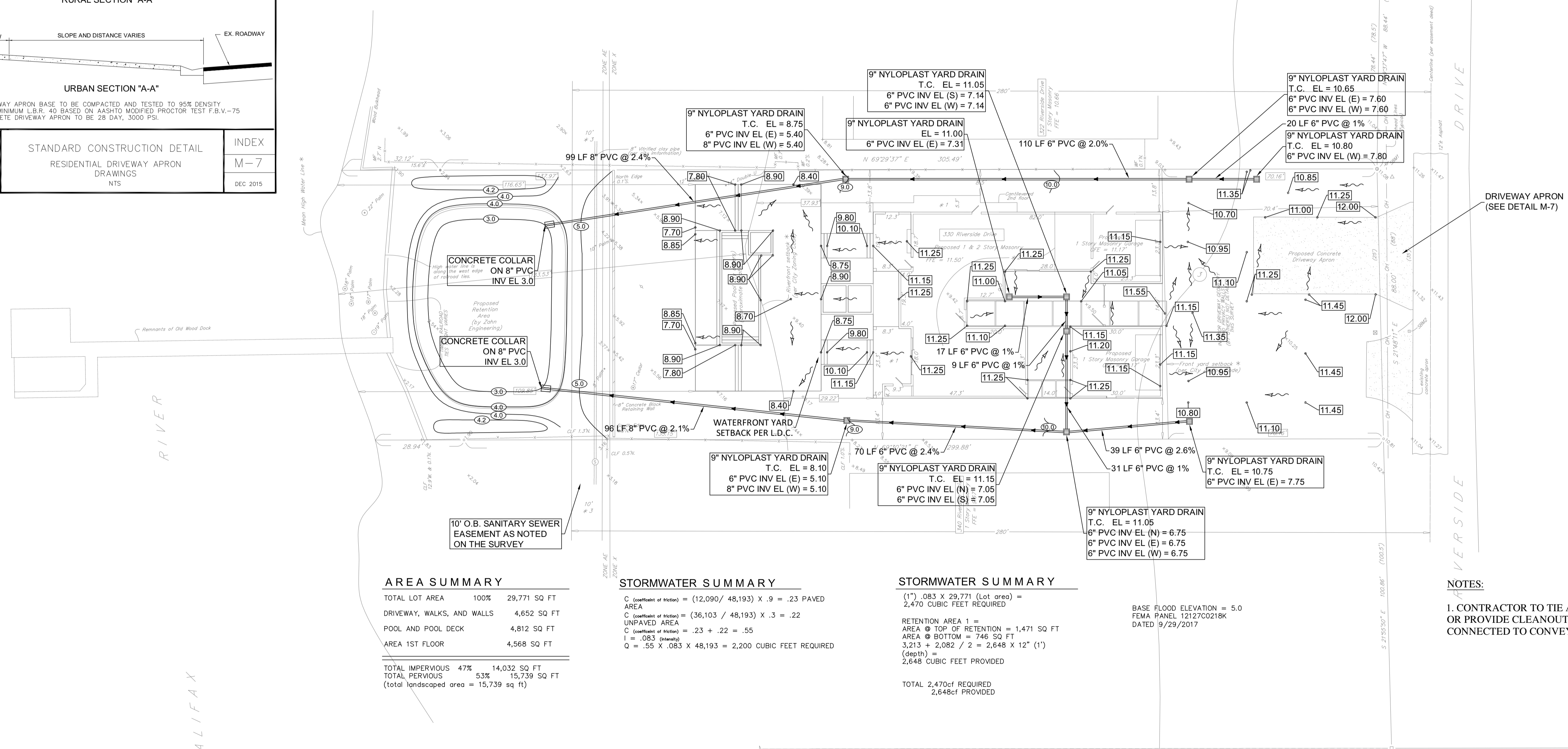
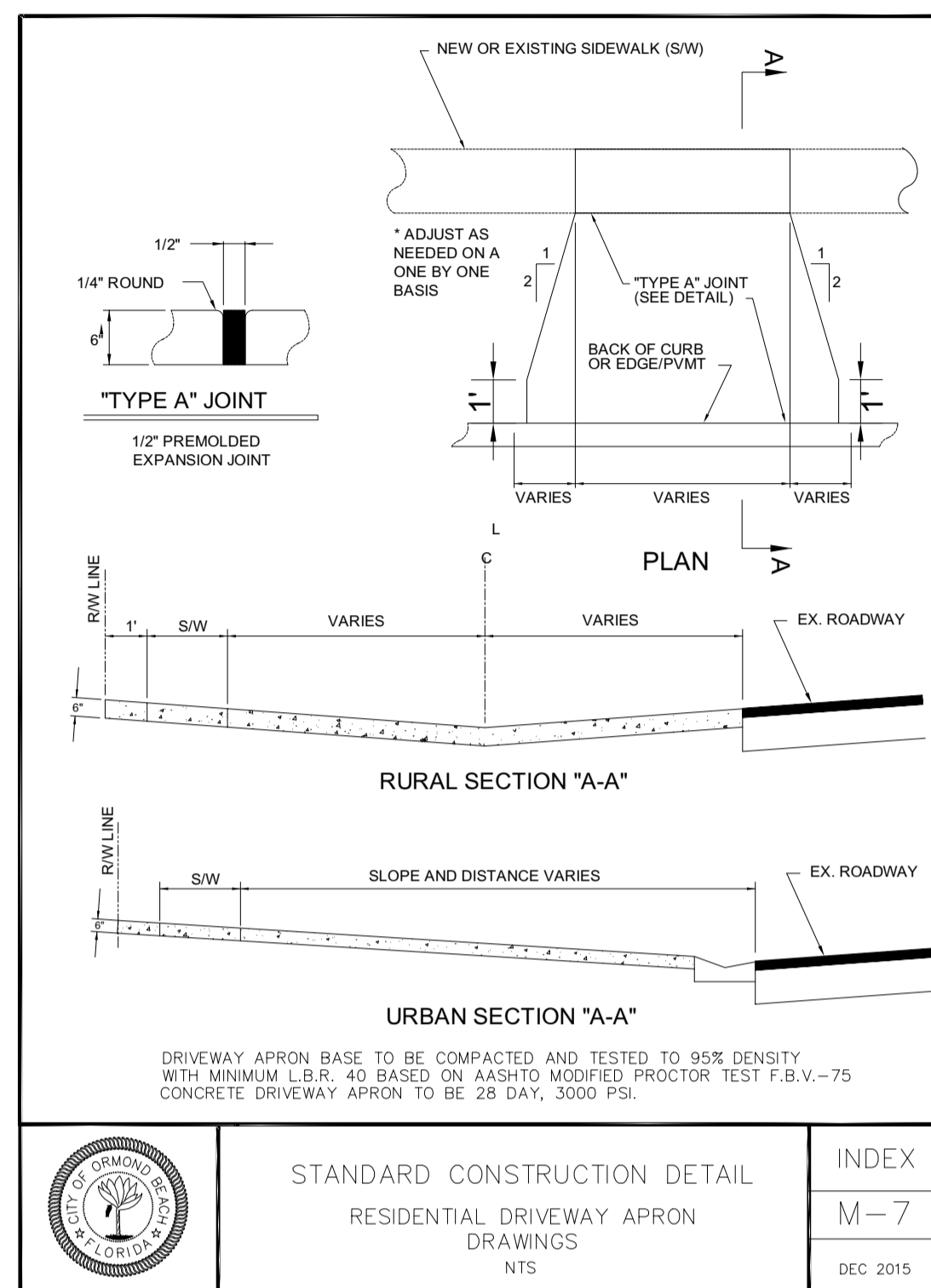
