

## **APPENDIX A I**

Revised Scenario Plans  
Scenario One  
Scenario Two  
Scenario Three  
Scenario Four



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780 Monterey  
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Morro Bay, CA  
93442

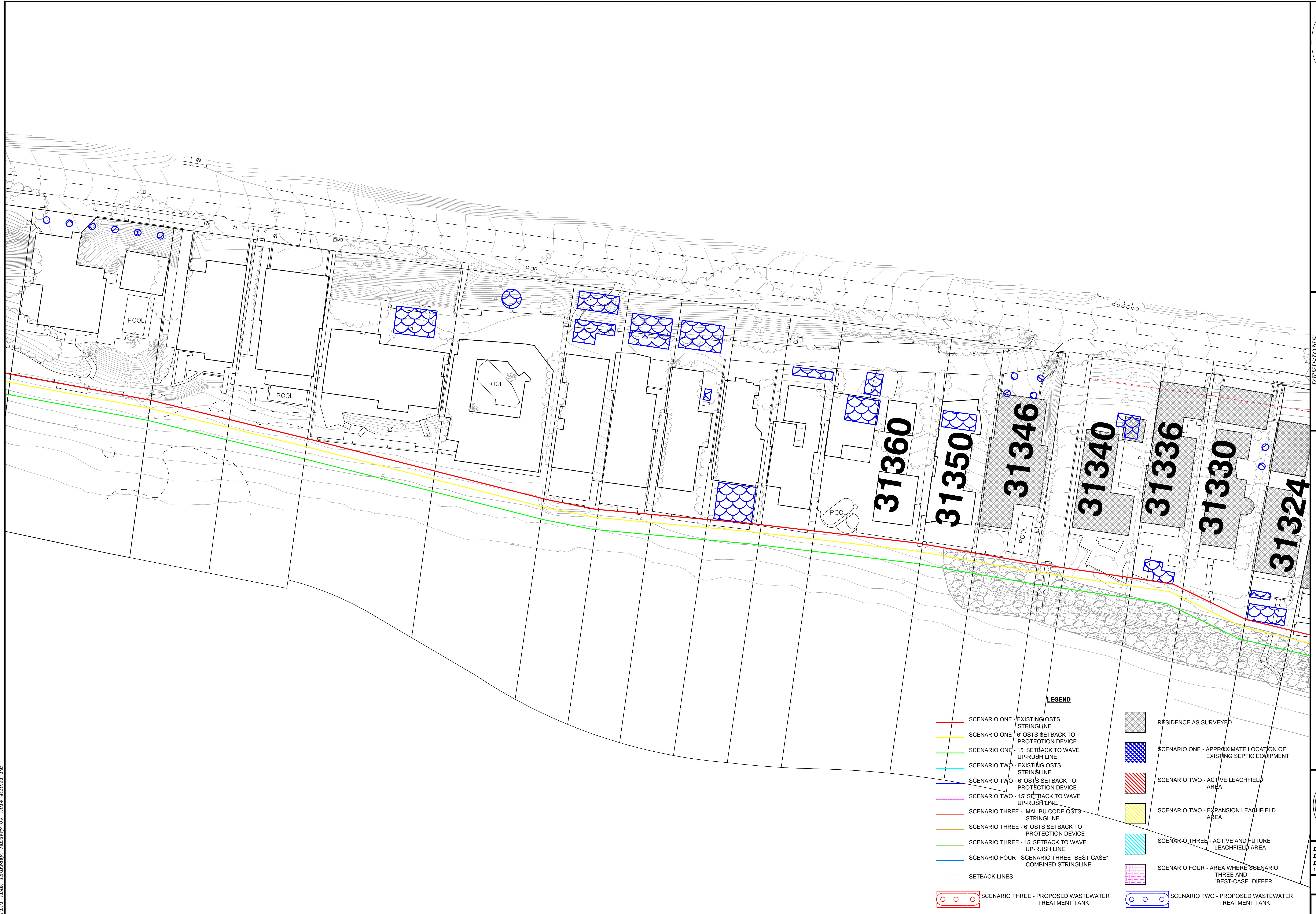
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Page 15 of 16

Project Engineer: John N Yaroslaski PE # 60149  
 DRG NAME: S:\Projects\663-01\_BroadBeachRestoration\Project-01.a.dwg  
 MOD. TIME: Thursday, January 09, 2014 4:08:21 PM  
 PLOT TIME: Thursday, January 09, 2014 4:19:31 PM



**LEGEND**

- SCENARIO ONE - EXISTING OST'S STRINGLINE
- SCENARIO ONE - 6' OST'S SETBACK TO PROTECTION DEVICE
- SCENARIO ONE - 15' SETBACK TO WAVE UP-RUSH LINE
- SCENARIO TWO - EXISTING OST'S STRINGLINE
- SCENARIO TWO - 6' OST'S SETBACK TO PROTECTION DEVICE
- SCENARIO TWO - 15' SETBACK TO WAVE UP-RUSH LINE
- SCENARIO THREE - MALIBU CODE OST'S STRINGLINE
- SCENARIO THREE - 6' OST'S SETBACK TO PROTECTION DEVICE
- SCENARIO THREE - 15' SETBACK TO WAVE UP-RUSH LINE
- SCENARIO FOUR - SCENARIO THREE 'BEST-CASE' COMBINED STRINGLINE
- - - - - SETBACK LINES
- ○ SCENARIO THREE - PROPOSED WASTEWATER TREATMENT TANK
- ○ SCENARIO TWO - PROPOSED WASTEWATER TREATMENT TANK
- RESIDENCE AS SURVEYED
- SCENARIO ONE - APPROXIMATE LOCATION OF EXISTING SEPTIC EQUIPMENT
- SCENARIO TWO - ACTIVE LEACHFIELD AREA
- SCENARIO TWO - EXPANSION LEACHFIELD AREA
- SCENARIO THREE - ACTIVE AND FUTURE LEACHFIELD AREA
- SCENARIO FOUR - AREA WHERE SCENARIO THREE AND 'BEST-CASE' DIFFER

**REVISIONS**

NO.	DATE	BY

**BROAD BEACH RESTORATION PROJECT**  
**SCENARIO ONE - SHEET 01**  
**MALIBU, CALIFORNIA**

**ENSITU**  
 ENSITU ENGINEERING, INC.  
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 DESIGNED BY: JNY  
 DRAWN BY: JNY  
 CHECKED BY: JNY

JOB NO.  
**563-01**

SHEET  
**A1** OF **A24**

Project Engineer: John N Yaroslaski PE # 60149  
 DRG NAME: S:\Projects\Projects\563-01\_BroadBeachRestoration\Project-01a.dwg  
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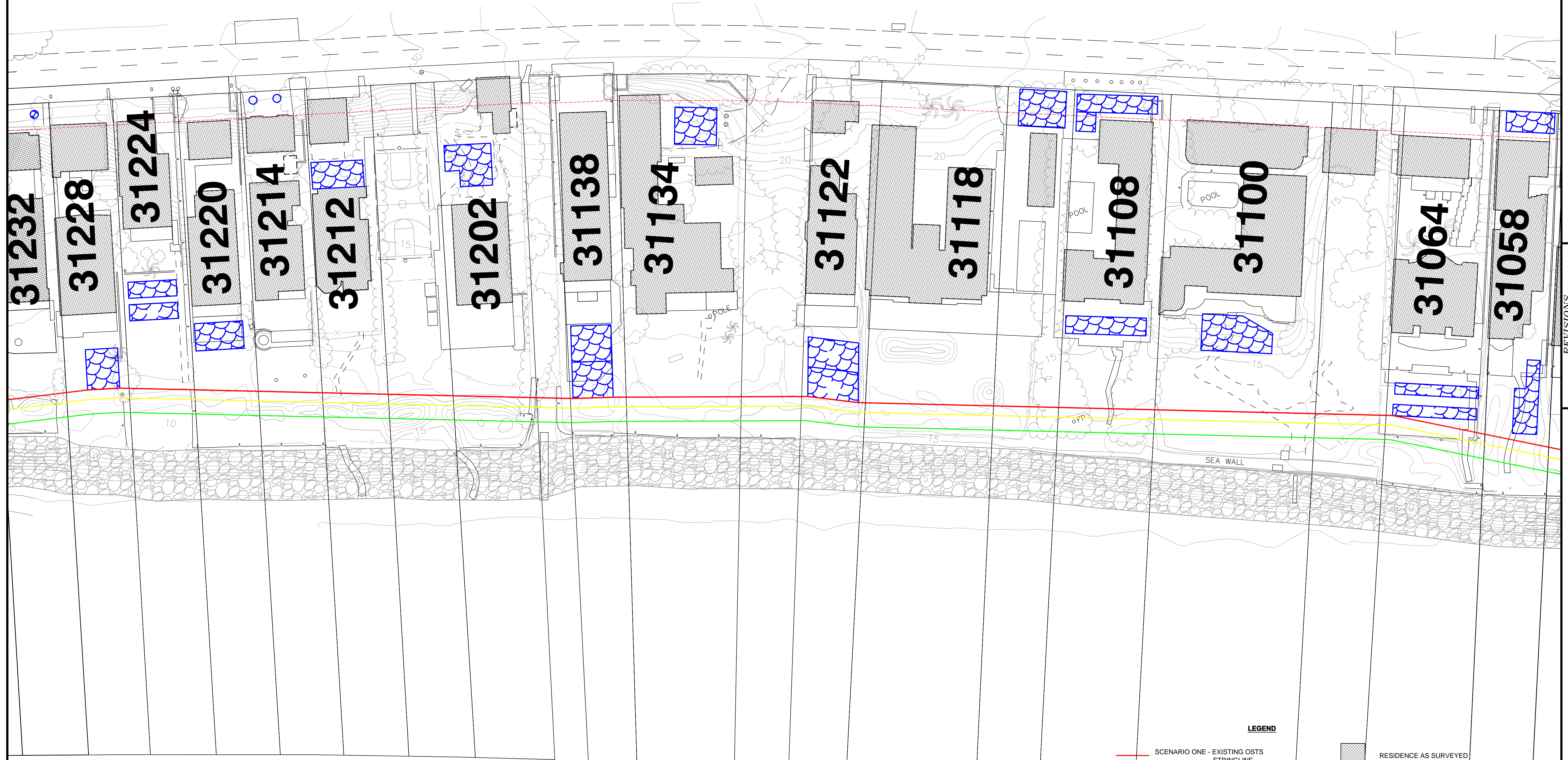
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- SCENARIO THREE - MALIBU CODE OSTs STRINGLINE
- SCENARIO THREE - 6' OSTs SETBACK TO PROTECTION DEVICE
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<b>REVISIONS</b>	
NO.	DATE BY
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DATE: 01-2014	
DESIGNED BY: JNY	
DRAWN BY: JNY	
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JOB NO. <b>563-01</b>	
SHEET <b>A2</b> OF <b>A24</b>	

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 DRG NAME: S:\Projects\563-01\_BroadBeachRestoration\Project-01.a.dwg  
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- LEGEND**
- SCENARIO ONE - EXISTING OSTS STRINGLINE
  - SCENARIO ONE - 6' OSTS SETBACK TO PROTECTION DEVICE
  - SCENARIO ONE - 15' SETBACK TO WAVE UP-RUSH LINE
  - SCENARIO TWO - EXISTING OSTS STRINGLINE
  - SCENARIO TWO - 6' OSTS SETBACK TO PROTECTION DEVICE
  - SCENARIO TWO - 15' SETBACK TO WAVE UP-RUSH LINE
  - SCENARIO THREE - MALIBU CODE OSTS STRINGLINE
  - SCENARIO THREE - 6' OSTS SETBACK TO PROTECTION DEVICE
  - SCENARIO THREE - 15' SETBACK TO WAVE UP-RUSH LINE
  - SCENARIO FOUR - SCENARIO THREE "BEST-CASE" COMBINED STRINGLINE
  - SETBACK LINES
  - ○ SCENARIO THREE - PROPOSED WASTEWATER TREATMENT TANK
  - ○ SCENARIO TWO - PROPOSED WASTEWATER TREATMENT TANK
  - RESIDENCE AS SURVEYED
  - SCENARIO ONE - APPROXIMATE LOCATION OF EXISTING SEPTIC EQUIPMENT
  - SCENARIO TWO - ACTIVE LEACHFIELD AREA
  - SCENARIO TWO - EXPANSION LEACHFIELD AREA
  - SCENARIO THREE - ACTIVE AND FUTURE LEACHFIELD AREA
  - SCENARIO FOUR - AREA WHERE SCENARIO THREE AND "BEST-CASE" DIFFER

NO.	DATE	BY

**BROAD BEACH RESTORATION PROJECT**  
**SCENARIO ONE - SHEET 03**  
 MALIBU, CALIFORNIA

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 EXP. 06-2014  
 CIVIL  
 STATE OF CALIFORNIA

