10846 S BOOK ROAD, UNINC. NAPERVILLE, IL 60564 JOB NO. W24300.00 JUNE 11, 2025 FINAL ENGINEERING

	Sheet List Table
Sheet Number	
C-1.0	COVER SHEET
C-2.0	GENERAL NOTES
C-2.1	GENERAL NOTES
C-2.2	GENERAL NOTES
C-3.0	EXISTING CONDITIONS PLAN
C-4.0	DEMOLITION PLAN
C-5.0	GEOMETRIC PLAN
C-5.1	PLAN & PROFILE
C-5.2	PLAN & PROFILE
C-6.0	UTILITY PLAN
C-7.0	GRADING PLAN
C-7.1	GRADING PLAN
C-8.0	SOIL EROSION & SEDIMENT CONTROL PLAN
C-8.1	SOIL EROSION & SEDIMENT CONTROL PLAN
C-8.2	SOIL EROSION & SEDIMENT CONTROL PLAN
C-9.0	CONSTRUCTION DETAILS
C-9.1	CONSTRUCTION DETAILS
C-9.2	CONSTRUCTION DETAILS
C-9.3	CONSTRUCTION DETAILS
C-9.4	CONSTRUCTION DETAILS
C-9.5	CONSTRUCTION DETAILS  CONSTRUCTION DETAILS
C-9.6	CONSTRUCTION DETAILS

**PROJECT LOCATION** Naperbrook Golf Course 🔞 mmissioners TR Miller Heating, Cooling, Plumbing and... 119th St

COUNTY: WILL TOWNSHIP: 37N RANGE: 9E SECTION: 15

LOCATION MAP

# PREPARED FOR:

# OVERSTREET BUILDERS, INC.

3947 CALIENTE CR, NAPERVILLE, IL 60564 (630) 226-0460 EXT 206

SITE BENCHMARK #1: SOUTHWEST UPPER FLANGE BOLT ON FIRE HYDRANT LOCATED ON THE EAST SIDE OF BOOK ROAD APPROXIMATELY 55' SOUTH OF NORTH PROPERTY LINE EXTENDED. ELEV: 644.32 (NAVD 88) SITE BENCHMARK #2:
NORTHWEST UPPER FLANGE BOLT ON FIRE HYDRANT LOCATED ON THE EAST SIDE OF BOOK ROAD AT APPROXIMATELY SOUTH PROPERTY LINE OF 10920 BOOK ROAD EXTENDED. ELEV: 645.43 (NAVD 88)





2416 GALEN DRIVE CHAMPAIGN, ILLINOIS 61821 PHONE (217) 351-6268 FAX (217) 355-1902

3S701 WEST AVENUE, SUITE 150 WARRENVILLE, ILLINOIS 60555 PHONE (630) 393-3060 FAX (630) 393-2152

10 S. RIVERSIDE PLAZA, SUITE 875 CHICAGO, ILLINOIS 60606 PHONE (312) 474-7841 FAX (312) 474-6099

TO THE BEST OF OUR KNOWLEDGE AND BELIEF, THE DRAINAGE OF THE SURFACE WATERS WILL NOT BE CHANGED BY THE CONSTRUCTION OF THESE LOT IMPROVEMENTS OR ANY PART THEREOF, OR THAT IF SUCH WATER DRAINAGE WILL BE CHANGED, REASONABLE PROVISIONS HAVE BEEN MADE FOR THE COLLECTION AND DIVERSION OF SUCH WATERS INTO PUBLIC AREAS OR DRAINS WHICH THE OWNER HAS A RIGHT TO USE, AND THAT SUCH SURFACE WATERS WILL BE PLANNED FOR IN ACCORDANCE WITH GENERALLY ACCEPTED ENGINEERING PRACTICES. SO THAT THE DEVELOPMENT SHALL NOT ADVERSELY INCREASE FLOOD ELEVATIONS OR DECREASE FLOOD CONVEYANCE CAPACITY UPSTREAM OR DOWNSTREAM OF THE PROJECT AREA.

Engineer:		
Seal:		

Nicholas A. Varchetto IL. P.E. NO. 062-068622 Expires November 30, 2025

C-1.0

PROFESSIONAL DESIGN FIRM NUMBER: 184.001186

SINGLE FAMILY SUBDIVISION

COVER SHEET

- 3. ALL CONTRACTORS DOING WORK IN THE PUBLIC RIGHT-OF-WAY MUST BE LICENSED (WHEN APPLICABLE) TO MAKE PUBLIC IMPROVEMENTS WITHIN THE NAPERVILLE CORPORATE LIMITS.
- 4. THE CONTRACTOR ASSUMES ALL RESPONSIBILITY AND LIABILITY FOR ANY ACTION RESULTING FROM THEIR WORK WITHIN THE PUBLIC RIGHT-OF-WAY.
- 5. THE CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS THE CITY OF NAPERVILLE.
- 6. PRIOR TO COMMENCEMENT OF ANY OFF-SITE CONSTRUCTION, THE CONTRACTOR SHALL SECURE WRITTEN AUTHORIZATION THAT ALL OFF-SITE EASEMENTS HAVE BEEN SECURED AND THAT PERMISSION HAS BEEN GRANTED TO ENTER ONTO PRIVATE PROPERTY.
- 7. THE CONTRACTOR AND THEIR ON-SITE REPRESENTATIVES WILL BE REQUIRED TO ATTEND A PRE-CONSTRUCTION MEETING WITH THE CITY OF NAPERVILLE PRIOR TO ANY WORK BEING STARTED. A PRE-CONSTRUCTION MEETING WILL NOT BE SCHEDULED UNTIL THE PROJECT HAS BEEN APPROVED BY THE CITY OF NAPERVILLE DEVELOPMENT REVIEW TEAM AND THE REQUIRED SURETY HAS BEEN
- 8. A MINIMUM OF 48 HOURS NOTICE SHALL BE GIVEN TO THE CITY OF NAPERVILLE TED BUSINESS GROUP (630-420-6082) PRIOR TO STARTING WORK OR RESTARTING WORK AFTER SOME ABSENCE OF WORK FOR ANY REASON.
- 9. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ADEQUATELY IDENTIFY AND LOCATE ALL EXISTING UTILITIES PRIOR TO EXCAVATION. BEFORE STARTING CONSTRUCTION, THE CONTRACTOR SHALL CONTACT JULIE FOR THE LOCATION OF ANY AND ALL UTILITIES. THE TOLL-FREE NUMBER IS 800-892-0123. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE ANY PRIVATE FACILITIES OR NON-JULIE MEMBER FACILITIES.
- THE CONTRACTOR CAN SCHEDULE ALL NECESSARY SITE INSPECTIONS WITH THE CITY OF NAPERVILLE BY CALLING (630) 420-6082 BETWEEN THE HOURS OF 8:00AM AND 4:00PM (CLOSED 1:00PM TO 2:00PM DAILY) ON WEEKDAYS WHEN THE CITY IS OPEN FOR BUSINESS. THE CONTRACTOR WILL BE REQUIRED TO PROVIDE THE SITE PERMIT NUMBER FOR THE PROJECT IN ORDER TO SCHEDULE THE INSPECTION(S).
- 11. RECORD DRAWINGS ARE REQUIRED TO BE SUBMITTED AND APPROVED BY THE CITY OF NAPERVILLE PRIOR TO FINAL OCCUPANCY BEING
- 12. FINAL ACCEPTANCE OF PUBLIC IMPROVEMENTS SHALL BE GRANTED ONLY AFTER A FINAL INSPECTION HAS BEEN COMPLETED AND HAS REVEALED THAT ALL IMPROVEMENTS HAVE BEEN SATISFACTORILY COMPLETED IN ACCORDANCE WITH THE NAPERVILLE STANDARD SPECIFICATIONS. UTILITIES ARE NOT CONSIDERED ACCEPTED UNTIL THEY ARE FORMALLY ACCEPTED BY THE CITY COUNCIL AS REQUIRED IN ACCORDANCE WITH THE NAPERVILLE MUNICIPAL CODE.
- 13. AT LEAST TWO WORKING DAYS PRIOR TO THE COMMENCEMENT OF ALL PHASES OF WORK, THE CONTRACTOR SHALL NOTIFY THE FOLLOWING: ENGINEERING RESOURCE ASSOCIATES: (630) 393-3060
- 14. UTILITY INFORMATION IS BASED UPON FIELD MEASUREMENTS AND BEST AVAILABLE RECORDS. FIELD DATA IS LIMITED TO THAT WHICH IS VISIBLE AND CAN BE MEASURED. THIS DOES NOT PRECLUDE THE EXISTENCE OF OTHER UNDERGROUND UTILITIES.
- 15. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ADEQUATE SIGNS AND WARNING DEVICES TO INFORM AND PROTECT THE PUBLIC. "THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", AS ADOPTED BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION, LATEST EDITION, SHALL BE CONSULTED. APPROPRIATE CONTROL METHODS SHOULD BE APPLIED TO THE SPECIFIC SITUATIONS AND TYPES OF CONSTRUCTION OPERATIONS BEING PERFORMED.
- 16. THE CONTRACTOR SHALL ESTABLISH THE NECESSARY PERFORMANCE BONDS REQUIRED. PERMITS SHALL BE OBTAINED FROM ALL OUTSIDE GOVERNMENTAL AGENCIES HAVING JURISDICTION PRIOR TO INITIATION OF CONSTRUCTION ACTIVITIES.
- 17. THE CONTRACTOR IS RESPONSIBLE FOR HAVING THE MOST RECENT SET OF "APPROVED" FINAL ENGINEERING PLANS WITH THE LATEST REVISION DATE ON THE JOB SITE PRIOR TO THE START OF CONSTRUCTION.
- 18. THE CONTRACTOR IS TO VERIFY THE LOCATION OF ALL EXISTING UTILTIES PRIOR TO THE START OF CONSTRUCTION AND WILL BE RESPONSIBLE FOR ANY DAMAGE TO THE SAME.
- 19. CONTRACTOR SHALL RESTORE OFF-SITE SURFACES TO ORIGINAL CONDITION IF DAMAGED BY CONSTRUCTION.
- 20. THE CONTRACTOR IS TO PROVIDE THE CITY ENGINEER WITH RECORD DRAWINGS OF ALL UTILITIES SHOWING LOCATIONS OF ALL SEWER PIPE, MAINS, SERVICE STUBS, & STRUCTURES.
- 21. THE ENGINEER WILL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S MEANS, METHODS, TECHNIQUES, SEQUENCES, OR PROCEDURES OF CONSTRUCTION. THE ENGINEER WILL NOT BE RESPONSIBLE FOR THE CONTRACTOR'S FAILURE TO PERFORM OR FURNISH THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- 22. THE ENGINEER WARRANTS THE DESIGN, RECOMMENDATIONS, AND SPECIFICATIONS TO HAVE BEEN PROMULGATED ON CONDITIONS GENERALLY ENCOUNTERED WITHIN THE INDUSTRY. THE ENGINEER ASSUMES NO RESPONSIBILITY WHATSOEVER, WITH RESPECT TO THE DESIGN RECOMMENDATIONS AND SPECIFICATIONS, FOR COMPLEX OR UNUSUAL SOIL CONDITIONS ENCOUNTERED ON THE PROJECT. IT SHALL BE THE OWNER'S/BIDDER'S RESPONSIBILITY TO ASCERTAIN THE EXACT NATURE OF SUBSURFACE CONDITIONS PRIOR TO THE CONSTRUCTION OF

#### THE IMPROVEMENT.

- 23. ALL TRENCHES CAUSED BY THE CONSTRUCTION OF SEWERS, WATERMAINS, WATER SERVICE PIPES AND IN EXCAVATIONS AROUND CATCH BASINS, MANHOLES, INLETS AND OTHER APPURTENCES WHICH OCCUR WITHIN TWO FEET OF THE LIMITS OF EXISTING AND PROPOSED PAVEMENT IMPROVEMENTS, SIDEWALKS, AND CURB AND GUTTERS SHALL BE BACKFILLED WITH TRENCH BACKFILL (AS DEFINED IN SECTION 208 OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND SPECIAL PROVISIONS).
- 24. AT LEAST 2 WORKING DAYS BEFORE COMMENCEMENT OF ANY WORK ACTIVITIES, THE CONTRACTOR WILL BE REQUIRED TO ATTEND AN ON-SITE PRECONSTRUCTION CONFERENCE. AT THIS CONFERENCE, THE CONTRACTOR WILL BE REQUIRED TO FURNISH AND DISCUSS INCLUDING BUT NOT LIMITED TO THE FOLLOWING: 1) WRITTEN PROGRESS SCHEDULE AND BEGINNING OF WORK 2) NAMES OF PROJECT MANAGER, FIELD SUPERINTENDENT AND THE NAME AND PHONE NUMBER OF A RESPONSIBLE INDIVIDUAL WHO CAN BE REACHED 24 HOURS A DAY.
- 25. THE CONTRACTOR SHALL NOT BE PERMITTED TO OPERATE EXISTING WATER VALVES OR HYDRANTS WITHOUT PERMISSION FROM THE WATER DEPARTMENT . THE CONTRACTOR SHALL CALL THE WATER DEPARTMENT 24 HOURS PRIOR TO THE NEED TO OPERATE THE VALVES OR HYDRANTS.
- 26. THE OWNER SHALL PROVIDE A FULL AND COMPLETE CIVIL ENGINEERING RECORD DRAWING PLAN SET IN HARD COPY AND AUTOCAD AT THE COMPLETION OF THE PROJECT. THE RECORD DRAWINGS SHALL INCLUDE ANY CHANGES FROM THE ORIGINAL CIVIL ENGINEERING PLANS. CURRENT ELEVATIONS SHALL BE SHOWN FOR THE FOLLOWING, AT A MINIMUM: 1) ALL RIM AND INVERTS 2) GRADE INFLECTION POINTS WITH PERIODIC GRADES SHOTS IN LEVEL AREAS 3) DETENTION POND GRADES WITH VOLUME CALCULATION. ADD NOTE COMPARING ACTUAL TO REQUIRED POND VOLUME.
- 27. DUST CONTROL WILL BE IN ACCORDANCE WITH IDOT "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION IN THE STATE OF ILLINOIS", LATEST EDITION, SECTION 107.36.
- 28. ANY DEWATERING NECESSARY FOR THE INSTALLATION OF THE IMPROVEMENTS AS SHOWN ON THE PLANS SHALL BE THE CONTRACTORS RESPONSIBILITY. THE COST FOR DEWATERING SHALL BE INCLUDED IN THE INSTALLATION OF THE IMPROVEMENTS.
- 29. ANY POOR SOILS ENCOUNTERED UNDER AREAS TO BE PAVED SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
- 30. THE CONTRACTOR SHALL TAKE CARE TO PROTECT ADJACENT LAND TO THE PROJECT BY NOT DISTURBING THE SOIL BY DRIVING VEHICLES ON
- 31. CONTRACTOR SHALL BE HELD RESPONSIBLE FOR DAMAGE TO PLANT MATERIAL OR SOILS OUTSIDE THE CONSTRUCTION LIMITS.
- 32. ANY REMOVAL ITEMS SHALL BE PROPERLY DISPOSED OF IN ACCORDANCE WITH THE SPECIFICATIONS
- 33. ALL TREES ARE DESIGNATED TO BE SAVED SHALL BE PROTECTED IN ACCORDANCE WITH THE PROVISIONS OF ARTICLE 201.5 OF THE STANDARD SPECIFICATION AND SPECIAL PROVISIONS.
- 34. FIRE HYDRANTS SHALL BE REQUIRED AND IN SERVICE PRIOR TO VERTICAL CONSTRUCTION WITH A MINIMUM FIRE FLOW 1000 GPM FOR 2 HOURS. HYDRANTS SHALL BE NO FURTHER THAN 2450' FROM ANY HOME WITH AN AVERAGE SPACING BETWEEN HYDRANTS OF 500'.
- 35. DURING CONSTRUCTION, ALL ROADS SHALL BE HARD SURFACED (TEMPORARY OR PERMANENT) AND IN PLACE, CAPABLE OF SUPPORTING VEHICLE LOADING UNDER ALL WEATHER CONDITIONS, PURSUANT TO THE 2015 INTERNATIONAL FIRE CODE, CHAPTER 5, CHAPTER 33, AND APPENDIX D. THE BINDER COAT SHALL BE AN ACCEPTABLE MATERIAL. ACCESS FOR FIRE DEPARTMENT VEHICLES SHALL BE MAINTAINED AT ALL

## STORM SEWER:

- 1. NO CONNECTION TO AN EXISTING PUBLIC STORM SEWER MAY BE MADE WITHOUT PERMISSION OF THE CITY ENGINEER.
- 2. THE CONTRACTOR SHALL REPAIR ANY EXISTING FIELD DRAINAGE TILE DAMAGED DURING CONSTRUCTION AND PROPERLY REPOUTE AND/OR CONNECT SAID TILE TO THE NEAREST STORM SEWER OUTLET. ALL LOCATIONS OF ENCOUNTERED FIELD DRAINAGE TILE SHALL BE PROPERLY INDICATED ON THE CONTRACTOR'S RECORD DRAWINGS.
- 3. STORM SEWER PIPE RCP SHALL CONFORM TO CLASS B MATERIALS FROM SECTION 550 OF THE IDOT STANDARDS SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
- 4. SEWER PIPE JOINTS SHALL BE SEALED WITH "O-RING" GASKETS. WATERMAIN QUALITY PIPE JOINTS SHALL BE "O-RING" TYPE, ASTM C-443

## 5. VERTICAL SEPARATION:

- 5.1. A WATERMAIN SHALL BE SEPARATED FROM A SEWER SO THAT ITS INVERT IS A MINIMUM OF 18 INCHES ABOVE THE CROWN OF THE DRAIN OR SEWER WHENEVER WATERMAINS CROSS STORM SEWERS, SANITARY SEWERS OR SEWER SERVICE CONNECTIONS. THE VERTICAL SEPARATION SHALL BE MAINTAINED FOR THAT PORTION OF THE WATERMAIN LOCATED WITHIN TEN (10) FEET HORIZONTALLY OF ANY SEWER OR DRAIN CROSSED. A LENGTH OF WATERMAIN PIPE SHALL BE CENTERED OVER THE SEWER TO BE CROSSED WITH JOINTS EQUIDISTANT FROM THE SEWER OR DRAIN
- BOTH THE WATERMAIN AND SEWER SHALL BE CONSTRUCTED OF SLIP-ON OR MECHANICAL JOINT CAST OR DUCTILE IRON PIPE, PRE-STRESSED CONCRETE PIPE, OR PVC PIPE EQUIVALENT TO WATERMAIN STANDARDS OF CONSTRUCTION WHEN:
- IT IS IMPOSSIBLE TO OBTAIN THE PROPER VERTICAL SEPARATION AS DESCRIBED ABOVE, OR:
- THE WATERMAIN PASSES UNDER A SEWER OR DRAIN.
- 5.3. A VERTICAL SEPARATION OF 18" BETWEEN THE INVERT OF THE SEWER OR DRAIN AND THE CROWN OF THE WATERMAIN SHALL BE MAINTAINED WHERE A WATERMAIN CROSSES UNDER A SEWER, SUPPORT THE SEWER OR DRAIN LINES TO PREVENT SETTLING AND BREAKING THE WATERMAIN, AS SHOWN ON THE PLANS OR

### APPROVED BY THE ENGINEER.

- CONSTRUCTION SHALL EXTEND ON EACH SIDE OF THE CROSSING UNTIL THE PERPENDICULAR DISTANCE FROM THE WATERMAIN TO THE SEWER OR DRAIN LINE IS AT LEAST 10 FEET.
- 6. MANHOLES AND CATCH BASINS SHALL BE PRECAST REINFORCED CONCRETE - ASTM C-478 AND ASTM C-443 CONFORMING TO THE FOLLOWING MINIMUM SIZE CRITERIA UNLESS SPECIFIED OTHERWISE: A.) FOR SEWER EIGHTEEN (18) INCH DIAMETER OR LESS, MANHOLE SHALL HAVE A FORTY-EIGHT (48) INCH INSIDE DIAMETER. B.) FOR SEWER TWENTY-ONE (21) INCH TO THIRTY-SIX (36) INCH IN DIAMETER, MANHOLE SHALL HAVE A SIXTY (60) INCH INSIDE DIAMETER. C.) FOR SEWER GREATER THAN THIRTY-SIX (36) INCH DIAMETER, MANHOLE SHALL HAVE AN OFFSET RISER PIPE OF FORTY-EIGHT (48) INCH INSIDE DIAMETER.
- 7. INLETS SHALL BE TWENTY-FOUR (24) INCH DIAMETER PRECAST REINFORCED CONCRETE CONFORMING TO ASTM C-478.
- 8. FOUR INCHES OF CA-7 CRUSHED GRAVEL OR CRUSHED STONE AGGREGATE SHALL BE USED AS BEDDING UNDER THE PIPE. THE BEDDING STONE SHALL BE GRADED ALONG THE ENTIRE LENGTH OF PIPE TO PROVIDE FULL BEARING. THE BEDDING STONE SHALL EXTEND TO THE SPRINGLINE OF THE PIPE.
- 9. ANY PIPES OR MANHOLES CONTAINING SEDIMENT SHALL BE CLEANED OUT PRIOR TO FINAL ACCEPTANCE.
- 10. STORM SEWER MANHOLE JOINTS SHALL BE SEALED WITH "O-RING" GASKETS OR MASTIC MATERIAL.

## PAVEMENT, SIDEWALK:

- 1. THE DEVELOPER AND CONTRACTOR SHALL HAVE THE RESPONSIBLITY TO ADEQUATELY PROTECT THE PAVEMENT AND PROPERTY, CURB AND GUTTER AND OTHER RIGHT-OF-WAY IMPROVEMENTS, WHETHER NEWLY CONSTRUCTED OR EXISTING, FROM ANY AND ALL DAMAGE. SUFFICIENT MEANS SHALL BE EMPLOYED BY THE CONTRACTOR TO PROTECT AGAINST SUCH DAMAGE TO THE SATISFACTION OF THE CITY ENGINEER.
- 2. ANY NEW OR EXISTING IMPROVEMENTS THAT ARE DAMAGED SHALL BE REPAIRED OR REPLACED IN A MANNER THAT IS SATISFACTORY TO THE CITY ENGINEER.
- 3. THE CONTRACTOR SHALL SECURE ALL NECESSARY RIGHTS AND PERMISSIONS TO PERFORM ANY WORK ON PRIVATE PROPERTY NOT WITHIN THE OWNERSHIP RIGHTS OF THE DEVELOPER. THE DEVELOPER SHALL BEAR THE SOLE RESPONSIBILITY FOR DAMAGES THAT MAY OCCUR AS A RESULT OF WORK PERFORMED UNDER CONTRACTS THEY INITIATE.
- 4. THE CONTRACTOR WILL BE RESPONSIBLE FOR BRINGING PAVEMENTS (STREET, CURB AND GUTTER, SIDEWALK, DRIVEWAY) ON THE PROPERTY UP TO CITY STANDARDS INCLUDING ANY REPAIRS TO SUBSTANDARD PAVEMENTS THAT EXISTED PRIOR TO OR OCCURRED DURING CONSTRUCTION.
- 5. WHEREVER NEW WORK WILL MEET EXISTING CONDITIONS OTHER THAN LAWN AREAS, REGARDLESS OF WHETHER THE NEW OR EXISTING WORK IS ASPHALT OR CONCRETE, THE ADJACENT SIDEWALK, DRIVEWAYS, PAVEMENT OR CURB SHALL BE NEATLY SAW CUT. THE SAW CUT SHALL BE IN A NEAT STRAIGHT LINE SUFFICIENTLY DEEP SO THAT IT RENDERS A SMOOTH VERTICAL FACE TO MATCH TO, IF THE CONTRACTOR IS NOT CAREFUL OR DOES NOT SAW DEEP ENOUGH AND THE CUT LINE BREAKS OUT OR CHIPS TO AN IMPERFECT EDGE, THEN THE EXISTING SIDE MUST BE RE-CUT SOUARE AND DONE OVER UNTIL IT IS CORRECT.
- 6. PAVEMENT THICKNESS SHALL COMPLY WITH NAPERVILLE REQUIREMENTS.
- 7. HANDICAPPED RAMPS AND DEPRESSED CURBS SHALL BE PROVIDED AT LOCATIONS SHOWN ON PLANS.
- 8. EXPANSION JOINTS SHALL BE PLACED, AS A MINIMUM AT ALL CONSTRUCTION JOINTS IN THE CURB. EXPANSION JOINTS SHALL BE DOWELED AND SPACED NO MORE THAN SIXTY (60) FEE ON CENTER.
- 9. PRIOR TO PLACING ANY PAVEMENT MATERIAL, THE CONTRACTOR IS RESPONSIBLE FOR PROPERLY PREPARING AND COMPACTING THE SUBGRADE. THE PAVEMENT BASE COURSE SHALL BE PROOF-ROLLED WITH A FULLY LOADED DUMP TRUCK. THE ENGINEER SHALL BE NOTIFIED AT LEAST 24 HOURS BEFORE PROOF-ROLLING. ADDITIONAL PROOF-ROLLS MAY BE NECESSARY TO VERIFY THAT ANY UNSTABLE AREAS HAVE BE REPAIRED. NO PAVEMENT MATERIAL IS TO BE PAVED ON A WET OR SOFT SUBGRADE.
- 10. ALL EXISTING PAVEMENT OR CONCRETE TO BE REMOVED SHALL BE SAWCUT TO A NEAT EDGE ALONG LIMITS OF PROPOSED REMOVAL BEFORE REMOVAL OPERATIONS BEGIN.

## SOIL EROSION CONTROL PLAN:

- 1. THE CONTRACTOR SHALL MAINTAIN PROPER DRAINAGE AT ALL TIMES DURING THE COURSE OF CONSTRUCTION AND PREVENT STORM SEWER WATER FROM RUNNING INTO OR STANDING IN EXCAVATED AREAS.
- 2. DURING EXTENDED DRY PERIODS, THE CONSTRUCTION AREA(S) MAY NEED TO BE WATERED DOWN TO PREVENT THE BLOWING OF SOIL FROM THE SITE.
- 3. DURING CONSTRUCTION, A STABILIZED CONSTRUCTION ENTRANCE SHALL BE UTILIZED TO MINIMIZE THE TRACKING OF DIRT ONTO THE PUBLIC STREETS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO KEEP PUBLIC STREET PAVEMENT CLEAN OF DIRT AND DEBRIS. ANY DIRT THAT IS TRACKED ONTO THE PUBLIC STREETS SHALL BE REMOVED THE SAME DAY. IF THE AMOUNT TRACKED ON THE PUBLIC STREET IS EXCESSIVE, CLEANING MAY BE REQUIRED MORE FREQUENTLY.
- 4. THE PROJECT AREA SHALL BE GRADED SO A MINIMAL AMOUNT OF STORMWATER RUNOFF AND LIKEWISE SOIL SEDIMENT WILL DISCHARGE UNRESTRICTED FROM THE SITE.
- 5. IN ACCORDANCE WITH THE NPDES, THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING EROSION CONTROL PROTECTION DURING CONSTRUCTION AS WELL AS PROVIDING PROTECTION TO ADJOINING STREETS FROM MUD AND POLLUTED RUNOFF AS WELL AS KEEPING EXISTING PAVEMENT CLEAN OF MUD AND DEBRIS. PAVEMENT SWEEPING OF CITY ROADS SHALL BE PERFORMED AS NECESSARY OR AT THE DIRECTION OF THE CITY ENGINEER. ALL EROSION CONTROL

- MEASURES SHALL BE INSPECTED AND CLEANED OR OTHERWISE MAINTAINED ON A WEEKLY BASIS, AND WITHIN 24 HOURS AFTER ANY SIGNIFICANT RAINFALL (0.5 INCHES OR GREATER) TO INSURE THAT ANY DAMAGE THAT MAY HAVE OCCURRED IS REPAIRED. ALL EROSION CONTROL INSTALLATION SHALL BE APPROVED BY THE CITY OF NAPERVILLE ENGINEERING DIVISION PERSONNEL BEFORE CONSTRUCTION • IS ALLOWED TO BEGIN.
- 6. INLET PROTECTORS SHALL BE USED IN ALL STORM GRATES DURING CONSTRUCTION AND SHALL REMAIN IN PLACE UNTIL THE RESTORATION IS SUFFICIENTLY ESTABLISHED. THE INLET PROTECTORS SHALL BE MAINTAINED BY THE CONTRACTOR. THE CONTRACTOR SHALL KEEP A MAINTENANCE LOG. THE CITY ENGINEER CAN DETERMINE IF ADDITIONAL PRACTICES ARE NEEDED FOR BETTER SOIL EROSION AND SEDIMENT CONTROL.
- 7. SILT FENCING SHALL REMAIN IN PLACE THROUGH THE CONSTRUCTION OF HOUSE/BUILDINGS TO SERVE AS EROSION CONTROL FOR THAT CONSTRUCTION.
- 8. TO PREVENT SOIL FROM LEAVING THE SITE ON CONSTRUCTION VEHICLE WHEELS, WORK ENTRANCES SHALL BE CONSTRUCTED OF GRAVEL AND SHALL EXTEND AT LEAST 50 FEET INTO THE JOB SITE. THE EXISTING PAVEMENT SURFACES SHALL BE INSPECTED DAILY FOR SOIL DEBRIS AND SHALL BE CLEANED WHEN NECESSARY.
- 9. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROPERLY DISPOSE OF ANY EXCESS EXCAVATED MATERIAL.
- 10. DISPOSAL OF DEBRIS EXCAVATION AND PAVEMENT REMOVAL SHALL BE THE CONTRACTOR'S RESPONSIBILITY AND CONSIDERED AS AN INCIDENTAL EXPENSE.
- 11. ANY TOPSOIL THAT WILL BE STOCKPILED ON SITE SHALL BE MANAGED IN ACCORDANCE WITH THE CURRENT NPDES REGULATIONS. IF THE STOCKPILE WILL REMAIN ON SITE FOR AN EXTENDED PERIOD, IT SHALL BE STABILIZED WITH GRASS AND/OR OTHER VEGETATION AND DOUBLE ROW OF SILT FENCING SHALL BE PLACED AROUND THE STOCKPILE.
- 12. ALL ACCESS TO AND FROM THE CONSTRUCTION SITE IS TO BE RESTRICTED TO THE CONSTRUCTION ENTRANCE.
- 13. ALL TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED AND REPAIRED AS NEEDED TO ASSURE EFFECTIVE PERFORMANCE OF THEIR INTENDED FUNCTION.
- 14. THE ENGINEER SHALL BE NOTIFIED OF MAJOR AMENDMENTS OF THE SITE DEVELOPMENT OR EROSION AND SEDIMENTATION CONTROL PLANS, WHICH WILL BE APPROVED IN THE SAME MANNER AS THE ORIGINAL
- 15. ANY SEDIMENT REACHING A PUBLIC OR PRIVATE ROAD SHALL BE REMOVED BY SHOVELING OR STREET CLEANING (NOT FLUSHING) BEFORE THE END OF EACH WORKDAY AND TRANSPORTED TO A CONTROLLED SEDIMENT DISPOSAL.
- 16. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE DISPOSED OF WITHIN 30 DAYS AFTER THE FINAL SITE STABILIZATION IS ACHIEVED WITH PERMANENT SOIL STABILIZATION MEASURES
- 17. DISTURBED AREAS SHALL BE STABILIZED WITH TEMPORARY OR PERMANENT MEASURES WITHIN 7 CALENDAR DAYS FOLLOWING THE END OF ACTIVE DISTURBANCE OR REDISTURBANCE"
- 18. IF DEWATERING DEVICES ARE USED, DISCHARGE LOCATIONS SHALL BE PROTECTED FROM EROSION. ALL PUMPED DISCHARGES SHALL BE ROUTED THROUGH APPROPRIATELY DESIGNED SEDIMENT TRAPS OR BASINS.

