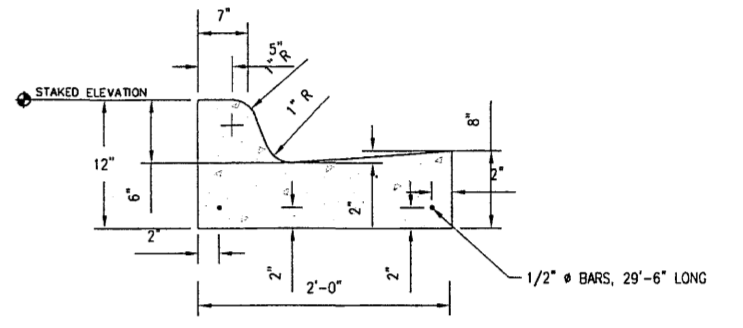
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DRWN: EDB	DATE: 09/15/05		2 OF 14
CHKD: RCV	DATE: 09/15/05	SCALE: AS SHOWN	



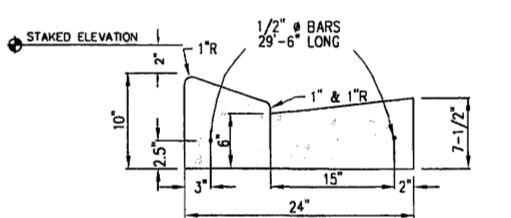
- NOTES:
- The asphalt concrete surface course should conform with all applicable specifications for SC-1, Type B, presented in the Mississippi Standard Specifications for Road and Bridge Construction (1990 Edition).
 - The bituminous base should conform with applicable specifications for BB-1, Type B, presented in the Mississippi Standard Specifications for Road and Bridge Construction (2004 Edition).
 - The lime treatment shall be 6 percent hydrated lime by dry weight of soil and should be in accordance with Section 307 of the Mississippi Standard Specifications for Road and Bridge Construction (2004 Edition).
 - The subgrade soil shall be prepared and silty clay fill materials placed within the area to be paved as directed by the geotechnical consultant at the time of roadbed preparation.



TYPICAL STREET SECTION
NOT TO SCALE
*SEE NOTES REGARDING STREET CONSTRUCTION



STANDARD CURB AND GUTTER
(INSIDE ISLANDS)
NOT TO SCALE



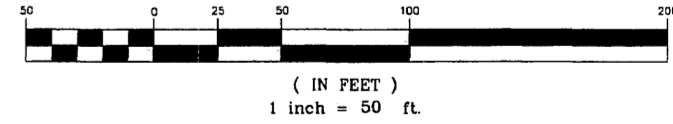
ROLL OVER CURB DETAIL
(OUTSIDE EDGE OF STREET)
NOT TO SCALE

NOTE:
LIME TREATED ROADWAY SUBGRADE DENSITY TESTS WERE MADE ON OCTOBER 17, 2005.

- NOTES:
- GRADE STAKES ON ALL STREETS EXCEPT ISLANDS ARE SET FOR FINISH GRADE @ STREET CENTERLINE. TOP OF STANDARD CURB IN ISLANDS IS = STAKED ELEVATION. TOP OF ROLL OVER CURB IS = TO 2" BELOW STAKED ELEVATION.
 - TOP OF INLETS ARE STAKED TO MATCH FINISH GRADE @ STREET CENTERLINE.
 - TWO (2) 3/4" DWEL BARS, 15' LONG REQ'D. AT EXPANSION JOINTS. THEY SHALL BE HELD IN PLACE BY APPROVED CHAIRS OR SUPPORTS AND 1/2" EXPANSION MATERIALS.

RECORD DRAWING

BY: *R. W. W...* DATE: 11/11/05



CURVE	ARC DISTANCE	RADIUS	CENTRAL ANGLE	CHORD
C1	134.62	199.00	38°45'32"	S. 35°49'37" E - 132.07'
C2	159.52	125.00	73°07'00"	S. 16°04'28" W - 148.91'
C3	155.18	200.00	44°27'17"	S. 30°24'21" W - 151.31'
C4	332.10	702.34	27°05'32"	S. 05°22'04" E - 329.01'
C5	150.84	300.00	28°48'31"	S. 33°19'06" E - 149.26'
C6	154.91	600.00	14°47'34"	N. 76°18'06" E - 154.48'
C7	73.46	933.48	4°30'33"	N. 81°26'36" E - 73.44'
C8	100.00	300.00	15°03'52"	N. 88°44'16" E - 99.53'
C9	364.45	399.97	52°13'16"	S. 05°30'31" E - 351.97'
C10	182.95	500.00	20°57'51"	S. 10°07'12" W - 181.93'
C11	184.55	500.00	21°08'54"	S. 10°56'11" E - 183.51'
C12	18.70	1500.00	0°42'51"	S. 21°52'03" E - 18.70'
C13	164.16	48.50	193°55'43"	S. 34°48'37" W - 96.28'
C14	140.58	48.50	166°04'17"	S. 34°48'37" W - 96.28'
C15	152.37	48.50	180°00'00"	S. 18°54'50" E - 97.00'
C16	152.37	48.50	180°00'00"	S. 18°54'50" E - 97.00'
C17	152.37	48.50	180°00'00"	S. 18°54'50" E - 97.00'

Central Angle = 15°41'54"
Arc Distance = 61.65'
Radius = 225.00'
S. 34°25'42" W 61.45'

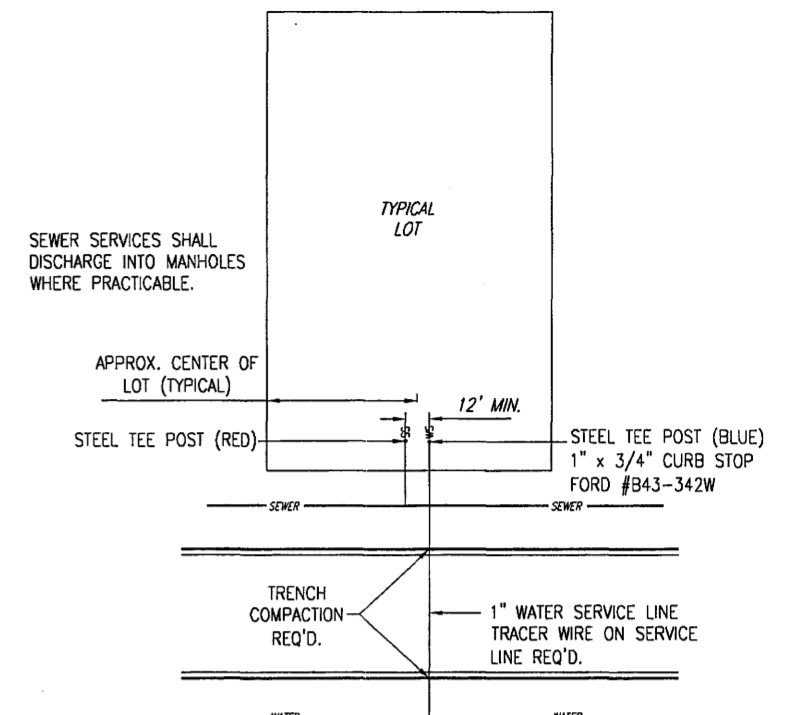
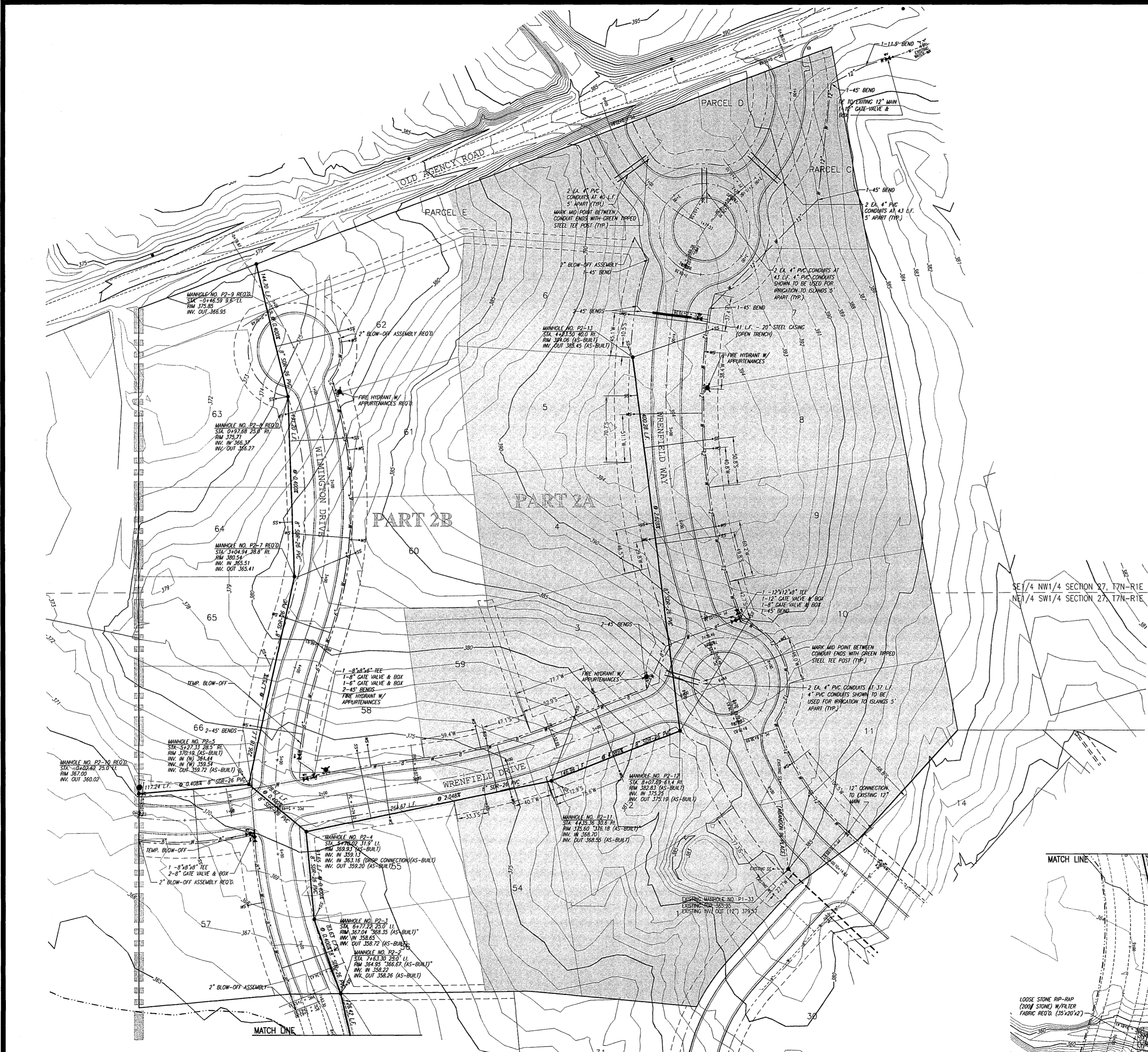
AS-BUILT PLANS FOR PART 2A ONLY	RAP	11/02/05
REVISION	BY	DATE