DATE: 01-2014  
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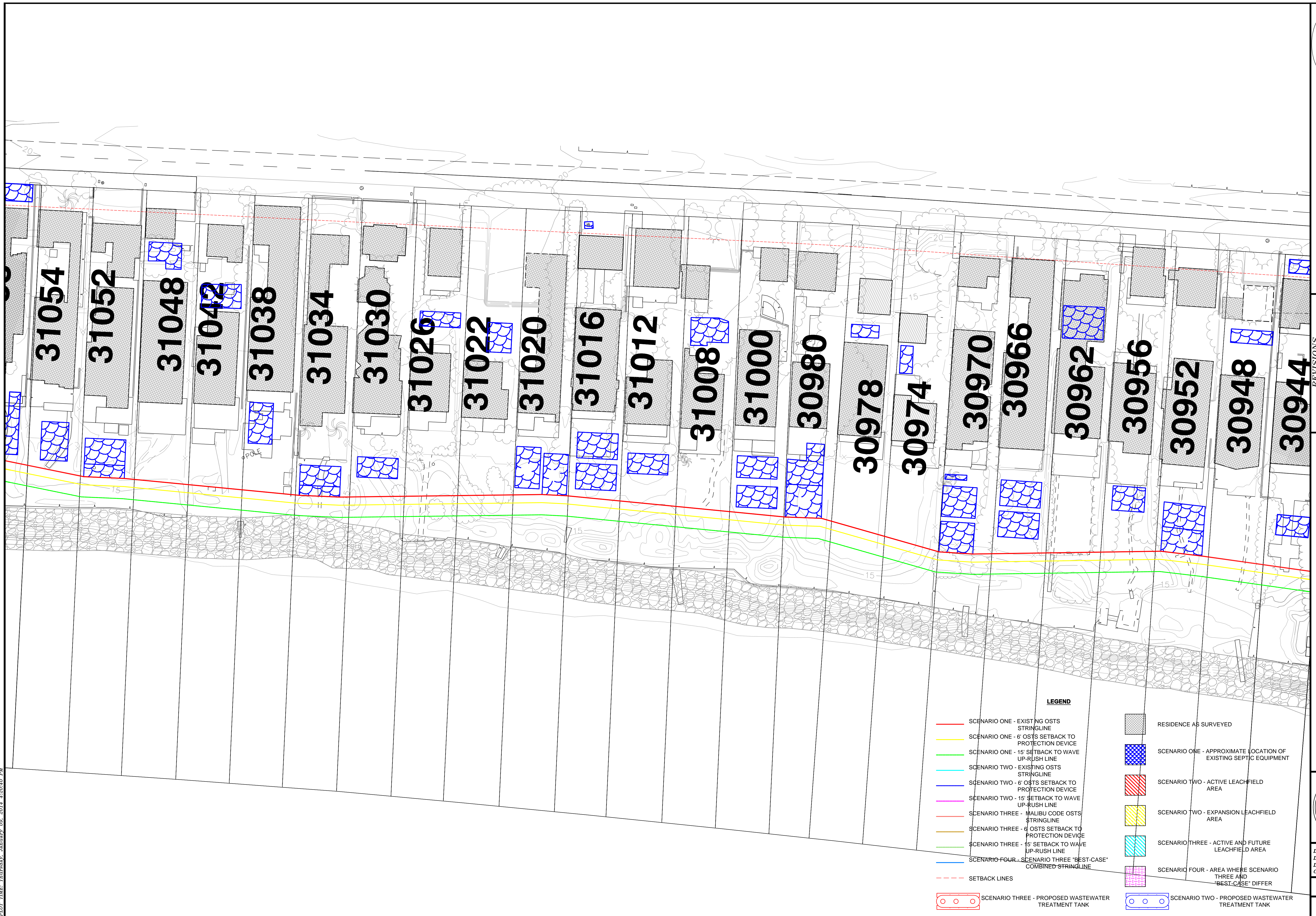
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**563-01**

SHEET  
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**LEGEND**

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	SCENARIO ONE - 6' OST'S SETBACK TO PROTECTION DEVICE		SCENARIO ONE - APPROXIMATE LOCATION OF EXISTING SEPTIC EQUIPMENT
	SCENARIO ONE - 15' SETBACK TO WAVE UP-RUSH LINE		SCENARIO TWO - ACTIVE LEACHFIELD AREA
	SCENARIO TWO - EXISTING OST'S STRINGLINE		SCENARIO TWO - EXPANSION LEACHFIELD AREA
	SCENARIO TWO - 6' OST'S SETBACK TO PROTECTION DEVICE		SCENARIO THREE - ACTIVE AND FUTURE LEACHFIELD AREA
	SCENARIO TWO - 15' SETBACK TO WAVE UP-RUSH LINE		SCENARIO FOUR - AREA WHERE SCENARIO THREE AND 'BEST-CASE' DIFFER
	SCENARIO THREE - MALIBU CODE OST'S STRINGLINE		SCENARIO THREE - PROPOSED WASTEWATER TREATMENT TANK
	SCENARIO THREE - 6' OST'S SETBACK TO PROTECTION DEVICE		SCENARIO TWO - PROPOSED WASTEWATER TREATMENT TANK
	SCENARIO THREE - 15' SETBACK TO WAVE UP-RUSH LINE		
	SCENARIO FOUR - SCENARIO THREE 'BEST-CASE' COMBINED STRINGLINE		
	SETBACK LINES		

**BROAD BEACH RESTORATION PROJECT**  
**SCENARIO ONE - SHEET 04**  
 MALIBU, CALIFORNIA

DATE: 01-2014  
 DESIGNED BY: JNY  
 DRAWN BY: JNY  
 CHECKED BY: JNY

**JOB NO. 563-01**  
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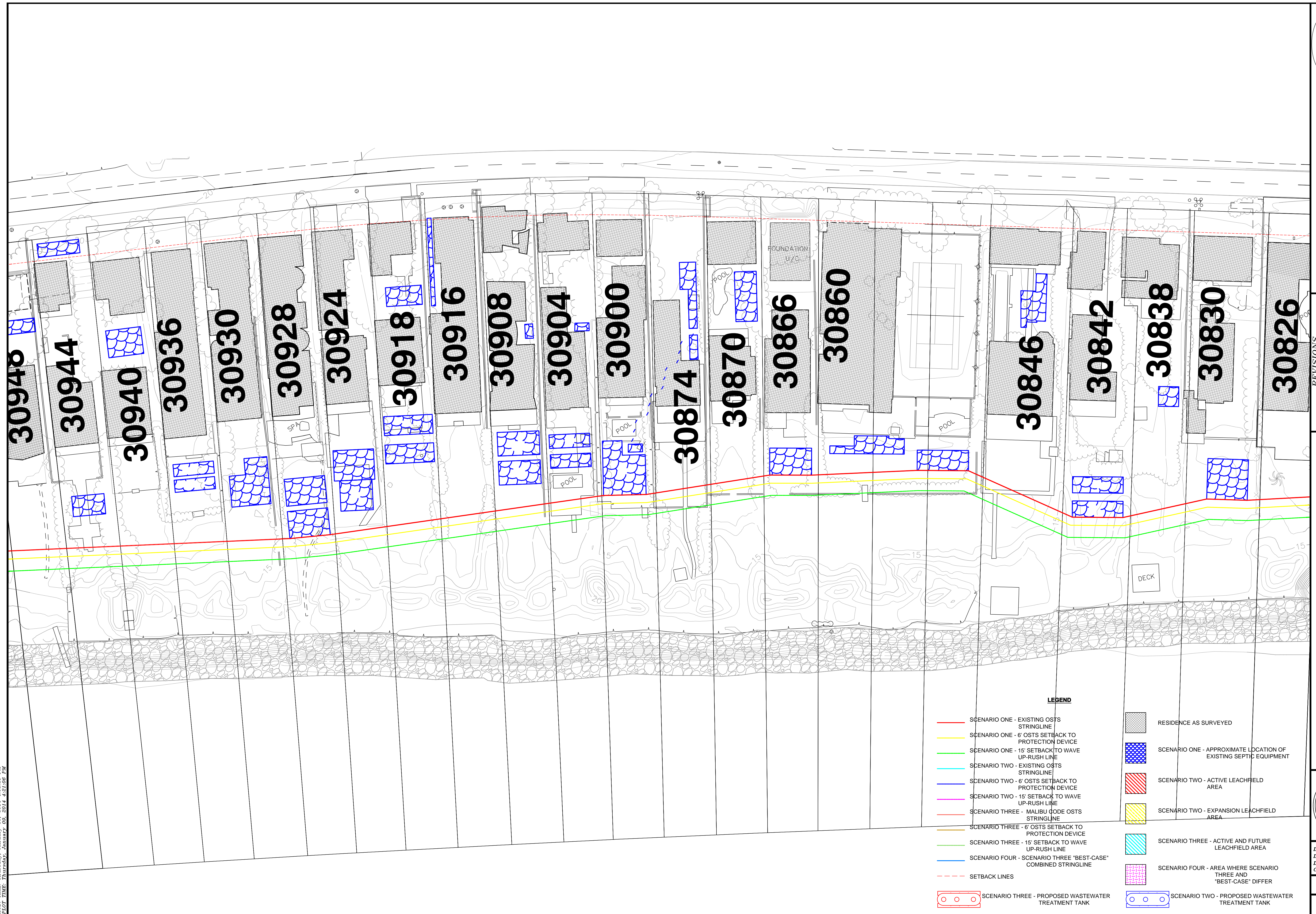
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NO.	DATE	BY

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 DRG NAME: S:\Projects\563-01\_BroadBeachRestoration\Project-01.a.dwg  
 MOD. TIME: Thursday, January 09, 2014 4:08:21 PM  
 PLOT TIME: Thursday, January 09, 2014 4:21:06 PM



- LEGEND**
- SCENARIO ONE - EXISTING OST'S STRINGLINE
  - SCENARIO ONE - 6' OST'S SETBACK TO PROTECTION DEVICE
  - SCENARIO ONE - 15' SETBACK TO WAVE UP-RUSH LINE
  - SCENARIO TWO - EXISTING OST'S STRINGLINE
  - SCENARIO TWO - 6' OST'S SETBACK TO PROTECTION DEVICE
  - SCENARIO TWO - 15' SETBACK TO WAVE UP-RUSH LINE
  - SCENARIO THREE - MALIBU CODE OST'S STRINGLINE
  - SCENARIO THREE - 6' OST'S SETBACK TO PROTECTION DEVICE
  - SCENARIO THREE - 15' SETBACK TO WAVE UP-RUSH LINE
  - SCENARIO FOUR - SCENARIO THREE 'BEST-CASE' COMBINED STRINGLINE
  - - - SETBACK LINES
  - ○ SCENARIO THREE - PROPOSED WASTEWATER TREATMENT TANK
  - ○ SCENARIO TWO - PROPOSED WASTEWATER TREATMENT TANK
  - RESIDENCE AS SURVEYED
  - SCENARIO ONE - APPROXIMATE LOCATION OF EXISTING SEPTIC EQUIPMENT
  - SCENARIO TWO - ACTIVE LEACHFIELD AREA
  - SCENARIO TWO - EXPANSION LEACHFIELD AREA
  - SCENARIO THREE - ACTIVE AND FUTURE LEACHFIELD AREA
  - SCENARIO FOUR - AREA WHERE SCENARIO THREE AND 'BEST-CASE' DIFFER

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**BROAD BEACH RESTORATION PROJECT**  
**SCENARIO ONE - SHEET 05**  
 MALIBU, CALIFORNIA

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 CIVIL  
 STATE OF CALIFORNIA

DATE: 01-2014  
 DESIGNED BY: JNY  
 DRAWN BY: JNY  
 CHECKED BY: JNY

JOB NO.  
**563-01**

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**A5** OF **A24**

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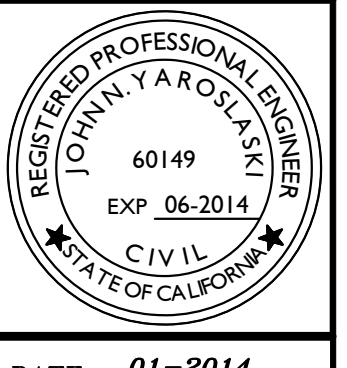
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- LEGEND**
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  - SCENARIO ONE - 6' OSTs SETBACK TO PROTECTION DEVICE
  - SCENARIO ONE - 15' SETBACK TO WAVE UP-RUSH LINE
  - SCENARIO TWO - EXISTING OSTs STRINGLINE
  - SCENARIO TWO - 6' OSTs SETBACK TO PROTECTION DEVICE
  - SCENARIO TWO - 15' SETBACK TO WAVE UP-RUSH LINE
  - SCENARIO THREE - MALIBU CODE OSTs STRINGLINE
  - SCENARIO THREE - 6' OSTs SETBACK TO PROTECTION DEVICE
  - SCENARIO THREE - 15' SETBACK TO WAVE UP-RUSH LINE
  - SCENARIO FOUR - SCENARIO THREE 'BEST-CASE' COMBINED STRINGLINE
  - - - - - SETBACK LINES
  - ○ SCENARIO THREE - PROPOSED WASTEWATER TREATMENT TANK
  - ○ SCENARIO TWO - PROPOSED WASTEWATER TREATMENT TANK
  - RESIDENCE AS SURVEYED
  - SCENARIO ONE - APPROXIMATE LOCATION OF EXISTING SEPTIC EQUIPMENT
  - SCENARIO TWO - ACTIVE LEACHFIELD AREA
  - SCENARIO TWO - EXPANSION LEACHFIELD AREA
  - SCENARIO THREE - ACTIVE AND FUTURE LEACHFIELD AREA
  - SCENARIO FOUR - AREA WHERE SCENARIO THREE AND 'BEST-CASE' DIFFER

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**BROAD BEACH RESTORATION PROJECT**  
**SCENARIO ONE - SHEET 06**  
 MALIBU, CALIFORNIA



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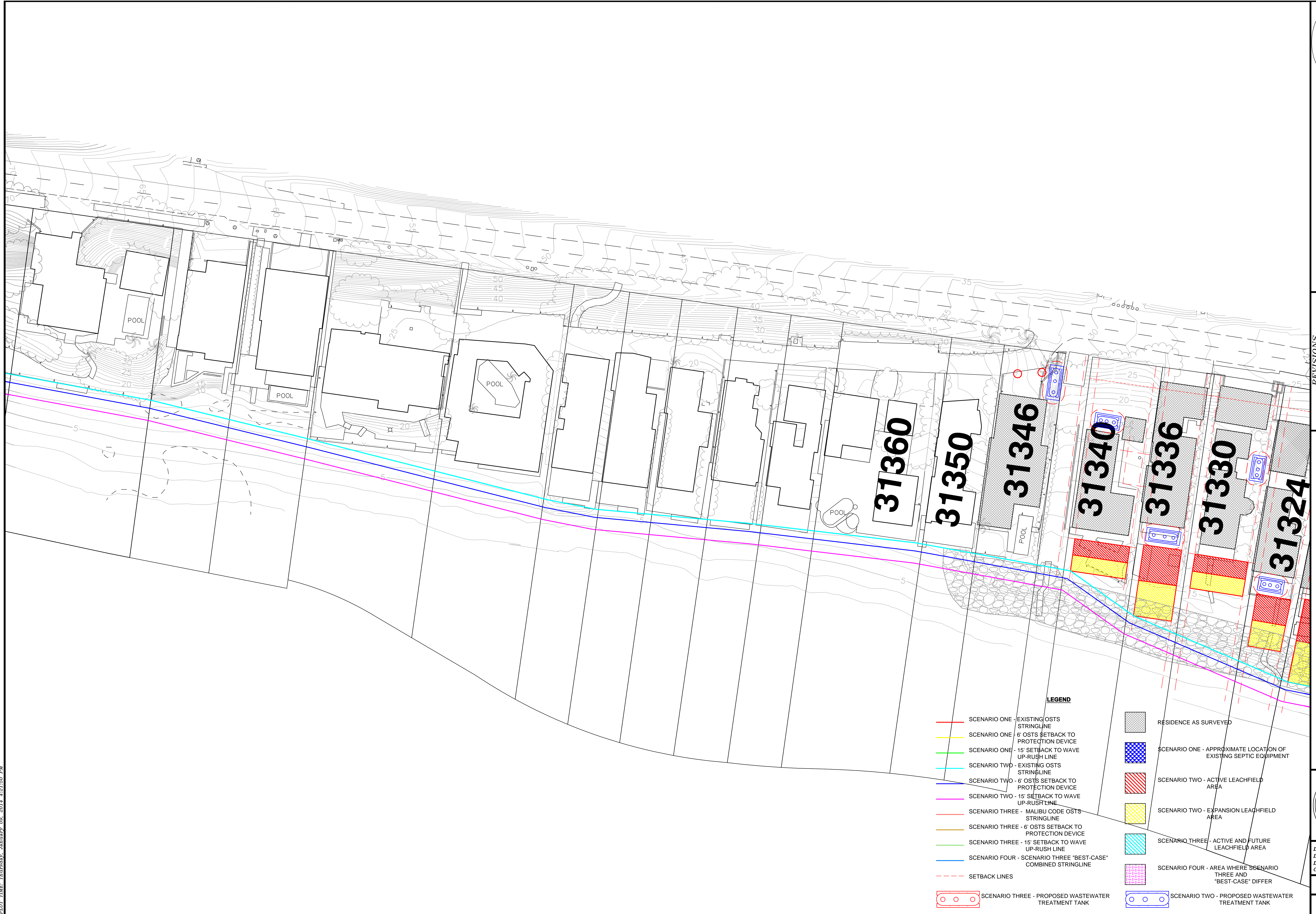
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**A6** OF **A24**

