

CONSTRUCTION PLANS FOR  
**WESTERLY SANITARY TRUNK  
SEWER IMPROVEMENT**  
CITY OF NORTH RIDGEVILLE, OHIO  
2000

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KS ASSOCIATES

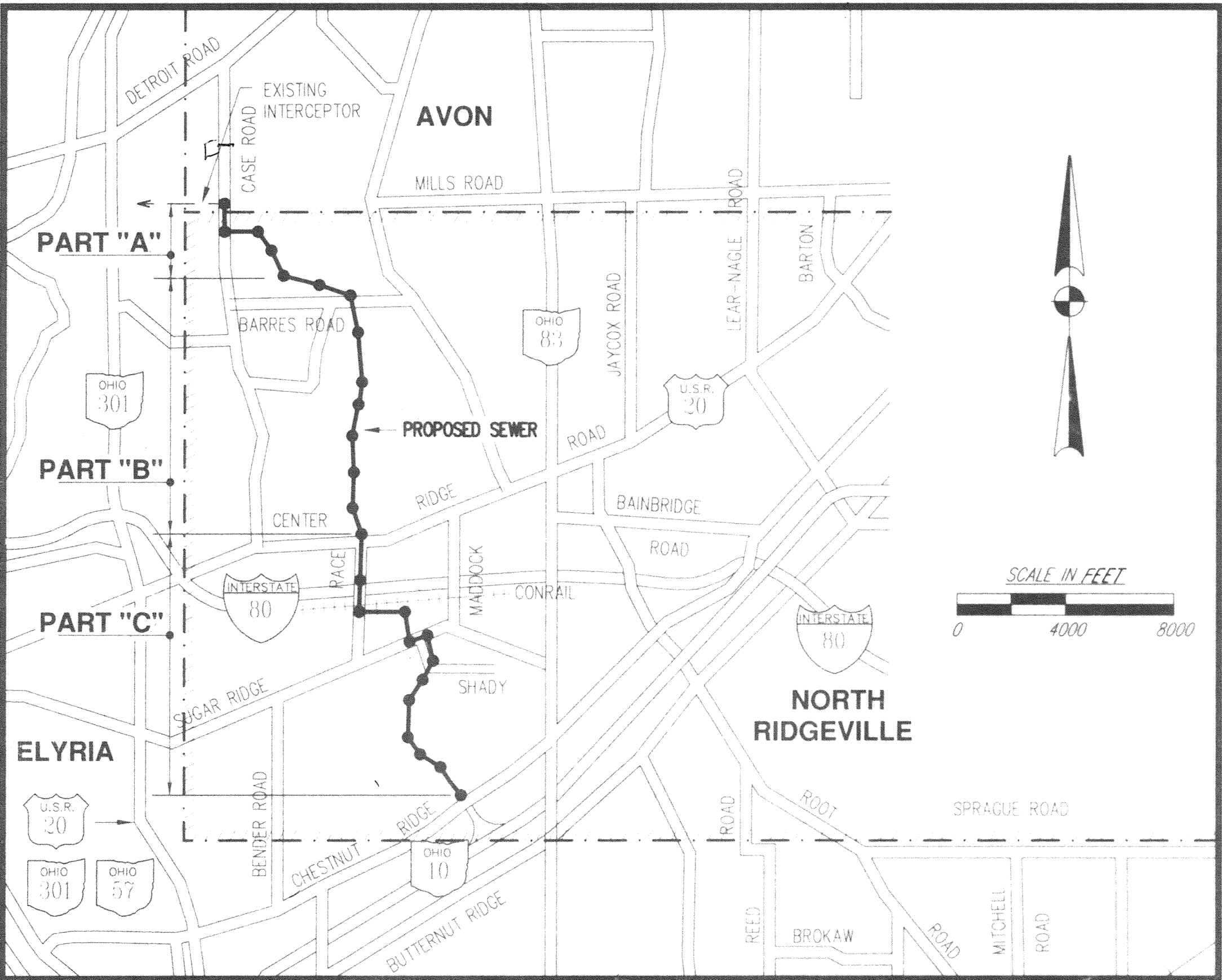
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K.E. McCARTNEY & ASSOC., INC.

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SITE PLAN

NORTH RIDGEVILLE CITY OFFICIALS

CITY HALL, 7307 AVON-BELDEN ROAD, NORTH RIDGEVILLE, OHIO 44039

DEANNA L. HILL, MAYOR

JIM JOHNSON, SAFETY SERVICE DIRECTOR

JEAN K. BROWN, PRESIDENT OF COUNCIL

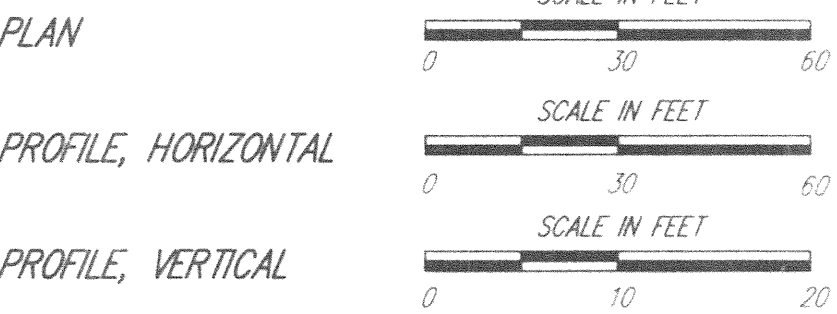
APPROVALS

APPROVED Stewart Lovece, City Engineer  
DATE 1/26/01 STEWART P. LOVECE, P.E., P.S.  
E-54368

LEGEND

EXISTING SANITARY SEWER	M.H.	SAN	GAS LINE	G	VALVE	G	G.V.
PROPOSED SANITARY SEWER	STUB	WYE	WATER LINE	W	VALVE	W	W.V.
EXISTING STORM SEWER	C.B.	M.H.	PROPERTY LINE	P	HYDRANT	Z	
PROPOSED FENCE	X	X	ROADWAY RIGHT-OF-WAY	R/W			
POWER, TELEPHONE, SERVICE, LIGHT & FLAG POLES	Φ	Φ	EXISTING FENCE	X			
BURIED TRAFFIC CABLE	U.C.	U.C.	TREE	EVERGREEN	HEDGE	STUMP	
BURIED ELECTRICAL CABLE	U.E.	U.E.	CLEAR AND GRUB	X	X		
FIBER OPTIC CABLE	F.O.	F.O.	SECTION LINE		CORPORATION LINE		
BURIED TELEPHONE CABLE	U.T.	U.T.	GUARDRAIL				
MAILBOX AND PAPERBOX	M.B.	P.B.	EASEMENT				
TRAFFIC SIGN	T						

SCALES



UNDERGROUND UTILITIES

TWO WORKING DAYS  
**BEFORE YOU DIG**

CALL 1-800-362-2764 (TOLL FREE)

OHIO UTILITIES PROTECTION SERVICE  
NON-MEMBERS  
MUST BE CALLED DIRECTLY



DRAFTED @ K.E. MCCARTNEY & ASSOCIATES, INC. DATE: 1/10/01 JOB TITLE: SW-166 SHEET NAME: SW166GN SCALE: 1" = 1' VIEW = PLOT

# GENERAL NOTES

GENERAL ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE DETAILED PLANS AND AS OUTLINED IN THE TECHNICAL SPECIFICATIONS, AND SHALL MEET THE RULES AND REGULATIONS OF THE OHIO ENVIRONMENTAL PROTECTION AGENCY, THE CITY OF NORTH RIDGEVILLE, AND ALL OTHER GOVERNING CODES AND AGENCIES UNLESS HERE-IN-AFTER AMENDED. IN CASE OF CONFLICT BETWEEN APPLICABLE RULES, REGULATIONS, STANDARDS OR REQUIREMENTS, THE MOST STRINGENT SHALL APPLY.

SPECIFICATIONS: THE CONSTRUCTION SPECIFICATIONS SHALL BE THE MOST CURRENT "STATE OF OHIO, DEPARTMENT OF TRANSPORTATION-CONSTRUCTION AND MATERIAL SPECIFICATIONS, INCLUDING SUPPLEMENTAL SPECIFICATIONS AND STANDARD DRAWINGS", AS MODIFIED HEREIN OR IN THE TECHNICAL SPECIFICATIONS AND BID DOCUMENTS. THE CONTRACTOR SHALL OBTAIN, AT HIS EXPENSE, COPIES OF ALL STATE OF OHIO SPECIFICATIONS. WHERE REFERENCE IS MADE TO "ENGINEER", THIS SHALL MEAN THE "NORTH RIDGEVILLE CITY ENGINEER".

COOPERATION BETWEEN CONTRACTORS: SEPARATE CONTRACTS MAY BE LET UNDER THE PROJECT. THE CONTRACTOR SHALL CONDUCT HIS WORK SO AS NOT TO INTERFERE WITH OR HINDER THE PROGRESS OR COMPLETION OF THE WORK BEING PERFORMED BY OTHER CONTRACTORS. CONTRACTORS WORKING ON THE PROJECT SHALL COOPERATE WITH EACH OTHER AS DIRECTED. EACH CONTRACTOR INVOLVED SHALL ASSUME ALL LIABILITY, FINANCIAL OR OTHERWISE, IN CONNECTION WITH HIS CONTRACT AND SHALL PROTECT AND SAVE HARMLESS THE OWNER AND ENGINEER FROM ANY AND ALL DAMAGES OR CLAIMS THAT MAY ARISE BECAUSE OF THE PRESENCE AND OPERATIONS OF OTHER CONTRACTORS WORKING WITHIN THE LIMITS OF THE PROJECT. THE CONTRACTOR SHALL ARRANGE HIS WORK AND SHALL PLACE AND DISPOSE OF THE MATERIALS BEING USED SO AS NOT TO INTERFERE WITH THE OPERATIONS OF THE OTHER CONTRACTORS WITHIN THE LIMITS OF THE PROJECT. HE SHALL JOIN HIS WORK WITH THAT OF THE OTHERS IN AN ACCEPTABLE MANNER AND SHALL PERFORM IT IN PROPER SEQUENCE TO THAT OF THE OTHERS.

ITEM 614 - MAINTAINING TRAFFIC, AS PER PLAN: LOCAL TRAFFIC SHALL HAVE ACCESS TO THEIR RESPECTIVE RESIDENCES AT ALL TIMES, EXCEPT DURING RECONSTRUCTION OF DRIVEWAYS, PAVING OPERATIONS AND OTHER CONSTRUCTION OPERATIONS WHICH REQUIRES THE CLOSING OF DRIVEWAYS FOR SAFETY REASONS DURING THE ACTUAL HOURS OF CONSTRUCTION. THE CONTRACTOR SHALL GIVE SUFFICIENT PRIOR NOTICE TO PROPERTY OWNERS BEFORE CLOSING ANY PRIVATE DRIVEWAYS. NO PRIVATE DRIVEWAYS MAY BE CLOSED FOR MORE THAN SEVEN (7) CONSECUTIVE HOURS AND SHALL BE OPEN TO TRAFFIC AT THE END OF EACH WORKING DAY.

WHEN CONSTRUCTION OPERATIONS REQUIRE CLOSING OF ANY STREETS OR ALLEYS FOR TRAFFIC, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INFORM THE OFFICE OF THE CITY ENGINEER FORTY-EIGHT (48) HOURS PRIOR TO ANY CHANGES IN TRAFFIC PATTERNS, AND IN ALL CASES SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER.

TEMPORARY SURFACES WHERE EXCAVATIONS ARE LOCATED IN STREETS, DRIVEWAYS, AND PARKING AREAS SHALL BE FURNISHED AND PLACED BY THE CONTRACTOR AND SHALL BE FULLY MAINTAINED WITH MATERIALS OF COMPARABLE QUALITY (ASPHALT, COLD PATCH, ETC.) PERFORMED AND PAID FOR UNDER THIS ITEM.

IT IS THE INTENT OF THIS ITEM, UNDER THIS CONTRACT, THAT THROUGH TRAFFIC BE MAINTAINED AT ALL TIMES. WHENEVER IT IS NECESSARY FOR THE CONTRACTOR TO DIVERT THE FLOW OF TRAFFIC FROM ITS NORMAL CHANNEL ONTO ANOTHER CHANNEL OR TEMPORARY ROADWAY, THE TEMPORARY ROADWAY AND SURFACE SHALL BE PER ODOT ITEM 615, PERFORMED AND PAID FOR UNDER THIS ITEM.

ALL CONSTRUCTION SIGNS AND TEMPORARY TRAFFIC CONTROL AND PROTECTION DEVICES SHALL BE ERECTED AND MAINTAINED IN ACCORDANCE WITH "OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS." THE COST FOR ALL THE ABOVE WORK SHALL BE INCLUDED WITHIN THE LUMP SUM PRICE BID FOR ITEM 614 - MAINTAINING TRAFFIC, AS PER PLAN.

UNDERGROUND UTILITIES: THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS OF THE UTILITY AS REQUIRED BY SECTION 153.64 O.R.C. IT IS BELIEVED THAT THEY ARE ESSENTIALLY CORRECT BUT THE ENGINEER AND OWNER DO NOT GUARANTEE THEIR ACCURACY OR COMPLETENESS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE THE UTILITY AS TO LINE AND GRADE BEFORE STARTING ANY OPERATION THAT INTERFERES WITH THE UTILITY. AT LEAST TWO WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION OPERATIONS IN AN AREA WHICH MAY INVOLVE UNDERGROUND UTILITY FACILITIES, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER, THE REGISTERED UTILITY PROTECTION SERVICE AND THE OWNERS OF EACH UNDERGROUND UTILITY FACILITY SHOWN IN THE PLANS. THE OWNER OF THE UNDERGROUND UTILITY FACILITY SHALL, WITHIN FORTY-EIGHT HOURS, EXCLUDING SATURDAYS, SUNDAYS AND LEGAL HOLIDAYS, AFTER NOTICE IS RECEIVED, STAKE, MARK OR OTHERWISE DESIGNATE THE LOCATION OF THE UNDERGROUND UTILITY FACILITIES IN THE CONSTRUCTION AREA IN SUCH A MANNER AS TO INDICATE THEIR COURSE TOGETHER WITH THE APPROXIMATE DEPTH AT WHICH THEY WERE INSTALLED. THE MARKING OR LOCATING SHALL BE COORDINATED TO STAY APPROXIMATELY TWO DAYS AHEAD OF THE PLANNED CONSTRUCTION. THE FOLLOWING IS A PARTIAL LIST OF UTILITY OWNERS WHO MUST BE NOTIFIED. THE CONTRACTOR SHALL COMPLY WITH THE REGULATIONS SET FORTH BY THE RESPECTIVE PUBLIC SERVICE CORPORATIONS AS LISTED:

- |                                       |                              |
|---------------------------------------|------------------------------|
| (1) OHIO UTILITIES PROTECTION SERVICE | 800-362-2769                 |
| (2) COLUMBIA GAS OF OHIO              | 440-322-7456                 |
| (3) FIRST ENERGY                      | 330-384-5194                 |
| (4) CITY OF NORTH RIDGEVILLE          | 440-353-0859                 |
| (5) QWEST L.C.I. INTERNATIONAL        | 419-884-0400                 |
| (6) A. T. & T. BROAD BAND             | 614-278-1840                 |
| (7) ALLTEL OHIO                       | 440-329-4193                 |
| (8) A. T. & T. COMMUNICATION          | 216-723-9191                 |
| (9) MCI WORLD COM                     | 972-656-5983                 |
| (10) AMERITECH                        | 216-476-6142                 |
| (11) QWEST COMMUNICATIONS             | 800-283-4237                 |
| (12) AMERITECH NEW MEDIA              | 440-582-6001                 |
| (13) COLUMBIA GAS TRANSMISSION        | 440-647-4322                 |
| (14) ILLUMINATING COMPANY             | 800-301-9191                 |
| (15) RURAL LORAIN WATER AUTHORITY     | 440-355-5121                 |
| (16) OHIO EDISON                      | 330-384-4924                 |
| (17) OHIO TURNPIKE COMMISSION         | 440-234-2081                 |
| (18) NORFOLK & SOUTHERN CORP.         | 313-323-5100<br>313-323-5103 |

CONTACT MUST BE MADE A MINIMUM OF 72 HOURS PRIOR TO START OF CONSTRUCTION.

SEWER ALIGNMENT CONTROL: ALL PROPOSED MAINLINE SEWERS SHALL BE LAID TO THE SPECIFIED LINE AND GRADE USING A "LASER BEAM INSTRUMENT" PLACED INSIDE THE DOWNSTREAM MANHOLE PROJECTING THE LIGHT BEAM UPSTREAM, INSIDE THE PROPOSED SEWER BEING INSTALLED. THE CONTROL EQUIPMENT, INCLUDING LASER GUN, TARGETS, AND ACCESSORIES SHALL BE APPROVED FOR USE BY THE ENGINEER PRIOR TO CONSTRUCTION.

ROADWAY LIMITS: THE CONTRACTOR SHALL COMPLY WITH ALL CURRENT STATE OF OHIO LEGAL ROAD LIMITS (AND ALL POSTED REDUCED ROAD LIMITS) FOR ALL VEHICLES USED ON THIS PROJECT.

DEWATERING: THE CONTRACTOR SHALL, AT ALL TIMES DURING CONSTRUCTION, PROVIDE PROPER AND SATISFACTORY MEANS AND DEVICES FOR THE REMOVAL OF ALL WATER ENTERING THE EXCAVATIONS AND SHALL REMOVE ALL SUCH WATER AS FAST AS IT MAY COLLECT IN SUCH A MANNER AS SHALL NOT INTERFERE WITH THE PROSECUTION OF THE WORK OR THE PROPER PLACING OF MASONRY OR OTHER WORK, AT NO COST TO THE OWNER.

ROCK EXCAVATION: THE CONTRACTOR SHALL PERFORM HIS OWN SUB-SURFACE INVESTIGATIONS TO DETERMINE SOIL PROFILES. ALL ROCK ENCOUNTERED SHALL BE REMOVED TO LINES AND GRADES AS SPECIFIED. UNDER THIS CONTRACT ALL ROCK EXCAVATION SHALL BE BY THE MECHANICAL METHOD ONLY. EXCAVATION BY BLASTING, USING EXPLOSIVES, IS NOT ACCEPTABLE. ALL ROCK EXCAVATION IS UNCLASSIFIED, AND THERE WILL BE NO PAYMENT FOR ROCK REMOVAL.

SALVAGEABLE MATERIALS: THE ENGINEER SHALL DESIGNATE A LOCATION WITHIN THE PROJECT LIMITS FOR THE STOCK PILING OF ALL SALVAGEABLE MATERIALS.

MAINTENANCE OF SEWER FLOWS: THE CONTRACTOR SHALL CONDUCT HIS OPERATIONS SO AS TO MAINTAIN AT ALL TIMES SEWER FLOWS THROUGH EXISTING FACILITIES TO REMAIN IN PLACE.

THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL BE REGISTERED WITH THE NORTH RIDGEVILLE BUILDING DEPARTMENT.

ELEVATION OF MANHOLE TOPS: THE ELEVATION OF THE PROPOSED MANHOLE COVERS SHOWN ON THE PLANS ARE APPROXIMATE. FINAL CASTING ELEVATIONS SHALL BE FIELD DETERMINED DURING CONSTRUCTION, PER THE APPROVAL OF THE ENGINEER. IN GENERAL MANHOLE TOPS SHALL BE SET FLUSH WITH THE ROADWAY GRADE IN PAVED AREA, AND 18 INCHES ABOVE FINISH GRADE IN THE UNDEVELOPED AREA. MANHOLE TOPS IN LAWN AREAS SHALL BE SET 4 INCHES ABOVE ADJACENT GROUND. PROVIDE A GENTLE 12:1 GRADE AWAY FROM ALL CASTINGS.

ELEVATION DATUM: ALL ELEVATIONS ARE BASED ON U.S.G.S. DATUM.

ITEM 659 - SEEDING AND MULCHING, AS PER PLAN: ALL SOD AREAS DISTURBED ON THIS PROJECT SHALL BE RESTORED AND SEEDDED PER ITEM 659 USING THE URBAN SEED MIXTURE. THE COST OF SEEDING, MULCHING AND RESEEDING SHALL BE INCLUDED IN THE UNIT PRICES BID FOR THE RESPECTIVE ITEMS OF 603 CONDUIT. SEPARATE PAYMENT WILL NOT BE MADE.

SUBSURFACE CONDITIONS: IT IS THE OBLIGATION AND RESPONSIBILITY OF THE CONTRACTOR TO MAKE HIS OWN INVESTIGATION OF SUBSURFACE CONDITIONS PRIOR TO SUBMITTING HIS BID. A SOIL REPORT REGARDING THE SUBSURFACE SITE CONDITIONS IS INCLUDED IN THE CONTRACT DOCUMENTS. THE OWNER ASSUMES NO RESPONSIBILITY FOR ANY CONCLUSIONS OR INTERPRETATIONS MADE BY THE CONTRACTOR ON THE BASIS OF THIS SOIL REPORT.

ITEM 602 - CONCRETE MASONRY: ALL CULVERT HEADWALLS DISTURBED SHALL BE REPLACED IN-KIND WITH O.D.O.T. STANDARD TYPE HW-1 OR HW-4, OR AS APPROVED BY THE ENGINEER DURING CONSTRUCTION.

