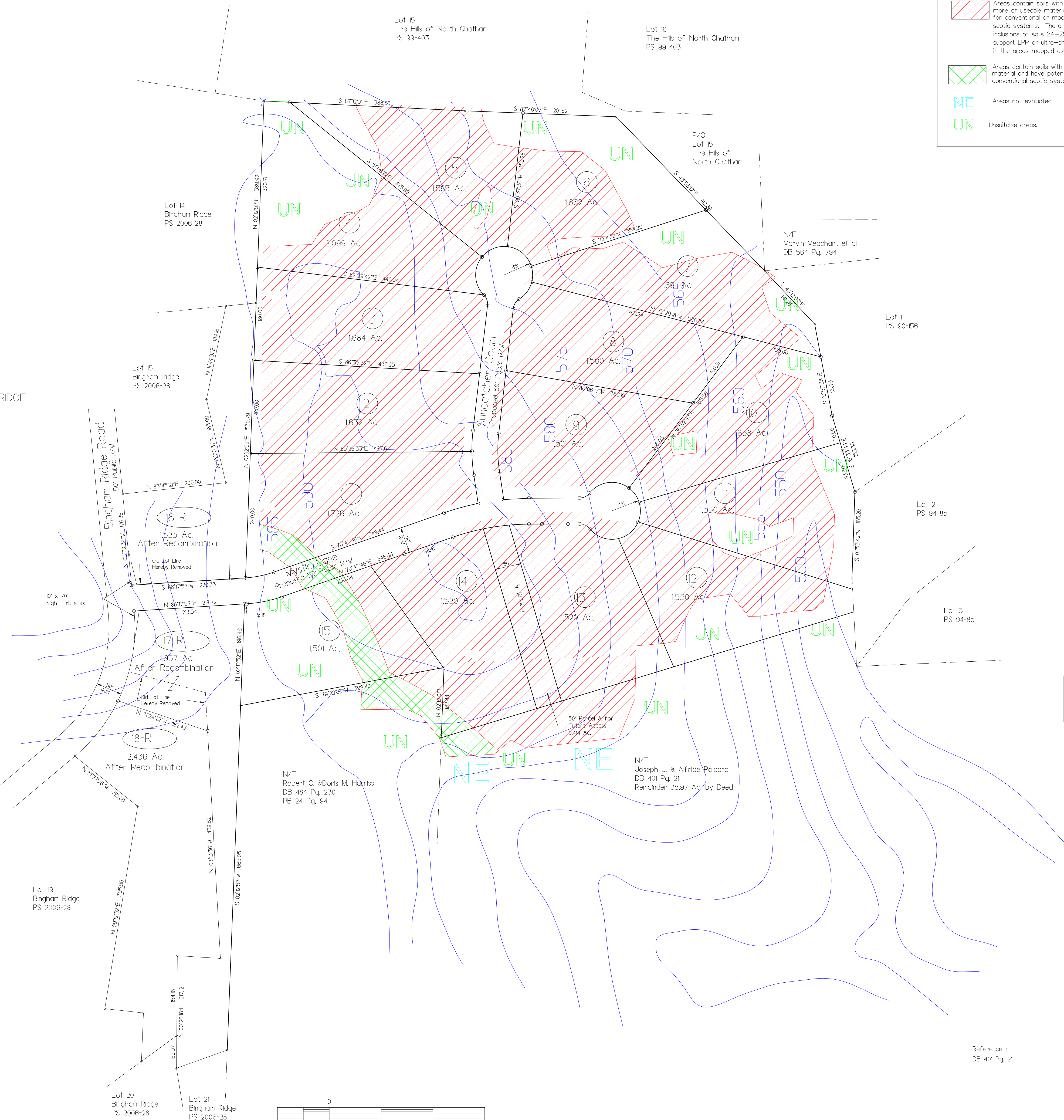


- Notes :
- Distances shown are horizontal ground distances in feet.
 - Only evidence of easements, encroachments or structures thereto which are readily apparent from a casual above ground view of the premises are shown.
 - The premises shown and described herein are subject to any existing easements, rights-of-way, restrictions, and setback lines whether or not they may be shown on the plat herein or whether or not recorded in the public records.
 - Present survey differs from record description.
 - No title search was performed for this survey. The field survey is based on the referenced plats and/or deeds.
 - Building Setbacks :
Front = 40'
Side = 25'
Rear = 25'
 - All areas shown are computed by the coordinate method.

Legend for soil suitability:

- Areas contain soils with 30 inches or more of useable material and have potential for conventional or modified conventional septic systems. There will be inclusions of soils 24-29 inches that would support LPP or ultra-shallow conv. septic systems in the areas mapped as conventional.
- Areas contain soils with 24-29 inches of useable material and have potential for LPP or ultra-shallow conventional septic systems.
- Areas not evaluated
- Unsuitable areas.



I, James H. Holland, Jr., do hereby certify that this plat was drawn under my supervision from an actual survey made under my supervision using references shown herein; that the boundaries not surveyed are shown as broken lines plotted from information shown herein; that the ratio of precision as calculated by latitudes and departures is 1 : _____; that this plat was prepared in accordance with G.S. 47-30 as amended. Witness my original signature, license number, and seal this _____ day of _____, A.D., 2000.

Professional Land Surveyor
License Number

State of North Carolina
County of Chatham

I, _____, Review Officer of Chatham County, certify that the map or plat to which this certification is affixed meets all statutory requirements for recording for which the Review Officer has responsibility as provided by law.

Review Officer _____ Date _____

- I hereby certify :
- A - That this survey creates a subdivision of land within the area of a county or municipality that has an ordinance that regulates parcels of land.
 - B - That this survey is located in such portion of a county or municipality that is unregulated as to an ordinance that regulates parcels of land.
 - C - Any one of the following :
 1- That this survey is of an existing parcel or parcels of land and does not create a new street or change an existing street.
 2- That this survey is of an existing building or other structure, or natural feature, such as a watercourse.
 3- That this survey is a control survey.
 - D - That this survey is of another category, such as the recombination of existing parcels, a court ordered survey, or other exception to the definition of subdivision.
 - E - That the information available to the surveyor is such that the surveyor is unable to make a determination to the best of his or her professional ability as to the provisions contained in (A) through (D) above.

Professional Land Surveyor

- LEGEND :
- Iron Pipe Set (Unless Otherwise Designated)
 - Existing Iron Pipe or Stake
 - Computed Corner (Nothing Set)
 - Concrete Monument Set
 - Existing Concrete Monument

Tax Parcel : P/O PIN 8756-54-4683
Zoning : RA40 (WS4 Protected Watershed)

Recorded :

CONTACT BOB HARTFORD
942 9214

SITE PLAN
SUBDIVISION & RECOMBINATION SURVEY
**BINGHAM RIDGE SUBDIVISION
PHASE 2 SKETCH PLAN**
BALDWIN TWP., CHATHAM CO., NC
SCALE : 1" = 100'
DATE : OCTOBER 11, 2006

HOLLAND Land Surveying
608 MLK, Jr. Blvd., Chapel Hill, NC 27514
(919) 942-9401

Project No. 06-054
BR-F12.DWG



PS 2006-28

Lot 15
The Hills of North Chatham
PS 99-403

Lot 16
The Hills of North Chatham
PS 99-403

Lot 14
Bingham Ridge
PS 2006-28

Lot 15
Bingham Ridge
PS 2006-28

N/F
Marvin Meacham, et d
DB 564 Pg. 794

Lot 1
PS 90-156

Lot 2
PS 94-85

Lot 3
PS 94-85

N/F
Robert C. & Doris M. Harris
DB 484 Pg. 230
PB 24 Pg. 94

N/F
Joseph J. & Alfride Polcaro
DB 401 Pg. 21
Remainder 35.97 Ac. by Deed

Lot 19
Bingham Ridge
PS 2006-28

Lot 20
Bingham Ridge
PS 2006-28

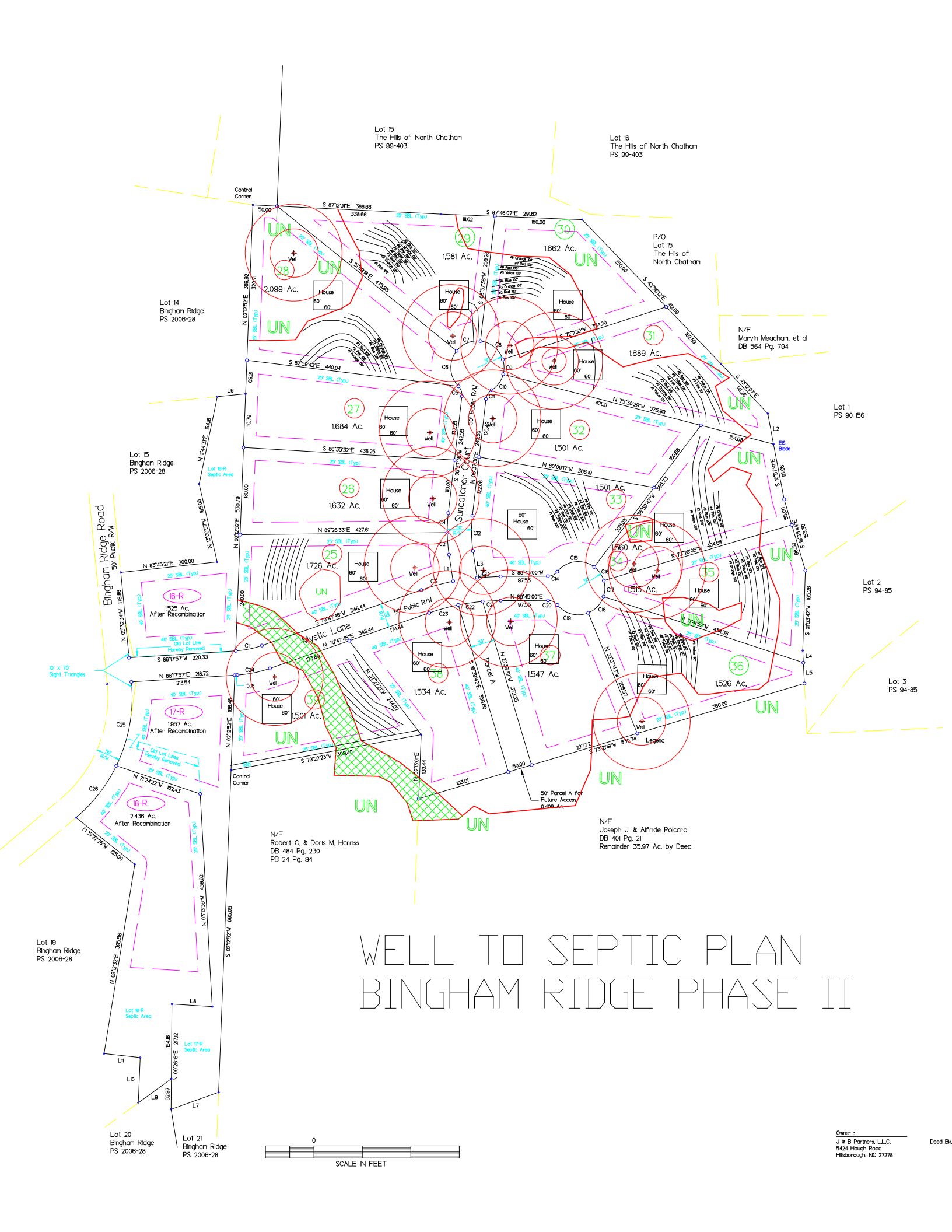
Lot 21
Bingham Ridge
PS 2006-28

WELL TO SEPTIC PLAN BINGHAM RIDGE PHASE II

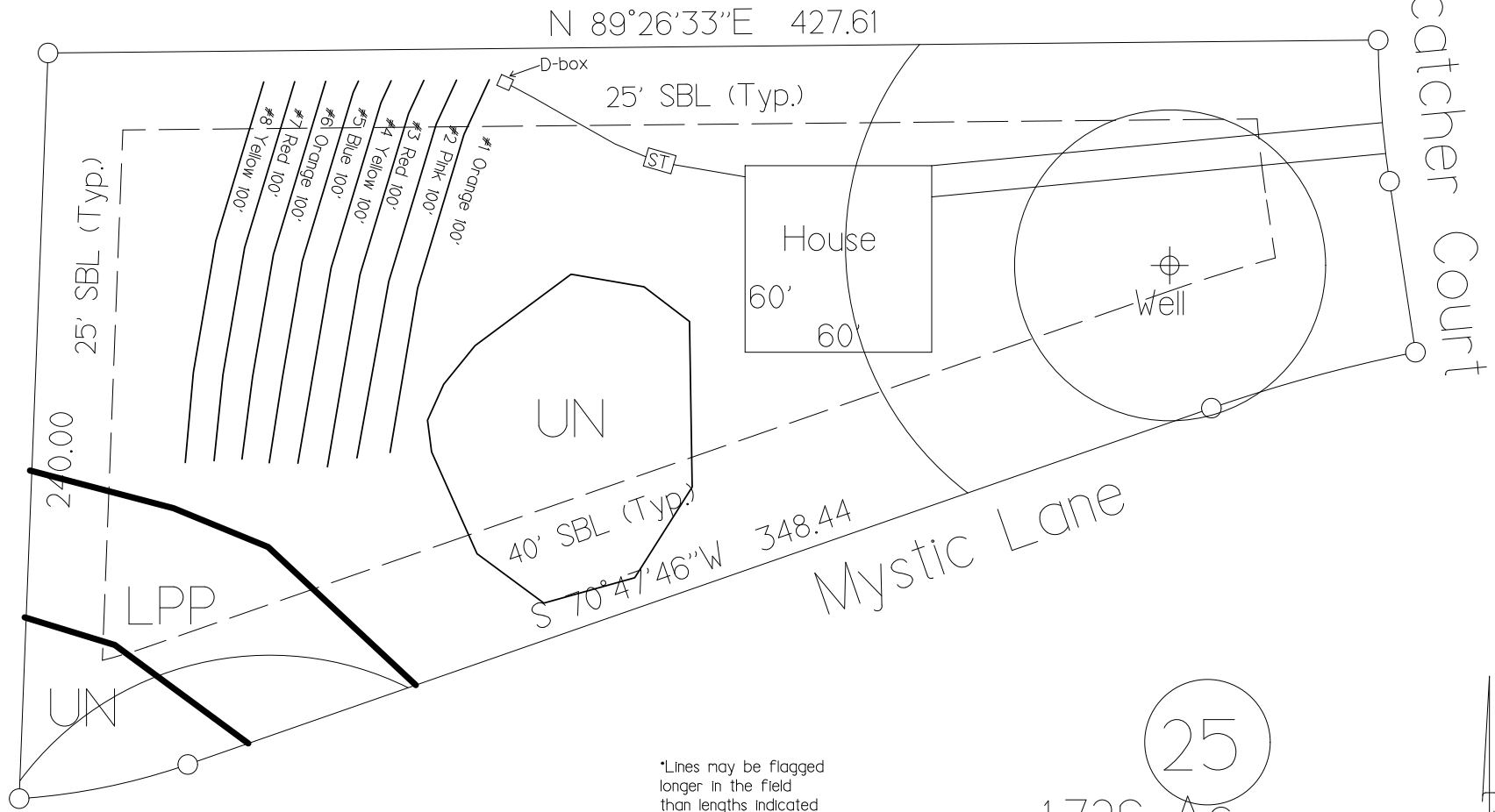


Owner:
J & B Partners, L.L.C.
5424 Hough Road
Hillsborough, NC 27278

Deed Bk



Bingham Ridge Phase II Lot 25 5-Bedroom Septic System Layout February 2007



System: Gravity to D-Box
 Lines: 1-4, (500')
 Accepted Status System
 0.3 Soil LTAR
 18" Trench Bottom
 Repair: Gravity to D-box
 Lines: 5-8 (500')
 Accepted Status System
 18" Trench Bottom
 0.3 Soil LTAR

*Lines may be flagged longer in the field than lengths indicated above. Install at lengths indicated on site plan.

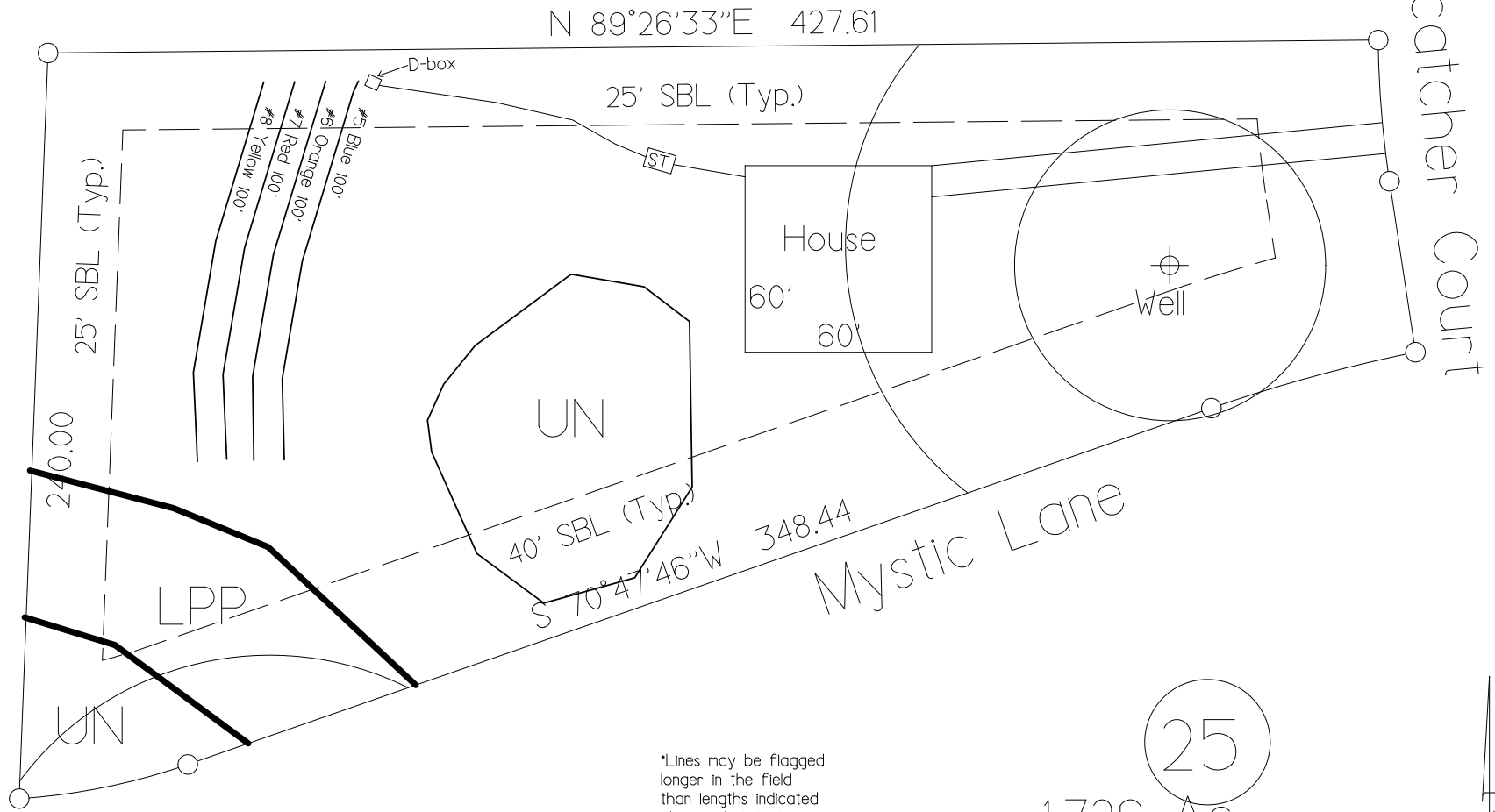
25
1.726 Ac.

