

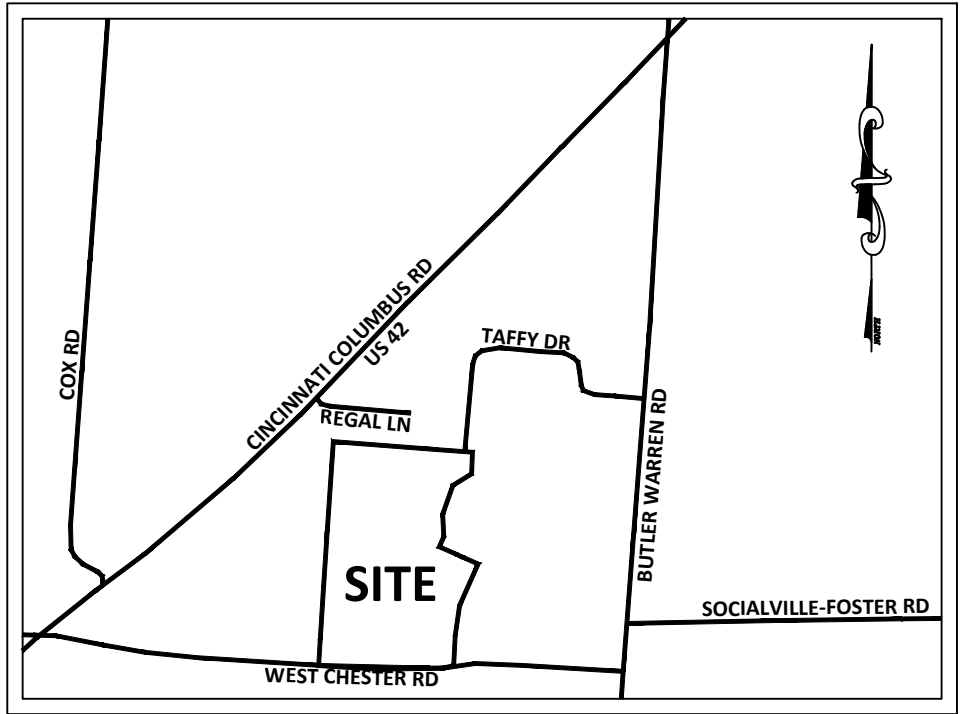
# WESTVIEW MEADOWS

## PHASES 4 & 5

### SECTION 9, TOWN 3, RANGE 2

### WEST CHESTER TOWNSHIP

### BUTLER COUNTY, OHIO



VICINITY MAP  
NOT TO SCALE

**GENERAL NOTES**

ALL WORK SHALL BE DONE UNDER THE SUPERVISION OF THE BUTLER COUNTY ENGINEER AND THE AUTHORITY HAS RESPONSIBILITY FOR UTILITIES IN THE AREA AND IN ACCORDANCE WITH THE RULES AND REGULATIONS FOR SUBDIVISION.

STORM SEWERS SHALL BE A MATERIAL WITH A MANUFACTURER'S MANININGS "N" OF 0.011 OR LOWER AND A MATERIAL AS NOTED IN APPENDIX D, TABLE D-6 IN THE BUTLER COUNTY SUBDIVISION REGULATIONS ADOPTED NOVEMBER 24, 1997. (NOTE - CORRUGATED METAL PIPE NOT INCLUDED)

STEPS SHALL BE INSTALLED IN CATCH BASINS AND MANHOLES IN EXCESS OF FOUR FEET.

CONSTRUCTION WORK SHALL BE IN ACCORDANCE WITH THE OHIO DEPARTMENT OF TRANSPORTATION "CONSTRUCTION AND MATERIAL SPECIFICATIONS" ODOT 2017 STANDARDS OR BUTLER COUNTY REQUIREMENTS AND STANDARDS FOR SUBDIVISIONS. WHEN IN CONFLICT, THE COUNTY REQUIREMENTS SHALL PREVAIL.

SUMP COLLECTOR LINES SHALL BE CONSTRUCTED SDR 35 PVC.

A PRE-CONSTRUCTION MEETING IS REQUIRED WITH THE BUTLER COUNTY ENGINEER'S OFFICE PRIOR TO THE START OF CONSTRUCTION.

SANITARY SEWER MATERIALS AND INSTALLATION AS PER BUTLER COUNTY WATER & SEWER SPECIFICATIONS USING SECTION 3110 FOR PVC, SDR-35 & 26 PIPE; SECTION 3140 FOR ABS PVC COMPOSITE PIPE; SECTION 3410 FOR MANHOLES.

SANITARY LATERALS SHALL BE EXTENDED TO AT LEAST TEN (10) FEET BEYOND THE PROPERTY/ RIGHT-OF-WAY LINE OR TO THE EDGE OF THE EASEMENT, WHICHEVER IS GREATER.

THE UPSTREAM TERMINUS OF THE SANITARY SEWER LATERALS SHOWN HERE ON ARE TO BE 12 FEET BELOW OF THE ELEVATION OF THE BACK OF CURB.

WATER MAIN SHALL HAVE 4" MINIMUM DEPTH TO TOP OF PIPE. ALL WATER MAINS TO BE DUCTILE IRON PIPE, CL. 53 AWWA C-151. WATER MAIN MATERIALS, VALVES, FIRE HYDRANTS, FITTINGS, APPURTENANCES, AND INSTALLATION TO BE AS BUTLER COUNTY SPECIFICATIONS, AND SHALL HAVE RESTRAINED JOINTS. ALL WATER MAIN VALVES TO HAVE A MINIMUM DEPTH OF 2.5' AND A MAXIMUM OF 4.0' FROM PROPOSED GRADE TO THE TOP OF THE VALVE OPERATING NUT.

WATER MAIN SHALL HAVE 10' HORIZONTAL, & 18" VERTICAL SEPARATION (OUTSIDE EDGE TO EDGE) WITH ALL OTHER PIPE.

ALL DOWNSPOUT LINES SHALL BE ON SPLASHBLOCKS AND MAY NOT BE CONNECTED TO THE CURB.

ALL TRENCHES WITHIN THE RIGHT-OF-WAY AND UTILITY EASEMENTS SHALL BE COMPACTED AND BACKFILLED IN ACCORDANCE WITH ITEM 203 AND 603 IN THE CURRENT OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS MANUAL.

THE DEVELOPER SHALL BE RESPONSIBLE FOR THE INSTALLATION OF CONDUITS OF THE FULL WIDTH OF THE PUBLIC RIGHT-OF-WAY AS CALLED FOR ON THE TYPICAL SECTION FOR USE BY THE ELECTRIC, TELEPHONE, AND CABLE TELEVISION SERVICES. THE DEVELOPER SHALL COORDINATE THE LOCATION OF THE LINES WITH EACH UTILITY COMPANY.

ALL ELECTRICAL TRANSFORMERS SHALL BE LOCATED SO THAT THEY DO NOT INTERFERE WITH EXISTING MANHOLES OR WATER MAIN APPURTENANCES.

STORM SEWER PIPE SHALL BE TYPE "B" & "C" CONDUIT, 707.42 PVC, ALL DIA. (CONTECH A200 OR EQUAL), 707.33 PVC, UP TO & INCLUDING 24" DIA (HANCOR, ADS, OR EQUAL), 707.01 CMP, ALL DIA., 706.02, REINFORCED CONCRETE PIPE, ALL DIA.

BUTLER COUNTY WATER & SEWER DOES NOT ACCEPT ANY RESPONSIBILITY FOR THE RELOCATION, REPAIR OR REPLACEMENT OF ANY OTHER UTILITY INSTALLED WITHIN FIVE (5) FEET OF THE CENTERLINE OF ANY SANITARY MAIN SEWER OR WATER MAIN.

PRIVATE DRIVEWAYS, PARKING LOTS AND OTHER PAVED AREAS, EARTHEN BERMS OR STRUCTURES SHOULD NOT BE CONSTRUCTED OVER PRIVATE WATER OR SEWER SERVICE LINES WITHIN THE PUBLIC ROAD RIGHT OF WAY OR WITHIN EASEMENT AREAS FOR THE PUBLIC UTILITIES. SHOULD THIS OCCUR, THE PROPERTY OWNER WILL BE HELD RESPONSIBLE FOR THE PROTECTION AND REPAIR OF AND FOR PROVIDING ACCESS TO ANY CURB STOPS, METER PITS, MANHOLES, CLEANOUTS, ETC., INSTALLED IN CONJUNCTION WITH THESE PRIVATE SERVICE LINES AND FOR ANY DAMAGE OR FOR ANY DAMAGE TO THE PAVED SURFACES OR STRUCTURES THAT MAY RESULT FROM THE FUTURE OPERATION, MAINTENANCE, REPAIR OR REPLACEMENT OF SAID SERVICE LINES AND APPURTENANCES.

LOCATION OF EXISTING UTILITIES SHOWN ARE APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY GROUND CONDITIONS AND EXISTING UTILITIES PRIOR TO START OF CONSTRUCTION.

THE EXISTING UTILITIES SHOWN ARE FOR CONTRACTOR'S CONVENIENCE ONLY. THERE MAY BE OTHER UTILITIES NOT SHOWN ON THESE PLANS. THE OWNER ASSUMES NO RESPONSIBILITY FOR THE LOCATION OF ALL UTILITIES WITHIN THE LIMITS OF THE WORK. ALL DAMAGE MADE TO EXISTING UTILITIES BY THE CONTRACTOR SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

BUTLER COUNTY ASSUMES NO MAINTENANCE RESPONSIBILITY FOR PRIVATE DRIVES.

BUTLER COUNTY WILL NOT BE RESPONSIBLE FOR ANY PAVEMENT OR STORM SEWER REPAIRS RESULTING FROM WATER MAIN REPAIRS. BUTLER COUNTY ALSO WILL NOT BE RESPONSIBLE FOR ADJUSTING VALVES, FIRE HYDRANTS, METER PITS, ETC., AS A RESULT OF GRADE CHANGES. THE GRANTOR SHALL BE RESPONSIBLE FOR THE PROPER ADJUSTMENT OF VALVES, FIRE HYDRANTS, METER PITS, ETC., TO THE SATISFACTION OF BUTLER COUNTY, DUE TO GRADE CHANGES, PAVING, REPAIRING, ETC., INITIATED BY THE GRANTOR.

ROOF DRAINS, FOUNDATION DRAINS, AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER SYSTEM ARE PROHIBITED.

ALL BUILDINGS TO BE SERVED BY THE PUBLIC SEWER SYSTEM SHALL BE CONSTRUCTED SO AS TO PROVIDE A MINIMUM OF FOUR FEET (4') OF VERTICAL SEPARATION BETWEEN THE PUBLIC SANITARY SEWER, AT THE POINT OF CONNECTION, AND THE LOWEST BUILDING LEVEL SERVED BY A GRAVITY SEWER CONNECTION. IN ADDITION, SAID BUILDING LEVEL SHALL BE AT LEAST ONE FOOT (1') ABOVE THE LOWEST POINT OF FRIE-SEALING MANHOLE COVER UPSTREAM OF ANY TREATMENT FACILITY OR WASTEWATER PUMPING FACILITY THAT RECEIVES THE DISCHARGE FROM SAID BUILDING. SAID MINIMUM SERVICE LEVELS SHALL BE RECORDED ON THE "AS BUILT" PLANS FOR THE DEVELOPMENT WHICH WILL BE KEPT ON FILE IN THE OFFICE OF THE BUTLER COUNTY SANITARY ENGINEER.

SANITARY SEWER LATERALS, WHICH SHALL INCLUDE ALL PIPE AND APPURTENANCES FROM THE BUILDING TO THE PUBLIC SEWER MAIN, AND CONNECTION TO THE PUBLIC SEWER MAIN SHALL BE CONSIDERED PRIVATE AND THE RESPONSIBILITY OF THE PROPERTY OWNER TO MAINTAIN. THE CONNECTION TO THE SEWER WOULD BE ANY PIPING THAT EXTENDS OUT FROM THE MAIN BARREL OF THE SEWER MAIN.

ALL GROUND SURFACE AREAS THAT HAVE BEEN EXPOSED OR LEFT BARE AS A RESULT OF CONSTRUCTION AND ARE TO FINAL GRADE AND ARE TO REMAIN SO, SHALL BE SEEDED AND MULCHED AS SOON AS PRACTICAL IN ACCORDANCE WITH STATE OF OHIO SPECIFICATIONS, ITEM 659.

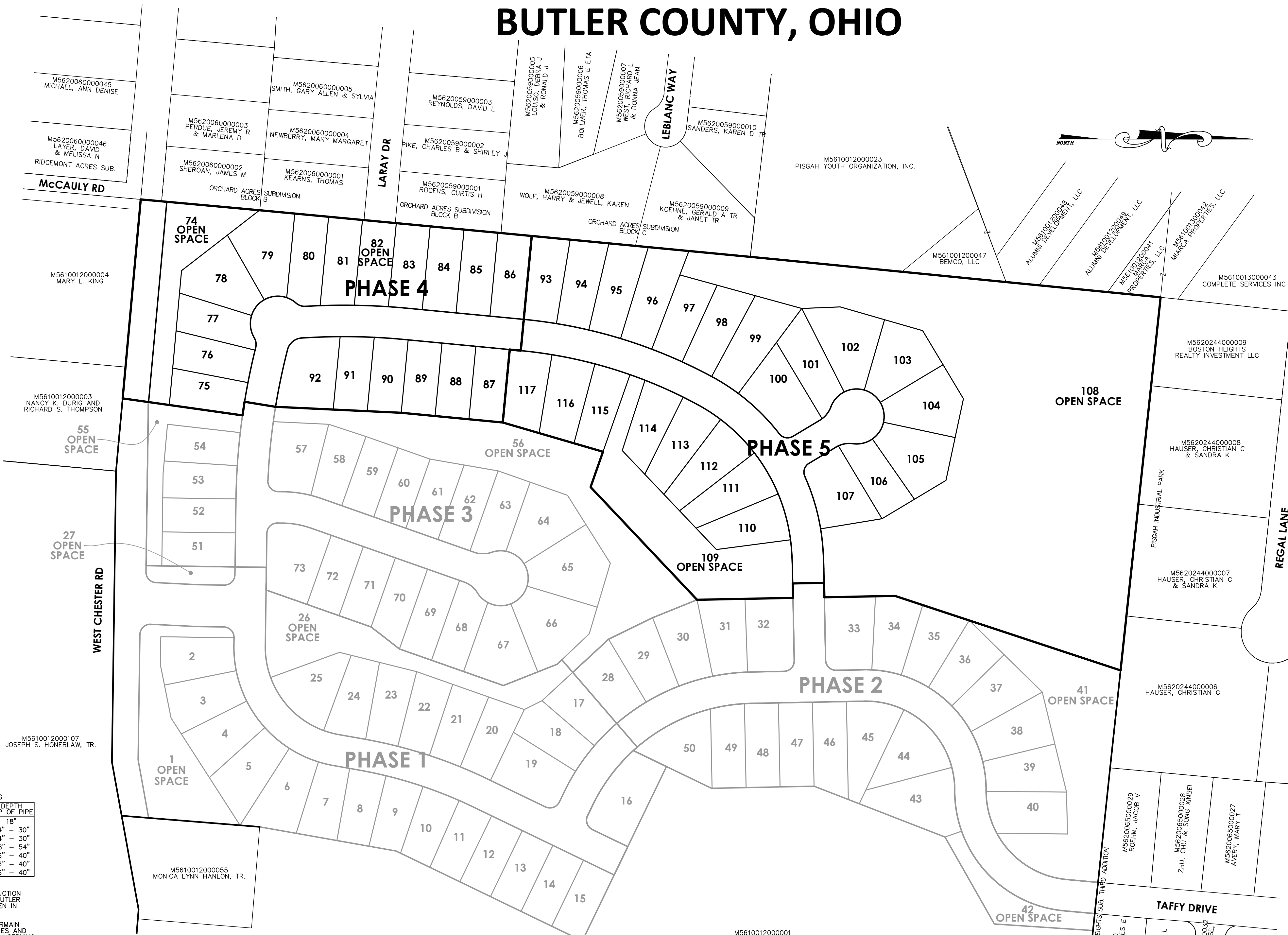
THE CONTRACTOR SHALL SEED AND MULCH DISTURBED GRASS AREAS WITH:  
3 LBS. WHEAT OR RYE PER 1000 SQ. FT.  
10 LBS. 12-12-12 FERTILIZER PER 1000 SQ. FT.  
2 OR 3 SALES OF STRAW PER 1000 SQ. FT.

THE CONTRACTOR SHALL ALSO PROVIDE OTHER EROSION CONTROL MEASURES AS MAY BE REQUIRED BY BUTLER COUNTY ENGINEER DURING THE CONSTRUCTION PHASE.

SEEDING - SPECIFICATIONS AT DETENTION BASIN:  
RED FESCUE 1 LB. PER 1000 SQ. FT.  
KENTUCKY BLUEGRASS 1/2 LB. PER 1000 SQ. FT.  
PERENNIAL RYEGRASS 1/2 LB. PER 1000 SQ. FT.  
FERTILIZER: 12-12-12 12 LBS. PER 1000 SQ. FT.  
MULCH - 3 SALES OF STRAW PER 1000 SQ. FT.  
MULCH TIE DOWN: LIQUID ASPHALT (R.C. 70, 25 OR 800) 40 GALS. PER 1000 SQ. YDS. OR PLASTIC MULCH NETTING, STAPLED IN PLACE.  
SOD: TO BE STAKED IN PLACE.

ON STREET PARKING SHALL BE LIMITED AND SHALL BE PROHIBITED DURING SNOW EVENTS. LANGUAGE SHALL BE PLACED IN THE SUBDIVISION PROTECTIVE COVENANTS, GIVING THE HOA THE ABILITY TO ENFORCE AND ELIMINATING THE NEED FOR PARKING SIGNAGE.

IF MORE THAN FIVE (5) FOOT OF FILL IS PLACED ON A BUILDING LOT, A COMPACTION TEST MUST BE APPROVED BY THE BUTLER COUNTY SWCD OFFICE AND BUTLER COUNTY ENGINEER'S OFFICE PRIOR TO FINAL PLAT APPROVAL.



**SHEET INDEX**

|     |                                 |
|-----|---------------------------------|
| 1   | COVER SHEET                     |
| 2-3 | IMPROVEMENT PLAN                |
| 4   | GRADING & S.W.P.P. PLAN         |
| 5   | PROFILES & DETAILS              |
| 6-7 | STANDARD DETAILS                |
| 8   | EROSION CONTROL NOTES & DETAILS |

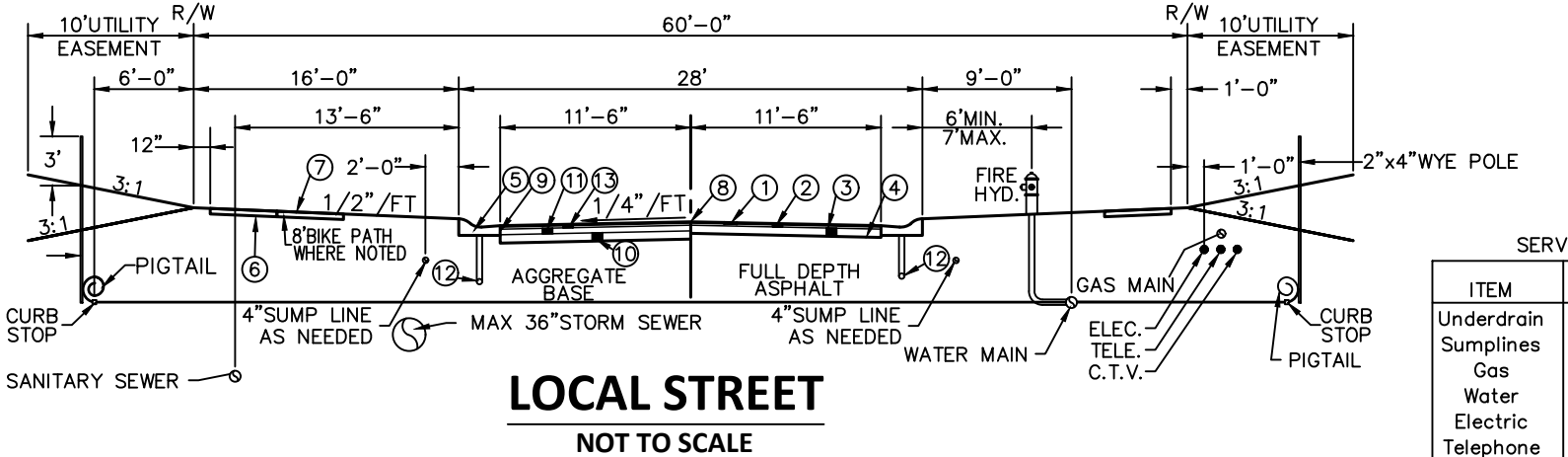
**OWNER / APPLICANT**  
M/I HOMES OF CINCINNATI, LLC  
9349 WATERSTONE BLVD, SUITE 100  
CINCINNATI, OH 45249  
(513) 248-5400

**DEVELOPMENT SUMMARY**

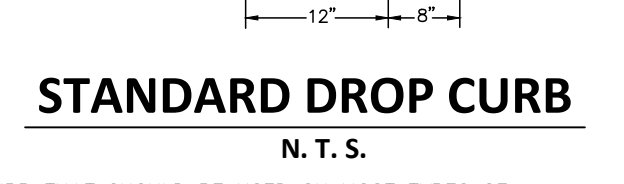
MINIMUM WIDTH AT FRONT SETBACK LINE: 65'  
SETBACKS:

|       |     |
|-------|-----|
| FRONT | 30' |
| SIDE  | 5'  |
| REAR  | 30' |

|                      | PHASE 4 | PHASE 5 |
|----------------------|---------|---------|
| AREA IN LOTS         | 4.16    | 6.43    |
| AREA IN RIGHT-OF-WAY | 1.36    | 1.44    |
| AREA IN OPEN SPACE   | 0.80    | 8.78    |
| TOTAL                | 6.32    | 16.65   |
| TOTAL NUMBER OF LOTS | 17      | 23      |



- LOCAL STREET NOT TO SCALE**
- 1" SURFACE COURSE OF ITEM 448 ASPHALTIC CONCRETE, SEE NOTE #4
  - 1/2" LEVELING COURSE OF ITEM 448 ASPHALTIC CONCRETE
  - 6" BASE COURSE OF ITEM 301 BITUMINOUS AGGREGATE BASE
  - COMPACTED SUBGRADE, ITEM 203.13
  - ROLL TYPE CURB & GUTTER, ITEM 609 (BUTLER CO. STANDARD C-1)
  - 4" THICK CLASS "C" CONCRETE WALK, 5" WIDE, ITEM 608 WALK TO BE 1/2" HIGHER THAN SOD. BIKE PATH SHALL BE 8" WIDE.
  - SEEDING & MULCHING, ITEM 659
  - TACK COAT, ITEM 407 - TO BE APPLIED AT A RATE OF 0.05 GAL. PER SQ. YARD. SEE NOTE #4
  - TACK COAT SHALL BE APPLIED TO FRONT FACE OF CURB PRIOR TO THE INSTALLATION OF THE 301 BITUMINOUS AGGREGATE BASE. ALSO TO BE APPLIED TO THE CURB JOINT AFTER THE INSTALLATION OF 448 LEVELING COURSE
  - 6" BASE COURSE OF ITEM 304 AGGREGATE BASE
  - 6" BASE COURSE OF ITEM 301 BITUMINOUS AGGREGATE BASE
  - ITEM 605, 4" UNDERDRAIN CONNECT UNDERDRAIN TO FRONT FACE OF NEAREST CATCH BASIN
  - 1/2" LEVELING COURSE OF ITEM 448 ASPHALTIC CONCRETE
- TYPICAL STREET SECTION NOTES**
- ITEM NUMBERS REFER TO THE OHIO DEPARTMENT OF HIGHWAYS CONSTRUCTION AND MATERIAL SPECIFICATIONS, AND ALL CONSTRUCTION WORK SHALL BE DONE ACCORDING TO SAID SPECIFICATIONS OR BUTLER COUNTY REQUIREMENTS AND STANDARDS FOR SUBDIVISIONS. WHEN IN CONFLICT, THE COUNTY REQUIREMENTS SHALL PREVAIL.
  - ITEMS THAT PERTAIN TO UNDERGROUND UTILITIES SUCH AS WATER MAIN, SANITARY SEWER PIPE, WATER VALVES AND MANHOLE FRAMES AND COVERS, ETC. WILL REMAIN UNDER SPECIFICATIONS OF THE UTILITY SERVING THE AREAS. STORM SEWERS SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE BUTLER COUNTY ENGINEER.
  - ALL TRENCHES WITHIN THE RIGHT OF WAY AND 10' UTILITY EASEMENTS SHALL BE COMPACTED AND BACKFILLED IN ACCORDANCE WITH ITEMS 203 AND 603 IN THE STATE SPECIFICATIONS.
  - SURFACE COURSE (ITEM 448) AND TACK COAT (ITEM 407) ARE TO BE APPLIED NO SOONER THAN NINE (9) MONTHS AFTER THE LEVELING COURSE (ITEM 448), AND FIFTY (50) PERCENT OF THE HOMES ARE COMPLETED. IF AFTER TWO (2) YEARS, FIFTY (50) PERCENT OF THE HOMES HAVE NOT BEEN COMPLETED, THEN THE TOP COURSE MAY BE APPLIED.
  - A MINIMUM 10' UTILITY EASEMENT SHALL BE SHOWN ON THE RECORD PLAT PARALLEL AND IMMEDIATELY ADJACENT TO THE RIGHT OF WAY LINE ALLOWING FOR INSTALLATION, OPERATION AND MAINTENANCE OF SEWERS, WATER, ELECTRIC AND TELEPHONE CONDUIT AND ANY OTHER PUBLIC OR QUASI PUBLIC UTILITY.
  - DEVELOPER SHALL BE RESPONSIBLE FOR THE INSTALLATION OF CONDUITS FOR THE FULL WIDTH OF THE PUBLIC RIGHT OF WAY AT A DEPTH OF 36" FOR USE BY THE ELECTRIC, TELEPHONE AND CABLE TV SERVICES. THE LOCATION OF THESE LINES SHALL BE COORDINATED WITH UTILITY COMPANIES BY THE DEVELOPER.
  - SANITARY LATERALS SHALL BE EXTENDED BEYOND THE LIMITS OF THE UTILITY EASEMENTS, BUT NOT TO EXCEED 12' FROM THE RIGHT OF WAY LINE.
  - ALL ELECTRICAL TRANSFORMERS SHALL BE LOCATED SO THAT THEY DO NOT INTERFERE WITH THE EXISTING MANHOLES.
  - SUMP LINE CONDUITS ARE TO BE SDR 35.
  - THE SANITARY SEWER SHALL BE PLACED IN SUCH A MANNER THAT THE SANITARY MANHOLE COVER DOES NOT CONFLICT WITH THE SIDEWALK.
  - SOCK REQUIRED FOR UNDERDRAIN IF SANDY SOILS ARE ENCOUNTERED, OR AT THE DIRECTION OF THE COUNTY INSPECTOR.



**NOTES:**

GENERAL: THIS DRAWING SHOWS THE STANDARD TYPE OF CURB THAT SHOULD BE USED ON MOST TYPES OF PAVEMENT. TYPICAL SECTION OF PROJECT SHOWS THE TYPE TO BE USED. ALSO THE THICKNESS OF THE EDGE OF THE PAVEMENT OR THE EDGE OF THE CURB AND GUTTER SECTION.

JOINTS: ONE INCH EXPANSION JOINTS SHALL EXTEND UP TO TOP OF THE CURB AND SHALL BE CONSTRUCTED IN THE CURB AND GUTTER SECTION IN SUCH A MANNER THAT THE JOINT SEAL WILL EXTEND THE FULL WIDTH OF THE GUTTER AND INTO THE CURB FACE A SUFFICIENT DISTANCE TO SEAL THE JOINT TO AN ELEVATION OF AT LEAST TWO (2) INCHES ABOVE THE FLOW LINE OF THE GUTTER SECTION AT EXPANSION JOINTS. ALL JOINTS SHALL BE CONSTRUCTED PERPENDICULAR TO THE EDGE OF THE CURB AND TO THE SURFACE OF THE PAVEMENT. TRANSVERSE EXPANSION JOINT MATERIAL SHALL MEET THE REQUIREMENTS OF TOSTOL. EXPANSION MATERIAL AND JOINT SEALER IS NOT REQUIRED WHEN CURB IS ADJACENT TO FLEXIBLE TYPE PAVEMENT.



