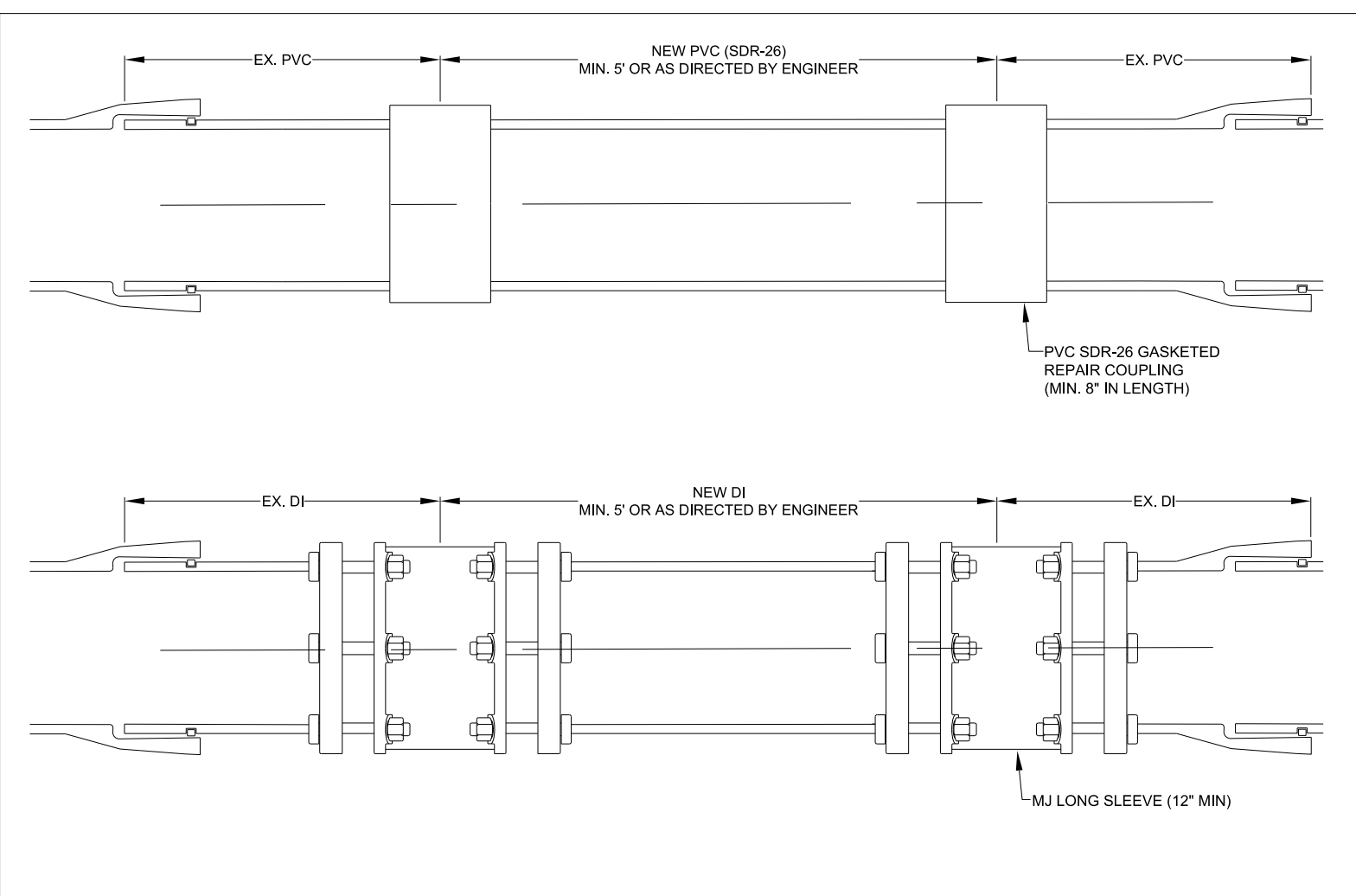