COOPERATION WITH UTILITIES: THE CONTRACTOR SHALL MAINTAIN AND PROTECT ALL PUBLIC OR PRIVATE UTILITY FACILITIES DURING CONSTRUCTION. SHOULD IT BECOME NECESSARY TO MOVE, ADJUST, OR TEMPORARILY RELOCATE ANY SUCH FACILITY, THE WORK SHALL BE DONE BY THE OWNER OF THE UTILITY FACILITY. ANY DAMAGE TO UTILITY FACILITIES BY THE CONTRACTOR OR HIS SUBCONTRACTORS SHALL BE RE-PAIRED BY THE OWNER OF SAID UTILITY, AND THE COST OF SAID RE-PAIRS WILL BE DEDUCTED FROM PAYMENT TO BE MADE TO CONTRACTOR UNDER THE CONTRACT.

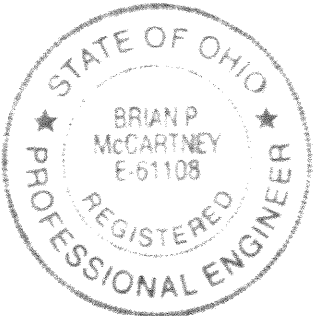
IT IS UNDERSTOOD AND AGREED THAT THE CONTRACTOR HAS CONSIDERED IN HIS BID ALL OF THE PERMANENT AND TEMPORARY UTILITY APPURTENANCES IN THEIR PRESENT OR RELOCATED POSITIONS AND THAT NO ADDITIONAL COMPENSATION WILL BE ALLOWED FOR ANY DELAYS, INCONVENIENCE, OR DAMAGE SUSTAINED BY HIM DUE TO ANY INTERFERENCE FROM THE SAID UTILITY APPURTENANCES OR THE OPERATION OF MOVING THEM.

RESTORING EXISTING PAVEMENT MARKINGS: ALL PAVEMENT MARKINGS DISTURBED OR DESTROYED BY THE CONSTRUCTION SHALL BE RESTORED BY THE CONTRACTOR PER O.D.O.T. ITEM 641 AND 642. PAYMENT SHALL BE INCLUDED UNDER ITEM 614 - MAINTAINING TRAFFIC, AS PER PLAN.

AGGREGATE BERMING: ALL ROADWAY SHOULDERS AND BERMS DISTURBED BY THE CONTRACTOR SHALL BE RESTORED FOLLOWING CONSTRUCTION PER THE APPROVAL OF THE ENGINEER. REBERMING MATERIAL SHALL BE ITEM 411 LIMESTONE PLACED AND COMPACTED PER ITEM 617.05. THE COST OF THIS WORK SHALL BE INCLUDED UNDER ITEM 603 - SANITARY SEWERS. SEPARATE PAYMENT WILL NOT BE MADE.

SHEETING AND SHORING: ALL SHEETING AND SHORING REQUIRED TO SUPPORT ALL TRENCHES AND EXCAVATIONS SHALL COMPLY WITH THE REQUIREMENTS OF THE OHIO INDUSTRIAL COMMISSION PUBLICATION 4121:1-2 AND SHALL BE PROVIDED BY THE CONTRACTOR AND PAID FOR UNDER THE VARIOUS ITEMS BID FOR SANITARY SEWERS. SEPARATE PAYMENT WILL NOT BE MADE.

DUST CONTROL: THE CONTRACTOR SHALL PROVIDE CALCIUM CHLORIDE AND WATER TO BE USED, AS DIRECTED BY THE ENGINEER, FOR DUST CONTROL. ALL SURFACES SHALL BE WATERED PRIOR TO MECHANICAL SWEEPING IN RESIDENTIAL AREAS. THE COST OF THIS WORK SHALL BE INCLUDED UNDER BID ITEM 603 - SANITARY SEWERS. SEPARATE PAYMENT WILL NOT BE MADE.



RECORD DRAWINGS

GENERAL NOTES

WESTERLY SANITARY TRUNK SEWER IMPROVEMENT  
CITY OF NORTH RIDGEVILLE, OHIO

Richard County  
Marion, Ohio 44602  
KEM  
K.E. McCartney & Associates, Inc.  
Engineers • Planners • Surveyors  
Lorain County  
2301 N. High Street  
Elyria, Ohio 44025  
Phone: 440/385-8800  
Fax: 440/385-8801



DRAFTED @ K.E. MCCARTNEY & ASSOCIATES, INC. DATE: 1/10/01 JOB TITLE: SW-66 SHEET NAME: SW166GN SCALE: 1" = 1' VIEW = PLOT2

# GENERAL NOTES

STORM SEWERS, DRAINS AND TILES: AN ESTIMATED QUANTITY OF STORM SEWER PIPE IS INCLUDED IN THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER TO REPAIR AND REPLACE MISCELLANEOUS CONDUITS SHOWN OR NOT SHOWN ON THE PLANS. REPLACEMENT SHALL BE IN KIND OR BETTER.

RAILROAD BORES: ALL WORK ASSOCIATED WITH THE INSTALLATION OF THE RAILROAD BORE SHALL BE IN ACCORDANCE WITH THE MOST CURRENT SPECIFICATION FOR PIPE OCCUPANCY OF THE CHESSIE CSX RAIL CORPORATION PROPERTY. THE CONTRACTOR SHALL NOTIFY CSX'S AREA ENGINEER A MINIMUM OF 14 WORKING DAYS PRIOR TO DESIRED START OF CONSTRUCTION. ALL BORE AND JACK METHODS SHALL BE PER RAILROAD SPECIFICATIONS. ALL WORK SHALL MEET SAFETY REQUIREMENTS OF SAID SPECIFICATIONS. ALL WORK IS SUBJECT TO CSX INSPECTION. PERMIT AND FLAGMAN COST TO BE PAID BY CITY OF NORTH RIDGEVILLE.

MATERIALS: ALL MATERIALS INSTALLED ON THIS JOB SHALL MEET CITY OF NORTH RIDGEVILLE APPROVAL. SUBMIT FOUR (4) COPIES OF SHOP DRAWINGS OF ALL MATERIALS TO THE CITY ENGINEER, PRIOR TO ORDERING FOR ACCEPTANCE.

ITEM 107.17 CONTRACTOR'S RESPONSIBILITY FOR UTILITY PROPERTY AND SERVICE, AS PER PLAN: THE FOLLOWING ESTIMATED QUANTITIES ARE TO BE USED AS DIRECTED BY THE ENGINEER FOR THE REPAIR OF ANY DAMAGED WATER SERVICES AND WATER MAIN THAT ARE NOT SHOWN ON PLANS: ALL WATER SERVICE BRANCHES SHALL BE ASTM B88, TYPE K COPPER, PER ODOT ITEM 748.05.

638 - 3/4 INCH DIA. SERVICE BRANCH REPLACEMENT	100 LIN. FT.
638 - 1 INCH DIA. SERVICE BRANCH REPLACEMENT	100 LIN. FT.
638 - 1 1/4 INCH DIA. SERVICE BRANCH REPLACEMENT	50 LIN. FT.
638 - 1 1/2 INCH DIA. SERVICE BRANCH REPLACEMENT	50 LIN. FT.
638 - 2 INCH DIA. SERVICE BRANCH REPLACEMENT	50 LIN. FT.


IF THE CONTRACTOR DAMAGES ANY WATERLINE OR SERVICE THAT ARE SHOWN ON THE PLAN OR PROPERLY LOCATED BY THE UTILITY OWNER, HE SHALL REPAIR SAID WATERLINE OR SERVICE AT HIS OWN EXPENSE AT NO COST TO THE OWNER OR UTILITY. ALL REPAIR WORK SHALL BE COORDINATED WITH UTILITY OWNER.

REPAIR OF FAILED ROADWAY BASE: AN ESTIMATED QUANTITY OF "304 AGGREGATE FOR FAILED BASE REPAIR" AND "404 ASPHALT FOR FAILED BASE OVERLAY" HAS BEEN ADDED TO THE GENERAL SUMMARY TO BE USED "AS DIRECTED BY THE ENGINEER", TO REPAIR PAVEMENT AREAS WHERE SUBBASE HAS FAILED DUE TO NORMAL CONSTRUCTION OPERATIONS. INCLUDED INCLUDED IN THE ABOVE ITEMS SHALL BE THE COST TO REMOVE AND DISPOSE OF THE FAILED BASE AND PAVEMENT MATERIALS, PER O.D.O.T. ITEM 202.

COMPACTED GRANULAR BACKFILL: EXCAVATIONS AT ALL STREETS, DRIVES, BERMS, WALKS, PARKING AREAS AND OTHER ROADWAYS SHALL BE BACKFILLED AND COMPACTED WITH GRANULAR MATERIAL CONFORMING TO O.D.O.T. SPECIFICATION ITEM 703.11, TYPE 1 (304), AND SHALL BE LIMESTONE OR RECYCLED PORTLAND CEMENT CONCRETE MATERIALS ONLY. ADDITIONAL GRANULAR MATERIAL SHALL BE STOCKPILED AT SELECT LOCATIONS (APPROVED BY THE ENGINEER) FOR USE WHEN SETTLEMENT OCCURS. ALL GRANULAR MATERIAL SHALL BE MECHANICALLY COMPACTED IN EIGHT (8) INCH LAYERS, TO A DENSITY OF 96% (PROCTOR, AASHTO T99) PER ITEM 603.081. PAYMENT FOR GRANULAR BACKFILL SHALL BE INCLUDED IN THE BID PRICE OF TYPE B CONDUITS.

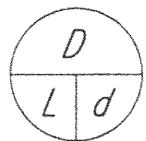
PROTECTION OF MONUMENTS, PROPERTY CORNER MARKERS, ETC.: MONUMENTS, PROPERTY CORNER MARKERS, ETC., SHALL NOT BE DISTURBED BY THE CONTRACTOR. IN THE EVENT IT IS NECESSARY TO REMOVE THESE ITEMS, THE CONTRACTOR SHALL AT HIS EXPENSE, PROPERLY REFERENCE THE POINTS AND SHALL RESET SAME AFTER CONSTRUCTION HAS BEEN COMPLETED IN THE AREA.

PAYMENT LIMITS: THE MAXIMUM ALLOWABLE TRENCH WIDTH FOR MEASUREMENT AND BASIS OF PAYMENT IS EQUAL TO THE OUTSIDE DIAMETER OF THE PIPE, OR STRUCTURE WIDTH, PLUS 24 INCHES.

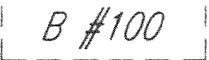
TUNNELING UNDER EXISTING CONDUITS: WHERE SO STATED ON THE PLANS THE CONTRACTOR SHALL TUNNEL UNDER EXISTING PIPES AND OTHER PHYSICAL FEATURES. THE COST OF THE OPERATION SHALL BE INCLUDED IN THE BID PRICE OF SANITARY SEWER. SEPARATE PAYMENT WILL NOT BE MADE. TUNNELING AREAS ARE INDICATED ON THE PLANS BY THE BOLD SYMBOL .

ESTIMATED QUANTITIES: THE ESTIMATED PLAN QUANTITIES ARE FOR COMPETITIVE BIDDING AND ARE NOT NECESSARILY THE FINAL PAY QUANTITIES. FINAL FIELD MEASUREMENTS AND CALCULATIONS SHALL DETERMINE FINAL PAY QUANTITY.

BUILDING LATERALS AND WYES: THE LOCATION AND DEPTH OF THE PROPOSED BUILDING LATERALS AND WYES SHOWN ON THE PLANS ARE APPROXIMATE. THE FINAL EXACT LOCATION OF THESE SEWERS SHALL BE FIELD DETERMINED BY THE CONTRACTOR DURING CONSTRUCTION, PER THE APPROVAL OF THE ENGINEER. THE WYE BRANCH SHALL BE POSITIONED SUCH THAT THE PROPERTY OWNER HAS THE LEAST EXPENSIVE, SHORTEST POSSIBLE LENGTH OF CONNECTION. THE CONTRACTOR SHALL ENSURE THAT THE DEPTH AT THE END OF THE LATERAL IS SUFFICIENT TO SERVE THE LOWEST FLOOR OR BASEMENT. A MINIMUM COVER OF 8 FEET OVER ALL LATERALS SHALL BE MAINTAINED WITHIN ROADWAY RIGHT-OF-WAY. CODE FOR WYE AND BASEMENT FLOOR LOCATIONS SHOWN ON THE PLAN ARE:



- D = DISTANCE TO CENTER OF NEAREST DOWNSTREAM MANHOLE.
- d = DEPTH TO INVERT AT END OF LATERAL PIPE (TO BE DETERMINED BY CONTRACTOR)
- L = BUILDING LATERAL LENGTH AS SHOWN ON RISER DETAIL.

 B #100

APPROXIMATE BASEMENT FLOOR ELEV. OF RES. #100

STREAM CROSSING: A DEPARTMENT OF DEFENSE, CORPS OF ENGINEER RIVER CROSSING PERMIT IS ISSUED FOR THIS PROJECT. THE CONTRACTOR SHALL COMPLY WITH ALL REQUIREMENTS OF SAID PERMIT. THE FOLLOWING MEASURES SHOULD BE USED TO MINIMIZE DAMAGE FROM THE CONSTRUCTION OF THE SEWER TO THE EXISTING STREAMS AND WATERWAYS. SEWER INSTALLATION ACROSS A STREAM IS BEST DONE DURING PERIODS OF LOW FLOW. STREAM FLOWS SHOULD BE DIVERTED AWAY FROM THE CONSTRUCTION AREA. THE CONSTRUCTION COULD BE STAGED SO THAT HALF THE STREAM IS BLOCKED OFF UNTIL THE WORK IS COMPLETE. THEN THE PROCESS WOULD BE USED ON THE SECOND HALF. SHEET PILING AND/OR SAND BAGS AND NOT EARTH EXCAVATED FROM THE STREAM BED SHALL BE USED TO TEMPORARILY DIVERT THE STREAM FLOW. AFTER THE CONSTRUCTION IS COMPLETE IN EACH STAGE THE AREA MUST BE COMPLETELY STABILIZED BEFORE THE WATER IS ALLOWED TO FLOW OVER THE DISTURBED AREA. MATERIAL EXCAVATED FROM THE TRENCH SHALL BE PLACED AT LEAST 20 FEET FROM THE TOP OF THE STREAM BANKS. PUMPED WATER CONTAINING SEDIMENT FROM THE THE TRENCH SHALL NOT DISCHARGE DIRECTLY INTO THE STREAM. THE WATER SHOULD BE DIRECTED THROUGH A SETTLING POND OR A FLAT, WELL VEGETATED AREA TO FILTER THE WATER BEFORE IT REACHES THE STREAM. FINAL BACKFILL FOR ALL TRENCH EXCAVATION SHALL BE CLEAN AGGREGATE (ROCK CHANNEL PROTECTION) OR REINFORCED CONCRETE COVER, AS CALLED FOR ON THE PLAN. PRECAUTIONS SHALL BE TAKEN TO MINIMIZE THE AMOUNT OF SEDIMENT POLLUTION DOWNSTREAM FROM THE UTILITY STREAM CROSSING. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO DO HIS WORK IN A MANNER THAT WILL NOT CAUSE AN EXCESS OF THIS TYPE POLLUTION. IN ADDITION TO THE GENERAL CONDITIONS ATTACHED TO THE NATIONWIDE PERMIT, YOUR ATTENTION IS DIRECTED TO THE FOLLOWING SPECIAL CONDITIONS WHICH ARE ALSO APPENDED AT THE END OF THE NATIONWIDE PERMIT GENERAL CONDITIONS.

1. THAT NO IN WATER WORK SHALL BE PERFORMED BETWEEN APRIL 15 AND JUNE 15 TO PRECLUDE ADVERSE IMPACTS ON THE SPAWNING, NURSERY, AND FEEDING ACTIVITIES OF INDIGENOUS FISH SPECIES.
2. THAT TREES WITH CAVITIES OR EXFOLIATED BARK SHALL NOT BE CUT BETWEEN APRIL 15 AND SEPTEMBER 15 WITHOUT FIRST CONDUCTING A MIST SURVEY (OR OTHER ACCEPTABLE SURVEY) FOR THE INDIANA BAT. TREES WITH CAVITIES OR EXFOLIATING BARK MAY PROVIDE POTENTIAL ROOSTING HABITAT FOR THIS FEDERALLY LISTED ENDANGERED SPECIES. ADDITIONAL INFORMATION MAY BE OBTAINED BY CONTACTING MR. BUDDY FAZIO OF THE U.S. FISH AND WILDLIFE SERVICE AT (614) 469-6923.
3. ALL UNSUITABLE/EXCESS DREDGED AND EXCAVATED MATERIAL NOT USED AS BACKFILL OVER THE SEWER LINE SHALL BE REMOVED FROM THE RIVER BOTTOM AND DEPOSITED AT A SEPARATELY APPROVED UPLAND DISPOSAL SITE.
4. THAT THE MECHANICAL EQUIPMENT USED TO EXECUTE THE WORK AUTHORIZED HEREIN SHALL BE OPERATED IN SUCH A WAY AS TO MINIMIZE TURBIDITY THAT COULD DEGRADE WATER QUALITY AND ADVERSELY AFFECT AQUATIC PLANT AND ANIMAL LIFE.
5. THAT EFFORTS SHALL BE MADE TO KEEP CONSTRUCTION DEBRIS FROM ENTERING THE WATERWAY OR WETLAND, AND SHALL BE REMOVED IMMEDIATELY SHOULD ANY DEBRIS BE PRESENT IN THE WATERWAY OR WETLAND.

YOUR INITIATION OF WORK AS AUTHORIZED BY THE NATIONWIDE PERMIT ACKNOWLEDGES YOUR ACCEPTANCE OF THE GENERAL AND SPECIAL CONDITIONS CONTAINED THEREIN.

WORK IN EASEMENTS: NO WORK SHALL BE PERFORMED ON ANY PORTIONS OF THE PROJECT ON PROPERTY REQUIRING EASEMENT OR WORK AGREEMENT WITHOUT THE WRITTEN AUTHORIZATION OF THE ENGINEER.

PROTECTION AND RESTORATION OF PROPERTY: THE CONTRACTOR SHALL USE CARE TO PROTECT PUBLIC AND PRIVATE PROPERTY AS PER ITEM 107.12 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS. AFTER COMPLETION OF THE PROJECT OR AS DIRECTED BY THE ENGINEER, THE CONTRACTOR SHALL RESTORE THE DISTURBED AREAS TO AN ACCEPTABLE CONDITION INCLUDING GRADING, SEEDING, AND REPLACEMENT OF PAVEMENT, DRIVEWAYS, BERMS, SIDEWALK, CURBING, AND OTHER ITEMS AS DIRECTED BY THE ENGINEER.

OHIO E.P.A. REQUIREMENTS: THE OHIO ENVIRONMENTAL PROTECTION AGENCY REQUIRES A CONFORMANCE TO THE 1982 EDITION OF "RECOMMENDED STANDARDS." THIS STANDARD SHALL BE EQUALED OR EXCEEDED FOR WATERLINES. SPECIAL ATTENTION SHALL BE GIVEN TO THE FOLLOWING SECTIONS OF PART 8:

- 8.0.1. MATERIALS CONFORM TO AWWA STANDARDS
- 8.1.2. MINIMUM 6" DIAMETER FIRE PROTECTION, CL 52, CEMENT LIN. W/ POLYWRAP
- 8.5.3. MINIMUM 4' GROUND COVER
- 8.5.5. PRESSURE TESTING AWWA C-600\*
- 8.5.6. DISINFECTION AWWA C-601\*
- 8.6.2. 10' HORIZONTAL SEPARATION WATER MAIN/SEWER
- 8.6.3. 18" VERTICAL SEPARATION WATER MAIN/SEWER
- 8.6.6. NO ENTRY AND/OR CONTACT WITH SEWER MANHOLE

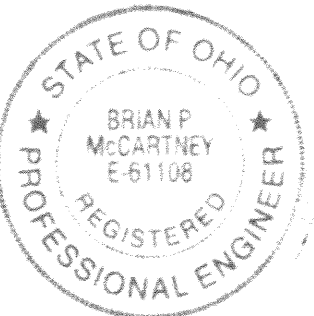
\* NOTE: IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PERFORM THIS TEST PROPERLY AND THE RESPONSIBILITY FOR AN ADEQUATE SUPERVISION AND APPROVAL RESTS WITH THE APPROPRIATE GOVERNMENTAL AGENCY. ANY DEVIATION FROM THE ABOVE WILL NOT BE PERMITTED UNLESS SPECIFICALLY INCLUDED IN THE GENERAL NOTES OR OTHERWISE SHOWN ON THESE PLANS.

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

TYPE D GRANULAR PAVEMENT REPLACEMENT: THIS ITEM SHALL INCLUDE ALL WORK SHOWN ON THE PLAN DETAIL. PAYMENT SHALL BE INCLUDED UNDER THE VARIOUS BID OF ITEM 603 - SANITARY SEWERS. SEPARATE PAYMENT WILL NOT BE MADE.

