IREDELL COUNTY HEATLH DEPARTMENT

PAGE 2: *SITE PLAN WORKSHEET*

SEE THE SAMPLE SITE PLAN BELOW. INCOMPLETE SITE PLANS WILL BE RETURNED TO YOU FOR COMPLETION AND MAY RESULT IN A DELAY IN THE ISSUANCE OF YOUR SEPTIC SYSTEM PERMIT!!!

Place an (X) beside each item as you complete the site plan:

- ✓ Property Line measurements are clearly identified…
- ✓ All proposed structures are indicated…
- *SHOW: proposed house or business footprint, wells, water lines, patios, pools and decks, and any other item that will occupy space on the site*
- ✓ Front and side setbacks from property line…
- ✓ Preferred driveway location and configuration, preferred well location…
- ✓ Area you prefer your septic system to be placed…
- ✓ North arrow, or other sufficient indicator of direction…

Circle N/A on the following if appropriate:

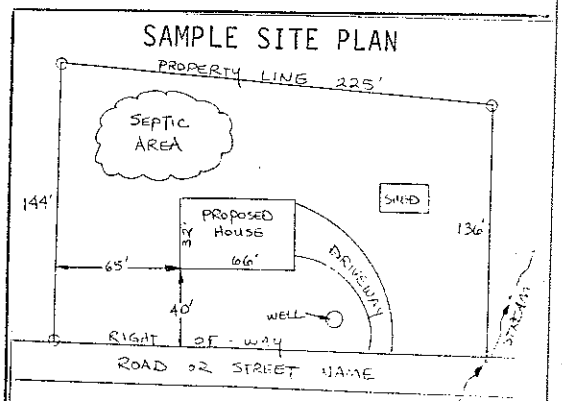
- ✓ Location of septic systems and wells within 100' of your property… N/A
- ✓ Location of easements and rights of ways on your property… N/A
- ✓ Location of any designated wetlands on the property… N/A

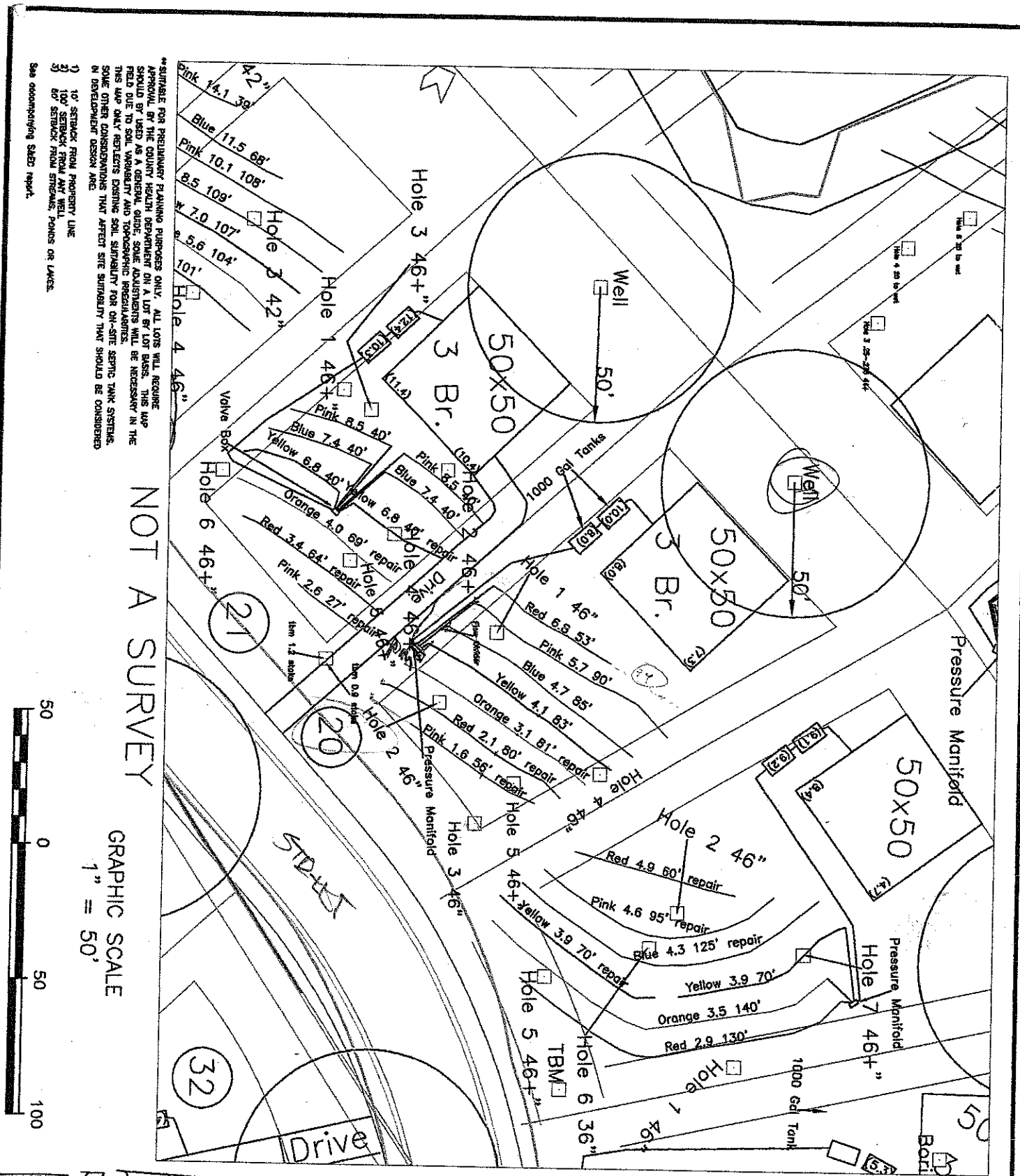
Signature: S+EC, PA (Agent for Applicant)
Property owner or owner's legal representative signature (SIGNATURE REQUIRED)

