

# SITE PLAN SUBMITTAL

## FOR

**TO BE CONSTRUCTED AT**

<b>SHEET NO.</b>	<b>SHEET NAME</b>
<b>C0.0</b>	<b>COVER SHEET</b>
<b>C1.0</b>	<b>EXISTING CONDITIONS</b>
<b>C2.0</b>	<b>NOTES</b>
<b>C3.0</b>	<b>EROSION CONTROL PLAN</b>
<b>C3.1</b>	<b>EROSION CONTROL DETAILS</b>
<b>C4.0</b>	<b>DEMOLITION PLAN</b>
<b>C5.0</b>	<b>SITE LAYOUT PLAN</b>
<b>C6.0</b>	<b>GRADING &amp; DRAINAGE PLAN</b>
<b>C7.0</b>	<b>UTILITY PLAN</b>
<b>C8.0</b>	<b>DETAILS</b>
<b>C8.1</b>	<b>DETAILS</b>
<b>C8.2</b>	<b>DETAILS</b>

APPROVED BY THE MASSILLON CITY ENGINEER THIS \_\_\_\_\_  
DAY OF \_\_\_\_\_, 20\_\_.

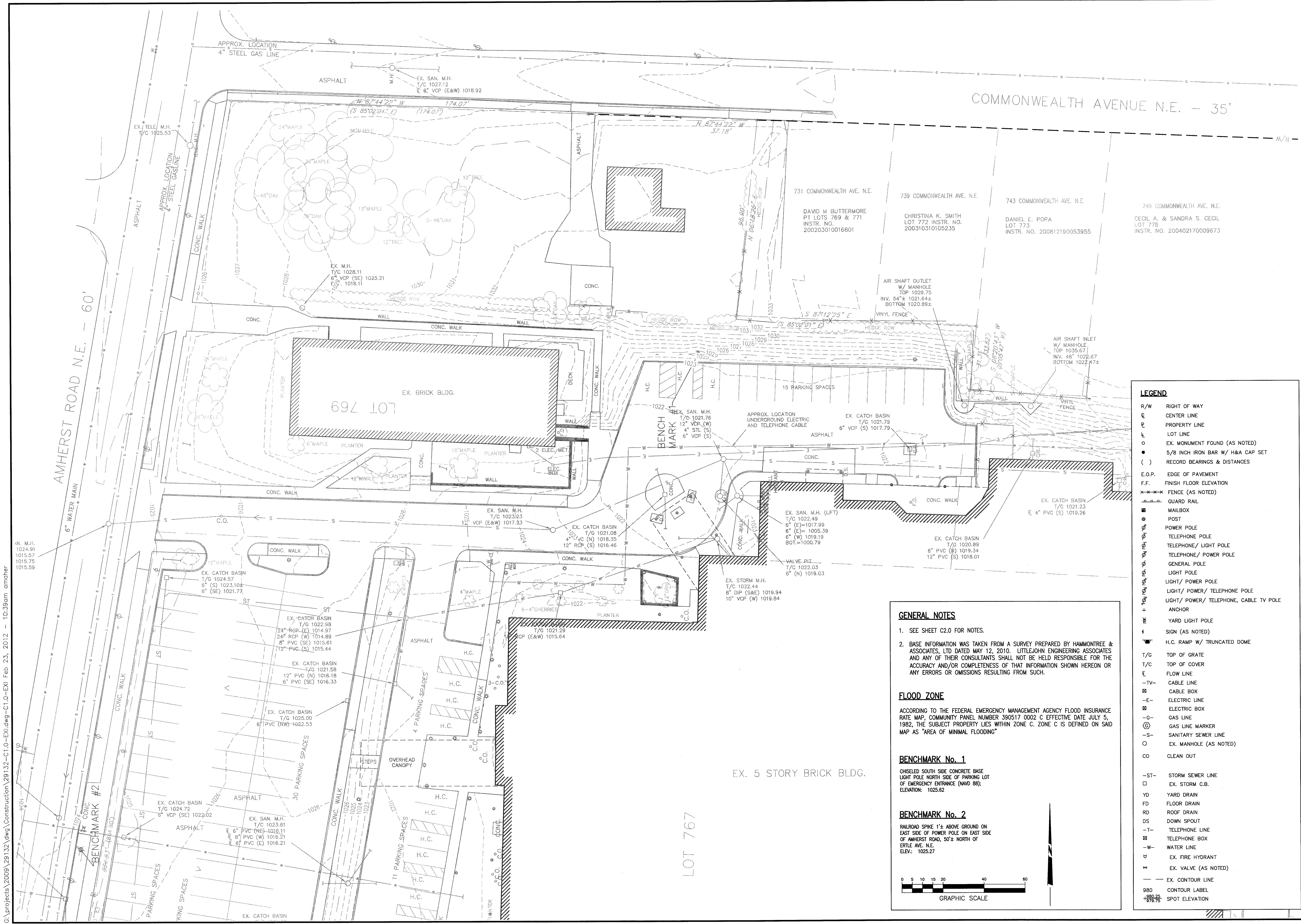


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LEA PROJECT IDENTIFICATION # 29132  
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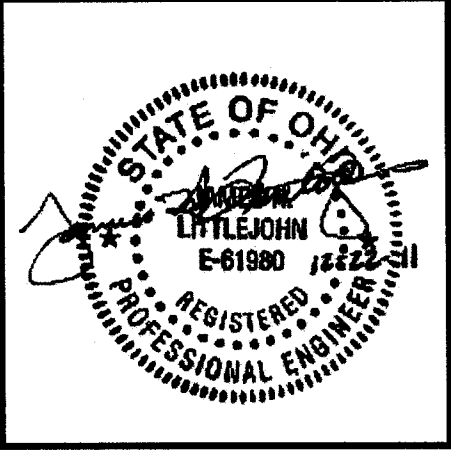
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**AFFINITY MEDICAL CENTER**  
**EMERGENCY DEPARTMENT**  
**ADDITIONS / RENOVATIONS**  
**MASSILLON, STARK COUNTY, OHIO**



**Design**  
**Development**

DATE	REVISIONS
12/16/2011	29132

**C1.0**  
**EXISTING**  
**CONDITIONS**



GENERAL NOTES

1. THE PROJECT SITE IS SHOWN ON JURISDICTION, TAX MAP 013, AS PARCEL 619439.
2. BASE INFORMATION WAS TAKEN FROM A SURVEY PREPARED BY HAMMONTREE & ASSOCIATES, LTD DATED MAY 12, 2010. LITTLEJOHN ENGINEERING ASSOCIATES AND ANY OF THEIR CONSULTANTS SHALL NOT BE HELD RESPONSIBLE FOR THE ACCURACY AND/OR COMPLETENESS OF THAT INFORMATION SHOWN HEREON OR ANY ERRORS OR OMISSIONS RESULTING FROM SUCH.
3. THE SITE LAYOUT IS BASED ON REFERENCE POINTS AS NOTED.
4. THE CONTRACTOR SHALL CHECK ALL EXISTING CONDITIONS, (i.e. INVERTS, UTILITY ROUTINGS, UTILITY CROSSINGS, AND DIMENSIONS) IN THE FIELD PRIOR TO COMMENCEMENT OF WORK. REPORT ANY DISCREPANCIES TO THE ENGINEER.
5. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL EXISTING UTILITIES. TAKE CARE TO PROTECT UTILITIES THAT ARE TO REMAIN. REPAIR ANY DAMAGE ACCORDING TO LOCAL STANDARDS AND AT THE CONTRACTOR'S EXPENSE. COORDINATE ALL CONSTRUCTION WITH THE APPROPRIATE UTILITY COMPANY. THE CONTRACTOR SHALL CALL NATIONAL ONE CALL (811) 72 HOURS PRIOR TO PROCEEDING WITH ANY EXCAVATION.
6. THE CONTRACTOR SHALL CONFORM TO ALL LOCAL CODES AND RECEIVE APPROVAL WHERE NECESSARY BEFORE CONSTRUCTION.
7. EXISTING PAVEMENT OF PUBLIC ROADWAYS SHALL BE PATCHED IN ACCORDANCE WITH LOCAL AGENCY STANDARDS WHEREVER UTILITY INSTALLATION REQUIRES REMOVAL OF THE EXISTING PAVEMENT. COORDINATE PAVEMENT TRENCHING LOCATIONS WITH SITE CIVIL, PLUMBING AND ELECTRICAL PLANS.
8. PROVIDE A SMOOTH TRANSITION BETWEEN EXISTING PAVEMENT AND NEW PAVEMENT. SLIGHT FIELD ADJUSTMENT OF FINAL GRADES MAY BE NECESSARY.
9. DIMENSIONS ARE TO FACE OF CURB AND/OR EXTERIOR FACE OF BUILDING UNLESS OTHERWISE NOTED.
10. CONCRETE FOR CURBS AND SIDEWALKS SHALL BE 3500 PSI CONCRETE.
11. ANY WORK UNACCEPTABLE TO THE OWNER'S REPRESENTATIVE OR TO THE LOCAL GOVERNING AUTHORITY SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER.
12. ACCESSIBLE RAMPS SHALL HAVE A MAXIMUM SLOPE OF 1:12. GRADES WITHIN ACCESSIBLE SPACES SHALL BE MAXIMUM 2% IN ALL DIRECTIONS.
13. THE PROPOSED BUILDING SHALL BE LAID OUT UTILIZING THE EXISTING STRUCTURE AS A CONTROL POINT AND THE ARCHITECTURAL DRAWINGS. DIMENSIONS SHOWN TO THE PROPOSED BUILDING ARE CALCULATED TO THE FACE OF EXTERIOR WALL. SEE ARCHITECTURAL PLANS FOR EXACT BUILDING DIMENSIONS.
14. CURBS SHALL BE PARALLEL TO THE CENTERLINE OF DRIVES. THE CURB SHALL BE PLACED ONLY AFTER HAVING ALL BREAK POINTS (PC & PT OF CURVES) LOCATED AT THE FACE OF CURB OR AT A CONSISTENT OFFSET BY A REGISTERED LAND SURVEYOR.
15. THE CONTRACTOR SHALL COMPLY WITH ALL PERTINENT PROVISIONS OF THE MANUAL OF ACCIDENT PREVENTION AND CONSTRUCTION ISSUED BY AGC OF AMERICA, INC. AND THE SAFETY AND HEALTH REGULATIONS OF CONSTRUCTION ISSUED BY THE U.S. DEPARTMENT OF LABOR.
16. THE CONTRACTOR SHALL PAVE IN THE DIRECTION OF TRAFFIC.
17. THE CONTRACTOR SHALL COLD PLANE IN THE DIRECTION OF TRAFFIC.
18. THE CONTRACTOR WILL BE REQUIRED TO ADJUST GRADES OF INTERSECTING STREETS, ALLEYS, PUBLIC ENTRANCES AND PRIVATE DRIVES AS DIRECTED BY THE ENGINEER.
19. ALL ROADWAY AND SIDEWALK CONSTRUCTION SHALL CONFORM TO THE REQUIREMENTS AND SPECIFICATIONS OF LOCAL GOVERNING AGENCY.
20. ALL CONSTRUCTION MATERIALS AND INSTALLATION SHALL CONFORM TO LOCAL GOVERNING AGENCY AND STATE DOT REGULATIONS AND SPECIFICATIONS.
21. ALL CURBING WILL BE REQUIRED TO ADJUST TO THE GRADES OF INTERSECTING STREETS, ALLEYS, PUBLIC ENTRANCES, AND PRIVATE DRIVES AS DIRECTED BY THE ENGINEER.
22. THE CONTRACTOR SHALL COMPLY WITH ALL PERTINENT PROVISIONS OF THE MANUAL OF ACCIDENT PREVENTION AND CONSTRUCTION ISSUED BY AGC OF AMERICA, INC. AND THE SAFETY AND HEALTH REGULATIONS OF CONSTRUCTION ISSUED BY THE U.S. DEPARTMENT OF LABOR.

DEMOLITION NOTES

1. ALL MATERIALS BEING REMOVED AND NOT RELOCATED UNDER THE NEW CONSTRUCTION, INCLUDING TREES AND SHRUBS, SIGNS, UTILITY STRUCTURES, ETC., SHALL BE FIRST OFFERED TO THE OWNER'S REPRESENTATIVE AND IF NOT ACCEPTED SHALL THEN BE PROPERLY DISPOSED OF BY THE CONTRACTOR.
2. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL CHARTED AND UNCHARTED UTILITIES. TAKE CARE TO PROTECT UTILITIES THAT ARE TO REMAIN. REPAIR ANY DAMAGE ACCORDING TO LOCAL STANDARDS AND AT THE CONTRACTOR'S EXPENSE. COORDINATE ALL CONSTRUCTION WITH THE APPROPRIATE UTILITY COMPANY.
3. THE CONTRACTOR SHALL VERIFY THE LIMITS OF DEMOLITION WITH THE OWNER'S REPRESENTATIVE PRIOR TO COMMENCEMENT OF WORK.
4. IN AREAS WHERE EXISTING PAVEMENT, WALKS, OR CURBS ARE TO BE REMOVED, SAW CUT TO PROVIDE A CLEAN EDGE. COORDINATE EXTENT OF PAVEMENT DEMOLITION WITH THE LIMIT OF NEW IMPROVEMENTS ON THE SITE LAYOUT PLAN & UTILITY INSTALLATION.
5. CONTRACTOR SHALL COORDINATE PHASING OF THE DEMOLITION WITH THE OWNER'S REPRESENTATIVE AND LOCAL GOVERNING AGENCY PRIOR TO BEGINNING WORK. DISRUPTION OF EXISTING UTILITY SERVICES AND TRAFFIC PATTERNS SHALL BE MINIMIZED TO THE EXTENT POSSIBLE AND INITIATED ONLY AFTER APPROVAL BY THE LOCAL GOVERNING AGENCY AND THE UTILITY COMPANIES.
6. CAVITIES LEFT BY STRUCTURE REMOVAL SHALL BE SUITABLY BACKFILLED AND COMPACTED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS.
7. THE CONTRACTOR SHALL USE WATER SPRINKLING AND OTHER SUITABLE METHODS AS NECESSARY TO CONTROL DUST AND DIRT CAUSED BY THE DEMOLITION WORK.
8. THE CONTRACTOR IS RESPONSIBLE FOR ALL DEMOLITION AND REMOVAL NECESSARY TO ACCOMPLISH THE PROPOSED IMPROVEMENTS SHOWN ON THESE PLANS.
9. THE CONTRACTOR SHALL PRESERVE AND PROTECT SURVEY CONTROL POINTS AND SHALL BE RESPONSIBLE FOR REPLACEMENT OF ANY DISTURBED CONTROL POINTS.
10. EXISTING LIGHT STANDARDS BEING REMOVED SHALL BE FIRST OFFERED TO THE OWNER PRIOR TO DISPOSING OF THEM. COORDINATE LIGHTING DEMOLITION AND LAYOUT WITH THE ELECTRICAL DRAWINGS.
11. RELOCATION OF EXISTING PLANT MATERIALS SHALL BE COORDINATED WITH THE OWNER AND RELOCATED TO A DESIGNATED AREA ON SITE.
12. EXISTING TRESS TO BE PRESERVED ARE TO BE BARRICADED BEFORE BEGINNING CONSTRUCTION. IN ACCORDANCE WITH THE TREE PRESERVATION NOTES AND DETAIL ON THE LANDSCAPE PLAN.
13. NO UTILITY OR STORM SEWER LINES SHALL BE DEMOLISHED UNTIL THE NEW LINES HAVE BEEN INSTALLED AND ARE PLACED INTO OPERATION.
14. THE CONTRACTOR SHALL INCORPORATE INTO HIS WORK ANY ISOLATION VALVES OR TEMPORARY PLUGS REQUIRED TO CONSTRUCT NEW UTILITY LINES AND DEMOLISH EXISTING UTILITY LINES.
15. SELECTIVE CLEARING CONSISTING OF REMOVAL OF VINES, SAPLINGS UNDER 1" DIAMETER AND UNDERBRUSH SHALL BE PERFORMED IN TREE PRESERVATION AREAS INTERNAL TO THE PROJECT AND NOTED ON PLANS.
16. WHERE WATER LINE AND SEWER LINE ABANDONMENT IS PLANNED, THE CONTRACTOR MAY ABANDON WATER LINES AND SEWER LINES IN PLACE WHERE THEY OCCUR AT LEAST 24" (TO TOP OF PIPE) BELOW FINAL SUBGRADE ELEVATIONS AND OUTSIDE THE BUILDING FOOT PRINT. ALL UTILITY LINES BEING ABANDONED IN PLACE SHALL HAVE ALL ENDS PERMANENTLY CLOSED USING A CONCRETE PLUG.
17. EXISTING IRRIGATION LINES LIE WITHIN THE AREA AFFECTED BY THE PROPOSED CONSTRUCTION. THE CONTRACTOR SHALL REWORK THE EXISTING IRRIGATION SYSTEMS IN ACCORDANCE WITH DIRECTIVES NOTED ON THE LANDSCAPE PLAN. SERVICE SHALL BE MAINTAINED DURING CONSTRUCTION TO THE LANDSCAPED AREAS CURRENTLY IRRIGATED.

