New Pointe Drive

Southern Extension

Ridgeland, Mississippi

CIVIL CONSTRUCTION DRAWINGS

SYMBOL LEGEND

- POWER POLE
- LIGHT POLE
- FIBER OPTIC MARKER
- TELEPHONE PEDESTAL
- GAS MARKER
- GAS HOOK UP
- GAS METER
- DRAINAGE MANHOLE
- CURB INLET (SS-2)
- GRATE INLET (SS-3)
- CLEAN OUT
- SANITARY SEWER MANHOLE
- WATER VALVE
- WATER METER
- FIRE HYDRANT
- WATER MANHOLE
- IRRIGATION CONTROL VALVE
- WATER FAUCET
- POWER METER
- FLOW ARROW
- FOUND IRON PIN

ABBREVIATIONS

EP	EDGE OF PAVEMENT
R.O.W.	RIGHT OF WAY
℄	CENTERLINE
RCP	REINFORCED CONCRETE PIPE
CONC.	CONCRETE
CMP	CORRUGATED METAL PIPE
HDPE	HIGH DENSITY POLYETHYLENE DRAINAGE PIPE
℞	SUBJECT PROPERTY LINE
TC	TOP OF CURB
BC	BOTTOM OF CURB
POB	POINT OF BEGINNING
	HANDICAP PARKING/ACCESS
MIN	MINIMUM
TYP	TYPICAL
EXIST	EXISTING
INT	INTERSECTION
ME	MATCH EXISTING
SW	SIDEWALK
BR	BOTTOM OF RAMP
TR	TOP OF RAMP
GRND	GROUND
PVMT	PAVEMENT

LINE LEGEND

— OHE — — — — — OHE — ·	EXISTING OVERHEAD ELECTRIC LINES
· — UGE — — — — — UGE —	EXISTING UNDERGROUND ELECTRIC LINES
- — G — — — — — G — — -	EXISTING GAS LINE
- — W — — — — — W — — -	EXISTING WATER LINE
— SS — — — — — SS — —	EXISTING SANITARY SEWER LINE
- — FM — — — — — FM — — -	EXISTING FORCE MAIN
— — T — — — — — T — —	EXISTING OVERHEAD TELEPHONE LINE
— UGT — — — — — UGT — ·	EXISTING UNDERGROUND TELEPHONE LINE
— UFO — — — — — UFO — ·	EXISTING UNDERGROUND FIBER OPTIC
— — — — — D — — — — —	EXISTING DRAINAGE/STORM SEWER LINE
OHE	OVERHEAD ELECTRIC LINES
UGE	UNDERGROUND ELECTRIC LINES
G — G	GAS LINE
IRR W	IRRIGATION LINE
1.5" W	1.5" WATER LINE
2" W	2" WATER LINE
4" W	4" WATER LINE
6" W	6" WATER LINE
8" W	8" WATER LINE
12" W	12" WATER LINE
6" SS	6" SANITARY SEWER LINE
8" SS	8" SANITARY SEWER LINE
T	OVERHEAD TELEPHONE LINE
UGT	UNDERGROUND TELEPHONE LINE
	DRAINAGE/STORM SEWER LINE
SF	SILT FENCE
	TOP OF DETENTION POND
	STORM WATER QUALITY SWALE
	SUBJECT PROPERTY
	LOT LINE
	RIGHT-OF-WAY
	PROPERTY LINE
20	EXISTING 1' CONTOUR
21	EXISTING 5' CONTOUR
22	PROPOSED 1' CONTOUR
25	PROPOSED 5' CONTOUR

NOTE: ALL SYMBOLS, ABBREVIATIONS, OR LINESTYLES DO NOT NECESSARILY APPEAR ON DRAWING(S). USE ONLY AS APPLICABLE.

VICINITY MAP

1"=1000'

SCHEDULE OF DRAWINGS

SHEET	TITLE
C0.0	Cover Sheet
1of1	Survey by Barnes Surveying
C1.0	Existing Conditions & Demolition Plan
C1.1	General Notes
C2.0	Overall Site Plan
C2.1	Site Plan
C3.0	Plan & Profile Sta. 0+00 – Sta. 5+10
C3.1	Plan & Profile Sta. 5+10 – Sta. 10+88
C4.0	Erosion Control Plan
C4.1	Erosion Control Details
C5.0	Construction Details–Site
C5.1	Construction Details–Sanitary Sewer
C5.2	Construction Details–Water
C5.3	Construction Details–Storm Sewer
322	MDOT Storm Sewer Structure Type SS-2
323	MDOT Storm Sewer Structure Type SS-3

REVISIONS:

1	2/20/20	PERMIT SET COMMENTS
2	3/12/20	CONSTRUCTION SET REVISIONS

PROJECT #: 25659.00

DATE: 1-14-20

DRAWN BY: SB

DESIGNER: JJ

CHECKED BY: NW

Pickering

Pickering Firm, Inc.

Facility Design • Civil Engineering • Surveying • Transportation • Natural / Water Resources

2001 Airport Road, Suite 201

Flowood, MS 39232

601.956.3863

New Pointe Drive
Southern Extension
Ridgeland, Mississippi

SEAL:

JONATHAN A. JOHNSON
REGISTERED PROFESSIONAL ENGINEER
01/14/20
STATE OF MISSISSIPPI

SHEET NUMBER:

C0.0

DESCRIPTION:

Cover Sheet

POINT OF COMMENCEMENT: SOUTHWEST CORNER OF LOT 1 BLOCK A , BRAME'S ADDITION, PART 3.

S88°33'25"E 9.28'

S00°13'48"E 50.02'

TBM: SOUTHEAST ANCHOR BOLT ON CURB INLET ELEVATION = 354.87

S88°33'25"E 765.26'

NEW POINTE DRIVE
R/W = 60'

S19°22'21"W 387.45'

S19°22'21"W 395.26'

S19°22'21"W 410.06'

S29°00'00"W 89.87'

S29°00'00"W 224.54'

S88°33'25"E 310.30'

S88°33'25"E 181.53'

N00°13'48"W 843.00'

N88°33'25"W 25.26'

R=1357.39'
A=243.60'
C=243.27'
S45°51'45"W

TBM: SOUTHWEST ANCHOR BOLT ON CURB INLET ELEVATION = 355.75

TBM: WEST TOP FLANGE BOLT ON FIRE HYDRANT ELEVATION = 346.42

TBM: WEST TOP FLANGE BOLT ON FIRE HYDRANT ELEVATION = 345.24

PIPE SIZE?

10' RIGHT OF WAY TO ENTERGY MISSISSIPPI, INC.

BOOK 290 PAGE 220 RIGHT OF WAY EASEMENT TO CITY OF RIDGELAND

LOT 1
LOT 2
LOT 3
LOT 4
LOT 5
LOT 6
LOT 7
LOT 8
LOT 12
LOT 13
LOT 14
LOT 15
LOT 16

B79
P82
L&E

1-STORY FRAME
1-STORY BRICK & FRAME
1-STORY FRAME & PB
SHED
PB
CONCRETE
CARPORT
GRAVEL
ASPHALT PARKING LOT

DETENTION POND

BRAMES ADDITION

LEGEND

- POST
- TELEPHONE PEDESTAL
- FIBER OPTIC POST
- MANHOLE
- SANITARY SEWER MANHOLE
- LIFT STATION
- CLEANOUT
- IRRIGATION CONTROL VALVE
- WATER VALVE
- WATER METER
- WATER HYDRANT
- FIRE HYDRANT
- GRATE INLET
- GAS VALVE
- PROPANE TANK
- POWER METER
- LAMP
- UTILITY POLE
- METER POLE
- GUY WIRE
- TRANSFORMER
- TREE (SEE PLAN FOR TYPE & SIZE)
- POWER LINE
- FIBER OPTIC LINE
- WATER LINE
- SANITARY SEWER LINE
- STORM DRAIN
- FENCE LINE
- EDGE OF GRASS
- TREE LINE / EDGE OF WOODS
- CURB
- EDGE OF PAVEMENT
- EDGE OF GRAVEL
- LOT LINE
- EASEMENT
- PROPERTY LINE
- FIP — FOUND IRON PIN (SEE PLAN FOR SIZE)
- SIP — SET 5/8" IRON PIN
- R/W — RIGHT OF WAY
- PB — PORTABLE BUILDING

GRAPHIC SCALE

50 0 25 50 100 200

(IN FEET)
1 inch = 50 ft.

THIS IS A CLASS "A" SURVEY ACCORDING TO "STANDARDS OF PRACTICE FOR SURVEYING" IN THE STATE OF MISSISSIPPI ESTABLISHED BY THE AUTHORITY OF SECTION 73-13-15(F), MISSISSIPPI CODE OF 1972 AS AMENDED.

REFERENCE MERIDIAN - MONUMENTS FOUND BOOK 3674 PAGE 277.

◎ INDICATES PROPERTY CORNERS.
○ INDICATES POINT ON PROPERTY LINES.

ONLY VISIBLE UTILITIES ARE SHOWN ON THIS PLAT. THE HOUSES IN THIS AREA ARE SERVED BY UNDERGROUND UTILITIES NOT LOCATED ON THIS SURVEY.

FORCE MAIN & WATER LINES ARE SHOWN PER CITY OF RIDGELAND PLANS FOR BRAME ROAD WATER & SEWER IMPROVEMENTS, DATED 9-25-90.

THE PROPERTY SHOWN HEREON IS LOCATED IN ZONE "X" (OUTSIDE 0.2% ANNUAL CHANCE FLOOD HAZARD) ACCORDING TO FLOOD INSURANCE RATE MAP NUMBER 28049C0167H, DATED NOVEMBER 18, 2009.

TOPOGRAPHIC SURVEY
CERTAIN PROPERTIES

SITUATED IN THE SE 1/4 of
SECTION 25, T7N, R1E
CITY OF RIDGELAND
MADISON COUNTY, MISSISSIPPI

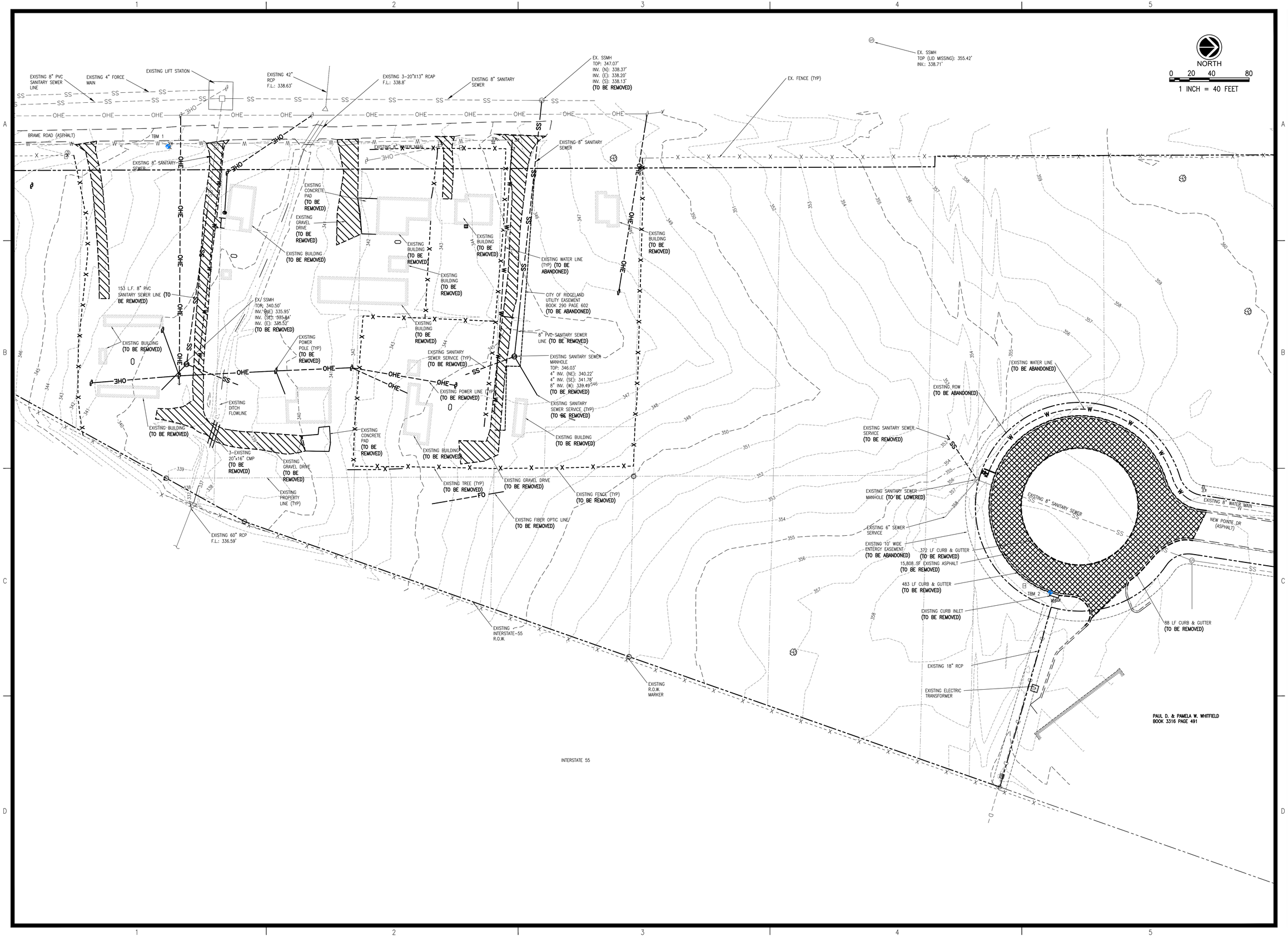
DRAFT

ROBERT MICHAEL BARNES
REGISTERED PROFESSIONAL
LAND SURVEYOR
PLS. 2583
MISSISSIPPI

SURVEYED & MAPPED
BY
BARNES SURVEYING, LLC
ROBERT MICHAEL BARNES
LAND SURVEYOR
2 OLD RIVER PLACE, SUITE "K"
JACKSON, MISSISSIPPI 39202
PHONE: 601.353.7878 FAX: 601.353.7805
EMAIL: mike@barnessurvey.com

FIELD WORK COMPLETED: JULY XX, 2019
PLAT DATE: JULY 29, 2019

8146-01



REVISIONS:

1		
2		
3		
4		
5		

PROJECT #: 25659.00
DATE: 1-14-20
DRAWN BY: SB
DESIGNER: JJ
CHECKED BY: NW

Pickering
Pickering Firm, Inc.
Facility Design • Civil Engineering • Surveying •
Transportation • Natural / Water Resources
2001 Airport Road, Suite 201
Flowood, MS 39232
601.366.3863

New Pointe Drive
Southern Extension
Ridgeland, Mississippi

SEAL:

JONATHAN A. JOHNSON LICENSED PROFESSIONAL ENGINEER 01/14/20 STATE OF MISSISSIPPI

SHEET NUMBER:

