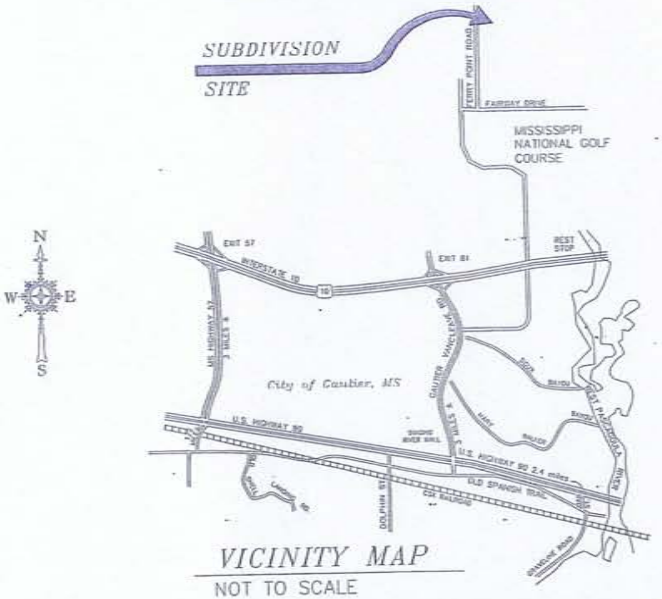
SITE DEVELOPMENT, ROADWAY, DRAINAGE, SEWER, AND WATER, PLANS FOR

CYPRESS LANDING SUBDIVISION

FERRY POINT ROAD
GOVERNMENT LOT 2, SECTION 36,
TOWNSHIP 6 SOUTH, RANGE 7 WEST,
JACKSON COUNTY, MS
CITY OF GAUTIER



VICINITY MAP
NOT TO SCALE

OWNER; SILVERGIRL LLC

SYBAL R. SAULS: PRESIDENT
104 SPANISH POINT OCEAN
SPRINGS, MS 39564 (228)
365-3665 (228) 875-2411

SYBAL R. SAULS: SECRETARY
104 SPANISH POINT OCEAN
SPRINGS, MS 39564 (228)
365-3665 (228) 875-2411

Project No. 45137	Drawn By: BAC
Date 6-18-08	Checked By: RODNEY
Scale NTS	Approved: BOB

CYPRESS LANDING SUBDIVISION

GAUTIER, MS

BATSON & BROWN, INC.
CONSULTING ENGINEERS

SHEET 1
1 OF 19

USER | FNAME | REVDATE

PREPARED BY: _____ ENGINEER _____ DATE

SHEET INDEX

SHEET NO.	TITLE
1	Cover Sheet
2	Index Sheet
3	Typical Section and Erosion Control Details
3A	Erosion Control Layout
3B	Roadway Layout
4	Drainage Plan
5	Sewer Layout/Profile
6	Sewer Details
6A	Lift Station Details
7	Water Layout
8	Water Details
9-14	Cross Sections
15	Preliminary Plat

GENERAL NOTES

ROADWAY

1. ENGINEER WILL ESTABLISH CONTROLS ON THIS PROPERTY WHICH SHOULD BE USED BY THE CONTRACTOR FOR LAYOUT AND DURING CONSTRUCTION.

2. ALL UNDERGROUND UTILITIES AND DRAINAGE STRUCTURES SHALL BE INSTALLED PRIOR TO BASE CONSTRUCTION.

3. DRAINAGE PIPES (FOR DRIVES) LENGTHS ARE APPROXIMATE AND MAY REQUIRE ADJUSTMENT DEPENDING ON FINAL GRADING AND SLOPES.

4. THE CONTRACTOR SHALL COORDINATE ALL REQUIRED TESTING WITH THE ENGINEER. PAYMENT FOR TESTING WILL BE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

5. EXISTING SUB-GRADE MATERIAL SHALL BE EXCAVATED TO A MIN. 1' BELOW SUBGRADE, PROCESSED, AND COMPACTED IN ACCORDANCE WITH SECTION 9-205 TO A REQUIRED DENSITY OF 95% STANDARD PROCTOR.

6. THE SUB-BASE AND BASE SHALL BE TESTED IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS AND APPROVED PRIOR TO LAYING ASPHALT. SUB-GRADE MUST BE FIRMLY COMPACTED & 100% "PROOF-ROLLED" WITH A LOADED DUMP TRUCK (MIN. AXLE LOAD 7 TONS) PRIOR TO PLACEMENT OF BASE COURSE. NO BASE SHALL BE PLACED ON SUBGRADE THAT YIELDS OR FAILS UNDER THE LOADED TRUCK. CONTACT ENGINEERS REPRESENTATIVE FOR VERIFICATION OF PROOF ROLL 601-847-8619

7. ALL EXISTING GROUND CONTOURS WHERE TAKEN PRIOR TO ANY CONSTRUCTION CROSS SECTION MAY NOT MATCH PRESENT FIELD CONDITIONS

8. THE CONTRACTOR SHALL HAVE COPIES OF THE FOLLOWING PUBLICATIONS FOR REFERENCE.

STATE OF MISSISSIPPI HIGHWAY DEPARTMENT, STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION, 2004 EDITION

MDOT STANDARD DRAWINGS FOR JB-1 JUNCTION BOX (SHEET 302) AND SS-2 STORM SEWER (SHEET 322).

MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), PART VI

9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR STORM WATER POLLUTION PREVENTION WHICH INCLUDES INSTALLATION BY BEST MANAGEMENT PRACTICE, MAINTENANCE, REPORTING FOR NOEC COMPLIANCE & WEEKLY AND/OR AFTER 1" RAIN SITE INSPECTION.

UTILITIES

1. THE LOCATION OF THE EXISTING UTILITIES SHOWN IN THESE PLANS ARE APPROXIMATE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION IN THEIR VICINITY.

2. THE CONTRACTOR SHALL NOTIFY THE UTILITY COMPANIES (MS ONE CALL 1-800-227-6477) PRIOR TO BEGINNING CONSTRUCTION. NOTIFICATION SHOULD BE GIVEN AT LEAST 24 HOURS PRIOR TO APPROACHING THE AFFECTED UTILITY.

3. ALL WATER MAINS SHALL BE OF A PIPE CLASS APPROVED BY THE UTILITY OWNER.

4. WATER MAIN VALVES AND WATER SERVICE TAPS SHALL NOT BE LOCATED UNDER THE PROPOSED PAVEMENT.

5. THE CONTRACTOR SHALL COORDINATE WITH THE APPROPRIATE UTILITY COMPANY BEFORE ATTEMPTING TO TAP THE LINE.

6. UTILITY COMPANIES

POWER	– SINGING RIVER ELECTRIC POWER ASSOCIATION
GAS	– MUNICIPALITY
WATER	– MUNICIPALITY
SEWER	– MUNICIPALITY
TELEPHONE	– BELLSOUTH

8. ALL PRECAST CONCRETE SHALL BE TYPE II CEMENT AND 100% CALCAREOUS AGGREGATE.

Project No. 45137	Drawn By: BAC
Date 6-18-08	Checked By: RODNEY
Scale NTS	Approved: BOB

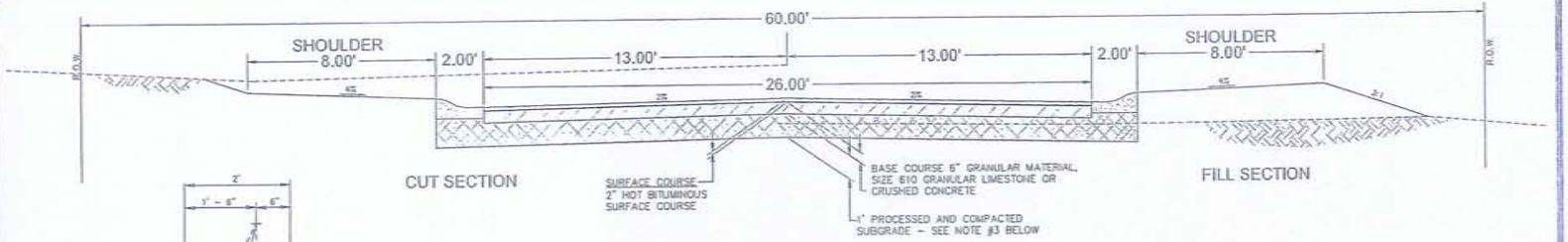
CYPRESS LANDING SUBDIVISION

INDEX SHEET

BATSON & BROWN, INC.
CONSULTING ENGINEERS

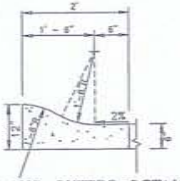
SHEET 2 OF 15

USER PNAME REVDATE

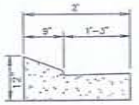


TYPICAL ROADWAY SECTION

N.T.S.



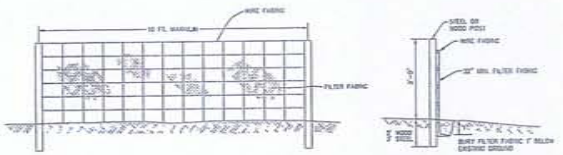
CURB AND GUTTER DETAIL



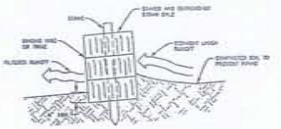
OPTIONAL CURB AND GUTTER DETAIL

PAVED ROADWAY STRUCTURE DESCRIPTION

1. HOT BITUMINOUS ASPHALT SURFACE COURSE, 2" THICK, 220 LBS/SY.
2. 6" OF GRANULAR MATERIAL SIZE 610 LIMESTONE OR CRUSHED CONCRETE.
3. EXISTING SUB-GRADE MATERIAL SHALL BE EXCAVATED TO A MIN. 1' BELOW SUBGRADE, PROCESSED, AND COMPACTED IN ACCORDANCE WITH SECTION 9-205 TO A REQUIRED DENSITY OF 98% STANDARD PROCTOR. ALL AREAS OF SOIL SHALL BE PROOF ROLLED IN THE PRESENCE OF THE ENGINEER PRIOR TO THE PLACEMENT OF ROADWAY BASE MATERIALS. ANY SOFT OR YIELDING MATERIALS SHALL BE REPLACED/PROCESSED TO THE SATISFACTION OF THE ENGINEER PRIOR TO SUBBASE WORK.
4. ANY UNSTABLE SUBGRADE MATERIAL ENCOUNTERED SHALL BE OVER-EXCAVATED TO A DEPTH OF 3' BELOW SUB-GRADE AND REPLACED USING MATERIAL MEETING OR EXCEEDING CLASS 7 BORROW PER SECTION 9-304.