SITE GRADING NOTES

1. THE DISTURBED AREA FOR THIS PROJECT IS APPROXIMATELY 1.56 ACRES.
2. THE SUBJECT PROPERTY DOES NOT LIE WITHIN A SPECIAL FLOOD HAZARD ZONE ACCORDING TO COMMUNITY PANEL NO. 390517 002 C OF THE F.E.M.A. FLOOD INSURANCE RATE MAPS FOR STARK COUNTY, OHIO, WITH AN EFFECTIVE DATE OF JULY 5 1982.
3. CONSTRUCT SILT BARRIERS BEFORE BEGINNING GRADING OPERATIONS.
4. MULCH AND SEED ALL DISTURBED AREAS AS SOON AS POSSIBLE AFTER FINAL GRADING IS COMPLETED, UNLESS OTHERWISE INDICATED. CONTRACTOR SHALL TAKE WHATEVER MEANS NECESSARY TO ESTABLISH PERMANENT SOIL STABILIZATION.
5. THE CONTRACTOR SHALL VERIFY THE EXACT LOCATION OF ALL EXISTING UTILITIES. TAKE CARE TO PROTECT UTILITIES THAT ARE TO REMAIN. REPAIR ANY DAMAGE ACCORDING TO LOCAL STANDARDS AND AT THE CONTRACTOR'S EXPENSE. COORDINATE ALL CONSTRUCTION WITH THE APPROPRIATE UTILITY COMPANY.
6. PROVIDE TEMPORARY CONSTRUCTION ACCESS(ES) AT THE POINT(S) WHERE CONSTRUCTION VEHICLES EXIT THE CONSTRUCTION AREA. MAINTAIN PUBLIC ROADWAYS FREE OF TRACKED MUD AND DIRT.
7. THE CONTRACTOR SHALL COORDINATE THE EXACT LOCATION OF THE STORM DRAIN CONNECTIONS AT THE BUILDING WITH THE PLUMBING PLANS.
8. THE CONTRACTOR SHALL CHECK ALL EXISTING GRADES AND DIMENSIONS IN THE FIELD PRIOR TO BEGINNING WORK AND REPORT ANY DISCREPANCIES TO THE ENGINEER.
9. THE CONTRACTOR SHALL ADJUST THE CASTINGS OF ALL NEW AND EXISTING STRUCTURES TO MATCH PROPOSED FINISH GRADES.
10. THE CONTRACTOR SHALL COMPLY WITH ALL PERTINENT PROVISIONS OF THE MANUAL OF ACCIDENT PREVENTION AND CONSTRUCTION ISSUED BY AGC OF AMERICA, INC. AND THE SAFETY AND HEALTH REGULATIONS OF CONSTRUCTION ISSUED BY THE U.S. DEPARTMENT OF LABOR.
11. PROPOSED CONTOUR LINES AND SPOT ELEVATIONS ARE THE RESULT OF AN ENGINEERED GRADING DESIGN AND REFLECT A PLANNED INTENT WITH REGARD TO DRAINAGE AND MOVEMENT OF MATERIALS. SHOULD THE CONTRACTOR HAVE ANY QUESTION OF THE INTENT OR ANY PROBLEM WITH THE CONTINUITY OF GRADES, THE ENGINEER SHALL BE CONTACTED IMMEDIATELY.
12. ALL CUT AND FILL SLOPES SHALL BE 3 HORIZONTAL TO 1 VERTICAL OR FLATTER UNLESS OTHERWISE INDICATED ON THE PLANS.
13. ALL PIPES UNDER EXISTING PAVED AREAS SHALL BE BACKFILLED TO THE TOP OF SUBGRADE WITH CRUSHED STONE.
14. MINIMUM GRADE ON ASPHALT OR CONCRETE PAVING SHALL BE 1.0%. THE MAXIMUM GRADES WITHIN ACCESSIBLE SPACES SHALL BE 2% IN ANY DIRECTION.
15. CONTRACTOR SHALL CONFORM TO ALL APPLICABLE CODES AND OBTAIN APPROVAL AS NECESSARY BEFORE BEGINNING CONSTRUCTION.
16. ALL EARTHWORK, INCLUDING THE EXCAVATED SUBGRADE AND EACH LAYER OF FILL, SHALL BE MONITORED AND APPROVED BY A QUALIFIED GEOTECHNICAL ENGINEER, OR HIS REPRESENTATIVE.
17. IF ANY SPRINGS OR UNDERGROUND STREAMS ARE EXPOSED DURING CONSTRUCTION PERMANENT FRENCH DRAINS MAY BE REQUIRED. THE DRAINS SHALL BE SPECIFIED AND LOCATED DURING CONSTRUCTION AS REQUIRED BY THE CONDITIONS WHICH ARE ENCOUNTERED, AND SHALL BE APPROVED BY THE ENGINEER.
18. THIS GRADING & DRAINAGE PLAN IS NOT A DETERMINATION OR GUARANTEE OF THE SUITABILITY OF THE SUBSURFACE CONDITIONS FOR THE WORK INDICATED. A GEOTECHNICAL SOILS REPORT HAS BEEN PREPARED AND IS AVAILABLE FROM THE OWNER. DETERMINATION OF THE SUBSURFACE CONDITIONS FOR THE WORK INDICATED IS SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.
19. THE CONTRACTOR SHALL TAKE SPECIAL CARE TO COMPACT FILL SUFFICIENTLY AROUND AND OVER ALL PIPES, STRUCTURES, VALVE STEMS, ETC., INSIDE THE PROPOSED PAVED AREAS TO AVOID SETTLEMENT. ANY SETTLEMENT DURING THE WARRANTY PERIOD SHALL BE RESTORED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
20. IN NO CASE SHALL SLOPE, HEIGHT, SLOPE INCLINATION, OR EXCAVATION DEPTH, INCLUDING TRENCH CONSTRUCTION, EXCEED THOSE SPECIFIED IN LOCAL, STATE AND FEDERAL REGULATIONS, SPECIFICALLY THE CURRENT OSHA HEALTH AND SAFETY STANDARDS FOR EXCAVATIONS (29 CFR PART 1928) SHALL BE FOLLOWED.
21. DO NOT DISTURB VEGETATION OR REMOVE TREES EXCEPT WHEN NECESSARY FOR GRADING PURPOSES.
22. STRIP TOPSOIL FROM ALL CUT AND FILL AREAS AND STOCKPILE UPON COMPLETION OF GENERAL GRADING OVER ALL DISTURBED AREAS, TO A MINIMUM DEPTH OF 6". CONTRACTOR SHALL SUPPLY ADDITIONAL TOP SOIL IF INSUFFICIENT QUANTITIES EXIST ON SITE.
23. TOP OF GRATE ELEVATIONS AND LOCATION OF COORDINATES FOR DRAINAGE STRUCTURES SHALL BE AS SHOWN ON THE DETAIL, UNLESS NOTED OTHERWISE. THE GRATES SHALL SLOPE LONGITUDINALLY WITH THE PAVEMENT GRADES.
24. ALL DRAINAGE CONSTRUCTION MATERIALS AND INSTALLATION SHALL CONFORM TO THE REQUIREMENTS AND SPECIFICATIONS OF THE LOCAL GOVERNING AGENCY.
25. POSITIVE DRAINAGE SHALL BE ESTABLISHED AS THE FIRST ORDER OF WORK AND SHALL BE MAINTAINED AT ALL TIMES DURING AND AFTER CONSTRUCTION. SOIL SOFTENED BY PERCHED WATER IN FOUNDATION AND PAVEMENT AREAS MUST BE UNDERCUT AND REPLACED WITH SUITABLE FILL MATERIALS APPROVED BY THE GEOTECHNICAL ENGINEER. GROUNDWATER INFILTRATION INTO EXCAVATIONS SHOULD BE EXPECTED, AND THE WATER SHALL BE REMOVED USING GRAVITY DRAINAGE OR PUMPING.
26. REINFORCED CONCRETE STORM DRAINAGE PIPE SHALL BE CLASS III, WALL "B".
27. FILL SLOPES 3:1 AND GREATER SHALL BE PLACED AND COMPACTED 5' BEYOND PROPOSED LIMITS AND THEN EXCAVATED BACK TO THE PROPOSED LOCATION.
28. THE CONTRACTOR SHALL PROVIDE AN ASBUILT SURVEY STAMPED BY A LICENSED SURVEYOR IN THE SAME STATE OF THE PROJECT OF ALL PUBLIC STORM SYSTEMS AND ONSITE DETENTION PONDS AND WATER QUALITY MEASURES VERIFYING COMPLIANCE WITH DESIGN DOCUMENTS.
29. THE CONTRACTOR SHALL NOTIFY THE ENGINEER 72 HOURS PRIOR TO INSTALLATION OF THE WATER QUALITY DEVICE.
30. ALL FILL MATERIAL SHALL BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT. THIS MATERIAL SHALL BE PLACED IN LIFTS DIRECTED BY THE GEOTECHNICAL ENGINEER AND COMPACTED AS SPECIFIED BY THE GEOTECHNICAL ENGINEER (TO \_\_\_\_\_% STANDARD PROCTOR / MODIFIED PROCTOR).
31. SEDIMENT REMOVED FROM SEDIMENT CONTROL STRUCTURES IS TO BE PLACED AT A SITE APPROVED BY THE ENGINEER. IT SHALL BE TREATED IN A MANNER SO THAT THE AREA AROUND THE DISPOSAL SITE WILL NOT BE CONTAMINATED OR DAMAGED BY THE SEDIMENT IN THE RUN-OFF. COST FOR THIS TREATMENT IS TO BE INCLUDED IN PRICE BID FOR EARTHWORK. THE CONTRACTOR SHALL OBTAIN THE DISPOSAL SITE AS PART OF THIS WORK.
32. STOCKPILED TOPSOIL OR FILL MATERIAL IS TO BE TREATED SO THE SEDIMENT RUN-OFF WILL NOT CONTAMINATE SURROUNDING AREAS OR ENTER NEARBY STREAMS.
33. ANY SITE USED FOR DISPOSAL AND/OR STOCKPILE OF ANY MATERIAL SHALL BE PROPERLY PERMITTED FOR SUCH ACTIVITY. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SEE THAT ALL REQUIRED PERMITS ARE SECURED FOR EACH PROPERTY UTILIZED. A COPY OF THE APPROVED PERMIT MUST BE PROVIDED TO THE INSPECTOR PRIOR TO COMMENCEMENT OF WORK ON ANY PROPERTY. FAILURE TO DO SO MAY RESULT IN THE CONTRACTOR REMOVING ANY ILLEGALLY PLACED MATERIAL AT HIS OWN EXPENSE.
34. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO WASTE EXCESS EARTH MATERIAL OFF SITE AT NO ADDITIONAL COST TO THE OWNER. THE CONTRACTOR SHALL FIRST OFFER THE EXCESS MATERIAL TO THE OWNER. IF NOT ACCEPTED BY THE OWNER, THE CONTRACTOR SHALL DISPOSE OF EARTH MATERIAL OFF SITE. IT SHALL ALSO BE THE CONTRACTOR'S RESPONSIBILITY TO IMPORT SUITABLE MATERIAL (AT NO ADDITIONAL COST TO THE OWNER) FOR EARTHWORK OPERATIONS IF SUFFICIENT AMOUNTS OF EARTH MATERIAL ARE NOT AVAILABLE ON SITE.
35. SEGMENTAL WALLS SHALL BE PROVIDED BY THE CONTRACTOR AS A DESIGN BUILD. WALL DESIGN PLANS STAMPED BY A REGISTER ENGINEER IN THE STATE OF THE PROJECT SHALL BE SUBMITTED TO THE ENGINEER AS A SHOP DRAWING. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY ADDITIONAL GEOTECHNICAL INFORMATION NECESSARY TO PROPERLY DESIGN THE WALL.
36. CONTRACTOR TO INSTALL INLET PROTECTION ON ALL PROPOSED INLETS AS THEY ARE INSTALLED. CONTRACTOR TO ALSO INSTALL ROCK CHECK DAMS IN PROPOSED DITCH AS IT IS INSTALLED.

NOTE:

ANY WORK PERFORMED WITHIN THE CITY RIGHT-OF-WAY IS TO BE INSPECTED

BY THE CITY OF MASSILLON ENGINEERING DEPARTMENT.

