

# SURFSIDE SEAWALL DESIGN

## CARLYLE AVENUE

## TOWN OF SURFSIDE, FLORIDA

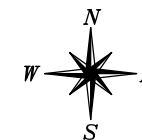
PROJECT No: 12-5247  
125247-01-T1-CVR.dwg

### INDEX OF PLANS

SHEET NO.	SHEET DESCRIPTION
G1	COVER SHEET
G2	GENERAL NOTES
C1	SEAWALL PLAN
C2	PLAN AND ELEVATION DETAILS
C3	CROSS SECTIONS AND DETAILS
C4	POLLUTION PREVENTION DETAILS



LOCATION MAP  
SECTION 35 TWP. 52 S RNG. 42 E N.T.S.



### TOWN OFFICIALS

MAYOR: DANIEL DIETCH  
 COMMISSIONERS: MICHAEL KARUKIN  
 JOE GRAUBART  
 MICHELLE KLIGMAN  
 MARTA OLCHYK  
 TOWN MANAGER: MICHAEL CROTTY

### NOTES:

- RESPONSIBILITY FOR THE USE OF THESE PLANS FOR ANY PURPOSE PRIOR TO SECURING PERMITS FROM ALL AGENCIES HAVING JURISDICTION OVER THIS PROJECT WILL FALL SOLELY UPON THE USER.
- AN ELECTRONIC CAD FILE WILL BE PROVIDED FOR SURVEY LAYOUT. SURVEYOR IS RESPONSIBLE FOR VERIFICATION OF ALL LOCATIONS IN ELECTRONIC FILE. CONSTRUCTION LAYOUT IS THE SOLE RESPONSIBILITY OF THE SURVEYOR, AND THE ELECTRONIC CAD FILE IS PROVIDED ONLY AS A GENERIC GUIDE.
- THE ELEVATIONS SHOWN ON THE DESIGN/CONSTRUCTION DRAWINGS ARE BASED ON THE NATIONAL GEODETIC VERTICAL DATUM (NGVD) 1929, UNLESS OTHERWISE NOTED.

### BENCHMARK:

SEE SHEET G2 FOR BENCHMARK INFORMATION.

### SHOP DRAWINGS TO BE SUBMITTED TO:

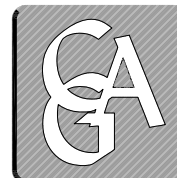
CALVIN, GIORDANO & ASSOCIATES, INC.  
 1800 ELLER DRIVE  
 SUITE 600  
 FORT LAUDERDALE, FL 33409  
 PHONE: 954-921-7781 FAX: 954-921-8807

File Name: P:\Projects\2012\125247 Surfside Seawall Design\CADD Files\Drawings\Carlyle\125247-01-T1-CVR.dwg - (Plotted by: Curt Alexander on Thursday, May 01, 2014 10:32:06 AM)

PERMITTING AGENCIES	DATE SUBMITTED	CGA INITIALS	DATE APPROVED	PERMIT NUMBER
DRER (DEPARTMENT OF REGULATORY AND ECONOMIC RESOURCES), MIAMI - DADE COUNTY	07-15-13	DF	08-08-13	CJ-2012-0370
USACE (UNITED STATES ARMY CORPS OF ENGINEERS)	02-14-13	DF	02-28-13	SAJ-2012-03416(NW-RR)
FDEP (FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION)	02-14-13	DF	04-23-13	13-0316743-001,002

NO	DATE	REVISION	BY	NO	DATE	REVISION	BY

### PLANS PREPARED BY:



**Calvin, Giordano & Associates, Inc.**  
 EXCEPTIONAL SOLUTIONS™

1800 Eller Drive, Suite 600, Fort Lauderdale, Florida 33316  
 Phone: 954.921.7781 • Fax: 954.921.8807

CERTIFICATE OF AUTHORIZATION 514

### FOR BIDDING PURPOSES ONLY

CURRENT REV No.: - - - - -	DAVID W. FRODSHAM, P.E. STATE OF FLORIDA PROFESSIONAL ENGINEER LICENSE No. 75507	SHEET 1
DATE: 4/30/2014		<b>G1</b>
		OF 6



**NOTES**

1. THE BENCHMARK DATUM FOR THIS PROJECT IS NGVD 1929. THE BENCHMARK OF ORIGIN IS A DISK SET IN A LIGHT STRUCTURE WITH STAMPING T 243 1965. AT SURFSIDE, ABOUT 100 YARDS WEST OF THE INTERSECTION OF SURFSIDE BOULEVARD AND BAY DRIVE, SET ON THE TOP OF THE EAST END OF THE NORTH CONCRETE GUARDRAIL OF A BRIDGE OVER INDIAN CREEK WHICH LEADS WESTERLY TO INDIAN CREEK VILLAGE AND INDIAN CREEK GOLF COURSE, 21 FEET WEST OF THE WEST WALL OF THE GUARD HOUSE WHICH IS LOCATED AT THE EAST END OF THE BRIDGE, 0.6 FOOT EAST OF THE FIRST LARGE CONCRETE POST IN THE BRIDGE GUARDRAIL WEST OF THE GUARD HOUSE AND ½ FOOT ABOVE THE LEVEL ROADWAY. THE ELEVATION IS 12.965 FEET (NGVD 29).
2. CONTRACTOR SHALL RESTORE ANY ADJACENT AREAS DAMAGED DURING CONSTRUCTION TO THEIR ORIGINAL CONDITION OR BETTER AT NO ADDITIONAL COST TO THE CONTRACT.
3. THE LOCATIONS OF THE EXISTING UTILITIES SHOWN IN THE PLANS ARE BASED ON LIMITED INVESTIGATION TECHNIQUES AND SHOULD BE CONSIDERED APPROXIMATE ONLY. THE VERIFIED LOCATIONS / ELEVATIONS APPLY ONLY AT THE POINT SHOWN. INTERPOLATIONS BETWEEN THESE POINTS HAVE NOT BEEN VERIFIED. UTILITIES SHALL REMAIN UNLESS OTHERWISE NOTED. NOT ALL UTILITIES WITHIN THE VICINITY OF THE PROJECT ARE DEPICTED. AERIAL UTILITIES EXIST IN PROXIMITY OF PROJECT SITE.
4. THE CONTRACTOR SHALL NOTIFY THE APPROPRIATE UTILITY COMPANY A MINIMUM OF 2 BUSINESS DAYS IN ADVANCE OF ANY EXCAVATION INVOLVING ITS UTILITIES IN ORDER THAT A COMPANY REPRESENTATIVE CAN BE PRESENT.
 

