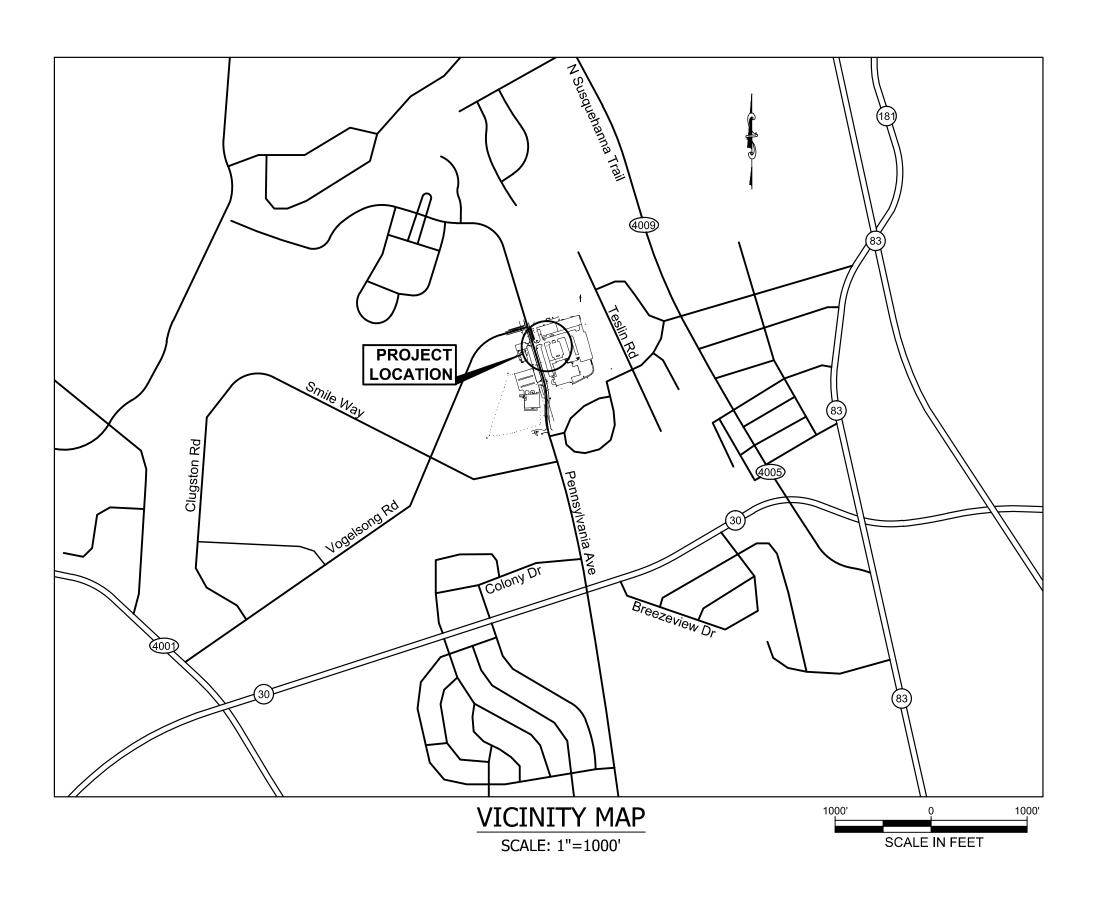
CONSTRUCTION DRAWINGS

SANITARY SEWER LATERAL REPLACEMENT - GOODLING AND CYTEC BUILDINGS HARRISBURG AREA COMMUNITY COLLEGE - YORK CAMPUS

CITY OF YORK

YORK COUNTY, PENNSYLVANIA

AUGUST 19, 2014



LEGEND

	PROPOSED		EXISTING	
	11101 0025		PROPERTY BOUNDARY	
460 ——	MAJOR CONTOUR	—— 380 ——	10' CONTOUR	
 458	MINOR CONTOUR	—— 382 ——	2' CONTOUR	
——s—	SANITARY SEWER	——— BSL ———	SETBACK LINE	
x	6' HIGH VINYL FENCE		CURB	
S	SANITARY MANHOLE	X	FENCE	
ОСО	CLEANOUT CHAMBER	———ОНЕ———	OVERHEAD ELECTRIC LINE	
8	VALVE	——— E ———	UNDERGROUND ELECTRIC LINE	
——FS——	18" FILTER SOCK	—— <i>T</i> ——	TELEPHONE	
	BITUMINOUS PAVEMENT	——————————————————————————————————————	COMMUNICATION	
h D Da Da	CONCRETE PAVEMENT	Ò	UTILITY POLE	
P	CONCRETE PAVEMENT	>	GUY	
RCE	ROCK CONSTRUCTION ENTRANCE	*	LIGHT STANDARD	
	SLOPE PROTECTION	C.O.©	CLEANOUT	
	(STRAW WITH NET) ECMB	8	VALVE	
IP	INLET PROTECTION - FILTER SOCK	○ IPF	IRON PIN	
FBIP	INLET PROTECTION - FILTER BAG		CONCRETE MONUMENT	
	SOIL BOUNDARY	$\triangle RCS$	REBAR & CAP SET	
——LOD——	LIMIT OF DISTURBANCE	O CMS	CONCRETE MONUMENT W/BRASS DI	
		~~~ <del>(</del> )	TREE OR SHRUB	
			OVERHEAD UTILITY	
			STORM SEWER AND INLET	
		— S — S—	SANITARY SEWER AND MANHOLE	
			STORM SEWER PIPE AND MANHOLE	
		<i>W</i>	WATER LINE	
		FH ♀	FIRE HYDRANT	
		SSMH	SANITARY SEWER MANHOLE	

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CONSTRUCTION MANAGER
EASTERN PCM, LLC
645 N. 12TH ST.
LEMOYNE, PA 17043 CONTACT: GREG LAMAY PHONE: 717-233-3816

OWNER - SITE HARRISBURG AREA COMMUNITY COLLEGE 2010 PENNSYLVANIA AVE. YORK, PA 17404 CONTACT: RON CLINE PHONE: 717-773-8783

CONSTRUCTION DRAWINGS TITLE SHEET

use of it's clients at the location indicated. No

PROJECT NO. 143026.00

SCALE N/A

**GENERAL NOTES** 

CONTRACTOR MUST MAINTAIN SANITARY SEWER SERVICE AT ALL TIMES DURING CONSTRUCTION FOR EACH HACC

10. A MINIMUM OF 18 INCH VERTICAL SEPARATION SHALL BE MAINTAINED BETWEEN ALL UTILITIES AND SEWER CROSSINGS. IF THIS CLEARANCE CANNOT BE MAINTAINED, CONCRETE ENCASEMENT MUST BE PROVIDED.

- A. PROVIDE ONE (1) RELIABLE PUMP CAPABLE OF HANDLING THE EXISTING WASTEWATER FLOWS AND DAILY WITHIN 30 MINUTES IN CASE OF PUMP FAILURE. BYPASS PUMPING SYSTEM SHALL NOT ALLOW BACKUP IN DISCHARGE TO THE SURFACE. ANY LEAKS IN THE SYSTEM WILL BE JUST CAUSE TO DISCONTINUE BYPASS
- B. AT THE END OF EACH WORKDAY, THE BYPASS PUMPING SHALL STOP AND THE NEW PVC PIPING SHALL BE CONNECTED TO THE EXISTING PIPING WITH A WATERTIGHT FLEXIBLE COUPLING. ALL TRENCHES SHALL BE PROPERLY BACKFILLED AND COMPACTED EXCEPT IN THE IMMEDIATE AREA OF THE TIE-IN. OPEN TRENCHES IN TRAFFIC AREAS SHALL BE PROTECTED WITH JERSEY BARRIERS AND STEEL PLATING AND ALL TRENCHES SHALL BE
- 12. ALL ABANDONED SANITARY SEWER LATERALS SHALL BE GROUTED WITH A FLOWABLE FILL AFTER NEW LATERALS ARE INSTALLED, TESTED, AND ACTIVATED FOR SERVICE. CONTROLLED LOW STRENGTH, SELF COMPACTING, LOW DENSITY FLOWABLE CONCRETE MATERIAL SHALL BE USED MEETING ASTM C150, ASTM C33, ASTM C869, ASTM C94 AND 80 PSI

REMAIN AND BE PROTECTED AT ALL TIMES UNLESS OTHERWISE NOTED.

1. EXISTING LINES ARE PRESENT IN PROJECT AREA. THEY ARE TO REMAIN AND BE PROTECTED AT ALL TIMES UNLESS

REFERENCE DOCUMENTS

- 1. THE CONTRACTOR SHALL REFERENCE SUPPLEMENTAL INVESTIGATION REPORTS TO INCLUDE:

PURSUANT TO THE ACT, SECTION 4, CENTURY HAS SHOWN UPON THESE DRAWINGS, THE NAME OF THE USER, POSITION AND TYPE OF EACH LINE, AS DERIVED PURSUANT TO THE REQUEST MADE. THE USER'S DESIGNATED OFFICE ADDRESS AND TELEPHONE NUMBER HAS BEEN LISTED IN ACCORDANCE WITH THE ACT, SECTION 4, CLAUSE (1).

CENTURY DOES NOT MAKE ANY REPRESENTATION, WARRANTY, ASSURANCE, OR GUARANTEE THAT THE INFORMATION RECEIVED PURSUANT TO SAID REQUEST AND REFLECTED ON THESE DRAWINGS IS CORRECT OR ACCURATE, BUT REFLECTS

- THE INFORMATION REPRESENTED ON THIS BOUNDARY AND TOPOGRAPHIC PLAN HAS BEEN GENERATED FROM A FIELD-RUN SURVEY PERFORMED IN DECEMBER 2009 AND ITS ACCURACY IS COMMENSURATE WITH THE METHODS USED TO OBTAIN THE DATA DEPICTED THEREON.
- HORIZONTAL DATUM IS NAD83-2007, THE PROJECTION IS SPC83-PENNSYLVANIA (SOUTH), THE GEOID IS g2009U08, CONFIDENCE LEVEL 95%. HORIZONTAL CONTROL WAS ESTABLISHED USING GPS TECHNOLOGY AND TIED TO C.O.R.S. REFERENCE STATIONS. ALL DATA WAS PROCESSED THROUGH OPUS.
- THE VERTICAL DATUM IS NAVD88 AND VERTICAL CONTROL WAS SET USING GPS TECHNOLOGY WITHIN THE SURVEYED AREA.
- 4. DUE TO VARIATIONS BETWEEN DEEDS A STATE PLANE BEARING BASE WAS USED.
- THERE ARE NO FLOOD PLAIN AREAS WITHIN THE SUBJECT TRACT PER FEMA MAP NO. 42133C0326E, PANEL 326 OF 701.
- THE BEARING AND DISTANCE LABELS FOLLOWED BY (D) REFLECT LINE CALLS FROM THE CURRENT DEED OF RECORD. BEARINGS AND DISTANCE LABELS FOLLOWED BY (SP) HAVE BEEN COMPUTED BASE UPON CURRENT SURVEY.
- ALL CONSTRUCTION COMPLETED AFTER 2009, HEDGES AND GROUND COVER ON THE SITE MAY NOT BE SHOWN
- NO WETLANDS EXIST WITHIN THE PROPOSED IMPROVEMENTS AREA.
- THE PROPOSED PROJECT WILL NOT REQUIRE A GENERAL NPDES PERMIT FOR STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITIES. PROPOSED LIMIT OF DISTURBANCE IS <1 ACRE.
- THE CONSTRUCTION AND MATERIALS SPECIFICATIONS OF CITY OF YORK AMONG OTHER APPLICABLE CODES, SHALL BE THE SOURCE DOCUMENTS ESTABLISHING SPECIFICATIONS FOR CONSTRUCTION ON THIS PLAN. WHERE MUNICIPAL DOCUMENTS DO NOT APPLY, THOSE CONSTRUCTION FEATURES NORMALLY ASSOCIATED WITH ROADWAY AND UTILITY CONSTRUCTION SHALL COMPLY WITH THE DEPARTMENT OF TRANSPORTATION PUBLICATION 408, "SPECIFICATIONS", CURRENT EDITION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING EXISTING CONDITIONS PRIOR TO STARTING CONSTRUCTION. FURTHER, THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONSTRUCTION STAKEOUT OF THIS PROPERTY.