OHIO Utilities Protection SERVICE  
Call Before You Dig  
1-800-362-2764  
CALL TWO WORKING DAYS BEFORE YOU DIG (NON MEMBERS MUST BE CALLED DIRECTLY)

STATE OF OHIO REGISTERED PROFESSIONAL ENGINEER  
JAMES H. WATSON 49886  
James H. Watson

|                 |                 |
|-----------------|-----------------|
| Date            | 07/08/20        |
| Scale           | AS NOTED        |
| Drawn By        | BC              |
| Proj. Mgr.      | JW              |
| Survey Database | N/A             |
| DWG             | 16619004-DTL-00 |
| X-Ref(s)        |                 |
| Project Number  | 16619.00        |
| File No.        | Sheet No. 1/8   |

## WESTVIEW MEADOWS PHASES 4 & 5

### SECTION 9, TOWN 3, RANGE 2

### WEST CHESTER TOWNSHIP

### BUTLER COUNTY, OHIO

### COVER SHEET

**MSP DESIGN**  
McGill Smith Punshon

Architectural 3700 Park 42 Drive  
Engineering Suite 190B  
Landscape Architecture Cincinnati OH 45241  
Planning Phone 513.759.0004  
Surveying www.mspsdesign.com

R.J.P. = RESTRAINED JOINT PIPE

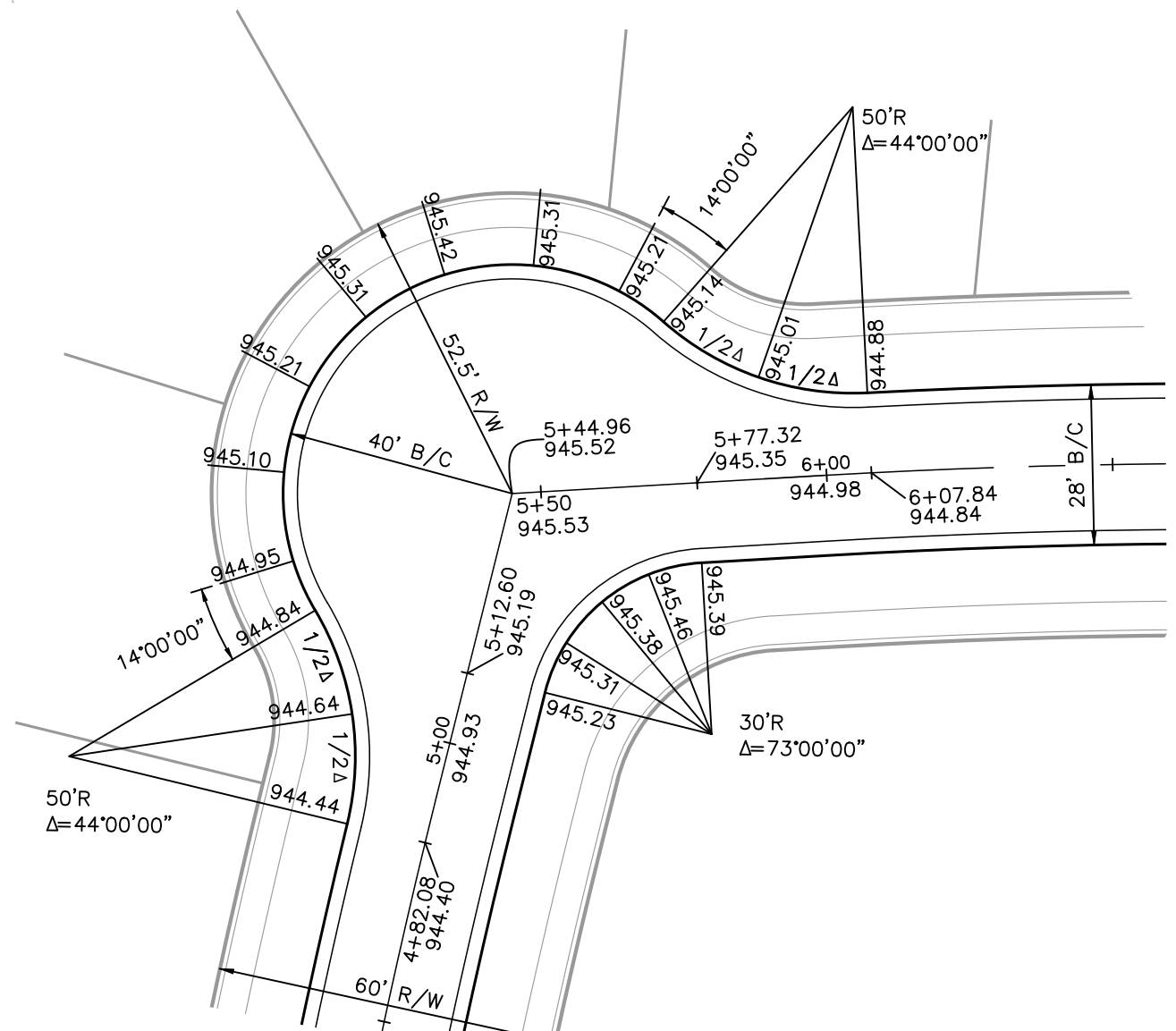
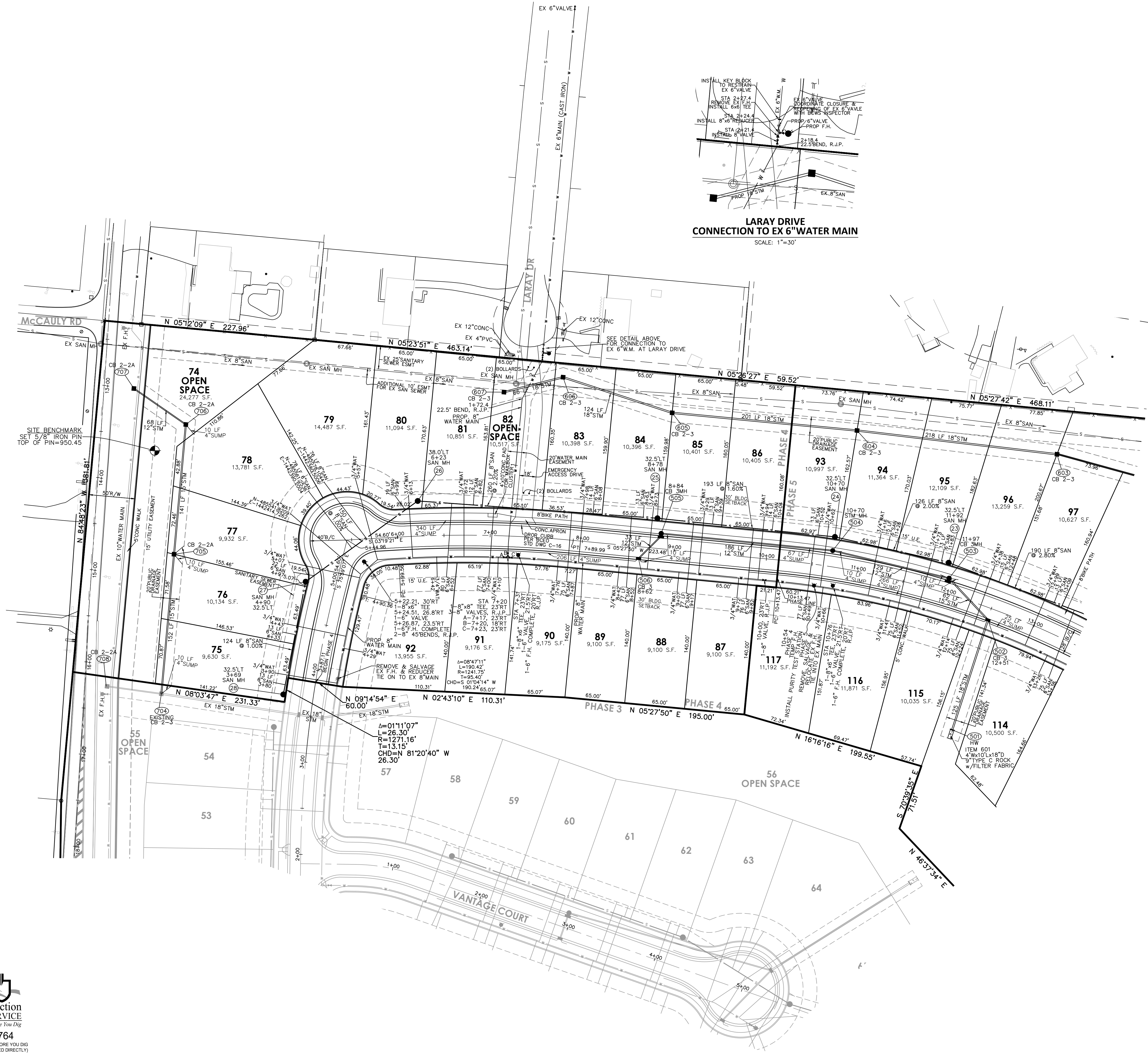
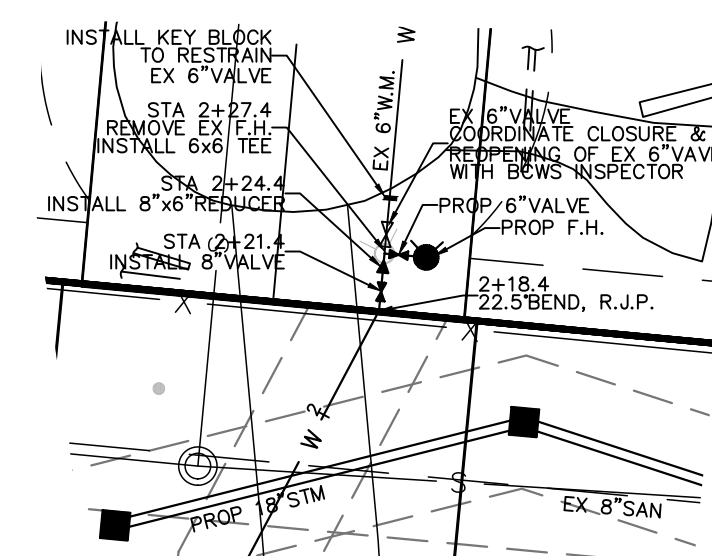
| LENGTH OF PIPE TO BE RESTRAINED IN EACH DIRECTION FROM CENTERLINE OF BEND, EXCEPT AS NOTED BELOW |            |     | LENGTH OF PIPE TO BE RESTRAINED IN EACH DIRECTION FROM CENTERLINE OF BEND, EXCEPT AS NOTED BELOW |     |     |
|--|------------|-----|--|-----|-----|
| DESCRIPTION  | 8"         | 10" | DESCRIPTION  | 8"  | 10" |
| 90° BEND   | 59'        | 72' | 11 1/4" UP BEND  | 6'  | 7'  |
| 45° BEND   | 24'        | 30' | 11 1/4" DOWN BEND  | 11' | 13' |
| 22 1/2° BEND   | 12'        | 14' | 22 1/2° UP BEND  | 12' | 14' |
| 11 1/4° BEND   | 6'         | 7'  | 22 1/2° DOWN BEND  | 22' | 26' |
| 8" x 6" TEE  | 41' BRANCH |     | 45° UP BEND  | 24' | 30' |
|  | 54' BRANCH |     | 45° DOWN BEND  | 45' | 55' |
|  |            |     | DEAD END   | 54' | 67' |

**HORIZONTAL**  
**PIPE RESTRAINTS SCHEDULE FOR JOINTS**

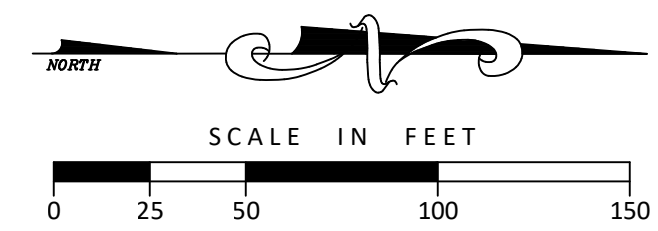
NO DRIVEWAY MAY BE PLACED OVER WATER SERVICE.  
NO DRIVEWAY MAY BE PLACED OVER SANITARY SEWER MANHOLE.

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.

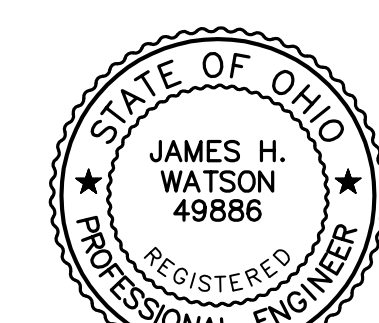
**LARRY DRIVE CONNECTION TO EX 6" WATER MAIN**  
SCALE: 1"=30'



**KNUCKLE DETAIL WEST MEADOW DRIVE**  
SCALE: 1"=30'  
ANGLES SHOWN ARE 22.5° UNLESS NOTED OTHERWISE.  
ELEVATIONS SHOWN TOP OF CURB UNLESS NOTED OTHERWISE.



**WESTVIEW MEADOWS PHASES 4 & 5**  
SECTION 9, TOWN 3, RANGE 2  
WEST CHESTER TOWNSHIP  
BUTLER COUNTY, OHIO  
**IMPROVEMENT PLAN**



*James H. Watson*

|                 |                 |
|-----------------|-----------------|
| Date            | 07/08/20        |
| Scale           | AS NOTED        |
| Drawn By        | BC              |
| Proj. Mgr.      | JW              |
| Survey Database | N/A             |
| DWG             | 16619004-IMP-00 |
| X-Ref(s)        |                 |
| Project Number  | 16619.00        |
| File No.        | Sheet No. 2/8   |

|               |    |          |
|---------------|----|----------|
| Revision      | By | Date     |
| BCWS COMMENTS | JW | 07/27/20 |
| BCOE COMMENTS | JW | 07/30/20 |

**MSP DESIGN**  
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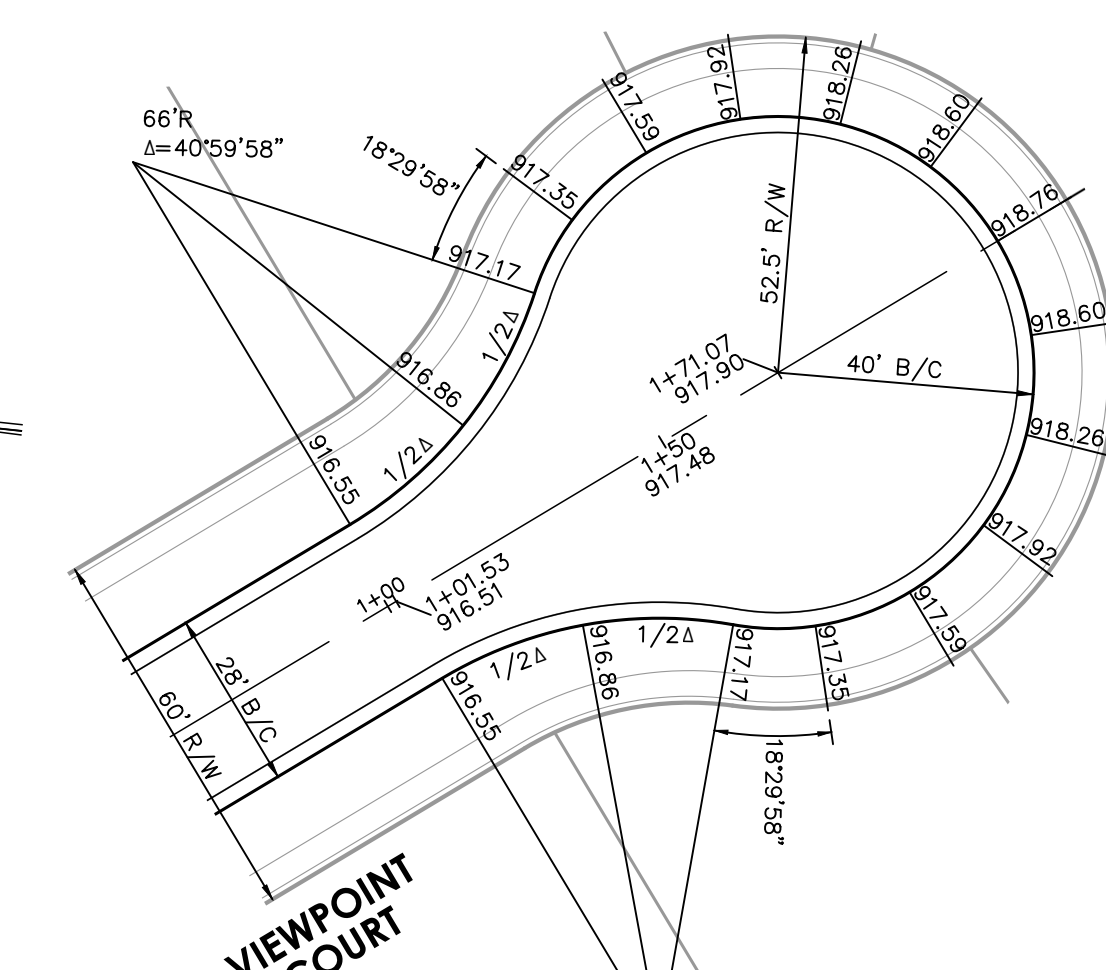
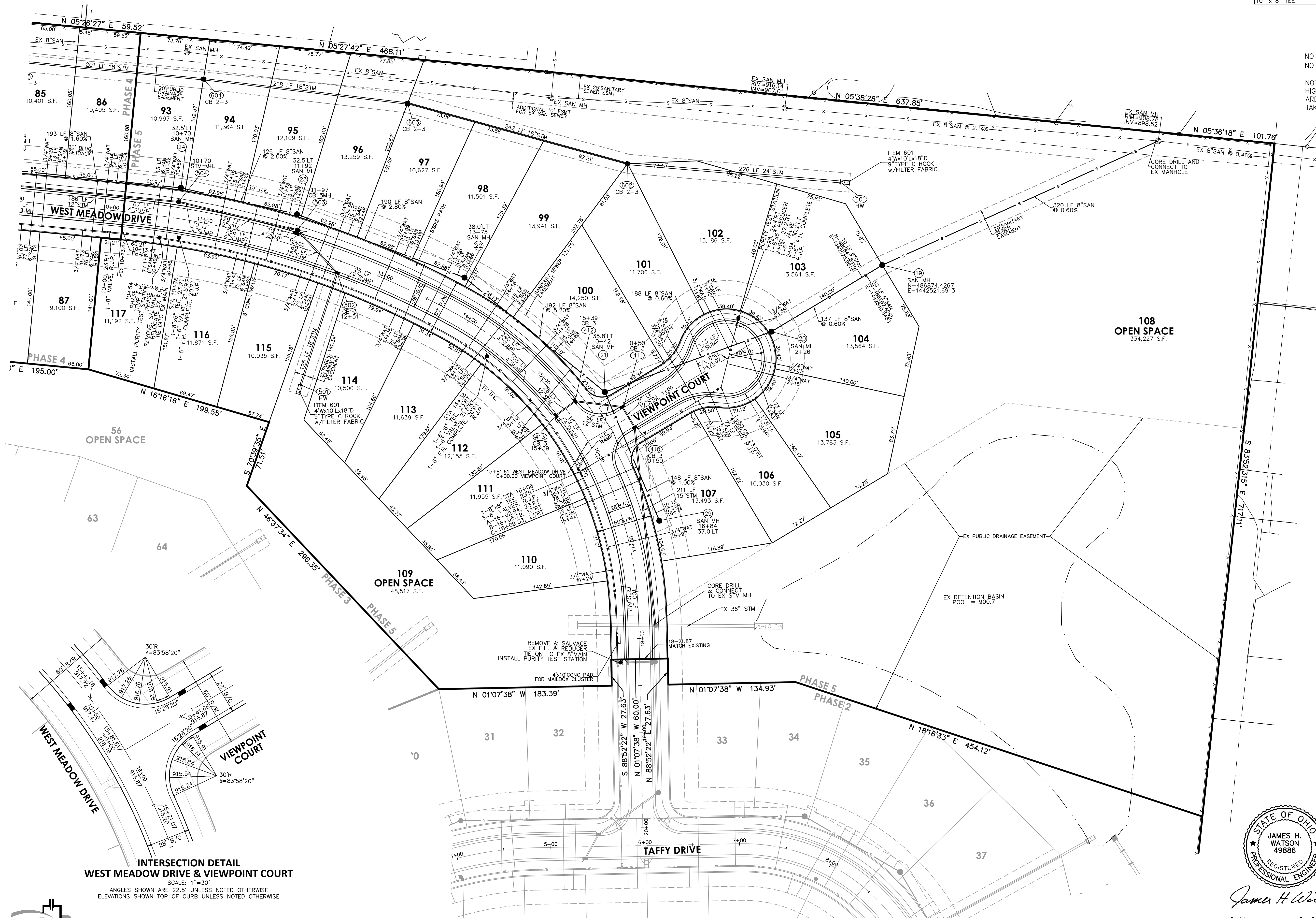
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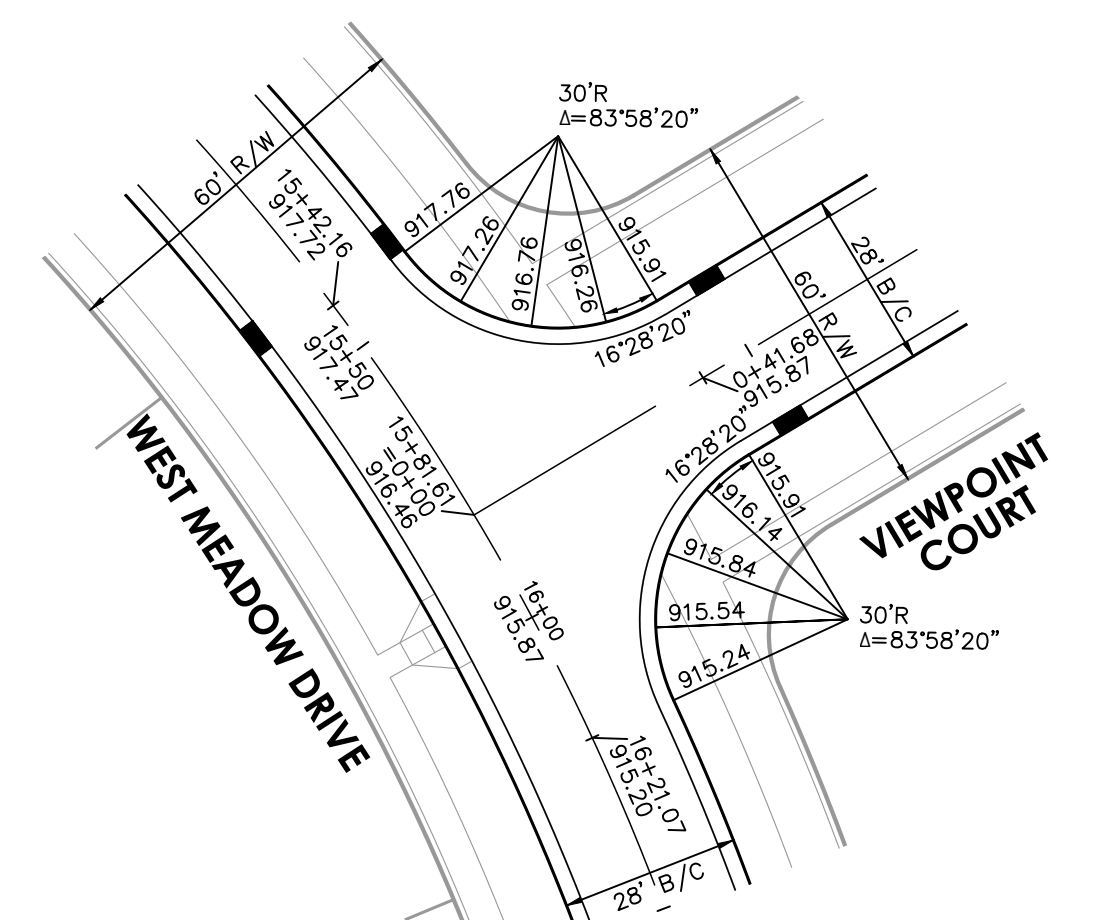
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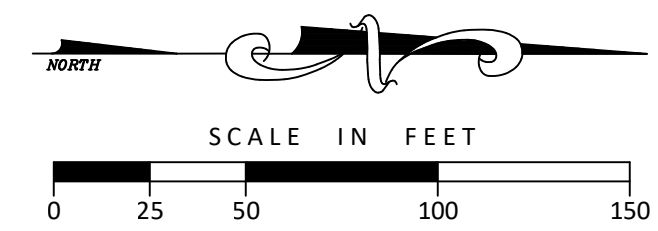
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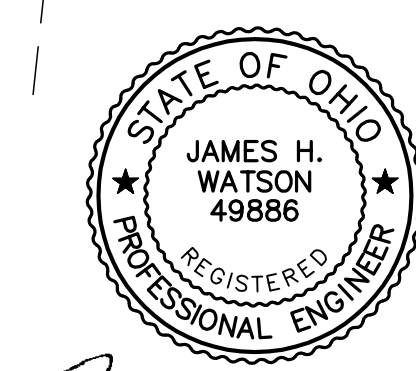
**CULDESAC DETAIL VIEWPOINT COURT**  
SCALE: 1"=30'  
ANGLES SHOWN ARE 22.5° UNLESS NOTED OTHERWISE  
ELEVATIONS SHOWN TOP OF CURB UNLESS NOTED OTHERWISE



**INTERSECTION DETAIL WEST MEADOW DRIVE & VIEWPOINT COURT**  
SCALE: 1"=30'  
ANGLES SHOWN ARE 22.5° UNLESS NOTED OTHERWISE  
ELEVATIONS SHOWN TOP OF CURB UNLESS NOTED OTHERWISE



**WESTVIEW MEADOWS PHASES 4 & 5**  
SECTION 9, TOWN 3, RANGE 2  
WEST CHESTER TOWNSHIP  
BUTLER COUNTY, OHIO  
IMPROVEMENT PLAN



*James H. Watson*

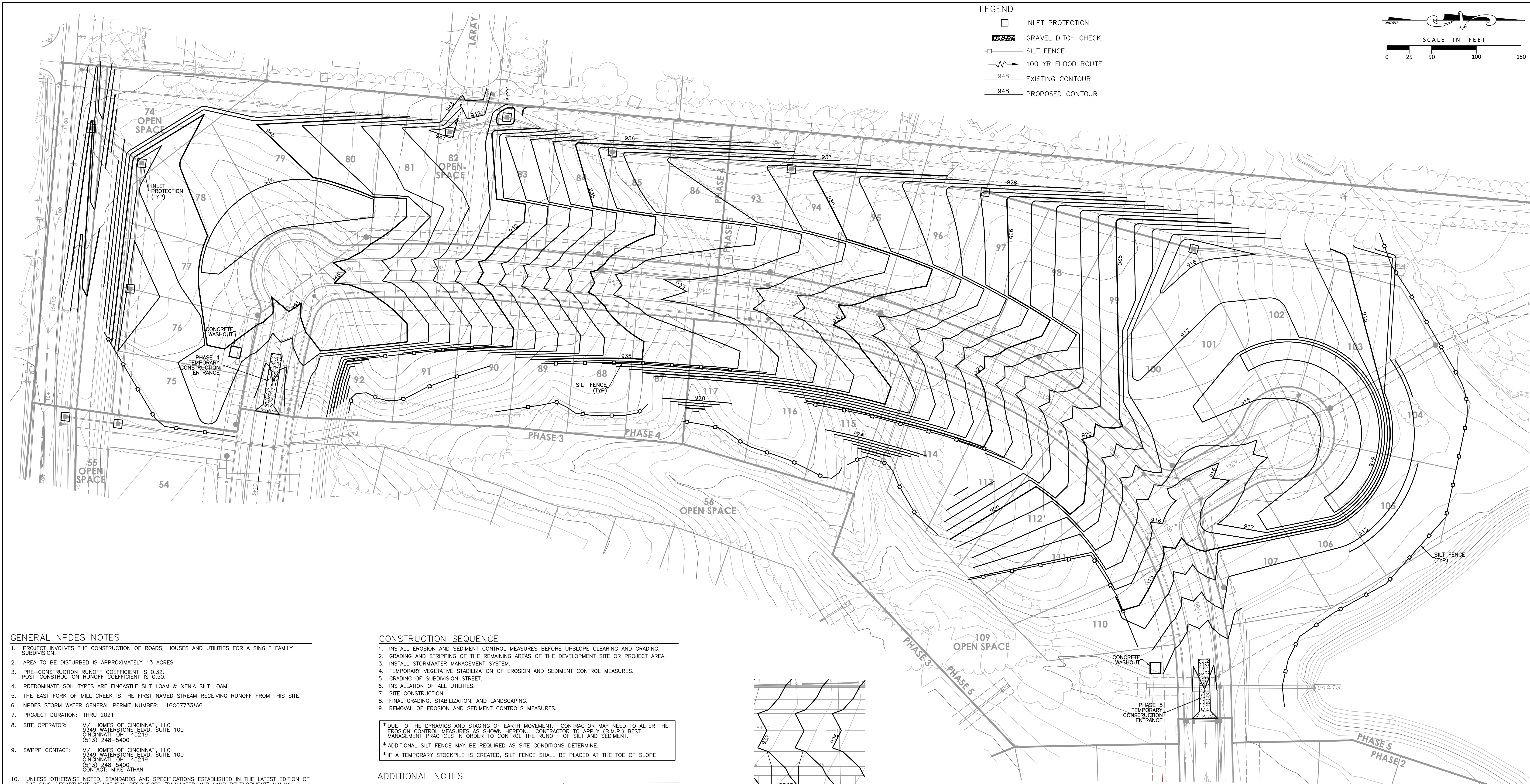
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| Date            | 07/08/20        |
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(NON MEMBERS MUST BE CALLED DIRECTLY)

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**GENERAL NPDES NOTES**

1. PROJECT INVOLVES THE CONSTRUCTION OF ROADS, HOUSES AND UTILITIES FOR A SINGLE FAMILY SUBDIVISION.
2. AREA TO BE DISTURBED IS APPROXIMATELY 13 ACRES.
3. PRE-CONSTRUCTION RUNOFF COEFFICIENT IS 0.32. POST-CONSTRUCTION RUNOFF COEFFICIENT IS 0.50.
4. PREDOMINANT SOIL TYPES ARE FINCASTLE SILT LOAM & XENIA SILT LOAM.
5. THE EAST FORK OF MILL CREEK IS THE FIRST NAMED STREAM RECEIVING RUNOFF FROM THIS SITE.
6. NPDES STORM WATER GENERAL PERMIT NUMBER: 16C07733\*AG
7. PROJECT DURATION: THRU 2021
8. SITE OPERATOR: M/I HOMES OF CINCINNATI, LLC  
8349 WATERSTONE BLVD, SUITE 100  
CINCINNATI, OH 45249  
(513) 248-5400
9. SWPPP CONTACT: M/I HOMES OF CINCINNATI, LLC  
8349 WATERSTONE BLVD, SUITE 100  
CINCINNATI, OH 45249  
(513) 248-5400  
CONTACT: MIKE ATHAN
10. 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.
11. 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).
12. THE SWP3 PLAN, NOI APPLICATION, AND LETTER GRANTING PERMIT COVERAGE SHALL BE RETAINED ON SITE AT ALL TIMES IN THE PROJECT TRAILER AND SHALL BE MADE AVAILABLE IMMEDIATELY UPON REQUEST OF THE OHIO EPA DIRECTOR OR HIS AUTHORIZED REPRESENTATIVE DURING WORKING HOURS.
13. PRIOR TO COMMENCEMENT OF CONSTRUCTION OPERATIONS, ALL SEDIMENTATION AND EROSION CONTROL FEATURES SHALL BE IN PLACE.
14. 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 RE-ESTABLISHED AS CONSTRUCTION PROGRESSES AND THE TOPOGRAPHY IS ALTERED. APPROPRIATE CONTROLS MUST BE CONSTRUCTED OR EXISTING CONTROLS ALTERED TO ADDRESS THE CHANGING DRAINAGE PATTERNS.
15. ALL GROUND SURFACE AREAS THAT HAVE BEEN EXPOSED OR LEFT BARE AS A RESULT OF DEMOLITION AND ARE TO REMAIN SO, SHALL BE SEED 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.

