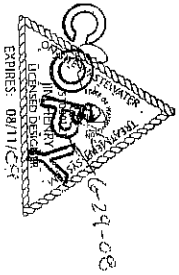


- SOIL LOGS - 5/27/08
- ① GRAVELLY SANDY LOAM (TYPE 4).....0-24" COMPACT SAND OVER TILL.....24-36" RESTRICTIVE @ 24"
  - ② SAME AS HOLE #1.....0-22" RESTRICTIVE @ 22" 22-36"
  - ③ DUFF.....0-3" GRAVELLY LOAMY SAND (TYPE 3).....3-28" COMPACT SAND OVER TILL.....28-36" RESTRICTIVE @ 28"

- ▲ RBM IS SURFACE ELEVATION AT ROAD CROWN WHERE INDICATED. RBM EL. = 1000.0
  - ① STUBOUT/CLEANOUT EL. = 1000.0
  - ② 1200-GAL. 2-COMPARTMENT SEPTIC TANK WITH OUTLET FILTER WITH 1/16" MESH INLET EL. = 997. OUTLET EL. = 99.4
  - ③ 1200-GAL. PUMP CHAMBER. PUMP EL. = 95.0. TIMER REQUIRED. DOSE COUNTER & ELAPSED TIME METER REQUIRED
  - ④ 120 FT OF 2-INCH PVC TIGHTLINE, SCHEDULE 40 6 FT OF 2-INCH PVC MANIFOLD, SCHEDULE 40
- ALL WELLS WITHIN 200 FT OF THE PROPOSED DRAINFIELD ARE SHOWN.



DIRECTIONS: STEAMBOAT RD TO RIGHT ON GRAVELLY BOGHD TO LEFT ON STETSON LN TO SITE ON RIGHT.		JIM HENRY DESIGN SERVICES, INC. PO BOX 14531 TUMWATER WA 98511-4531 360-956-7242	
STETSON LANE		CUSTOMER: STEAMBOAT DEVELOPMENT LLC	
SITE		TP#: 12919330000 PTN	PERMIT NUMBER:
GRAVELLY & B.C.H. & CO. P.		SITE ADDRESS: 5606 STETSON LN NW	
LEGAL: LOT 1 OF LL 2007100780			

SHEET 1 OF 2

AN ADDITIONAL FEE WILL BE CHARGED AFTER INSTALLATION FOR FINAL INSPECTION AND RECORD DRAWING

## MOUND SITE PREPARATIONS

The mound shall be installed in dry weather only. The soil must also be dry enough for proper installation. If the installer has any doubt as to the soils suitability for installation, contact the designer.

The mound has been staked out during the design phase. Locate the staking and save these locations in the field so that the mound area may be located easily during lot development. This is to help protect the drainfield area.

Only track-type vehicles may be used on the mound drained area. No wheeled vehicles on the mound area.

Cut any trees at ground level and leave stumps in the ground. Trench and lay the force main from the pump chamber to the mound fill area. (Be sure force main is below the frost line.) Cap force main to prevent soil from entering the pipe.

Plow the site using a moldboard plow and plow parallel to contours. Plow in a manner so that the plow throws the soil upslope. A disc plow may be used if the moldboard plow is not available. Hand spreading is also acceptable. Rottling is NOT acceptable. Tree stumps will need to be plowed around.

Now extend the force main several feet above the ground surface.

Place the filter media (ASTM C-33 sand) around the plowed area. Keep wheeled vehicles off the plowed area. Filter media is to be pushed on the plowed mound area with a track vehicle or placed on the plowed area with an excavator. Avoid traffic on the downslope side of the mound area. NOTE the location of the reserve area and avoid vehicle traffic over the reserve area.

It is the responsibility of the installer to prepare the finished grade of the mound site. Grass must be planted on the mound shortly after installation. If foliage is desired, check with the designer for guidance.

## USERS MANUAL

The system owner is responsible for the continuous operation and maintenance of the system.

- Septic tank should be pumped every three to five years depending on use and scum/sludge accumulation.
- Outlet filter should be checked and cleaned once every two years. Filter may be tossed off into the first compartment of the septic tank.
- Pump chamber should be pumped and cleaned at the same time the septic tank is pumped and cleaned.
- Maintain good water conservation practices. This will keep system from being hydraulically overloaded. Garbage disposals are to be avoided.
- If your alarm should sound off, check the power to the pump, check circuit breaker, and check for any fixtures that may be leaking in the system. If still at a loss for what set off your alarm, call your septic installer or the County Health Dept. for help.
- Avoid compaction of the drain field area and reserve area. Normal lawn mowing and maintenance is encouraged.

## GENERAL NOTES

Owner/installer shall not remove or disturb any top soil while clearing vegetation in Primary or Reserve drainfield areas. Removing or disturbing of soil could render site unusable.

Any alterations of this design must first be approved by Jim Henry Design Services, Inc. and/or the approving County Health Sanitarian.

This design is site specific and conforms to State and County Health Dept. requirements. The designer assumes no responsibility for its longevity. The owner therefore agrees to maintain and make all necessary repairs to the system at no cost to Jim Henry Design Services, Inc.

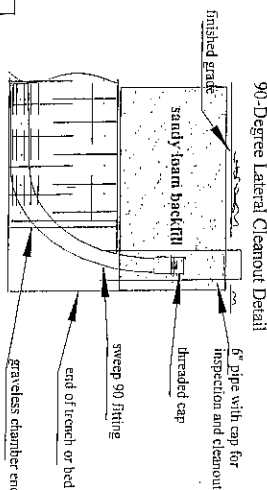
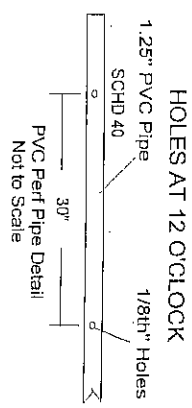
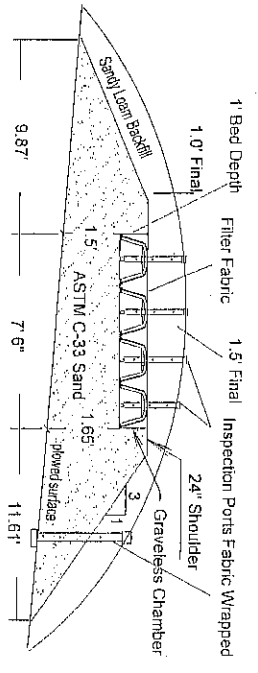
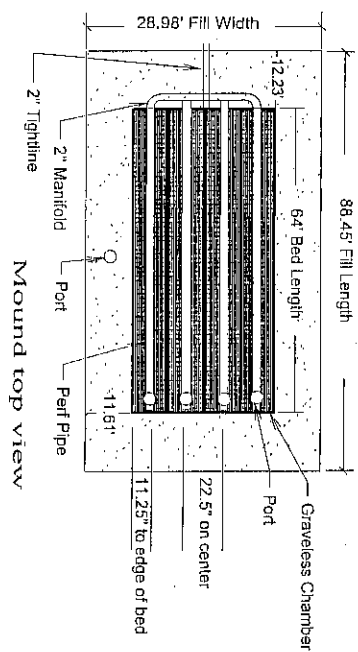
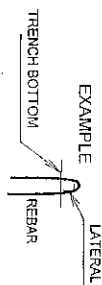
All construction materials installed in this system shall conform to all applicable state and County Health Department requirements.

Contact Jim Henry Design Services, Inc. for final inspection of the installation. All components, including tanks, lids, tightline, drainfield, and water lines, must be open for inspection. Return visits due to inaccessible components shall be charged to the installer.

Storm water run-off, footing drains, and roof drains must be diverted away from any septic system components.

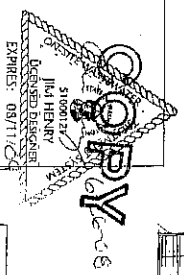
**NO WATERLINE SHALL BE WITHIN 10 FEET OR CROSS ANY SEPTIC SYSTEM COMPONENT.**

NOTE: LATERALS TO BE LAYED ON BOTTOM OF TRENCH AND STAKED IN PLACE WITH "U" SHAPED OF 3/8" INCH REBAR TO KEEP LATERAL FROM MOVING IN TRENCH. ANCHOR EVERY 20 FEET.



