

MASS GRADING PLANS
FOR
SPANGLER PARCEL
ROMEOVILLE, ILLINOIS
PIZZUTI

C085by
SPANGLER GRADING
6/3/15

LEGEND		
PROPOSED	DESCRIPTION	EXISTING
	STORM SEWER WATER MAIN WITH SIZE SANITARY SEWER RIGHT-OF-WAY CONTOUR SPOT GRADE SANITARY MANHOLE STORM MANHOLE STORM INLET STORM CATCH BASIN FIRE HYDRANT PRESSURE CONNECTION GATE VALVE W/VAULT STREET LIGHT STREET LIGHT W/MAST OVERFLOW DIRECTION CURB & GUTTER SILT FENCE ROAD SIGN UNDERGROUND ELECTRIC UNDERGROUND GAS UTILITY POLE DEPRESSED CURB FOR RAMP/DRIVEWAY TOP OF FOUNDATION GARAGE FLOOR, AT REAR OF GARAGE TOP OF CURB, DEPRESSED TOP OF RETAINING WALL RIM FOR STRUCTURES RISER FOR SANITARY SERVICE HIGH/NORMAL WATER LEVEL TRANSFORMER FENCE LINE GUARD RAIL FORCE MAIN UNDERGROUND TELEPHONE UNDERGROUND ELECTRIC OVERHEAD ELECTRIC GAS LINE	



BASIS OF BEARINGS
NAD 83, ILLINOIS STATE PLANE, EAST ZONE (1201)

ELEVATIONS ARE TIED TO WILL COUNTY DATUM (NAVD88)

REFERENCE BENCHMARK:

WILL COUNTY STATION 403: 3-D MARKER ON THE SOUTH SIDE OF ROMEO ROAD 0.25 MILES WEST OF THE INTERSECTION OF IL. ROUTE 53 AND ROMEO ROAD.
ELEVATION=628.26

WILL COUNTY STATION 421: 3-D MARKER NEAR THE INTERSECTION OF RENWICK ROAD (IL. RTE. 7) AND OLD RENWICK ROAD. (SEE DATA SHEET FOR A MORE DETAILED DESCRIPTION.)
ELEVATION=647.34

SITE BENCHMARKS:

BM1 (JHA-CP28): "X" CUT IN NORTH TOP OF CURB OF TAYLOR ROAD OPPOSITE 6TH FIRE HYDRANT EAST OF "T" INTERSECTION.
ELEVATION=632.35

BM2 (JHA-CP31): "X" CUT IN NORTH TOP OF CURB OF TAYLOR ROAD OPPOSITE 12TH FIRE HYDRANT EAST OF "T" INTERSECTION.
ELEVATION=633.18

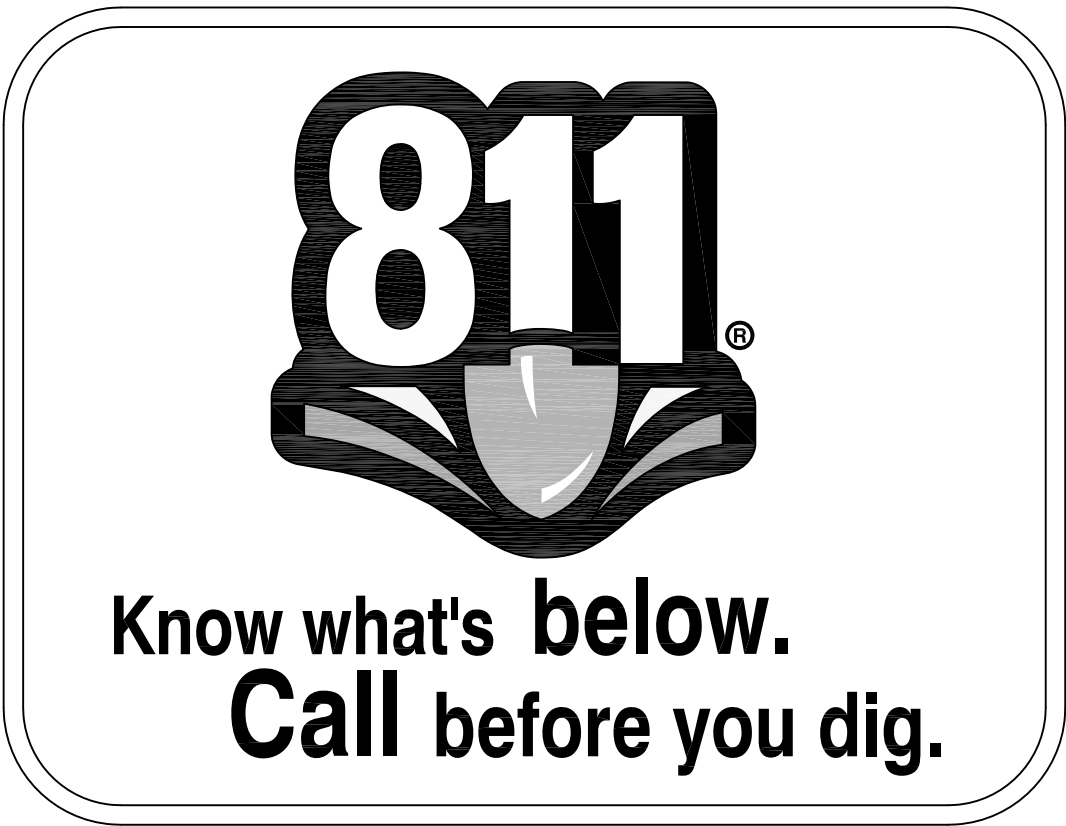
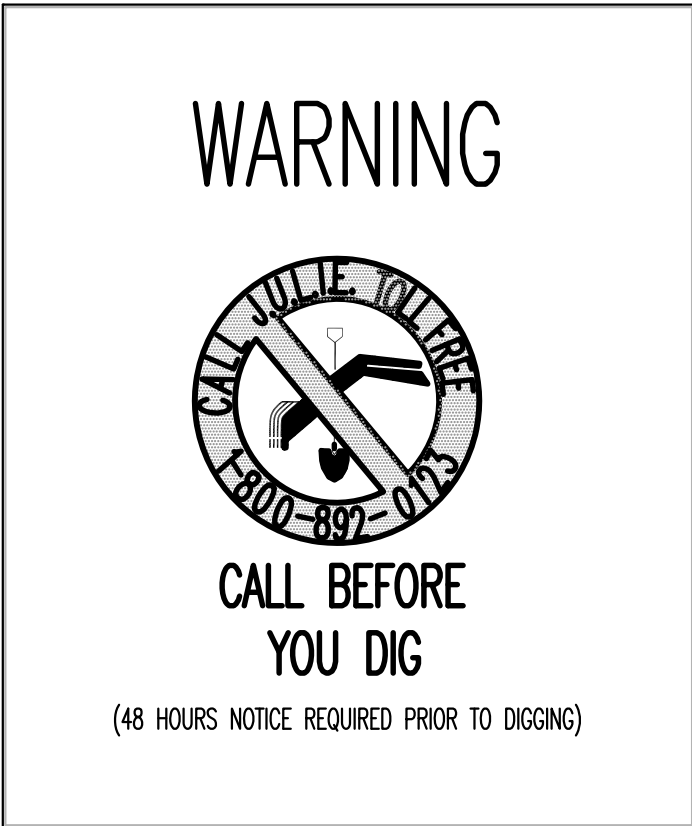
EXISTING INFORMATION OBTAINED FROM TOPOGRAPHICAL SURVEY PREPARED BY JACOB AND HEFNER ASSOCIATES, DATED MAY 20, 2014.

DRAWING INDEX

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DRAINAGE CERTIFICATE

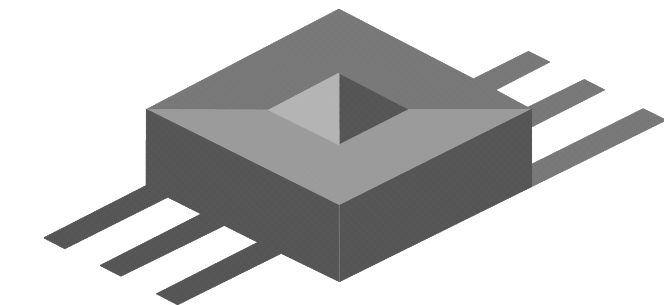
I, JASON SNYDER, HEREBY CERTIFY THAT ADEQUATE STORM WATER STORAGE AND DRAINAGE CAPACITY HAS BEEN PROVIDED FOR THIS DEVELOPMENT, SUCH THAT SURFACE WATER FROM THIS DEVELOPMENT WILL NOT BE DIVERTED ONTO AND CAUSE DAMAGE TO ADJACENT PROPERTY FOR STORMS UP TO AND INCLUDING THE ONE HUNDRED (100) YEAR EVENT, AND THAT THE DESIGN PLANS ARE IN COMPLIANCE WITH ALL APPLICABLE STATE, COUNTY, AND VILLAGE ORDINANCES.



PERMITS		
DATE	PERMIT #	AGENCY
4/22/15	ILR106769	NPDES

Municipality: ROMEOVILLE
Township: 36N
County: WILL
Section: 9

FOR REVIEW PURPOSES ONLY



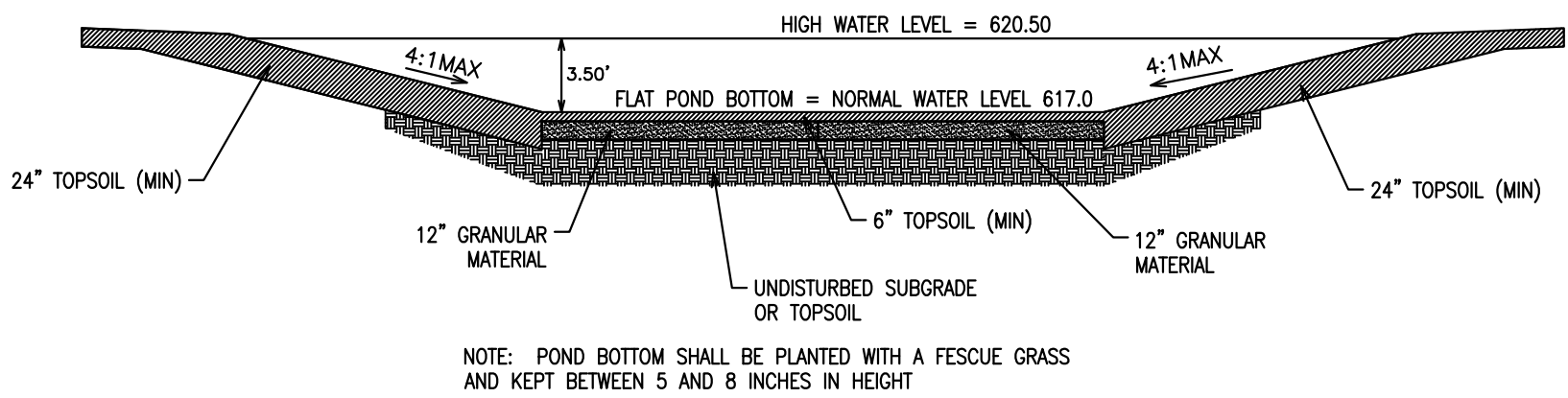
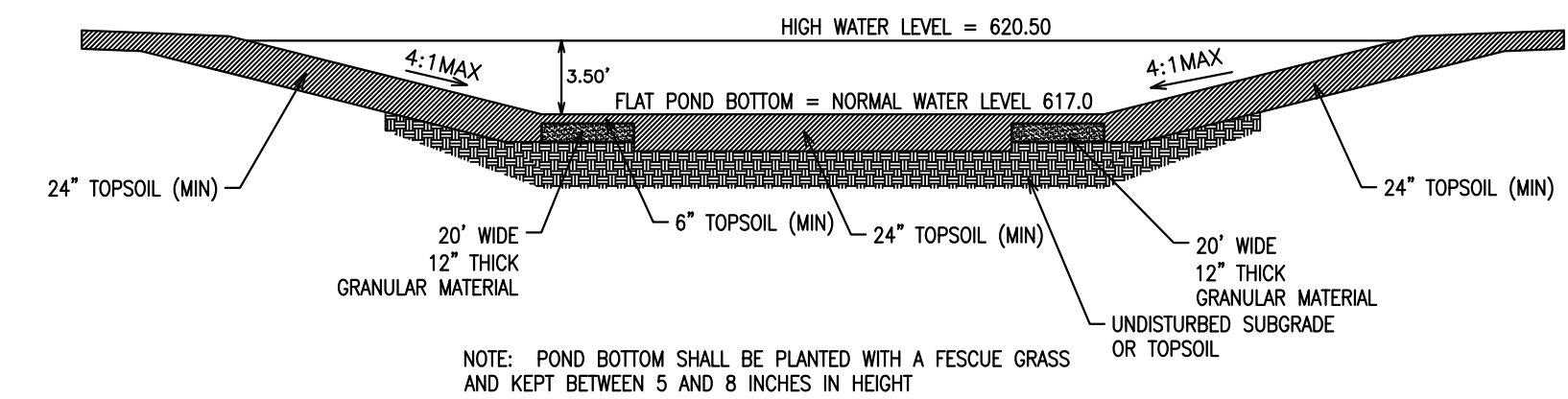
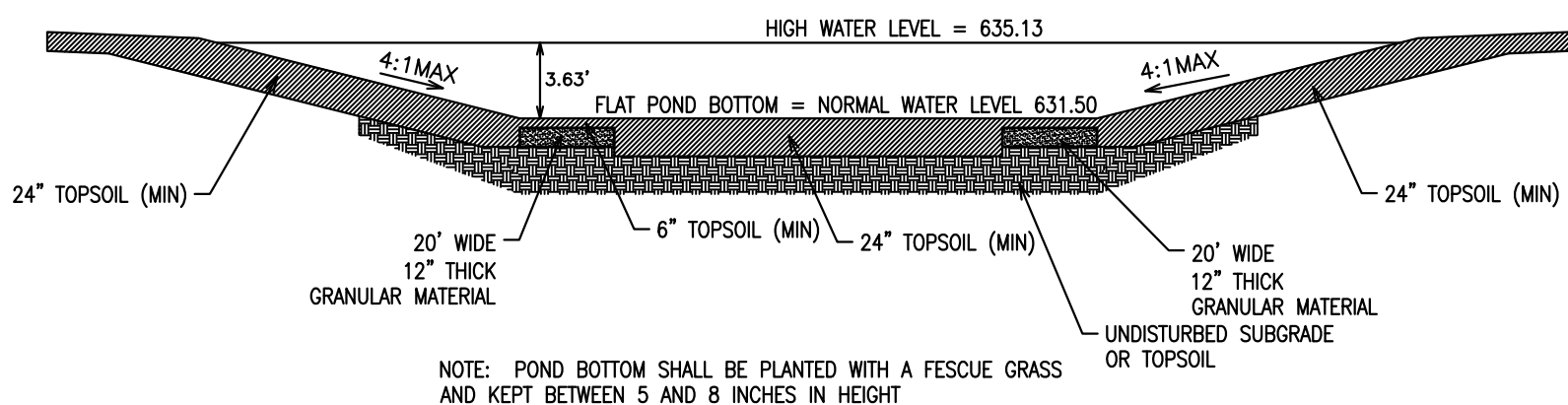
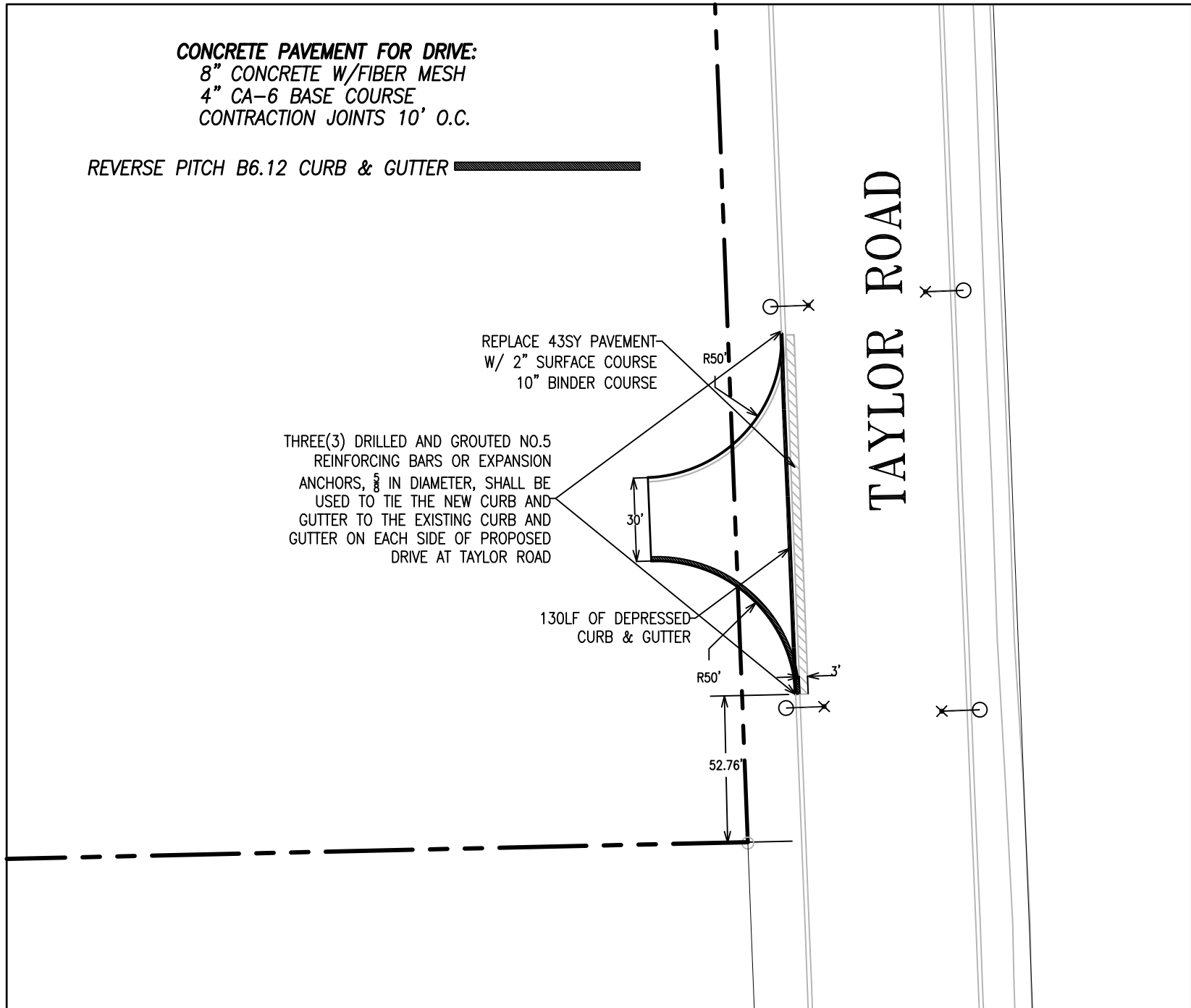
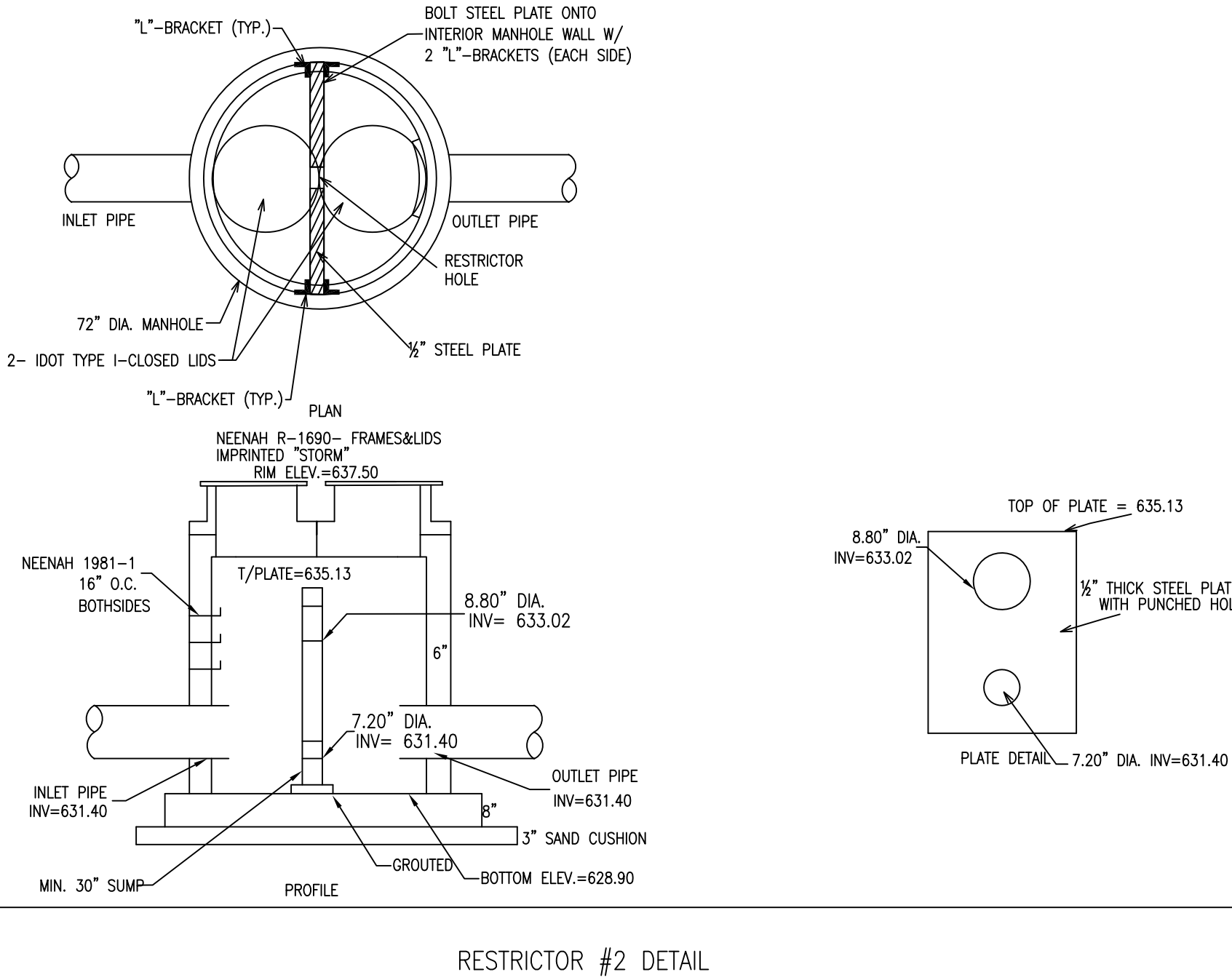
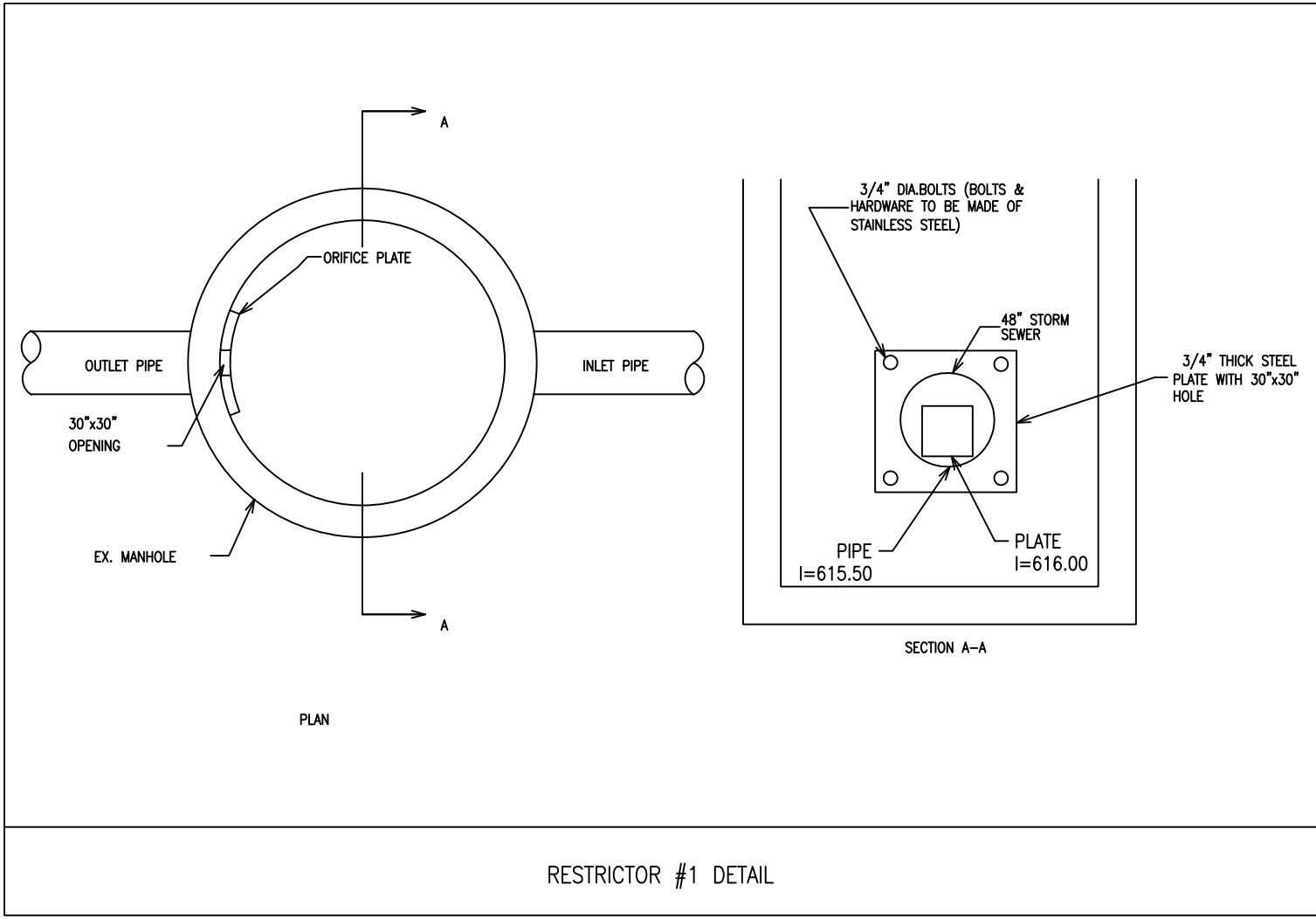
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GENERAL NOTES