GRAPHIC SCALE
1" = 60'



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 Soil Consulting
 919-784-9449
 Project # 329

Bingham Ridge Phase II Lot 25 5-Bedroom Septic Repair Layout February 2007



System: Gravity to D-Box
 Lines: 1-4, (500')
 Accepted Status System
 0.3 Soil LTAR
 18" Trench Bottom
 Repair: Gravity to D-box
 Lines: 5-8 (500')
 Accepted Status System
 18" Trench Bottom
 0.3 Soil LTAR

*Lines may be flagged longer in the field than lengths indicated above. Install at lengths indicated on site plan.

25
1.726 Ac.

GRAPHIC SCALE
1" = 60'



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 Project # 86

Bingham Ridge

Lot 25

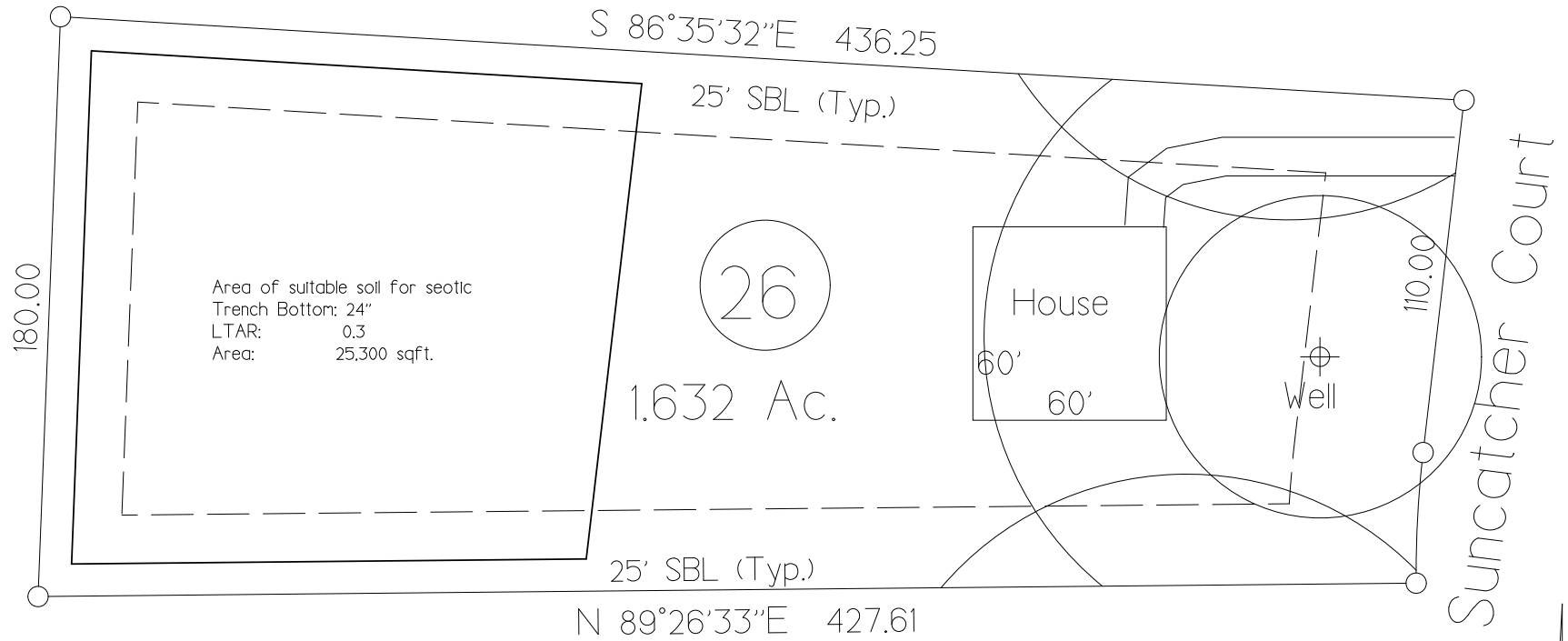
5-Bedroom Home (600 gal./day)

<u>LINE #</u>	<u>COLOR</u>	<u>BS</u>	<u>HI</u>	<u>FS</u>	<u>ELEVATION</u>	<u>LINE LENGTH</u>	<u>Design Length</u>
TBM		7.7		100.0		<u>in field</u>	<u>installation</u>
INST. 1			107.7				
1	Orange			4.0	103.7	135	125
2	Pink			4.5	103.2	133	125
3	Red			5.2	102.5	130	125
4	Yellow			5.7	102	130	125
5	Blue			6.2	101.5	130	125
6	Orange			6.8	100.9	130	125
7	Red			7.4	100.3	130	125
8	Yellow			8.0	99.7	128	125
					Total	1046	1000

System Type	<u>System</u> Lines 1-4	<u>Repair</u> Lines 5-8
	Accepted Status System EZ-FLOW	Accepted Status System EZ-FLOW
Suggested Soil LTAR (gal/day/ft ²)	0.30	0.30
System Installation LTAR	0.30	0.30
Total Line Length	500	500
Square Footage	1500	1500
Proposed Trench Bottom	18"	18"
Distribution Method	Gravity to D-box	Gravity to D-box

Notes: TBM is top of rock on line #8

Bingham Ridge Phase II Lot 26
5-Bedroom Septic System Layout
February 2007

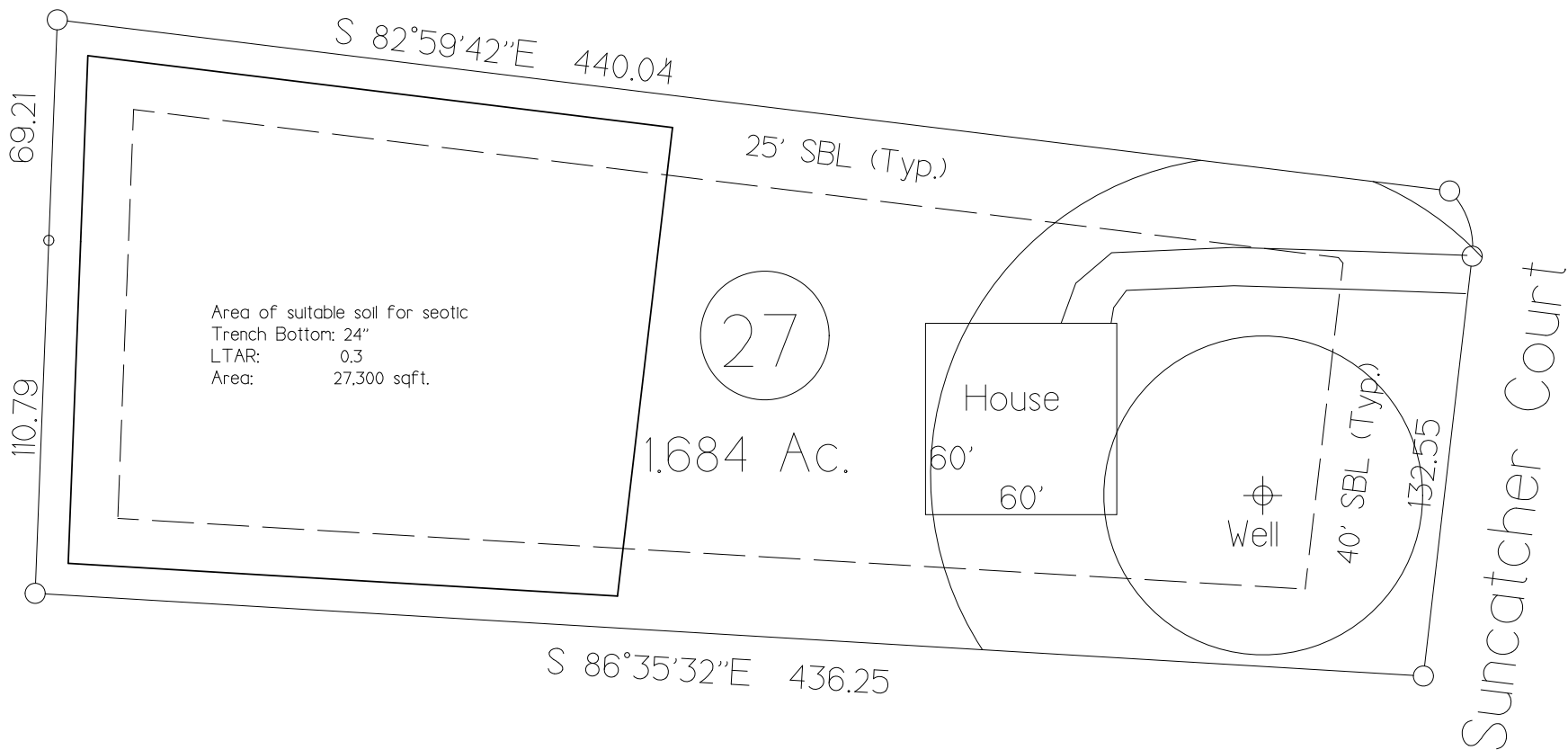


GRAPHIC SCALE
1" = 60'



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Bingham Ridge Phase II Lot 27
5-Bedroom Septic System Layout
February 2007



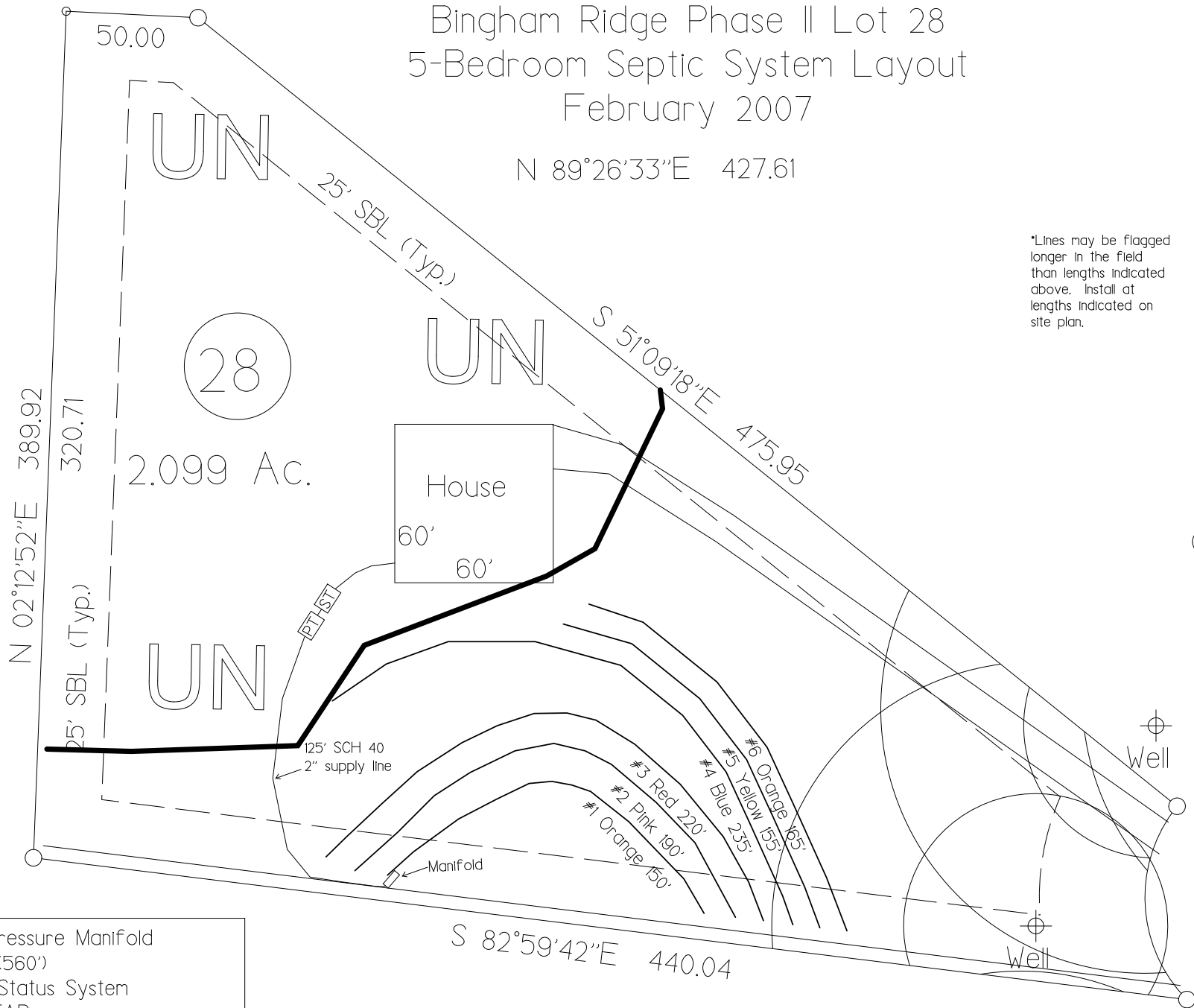
GRAPHIC SCALE
1" = 60'



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Soil Consulting
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Project # 329

Bingham Ridge Phase II Lot 28 5-Bedroom Septic System Layout February 2007

N 89°26'33"E 427.61



*Lines may be flagged longer in the field than lengths indicated above. Install at lengths indicated on site plan.

Suncatcher Court

System: Pressure Manifold
Lines: 1-3, (560')
Accepted Status System
0.3 Soil LTAR
24" Trench Bottom
Repair: Pressure Manifold
Lines: 4-6 (555')
Accepted Status System
24" Trench Bottom
0.3 Soil LTAR

GRAPHIC SCALE
1" = 60'

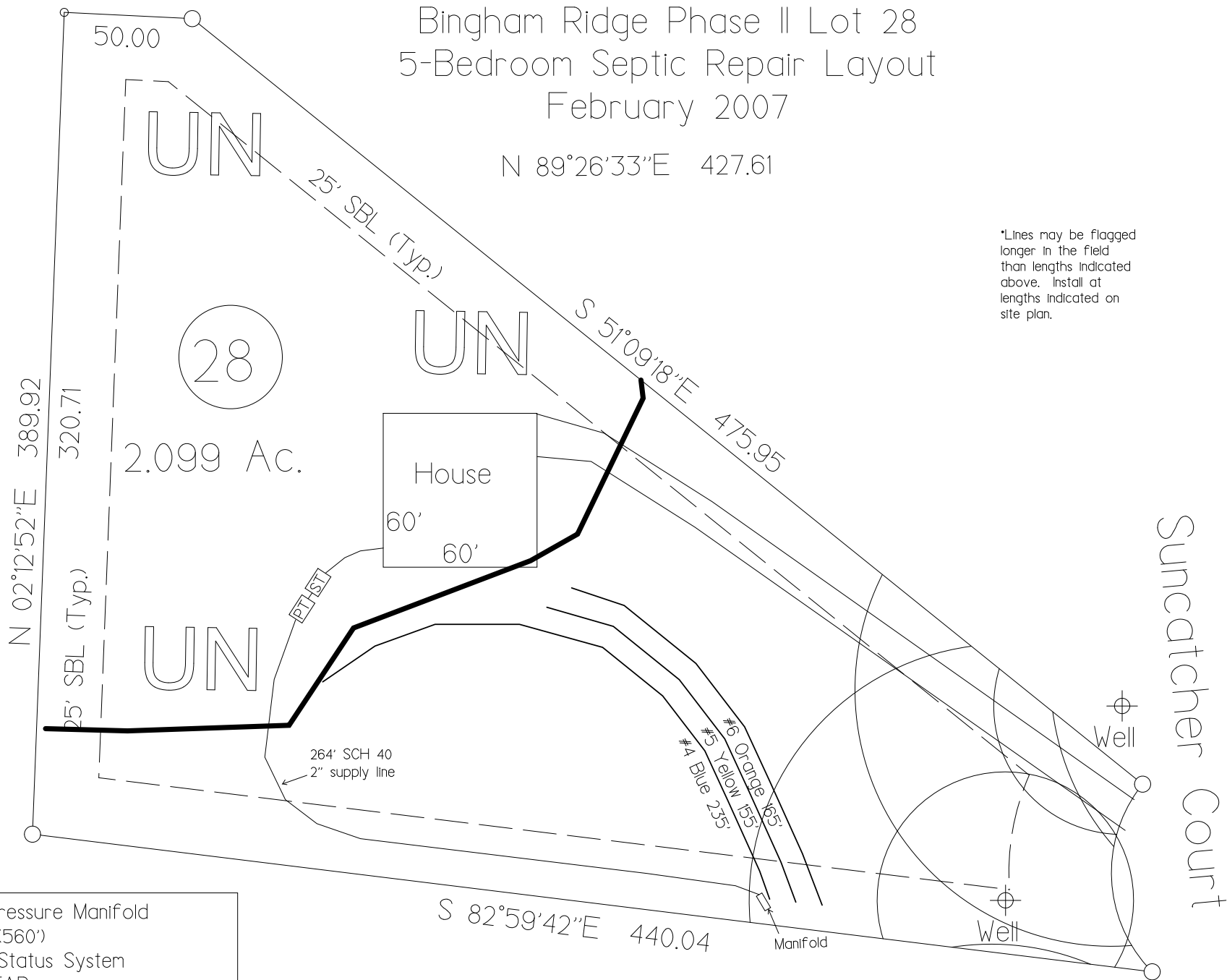


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Soil Consulting
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Project # 329

Bingham Ridge Phase II Lot 28 5-Bedroom Septic Repair Layout February 2007

N 89°26'33"E 427.61

*Lines may be flagged longer in the field than lengths indicated above. Install at lengths indicated on site plan.



