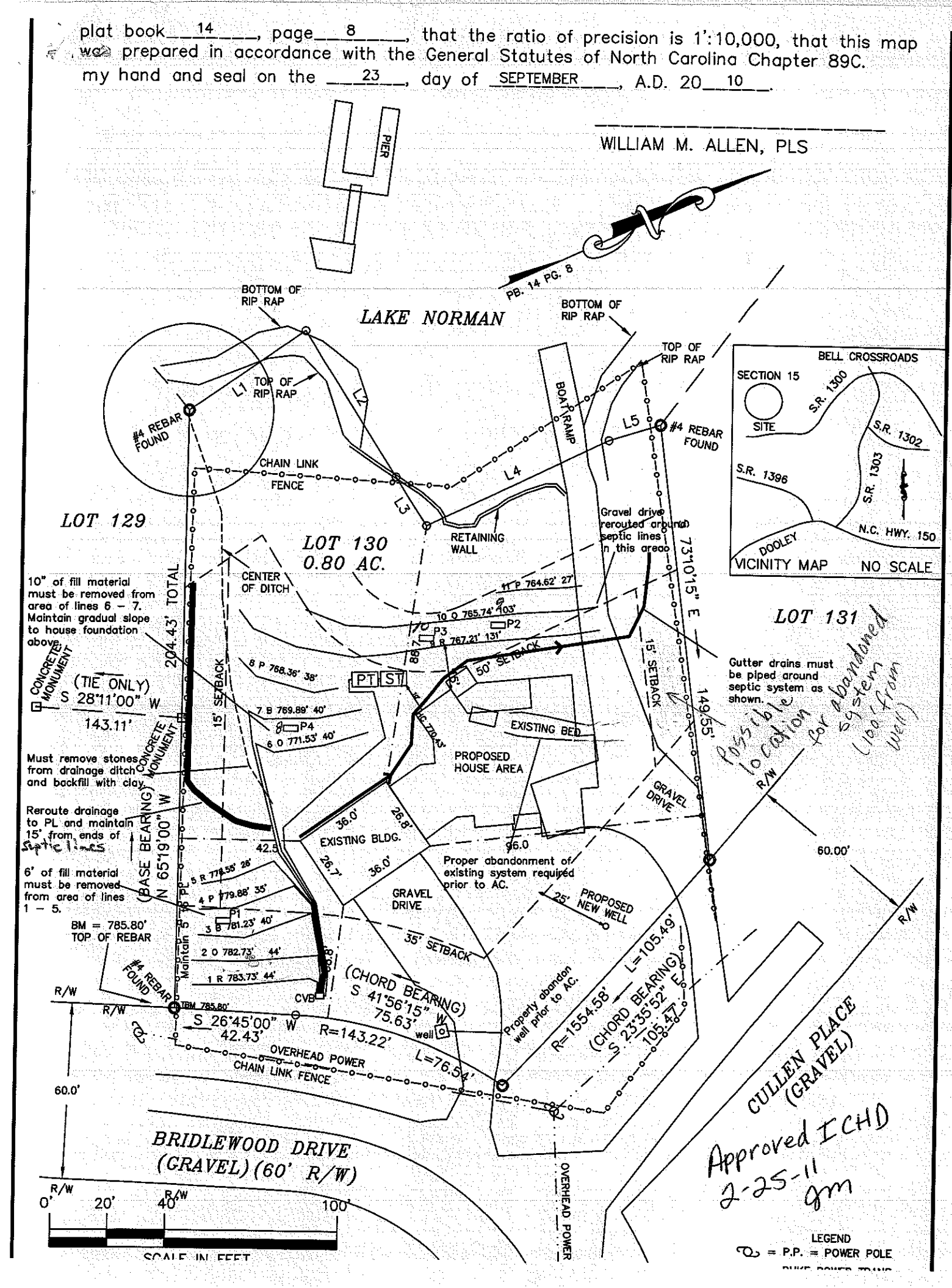
plat book 14, page 8, that the ratio of precision is 1':10,000, that this map was prepared in accordance with the General Statutes of North Carolina Chapter 89C.
my hand and seal on the 23, day of SEPTEMBER, A.D. 20 10.