1. ALL PAVING AND RELATED CONSTRUCTION SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION, BY ILLINOIS DEPARTMENT OF TRANSPORTATION AND ALL AMENDMENTS THERETO AND IN ACCORDANCE WITH THE LATEST EDITION OF THE SUBDIVISION REGULATIONS OF THE MUNICIPALITY. IN CASE OF CONFLICT, VILLAGE CODE SHALL TAKE PRECEDENCE.
2. ALL STORM SEWER, SANITARY SEWER AND WATER MAIN CONSTRUCTION SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, LATEST EDITION, AND IN ACCORDANCE WITH THE SUBDIVISION REGULATIONS OF THE MUNICIPALITY UNLESS OTHERWISE NOTED ON THE PLANS.
3. STANDARD SPECIFICATIONS, SUPPLEMENTAL SPECIFICATIONS AND RECURRING SPECIAL PROVISIONS, 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 CONSIDERED A PART OF THIS CONTRACT.
4. EACH CONTRACTOR SHALL BE RESPONSIBLE FOR HAVING THE UTILITY COMPANIES LOCATE THEIR FACILITIES IN THE FIELD PRIOR TO CONSTRUCTION AND SHALL ALSO BE RESPONSIBLE FOR THE MAINTENANCE AND PRESERVATION OF THESE FACILITIES. THE ENGINEER DOES NOT WARRANT THE LOCATION OF ANY EXISTING UTILITIES SHOWN ON THE PLAN. THE CONTRACTOR SHALL CALL J.U.L.I.E. AT 800-892-0123, AND THE MUNICIPALITY FOR UTILITY LOCATIONS.
5. NO CONSTRUCTION PLAN SHALL BE USED FOR CONSTRUCTION UNLESS SPECIFICALLY MARKED "FOR CONSTRUCTION". PRIOR TO COMMENCEMENT OF CONSTRUCTION THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AFFECTING THE WORK WITH THE ACTUAL CONDITIONS AT THE JOB SITE. IN ADDITION, THE CONTRACTOR MUST VERIFY THE SURVEYOR'S LINE AND GRADE STAKES. IF THERE ARE ANY DISCREPANCIES WITH WHAT IS SHOWN ON THE CONSTRUCTION PLANS, HE MUST IMMEDIATELY REPORT SAME TO ENGINEER BEFORE DOING ANY WORK, OTHERWISE THE CONTRACTOR ASSUMES FULL RESPONSIBILITY. IN THE EVENT OF DISAGREEMENT BETWEEN THE CONSTRUCTION PLANS, 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 OMISSIONS 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 QUESTIONS ARISING WITH RESPECT TO THE TRUE MEANING OF THE CONSTRUCTION PLANS OR SPECIFICATIONS, THE DECISION OF THE ENGINEER SHALL BE FINAL AND CONCLUSIVE.
6. NOTIFICATION OF COMMENCING CONSTRUCTION
 - A. EACH CONTRACTOR SHALL NOTIFY THE GENERAL CONTRACTOR AND THE AFFECTED GOVERNMENTAL AGENCIES IN WRITING AT LEAST THREE FULL WORKING DAYS PRIOR TO COMMENCEMENT OF CONSTRUCTION. IF THE CONTRACTOR HAS BEEN NOTIFIED BY THE GENERAL CONTRACTOR, ALL TESTING AGENCIES, EITHER VILLAGE'S OR THE OWNER'S, SUFFICIENTLY IN ADVANCE OF CONSTRUCTION.
 - B. FAILURE OF CONTRACTOR TO ALLOW PROPER NOTIFICATION TIME WHICH RESULTS IN TESTING COMPANIES TO BE UNABLE TO VISIT SITE AND PERFORM TESTING WILL CAUSE CONTRACTOR TO SUSPEND OPERATION (PERTAINING TO TESTING) UNTIL TESTING AGENCY CAN SCHEDULE TESTING OPERATIONS. COST OF SUSPENSION OF WORK TO BE BORNE BY CONTRACTOR.
7. EACH CONTRACTOR SHALL KEEP ACCESS AVAILABLE AT ALL TIMES FOR ALL TYPES OF TRAFFIC. AT NO TIME SHALL ACCESS IS DENIED TO PROPERTIES SURROUNDING THE SITE.
8. ALL PROPOSED ELEVATIONS SHOWN ON THE PLANS ARE FINISHED SURFACE ELEVATIONS, UNLESS OTHERWISE SPECIFIED.
9. EACH CONTRACTOR SHALL PRESERVE ALL CONSTRUCTION STAKES UNTIL THEY ARE NO LONGER NEEDED. ANY STAKES DESTROYED OR DISTURBED BY THE CONTRACTOR PRIOR TO THEIR USE SHALL BE RESET BY THE PROJECT'S SURVEYOR AT CONTRACTOR'S COST.
10. ALL FRAMES AND LIDS FOR STORM AND SANITARY SEWER STRUCTURES ARE TO BE ADJUSTED TO MEET FINAL FINISH GRADE. THIS ADJUSTMENT IS TO BE MADE BY THE SEWER CONTRACTOR AND THE COST IS TO BE CONSIDERED INCIDENTAL. THESE ADJUSTMENTS TO FINISHED GRADE WILL NOT ALLEVATE THE CONTRACTOR FROM ANY ADDITIONAL ADJUSTMENTS AS REQUIRED BY THE VILLAGE UPON FINAL INSPECTION OF THE PROJECT. FINAL GRADES TO BE DETERMINED BY THE VILLAGE AT THE TIME OF FINAL INSPECTION AND MAY VARY FROM PLAN GRADE.
11. ANY EXISTING SIGNS, LIGHT STANDARDS AND UTILITY POLES WHICH INTERFERE WITH CONSTRUCTION OPERATIONS AND NOT NOTED FOR DISPOSAL SHALL BE REMOVED AND RESET BY THE CONTRACTOR AT HIS OWN EXPENSE AS DIRECTED BY THE ENGINEER. ANY DAMAGE TO THESE ITEMS SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT HIS OWN EXPENSE TO THE SATISFACTION OF THE OWNER. ANY SIGNS NOT REQUIRED TO BE RESET, SHALL BE DELIVERED TO THE RESPECTIVE OWNERS.
12. REMOVAL OF SPECIFIED ITEMS, INCLUDING BUT NOT LIMITED TO, PAVEMENT, SIDEWALK, CURB, CURB AND GUTTER, CULVERTS, ETC. SHALL BE DISPOSED OF OFF-SITE BY THE CONTRACTOR AT HIS OWN EXPENSE. HE IS RESPONSIBLE FOR ANY PERMIT REQUIRED FOR SUCH DISPOSAL.
13. ALL FIELD TILE ENCOUNTERED DURING CONSTRUCTION OPERATIONS SHALL BE CONNECTED TO THE PROPOSED STORM SEWER SYSTEM OR SHALL BE RESTORED TO PROPER OPERATING CONDITION. A RECORD OF THE LOCATION OF ALL FIELD TILE OR DRAIN PIPE ENCOUNTERED SHALL BE KEPT BY THE CONTRACTOR AND TURNED OVER TO THE ENGINEER UPON COMPLETION OF THE PROJECT. THE COST OF THIS WORK SHALL BE CONSIDERED AS INCIDENTAL TO THE SUBCONTRACT AND NO ADDITIONAL COMPENSATION WILL BE ALLOWED.
14. ALL WORK PERFORMED UNDER THIS CONTRACT SHALL BE GUARANTEED BY THE CONTRACTOR FOR A PERIOD OF 12 MONTHS FROM THE DATE OF FINAL ACCEPTANCE OF THE PROJECT AND THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ALL DEFECTS IN MATERIALS AND WORKMANSHIP OF WHATEVER NATURE DURING THAT PERIOD.
15. BEFORE ACCEPTANCE BY THE OWNER AND FINAL PAYMENT, ALL WORK SHALL BE INSPECTED BY THE OWNER OR HIS REPRESENTATIVE. FINAL PAYMENT WILL BE MADE AFTER ALL THE CONTRACTOR'S WORK HAS BEEN REPRESENTED AND ACCEPTED.
16. EASEMENTS FOR THE EXISTING UTILITIES, BOTH PUBLIC AND PRIVATE, AND UTILITIES WITHIN PUBLIC RIGHTS-OF-WAY ARE SHOWN ON THE PLANS ACCORDING TO KNOWN AVAILABLE RECORDS. EACH CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION IN THE FIELD OF THESE UTILITY LINES AND THEIR PROTECTION FROM DAMAGE DUE TO CONSTRUCTION OPERATIONS. IF EXISTING UTILITY LINES OF ANY NATURE ARE ENCOUNTERED WHICH CONFLICT WITH LOCATIONS OF THE NEW CONSTRUCTION, JACOB AND HEFNER ASSOCIATES, INC. IS RESPONSIBLE TO RESOLVE THE CONFLICT. JACOB AND HEFNER ASSOCIATES, INC. IS NOT RESPONSIBLE FOR THE COST OF CONSTRUCTION.
17. OWNER SHALL OBTAIN EASEMENTS AND PERMITS NECESSARY TO FACILITATE CONSTRUCTION OF THE PROPOSED UTILITIES. THE CONTRACTORS, HOWEVER, SHALL FURNISH EVIDENCE OF INSURANCE NECESSARY TO SECURE THESE PERMITS.
18. THE CONTRACTORS SHALL PLAN THEIR WORK BASED ON THEIR OWN BORINGS, EXPLORATIONS AND OBSERVATIONS TO DETERMINE SOIL CONDITIONS AT THE LOCATION OF THE PROPOSED WORK.
19. EACH CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR SAFETY ON THE JOB RELATING TO THEIR SCOPE OF WORK IN ACCORDANCE WITH OSHA REGULATIONS.
20. EACH CONTRACTOR SHALL COLLECT AND REMOVE ALL CONSTRUCTION DEBRIS, INCLUDING THE REMOVAL OF STAKES, LATHE, ETC. SET BY SURVEYORS FOR CONSTRUCTION PURPOSES, EXCESS MATERIALS, TRASH, OIL AND GREASE RESIDUE, MACHINERY, TOOLS AND OTHER MISCELLANEOUS ITEMS WHICH WERE NOT PRESENT PRIOR TO PROJECT COMMENCEMENT AT NO ADDITIONAL EXPENSE TO THE OWNER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ACQUIRING ANY AND ALL PERMITS NECESSARY FOR THE HAULING AND DISPOSAL REQUIRED FOR CLEAN-UP AS DIRECTED BY THE ENGINEER OR OWNER. BURNING ON THE SITE IS NOT PERMITTED.
21. IT SHALL BE EACH CONTRACTOR'S SOLE RESPONSIBILITY TO PROVIDE PROPER BARRICADING, WARNING DEVICES AND THE SAFE MANAGEMENT OF TRAFFIC AND PEDESTRIANS WITHIN THE AREA OF THEIR CONSTRUCTION. ALL SUCH DEVICES AND THEIR INSTALLATION SHALL CONFORM TO THE ILLINOIS MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION AND IN CONFORMANCE WITH THE REGULATIONS OF THE MUNICIPALITY OR D.O.T.
22. NO UNDERGROUND WORK SHALL BE COVERED UNTIL IT HAS BEEN APPROVED BY THE VILLAGE. APPROVAL TO PROCEED MUST BE OBTAINED FROM THE VILLAGE PRIOR TO INSTALLING PAVEMENT BASE, BINDER, SURFACE AND PRIOR TO POURING ANY CONCRETE AFTER FORMS HAVE BEEN SET.
23. ALL EXISTING UTILITIES OR IMPROVEMENTS, INCLUDING WALKS, CURBS, PAVEMENT AND PARKWAYS DAMAGED OR REMOVED DURING CONSTRUCTION SHALL BE PROMPTLY RESTORED TO THEIR RESPECTIVE ORIGINAL CONDITION.
24. AT THE CLOSE OF EACH WORKING DAY AND AT THE CONCLUSION OF CONSTRUCTION OPERATIONS, ALL DRAINAGE STRUCTURES AND FLOW LINES SHALL BE FREE FROM DIRT AND DEBRIS.

25. TREES NOT MARKED FOR REMOVAL SHALL BE CONSIDERED AS DESIGNATED TO BE SAVED AND SHALL BE PROTECTED UNDER THE PROVISIONS OF ARTICLE 201.05 OF THE STANDARD SPECIFICATIONS.
26. LIMB PRUNING SHALL BE PERFORMED UNDER THE SUPERVISION OF AN APPROVED LANDSCAPE ARCHITECT AND SHALL BE UNDERTAKEN IN A TIMELY FASHION SO AS NOT TO INTERFERE WITH CONSTRUCTION.
27. ALL LIMBS, BRANCHES, AND OTHER DEBRIS RESULTING FROM THIS WORK SHALL BE DISPOSED OF OFF-SITE BY THE SUBCONTRACTOR AT HIS OWN EXPENSE.
28. ALL CUTS OVER 1" IN DIAMETER SHALL BE MADE FLUSH WITH THE NEXT LARGE BRANCH. WOUNDS OVER 1" IN DIAMETER SHALL BE PAINTED WITH AN APPROVED TREE PAINT.
29. ANY DOWATERING OF SEWER AND WATER TRENCHES AS WELL AS TEMPORARY SHEETING OR BRACING THAT MAY BE REQUIRED SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL NOT BE CONSIDERED EXTRA WORK. IN THE EVENT THAT SOFT MATERIALS WITH UNCONFINED COMPRESSIVE STRENGTH LESS THAN 4.0 TSF ARE ENCOUNTERED IN SEWER AND WATER MAIN CONSTRUCTION, THE CONTRACTOR SHALL (UPON APPROVAL OF THE OWNER AND/OR ENGINEER) OVER-EXCAVATE TO A DEPTH OF ONE (1) FOOT BELOW THE BOTTOM OF THE PIPE AND BACKFILL WITH COMPACTED CRUSHED STONE, PROPERLY FORMED TO FIT THE BOTTOM OF THE PIPE.
30. CONTRACTOR SHALL VIDEO TAPE WORK AREA PRIOR TO CONSTRUCTION FOR THE PURPOSE OF DOCUMENTING EXISTING CONDITIONS.
31. TRENCH BACKFILL WILL BE REQUIRED TO THE FULL DEPTH ABOVE ALL UNDERGROUND UTILITIES WITHIN TWO FEET OF FROZED OR EXISTING PAVEMENTS, UTILITIES, AND SIDEWALKS. THE TRENCH BACKFILL SHALL BE DONE IN ACCORDANCE WITH IDOT STANDARD SPECIFICATIONS. THE TRENCH BACKFILL AND BEDDING MATERIAL SHALL CONSIST OF CRUSHED GRAVEL CONFORMING TO IDOT GRADATION CA-7.
32. WHEN SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER, EXISTING DRAINAGE STRUCTURES AND SYSTEMS SHALL BE CLEANED OF DEBRIS AND PATCHED AS NECESSARY TO ASSURE INTEGRITY OF THE STRUCTURE. WHICH SHALL BE PAYMENT IN FULL FOR CLEANING, PATCHING, REMOVAL AND DISPOSAL OF DEBRIS AND DIRT. DRAINAGE STRUCTURES AND SEWERS CONSTRUCTED AS PART OF THIS CONTRACT SHALL BE MAINTAINED BY THE CONTRACTOR AT HIS OWN EXPENSE.
33. HYDRANTS SHALL NOT BE FLOUSHED DIRECTLY ON THE ROAD SUBGRADE. WHEREVER POSSIBLE, HOSES SHALL BE USED TO DIRECT THE WATER INTO STORM SEWERS. DAMAGE TO THE ROAD SUBGRADE OR LOT AREAS DUE TO EXCESSIVE WATER SATURATION AND/OR EROSION FROM HYDRANT FLUSHING OR FROM LEAKS IN THE WATER DISTRIBUTION SYSTEM, WILL BE THE RESPONSIBILITY OF THE CONTRACTOR FLUSHING OR USING HYDRANT TO MAKE ALL NECESSARY REPAIRS AT HIS EXPENSE. THE CONTRACTOR SHALL PROVIDE ALL CONSTRUCTION WATER AT HIS EXPENSE.
34. AS THE STORM SEWER SYSTEM IS CONSTRUCTED THE CONTRACTOR SHALL PLACE EROSION CONTROL AT LOCATIONS SHOWN ON THE PLANS OR AS SELECTED IN THE FIELD BY THE ENGINEER. THE PURPOSE OF THE EROSION CONTROL WILL BE TO MINIMIZE THE AMOUNT OF SILTATION, WHICH NORMALLY WOULD ENTER THE STORM SEWER SYSTEM FROM ADJECENT AND/OR UPSTREAM DRAINAGE AREAS.
35. EROSION CONTROL MEASURES SHALL BE INSTALLED IN ACCORDANCE WITH ILLINOIS URBAN MANUAL; AND SHALL BE MAINTAINED BY THE SUBCONTRACTOR AND SHALL REMAIN IN PLACE UNTIL A SUITABLE GRADE OF GRASS ACCEPTABLE TO THE ENGINEER HAS BEEN DEVELOPED.
36. EACH CONTRACTOR SHALL PROVIDE ONE MYLAR AND REQUIRED COPIES OF "RECORD DRAWINGS" TO THE VILLAGE AND OWNER PRIOR TO ANY REQUEST FOR FINAL INSPECTION. SAID PLANS SHALL INDICATE THE FINAL LOCATION AND LAYOUT OF ALL IMPROVEMENTS. INCLUDE VERIFICATION OF ALL BUILDING PADS, PLOT OF FOUNDATION, INVERT, RIM, AND SPOT GRADE ELEVATIONS, LOCATION OF ALL WATER SERVICE B-BOXES, SANITARY SERVICES, AND STORM SERVICES AND INCORPORATE ALL FIELD DESIGN CHANGES APPROVED BY THE VILLAGE AND SIGNED BY A PROFESSIONAL LAND SURVEYOR.
37. AN ON-SITE GEOTECHNICAL ENGINEER WILL BE RETAINED TO MONITOR EARTHWORK AND GRADING ACTIVITY, IN ORDER TO IDENTIFY UNSUITABLE SOILS FOR REMOVAL FROM THE SITE.



