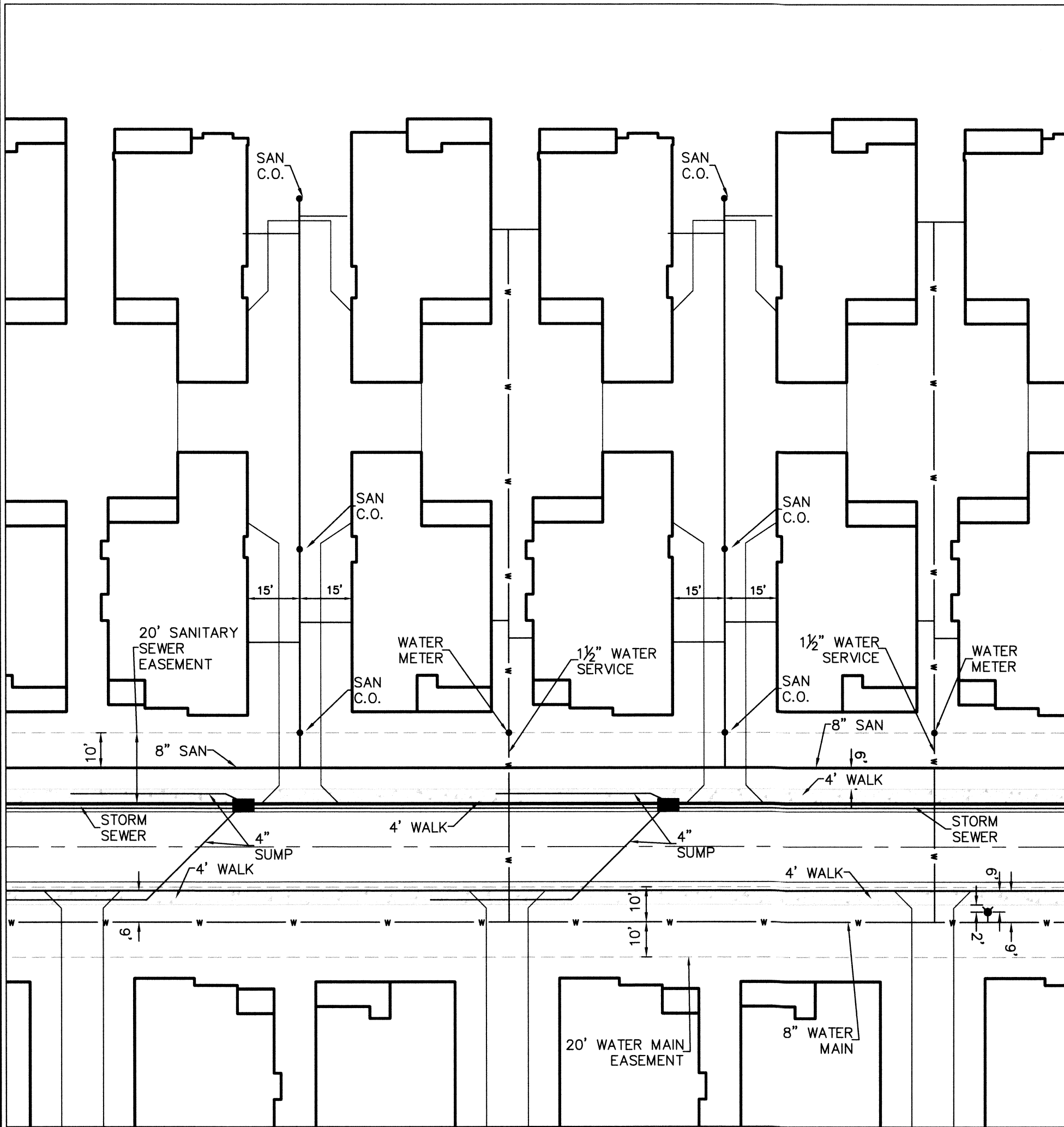
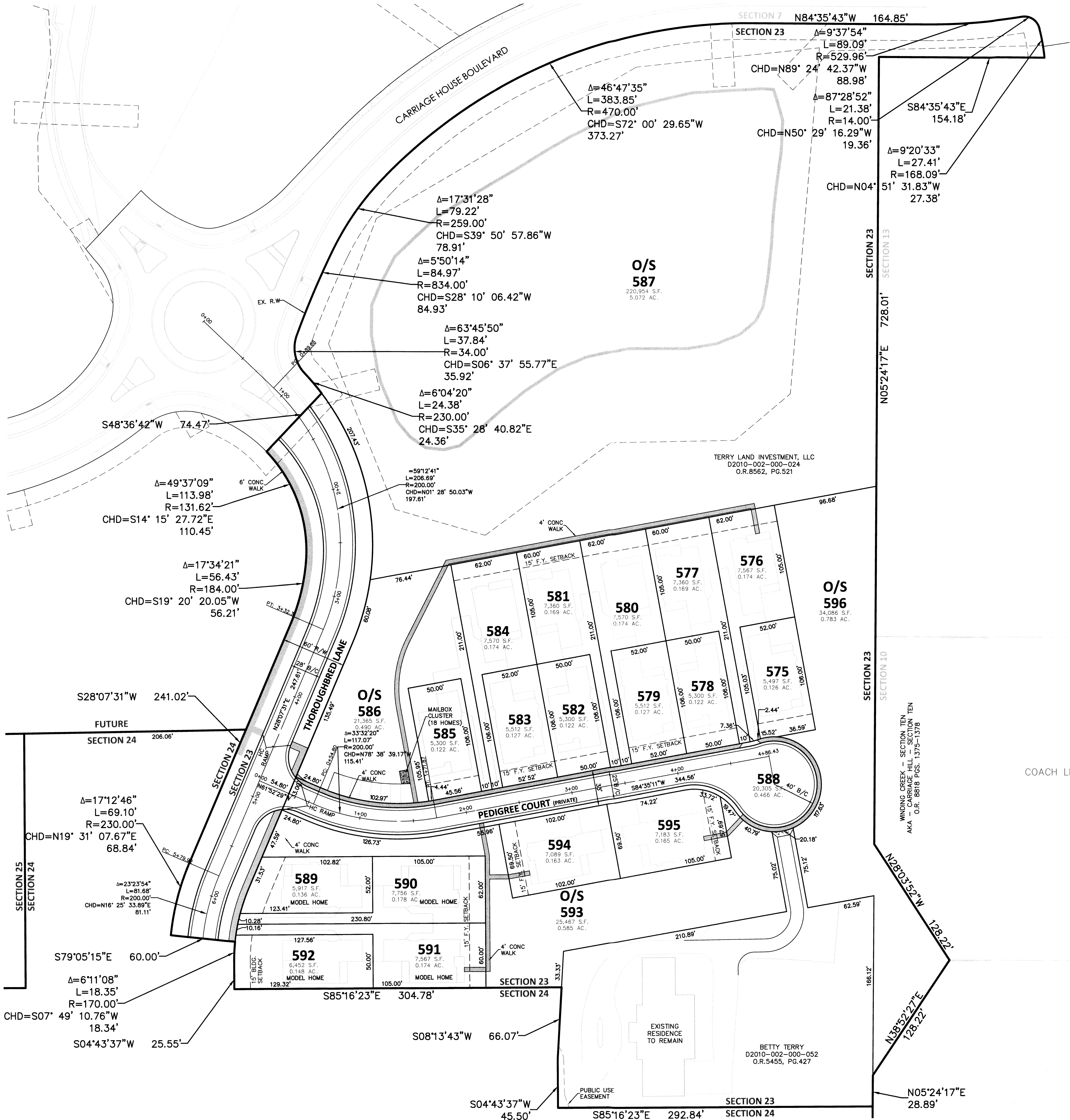


TYPICAL LAYOUT  
Scale: 1"=30'



TYPICAL UTILITY PLAN  
Scale: 1"=30'



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# WINDING CREEK AKA CARRIAGE HILL

## SECTION 23

SECTION 2, TOWN 2, RANGE 3  
LIBERTY TOWNSHIP  
BUTLER COUNTY, OHIO

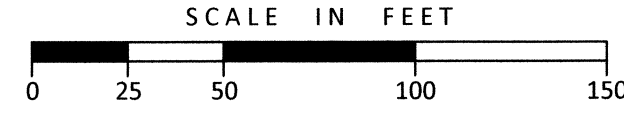
Sheet Title

LAYOUT PLAN

Project Number 04476.06  
Drawing Scale 1" = 50'  
Sheet Number 2 / 9  
File Number 04476



1-800-362-2764  
CALL TWO WORKING DAYS BEFORE YOU DIG  
(NON MEMBERS MUST BE CALLED DIRECTLY)



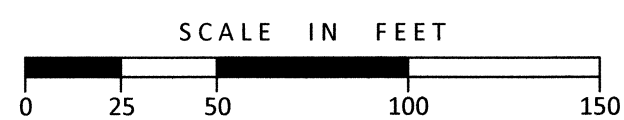


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SECTION 2, TOWN 2, RANGE 3  
LIBERTY TOWNSHIP  
BUTLER COUNTY, OHIO

**1-800-362-2764**  
CALL TWO WORKING DAYS BEFORE YOU DIG  
(NON MEMBERS MUST BE CALLED DIRECTLY)

Project Number 04476.00  
Drawing Scale 1" = 50'  
Sheet Number 3 / 9  
File Number 04476





GENERAL NPDES NOTES

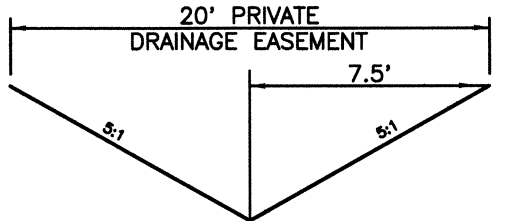
1. PROJECT INVOLVES THE CONSTRUCTION AND ASSOCIATED INFRASTRUCTURE FOR A LOW DENSITY SINGLE FAMILY SUBDIVISION.
2. AREA TO BE DISTURBED IS APPROXIMATELY 10 ACRES.
3. APPROXIMATELY 4.2 OF IMPERVIOUS SURFACE IS PROPOSED RESULTING IN 42 PERCENT OF IMPERVIOUSNESS.
4. PRE-CONSTRUCTION RUNOFF COEFFICIENT IS 0.30. POST-CONSTRUCTION RUNOFF COEFFICIENT IS 0.56.
5. THE PRIMARY SOIL TYPE IS RUSSELL - MIAMIAN SILT LOAM.
6. THE PRIOR LAND USE IS FARM CROPS.
7. STONY RUN IS THE FIRST NAMED STREAM RECEIVING RUNOFF FROM THIS SITE. RUNOFF IS ULTIMATELY RECEIVED BY GREGORY CREEK.
8. NPDES STORM WATER GENERAL PERMIT NUMBER: 1G006947\*AG
9. PROJECT DURATION: THRU 2021
10. SITE OPERATOR:

LIBERTY LAND COMPANY, LLC.  
5342 CARRIAGE HOUSE BOULEVARD  
LIBERTY TOWNSHIP, OH 45011  
(513) 894-4455
11. SWPPP CONTACT:

LIBERTY LAND COMPANY, LLC.  
5342 CARRIAGE HOUSE BOULEVARD  
LIBERTY TOWNSHIP, OH 45011  
(513) 894-4455
12. UNLESS OTHERWISE NOTED, STANDARDS AND SPECIFICATIONS ESTABLISHED IN THE LATEST EDITION OF THE OHIO DEPARTMENT OF NATURAL RESOURCES "RAINWATER AND LAND DEVELOPMENT" MANUAL, CURRENT EDITION, SHALL GOVERN THE EROSION AND SEDIMENT CONTROL INSTALLATIONS SPECIFIED ON THIS PLAN.
13. THE DEVELOPER AND CONTRACTOR SHALL ABIDE BY THE RULES AND REGULATIONS SET FORTH IN THE OHIO EPA PERMIT NO. OH0000005- "AUTHORIZATION FOR STORM WATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY" UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES).
14. PRIOR TO COMMENCEMENT OF CONSTRUCTION OPERATIONS, ALL SEDIMENTATION AND EROSION CONTROL FEATURES SHALL BE IN PLACE.
15. SEDIMENT CONTROL STRUCTURES SHALL BE FUNCTIONAL THROUGHOUT THE COURSE OF EARTH DISTURBING ACTIVITY. AND SHALL CONTINUE TO FUNCTION UNTIL THE UP SLOPE DEVELOPMENT AREA IS REESTABLISHED. AS CONSTRUCTION PROGRESSES AND THE TOPOGRAPHY IS ALTERED, APPROPRIATE CONTROLS MUST BE CONSTRUCTED OR EXISTING CONTROLS ALTERED TO ADDRESS THE CHANGING DRAINAGE PATTERNS.
16. ALL GROUND SURFACE AREAS THAT HAVE BEEN EXPOSED OR LEFT BARE AS A RESULT OF DEMOLITION AND ARE TO FINAL GRADE AND TO REMAIN SO, SHALL BE SEEDED AND MULCHED AS SOON AS PRACTICAL IN ACCORDANCE WITH STATE OF OHIO SPECIFICATION ITEM 659, AND IN ACCORDANCE WITH THE CONDITIONS OF THE NPDES STORM WATER GENERAL PERMIT.

SUMP LINE SCHEDULE

| LOT NUMBER | DIRECTION                    |
|------------|------------------------------|
| 575        | SUMP TO LINE TRIB. TO CB 302 |
| 576        | SUMP TO LINE TRIB. TO CB 316 |
| 577        | SUMP TO LINE TRIB. TO CB 315 |
| 578        | SUMP TO LINE TRIB. TO CB 302 |
| 579        | SUMP TO LINE TRIB. TO CB 302 |
| 580        | SUMP TO LINE TRIB. TO CB 314 |
| 581        | SUMP TO LINE TRIB. TO CB 313 |
| 582        | SUMP TO LINE TRIB. TO CB 324 |
| 583        | SUMP TO LINE TRIB. TO CB 324 |
| 584        | SUMP TO LINE TRIB. TO CB 312 |
| 585        | SUMP TO LINE TRIB. TO CB 324 |
| 589        | SUMP TO LINE TRIB. TO CB 331 |
| 590        | SUMP TO LINE TRIB. TO CB 323 |
| 591        | SUMP TO LINE TRIB. TO CB 322 |
| 592        | SUMP TO LINE TRIB. TO CB 332 |
| 594        | SUMP TO LINE TRIB. TO CB 323 |
| 595        | SUMP TO LINE TRIB. TO CB 301 |



TYPICAL SECTION  
EMERGENCY FLOOD ROUTE  
N.T.S.

PROPOSED GRADING SHOWN HEREON ARE DEVELOPER GRADES.

LOT DRAINAGE ARROWS SHOWN HEREON ARE BASED ON DIRECTION OF DRAINAGE AFTER COMPLETION OF RESIDENTIAL CONSTRUCTION.

ESTABLISH VEGETATION ON ALL BARE AREAS  
AS PER O.E.P.A. N.P.D.E.S. REGULATIONS.

CONTRACTOR IS RESPONSIBLE FOR N.P.D.E.S.  
INSPECTIONS DURING CONSTRUCTION PERIOD.

NOTE: HIGH WATER TABLES ARE APPARENT IN THIS AREA.  
IF BASEMENTS ARE CONSTRUCTED, IT IS THE RESPONSIBILITY  
OF THE BUILDER TO TAKE SPECIAL PRECAUTION TO  
ENSURE THE BASEMENTS STAY DRY.

