



# Onsite Wastewater Concepts, Materials, Regulations & The Application Process Part I

## E – Site Plan Review and Classroom Exercise

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## Classroom Exercise #1

Complete the classroom exercise #1  
handout before reviewing the presentation

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## Classroom Exercise #1



1. What is the size of the lot in <u>square feet</u> ? <b>70 ft. x 125 ft.</b>	<b>8,750 sq. ft.</b>
2. What is the size of the lot in <u>acres</u> ? <b>8,750 sq. ft. / 43,560 sq. ft.</b>	<b>.20 acres</b>
3. What is the net usable area of the lot in <u>acres</u> ? <b>Lot: 70 x 125 = 8750 sq. ft.</b> <b>ROW: 15 x 125 = 1875 sq. ft.</b> <b>Total: 10,625 / 43,560 = .24</b>	<b>.24 acres</b>

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## Classroom Exercise #1



4. What is the minimum setback requirement to the surface water body across the road? <b>There is no surface water body – only a conservation/wetlands area</b>	<b>None</b>
5. What is the <u>minimum setback</u> requirement for the private potable well?	<b>75 ft.</b>
6. What is the <u>estimated sewage flow</u> for the proposed residence? <b>From Table I</b>	<b>300 gpd</b>
7. What is the authorized sewage flow for the lot? <b>Net usable area x 1500 gal. per acre/per day</b> <b>.24 acres x 1500 = 360 gpd</b>	<b>360 gpd</b>

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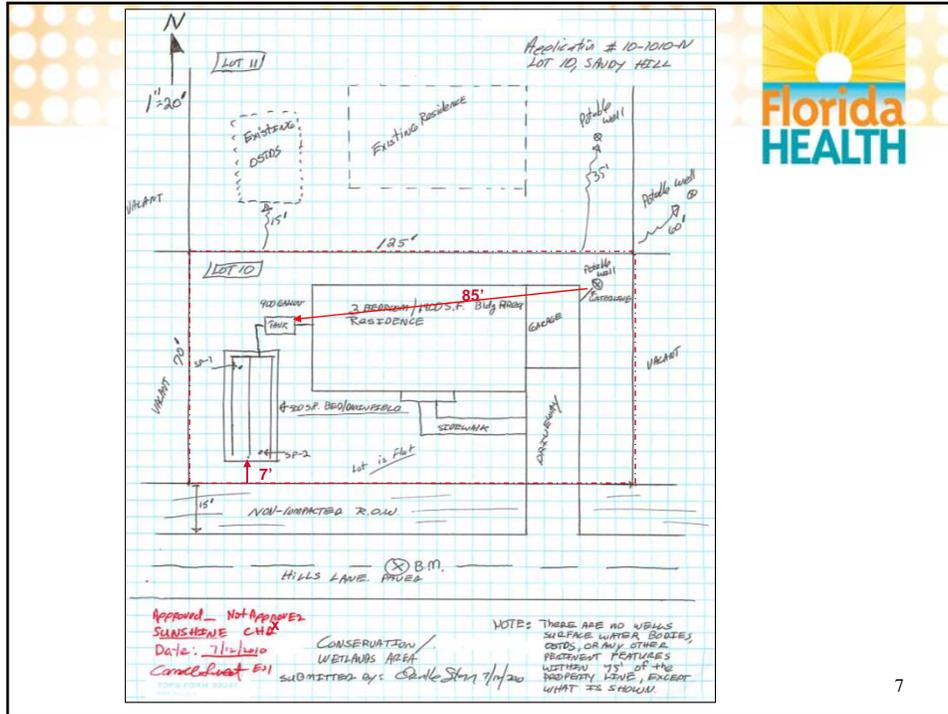


TABLE I  
For System Design  
ESTIMATED SEWAGE FLOWS

RESIDENTIAL:	GPD
Residences	
(a) Single or multiple family per dwelling Unit	
1 Bedroom with 750 sq. ft. or less of building area.....	100
2 Bedrooms with 751-1200 sq. ft. of building area.....	200
3 Bedrooms with 1201-2250 sq. ft. of building area.....	300
4 Bedrooms with 2251-3300 sq. ft. of building area.....	400
For each additional bedroom or each additional 750 square feet of building area or fraction thereof in a dwelling unit, system sizing shall be increased by 60 gallons per dwelling unit.	
(b) Other per occupant.....	50