CONTACTS

VILLAGE OF ROMEVILLE CONTACT:

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GENERAL NOTES &
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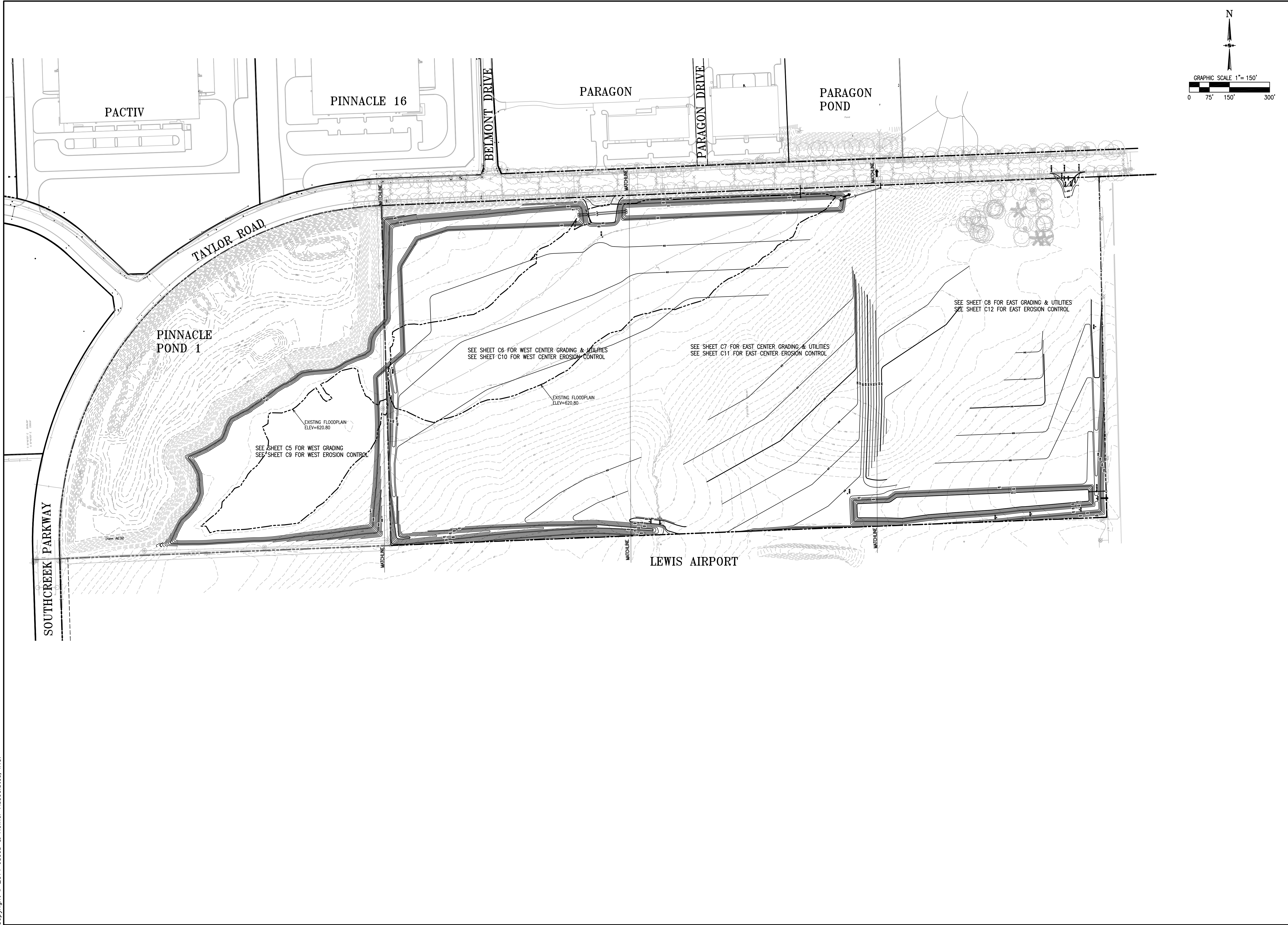
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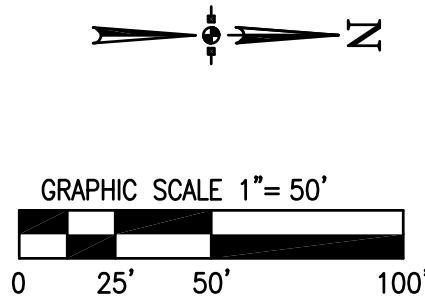
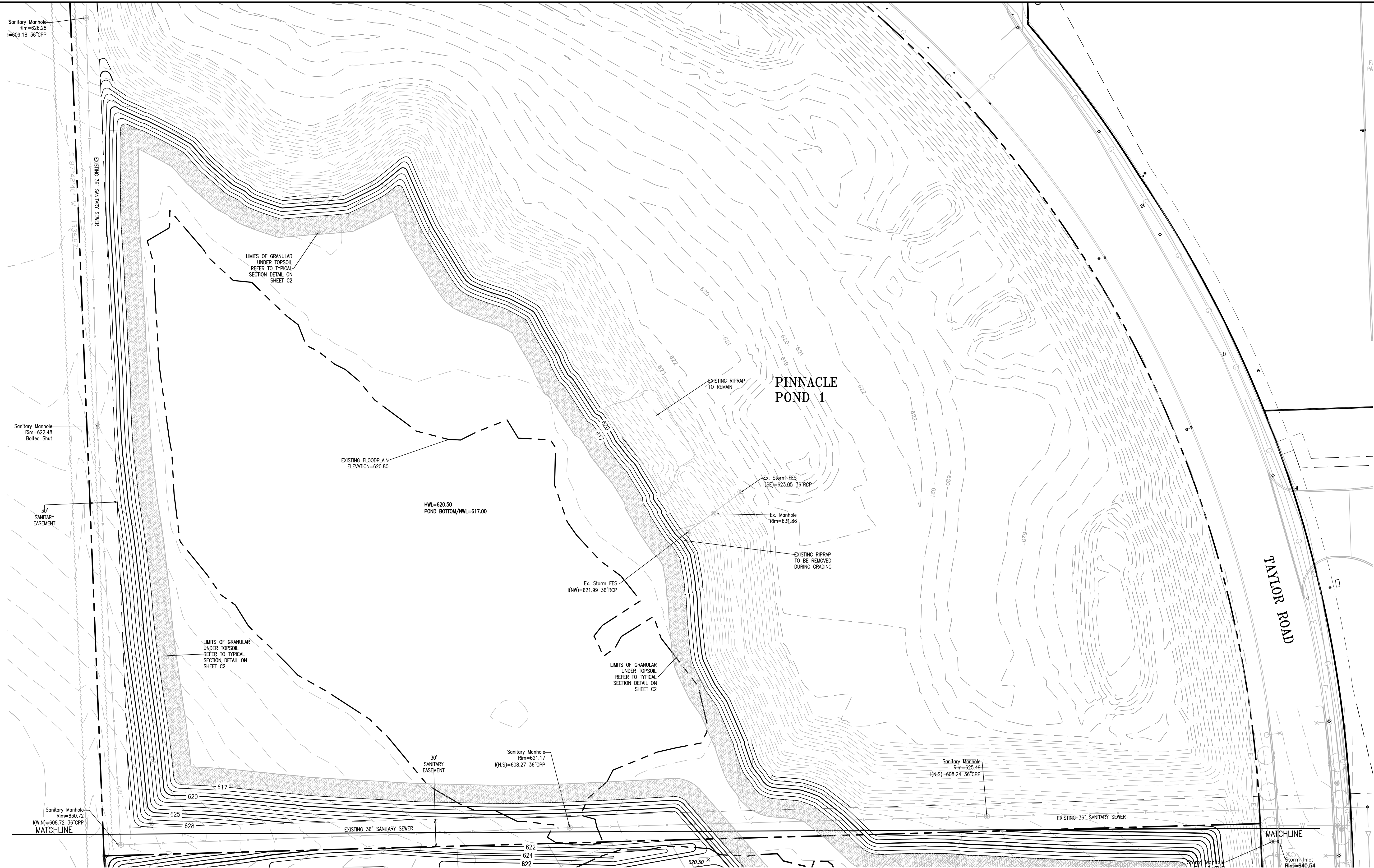
<div></div> <div>JACOB & HEFNER ASSOCIATES 1910 S. Highland Avenue, Suite 100, Lombard, IL 60148 PHONE: (630) 652-4600, FAX: (630) 652-4601 www.jacobandhefner.com</div>																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		
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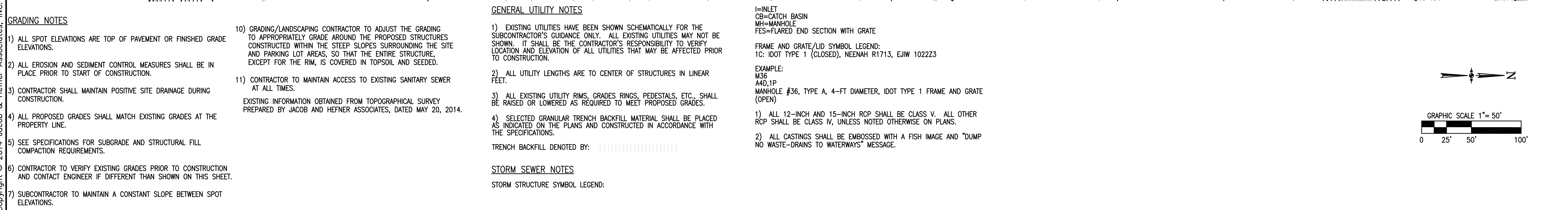
GRADING NOTES


- 1) ALL SPOT ELEVATIONS ARE TOP OF PAVEMENT OR FINISHED GRADE ELEVATIONS.
- 2) ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE IN PLACE PRIOR TO START OF CONSTRUCTION.
- 3) CONTRACTOR SHALL MAINTAIN POSITIVE SITE DRAINAGE DURING CONSTRUCTION.
- 4) ALL PROPOSED GRADES SHALL MATCH EXISTING GRADES AT THE PROPERTY LINE.
- 5) SEE SPECIFICATIONS FOR SUBGRADE AND STRUCTURAL FILL COMPACTION REQUIREMENTS.
- 6) CONTRACTOR TO VERIFY EXISTING GRADES PRIOR TO CONSTRUCTION AND CONTACT ENGINEER IF DIFFERENT THAN SHOWN ON THIS SHEET.
- 7) SUBCONTRACTOR TO MAINTAIN A CONSTANT SLOPE BETWEEN SPOT ELEVATIONS.

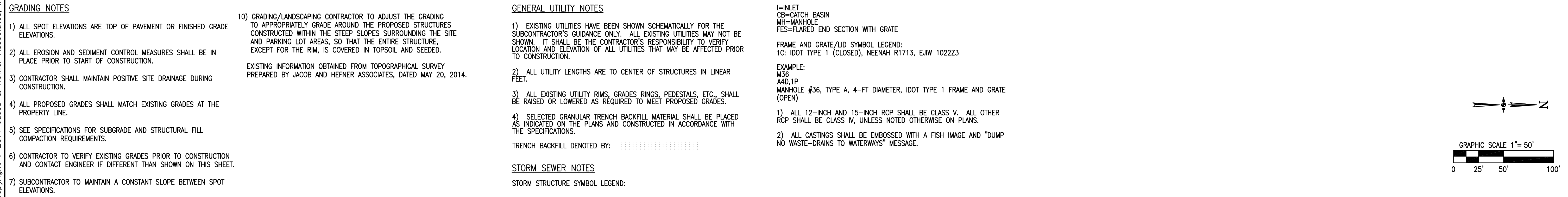
- 10) GRADING/LANDSCAPING CONTRACTOR TO ADJUST THE GRADING TO APPROPRIATELY GRADE AROUND THE PROPOSED STRUCTURES CONSTRUCTED WITHIN THE STEEP SLOPES SURROUNDING THE SITE AND PARKING LOT AREAS, SO THAT THE ENTIRE STRUCTURE, EXCEPT FOR THE RIM, IS COVERED IN TOPSOIL AND SEEDED.
 - 11) CONTRACTOR TO MAINTAIN ACCESS TO EXISTING SANITARY SEWER AT ALL TIMES.
- EXISTING INFORMATION OBTAINED FROM TOPOGRAPHICAL SURVEY PREPARED BY JACOB AND HEFNER ASSOCIATES, DATED MAY 20, 2014.




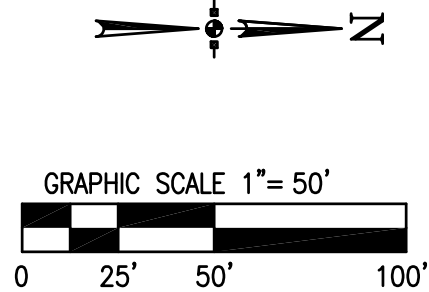
C085BY			JACOB & HEFNER ASSOCIATES 1910 S. Highland Avenue, Suite 100, Lombard, IL 60148 PHONE: (630) 652-4600, FAX: (630) 652-4601 www.jacobandhefner.com	MASS GRADING PLAN 1							
1"=50'				SPANGLER PARCEL – MASS GRADING							
C5				PIZZUTI							
				ROMEIOVILLE, ILLINOIS				2	VILLAGE COMMENTS	6/3/15	
									ISSE FOR REVIEW	5/13/15	
								No.	Description		Date




C085BY	 <p>JACOB & HEFNER ASSOCIATES 1910 S. Highland Avenue, Suite 100, Lombard, IL 60148 PHONE: (630) 652-4600, FAX: (630) 652-4601 www.jacobandhefner.com</p>	MASS GRADING PLAN 2				
1"=50'		SPANGLER PARCEL - MASS GRADING				
C6		PIZZUTI		2	VILLAGE COMMENTS	6/3/15
		ROMEIOVILLE, ILLINOIS			ISSE FOR REVIEW	5/13/15
				No.	Description	Date

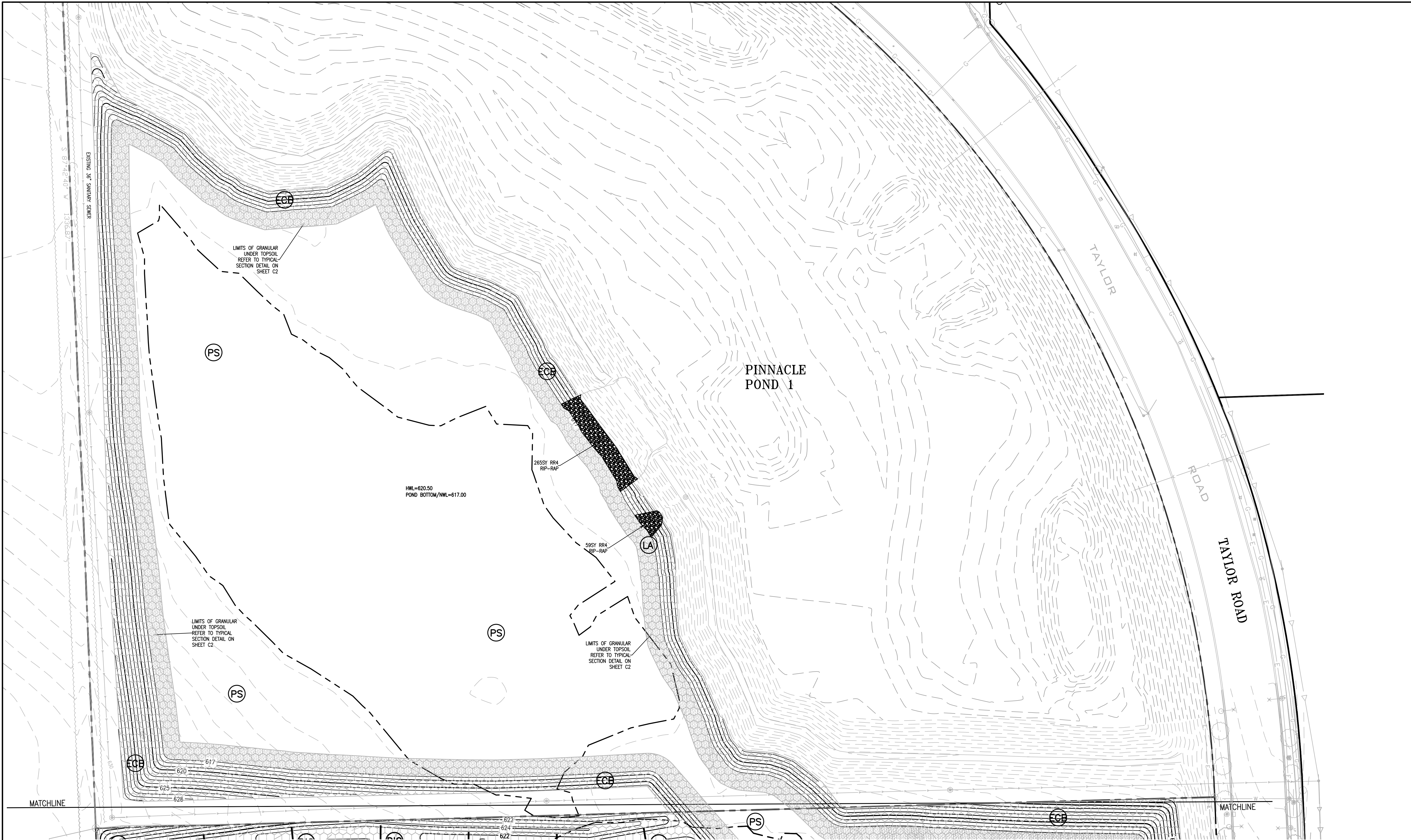


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1"=50'		
C7		



C085BY	 <p>JACOB & HEFNER ASSOCIATES 1910 S. Highland Avenue, Suite 100, Lombard, IL 60148 PHONE: (630) 652-4600, FAX: (630) 652-4601 www.jacobandhefner.com</p>	<p>MASS GRADING PLAN 4</p> <p>SPANGLER PARCEL – MASS GRADING</p> <p>PIZZUTI</p> <p>ROMEOVILLE, ILLINOIS</p>							
1"=50'									
C8									
							2	VILLAGE COMMENTS	6/3/15
								ISSE FOR REVIEW	5/13/15
					No.	Description	Date		

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EROSION CONTROL NOTES

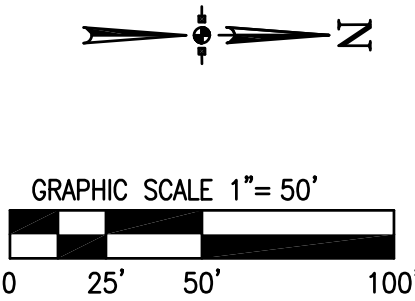
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- 3) CONTRACTOR RESPONSIBLE FOR DUST CONTROL.
- 4) CONTRACTOR RESPONSIBLE FOR MAINTAINING THE PUBLIC ROADWAYS CLEAN AND FREE OF DIRT AND DEBRIS AT ALL TIMES.
- 5) OTHER EROSION CONTROL MEASURES SHALL BE IMPLEMENTED SHOULD AN INSPECTION OF THE SITE INDICATE A DEFICIENCY.
- 6) ALL ACCESS TO AND FROM THE CONSTRUCTION SITE IS TO BE RESTRICTED TO THE CONSTRUCTION ENTRANCE.