- 12. SEE ESC PLANS AND PROJECT SCHEDULE FOR PROJECT SEQUENCE OF CONSTRUCTION.
- 13. THE CONTRACTOR WILL BE RESPONSIBLE FOR OBTAINING ALL CONSTRUCTION PERMITS INCLUDING STREET OPEN CUT PERMIT.
- DEMOLITION AND PROPOSED CONSTRUCTION SHALL OCCUR DURING PERIODS WHEN THE ADJACENT ACADEMIC BUILDINGS AND COMMUNITY WILL REMAIN ACTIVE. STAGING IS INTENDED TO ELIMINATE CONFLICTS BETWEEN COMMUNITY, STAFF, FACULTY, STUDENTS AND CONTRACTOR, THUS, WHETHER EXPLICIT OR NOT, CONTRACTOR SHALL NOT PROCEED WITH ANY TASK THAT WILL POTENTIALLY IMPACT ONGOING ACADEMIC OR COMMUNITY SERVICES WITHOUT PRIOR APPROVAL OF CONSTRUCTION MANAGER AND CITY WHERE APPLICABLE
- 15. ANY PERMANENT CONCRETE PADS, PAVEMENT, FENCING, LIGHTING OR OTHER APPURTENANCES THAT ARE IN THE WAY OF CONSTRUCTION, WHETHER SHOWN ON THE PLAN OR NOT, ARE TO BE REMOVED OR REPLACED AT THE DISCRETION OF THE CONSTRUCTION MANAGER.
- CONTRACTOR IS RESPONSIBLE TO ENSURE ALL DEBRIS IS REMOVED FROM PROJECT AREA AND OFF PROPERTY TO AN APPROVED LANDFILL AS DIRECTED BY THE CONSTRUCTION MANAGER.
- 17. NO STORAGE OF HAZARDOUS MATERIALS WILL BE ALLOWED DURING CONSTRUCTION. IF STORAGE ON SITE IS DESIRED, THE OWNER MUST APPROVE AND A PPC PLAN WILL NEED TO BE PREPARED AND SUBMITTED TO THE
- 18. UNLESS OTHERWISE NOTED, EXISTING FEATURES AND TREES ARE TO REMAIN AND BE PROTECTED DURING ALL PHASES OF CONSTRUCTION.
- 19. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SCHEDULE AND COORDINATE ALL INSPECTIONS WITH THE CITY OF YORK AND OWNER'S CONSTRUCTION MANAGER
- THIS PROJECT IS TO BE CONSTRUCTED PER PLANS & SPECIFICATIONS. ANY SUBSTITUTIONS AND/OR DEVIATIONS FROM THE PLANS OR SPECIFICATIONS MUST BE PRE-APPROVED BY THE OWNER OR THEIR CONSTRUCTION MANAGER. ALL SPECIFIED PRODUCTS ARE TO BE INSTALLED AS PER THE MANUFACTURER'S RECOMMENDATION.
- THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE OWNER PRIOR TO STARTING FABRICATION. THE CONTRACTOR SHALL FULLY REVIEW AND CORRECT ALL SHOP DRAWING SUBMISSIONS & STAMP APPROVED PRIOR TO SENDING THEM TO THE CONSTRUCTION MANAGER FOR REVIEW. EACH SUBMISSION TO REFERENCE THE PROJECT, DETAIL, SCHEDULE & LOCATIONS TO BE USED. IDENTIFY FIELD CONDITIONS PRIOR TO SUBMISSION.
- 22. ALL MATERIALS AND PRODUCTS USED ON THIS PROJECT ARE TO BE NEW, ORIGINAL AND UNIQUE TO THIS PROJECT. USE OF LEFT OVERS, REMNANTS OR SECONDS IS NOT ACCEPTABLE.
- THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS BEFORE PROCEEDING WITH CONSTRUCTION. ALL DISCREPANCIES FROM THE CONTRACT DOCUMENTS SHALL BE BROUGHT TO THE ATTENTION OF THE CONSTRUCTION MANAGER AS SOON AS DISCOVERED. COORDINATE ALL DETAILS WITH ALL OTHER DISCIPLINES BEFORE BEGINNING WORK.
- THE CONSTRUCTION MANAGER WILL MAKE PERIODIC VISITS TO THE SITE. SUCH VISITS SHALL NOT BE CONSTRUED AS MEETING ANY INSPECTION REQUIREMENTS UNLESS SPECIFICALLY STATED.
- ANY ITEMS NOT SPECIFICALLY MENTIONED THAT ARE REQUIRED TO MAKE THE WORK COMPLETE AND OPERATIONAL SHALL BE BE INCLUDED BY THE CONTRACTOR. CONTRACTOR TO FOLLOW MFG'S INSTALLATION PROCEDURES &STANDARD INDUSTRY PRACTICE.
- 26. CONTRACTOR IS RESPONSIBLE FOR ALL PATCH & REPAIR EXISTING ITEMS RESULTING FROM DAMAGE OCCURRING DURING CONSTRUCTION.
- 27. CONTRACTOR SHALL BE REQUIRED TO MAINTAIN RECORD DRAWINGS OF THE WORK DURING CONSTRUCTION AND SHALL TURN OVER SAID DOCUMENTS TO THE OWNER AT CONTRACT CLOSE-OUT. DOCUMENTS SHALL BE CURRENT AND REFLECT CONSTRUCTION AS BUILT.
- ALL EXISTING DRAINAGE STRUCTURES SHALL BE PROTECTED & MAINTAINED DURING CONSTRUCTION. FURTHERMORE, THE CONTRACTOR SHALL PROTECT ALL SOILS FROM EROSION DURING CONSTRUCTION.
- THE CONSTRUCTION MANAGER WILL DESIGNATE SOME, IF NOT ALL, EXISTING TREES AS "PROTECTED". SUCH TREES SHALL BE PROTECTED FROM INJURY DURING ALL LAND CLEARING & BUILDING CONSTRUCTION. THE PROTECTED AREA WILL BE 5 FEET FROM THE TRUNK OR HALF THE DISTANCE FROM THE TRUNK TO THE DRIPLINE, WHICH EVER IS GREATER. THIS PROTECTION AREA SHALL REMAIN AT ORIGINAL GRADE, WITH NO STORAGE OF FILL, TRENCHING OR ANY OTHER WORK WHICH WILL DISTURB THE ROOTS.
- SOILS BENEATH PADS, PAVEMENT AND BUILDINGS SHALL BE COMPACTED TO 95% OF MODIFIED PROCTOR (AASHTO-T-180) AND BE QUALITY CONTROLLED THROUGH TESTING UNDER THE DIRECTION & SUPERVISION OF REGISTERED SOIL ENGINEER. IN LANDSCAPED AREAS THE BACKFILL SHOULD BE COMPACTED TO AT LEAST 90%.
- ALL AREAS THAT DEMONSTRATE PUMPING SHALL BE UNDERCUT & BACKFILLED WITH APPROVED MATERIAL. ALL SOILS SHALL BE WITHIN 2% OF THEIR OPTIMUM MOISTURE CONTENT AT THE TIME OF BACKFILL/COMPACTION.

- 32. ALL EXCAVATION IS CLASSIFIED. EXCAVATE TO SUBGRADE ELEVATIONS. MATERIAL TO BE EXCAVATED WILL BE CLASSIFIED AS EARTH OR ROCK. DO NOT EXCAVATE ROCK UNTIL IS HAS BEEN CLASSIFIED AND CROSS SECTIONED BY CONSTRUCTION MANAGER. THE CONTRACT SUM WILL BE ADJUSTED FOR ROCK EXCAVATION ACCORDING TO UNIT PRICES INCLUDED IN THE CONTRACT DOCUMENTS. CHANGES IN THE CONTRACT TIME MAY BE AUTHORIZED FOR ROCK EXCAVATION.
- A. EARTH EXCAVATION INCLUDES EXCAVATING PAVEMENTS AND OBSTRUCTIONS VISIBLE ON THE SURFACE; UNDERGROUND STRUCTURES, UTILITIES, AND OTHER ITEMS INDICATED TO BE REMOVED; AND SOIL, BOULDERS AND OTHER MATERIALS NOT CLASSIFIED AS ROCK OR UNAUTHORIZED EXCAVATION. INTERMITTENT DRILLING, RAM HAMMERING OR RIPPING OF MATERIAL NOT CLASSIFIED AS ROCK EXCAVATION IS EARTH EXCAVATION.
- B. ROCK EXCAVATION INCLUDES REMOVAL AND DISPOSAL OF ROCK. REMOVE ROCK TO LINES AND SUBGRADE ELEVATIONS INDICATED TO PERMIT INSTALLATION OF PERMANENT CONSTRUCTION WITHOUT EXCEEDING THE **FOLLOWING DIMENSIONS:** 
  - -12 INCHES BENEATH PIPE IN TRENCHES
- -24 INCHES WIDER THAN PIPE ON EITHER SIDE OF PIPE C. ROCK MEASUREMENT: VOLUME OF ROCK ACTUALLY REMOVED, MEASURED IN ORIGINAL POSITION, BUT NOT TO EXCEED DIMENSIONS ABOVE. UNIT PRICES FOR ROCK EXCAVATION INCLUDE REPLACEMENT WITH APPROVED MATERIAL
- D. ROCK DEFINITION: ROCK MATERIAL IN BEDS, LEDGES, UNSTRATIFIED MASSES, CONGLOMERATE DEPOSITS AND BOULDERS OF ROCK MATERIAL 3/4 CU YD OR MORE IN VOLUME THAT EXCEED A STANDARD PENETRATION RESISTANCE OF 100 BLOWS/2 INCHES WHEN TESTED BY A GEOTECHNICAL TESTING AGENCY ACCORDING TO ASTM
- 33. NO BLASTING UNLESS PRIOR APPROVAL BY CONSTRUCTION MANAGER AND CITY WHERE APPLICABLE.
- 34. SUPPORT EXCAVATIONS WITH SHEETING, SHORING AND BRACING OR A "TRENCH BOX" AS REQUIRED TO COMPLY WITH OSHA 1926 AND OTHER APPLICABLE FEDERAL AND STATE LAWS AND CODES. THE ADEQUACY OF THE DESIGN FOR SHEETING, SHORING AND BRACING IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR. DAMAGE DUE TO CAVE IN AND/OR SETTLEMENT SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE. REMOVAL OF SHEETING, SHORING AND BRACING AS BACKFILLING PROCEEDS IS THE CONTRACTOR'S RESPONSIBILITY.
- 35. KEEP EXCAVATIONS DRY AND FREE OF WATER. DESIGN OF MEANS, METHODS AND SEQUENCE OF DEWATERING TO DISPOSE OF PRECIPITATION AND SUBSURFACE WATER AND TO INTERCEPT AND DIVERT SURFACE WATER FROM ENTERING TRENCH IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- 36. FIELD QUALITY CONTROL. CONTRACTOR WILL ENGAGE A QUALIFIED INDEPENDENT TESTING AGENCY TO PERFORM TESTS AND INSPECTIONS. TESTING AGENCY SHALL INSPECT AND TEST SUBGRADES AND EACH FILL OF BACKFILL LAYER (NO GREATER THAN 8" LOOSE LIFT THICKNESS).
- A. PAVED AREAS (NOT AT TRENCH) AT EACH SUBGRADE OR ONE TEST FOR EVERY 2000 SF OR LESS OF PAVEMENT -WHICHEVER IS GREATER.
- B. TRENCH BACKFILL AT SUBGRADE AND EACH INITIAL BACKFILL AND FINAL BACKFILL LAYER, AT LEAST ONE TEST FOR EVERY 150 FT OR LESS OF TRENCH LENGTH, BUT NO FEWER THAN FOUR TESTS
- C. CONCRETE OBTAIN ONE COMPOSITE SAMPLE FOR EACH DAY'S POUR OF EACH CONCRETE MIX. TEST IN ACCORDANCE WITH ASTM C39. PROTECT FRESHLY PLACED CONCRETE FROM PREMATURE DRYING AND EXCESSIVE COLD OR HOT TEMPERATURES. COMPLY WITH ACI 306.1 FOR COLD WEATHER PROTECTION AND ACI 301 FOR HOT WEATHER PROTECTION DURING CURING.