System: Pressure Manifold
Lines: 1-3, (560')
Accepted Status System
0.3 Soil LTAR
24" Trench Bottom
Repair: Pressure Manifold
Lines: 4-6 (555')
Accepted Status System
24" Trench Bottom
0.3 Soil LTAR

GRAPHIC SCALE
1" = 60'



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Project # 329

Bingham Ridge

Lot 28

5-Bedroom Home (600 gal./day)

<u>LINE #</u>	<u>COLOR</u>	<u>BS</u>	<u>HI</u>	<u>FS</u>	<u>ELEVATION</u>	<u>LINE LENGTH</u>	<u>Design Length</u>
TBM		0.4		100.0		<u>in field</u>	<u>installation</u>
INST. 1			100.4				
<i>1</i>	<i>Orange</i>			<i>3.4</i>	<i>97.0</i>	<i>152</i>	<i>150</i>
<i>2</i>	<i>Pink</i>			<i>3.8</i>	<i>96.6</i>	<i>190</i>	<i>190</i>
<i>3</i>	<i>Red</i>			<i>4.4</i>	<i>96.0</i>	<i>222</i>	<i>220</i>
4	Blue			5.1	95.3	236	235
5	Yellow			5.8	94.6	158	155
6	Orange			6.4	94.0	165	165
					Total	1123	1115

	<u>System</u> Lines 1-3	<u>Repair</u> Lines 4-6
System Type	Accepted Status System EZ-FLOW	Accepted Status System EZ-FLOW
Suggested Soil LTAR (gal/day/ft ²)	0.30	0.30
System Installation LTAR	0.27	0.27
Total Line Length	560	555
Square Footage	1680	1665
Proposed Trench Bottom	24"	24"
Distribution Method	Pressure Manifold	Pressure Manifold

Notes: TBM is top of cut tree above Line #1

**Lot 28, Bingham Ridge
Initial Tap Chart**

Bench Mark	0.40	is = 100.00		Location of BM		Elevation Head			5.60
Pump tank elev.	3	97.40	Pump elev.	92.40	Manifold elev.			98.00	
line	color	rod read	Elevation	length	hole size	flow/tap	gal/day	trench area	LINE LTAR
1	Orange	3.40	97.00	150	3/4in SCH 40	12.5	179.43	450	0.3987
2	Pink	3.80	96.60	190	3/4in SCH 40	12.5	179.43	570	0.3148
3	Red	4.40	96.00	220	1in SCH 80	16.8	241.15	660	0.3654

total feet = 560 gal/min = 41.8 LTAR = 0.3000

LTAR + %5 0.3150

% of Dose Vol. 65 Des. Flow 600 (ltar W/ INOV) 0.4000

Dose Volume 236.60 Pump Run= 14.35 (ltar W/ INOV + 5% 0.4200

Dose Pump Time 5.66 Tank Gal/IN 30

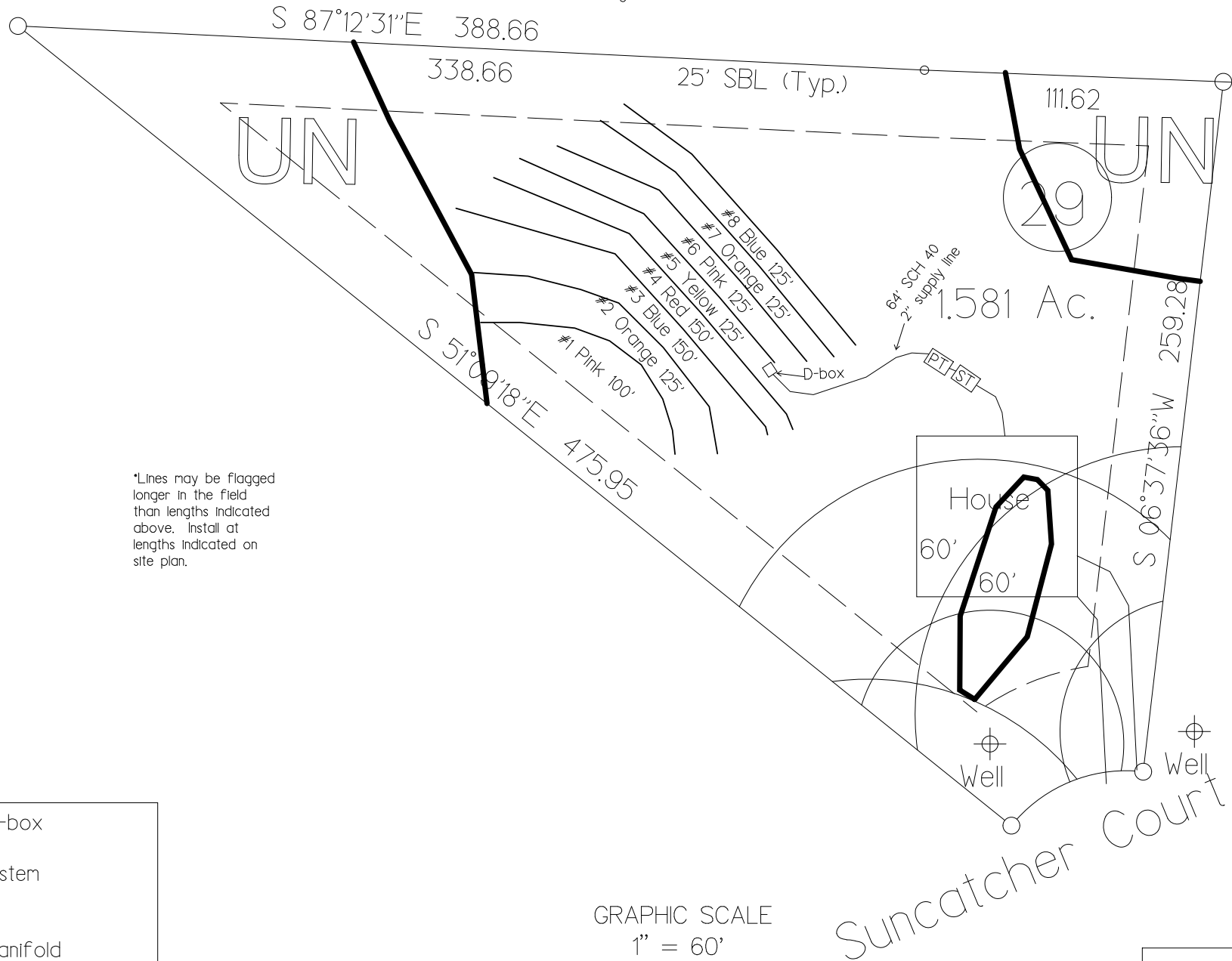
Drawdown in Inches 7.89

**Lot 28, Bingham Ridge
Repair Tap Chart**

Bench Mark	0.40	is = 100.00 Location of BM				Elevation Head		3.90	
Pump tank elev.	3	97.40	Pump elev.	92.40	Manifold elev.		96.30		
line	color	rod read	Elevation	length	hole size	flow/tap	gal/day	trench area	LINE LTAR
4	Blue	5.10	95.30	235	1in SCH 80	16.8	241.15	705	0.3421
5	Yellow	5.80	94.60	155	3/4in SCH 40	12.5	179.43	465	0.3859
6	Orange	6.40	94.00	165	3/4in SCH 40	12.5	179.43	495	0.3625

	total	feet =	555	gal/min =	41.8	LTAR =	0.3000
						LTAR + %5	0.3150
% of Dose Vol.	65	Des. Flow	600			(ltar W/ INOV)	0.4000
Dose Volume	234.49	Pump Run=	14.35			(ltar W/ INOV + 5%)	0.4200
Dose Pump Time	5.61	Tank Gal/IN	30				
Drawdown in Inches	7.82						

Bingham Ridge Phase II Lot 29 5-Bedroom Septic System Layout February 2007



*Lines may be flagged longer in the field than lengths indicated above. Install at lengths indicated on site plan.

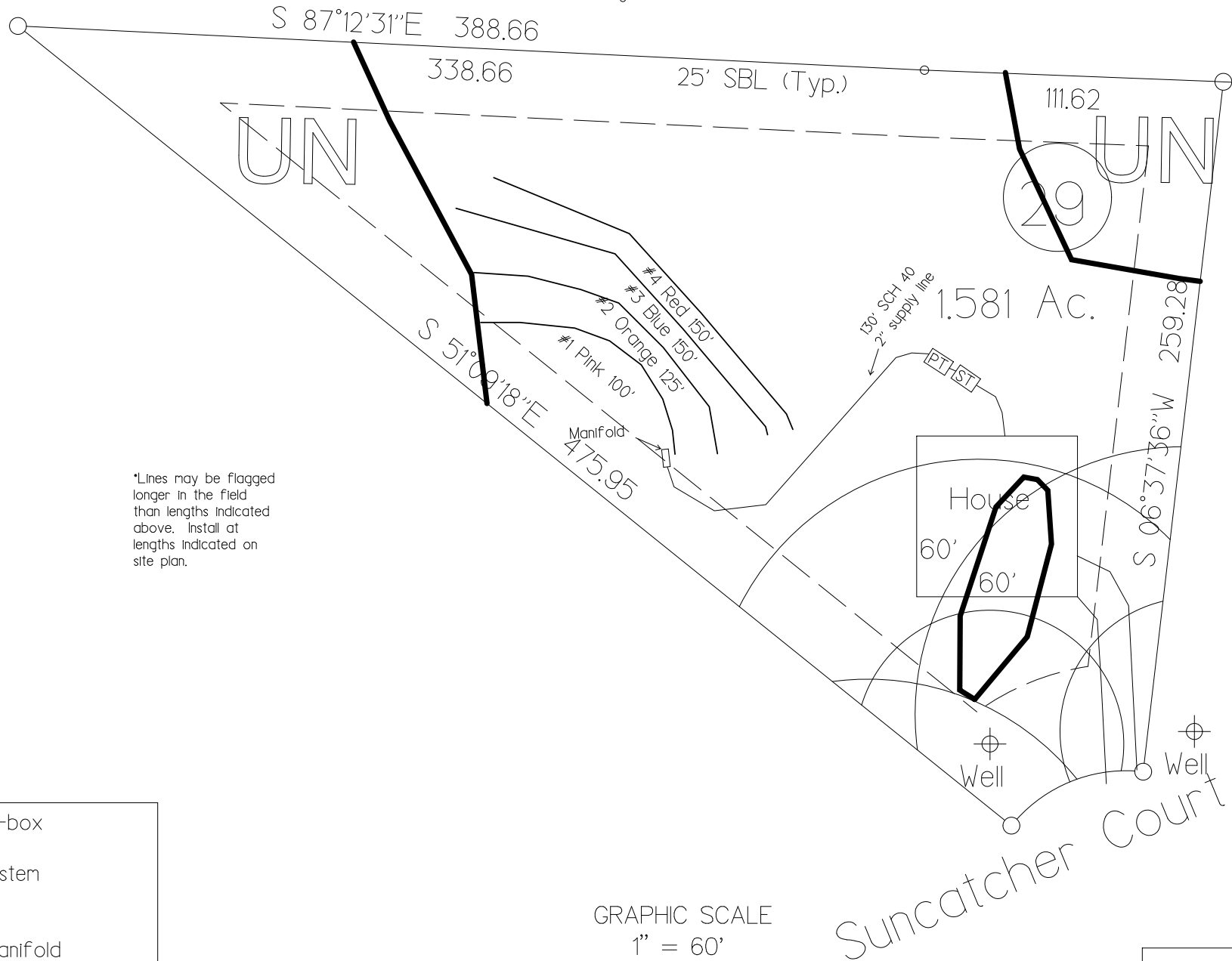
System: Pump to D-box
 Lines: 5-8, (500')
 Accepted Status System
 0.3 Soil LTAR
 18" Trench Bottom
 Repair: Pressure Manifold
 Lines: 1-4, (525')
 Accepted Status System
 18" Trench Bottom
 0.3 Soil LTAR

GRAPHIC SCALE
 1" = 60'



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 Project # 329

Bingham Ridge Phase II Lot 29 5-Bedroom Septic Repair Layout February 2007



*Lines may be flagged longer in the field than lengths indicated above. Install at lengths indicated on site plan.

System: Pump to D-box
 Lines: 5-8, (500')
 Accepted Status System
 0.3 Soil LTAR
 18" Trench Bottom
 Repair: Pressure Manifold
 Lines: 1-4, (525')
 Accepted Status System
 18" Trench Bottom
 0.3 Soil LTAR

GRAPHIC SCALE
1" = 60'



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Bingham Ridge

Lot 29

5-Bedroom Home (600 gal./day)

<u>LINE #</u>	<u>COLOR</u>	<u>BS</u>	<u>HI</u>	<u>FS</u>	<u>ELEVATION</u>	<u>LINE LENGTH</u>	<u>Design Length</u>
TBM		6.1		100.0		<u>in field</u>	<u>installation</u>
INST. 1			106.1				
1	Pink			4.4	101.7	100	100
2	Orange			5.0	101.1	125	125
3	Blue			5.7	100.4	150	150
4	Red			6.6	99.5	150	150
5	Yellow			7.5	98.6	150	125
6	Pink			8.4	97.7	150	125
7	Orange			9.3	96.8	150	125
8	Blue			10.5	95.6	150	125
					Total	1125	1025

	<u>System</u> Lines 5-8	<u>Repair</u> Lines 1-4
System Type	Accepted Status System EZ-FLOW	Accepted Status System EZ-FLOW
Suggested Soil LTAR (gal/day/ft ²)	0.30	0.30
System Installation LTAR	0.30	0.29
Total Line Length	500	525
Square Footage	1500	1575
Proposed Trench Bottom	18"	18"
Distribution Method	Pump to D-box	Pressure Manifold

Notes: TBM is top of cut tree on Line #5

**Lot 29, Bingham Ridge
Initial Tap Chart**

Bench Mark	6.10	is = 100.00	Location of BM		Elevation Head	1.50			
Pump tank elev.	3	103.10	Pump elev.	98.10	Manifold elev.	99.60			
line	color	rod read	Elevation	length	hole size	flow/tap	gal/day	trench area	LINE LTAR
5	Yellow	7.50	98.60	125	3/4in SCH 40	12.5	150.00	375	0.4000
6	Pink	8.40	97.70	125	3/4in SCH 40	12.5	150.00	375	0.4000
7	Orange	9.30	96.80	125	3/4in SCH 40	12.5	150.00	375	0.4000
8	Blue	10.50	95.60	125	3/4in SCH 40	12.5	150.00	375	0.4000

total feet = 500 gal/min = 50 LTAR = 0.3000

LTAR + %5 0.3150

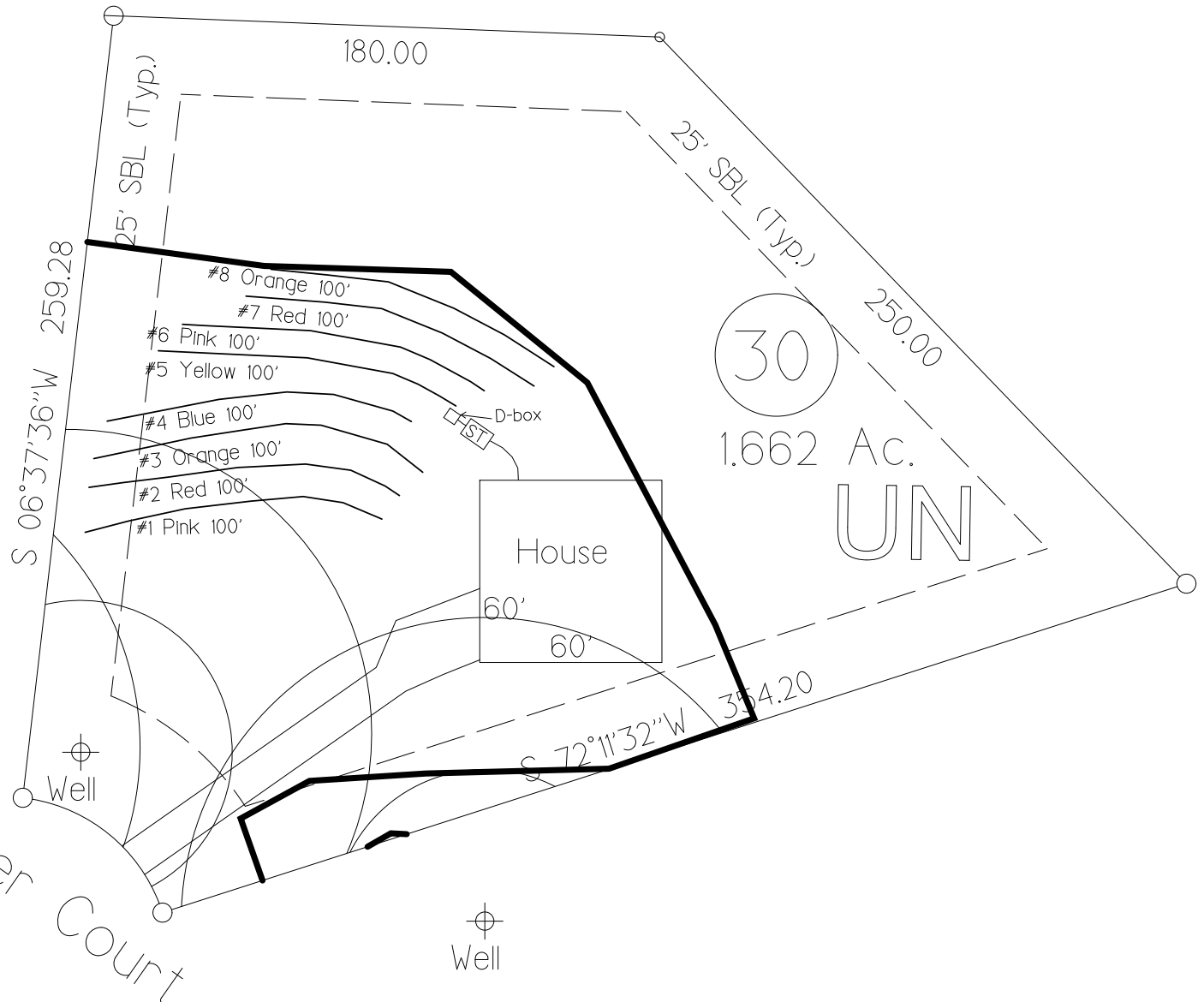
% of Dose Vol.	80	<u>Des. Flow</u>	600	(ltar W/ INOV)	0.4000
Dose Volume	260.00	Pump Run=	12.00	(ltar W/ INOV + 5%)	0.4200
Dose Pump Time	5.20	Tank Gal/IN	30		
Drawdown in Inches	8.67				

Lot 29, Bingham Ridge Repair Tap Chart

Bench Mark	6.10	is =	100.00 <th>Location of BM</th> <td></td> <th>Elevation Head</th> <td>4.60</td>	Location of BM		Elevation Head	4.60		
Pump tank elev.	3	Pump elev.	98.10 <th>Manifold elev.</th> <td></td> <th></th> <td>102.70</td>	Manifold elev.			102.70		
line	color	rod read	Elevation	length	hole size	flow/tap	gal/day	trench area	LINE LTAR
1	Pink	4.40	101.70	100	3/4in SCH 80	10.1	107.83	300	0.3594
2	Orange	5.00	101.10	125	3/4in SCH 40	12.5	133.45	375	0.3559
3	Blue	5.70	100.40	150	1in SCH 80	16.8	179.36	450	0.3986
4	Red	6.60	99.50	150	1in SCH 80	16.8	179.36	450	0.3986

	total	feet =	525	gal/min =	56.2	<u>LTAR =</u>	0.3000
						<u>LTAR + %5</u>	0.3150
% of Dose Vol.	85	<u>Des. Flow</u>	600			(ltar W/ INOV)	0.4000
Dose Volume	290.06	Pump Run=	10.68			(ltar W/ INOV + 5%	0.4200
Dose Pump Time	5.16	Tank Gal/IN	30				
Drawdown in Inches	9.67						

Bingham Ridge Phase II Lot 30 4-Bedroom Septic System Layout February 2007



*Lines may be flagged longer in the field than lengths indicated above. Install at lengths indicated on site plan.

