PROPOSED SITE IMPROVEMENTS FOR

GREIF, INC.

4300 WEST 130TH STREET ALSIP, IL 60803

- FOR PERMIT -

TOTAL SITE AREA = 5.18 ACRES TOTAL DISTURBED AREA = 4.41 ACRES

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BENCHMARK

BENCHMARK 1

FOUND ½ IRON ROD AT THE NORTHWEST CORNER OF PARCEL A, 135' SOUTHWEST OF THE SOUTHWEST CORNER OF AN INDUSTRIAL BUILDING AND 77 NORTHWEST OF NORTH SANITARY MANHOLE.

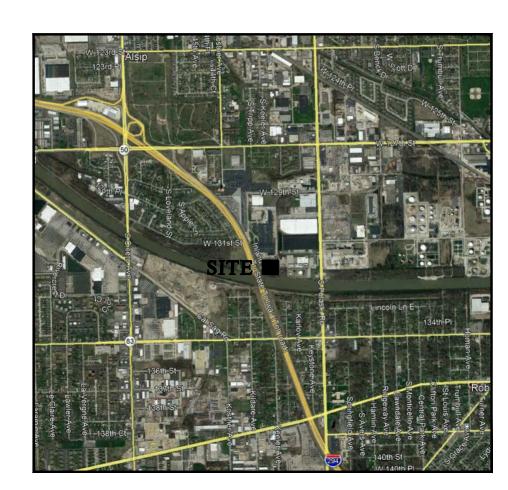
ELEVATION = 596.67 (NAVD88)

BENCHMARK 2

FOUND MAGNETIC NAIL AT THE NORTHEAST CORNER OF PARCEL B, 45° SOUTHWEST OF THE SOUTHEAST CORNER OF AN INDUSTRIAL BUILDING AND 16 NORTHWEST OF CATCH BASIN.

ELEVATION = 595.76 (NAVD88)

2018



SITE LOCATION

PLANS PREPARED FOR:



MR. JOHN JACOBS **PLANT MANAGER** 4300 W. 130TH St **ALSIP, IL 60803** 708-371-4777 john.jacobs@greif.com

PLANS PREPARED BY:



Consulting Civil Engineering Land Planning & Surveying 1050 State Route 126 Plainfield, Illinois 60544 voice 815-254-0505



🖈 ILLINOIS 🏒

LEGEND

PROPOSED INLET **EXISTING INLET** PROPOSED FIRE HYDRANT **EXISTING FIRE HYDRANT** PROPOSED VALVE AND VAULT **EXISTING VALVE AND VAULT** PROPOSED CATCH BASIN **EXISTING CATCH BASIN** PROPOSED SANITARY MANHOLE **EXISTING SANITARY MANHOLE** PROPOSED VALVE BOX EXISTING VALVE BOX PROPOSED WATERMAIN **EXISTING WATERMAIN** PROPOSED SANITARY SEWER **EXISTING SANITARY SEWER** PROPOSED STORM SEWER **EXISTING STORM SEWER** HIGH WATER LEVEL —— HWL ——— NORMAL WATER LEVEL **EXISTING CONTOUR** ____ 632 ____ PROPOSED CONTOUR PROPOSED SILT FENCE _._._. STRAW BALES **EMERGENCY FLOOD ROUTE**

AUGUST 20, 2018 CURRENT REVISION DATE:

I, CHRISTOPHER M. LAVOIE, A REGISTERED PROFESSIONAL ENGINEER OF ILLINOIS, HEREBY CERTIFY THAT THESE PLANS HAVE BEEN PREPARED BY C.M. LAVOIE AND ASSOCIATES, INC. UNDER MY PERSONAL DIRECTION.

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ILLINOIS PROFESSIONAL ENGINEER NO. 0062-049582 CML PROJECT NUMBER: 17-161

GENERAL NOTES

- 1. PRIOR TO COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, AND CONDITIONS AFFECTING THEIR WORK WITH THE ACTUAL CONDITIONS AT THE JOB SITE. IN ADDITION, THE CONTRACTOR MUST VERIFY THE LINE AND GRADES. IF THERE ARE ANY DISCREPANCIES FROM WHAT IS SHOWN ON THE CONSTRUCTION PLANS, STANDARD SPECIFICATIONS AND/OR SPECIAL DETAILS, THE CONTRACTOR SHALL SECURE WRITTEN INSTRUCTION FROM THE ENGINEER PRIOR TO PROCEEDING WITH ANY PART OF THE WORK AFFECTED BY OMISSION OR DISCREPANCIES. FAILING TO SECURE SUCH INSTRUCTION, THE CONTRACTOR WILL BE CONSIDERED TO HAVE PROCEEDED AT HIS OWN RISK AND EXPENSE. IN THE EVENT OF ANY DOUBT OR QUESTION ARISING WITH RESPECT TO THE TRUE MEANING OF THE CONSTRUCTION PLANS OR SPECIFICATIONS, THE DECISION OF THE ENGINEER SHALL BE FINAL AND CONCLUSIVE.
- 2. THE VILLAGE OF ALSIP AND MWRD "STANDARD SPECIFICATIONS FOR THE DESIGN AND CONSTRUCTION OF PUBLIC IMPROVEMENTS AND PRIVATE SITE DEVELOPMENT" LATEST EDITION SHALL APPLY TO TO ALL CONSTRUCTION WORK.
- 3. THE STANDARD SPECIFICATIONS, CONSTRUCTION PLANS, AND SUBSEQUENT DETAILS ARE ALL TO BE CONSIDERED AS PART OF THE CONTRACT. INCIDENTAL ITEMS OR ACCESSORIES NECESSARY TO COMPLETE THIS WORK MAY NOT BE SPECIFICALLY NOTED BUT ARE TO BE CONSIDERED PART OF THE CONTRACT
- 4. THE CONTRACTORS FOR ALL CONTRACTS SHALL NOTIFY J.U.L.I.E., THE SANITARY DISTRICT, AND ANY APPLICABLE ENGINEERING OR BUILDING DEPARTMENTS TWO (2) WORKING DAYS MINIMUM PRIOR TO START OF WORK. AS REQUIRED, THE UTILITY COMPANIES WILL ESTABLISH ON THE GROUND THE LOCATION OF UNDERGROUND PIPES, CONDUITS OR CABLES ADJOINING OR CROSSING PROPOSED CONSTRUCTION.
- 5. IT IS THE CONTRACTOR'S RESPONSIBILITY THAT UNDERGROUND CONSTRUCTION SHALL COMPLY WITH "THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS", ADOPTED JULY 2009 OR LATEST REVISION.
- 6. ALL EXCAVATION WORK SHALL COMPLY WITH THE ILLINOIS DEPARTMENT OF TRANSPORTATION "SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.", ADOPTED JANUARY 1, 2007 OR LATEST
- 7. THE CONTRACTOR SHALL INDEMNIFY THE OWNER, THE ENGINEER, THE VILLAGE, THE MWRDGC, AND THEIR AGENTS FROM ALL LIABILITY INVOLVED IN THE CONSTRUCTION, INSTALLATION AND TESTING OF THE WORK ON THIS PROJECT.
- 8. WHEN A CONFLICT BETWEEN PLANS AND SPECIFICATIONS OR NOTES OCCURS, THE ENGINEER SHALL DECIDE WHICH GOVERNS. GENERALLY, THE MORE RESTRICTIVE, MORE SPECIFIC OR STRICTER PROVISION SHALL GOVERN.
- 9. THE CONTRACTOR IS RESPONSIBLE FOR RETURNING ALL AREAS AFFECTED BY EQUIPMENT OR LABORERS TO EXISTING CONDITIONS. CONTRACTOR IS ALSO RESPONSIBLE FOR PROTECTING ALL NEW
- LABORERS TO EXISTING CONDITIONS. CONTRACTOR IS ALSO RESPONSIBLE FOR PROTECTING ALL NEW WORK UNTIL COMPLETION OR THIS CONTRACT.