WILLIAM M. ALLEN, PLS



DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL HEALTH
ON-SITE WASTEWATER SECTION

Sheet ___ of ___
PROPERTY ID #:
COUNTY: Iredell

# SOIL/SITE EVALUATION
## *for* ON-SITE WASTEWATER SYSTEM

OWNER: Straus Constr. / Bridlewood
ADDRESS: _____ APPLICATION DATE: /
PROPOSED FACILITY: _____ PROPOSED DESIGN FLOW (.1949): _____ DATE EVALUATED: 10/27/10
LOCATION OF SITE: _____ PROPERTY SIZE: _____
WATER SUPPLY: ☐ Private ☐ Public ☐ Well ☐ Spring ☐ Other _____ PROPERTY RECORDED: _____
EVALUATION METHOD: ☐ Auger Boring ☐ Pit ☐ Cut TYPE OF WASTEWATER: ☐ Sewage ☐ Industrial Process ☐ Mixed

| PROFILE # | .1940 LANDSCAPE POSITION/ SLOPE % | HORIZON DEPTH (IN.) | SOIL MORPHOLOGY (.1941) .1941 STRUCTURE/ TEXTURE | SOIL MORPHOLOGY (.1941) .1941 CONSISTENCE/ MINERALOGY | OTHER PROFILE FACTORS .1942 SOIL WETNESS/ COLOR | OTHER PROFILE FACTORS .1943 SOIL DEPTH | OTHER PROFILE FACTORS .1956 SAPRO CLASS | OTHER PROFILE FACTORS .1944 RESTR HORIZ | PROFILE CLASS & LTAR |
|---|---|---|---|---|---|---|---|---|---|
| B 1 | SS 10-15% | 0-27 | F/11 | STAMP HOLE | — | - | PS | - | PS .4 below 27" |
| | | 27-48 | Var. SL Sp/Pgr | SS, NP, Fr SExP | few CL inch. | | | | |
| B 2 | SS 10-15% | 0-15 | F/11 | | — | 38" | PS | - | PS .3 >15" |
| | | 15-38 | RB CL WFSBk | SS, SP, Fr SExP | com/many Sap | | | | |
| | | 38-48 | Var SL Sp/Pgr | SS, NP, Fr SExP | few CL inch | | | | |
| B 3 | SS 10-15% | 0-15 | F/11 | | — | 42" | PS | - | PS .35 |
| | | 15-24 | RB C WFSBk | SS SP, Fr SExP | | | | | |
| | | 24-42 | RB CL WFSBk | SS, SP, Fr SExP | com Sap | | | | |
| | | 42-48 | Var SL Sp/Pgr | SS, SP, Fr SExP | few CL inch | | | | |
| 4 | SS 10-15% | 0-11 | F/11 | | — | 48" | — | - | PS .3 |
| | | 11-26 | RTC WFSBk | SS, SP, Fr SExP | | | | | |
| | | 26-48 | RY CL WFSBk | SS, SP, Fr SExP | com Sap | | | | |

| DESCRIPTION | INITIAL SYSTEM | REPAIR SYSTEM |
|---|---|---|
| Available Space (.1945) | | |
| System Type(s) | | |
| Site LTAR | | |

OTHER FACTORS (.1946): _____
SITE CLASSIFICATION (.1948): _____
EVALUATED BY: _____
OTHER(S) PRESENT: _____

COMMENTS: _____

.50 LF

Trish Angel - (919) 218-2580

DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL HEALTH
ON-SITE WASTEWATER SECTION

Sheet ___ of ___
PROPERTY ID #: ___
COUNTY: Iredell

# SOIL/SITE EVALUATION
## *for* ON-SITE WASTEWATER SYSTEM

OWNER: Elizabeth Elden & William Gaule
ADDRESS: 136 Bridlewood Drive, Mooresville, NC 28117
PROPOSED FACILITY: 4BR
PROPOSED DESIGN FLOW (.1949): 480
LOCATION OF SITE: Fern Hill, Rt on Bridlewood Dr. (136)
APPLICATION DATE 2/14/11
DATE EVALUATED: ___
PROPERTY SIZE: .80
PROPERTY RECORDED: ___