## SITE GRADING:

- 1. EXCAVATION OF TOPSOIL AND OTHER STRUCTURALLY UNSUITABLE MATERIALS MAY REQUIRE EARTH EXCAVATION AND COMPACTED EARTH FILL MATERIAL IN ORDER TO ACHIEVE THE PLAN SUBGRADE ELEVATIONS.
- 2. PLACEMENT OF THE EXCAVATED MATERIAL SHALL BE IN AREAS DESIGNATED BY THE OWNER FOR FUTURE USE, WITHIN AREAS TO BE LANDSCAPED, AND THOSE ARES NOT REQUIRING STRUCTURAL FILL MATERIAL.
- 3. COMPACTION OF THE EXCAVATED MATERIAL PLACED IN AREAS NOT REQUIRING STRUCTURAL FILL SHALL BE MODERATE.
- 4. EXCESS MATERIALS, IF NOT UTILIZED AS FILL OR STOCKPILED FOR FUTURE LANDSCAPING, SHALL BE COMPLETELY REMOVED FROM THE CONSTRUCTION SITE AND DISPOSED OF BY THE CONTRACTOR.
- 5. EXCAVATION OF EARTH AND OTHER MATERIALS WHICH ARE SUITABLE FOR USE AS STRUCTURAL FILL: THE EXCAVATION SHALL BE TO WITHIN A TOLERANCE OF 0.3' +/- OF THE PLAN SUBGRADE ELEVATIONS. THE TOLERANCE WITHIN PAVEMENT AREAS SHALL BE SUCH THAT THE EARTH MATERIAL SHALL BALANCE AS PART OF THE FINE GRADING OPERATION.
- 6. PLACEMENT AND COMPACTION OF MATERIALS SHALL CONFORM TO I.D.O.T SPECIFICATIONS.
- 7. THE CONTRACTOR SHALL MAINTAIN PROPER SITE DRAINAGE AT ALL TIMES DURING THE COURSE OF CONSTRUCTION AND PREVENT STORM WATER FROM RUNNING INTO OR STANDING IN EXCAVATED AREAS.
- 8. PAYMENT FOR THE REMOVAL OF UNSUITABLE MATERIAL (EXCLUDING TOPSOIL EXCAVATION) SHALL BE BASED ON THE QUANTITIES AS FIELD MEASURED BY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE AS PART OF HIS BID A UNIT PRICE PER CUBIC YARD FOR THE REMOVAL OF UNSUITABLE MATERIALS. SAID UNIT PRICE SHALL INCLUDE THE COMPLETE REMOVAL OF THE MATERIAL, REPLACEMENT WITH SUITABLE MATERIAL OBTAINED BY THE CONTRACTOR FROM A BORROW SOURCE, AND COMPACTION TO THE REQUIRED SPECIFICATIONS OF THE ENGINEER.
- 9. ALL DISTURBED AREAS SHALL BE RESTORED W/6" TOPSOIL AND SEED AND BLANKET UNLESS OTHERWISE INDICATED.
- 10. IT IS THE RESPONSIBILITY OF THE DEVELOPER TO MAINTAIN ALLTHE SEDIMENTATION CONTROL MEASURES. INSPECTIONS SHALL BE CONDUCTED AFTER A RAIN EVENT, AND IF MAINTENANCE OF THE STRUCTURES IS NECESSARY, INCLUDING REPAIR OF DAMAGE AND REMOVAL OF DEPOSITS OR SEDIMENT FROM VEGETATIVE FILTERS, IT SHALL BE DONE BY THE DEVELOPER.

- DATE OF CONSTRUCTION: IT IS ANTICIPATED THAT CONSTRUCTION WILL BEGIN IN SPRING 2021, AND THAT EARTHWORK AND UTILITY OPERATIONS WILL BE COMPLETED BY FALL 2021.
- INSTALL TEMPORARY EROSION CONTROL MEASURES.
- MASS GRADE SITE.
- CONSTRUCT BUILDING FOUNDATION
- CONSTRUCT ROADWAY AND UTILITIES
- PERFORM RESTORATION, STABILIZATION, AND REMOVAL OF TEMPORARY **EROSION CONTROL MEASURES.**

### SANITARY SEWER

- 1. ANY EXISTING UTILITY STRUCTURES REQUIRING ADJUSTMENT OR RECONSTRUCTION SHALL BE COMPLETED BY THE CONTRACTOR TO THE SATISFACTION OF THE UTILITY OWNER. ADJUSTMENTS AND/OR RECONSTRUCTIONS NOT CALLED FOR ON THE PLANS SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT. NO MORE THAN A TOTAL OF 12 INCHES OF ADJUSTING RINGS AND/OR 2 ADJUSTING RINGS SHALL BE ALLOWED. ALL STRUCTURE FRAMES SHALL BE FLUSH WITH FINAL GRADE.
- 2. TREES SHALL BE INSTALLED A MINIMUM OF FIVE (5) FEET HORIZONTALLY FROM UNDERGROUND ELECTRICAL FEEDERS, SANITARY SEWERS, SANITARY SERVICES, WATER MAINS, AND WATER SERVICES. TREES SHALL BE INSTALLED A MINIMUM OF TEN (10) FEET HORIZONTALLY FROM UTILITY STRUCTURES AND APPURTENANCES, INCLUDING, BUT NOT LIMITED TO, MANHOLES, VALVE VAULTS, VALVE BOXES AND FIRE HYDRANTS. NO TREES, SHRUBS OR OBSTACLES WILL BE ALLOWED 10' IN FRONT OF, 5' ON THE SIDES, AND 7' TO THE REAR OF THE ELECTRICAL TRANSFORMER.
- 3. A SET OF AS-BUILT RECORD DRAWING SHALL BE GIVEN TO THE CITY OF NAPERVILLE UPON COMPLETION OF IMPROVEMENTS SHOWING THE ELEVATION AND LOCATION (TIED TO TWO POINTS) OF ALL NEW AND EXISTING STRUCTURES INCLUDING FIRE HYDRANTS, VALVE BOXES AND VAULTS, LINESTOP SLEEVES, WATER SERVICE CORPORATION STOPS, WATER MAIN FITTINGS/BENDS, MANHOLES, SANITARY SERVICE WYES (MEASURED FROM DOWNSTREAM MANHOLE), AND ABANDONED WATER OR SANITARY SERVICE LINES. ALL ELEVATIONS SHOULD BE REFERENCED TO THE SAME BENCHMARK DATUM AS THE ORIGINAL DESIGN PLANS. HORIZONTAL TIES SHALL BE REFERENCED TO LOT LINES, BACK OF CURB, OR PROPERTY CORNERS.
- 4. ALL SANITARY SEWER PIPING SHALL BE PVC PIPE MEETING THE REQUIREMENTS OF ASTM D-2241 WITH JOINTS CONFORMING TO ASTM D-3139. ALL SANITARY SEWER FITTINGS SHALL BE PVC MEETING THE FOLLOWING REQUIREMENTS: 4" TO 12" SHALL BE INJECTION ALL SANITARY SEWER PIPING SHALL BE PVC PIPE MEETING THE REQUIREMENTS OF ASTM D-2241 WITH JOINTS CONFORMING TO ASTM D-3139. ALL SANITARY SEWER FITTINGS SHALL BE PVC MEETING THE FOLLOWING REQUIREMENTS: 4" TO 12" SHALL BE INJECTION MOLDED FITTINGS MEETING ASTM D-2241. GREATER THAN 12" SHALL BE FABRICATED FITTINGS MEETING ASTM D-2241 OR C905. MINIMUM PRESSURE RATING SHALL BE 150 PSI.
- 5. SANITARY SEWER AND WATER SHALL BE CONSTRUCTED, TESTED, AND PLACED INTO SERVICE IN ACCORDANCE WITH CITY OF NAPERVILLE STANDARD SPECIFICATION AND SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, LATEST EDITION.
- 6. ALL SANITARY MANHOLES SHALL BE TESTED FOR LEAKAGE BY VACUUM TESTING. THE MANHOLE FRAME AND ADJUSTING RINGS SHALL BE IN PLACE WHEN TESTING. ANY LEAKS SHALL BE REPAIRED FROM EXTERIOR OF MANHOLE - PATCHING INSIDE OF MANHOLE SHALL NOT BE ACCEPTABLE. A VACUUM OF 10" (254 MM) HG SHALL BE PLACE ON THE MANHOLE AND THE TIME SHALL BE MEASURED FOR THE VACUUM TO DROP TO 9" (229 MM) HG. THE VACUUM SHALL NOT DROP BELOW 9" (229 MM) HG FOR THE FOLLOWING TIME PERIODS FOR EACH SIZE OF MANHOLE:
  - A) 48-INCH DIAMETER 60 SECONDS B) 60-INCH DIAMETER - 75 SECONDS C) 72-INCH DIAMETER - 90 SECONDS
- D) 84-INCH DIAMETER 105 SECONDS ANY MANHOLES THAT FAIL THE TEST SHALL BE SEALED AND RE-TESTED UNTIL ACCEPTABLE.
- 7. THE CONTRACTOR SHALL PROVIDE INTERNAL TELEVISED INSPECTION OF ALL INSTALLED SANITARY SEWER, LATERALS, MANHOLES AND CONNECTIONS TO THE PUBLIC SYSTEM. FOLLOWING COMPLETION OF TELEVISING WORK, THE CONTRACTOR SHALL SUBMIT VIDEO RECORDINGS ON DVD OR FLASH DRIVE ALONG WITH A COMPREHENSIVE TELEVISING REPORT WHICH WILL INDICATE THE LOCATION, FOOTAGES AND NATURE OF ANY DEFECTS. ALL DEFECTS SHALL BE REPAIRED TO THE SATISFACTION OF THE WATER/WASTEWATER UTILITY AND RE-TELEVISED.
- 8. CONTRACTOR WORK HOURS ARE ONLY ALLOWED FROM 7:00 A.M. TO 5:00 P.M., MONDAY THROUGH SATURDAY, NO WORK SHALL BE PERMITTED ON SUNDAYS.
- 9. SANITARY PIPES WITH LESS THAN 4 FEET OR MORE THAN 25 FEET OF COVER SHALL BE CONSTRUCTED OF DUCTILE IRON PIPING (CLASS 50, MINIMUM) AND ENCASED IN POLYWRAP.
- 10. ALL EXCAVATIONS MORE THAN 20 FEET DEEP MUST BE PROTECTED BY A SYSTEM DESIGNED BY A REGISTERED PROFESSIONAL ENGINEER.
- 11. CONTRACTOR SHALL MAINTAIN 2' MINIMUM CLEARANCE BETWEEN EXISTING UTILITIES AND NEW FOUNDATIONS AND UNDERGROUND FACILITIES. IN AREAS WHERE FOUNDATIONS AND UNDERGROUND FACILITIES ARE PROPOSED ADJACENT TO EXISTING UTILITIES, THE CONTRACTOR SHALL POT HOLE BY VACUUM EXCAVATION OR HAND EXCAVATION TO LOCATE THE EXISTING UTILITY TO VERIFY MINIMUM CLEARANCE REQUIREMENT.
- 12. FENCES SHALL BE INSTALLED A MINIMUM OF 5 FEET FROM ANY WATER OR SANITARY MAINS WHEN RUNNING PARALLEL WITH THEM. WHERE FENCES ARE INSTALLED CROSSING WATER OR SANITARY MAINS, THE POSTS SHALL BE LOCATED TO HAVE THE MAIN BETWEEN THEM.

RING ESS: E ¥ ESOURCE AND WEST AVENUE (830) 393-2152



C-2.0

**GENERAL NOTES** 

SHEET

### 403.2.9 CORROSION PROTECTION - POLYETHYLENE ENCASEMENT

Polyethylene encasement is required for all underground installations of gray, ductile and cast iron pipe and other related appurtenances or water main. Polyethylene encasement shall be required unless a soils report submitted to the City by the Ductile Iron Pipe Research Association indicates that the soils in the area are not corrosive to iron pipe. Should corrosive soils be encountered during the installation of the pipe, then the pipe shall be encased in polyethylene wrap.

Installation shall be in accordance with ANSI/AWWA C105/A21.5-99 (or latest edition). The polyethylene encasement shall prevent contact between the pipe and the surrounding backfill and bedding material but is not intended to be a completely air and water tight enclosure.

Overlaps shall be secured by the use of approved adhesive tape, plastic string, or other material capable of holding the polyethylene encasement in place until backfilling operations are

Three different methods for the installation of polyethylene encasement on pipe are acceptable. Methods A and B are for use with polyethylene tubes and method C for use with polyethylene

Cut the polyethylene tube to a length approximately two feet longer than that of the pipe section. Slip the tube around the pipe, centering it to provide a one foot overlap on each adjacent pipe section, and bunching it accordion fashion length-wise until it clears the pipe

Lower the pipe into the trench and make up the pipe joint with the preceding section of pipe. A shallow bell hole must be made at joints to facilitate installation to the polyethylene tube.

After assembling the pipe joint, make the overlap of the polyethylene tube. Pull the bunched polyethylene from the preceding length of pipe, slip it over the end of the new length of pipe and secure in place. Then slip the end of the polyethylene from the new pipe section over the end of the first wrap until it overlaps the joint at the end of the preceding length of pipe.

Secure the overlap in place. Take up the slack width to make a snug, but not tight, fit along the barrel of the pipe, securing the fold at quarter points.

Repair any rips, punctures, or other damage to the polyethylene with adhesive tape or with a short length of polyethylene tube cut open, wrapped around the pipe and secured in place. Proceed with installation of the next section of pipe in the same manner.

Cut the polyethylene tube to a length approximately one foot shorter than that of the pipe section. Slip the tube around the pipe, centering it to provide six inches of bare pipe at each end. Make the polyethylene snug, but not tight; secure ends as described in Method A.

Before making up a joint, slip a three foot length of polyethylene tube over the end of the preceding pipe section, bunching it accordion fashion lengthwise. After completing the joint, pull the three foot length of polyethylene over the joint, overlapping the polyethylene previously installed on each adjacent section of pipe by at least one foot. Make the polyethylene snug and secure each end as described in Method A.

Repair any rips, punctures, or other damage to the polyethylene. Proceed with installation of the next section of pipe in the same manner.

Cut the polyethylene sheet to a length approximately two feet longer than that of the pipe section. Center the cut length to provide a one foot overlap on each adjacent pipe section, bunching it until it clears the pipe ends. Wrap the polyethylene around the pipe so that it circumventially overlaps the top quadrant of the pipe. Secure the cut edge of polyethylene sheet at intervals of approximately three feet.

Lower the wrapped pipe into the trench and create the pipe joint with the preceding section of pipe. A shallow bell hole must be made at joints to facilitate installation of the polyethylene. After completing the joint, make the overlap as described above.

Repair any rips, punctures or other damage to the polyethylene. Proceed with installation of the next section in the same manner.

Cover bends, reducers, offsets, and other pipe-shaped appurtenances with polyethylene in the same manner as the pipe. When valves, tees, crosses, and other odd-shaped pieces cannot be wrapped practically in a tube, wrap with a flat sheet or split length of polyethylene tube by passing the sheet under the appurtenance and bringing it up around the body. Make seams by bringing the edges together, folding over twice, and taping down. Handle width and overlaps at joints as described above. Tape polyethylene securely in place at valve stem and other

## 403.3 VALVES

The minimum requirements for all valves shall, in design, material and workmanship, conform to AWWA C509-01 or AWWA C515-01 (or latest editions).

All valves shall be inspected upon delivery in the field to insure proper working order before installation. They shall be set and jointed to the pipe in the manner as set forth in the AWWA Standards for the type of connection ends furnished.

The valves shall be suitable for ordinary water works service and intended to be installed in a normal position on buried pipe lines or water distribution systems.

All valves shall be provided with a standard valve chamber so arranged that no shock will be transmitted to the valve and the box or vault opening shall be centered over the operation nut, and the cast iron cover shall be set flush with the road bed or finished surface.

## 403.4 TAPPING AND LINE STOP SLEEVES

Pressure tap connections shall be made in accordance with Standard Details and in accordance with Section 46 of the Standard Specifications for Water and Sewer Main Construction in

Tapping sleeves of stainless steel shall not be used for "size on size" installations nor on water mains larger than 12 inches in size.

The outside surface of the existing main and the inner face of the tapping sleeve shall be disinfected with a 1 % chlorine solution.

Insert valves shall be furnished with flanged inlet and connections having a machined projection on the flanges to mate with a machined recess on the outlet flanges of the tapping sleeves and

Insert valves shall be furnished for and installed in a horizontal conduit with the valve stem plumb over the center line of the pipe.

### 403.6 CURB BOXES

Curb boxes shall be capable of extensions and installed to finished grade, and shall conform to the depth of bury of the service line as provided in the Naperville Standard Detail 490.20. "Pigtails" on customer side of curb stop are not allowed.

## 403.7 VALVE BOXES

Adjustable cast iron valve boxes shall be set to position during backfilling operations so they will be in a vertical alignment to the valve operating stem. The lower casting of the unit shall be installed first in such a manner as to be cushioned and to not rest directly upon the body of the R/W valve or upon the water main. The upper casting of the unit shall then be placed in proper alignment into such an elevation that its top will be at final grade. Backfilling around both units shall be placed and compacted to the satisfaction of the Engineer. Valve boxes must be free of debris, centered over operating nut and easily key-able.

#### 403.8 VALVE VAULTS

Seal tight valve vaults shall be pre-cast with a minimum diameter of 48 inches. For valves 12 inches and smaller, a concentric cone centered on the valve shall be provided. On butterfly valves and pressure connections, vaults shall be a minimum of 60 inches with eccentric cones installed so that the opening of the cone is placed as close to the centerline of the operation as possible.

A butyl mastic material (CONSEAL CS-102B or equal approved by the City Engineer) shall be used to provide a watertight seal between vault barrel sections, cone to barrel section, and the cone section to the adjusting ring or the frame.

Rubber boots/seals must be used where pipes enter manholes to provide a watertight connection where pipe enters. Elastomeric boots shall conform to ASTM C923-02 and ASTM A167-99(2004), or latest edition with stainless steel bands as manufactured by KOR-N-SEAL by NPC, PSX by Press-Seal Gasket Corporation or approved equal.

Adjustments may be necessary to ensure that frames match the elevation of the surrounding pavement or ground surface. Preformed adjusting rings of the proper dimensions needed to mate the frame to the precast structure shall be used. No more than 12 inches of vertical adjustment may be made using the minimum practical number of individual rings.

All rings shall be High Density Polyethylene Plastic (HDPE), Recycled Rubber, High Density Expanding Polystyrene, Expanded Polypropylene (EPP), or other material as approved by the City Engineer. Precast concrete rings, bricks, rocks, shims, or concrete blocks will not be allowed. Tapered adjusting rings shall be required when the frame will need to match the slope of the roadway.

A resilient, flexible, non-hardening, preformed bituminous mastic material, Conseal 102 B or approved equal, shall be used between the cone or top barrel section of the structure and the adjusting rings. A thick bead of non-hardening elastomeric joint sealant conforming to ASTM C-920, Type S, Grade NS, shall be applied between all individual rings, and between the adjusting rings and the frame. The sealant or mastic material shall be applied in such a manner that no surface water or ground water inflow can enter the structure. No dressing or tuckpointing mortar is allowed on the rings.

Frame adjustments shall be completed in accordance with Sections 602 and 603 of Standard Specifications for Road and Bridge Construction, prepared by the Illinois Department of Transportation, latest edition, except as noted herein.

These specifications are to be used in conjunction with the AWWA Standard C502-05 (or latest edition) for fire hydrants for ordinary water works service. Fire hydrants shall be installed at the locations shown on the approved engineering plans.

Hydrants shall be plumb and shall be set so that the center of the hydrant port is a minimum of 18 inches to a maximum of 24 inches above the surrounding finished grade ensuring the breakaway flange at proper ground height. All hydrants shall be inspected in the field upon delivery to the job to ensure proper operation before installation. A minimum of 1/4 cubic yard of washed coarse stone shall be placed at and around the base of the hydrant to ensure proper drainage of the hydrant after use. The blocking of the hydrant shall consist of a wedge of Portland cement concrete of not less than 1/4 cubic yard extending from the hydrant to undisturbed soil and shall be so placed to form a barrier adjacent to the hydrant base top to counteract the pressure of water exerted thereon. Care shall be taken to insure that weep holes are not covered by concrete. The hydrant shall be set on a concrete block to ensure a firm bearing for the hydrant base. The hydrant valve and tee shall be interconnected by stainless steel rods or approved retainer glands. Locking or restrained fittings may be substituted only after prior approval from the City Engineer. The resetting of existing hydrants and moving and reconnection of existing hydrants shall be handled in a manner similar to the new installation. Auxiliary valve shall be installed a minimum of 18 inches from the face of the hydrant. The contractor shall rotate and/or adjust the hydrants to the satisfaction of the department of Public Utilities. The hydrant settings shall follow the Naperville Standard Detail 490.06.

Fire hydrant should be bagged "NOT IN SERVICE" until all testing and disinfection has been completed and the new water main section is service.

## 403.10 THRUST BLOCKING AND TIE RODS

- a) Blocking to prevent movement of lines under pressure at bends, tees, caps, valves (including inside vaults) and hydrants shall be Portland cement concrete, a minimum of 12 inches thick, placed between solid ground and the fittings (see Naperville Standard Detail 490.11) and shall be anchored in such a manner that pipe and fitting joints will be accessible for repairs. The Portland cement concrete shall meet or exceed a compressive strength of 3500 psi after 28 days.
- b) All bends of 11-1/4 degrees or greater, and all tees, crosses and plugs shall be thrust protected to prevent movement of the lines under pressure as shown on the plans.
- c) Where unstable soil and/or backfill conditions exist, it may be necessary to install thrust blocking at deflected sections as well as at fittings. If required by the City Engineer, deflection blocking shall be installed at a point approximately 1/5th of the pipe length each side of the coupling. Couplings/sleeves shall be restrained with approved retainer glands.
- d) Tie rods shall be 5/8 inch diameter (minimum) stainless steel, grade 304. Eyebolts shall be high strength, low alloy steel.
- e) Where conditions prevent the use of concrete thrust blocks, tied joints or restrained joints of a type approved by the City Engineer shall be used.

### 403.11 RETAINER GLANDS

The contractor may elect to use mechanical joint wedge action retainer glands in lieu of tie-rods. Installation shall be per manufacturers' recommended procedures, including length and/or number of joints to be restrained. Tied or restrained joints shall extend a minimum of two full pipe lengths back from the fitting.

Note: Thrust blocking shall be required behind fire hydrant assemblies in addition to the use of retainer glands and/or tie rods. The use of set screw type retainer glands shall not be permitted for use within the City of Naperville.

Use of approved retainer glands does not eliminate the need for thrust blocking at fittings and valves unless approved by the Department of Public Utilities after review of the appropriate supporting calculations.

### 404 INSPECTION AND TESTING

### 404.1 GENERAL INFORMATION

When extending an existing line, the contractor must chlorinate and pressure test both new and valved sections of existing lines in accordance with City standards.

For fire lines to buildings, the permanent valve must be in place prior to disinfection and

### 404.2 TESTING FOR TAPPING SLEEVES AND INSERT VALVES

Before a tapping sleeve is installed, the exterior of the main to be tapped, as well as the interior surface of the sleeve, shall be thoroughly cleaned and swabbed with a 1 percent hypochlorite

After the surface disinfection, the tapping saddle or sleeve shall be mounted to the main and tapping valve to form a pressure-tight connection. The installation shall be pressure tested at operating pressure plus 50 percent, to insure the integrity of the installation. This shall be a hydrostatic test, introduced through a port on the tapping machine, or through a tapped mechanical joint plug on the outlet side of the tapping valve. The tapping machine and the tapping valve and sleeve assembly shall be externally supported so that no additional weight is placed upon the main(s).

Prior to installation, the insert valve shall be operated in the position that it will assume in service and for the full length of gate travel in both directions to demonstrate the free and perfect functioning of all parts in the intended manner. Any defects of workmanship shall be corrected and tested repeated until satisfactory performance is demonstrated.

### 404.3 PRESSURE TESTING

All newly laid water mains shall be subjected to a hydrostatic pressure test. Testing shall be in accordance with provision AWWA C-600-99 (or latest edition). Each valved section of pipe shall be slowly filled with water and flushed. The specified test pressure shall be applied by means of a pump connected to the pipe in a satisfactory manner. Water used shall be metered. The pump to pipe connection and all necessary apparatus including gauges and meters shall be furnished by the contractor. Before applying the specified test pressure, all air shall be expelled from the pipe. To accomplish this, taps shall be made, if necessary, at points of highest elevation and afterwards turned off and capped. All joints showing visible leaks shall be repaired or replaced until they are free from leaks. Any cracked or defective pipes, fittings, valves, or hydrants discovered in consequence of this pressure test shall be removed and replaced by the contractor with sound material and the test shall be repeated until satisfactory to the City Engineer. In no instance shall "Bell Joint Clamps" be permitted to repair leaks at push-on Joints.

- a) The newly laid water mains or any valved sections of it shall be subjected to a hydrostatic pressure test of no less than 150 pounds per square inch (psi) or 50% more than the operating pressure, whichever is greater. The test pressure shall not vary by more than  $\pm 5$
- b) The duration of each pressure test shall be for a period of not less than 4 hours.
- c) The pressure test gauge shall be glycerin or oil filled, with a range of not more than 200 psi and increments not greater than 5 psi.

## 404.3.1 PERMISSIBLE LEAKAGE

- a) Suitable means approved by the City Engineer shall be provided by the contractor for determining the quantity of water lost by leakage. The leakage test shall be conducted after satisfactory completion of the pressure test before being accepted.
- b) Allowable leakage shall not be greater than that indicated in Table 400-3.
- c) Leakage is defined as the quantity of water to be supplied in the newly laid pipe or any valved section under test which is necessary to maintain the specified leakage test pressure after the pipe has been filled with water and the air expelled.

## d) Flanged pipes shall be watertight.

### **TABLE 400-3** ALLOWABLE LEAKAGE FOR HYDROSTATIC PRESSURE TEST (150 PSI)

Nominal Pipe Diameter	Allowable Leakage
_	(gallons/hour/1000 LF)
2"	0.19
3"	0.28
4"	0.37
6"	0.55
8"	0.74
10"	0.92
12"	1.10
14"	1.29
16"	1.47
18"	1.66
20"	1.84
24"	2.21

## 404.4 DISINFECTION (CHLORINATION)

## **404.4.1 FLUSHING**

a) Sections of pipe to be disinfected shall first be flushed to remove any solids or contaminated material that may have become lodged in the pipe. If no hydrant is installed at the end of the main, then a tap should be provided large enough to develop a velocity of at least 2.5 feet per second in the main. One 2-1/2 inch diameter hydrant opening will, under normal pressure, provide this velocity in pipe sizes up to and including 12 inches. See Table 400-4 for additional sizes.

b) All taps required by the contractor for chlorination or flushing purposes or for temporary or permanent release of air, shall be provided by him as part of the construction of water mains. When completed, the copper tubing shall be removed and the corporation stop placed at the "off" position. After testing, all corporation stops in valve vaults shall be brass-capped to protect threads.

### **TABLE 400-4** MINIMUM ORIFICE SIZE (INCHES) TO FLUSH WATER MAIN AT 2.5 FPS

Pipe	Residual Pressure, PSI					
Diameter	20	40	60	80	100	
4"	1.11	0.94	0.85	0.79	0.75	
6"	1.64	1.38	1.24	1.16	1.09	
8"	2.23	1.88	1.69	1.58	1.49	
10"	2.75	2.31	2.09	1.94	1.84	
12"	3.34	2.81	2.54	2.37	2.24	
14"	3.86	3.25	2.94	2.73	2.58	
16"	4.31	3.63	3.28	3.05	2.88	
18"	4.98	4.19	3.78	3.52	3.33	
20"	5.53	4.65	4.20	3.91	3.70	

### NOTE: Standard hydrant nozzle sizes are 2.5 inch and 4.5 inch

### 404.4.2 DISINFECTION REQUIREMENTS

- a) Before being placed into service, all new water mains and/or extensions to existing mains shall be chlorinated so that an initial chlorine residual of at least 50 ppm is present, and that a chlorine residual of not less than 25 ppm remains in the water after standing 24 hours in the pipe.
- b) For extensions and/or connections equal to or less than one pipe length (< 18 ft), the new pipe, fittings and valve(s) required for the connection/extension may be spray or swab disinfected with a minimum 1 percent hypochlorite solution just prior to being installed.
- c) Before a tapping sleeve is installed, the exterior of the main to be tapped, as well as the interior surface of the sleeve, shall be thoroughly cleaned and swabbed with a 1 percent hypochlorite solution.
- d) Fire service lines requiring disinfection shall have the permanent position indicating valve (OS&Y or approved equal) installed on the fire sprinkler riser prior to disinfection.

## 404.4.3 FORM OF APPLIED CHLORINE

Chlorine shall be applied by one of the methods which follow, subject to approval by the City

- a) Liquid Chlorine A chlorine gas-water mixture shall be applied by means of a solutionfeed chlorinating device or the dry gas may be fed directly through proper devices for regulating the rate of flow and providing effective diffusion of the gas into the water within the pipe being treated. Chlorinating devices for feeding solutions of chlorine gas or the gas itself must provide means for preventing the back flow of water into the chlorine cylinder.
- b) Chlorine-Bearing Compounds in Water In certain instances, when the usage of chlorine gas is not practical, such as in congested or confined areas, upon approval of the City Engineer, a chlorine bearing compound of known chlorine content, prepared in solution form, may be substituted for chlorine gas.

## 404.4.4 POINT AND RATE OF APPLICATION

- a) Point of application The preferred point of application of the chlorinating agent is at the beginning of the pipeline extension or any valved section of it, and through a corporation stop inserted in the pipe. The water injector for delivering the chlorine-bearing water into the pipe should be supplied from a tap made on the pressure side of the gate valve controlling the flow into the pipe line extension. Alternate points of application may be used when approved or directed by the City Engineer.
- b) Rate of Application Water from the existing distribution system, or other approved source of supply shall be controlled to flow very slowly into the newly laid pipeline during the application of the chlorine. The rate of chlorine mixture flow shall be a constant feed and in such proportion to the rate of water entering the newly laid pipe that the dosage applied to the water will be at least 50 parts per million unless otherwise directed by the City Engineer.
- c) Retention Period Treated water shall be retained in the pipe at least 24 hours. After this period, the chlorine residual at pipe extremities and at other representative points shall be at least 25 parts per million.
- d) Chlorinating Valves and Hydrants After the process of chlorinating newly laid pipe, all valves internal to the isolated test section and other appurtenances shall be operated while the pipeline is filled with the chlorinating agent and under normal operating pressure.
- e) Preventing Reverse Flow Valves shall be manipulated so that the strong chlorine solution in the line being treated will not flow back into the existing distribution system supplying the water. Backflow valves are required on chorine equipment piping.

## 404.5 FINAL FLUSHING AND TESTING

- a) Dechlorination/neutralization may be required by the City Engineer. The environment into which the chlorinated water is to be discharged shall be inspected. If there is any possibility that the chlorinated discharge will cause environmental damage, then a neutralizing chemical shall be added to the discharge water to thoroughly neutralize the chlorine residual remaining in the water (see AWWA C651-05, or latest edition, Appendix
- b) Following chlorination, all treated water shall be thoroughly flushed from the newly laid pipe at its extremity until the replacement water throughout its length shows, upon test, a residual not in excess of that carried in the source of supply.
- c) After flushing, water samples collected on 2 successive work days from the treated piping system, as directed by the City Engineer, shall show satisfactory bacteriological results. Water main shall not be flushed to obtain the second day sample. Bacteriological analysis must be performed by a laboratory approved by the Director of the Illinois Department of Public Health and the City Engineer. A minimum of two samples is required. The actual number of samples will be determined by the City Engineer.
- d) Should the initial treatment result in an unsatisfactory bacterial test, the original chlorination procedure shall be repeated by the contractor until satisfactory results are
- e) Naperville Department of Public Utilities must be notified at least 48 hours prior to flushing. New water mains, including pressure tap valves, connected to an existing water main, and existing water main valves shall only be operated by Naperville Department of Public Utilities personnel.