 10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CLEANING ANY ROAD OR MATERIAL THAT IS
- FROM THE PROJECT. THE CONTRACTOR SHALL CLEAN THE STREETS ON A DAILY BASIS. THIS WILL BE DONE AT THE CLOSE OF EACH DAY OF WORK OR MORE FREQUENTLY AS MAY BE REQUIRED DUE TO FIELD CONDITIONS.
- 11. THE CONTRACTOR IS TO VERIFY ALL ELEVATIONS PRIOR TO THE START OF WORK AND, IF THERE ARE ANY DISCREPANCIES, IS TO NOTIFY THE DESIGN ENGINEER AT ONCE. NO WORK SHALL BE DONE UNTIL THE DISCREPANCIES ARE RESOLVED.
- 12. THE CONTRACTOR IS RESPONSIBLE FOR THE TRAFFIC CONTROL AND PROTECTION OF ALL WORK CONDUCTED WITHIN PUBLIC RIGHT-OF-WAYS, SHALL BE IN ACCORDANCE WITH THE APPLICABLE ARTICLES OF SECTION 100 AND 700 OF THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" ADOPTED JANUARY 1, 2007, AND THE LATEST EDITION OF THE "ILLINOIS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS".
- 13. WHENEVER DURING CONSTRUCTION OPERATIONS, ANY LOOSE MATERIAL IS DEPOSITED IN THE FLOW LINE OF GUTTERS, DRAINAGE STRUCTURES, DITCHES, ETC. SUCH THAT THE NATURAL FLOW LINE OF WATER IS OBSTRUCTED, THE LOOSE MATERIAL WILL BE REMOVED AT THE CLOSE OF EACH WORKING DAY. AT THE CONCLUSION OF CONSTRUCTION OPERATIONS, ALL DRAINAGE STRUCTURES AND FLOW LINES SHALL BE FREE FROM DIRT AND DEBRIS. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT
- 14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ADEQUATE SIGNS, TRAFFIC CONTROL DEVICES, AND WARNING DEVICES TO INFORM AND PROTECT THE PUBLIC DURING ALL PHASES OF CONSTRUCTION. ALL SAFETY REQUIREMENTS PROVIDED BY THE VILLAGE/CITY AND/OR OSHA SHALL BE ADHERED TO BY THE CONTRACTOR DURING CONSTRUCTION OPERATIONS.
- 15. DURING CONSTRUCTION OPERATIONS THE CONTRACTOR SHALL INSURE POSITIVE SITE DRAINAGE AT THE CONCLUSION OF EACH DAY. SITE DRAINAGE MAY BE ACHIEVED BY DITCHING, PUMPING, OR ANY OTHER METHOD ACCEPTABLE TO THE ENGINEER. THE CONTRACTOR'S FAILURE TO PROVIDE THE ABOVE WILL PRECLUDE ANY POSSIBLE ADDED COMPENSATION REQUESTED DUE TO DELAYS OR UNSUITABLE MATERIALS CREATED AS A RESULT THEREOF.
- 16. ALL CONSTRUCTION WILL BE INSPECTED BY THE VILLAGE ENGINEER OR HIS REPRESENTATIVE. SPECIFICALLY ALL TRENCHES AND SEWERS SHALL BE LEFT OPEN BUT SAFELY BARRICADED UNTIL INSPECTED AND APPROVED BY THE VILLAGE ENGINEER. PAVEMENT SUBBASE, BASE, AND SURFACE MUST EACH BE INSPECTED BY THE ENGINEER PRIOR TO THE NEXT PHASE OF WORK. PROOF ROLLING AND NUCLEAR DENSITY TESTING WILL BE UTILIZED.
- 17. THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR HIS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BY OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.
- 18. THE CONTRACTOR IS TO VERIFY ALL FIELD CONDITIONS, PROPOSED IMPROVEMENTS, AND ELEVATIONS PRIOR TO THE START OF WORK AND, IF THERE ARE ANY DISCREPANCIES, IS TO NOTIFY THE DESIGN ENGINEER AT ONCE. NO WORK SHALL BE DONE UNTIL THE DISCREPANCIES ARE RESOLVED.
- 19. ALL SHRUBS, TOPSOIL, OR EXCAVATION MATERIAL AND ANY OTHER UNSUITABLE MATERIAL SHALL BE REMOVED AND DISPOSED OF AT AN OFF-SITE LOCATION. AREAS WHICH ARE TO BE FILLED SHALL BE COMPACTED TO A MAXIMUM DENSITY OF 95% AS DETERMINED BY THE MODIFIED AASHO COMPACTION TEST, T-180-74, (ASTM-D-1557) IN PAVED AREAS. THE OWNER'S SOILS ENGINEER SHALL EVALUATE AND APPROVE THE EXCAVATION, FILL PLACEMENT, AND COMPACTION PRIOR TO PAVEMENT CONSTRUCTION. THE CONTRACTOR SHALL GIVE THE GOVERNING AUTHORITIES HAVING JURISDICTION OVER THE WORK FORTY-EIGHT (48) HOURS NOTICE BEFORE WORK COMMENCES.
- 20. ANY WATER AND WASTEWATER UTILITIES AFFECTED BY CONSTRUCTION, INCLUDING GRADES, MUST BE BROUGHT TO CURRENT VILLAGE STANDARDS AT THE CONTRACTOR'S EXPENSE.
- 21. EXISTING UTILITIES, TREES, STREETS, AND PRIVATE PROPERTY SHALL BE PROTECTED DURING CONSTRUCTION BY THE CONTRACTOR. ANY DAMAGES SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
- 22. THE CONTRACTOR SHALL PROVIDE EROSION AND SEDIMENTATION CONTROL AT AREAS DESIGNATED ON THE SITE PLAN. ADDITIONAL MEASURES SHALL BE PROVIDED AS DEEMED NECESSARY BY THE VILLAGE OR THE DESIGN ENGINEER AT CONTRACTOR'S EXPENSE.
- 23. ALL HANDICAP PROVISIONS SHALL BE IN ACCORDANCE WITH THE "AMERICAN DISABILITIES ACT" (ADA) DATED SEPTEMBER 15, 2010 OR LATEST REVISION.
- 24. THE CONTRACTOR IS RESPONSIBLE FOR EXAMINATION OF THE ENGINEERING PLANS AND SPECIFICATIONS AND THE EXISTING SITE CONDITIONS PRIOR TO SUBMITTING A BID, AND NOTIFYING THE ENGINEER AT ONCE OF ANY DISCREPANCIES.
- 25. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ANY NECESSARY PERMITS NOT PREVIOUSLY APPLIED FOR BY THE OWNER AND POSTING OF THE NECESSARY BONDS.
- 26. THE CONTRACTOR IS RESPONSIBLE FOR THE NOTIFICATION OF THE START OF CONSTRUCTION TO ALL JURISDICTIONAL AGENCIES, UTILITY COMPANIES, AND THE ENGINEER, AT LEAST TWO (2) WORKING DAYS PRIOR TO SAID START. ALL EXISTING UTILITIES MUST BE STAKED PRIOR TO CONSTRUCTION. VILLAGE OR CITY ENGINEERING DIVISION SHALL BE NOTIFIED 48 HRS. IN ADVANCE.
- 27. THE CONTRACTOR IS RESPONSIBLE FOR CALLING ATTENTION TO THE OWNER OF ANY ERRORS OR DISCREPANCIES WHICH MAY BE SUSPECTED IN LINES AND GRADES WHICH ARE ESTABLISHED BY THE OWNER. THE CONTRACTOR SHALL NOT PROCEED WITH THE WORK UNTIL THE LINES AND GRADES, WHICH ARE BELIEVED TO BE IN ERROR, HAVE BEEN VERIFIED OR CORRECTED BY THE OWNER. ADDITIONAL STAKING THAT MAY BE REQUIRED DUE TO THE CONTRACTOR NEGLIGENCE SHALL BE PAID FOR BY THE CONTRACTOR.