**WRENFIELD PART TWO
A DEVELOPMENT OF
GRACE PROP., LLC**

**STREET AND
LOT LAYOUT**

**CITY OF RIDGELAND
MADISON COUNTY, MISSISSIPPI**

DSGN: R.C.V.	DATE: 05/15/05		DRAWING NO.
DRWN: E.D.B.	DATE: 05/15/05		3 OF 14
CHKD: R.C.V.	DATE: 05/15/05		
SCALE: 1"=50'			



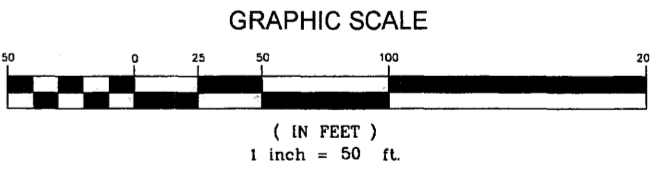
TYPICAL WATER & SEWER SERVICE LOCATION
 NOT TO SCALE
 SEE DRAWING NO. 2 FOR REQUIREMENTS, AND STANDARD WATER DETAILS DRAWING.

RECORD DRAWING

BY: *R. W. Wren* DATE: *11/15/05*



This set of record drawings includes as-built information for water, sanitary sewer, streets and storm drainage improvements installed in order to provide service and access for Lots 1 through 11, 54 & 59. These lots are being plotted as Wrenfield Part 2A. Upon completion of the water, sanitary sewer, storm drainage and street improvements for the remainder of Wrenfield Part Two (Lots 53 through 58 and 60 through 66), which will be plotted as Wrenfield Part 2B, an updated set of these record drawings will be provided that will include as-built information for all infrastructure improvements shown on these plans.

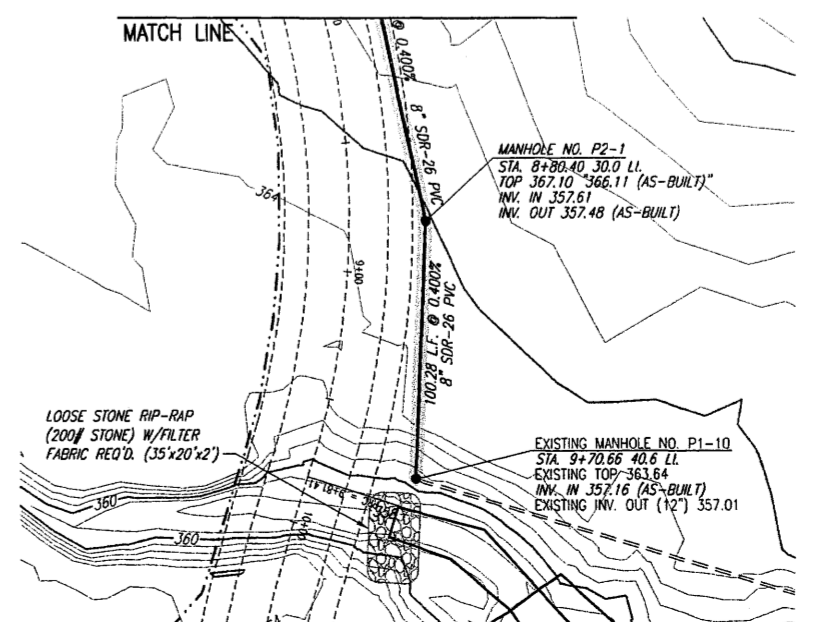


**WRENFIELD PART TWO
 A DEVELOPMENT OF
 GRACE PROP., LLC**

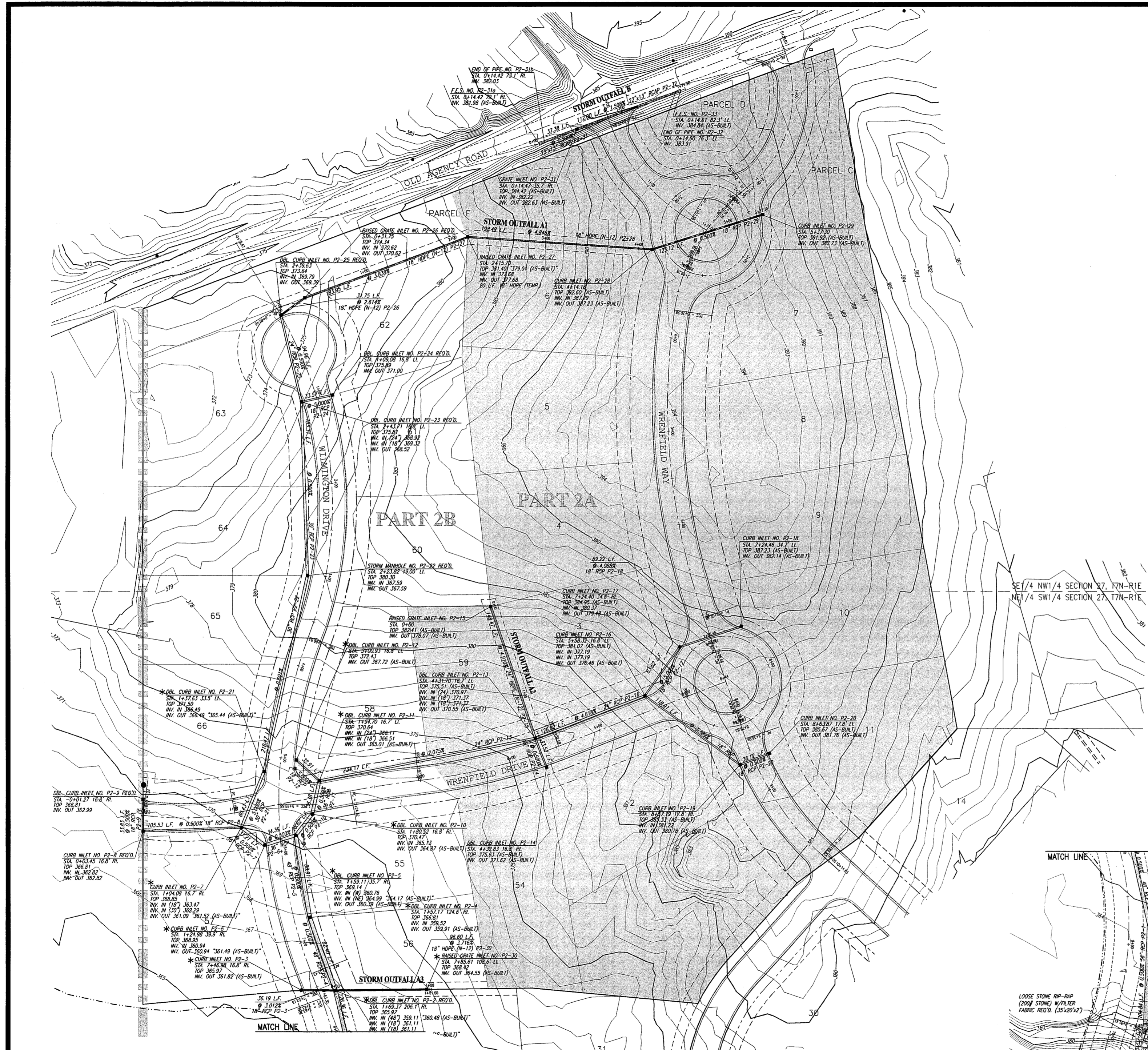
**WATER AND
 SEWER LAYOUT**

**CITY OF RIDGLAND
 MADISON COUNTY, MISSISSIPPI**

DSGN: RCV	DATE: 05/19/05		DRAWING NO. 4 OF 14
DRWN: GDB	DATE: 05/25/05		
CHKD: RCV	DATE: 05/25/05		
SCALE: 1"=50'			



AS-BUILT PLANS FOR PART 2A ONLY	RAP	11/22/05
REVISION	BY	DATE



* INLET TOPS TO BE CONSTRUCTED AS A PART OF PART 2B WORK.

