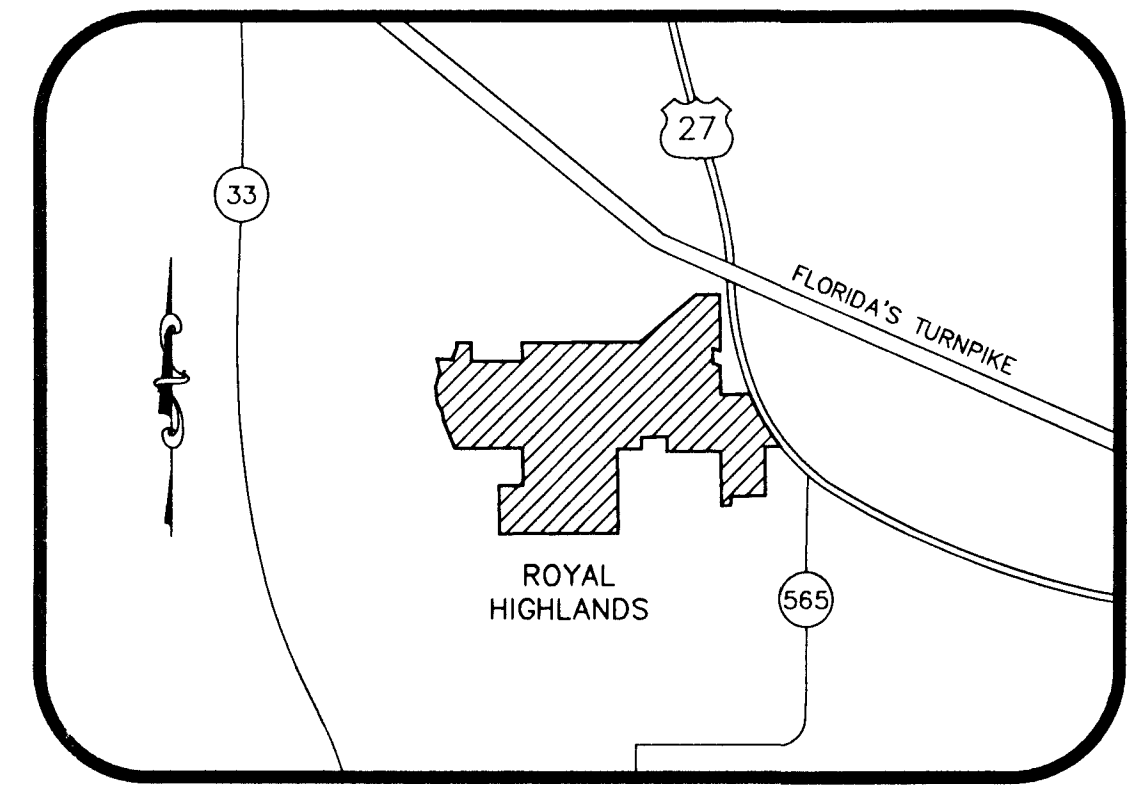
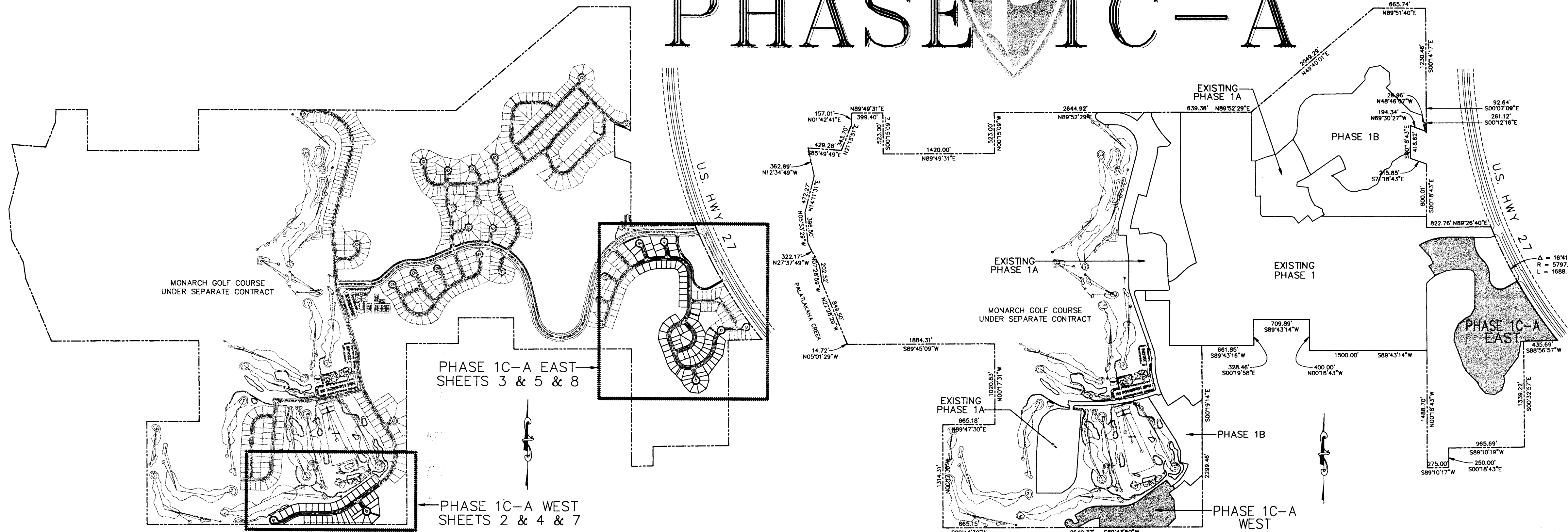




# ROYAL HIGHLANDS

## PHASE 1C-A



LOCATION MAP

INDEX OF SHEETS	
1	COVER SHEET
2-3	LOT LAYOUT PLANS
4-5	DRAINAGE/LOT GRADING PLANS
6	WATER RETENTION AREA DETAILS
7-8	UTILITY PLANS
9-12	DETAIL SHEETS
13-20	PLAN & PROFILE SHEETS

PHASE 1C-A - KEY PLAN

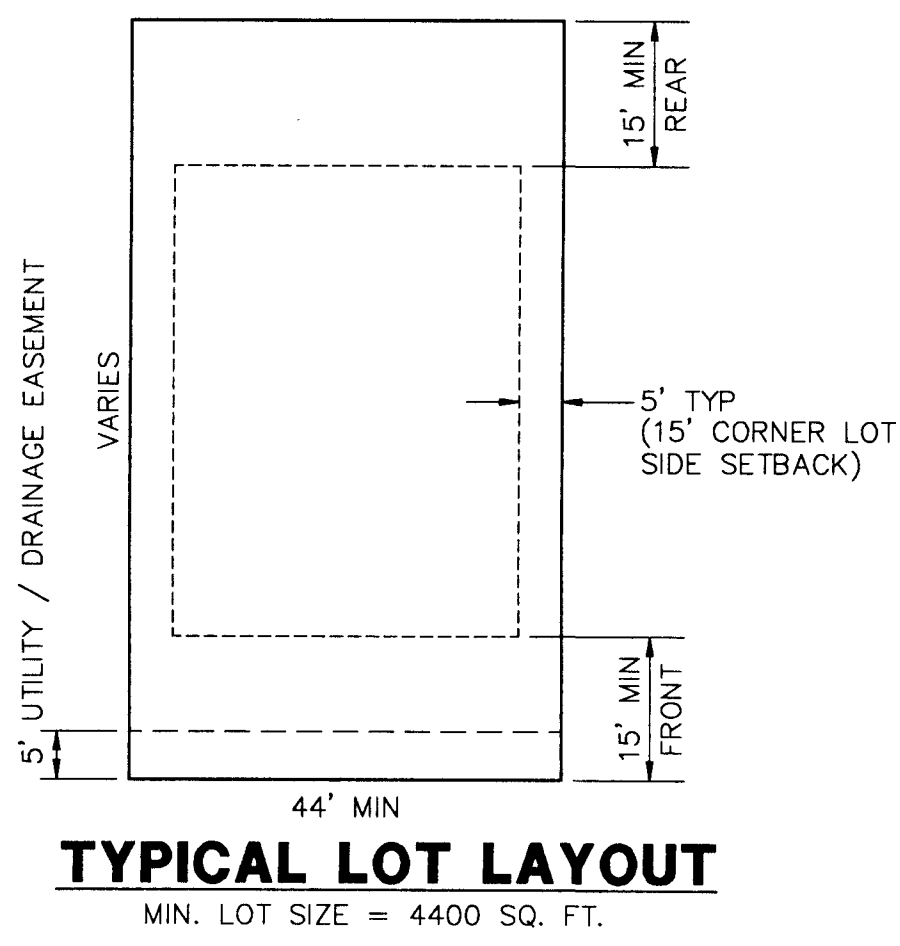
PHASE PLAN

### ROYAL HIGHLANDS LEGAL DESCRIPTION

THAT PART OF SECTIONS 12, 13, AND 14, OF TOWNSHIP 21 SOUTH, RANGE 24 EAST, IN LAKE COUNTY, FLORIDA, AND THAT PART OF SECTION 18, TOWNSHIP 21 SOUTH, RANGE 25 EAST, IN LAKE COUNTY, FLORIDA, BOUNDED AND DESCRIBED AS FOLLOWS:

BEGIN AT THE NORTHWEST CORNER OF SAID SECTION 13, TOWNSHIP 21 SOUTH, RANGE 24 EAST, AND RUN N.89°52'29"E. ALONG THE NORTH LINE OF THE N.W. 1/4 OF SAID SECTION 13 A DISTANCE OF 2644.92 FEET TO THE NORTHEAST CORNER OF THE N.W. 1/4 OF SAID SECTION 13; THENCE N.89°52'29"E. ALONG THE NORTH LINE OF THE N.E. 1/4 OF SAID SECTION 13 A DISTANCE OF 639.36 FEET; THENCE N.49°40'01"E., 2049.29 FEET TO A POINT ON THE NORTH LINE OF THE S.E. 1/4 OF THE S.E. 1/4 OF THE AFOREMENTIONED SECTION 12, TOWNSHIP 21 SOUTH, RANGE 24 EAST; THENCE N.89°51'40"E. ALONG THE NORTH LINE OF THE S.E. 1/4 OF THE S.E. 1/4 OF SAID SECTION 12 A DISTANCE OF 665.74 FEET TO A POINT ON THE EAST LINE OF THE S.E. 1/4 OF SAID SECTION 12; THENCE S.00°14'17"E. ALONG THE EAST LINE OF THE S.E. 1/4 OF SAID SECTION 12, TOWNSHIP 21 SOUTH, RANGE 25 EAST; THENCE S.00°07'09"E. ALONG THE EAST LINE OF THE S.E. 1/4 OF SAID SECTION 12 A DISTANCE OF 92.64 FEET TO THE SOUTHEAST CORNER OF SAID SECTION 12, SAID POINT ALSO BEING THE NORTHEAST CORNER OF THE AFOREMENTIONED SECTION 13; THENCE S.00°12'16"E. ALONG THE EAST LINE OF THE N.E. 1/4 OF SAID SECTION 13 A DISTANCE OF 261.12 FEET; THENCE N.48°46'07"W., 29.96 FEET; THENCE N.69°30'27"W., 194.34 FEET; THENCE S.00°18'43"E., 418.62 FEET; THENCE S.71°18'43"E., 215.85 FEET TO A POINT ON THE EAST LINE OF THE N.E. 1/4 OF THE AFOREMENTIONED SECTION 13; THENCE S.00°18'43"E. ALONG THE EAST LINE OF THE N.E. 1/4 OF SAID SECTION 13 A DISTANCE OF 800.01 FEET TO A POINT ON THE SOUTH LINE OF THE NORTH 1200 FEET OF GOVERNMENT LOT 1 OF THE AFOREMENTIONED SECTION 18, TOWNSHIP 21 SOUTH, RANGE 25 EAST; THENCE N.89°26'40"E. ALONG THE SOUTH LINE OF THE NORTH 1200 FEET OF SAID GOVERNMENT LOT 1 A DISTANCE OF 822.76 FEET TO A POINT ON THE SOUTHWESTERLY RIGHT-OF-WAY LINE OF U.S. HIGHWAY NO. 27, SAID POINT BEING ON A CURVE CONCAVE NORTHEASTERLY AND HAVING A RADIUS OF 5797.65 FEET AND A RADIAL BEARING OF S.67°45'52"W. THENCE SOUTHEASTERLY ALONG THE ARC OF SAID CURVE AND SAID SOUTHWESTERLY RIGHT-OF-WAY LINE THROUGH A CENTRAL ANGLE OF 16°41'09" AN ARC LENGTH OF 1688.41 FEET TO A POINT ON THE SOUTH LINE OF GOVERNMENT LOT 2 IN THE AFOREMENTIONED SECTION 18, TOWNSHIP 21 SOUTH, RANGE 25 EAST; THENCE S.88°56'57"W. ALONG THE SOUTH LINE OF SAID GOVERNMENT LOT 2 A DISTANCE OF 435.69 FEET TO A POINT ON THE EAST LINE OF THE WEST 1/2 OF GOVERNMENT LOT 3 OF SAID SECTION 18; THENCE S.00°32'52"E. ALONG THE EAST LINE OF THE WEST 1/2 OF GOVERNMENT LOT 3 A DISTANCE OF 1339.22 FEET TO A POINT ON THE SOUTH LINE OF SAID GOVERNMENT LOT 3; THENCE S.89°10'19"W. ALONG THE SOUTH LINE OF SAID GOVERNMENT LOT 3, 965.69 FEET TO A POINT ON THE EAST LINE OF THE WEST 275 FEET OF GOVERNMENT LOT 4 OF SAID SECTION 18; THENCE S.00°18'43"E. ALONG THE EAST LINE OF THE WEST 275 FEET OF SAID GOVERNMENT LOT 4 A DISTANCE OF 250.00 FEET TO A POINT ON THE SOUTH LINE OF THE NORTH 250 FEET OF THE WEST 275 FEET OF SAID GOVERNMENT LOT 4; THENCE S.89°10'17"W. ALONG THE SOUTH LINE OF THE NORTH 250 FEET OF THE WEST 275 FEET OF SAID GOVERNMENT LOT 4 A DISTANCE OF 275 FEET TO A POINT ON THE WEST LINE OF THE S.W. 1/4 OF SAID SECTION 18; THENCE N.00°18'43"W. ALONG THE WEST LINE OF THE S.W. 1/4 A DISTANCE OF 1488.70 FEET TO A POINT ON THE SOUTH LINE OF THE NORTH 400 FEET OF THE N.E. 1/4 OF THE S.E. 1/4 OF THE AFOREMENTIONED SECTION 13 OF TOWNSHIP 21 SOUTH, RANGE 24 EAST; THENCE S.89°43'14"W. ALONG THE SOUTH LINE OF THE NORTH 400 FEET OF THE N.E. 1/4 OF THE S.E. 1/4 A DISTANCE OF 1500.00 FEET TO A POINT ON THE WEST LINE OF THE EAST 1500 FEET OF THE N.E. 1/4 OF THE S.E. 1/4 OF SAID SECTION 13; THENCE N.00°18'43"W. ALONG THE WEST LINE OF THE EAST 1500 FEET OF THE N.E. 1/4 OF THE S.E. 1/4 A DISTANCE OF 400.00 FEET TO A POINT ON THE NORTH LINE OF THE S.E. 1/4 OF SAID SECTION 13; THENCE S.89°43'14"W. ALONG THE NORTH LINE OF THE S.E. 1/4 A DISTANCE OF 709.89 FEET TO A POINT ON THE EAST LINE OF THE N.W. 1/4 OF THE S.E. 1/4 OF THE S.E. 1/4 OF SAID SECTION 13; THENCE S.00°19'58"E. ALONG THE EAST LINE OF THE N.W. 1/4 OF THE N.W. 1/4 OF THE S.E. 1/4 A DISTANCE OF 328.46 FEET TO A POINT ON THE SOUTH LINE OF THE NORTH 1/2 OF THE N.W. 1/4 OF THE N.W. 1/4 OF THE S.E. 1/4 OF SAID SECTION 13; THENCE S.89°43'16"W. ALONG THE SOUTH LINE OF THE NORTH 1/2 OF THE N.W. 1/4 OF THE N.W. 1/4 OF THE S.E. 1/4 A DISTANCE OF 661.85 FEET TO A POINT ON THE EAST LINE OF THE S.W. 1/4 OF SAID SECTION 13; THENCE S.00°19'14"E. ALONG THE EAST LINE OF THE S.W. 1/4 OF SAID SECTION 13 A DISTANCE OF 2299.46 FEET TO THE SOUTHEAST CORNER OF THE S.W. 1/4 OF SAID SECTION 13; THENCE S.89°34'50"W. ALONG THE SOUTH LINE OF THE S.W. 1/4 A DISTANCE OF 2649.37 FEET TO THE SOUTHWEST CORNER OF SAID SECTION 13; THENCE S.89°44'30"W. ALONG THE SOUTH LINE OF THE AFOREMENTIONED SECTION 14 OF TOWNSHIP 21 SOUTH, RANGE 24 EAST, A DISTANCE OF 665.15 FEET TO A POINT ON THE WEST LINE OF THE EAST 1/2 OF THE S.E. 1/4 OF THE S.E. 1/4 OF SAID SECTION 14; THENCE S.00°15'09"E. ALONG THE WEST LINE OF THE EAST 1/2 OF SAID SECTION 14; THENCE N.00°17'35"W. ALONG THE WEST LINE OF THE EAST 1/2 OF THE S.E. 1/4 OF THE S.E. 1/4 A DISTANCE OF 1314.31 FEET TO A POINT ON THE NORTH LINE OF THE S.E. 1/4 OF THE S.E. 1/4 OF SAID SECTION 14; THENCE N.89°47'30"E. ALONG THE NORTH LINE OF THE S.E. 1/4 OF THE S.E. 1/4 A DISTANCE OF 665.18 FEET TO A POINT ON THE EAST LINE OF THE S.E. 1/4 OF SAID SECTION 14; THENCE N.00°17'31"W. ALONG THE EAST LINE OF THE S.E. 1/4 A DISTANCE OF 1020.83 FEET TO A POINT ON THE NORTH LINE OF THE SOUTH 2335 FEET OF THE EAST 1/2 OF SAID SECTION 14; THENCE S.89°45'09"W. ALONG THE NORTH LINE OF THE SOUTH 2335 FEET OF THE EAST 1/2 OF SAID SECTION 14 A DISTANCE OF 1884.31 FEET TO A POINT ON THE CENTERLINE OF THE PALM LAKA CREEK; THENCE NORTHERLY ALONG SAID CENTERLINE THE FOLLOWING 10 (TEN) COURSES: THENCE N.05°01'26"W., 14.72 FEET; THENCE N.22°28'29"W., 849.50 FEET; THENCE N.07°29'59"W., 202.52 FEET; THENCE N.27°37'49"W., 322.17 FEET; THENCE N.05°53'29"W., 396.50 FEET; THENCE N.14°11'31"E., 472.27 FEET; THENCE N.12°34'49"W., 362.69 FEET; THENCE S.85°49'49"E., 429.28 FEET; THENCE N.21°15'51"E., 343.70 FEET; THENCE N.01°42'41"E., 157.01 FEET TO A POINT ON THE NORTH LINE OF THE N.E. 1/4 OF THE AFOREMENTIONED SECTION 14; THENCE LEAVING SAID CENTERLINE RUN N.89°49'31"E. ALONG THE NORTH LINE OF THE N.E. 1/4 OF SAID SECTION 14 A DISTANCE OF 399.40 FEET TO A POINT ON THE WEST LINE OF THE EAST 1420 FEET OF THE EAST 1/2 OF SAID SECTION 14; THENCE S.00°15'09"E. ALONG THE WEST LINE OF THE EAST 1420 FEET OF THE EAST 1/2 OF SAID SECTION 14 A DISTANCE OF 523.00 FEET TO A POINT ON THE SOUTH LINE OF THE NORTH 523 FEET OF THE EAST 1420 FEET OF THE EAST 1/2 OF SAID SECTION 14; THENCE N.89°49'31"E. ALONG THE SOUTH LINE OF THE NORTH 523 FEET OF THE EAST 1420 FEET OF THE EAST 1/2 OF SAID SECTION 14 A DISTANCE OF 1420.00 FEET TO A POINT ON THE EAST LINE OF THE N.E. 1/4 OF SAID SECTION 14; THENCE N.00°15'09"W. ALONG THE EAST LINE OF THE N.E. 1/4 A DISTANCE OF 523.00 FEET TO THE POINT OF BEGINNING.

ALL OF THE ABOVE IS SUBJECT TO ALL EASEMENTS, RIGHTS-OF-WAY AND RESTRICTIONS OF RECORD, IF ANY.



**DEVELOPMENT NOTES**

OVERALL MASTER DRAINAGE SYSTEM DESIGNED BY HARTMAN & ASSOCIATES, INC. ST. JOHNS PERMIT NO. 4-069-0301.

CONTRACTOR SHALL VERIFY ALL ELEVATIONS PRIOR TO CONSTRUCTION AND BRING ANY DISCREPANCIES TO THE ATTENTION OF THE ENGINEER.

CONTRACTOR SHALL LOCATE AND MAINTAIN IN GOOD WORKING ORDER ALL ABOVE GROUND AND BELOW GROUND UTILITIES. CONTRACTOR SHALL COORDINATE THE RELOCATION OR ALTERATION OF EXISTING UTILITIES AS MAY BE REQUIRED.

WATER UTILITY CONNECTIONS SHALL BE COORDINATED THROUGH THE CITY OF LEESBURG.

ALL SUB-BASE, BASE AND ASPHALTIC CONCRETE PAVING SHALL BE TESTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE LAKE COUNTY PUBLIC STANDARD BUILDING CODE, AND ALL OTHER APPLICABLE CODES.

ALL DISTURBED OPEN AREAS SHALL BE SODDED, SEEDED AND MULCHED OR OTHERWISE STABILIZED TO PREVENT EROSION IMMEDIATELY FOLLOWING COMPLETION OF THE SITE CONSTRUCTION.

CONTRACTOR SHALL SUPPLY THE ENGINEER WITH "AS-BUILT" CONDITIONS OF ACTUAL CONSTRUCTION.

REMOVAL OF TREES SHALL BE AS DIRECTED BY THE OWNER.

TREES TO REMAIN SHALL BE PROTECTED IN ACCORDANCE WITH SECTION 9.01.09 OF THE LAKE COUNTY LDR'S.

EACH FINISHED LOT TO HAVE 3 TO 6 TREES (DEPENDENT ON LOT SIZE) IN ACCORDANCE WITH LAKE COUNTY LDR'S PRIOR TO ISSUANCE OF A CERTIFICATE OF OCCUPANCY.

MAINTENANCE ENTITY: PRINGLE COMMUNITIES, INC. - DURING CONSTRUCTION  
ROYAL HIGHLANDS PROPERTY OWNERS ASSOCIATION - AFTER CONSTRUCTION

**OWNER**  
PRINGLE COMMUNITIES, INC.  
JOHN PRINGLE, PRESIDENT  
26600 ACE AVENUE  
LEESBURG, FL 34748  
PHONE (352) 365-2303  
FAX (352) 365-6221

**ENGINEER**  
NEWMAN CONSULTING ENGINEERS, INC.  
KEITH E. RIDDLER, P.E.  
P.O. BOX 490264  
LEESBURG, FL 34749-0264  
PHONE (352) 787-7482  
FAX (352) 787-7412

**SURVEYOR**  
HALL, FARNER & ASSOCIATES, INC.  
GEORGE W. FARNER, P.L.S.  
2007 W. BUTLER ST.  
LEESBURG, FL 34748  
PHONE (352) 787-5115  
FAX (352) 787-0767

**SITE DATA - PHASE 1C-A**  
PROJECT AREA = 40 ACRES  
NO. OF PHASE 1C-A LOTS = 123 SINGLE FAMILY UNITS  
MIN. LOT AREA = 4,992 SQ.FT.  
ZONING = "PUD"  
SETBACKS: FRONT = 15 FEET  
SIDE = 5 FEET  
REAR = 15 FEET  
WATER SERVICE - CITY OF LEESBURG  
SEWER SERVICE - CITY OF LEESBURG  
SOILS - SEE SOILS REPORT

RECEIVED  
SEP 27 1999  
Public Works Department

**AS BUILT**

KEITH E. RIDDLER, P.E.  
FLA. REGS. NO. 38800

DATE

NEWMAN CONSULTING ENGINEERS, INC.  
P.O. BOX 490264 • LEESBURG, FLORIDA 34749-0264  
PHONE (352) 787-7482 • FAX (352) 787-7412

CONSTRUCTION DRAWINGS

ROYAL HIGHLANDS - PHASE 1C-A  
LAKE COUNTY  
FLORIDA

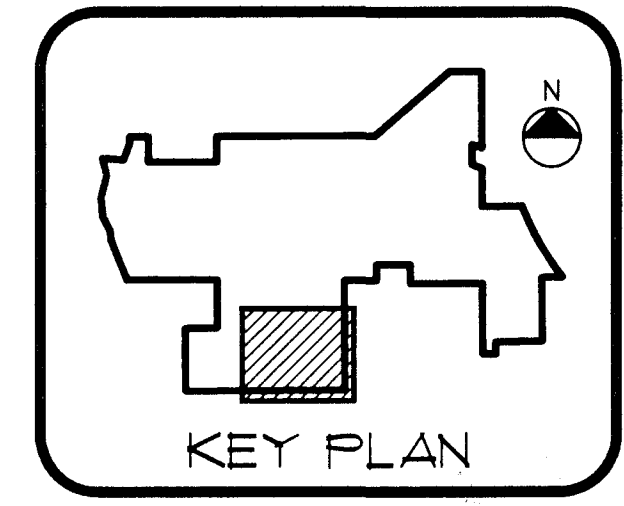
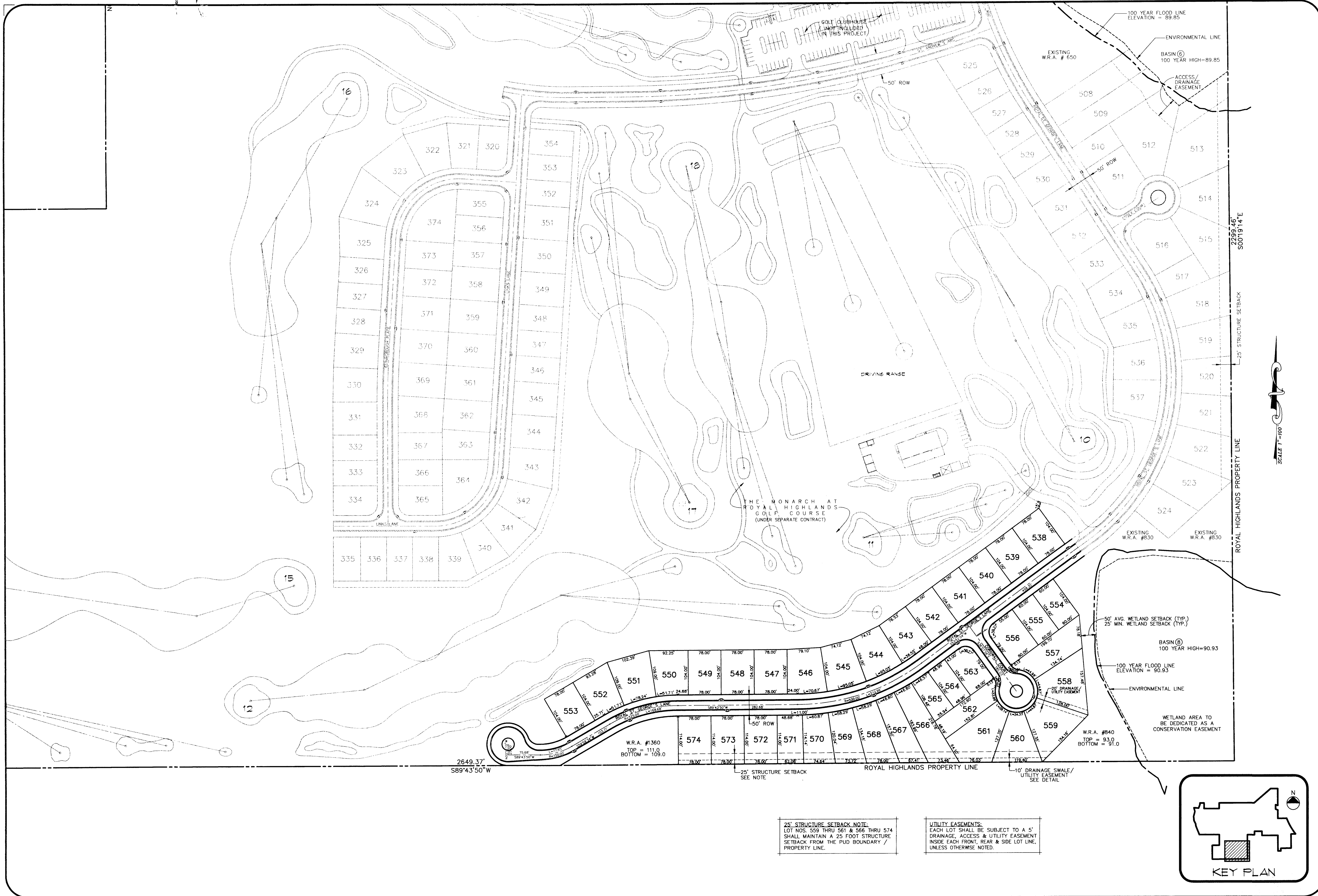
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SHEET NO. 1 OF 20

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REV #2  
REV #3  
REV #4  
REV #5  
REV #6

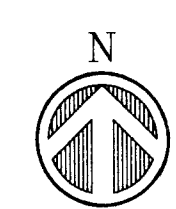
DATE: 9/11/97  
SCALE: N.T.S.  
CHECKED: K.E.R.  
DRAWN: R.S.H.

PROJECT NO: 93092  
MODIFIED FOR PHASE 1C-A CONFIGURATION 12/1/97  
PER CONTRACTOR 0/23/96



**25' STRUCTURE SETBACK NOTE:**  
 LOT NOS. 559 THRU 561 & 566 THRU 574  
 SHALL MAINTAIN A 25 FOOT STRUCTURE  
 SETBACK FROM THE PUD BOUNDARY /  
 PROPERTY LINE.

**UTILITY EASEMENTS:**  
 EACH LOT SHALL BE SUBJECT TO A 5'  
 DRAINAGE, ACCESS & UTILITY EASEMENT  
 INSIDE EACH FRONT, REAR & SIDE LOT LINE,  
 UNLESS OTHERWISE NOTED.



**LOT LAYOUT PLAN - PHASE 1C-A WEST**  
 SCALE: 1"=100'

**AS BUILT**

KEITH E. RIDDLE, P.E.  
 FLA. REGIS. NO. 38800  
 DATE

FILE: 9.3092\PH-1C-A\PH1C-2X © 1997 NEWMAN CONSULTING ENGINEERS, INC. ALL RIGHTS RESERVED.

**NEWMAN CONSULTING ENGINEERS, INC.**  
 P.O. BOX 490264 • LEECSBURG, FLORIDA 34749-0264  
 PHONE (352) 787-7482 • FAX (352) 787-7412

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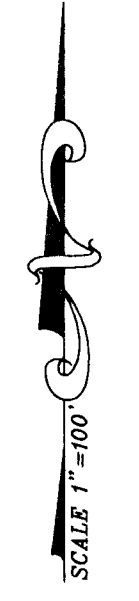
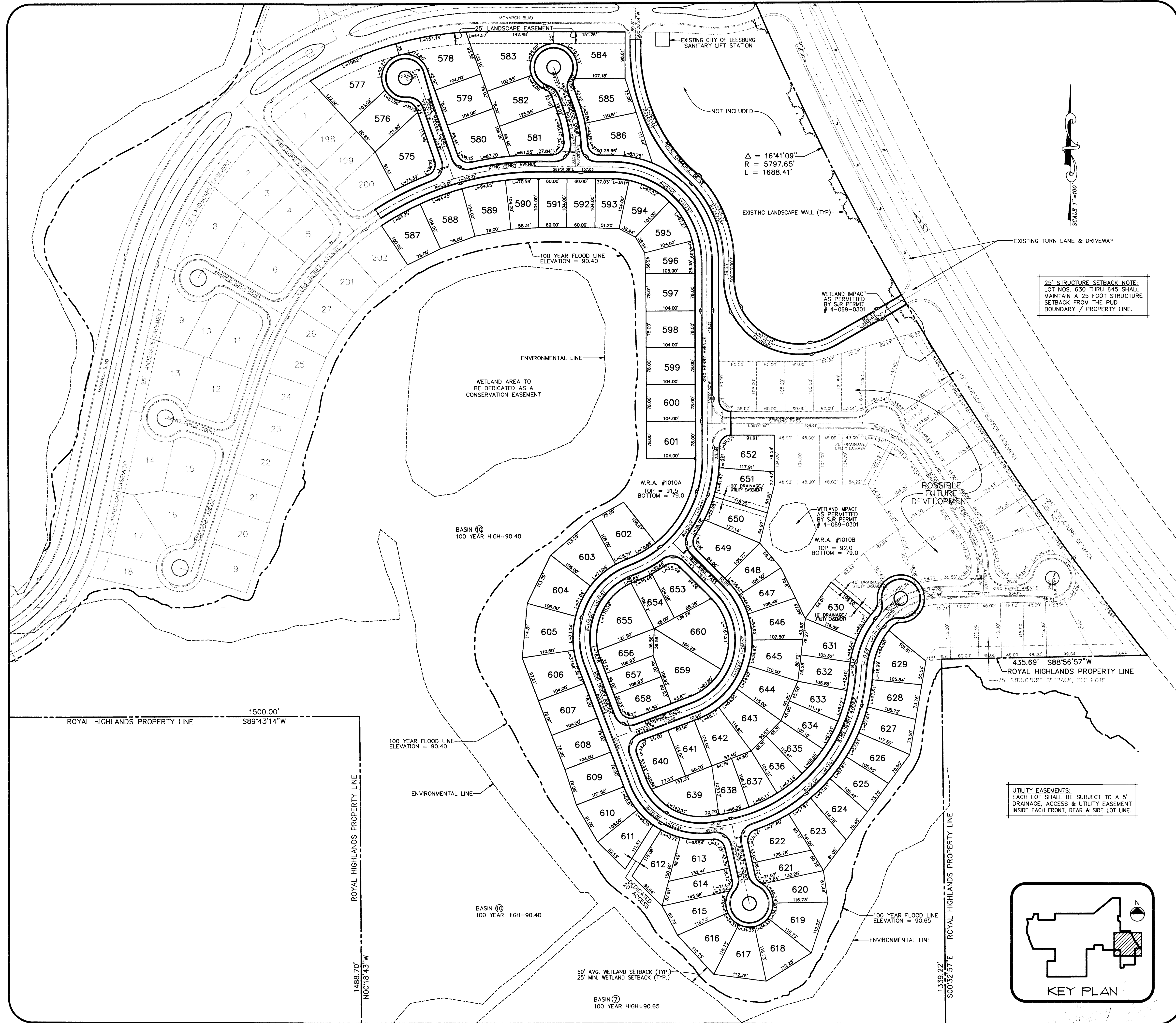
**LOT LAYOUT PLAN**  
**ROYAL HIGHLANDS - PHASE 1C-A**  
 FLORIDA  
 LAKE COUNTY

---

REV #	DATE	BY	DESCRIPTION
REV #1	9/11/97	AS-BUILT PER CONTRACTOR	AS-BUILT PER CONTRACTOR
REV #2	9/11/97	AS-BUILT PER CONTRACTOR	AS-BUILT PER CONTRACTOR
REV #3			
REV #4			
REV #5			

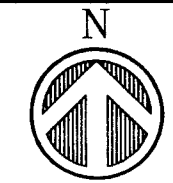
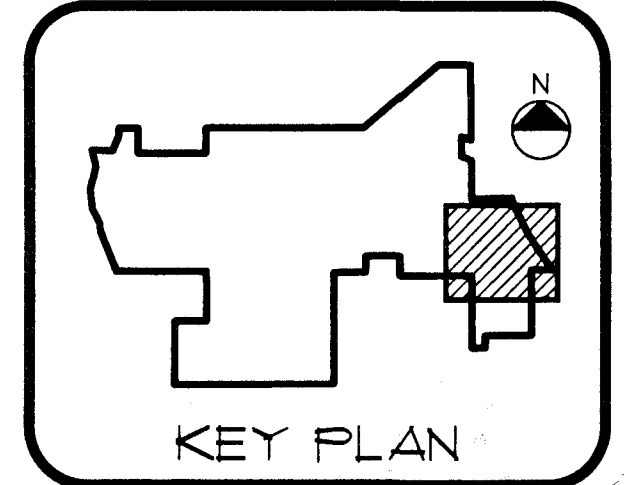
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SHEET NO. **2** OF **20**



25' STRUCTURE SETBACK NOTE:  
LOT NOS. 630 THRU 645 SHALL  
MAINTAIN A 25 FOOT STRUCTURE  
SETBACK FROM THE PUD  
BOUNDARY / PROPERTY LINE.

UTILITY EASEMENTS:  
EACH LOT SHALL BE SUBJECT TO A 5'  
DRAINAGE, ACCESS & UTILITY EASEMENT  
INSIDE EACH FRONT, REAR & SIDE LOT LINE.