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- 28. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN A SAFE AND HEALTHFUL WORKING CONDITION THROUGHOUT THE PROSECUTION OF THE CONSTRUCTION WORK. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO: THE REMOVAL OF DEBRIS, THE PROTECTING OF CONSTRUCTION BARRICADES, AND THE KEEPING OF PUBLIC STREET PAVEMENTS CLEAN OF CONSTRUCTION DIRT AND DEBRIS, SECURING OPEN EXCAVATIONS, AND FOLLOWING ALL SAFETY MEASURES REQUIRED BY THE GOVERNING AUTHORITIES.
- 29. THE CONTRACTOR IS RESPONSIBLE FOR THE RESTORATION TO THE ORIGINAL CONDITION OR BETTER OF ANY OFF SITE AREAS THAT ARE DAMAGED BY THE CONTRACTOR DURING CONSTRUCTION.
- 30. THE CONTRACTOR IS RESPONSIBLE FOR THE TESTING OF MATERIALS, IF REQUIRED BY THE OWNER AND/OR THE JURISDICTIONAL AGENCIES.
- 31. THE CONTRACTOR IS RESPONSIBLE FOR THE GUARANTEE OF ALL MATERIALS AND WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR UPON FINAL ACCEPTANCE BY THE OWNER AND THE JURISDICTIONAL AGENCIES.
- 32. ALL LANDSCAPE, SOD AND SEEDING AREAS SHALL RECEIVE A MINIMUM OF 4 INCHES OF TOPSOIL TO ACHIEVE THE FINAL GRADES SHOWN ON THE FINAL ENGINEERING PLANS.

33. UNSUITABLE MATERIAL SHALL BE CONSIDERED AS MATERIAL WHICH IS NOT SUITABLE FOR THE

SUPPORT OF PAVEMENT, BUILDING, AND OR LOAD BEARING STRUCTURES AS DETERMINED BY THE SOILS

- ENGINEER. THE DECISION TO REMOVE SAID MATERIAL, AND TO WHAT EXTENT, SHALL BE MADE BY A SOILS ENGINEER WITH THE CONCURRENCE OF THE OWNER.

 34. THE QUANTITIES AS SHOWN IN THE ENGINEER'S "QUANTITY ESTIMATE" ARE THOSE ESTIMATED BY THE ENGINEER AND ARE PROVIDED SOLELY FOR THE CONVENIENCE OF THE CONTRACTOR. THE
- BY THE ENGINEER AND ARE PROVIDED SOLELY FOR THE CONVENIENCE OF THE CONTRACTOR. THE CONTRACTOR BY CHOOSING TO UTILIZE THESE QUANTITIES IN THE PREPARATION OF HIS "LUMP SUM" BID, ALSO ACCEPTS THEIR ACCURACY. THE CONTRACTOR IS THEREFORE ENCOURAGED TO MAKE HIS OWN INDEPENDENT EARTHWORK CALCULATION, AND TO VISIT THE SITE PRIOR TO THE PREPARATION OF HIS BID.
- 35. CONDUIT TO BE PROVIDED UNDER PAVEMENT FOR ALL SERVICE UTILITIES SUCH AS, BUT NOT LIMITED TO GAS, ELECTRIC, TELEPHONE, AND CABLE AS DEEMED NECESSARY BY THE OWNER. ALL CONDUIT SHALL MEET UTILITY COMPANY SPECIFICATIONS. ALL SPECIFICATIONS SHALL BE CONFIRMED WITH THE UTILITY COMPANY PRIOR TO INSTALLATION, AND AS DEEMED NECESSARY BY THE OWNER. ALL CONDUIT SHALL MEET UTILITY COMPANY SPECIFICATIONS. CONDUIT SHOWN HEREON IS APPROXIMATE IN SIZE AND LOCATION. ALL SPECIFICATIONS SHALL BE CONFIRMED WITH THE UTILITY COMPANY PRIOR TO INSTALLATION.
- 36. GRADE ADJUSTMENTS ARE ANTICIPATED TO OCCUR IN THE FIELD AND ARE CONSIDERED INCIDENTAL TO THE CONTRACT COST. ALL WORK AFFECTED BY GRADE ADJUSTMENTS SHALL STOP AND DESIGN ENGINEER NOTIFIED FOR ACCEPTABLE SOLUTION. GENERAL CONTACTOR TO ASSUME ALL LIABILITY FOR CONTINUING WORK PROGRESS.

EARTHWORK IMPROVEMENTS

OPSOIL EXCAVATION INCLUDES:

- 1. EXCAVATION INCLUDES:

 1. EXCAVATION OF TOPSOIL AND OTHER STRUCTURALLY UNSUITABLE MATERIALS WITHIN THOSE AREAS
 THAT WILL REQUIRE EARTH EXCAVATION OR COMPACTED EARTH FILL MATERIAL, IN ORDER TO ACHIEVE
 THE PLAN SUB GRADE ELEVATIONS.
- 2. PLACEMENT OF THE EXCAVATED MATERIAL IN OWNER DESIGNATED AREAS FOR FUTURE USE WITHIN AREAS TO BE LANDSCAPED, AND THOSE AREAS NOT REQUIRING STRUCTURAL FILL MATERIAL.
- 3. COMP ACTION OF THE EXCAVATED MATERIAL WHERE PLACED IN AREAS NOT REQUIRING STRUCTURAL FILL MATERIAL, SHALL BE MODERATE.
- 4. EXCESS MATERIALS IF NOT UTILIZED AS FILL OR IF NOT STOCKPILED FOR FUTURE LANDSCAPING, SHALL BE COMPLETELY REMOVED FROM THE CONSTRUCTION SITE AND DISPOSED OF BY THE CONTRACTOR
- EARTH EXCAVATION INCLUDES:

 1. EXCAVATION OF EARTH AND OTHER MATERIALS ARE SUITABLE FOR USE AS STRUCTURAL FILL.

 THE EXCAVATION SHALL BE TO WITHIN THE TOLERANCE OF 0.3 FEET (+/-) 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.
- 2. PLACEMENT OF THE EARTH AND OTHER SUITABLE MATERIALS SHALL BE WITHIN THOSE AREAS REQUIRING STRUCTURAL FILL IN ORDER TO ACHIEVE THE PLAN SUBGRADE ELEVATIONS TO WITHIN A TOLERANCE OF 0.3 FEET (+/-). THE MATERIAL SHALL BE PLACED (8) INCHES IN THICKNESS, AND THE WATER CONTENT SHALL BE ADJUSTED IN ORDER TO ACHIEVE THE REQUIRED COMPACTION. EARTH MATERIAL MAY BE PLACED WITHIN THOSE PORTIONS OF THE BUILDING SITE NOT REQUIRING STRUCTURAL FILL, TO WITHIN SIX (6) INCHES OF THE PLAN FINISHED GRADE ELEVATION. IN AREAS REQUIRING STRUCTURAL FILL, HOWEVER, THE EARTH MATERIAL SHALL NOT BE PLACED OVER TOPSOIL TO OTHER UNSUITABLE MATERIALS UNLESS SPECIFICALLY DIRECTED BY A SOILS ENGINEER WITH THE CONCURRENCE OF THE OWNER.
- 3. COMPACTION OF THE EARTH AND OTHER SUITABLE MATERIALS, SHALL BE TO AT LEAST 95% OF THE STANDARD PROCTOR DRY DENSITY, ASTM 698 WITHIN PROPOSED PAVEMENT AND BUILDING AREAS. MODERATE COMPACTION IS REQUIRED ELSEWHERE.
- 4. EXCESS MATERIAL IF NOT UTILIZED AS FILL, SHALL BE COMPLETELY REMOVED FROM THE CONSTRUCTION SITE AND DISPOSED OF BY THE CONTRACTORS.
- GENERAL, THE EARTHWORK CONTRACTOR SHALL:

 1. MAINTAIN PROPER SITE DRAINAGE AT ALL TIMES DURING THE COURSE OF CONSTRUCTION, AND PREVENT STORM WATER FROM RUNNING INTO OR STANDING IN EXCAVATED AREAS.
- 2. SPREAD AND COMPACT UNIFORMLY TO THE DEGREE SPECIFIED ALL EXCESS TRENCH SPOIL AFTER COMPLETION OF THE UNDERGROUND IMPROVEMENTS.
- SUITABLE SUBGRADE MATERIAL, IN ALL AREAS THAT MAY BE SOFT DUE TO EXCESS MOISTURE CONTENT. THIS APPLIES TO CUT AREAS AS WELL AS FILL AREAS.