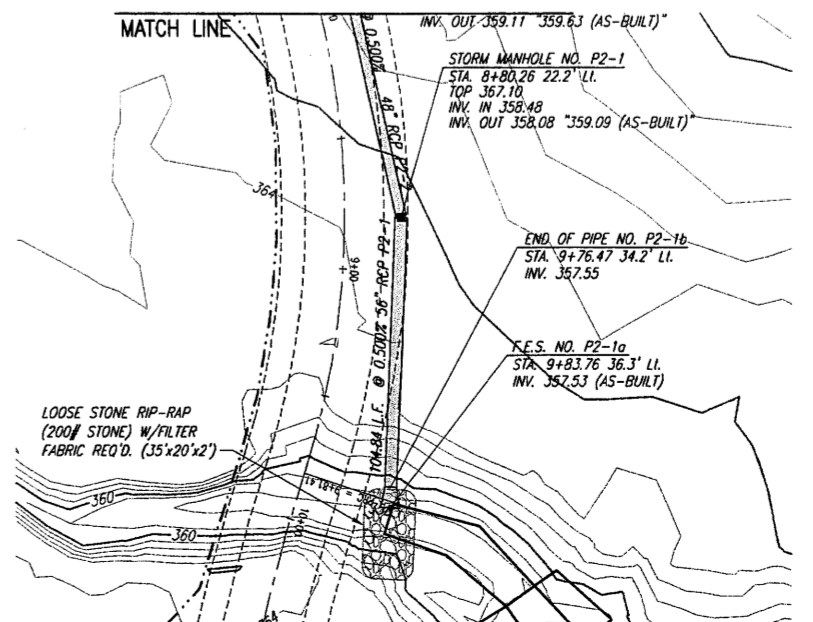
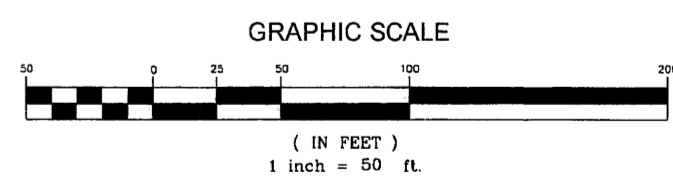
SE 1/4 NW 1/4 SECTION 27, T7N-R1E
NE 1/4 SW 1/4 SECTION 27, T7N-R1E

RECORD DRAWING

BY: *R. L. ...* DATE: 11/11/05



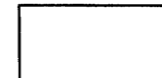

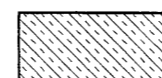

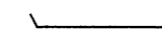


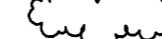
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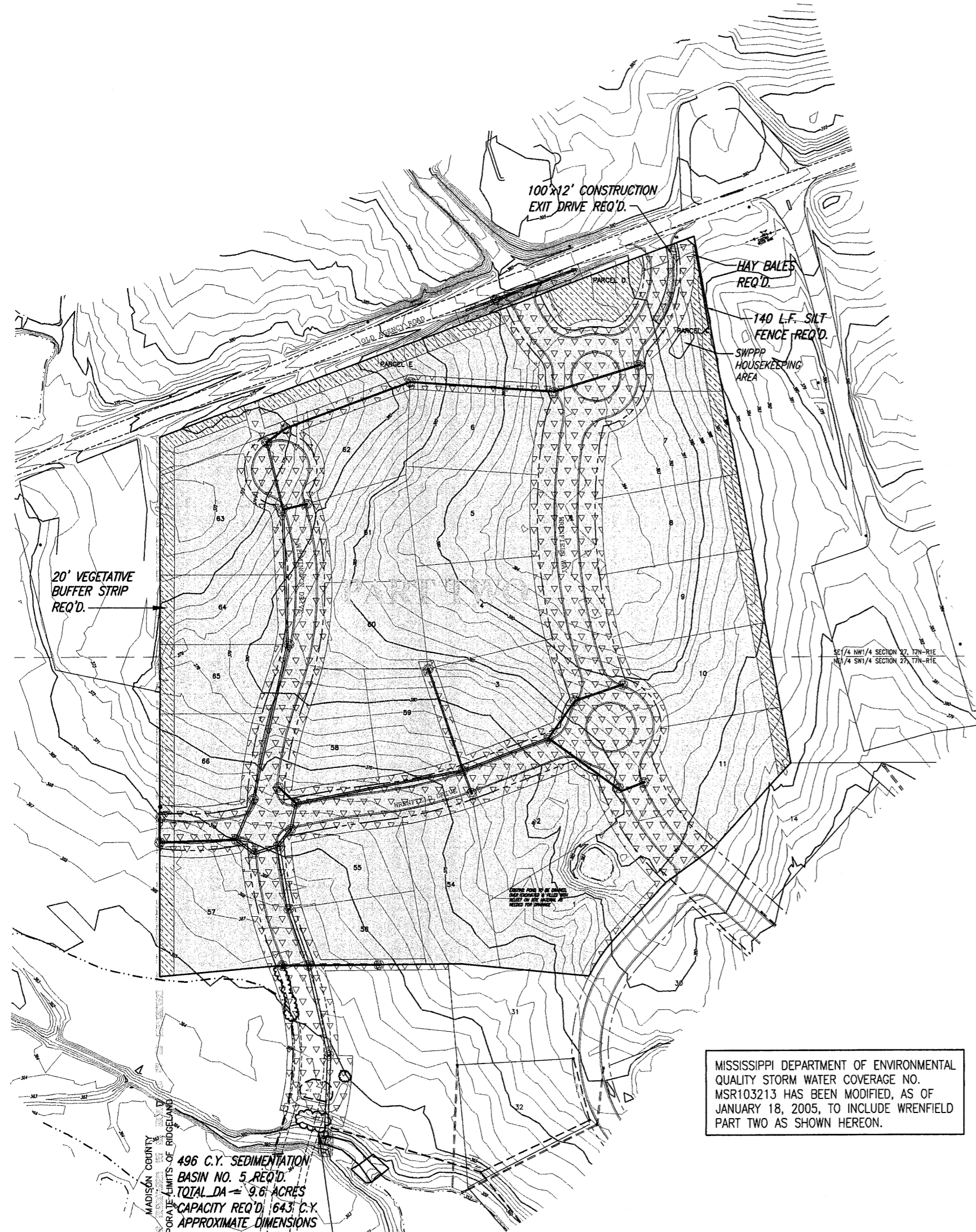


WRENFIELD PART TWO A DEVELOPMENT OF GRACE PROP, LLC	
STORM DRAINAGE LAYOUT	
CITY OF RIDGELAND MADISON COUNTY, MISSISSIPPI	
DSGN: R.C.V.	DATE: 05/25/05
DRWN: E.D.D.	DATE: 05/25/05
CHKD: R.C.V.	DATE: 05/25/05
SCALE: 1"=50'	
DRAWING NO. 5 OF 14	

REVISION	BY	DATE
AS-BUILT PLANS FOR PART 2A ONLY	RAP	11/01/05

LEGEND

-  SPECIFIC AREA TO NOT BE DISTURBED. UNLESS SHOWN OTHERWISE ALL VEGETATION IN THIS AREA TO REMAIN UNDISTURBED.
-  AREA TO BE CLEARED, GRUBBED AND EXCAVATED OR FILLED FOR STREETS, UTILITIES & STORM DRAINAGE APPROXIMATE AREA 5.3 ACRES
-  20' WIDE (UNLESS NOTED OTHERWISE) VEGETATIVE BUFFER STRIP ESTABLISHED USING EXISTING VEGETATION WHERE STORM WATER RUNOFF IS ANTICIPATED TO OCCUR THROUGH SHEET FLOW. AREA IS NOT TO BE DISTURBED.
-  SILT FENCE WITH HAY BALES (WIRE REINFORCED)
-  SILT FENCE (WIRE REINFORCED)
-  STAKED HAY BALES STORM DRAIN INLET PROTECTION TYPICAL, REQUIRED AT ALL INLETS
-  STABILIZED STONE CONSTRUCTION EXIT DRIVE
-  BRUSH DIKE

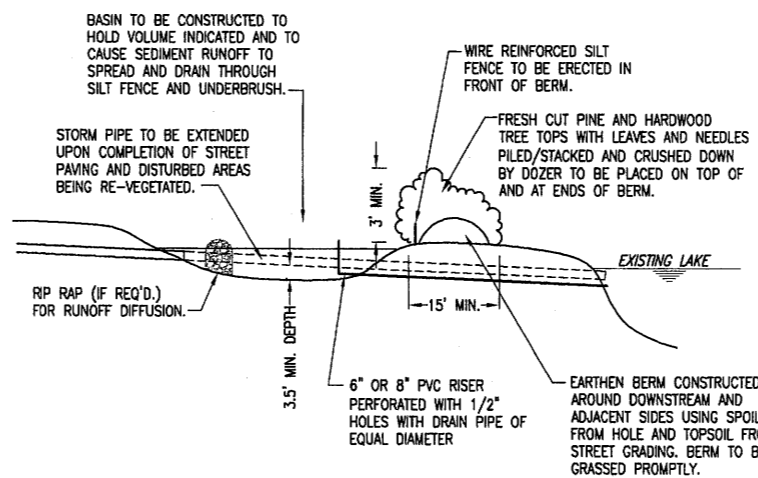


GENERAL NOTES:

1. CONTOUR LINES SHOWN INDICATE EXISTING GROUND ELEVATIONS. CONTOUR INTERVAL IS ONE (1) FOOT. THE DATUM USED IS NATIONAL GEODETIC VERTICAL DATUM (NGVD).
2. THIS PARCEL OF LAND IS SITUATED IN FLOOD ZONE X (AREAS OF 500-YEAR FLOOD; AREAS OF 100 YEAR FLOOD WITH AVERAGE DEPTHS OF LESS THAN 1 FOOT OR WITH DRAINAGE AREAS LESS THAN 1 SQUARE MILE; AND AREAS PROTECTED BY LEVES FROM 100-YEAR FLOODS) AND IN FLOOD ZONE AE (BASE FLOOD ELEVATIONS DETERMINED) ACCORDING TO THE FLOOD INSURANCE RATE MAP - MAP NUMBER 28080C0320 D AND MAP NUMBER 28080C0315 D, DATED APRIL 15, 1994. (REVISED TO REFLECT LGMR, EFFECTIVE MAY 10, 2001)
3. TO OBTAIN OVER THE INTERNET THE MS DEQ FORM "MONTHLY INSPECTION REPORT AND CERTIFICATION FORM FOR EROSION CONTROL AND SEDIMENT CONTROLS" AS WELL AS OTHER FORMS AND GUIDANCE MANUALS
 1. LOG ON TO www.deq.state.ms.us
 2. CLICK ON ENVIRONMENTAL PERMITS DIVISION
 3. UNDER QUICK LINKS, CLICK ON STORM WATER PERMITS
 4. BELOW THE TEXT NARRATIVE, FIND AND CLICK ON LARGE CONSTRUCTION STORM WATER GENERAL PERMITS (5 ACRES OR GREATER) (YOU WILL NEED ADOBE READER)
 THE INSPECTION REPORT FORM IS PAGE 11.