Suncatcher Court

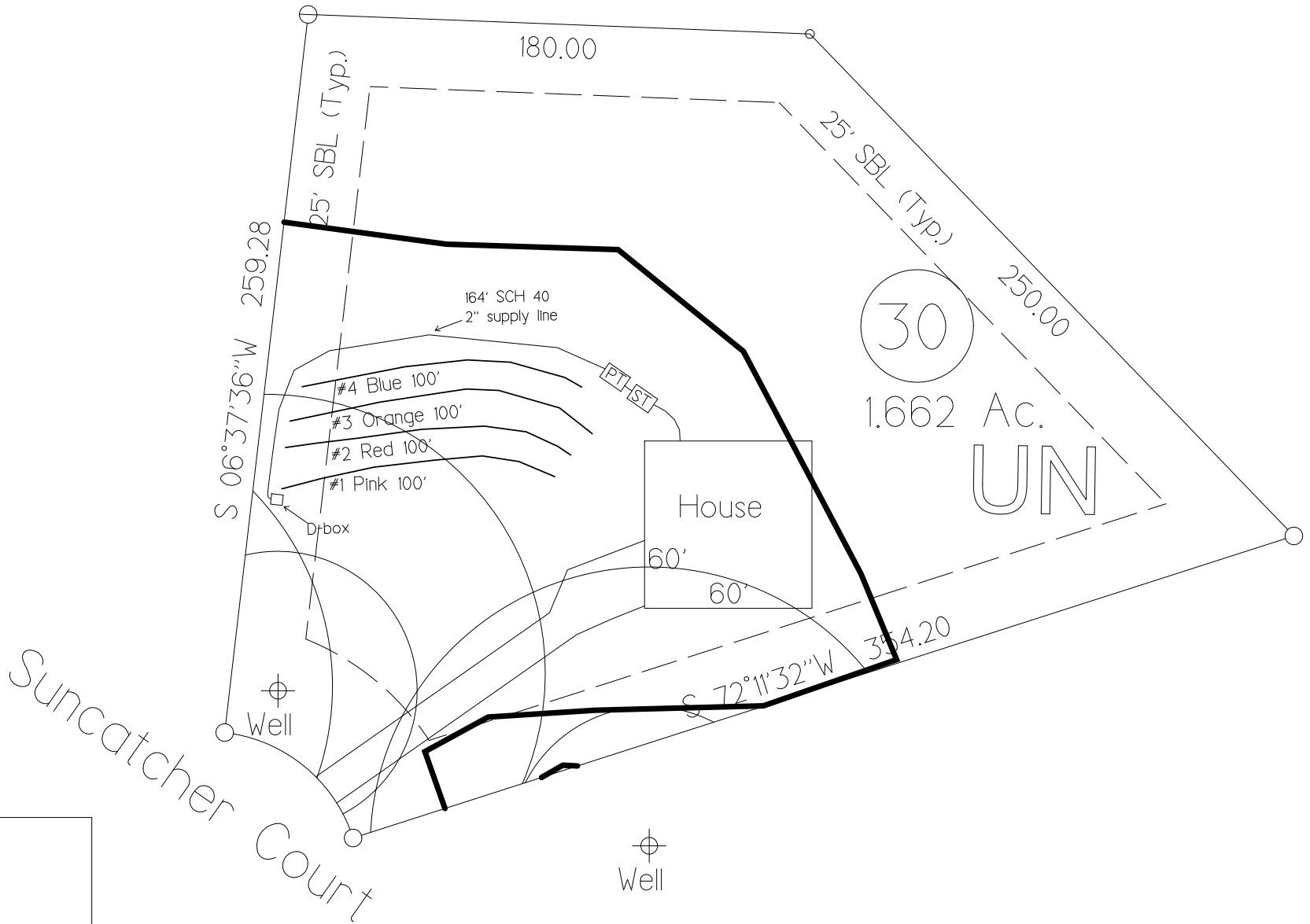
System: Gravity to D-box
 Lines: 5-8, (400')
 Accepted Status System
 0.3 Soil LTAR
 24" Trench Bottom
 Repair: Pump to D-box
 Lines: 1-4, (400')
 Accepted Status System
 24" Trench Bottom
 0.3 Soil LTAR

GRAPHIC SCALE
 1" = 60'



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Bingham Ridge Phase II Lot 30 4-Bedroom Septic Repair Layout February 2007



*Lines may be flagged longer in the field than lengths indicated above. Install at lengths indicated on site plan.

System: Gravity to D-box
 Lines: 5-8, (400')
 Accepted Status System
 0.3 Soil LTAR
 24" Trench Bottom
 Repair: Pump to D-box
 Lines: 1-4, (400')
 Accepted Status System
 24" Trench Bottom
 0.3 Soil LTAR

GRAPHIC SCALE
 1" = 60'



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Bingham Ridge

Lot 30

4-Bedroom Home (480 gal./day)

<u>LINE #</u>	<u>COLOR</u>	<u>BS</u>	<u>HI</u>	<u>FS</u>	<u>ELEVATION</u>	<u>LINE LENGTH</u>	<u>Design Length</u>
TBM		-0.6		100.0		<u>in field</u>	<u>installation</u>
INST. 1			99.4				
1	Pink			2.6	96.8	100	100
2	Red			3.2	96.2	105	100
3	Orange			3.9	95.5	113	100
4	Blue			4.4	95.0	103	100
5	<i>Yellow</i>			<i>5.1</i>	<i>94.3</i>	<i>110</i>	<i>100</i>
6	<i>Pink</i>			<i>5.8</i>	<i>93.6</i>	<i>120</i>	<i>100</i>
7	<i>Red</i>			<i>6.4</i>	<i>93.0</i>	<i>106</i>	<i>100</i>
8	<i>Orange</i>			<i>7.2</i>	<i>92.2</i>	<i>106</i>	<i>100</i>
Total						863	800

System Type	<u>System</u> Lines 5-8 Accepted Status System EZ-FLOW	<u>Repair</u> Lines 1-4 Accepted Status System EZ-FLOW
Suggested Soil LTAR (gal/day/ft ²)	0.30	0.30
System Installation LTAR	0.30	0.3
Total Line Length	400	400
Square Footage	1200	1200
Proposed Trench Bottom	24"	24"
Distribution Method	Gravity to D-box	Pump to D-box

Notes: TBM is top of cut tree above Line #1

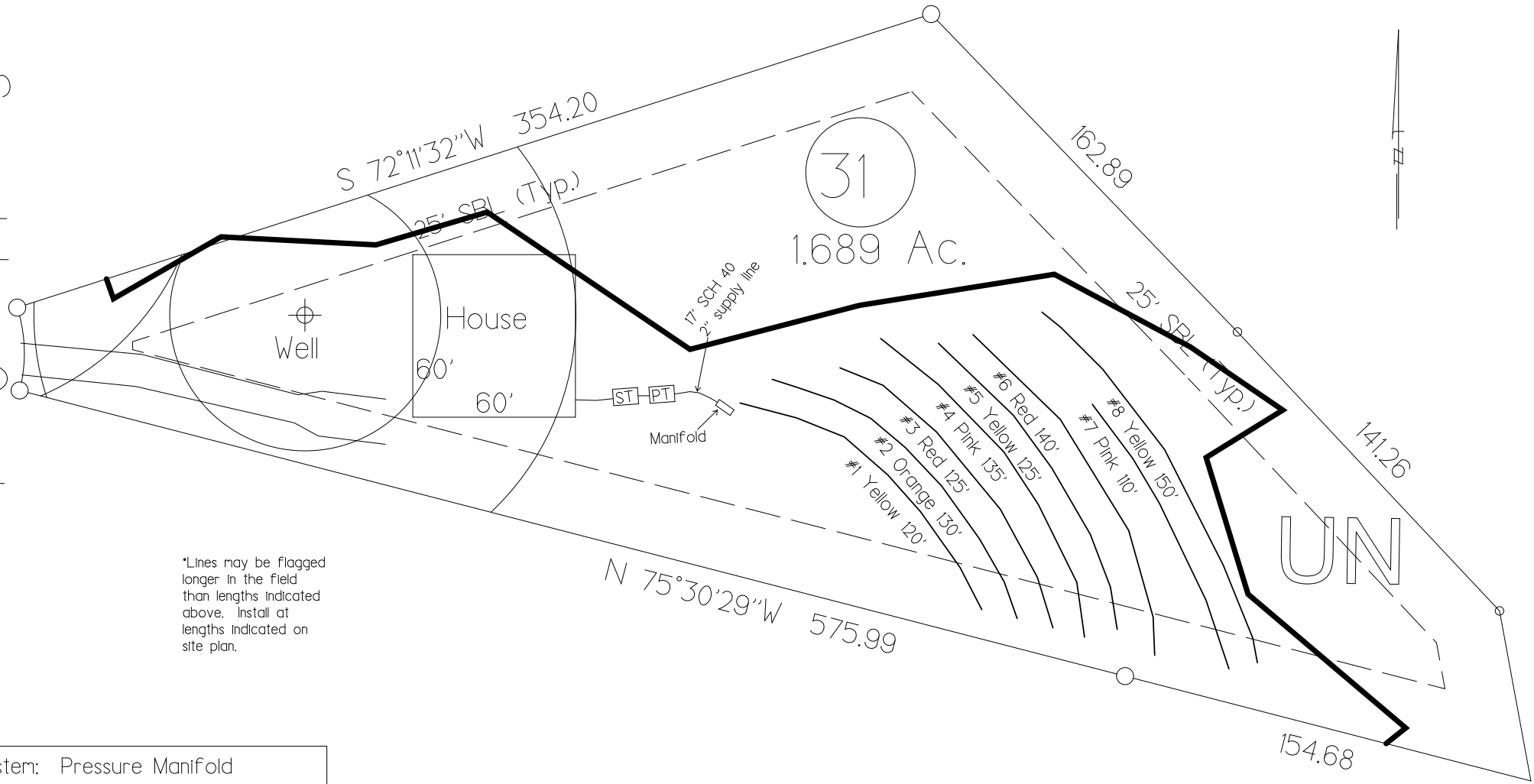
Lot 30, Bingham Ridge Repair Tap Chart

Bench Mark	-0.60	is = 100.00 Location of BM		Elevation Head					6.40
Pump tank elev.	3	96.40	Pump elev.	91.40	Manifold elev.			97.80	
line	color	rod read	Elevation	length	hole size	flow/tap	gal/day	trench area	LINE LTAR
1	Pink	2.60	96.80	100	3/4in SCH 80	10.1	120.00	300	0.4000
2	Red	3.20	96.20	100	3/4in SCH 80	10.1	120.00	300	0.4000
3	Orange	3.90	95.50	100	3/4in SCH 80	10.1	120.00	300	0.4000
4	Blue	4.40	95.00	100	3/4in SCH 80	10.1	120.00	300	0.4000

	total	feet =	400	gal/min =	40.4	<u>LTAR =</u>	0.3000
						<u>LTAR + %5</u>	0.3150
% of Dose Vol.	80	<u>Des. Flow</u>	480			(ltar W/ INOV)	0.4000
Dose Volume	208.00	Pump Run=	11.88			(ltar W/ INOV + 5%	0.4200
Dose Pump Time	5.15	Tank Gal/IN	21				
Drawdown in Inches	9.90						

Bingham Ridge Phase II Lot 31
 5-Bedroom Septic System Layout
 February 2007

Suncatcher Court



*Lines may be flagged longer in the field than lengths indicated above. Install at lengths indicated on site plan.

System: Pressure Manifold
 Lines: 1-4, (510')
 Accepted Status System
 0.3 Soil LTAR
 24" Trench Bottom
 Repair: Pressure Manifold
 Lines: 5-8, (525')
 Accepted Status System
 24" Trench Bottom
 0.3 Soil LTAR

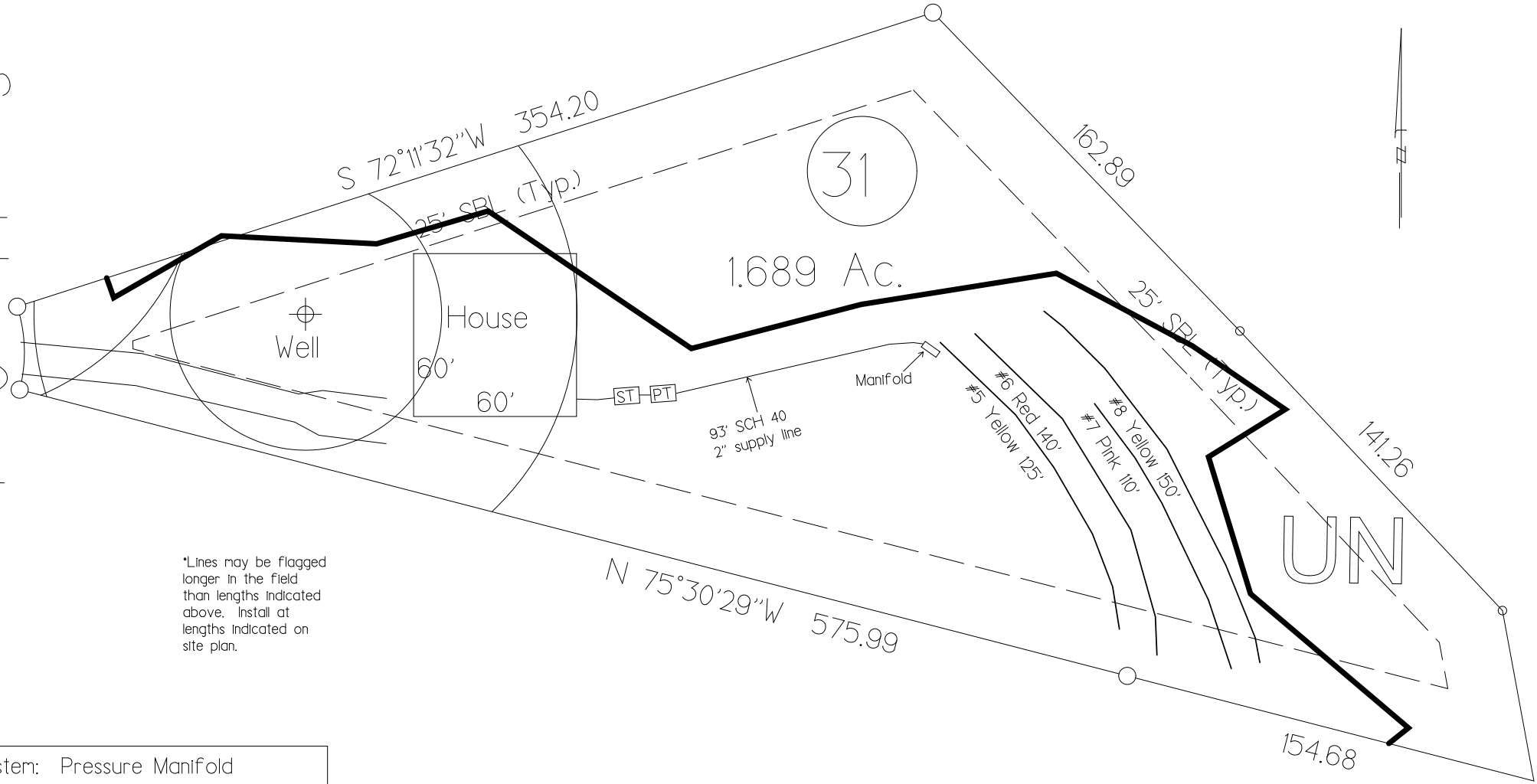
GRAPHIC SCALE
 1" = 60'



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 Soil Consulting
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 Project # 329

Bingham Ridge Phase II Lot 31
 5-Bedroom Septic Repair Layout
 February 2007

Suncatcher Court



*Lines may be flagged longer in the field than lengths indicated above. Install at lengths indicated on site plan.