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- LEGEND**
- SCENARIO ONE - EXISTING OSTs STRINGLINE
  - SCENARIO ONE - 6' OSTs SETBACK TO PROTECTION DEVICE
  - SCENARIO ONE - 15' SETBACK TO WAVE UP-RUSH LINE
  - SCENARIO TWO - EXISTING OSTs STRINGLINE
  - SCENARIO TWO - 6' OSTs SETBACK TO PROTECTION DEVICE
  - SCENARIO TWO - 15' SETBACK TO WAVE UP-RUSH LINE
  - SCENARIO THREE - MALIBU CODE OSTs STRINGLINE
  - SCENARIO THREE - 6' OSTs SETBACK TO PROTECTION DEVICE
  - SCENARIO THREE - 15' SETBACK TO WAVE UP-RUSH LINE
  - SCENARIO FOUR - SCENARIO THREE "BEST-CASE" COMBINED STRINGLINE
  - - - - - SETBACK LINES
  - ○ SCENARIO THREE - PROPOSED WASTEWATER TREATMENT TANK
  - ○ SCENARIO TWO - PROPOSED WASTEWATER TREATMENT TANK
  - RESIDENCE AS SURVEYED
  - SCENARIO ONE - APPROXIMATE LOCATION OF EXISTING SEPTIC EQUIPMENT
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  - SCENARIO TWO - EXPANSION LEACHFIELD AREA
  - SCENARIO THREE - ACTIVE AND FUTURE LEACHFIELD AREA
  - SCENARIO FOUR - AREA WHERE SCENARIO THREE AND "BEST-CASE" DIFFER

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**BROAD BEACH RESTORATION PROJECT**  
**SCENARIO TWO - SHEET 01**  
 MALIBU, CALIFORNIA

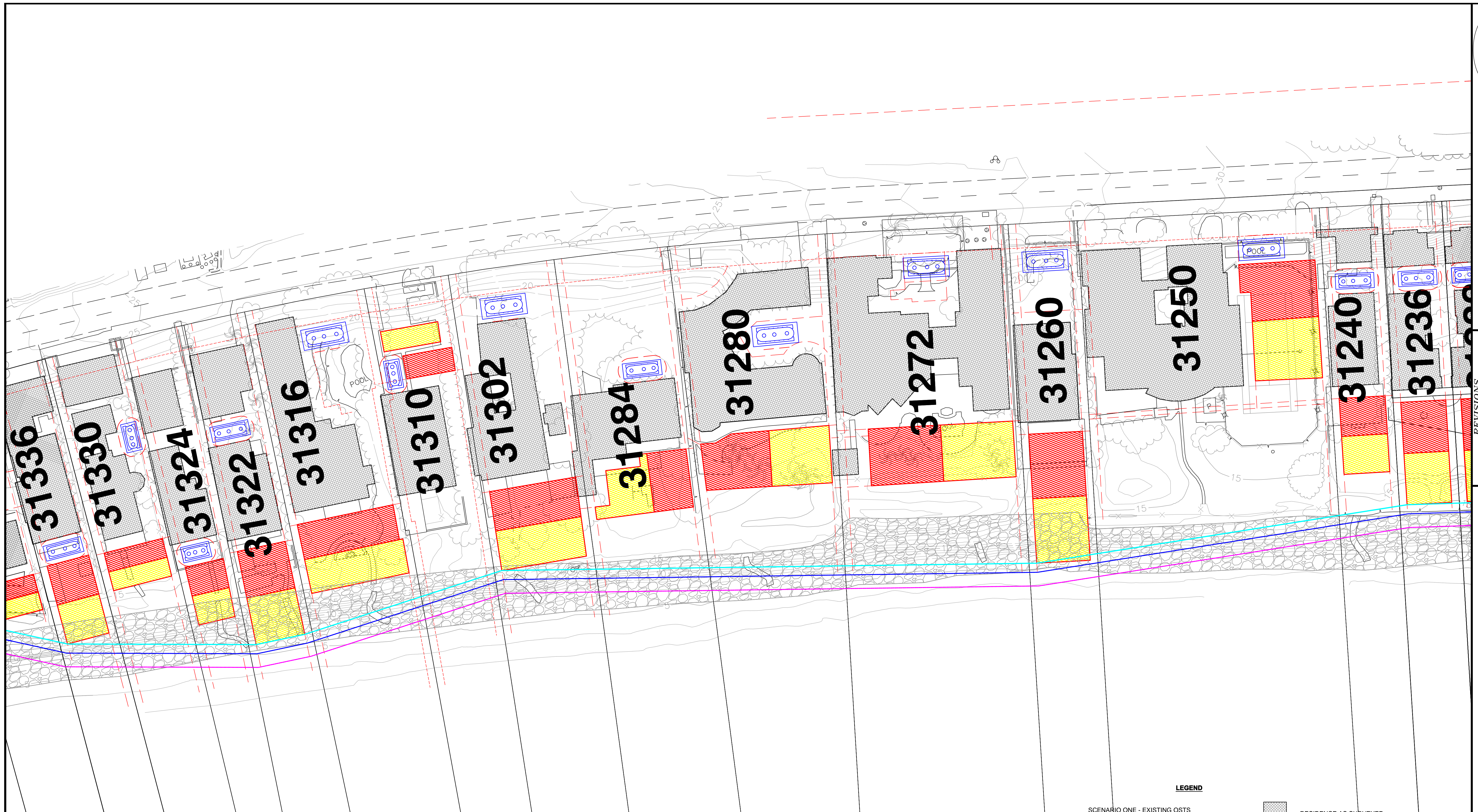


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 SHEET A7 of A24

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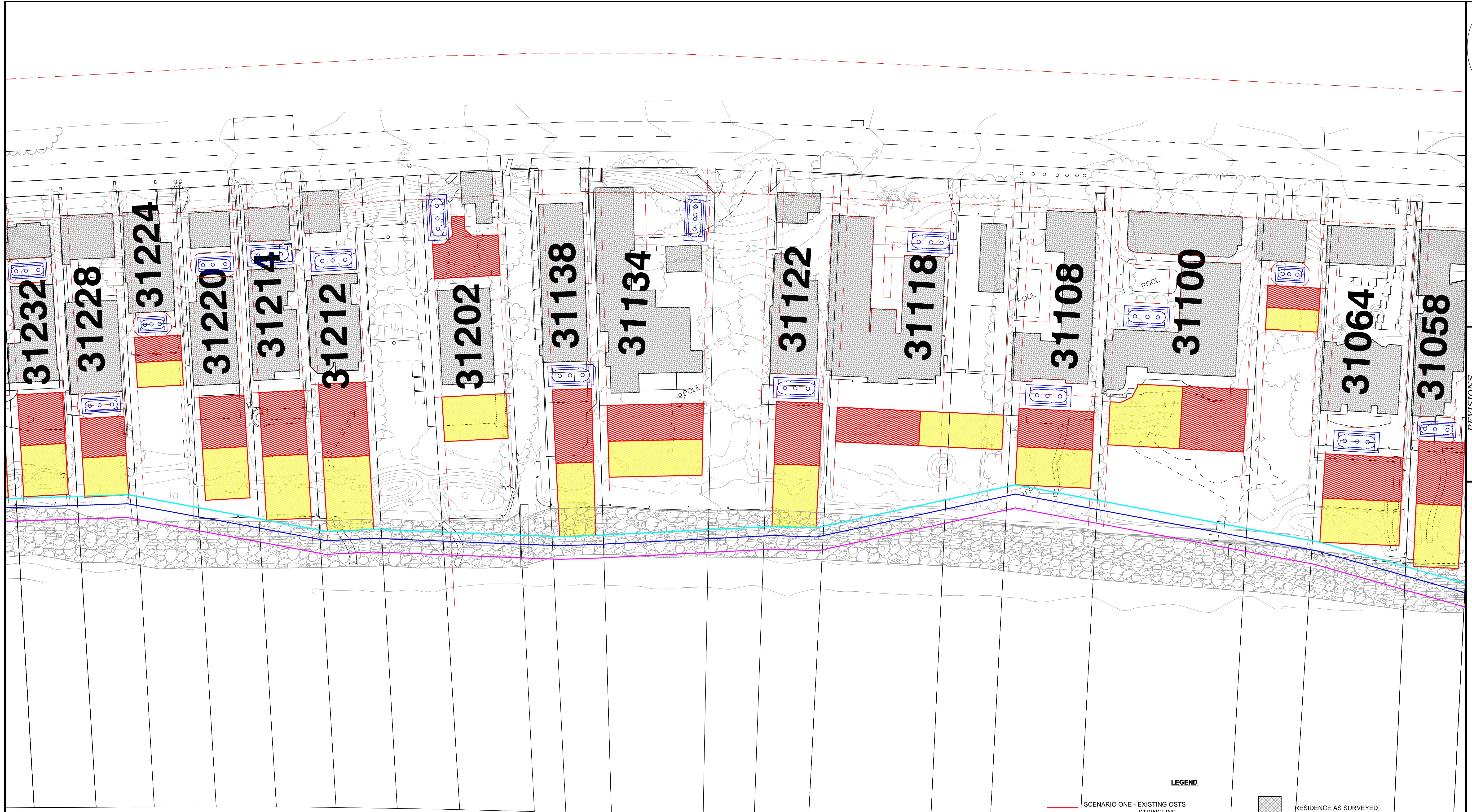
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- LEGEND**
- SCENARIO ONE - EXISTING OSTs STRINGLINE
  - SCENARIO ONE - 6' OSTs SETBACK TO PROTECTION DEVICE
  - SCENARIO ONE - 15' SETBACK TO WAVE UP-RUSH LINE
  - SCENARIO TWO - EXISTING OSTs STRINGLINE
  - SCENARIO TWO - 6' OSTs SETBACK TO PROTECTION DEVICE
  - SCENARIO TWO - 15' SETBACK TO WAVE UP-RUSH LINE
  - SCENARIO THREE - MALIBU CODE OSTs STRINGLINE
  - SCENARIO THREE - 6' OSTs SETBACK TO PROTECTION DEVICE
  - SCENARIO THREE - 15' SETBACK TO WAVE UP-RUSH LINE
  - SCENARIO FOUR - SCENARIO THREE "BEST-CASE" COMBINED STRINGLINE
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<b>BROAD BEACH RESTORATION PROJECT</b> <b>SCENARIO TWO - SHEET 02</b> MALIBU, CALIFORNIA	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">NO.</th> <th style="width: 10%;">DATE</th> <th style="width: 80%;">BY</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	NO.	DATE	BY			
NO.	DATE	BY					
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**LEGEND**

- SCENARIO ONE - EXISTING OSTs STRINGLINE
- SCENARIO ONE - 6' OSTs SETBACK TO PROTECTION DEVICE
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**BROAD BEACH RESTORATION PROJECT**  
**SCENARIO TWO - SHEET 03**  
 MALIBU, CALIFORNIA