SILT FENCE DETAIL



STRAW BALE INSTALLATION CROSS SECTION

Project No. 45137	Drawn By BAC
Date 6-18-08	Checked By RODNEY
Scale NTS	Approved BOB

CYPRESS LANDING SUBDIVISION

TYPICAL SECTION AND EROSION CONTROL DETAILS

BATSON & BROWN, INC.
CONSULTING ENGINEERS

SHEET 3 OF 19

LEGEND

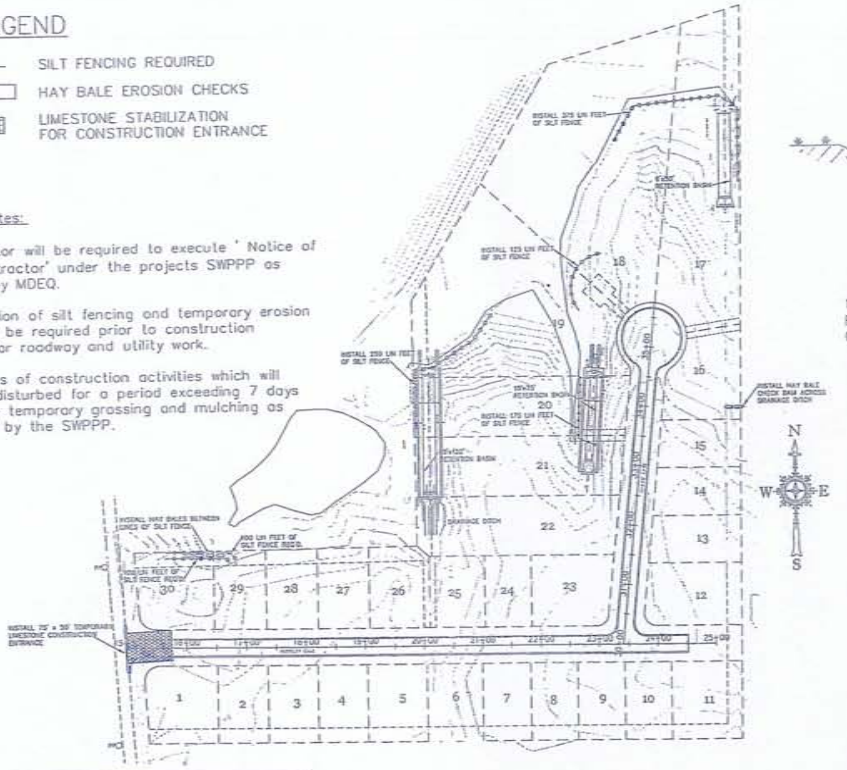
- SILT FENCING REQUIRED
- HAY BALE EROSION CHECKS
- LIMESTONE STABILIZATION FOR CONSTRUCTION ENTRANCE

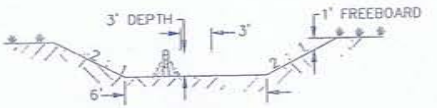
General Notes:

1. Contractor will be required to execute ' Notice of Prime Contractor' under the projects SWPPP as approved by MDEQ.

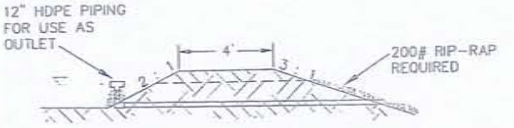
2. Installation of silt fencing and temporary erosion checks will be required prior to construction activities for roadway and utility work.

3. All areas of construction activities which will remain undisturbed for a period exceeding 7 days will receive temporary grassing and mulching as referenced by the SWPPP.

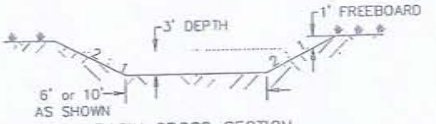




OUTLET STRUCTURE DETAIL
NTS



OUTLET STRUCTURE CROSS-SECTION
NTS



BASIN CROSS-SECTION
NTS

BASIN PROFILE ELEVATION
NTS

RATES OF APPLICATION USED FOR ESTIMATING QUANTITIES

	ITEM	RATE
S-212-9	COMMERCIAL FERTILIZER (12-12-12)	500 LBS/ACRE
S-212-7	AMMONIUM NITRATE	200 LBS/ACRE
MC-S-215-1	VEGETATIVE MATERIALS FOR MULCH	1500 LBS/ACRE
S-214-4	PERMANENT SEEDING	35 LBS/ACRE
S-214-5	TEMPORARY SEEDING	25 LBS/ACRE

STORMWATER DETENTION BASIN DETAILS

SIZING DIMENSION SHALL BE PER SITE LOCATION REQUIREMENTS. DIMENSIONS ARE FOR MINIMUM REQUIREMENTS OF BASIN BOTTOM.