- 7) ALL TEMPORARY AND PERMANENT EROSION AND SEDIMENT CONTROL PRACTICES MUST BE MAINTAINED AND REPAIRED AS NEEDED TO ASSURE EFFECTIVE PERFORMANCE OF THEIR INTENDED FUNCTION.
- 8) MAJOR AMENDMENTS OF THE SITE DEVELOPMENT OR EROSION AND SEDIMENTATION CONTROL PLANS SHALL BE SUBMITTED TO THE DEPARTMENT OF COMMUNITY DEVELOPMENT TO BE APPROVED IN THE SAME MANNER AS THE ORIGINAL PLANS.
- 9) 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.
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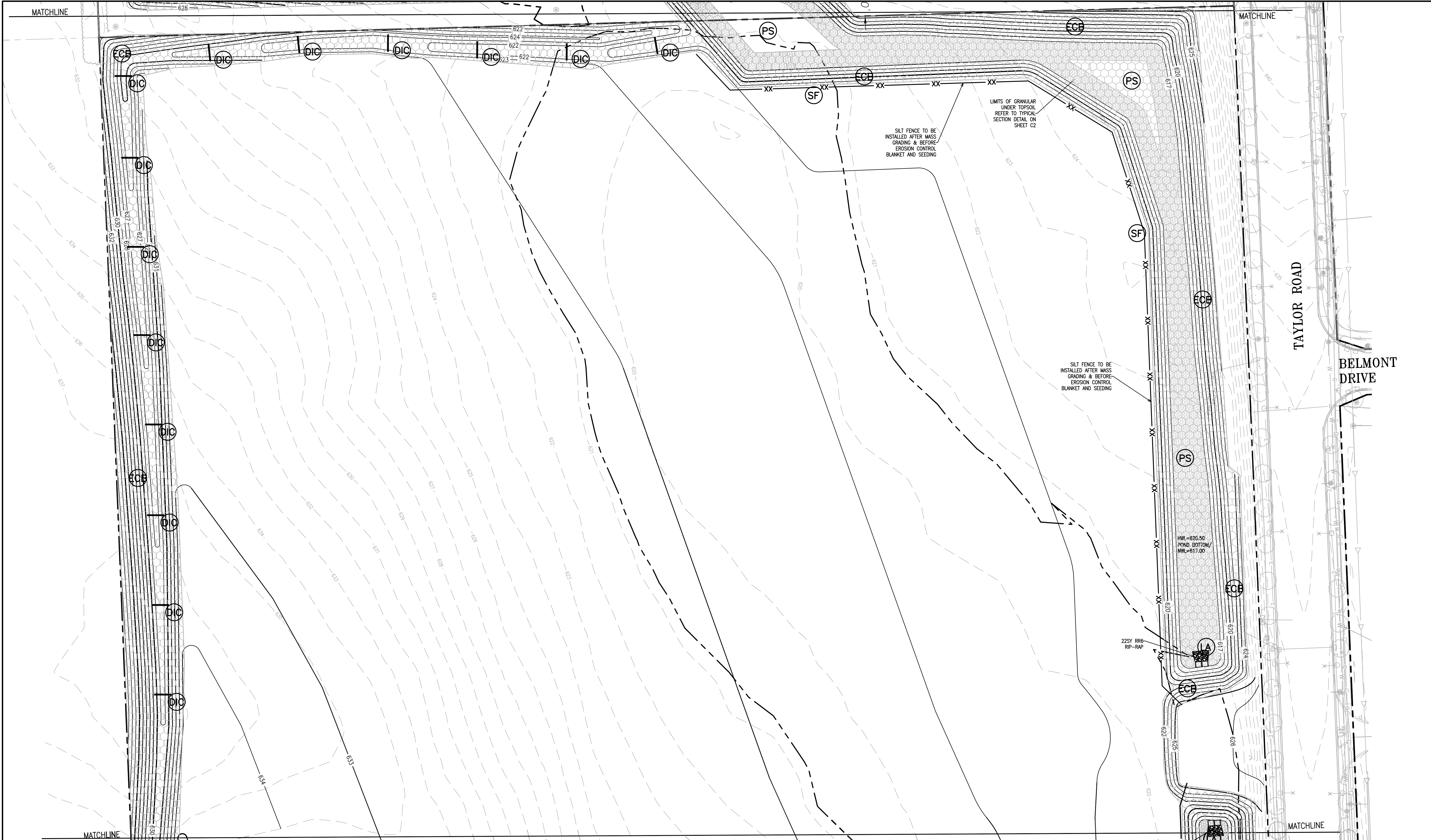
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- 12) IF A STOCKPILE IS TO REMAIN IN PLACE FOR MORE THAN THREE DAYS, THEN SEDIMENT AND EROSION CONTROL MEASURES SHALL BE PROVIDED FOR SUCH A STOCKPILE.
- 13) DISTURBED AREAS SHALL BE STABILIZED WITH TEMPORARY OR PERMANENT MEASURES WITHIN 7 CALENDAR DAYS FOLLOWING THE END OF ACTIVE DISTURBANCE OR RE-DISTURBANCE.
- 14) EROSION CONTROL BLANKET IS REQUIRED FOR ALL AREAS WITH SLOPES EXCEEDING 12%.

EROSION CONTROL LEGEND

- (SF) SILT FENCE
- (SE) STABILIZED CONSTRUCTION ENTRANCE
- (DIC) DITCH CHECK = STRAW LOG
- (ECB) EROSION CONTROL BLANKET
- (TS) TEMPORARY SEEDING



EROSION CONTROL PLAN 1					
SPANGLER PARCEL – MASS GRADING					
PIZZUTI				2 VILLAGE COMMENTS	6/3/15
ROMEDEVILLE, ILLINOIS				ISSE FOR REVIEW	5/13/15
		No.	Description	No.	Date
C085BY					
1"=50'					
C9					



EROSION CONTROL NOTES

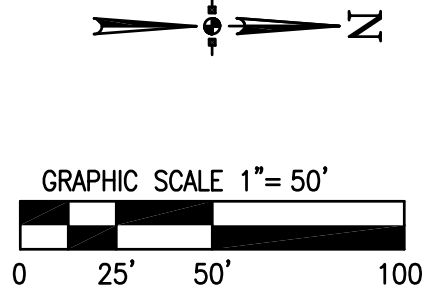
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EROSION CONTROL LEGEND

- (SF) SILT FENCE
- (SE) STABILIZED CONSTRUCTION ENTRANCE
- (DIC) DITCH CHECK = STRAW LOG
- (ECB) EROSION CONTROL BLANKET
- (IP) INLET PROTECTION
- (TS) TEMPORARY SEEDING



EROSION CONTROL PLAN 2		SPANGLER PARCEL – MASS GRADING		6/3/15	
		PIZZUTI		5/13/15	
		ROMEVOILE, ILLINOIS		ISSUE FOR REVIEW	Description
				No.	Date
JACOB & HEFNER ASSOCIATES		1910 S. Highland Avenue, Suite 100, Lombard, IL 60148			
		PHONE: (630) 652-4600, FAX: (630) 652-4601			
		www.jacobandhefner.com			
C085BY					
1"=50'					
C10					

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EROSION CONTROL NOTES

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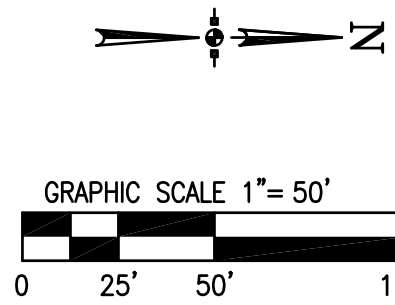
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EROSION CONTROL LEGEND

- (SF) SILT FENCE
- (SE) STABILIZED CONSTRUCTION ENTRANCE
- (DIC) DITCH CHECK = STRAW LOG
- (ECB) EROSION CONTROL BLANKET
- (TS) TEMPORARY SEEDING



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EROSION CONTROL PLAN 3
SPANGLER PARCEL – MASS GRADING
PIZZUTI
ROMEIOVILLE, ILLINOIS

C085BY
1"=50'
C11

No.	Description	Date
2	VILLAGE COMMENTS	6/3/15
	ISSE FOR REVIEW	5/13/15

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EROSION CONTROL NOTES

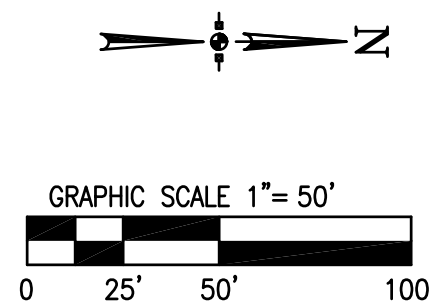
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- 9) ANY SEDIMENT REACHING A PUBLIC OR PRIVATE ROAD SHALL BE REMOVED BY SHOVELING OR STREET CLEANING (NOT FLUSHING) BEFORE THE END OF EACH WORKDAY AND TRANSPORTED TO A CONTROLLED SEDIMENT DISPOSAL.
- 10) ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE DISPOSED OF WITHIN 30 DAYS AFTER THE FINAL SITE STABILIZATION IS ACHIEVED WITH PERMANENT SOIL STABILIZATION MEASURES.

- 11) 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.
- 12) IF A STOCKPILE IS TO REMAIN IN PLACE FOR MORE THAN THREE DAYS, THEN SEDIMENT AND EROSION CONTROL MEASURES SHALL BE PROVIDED FOR SUCH A STOCKPILE.
- 13) DISTURBED AREAS SHALL BE STABILIZED WITH TEMPORARY OR PERMANENT MEASURES WITHIN 7 CALENDAR DAYS FOLLOWING THE END OF ACTIVE DISTURBANCE OR RE-DISTURBANCE.
- 14) EROSION CONTROL BLANKET IS REQUIRED FOR ALL AREAS WITH SLOPES EXCEEDING 12%.

EROSION CONTROL LEGEND

- (SF) SILT FENCE
- (SE) STABILIZED CONSTRUCTION ENTRANCE
- (DIC) DITCH CHECK = STRAW LOG
- (ECB) EROSION CONTROL BLANKET
- (CW) CONCRETE WASHOUT
- (TS) TEMPORARY SEEDING



EROSION CONTROL PLAN 4			
SPANGLER PARCEL – MASS GRADING			
PIZZUTI			
ROMEDEVILLE, ILLINOIS			
JACOB & HEFNER ASSOCIATES		1910 S. Highland Avenue, Suite 100, Lombard, IL 60148	
		PHONE: (630) 652-4600, FAX: (630) 652-4601	
		www.jacobandhefner.com	
C085BY		6/3/15	
1"=50'		5/13/15	
C12		Description	
		No.	
		Date	

NOTES:

This plan has been prepared to comply with the provisions of the NPDES Permit Number ILR106769, issued by the Illinois Environmental Protection Agency for Stormwater Discharges from Construction Site Activities and Soil Erosion and Sediment Control Ordinance for the County.

1. Site Description.

a. The following is a description of the construction activity following mass grading which is the subject of this plan:
The proposed development consists of construction of Light Industrial Development.
The construction activities for site improvements will include:
mass grading, pavement construction, installation of utilities including storm sewers, soil erosion and sedimentation control measures, as a minimum.

b. The following is a description of the intended sequence of major activities which will disturb soils for major portions of the construction site, such as grubbing, excavation, and grading:
The sequence of the construction activities may be as follows: 1) install silt filter fence and stabilized construction entrance, 2) mass grading, 3) underground utilities installation, 4) fine grading in pavement area and 5) pavement construction. The soil erosion and sedimentation control items will be constructed as needed during the above construction activities.

c. The total area of the construction site is estimated to be 92.4 acres.
The total area of the site that it is estimated to be disturbed by excavation, grading, or other activities, is 92.4 acres.

d. The estimated runoff coefficients of the various areas of the site after construction activities are completed are contained in the project drainage study, titled Stormwater Management for _____ prepared by Visco & Heffner Associates, Inc., which is hereby incorporated by reference in this plan.

e. The estimated proposed overall site runoff coefficient is _____.

f. Existing data describing soils or quality of discharge (soils report if available) Poor/Fair/Good/Not Available

g. Name of receiving water(s) Village of Romeoville Storm Sewer
Name of ultimate receiving water(s) Des Plaines River

2. Controls.

This section of the plan addresses the various controls that will be implemented for each of the major construction activities described in 1.b. above. For each measure discussed, the contractor will be responsible for its implementation as indicated. Each such contractor has signed the required certification on forms which are attached to, and are a part of, this plan.

a. Erosion and Sediment Controls.

(i) **STABILIZATION PRACTICES.** Provided below is a description of interim and permanent stabilization practices, including site-specific scheduling of the implementation of the practices. Site plans will ensure that existing vegetation is preserved where attainable and disturbed portions of the site will be stabilized. Exclosure as provided in 1.(i)(a) and 2.a., 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 on all disturbed portions of the site where construction activity will not occur for a period of 21 or more calendar days.
Where the initiation of stabilization measures by the 14th day after construction activity temporarily or permanently ceases is precluded by snow cover, stabilization measures shall be initiated as soon as practicable thereafter.
The following interim and permanent stabilization practices, as a minimum, will be implemented to stabilize the disturbed area of the site:

1. Permeant seeding
2. Silt filter fence
3. Vegetative Filter
4. Stabilized construction entrance
5. Barrier filter

(ii) **STRUCTURAL PRACTICES.** Provided below is a description of structural practices that will be implemented, to the degree attainable, to divert flows from exposed soils, store flows or otherwise limit runoff and the discharge of pollutants from exposed areas of the site. The installation of these devices may be subject to Section 404 of the Clean Water Act.

1. Detention Pond
2. Storm sewer system
3. Rip-rap for outlet protection
4. Permeant seeding

(iii) **BUST CONTROL.** Dust control shall be provided per standard 825 of Illinois Urban Manual. Following are the dust control that can be used:

1. Irrigation
2. Spray on adhesive
3. Vegetative cover
4. Mulching

b. Stormwater Management.

(i) Provided below is a description of measures that will be installed during the construction process to control pollutants in stormwater discharges that will occur after construction operations have been completed. The installation of these devices may be subject to Section 404 of the Clean Water Act.
The practices selected for implementation were determined on the basis of the technical guidance contained in EPA's Standard Specifications for Soil Erosion and Sedimentation Control, and other ordinances listed in the Specifications.
The stormwater pollutant control measures shall include:

1. Silt filter fence
2. Barrier filters
3. Storm sewers
4. Retention/Detention ponds

(ii) Velocity dissipation devices will be placed at discharge locations and along the length of any outfall channel as necessary to provide a non-erosive velocity flow from the structure to a water course so that the natural physical and biological characteristics and functions are maintained and protected (e.g., submergence of hydrophytes and other organisms such as the hydroperiod and hydrodynamics present prior to the initiation of construction activities).

Stormwater Management Control includes:

1. Rip-rap for outlet protection
2. Ditch check

c. Other Controls.

(i) **Waste Disposal.** The solid waste materials including trash, construction debris, excess construction materials, machinery, tools and other items will be collected and disposed off-site by the contractor. The contractor is responsible to acquire any permit required for such disposal. Burning on the site will not be permitted. No solid materials, including building materials, shall be discharged into Waters of the State, except as authorized by a Section 404 permit.

(ii) The provisions of this plan shall ensure and demonstrate compliance with applicable State and/or local waste disposal, sanitary sewer or septic system regulations.
The sanitary sewage will be discharged to the proposed sanitary sewer constructed per EPA and local standards.

d. Approved State or Local Plans.

The management practices, controls, and other provisions contained in this plan are at least as protective as the requirements contained in the Illinois Environmental Protection Agency's Standards and Specifications for Soil Erosion and Sediment Control dated October 1987, Illinois Procedures and Standards for Urban Soil Erosion and Sedimentation Control, and the Municipal Subdivision Ordinance. Requirements specified in sediment and erosion control site plans or site permits or stormwater management site plans or site permits approved by local officials that are applicable to protecting surface water resources are, upon submission of an NOI to be authorized to discharge under this permit, incorporated by reference and are enforceable under this permit even if they are not specifically included in the plan.

3. Maintenance

The following is a description of procedures that will be used to maintain, in good and effective operating conditions, vegetation, erosion and sediment control measures and other protective measures identified in this plan and Standard Specifications.

Stabilized construction entrance: The entrance shall be maintained to prevent tracking of sediment onto public streets. This will be done by top dressing with additional stones, remove and replace top layer of stones or washing the entrance. The sediment washed on the public right-of-way will be removed immediately.

Vegetative erosion control measures: The vegetative growth of temporary and permanent seeding, sodding, vegetative channels, vegetative filter, etc shall be maintained periodically and supply adequate watering and fertilizer. The vegetative cover shall be removed and reseeded as necessary.

Sedimentation basins/traps: The sediments shall be removed when 40-50 percent of the total original capacity is occupied by the sediment. In no case shall the sediment be built up to more than 1 foot below the crest elevation. At this stage, the basin shall be cleaned out to restore its original volume.

Silt filter fence: The damaged silt filter fence shall be restored to meet the standards or removed and replaced as needed

Straw bale barrier filters: The straw bale barrier filter shall be inspected frequently and shall be repaired or removed and replaced as needed.

Rip-Rap outlet protection: It shall be inspected after high flows for any scour beneath the Rip-Rap or for stones that have been dislodged. It shall be repaired immediately.