PROFESSIONAL DESIGN FIRM NUMBER: 184.001186

RING OCIATES ENGINEE
RESOURCE AS:
3S701 WEST AVENUE, SU
WARRENVILLE, ILLINOIS 6
PHONE (630) 393-2152
FAX (630) 393-2152

ERS, BUILD

SINGLE FAMILY SUBDIVISION

**GENERAL NOTES** 

C-2.1

### WATER UTILITES GENERAL NOTES

- a. New water main valves, including pressure tap valves, adjacent to an existing water main, and existing water main valves shall only be operated by the City of Naperville, Department of Public Utilities CEE/CM Division personnel with 48-hour notice (Monday-Friday). Contact Naperville TED Business Group at 630-420-6082 for scheduling.
- b. Any existing utility structures requiring adjustment or reconstruction shall be completed by the contractor to the satisfaction of the utility owner. Adjustments and/or reconstructions not called for on the plans shall be considered incidental to the contract. No more than a total of 12 inches of adjusting rings and/or 2 adjusting rings shall be allowed. All structure frames shall be flush with final grade.
- c. Trees shall be installed a minimum of five (5) feet horizontally from underground electrical feeders, sanitary sewers, sanitary services, water mains, and water services. Trees shall be installed a minimum of ten (10) feet horizontally from utility structures and appurtenances, including, but not limited to, manholes, valve vaults, valve boxes and fire hydrants. No trees, shrubs or obstacles will be allowed 10' in front of, 5' on the sides, and 7' to the rear of the electrical transformer.
- d. All retainer glands when required to restrain valves, fittings, hydrants, and pipe joints shall be mechanical joint wedge action type MEGALUG 1100 Series as manufactured by EBBA Iron, Inc. or UNI-FLANGE BLOCKBUSTER 1400 SERIES as manufactured by Ford Meter Box Co. and shall be for use on ductile iron pipe conforming to ANSI/AWWA C151/A21.51, for nominal pipe sizes 3" through 48".
- e. Existing ductile iron systems for restraining push-on pipe bells shall be MEGALUG SERIES 1100HD or FORD SERIES 1390.
- f. Existing ductile iron systems requiring restraint shall be MEGALUG SERIES 1100SD (split MEGALUG) for mechanical joints.
- g. Ductile iron water main to be Class 52. All ductile iron pipe is to be encased in polyethylene film Polyethylene encasement to be installed in accordance with ANSI/AWWA C105/A21.5-05.
- h. A set of as-built record drawing shall be given to the City of Naperville upon completion of improvements showing the elevation and location (tied to two points) of all new and existing structures including fire hydrants, valve boxes and vaults, linestop sleeves, water service corporation stops, water main fittings/bends, manholes, sanitary service wyes (measured from downstream manhole), and abandoned water or sanitary service lines. All elevations should be referenced to the same benchmark datum as the original design plans. Horizontal ties shall be referenced to lot lines, back of curb, or property corners.
- i. All sanitary sewer piping shall be PVC pipe meeting the requirements of ASTM D-2241 with joints conforming to ASTM D-3139. All sanitary sewer fittings shall be PVC meeting the following requirements: 4" to 12" shall be Injection Molded Fittings meeting ASTM D-2241. Greater than 12" shall be Fabricated Fittings meeting ASTM D-2241 or C905. Minimum pressure rating shall be 150 psi.
- j. The valves less than 16" shall be standard pattern, gate valves and shall have the name or mark of the manufacturer, size and working pressure plainly cast in raised letters on the valve body. Valves may be approved from one of the following manufacturers: American, Clow, Waterous or Kennedy.
- k. Stainless steel nuts, bolts/T-bolts, and washers, Type 304 or better, will be required on all water main installations. This would apply to hydrants, tapping sleeves, valves, fittings, restraint, and other appurtenances buried or in valve vaults. Mechanical joints and restraint glands require 304 stainless steel T-bolts. An anti-seize compound shall be factory applied to nuts or bolts - any damage to this coating shall be repair with field applied approved anti-seize compound that is a molybdenum-base lubricant, Bostik Never-Seez or approved equal.
- 1. The contractor shall rotate and/or adjust any existing and/or new hydrant to the satisfaction of the Department of Public Utilities.
- m. Water mains shall be subjected to a hydrostatic/leakage test in accordance with Naperville Standard Specifications. Test pressure shall be no less than 150 psi for a period of 4 hours and not vary by more than + 5 psi. during the test. The test gauge shall be approved by the City and shall be glycerin or oil filled, with a range of not more than 200 psi and increments not greater than 5 psi, 4 " minimum dial size. Water recovery test shall be completed at the end of the testing period to show actual leaking and that the water main did not have too much trapped air in the
- n. The City of Naperville Public Utilities does not guarantee that any valve or fitting in the existing water distribution system will hold against a hydrostatic/leakage test. The Contractor is solely responsible for providing and acceptable pressure test which shall include provisions around existing valves and fittings.
- o. Fire hydrant should be bagged "NOT IN SERVICE" until all testing and disinfection has been completed and new water main section is service.
- p. Sanitary sewer and water shall be constructed, tested, and placed into service in accordance with City of Naperville Standard Specification and Specifications for Water and Sewer Main Construction in Illinois, Latest Edition.
- q. All valve boxes, vaults, hydrants, and manholes shall not be covered with construction debris and shall remain accessible to the respective utility
- r. Water service line smaller than 3" shall be type K copper. If joints are required due to length of service, then only compression type coupling shall be permitted. No soldered or flared type joints are allowed.
- s. All sanitary manholes shall be tested for leakage by vacuum testing. The manhole frame and adjusting rings shall be in place when testing. Any leaks shall be repaired from exterior of manhole - patching inside of manhole shall not be acceptable. A vacuum of 10" (254 mm) Hg shall be place on the manhole and the time shall be measured for the vacuum to drop to 9" (229 mm) Hg. The vacuum shall not drop below 9" (229 mm) Hg for the following time periods for each size of manhole:
- a) 48-inch diameter 60 seconds b) 60-inch diameter - 75 seconds
- c) 72-inch diameter 90 seconds
- d) 84-inch diameter 105 seconds
- Any manholes that fail the test shall be sealed and re-tested until acceptable. t. The contractor shall provide internal televised inspection of all installed sanitary sewer, laterals, manholes and connections to the public system. Following completion of televising work, the contractor shall submit video recordings on DVD or flash drive along with a comprehensive televising report which will indicate the location, footages and nature of any defects. Prior to final acceptance, these defects shall be repaired to
- the satisfaction of the Water/Wastewater Utility and re-televised. u. Contractor work hours are only allowed from 7:00 a.m. to 5:00 p.m.,

- Monday through Saturday. No work shall be permitted on Sundays.
- constructed of ductile iron piping (Class 50, minimum) and encased in
- main between them.
- NSF 61 and NSF 372 and identified with applicable markings.
- construction.

- v. Sanitary pipes with less than 4 feet or more than 25 feet of cover shall be
- w.All excavations more than 20 feet deep must be protected by a system designed by a registered professional engineer.
- x. Contractor shall maintain 2' minimum clearance between existing utilities and new foundations and underground facilities. In areas where foundations and underground facilities are proposed adjacent to existing utilities, the contractor shall pot hole by vacuum excavation or hand excavation to locate the existing utility to verify minimum clearance
- v. Fences shall be installed a minimum of 5 feet from any water or sanitary mains when running parallel with them. Where fences are installed crossing water or sanitary mains, the posts shall be located to have the
- z. All brass components shall be certified to be lead free in compliance with
- aa. Sanitary Force Main Force man shall be tested a minimum of 1 hour at 1.5 the shut off head of the pump, 2.5 times the operating pressure, or 20 psi whichever is greatest. Allowable leakage shall be in accordance with section 41-2.14C of the standard specifications for water and sewer

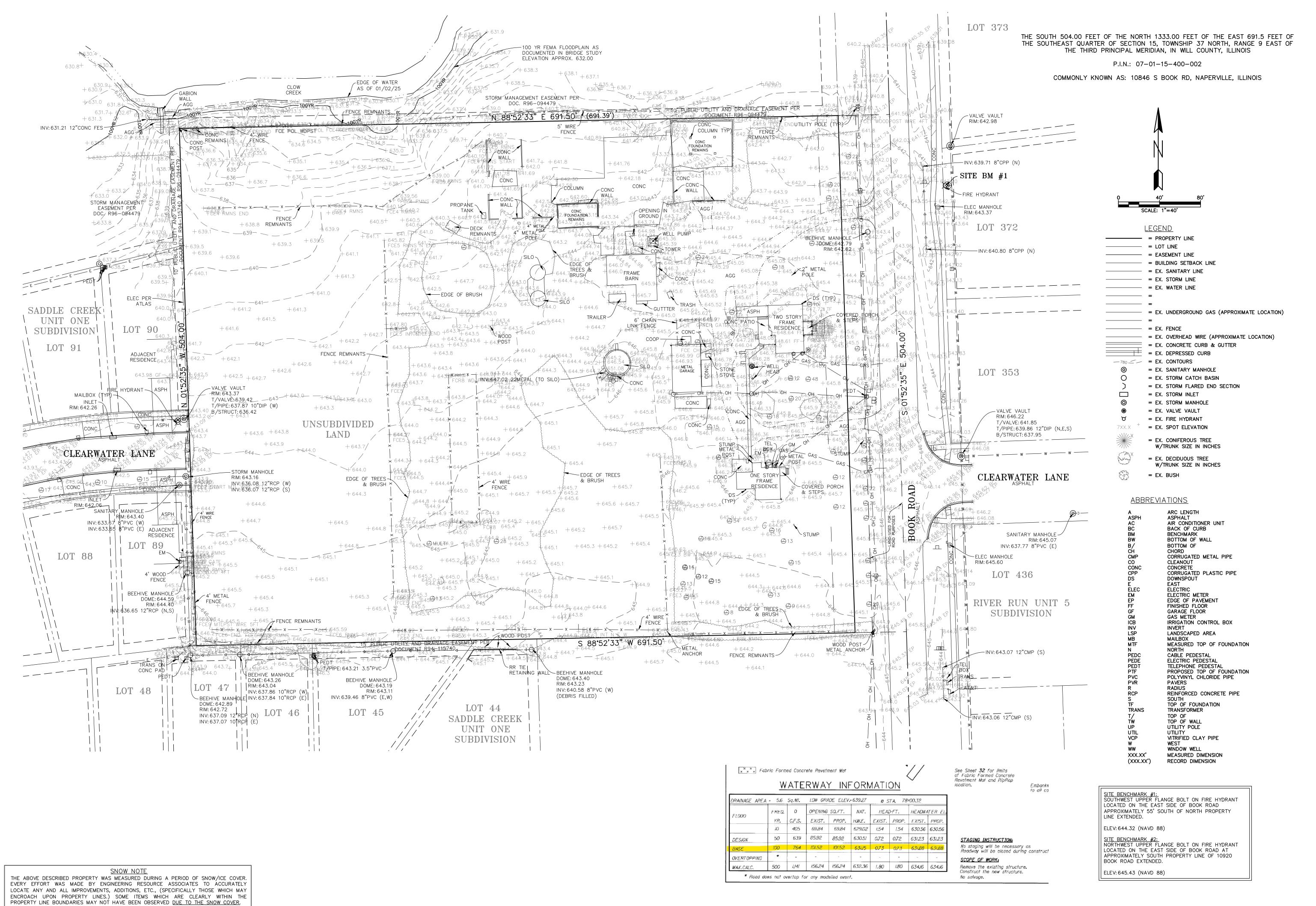
ERING SSOCIATES ENGINEE AS:
RESOURCE AS:
3S701 WEST AVENUE, SU
WARRENVILLE, ILLINOIS 6
PHONE (630) 393-2152

BUILDERS, OVERSTREET

SINGLE FAMILY SUBDIVISION

**GENERAL NOTES** 

C-2.1



ENGINEERIN
RESOURCE ASSOCIATE
3S701 WEST AVENUE, SUITE 150
WARRENVILLE, ILLINOIS 60555
PHONE (630) 393-3060
FAX (630) 393-2152

EET BUILDERS, INC

SINGLE FAMILY
SUBDIVISION
26-10846 BOOK ROAD, NAPERVILLE, IL 60546

SUBDI 10826-10846 BOOK ROA

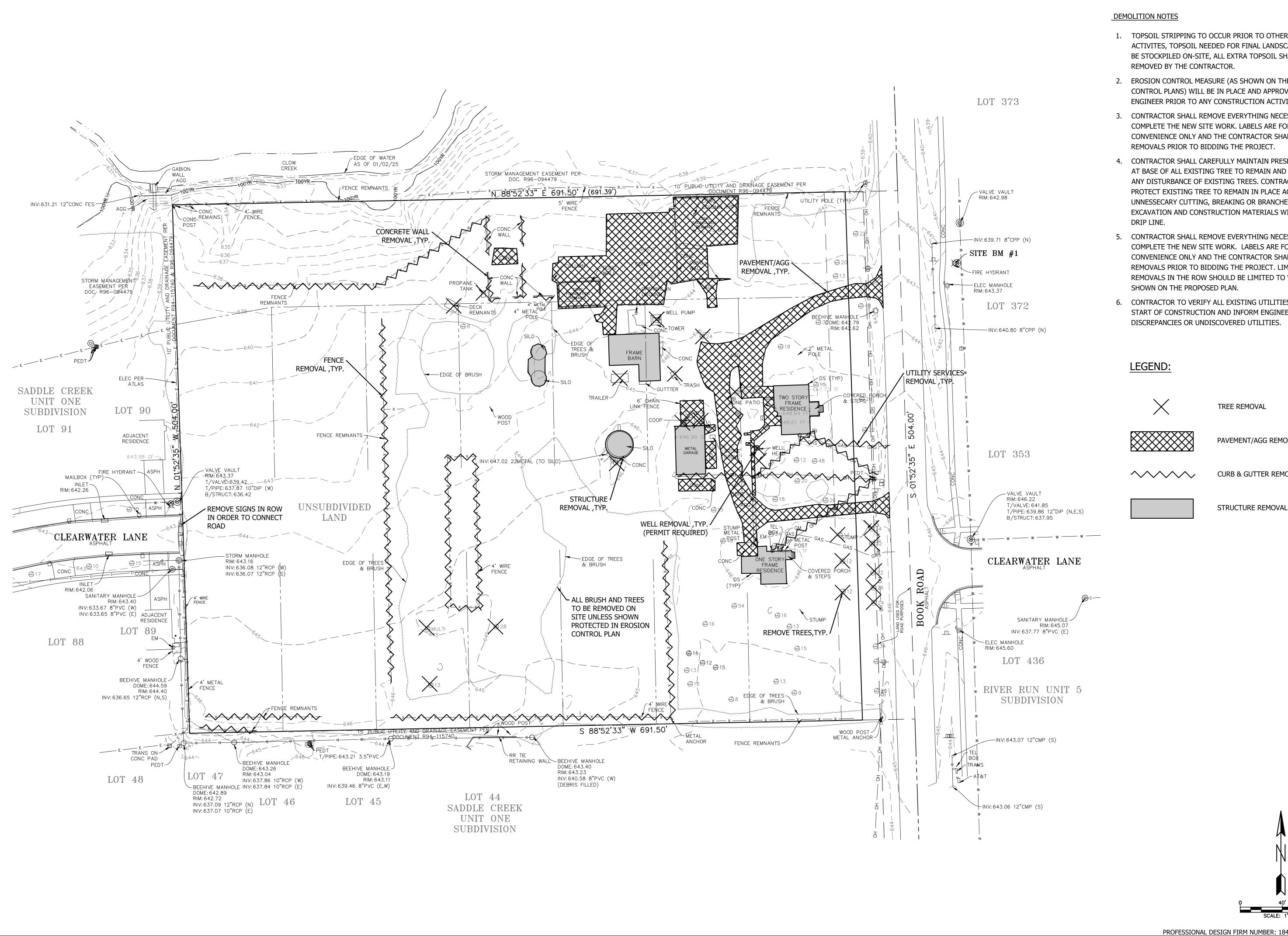
DESCRIPTION:

DESIGNED BY : MD

DRAWN BY : MD

EXISTING CONDITIONS PLAN

C-3.0



- 1. TOPSOIL STRIPPING TO OCCUR PRIOR TO OTHER DEMOLITION ACTIVITES, TOPSOIL NEEDED FOR FINAL LANDSCAPING SHALL BE STOCKPILED ON-SITE, ALL EXTRA TOPSOIL SHALL BE
- EROSION CONTROL MEASURE (AS SHOWN ON THE EROSION CONTROL PLANS) WILL BE IN PLACE AND APPROVED BY THE ENGINEER PRIOR TO ANY CONSTRUCTION ACTIVITIES BEGIN.
- 3. CONTRACTOR SHALL REMOVE EVERYTHING NECESSARY TO COMPLETE THE NEW SITE WORK. LABELS ARE FOR CONVENIENCE ONLY AND THE CONTRACTOR SHALL VERIFY
- 4. CONTRACTOR SHALL CAREFULLY MAINTAIN PRESENT GRADE AT BASE OF ALL EXISTING TREE TO REMAIN AND PREVENT ANY DISTURBANCE OF EXISTING TREES. CONTRACTOR TO PROTECT EXISTING TREE TO REMAIN IN PLACE AGAINST UNNESSECARY CUTTING, BREAKING OR BRANCHES OR EXCAVATION AND CONSTRUCTION MATERIALS WITHIN THE
- 5. CONTRACTOR SHALL REMOVE EVERYTHING NECESSARY TO COMPLETE THE NEW SITE WORK. LABELS ARE FOR CONVENIENCE ONLY AND THE CONTRACTOR SHALL VERIFY REMOVALS PRIOR TO BIDDING THE PROJECT. LIMITS OF REMOVALS IN THE ROW SHOULD BE LIMITED TO WHAT IS
- CONTRACTOR TO VERIFY ALL EXISTING UTILITIES PRIOR TO START OF CONSTRUCTION AND INFORM ENGINEER OF ANY DISCREPANCIES OR UNDISCOVERED UTILITIES.

PAVEMENT/AGG REMOVAL

**CURB & GUTTER REMOVAL** 

FAMILY VISION SINGLE F SUBDIVI

**BUILDERS**,

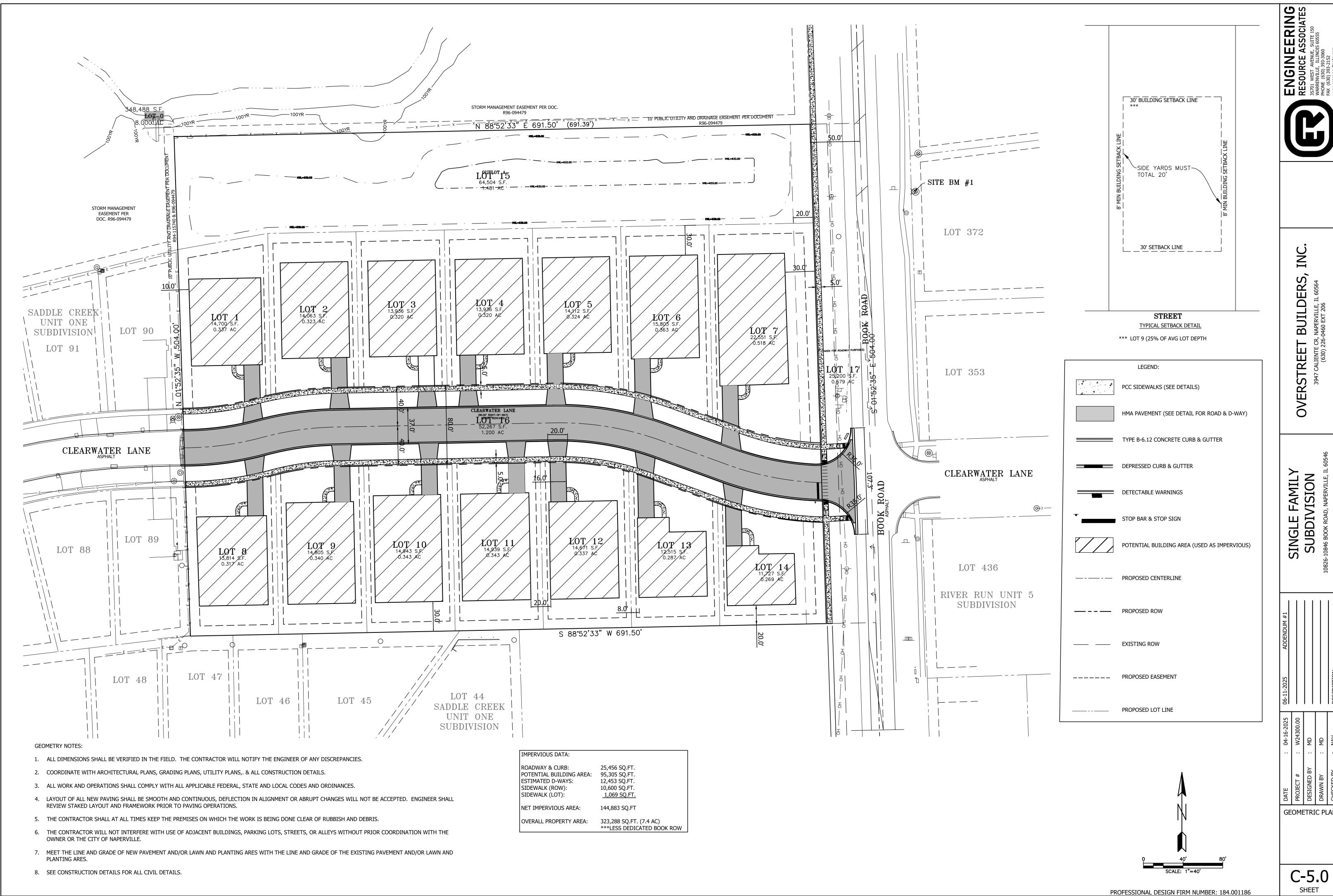
**ERING** SSOCIATES

ENGINE AS:
RESOURCE AS:
3S701 WEST AVENUE, SL
WARRENVILLE, ILLINOIS 6
PHONE (630) 393-3060
FAX (630) 393-7157

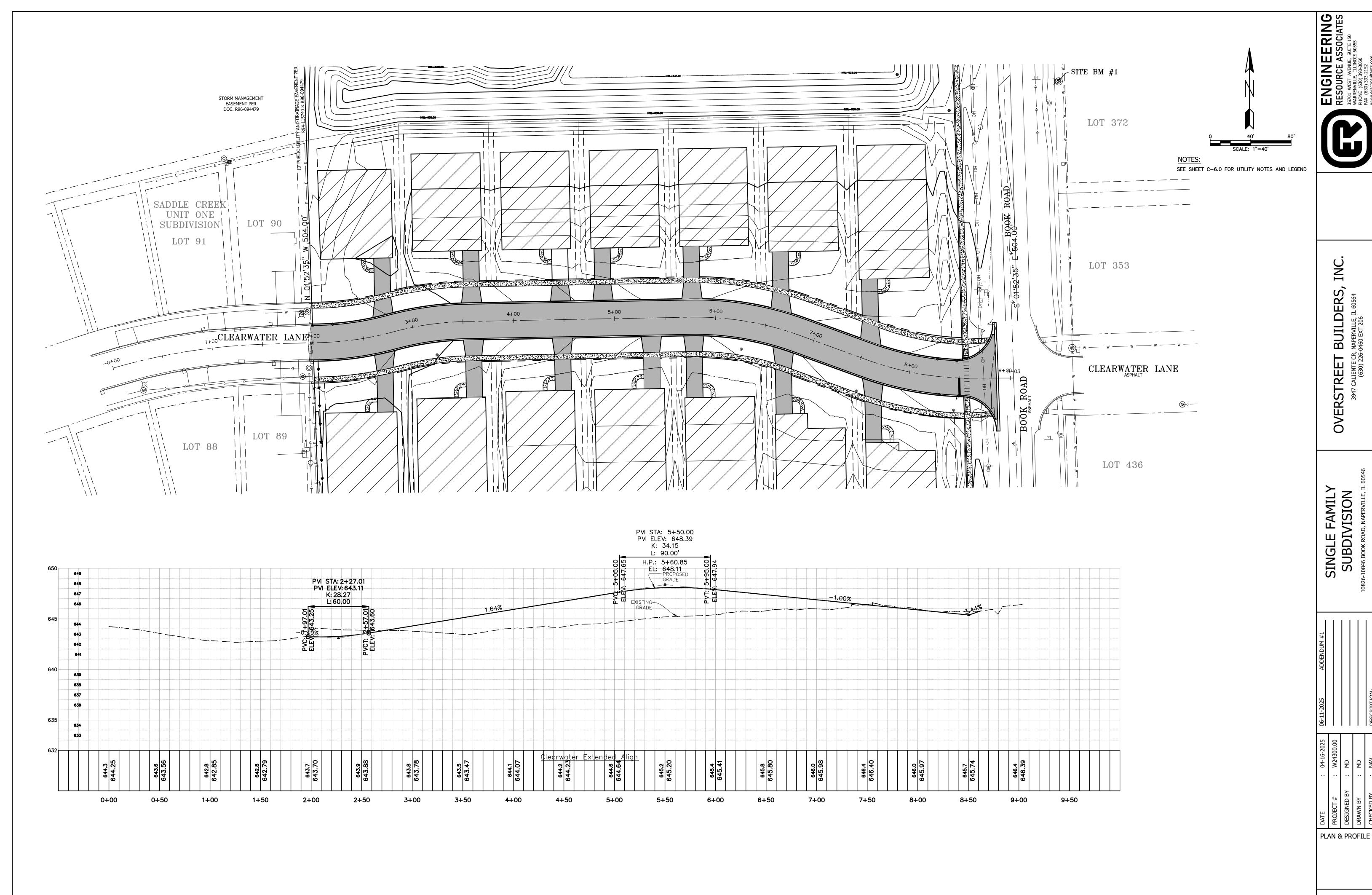
DEMOLITION PLAN

> C-4.0 SHEET

PROFESSIONAL DESIGN FIRM NUMBER: 184.001186



GEOMETRIC PLAN



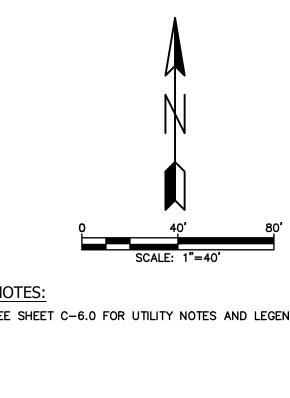
C-5.1

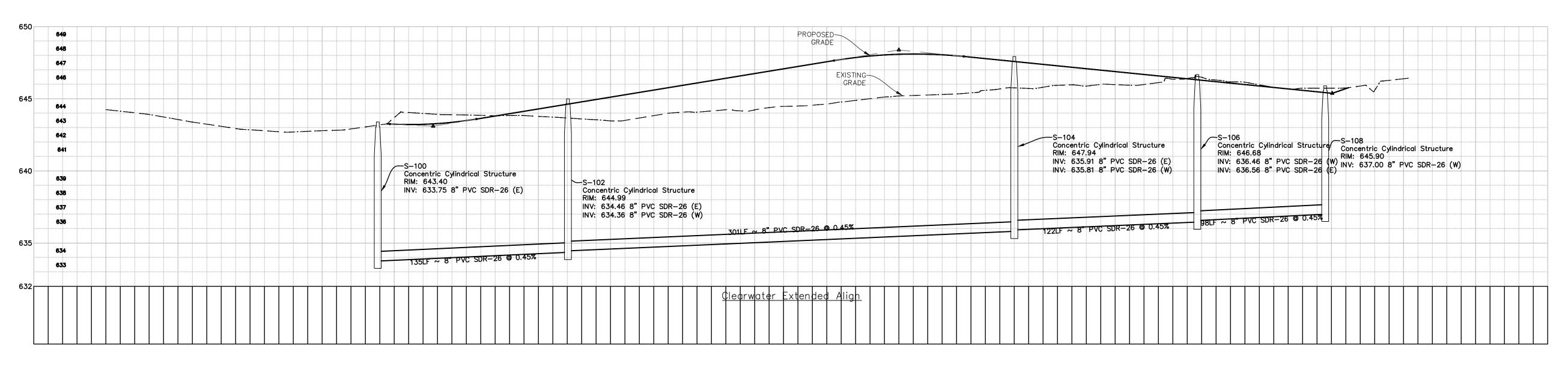
ENGINEERING
RESOURCE ASSOCIATES
3S701 WEST AVENUE, SUITE 150
WARRENVILLE, ILLINOIS 60555
PHONE (630) 393-3060
FAX (630) 393-2152

BUILDERS, 3, NAPERVILLE, IL 60564 5-0460 EXT 206

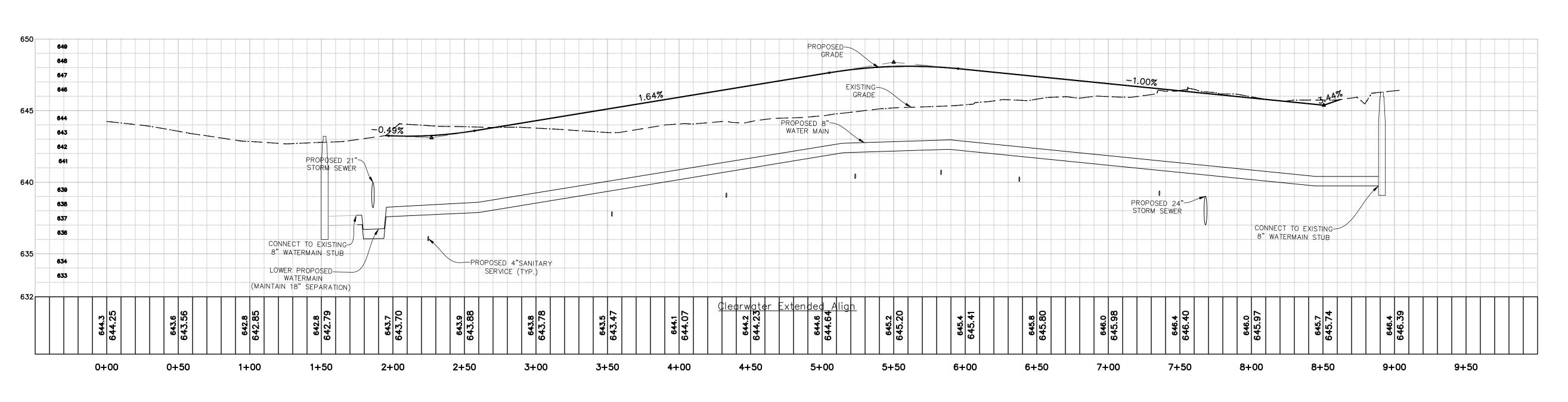
OVERSTREET E

SINGLE FAMILY SUBDIVISION





PROPOSED 8" SANITARY SEWER PROFILE

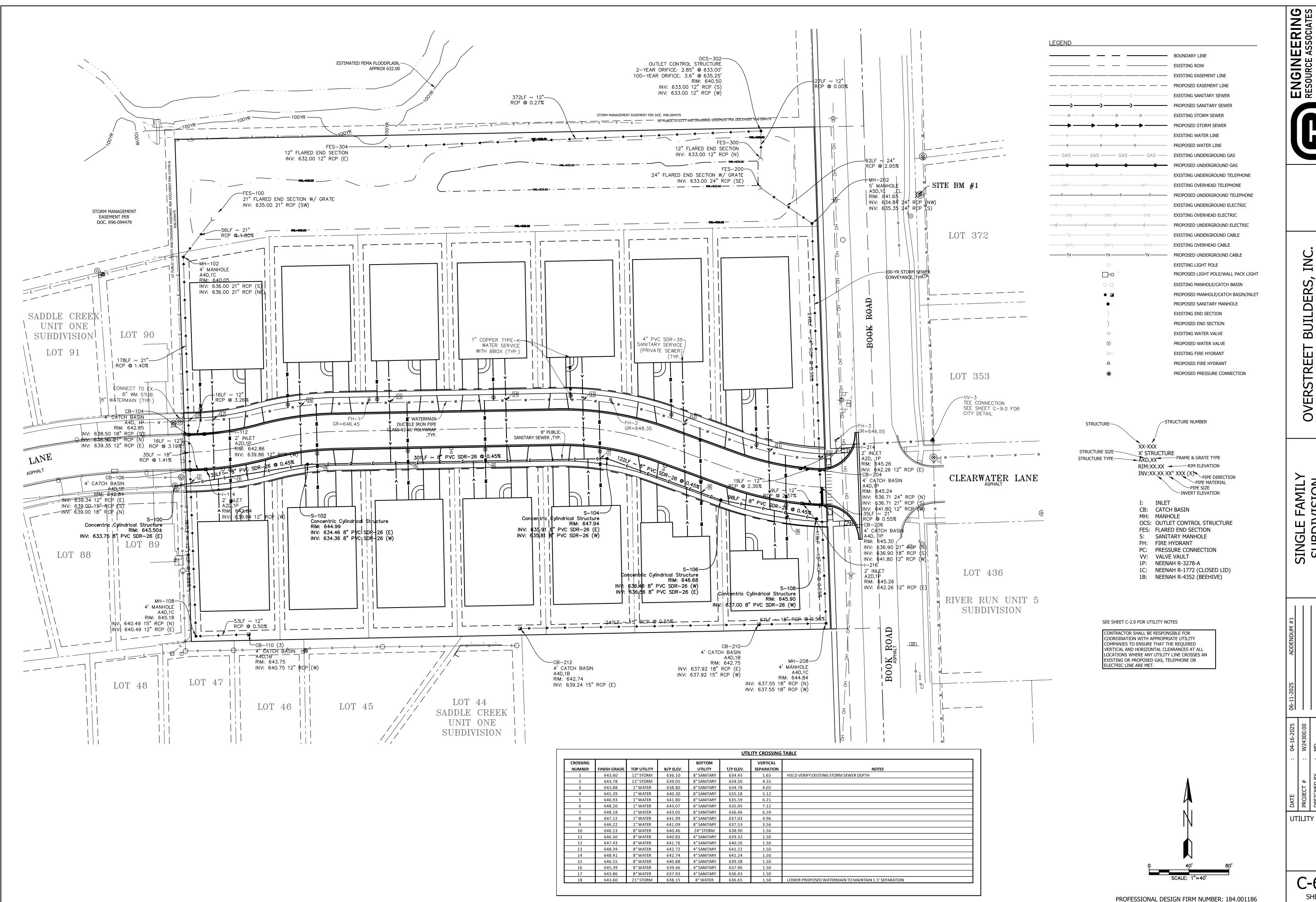


PROPOSED 8" WATERMAIN PROFILE

H: 1"=4'
V: 1"=40'