## CONSTRUCTION NOTES

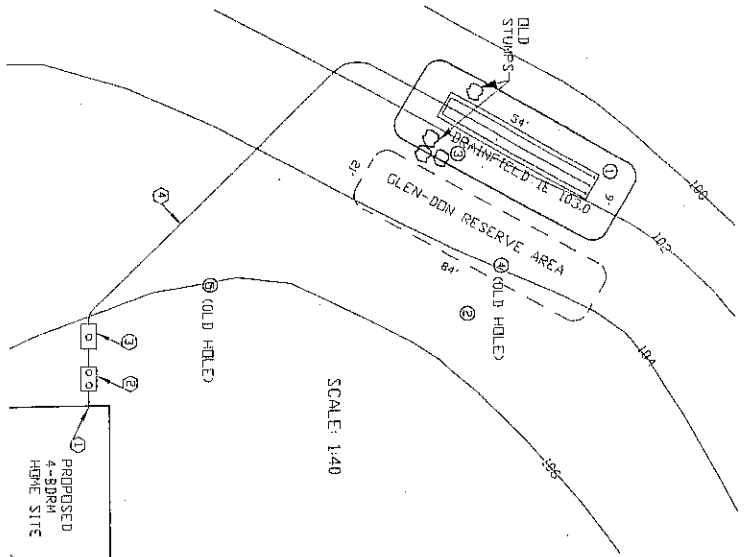
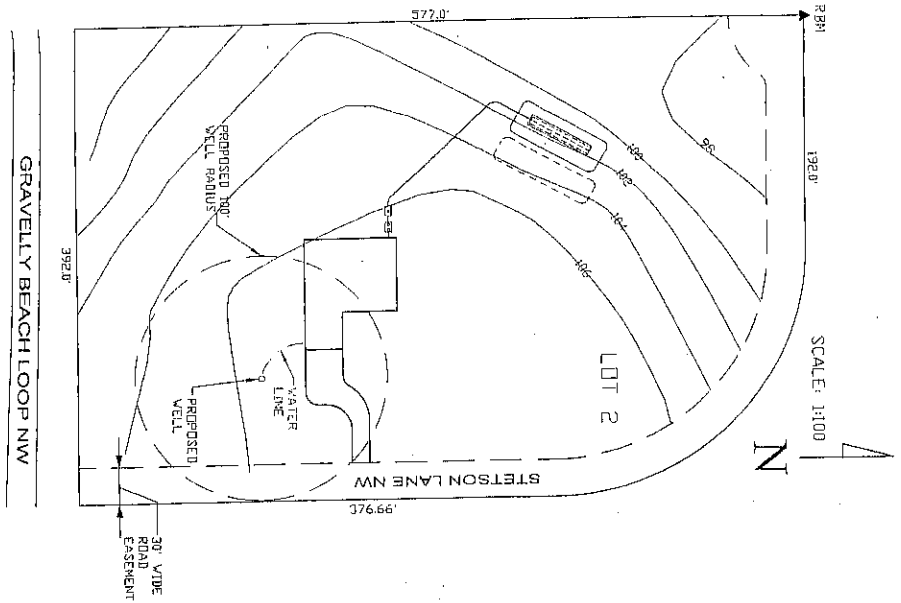
- BED DIMENSIONS: 7.5' X 64'
- BED DEPTH: 12"
- 4 GRAVELESS CHAMBERS: 24"-WIDE CHAMBERS
- PUMP MODEL: HYDROMATIC SP50
- CHECK VALVE AND HIGH LEVEL ALARM REQUIRED.
- DOSE VOLUME: 80 GAL PER TIMER CONTROLLED AT ONE MINUTE 54 SECONDS ON, FOUR HOURS OFF.
- DOSE COUNTER & ELAPSED TIME METER REQUIRED
- USE "T" TO "T" TYPE CONSTRUCTION
- END OF EACH LATERAL IS TO HAVE A SWEEP 90 WITH THREADED END CAP, AND SHALL BE MARKED WITH LOCATOR TAPE, REBAR, OR ACCESS PORT TO SURFACE.



SHEET 2 OF 2

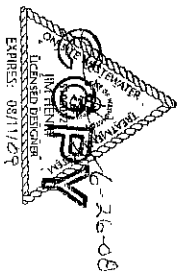
JIM HENRY DESIGN SERVICES, INC.	
PO BOX 14531 TUMWATER WA 98511-4531 360-958-7242	
CUSTOMER:	STEAMBOAT DEVELOPMENT LLC
TPE:	12919330000 PTN
SITE ADDRESS:	5606 STEITSON LN NW
LEGAL:	LOT 1 OF LL 2007100780

AN ADDITIONAL FEE WILL BE CHARGED AFTER INSTALLATION FOR FINAL INSPECTION AND RECORD DRAWING



- SOIL LOGS - 5/27/08
- ① DUFF.....0-4"  
LOAMY SANDY (TYPE 4).....4-28"  
MOTTLED SILTY LOAM.....28-44"  
RESTRICTIVE @ 28"
  - ② DUFF.....0-3"  
LOAMY SAND (TYPE 4).....3-28"  
MOTTLED SILT.....28-37"  
RESTRICTIVE @ 28"
  - ③ DUFF.....0-3"  
LOAMY SAND (TYPE 4).....3-28"  
MOTTLED SILTY SAND.....28-38"  
RESTRICTIVE @ 28"
  - ④ OLD HOLE  
SANDY LOAM (TYPE 4).....0-24"  
GRAVELLY SILT.....24-53"  
RESTRICTIVE @ 24"

- ▲ RBM IS SURFACE ELEVATION AT CENTER OF CULDESAC. RBM EL. = 100.0
  - ① STUBOUT/CLEANOUT EL. = 105.0
  - ② 1200-GAL. 2-COMPARTMENT SEPTIC TANK WITH OUTLET FILTER WITH 1/16" MESH INLET EL. = 104.7 OUTLET EL. = 104.4
  - ③ 1200-GAL. PUMP CHAMBER. PUMP EL. = 100.0. TIMER REQUIRED. DOSE COUNTER & ELAPSED TIME METER REQUIRED.
  - ④ 180 FT. OF 2-INCH PVC TIGHTLINE, SCHEDULE 40
  - ⑤ 6 FT. OF 2-INCH PVC MANFOLD, SCHEDULE 40
- ALL WELLS WITHIN 200 FT. OF THE PROPOSED DRAINFIELD ARE SHOWN.



SHEET 1 OF 2

<b>DIRECTIONS:</b> STEAMBOAT ISL. RD TO RIGHT ON GRAVELLY BCH RD TO LEFT ON STETSON LN. AT CULDESAC FOLLOW BACK HOLE TRAIL TO SITE	
<b>CUSTOMER:</b> STEAMBOAT DEVELOPMENT LLC	<b>JIM HENRY DESIGN SERVICES, INC.</b> PO BOX 1431 TUMWATER WA 98511-4311 360-966-7242
<b>TP#: 12919330000 PTN</b>	<b>PERMIT NUMBER:</b>
<b>SITE ADDRESS:</b> 5609 STETSON LN NW	
<b>LEGAL:</b> LOT 2 OF LL 2007100780	

# MOUND SITE PREPARATIONS

The mound shall be installed in dry weather only. The soil must also be dry enough for proper installation. If the installer has any doubt as to the soils suitability for installation contact the designer.

The mound has been staked out during the design phase. Locate the staking and save these locations in the field so that the mound area may be located easily during development. This is to help protect the drainfield area.

Only track-type vehicles may be used on the mound drainfield area. No wheeled vehicles on the mound area.

Cut any trees at ground level and leave stumps in the ground. Trench and lay the force main from the pump chamber to the mound fill area. (Be sure force main is below the frost line.) Cap force main to prevent soil from entering the pipe.

Plow the site using a moldboard plow and plow parallel to contours. Plow in a manner so that the plow throws the soil upspace. A disc plow or a chisel plow may be used if the moldboard plow is not available. Hand spading is also acceptable. Rolling is NOT acceptable. Tree stumps will need to be plowed around.

Now extend the force main several feet above the ground surface.

Place the filter media (ASTM C-33 sand) around the plowed area. Keep wheeled vehicles off the plowed area. Filter media is to be pushed on the plowed mound area with a track vehicle or placed on the plowed area with an excavator. Avoid traffic on the downslope side of the mound area. NOTE the location of the reserve area and avoid vehicle traffic over the reserve area.

It is the responsibility of the installer to prepare the finished grade of the mound site. Grass must be planted on the mound shortly after installation. If foliage is desired, check with the designer for guidance.