05-01-08
DATE

USE THIS SPACE TO DRAW YOUR SITE PLAN

See attached site plan





**SUITABLE FOR PRELIMINARY PLANNING PURPOSES ONLY. ALL LOTS WILL REQUIRE APPROVAL BY THE COUNTY HEALTH DEPARTMENT ON A LOT BY LOT BASIS. THIS MAP SHOULD BY USED AS A GENERAL GUIDE; SOME ADJUSTMENTS WILL BE NECESSARY IN THE FIELD DUE TO SOIL VARIABILITY AND TOPOGRAPHIC IRREGULARITIES.
THIS MAP ONLY REFLECTS EXISTING SOIL SUITABILITY FOR ON-SITE SEPTIC TANK SYSTEMS. SOME OTHER CONSIDERATIONS THAT AFFECT SITE SUITABILITY THAT SHOULD BE CONSIDERED IN DEVELOPMENT DESIGN ARE:

1) 10' SETBACK FROM PROPERTY LINE
2) 100' SETBACK FROM ANY WELL
3) 50' SETBACK FROM STREAMS, PONDS OR LAKES.

See accompanying S&EC report.

SHEET TITLE: PRELIMINARY SITE PLAN SKETCH MAP	Wheatfield Corinthian Builders - Wheatfield lot 20 -	S&EC Soil & Environmental Consultants, PA 230 LeFrak Court, Suite D • Concord, North Carolina 28025 • Phone (704)720-0405 • Fax (704) 720-0406	SHEET 1 OF	PROJECT NO: 4-5-1882 PROJECT M: BP DRAWN BY: BP FIELD WORK BY: BP SCALE: 1"=50' FILE Y:\Jobs\1882

Wheatfield
PRESSURE MANIFOLD DESIGN

DESIGN FLOW:	360
SOIL APPLICATION RATE:	0.3 gpd/ft.^{2}
TOTAL AREA TRENCH BOTTOM:	933
TOTAL LATERAL LENGTH:	311
NUMBER OF FIELDS:	1
LATERAL LENGTH REQUIRED PER FIELD:	300
SUPPLY LINE LENGTH:	100
TOTAL DYNAMIC HEAD:	14.07
MANIFOLD SIZE:	*4* in.SCH 80 PVC
DOSING VOLUME:	152.31
PUMP TANK DRAW DOWN*:	7.3
SEPTIC TANK SIZE:	1000
PUMP TANK SIZE:	1000
RECOMMENDED PUMP:	Myers Model ME50 or County Approved Effluent Rated Pump Capable of Delivering ~14 ft.of Head at ~30 gpm Total Flow