MAINTENANCE OF CONTROLS:

1. SILT FENCE AND FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND DAILY DURING A PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
2. SHOULD THE FABRIC ON A FENCE OR FILTER BARRIER DECOMPOSE OR BECOME INEFFECTIVE AND THE BARRIER IS STILL NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
3. SEDIMENT DEPOSITS SHALL BE REMOVED WHEN DEPOSITS REACH APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
4. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE FENCE OR FILTER BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM WITH THE EXISTING GRADE AND PREPARED FOR SEEDING.

CONSTRUCTION SEQUENCE

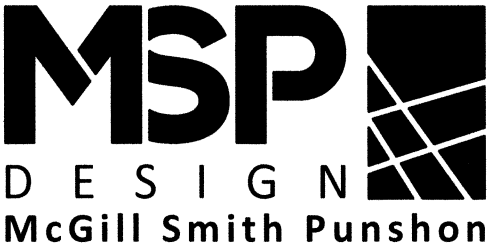
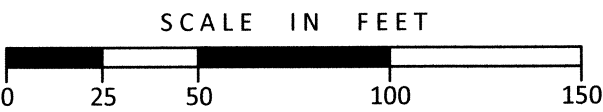
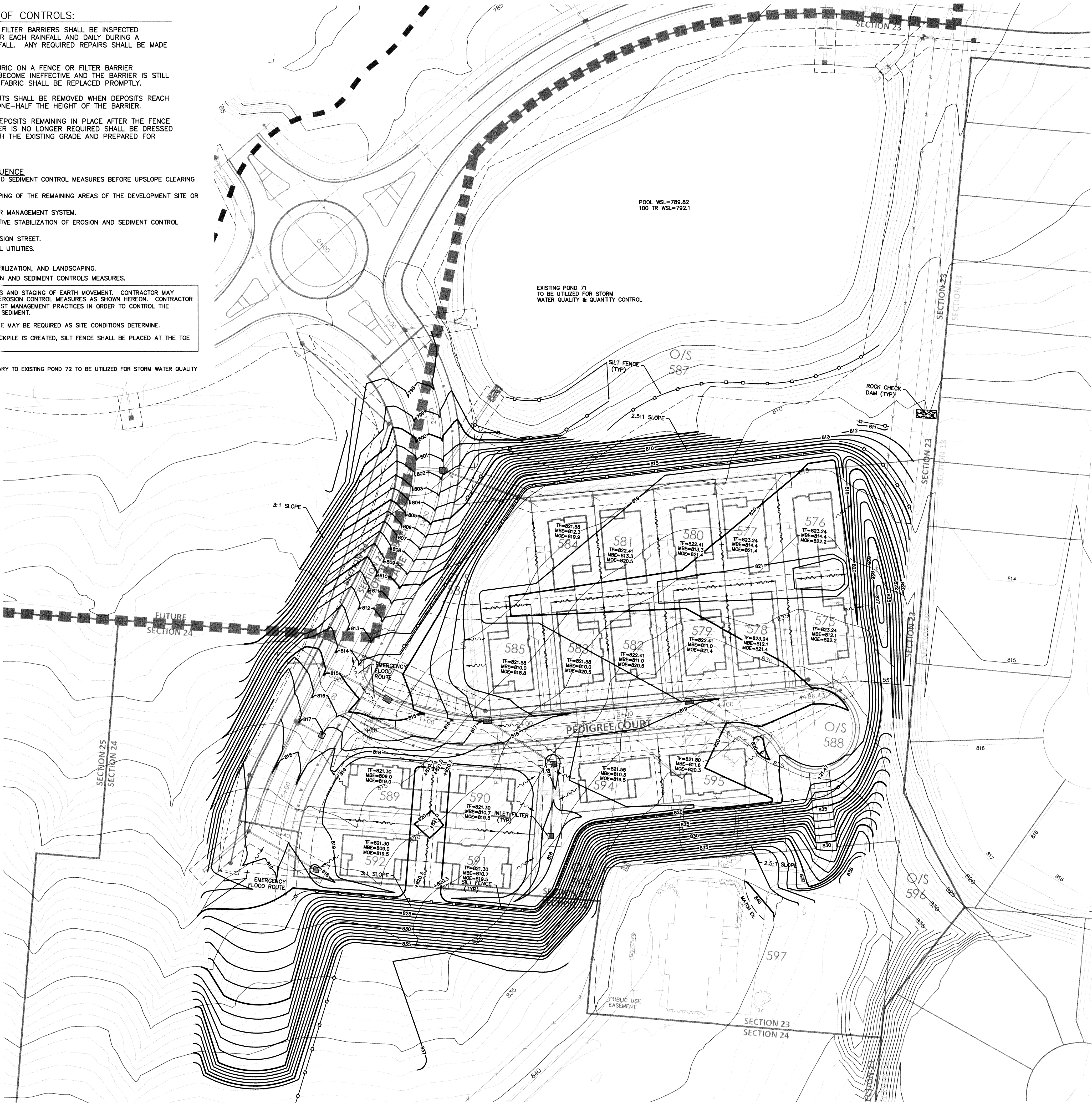
1. INSTALL EROSION AND SEDIMENT CONTROL MEASURES BEFORE UPSLOPE CLEARING AND GRADING.
2. GRADING AND STRIPPING OF THE REMAINING AREAS OF THE DEVELOPMENT SITE OR PROJECT AREA.
3. INSTALL STORMWATER MANAGEMENT SYSTEM.
4. TEMPORARY VEGETATIVE STABILIZATION OF EROSION AND SEDIMENT CONTROL MEASURES.
5. GRADING OF SUBDIVISION STREET.
6. INSTALLATION OF ALL UTILITIES.
7. SITE CONSTRUCTION.
8. FINAL GRADING, STABILIZATION, AND LANDSCAPING.
9. REMOVAL OF EROSION AND SEDIMENT CONTROLS MEASURES.

DUE TO THE DYNAMICS AND STAGING OF EARTH MOVEMENT, CONTRACTOR MAY NEED TO ALTER THE EROSION CONTROL MEASURES AS SHOWN HEREON. CONTRACTOR TO APPLY (B.M.P.) BEST MANAGEMENT PRACTICES IN ORDER TO CONTROL THE RUNOFF OF SILT AND SEDIMENT.

ADDITIONAL SILT FENCE MAY BE REQUIRED AS SITE CONDITIONS DETERMINE.

IF A TEMPORARY STOCKPILE IS CREATED, SILT FENCE SHALL BE PLACED AT THE TOE OF SLOPE

SUBJECT AREA IS TRIBUTARY TO EXISTING POND 72 TO BE UTILIZED FOR STORM WATER QUALITY & QUANTITY CONTROL.



■ Architecture 3700 Park 42 Drive  
■ Engineering Suite 1908  
■ Landscape Architecture Cincinnati OH 45241  
■ Planning Phone 513.759.0004  
■ Surveying www.mspsdesign.com