AVON LAKE MUNICIPAL UTILITIES TRANSMISSION WATER MAIN: THE LOCATION OF THE 42" WATER MAIN SHOWN ON THE PLANS IS APPROXIMATE ONLY, SCALED FROM PLANS DATED 8-17-00. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION PRIOR TO CONSTRUCTION.

RECORD DRAWINGS

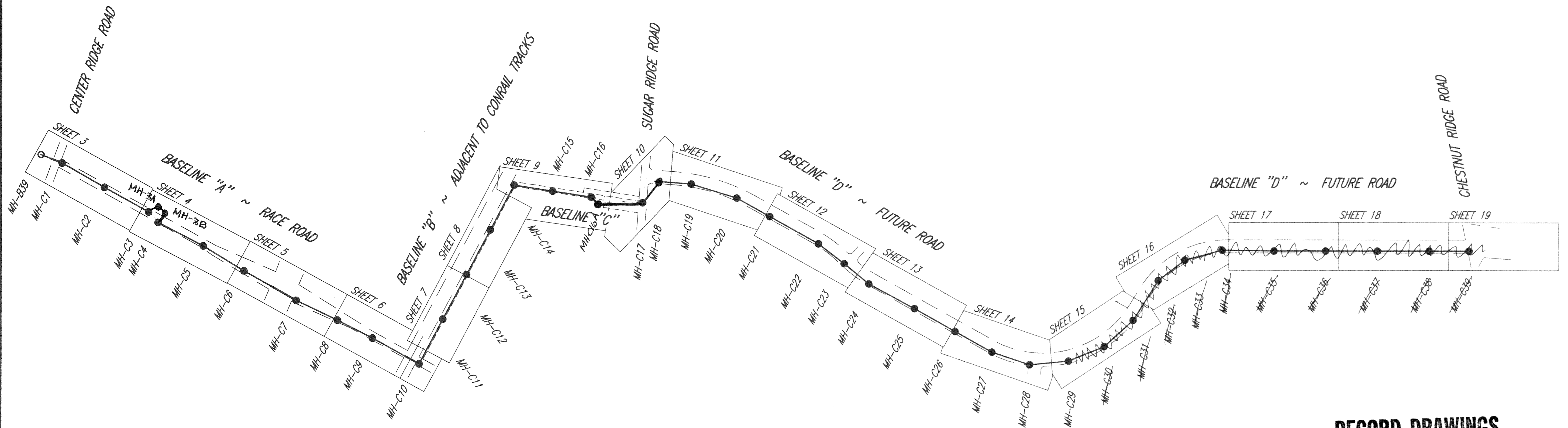


WESTERLY SANITARY TRUNK SEWER IMPROVEMENT  
CITY OF NORTH RIDGEVILLE, OHIO

GENERAL NOTES

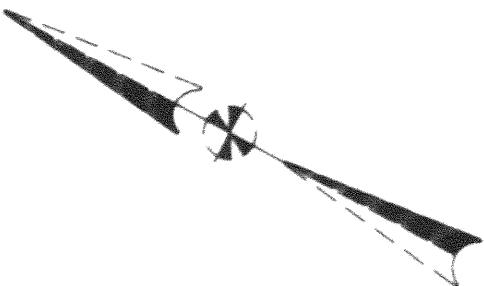
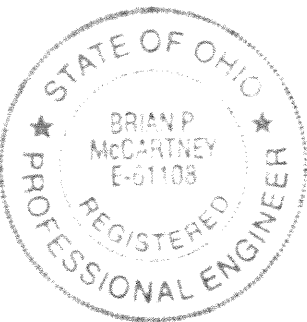
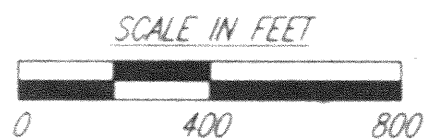


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RECORD DRAWINGS

NOTE: FOR HORIZONTAL AND VERTICAL CONTROL SEE PLAN AND PROFILE SHEETS





## 50

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# RECORD DRAWINGS

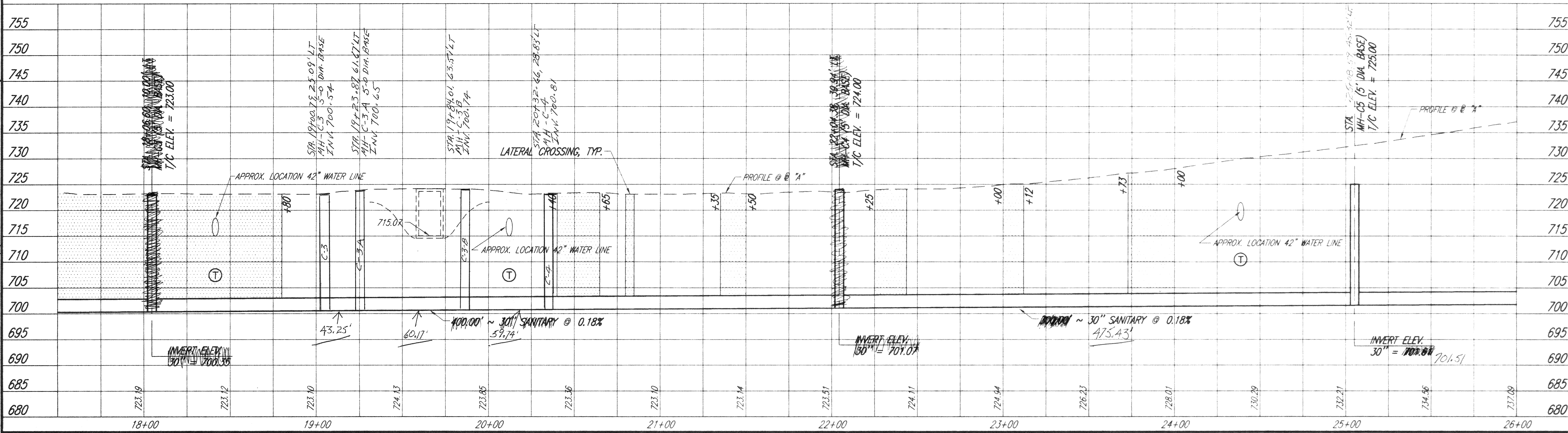
A circular professional engineer seal for the State of California. The outer ring contains the text "STATE OF CALIFORNIA" at the top and "PROFESSIONAL ENGINEER" at the bottom, separated by two stars. The inner circle contains the name "BRIAN McCAULEY" and the license number "E 51108".







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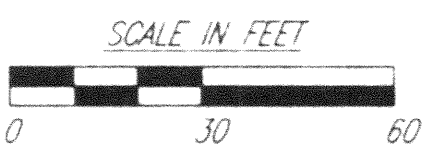
B.M. # 22 ~ FRONT FLANGE BOLT OF HYD.  
STA. 20+50, 14.5' RT.  
ELEV. 724.64

B.M. ~ TOP OF IRON PIN WITH CAP STAMPED  
"MCCARTNEY TRAVERSE POINT"  
STA. 19+96, 23.2' LT. (CONTROL #3)  
ELEV. 724.69

B.M. ~ TOP OF IRON PIN WITH CAP STAMPED  
"MCCARTNEY TRAVERSE POINT"  
STA. 25+20.2, 8.7' RT. (CONTROL #4)  
ELEV. 733.44

COMPACTED GRANULAR BACKFILL

NOTE: EXIST. 60" C.P. TO BE REMOVED & RESET BY CONTRACTOR,  
ALL COSTS INCLUDED UNDER ITEM 603 - SANITARY SEWER.



RECORD DRAWINGS

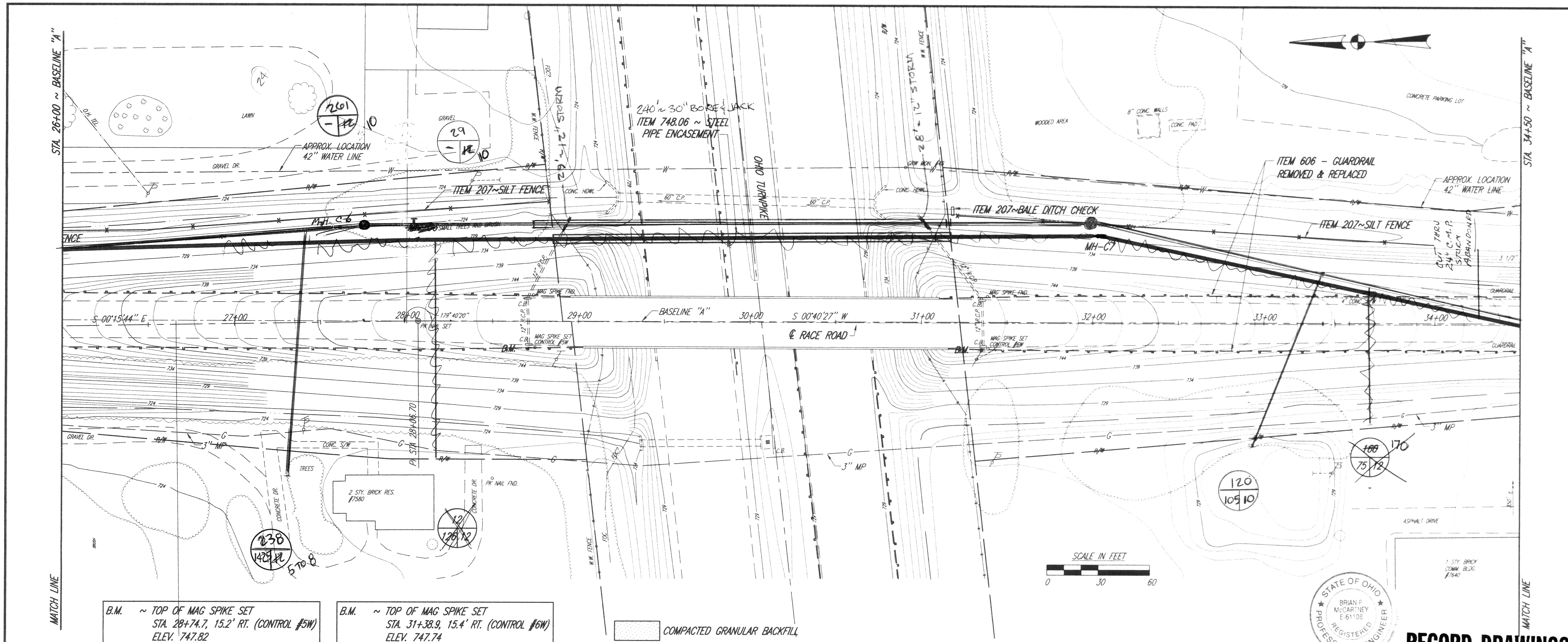
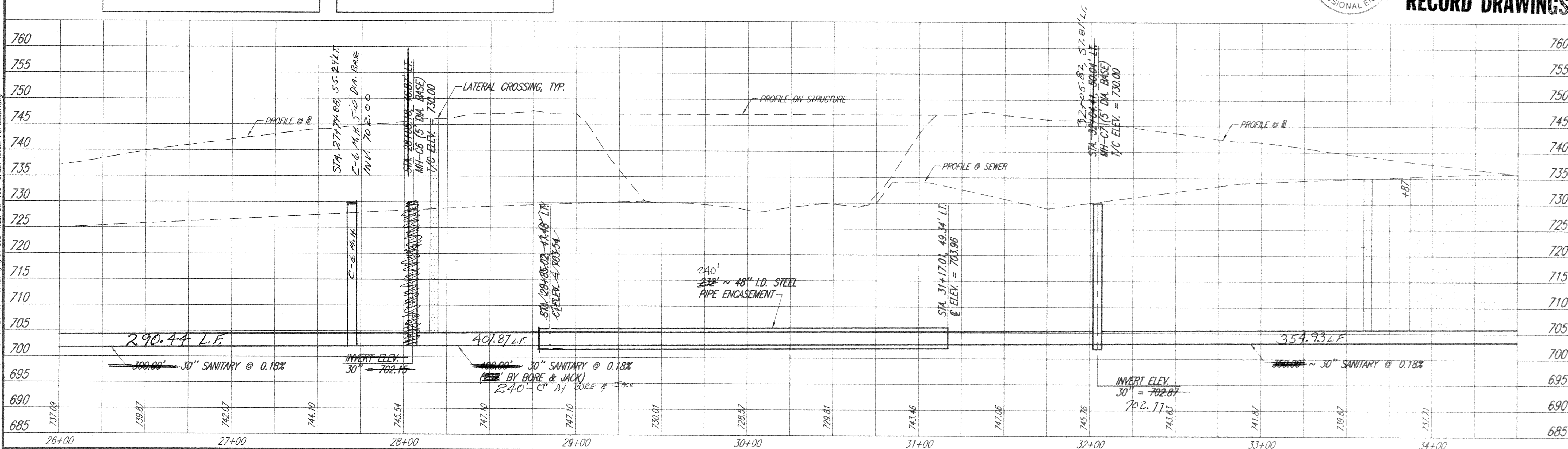
PLAN AND PROFILE  
STA. 17+50 TO STA. 26+00 ~ @ "A"

KEM  
K.E. McCARTNEY & ASSOCIATES, INC.  
Engineers • Planners • Surveyors  
220 Third Street  
Elyria, Ohio 44025  
Phone 419/325-8855  
Fax 419/325-3644



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14



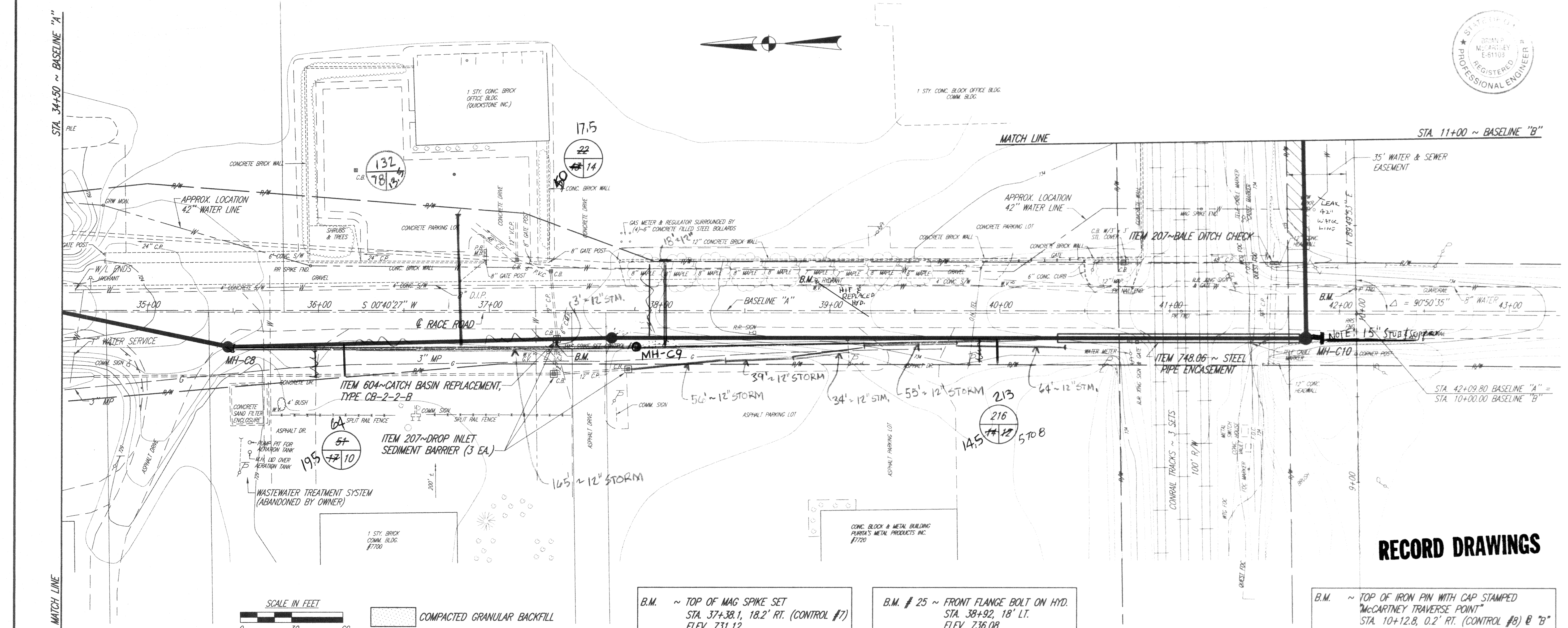
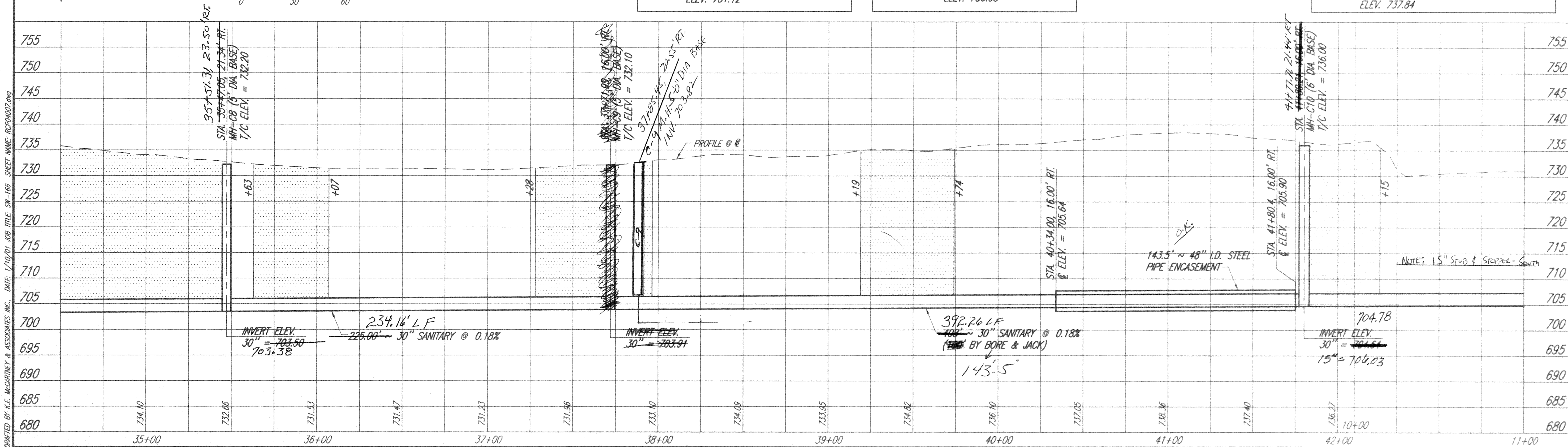
RECORD DRAWINGS

PLAN AND PROFILE  
STA. 26+00 TO STA. 34+50 ~ B "A"