**Pump tank draw down based on a volume basis of 21 gallons per inch. Draw down may vary among pump tank manufacturers.*

Wheatfield Lot 20

Project No. 5-1862

LAYOUT FOR 3 BEDROOM HOME

April-08

LINE #	FLAG COLOR	BS	HI	FS	ELEVATION	FLAGGED LINE LENGTH
TBM		0.9			100.00	
INSTR. 1			100.90			
			System			
1	Red			6.80	94.10	53
2	Pink			5.70	95.20	90
3	Blue			4.70	96.20	85
4	Yellow			4.10	96.80	83
					Total	**311**
			Repair			
5	Yellow			3.10	97.80	81
6	Blue			2.10	98.80	80
7	Pink			1.60	99.30	56
						217

	LINE LENGTH	Design LTAR GPD/FT2	SYSTEM TYPE	Innovative Type	DISTRIBUTION	Trench Depth	Soil LTAR
SYSTEM	311	0.289	Innovative	25%	P. Manifold	24	0.3
REPAIR	217	0.276	PPBPS	50%	low pressure	30	0.3

Notes:

**TBM is assumed to be 100'; lot of front left cnr stake

**Nitrification lines are demonstrated on contour via colored pin flags

**BS, HI, and FS indicate rod readings

**Repair lines are to be center distributed

Wheatfield Lot 20

REPAIR

Line #	Color	Elev	Length	# Panels	5/32th Hole per panel	Flow	Head
5	Orange	97.8	81	18	1	9.00	3
6	Red	98.8	80	18	1	9.00	3
7	Pink	97.8	56	13	1	6.50	3
			217	49		24.50	

Repair lines are to be center distributed

Redraw 10-20-08 pd 33-35

IREDELL COUNTY HEALTH DEPARTMENT

STATESVILLE 704-878-5305 MOORESVILLE 704-664-5281

IMPROVEMENT PERMIT / AUTHORIZATION TO CONSTRUCT / OPERATION PERMIT / EXISTING SYSTEM INSPECTION

PERMIT# 147908 PIN# 4761 33 1124 DATE 6/10/08

OWNER OR APPLICANT Corinthian Bldrs Ltd. PHONE: Business 704-400-1258 Home

ADDRESS PO Box 990 Denver NC. 28037

LOCATION Ogwood Dr. Rd. TR Wheatfield TR 2ND Street, TR first street, 2ND lot on (R)

SUBDIVISION Wheatfield BLOCK / SECTION LOT 20 LOT AREA .50 SITE CLASS PS DESIGN FLOW 360 L.T.A.R. .3

Septic Tank: 1000 Gallons: STB Date

Pump Tank: 1000 Gallons: PT Date

Pump Make: Model Serial No.

Nitrification Field: No Fields 1 Square Feet Linear Feet

No Lines 4 Trench Width 3' Max Trench Bottom Depth 24

[X] New System [ ] Repair [ ] Expansion System Type: I II (III) IV V VI

System Description: PM - 25% REDUCTION

Repair System Description: P - 16" PPBAS

Maintenance Agreement Required: [ ] Yes [X] No

Gravel Depth No [ ] Gravity [X] Pressure [ ] Slab [X] Crawl Space [ ] Basement w/plumbing [ ] Basement wo/plumbing

[X] House/Mod. Home No. Bedrooms 3

[ ] Mobile Home No. Persons

[ ] Business No. Employees

[ ] Other

Water Supply: [X] Individual [ ] Public [ ] Community

Comments:/Conditions:

Fast Track Space Design by S+EC Concord # 704-720-9405

Comments:/Conditions:

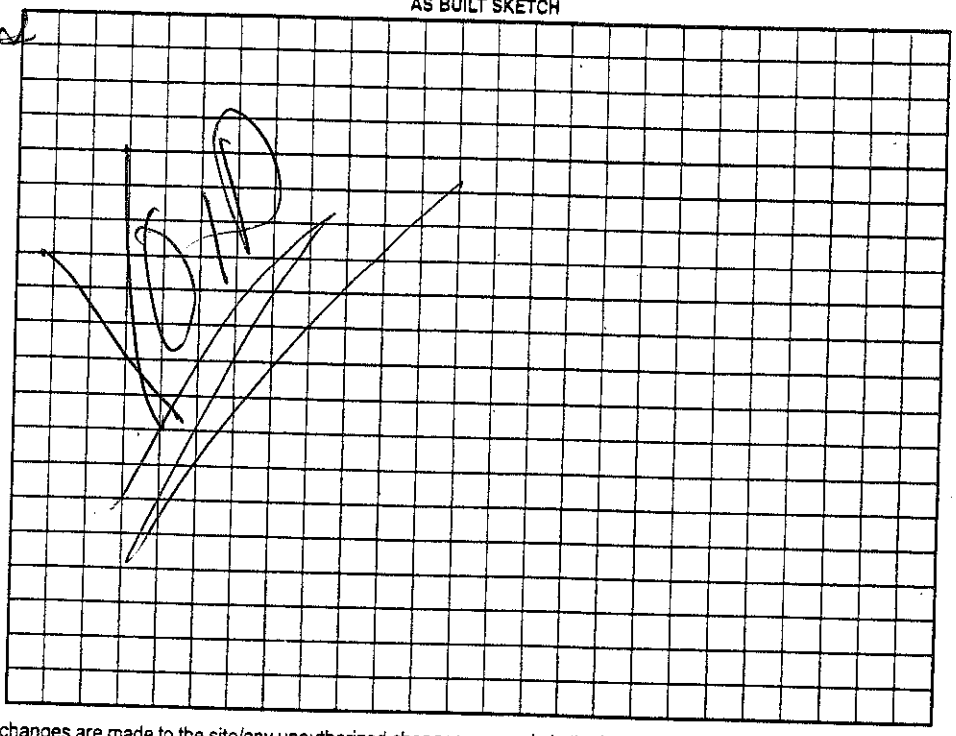
INITIAL SITE SKETCH

(1) Additional Suitable Cover Material Required to produce uniform 6" minimum cover per Manufacturer's Recommendations

(2) Additional Cover will be required for Repair System as well

24" MINIMUM TRENCH DEPTH FOR THIS SYSTEM

AS BUILT SKETCH



Permit can be suspended or revoked if any false information is supplied toward securing the permit/any unauthorized changes are made to the site/any unauthorized changes are made in the installation of the system. Improvement Permit with plat valid without expiration [ ] Improvement Permit with site plan valid for sixty months [X] Authorization to Construct is valid for a period equal to that of Improvement Permit – not to exceed sixty months.

Signed: [signature] date 8-14-08

Improvement Permit by: Wesley Sparks R.S. date 6/10/08

Authorization to Construct by: [signature] date 8-14-08

Installed by:

Operation Permit by: date

Existing System Inspection by: date

HEALTH DEPT. COPY: WHITE OWNER COPY (FINAL): YELLOW OWNER COPY (INITIAL): PINK

S&EC

Soil & Environmental Consultants, PA

248 LePhillip Court • Concord, North Carolina 28025 • Phone: (704) 720-9405 • Fax: (704) 720-9406
www.SandEC.com

Attached is a proposed design for a Pressure Manifold Septic System for a 3 bedroom single family residence on lot 20 Wheatfield in Iredell County, North Carolina.