C1.0

DESCRIPTION:
Existing Conditions & Demolition Plan

TYPICAL CONSTRUCTION NOTES

1. PROPERTY LINES SHALL BE FIELD VERIFIED PRIOR TO CONSTRUCTION. GRADING, CLEARING AND THE ERECTION OR REMOVAL OF FENCES ALONG PROPERTY LINES SHALL BE FULLY COORDINATED WITH ADJACENT PROPERTY OWNERS.
2. THE CONTRACTOR SHALL NOTIFY THE ENGINEER (JEFF GREEN, PE 601–932–7878) AND THE CITY OF RIDGELAND A MINIMUM OF 24 HOURS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. CONTRACTOR SHALL ALSO NOTIFY THE ENGINEER (JEFF GREEN, PE 601–932–7878) AND THE CITY OF RIDGELAND 24 HOURS PRIOR TO WORK WITHIN PUBLIC IMPROVEMENT AREAS FOR REQUIRED INSPECTIONS. INSPECTIONS SHALL BE REQUIRED FOR PUBLIC ROADWAY IMPROVEMENTS AND THE PUBLIC STORM DRAINAGE, WATER AND SANITARY SEWER SYSTEMS.
3. THE CONTRACTOR SHALL PROVIDE AN AS–BUILT SURVEY (INCLUDING ALL UTILITIES – HORIZONTAL AND VERTICAL LOCATIONS) AT THE END OF CONSTRUCTION PRIOR TO RELEASE OF FINAL PAYMENT.
4. VERIFY SITE CONDITIONS PRIOR TO CONSTRUCTION. NOTIFY THE ENGINEER OF ANY VARIATIONS PRIOR TO COMMENCEMENT OF WORK.
5. ALL GRADING WORK SHALL BE PERFORMED IN SUCH A MANNER THAT ADJACENT PROPERTIES ARE NOT DAMAGED OR ADVERSELY AFFECTED.
6. CONTRACTOR SHALL MAINTAIN ACCESS TO ALL PROPERTIES.
7. THE CONTRACTOR SHALL NOTIFY THE CITY OF RIDGELAND AND ALL UTILITY PROVIDERS ON SITE PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
8. ALL DIMENSIONS SHOWN ARE TO THE FACE OF CURB OR CENTERLINE AT END OF PAINT STRIPE UNLESS NOTED OTHERWISE. SPOT ELEVATIONS ARE ON FINISHED GRADE UNLESS NOTED OTHERWISE.
9. THE CONTRACTOR SHALL VERIFY EXISTING DATA AND REPORT ANY SIGNIFICANT DISCREPANCIES TO THE ENGINEER.
10. BEFORE COMMENCING ANY ACTIVITY UNDER OR PERTAINING TO THIS CONTRACT, THE CONTRACTOR SHALL OBTAIN ALL BUILDING AND CONSTRUCTION PERMITS INCLUDING BUT NOT LIMITED TO MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY, MISSISSIPPI DEPARTMENT OF HEALTH, CITY OF RIDGELAND, ATMOS ENERGY, C SPIRE, CENTERPOINT ENERGY, AT&T, ENTERGY, AS REQUIRED BY PERTINENT REGULATORY AND GOVERNMENTAL AGENCIES, CONTRACTOR SHALL NOTIFY UTILITY COMPANIES MAINTAINING UTILITY LINES OR EASEMENTS WITHIN THE LIMITS OF CONSTRUCTION, OR IN PUBLIC RIGHTS–OF–WAYS ADJACENT TO THE PROJECT. CONTRACTOR SHALL BECOME KNOWLEDGEABLE OF EXISTING UTILITIES AND PROTECT SAME WHERE NECESSARY.
11. THE CONTRACTOR SHALL ASSUME ALL RESPONSIBILITY FOR ANY DAMAGE TO EXISTING PUBLIC OR PRIVATE UTILITIES AND SHALL REPAIR, REPLACE, OR RELOCATE SAME AT NO ADDITIONAL COST TO THE OWNER.
12. THE CONTRACTOR SHALL ACCURATELY LOCATE AND MARK CONSTRUCTION LIMITS AND PROPERTY LINES, AND SHALL LIMIT ALL CONSTRUCTION ACTIVITIES TO WHICHEVER APPLICABLE.
13. THE CONTRACTOR AT NO TIME SHALL ENCROACH UPON OR CAUSE DISRUPTION TO TRAFFIC FLOW ON ADJACENT PUBLIC RIGHT–OF–WAYS WITHOUT SECURING THE PROPER PERMITS PRIOR TO COMMENCING OPERATIONS. THE CONTRACTOR SHALL ERECT THE PROPER TRAFFIC CONTROL DEVICES ACCORDING TO THE LATEST EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", AND SHALL PROTECT THE PUBLIC FROM HAZARD OR INJURY BY ERECTING BARRICADES WHERE APPROPRIATE, I.E., AROUND EXCAVATIONS OR OPERATING EQUIPMENT.
14. ALL NEWLY CUT AND/OR FILLED AREAS LACKING ADEQUATE VEGETATION SHALL BE SEEDED AND/OR SODDED TO EFFECTIVELY PREVENT SOIL EROSION PER CITY OF RIDGELAND AND STATE REGULATIONS.
15. THE CONTRACTOR MUST HAVE WRITTEN APPROVAL FROM THE CITY OF RIDGELAND AND THE PROJECT ENGINEER BEFORE ANY CHANGE IN DESIGN IS MADE.
16. THE CONTRACTOR SHALL NOT ENTER NOR CAUSE DAMAGE TO ANY ADJACENT PROPERTIES WITHOUT WRITTEN PERMISSION FROM SAID PROPERTY OWNERS.
17. ALL FILL LIFTS SHALL BE COMPACTED PER SPECIFICATIONS AND GEOTECHNICAL ENGINEERING RECOMMENDATIONS.
18. ANY EXISTING UTILITIES REQUIRING RELOCATION SHALL BE THE CONTRACTOR'S RESPONSIBILITY.
19. CLEAR AND GRUB ALL AREAS WITHIN THE LIMITS OF CONSTRUCTION.
20. THE CONTRACTOR SHALL AT ALL TIMES EMPLOY ADEQUATE EROSION AND SEDIMENTATION CONTROL MEASURES TO PREVENT DAMAGE TO THE PROPERTY, ADJACENT PROPERTIES, PUBLIC RIGHT–OF–WAYS, AND PUBLIC OR PRIVATE DRAINAGE SYSTEMS.
21. DISTURBED AREAS SHALL BE GRADED TO DRAIN AS INDICATED ON THE PLANS DURING AND UPON COMPLETION OF CONSTRUCTION. NO DRAINAGE SHALL BE DAMMED OR TRAPPED UNLESS SPECIFICALLY DIRECTED BY THE PLANS.
22. ANY FENCING, SIDEWALK, CURB AND GUTTER, OR CURB CUT DAMAGED BY CONSTRUCTION SHALL BE REPLACED AND RESTORED TO ITS ORIGINAL CONDITION AT NO ADDITIONAL COST TO THE OWNER.
23. ALL STREETS ADJACENT TO THE SITE SHALL BE KEPT CLEAN DURING CONSTRUCTION.
24. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE LOCAL AND STATE REQUIREMENTS.
25. ALL SIDEWALKS AND CONCRETE PAVING APRONS SHALL HAVE FLUSH CONNECTIONS AT ALL PAVEMENT INTERSECTIONS.
26. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS SHOWN WITH THE ARCHITECTURAL DRAWINGS BEFORE ANY WORK BEGINS. IF ANY DISCREPANCY IS FOUND IT IS TO BE REPORTED TO THE ARCHITECT AND ENGINEER AND THE DISCREPANCY IS TO BE RESOLVED BEFORE WORK BEGINS.
27. ALL ASPHALT MILLING SHALL CONFORM TO SECTION 406 – COLD MILLING OF THE MISSISSIPPI STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION 2004 EDITION.

GRADING AND DRAINAGE NOTES

1. THE CONTRACTOR SHALL NOT ENTER UPON, WORK UPON, NOR CAUSE DAMAGE TO ANY ADJACENT PROPERTIES WITHOUT PRIOR PERMISSION FROM SAID PROPERTY OWNER.
2. NO TREES SHALL BE REMOVED OUTSIDE THE LIMITS OF CONSTRUCTION.
3. ALL STORM DRAINAGE INLETS SHALL BE MDOT STANDARD, UNLESS NOTED OTHERWISE. CONCRETE BRICK INLETS WILL NOT BE PERMITTED. ALL PIPES ENTERING STORM SEWER STRUCTURES SHALL BE GROUTED TO ASSURE CONNECTION AT STRUCTURE IS WATER TIGHT.
4. ALL STORM DRAINAGE PIPES SHALL BE CLASS III RCP UNLESS NOTED OTHERWISE. ALL STORM DRAINAGE SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.
5. ANY GRADED OR DISTURBED AREAS SHALL HAVE 6 INCHES OF TOPSOIL WITH SEED, MULCH, FERTILIZER, AND WATER APPLIED UNTIL A HEALTHY STAND OF GRASS IS OBTAINED.
6. CONTRACTOR SHALL NOTIFY THE ENGINEER 24 HOURS PRIOR TO PROOFROLLING OF SUBGRADE WITH A LOADED TANDEM AXLE DUMP TRUCK OR EQUALLY APPROVED VEHICLE. THIS SHALL BE DONE PRIOR TO INSTALLATION OF CURB AND PAVING IN IMPROVEMENT AREAS.
7. IN ALL AREAS OF CONSTRUCTION, TOPSOIL SHALL BE STRIPPED AS REQUIRED BY THE GEOTECHNICAL ENGINEER AND STORED IN ONE LOCATION PER OWNERS DIRECTION. THIS TOPSOIL WILL BE USED FOR THE FINISH GRADING WORK. PROVIDE EROSION CONTROL AS NECESSARY TO PREVENT TOPSOIL FROM ERODING AND DAMAGING ADJACENT PROPERTIES.
8. CLEAR AND GRUB ALL AREAS OF THE SITE WHERE CUT OR FILL IS TO OCCUR. REMOVE ORGANIC MATTER, FOREIGN MATERIAL, PAVEMENT, TOPSOIL, FENCES, TRASH, BRUSH, BURIED OBSTRUCTIONS SUCH AS TREE STUMPS, ROOTS AND INACTIVE DRAINAGE STRUCTURES. DISPOSE OF ALL MATERIAL REMOVED WHICH IS NOT TO BE REPLACED. BURNING OF MATERIAL ON THE SITE WILL NOT BE PERMITTED UNLESS APPROVED IN WRITING BY THE DESIGNER AND AFTER THE REQUIRED PERMITS HAVE BEEN OBTAINED FROM THE APPLICABLE AUTHORITIES.
9. ALL AREAS SHALL BE COMPACTED PER THE RECOMMENDATIONS OF THE GEOTECHNICAL INVESTIGATION REPORTS PREPARED BY BURNS COOLEY DENNIS, INC.
10. PROPER DRAINAGE SHALL BE MAINTAINED THROUGHOUT THE PROJECT SITE TO PREVENT THE INCREASE OF THE IN–SITU SOILS MOISTURE CONTENT. FLUCTUATIONS MAY NECESSITATE SOIL IMPROVEMENTS PER THE RECOMMENDATIONS OF THE GEOTECHNICAL ENGINEER.
11. SITE CONTRACTOR SHALL PROVIDE SUBGRADE FOR BUILDING PAD PER THE RECOMMENDATIONS OF THE GEOTECHNICAL REPORT PROVIDED BY THE OWNER. THE EXPOSED SURFACE IN PAVEMENT OR BUILDING FLOOR AREAS SHALL BE INSPECTED BY THE GEOTECHNICAL ENGINEER AND MAY REQUIRE SOME IMPROVEMENTS IF THE MOISTURE CONTENTS ARE BEYOND ACCEPTABLE LIMITS.
12. ESTABLISH PERMANENT VEGETATION WITH SEEDING OR SOD ON ALL DISTURBED AREAS.
13. ALL SPOT ELEVATIONS ALONG CURBLINE ARE TOP OF CURB ELEVATION UNLESS NOTED OTHERWISE.
14. ALL SPOT ELEVATIONS SHOWN ARE TO FINISHED GRADE INCLUDING SEEDING, SOD, AND PAVEMENT.
15. THE MAXIMUM LONGITUDINAL (DIRECTION OF TRAVEL) SLOPE IS TO BE 2% AND THE MAXIMUM CROSS (PERPENDICULAR TO TRAFFIC) SLOPE IS TO BE 2% FOR ALL HANDICAP PARKING AREAS.
16. THE MAXIMUM LONGITUDINAL (DIRECTION OF TRAVEL) SLOPE IS TO BE 5% AND THE MAXIMUM CROSS (PERPENDICULAR TO TRAFFIC) SLOPE IS TO BE 2% FOR ALL WALKWAYS.
17. PROVIDE TEMPORARY ABOVE GROUND IRRIGATION TO ALL NEWLY SEEDED OR SODDED AREAS THAT ARE LEFT UNDISTURBED FOR MORE THAN 30 DAYS.

UTILITY NOTES

1. LOCATION OF EXISTING UNDERGROUND UTILITIES ARE APPROXIMATE AND NOT NECESSARILY ALL THAT EXIST. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE APPROPRIATE UTILITY COMPANY TO DETERMINE THE EXACT LOCATION OF ALL UTILITIES AND UNDERGROUND STRUCTURES PRIOR TO THE INITIATION OF ANY CONSTRUCTION. THE CONTRACTOR SHALL ALSO ASSUME FULL RESPONSIBILITY FOR DAMAGE TO ANY UTILITIES ENCOUNTERED WITHIN CONSTRUCTION LIMITS.
2. FORTY–EIGHT (48) HOURS BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR SHALL CALL MISSISSIPPI ONE CALL AT 1–800–227–6477. THE CONTRACTOR SHALL ALSO ASSUME THE RESPONSIBILITY FOR ANY DAMAGE INCURRED BY ANY UTILITY COMPANY, TO THEIR LINES, WHETHER SHOWN ON THE CONSTRUCTION PLANS OR NOT, DURING WORK ON THE PROJECT.
3. CONTRACTOR SHALL FIELD VERIFY LOCATION OF EXISTING NATURAL GAS, WATER, AND SEWER WHERE CROSSING PROPOSED STORM DRAINAGE LINES TO ANY STORM DRAINAGE CONSTRUCTION. CONTRACTOR SHALL PROVIDE ELEVATIONS OF EXISTING UTILITIES TO THE ENGINEER TO VERIFY ADEQUATE CLEARANCE.
4. CONTRACTOR SHALL SUPPLY AND INSTALL ALL ITEMS AND PERFORM ALL WORK NOT COVERED BY UTILITY COMPANIES. VERIFY INSTALLATION PROCEDURE WITH UTILITY COMPANY.
5. SITEWORK CONTRACTOR SHALL ENSURE THAT SLEEVES FOR SITE LIGHTING ARE INSTALLED PRIOR TO PAVING.
6. IRRIGATION CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING POWER FOR IRRIGATION SYSTEMS.
7. SITE WORK CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH UTILITY COMPANIES. CONTACT REPRESENTATIVES BEFORE CONSTRUCTION BEGINS.
8. SITE WORK CONTRACTOR IS RESPONSIBLE FOR BACKFILL AND PROPER COMPACTION ON TOP OF AND IN THE VICINITY OF UTILITY LINES.

WATER & SANITARY SEWER NOTES

1. SANITARY SEWER SERVICE CONNECTIONS SHALL BE POLYVINYL CHLORIDE SDR 26.
2. THERE SHALL BE A MINIMUM OF TEN (10) FEET HORIZONTAL SEPARATION BETWEEN ALL PARALLEL SANITARY SEWER AND WATER MAINS.
3. THERE SHALL BE A MINIMUM OF EIGHTEEN (18) INCHES VERTICAL SEPARATION BETWEEN ALL SANITARY SEWER AND WATER MAINS WITH THE WATER MAIN BEING ABOVE THE SANITARY SEWER LINE.
4. ALL MATERIALS AND INSTALLATION, TESTING, DISINFECTING, AND INSPECTIONS SHALL CONFORM TO THE CITY OF RIDGELAND TECHNICAL SPECIFICATIONS, AND THE REQUIREMENTS OF THE STATE OF MISSISSIPPI.
5. FIRE HYDRANTS, TEES AND BENDS REQUIRED SHALL BE ANCHORED WITH THRUST BLOCKS, MEGALUG AND/OR ANCHOR COUPLINGS AS PER CITY OF RIDGELAND TECHNICAL SPECIFICATIONS.
6. WATER LINES, VALVES, FITTINGS AND HYDRANTS SHALL BE INSTALLED, DISINFECTED, PRESSURE TESTED AND LEAKAGE TESTED IN ACCORDANCE WITH ALL STATE AND LOCAL REQUIREMENTS.
7. SLEEVES FOR IRRIGATION SHALL BE INSTALLED PRIOR TO PAVING.
8. ALL PVC PIPE SHALL BEAR THE NSF SEAL OF APPROVAL.
9. ALL WATER LINES SHALL BE ASTM C900.

REVISIONS:

△		
△		
△		
△		
△		

PROJECT #:	25659.00
DATE:	1–14–20
DRAWN BY:	SB
DESIGNER:	JJ
CHECKED BY:	NW

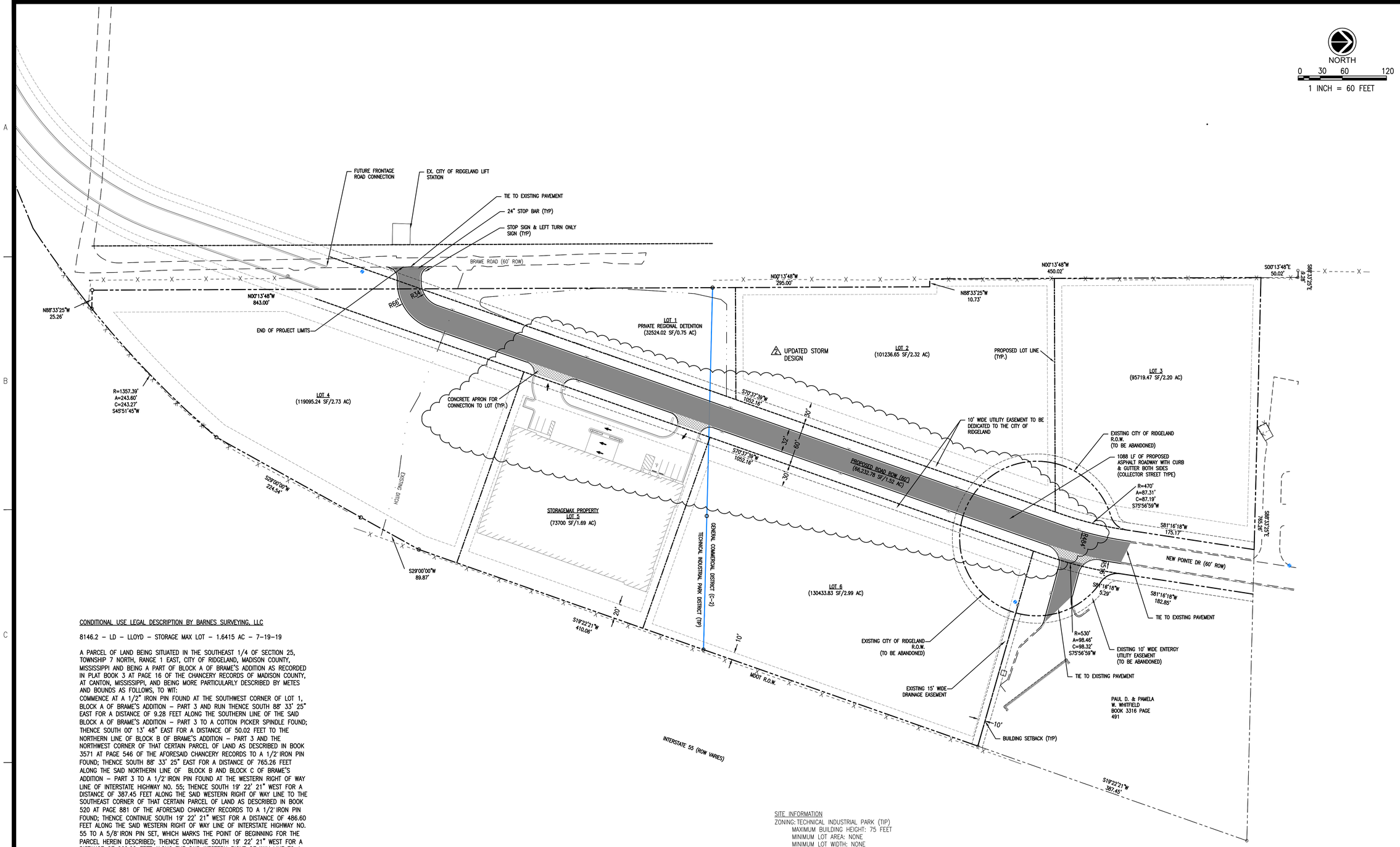
Pickering
Pickering Firm, Inc.
Facility Design ▪ Civil Engineering ▪ Surveying ▪
Transportation ▪ Natural / Water Resources
2001 Airport Road, Suite 201
Flowood, MS 39232
601.956.3663