SITE UTILITY NOTES

1. THE SANITARY SEWER SHALL BE OF THE MATERIAL INDICATED ON THE PLAN. POLYVINYLCHELORIDE (PVC) SHALL BE (SDR35). DUCTILE IRON PIPE (D.I.P.) SHALL BE CLASS 52.
2. ALL WATER LINES, SEWER LINES, AND APPURTENANCES SHALL BE OF MATERIALS AND CONSTRUCTION THAT CONFORM TO THE LOCAL AGENCY STANDARDS AND SPECIFICATIONS.
3. PROVIDE A MINIMUM 24" OF COVER OVER ALL WATER LINES.
4. THE CONTRACTOR SHALL MAINTAIN 10 FEET HORIZONTAL SEPARATION BETWEEN SANITARY SEWER LINES AND WATER LINES. WHERE THESE CRITERIA CANNOT BE MET, THE CONTRACTOR SHALL MAINTAIN 18" VERTICAL SEPARATION BETWEEN WATER AND SEWER LINES.
5. THE CONTRACTOR SHALL FIELD VERIFY THE EXACT HORIZONTAL AND VERTICAL LOCATION OF EXISTING MANHOLES OR SANITARY SEWER LINES AT THE POINT OF CONNECTION PRIOR TO THE COMMENCEMENT OF ORDERING OF MATERIALS, CONSTRUCTION OR REPORT ANY DISCREPANCIES TO THE ENGINEER IMMEDIATELY.
6. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE SEQUENCING OF CONSTRUCTION FOR ALL UTILITY LINES SO THAT WATER LINES DO NOT CONFLICT WITH SANITARY SEWERS, SANITARY SEWER SERVICES, STORM SEWERS, OR ANY OTHER UTILITY OR STRUCTURE, EXISTING OR PROPOSED.
7. THE LOCATION OF EXISTING UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL NOTIFY EACH INDIVIDUAL UTILITY OWNER OF HIS PLAN OF OPERATION IN THE AREA OF THE UTILITIES. PRIOR TO COMMENCING WORK, THE CONTRACTOR SHALL CONTACT THE UTILITY OWNERS AND REQUEST THEM TO PROPERLY LOCATE THEIR RESPECTIVE UTILITY ON THE GROUND. THIS NOTIFICATION SHALL BE GIVEN AT LEAST THREE (3) BUSINESS DAYS PRIOR TO COMMENCEMENT OF OPERATIONS AROUND THE UTILITY.
8. BEFORE CONNECTIONS ARE MADE INTO EXISTING UTILITIES, THE NEW LINES ARE TO BE FLUSHED AND TESTED BY THE CONTRACTOR IN ACCORDANCE WITH THE LOCAL WATER AND SEWER DEPARTMENT SPECIFICATIONS.
9. ALL TRENCHES CUT IN EXISTING ROADS OR DRIVES SHALL UTILIZE A CLEAN SAW CUT AND SHALL BE BACKFIELD (100%) TO FINAL SUBGRADE WITH #57 STONE. REPAIR ROADS PER LOCAL AGENCY REQUIREMENTS.
10. REPAIR ALL DAMAGE TO EXISTING FEATURES (i.e. DRIVES, ROADS, YARDS, LANDSCAPING, ETC...) TO PRE-CONSTRUCTION CONDITION.
11. THE CONTRACTOR SHALL PROVIDE ALL HORIZONTAL AND VERTICAL BENDS TO ATTAIN THE ALIGNMENT INDICATED ON THE PLANS. PROVIDE VERTICAL BENDS WHERE NECESSARY TO ALLOW WATER LINES TO PASS UNDER OR OVER OTHER UTILITY LINES. (ALL BENDS AND BRACES NEEDED MAY NOT BE ACTUALLY SHOWN). PROVIDE BRACING AND/OR RODDING AT ALL BENDS AND TEES AS REQUIRED BY WATER DEPARTMENT.
12. REDUCED PRESSURE BACKFLOW PREVENTOR (RPBP) OR DUAL CHECK WILL BE REQUIRED ON ALL TESTS AND FILL LINES (JUMPER) NEEDED FOR WATER MAIN CONSTRUCTION AND MUST BE APPROVED BY THE WATER DEPARTMENT.
13. COORDINATE THE EXACT LOCATION OF ALL UTILITIES ENTERING THE BUILDING WITH THE PLUMBING PLANS.
14. WATER METERS SHALL BE NO DEEPER THAN 24" FROM TOP OF METER TO PROPOSED FINISHED GRADE.
15. THE CONTRACTOR SHALL VERIFY REQUIRED PIPE LENGTHS. EXISTING PIPE MATERIAL AND SIZES AS SHOWN ON PLANS.
16. REPAIR EXISTING PAVEMENT, CURBS, WALKS, LANDSCAPING, ETC. THAT ARE DAMAGED BY CONSTRUCTION ACTIVITIES TO A LIKE NEW CONDITION AT NO ADDITIONAL COST TO THE OWNER.
17. THE PROPOSED GAS LINE CONSTRUCTION AND INSTALLATION SHALL BE COORDINATED WITH THE LOCAL GAS COMPANY BY THE CONTRACTOR.
18. THE PROPOSED ELECTRIC LINE CONSTRUCTION AND INSTALLATION SHALL BE COORDINATED WITH THE LOCAL ELECTRIC COMPANY BY THE CONTRACTOR.
19. THE PROPOSED TELEPHONE LINE CONSTRUCTION AND INSTALLATION SHALL BE COORDINATED WITH THE LOCAL TELEPHONE COMPANY BY THE CONTRACTOR.
20. WHERE DRAINAGE OR UTILITY LINES OCCUR IN PROPOSED FILL AREAS, THE FILL MATERIAL IS TO BE PLACED AND COMPACTED TO (98%) OF MAXIMUM DRY DENSITY ACCORDING TO ASTM (C698) PRIOR TO INSTALLATION OF DRAINAGE OR UTILITY LINES. FILL IS TO BE INSPECTED BY A PROFESSIONAL GEOTECHNICAL ENGINEER TESTING FIRM EMPLOYED BY THE OWNER. RESULTS OF THE TEST SHALL BE FURNISHED TO THE OWNER'S REPRESENTATIVE. CONTRACTOR TO PAY FOR ANY RETESTING.
21. THE CONTRACTOR SHALL ADJUST THE ALIGNMENT OF THE WATER LINES (HORIZONTALLY AND/OR VERTICALLY) TO ALLOW THE REQUIRED BRACING AT BENDS AND TEES.
22. EXISTING CASTINGS LOCATED IN FILL/CUT AREAS SHALL BE ADJUSTED TO ENSURE THAT THE TOP OF CASTING IS FLUSH WITH THE FINISHED GRADE.
23. THE OUTSIDE OF ALL MANHOLES SHALL BE COATED WITH BITUMINOUS PAINT.
24. THE CONTRACTOR WILL PROVIDE ALL NECESSARY PROTECTIVE MEASURES TO SAFEGUARD EXISTING UTILITIES FROM DAMAGE DURING CONSTRUCTION OF THIS PROJECT. IN THE EVENT THAT SPECIAL EQUIPMENT IS REQUIRED TO WORK OVER AND AROUND THE UTILITIES, THE CONTRACTOR WILL BE REQUIRED TO FURNISH SUCH EQUIPMENT AT NO ADDITIONAL COST TO THE OWNER.
25. PRIOR TO SUBMITTING HIS BID, THE CONTRACTOR WILL BE SOLELY RESPONSIBLE FOR CONTACTING OWNERS OF ALL AFFECTED UTILITIES IN ORDER TO DETERMINE THE EXTENT TO WHICH UTILITY RELOCATIONS AND/OR ADJUSTMENTS WILL HAVE UPON THE SCHEDULE OF WORK FOR THE PROJECT. WHILE SOME WORK MAY BE REQUIRED 'AROUND' UTILITY FACILITIES THAT WILL REMAIN IN PLACE, OTHER UTILITY FACILITIES MAY NEED TO BE ADJUSTED CONCURRENTLY WITH THE CONTRACTOR'S OPERATIONS.
26. ALL CONNECTIONS TO EXISTING MANHOLES SHALL BE BY THE CORING AND RESILIENT SEAL METHOD.
27. FIRE HYDRANT ASSEMBLIES INCLUDE THE APPROPRIATE SIZED TEE (WITH KICKER), 6" LINE TO HYDRANT, 6" GATE VALVE (WITH VALVE BOX), AND FIRE HYDRANT (WITH KICKER). HYDRANTS SHALL BE INSTALLED AT LOCATIONS SHOWN ON THE PLANS.
28. THE CONCRETE CAPS AND ENCASEMENTS ON WATER AND SEWER LINES SHALL BE A MINIMUM OF 6" THICK. USE 3000 PSI CONCRETE.
29. CONTRACTOR SHALL MARK THE LOCATION OF ALL NEW PVC LINES WITH #8 WIRE.
30. ALL FIRE LINES SHALL BE INSTALLED BY A SPRINKLER CONTRACTOR LICENSED IN THE STATE OF THE PROJECT.

SANITARY SEWER NOTES

1. SANITARY SEWERS AND APPURTENANCES SHALL BE CONSTRUCTED ACCORDING TO CITY OF MASSILLON ENGINEERING DEPARTMENT SPECIFICATIONS AND DETAILS IN EFFECT AT THE TIME OF CONSTRUCTION.
2. ROOF DRAINS, FOUNDATION DRAINS AND OTHER CLEAN WATER CONNECTIONS TO SANITARY SEWER ARE PROHIBITED.
3. THE CONTRACTOR SHALL NOTIFY ALL PROPERTY OWNERS ALONG THE ROUTE OF THE SANITARY SEWER AT LEAST THREE (3) DAYS PRIOR TO THE START OF CONSTRUCTION.
4. THE CONTRACTOR SHALL ALERT THE UTILITIES PROTECTION SERVICE AT LEAST FORTY EIGHT (48) HOURS PRIOR TO START OF CONSTRUCTION.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPERLY MAINTAINING EXISTING SANITARY FLOW DURING THE CONSTRUCTION AND TESTING OF THE PROPOSED PRE-CONSTRUCTION MEETING. IMPROVEMENTS. THE CONTRACTOR'S METHODS FOR MAINTAINING FLOW MUST BE APPROVED BY THE CITY OF MASSILLON ENGINEERING DEPARTMENT AT THE PRE-CONSTRUCTION MEETING.
6. ALL ROUGH GRADING TO WITHIN SIX (6) INCHES OF FINISHED GRADE SHALL BE COMPLETED WITHIN THE RIGHT-OF-WAY AND EASEMENTS PRIOR TO SANITARY SEWER CONSTRUCTION.
7. BULKHEADS SHALL BE ERECTED IN EXISTING MANHOLES WHERE TAPS FOR NEW MAINLINE SEWERS ARE MADE, AND SHALL REMAIN IN PLACE UNTIL THE NEW SEWERS ARE COMPLETE, TESTED AND APPROVED IN CASES WHERE A BULKHEAD WOULD INTERRUPT THE FLOW FROM EXISTING SERVICE CONNECTIONS, THE BULKHEAD SHALL BE PLACED IN THE FIRST NEW MANHOLE UPSTREAM OF THE EXISTING MANHOLE.
8. MINIMUM VERTICAL CLEARANCE BETWEEN SANITARY SEWER AND WATER LINES SHALL BE EIGHTEEN (18) INCHES. MINIMUM HORIZONTAL SEPARATION SHALL BE TEN (10) FEET.
9. SANITARY SEWER SERVICE LATERALS SHALL BE 6-INCH DIAMETER, AND SHALL BE LAID AT NO LESS THAN 1.0% GRADE.
10. FOR NEW SUBDIVISION CONSTRUCTION, SEWER SERVICE LATERALS SHALL EXTEND TWELVE (12) FEET INTO THE LOTS, OR BEYOND THE FURTHEST UTILITY, WHICHEVER IS GREATER, WHEN THE MAIN SEWER IS IN A STREET RIGHT-OF-WAY, AND SHALL TERMINATE AT THE EASEMENT LINE WHEN THE MAIN SEWER IS IN AN EASEMENT, FOR OTHER SEWER EXTENSIONS, SEWER SERVICE LATERALS SHALL TERMINATE AT THE RIGHT-OF-WAY LINE OR THE EASEMENT LINE, WHICHEVER IS APPLICABLE.
11. SERVICE STACKS SHALL BE DUCTILE IRON PIPE REGARDLESS OF THE MAIN SEWER MATERIAL. A CAST IRON TEE SHALL BE INSTALLED IN THE MAIN SEWER. CONCRETE ENCASEMENT WILL NOT BE REQUIRED.
12. MINIMUM COVER OVER SANITARY SEWERS SHALL BE FOUR (4) FEET.
13. ACCEPTABLE SANITARY SEWER PIPE MATERIALS ARE AS FOLLOWS:

MATERIAL DESCRIPTION:	SPECIFICATIONS:		
	PIPE	JOINT	INSTALLATION
PVC SMOOTH EXTERIOR	ASTM D-3034	ASTM D-3212	ASTM D-2321
PVC	ASTM F-794	ASTM D-3212	ASTM D-2321
CLOSED PROFILE (DUAL WALL)			
CORRUGATED (DUAL WALL)			
RIBBED (OPEN PROFILE)			
PVC CORRUGATED EXTERIOR	ASTM F-949	ASTM D-3212	ASTM D-2321
VCP EXTRA STRENGTH	ASTM C-700	ASTM C-425	ASTM C-12
DCIP (CLASS 52)	AWWA C-151	AWWA C-110/C-111	AWWA C-151
ABS COMPOSITE	ASTM D-2680	ASTM D-2235	ASTM D-2680
PVC COMPOSITE	ASTM D-2680	ASTM D-2564	ASTM D-2680

14. ALL SANITARY SEWERS EIGHT (8) INCHES IN DIAMETER AND LARGER MUST PASS AN INTERNAL TELEVISION INSPECTION. THE CONTRACTOR SHALL PROVIDE COMPLETE INTERNAL INSPECTION VIDEOTAPE TO THE CITY OF MASSILLON ENGINEERING DEPARTMENT. THE VIDEOTAPE PROCEDURE SHALL BE IN ACCORDANCE WITH THE CITY OF MASSILLON ENGINEERING DEPARTMENT SPECIFICATIONS.
15. A DEFLECTION TEST SHALL BE REQUIRED FOR ALL FLEXIBLE PIPE OF EIGHT (8) INCH DIAMETER AND LARGER. THE TEST SHALL BE CONDUCTED AT LEAST THIRTY (30) DAYS AFTER COMPLETION OF BACKFILL AND SHALL BE IN ACCORDANCE WITH THE CITY OF MASSILLON ENGINEERING DEPARTMENT SPECIFICATIONS. THE ALLOWABLE DEFLECTION RATE SHALL NOT EXCEED FIVE (5) PERCENT. TESTING SHALL BE IN ACCORDANCE WITH ASTM-3034.
16. ALL SANITARY SEWERS MUST PASS A LOW PRESSURE AIR TEST, WHICH SHALL BE CONDUCTED IN ACCORDANCE WITH ASTM F-1417 (PLASTIC PIPE) OR ASTM C-828 (CLAY PIPE). THE MAXIMUM ALLOWABLE TEST LEAKAGE SHALL BE 100 GAL/INCH OF DIAMETER/MILE/DAY.
17. MANHOLE CONSTRUCTION SHALL MEET THE REQUIREMENTS OF ASTM C-478 AND C-443. ALL MANHOLES SHALL BE AIR/VACUUM TESTED IN ACCORDANCE WITH AND MEET ALL THE REQUIREMENTS OF ASTM C-1244.
18. CONNECTIONS TO EXISTING MANHOLES SHALL BE CORE DRILLED, WITH BENCHES AND CHANNELS FORMED AND REPAIRED AS NECESSARY.
19. ANY MANHOLE DROP ATTACHMENTS SHALL BE THE "OUTSIDE" TYPE.
20. MANHOLE TOP-OF-CASTING ELEVATIONS MAY REQUIRE ADJUSTMENT DURING SITE GRADING. MANHOLE COVERS MAY NOT BE BURIED. UPON COMPLETION OF CONSTRUCTION AND RESTORATION, ALL MANHOLES, PROPOSED AND EXISTING, SHALL BE IN CONFORMANCE IN ALL RESPECTS WITH CITY OF MASSILLON ENGINEERING DEPARTMENT SPECIFICATIONS AND DETAILS.
21. ALL SANITARY SEWER TRENCHES BENEATH PROPOSED OR EXISTING PAVEMENT SHALL BE COMPACTED IN LIFTS, IN A MANNER, AND WITH THE MATERIAL AS SPECIFIED BY THE CITY OF MASSILLON ENGINEERING DEPARTMENT AND ALL APPLICABLE O.D.O.T. SPECIFICATIONS.



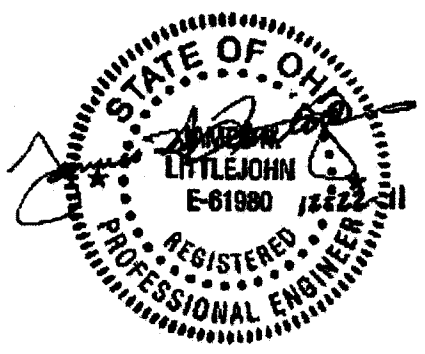
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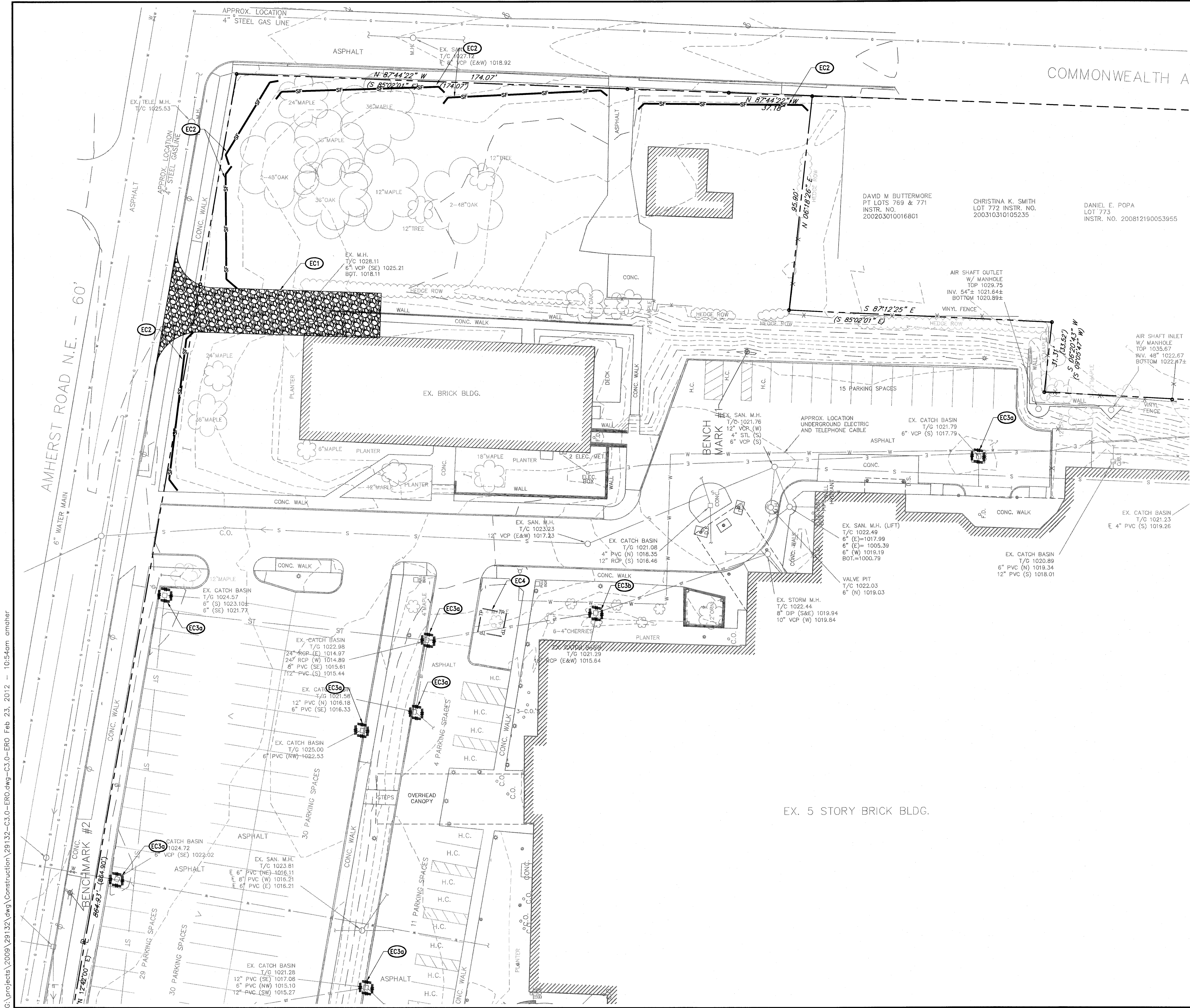
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C2.0  
NOTES