3. SCARIFY AND COMPACT TO THE DEGREE SPECIFIED THE UPPER TWELVE (12) INCHES OF THE

- 4. PROVIDE WATER TO ADD TO DRY MATERIAL IN ORDER TO ADJUST THE MOISTURE CONTENT FOR THE PURPOSE OF ACHIEVING THE SPECIFIED COMPACTION.
- 5. BE RESPONSIBLE FOR IMPLEMENTATION OF THE "STORMWATER POLLUTION PREVENTION PLAN" AS ASSIGNED TO THE EARTHWORK CONTRACTOR ON THE ENGINEERING PLAN.
- 6. GRADE PUBLIC UTILITY EASEMENTS TO MEET THE REQUIREMENTS OF THE LOCAL PUBLIC UTILITY
- 7. ALL FILL MATERIAL IMPORTED ON-SITE MUST MEET THE FOLLOWING REQUIREMENTS:
- 1.) FILL MUST BE IMPORTED FROM ONE LOCATION.
 2.) CONTRACTOR IS RESPONSIBLE FOR OBTAINING THE FOLLOWING DOCUMENTATION FOR EACH LOAD OF CLEAN CONSTRUCTION OR DEMOLITION DEBRIS (CCDD) OR UNCONTAMINATED SOIL RECEIVED:
- a) HAULER NAME, SITE OF ORIGIN, ADDRESS, OWNER OR OPERATOR OF THE SITE OF ORIGIN;
 b) WEIGHT IN TONS OR VOLUME IN CUBIC YARDS:; AND
- c) DATE RECEIVED.

 3.) CONTRACTOR IS RESPONSIBLE TO OBTAIN FOR ALL SOIL:

 a) CERTIFICATION FROM THE OWNER OR OPERATOR OF THE SITE OF ORIGIN THAT THE SITE HAS NEVER BEEN USED FOR COMMERCIAL OR INDUSTRIAL PURPOSES AND IS PRESUMED TO BE UNCONTAMINATED SOIL: OR

 b) CERTIFICATION FROM A LICENSED PROFESSIONAL ENGINEER THAT THE SOIL IS
- 4.) CONTRACTOR IS RESPONSIBLE TO CONFIRM THAT THE CCDD OR UNCONTAMINATED SOIL WAS NOT REMOVED FROM A SITE AS PART OF A CLEAN—UP OR REMOVAL.

 5.) CONTRACTOR IS RESPONSIBLE TO VISUALLY INSPECT AND SCREEN EACH LOAD OF SOIL WITH A DEVICE SUCH AS A PHOTO IONIZATION DETECTOR, FLAME IONIZATION DETECTOR OR ANOTHER DEVICE APPROVED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY, BUREAU OF LAND, THAT DETECTS VOLATILE ORGANIC COMPOUNDS (ALREADY REQUIRED OF PERMITTED CCDD FILL OPERATIONS);
- 6.) CONTRACTOR IS RESPONSIBLE TO DOCUMENT ALL CHEMICAL ANALYSIS ACTIVITIES ASSOCIATED WITH TESTING OF THE CCDD OR UNCONTAMINATED SOIL, WHICH MUST INCLUDE, BUT IS NOT LIMITED TO:
 - a) COPY OF THE LAB ANALYSIS; b) LABORATORY ACCREDITATION STATUS; AND

LABORATORY ACCREDITATION STATUS; AND LABORATORY AUTHORIZED AGENT CERTIFICATION.

UNCONTAMINATED.

- TESTING AND FINAL ACCEPTANCE

 1. THE CONTRACTOR SHALL PROVIDE AS A MINIMUM, A FULLY LOADED SIX—WHEEL TRUCK (10 TON MIN.) FOR PROOF ROLLING THE PAVEMENT SUBGRADE PRIOR TO THE PLACEMENT OF THE CURB AND GUTTER AND THE BASE MATERIAL.
- 2. SPECIFIC COMPACTION TESTING MAY BE REQUIRED BY THE OWNER IN SELECTED FILL AREAS. THE CONTRACTOR SHALL BEAR THE COST OF ANY COMPACTION TESTING WHICH DOES NOT MEET SPECIFICATION AS WELL AS THE RESPONSIBILITY AND COST FOR THE NECESSARY CORRECTION(S).
- 3. APPROVAL OF THE PAVEMENT SUBGRADE BY THE OWNER SHALL BE REQUIRED PRIOR TO THE PLACEMENT OF THE PAVEMENT MATERIALS.
- METHOD OF MEASUREMENT

 1. AS-BUILT MEASUREMENTS OF EARTHWORK FOR THE PURPOSE OF PAYMENT SHALL NOT APPLY.
 THE QUANTITIES SHOWN IN THE ENGINEER'S "QUANTITY ESTIMATE" SHALL BE UTILIZED UNLESS SAID
 QUANTITIES ARE ADJUSTED BY MUTUAL CONSENT OR BY THE OWNER AND CONTRACTOR PRIOR TO THE
 SIGNING AND ACCEPTANCE OF THE CONTRACT.
- 2. THE QUANTITIES AS SHOWN IN THE ENGINEER'S "QUANTITY ESTIMATE" ARE THOSE ESTIMATED BY THE ENGINEER AND PROVIDED SOLELY FOR THE CONVENIENCE OF THE CONTRACTOR. THE CONTRACTOR, BY CHOOSING TO UTILIZE THESE QUANTITIES IN THE PREPARATION OF HIS "LUMP SUM" BID, ALSO ACCEPTS THEIR ACCURACY. THE CONTRACTOR IS THEREFORE ENCOURAGED TO MAKE HIS OWN INDEPENDENT EARTHWORK CALCULATION, AND TO VISIT THE SITE PRIOR TO PREPARATION OF HIS
- 3. PRIOR TO THE REMOVAL OF UNSUITABLE MATERIAL, THE CONTRACTOR SHALL NOTIFY OWNER FOR AUTHORIZATION. UPON AUTHORIZATION, THE UNSUITABLE MATERIAL SHALL BE FIELD MEASURED BY THE ENGINEER IN PLACE.