## Classroom Exercise #2

Complete the classroom exercise #2 handout during the presentation

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### Application

Form DH 4015 pg 1 of 1  
Classroom Exercise #4

- Applicant/ authorized agent (signature needed)
- Date lot platted/subdivided
- Property size
- Water supply
- Sizing criteria

*CLASS ROOM Exercise #4*

STATE OF FLORIDA  
DEPARTMENT OF HEALTH  
ONSITE SEWAGE TREATMENT AND DISPOSAL SYSTEM  
APPLICATION FOR CONSTRUCTION PERMIT

APP DOC #           
PERMIT #           
DATE PAID 05/28/2010  
FEE PAID: 3  
RECEIPT # 59-PID-127177

X APPLICATION FOR:  
 New System     Existing System     Holding Tank     Inflow/Infiltration  
 Repair     Abandonment     Temporary     Other

APPLICANT: Mark Peter  
AGENT: \_\_\_\_\_ TELEPHONE: \_\_\_\_\_  
MAILING ADDRESS: 523 Yorlaine Dr Oviedo, FL 32765

TO BE COMPLETED BY APPLICANT OR APPLICANT'S AUTHORIZED AGENT. SYSTEMS MUST BE CONSTRUCTED BY A PERSON LICENSED PURSUANT TO 489.155(1)(a) OR 489.552, FLORIDA STATUTES. IT IS THE APPLICANT'S RESPONSIBILITY TO PROVIDE DOCUMENTATION OF THE DATE THE LOT WAS CREATED OR PLATTED (MM/DD/YY) IF REQUESTING CONSIDERATION OF STATUTORY GRANDFATHER PROVISIONS.

LOT: 132 BLOCK: \_\_\_\_\_ PLATTED: 02/15/1989  
SUBDIVISION: Bentley Woods  
PROPERTY ID #: 09-21-31-014-0000-1320 zoning: R1 1/4 OR EQUIVALENT:  Y  N  
PROPERTY SIZE: 0.23 ACRES WATER SUPPLY:  PRIVATE  C-20000000  J-20000000  
IS SEWER AVAILABLE AS PER 381.0045, FS?  Y  N DISTANCE TO SEWER: \_\_\_\_\_ FT  
PROPERTY ADDRESS: 523 Yorlaine Dr Oviedo, FL 32765

DESCRIPTION OF PROPERTY:  
right on red bug lake left on olms, left on pine st right on bentley left on wallington right on rochester left on yorklake

Type of Establishment	No. of Bedrooms	Building Area Ft	# Persons Served	Total Design Flow For This Unit
	4	2401	4	400

Floor/Equipment Design     Other (Specify): \_\_\_\_\_ DATE: 05/28/2010

DH 4015, 08/09 (Obsoletes previous editions which may not be used)  
Incorporated 642-6.001, FHC v 1.0.0 APP/2/08 8100144017 Page 1 of 4

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# Estimated Sewage Flow



64E-6.008, Table I  
**4 bedroom** single family residence  
with **2461 sq. ft. bldg. area**  
requires  
**400 gallons per day**  
*(must be consistent with the application  
sizing criteria and floor plan)*

TABLE I  
For System Design  
ESTIMATED SEWAGE FLOWS



RESIDENTIAL:	GPD
Residences	
(a) Single or multiple family per dwelling Unit	
1 Bedroom with 750 sq. ft. or less of building area.....	100
2 Bedrooms with 751-1200 sq. ft. of building area.....	200
3 Bedrooms with 1201-2250 sq. ft. of building area.....	300
<b>4 Bedrooms with 2251-3300 sq. ft. of building area.....</b>	<b>400</b>
For each additional bedroom or each additional 750 square feet of building area or fraction thereof in a dwelling unit, system sizing shall be increased by 60 gallons per dwelling unit.	
(b) Other per occupant.....	50

**Site Evaluation  
Form DH 4015  
Classroom Exercise**

- Estimated sewage flow

CLASSROOM EXERCISE #14



STATE OF FLORIDA  
DEPARTMENT OF HEALTH  
ONSITE SEWAGE TREATMENT AND DISPOSAL SYSTEM  
SITE EVALUATION AND SYSTEM SPECIFICATION

APPLICATION # AD  
 FEE # 26.00  
 DOCUMENT # 261

APPLICANT: Mark Eiler  
 CONTRACTOR / AGENT: \_\_\_\_\_  
 LOT: 132 BLOCK: \_\_\_\_\_

SUBDIVISION: Buckley Woods TSS: 00-21-31-514-000-1320

TO BE COMPLETED BY ENGINEER, HEALTH DEPARTMENT EMPLOYEE, OR OTHER QUALIFIED PERSON. ENGINEER MUST PROVIDE REGISTRATION NUMBER AND SIGN AND SEAL EACH PAGE OF SUBMITTAL. COMPLETE ALL ITEMS