**LOT LAYOUT PLAN - PHASE 1C-A EAST**  
SCALE: 1"=100'

KEITH E. RIDDLE, P.E. DATE  
FLA. REGIS. NO. 38800

**AS BUILT**

NEWMAN CONSULTING ENGINEERS, INC.  
P.O. BOX 490264 • LEESBURG, FLORIDA 34749-0264  
PHONE (352) 787-7482 • FAX (352) 787-7412

**NE**

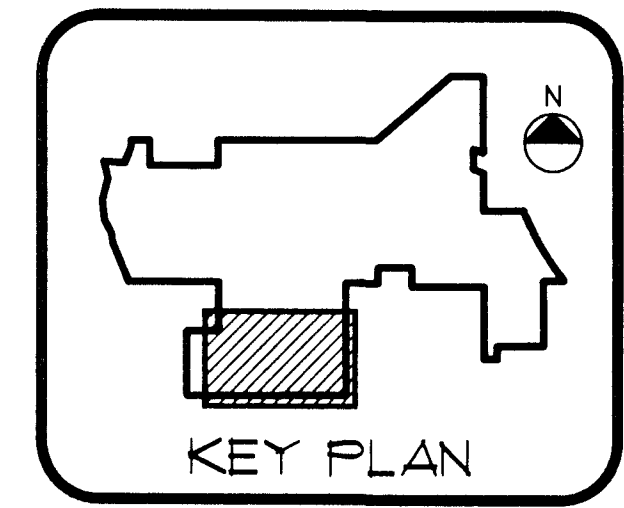
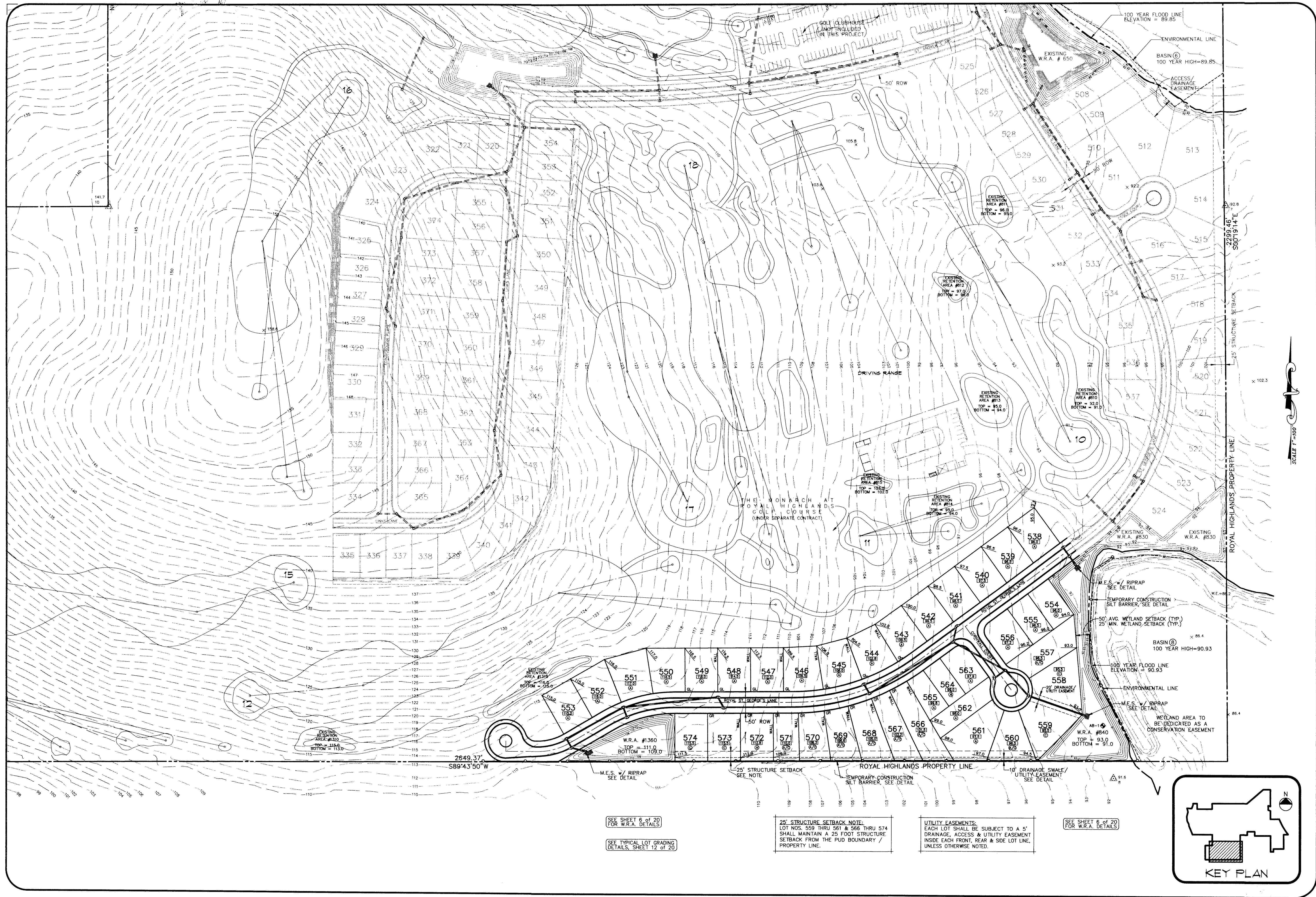
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CHECKED	K.E.R.	SCALE	1"=100'	DATE
		DATE	9/11/97	PROJECT NO.
		PROJECT NO.	9.3092	REV #1
		REV #1	MODIFIED FOR PHASE 1C-A CONFIGURATION	12/4/97

LOT LAYOUT PLAN

**ROYAL HIGHLANDS - PHASE 1C-A**  
LAKE COUNTY  
FLORIDA

SHEET NO.  
**3**  
20

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SEE SHEET 6 of 20 FOR W.R.A. DETAILS

SEE TYPICAL LOT GRADING DETAILS, SHEET 12 of 20

**25' STRUCTURE SETBACK NOTE:**  
LOT NOS. 559 THRU 561 & 566 THRU 574 SHALL MAINTAIN A 25 FOOT STRUCTURE SETBACK FROM THE PUD BOUNDARY / PROPERTY LINE.

**UTILITY EASEMENTS:**  
EACH LOT SHALL BE SUBJECT TO A 5' DRAINAGE, ACCESS & UTILITY EASEMENT INSIDE EACH FRONT, REAR & SIDE LOT LINE, UNLESS OTHERWISE NOTED.

SEE SHEET 6 of 20 FOR W.R.A. DETAILS



**DRAINAGE / LOT GRADING PLAN - PHASE 1C-A WEST**

SCALE: 1"=100'

KEITH E. RIDDLE, P.E.  
FLA. REGIS. NO. 38800

DATE

**AS BUILT**

**NEWMAN CONSULTING ENGINEERS, INC.**  
P.O. BOX 430264 - LEESBURG, FLORIDA 34749-0264  
PHONE (352) 787-7482 - FAX (352) 787-7412

**NE**

DRAWN	R.S.H.	REV #5	REV #4	REV #3	REV #2	REV #1
CHECKED	K.E.R.	SCALE: 1"=100'	DATE: 9/11/97	PROJECT NO. 9.3092	MODIFIED FOR PHASE 1C-A CONFIGURATION 12/14/97	

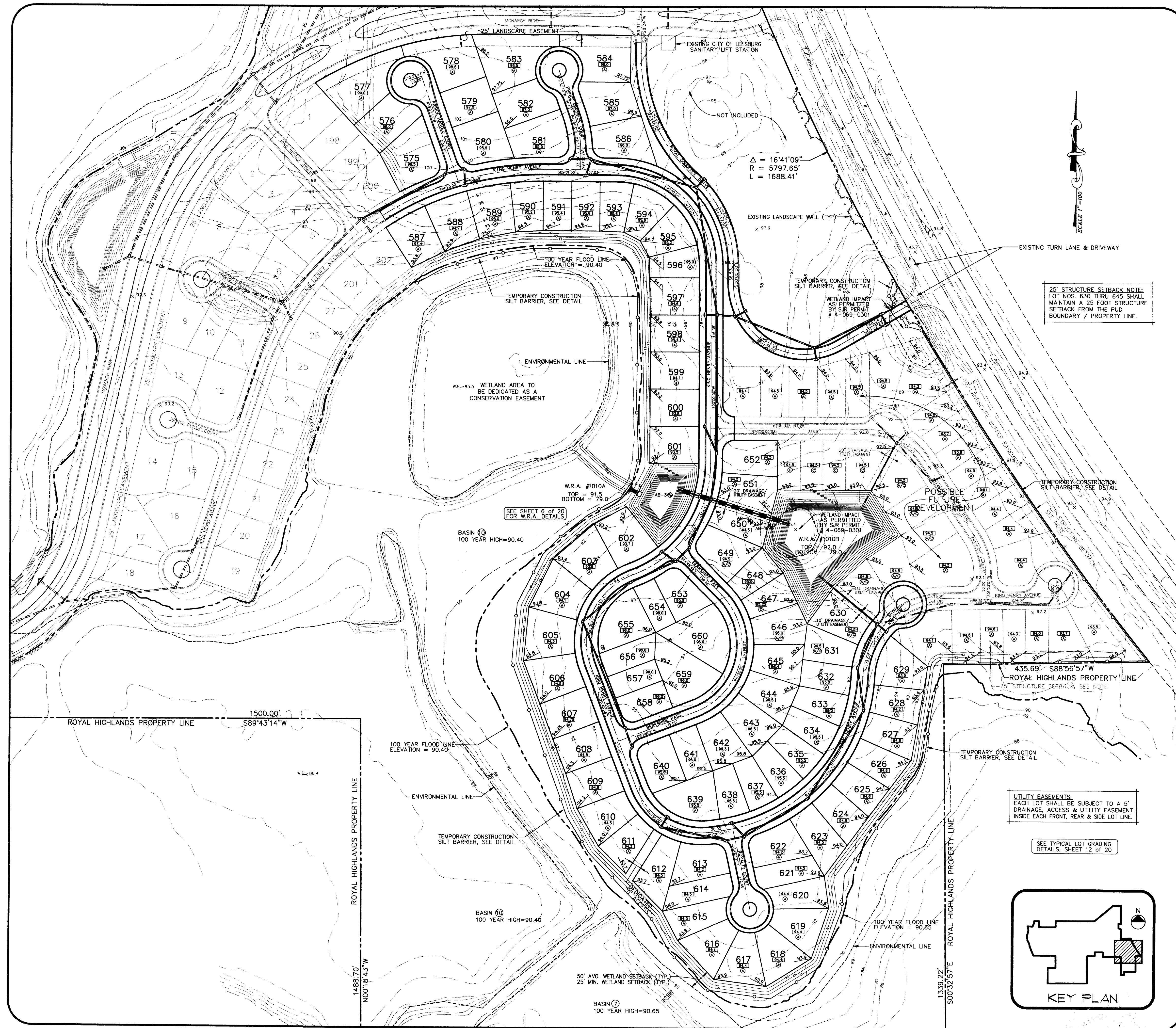
**DRAINAGE / LOT GRADING PLAN**

**ROYAL HIGHLANDS - PHASE 1C-A**

FLORIDA  
LAKE COUNTY

SHEET NO. **4** of **20**

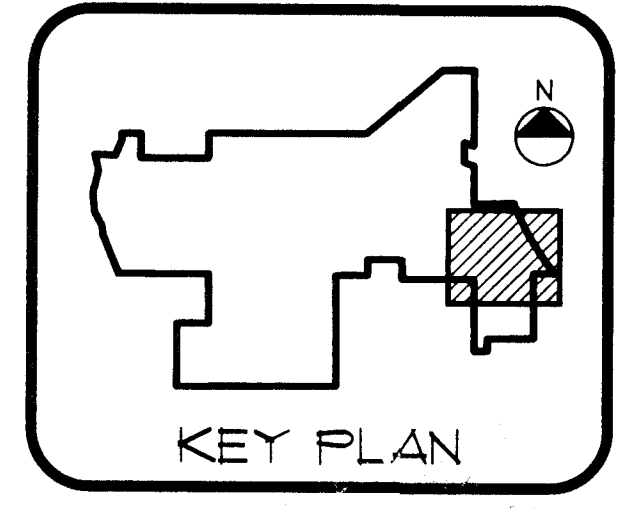
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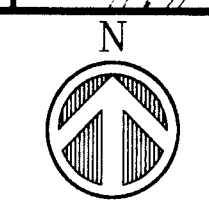
**25' STRUCTURE SETBACK NOTE:**  
 LOT NOS. 630 THRU 645 SHALL MAINTAIN A 25 FOOT STRUCTURE SETBACK FROM THE PUD BOUNDARY / PROPERTY LINE.

**UTILITY EASEMENTS:**  
 EACH LOT SHALL BE SUBJECT TO A 5' DRAINAGE, ACCESS & UTILITY EASEMENT INSIDE EACH FRONT, REAR & SIDE LOT LINE.

SEE TYPICAL LOT GRADING DETAILS, SHEET 12 OF 20



SCALE 1"=100'



**DRAINAGE / LOT GRADING PLAN - PHASE 1C-A EAST**  
 SCALE: 1"=100'

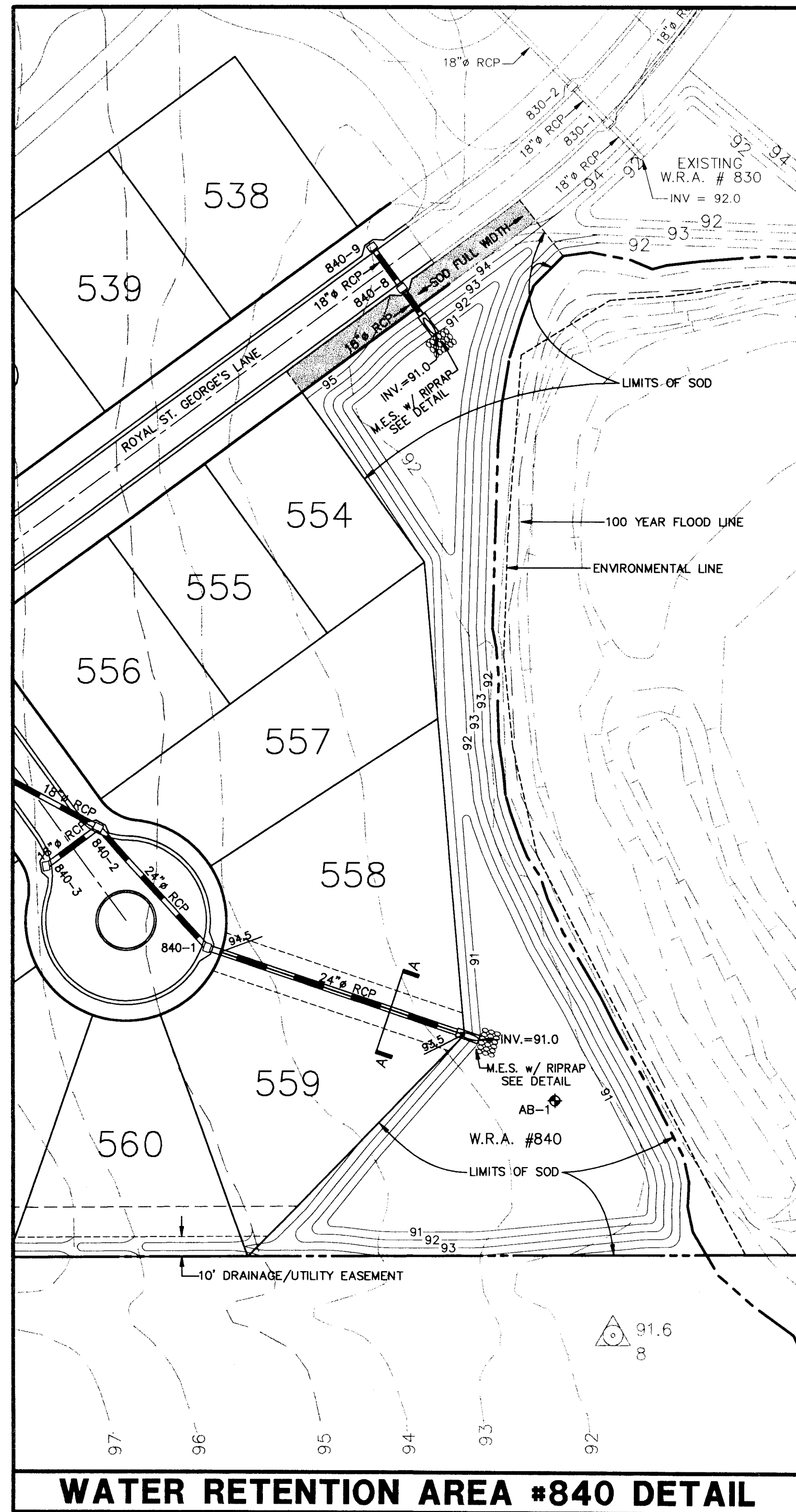
KEITH E. RIDDLE, P.E. DATE  
 FLA. REGIS. NO. 38800

**AS BUILT**

NEWMAN CONSULTING ENGINEERS, INC.  
 P.O. BOX 490264 • LEESBURG, FLORIDA 34749-0264  
 PHONE (352) 787-7482 • FAX (352) 787-7412

DRAINAGE / LOT GRADING PLAN	REV #5
ROYAL HIGHLANDS - PHASE 1C-A	DRAWN: R.S.H.
LAKE COUNTY	CHECKED: K.E.R.
FLORIDA	SCALE: 1"=100'
SHEET NO. 5	DATE: 9/11/97
20	PROJECT NO. 93092
5	REV #1: MODIFIED FOR PHASE 1C-A CONFIGURATION 12/4/97
20	REV #2
20	REV #3
20	REV #4: AS-BUILT PER CONTRACTOR 02/23/18

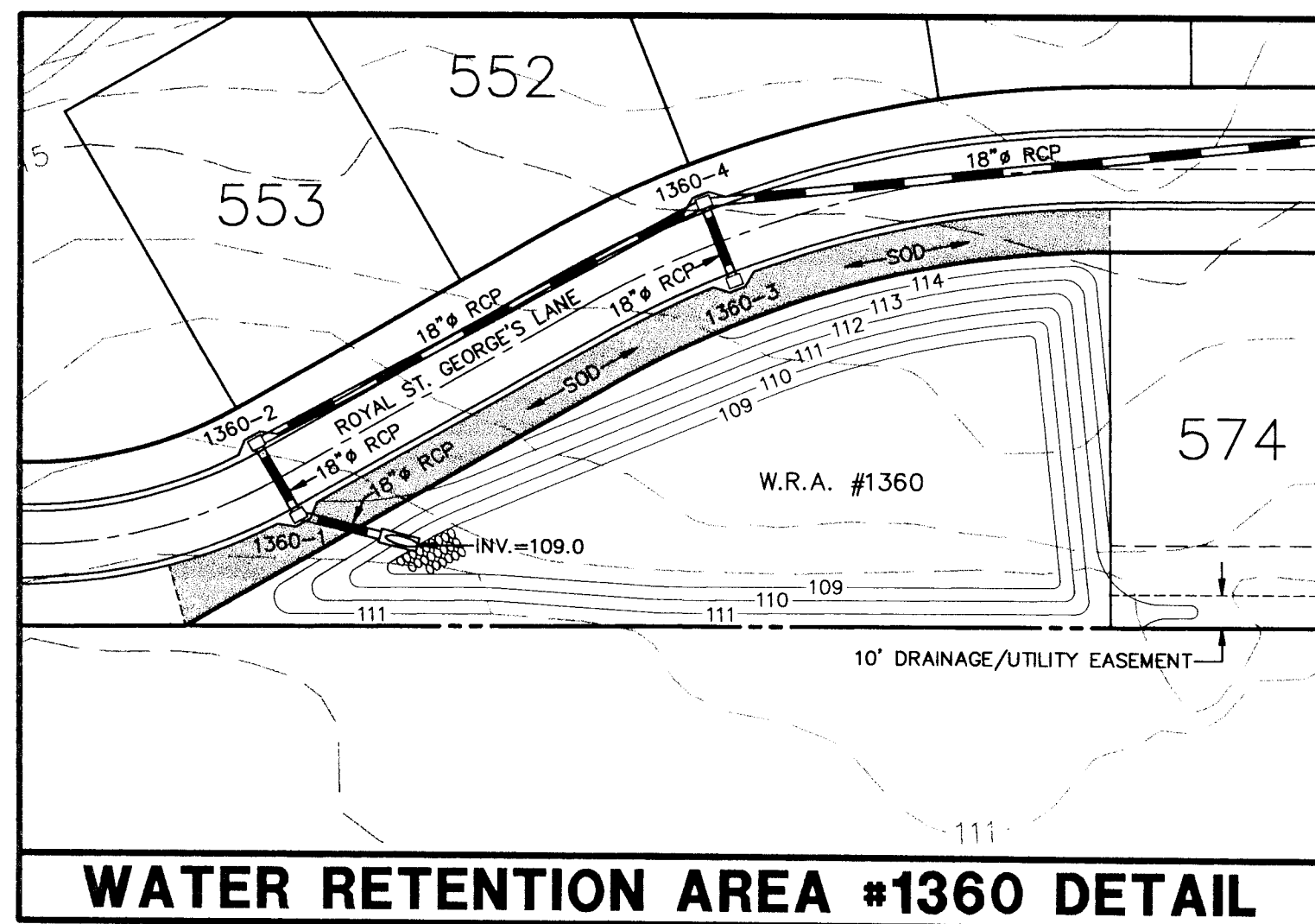
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**WATER RETENTION AREA #840 DETAIL**

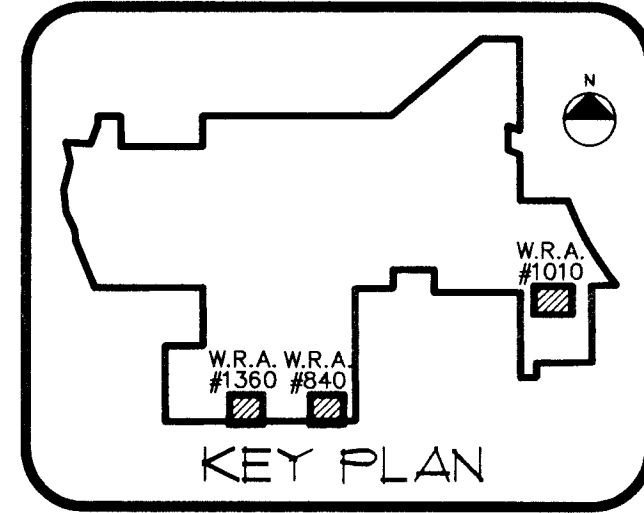
WRA #1360  
TOP OF BERM = 111.0  
BOTTOM OF POND = 109.0  
SLOPE 4:1 @ 111.0 to 109.0

WRA #840  
TOP OF BERM = 93.0  
BOTTOM OF POND = 91.0  
SLOPE 4:1 @ 93.0 to 91.0



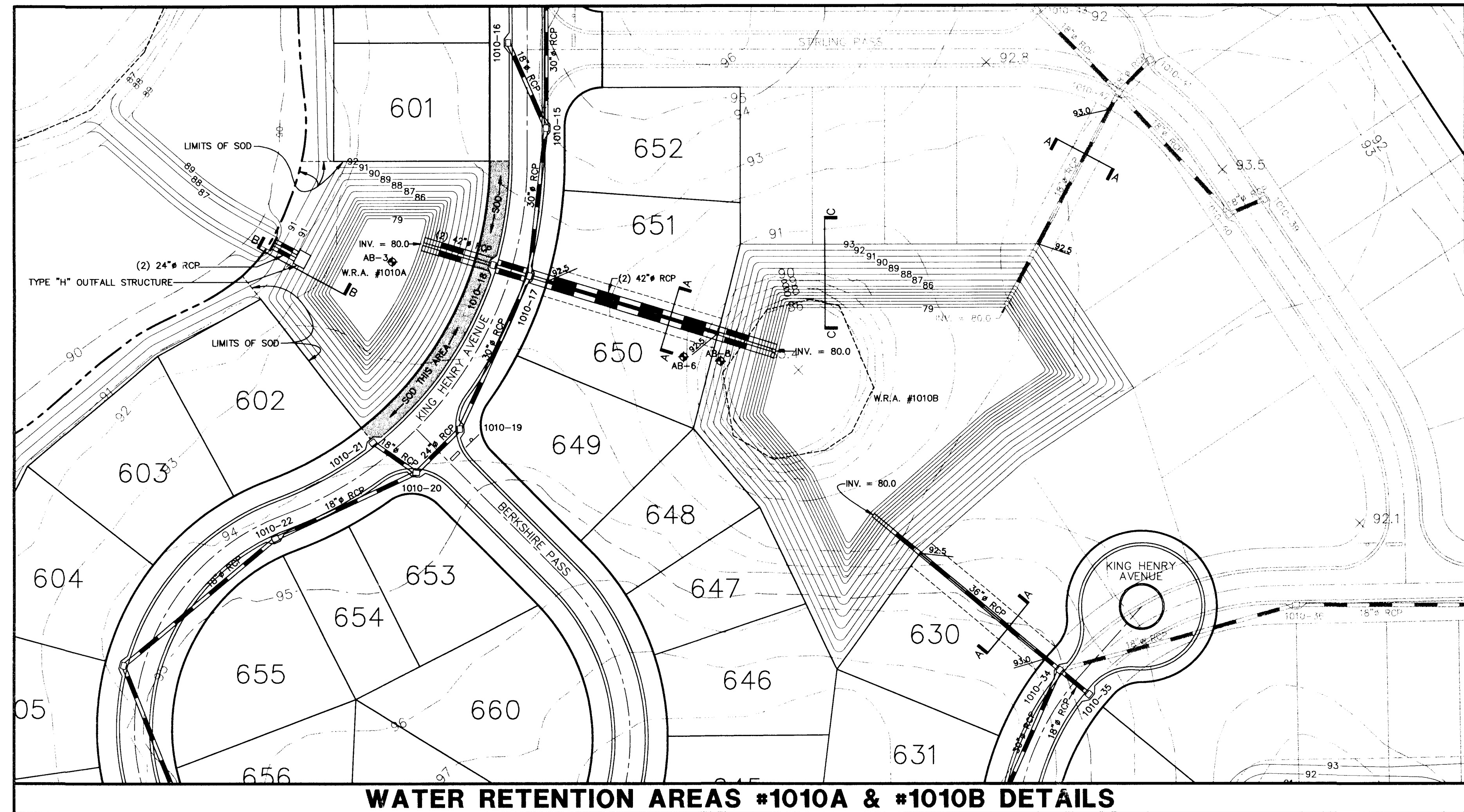
**WATER RETENTION AREA #1360 DETAIL**

SCALE 1" = 50'

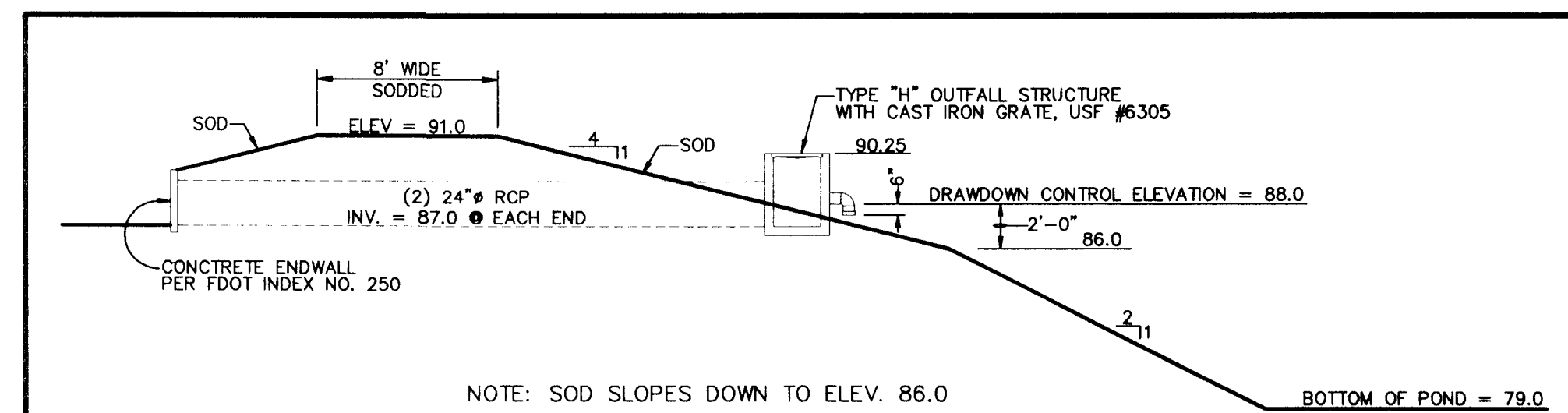


WRA #1010A  
TOP OF BERM = 91.0  
OVERFLOW ELEV = 90.25  
CONTROL ELEV = 88.0  
BOTTOM OF POND = 79.0  
SLOPE 4:1 @ 92.0 to 86.0  
SLOPE 2:1 @ 86.0 to 79.0

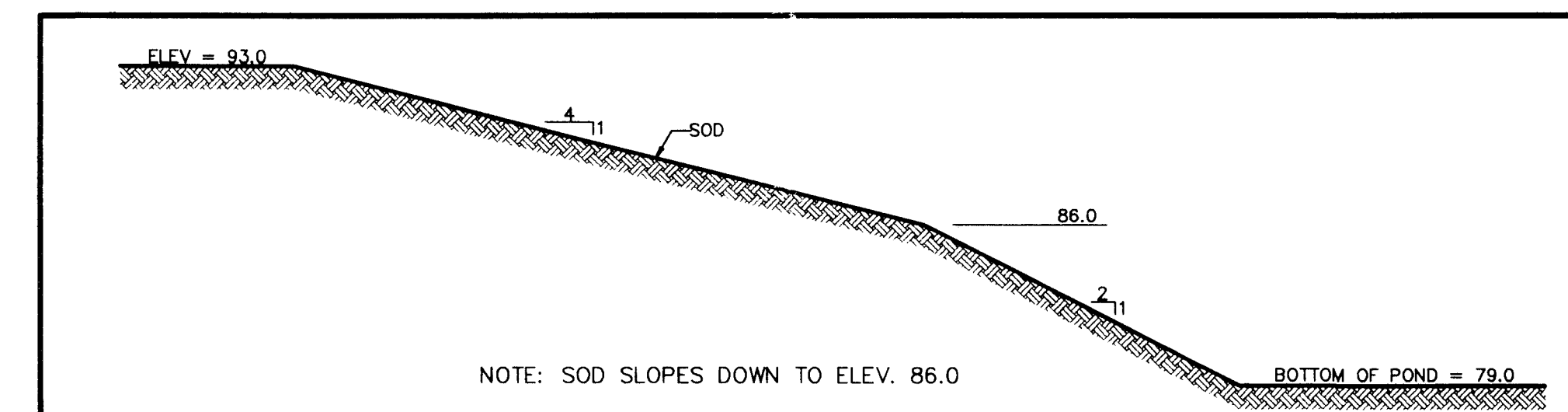
WRA #1010B  
TOP OF BERM = 93.0  
BOTTOM OF POND = 79.0  
SLOPE 4:1 @ 93.0 to 86.0  
SLOPE 2:1 @ 86.0 to 79.0



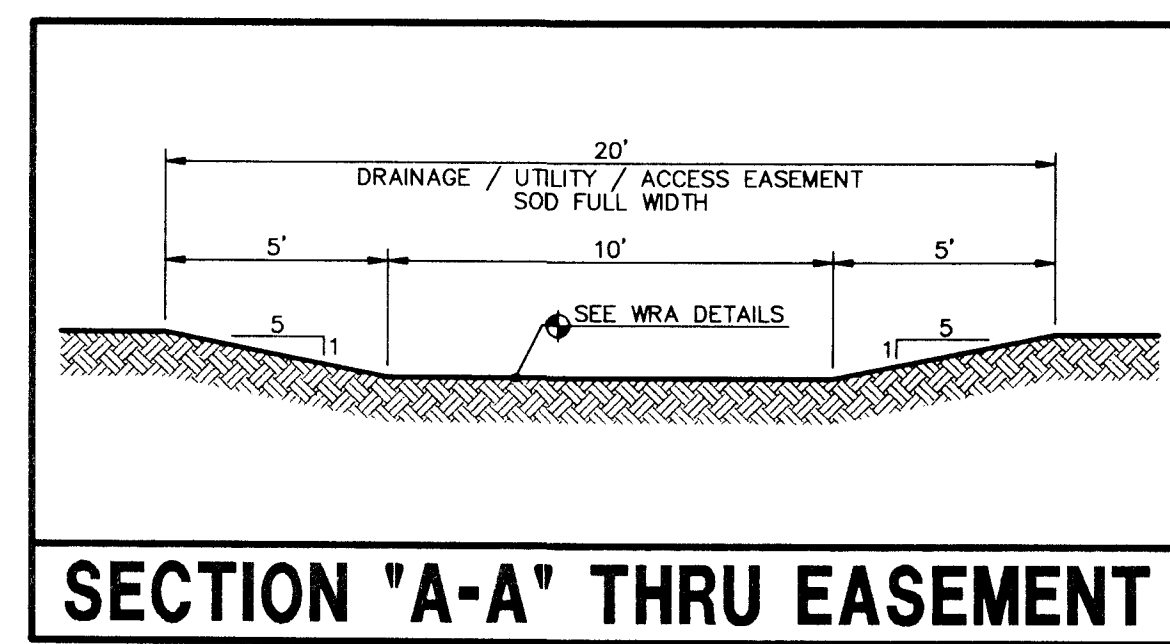
**WATER RETENTION AREAS #1010A & #1010B DETAILS**



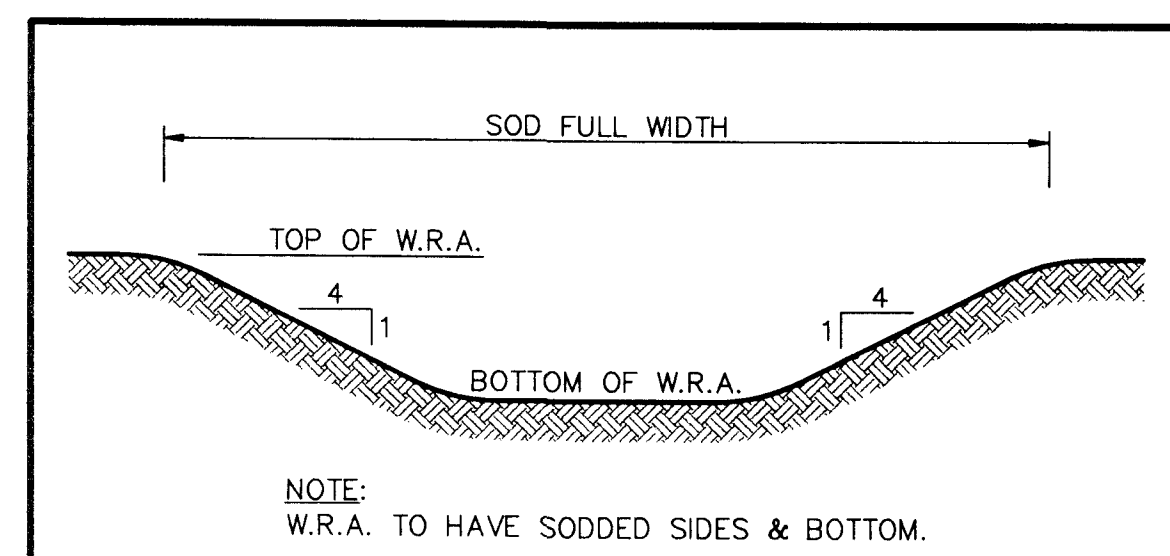
**SECTION 'B-B' THRU WRA #1010A**



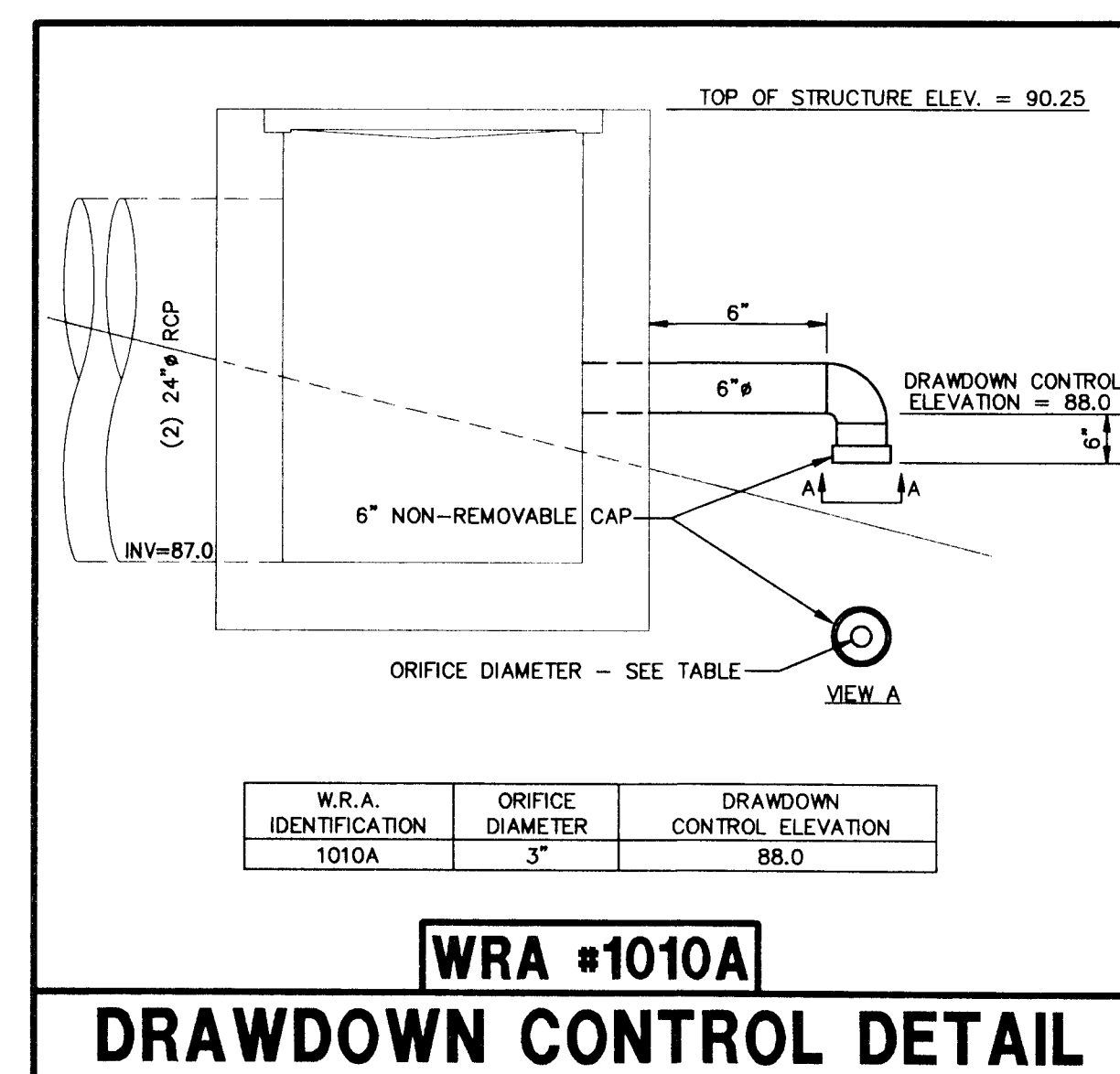
**SECTION 'C-C' THRU WRA #1010B**



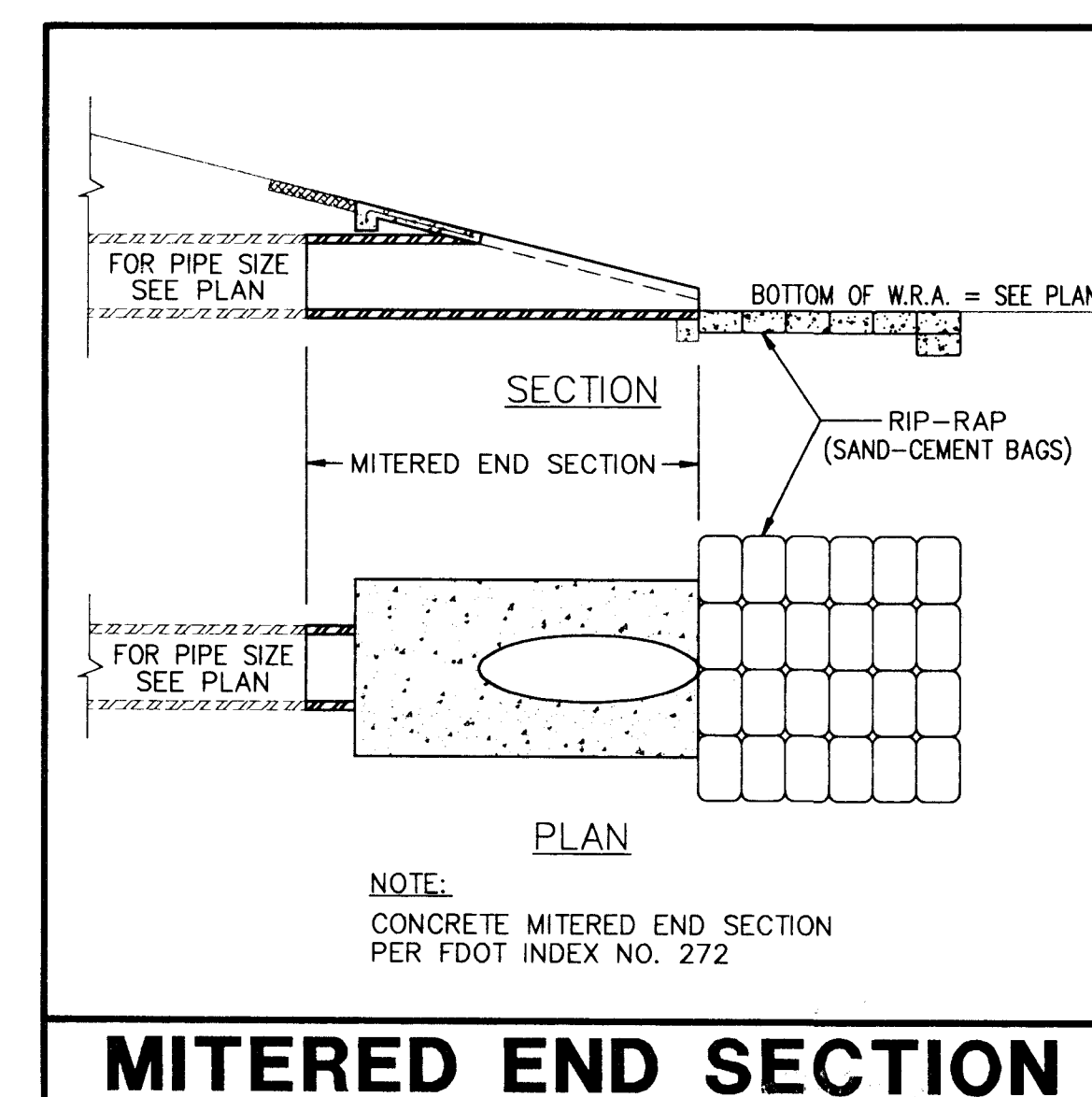
**SECTION 'A-A' THRU EASEMENT**



**WRAs #840 & #1360  
TYPICAL WRA CROSS-SECTION**



**WRA #1010A  
DRAWDOWN CONTROL DETAIL**



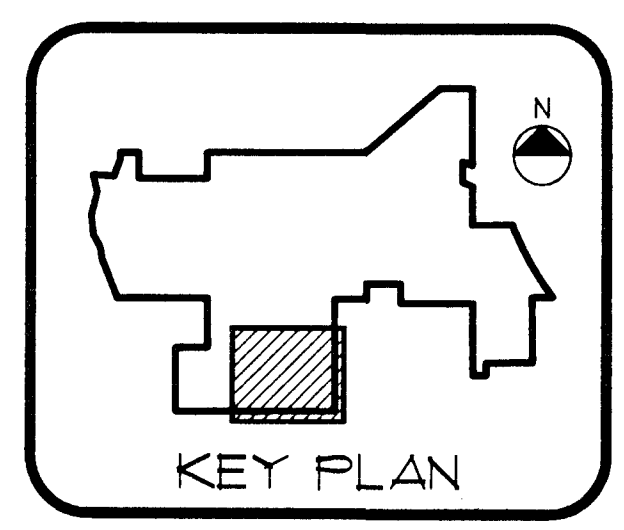
**MITERED END SECTION**

**AS BUILT**

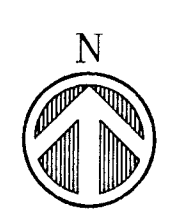
KEITH E. RIDDLE, P.E.  
FLA. REGIS. NO. 38800  
DATE