EROSION CONTROL

EROSION CONTROL MEASURES SHALL CONFORM TO "THE STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL IN NORTHEASTERN ILLINOIS" LATEST EDITION, AND FURTHER MEASURES AS DEEMED NECESSARY. TEMPORARY VEGETATION OR, WHEN APPROPRIATE, MULCHING OR OTHER NONVIABLE COVER SHALL BE USED TO PROTECT AREAS EXPOSED DURING DEVELOPMENT PERMANENT SEEDING AREAS SHALL RECEIVE 75 LBS/ACRE PERENNIAL RYEGRASS, 15 LBS/ACRE CREEPING RED FESCUE AND 120 LBS/ACRE KENTUCKY BLUEGRASS. STRAW EROSION CONTROL BLANKETS CONSISTING OF SINGLE STITCH NETTING SHALL BE INSTALLED IN ALL PERMANENT SEEDING AREAS. BLANKETS ARE TO BE SECURED USING WOOD ANCHOR STAKES. FERTILIZER SHOULD BE APPLIED AND INCORPORATED INTO THE SOIL PRIOR TO SEEDING AT THE FOLLOWING RATES:

NITROGEN 130 LBS/ACRE
PHOSPHORUS -0- LBS/ACRE
POTASSIUM 130 LBS/ACRE

MWRD GENERAL NOTES

- 1. THE MWRD SEWER PERMIT SECTION FIELD OFFICE MUST BE NOTIFIED AT LEAST TWO (2) WORKING DAYS PRIOR TO THE COMMENCEMENT OF WORK (CALL 708-588-4055).
- 2. U.S.G.S. ELEVATION DATUM HAS BEEN USED FOR THIS PROJECT AND IS REFERENCED FROM EXISTING TOPOGRAPHICAL INFORMATION AND SHOWN ON THE COVER SHEET UNDER BENCHMARK
- 3. ALL FLOOR DRAINS SHALL DISCHARGE TO THE SANITARY SEWER.
- 4. ALL DOWNSPOUTS AND FOOTING DRAINS SHALL DISCHARGE TO THE STORM SEWER.
- 5. ALL SANITARY, AND STORM IN COMBINED SEWER AREAS, SEWER CONSTRUCTION REQUIRES STONE BEDDING 1/4" TO 1" IN SIZE, WITH A MINIMUM THICKNESS EQUAL TO 1/4 THE OUTSIDE DIAMETER OF THE SEWER PIPE, BUT NOT LESS THAN FOUR (4) INCHES NOR MORE THAN EIGHT (8) INCHES.

 MATERIAL SHALL BE CA-11 OR CA-13 AND SHALL BE EXTENDED AT LEAST 12" ABOVE THE TOP OF THE PIPE WHEN USING PVC.
- 6. "BAND-SEAL" OR SIMILAR FLEXIBLE-TYPE COUPLINGS SHALL BE USED IN THE CONNECTION OF SEWER PIPE OF DISSIMILAR MATERIALS.
- 7. WHEN CONNECTING TO AN EXISTING SEWER MAIN BY MEANS OTHER THAN AN EXISTING WYE, TEE, OR AN EXISTING MANHOLE, ONE OF THE FOLLOWING METHODS SHALL BE USED.
- A. CIRCULAR SAW-CUT OF SEWER MAIN BY PROPER TOOLS ("SEWER-TAP" MACHINE OR SIMILAR) AND PROPER INSTALLATION OF HUB-WYE SADDLE OR HUB-TEE SADDLE.

B. REMOVE AN ENTIRE SECTION OF PIPE (BREAKING ONLY THE TOP OF ONE BELL) AND REPLACE

- WITH A WYE OR TEE BRANCH SECTION.

 C. WITH PIPE CUTTER, NEATLY AND ACCURATELY CUT OUT DESIRED LENGTH OF PIPE FOR INSERTION OF PROPER FITTING, USING "BAND—SEAL" OR SIMILAR COUPLINGS TO HOLD IT FIRMLY IN
- 8. WHEREVER A SEWER CROSSES UNDER A WATERMAIN, THE MINIMUM VERTICAL DISTANCE FROM THE TOP OF THE SEWER TO THE BOTTOM OF THE WATERMAIN SHALL BE 18 INCHES. FURTHERMORE, A MINIMUM HORIZONTAL DISTANCE OF 10 FEET BETWEEN SANITARY SEWERS AND WATERMAINS SHALL BE MAINTAINED UNLESS: THE SEWER IS LAID IN A SEPARATE TRENCH, KEEPING A MINIMUM 18" VERTICAL SEPARATION; OR THE SEWER IS LAID IN THE SAME TRENCH WITH THE WATERMAIN LOCATED AT THE OPPOSITE SIDE ON A BENCH OF UNDISTURBED EARTH, KEEPING A MINIMUM 18" VERTICAL SEPARATION. IF EITHER THE VERTICAL OR HORIZONTAL DISTANCES DESCRIBED ABOVE CANNOT BE MAINTAINED, OR THE SEWER CROSSES ABOVE A WATERMAIN, THE SEWER SHALL BE CONSTRUCTED TO WATERMAIN
- 9. ALL EXISTING SEPTIC SYSTEMS TO BE ABANDONED. ABANDONED TANKS TO BE FILLED OR
- 10. ALL SANITARY MANHOLES, AND STORM MANHOLES IN COMBINED SEWER AREAS SHALL HAVE A MINIMUM INSIDE DIAMETER OF 48", AND SHALL BE CAST IN PLACE OR PRE—CAST REINFORCED

4", 6", AND 8" PVC GRAVITY SEWER PIPE MATERIAL SHALL CONFORM TO SDR 26 ASTM D-2241 JOINTS SHALL BE FLEXIBLE ELASTOMERIC SEALS AND CONFORM TO ASTM D-3139

STORM SEWER AND STORM WATER DETENTION

CENEDAL

- 1. ALL DEVELOPMENT, WHETHER PUBLIC OR PRIVATE, SHALL INCLUDE PROVISIONS FOR THE CONSTRUCTION OF STORM SEWERS AND APPURTENANCES DESIGNED IN ACCORDANCE WITH THIS SECTION. DEVELOPERS SHALL USE EITHER THE PUBLIC SEWER SYSTEM OR AN ALTERNATIVE SEWER SYSTEM, CERTIFIED BY AN AGENCY OR MUNICIPALITY WITH JURISDICTIONAL AUTHORITY, PROVIDED THAT THE DEVELOPMENT IS PROXIMATE TO A TRANSMISSION LINE THAT HAS ADEQUATE CAPACITY TO HANDLE SUCH PROPOSED DEVELOPMENT.
- SUCH PROPOSED DEVELOPMENT.

 2. ALL DEVELOPMENT DESIGNATED BY THE DIRECTOR OF ENGINEERING SHALL INCLUDE PROVISIONS FOR STORM WATER HOLDING FACILITIES DESIGNED IN ACCORDANCE WITH THIS SECTION. THE STORM

WATER HOLDING FACILITIES SHOULD INCORPORATE MULTIPLE USES WHERE PRACTICABLE.

- THE DETENTION, RETENTION OR DEPRESSIONAL STORAGE AREAS THAT ARE TO BE USED AS PART OF THE DRAINAGE SYSTEM FOR A PROPERTY SHALL BE CONSTRUCTED AS THE FIRST ELEMENT OF THE INITIAL EARTHWORK PROGRAM. ANY ERODED SEDIMENT CAPTURED IN THESE FACILITIES SHALL BE REMOVED BY THE APPLICANT BEFORE PROJECT COMPLETION IN ORDER TO MAINTAIN THE DESIGN VOLUME OF THE FACILITIES.
- THE DETENTION AREA MUST BE STABILIZED PRIOR TO THE ISSUANCE OF THE FIRST BUILDING PERMIT.
- 3. STORM SEWER SYSTEMS SHALL BE INSTALLED IN ACCORDANCE WITH SECTION 600 OF THE "STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION," AND "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS," LATEST EDITION, UNLESS OTHERWISE MODIFIED IN THE SECTION.
- 4. STORMWATER SYSTEM DESIGN SHOULD BE IN CONFORMANCE WITH ILLINOIS EPA STORMWATER PERMITTING REQUIREMENTS. IN PARTICULAR, A STATE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT FOR CONSTRUCTION SITE ACTIVITIES IS REQUIRED FOR LAND DISTURBANCES OF ONE OR MORE ACRES. PERMIT REQUIREMENTS FOR A "STORMWATER POLLUTION PREVENTION PLAN" SPECIFICALLY REFERENCE THE NEED FOR STORMWATER DETENTION, VEGETATED SWALES AND NATURAL DEPRESSIONS, INFILTRATION MEASURES, AND VELOCITY DISSIPATION DEVICES TO CONTROL RUNOFF POLLUTANTS AND TO MAINTAIN PRE—DEVELPOPMENT HYDROLOGIC CONDITIONS.