PROPERTY SIZE COMPARED TO SITE PLAN:  YES  NO SET TABLE AREA AVAILABLE: 25 ACRES

ESTIMATED SEWAGE FLOW: 625 GALLONS PER DAY (RESIDENCES-PARCELS) OTHER: \_\_\_\_\_

UNSTRUCTURED AREA AVAILABLE: \_\_\_\_\_ GALLONS PER DAY (1500 GPD/ACRE OR 2500 GPD/ACRE) UNSTRUCTURED AREA REQUIRED: \_\_\_\_\_ GPD

BENCHMARK/REFERENCE POINT LOCATION: Corner of lot  
 ELEVATION OF PROPOSED SYSTEM SITE: 8.00 (INCHES) / FT ( ) (ABOVE / BELOW) BENCHMARK/REFERENCE POINT

THE MINIMUM SETBACK WHICH CAN BE MAINTAINED FROM THE PROPOSED SYSTEM TO THE FOLLOWING FEATURES

SEWER MAIN: 5 FT DRIVE/POLE: 5 FT NORMALLY SET:  YES  NO  
 WELLS: PUBLIC: 5 FT LIMITED USE: 5 FT PRIVATE: 5 FT NON-POTABLE: 25 FT  
 BUILDING FOUNDATIONS: 5 FT PROPERTY LINES: 5 FT POTABLE WATER LINES: 25 FT

SITE SUBJECT TO FREQUENT FLOODING?  YES  NO 10 YEAR FLOODING?  YES  NO  
 10 YEAR FLOOD ELEVATION FOR SITE: \_\_\_\_\_ FT ( MSL / MVD ) SITE ELEVATION: \_\_\_\_\_ FT ( MSL / MVD )

SOIL PROFILE INFORMATION SITE 1				SOIL PROFILE INFORMATION SITE 2			
TERRA SOIL SERIES (Unknown)				TERRA SOIL SERIES (Unknown)			
Munsell BC Color	Texture	Depth		Munsell BC Color	Texture	Depth	
10YR 7/8	FI - Fine Sand	0 To 8.00		10YR 7/8	FI - Fine Sand	0 To 32	
10YR 4/3	Fine Sand	8.0 To 72		10YR 7/5	Fine Sand	32 To 48	
				7.5YR 5/6	Clayey Silty	48 To 64	
				10YR 4/3	Fine Sand	64 To 72	

OBSERVED WATER TABLE: 80.00 INCHES ( ABOVE / BELOW ) EXISTING GRADE TYPE:  PEACHED /  APPARENT  
 ESTIMATED WET SEASON WATER TABLE ELEVATION: 41 INCHES ( ABOVE / BELOW ) EXISTING GRADE  
 FROM WATER TABLE VEGETATION:  YES  NO MOTTLED:  YES  NO DEPTH: 41.00 INCHES  
 SOIL TEXTURE/LANDING RATE FOR SYSTEM SIZING: Fine Sand/0.00 DEPTH OF EXCAVATION: 0 INCHES  
 BACKFILL CONFIGURATION:  1 TRENCH  2) BED  3) OTHER (SPECIFY)

ADDRESS/ADDITIONAL CRITERIA \_\_\_\_\_

Figure 1, Sp148P, Sp149P, Sp150P, Top of mound=28", Existing site of drainfield=19'33"=432 Existing elevation of drainfield=7' by Parms  
 based on inspection measurement of existing drainfield site and elevation. Soil had sufficient structure that profile could be  
 advanced through water to 72", FI color=10YR 7/8, 4/3, 6/3, 8/3, 8/1

SITE EVALUATED BY: \_\_\_\_\_ DATE: 06/02/2010

OR SEE OTHER SPECIFICATIONS PREVIOUS EDITION WHICH MAY NOT BE USED. Interpretation: 10YR 7/5, 5/6 Page 3 of 4  
 APW/STJ 6/21/10/2017 11:22 034'

## Authorized Sewage Flow



Lots served by a public water system:  
 Net usable area (acres) x 2500 gpd per acre

$$.25 \text{ acres} \times 2500 \text{ gpd per acre} = 625 \text{ gpd.}$$

**Site Evaluation**  
Classroom Exercise

- Authorized Sewage Flow

CLASSROOM EXERCISE #2

STATE OF FLORIDA  
DEPARTMENT OF HEALTH  
ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM  
SITE EVALUATION AND SYSTEM SPECIFICATION