SCALE 1"=100'



AS BUILT



**UTILITY PLAN - PHASE 1C-A WEST**  
SCALE: 1"=100'

KEITH E. RIDDLE, P.E.  
FLA. REGIS. NO. 38800

DATE

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PHONE (352) 787-7482 • FAX (352) 787-7412

**NE**

REV #5	REV #4	REV #3	REV #2	REV #1
DATE	DATE	DATE	DATE	DATE
9/11/97	9/11/97	9/11/97	9/11/97	9/11/97
PROJECT NO. 93092	PROJECT NO. 93092	PROJECT NO. 93092	PROJECT NO. 93092	PROJECT NO. 93092

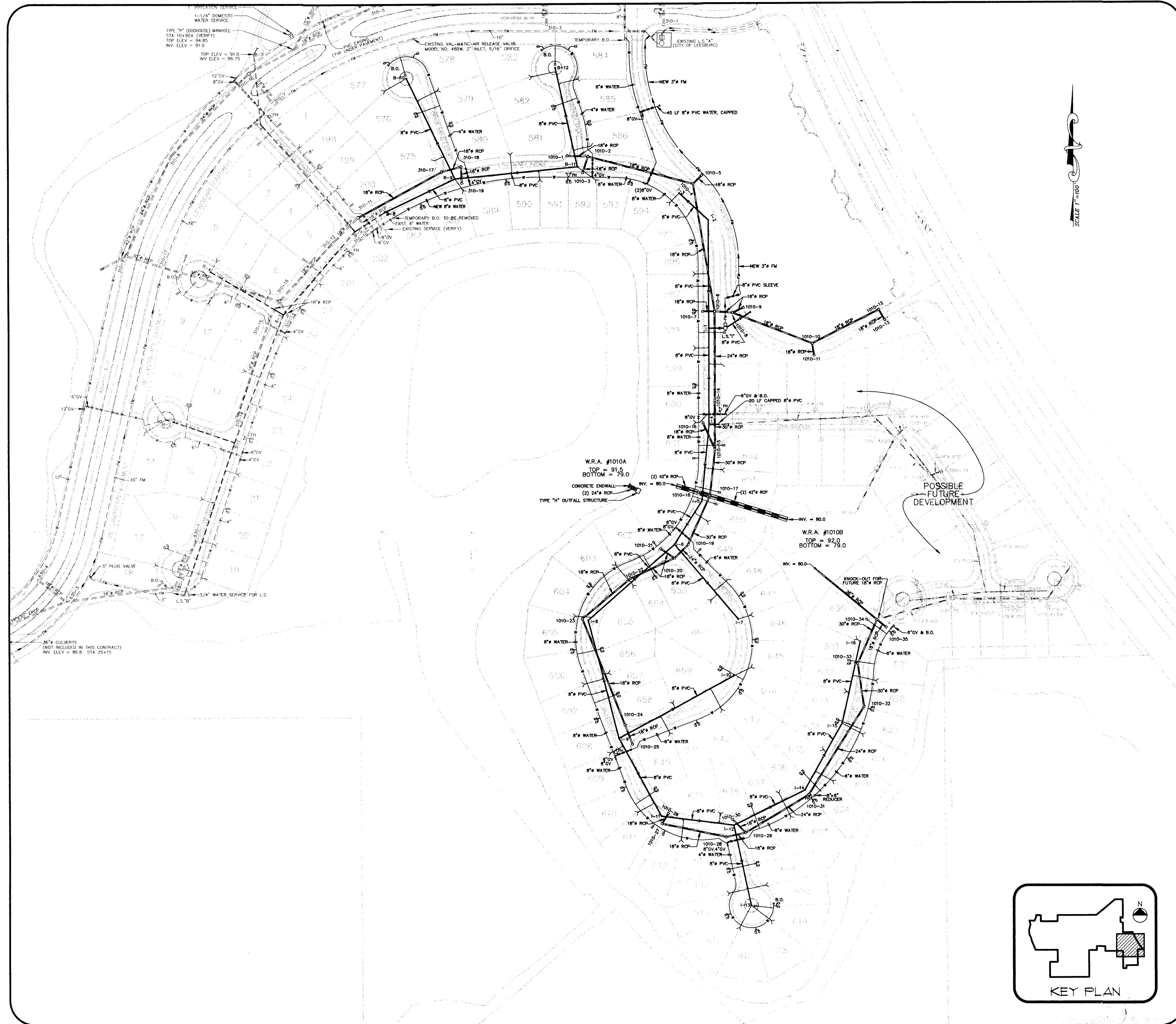
AS BUILT PER CONTRACT 6/29/16  
MODIFIED FOR PHASE 1C-A CONFIGURATION 12/4/97

UTILITY PLAN

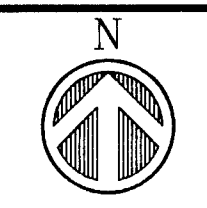
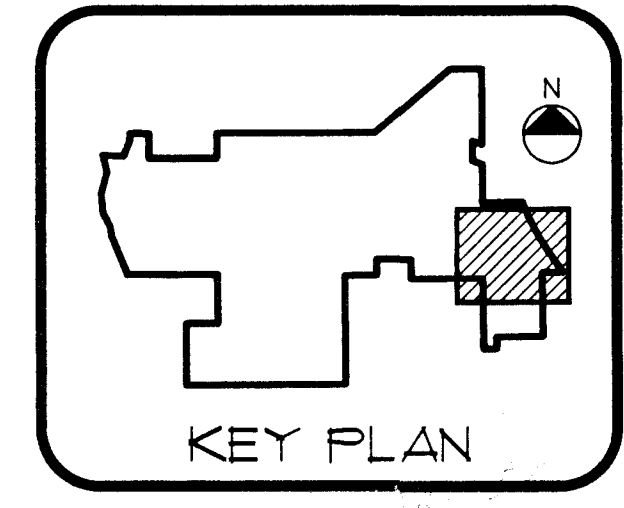
ROYAL HIGHLANDS - PHASE 1C-A  
LAKE COUNTY  
FLORIDA

7  
20

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SCALE 1" = 100'



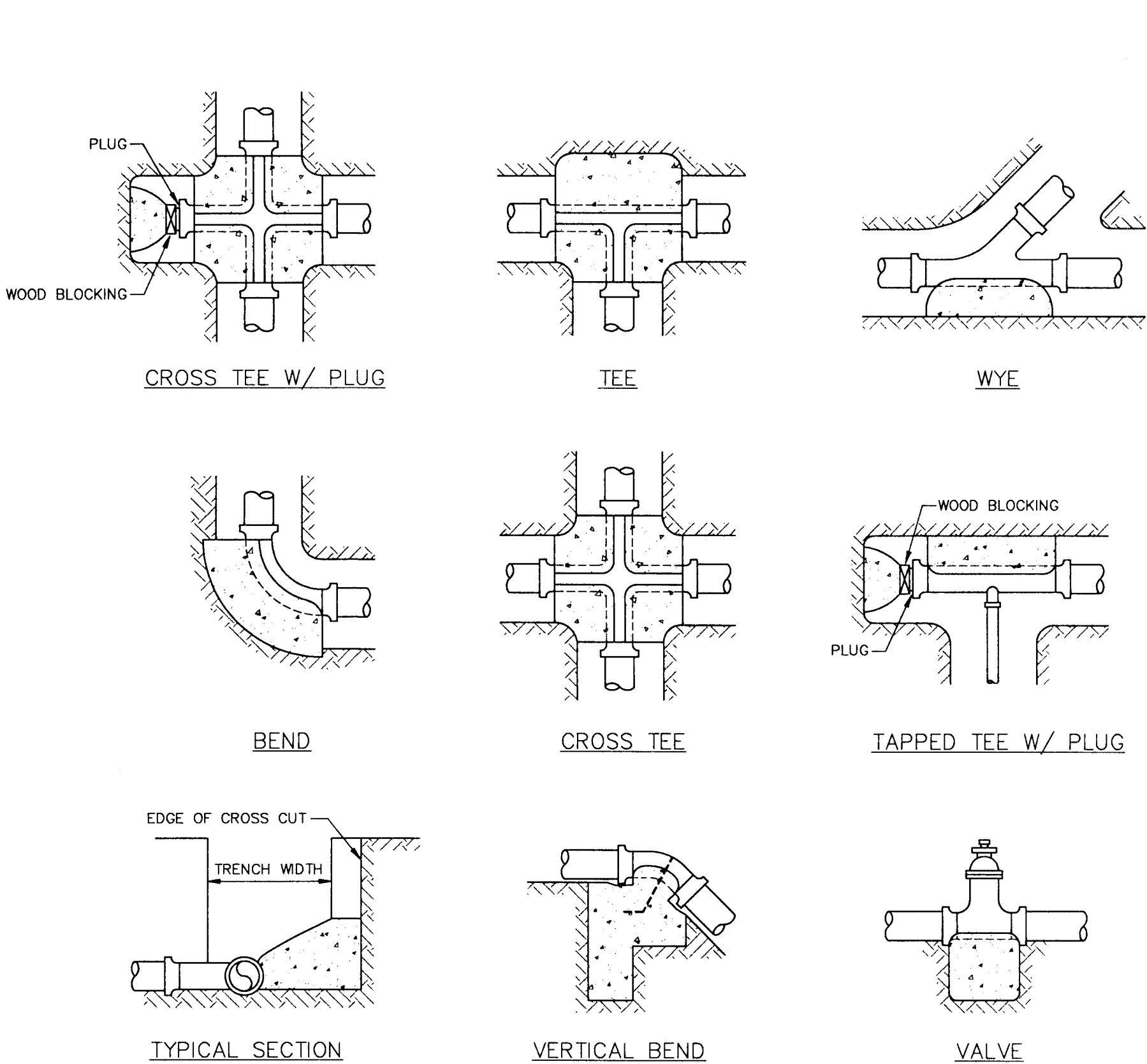
**UTILITY PLAN - PHASE 1C-A EAST**  
SCALE: 1"=100'

KEITH E. RIDDLE, P.E.  
FLA. REGIS. NO. 38800  
DATE  
**AS BUILT**

<p><b>NEWMAN CONSULTING ENGINEERS, INC.</b> P.O. BOX 480264 • LEESBURG, FLORIDA 34749-0264 PHONE (352) 787-7482 • FAX (352) 787-7412</p>		REV #5	REV #4
		REV #3	REV #2
DRAWN: R.S.H. CHECKED: K.E.R.		SCALE: 1"=100'	DATE: 9/11/97
PROJECT NO. 93092		REV #1: MODIFIED FOR PHASE 1C-A CONFIGURATION 12/1/97	
UTILITY PLAN		FLORIDA	
ROYAL HIGHLANDS - PHASE 1C-A		LAKE COUNTY	
SHEET NO. 8		20	

FILE: \93092\PH-1C-A\RH1C-BX © 1997 NEWMAN CONSULTING ENGINEERS, INC. ALL RIGHTS RESERVED.

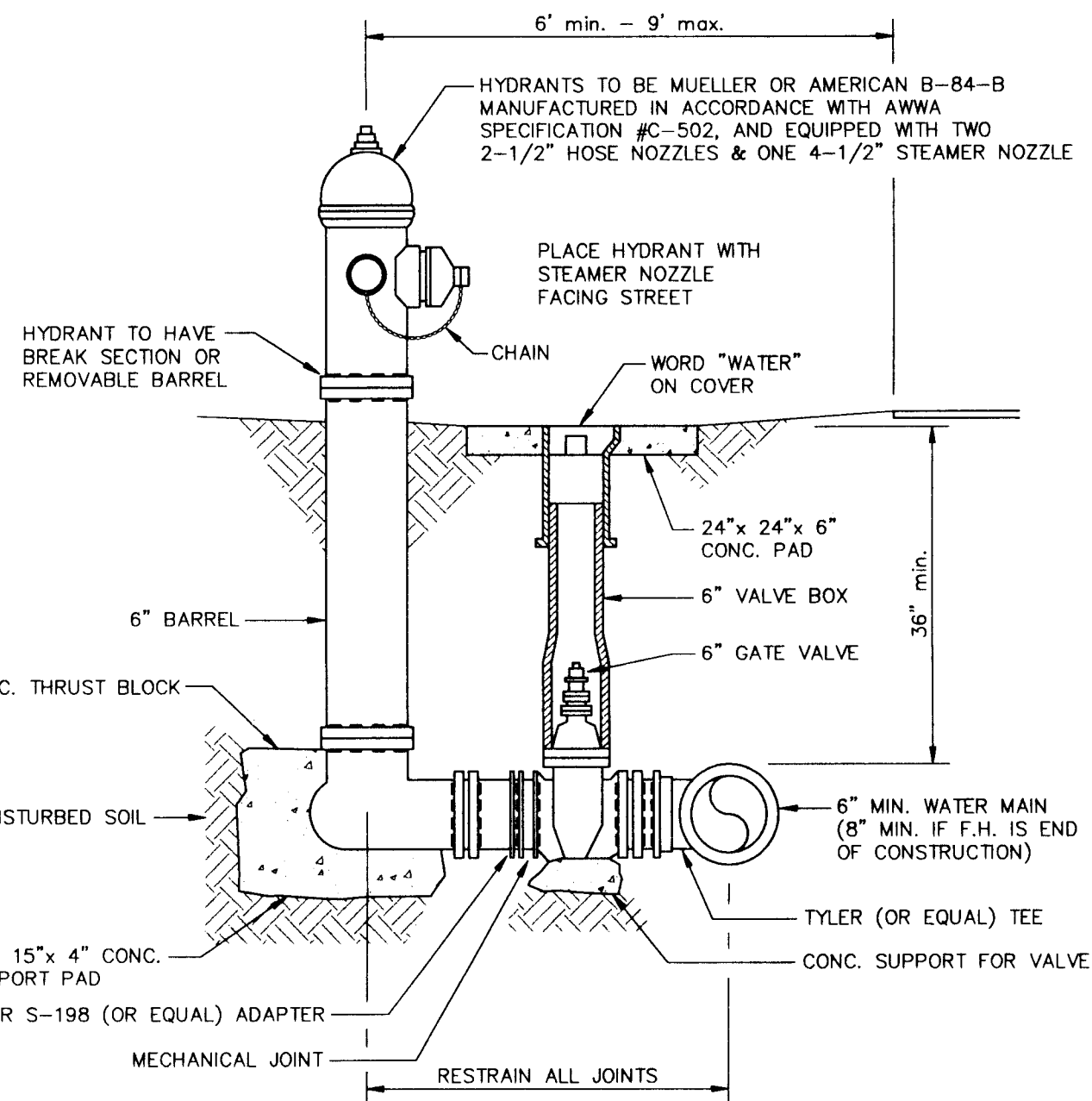
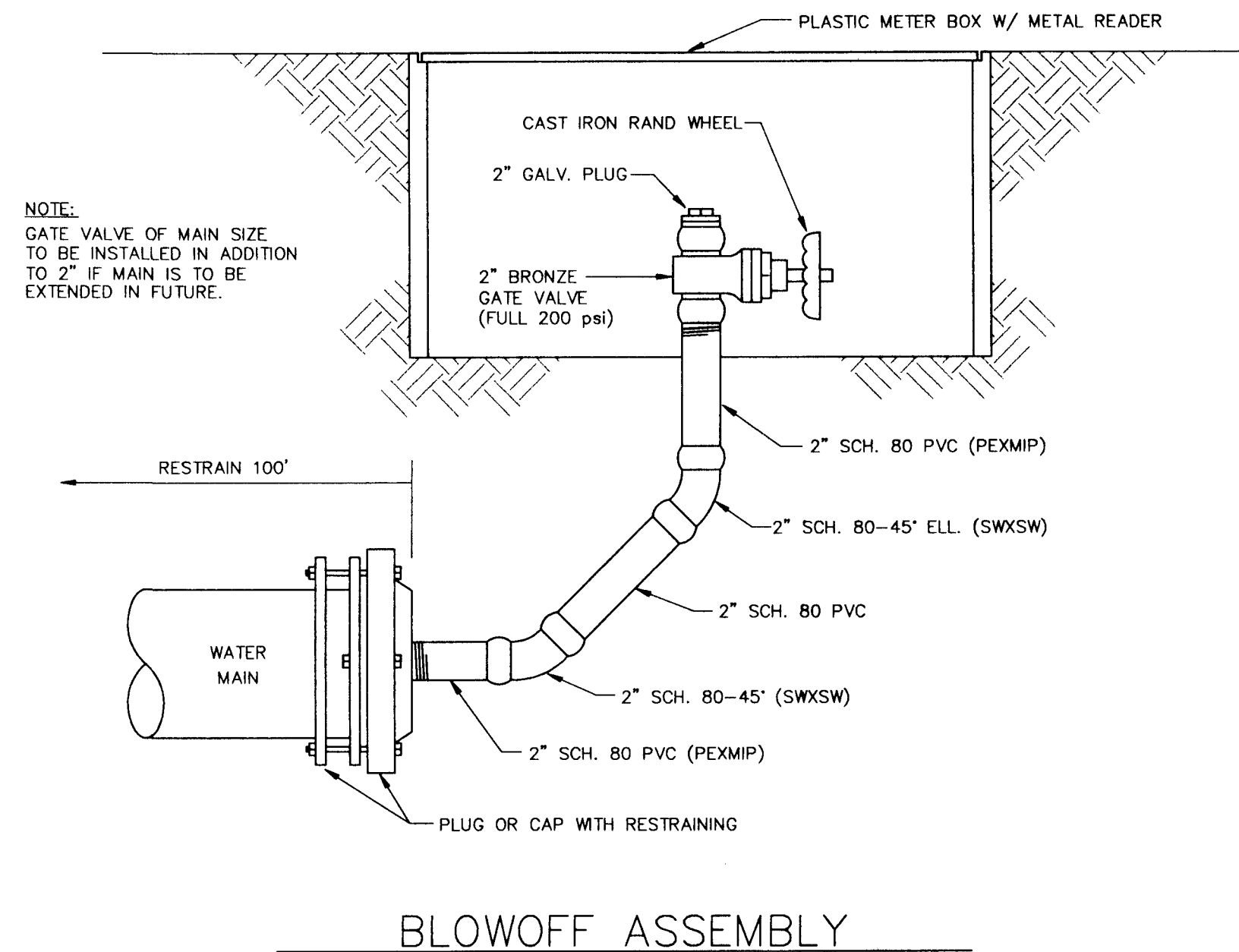




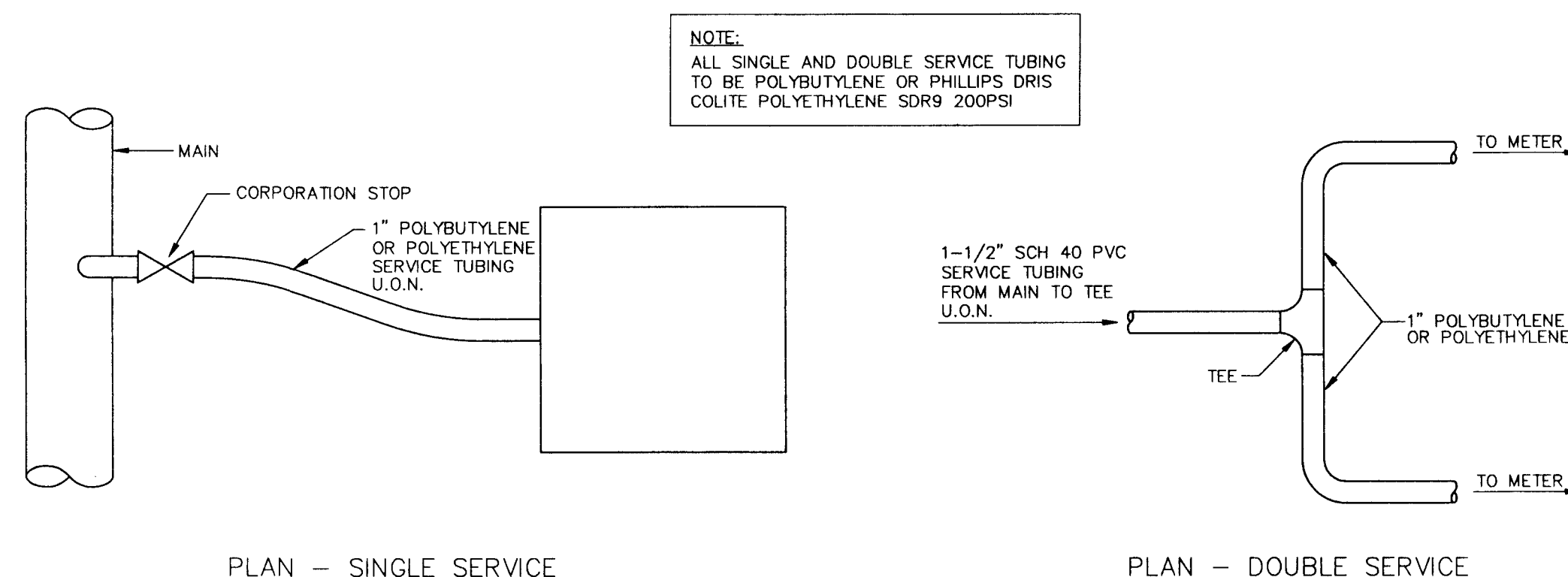
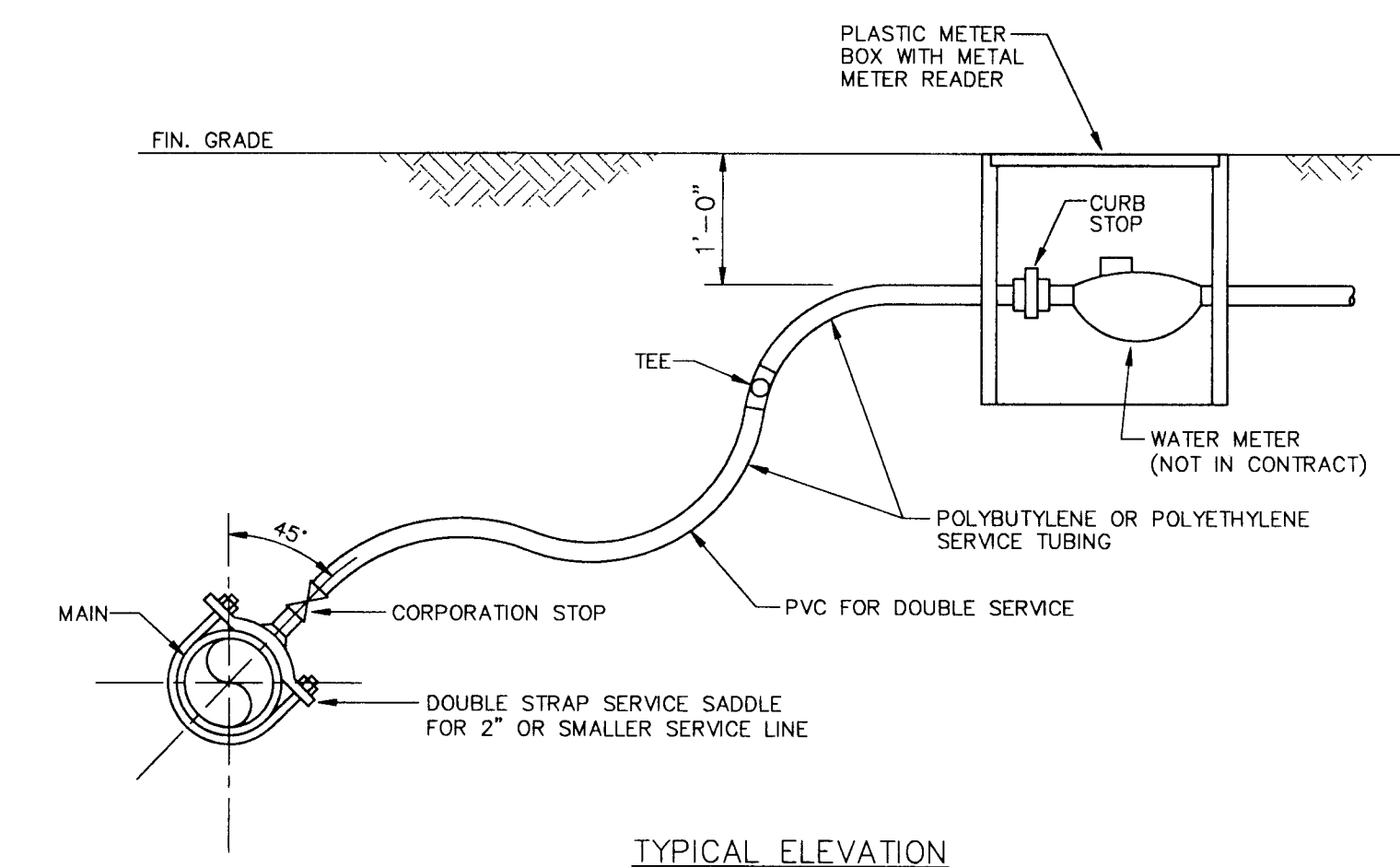
**THRUST BLOCK DETAILS**

PIPE SIZE	THRUST BLOCK BEARING AREA (ft <sup>2</sup> )		VALVES, TEES DEAD ENDS
	FITTING 90° ELBOW	FITTING 45° ELBOW	
3"	1.0	1.0	1.0
4"	1.4	0.9	1.0
6"	3.0	1.8	2.2
8"	5.4	3.1	3.9
10"	8.4	4.8	6.0
12"	12.0	6.9	8.50

**NOTES:**  
 ASSUME MAX. PIPE PRESSURE = 150 P.S.I.  
 ASSUME ALLOWABLE SOIL BEARING PRESSURE = 2000 P.S.F.  
 F<sub>c</sub> = 2500 P.S.I. (THRUST BLOCK CONCRETE)  
 THRUST BLOCK BEARING FACE SHALL BE APPROXIMATELY SQUARE.  
 POUR THRUST BLOCK AGAINST UNDISTURBED MATERIAL.



**FIRE HYDRANT DETAIL**



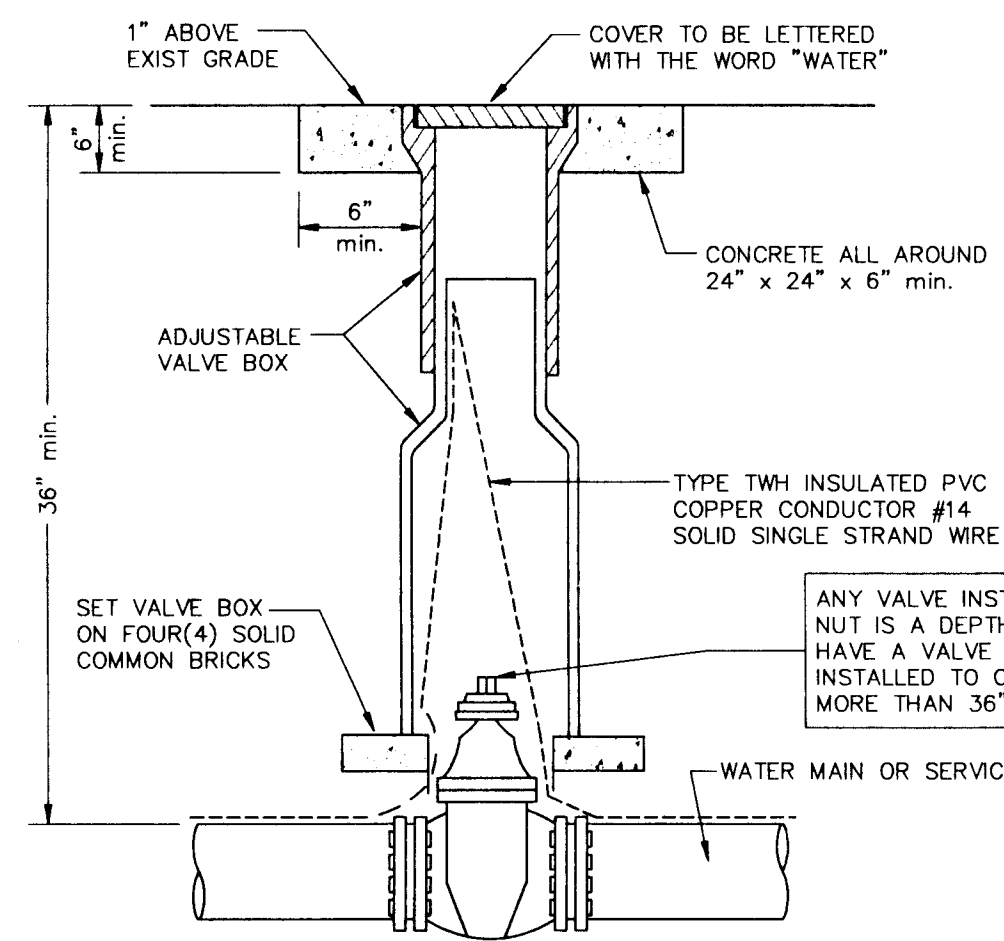
**WATER SERVICE DETAILS**

**GENERAL NOTES**

- Pressure Test—The pipes shall be completely filled with water, bleeding air as necessary, and subjected to a pressure of 150 psi which shall be maintained, by pumping, for at least two hours and until all exposed joints and fittings have been inspected for leakage. After leaks, if any, have been satisfactorily repaired the lines will be retested. Prior to testing, thrust blocks shall be installed and all piping shall be adequately braced and supported so that no damage will result from the application of the test. Leakage in gallons per hour shall not exceed that as determined by the following formulas as set forth in AWWA Standard C-600:  

$$L = \frac{ND(P)^{0.5}}{3700}$$

Where L: Leakage in gallons per hour  
 N: Number of joints in section tested  
 S: Length of pipe tested  
 D: Nominal diameter of the pipe - inches  
 P: Average test pressure maintained during the leakage test in psig.
- After completion of construction and testing, the water system shall be sterilized with chlorine before acceptance for domestic operation. The amount of chlorine applied shall be sufficient to provide a dosage of 50 parts per million or more. After thoroughly flushing the system with clean water, the chlorine solution shall be introduced in a manner conforming to A.W.W.A. specification C-651. The Chlorine solution shall remain in the system for a contact period of at least 24 hours, during which every valve in the system shall be opened and closed several times to assure contact with all parts of the system. Upon completion of the sterilization operation, the system shall be flushed with chlorinated water from a domestic source. Samples shall then be taken by the contractor for testing to the satisfaction and in accordance with the Florida Department of Environmental Protection regulations.
- Gate Valves - 2 1/2" or smaller: Bronze body Federal Spec., 150 psi working pressure with threaded joints equal to American 3 FG or Red and White 280. The use of this type of valve would have to be approved by the City.
- Gate Valves - 3" and larger: Iron body, non-rising stem type and shall be equipped with a 2" square cast iron operating nut with corrosion protection coating inside and out, resilient seated valve which meets all requirements of AWWA Standard C-509.
- Contractor to furnish owner with one T-handle socket valve wrench for each different size operating nut on valves installed and one spanner wrench for each four fire hydrants installed.
- Valve Boxes: All valves installed underground shall be provided with an adjustable, screw type cast iron valve box and cover marked "Water". Minimum inside diameter of 5 inches and designed so as not to bear on or transmit any surface load to the valve or pipe. Minimum 24" x 24" x 6" deep concrete collar shall be placed around the top of the box at ground level. Valve boxes shall not be installed in curb and gutter or in pavement sections.
- Minimum cover: All mains to have 3'-0" minimum cover and all service lines to have 1'-6" minimum cover.
- Separation of water mains and sanitary hazards: Parallel installation - water mains shall be laid at least 10 feet horizontal from any sanitary hazard, including sanitary sewer lines & manholes, force mains, storm sewers and reuse water lines. Crossing installation - water mains crossing any of the above sanitary hazards shall be laid to provide a vertical separation of at least 18 inches between the outside of the water main and the outside of the sewer, whenever possible. When local conditions prevent this vertical separation the following construction shall be used. A) Sanitary hazards passing over or under water mains should be constructed of materials with joints that are equivalent to water main standards of construction and shall be pressure tested to assure water tightness. B) Water mains passing under sanitary hazards shall, in addition, be protected by providing a minimum vertical separation of 18 inches between the bottom of the sewer and the top of the water main. C) As an alternative to A above, sanitary hazards shall be encased in concrete for a minimum of ten (10) feet on each side of the water main.
- All water pipe to be P.V.C. conforming to A.W.W.A. C-900. The pipe shall have a dimension ratio (dr) of 18 or less and shall be a pressure class of 150 psi.
- All pressure lines under pavement sections shall be installed with pvc casing pipe extending 5 feet beyond the edge of pavement.
- Tracking wire shall be taped to the pipe at two locations per joint. Tracking wire shall be type TWH insulated P.V.C. copper conductor No.14 solid single strand. The wire shall be a continuous run from valve to valve. Should a splice be required, it shall be made good and firm and properly insulated so water and corrosion will not deteriorate the copper. Metallic locating tape shall be placed in the trench 18" above the top of pipe.
- All fittings shall be cast iron or ductile iron. Fittings shall conform to A.N.S.I. Standard A 21.10 with mechanical joints in accordance with A.N.S.I. Standard A 21.11. Where mechanical joint fittings interface with P.V.C. pipe, a transition gasket shall be used.
- City of Leesburg "Water Construction Requirements" are incorporated herein by reference. In the case of a discrepancy between the specifications above and those required by the City, the City specifications shall govern for all material and installation procedures.