System: Pressure Manifold
 Lines: 1-4, (510')
 Accepted Status System
 0.3 Soil LTAR
 24" Trench Bottom
 Repair: Pressure Manifold
 Lines: 5-8, (525')
 Accepted Status System
 24" Trench Bottom
 0.3 Soil LTAR

GRAPHIC SCALE
 1" = 60'



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Bingham Ridge

Lot 31

5-Bedroom Home (600 gal./day)

<u>LINE #</u>	<u>COLOR</u>	<u>BS</u>	<u>HI</u>	<u>FS</u>	<u>ELEVATION</u>	<u>LINE LENGTH</u>	<u>Design Length</u>
TBM		3.3		100.0		<u>in field</u>	<u>installation</u>
INST. 1			103.3				
1	Yellow			-0.5	103.8	121	120
2	Orange			-0.1	103.4	130	130
3	Red			0.7	102.6	127	125
4	Pink			1.6	101.7	139	135
5	Yellow			2.7	100.6	127	125
6	Red			3.7	99.6	140	140
7	Pink			5.3	98.0	110	110
8	Yellow			6.4	96.9	153	150
					Total	1047	1035

	<u>System</u> Lines 1-4	<u>Repair</u> Lines 5-8
System Type	Accepted Status System EZ-FLOW	Accepted Status System EZ-FLOW
Suggested Soil LTAR (gal/day/ft ²)	0.30	0.30
System Installation LTAR	0.29	0.29
Total Line Length	510	525
Square Footage	1530	1575
Proposed Trench Bottom	24"	24"

Distribution Method

Pressure Manifold

Pressure Manifold

Notes: TBM is top of cut tree between lines 6 and 7

If a 4-bedroom house is used system and repair would be gravity.

**Lot 31, Bingham Ridge
Initial Tap Chart**

Bench Mark	3.30	is = 100.00 Location of BM		Elevation Head					9.50
Pump tank elev.	3	100.30	Pump elev.	95.30	Manifold elev.		104.80		
line	color	rod read	Elevation	length	hole size	flow/tap	gal/day	trench area	LINE LTAR
1	Yellow	-0.50	103.80	120	3/4in SCH 40	12.5	150.00	360	0.4167
2	Orange	-0.10	103.40	130	3/4in SCH 40	12.5	150.00	390	0.3846
3	Red	0.70	102.60	125	3/4in SCH 40	12.5	150.00	375	0.4000
4	Pink	1.60	101.70	135	3/4in SCH 40	12.5	150.00	405	0.3704

total feet = 510 gal/min = 50 LTAR = 0.3000

LTAR + %5 0.3150

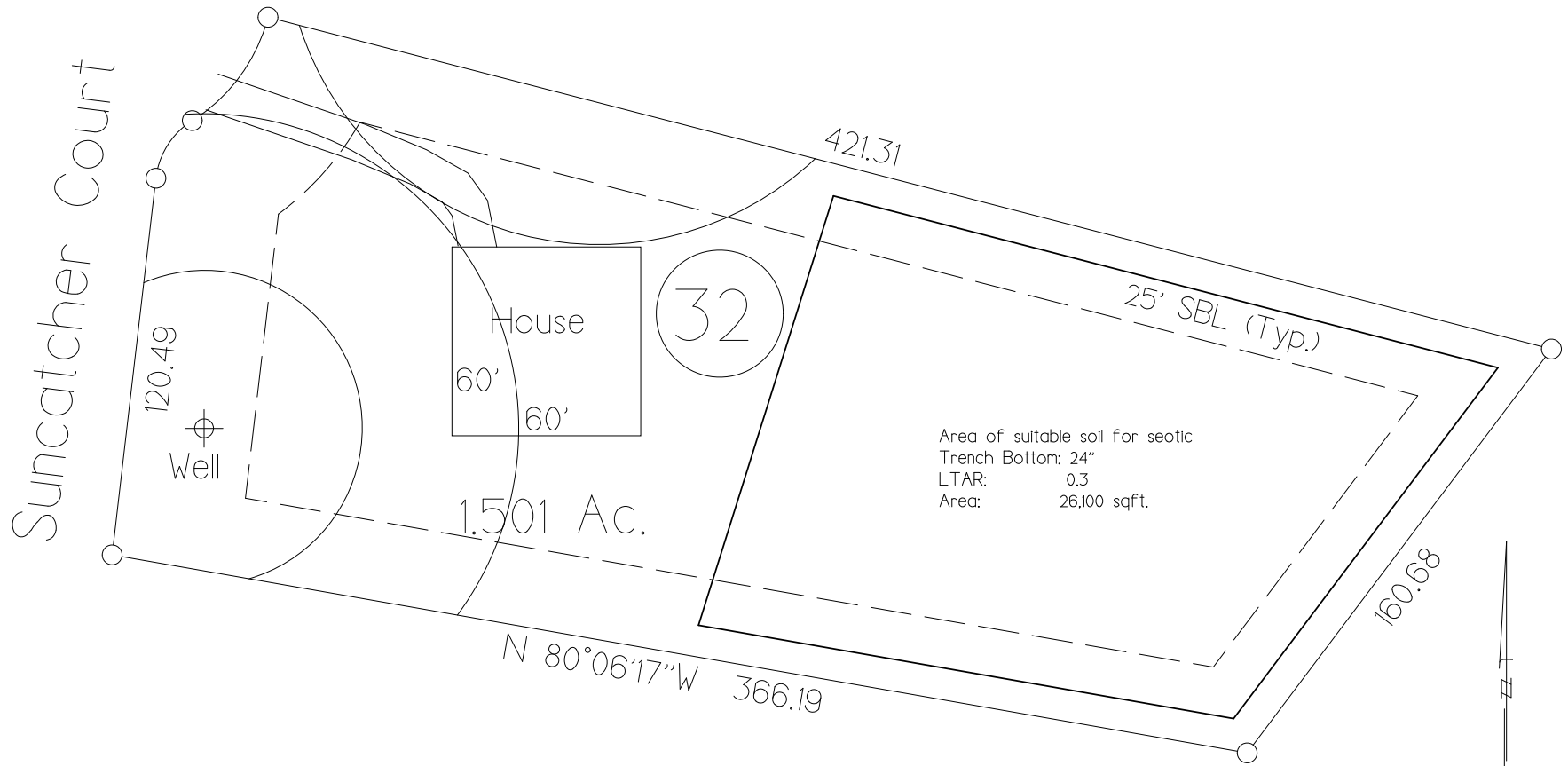
% of Dose Vol.	80	<u>Des. Flow</u>	600	(ltar W/ INOV)	0.4000
Dose Volume	265.20	Pump Run=	12.00	(ltar W/ INOV + 5%)	0.4200
Dose Pump Time	5.30	Tank Gal/IN	30		
Drawdown in Inches	8.84				

**Lot 31, Bingham Ridge
Repair Tap Chart**

Bench Mark	3.30	is = 100.00	Location of BM		Elevation Head	6.30			
Pump tank elev.	3	100.30	Pump elev.	95.30	Manifold elev.	101.60			
line	color	rod read	Elevation	length	hole size	flow/tap	gal/day	trench area	LINE LTAR
5	Yellow	2.70	100.60	125	3/4in SCH 80	10.1	134.07	375	0.3575
6	Red	3.70	99.60	140	3/4in SCH 40	12.5	165.93	420	0.3951
7	Pink	5.30	98.00	110	3/4in SCH 80	10.1	134.07	330	0.4063
8	Yellow	6.40	96.90	150	3/4in SCH 40	12.5	165.93	450	0.3687

	total	feet =	525	gal/min =	45.2	LTAR =	0.3000
						LTAR + %5	0.3150
% of Dose Vol.	70		Des. Flow	600		(ltar W/ INOV)	0.4000
Dose Volume	238.88		Pump Run=	13.27		(ltar W/ INOV + 5%	0.4200
Dose Pump Time	5.28		Tank Gal/IN	30			
Drawdown in Inches	7.96						

Bingham Ridge Phase II Lot 32
5-Bedroom Septic System Layout
February 2007



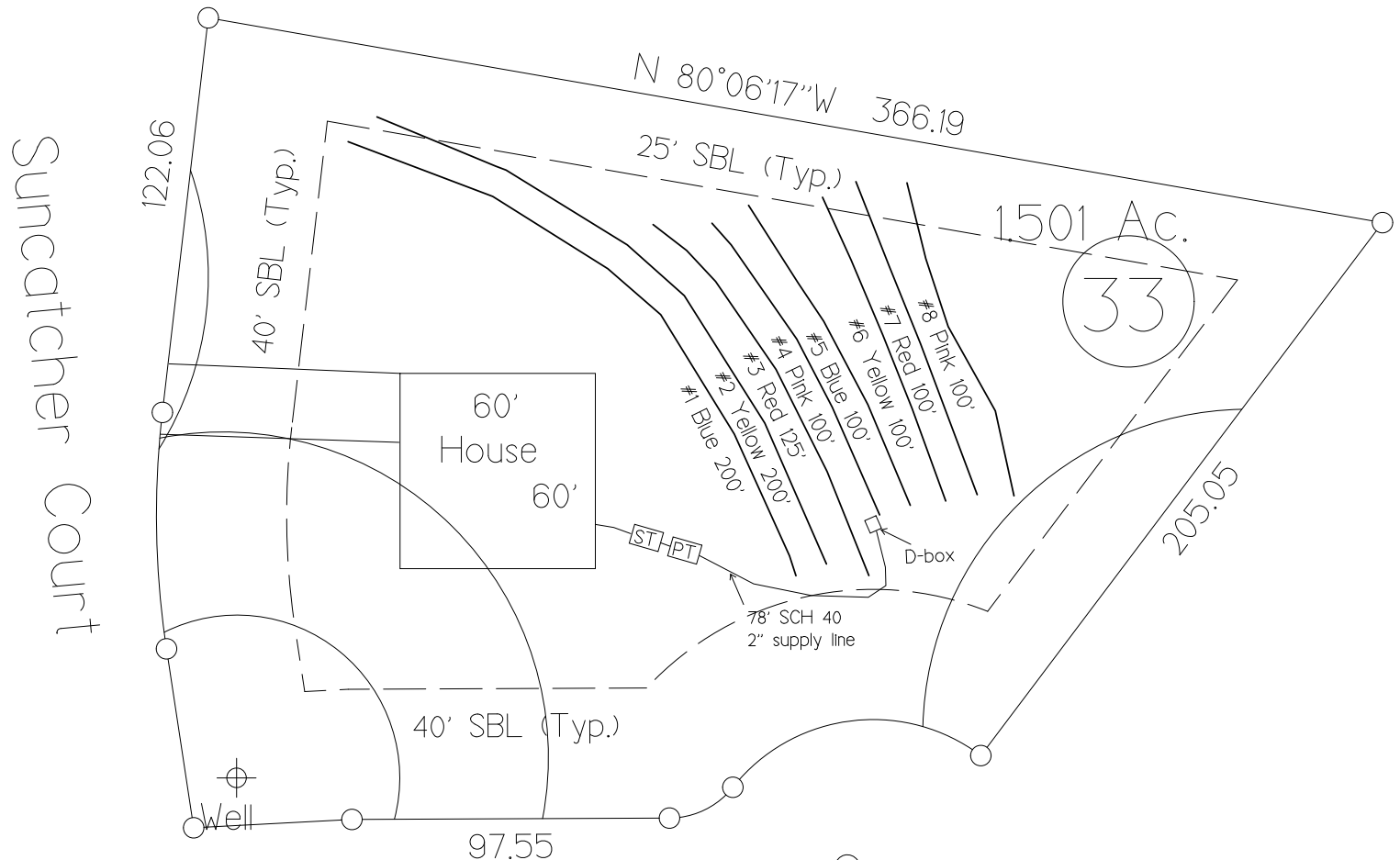
GRAPHIC SCALE

1" = 60'



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Bingham Ridge Phase II Lot 33
 5-Bedroom Septic System Layout
 February 2007



Suncatcher Court

Mystic Lane

1501 Ac.
 33

*Lines may be flagged longer in the field than lengths indicated above. Install at lengths indicated on site plan.

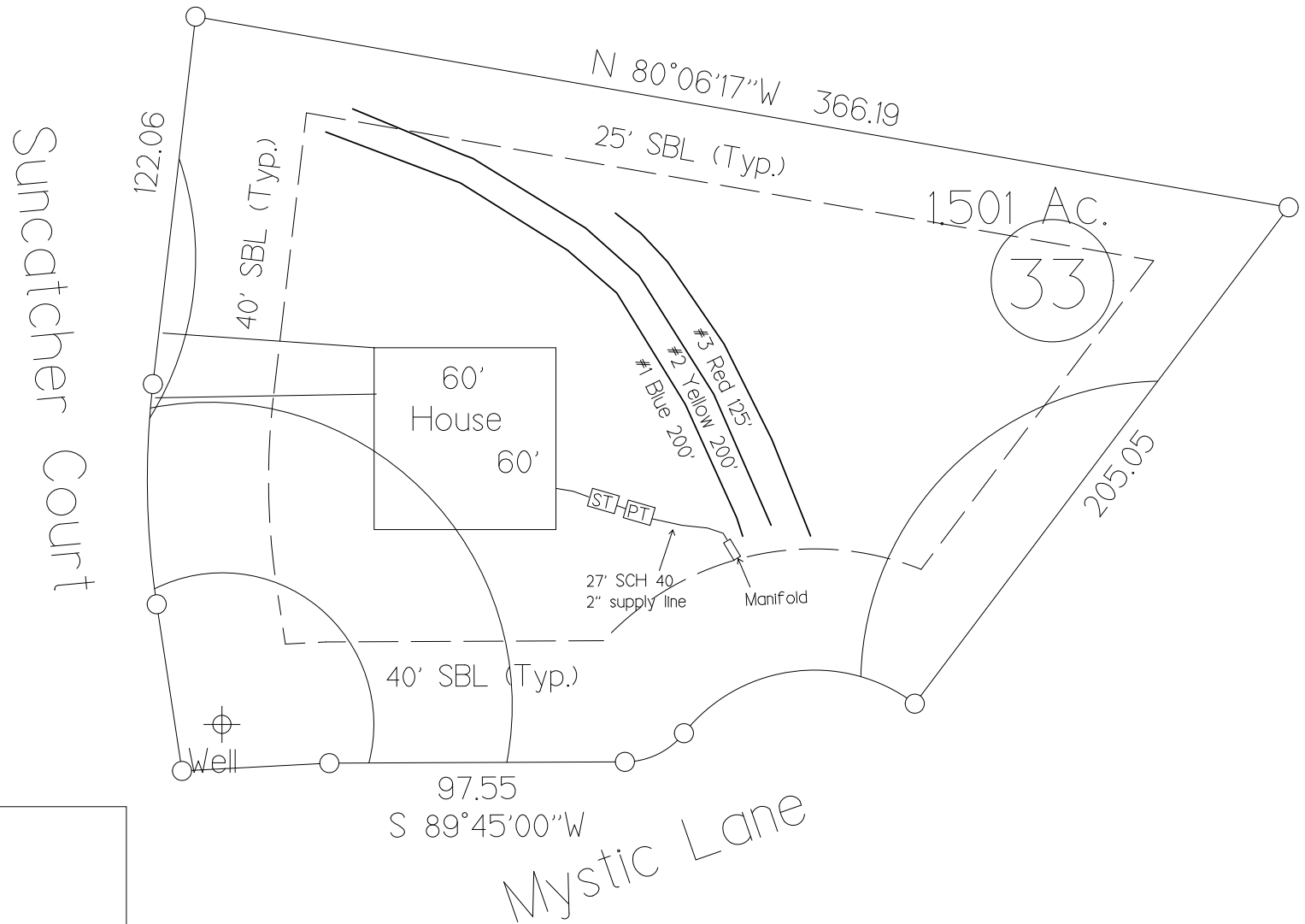
System: Pump to D-Box
 Lines: 4-8, (500')
 Accepted Status System
 0.3 Soil LTAR
 24" Trench Bottom
 Repair: Pressure Manifold
 Lines: 1-3 (525')
 Accepted Status System
 24" Trench Bottom
 0.3 Soil LTAR

GRAPHIC SCALE
 1" = 60'



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Bingham Ridge Phase II Lot 33
 5-Bedroom Septic Repair Layout
 February 2007



*Lines may be flagged longer in the field than lengths indicated above. Install at lengths indicated on site plan.

System: Pump to D-Box
 Lines: 4-8, (500')
 Accepted Status System
 0.3 Soil LTAR
 24" Trench Bottom
 Repair: Pressure Manifold
 Lines: 1-3 (525')
 Accepted Status System
 24" Trench Bottom
 0.3 Soil LTAR

GRAPHIC SCALE
 1" = 60'



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Bingham Ridge

Lot 33

5-Bedroom Home (600 gal./day)

<u>LINE #</u>	<u>COLOR</u>	<u>BS</u>	<u>HI</u>	<u>FS</u>	<u>ELEVATION</u>	<u>LINE LENGTH</u>	<u>Design Length</u>
TBM		3.3		100.0		<u>in field</u>	<u>installation</u>
INST. 1			103.3				
1	Blue			4.7	98.6	200	200
2	Yellow			5.3	98.0	203	200
3	Red			6.0	97.3	185	125
4	<i>Pink</i>			6.6	96.7	100	100
5	<i>Blue</i>			7.1	96.2	100	100
6	<i>Yellow</i>			7.6	95.7	100	100
7	<i>Red</i>			8.2	95.1	100	100
8	<i>Pink</i>			8.8	94.5	105	100
Total						1093	1025

	<u>System</u> Lines 4-8	<u>Repair</u> Lines 1-3
System Type	Accepted Status System EZ-FLOW	Accepted Status System EZ-FLOW
Suggested Soil LTAR (gal/day/ft ²)	0.30	0.30
System Installation LTAR	0.30	0.29
Total Line Length	500	525
Square Footage	1500	1575
Proposed Trench Bottom	24"	24"

Distribution Method Pump to D-box Pressure Manifold

Notes: TBM is top of cut tree above Line #1
 If a 4-bedroom house is used system and repair would be gravity.