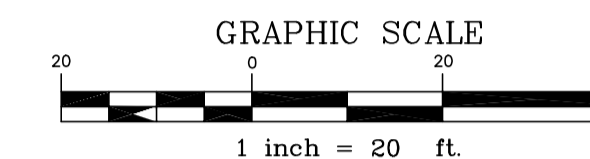
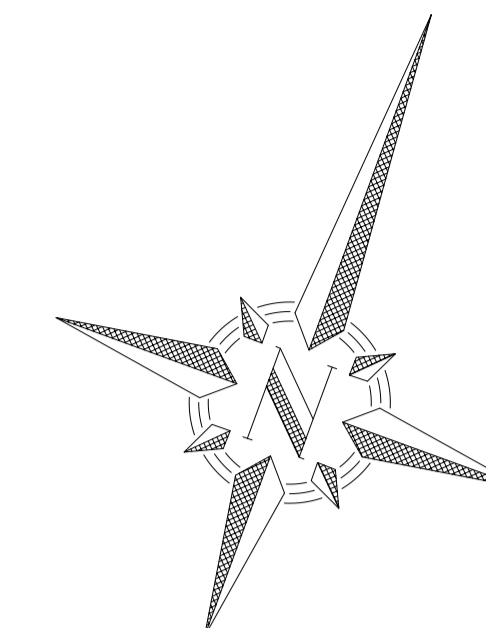