PLAN & PROFILE

C-5.2



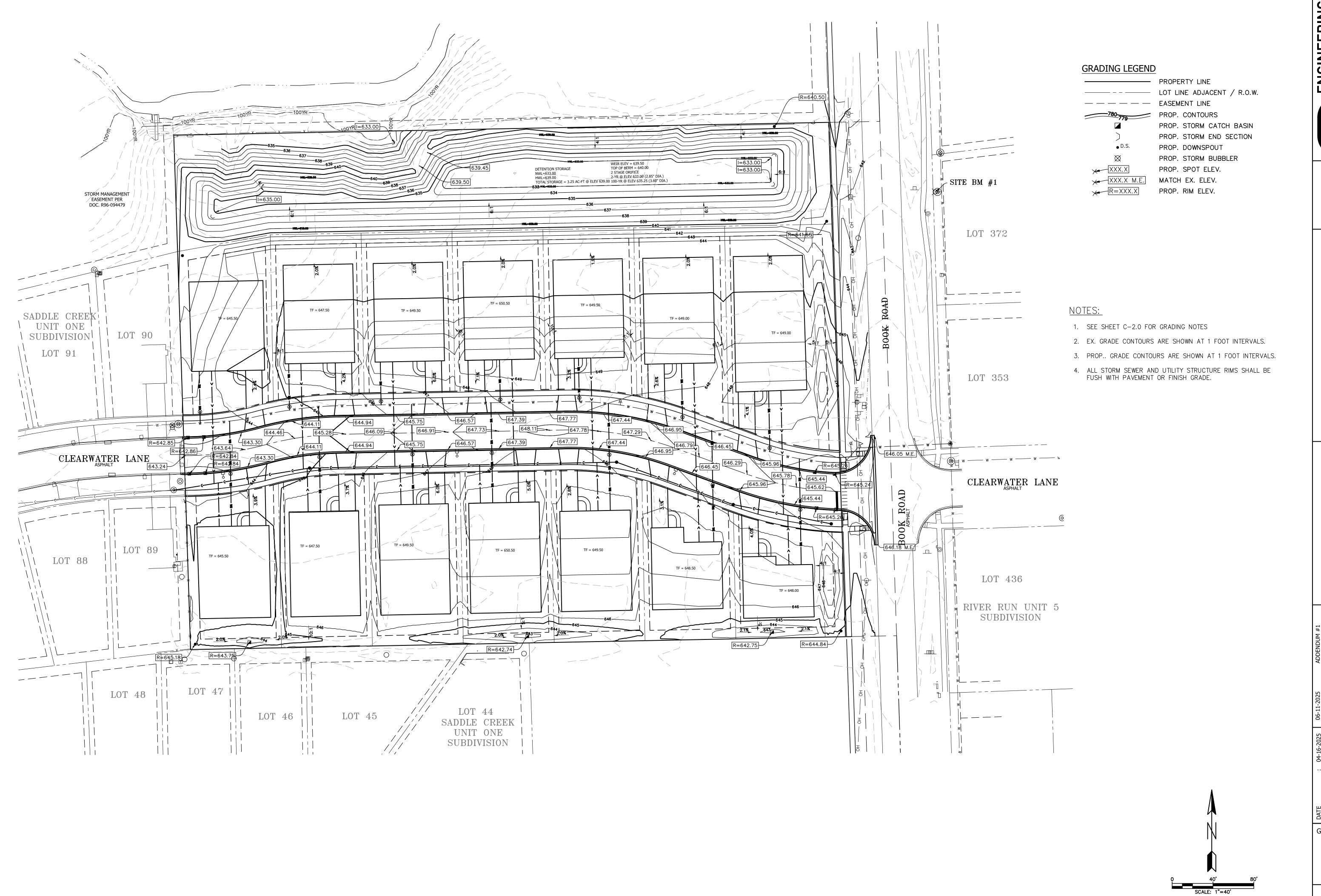
AS:
AS:
NOIS 6 ENGINE / SESOURCE / SESOURCE / SESOURCE / WARRENVILLE, ILLINC PHONE (630) 393-306(FAX (630) 393-2152

BUILDERS,

SINGLE FAMILY SUBDIVISION

UTILITY PLAN

C-6.0 SHEET



ENGINEERING
RESOURCE ASSOCIATES
3S701 WEST AVENUE, SUITE 150
WARRENVILLE, ILLINOIS 60555
PHONE (630) 393-3152
WARRENVILLE (630) 393-3152

GRADING PLAN

C-7.0

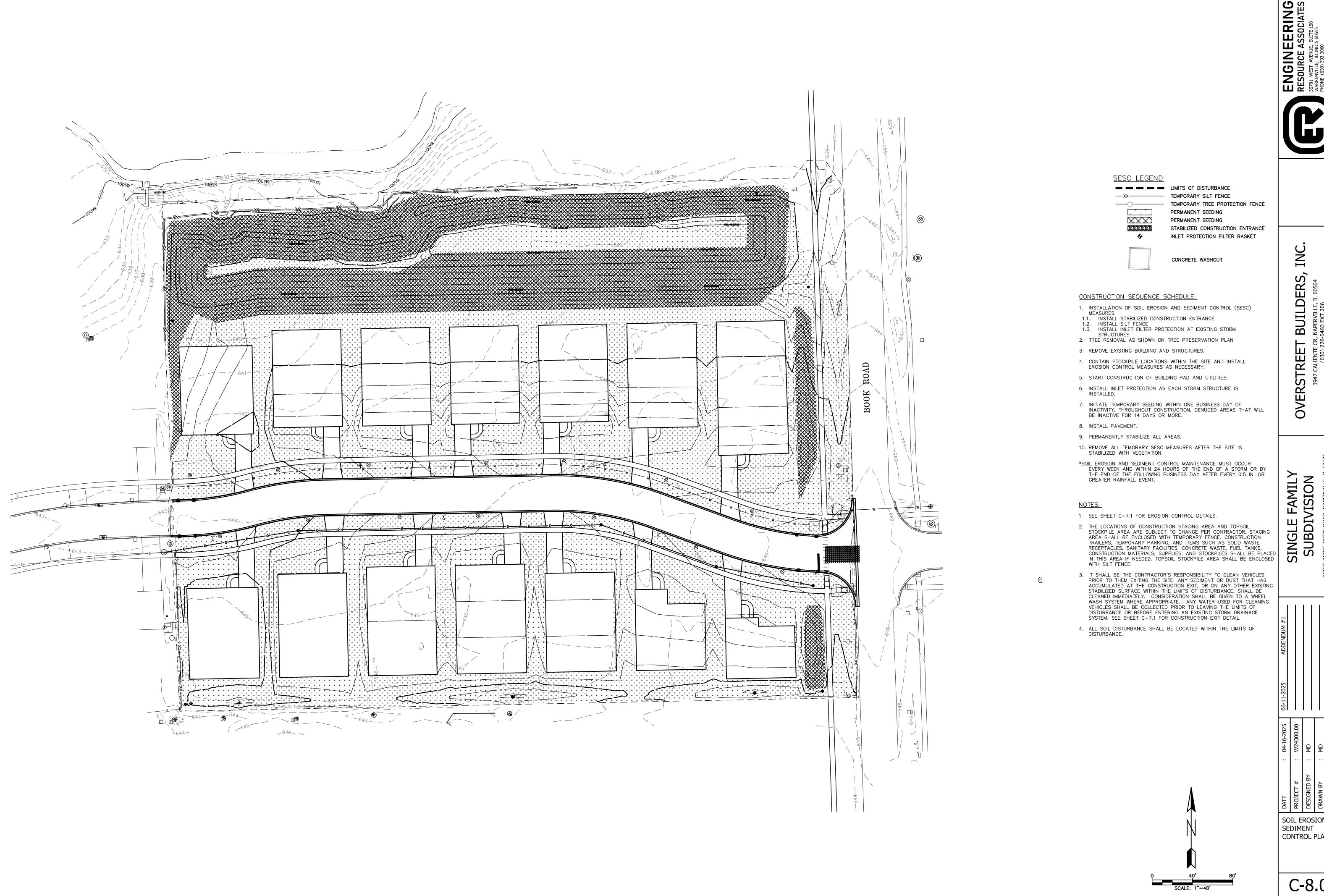
PROFESSIONAL DESIGN FIRM NUMBER: 184.001186



ENGINEERING
RESOURCE ASSOCIATES
3S701 WEST AVENUE, SUITE 150
WARRENVILLE, ILLINOIS 60555
PHONE (630) 393-2152

OVERSTREET BUILDERS, 3947 CALIENTE CR, NAPERVILLE, IL 60564 (630) 226-0460 EXT 206

GRADING PLAN C-7.1



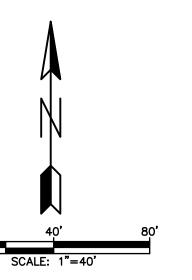
ENGINEE
RESOURCE AS:
3S701 WEST AVENUE, SU
WARRENVILLE, ILLINOIS 6
PHONE (630) 393-3060
FAX (630) 393-2152

TEMPORARY TREE PROTECTION FENCE

PERMANENT SEEDING PERMANENT SEEDING STABILIZED CONSTRUCTION ENTRANCE INLET PROTECTION FILTER BASKET

CONCRETE WASHOUT

- 2. TREE REMOVAL AS SHOWN ON TREE PRESERVATION PLAN
- 3. REMOVE EXISTING BUILDING AND STRUCTURES.
- 5. START CONSTRUCTION OF BUILDING PAD AND UTILITIES.
- 6. INSTALL INLET PROTECTION AS EACH STORM STRUCTURE IS
- 10. REMOVE ALL TEMORARY SESC MEASURES AFTER THE SITE IS STABILIZED WITH VEGETATION.
- \*SOIL EROSION AND SEDIMENT CONTROL MAINTENANCE MUST OCCUR EVERY WEEK AND WITHIN 24 HOURS OF THE END OF A STORM OR BY THE END OF THE FOLLOWING BUSINESS DAY AFTER EVERY 0.5 IN. OR GREATER RAINFALL EVENT.
- 1. SEE SHEET C-7.1 FOR EROSION CONTROL DETAILS.
- 2. THE LOCATIONS OF CONSTRUCTION STAGING AREA AND TOPSOIL STOCKPILE AREA ARE SUBJECT TO CHANGE PER CONTRACTOR. STAGING
- 3. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CLEAN VEHICLES PRIOR TO THEM EXITING THE SITE. ANY SEDIMENT OR DUST THAT HAS ACCUMULATED AT THE CONSTRUCTION EXIT, OR ON ANY OTHER EXISTING STABILIZED SURFACE WITHIN THE LIMITS OF DISTURBANCE, SHALL BE CLEANED IMMEDIATELY. CONSIDERATION SHALL BE GIVEN TO A WHEEL WASH SYSTEM WHERE APPROPRIATE. ANY WATER USED FOR CLEANING VEHICLES SHALL BE COLLECTED PRIOR TO LEAVING THE LIMITS OF DISTURBANCE OR BEFORE ENTERING AN EXISTING STORM DRAINAGE SYSTEM. SEE SHEET C-7.1 FOR CONSTRUCTION EXIT DETAIL.
- 4. ALL SOIL DISTURBANCE SHALL BE LOCATED WITHIN THE LIMITS OF



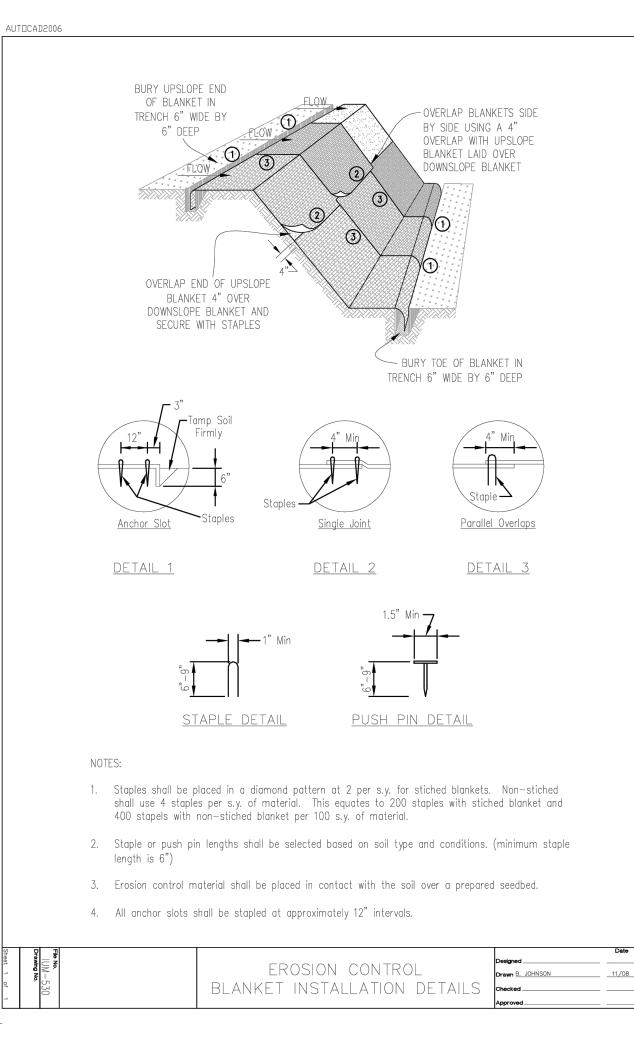
PROFESSIONAL DESIGN FIRM NUMBER: 184.001186

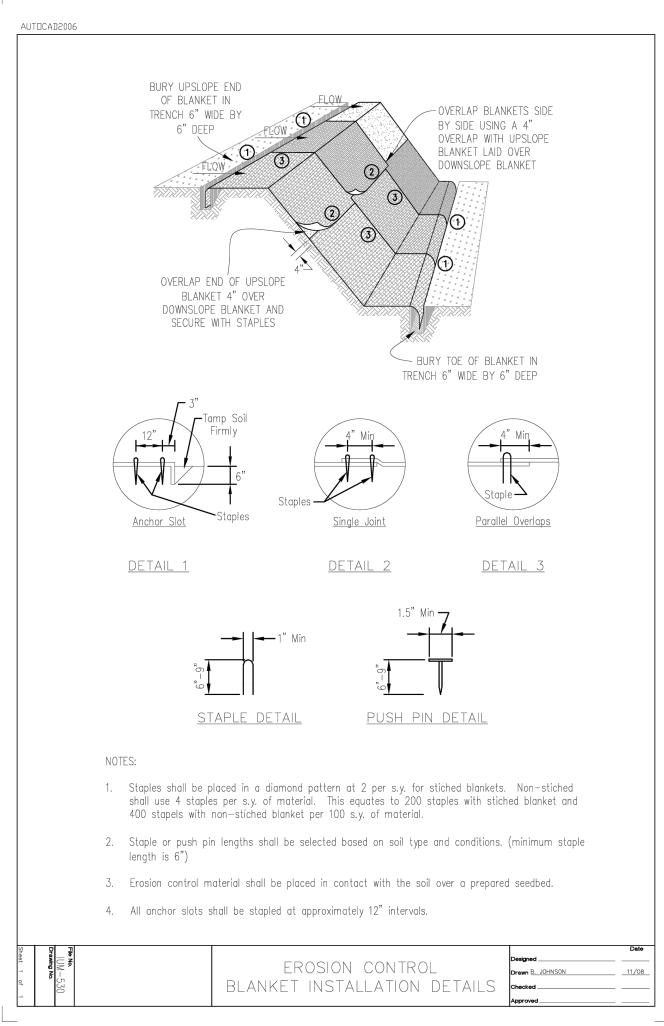
**SOIL EROSION &** SEDIMENT CONTROL PLAN

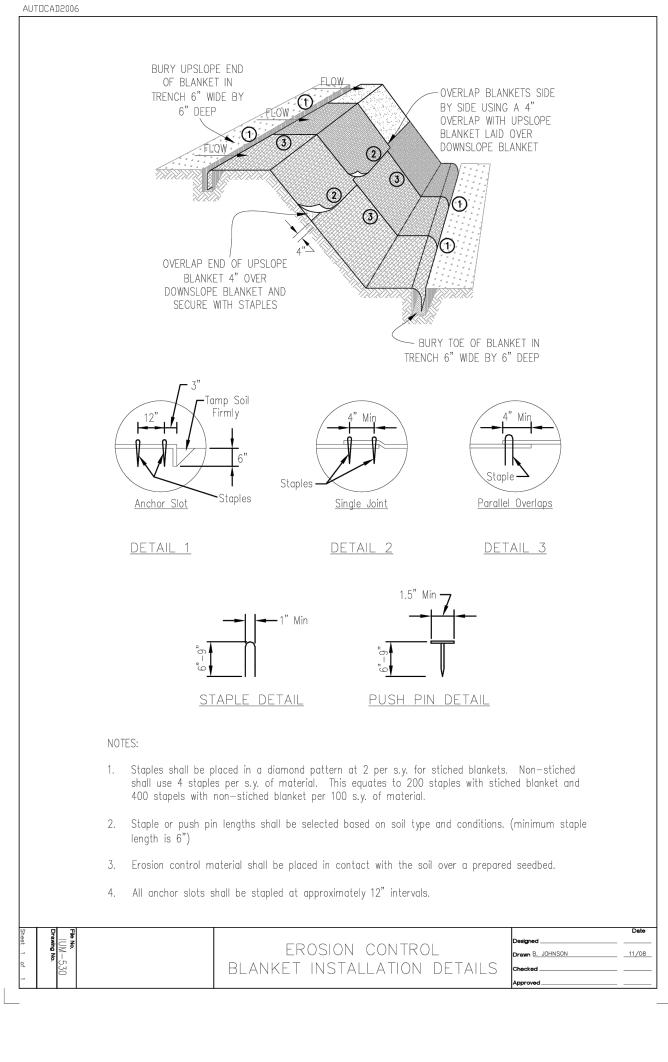
C-8.0 SHEET

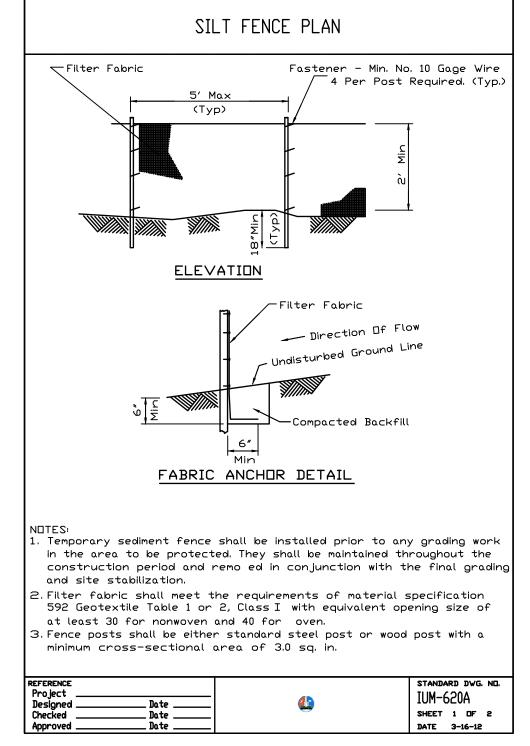
**SOIL EROSION &** SEDIMENT CONTROL PLAN

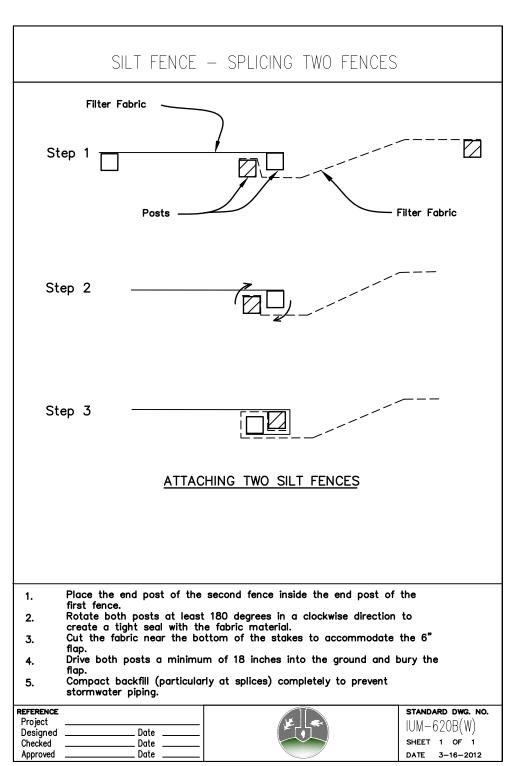
C-8.1

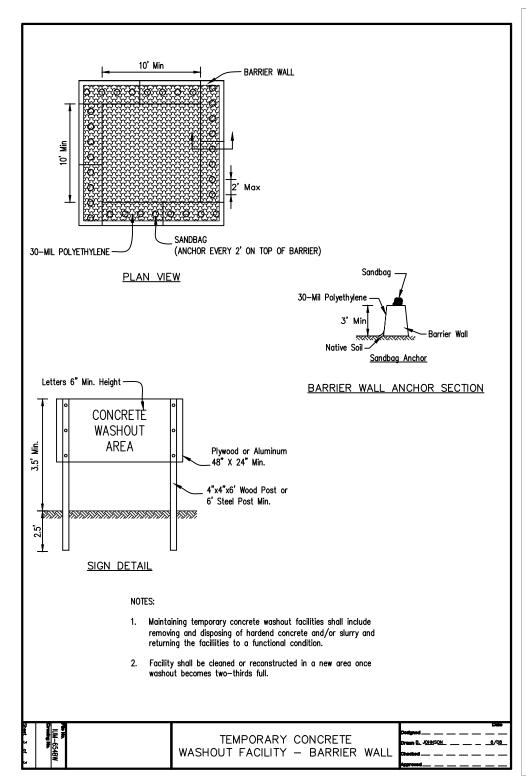


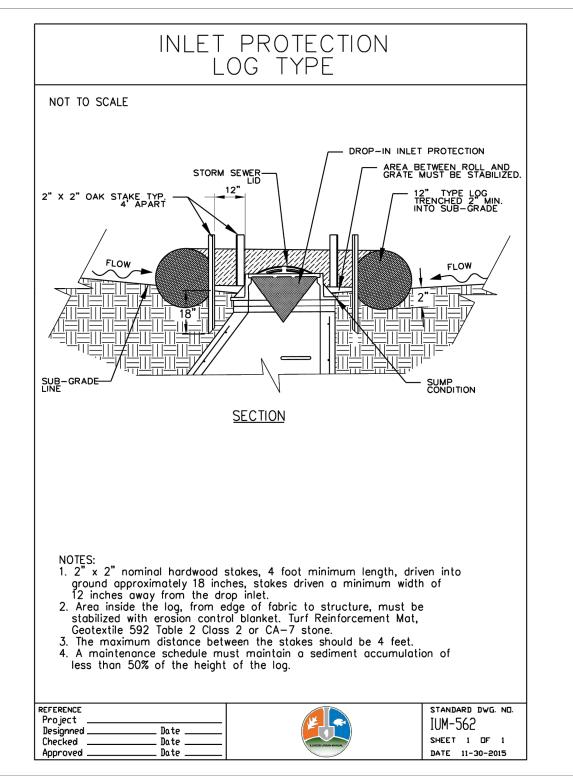


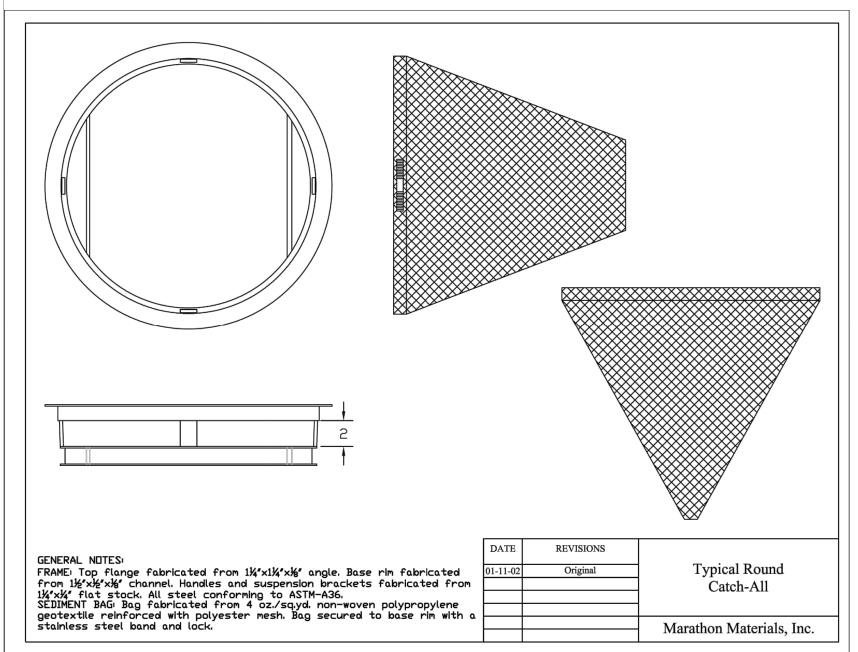












SILT FENCE TO EXTEND

— TOPSOIL

ORIGINAL GROUND SURFACE-

1. AN ON-SITE DRAINAGE SWALE SHALL BE LOCATED BETWEEN THE TOPSOIL

IT SHALL BE STABILIZED WITH BURLAP MATTING OR SEEDED WITHIN

AND AFTER RAIN EVENTS IN EXCESS OF 1/2". REPAIR OR REPLACEMENT

6. SILT FENCES SHALL BE MAINTAINED IN PLACE UNTIL TOPSOIL STOCKPILE

DATE: 3-31-09

HAS BEEN ELIMINATED AND SHALL BE REMOVED ONLY WHEN DIRECTED

5. SEDIMENT TRAPPED BY THE FENCES SHALL BE REMOVED AND PROPERLY

2. REFERENCE IS MADE TO THE SILT FENCE DETAIL FOR MATERIALS AND

4. INSPECTION OF SILT FENCES SHALL BE AT LEAST ONCE PER WEEK

DISPOSED OF WHENEVER SIGNIFICANT ACCUMULATION OCCURS.

3. IF THE STOCKPILE IS TO REMAIN FOR MORE THAN 14 DAYS,

7 DAYS OF COMPLETION TO MINIMIZE EROSION.

STOCKPILE AND OFF-SITE PROPERTY.

SHALL BE MADE PROMPTLY AS NEEDED.

INSTALLATION METHODS.

BY THE CITY.

STOCKPILE \_\_\_

SILT

FENCE —

NOTES:

AROUND ENTIRE PERIMETER OF TOPSOIL STOCKPILE, OR TO EXTEND AROUND DOWNSTREAM

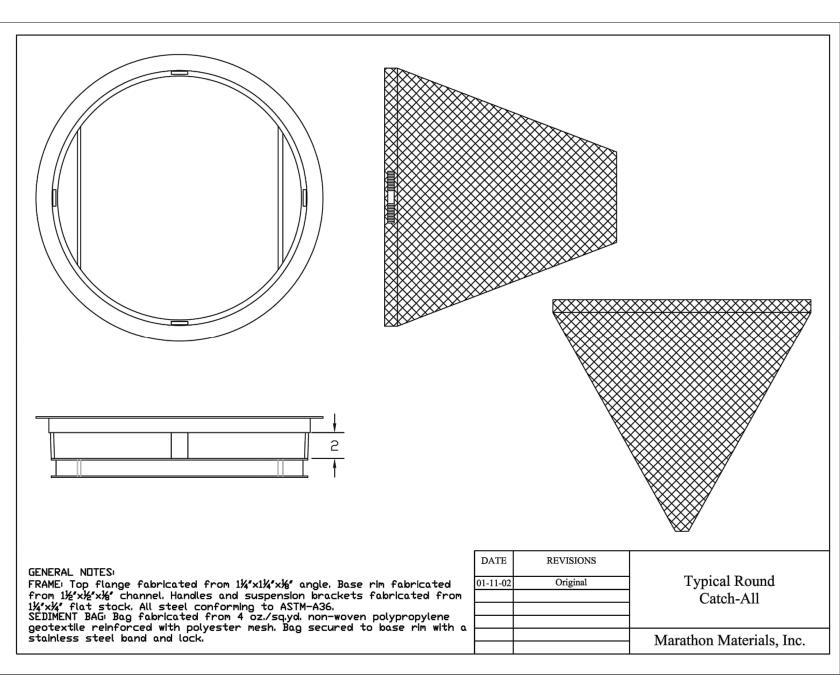
PORTION IF STOCKPILE IS ON SLOPE.

(TYP)

NOT TO SCAL

TOPSOIL

STOCKPILE



## STORMWATER POLLUTION PREVENTION PLAN

THE FOLLOWING PLAN IS ESTABLISHED AND INCORPORATED IN THE PROJECT TO DIRECT THE CONTRACTOR IN THE PLACEMENT OF TEMPORARY EROSION CONTROL SYSTEMS AND TO PROVIDE A STORM SEWER WATER POLLUTION PREVENTION PLAN FOR COMPLIANCE UNDER NPDES.

THE PURPOSE OF THIS PLAN IS TO MINIMIZE EROSION WITHIN THE CONSTRUCTION SITE AND TO LIMIT SEDIMENTS FROM LEAVING THE CONSTRUCTION SITE BY UTILIZING PROPER TEMPORARY EROSION CONTROL SYSTEMS AND PROVIDING GROUND COVER WITHIN A REASONABLE AMOUNT OF TIME.

CERTAIN EROSION CONTROL FACILITIES SHALL BE INSTALLED BY THE CONTRACTOR AT THE BEGINNING OF CONSTRUCTION. OTHER ITEMS SHALL BE INSTALLED BY THE CONTRACTOR AS DIRECTED BY THE ENGINEER ON A CASE BY CASE SITUATION DEPENDING ON THE CONTRACTOR'S SEQUENCE OF ACTIVITIES, TIME OF YEAR, AND

THE CONTRACTOR SHALL INSTALL PERMANENT EROSION CONTROL SYSTEMS AND SEEDING WITHIN A TIME FRAME SPECIFIED HEREIN AND AS DIRECTED BY THE ENGINEER, THEREFORE MINIMIZING THE AMOUNT OF AREA SUSCEPTIBLE TO EROSION AND REDUCING THE AMOUNT OF TEMPORARY SEEDING. THE ENGINEER WILL DETERMINE IF ANY TEMPORARY EROSION CONTROL SYSTEMS SHOWN IN THE PLAN CAN BE DELETED AND IF ANY ADDITIONAL TEMPORARY EROSION CONTROL SYSTEMS, WHICH ARE NOT INCLUDED IN THIS PLAN, SHALL BE ADDED. THE CONTRACTOR SHALL PERFORM ALL WORK AS DIRECTED BY THE ENGINEER AND AS SHOWN IN STANDARD 280001 OF THE PLANS. SECTION 280. TEMPORARY EROSION CONTROL, OF THE STANDARD SPECIFICATIONS ADDITIONALLY SUPPLEMENTS THIS PLAN.

#### DESCRIPTION OF CONSTRUCTION ACTIVITY

EXPECTED WEATHER CONDITION.

- THE PROJECT CONSISTS OF A BUILDING ADDITION TO THE EXISTING BUILDING WITH IMPROVED ONSITE PARKING, STORM SEWER SYSTEM, AND LANDSCAPED

- THE PROPERTY IS LOCATED SOUTH OF IL-176 AND WEST OF US ROUTE 14, WITHIN THE CITY OF CRYSTAL LAKE.

DESCRIPTION OF INTENDED SEQUENCE FOR MAJOR CONSTRUCTION ACTIVITIES WHICH WILL DISTURB SOILS FOR MAJOR PORTION OF THE CONSTRUCTION SITE:

- EROSION CONTROL SILT FENCING SHALL BE IN PLACE PRIOR TO EARTHWORK ACTIVITIES. SITE SHALL BE ROUGH GRADED
- UNDERGROUND UTILITY NETWORK DIRECTING FLOW TO DETENTION FACILITY SHALL BE INSTALLED.
- SITE SHALL BE FINE-GRADED, WITH ALL PROPOSED PAVING AREAS GRADED TO ROUGHLY 1-FOOT BELOW FINAL ELEVATION ON PLANS.
- CONCRETE WORK AND BITUMINOUS PARKING LOT SHALL BE CONSTRUCTED.

### AREA OF CONSTRUCTION SITE:

THE TOTAL AREA OF THE CONSTRUCTION SITE IS ESTIMATED TO BE  $\underline{2.97}$  ACRES BY WHICH  $\underline{0.55}$  ACRES WILL BE DISTURBED BY EXCAVATION, GRADING, AND OTHER

OTHER REPORTS, STUDIES AND PLANS, WHICH AID IN THE DEVELOPMENT OF THE STORM WATER POLLUTION PREVENTION PLAN AS REFERENCED DOCUMENTS: - INFORMATION OF THE SOILS AND TERRAIN WITHIN THE SITE WAS OBTAINED FROM TOPOGRAPHIC SURVEYS AND SOIL BORINGS THAT WERE UTILITIES FOR THE

DEVELOPMENT OF THE PROPOSED TEMPORARY EROSION CONTROL SYSTEMS. PROJECT PLAN DOCUMENTS, SPECIFICATIONS AND SPECIAL PROVISIONS, AND PLAN DRAWINGS INDICATING DRAINAGE PATTERNS AND APPROXIMATE SLOPES ANTICIPATED AFTER GRADING ACTIVITIES WERE UTILIZED FOR THE PROPOSED PLACEMENT OF THE TEMPORARY EROSION CONTROL SYSTEMS.