WATER SUPPLY: ☒ Private ☐ Public ☒ Well ☐ Spring ☐ Other ___
EVALUATION METHOD: ☐ Auger Boring ☒ Pit ☐ Cut
TYPE OF WASTEWATER: ☒ Sewage ☐ Industrial Process ☐ Mixed

| PROFILE # | .1940 LANDSCAPE POSITION/ SLOPE % | HORIZON DEPTH (IN.) | SOIL MORPHOLOGY (.1941) .1941 STRUCTURE/ TEXTURE | .1941 CONSISTENCE/ MINERALOGY | OTHER PROFILE FACTORS .1942 SOIL WETNESS/ COLOR | .1943 SOIL DEPTH | .1956 SAPRO CLASS | .1944 RESTR HORIZ | PROFILE CLASS & LTAR |
|---|---|---|---|---|---|---|---|---|---|
| 1 | Remove 6" L/S-10% | 0-12 | Fill | | | | | | |
| | | 12-15 | BRcl wfsbk | FrSSSPSExP | | | | | PS |
| | | 15-33 | Rc mfsbk | FrSSSPSExP | fsap | 63 | - | - | |
| | | 33-63 | Rcl vwfsbk | FrSSSPSExP | csap | | | | .3 |
| | | | | | | | | | |
| 2 | L/S-10% | 0-3 | Bscl wfsbk | FrSSSPSExP | | | | | |
| | | 3-16 | Rc wfsbk | " " " " | | | | | PS |
| | | 16-41 | Rcl fsbk | " " " " | csap | 41 | PS | - | |
| | | 41-66 | var. sl/l mass | " " " " | f. Rcl incl. | | | | .35 |
| | | | | | | | | | |
| 3 | L/S-10% | 0-7 | Fill | | | | | | |
| | | 7-17 | Bscl sr | FrSSSPSExP | | | | | PS |
| | | 17-64 | Rc wf/vwfsbk | " " " " | f. yellow sap incl. | 64 | - | - | .275 |
| | | | | | | | | | |
| | | | | | | | | | |
| 4 | Remove 10" L/S-10% | 0-17 | Fill | | | | | | |
| | | 17-21 | RYc wfsbk | FrSSSPSExP | slightly compacted | | | | PS |
| | | 21-33 | RYcl wf/vwfsbk | " " " " | | 33 | PS | - | .3-.35 |
| | | 33-66 | var. sl mass | " " " " | f. RY cl. incl. | | | | |
| | | | | | | | | | |

| DESCRIPTION | INITIAL SYSTEM | REPAIR SYSTEM |
|---|---|---|
| Available Space (.1945) | PS | PS |
| System Type(s) | LPPPBPS | TSII Pretreatment LPPPBPS |
| Site LTAR | .3 | .275 |

OTHER FACTORS (.1946): ___
SITE CLASSIFICATION (.1948): PS
EVALUATED BY: Samuel A. Rollano & Adrian Privett
OTHER(S) PRESENT: ___
Approved ICHD 2-17-11

COMMENTS: Areas containing fill material will require careful removal without disturbance of natural underlying soil.