New Pointe Drive
Southern Extension
Ridgeland, Mississippi

SEAL:
JONATHAN A. JOHNSON
STATE OF MISSISSIPPI
01/14/20

SHEET NUMBER:
C1.1

DESCRIPTION:
General Notes



CONDITIONAL USE LEGAL DESCRIPTION BY BARNES SURVEYING, LLC

8146.2 – LD – LLOYD – STORAGE MAX LOT – 1.6415 AC – 7-19-19

A PARCEL OF LAND BEING SITUATED IN THE SOUTHEAST 1/4 OF SECTION 25, TOWNSHIP 7 NORTH, RANGE 1 EAST, CITY OF RIDGELAND, MADISON COUNTY, MISSISSIPPI AND BEING A PART OF BLOCK A OF BRAME'S ADDITION AS RECORDED IN PLAT BOOK 3 AT PAGE 16 OF THE CHANCERY RECORDS OF MADISON COUNTY, AT CANTON, MISSISSIPPI, AND BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS, TO WIT:
COMMENCE AT A 1/2" IRON PIN FOUND AT THE SOUTHWEST CORNER OF LOT 1, BLOCK A OF BRAME'S ADDITION – PART 3 AND RUN THENCE SOUTH 88° 33' 25" EAST FOR A DISTANCE OF 9.28 FEET ALONG THE SOUTHERN LINE OF THE SAID BLOCK A OF BRAME'S ADDITION – PART 3 TO A COTTON PICKER SPINDLE FOUND; THENCE SOUTH 00° 13' 48" EAST FOR A DISTANCE OF 50.02 FEET TO THE NORTHERN LINE OF BLOCK B OF BRAME'S ADDITION – PART 3 AND THE NORTHWEST CORNER OF THAT CERTAIN PARCEL OF LAND AS DESCRIBED IN BOOK 3571 AT PAGE 546 OF THE AFORESAID CHANCERY RECORDS TO A 1/2" IRON PIN FOUND; THENCE SOUTH 88° 33' 25" EAST FOR A DISTANCE OF 765.26 FEET ALONG THE SAID NORTHERN LINE OF BLOCK B AND BLOCK C OF BRAME'S ADDITION – PART 3 TO A 1/2" IRON PIN FOUND AT THE WESTERN RIGHT OF WAY LINE OF INTERSTATE HIGHWAY NO. 55; THENCE SOUTH 19° 22' 21" WEST FOR A DISTANCE OF 387.45 FEET ALONG THE SAID WESTERN RIGHT OF WAY LINE TO THE SOUTHEAST CORNER OF THAT CERTAIN PARCEL OF LAND AS DESCRIBED IN BOOK 520 AT PAGE 881 OF THE AFORESAID CHANCERY RECORDS TO A 1/2" IRON PIN FOUND; THENCE CONTINUE SOUTH 19° 22' 21" WEST FOR A DISTANCE OF 486.60 FEET ALONG THE SAID WESTERN RIGHT OF WAY LINE OF INTERSTATE HIGHWAY NO. 55 TO A 5/8" IRON PIN SET, WHICH MARKS THE POINT OF BEGINNING FOR THE PARCEL HEREIN DESCRIBED; THENCE CONTINUE SOUTH 19° 22' 21" WEST FOR A DISTANCE OF 260.00 FEET ALONG THE SAID WESTERN RIGHT OF WAY LINE TO A 5/8" IRON PIN SET; THENCE LEAVE SAID WESTERN RIGHT OF WAY LINE OF INTERSTATE HIGHWAY NO. 55 AND RUN NORTH 70° 37' 39" WEST FOR A DISTANCE OF 275.58 FEET TO A 5/8" IRON PIN SET; THENCE RUN 30.14 FEET ALONG THE ARC OF A 780.00 FOOT RADIUS CURVE TO THE LEFT, SAID ARC HAVING A 30.14 FOOT CHORD WHICH BEARS NORTH 20° 28' 46" EAST TO A 5/8" IRON PIN SET; THENCE NORTH 19° 22' 21" EAST FOR A DISTANCE OF 229.87 FEET TO A 5/8" IRON PIN SET; THENCE SOUTH 70° 37' 39" EAST FOR A DISTANCE OF 275.00 FEET TO THE POINT OF BEGINNING, CONTAINING 1.6415 ACRES (71,506 SQUARE FEET), MORE OR LESS.

THE REFERENCE MERIDIAN FOR THE ABOVE DESCRIPTION IS BASED ON MONUMENTS FOUND IN BOOK 3674 AT PAGE 277.

SITE INFORMATION
ZONING: TECHNICAL INDUSTRIAL PARK (TIP)
MAXIMUM BUILDING HEIGHT: 75 FEET
MINIMUM LOT AREA: NONE
MINIMUM LOT WIDTH: NONE
MAXIMUM LOT COVERAGE: 50%
SETBACKS: FRONT 30'
SIDE 10'
REAR 20'

ZONING: GENERAL COMMERCIAL DISTRICT (C-2)
MAXIMUM BUILDING HEIGHT: 48 FEET
MINIMUM LOT AREA: NONE
MINIMUM LOT WIDTH: NONE
MAXIMUM LOT COVERAGE: 50%
SETBACKS: FRONT 30'
SIDE 10'
REAR 10'

THE ABOVE INFORMATION WAS OBTAINED FROM THE OFFICIAL ZONING ORDINANCE OF THE CITY OF RIDGELAND, MS EFFECTIVE FEBRUARY 4, 2014 VIA THE CITY OF RIDGELAND'S WEBSITE (HTTPS://WWW.RIDGELANDMS.ORG/WP-CONTENT/UPLOADS/OFFICIAL-RIDGELAND-ZONING-ORDINANCE-02-04-14.PDF).

ZONING DATA
ACREAGE:
LOT 1: 0.75 AC/32,524.02 SF
LOT 2: 2.32 AC/101,236.65 SF
LOT 3: 2.20 AC/95,719.47 SF
LOT 4: 2.73 AC/119,095.24 SF
LOT 5: 1.69 AC/73,700.00 SF
LOT 6: 2.99 AC/130,433.83 SF
PROPOSED ROW: 1.52 AC/66,232.78 SF
TOTAL: 14.21 AC/618,941.99 SF

REVISIONS:

1	2/20/20	PERMIT SET COMMENTS
2	3/12/20	CONSTRUCTION SET REVISIONS

PROJECT #: 25659.00
DATE: 1-14-20
DRAWN BY: SB
DESIGNER: JJ
CHECKED BY: NW

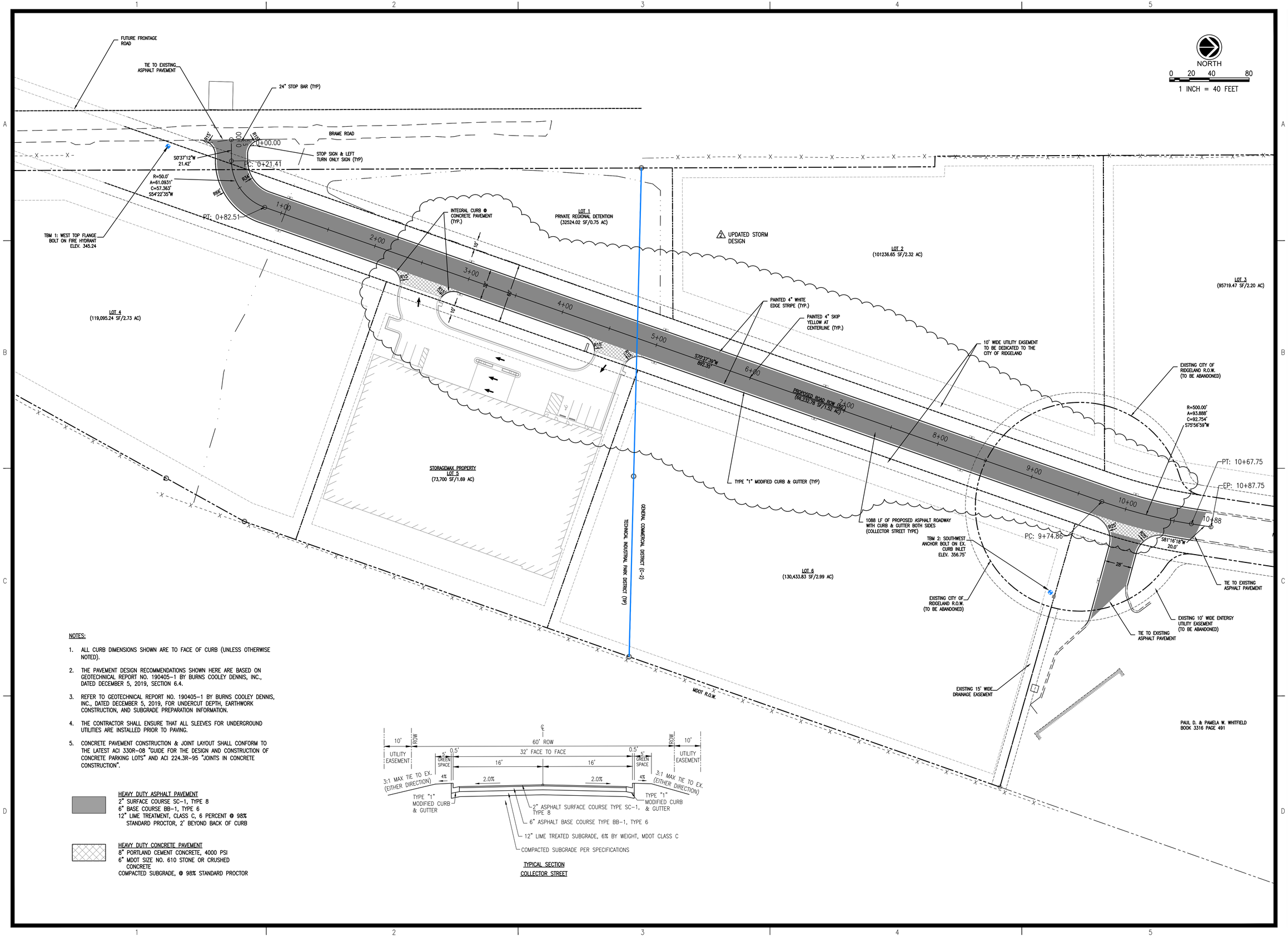
Pickering
Pickering Firm, Inc.
Facility Design • Civil Engineering • Surveying • Transportation • Natural / Water Resources
2001 Airport Road, Suite 201
Flowood, MS 39232
601.956.3863

New Pointe Drive
Southern Extension
Ridgeland, Mississippi

SEAL:
JONATHAN A. JOHNSON LICENSED PROFESSIONAL ENGINEER 01/14/20 STATE OF MISSISSIPPI

SHEET NUMBER:
C2.0

DESCRIPTION:
Overall Site Plan



NOTES:

1. ALL CURB DIMENSIONS SHOWN ARE TO FACE OF CURB (UNLESS OTHERWISE NOTED).
2. THE PAVEMENT DESIGN RECOMMENDATIONS SHOWN HERE ARE BASED ON GEOTECHNICAL REPORT NO. 190405-1 BY BURNS COOLEY DENNIS, INC., DATED DECEMBER 5, 2019, SECTION 6.4.
3. REFER TO GEOTECHNICAL REPORT NO. 190405-1 BY BURNS COOLEY DENNIS, INC., DATED DECEMBER 5, 2019, FOR UNDERCUT DEPTH, EARTHWORK CONSTRUCTION, AND SUBGRADE PREPARATION INFORMATION.
4. THE CONTRACTOR SHALL ENSURE THAT ALL SLEEVES FOR UNDERGROUND UTILITIES ARE INSTALLED PRIOR TO PAVING.
5. CONCRETE PAVEMENT CONSTRUCTION & JOINT LAYOUT SHALL CONFORM TO THE LATEST ACI 330R-08 "GUIDE FOR THE DESIGN AND CONSTRUCTION OF CONCRETE PARKING LOTS" AND ACI 224.3R-95 "JOINTS IN CONCRETE CONSTRUCTION".

HEAVY DUTY ASPHALT PAVEMENT
2" SURFACE COURSE SC-1, TYPE 8
6" BASE COURSE BB-1, TYPE 6
12" LIME TREATMENT, CLASS C, 6 PERCENT @ 98% STANDARD PROCTOR, 2' BEYOND BACK OF CURB

HEAVY DUTY CONCRETE PAVEMENT
8" PORTLAND CEMENT CONCRETE, 4000 PSI
6" MDOT SIZE NO. 610 STONE OR CRUSHED CONCRETE
COMPACTED SUBGRADE, @ 98% STANDARD PROCTOR

TYPICAL SECTION
COLLECTOR STREET

REVISIONS:

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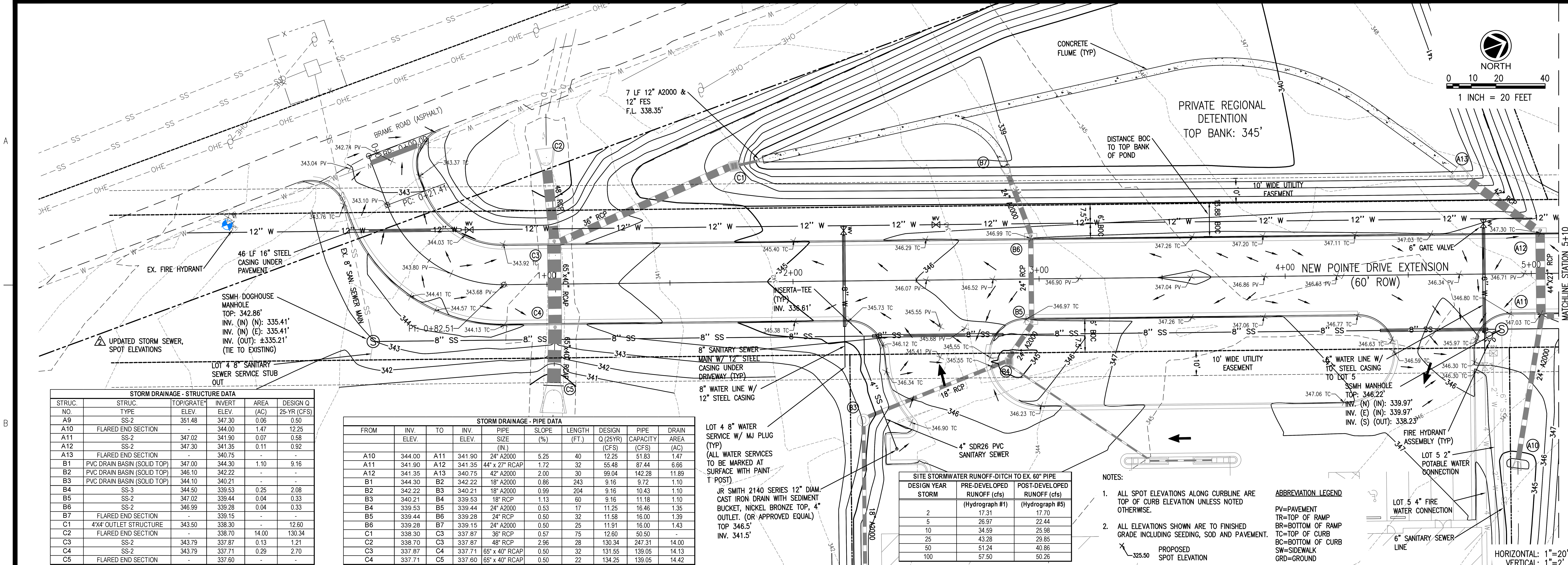
SEAL:

SHEET NUMBER:
C2.1

DESCRIPTION:
Site Plan



STORM DRAINAGE - STRUCTURE DATA					
STRUC. NO.	STRUC. TYPE	TOP/GRATE* ELEV.	INVERT ELEV.	AREA (AC)	DESIGN Q 25-YR (CFS)
A9	SS-2	351.48	347.30	0.06	0.50
A10	FLARED END SECTION	-	344.00	1.47	12.25
A11	SS-2	347.02	341.90	0.07	0.58
A12	SS-2	347.30	341.35	0.11	0.92
A13	FLARED END SECTION	-	340.75	-	-
B1	PVC DRAIN BASIN (SOLID TOP)	347.00	344.30	1.10	9.16
B2	PVC DRAIN BASIN (SOLID TOP)	346.10	342.22	-	-
B3	PVC DRAIN BASIN (SOLID TOP)	344.10	340.21	-	-
B4	SS-3	344.50	339.53	0.25	2.08
B5	SS-2	347.02	339.44	0.04	0.33
B6	SS-2	346.99	339.28	0.04	0.33
B7	FLARED END SECTION	-	339.15	-	-
C1	4'X4' OUTLET STRUCTURE	343.50	338.30	-	12.60
C2	FLARED END SECTION	-	338.70	14.00	130.34
C3	SS-2	343.79	337.87	0.13	1.21
C4	SS-2	343.79	337.71	0.29	2.70
C5	FLARED END SECTION	-	337.60	-	-

STORM DRAINAGE - PIPE DATA									
FROM	INV. ELEV.	TO	INV. ELEV.	PIPE SIZE (IN.)	SLOPE (%)	LENGTH (FT.)	DESIGN Q (25YR) (CFS)	PIPE CAPACITY (CFS)	DRAIN AREA (AC)
A10	344.00	A11	341.90	24" A2000	5.25	40	12.25	51.83	1.47
A11	341.90	A12	341.35	44" x 27" RCAP	1.72	32	55.48	87.44	6.66
A12	341.35	A13	340.75	42" A2000	2.00	30	99.04	142.28	11.89
B1	344.30	B2	342.22	18" A2000	0.86	243	9.16	9.72	1.10
B2	342.22	B3	340.21	18" A2000	0.99	204	9.16	10.43	1.10
B3	340.21	B4	339.53	18" RCP	1.13	60	9.16	11.18	1.10
B4	339.53	B5	339.44	24" A2000	0.53	17	11.25	16.46	1.35
B5	339.44	B6	339.28	24" RCP	0.50	32	11.58	16.00	1.39
B6	339.28	B7	339.15	24" A2000	0.50	25	11.91	16.00	1.43
C1	338.30	C3	337.87	36" RCP	0.57	75	12.60	50.50	-
C2	338.70	C3	337.87	48" RCP	2.96	28	130.34	247.31	14.00
C3	337.87	C4	337.71	65" x 40" RCAP	0.50	32	131.55	139.05	14.13
C4	337.71	C5	337.60	65" x 40" RCAP	0.50	22	134.25	139.05	14.42

SITE STORMWATER RUNOFF-DITCH TO EX. 60" PIPE		
DESIGN YEAR STORM	PRE-DEVELOPED RUNOFF (cfs)	POST-DEVELOPED RUNOFF (cfs)
	(Hydrograph #1)	(Hydrograph #5)
2	17.31	17.70
5	26.97	22.44
10	34.59	25.98
25	43.28	29.85
50	51.24	40.86
100	57.50	50.26

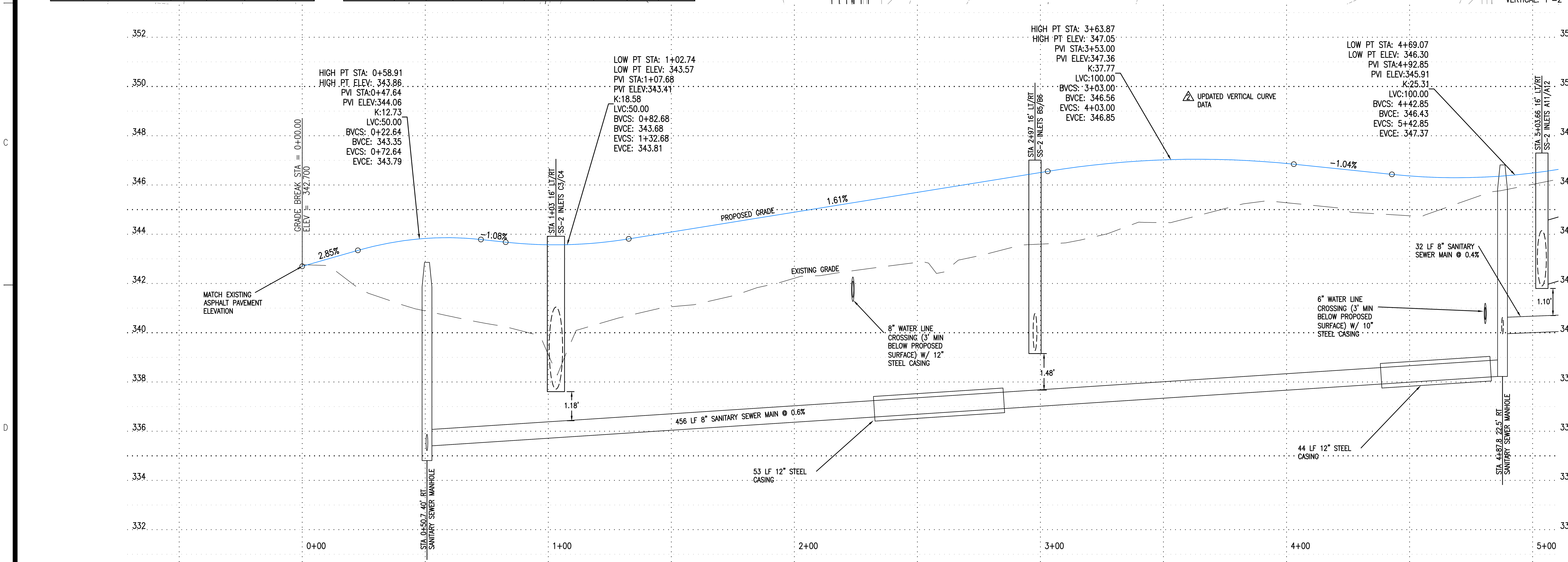
NOTES:

1. ALL SPOT ELEVATIONS ALONG CURBLINE ARE TOP OF CURB ELEVATION UNLESS NOTED OTHERWISE.
2. ALL ELEVATIONS SHOWN ARE TO FINISHED GRADE INCLUDING SEEDING, SOD AND PAVEMENT.