#### **GENERAL UTILITY NOTES**

- 1. FOR LEGEND, SEE DRAWING G-001.
- 2. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES AS SHOWN HEREON ARE BASED ON ABOVE GROUND STRUCTURES, RECORD DRAWINGS PROVIDED BY CONSTRUCTION MANAGER OR UTILITY AND LIMITED PHYSICAL SURVEYS BY OWNER'S ENGINEER. ALTHOUGH A CONCERTED EFFORT HAS BEEN MADE TO LOCATE THE UTILITIES ACCURATELY, IT IS POSSIBLE THAT UNMAPPED BURIED LINES EXIST IN THE AREA OR LOCATIONS VARYING FROM SHOWN. THE CONTRACTOR IS CAUTIONED TO TAKE EVERY POSSIBLE PRECAUTION IN LOCATING UNDERGROUND LINES BEFORE BEGINNING ANY EXCAVATION. IN ACCORDANCE WITH PA ACT 287, THE CONTRACTOR MUST INITIATE THE PA ONE CALL SYSTEM PRIOR TO STARTING EXCAVATION. LIMITED VACUUM EXCAVATIONS WERE MADE DURING THE PROGRESS OF THIS SURVEY TO LOCATE BURIED UTILITIES/STRUCTURES IN SUPPORT OF LIMITED GEOPHYSICAL SURVEYS USED TO DETECT SUBSURFACE FEATURES. REPORTS ARE AVAILABLE FOR REFERENCE, BUT FINDINGS MUST BE REEVALUATED AND CONFIRMED BY CONTRACTOR AFTER CONTRACT AWARD. OWNER OR CONSTRUCTION MANAGER IS NOT RESPONSIBLE FOR INTERPRETATIONS OR CONCLUSIONS DRAWN FROM OWNER/CONSTRUCTION MANAGER SUPPLIED INVESTIGATION OR REPORTS.
- ALL UTILITY APPURTENANCES SUCH AS MANHOLES, JUNCTION BOXES VALVE BOXES, ETC. MUST BE ADJUSTED WHERE THEY OCCUR WITHIN THE LIMIT OF DISTURBANCE TO MATCH ADJACENT SURFACES, WHETHER SHOWN ON THE DRAWINGS OR NOT.
- ANY UTILITIES OR OTHER APPURTENANCES THAT ARE IN THE WAY OF CONSTRUCTION, WHETHER SHOWN ON THE PLAN OR NOT, ARE TO BE REMOVED OR REPLACED AT THE DISCRETION OF THE CONSTRUCTION MANAGER.
- MAINTAIN A MINIMUM HORIZONTAL CLEARANCE OF 5 FEET BETWEEN WATER AND ELECTRIC AND 3 FEET BETWEEN SERVICE LINES, MAINTAIN A MINIMUM OF 1 FOOT VERTICAL CLEARANCE BETWEEN ALL WATER AND GAS LINES.
- 6. ALL EXISTING UTILITIES THAT ARE TO REMAIN SHALL BE PROTECTED DURING CONSTRUCTION.
- COORDINATE PIPE/CONDUIT ROUTING WITH LANDSCAPING. ROUTE PIPE/CONDUIT MIN. 5FT FROM TRUNK UNLESS OTHERWISE APPROVED BY CONSTRUCTION MANAGER.
- 8. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE CONSTRUCTION MANAGER WHEN UNDERGROUND UTILITIES ARE ENCOUNTERED AND MAKE NOTE OF SUCH.

### SITE ELECTRICAL/COMMUNICATION

- OWNER LOW VOLTAGE POWER LINES AND LIGHTING CIRCUITS EXIST IN PROJECT AREA AS DIRECT BURIED AND IN CONDUIT. CARE MUST BE TAKEN DURING CONSTRUCTION TO AVOID.
- PUBLIC UTILITY OWNED MEDIUM VOLTAGE ELECTRICAL POWER LINES EXIST IN PROJECT AREA AS DIRECT BURIED AND IN CONDUIT. CARE MUST BE TAKEN DURING CONSTRUCTION TO AVOID.
- CONTRACTOR SHALL COORDINATE CLOSELY WITH PUBLIC UTILITY AND CONSTRUCTION MANAGER REGARDING WORK OVER, UNDER OR ADJACENT TO ENERGIZED ELECTRIC LINES.
- PUBLIC UTILITY OWNED AND HACC OWNED COMMUNICATION LINES EXIST IN PROJECT AREA AS DIRECT BURIED AND IN CONDUIT. CARE MUST BE TAKEN DURING CONSTRUCTION TO AVOID.

### SANITARY SEWER NOTES

- SERVICE LATERALS TO BE 4" OR 6" SDR35 PVC COMPLYING WITH ASTM D3034 WHERE INDICATED.
- NEW MH PENETRATIONS SHALL BE PRECAST AND SEALED PER GASKETING DETAIL. WHERE PRECAST PENETRATIONS ARE NOT POSSIBLE, CORE DRILL MANHOLE AND SEAL PER SAME DETAIL
- 3. THE CONTRACTOR SHALL NOTIFY THE CONSTRUCTION MANAGER AND CITY AT LEAST 72 HOURS IN ADVANCE OF ANY WORK INVOLVING THE SANITARY SEWER SYSTEM. DO NOT MAKE CONNECTION TO EXISTING CITY MAIN WITHOUT CITY APPROVAL.
- FLUSH ALL NEW LINES AFTER INSTALLATION AND TEST IN ACCORDANCE WITH SECTION 02651, PARA 3.02 AND PARA 3.04 OF THE CITY'S CONSTRUCTION AND MATERIAL SPECIFICATIONS.

5. IF PIPE OR MANHOLE FAILS TEST, MAKE REPAIRS AND TEST AGAIN. REPEAT UNTIL PIPE OR MANHOLE PASSES TEST.

- A MINIMUM OF 5 FEET COVER IS REQUIRED OVER SANITARY SEWER INSIDE PUBLIC RIGHT OF WAY. A MINIMUM OF 3
- FEET OF COVER IS REQUIRED OVER SANITARY SEWER LATERALS OUTSIDE OF PUBLIC RIGHT OF WAY.

- 7. THE SANITARY SEWER LINES IN THE PROJECT AREA ARE PRIVATELY OWNED AND MAINTAINED BY THE OWNER. EXISTING CITY LINES ARE TO REMAIN AND BE PROTECTED AT ALL TIMES UNLESS OTHERWISE NOTED.
- 8. ALL SANITARY SEWER FACILITY CONSTRUCTION, METHODS, AND MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST CITY STANDARD SANITARY SEWER CONSTRUCTION AND MATERIALS SPECIFICATIONS AND STANDARDS.
- OWNED BUILDING AND THE COMMUNITY.
- BYPASS PUMPING
  - FLUCTUATIONS AND ENOUGH DISCHARGE PIPING TO BYPASS PUMP FROM UPSTREAM MANHOLE TO DOWNSTREAM MANHOLE. PROVIDE ONE (1) BACKUP PUMP ON-SITE OR PROVIDE EVIDENCE OF ABILITY TO OBTAIN BACKUP PUMP COLLECTION SYSTEM BEYOND TWO (2) MANHOLES. BYPASS PIPING SHALL BE WATERTIGHT AND NOT ALLOW ANY OPERATION AND PIPE INSTALLATION AND TIE PIPING BACK INTO GRAVITY FLOW.
- PROTECTED WITH CONSTRUCTION FENCING.
- COMPRESSIVE STRENGTH WHEN TESTED ACCORDING TO ASTM C495.

### WATER UTILITY NOTES

THE WATER LINES IN THE PROJECT AREA ARE BOTH PUBLICALLY AND PRIVATELY OWNED. EXISTING LINES ARE TO

OTHERWISE NOTED.

- A. GEOPHYSICAL INVESTIGATION REPORT AND SUBSURFACE UTILITY MAP BY GEOGRAF.
- B. SOFT DIG VACUUM EXCAVATION REPORTS BY SOFT DIG

CENTURY ENGINEERING (CENTURY) HEREBY STATES THAT, PURSUANT TO THE PROVISIONS OF PENNSYLVANIA ACT NO. 38 OF DECEMBER 12, 1991, THE FOLLOWING EFFORT HAS BEEN PERFORMED IN PREPARING THESE DRAWINGS REQUIRING EXCAVATION OR DEMOLITION AT SITES WITHIN THE POLITICAL SUBDIVISIONS:

PURSUANT TO THE ACT, SECTION 4, CLAUSE (1), CENTURY INSPECTED OR OBTAINED A COPY OF THE LIST OF USERS, AS PRESCRIBED AS SECTION 3 OF SAID ACT, IN POLITICAL SUBDIVISIONS. "USER" IS DEFINED TO INCLUDE "PUBLIC UTILITY, POLITICAL SUBDIVISION, MUNICIPALITY AUTHORITY, RURAL ELECTRIC COOPERATIVE OR ITS NAMED TRADE ASSOCIATION, OR OTHER PERSON OR ENTITY WHICH OWNS OR OPERATED A LINE. THE TERM DOES NOT INCLUDE THE COMMONWEALTH OR IT'S AGENCIES.

PURSUANT TO THE ACT, SECTION 4, CLAUSE (2), CENTURY REQUESTED FROM EACH USERS OFFICE DESIGNATED ON SUCH LIST, THE INFORMATION PRESCRIBED BY SECTION 2, CLAUSE (4), NOT LESS THAN TEN NOR MORE THAN NINETY DAYS BEFORE FINAL DESIGN IS TO BE COMPLETED.

SAID INFORMATION ONLY AS RECEIVED AND DUE TO THE REQUIREMENTS OF ACT NO. 38 OF DECEMBER 12, 1991.