Project Manager RLA  
Drawn By DCA  
DWG 04476064-IMP-SECTION 23  
X-Ref(s) ---

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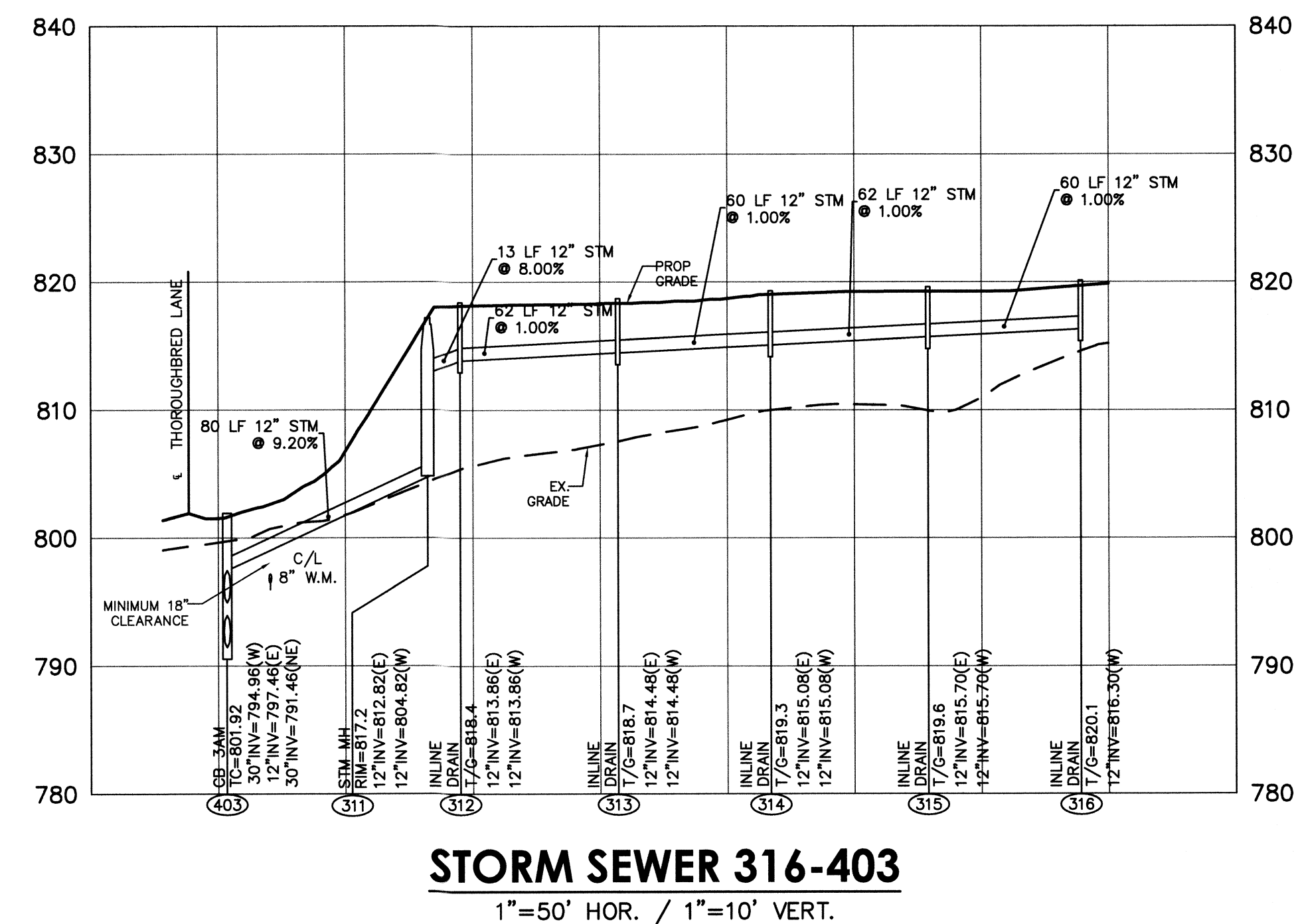
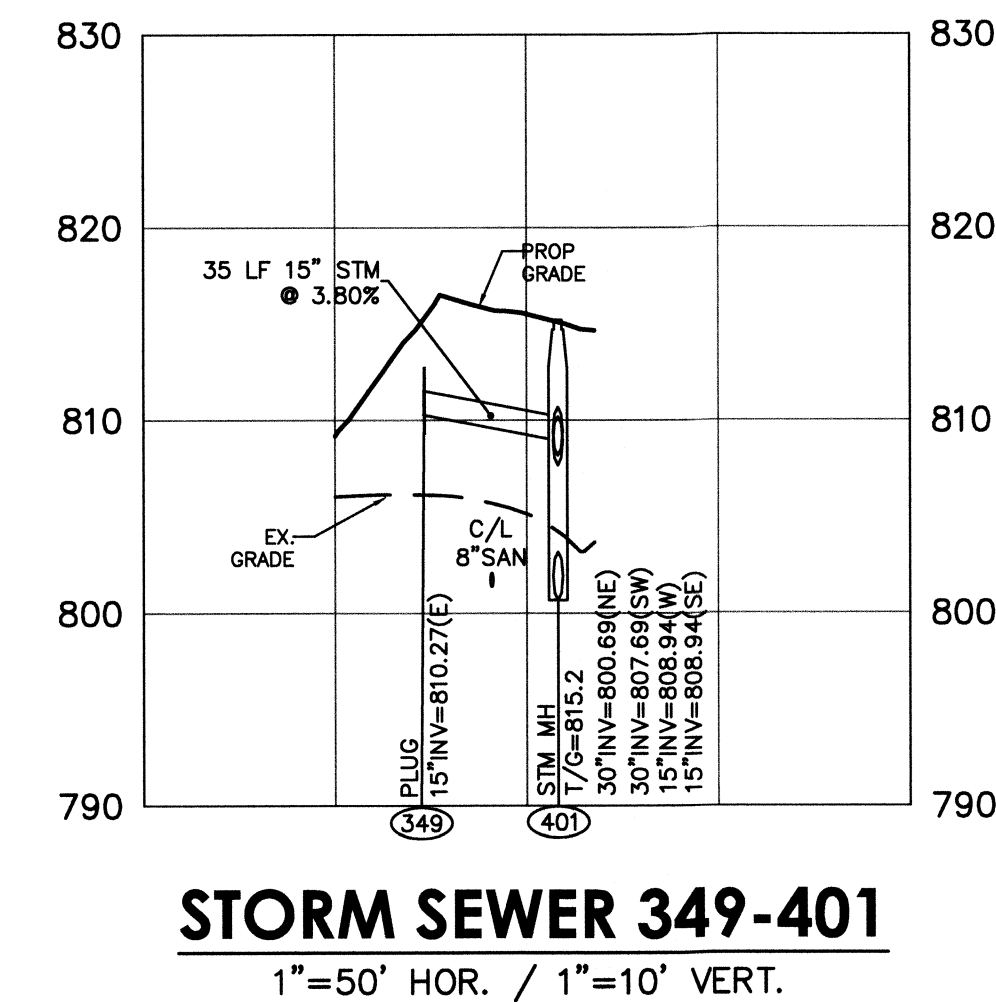
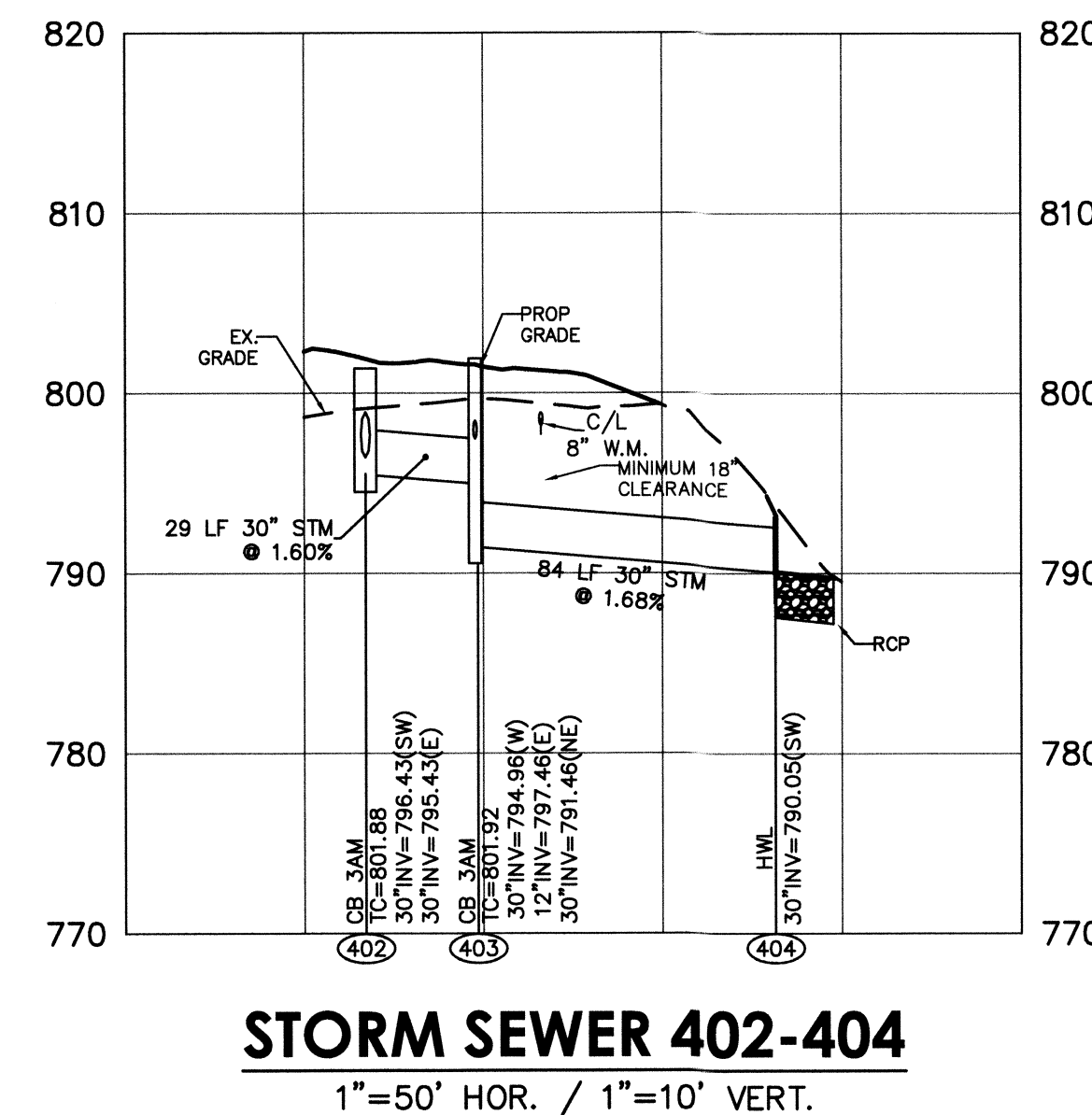
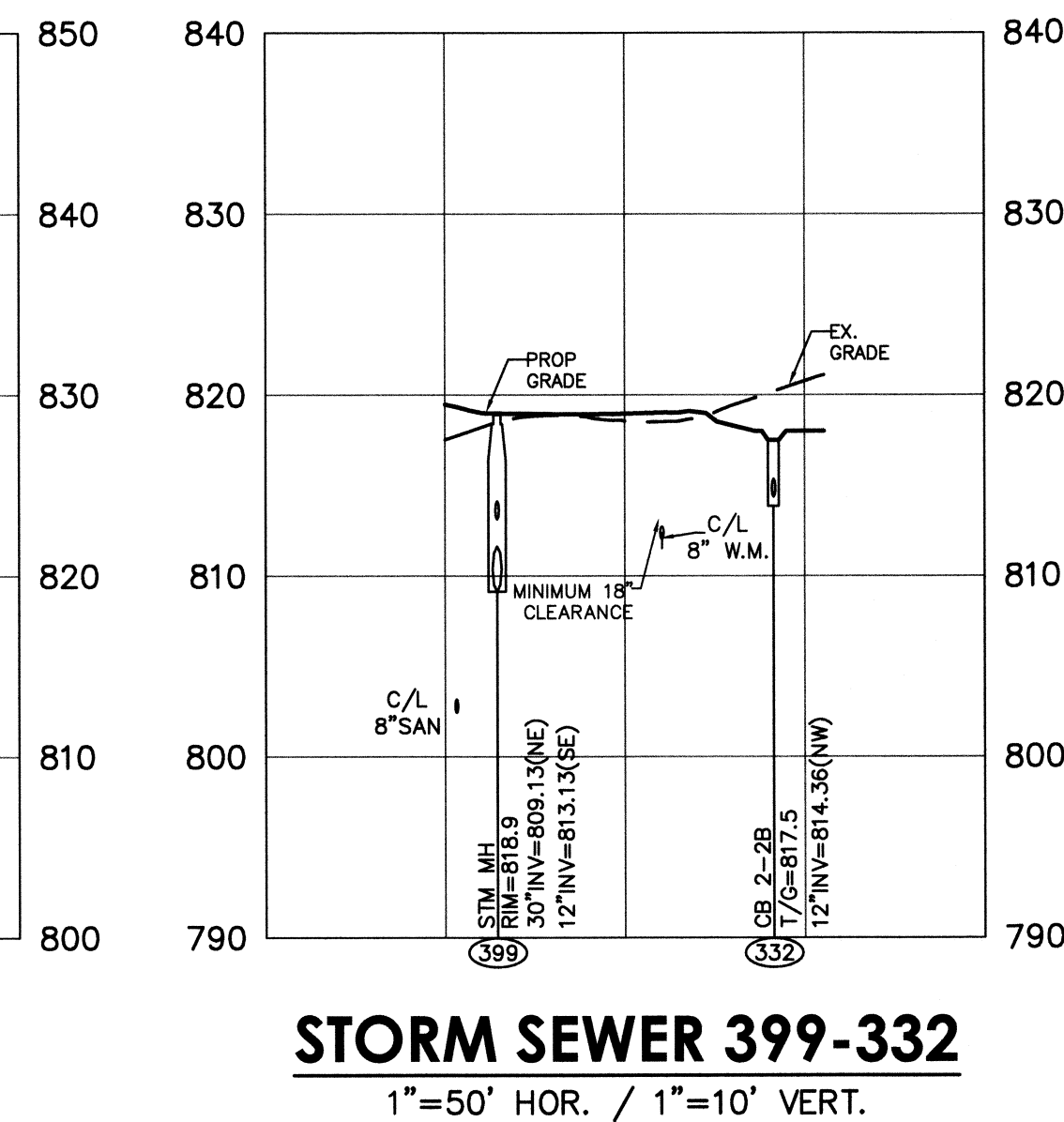
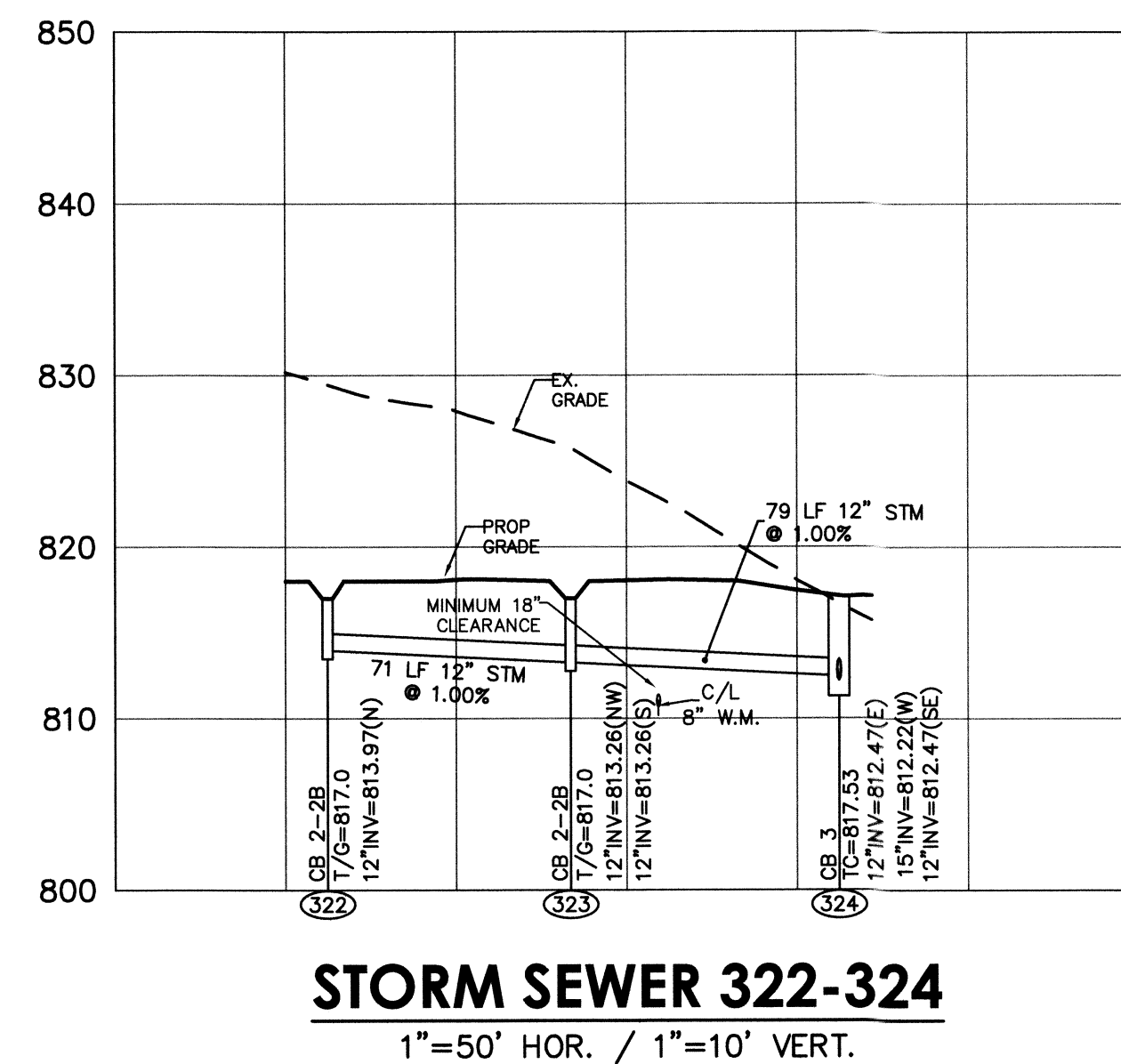
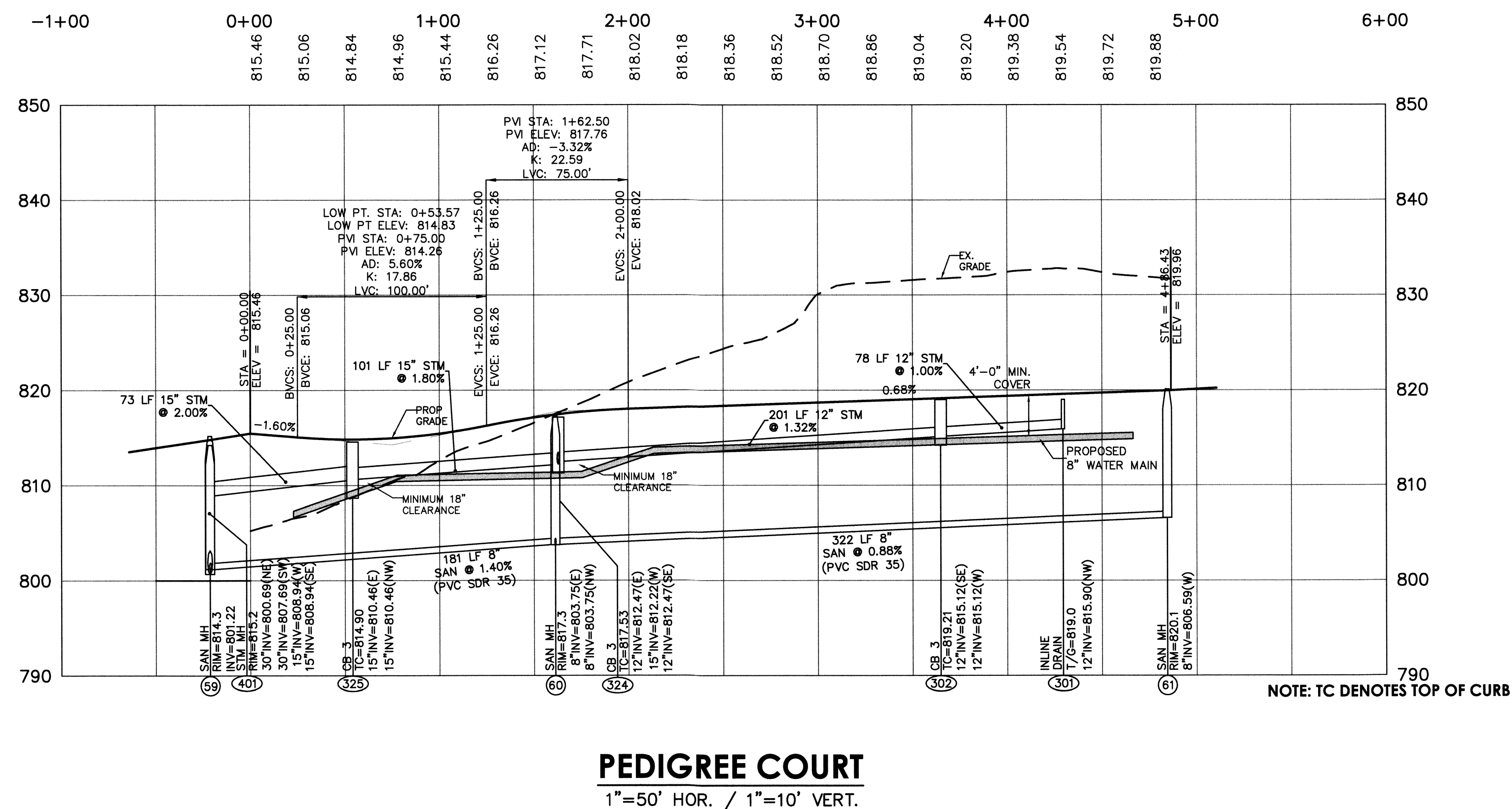
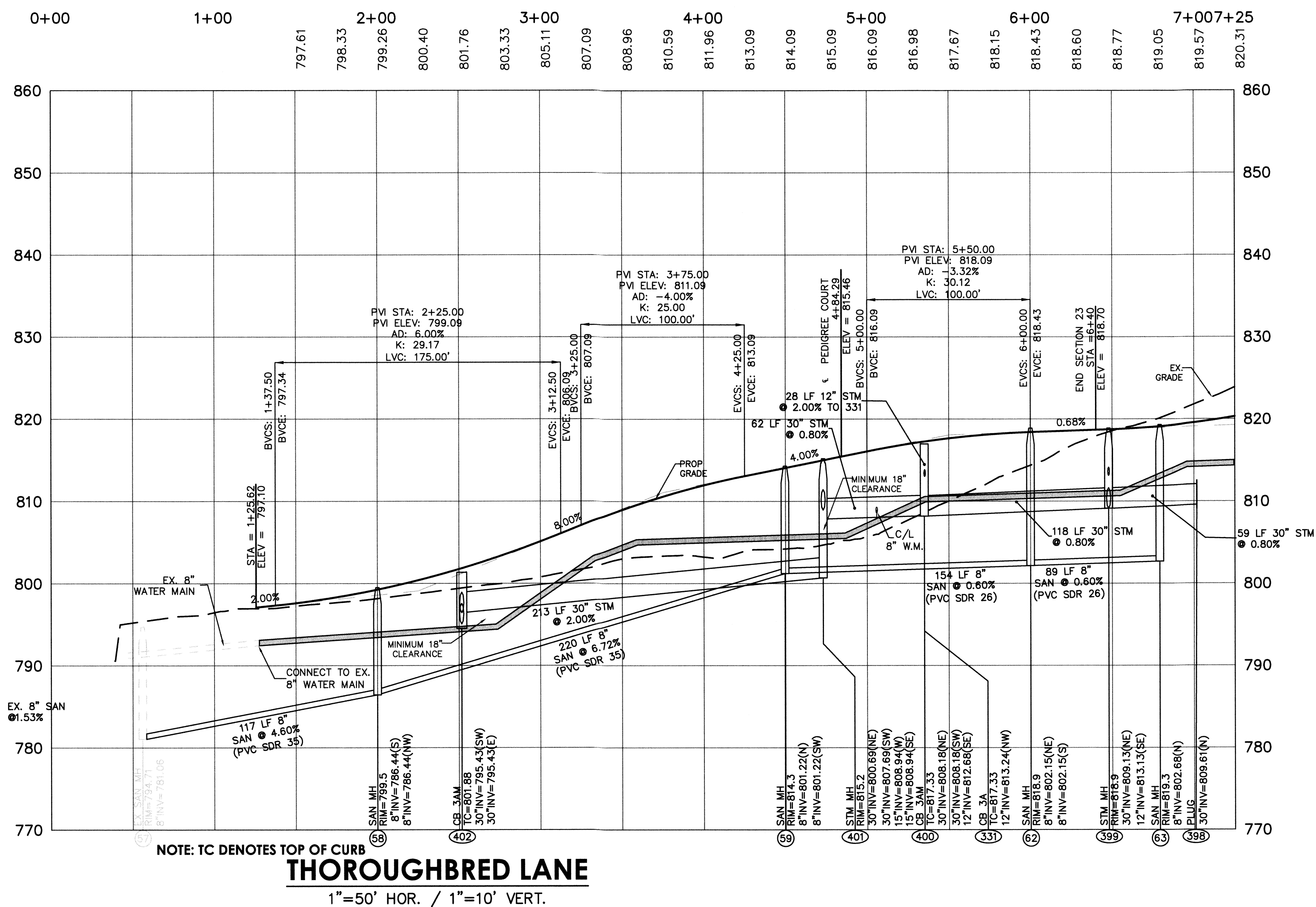
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WINDING CREEK  
AKA CARRIAGE HILL  
SECTION 23  
SECTION 2, TOWN 2, RANGE 3  
LIBERTY TOWNSHIP  
BUTLER COUNTY, OHIO