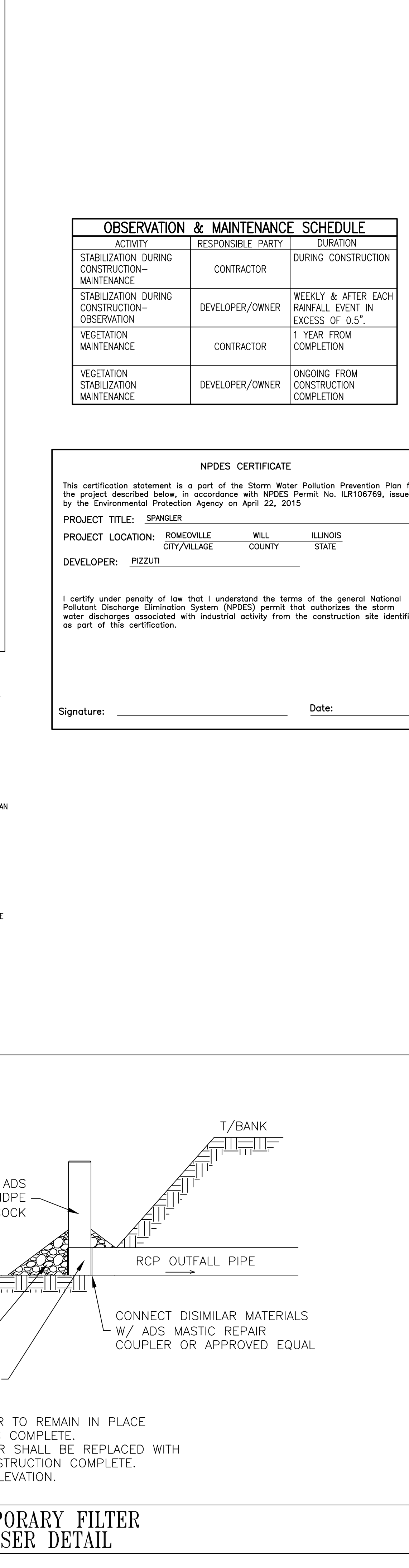
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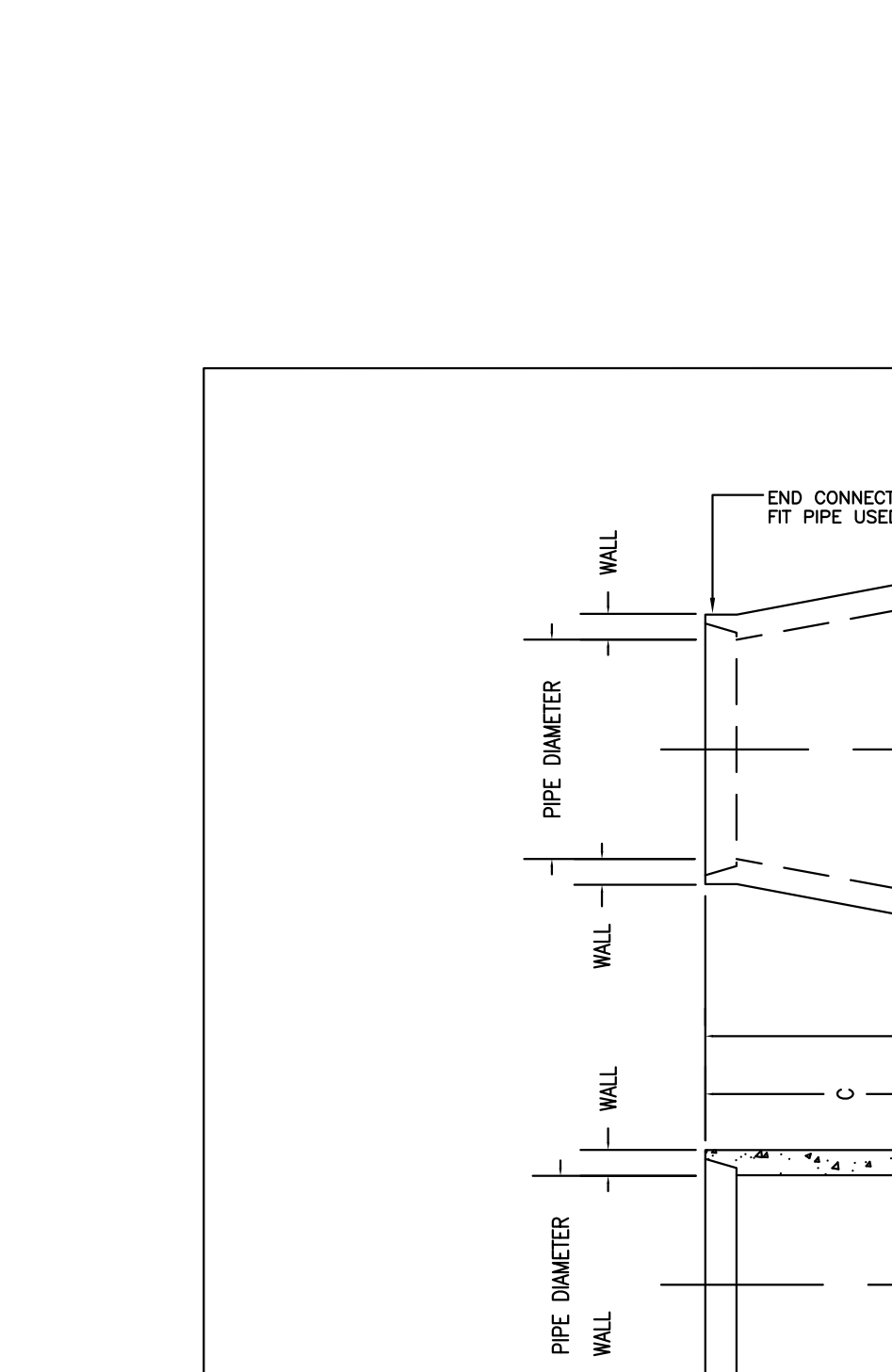
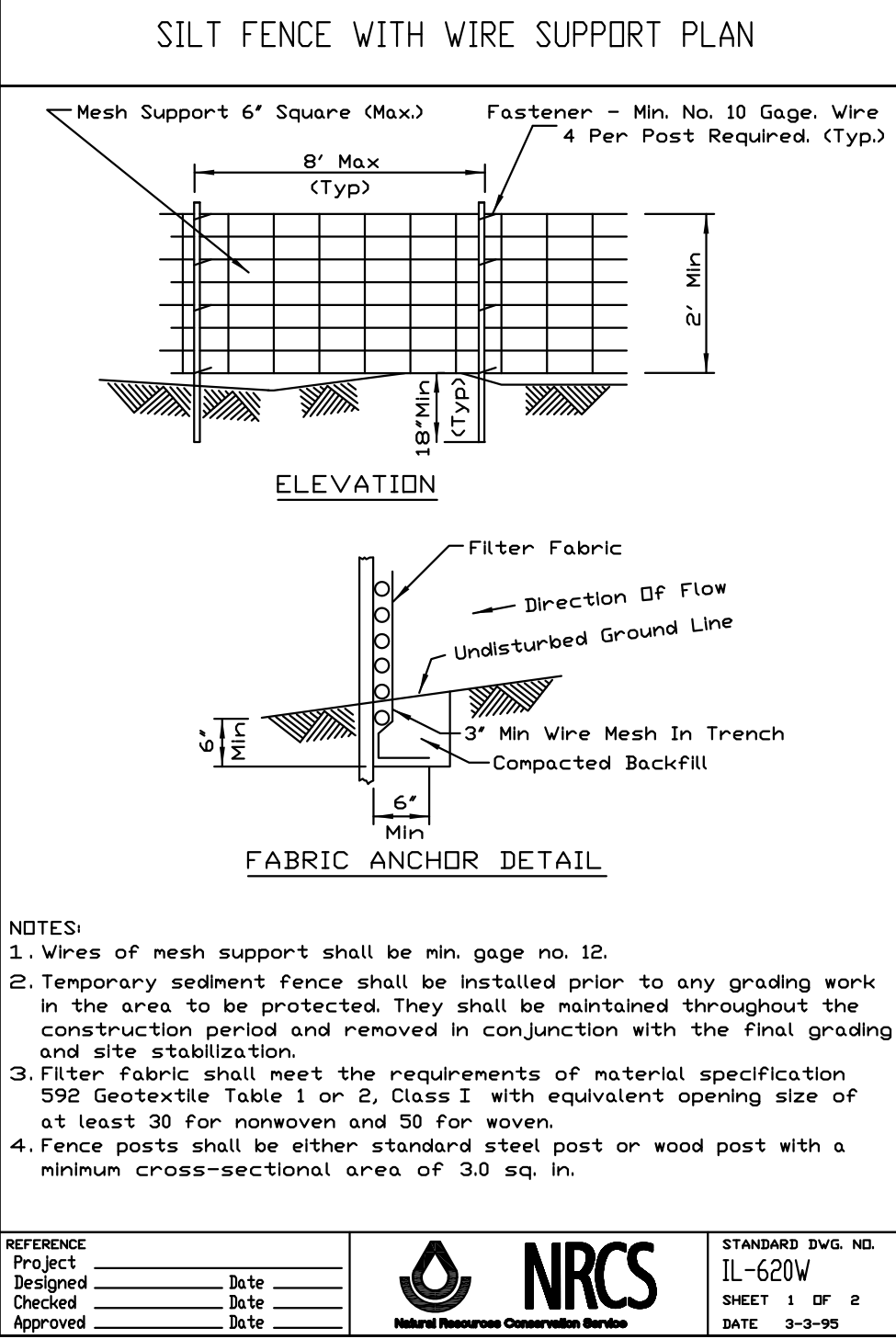
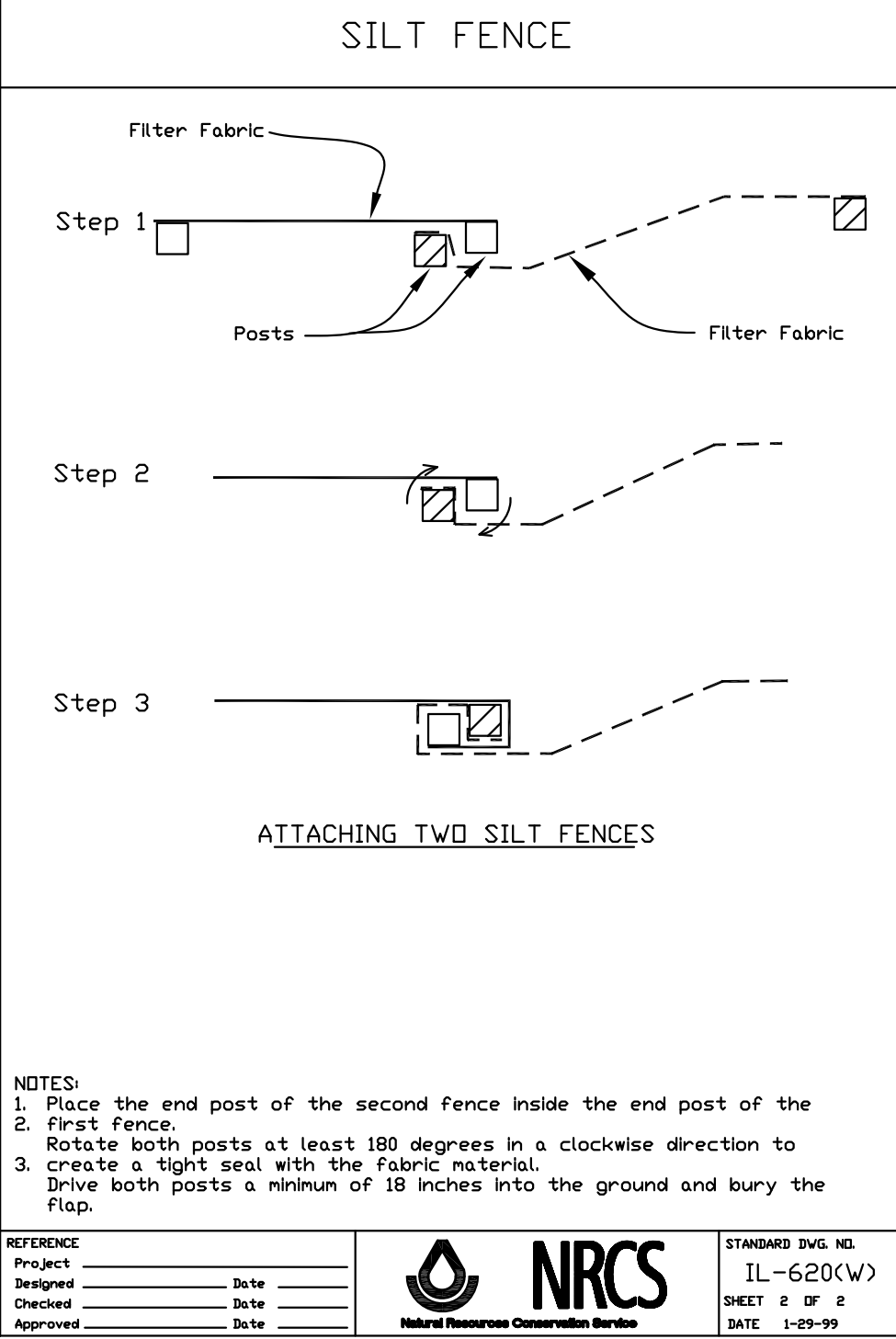
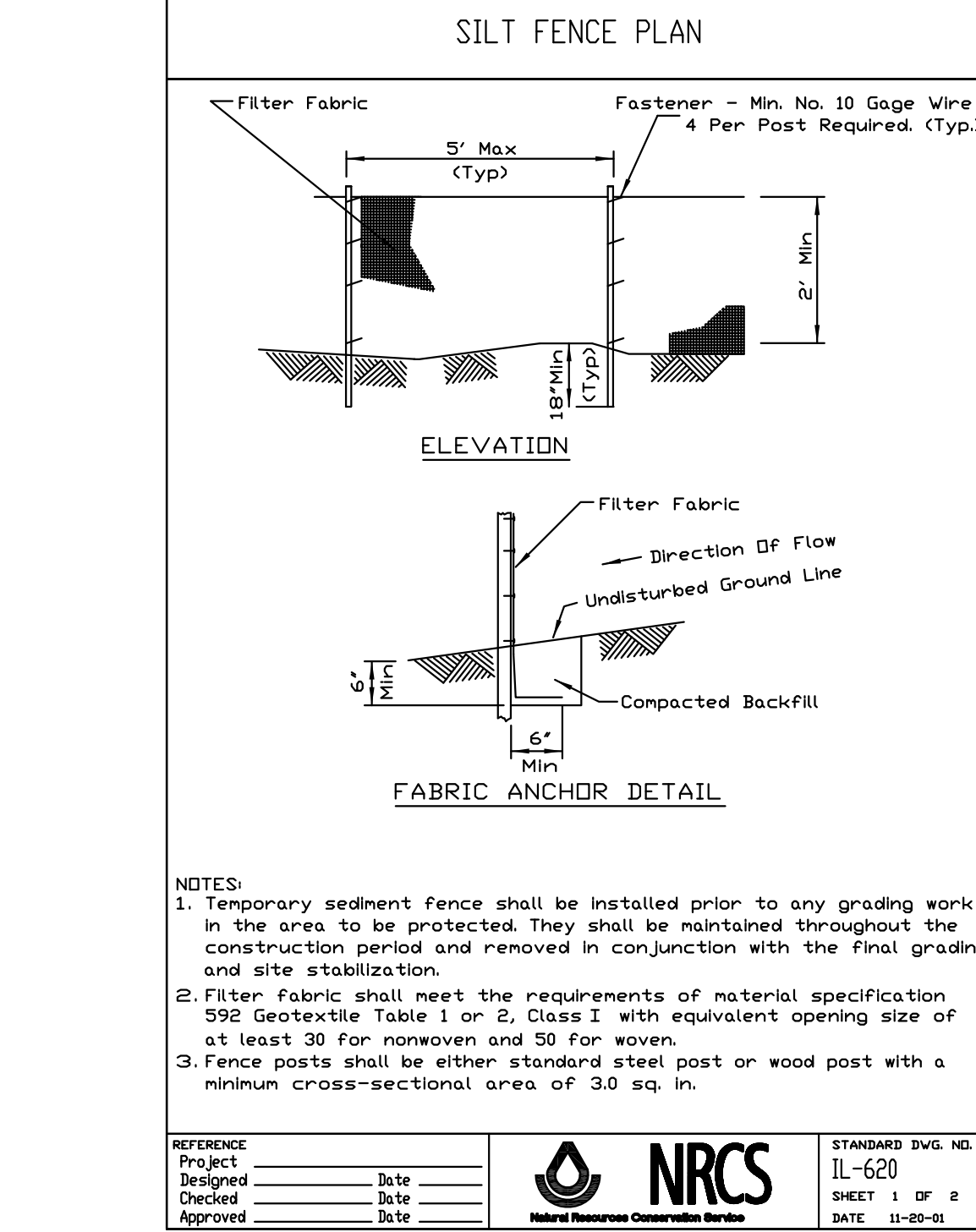
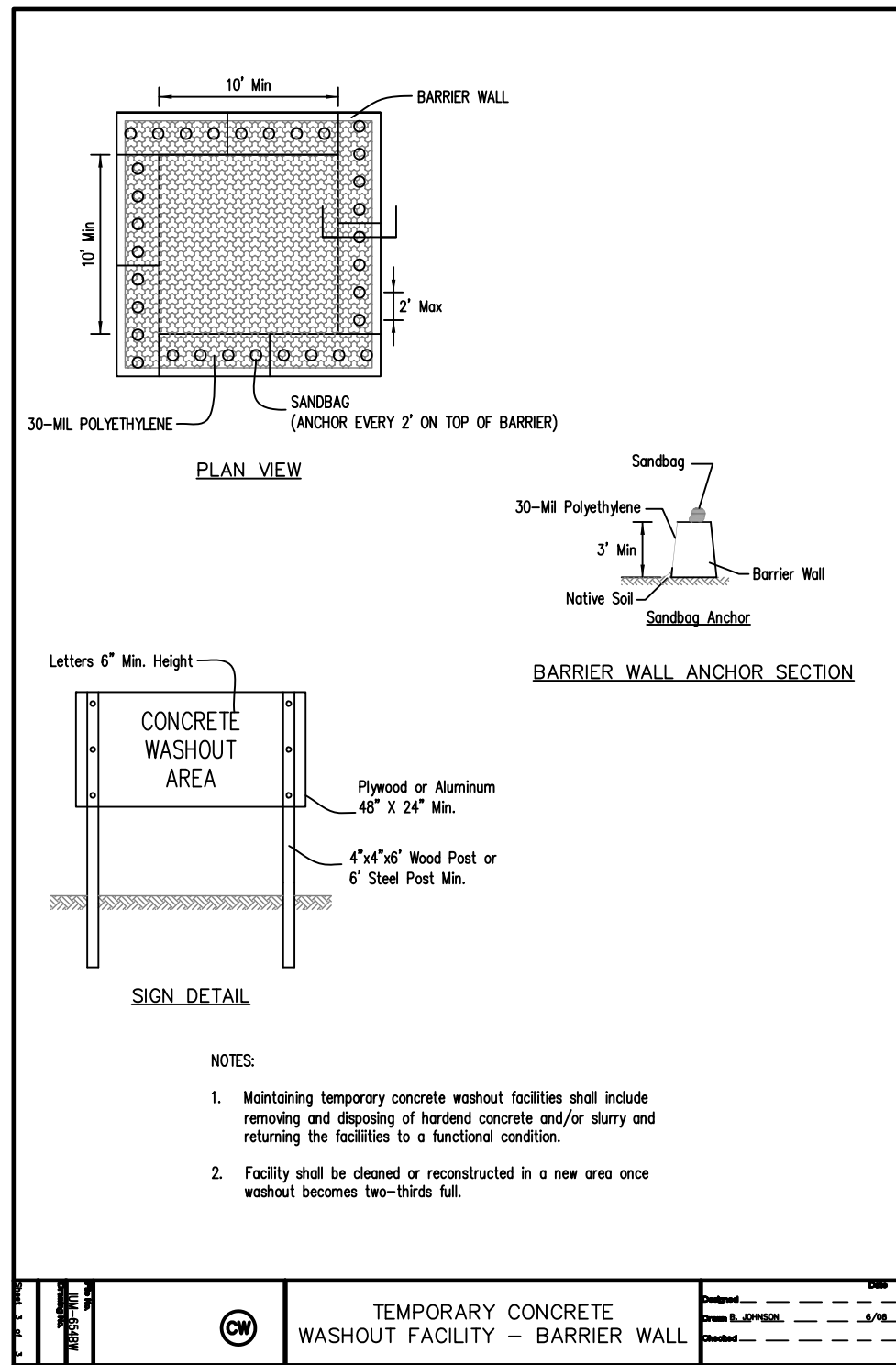
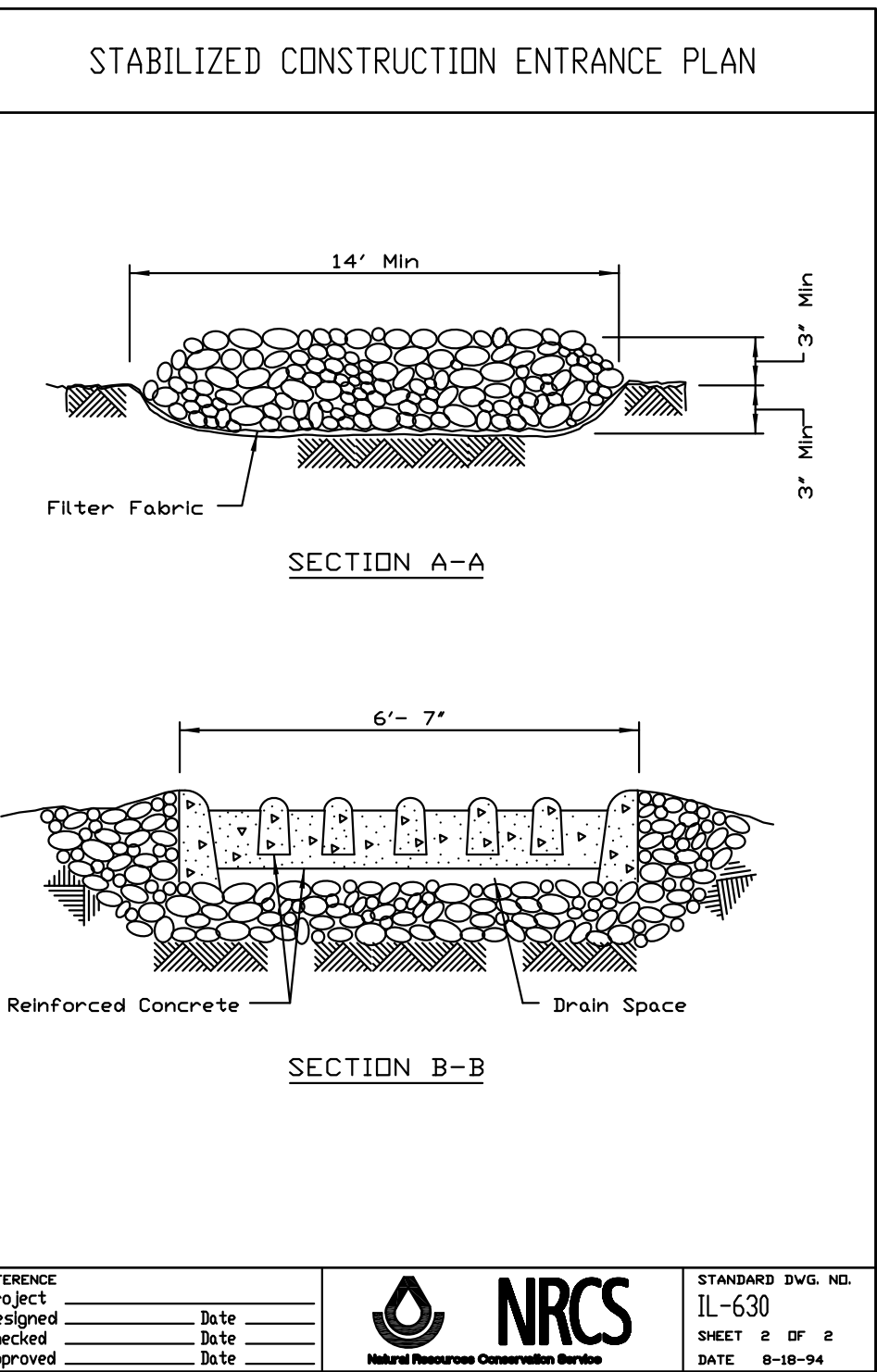
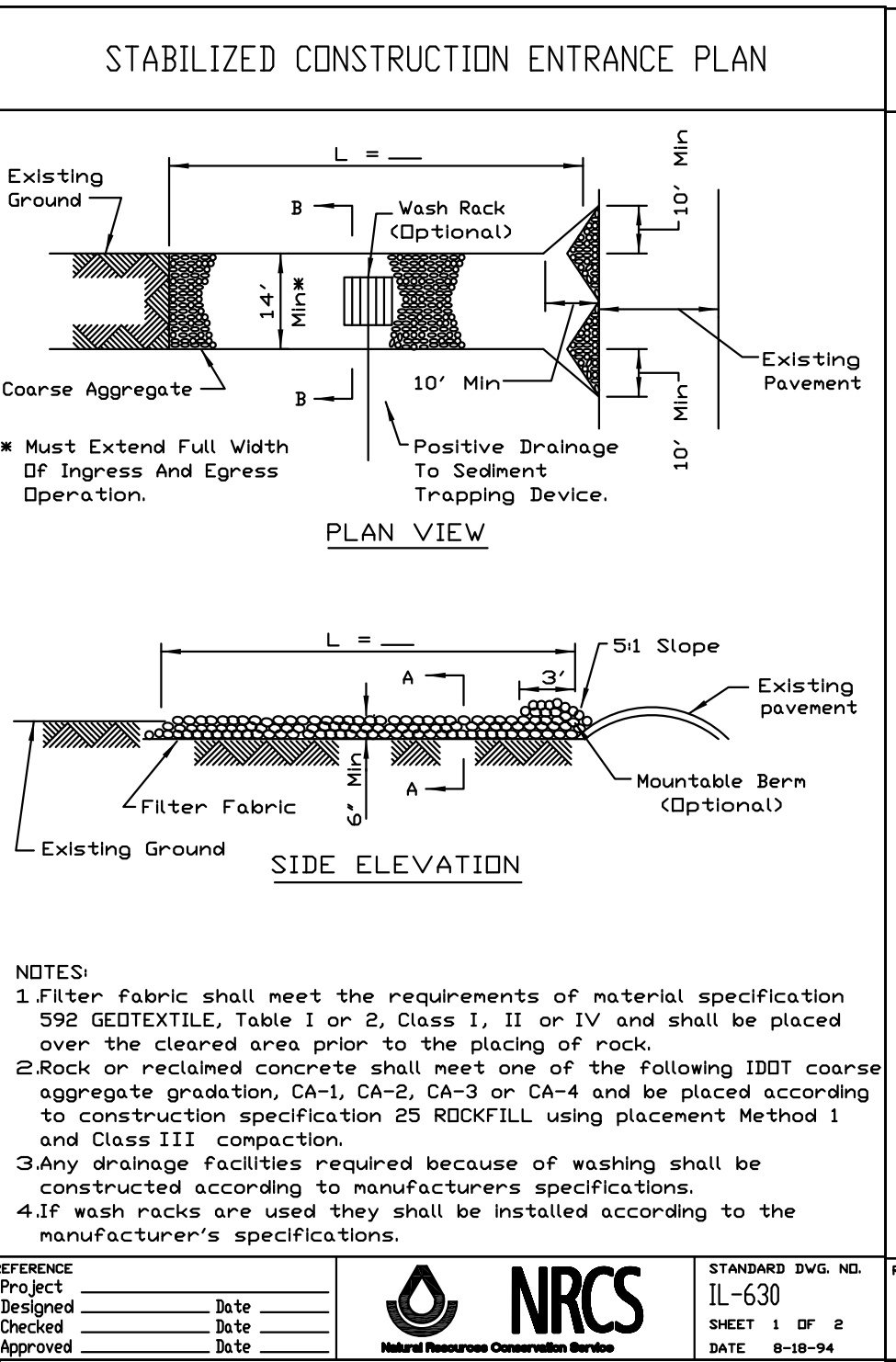
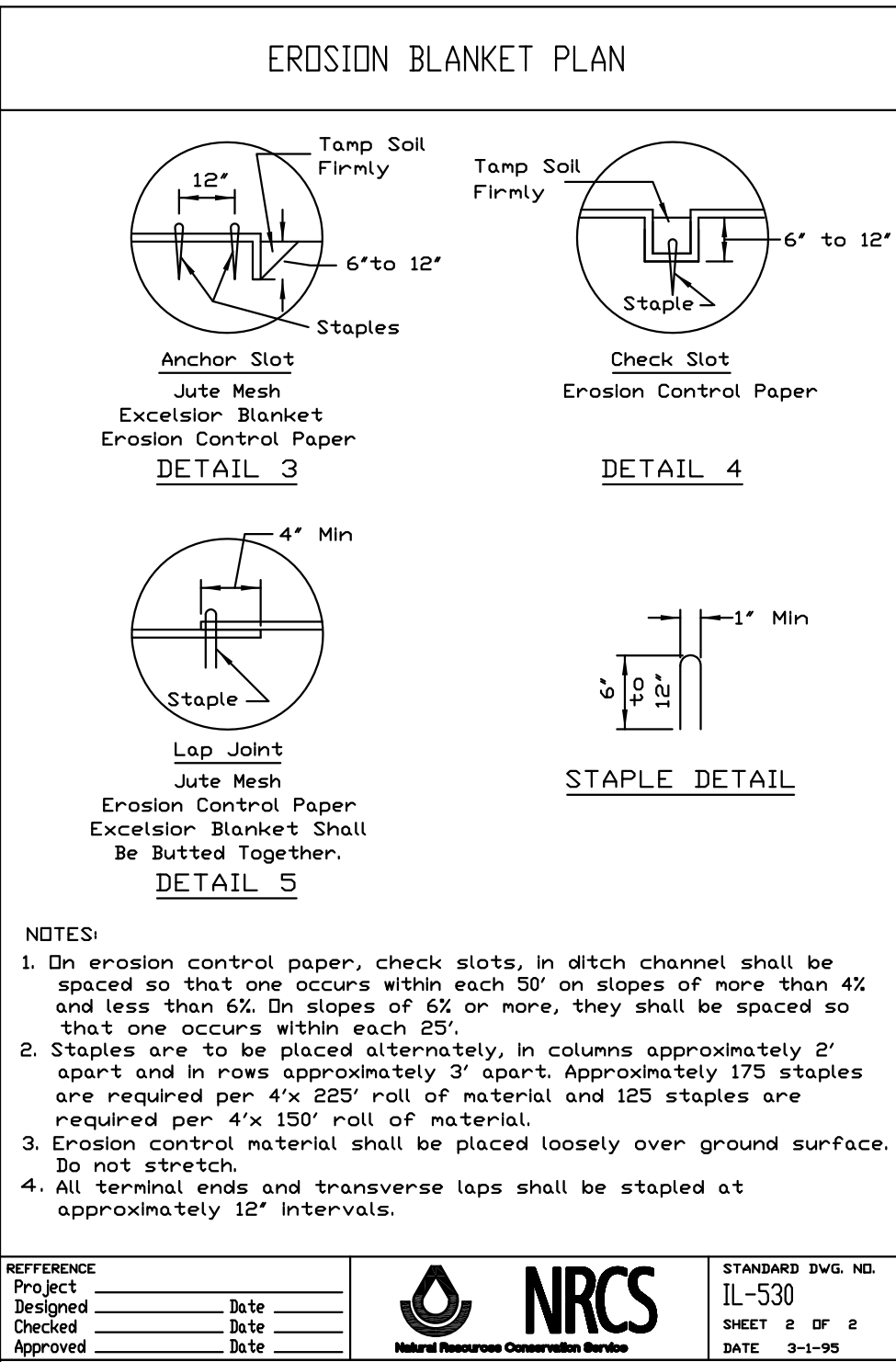
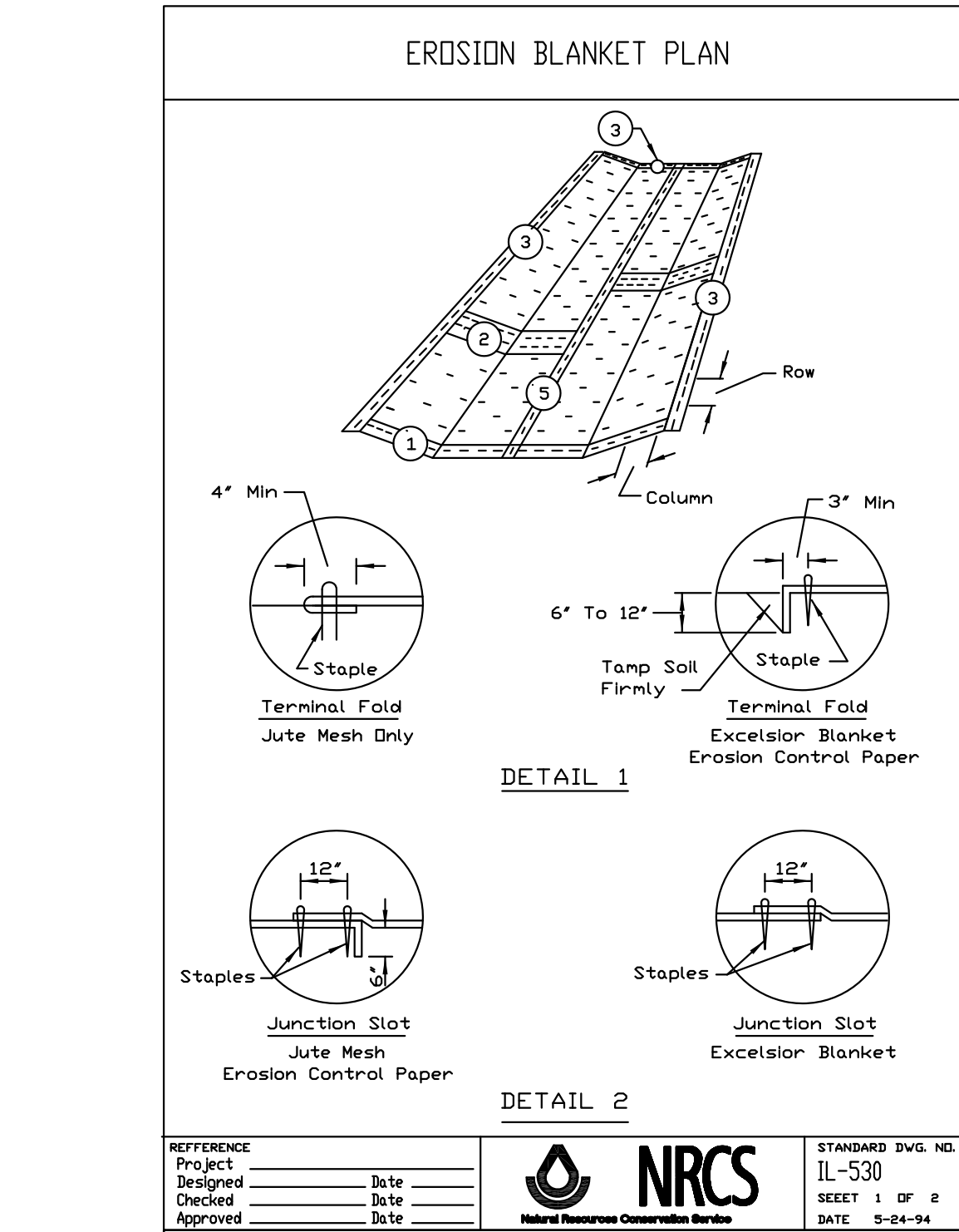
- 1) THE CONTRACTOR SHALL TAKE THE NECESSARY STEPS TO CONTROL WASTE SUCH AS DISCARDED BUILDING MATERIALS, CONCRETE TRUCK WASHOUT, CHEMICALS, LITTER AND SANITARY WASTE AT THE CONSTRUCTION SITE THAT MAY CAUSE ADVERSE IMPACTS TO WATER QUALITY.
- 2) ALL STORM SEWER FRAMES AND GRATES/LIDS SHALL BE MARKED WITH "DUMP NO WASTE" AND "DRAINS TO CREEK".
- 3) A NOTICE OF INTENT (NOI) MUST BE SUBMITTED TO THE NPDES PERMITTING AUTHORITY AND POSTMARKED AT LEAST 30 DAYS BEFORE COMMENCEMENT OF ANY ON-SITE FOR ALL CONSTRUCTION SITES OVER ONE ACRE INCLUDED IN THE NOI SHALL BE THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP), WHICH INCLUDES THE APPROPRIATE BMP'S TO MINIMIZE THE DISCHARGE OF POLLUTANTS FROM THE CONSTRUCTION SITE.
- 4) AN INCIDENT OF NON-COMPLIANCE (ION) MUST BE COMPLETED AND SUBMITTED TO THE IEPA IF, AT ANY TIME, EROSION OR SEDIMENT CONTROL DEVICE FAILS.
- 5) A NOTICE OF TERMINATION (NOT) MUST BE COMPLETED AND SUBMITTED TO THE IEPA WHEN ALL PERMANENT EROSION CONTROL MEASURES ARE IN PLACE WITH A 70% ESTABLISHMENT OF VEGETATION.