**GATE VALVE & BOX**

**AS BUILT**

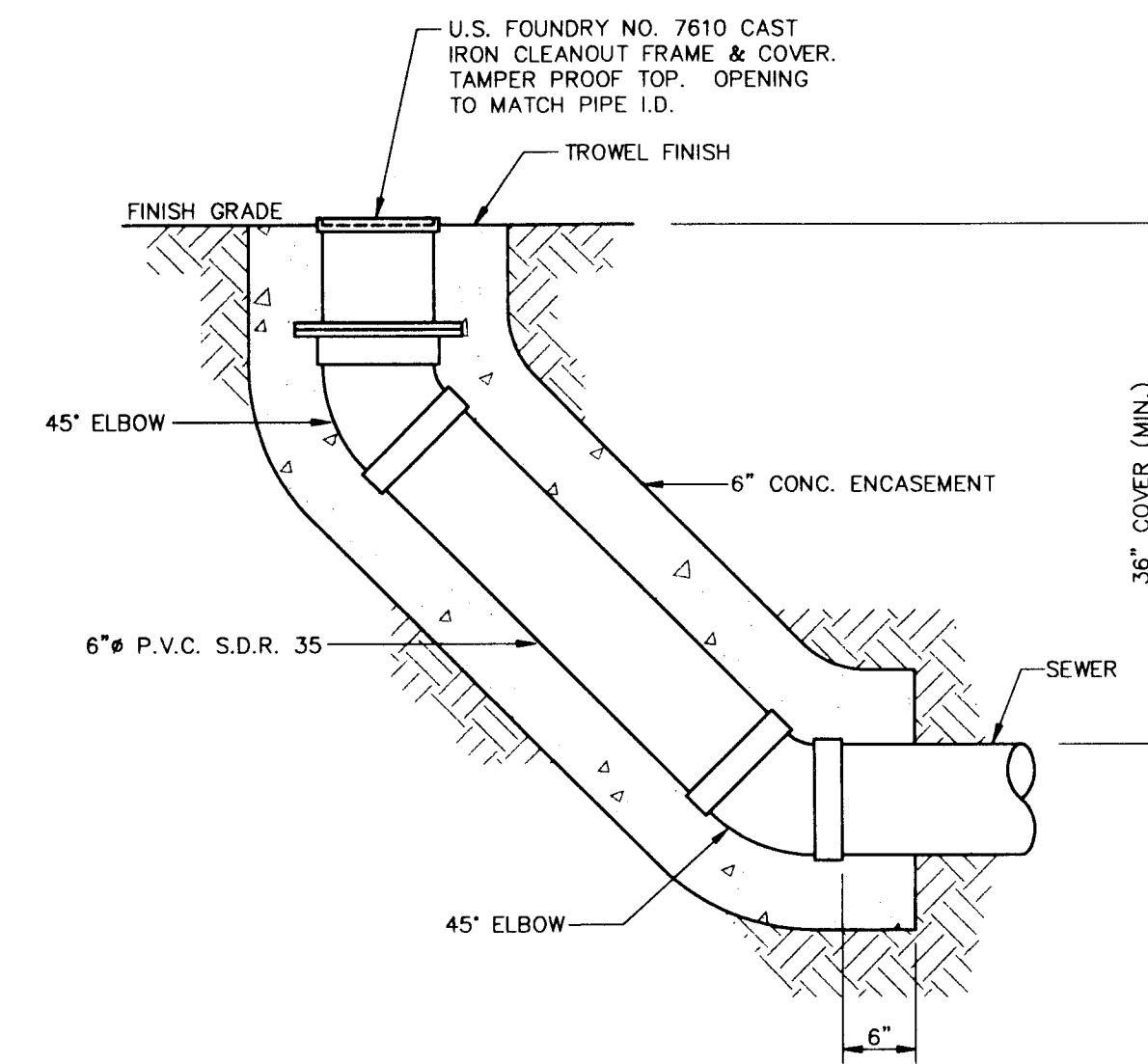
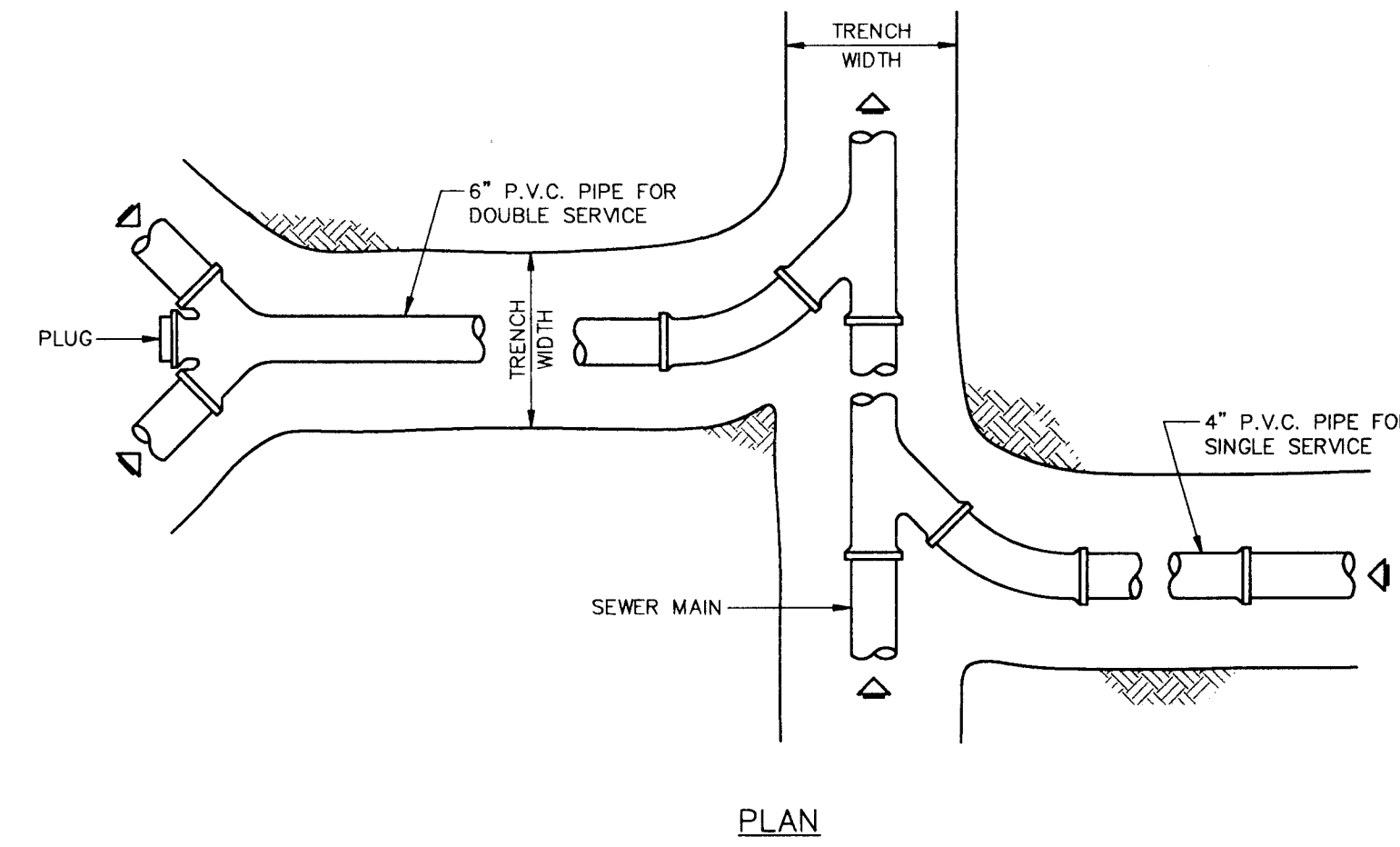
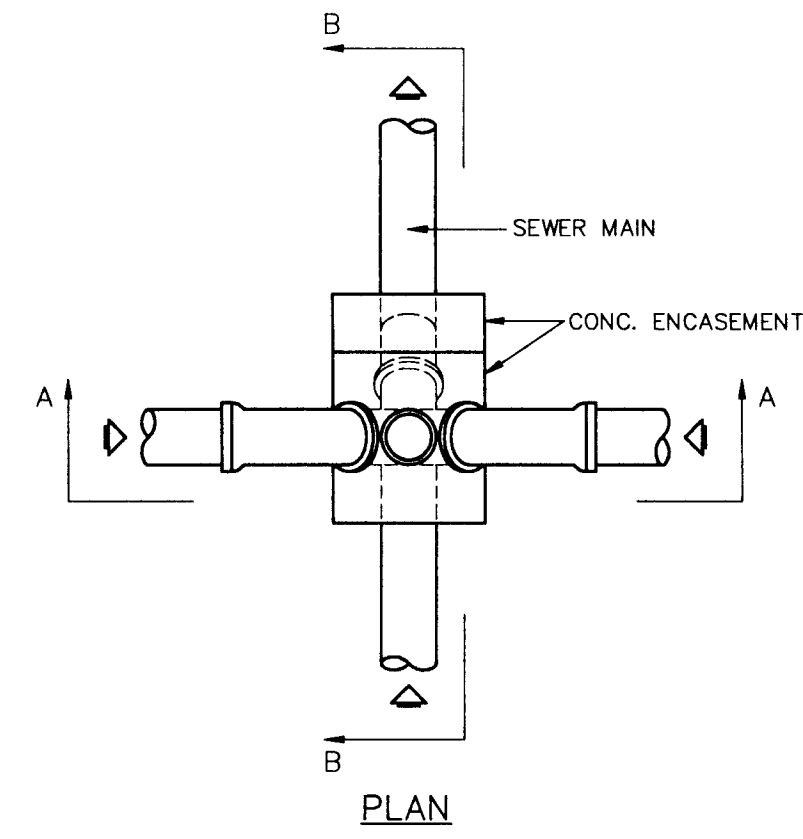
KEITH E. RIDDLE, P.E.  
 FLA. REGIS. NO. 38800

DATE

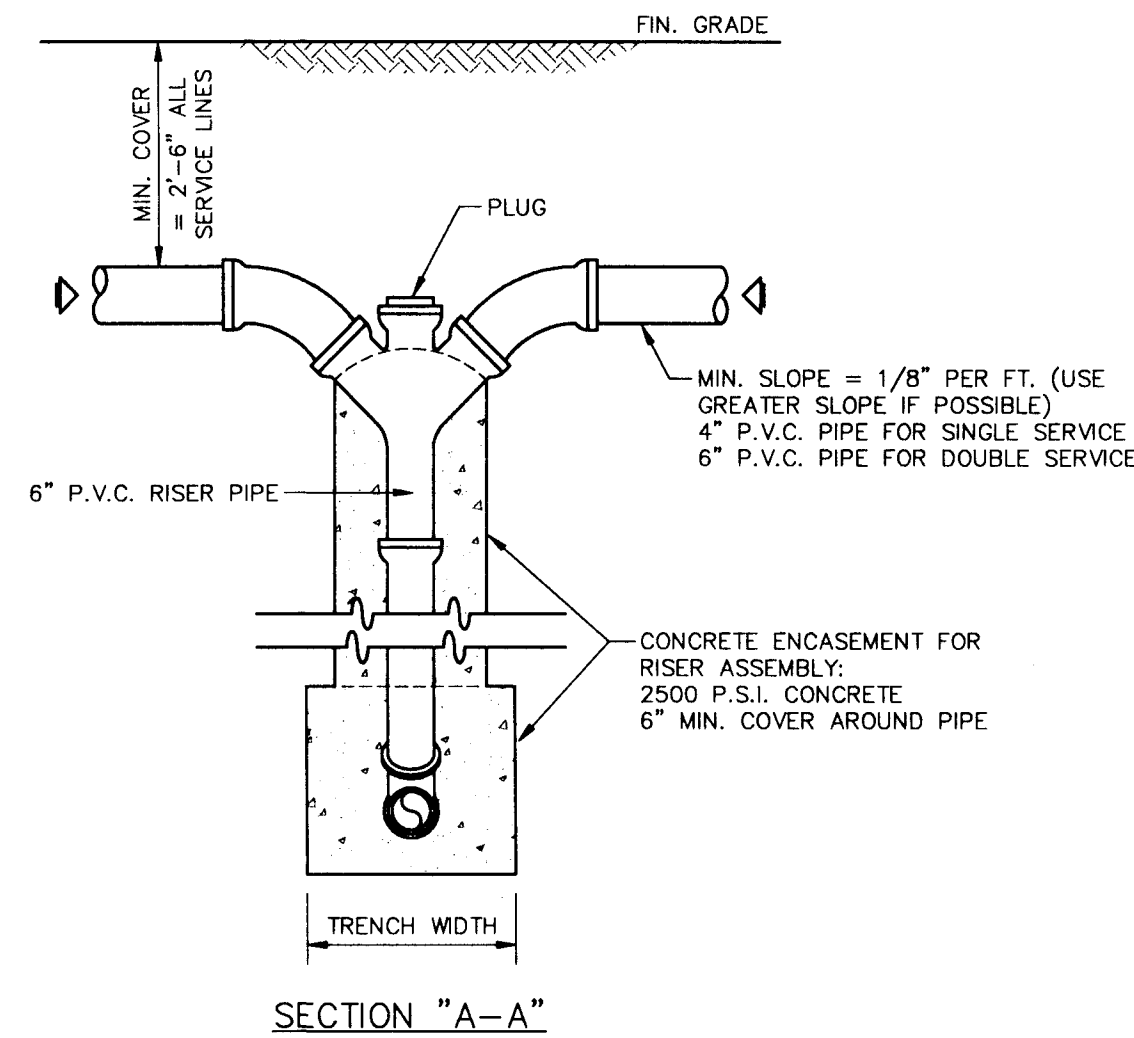
FILE: 93092PH-1C-A-RHIC-9 © 1997 - NEWMAN CONSULTING ENGINEERS, INC. ALL RIGHTS RESERVED.  
 TYPICAL WATER DETAILS  
 ROYAL HIGHLANDS - PHASE 1C-A  
 LAKE COUNTY FLORIDA  
 SHEET NO. 9  
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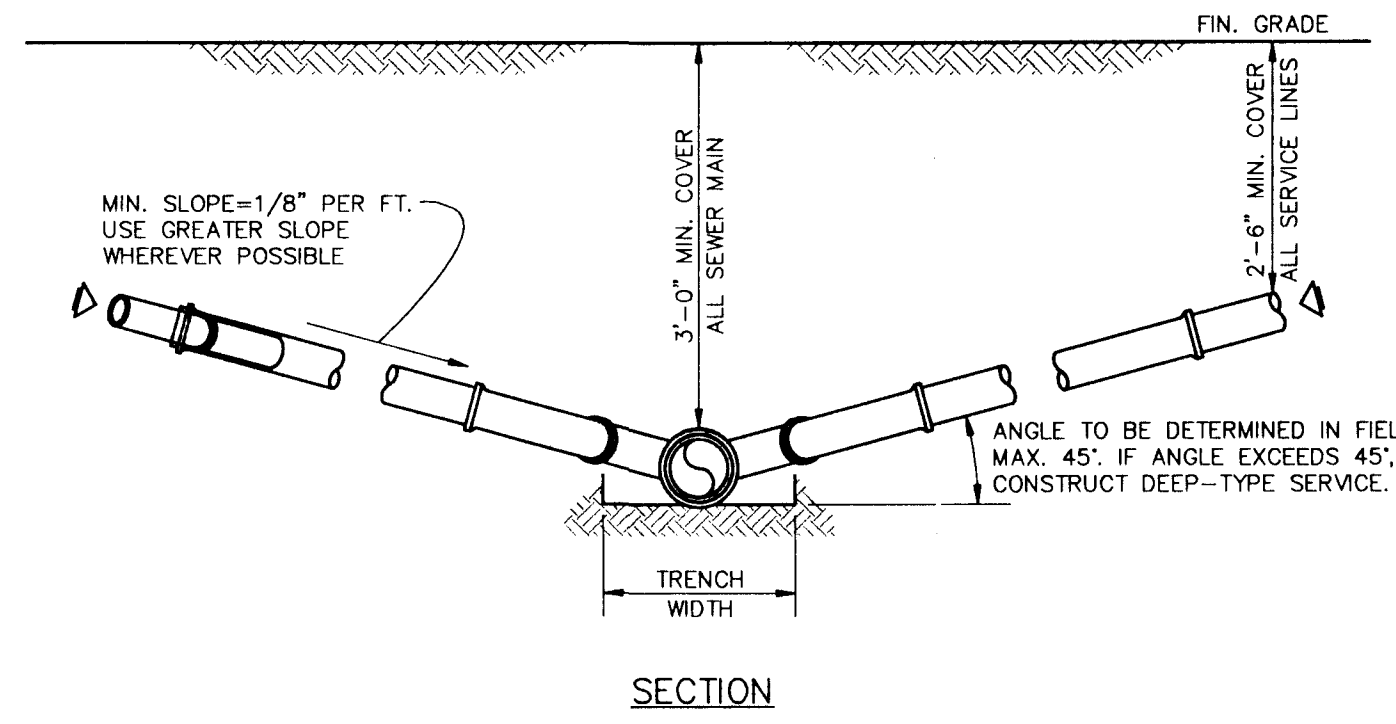
AS-BUILT PER CONTRACTOR 6/22/98  
 REV #1 MODIFIED FOR PHASE 1C-A CONFIGURATION 12/14/97



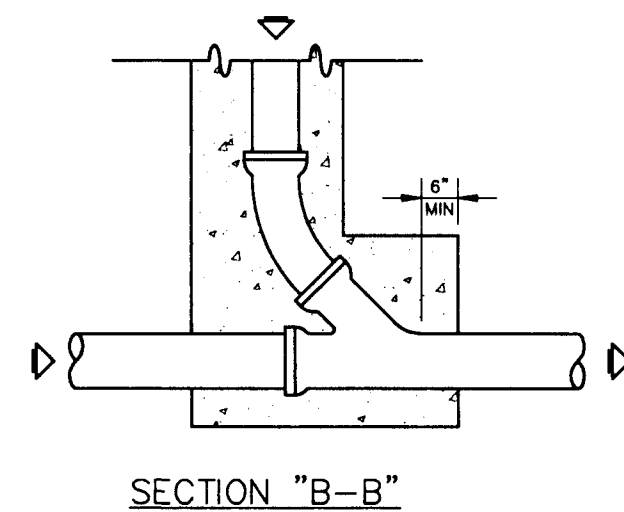
TRUNK LINE CLEAN - OUT DETAIL



SECTION "A-A"



DETAIL - SERVICE LATERAL

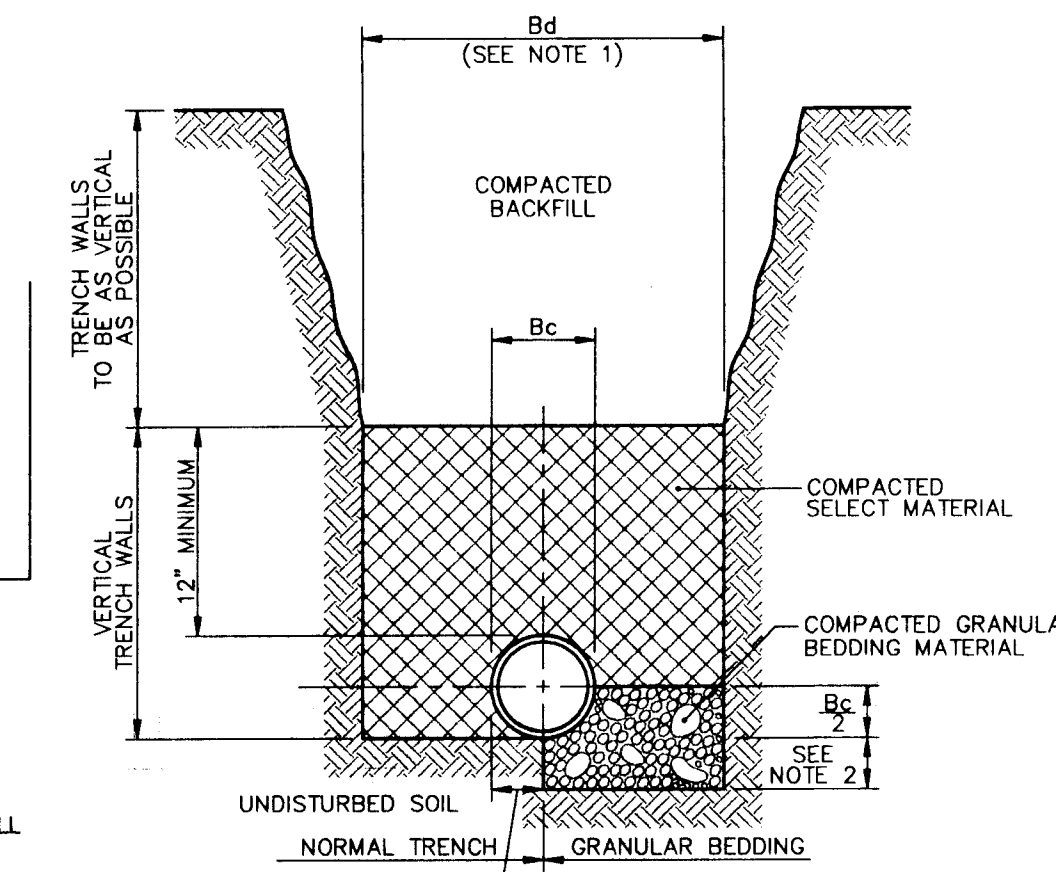


SECTION "B-B"

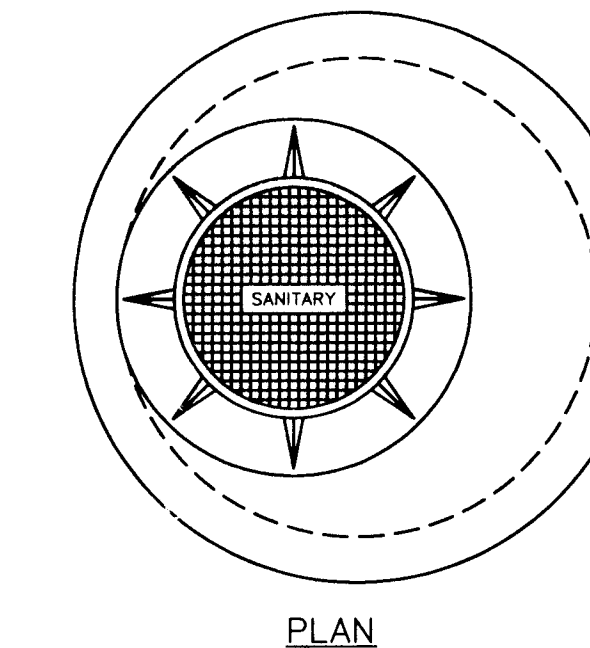
DETAIL - DEEP-TYPE SERVICE LATERAL

NOTES FOR BEDDING AND TRENCHING

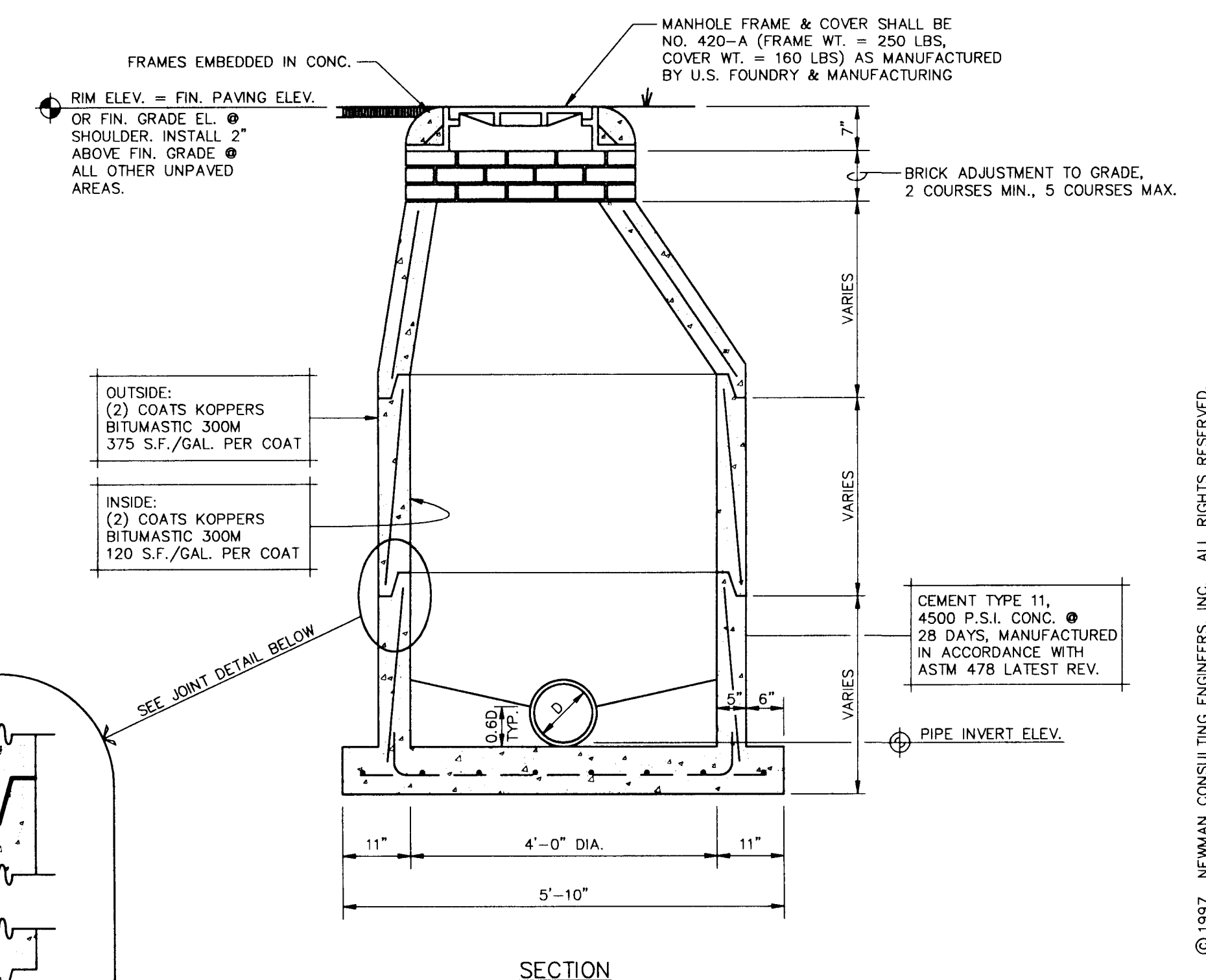
1. DIMENSION Bc = PIPE O.D.  
DIMENSION Bd = TRENCH WIDTH AT TOP OF PIPE  
MAXIMUM Bd = Bc + 30"  
MINIMUM Bd = MAXIMUM DIMENSION OF BELL + 8" (UNHEATED TRENCH)
2. DEPTH FOR REMOVAL FOR UNSUITABLE MATERIAL SHALL BE AS REQUIRED TO REACH SUITABLE FOUNDATION. FOR ROCK OR OTHER NON-CUSHIONING MATERIAL, DEPTH SHALL BE 6" BELOW BOTTOM OF UTILITY.
3. ALL BACKFILL AND SELECT MATERIAL UNDER ALL ROADWAYS, DRIVES (INCLUDING DIRT DRIVES), AND PARKING AREAS SHALL BE COMPACTED TO 98% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY (AASHTO T-180). BACKFILL AND SELECT MATERIAL UNDER ALL OTHER AREAS SHALL BE COMPACTED AS FOLLOWS: FROM BOTTOM OF TRENCH TO 12" ABOVE TOP OF PIPE - 95% OF MODIFIED PROCTOR MAXIMUM DRY DENSITY (AASHTO T-180); FROM 12" ABOVE TOP OF PIPE TO TOP OF BACKFILL - 90% OF MODIFIED PROCTOR MAXIMUM DRY DENSITY (AASHTO T-180).



CLASS "B" BEDDING NORMAL CONDITIONS

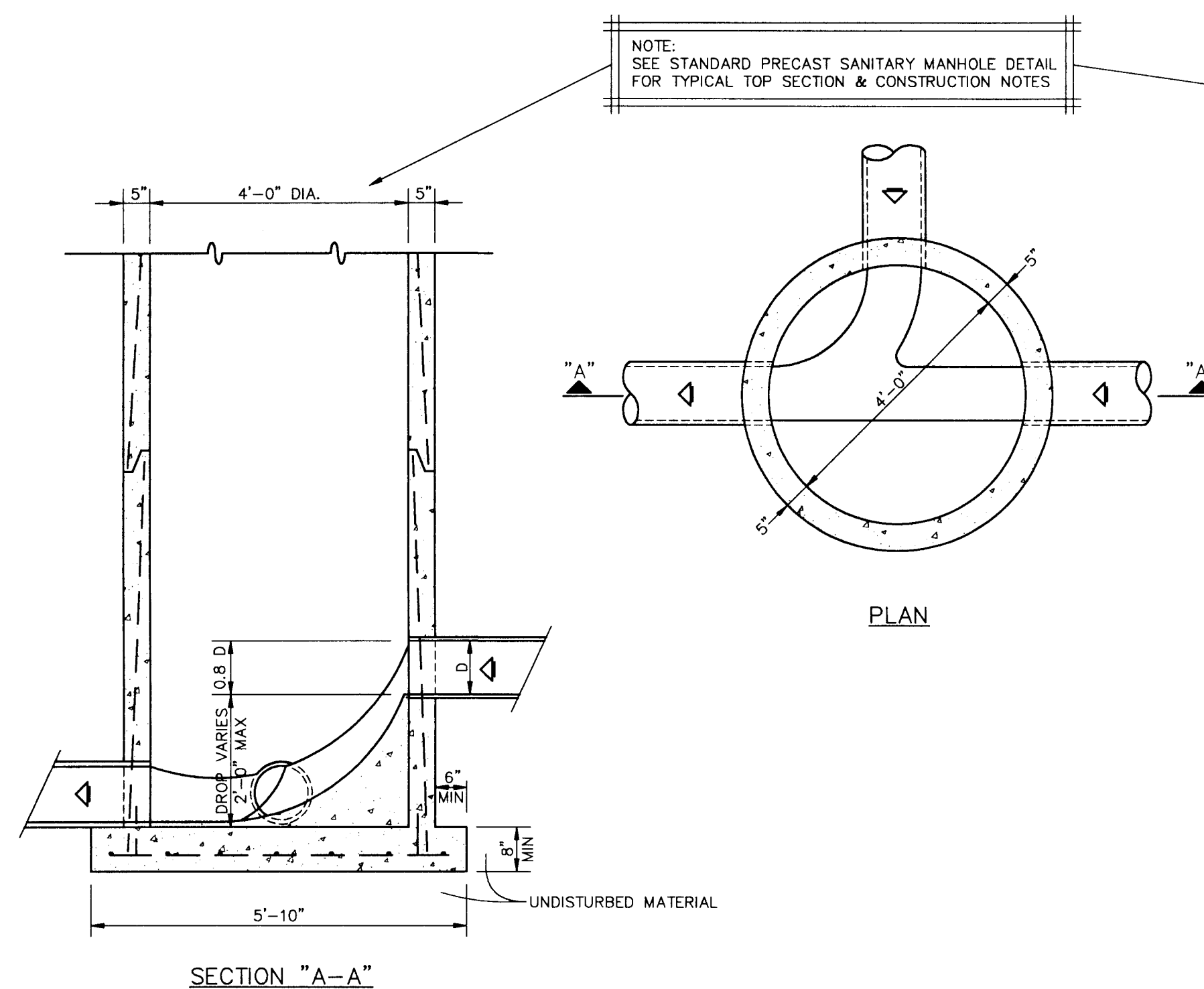


PLAN



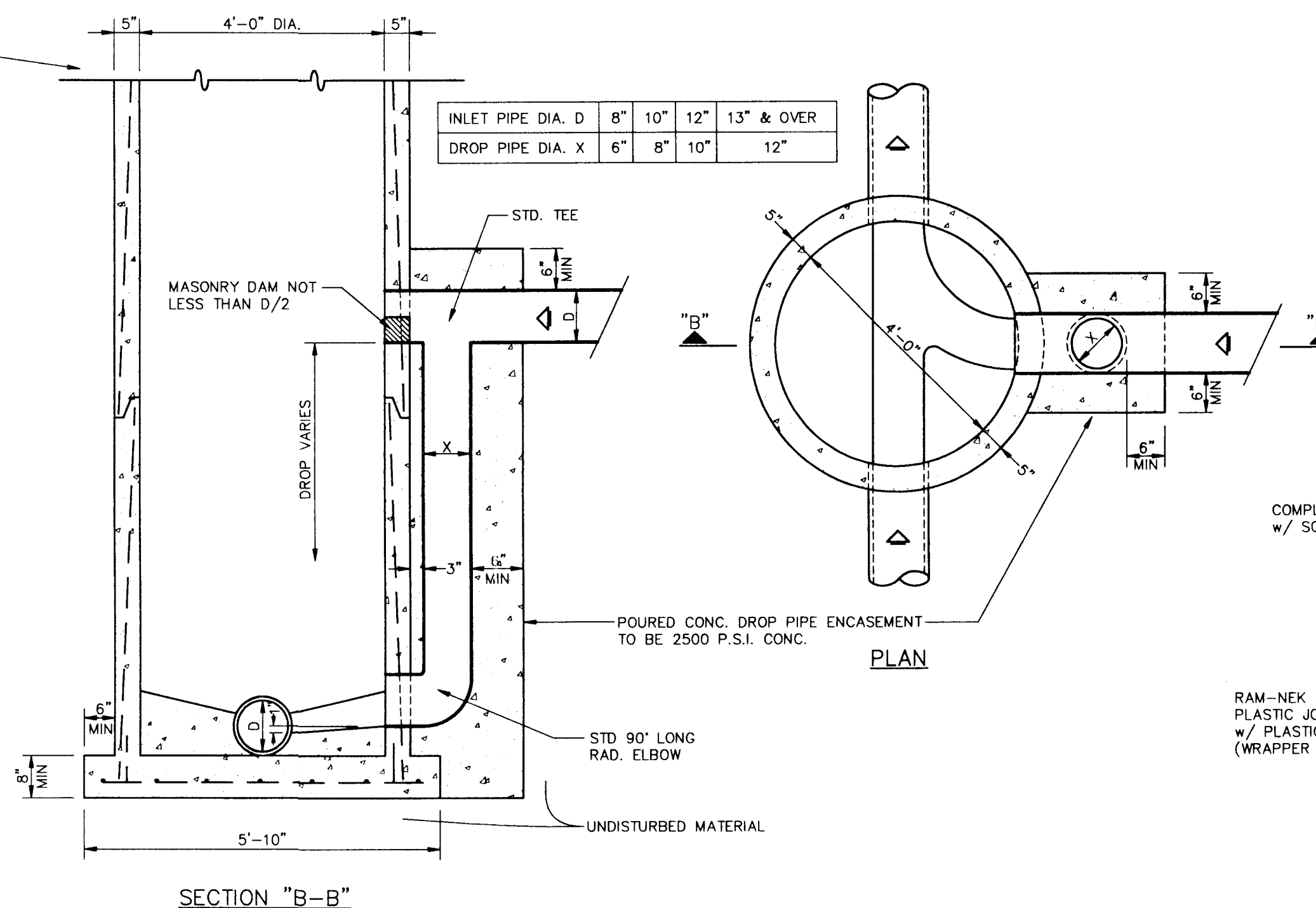
SECTION

PRECAST SANITARY MANHOLE DETAILS



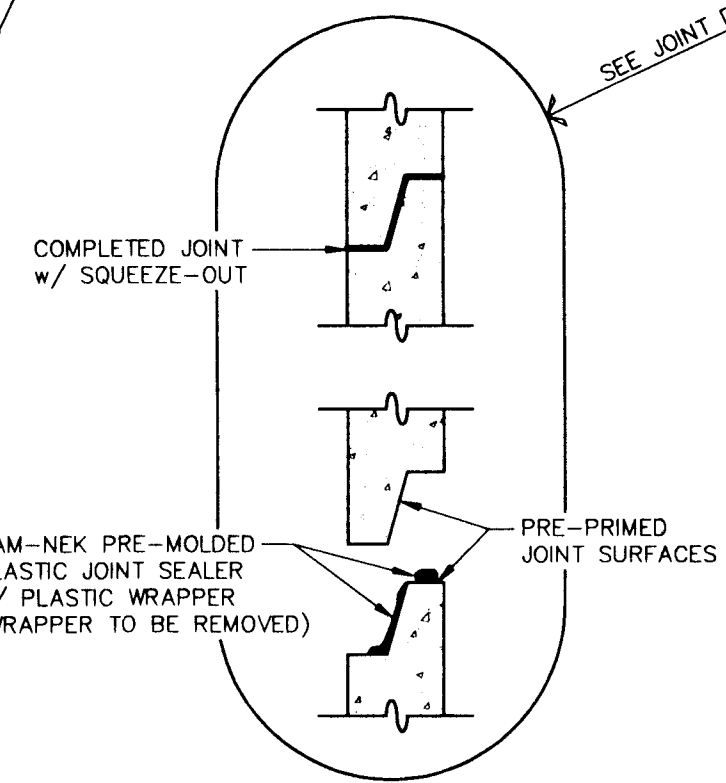
SECTION "A-A"

DROP MANHOLE (DROP 2' OR LESS)



SECTION "B-B"

DROP MANHOLE (DROP GREATER THAN 2')