GRADING & SWP3

Project Number 04476.00  
Drawing Scale 1" = 50'  
Sheet Number 4 / 9  
File Number 04476



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**WINDING CREEK  
AKA CARRIAGE HILL  
SECTION 23  
SECTION 2, TOWN 2, RANGE 3  
LIBERTY TOWNSHIP  
BUTLER COUNTY, OHIO**





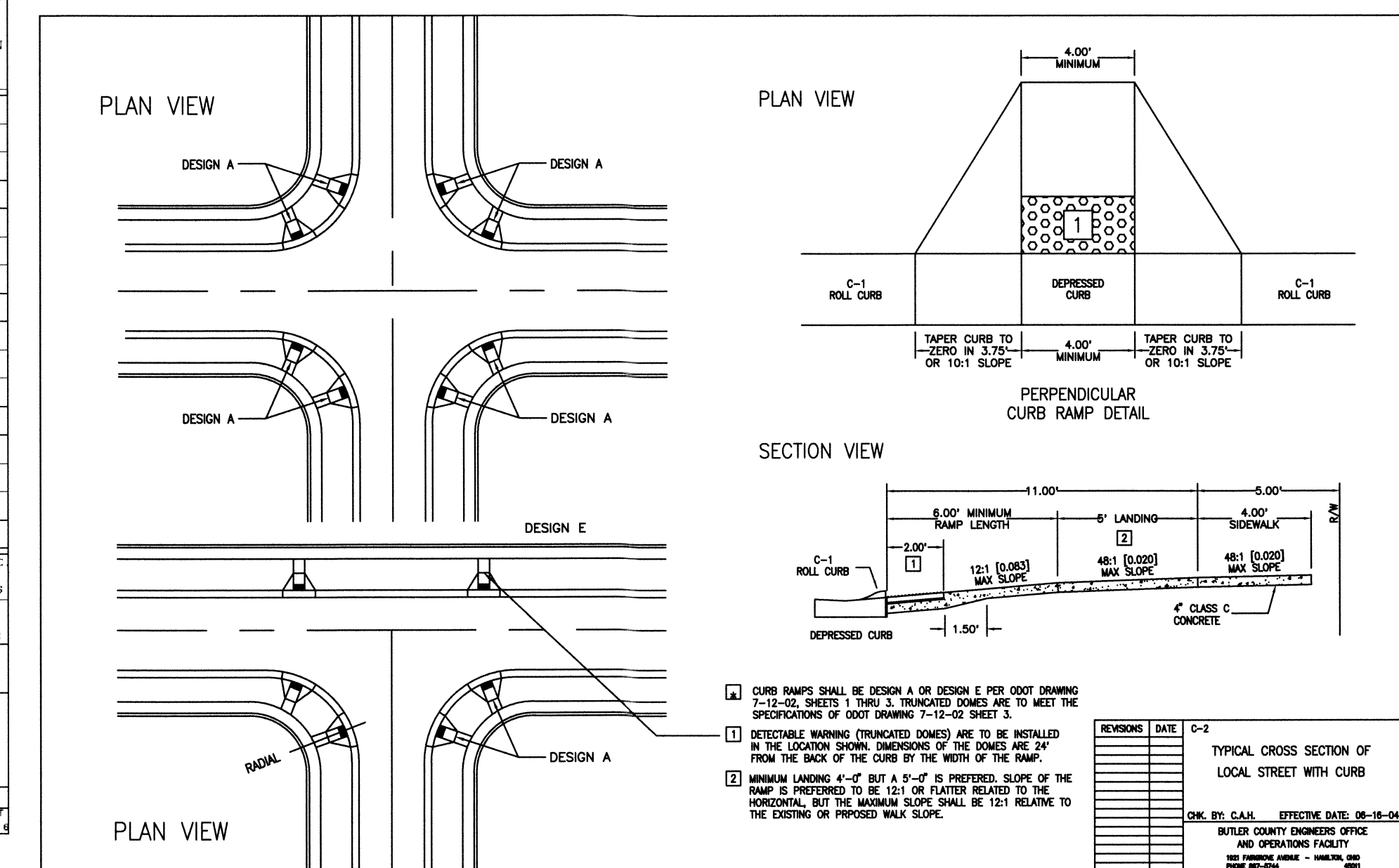
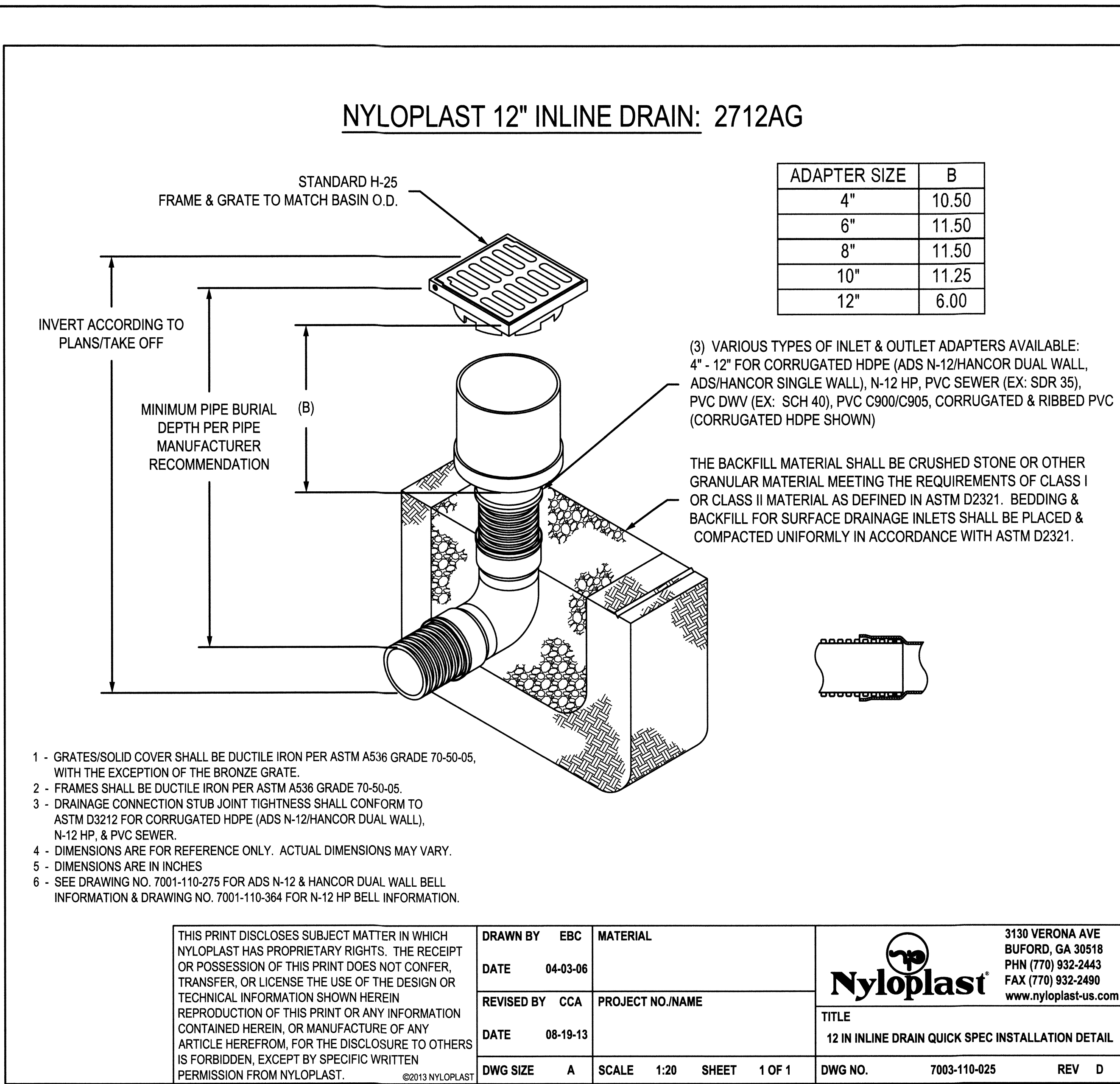
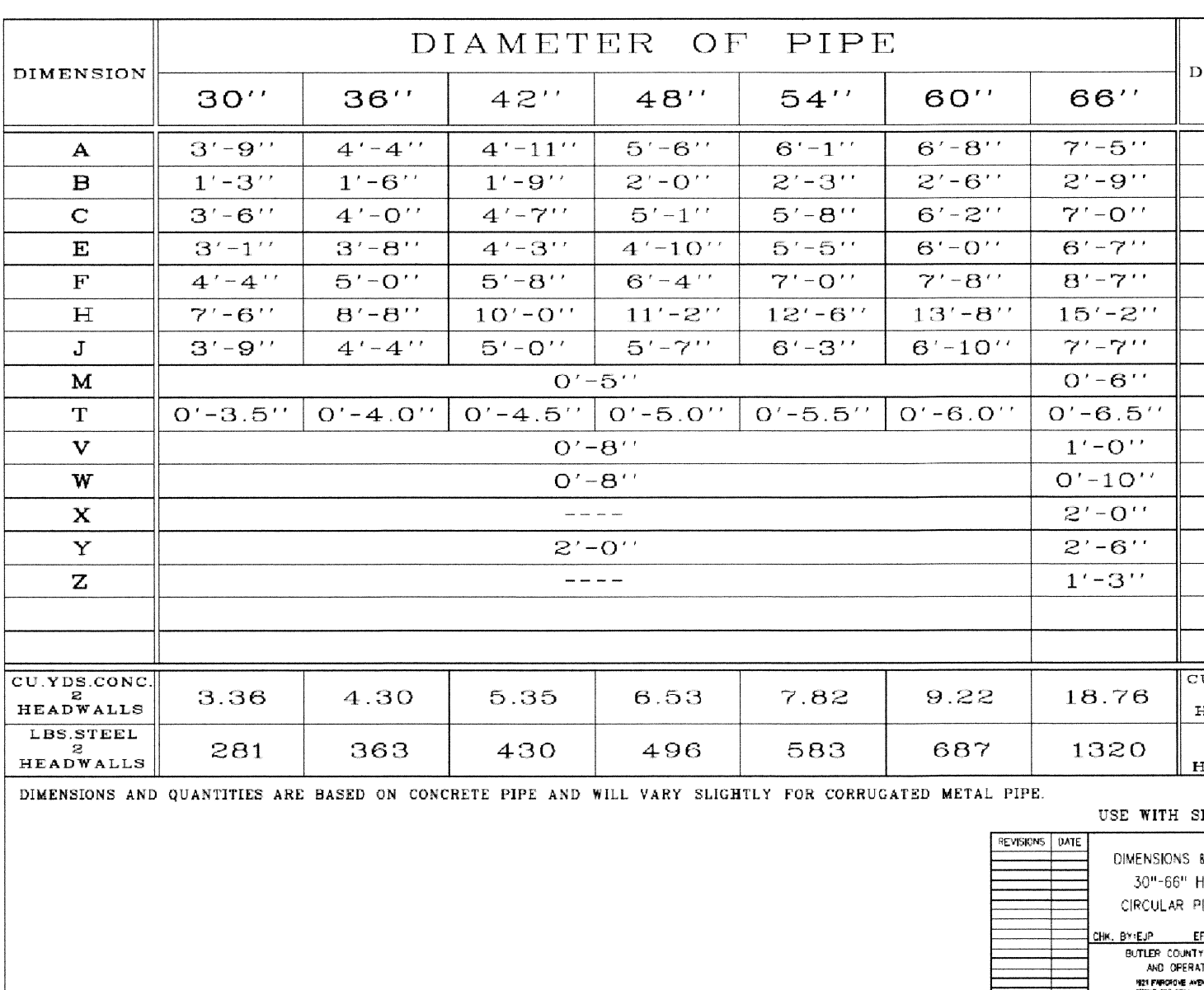
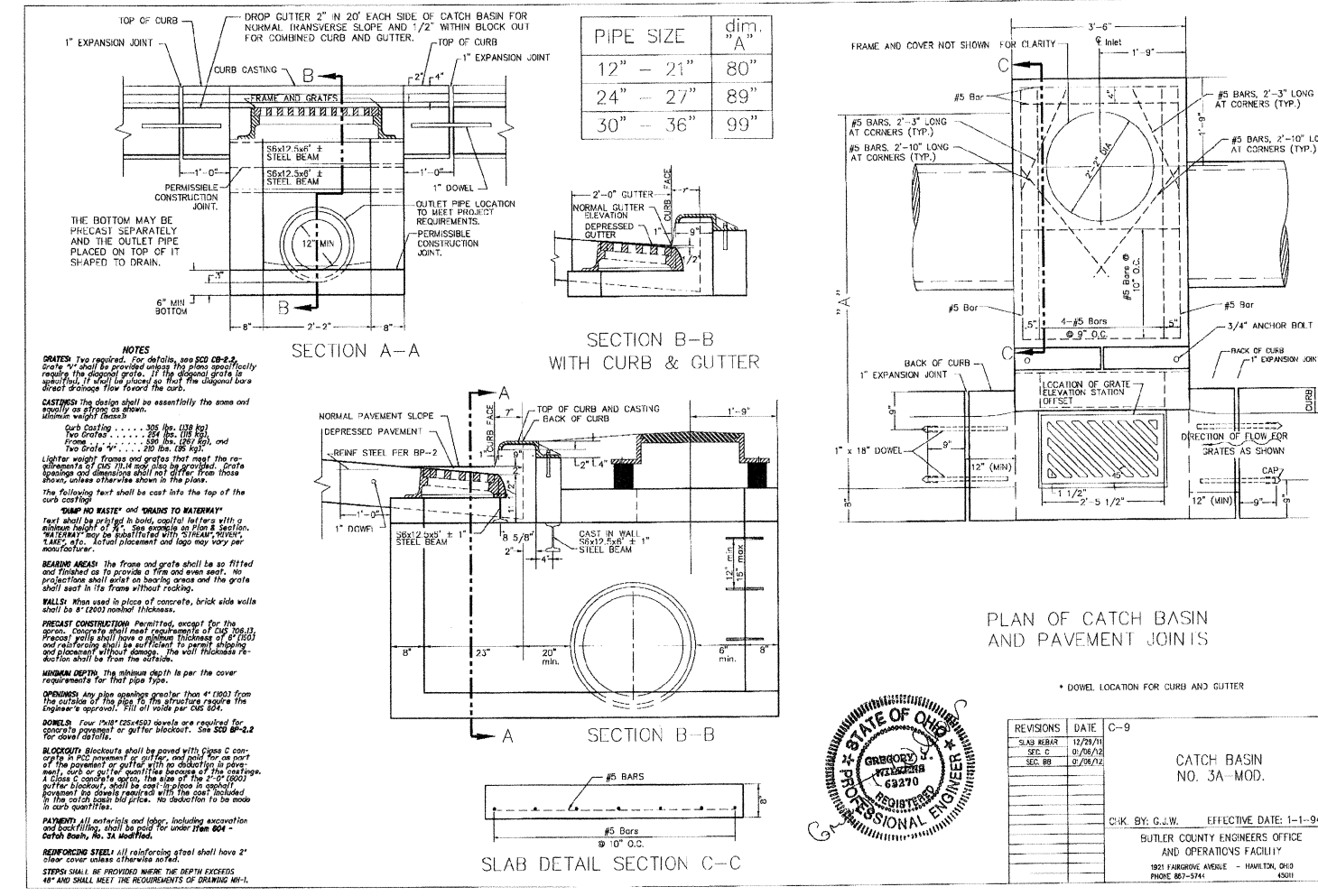