325.50 PROPOSED SPOT ELEVATION

ABBREVIATION LEGEND

PV=PAVEMENT
TR=TOP OF RAMP
BR=BOTTOM OF RAMP
TC=TOP OF CURB
BC=BOTTOM OF CURB
SW=SIDEWALK
GRD=GROUND



REVISIONS:

1	2/20/20	PERMIT SET COMMENTS
2	3/12/20	CONSTRUCTION SET REVISIONS

PROJECT #: 25659.00

DATE: 1-14-20

DRAWN BY: SB

DESIGNER: JJ

CHECKED BY: NW

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Transportation ▪ Natural / Water Resources
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601.956.3663

New Pointe Drive
Southern Extension
Ridgeland, Mississippi

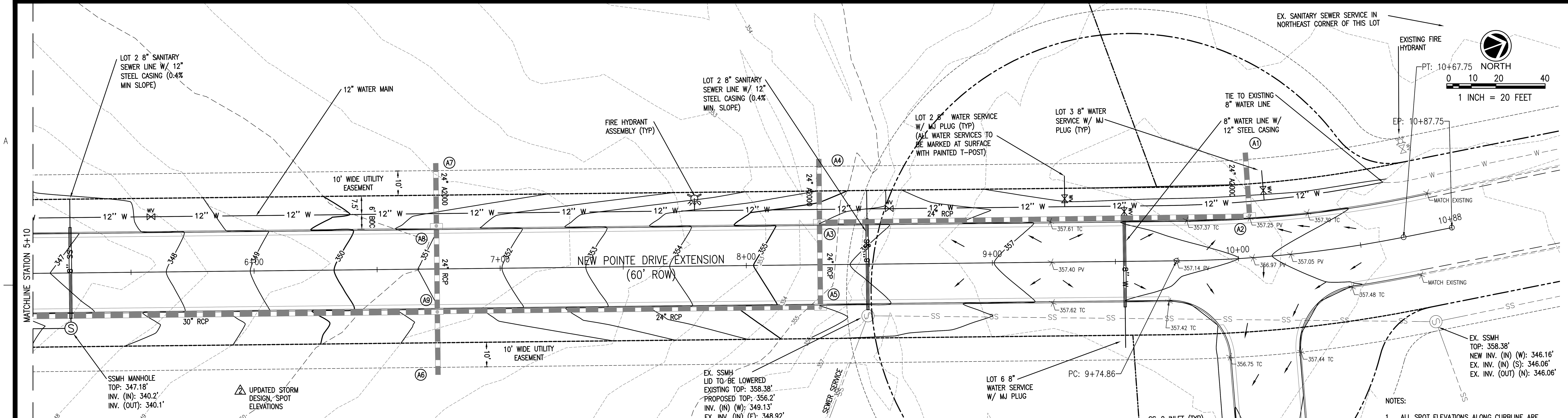
SEAL:

JONATHAN A. JOHNSON
LICENSED PROFESSIONAL ENGINEER
01/14/20
STATE OF MISSISSIPPI

SHEET NUMBER:

C3.0

DESCRIPTION:
Plan & Profile
Sta. 0+00–Sta. 5+10



STORM DRAINAGE - PIPE DATA									
FROM	INV. ELEV.	TO	INV. ELEV.	PIPE SIZE (IN.)	SLOPE (%)	LENGTH (FT.)	DESIGN Q (25YR) (CFS)	PIPE CAPACITY (CFS)	DRAIN AREA (AC)
A1	353.12	A2	352.99	24" A2000	0.52	25	12.08	16.31	1.45
A2	352.94	A3	351.25	24" RCP	0.99	170	12.66	22.56	1.52
A4	351.60	A3	351.25	24" A2000	1.40	25	12.91	26.77	1.55
A3	351.25	A5	350.70	24" RCP	1.72	32	25.82	29.66	3.10
A5	350.70	A9	347.30	24" RCP	2.25	151	26.07	33.95	3.13
A6	347.43	A9	347.30	24" A2000	0.50	25	11.66	16.00	1.40
A7	347.59	A8	347.46	24" RCP	0.50	25	3.92	16.00	0.47
A8	347.46	A9	347.30	24" A2000	0.50	32	4.41	16.00	0.53
A9	347.30	A11	341.90	30" RCP	3.25	166	42.65	73.98	5.12
A10	344.00	A11	341.90	24" A2000	5.25	40	12.25	51.83	1.47
A11	341.90	A12	341.35	44" x 27" RCAP	1.72	32	55.48	87.44	6.66
A12	341.35	A13	340.75	42" A2000	2.00	30	99.04	142.28	11.89

STORM DRAINAGE - STRUCTURE DATA					
STRUC. NO.	STRUC. TYPE	TOP/GRATE* ELEV.	INVERT ELEV.	AREA (AC)	DESIGN Q 25-YR (CFS)
A1	PIPE END (CAPPED)	-	353.12	1.45	12.08
A2	SS-2	345.25	352.94	0.07	0.58
A4	PIPE END (CAPPED)	-	351.60	1.55	12.91
A3	SS-2	356.01	351.25	0.03	0.25
A5	SS-2	356.01	350.70	0.03	0.25
A6	PIPE END (CAPPED)	-	347.43	1.40	11.66
A7	SS-2	351.30	347.59	0.47	3.92
A8	PIPE END (CAPPED)	-	347.46	0.06	0.50
A9	SS-2	351.48	347.30	0.06	0.50
A10	FLARED END SECTION	-	344.00	1.47	12.25
A11	SS-2	347.02	341.90	0.07	0.58
A12	SS-2	347.30	341.35	0.11	0.92
A13	FLARED END SECTION	-	340.75	-	-

NOTES:

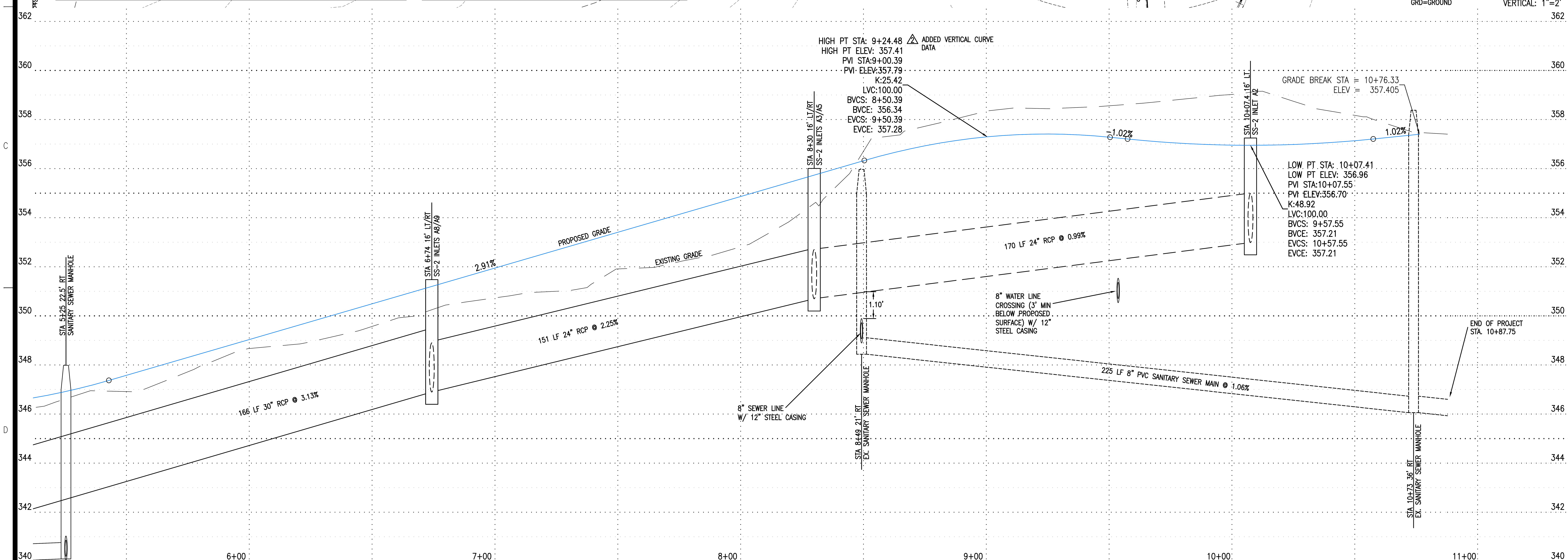
1. ALL SPOT ELEVATIONS ALONG CURBLINE ARE TOP OF CURB ELEVATION UNLESS NOTED OTHERWISE.
2. ALL ELEVATIONS SHOWN ARE TO FINISHED GRADE INCLUDING SEEDING, SOD AND PAVEMENT.

325.50 PROPOSED SPOT ELEVATION

ABBREVIATION LEGEND

PV=PAVEMENT
TR=TOP OF RAMP
BR=BOTTOM OF RAMP
TC=TOP OF CURB
BC=BOTTOM OF CURB
SW=SIDEWALK
GRD=GROUND

HORIZONTAL: 1"=20'
VERTICAL: 1"=2'



REVISIONS:

1	2/20/20	PERMIT SET COMMENTS
2	3/12/20	CONSTRUCTION SET REVISIONS

PROJECT #: 25659.00
DATE: 1-14-20
DRAWN BY: SB
DESIGNER: JJ
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Ridgeland, Mississippi

SEAL:
JONATHAN A. JOHNSON LICENSED PROFESSIONAL ENGINEER STATE OF MISSISSIPPI 01/14/20

SHEET NUMBER:
C3.1

DESCRIPTION:
Plan & Profile
Sta. 5+10–Sta. 10+88

NORTH

0 20 40 80

1 INCH = 40 FEET

PC: 0+21.41

PT: 1+82.51

PC: 9+74.86

PT: 10+67.75

EP: 10+87.75

RIP RAP OUTLET PROTECTION (TYP.)

SILT FENCE (TYP.)

SEDIMENT LOG INLET PROTECTION (TYP.)

SEDIMENT LOG INLET PROTECTION (TYP.)

TEMPORARY CONSTRUCTION ROAD (TYP.)

⚠2 UPDATED STORM DESIGN, AND NOTE 8

EROSION CONTROL NOTES:

1. THE CONTROLS SHOWN ON THIS PLAN SHALL BE CONSIDERED MINIMUM RECOMMENDATIONS REQUIRED AND THE CONTRACTOR SHALL PROVIDE ANY ADDITIONAL EROSION & SEDIMENTATION CONTROL AS NECESSARY.
2. EROSION CONTROL IS SUBJECT TO CONTRACTOR PROJECT PHASING, SCHEDULING, AND OTHER CONDITIONS THAT ONLY THE CONTRACTOR CAN CONTROL. THEREFORE THE CONTRACTOR IS RESPONSIBLE FOR ALL EROSION & SEDIMENTATION CONTROL MEANS, RECORD KEEPING, AND COMPLIANCE.
3. BEST MANAGEMENT PRACTICES SUCH AS TEMPORARY DIVERSION DITCHES, SEDIMENT BASINS, AND BERMS MAY OR MAY NOT BE SHOWN ON THIS PLAN FOR CLARITY PURPOSES. THE LOCATION AND NUMBER OF SUCH MAY VARY DEPENDING ON THE CONTRACTOR'S PHASING OF THE PROJECT. THE CONTRACTOR MUST COORDINATE WITH THE ENGINEER, OWNER, AND MDEQ TO EFFECTIVELY CONTROL SEDIMENT RUNOFF DURING CONSTRUCTION.
4. TEMPORARY SEEDING MAY BE REQUIRED IN ADDITION TO PERMANENT SEEDING TO ASSIST IN COMPLYING WITH THE CONSTRUCTION GENERAL PERMIT.
5. THE CONTRACTOR SHALL SUBMIT PHASED EROSION CONTROL PLANS TO THE ENGINEER AND OWNER FOR REVIEW IF NEEDED TO CONTROL SEDIMENT AND EROSION DURING CONSTRUCTION.
6. SEE SHEET C4.1 FOR EROSION CONTROL DETAILS AND ADDITIONAL NOTES.
7. REFER TO LANDSCAPE PLANS BY TRENT RHODES LANDSCAPE ARCHITECT, P.A. FOR PERMANENT SEEDING/SODDING LIMITS.
8. STAKE SOLID SOD REQUIRED IN DETENTION POND AREAS AND ON ALL SLOPES 3:1 OR GREATER.

LEGEND

- SEDIMENT LOG INLET PROTECTION
- SEDIMENT LOG DITCH CHECK
- SEDIMENT LOG CULVERT BARRIER
- SF — SILT FENCE
- TEMPORARY CONSTRUCTION ROAD
- RIP RAP OUTLET PROTECTION

REVISIONS:

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Ridgeland, Mississippi

SEAL:

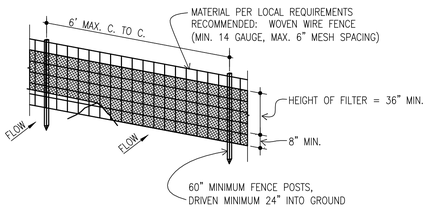
JONATHAN A. JOHNSON — LICENSED PROFESSIONAL ENGINEER — 01/14/20 — STATE OF MISSISSIPPI

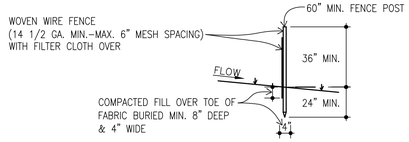
SHEET NUMBER:

C4.0

DESCRIPTION:

Erosion Control Plan





CONSTRUCTION NOTES FOR FABRICATED SILT FENCE

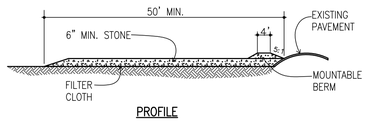
1. WOVEN WIRE FENCE TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES OR STAPLES.
2. FILTER CLOTH TO BE FASTENED SECURELY TO SILT FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID–SECTION.
3. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVERLAPPED BY (6) INCHES AND FOLDED.
4. LOCATE POSTS DOWNSLOPE OF FABRIC FOR FENCE SUPPORT.
5. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN "BULGES" DEVELOP IN THE SILT FENCE.

   POSTS: STEEL EITHER "T" OR "U" TYPE
   POSTS: LOCATED MAXIMUM 6' O. C.
   FENCE: PER LOCAL REQUIREMENTS OR WOVEN WIRE, 14 GA. 6" MAX. MESH OPENING
   FILTER CLOTH: FILTER X, MIRAFI 100X, STABI–LINKA T140N OR APPROVED EQUAL.
   PREFABRICATED UNIT: GEOFAB, ENVIROFENCE, OR APPROVED EQUAL.

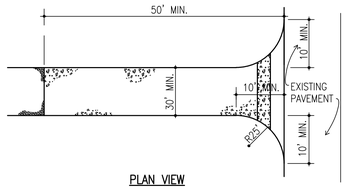
6. INDICATED ON EROSION CONTROL PLANS AS " —SF——SF— "

1 SILT FENCE EROSION PROTECTION

SCALE: NOT TO SCALE



PROFILE



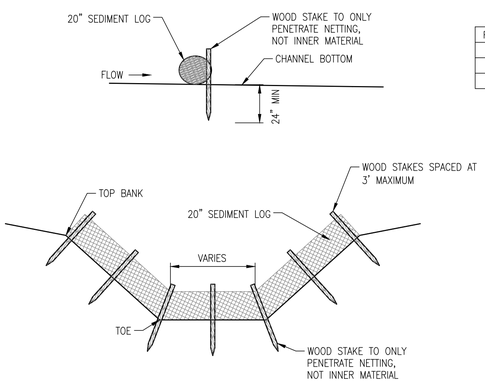
PLAN VIEW

STABILIZED CONSTRUCTION EXIT

1. STONE SIZE – USE #2 STONE, OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
2. LENGTH – AS REQUIRED, BUT NOT LESS THAN 50 FEET.
3. DEPTH – NOT LESS THAN SIX (6) INCHES.
4. WIDTH – THIRTY (30) FOOT MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS.
5. FILTER CLOTH – WILL BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
6. SURFACE WATER – ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED ACROSS THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
7. MAINTENANCE – THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS–OF–WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND AND REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT–OF–WAY MUST BE REMOVED IMMEDIATELY.
8. WASHING – WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC RIGHTS–OF–WAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
9. PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED AFTER EACH RAIN.