**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.
5. SEDIMENT SHALL BE REMOVED FROM POND AT SUCH TIME WHEN SEDIMENT OCCUPIES 50% OF BASIN DEPTH.

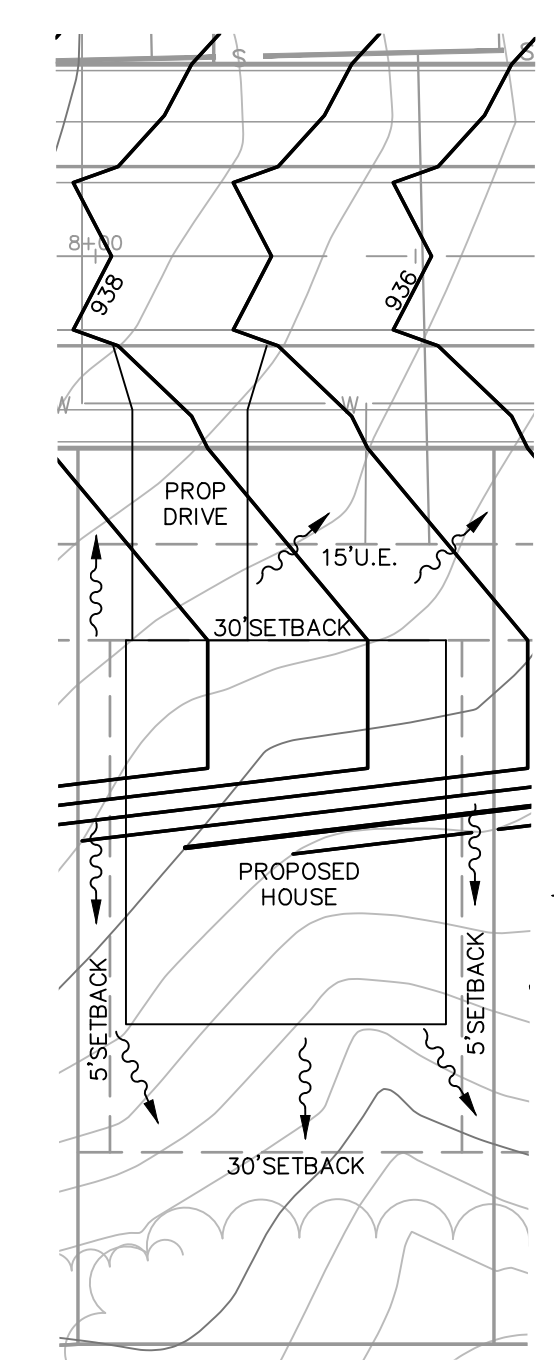
**CONSTRUCTION SEQUENCE**

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.

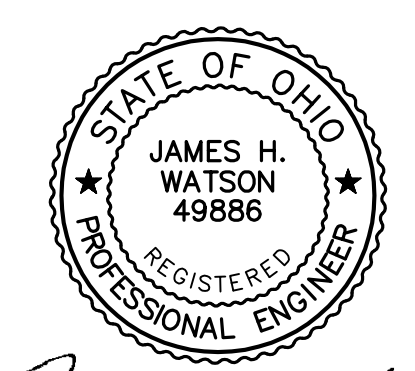
\* DUE TO THE DYNAMICS AND STAGING OF EARTH MOVEMENT, CONTRACTOR MAY NEED TO ALTER THE EROSION CONTROL MEASURES AS SHOWN HEREON. CONTRACTOR TO APPLY (B.M.P.) BEST MANAGEMENT PRACTICES IN ORDER TO CONTROL THE RUNOFF OF SILT AND SEDIMENT.  
\* ADDITIONAL SILT FENCE MAY BE REQUIRED AS SITE CONDITIONS DETERMINE.  
\* IF A TEMPORARY STOCKPILE IS CREATED, SILT FENCE SHALL BE PLACED AT THE TOE OF SLOPE

**ADDITIONAL NOTES**

1. A DETAILED MAINTENANCE PLAN THAT DESCRIBES PROCEDURES (E.G. INSPECTIONS SEE SECTION 2.18 INSPECTION OF STORM WATER CONTROLS/INTERNAL INSPECTIONS) NEEDED TO ENSURE THE CONTINUED PERFORMANCE OF CONTROL PRACTICES SHALL BE LOCATED AT THE ENTRANCE OF THE DEVELOPMENT AREA OR AT THE JOB TRAILER IN A WELL-MARKED CONTAINER ACCESSIBLE AT ALL TIMES. SUCH PLANS MUST ENSURE THAT POLLUTANTS COLLECTED WITHIN STRUCTURAL POST-CONSTRUCTION PRACTICES, BE DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS.
2. ESTABLISH VEGETATION ON ALL BARE AREAS AS PER O.E.P.A. N.P.D.E.S. REGULATIONS.
3. CONTRACTOR IS RESPONSIBLE FOR N.P.D.E.S. INSPECTIONS DURING CONSTRUCTION PERIOD.
4. 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.
5. THE TOP FOOT OF LOT FILLS NECESSARY TO ACHIEVE PLAN GRADE MAY CONSIST OF REDISTRIBUTED TOP SOIL.



**TYPICAL LOT GRADING SCHEMATIC**  
SCALE: 1" = 30'



*James H. Watson*  
Revision By Date  
BC00 COMMENTS JW 07/30/20

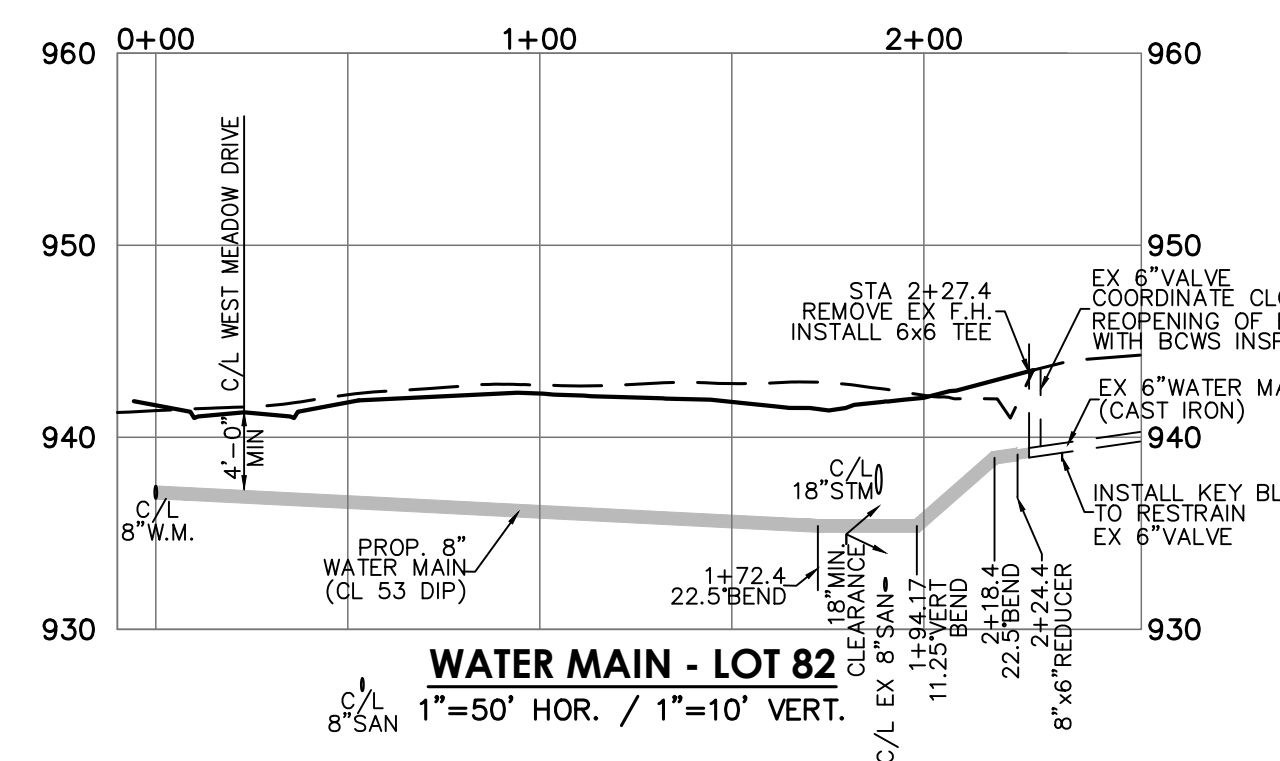
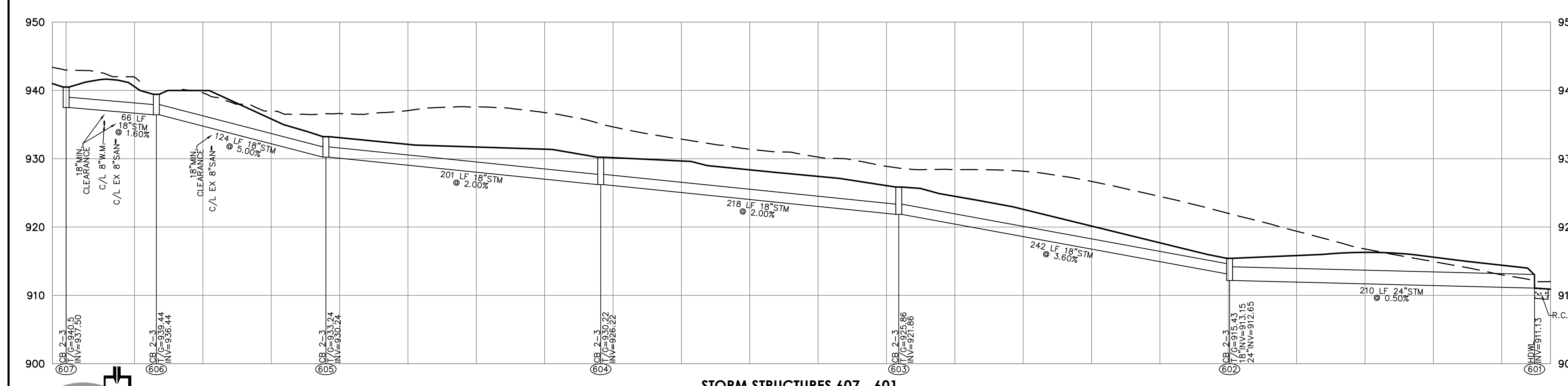
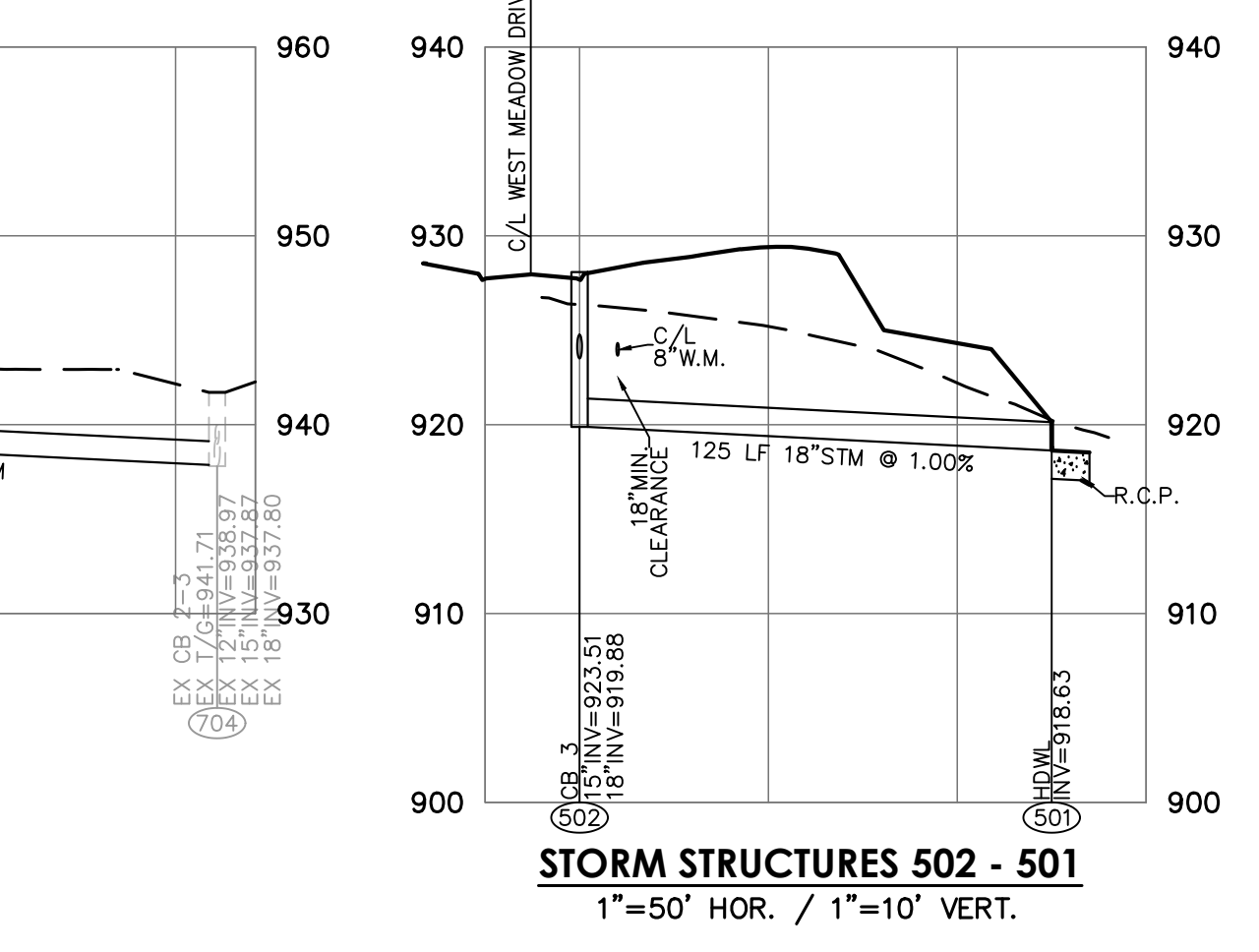
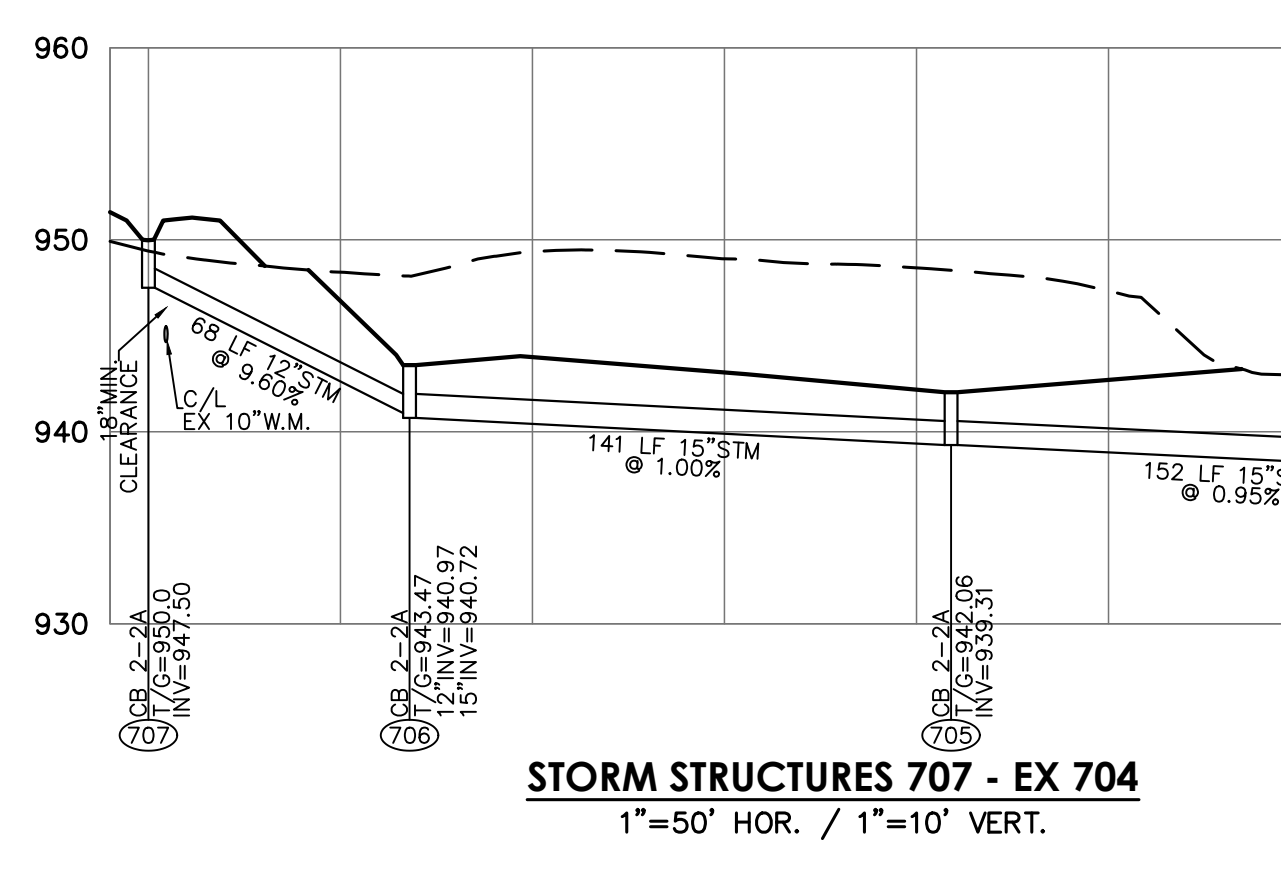
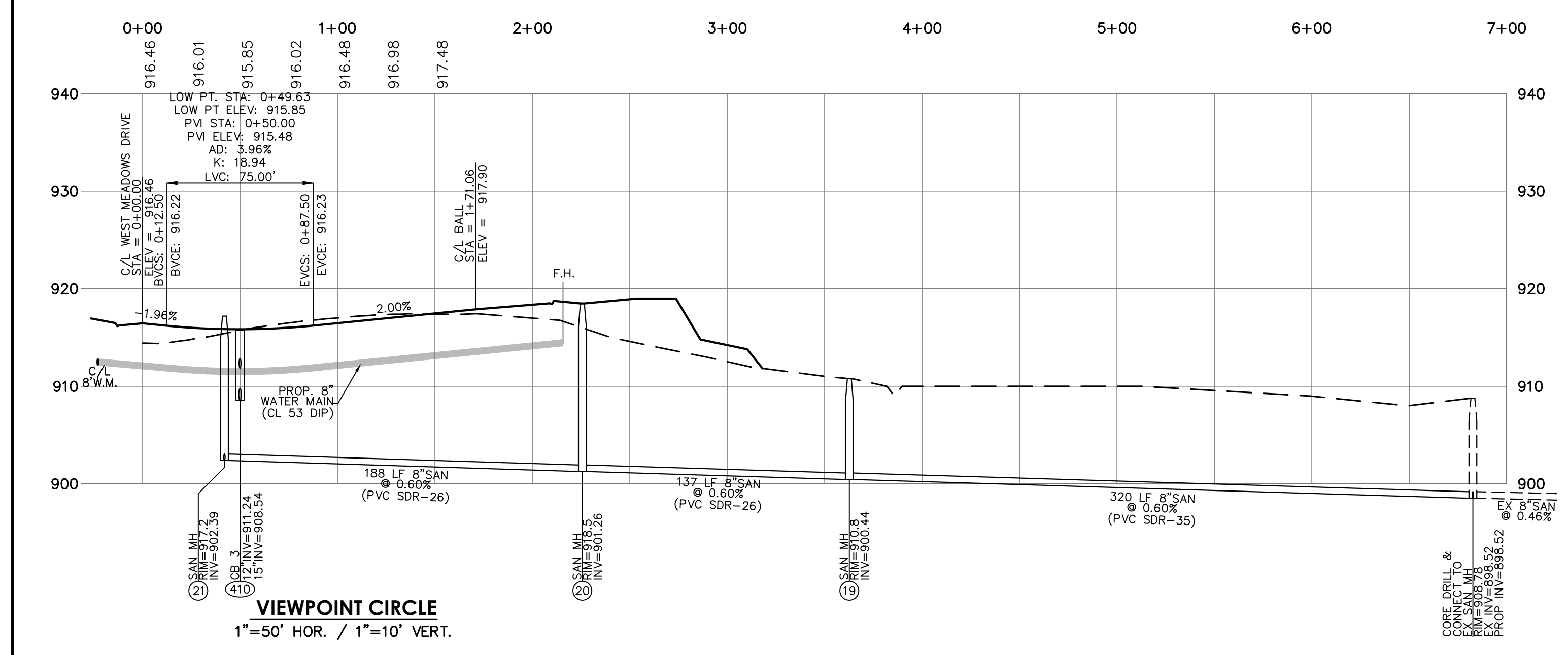
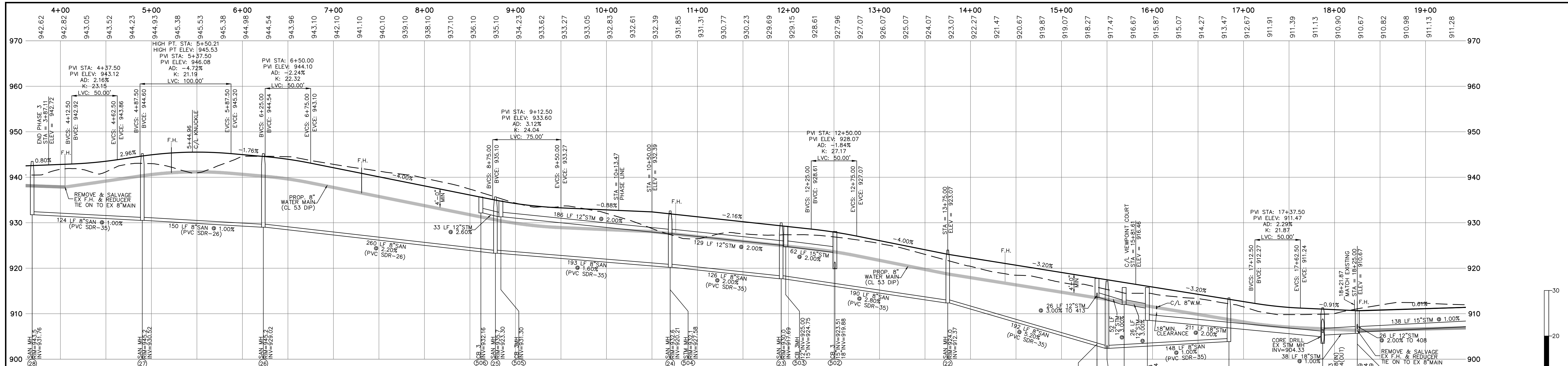
**WESTVIEW MEADOWS  
PHASES 4 & 5**  
SECTION 9, TOWN 3, RANGE 2  
WEST CHESTER TOWNSHIP  
BUTLER COUNTY, OHIO  
**GRADING & S.W.P.P. PLAN**

|                 |                 |
|-----------------|-----------------|
| Date            | 07/08/20        |
| Scale           | AS NOTED        |
| Drawn By        | BC              |
| Proj. Mgr.      | JW              |
| Survey Database | N/A             |
| DWG             | 16619004-IMP-00 |
| X-Ref(s)        |                 |
| Project Number  | 16619.00        |
| File No.        | Sheet No. 4 / 8 |

**MSP DESIGN**  
McGill Smith Punshon

Architecture 3700 Park 42 Drive  
Engineering Suite 190B  
Landscape Architecture Cincinnati OH 45241  
Planning Phone 513.759.0004  
Surveying www.mspsdesign.com

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**WESTVIEW MEADOWS PHASES 4 & 5**  
SECTION 9, TOWN 3, RANGE 2  
WEST CHESTER TOWNSHIP  
BUTLER COUNTY, OHIO  
PROFILES & DETAILS