## DRAINAGE TRIBUTARIES AND SENSITIVE AREAS RECEIVING RUNOFF FROM THIS CONSTRUCTION SITE:

THE SITE SHALL DRAIN INTO THE PROPOSED STORMWATER DETENTION PONDS BY MEANS OF AN EXISTING STORM SEWER SYSTEM.

### CONTROLS, EROSION CONTROLS AND SEDIMENT CONTROL:

- DISTURBED AREAS SHALL BE TOPSOILED & SEEDED.

- THE DRAWINGS, SPECIFICATIONS AND SPECIAL PROVISIONS WILL ENSURE THAT EXISTING VEGETATION IS PRESERVED WHERE ATTAINABLE AND DISTURBED PORTIONS OF THE SITE WILL BE STABILIZED. STABILIZATION PRACTICES INCLUDE TEMPORARY SEEDING, PERMANENT SEEDING, MULCHING, PROTECTION OF TREES, PRESERVATION OF NATURE VEGETATION, AND OTHER APPROPRIATE MEASURES AS DIRECTED BY THE ENGINEER. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN 7 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED.

- (a.) AREAS OF EXISTING VEGETATION, WOOD AND GRASSLANDS, OUTSIDE THE PROPOSED CONSTRUCTION LIMITS SHALL BE
- IDENTIFIED BY THE ENGINEER FOR PRESERVING AND SHALL BE PROTECTED FROM CONSTRUCTION ACTIVITIES. (b.) DEAD, DISEASED, OR UNSUITABLE VEGETATION WITHIN THE SITE SHALL BE REMOVED AS DIRECTED BY THE ENGINEER, ALONG
- WITH REQUIRED TREE REMOVAL. (c.) AS SOON AS REASONABLE ACCESS IS AVAILABLE TO ALL LOCATIONS WHERE WATER DRAINS AWAY FROM THE PROJECT, TEMPORARY PERIMETER
- EROSION BARRIER SHALL BE INSTALLED AS CALLED OUT IN THIS PLAN AND DIRECTED BY THE ENGINEER. (d.) BARE AND SPARSELY VEGETATED GROUND IN HIGH ERODIBLE AREAS AS DETERMINED BY THE ENGINEER SHALL BE TEMPORARILY SEEDED AT THE
- BEGINNING OF CONSTRUCTION WHERE NO CONSTRUCTION ACTIVITIES ARE EXPECTED WITHIN SEVEN (7) DAYS.
- (e.) IMMEDIATELY AFTER TREE REMOVAL IS COMPLETED. AREAS WHICH ARE HIGHLY ERODIBLE AS DETERMINED BY THE ENGINEER. SHALL BE TEMPORARILY SEEDED WHEN NO CONSTRUCTION ACTIVITIES ARE EXPECTED WITHIN SEVEN (7) DAYS.
- ESTABLISHMENT OF THESE TEMPORARY EROSION CONTROL MEASURES WILL HAVE ADDITIONAL BENEFITS TO THE PROJECT. DESIRABLE GRASS SEED WILL BECOME ESTABLISHED IN THESE AREAS AND WILL SPREAD SEEDS ONTO THE CONSTRUCTION SITE UNTIL PERMANENT SEEDING/MOWING AND OVER SEEDING CAN BE COMPLETED.
- THE SOIL AND WATER CONSERVATION DISTRICT IS RESPONSIBLE FOR CONDUCTING SITE VISITS AND VERIFYING THAT THE PRACTICES ARE WORKING PROPERLY AND DETERMINE IF ADDITIONAL PRACTICES ARE NEEDED FOR BETTER SOIL EROSION AND SEDIMENT CONTROL. IF ADDITIONAL PRACTICES ARE DEEMED NECESSARY BY THE SWCD THE CONTRACTOR WILL IMPLEMENT THE PRACTICE IN A TIMELY MANNER.

THIS PLAN HAS BEEN PREPARED TO COMPLY WITH THE PROVISIONS OF THE NPDES PERMIT NUMBER ILR10 ISSUED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY FOR STORM WATER DISCHARGES FROM CONSTRUCTION SITE ACTIVITIES.

I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS.

## ENGINEER: BRIAN A, STYCK, PE

#### DESCRIPTION OF STABILIZATION PRACTICES DURING CONSTRUCTION:

- DURING CONSTRUCTION, AREAS OUTSIDE THE CONSTRUCTION LIMITS AS OUTLINED PREVIOUSLY HEREIN SHALL BE PROTECTED. THE CONTRACTOR SHALL NOT USE THIS AREA FOR STAGING, PARKING OF VEHICLES OF CONSTRUCTION EQUIPMENT, STORAGE OF MATERIALS OR OTHER CONSTRUCTION RELATED ACTIVITIES.
- (a.) WITHIN THE CONSTRUCTION LIMITS, AREAS WHICH MAY BE SUSCEPTIBLE TO EROSION AS DETERMINED BY THE ENGINEER SHALL REMAIN UNDISTURBED UNTIL FULL SCALE CONSTRUCTION IS UNDERWAY TO PREVENT UNNECESSARY SOIL EROSION.
- (b.) AS CONSTRUCTION PROCEEDS, THE CONTRACTOR SHALL INSTITUTE THE FOLLOWING AS DIRECTED BY THE ENGINEER
  - (i.) PLACE TEMPORARY EROSION CONTROL FACILITIES AT LOCATIONS SHOWN ON THE PLANS. (ii.) TEMPORARILY SEED ERODIBLE BARE EARTH ON A WEEKLY BASIS TO MINIMIZE THE AMOUNT OF ERODIBLE SURFACE AREA WITHIN THE CONTRACT LIMITS.
  - (iii.) PROVIDE TEMPORARY EROSION CONTROL SYSTEMS.
- (iv.) CONTINUE BUILDING UP THE EMBANKMENT TO THE PROPOSED GRADE WHILE, AT THE SAME TIME, PLACING PERMANENT EROSION CONTROL FINAL SHAPING TO (c.) EXCAVATED AREAS AND EMBANKMENT SHALL BE PERMANENTLY SEEDED IMMEDIATELY AFTER FINAL GRADING. IF NOT, THEY SHALL BE TEMPORARILY SEEDED IF NO
- CONSTRUCTION ACTIVITY IN THE AREA IS PLANNED FOR SEVEN (7) DAYS. (d.) CONSTRUCTION EQUIPMENT SHALL BE STORED AND FUELED ONLY AT DESIGNATED LOCATIONS. ALL NECESSARY MEASURES SHALL BE TAKEN TO CONTAIN ANY FUEL OR
- OTHER POLLUTANT IN ACCORDANCE WITH EPA WATER QUALITY REGULATIONS. LEAKING EQUIPMENT OR SUPPLIES SHALL BE IMMEDIATELY REPAIRED OR REMOVED (e.) THE RESIDENT ENGINEER SHALL INSPECT THE PROJECT WEEKLY DURING CONSTRUCTION ACTIVITIES. INSPECTION SHALL ALSO BE DONE WEEKLY AND AFTER RAINS OF 1/2-INCH OR GREATER OR EQUIVALENT SNOWFALL AND DURING THE WINTER SHUTDOWN PERIOD. THE PROJECT SHALL ADDITIONALLY BE INSPECTED BY THE
- CONTROL WORK IS NECESSARY. (f.) SEDIMENT COLLECTED DURING CONSTRUCTION OF THE VARIOUS TEMPORARY EROSION CONTROL SYSTEMS SHALL BE DISPOSED OF ON THE SITE ON A REGULAR BASIS

CONSTRUCTION FIELD ENGINEER ON A BIWEEKLY BASIS TO DETERMINE THAT EROSION CONTROL EFFORTS ARE IN PLACE AND EFFECTIVE AND IF OTHER EROSION

AS DIRECTED BY THE ENGINEER. THE COST OF THIS MAINTENANCE SHALL BE INCLUDED IN THE UNIT BID PRICE FOR EARTH EXCAVATION FOR EROSION CONTROL. (g.) THE TEMPORARY EROSION CONTROL SYSTEMS SHALL BE REMOVED, AS DIRECTED BY THE ENGINEER, AFTER USE IS NO LONGER NEEDED OR NO LONGER FUNCTIONING.

## DESCRIPTION OF STRUCTURAL PRACTICES AFTER FINAL GRADING:

- TEMPORARY EROSION CONTROL SYSTEMS SHALL BE LEFT IN PLACE WITH PROPER MAINTENANCE UNTIL PERMANENT EROSION CONTROL IS IN PLACE AND WORKING PROPERLY AND ALL PROPOSED TURF AREAS SODDED AND ESTABLISHED.
- ONCE PERMANENT EROSION CONTROL SYSTEMS AS PROPOSED IN THE PLANS ARE FUNCTIONAL AND ESTABLISHED, TEMPORARY ITEMS SHALL BE REMOVED, CLEANED UP, AND DISTURBED TURF RESEEDED.

- TEMPORARY EROSION CONTROL SEEDING SHALL BE APPLIED AT A RATE OF 100 LBS/ACRES, IF DIRECTED.
- SEDIMENT COLLECTED DURING CONSTRUCTION BY THE VARIOUS TEMPORARY EROSION CONTROL SYSTEMS SHALL BE DISPOSED OF ON THE SITE ON A REGULAR BASIS, AS DIRECTED BY THE ENGINEER. THE COST OF THIS MAINTENANCE SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER CUBIC YARD FOR EARTH

ALL EROSION CONTROL PRODUCTS FURNISHED SHALL BE SPECIFICALLY RECOMMENDED BY THE MANUFACTURER FOR THE USE SPECIFIED IN THE EROSION CONTROL PLAN. PRIOR TO THE APPROVAL AND USE OF THE PROJECT. THE CONTRACTOR SHALL PROVIDE MANUFACTURER INSTALLATION PROCEDURES TO FACILITATE THE ENGINEER IN CONSTRUCTION INSPECTION.

### SOIL EROSION CONTROL:

SOIL EROSION CONTROL MUST CONFORM TO THE CITY ORDINANCE.

- 1. A CONSTRUCTION ENTRANCE TO THE SITE SHALL BE INSTALLED AND STABILIZED PRIOR TO ANY WORK ON THE SITE. THE CONSTRUCTION ENTRANCE SHALL CONSIST OF 12" OF CRUSHED CONCRETE, 50 FEET IN LENGTH AND 24 FEET WIDE, AS SHOWN ON PLANS.
- 2. ALL STOCK PILES ON THE SITE WHICH WILL NOT BE REDISTRIBUTED FOR A WEEK OR LONGER WILL BE SEEDED WITHIN SEVEN DAYS OF THE FORMATION OF THE
- SEEDING IN DISTRIBUTED AREAS OUTSIDE OF THE RIGHT-OF-WAYS WILL BE DONE WITH PERENNIAL RYE GRASS, 1/2 LB. PER 1,000 SF, IF IT IS LATER IN THE FALL AND A MORE RAPID GERMINATION IS REQUIRED, 1 LB OF OATS PER 1,000 S.F. CAN BE ADDED TO THE RYE GRASS.
- 4. THE SEEDING AND MULCH WILL BE MAINTAINED AND REPAIRED WHEN NECESSARY UNTIL THE PROJECT IS COMPLETED.
- AGGREGATE BASE SHALL BE INSTALLED AS SOON AS POSSIBLE IN THE CONSTRUCTION SEQUENCE FOR ROADS TO PROVIDE REQUIRED STABILIZATION.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF EROSION CONTROL STRUCTURES.
- CONTRACTOR SHALL INSPECT EROSION CONTROL STRUCTURES WEEKLY OR AFTER ANY MAJOR STORMS OR AS DIRECTED BY THE CITY. 8. ALL DESIGN AND CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AS CONTAINED IN THE IEPA/WPC/87-012 OR CURRENT EDITION AND THE ILLINOIS PROCEDURE AND STANDARDS FOR URBAN SOIL EROSION AND SEDIMENTATION
- 9. DUST CONTROL AND CLEANING OF ROADWAYS AS REQUESTED BY THE CITY SHALL BE THE RESPONSIBILITY OF THE DEVELOPER.

## B. INSTALLATION

INSPECTION SHALL BE FREQUENT AND REPAIR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED. NOTIFY PUBLIC WORKS DEPARTMENT AND THE CITY ENGINEERING DEPARTMENT 24 HOURS PRIOR TO INITIATING CONSTRUCTION.

#### DRAINAGE STATEMENT

WE HEREBY STATE THAT TO THE BEST OF OUR KNOWLEDGE AND BELIEF THE DRAINAGE OF SURFACE WATERS OF THIS PLAT WILL NOT BE CHANGED BY THE CONSTRUCTION OF THE IMPROVEMENTS OF THIS SUBDIVISION OR ANY PART THEREOF OR THAT IF SUCH SURFACE WATER DRAINAGE WILL BE CHANGED, REASONABLE PROVISIONS HAVE BEEN MADE FOR COLLECTION AND DIVERSION OF SUCH SURFACE WATERS INTO PUBLIC AREAS, OR DRAINS WHICH THE SUBDIVIDER HAS A RIGHT TO USE, AND THAT SUCH SURFACE WATERS WILL BE PLANNED FOR IN ACCORDANCE WITH GENERALLY ACCEPTED ENGINEERING PRACTICES SO AS TO REDUCE THE LIKELIHOOD OF DAMAGE TO THE ADJOINING PROPERTY BECAUSE OF THE CONSTRUCTION OF THE SUBDIVISION.

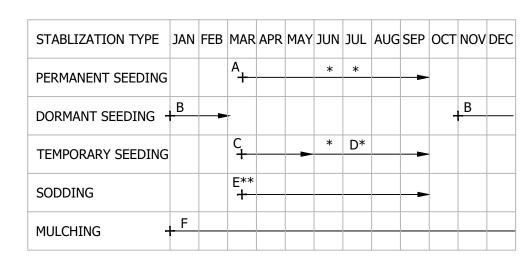
ILLINOIS REGISTERED PROF.ENG.NO.

## NAME OF ENGINEER

NAME OF DEVELOPER/OWNER

CORPORATION:

## SOIL PROTECTION CHART



- A. KENTUCKY BLUEGRASS 90 LBS/AC C. SPRING OATS 100 LBS/AC MIXED WITH PERENNIAL
- RYEGRASS 30 LBS/AC D. WHEAT OR CEREAL RYE 150 LBS/AC
- B. KENTUCKY BLUEGRASS 135 LBS/AC MIXED WITH PERENNIAL RYE
- GRASS 45 LBS/AC + 2 TONS STRAW F. STRAW MULCH 2 TONS/AC

\* IRRIGATION NEEDED DURING JUNE AND

- MULCH/AC
  - JULY
  - \*\* IRRIGATION NEEDED FOR 2 TO 3 WEEKS AFTER APPLYING SOD

## OWNER'S CERTIFICATION

"I CERTIFY UNDER PENALTY OF LAW THAT THIS DOCUMENT AND ALL ATTACHMENTS WERE PREPARED UNDER MY DIRECTION OR SUPERVISION IN ACCORDANCE WITH A SYSTEM DESIGNED TO ASSURE THAT QUALIFIED PERSONNEL PROPERLY GATHERED AND EVALUATED THE INFORMATION SUBMITTED. BASED ON MY INQUIRY OF THE PERSON OR PERSONS WHO MANAGE THE SYSTEM, OR THOSE PERSONS DIRECTLY RESPONSIBLE FOR GATHERING THE INFORMATION, THE INFORMATION SUBMITTED IS, TO THE BEST OF MY KNOWLEDGE AND BELIEF, TRUE, ACCURATE AND COMPLETE. I AM AWARE THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT FOR KNOWING VIOLATIONS."

SIGNATURE DATE COMPANY

## CONTRACTOR'S CERTIFICATION

"I CERTIFY UNDER PENALTY OF LAW THAT I UNDERSTAND THE TERMS AND CONDITIONS OF THE GENERAL NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT (ILR 10) THAT AUTHORIZES THE STORMWATER DISCHARGES ASSOCIATED WITH ACTIVITY FROM THE CONSTRUCTION SITE IDENTIFIED AS PART OF THIS CERTIFICATION.

**GENERAL CONTRACTOR** 

SIGNATURE TITLE

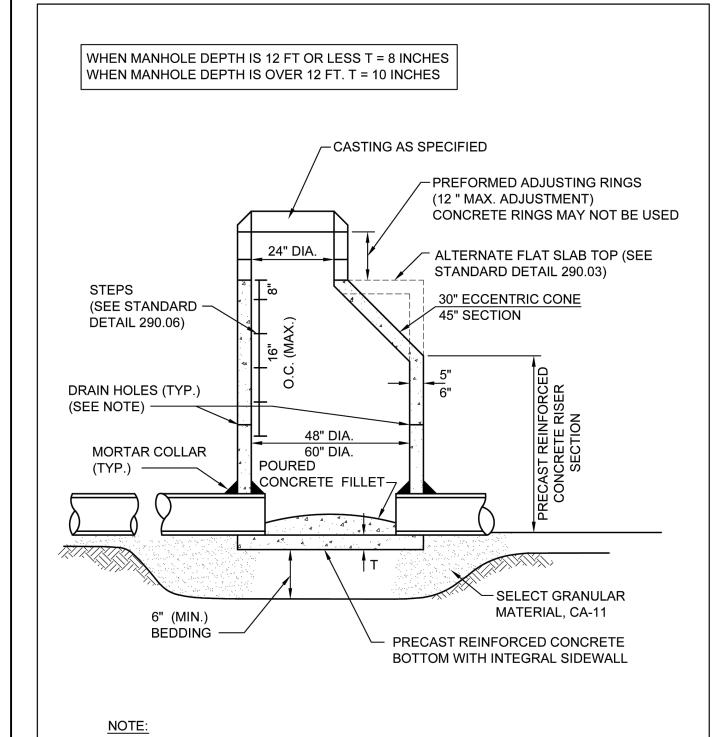
> **SOIL EROSION &** SEDIMENT CONTROL PLAN

> > C-8.2

PROFESSIONAL DESIGN FIRM NUMBER: 184.001186

Ш∛ **GIN** 

:AMILY ISION SINGLE SUBDIA



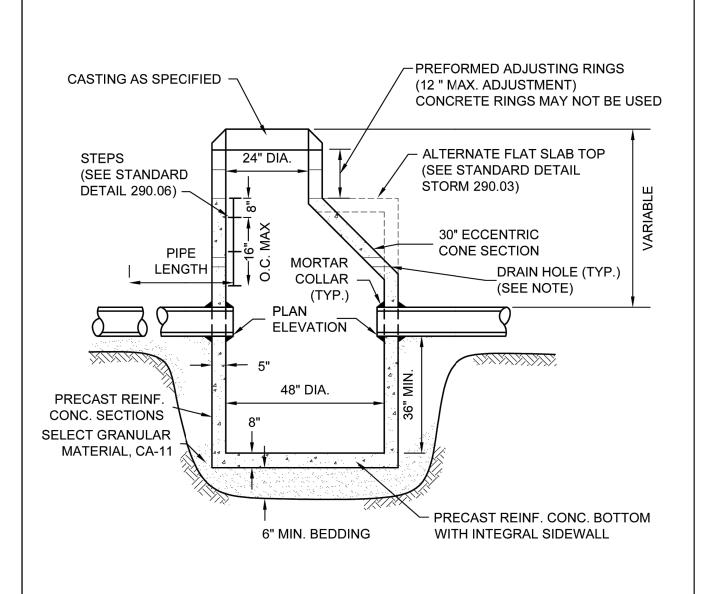
SLIPPAGE DURING BACKFILLING. City of Naperville STORM MANHOLE-**STANDARD** 290.01 **DETAIL** SHEET 1 OF 1 REVISED: 08/01/2018

A MINIMUM OF 4 PRECAST OR DRILLED 1" DIAMETER HOLES SHALL BE PROVIDED

EQUIDISTANT AROUND THE PERIMETER OF THE STRUCTURE. A 1' BY 1' SQUARE OF

UNDERDRAIN FILTER CLOTH MATERIAL SHALL BE FIXED OVER EACH DRAIN HOLE ON THE OUTSIDE OF THE STRUCTURE WITH MASTIC MATERIAL TO PREVENT

WITHIN 1' OF THE LOWEST PIPE INVERT. THE HOLES SHALL BE DISTRIBUTED



City of Naperville

**STANDARD** 

**DETAIL** 

A MINIMUM OF 4 PRECAST OR DRILLED 1" DIAMETER HOLES SHALL BE PROVIDED WITHIN 1' OF THE LOWEST PIPE INVERT. THE HOLES SHALL BE DISTRIBUTED EQUIDISTANT AROUND THE PERIMETER OF THE STRUCTURE. A 1' BY 1' SQUARE OF UNDERDRAIN FILTER CLOTH MATERIAL SHALL BE FIXED OVER EACH DRAIN HOLE ON THE OUTSIDE OF THE STRUCTURE WITH MASTIC MATERIAL TO PREVENT SLIPPAGE DURING BACKFILLING.

REVISED: 08/01/2018

**CATCH BASIN - TYPE A** 

SHEET 1 OF 1

3" MIN. → CASTING AS SPECIFIED	
PREFORMED ADJUSTING RII (12 " MAX. ADJUSTMENT) CONCRETE RINGS MAY NOT	
DRAIN HOLE (TYP.) (SEE NOTE)  MORTAR COLLAR (TYP.)	
MORTAR COLLAR (TYP.)	
4" MIN. — PIPE AS SPECIFIED	
PRECAST REINF. CONC. INLET WITH INTEGRAL BOTTOM AND SIDE WALL	
SELECT GRANULAR BEDDING, CA-11, 6" MIN.	

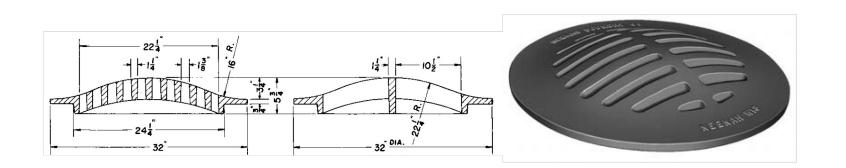
IN PAVED AREAS A MINIMUM OF 4 PRECAST OR DRILLED 1" DIAMETER HOLES SHALL BE PROVIDED WITHIN 1' OF THE LOWEST PIPE INVERT. THE HOLES SHALL BE DISTRIBUTED EQUIDISTANT AROUND THE PERIMETER OF THE STRUCTURE. A 1' BY 1' SQUARE OF UNDERDRAIN FILTER CLOTH MATERIAL SHALL BE FIXED OVER EACH DRAIN HOLE ON THE OUTSIDE OF THE STRUCTURE WITH MASTIC MATERIAL TO PREVENT SLIPPAGE DURING BACKFILLING.

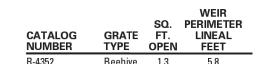
City of Naperville STANDARD	INLET -	TYPE A	290.05
DETAIL	REVISED: 08/01/2018	SHEET 1 OF 1	

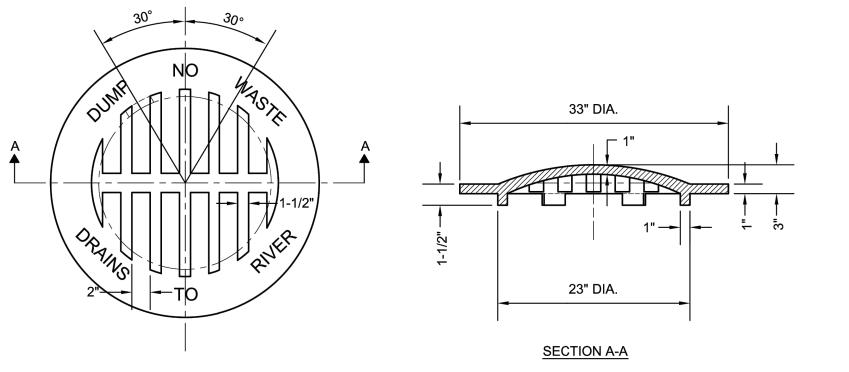
■ Note: When specifying/ordering grates, refer to "Choosing the Proper Inlet Grate" on pages 125-126. For a complete listing of FREE OPEN AREAS and WEIR PERIMETERS of all NEENAH grates, refer to pages 327-332.

## **Beehive Grate**

## Heavy Duty





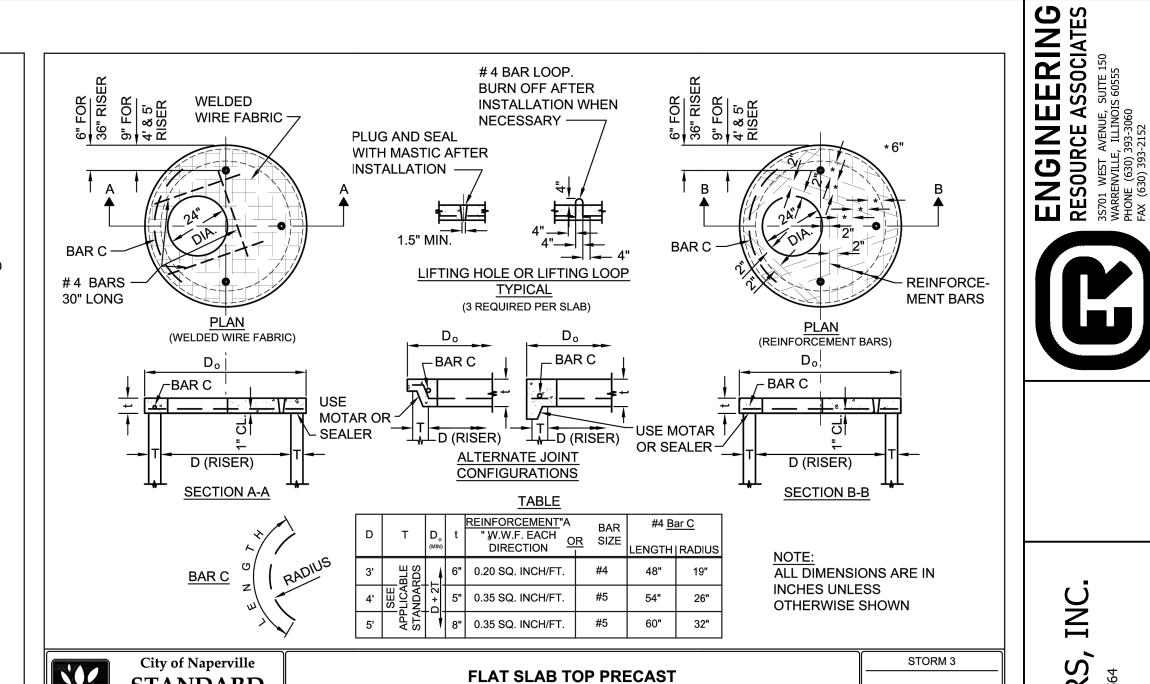


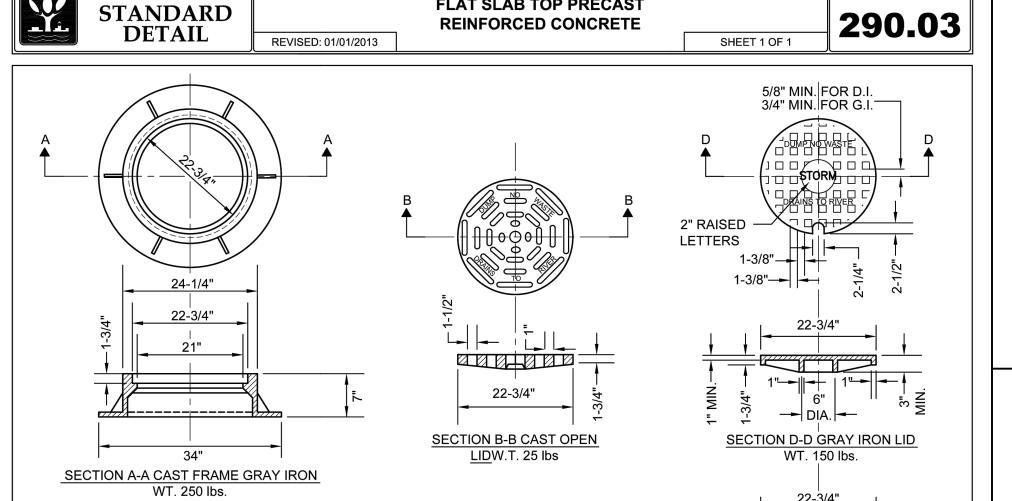
NOTES:

290.02

- 1. BEEHIVE GRATE SHALL BE NEENAH R4340B, EAST JORDAN 6527, OR EQUAL APPROVED BY THE CITY ENGINEER.
- 2. ALL CASTINGS SHALL BE SHOP PAINTED WITH AN ASPHALTIC BASE PAINT.
- 3. ALL CASTINGS SHALL INCLUDE "DUMP NO WASTE. DRAINS TO RIVER".

						ı
	City of Naperville				STORM 14	l
NO.	STANDARD		<b>BEEHIVE GRATE</b>		290.14	
	DETAIL	REVISED: 05/15/2015		SHEET 1 OF 1	<b>230:17</b>	l





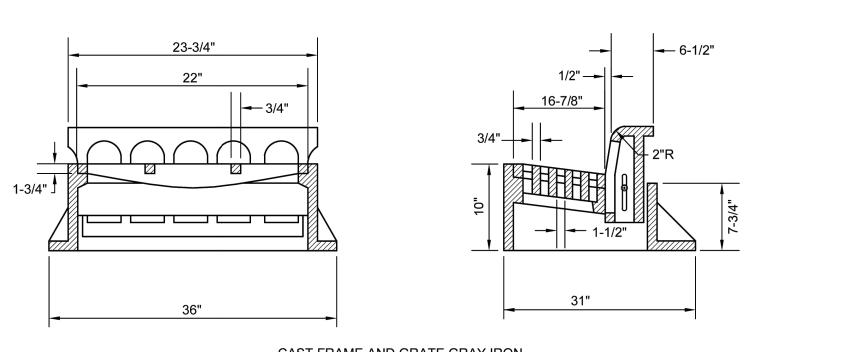
1. FRAME AND GRATE (LID) SHALL BE NEENAH R-2502 FOR OPEN GRATES, R-1772 FOR CLOSED LIDS; EAST JORDAN 1022-2 WITH M-1 GRATE OR TYPE A SOLID COVER, OR EQUAL APPROVED BY THE CITY ENGINEER.

2. ALL LIDS AND COVERS SHALL HAVE MACHINED SURFACES AND SEATS.

3. ALL CASTINGS SHALL BE SHOP PAINTED WITH AN ASPHALTIC BASE PAINT.

4. ALL CASTINGS SHALL INCLUDE "DUMP NO WASTE. DRAINS TO RIVER".

STORM 10 City of Naperville FRAME & LID OR GRATE **STANDARD 290.10 DETAIL** SHEET 1 OF 1 REVISED: 05/15/2015



CAST FRAME AND GRATE GRAY IRON TOTAL WT. 500 LBS.

## NOTES:

- 1. FRAME AND GRATE SHALL BE NEENAH R-3278-A, EAST JORDAN IRON 7220, OR EQUAL APPROVED BY THE CITY ENGINEER.
- 2. ALL CASTING SHALL BE SHOP PAINTED WITH AN ASPHALTIC BASE
- 3. SEE STANDARD DETAIL 590.20 FOR CORRESPONDING CURB.
- 4. ALL CASTINGS SHALL INCLUDE "DUMP NO WASTE. DRAINS TO RIVER".