**Lot 33, Bingham Ridge
Initial Tap Chart**

Bench Mark	3.30	is = 100.00 Location of BM							Elevation Head	2.40
Pump tank elev.	3	100.30	Pump elev.	95.30	Manifold elev.					97.70
line	color	rod read	Elevation	length	hole size	flow/tap	gal/day	trench area	LINE LTAR	
4	Pink	6.60	96.70	100	3/4in SCH 80	10.1	120.00	300	0.4000	
5	Blue	7.10	96.20	100	3/4in SCH 80	10.1	120.00	300	0.4000	
6	Yellow	7.60	95.70	100	3/4in SCH 80	10.1	120.00	300	0.4000	
7	Red	8.20	91.80	100	3/4in SCH 80	10.1	120.00	300	0.4000	
8	Pink	8.80	94.50	100	3/4in SCH 80	10.1	120.00	300	0.4000	

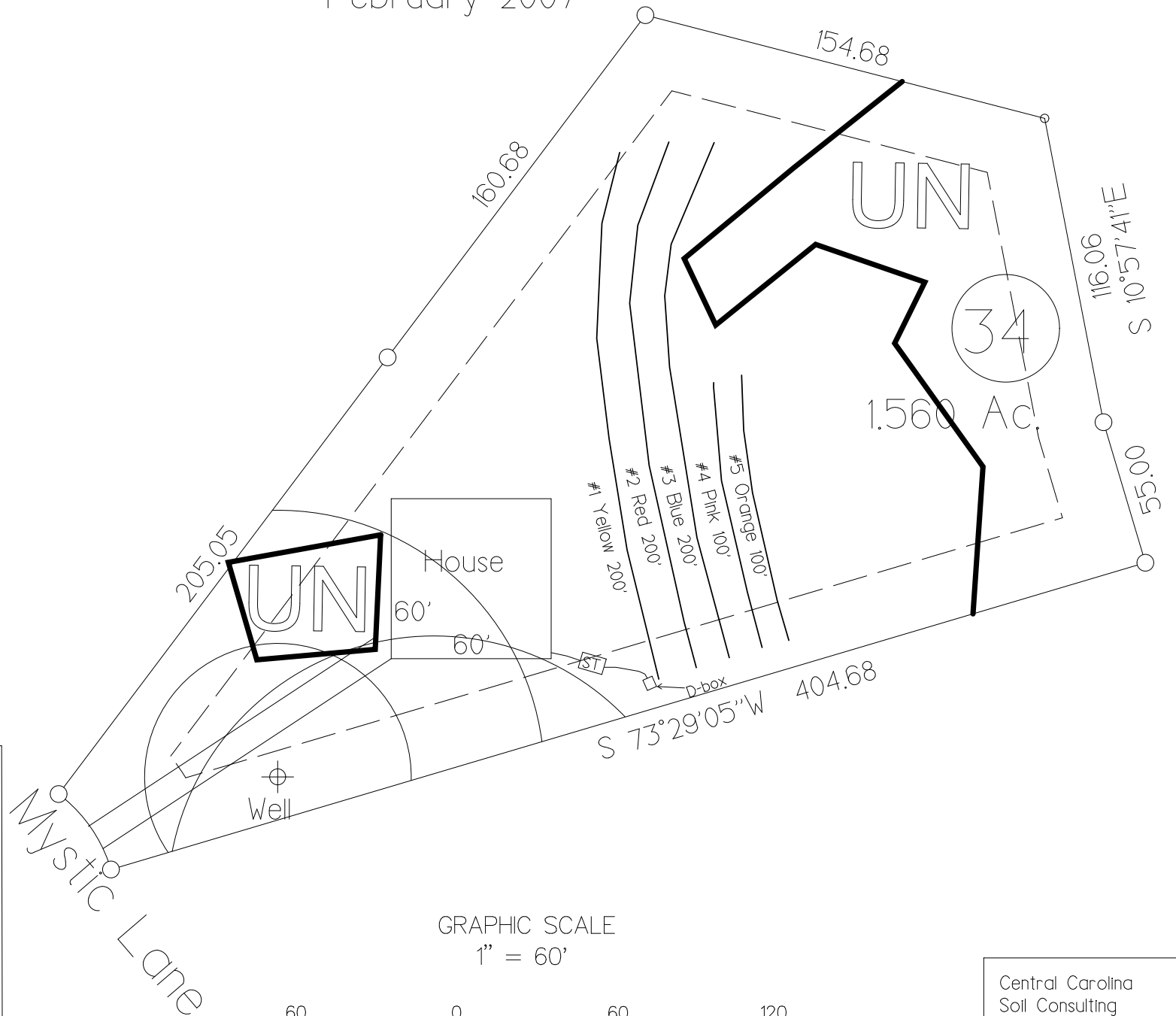
	total	feet =	500	gal/min =	50.5	LTAR =	0.3000
						LTAR + %5	0.3150
% of Dose Vol.	80	Des. Flow	600			(ltar W/ INOV)	0.4000
Dose Volume	260.00	Pump Run=	11.88			(ltar W/ INOV + 5%)	0.4200
Dose Pump Time	5.15	Tank Gal/IN	30				
Drawdown in Inches	8.67						

**Lot 33, Bingham Ridge
Repair Tap Chart**

Bench Mark	3.30	is = 100.00	Location of BM	Elevation Head	4.30				
Pump tank elev.	3	100.30	Pump elev.	95.30	Manifold elev.	99.60			
line	color	rod read	Elevation	length	hole size	flow/tap	gal/day	trench area	LINE LTAR
1	Blue	4.70	98.60	200	1in SCH 80	16.8	230.66	600	0.3844
2	Yellow	5.30	98.00	200	1in SCH 80	16.8	230.66	600	0.3844
3	Red	6.00	97.30	125	3/4in SCH 80	10.1	138.67	375	0.3698

	total	feet =	525	gal/min =	43.7	LTAR =	0.3000
						LTAR + %5	0.3150
% of Dose Vol.	65	Des. Flow	600			(ltar W/ INOV)	0.4000
Dose Volume	221.81	Pump Run=	13.73			(ltar W/ INOV + 5%	0.4200
Dose Pump Time	5.08	Tank Gal/IN	30				
Drawdown in Inches	7.39						

Bingham Ridge Phase II lot 34 4-Bedroom Septic System Layout February 2007



*Lines may be flagged longer in the field than lengths indicated above. Install at lengths indicated on site plan.

System: Gravity to D-Box
 Lines: 1-2, (400')
 Accepted Status System
 0.3 Soil LTAR
 24" Trench Bottom
 Repair: Pressure Manifold
 Lines: 3-5 (400')
 Accepted Status System
 24" Trench Bottom
 0.3 Soil LTAR

GRAPHIC SCALE
 1" = 60'

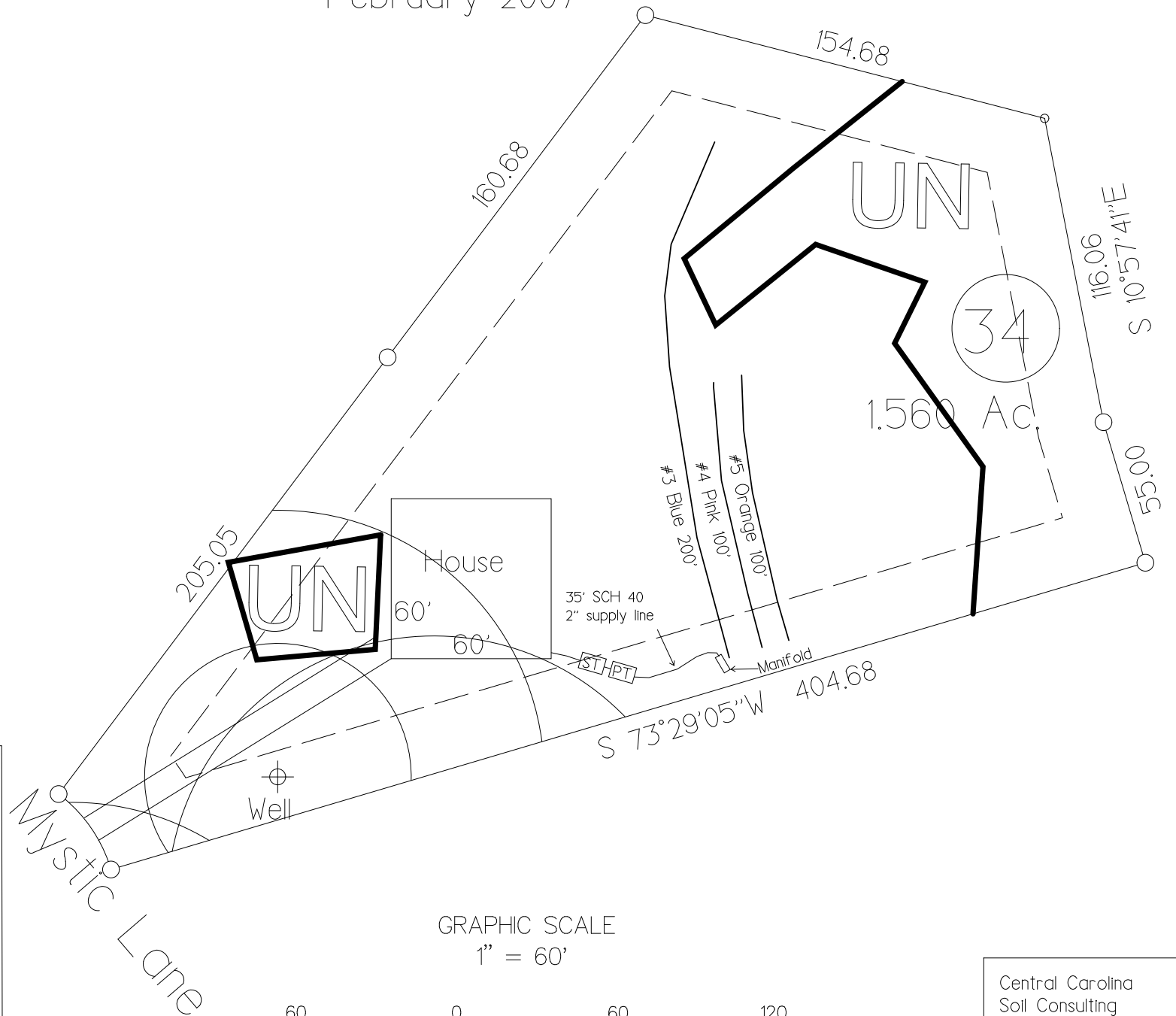


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Bingham Ridge Phase II Lot 34 4-Bedroom Septic Repair Layout February 2007



*Lines may be flagged longer in the field than lengths indicated above. Install at lengths indicated on site plan.



System: Gravity to D-Box
 Lines: 1-2, (400')
 Accepted Status System
 0.3 Soil LTAR
 24" Trench Bottom
 Repair: Pressure Manifold
 Lines: 3-5 (400')
 Accepted Status System
 24" Trench Bottom
 0.3 Soil LTAR

GRAPHIC SCALE
 1" = 60'



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Bingham Ridge

Lot 34

4-Bedroom Home (480 gal./day)

<u>LINE #</u>	<u>COLOR</u>	<u>BS</u>	<u>HI</u>	<u>FS</u>	<u>ELEVATION</u>	<u>LINE LENGTH</u>	<u>Design Length</u>
TBM		4.2		100.0		<u>in field</u>	<u>installation</u>
INST. 1			104.2				
<i>1</i>	<i>Yellow</i>			<i>5.1</i>	<i>99.1</i>	<i>230</i>	<i>200</i>
<i>2</i>	<i>Red</i>			<i>6.3</i>	<i>97.9</i>	<i>226</i>	<i>200</i>
<i>3</i>	Blue			7.8	96.4	206	200
<i>4</i>	Pink			9.3	94.9	101	100
<i>5</i>	Orange			10.7	93.5	101	100
					Total	864	800

System Type	<u>System</u>	<u>Repair</u>
	Lines 1-2	Lines 3-5
	Accepted Status System	Accepted Status System
	EZ-FLOW	EZ-FLOW
Suggested Soil LTAR (gal/day/ft ²)	0.30	0.30
System Installation LTAR	0.30	0.30
Total Line Length	400	400
Square Footage	1200	1200
Proposed Trench Bottom	24"	24"
Distribution Method	Gravity to D-box	Pressure Manifold

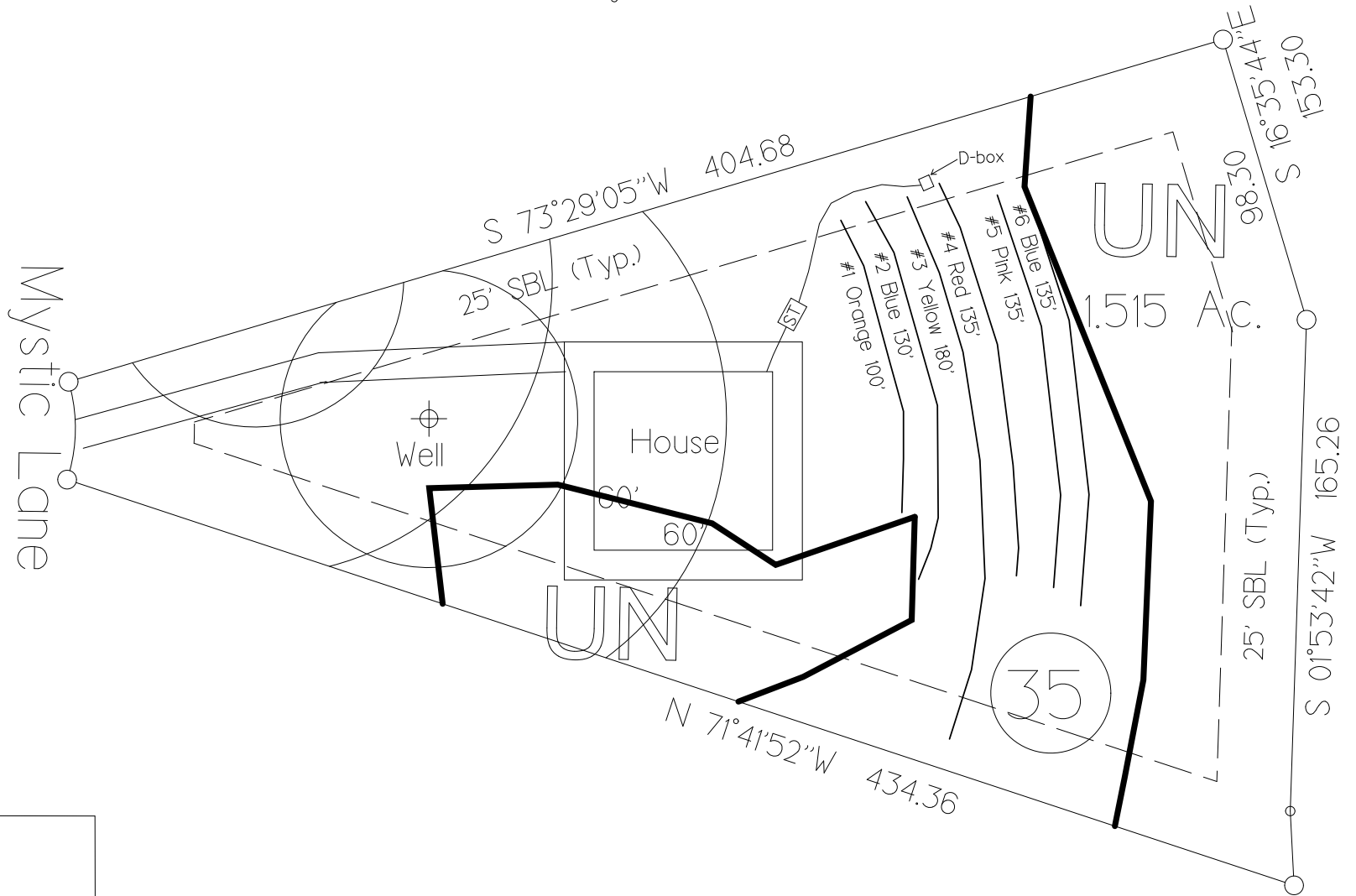
Notes: TBM is top of cut tree between lines 1 and 2

**Lot 34, Bingham Ridge
Repair Tap Chart**

Bench Mark	4.20	is = 100.00 Location of BM		Elevation Head					1.20
Pump tank elev.	3	101.20	Pump elev.	96.20	Manifold elev.			97.40	
line	color	rod read	Elevation	length	hole size	flow/tap	gal/day	trench area	LINE LTAR
3	Blue	7.80	96.40	200	1in SCH 40	20.2	240.00	600	0.4000
4	Pink	9.30	94.90	100	3/4in SCH 80	10.1	120.00	300	0.4000
5	Orange	10.70	93.50	100	3/4in SCH 80	10.1	120.00	300	0.4000

	total	feet =	400	gal/min =	40.4	<u>LTAR =</u>	0.3000
						<u>LTAR + %5</u>	0.3150
% of Dose Vol.	80		<u>Des. Flow</u>	480		(ltar W/ INOV)	0.4000
Dose Volume	208.00		Pump Run=	11.88		(ltar W/ INOV + 5%)	0.4200
Dose Pump Time	5.15		Tank Gal/IN	21			
Drawdown in Inches	9.90						

Bingham Ridge Phase II Lot 35 4-Bedroom Septic System Layout February 2007



*Lines may be flagged longer in the field than lengths indicated above. Install at lengths indicated on site plan.