UTILITY OWNERS/CONTACT PERSON:

KARIM ROSSY	CITY OF NORTH MIAMI BEACH PUBLIC UTILITIES	305-948-2967 Ext: 7962
LEONARD MAXWELL-NEUBOLD	COMCAST CABLE	954-447-8405
AURELIO DEL VALLE	PUBLIC WORKS - MDC	305-592-8925 Ext: 258
TRACY STERN	FLORIDA POWER & LIGHT	800-868-9554
SEYED HAJASSADOLLAH	FLORIDA POWER & LIGHT (TRANSMISSION)	305-228-5290
DAVID MCBRIDE	ATLANTIC COMMUNICATIONS	305-861-8069 Ext: 3204
YVONNE GOLDMAN	TECO PEOPLES GAS - SOUTH FLORIDA	954-453-0824
STEVE MASSIE	ATT/DISTRIBUTION	305-222-8745

THE CONTRACTOR SHALL VERIFY IF OTHER UTILITIES NOT SHOWN IN PLANS EXIST WITHIN THE AREA OF CONSTRUCTION. SHOULD UTILITY CONFLICTS ARISE, THE CONTRACTOR SHALL INFORM THE ENGINEER, THE OWNER, AND THE UTILITY COMPANY OF THE CONFLICT.
5. ANY NAVD-88 OR NGVD-29 MONUMENT WITHIN THE LIMITS OF CONSTRUCTION IS TO BE PROTECTED. IF IN DANGER OF DAMAGE THE PROJECT ENGINEER SHALL NOTIFY:
 

NATIONAL GEODETIC INFORMATION SERVICES CENTER  
NOAA NATIONAL GEODETIC SURVEY, N/CG 17  
SSMC 3, STATION 09202  
SILVERSPRING, MARYLAND 20910  
TELEPHONE NO. (301) 713-3242
6. ANY PUBLIC LAND CORNER WITHIN THE LIMITS OF CONSTRUCTION IS TO BE PROTECTED.
7. THE CONTRACTOR SHALL NOTIFY THE TOWN OF SURFSIDE ENGINEERING REPRESENTATIVE, BOB MCSWEENEY, OF CALVIN, GIORDANO & ASSOCIATES, INC. AT 954-921-7781 30 DAYS IN ADVANCE OF COMMENCING CONSTRUCTION.
8. CONTRACTOR SHALL PROVIDE THE NAME AND PHONE NUMBER OF A RESPONSIBLE PERSON WHO WILL BE SUBJECT TO EMERGENCY CALLS 24 HOURS PER DAY, 7 DAYS PER WEEK.
9. THE CONTRACTOR SHALL NOT BRING ANY HAZARDOUS MATERIALS ON TO THE PROJECT. SHOULD CONTRACTOR REQUIRE SUCH FOR PERFORMING THE CONTRACTED WORK, THE CONTRACTOR SHALL REQUEST, IN WRITING, WRITTEN PERMISSION FROM THE PROJECT ENGINEER. THE CONTRACTOR SHALL PROVIDE A COPY OF THE REQUEST TO THE TOWN OF SURFSIDE ENGINEERING REPRESENTATIVE, BOB MCSWEENEY OF CALVIN, GIORDANO & ASSOCIATES INC. THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH A COPY OF THE MATERIAL SAFETY DATA SHEET (MSDS) FOR EACH HAZARDOUS MATERIAL PROPOSED FOR USE, AND PROVIDE A DESCRIPTION OF THE SPECIFIC MANNER IN WHICH THE MATERIAL WILL BE USED. THE PROJECT ENGINEER SHALL COORDINATE WITH THE TOWN ENGINEER PRIOR TO ISSUING WRITTEN APPROVAL TO THE CONTRACTOR. BECAUSE STATE LAW DOES NOT TREAT PETROLEUM PRODUCTS THAT ARE PROPERLY CONTAINERIZED AS HAZARDOUS MATERIALS, SUCH PRODUCTS DO NOT REQUIRE AN MSDS SUBMITTAL. ALL BULK PETROLEUM PRODUCTS STORED ON SITE SHALL REQUIRE PROPER STORAGE WHICH INCLUDES SECONDARY CONTAINMENT.
10. CONTRACTOR SHALL BE NPDES COMPLIANT PRIOR TO CONSTRUCTION ACTIVITIES.
11. EROSION CONTROL ITEMS WILL BE UTILIZED FOR PREVENTION, CONTROL, ABATEMENT OF EROSION, SEDIMENTATION, AND WATER POLLUTION. THESE ITEMS ARE TO BE USED AT THE LOCATIONS DESCRIBED IN THE CONTRACTOR'S APPROVED EROSION CONTROL PLAN OR AS DIRECTED BY THE PROJECT ENGINEER TO COMPLY WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS. ALL HAY BALES, ROCK BAGS,, TURBIDITY BARRIER, AND SILT FENCE SHALL BE REMOVED AT THE COMPLETION OF THE PROJECT.
12. LANDSCAPING EXISTS AT STREET END BUT HAS NOT BEEN DEPICTED ON THESE PLANS FOR CLARITY. CONTRACTOR IS RESPONSIBLE FOR VISITING SITE PRIOR TO BID TO VERIFY PATH OF ACCESS FOR EQUIPMENT TO SEAWALLS. AFTER CONSTRUCTION, CONTRACTOR IS TO RESTORE ANY DISTURBED LANDSCAPING TO EXISTING CONDITIONS OR BETTER. ALL DISTURBED GRASSED AREAS WITHIN THE PROJECT BOUNDARIES SHALL BE SODDED WITH ST. AUGUSTINE FLORATAM SOD.
13. WORK MUST BE PERFORMED FROM UPLANDS AT CARLYLE AVE.
14. THE CONTRACTOR SHALL COORDINATE SELECTION AND REVIEW OF ANY PROPOSED STAGING AREAS WITH THE TOWN OF SURFSIDE ENGINEERING REPRESENTATIVE, BOB MCSWEENEY, OF CALVIN, GIORDANO & ASSOCIATES, INC. AT 954-921-7781. STAGING AREAS AND STOCKPILES FOR MATERIAL AND EQUIPMENT SHALL NOT BE PLACED IN PROXIMITY TO SURFACE WATERS.
15. IF SUSPECT CONTAMINATED OR HAZARDOUS MATERIAL IS FOUND ON THE PROJECT, OR ENCOUNTERED DURING CONSTRUCTION, IMMEDIATELY NOTIFY THE TOWN OF SURFSIDE ENGINEERING REPRESENTATIVE, BOB MCSWEENEY, OF CALVIN, GIORDANO & ASSOCIATES, INC. AT 954-921-7781.
16. CONTRACTOR SHALL SUBMIT PLAN FOR APPROVAL TO PLACE FILTER FABRIC. THE FABRIC MUST BE IN CONTACT WITH THE SHEET PILE TO A DEPTH OF 2' BENEATH THE MUDDLINE. THE METHOD MUST DEMONSTRATE SUCCESSFUL ACCOMPLISHMENT TO THE SATISFACTION OF THE ENGINEER.
17. FILTER FABRIC SHALL BE MIRAFI 700X OR EQUAL WITH EQUIVALENT AOS, RUPTURE, WEIGHT, ABRASION RESISTANCE.
18. REINFORCING STEEL IN CONCRETE PANELS AND CAP SHALL BE MMFX.
19. EXISTING SEAWALL, INCLUDING BATTER PILES, KING PILES, CAP AND CONCRETE PANELS TO BE DEMOLISHED TO THE EXTENT NECESSARY FOR CONSTRUCTION. DEMOLISHED SEAWALL TO BE DISPOSED OF PROPERLY.
20. CONCRETE PILE INSTALLATION INCLUDING VERIFICATION OF DEPTH OF PILES REQUIRES SPECIAL GEOTECHNICAL INSPECTOR FROM THE TOWN OF SURFSIDE.
21. ONE BEAD OF RIPRAP (1'-3" DIA.) TO BE INSTALLED ALONG THE ENTIRE LENGTH OF SEAWALL SEGMENT FOR A TOTAL LENGTH OF 50 LINEAR FEET.
22. LANDSCAPING EXISTS AT STREET ENDS BUT IS NOT DEPICTED ON THESE PLANS FOR CLARITY. CONTRACTOR IS RESPONSIBLE FOR RESTORING LANDSCAPING DAMAGED DURING CONSTRUCTION TO PRE-EXISTING CONDITIONS.