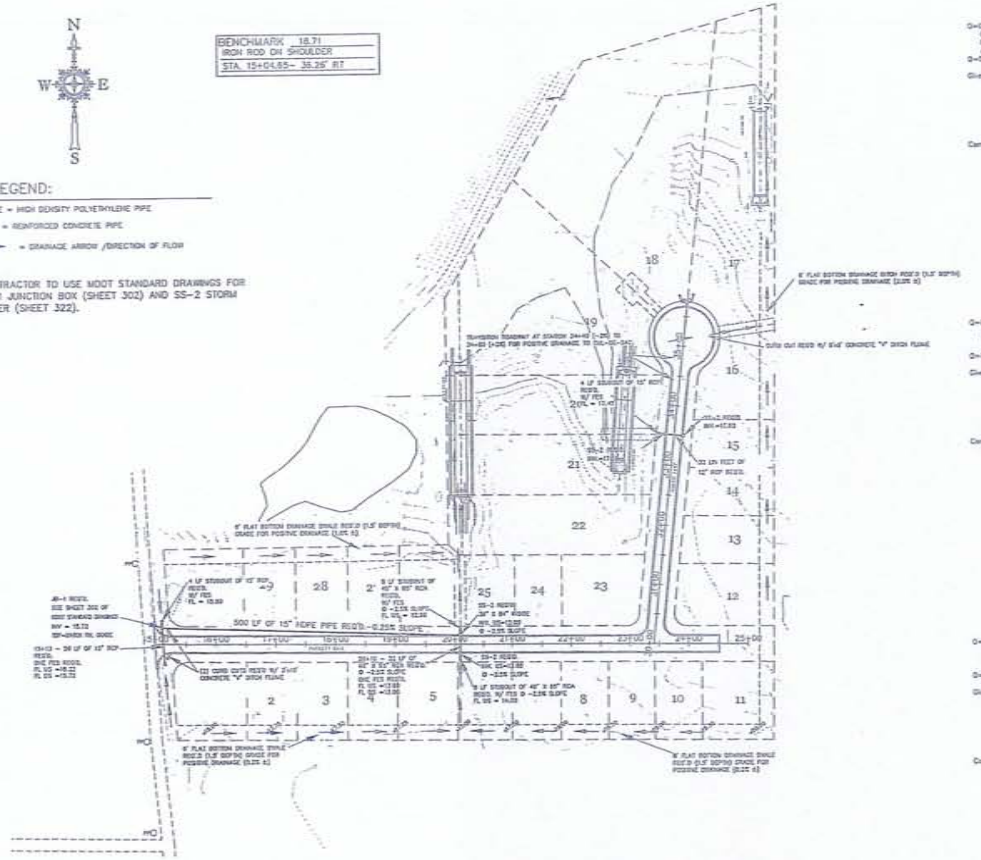
Project No.	45137
Drawn By:	BAC
Date	6-18-08
Checked By:	RODNEY
Scale	1"=80'
Approved	BOB

CYPRESS LANDING SUBDIVISION

EROSION CONTROL PLAN

BATSON & BROWN, INC.
CONSULTING ENGINEERS

SHEET 3A



15" RCP AT STATION 15+13
Manning Pipe Calculator

Q=CIA
C=RUNOFF COFF. = 0.37
INTENSITY FOR YEAR = 3 INCHES PER HOUR
ACRES = 0.10
Q=0.11 CFS

Given Input Data:

Shape	Circular
Solving for	Depth of Flow
Diameter	1.2500 ft
Flowrate	0.1100 cfs
Slope	0.0120 ft/ft
Manning's n	0.0120

Computed Results:

Depth	0.1183 ft
Area	1.2272 ft2
Wetted Area	0.0534 ft2
Wetted Perimeter	0.7748 ft
Perimeter	3.9270 ft
Velocity	1.8100 fps
Hydraulic Radius	0.0741 ft
Percent Full	9.3035 %
Full flow Flowrate	0.1328 cfs
Full flow velocity	4.9972 fps

15" CPP AT STATION 15+10 TO 20+10 LEFT SIDE
Manning Pipe Calculator

Q=CIA
C=RUNOFF COFF. = 0.37
INTENSITY FOR YEAR = 3 INCHES PER HOUR
ACRES = .25
Q=0.28 CFS

Given Input Data:

Shape	Circular
Solving for	Depth of Flow
Diameter	1.2500 ft
Flowrate	0.2800 cfs
Slope	0.002 ft/ft
Manning's n	0.0120

Computed Results:

Depth	0.1548 ft
Area	1.2272 ft2
Wetted Area	0.0874 ft2
Wetted Perimeter	0.8951 ft
Perimeter	3.9270 ft
Velocity	3.2053 fps
Hydraulic Radius	0.0972 ft
Percent Full	12.3863 %
Full flow Flowrate	0.5709 cfs
Full flow velocity	6.9842 fps

24" RCP AT STATION 20+10
Manning Pipe Calculator

Q=CIA
C=RUNOFF COFF. = 0.37
INTENSITY FOR YEAR = 3 INCHES PER HOUR
ACRES = 12.1
Q=12.3 CFS

Given Input Data:

Shape	Circular
Solving for	Depth of Flow
Diameter	2.0000 ft
Flowrate	13.3000 cfs
Slope	0.0070 ft/ft
Manning's n	0.0120

Computed Results:

Depth	1.1730 ft
Area	3.1416 ft2
Wetted Area	1.9130 ft2
Wetted Perimeter	3.4853 ft
Perimeter	6.2832 ft
Velocity	6.9431 fps
Hydraulic Radius	0.5488 ft
Percent Full	58.6491 %
Full flow Flowrate	20.5045 cfs
Full flow velocity	6.5268 fps