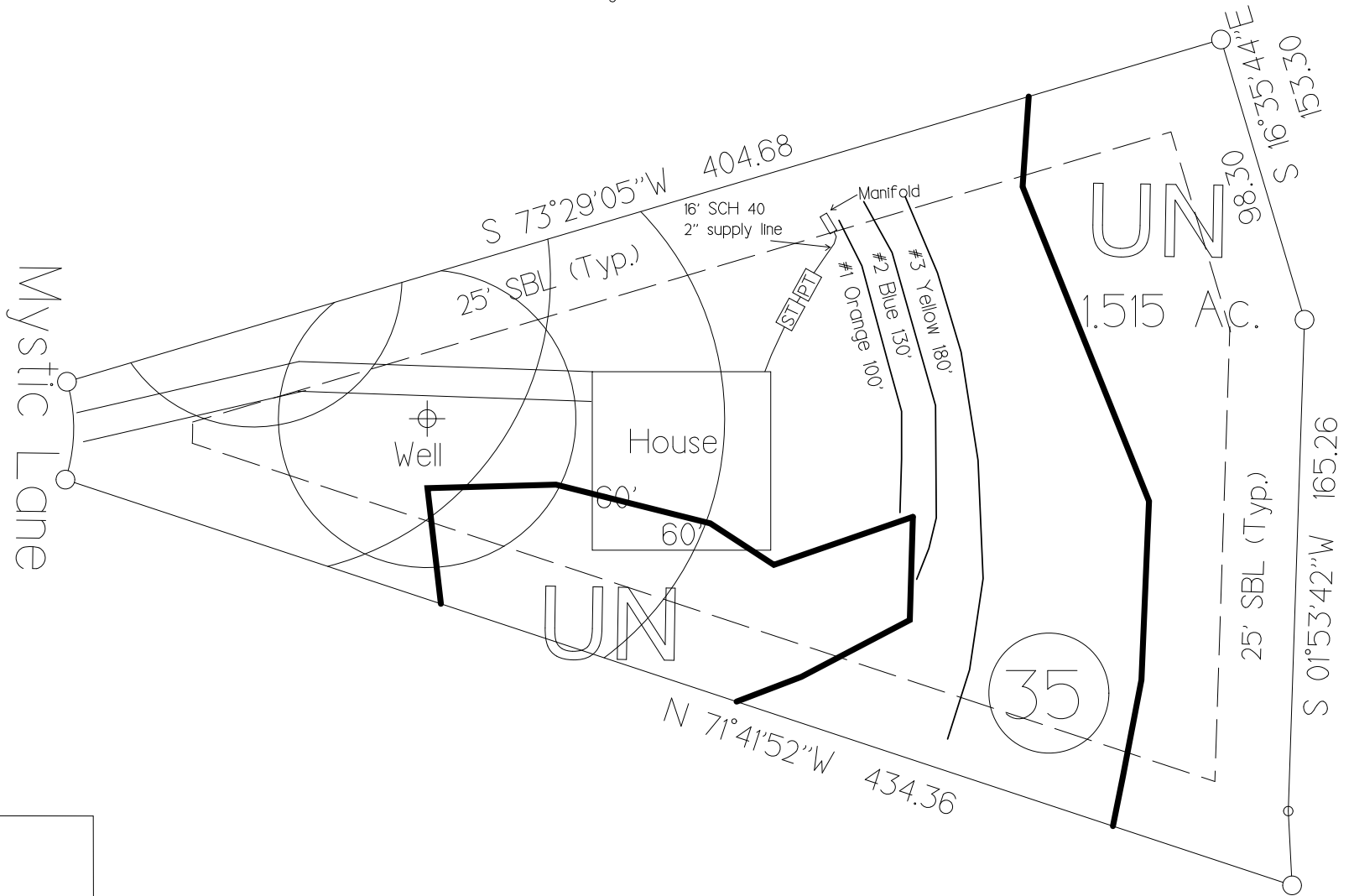
System: Gravity to D-Box
 Lines: 4-6, (405')
 Accepted Status System
 0.3 Soil LTAR
 24" Trench Bottom
 Repair: Pressure Manifold
 Lines: 1-3 (410')
 Accepted Status System
 24" Trench Bottom
 0.3 Soil LTAR

GRAPHIC SCALE
 1" = 60'



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Bingham Ridge Phase II Lot 35 4-Bedroom Septic Repair Layout February 2007



*Lines may be flagged longer in the field than lengths indicated above. Install at lengths indicated on site plan.

System: Gravity to D-Box
 Lines: 4-6, (405')
 Accepted Status System
 0.3 Soil LTAR
 24" Trench Bottom
 Repair: Pressure Manifold
 Lines: 1-3 (410')
 Accepted Status System
 24" Trench Bottom
 0.3 Soil LTAR

GRAPHIC SCALE
 1" = 60'



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Bingham Ridge

Lot 35

4-Bedroom Home (480 gal./day)

<u>LINE #</u>	<u>COLOR</u>	<u>BS</u>	<u>HI</u>	<u>FS</u>	<u>ELEVATION</u>	<u>LINE LENGTH</u>	<u>Design Length</u>
TBM		1.4		100.0		<u>in field</u>	<u>installation</u>
INST. 1			101.4				
1	Orange			3.2	98.2	102	100
2	Blue			4.6	96.8	132	130
3	Yellow			6.1	95.3	188	180
4	Red			7.5	93.9	190	135
5	Pink			9.0	92.4	196	135
6	Blue			10.4	91.0	196	135
					Total	1004	815

<u>System Type</u>	<u>System</u> Lines 4-6	<u>Repair</u> Lines 1-3
	Accepted Status System EZ-FLOW	Accepted Status System EZ-FLOW
Suggested Soil LTAR (gal/day/ft2)	0.30	0.30
System Installation LTAR	0.30	0.29
Total Line Length	405	410
Square Footage	1215	1230
Proposed Trench Bottom	24"	24"
Distribution Method	Gravity to D-box	Pressure Manifold

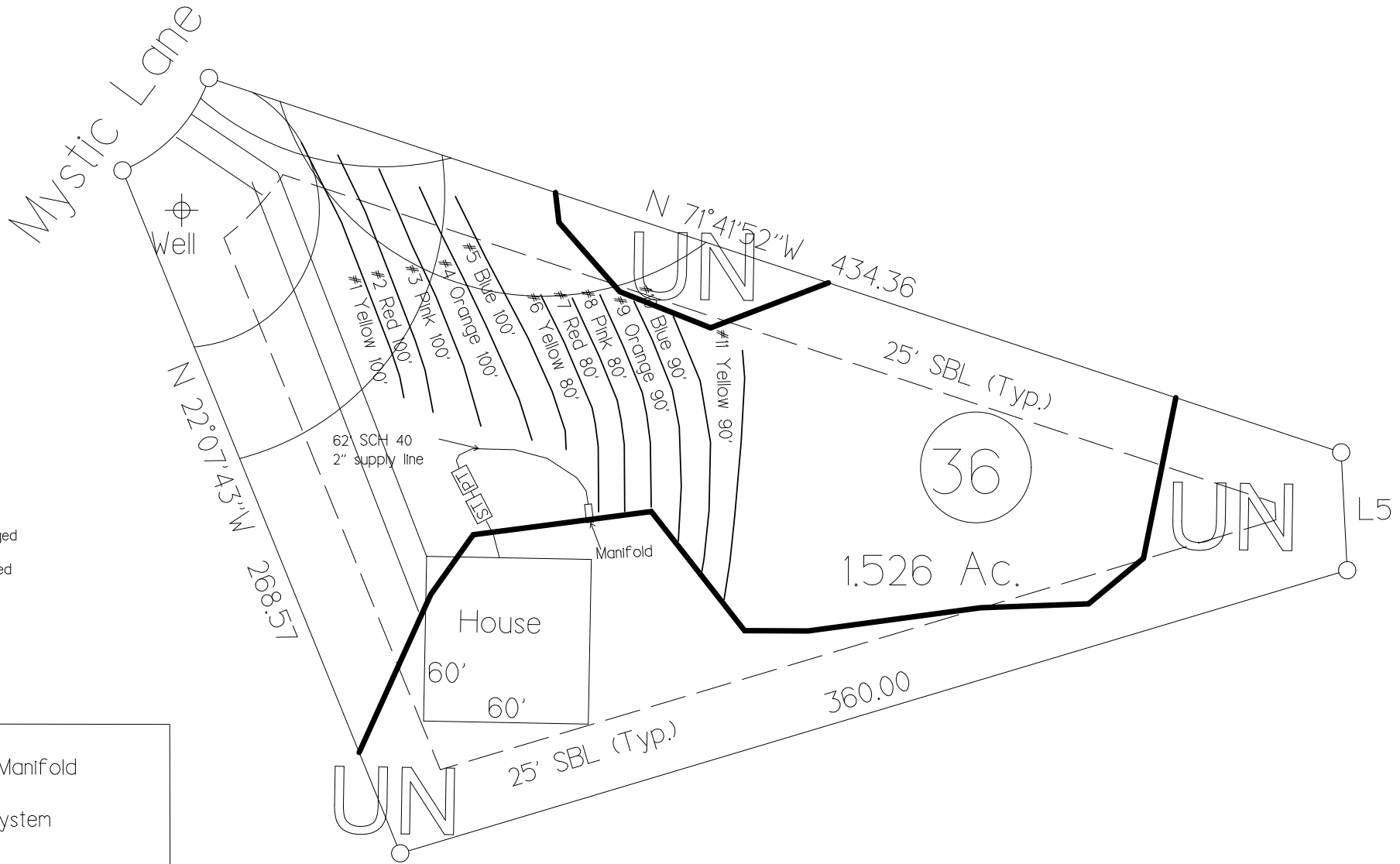
Notes: TBM is top of cut tree on Line #2

**Lot 35, Bingham Ridge
Repair Tap Chart**

Bench Mark	1.40	is = 100.00	Location of BM					Elevation Head	5.80
Pump tank elev.	3	98.40	Pump elev.	93.40			Manifold elev.	99.20	
line	color	rod read	Elevation	length	hole size	flow/tap	gal/day	trench area	LINE LTAR
1	Orange	3.20	98.20	100	3/4in SCH 80	10.1	123.05	300	0.4102
2	Blue	4.60	96.80	130	3/4in SCH 40	12.5	152.28	390	0.3905
3	Yellow	6.10	95.30	180	1in SCH 80	16.8	204.67	540	0.3790

	total	feet =	410	gal/min =	39.4	LTAR =	0.3000
						LTAR + %5	0.3150
% of Dose Vol.	75	Des. Flow	480			(ltar W/ INOV)	0.4000
Dose Volume	199.88	Pump Run=	12.18			(ltar W/ INOV + 5%)	0.4200
Dose Pump Time	5.07	Tank Gal/IN	21				
Drawdown in Inches	9.52						

Bingham Ridge Phase II Lot 36 5-Bedroom Septic System Layout February 2007



*Lines may be flagged longer in the field than lengths indicated above. Install at lengths indicated on site plan.

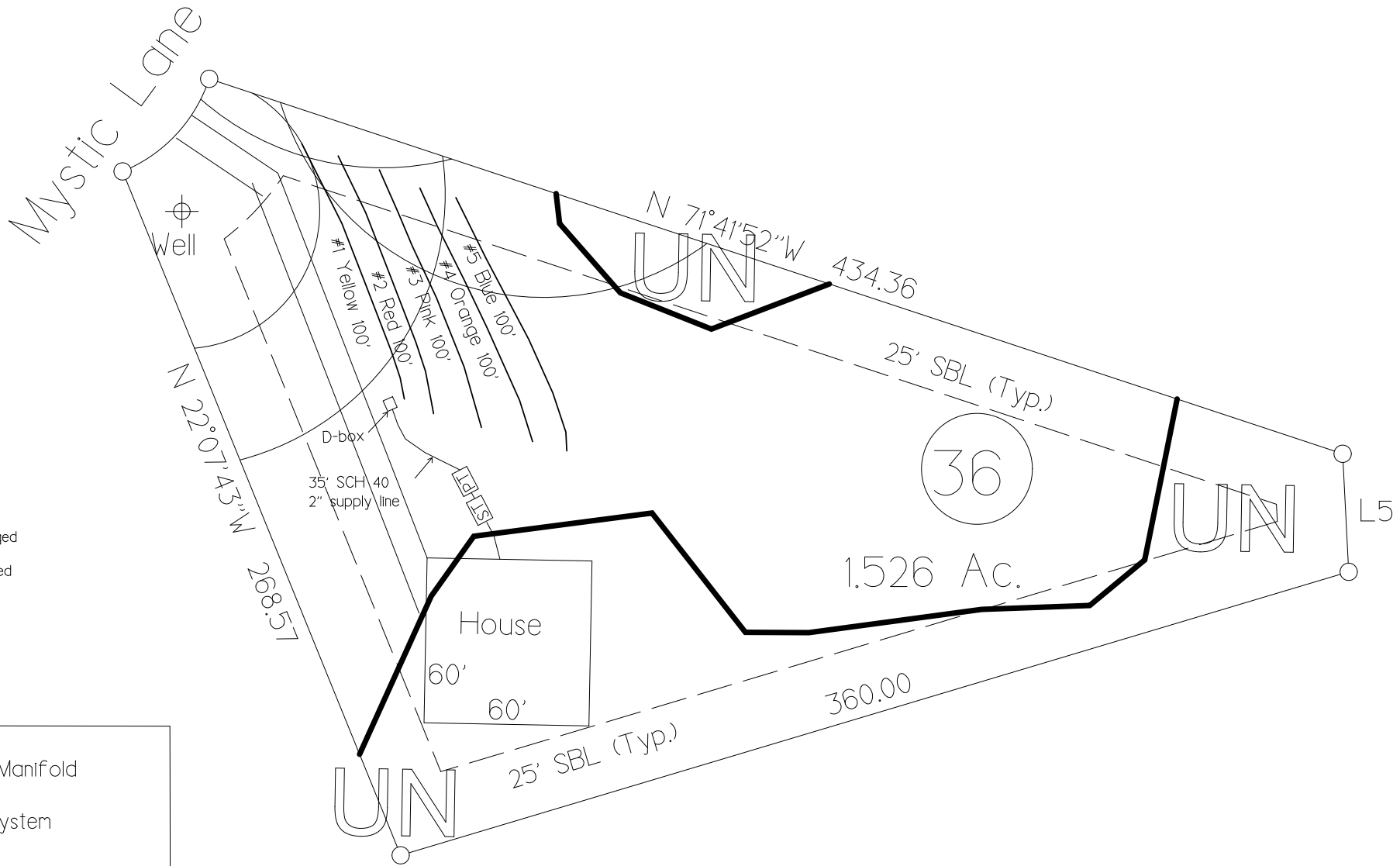
System: Pressure Manifold
 Lines: 6-11, (510')
 Accepted Status System
 0.3 Soil LTAR
 24" Trench Bottom
 Repair: Pressure Manifold
 Lines: 1-5 (500')
 Accepted Status System
 24" Trench Bottom
 0.3 Soil LTAR

GRAPHIC SCALE
 1" = 60'



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Bingham Ridge Phase II Lot 36 5-Bedroom Septic Repair Layout February 2007



*Lines may be flagged longer in the field than lengths indicated above. Install at lengths indicated on site plan.

System: Pressure Manifold
 Lines: 6-11, (510')
 Accepted Status System
 0.3 Soil LTAR
 24" Trench Bottom
 Repair: Pressure Manifold
 Lines: 1-5 (500')
 Accepted Status System
 24" Trench Bottom
 0.3 Soil LTAR

GRAPHIC SCALE
 1" = 60'



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Bingham Ridge

Lot 36

5-Bedroom Home (600 gal./day)

<u>LINE #</u>	<u>COLOR</u>	<u>BS</u>	<u>HI</u>	<u>FS</u>	<u>ELEVATION</u>	<u>LINE LENGTH</u>	<u>Design Length</u>
TBM		1.9		100.0		<u>in field</u>	<u>installation</u>
INST. 1			101.9				
1	Yellow			5.2	96.7	115	100
2	Red			5.8	96.1	116	100
3	Pink			6.5	95.4	116	100
4	Orange			7.3	94.6	116	100
5	Blue			8.3	93.6	125	100
6	Yellow			9.2	92.7	83	80
7	Red			10.5	91.4	80	80
8	Pink			11.5	90.4	80	80
9	Orange			13.1	88.8	90	90
10	Blue			14.4	87.5	95	90
11	Yellow			15.5	86.4	101	90
					Total	1117	1010

System Type	<u>System</u> Lines 6-11 Accepted Status System EZ-FLOW	<u>Repair</u> Lines 1-5 Accepted Status System EZ-FLOW
Suggested Soil LTAR (gal/day/ft2)	0.30	0.30
System Installation LTAR	0.29	0.30
Total Line Length	510	500
Square Footage	1530	1500
Proposed Trench Bottom	24"	24"

Distribution Method

Pressure Manifold

Pump to D-box

Notes: TBM is top of front stake between lots 35/36

If a 4-bedroom house is used system would be gravity, and repair would be pump to d-box.