James H. Watson

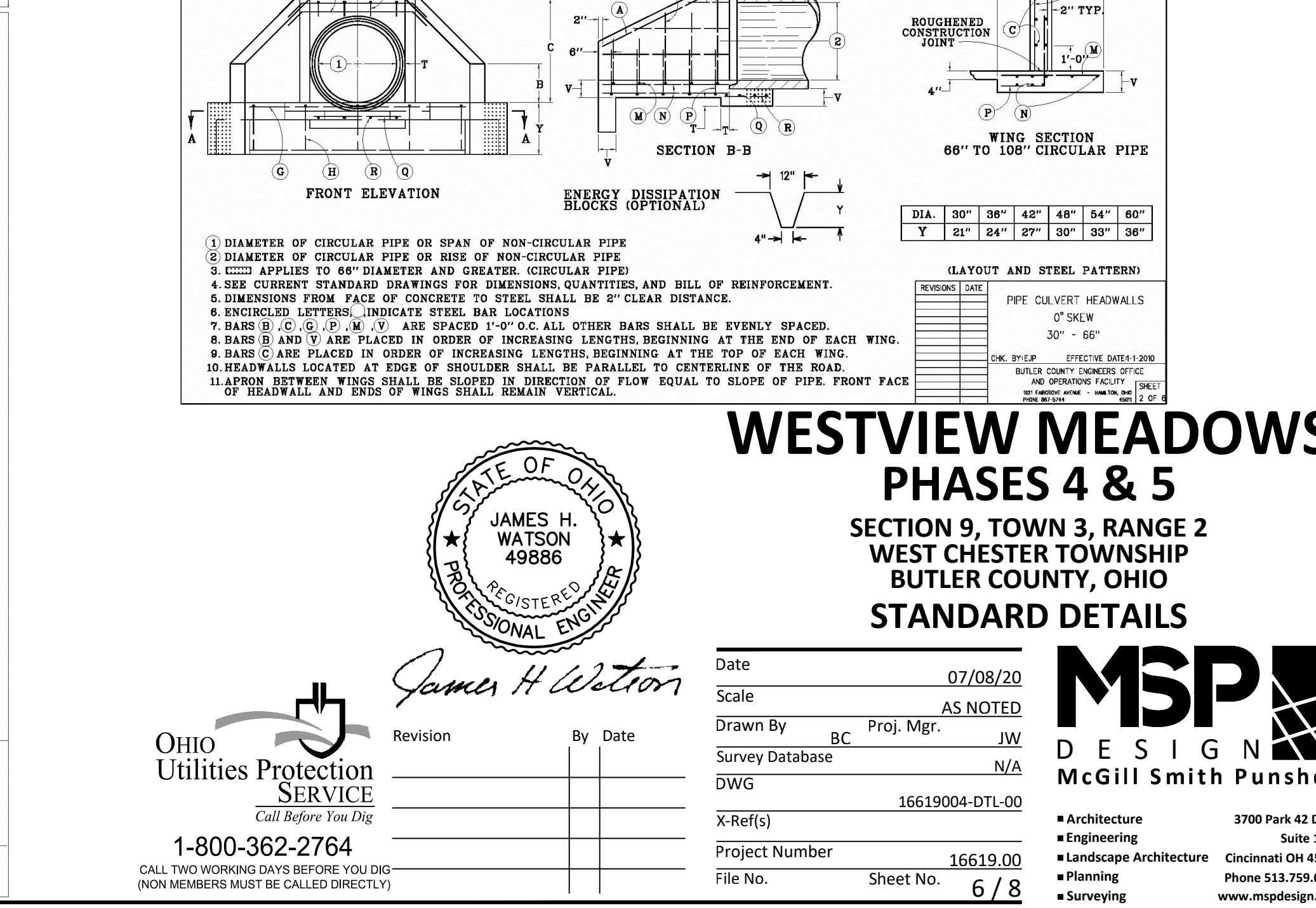
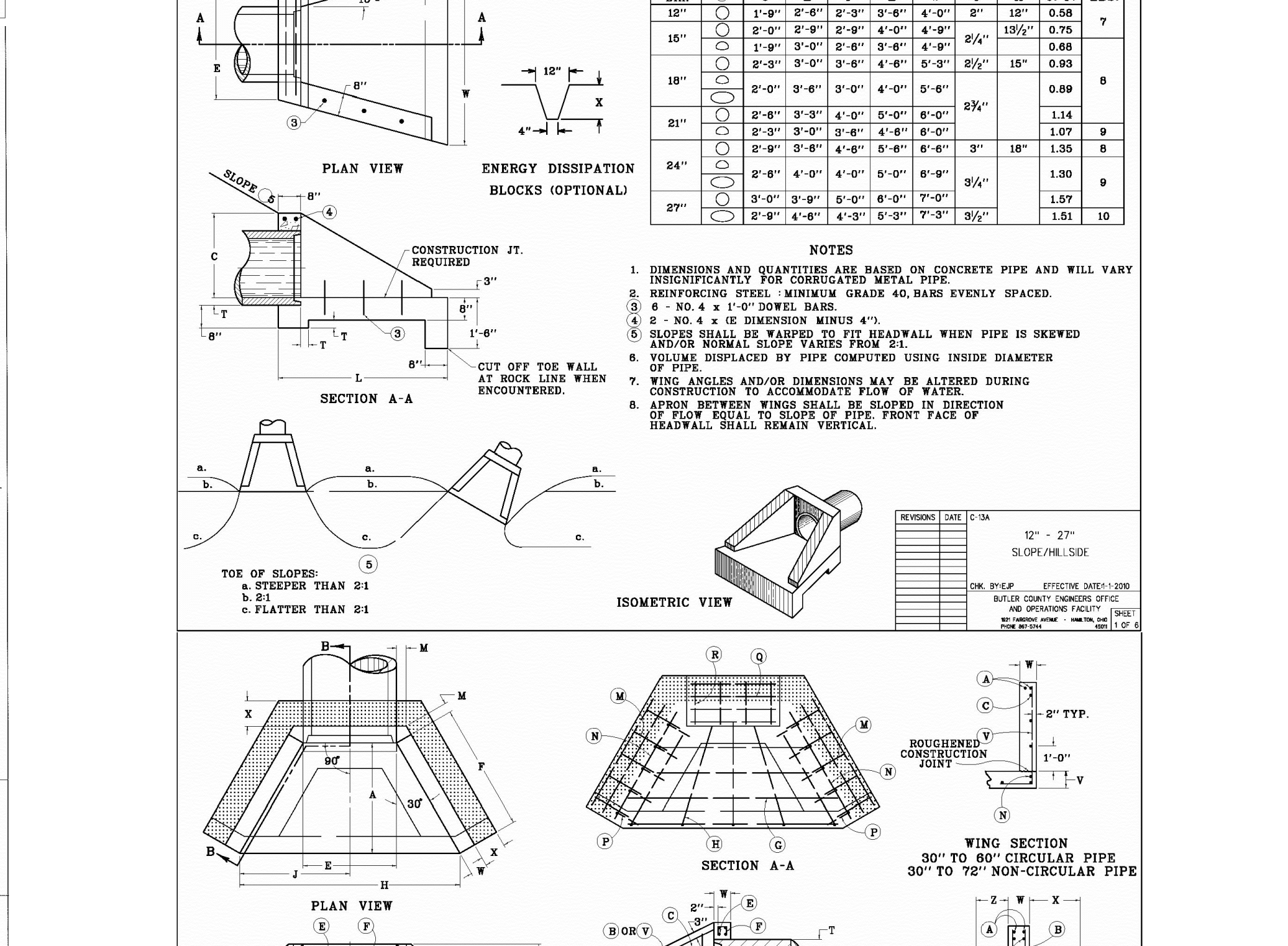
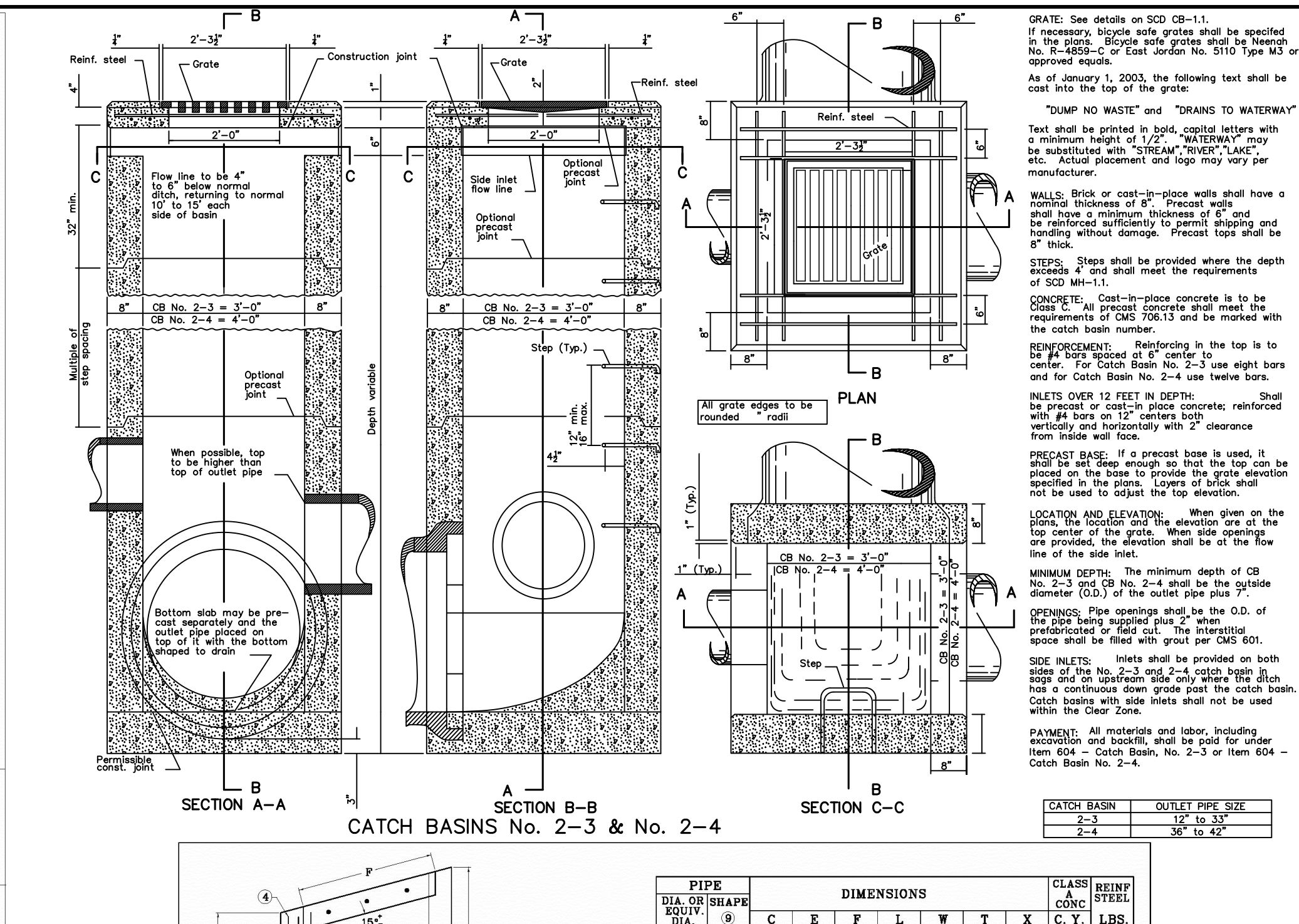
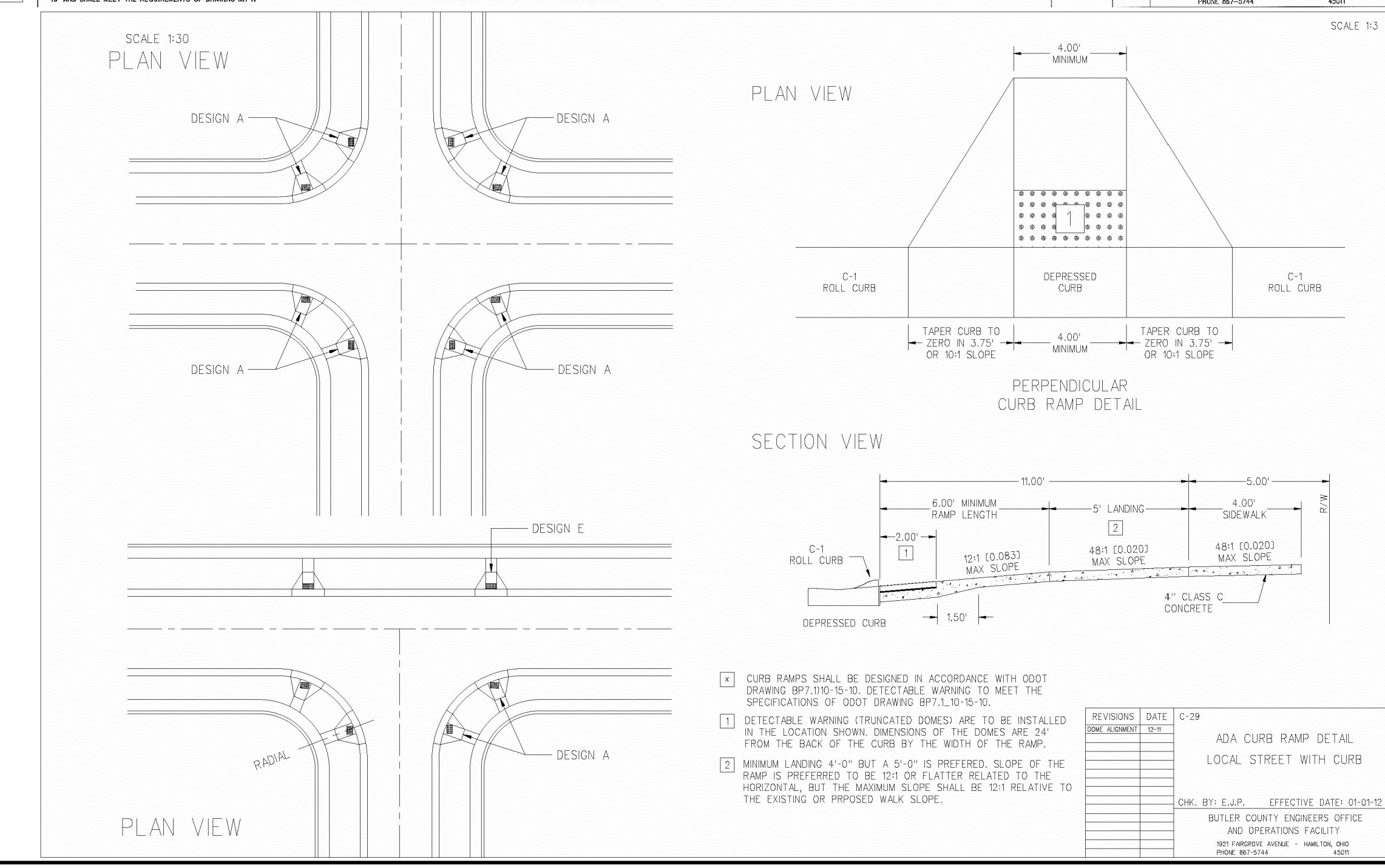
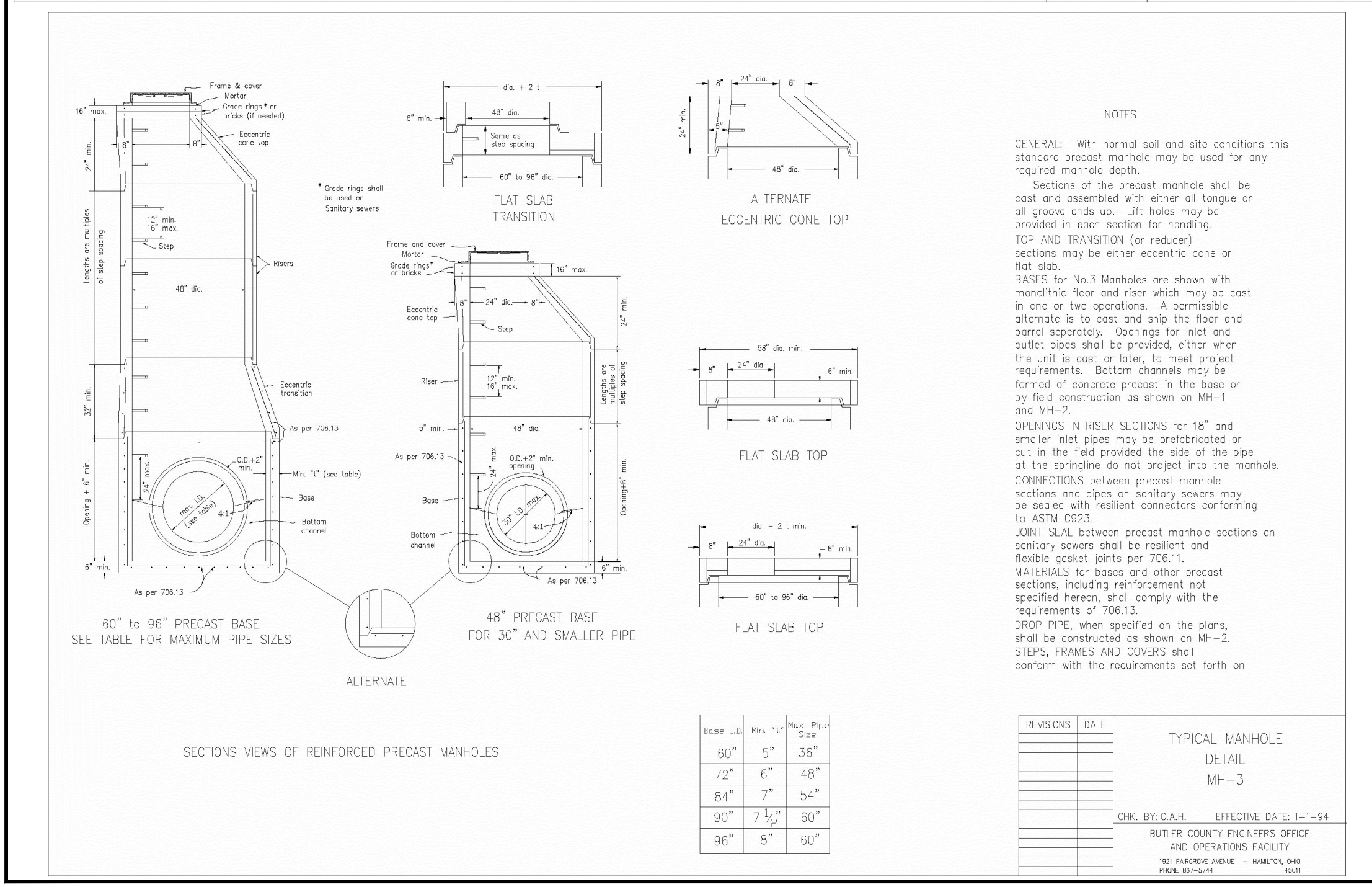
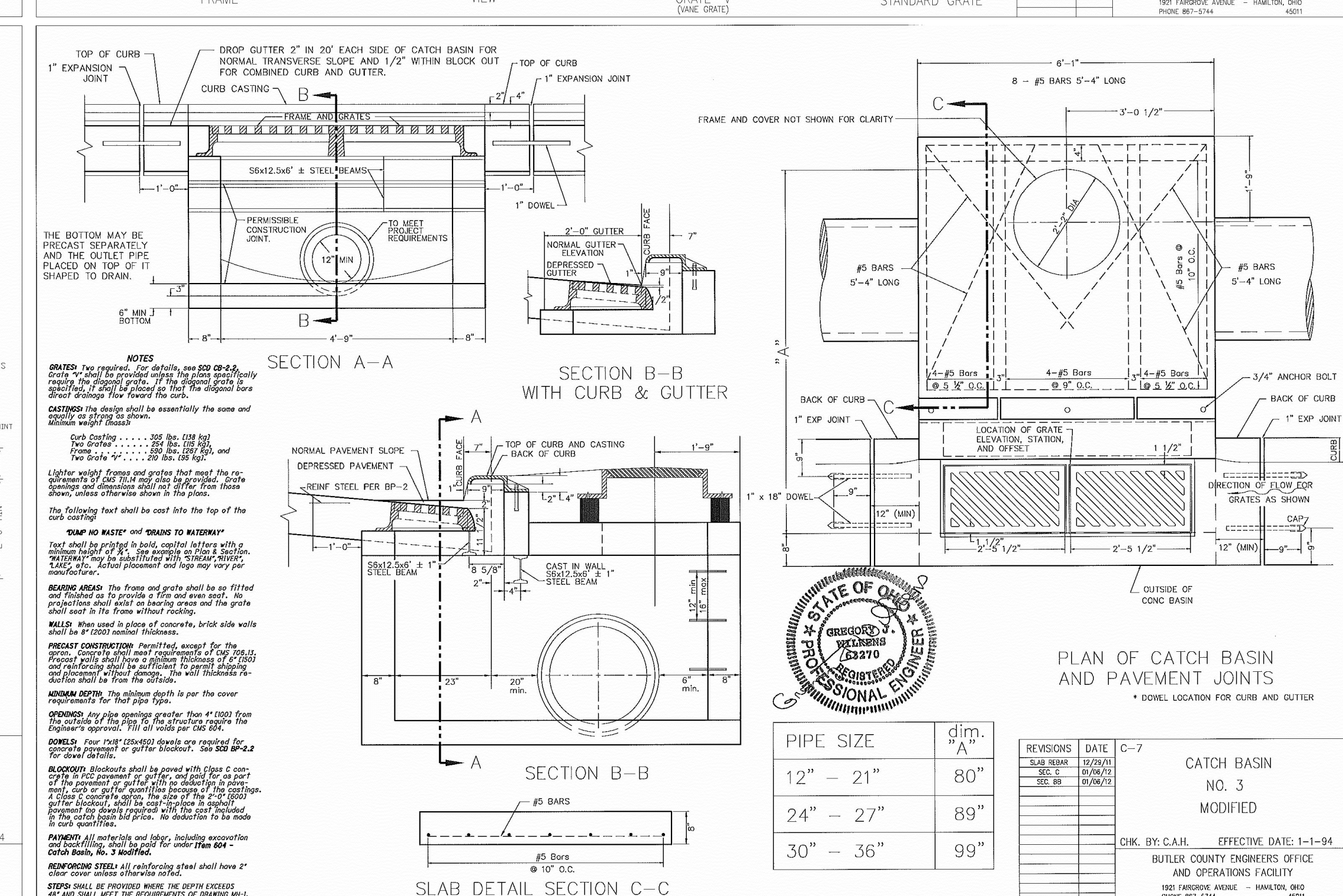
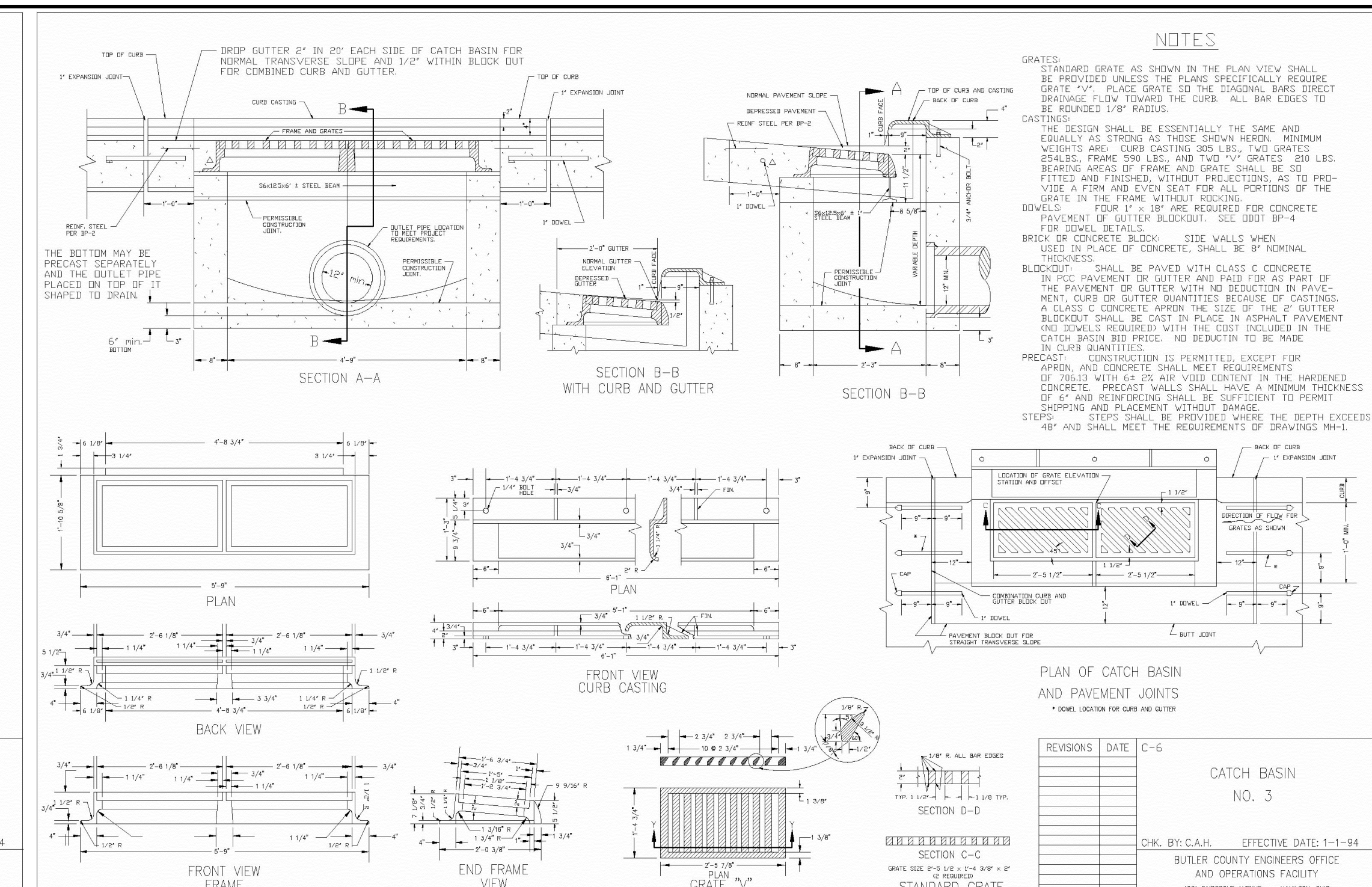
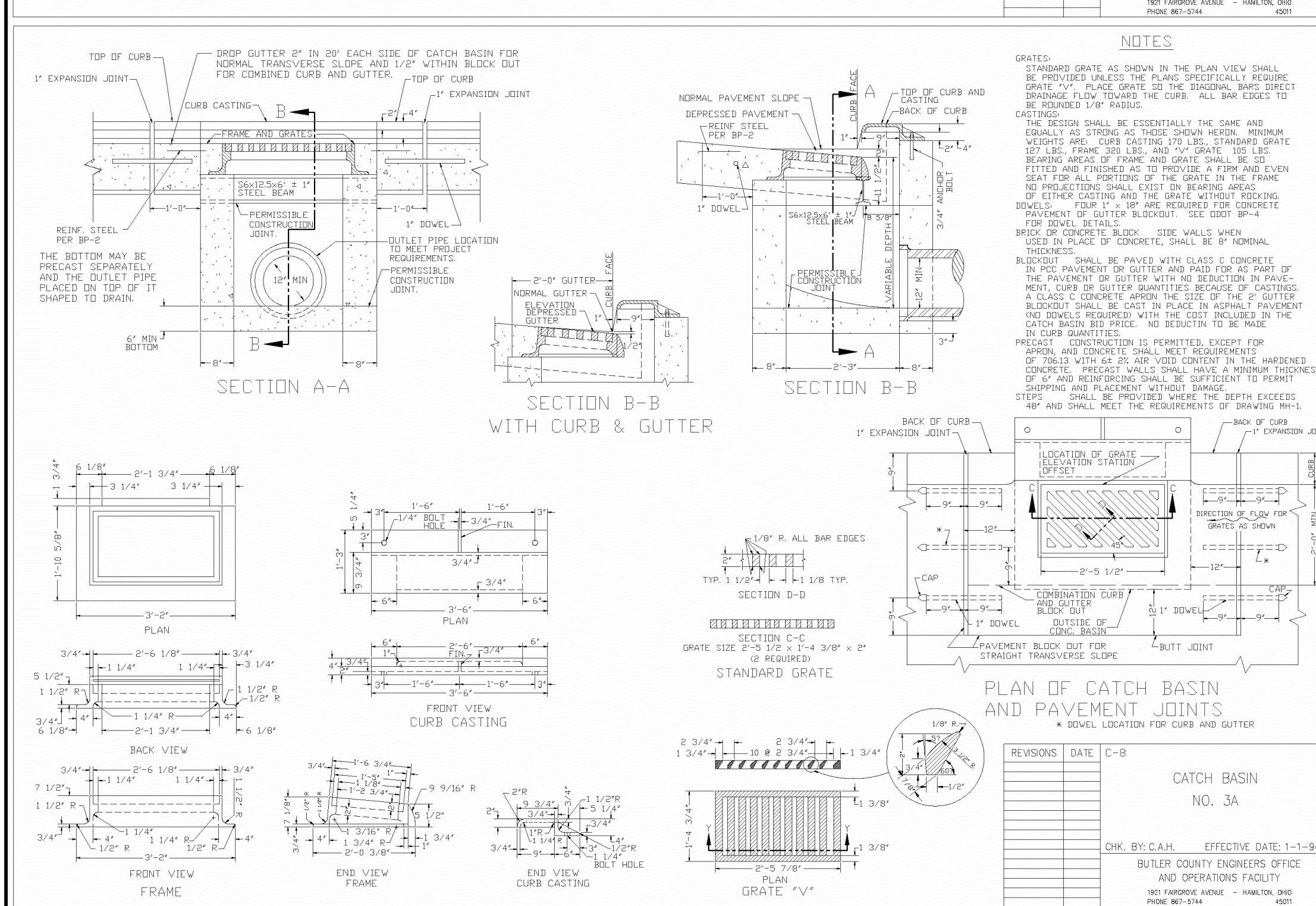
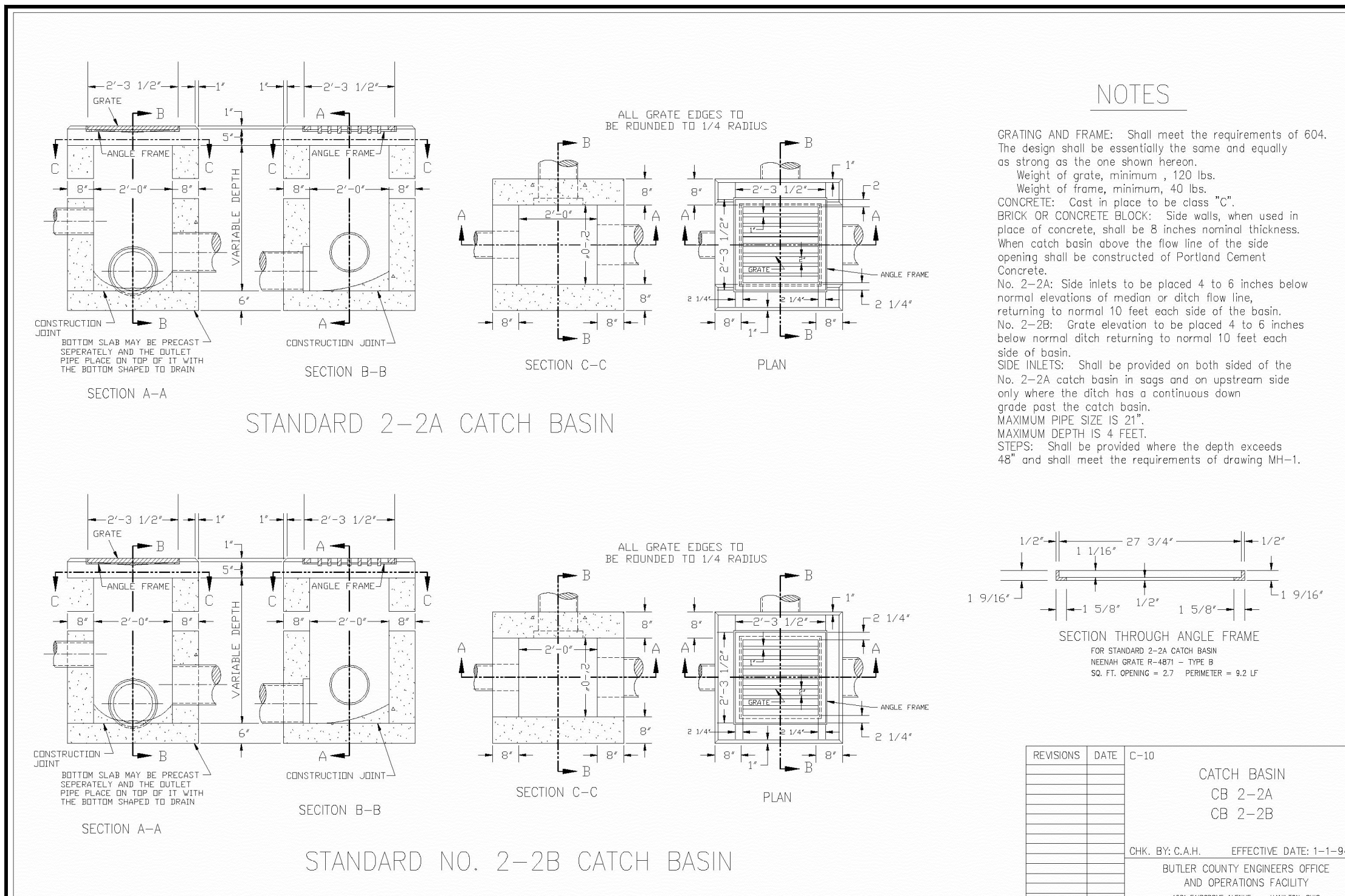
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| Proj. Mgr.      | JW              |
| Survey Database | N/A             |
| DWG             | 16619004-IMP-00 |
| X-Ref(s)        |                 |
| Project Number  | 16619.00        |
| File No.        | Sheet No. 5/8   |