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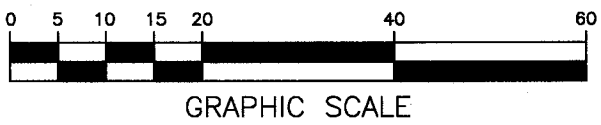
EROSION CONTROL KEY NOTE		
CODE	DESCRIPTION	DTL # - SHT #
EC1	TEMPORARY CONSTRUCTION ENTRANCE	4-C3.1
EC2	SILT FENCE	2-C3.1
EC3a	GRAVEL BAG INLET PROTECTION	3-C3.1
EC3b	FILTER FABRIC INLET PROTECTION	5-C3.1
EC4	TREE PROTECTION FENCE	1-C3.1

EROSION CONTROL NOTES:

1. SEE SHEET C2.0 FOR EROSION CONTROL NOTES.

PROPOSED FEATURES LEGEND:

- SF — PROPOSED SILT FENCE
- TEMPORARY CONSTRUCTION ENTRANCE
- LOD — LIMITS OF DISTURBANCE
- INLET PROTECTION
- TP — TREE PROTECTION

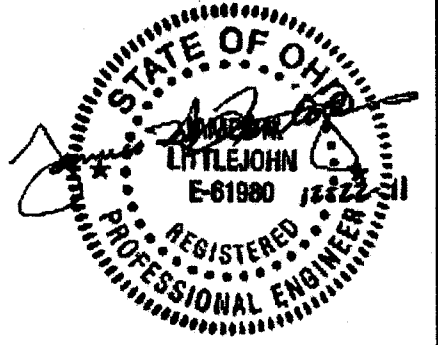


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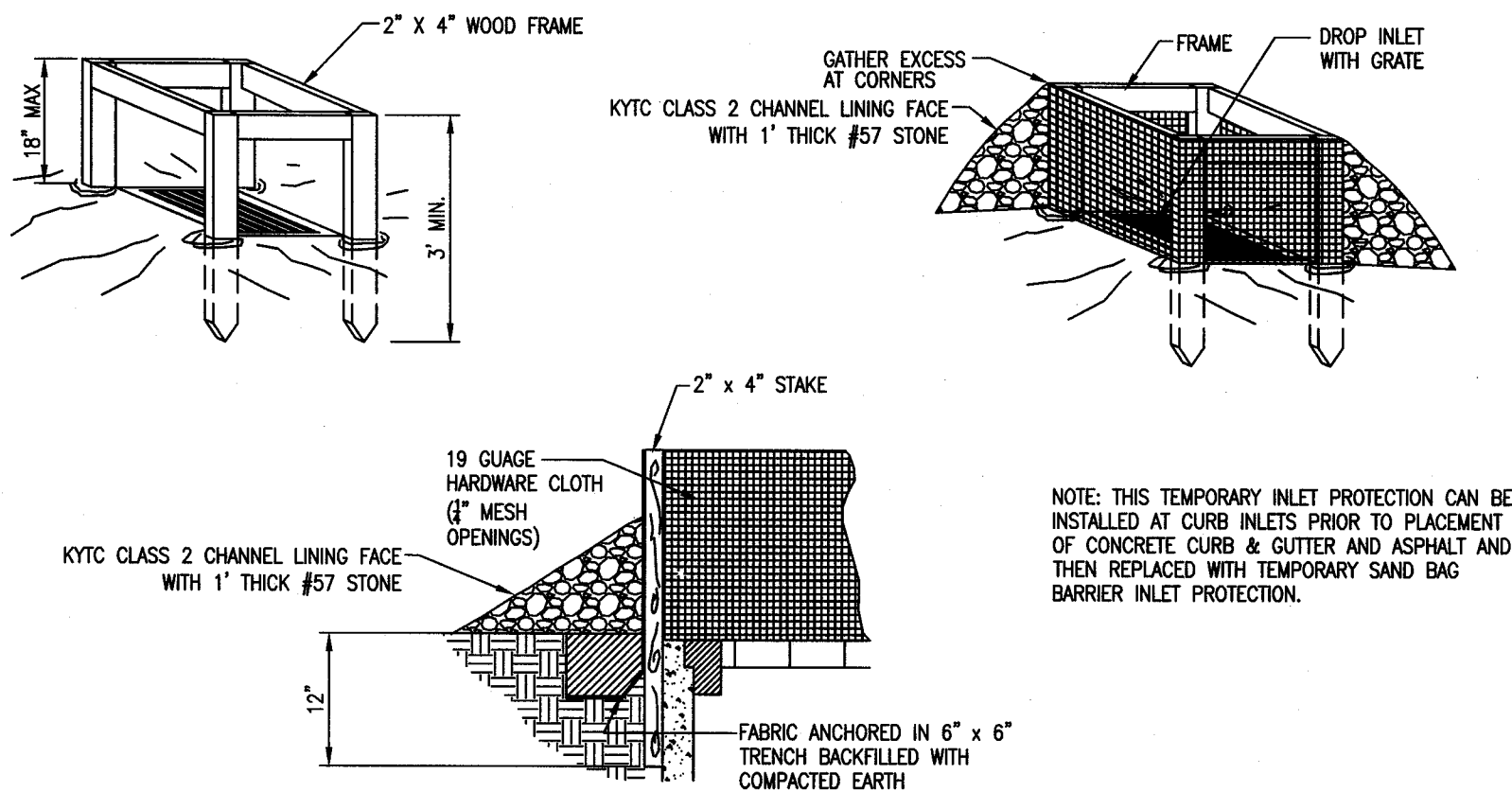
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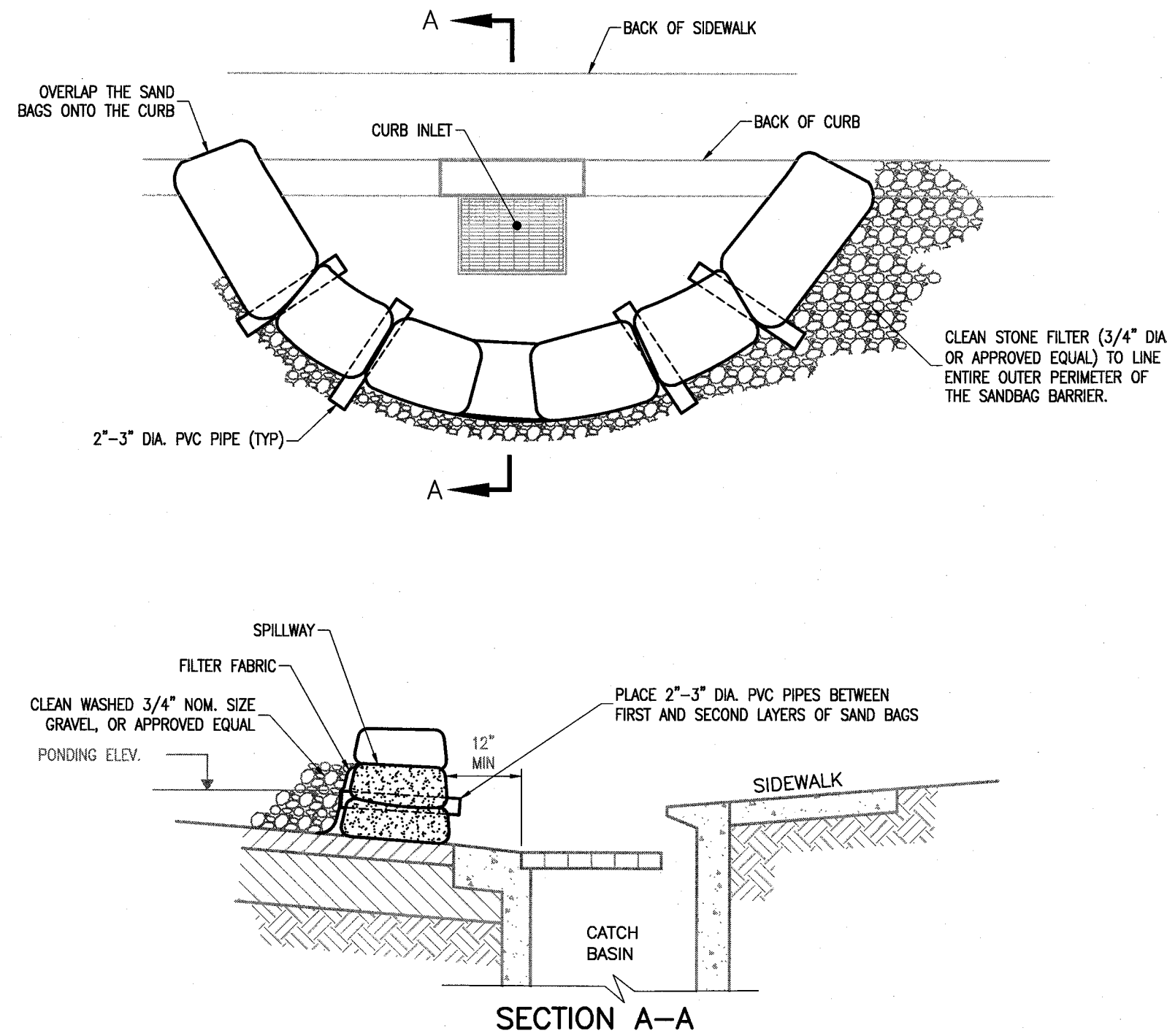
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EROSION  
CONTROL PLAN



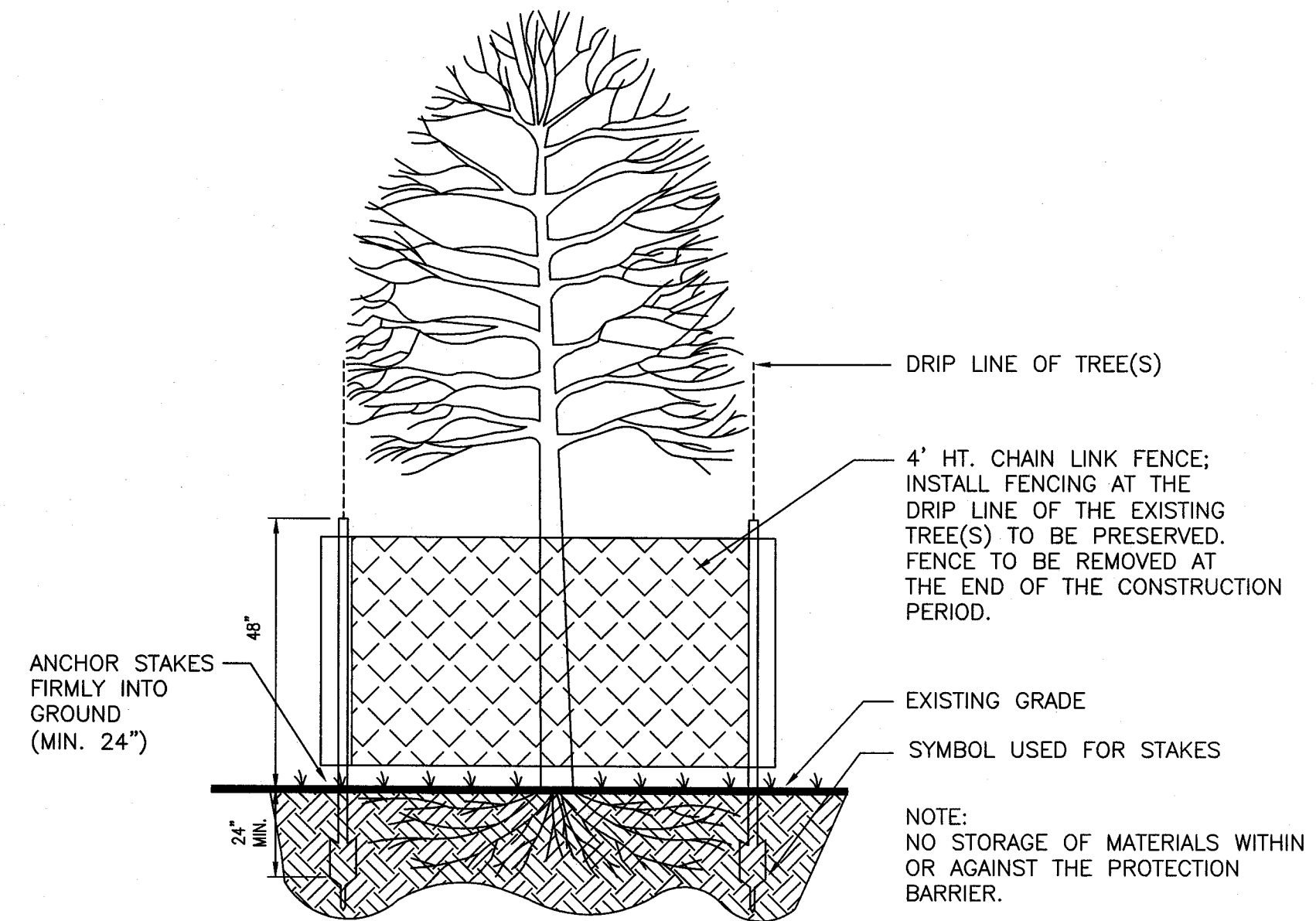
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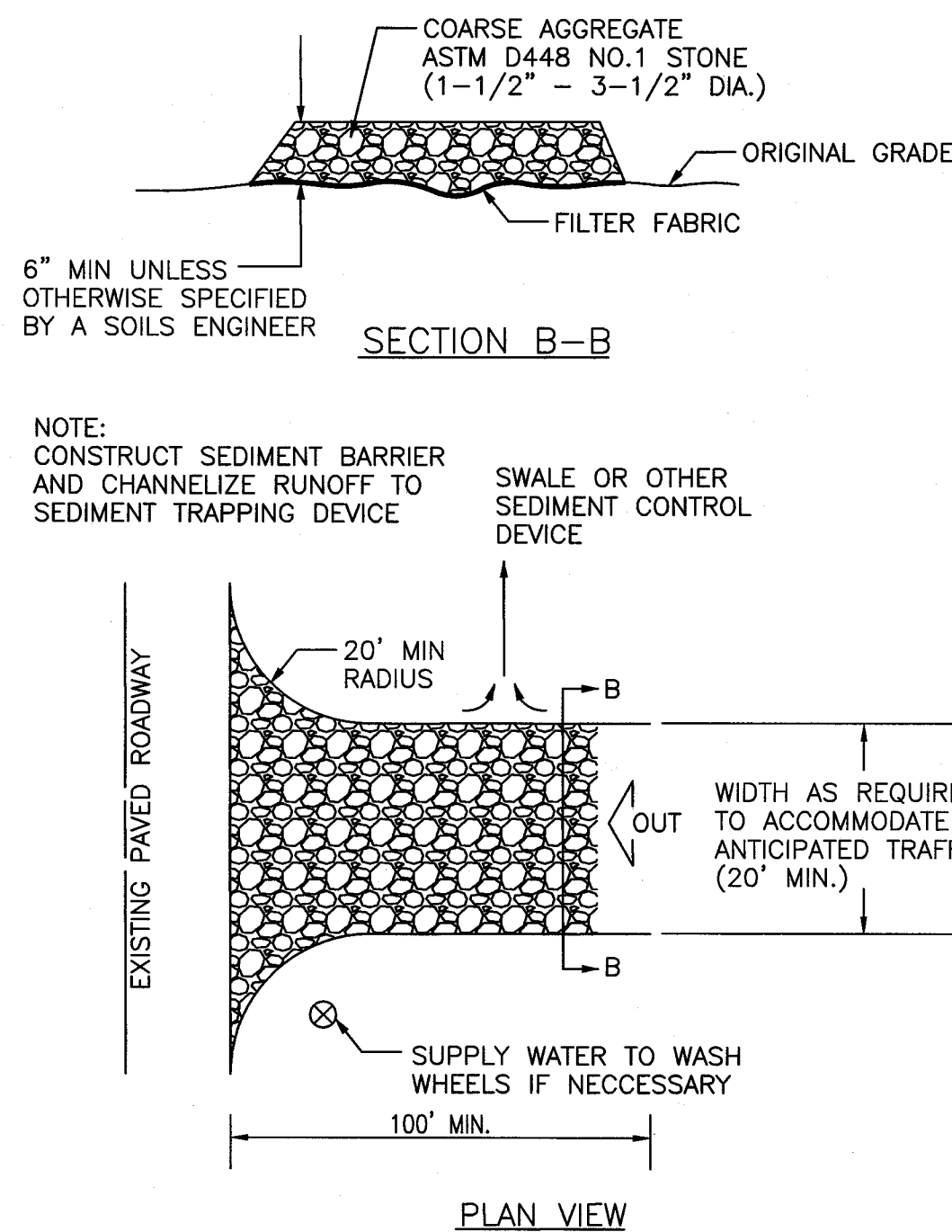
**5** FILTER FABRIC INLET PROTECTION  
NOT TO SCALE