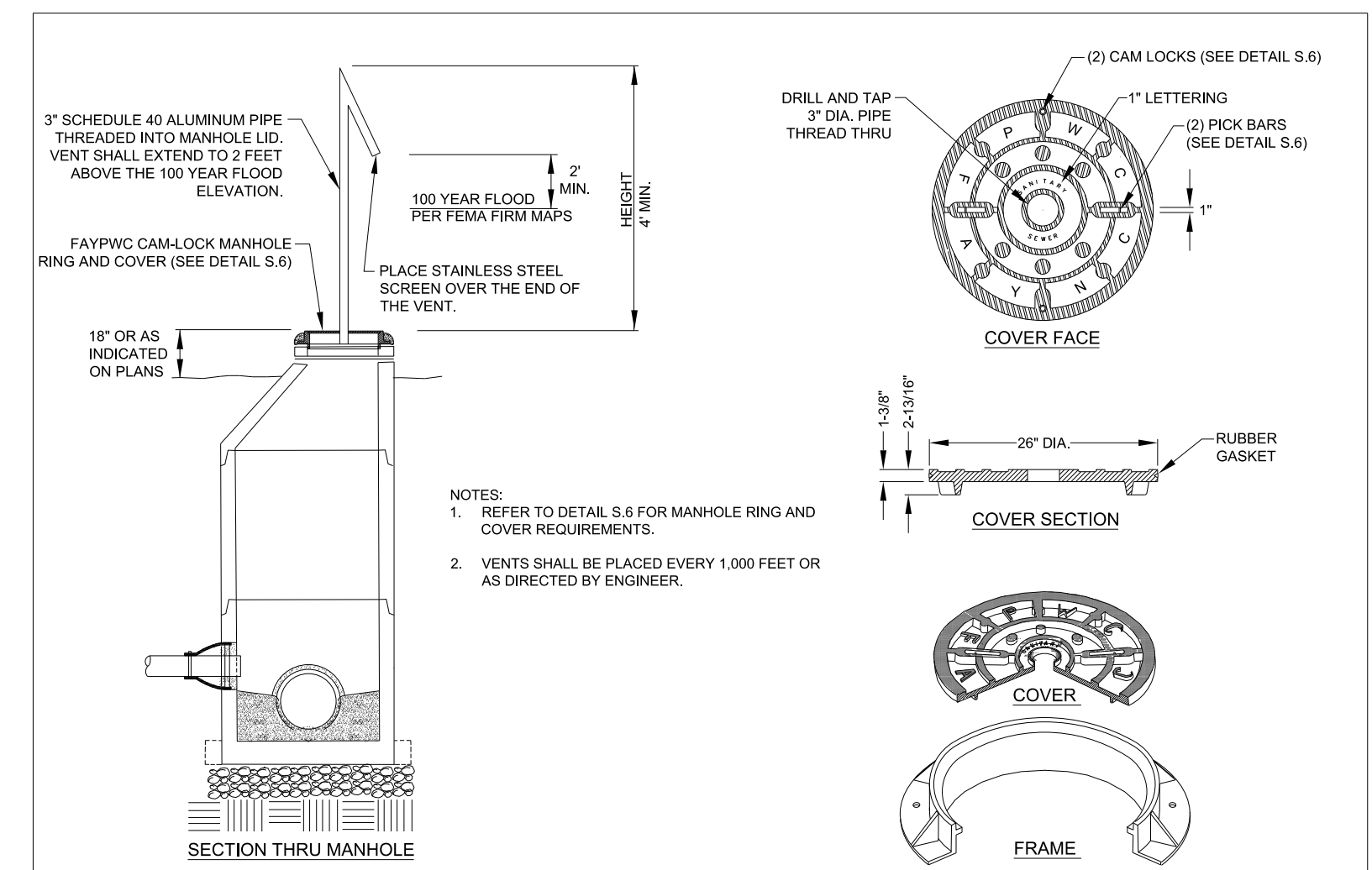