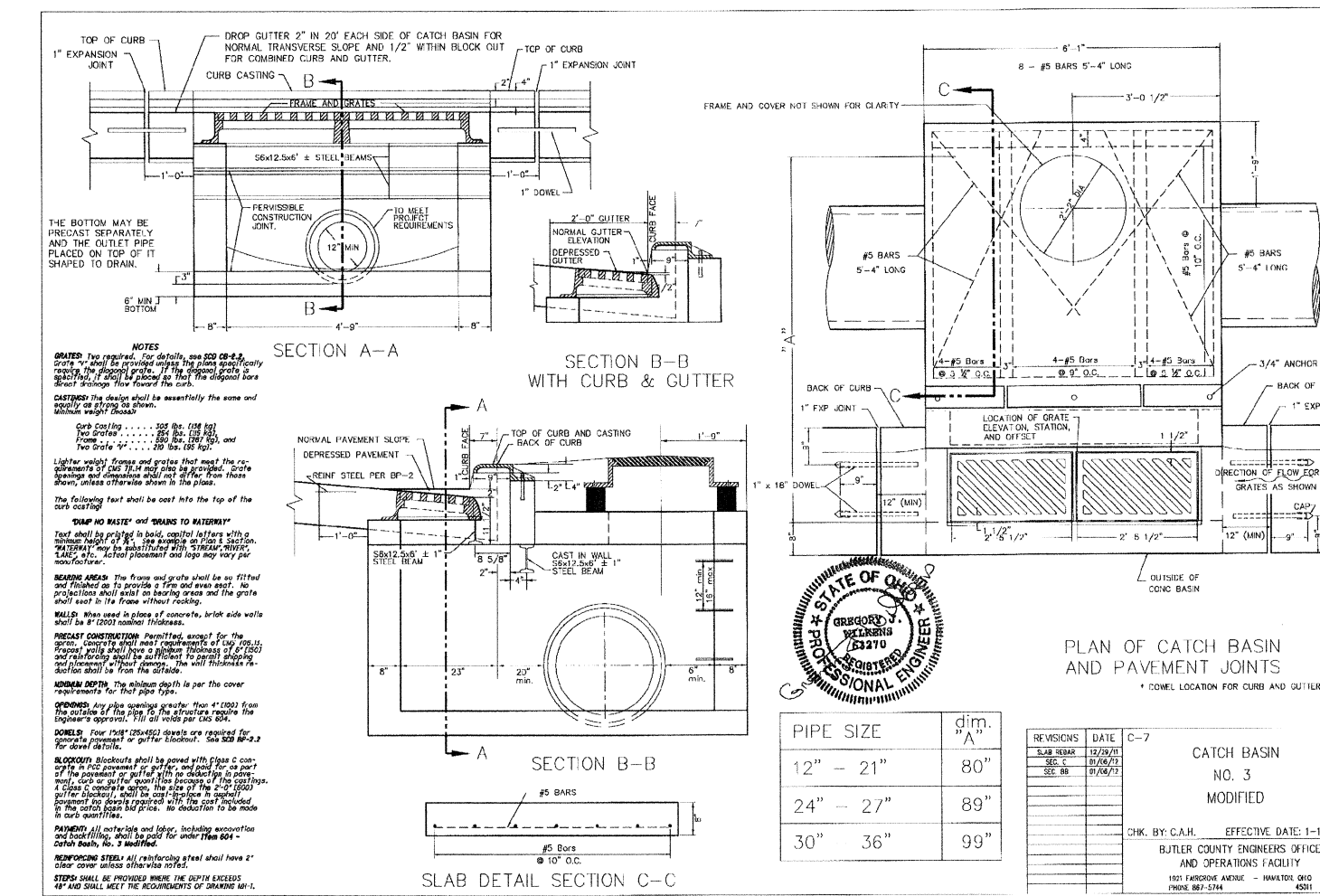
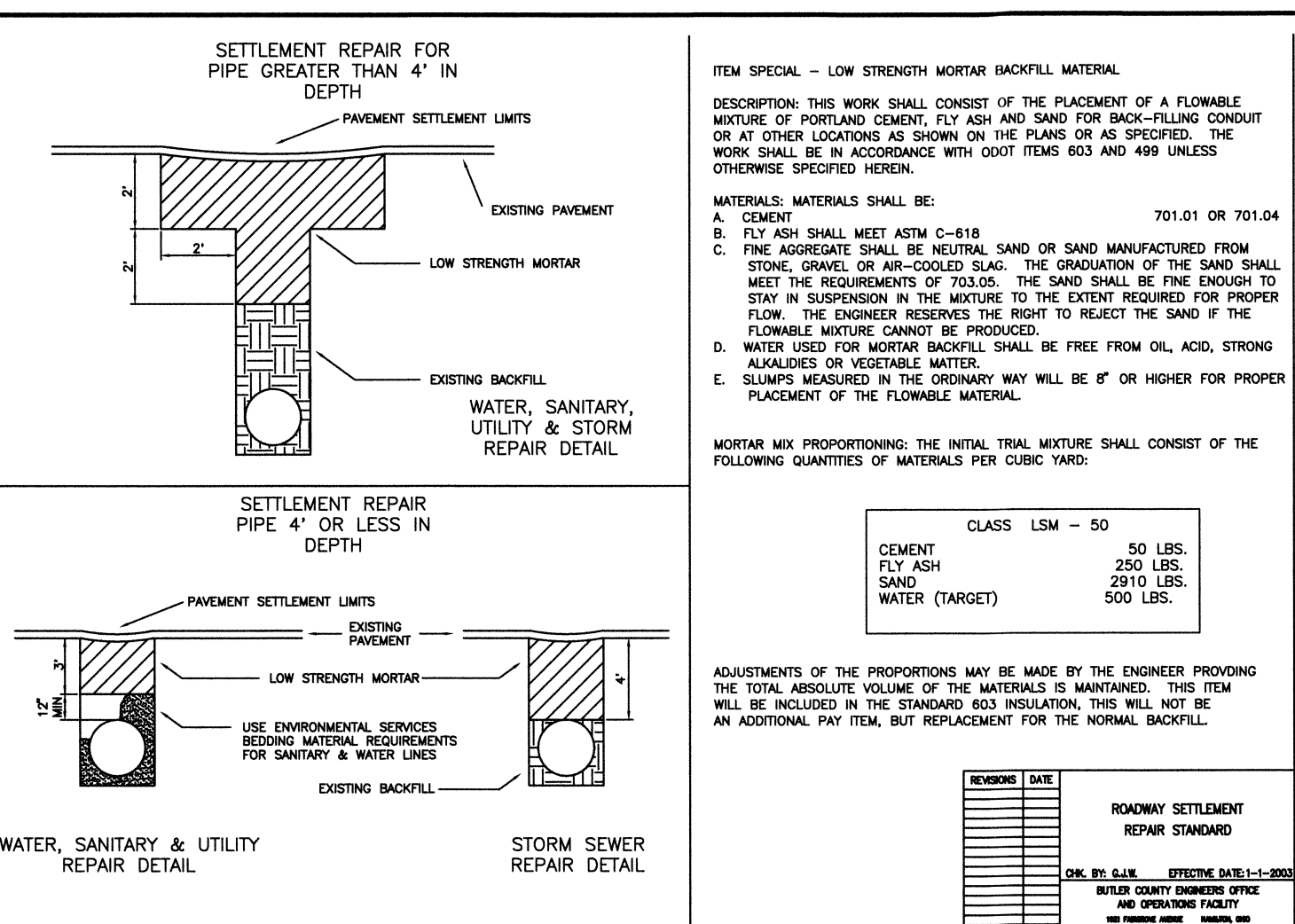
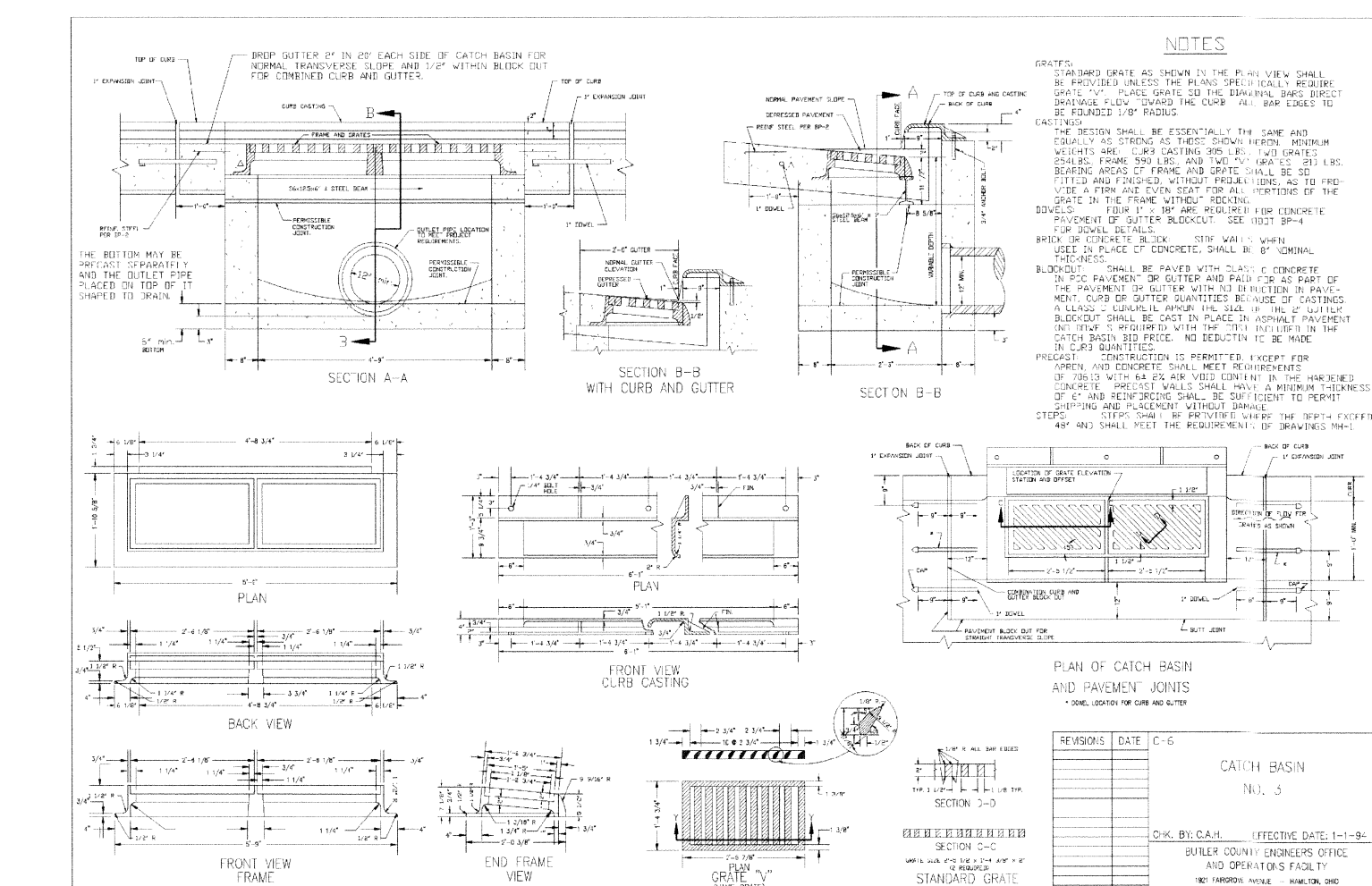
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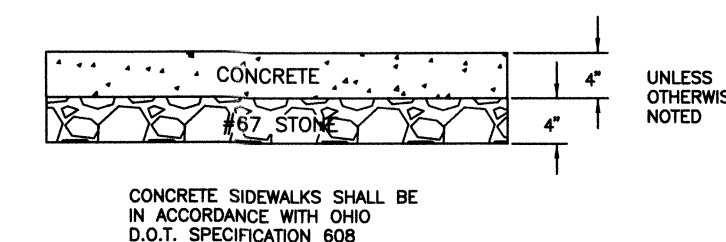
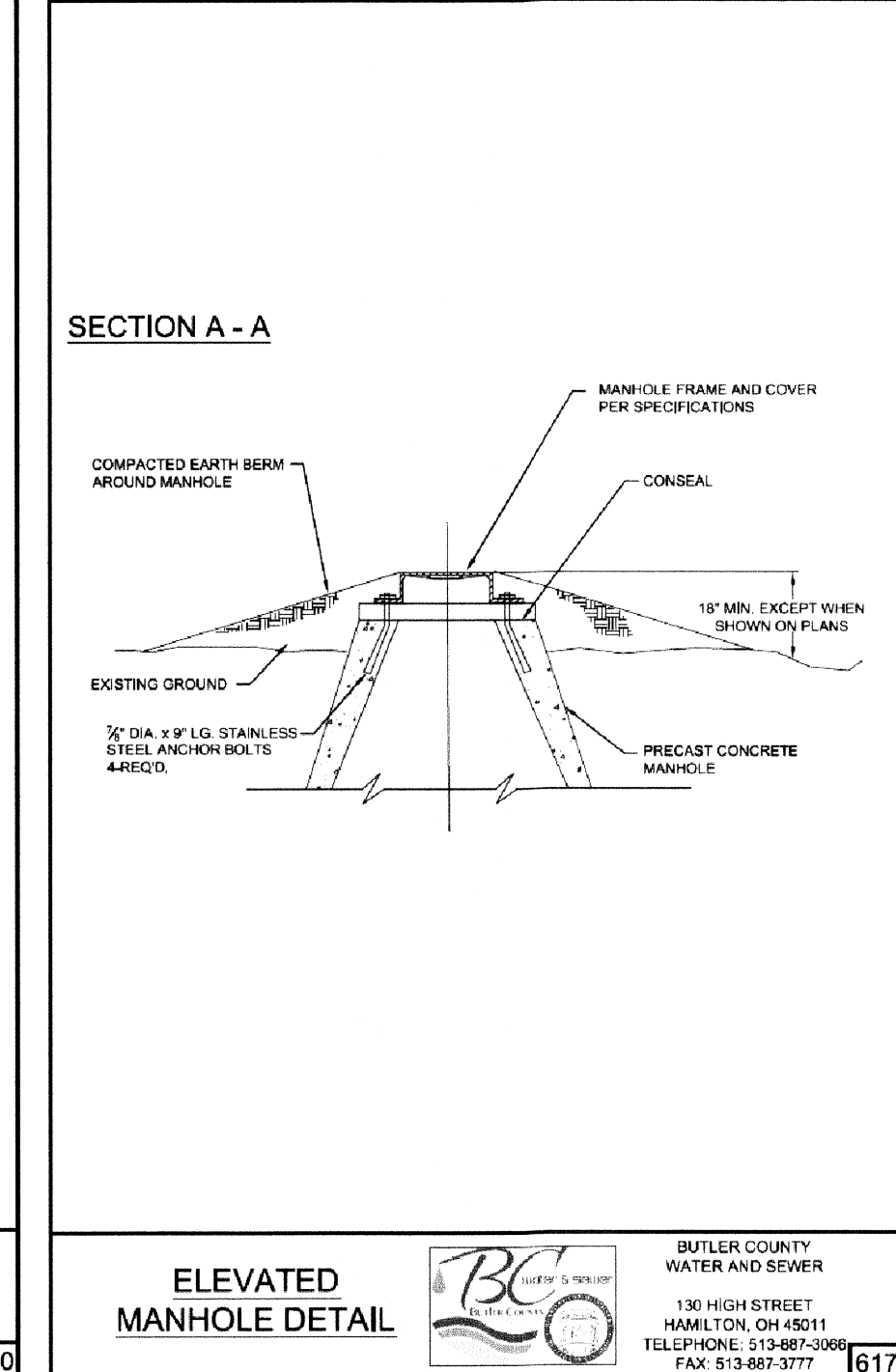
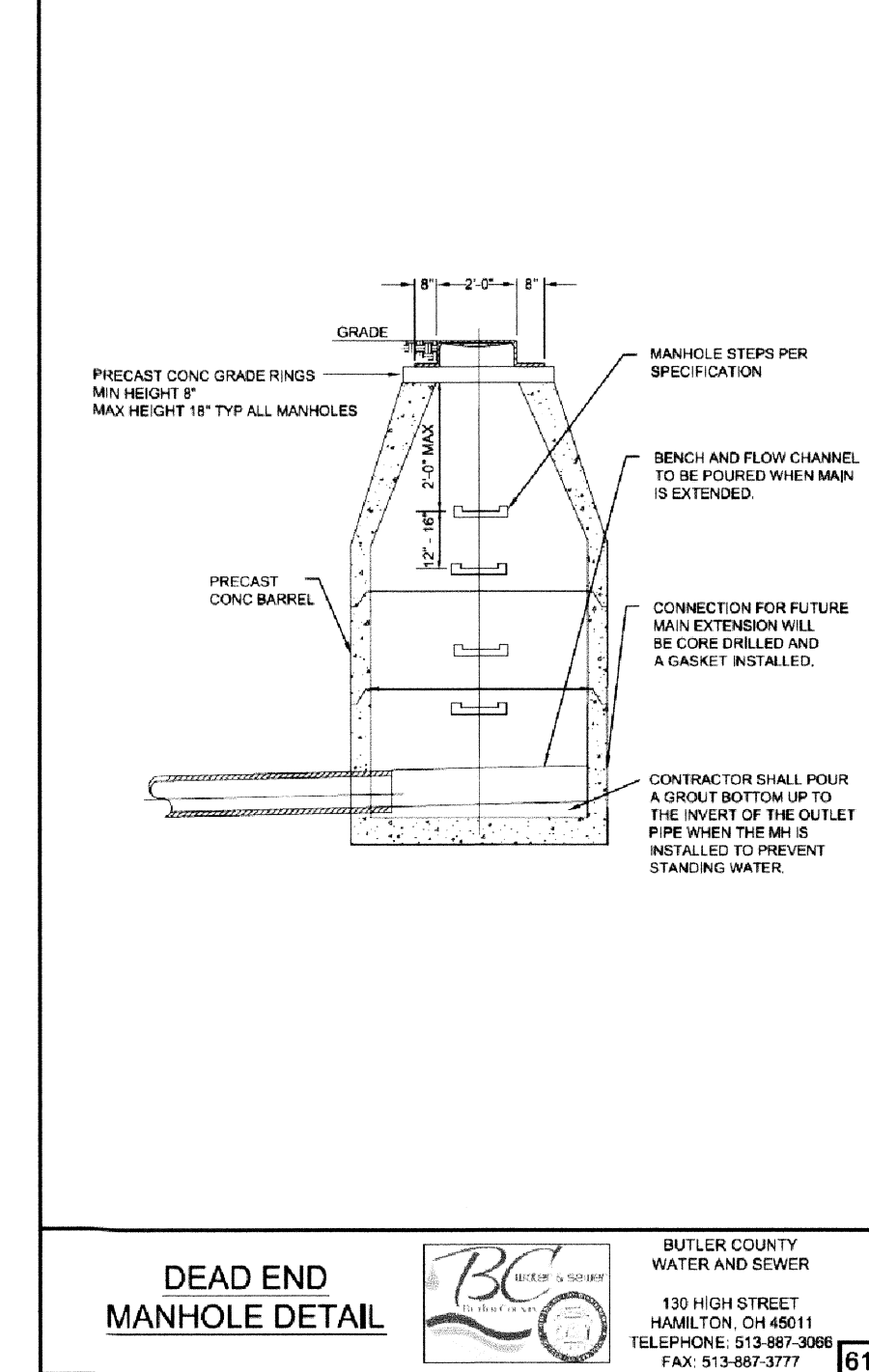
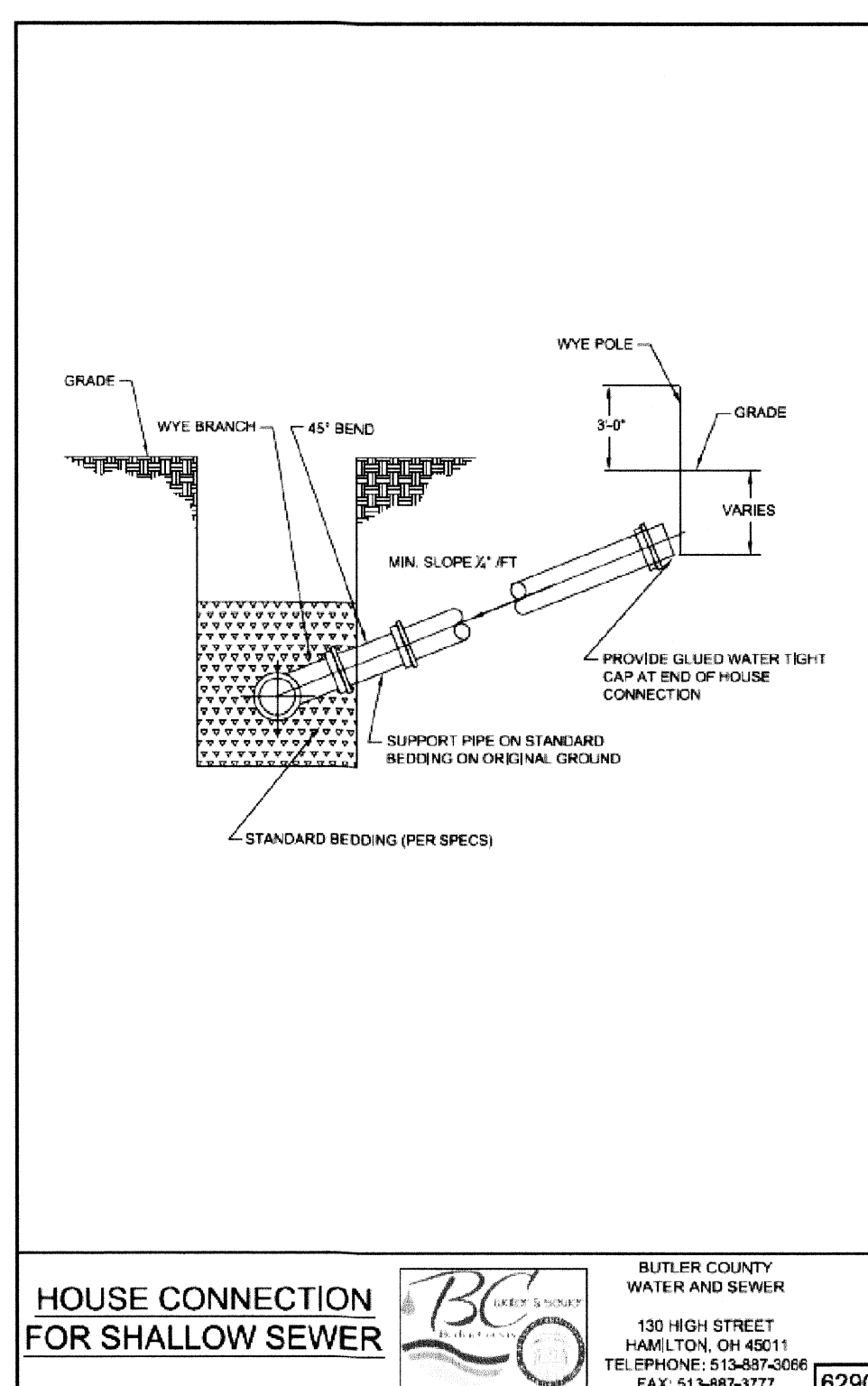
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## STANDARD DETAILS