15" RCP AT STATION 23+50
Manning Pipe Calculator

Q=CIA
C=RUNOFF COFF. = 0.37
INTENSITY FOR YEAR = 3 INCHES PER HOUR
ACRES = 1.08
Q=1.20 CFS

Given Input Data:

Shape	Circular
Solving for	Depth of Flow
Diameter	1.2500 ft
Flowrate	1.2000 cfs
Slope	0.0130 ft/ft
Manning's n	0.0120

Computed Results:

Depth	0.3276 ft
Area	1.2272 ft2
Wetted Area	0.2264 ft2
Wetted Perimeter	1.3430 ft
Perimeter	3.9270 ft
Velocity	4.6800 fps
Hydraulic Radius	0.1908 ft
Percent Full	26.2054 %
Full flow Flowrate	3.9791 cfs
Full flow velocity	6.5019 fps

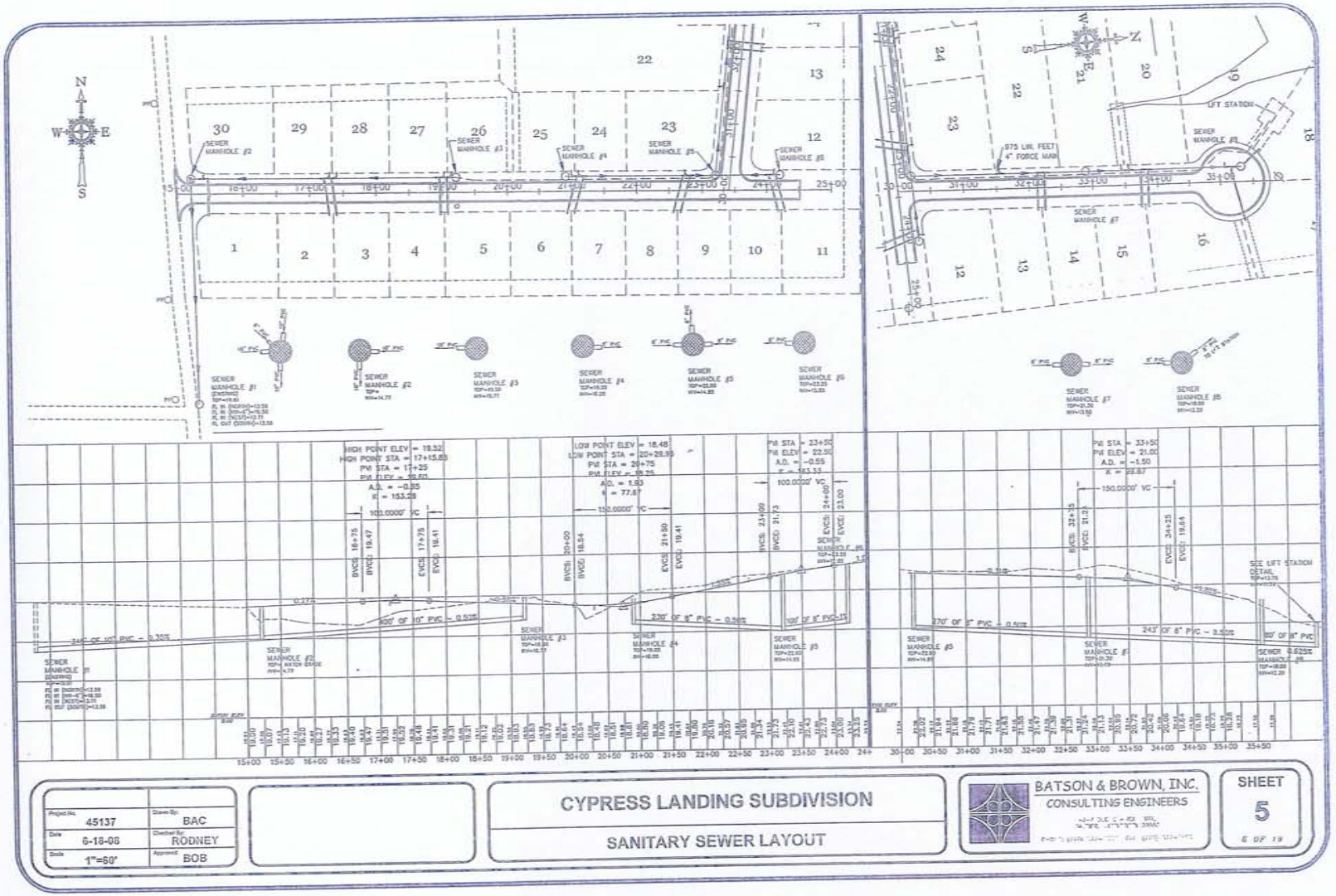
Project No.	45137
Drawn By	BAC
Date	6-18-08
Checked By	RODNEY
Scale	1"=80'
Approved	BOB