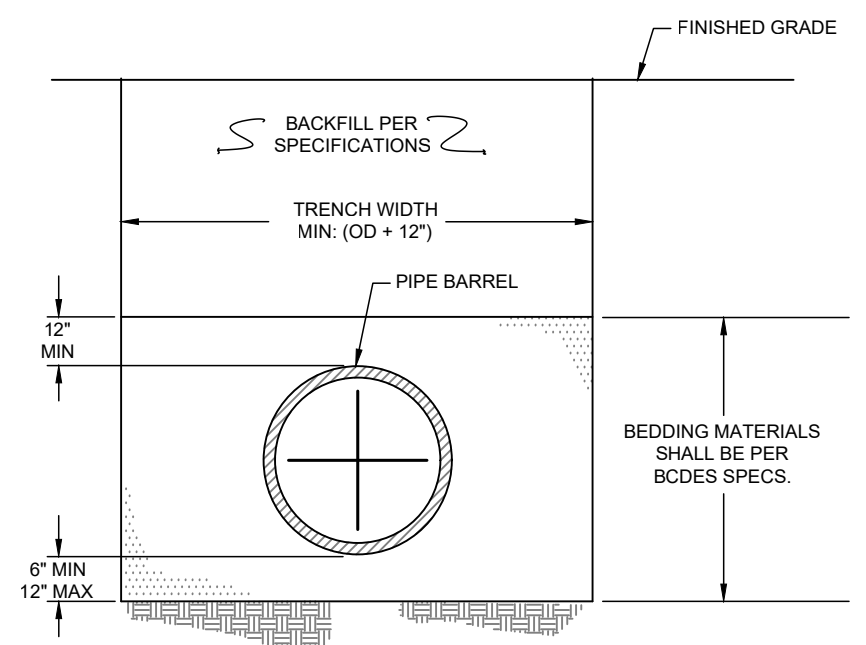
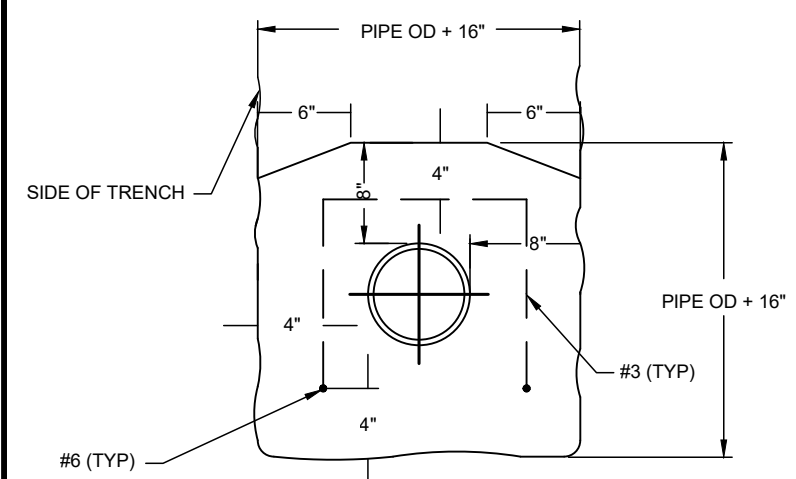
**MSP DESIGN**  
McGill Smith Punshon

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

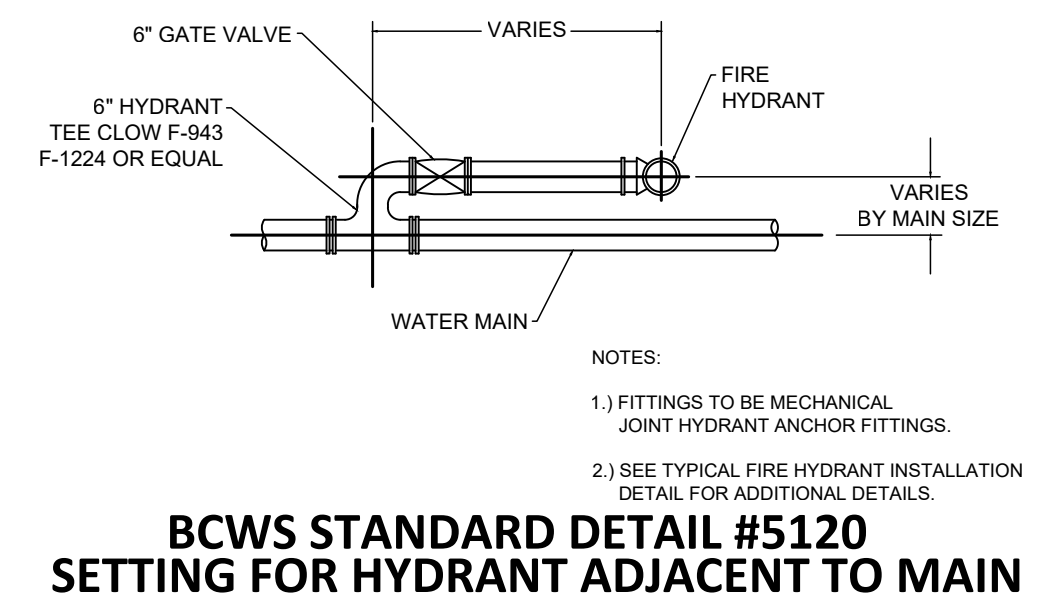
**OHIO Utilities Protection SERVICE**  
Call Before You Dig  
1-800-362-2764  
CALL TWO WORKING DAYS BEFORE YOU DIG  
(NON MEMBERS MUST BE CALLED DIRECTLY)

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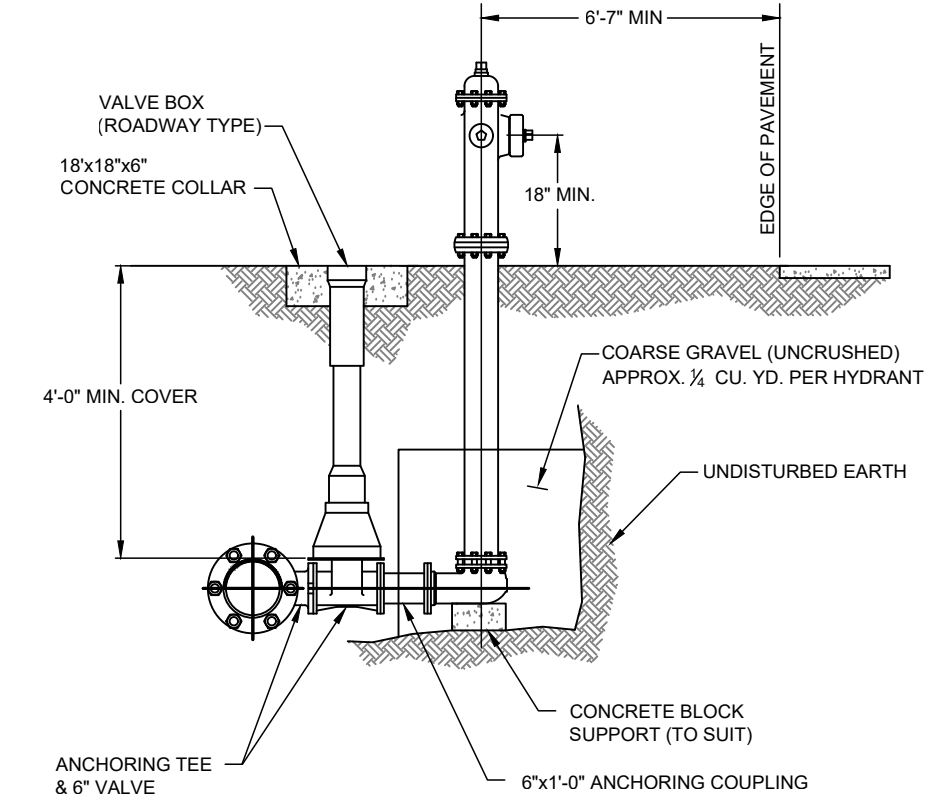




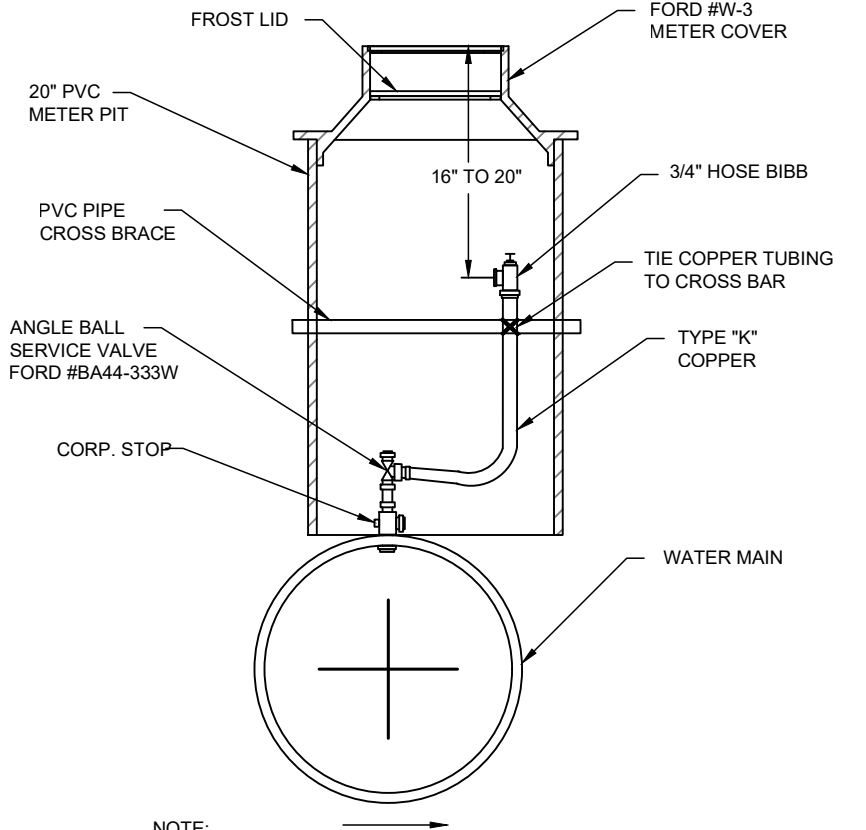
**BCWS STANDARD DETAIL #5280  
TYPICAL TRENCH DETAIL  
WATER MAIN INSTALLATION**



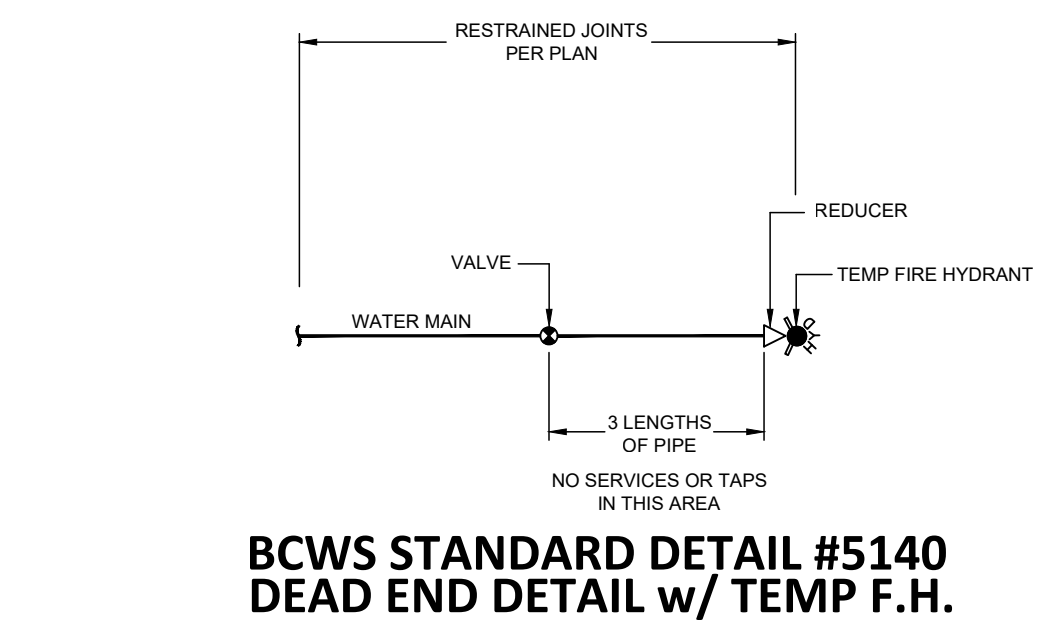
**BCWS STANDARD DETAIL #5120  
SETTING FOR HYDRANT ADJACENT TO MAIN**



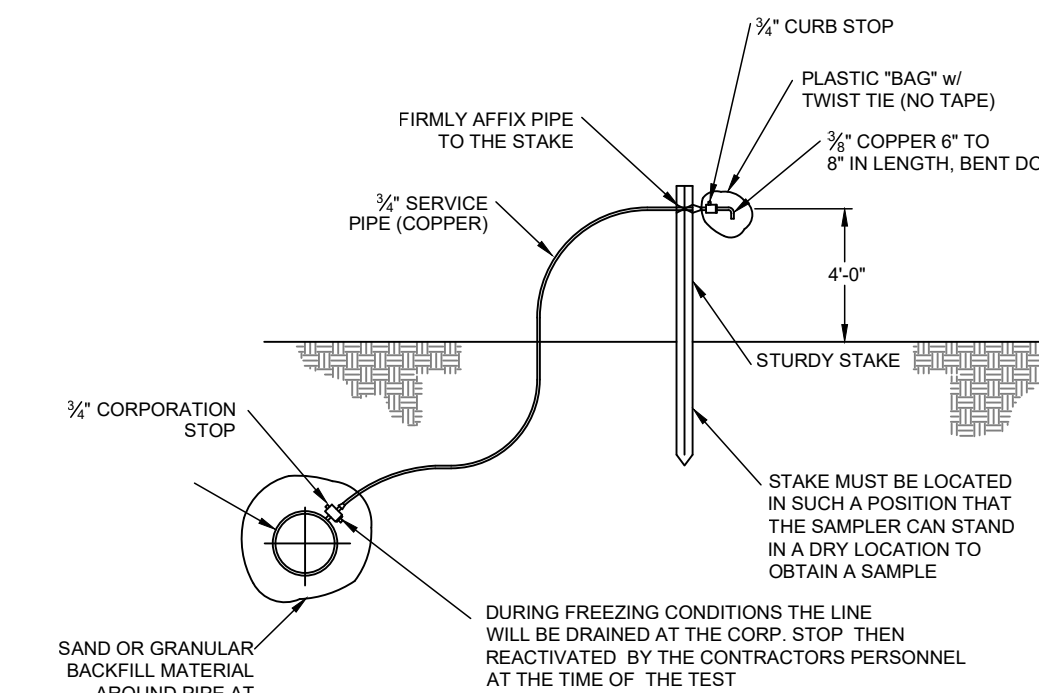
**BCWS STANDARD DETAIL #5110  
TYPICAL FIRE HYDRANT INSTALLATION**



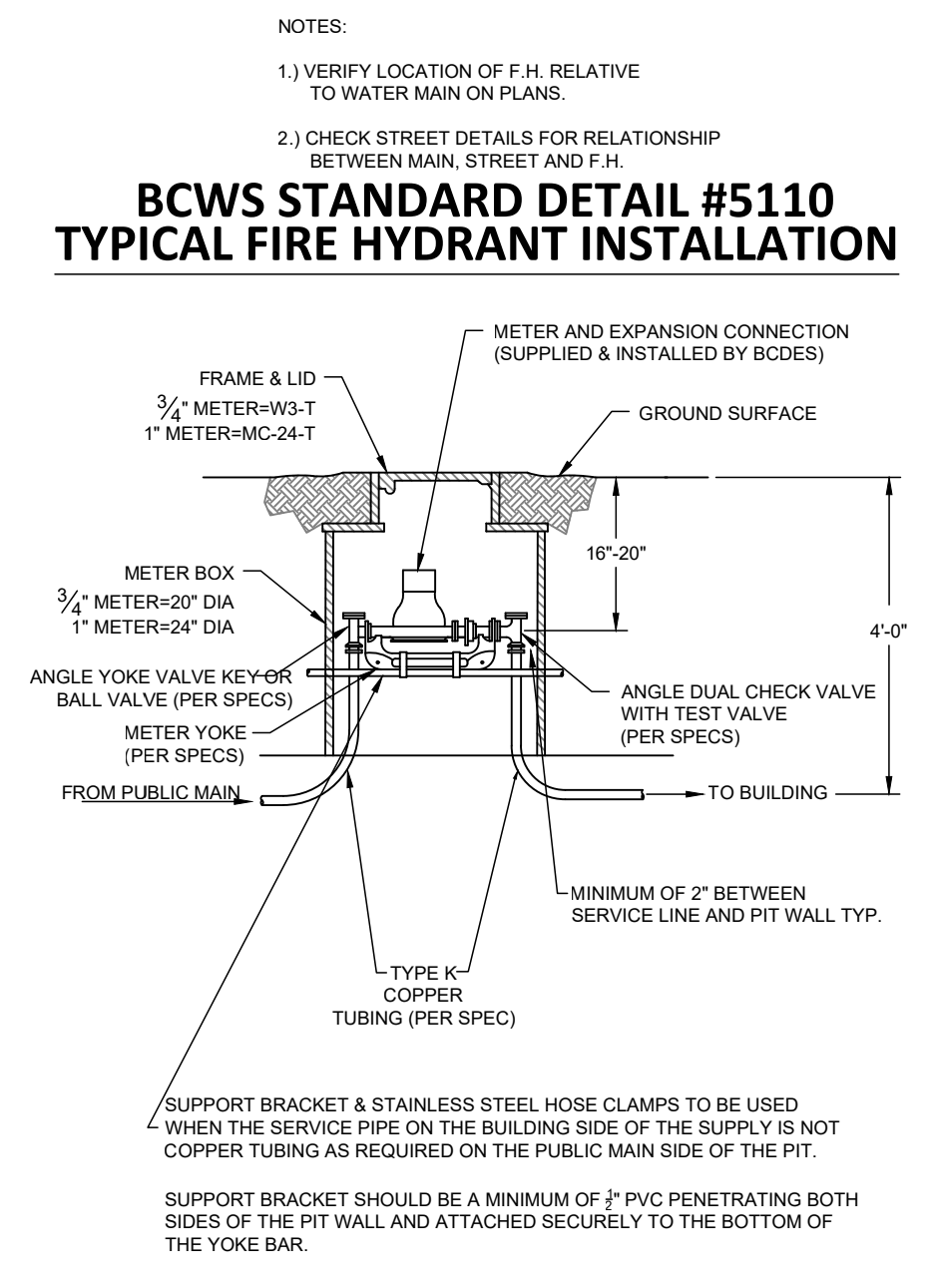
**BCWS STANDARD DETAIL #5290  
MANUAL AIR RELEASE VALVE**



**BCWS STANDARD DETAIL #5140  
DEAD END DETAIL W/ TEMP F.H.**



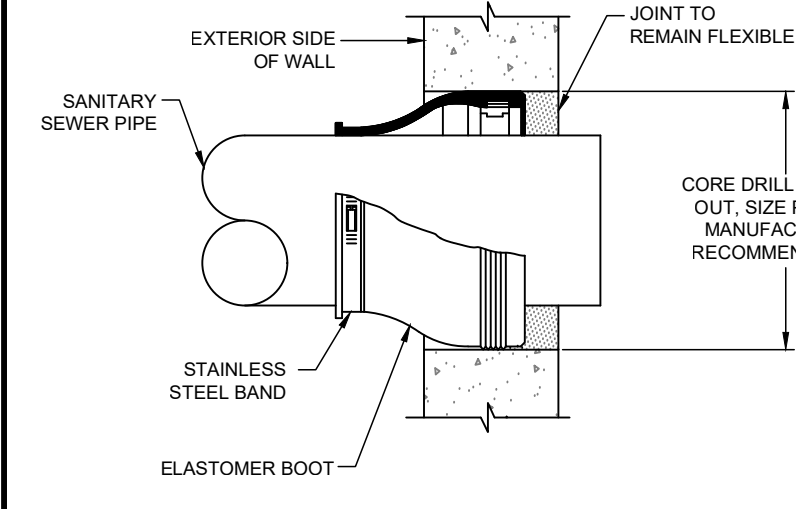
**BCWS STANDARD DETAIL #5260  
PURITY TEST STATION**



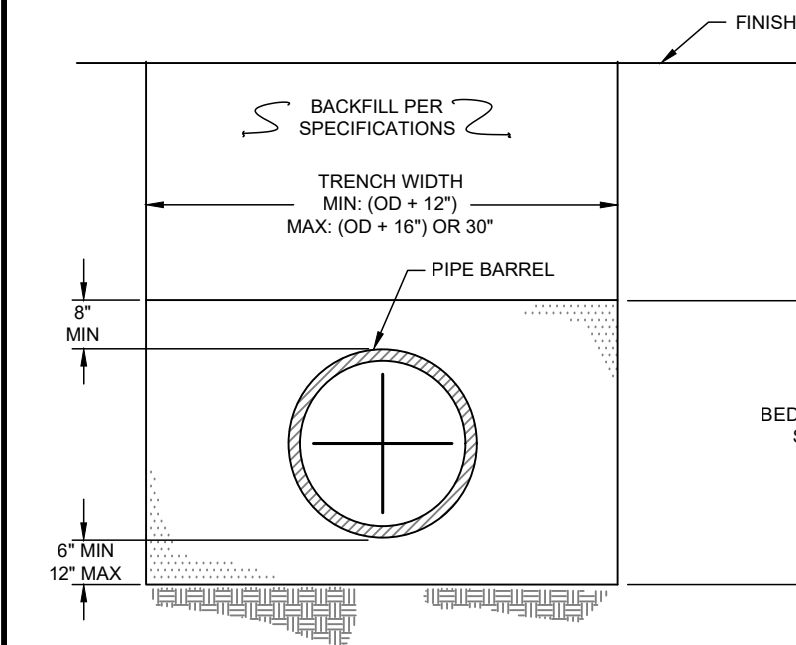
**BCWS STANDARD DETAIL #5150  
STANDARD INSTALLATION FOR  
3/4" AND 1" WATER METER SETTINGS**

| PIPE SIZE | CY CONC PER LIN FT | LENGTH OF NO 3 BARS | SPACING (FT) BETWEEN NO 3 BARS |
|-----------|--------------------|---------------------|--------------------------------|
| 6"        | 0.121              | 3'-9"               | 1.64                           |
| 8"        | 0.139              | 4'-0"               | 1.25                           |
| 10"       | 0.157              | 4'-9"               | 1.12                           |
| 12"       | 0.177              | 5'-3"               | 1.02                           |
| 16"       | 0.250              | 6'-3"               | 0.85                           |
| 18"       | 0.242              | 6'-10"              | 0.78                           |
| 20"       | 0.270              | 7'-5"               | 0.72                           |
| 24"       | 0.315              | 8'-6"               | 0.63                           |
| 30"       | 0.540              | 10'-0"              | 0.57                           |

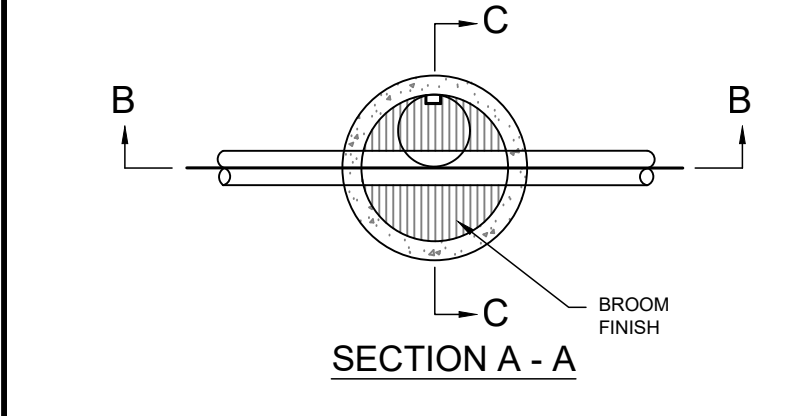
**BCWS STANDARD DETAIL #6240  
CONCRETE ENCASEMENT DETAIL**



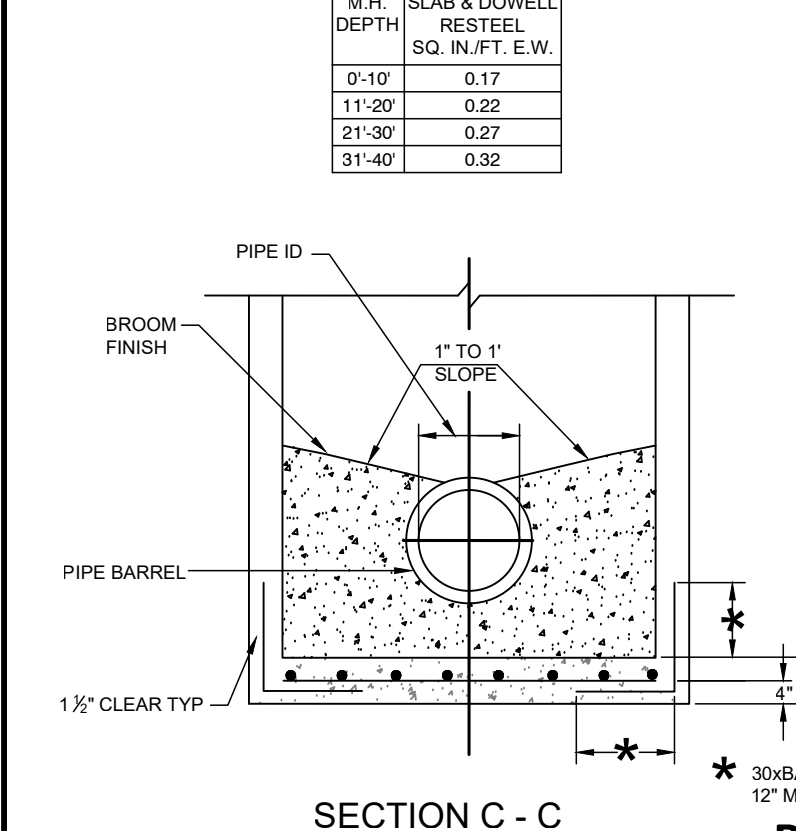
**BCWS STANDARD DETAIL #6150  
CONNECTION TO EXISTING MANHOLE**