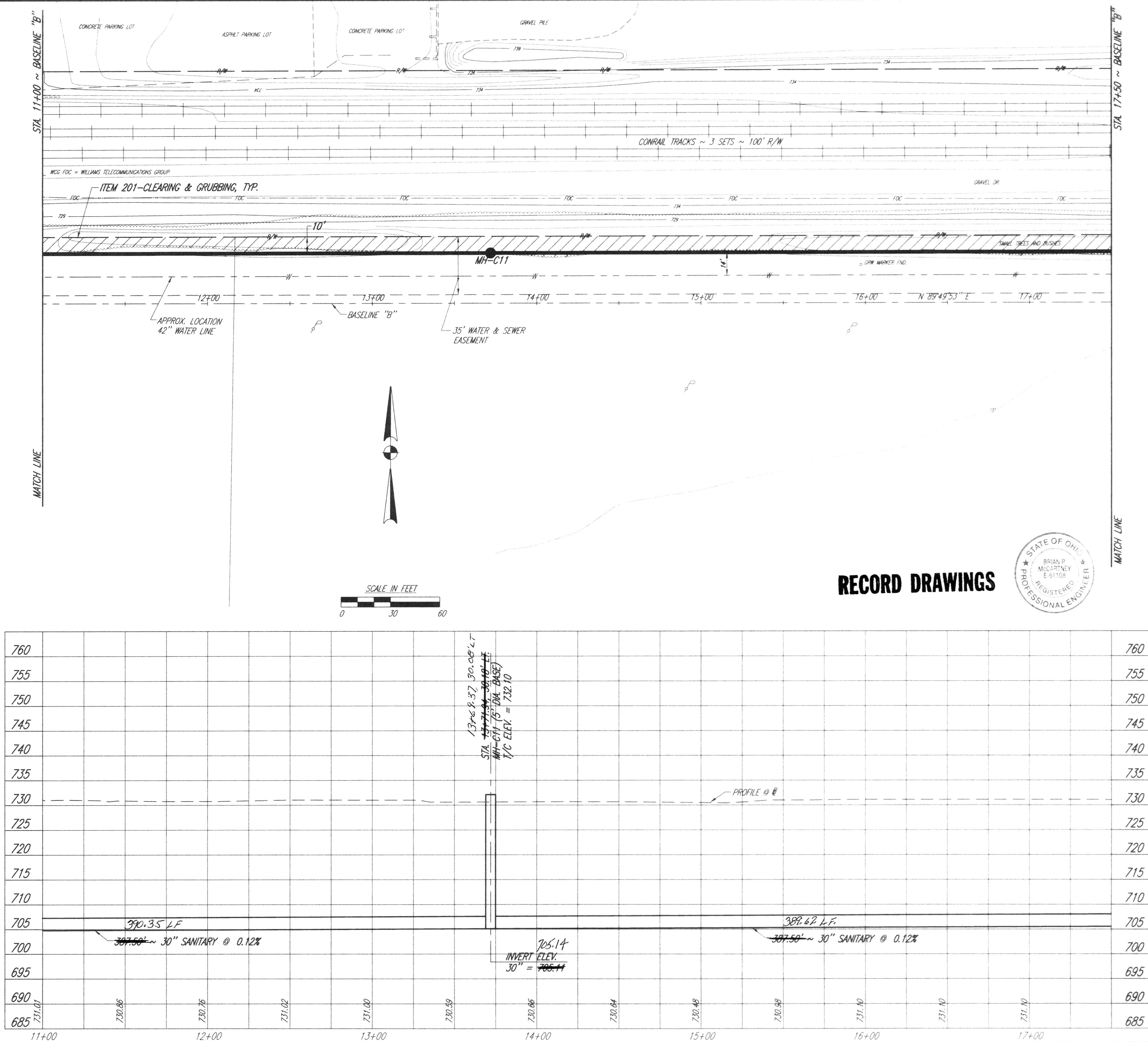
WESTERLY SANITARY TRUNK SEWER IMPROVEMENT  
CITY OF NORTH RIDGEVILLE, OHIO

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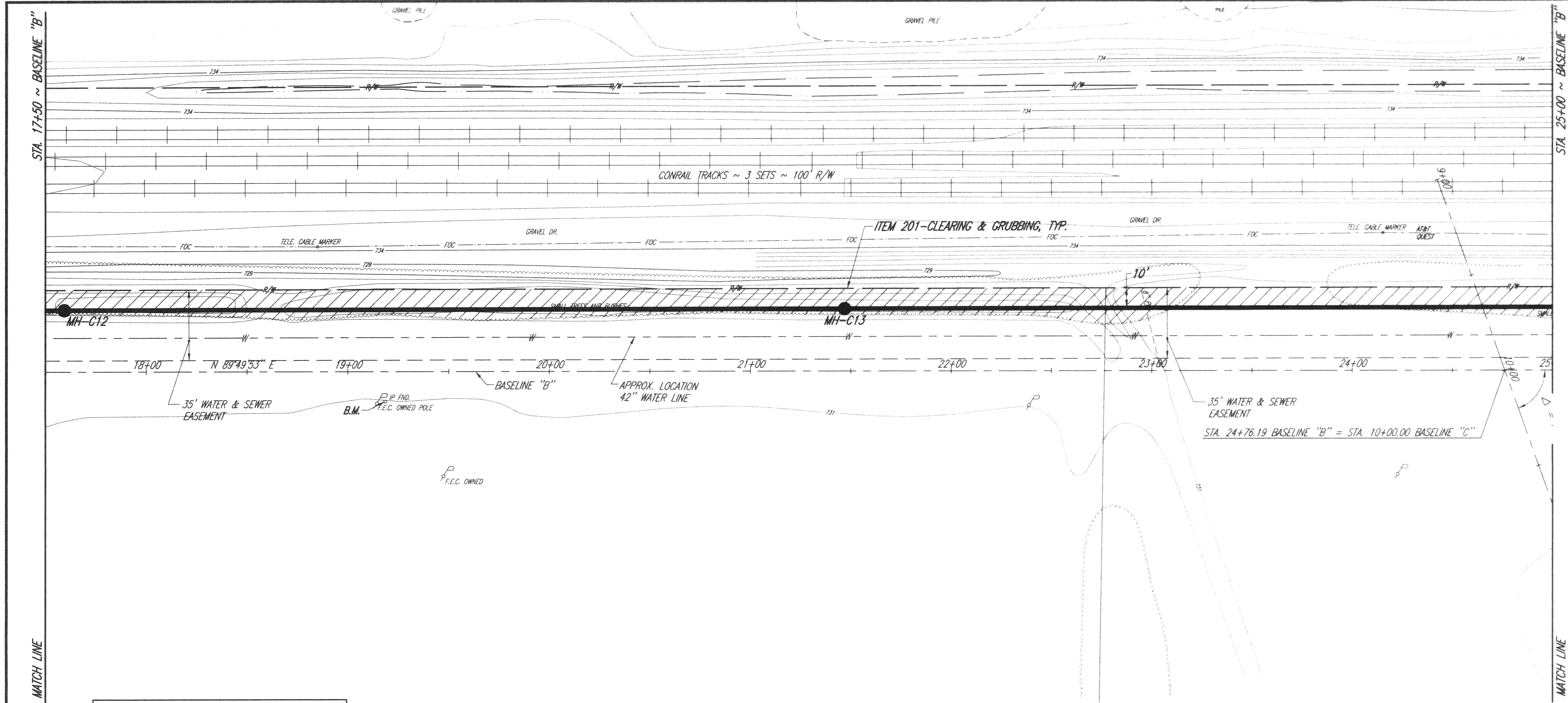
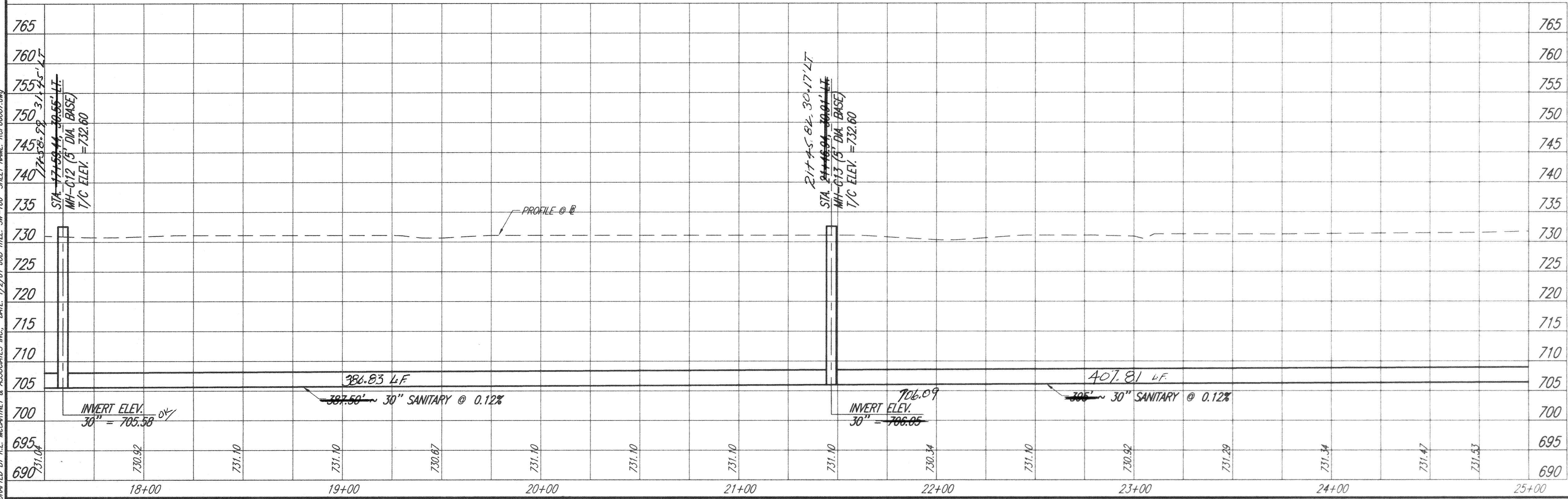




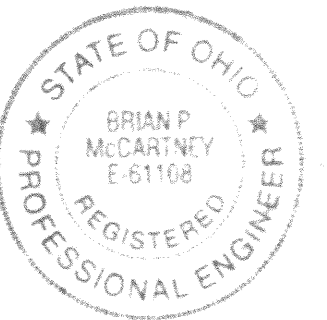


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RECORD DRAWINGS



PLAN AND PROFILE  
STA. 17+50 ~ B "B" TO STA. 11+50 ~ B "C"

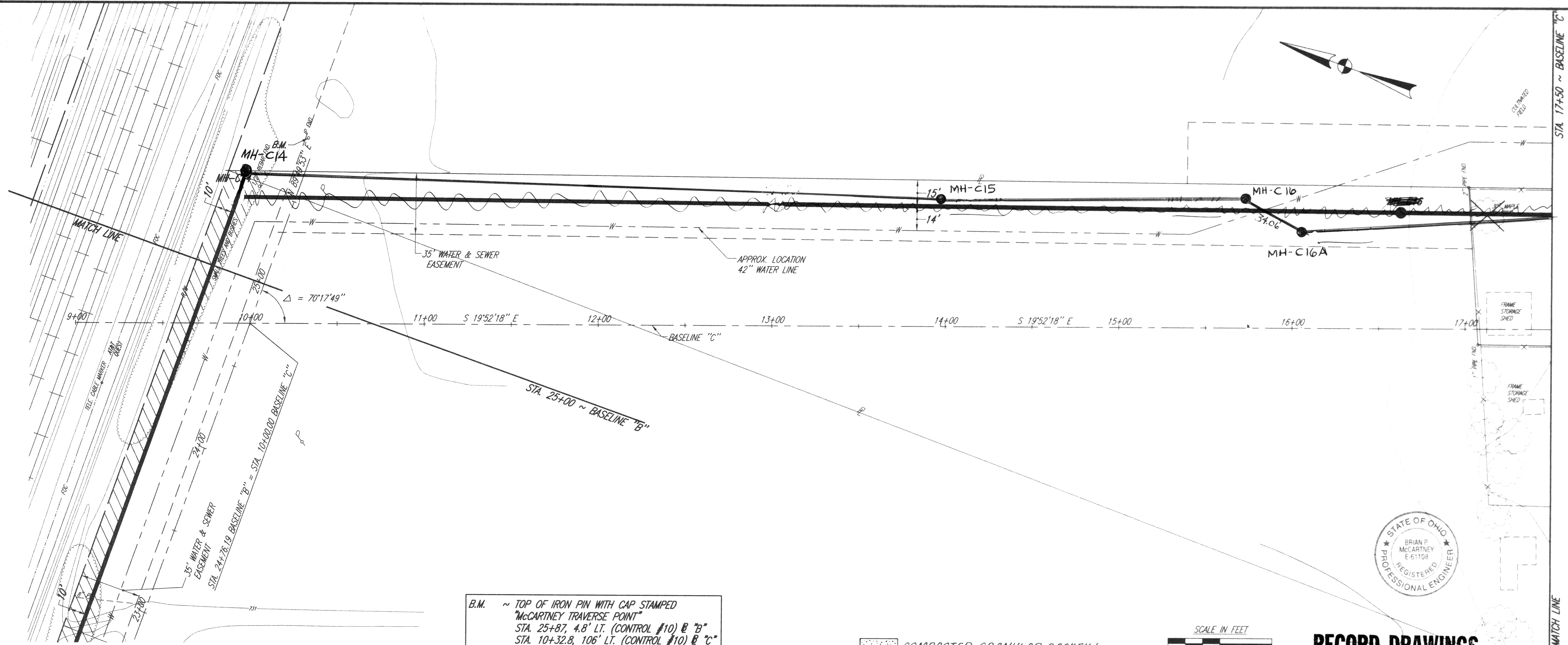
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CITY OF NORTH RIDGEVILLE, OHIO

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K&E McCartney & Associates, Inc.  
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Fax: 440.325.3644



54

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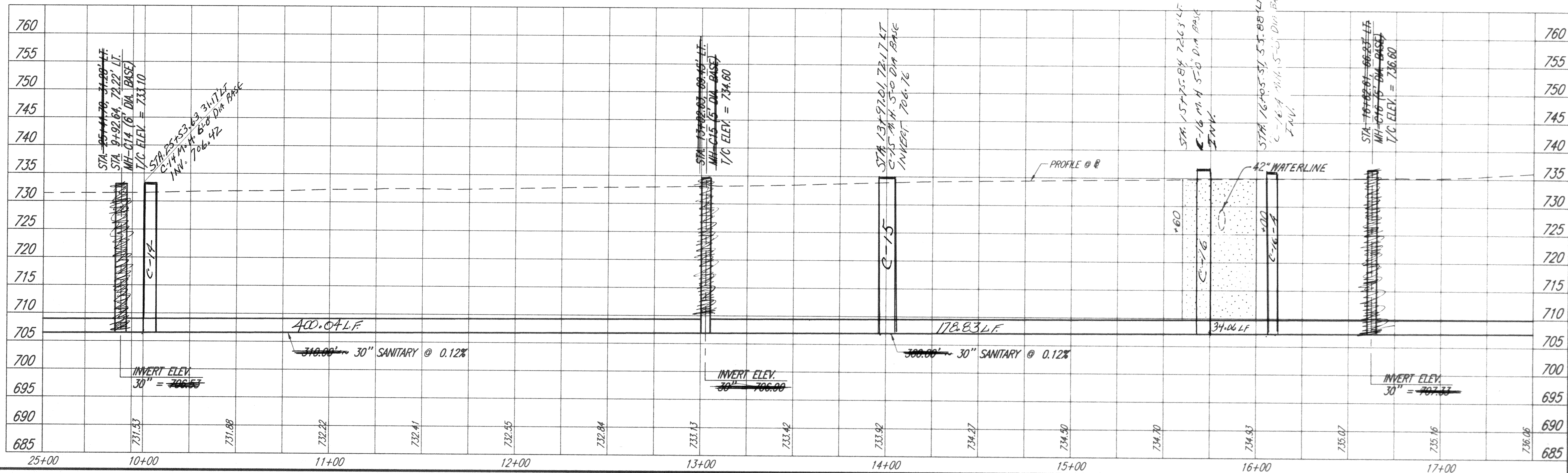


B.M. ~ TOP OF IRON PIN WITH CAP STAMPED  
"MCCARTNEY TRAVERSE POINT"  
STA. 25+87, 4.8' LT. (CONTROL #10) @ "B"  
STA. 10+32.8, 106' LT. (CONTROL #10) @ "C"  
ELEV. 732.16

COMPACTED GRANULAR BACKFILL



RECORD DRAWINGS



WESTERLY SANITARY TRUNK SEWER IMPROVEMENT  
CITY OF NORTH RIDGEVILLE, OHIO

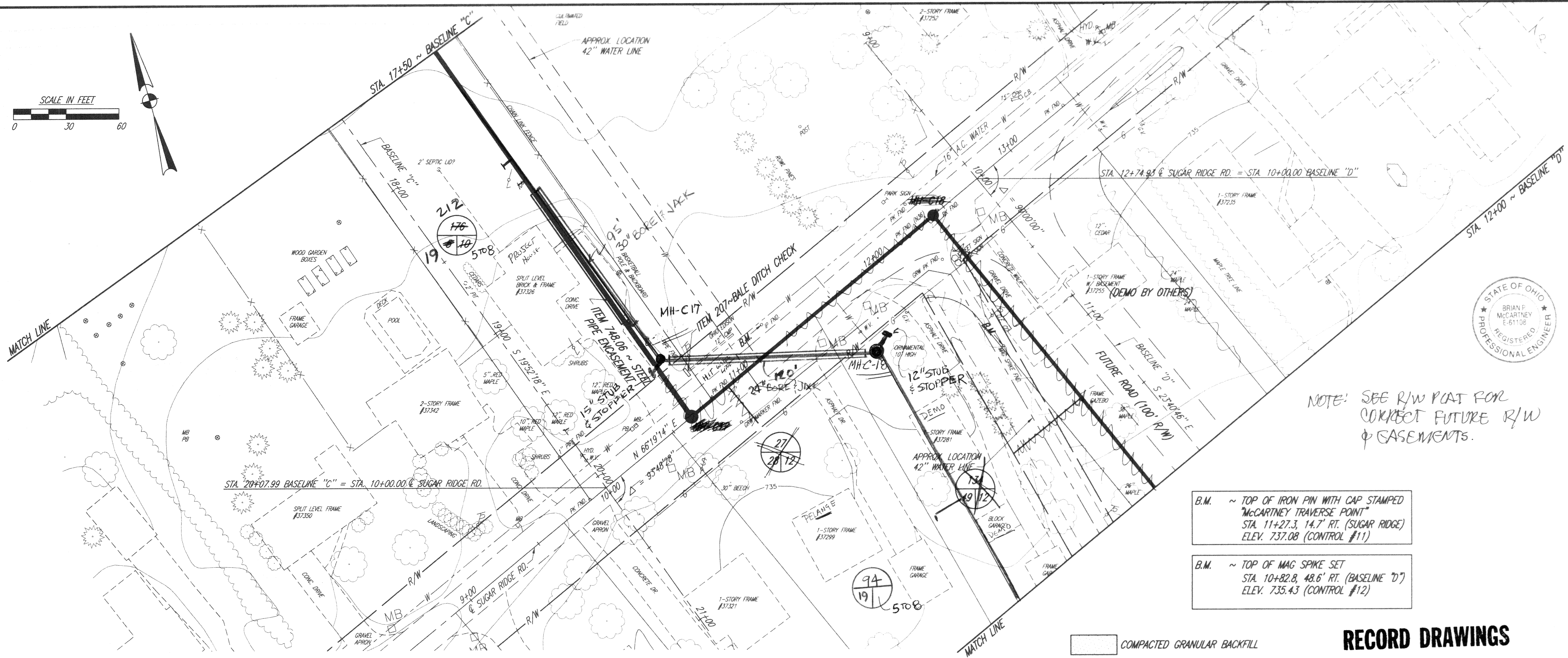
PLAN AND PROFILE  
STA. 25+00 ~ @ "B" TO STA. 17+50 ~ @ "C"

9 / 19

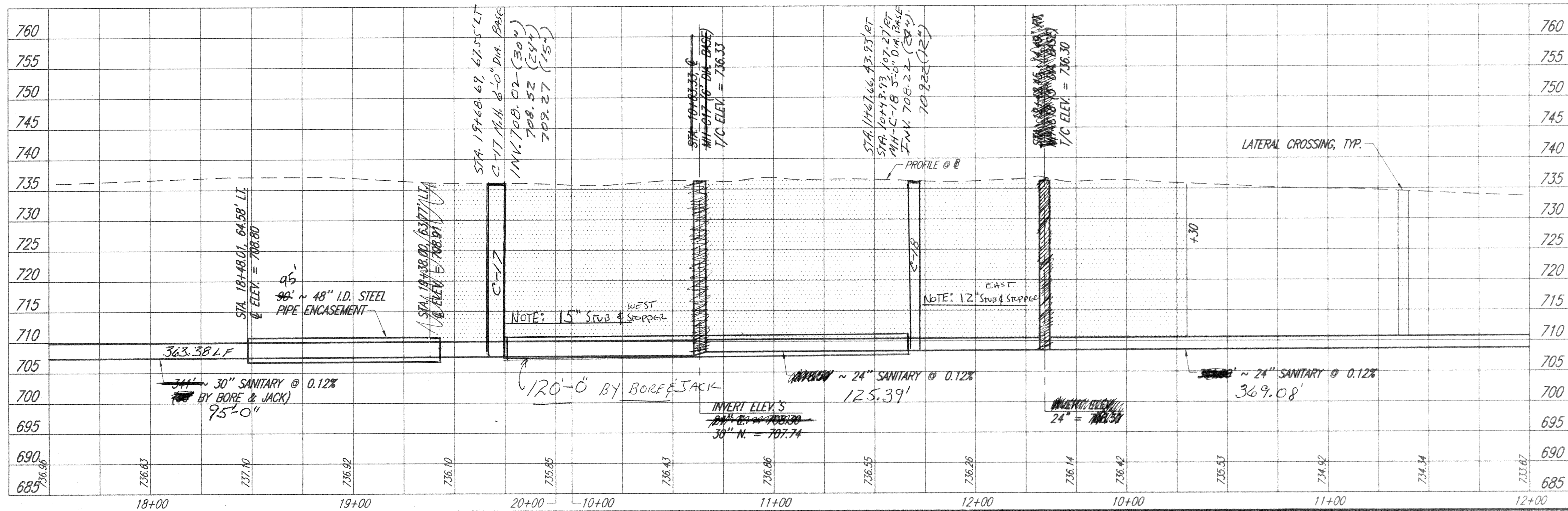
44  
54

Richland County, Ohio  
Surveyor  
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Engineers • Planners • Surveyors  
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North Ridgeville, Ohio 44039  
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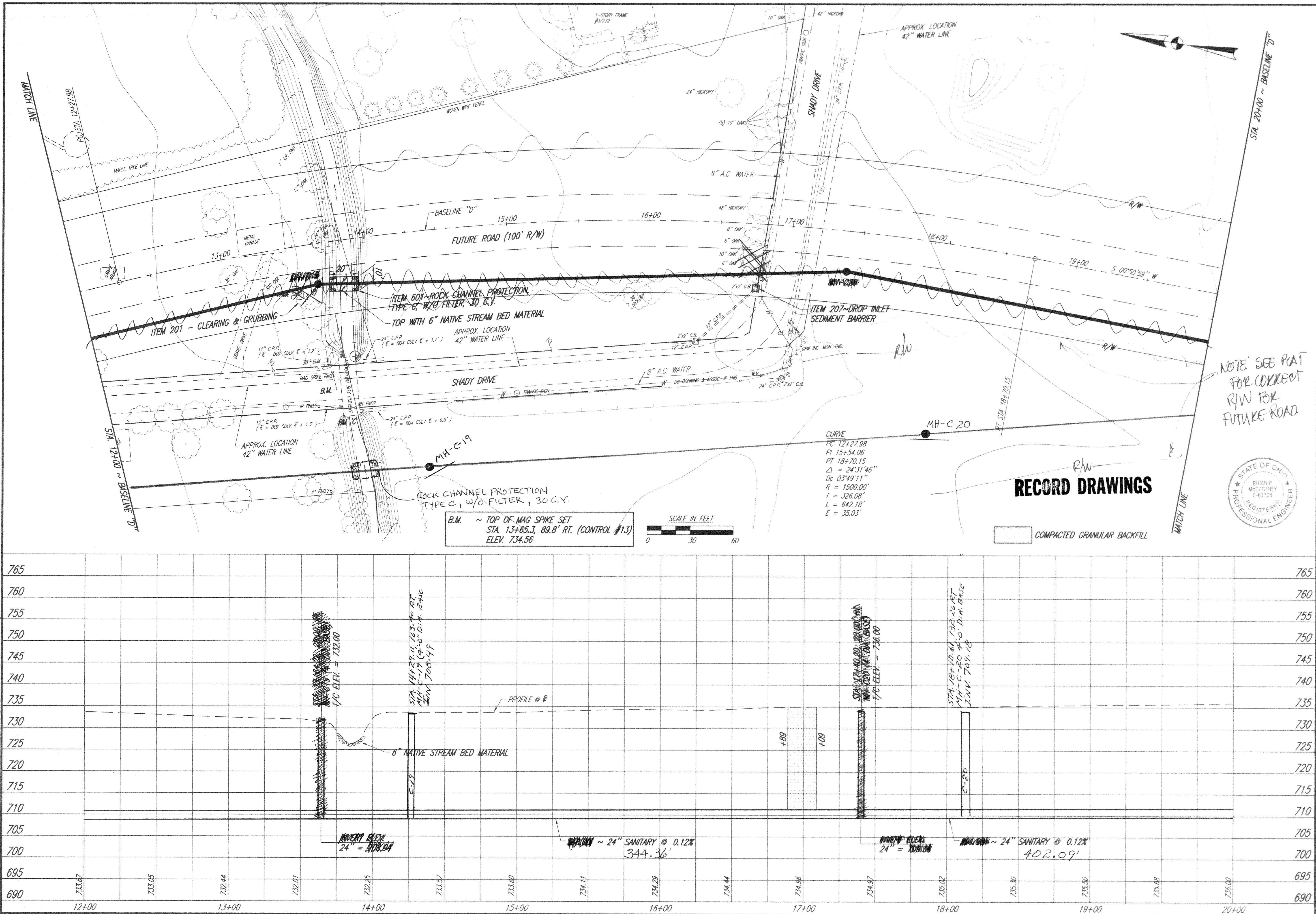
# RECORD DRAWINGS