Contents:

	Page
Information for the Installer	1
Design Information	
Design Specifications	2-3
Layout Specifications	4
System Tapsheet	5
Repair	6
Site Plan/System Plan	7
Septic Tank Diagram	8
Pump Tank Diagram	9
Pressure Manifold Diagram	10
Control Panel Specifications	11-14
Pump Specifications	15-16
Electric Box Diagram	17
Calculations	18
Maintenance	19-22

April 21, 2008
S & EC Project No. 5-1862
Design By: E. Bailey

Greensboro Office:
3817-E Lawndale Drive
Greensboro, NC 27455
Phone: (336) 540-8234
Fax: (336) 540-8235

Raleigh Office:
11010 Raven Ridge Road
Raleigh, NC 27614
Phone: (919) 846-5900
Fax: (919) 846-9467

INFORMATION FOR THE INSTALLER:

- The permit should be read very carefully prior to bidding. The following are details that must be considered along with all other considerations.
- Tanks shall be approved by DEHNR, and certification supplied by the manufacturer.
- Tanks shall be water tested prior to installation.
- The installer shall be responsible to the owner for placement of the tanks and to insure that final grades are returned to the original natural grade, with exception of added structural features.
- The supply trench shall be compacted to eliminate cavities left during initial fill placement.
- Installation of the system shall be during dry conditions in order to protect the soil structure.
- All fittings shall be pressure rated fittings.
- All joints shall be cleaned with PVC pipe cleaner and a heavy bodied glue applied to weld all joints.
- Where required by the county health department, post installation inspections by the designer must be scheduled 5 week days in advance.
- Trenches shall be carefully excavated so the bottom is within 2" from the highest to . the lowest points of elevation within the trench. If the bottom elevation needs adjusting after it has been trenched, it will be done by removing high points rather than filling low points. It is extremely important to insure that trenches are not over excavated during initial trenching. All fine grading within the trench will be hand done with a shovel. No loose material will be left in the trench
- All pipe openings in the tanks shall be properly grouted. This also applies to the joints around the riser.
- All tanks shall be properly back filled and compacted to prevent slump at a later date.
- Earth dams, constructed of relatively impervious material, shall be installed at the beginning and end of each lateral.
- Elevations at pinflag locations should be checked by the installer prior to beginning trenches.
- Pump tank riser should be 6" above grade, control panel should be 12" above grade.
- Septic tank riser shall be a minimum of 6" above finished grade.
- System is specified as an innovative installation
  Repair is specified as a PPBPS installation with low pressure distribution
- Trench bottom to be 24" on system
  Based on no basement