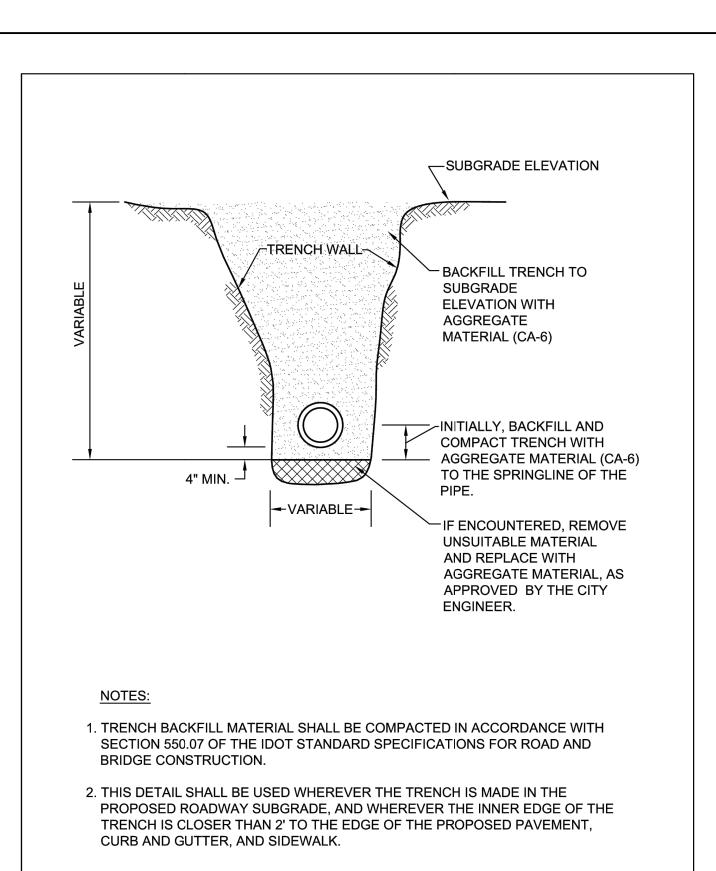
City of Naperville			STORM 11
STANDARD	FRAME & GRATE FOR B-6.12 CURB & GU	TTER	290.11
DETAIL	REVISED: 05/15/2015	SHEET 1 OF 1	

C-9.0 SHEET

CONSTRUCTION

**DETAILS** 

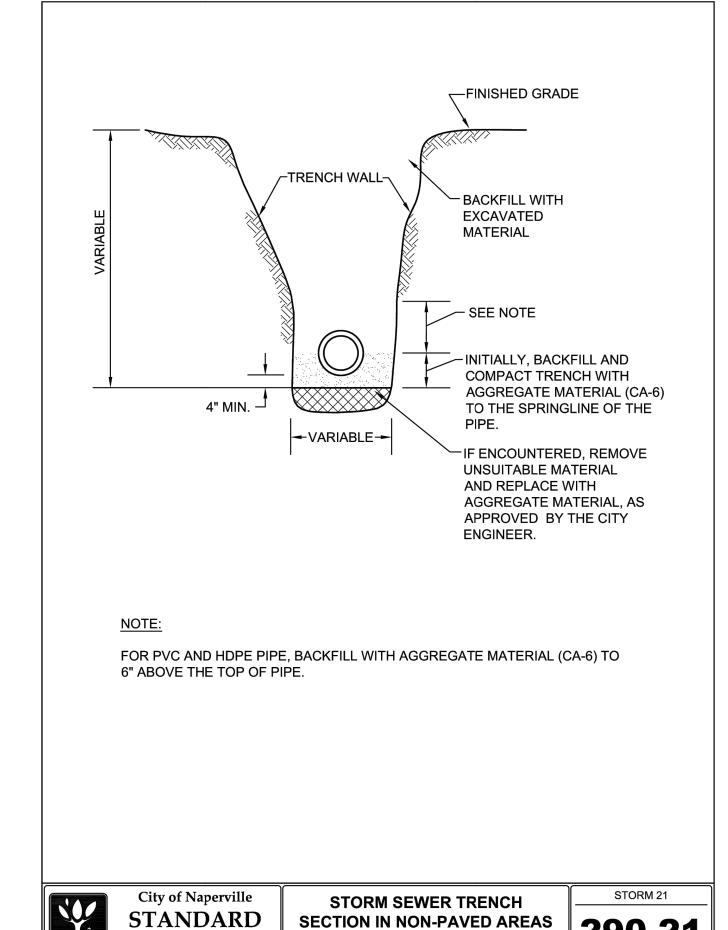
BUILDERS,



STORM SEWER TRENCH

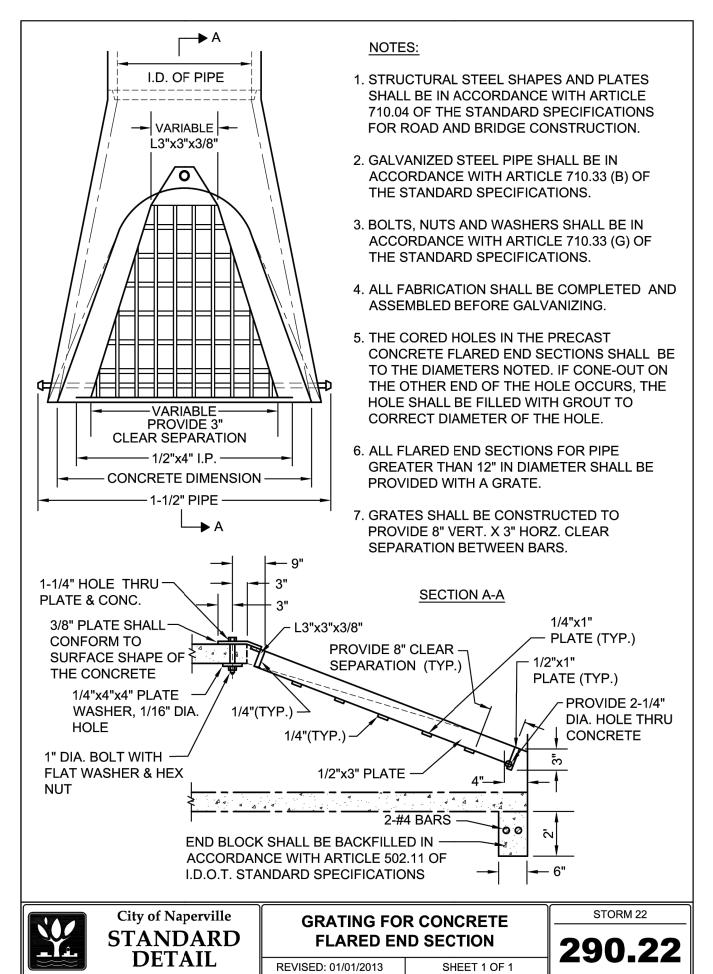
City of Naperville

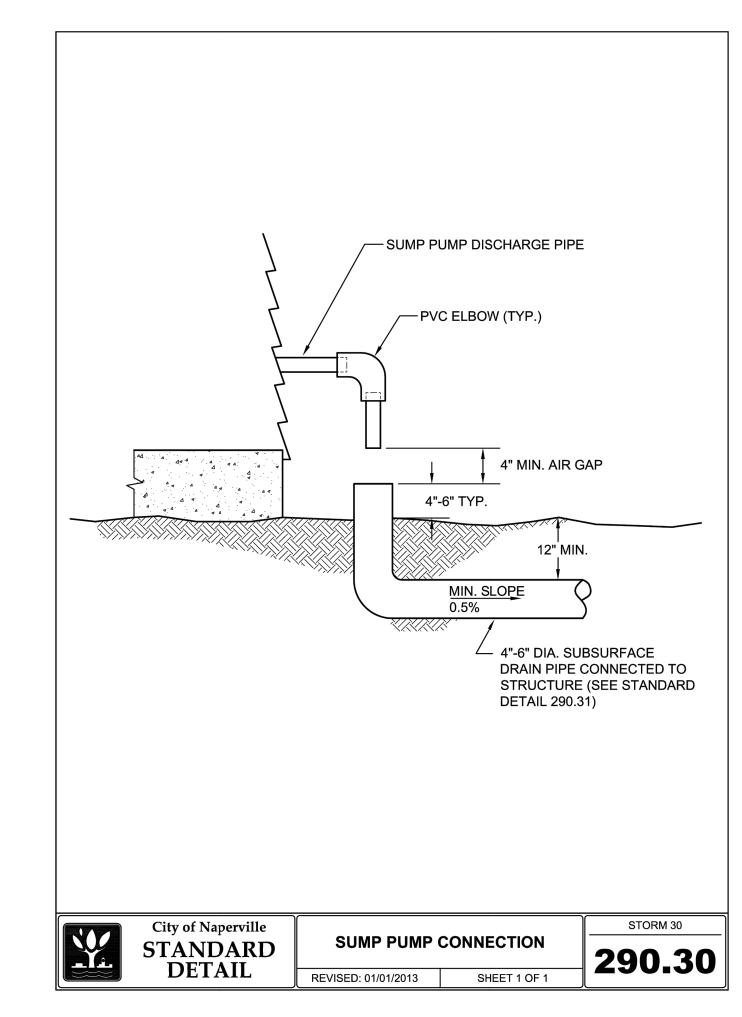
STORM 20

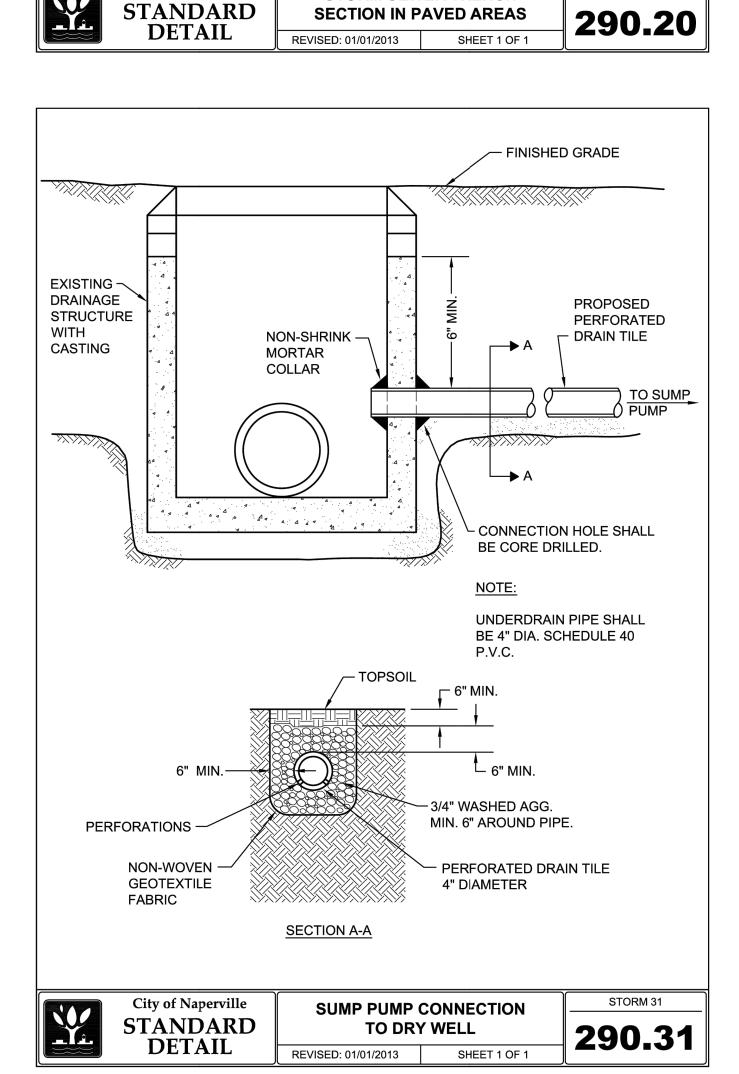


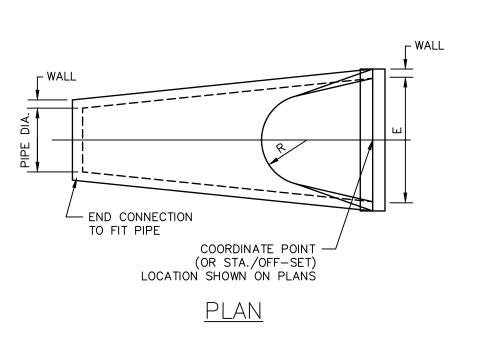
REVISED: 01/01/2013

SHEET 1 OF 1

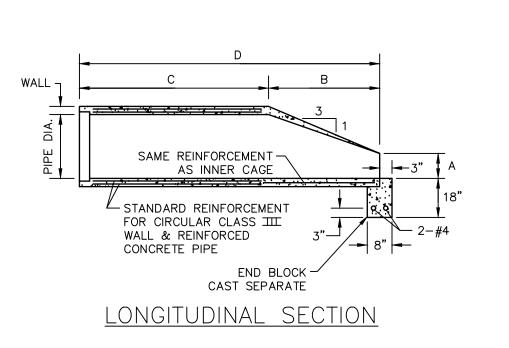








**DETAIL** 

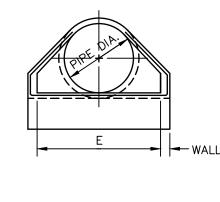


PIPE DIA.	WALL	Α	В	С	D	E	R	SLOPE
12"	2"	4"	2'-0"	4'-1/2"	6'-1/2"	2"-0"	9"	3: 1
15"	2-1/2"	6"	2'-3"	3'-10"	6'-1"	2'-6"	11"	3:1
18"	2-1/2"	9"	2'-3"	3'-10"	6'-1"	3'-0"	12"	3:1
21"	2-3/4"	9"	2'-11"	3'-2"	6'-1"	3'-6"	13"	3:1
24"	3"	9-1/2"	3'-7-1/2"	2'-6"	6'-1-1/2"	4'-0"	14"	3:1
27"	3-1/4"	10-1/2"	4'-1-1/2"	2'-0"	6'-1-1/2"	4'-6"	15"	3:1
42"	4-1/2"	21"	5'-3"	2'-11"	8'-2"	6'-6"	24"	3:1

2'-1-1/4" Ø CAST HOLES EACH PLACED AT 60° TO THE VERTICAL TO ACCOMMODATE 2'-1" Ø TEI BOLTS, USED IN TIEING FLARED END SECTION TO ADJACENT STRAIGHT SECTION. TIE BOLTS SHALL BE PLACED.

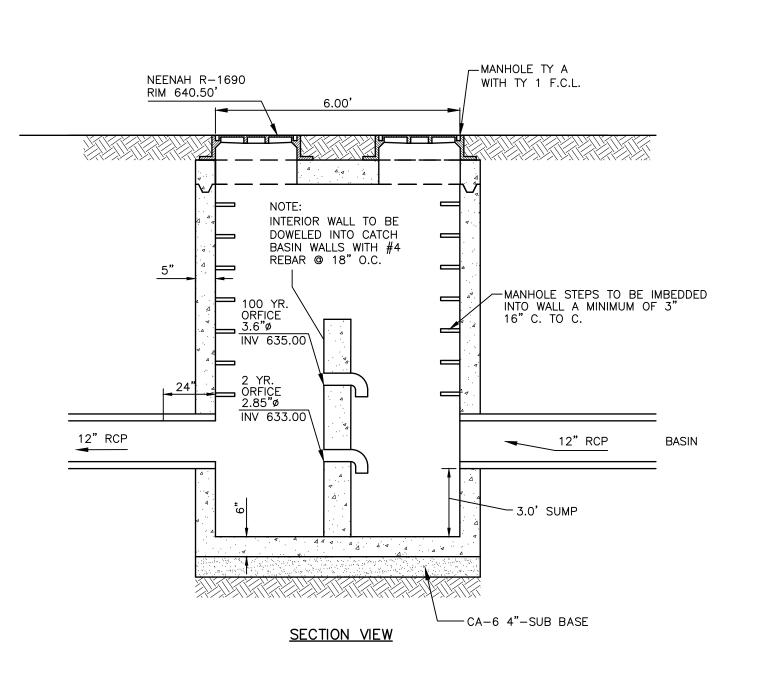
1. PRECAST CONCRETE FLARED END SECTION SHALL CONFORM TO THE APPLICABLE REQUIREMENTS OF AASHTO M-170 CLASS III, WALL 8 REINFORCED CONCRETE PIPE.

2. LENGTHS OF PIPE WHICH TERMINATE WITH A FLARED END SECTION INCLUDE THE LENGTH OF THE FLARED END SECTION.



END VIEW

PRECAST REINFORCED CONCRETE
FLARED END SECTION



RESTRICTOR MANHOLE DETAIL

| PROJECT # : 04-16-2025 | 06-11-2025 | PROJECT # : W24300.00 |
| PROJECT # : W24300.00 |
| PROJECT # : W24300.00 |
| DESIGNED BY : MD |
| DRAWN BY : MD |
| CHECKED BY : NAV |
| DESCRIPTION:

RING

ENGINEE
RESOURCE AS:
3S701 WEST AVENUE, SU
WARRENVILLE, ILLINOIS 6
PHONE (630) 393-2152

**ERS** 

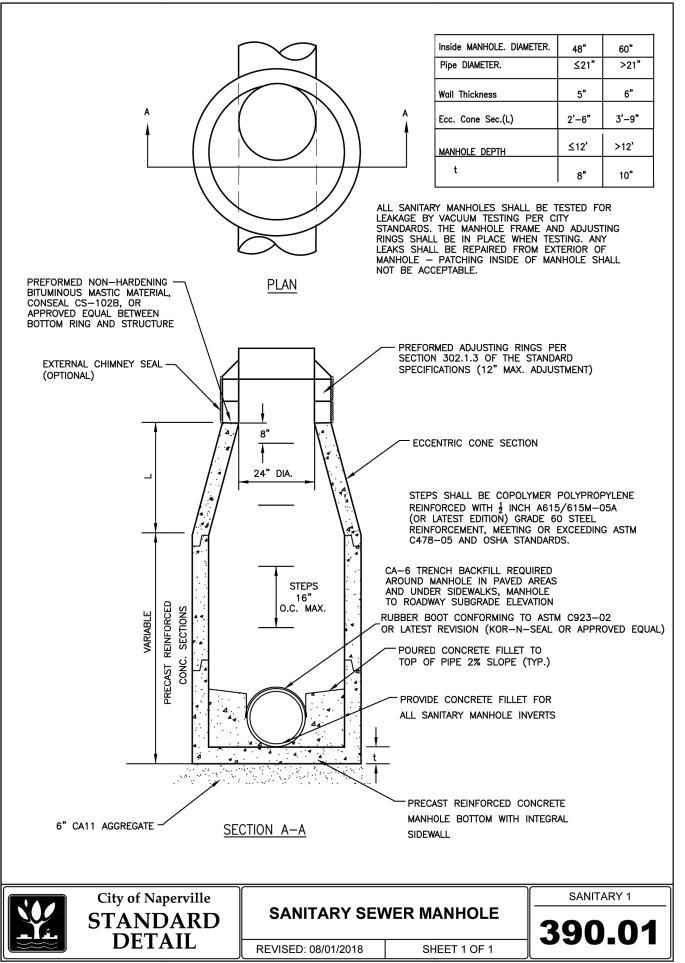
BUILD

FAMILY VISION

SINGLE F SUBDIV

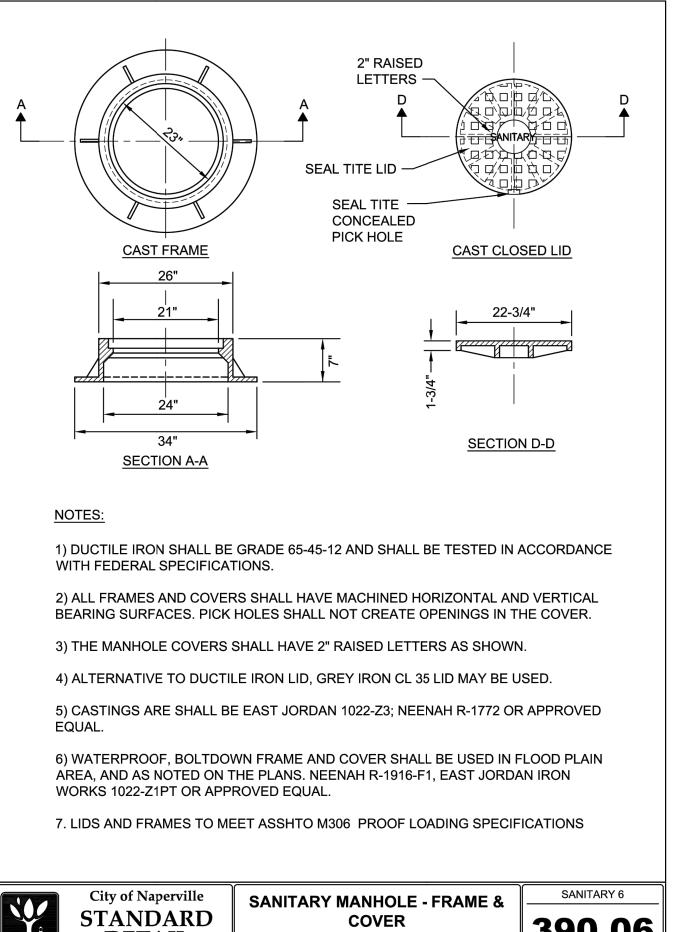
C-9.2

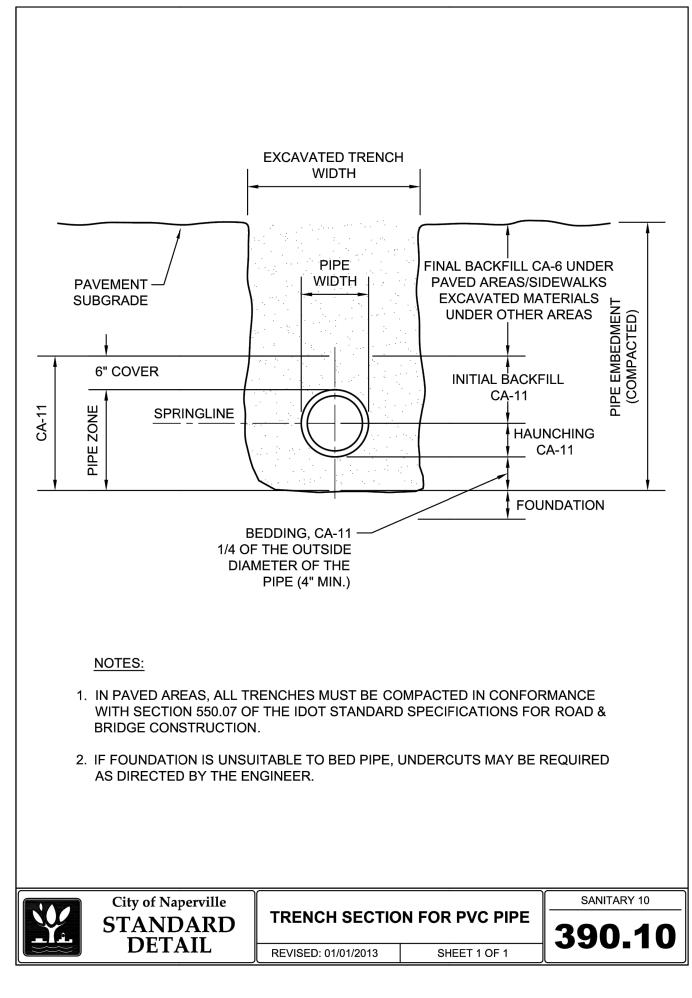
SHEET

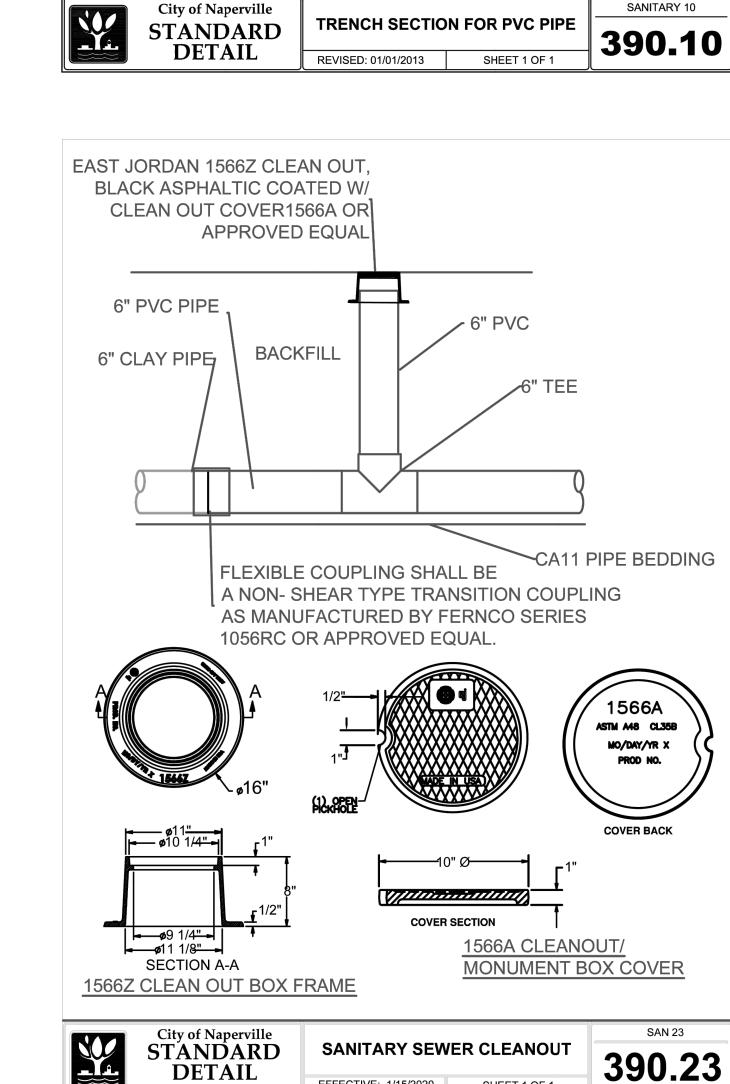


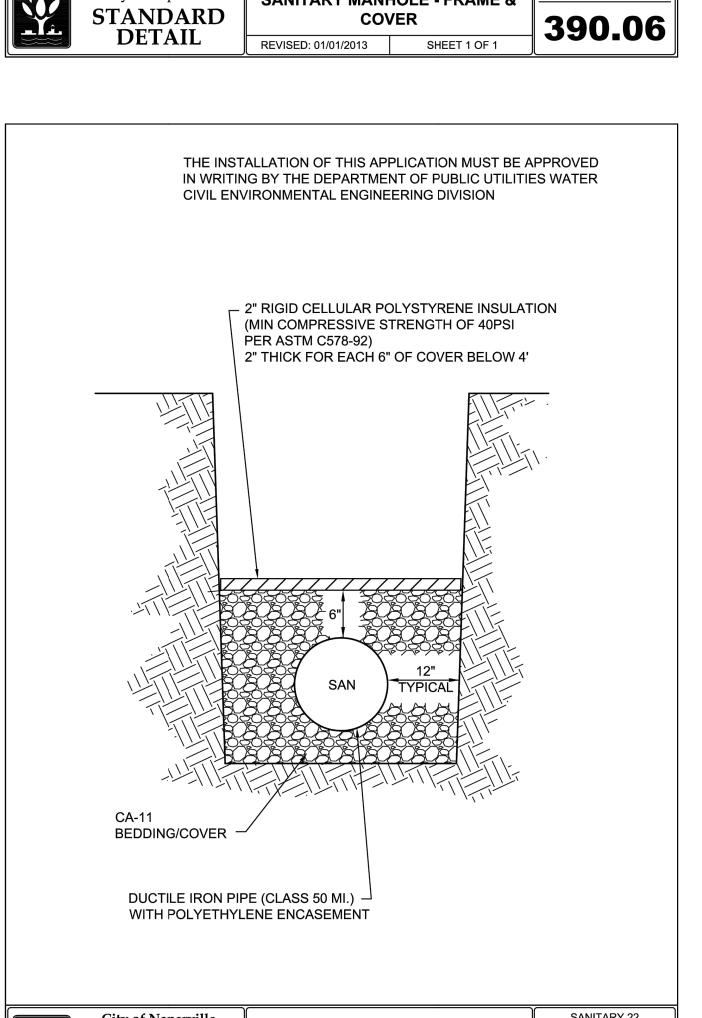
STANDARD TEE CONNECTION

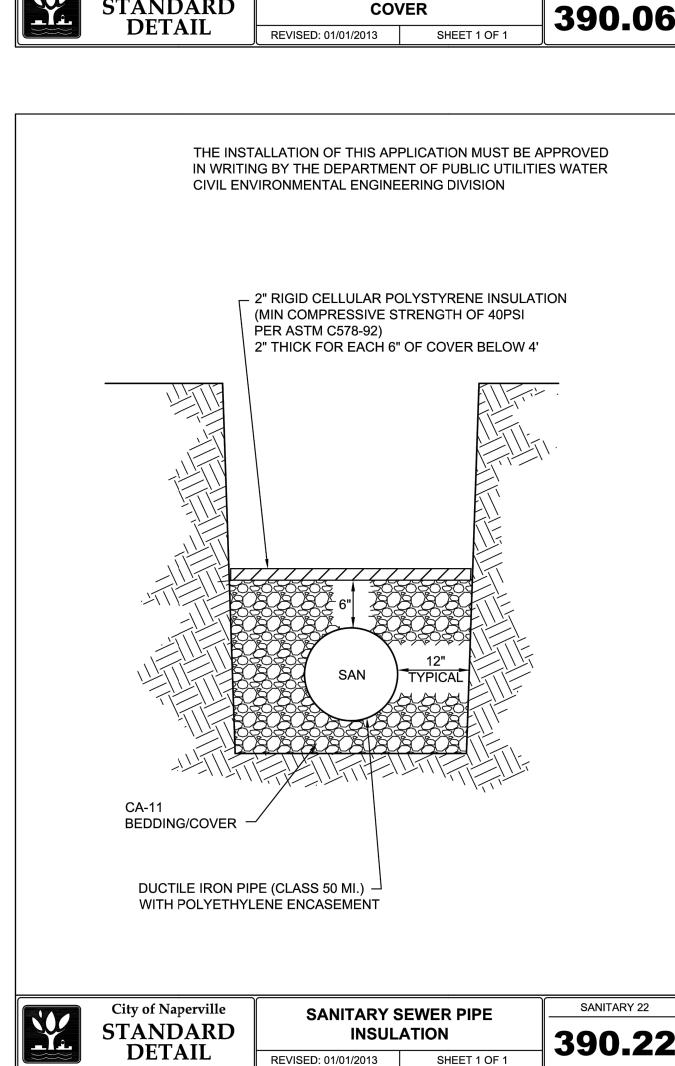
EXISTING CLAY ON PVC

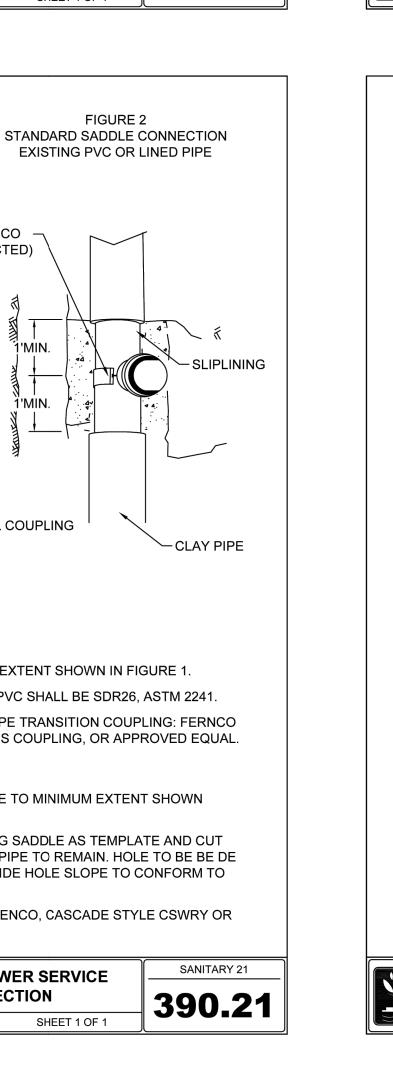


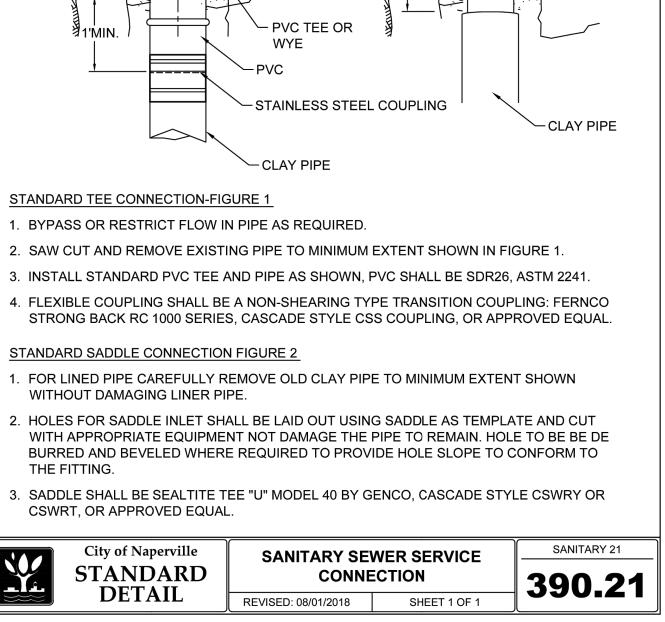






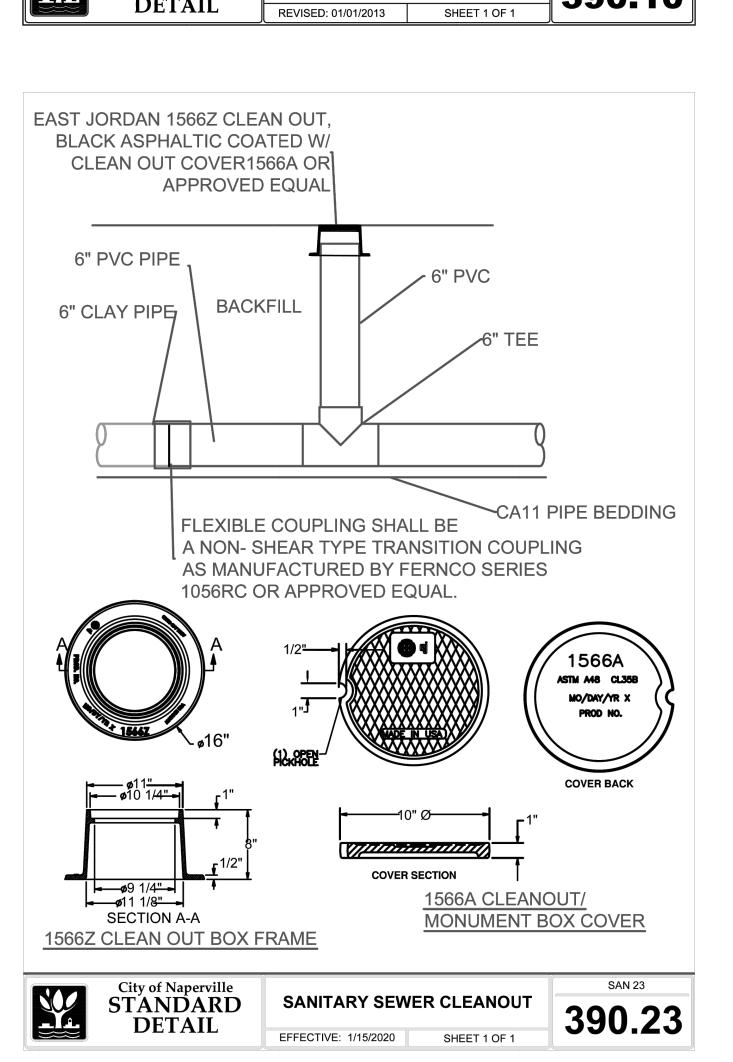


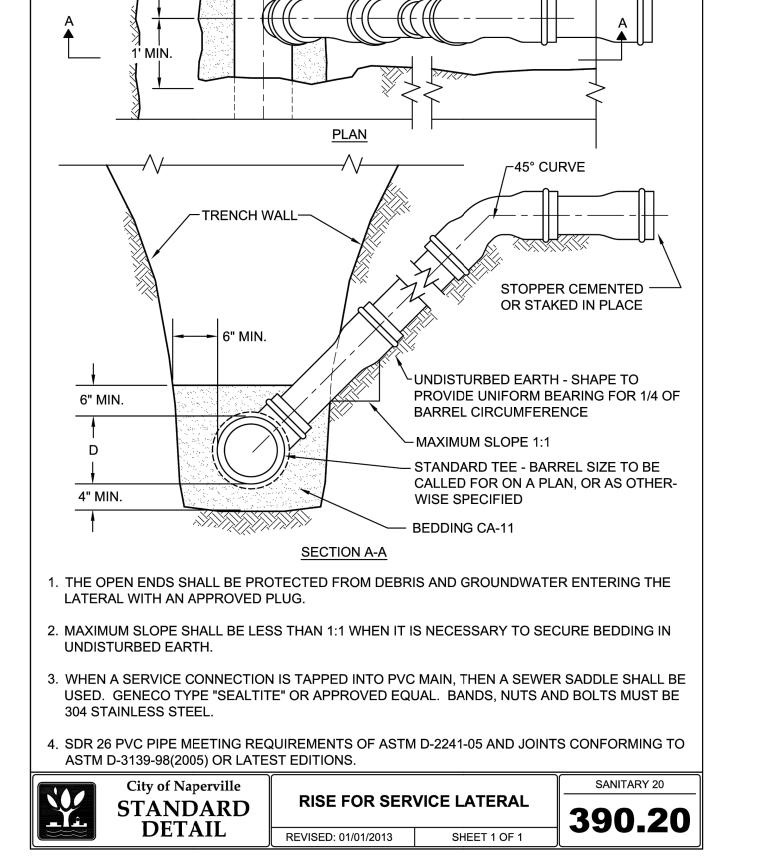


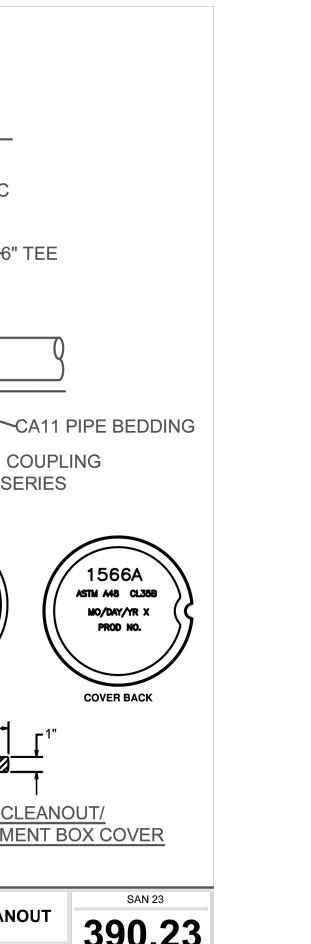


SADDLE (GENCO

MODEL DEPICTED)



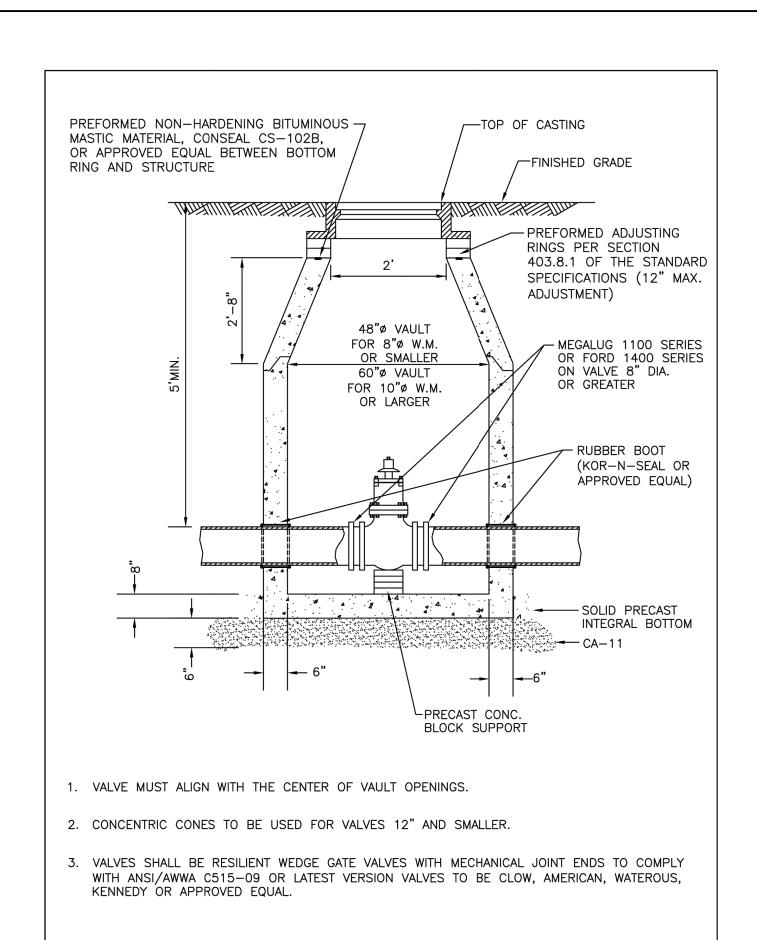






CONSTRUCTION DETAILS

C-9.3



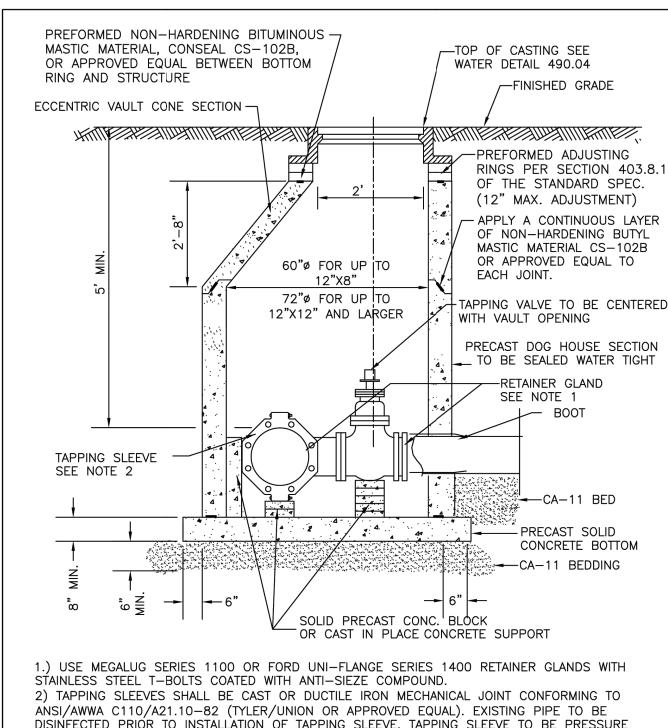
**VALVE VAULT** 

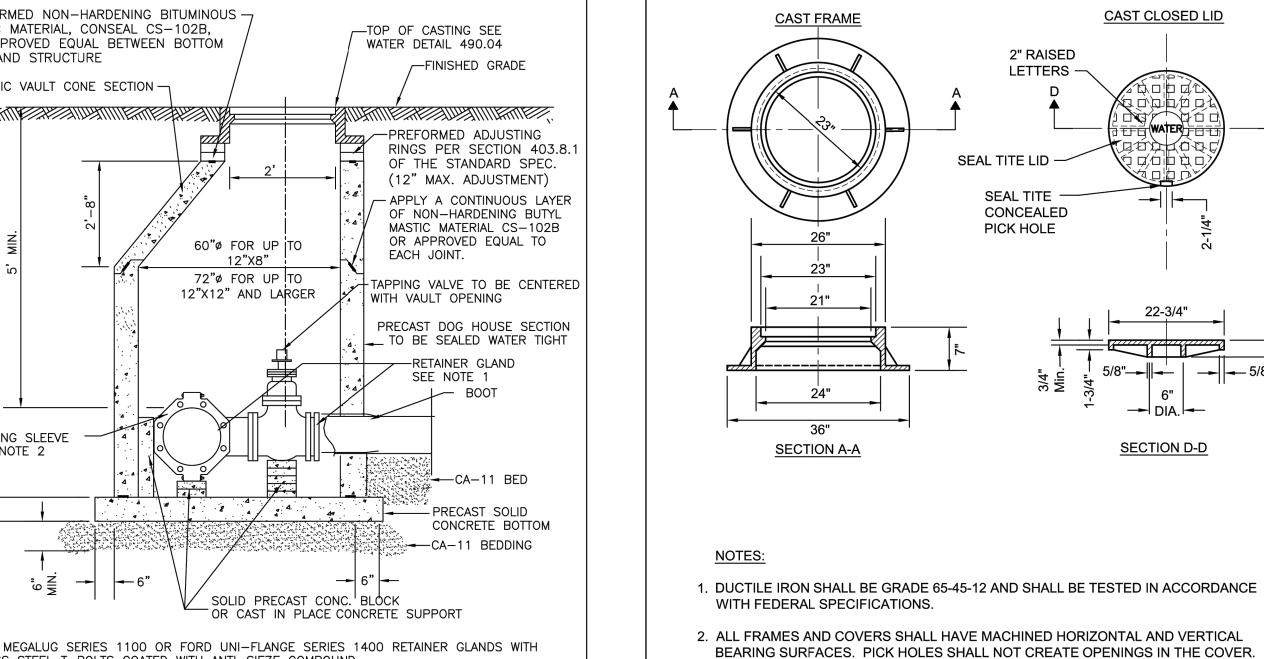
City of Naperville

**STANDARD** 

DETAIL

WATER 1





DISINFECTED PRIÓR TO INSTALLÀTION OF TAPPING SLEEVE. TAPPING SLEEVE TO BE PRESSURE TESTED HYDROSTATICALLY TO OPERATING PRESSURE PLUS 50 PERCENT PRIOR TO MAKING PRESSURE CONNECTION.

3) EXISTING PIPE TO BE DISINFECTED PRIOR TO INSTALLATION OF TAPPING SLEEVE AND TAPPING SLEEVE IS TO BE PRESSURE TESTED TO OPERATING PRESSURE PLUS 50 PERCENT PRIOR TO 4) DO NOT USE STAINLESS STEEL SLEEVE ON SIZE TAPS OR PIPES LARGER THAN 12" DIAMETER 5) IN THE EVENT IT IS NECESSARY TO USE A PRECAST SPLIT BOTTOM FLOOR DUE TO SPACE CONSTRAINTS THE FLOOR MUST BE GROUTED WATER TIGHT.

SHEET 1 OF 1

6) TAPPING VALVES SHALL CONFORM TO C515-09 OR LATEST REVISION: AMERICAN SERIES 2500 RESILIENT WEDGE TAPPING VALVES WITH FLANGED X MECHANICAL JOINT ENDS OR APPROVED EQUAL. City of Naperville VALVE VAULT WITH CAST/DUCTILI

REVISED: 01/01/2013

**STANDARD** 

**DETAIL** 

WATER 2 IRON SLEEVE PRESSURE TAP

VALVE VAULT - FRAME & COVER SHEET 1 OF 1 REVISED: 01/01/2013

3. THE MANHOLE COVERS SHALL HAVE RAISED LETTERS AS SHOWN.

R-1772-C, HEAVY DUTY.

City of Naperville

**STANDARD** 

DETAIL

4. ALTERNATIVE TO DUCTILE IRON LID, GREY IRON CL 35 LID MAY BE USED.

5. DIMENSIONS FOR CASTINGS ARE COMPARABLE TO EAST JORDAN 1022 OR NEENAH

6. LIDS AND FRAMES TO MEET AASHTO M306 PROOF LOADING SPECIFICATIONS.

CAST CLOSED LID

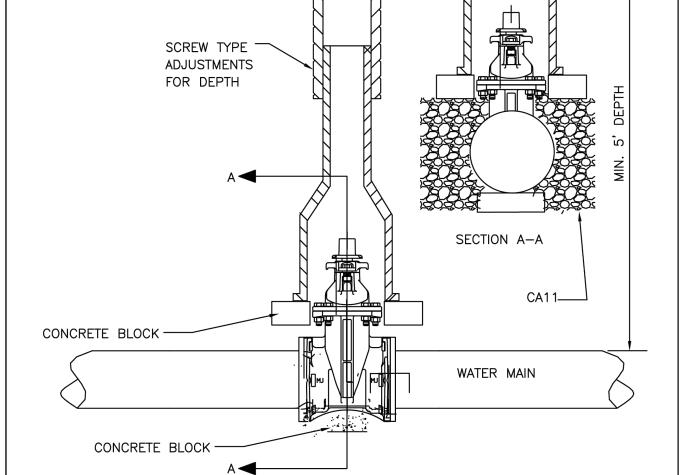
(WATER)

SECTION D-D

WATER 4

2" RAISED

**LETTERS** 



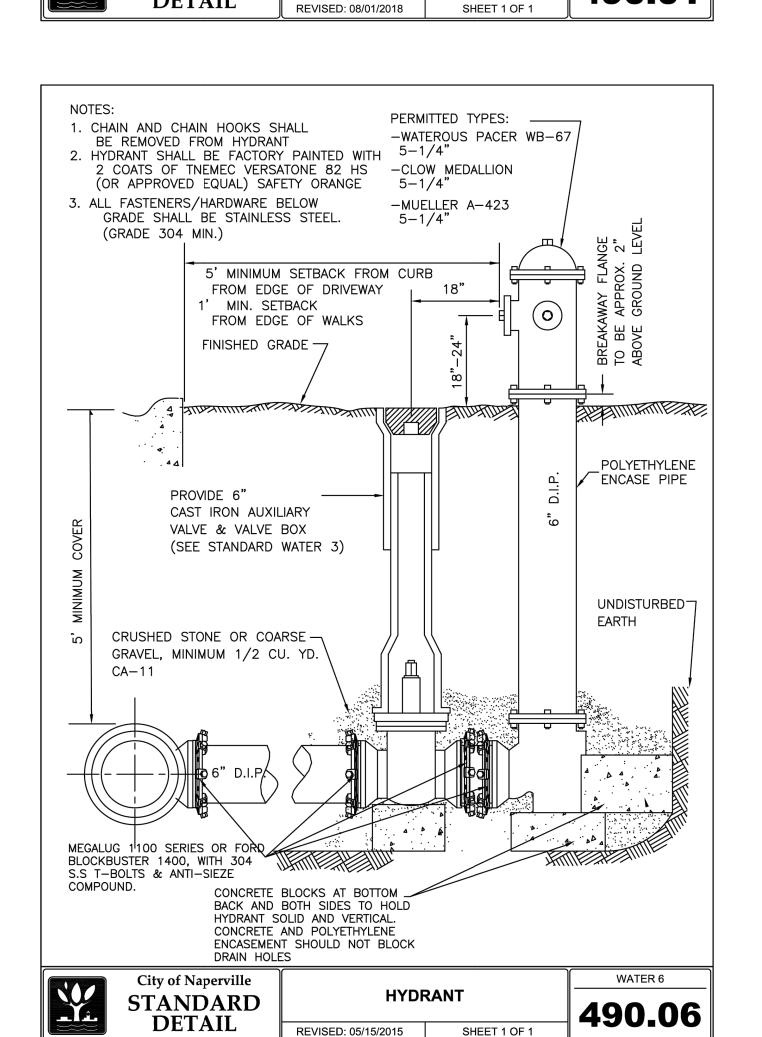
1111112

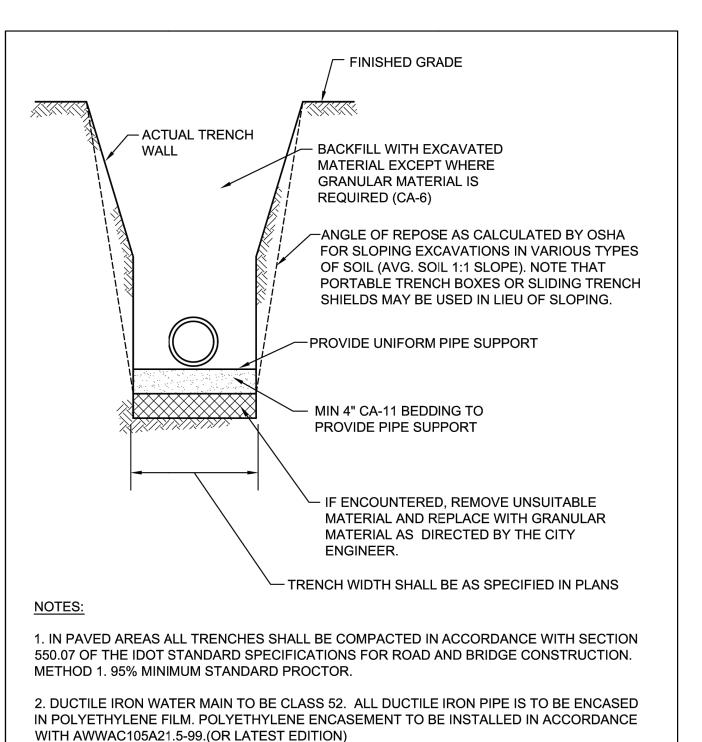
FINISHED GRADE

- 1. TYLER 6850 OR APPROVED EQUAL. FOR LARGER VALVES TYLER 6860 OR APPROVED EQUAL WITH #6 BASE.
- 2. VALVE BOXES ARE NOT ALLOWED IN PAVED AREAS VALVE VAULT SHALL BE PROVIDED. CONTRACTOR SHALL SUBMIT IN WRITING ANY LOCATION WHERE A VAULT IS NOT INTENDED TO BE INSTALLED AND SPECIFIC REASON WHY IT CANNOT BE INSTALLED. THIS MUST BE APPROVED IN WRITING BY DPU-WATER.

3. RESTRAINT GLANDS REQUIRED ON EACH SIDE OF VALVE IF STUBBED FOR FUTURE CONNECTION OR PIPE BEND WITHIN TWO PIPE LENGTHS OF VALVE.

City of Naperville	VALVE BOX		WATER 5
STANDARD DETAIL			490.05
DETAIL	REVISED: 01/01/2013	SHEET 1 OF 1	100100

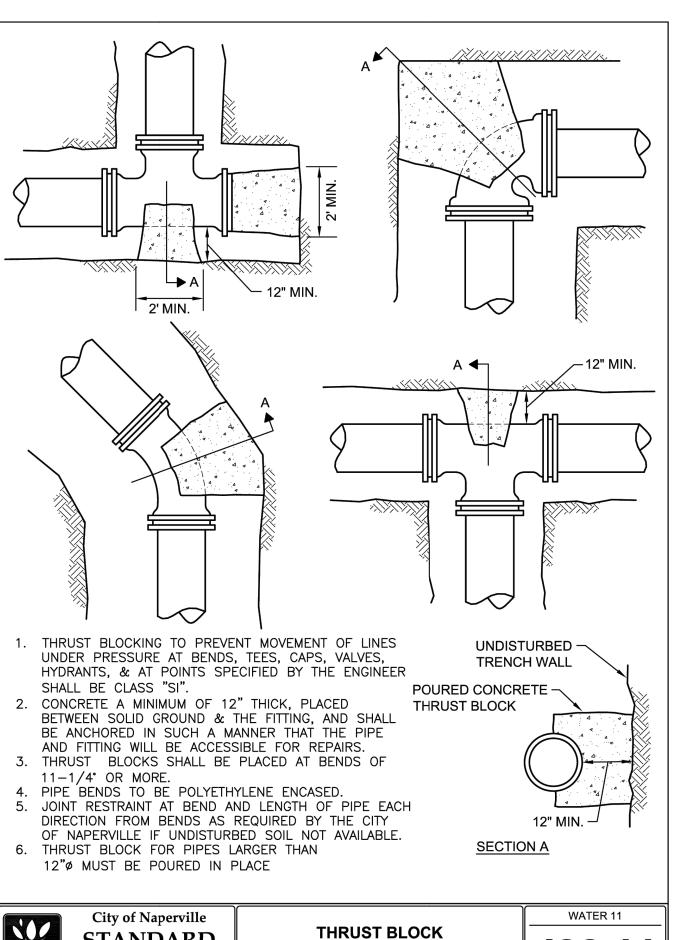


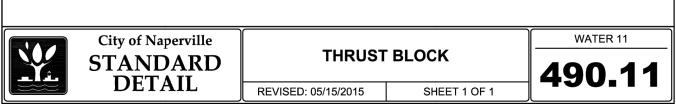


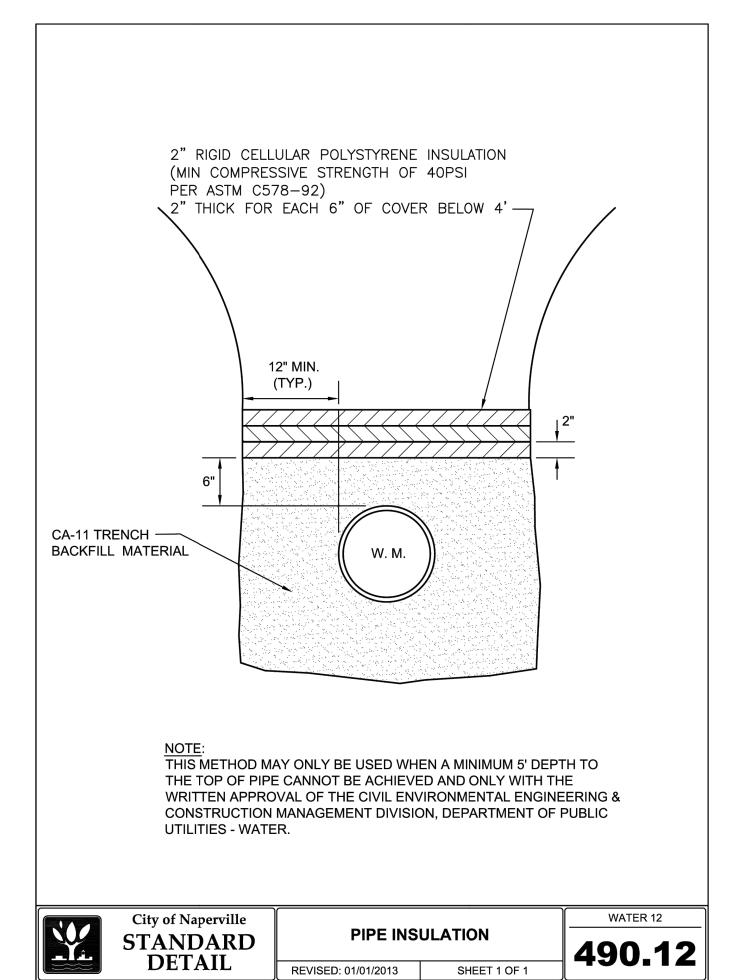
WITH AWWAC105A21.5-99.(OR LATEST EDITION)

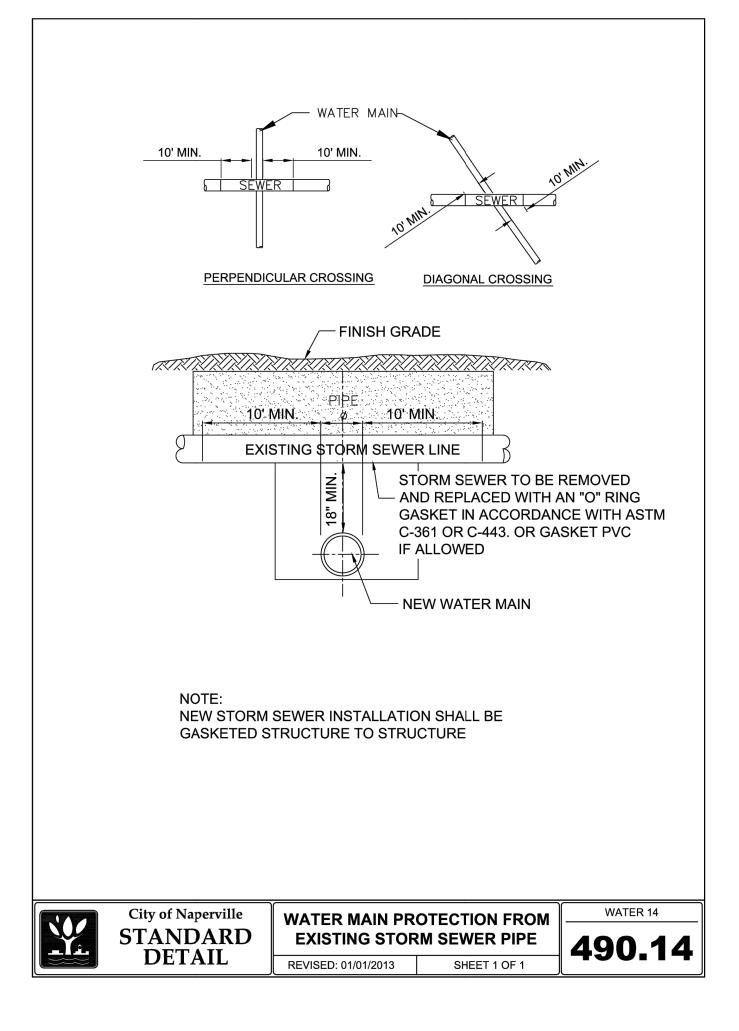
3. STAINLESS STEEL NUTS, BOLTS/T-BOLTS, AND WASHERS, TYPE 304 OR BETTER, WILL BE REQUIRED ON ALL WATER MAIN INSTALLATIONS. THIS WOULD APPLY TO HYDRANTS, TAPPING SLEEVES, VALVES, FITTINGS, RESTRAINT, AND OTHER APPURTENANCES BURIED OR IN VALVE VAULTS. MECHANICAL JOINTS AND RESTRAINT GLANDS REQUIRE 304 STAINLESS STEEL T-BOLTS. AN ANTI-SEIZE COMPOUND SHALL BE FACTORY APPLIED TO NUTS OR BOLTS - ANY DAMAGE TO THIS COATING SHALL BE REPAIRED WITH FIELD-APPLIED, APPROVED ANTI-SEIZE COMPOUND THAT IS A MOLYBDENUM-BASE LUBRICANT, BOSTIK NEVER-SEEZ OR APPROVED EQUAL.

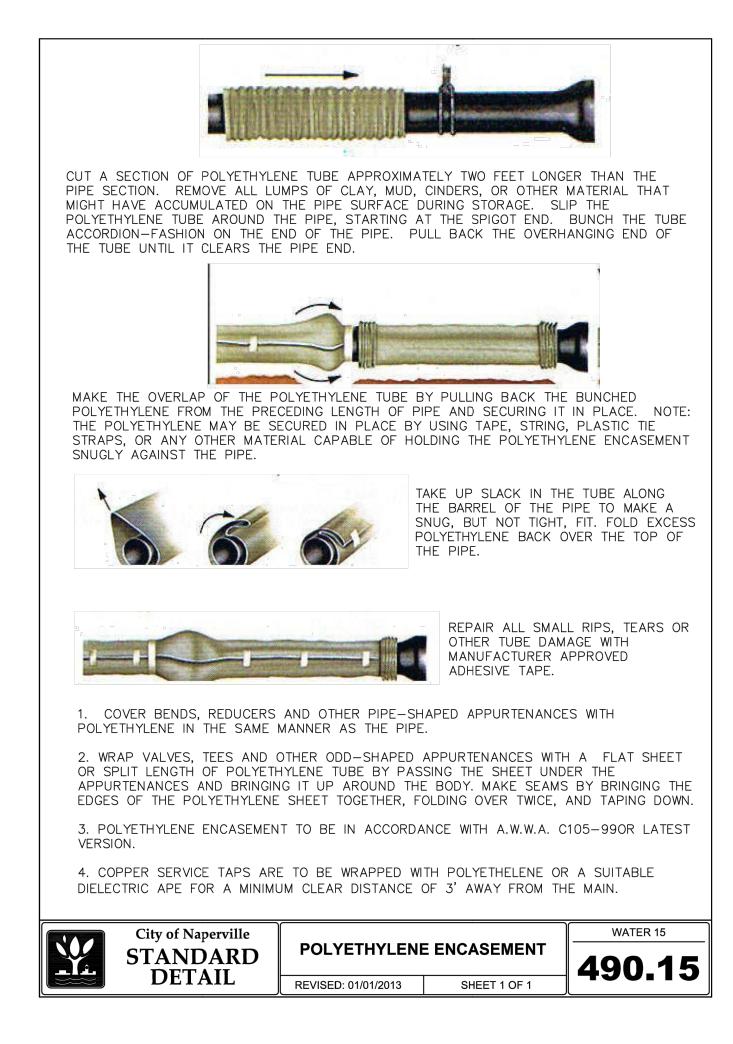
WATER 10 City of Naperville WATER MAIN TRENCH SECTION **STANDARD** DETAIL REVISED: 01/01/2013 SHEET 1 OF 1

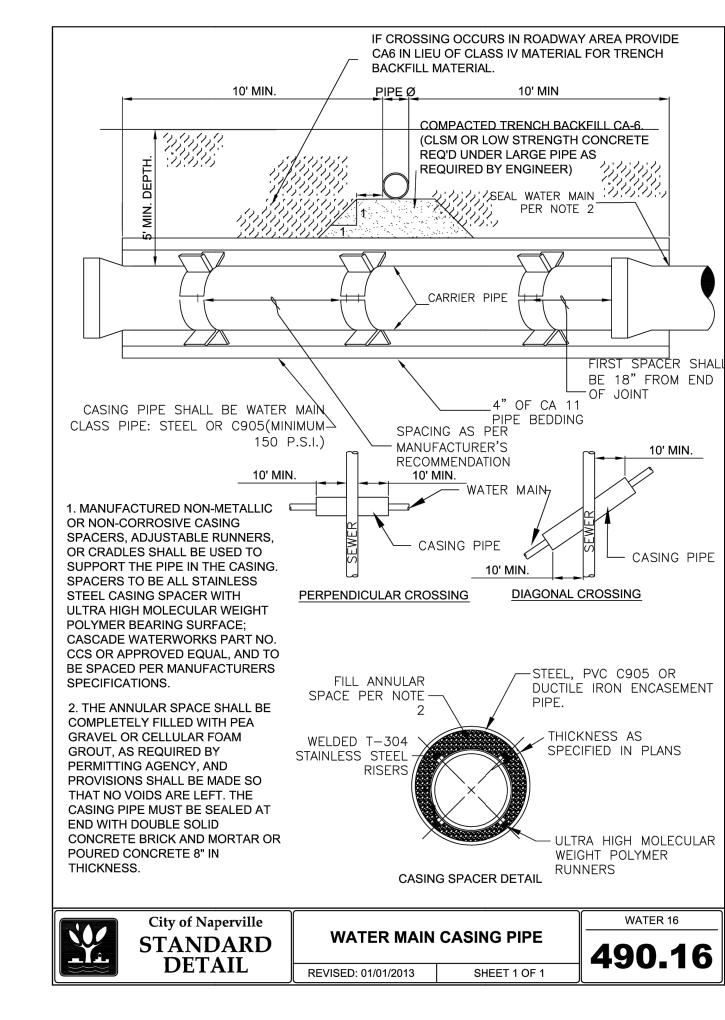


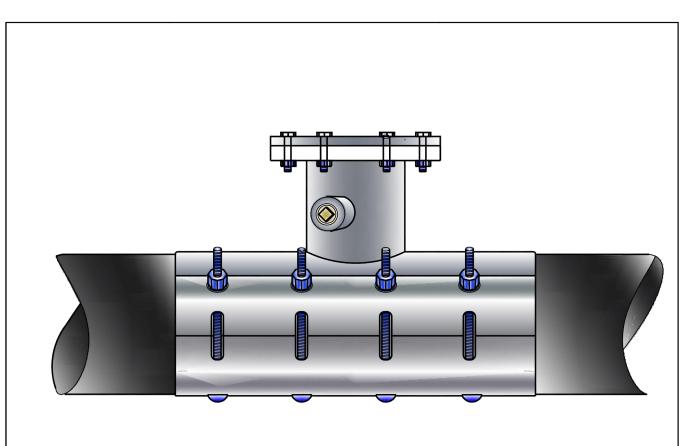










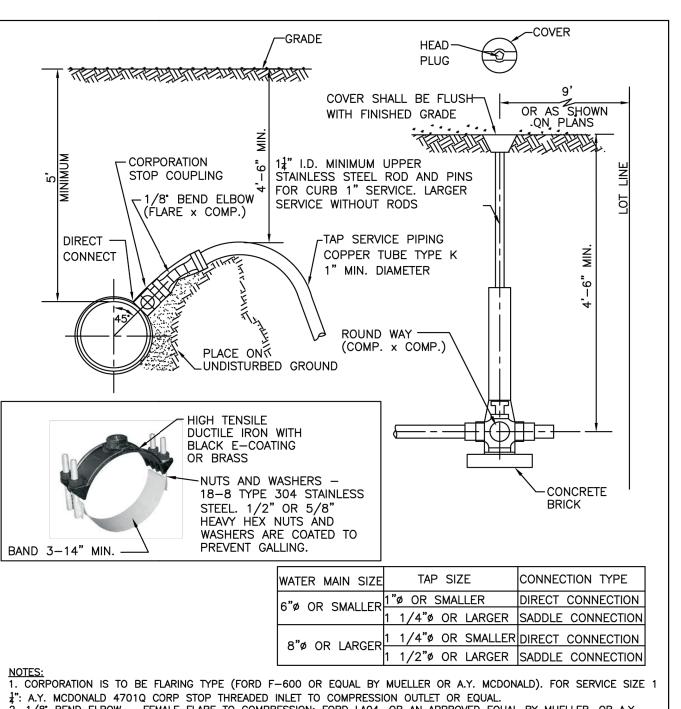


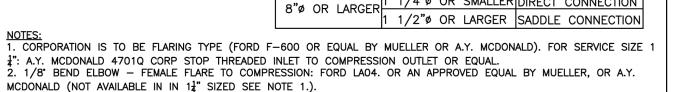
REVISED: 05/15/2015 SHEET 1 OF 1

SLEEVE TO BE PRESSURE RATED AT 150 PSI WORKING PRESSURE AND 225 PSI TEST PRESSURE.