# UTILITY CONSTRUCTION

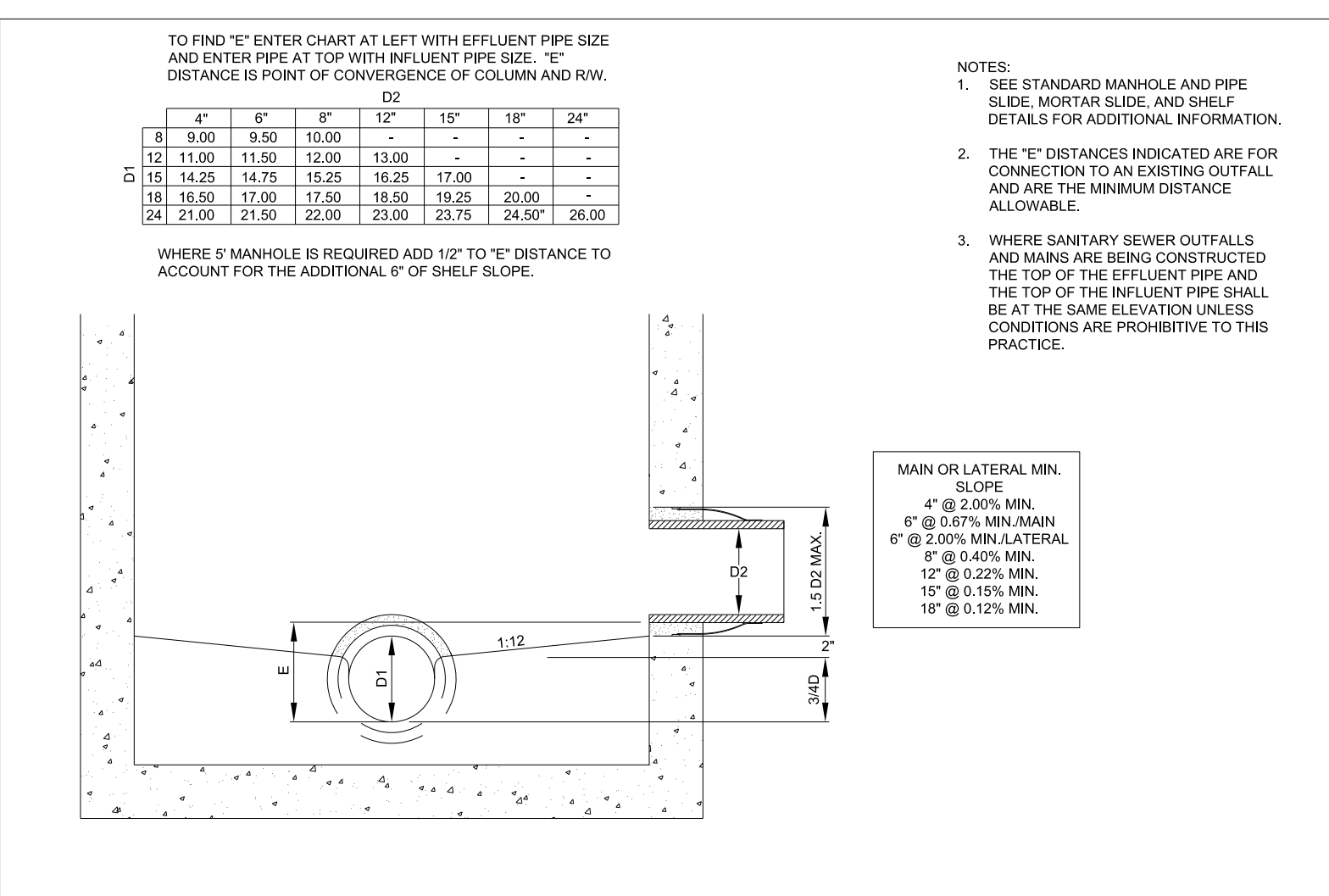


| GRAVITY SANITARY SEWER PIPE REPAIR |                     | FAYETTEVILLE PUBLIC WORKS COMMISSION   |  | NO. DATE REVISION |          |                                    |
|------------------------------------|---------------------|--|--|-------------------|----------|------------------------------------|
| N.T.S.                             |                     | FAYETTEVILLE, N.C.                     |  |                   |          |                                    |
| SHEET NO. 3 OF 3                   | DWG. NO. S.15       | DWG. BY: FAYPWC                        |  | 1                 | 01/05    | REVISED REPLACEMENT PIPE           |
| DATE: JAN. 01, 2018                | APPROVED BY: J.E.G. | WATER RESOURCES ENGINEERING DEPARTMENT |  | 2                 | 07/11    | REVISED NOTES, REPAIRS             |
|                                    |                     |  |  | 3                 | 03/29/18 | REVISED CALLOUTS FOR NCDOT U-4405. |