File Name: P:\Projects\2012\125247 Surfside Seawall Design\CADD Files\Drawings\Carlyle\125247-02-G1-CNNTSRD01.dwg - (Plotted by: Curt Alexander on Thursday, May 01, 2014 10:34:47 AM)



FOR BIDDING PURPOSES ONLY

NO	DATE	REVISION	BY	NO	DATE	REVISION	BY

DESIGNED	D.F.
DATE	02-09-2013
CHECKED	D.F.
DATE	02-09-2013
ISSUED FOR	BIDDING
DATE	04-30-2014

**Calvin, Giordano & Associates, Inc.**  
EXCEPTIONAL SOLUTIONS™

560 Village Boulevard - Suite 340 - West Palm Beach, FL 33409  
Phone: 561.684.6161 • Fax: 561.684.6360

Certificate of Authorization 514

**SURFSIDE SEAWALL DESIGN  
CARLYLE AVENUE  
TOWN OF SURFSIDE, FLORIDA**

**GENERAL NOTES**

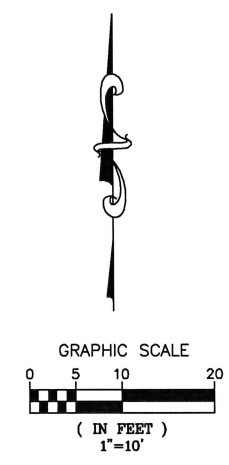
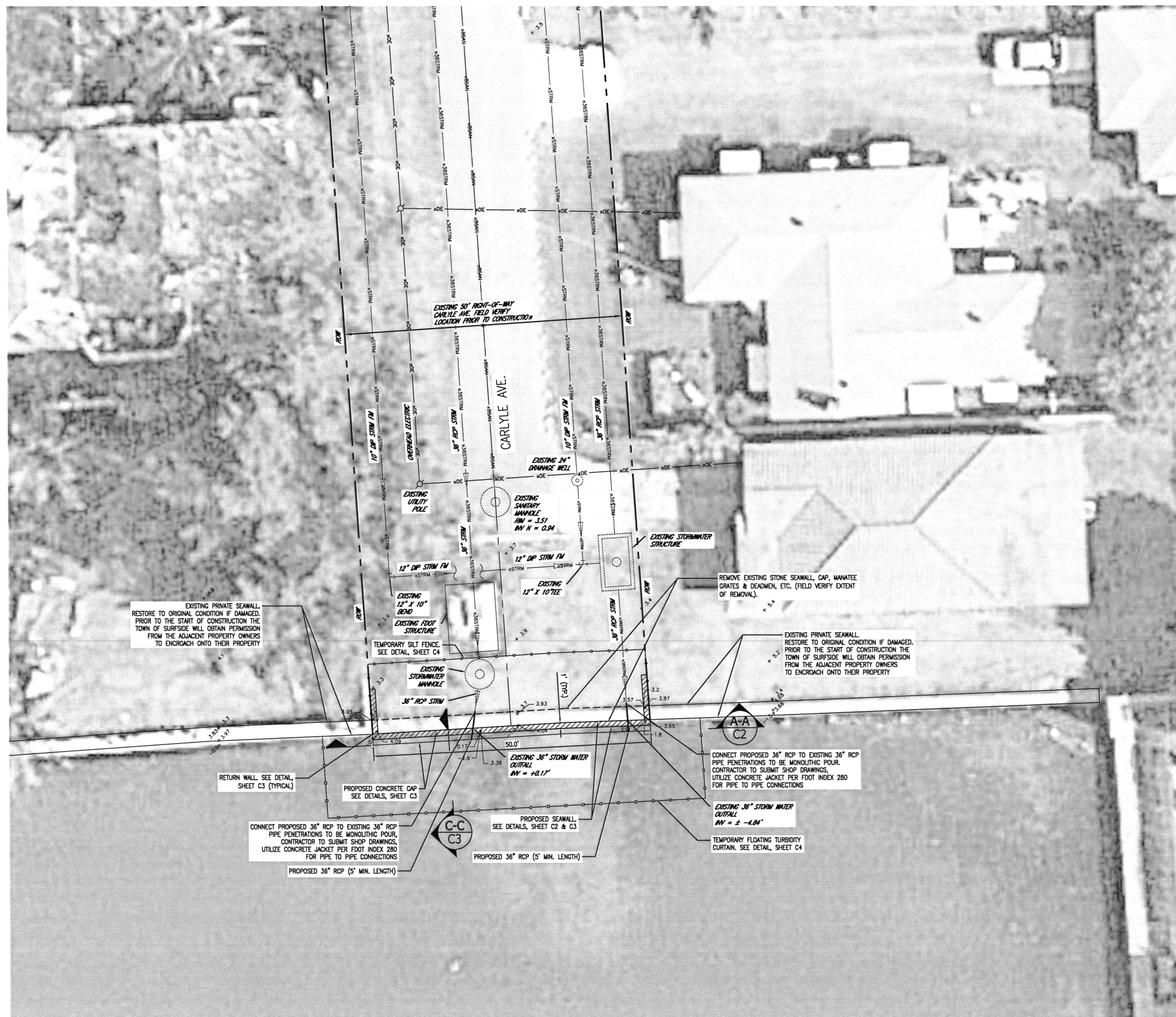
DAVID W. FRODSHAM, P.E.  
STATE OF FLORIDA PROFESSIONAL ENGINEER  
LICENSE No. 75507

DATE: 4/30/2014

SCALE	SHOWN ON DWG	SHEET: 2
PROJECT No	12-5247	<b>G2</b>
PURPOSE OF THIS SET	FOR BIDDING PURPOSES ONLY	6



File Name: P:\Projects\2012\25247 Surfside Seawall Design\CADD Files\Drawings\Carlyle\25247-03-C1-PLAN.dwg - (Plotted by: Curt Alexander on Thursday, May 01, 2014 10:17:38 AM)



- LEGEND**
- RIGHT OF WAY / PROPERTYLINE
  - EXISTING STORMWATER
  - EXISTING SANITARY SEWER
  - EXISTING OVERHEAD ELECTRIC
  - ⊕ EXISTING UTILITY POLE
  - PROPOSED STORMWATER
  - FLOATING TURBIDITY BARRIER
  - SILT FENCE
  - ▨ PROPOSED SEAWALL

- NOTE:**
1. ALL ELEVATIONS REFERENCED TO NATIONAL GEODETIC VERTICAL DATUM (NGVD) 1929.
  2. ALL WORK MUST BE PERFORMED FROM UPLANDS AT THIS LOCATION.
  3. LANDSCAPING EXISTS AT THIS STREET END BUT HAS NOT BEEN DEPICTED FOR CLARITY. CONTRACTOR IS RESPONSIBLE FOR RESTORING LANDSCAPING DAMAGED DURING CONSTRUCTION TO PRE-EXISTING CONDITIONS.