APPLICATION # AD  
PERMIT # 2012-1  
DOCUMENT # 001

APPLICANT: Mark Elmer  
CONTRACTOR / AGENT: \_\_\_\_\_  
LOT: 132 BLOCK: \_\_\_\_\_

SUBDIVISION: Dunwoody Woods TRS: 00-21-31-514-000-1320

TO BE COMPLETED BY ENGINEER, HEALTH DEPARTMENT EMPLOYEE, OR OTHER QUALIFIED PERSON. ENGINEER MUST PROVIDE REGISTRATION NUMBER AND SIGN AND SEAL EACH PAGE OF SUBMITTAL. COMPLETE ALL ITEMS

PROPERTY SIZE COMPARED TO SITE PLAN: [ X ] YES [ ] NO SET TABLE AREA AVAILABLE: 25  
TOTAL ESTIMATED SEWAGE FLOW: 400 GALLONS PER DAY [ RESIDENCES-PARTS ] OTHER-TRAFFIC [ ]  
AUTHORIZED SEWAGE FLOW: 825 GALLONS PER DAY [ 1500 GPD/ACRE OR 1500 GPD/ACRE ]  
UNSTRUCTURED AREA AVAILABLE: \_\_\_\_\_ SQFT UNSTRUCTURED AREA REQUIRED: \_\_\_\_\_ SQFT

BENCHMARK/REFERENCE POINT LOCATION: CORNER 04 of road  
ELEVATION OF PROPOSED SYSTEM SITE: 8.00 ( INCHES / FT ) [ ABOVE / BELOW ] BENCHMARK/REFERENCE POINT

THE MINIMUM SETBACK WHICH CAN BE MAINTAINED FROM THE PROPOSED SYSTEM TO THE FOLLOWING FEATURES

SEWERAGE: \_\_\_\_\_ FT SEWER/POLES: \_\_\_\_\_ FT NORMALLY SET: [ ] YES [ X ] NO  
WELLS: PUBLIC: \_\_\_\_\_ FT LIMITED USE: \_\_\_\_\_ FT PRIVATE: \_\_\_\_\_ FT NON-POTABLE: 25 FT  
BUILDING FOUNDATIONS: \_\_\_\_\_ FT PROPERTY LINES: 5 FT POTABLE WATER LINES: 25 FT

SITE SUBJECT TO FREQUENT FLOODING? [ ] YES [ X ] NO 10 YEAR FLOODING? [ ] YES [ X ] NO  
10 YEAR FLOOD ELEVATION FOR SITE: \_\_\_\_\_ FT ( MSL / MVD ) SITE ELEVATION: \_\_\_\_\_ FT ( MSL / MVD )

SOIL PROFILE INFORMATION SITE 1			SOIL PROFILE INFORMATION SITE 2				
SOIL	Moisture Color	Texture	Depth	SOIL	Moisture Color	Texture	Depth
SOVR 10		FI - Fine Sand	0 To 80	SOVR 10		FI - Fine Sand	0 To 32
SOVR 43		Fine Sand	80 To 72	SOVR 70		Fine Sand	32 To 48
				SOVR 88		CHANGING SD	48 To 64
				SOVR 43		Fine Sand	64 To 72

OBSERVED WATER TABLE: 80.00 INCHES [ ABOVE / BELOW ] EXISTING GRADE TYPE: [ ] PEACHED [ ] ASPHALT [ ]  
ESTIMATED WET SEASON WATER TABLE ELEVATION: 41 INCHES [ ABOVE / BELOW ] EXISTING GRADE  
SEASON WATER TABLE VEGETATION: [ ] YES [ X ] NO MOISTURE: [ X ] YES [ ] NO DEPTH: 41.00 INCHES  
SOIL VEGETATION/LOADING BARS FOR SYSTEM SIZING: \_\_\_\_\_ FEET (MIN) 80.00 DEPTH OF EXCAVATION: \_\_\_\_\_ INCHES  
DRAINFIELD CONFIGURATION: [ ] TRENCH [ X ] BED [ ] OTHER (SPECIFY)

ADDRESS/ADDITIONAL CRITERIA

Figure 1, Sp148P, Sp208P, Top of mound=28", Existing site of drainfield=19'30"=432" Existing elevation of drainfield=7' by Permit  
Based on inspection measurement of existing drainfield site and elevation. Soil had sufficient structure that profile could be  
advanced through water to 72", Fill color=black=19778,mo43, 41.34, 81