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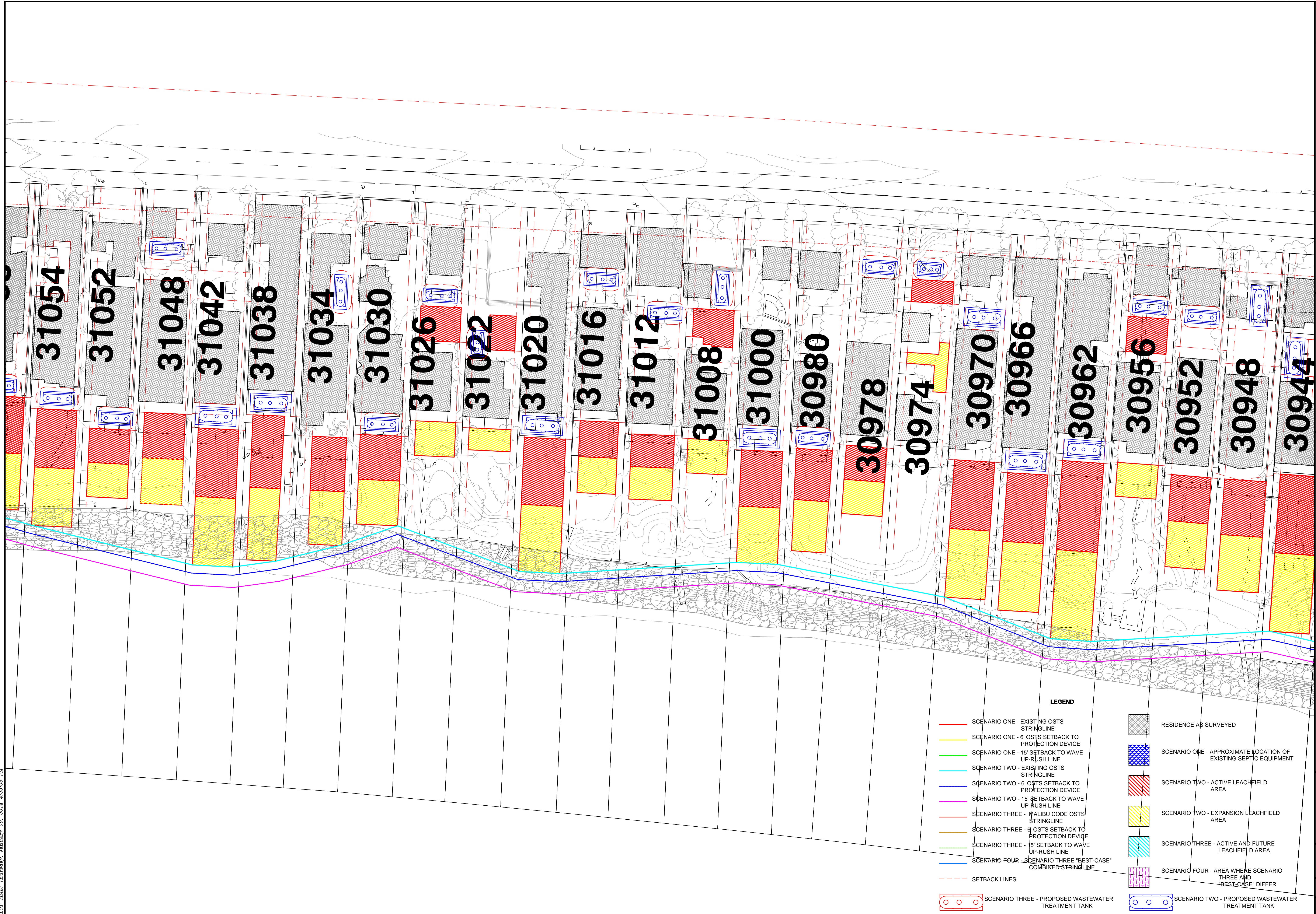
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**SHEET**  
A9 of A24

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**LEGEND**

	SCENARIO ONE - EXISTING OSTs STRINGLINE		RESIDENCE AS SURVEYED
	SCENARIO ONE - 6' OSTs SETBACK TO PROTECTION DEVICE		SCENARIO ONE - APPROXIMATE LOCATION OF EXISTING SEPTIC EQUIPMENT
	SCENARIO ONE - 15' SETBACK TO WAVE UP-RUSH LINE		SCENARIO TWO - ACTIVE LEACHFIELD AREA
	SCENARIO TWO - EXISTING OSTs STRINGLINE		SCENARIO TWO - EXPANSION LEACHFIELD AREA
	SCENARIO TWO - 6' OSTs SETBACK TO PROTECTION DEVICE		SCENARIO THREE - ACTIVE AND FUTURE LEACHFIELD AREA
	SCENARIO TWO - 15' SETBACK TO WAVE UP-RUSH LINE		SCENARIO FOUR - AREA WHERE SCENARIO THREE AND 'BEST-CASE' DIFFER
	SCENARIO THREE - MALIBU CODE OSTs STRINGLINE		SCENARIO THREE - PROPOSED WASTEWATER TREATMENT TANK
	SCENARIO THREE - 6' OSTs SETBACK TO PROTECTION DEVICE		SCENARIO TWO - PROPOSED WASTEWATER TREATMENT TANK
	SCENARIO THREE - 15' SETBACK TO WAVE UP-RUSH LINE		
	SCENARIO FOUR - SCENARIO THREE 'BEST-CASE' COMBINED STRINGLINE		
	SETBACK LINES		

**BROAD BEACH RESTORATION PROJECT**  
**SCENARIO TWO - SHEET 04**  
 MALIBU, CALIFORNIA

DATE: 01-2014  
 DESIGNED BY: JNY  
 DRAWN BY: JNY  
 CHECKED BY: JNY

**JOB NO. 563-01**  
**SHEET A10 OF A24**

**REVISIONS**

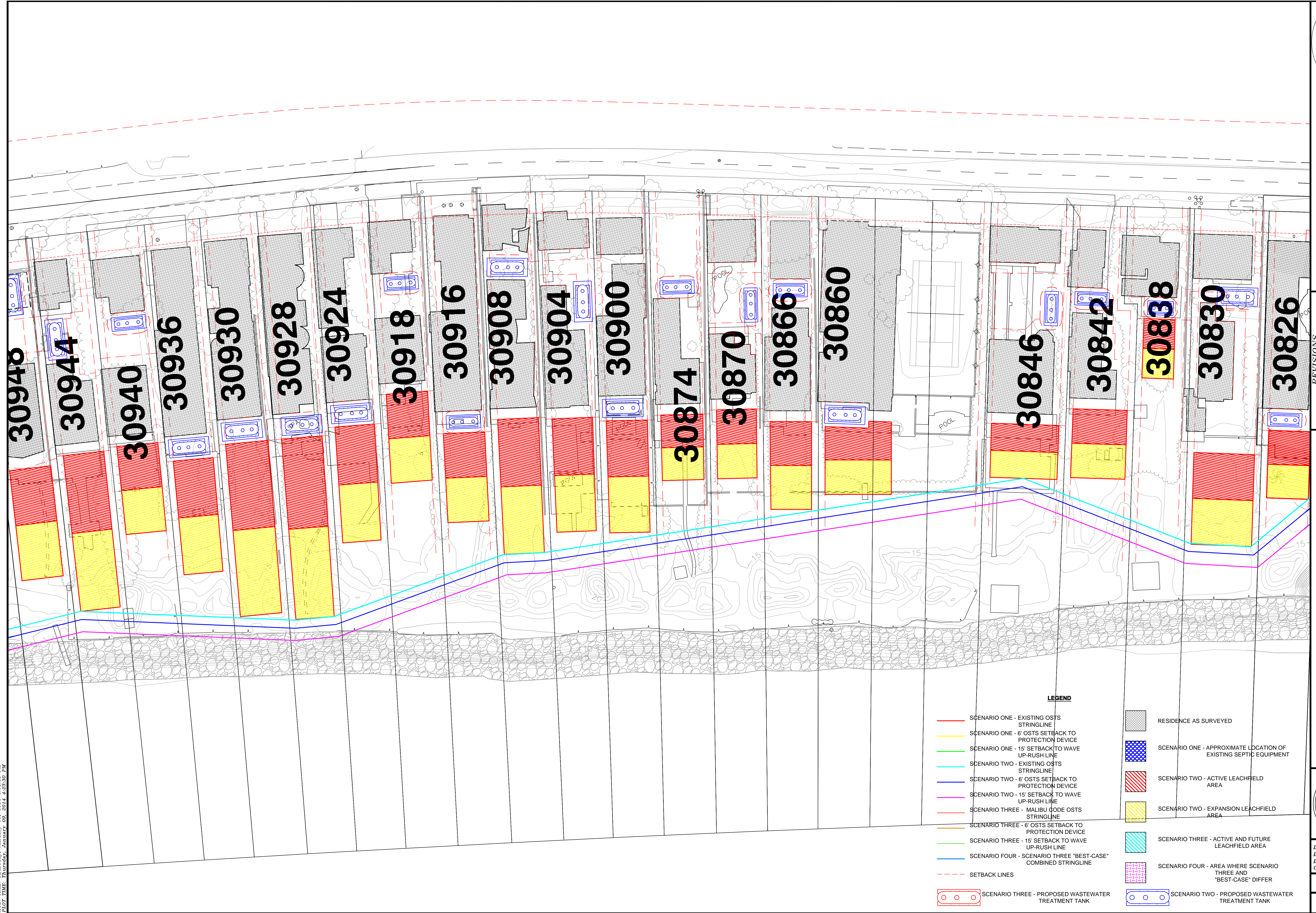
NO.	DATE	BY

**ENSITU ENGINEERING, INC.**  
 780 MONTEREY AVE., STE. B  
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**ENSITU**  
 "Dedicated to achieving higher standards in onsite and decentralized wastewater systems."

REGISTERED PROFESSIONAL ENGINEER  
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 EXP. 06-2014  
 CIVIL  
 STATE OF CALIFORNIA

Project Engineer: John N Yaroslaski PE # 60149  
 DRG NAME: S:\Projects\563-01\_BroadBeachRestoration\Project-01a.dwg  
 MOD. TIME: Thursday, January 09, 2014 4:08:21 PM  
 PLOT TIME: Thursday, January 09, 2014 4:29:30 PM



- LEGEND**
- SCENARIO ONE - EXISTING OSTs STRINGLINE
  - SCENARIO ONE - 6' OSTs SETBACK TO PROTECTION DEVICE
  - SCENARIO ONE - 15' SETBACK TO WAVE UP-RUSH LINE
  - SCENARIO TWO - EXISTING OSTs STRINGLINE
  - SCENARIO TWO - 6' OSTs SETBACK TO PROTECTION DEVICE
  - SCENARIO TWO - 15' SETBACK TO WAVE UP-RUSH LINE
  - SCENARIO THREE - MALIBU CODE OSTs STRINGLINE
  - SCENARIO THREE - 6' OSTs SETBACK TO PROTECTION DEVICE
  - SCENARIO THREE - 15' SETBACK TO WAVE UP-RUSH LINE
  - SCENARIO FOUR - SCENARIO THREE 'BEST-CASE' COMBINED STRINGLINE
  - SETBACK LINES
  - SCENARIO ONE - APPROXIMATE LOCATION OF EXISTING SEPTIC EQUIPMENT
  - SCENARIO TWO - ACTIVE LEACHFIELD AREA
  - SCENARIO TWO - EXPANSION LEACHFIELD AREA
  - SCENARIO THREE - ACTIVE AND FUTURE LEACHFIELD AREA
  - SCENARIO FOUR - AREA WHERE SCENARIO THREE AND 'BEST-CASE' DIFFER
  - SCENARIO THREE - PROPOSED WASTEWATER TREATMENT TANK
  - SCENARIO TWO - PROPOSED WASTEWATER TREATMENT TANK
  - RESIDENCE AS SURVEYED

REVISIONS

NO.

DATE BY

**BROAD BEACH RESTORATION PROJECT**  
**SCENARIO TWO - SHEET 05**  
**MALIBU, CALIFORNIA**



DATE: 01-2014  
 DESIGNED BY: JNY  
 DRAWN BY: JNY  
 CHECKED BY: JNY

JOB NO.  
**563-01**  
 SHEET  
**A11** of **A24**

**ENSITU**  
 ENSITU ENGINEERING, INC.  
 780 MONTEREY AVE., STE. B  
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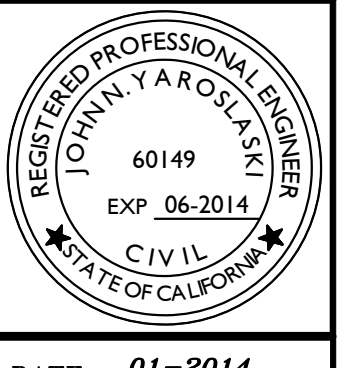
Project Engineer: John N Yaroslaski PE # 60149  
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- LEGEND**
- SCENARIO ONE - EXISTING OSTs STRINGLINE
  - SCENARIO ONE - 6' OSTs SETBACK TO PROTECTION DEVICE
  - SCENARIO ONE - 15' SETBACK TO WAVE UP-RUSH LINE
  - SCENARIO TWO - EXISTING OSTs STRINGLINE
  - SCENARIO TWO - 6' OSTs SETBACK TO PROTECTION DEVICE
  - SCENARIO TWO - 15' SETBACK TO WAVE UP-RUSH LINE
  - SCENARIO THREE - MALIBU CODE OSTs STRINGLINE
  - SCENARIO THREE - 6' OSTs SETBACK TO PROTECTION DEVICE
  - SCENARIO THREE - 15' SETBACK TO WAVE UP-RUSH LINE
  - SCENARIO FOUR - SCENARIO THREE 'BEST-CASE' COMBINED STRINGLINE
  - SETBACK LINES
  - SCENARIO THREE - PROPOSED WASTEWATER TREATMENT TANK
  - RESIDENCE AS SURVEYED
  - SCENARIO ONE - APPROXIMATE LOCATION OF EXISTING SEPTIC EQUIPMENT
  - SCENARIO TWO - ACTIVE LEACHFIELD AREA
  - SCENARIO TWO - EXPANSION LEACHFIELD AREA
  - SCENARIO THREE - ACTIVE AND FUTURE LEACHFIELD AREA
  - SCENARIO FOUR - AREA WHERE SCENARIO THREE AND 'BEST-CASE' DIFFER
  - SCENARIO TWO - PROPOSED WASTEWATER TREATMENT TANK

NO.	REVISIONS	DATE	BY

**BROAD BEACH RESTORATION PROJECT**  
**SCENARIO TWO - SHEET 06**  
**MALIBU, CALIFORNIA**



DATE: 01-2014  
 DESIGNED BY: JNY  
 DRAWN BY: JNY  
 CHECKED BY: JNY  
 JOB NO. 563-01  
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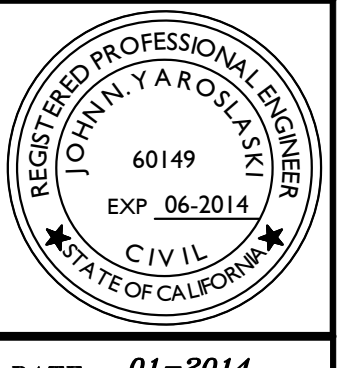
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 MOD. TIME: Thursday, January 09, 2014 4:08:21 PM  
 PLOT TIME: Thursday, January 09, 2014 4:24:10 PM



- LEGEND**
- SCENARIO ONE - EXISTING OST'S STRINGLINE
  - SCENARIO ONE - 6' OST'S SETBACK TO PROTECTION DEVICE
  - SCENARIO ONE - 15' SETBACK TO WAVE UP-RUSH LINE
  - SCENARIO TWO - EXISTING OST'S STRINGLINE
  - SCENARIO TWO - 6' OST'S SETBACK TO PROTECTION DEVICE
  - SCENARIO TWO - 15' SETBACK TO WAVE UP-RUSH LINE
  - SCENARIO THREE - MALIBU CODE OST'S STRINGLINE
  - SCENARIO THREE - 6' OST'S SETBACK TO PROTECTION DEVICE
  - SCENARIO THREE - 15' SETBACK TO WAVE UP-RUSH LINE
  - SCENARIO FOUR - SCENARIO THREE 'BEST-CASE' COMBINED STRINGLINE
  - - - SETBACK LINES
  - ○ SCENARIO THREE - PROPOSED WASTEWATER TREATMENT TANK
  - ○ SCENARIO TWO - PROPOSED WASTEWATER TREATMENT TANK
  - RESIDENCE AS SURVEYED
  - SCENARIO ONE - APPROXIMATE LOCATION OF EXISTING SEPTIC EQUIPMENT
  - SCENARIO TWO - ACTIVE LEACHFIELD AREA
  - SCENARIO TWO - EXPANSION LEACHFIELD AREA
  - SCENARIO THREE - ACTIVE AND FUTURE LEACHFIELD AREA
  - SCENARIO FOUR - AREA WHERE SCENARIO THREE AND 'BEST-CASE' DIFFER