## USER MANUAL

The system owner is responsible for the continuous operation and maintenance of the system.

- Septic tank should be pumped every three to five years depending on use and sludge accumulation.
- Outlet filter should be checked and cleaned once every two years. Filter may be hosed off into the first compartment of the septic tank.
- Pump chamber should be pumped and cleaned at the same time the septic tank is pumped and cleaned.
- Maintain good water conservation practices. This will keep system from being hydraulically overloaded. Garbage disposals are to be avoided.
- If your alarm should sound off, check the power to the pump, check circuit breaker, and check for any fixtures that may be leaking in the system. If still at a loss for what set off your alarm, call your septic installer or the County Health Dept. for help.
- Avoid compaction of the drain field area and reserve area. Normal lawn mowing and maintenance is encouraged.

## GENERAL NOTES

Owner/installer shall not remove or disturb any top soil while clearing vegetation in Primary or Reserve drainfield areas. Removing or disturbing of soil could render site unusable.

Any alterations of this design must first be approved by Jim Henry Design Services, Inc. and/or the approving County Health Sanitarian.

This design is site specific and conforms to State and County Health Dept. requirements. The designer assumes no responsibility for its longevity. The owner therefore agrees to maintain and make all necessary repairs to the system at no cost to Jim Henry Design Services, Inc.

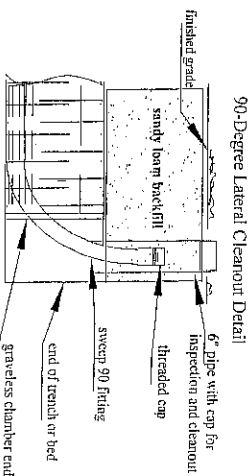
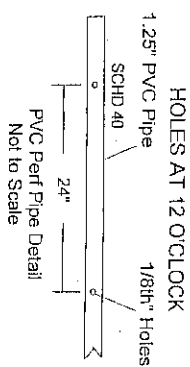
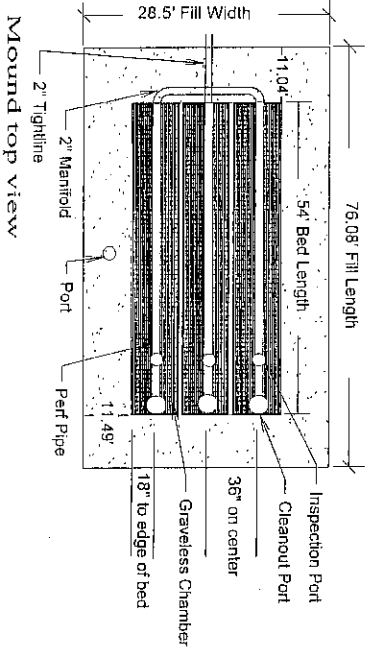
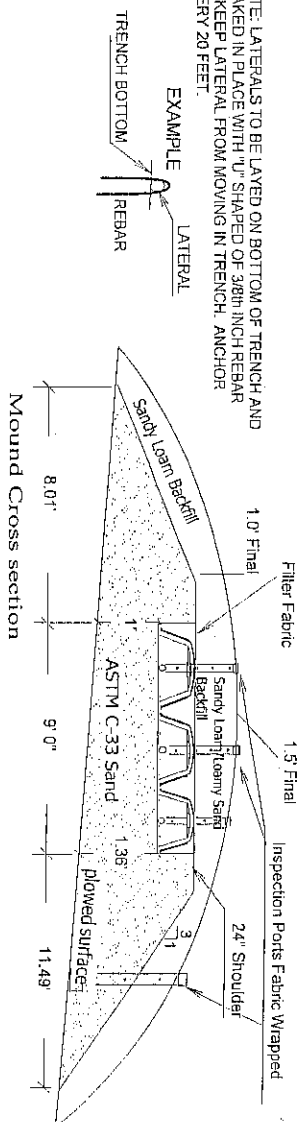
All construction materials installed in this system shall conform to all applicable state and County Health Department requirements.

Contact Jim Henry Design Services, Inc. for final inspection of the installation. All components, including tanks, lids, digester, drainfield, and water lines, must be open for inspection. Return visits due to inaccessible components shall be charged to the installer.

Storm water run-off, footing drains, and roof drains must be diverted away from any septic system components.

**NO WATERLINE SHALL BE WITHIN 10 FEET OR CROSS ANY SEPTIC SYSTEM COMPONENT.**

NOTE: LATERALS TO BE LAYED ON BOTTOM OF TRENCH AND STAKED IN PLACE WITH "U" SHAPED OF 3/8th INCH REBAR TO KEEP LATERAL FROM MOVING IN TRENCH. ANCHOR EVERY 20 FEET.



## CONSTRUCTION NOTES

BED DIMENSIONS: 9' X 54'

BED DEPTH: 12"

GRAVELESS CHAMBERS

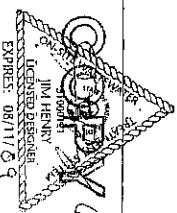
PUMP MODEL: HYDROMATIC SP40

CHECK VALVE AND HIGH LEVEL ALARM REQUIRED.

ELAPSE TIMER METER REQUIRED, DOSE COUNTER REQUIRED.

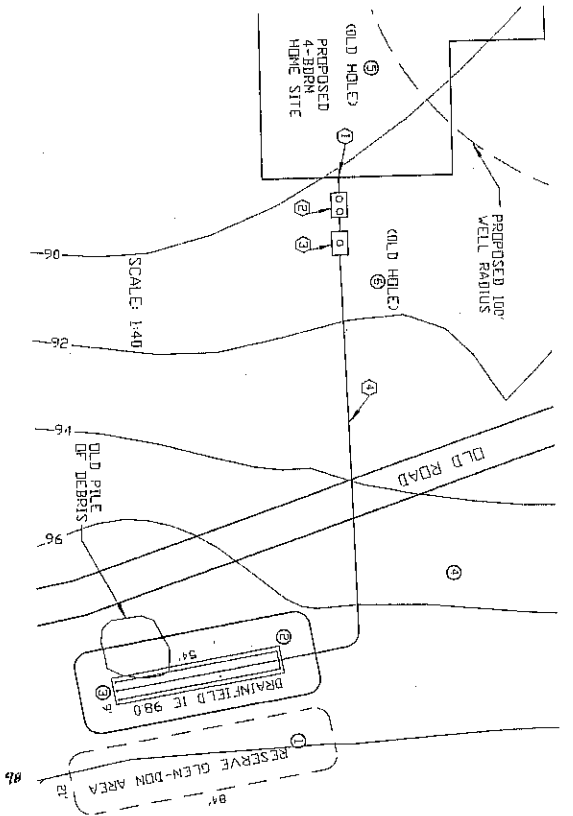
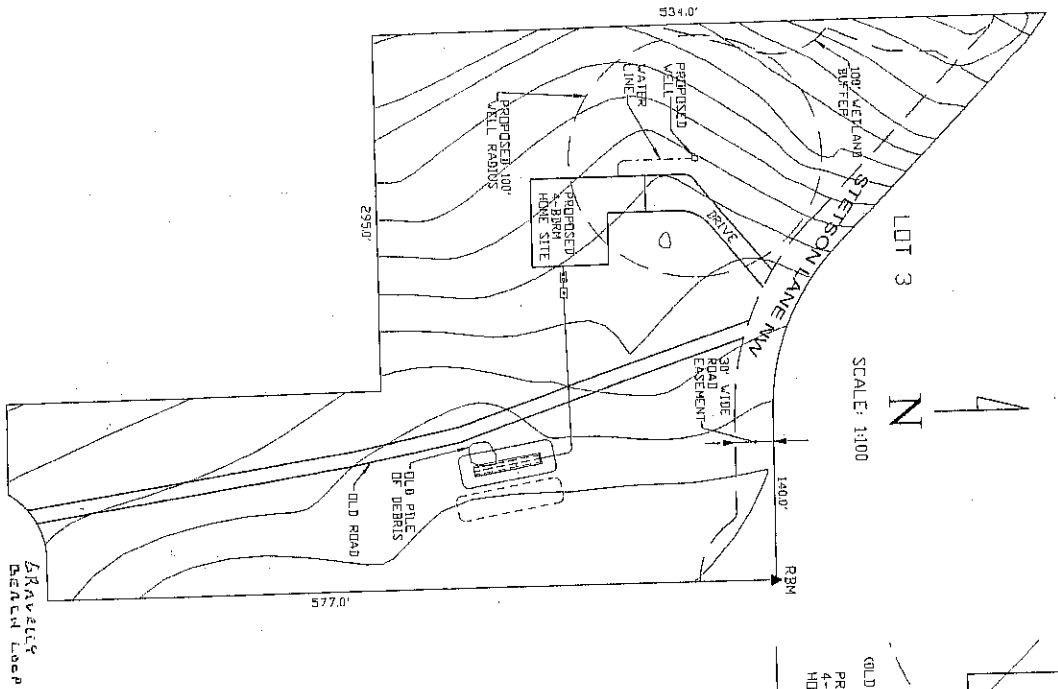
DOSE VOLUME: 80-GAL PER TIMER CONTROLLED AT TWO MINUTES 26 SECONDS ON, FOUR HOURS OFF USE "T" TO "T" TYPE CONSTRUCTION

END OF EACH LATERAL IS TO HAVE A SWEEP 90 WITH THREADED END CAP, AND SHALL BE MARKED WITH LOCATOR TAPE, REBAR, OR ACCESS PORT TO SURFACE.