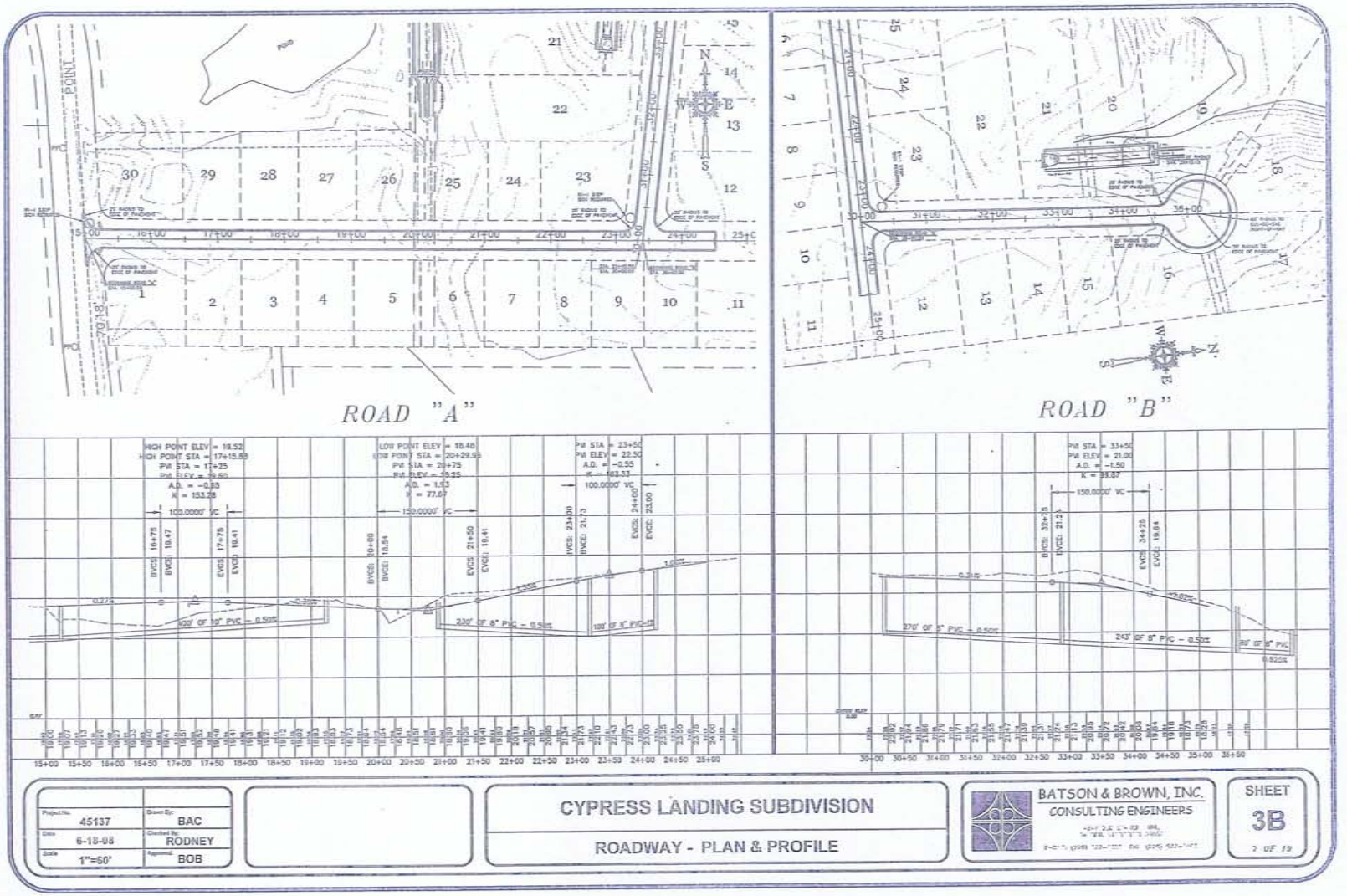
CYPRESS LANDING SUBDIVISION

DRAINAGE PLAN LAYOUT

BATSON & BROWN, INC.
CONSULTING ENGINEERS

SHEET 4 OF 19


CYPRESS LANDING SUBDIVISION
SANITARY SEWER LAYOUT
BATSON & BROWN, INC.
CONSULTING ENGINEERS
SHEET
5
6 OF 19
Project No. 45137
Drawn By: BAC
Date 6-18-08
Checked By: RODNEY
Scale 1"=60'
Approved: BOB
LIFT STATION
SEE LIFT STATION DETAIL
975 LIN. FEET 4" FORCE MAIN