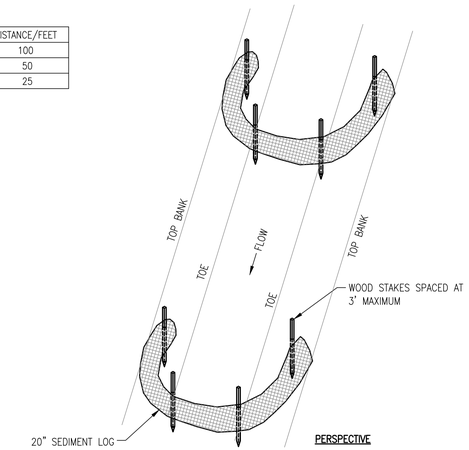
2 TEMPORARY CONSTRUCTION ROAD

SCALE: NOT TO SCALE



CROSS SECTION

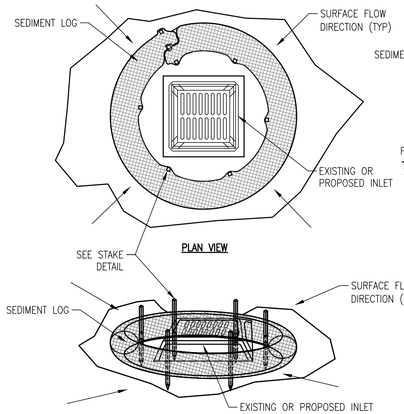
FALL OF DITCH (%)	DISTANCE/FEET
0 – 1	100
1 – 2	50
> – 2	25



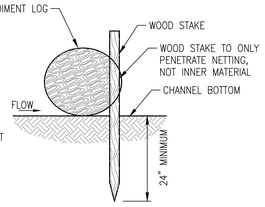
PERSPECTIVE

3 SEDIMENT LOG DITCH CHECK

SCALE: N.T.S.



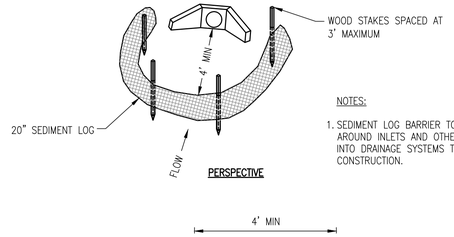
PLAN VIEW



STAKE DETAIL

4 SEDIMENT LOG INLET PROTECTION

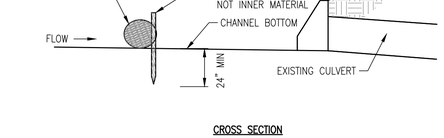
SCALE: NOT TO SCALE



NOTES:

1. SEDIMENT LOG BARRIER TO BE USED AROUND INLETS AND OTHER OPENINGS INTO DRAINAGE SYSTEMS THROUGHOUT CONSTRUCTION.

PERSPECTIVE



CROSS SECTION

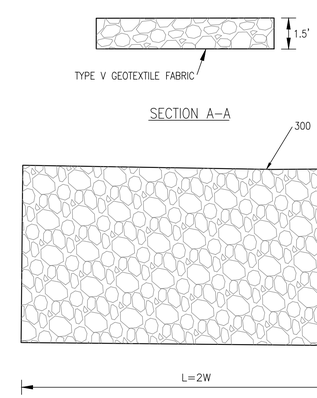
5 SEDIMENT LOG CULVERT SEDIMENT BARRIER

SCALE: N.T.S.

1. ALL NEWLY CUT AND/OR FILLED AREAS LACKING ADEQUATE VEGETATION SHALL BE SEEDED, FERTILIZED, MULCHED AND/OR SODDED AS REQUIRED TO EFFECTIVELY PREVENT SOIL EROSION. ALL SLOPES 3:1 OR STEEPER SHALL BE STABILIZED WITH PERMANENT EROSION CONTROL FABRIC APPROVED BY THE ENGINEER AND SEEDING OR SOLID SOD, STAKED IN PLACE.
2. SILT FENCES AND SEDIMENT LOGS SHALL BE USED AS SHOWN AND AS DIRECTED BY THE ENGINEER TO CONTROL SOIL EROSION.
3. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN EROSION CONTROL DURING CONSTRUCTION BY THE PLACEMENT OF SILT FENCES AND/OR SEDIMENT LOGS WHERE NECESSARY TO PREVENT DOWNSTREAM SILTATION OF ANY DITCHES, PIPES, DRAINAGE STRUCTURES, OR ADJACENT PROPERTIES. THE CONTRACTOR SHALL PROVIDE ANY ADDITIONAL EROSION CONTROL AS NECESSARY OR AS DIRECTED BY THE ENGINEER.
4. THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH THE STATE OF MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY (MDEQ) OFFICE OF POLLUTION CONTROL (OPC) STORM WATER CONSTRUCTION GENERAL PERMIT FOR ALL EROSION CONTROL DURING CONSTRUCTION ACTIVITIES.
5. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING EROSION CONTROL DEVICES AND REPORTING ANY MAINTENANCE AS REQUIRED BY THE STATE OF MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY (MDEQ) OFFICE OF POLLUTION CONTROL (OPC) STORM WATER CONSTRUCTION GENERAL PERMIT DURING CONSTRUCTION ACTIVITIES.
6. PROVISIONS SHALL BE MADE TO PROTECT DOWNSTREAM WATERCOURSES (I.E., STORM SEWER SYSTEMS, DITCHES, WETLANDS, ETC.) FROM SEDIMENT RUNOFF DEVELOPED FROM THE CONSTRUCTION PROCESS. PROVISIONS INCLUDE, BUT ARE NOT LIMITED TO, STRUCTURAL CONTROLS SUCH AS SILT FENCING, GEOTEXTILE FABRIC PROTECTION OF STORM SEWERS, SEDIMENT LOGS, DIKES AND SANDBAG BERMS; AND/OR VEGETATION CONTROLS SUCH AS SEEDING OR EXISTING VEGETATIVE BUFFER STRIPS (MINIMUM 25 FEET WIDE).
7. PRIOR TO START OF CONSTRUCTION, CONTRACTOR SHALL INSTALL EROSION AND SEDIMENTATION CONTROLS.
8. A DROP INLET SEDIMENT TRAP WITH PERIMETER SILT FENCING OR PROPERLY INSTALLED SEDIMENT LOG BARRIERS IS THE RECOMMENDED METHOD OF INLET PROTECTION. SEDIMENT WILL BE REMOVED FROM THE EXCAVATED DROP INLET SEDIMENT TRAP AND RESTORED TO THE ORIGINAL DEPTH WHEN SEDIMENT ACCUMULATION HAS REACHED HALF THE DEPTH OF THE TRAP.
9. CONTRACTOR SHALL PERFORM DAILY STREET CLEANING ON ROADS AND STREETS ADJACENT TO THE PROJECT WHICH ARE USED AS ACCESS ROUTES FOR CONSTRUCTION TRAFFIC IF DIRT AND MUD IS NOT ADEQUATELY REMOVED FROM VEHICLES AT THE STABILIZED CONSTRUCTION EXIT.
10. LOCATE FUEL/MATERIAL STORAGE AREAS AWAY FROM STORMWATER CONVEYANCE SYSTEMS. USE A MINIMUM 60 MIL POLYETHYLENE LINER UNDER ABOVE GROUND STORAGE TANKS. USE 2 FOOT HIGH BERMS AROUND FUEL STORAGE AREAS.
11. CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH ALL ENVIRONMENTAL LAWS.
12. CONTRACTOR IS RESPONSIBLE FOR DISPOSING OF FUELS, MATERIALS AND CONTAMINATED EXCAVATIONS IN A LEGALLY APPROVED MANNER.
13. CONTRACTOR SHALL INSPECT ALL STRUCTURAL CONTROLS WITHIN 24 HOURS AFTER ANY STORM EVENT THAT MEETS OR EXCEEDS 0.5 INCHES OF RAINFALL IN A 24 HOUR PERIOD. DURING PROLONGED RAINFALL EVENTS, CONTRACTOR SHALL INSPECT STRUCTURAL CONTROLS ON A DAILY BASIS. AT A MINIMUM, STRUCTURAL CONTROLS SHOULD BE INSPECTED ONCE EVERY 7 CALENDAR DAYS. A QUALIFIED REPRESENTATIVE OF THE CONTRACTOR, AS APPROVED BY THE OWNER, SHALL PROVIDE THESE INSPECTIONS. SHOULD CONTROLS BECOME INEFFECTIVE, NECESSARY REPAIRS SHALL BE PERFORMED TO RETURN THE INTEGRITY OF THE STRUCTURAL CONTROLS. REMOVE ALL SEDIMENT IF IT ACCUMULATES TO 1/3 THE HEIGHT OF THE SILT FENCE.
14. CONTRACTOR SHALL MAINTAIN, REPAIR AND/OR REPLACE DAMAGED EROSION AND SEDIMENTATION CONTROL SYSTEMS THROUGHOUT THE DURATION OF THE CONTRACT.
15. CONTRACTOR WILL PROVIDE PROTECTED STORAGE AREAS FOR CHEMICALS, PAINTS, SOLVENTS, FERTILIZERS AND OTHER POTENTIALLY TOXIC MATERIALS.
16. EQUIPMENT STAGING AREA TO BE DESIGNATED BY CONTRACTOR AND APPROVED BY OWNER PRIOR TO CONSTRUCTION.
17. THE CONTRACTOR SHALL PROVIDE ALL EROSION CONTROL NECESSARY FOR UTILITY CONSTRUCTION, EVEN IF THE UTILITIES ARE OUTSIDE THE LIMITS OF GRADING OPERATIONS.
18. THE CONTRACTOR MUST COMPLETE SITE DEVELOPMENT PERMIT AND INSTALL ALL REQUIRED EROSION CONTROL MEASURES FOR INITIAL INSPECTION PRIOR TO SITE DISTURBANCE.

6 EROSION CONTROL NOTES

SCALE: NOT TO SCALE



7 ROCK RIP-RAP @ OUTLET STRUCTURE

SCALE: N.T.S.

REVISIONS:

PROJECT #: 25659.00
DATE: 1–14–20
DRAWN BY: SB
DESIGNER: JJ
CHECKED BY: NW

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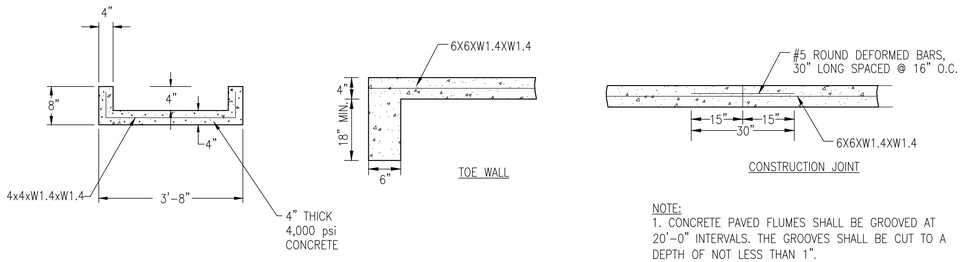
SEAL:

JONATHAN A. JOHNSON
LICENSED PROFESSIONAL ENGINEER
01/14/20
STATE OF MISSISSIPPI

SHEET NUMBER:

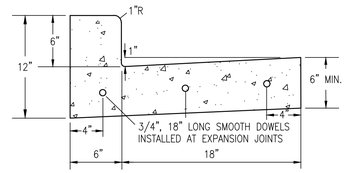
C4.1

DESCRIPTION:
Erosion Control Details



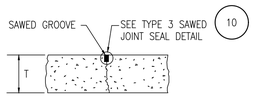
NOTE:
1. CONCRETE PAVED FLUMES SHALL BE GROOVED AT 20'-0" INTERVALS. THE GROOVES SHALL BE CUT TO A DEPTH OF NOT LESS THAN 1".
2. TOE WALL REQUIRED UPSTREAM AND DOWNSTREAM.

1 CONCRETE FLUME
SCALE: NOT TO SCALE

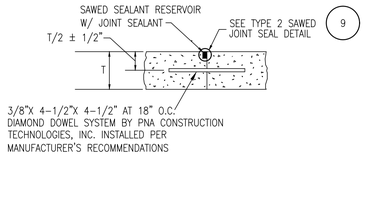


NOTE:
CONCRETE SHALL BE 4,000 PSI.

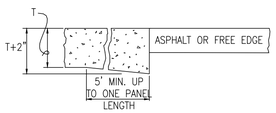
2 MODIFIED TYPE "1" COMBINATION CURB & GUTTER
SCALE: NOT TO SCALE



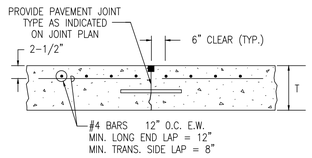
3 CONTRACTION JOINT
SCALE: NOT TO SCALE



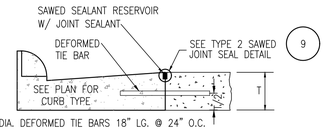
4 DOWELED CONSTRUCTION JOINT
SCALE: NOT TO SCALE



5 THICKENED EDGE
SCALE: NOT TO SCALE

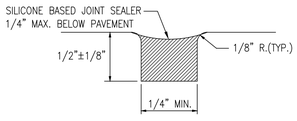


6 REINFORCED ODD PANELS
SCALE: NOT TO SCALE

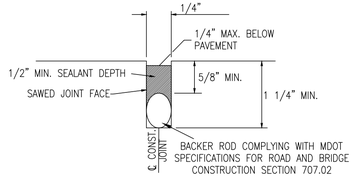


NOTES:
1. USE 1/2" DIA. DEFORMED TIE BARS 18" LG. @ 24" O.C.
2. TRANSVERSE JOINTS IN PAVEMENT TO EXTEND THROUGH CURB & GUTTER.
3. USE THIS DETAIL WHEN CURB & ADJACENT CONCRETE PAVEMENT ARE NOT POURED MONOLITHICALLY.

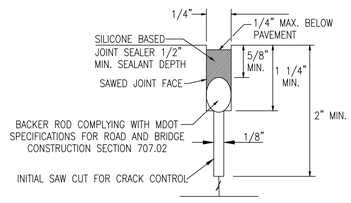
7 CURB & GUTTER CONNECTION
SCALE: NOT TO SCALE



8 JOINT SEAL- TYPE 1
SCALE: NOT TO SCALE



9 SAWED JOINT SEAL - TYPE 2
SCALE: NOT TO SCALE



10 SAWED JOINT SEAL - TYPE 3
SCALE: NOT TO SCALE

REVISIONS:

1		
2		
3		
4		
5		

PROJECT #: 25659.00
DATE: 1-14-20
DRAWN BY: SB
DESIGNER: JJ
CHECKED BY: NW

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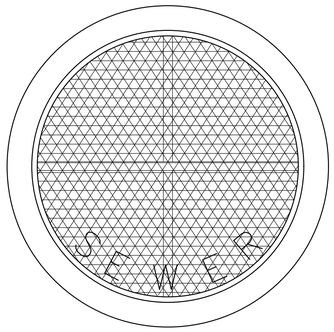
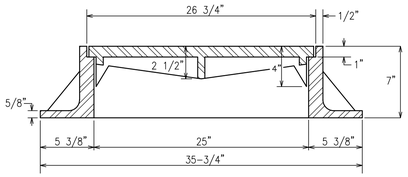
SEAL:
JONATHAN A. JOHNSON
LICENSED PROFESSIONAL ENGINEER
ENGINEER
01/14/20
STATE OF MISSISSIPPI

SHEET NUMBER:
C5.0

DESCRIPTION:
Construction Details – Site

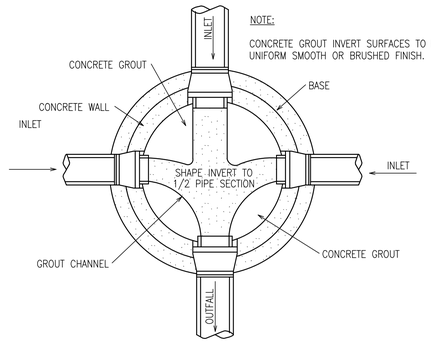
NOTE:
MANHOLE RING & COVER TO BE HEAVY DUTY
DEWS FOUNDRY DF – 25 (7) OR APPROVED EQUAL.





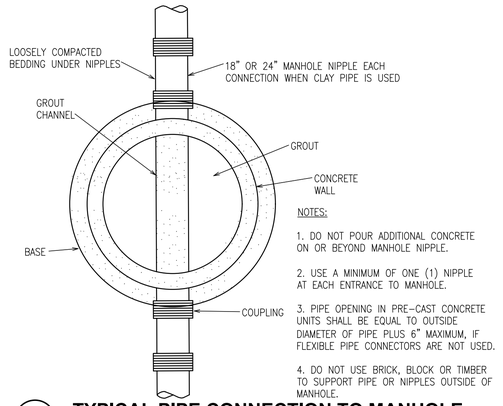
NOTES:
1. MANHOLE TOPS SHALL NOT BE LOCATED IN CURB RAMPS.
2. MANHOLE TOPS SHALL NOT BE STRADDLING ANY EDGE OF PAVEMENT, SIDEWALK, OR CURB.

1 MANHOLE CASTING DETAILS
SCALE: NOT TO SCALE



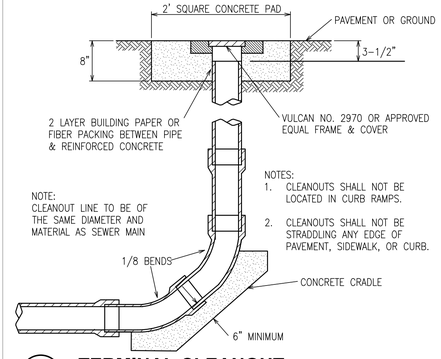
NOTE:
CONCRETE GROUT INVERT SURFACES TO HAVE UNIFORM SMOOTH OR BRUSHED FINISH.