SEWER PIPE CLASS

- 1. SEWER PIPE CALL SHALL BE DETERMINED BASED UPON THE SPECIFICATION OF SECTION 603 OF THE "STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION." LATEST EDITION.
- MATERIAL SPECIFICATION
 ALL STORM SEWER SYSTEM ELEMENTS SHALL CONFORM TO THE FOLLOWING SPECIFICATIONS:
- REINFORCED CONCRETE PIPE (12" DIAMETER AND LARGER), CIRCULAR REINFORCEMENT, MINIMUM CLASS 3, WALL B, ASTM C-76.
 REINFORCED CONCRETE ARCH CULVERT PIPE-MINIMUM CLASS HE-III OR VE-III, ASTM C-507.
 PVC UNDERDRAIN PIPE (4", 6", AND 8") ASTM D-3212, SDR26.
- 2. SEWER PIPE JOINTS:
 PVC PIPE-ASTM D-3212, PUSH-ON TYPE, EXCEPT UNDERDRAIN PIPE WHICH SHALL HAVE SOLVENT WELDED JOINTS.
 REINFORCED CONCRETE PIPE-ASTM C-443. ("O" RING)
- 3. CASING PIPES FOR AUGURED SLEEVES:

REINFORCED ARCH OR ELLIPTICAL PIPE-ASTM C877

- STEEL PIPE-ASTM A120, 3/8" MINIMUM THICKNESS
- 4. MANHOLES AND CATCH BASINS:

 PRECAST REINFORCED CONCRETE ASTM C-478 AND ASTM C-443

 SIZE: FOR SEWER 18" DIAMETER OR LESS, MANHOLE SHALL HAVE A 48" INSIDE DIAMETER.

 FOR SEWER 21" TO 36" DIAMETER, MANHOLE SHALL HAVE A 60" INSIDE DIAMETER

 FOR SEWER GREATER THAN 36" DIAMETER, MANHOLE SHALL HAVE AN OFFSET RISER PIPE OF 48" INSIDE DIAMETER.

 ADJUSTMENT" NO MORE THAN TWO (2) PRECAST CONCRETE ADJUSTING RINGS WITH SIX (6) INCH MAXIMUM HEIGHT ADJUSTMENT SHALL BE ALLOWED.

 PIPE AND FRAME SEALS: ALL PIPE CONNECTION OPENINGS SHALL BE PRECAST WITH PORTLAND CEMENT MORTAR, O-RING GASKETS OR MASTIC MATERIAL.

 BOTTOM SECTIONS: ALL BOTTOM SECTIONS SHALL BE MONOLITHICALLY PRECAST INCLUDING BASES AND INVERT FLOWLINES.

 MANHOLE STEPS EAST JORDAN IRON WORKS, INC. #8518. STEPS SHALL BE INSTALLED IN ALL STRUCTURES (STORM / SANITARY / WATER) AT 16 INCH CENTERS, WHERE THE DEPTH BETWEEN THE
- 5. INLETS:
 PRECAST REINFORCES CONCRETE ASTM C478 AND ASTM C443
 SIZE: INLETS SHALL HAVE 24" INSIDE DIAMETER AND A MAXIMUM DEPTH OF FOUR (4) FEET
 ADJUSTMENT: NO MORE THAN TWO (2) PRECAST CONCRETE ADJUSTING RINGS WITH SIX (6) INCH
 MAXIMUM HEIGHT ADJUSTMENT SHALL BE ALLOWED
 ONLY ONE (1) PIPE CONNECTION IS ALLOWED AND IT SHALL BE PRECAST WITH PORTLAND CEMENT
 MORTAR, O—RING GASKETS OR MASTIC MATERIAL.
 BOTTOM SECTIONS: ALL BOTTOM SECTIONS SHALL BE MONOLITHICALLY PRECAST INCLUDING BASES AND

RIM AND THE BOTTOM OF THE STRUCTURE EXCEEDS FOUR FEET IN HEIGHT.

- 6. CASTINGS UNLESS OTHERWISE NOTED ON THE PLANS, THE FOLLOWING SHALL BE USED:
 MANHOLE FRAME AND COVER E.J.I.W. NO. 1058 OR NEENAH R—1550 EMBOSSED "STORM" WITH TYPE
 A HEAVY DUTY COVER
 SIX (6) INCH CURB & GUTTER INLET E.J.I.W. NO. 7210 W/ TYPE M1 GRATE, NEENAH R—3281 A.
 ROLLED CURB AND GUTTER INLET E.J.I.W. NO. 7525, NEENAH R—3501 P
 DEPRESSED CURB AND GUTTER E.J.I.W. NO. 7210 WITH TYPE M3 GRATE
 YARD INLET E.J.I.W. NO. 1020 WITH TYPE M2 FLAT GRATE. NEENAH R—4340 B
- 7. CRUSHED GRANULAR BEDDING:
 BEDDING, HAUNCHING, AND COVER SHALL BE CA-11 OR CA-13 PER THE VILLAGE/CITY BEDDING AND
 BACKFILL DETAIL LS-20.
- 8. HEADWALLS AND PRECAST END SECTIONS: ALL PIPES SHALL TERMINATE AT REINFORCED CONCRETE HEADWALLS OR PRECAST END SECTIONS.

INSPECTION AND TESTING

- ALL THE REQUIRED TESTING AND CORRECTION OF DEFECTS OF THE STORM SEWER SYSTEM SHALL BE COMPLETED BEFORE CURB AND GUTTER OR OTHER ROADWAY IMPROVEMENT WORK BEGINS.
- B. CLEANING
 ALL SEWER AND APPURTENANCES SHALL BE CLEANED PRIOR TO INSPECTION AND TESTING REQUIRED
 BY THIS SECTION.
- C. DEFLECTION TESTING
- C. DEFLECTION TESTING
 ALL FLEXIBLE THERMOPLASTIC SEWER PIPE SHALL BE DEFLECTION TESTED BY PULLING A MANDREL
 THROUGH THE PIPE FROM MANHOLE TO MANHOLE. DEFLECTION TESTING SHALL BE PERFOMED IN
 ACCORDANCE WITH THE "STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN
 ILLINOIS". EXCEPT THAT ALL SECTIONS OF SEWER MAIN SHALL BE TESTED.
- D. TELEVISING
 TELEVISING OF STORM SEWER SHALL BE PERFOMED AS REQUESTED BY THE VILLAGE. A WRITTEN
 REPORT AND VIDEOTAPE COPY OF THE TELEVISED SEWER SHALL BE PROVIDED TO THE VILLAGE.
- ANY PIPING WITH DIPS, CRACKS, IMPROPERLY SEALED JOINTS, OR VARIATIONS FROM THE APPROVED GRADES AND ALIGNMENT SHALL REPAIRED BY REMOVING AND REPLACING THE INVOLVED SECTIONS OF PIPE. THE REPAIRED SECTION OF PIPE SHALL THEN BE RE—TESTED. THE VILLAGE ENGINEER MAY ALSO REQUEST OTHER TYPES OF TESTING ON THE SANITARY SEWER INSTALLATION AS A CONDITION OF
- G. RECORD DRAWINGS
- 1. PRIOR TO FINAL ACCEPTANCE OF WORK "RECORD" DRAWINGS SHALL BE SUBMITTED TO THE VILLAGE.

 2. ONE MYLAR REPRODUCIBLE, FOUR (4) SETS OF PRINTS, .TIF FILE SHALL BE SUBMITTED.

STANDARD SPECIFICATIONS

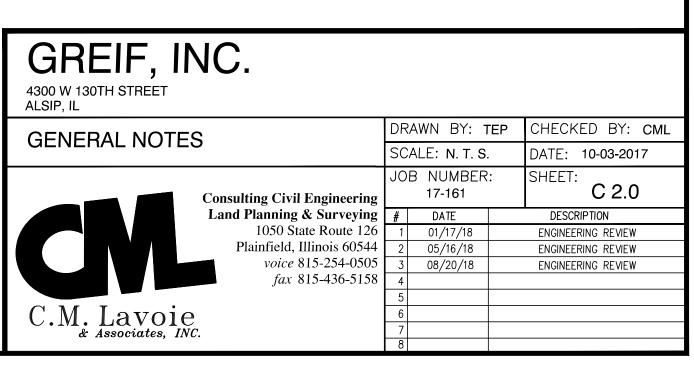
INITIAL ACCEPTANCE.