PA ONE-CALL SYSTEM, INC. SERIAL NO. 20141750722

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NO. DATE

**REVISIONS** 

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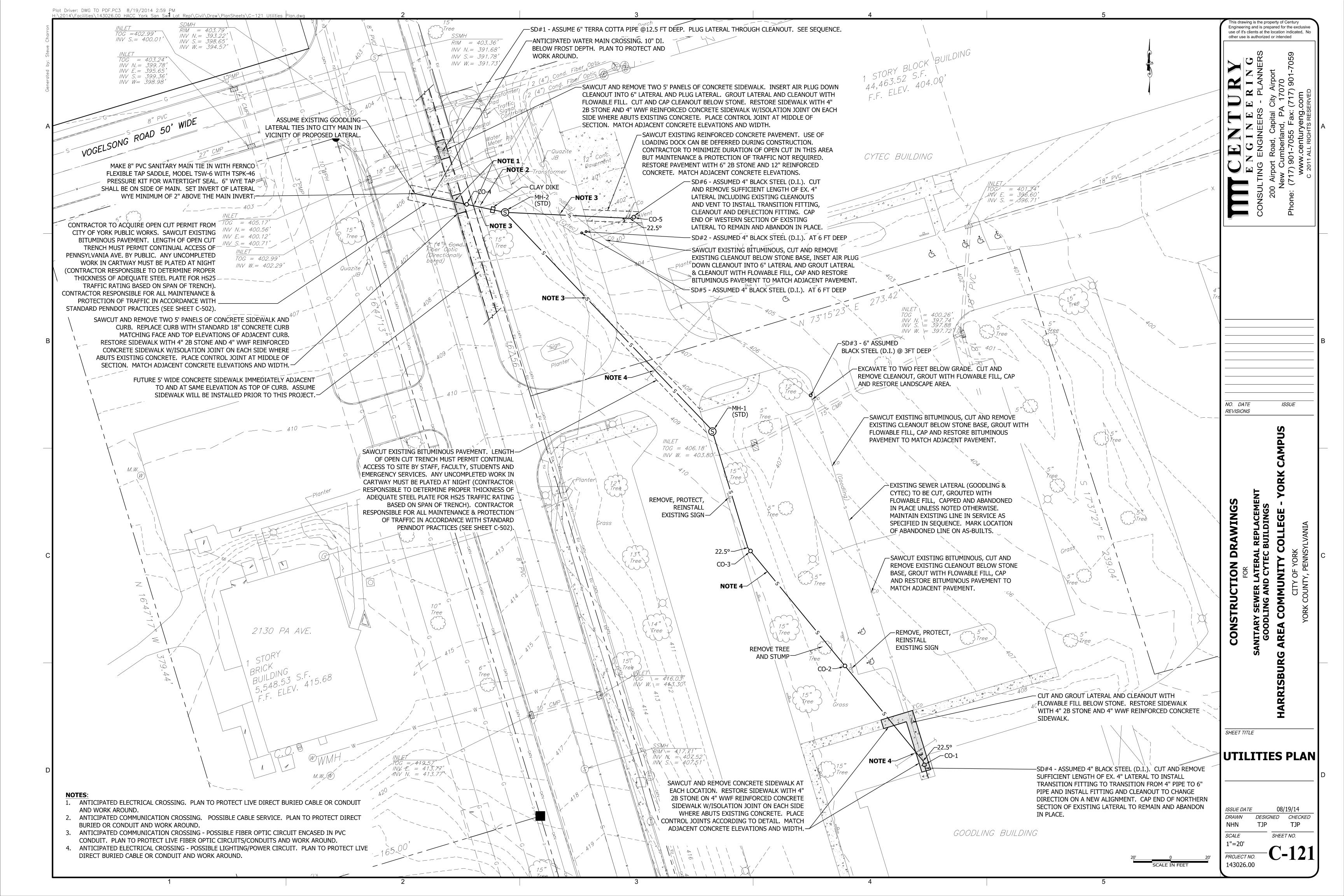
**GENERAL NOTES** 

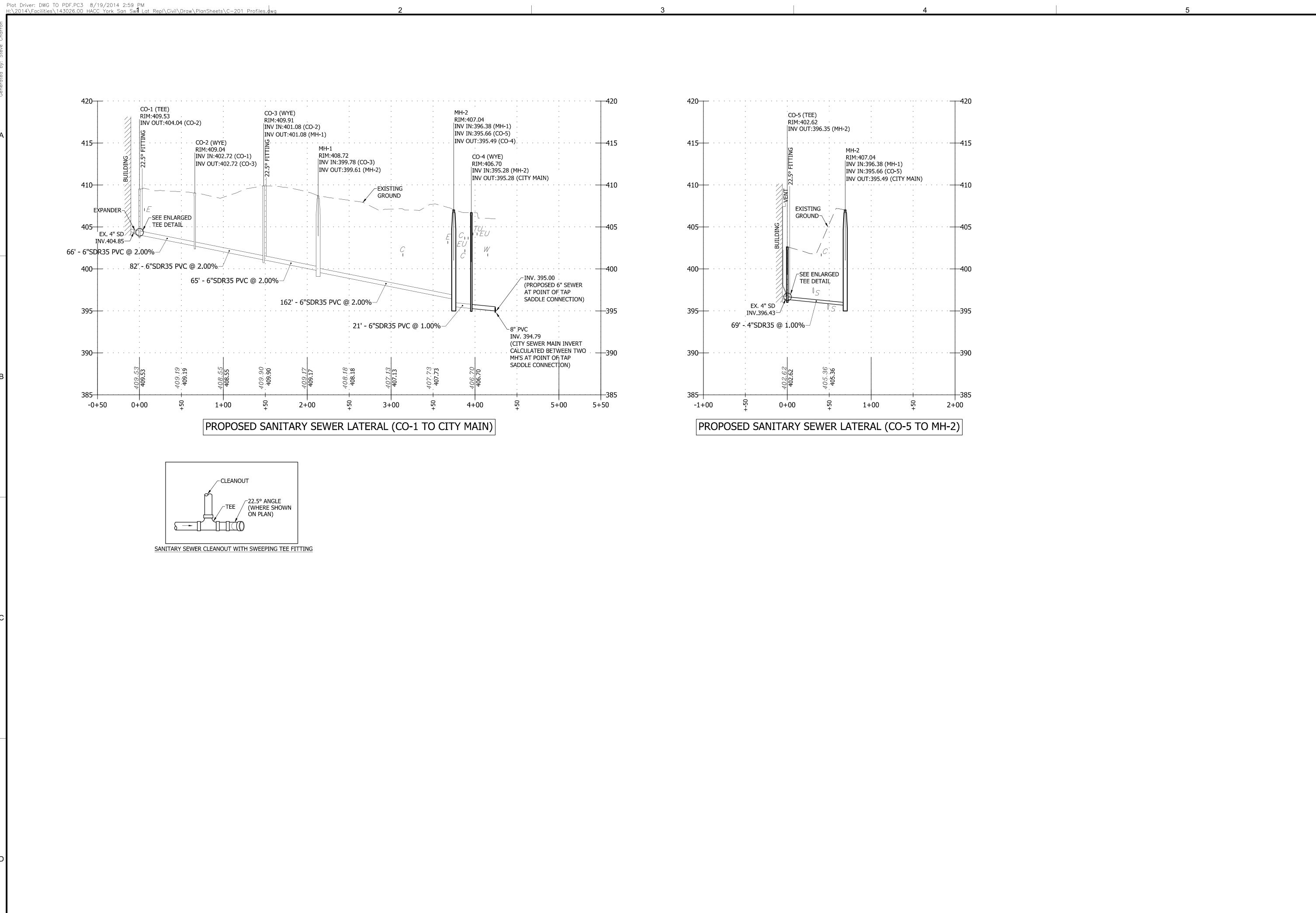
SSUE DATE 08/19/14 DESIGNED CHECKED NHN TJP TJP

SHEET NO.

N/A G-002 PROJECT NO. 143026.00

**SCALE** 





**PROFILES** 

NO. DATE

REVISIONS

CONSTRUCTION DRAWINGS

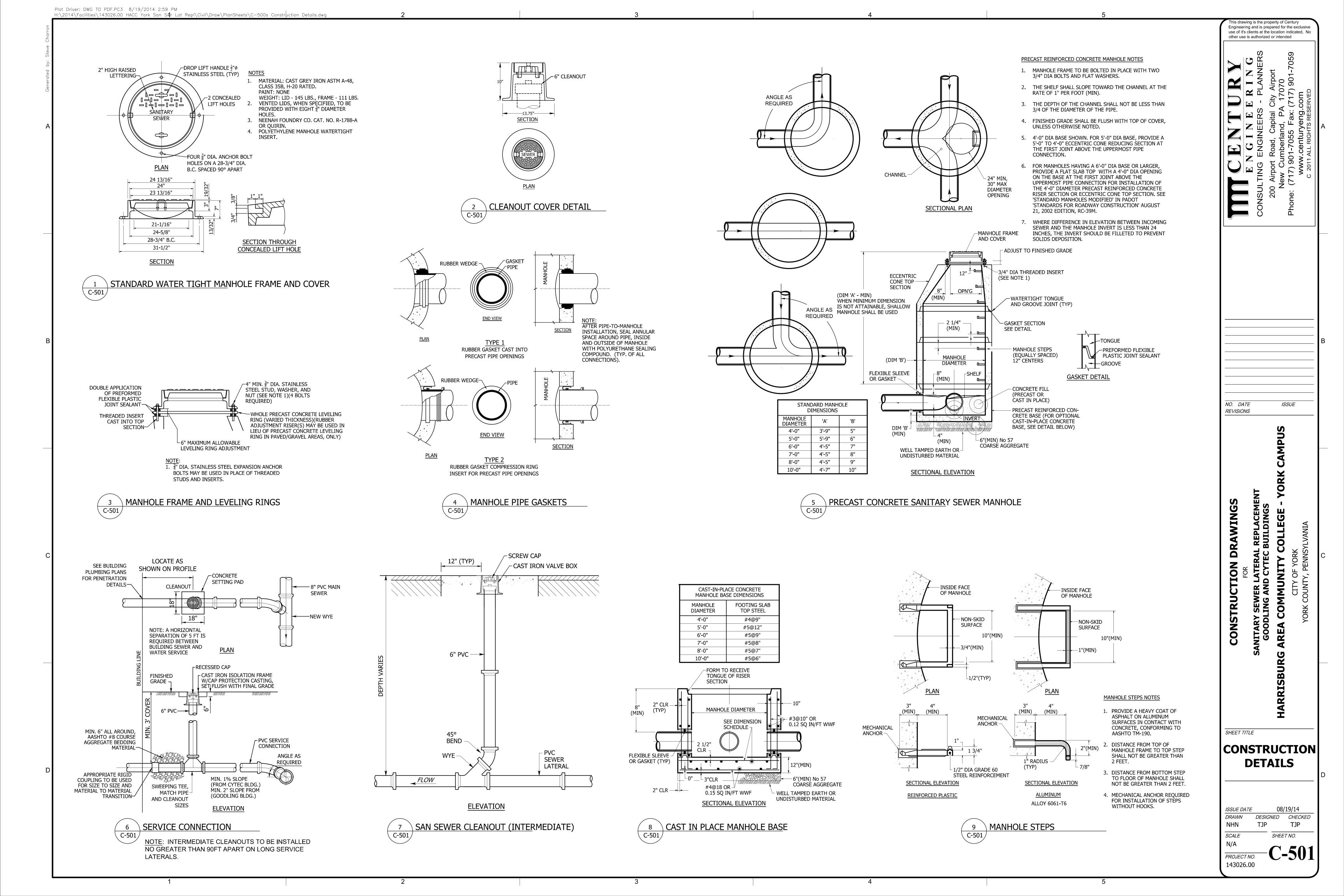
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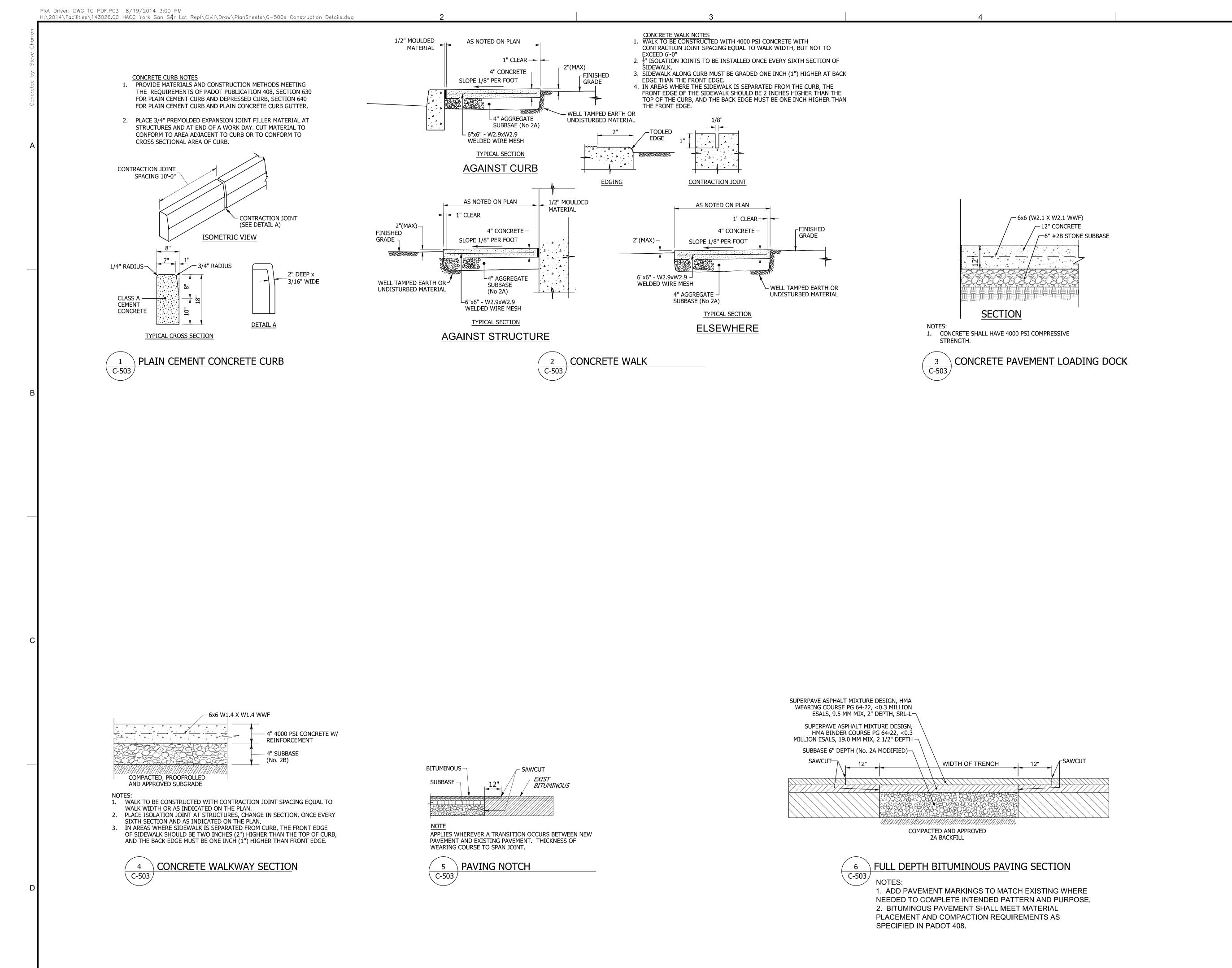
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SCALE AS SHOWN

PROJECT NO.