EROSION CONTROL CERTIFICATE:

THE CONSTRUCTION CONTROL PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION, AND COMPLIES WITH THE URBAN SOIL EROSION CONTROL, AND STANDARDS IN ILLINOIS MANUAL (LATEST EDITION) AND THE GENERALLY RECOGNIZED METHODS IN USE IN THE AREA.

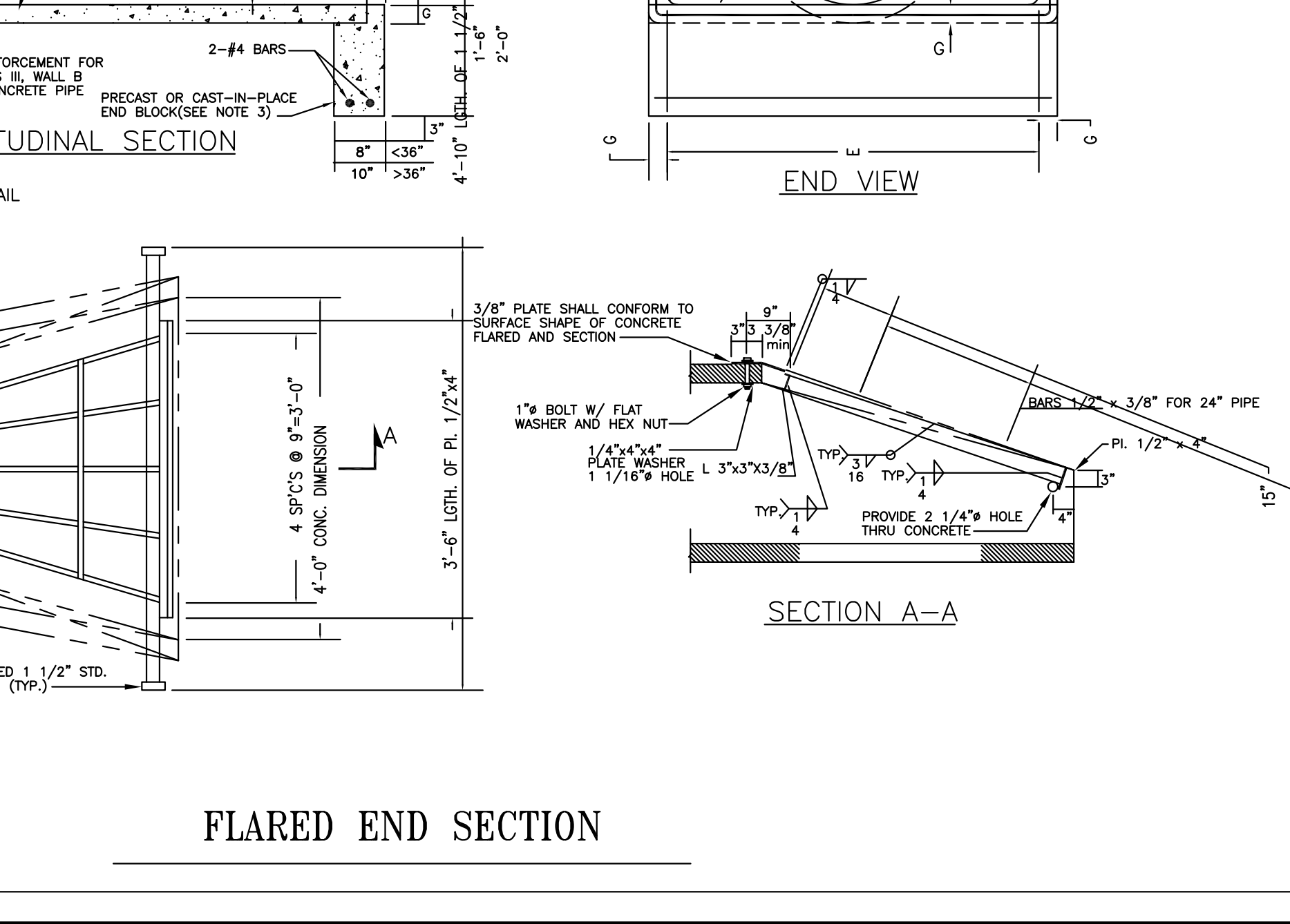
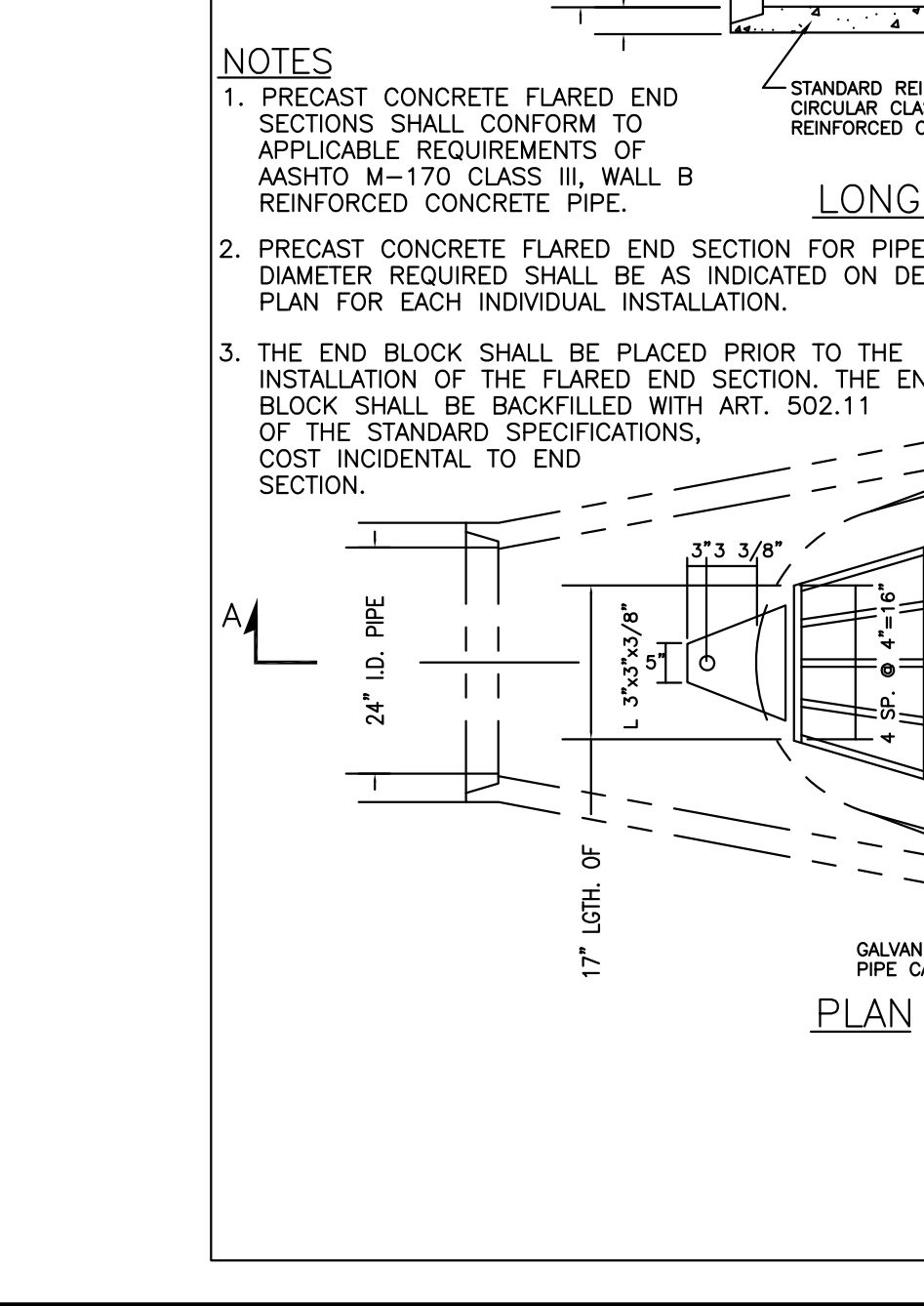
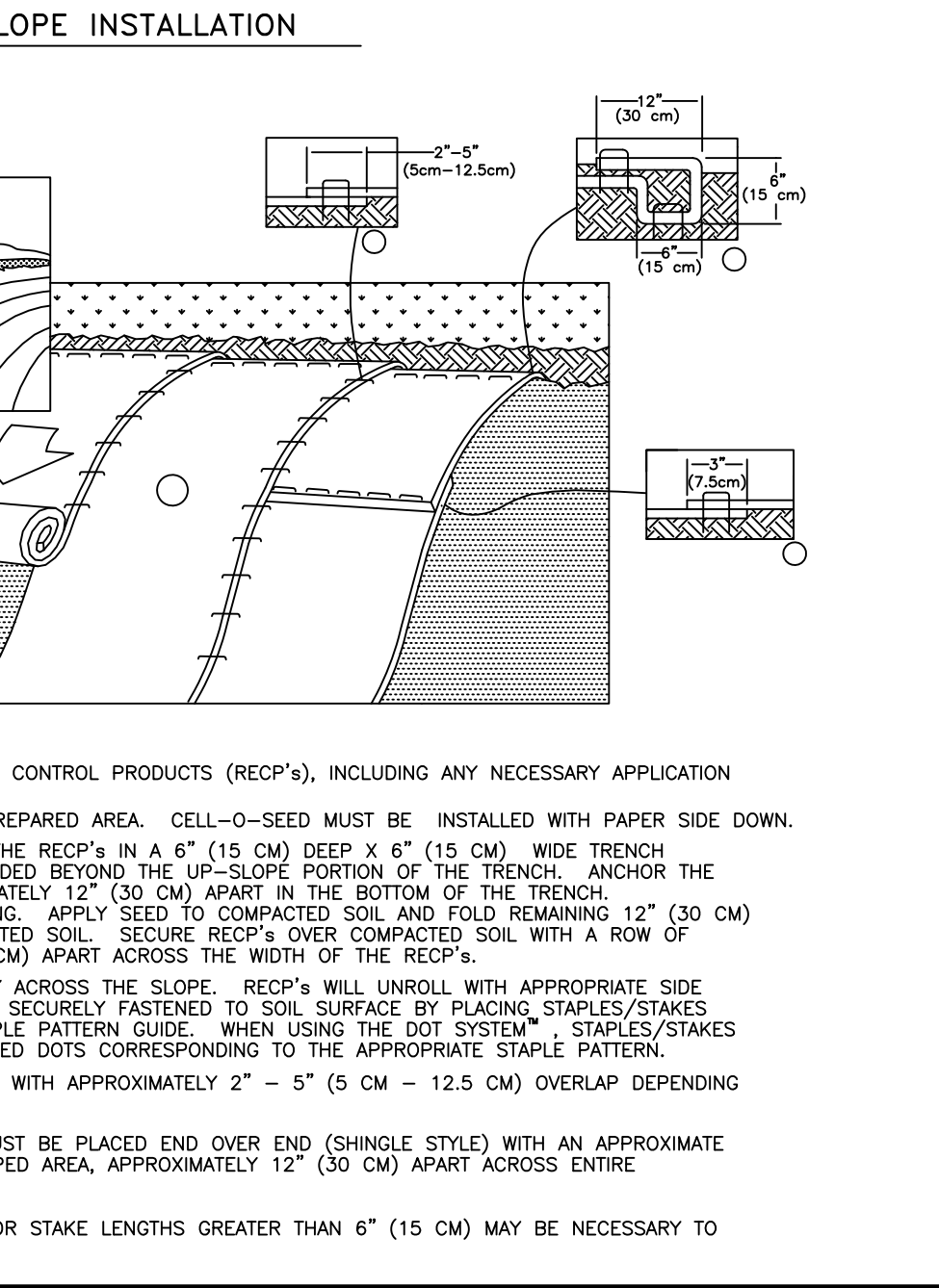
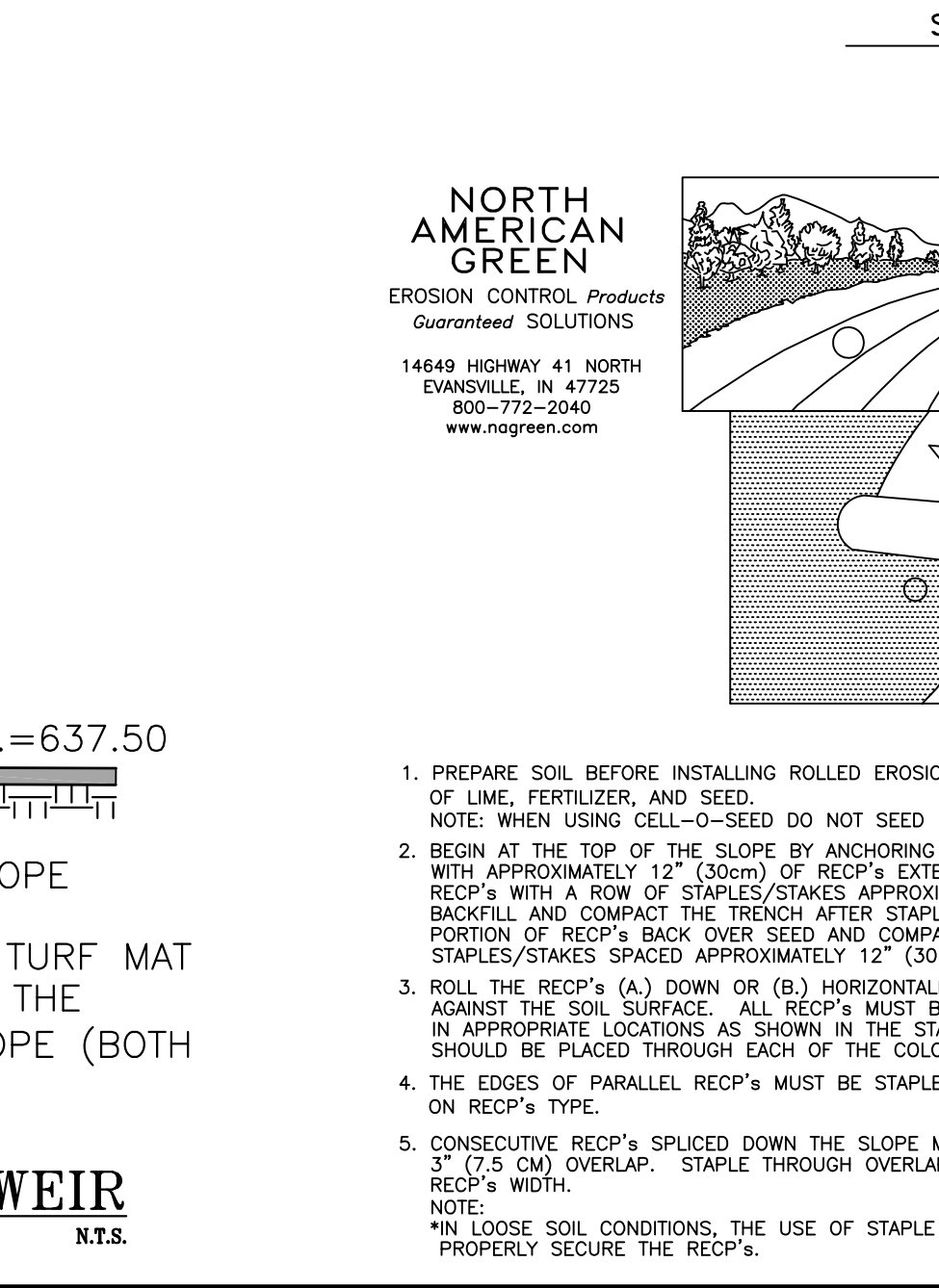
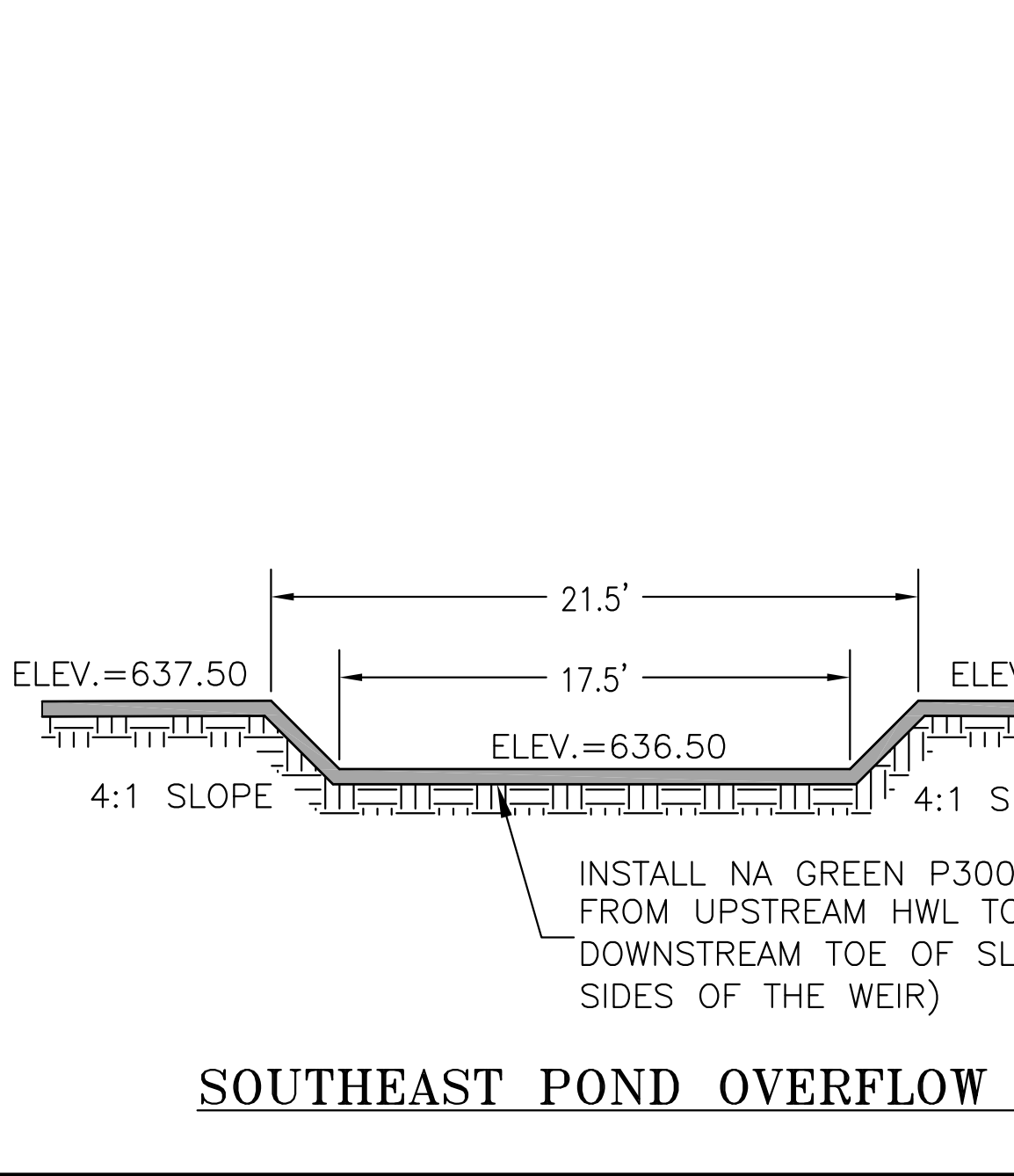
Date:





PIPE DIA.	APPROX. WT. (lbs)	WALL	A	B	C	D	E	G	R	SLOPE
12"	530	2"	4"	2'-0"	4'-0 7/8"	6'-0 7/8"	2'-0"	2"	9"	3:1
15"	740	2 1/2"	6"	2'-3"	3'-10"	6'-1"	2'-6"	2 1/2"	11"	3:1
18"	990	2 1/2"	9"	2'-3"	3'-10"	6'-1"	3'-0"	2 1/2"	12"	3:1
21"	1280	2 1/2"	9"	2'-11"	3'-2"	6'-1"	3'-6"	2 3/4"	13"	3:1
24"	1520	3"	9 1/2"	3'-7 1/2"	2'-6"	6'-1 1/2"	4'-0"	3"	14"	3:1
27"	1930	3 1/4"	10 1/2"	4'-0"	2'-1 1/2"	6'-1 1/2"	4'-6"	3 1/2"	14 1/2"	3:1
30"	2190	3 1/2"	12"	4'-6"	1'-7 3/4"	6'-1 3/4"	5'-0"	3 1/2"	15"	3:1
33"	3200	3 3/4"	13 1/2"	4'-10 1/2"	3'-3 1/2"	8'-1 3/4"	5'-6"	3 3/4"	17 1/2"	3:1
36"	4100	4"	15"	5'-3"	2'-10 3/4"	8'-1 3/8"	6'-0"	4"	20"	3:1
42"	5380	4 1/2"	1'-9"	5'-3"	2'-11"	8'-2"	6'-6"	4 1/2"	22"	3:1
48"	6550	5"	2'-0"	6'-0"	2'-2"	8'-2"	7'-0"	5"	22"	3:1
54"	8240	5 1/2"	2'-3"	5'-5"	2'-11"	8'-4"	7'-6"	5 1/2"	24"	24:1
60"	8730	6"	2'-11"	5'-0"	3'-2"	8'-3"	8'-0"	5"	*	2:1
66"	10710	6 1/2"	2'-6"	6'-0"	2'-3"	8'-3"	8'-6"	5 1/2"	*	2:1
72"	12520	7"	3'-0"	6'-6"	1'-9"	8'-3"	9'-0"	6"	*	1.86:1
78"	14770	7 1/2"	3'-0"	7'-6"	1'-9"	9'-3"	9'-6"	6 1/2"	*	1.82:1
84"	18160	8"	3'-0"	7'-6"	1'-9"	9'-3 1/2"	10'-0"	6 1/2"	*	1.5:1