# SOIL/SITE EVALUATION

*(Continuation Sheet)*

Sheet ____ of ____

DEPARTMENT OF ENVIRONMENT
AND NATURAL RESOURCES
DIVISION OF ENVIRONMENTAL HEALTH

PROPERTY ID #: _____
DATE OF EVALUATION: _____
COUNTY: _____

| PROFILE # | .1940 LANDSCAPE POSITION/ SLOPE % | HORIZON DEPTH (IN.) | SOIL MORPHOLOGY (.1941) .1941 STRUCTURE/ TEXTURE | SOIL MORPHOLOGY (.1941) .1941 CONSISTENCE/ MINERALOGY | OTHER PROFILE FACTORS .1942 SOIL WETNESS/ COLOR | .1943 SOIL DEPTH | .1956 SAPRO CLASS | .1944 RESTR HORIZ | PROFILE CLASS & LTAR |
|---|---|---|---|---|---|---|---|---|---|
| B5 | SS/10-15 | 0-7 | Fill | | -csap | 38 | PS | - | PS 0.3 |
| | | 7-12 | Bslsr | FrSSSPSExP | | | | | |
| | | 12-20 | YR scl wfsbk | " " " " | | | | | |
| | | 20-38 | RYC cl wfsbk | " " " " | | | | | |
| | | 38-54 | varieg sap mass | " " " " | | | | | |
| B6 | SS/10-15 | 0-10 | Fill | | -fcsap | 34 | PS | - | PS .3-.35 |
| | | 10-15 | BR cl wfsbk | FrSSSPSExP | | | | | |
| | | 15-30 | RYC wfsbk | " " " " | | | | | |
| | | 30-34 | YR cl " " | " " " " | | | | | |
| | | 34-52 | varieg sl mass | " " " " | | | | | |
| B7 | SS/10-15 | 0-14 | Fill | | -fsap | 39 | PS | - | PS .3 |
| | | 14-24 | YR cl wfsbk | FrSSSPSELP | | | | | |
| | | 24-39 | RYC wfsbk | " " " " | | | | | |
| | | 39-49 | varieg sl mass | " " " " | | | | | |
| | | | | | | | | | |
| B8 | SS 10-15% | 0-10 | Fill | | - rock/many saps | 38" | PS | - | PS .35 |
| | | 10-26 | RC hf/wfsbk | SS, SP, Fr SExP | | | | | |
| | | 26-38 | RYCL wfsbk | SS, SP, Fr SExP | | | | | |
| | | 38-60 | Var SL Sap Mass | SS SP, Fr SExP | | | | | |
| | | | | | | | | | |
| B9 | SS 10-15% in 50' setback | 0-18 | RC wfsbk | SS, SP, Fr SExP | - Consap concl around transition | 27" | PS | - | PS .4 |
| | | 18-27 | RYCL wfsbk | SS SP Fr SExP | | | | | |
| | | 27-48 | Var SL Sap Mass | SS, NP, Fr SExP | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

COMMENTS: 0-6 Fill
B10 6-24 RB SC WFSBK SS SP Fr SEXP few con Organic incl .275
24-48 R SC WFSBK SS, SP, Fr SEXP few Sap

# LP PPBPS SYSTEM
# FOR WASTEWATER TREATMENT

| | |
|---|---|
| **Owner/Applicant:** | William & Elizabeth Gaule |
| **Address:** | 102 Peralta Circle<br>Mooresville, NC 28117 |
| **Phone:** | 440-935-2929 |
| **County:** | Iredell |
| **Location:** | 136 BRIDLEWOOD DR (LOT 130 CL&T) |
| **Source of Wastewater Flow:** | 4 Bedroom Single Family Residence |
| **Estimated Gallons Per Day Flow:** | 480 |
| **System Flow:** | 25.01 |

## Design Specifications

| | |
|---|---|
| **Drainfield Size:** | 269 |
| **Loading Rate (gpd/ft.$^2$):** | 0.3 |
| **Depth of Gravel in Trench:** | NA (PPBPS ) |
| **Gravel Size:** | NA (PPBPS ) |
| **Trench Depth:** | 36 in. |
| **Trench Width:** | 24 in. |
| **Septic Tank Size:** | 1000 |
| **Pump Tank Size:** | 1000 |
| **Estimated Supply Line Length:** | 138 |
| **Supply Line Diameter:** | 2 in. SCH 40 PVC |
| **Supply Line Volume:** | 24.01 |
| **Dosing Volume:** | 147.13 |
| **Supply Manifold:** | N/A |
| **Supply Manifold Length:** | N/A |
| **Supply Manifold Volume:** | N/A |
| **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:** | 1.75 |
| **Elevation Head:** | 20.37 |
| **Total Dynamic Head:** | 27.74 |
| **Threaded Union:** | In Tank |
| **Gate Valves:** | 1 in Tank<br>1 per lateral |
| **Check Valves:** | In Tank |
| **Anti-Siphon Hole:** | NA |
| **Additional Comments:** | Soil suitability was performed by Rollans Soil & Environmental Services |

## 136 BRIDLEWOOD DR (LOT 130 CL&T)
## LP PPBPS

| | |
|---|---|
| **DESIGN FLOW (gpd):** | 480 |
| **SOIL APPLICATION RATE (gpd/ft.$^2$):** | 0.3 |
| **TOTAL AREA TRENCH BOTTOM:** | 807 |
| **TOTAL LATERAL LENGTH:** | 269 |
| **NUMBER OF FIELDS:** | 1 |
| **LATERAL LENGTH REQUIRED PER FIELD:** | 266.6666667 |
| **SUPPLY LINE LENGTH:** | 138 |
| **TOTAL DYNAMIC HEAD:** | 27.74 |
| **MANIFOLD SIZE:** | N/A |
| **DOSING VOLUME:** | 147.13 |
| **PUMP TANK DRAW DOWN*:** | 7.0 |
| **SEPTIC TANK SIZE:** | 1000 |
| **PUMP TANK SIZE:** | 1000 |