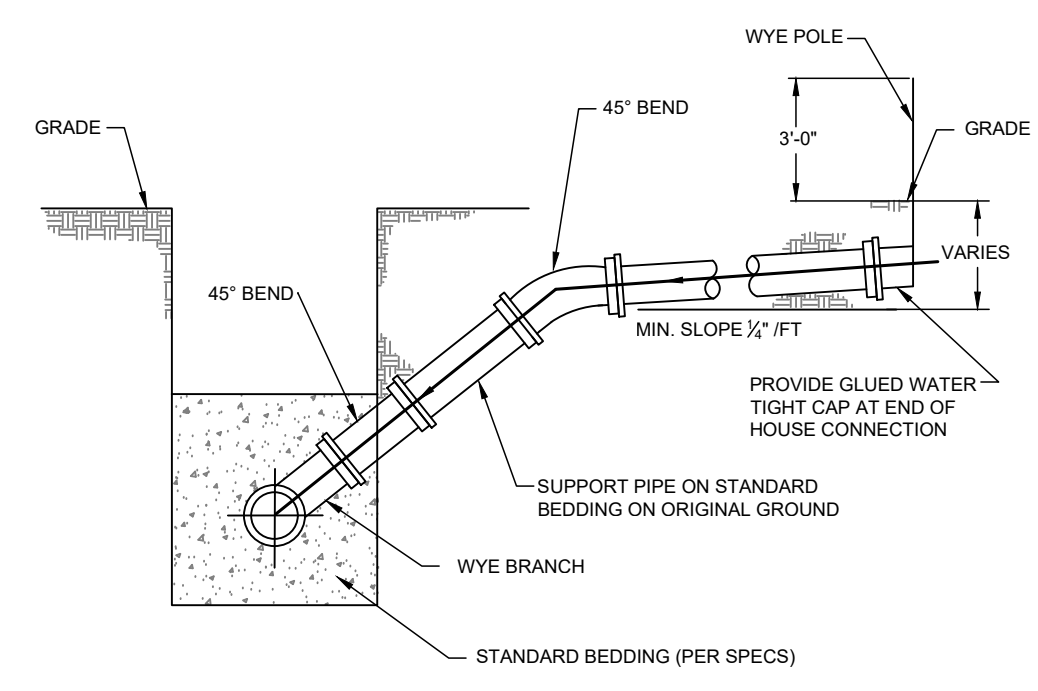
**BCWS STANDARD DETAIL #6270  
TYPICAL TRENCH DETAIL  
SEWER INSTALLATION**



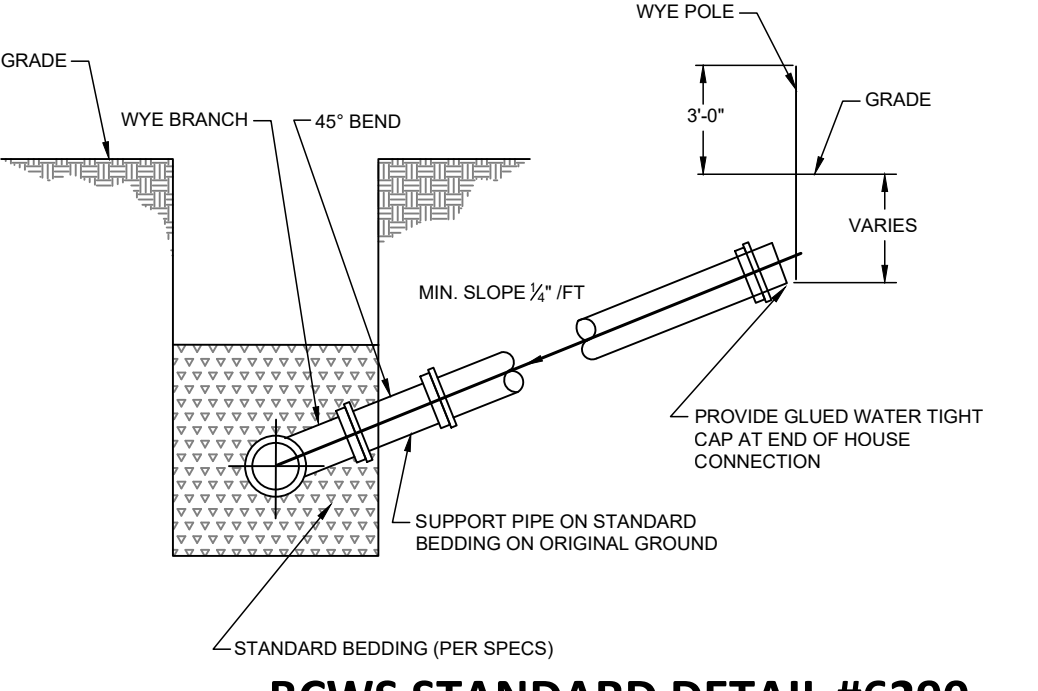
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STANDARD MANHOLE**



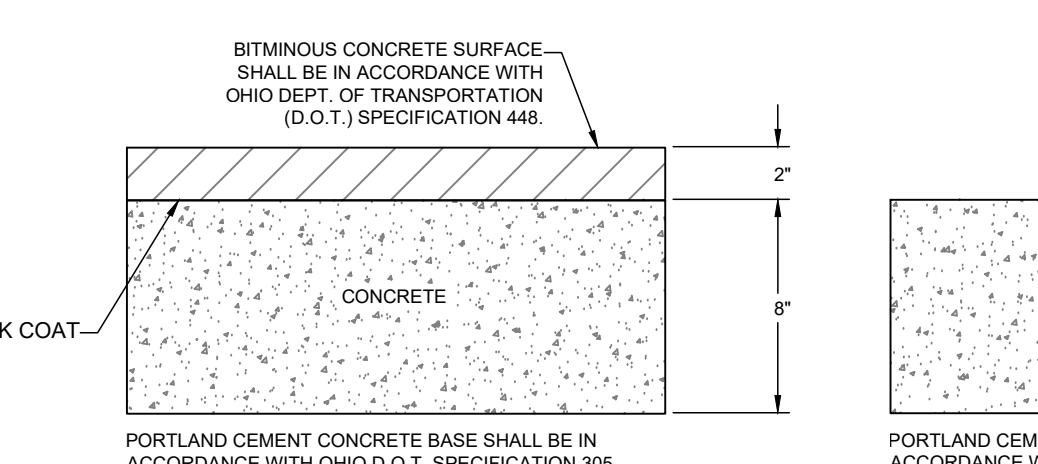
**BCWS STANDARD DETAIL #6130  
STANDARD CAST-IN-PLACE MANHOLE**



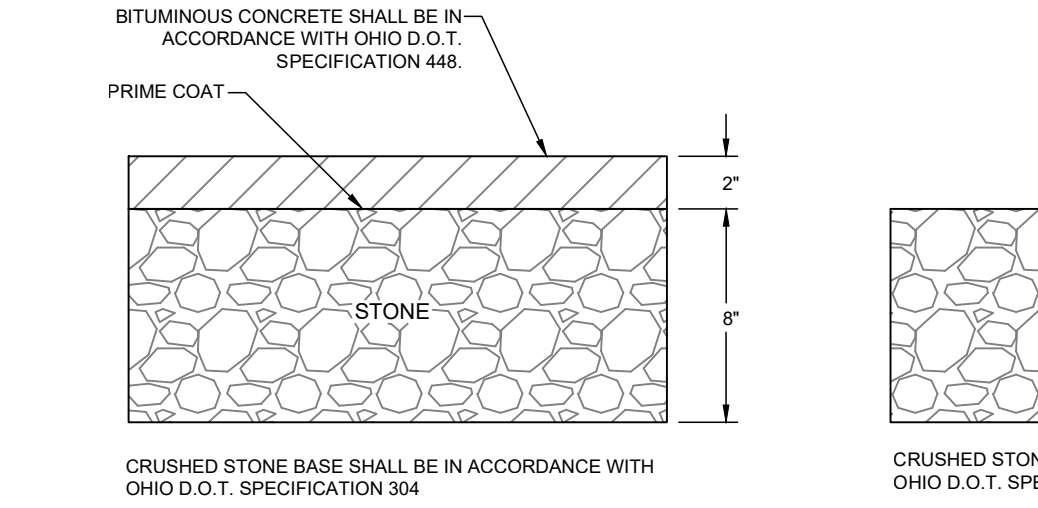
**BCWS STANDARD DETAIL #6280  
HOUSE CONNECTION FOR DEEP SEWER**



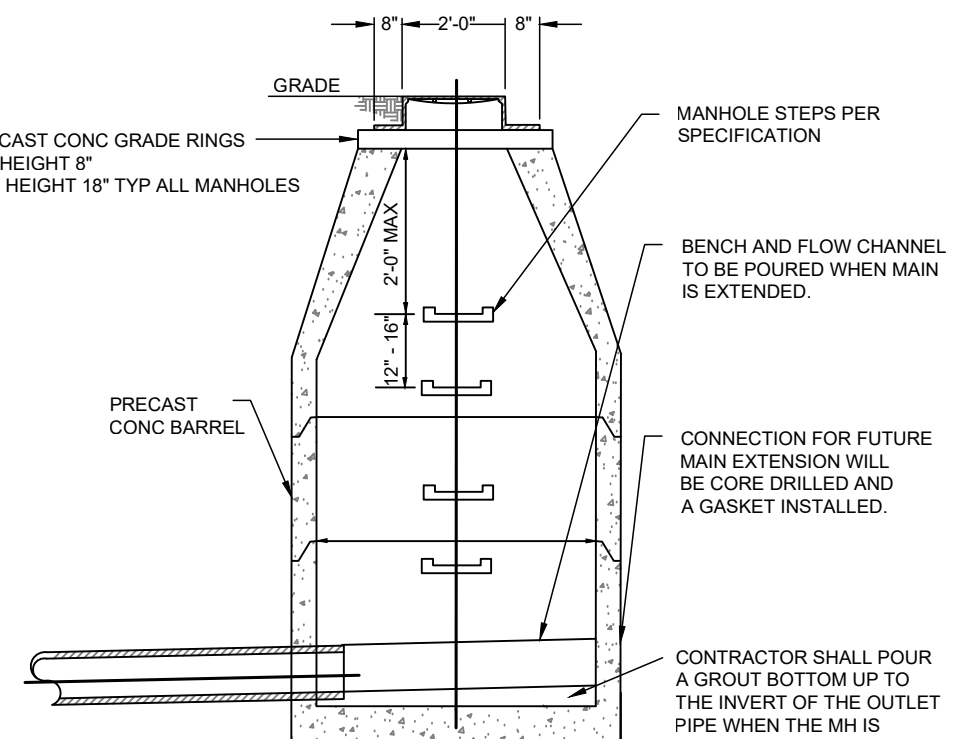
**BCWS STANDARD DETAIL #6290  
HOUSE CONNECTION FOR SHALLOW SEWER**



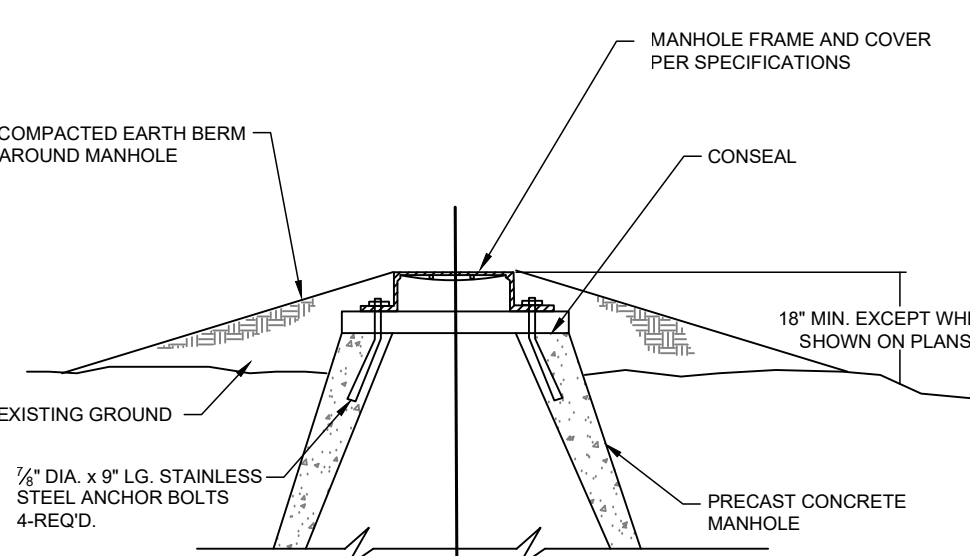
**BCWS STANDARD DETAIL #6170  
ELEVATED MANHOLE DETAIL**



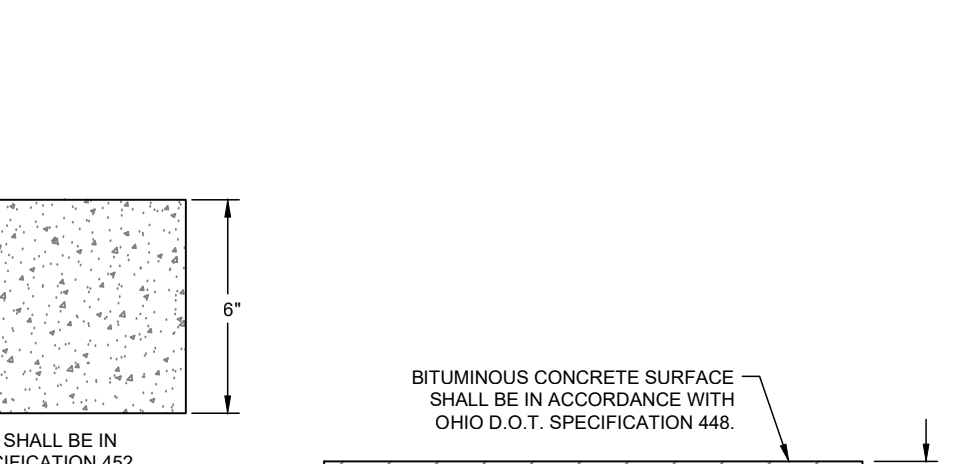
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PAVEMENT REPLACEMENT DETAILS**



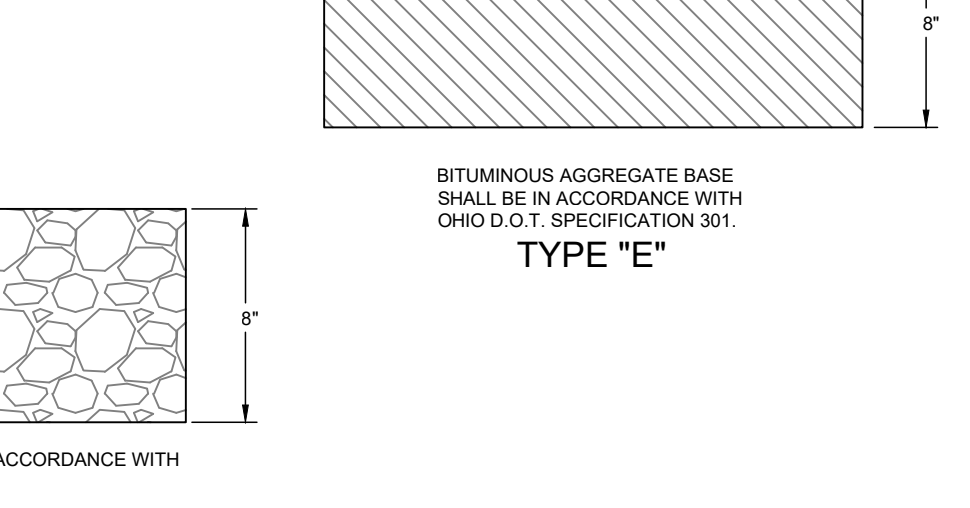
**BCWS STANDARD DETAIL #6190  
DEAD END MANHOLE**



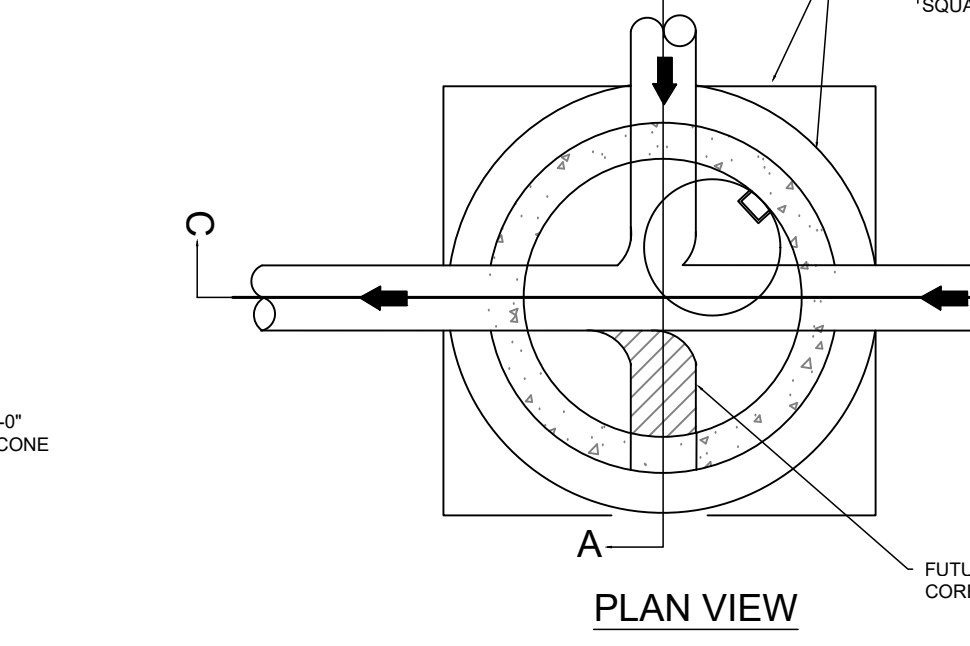
**BCWS STANDARD DETAIL #6170  
ELEVATED MANHOLE DETAIL**



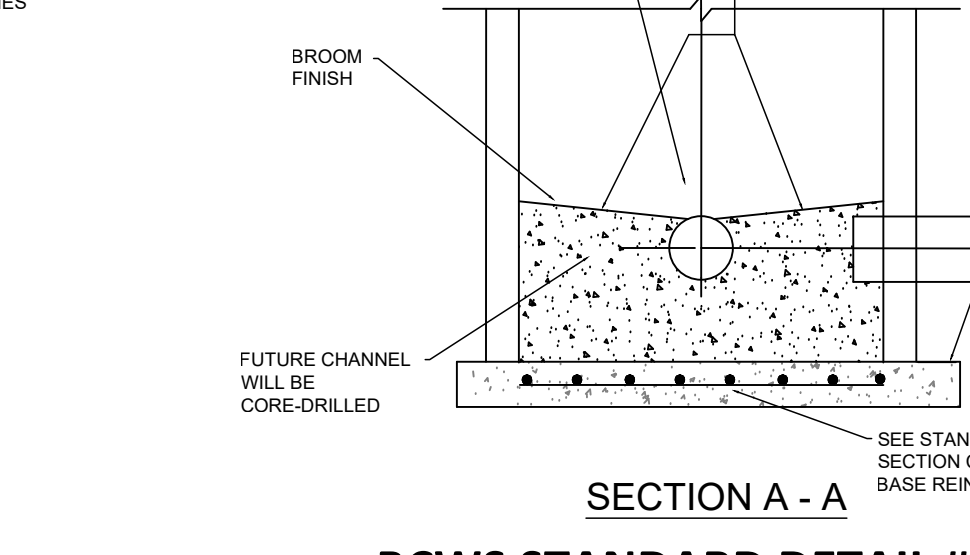
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STANDARD CAST-IN-PLACE MANHOLE**



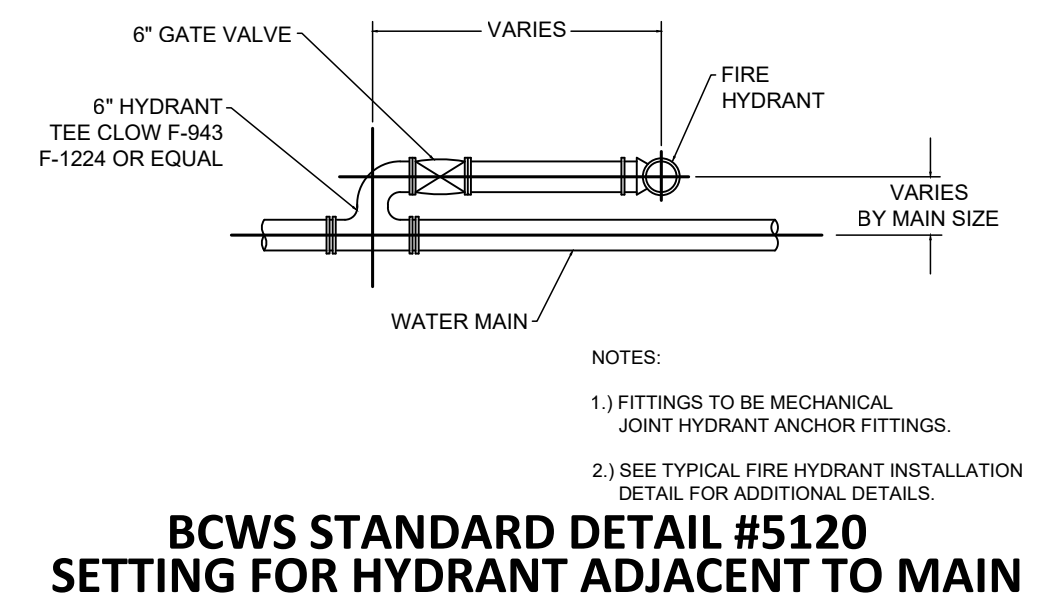
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STANDARD CAST-IN-PLACE MANHOLE**



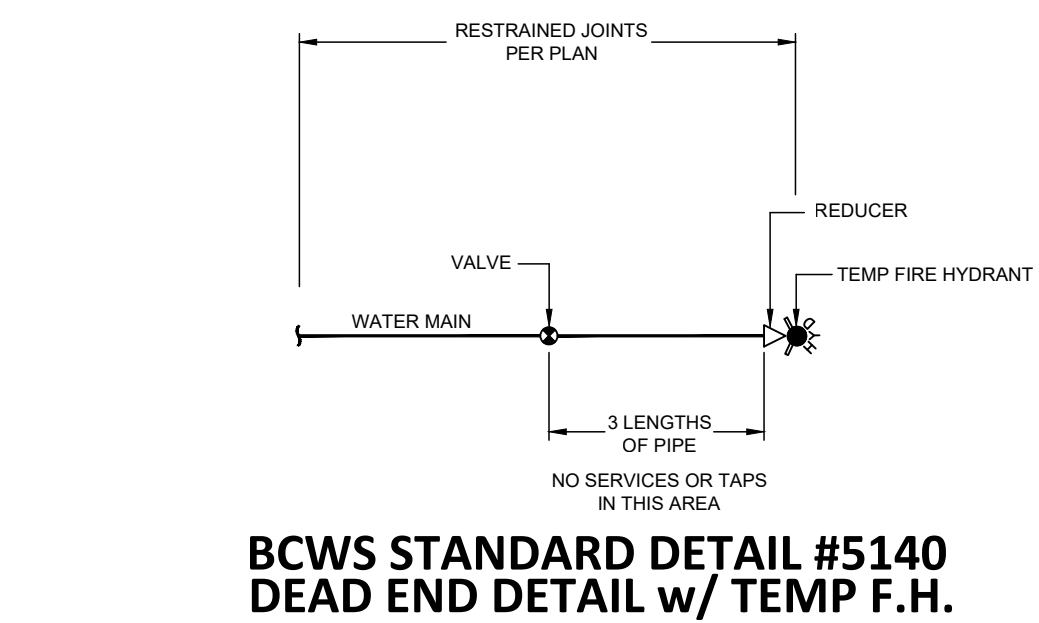
**BCWS STANDARD DETAIL #6130  
STANDARD CAST-IN-PLACE MANHOLE**



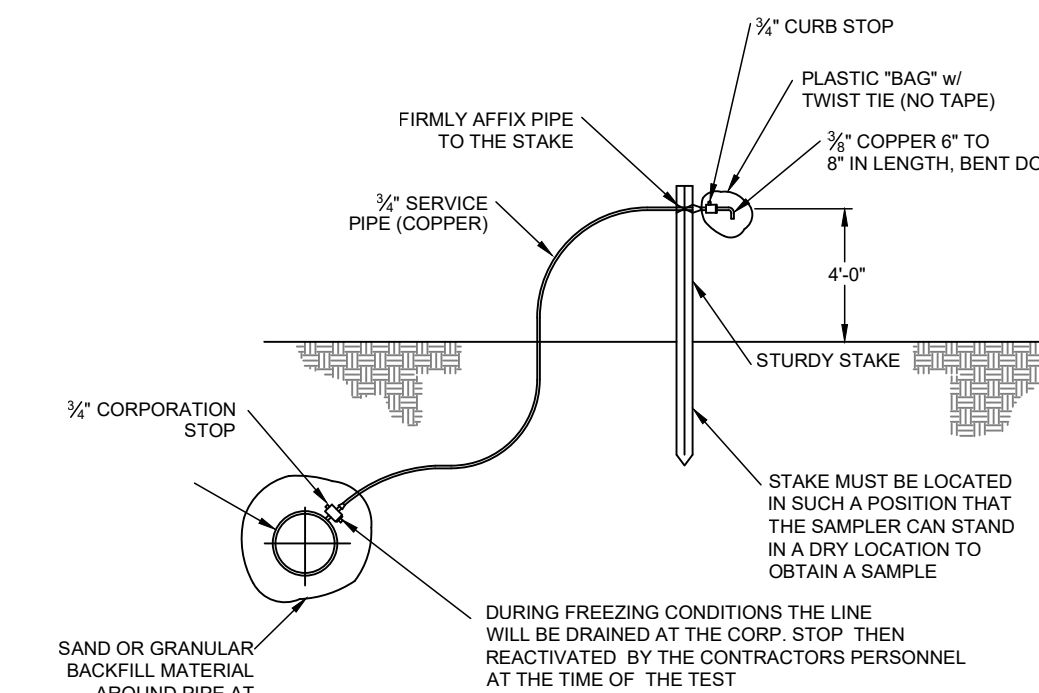
**BCWS STANDARD DETAIL #6130  
STANDARD CAST-IN-PLACE MANHOLE**