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY STORM WATER COVERAGE NO. MSR103213 HAS BEEN MODIFIED, AS OF JANUARY 18, 2005, TO INCLUDE WRENFIELD PART TWO AS SHOWN HEREON.

496 C.Y. SEDIMENTATION BASIN NO. 5 REQ'D. TOTAL DA = 9.6 ACRES CAPACITY REQ'D. 643 C.Y. APPROXIMATE DIMENSIONS 150' x 25' x 5' D'



SEDIMENTATION BASIN DETAIL

NOT TO SCALE
TYPICAL

- 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.
 1. 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.
 2. Contractors are specifically directed to preserve existing vegetation where possible and to employ those practices and methods which 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.
 3. 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.
 4. Any contractor or subcontractor who fails or omits to employ and implement appropriate and practicable erosion and sediment control measures and practices 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.
 5. 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 an area designated the "SWPPP Housekeeping Area."
 1. Each contractor performing any 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. Each contractor shall at least once each week inspect and maintain such erosion control facilities 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. Each 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. Each contractor shall file monthly with the Engineer a report of each such inspection on the form provided by the Engineer.

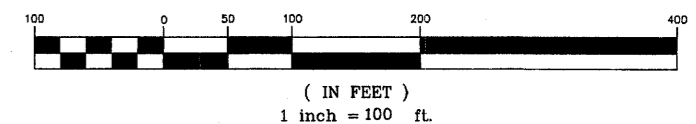
- D. Measures to be Implemented Prior to Construction.
 1. Sediment basins, traps and barriers, perimeter dikes, vegetated buffer strips, and other erosion control measures intended to trap sediment on-site shall be constructed as the first step in grading, and shall be functional prior to disturbing upslope lands. The Clearing contractor shall
 - a. install fabric silt fencing at those locations shown on the plans, at such other locations where 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;
 - b. install sediment barriers or brush dikes made using hay bales staked 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;
 - c. 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. (Mark outside dripline of tree(s).)
 - d. grade, shape and otherwise prepare as an "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.
 2. Each contractor performing any work required or implied on the construction plans shall remove accumulated sediment and debris along silt fences and around haybale barriers when it has reached one-half height of the protective face. Accumulated sediment and debris shall also be removed from sediment basins when one-half of the original volume has been filled.

- E. Additional Measures to be Implemented During Construction.
 1. 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.
 2. The Earthwork Contractor shall place a six inch thick, 12' wide, 100' long pad of stabilized crushed stone at the point shown on the plans where construction traffic should enter and leave the construction site. See Storm Water Pollution Prevention Measure Details sheet.
 3. Provided such is not patently inconsistent with the grading plans, the Earthwork 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.
 4. Pipe Installation Contractors 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.
 5. Drainage Pipe Installation Contractor shall construct inlet sediment traps using hay bales staked around the openings of all inlets end 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 gop 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.
 6. 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 Area as required by this SWPPP. If a 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. Each contractor shall be required to ensure that sanitary facilities are adequately maintained by a service enterprise in business for such purpose.

- F. Additional Measures to be Implemented After Street Paving.
 1. The Finish Grading 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.
 2. The Grassing Contractor 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.
 3. Pending the establishment of vegetative ground cover, the Paving 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.
 4. When disturbed area will be left undisturbed for thirty (30) days or more, the appropriate temporary or permanent vegetative practices shall be implemented within seven calendar days.
- G. Post Construction Procedures.
 1. 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 Developer to assure the continued performance of their intended function.
 2. The Developer shall carry forward all erosion control measures and facilities set forth in this SWPPP to ensure that successive builders and lot take measures to prevent or mitigate sediment from leaving individual lots and parcels. The Developer will provide to each successive builder and lot owner a copy of this SWPPP. The Developer will require, by imposing deed restrictions or protective covenants, that successive builders and lot owners
 - a. fully comply with all municipal and state land disturbance and erosion control ordinances, regulations and requirements, and
 - b. fully comply with so much of this SWPPP that is pertinent or appropriate for the lot or parcel conveyed to the builder or owner.
 - c. from the beginning or 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.
 - d. acknowledge and agree that the Developer 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.



GRAPHIC SCALE

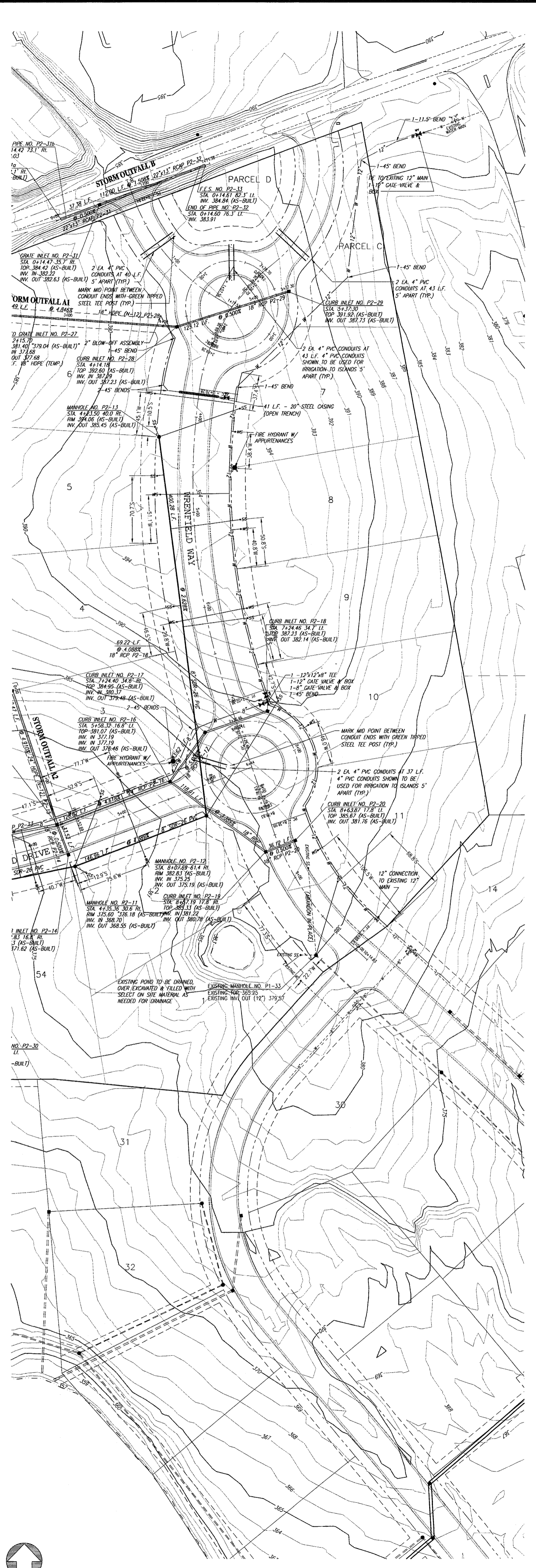


WRENFIELD PART TWO
A DEVELOPMENT OF
GRACE PROP., LLC

STORM WATER POLLUTION PREVENTION PLAN

CITY OF RIDGELAND
MADISON COUNTY, MISSISSIPPI

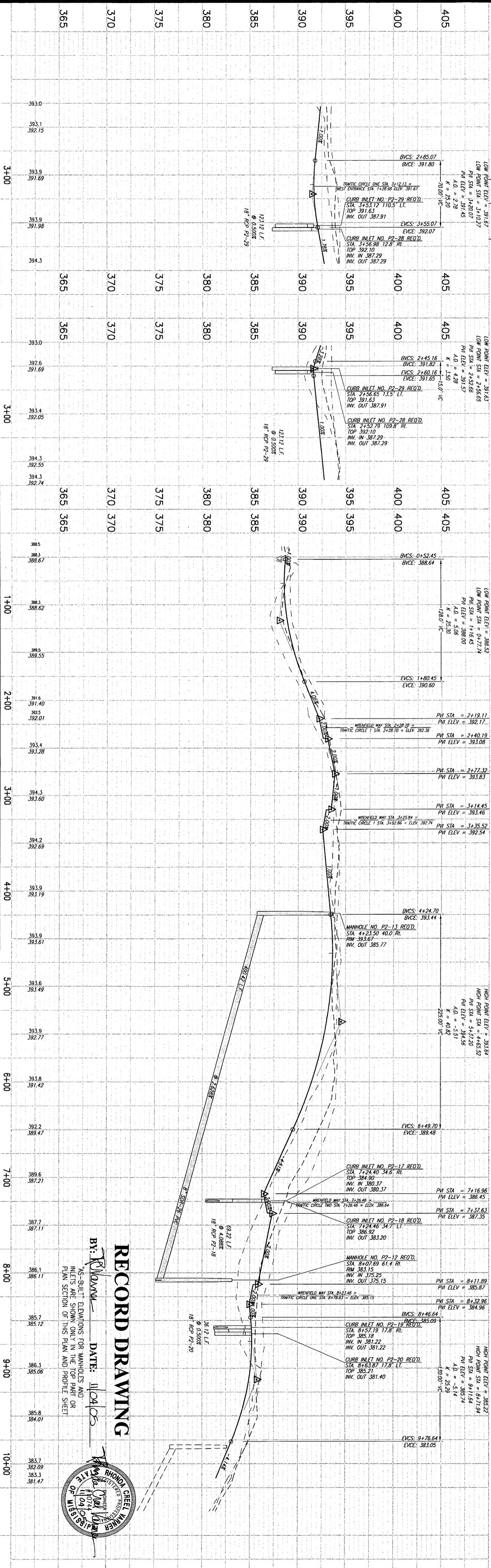
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DRWN: R.A.P.	DATE: 05/15/05		6 of 14
CHKD: R.C.V.	DATE: 05/15/05		
SCALE: 1"=100'			