PRESSURE MANIFOLD SYSTEM
FOR WASTEWATER TREATMENT

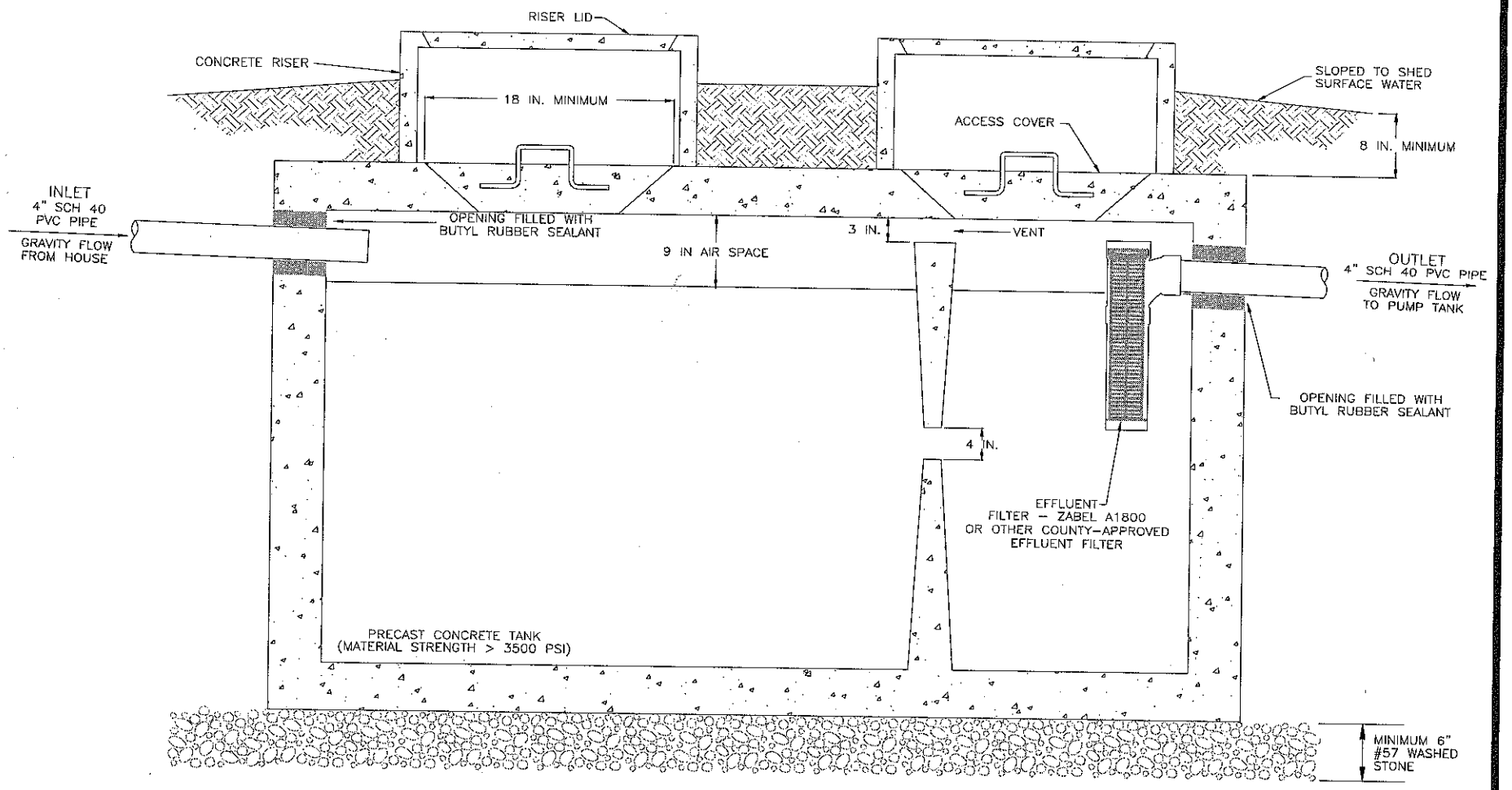
Owner: Corinthian Builders

Address:

Phone:
County: Iredell
Location: Wheatfield Lot 20
Source of Wastewater Flow: 3 bedroom home
Estimated Daily Wastewater Production: 360 gpd
System Flow: 29.39

Design Specifications

Drainfield Size:	311
Design Loading Rate:	0.289
Depth of Gravel in Trench:	NA
Gravel Size:	N/A
Trench Depth:	24
Trench Width:	36 in.
Septic Tank Size:	1000
Pump Tank Size:	1000
Estimated Supply Line Length:	100
Supply Line Diameter:	2 in. SCH 40 PVC
Supply Line Volume:	17.40
Dosing Volume:	152.31
Supply Manifold:	*4* in. SCH 80 PVC
Supply Manifold Length:	3 Ft.
Supply Manifold Volume:	1.79
Recommended Float Controls:	SJE Sensor Float Control Switches as Required for Control Panel or County Approved Equivalents
Recommended Control Panel:	SJE-Rhombus Model 112 (NEMA 4x) Control Panel or County Approved Control Panel.
Pressure Head:	2 ft.
Friction Head:	1.34
Estimated elevation Head:	8.90
Total Dynamic Head:	14.07
Threaded Union:	In Tank
Gate Valves:	1 in Tank 1 at Pressure Manifold
Check Valves:	In Tank
Anti-Siphon Hole:	no
Recommended Pump:	Myers Model ME50 or County Approved Effluent Rated Pump Capable of Delivering ~14 ft.of Head at ~30 gpm Total Flow