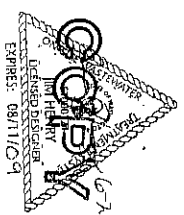
SHEET 2 OF 2

<b>JIM HENRY DESIGN SERVICES, INC.</b>	
PO BOX 14531 TUMWATER WA 98511-4531 360-955-7242	
CUSTOMER:	STEAMBOAT DEVELOPMENT LLC
TF#:	12919330000 PTN
PERMIT NUMBER:	
SITE ADDRESS:	5609 STERSON LN NW
LEGAL:	LOT 2 OF LL 2007100780



- SOIL LOGS - 522708
- 1 SANDY LOAM (TYPE 4) 0-28" COMPACT FINE SAND 28-38" RESTRICTIVE @ 28"
  - 2 SANDY LOAM (TYPE 4) 0-36" SILTY SAND 36-48" RESTRICTIVE @ 36"
  - 3 DUFF 0-37" SANDY LOAM (TYPE 4) 33-37" COMPACT SILTY SAND 30-41" RESTRICTIVE @ 30"
  - 4 SILTY LOAM (TYPE 5) 0-36" STAINED SILT LOAM 36-48" RESTRICTIVE @ 36"

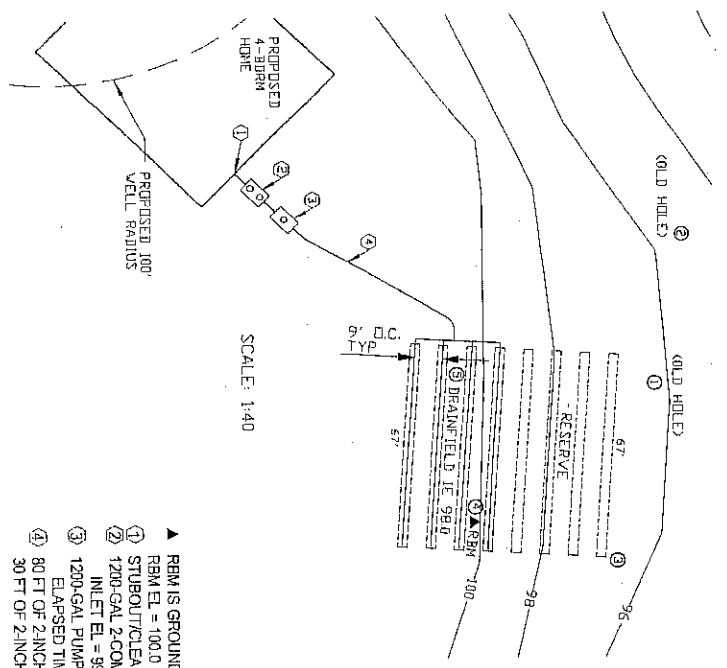
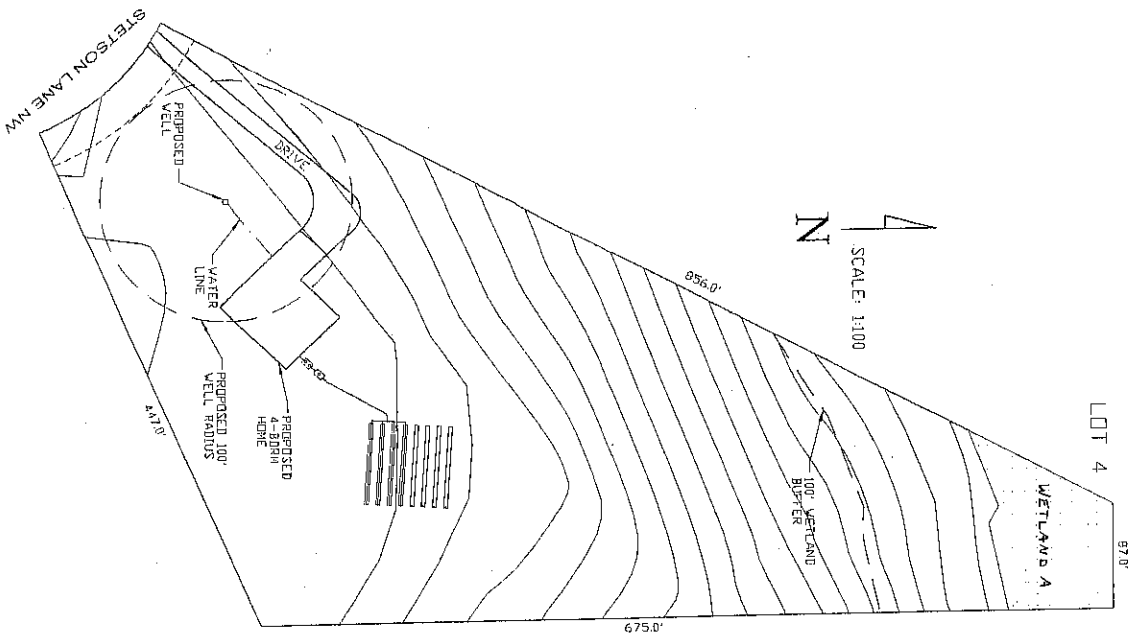
- ▲ RBMS SURFACE ELEVATION AT CENTER OF CULDESAC. RBM EL. = 100.0
- 1 STUBOUT/LEANOUT EL. = 90.0
  - 2 1200-GAL 2-COMPARTMENT SEPTIC TANK WITH OUTLET FILTER WITH 1/16" MESH INLET EL. = 89.7 OUTLET EL. = 89.4
  - 3 1200-GAL PUMP CHAMBER, PUMP EL. = 85.0 TIMER REQUIRED, DOSE COUNTER & ELAPSED TIME METER REQUIRED
  - 4 160 FT OF 2-INCH PVC TIGHTLINE, SCHEDULE 40 6 FT OF 2-INCH PVC MANFOLD, SCHEDULE 40
- ALL WELLS WITHIN 200 FT OF THE PROPOSED DRAINFIELD ARE SHOWN.



<p><b>DIRECTIONS:</b>          STEAMBOAT ISL. RD TO RIGHT ON GRAVELLY BEACH          TO LEFT ON STETSON LN TO 200 FT PAST CULDESAC          FOLLOW OLD TRAIL TO SOUTH TO DRAINFIELD SITE.</p>	
<p><b>JIM HENRY DESIGN SERVICES, INC.</b>          PO BOX 14531 TUMWATER WA 98514-4531 360-956-7242</p>	<p><b>STEAMBOAT DEVELOPMENT LLC</b></p>
<p><b>CUSTOMER:</b></p>	<p><b>PERMIT NUMBER:</b></p>
<p><b>TP#:</b> 12919330000 PTN</p>	<p><b>SITE ADDRESS:</b> 5623 STETSON LN NW</p>
<p><b>LEGAL:</b> LOT 3 OF LL 2007100780</p>	<p><b>SITE:</b> 7</p>

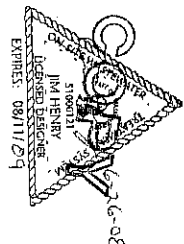
AN ADDITIONAL FEE WILL BE CHARGED AFTER INSTALLATION FOR FINAL INSPECTION AND RECORD DRAWING