NO.	REVISIONS	DATE	BY

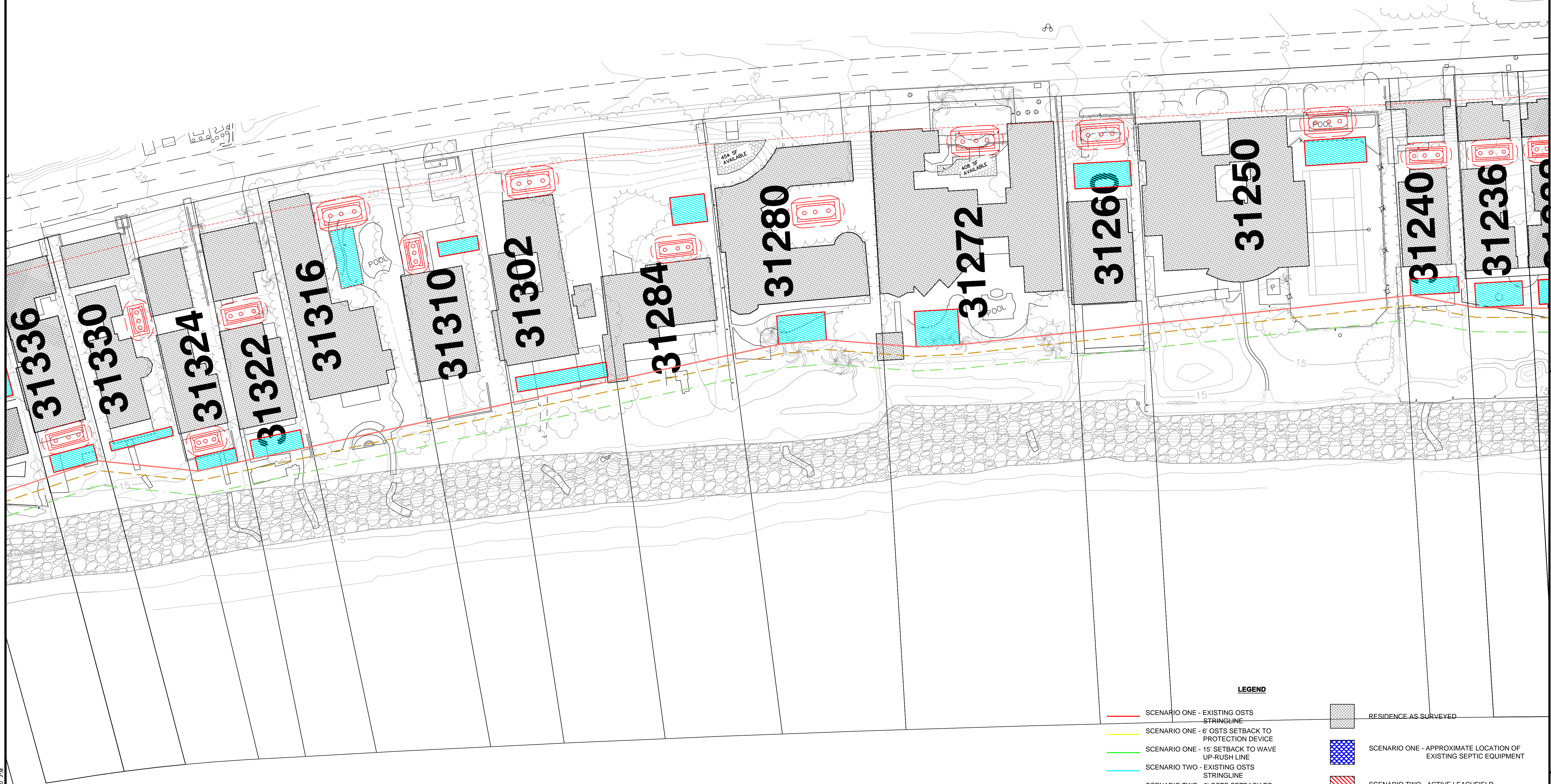
**BROAD BEACH RESTORATION PROJECT**  
**SCENARIO THREE - SHEET 01**  
 MALIBU, CALIFORNIA



DATE: 01-2014  
 DESIGNED BY: JNY  
 DRAWN BY: JNY  
 CHECKED BY: JNY  
 JOB NO. 563-01  
 SHEET A13 OF A24

**ENSITU**  
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Project Engineer: John N Yaroslaski PE # 60149  
 DRG NAME: S:\Projects\Projects\663-01\_BroadBeachRestoration\Project-01a.dwg  
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- LEGEND**
- SCENARIO ONE - EXISTING OSTs STRINGLINE
  - SCENARIO ONE - 6' OSTs SETBACK TO PROTECTION DEVICE
  - SCENARIO ONE - 15' SETBACK TO WAVE UP-RUSH LINE
  - SCENARIO TWO - EXISTING OSTs STRINGLINE
  - SCENARIO TWO - 6' OSTs SETBACK TO PROTECTION DEVICE
  - SCENARIO TWO - 15' SETBACK TO WAVE UP-RUSH LINE
  - SCENARIO THREE - MALIBU CODE OSTs STRINGLINE
  - SCENARIO THREE - 6' OSTs SETBACK TO PROTECTION DEVICE
  - SCENARIO THREE - 15' SETBACK TO WAVE UP-RUSH LINE
  - SCENARIO FOUR - SCENARIO THREE "BEST-CASE" COMBINED STRINGLINE
  - - - - - SETBACK LINES
  - SCENARIO THREE - PROPOSED WASTEWATER TREATMENT TANK
  - SCENARIO TWO - PROPOSED WASTEWATER TREATMENT TANK
  - RESIDENCE AS SURVEYED
  - SCENARIO ONE - APPROXIMATE LOCATION OF EXISTING SEPTIC EQUIPMENT
  - SCENARIO TWO - ACTIVE LEACHFIELD AREA
  - SCENARIO TWO - EXPANSION LEACHFIELD AREA
  - SCENARIO THREE - ACTIVE AND FUTURE LEACHFIELD AREA
  - SCENARIO FOUR - AREA WHERE SCENARIO THREE AND "BEST-CASE" DIFFER

**BROAD BEACH RESTORATION PROJECT**  
**SCENARIO THREE - SHEET 02**  
**MALIBU, CALIFORNIA**

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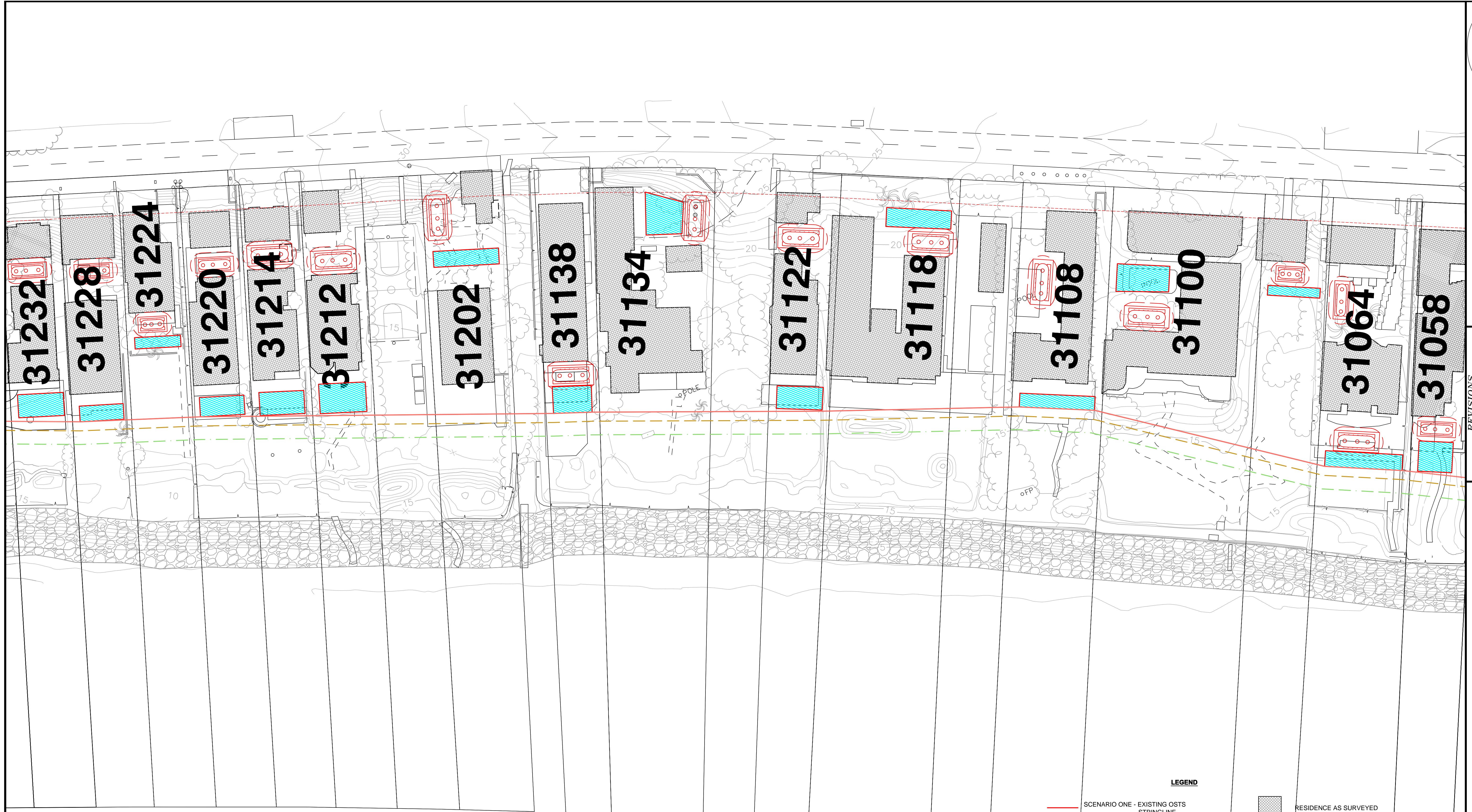
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 DRAWN BY: JNY  
 CHECKED BY: JNY

**JOB NO.**  
 563-01

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Project Engineer: John N Yaroshski PE # 60149  
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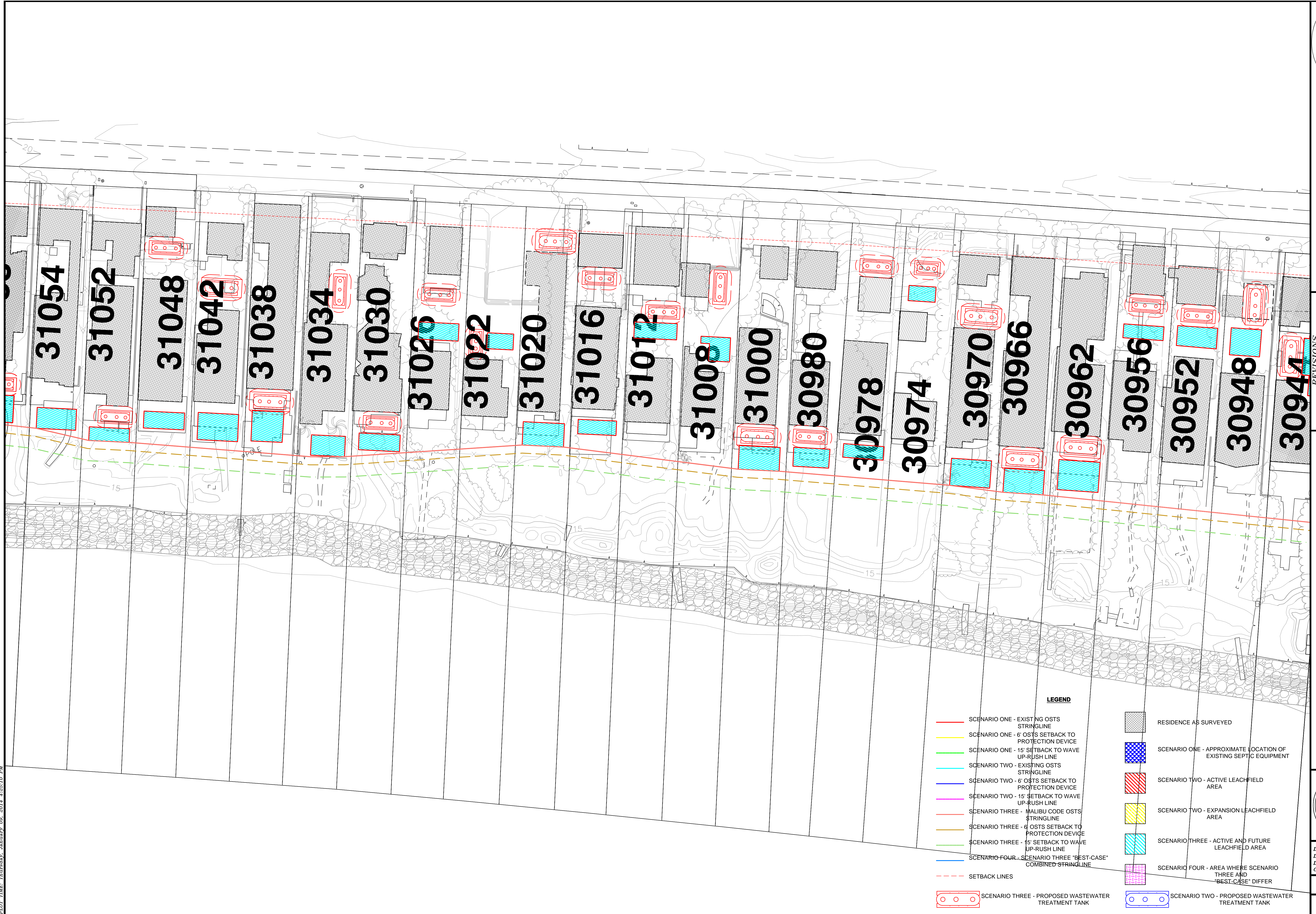