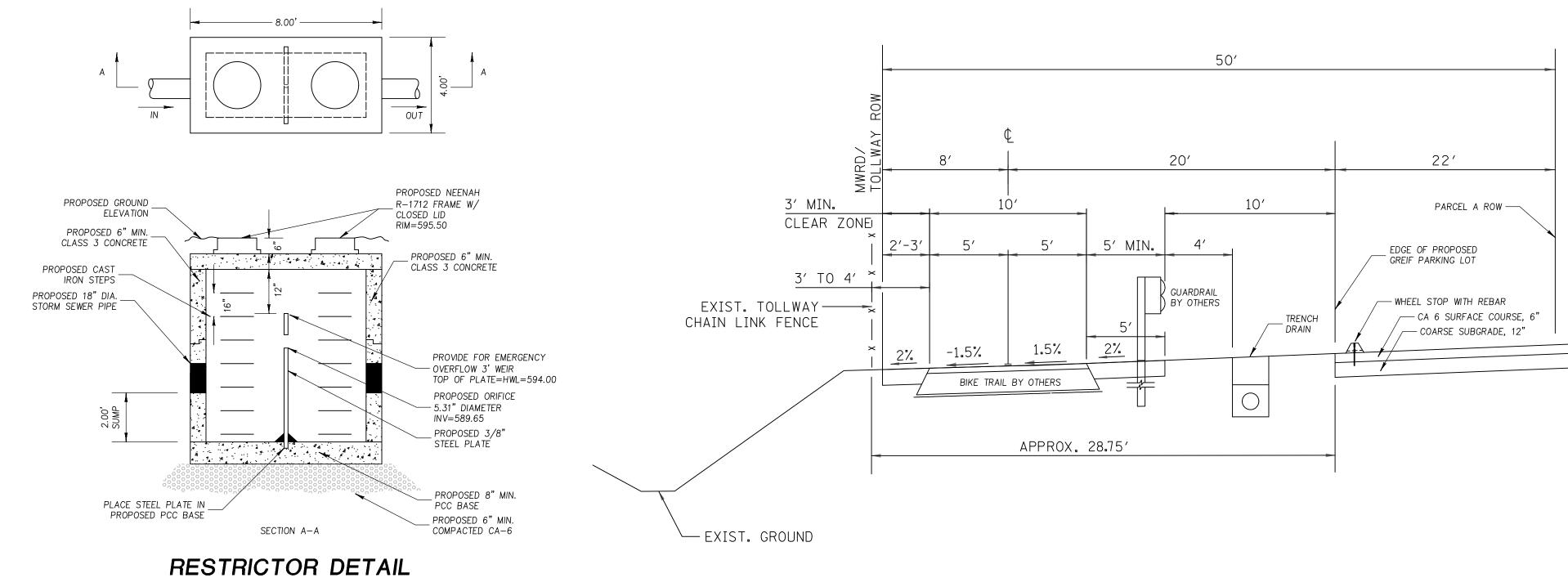
- THE STANDARD SPECIFICATIONS WHICH APPLY TO THE CONSTRUCTION WORK AS SHOWN ON THE FNGINFERING PLANS. ARE CONTAINED IN THE FOLLOWING DOCUMENTS:
- 1. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AS ADOPTED APRIL 1, 2016 BY THE STATE OF ILLINOIS, DEPARTMENT OF TRANSPORTATION AND ALL SUBSEQUENT REVISIONS.
- 2. STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS SEVENTH EDITION, AS ADOPTED IN 2013 BY THE ILLINOIS SOCIETY OF PROFESSIONAL ENGINEERS, ET AL., AND ALL SUBSEQUENT REVISIONS.
- 3. STANDARD SPECIFICATIONS AS CURRENTLY IN EFFECT BY THE CITY/ VILLAGE, AND ALL SURSEQUENT REVISIONS
- 4. PROCEDURES AND STANDARDS FOR URBAN SOIL EROSION AND SEDIMENTATION CONTROL IN

STATEMENT CONTAINED WITHIN THE DOCUMENT FIRST ENUMERATED BELOW SHALL GOVERN:

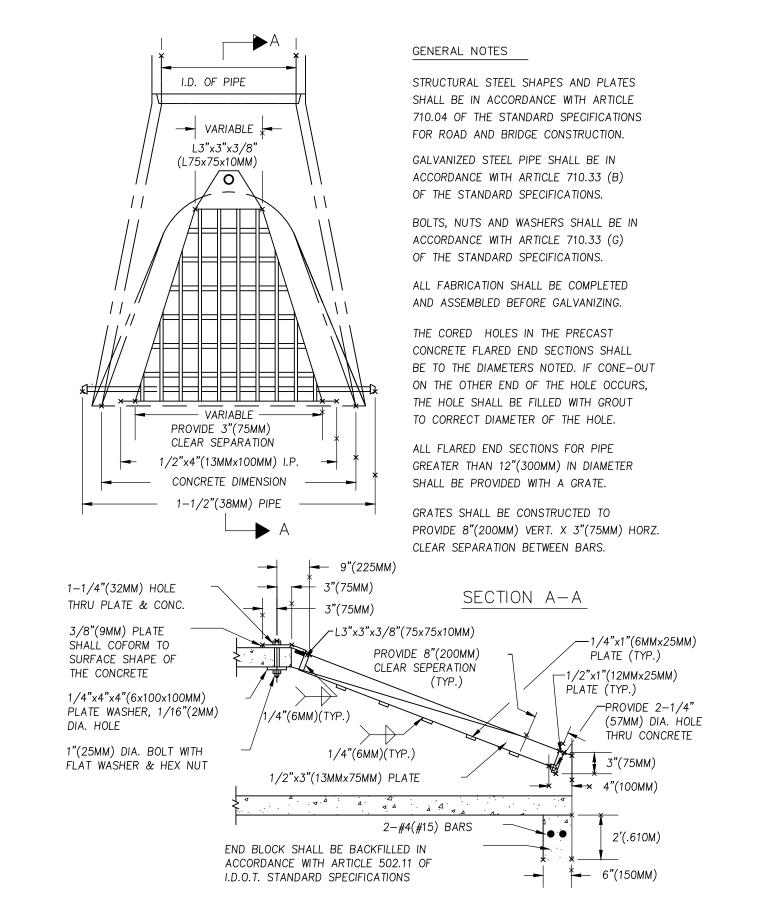
- ILLINOIS, LATEST EDITION AND ALL SUBSEQUENT REVISIONS.

 IN THE EVENT OF A CONFLICT BETWEEN STATEMENTS WHICH APPLY TO THE CONSTRUCTION WORK, THE
- 1. SPECIAL PROVISIONS
- 2. GENERAL NOTES
- 3. NOTES AND DETAILS ON THE ENGINEERING PLAN
- 4. STANDARD SPECIFICATIONS, AS DEFINED IN PARAGRAPH 1 ABOVE.