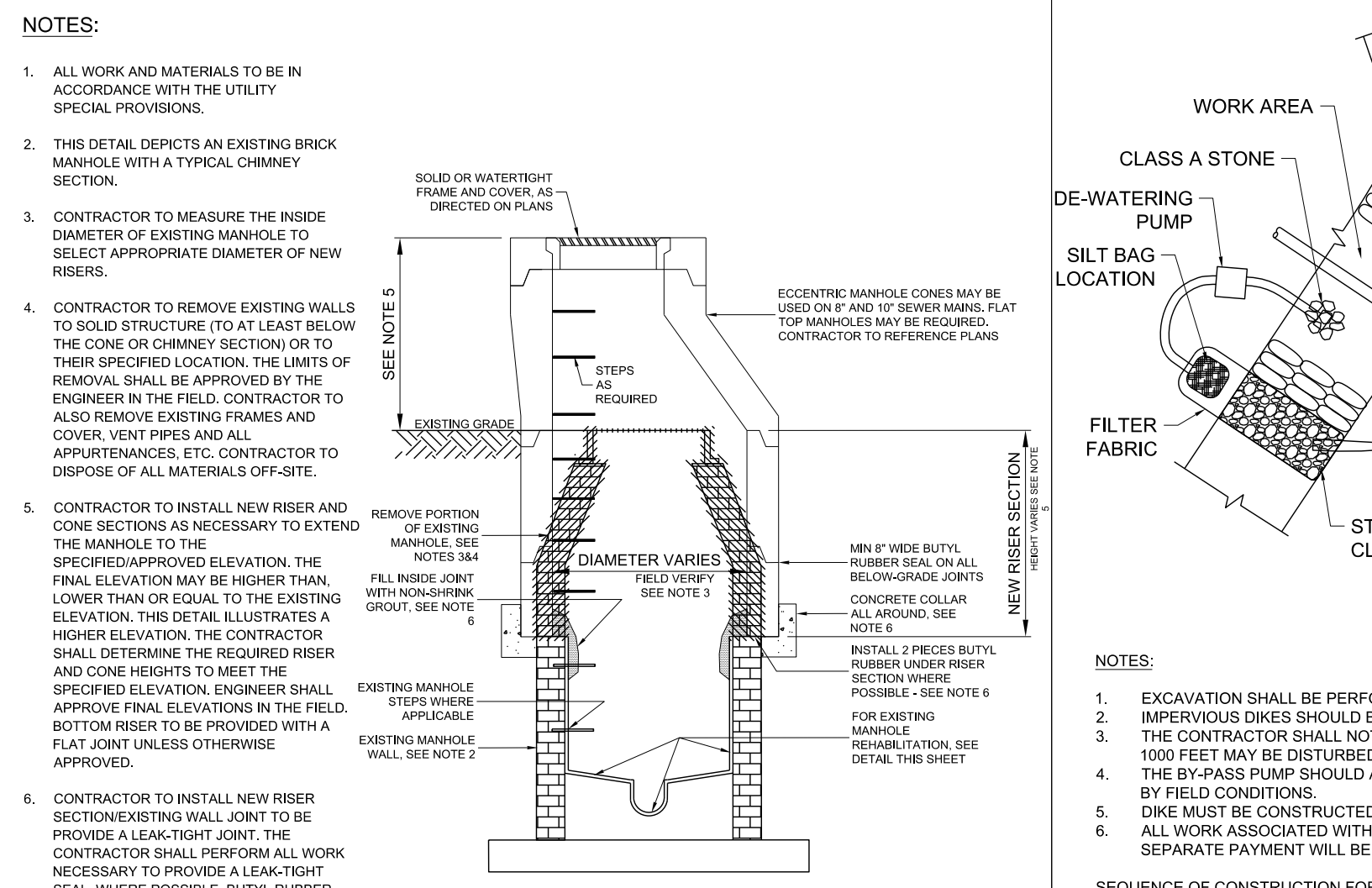


| MANHOLE VENT        |                     | FAYETTEVILLE PUBLIC WORKS COMMISSION   |  | NO. DATE REVISION |          |                                  |
|---------------------|---------------------|--|--|-------------------|----------|----------------------------------|
| N.T.S.              |                     | FAYETTEVILLE, N.C.                     |  |                   |          |                                  |
| SHEET NO. 1 OF 1    | DWG. NO. S.17       | DWG. BY: FAYPWC                        |  | 1                 | 05/29/18 | REVISED NOTES 2 FOR NCDOT U-4405 |