- LEGEND**
- SCENARIO ONE - EXISTING OSTS STRINGLINE
  - SCENARIO ONE - 6' OSTS SETBACK TO PROTECTION DEVICE
  - SCENARIO ONE - 15' SETBACK TO WAVE UP-RUSH LINE
  - SCENARIO TWO - EXISTING OSTS STRINGLINE
  - SCENARIO TWO - 6' OSTS SETBACK TO PROTECTION DEVICE
  - SCENARIO TWO - 15' SETBACK TO WAVE UP-RUSH LINE
  - SCENARIO THREE - MALIBU CODE OSTS STRINGLINE
  - SCENARIO THREE - 6' OSTS SETBACK TO PROTECTION DEVICE
  - SCENARIO THREE - 15' SETBACK TO WAVE UP-RUSH LINE
  - SCENARIO FOUR - SCENARIO THREE 'BEST-CASE' COMBINED STRINGLINE
  - SETBACK LINES
  - SCENARIO THREE - PROPOSED WASTEWATER TREATMENT TANK
  - SCENARIO TWO - PROPOSED WASTEWATER TREATMENT TANK
  - RESIDENCE AS SURVEYED
  - SCENARIO ONE - APPROXIMATE LOCATION OF EXISTING SEPTIC EQUIPMENT
  - SCENARIO TWO - ACTIVE LEACHFIELD AREA
  - SCENARIO TWO - EXPANSION LEACHFIELD AREA
  - SCENARIO THREE - ACTIVE AND FUTURE LEACHFIELD AREA
  - SCENARIO FOUR - AREA WHERE SCENARIO THREE AND 'BEST-CASE' DIFFER

<b>BROAD BEACH RESTORATION PROJECT</b>							
<b>SCENARIO THREE - SHEET 03</b>							
<b>MALIBU, CALIFORNIA</b>							
	DATE: 01-2014 DESIGNED BY: JNY DRAWN BY: JNY CHECKED BY: JNY						
<b>JOB NO. 563-01</b> <b>SHEET A15 of A24</b>							
<b>ENSITU</b> ENSITU ENGINEERING, INC. "Dedicated to achieving higher standards in onsite and decentralized wastewater systems." 780 MONTEREY AVE., STE. B MONTEREY, CA 94033 TEL: 805.772.0110 FAX: 805.772.0813 ENSITU@ensitu.com	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">NO.</th> <th style="width: 10%;">DATE</th> <th style="width: 80%;">BY</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	NO.	DATE	BY			
NO.	DATE	BY					



Project Engineer: John N Yaroslaski PE # 60149  
 DRG NAME: S:\Projects\563-01\_BroadBeachRestoration\Project-01a.dwg  
 MOD. TIME: Thursday, January 09, 2014 4:08:21 PM  
 PLOT TIME: Thursday, January 09, 2014 4:25:10 PM



**LEGEND**

	SCENARIO ONE - EXISTING OSTs STRINGLINE		RESIDENCE AS SURVEYED
	SCENARIO ONE - 6' OSTs SETBACK TO PROTECTION DEVICE		SCENARIO ONE - APPROXIMATE LOCATION OF EXISTING SEPTIC EQUIPMENT
	SCENARIO ONE - 15' SETBACK TO WAVE UP-RUSH LINE		SCENARIO TWO - ACTIVE LEACHFIELD AREA
	SCENARIO TWO - EXISTING OSTs STRINGLINE		SCENARIO TWO - EXPANSION LEACHFIELD AREA
	SCENARIO TWO - 6' OSTs SETBACK TO PROTECTION DEVICE		SCENARIO THREE - ACTIVE AND FUTURE LEACHFIELD AREA
	SCENARIO TWO - 15' SETBACK TO WAVE UP-RUSH LINE		SCENARIO FOUR - AREA WHERE SCENARIO THREE AND 'BEST-CASE' DIFFER
	SCENARIO THREE - MALIBU CODE OSTs STRINGLINE		SCENARIO THREE - PROPOSED WASTEWATER TREATMENT TANK
	SCENARIO THREE - 6' OSTs SETBACK TO PROTECTION DEVICE		SCENARIO TWO - PROPOSED WASTEWATER TREATMENT TANK
	SCENARIO THREE - 15' SETBACK TO WAVE UP-RUSH LINE		
	SCENARIO FOUR - SCENARIO THREE 'BEST-CASE' COMBINED STRINGLINE		
	SETBACK LINES		

**BROAD BEACH RESTORATION PROJECT**  
**SCENARIO THREE - SHEET 04**  
 MALIBU, CALIFORNIA

DATE: 01-2014  
 DESIGNED BY: JNY  
 DRAWN BY: JNY  
 CHECKED BY: JNY

JOB NO. 563-01  
 SHEET A16 OF A24

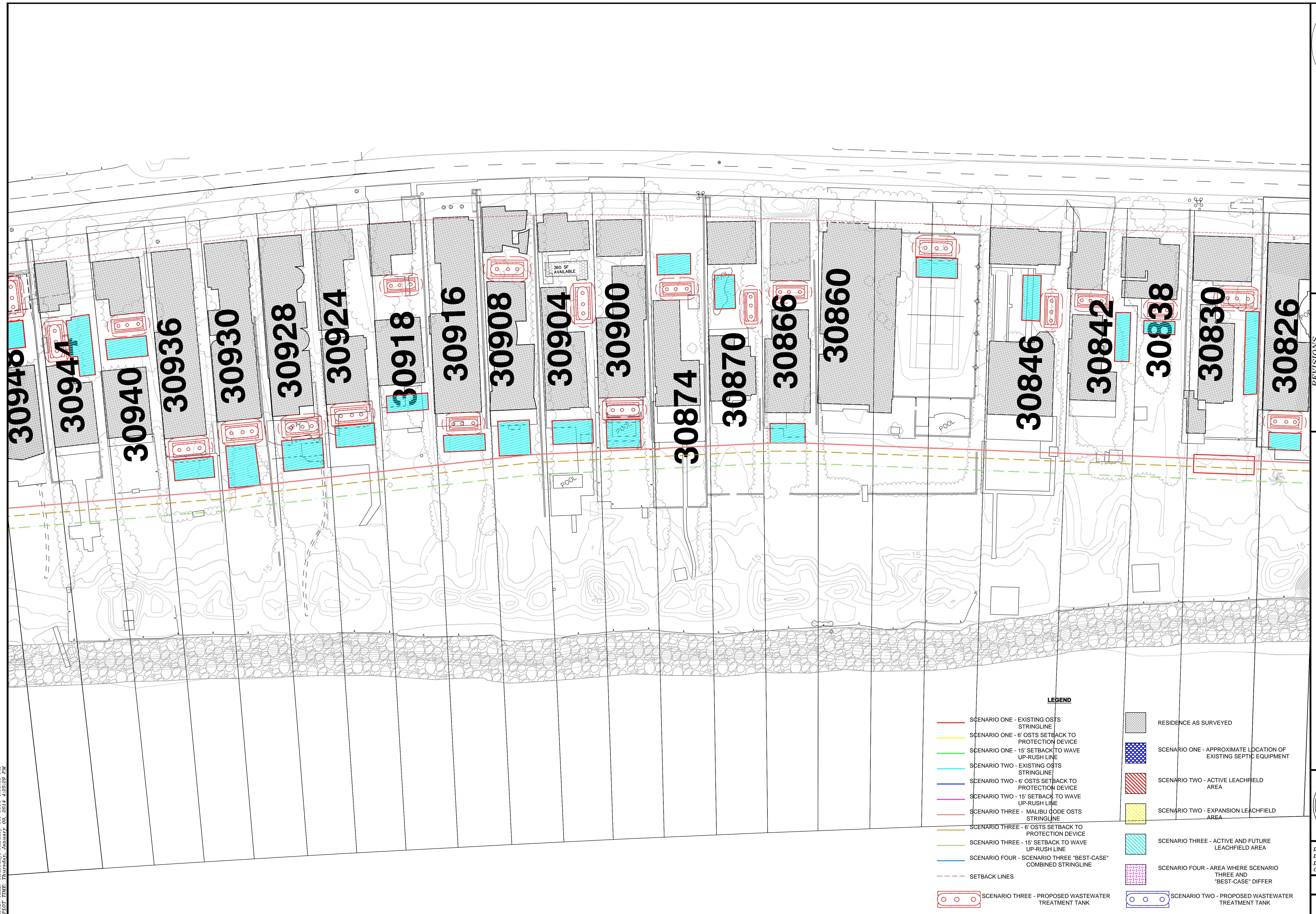
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 STATE OF CALIFORNIA

Project Engineer: John N Yaroslaski PE # 60149  
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- LEGEND**
- SCENARIO ONE - EXISTING OSTS STRINGLINE
  - SCENARIO ONE - 6' OSTS SETBACK TO PROTECTION DEVICE
  - SCENARIO ONE - 15' SETBACK TO WAVE UP-RUSH LINE
  - SCENARIO TWO - EXISTING OSTS STRINGLINE
  - SCENARIO TWO - 6' OSTS SETBACK TO PROTECTION DEVICE
  - SCENARIO TWO - 15' SETBACK TO WAVE UP-RUSH LINE
  - SCENARIO THREE - MALIBU CODE OSTS STRINGLINE
  - SCENARIO THREE - 6' OSTS SETBACK TO PROTECTION DEVICE
  - SCENARIO THREE - 15' SETBACK TO WAVE UP-RUSH LINE
  - SCENARIO FOUR - SCENARIO THREE 'BEST-CASE' COMBINED STRINGLINE
  - - - - - SETBACK LINES
  - SCENARIO THREE - PROPOSED WASTEWATER TREATMENT TANK
  - SCENARIO TWO - PROPOSED WASTEWATER TREATMENT TANK
  - RESIDENCE AS SURVEYED
  - SCENARIO ONE - APPROXIMATE LOCATION OF EXISTING SEPTIC EQUIPMENT
  - SCENARIO TWO - ACTIVE LEACHFIELD AREA
  - SCENARIO TWO - EXPANSION LEACHFIELD AREA
  - SCENARIO THREE - ACTIVE AND FUTURE LEACHFIELD AREA
  - SCENARIO FOUR - AREA WHERE SCENARIO THREE AND 'BEST-CASE' DIFFER

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**BROAD BEACH RESTORATION PROJECT**  
**SCENARIO THREE - SHEET 05**  
**MALIBU, CALIFORNIA**

REGISTERED PROFESSIONAL ENGINEER  
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 EXP. 06-2014  
 CIVIL  
 STATE OF CALIFORNIA

DATE: 01-2014  
 DESIGNED BY: JNY  
 DRAWN BY: JNY  
 CHECKED BY: JNY  
 JOB NO. 563-01  
 SHEET A17 of A24

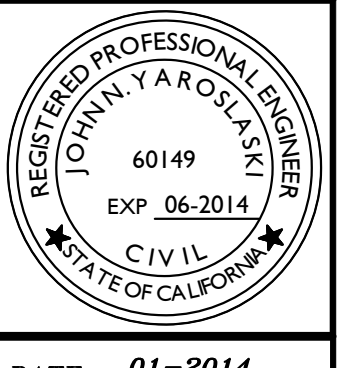
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- LEGEND**
- SCENARIO ONE - EXISTING OSTs STRINGLINE
  - SCENARIO ONE - 6' OSTs SETBACK TO PROTECTION DEVICE
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  - SCENARIO TWO - EXISTING OSTs STRINGLINE
  - SCENARIO TWO - 6' OSTs SETBACK TO PROTECTION DEVICE
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  - SCENARIO THREE - MALIBU CODE OSTs STRINGLINE
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  - SCENARIO FOUR - SCENARIO THREE 'BEST-CASE' COMBINED STRINGLINE
  - SETBACK LINES
  - SCENARIO THREE - PROPOSED WASTEWATER TREATMENT TANK
  - SCENARIO TWO - PROPOSED WASTEWATER TREATMENT TANK
  - RESIDENCE AS SURVEYED
  - SCENARIO ONE - APPROXIMATE LOCATION OF EXISTING SEPTIC EQUIPMENT
  - SCENARIO TWO - ACTIVE LEACHFIELD AREA
  - SCENARIO TWO - EXPANSION LEACHFIELD AREA
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  - SCENARIO FOUR - AREA WHERE SCENARIO THREE AND 'BEST-CASE' DIFFER