TYPICAL TONGUE & GROOVE JOINT DETAIL

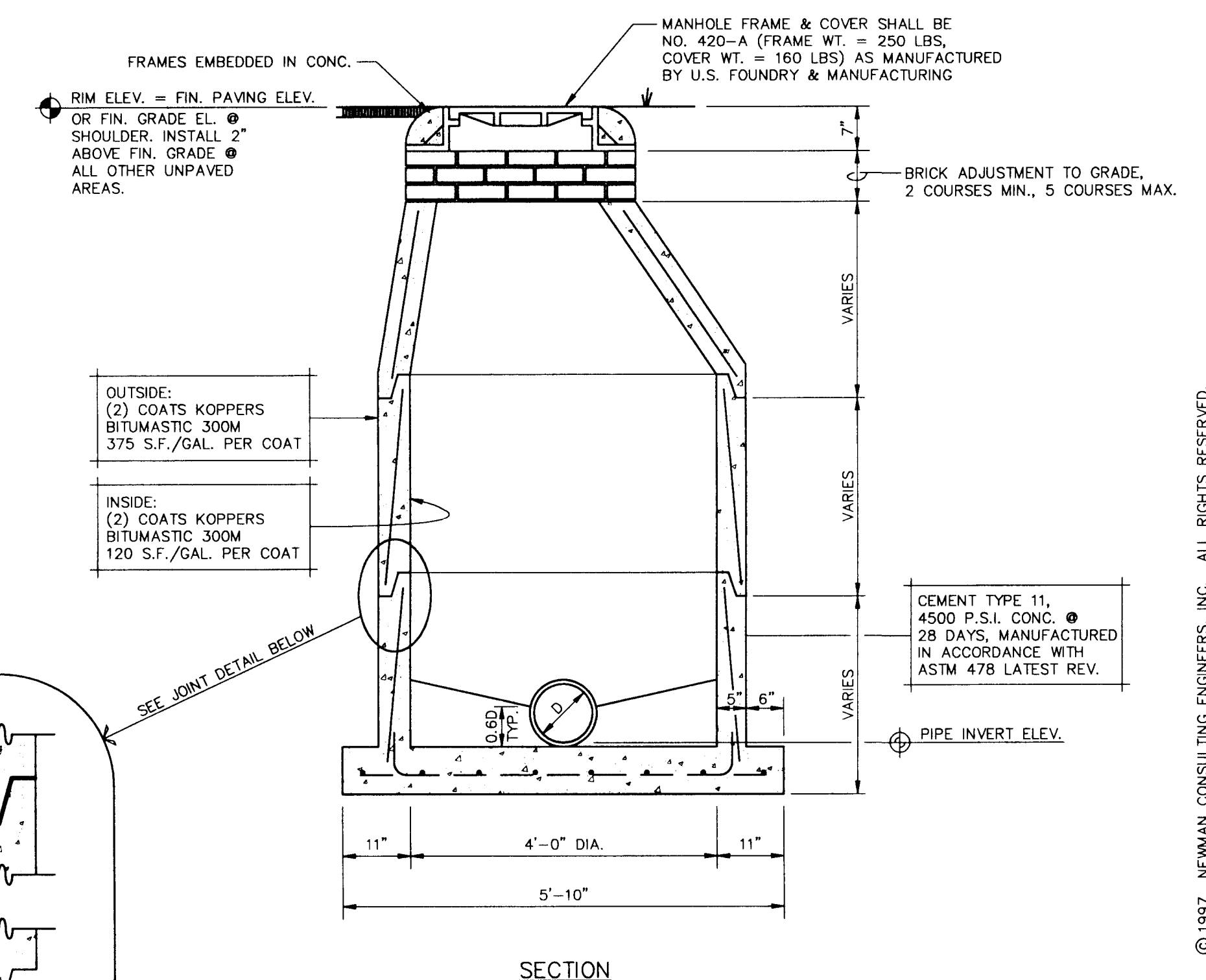
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KEITH E. RIDDLE, P.E.  
FLA. REGIS. NO. 38800

DATE

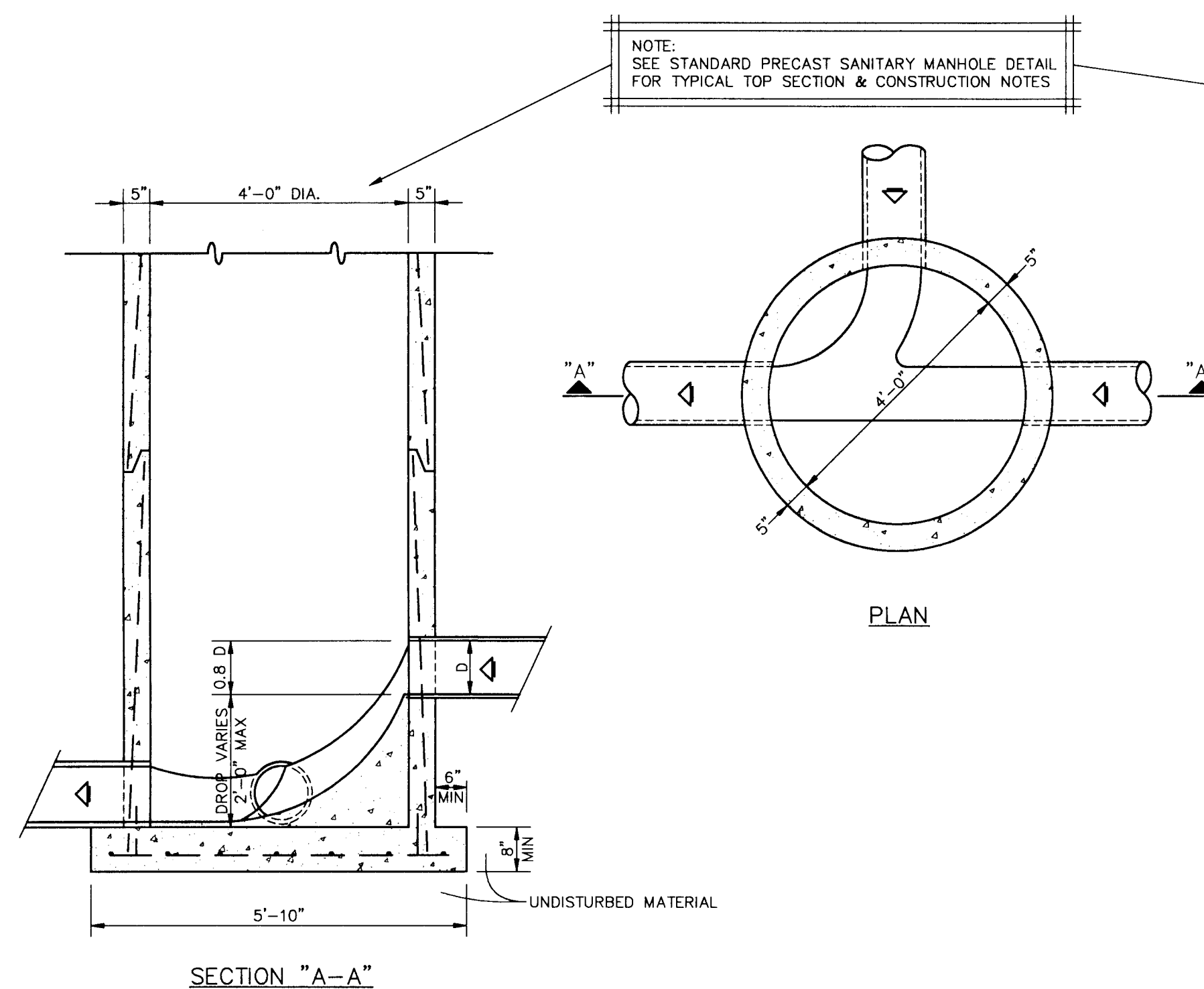
PRECAST SANITARY MANHOLE DETAILS

SECTION



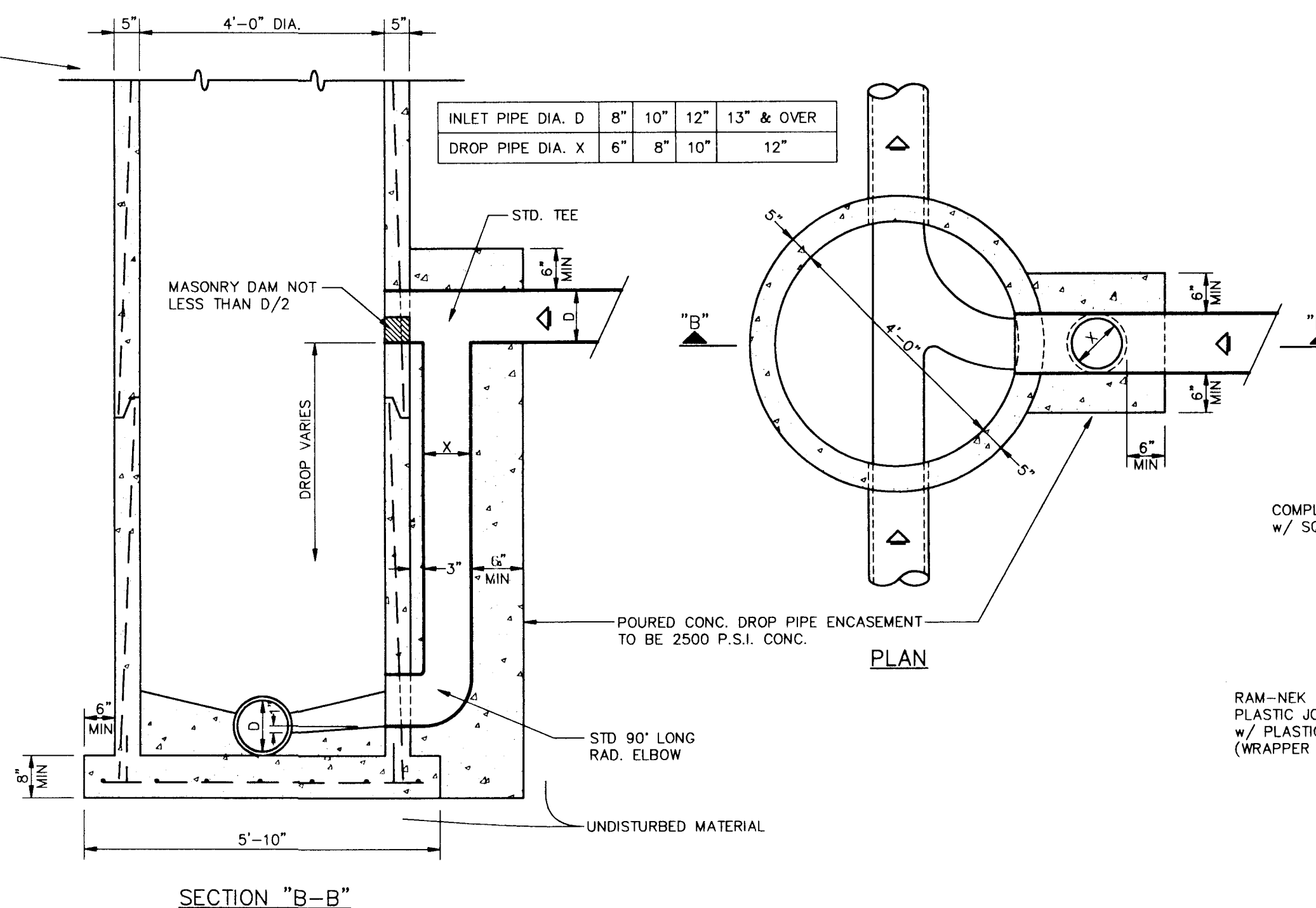
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PRECAST SANITARY MANHOLE DETAILS



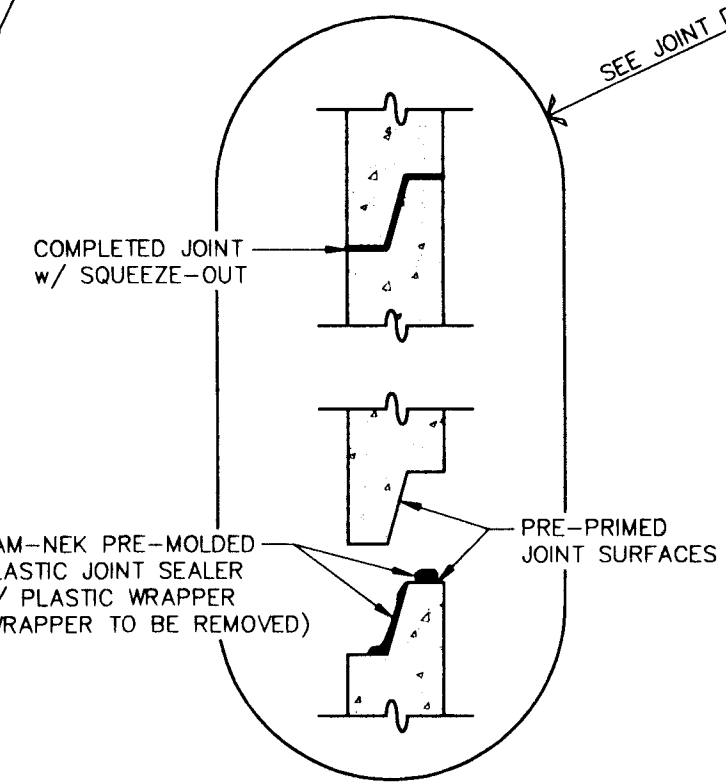
SECTION "A-A"

DROP MANHOLE (DROP 2' OR LESS)



SECTION "B-B"

DROP MANHOLE (DROP GREATER THAN 2')



TYPICAL TONGUE & GROOVE JOINT DETAIL

AS BUILT

KEITH E. RIDDLE, P.E.  
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DATE

PRECAST SANITARY MANHOLE DETAILS

SECTION

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**NE**

DRAWN: R.S.H.	REV #5	CHECKED: K.E.R.	REV #4
SCALE: N.T.S.	REV #3	DATE: 9/11/97	REV #2: AS-BUILT PER CONTRACTOR 6/23/98
PROJECT NO. 93092	REV #1: MODIFIED FOR PHASE 1C-A CONFIGURATIONS 12/4/97		

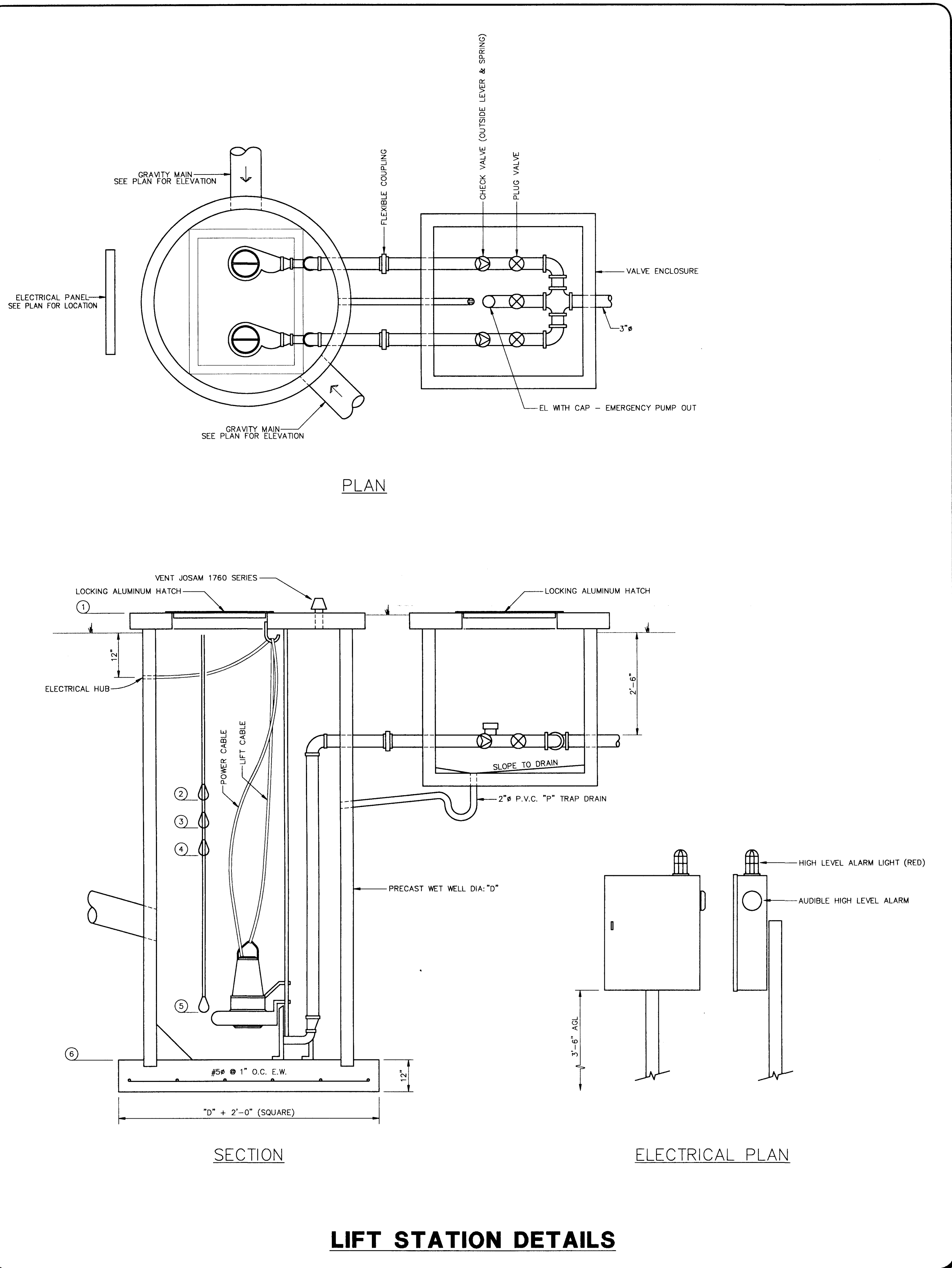
TYPICAL SEWER DETAILS

**ROYAL HIGHLANDS - PHASE 1C-A**

LAKE COUNTY  
FLORIDA

SHEET NO. **10** / **20**

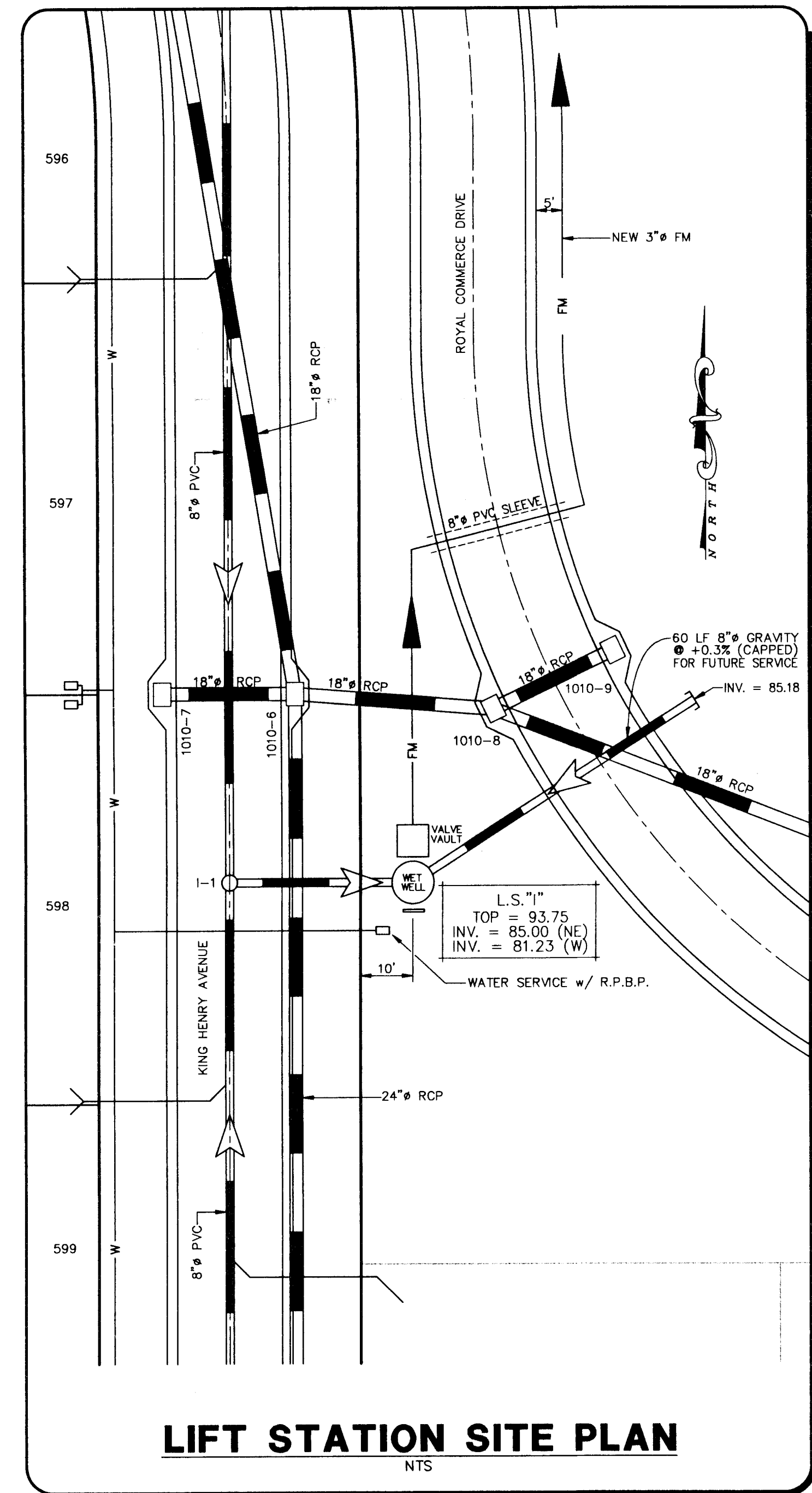
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**LIFT STATION DETAILS**

LIFT STATION DATA		
LIFT STATION		L.S. "1"
TOP OF LIFT STATION	1	93.75
HIGH LEVEL ALARM	2	81.75
LAG PUMP ON	3	81.25
LEAD PUMP ON	4	80.75
PUMP OFF	5	79.50
BOTTOM OF LIFT STATION	6	79.0
WET WELL DIAMETER	"D"	6'
H.P. OF PUMPS	-	2 HP

TYPICAL DUAL PUMP INSTALLATION  
 PUMP: L.S."1" - (2) HYDRAMATIC 53HRC, 2 HP, 3.3" IMPELLER, 3450 RPM (26 GPM @ 20' TDH)  
 PIPING: L.S."1" - FORCE MAIN PIPING SHALL BE 3" PVC, SDR 26 (CLASS 160)  
 PUMP SUPPLIER SHALL FURNISH SHOP DRAWINGS AND OPERATION MANUALS.



**LIFT STATION SITE PLAN**

**EQUIPMENT AND CONSTRUCTION NOTES**

- WET WELL: SHALL BE A MINIMUM 72"Ø OR 96"Ø (AS SPECIFIED) INSIDE DIAMETER PRECAST CONCRETE, MEETING "STANDARD SPECIFICATIONS FOR PRECAST REINFORCED CONCRETE MANHOLE" A.S.T.M. C-478-68, LATEST REVISION. CONCRETE SHALL BE MADE WITH TYPE II ACID RESISTANT CEMENT AND SHALL ATTAIN COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAYS. JOINT SHALL BE SEALED WITH RAM-NEK, OR EQUAL, FLEXIBLE SEALER CONFORMING TO FEDERAL SPECIFICATION SS-00210.
  - PUMPS: SEE INDIVIDUAL LIFT STATION DATA.
  - THREE (3) CHECK VALVES, APCO OR EQUAL. (OUTSIDE LEVER AND SPRING).
  - 3" ECCENTRIC PLUG VALVE, HAND OPERATED, BY DE ZURICK, OR EQUAL.
  - LEVEL CONTROLS: SHALL BE MODEL 3900 LIQUID LEVEL REGULATORS, EACH PROVIDED WITH 30' ELECTRIC CABLE AND WEIGHTS AS MANUFACTURED BY HYDR-O-MATIC.
  - WET WELL ACCESS COVER: SHALL HAVE CLEAR OPENING OF 30" X 36" AND DOUBLE DOOR ACCESS, AS MANUFACTURED BY HALLIDAY PRODUCTS, OR EQUAL. ACCESS FRAME AND COVERS SHALL BE FABRICATED OF ALUMINUM. FRAME SHALL SUPPORT GUIDE RAILS AND ELECTRICAL WIRING CHANNEL AS PER HYDR-O-MATIC SPECIFICATIONS. WIRING CHANNEL AND MOUNTING BRACKET FOR CHANNEL SHALL BE CONSTRUCTED OF STAINLESS STEEL. COVERS SHALL BE PROVIDED WITH LIFTING HANDLE AND SAFETY LATCH TO HOLD COVER IN OPEN POSITION. LOCKING HASPS SHALL BE FURNISHED FOR EACH COVER. STAINLESS STEEL HARDWARE SHALL BE USED THROUGHOUT. ALL SURFACES IN CONTACT WITH CONCRETE SHALL HAVE A SHOT COAT OF ZINC CHROMATIC PRIMER, APPROVED ALKALI RESISTANT PAINT, OR OTHER APPROVED PROTECTIVE COATING. COVER MUST BE COMPATIBLE WITH PUMPS.
  - VALVE VAULT ACCESS COVER: SHALL HAVE CLEAR OPENING OF 48" X 60" AS MANUFACTURED BY HALLIDAY PRODUCTS, OR EQUAL. DOOR LEAF SHALL BE 1/4" ALUMINUM DIAMOND PATTERN PLATE, TO WITHSTAND A LIVE LOAD OF 150 p.s.f. CHANNEL FRAME SHALL BE 1/4" ALUMINUM WITH ANCHOR FLANGE AROUND THE PERIMETER. COVER SHALL BE PROVIDED WITH LIFTING HANDLE AND SAFETY LATCH TO HOLD COVER IN OPEN POSITION. A LOCKING HASP SHALL BE FURNISHED FOR EACH COVER. STAINLESS STEEL HARDWARE SHALL BE USED THROUGHOUT. ALL SURFACES IN CONTACT WITH CONCRETE SHALL HAVE A SHOT COAT OF ZINC CHROMATIC PRIMER, APPROVED ALKALI RESISTANT PAINT, OR OTHER APPROVED PROTECTIVE COATING.
  - PADLOCK FOR ACCESS COVERS AND CONTROL PANEL DOOR: SHALL BE 3626 MASTER #4 BRASS PADLOCK, KEYED ALIKE. FURNISH TWO (2) KEYS PER LOCK. BOLTS IN LOCKING DEVICE SHALL BE STAINLESS STEEL.
  - ELECTRICAL SERVICE ENTRANCE: PROVIDE METER SOCKET AND DISCONNECT, MEETING APPLICABLE ELECTRIC CODES AND REQUIREMENTS OF POWER COMPANY. LIGHTNING & VOLTAGE PROTECTION TO BE PROVIDED.
  - CONTROL PANEL: SHALL BE EQUIPPED WITH INDIVIDUAL DISCONNECTS, ACROSS THE LINE MAGNETIC STARTERS, THREE POLE OVERHEAD PROTECTION, ELECTRICAL ALTERNATOR, AUTOMATIC TRANSFER TO NON-OPERATING PUMP, OVERLOAD RESETS, H.O.A. PUMP OPERATING SELECTOR SWITCH, ELAPSED TIME METERS FOR EACH PUMP, AND TERMINAL BOARD WITH CONNECTIONS FOR HIGH LEVEL ALARMS. ALL COMPONENTS SHALL BE HOUSED IN A NEMA 3R-304 STAINLESS STEEL ENCLOSURE WITH ALUMINUM DEAD FRONT INNER DOOR DESIGN. PROVISIONS FOR PADLOCKING PANEL SHALL BE PROVIDED.
- OTHER REQUIRED EQUIPMENT:
- MAIN BREAKER.
  - HIGH LEVEL ALARM LIGHT, FLASHER, PILOT LIGHT, HORN, PUSH TO TEST SWITCH AND SILENCING SWITCH.
  - CONVENIENCE RECEPTACLE GROUND-FAULT INTERRUPTER TYPE.
  - LIGHTNING ARRESTORS.
  - 24 VOLT CONTROL CIRCUITRY.
  - VOLTAGE MONITOR RELAY.
  - SEAL FAILURE MODULE.
  - LIQUID LEVEL LIGHTS.
  - EMERGENCY GENERATOR RECEPTACLE - J.R.S.B. 1044FR.
- PAINT: INSIDE OF WET WELL & VALVE VAULT SHALL BE PAINTED WITH TWO (2) COATS OF "POXITAR" OR EQUAL, APPLIED AS PER MANUFACTURER'S RECOMMENDATIONS.
  - VALVE VAULT: PRECAST CONCRETE, 5' X 4' INSIDE DIMENSIONS.
  - CONTRACTOR TO CONFIRM SERVICE ARRANGEMENTS WITH POWER COMPANY BEFORE COMMENCING WORK. CONTRACTOR TO RUN UNDERGROUND WIRING TO NEAREST TRANSFORMER OR HAND HOLE.
  - ALL FASTENERS ON FLANGES AND ETC. INSIDE WET WELL SHALL BE STAINLESS STEEL.
  - SHOP DRAWINGS OF ENTIRE INSTALLATION MUST BE APPROVED BY THE ENGINEER AND THE CITY OF LEESBURG PRIOR TO ORDERING MATERIALS.
  - PIPING FROM THE LIFT STATION ON, SHALL BE AS SHOWN ON PLANS. THRUST RESTRAINT BLOCKING TO BE CONSTRUCTED AS REQUIRED ALONG THE FORCE MAIN IN ACCORDANCE WITH THE DETAILS SHOWN ON "WATER DETAIL SHEET".
  - FORCE MAIN TO BE LAID LEVEL WHERE POSSIBLE. WHERE FORCE MAINS RISES TO FOLLOW PROPOSED FINISHED GRADE PROVIDING INTERMEDIATE "HIGH POINTS", INSTALL APPROPRIATE AIR RELEASE VALVE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
  - ALL LIFT STATION MATERIAL AND CONSTRUCTION TECHNIQUES SHALL BE IN ACCORDANCE WITH CITY OF LEESBURG REQUIREMENTS. CITY MUST APPROVE ALL MATERIAL PRIOR TO INSTALLATION.
  - POTABLE WATER SERVICE LOCATED AT LIFT STATION SHALL BE CONSTRUCTED WITH A REDUCED PRESSURE BACKFLOW PREVENTOR.

**AS BUILT**

KEITH E. RIDDLE, P.E. DATE  
 FLA. REGIS. NO. 38800

NEWMAN CONSULTING ENGINEERS, INC.  
 P.O. BOX 490264 • LEESBURG, FLORIDA 34749-0264  
 PHONE (352) 787-7482 • FAX (352) 787-7412

LIFT STATION DETAILS  
 ROYAL HIGHLANDS - PHASE 1C-A  
 FLORIDA  
 LAKE COUNTY

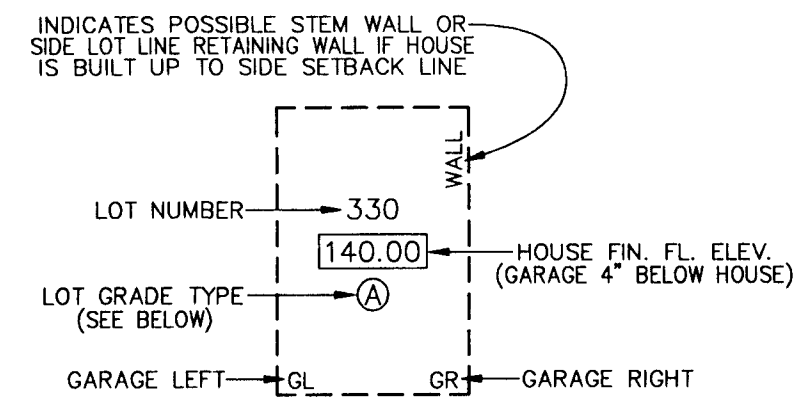
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CHECKED	K.E.R.	REV #4
SCALE	N.T.S.	REV #3
DATE	9/11/97	REV #2
PROJECT NO.	93092	REV #1

AS-BUILT PER CONTRACTOR 6/13/98  
 MODIFIED FOR PHASE 1C-A CONFIGURATION 12/4/97

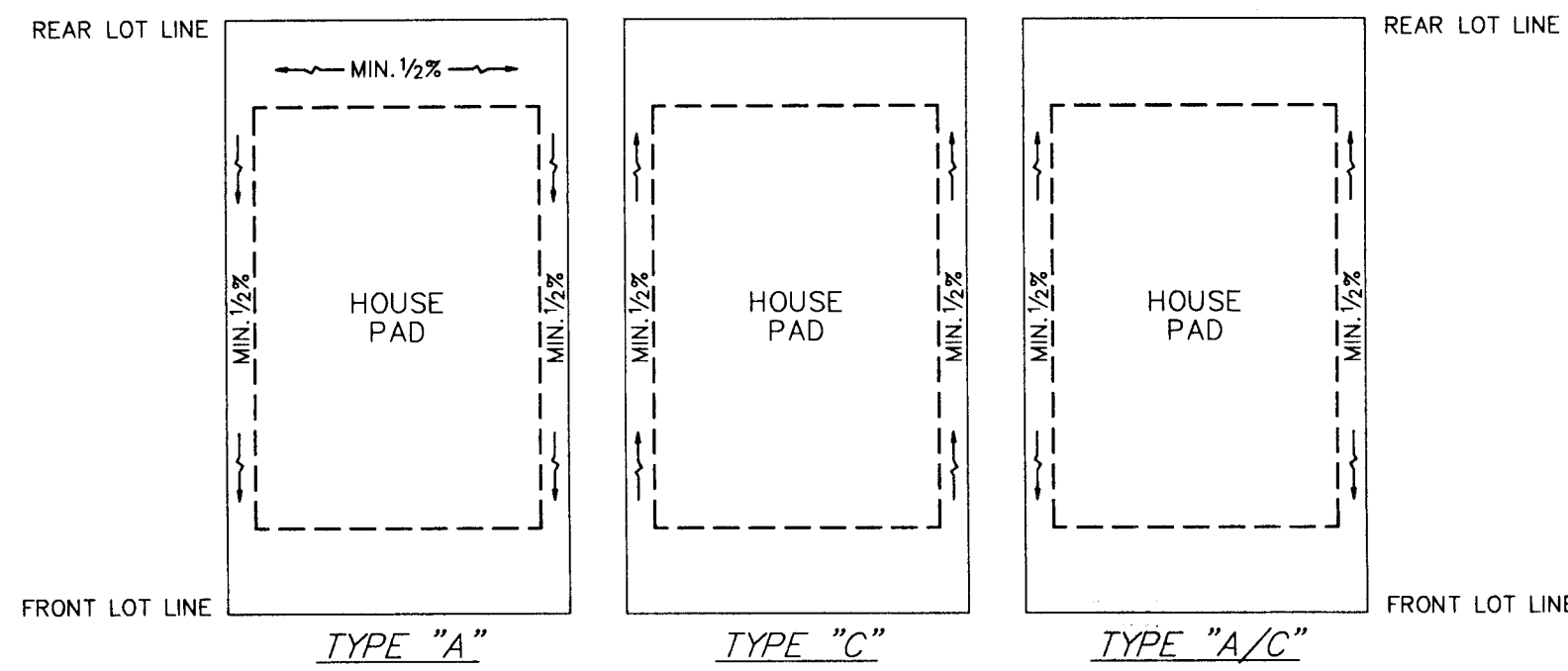
SHEET NO. 11 OF 20

**GRADING NOTES**

- ELEVATIONS SHOWN WITHIN EACH HOUSE PAD REPRESENT THE DESIGNED FINISHED FLOOR ELEVATION. CONTRACTOR TO SET FINISHED DIRT GRADE 6" BELOW THE FINISHED FLOOR ELEVATION AND COMPACT TO 95% OF MODIFIED PROCTOR AASHTO T-180.