Project Number 04476.00  
Drawing Scale AS NOTED  
Sheet Number 6 / 9  
File Number 04476

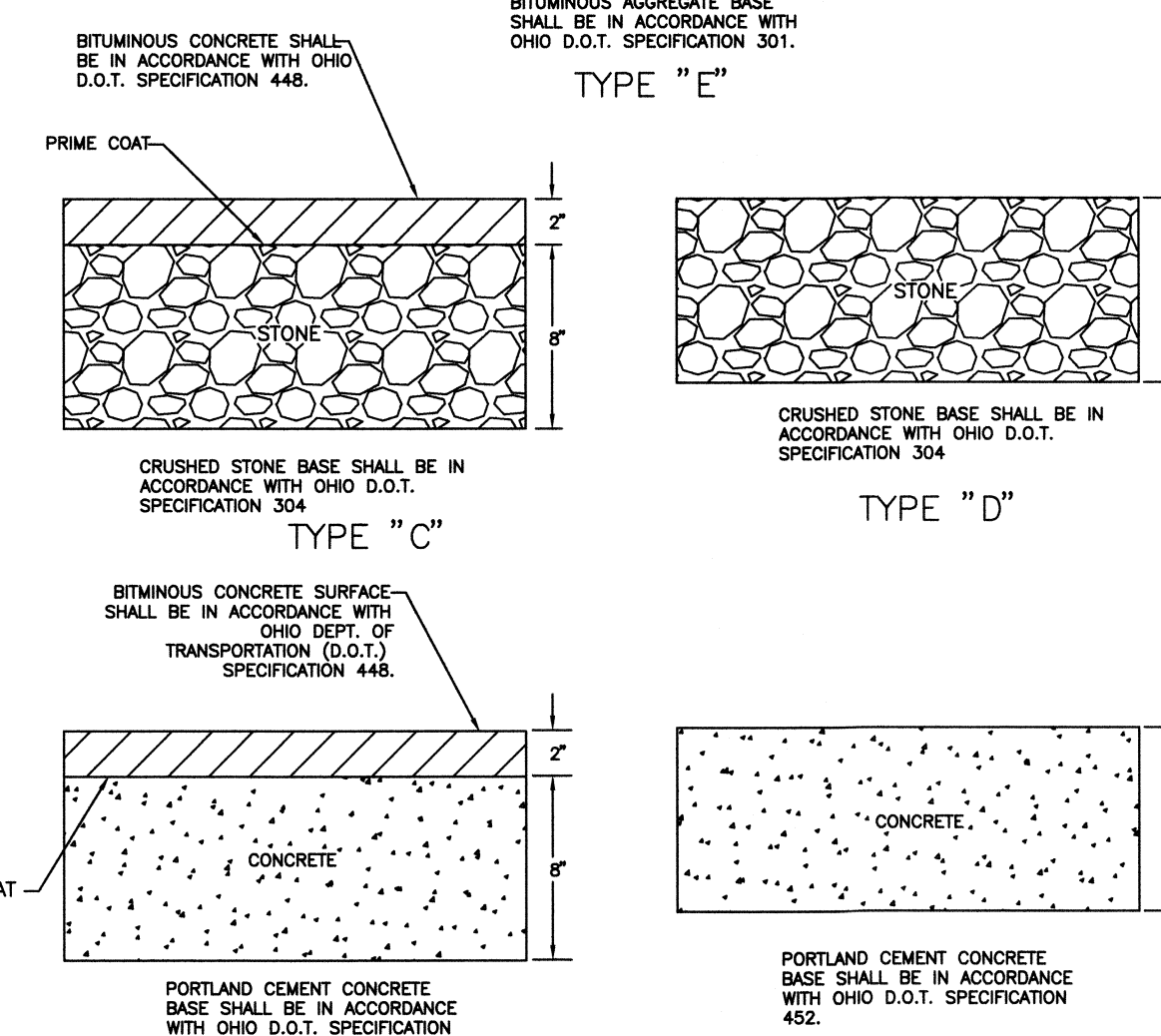
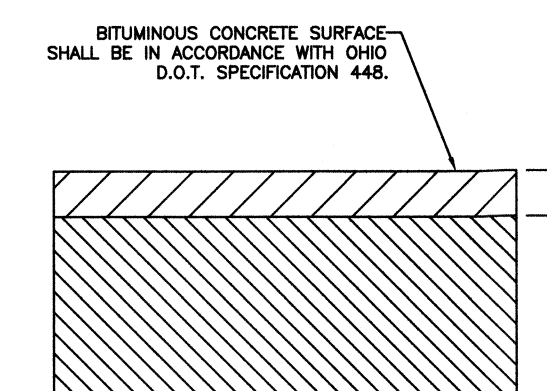