EXISTING PRIVATE SEAWALL RESTORE TO ORIGINAL CONDITION IF DAMAGED. PRIOR TO THE START OF CONSTRUCTION THE TOWN OF SURFSIDE WILL OBTAIN PERMISSION FROM THE ADJACENT PROPERTY OWNERS TO ENCROACH ONTO THEIR PROPERTY

EXISTING PRIVATE SEAWALL RESTORE TO ORIGINAL CONDITION IF DAMAGED. PRIOR TO THE START OF CONSTRUCTION THE TOWN OF SURFSIDE WILL OBTAIN PERMISSION FROM THE ADJACENT PROPERTY OWNERS TO ENCROACH ONTO THEIR PROPERTY

RETURN WALL SEE DETAIL, SHEET C3 (TYPICAL)

PROPOSED CONCRETE CAP SEE DETAILS, SHEET C3

CONNECT PROPOSED 36" RCP TO EXISTING 36" RCP PIPE PENETRATIONS TO BE MONOLITHIC POUR. CONTRACTOR TO SUBMIT SHOP DRAWINGS. UTILIZE CONCRETE JACKET PER FOOT INDEX 280 FOR PIPE TO PIPE CONNECTIONS

CONNECT PROPOSED 36" RCP TO EXISTING 36" RCP PIPE PENETRATIONS TO BE MONOLITHIC POUR. CONTRACTOR TO SUBMIT SHOP DRAWINGS. UTILIZE CONCRETE JACKET PER FOOT INDEX 280 FOR PIPE TO PIPE CONNECTIONS

EXISTING 36" STORM WATER OUTFALL  $NV = \pm -4.84'$

TEMPORARY FLOATING TURBIDITY CURTAIN, SEE DETAIL, SHEET C4

FOR BIDDING PURPOSES ONLY



NO	DATE	REVISION	BY	NO	DATE	REVISION	BY

DESIGNED D.F. 02-09-2013  
 CHECKED D.F. 02-09-2013  
 ISSUED FOR BIDDING DATE 04-30-2014

Calvin, Giordano & Associates, Inc.  
 EXCEPTIONAL SOLUTIONS™  
 560 Village Boulevard • Suite 340 • West Palm Beach, FL 33409  
 Phone: 561.694.6161 • Fax: 561.684.6360  
 Certificate of Authorization 514

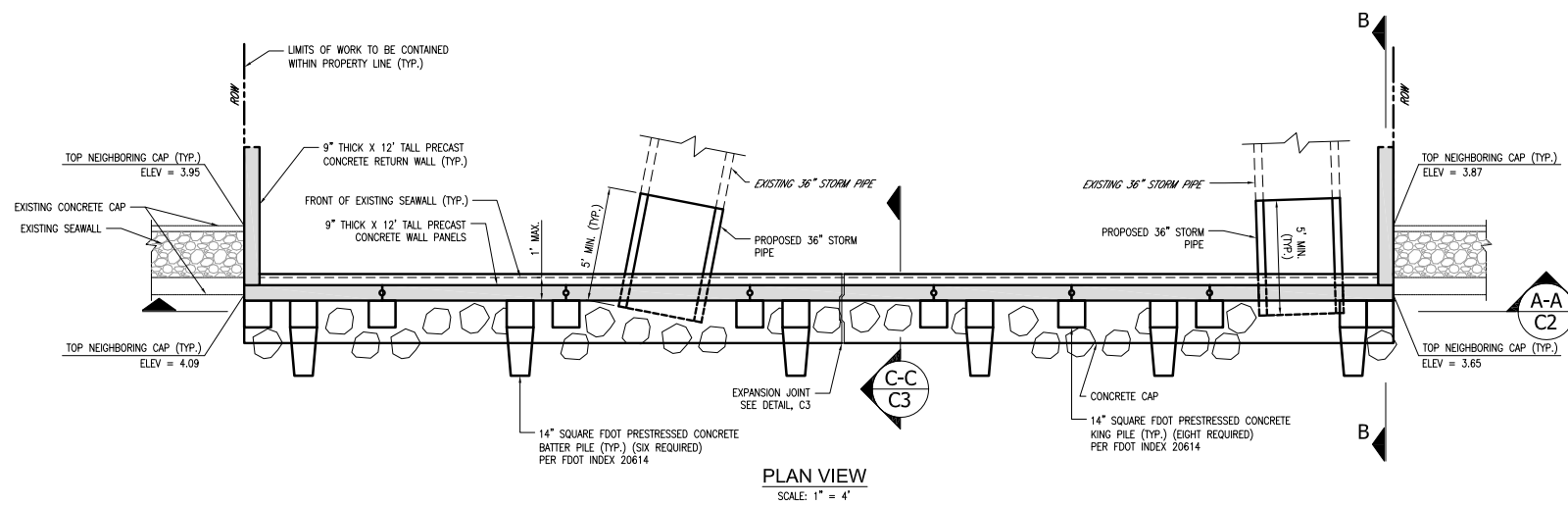
**SURFSIDE SEAWALL DESIGN  
 CARLYLE AVENUE  
 TOWN OF SURFSIDE, FLORIDA**

**SEAWALL PLAN**

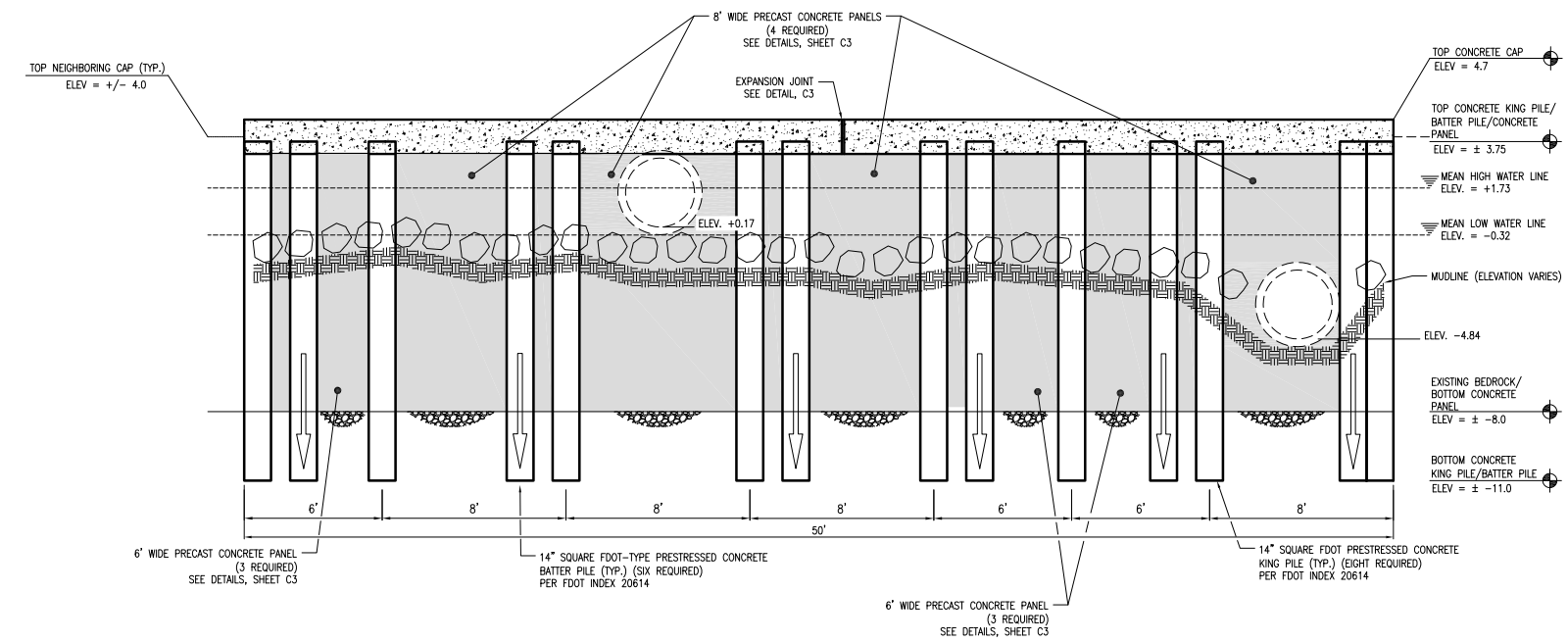
DAVID W. FRODSHAM, P.E.  
 STATE OF FLORIDA PROFESSIONAL ENGINEER  
 LICENSE No. 75507  
 DATE: 4/30/2014