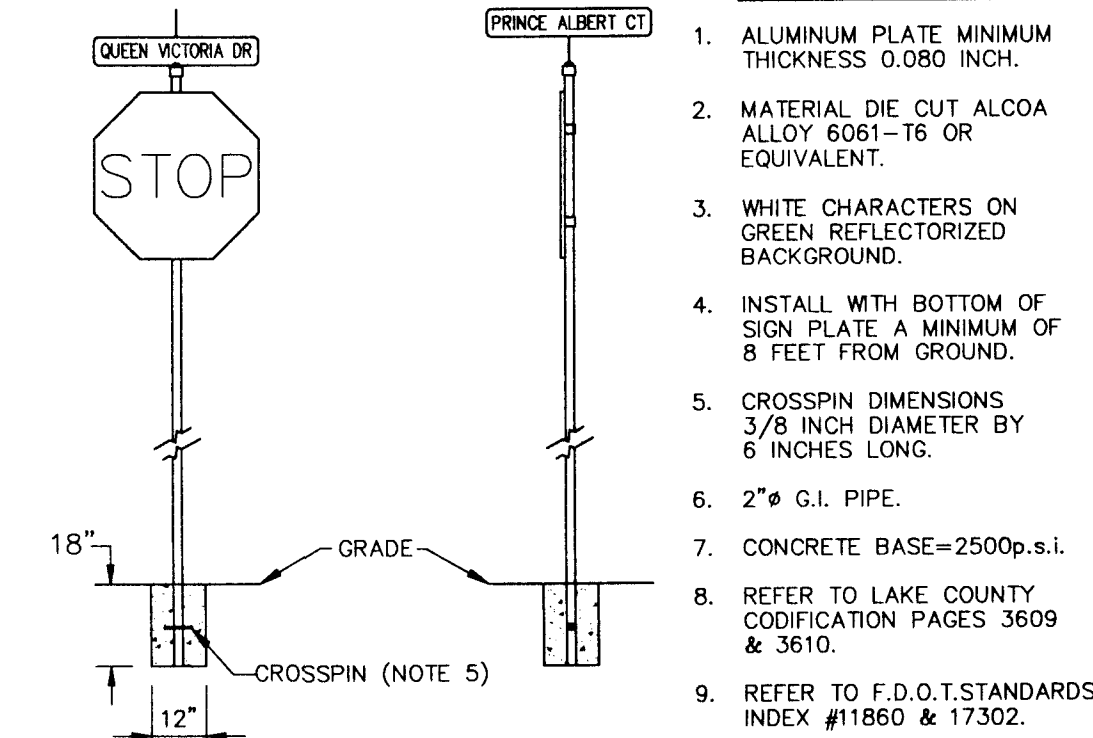


**TYPICAL HOUSE PAD**



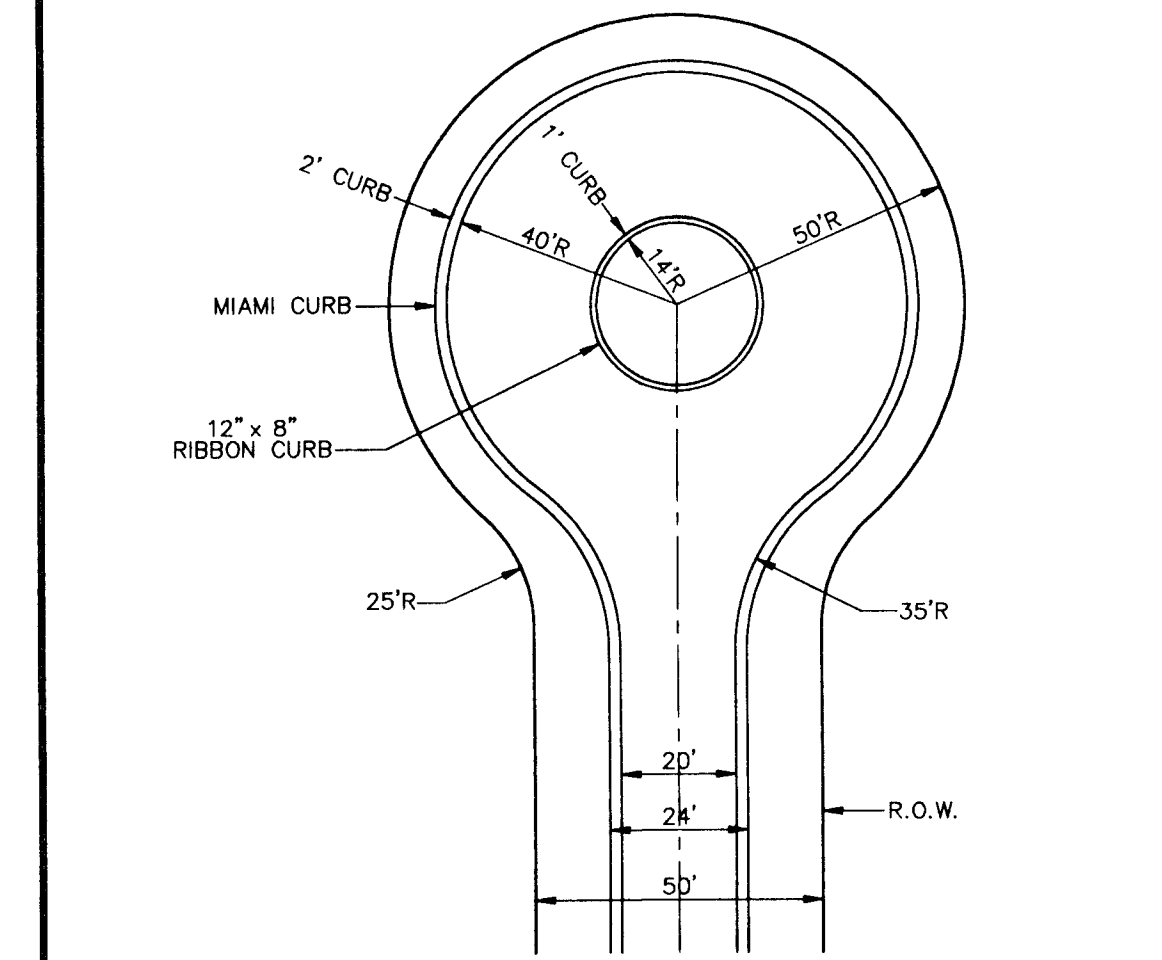
**TYPICAL LOT GRADING**

**LOT GRADING DETAILS**

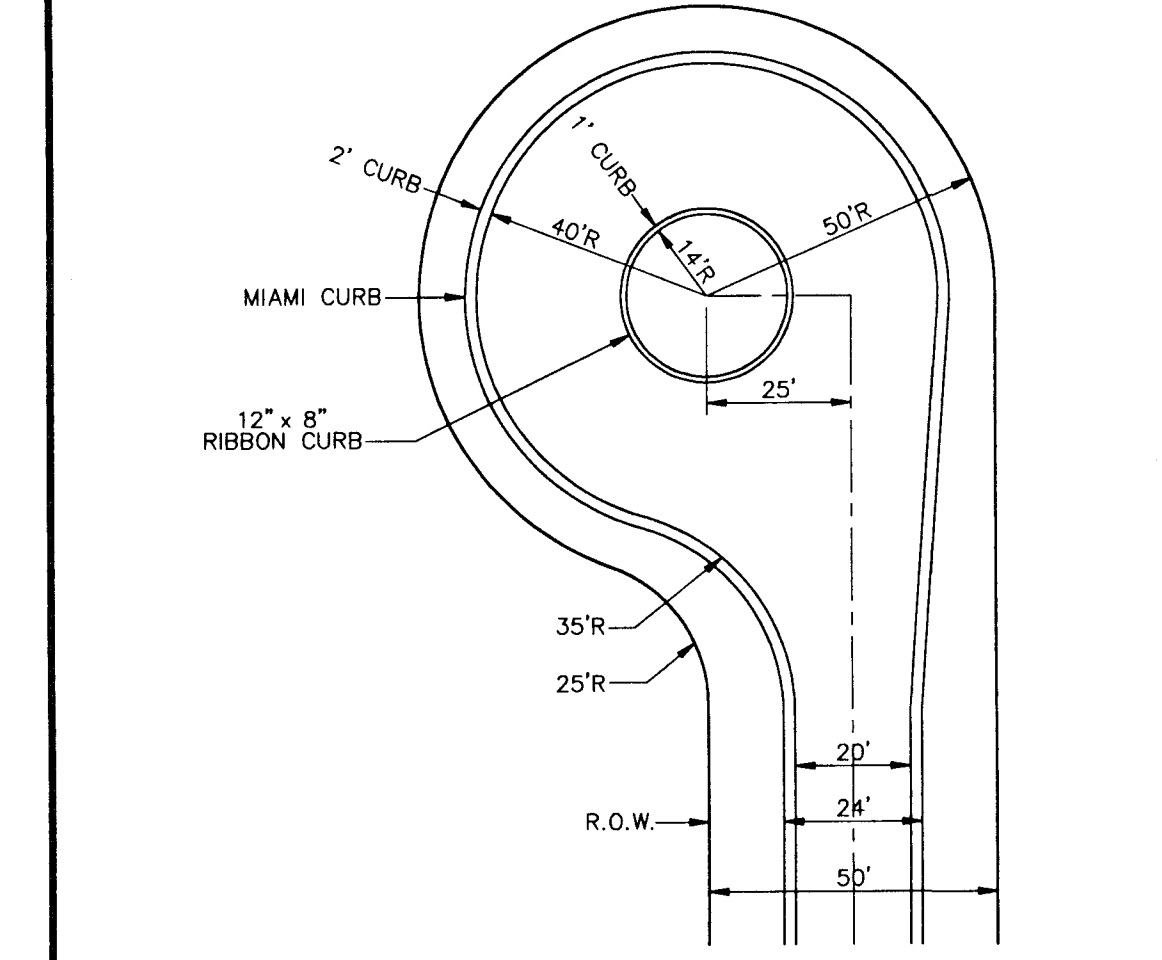


**SIGNS TO BE PROVIDED BY OWNER  
STREET/STOP SIGN DETAIL**

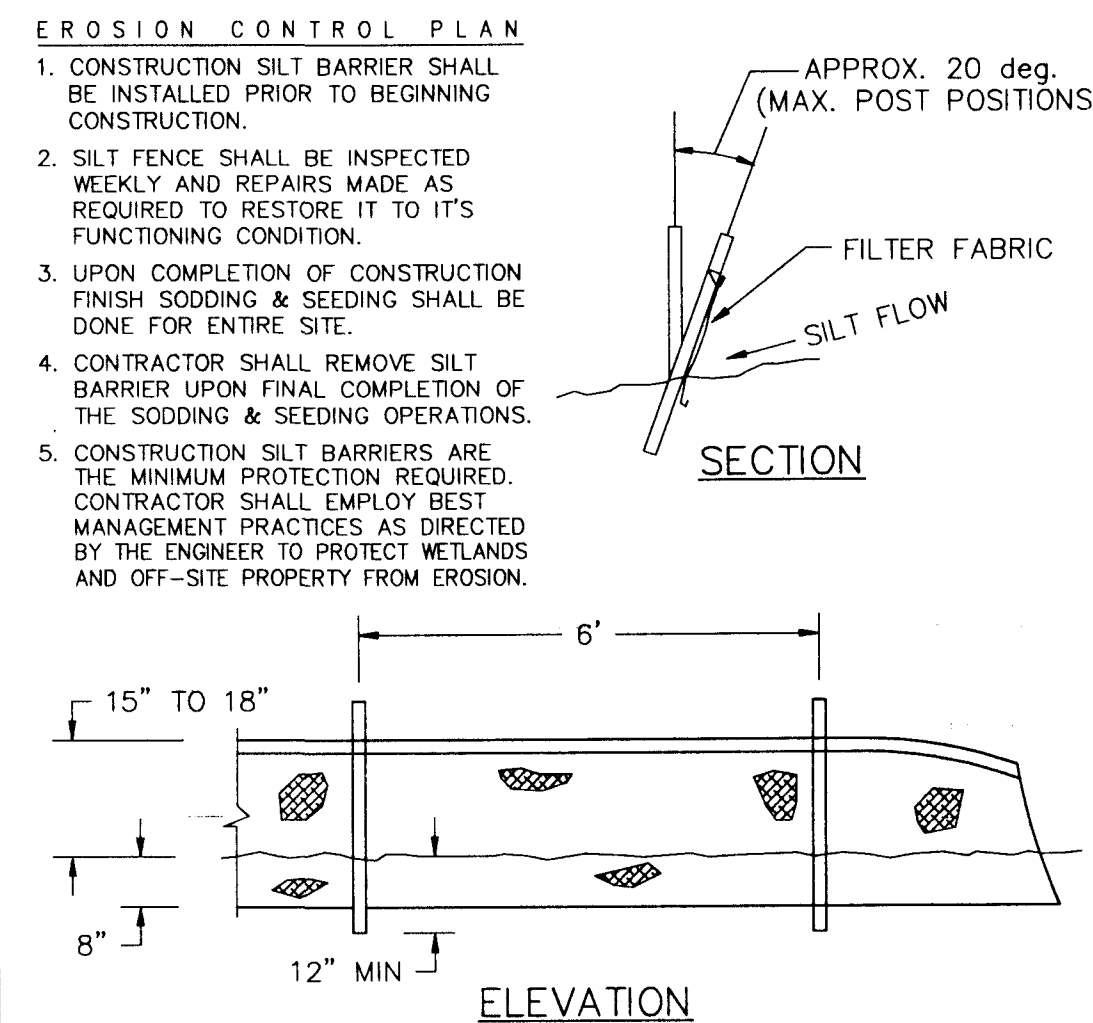
CONTRACTOR SHALL INSTALL 24" WIDE THERMOPLASTIC STOP BAR AT ALL STOP SIGN LOCATIONS



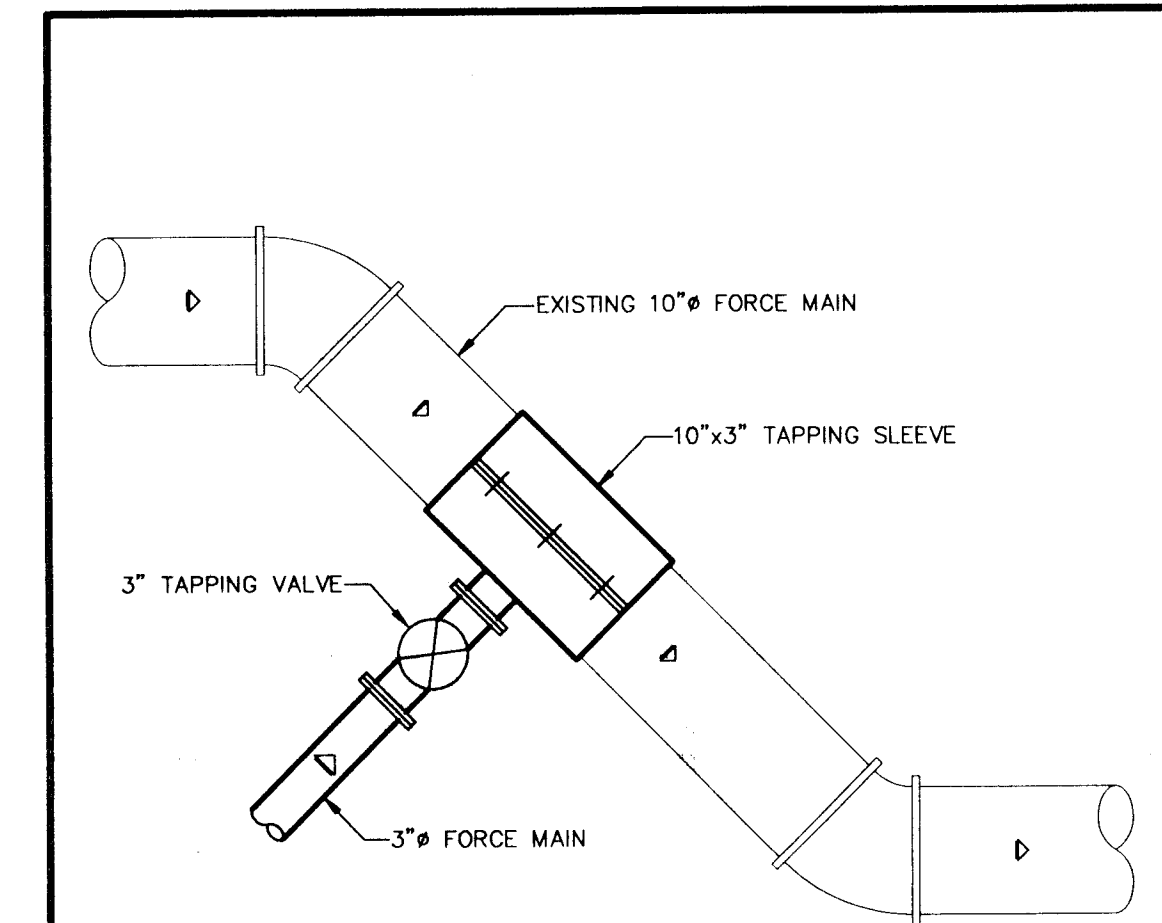
**TYPICAL CUL-DE-SAC DETAIL**



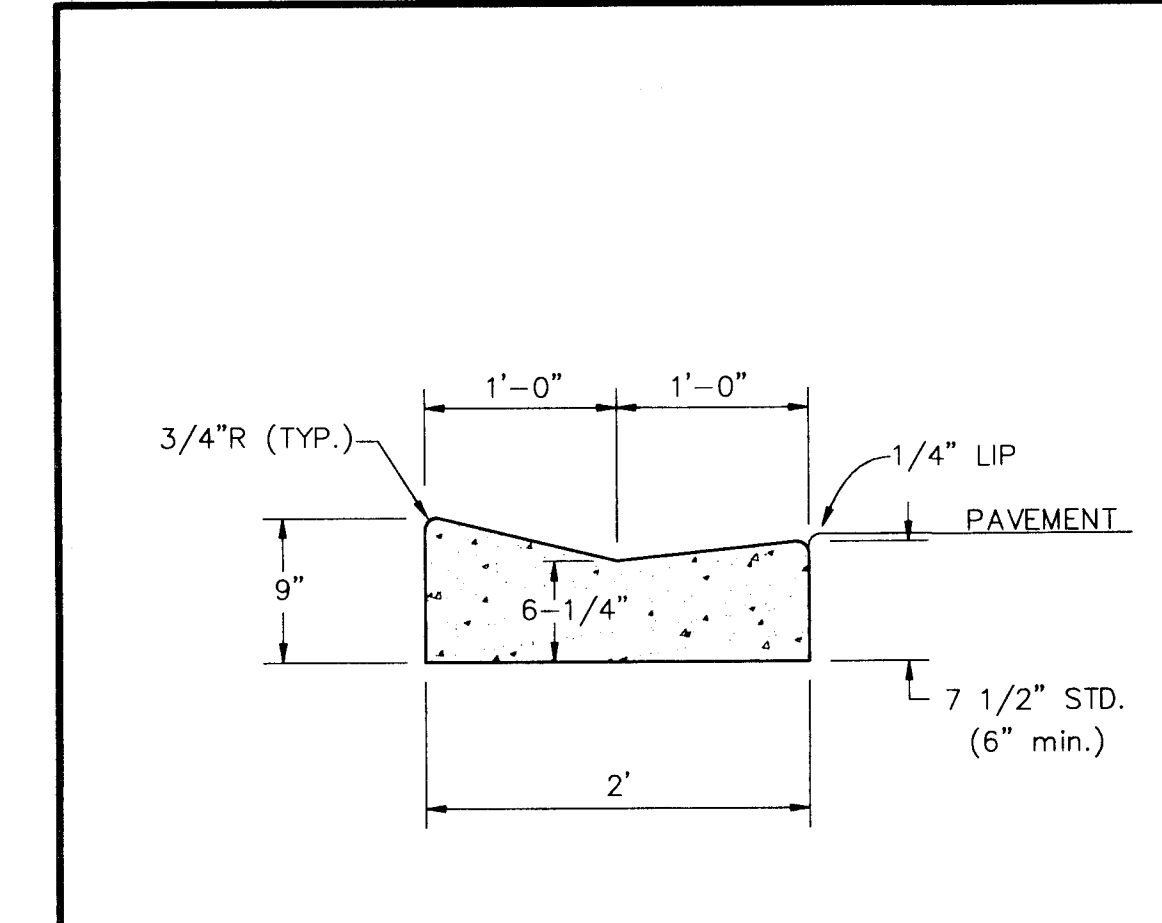
**OFF-SET CUL-DE-SAC DETAIL**



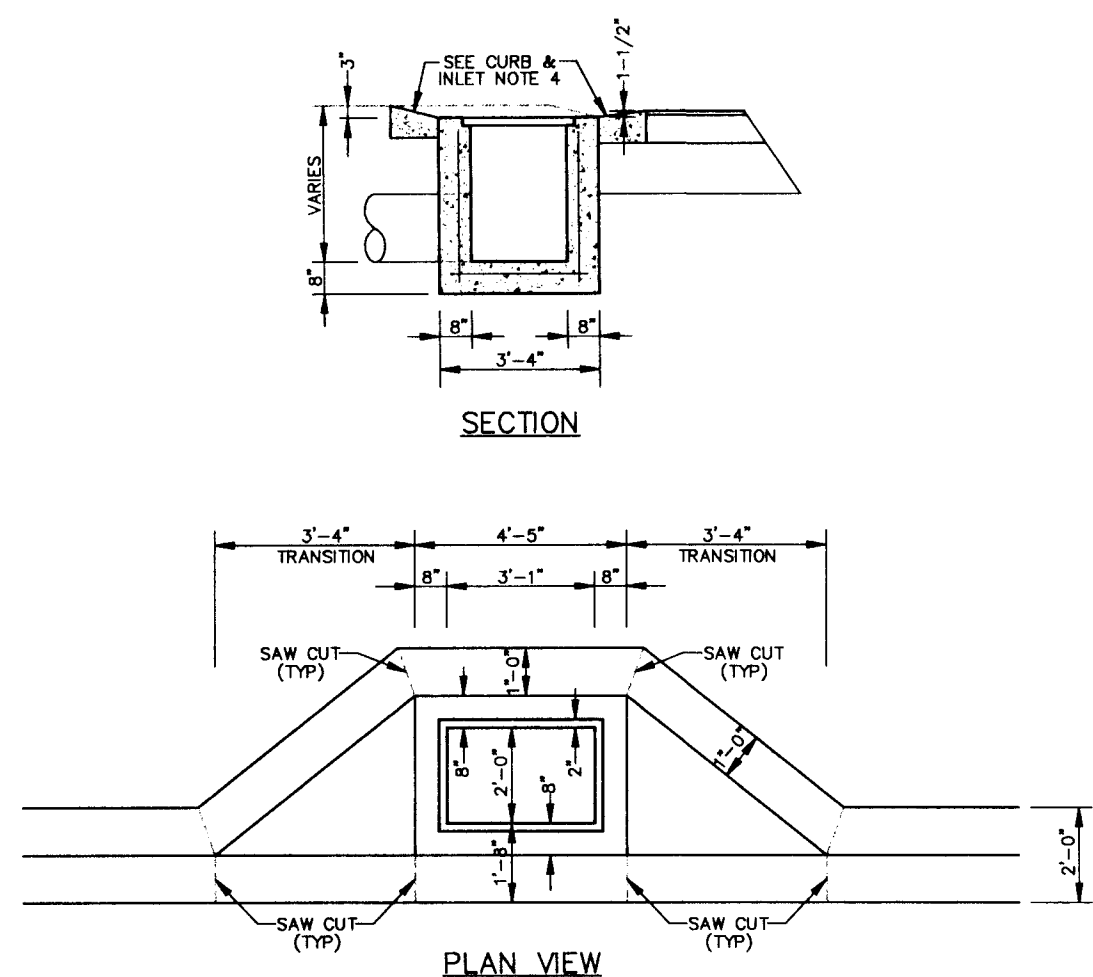
**SILT BARRIER DETAIL**



**FORCE MAIN CONNECTION DETAIL**



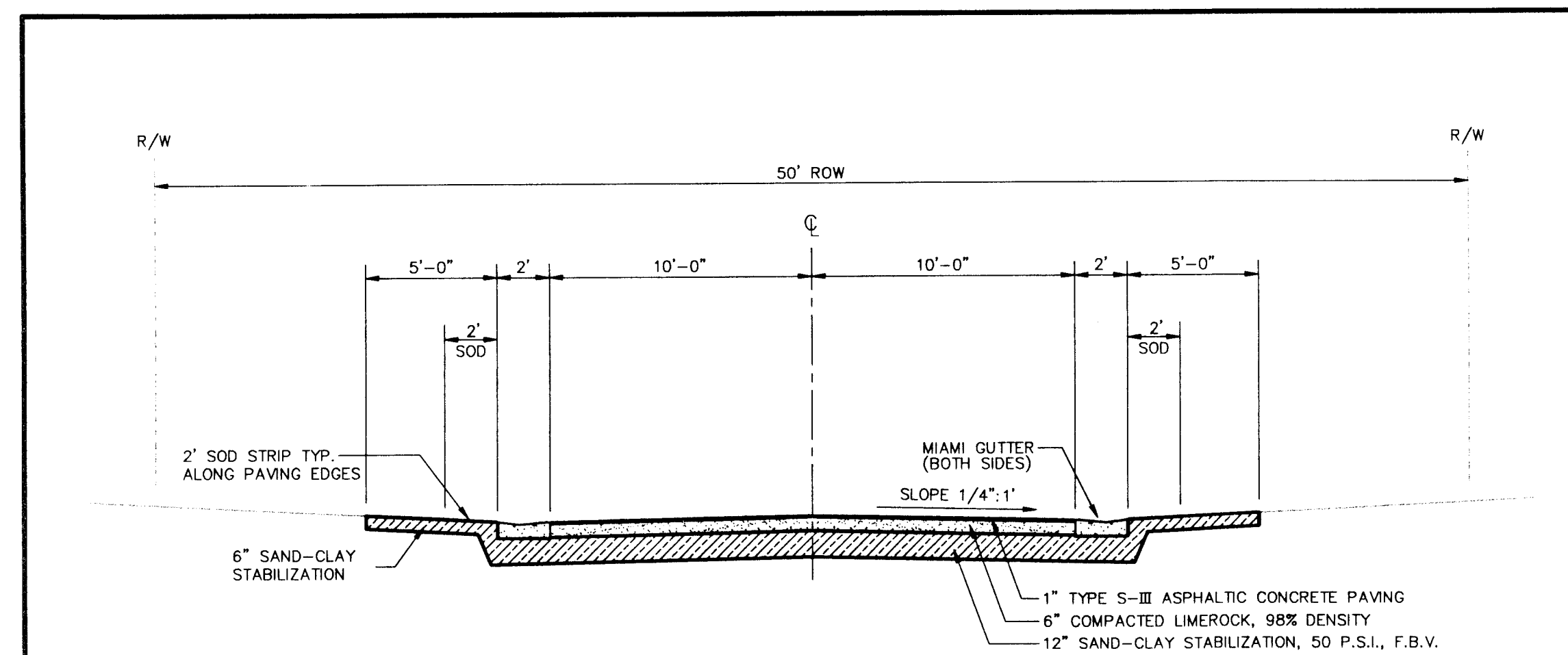
**MIAMI CURB DETAIL**



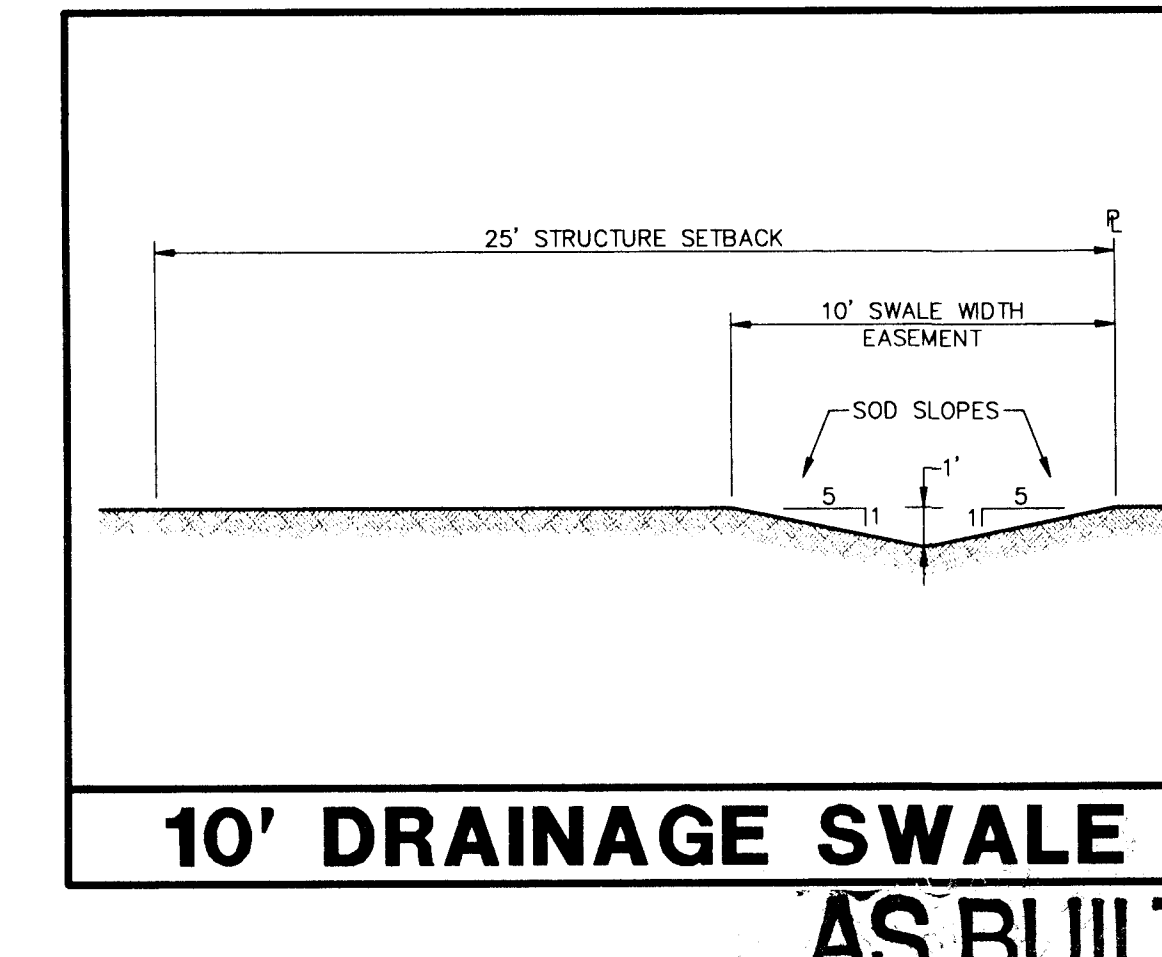
**CURB & INLET NOTES:**

- CONSTRUCT A TYPE "C" GUTTER INLET. WHERE NUMBER OF PIPES, SIZE OF PIPES, OR PIPE SKEW ANGLE DICTATE, CONSTRUCT BOTTOM TYPE "J" PER F.D.O.T. INDEX 220
- GRATING SHALL BE GALVANIZED STEEL GRATE. CAPABLE OF ACCOMODATING HEAVY WHEEL LOADS, BICYCLE AND PEDESTRIAN TRAFFIC. U.S. FOUNDRY #6611 OR APPROVED EQUAL.
- FOR ADD'L. DIMENSIONS AND DETAILS, SEE F.D.O.T. INDEX 232.
- DO NOT LET CONCRETE OVERHANG BOX.

**TYPE 'C' CURB INLET**



**TYPICAL LOCAL STREET SECTION**



**10' DRAINAGE SWALE  
AS BUILT**

KEITH E. RIDDLE, P.E.  
FLA. REGIS. NO. 38800  
DATE

**NEWMAN CONSULTING ENGINEERS, INC.**  
P.O. BOX 490264 - LEEFSBURG, FLORIDA 34749-0264  
PHONE (352) 787-7482 - FAX (352) 787-7412

**NE**

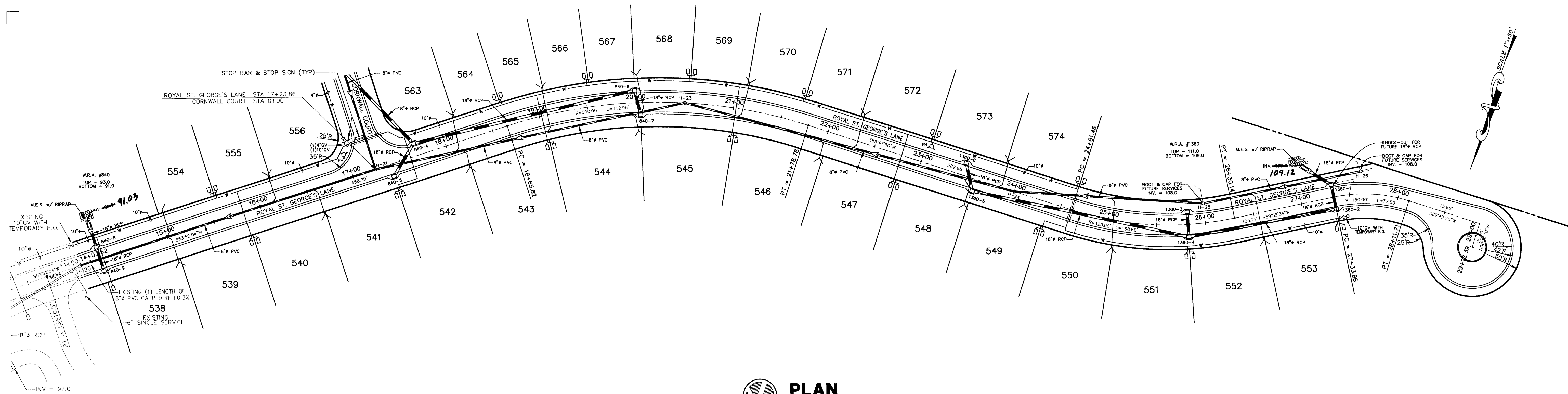
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SCALE: N.T.S.	REV #3	DATE: 9/11/97	REV #2
PROJECT NO: 93092	REV #1	REV PER LAKE COUNTY: 11/5/97	REV PER LAKE COUNTY: 12/14/97

DETAIL SHEET

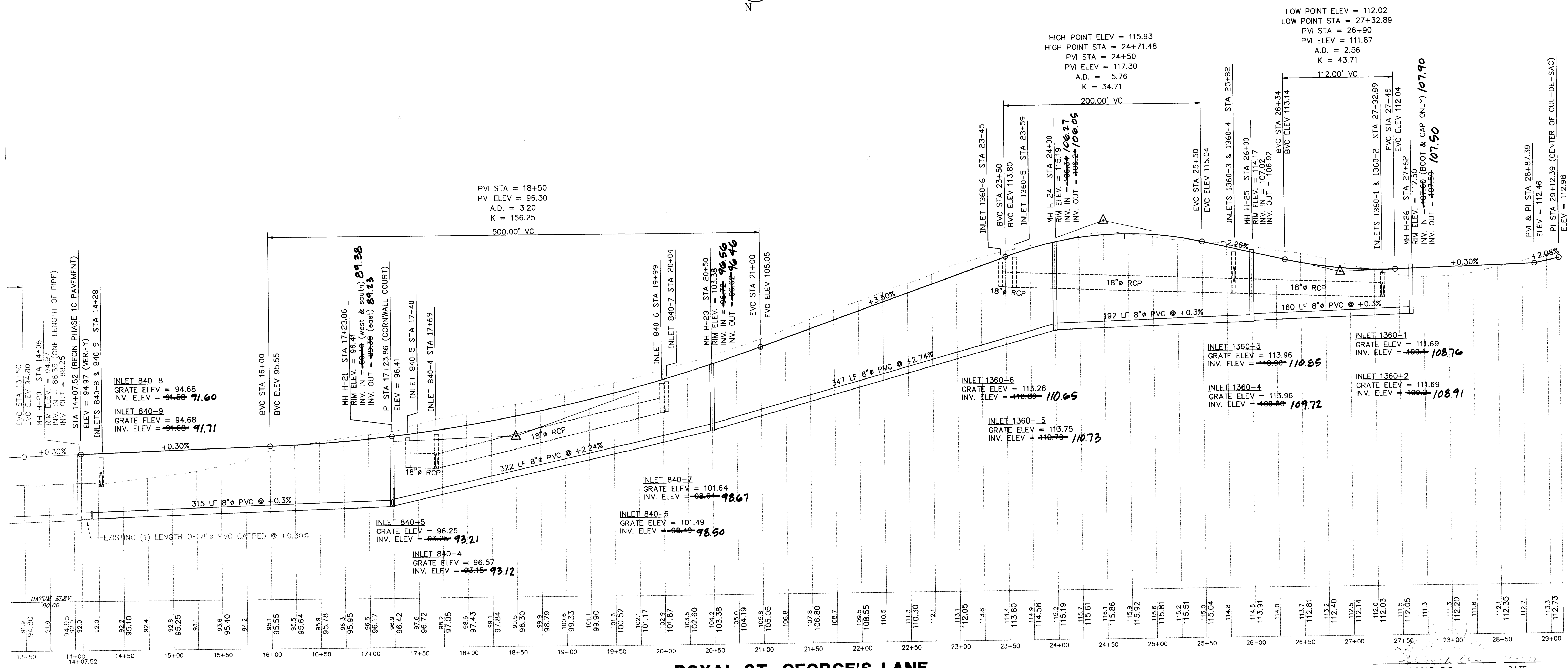
**ROYAL HIGHLANDS - PHASE 1C-A**  
LAKE COUNTY FLORIDA

SHEET #12  
20

FILE: 93092/PH-1C-A/PH1C-12 © 1997 NEWMAN CONSULTING ENGINEERS, INC. ALL RIGHTS RESERVED.