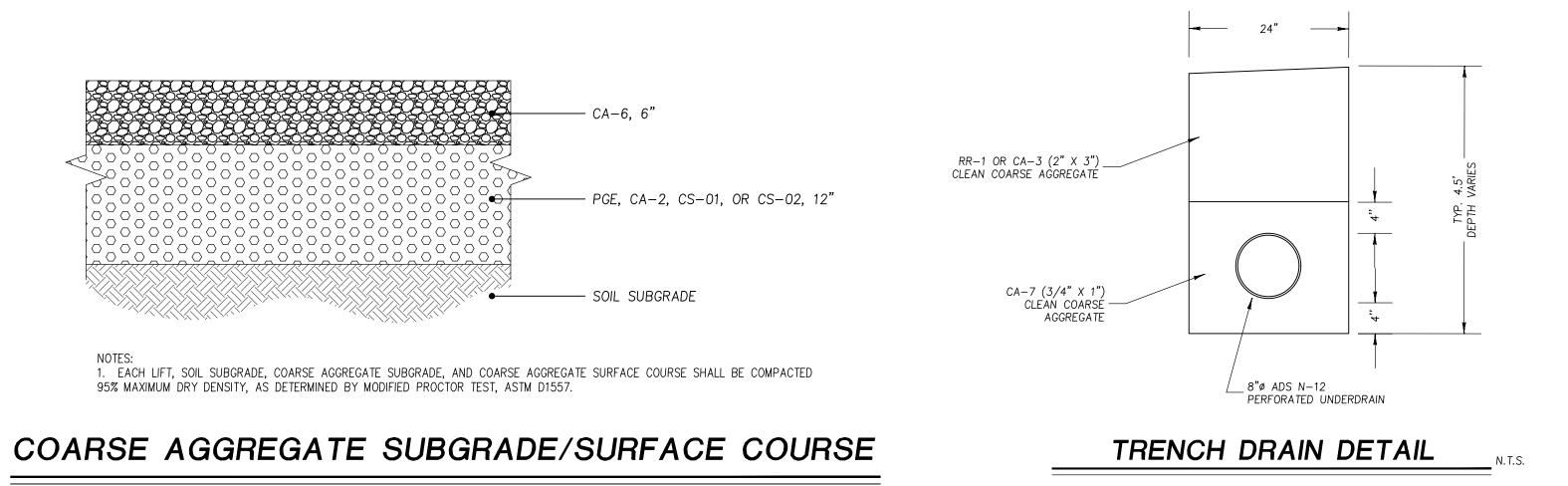




PROPOSED BIKE TRAIL (BY OTHERS) SECTION A-A (SEE SHEET C6.0)



FLARED END SECTION GRATING N.L.S



CONTINUOUS LENGTH

SYNTHETIC FILTER FABRIC, STAPLED OR WIRED TO

BE OVERLAPPED 6" MIN &

BE SECURELY SEALED TO

UPON COMPLETION, FILL

TRENCH W/ COMPACTED

SOIL OVER THE FILTER

DRIVE POST SECURELY

IN GROUND

1) 75% FILTERING EFFICIENCY

3) 0.30 GAL/SQ FT MINIMUM FLOW RATE.

THE FILTER FABRIC SHALL BE CONTECH C200 FABRIC OR APPROVED EQUAL & SHALL BE CERTIFIED TO MEET THE FOLLOWING:

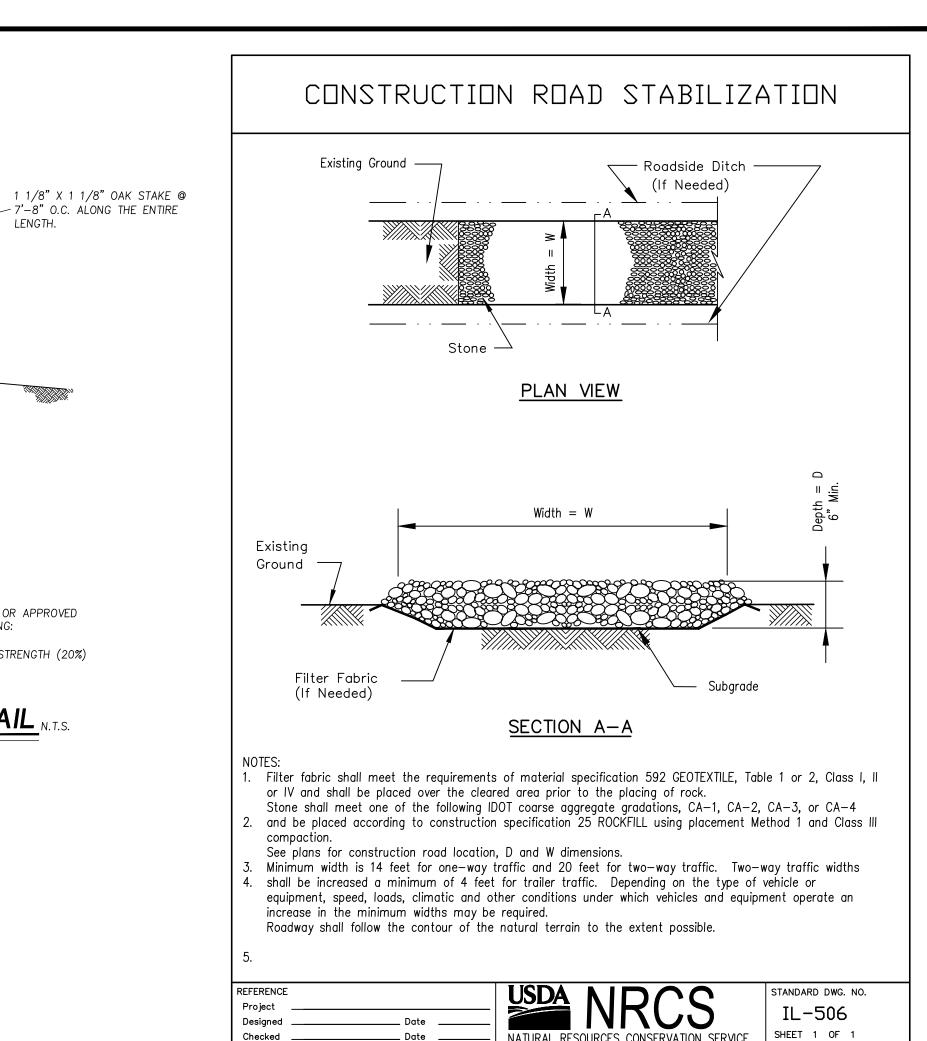
TENSILE STRENGTH OF 30 LB/LIN. INCH TENSILE STRENGTH (20%)

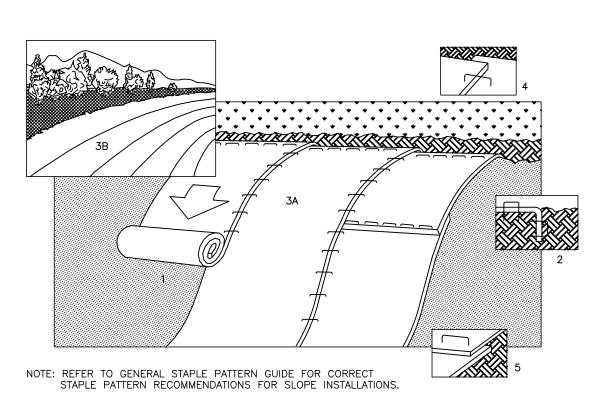
SILT FENCE DETAIL N.T.S.

10/10-6X6 WWM X 2'8" WIDE, ATTACH TO POST W/ HEAVY DUTY WIRE

STAPLES @ 6" O.C.

THE MESH AND/OR POSTS, AT JOINTS, THE FABRIC MUST





ILLINOIS

- 1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING APPLICATION OF LIME, FERTILIZER, AND SEED. NOTE: WHEN USING CELL-O-SEED DO NOT SEED PREPARED AREA. CELL-O-SEED MUST BE INSTALLED WITH PAPER SIDE DOWN.
- 2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN 6" DEEP X 6" WIDE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER STAPLING.
- 3. ROLL THE BLANKETS (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE.
- 4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY 2" OVERLAP.
- 5. WHEN BLANKETS MUST BE SPLICED DOWN THE SLOPE, PLACE BLANKETS END OVER END (SHINGLE STYLE) WITH APPROXIMATELY 4" OVERLAP. STAPLE THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART.



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