SITE EVALUATED BY: \_\_\_\_\_ DATE: 06/06/2010

OR SEE 10/19 (Revisions) previous edition which may not be used. Interpretation: see 4 vol. 200 Page 3 of 4

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**Classroom Exercise #2**



1. Has the lot size been confirmed? And how?	Yes, Survey
2. Does this lot meet lot size requirements? Need to review adjacent lots	Yes
3. What are the property dimensions of the lot?	86ft. X 117ft.
4. What is the total square footage of the lot? 86 ft. x 117 ft = 10,062 SF	10,062 SF
5. What is the total square footage of permissible rights of ways and easements?	10.5 ft x 86 ft. = 903 SF

## Classroom Exercise #2



6. Are there surface water bodies present? If so, what is the total area excluded from the net usable area?	No / NA
7. What is the net usable area of the lot in acres? <b>10,026 sq. ft. x 903 sq. ft. = 10,965 sq. ft.</b>	<b>10,965/43,560 = .25 acres</b>
8. What is the estimated sewage flow for the residence?	<b>400 gpd</b>
9. What is the sizing criteria the estimated sewage flow is based on?	<b>4 beds/ 2461 sf bldg area</b>
10. What is the authorized sewage flow for the lot? <b>.25 acres x 2500 GPD =</b>	<b>625 gpd</b>

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## Classroom Exercise #3



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**Sample Site Plan**

Is this site plan complete? **NO**

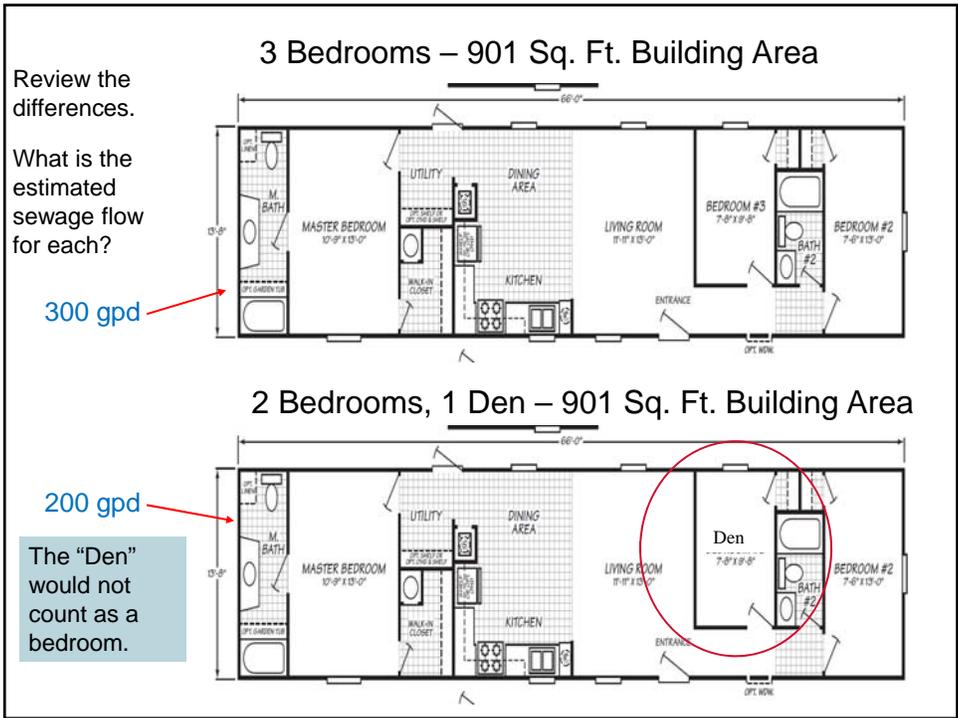
- Need MHWL labeled and elevation from surveyor
- Need soil profile locations and BM
- Need to address offsite features adequately

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**Florida HEALTH**

**Classroom Exercise #4**

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**TABLE I**  
For System Design  
ESTIMATED SEWAGE FLOWS



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Residences	
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For each additional bedroom or each additional 750 square feet of building area or fraction thereof in a dwelling unit, system sizing shall be increased by 60 gallons per dwelling unit.	
(b) Other per occupant.....	50

2 bedrooms with 901 sq. ft. bldg. area

3 bedrooms with 901 sq. ft. bldg. area



## QUESTIONS