- SOIL LOGS - 5/27/08
- 1 OLD HOLE  
SANDY LOAM/LOAM (TYPE 4)...0-18"  
CEMENTED GRAVELLY LOAMY SAND...18-29"  
FINE SAND WITH ROOTS (TYPE 4)...29-70"  
NOT RESTRICTIVE BELOW 29"
  - 2 OLD HOLE  
SAME AS HOLE #1...0-24"  
.....24-36"  
.....36-57"  
NOT RESTRICTIVE BELOW 36"
  - 3 FRYABLE SANDY LOAM (TYPE 4)...0-24"  
LOAMY SAND (TYPE 4)...24-65"  
NOT RESTRICTIVE
  - 4 SANDY LOAM (TYPE 4)...0-32"  
FRYABLE MEDIUM SAND (TYPE 3)...32-58"  
NOT RESTRICTIVE
  - 5 SANDY LOAM (TYPE 4)...0-63"  
NOT RESTRICTIVE

- ▲ RBM IS GROUND ELEVATION AT EAST SIDE OF HOLE #4 AS INDICATED.  
RBM EL. = 100.0
  - 1 STUBOUT/CLEANOUT EL. = 100.0
  - 2 1200-GAL 2-COMPARTMENT SEPTIC TANK WITH OUTLET FILTER WITH 1/16" MESH INLET EL. = 99.7 OUTLET EL. = 99.4
  - 3 1200-GAL PUMP CHAMBER, PUMP EL. = 95.0 TIMER REQUIRED, DOSE COUNTER & ELAPSED TIME METER REQUIRED
  - 4 80 FT OF 2-INCH PVC TIGHTLINE, SCHEDULE 40
  - 5 30 FT OF 2-INCH PVC MANIFOLD, SCHEDULE 40
- ALL WELLS WITHIN 200 FT OF THE PROPOSED DRAINFIELD ARE SHOWN.



AN ADDITIONAL FEE WILL BE CHARGED AFTER INSTALLATION FOR FINAL INSPECTION AND RECORD DRAWING

<p><b>DIRECTIONS:</b> STEAMBOAT RD TO RIGHT ON GRAVELLY BCH RD TO LEFT ON STETSON LN TO 200 FT PAST CULDESSAC, NORTH ON BACKHOLE TRAIL, FOLLOW TO LOT 4, WALK THROUGH LOTS 5 &amp; 6.</p>	
SHEET 1 OF 2	
<p><b>JIM HENRY DESIGN SERVICES, INC.</b> PO BOX 41531 TAMMATER WA 98511-4531 360-856-7242</p>	
<p><b>CUSTOMER:</b> STEAMBOAT DEVELOPMENT LLC</p>	
<p><b>TP#:</b> 12919330000 PTN</p>	<p><b>PERMIT NUMBER:</b></p>
<p><b>SITE ADDRESS:</b> 5612 STETSON LN NW</p>	
<p><b>LEGAL:</b> LOT 4 OF LL 2007100780</p>	

**USER MANUAL**

- The system owner is responsible for the continuous operation and maintenance of the system.
- Septic tank should be pumped every three to five years depending on use and scum/sludge accumulation.
- Outlet filter should be checked and cleaned once every two years. Filter may be hoisted off into the first compartment of the septic tank.
- Pump chamber should be pumped and cleaned at the same time the septic tank is pumped and cleaned.
- Maintain good water conservation practices. This will keep system from being hydraulically overloaded. Garbage disposals are to be avoided.
- If your alarm should sound off, check the power to the pump, check circuit breaker, and check for any fixtures that may be leaking in the system. If still at a loss for what set off your alarm, call your septic installer or the County Health Dept. for help.
- Avoid compaction of the drain field area and reserve area. Normal lawn mowing and maintenance is encouraged.

**CONSTRUCTION NOTES**

TRENCH LENGTH: 268 FT  
 TRENCH WIDTH: 3 FT  
 TRENCH DEPTH: 24 INCHES  
 GRAVELESS CHAMBERS  
 PUMP MODEL: HYDROMATIC OSP50  
 DOSE VOLUME: 90 GAL. PER TIMER CONTROLLED AT TWO MINUTES 10 SECONDS ON, FOUR HOURS OFF.  
 CHECK VALVE AND HIGH LEVEL ALARM REQUIRED IN PUMP CHAMBER  
 DOSE COUNTER REQUIRED, ELAPSED TIME METER REQUIRED  
 USE "T" TO "T" TYPE CONSTRUCTION  
 END OF EACH LATERAL IS TO HAVE A SWEEP 90 WITH THREADED END CAP, AND SHALL BE MARKED WITH LOCATOR TAPE, REBAR, OR ACCESS PORT TO SURFACE.

**GENERAL NOTES**

Owner/Installer shall not remove or disturb any top soil while clearing vegetation in Primary or Reserve drainfield areas. Removing or disturbing of soil could render site unusable.  
 Any alterations of this design must first be approved by Jim Henry Design Services, Inc. and/or the approving County Health Sanitarian.

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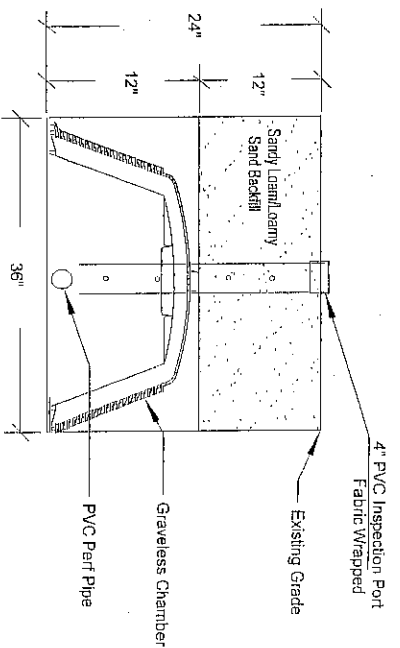
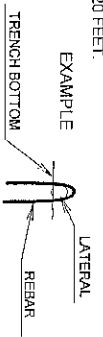
All construction materials installed in this system shall conform to all applicable state and County Health Department requirements.

Contact: Jim Henry Design Services, Inc. for final inspection of the installation. All components, including tanks, lids, lighters, drainfield, and water lines, must be open for inspection. Return visits due to inaccessible components shall be charged to the installer.

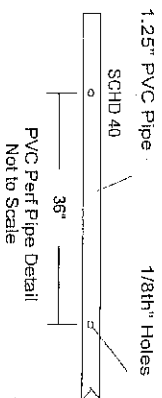
Storm water run-off, footing drains, and roof drains must be diverted away from any septic system components.

**NO WATERLINE SHALL BE WITHIN 10 FEET OR CROSS ANY SEPTIC SYSTEM COMPONENT.**

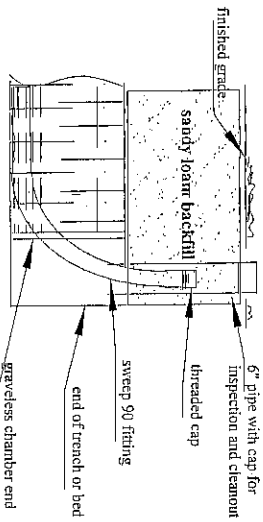
NOTE: LATERALS TO BE LAYED ON BOTTOM OF TRENCH AND STAKED IN PLACE WITH "U" SHAPED OF 3/8th INCH REBAR TO KEEP LATERAL FROM MOVING IN TRENCH. ANCHOR EVERY 20 FEET.