| DATE: JAN. 01, 2018 | APPROVED BY: J.E.G. | WATER RESOURCES ENGINEERING DEPARTMENT |  |                   |          |                                  |
|                     |                     |  |  |                   |          |                                  |

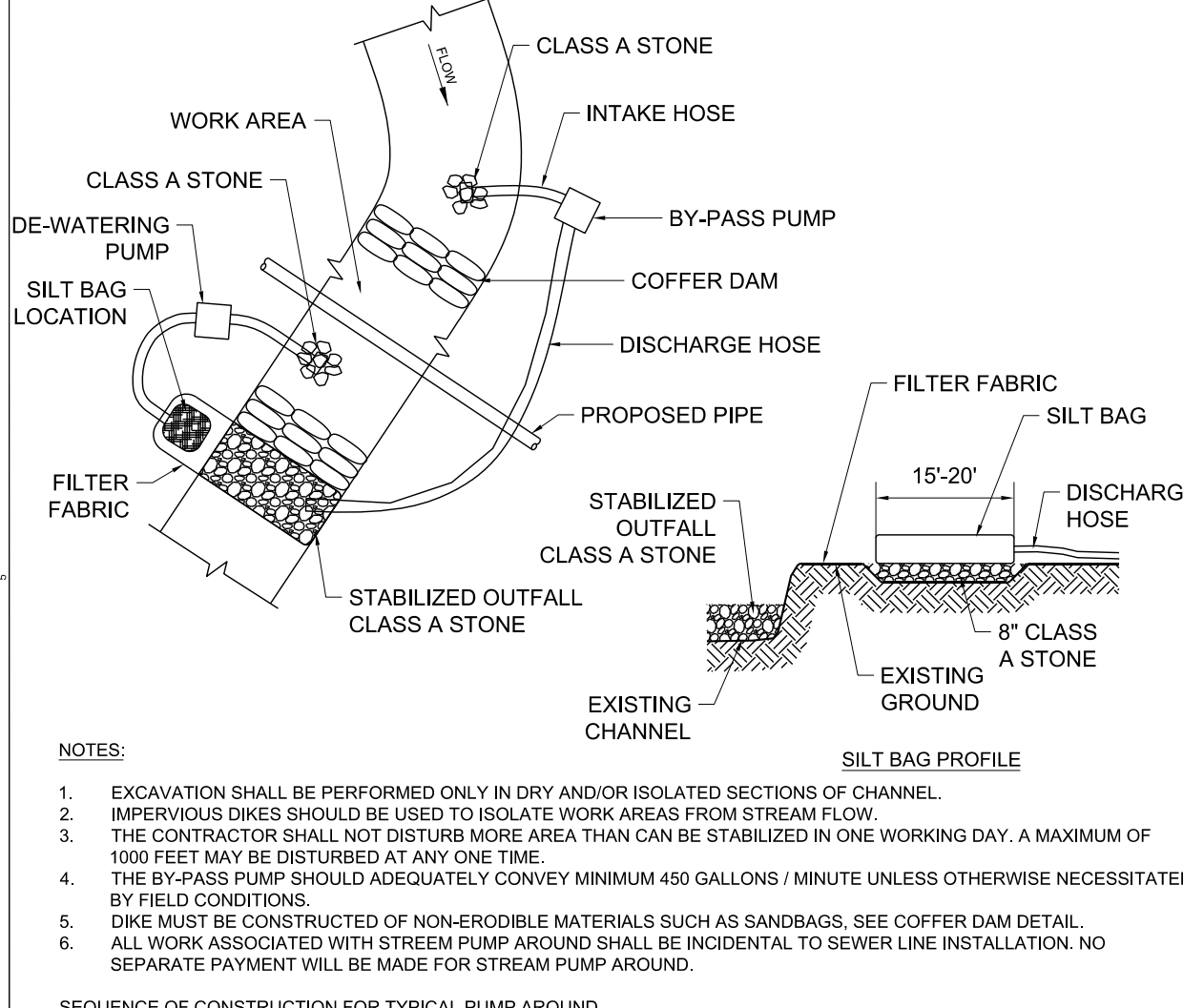
**NOTE:**  
 ANY REFERENCE TO FAYPWC PROJECT COORDINATOR, PWC COORDINATOR OR FAYPWC (FAYETTEVILLE PUBLIC WORKS COMMISSION) SHALL BE INTERPRETTED AS A REFERENCE TO THE ENGINEER.