**Lot 36, Bingham Ridge
Initial Tap Chart**

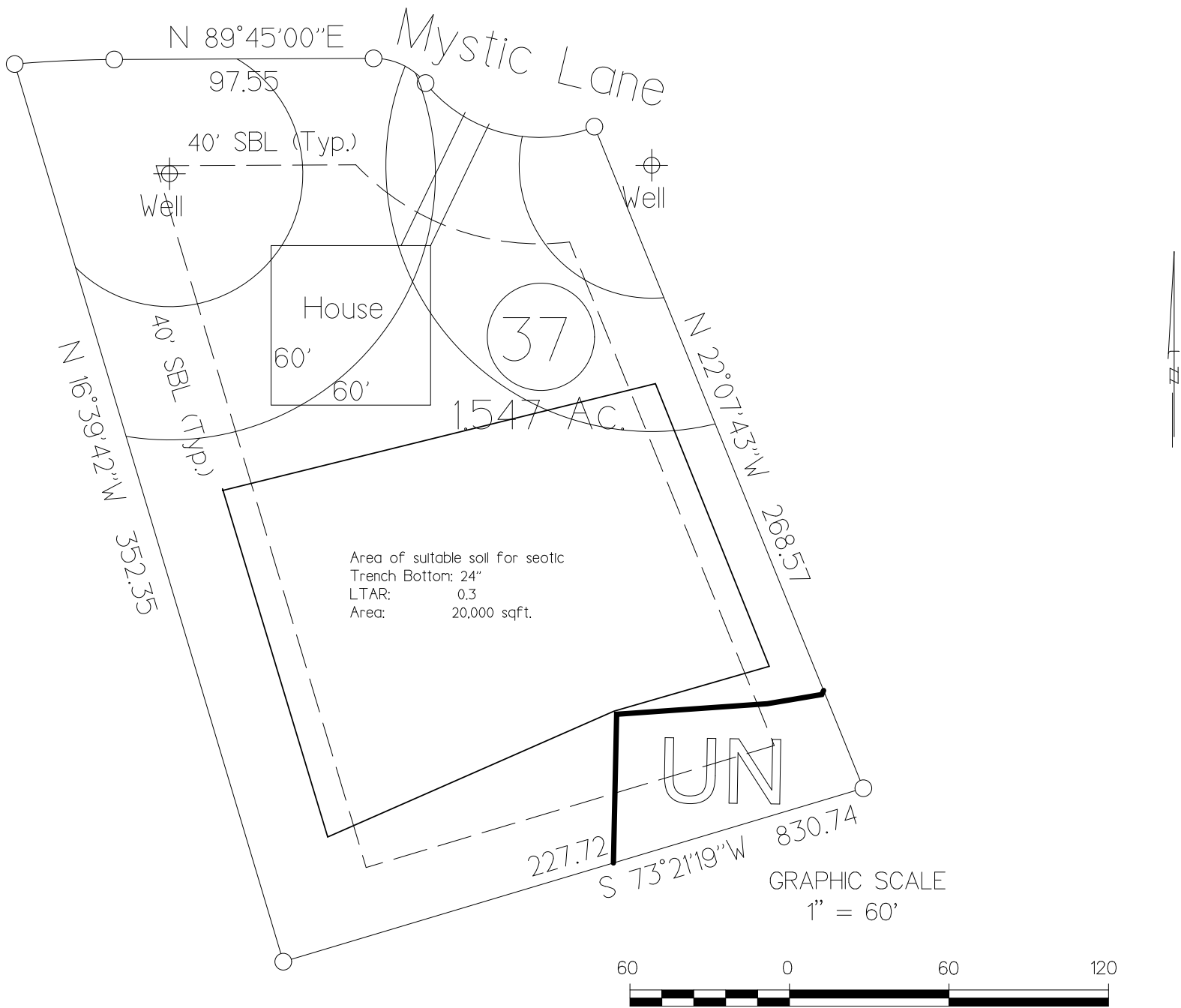
Bench Mark	7.10	is = 100.00	Location of BM		Elevation Head	-0.20			
Pump tank elev.	3	104.10	Pump elev.	99.10	Manifold elev.	98.90			
line	color	rod read	Elevation	length	hole size	flow/tap	gal/day	trench area	LINE LTAR
6	Yellow	9.20	97.90	80	1/2in SCH 40	7.11	100.00	240	0.4167
7	Red	10.50	96.60	80	1/2in SCH 40	7.11	100.00	240	0.4167
8	Pink	11.50	95.60	80	1/2in SCH 40	7.11	100.00	240	0.4167
9	Orange	13.10	94.00	90	1/2in SCH 40	7.11	100.00	270	0.3704
10	Blue	14.40	92.70	90	1/2in SCH 40	7.11	100.00	270	0.3704
11	Yellow	15.50	91.60	90	1/2in SCH 40	7.11	100.00	270	0.3704

	total	feet =	510	gal/min =	42.66	LTAR =	0.3000
						LTAR + %5	0.3150
% of Dose Vol.	65	Des. Flow	600			(ltar W/ INOV)	0.4000
Dose Volume	215.48	Pump Run=	14.06			(ltar W/ INOV + 5%)	0.4200
Dose Pump Time	5.05	Tank Gal/IN	30				
Drawdown in Inches	7.18						

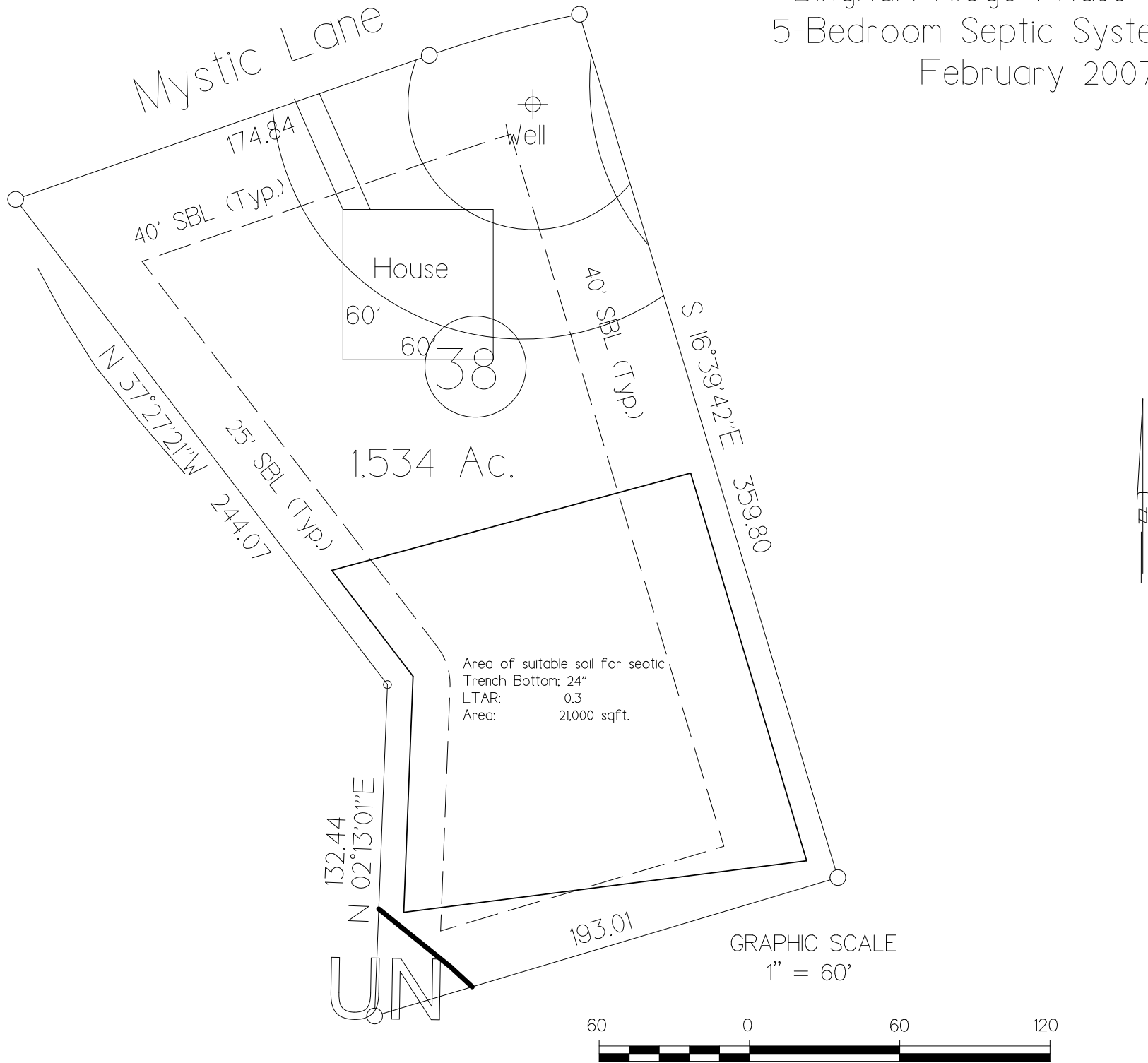
Bingham Ridge Phase II Lot 37

5-Bedroom Septic System Layout

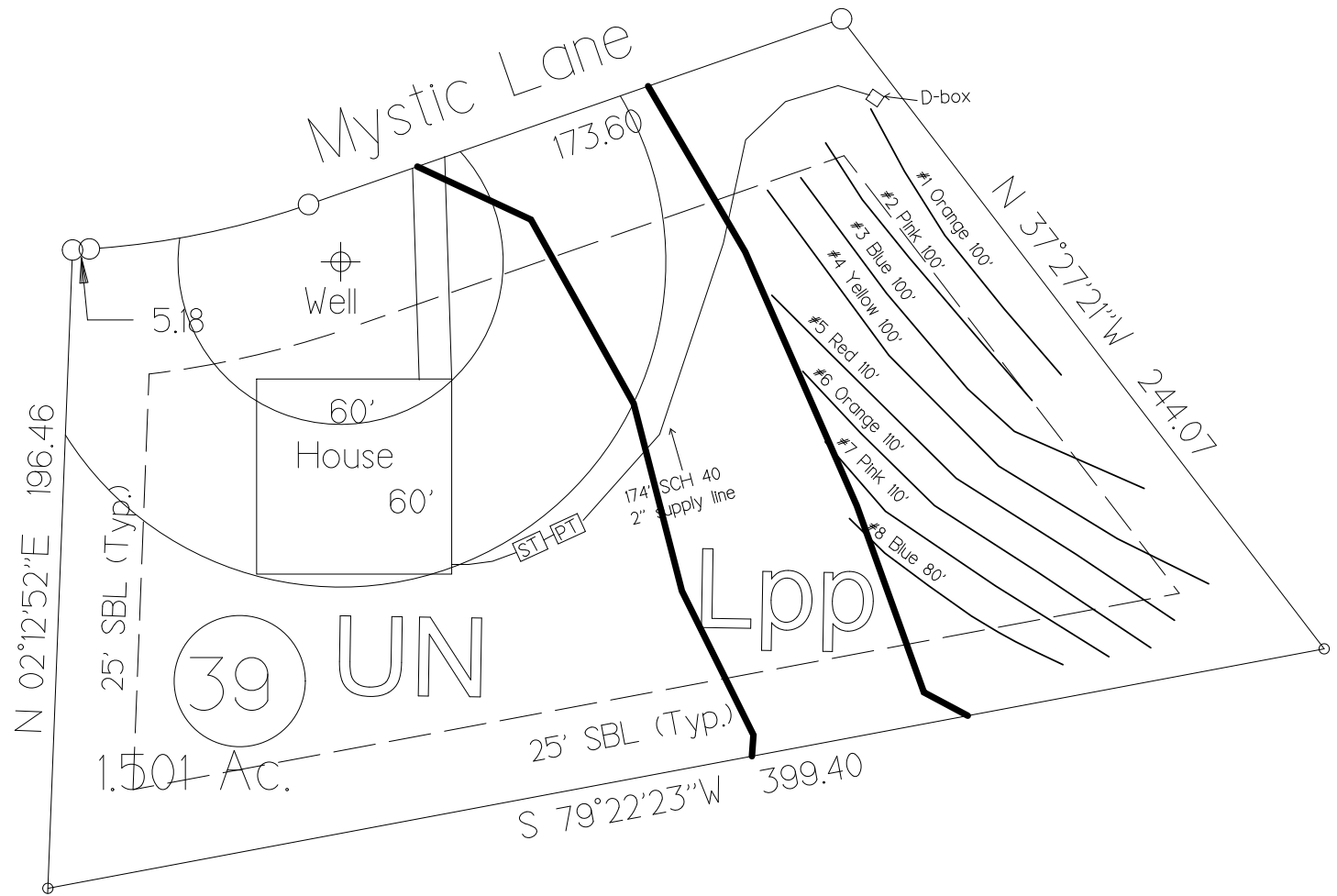
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Bingham Ridge Phase II Lot 38
 5-Bedroom Septic System Layout
 February 2007



Bingham Ridge Phase II Lot 39 5-Bedroom Septic System Layout February 2007



*Lines may be flagged longer in the field than lengths indicated above. Install at lengths indicated on site plan.

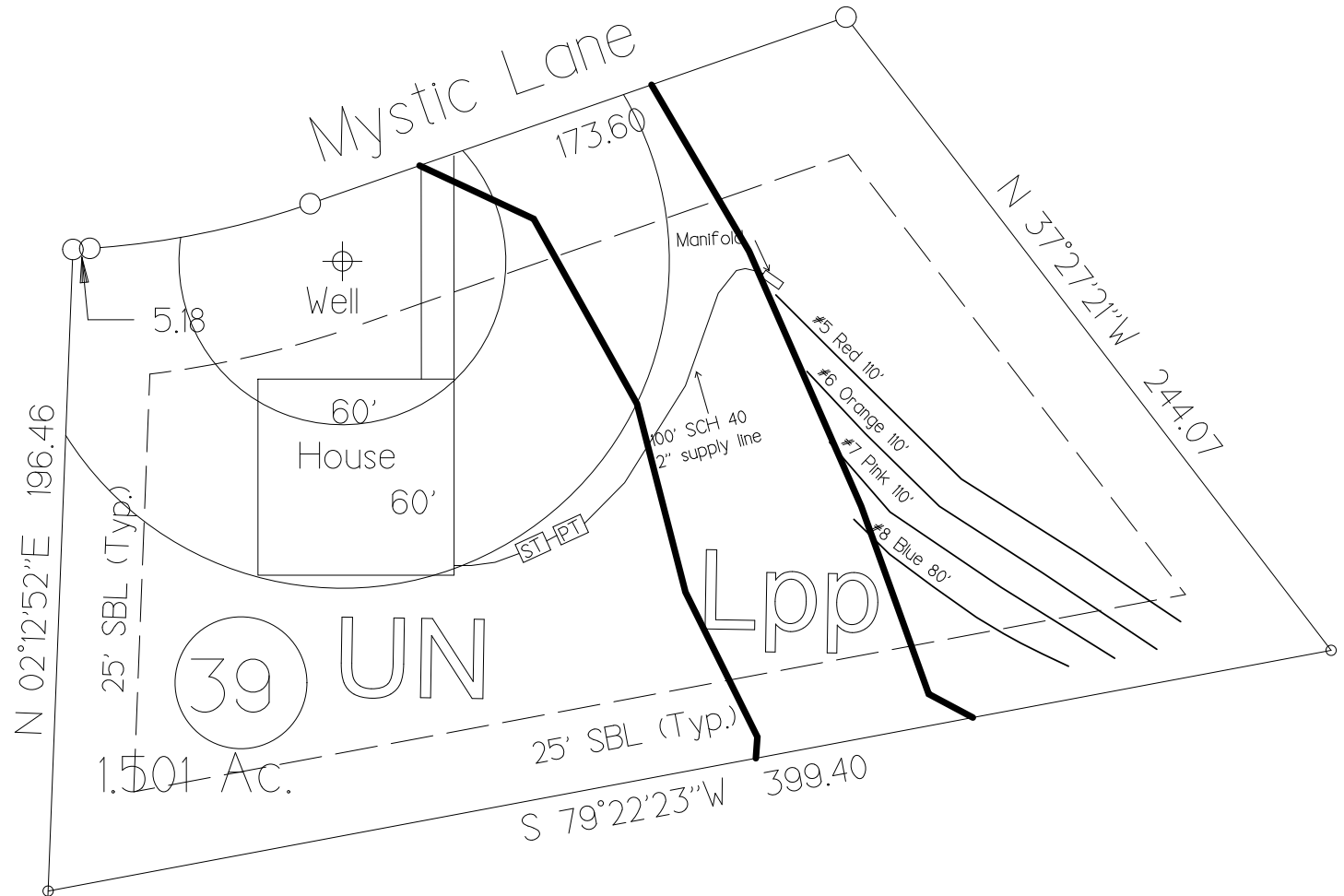
System: Pump to D-box
 Lines: 1-4, (400')
 Accepted Status System
 0.3 Soil LTAR
 18" Trench Bottom
 Repair: Pressure Manifold
 Lines: 5-8 (410')
 Accepted Status System
 18" Trench Bottom
 0.3 Soil LTAR

1" = 60'



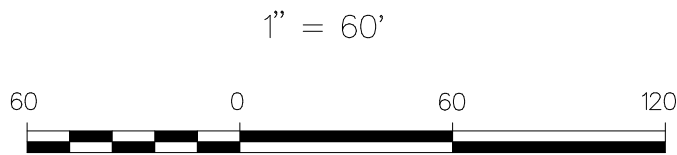
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Bingham Ridge Phase II Lot 39 5-Bedroom Septic Repair Layout February 2007



*Lines may be flagged longer in the field than lengths indicated above. Install at lengths indicated on site plan.

System: Pump to D-box
 Lines: 1-4, (400')
 Accepted Status System
 0.3 Soil LTAR
 18" Trench Bottom
 Repair: Pressure Manifold
 Lines: 5-8 (410')
 Accepted Status System
 18" Trench Bottom
 0.3 Soil LTAR



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 919-784-9449
 Project # 329

Bingham Ridge

Lot 39

4-Bedroom Home (480 gal./day)

<u>LINE #</u>	<u>COLOR</u>	<u>BS</u>	<u>HI</u>	<u>FS</u>	<u>ELEVATION</u>	<u>LINE LENGTH</u>	<u>Design Length</u>
TBM		4.6		100.0		<u>in field</u>	<u>installation</u>
INST. 1			104.6				
1	Orange			4.2	100.4	100	100
2	Pink			4.5	100.1	100	100
3	Blue			5.0	99.6	145	100
4	Yellow			5.6	99	185	100
5	Red			6.1	98.5	160	110
6	Orange			6.6	98	137	110
7	Pink			7.1	97.5	110	110
8	Blue			7.5	97.1	80	80
					Total	1017	810

System Type	<u>System</u> Lines 1-4 Accepted Status System EZ-FLOW	<u>Repair</u> Lines 5-8 Accepted Status System EZ-FLOW
Suggested Soil LTAR (gal/day/ft ²)	0.30	0.30
System Installation LTAR	0.30	0.29
Total Line Length	400	410
Square Footage	1200	1230
Proposed Trench Bottom	18"	18"
Distribution Method	Pump to D-box	Pressure Manifold

Notes: TBM is top of side EIP between 38/39

**Lot 39, Bingham Ridge
Repair Tap Chart**

Bench Mark	4.60	is = 100.00 Location of BM							Elevation Head	2.90
Pump tank elev.	3	101.60	Pump elev.	96.60	Manifold elev.			99.50		
line	color	rod read	Elevation	length	hole size	flow/tap	gal/day	trench area	LINE LTAR	
5	Red	6.10	98.50	110	3/4in SCH 80	10.1	129.59	330	0.3927	
6	Orange	6.60	98.00	110	3/4in SCH 80	10.1	129.59	330	0.3927	
7	Pink	7.10	97.50	110	3/4in SCH 80	10.1	129.59	330	0.3927	
8	Blue	7.50	97.10	80	1/2in SCH 40	7.11	91.23	240	0.3801	

total	feet =	410	gal/min =	37.41	LTAR =	0.3000
% of Dose Vol.	75	Des. Flow	480	LTAR + %5	0.3150	
Dose Volume	199.88	Pump Run=	12.83	(ltar W/ INOV)	0.4000	
Dose Pump Time	5.34	Tank Gal/IN	21	(ltar W/ INOV + 5%)	0.4200	
Drawdown in Inches	9.52					