\*This does not grant permission to violate any applicable law, code or ordinance.

BP19-00003561

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07/17/19 04:36 P



**AREA SUMMARY**

|                            |      |  |
|----------------------------|------|--|
| TOTAL LOT AREA             | 100% | 29,771 SQ FT                           |
| DRIVEWAY, WALKS, AND WALLS |      | 4,652 SQ FT                            |
| POOL AND POOL DECK         |      | 4,812 SQ FT                            |
| AREA 1ST FLOOR             |      | 4,568 SQ FT                            |
| TOTAL IMPERVIOUS           | 47%  | 14,032 SQ FT                           |
| TOTAL PERVIOUS             | 53%  | 15,739 SQ FT                           |
|                            |      | (total landscaped area = 15,739 sq ft) |

**STORMWATER SUMMARY**

C (coefficient of retention) = (12,090 / 48,193) X .9 = .23 PAVED AREA  
 UNPAVED AREA C (coefficient of retention) = (36,103 / 48,193) X .3 = .22  
 C (coefficient of retention) = .23 + .22 = .55  
 I = .083 (Intensity)  
 Q = .55 X .083 X 48,193 = 2,200 CUBIC FEET REQUIRED

**STORMWATER SUMMARY**

(1') .083 X 29,771 (Lot area) = 2,470 CUBIC FEET REQUIRED  
 RETENTION AREA 1 = AREA @ TOP OF RETENTION = 1,471 SQ FT  
 AREA @ BOTTOM = 746 SQ FT  
 3,213 + 2,082 / 2 = 2,648 X 12" (1') (depth) = 2,648 CUBIC FEET PROVIDED  
 TOTAL 2,470cf REQUIRED  
 2,648cf PROVIDED

BASE FLOOD ELEVATION = 5.0  
 FEMA PANEL 12127C0218K  
 DATED 9/29/2017

**NOTES:**  
 1. CONTRACTOR TO TIE ALL DOWN SPOUTS INTO INLETS OR PROVIDE CLEANOUTS WHERE DOWNSPOUTS ARE CONNECTED TO CONVEYANCE PIPES.

| NO. | DATE     | APPROVED | REVISION DESCRIPTION                             |
|-----|----------|----------|--|
| 1   | 06-06-19 | JMZ      | REVISED PER ORMOND BEACH COMMENTS DATED 04-11-19 |

**Zahn Engineering, Inc.**  
 Civil Engineering • Land Planning • Permitting  
 244 South Palmetto Avenue - Daytona Beach, Florida 32114  
 Ph: (386) 252-0020 - Fax: (386) 252-6050  
 www.zahneng.com

|           |          |
|-----------|----------|
| DESIGNED: | RJM      |
| DRAWN:    | RJM/BMC  |
| CHECKED:  | JMZ      |
| DATE:     | 01-02-19 |
| FILE:     | 1842     |

**GRADING AND DRAINAGE PLAN**  
**THE DESAI RESIDENCE**  
 VOLUSIA COUNTY  
 330 RIVERSIDE DR. ORMOND BEACH, FL 32176

PROJECT NUMBER  
**1842**

NOT VALID WITHOUT EMBOSSED SEAL

Digitally signed by Peter A. Zahn, Jr., PE  
 Date: 2019.06.07  
 10:49:56 -04'00'

EB-0005290  
 FL P.E. NO. 19083 & 82269