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



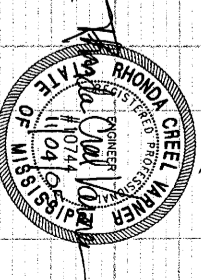
REVISION	DATE	BY
1	11/22/25	EAJ



RECORD DRAWING

BY: *[Signature]*
DATE: 11/20/25

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



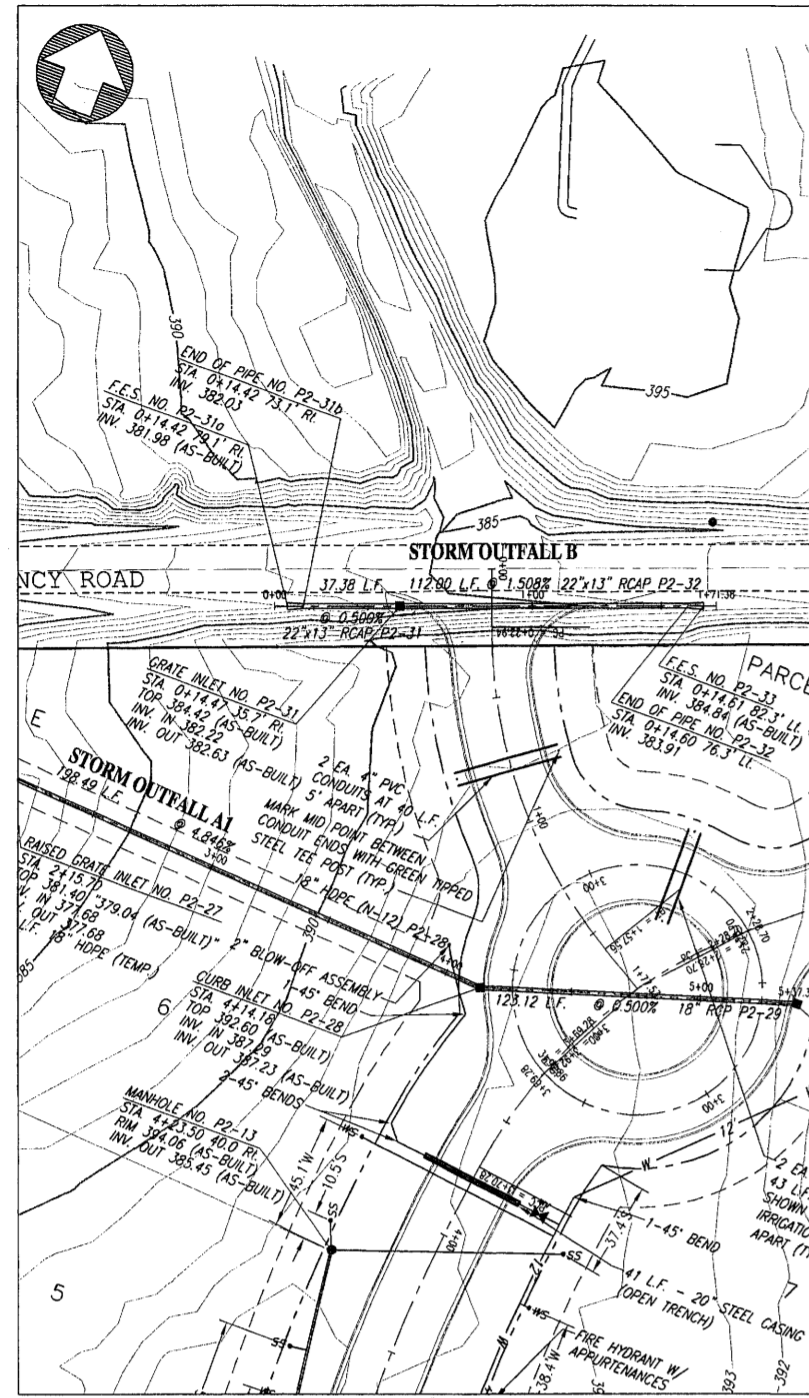
WRENFIELD PART TWO
CITY OF RIDGELAND
MADISON COUNTY, MISSISSIPPI

PLAN AND PROFILE - ENTRANCE INBOUND LANE STA. 0+31.60 - STA. 10+14.83
PLAN AND PROFILE - TRAFFIC CIRCLE ONE STA. 2+28.70 - STA. 3+92.86 (IN) AND STA. 2+28.70 - STA. 3+69.28 (OUT)

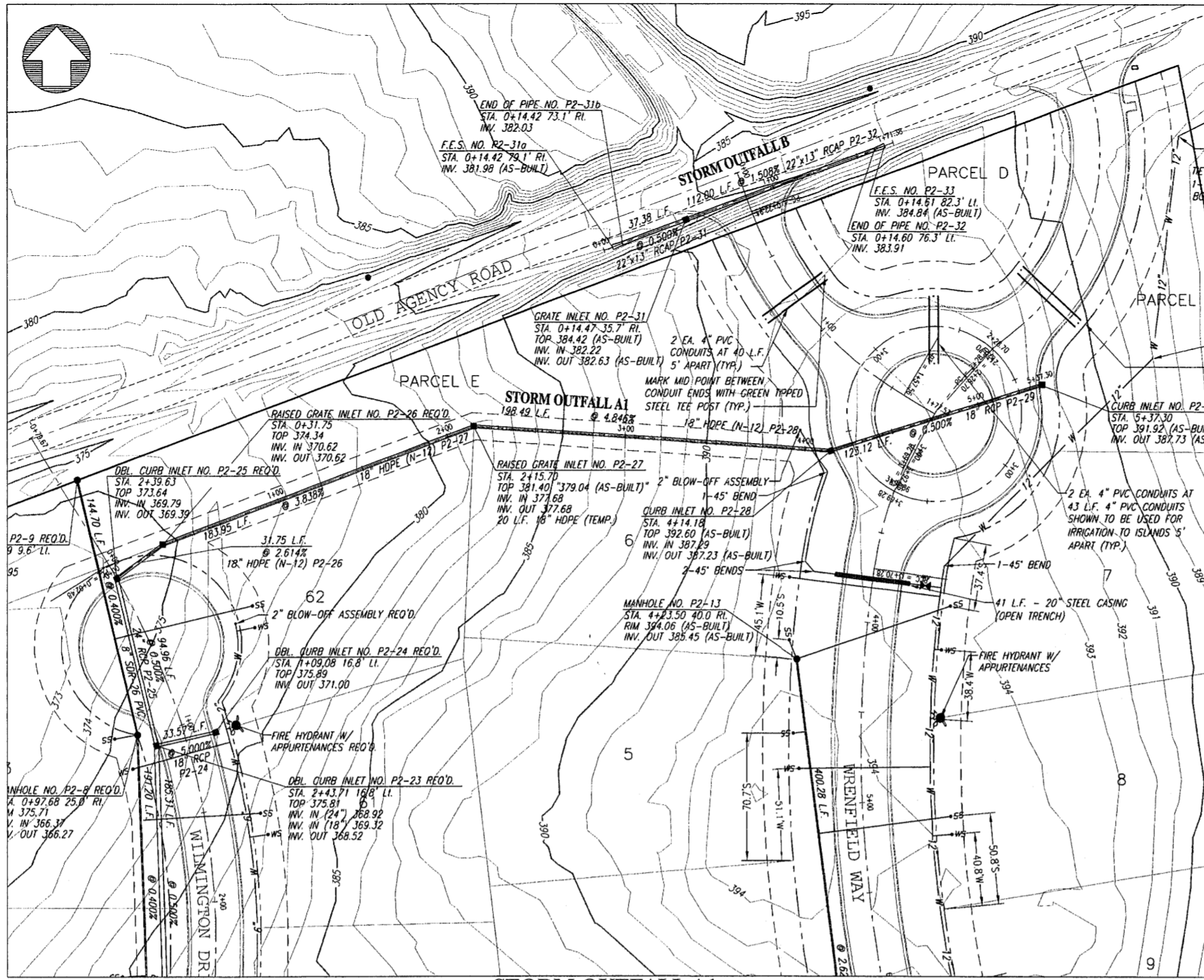
Prepared For:
GRACE PROP., LLC
RIDGELAND, MISSISSIPPI

Indicate: DATE: 05/25/25
Drawn By: DATE: 05/25/25
Checked By: DATE: 05/25/25
Scale: 1" = 50' HORIZ. 1" = 5' VERT.