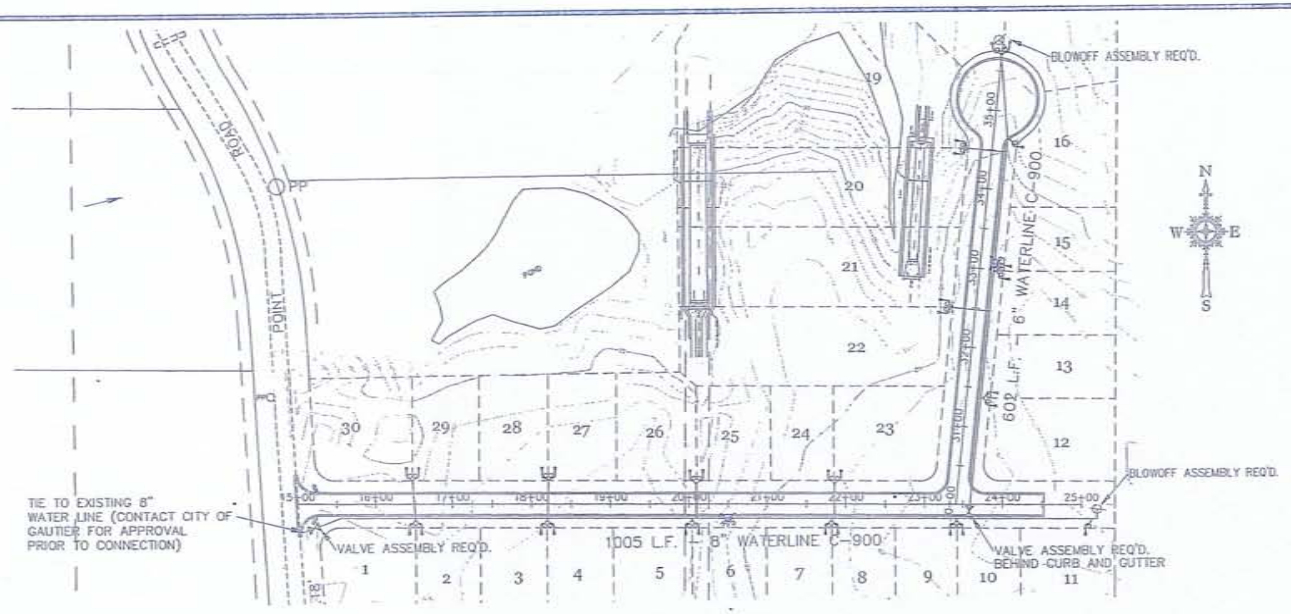
Project No. 45137	Drawn By: BAC
Date 6-18-98	Checked By: RODNEY
Scale 1"=60'	Approved: BOB

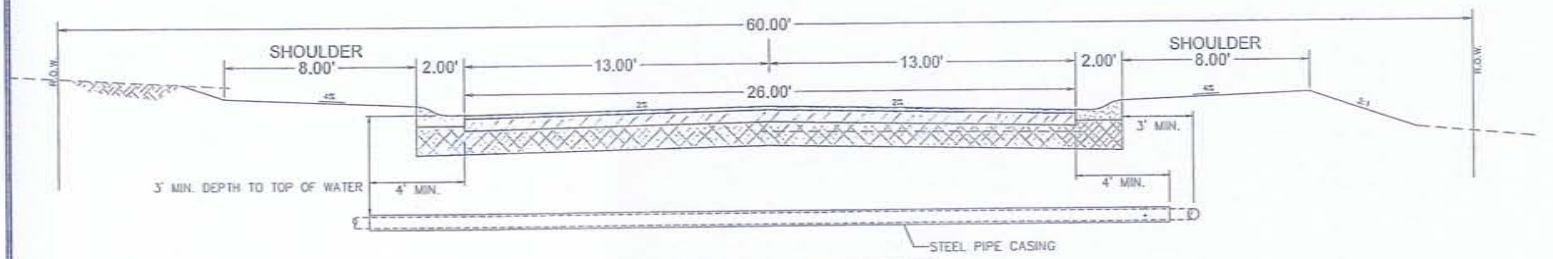
CYPRESS LANDING SUBDIVISION

ROADWAY - PLAN & PROFILE

BATSON & BROWN, INC.
CONSULTING ENGINEERS

SHEET
3B
3 OF 19





TYPICAL ROADWAY CROSSING

N.T.S.

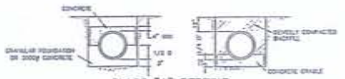
Project No. 45137	Drawn By: BAC
Date 6-18-08	Checked By: RODNEY
Scale 1"=60'	Approved: BOB

CYPRESS LANDING SUBDIVISION

WATER LAYOUT

BATSON & BROWN, INC.
CONSULTING ENGINEERS

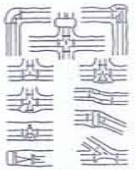
SHEET 7 OF 13



CLASS "A" BEDDING

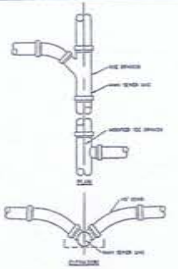
CLASS "B" BEDDING

CLASS "C" BEDDING

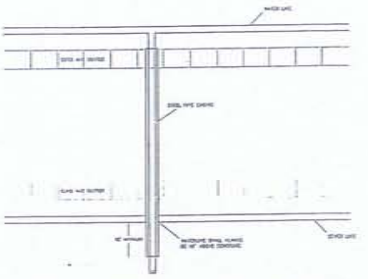


DETAILS OF TYPICAL THRUST BLOCK INSTALLATION

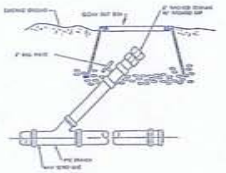
NOTE: BEARING TO BE APPROVED BY THE ENGINEER