4 MANHOLE FLOW CHANNELS DETAIL
SCALE: NOT TO SCALE



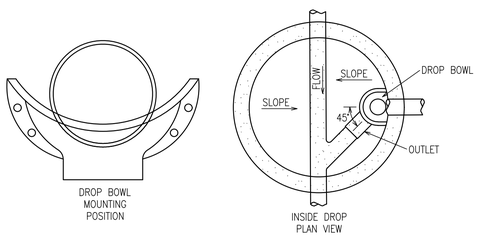
NOTES:
1. DO NOT POUR ADDITIONAL CONCRETE ON OR BEYOND MANHOLE NIPPLE.
2. USE A MINIMUM OF ONE (1) NIPPLE AT EACH ENTRANCE TO MANHOLE.
3. PIPE OPENING IN PRE-CAST CONCRETE UNITS SHALL BE EQUAL TO OUTSIDE DIAMETER OF PIPE PLUS 6" MAXIMUM, IF FLEXIBLE PIPE CONNECTORS ARE NOT USED.
4. DO NOT USE BRICK, BLOCK OR TIMBER TO SUPPORT PIPE OR NIPPLES OUTSIDE OF MANHOLE.

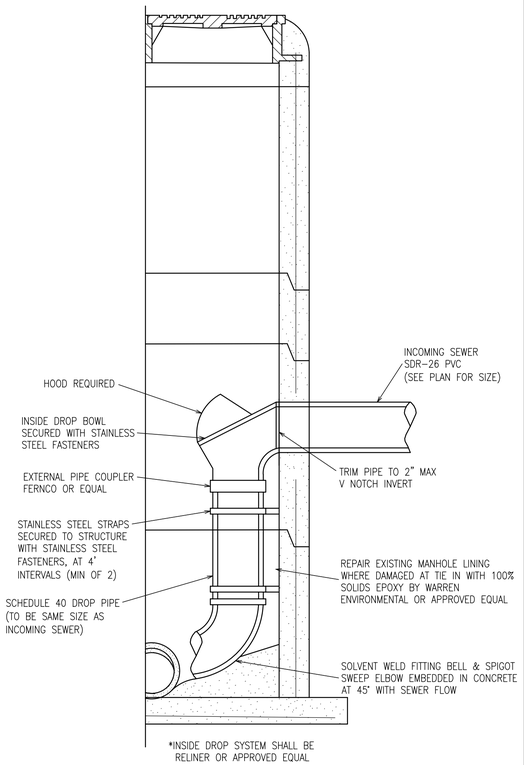
5 TYPICAL PIPE CONNECTION TO MANHOLE
SCALE: NOT TO SCALE



NOTES:
1. CLEANOUTS SHALL NOT BE LOCATED IN CURB RAMPS.
2. CLEANOUTS SHALL NOT BE STRADDLING ANY EDGE OF PAVEMENT, SIDEWALK, OR CURB.

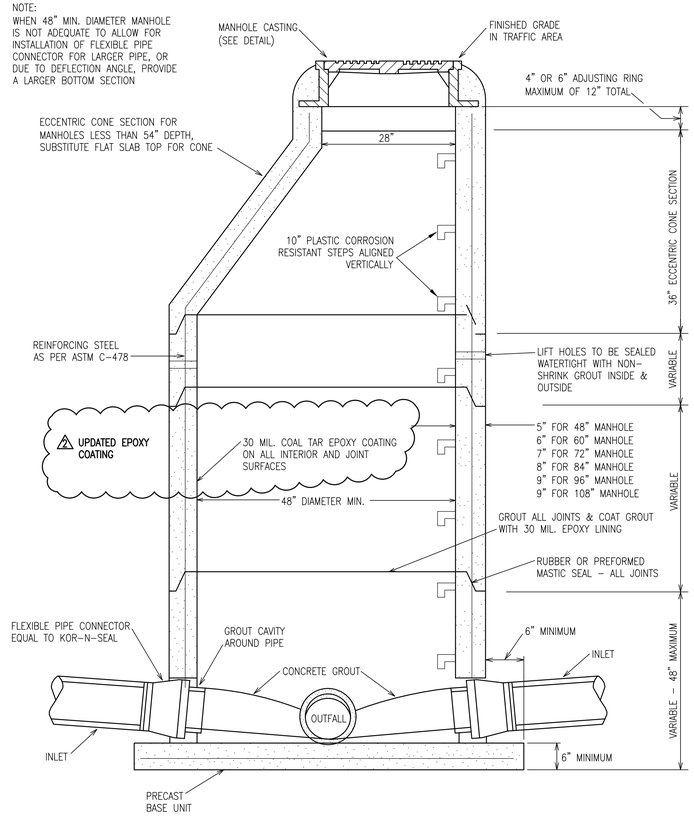
6 TERMINAL CLEANOUT
SCALE: NOT TO SCALE



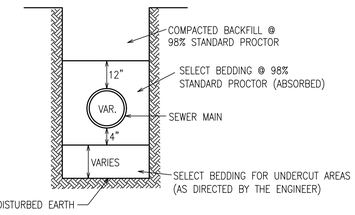


2 SECTION PRECAST CONCRETE MANHOLE WITH DROP CONNECTION
SCALE: NOT TO SCALE

NOTE:
WHEN 48" MIN. DIAMETER MANHOLE IS NOT ADEQUATE TO ALLOW FOR INSTALLATION OF FLEXIBLE PIPE CONNECTOR FOR LARGER PIPE, OR DUE TO DEFLECTION ANGLE, PROVIDE A LARGER BOTTOM SECTION

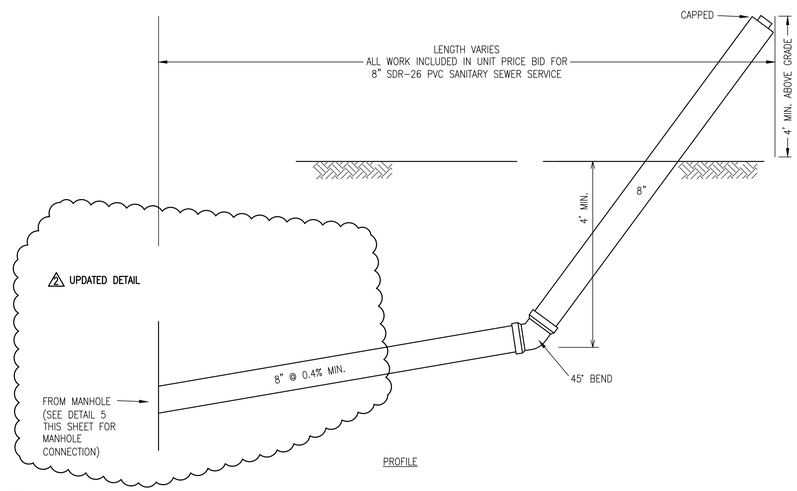


3 SECTION PRECAST CONCRETE MANHOLE
SCALE: NOT TO SCALE



NOTE:
1. SELECT MATERIAL SHALL BE USED FOR TRENCH BACKFILL WHEN NATIVE MATERIAL IS UNSUITABLE AND FOR ALL TRENCHES CONSTRUCTED IN ROADWAYS.

7 BEDDING / BACKFILL GRAVITY SEWER
SCALE: NOT TO SCALE



8 TYPICAL SERVICE CONNECTIONS
SCALE: NOT TO SCALE

REVISIONS:

1	2/20/20	PERMIT SET COMMENTS
2	3/12/20	CONSTRUCTION SET REVISIONS

PROJECT #: 25659.00
DATE: 1-14-20
DRAWN BY: SB
DESIGNER: JJ
CHECKED BY: NW

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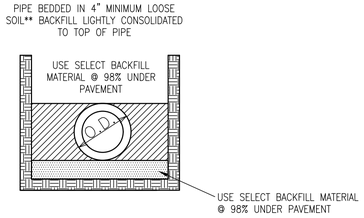
SEAL:
JONATHAN A. JOHNSON
LICENSED PROFESSIONAL ENGINEER
01/14/20
STATE OF MISSISSIPPI

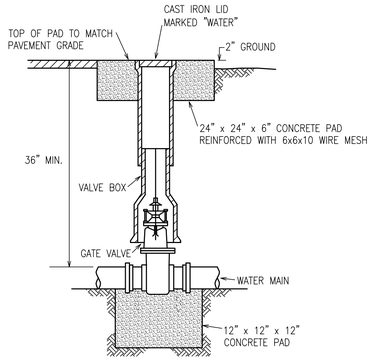
SHEET NUMBER:
C5.1

DESCRIPTION:
Construction Details – Sanitary Sewer



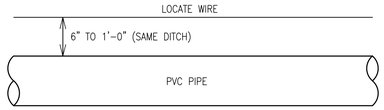
* "FLAT-BOTTOM" IS DEFINED AS UNDISTURBED EARTH.
** "LOOSE SOIL" IS DEFINED AS NATIVE SOIL EXCAVATED FROM THE TRENCH, FREE OF ROCKS, FOREIGN MATERIAL, AND FROZEN EARTH

1 BEDDING / BACKFILL-PVC WATER
SCALE: NOT TO SCALE



2 GATE VALVE
SCALE: NOT TO SCALE

CCS HIGH STRENGTH SOFT DRAWN 600# DIRECT BURIAL #10 AWG SOLID (.1019 INCHES DIAMETER) 10 (AWG) 45 (JACKET MIL) BLUE 10 AWG SOLID HS-CCS TRACER WIRE 45 MIL. HDPE DIRECT BURIAL ONLY



NOTES:
1. TRACER WIRE REQ'D. ON ALL PRESSURIZED LINES 1-1/2" OR GREATER.

2. LOCATE WIRE TO HAVE A LOCATE STUB-OUT WIRE AT 300 FEET MAX.

3. ALL LOCATE WIRE TO HAVE A 3M UNDERGROUND WATER CONNECTION.

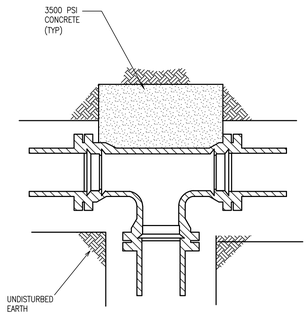
3. TRACER WIRE SIGNAL SHALL BE TESTED AFTER INSTALLATION AND REPAIRED AS NEEDED.

3 TRACER WIRE DETAIL
SCALE: NOT TO SCALE

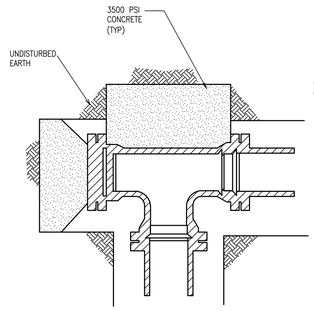
BEARING AREA IN SQ. FT.

NOMINAL PIPE DIAMETER (IN)	DEAD-END OR TEE	90° BEND	45° BEND	22-1/2° BEND	11-1/4° BEND
4	2.0	2.0	2.0	2.0	2.0
6	2.0	2.0	2.0	2.0	2.0
8	3.0	3.0	2.0	2.0	2.0
12	5.0	5.0	4.0	3.0	3.0
16	8.0	12.0	6.0	4.0	4.0
4	———	——	6.0 (.22)	4.0(.15)	4.0(.15)
6	———	——	14.0(.52)	6.0 (.22)	4.0 (.15
8	———	——	27.0(1.0)	9.0(.33)	6.0(.22))
12	———	——	68.0(2.5)	22.0(.80)	9.0(.33)
16	———	——	90.0 (3.33)	52.0(1.9)	18.0(.67)
VOLUME OF BLOCKS INCLUDING SOIL LOAD CU. FT. (CU. YDS.)					

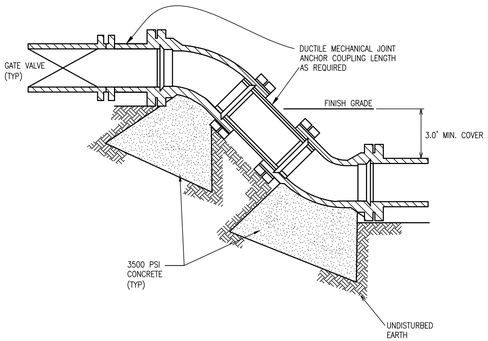
NOTE: MEGA LUGS REQUIRED AT ALL LOCATIONS WITH THRUST BLOCKING AS MANUFACTURED BY EBBA, OR APPROVED EQUAL



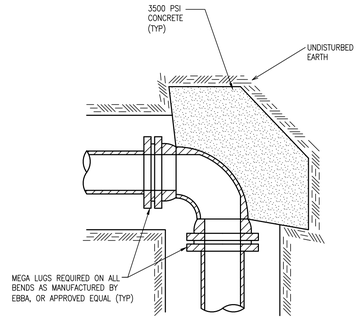
TEE



PLUGGED TEE



VERTICAL BENDS

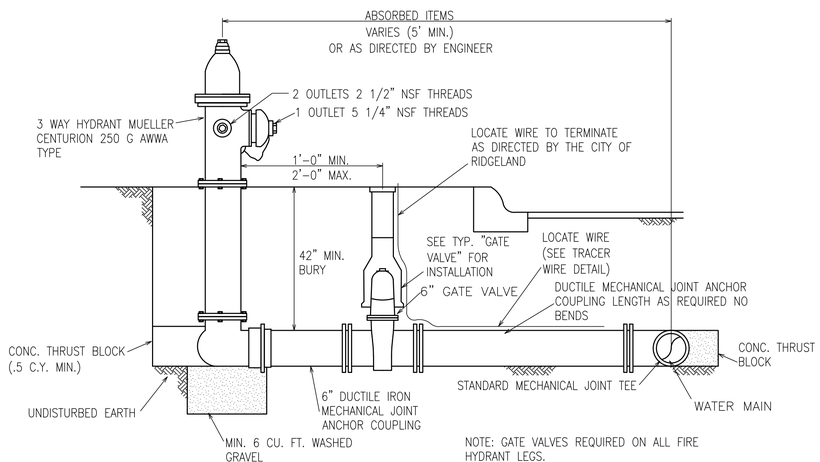


90° BEND

NOTE:
1. COMPENSATION FOR CONCRETE THRUST BLOCKING SHALL BE INCLUDED IN THE UNIT PRICE BID FOR VALVES, FIRE HYDRANTS AND FITTINGS.

2. ANCHOR COUPLINGS REQUIRED ON VALVES, FIRE HYDRANTS, & FITTING CONNECTIONS. COMPENSATION SHALL BE INCLUDED IN THE UNIT PRICE BID FOR VALVES, FIRE HYDRANTS AND FITTINGS.

4 TYPICAL BLOCKING ON WATER MAIN
SCALE: NOT TO SCALE



NOTE: GATE VALVES REQUIRED ON ALL FIRE HYDRANT LEGS.

5 FIRE HYDRANT ASSEMBLY
SCALE: NOT TO SCALE

1. MEGALUG MECHANICAL JOINT RESTRAINTS ON ALL MECHANICAL JOINTS.

2. PROVIDE NO. 10 SOLID COPPER TRACER WIRE (INSULATED) ON WATER MAINS, FIRE HYDRANT LEGS, AND SERVICES. STUB UP AT ALL FIRE HYDRANTS, MAIN LINE VALVES, AND TEST STATIONS AS REQUIRED. REFER TO DETAIL 4 ON THIS SHEET.

REVISIONS:

PROJECT #: 25659.00
DATE: 1-14-20
DRAWN BY: SB
DESIGNER: JJ
CHECKED BY: NW

Pickering
Pickering Firm, Inc.
Facility Design • Civil Engineering • Surveying •
Transportation • Natural / Water Resources
2001 Airport Road, Suite 201
Flowood, MS 39232
601.956.3863

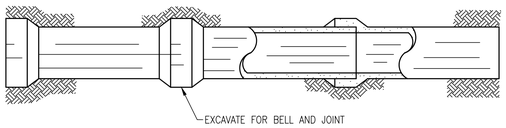
New Pointe Drive
Southern Extension
Ridgeland, Mississippi

SEAL:

SHEET NUMBER:

C5.2

DESCRIPTION:
Construction Details – Water



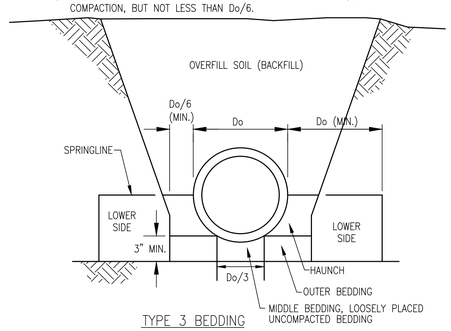
1. ALL ROUND REINFORCED CONCRETE STORM PIPES TO HAVE RUBBER GASKETS AND FILTER FABRIC TYPE V WRAPPED AT ALL JOINTS FOR FULL CIRCUMFERENCE OF PIPE WITH 18"–24" OVERLAP.
2. ALL ARCHED REINFORCED CONCRETE PIPE TO HAVE MASTIC AND FILTER FABRIC WRAPPED AT ALL JOINTS FOR FULL CIRCUMFERENCE OF PIPE WITH 18"–24" OVERLAP.
3. USE POPIT PLUG WITH TAR AND SQUARE TOP FILTER FABRIC TO COVER LIFTING HOLES.

1 STORM SEWER CONSTRUCTION
SCALE: NOT TO SCALE

NOTES:

1. BEDDING AND BACKFILL DETAILS ARE PER THE RECOMMENDATIONS OF THE AMERICAN CONCRETE PIPE ASSOCIATION.
2. HAUNCH, OUTER BEDDING, LOWER SIDE, AND OVERFILL SOIL SHALL BE:

   CATEGORY I (GRAVELLY SAND) COMPACTED TO 85% STANDARD PROCTOR, CATEGORY II (SANDY SILT) COMPACTED TO 90% STANDARD PROCTOR, OR CATEGORY III (SILTY CLAY) COMPACTED TO 95% STANDARD PROCTOR.
3. SOIL CATEGORIES I, II, AND III ARE AS DEFINED BY THE AMERICAN CONCRETE PIPE ASSOCIATION.
4. RUBBER GASKET JOINTS REQUIRED.
5. CLEARANCE BETWEEN PIPE AND TRENCH WALL SHALL BE ADEQUATE TO ENABLE SPECIFIC COMPACTION, BUT NOT LESS THAN Do/6.