143026.00





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TJP

CONSTRUCTION

**DETAILS** 

08/19/14

SHEET NO.

TJP

DESIGNED CHECKED

ISSUE DATE

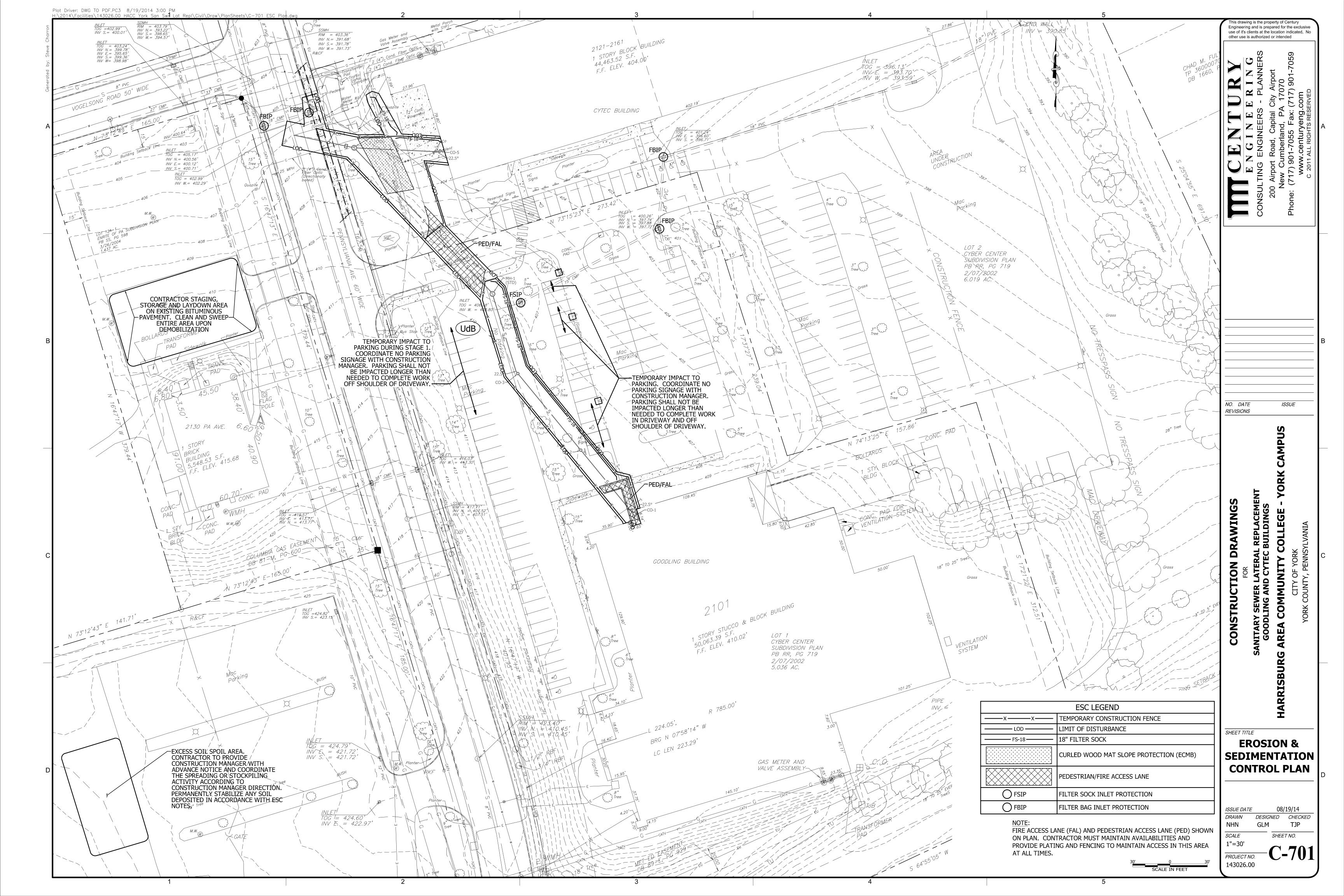
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NHN

SCALE

SHEET TITLE

PROJECT NO.



RESTRICTIVE LAWS, RULES, OR REGULATIONS SHALL APPLY.

#### ALL EROSION AND SEDIMENTATION CONTROL SHALL BE IMPLEMENTED AND CONSTRUCTED IN ACCORDANCE WITH THE PENNDOT "STANDARD DRAWINGS" (PUBLICATION 72), "SPECIFICATIONS" (PUBLICATION 408), 2007 EDITION, THE PADEP "EROSION AND SEDIMENTATION CONTROL PROGRAM MANUAL," AND DETAILS SHOWN ON THIS EROSION AND SEDIMENTATION CONTROL PLAN. THE CONTRACTOR SHALL ALSO COMPLY WITH THE REQUIREMENTS OF PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL PROTECTION (PADEP) RULES AND REGULATIONS IDENTIFIED IN TITLE 25, CHAPTER 102, "EROSION CONTROL." IN THE EVENT OF CONFLICT BETWEEN THESE REQUIREMENTS AND

POLLUTION CONTROL LAWS, RULES, OR REGULATIONS OF OTHER FEDERAL, STATE, OR LOCAL AGENCIES, THE MORE

- THIS E&S PLAN SHALL BECOME PART OF AND BE INCORPORATED INTO THE CONTRACT DOCUMENTS. ANY DEVIATIONS FROM THE APPROVED E&S PLAN MUST BE SUBMITTED TO THE OWNER FOR APPROVAL.
- THE OPERATOR/RESPONSIBLE PERSON (O/RP) ON SITE SHALL ASSURE THAT THE E&S PLAN IS PROPERLY AND COMPLETELY IMPLEMENTED. CONTROL MEASURES SHALL BE INSTALLED AND CONSTRUCTION ACTIVITIES CONDUCTED IN SUCH A MANNER THAT NO SEDIMENT OR SEDIMENT LADEN RUNOFF IS ALLOWED TO LEAVE THE SITE.
- 4. THIS PROJECT IS SUBJECT TO INSPECTION BY REPRESENTATIVES OF THE PADEP AND THE COUNTY CONSERVATION
- 5. THE O/RP SHALL LIMIT THE AMOUNT OF DISTURBED ACREAGE TO THE MINIMUM REQUIRED BY CONSTRUCTION ACTIVITIES.
- 6. A COPY OF THE E&S PLAN SHALL BE KEPT ON THE CONSTRUCTION SITE AT ALL TIMES.
- THE O/RP IS RESPONSIBLE FOR INSTALLING, MAINTAINING, AND REMOVING ALL EROSION AND SEDIMENT POLLUTION CONTROL DEVICES REQUIRED IN THIS PLAN.
- AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST ACCELERATED SURFACE EROSION AND SUBSURFACE CHARACTERISTICS SUFFICIENT TO RESIST SLIDING AND OTHER MOVEMENTS.
- 9. DO NOT REMOVE ANY EROSION AND SEDIMENT POLLUTION CONTROLS UNTIL THE UPSLOPE AREA HAS BEEN AT LEAST SEVENTY PERCENT (70%) STABILIZED. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMPS MUST BE REMOVED. AREAS DISTURBED DURING REMOVAL OF THE BMPS MUST BE IMMEDIATELY STABILIZED.
- 10. SEDIMENT REMOVED FROM BMPS SHALL BE DISPOSED OF ON-SITE IN LANDSCAPED AREAS OUTSIDE OF STEEP SLOPES, WETLANDS, FLOODPLAINS OR DRAINAGE SWALES AND IMMEDIATELY STABILIZED OR PLACED IN SOIL STOCKPILES AND STABILIZED.
- 11. DURING SEWER CONSTRUCTION, MAINTAIN A DRY TRENCH TO KEEP SEDIMENT FROM ENTERING THE SEWER SYSTEM.
- 12. ALL PUMPING OF SEDIMENT-LADEN WATER SHALL BE THROUGH A SEDIMENT CONTROL BMP, SUCH AS A PUMPED WATER FILTER BAG DISCHARGING OVER UNDISTURBED AREAS.
- 13. EROSION AND SEDIMENT BMPS MUST BE CONSTRUCTED, STABILIZED AND FUNCTIONAL BEFORE SITE DISTURBANCE BEGINS WITHIN THE TRIBUTARY AREAS OF THOSE BMPS.
- 14. UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENT MUST BE MAINTAINED PROPERLY. THE O/RP SHALL ASSURE THAT THE BMPS ARE IMPLEMENTED, OPERATED, AND MAINTAINED PROPERLY AND COMPLETELY. MAINTENANCE MUST INCLUDE REGULAR INSPECTIONS OF ALL EROSION CONTROL BMPS. THE O/RP WILL MAINTAIN AND MAKE AVAILABLE TO DEP OR THE COUNTY CONSERVATION DISTRICT UPON REQUEST, WRITTEN INSPECTION LOGS OF THE INSPECTIONS. ALL MAINTENANCE WORK, INCLUDING CLEANING, REPAIR, REPLACEMENT, REGRADING, AND STABILIZATION SHALL BE PERFORMED IMMEDIATELY. IT IS THE O/RP'S RESPONSIBILITY TO IMMEDIATELY REPAIR ALL EROSION CONTROL FACILITIES THAT ARE DAMAGED OR AFFECTED BY CONSTRUCTION ACTIVITIES SO THAT ALL FACILITIES REMAIN FUNCTIONAL AT ALL TIMES, AND PARTICULARLY WHEN WORK CEASES EACH DAY. SWALES AND SILT BARRIERS MUST BE ADJUSTED, RECONSTRUCTED, AND/OR REPAIRED AS NECESSARY TO KEEP THEM FUNCTIONAL AS GRADING OPERATIONS PROCEED.
- 15. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, THE O/RP SHALL IMPLEMENT APPROPRIATE BEST MANAGEMENT PRACTICES (BMPS) TO ELIMINATE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION.
- 16. THE O/RP SHALL ASSURE THAT AN EROSION AND SEDIMENT CONTROL PLAN HAS BEEN PREPARED, APPROVED BY THE COUNTY CONSERVATION DISTRICT AND IS BEING IMPLEMENTED AND MAINTAINED FOR ALL SOIL AND/OR ROCK SPOIL AND BORROW AREAS REGARDLESS OF THEIR LOCATIONS.
- 17. AT LEAST SEVEN (7) DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, THE O/RP SHALL INVITE ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES, THE LANDOWNER, ALL APPROPRIATE MUNICIPAL OFFICIALS, THE EROSION AND SEDIMENT CONTROL PLAN DESIGNER TO AN ON-SITE MEETING. ALSO, AT LEAST THREE (3) DAYS BEFORE STARTING ANY EARTH DISTURBANCE ACTIVITIES, ALL CONTRACTORS INVOLVED IN THOSE ACTIVITIES SHALL NOTIFY THE PENNSYLVANIA ONE CALL SYSTEM INCORPORATED AT 1-800-242-1776 FOR BURIED UTILITY LOCATIONS.