- 1. CONSTRUCTION TO BE ALL STAINLESS T-304, 18-8 STAINLESS STEEL , 14 GAUGE (MINIMUM).
- 2. GASKETS TO PROVIDE 360 DEGREE PIPE COVERAGE IN ADDITION TO A FULL CIRCUMFERENCE BRANCH SEAL GASKET.
- 3. EXISTING PIPE TO BE DISINFECTED PRIOR TO INSTALLATION OF LINE STOP
- 4. STAINLESS STEEL TEST PORT AND PLUG SHALL BE PROVIDED AND THE LINE STOP SLEEVE IS TO BE PRESSURE TESTED PRIOR TO CUTTING THE EXISTING
- 5. V-LUGS SHALL BE FABRICATED TO THE SLEEVE AND DROP-IN STAINLESS STEEL BOLTS, NUTS AND WASHERS (18-8 MINIMUM GRADE) PROVIDED. NUTS SHALL BE COATED WITH ANTI-SIEZE COMPOUND TO PREVENT GALLING.
- 6. PROVIDE AS-BUILT FOR LOCATION AND ELEVATION OF TOP OF FLANGE ON RECORD DRAWINGS.
- 7. ACCEPTABLE LINE STOP SLEEVES ARE HYDRA STOP PREMIER LINE STOP FITTING OF ALL STAINLESS STEEL CONSTRUCTION WITH DROP-IN BOLT OPTION AND SMITH BLAIR MODEL 685 ALL STAINLESS STEEL LINE STOP TAPPING SLEEVE WITH. ALL BOLTS, NUTS, AND WASHERS AND BLIND FLANGES TO BE 18-8 TYPE 304 STAINLESS. STOPPLE (COMPLETION) PLUG TO BE DUCTILE IRON OR STAINLESS

City of Naperville			WATER 17
STANDARD	LINE STOP TAPPING SLEEVE		490.17
DETAIL	REVISED: 01/01/2013	SHEET 1 OF 1	<b>40011</b>





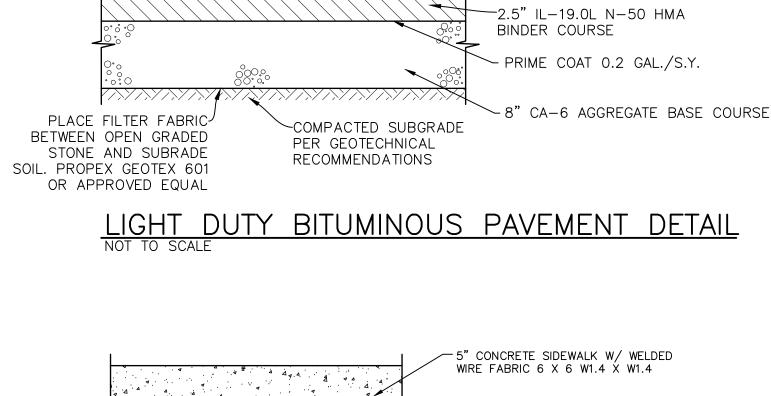
SHEET 1 OF 1

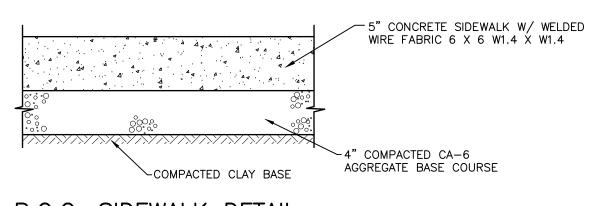
4. CURB STOP IS WITH COMPRESSION COUPLING - FORD B44 CURB STOP, OR EQUAL BY MUELLER, OR A.Y. MCDONALD. 5. B-BOX HAS 11 THREADED BRASS PENTAGON PLUG WITH THE WORD "WATER" IN RAISED LETTERS ON CAP. (1-1/4" PENT. PLUG FOR 1-1/4" ID. B-BOXES). 6. CORPORATION STOPS SHALL BE INSTALLED A MINIMUM OF 18" FROM PIPE JOINTS AND ENDS. MULTIPLE INSTALLATIONS SHOULD BE STAGGERED AROUND THE MAIN BY 22-1/2 AND SEPARATED FROM EACH OTHER BY 18". 7. WATER SERVICE LINE SMALLER THAN 3" SHALL BE TYPE K COPPER. IF JOINTS ARE REQUIRED DUE TO LENGTH OF SERVICE, THEN ONLY COMPRESSION TYPE COUPLING SHALL BE PERMITTED. NO SOLDERED OR FLARED TYPE JOINTS ARE

REVISED: 05/15/2015

3. CURB BOX IS ARCH PATTERN WITH 1-1/4" UPPER SECTION, WITH 1-1/4" BRASS PENTAGON PLUG.

**STANDARD** 



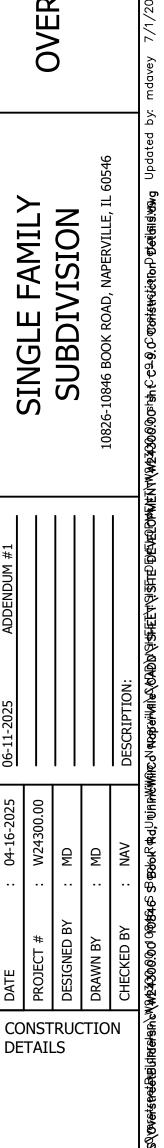


1.5" IL-9.5L N-50 HMA

-TACK COAT 0.1 GAL./S.Y.

SURFACE COURSE

P.C.C. SIDEWALK DETAIL



C-9.4

SHEET

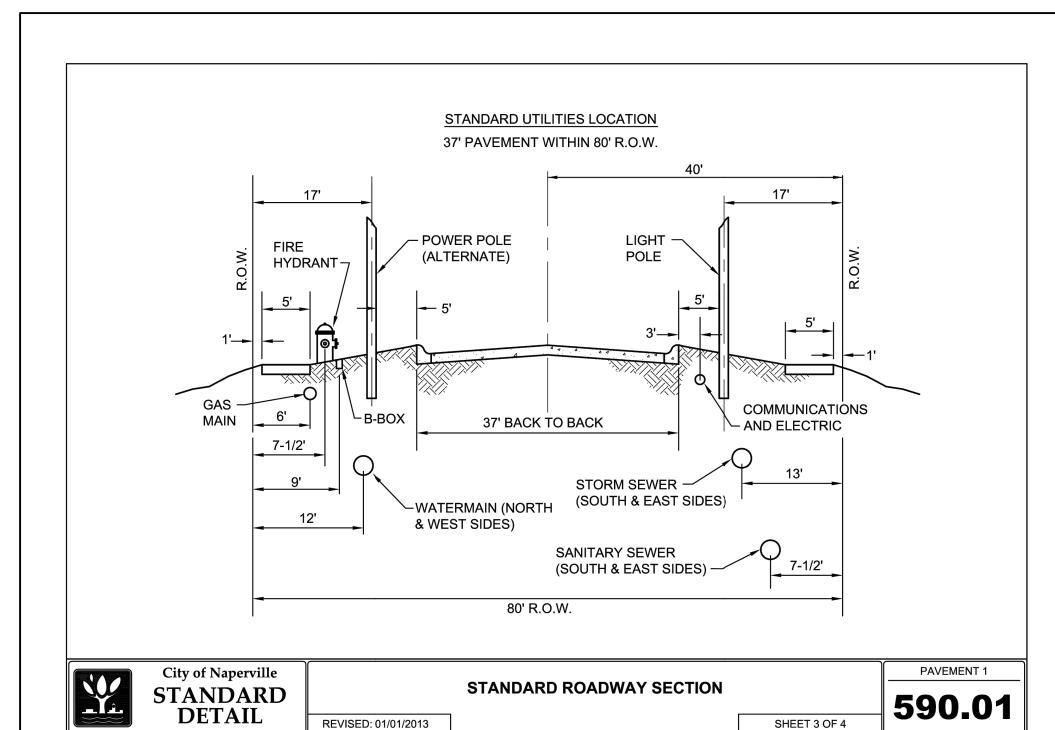
RING

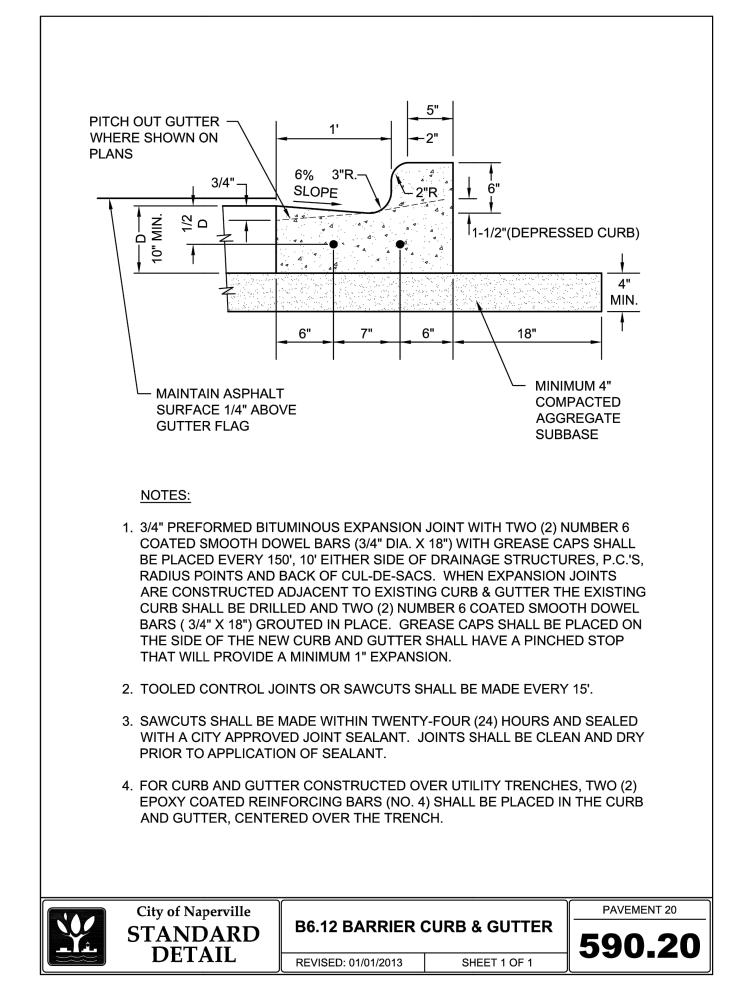
A A A Solis Solis

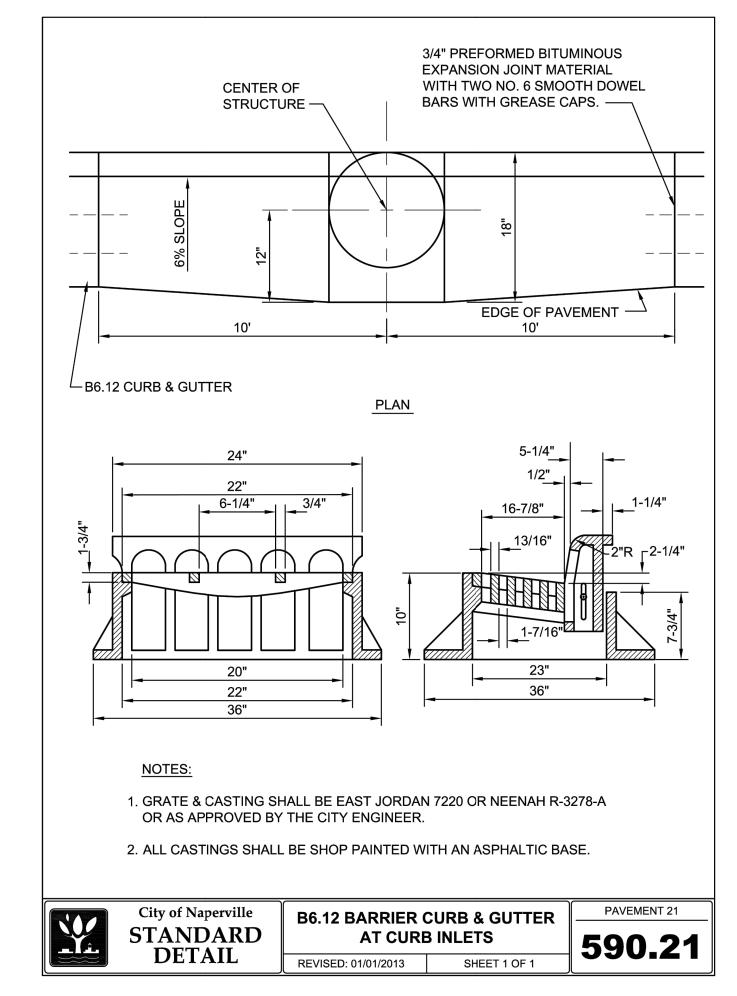
ESOURCE AND WEST AVENUE REPONDE, 11LIN CONE (630) 393-306 (630) 393-2152

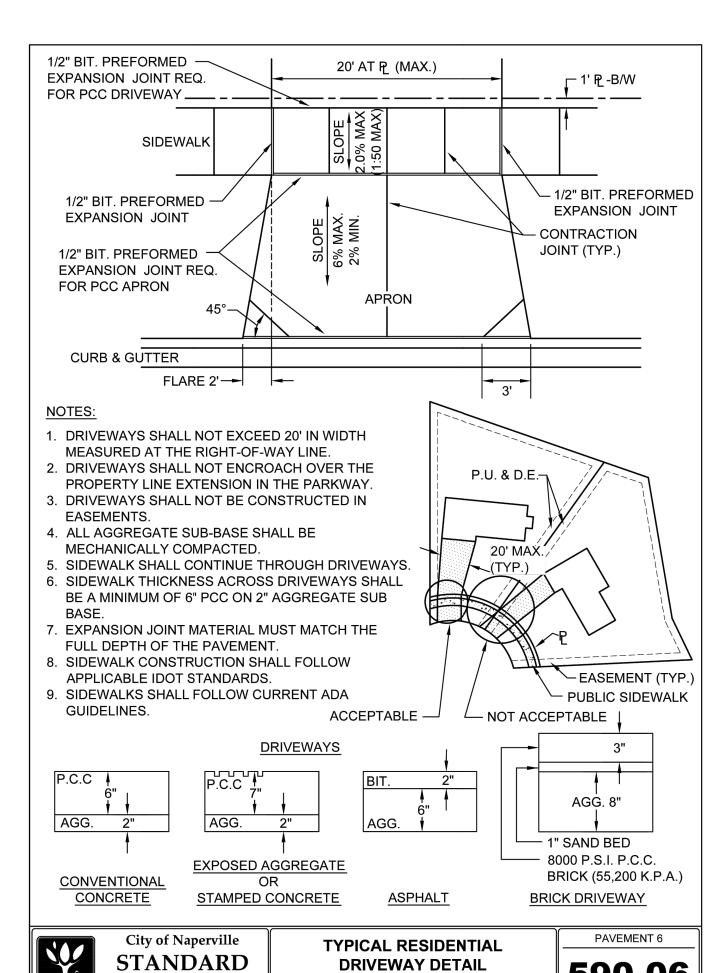
BUILD

S





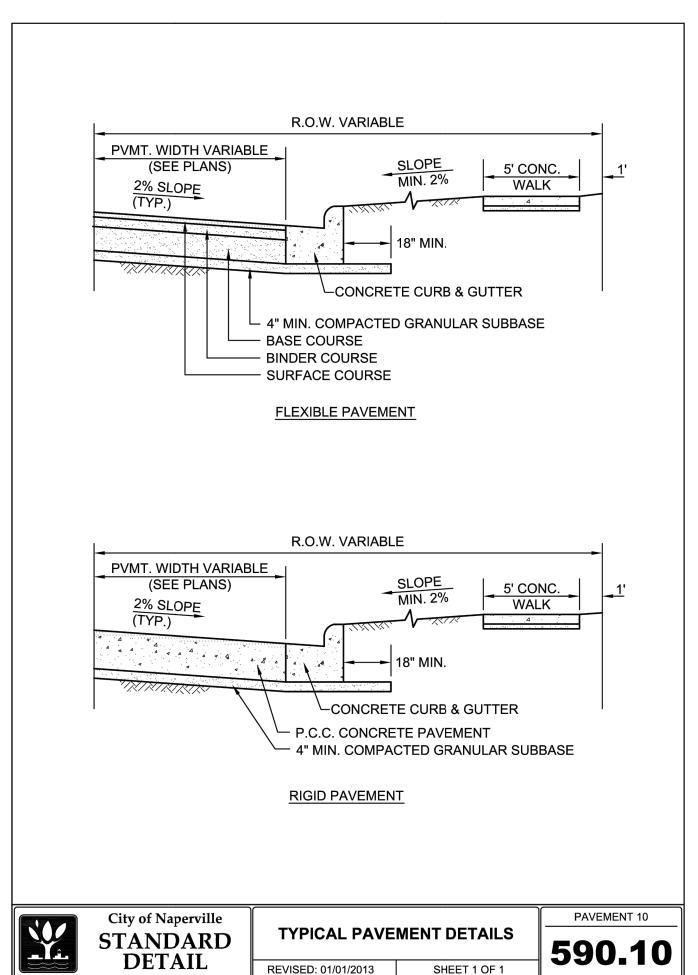


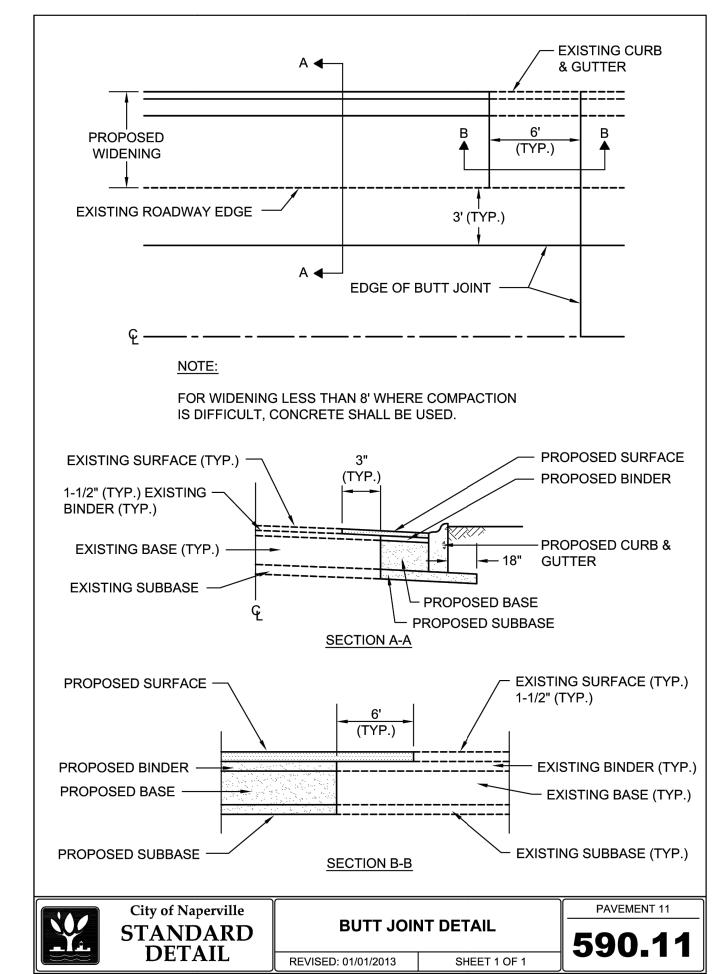


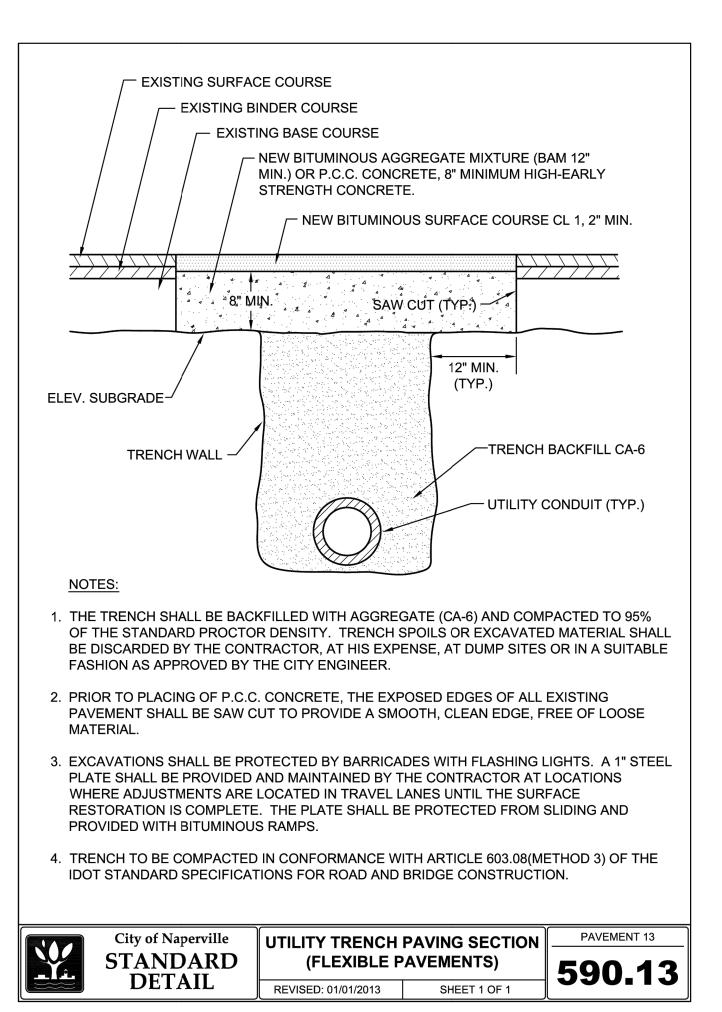
REVISED: 08/01/2018

SHEET 1 OF 2

DETAIL







PROFESSIONAL DESIGN FIRM NUMBER: 184.001186

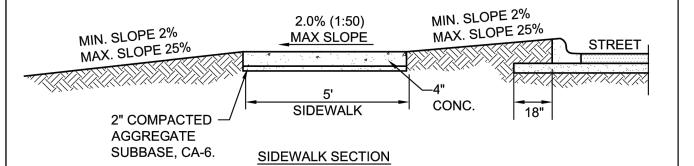


**ERS** BUILDE

FAMILY VISION SINGLE SUBDIA

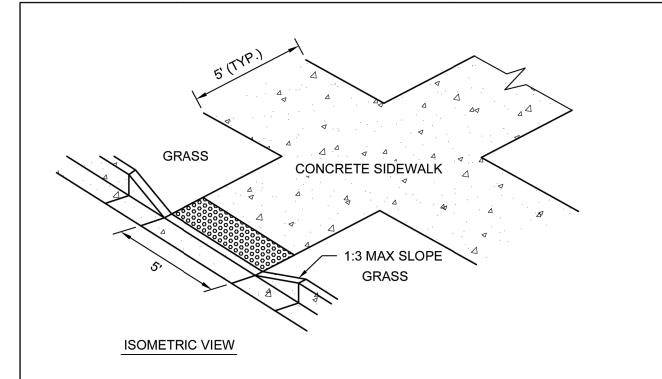
CONSTRUCTION **DETAILS** 

C-9.5 SHEET



- 1. CONCRETE SHALL BE IDOT CLASS SI.
- 2. MINIMUM SIDEWALK THICKNESS SHALL BE 4".
- 3. SIDEWALK THICKNESS ACROSS DRIVEWAYS SHALL BE AT A MINIMUM 6" FOR RESIDENTIAL DRIVEWAYS AND 8" FOR COMMERCIAL DRIVEWAYS.
- 4. MAXIMUM LONGITUDINAL SLOPE SHALL NOT EXCEED 5% (20:1). FOR ANY SLOPE IN EXCESS OF 5%, ALL REQUIREMENTS OF THE ILLINOIS ACCESSIBILITY CODE (LATEST EDITION) SHALL BE MET.
- 5. MINIMUM TRANSVERSE SLOPE SHALL BE 1.0% (1:100). MAXIMUM TRANSVERSE SLOPE SHALL BE 2.0% (1:50).
- 6. A MINIMUM 2" AGGREGATE SUBBASE (CA-6) SHALL BE PROVIDED. (4" THROUGH COMMERCIAL DRIVEWAYS).
- AGGREGATE SUBBASE SHALL BE MECHANICALLY COMPACTED.
- 8. ALL SIDEWALKS SHALL BE PROMPTLY BACKFILLED AND PROTECTED FROM DAMAGE.
- 9. SIDEWALK CONSTRUCTION SHALL FOLLOW APPLICABLE IDOT STANDARDS.
- 10. SIDEWALKS SHALL FOLLOW CURRENT ADA GUIDELINES.

	City of Naperville STANDARD DETAIL	SIDEWALK		590.30
		REVISED: 01/01/2013	SHEET 1 OF 1	



- . ALL AGGREGATE SUB-BASE SHALL BE MECHANICALLY COMPACTED.
- 2. SIDEWALK THICKNESS AT CURB RAMPS SHALL BE A MINIMUM OF 6" PCC ON 2" AGGREGATE SUB BASE.
- 3. SIDEWALK CONSTRUCTION SHALL FOLLOW APPLICABLE IDOT STANDARDS.
- 4. SIDEWALKS SHALL FOLLOW CURRENT ADA GUIDELINES.

APPLICABLE IDOT STANDARD DETAILS (USE LATEST REVISION: PERPENDICULAR CURB RAMPS FOR SIDEWALKS

424006-XX DIAGONAL CURB RAMPS FOR SIDEWALKS CORNER PARALLEL CURB RAMPS FOR SIDEWALKS 424011-XX 424016-XX MID-BLOCK CURB RAMPS FOR SIDEWALKS

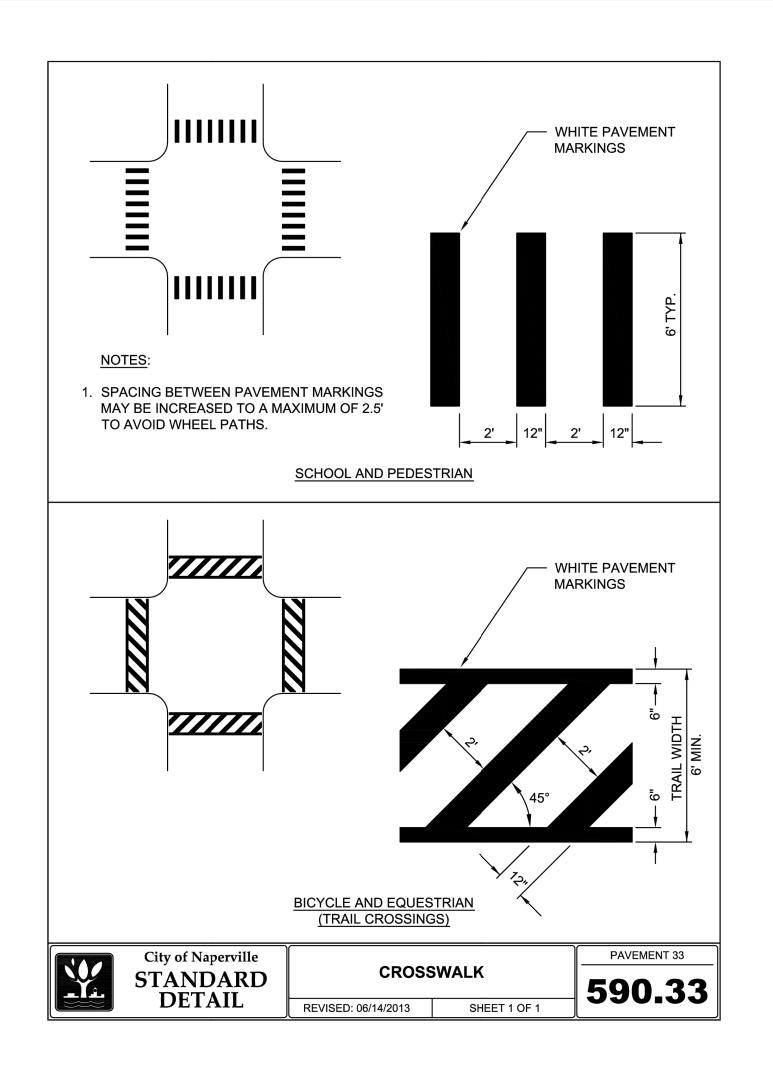
424021-XX DEPRESSED CORNER FOR SIDEWALKS 424026-XX ENTRANCE/ALLEY PEDESTRIAN CROSSINGS 424031-XX MEDIAN PEDESTRIAN CROSSINGS

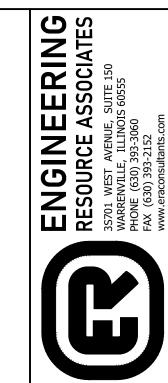
606001-XX CONCRETE CURB TYPE B AND COMB CONCRETE CURB AND GUTTER

### APPROVED ADA DETECTABLE WARNING TILES:

- ADA SOLUTIONS CAST IN PLACE REPLACEABLE
- ARMOR TILE CAST IN PLACE DETECTILE - SLIMTEK II
- 4. TUFTILE POLYMER WET-SET

City of Naperville		PAVEMENT 32	
STANDARD DETAIL	CURB RAMPS		590.32
	REVISED: 08/01/2018	SHEET 1 OF 1	







BUILDERS, NAPERVILLE, IL 60564

CONSTRUCTION DETAILS

C-9.6