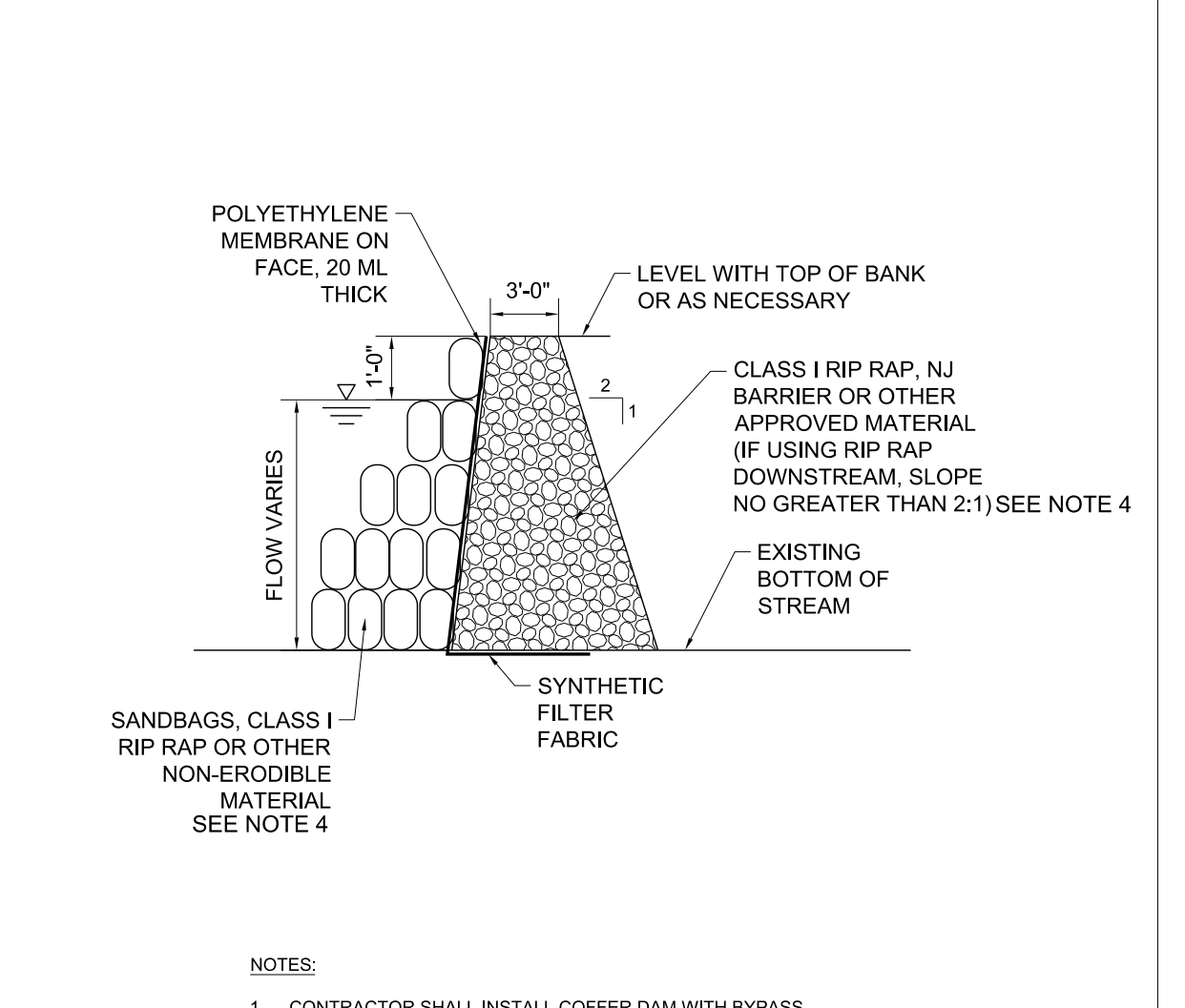
| MH CONNECTION DESIGN GUIDE |                     | FAYETTEVILLE PUBLIC WORKS COMMISSION   |  | NO. DATE REVISION |           |                                     |
|----------------------------|---------------------|--|--|-------------------|-----------|-------------------------------------|
| N.T.S.                     |                     | FAYETTEVILLE, N.C.                     |  |                   |           |                                     |
| SHEET NO. 1 OF 1           | DWG. NO. S.18       | DWG. BY: FAYPWC                        |  | 1                 | 7/24/2018 | REVISED PER NCDOT COMMENTS (U-4405) |
| DATE: JAN. 01, 2018        | APPROVED BY: J.E.G. | WATER RESOURCES ENGINEERING DEPARTMENT |  |                   |           |                                     |
|                            |                     |  |  |                   |           |                                     |