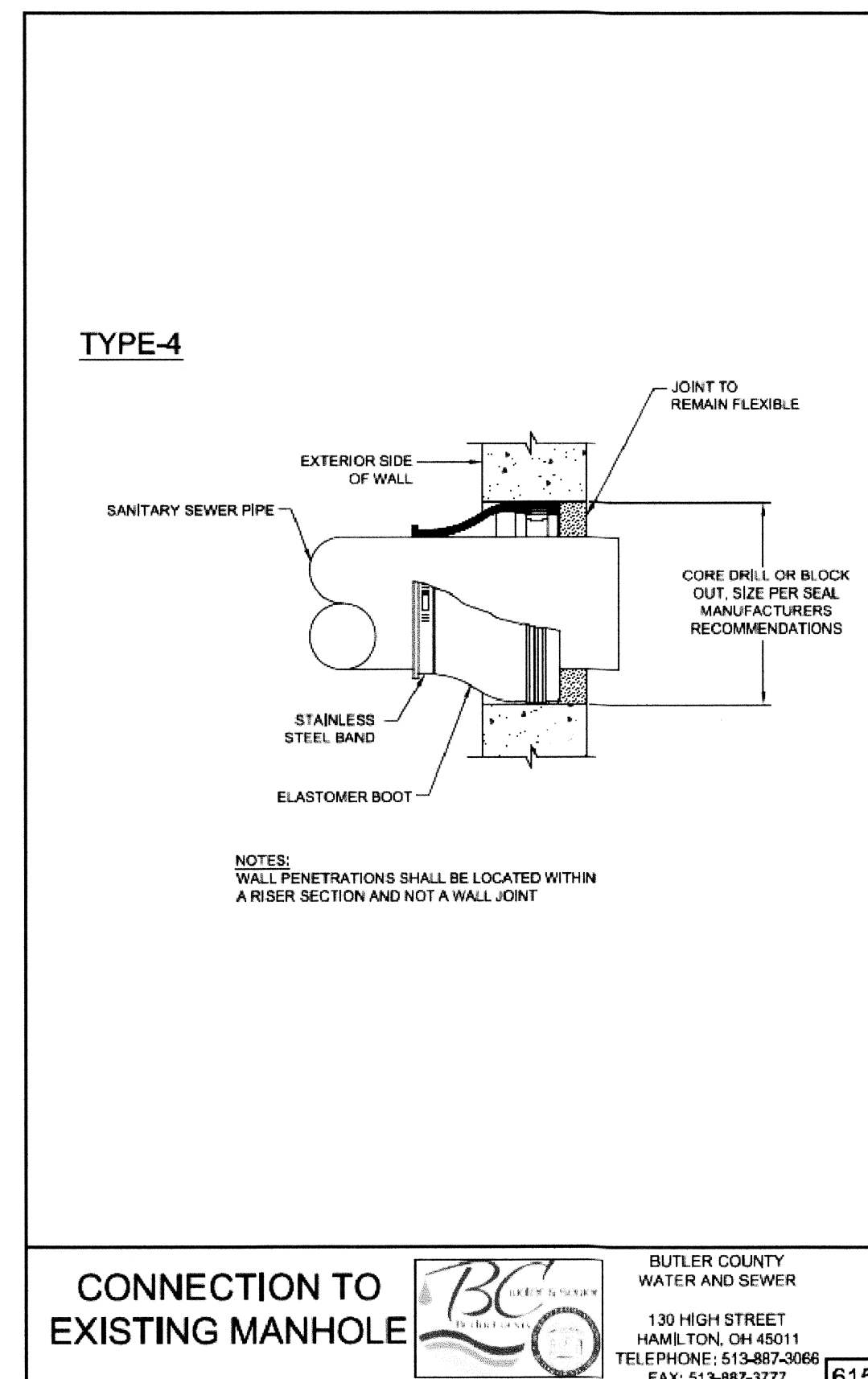
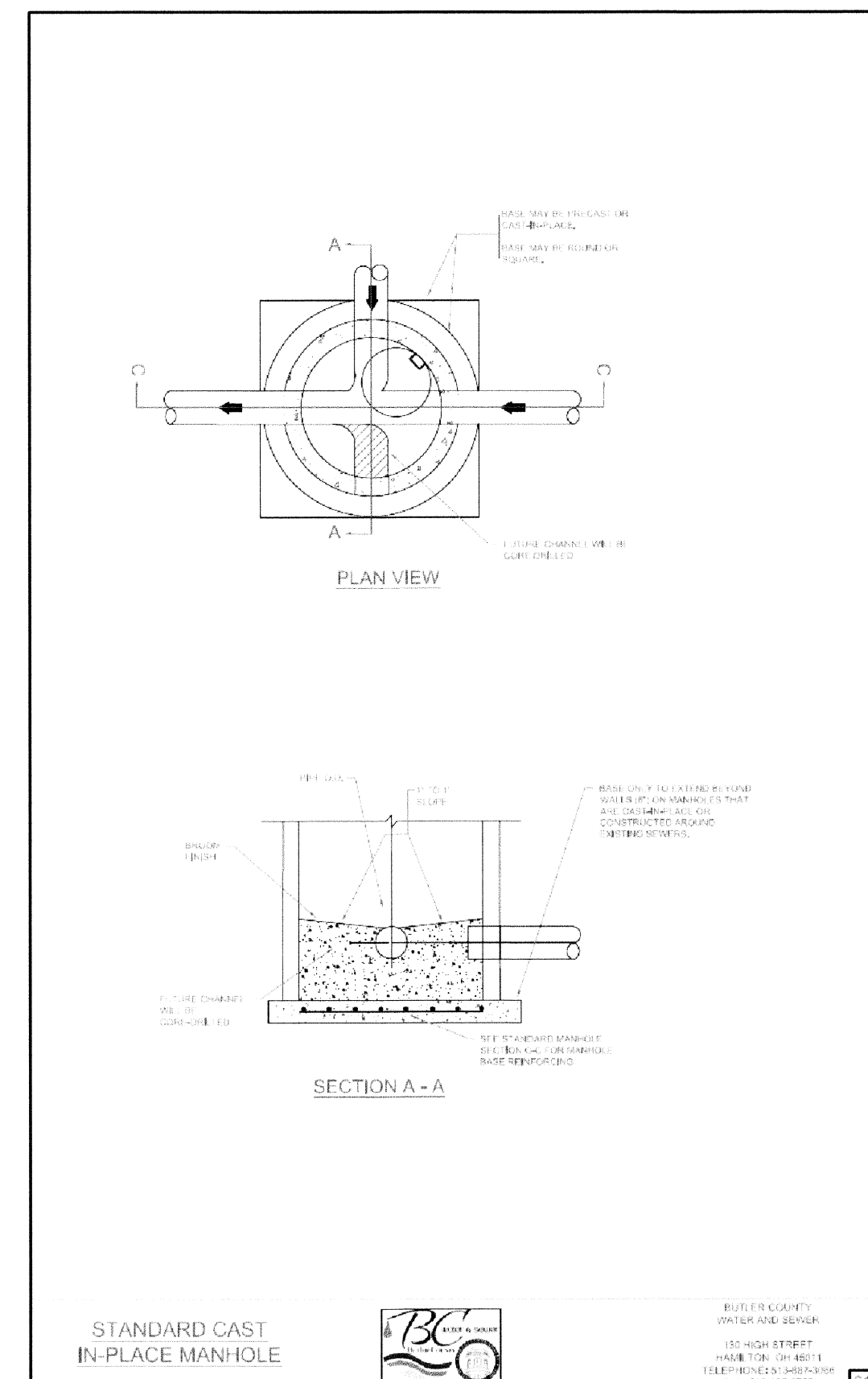
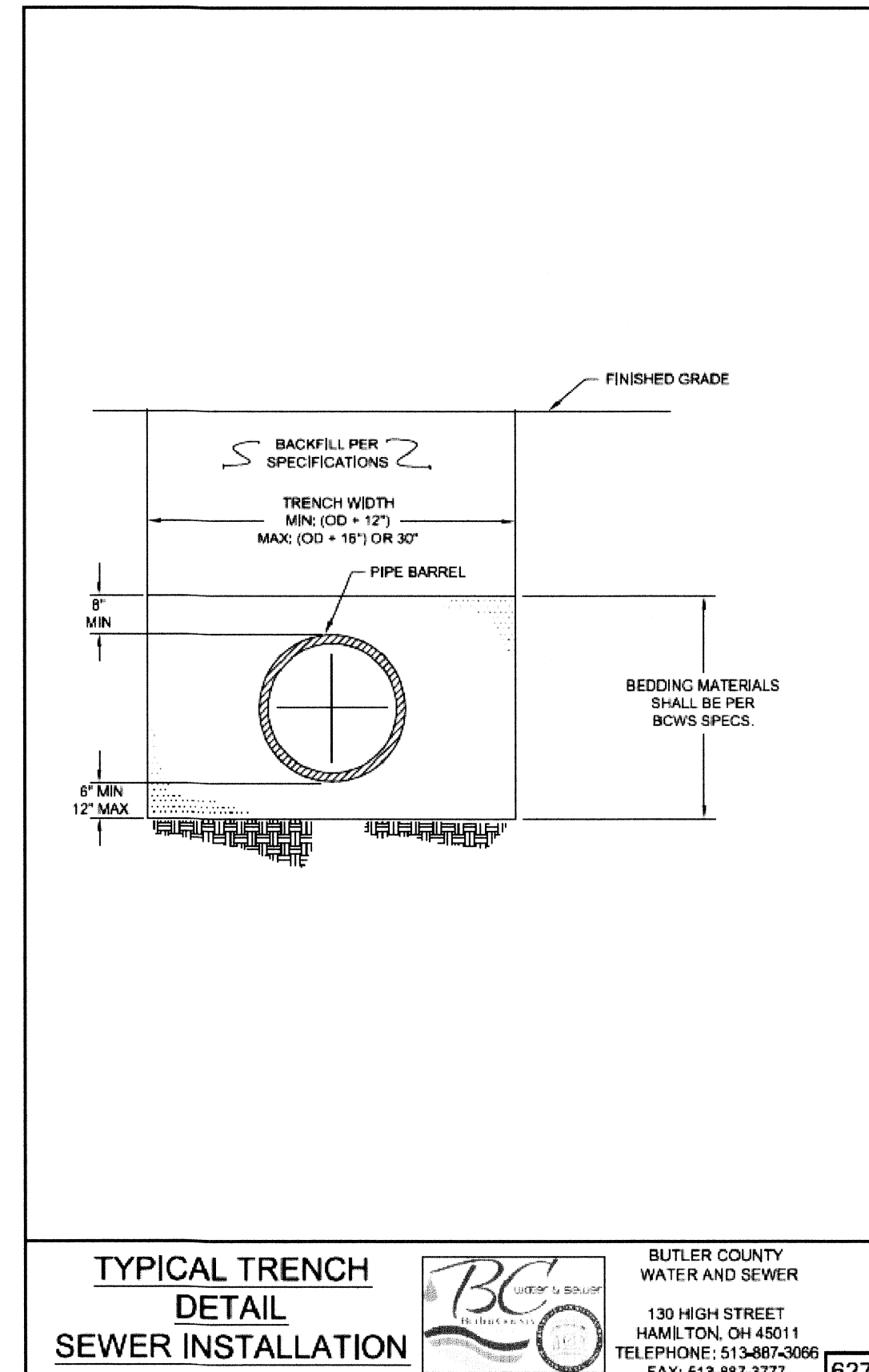
## WALK REPLACEMENT DETAILS

NOT TO SCALE



## PAVEMENT REPLACEMENT DETAILS

NOT TO SCALE



**WINDING CREEK  
AKA CARRIAGE HILL**

Sheet Title

## BUTLER COUNTY WATER & SEWER STANDARD DETAILS

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| Project Number | 04476.00 |
| Drawing Scale  | AS NOTED |
| Sheet Number   | 7 / 9    |
| File Number    | 04476    |

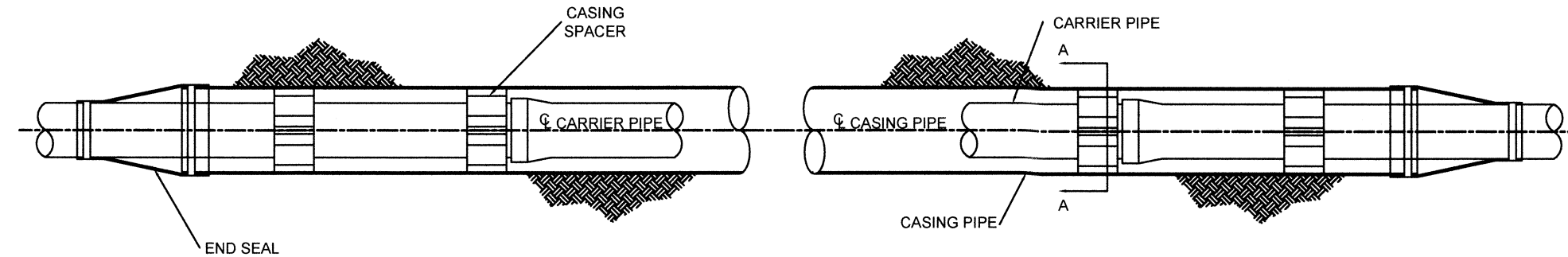
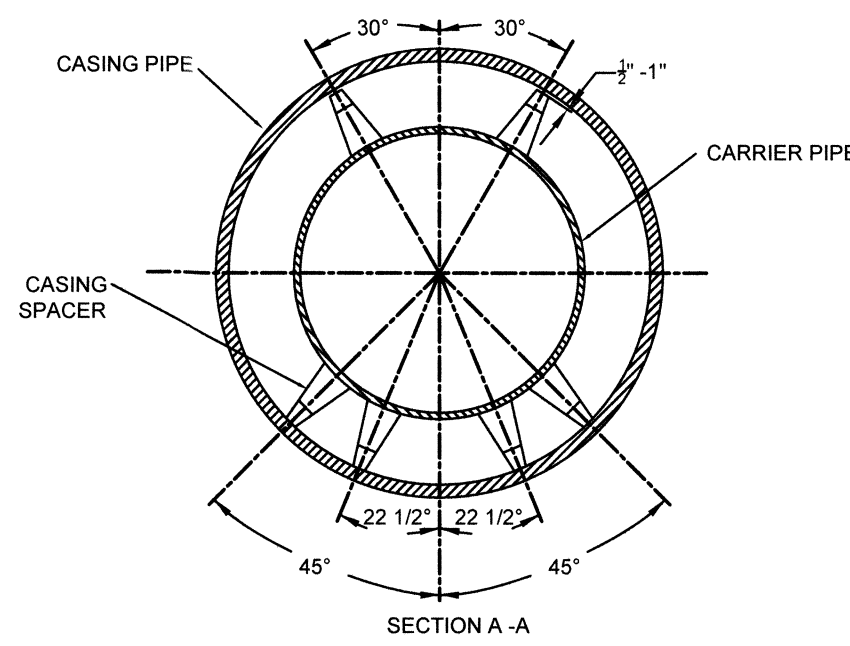


**1-800-362-2764**  
CALL TWO WORKING DAYS BEFORE YOU DIE  
(NON MEMBERS MUST BE CALLED DIRECTLY)



CASING SPACERS SHALL BE INSTALLED WITHIN ONE (1) FOOT OF EACH SIDE OF CARRIER PIPE JOINTS, WITHIN ONE (1) FOOT OF EACH END OF THE CASING PIPE AND ON 6 FOOT CENTERS THEREAFTER.

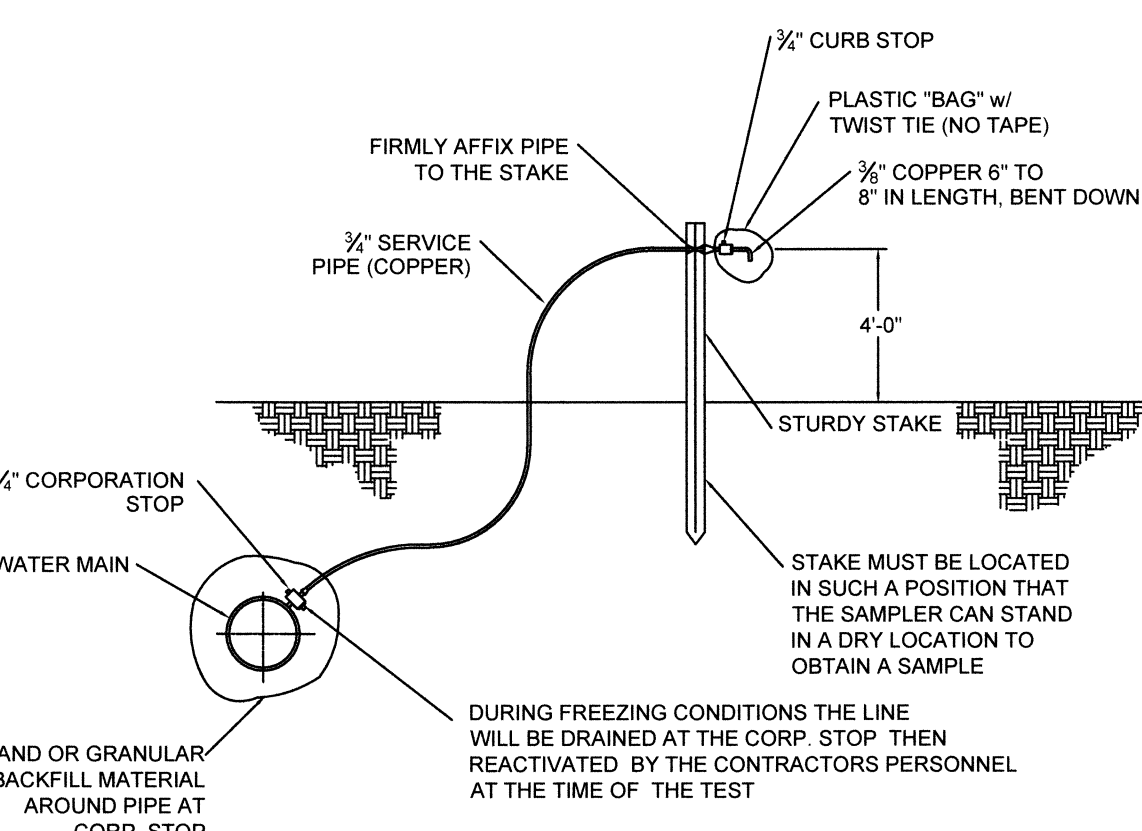
- 1) THE CARRIER PIPE SHALL BE BRACED WITHIN THE CASING PIPE WITH STAINLESS STEEL CASING SPACERS THAT PLACE THE CARRIER PIPE IN A "RESTRAINED" POSITION TO PRECLUDE POSSIBLE FLOATATION WHILE PROVIDING 1/2"-1" CLEARANCE BETWEEN THE TOP RUNNERS AND THE CASING PIPE.
- 2)
- 3) THERE SHALL BE TWO (2) RUNNERS ON TOP AND TWO (2) RUNNERS ON BOTTOM OF CASING SPACER FOR CARRIER PIPE DIAMETERS OF 4-12" OR TWO (2) RUNNERS ON TOP AND FOUR (4) RUNNERS ON BOTTOM FOR CARRIER PIPE DIAMETERS OF 14-36". CASING SPACERS SHALL BE CASCADE WATERWORKS MODEL CSS.
- 4) AT EACH END OF THE CASING PIPE, THE CARRIER AND CASING PIPE SHALL BE WRAPPED WITH CASCADE WATERWORKS MODEL CCES END SEALS.