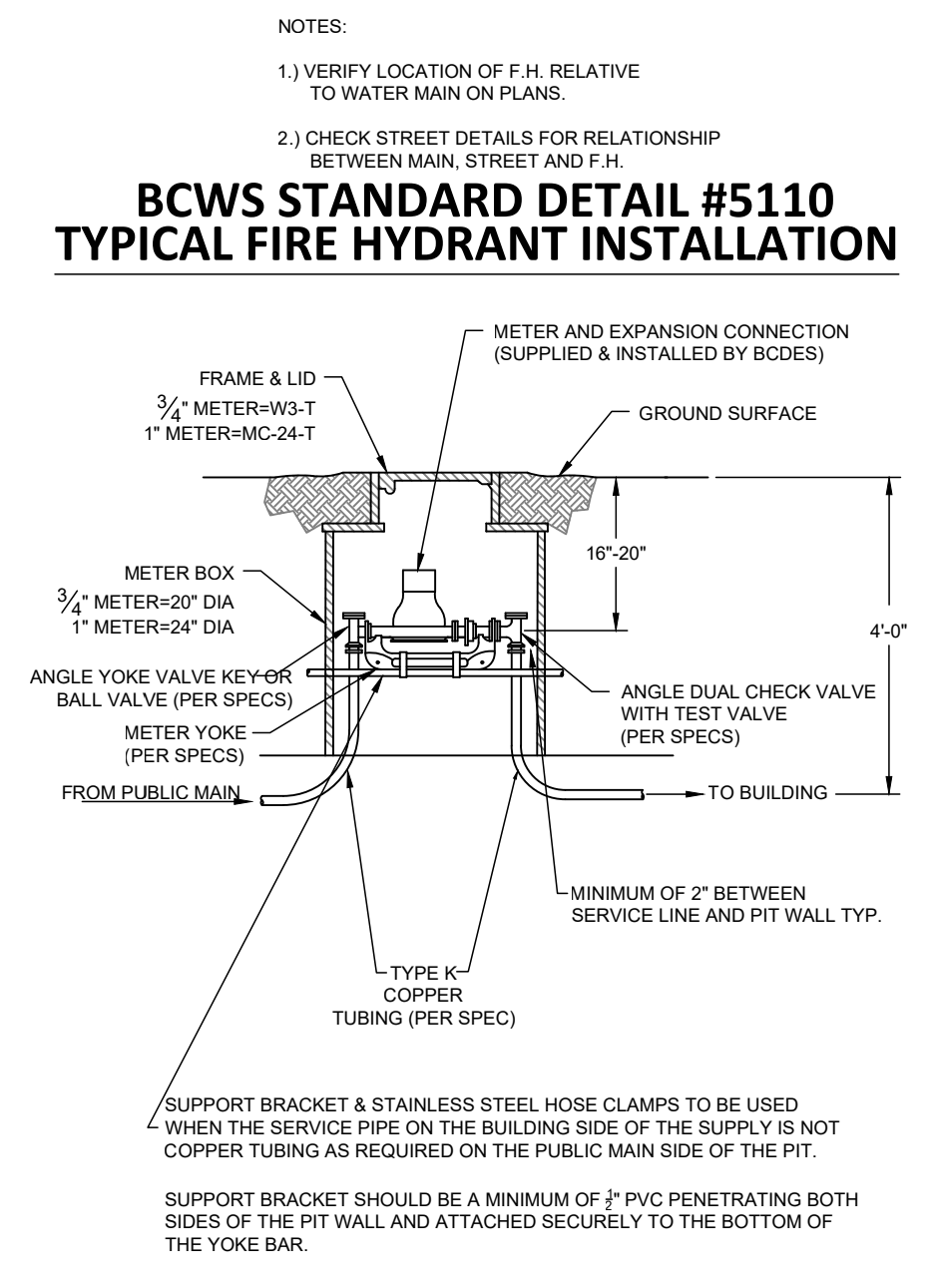
**BCWS STANDARD DETAIL #5120  
SETTING FOR HYDRANT ADJACENT TO MAIN**



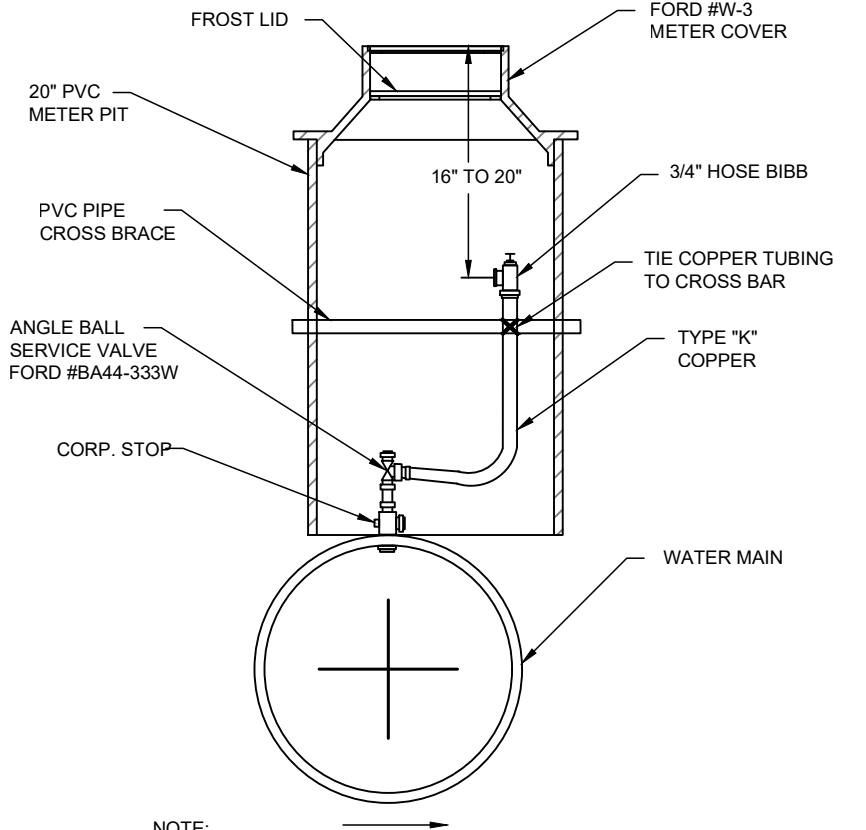
**BCWS STANDARD DETAIL #5140  
DEAD END DETAIL W/ TEMP F.H.**



**BCWS STANDARD DETAIL #5260  
PURITY TEST STATION**

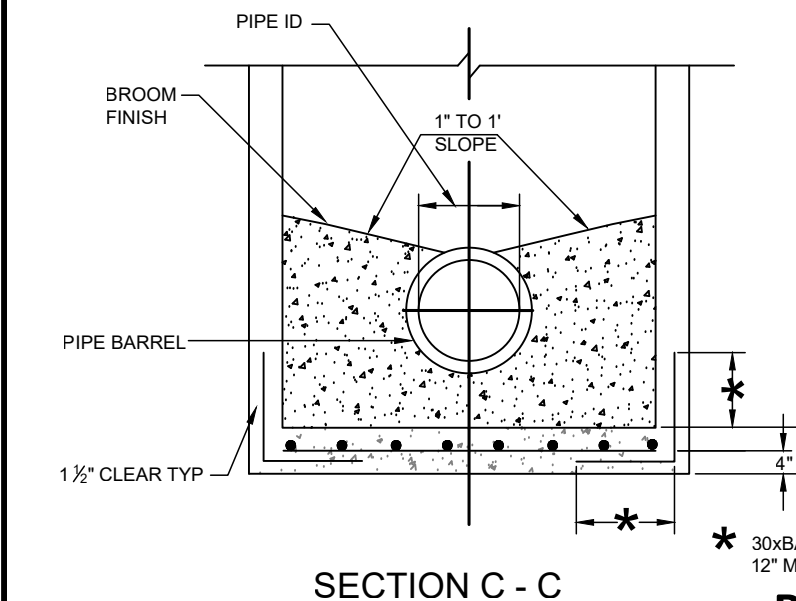


**BCWS STANDARD DETAIL #5150  
STANDARD INSTALLATION FOR  
3/4" AND 1" WATER METER SETTINGS**

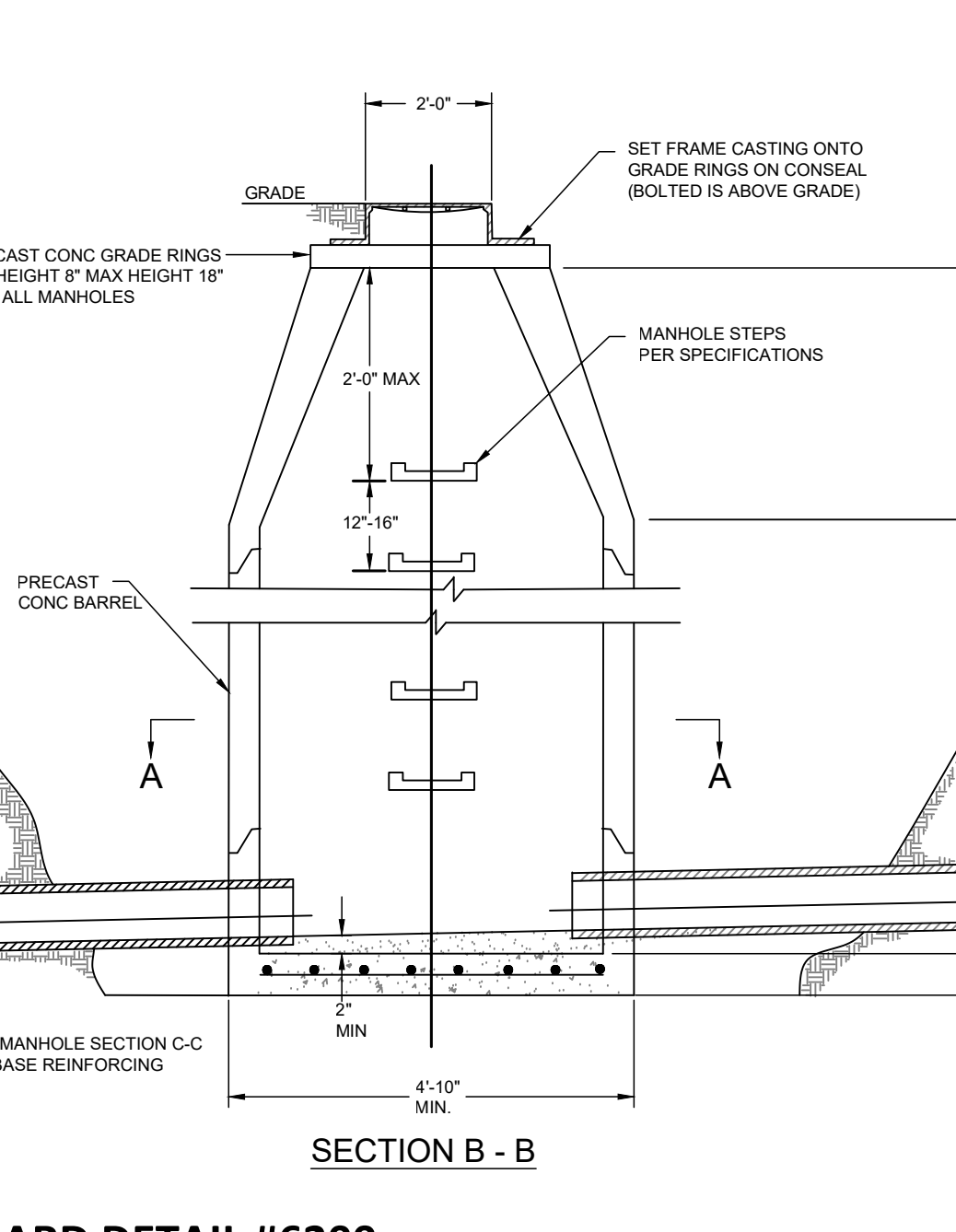


**BCWS STANDARD DETAIL #5290  
MANUAL AIR RELEASE VALVE**

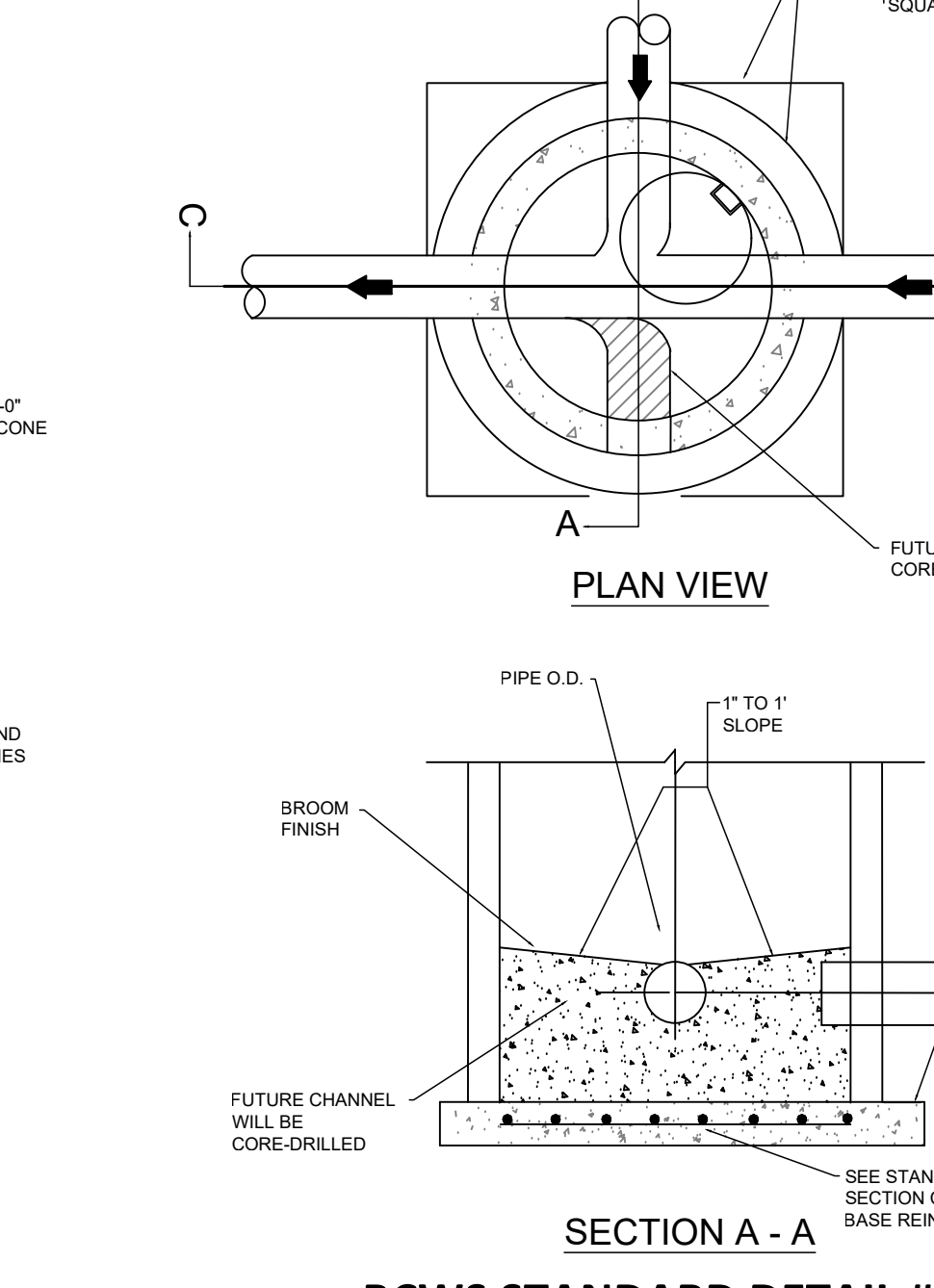
| M.H. DEPTH | SLAB & DOWELL RESTIES SQ. IN./FT. E.W. |
|------------|--|
| 0'-10"     | 0.17                                   |
| 1'-10"     | 0.22                                   |
| 2'-10"     | 0.27                                   |
| 3'-10"     | 0.32                                   |



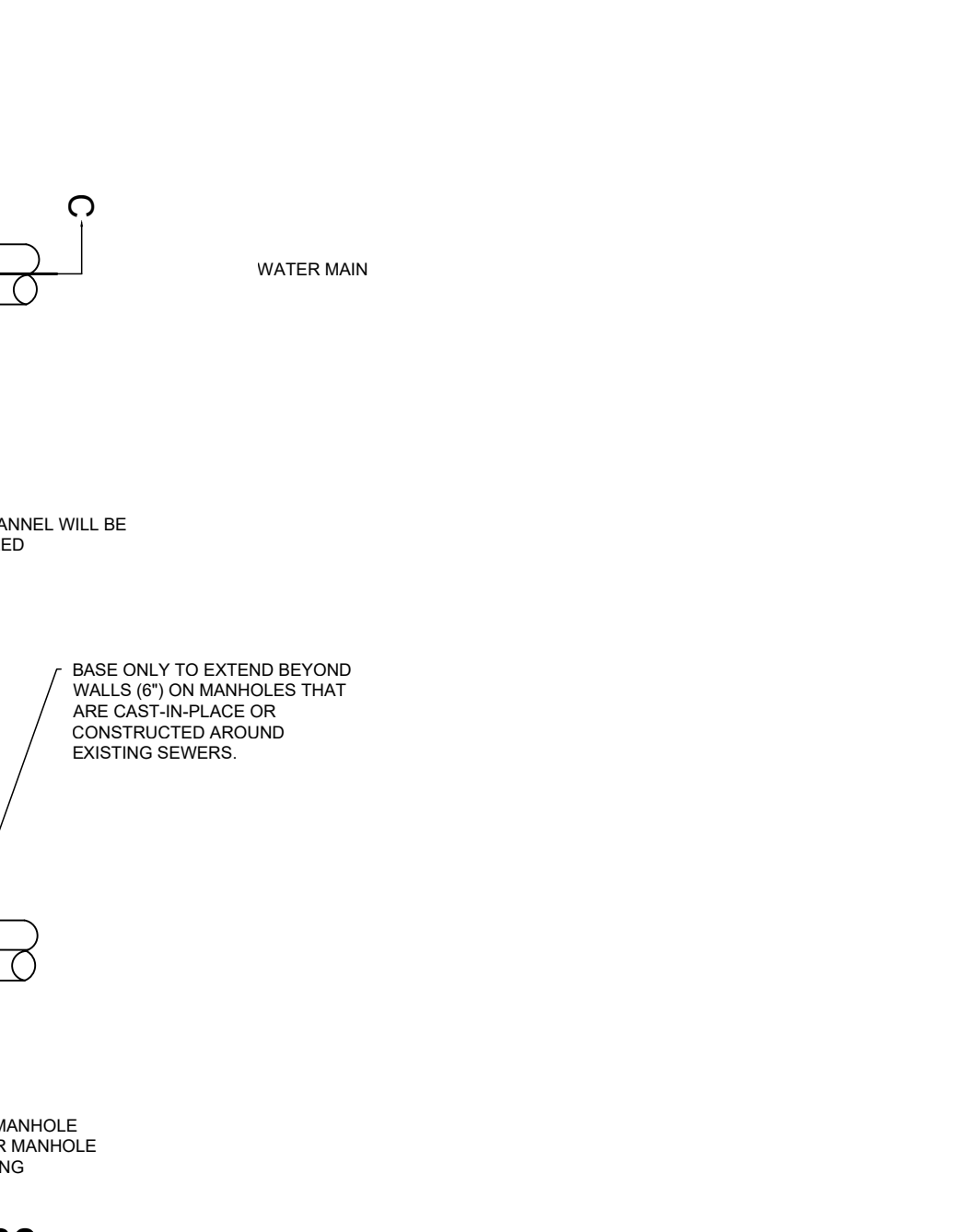
**BCWS STANDARD DETAIL #6200  
STANDARD MANHOLE**



**BCWS STANDARD DETAIL #6200  
STANDARD MANHOLE**



**BCWS STANDARD DETAIL #6130  
STANDARD CAST-IN-PLACE MANHOLE**



**BCWS STANDARD DETAIL #6130  
STANDARD CAST-IN-PLACE MANHOLE**

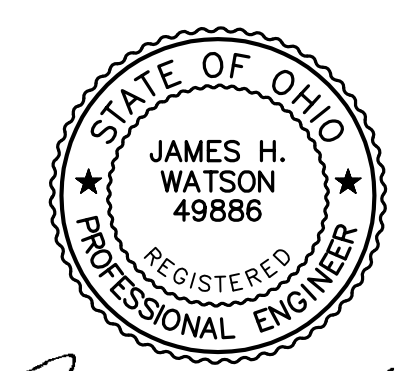


**BCWS STANDARD DETAIL #5150  
STANDARD INSTALLATION FOR  
3/4" AND 1" WATER METER SETTINGS**

NOTE:  
1) PIPE LESS THAN OR EQUAL TO 12" MUST USE 3/4" CORP. STOP, ANGLE BALL VALVE AND SERVICE PIPE.  
2) PIPE GREATER THAN 12" TO USE 1" CORP. STOP, ANGLE BALL VALVE AND SERVICE PIPE.

**BCWS STANDARD DETAIL #5290  
MANUAL AIR RELEASE VALVE**

**WESTVIEW MEADOWS  
PHASES 4 & 5**  
SECTION 9, TOWN 3, RANGE 2  
WEST CHESTER TOWNSHIP  
BUTLER COUNTY, OHIO  
STANDARD DETAILS



OHIO Utilities Protection SERVICE  
Call Before You Dig  
1-800-362-2764  
CALL TWO WORKING DAYS BEFORE YOU DIG (NON MEMBERS MUST BE CALLED DIRECTLY)

|                 |                 |
|-----------------|-----------------|
| Date            | 07/08/20        |
| Scale           | AS NOTED        |
| Drawn By        | BC              |
| Proj. Mgr.      | JW              |
| Survey Database | N/A             |
| DWG             | 16619004-DTL-00 |
| X-Ref(s)        |                 |
| Project Number  | 16619.00        |
| File No.        | Sheet No. 7/8   |



Architecture 3700 Park 42 Drive  
Engineering Suite 190B  
Landscape Architecture Cincinnati OH 45241  
Planning Phone 513.759.0004  
Surveying www.mspsdesign.com

Specifications for Permanent Seeding

SITE PREPARATION

1. A subsoiler, plow or other implement shall be used to reduce soil compaction and allow maximum infiltration. (Maximizing infiltration will help control runoff rate and water quality.) Subsoiling should be done when the soil moisture is low enough to allow the soil to crack or fracture. Subsoiling shall not be done on slip-prone areas where soil preparation should be limited to what is necessary for establishing vegetation.

2. The site shall be graded as needed to permit the use of conventional equipment for seeded preparation and seeding.

3. Resoil shall be applied where needed to establish vegetation.

SEEDBED PREPARATION

1. Lime-Agricultural ground limestone shall be applied to acid soil as recommended by a soil test. In lieu of a soil test, lime shall be applied at the rate of 100 lbs./1,000 sq. ft. or 2 tons/ac.

2. Fertilizer-Fertilizer shall be applied as recommended by a soil test. In lieu of a soil test, fertilizer shall be applied at a rate of 12 lb./1,000 sq. ft. or 500 lb./ac/ of 10-10-10 or 12-12-12 analysis.

3. The lime and fertilizer shall be worked into the soil with a disk harrow, spring-tooth harrow, or other suitable field implement to a depth of 3 in. On sloping land the soil shall be worked on the contour.

SEEDING DATES AND SOIL CONDITIONS

Seeding should be done March 1 to May 31 or Aug. 1 to September 30. These seeding dates are ideal but, with the use of additional mulch and irrigation, seedings may be made any time throughout the growing season. Tillage/seeded preparation should be done when the soil is dry enough to crumble and not form ribbons when compressed by hand. For winter seeding, see the following section on dormant seeding.

DORMANT SEEDINGS

1. Seedings shall not be planted from October 1 through November 20. During this period the seeds are likely to germinate, but probably will not be able to survive the winter.

2. The following methods may be used for "Dormant Seeding":

- From October 1 through November 20, prepare the seedbed, and the required amounts of lime and fertilizer, then mulch and anchor. After November 20, and before March 15, broadcast the selected seed mixture, mulch and anchor. Increase the seeding rates by 50% for this type of seeding.

- From November 20 through March 15, when soil conditions permit, prepare the seedbed, lime and fertilizer, apply the selected seed mixture, mulch and anchor. Increase the seeding rates by 50% for this type of seeding.

- Apply seed uniformly with a cyclone seeder, drill, cultipacker seeder, or hydro-seeder (slurry may include seed and fertilizer) on a firm, moist seedbed.

- Where feasible, except when a cultipacker type seeder is used, the seedbed should be firm following seeding operations with a cultipacker, roller or light drag. On sloping land, seeding operations should be on the contour where feasible.

MULCHING

1. Mulch material shall be applied immediately after seeding. Seedings made during optimum seeding dates and with favorable soil conditions and on very flat areas may not need mulch to achieve adequate stabilization. Dormant seeding shall be mulched.

| Seed Mix                  | Seeding Rate |                            | Notes:                        |
|---------------------------|--------------|----------------------------|-------------------------------|
|                           | lb./ac.      | lb./1,000 ft. <sup>2</sup> |                               |
| General Use               |              |                            |                               |
| Creeping Red Fescue       | 20-40        | 1/2-1                      |                               |
| Domestic Ryegrass         | 10-20        | 1/4-1/2                    |                               |
| Kentucky Bluegrass        | 10-20        | 1/4-1/2                    |                               |
| Tall Fescue               | 40           | 1                          |                               |
| Dwarf Fescue              | 40           | 1                          |                               |
| Steep Banks or Cut Slopes |              |                            |                               |
| Tall Fescue               | 40           | 1                          |                               |
| Crown Vetch               | 10           | 1/4                        | Do not seed later than August |
| Tall Fescue               | 20           | 1/2                        |                               |
| Flat Pea                  | 20           | 1/2                        | Do not seed later than August |
| Tall Fescue               | 20           | 1/2                        |                               |
| Road Ditches and Swales   |              |                            |                               |
| Tall Fescue               | 40           | 1                          |                               |
| Dwarf Fescue              | 90           | 2 1/4                      |                               |
| Kentucky Bluegrass        | 5            | 1                          |                               |
| Lawns                     |              |                            |                               |
| Kentucky Bluegrass        | 60           | 1 1/2                      |                               |
| Perennial Ryegrass        | 60           | 1 1/2                      |                               |
| Kentucky Bluegrass        | 60           | 1 1/2                      | For shaded areas              |
| Creeping Red Fescue       | 60           | 1 1/2                      |                               |

Note: Other approved seed species may be substituted.

Specifications for Permanent Seeding

1. Permanent seeding shall not be considered established for at least 1 full year from time of planting. Seeded areas shall be inspected for failure and reestablishment as needed. Depending on site conditions, it may be necessary to irrigate, fertilize, overseed, or reestablish plantings in order to provide permanent vegetation for adequate erosion control.

| Mixture   | Formula  | lb./ac. | lb./1,000 ft. <sup>2</sup> | Time   | Mowing             |
|---|----------|---------|----------------------------|--|--------------------|
| Creeping Red Fescue<br>Ryegrass<br>Kentucky Bluegrass | 10-10-10 | 500     | 12                         |  | Not closer than 3" |
| Tall Fescue   | 10-10-10 | 500     | 12                         | Fall, yearly or as needed.   | Not closer than 4" |
| Dwarf Fescue  | 10-10-10 | 500     | 12                         |  | Not closer than 2" |
| Crown Vetch<br>Fescue                                 | 0-20-20  | 400     | 10                         | Spring, yearly following establishment and every 4-7 yr. thereafter. | Do not mow         |
| Flat Pea<br>Fescue                                    | 0-20-20  | 400     | 10                         |  | Do not mow         |

Note: Following soil test recommendations is preferred to fertilizer rates shown above.

Specifications for Temporary Seeding

| Seeding Dates                | Species            | lb./1,000 ft. <sup>2</sup> | Per Ac.  |
|------------------------------|--------------------|----------------------------|----------|
| March 1 to August 15         | Oats               | 3                          | 4 bushel |
|                              | Tall Fescue        | 1                          | 40 lb.   |
|                              | Annual Ryegrass    | 1                          | 40 lb.   |
| August 16 to November 1      | Perennial Ryegrass | 1                          | 40 lb.   |
|                              | Tall Fescue        | 1                          | 40 lb.   |
|                              | Annual Ryegrass    | 1                          | 40 lb.   |
| November 1 to Spring Seeding | Rye                | 3                          | 2 bushel |
|                              | Tall Fescue        | 1                          | 40 lb.   |
|                              | Annual Ryegrass    | 1                          | 40 lb.   |
| November 1 to Spring Seeding | Wheat              | 3                          | 2 bushel |
|                              | Tall Fescue        | 1                          | 40 lb.   |
|                              | Annual Ryegrass    | 1                          | 40 lb.   |
| November 1 to Spring Seeding | Perennial Ryegrass | 1                          | 40 lb.   |
|                              | Tall Fescue        | 1                          | 40 lb.   |
|                              | Annual Ryegrass    | 1                          | 40 lb.   |

Note: Other approved seed species may be substituted.

IRRIGATION

1. Permanent seeding shall include irrigation to establish vegetation during dry or hot weather or on adverse site conditions as needed for adequate moisture for seed germination and plant growth.

2. Excessive irrigation rates shall be avoided and irrigation monitored to prevent erosion and damage from runoff.

3. The seedbed should be pulverized and loose to ensure the success of establishing vegetation. However, temporary seeding shall not be postponed if ideal seedbed preparation is not possible.

4. Soil Amendments-Applications of temporary vegetation shall establish adequate stands of vegetation that may require the use of soil amendments. Soil tests should be taken on the site to predict the need for lime and fertilizer.

5. Seeding Method-Seed shall be applied uniformly with a cyclone seeder, drill, cultipacker seeder, or hydro-seeder. When feasible, seed that has been broadcast shall be covered by raking and dragging and then lightly tamped into place using a roller or cultipacker. If hydro-seeding is used, the seed and fertilizer will be mixed on site and the seeding shall be done immediately and without interruption.

MULCHING TEMPORARY SEEDING

1. Applications of temporary seeding shall include mulch that shall be applied during or immediately after seeding. Seedings made during optimum seeding dates and with favorable soil conditions and on very flat areas may not need mulch to achieve adequate stabilization.