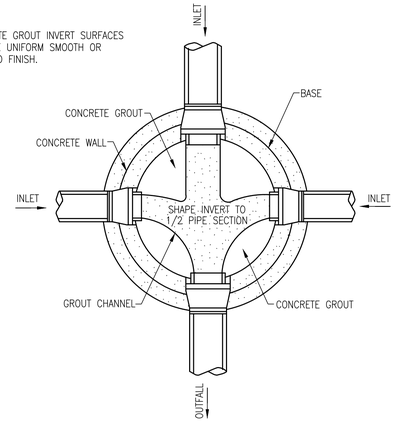


TYPE 3 BEDDING

2 CONCRETE PIPE BEDDING / BACKFILL
SCALE: N.T.S.

NOTE:

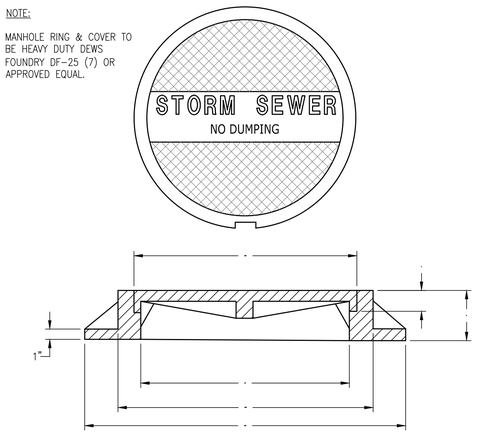
CONCRETE GROUT INVERT SURFACES TO HAVE UNIFORM SMOOTH OR BRUSHED FINISH.



3 MANHOLE FLOW CHANNELS
SCALE: NOT TO SCALE

NOTE:

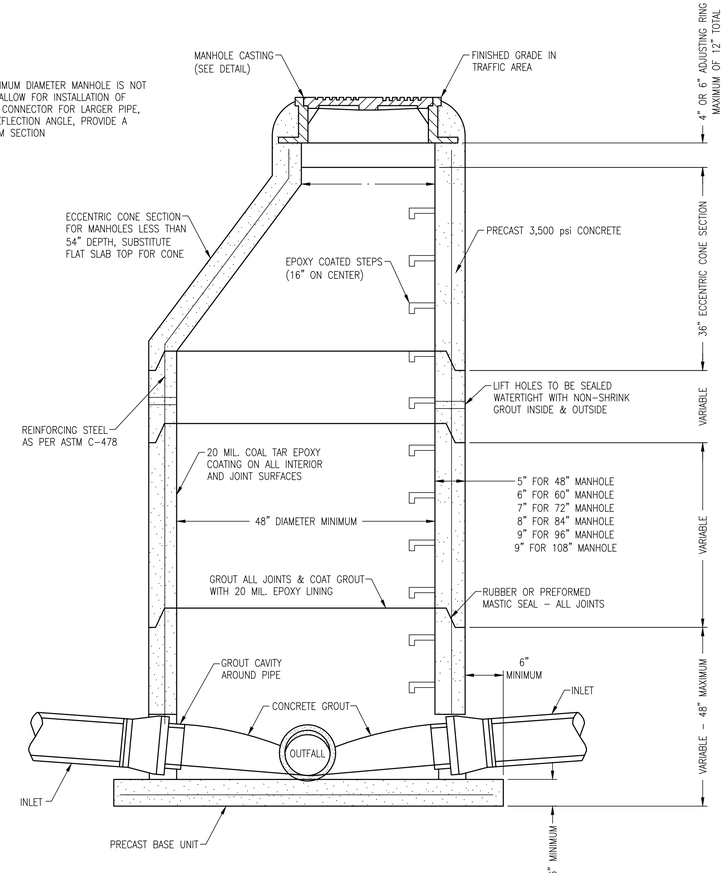
MANHOLE RING & COVER TO BE HEAVY DUTY DEWS FOUNDRY DF–25 (7) OR APPROVED EQUAL.



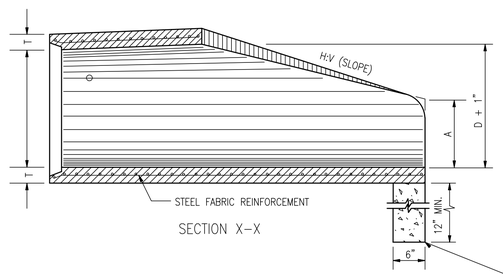
4 MANHOLE CASTING
SCALE: NOT TO SCALE

NOTE:

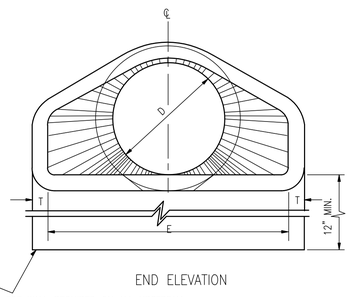
WHEN 48" MINIMUM DIAMETER MANHOLE IS NOT ADEQUATE TO ALLOW FOR INSTALLATION OF FLEXIBLE PIPE CONNECTOR FOR LARGER PIPE, OR DUE TO DEFLECTION ANGLE, PROVIDE A LARGER BOTTOM SECTION



5 DRAINAGE MANHOLE
SCALE: NOT TO SCALE



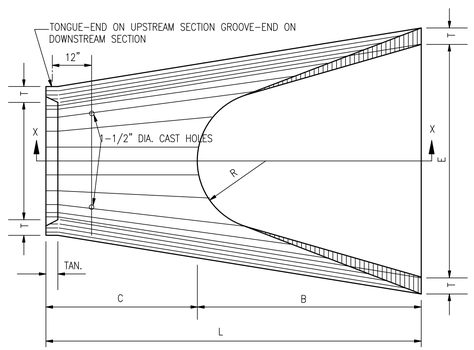
SECTION X–X



END ELEVATION

BELL AND SPIGOT END OPTION

NOTE: BELL–END ON DOWNSTREAM SECTION SPIGOT–END ON UPSTREAM SECTION.



PLAN OF DOWNSTREAM END

TABLE OF DIMENSIONS							
D	T	H:V	A	B	C	E	L
15"	2 1/4 "	3:1	6"	2'–3"	4'–1"	2'–8"	6'–1"
18"	2 1/2 "	3:1	9"	2'–3"	3'–10"	3'–0"	6'–1"
24"	3"	3:1	10"	3'–8"	2'–6"	4'–0"	6'–2"
30"	3 1/2 "	3:1	1'–0"	4'–6"	1'–8"	5'–0"	6'–2"
36"	4"	3:1	1'–3"	5'–3"	2'–11"	6'–0"	8'–2"
42"	4 1/2 "	3:1	1'–9"	5'–3"	2'–11"	6'–6"	8'–2"
48"	5"	3:1	2'–0"	6'–0"	2'–2"	7'–0"	8'–2"
54"	5 1/2 "	3:1	2'–4"	6'–6"	1'–10"	7'–6"	8'–4"
* 60"	6"	3:1	2'–10"	6'–6"	1'–10"	8'–0"	8'–4"
* 66"	6 1/2 "	3:1	3'–4"	6'–6"	1'–10"	8'–6"	8'–4"
* 72"	7"	3:1	3'–10"	6'–6"	1'–10"	9'–0"	8'–4"

* NOTE: SEE GENERAL NOTE 2.

GENERAL NOTES:

1. REINFORCEMENT SHALL CONFORM TO THE REQUIREMENTS OF REINFORCED CONCRETE PIPE OF LIKE DIAMETER PER AASHTO M 170, TABLE 2, WALL B.
2. LENGTH (L) OF A BELL–END OPTION MAY VARY BY A NOMINAL EXTENSION ON THE BELL END.
3. ALL SIZES OF FLARED END SECTIONS FOR CIRCULAR CONCRETE PIPE MAY BE FURNISHED WITH EITHER BELL AND SPIGOT OR TONGUE AND GROOVE ENDS.

6 FLARED END SECTION - CONCRETE PIPE
SCALE: NOT TO SCALE

REVISIONS:

PROJECT #: 25659.00
DATE: 1–14–20
DRAWN BY: SB
DESIGNER: JJ
CHECKED BY: NW

Pickering
Pickering Firm, Inc.
Facility Design • Civil Engineering • Surveying • Transportation • Natural / Water Resources
2001 Airport Road, Suite 201
Flowood, MS 39232
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New Pointe Drive
Southern Extension
Ridgeland, Mississippi

SEAL:

JONATHAN A. JOHNSON LICENSED PROFESSIONAL ENGINEER 01/14/20 STATE OF MISSISSIPPI

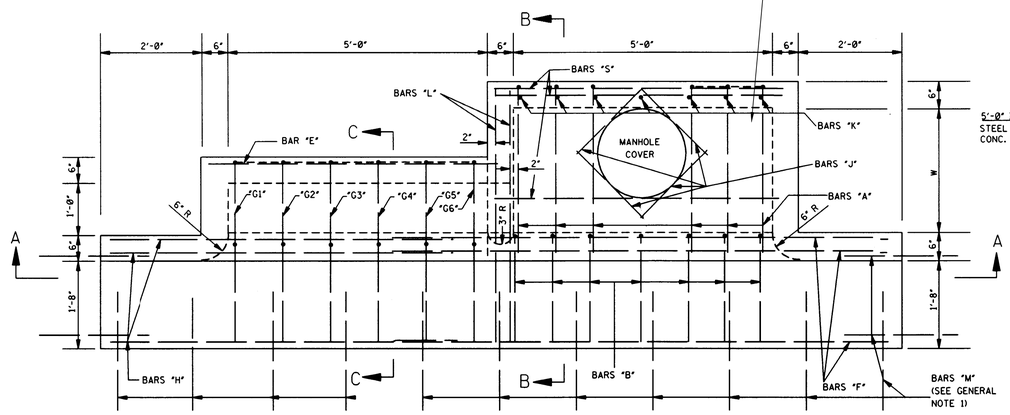
SHEET NUMBER:

C5.3

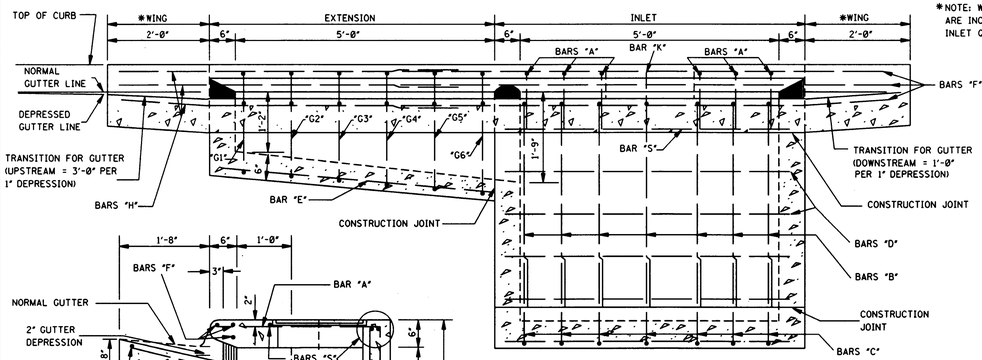
DESCRIPTION:
Construction Details – Storm Sewer

STATE	PROJECT NO.
MISS.	

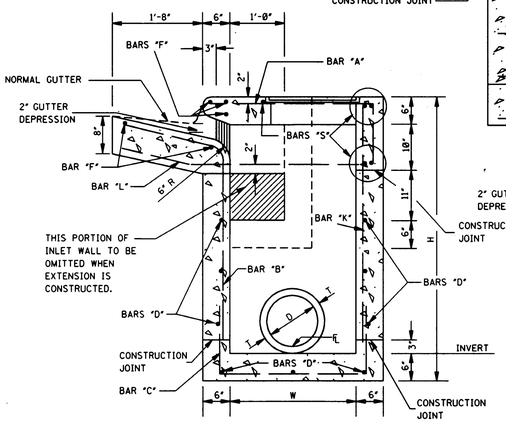
ADD "NO DUMPING DRAINS TO RIVER" SEAL TO INLET TOP



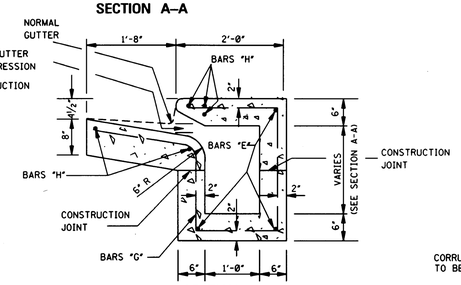
PLAN



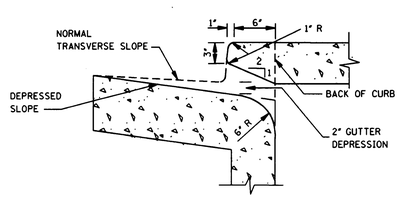
SECTION A–A



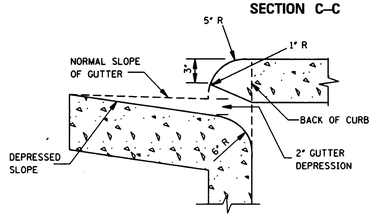
SECTION B–B



SECTION C–C

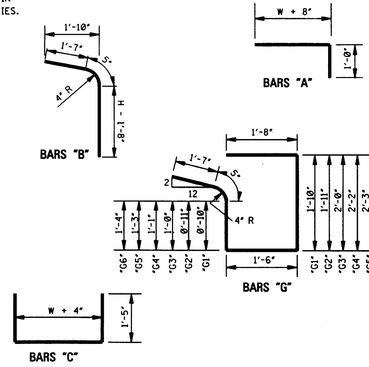


THROAT DETAIL OF BARRIER CURB



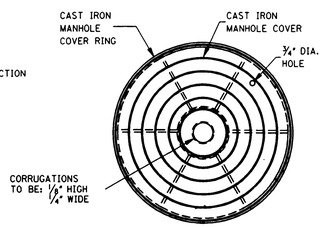
THROAT DETAIL OF ROLLED CURB

*NOTE: WING QUANTITIES ARE INCLUDED IN INLET QUANTITIES.

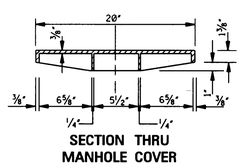


BAR DETAILS

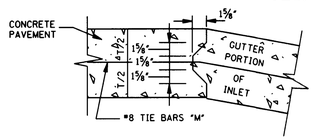
BAR "G" SCHEDULE	
BAR "G"	LENGTH
"G1"	7'-10"
"G2"	8'-0"
"G3"	8'-2"
"G4"	8'-5"
"G5"	8'-8"
"G6"	8'-10"



PLAN

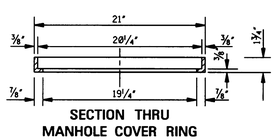


SECTION THRU MANHOLE COVER



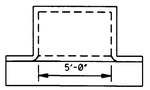
DETAIL OF KEYED CONSTRUCTION JOINTS

NOTE: FIELD BEND BARS 'L' TO CENTER OF GUTTER SECTION



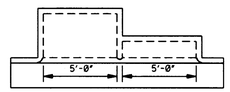
SECTION THRU MANHOLE COVER RING

NOTE: WEIGHT OF RING & COVER = 79 lbs



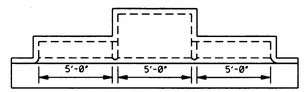
REGULAR INLET

5'-0" INLET
STEEL = 8.68W + 9.35Y + 3.79W' + 7.57H' + 121
CONC. = (WY + 5.5W + 6Y + 14.611)/27



INLET WITH ONE EXTENSION

10'-0" INLET
STEEL = 8.68W + 9.35Y + 3.79W' + 7.57H' + 231
CONC. = (WY + 5.5W + 6Y + 38.641)/27



INLET WITH TWO EXTENSIONS

15'-0" INLET
STEEL = 8.68W + 9.35Y +3.79W' + 7.57H' +341
CONC = (WY + 5.5W + 6Y + 62.671)/27

NOTES:
1. W AND H ARE EXPRESSED IN DECIMAL FEET.
2. W' = W ROUNDED TO NEAREST WHOLE FOOT.
3. Y = (H-0.5).
4. H'= (H - 2.08) ROUNDED TO NEAREST WHOLE FOOT.
5. NO DEDUCTIONS ARE MADE FOR PIPE OPENINGS IN FORMULAS.

PLAN OF INLET AND EXTENSIONS

ADD. CONCRETE PER FOOT OF H		ADD. CONCRETE PER FOOT OF W	
W	yd³/ft	H	yd³/ft
2'-6"	0.315	3'-6"	0.315
3'-0"	0.333	4'-0"	0.333
3'-6"	0.352	4'-6"	0.352
4'-0"	0.371	5'-0"	0.370
4'-6"	0.389	5'-6"	0.389
5'-0"	0.408	6'-0"	0.408
5'-6"	0.426	6'-6"	0.426
6'-0"	0.445	7'-0"	0.445
6'-6"	0.463	7'-6"	0.463
7'-0"	0.481	8'-0"	0.482
		8'-6"	0.500

QUANTITIES FOR ONE EXTENSION					
BAR	SIZE	LENGTH	SPACING	NUMBER	WEIGHT
"E"	#4	5'-8"	AS SHOWN	3	11
"G"	#4	SEE SCHEDULE	0'-11"	6	34
"H"	#6	6'-9"	AS SHOWN	5	51
"L"	#6	4'-9"	AS SHOWN	2	14
TOTAL STEEL FOR ONE EXTENSION = 110 lbs					
TOTAL CONCRETE FOR ONE EXTENSION = 0.89 yd³					

NOTE: WHERE EXTENSION IS USED WITH CONCRETE PAVEMENT, ADD 27 lbs OF STEEL FOR BARS "M".