### SEWER FORCE MAIN & WATER MAIN ENCASEMENT DETAIL

BUTLER COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES  
130 HIGH STREET  
HAMILTON, OH 45011  
TELEPHONE: 513-887-3066  
FAX: 513-887-3777

4370



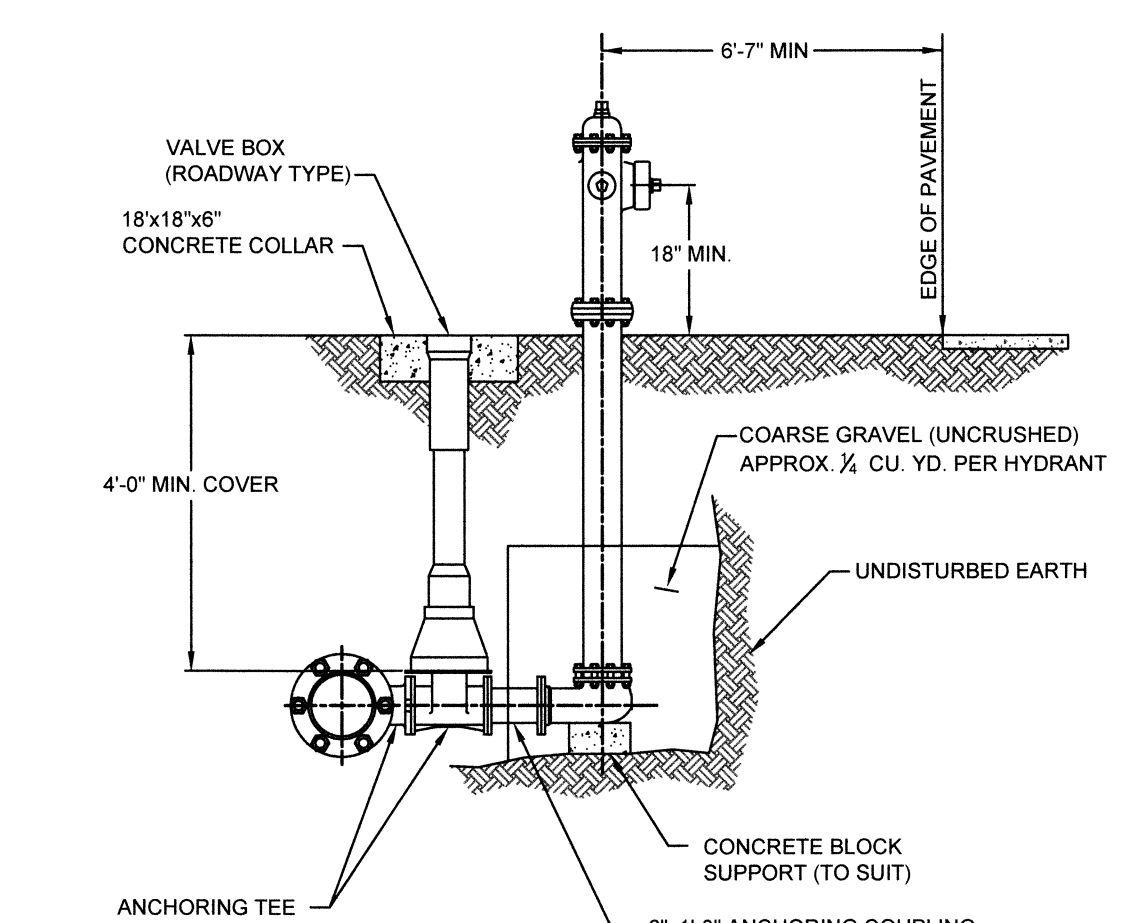
### TEMP. PURITY TEST STATION

BUTLER COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES  
130 HIGH STREET  
HAMILTON, OH 45011  
TELEPHONE: 513-887-3066  
FAX: 513-887-3777

5260

### PURITY TEST STATION

(NOT TO SCALE)

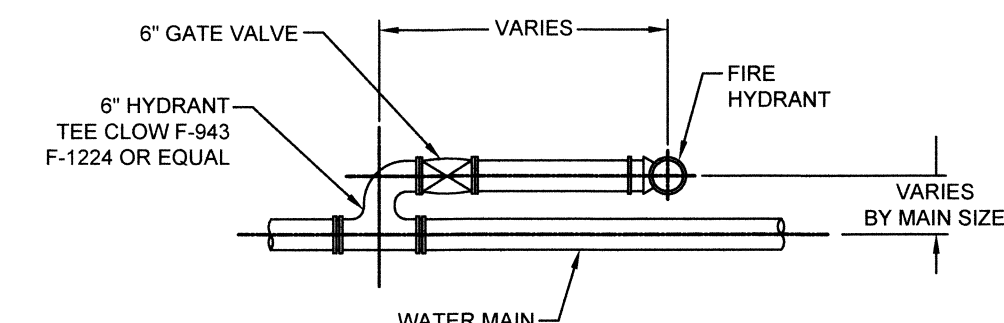


### TYPICAL FIRE HYDRANT INSTALLATION

BUTLER COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES  
130 HIGH STREET  
HAMILTON, OH 45011  
TELEPHONE: 513-887-3066  
FAX: 513-887-3777

5110

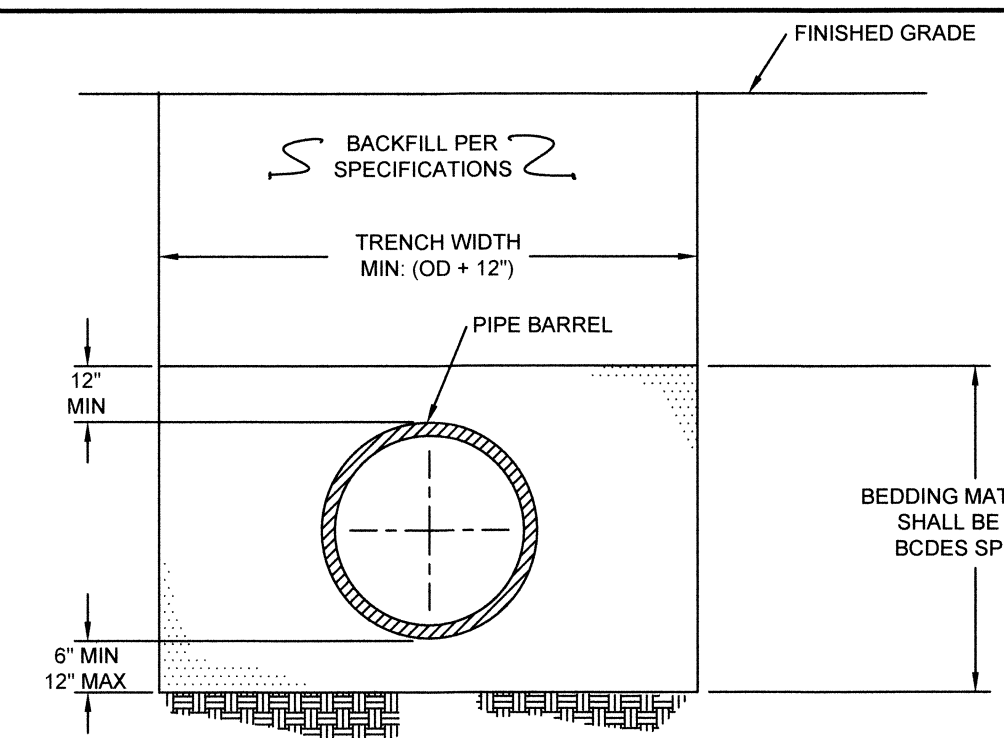
- NOTES:
- 1) FITTINGS TO BE MECHANICAL JOINT HYDRANT ANCHOR FITTINGS.
  - 2) SEE TYPICAL FIRE HYDRANT INSTALLATION DETAIL FOR ADDITIONAL DETAILS.



### SETTING FOR HYDRANT ADJACENT TO MAIN

BUTLER COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES  
130 HIGH STREET  
HAMILTON, OH 45011  
TELEPHONE: 513-887-3066  
FAX: 513-887-3777

5120

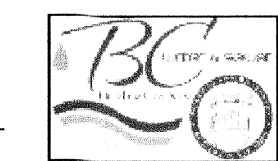


### TYPICAL TRENCH DETAIL WATER MAIN INSTALLATION

BUTLER COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES  
130 HIGH STREET  
HAMILTON, OH 45011  
TELEPHONE: 513-887-3066  
FAX: 513-887-3777

5280

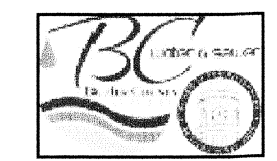
### DEAD END DETAIL W/ PERMANENT F.H.



BUTLER COUNTY WATER AND SEWER  
130 HIGH STREET  
HAMILTON, OH 45011  
TELEPHONE: 513-887-3066  
FAX: 513-887-3777

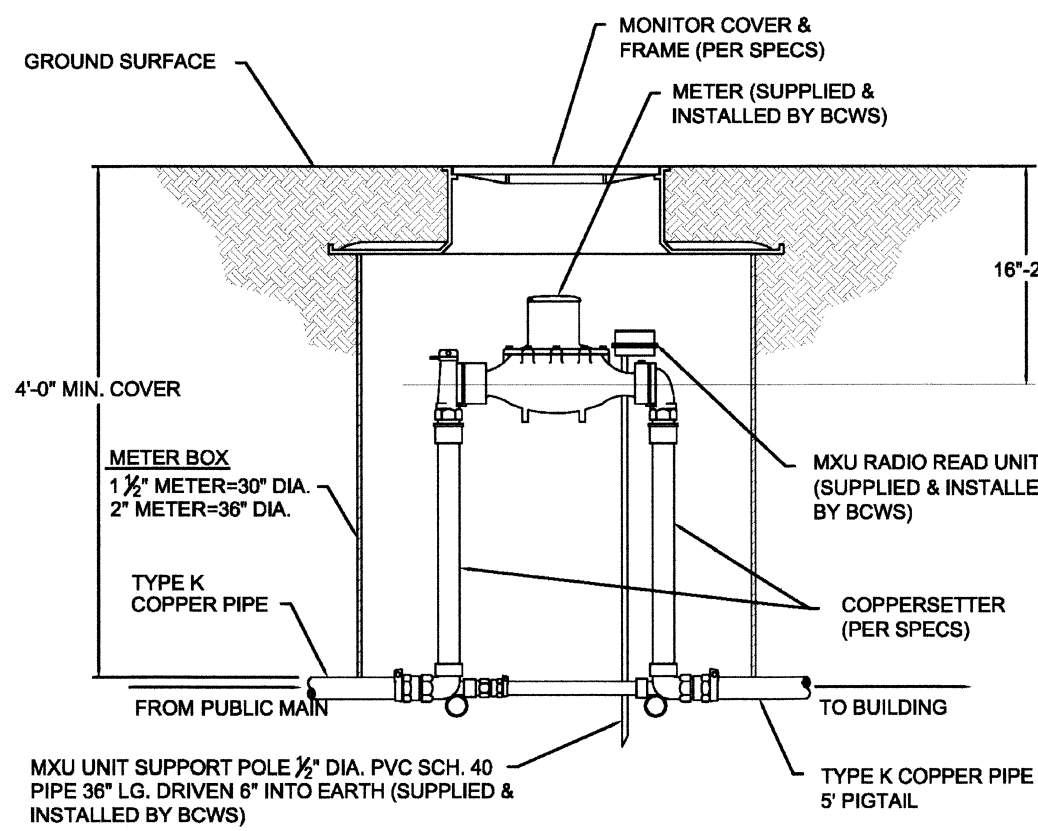
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### DEAD END DETAIL W/ TEMP F.H.

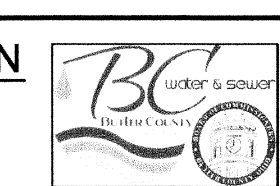


BUTLER COUNTY WATER AND SEWER  
130 HIGH STREET  
HAMILTON, OH 45011  
TELEPHONE: 513-887-3066  
FAX: 513-887-3777

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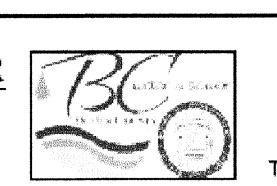
### STANDARD INSTALLATION FOR 1-1/2" & 2" WATER METER SETTINGS



BUTLER COUNTY WATER AND SEWER  
130 HIGH STREET  
HAMILTON, OH 45011  
TELEPHONE: 513-887-3066  
FAX: 513-887-3777

5170

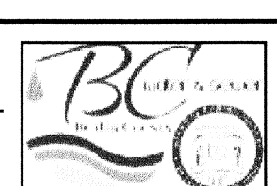
### STANDARD INSTALLATION FOR 3/4" AND 1" WATER METER SETTINGS



BUTLER COUNTY WATER AND SEWER  
130 HIGH STREET  
HAMILTON, OH 45011  
TELEPHONE: 513-887-3066  
FAX: 513-887-3777

5150

### MANUAL AIR RELEASE VALVE DETAIL



BUTLER COUNTY WATER AND SEWER  
130 HIGH STREET  
HAMILTON, OH 45011  
TELEPHONE: 513-887-3066  
FAX: 513-887-3777

5290

Architecture 3700 Park 42 Drive  
Engineering Suite 1908  
Landscape Architecture Cincinnati OH 45241  
Planning Phone 513.759.0004  
Surveying www.mspsdesign.com

Project Manager RLA  
Drawn By DCA  
DWG 04476064-IMP-SECTION 23  
X-Ref(s) ---

| Issue/Revision | No. | Date      |
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# WINDING CREEK AKA CARRIAGE HILL SECTION 23 SECTION 2, TOWN 2, RANGE 3 LIBERTY TOWNSHIP BUTLER COUNTY, OHIO

### Sheet Title BUTLER COUNTY WATER & SEWER STANDARD DETAILS

Project Number 04476.00  
Drawing Scale 1" = 50'  
Sheet Number 8 / 9  
File Number 04476