SCALE	1" = 10'	SHEET:	3
PROJECT No	12-5247		<b>C1</b>
PURPOSE OF THIS SET	FOR BIDDING PURPOSES ONLY		6

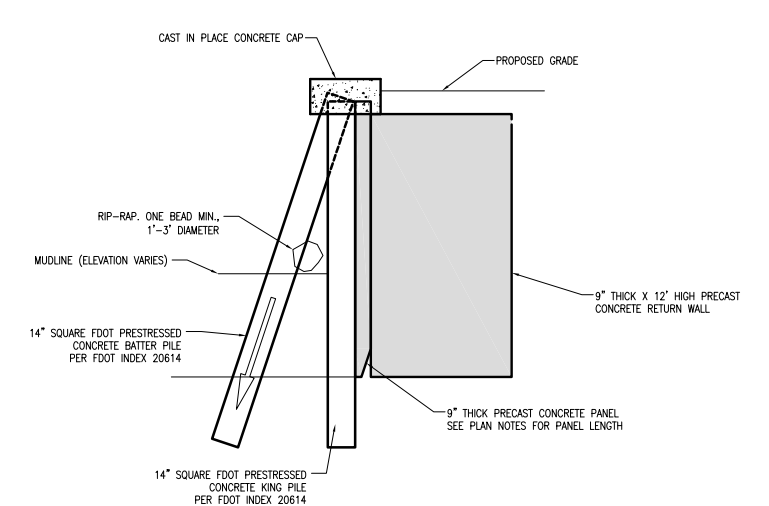
File Name: P:\Projects\2012\125247 Surfside Seawall Design\CADD Files\Drawings\Caryle\125247-04-C2-DTLS-ELEV-VIEW.dwg - (Plotted by: Curt Alexander on Thursday, May 01, 2014 10:24:44 AM)



**PLAN VIEW**  
SCALE: 1" = 4'



**SECTION A-A**  
SCALE: 1" = 4'



**SECTION B-B**  
SCALE: 1" = 4'

- CONSTRUCTION SEQUENCE**
1. STAKE OUT CONSTRUCTION AREA.
  2. INSTALL ENVIRONMENTAL PROTECTION BARRIERS.
  3. REMOVE EXISTING STONE SEAWALL.
  4. INSTALL PROPOSED PILE & PANEL SEAWALL WITH PRECAST RETURN WALL PANELS.
  5. INSTALL RIP RAP.



**FOR BIDDING PURPOSES ONLY**

NO	DATE	REVISION	BY	NO	DATE	REVISION	BY

DESIGNED DATE	D.F. 02-09-2013		<b>Calvin, Giordano &amp; Associates, Inc.</b> EXCEPTIONAL SOLUTIONS™ 560 Village Boulevard - Suite 340 - West Palm Beach, FL 33409 Phone: 561.684.6161 • Fax: 561.684.6360 Certificate of Authorization 514
CHECKED DATE	D.F. 02-09-2013		
ISSUED FOR DATE	BIDDING 04-30-2014		