| RAISE AND REPLACE EXISTING MANHOLE |                     | FAYETTEVILLE PUBLIC WORKS COMMISSION   |  | NO. DATE REVISION |          |                                  |
|------------------------------------|---------------------|--|--|-------------------|----------|----------------------------------|
| N.T.S.                             |                     | FAYETTEVILLE, N.C.                     |  |                   |          |                                  |
| SHEET NO. 1 OF 1                   | DWG. NO. S.17       | DWG. BY: FAYPWC                        |  | 1                 | 05/29/18 | REVISED NOTES 2 FOR NCDOT U-4405 |
| DATE: JAN. 01, 2018                | APPROVED BY: J.E.G. | WATER RESOURCES ENGINEERING DEPARTMENT |  |                   |          |                                  |
|                                    |                     |  |  |                   |          |                                  |

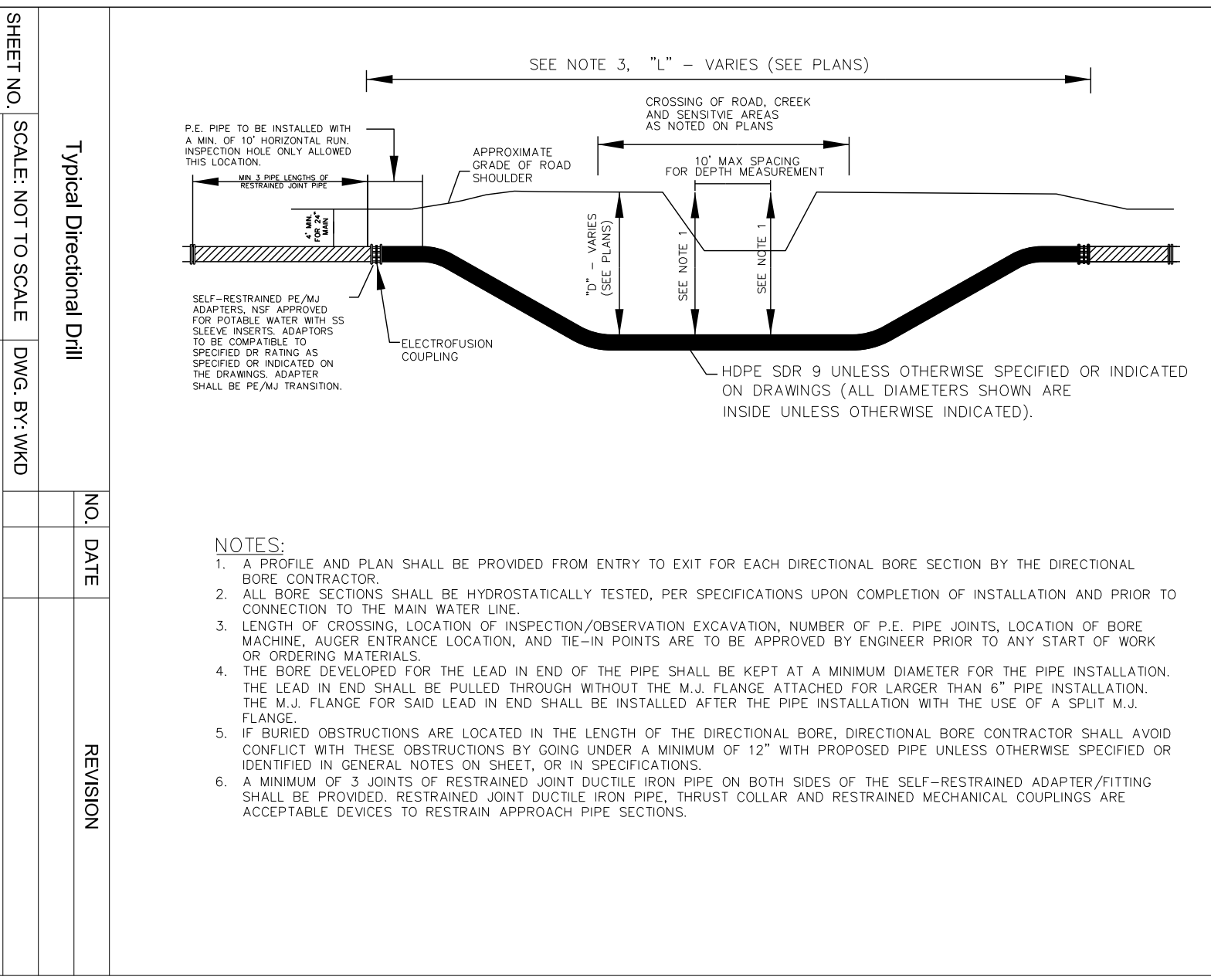


| STREAM PUMP AROUND |                     | FAYETTEVILLE PUBLIC WORKS COMMISSION   |  | NO. DATE REVISION |           |                                     |
|--------------------|---------------------|--|--|-------------------|-----------|-------------------------------------|
| N.T.S.             |                     | FAYETTEVILLE, N.C.                     |  |                   |           |                                     |
| SHEET NO. 1 OF 1   | DWG. NO. S.17       | DWG. BY: WKD                           |  | 1                 | 7/24/2018 | REVISED PER NCDOT COMMENTS (U-4405) |
| DATE: 5/18/2015    | APPROVED BY: J.E.G. | WATER RESOURCES ENGINEERING DEPARTMENT |  |                   |           |                                     |
|                    |                     |  |  |                   |           |                                     |