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

# 136 BRIDLEWOOD DR (LOT 130 CL&T)

Project #: 01-1653

LAYOUT FOR 4 BEDROOM HOME

February 14, 2011

| LINE # | FLAG COLOR | BS | HI | FS | ELEVATION | FLAGGED LINE LENGTH | DESIGN LINE LENGTH |
|---|---|---|---|---|---|---|---|
| TBM | | | | | 785.80 | | |
| INSTR. 1 | | | | | | | |
| HOUSE CNR | | | | | 770.43 | | |
| P. TANK | | | | | 768.36 | | |
| *1* | ***RED*** | | | | ***783.73*** | ***44*** | ***44*** |
| *2* | ***ORANGE*** | | | | ***782.73*** | ***44*** | ***44*** |
| *3* | ***BLUE*** | | | | ***781.23*** | ***40*** | ***40*** |
| *4* | ***PINK*** | | | | ***779.88*** | ***35*** | ***35*** |
| *5* | ***RED*** | | | | ***778.55*** | ***26*** | ***26*** |
| *6* | ***ORANGE*** | | | | ***771.53*** | ***40*** | ***40*** |
| *7* | ***BLUE*** | | | | ***769.89*** | ***40*** | ***40*** |
| 8 | PINK | | | | 768.36 | 38 | 38 |
| 9 | RED | | | | 767.21 | 131 | 131 |
| 10 | ORANGE | | | | 765.74 | 103 | 103 |
| 11 | PINK | | | | 764.62 | 27 | 27 |
| | | | | | **Total** | **568** | **568** |

| | LINE LENGTH | LTAR GPD/FT2 | SYSTEM TYPE | SOIL LTAR GPD/FT2 | TRENCH SYSTEM | DISTRIBUTION |
|---|---|---|---|---|---|---|
| **** System*** | ***269*** | ***0.300*** | ***MOD.*** | ***0.300*** | ***PPBPS*** | ***LOW PRESSURE*** |
| Repair | 299 | 0.275 | MOD. | 0.275 | PPBPS w/ TS II Pretreatment | LOW PRESSURE |

Notes:
** TBM located top of ground at EIP at corner of lot (see site plan)
**All measures in feet
**Nitrification lines are demonstrated on contour via colored pin flags
**BS, HI, and FS indicate rod readings
**** All lines located by a Licensed Surveyor.**

# LP PPBPS TAPSHEET -136 BRIDLEWOOD DR (LOT 130 CL&T)

## SYSTEM

| Line # | Color | Elevation | Length | Hole Size | Flow/hole | Trench Area | Number of Panels |
|---|---|---|---|---|---|---|---|
| *1* | *RED* | *783.73* | *44* | 0.156 | **0.41** | 132 | 10 |
| *2* | *ORANGE* | *782.73* | *44* | 0.156 | **0.41** | 132 | 10 |
| *3* | *BLUE* | *781.23* | *40* | 0.156 | **0.41** | 120 | 9 |
| *4* | *PINK* | *779.88* | *35* | 0.156 | **0.41** | 105 | 8 |
| *5* | *RED* | *778.55* | *26* | 0.156 | **0.41** | 78 | 6 |
| *6* | *ORANGE* | *771.53* | *40* | 0.156 | **0.41** | 120 | 9 |
| *7* | *BLUE* | *769.89* | *40* | 0.156 | **0.41** | 120 | 9 |
| | | | | | | | 61 |
| | **total** | **feet =** | **269** | **gal/min =** | **25.01** | | |
| | | | **Des. Flow** | **480** | | | |
| | | | **Pump Run=** | **5.88** | | | |
| | | | **soil LTAR** | **0.3** | | | |
| | | | **LTAR +5%** | **0.315** | | | |
| | | | **LTAR with mod.** | **0.6** | | | |
| | | | **LTAR with mod.. + 5%** | **0.63** | | | |

**.156 equals 5/32 inch hole**