- 18. IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITY CEASES, THE O/RP SHALL STABILIZE ANY AREAS DISTURBED BY THE ACTIVITIES. DURING NON-GERMINATING PERIODS, MULCH MUST BE APPLIED AT THE SPECIFIED RATES. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE RE-DISTURBED WITHIN ONE YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE TEMPORARY VEGETATIVE STABILIZATION SPECIFICATIONS.
- 19. DISTURBED AREAS WHICH ARE AT FINISHED GRADE OR WHICH WILL NOT BE REDISTURBED WITHIN ONE YEAR MUST BE STABILIZED IN ACCORDANCE WITH THE PERMANENT VEGETATIVE STABILIZATION SPECIFICATIONS.
- 20. FILTER SOCK IS TO BE PLACED WITH AS LITTLE DISTURBANCE TO EXISTING VEGETATION AS POSSIBLE. PLACE IT BETWEEN AND AROUND EXISTING VEGETATION WHENEVER POSSIBLE.
- 21. THE SITE DRAINS TO AN UNNAMED TRIBUTARY TO CODORUS CREEK CLASSIFIED AS WWF
- 22. THE OPERATION AND MAINTENANCE OF ALL STORMWATER COLLECTION, CONVEYANCE, AND MANAGEMENT FACILITIES, DURING AND POST CONSTRUCTION, SHALL BE THE RESPONSIBILITY OF THE PROPERTY OWNER.
- 23. UTILITY TRENCH EXCAVATION NOTES:
  - a. LIMIT ADVANCED CLEARING AND GRUBBING OPERATIONS TO A DISTANCE EQUAL TO TWO TIMES THE LENGTH OF PIPE INSTALLATION THAT CAN BE COMPLETED IN ONE DAY.
  - b. WORK CREWS AND EQUIPMENT FOR TRENCHING, PLACEMENT OF PIPE CONSTRUCTION AND BACKFILLING WILL BE SELF-CONTAINED AND SEPARATE FROM CLEARING AND GRUBBING AND SITE RESTORATION AND STABILIZATION
  - c. ALL SOIL EXCAVATION FROM TRENCH WILL BE PLACED ON THE HILL SIDE OF THE TRENCH.
  - d. TRENCHES LEFT OPEN FOR MORE THAN ONE DAY MUST BE PLATED OR FENCED OFF TO ELIMINATE VEHICLE OR PEDESTRIAN ACCESS TO EXPOSED TRENCHES.
  - e. WATER THAT ACCUMULATED IN THE OPEN TRENCH SHALL BE PUMPED THROUGH A FILTRATION DEVICE. ON THE DAY FOLLOWING PIPE PLACEMENT AND TRENCH BACKFILLING, THE DISTURBED AREA WILL BE GRADED TO FINAL CONTOURS AND IMMEDIATELY STABILIZED.
  - f. ANY WATER PUMPED FROM PIPE TRENCHING OPERATIONS MUST BE PUMPED DIRECTLY TO SEDIMENTATION FACILITIES OR TO A FACILITY THAT OUTLETS TO A SEDIMENTATION TRAP.
  - g. FOR ANY AREA THAT CANNOT BE STABILIZED, CONTRACTOR MUST INSTALL FILTER SOCK DIRECTLY DOWNHILL OF AREA TO CONTROL SEDIMENT RUNOFF.
- 24. ALL BUILDING MATERIALS AND WASTES MUST BE REMOVED FROM THE SITE AND RECYCLED OR DISPOSED OF IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE REGULATIONS (25 PA. CODE 260.1 ET SEQ., 271.1., AND 287.1 ET SEQ.), AND/OR ANY ADDITIONAL LOCAL, STATE OR FEDERAL REGULATIONS. NO BUILDING MATERIALS (USED OR UNUSED) OR WASTES OR UNUSED BUILDING MATERIALS SHALL BE BURNED, BURIED, DUMPED, OR DISCHARGED AT THE SITE.

- 25. CUTS AND FILLS ARE EXPECTED TO BALANCE ON THIS SITE. DURING CONSTRUCTION IF IT IS DISCOVERED THAT FILLS MUST BE IMPORTED TO OR EXPORTED FROM THE SITE. IT IS THE PERMITTEE'S RESPONSIBILITY TO PERFORM ENVIRONMENTAL DUE DILIGENCE AND MAKE A DETERMINATION OF CLEAN FILL IN ACCORDANCE WITH DEP'S POLICY "MANAGEMENT OF FILL" DOCUMENT NO. 285,2182-773.
  - a. CLEAN FILL IS DEFINED AS: UNCONTAMINATED, NON-WATER SOLUBLE, NON-DECOMPOSABLE, INERT, SOLID MATERIAL. THE TERM INCLUDES SOIL, ROCK, STONE, DREDGED MATERIAL, USED ASPHALT, AND BRICK, BLOCK OR CONCRETE FROM CONSTRUCTION ACTIVITIES THAT IS SEPARATE FROM OTHER WASTE AND IS RECOGNIZABLE AS SUCH. THE TERM DOES NOT INCLUDE MATERIALS PLACED IN OR ON THE WATERS OF THE COMMONWEALTH UNLESS OTHERWISE AUTHORIZED. (THE TERM "USED ASPHALT" DOES NOT INCLUDE MILLED ASPHALT OR ASPHALT THAT HAS BEEN PROCESSED FOR RE-USE.)
  - b. ENVIRONMENTAL DUE DILIGENCE IS DEFINED AS: INVESTIGATIVE TECHNIQUES, INCLUDING BUT NOT LIMITED TO, VISUAL PROPERTY INSPECTIONS, ELECTRONIC DATA BASE SEARCHES, REVIEW OR PROPERTY OWNERSHIP, REVIEW OF PROPERTY USE HISTORY, SANBORN MAPS, ENVIRONMENTAL QUESTIONNAIRES, TRANSACTION SCREENS, ANALYTICAL TESTING, ENVIRONMENTAL ASSESSMENTS OR AUDITS. ANALYTICAL TESTING IS NOT A REQUIRED PART OF DUE DILIGENCE UNLESS VISUAL INSPECTION AND/OR REVIEW OF THE PAST LAND USE OF THE PROPERTY INDICATES THAT THE FILL MAY HAVE BEEN SUBJECTED TO A SPILL OR RELEASE OF REGULATED SUBSTANCE. IF THE FILL MAY HAVE BEEN AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE, IT MUST BE TESTED TO DETERMINE IF IT QUALIFIES AS CLEAN FILL. TESTING SHOULD BE PERFORMED IN ACCORDANCE WITH APPENDIX A OF DEP'S POLICY "MANAGEMENT OF FILL."
- 26. STOCKPILE HEIGHTS MUST NOT EXCEED 35 FEET. STOCKPILE SLOPES MUST NOT EXCEED 2:1.
- 27. FAILURE TO CORRECTLY INSTALL SEDIMENT CONTROL FACILITIES, FAILURE TO PREVENT SEDIMENT-LADEN RUNOFF FROM LEAVING THE CONSTRUCTION SITE, OR FAILURE TO TAKE CORRECTIVE ACTIONS TO IMMEDIATELY RESOLVE FAILURES OF SEDIMENT CONTROL FACILITIES WILL IMMEDIATELY RESULT IN ADMINISTRATIVE. CIVIL AND/OR CRIMINAL PENALTIES BEING INSTITUTED BY THE PADEP AS DEFINED IN SECTION 602 OF THE CLEAN STREAMS LAW OF PENNSYLVANIA. THE CLEAN STREAMS LAW PROVIDES FOR UP TO \$10,000 PER DAY IN CIVIL PENALTIES, UP TO \$10,000 IN SUMMARY CRIMINAL PENALTIES, AND UP TO \$25,000 IN MISDEMEANOR CRIMINAL PENALTIES FOR EACH VIOLATION.
- 28. ALL EARTH DISTURBANCE ACTIVITIES SHALL PROCEED IN ACCORDANCE WITH THE FOLLOWING SEQUENCE OF CONSTRUCTION. CLEARING AND GRUBBING SHALL BE LIMITED ONLY TO THOSE AREAS DESCRIBED IN EACH STAGE. EACH STAGE SHALL BE COMPLETED BEFORE ANY FOLLOWING STAGE IS INITIATED.

#### **DETAILED SEQUENCE OF CONSTRUCTION**

#### SEQUENCE OF CONSTRUCTION

- 1. NOTIFY CONSTRUCTION MANAGER, CITY OF YORK PUBLIC WORKS AND ALL AFFECTED UTILITY OWNERS 72 HOURS PRIOR TO STARTING ANY ACTIVITY.
- 2. CONTRACTOR TO PERFORM ADDITIONAL GROUND TRUTHING (SOFT DIG) TO VERIFY LOCATION OF PROPOSED CITY SEWER MAIN TIE IN AND EACH ANTICIPATED OR POSSIBLE UTILITY CROSSING PRIOR TO CONSTRUCTION CONTRACTOR MUST VERIFY MATERIAL, LOCATION, DEPTH AND SIZE OF EXISTING PIPE IN PA AVE. AND SPECIFIC TARGET AT EACH ANTICIPATED/POSSIBLE UTILITY CROSSING. IF CITY SEWER MAIN INVERT IS DIFFERENT THAN CALCULATED, NOTIFY CONSTRUCTION MANAGER IMMEDIATELY FOR DIRECTION ON HOW TO ADJUST TIE IN
- 3. CONTRACTOR SHALL FOLLOW THE SEQUENCE OF CONSTRUCTION. SHIFTING STEPS WITHIN EACH STAGE MUST GET CONSTRUCTION MANAGER'S PRIOR APPROVAL.
- 4. CONTRACTOR IS PERMITTED TO USE THE EXISTING PAVED PARKING AREA OF HACC BUILDING 2130 PA AVE. LOCATED ACROSS THE STREET. NO STAGING OR STORAGE OF EQUIPMENT OR MATERIALS IS PERMITTED ON THE GOODLING/CYTEC CAMPUS WITHOUT PRIOR APPROVAL.
- CONTRACTOR IS PERMITTED TO DISPOSE OF EXCESS SOIL IN REAR OF HACC BUILDING 2104 PA AVE. JUST SOUTH OF THE PROJECT SITE ACROSS THE STREET. CONTRACTOR MUST LEGALLY DISPOSE OF ALL PAVEMENT, CONCRETE AND PIPE DEBRIS OFF SITE.

### STAGE 1 - GOODLING BRANCH

- 1. COMPLETE SURVEY STAKEOUT OF ENTIRE ALIGNMENT AND ESTABLISH RECOVERABLE VERTICAL CONTROL. ENSURE ALL GROUND-TRUTHING AND SOFT DIG RESULTS HAVE BEEN EVALUATED SO FINAL PROFILE GRADES (THE MOST IMPORTANT SINGLE POINT OF CONFIRMATION IS THE CITY MAIN) CAN BE VERIFIED AT EACH NODE. INSTALL CONSTRUCTION FENCING ALONG ENTIRE ALIGNMENT WHERE INDICATED. DO NOT PROCEED UNLESS THE CITY MAIN TIE IN INVERT HAS BEEN CONFIRMED.
- 2. THE INTENT OF THIS STAGE IS TO MAKE THE CITY MAIN CONNECTION AND COMPLETE THE INSTALLATION OF THE GOODLING LATERAL ALLOWING THE GOODLING BUILDING TO GO ONLINE WITH DISCHARGES TO THE CITY SEWER AT THE CONCLUSION OF THE STAGE. THIS NEW ALIGNMENT SHALL ENSURE THE CYTEC BUILDING WILL CONTINUE TO DISCHARGE SEWAGE TO THE CITY MAIN THROUGH THE EXISTING SEWER LATERAL
- 3. INSTALL ALL EROSION AND SEDIMENT CONTROL BMPS (BOTH STAGES) PRIOR TO TRENCHING AND EARTHMOVING ACTIVITIES.