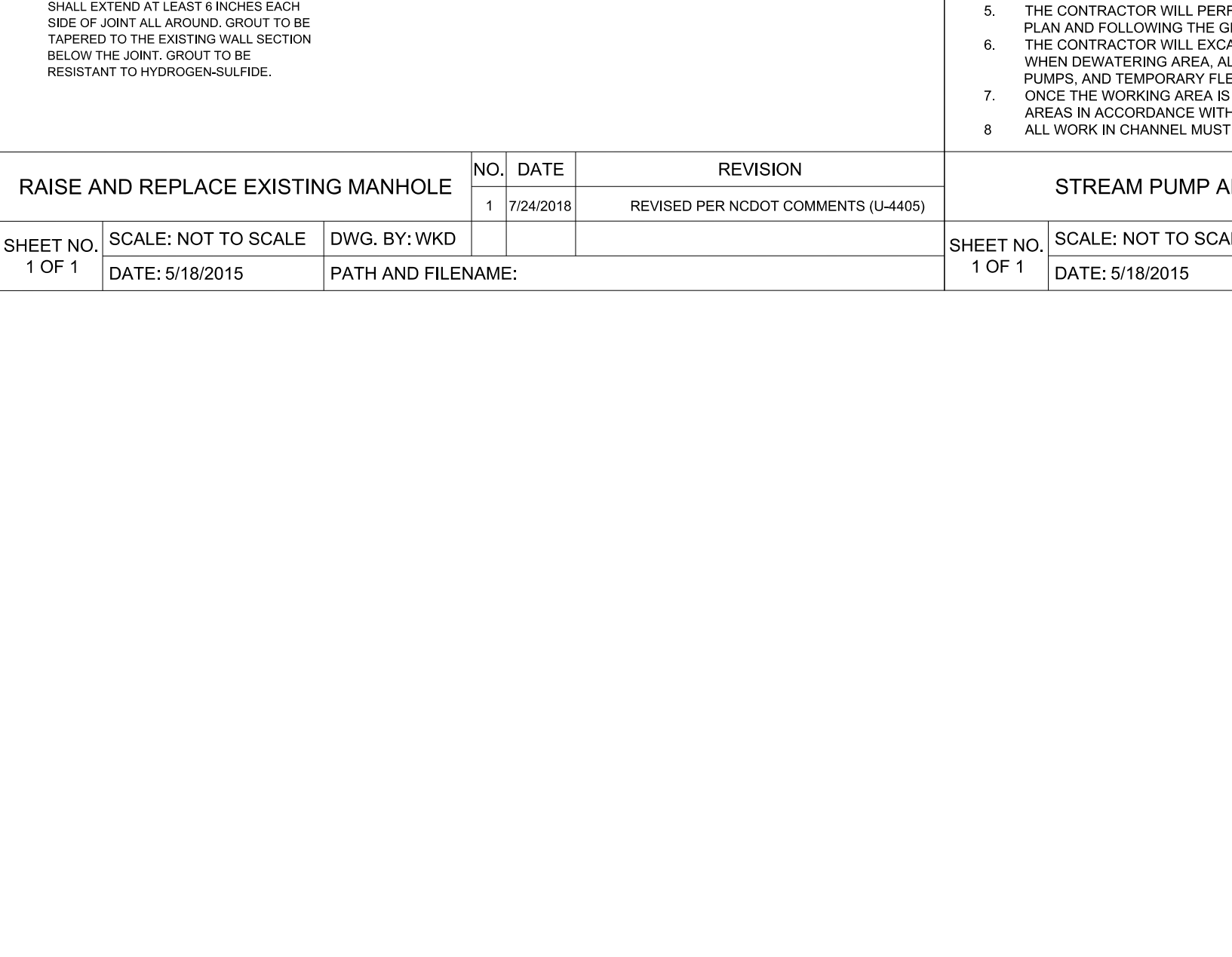


| COFFER DAM DETAIL |                     | FAYETTEVILLE PUBLIC WORKS COMMISSION   |  | NO. DATE REVISION |           |                                     |
|-------------------|---------------------|--|--|-------------------|-----------|-------------------------------------|
| N.T.S.            |                     | FAYETTEVILLE, N.C.                     |  |                   |           |                                     |
| SHEET NO. 1 OF 1  | DWG. NO. S.17       | DWG. BY: WKD                           |  | 1                 | 7/24/2018 | REVISED PER NCDOT COMMENTS (U-4405) |
| DATE: 5/18/2015   | APPROVED BY: J.E.G. | WATER RESOURCES ENGINEERING DEPARTMENT |  |                   |           |                                     |
|                   |                     |  |  |                   |           |                                     |

**NOTE:**  
 COFFER DAM AND STREAM BYPASS PUMP AROUND SHALL BE INCIDENTAL TO THE SEWER LINE CONSTRUCTION. NO SEPARATE PAYMENT SHALL BE MADE FOR ITS INSTALLATION, UPKEEP AND REMOVAL.



| TYPICAL DIRECTIONAL DRILL |                     | FAYETTEVILLE PUBLIC WORKS COMMISSION   |  | NO. DATE REVISION |           |                                     |
|---------------------------|---------------------|--|--|-------------------|-----------|-------------------------------------|
| N.T.S.                    |                     | FAYETTEVILLE, N.C.                     |  |                   |           |                                     |
| SHEET NO. 1 OF 1          | DWG. NO. S.17       | DWG. BY: WKD                           |  | 1                 | 7/24/2018 | REVISED PER NCDOT COMMENTS (U-4405) |
| DATE: 5/18/2015           | APPROVED BY: J.E.G. | WATER RESOURCES ENGINEERING DEPARTMENT |  |                   |           |                                     |
|                           |                     |  |  |                   |           |                                     |



| RAISE AND REPLACE EXISTING MANHOLE |                     | FAYETTEVILLE PUBLIC WORKS COMMISSION   |  | NO. DATE REVISION |           |                                     |
|------------------------------------|---------------------|--|--|-------------------|-----------|-------------------------------------|
| N.T.S.                             |                     | FAYETTEVILLE, N.C.                     |  |                   |           |                                     |
| SHEET NO. 1 OF 1                   | DWG. NO. S.17       | DWG. BY: WKD                           |  | 1                 | 7/24/2018 | REVISED PER NCDOT COMMENTS (U-4405) |
| DATE: 5/18/2015                    | APPROVED BY: J.E.G. | WATER RESOURCES ENGINEERING DEPARTMENT |  |                   |           |                                     |
|                                    |                     |  |  |                   |           |                                     |

02-AUG-2018 10:38 U:\P\Projects\2015\017700RA\_Reeford\_Road\_NCDOT\_U\_4405\CADD\NCDOT\_PLANS\Utilities\Engineering\U-4405\_ut\_dtl\_UC031-0.dgn  
 5/14/2018  
 UTILITY REV. - JULY 24, 2018 - REVISIONS TO DETAIL SHEETS  
 REVISIONS  
 SHEET NO. 1 OF 1  
 SCALE: NOT TO SCALE  
 DATE: 5/18/2015  
 PATH AND FILENAME: \\fayetteville\Public Works\Commissions\2015\017700RA\_Reeford\_Road\_NCDOT\_U\_4405\CADD\NCDOT\_PLANS\Utilities\Engineering\U-4405\_ut\_dtl\_UC031-0.dgn