2. Materials:

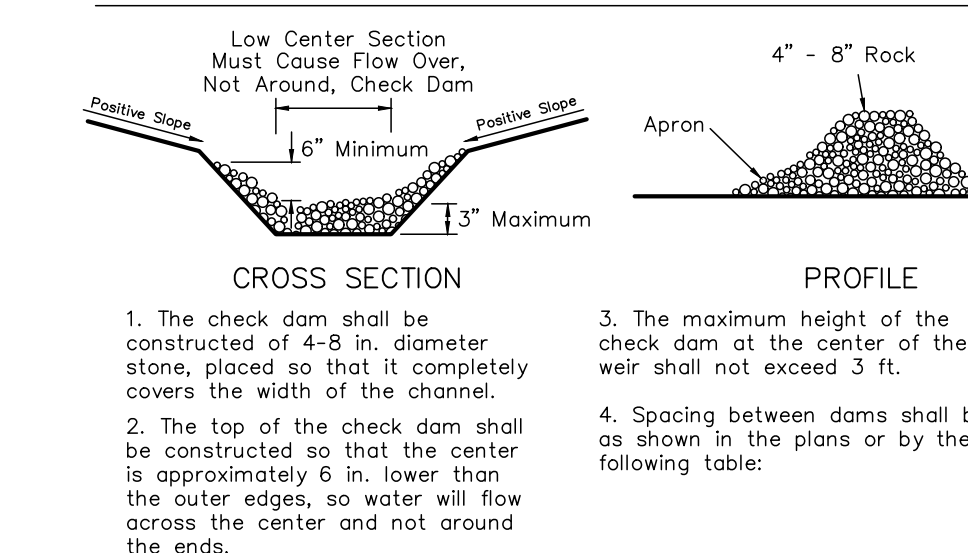
- Straw-If straw is used, it shall be unrotted small-grain straw applied at the rate of 2 tons/ac. or 90 lb./1,000 sq. ft. (two to three bales). The mulch shall be spread uniformly by hand or mechanically so the soil surface is covered. For uniform distribution of hand-spread mulch, divide area into approximately 1,000 sq. ft. sections and spread two 45 lb. bales of straw in each section.
- Hydroseeders-If wood cellulose fiber is used, it shall be used at 2,000 lb./ac/ or 46 lb./1,000 sq. ft.
- Other-Other acceptable mulches include mulch matings applied according to manufacturer's recommendations or wood chips applied at 6 tons/ac.

3. Straw Mulch Anchoring Methods

Straw mulch shall be anchored immediately to minimize loss by wind or water.

- Mechanical-A disk, crimper, or similar type tool shall be set straight to punch or anchor the mulch material into the soil. Straw mechanically anchored shall not be finely chopped but, generally, be left longer than 6 in.
- Mulch Nettings-Netting shall be used according to the manufacturer's recommendations. Netting may be necessary to hold mulch in place in areas of concentrated runoff and on critical slopes.
- Asphalt Emulsion-Asphalt shall be applied as recommended by the manufacturer or at the rate of 160 gal./ac.
- Synthetic Binders-Synthetic binders such as Acrylic DLR (Aqui-Tac), DCA-70, Petroset, Terra Tack or equivalent may be used at rates recommended by manufacturer.
- Wood Cellulose Fiber-Wood cellulose fiber binder shall be applied at a net dry weight of 750 lb./ac. The wood cellulose fiber shall be mixed with water and the mixture shall contain a maximum of 50 lbs./100 gal.

Specifications for Check Dam



| Check Dam Spacing | Channel Slope    |         |         |           |          |
|-------------------|------------------|---------|---------|-----------|----------|
|                   | Dam Height (ft.) | < 5%    | 5 - 10% | 10 - 15 % | 15 - 20% |
| 1                 | 65 ft.           | 30 ft.  | 20 ft.  | 15 ft.    |          |
| 2                 | 130 ft.          | 65 ft.  | 40 ft.  | 30 ft.    |          |
| 3                 | 200 ft.          | 100 ft. | 65 ft.  | 50 ft.    |          |

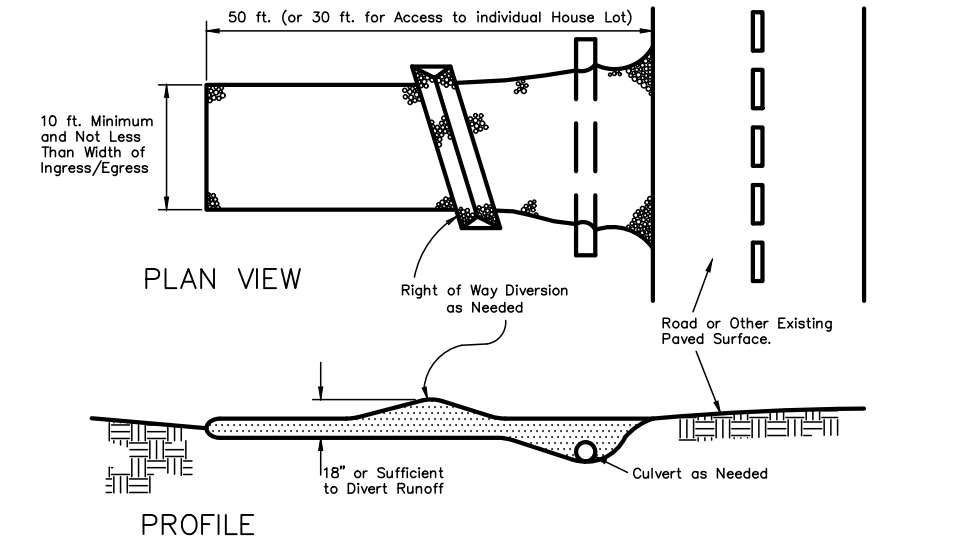
Specifications for Mulching

1. Mulch and/or other appropriate vegetative practices shall be applied to disturbed areas within 7 days of grading if the area is to remain dormant (undisturbed) for more than 45 days or on areas and portions of the site which can be brought to final grade.

2. Mulch shall consist of one of the following:

- Straw-Straw shall be unrotted small-grain straw applied at the rate of 2 tons/ac. or 90 lbs./1,000 sq. ft. (two to three bales). The mulch shall be spread uniformly by hand or mechanically so the soil surface is covered. For uniform distribution of hand-spread mulch, divide area into approximately 1,000 sq. ft. sections and spread two 45 lb. bales of straw in each section.
- Hydroseeders-Wood cellulose fiber should be used at 2,000 lb./ac. or 46 lbs./1,000 sq. ft.
- Other-Other acceptable mulches include mulch matting applied according to manufacturer's recommendations or wood chips applied at 10-20 tons/ac.
- Mulch Anchoring-Mulch shall be anchored immediately to minimize loss by wind or runoff. The following are accepted methods for anchoring mulch:
  - Mechanical-Use a disk, crimper, or similar type tool set straight to punch or anchor the mulch material into the soil. Straw mechanically anchored shall not be finely chopped but generally be left longer than 6 in.
  - Mulch Nettings-Use according to the manufacturer's recommendations, following all placement and anchoring suggestions. Use in areas of water concentration and steep slopes to hold mulch in place.
  - Asphalt Emulsion-For straw mulch, apply at the rate of 160 gal./ac. (0.1 gal./sq) into the soil as it is being applied or as recommended by the manufacturer.
  - Synthetic Binders-For straw mulch, synthetic binders such as acrylic DLR (Aqui-Tac), DCA-70, Petroset, Terra Tack or equivalent may be used at rates recommended by manufacturer.
  - Wood Cellulose Fiber-Wood cellulose fiber may be used for anchoring straw. The fiber binder shall be applied at a net dry weight of 750 lb./acre. The wood cellulose fiber shall be mixed with water and the mixture shall contain a maximum of 50 lbs./100 gal.

Specifications for Construction Entrance



1. Stone Size-Two-inch stone shall be used, or recycled concrete equivalent.

2. Length-The construction entrance shall be as long as required to stabilize high traffic areas but not less than 50 ft. (except on single residence lot where a 30-ft. minimum length applies).

3. Thickness-The stone layer shall be at least 6 in. thick.

4. Width-The entrance shall be at least 10 ft. wide, but not less than the full width at points where ingress or egress occurs.

5. Bedding-A geotextile shall be placed over the entire area prior to placing stone. It shall have a Grab Tensile Strength of at least 200 lb. and a Mullen Burst Strength of at least 190 lbs.

6. Culvert-A pipe or culvert shall be constructed under the entrance if needed to prevent surface water flowing across the entrance from being directed out onto paved surfaces.

7. Water Bar-A water bar shall be constructed as part of the construction entrance if needed to prevent surface runoff from flowing the length of the construction entrance and out onto paved surfaces.

8. Maintenance-Top dressing of additional stone shall be applied as conditions demand. Mud spilled, dropped, washed or tracked onto public roads, or any surface where runoff is not checked by sediment controls, shall be removed immediately. Removal shall be accomplished by scraping or sweeping.

9. Construction entrances shall not be relied upon to remove mud from vehicles and prevent off-site tracking. Vehicles that enter and leave the construction site shall be restricted from muddy areas.

10. Maintenance-Silt fence shall allow water to pass only as diffuse flow through the geotextile. If runoff overlaps the silt fence, flows under or around ends, or in any other way becomes a concentrated flow, one of the following shall be performed, as appropriate: 1) The layout of the silt fence shall be changed, 2) Accumulated sediment shall be removed, or 3) Other practices shall be installed.

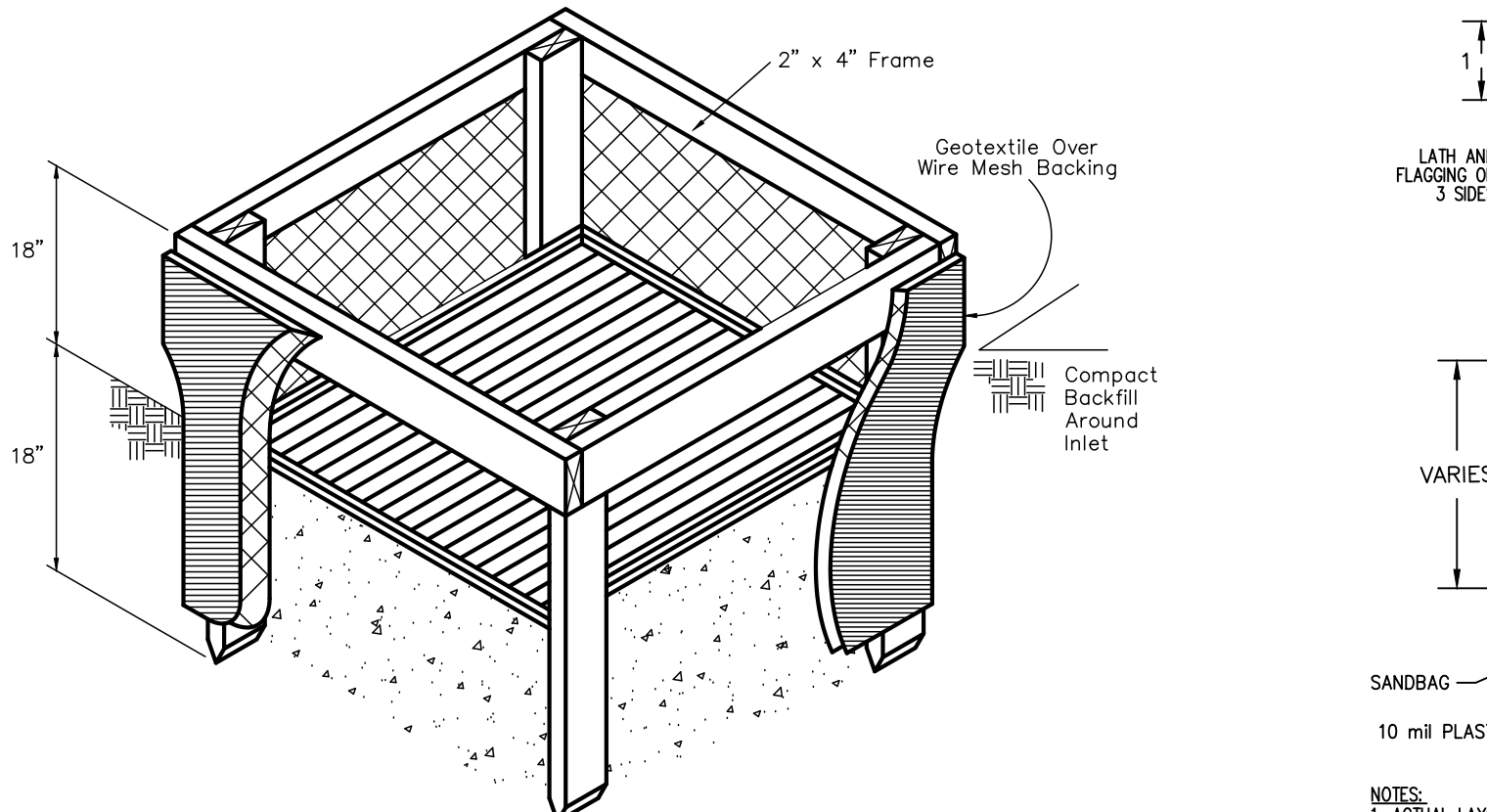
11. Where possible, silt fence shall be placed on the flattest area available.

12. Silt Fence Fabric shall be ODOT Type C Geotextile Fabric or as described by the chart below:

Criteria for Silt Fence Materials

- Fence Posts-The length shall be a minimum of 32 in. long. Wood posts will be 2-by-2 in. of hardwood of sound quality. The maximum spacing between posts shall be 10 ft.
- Silt Fence Fabric shall be ODOT Type C Geotextile Fabric or as described by the chart below:

Specifications for Inlet Protection in Swales, Ditch Lines or Yard Inlets



1. Inlet protection shall be constructed either before upslope land disturbance begins or before the storm drain becomes operational.

2. The earth around the inlet shall be excavated completely to a depth of at least 18 in.

3. The wooden frame shall be constructed of 2-by-4 in. construction grade lumber. The 2-by-4 in. posts shall be driven 1 ft. into the ground at four corners of the inlet and the top portion of 2-by-4 in. frame assembled using the overlap joint shown. The top of the frame shall be at least 6 in. below adjacent roads if ponded water would pose a safety hazard to traffic.

4. Wire mesh shall be of sufficient strength to support fabric with water fully impounded against it. It shall be stretched tightly around the frame and fastened securely to the frame.

5. Geotextile shall have an equivalent opening size of 20-40 sieve and be resistant to sunlight. It shall be stretched tightly around the frame and fastened securely. It shall extend from the top of the frame to 18 in. below the inlet notch elevation. The geotextile shall overlap across one side of the inlet so the ends of the cloth are not fastened to the same post.

6. Backfill shall be placed around the inlet in compacted 6-in. layers until the earth is even with notch elevation on ends and top elevation on sides.

7. A compacted earth dike or a check dam shall be constructed in the ditch line below the inlet if the inlet is not in a depression and if runoff bypassing the inlet will not flow to a settling pond. The top of the earth dikes shall be at least 6 in. higher than the top of the frame.

8. Maintenance-Silt fence shall allow water to pass only as diffuse flow through the geotextile. If runoff overlaps the silt fence, flows under or around ends, or in any other way becomes a concentrated flow, one of the following shall be performed, as appropriate: 1) The layout of the silt fence shall be changed, 2) Accumulated sediment shall be removed, or 3) Other practices shall be installed.

9. Where possible, silt fence shall be placed on the flattest area available.

10. Silt Fence Fabric shall be ODOT Type C Geotextile Fabric or as described by the chart below:

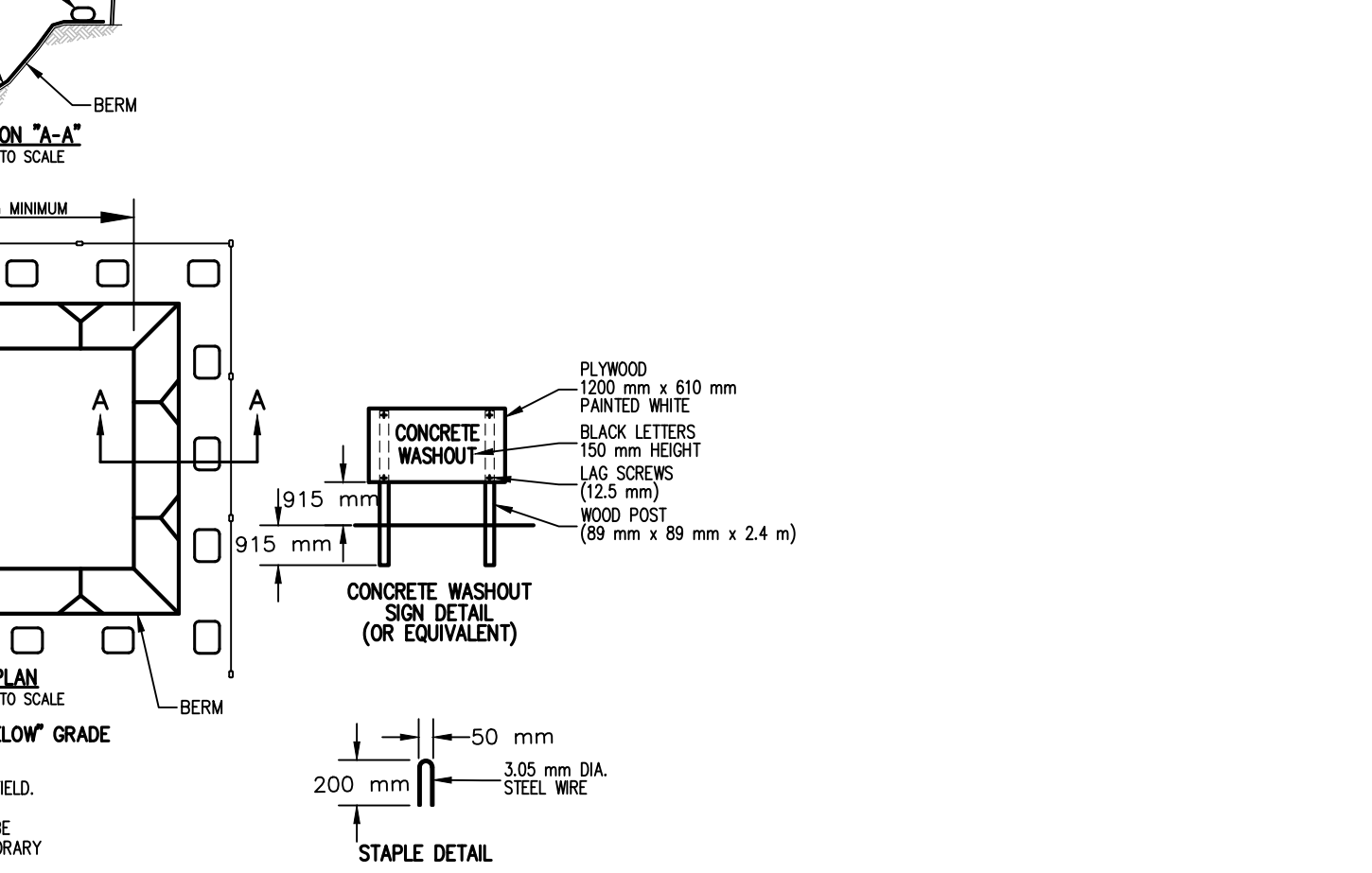
Criteria for Silt Fence Materials

- Fence Posts-The length shall be a minimum of 32 in. long. Wood posts will be 2-by-2 in. of hardwood of sound quality. The maximum spacing between posts shall be 10 ft.
- Silt Fence Fabric shall be ODOT Type C Geotextile Fabric or as described by the chart below:

| Mechanical Properties   | Test Method | Units                            | MARV                    |
|-------------------------|-------------|----------------------------------|-------------------------|
| Grab Tensile Strength   | ASTM D 4632 | kN (lbf)                         | 1.62 (365) x 0.89 (200) |
| Grab Tensile Elongation | ASTM D 4632 | %                                | 24 x 10                 |
| Puncture Strength       | ASTM D 4633 | kN (lbf)                         | 0.43 (96)               |
| Mullen Burst Strength   | ASTM D 3786 | kPa (psi)                        | 3097 (450)              |
| Trapped Tear Strength   | ASTM D 2533 | kN (lbf)                         | 0.51 (115) x 0.33 (75)  |
| UV Resistance           | ASTM D 4355 | %                                | 90                      |
| Apparent Opening Size   | ASTM D 4751 | mm (US Std Sieve)                | 0.425 (40)              |
| Flow Rate               | ASTM D 4491 | l/min (gal/min-ft <sup>2</sup> ) | 5907 (143)              |
| Permeability            | ASTM D 4491 | Sec <sup>-1</sup>                | 2.1                     |

\*Note: All Dandy Bags® can be ordered with our optional oil absorbent pillows

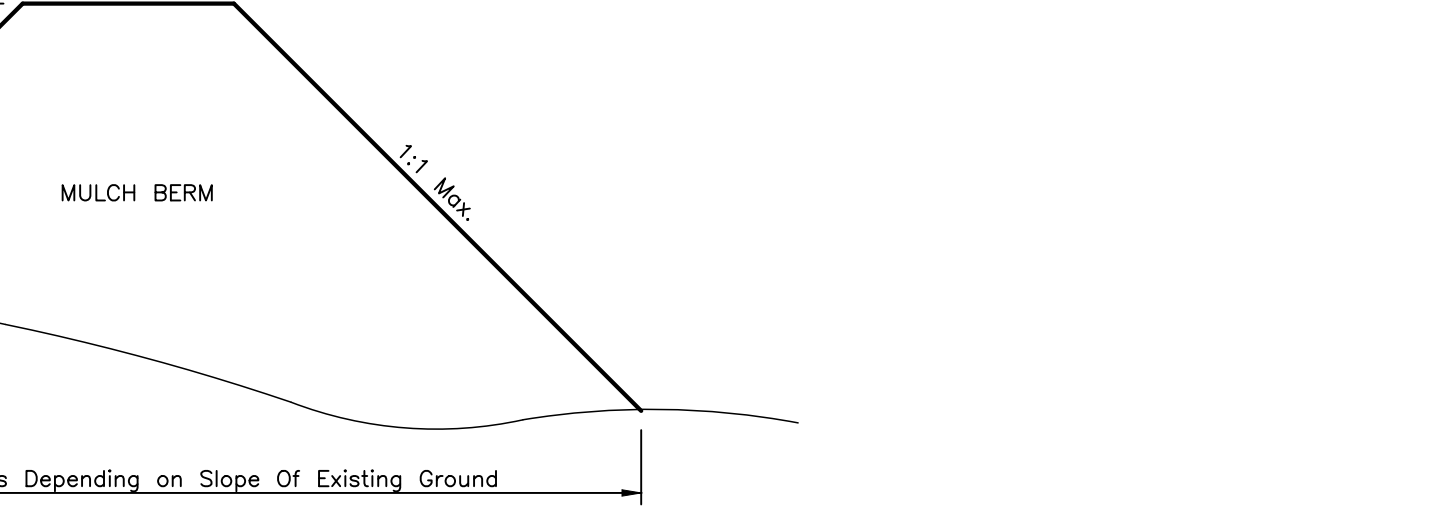
Specifications for Concrete Washout Detail



1. ACTUAL LAYOUT DETERMINED IN THE FIELD.

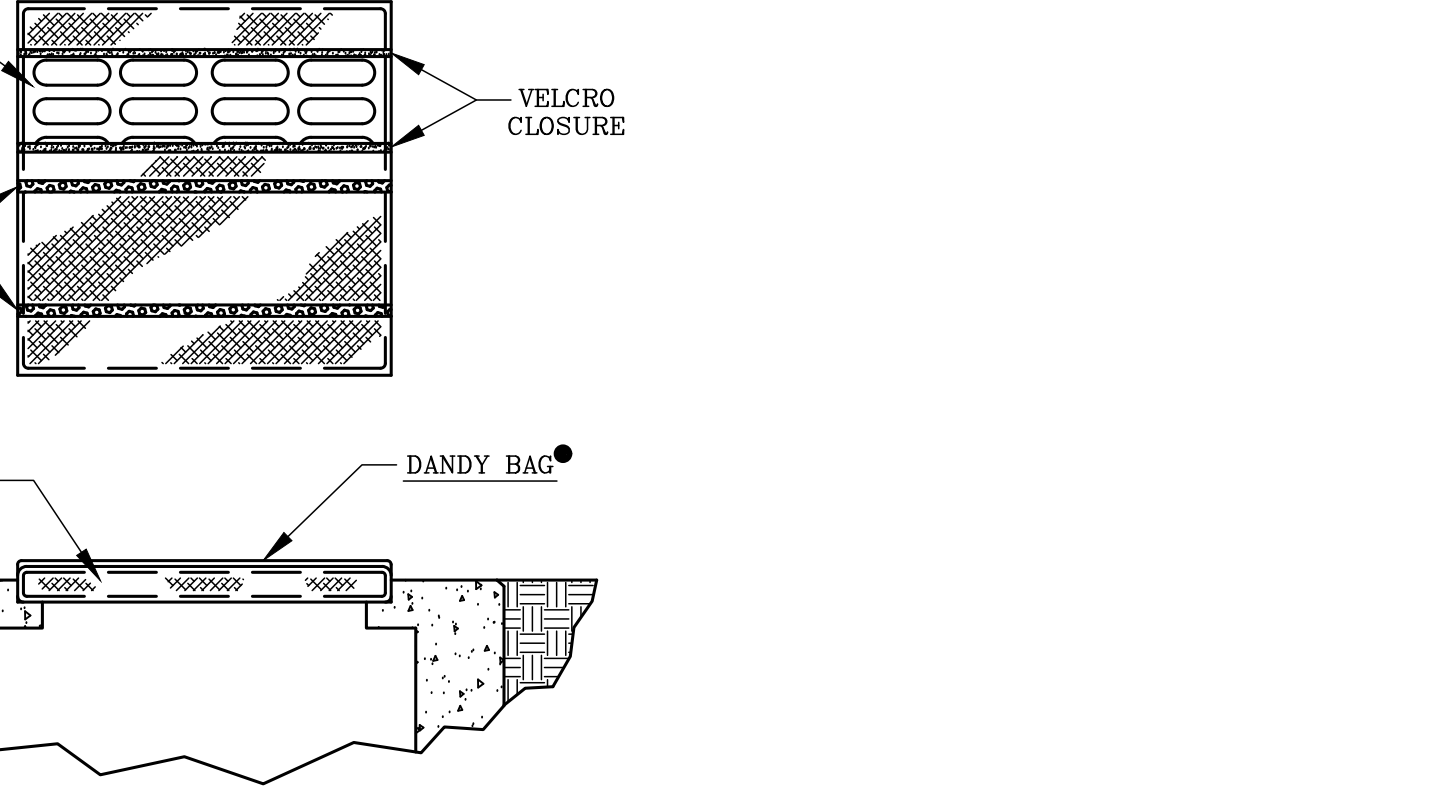
2. THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 10m OF THE TEMPORARY CONCRETE WASHOUT FACILITY.

CONCRETE WASHOUT DETAIL



MULCH BERM DETAIL

DANDY BAG®



NOTE: THE DANDY BAG® WILL BE MANUFACTURED IN THE USA FROM A WOVEN MONOFILAMENT FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS:

| Mechanical Properties   | Test Method | Units                            | MARV                    |
|-------------------------|-------------|----------------------------------|-------------------------|
| Grab Tensile Strength   | ASTM D 4632 | kN (lbf)                         | 1.62 (365) x 0.89 (200) |
| Grab Tensile Elongation | ASTM D 4632 | %                                | 24 x 10                 |
| Puncture Strength       | ASTM D 4633 | kN (lbf)                         | 0.43 (96)               |
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| Apparent Opening Size   | ASTM D 4751 | mm (US Std Sieve)                | 0.425 (40)              |
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| Permeability            | ASTM D 4491 | Sec <sup>-1</sup>                | 2.1                     |

\*Note: All Dandy Bags® can be ordered with our optional oil absorbent pillows

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- Silt Fence Fabric shall be ODOT Type C Geotextile Fabric or as described by the chart below:

**JAMES H. WESTON**  
REGISTERED PROFESSIONAL ENGINEER  
NO. 49886

**OHIO Utilities Protection SERVICE**  
Call Before You Dig

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

Date: 07/08/20

Scale: AS NOTED

Drawn By: BC Proj. Mgr. JW

Survey Database: N/A

DWG: 16619004-DTL-00

X-Ref(s):

Project Number: 16619.00

File No. Sheet No. 8 / 8

**WESTVIEW MEADOWS PHASES 4 & 5**

SECTION 9, TOWN 3, RANGE 2  
WEST CHESTER TOWNSHIP  
BUTLER COUNTY, OHIO

**EROSION CONTROL NOTES & DETAILS**

**MSP DESIGN**  
McGill Smith Punshon

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