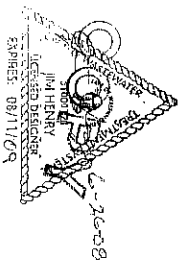
**HOLES AT 12 O'CLOCK**



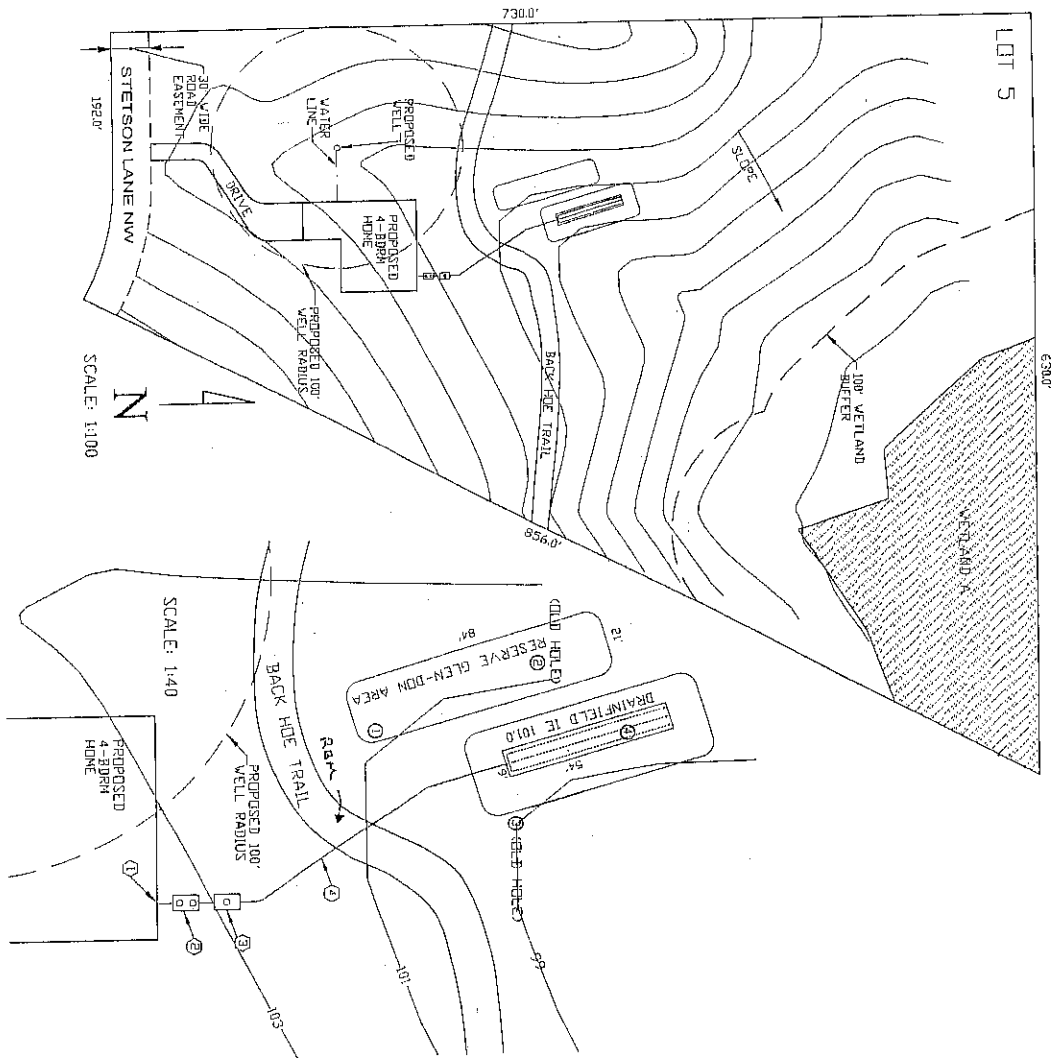
90-Degree Lateral Cleanout Detail



SHEET 2 OF 2

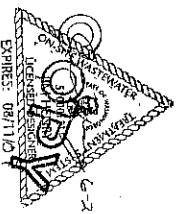


JIM HENRY DESIGN SERVICES, INC. PO BOX 14531 TUMWATER WA 98511-4531 360-595-7242	
CUSTOMER: STEAMBOAT DEVELOPMENT LLC	
TP#:	12919330000 PTN PERMIT NUMBER:
SITE ADDRESS: 5612 STETSON LN NW	
LEGAL: LOT 4 OF LL 2007/100780	



AN ADDITIONAL FEE WILL BE CHARGED AFTER INSTALLATION FOR FINAL INSPECTION AND RECORD DRAWING

- ▲ RBM IS GROUND ELEVATION AT TEST HOLE #1 IN BACK HOE TRAIL. RBM EL. = 101.0
  - ① STUBOUT/CLEANOUT EL. = 103.0
  - ② 1200-GAL 2 COMPARTMENT SEPTIC TANK WITH OUTLET FILTER WITH 1/16" MESH INLET EL. = 102.7 OUTLET EL. = 102.4
  - ③ 1200-GAL PUMP CHAMBER, PUMP EL. = 98.0 TIMER REQUIRED, DOSE COUNTER & ELAPSED TIME METER REQUIRED
  - ④ 100 FT OF 2-INCH PVC TIGHTLINE, SCHEDULE 40
  - 6 FT OF 2-INCH PVC MANIFOLD, SCHEDULE 40
- ALL WELLS WITHIN 200 FT OF THE PROPOSED DRAINFIELD ARE SHOWN.



- SOIL LOGS - 5/22/08
- ① SANDY LOAM (TYPE 4).....0-36" COMPACT LOAMY SAND OVER TILL.....36-52" RESTRICTIVE @ 36"
  - ② OLD HOLE SANDY LOAM / LOAM (TYPE 4).....0-25" COMPACT TO CEMENTED TILL.....25-50" RESTRICTIVE @ 25"
  - ③ OLD HOLE SANDY LOAM / LOAM (TYPE 4).....0-30" PARTLY CEMENTED GRAVELLY SANDY LOAM.....30-43" COMPACT MEDIUM SAND.....43-63" RESTRICTIVE @ 30"
  - ④ DUFF.....0-3" SANDY LOAM / LOAM (TYPE 4).....3-27" COMPACT SILT.....27-30" RESTRICTIVE @ 27"

**DIRECTIONS:**  
 STEAMBOAT RD RD TO RIGHT ON GRAVELLY BCH RD TO LEFT ON STETSON LN PAST CHIDESAC 200 FT UP HILL ON NORTH SIDE FOLLOW BACK HOE TRAIL THROUGH LOT 6 TO LOT 5.

4000' Rd. →  
 ← SITE  
 ← STETSON LN.  
 ← GRAVELLY BCH RD.

JIM HENRY DESIGN SERVICES, INC. PO BOX 14531 TUMWATER WA 98511-4531 360-956-7242	
CUSTOMER:	STEAMBOAT DEVELOPMENT LLC
TP#:	129193300000 PTN
SITE ADDRESS:	5618 STETSON LN NW
LEGAL:	LOT 5 OF LL 2007100780

**MOUND SITE PREPARATIONS**

The mound shall be installed in dry weather only. The soil must also be dry enough for proper installation. If the installer has any doubt as to the soils suitability for installation, contact the designer.  
 The mound has been staked out during the design phase. Locate the staking and save these locations in the field so that the mound area may be located easily during lot development. This is to help protect the drained area.

Only track-type vehicles may be used on the mound drainfield area. No wheeled vehicles on the mound area. Cut any trees at ground level and leave stumps in the ground. Trim and lay the force main from the pump chamber to the mound fill area. (Be sure force main is below the frost line.) Cap force main to prevent soil from entering the pipe.

Plow the site using a moldboard plow and plow parallel to contours. Plow in a manner so that the plow throws the soil upslope. A disc plow or a chisel plow may be used if the moldboard plow is not available. Hand spreading is also acceptable. Rototilling is NOT acceptable. Tree stumps will need to be plowed around.

Now extend the force main several feet above the ground surface.

Place the filter media (ASTM C-33 sand) around the plowed area. Keep wheeled vehicles off the plowed area. Filter media is to be pushed on the plowed mound area with a track, vehicle or placed on the plowed area with an excavator. Avoid traffic on the downslope side of the mound area. NOTE the location of the reserve area and avoid vehicle traffic over the reserve area.

It is the responsibility of the installer to prepare the finished grade of the mound site. Grass must be planted on the mound shortly after installation. If foliage is desired, check with the designer for guidance.

**USER MANUAL**

The system owner is responsible for the continuous operation and maintenance of the system.

- Septic tank should be pumped every three to five years depending on use and sludge accumulation.
- Outlet filter should be checked and cleaned once every two years. Filter may be hosed off into the first compartment of the septic tank.
- Pump chamber should be pumped and cleaned at the same time the septic tank is pumped and cleaned.
- Maintain good water conservation practices. This will keep system from being hydraulically overloaded. Garbage disposals are to be avoided.
- If your alarm should sound off, check the power to the pump, check circuit breaker, and check for any fixtures that may be leaking in the system. If still at a loss for what set off your alarm, call your septic installer or the County Health Dept. for help.
- Avoid compaction of the drain field area and reserve area. Normal lawn mowing and maintenance is encouraged.

**GENERAL NOTES**

Owner/installer shall not remove or disturb any top soil while clearing vegetation in Primary or Reserve drainfield areas. Removing or disturbing of soil could render site unusable.