- 4. NOTIFY CITY, ALL PUBLIC UTILITIES AND CONSTRUCTION MANAGER OF ANTICIPATED SCHEDULE OF WORK
- 5. SET UP MAINTENANCE & PROTECTION OF TRAFFIC FOR WORK IN PA AVE. ONE LANE OF TRAFFIC MUST BE MAINTAINED IN PA AVENUE AT ALL TIMES. FLAGGERS MUST BE IN USE DURING ANY ONGOING DAYTIME OPERATIONS WHILE LANE RESTRICTIONS ARE IN PLACE. ANY OPEN TRENCHING MUST BE PROPERLY PLATED AT THE CONCLUSION OF EVERY WORK SHIFT AND PRIOR TO OPENING UP PA AVENUE TO TWO-WAY VEHICLE OPERATION AFTER EACH WORK DAY. PROPER SIGNAGE MUST BE SET UP AND MAINTAINED DURING THE ENTIRE DURATION OF CONSTRUCTION IN THE CARTWAY.
- 6. ENSURE ALL MATERIALS, EQUIPMENT, SHEETING, SHORING AND BYPASS CAPABILITY IS ON HAND PRIOR TO OPEN CUTTING THE CARTWAY. THOUGH BYPASSING IS NOT REQUIRED FOR CORE DRILLING THE CITY MAIN, THE BYPASS CAPABILITY MUST BE PRESENT IN CASE IT BECOMES NECESSARY BASED ON FLOWS IN THE LINE OR A CHANGE IN ANTICIPATED INVERT DEPTH. A STANDBY PUMPER TRUCK WITH ADEQUATE PUMPING CAPABILITY WOULD SATISFY THIS REQUIREMENT. ANY SEWAGE THAT ESCAPES THE CITY MAIN DURING THE TIE IN MUST BE CLEANED UP IN ACCORDANCE WITH PADEP STANDARDS PRIOR TO BACKFILL
- ANY WATER PUMPED FROM PIPE TRENCHING OPERATIONS MUST BE PUMPED DIRECTLY TO PUMPED FILTER BAG. REPOSITION PUMPED FILTER BAG AS NECESSARY TO BE ADJACENT TO OPEN TRENCHING OPERATION.
- PROCEED WITH CONSTRUCTION OF SEWER LATERAL SEGMENT FROM CITY MAIN TIE IN TO MANHOLE 2 INCLUDING CLEANOUT 4. PROTECT ALL CROSSING UTILITIES AND MAINTAIN MAINTENANCE AND PROTECTION OF TRAFFIC CONTROLS UNTIL COMPLETION OF LINE AND MANHOLE TESTING, FINAL TRENCH BACKFILL AND PAVEMENT/SIDEWALK RESTORATION. ONCE THE CITY HAS ACCEPTED THE NEW TIE IN/CLEANOUT/CURB RESTORATION/SIDEWALK RESTORATION AND CONSTRUCTION MANAGER HAS ACCEPTED THE LINE SEGMENT AND MANHOLE, THE MPT CONTROLS IN THE CARTWAY CAN BE RECOVERED. AS-BUILT LOCATION AND ELEVATION OF TIE IN WITH CITY MAIN AND WITH MANHOLE 2.
- SET UP MAINTENANCE AND PROTECTION OF TRAFFIC FOR WORK IN HACC'S MAIN DRIVEWAY ON TO CAMPUS. ONE LANE OF TRAFFIC MUST BE MAINTAINED IN THE HACC MAIN DRIVEWAY AT ALL TIMES. FLAGGERS MUST BE IN USE DURING ANY ONGOING DAYTIME OPERATIONS WHILE LANE RESTRICTIONS ARE IN PLACE. ANY OPEN TRENCHING MUST BE PROPERLY PLATED AT THE CONCLUSION OF EVERY WORK SHIFT AND PRIOR TO OPENING UP THE HACC MAIN DRIVEWAY TO TWO-WAY VEHICLE OPERATION AFTER EACH WORK DAY. PROPER SIGNAGE MUST BE SET UP AND MAINTAINED DURING THE ENTIRE DURATION OF CONSTRUCTION IN THE DRIVEWAY.

- 10. PROCEED WITH CONSTRUCTION OF SEWER LATERAL FROM MANHOLE 2 TO MANHOLE 1. PROTECT ALL CROSSING UTILITIES AND MAINTAIN MAINTENANCE AND PROTECTION OF TRAFFIC CONTROLS UNTIL COMPLETION OF LINE AND MANHOLE TESTING, FINAL TRENCH BACKFILL AND PAVEMENT RESTORATION. MAINTAIN SAFE PEDESTRIAN ACCESS ON OR DETOUR AROUND SIDEWALK. ONCE CONSTRUCTION MANAGER HAS ACCEPTED THE PIPE SEGMENT, MANHOLE AND PAVEMENT RESTORATION, THE MPT CONTROLS IN THE DRIVEWAY CAN BE RECOVERED.
- 11. PROCEED WITH CONSTRUCTION OF SEWER LATERAL FROM MANHOLE 1 TO CLEANOUT 3. PROTECT ALL CROSSING UTILITIES. COMPLETE LINE TESTING AND FINAL TRENCH BACKFILL. SET UP AND MAINTAIN TRAFFIC CONTROL FOR WORK IN SHOULDER OF HACC DRIVEWAY. MAINTAIN SAFE PEDESTRIAN ACCESS OR DETOUR AROUND SIDEWALK. ONCE CONSTRUCTION MANAGER HAS ACCEPTED THE PIPE SEGMENT AND CLEANOUT, THE MPT CONTROLS IN THE DRIVEWAY CAN BE RECOVERED.
- 12. CLEAR AND GRUB TREE TO BE REMOVED BETWEEN CLEANOUT 3 AND CLEANOUT 2. PROCEED WITH CONSTRUCTION OF SEWER LATERAL FROM CLEANOUT 3 TO CLEANOUT 2. PROTECT ALL CROSSING UTILITIES. COMPLETE LINE TESTING AND FINAL TRENCH BACKFILL
- 13. PROCEED WITH CONSTRUCTION OF SEWER LATERAL FROM CLEANOUT 2 TO WITHIN TEN FEET OF CLEANOUT 1 INCLUDING SIDEWALK RESTORATION. PROTECT ALL CROSSING UTILITIES AND MAINTAIN SAFE PEDESTRIAN ACCESS AROUND OPEN TRENCH ACROSS EXISTING SIDEWALK. COMPLETE LINE TESTING, FINAL TRENCH BACKFILL AND SIDEWALK RESTORATION.
- PROVIDE CONSTRUCTION MANAGER WITH NOTICE CONCERNING ANTICIPATED INTERRUPTION TO GOODLING SEWER SERVICE. WORK TO CONNECT GOODLING BUILDING TO NEW LATERAL SHALL OCCUR OUTSIDE OF THE NORMAL ACADEMIC WORKING HOURS (NIGHTS, WEEKENDS OR HOLIDAYS) WHEN FLOWS ARE EXPECTED TO BE AT THEIR LOWEST.
- 15. ENSURE ALL MATERIALS, EQUIPMENT, SHEETING, SHORING AND BYPASS CAPABILITY IS ON HAND PRIOR TO INITIATING THE CONNECTION. THOUGH BYPASSING (DISCHARGING INTO MANHOLE 1) MAY NOT BE NEEDED IF PERFORMED DURING PERIOD OF NO FLOW, THE BYPASS CAPABILITY MUST BE PRESENT IN CASE IT BECOMES NECESSARY BASED ON FLOWS IN THE LINE OR A CHANGE IN ANTICIPATED INVERT DEPTH. A STANDBY PUMPER TRUCK WITH ADEQUATE PUMPING CAPABILITY WOULD SATISFY THIS REQUIREMENT. ANY SEWAGE THAT ESCAPES THE GOODLING LATERAL DURING THE TIE IN MUST BE CLEANED UP IN ACCORDANCE WITH PADEP STANDARDS PRIOR TO BACKFILL.
- 16. PROCEED WITH CONSTRUCTION OF SEWER LATERAL FOR FINAL TEN FEET UP TO AND INCLUDING CLEANOUT 1. INCLUDE THE REMOVAL OF EXISTING BUILDING CLEANOUT. PROTECT ALL CROSSING UTILITIES AND MAINTAIN SAFE PEDESTRIAN ACCESS AROUND OPEN TRENCH ACROSS EXISTING SIDEWALKS. COMPLETE EXISTING LINE CUT AND CAPPING, EXISTING CLEANOUT CUT AND REMOVAL, CLEANOUT PLUGGING, LINE TESTING, FINAL TRENCH BACKFILL AND SIDEWALK RESTORATION AT EACH LOCATION WHERE REMOVED. ENSURE SAFE PEDESTRIAN ACCESS TO THE GOODLING DOOR IS ESTABLISHED EACH DAY BEFORE NORMAL ACADEMIC HOURS RESUME AND MAINTAINED DURING NORMAL OCCUPANCY CYCLE.
- 17. AS-BUILT LOCATION AND ELEVATION OF GOODLING LATERAL AND CLEANOUTS.
- 18. GOODLING BUILDING SHALL NOW BE DISCHARGING SEWAGE THROUGH NEW LATERAL INTO CITY MAIN. THE CYTEC BUILDING SHOULD STILL BE DISCHARGING SEWAGE THROUGH THE EXISTING LATERAL.

#### STEP 2 - CYTEC BRANCH

- 1. THE INTENT OF THIS STAGE IS TO MAKE THE CYTEC CONNECTION TO MANHOLE 2 ALLOWING THE CYTEC BUILDING TO GO ONLINE WITH DISCHARGES TO THE CITY SEWER AT THE CONCLUSION OF THE STAGE.
- 2. ANY WATER PUMPED FROM PIPE TRENCHING OPERATIONS MUST BE PUMPED DIRECTLY TO PUMPED FILTER BAG. REPOSITION PUMPED FILTER BAG AS NECESSARY TO BE ADJACENT TO OPEN TRENCHING OPERATION.
- 3. PROCEED WITH CONSTRUCTION OF SEWER LATERAL FROM MANHOLE 2 TO WITHIN TEN FEET OF CLEANOUT 5 TO INCLUDE SAWCUTTING AND REMOVING THE LOADING DOCK PAD ALONG APPLICABLE PORTION OF TRENCH ALIGNMENT. PROTECT ALL CROSSING UTILITIES. COMPLETE LINE TESTING AND FINAL TRENCH BACKFILL
- 4. PROVIDE CONSTRUCTION MANAGER WITH NOTICE CONCERNING ANTICIPATED INTERRUPTION TO CYTEC SEWER SERVICE. WORK TO CONNECT CYTEC BUILDING TO NEW LATERAL SHALL OCCUR OUTSIDE OF THE NORMAL ACADEMIC WORKING HOURS (NIGHT, WEEKENDS OR HOLIDAYS) WHEN FLOWS ARE EXPECTED TO BE AT THEIR LOWEST.
- ENSURE ALL MATERIALS, EQUIPMENT, SHEETING, SHORING AND BYPASS CAPABILITY IS ON HAND PRIOR TO INITIATING THE CONNECTION. THOUGH BYPASSING (DISCHARGING INTO MANHOLE 2) MAY NOT BE NEEDED IF PERFORMED DURING PERIOD OF NO FLOW, THE BYPASS CAPABILITY MUST BE PRESENT IN CASE IT BECOMES NECESSARY BASED ON FLOWS IN THE LINE OR A CHANGE IN ANTICIPATED INVERT DEPTH. A STANDBY PUMPER TRUCK WITH ADEQUATE PUMPING CAPABILITY WOULD SATISFY THIS REQUIREMENT. ANY SEWAGE THAT ESCAPES THE CYTEC LATERAL DURING THE TIE IN MUST BE CLEANED UP IN ACCORDANCE WITH PADEP STANDARDS PRIOR TO BACKFILL.
- 6. PROCEED WITH CONSTRUCTION OF SEWER LATERAL FOR FINAL TEN FEET UP TO AND INCLUDING CLEANOUT 5. PROTECT ALL CROSSING UTILITIES. COMPLETE EXISTING LINE CUT AND CAPPING, LINE TESTING, FINAL TRENCH BACKFILL AND LOADING DOCK PAD RESTORATION WHERE REMOVED.
- CYTEC BUILDING SHALL NOW BE DISCHARGING SEWAGE THROUGH NEW LATERAL INTO CITY MAIN.