24

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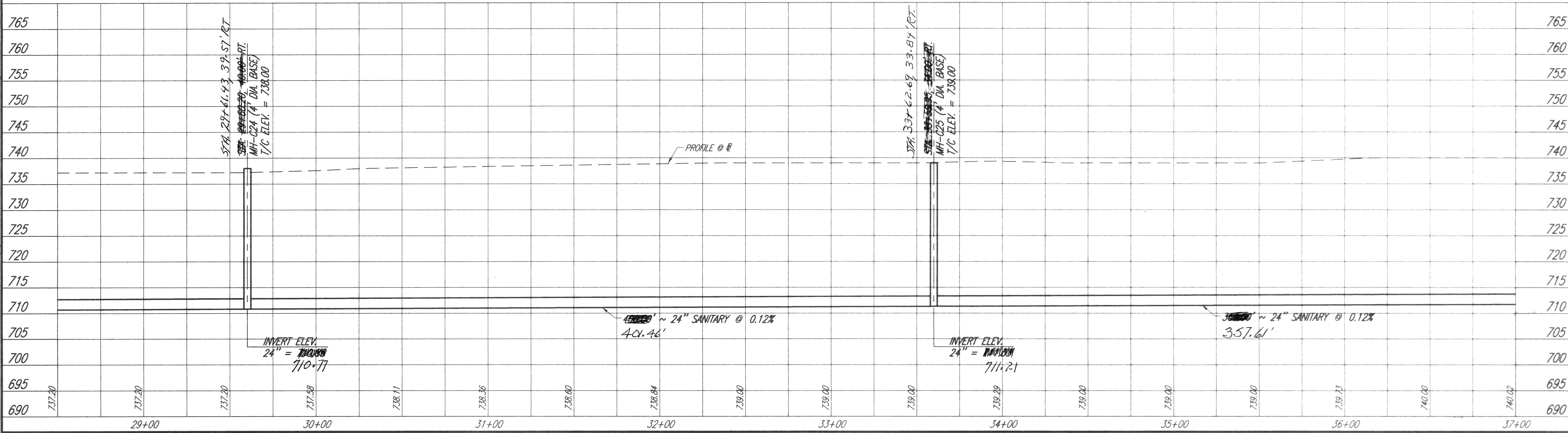




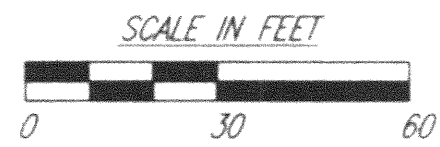


6.4

DRAWN BY K.E. MCCARTNEY & ASSOCIATES, INC., DATE: 1/2/01 JOB TITLE: SH-166A SHEET NAME: RCP11007.dwg



B.M. ~ TOP OF IRON PIN WITH CAP STAMPED  
"MCCARTNEY TRAVERSE POINT"  
STA. 35+37.6, 73.6' RT. (CONTROL #15)  
ELEV. 738.36



RECORD DRAWINGS



WESTERLY SANITARY TRUNK SEWER IMPROVEMENT  
CITY OF NORTH RIDGEVILLE, OHIO

PLAN AND PROFILE  
STA. 28+50 TO STA. 37+00 ~ B "D"

13 / 19

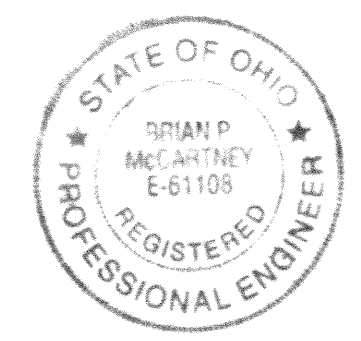
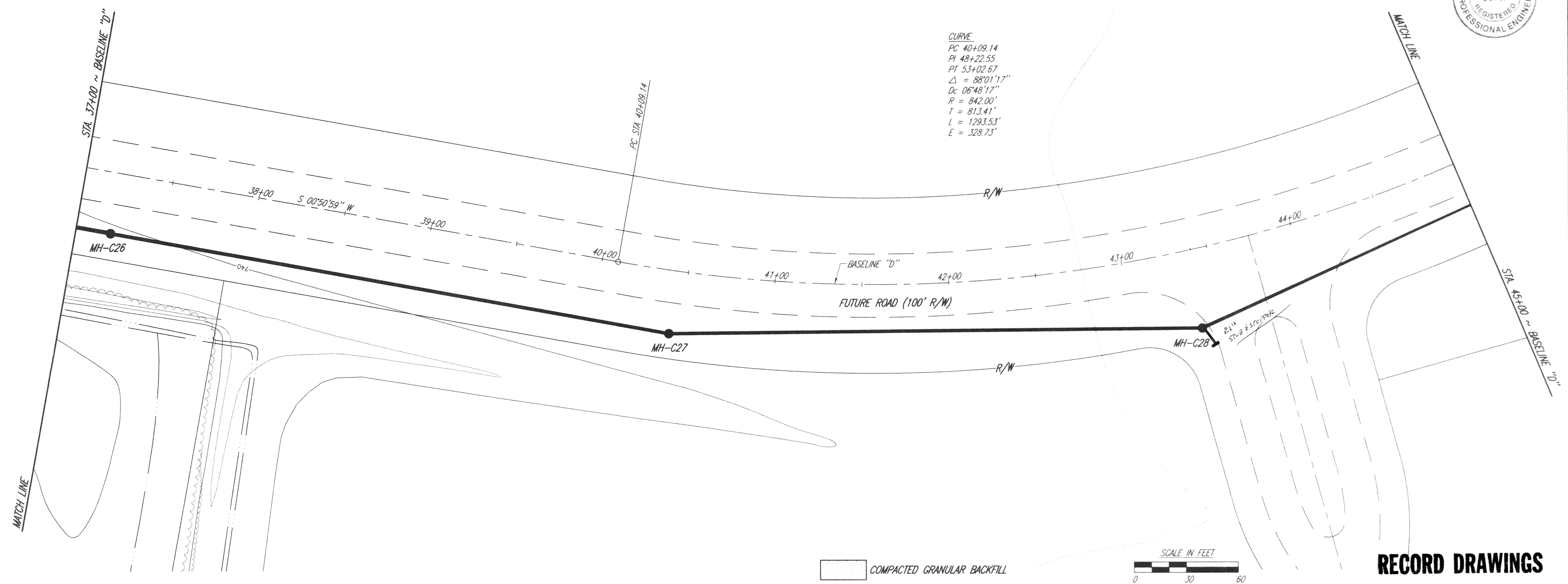
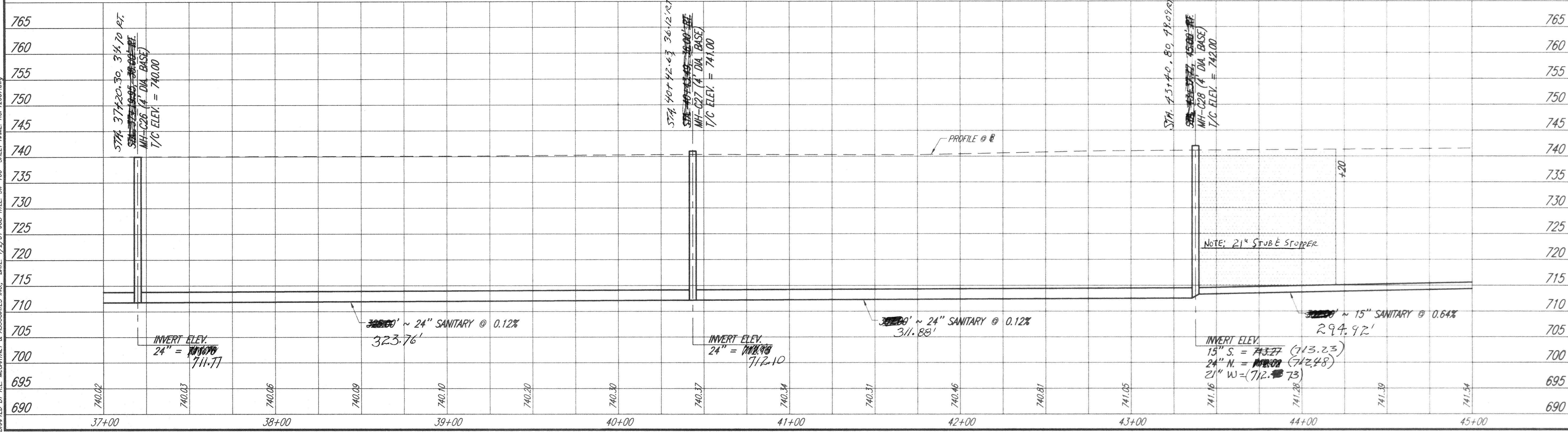
48  
54

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Fax: 440/325-3444  
KEM  
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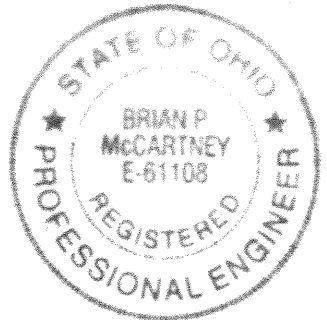
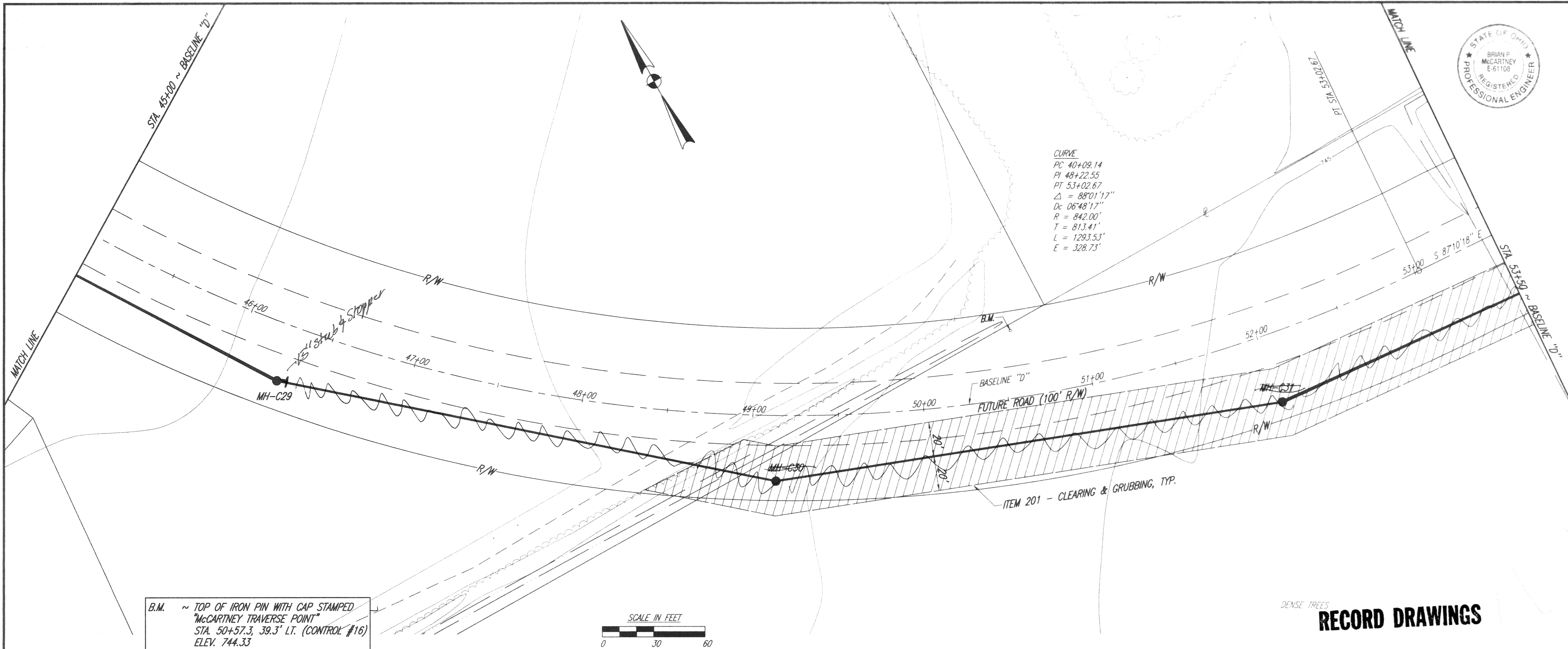
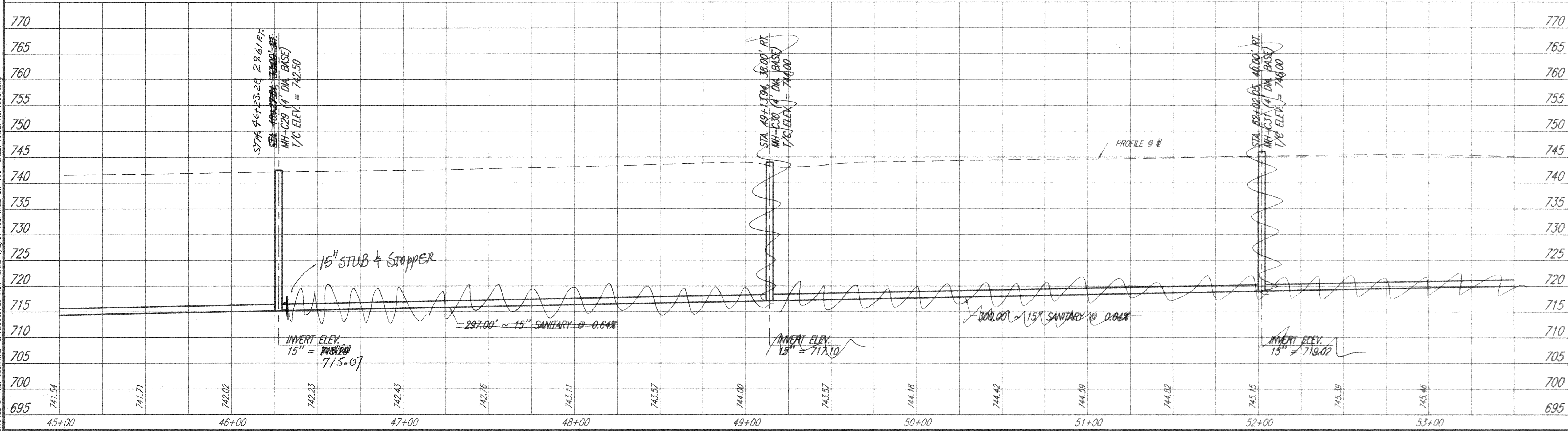
WESTERLY SANITARY TRUNK SEWER IMPROVEMENT  
CITY OF NORTH RIDGEVILLE, OHIO

PLAN AND PROFILE  
STA. 37+00 TO STA. 45+00 ~ 24" D'



15

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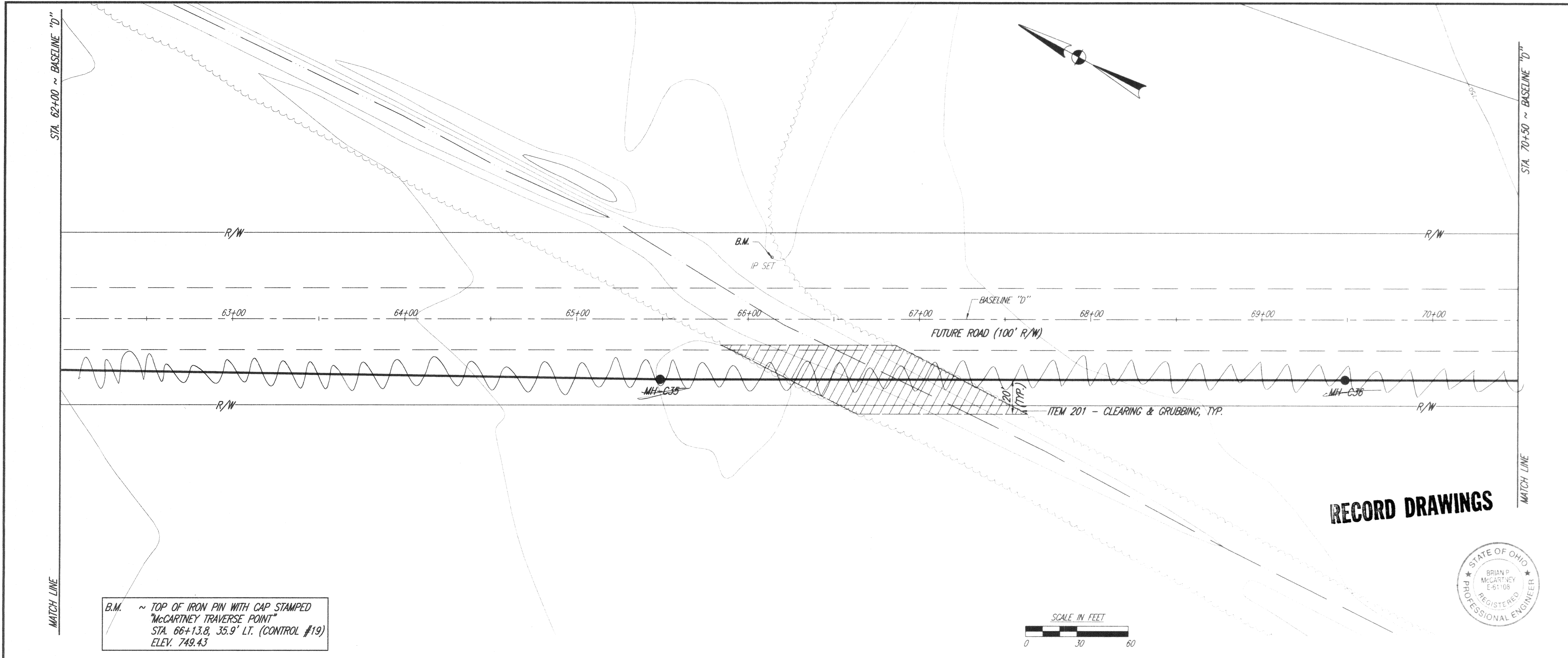
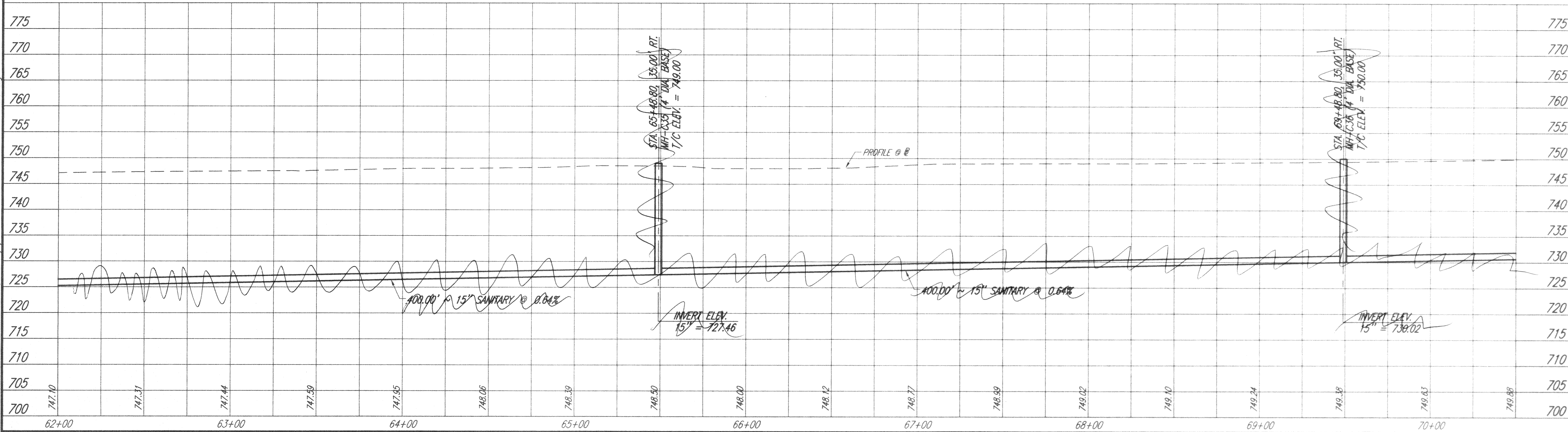
KEM  
BRIAN P. MCCARTNEY  
E-61108  
REGISTERED PROFESSIONAL ENGINEER  
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Bryantown, Ohio 44002  
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Fax 440/723-8844  
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53