Any alterations of this design must first be approved by Jim Henry Design Services, Inc. and/or the approving County Health Sanitarian.

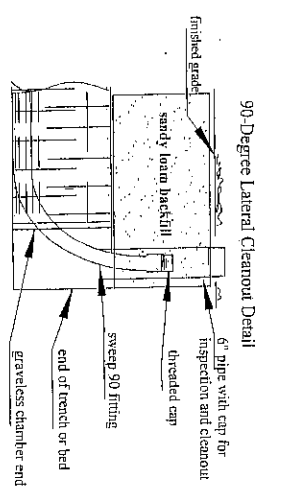
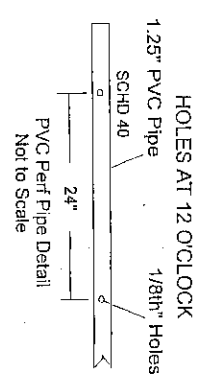
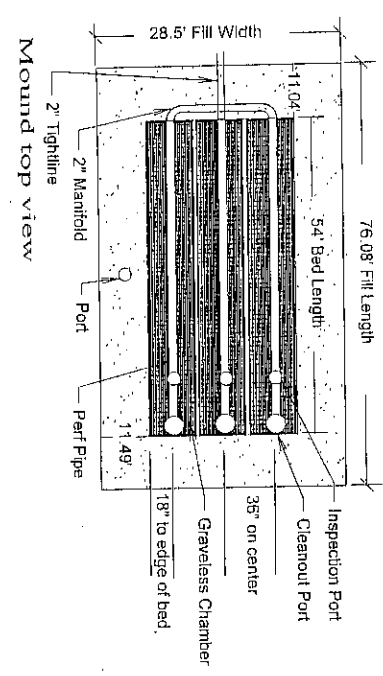
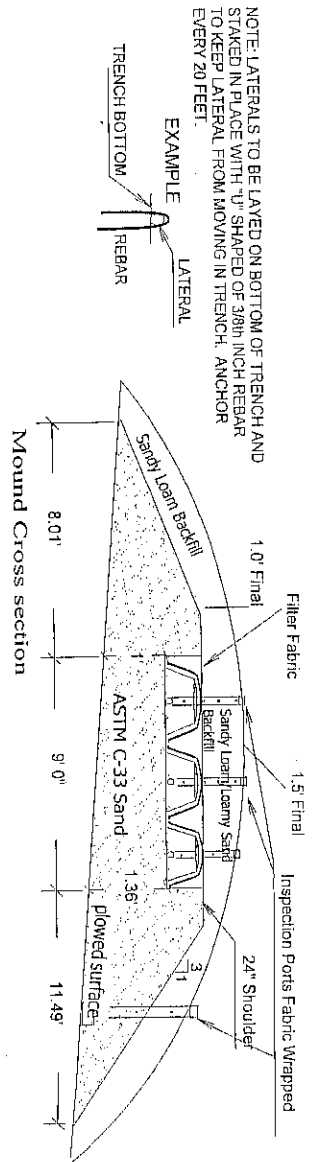
This design is site specific and conforms to State and County Health Dept. requirements. The designer assumes no responsibility for its longevity. The owner therefore agrees to maintain and make all necessary repairs to the system at no cost to Jim Henry Design Services, Inc.

All construction materials installed in this system shall conform to all applicable state and County Health Department requirements.

Contact Jim Henry Design Services, Inc. for final inspection of the installation. All components, including tanks, lids, tightline, drainfield, and water lines, must be open for inspection. Return visits due to inaccessible components shall be charged to the installer.

Storm water run-off, footing drains, and roof drains must be diverted away from any septic system components.

**NO WATERLINE SHALL BE WITHIN 10 FEET OR CROSS ANY SEPTIC SYSTEM COMPONENT.**



**CONSTRUCTION NOTES**

BED DIMENSIONS: 9' X 54'

BED DEPTH: 12"

GRAVELESS CHAMBERS

PUMP MODEL: HYDROMATIC OSP50

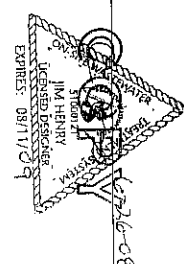
CHECK VALVE AND HIGH LEVEL ALARM REQUIRED.

ELAPSE TIMER METER REQUIRED, DOSE COUNTER REQUIRED,

DOSE VOLUME: 80-GAL PER TIMER CONTROLLED AT TWO MINUTES 26 SECONDS ON, FOUR HOURS OFF

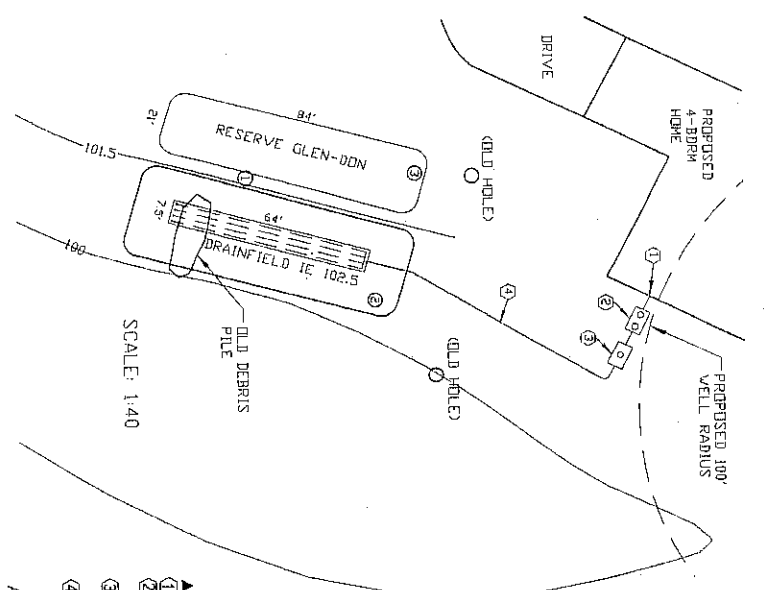
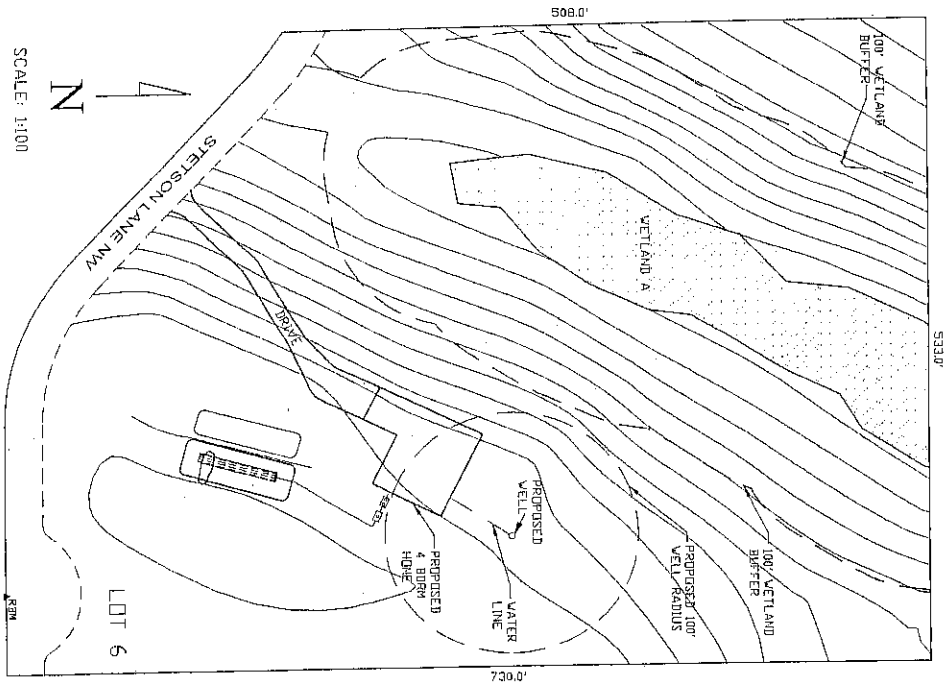
USE "T" TO "T" TYPE CONSTRUCTION

END OF EACH LATERAL IS TO HAVE A SWEEP 90 WITH THREADED END CAP, AND SHALL BE MARKED WITH LOCATOR TAPE, REBAR, OR ACCESS PORT TO SURFACE.