NOTES

1. TANK DIMENSIONS VARY BY MANUFACTURER.

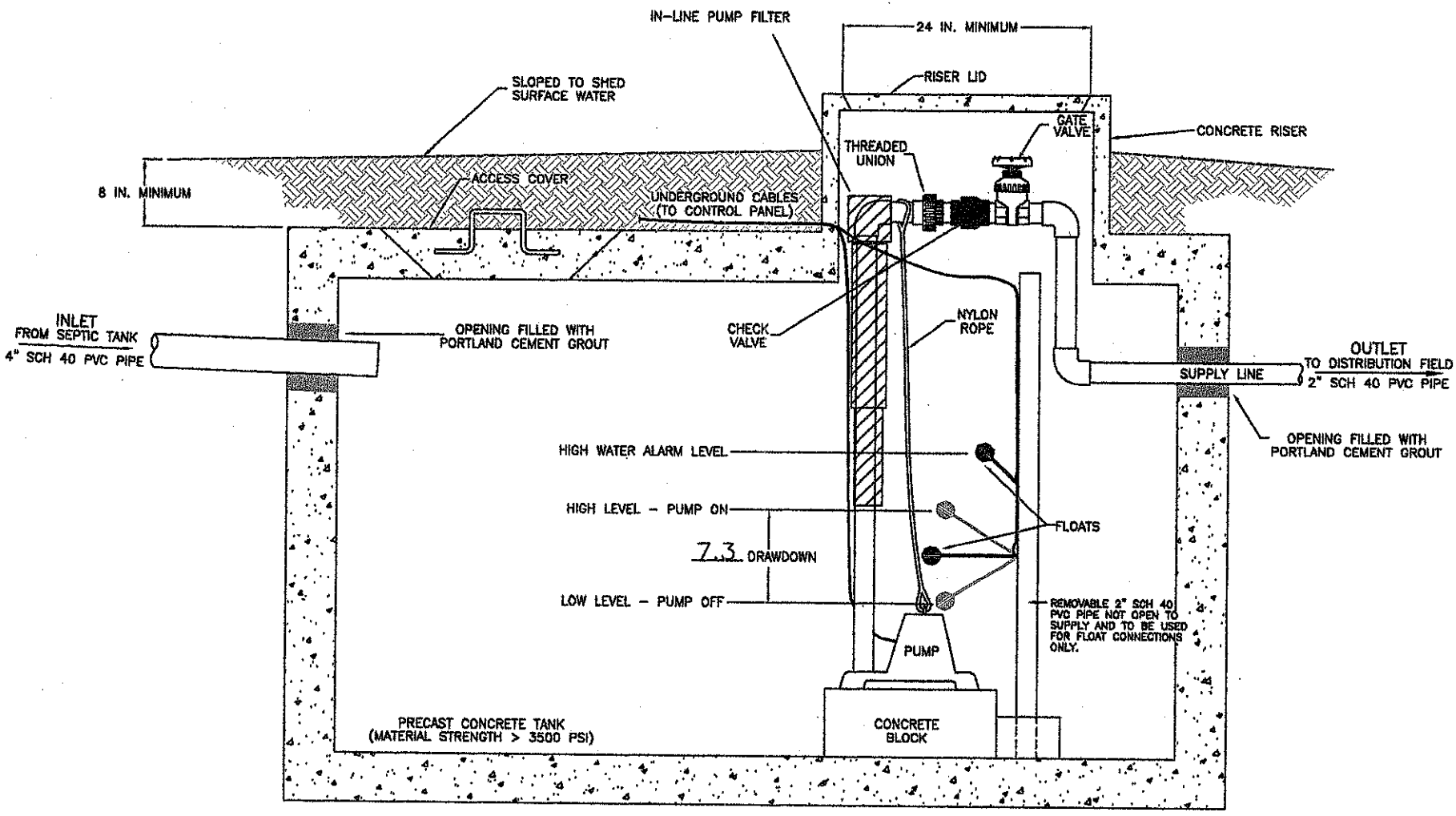
1000 GALLON SEPTIC TANK

PROJECT NO. 4591	PROJECT NAME: **Wheatfield Lot 20**
PROJECT MGR.	
SCALE NTS	SHEET TITLE: SEPTIC TANK DIAGRAM

S&EC
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Web Page: www.SandEC.com

8

5



1000 GALLON PUMP TANK

SHEET 1 OF 1

JOB NO.	PROJECT NAME: Wheatfield Lot 20
PROJECT MGR.	SHEET TITLE: PUMP TANK DIAGRAM
SCALE NTS	

S&EC

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