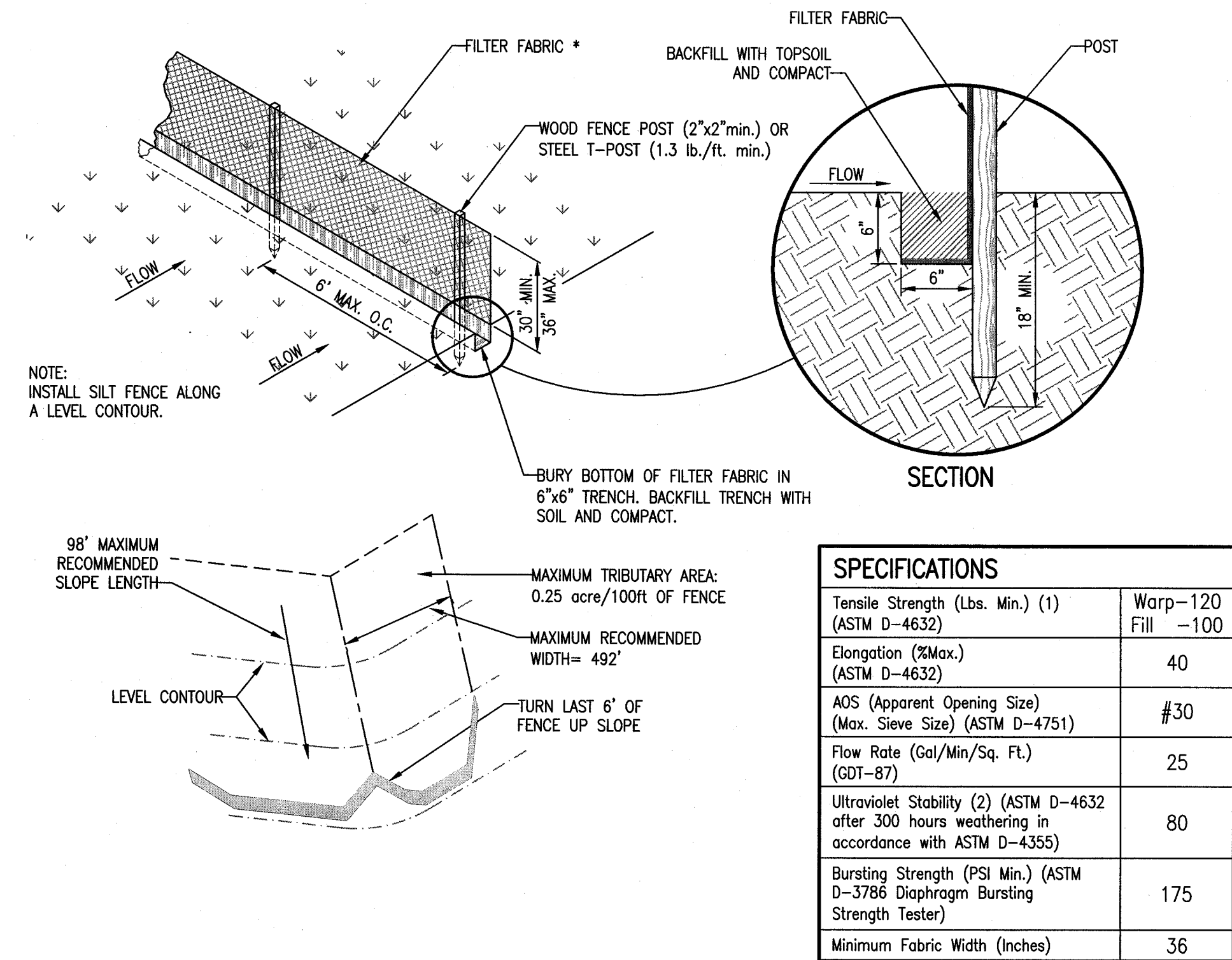
**3** GRAVEL SAND BAG INLET PROTECTION  
NOT TO SCALE



**1** TREE PROTECTION  
NOT TO SCALE



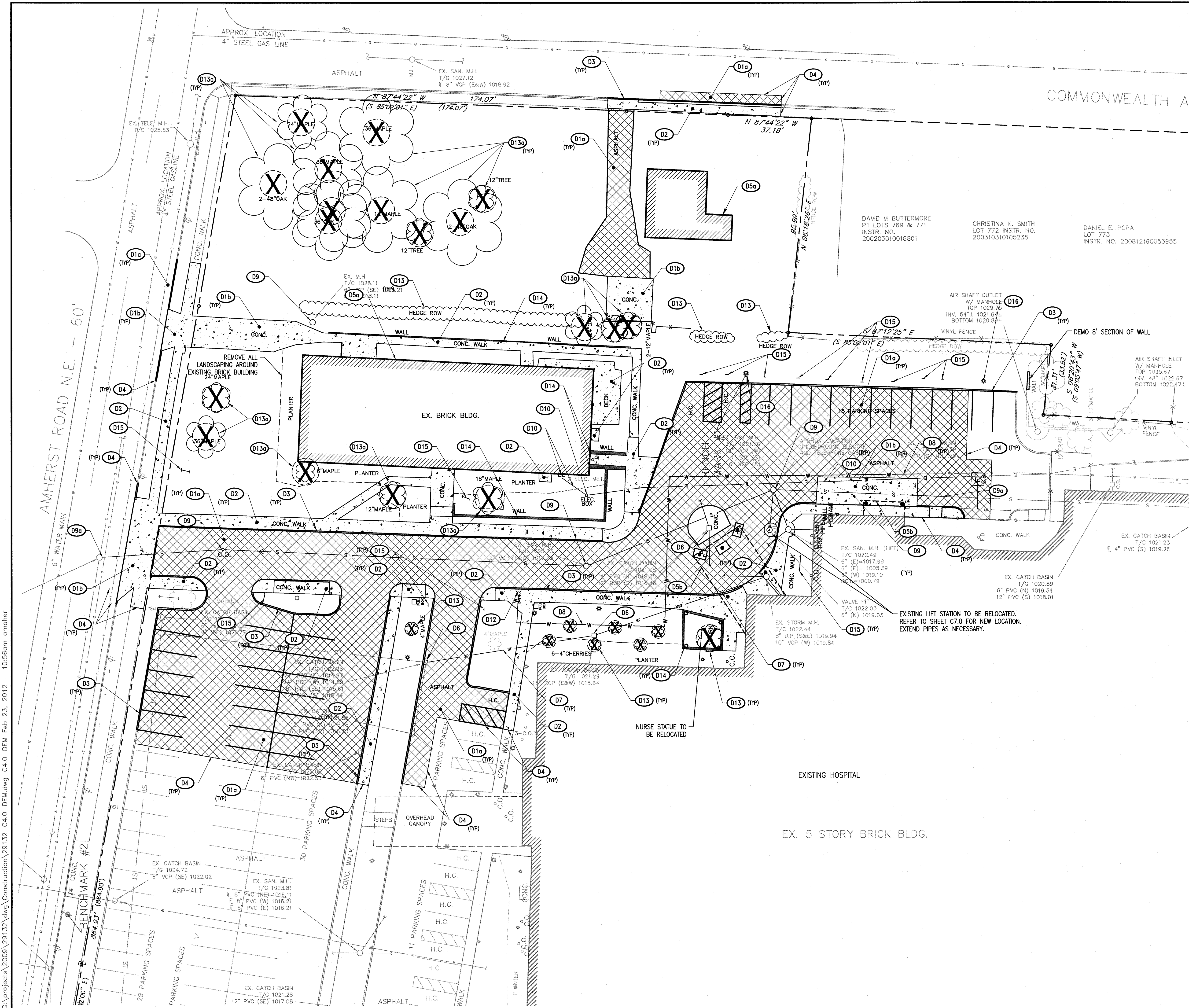
**4** TEMPORARY CONSTRUCTION ENTRANCE  
NOT TO SCALE



**2** SILT FENCE  
NOT TO SCALE



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DEMOLITION KEY NOTE			
CODE	DESCRIPTION	DT	SHT #
D1a	REMOVE EXISTING ASPHALT PAVEMENT		
D1b	REMOVE EXISTING CONCRETE PAVEMENT		
D2	REMOVE EXISTING CONCRETE SIDEWALK		
D3	REMOVE EXISTING CURB		
D4	EVENLY SAWCUT		
D5a	REMOVE EXISTING BUILDING - BY OTHERS		
D5b	REMOVE EXISTING BUILDING CANOPY		
D6	REMOVE EXISTING DRAINAGE STRUCTURE		
D7	REMOVE EXISTING STORM LINE		
D8	REMOVE EXISTING WATER LINE & APPURTENANCES		
D9	REMOVE EXISTING SANITARY SEWER LINE & APPURTENANCES		
D9a	LIMIT OF SANITARY SEWER DEMOLITION		
D10	REMOVE EXISTING UTILITY LINE & APPURTENANCES		
D12	REMOVE EXISTING FIRE HYDRANT		
D13	REMOVE EXISTING TREE		
D13a	REMOVE EXISTING TREE STUMP		
D14	REMOVE EXISTING WALL		
D15	REMOVE EXISTING SIGN		
D16	REMOVE AND RELOCATE EXISTING LIGHT POLE		

DEMOLITION NOTES

1. SEE SHEET C2.0 FOR DEMOLITION NOTES.

PROPOSED FEATURES LEGEND:

- CONCRETE REMOVAL
- ASPHALT REMOVAL
- TREE REMOVAL

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MASSILLON, STARK COUNTY, OHIO

STATE OF OHIO

LITTLEJOHN

REGISTERED PROFESSIONAL ENGINEER

NO. 61980

Design Development

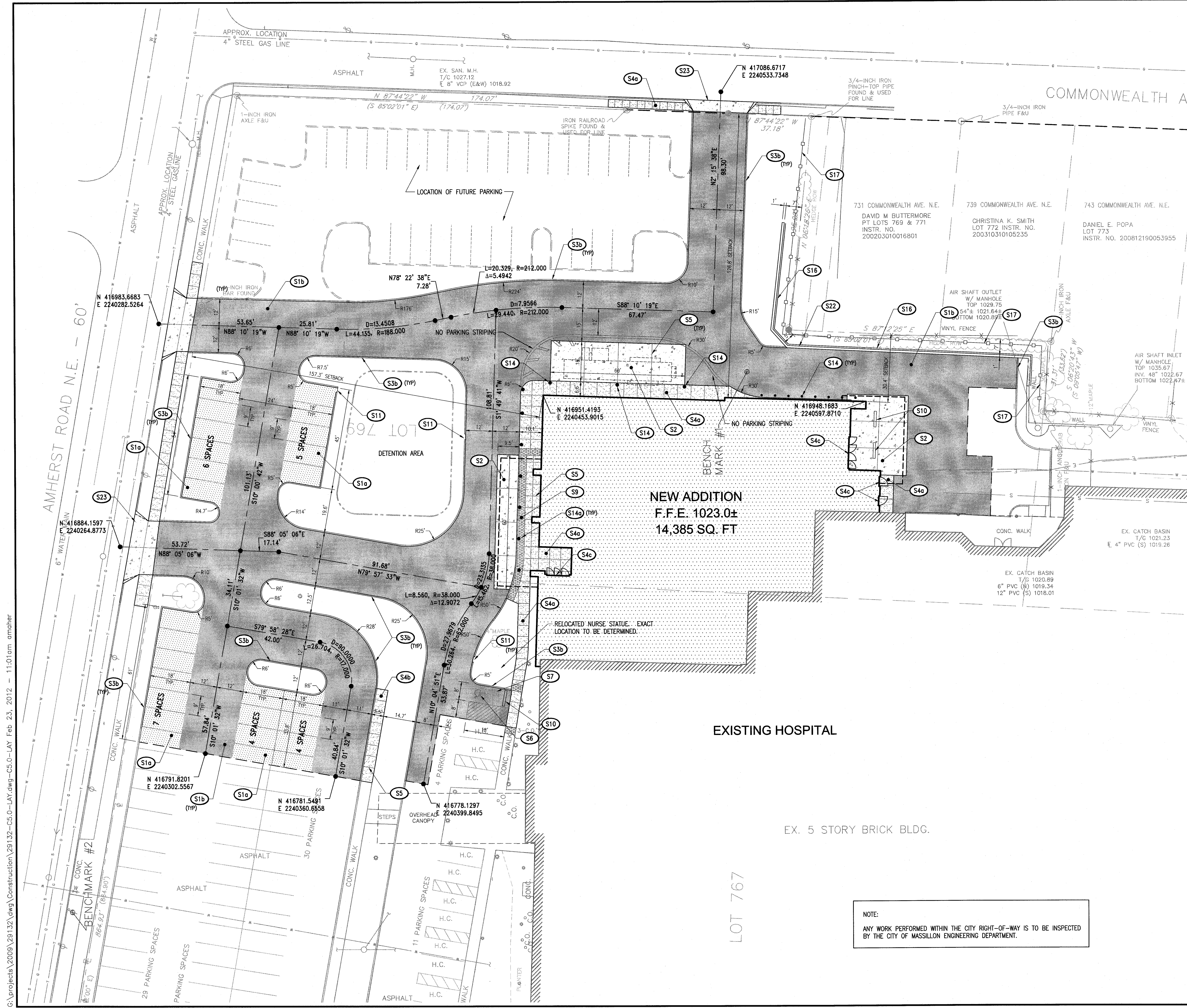
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DEMOLITION PLAN



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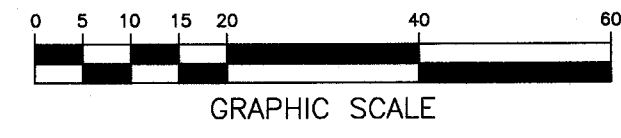


SITE LAYOUT KEY NOTE		
CODE	DESCRIPTION	DETAIL - SHEET
S1a	ASPHALT PAVEMENT LIGHT DUTY	1-C8.0
S1b	ASPHALT PAVEMENT HEAVY DUTY	1-C8.0
S2	CONCRETE PAVEMENT	1-C8.0
S3b	CONCRETE POST CURB - ODOT STANDARD	2-C8.0
S4a	CONCRETE SIDEWALK	2-C8.2
S4b	CONCRETE SIDEWALK W/TURN DOWN CURB	2-C8.2
S4c	SIDEWALK TURNDOWN AT EXTERIOR DOOR	7-C8.1
S5	SIDEWALK JOINTS	4-C8.0
S6	ACCESSIBLE SYMBOL	5-C8.0
S7	ACCESSIBLE PARKING AREA	
S8a	ACCESSIBLE RAMP	8-C8.0
S9	TACTILE WARNING SURFACE	6-C8.2
S10	CONCRETE WHEEL STOP	6-C8.0
S11	1.5' CURB CUT	
S14	CONCRETE BOLLARD	10-C8.0
S14a	NEW BOLLARD TO MATCH EXISTING ON SITE	
S15	UTILITY PAD	
S16	GUARDRAIL	7-C8.0
S17	VINYL FENCE - 8' HEIGHT	
S22	CONC. RETAINING WALL. SEE STRUCTURAL PLANS	
S23	CONCRETE DRIVE RAMP	1-C8.2