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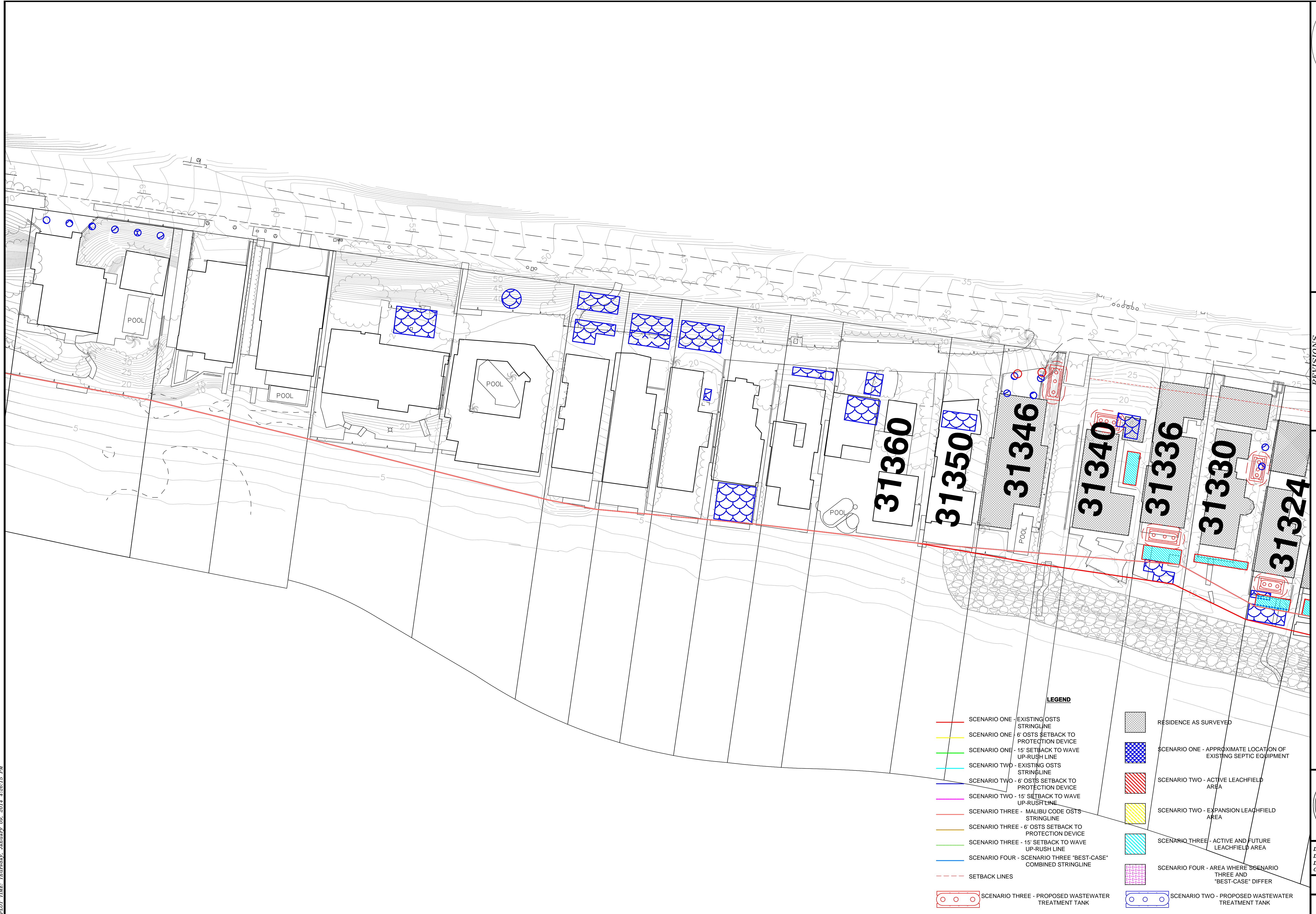
**BROAD BEACH RESTORATION PROJECT**  
**SCENARIO THREE - SHEET 06**  
**MALIBU, CALIFORNIA**



DATE: 01-2014  
 DESIGNED BY: JNY  
 DRAWN BY: JNY  
 CHECKED BY: JNY  
 JOB NO. 563-01  
 SHEET A18 of A24

**ENSITU**  
 ENSITU ENGINEERING, INC.  
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Project Engineer: John N Yaroslaski PE # 60149  
 DRG NAME: S:\Projects\663-01\_BroadBeachRestoration\Project-01.a.dwg  
 MOD. TIME: Thursday, January 09, 2014 4:08:21 PM  
 PLOT TIME: Thursday, January 09, 2014 4:30:15 PM



**LEGEND**

- SCENARIO ONE - EXISTING OSTS STRINGLINE
- SCENARIO ONE - 6' OSTs SETBACK TO PROTECTION DEVICE
- SCENARIO ONE - 15' SETBACK TO WAVE UP-RUSH LINE
- SCENARIO TWO - EXISTING OSTs STRINGLINE
- SCENARIO TWO - 6' OSTs SETBACK TO PROTECTION DEVICE
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- SCENARIO THREE - MALIBU CODE OSTs STRINGLINE
- SCENARIO THREE - 6' OSTs SETBACK TO PROTECTION DEVICE
- SCENARIO THREE - 15' SETBACK TO WAVE UP-RUSH LINE
- SCENARIO FOUR - SCENARIO THREE "BEST-CASE" COMBINED STRINGLINE
- - - SETBACK LINES
- ○ SCENARIO THREE - PROPOSED WASTEWATER TREATMENT TANK
- ○ SCENARIO TWO - PROPOSED WASTEWATER TREATMENT TANK
- RESIDENCE AS SURVEYED
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**BROAD BEACH RESTORATION PROJECT**  
**SCENARIO FOUR - SHEET 01**  
**MALIBU, CALIFORNIA**

REGISTERED PROFESSIONAL ENGINEER  
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 60149  
 EXP. 06-2014  
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 STATE OF CALIFORNIA

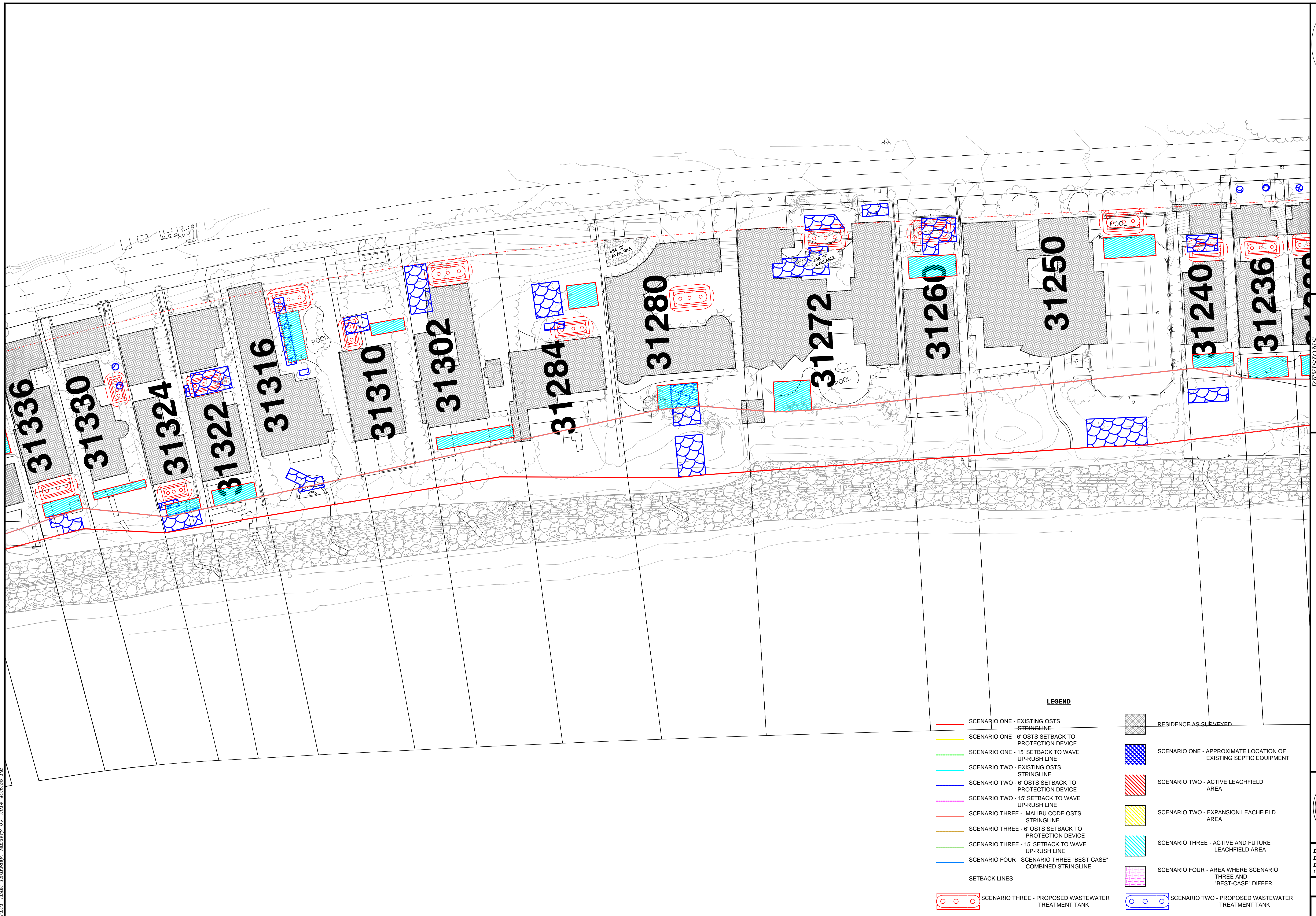
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**JOB NO.**  
**563-01**

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**A13 OF A24**

Project Engineer: John N Yaroslaski PE # 60149  
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- LEGEND**
- SCENARIO ONE - EXISTING OSTS STRINGLINE
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  - SCENARIO TWO - EXISTING OSTS STRINGLINE
  - SCENARIO TWO - 6' OSTS SETBACK TO PROTECTION DEVICE
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  - SCENARIO THREE - MALIBU CODE OSTS STRINGLINE
  - SCENARIO THREE - 6' OSTS SETBACK TO PROTECTION DEVICE
  - SCENARIO THREE - 15' SETBACK TO WAVE UP-RUSH LINE
  - SCENARIO FOUR - SCENARIO THREE "BEST-CASE" COMBINED STRINGLINE
  - SETBACK LINES
  - SCENARIO THREE - PROPOSED WASTEWATER TREATMENT TANK
  - RESIDENCE AS SURVEYED
  - SCENARIO ONE - APPROXIMATE LOCATION OF EXISTING SEPTIC EQUIPMENT
  - SCENARIO TWO - ACTIVE LEACHFIELD AREA
  - SCENARIO TWO - EXPANSION LEACHFIELD AREA
  - SCENARIO THREE - ACTIVE AND FUTURE LEACHFIELD AREA
  - SCENARIO FOUR - AREA WHERE SCENARIO THREE AND "BEST-CASE" DIFFER
  - SCENARIO TWO - PROPOSED WASTEWATER TREATMENT TANK

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<b>BROAD BEACH RESTORATION PROJECT</b> <b>SCENARIO FOUR - SHEET 02</b> <b>MALIBU, CALIFORNIA</b>	REGISTERED PROFESSIONAL ENGINEER JOHN N. YAROSLASKI 60149 EXP. 06-2014 CIVIL STATE OF CALIFORNIA
DATE: 01-2014 DESIGNED BY: JNY DRAWN BY: JNY CHECKED BY: JNY	JOB NO. <b>563-01</b> SHEET <b>A20 of A24</b>
REVISIONS NO. DATE BY	(Empty table for revisions)

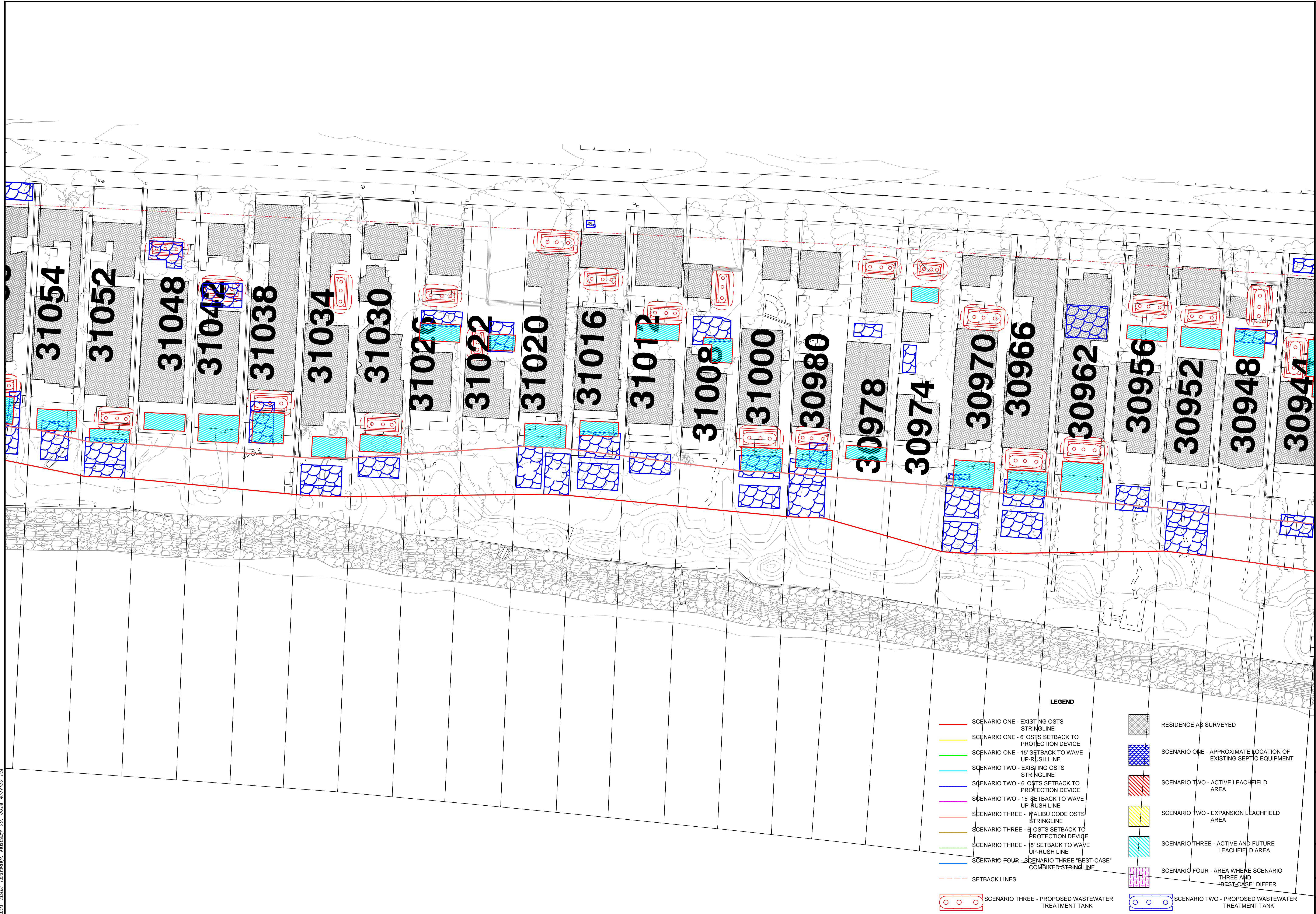
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 MOD. TIME: Thursday, January 09, 2014 4:06:21 PM  
 PLOT TIME: Thursday, January 09, 2014 4:30:55 PM