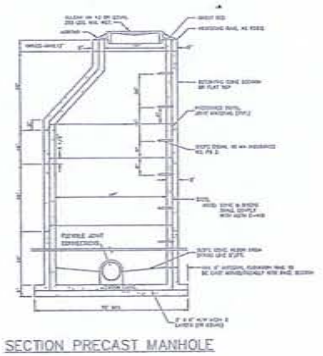
TYPICAL GRAVITY SEWER CONNECTION



TYPICAL WATER MAIN – SEWER LINE CROSSING

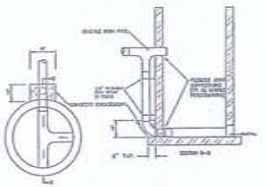


TYPICAL PRESSURE SEWER MAIN CLEAN OUT

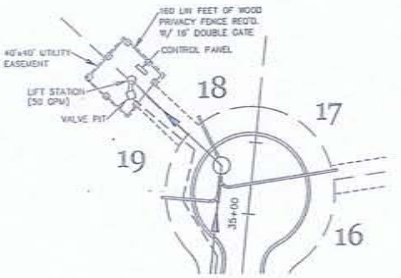


SECTION PRECAST MANHOLE

DETAIL OF PIPE MINIMUM RADII OF CURVATURE



DETAIL DROP ASSEMBLY



LIFT STATION LAYOUT

Project No. 45137	Drawn By: BAC
Date 7-10-08	Checked By: RODNEY
Scale NTS	Approved: BOB

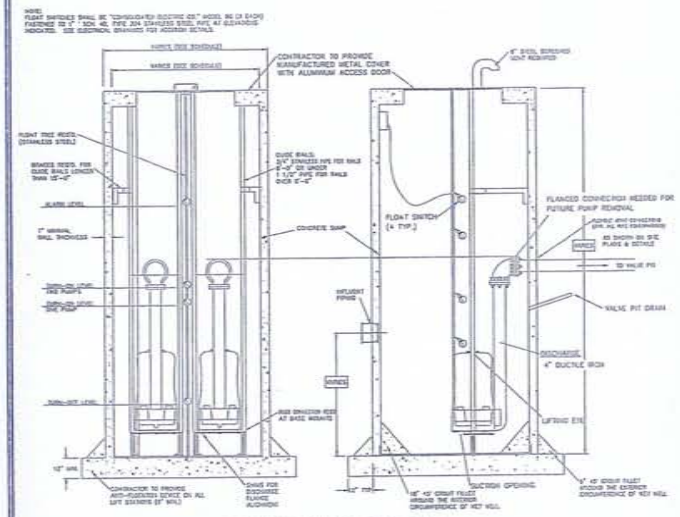
CYPRESS LAND SUBDIVISION

SEWER DETAIL SHEET

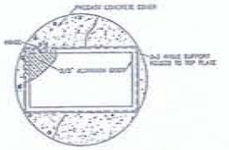
BATSON & BROWN, INC.
CONSULTING ENGINEERS

SHEET 6 OF 19

USER FNAME REVDATE



DUPLEX PUMP STATION



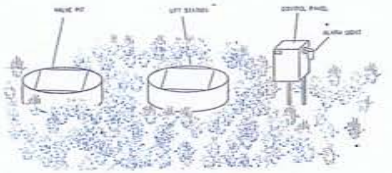
MANUFACTURED COVER

NOTE: WET WELL SITES MAY REQUIRE WELLPOINTING. THIS SHALL BE CONSIDERED AS A SUBSIDIARY ITEM UNDER PUMP STATIONS AND, AS SUCH, SHALL NOT BE PAID FOR SEPARATELY.

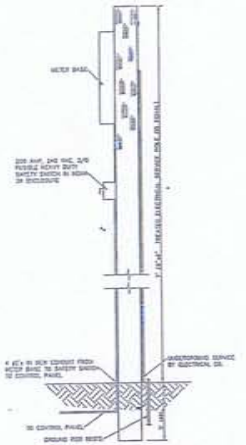
NOTE: ALL ELEVATIONS ARE IN FEET FROM MEAN SEA LEVEL

PUMP STATION	
DIAMETER OF WET WELL	8.00'
TOP OF WET WELL	13.75
GROUND	12.75
INVERT ELEVATION	11.79
ALARM LEVEL	11.29
PUMP TWO ON	10.79
PUMP ONE ON	10.29
TURN OFF LEVEL	6.76
BOTTOM OF WET WELL	5.25

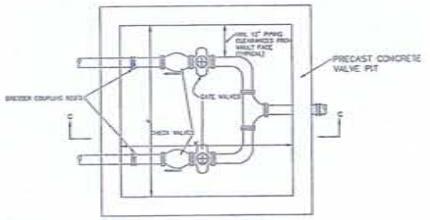
PUMP STATION SCHEDULE



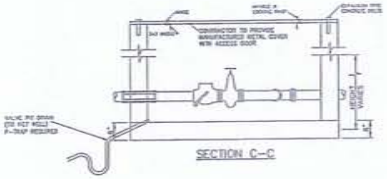
TYPICAL LIFT STATION, VALVE PIT, AND CONTROL PANEL LAYOUT



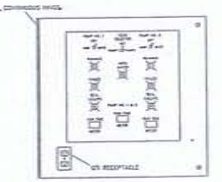
TYPICAL SERVICE METER POLE



PLAN



SECTION C–C



TYPICAL CONTROL PANEL

Project No. 45137	Drawn By: BAC
Date 7-10-08	Checked By: RODNEY
Scale NTS	Approved: BOB

CYPRESS LAND SUBDIVISION

LIFT STATION SHEET

BATSON & BROWN, INC.
CONSULTING ENGINEERS

SHEET 6A
10 OF 19

USER REVDATE FNAME