**GENERAL NOTES**  
1. SEE SHEET C2.0 FOR NOTES.

PROPOSED FEATURES LEGEND:	
	ACCESSIBLE PATH
	SETBACKS AND EASEMENTS
	WATER LINE
	HEAVY DUTY ASPHALT PAVEMENT
	LIGHT DUTY ASPHALT PAVEMENT
	CONCRETE PAVEMENT
	SIDEWALK CONCRETE PAVEMENT

SITE DATA NOTES:	
MAP AND PARCEL:	STARK COUNTY MAP 013, PARCELS 619439 P1767
CITY LOT:	875 8TH STREET NE
SITE ADDRESS:	MASSILLON
CITY:	STARK
COUNTY:	OHIO
STATE:	OHIO
PROPERTY ZONING:	RM-1, PENDING O-2 OFFICE
SETBACK TO AMHERST ROAD R.O.W.:	157.3'
SETBACK TO COMMONWEALTH AVENUE R.O.W.:	126.8'
SETBACK TO LOTS 769 & 771:	30.4'
ACREAGE OF SITE:	13.06 ACRES
SQUARE FOOTAGE OF SITE:	568,940 S.F.
PROPOSED BLDG. ADDITION SQ. FT.:	14,385 S.F.
REQUIRED PARKING:	1SP / BED (157) = 157 SPACES 1SP / 3 EMPLOYEES (640) = 214 SPACES TOTAL REQUIRED = 371 SPACES
EXISTING PARKING:	= 435 SPACES
DEMOLISHED PARKING:	= 41 SPACES (4 ACCESSIBLE)
PROPOSED PARKING:	= 27 SPACES (1 ACCESSIBLE)
FUTURE PARKING:	= 35 SPACES
	TOTAL = 456 SPACES
OWNER:	AFFINITY MEDICAL CENTER 875 8TH ST. NE MASSILLON, OH 44646
APPLICANT:	LITTLEJOHN ENGINEERING ASSOCIATES 1935 21ST AVENUE SOUTH NASHVILLE, TN 37212 (615) 385-4144 (615) 385-4020 CONTACT : ADAM CRUNK, P.E.



NOTE:  
ANY WORK PERFORMED WITHIN THE CITY RIGHT-OF-WAY IS TO BE INSPECTED BY THE CITY OF MASSILLON ENGINEERING DEPARTMENT.

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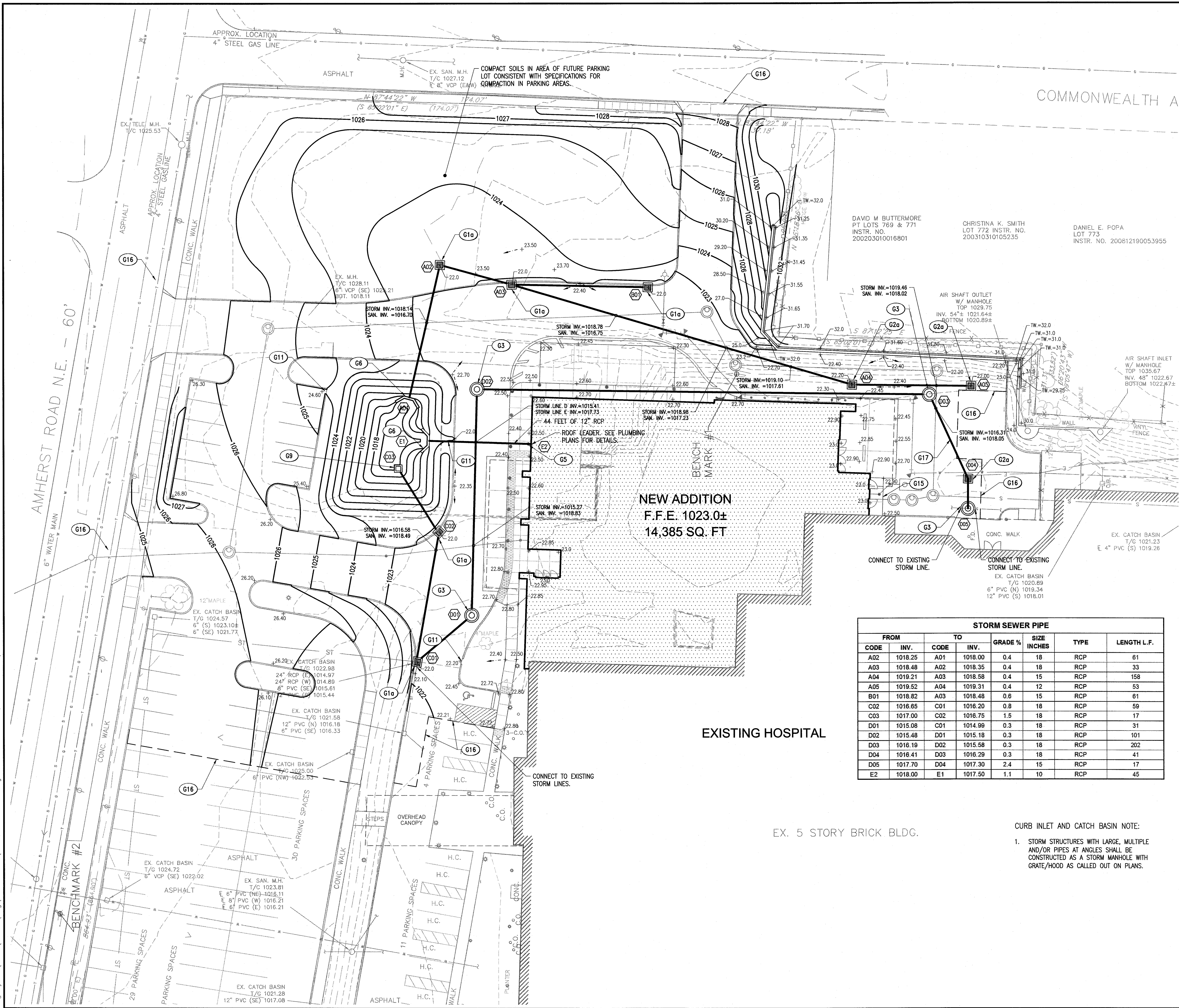
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DATE	REVISIONS
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**C5.0**  
**SITE LAYOUT PLAN**



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GRADING & DRAINAGE KEY NOTE		
CODE	DESCRIPTION	DETAIL - SHEET
G10	SINGLE CURB INLET WITH INSERT	5-C8.1
G20	SINGLE CATCH BASIN WITH INSERT	3-C8.1
G3	JUNCTION MANHOLE	4-C8.1
G5	CLEANOUT	9-C8.0
G6	CONCRETE ENDWALL, WINGED	12-C8.0
G7	BUILDING DOWNSPOUT CONNECTION	
G9	DETENTION POND OUTLET STRUCTURE	5-C8.2
G11	CURB CUT	
G15	TRANSITION FROM FLUSH CONDITIONS TO 6" CURB OVER 10 FEET	11-C8.0
G16	MATCH EXISTING GRADE	
G17	CONCRETE ENCASEMENT	3-C8.0

#### SITE GRADING NOTES

- SEE SHEET C2.0 FOR GRADING NOTES.

#### PROPOSED FEATURES LEGEND:

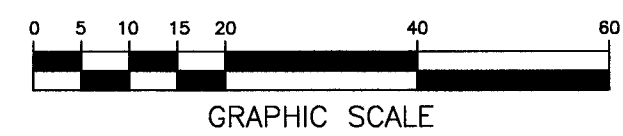
5221	PROPOSED CONTOURS
	STORM PIPE AND INLET
+ 65.58	SPOT ELEVATION
G1	DRAINAGE STRUCTURE

DRAINAGE STRUCTURES			
CODE	DESCRIPTION	TOP OF GRATE ELEVATION	INVERT ELEVATION
A01	HEADWALL	N/A	1,018.00
A02	SINGLE CATCH BASIN	1,023.00	1,018.25
A03	SINGLE CURB INLET	1,022.00	1,018.48
A04	SINGLE CATCH BASIN	1,022.20	1,019.21
A05	SINGLE CATCH BASIN	1,022.00	1,019.52
B01	SINGLE CURB INLET	1,022.00	1,018.82
C01	SINGLE CURB INLET	1,022.98	1,014.89
C02	SINGLE CURB INLET	1,022.00	1,016.65
C03	POND OUTLET	1,022.00	1,017.00
D01	JUNCTION BOX	1,022.50	1,015.08
D02	JUNCTION BOX	1,022.50	1,015.48
D03	JUNCTION BOX	1,022.20	1,016.19
D04	SINGLE CATCH BASIN	1,021.79	1,016.41
D05	JUNCTION BOX	1,022.20	1,017.70
E1	ENDWALL	N/A	1,017.50
E2	CLEANOUT	1,022.50	1,018.00

STORM SEWER PIPE						
FROM		TO		GRADE %	SIZE INCHES	TYPE
CODE	INV.	CODE	INV.			
A02	1018.25	A01	1018.00	0.4	18	RCP
A03	1018.48	A02	1018.35	0.4	18	RCP
A04	1019.21	A03	1018.58	0.4	15	RCP
A05	1019.52	A04	1019.31	0.4	12	RCP
B01	1018.82	A03	1018.48	0.6	15	RCP
C02	1016.65	C01	1016.20	0.8	18	RCP
C03	1017.00	C02	1016.75	1.5	18	RCP
D01	1015.08	C01	1014.99	0.3	18	RCP
D02	1015.48	D01	1015.18	0.3	18	RCP
D03	1016.19	D02	1015.58	0.3	18	RCP
D04	1016.41	D03	1016.29	0.3	18	RCP
D05	1017.70	D04	1017.30	2.4	15	RCP
E2	1018.00	E1	1017.50	1.1	10	RCP

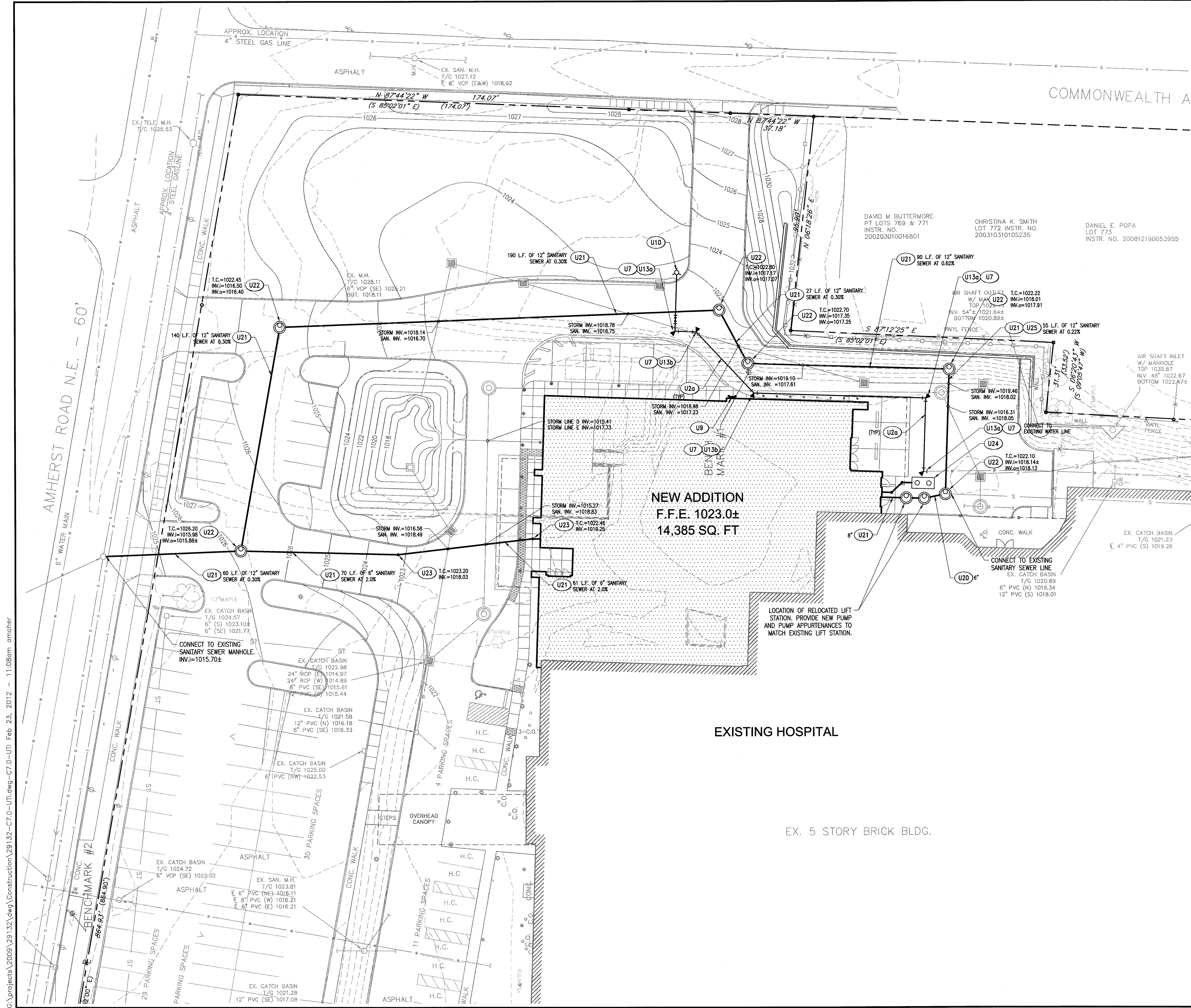
#### CURB INLET AND CATCH BASIN NOTE:

- STORM STRUCTURES WITH LARGE, MULTIPLE AND/OR PIPES AT ANGLES SHALL BE CONSTRUCTED AS A STORM MANHOLE WITH GRATE/HOOD AS CALLED OUT ON PLANS.





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SITE UTILITY KEY NOTE		
CODE	DESCRIPTION	DETAIL - SHEET
U1a	WATER LINE (SPECIFY SIZE(S))	3, 4-C8.2
U2a	FIRE LINE - 6"	4-C8.2
U7	WATER BLOCKING/KICKERS	6-C8.1
U9	FIRE DEPARTMENT CONNECTION	SEE PLUMBING PLANS FOR DETAILS
U10	FIRE HYDRANT ASSEMBLY	1-C8.1
U11a	WATER VALVE - SEE PIPING FOR SIZE	
U12a	TEE - SEE PIPING FOR SIZE	
U13a	90° ELL	
U13b	45° ELL	
U20	SANITARY SEWER FORCE MAIN (SPECIFY SIZE(S))	
U21	SANITARY SEWER SERVICE (SPECIFY SIZE(S))	4-C8.2
U22	SANITARY SEWER MANHOLE	2-C8.1
U23	CLEANOUT	9-C8.0
U24	CONTAMINATED WATER HOLDING TANK	P0.02
U25	CONCRETE ENCASEMENT	3-C8.0

#### UTILITY NOTES

- SEE SHEET C2.0 FOR NOTES.