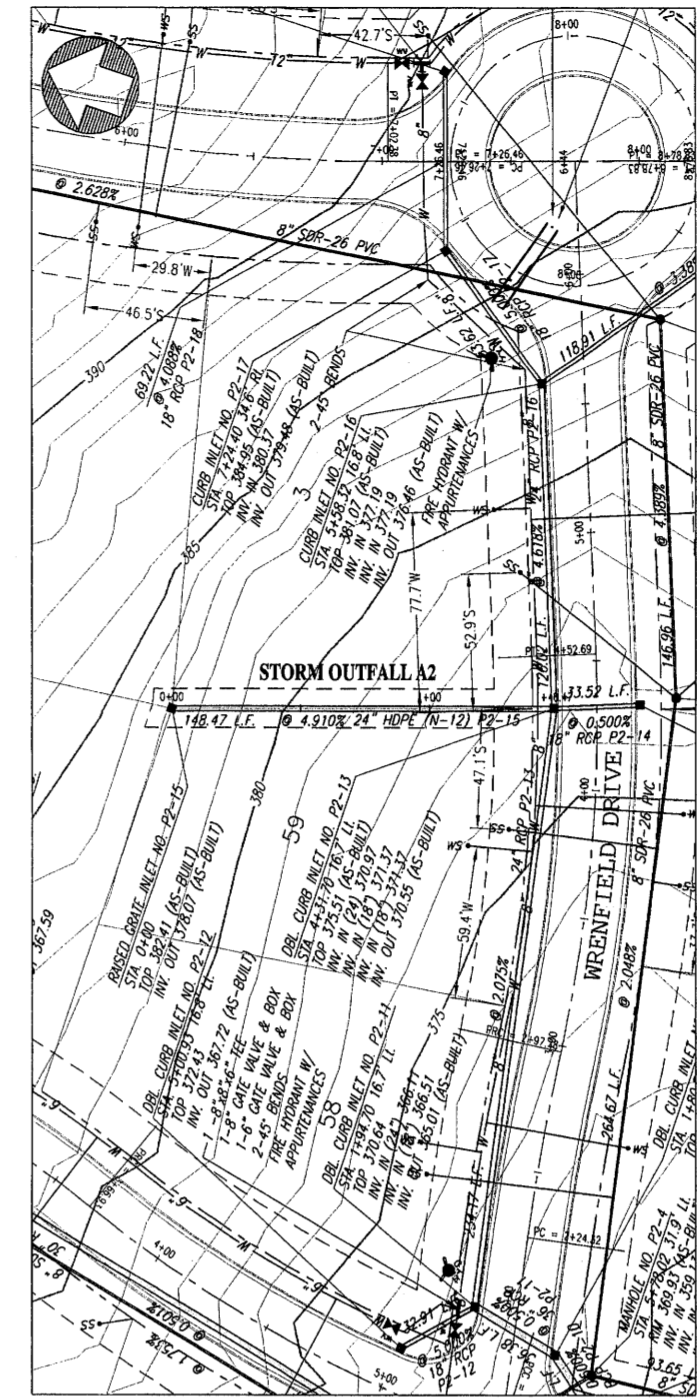
Drawing No. 7 of 14



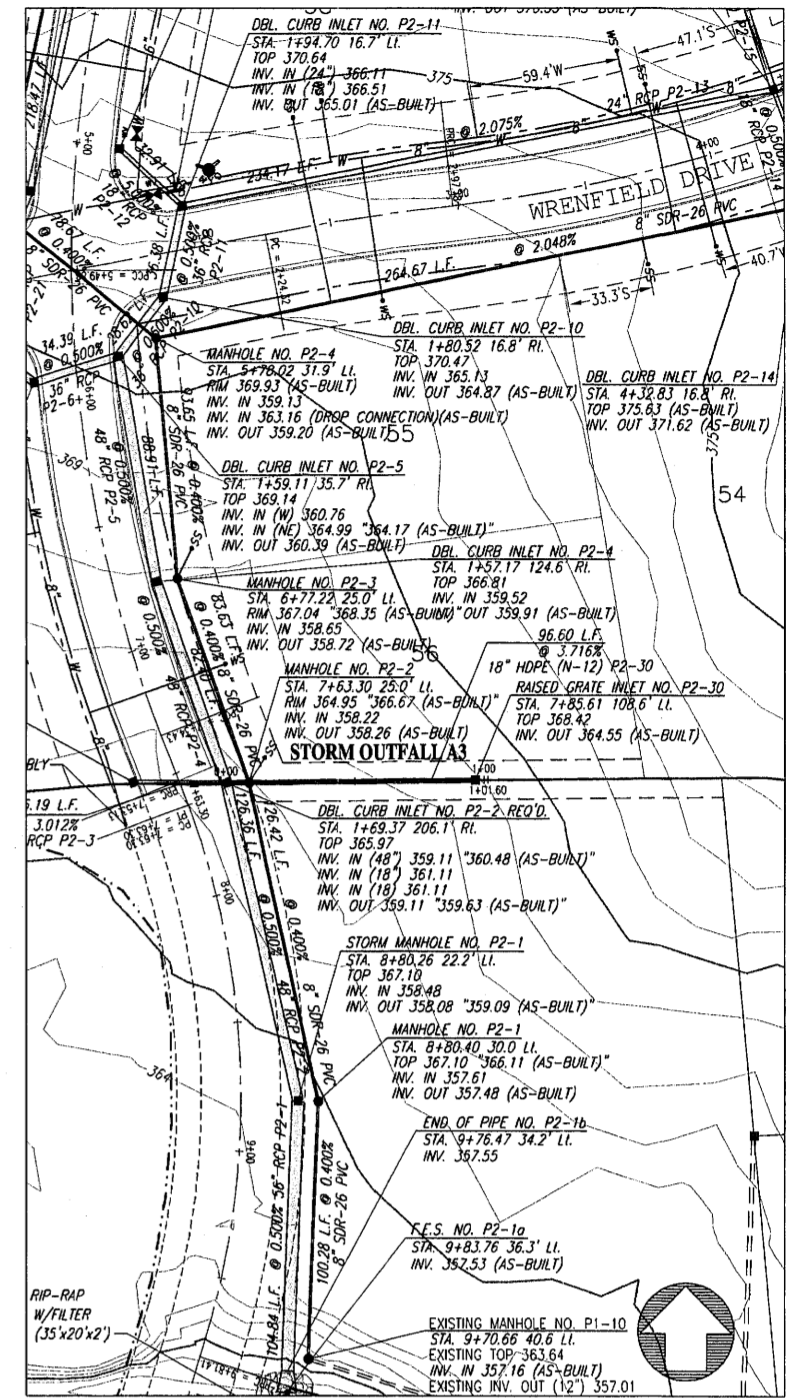
STORM OUTFALL B @ WEST ENTRANCE



STORM OUTFALL A1

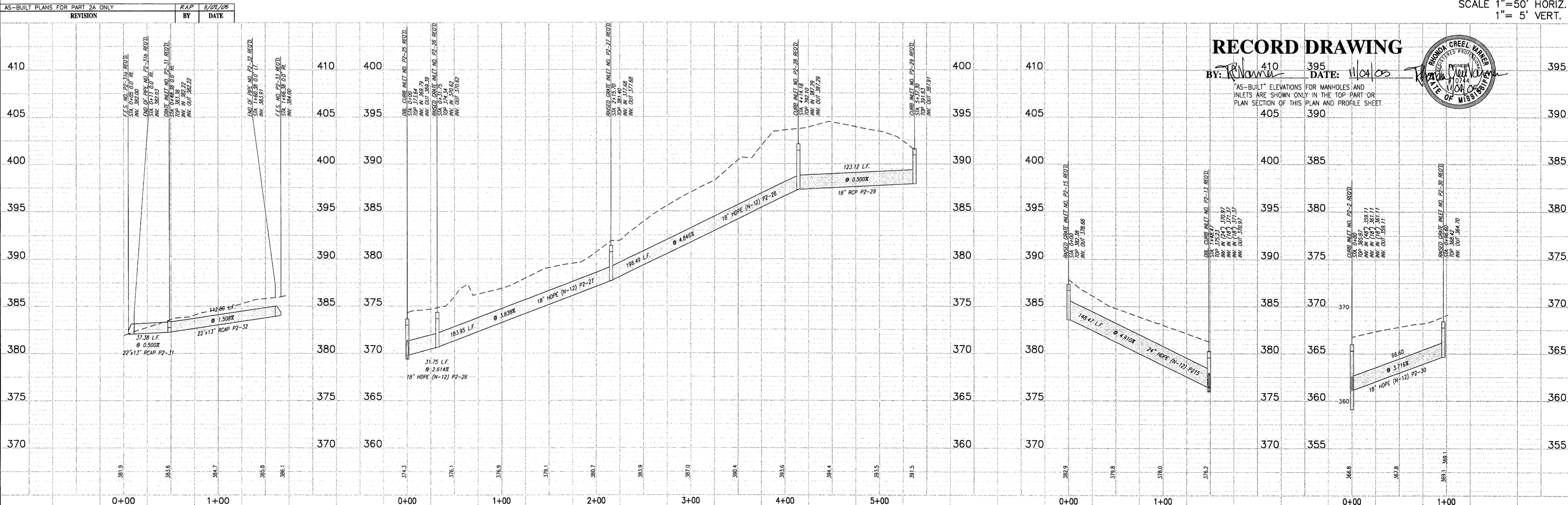


STORM OUTFALL A2



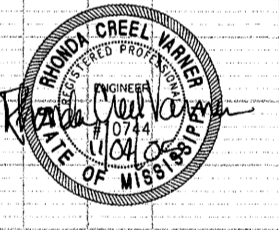
STORM OUTFALL A3

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



RECORD DRAWING

BY: *[Signature]* DATE: 11/04/05
 410 395
 405 390
 400 385
 395 380
 390 375
 385 370
 380 365
 375 360
 370 355