* RADIUS AS FURNISHED BY MANUFACTURER



EARTHWORK

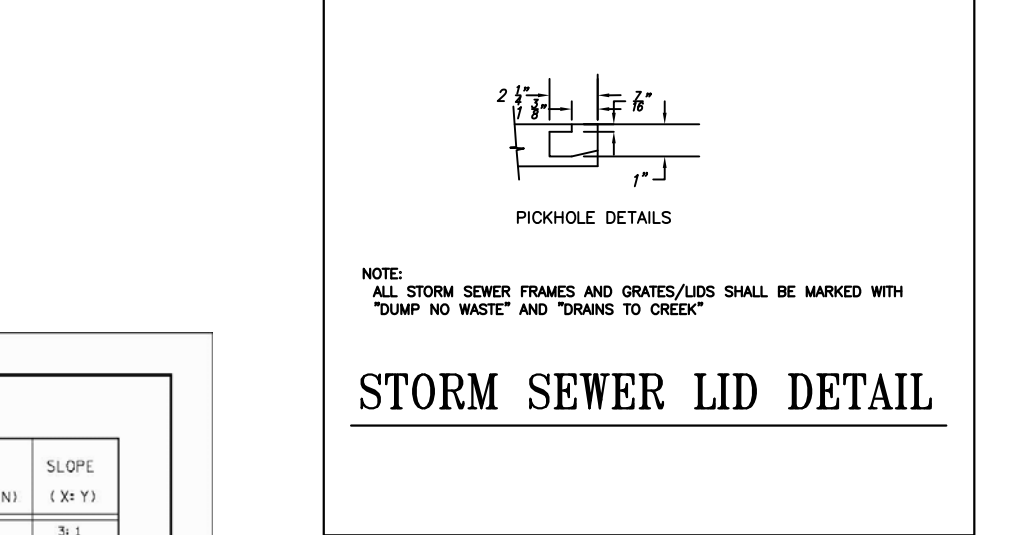
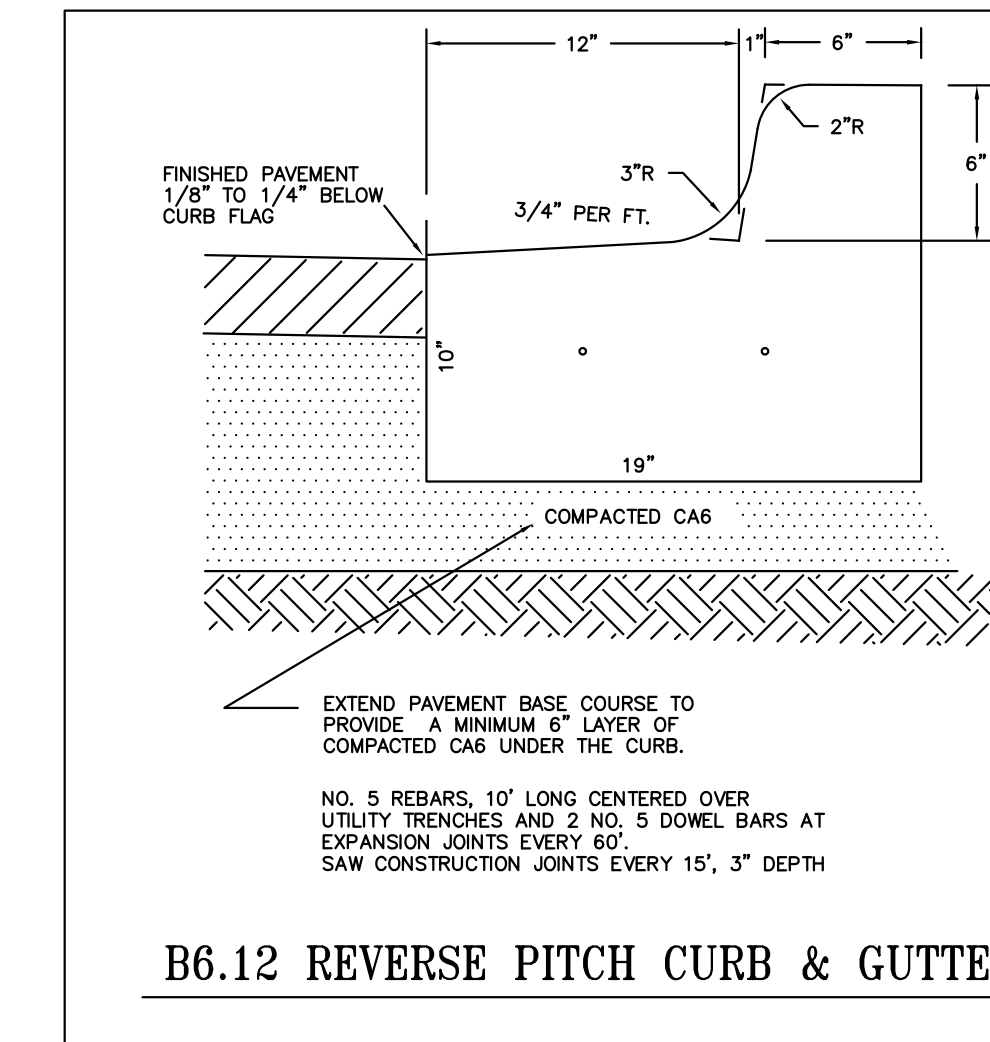
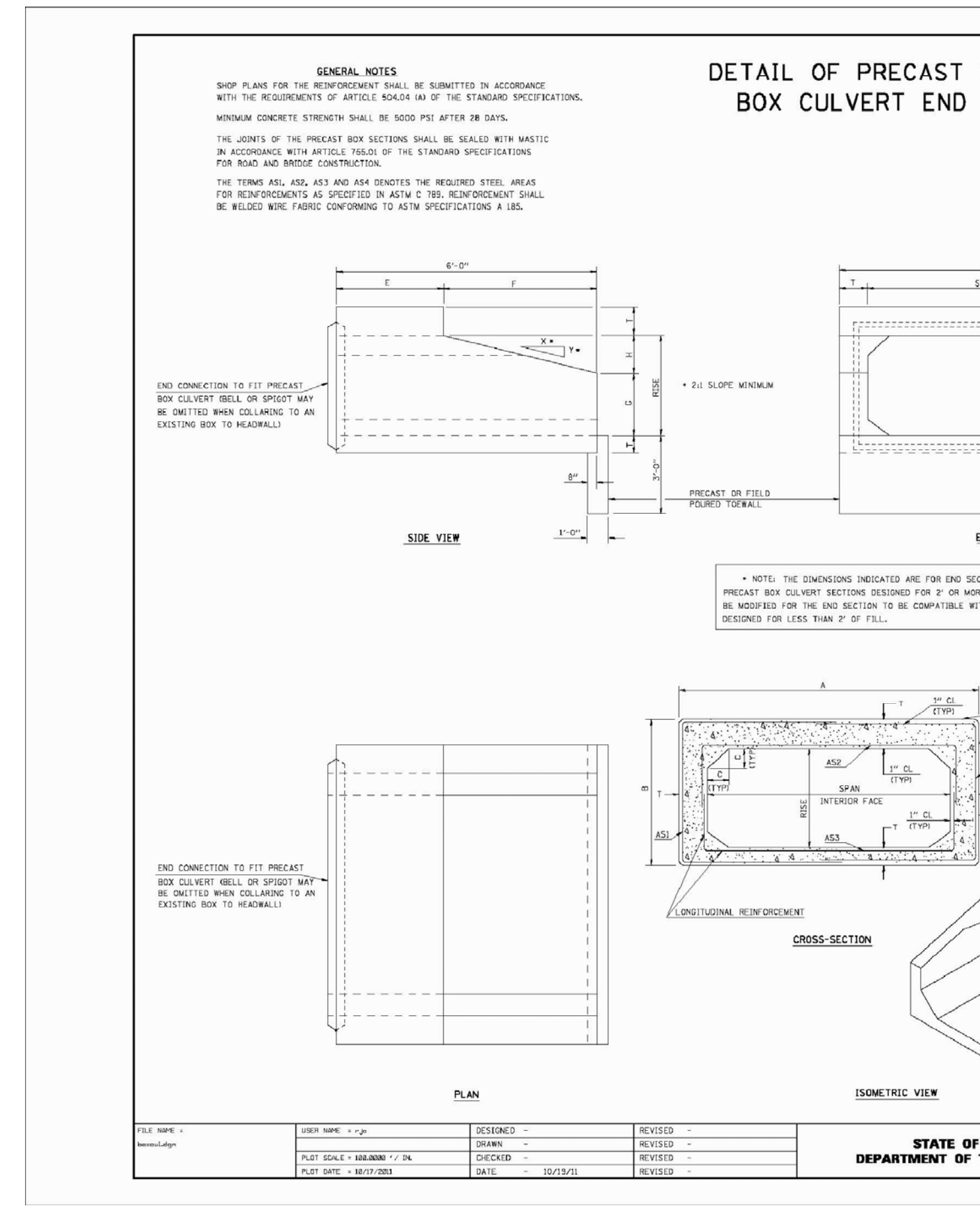
1. **TOPSOIL EXCAVATION**
 - A. EXCAVATION OF TOPSOIL AND OTHER STRUCTURALLY UNSUITABLE MATERIALS WITHIN THOSE AREAS THAT WILL REQUIRE EARTH EXCAVATION OR COMPACTED EARTH FILL MATERIAL, AND CUT AREAS OF THE NON-STRUCTURAL ZONES, TOP SOIL MAY NOT BE REMOVED IF FILL IS TO BE PLACED IN NON-STRUCTURAL FILL AREAS SUCH AS REAR YARDS.
 - B. PLACEMENT OF THE EXCAVATED MATERIAL IN OWNER DESIGNATED AREAS FOR FUTURE USE WITHIN AREAS TO BE LANDSCAPED, AND FILL IN THE AREAS NOT REQUIRING STRUCTURAL FILL MATERIAL.
 - C. EXCESS MATERIALS, IF NOT UTILIZED AS FILL OR IF NOT TO BE STOCKPILED FOR FUTURE LANDSCAPING, SHALL BE COMPLETELY REMOVED FROM THE CONSTRUCTION SITE AND DISPOSED OF OFF-SITE BY THE SUBCONTRACTOR.
 - D. ALL PROPOSED GREEN AREAS SHALL BE RESPAVED WITH 6-INCHES OF TOPSOIL AND SEEDED UNLESS OTHERWISE NOTED.
2. **EARTH EXCAVATION**
 - A. EXCAVATION OF EARTH AND OTHER MATERIALS WHICH ARE SUITABLE FOR USE AS STRUCTURAL FILL, THE EXCAVATION SHALL BE TO WITHIN A TOLERANCE OF 0.1 FEET \pm 4% OF THE PLAN SUBGRADE ELEVATIONS, THE \pm 4% TOLERANCE WITHIN PAVEMENT AREAS SHALL BE SUCH THAT THE EARTH MATERIALS SHALL "BALANCE" AS PART OF THE FINE GRADING OPERATION.
 - B. 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 0.1 FEET \pm 4%. THE FILL MATERIAL SHALL BE LAPPED IN THOSE LIFTS THAT SHALL NOT EXCEED EIGHT (8) INCHES IN THICKNESS, AND THE WATER CONTENT SHALL BE ADJUSTED IN ORDER TO ACHIEVE REQUIRED COMPACTION. EARTH MATERIAL MAY BE PLACED WITHIN THOSE PORTIONS OF THE SITE NOT REQUIRING STRUCTURAL FILL TO WITHIN PLAN SUBGRADE ELEVATION, IN AREAS REQUIRING STRUCTURAL FILL, HOWEVER, THE EARTH MATERIAL SHALL BE PLACED WITHIN TOPSOIL OR OTHER UNSUITABLE MATERIALS. THE STRUCTURAL SUBGRADE AREA SHALL EXTEND TO THE ZONE OF INFLUENCE IN ALL FILL AREAS.
 - C. COMPACTION OF THE EARTH AND OTHER SUITABLE MATERIALS, SHALL BE TO AT LEAST 95% OF THE MODIFIED PROCTOR DRY DENSITY WITHIN PROPOSED PAVEMENT AND BASE PAD AREAS, SIDEWALK, ETC., 90% OF THE MODIFIED PROCTOR DRY DENSITY IS REQUIRED IN NON-STRUCTURAL FILL AREAS.
3. **UNSUITABLE MATERIAL**
 - A. UNSUITABLE MATERIAL SHALL BE CONSIDERED AS MATERIAL WHICH IS NOT SUITABLE FOR THE SUPPORT OF PAVEMENT AND BUILDING CONSTRUCTION, AND IF IT IS ENCOUNTERED BELOW NORMAL TOPSOIL DEPTHS AND THE PROPOSED SUBGRADE ELEVATION IT SHALL BE REMOVED AND REPLACED WITH SUITABLE MATERIAL. APPROVED BY THE SOILS ENGINEER, SUEDELL, ETC., TO REMOVE THE MATERIAL, AND TO WHAT EXTENT, SHALL BE MADE BY A GEOTECHNICAL ENGINEER WITH THE CONCURRENCE OF THE OWNER. SUBGRADE SHALL BE GRADED TO ALLOW FOR POSITIVE DRAINAGE.
4. **THE GRADING SUBCONTRACTOR SHALL:**
 - A. MAINTAIN POSITIVE DRAINAGE AT ALL TIMES DURING THE COURSE OF CONSTRUCTION, AND PREVENT STORM WATER FROM RUNNING INTO OR STANDING IN EXCAVATED AREAS.
 - B. SPREAD AND COMPACT UNIFORMITY TO THE DEGREE SPECIFIED ALL EXCESS TRENCH SPOIL AFTER COMPLETION OF THE UNDERGROUND IMPROVEMENTS.
 - C. SCARIFY AND COMPACT TO THE DEGREE SPECIFIED THE UPPER TWELVE (12) INCHES OF THE TOP ONE FOOT OF PROOF ROLLING THE PAVEMENT SUBGRADE PRIOR TO THE PLACEMENT OF THE CURB AND GUTTER AND THE BASE MATERIAL, THAT BE SOFT DUE TO EXCESS MOISTURE CONTENT, THIS APPLIES TO CUT AREAS AS WELL AS FILL AREAS.
 - D. PROVIDE WATER TO ADD TO DRY MATERIAL IN ORDER TO ADJUST THE MOISTURE CONTENT FOR THE PURPOSE OF ACHIEVING THE SPECIFIED COMPACTION.
 - E. BACKFILL THE CURB AND GUTTER AFTER ITS CONSTRUCTION AND PRIOR TO THE PLACEMENT OF THE BASE COURSE MATERIAL.
 - F. BE RESPONSIBLE FOR IMPLEMENTATION OF THE "SOIL EROSION AND SEDIMENTATION CONTROL MEASURES" AS DESCRIBED ON THE PLANS. ALL CONTRACTORS SHALL COMPLY WITH SWPPP AND NPDES REQUIREMENTS.
5. **TESTING AND FINAL ACCEPTANCE**
 - A. THE CONTRACTOR SHALL PROVIDE AS A MINIMUM, A TANDEM AXLE TRUCK LOADED TO 14,000 LBS. FOR PROOF ROLLING THE PAVEMENT SUBGRADE PRIOR TO THE PLACEMENT OF THE CURB AND GUTTER AND THE BASE MATERIAL. THIS SHALL BE WITNESSED AND APPROVED BY MUNICIPAL ENGINEER AND OWNER.
 6. ANY UNSUITABLE AREA ENCOUNTERED AS A RESULT OF PROOF ROLLING SHALL BE REMOVED AND REPLACED WITH SUITABLE MATERIAL APPROVED BY THE SOILS CONSULTANT, AND THE PROOF ROLLING SHALL BE PERFORMED UNTIL THE SUBGRADE IS APPROVED BY THE MUNICIPAL REPRESENTATIVE AND OWNER.
 7. THE WORK AREAS SHALL BE POSITIVELY DRAINED DURING CONSTRUCTION. FINAL GRADES SHALL BE PROTECTED AGAINST DAMAGE FROM EROSION, SEDIMENTATION AND TRAFFIC.

SOIL EROSION AND SEDIMENT CONTROL
--

<h2 style="text-align: center;">STORM SEWER</h2>	
1.	ALL STORM SEWER SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS AND THE SUBDIVISION CONTROL ORDINANCE OF THE MUNICIPALITY.
2.	UNLESS OTHERWISE NOTED ON THE PLANS, ALL STORM SEWERS SHALL BE REINFORCED CONCRETE CULVERT PIPE, ASTM C 76, WITH "O" RING RUBBER GASKET JOINTS CONFORMING TO ASTM C-443. ALL UNDERDRAINS SHALL BE ADS N-12
3.	ALL DOWNSPOUT AND FOOTING DRAINS SHALL BE DISCHARGED TO THE STORM SEWER SYSTEM OR ONTO THE GROUND.
4.	MANHOLE, CATCH BASIN AND INLET BOTTOMS SHALL BE PRECAST CONCRETE SECTIONAL UNITS OR MONOLITHIC CONCRETE. MANHOLES AND CATCH BASINS SHALL BE 4' IN DIAMETER UNLESS OTHERWISE SPECIFIED ON THE PLANS. MANHOLE JOINTS SHALL BE "O" RING GASKET JOINTS. A MAXIMUM OF SIX (6) INCHES ADJUSTING RINGS SHALL BE USED TO ADJUST FRAME ELEVATIONS. THE ADJUSTING RINGS SHALL BE SET IN FULL MORTAR BED.
5.	ALL STORM SEWERS SHALL BE INSTALLED ON A TYPE A BEDDING, 1/4" TO 3/4" IN SIZE, WITH A MINIMUM THICKNESS EQUAL TO 1/4 THE OUTSIDE DIAMETER OF THE SEWER PIPE BUT NOT LESS THAN 4". BLOCKING OF ANY KIND FOR GRADE IS NOT PERMITTED. THE GRANULAR MATERIAL FOR BEDDING AND TRENCH BACKFILL MATERIAL SHALL CONFORM TO DOT GRADATION CA-9. THE GRANULAR MATERIAL FOR BEDDING AND INITIAL BACKFILL FOR FLEXIBLE PIPE SHALL BE NON-ANGULAR GRAVEL MATERIAL CONFORMING TO ASTM D-2521, CLASS I. THE COST OF BEDDING MATERIAL SHALL BE MERGED WITH THE UNIT PRICE BID FOR THE SEWER. THE BEDDING MATERIALS SHALL BE COMPACTED TO 95% OF THE MODIFIED PROCTOR DENSITY.
6.	THE FRAME AND GRATE OR CLOSED LID SHALL BE AS SPECIFIED ON UTILITY PLANS. THE MANHOLE LIDS SHALL BE MACHINE SURFACED, NON-ROCKING DESIGN. ALL CASTINGS SHALL BE EMBOSSED WITH A FISH WAKE AND "DUMP NO WASTE--DRAINS TO WATERWAYS" MESSAGE. THE CLOSED LIDS SHALL HAVE THE WORD "STORM" AND THE MUNICIPALITY NAME EMBOSSED ON THE LID. THE JOINT BETWEEN CONCRETE SECTION AND FRAME SHALL BE SEALED WITH A MASTIC COMPOUND.
7.	ALL STORM SEWERS SHALL BE THOROUGHLY CLEANED PRIOR TO FINAL INSPECTION AND TESTING.
8.	AFTER THE STORM SEWER STRUCTURE HAS BEEN CONSTRUCTED THE CONTRACTOR SHALL PLACE EROSION CONTROL AT LOCATIONS SHOWN ON THE PLANS OR AS SELECTED IN THE FIELD BY THE ENGINEER. THE PURPOSE OF THE EROSION CONTROL WILL BE TO MINIMIZE THE AMOUNT OF SILTATION, WHICH NORMALLY WOULD ENTER THE STORM SEWER SYSTEM FROM ADJACENT AND/OR UPSTREAM DRAINAGE AREAS.
<h2 style="text-align: center;">PAVEMENT</h2>	
1.	FINE GRADING
A.	PRIOR TO THE CONSTRUCTION OF THE CURB AND GUTTER AND THE PLACEMENT OF THE BASE MATERIAL, THE STREETS SHALL BE FINE GRADED TO WITHIN 0.05 FEET OF FINAL SUBGRADE ELEVATION, TO A POINT TWO (2) FEET BEYOND THE BACK OF CURB.
2.	CURB AND GUTTER
A.	THE TYPE OF THE CURB AND GUTTER SHALL BE AS DETAILED ON THE ENGINEERING PLANS.
B.	THE CURBS SHALL BE BACKFILLED AFTER THEIR CONSTRUCTION AND PRIOR TO THE PLACEMENT OF THE BASE COURSE.
C.	THE STONE UNDER CURB AND GUTTER SHALL BE CONSIDERED INCIDENTAL.
D.	THE CURB DEPRESSIONS FOR DRIVEWAYS AND HANDICAPPED RAMPS SHALL BE INSTALLED PER PLANS AND IDOT STANDARDS.
3.	PAVEMENT
A.	THE PAVEMENT MATERIALS SHALL BE AS DETAILED ON THE ENGINEERING PLANS. THICKNESSES SPECIFIED SHALL BE CONSIDERED TO BE THE MINIMUM COMPACTED THICKNESS.
4.	GENERAL
	THE PAVING CONTRACTOR SHALL:
A.	REPAIR ANY BASE COURSE AND BINDER COURSE FAILURES PRIOR TO THE INSTALLATION OF THE FINAL BITUMINOUS CONCRETE SURFACE COURSE.
B.	SWEEP CLEAN THE BINDER COURSE PRIOR TO THE INSTALLATION OF THE FINAL BITUMINOUS CONCRETE SURFACE COURSE. ANY DAMAGE TO THE BINDER COURSE SHALL BE REPAIRED BY THE CONTRACTORS AT NO ADDITIONAL COST TO THE OWNER.
C.	PROVIDE CONSTRUCTION, EXPANSION, AND CONTRACTION JOINTS FOR CURB AND GUTTER, AND P.C.C. SIDEWALK PER IDOT STANDARDS AND MUNICIPAL STANDARDS.
E.	REMOVE ALL EXCESS MATERIALS AND DEBRIS AND DISPOSE OF OFF-SITE AT NO ADDITIONAL COST TO THE OWNER.
5.	TESTING AND FINAL ACCEPTANCE
A.	PRIOR TO THE PLACEMENT OF THE BASE COURSE, THE SUBGRADE MUST BE PROOF ROLLED AND INSPECTED FOR UNSUITABLE SUBGRADE LOCATIONS. IF UNSUITABLE SUBGRADE IS ENCOUNTERED, IT SHALL BE REMOVED AND REPLACED WITH GRANULAR MATERIAL APPROVED BY THE OWNER OR HIS REPRESENTATIVE. THE SUBGRADE SHALL HAVE MINIMUM IIR VALUE OF 3.0.
B.	PRIOR TO PLACEMENT OF THE BITUMINOUS CONCRETE SURFACE COURSE THE CONTRACTOR, WHEN

PAVEMENT

6. **METHOD OF MEASUREMENT**
- A. CURB AND GUTTER, AND BASE COURSE SHALL BE MEASURED IN THE FIELD BY THE CONTRACTOR. THE QUANTITIES SHALL BE SUBMITTED TO THE ENGINEER FOR VERIFICATION WHEN REQUESTED BY THE OWNER.
- B. WHEN REQUESTED BY THE OWNER, DOCUMENTATION FOR THE INSTALLED BASE COURSE, BITUMINOUS CONCRETE BINDER, AND SURFACE COURSE SHALL BE SUBMITTED TO THE ENGINEER FOR VERIFICATION, AS REQUIRED BY THE MUNICIPALITY. THE CONTRACTOR SHALL OBTAIN SPECIMENS OF THE BITUMINOUS CONCRETE WITH A CORE DRILL WHERE DIRECTED, IN ORDER TO CONFIRM THE PLAN THICKNESS. DEFICIENCIES IN THICKNESS SHALL BE ADJUSTED FOR BY THE METHOD DESCRIBED IN THE "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION".
7. **IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO PROVIDE PROPER BARRICADING, WARNING DEVICES AND THE SAFE MANAGEMENT OF TRAFFIC WITHIN THE AREA OF CONSTRUCTION, ALL SUCH DEVICES AND THEIR INSTALLATION SHALL CONFORM TO THE ILLINOIS MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS, LATEST EDITION AND IN ACCORDANCE WITH THE SUBORDINATION CONTROL ORDINANCE OF THE MUNICIPALITY.**
8. **LONGITUDINAL JOINT CONSTRUCTION:**
- A. AS MANY LONGITUDINAL JOINTS AS PRACTICAL SHALL BE CLOSED AT THE END OF EACH DAY OF PAVING. A TACK COAT SHALL BE APPLIED TO THE "COLD" SIDE OF THE LONGITUDINAL JOINT PRIOR TO THE PLACEMENT OF THE HOT SIDE MAT.
- B. LONGITUDINAL JOINT CONSTRUCTION SHALL BE COMPLETED BEFORE THE "COLD" SIDE OF THE JOINT FALLS BELOW 200° F.
- C. IN THE EVENT THE TEMPERATURE OF THE "COLD" SIDE OF A JOINT FALLS BELOW 200° F PRIOR TO JOINT CONSTRUCTION, CONTRACTOR SHALL PERFORM THE FOLLOWING:
1. HEAT THE COLD SIDE JOINT TO 200° F EITHER BY MEANS OF A HAND TORCH OR AN INFRARED HEATER. CONTRACTOR TO AVOID BURNING ASPHALT DURING REHEATING.
2. APPLY TACK COAT TO REHEATED JOINT PRIOR TO ASPHALT PLACEMENT.
- D. CONTRACTOR SHALL OFFSET SURFACE COURSE JOINTS FROM BINDER COURSE JOINTS WHEREVER PRACTICABLE.
9. **LONGITUDINAL JOINT DENSITY SPECIFICATIONS:**
- A. COMPLETED LONGITUDINAL JOINTS SHALL BE ASSESSED BASED ON SECTION 1030 OF THE STANDARD SPECIFICATIONS AND THE HOT MAT ASPHALT – DENSITY TESTING OF LONGITUDINAL JOINTS (BOE) AS FOLLOWS:
- LONGITUDINAL JOINT DENSITY TESTING SHALL BE PERFORMED AT EACH RANDOM DENSITY TEST LOCATION. LONGITUDINAL JOINT TESTING SHALL BE LOCATED AT A DISTANCE EQUAL TO THE LIFT THICKNESS OR A MINIMUM OF 2 IN. FROM EACH PAVEMENT EDGE, (I.E. FOR A 4 IN. LIFT THE CORNER EDGE OF THE DENSITY GAUGE OR CORE BARREL SHALL BE WITHIN 4 IN. FROM THE EDGE OF PAVEMENT). LONGITUDINAL JOINT DENSITY TESTING SHALL BE PERFORMED USING EITHER A CORRELATED NUCLEAR GAUGE OR CORES.
1. **CONFINED EDGE.** EACH CONFINED EDGE DENSITY SHALL BE REPRESENTED BY A ONE-MINUTE NUCLEAR DENSITY READING OR A CORE DENSITY AND SHALL BE INCLUDED IN THE AVERAGE OF DENSITY READINGS OR CORE DENSITIES TAKEN ACROSS THE MAT WHICH REPRESENTS THE INDIVIDUAL TEST.
2. **UNCONFINED EDGE.** EACH UNCONFINED EDGE JOINT DENSITY SHALL BE REPRESENTED BY AN AVERAGE OF THREE ONE-MINUTE DENSITY READINGS OR A SINGLE CORE DENSITY AT THE GIVEN DENSITY TEST LOCATION AND SHALL BE INCLUDED IN THE AVERAGE DENSITY REQUIREMENT HEREIN. THE THREE ONE-MINUTE READINGS SHALL BE SPACED TEN FEET APART LONGITUDINALLY ALONG THE UNCONFINED PAVEMENT EDGE AND CENTERED AT THE RANDOM DENSITY TEST LOCATION.
- DENSITY CONTROL LIMITS TABLE**
- | MIXTURE COMPOSITION | PARAMETER | INDIVIDUAL TEST
(INCLUDES CORNER EDGES) | UNCONFINED EDGE JOINT
DENSITY MINIMUM |
|----------------------------|--------------------|--|--|
| IL-9.5, IL12.5 | Ndensity >= 90 | 92.0-96.0% | 90% |
| IL-9.5, IL9.5L, IL-12.5 | Ndensity < 90 | 92.5-97.6% | 90% |
| IL-19.0, IL-25.0 | Ndensity >= 90 | 93.0-96.0% | 90% |
| IL-19.0, IL-19.0L, IL-25.0 | Ndensity < 90 | 93.0-97.4% | 90% |
| SMA | Ndensity = 50 & 80 | 93.5-97.4% | 91% |
| ALL OTHER | Ndensity = 30 | 93.0-97.4% | 90% |



PRECAST CONCRETE BOX CULVERT END SECTION				SHEET NO. 103 OF 103	SECTION 27+1.400-5.1	COUNTRY U.S.A.	DATE 27.11.2017
SHEET NO. OF SHEETS STA. TO STA.				CONTRACT NO.			

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