#### PROPOSED UTILITIES LEGEND:

- SANITARY SEWER
- WATER LINE

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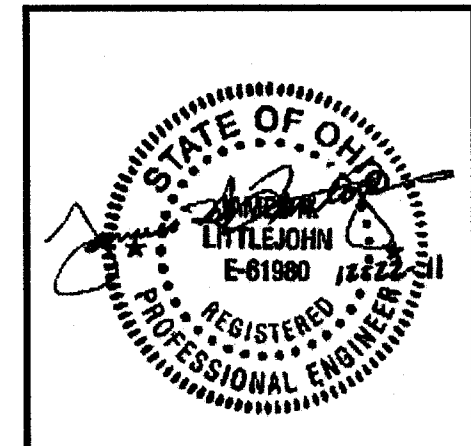
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### MASSILLON, STARK COUNTY, OHIO



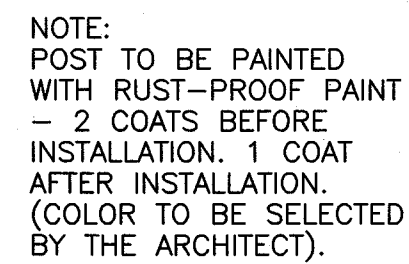
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**C7.0**

UTILITY  
PLAN





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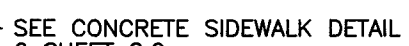
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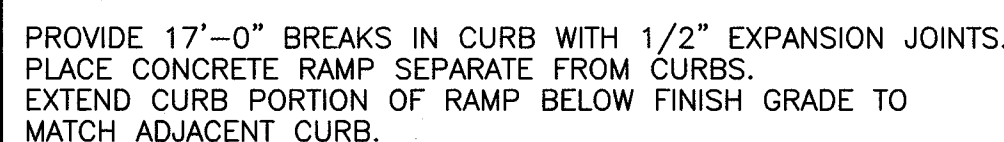
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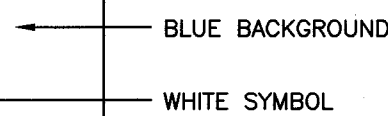
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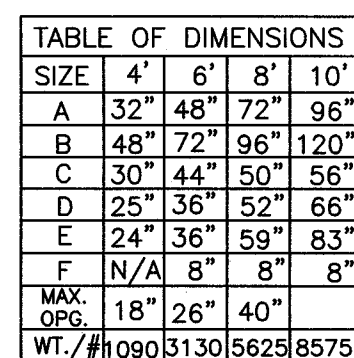
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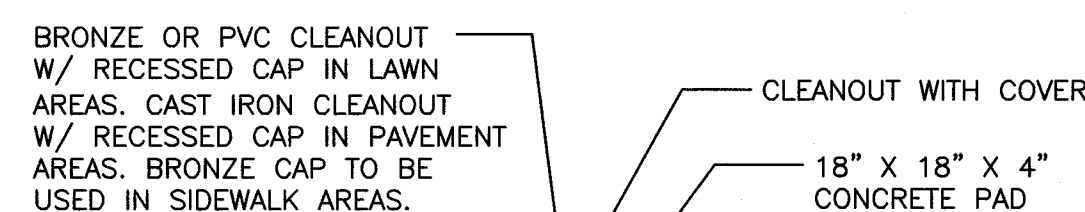
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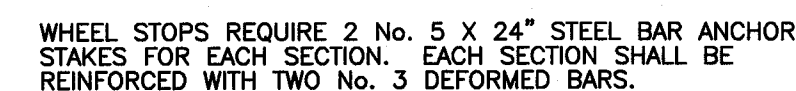
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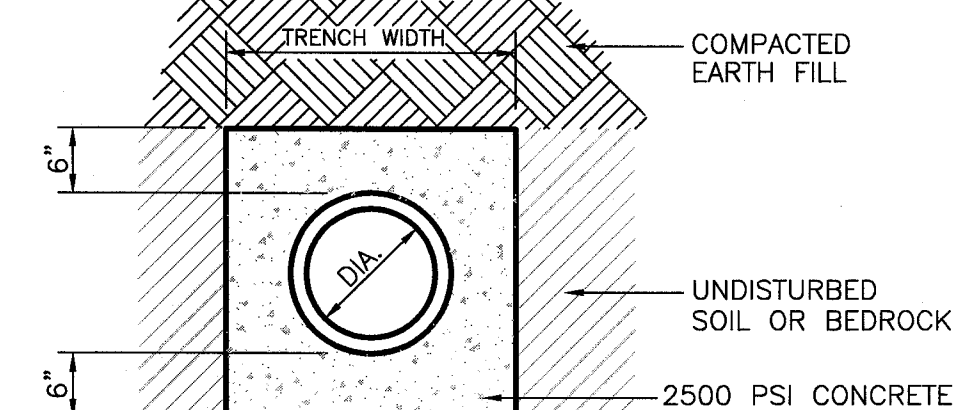
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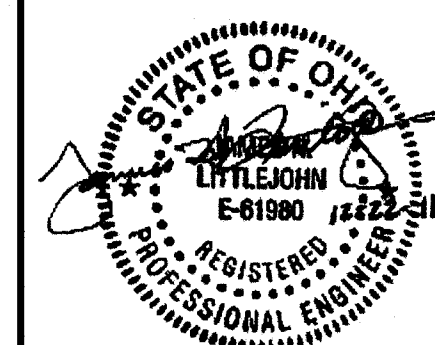


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**EMERGENCY DEPARTMENT**  
**ADDITIONS / RENOVATIONS**  
**MASSILLON, STARK COUNTY, OHIO**



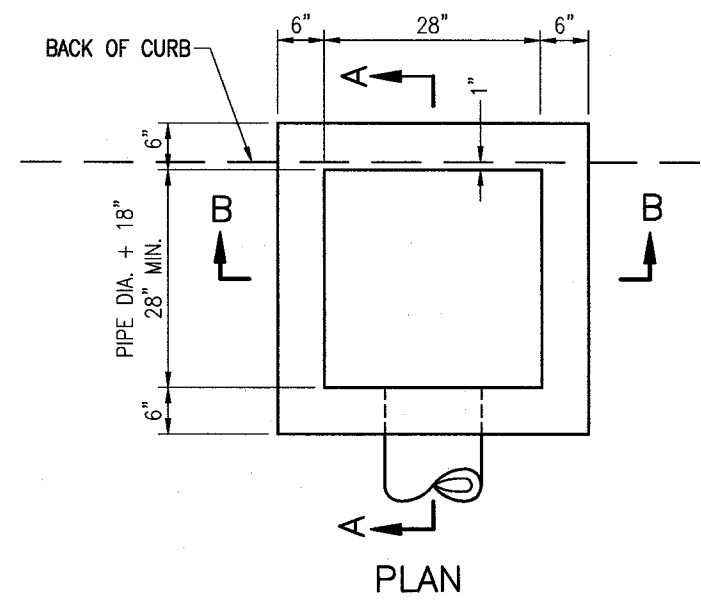
## Design Development

DATE	REVISIONS
12/16/2011	29132

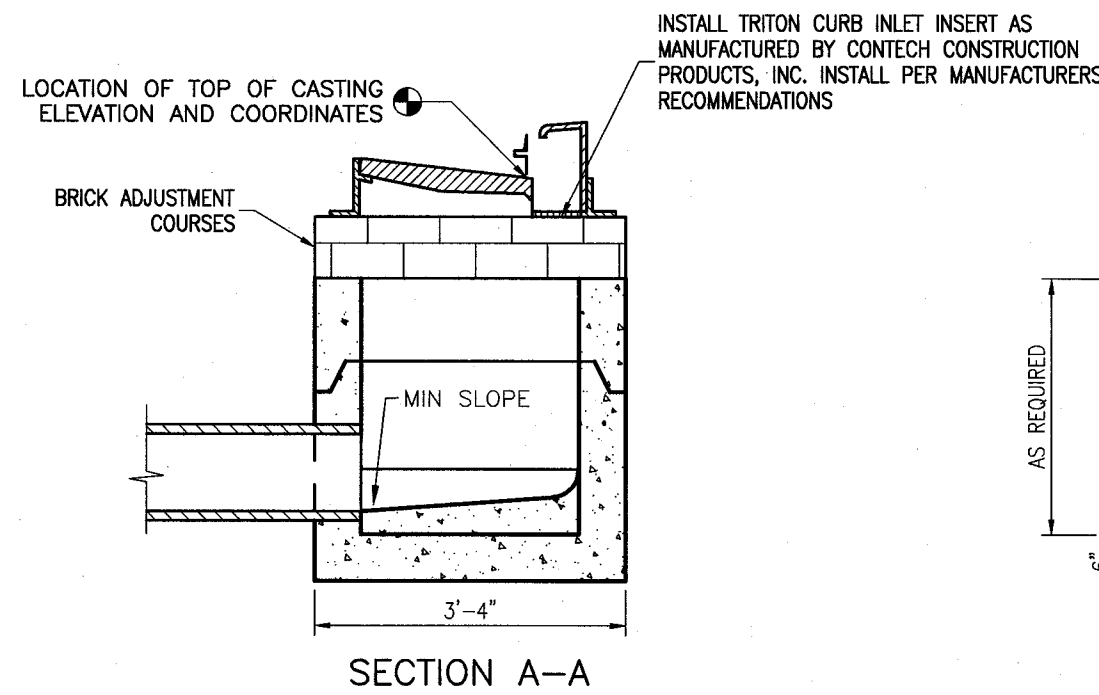
## C8.0

### DETAILS

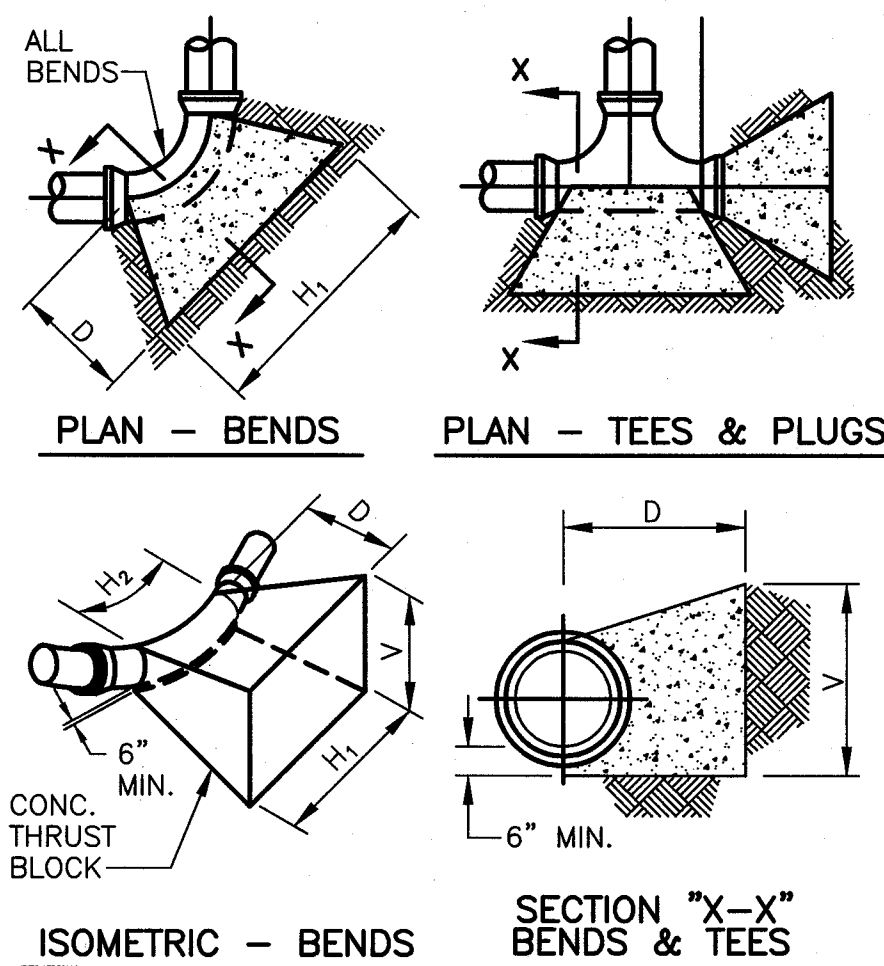




- NOTES:
- CASTING FOR CURB AND GUTTER SHOWN.
  - CONCRETE SHALL BE 3500 PSI AT 28 DAYS CURE.
  - REINFORCE WITH NO. 4 BARS, GRADE 60, SPACED 12" APART EACH WAY.
  - A CAST-IN-PLACE BOX OF EQUAL DIMENSIONS IS ACCEPTABLE.
  - PROVIDE A REDUCER RING TO ACCOMMODATE THE PROPOSED CASTING.
  - ADJUST STRUCTURE DIMENSIONS AS REQUIRED TO RECEIVE STORM PIPE AT OBLIQUE ANGLES.
  - FRAME AND GRATE SHALL BE JOHN BOUGHARD AND SONS NUMBER 3101 OR APPROVED EQUAL.



**CURB INLET**  
NOT TO SCALE



PIPE SIZE	90° BEND			
	H <sub>1</sub>	H <sub>2</sub>	D	V
4"	24"	12"	12"	24"
6"	36"	16"	16"	30"
8"	48"	18"	18"	36"

PIPE SIZE	45° BEND			
	H <sub>1</sub>	H <sub>2</sub>	D	V
4"	24"	8"	12"	12"
6"	30"	10"	16"	20"
8"	36"	11"	18"	30"

PIPE SIZE	22 1/2° BEND			
	H <sub>1</sub>	H <sub>2</sub>	D	V
4"	12"	8"	12"	12"
6"	18"	10"	16"	18"
8"	27"	11"	18"	20"

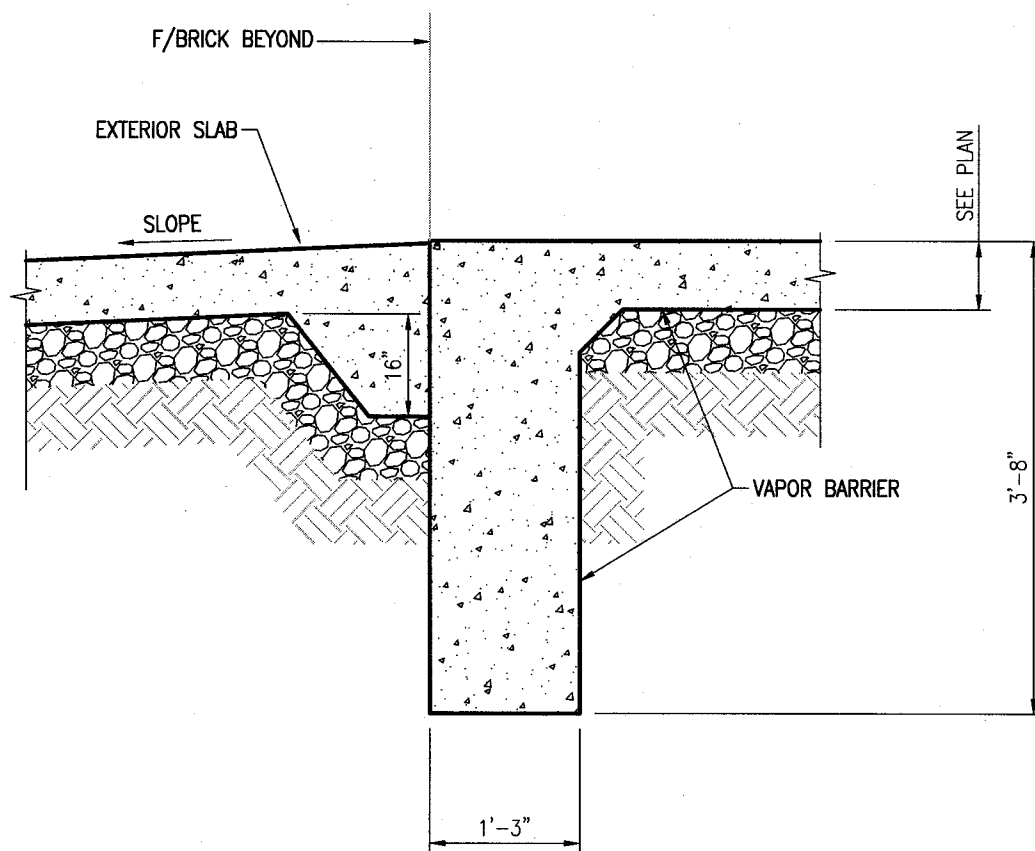
PIPE SIZE	11 1/4° BEND			
	H <sub>1</sub>	H <sub>2</sub>	D	V
4"	12"	8"	12"	12"
6"	16"	10"	16"	12"
8"	18"	11"	18"	16"