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

WRENFIELD PART TWO
 CITY OF RIDGELAND
 MADISON COUNTY, MISSISSIPPI

PLAN AND PROFILE - STORM OUTFALL B @ WEST ENTRANCE STA. 0+00 - STA. 1+71.38
 PLAN AND PROFILE - STORM OUTFALL A1 STA. 0+00 - STA. 5+37.30
 PLAN AND PROFILE - STORM OUTFALL A2 STA. 0+00 - STA. 1+48.47
 PLAN AND PROFILE - STORM OUTFALL A3 STA. 0+00 - STA. 1+01.60

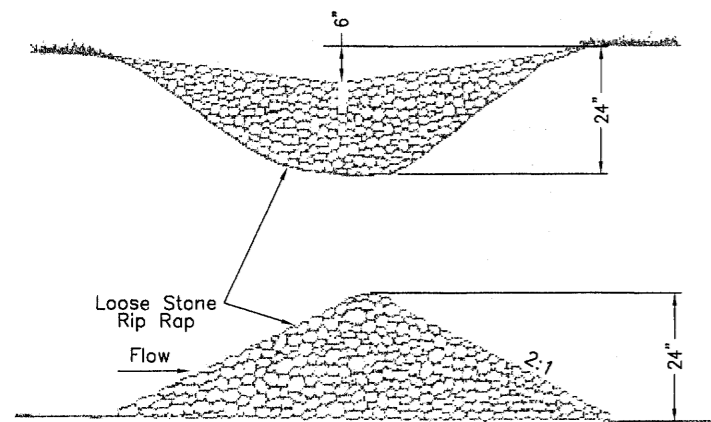
Prepared For:
 GRACE PROP., LLC
 RIDGELAND, MISSISSIPPI

Drawn By: RCV DATE: 07/25/05
 Checked By: RCV DATE: 07/25/05
 Scale: 1"=50' HORIZ. 1"=5' VERT.



Drawing No.
10 of 14

TRAVIS@HIGHLAND-PARKHP-Propertv.dwg, Part Two Plan Profile, 11/4/2005 12:00:02 PM, 1:1, Sterling Consultants, Inc., Allen Pugh



RIP RAP CHECK DAM

NOT TO SCALE
TYPICAL

Note: Check dam shall have debris removed once one-half (1/2) the barrier is covered.

Design Criteria

1. Drainage Area

The maximum allowable drainage area per drain is 5 acres.

2. Flexible Conduit

A. The slope drain shall consist of heavy duty flexible material designed for this purpose. The diameter of the slope drain shall be equal over its entire length. Reinforced hold-down grommets shall be spaced at 10-foot intervals.

B. Slope drains shall be sized according to the following table:

SIZE OF SLOPE DRAIN

Maximum Drainage Area (Acres)	Pipe Diameter, D (in.)
0.5	12
0.75	15
1.5	16
2.5	21
3.5	24
5.0	30

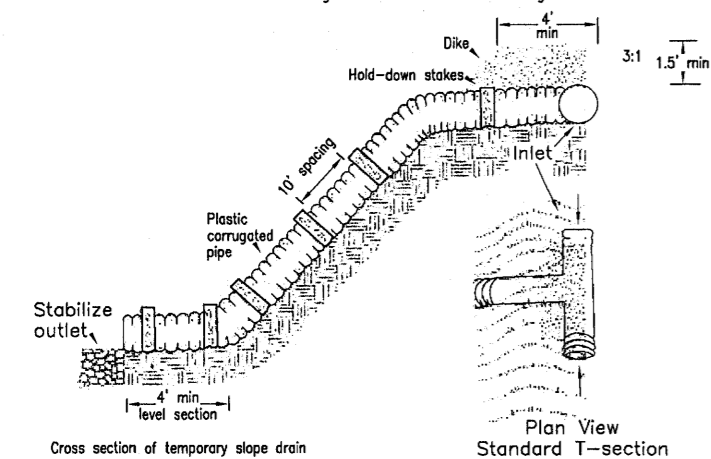
3. Entrance Sections

The entrance to the slope drain shall consist of a flared end section or a standard T-section fitting. Watertight fittings shall be provided.

4. Dike Design

An earthen dike shall be used to direct stormwater runoff into the temporary slope drain.

The height of the dike at the centerline of the inlet shall be equal to the diameter of the pipe (D) plus 6 inches. Where the dike height is greater than 18 inches at the inlet, it shall be sloped at the rate of 3:1 or flatter, to connect with the remainder of the dike. The remainder of the dike shall be a height of 18" above natural ground.



5. Outlet Protection

The outlet of the slope drain shall be protected from erosion by placement of rip rap.

Construction Specifications

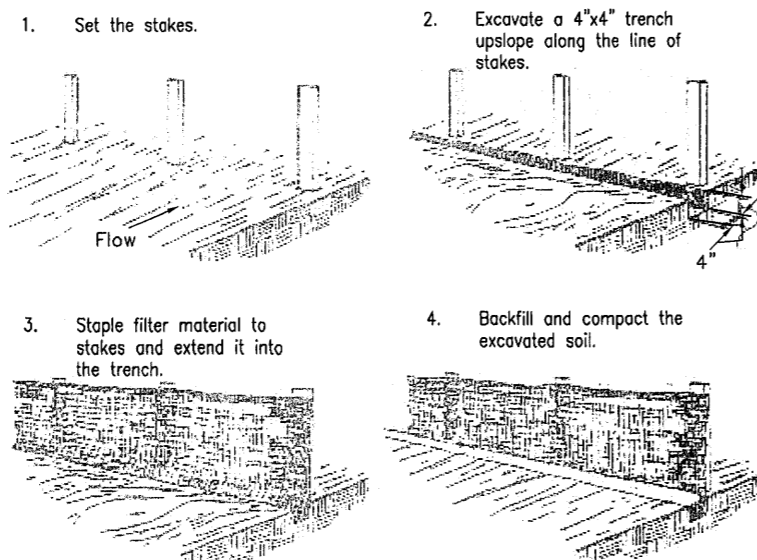
- The measure shall be placed on undisturbed soil or well-compacted fill.
- The entrance section shall slope toward the slope drain at the minimum rate of 1/2-inch per foot.
- The soil around and under the entrance section shall be hand tamped in 4-inch lifts to the top of the dike to prevent piping failure around the inlet.
- The slope drain shall be securely staked to the slope at the grommets provided.
- The slope drain sections shall be securely fastened together and have watertight fittings.

Maintenance

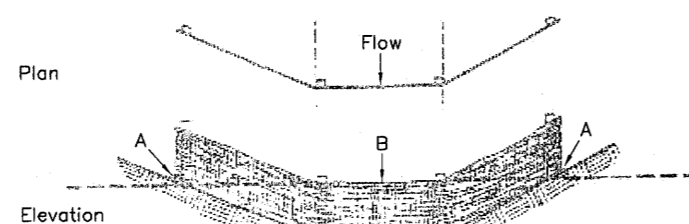
The slope drain structure shall be inspected weekly and after every storm and repairs made if necessary. The contractor should avoid the placement of any material on and prevent construction traffic across the slope drain.

SLOPE DRAIN DETAIL

NOT TO SCALE
TYPICAL



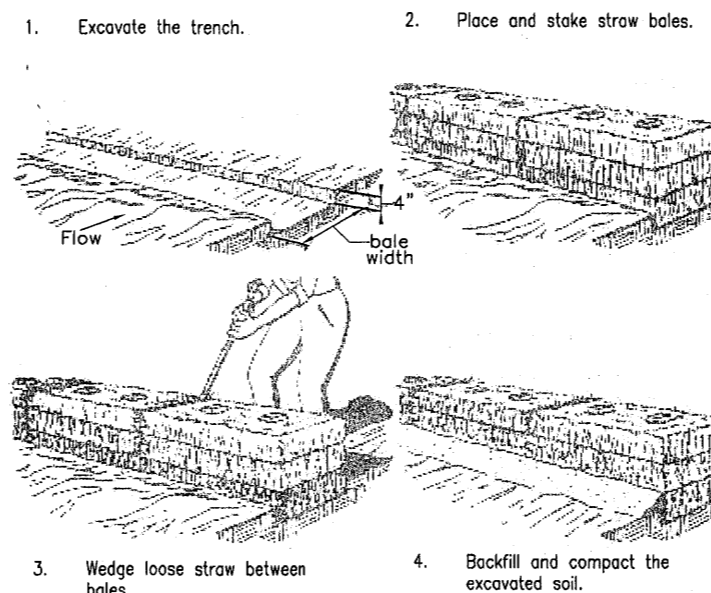
CONSTRUCTION OF A FILTER BARRIER



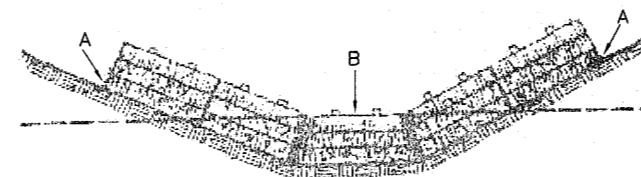
FILTER BARRIER IN DRAINAGE WAY

NOT TO SCALE
TYPICAL

Note: Filter barrier shall have debris removed once one-half (1/2) the barrier is covered.