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PLAN AND PROFILE  
STA. 62+00 TO STA. 70+50 ~ @ "D"

17 / 19

53  
54

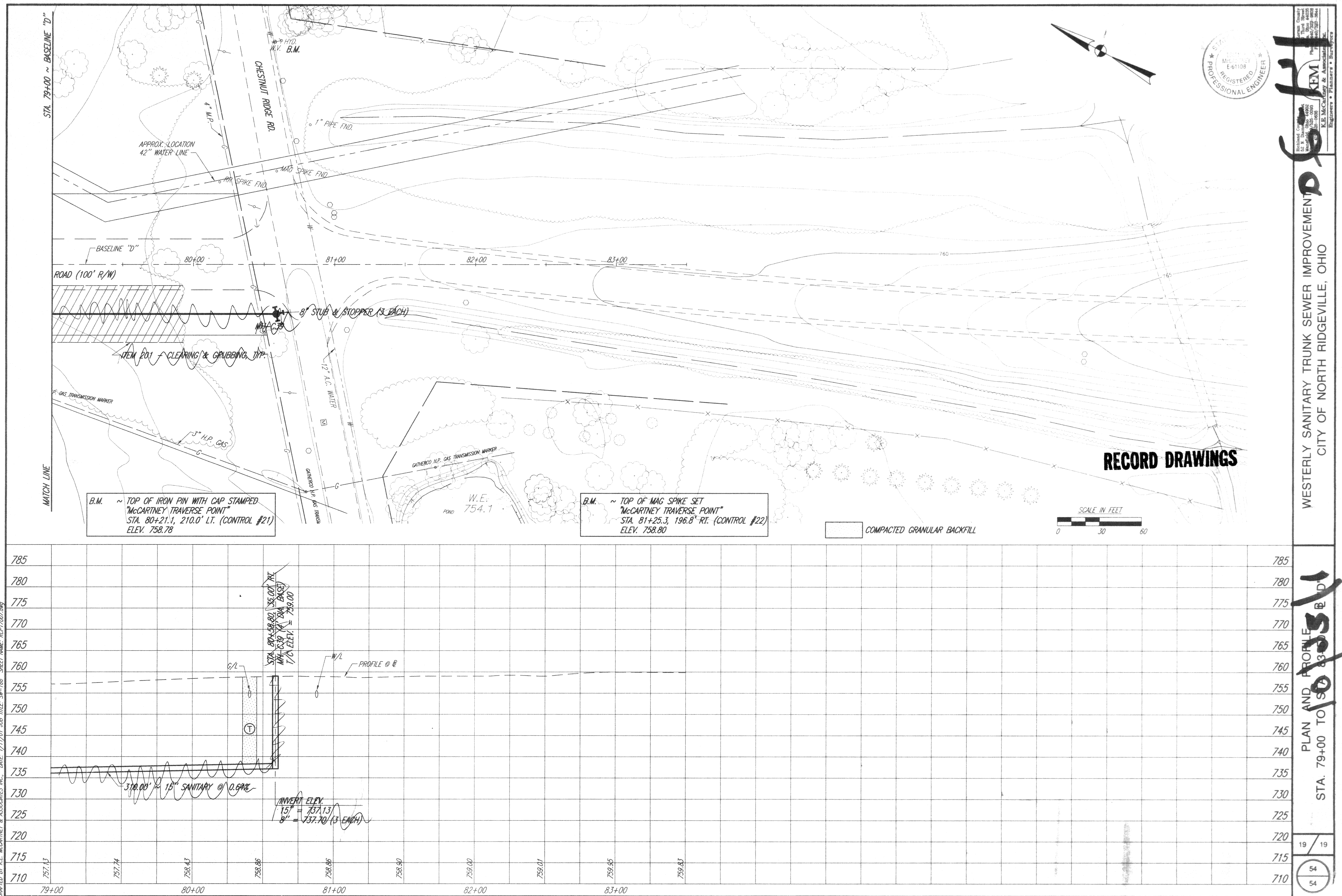
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CITY OF NORTH RIDGEVILLE, OHIO

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STORM WATER POLLUTION PREVENTION NOTES

ALL WORK SPECIFIED AS AN O.D.O.T. ITEM SHALL BE GOVERNED BY THE CURRENT STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATION HANDBOOK. ALL OTHER ITEMS SHOULD CONFORM TO SPECIFICATIONS CONTAINED IN THE O.D.N.R. MANUAL – RAINWATER AND LAND DEVELOPMENT.

THIS CONTRACT DRAWING SHALL BE MADE AVAILABLE ON SITE AT ALL TIMES AND PRESENTED UPON REQUEST. IF UNFORESEEN EROSION IS ENCOUNTERED, ADDITIONAL EROSION AND SEDIMENTATION CONTROL MEASURES MAY BE REQUESTED BY THE OWNER, CITY ENGINEER, PROJECT ENGINEER OR SOIL CONSERVATION SERVICE REPRESENTATIVE AT ANYTIME. SUCH REQUESTS SHALL BE IMPLEMENTED IMMEDIATELY AT CONTRACTOR'S EXPENSE.

ALL EROSION AND SEDIMENTATION CONTROL ITEMS SHALL BE INSTALLED AS SHOWN ON THE CONSTRUCTION PLAN, AND AS CALLED FOR BELOW.

PLANT ODOT ITEM 207 TEMPORARY SEEDING AND MULCHING IN ALL AREAS THAT SHALL BE INACTIVE FOR 15 DAYS OR MORE. ALL DISTURBED AND ERODED EARTH SHALL BE REGRADED AND SEEDED WITHIN 24 DAYS WITH SEEDING, AS DEFINED ABOVE AND AS SHOWN ON THE TABLE BELOW, TO ESTABLISH STABILITY AND PROVIDE SEDIMENT CONTROL. WHERE POSSIBLE, TEMPORARY SEEDING GROWTH SHALL NOT BE MOWED UNTIL IT HAS GONE TO SEED FOR 1 YEAR.

TEMPORARY SEEDING SPECIFICATIONS:

SEEDING DATES	SEED TYPE	APPLICATION RATE PER 1,000 SF
MARCH 1 – AUGUST 15	OATS PERENNIAL RYE GRASS OR TALL FESCUE	3# 1#
AUGUST 16 – NOVEMBER 1	RYE, WHEAT OR PERENNIAL RYE GRASS TALL FESCUE	3# 1#
AFTER NOVEMBER 1	STRAW OR HAY MULCH	2–3 BALES
SEED BED PREPARATION	LIME 10–10–10 OR 12–12–12 FERTILIZER	100# 12–15#

SILT FENCE SEDIMENT BARRIERS AND SEDIMENT PITS SHALL BE INSTALLED AROUND ALL EXISTING OR NEW STORM INLETS, CATCH BASINS, YARD DRAINS. STRAW BALES SHALL BE STACKED TWO (2) HIGH. INSTALL ROCK CHECK DAMS FOR HEADWALL INLETS TO CONTROL SOIL EROSION.

EROSION CONTROL MEASURES SHALL BE INSTALLED AROUND ALL DIRT OR TOPSOIL STOCKPILES AND OTHER TEMPORARILY DISTURBED AREAS AS SHOWN ON THESE PLANS AND AS DIRECTED BY THE ENGINEER.

TEMPORARY SEDIMENTATION AND EROSION CONTROL MEASURES MUST BE INSPECTED AND LOGGED BY THE CONTRACTOR FOR THE OHIO EPA INSPECTION, LOGGING SHALL BE WEEKLY AND AFTER RAIN STORMS.

UTILITY COMPANIES MUST COMPLY WITH ALL STORM WATER POLLUTION PREVENTION MEASURES AS DEFINED ON THE CONSTRUCTION PLAN. THE TOTAL AREA OF DISTURBANCE FOR THIS PROJECT IS 386,700 SQ. FT. (8.88 Ac.).

ALL EXISTING WATER COURSES WITHIN THE PROJECT LIMITS SHALL BE TEMPORARILY PROTECTED DURING LAND CLEARING AND GRADING OPERATIONS. SOILS WITHIN 50 FEET OF SAID WATER COURSES SHALL BE STABILIZED WITHIN 2 DAYS OR THE INITIAL CLEARING/ GRADING OPERATION AS SHOWN ON PLANS.

ALL DISTURBED AREAS SHALL BE STABILIZED WITHIN 7 DAYS OF FINAL GRADING.

IT IT THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN ALL SEDIMENTATION AND EROSION CONTROL ITEMS AT ALL TIMES.

ALL SWPPP PRACTICES WILL BE INSTALLED FIRST BEFORE ANY OTHER EARTHMOVING OCCURS.

THE FOLLOWING EROSION AND SEDIMENT CONTROL MEASURES WILL BE USED ON THIS SITE:  
– SILT FENCES, DRAINAGE SWALES, STORM DRAIN INLET & PROTECTION

CONSTRUCTION SEQUENCE

GENERAL CONSTRUCTION ACTIVITIES

THIS PROJECT WILL PROVIDE SANITARY SERVICE TO SINGLE & MULTIFAMILY RESIDENTIAL DEVELOPMENT.

GENERAL CONSTRUCTION SEQUENCE

THE PROJECT SITE SHALL BE CLEARED AND GRUBBED WITHIN THE GRADING LIMITS AS SHOWN ON THE PLANS. PER NPDES PERMIT THE CONTRACTOR SHALL PLACE ALL SEDIMENT CONTROL STRUCTURES WITHIN 7 DAYS OF THE FIRST GRUBBING ACTIVITY.

TEMPORARY SEDIMENTATION AND EROSION CONTROL ITEMS SHALL BE INSTALLED.

SITE GRADING OPERATION TO BEGIN.

AT COMPLETION OF GRADING OPERATION, TEMPORARY OR PERMANENT SEEDING AND MULCHING SHALL BE INSTALLED.

AT COMPLETION OF PERMANENT STORM WATER CONTROL STRUCTURES AND SITE IS SUFFICIENTLY STABLE, THE TEMPORARY SEDIMENTATION AND EROSION CONTROL ITEMS SHALL BE REMOVED.

CURB INLET SEDIMENT BARRIERS

CONSTRUCTION SPECIFICATIONS

PLACE THE BARRIERS ON GENTLY SLOPING STREETS WHERE WATER CAN POND. THE BARRIERS MUST ALLOW FOR OVERFLOW FROM A SEVERE STORM EVENT. SLOPE RUNOFF SHALL BE ALLOWED TO FLOW OVER BLOCKS AND GRAVEL AND NOT BE BYPASSED OVER THE CURB. A SPILLWAY SHALL BE CONSTRUCTED WITH THE SANDBAG STRUCTURES AT ALLOW OVERFLOW. THE SANDBAGS SHOULD BE OF WOVEN-TYPE GEOTEXTILE FABRIC SINCE BURLAP BAGS DETERIORATE RAPIDLY. SANDBAGS SHALL BE FILLED WITH 3/4" DRAIN ROCK OR 1/4" PEA GRAVEL. THE SANDBAG SHALL BE PLACED IN A CURVED ROW FROM THE TOP OF CURB AT LEAST 3 FEET INTO THE STREET. THE ROW SHOULD BE CURBED AT THE ENDS, POINTING UPHILL. SEVERAL LAYERS OF BAGS SHOULD BE OVERLAPPED AND PACKED TIGHTLY. LEAVE A ONE-SANDBAG GAP IN THE TOP ROW TO ACT AS A SPILLWAY.

FOR BLOCK AND GRAVEL TYPE BARRIERS:

PLACE TWO CONCRETE BLOCKS ON THEIR SIDES PERPENDICULAR TO THE CURB AT EITHER END OF THE INLET OPENING. THESE WILL SERVE AS SPACER BLOCKS. PLACE CONCRETE BLOCKS ON THEIR SIDES ACROSS THE FRONT OF THE INLET AND ABUTTING THE SPACER BLOCKS. THE OPENINGS IN THE BLOCKS SHOULD FACE OUTWARD, NOT UPWARD. CUT A 2 BY 4 INCH STUD THE LENGTH OF THE CURB INLET PLUS THE WIDTH OF THE TWO SPACER BLOCKS. PLACE THE STUD THROUGH THE OUTER HOLE OF EACH SPACER BLOCK TO HELP KEEP THE FRONT BLOCKS IN PLACE. PLACE WIRE MESH OVER THE OUTSIDE VERTICAL FACE (OPEN ENDS) OF THE CONCRETE BLOCKS TO PREVENT STONE FROM BEING WASHED THROUGH THE BLOCKS. USE CHICKEN WIRE, HARDWARE CLOTH WITH 1/2 INCH OPENINGS, OR FILTER FABRIC. PLACE 3/4 INCH TO 1 1/3 INCH GRAVEL AGAINST THE WIRE TO THE TOP OF THE BARRIER.

INSPECTION AND MAINTENANCE

INSPECT AND CLEAN THE BARRIER AFTER EACH SIGNIFICANT STORM (1" IN 24 HOURS) AND REMOVE SEDIMENT FROM BEHIND THE STRUCTURE AFTER EVERY STORM. SEDIMENT AND GRAVEL SHALL ALSO BE IMMEDIATELY REMOVED FROM THE TRAVELED WAY OF ROADS. THE REMOVED SEDIMENT SHALL BE PLACED WHERE IT CANNOT ENTER A STORM DRAIN, STREAM, OR BE TRANSPORTED OFF SITE.

SILT FENCE

CONSTRUCTION SPECIFICATIONS

THE HEIGHT OF A SILT FENCE SHALL NOT EXCEED 36 INCHES. STORAGE HEIGHT SHALL NEVER EXCEED 18" THE FENCE LINE SHALL FOLLOW LEVEL CONTOURS AS CLOSELY AS POSSIBLE. IF POSSIBLE, THE FILTER FABRIC SHALL BE CUT FROM A CONTINUOUS ROLL TO AVOID THE USE OF JOINTS. WHEN JOINTS ARE NECESSARY, FILTER CLOTH SHALL BE SECURELY WRAPPED AROUND A POST. POSTS SHALL BE SPACED A MAXIMUM OF 10 FEET APART AND DRIVEN SECURELY INTO THE GROUND (MINIMUM OF 16 INCHES). WHEN EXTRA STRENGTH FABRIC IS USED WITHOUT THE WIRE SUPPORT FENCE, POST SPACING SHALL NOT EXCEED 6 FEET. TURN THE ENDS OF THE FENCE UPHILL. A TRENCH SHALL BE EXCAVATED APPROXIMATELY 4 INCHES WIDE AND 6 INCHES DEEP ALONG THE LINE OF POSTS AND UPSLOPE FROM THE BARRIER. WHEN STANDARD-STRENGTH FILTER FABRIC IS USED, A WIRE MESH SUPPORT FENCE SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY DUTY WIRE STAPLES AT LEAST 1 INCH LONG, TIE WIRES OR HOG RINGS. THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF 2 INCHES AND SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE. THE STANDARD-STRENGTH FILTER FABRIC SHALL BE STAPLED OR WIRED TO THE FENCE, AND 6 INCHES OF THE FABRIC SHALL EXTEND INTO THE TRENCH. THE FABRIC SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE. FILTER FABRIC SHALL NOT BE STAPLED TO EXISTING TREES. WHEN EXTRA-STRENGTH FILTER FABRIC AND CLOSER POST SPACING ARE USED, THE WIRE MESH SUPPORT FENCE MAY BE ELIMINATED. IN SUCH A CASE, THE FILTER FABRIC IS STAPLED OR WIRED DIRECTLY TO THE POSTS. THE TRENCH SHALL BE BACKFILLED AND THE SOIL COMPACTED OVER THE TOE OF THE FILTER FABRIC. SILT FENCES PLACED AT THE TOE OF A SLOPE SHALL BE SET AT LEAST 6 FEET FROM THE TOE IN ORDER TO INCREASE PONDING VOLUME. SILT FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED, AND ANY SEDIMENT STORED BEHIND THE SILT FENCE HAS BEEN REMOVED.

INSPECTION AND MAINTENANCE

SILT FENCES AND FILTER BARRIERS SHALL BE INSPECTED WEEKLY AND AFTER EACH SIGNIFICANT STORM (1" IN 24HR.). ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY. SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/3 HEIGHT OF THE FENCE (9 INCHES MAXIMUM).