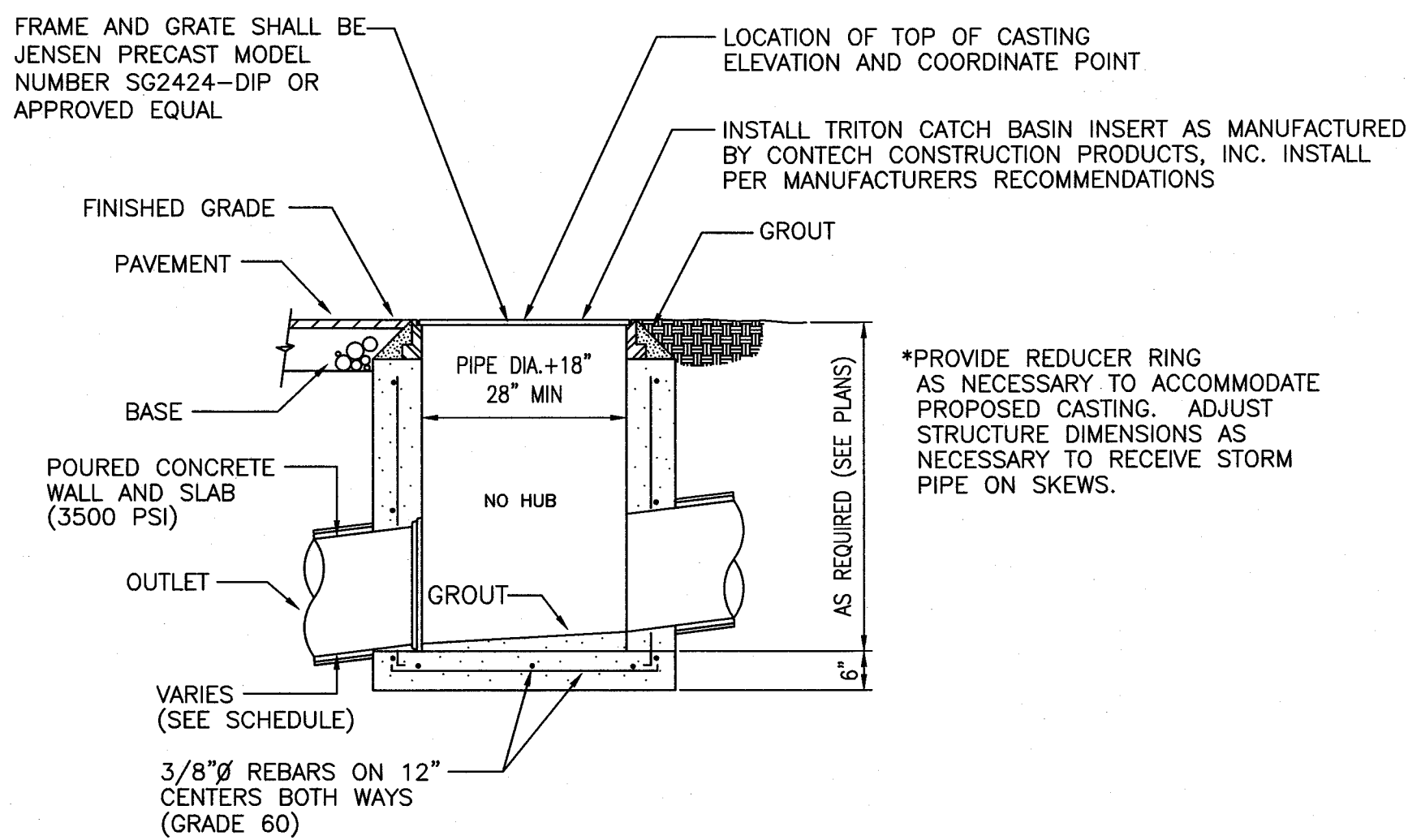
PIPE SIZE	TEES & PLUGS			
	H <sub>1</sub>	H <sub>2</sub>	D	V
4"	24"	12"	12"	16"
6"	30"	16"	16"	24"
8"	40"	18"	18"	30"

DIMENSIONS BASED ON SOIL BEARING CAP. OF 1000 PSF & WATER PRESSURE OF 150 PSI (100 PSI + 50% FOR WATER HAMMER).

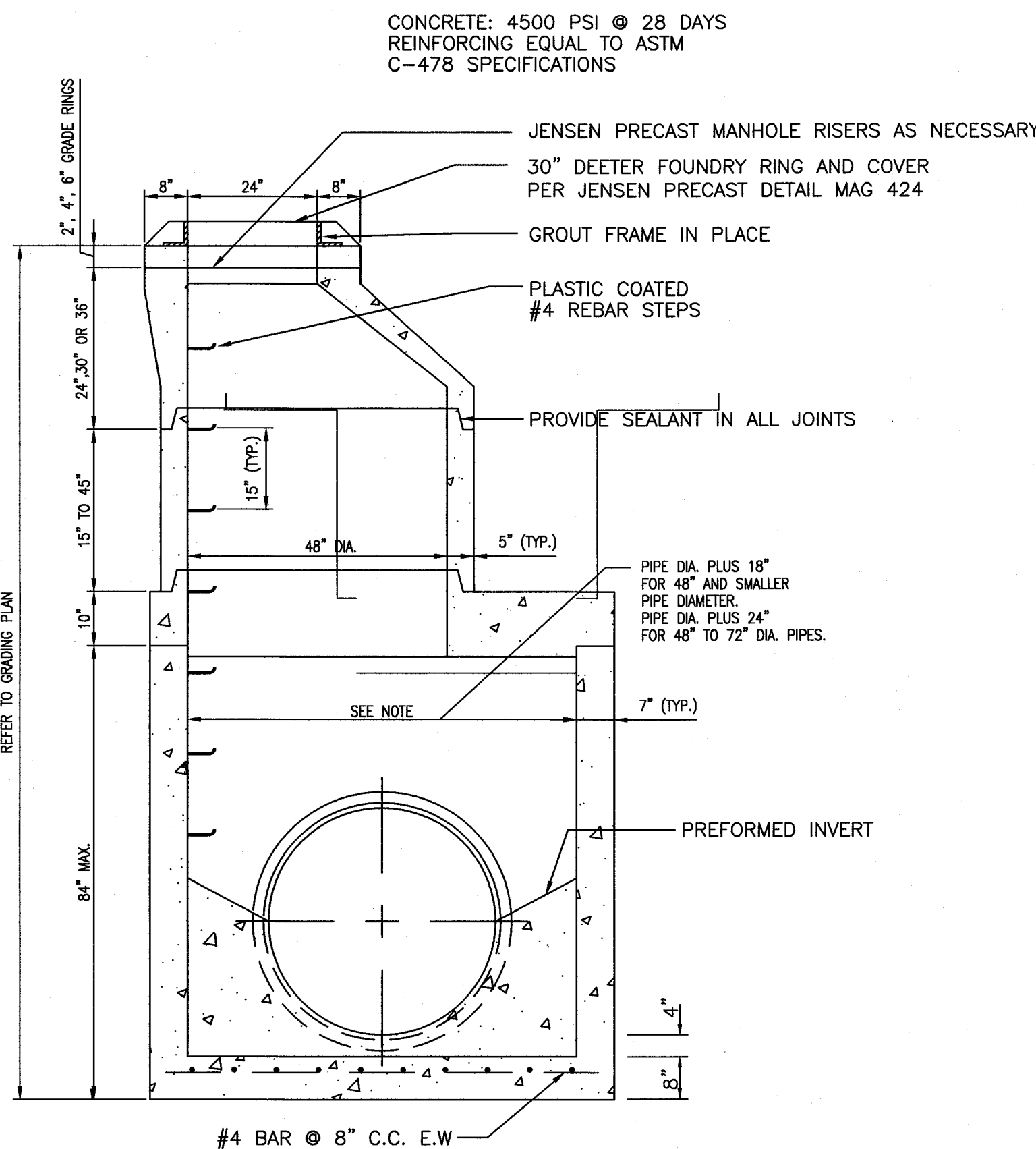
**WATER BLOCKING/KICKERS**  
NOT TO SCALE



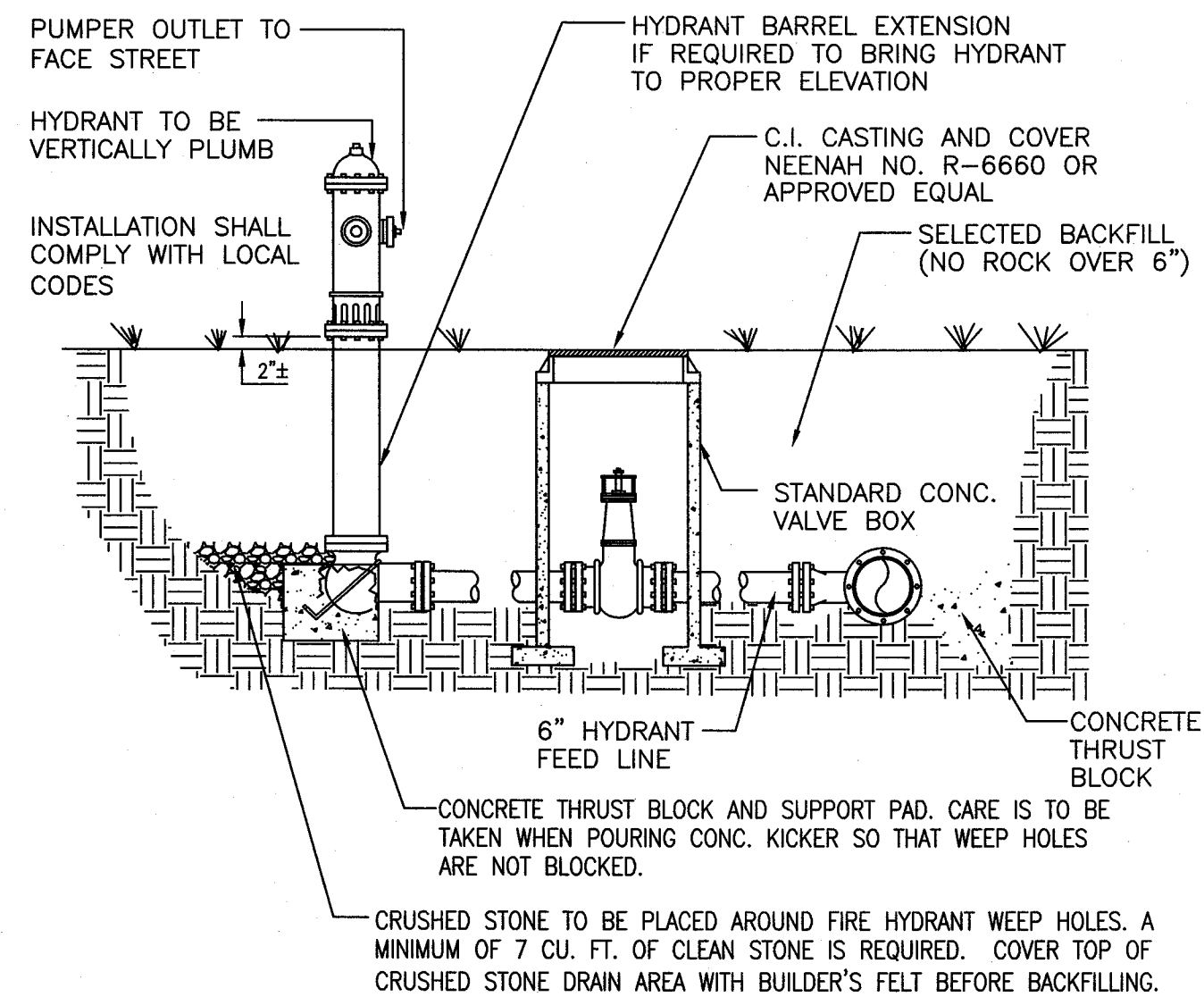
**SIDEWALK TURNDOWN AT EXTERIOR DOOR**  
NOT TO SCALE



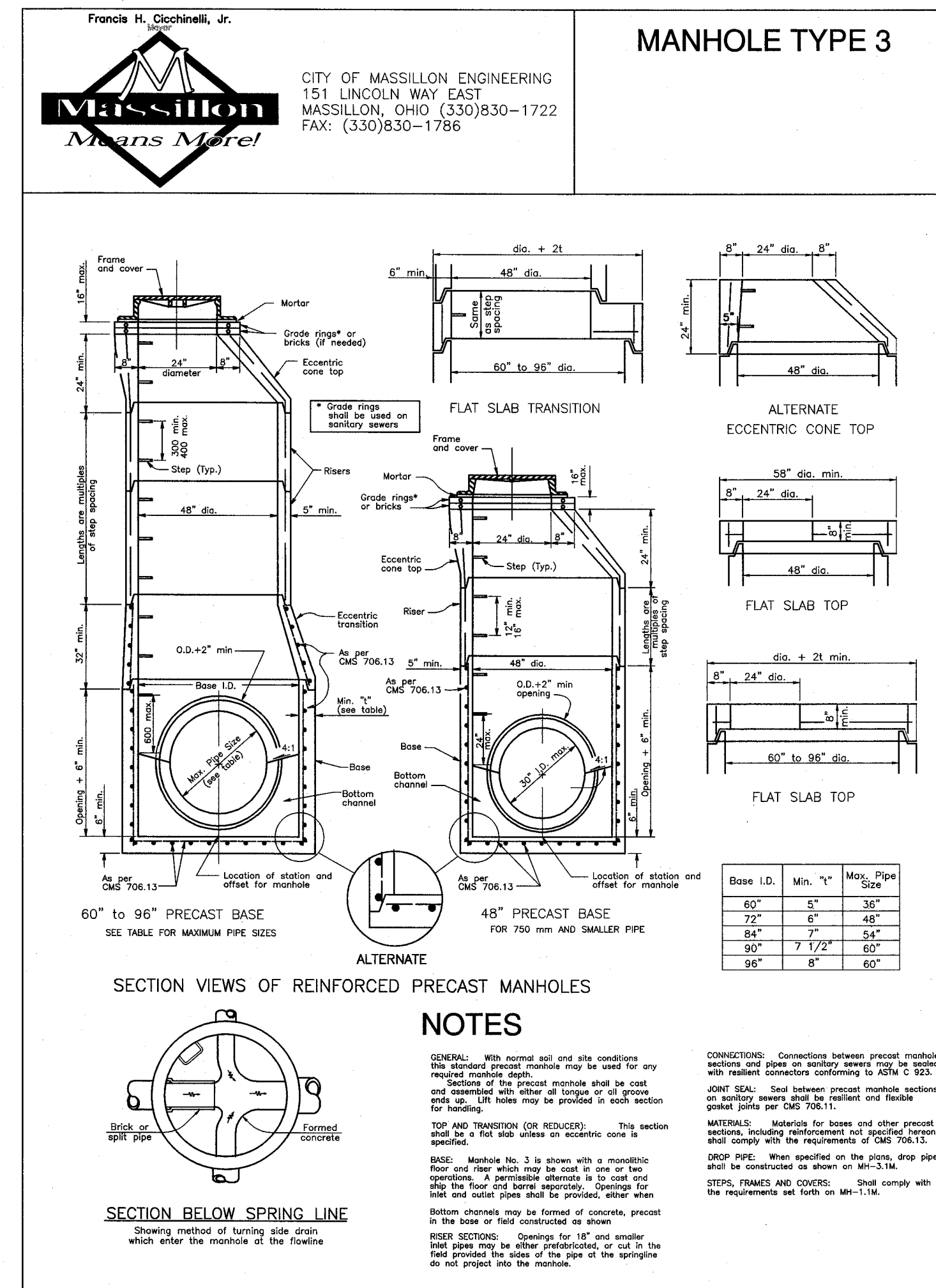
**CATCH BASIN**  
NOT TO SCALE



**STORM JUNCTION MANHOLE**  
NOT TO SCALE



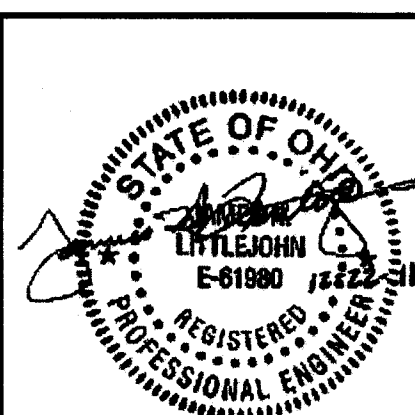
**FIRE HYDRANT ASSEMBLY**  
NOT TO SCALE



**SANITARY MANHOLE**  
NOT TO SCALE

**LITTLEJOHN ENGINEERING ASSOCIATES**  
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**Design Development**

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12/16/2011	29132

**C8.1**  
DETAILS