**PLAN**  
SCALE: 1"=50'



**ROYAL ST. GEORGE'S LANE**  
SCALE: HORIZ 1"=50'  
VERT 1"=5'

KEITH E. RIDDLE, P.E.  
FLA. REGIS. NO. 38800  
DATE

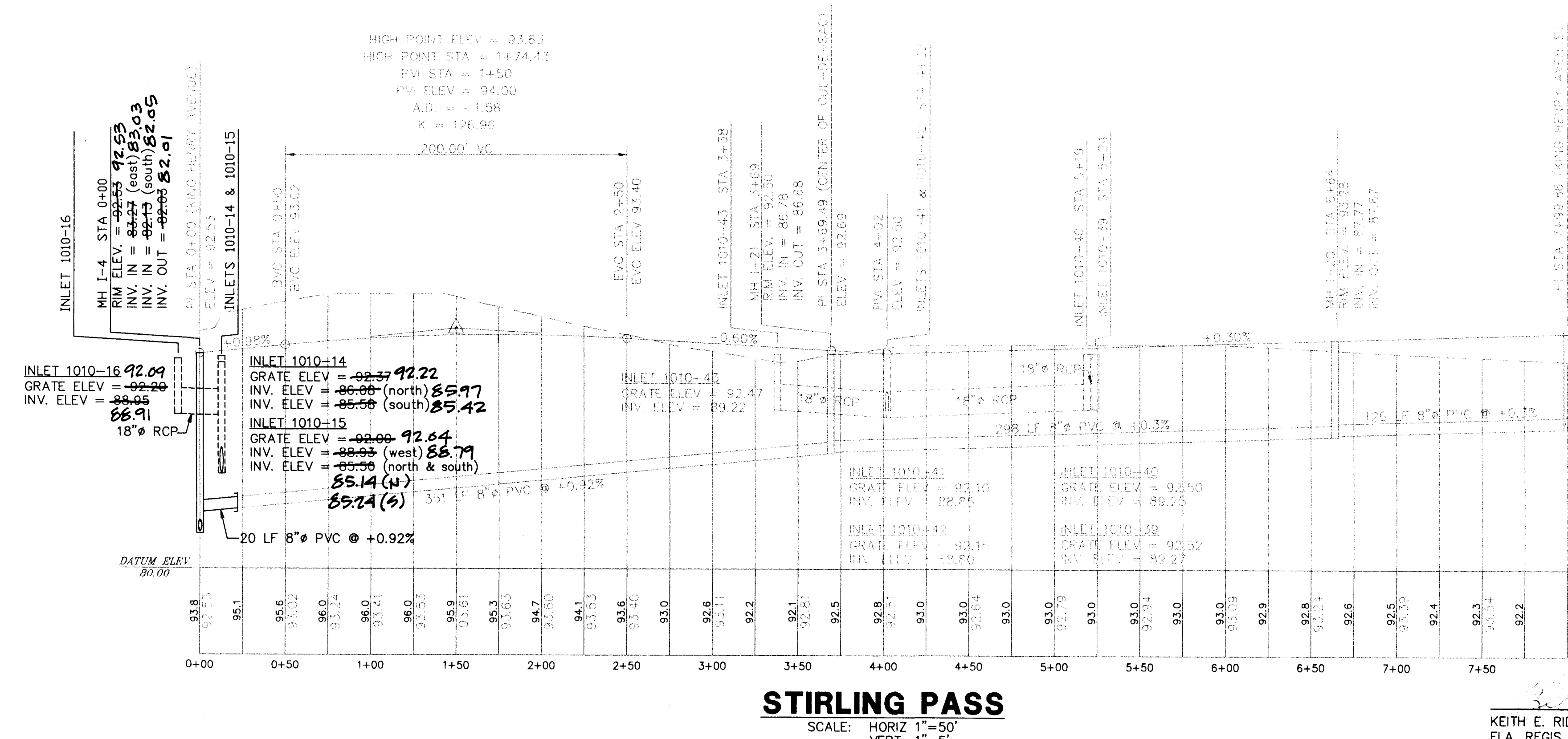
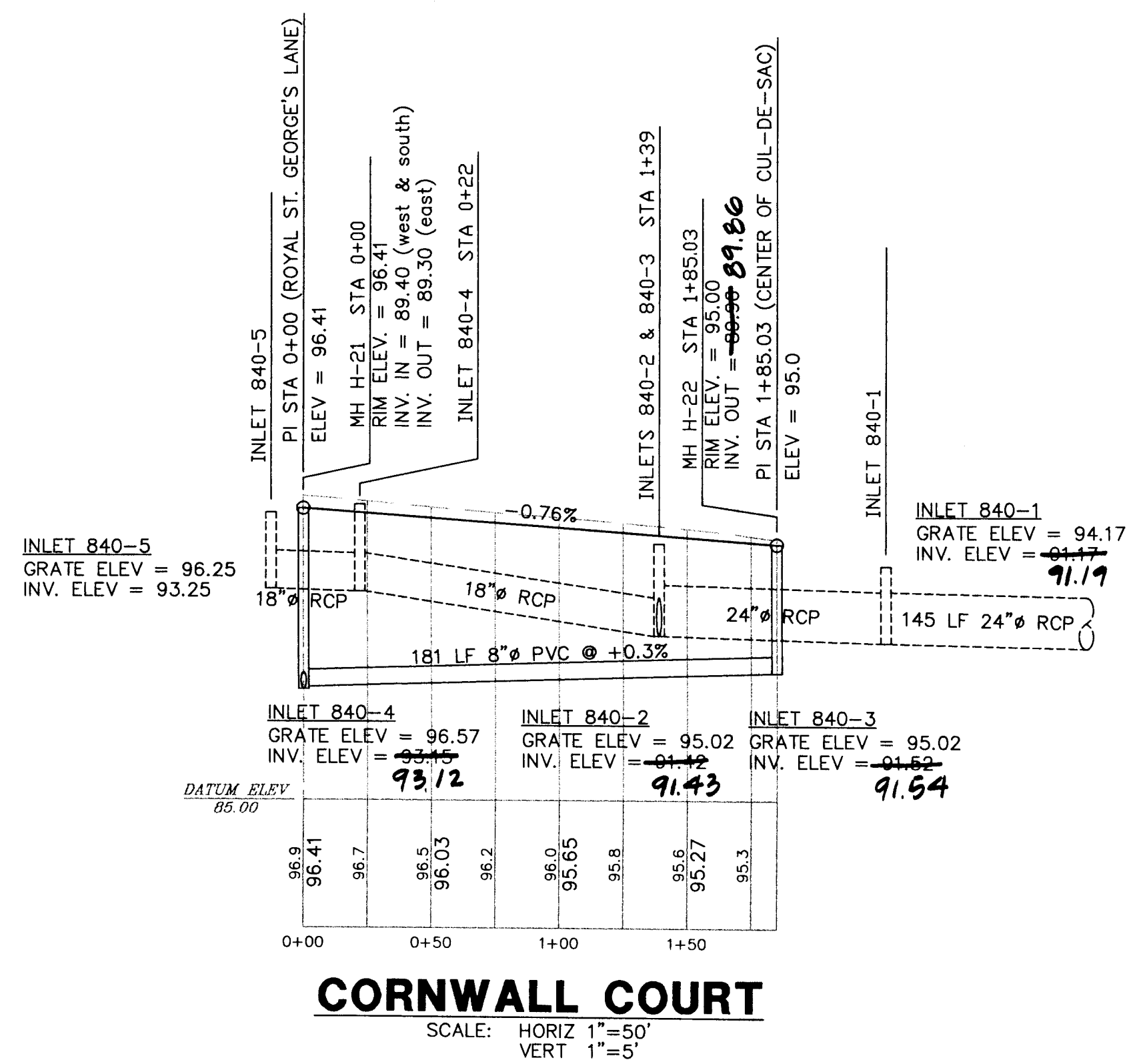
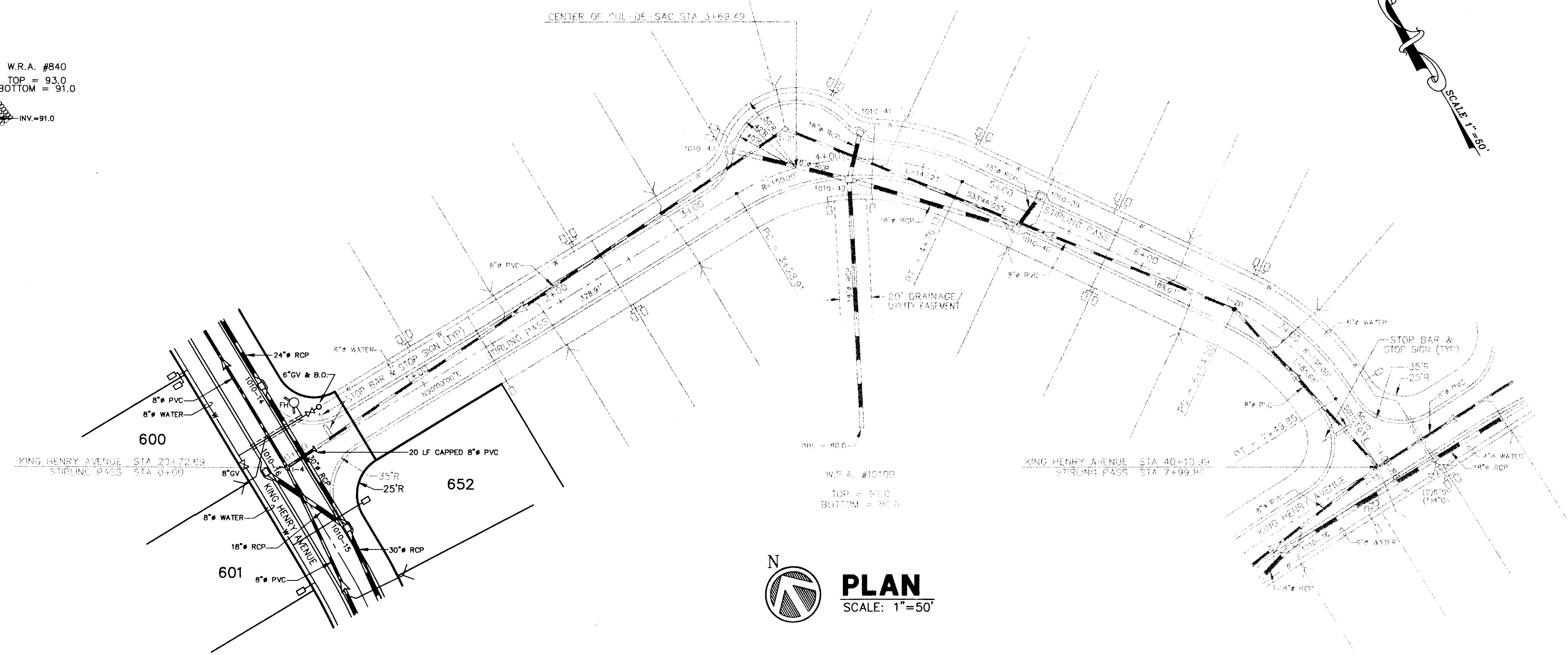
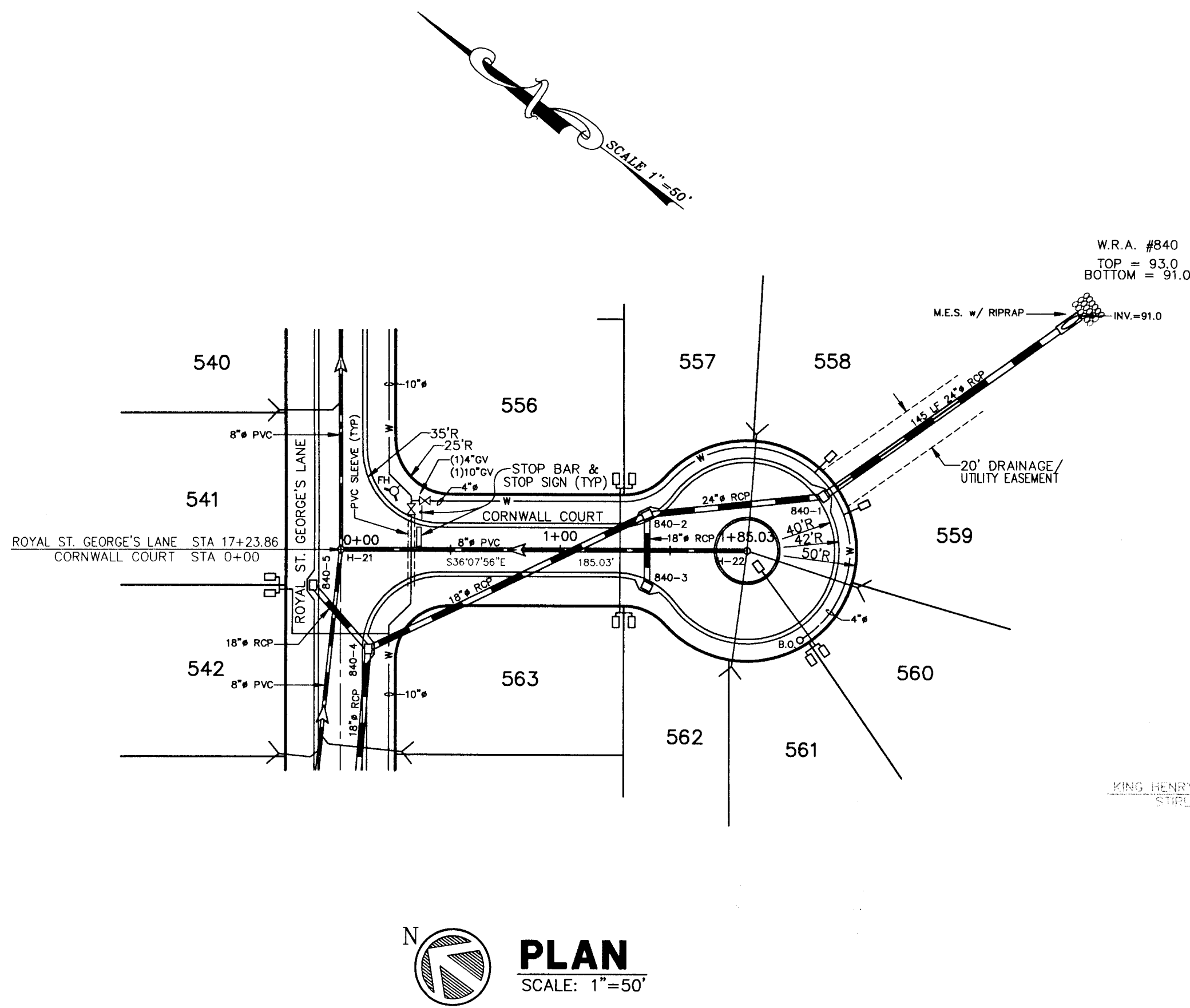
**AS BUILT**

NEWMAN CONSULTING ENGINEERS, INC.  
P.O. BOX 450264 • LEESBURG, FLORIDA 34749-0264  
PHONE (352) 787-7482 • FAX (352) 787-7412

**PLAN & PROFILE - ROYAL ST. GEORGE'S LANE**  
**ROYAL HIGHLANDS - PHASE 1C-A**  
LAKE COUNTY FLORIDA

13  
20

AS BUILT



**AS BUILT**

KEITH E. RIDDLE, P.E.  
FLA. REGIS. NO. 38800

NEWMAN CONSULTING ENGINEERS, INC.  
P.O. BOX 480263 - LEESBURG, FLORIDA 34749-0263  
PHONE (352) 787-7482 - FAX (352) 787-7412

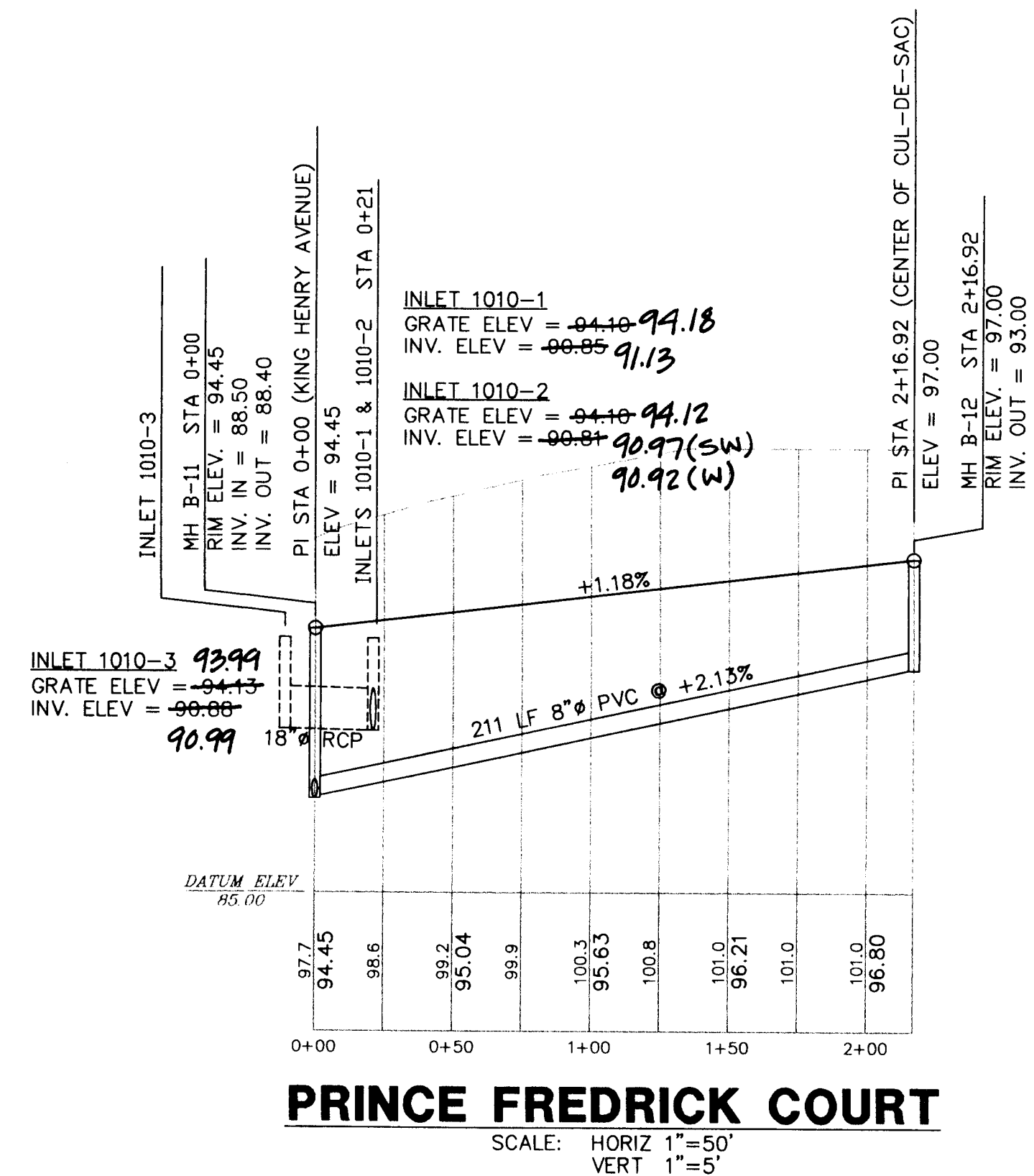
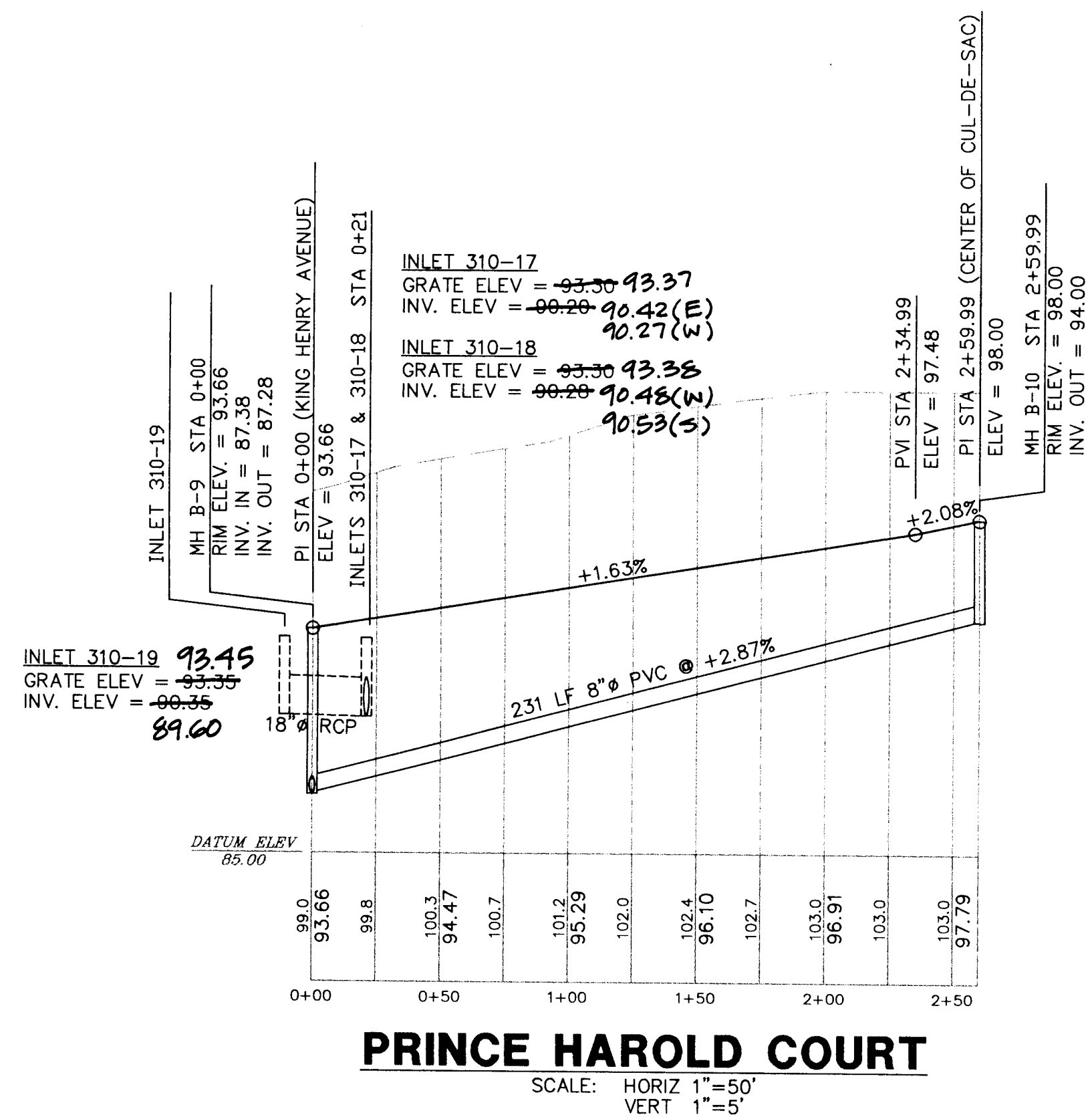
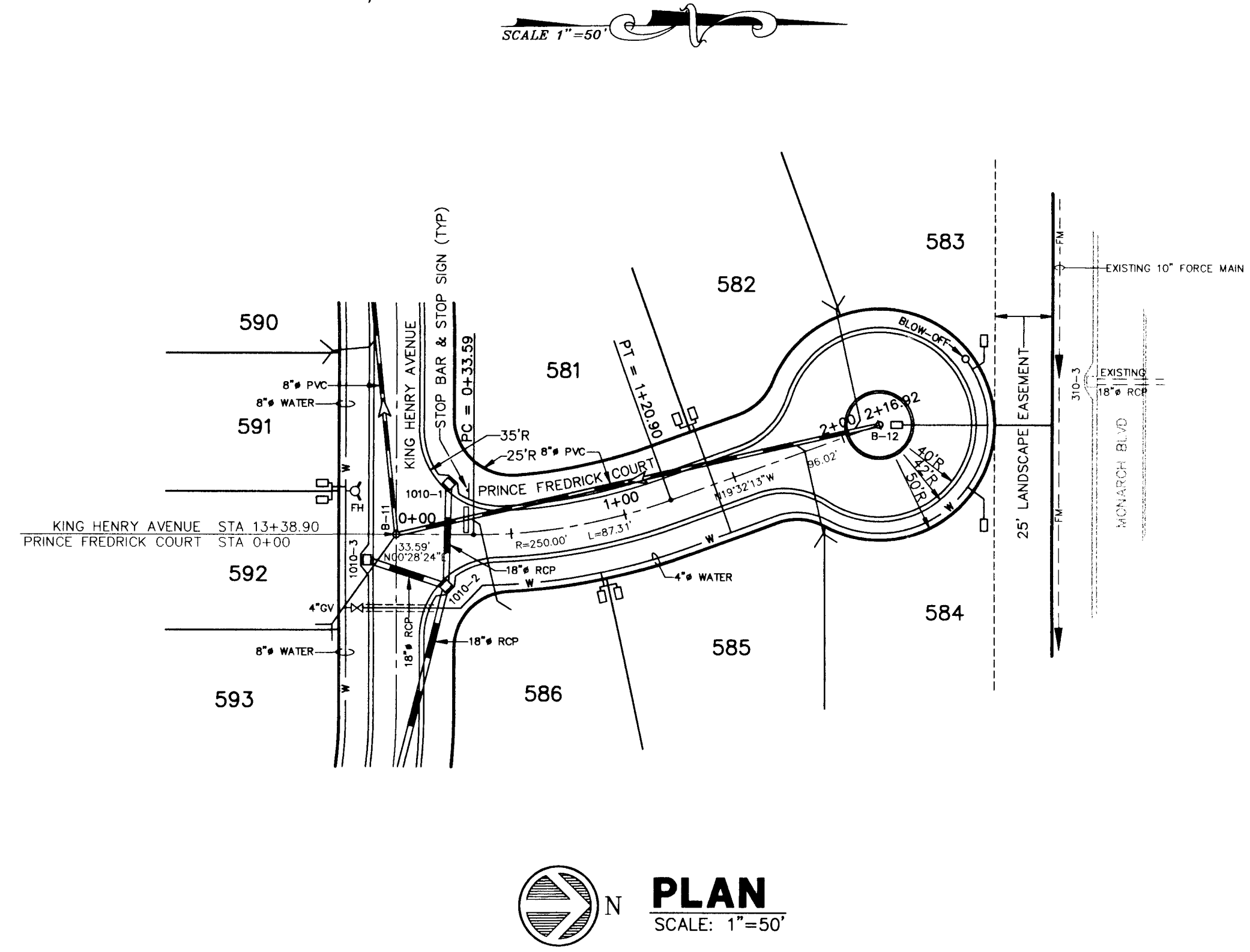
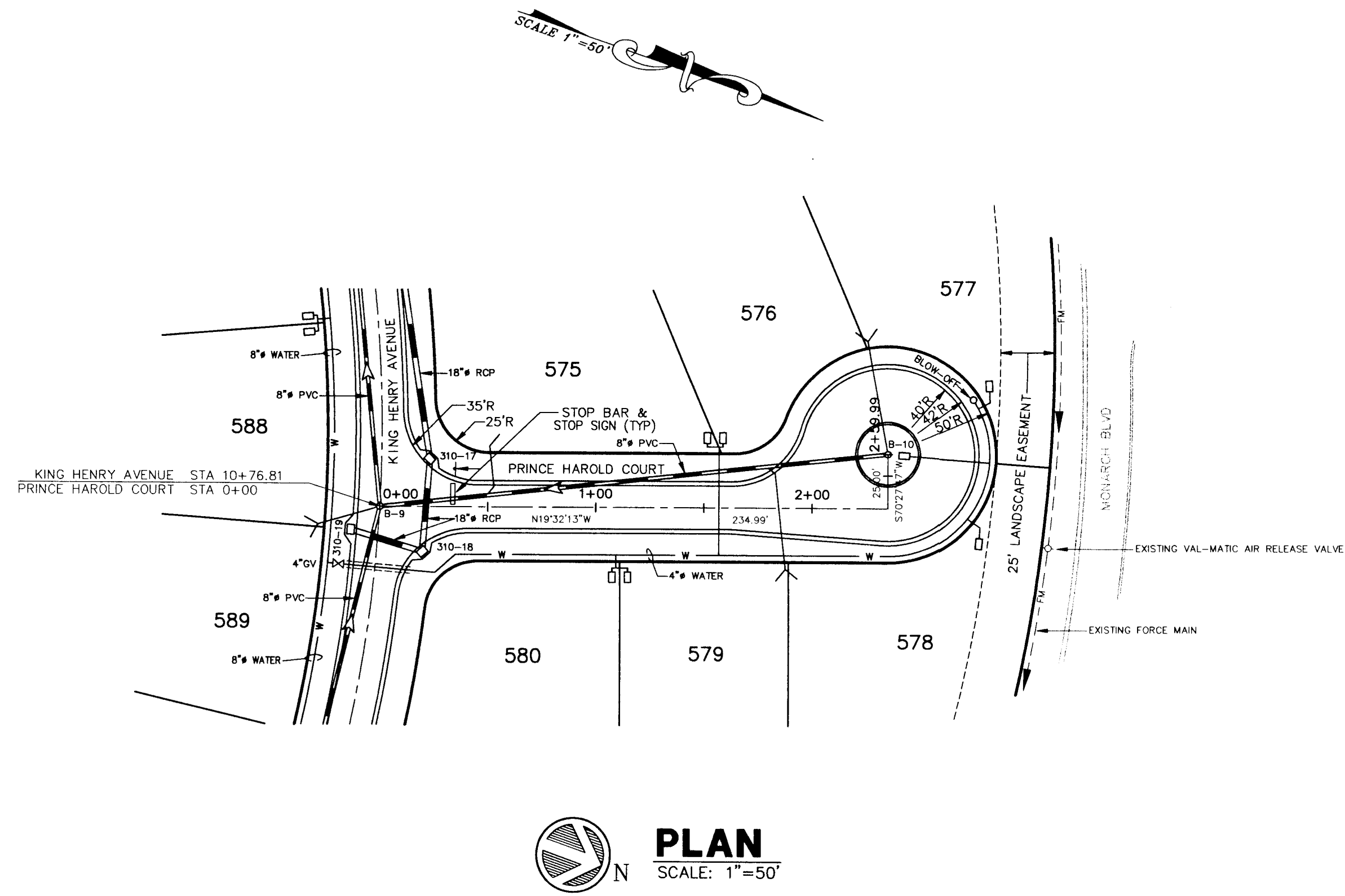
**PLAN & PROFILE - CORNWALL COURT & STIRLING PASS**  
**ROYAL HIGHLANDS - PHASE 1C-A**  
LAKE COUNTY FLORIDA

REV #1: 12/1/97  
REV #2: 9/11/97  
REV #3: 6/23/96  
REV #4: 5/10/98

PROJECT NO. 93092  
MODIFIED FOR PHASE 1C-A CONFIGURATION

DATE: 9/24/98

14  
20



**AS BUILT**

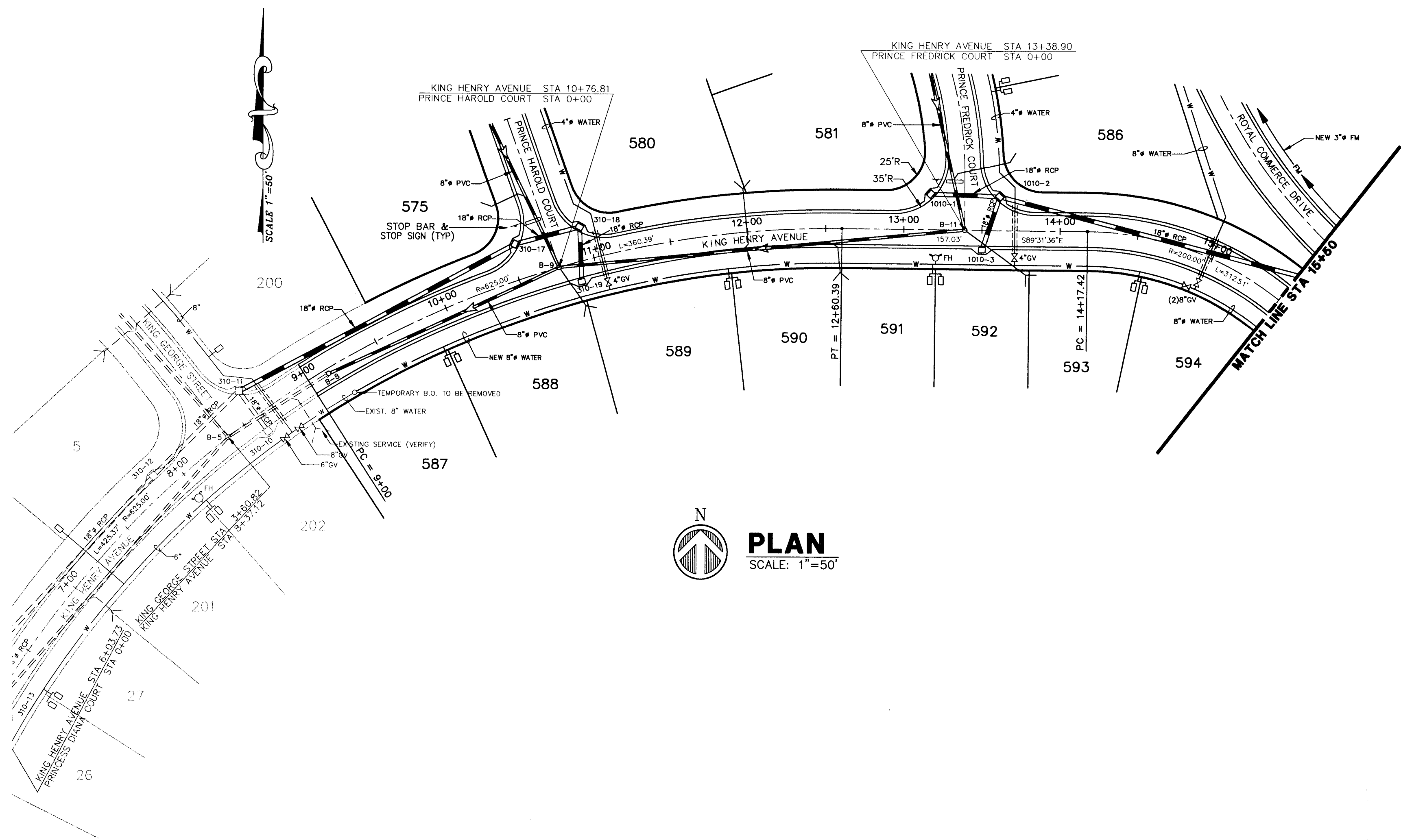
KEITH E. RIDDLER, P.E.  
FLA. REGIS. NO. 38800

DATE

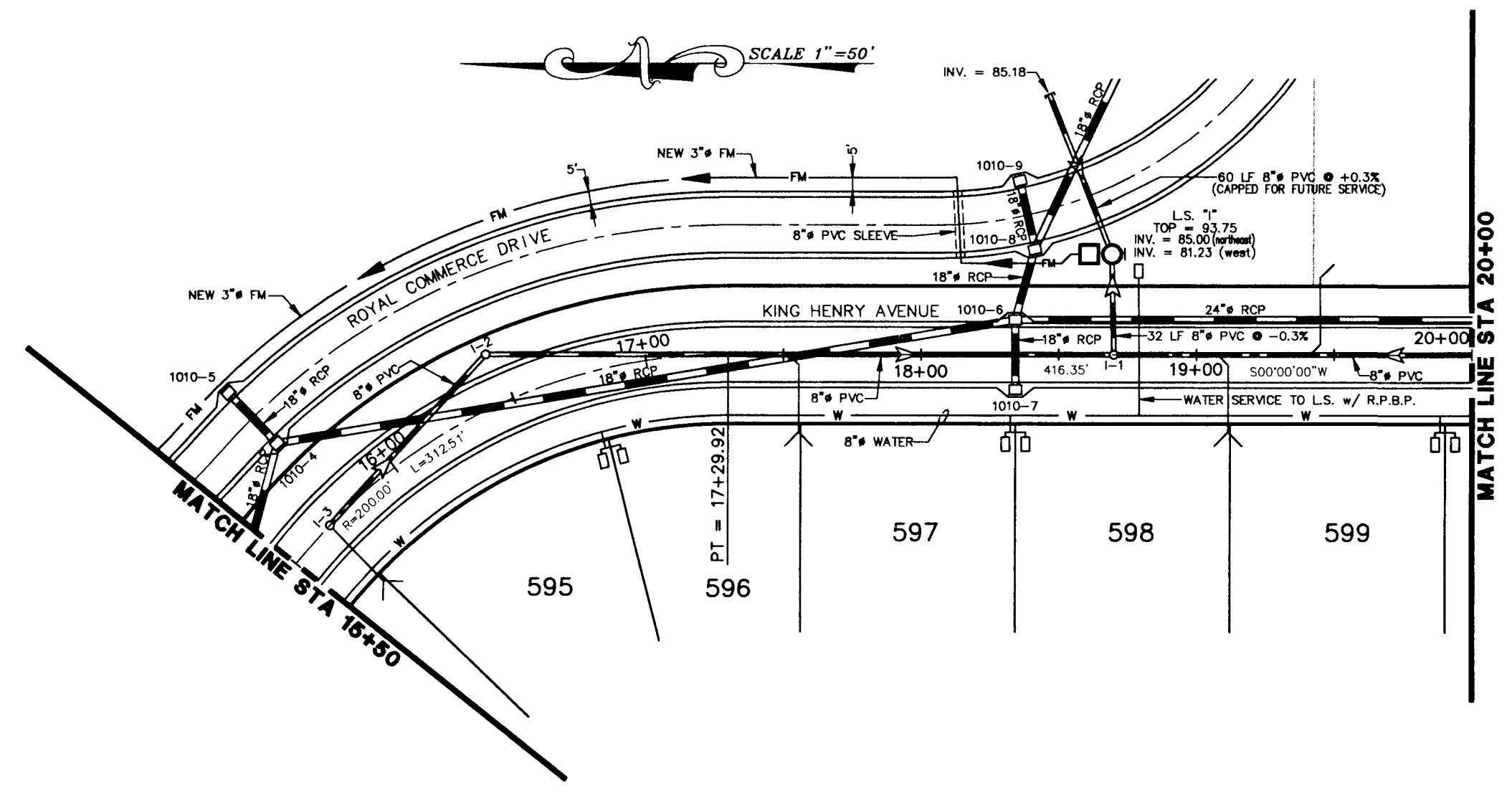
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CHECKED	K.E.R.	REV #4
SCALE	1"=50'	REV #3
DATE	9/11/97	REV #2
PROJECT NO	93092	REV #1
REV #1 MODIFIED FOR PHASE 1C-A CONFIGURATION 12/4/97		
REV #2 ELEV AS BUILT PER CONTRACTOR 6/23/98		

PLAN & PROFILE - PRINCE HAROLD COURT & PRINCE FREDRICK COURT  
ROYAL HIGHLANDS - PHASE 1C-A  
LAKE COUNTY  
FLORIDA

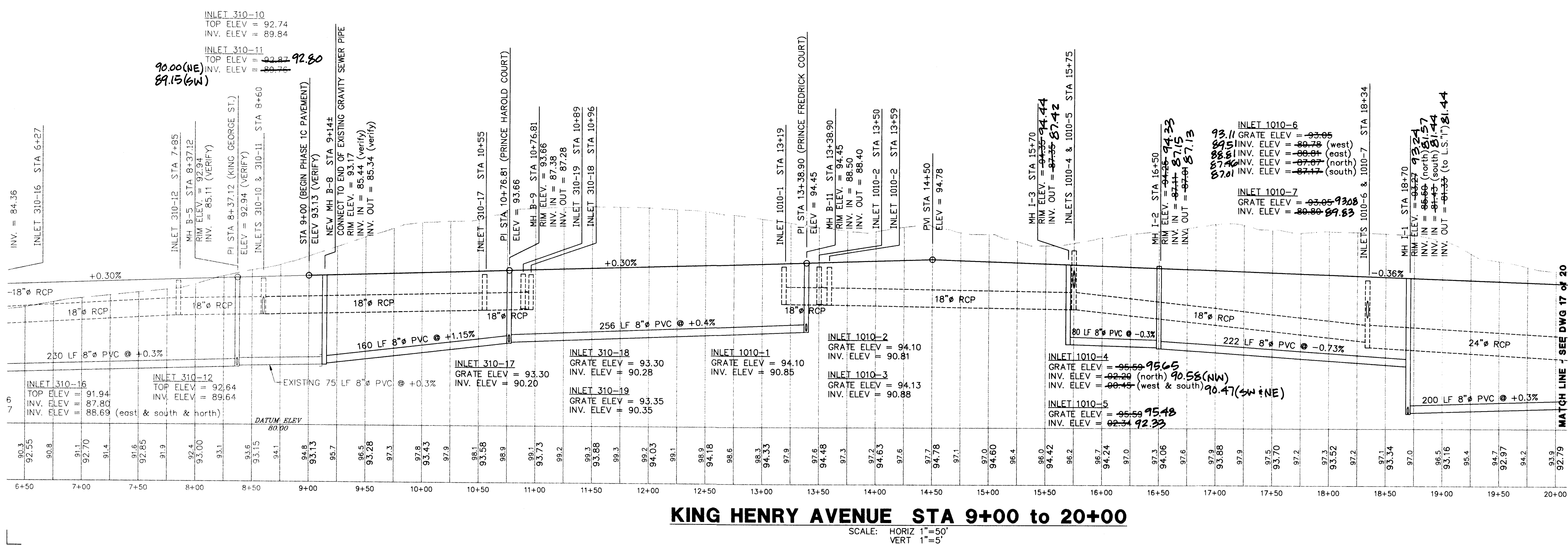
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**PLAN**  
SCALE: 1"=50'



**PLAN**  
SCALE: 1"=50'



**KING HENRY AVENUE STA 9+00 to 20+00**

SCALE: HORIZ 1"=50'  
VERT 1"=5'