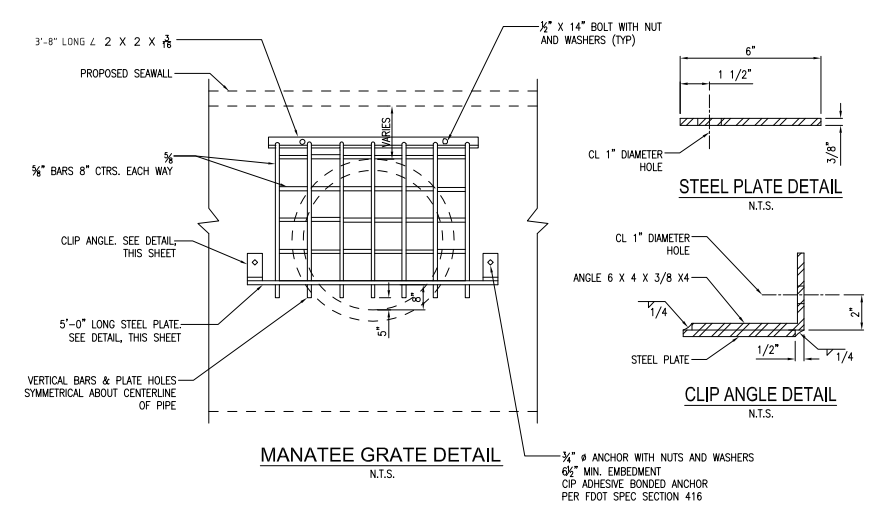
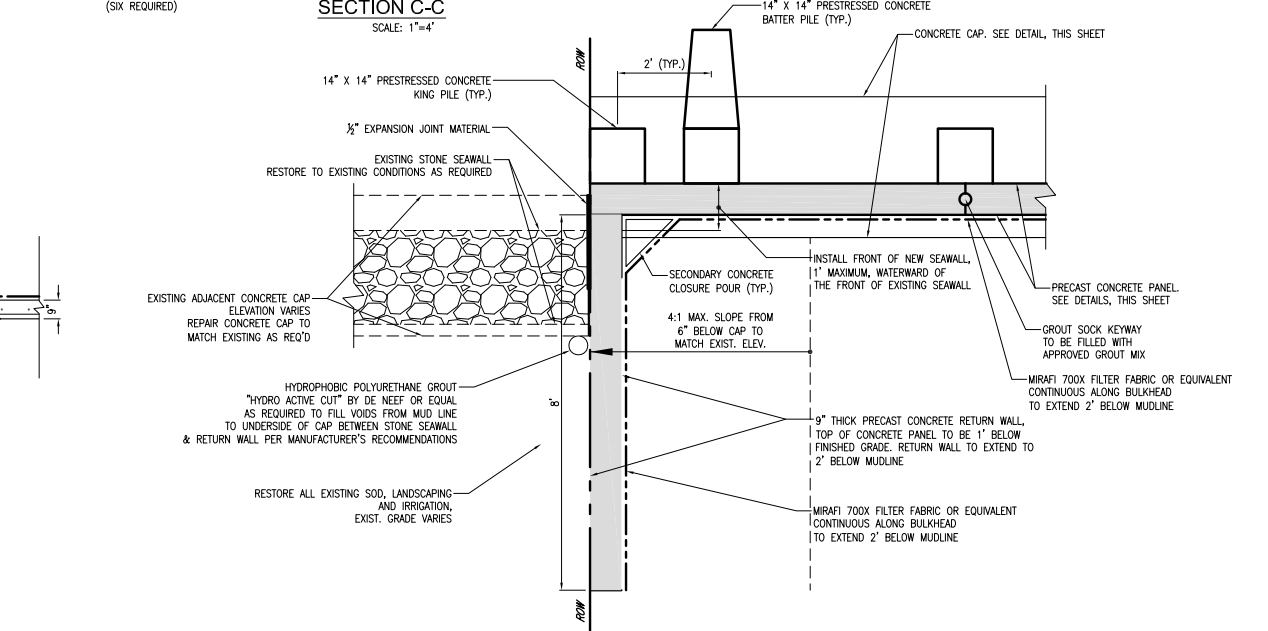
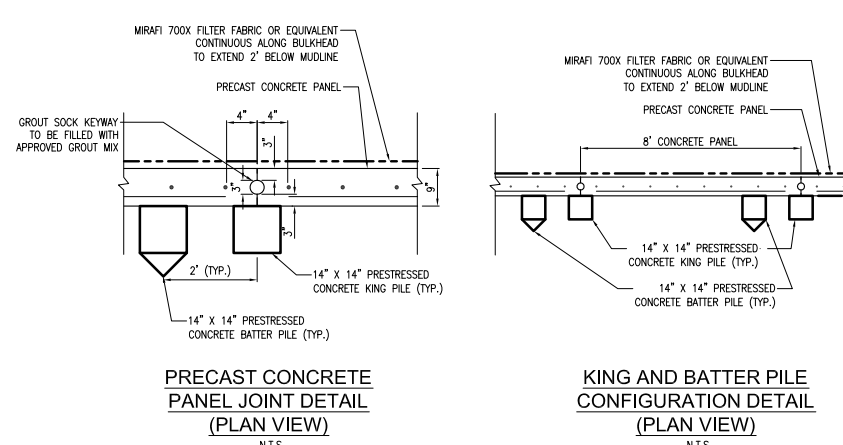
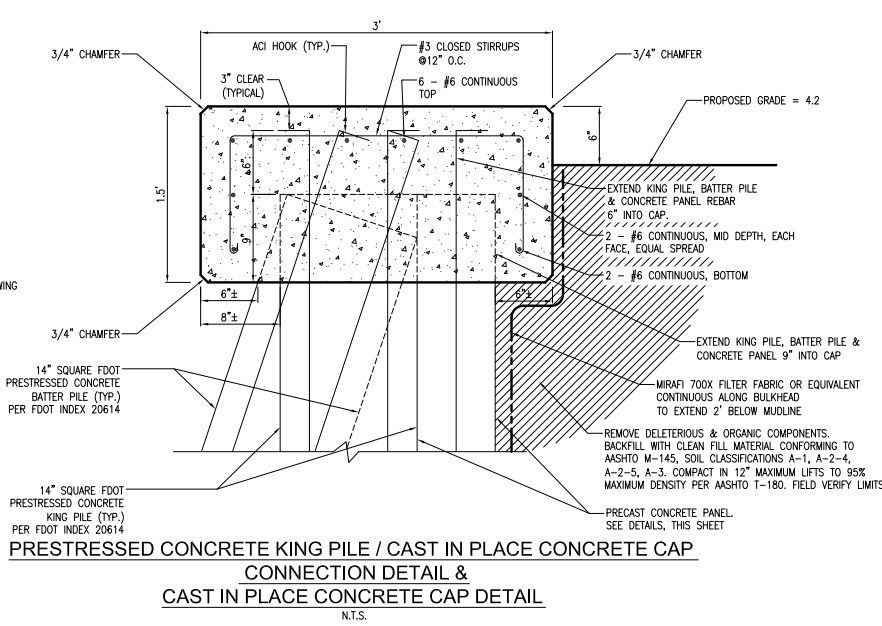
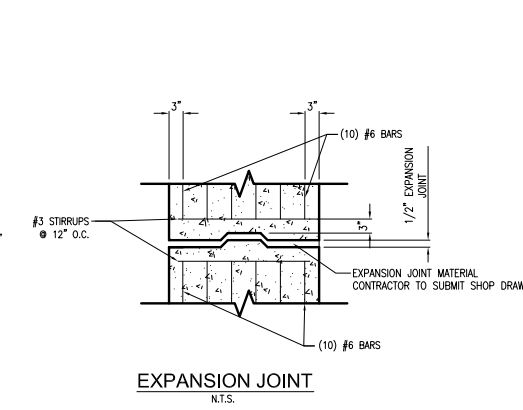
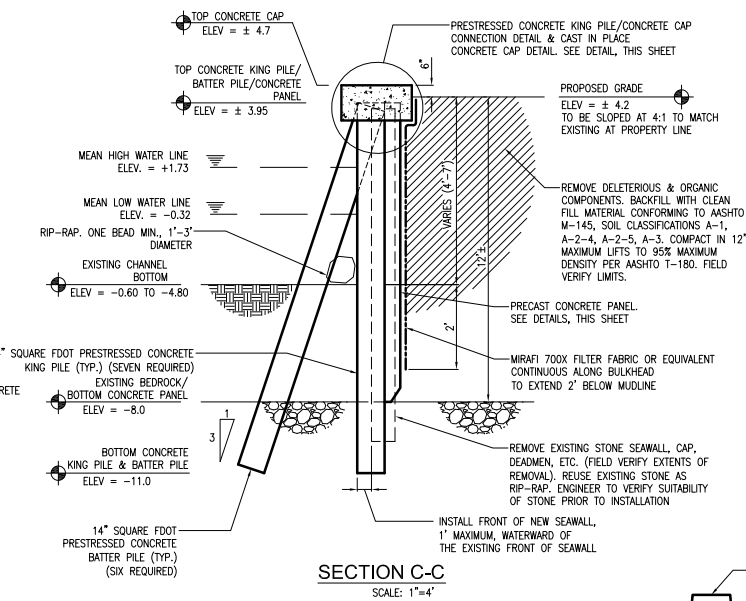
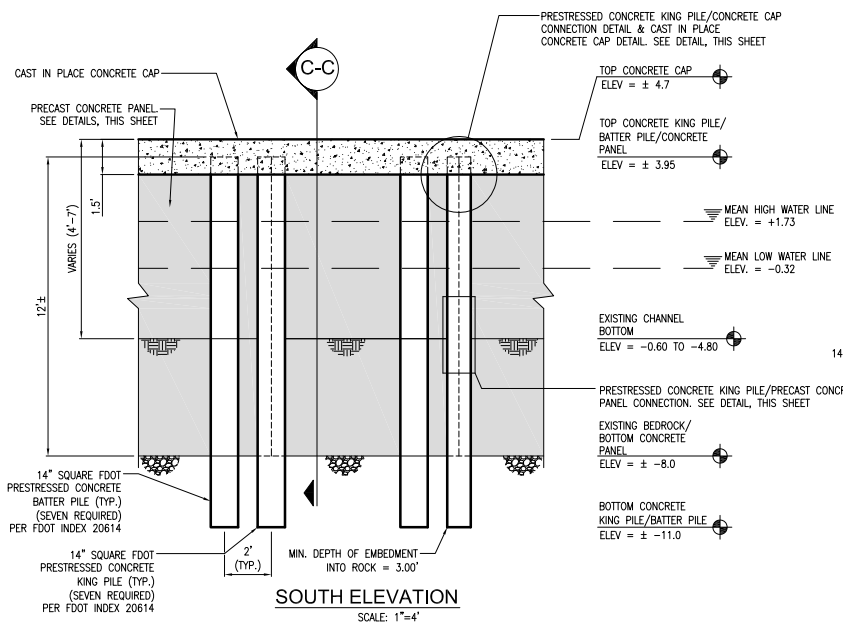
**SURFSIDE SEAWALL DESIGN**  
**CARLYLE AVENUE**  
**TOWN OF SURFSIDE, FLORIDA**