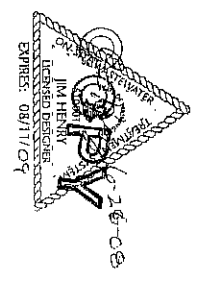
SHEET 2 OF 2

<b>JIM HENRY DESIGN SERVICES, INC.</b>	
PO BOX 14531 TUMWATER WA 98511-4531 360-956-7242	
CUSTOMER:	STEAMBOAT DEVELOPMENT LLC
TP#:	12919330000 PTN
SITE ADDRESS:	5618 STETSON LN NW
LEGAL:	LOT 5 OF LL 2007100780



- SOIL LOGS - 5/27/08**
- ① DUFF...0-3"  
LOAMY SAND (TYPE 4)...3-27"  
SAND OVER TILL.....27-36"  
RESTRICTIVE @ 27"
  - ② SAME AS HOLE #1...0-3"  
.....3-27"  
RESTRICTIVE @ 27"  
.....27-35"
  - ③ LOAMY SAND (TYPE 4)...0-30"  
COMPACT SAND OVER TILL...30-38"  
RESTRICTIVE @ 30"

- ▲ RBM IS SURFACE ELEVATION AT CENTER OF CULDESAC. RBM EL. = 100.0
  - ① STUBOUT/CLEANOUT EL. = 102.0
  - ② 1200-GAL 2-COMPARTMENT SEPTIC TANK WITH OUTLET FILTER WITH 1/16" MESH INLET EL. = 101.7. OUTLET EL. = 101.4
  - ③ 1200-GAL PUMP CHAMBER, PUMP EL. = 96.0. TIMER REQUIRED, DOSE COUNTER & ELAPSED TIME METER REQUIRED
  - ④ 100 FT OF 2-INCH PVC TIGHTLINE, SCHEDULE 40
  - 6 FT OF 2-INCH PVC MANIFOLD, SCHEDULE 40
- ALL WELLS WITHIN 200 FT OF THE PROPOSED DRAINFIELD ARE SHOWN.



AN ADDITIONAL FEE WILL BE CHARGED AFTER INSTALLATION FOR FINAL INSPECTION AND RECORD DRAWING

<b>DIRECTIONS:</b>	
STEAMBOAT ISLAND RD TO RIGHT ON GRAVELLY BCH RD TO LEFT ON STETSON LN TO 200 FT PAST CULDESAC, NORTH UP SLOPE TO BACKHOE TRAIL, FOLLOW TO SITE	
<b>JIM HENRY DESIGN SERVICES, INC.</b> PO BOX 14531 TUMWATER WA 98511-4531 360-956-7242	
<b>CUSTOMER:</b> STEAMBOAT DEVELOPMENT LLC	
<b>TP#:</b> 12919330000 PTN	<b>PERMIT NUMBER:</b>
<b>SITE ADDRESS:</b> 5624 STETSON LN NW	
<b>LEGAL:</b> LOT 6 OF LL 2007100780	

# MOUND SITE PREPARATIONS

The mound shall be installed in dry weather only. The soil must also be dry enough for proper installation. If the installer has any doubt as to the soils suitability for installation, contact the designer.

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Only track-type vehicles may be used on the mound drainfield area. No wheeled vehicles on the mound area.

Put any trees at ground level and leave stumps in the ground. Trench and lay the force main from the pump chamber to the mound fill area. (Be sure force main is below the frost line). Cap force main to prevent soil from entering the pipe.

Plow the site using a moldboard plow and plow parallel to contours. Plow in a manner so that the flow follows the soil slope. A disc plow or a chisel plow may be used if the moldboard plow is not available. Hand spreading is also acceptable. Retooling is NOT acceptable. Tree stumps will need to be plowed around.

Now extend the force main several feet above the ground surface.

Place the filter media (ASTM C-33 sand) around the plowed area. Keep wheeled vehicles off the plowed area. Filter media is to be pushed on the plowed mound area with a track vehicle or placed on the mound area with an excavator. Avoid traffic on the downslope side of the mound area. NOTE the location of the reserve area and avoid vehicle traffic over the reserve area.

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## USERS MANUAL

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- Pump chamber should be pumped and cleaned at the same time the septic tank is pumped and cleaned.
- Maintain good water conservation practices. This will keep system from being hydraulically overloaded. Garbage disposals are to be avoided.
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## GENERAL NOTES

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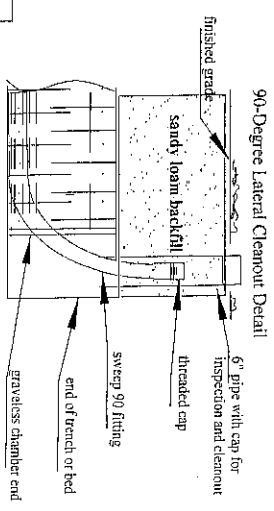
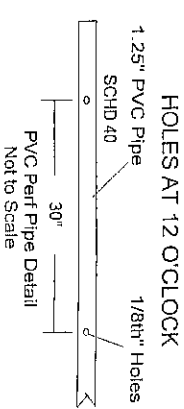
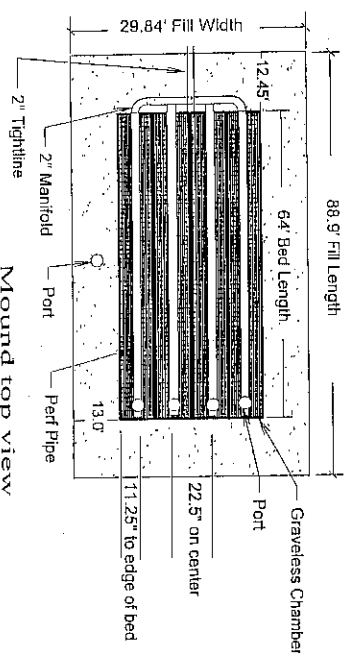
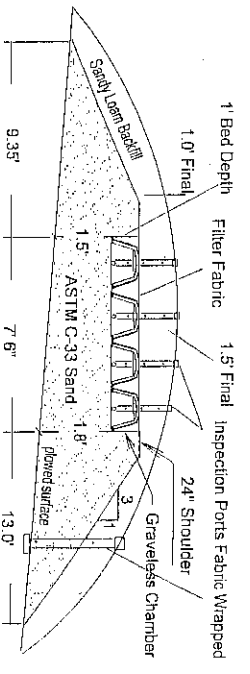
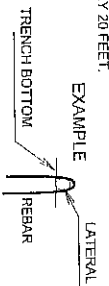
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Storm water run-off, footing drains, and roof drains must be diverted away from any septic system components.

**NO WATERLINE SHALL BE WITHIN 10 FEET OR CROSS ANY SEPTIC SYSTEM COMPONENT.**

NOTE: LATERALS TO BE LAYED ON BOTTOM OF TRENCH AND STAKED IN PLACE WITH "U" SHAPED OF 3/8" INCH REBAR TO KEEP LATERAL FROM MOVING IN TRENCH. ANCHOR EVERY 20 FEET.



**CONSTRUCTION NOTES**

BED DIMENSIONS: 7.5' X 6.4'

BED DEPTH: 12"

4 GRAVELESS CHAMBERS: 24" WIDE CHAMBERS

PUMP MODEL: HYDROMATIC SP40

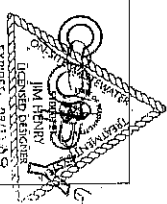
CHECK VALVE AND HIGH LEVEL ALARM REQUIRED.

DOSE VOLUME: 80 GAL PER TIMER CONTROLLED AT ONE MINUTE 54 SECONDS ON, FOUR HOURS OFF.

DOSE COUNTER & ELAPSED TIME METER REQUIRED

USE "T" TO "T" TYPE CONSTRUCTION

END OF EACH LATERAL IS TO HAVE A SWEEP 90 WITH THREADED END CAP AND SHALL BE MARKED WITH LOCATOR TAPE, REBAR, OR ACCESS PORT TO SURFACE.



SHEET 2 OF 2	
<b>JIM HENRY DESIGN SERVICES, INC.</b>	
PO BOX 14531 TUMWATER WA 98511-4531 360-596-7242	
CUSTOMER:	STEAMBOAT DEVELOPMENT LLC
TP#:	12919330000 PTN
SITE ADDRESS:	5624 STETSON LN NW
LEGAL:	LOT 6 OF LL 2007100780