**AS BUILT**

KEITH E. RIDDLE, P.E.  
FLA. REGIS. NO. 38800

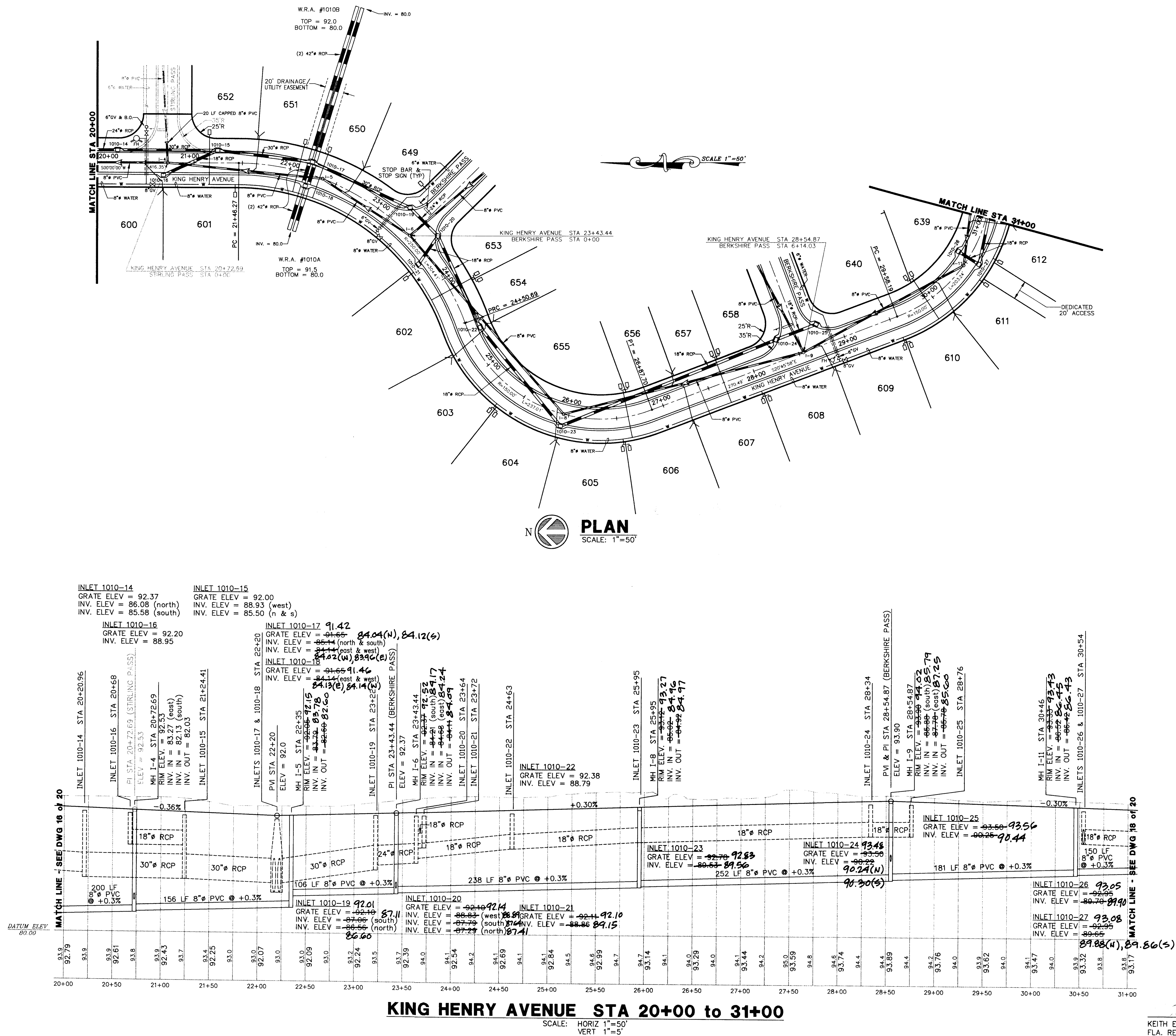
**NEWMAN CONSULTING ENGINEERS, INC.**  
P.O. BOX 490264 - LEESBURG, FLORIDA 34749-0264  
PHONE (352) 787-7482 - FAX (352) 787-7412

**PLAN & PROFILE - KING HENRY AVENUE**  
**ROYAL HIGHLANDS - PHASE 1C-A**  
LAKE COUNTY FLORIDA

PROJECT NO. 93092  
DATE: 9/11/97  
SCALE: 1"=50'  
DRAWN: R.S.H.  
CHECKED: K.E.R.  
REV #1: 9/11/97  
REV #2: 12/1/97  
REV #3: EAST AS-BUILT PER CONTRACTOR 6/29/98  
REV #4: REVISED INLETS 2/6/99  
REV #5: MODIFIED FOR PHASE 1C-A CONFIGURATION 12/1/97

SHEET NO. 16 OF 20





INLET 1010-14  
 GRATE ELEV = 92.37  
 INV. ELEV = 86.08 (north)  
 INV. ELEV = 85.58 (south)

INLET 1010-15  
 GRATE ELEV = 92.00  
 INV. ELEV = 88.93 (west)  
 INV. ELEV = 85.50 (n & s)

INLET 1010-16  
 GRATE ELEV = 92.20  
 INV. ELEV = 88.95

INLET 1010-17  
 GRATE ELEV = 91.42  
 INV. ELEV = 85.14 (north & south)  
 INV. ELEV = 84.04 (n), 84.12 (s)

INLET 1010-18  
 GRATE ELEV = 92.00  
 INV. ELEV = 88.95 (east & west)  
 INV. ELEV = 84.02 (n), 83.90 (e)

INLET 1010-19  
 GRATE ELEV = 91.44  
 INV. ELEV = 85.14 (east & west)  
 INV. ELEV = 84.13 (e), 84.14 (s)

INLET 1010-20  
 GRATE ELEV = 92.52  
 INV. ELEV = 88.95 (south)  
 INV. ELEV = 84.24

INLET 1010-21  
 GRATE ELEV = 92.00  
 INV. ELEV = 88.95 (north)  
 INV. ELEV = 84.09

INLET 1010-22  
 GRATE ELEV = 92.38  
 INV. ELEV = 88.79

INLET 1010-23  
 GRATE ELEV = 92.27  
 INV. ELEV = 88.95 (south)  
 INV. ELEV = 84.96

INLET 1010-24  
 GRATE ELEV = 93.46  
 INV. ELEV = 89.56

INLET 1010-25  
 GRATE ELEV = 93.56  
 INV. ELEV = 89.44

INLET 1010-26  
 GRATE ELEV = 93.05  
 INV. ELEV = 89.56

INLET 1010-27  
 GRATE ELEV = 93.08  
 INV. ELEV = 89.56

INLET 1010-18  
 GRATE ELEV = 92.01  
 INV. ELEV = 87.00 (south)  
 INV. ELEV = 86.00 (north)

INLET 1010-20  
 GRATE ELEV = 92.14  
 INV. ELEV = 88.95 (west)  
 INV. ELEV = 87.79 (south)  
 INV. ELEV = 87.29 (north)

INLET 1010-21  
 GRATE ELEV = 92.11  
 INV. ELEV = 88.95 (west)  
 INV. ELEV = 87.79 (south)  
 INV. ELEV = 87.41 (north)

INLET 1010-25  
 GRATE ELEV = 93.56  
 INV. ELEV = 89.44

INLET 1010-26  
 GRATE ELEV = 93.05  
 INV. ELEV = 89.56

INLET 1010-27  
 GRATE ELEV = 93.08  
 INV. ELEV = 89.56

INLET 1010-28  
 GRATE ELEV = 93.17  
 INV. ELEV = 89.56 (s)

**KING HENRY AVENUE STA 20+00 to 31+00**

SCALE: HORIZ 1"=50'  
 VERT 1"=5'

**AS BUILT**

KEITH E. RIDOLE, P.E.  
 FLA. REGIS. NO. 38800  
 DATE

**NEWMAN CONSULTING ENGINEERS, INC.**  
 P.O. BOX 49024, LEESBURG, FLORIDA 34749-0284  
 PHONE (352) 787-7482 • FAX (352) 787-7412

**NE**

DRAWN: R.S.H.    CHECKED: K.E.R.    SCALE: 1"=50'    DATE: 9/11/97    PROJECT NO: 93092

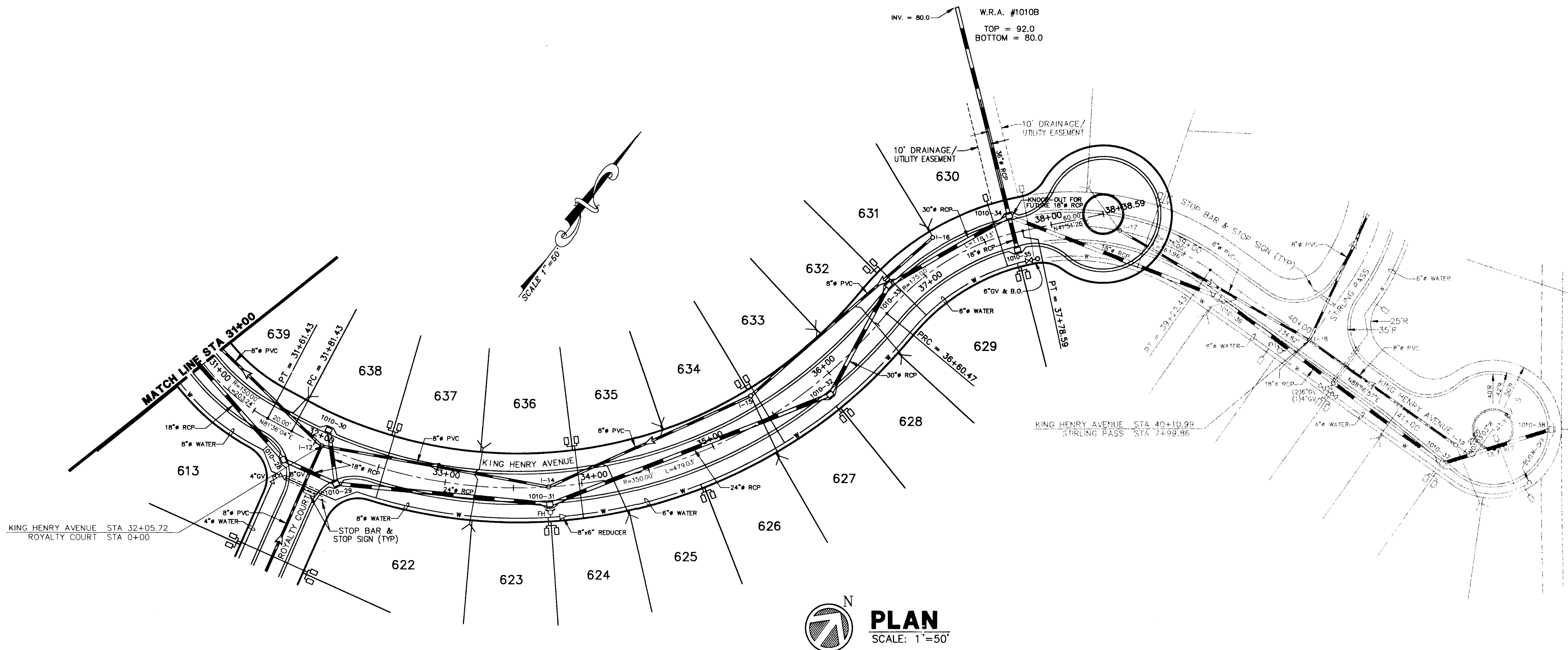
REV #5: 12/1/97    REV #4:    REV #3:    REV #2: 12/1/97    REV #1: MODIFIED FOR PHASE 1C-A CONFIGURATION

REVISION: **EACH AS-BUILT PER CONTRACTOR 6/25/98**

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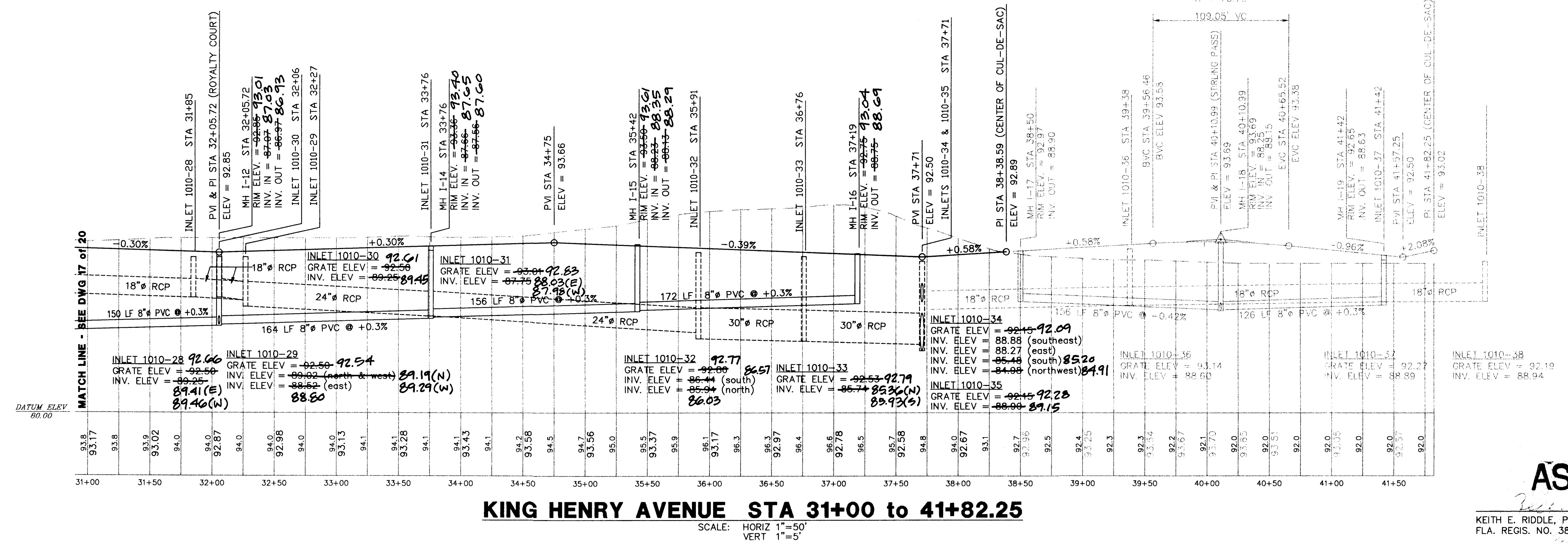
PLAN & PROFILE - KING HENRY AVENUE  
 ROYAL HIGHLANDS - PHASE 1C-A  
 LAKE COUNTY FLORIDA

SHEET NO. **17** OF **20**



**PLAN**  
SCALE: 1"=50'

HIGH POINT ELEV = 93.70  
HIGH POINT STA = 39+97.76  
PVI STA = 40+10.99  
PVI ELEV = 93.90  
A.D. = 1.54  
K = 70.79



**KING HENRY AVENUE STA 31+00 to 41+82.25**

SCALE: HORIZ 1"=50'  
VERT 1"=5'

**AS BUILT**  
DATE

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**PLAN & PROFILE - KING HENRY AVENUE**  
**ROYAL HIGHLANDS - PHASE 1C-A**  
LAKE COUNTY FLORIDA

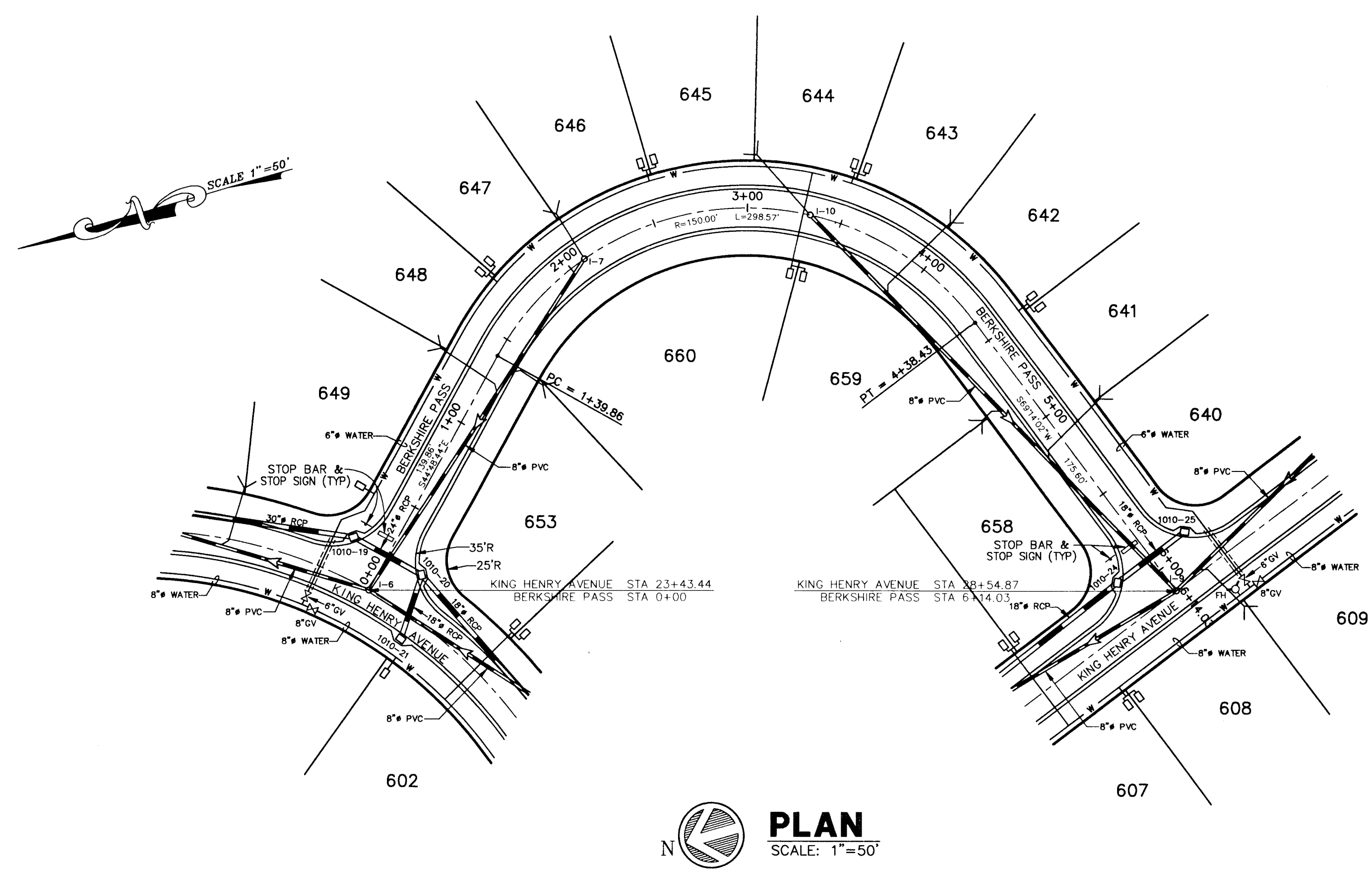
**NEWMAN CONSULTING ENGINEERS, INC.**  
P.O. BOX 490264 • LEESBURG, FLORIDA 34749-0264  
PHONE (352) 787-7482 • FAX (352) 787-7412

DRAWN	R.S.H.	REV #5
CHECKED	K.E.R.	REV #4
SCALE	1"=50'	REV #3
DATE	9/11/97	REV #2
PROJECT NO	93092	REV #1
		REV #0

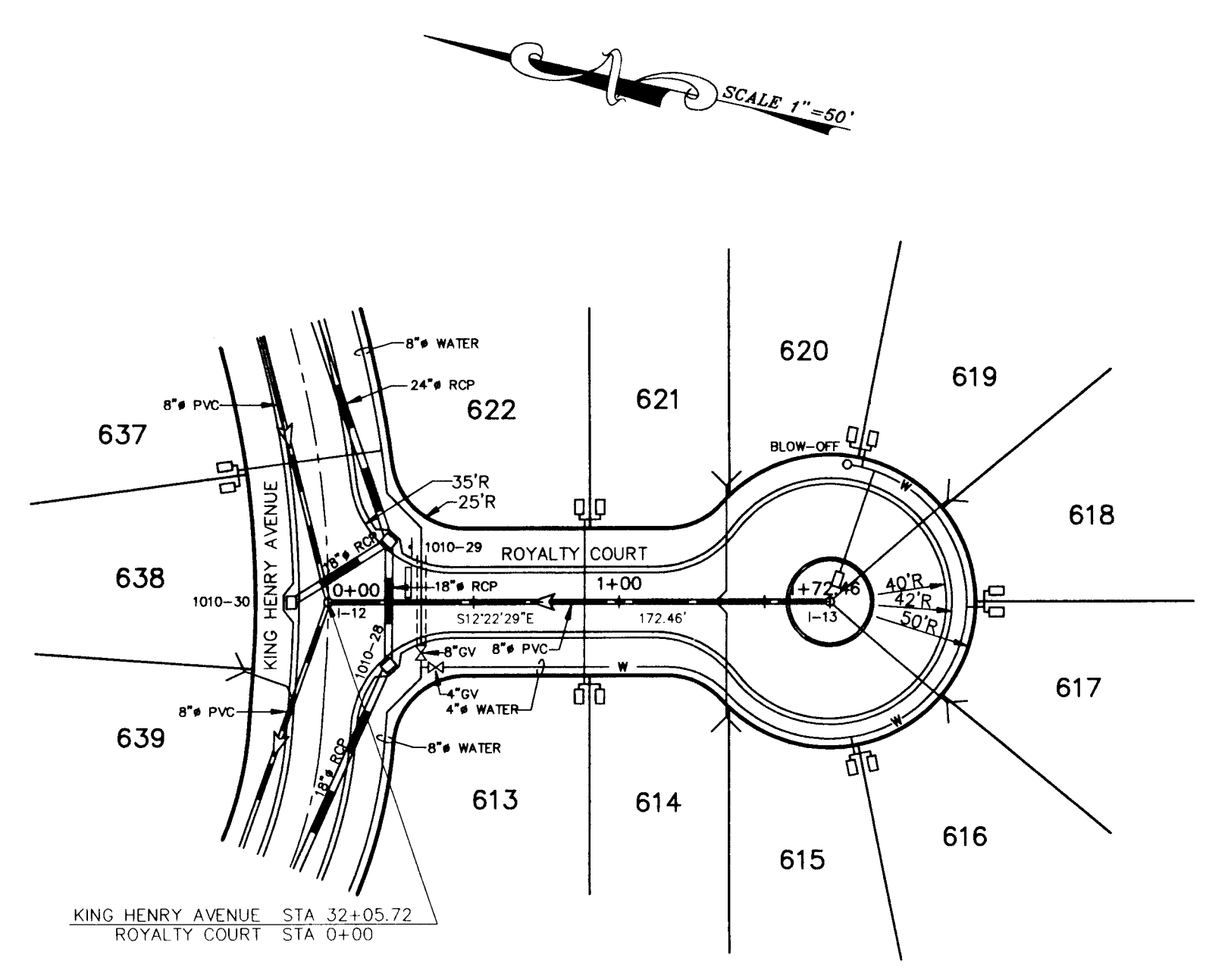
REV #5: **East As-Built Per Contract** 6/23/98  
REV #4: MODIFIED FOR PHASE 1C-A CONFIGURATION 12/4/97  
REV #3: 11/5/97  
REV #2: 9/11/97  
REV #1: 11/5/97

SHEET # **18** OF **20**

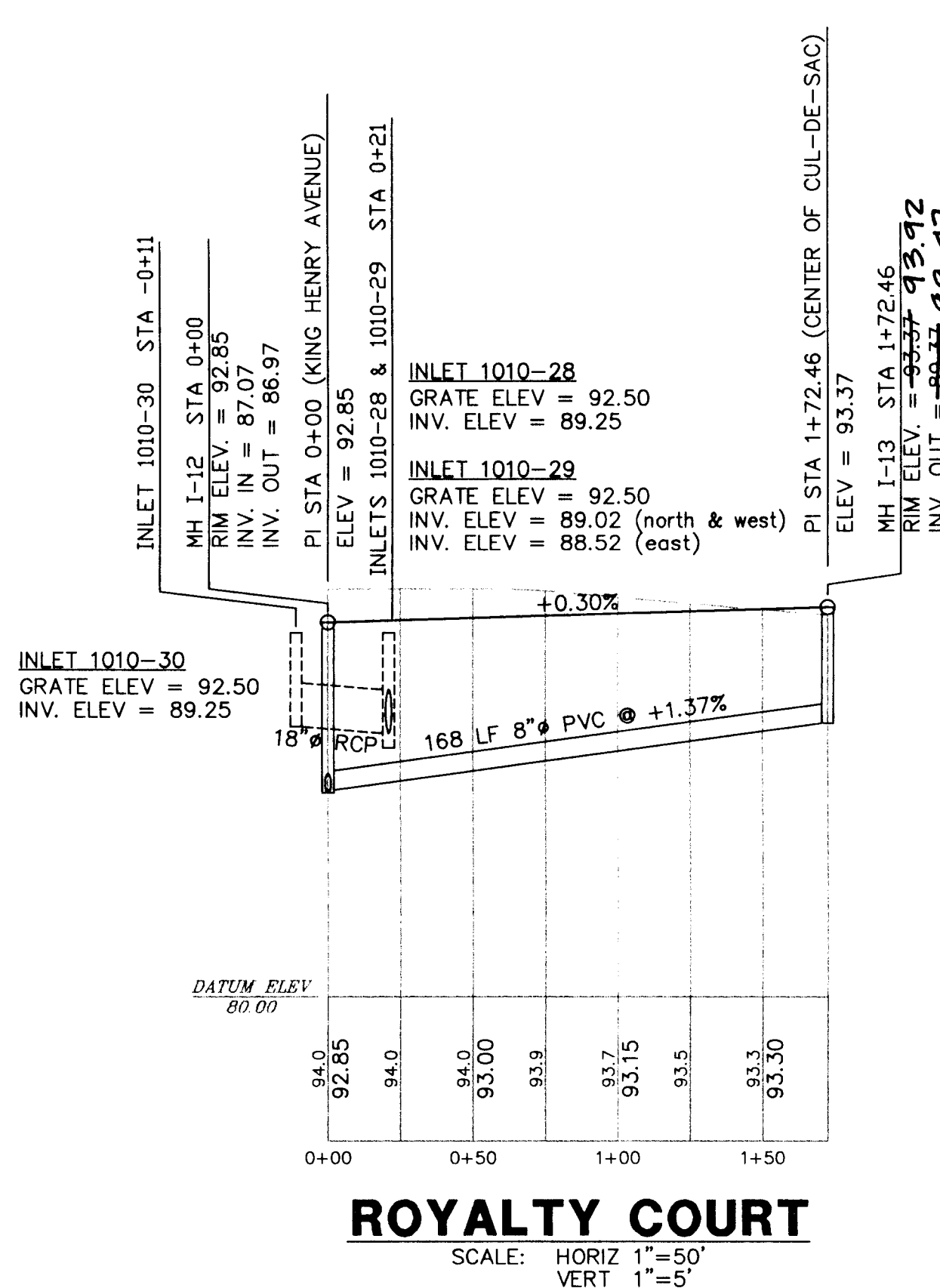
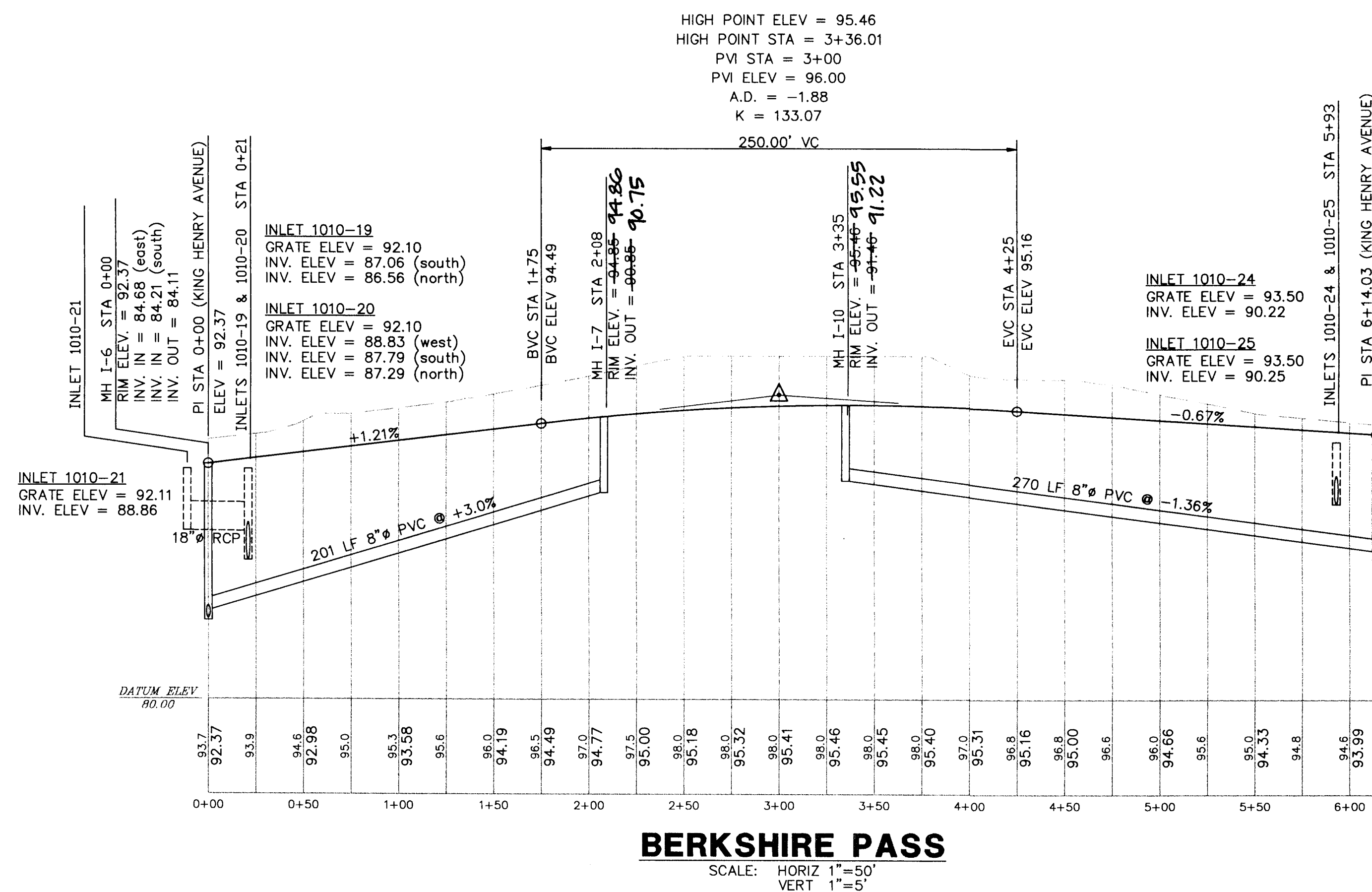
KEITH E. RIDDLE, P.E.  
FLA. REGIS. NO. 38800



**PLAN**  
SCALE: 1"=50'



**PLAN**  
SCALE: 1"=50'



**AS BUILT**

KEITH E. RIDDLE, P.E.  
FLA. REGIS. NO. 38800

DATE

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P.O. BOX 490264 • LEESBURG, FLORIDA 34749-0264  
PHONE (352) 787-7482 • FAX (352) 787-7412

**NE**

ROYAL HIGHLANDS - PHASE 1C-A  
LAKE COUNTY  
FLORIDA

PLAN & PROFILE - BERKSHIRE PASS & ROYALTY COURT

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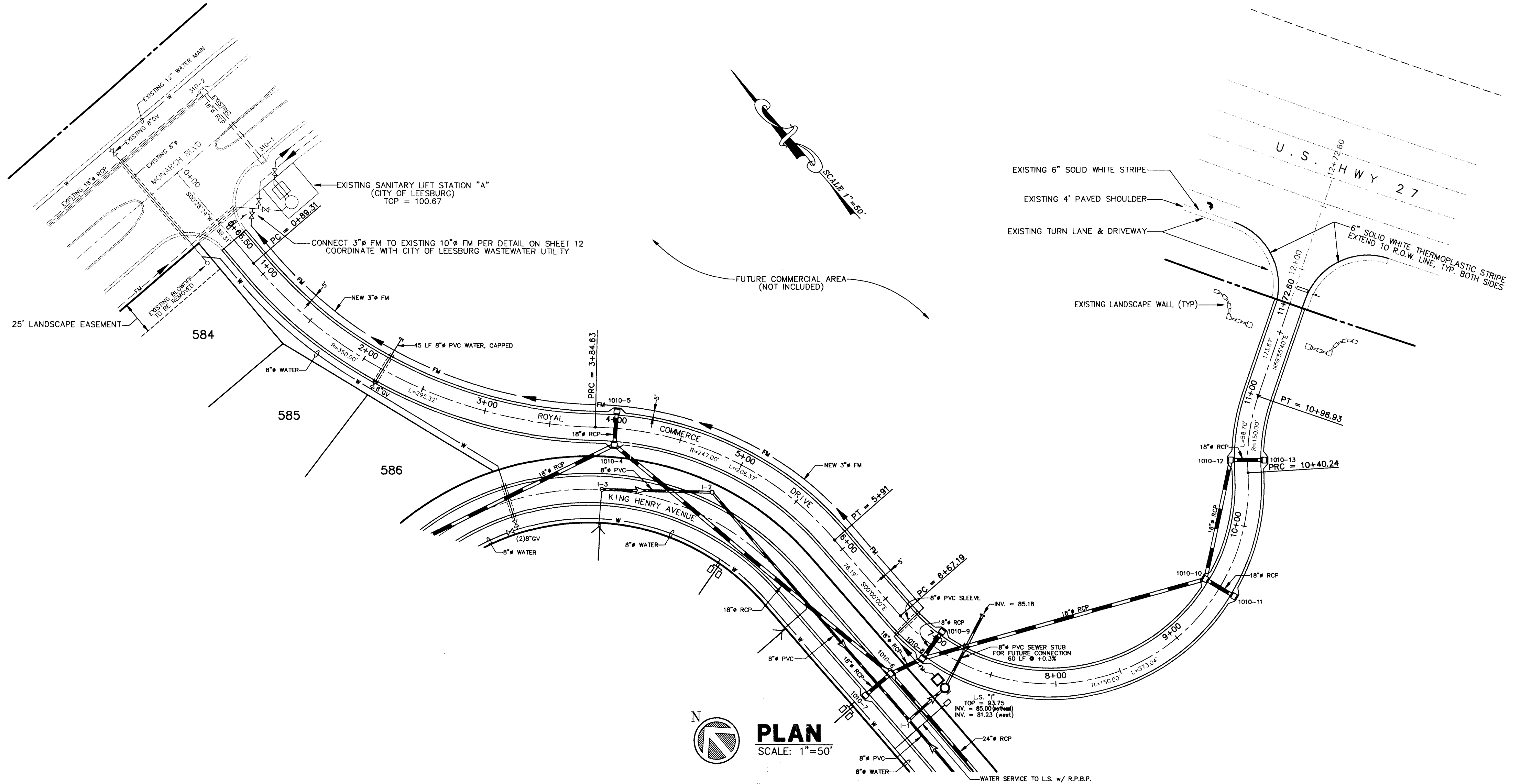
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CHECKED	K.E.R.	REV #4
SCALE	1"=50'	REV #3
DATE	9/11/97	REV #2
PROJECT NO.	93092	REV #1

AS BUILT  
19  
20

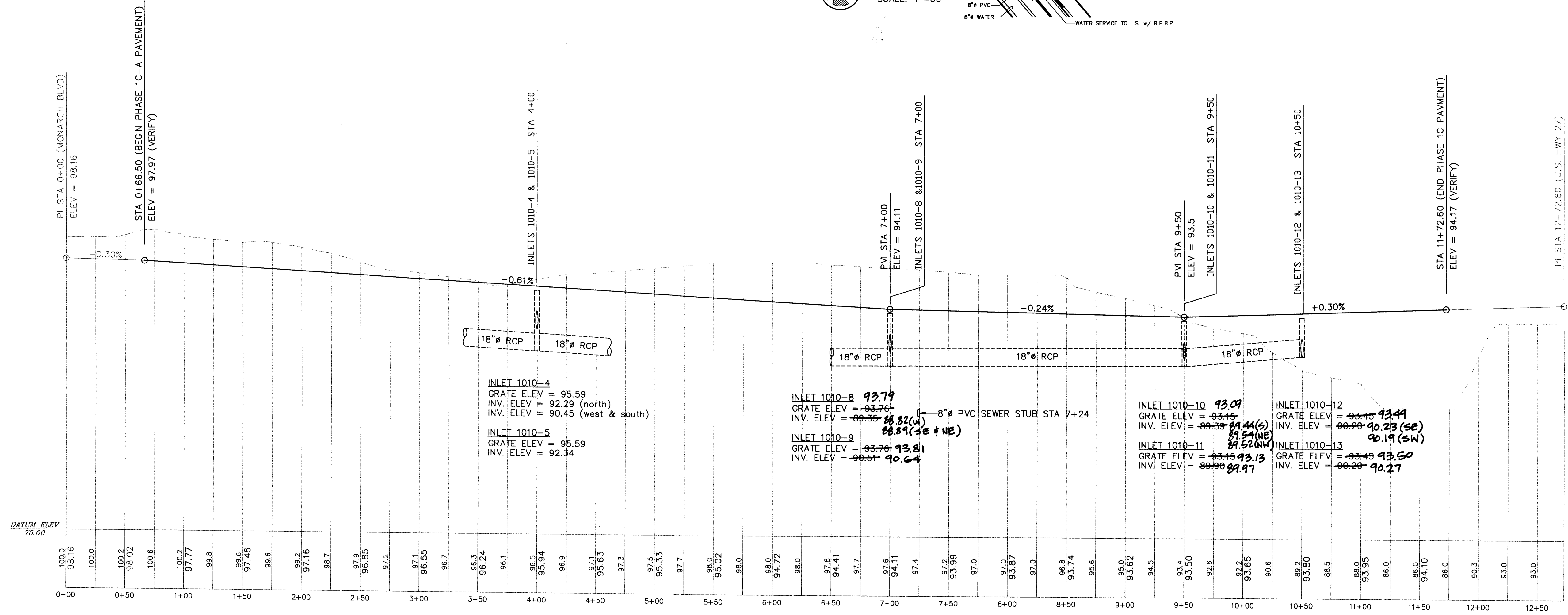
DATE

REV #5	AS-BUILT PER CONTRACTOR 01/23/98
REV #4	REVISED CENTERLINE & INLETS 2/6/98
REV #3	REVISED CENTERLINE GRADES 1/20/98
REV #2	REVISED CENTERLINE 1/28/97
REV #1	MODIFIED FOR PHASE 1C-A CONFIGURATION 12/4/97

PLAN & PROFILE - ROYAL COMMERCE DRIVE  
 ROYAL HIGHLANDS - PHASE 1C-A  
 FLORIDA  
 LAKE COUNTY



**PLAN**  
 SCALE: 1"=50'



**ROYAL COMMERCE DRIVE**  
 SCALE: HORIZ 1"=50'  
 VERT 1"=5'

**AS BUILT**

KEITH E. RIDDLE, P.E.  
 FLA. REGIS. NO. 38800  
 DATE

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