**PLAN AND ELEVATION DETAILS**

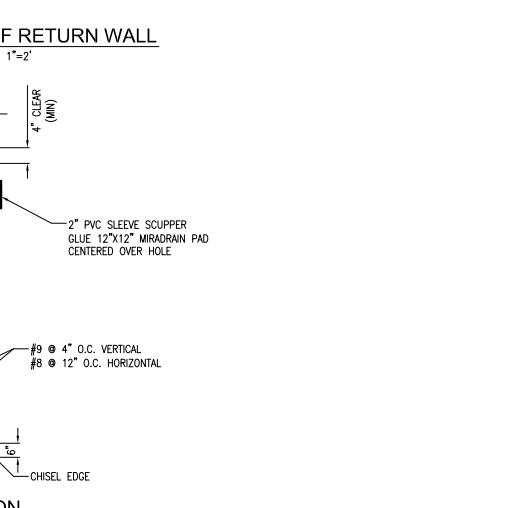
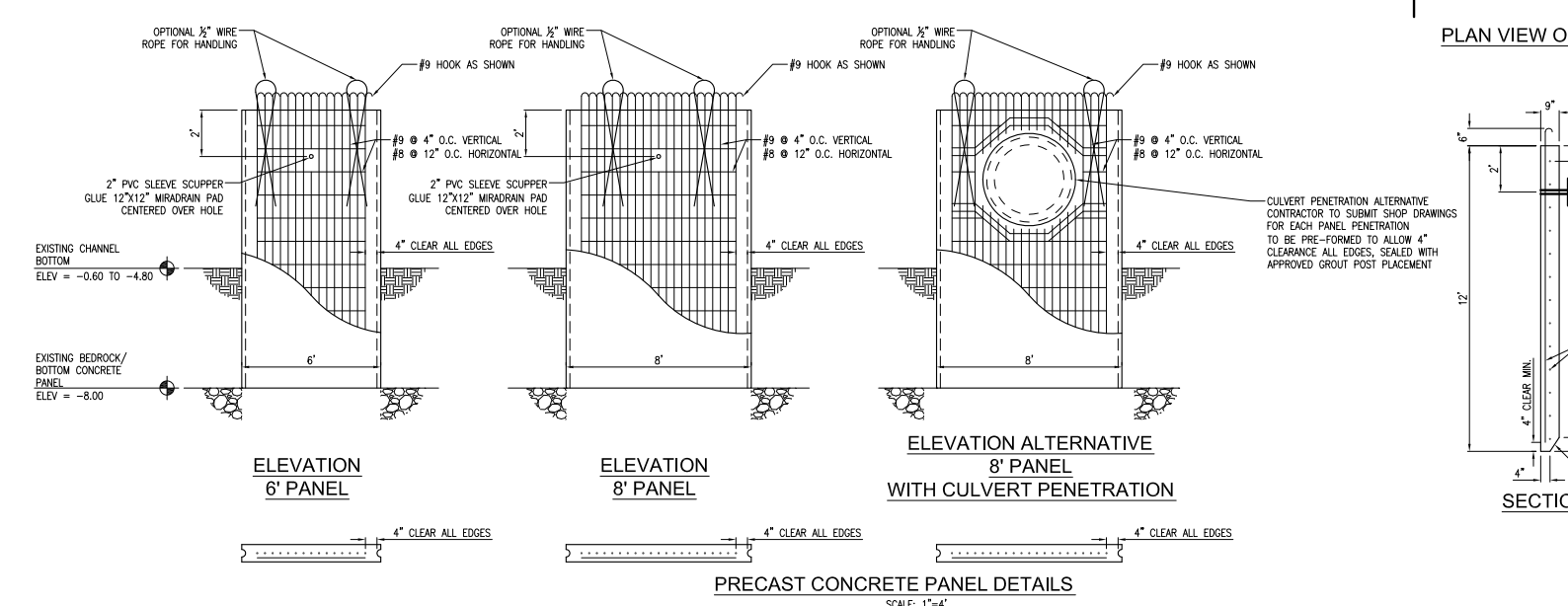
DAVID W. FRODSHAM, P.E.  
STATE OF FLORIDA PROFESSIONAL ENGINEER  
LICENSE No. 75507  
DATE: 4/30/2014

SCALE	SHOWN ON DWG	SHEET: 4
PROJECT No	12-5247	<b>C2</b>
PURPOSE OF THIS SET	FOR BIDDING PURPOSES ONLY	
		6

File Name: P:\Projects\2012\125247 Surfside Seawall Design\CADD Files\Drawings\Con\125247-05-06-C3-C4-DLS-SC-TNS.dwg (Plotted by: Curt Alexander on Thursday, May 01, 2014 10:26:44 AM)



- MANATEE GRATE NOTES:**
1. THE MANATEE GRATE SHOWN ABOVE IS A REPRESENTATIVE EXAMPLE OF AN ACCEPTABLE MANATEE GRATE. THE GRATE IS TO BE MODIFIED PER LOCATION TO MATCH FIELD CONDITIONS.
  2. CONTRACTOR IS TO MEASURE AND MODIFY GRATE TO MATCH FIELD CONDITIONS WHILE ABIDING BY THE FOLLOWING TO THE EXTENT PRACTICAL:
    - 2.1. SIZE REQUIREMENTS - ALL CULVERTS 8 INCHES TO 6 FEET IN DIAMETER MUST BE GRATED.
    - 2.2. MATERIAL - GRATES AND APPERTAINING HARDWARE TO BE MARINE GRADE QUALITY STEEL.
    - 2.3. GRATE BARS MUST BE MINIMUM 3/8" DIA. SPACED A MAXIMUM OF 8 INCHES APART TO EFFECTIVELY PREVENT MANATEE ACCESS.
    - 2.4. DIAGONAL, HORIZONTAL, OR VERTICAL GRATES MAY BE INSTALLED.
    - 2.5. GRATES MUST BE A PERMANENT FIXTURE AND NOT PART OF A WATER CONTROL STRUCTURE OR CULVERT.