W=2'-6"	BILL OF REINFORCING STEEL FOR 1-5'-0" INLET																	
H	BAR "A" L = 4'-2" #4 @ 9"		BAR "C" L = 5'-8" #4 @ 9"		BAR "S" L = 5'-8" #4 @ 12"		BAR "D" L = 5'-8" #4 @ 12"±		BAR "F" L=9'-8" #6		BAR "J" L=2'-3" #4		BAR "B" #4 @ 9"			BAR "K" #4 @ 9"±		*TOTAL STEEL	TOTAL CONC.
	NO.	lbs	NO.	lbs	NO.	lbs	NO.	lbs	NO.	lbs	NO.	lbs	LGTH.	NO.	lbs	LGTH.	NO.	lbs	lbs	yd³
3'-6"	6	17	7	27	5	19	5	19	5	73	4	6	3'-10"	7	18	2'-7"	7	12	190	1.99
4'-0"	6	17	7	27	5	19	7	26	5	73	4	6	4'-4"	7	20	3'-1"	7	14	202	2.15
4'-6"	6	17	7	27	5	19	7	26	5	73	4	6	4'-10"	7	23	3'-7"	7	17	207	2.31
5'-0"	6	17	7	27	5	19	9	34	5	73	4	6	5'-4"	7	25	4'-1"	7	19	219	2.47
5'-6"	6	17	7	27	5	19	9	34	5	73	4	6	5'-10"	7	27	4'-7"	7	21	224	2.62
6'-0"	6	17	7	27	5	19	11	42	5	73	4	6	6'-4"	7	30	5'-1"	7	24	238	2.78
6'-6"	6	17	7	27	5	19	11	42	5	73	4	6	6'-10"	7	32	5'-7"	7	26	240	2.94
7'-0"	6	17	7	27	5	19	13	49	5	73	4	6	7'-4"	7	34	6'-1"	7	28	253	3.10
7'-6"	6	17	7	27	5	19	13	49	5	73	4	6	7'-10"	7	37	6'-7"	7	31	257	3.25

W=3'-0"	BILL OF REINFORCING STEEL FOR 1-5'-0" INLET																			
H	BAR "A" L = 4'-8" #4 @ 9"		BAR "C" L = 6'-2" #4 @ 9"		BAR "S" L = 5'-8" #4 @ 12"		BAR "D" L = 5'-8" #4 @ 12"±		BAR "F" L=9'-8" #6		BAR "J" L=2'-3" #4		BAR "B" #4 @ 9"			BAR "K" #4 @ 9"±			*TOTAL STEEL	TOTAL CONC.
	NO.	lbs	NO.	lbs	NO.	lbs	NO.	lbs	NO.	lbs	NO.	lbs	LGTH.	NO.	lbs	LGTH.	NO.	lbs		lbs	yd³
3'-6"	6	19	7	29	5	19	5	19	5	73	4	6	3'-10"	7	18	2'-7"	7	12		194	2.15
4'-0"	6	19	7	29	5	19	7	26	5	73	4	6	4'-4"	7	20	3'-1"	7	14		206	2.32
4'-6"	6	19	7	29	5	19	7	26	5	73	4	6	4'-10"	7	23	3'-7"	7	17		211	2.49
5'-0"	6	19	7	29	5	19	9	34	5	73	4	6	5'-4"	7	25	4'-1"	7	19		223	2.65
5'-6"	6	19	7	29	5	19	9	34	5	73	4	6	5'-10"	7	27	4'-7"	7	21		228	2.82
6'-0"	6	19	7	29	5	19	11	42	5	73	4	6	6'-4"	7	30	5'-1"	7	24		240	2.99
6'-6"	6	19	7	29	5	19	11	42	5	73	4	6	6'-10"	7	32	5'-7"	7	26		245	3.15
7'-0"	6	19	7	29	5	19	13	49	5	73	4	6	7'-4"	7	34	6'-1"	7	28		257	3.32
7'-6"	6	19	7	29	5	19	13	49	5	73	4	6	7'-10"	7	37	6'-7"	7	31		262	3.49

W=3'-6"	BILL OF REINFORCING STEEL FOR 1-5'-0" INLET																			
H	BAR "A" L = 5'-2" #4 @ 9"		BAR "C" L = 6'-8" #4 @ 9"		BAR "S" L = 5'-8" #4 @ 12"		BAR "D" L = 5'-8" #4 @ 12"±		BAR "F" L=9'-8" #6		BAR "J" L=2'-3" #4		BAR "B" #4 @ 9"			BAR "K" #4 @ 9"±			*TOTAL STEEL	TOTAL CONC.
	NO.	lbs	NO.	lbs	NO.	lbs	NO.	lbs	NO.	lbs	NO.	lbs	LGTH.	NO.	lbs	LGTH.	NO.	lbs		lbs	yd³
3'-6"	6	21	7	31	5	19	6	23	5	73	4	6	3'-10"	7	18	2'-7"	7	12		202	2.31
4'-0"	6	21	7	31	5	19	8	30	5	73	4	6	4'-4"	7	20	3'-1"	7	14		214	2.49
4'-6"	6	21	7	31	5	19	8	30	5	73	4	6	4'-10"	7	23	3'-7"	7	17		219	2.66
5'-0"	6	21	7	31	5	19	10	38	5	73	4	6	5'-4"	7	25	4'-1"	7	19		231	2.84
5'-6"	6	21	7	31	5	19	10	38	5	73	4	6	5'-10"	7	27	4'-7"	7	21		236	3.01
6'-0"	6	21	7	31	5	19	12	45	5	73	4	6	6'-4"	7	30	5'-1"	7	24		248	3.19
6'-6"	6	21	7	31	5	19	12	45	5	73	4	6	6'-10"	7	32	5'-7"	7	26		253	3.37
7'-0"	6	21	7	31	5	19	14	53	5	73	4	6	7'-4"	7	34	6'-1"	7	28		265	3.54
7'-6"	6	21	7	31	5	19	14	53	5	73	4	6	7'-10"	7	37	6'-7"	7	31		270	3.72

* NOTE: WHERE INLET IS USED WITH CONCRETE PAVEMENT, ADD 73 lbs OF STEEL FOR BARS "M".

GENERAL NOTES:

1. WHERE INLET OR INLET WITH EXTENSION(S) IS USED WITH CONCRETE PAVEMENT WITH INTERGRAL CURB, THE PAVEMENT IS TO BE BLOCKED OUT TO THE DIMENSIONS AS SHOWN FOR THE GUTTER PORTION OF THE INLET OR INLET WITH EXTENSION(S). THE PORTION BLOCKED OUT SHALL BE PLACED INTEGRAL WITH THE TOP OF THE INLET OR INLET WITH EXTENSION(S). #8 DEFORMED BARS 30" LONG SHALL BE PLACED ON 18" CENTERS AT THE CENTER OF THE PAVEMENT. THESE BARS SHALL EXTEND INTO THE GUTTER PORTION OF THE INLET OR INLET WITH EXTENSION(S) 15". THE CONSTRUCTION JOINT BETWEEN THE CONCRETE PAVEMENT AND THE INLET OR INLET WITH EXTENSION(S) SHALL BE A KEYED JOINT AS SHOWN. A SMOOTH CONSTRUCTION JOINT WILL NOT BE PERMITTED. QUANTITIES FOR BLOCKED OUT AREA OF PAVEMENT SHALL BE INCLUDED IN QUANTITIES FOR INLET OR INLET WITH EXTENSION(S).
2. THE STANDARD SPECIFICATIONS ADOPTED BY THE MISSISSIPPI DEPARTMENT OF TRANSPORTATION SHALL APPLY TO ALL ITEMS ON THIS SHEET.
3. THE QUANTITIES SHOWN, MINUS VOLUMETRIC DISPLACEMENT OF CONCRETE BY PIPE CULVERTS THROUGH INLET WALLS, WILL BE USED AS THE BASIS OF FINAL PAYMENT UNLESS THIS PLAN IS MODIFIED.
4. FOR CONVENIENCE, DEPTHS OF INLETS SHOWN IN ABOVE TABLE ARE INCREMENTS OF 6". BUT ANY DEPTHS OTHER THAN THESE SHOWN MAY BE USED WHEREVER DEEMED NECESSARY. QUANTITIES FOR OTHER DEPTHS, FALLING WITHIN THE LIMITS OF THE TABLE, MAY BE FOUND BY INTERPOLATION.
5. FIELD CUT AND BEND BARS AS NECESSARY TO ACCOMMODATE STORM SEWER. NO DEDUCTIONS ARE TO BE MADE IN STEEL QUANTITIES.

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

STORM SEWER STRUCTURE TYPE SS-2

BY | REVISION | DATE

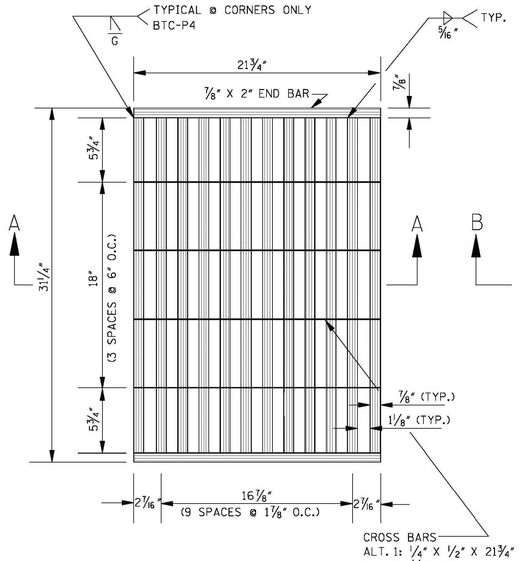
ISSUE DATE: OCTOBER 1, 1998

ENGLISH

WORKING NUMBER SS-2

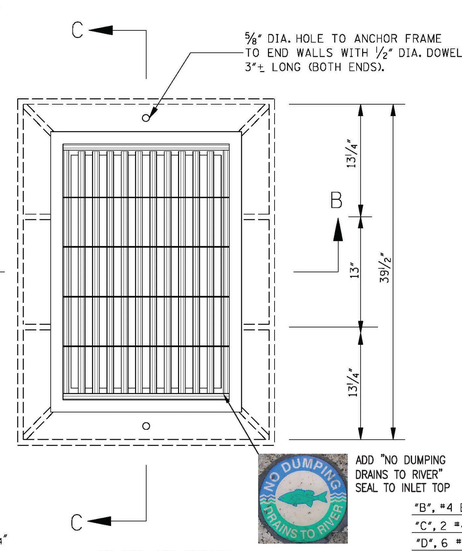
SHEET NUMBER 322

STATE	PROJECT NO.
MISS.	

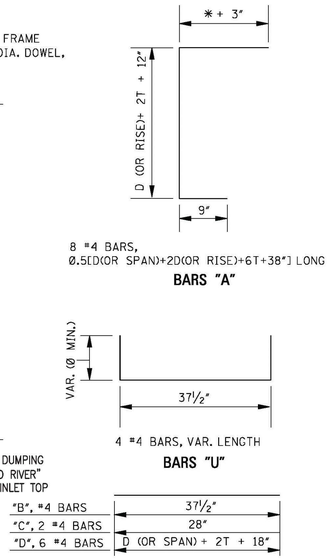


PLAN OF GRATE NO.1

NOTE: FOR OTHER GRATE DETAILS SEE SHEET IG-2.



PLAN OF INLET



BAR DETAILS

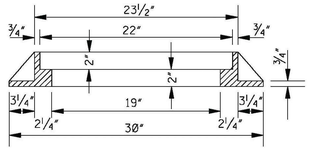
*NOTE:

$$* \left[\frac{D \text{ (OR SPAN)} + 2T - 10''}{2} \right]$$

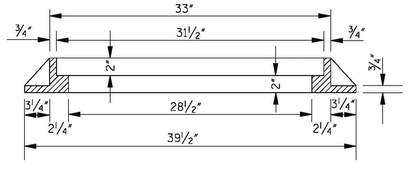
QUANTITIES

PIPE SIZE	MIN. DEPTH TO F.L.	MIN. DEPTH INLET		PIPE OPENING DEDUCTION (yd^3)	T	BARS/SIZES				
		CONC. (yd^3)	STEEL (lbs)			"A" / #4	"B" / #4	"C" / #4	"D" / #4	"U" / #4
						NO. @ LGTH.	NO. @ LGTH.	NO. @ LGTH.	NO. @ LGTH.	NO. @ LGTH.
18"	2.792'	0.869	76	0.053	2 1/2"	8 @ 4'-5 1/2"	12 @ 3'- 1 1/2"	2 @ 2'-4"	6 @ 3'-5"	4 @ 3'-9 1/2"
24"	3.334'	1.117	87	0.091	3"	8 @ 5'-4"	14 @ 3'- 1 1/2"	2 @ 2'-4"	6 @ 4'-0"	4 @ 3'-9 1/2"
30"	3.875'	1.385	94	0.138	3 1/2"	8 @ 6'-2 1/2"	14 @ 3'- 1 1/2"	2 @ 2'-4"	6 @ 4'-7"	4 @ 3'-9 1/2"
36"	4.417'	1.671	105	0.196	4"	8 @ 7'-1"	16 @ 3'- 1 1/2"	2 @ 2'-4"	6 @ 5'-2"	4 @ 3'-9 1/2"
42"	4.959'	1.978	116	0.263	4 1/2"	8 @ 7'-11 1/2"	18 @ 3'- 1 1/2"	2 @ 2'-4"	6 @ 5'-9"	4 @ 3'-9 1/2"
48"	5.500'	2.305	123	0.340	5"	8 @ 8'-10"	18 @ 3'- 1 1/2"	2 @ 2'-4"	6 @ 6'-4"	4 @ 3'-9 1/2"
54"	6.042'	2.650	135	0.427	5 1/2"	8 @ 9'-8 1/2"	20 @ 3'- 1 1/2"	2 @ 2'-4"	6 @ 6'-11"	4 @ 3'-9 1/2"
60"	6.583'	3.016	146	0.524	6"	8 @ 10'-7"	22 @ 3'- 1 1/2"	2 @ 2'-4"	6 @ 7'-6"	4 @ 3'-9 1/2"
66"	7.125'	3.402	153	0.630	6 1/2"	8 @ 11'-5 1/2"	22 @ 3'- 1 1/2"	2 @ 2'-4"	6 @ 8'-1"	4 @ 3'-9 1/2"
72"	7.667'	3.806	164	0.747	7"	8 @ 12'-4"	24 @ 3'- 1 1/2"	2 @ 2'-4"	6 @ 8'-8"	4 @ 3'-9 1/2"
22" X 13"	2.417'	0.855	76	0.053	2 1/2"	8 @ 4'-3"	12 @ 3'- 1 1/2"	2 @ 2'-4"	6 @ 3'-9"	4 @ 3'-9 1/2"
29" X 18"	2.833'	1.085	83	0.087	3"	8 @ 5'-0 1/4"	12 @ 3'- 1 1/2"	2 @ 2'-4"	6 @ 4'-4 1/2"	4 @ 3'-9 1/2"
36" X 23"	3.250'	1.358	94	0.129	3 1/2"	8 @ 5'-10"	14 @ 3'- 1 1/2"	2 @ 2'-4"	6 @ 5'-1"	4 @ 3'-9 1/2"
44" X 27"	3.635'	1.631	101	0.185	4"	8 @ 6'-7 1/2"	14 @ 3'- 1 1/2"	2 @ 2'-4"	6 @ 5'-10"	4 @ 3'-9 1/2"
51" X 31"	4.068'	1.942	113	0.245	4 1/2"	8 @ 7'-5 1/2"	16 @ 3'- 1 1/2"	2 @ 2'-4"	6 @ 6'-6"	4 @ 3'-9 1/2"
58" X 36"	4.500'	2.269	120	0.318	5"	8 @ 8'-3"	16 @ 3'- 1 1/2"	2 @ 2'-4"	6 @ 7'-2 1/2"	4 @ 3'-9 1/2"
65" X 40"	4.875'	2.575	130	0.394	5 1/2"	8 @ 9'-0"	18 @ 3'- 1 1/2"	2 @ 2'-4"	6 @ 7'-10"	4 @ 3'-9 1/2"
73" X 45"	5.333'	2.966	139	0.489	6"	8 @ 9'-10 1/2"	18 @ 3'- 1 1/2"	2 @ 2'-4"	6 @ 8'-7"	4 @ 3'-9 1/2"
88" X 54"	6.167'	3.765	156	0.688	7"	8 @ 11'-6"	20 @ 3'- 1 1/2"	2 @ 2'-4"	6 @ 10'-0"	4 @ 3'-9 1/2"

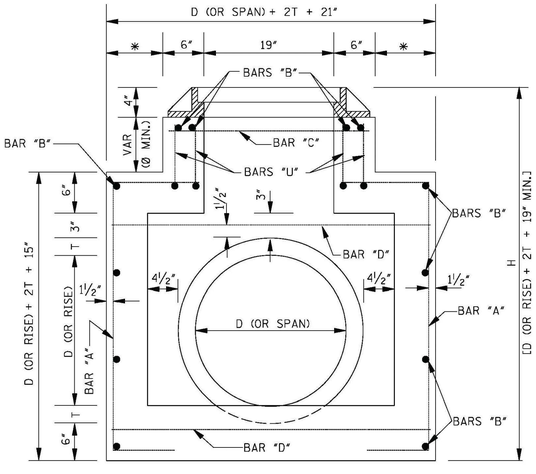
NOTES:
1. ONE (1) PIPE OPENING HAS BEEN DEDUCTED FROM THE STRUCTURE.
2. FOR EACH ADDITIONAL FOOT OF INLET HEIGHT, ADD 0.184 yd^3 CLASS "B" CONCRETE AND 17 lbs REINFORCING STEEL.
3. 4 BARS "B" AND 2 BARS "C" REQUIRED PER EACH ADDITIONAL FOOT OF INLET HEIGHT.
4. WEIGHT OF FRAME CASTING = 244 lbs.
   WEIGHT OF GRATE = SEE SHEET IG-2.



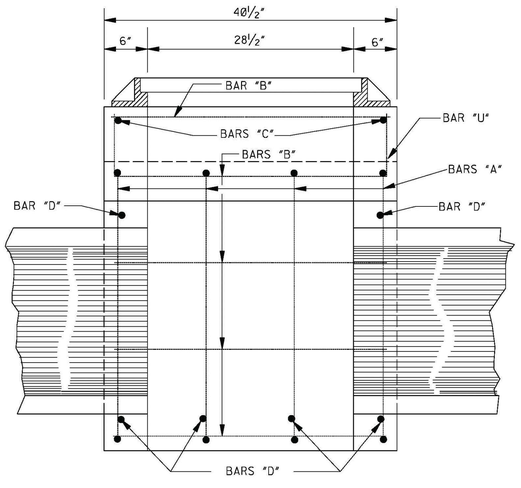
SECTION B–B
(FRAME)



SECTION C–C
(FRAME)



SECTION B–B



SECTION C–C

GENERAL NOTES:

1. QUANTITIES SHOWN WILL BE THE BASIS OF PAYMENT UNLESS AUTHORIZED MODIFICATIONS ARE MADE.
2. CONCRETE SHALL BE CLASS "B" CONCRETE AND REINFORCING STEEL SHALL BE DEFORMED BARS.
3. THE CONTRACTOR HAS THE OPTION TO PROVIDE GRATE NO. 1 OR GRATE NO. 2 AS SHOWN ON SHEET IG-2.
4. FRAME TO BE GRAY IRON CASTING, (AASHTO M 105, CLASS 30).

BY / REVISION / DATE

MISSISSIPPI DEPARTMENT OF TRANSPORTATION
ROADWAY DESIGN DIVISION
STANDARD PLAN

STORM SEWER INLET TYPE SS-3

ENGLISH

WORKING NUMBER SS-3

ISSUE DATE: OCTOBER 1, 1998

SHEET NUMBER 323