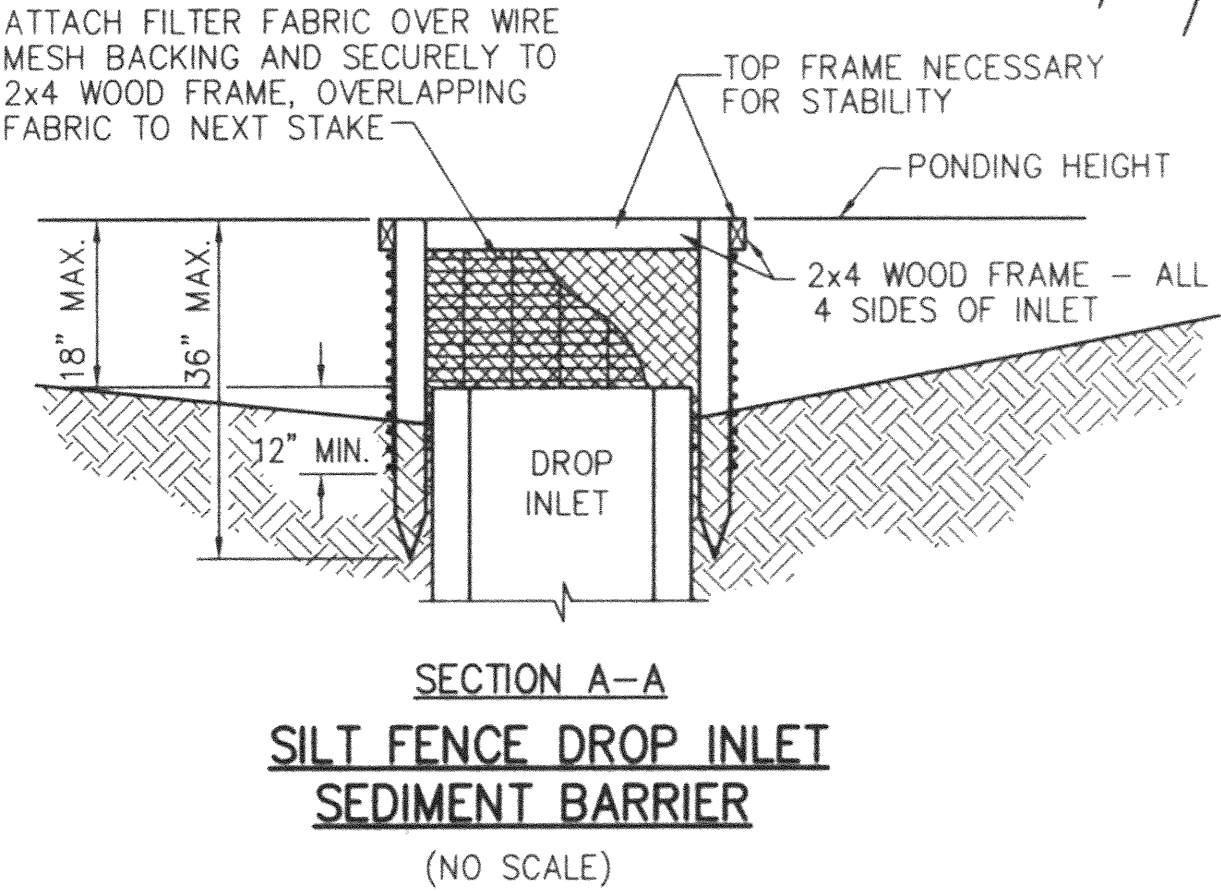
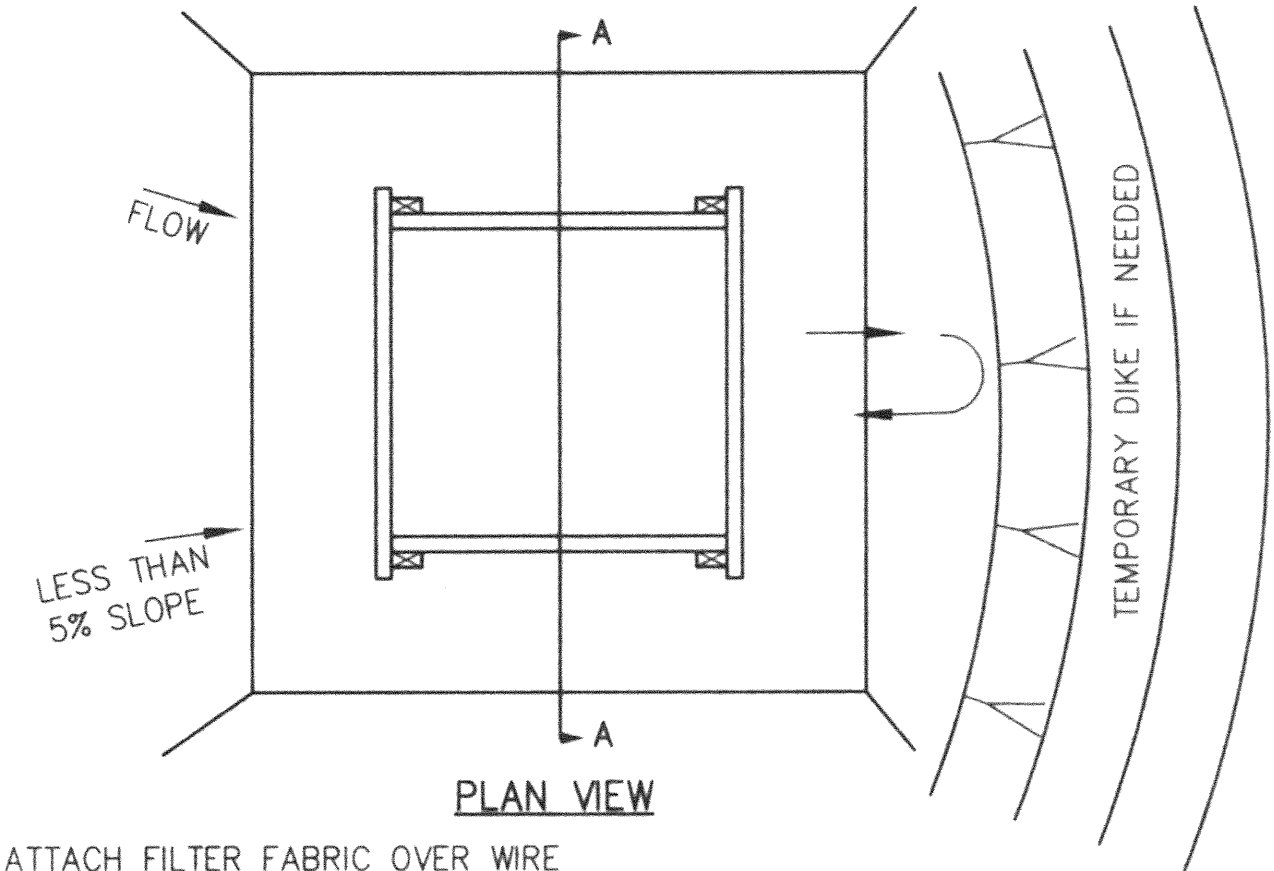
DROP INLET SEDIMENT BARRIERS

SILT FENCE SEDIMENT BARRIER

SUPPORT POSTS FOR A SILT FENCE MUST BE STEEL FENCE POSTS OR 2 BY 4 INCH WOOD, LENGTH 3' MINIMUM, SPACING 3' MAXIMUM, WITH A TOP FRAME SUPPORT RECOMMENDED. EXCAVATE A TRENCH 4 INCHES WIDE AND 6 INCHES DEEP AND BURY THE BOTTOM OF THE WIRE MESH BACKING AND THE SILT FENCE IN THE TRENCH. BACKFILL THE TRENCH WITH GRAVEL OR SOIL. COMPACT BACKFILL WELL. THE HEIGHT OF THE SILT FENCE SHALL BE A MAXIMUM OF 1.5' MEASURED FROM THE TOP OF THE INLET.

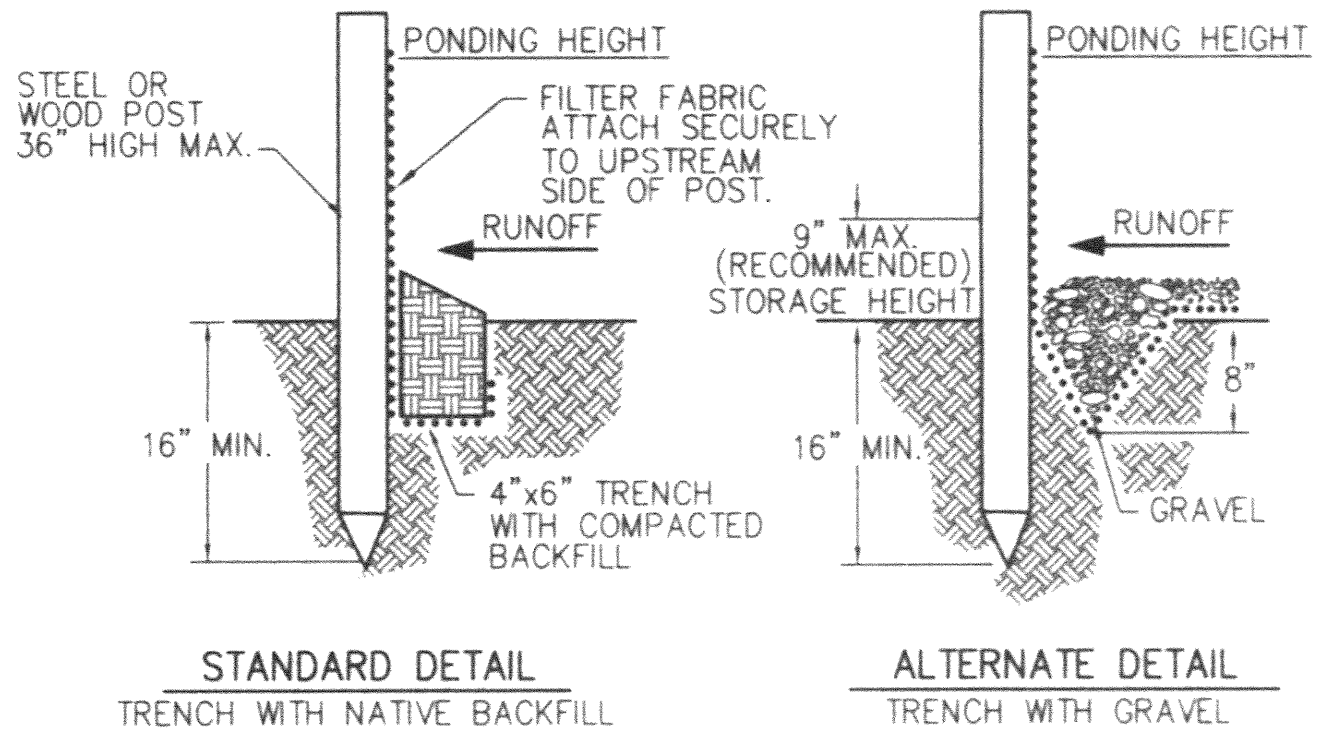
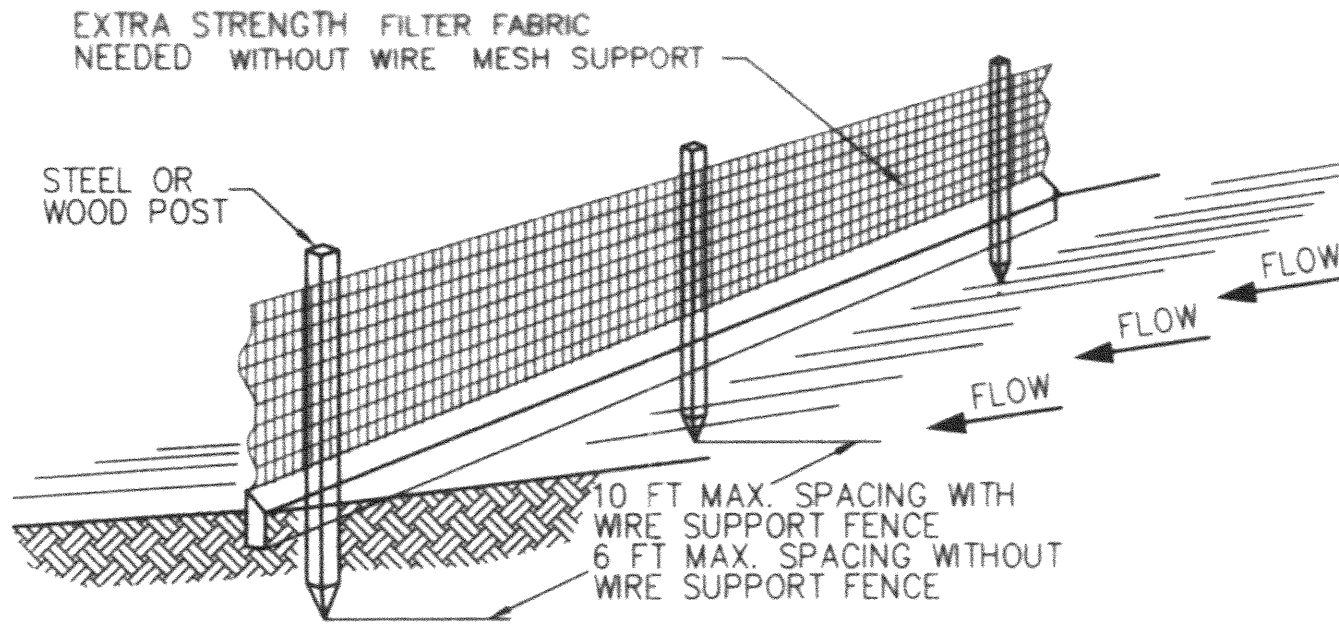
INSPECTION AND MAINTENANCE

INSPECT THE BARRIER AFTER EACH RAIN AND PROMPTLY MAKE REPAIRS AS NEEDED. SEDIMENT SHALL BE REMOVED AFTER EACH SIGNIFICANT STORM (1" IN 24 HOURS) TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN. THE REMOVED SEDIMENT SHALL BE DEPOSITED IN AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED. FOR GRAVEL FILTERS: IF THE GRAVEL BECOMES CLOGGED WITH SEDIMENT IT MUST BE CAREFULLY REMOVED FROM THE INLET AND EITHER CLEANED OR REPLACED.



NOTES:

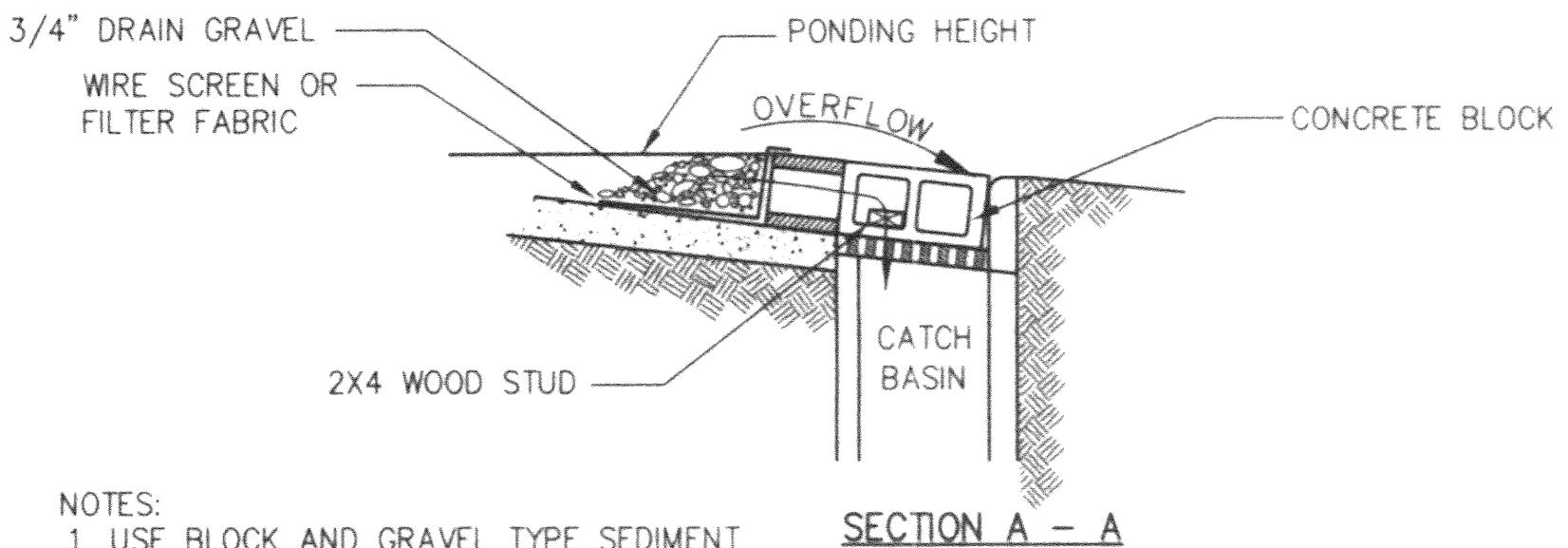
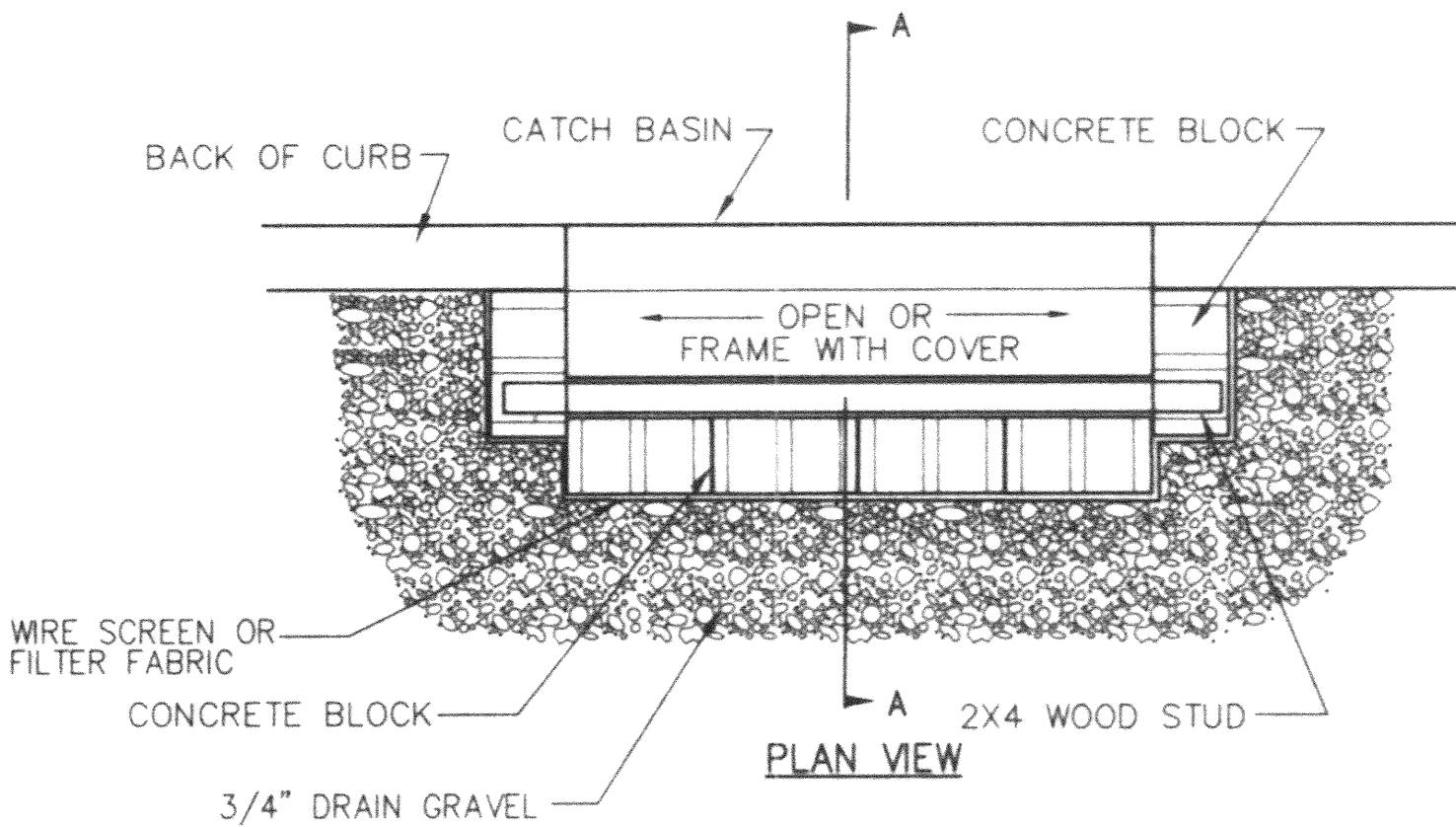
1. THIS TYPE OF INLET PROTECTION TO BE USED UPON CURB INLET BOX INSTALLATION AND PRIOR TO FRAME AND COVER INSTALLATION.
2. DROP INLET SEDIMENT BARRIERS ARE TO BE USED FOR SMALL, NEARLY LEVEL DRAINAGE AREAS. (LESS THAN 5%)
3. USE 2X4 WOOD OR EQUIVALENT METAL STAKES. (3 FT MIN. LENGTH)
4. INSTALL 2X4 WOOD TOP FRAME TO INSURE STABILITY.
5. THE TOP OF THE FRAME (PONDING HEIGHT) MUST BE WELL BELOW THE GROUND ELEVATION DOWNSLOPE TO PREVENT RUNOFF FROM BY-PASSING THE INLET. A TEMPORARY DIKE MAY BE NECESSARY ON THE DOWNSLOPE SIDE OF THE STRUCTURE.



NOTE:

1. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEDIMENT WHEN NECESSARY.
2. REMOVED SEDIMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT OFF-SITE AND CAN BE PERMANENTLY STABILIZED.
3. SILT FENCE SHALL BE PLACED ALONG LEVEL CONTOURS WHERE POSSIBLE TO MAXIMIZE PONDING EFFICIENCY.