NO	DATE	REVISION	BY	NO	DATE	REVISION	BY

DESIGNED	D.F.		<b>Calvin, Giordano &amp; Associates, Inc.</b> EXCEPTIONAL SOLUTIONS™ 560 Village Boulevard - Suite 340 - West Palm Beach, FL 33409 Phone: 561.684.6161 • Fax: 561.684.6360 Certificate of Authorization 514
DATE	02-09-2013		
CHECKED	D.F.		
DATE	02-09-2013		
ISSUED FOR	BIDDING		
DATE	04-30-2014		

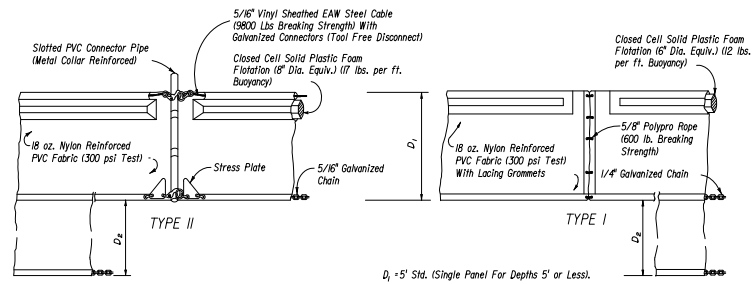
**SURFSIDE SEAWALL DESIGN**  
**CARLYLE AVENUE**  
**TOWN OF SURFSIDE, FLORIDA**

**CROSS SECTIONS AND DETAILS**

FOR BIDDING PURPOSES ONLY

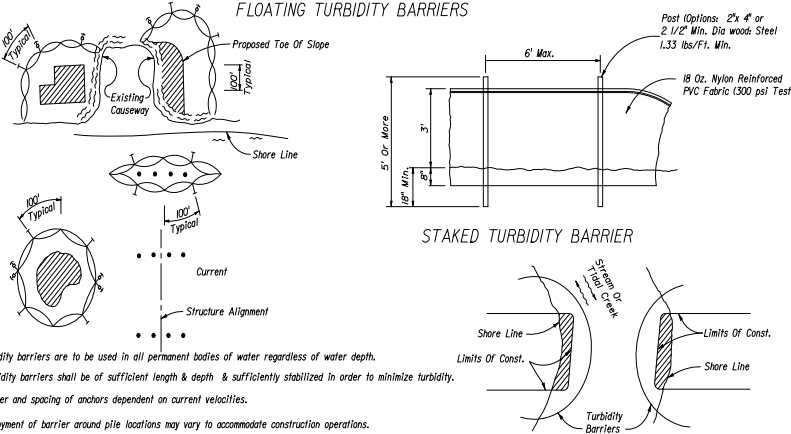
DAVID W. FROODSHAM, P.E. STATE OF FLORIDA PROFESSIONAL ENGINEER LICENSE NO. 75507	SCALE AS NOTED	SHEET: 5
DATE: 4/30/2014	PROJECT No 12-5247	<b>C3</b>
PURPOSE OF THIS SET FOR BIDDING PURPOSES ONLY		6

File Name: P:\Projects\2012\125247 Surfside Seawall Design\CADD Files\Drawings\Cad\125247-05-06-C3-C4-DLS-SCINS.dwg | Plotted by: Curt Alexander on Thursday, May 01, 2014 10:28:28 AM



NOTICE: COMPONENTS OF TYPES I AND II MAY BE SIMILAR OR IDENTICAL TO PROPRIETARY DESIGNS. ANY INFRINGEMENT ON THE PROPRIETARY RIGHTS OF THE DESIGNER SHALL BE THE SOLE RESPONSIBILITY OF THE USER. SUBSTITUTIONS FOR TYPES I AND II SHALL BE AS APPROVED BY THE ENGINEER.

$D_1 = 5'$  Std. (Single Panel For Depths 5' or Less).  
 $D_2 = 5'$  Std. (Additional Panel For Depths 5').  
 Curtains To Reach Bottom Up To Depths Of 10 Feet.  
 Two(2) Panels To Be Used For Depths Greater Than 10 Feet Unless Special Depth Curtains Specifically Called For In The Plans Or As Determined By The Engineer.



- NOTES:
1. Turbidity barriers are to be used in all permanent bodies of water regardless of water depth.
  2. Turbidity barriers shall be of sufficient length & depth & sufficiently stabilized in order to minimize turbidity.
  3. Number and spacing of anchors dependent on current velocities.
  4. Deployment of barrier around pile locations may vary to accommodate construction operations.
  5. Navigation may require segmenting barrier during construction operations.
  6. For additional information see Section 104 of the Standard Specifications.

**TURBIDITY BARRIER APPLICATIONS**

**GENERAL NOTES**

1. Floating turbidity barriers are to be paid for under the contract unit price for Floating Turbidity Barrier, LF.
2. Staked turbidity barriers are to be paid for under the contract unit price for Staked Turbidity Barrier, LF.

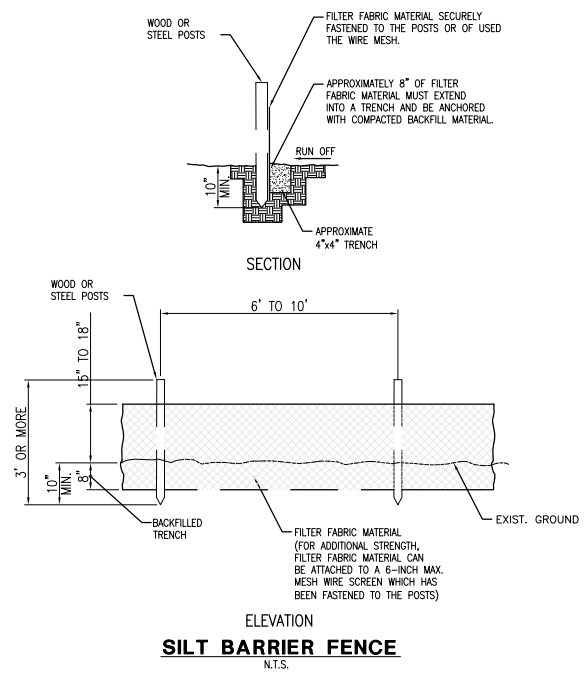
**WATER QUALITY**

1. Prior to construction and during all operations that may degrade water quality, the Contractor shall practise turbidity controls to prevent violations to the water quality standards as outlined in Chapter 62-302, F.A.C.

**TURBIDITY BARRIERS**  
N.T.S.

- LEGEND**
- Pile Locations
  - ▨ Dredge Or Fill Area
  - Mooring Buoy w/Anchor
  - Barrier Movement Due To Current Action

Note:  
Turbidity barriers for flowing streams and tidal creeks may be either floating, or staked types or any combinations of types that will suit site conditions and meet erosion control and water quality requirements. The barrier types will be at the Contractor's option unless otherwise specified in the plans, however payment will be under the pay items established in the plans for Floating Turbidity Barrier and/or Staked Turbidity Barrier. Posts in staked turbidity barriers to be installed in vertical position unless otherwise directed by the Engineer.



**SILT BARRIER FENCE**  
N.T.S.

FOR BIDDING PURPOSES ONLY



NO	DATE	REVISION	BY	NO	DATE	REVISION	BY

DESIGNED	D.F.	02-09-2013
CHECKED	D.F.	02-09-2013
ISSUED FOR BIDDING	04-30-2014	

**Calvin, Giordano & Associates, Inc.**  
EXCEPTIONAL SOLUTIONS™  
560 Village Boulevard • Suite 340 • West Palm Beach, FL 33409  
Phone: 561.684.6161 • Fax: 561.684.6360  
Certificate of Authorization 514

**SURFSIDE SEAWALL DESIGN**  
**CARLYLE AVENUE**  
**TOWN OF SURFSIDE, FLORIDA**

**STORM WATER**  
**POLLUTION PREVENTION DETAILS**

DAVID W. FRODSHAM, P.E.  
STATE OF FLORIDA PROFESSIONAL ENGINEER  
LICENSE No. 75507  
DATE: 4/30/2014

SCALE SHOWN ON DWG  
PROJECT No 12-5247  
PURPOSE OF THIS SET FOR BIDDING PURPOSES ONLY  
SHEET: 6  
**C4**  
6