- LEGEND**
- SCENARIO ONE - EXISTING OSTs STRINGLINE
  - SCENARIO ONE - 6' OSTs SETBACK TO PROTECTION DEVICE
  - SCENARIO ONE - 15' SETBACK TO WAVE UP-RUSH LINE
  - SCENARIO TWO - EXISTING OSTs STRINGLINE
  - SCENARIO TWO - 6' OSTs SETBACK TO PROTECTION DEVICE
  - SCENARIO TWO - 15' SETBACK TO WAVE UP-RUSH LINE
  - SCENARIO THREE - MALIBU CODE OSTs STRINGLINE
  - SCENARIO THREE - 6' OSTs SETBACK TO PROTECTION DEVICE
  - SCENARIO THREE - 15' SETBACK TO WAVE UP-RUSH LINE
  - SCENARIO FOUR - SCENARIO THREE "BEST-CASE" COMBINED STRINGLINE
  - SETBACK LINES
  - ○ SCENARIO THREE - PROPOSED WASTEWATER TREATMENT TANK
  - ○ SCENARIO TWO - PROPOSED WASTEWATER TREATMENT TANK
  - RESIDENCE AS SURVEYED
  - SCENARIO ONE - APPROXIMATE LOCATION OF EXISTING SEPTIC EQUIPMENT
  - SCENARIO TWO - ACTIVE LEACHFIELD AREA
  - SCENARIO TWO - EXPANSION LEACHFIELD AREA
  - SCENARIO THREE - ACTIVE AND FUTURE LEACHFIELD AREA
  - SCENARIO FOUR - AREA WHERE SCENARIO THREE AND "BEST-CASE" DIFFER

<b>BROAD BEACH RESTORATION PROJECT</b>							
<b>SCENARIO FOUR - SHEET 03</b>							
<b>MALIBU, CALIFORNIA</b>							
	DATE: 01-2014 DESIGNED BY: JNY DRAWN BY: JNY CHECKED BY: JNY						
<b>JOB NO. 563-01</b> <b>SHEET A15 of A24</b>							
<b>ENSITU</b> ENSITU ENGINEERING, INC. "Dedicated to achieving higher standards in onsite and decentralized wastewater systems." 780 MONTEREY AVE., STE. B MONTEREY, CA 93940 TEL: 805.772.0110 FAX: 805.772.0813 ENSITU@ensitu.com	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;">NO.</th> <th style="width: 10%;">DATE</th> <th style="width: 80%;">BY</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	NO.	DATE	BY			
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Project Engineer: John N Yaroslaski PE # 60149  
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 PLOT TIME: Thursday, January 09, 2014 4:27:20 PM



**LEGEND**

	SCENARIO ONE - EXISTING OSTS STRINGLINE		RESIDENCE AS SURVEYED
	SCENARIO ONE - 6' OST'S SETBACK TO PROTECTION DEVICE		SCENARIO ONE - APPROXIMATE LOCATION OF EXISTING SEPTIC EQUIPMENT
	SCENARIO ONE - 15' SETBACK TO WAVE UP-RUSH LINE		SCENARIO TWO - ACTIVE LEACHFIELD AREA
	SCENARIO TWO - EXISTING OSTS STRINGLINE		SCENARIO TWO - EXPANSION LEACHFIELD AREA
	SCENARIO TWO - 6' OST'S SETBACK TO PROTECTION DEVICE		SCENARIO THREE - ACTIVE AND FUTURE LEACHFIELD AREA
	SCENARIO TWO - 15' SETBACK TO WAVE UP-RUSH LINE		SCENARIO FOUR - AREA WHERE SCENARIO THREE AND 'BEST-CASE' DIFFER
	SCENARIO THREE - MALIBU CODE OST'S STRINGLINE		SCENARIO THREE - PROPOSED WASTEWATER TREATMENT TANK
	SCENARIO THREE - 6' OST'S SETBACK TO PROTECTION DEVICE		SCENARIO TWO - PROPOSED WASTEWATER TREATMENT TANK
	SCENARIO THREE - 15' SETBACK TO WAVE UP-RUSH LINE		
	SCENARIO FOUR - SCENARIO THREE 'BEST-CASE' COMBINED STRINGLINE		
	SETBACK LINES		

**BROAD BEACH RESTORATION PROJECT**  
**SCENARIO FOUR - SHEET 04**  
 MALIBU, CALIFORNIA

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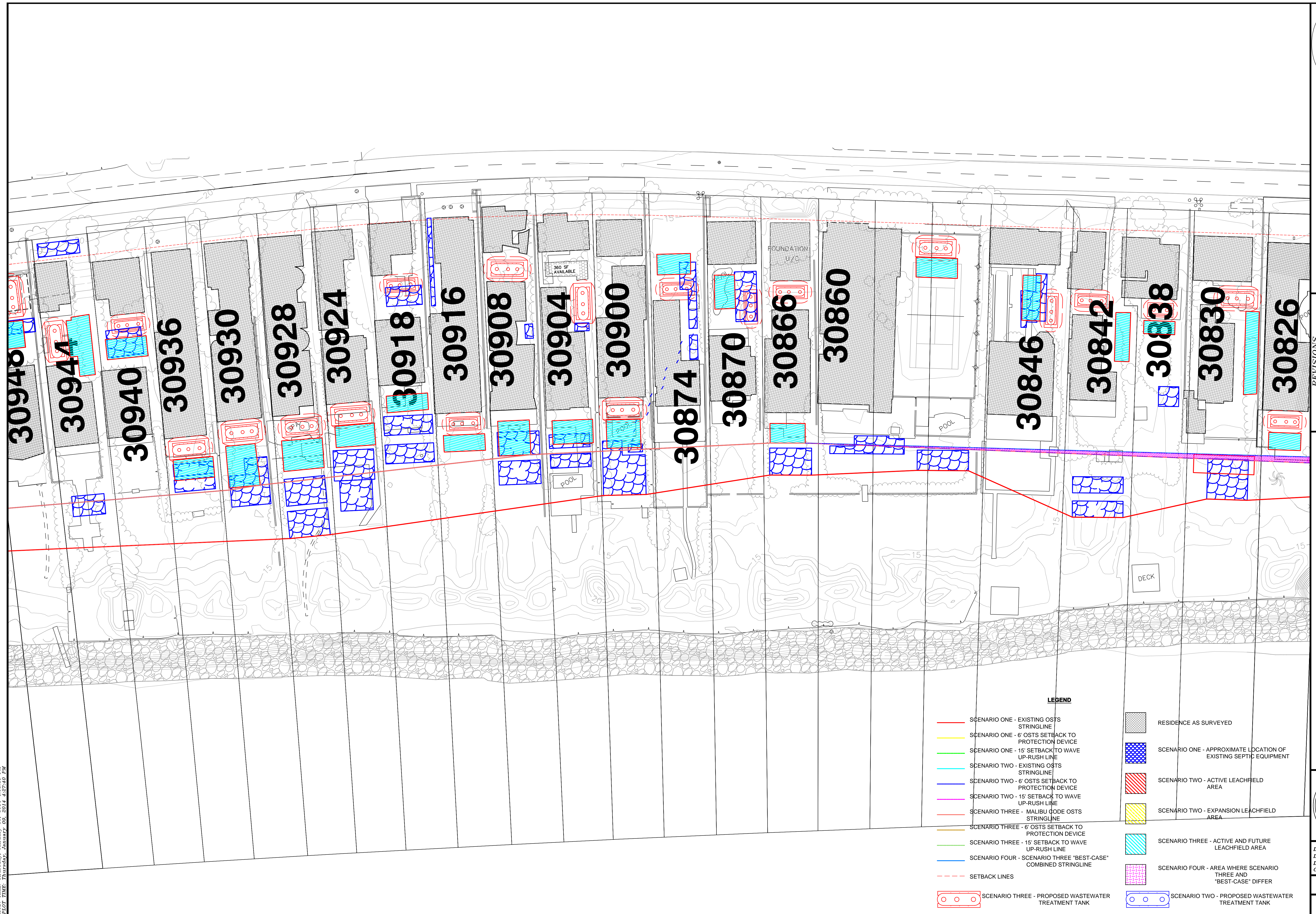
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**JOB NO. 563-01**  
**SHEET A22 OF A24**

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 DRG NAME: S:\Projects\Projects\563-01\_BroadBeachRestoration\Project-01.a.dwg  
 MOD. TIME: Thursday, January 09, 2014 4:08:21 PM  
 PLOT TIME: Thursday, January 09, 2014 4:27:40 PM



**LEGEND**

- SCENARIO ONE - EXISTING OSTs STRINGLINE
- SCENARIO ONE - 6' OSTs SETBACK TO PROTECTION DEVICE
- SCENARIO ONE - 15' SETBACK TO WAVE UP-RUSH LINE
- SCENARIO TWO - EXISTING OSTs STRINGLINE
- SCENARIO TWO - 6' OSTs SETBACK TO PROTECTION DEVICE
- SCENARIO TWO - 15' SETBACK TO WAVE UP-RUSH LINE
- SCENARIO THREE - MALIBU CODE OSTs STRINGLINE
- SCENARIO THREE - 6' OSTs SETBACK TO PROTECTION DEVICE
- SCENARIO THREE - 15' SETBACK TO WAVE UP-RUSH LINE
- SCENARIO FOUR - SCENARIO THREE 'BEST-CASE' COMBINED STRINGLINE
- SETBACK LINES
- ▨ SCENARIO THREE - PROPOSED WASTEWATER TREATMENT TANK
- ▨ SCENARIO TWO - PROPOSED WASTEWATER TREATMENT TANK
- ▨ RESIDENCE AS SURVEYED
- ▨ SCENARIO ONE - APPROXIMATE LOCATION OF EXISTING SEPTIC EQUIPMENT
- ▨ SCENARIO TWO - ACTIVE LEACHFIELD AREA
- ▨ SCENARIO TWO - EXPANSION LEACHFIELD AREA
- ▨ SCENARIO THREE - ACTIVE AND FUTURE LEACHFIELD AREA
- ▨ SCENARIO FOUR - AREA WHERE SCENARIO THREE AND 'BEST-CASE' DIFFER

**BROAD BEACH RESTORATION PROJECT**  
**SCENARIO FOUR - SHEET 05**  
**MALIBU, CALIFORNIA**

**REVISIONS**

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 CHECKED BY: JNY

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**563-01**

**SHEET**  
**A23 of A24**

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 PLOT TIME: Thursday, January 09, 2014 4:27:59 PM



- LEGEND**
- SCENARIO ONE - EXISTING OST'S STRINGLINE
  - SCENARIO ONE - 6' OST'S SETBACK TO PROTECTION DEVICE
  - SCENARIO ONE - 15' SETBACK TO WAVE UP-RUSH LINE
  - SCENARIO TWO - EXISTING OST'S STRINGLINE
  - SCENARIO TWO - 6' OST'S SETBACK TO PROTECTION DEVICE
  - SCENARIO TWO - 15' SETBACK TO WAVE UP-RUSH LINE
  - SCENARIO THREE - MALIBU CODE OST'S STRINGLINE
  - SCENARIO THREE - 6' OST'S SETBACK TO PROTECTION DEVICE
  - SCENARIO THREE - 15' SETBACK TO WAVE UP-RUSH LINE
  - SCENARIO FOUR - SCENARIO THREE 'BEST-CASE' COMBINED STRINGLINE
  - - - - - SETBACK LINES
  - ○ SCENARIO THREE - PROPOSED WASTEWATER TREATMENT TANK
  - ○ SCENARIO TWO - PROPOSED WASTEWATER TREATMENT TANK
  - RESIDENCE AS SURVEYED
  - SCENARIO ONE - APPROXIMATE LOCATION OF EXISTING SEPTIC EQUIPMENT
  - SCENARIO TWO - ACTIVE LEACHFIELD AREA
  - SCENARIO TWO - EXPANSION LEACHFIELD AREA
  - SCENARIO THREE - ACTIVE AND FUTURE LEACHFIELD AREA
  - SCENARIO FOUR - AREA WHERE SCENARIO THREE AND 'BEST-CASE' DIFFER

<b>REVISIONS</b>	
NO.	DATE BY
<p><b>BROAD BEACH RESTORATION PROJECT</b>  <b>SCENARIO FOUR - SHEET 06</b>  <b>MALIBU, CALIFORNIA</b></p>	
<p>DATE: 01-2014          DESIGNED BY: JNY          DRAWN BY: JNY          CHECKED BY: JNY</p>	
<p><b>JOB NO.</b>  <b>563-01</b></p>	
<p><b>SHEET</b>  <b>A18 of A24</b></p>	

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## APPENDIC A2

OSTS Design Summary Table (Malibu Code)  
OSTS Design Summary Table (LCP/LIP)

**OSTS DESIGN SUMMARY TABLE (LCP/Malibu Code Comparison)**

Address	Number of Bedrooms	Wastewater Flow in Gallons per Day Malibu Code (gpd)	Wastewater Flow in Gallons per Day (LCP 18.7.N) (gpd)	OSTS Treatment Required Malibu Code	OSTS Treatment Required LCP	OSTS Dispersal Application Rate Malibu Code (gpd/sf)	OSTS Dispersal Application Rate (LCP 18.7.O) (gpd/sf)	Active Leachfield Area Required in Square Feet Malibu Code (sf)	Active Leachfield Area Required in Square Feet (LCP 18.7.O) (sf)	Total Leachfield Area Required in Square Feet Future in same location as Active Malibu Code (sf)	Total Leachfield Area Required in Square Feet (LCP 18.7.O) (sf)
		$nB$	$QT=QB(nB+1)$	$QT'=QB(nB)$			DA	DA'	AA=QT/DA	AA'=QT'/DA'	AT=AA
31284	4	750	1,200	ES12	ES12	2	1.2	375	1,000	375	2,000
31260	6	1,050	1,800	ES12	ES25	2	1.2	525	1,500	525	3,000
31228	3	600	900	ES6	ES12	2	1.2	300	750	300	1,500
31122	5	900	1,500	ES12	ES25	2	1.2	450	1,250	450	2,500
31118	5	900	1,500	ES12	ES25	2	1.2	450	1,250	450	2,500
31108	5	900	1,500	ES12	ES25	2	1.2	450	1,250	450	2,500
31064	6	1,050	1,800	ES12	ES25	2	1.2	525	1,500	525	3,000
31054	5	900	1,500	ES12	ES25	2	1.2	450	1,250	450	2,500
31042	6	1,050	1,800	ES12	ES25	2	1.2	525	1,500	525	3,000
31030	4	750	1,200	ES12	ES12	2	1.2	375	1,000	375	2,000
31020	6	1,050	1,800	ES12	ES25	2	1.2	525	1,500	525	3,000
31000	5	900	1,500	ES12	ES25	2	1.2	450	1,250	450	2,500
30980	4	750	1,200	ES12	ES12	2	1.2	375	1,000	375	2,000
30966	6	1,050	1,800	ES12	ES25	2	1.2	525	1,500	525	3,000
30860	5	900	1,500	ES12	ES25	2	1.2	450	1,250	450	2,500