SILT FENCE  
(NO SCALE)



NOTES:

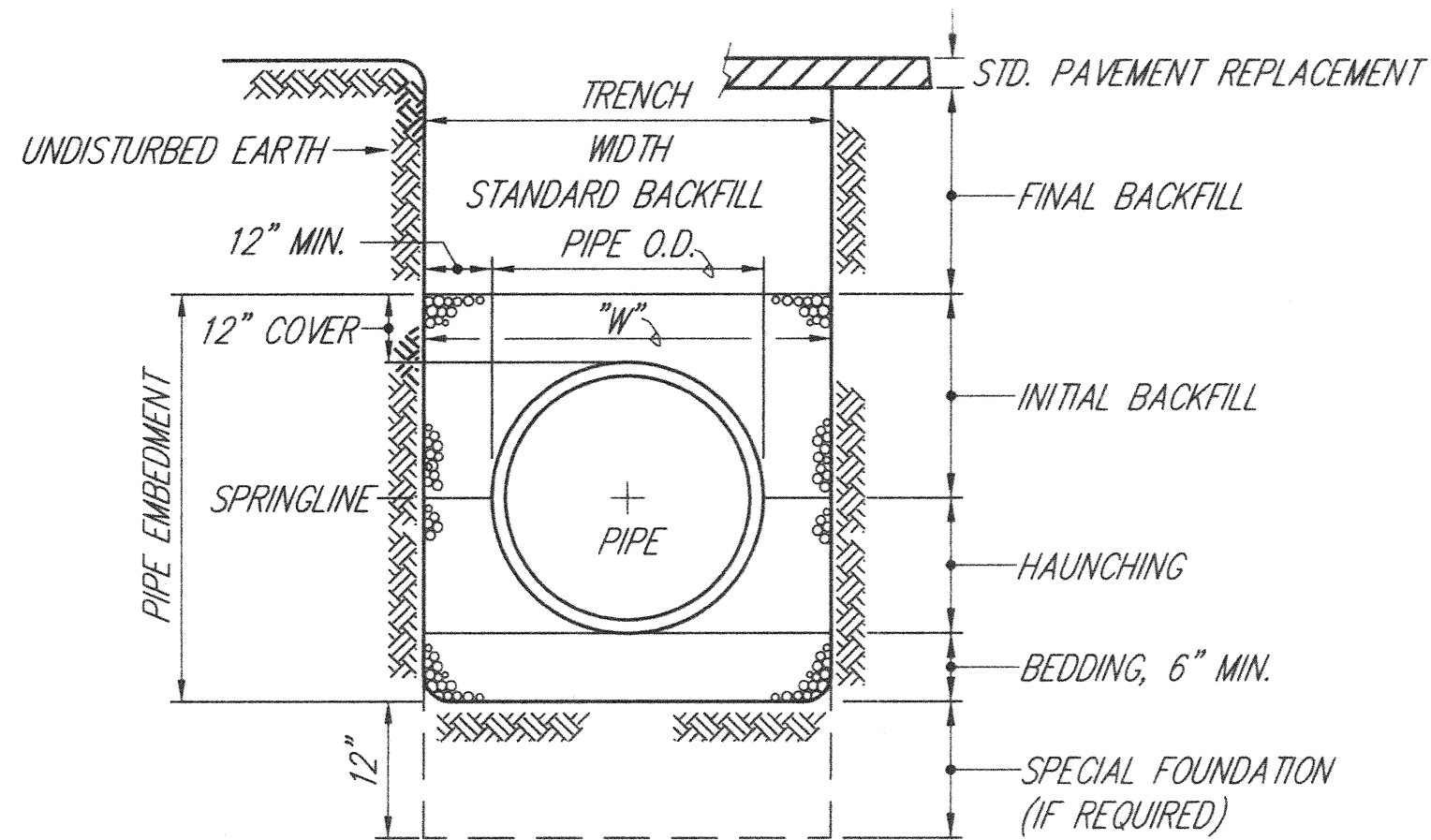
1. USE BLOCK AND GRAVEL TYPE SEDIMENT BARRIER WHEN CURB INLET IS LOCATED IN GENTLY SLOPING STREET SEGMENT, WHERE WATER CAN POND AND ALLOW SEDIMENT TO SEPARATE FROM RUNOFF.
2. BARRIER SHALL ALLOW FOR OVERFLOW FROM SEVERE STORM EVENT.
3. INSPECT BARRIERS AND REMOVE SEDIMENT AFTER EACH STORM EVENT. SEDIMENT AND GRAVEL MUST BE REMOVED FROM THE TRAVELED WAY IMMEDIATELY.

CURB INLET  
SEDIMENT BARRIER

(NO SCALE)

RECORD DRAWINGS



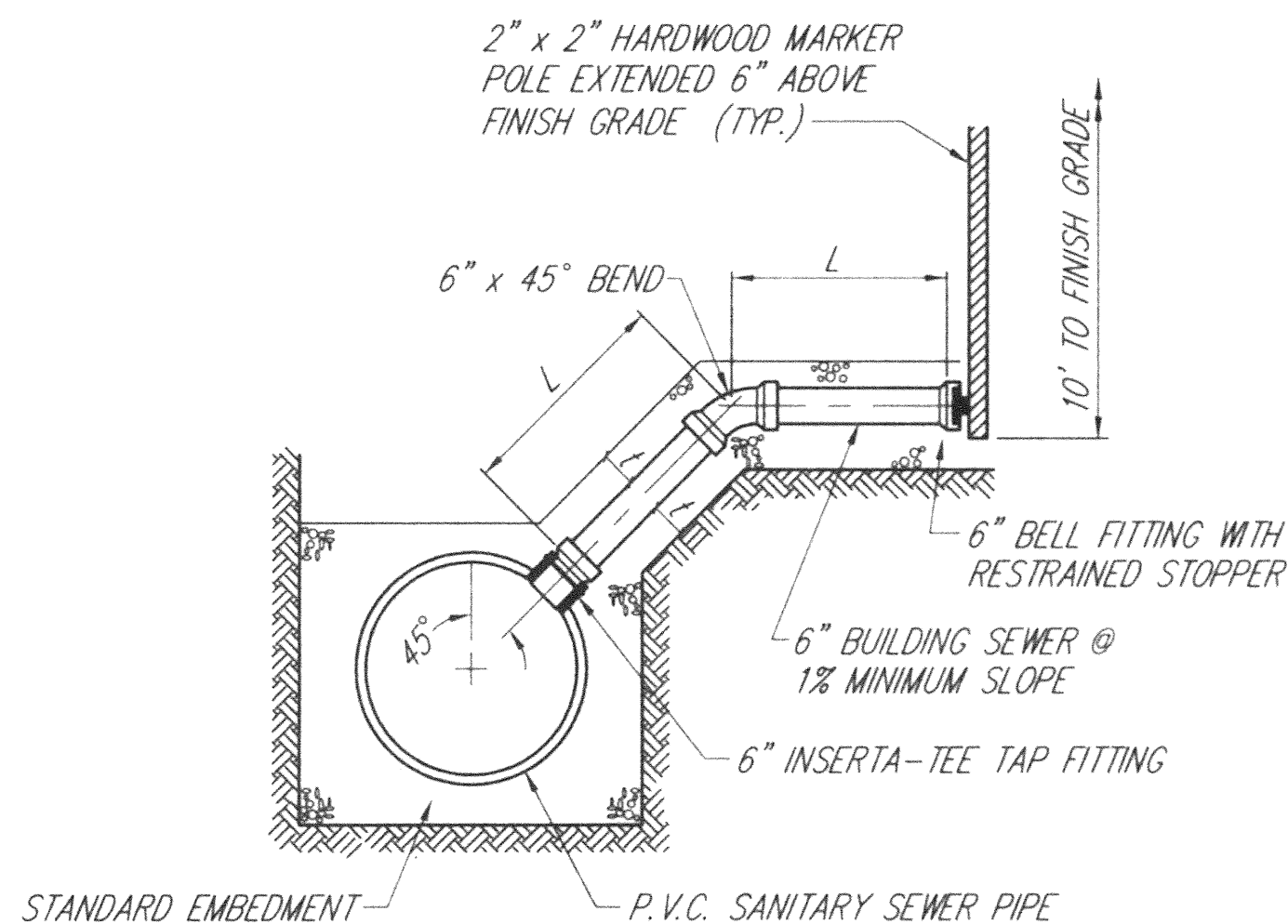


#### NOTES :

1. FOUNDATION SHALL BE FIRM, STABLE, UNIFORM SUPPORT. SPECIAL FOUNDATION, IF REQUESTED BY THE ENGINEER, SHALL BE COMPACTED BEDDING MATERIAL.
2. PIPE EMBEDMENT FOR ALL SANITARY SEWERS SHALL BE A.S.T.M. #67 CRUSHED GRADED LIMESTONE AGGREGATE AS DEFINED IN A.S.T.M. D2321 (CLASS 1).
3. ALL HAUNCHING AGGREGATE SHALL BE SHOVEL SLICED TO FILL VOIDS, AND COMPACTED IN PLACE TO 96% STANDARD PROCTOR DENSITY.
4. FINAL BACKFILL AT ALL ROADWAYS, DRIVES, WALKS, BERMS AND PARKING AREAS SHALL BE O.D.O.T. ITEM 703.11, TYPE 1, COMPACTED IN 8" LAYERS.
5. MINIMUM TRENCH WIDTH (W) AT THE TOP OF ALL SANITARY SEWERS SHALL BE PER A.S.T.M. - D2321.
6. MAXIMUM TRENCH WIDTH FOR PAYMENT MEASUREMENT IS PIPE O.D. + 24 INCHES.

### TYPICAL TRENCH DETAIL FOR SANITARY SEWERS

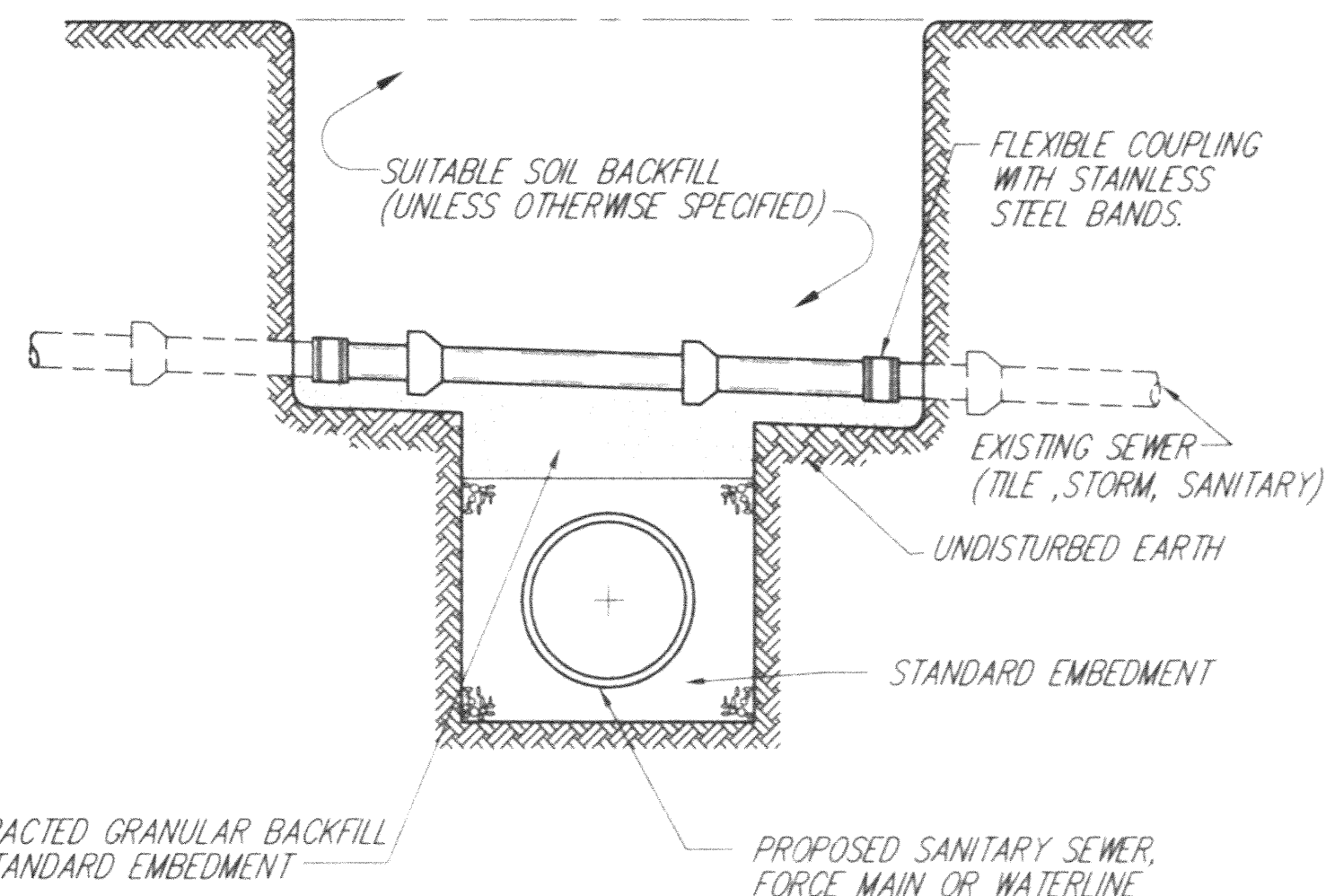
L = PAYMENT LENGTHS FOR 6" BUILDING SEWER  
t = 6 INCHES, MINIMUM



#### NOTES :

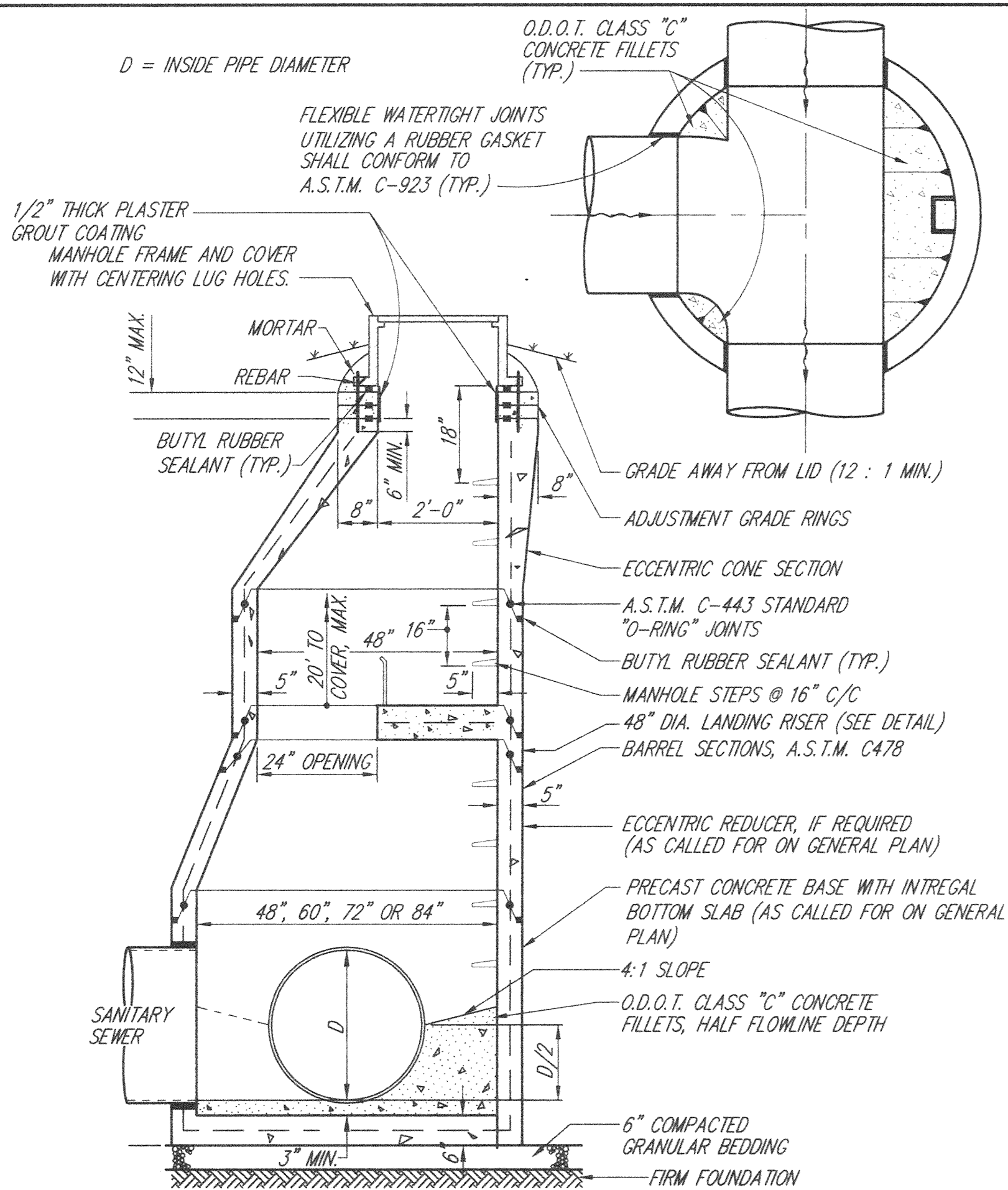
1. TAP FITTING SHALL BE: A.S.T.M. D3034, SDR 35 P.V.C. HUB, A.S.T.M. C443 RUBBER BOOT, 302 S.S. STAINLESS STEEL BAND.
2. PAYMENT FOR HARDWOOD MARKER POLE, 6" STOPPER, BELL FITTING, TAP FITTING AND RESTRAINTS SHALL BE INCLUDED IN THE BID PRICE OF 6" BUILDING SEWER SERVICE CONNECTION.

### DETAIL - SERVICE CONNECTION

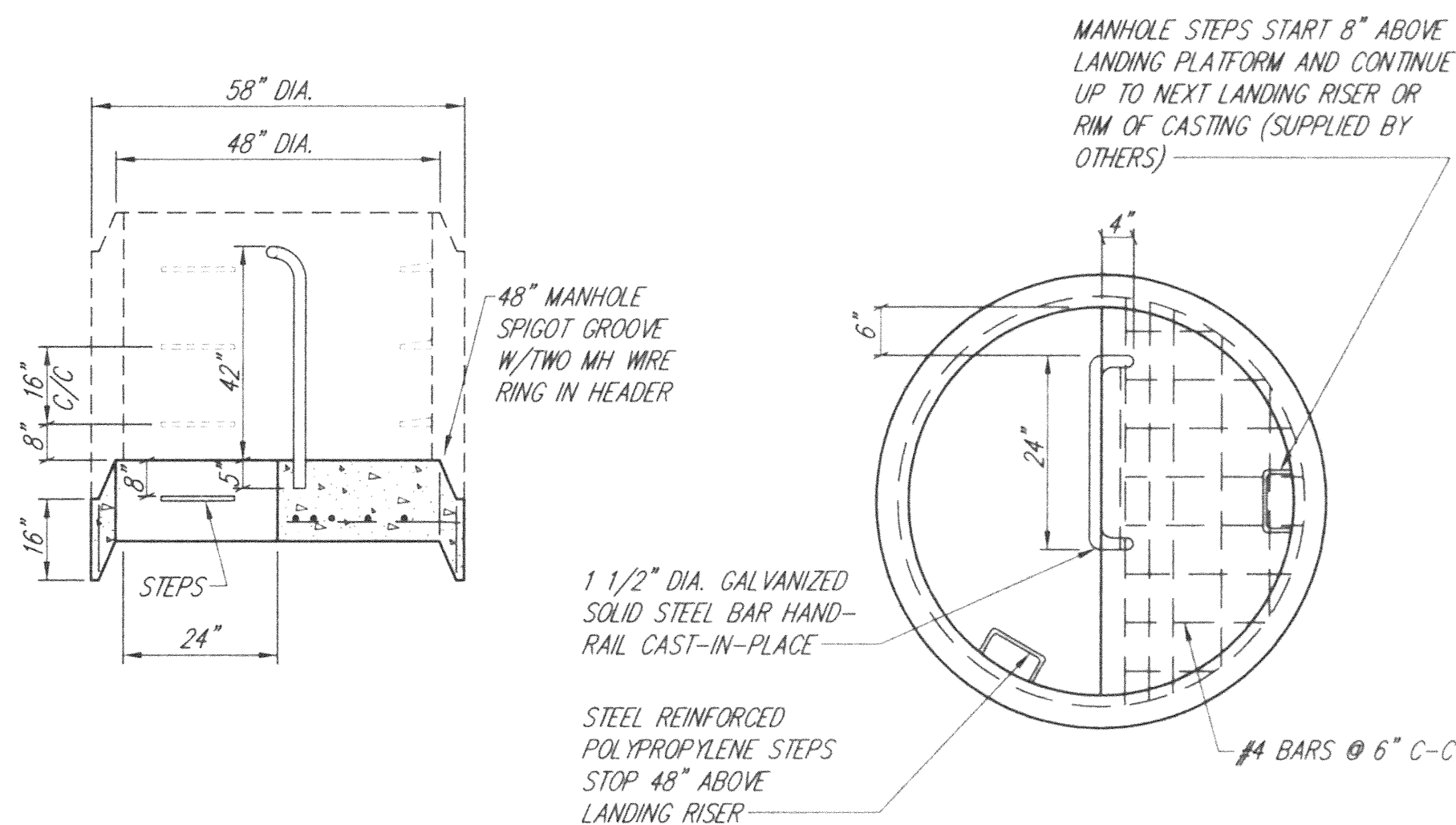


1. ALL CONDUITS REPLACED UNDER ROADWAYS, BERMS, DRIVES AND PARKING AREAS SHALL BE EMBEDDED AND BACKFILLED AS CALLED FOR ON THE "TYPICAL TRENCH DETAIL FOR SANITARY SEWERS."
2. ALL CONDUITS SHALL BE REPLACED WITH IN KIND MATERIAL.

### TYPICAL STORM SEWER AND TILE REPLACEMENT DETAIL



### STANDARD PRECAST SANITARY MANHOLE



#### SECTION

#### TOP VIEW

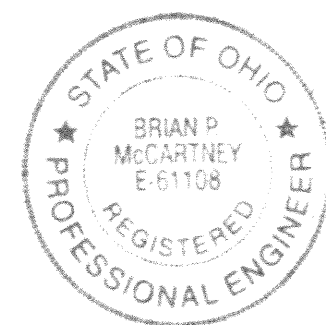
#### NOTES:

1. 1.5" DIAMETER STEEL HANDRAIL BARS TO BE GALVANIZED.
2. HANDRAIL WILL BE CAST 5" DOWN IN LANDING RISER.
3. CONCRETE TO HAVE A COMPRESSIVE STRENGTH OF 4000 P.S.I. IN 28 DAYS.
4. COST TO BE INCLUDED UNDER ITEM 604-STANDARD PRECAST SANITARY MANHOLE INSTALLATION.

### 48" DIA. MANHOLE LANDING RISER

TO BE USED WHERE DEPTH OF MANHOLE (TOP OF FRAME TO BASE INVERT) EXCEEDS 20 FEET

RECORD DRAWINGS



MISCELLANEOUS  
DETAILS

WESTERLY SANITARY TRUNK SEWER IMPROVEMENT  
CITY OF NORTH RIDGEVILLE, OHIO

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