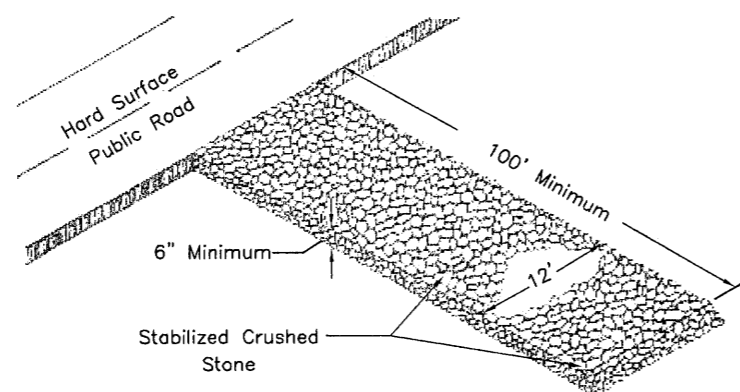
CONSTRUCTION OF A STRAW BALE BARRIER



HAYBALE BARRIER IN DRAINAGE WAY

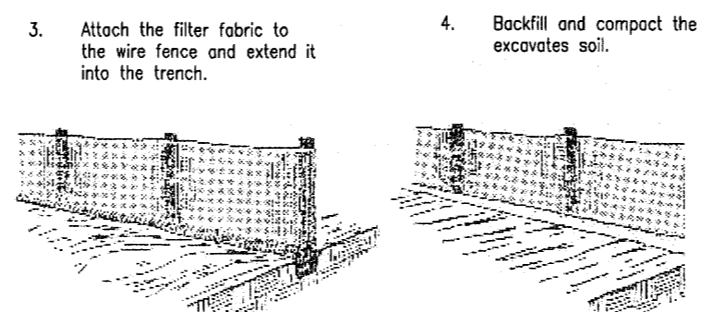
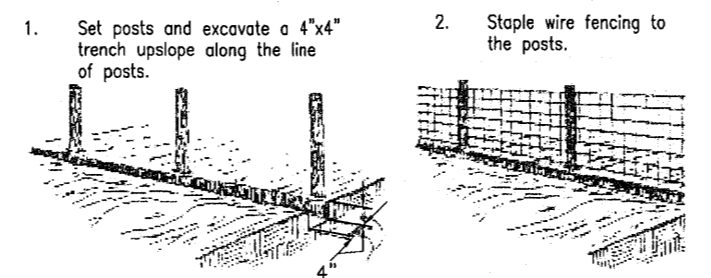
NOT TO SCALE
TYPICAL

Note: Haybale barrier shall have debris removed once one-half (1/2) the barrier is covered.



CONSTRUCTION ENTRANCE / EXIT DRIVE

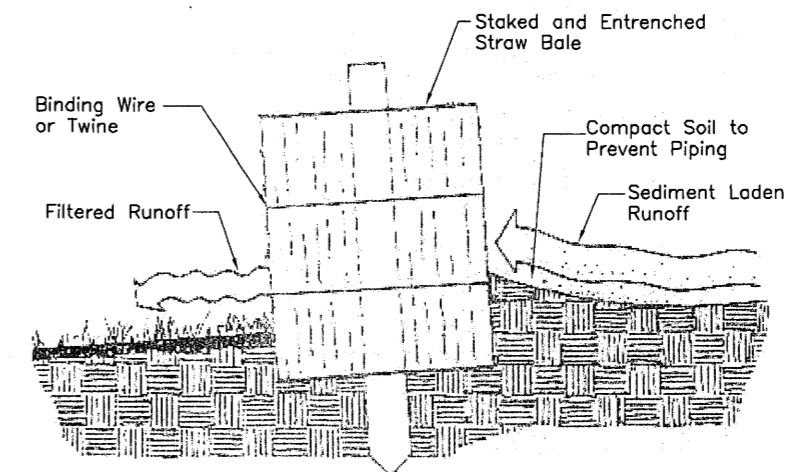
NOT TO SCALE
TYPICAL



SILT FENCE

NOT TO SCALE
TYPICAL

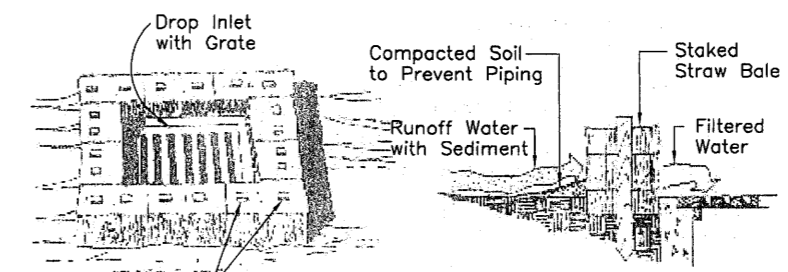
Note: Silt fence shall have debris removed once one-half (1/2) the barrier is covered.



STAKED HAYBALE

NOT TO SCALE
TYPICAL

Note: Haybale barrier shall have debris removed once one-half (1/2) the barrier is covered.



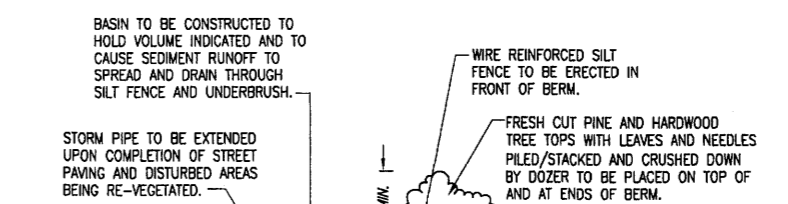
SPECIFIC APPLICATION

This method of inlet protection is applicable where the inlet drains a relatively flat area (slopes no greater than 5 percent) where sheet or overland flows (not exceeding 0.5 cfs) are typical. The method shall not apply to inlets receiving concentrated flows, such as in street or highway medians.

INLET

NOT TO SCALE
TYPICAL

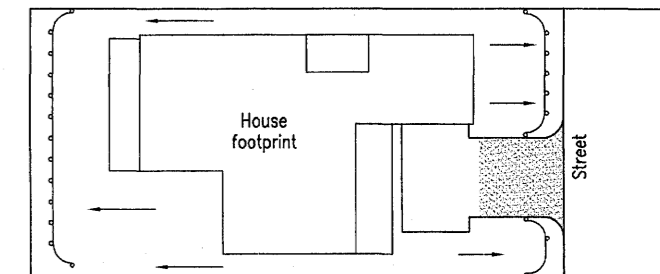
Note: Inlet sediment barrier shall have debris removed once one-half (1/2) the barrier is covered.



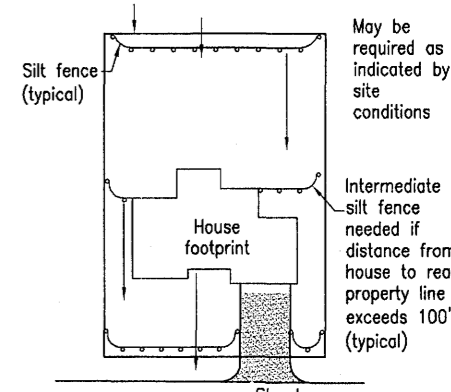
SEDIMENT BASIN DETAIL

NOT TO SCALE
TYPICAL

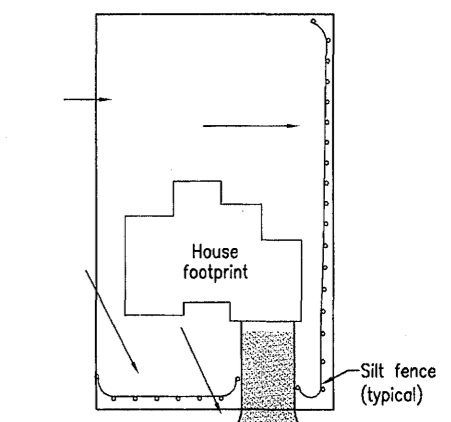
Note: SEDIMENT BASINS SHALL HAVE DEBRIS REMOVED ONCE THE BASIN IS FIFTY PERCENT (50%) FULL.



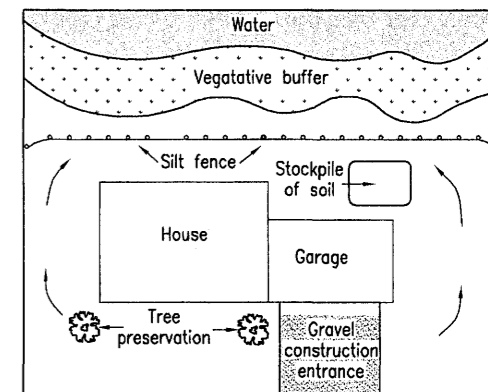
LEGEND
 - Silt fence
 - Gravel construction entrance
 - Direction of surface water runoff



LEGEND
 - Silt fence
 - Gravel construction entrance
 - Direction of surface water runoff



LEGEND
 - Silt fence
 - Gravel construction entrance
 - Direction of surface water runoff



All disturbed areas will be temporarily seeded with rye grass. After final grade has been reached, all disturbed areas will be sodded with bermuda grass.

LOT EROSION AND SEDIMENT CONTROL PLANS

NOT TO SCALE
TYPICAL

**WRENFIELD PART TWO
A DEVELOPMENT OF
GRACE PROP., LLC**

STORM WATER POLLUTION PREVENTION MEASURE DETAILS

**CITY OF RIDGLAND
MADISON COUNTY, MISSISSIPPI**

DSGN: R.C.V.	DATE: 05/15/08		DRAWING NO.
DRWN: R.A.P.	DATE: 05/15/08		11 OF 14
CHKD: R.C.V.	DATE: 05/15/08		
SCALE: NOT TO SCALE	DATE: 05/15/08		