- 8. SET UP MAINTENANCE & PROTECTION OF TRAFFIC FOR WORK ADJACENT TO PA AVE RELATED TO EXISTING CLEANOUT REMOVAL. TWO LANES OF TRAFFIC MUST BE MAINTAINED IN PA AVENUE AT ALL TIMES. ANY OPEN TRENCHING MUST BE PROPERLY PLATED AT THE CONCLUSION OF EVERY WORK SHIFT. PROPER SIGNAGE MUST BE SET UP AND MAINTAINED DURING THE ENTIRE DURATION OF CONSTRUCTION IN THE RIGHT OF WAY.
- 9. ENSURE ALL MATERIALS, EQUIPMENT, SHEETING, SHORING AND BYPASS CAPABILITY IS ON HAND PRIOR TO OPEN CUTTING THE SIDEWALK.
- 10. PROCEED WITH DEMOLITION AND REMOVAL OF EXISTING CLEANOUT IN CITY RIGHT OF WAY TO INCLUDE PLUGGING AND FILLING OF LATERAL AND CLEANOUT, REMOVAL AND CAPPING CLEANOUT AND SIDEWALK RESTORATION. PROTECT ALL CROSSING UTILITIES AND MAINTAIN MAINTENANCE AND PROTECTION OF TRAFFIC CONTROLS UNTIL COMPLETION OF FINAL TRENCH BACKFILL AND SIDEWALK RESTORATION. ONCE THE CITY HAS ACCEPTED THE LATERAL/CLEANOUT CLOSURE AND SIDEWALK RESTORATION, THE MPT CONTROLS CAN BE RECOVERED.
- 11. PROCEED WITH REMOVAL OF REMAINING EXISTING CLEANOUTS ON HACC CAMPUS INCLUDING GROUTING ABANDONED SEWER LATERALS WITH FLOWABLE FILL.
- 12. AS-BUILT LOCATION AND ELEVATION OF CYTEC LATERAL AND CLEANOUTS.
- 13. COMPLETE STABILIZATION ON ALL EXPOSED EARTH AREAS AND RE-DRESS ALL EROSION CONTROL FACILITIES AROUND THE SITE. INCLUDE STABILIZATION OF ALL EXCESS SOIL SPOIL AREAS.
- 14. UPON COMPLETION OF BOTH STAGES AND HAVING BROUGHT ALL DISTURBED AREAS TO PERMANENT STABILIZATION IN ACCORDANCE WITH THESE PLANS AND WITH THE APPROVAL OF OWNER, ALL REMAINING TEMPORARY E&S CONTROL FACILITIES AND CONSTRUCTION FENCING MAY BE DISMANTLED AND REMOVED FROM THE PROJECT AREA.

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NO. DATE REVISIONS

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CON

SHEET TITLE

**EROSION & SEDIMENTATION CONTROL NOTES** 

SSUE DATE 08/19/14 DRAWN DESIGNED CHECKED NHN GLM TJP SCALE SHEET NO.

N/A PROJECT NO. 143026.00

## **BEST MANAGEMENT PRACTICES (BMPS)**

#### TEMPORARY BMPS

PUMPED WATER FILTER BAGS

LOCATION: AS NEEDED. INSPECTION: INSPECT FILTER BAGS DAILY.

MAINTENANCE: A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES MUST BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME HALF FULL. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED.

#### 2. TEMPORARY SEEDING

LOCATION: ALL DISTURBED LANDSCAPED AREA.

INSPECTION: INSPECT TEMPORARY SEEDED AREAS WEEKLY AND AFTER EACH RUNOFF EVENT. MAINTENANCE: IMMEDIATELY RESEED AREAS WHICH HAVE NOT ESTABLISHED VEGETATION WITHIN AN ACCEPTABLE PERIOD IN WHICH ONE WOULD EXPECT GERMINATION (TYPICALLY 2-3 WEEKS) OR AS DIRECTED BY THE ENGINEER.

#### FILTER SOCK PERIMETER CONTROL

LOCATION: THROUGHOUT THE SITE AS SHOWN ON THE PLANS.

INSPECTION: INSPECT FILTER SOCK WEEKLY AND AFTER EACH RUNOFF EVENT.

MAINTENANCE: ANY NECESSARY REPAIRS MUST BE MADE IMMEDIATELY. ACCUMULATED SEDIMENTS WILL BE REMOVED AS REQUIRED TO KEEP THE FACILITY FUNCTIONAL. IN ALL CASES, REMOVE DEPOSITS WHERE ACCUMULATIONS REACH ONE-THIRD (1/3) THE ABOVE GROUND HEIGHT OF THE FENCE. ANY SECTION WHICH HAS BEEN UNDERMINED OR OVERTOPPED MUST BE IMMEDIATELY REPLACED WITH A ROCK FILTER OUTLET ADHERE TO ANY MANUFACTURER'S RECOMMENDATIONS FOR REPLACING FILTER SOCK DUE TO WEATHERING OR DAMAGE.

#### 4. FILTER SOCK INLET PROTECTION

LOCATION: ON ALL EXISTING AND PROPOSED INLETS THROUGHOUT WORK AREA AND DOWNSTREAM AREAS. INSPECTION: INSPECT FILTER SOCK WEEKLY AND AFTER EACH RUNOFF EVENT. MAINTENANCE: REMOVE SEDIMENTS COLLECTED AT THE BASE OF THE FILTER SOCK WHEN THEY REACH ONE-THIRD (1/3) OF THE EXPOSED HEIGHT OF THE FILTER SOCK. LIFT THE FILTER SOCKS AND CLEAN UNDER

#### 5. FILTER BAG INLET PROTECTION

LOCATION: ON ALL EXISTING AND PROPOSED INLETS THROUGHOUT WORK AREA AND DOWNSTREAM AREAS. INSPECTION: INSPECT FILTER BAG WEEKLY AND AFTER EACH RUNOFF EVENT. MAINTENANCE: REMOVE SEDIMENTS COLLECTED AT THE BASE OF THE FILTER BAG WHEN THEY REACH

### EROSION CONTROL MAT AND BLANKETS

THEM DURING SEDIMENT REMOVAL.

LOCATION: ON ANY SLOPES GREATER THAN 3:1.

INSPECTION: INSPECT WEEKLY AND AFTER EACH RUNOFF EVENT.

ONE-THIRD (1/3) OF THE EXPOSED HEIGHT OF THE FILTER BAG.

MAINTENANCE: REPAIR OR REPLACE ANY UNDERMINED MAT OR BLANKET. REMOVE ANY TRASH AND DEBRIS THAT MAY ACCUMULATE.

#### PERMANENT BMPS

#### PERMANENT SEEDING AND MULCH

LOCATION: ON ALL LANDSCAPED AREAS.

INSPECTION: INSPECT SEEDED AREAS REGULARLY.

MAINTENANCE: IMMEDIATELY RESEED AREAS WHICH HAVE NOT ESTABLISHED VEGETATION WITHIN AN ACCEPTABLE PERIOD IN WHICH ONE WOULD EXPECT GERMINATION (TYPICALLY 2-3 WEEKS) OR AS DIRECTED BY THE ENGINEER. PROPERLY MAINTAIN SEEDED AREAS UNTIL THE PROJECT HAS BEEN ACCEPTED. THIS MAY INCLUDE REPEATED WATERING, MOWING, AND REPAIRS OR REPLACEMENT OF AREAS WHICH FAIL TO SHOW A UNIFORM GROWTH OF GRASS OR WHICH ARE DAMAGED IN ANY WAY.

#### RESOLUTIONS TO SOIL LIMITATIONS

SOIL UNSUITABLE FOR ROAD SUBGRADE

RESOLUTION - IF THERE ARE NO SUITABLE ON-SITE SOILS FOR SUBGRADE, SUITABLE MATERIAL WILL NEED TO BE IMPORTED SUITABLE MATERIAL SHOULD CONFORM TO PENNDOT PUBLICATION 408, SECTION 210.3(C)

#### SOIL UNSUITABLE FOR ROAD FILL

RESOLUTION - IF THERE ARE NO SUITABLE ON-SITE SOILS FOR ROAD FILL, SUITABLE MATERIAL WILL NEED TO BE IMPORTED SUITABLE MATERIAL SHOULD CONFORM TO PENNDOT PUBLICATION 408, SECTION 206.2(A)(2)

#### SOIL UNSUITABLE FOR WINTER GRADING

RESOLUTION - GRADING OPERATIONS SHOULD NOT BE PERFORMED WHEN GROUND PENETRATING FROST IS PRESENT.

#### SOIL UNSUITABLE FOR TOPSOIL

RESOLUTION - IF THERE ARE NO SUITABLE ON-SITE SOILS FOR TOPSOIL, SUITABLE MATERIAL WILL NEED TO BE IMPORTED SUITABLE MATERIAL SHOULD CONFORM TO PENN DOT PUBLICATION 408, SECTION 802.2.

#### SHALLOW DEPTH TO BEDROCK

RESOLUTION - DO NOT LOCATE FACILITIES AND STRUCTURES REQUIRING EXCAVATION IN AREAS OF THIS SOIL TYPE. IF NO OTHER SUITABLE LOCATIONS ARE AVAILABLE, EXCAVATE VIA ROCK HAMMER OR BLASTING, OR PLACE SUFFICIENT FILL FOR THE PROPOSED USE. SUITABLE FILL MATERIAL SHOULD CONFORM TO PENNDOT PUBLICATION 408.

RESOLUTION - ONLY USES COMPATIBLE WITH WET SOILS SHOULD BE LOCATED IN AREAS WITH THESE SOIL TYPES. IF NO OTHER SUITABLE LOCATIONS ARE AVAILABLE FOR USES INCOMPATIBLE WITH WET SOILS, STRUCTURES AND FACILITIES MUST BE DESIGNED TO ACCOMMODATE THE WET CONDITIONS AND SUBSURFACE WATER PRESSURE OR APPROPRIATE DRAINAGE MEASURES INSTALLED.

RESOLUTION - ONLY USES COMPATIBLE WITH A HIGH WATER TABLE SHOULD BE LOCATED IN THESE AREAS. IF NO OTHER SUITABLE LOCATIONS ARE AVAILABLE FOR USES INCOMPATIBLE WITH A HIGH WATER TABLE, STRUCTURES OR FACILITIES IN THESE AREAS MUST BE DESIGNED TO WITHSTAND THE WETNESS AND SUBSURFACE WATER PRESSURE OR APPROPRIATE DRAINAGE MEASURES INSTALLED.

#### MULCHING

- APPLY MULCHES AT THE RATES SHOWN IN MULCH APPLICATION RATES TABLE
- 2. STRAW AND HAY MULCH SHOULD BE ANCHORED IMMEDIATELY AFTER APPLICATION TO PREVENT BEING WINDBLOWN. A TRACTOR-DRAWN IMPLEMENT MAY BE USED TO "CRIMP" THE STRAW OR HAY INTO THE SOIL. THIS METHOD IS LIMITED TO SLOPES NO STEEPER THAN 3:1. THE MACHINERY SHOULD BE OPERATED ON THE CONTOUR. (NOTE: CRIMPING OF HAY OR STRAW BY RUNNING OVER IT WITH TRACKED MACHINERY IS NOT RECOMMENDED.)
- 3. SYNTHETIC BINDERS (CHEMICAL BINDERS) MAY BE USED AS RECOMMENDED BY THE MANUFACTURER TO ANCHOR MULCH PROVIDED SUFFICIENT DOCUMENTATION IS PROVIDED TO SHOW THEY ARE NON-TOXIC TO NATIVE PLANT AND ANIMAL
- 4. LIGHTWEIGHT PLASTIC, FIBER, OR PAPER NETS MAY BE STAPLED OVER THE MULCH ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

			MUL	CH APPLICATION RATES
IYPE	APPLICATION RATE (MIN.)			
	PER ACRE	PER 1000 SQ. YD.	PER 1000 SQ. YD.	NOTES
STRAW	3 TONS	133 LB	1200 LB	EITHER WHEAT OR OAT STRAW, FREE OF WEEDS, NOT CHOPPED OR FINELY BROKEN
HAY	3 TONS	133 LB	1200 LB	TIMOTHY, MIXED CLOVER AND TIMOTHY OR OTHER NATIVE FORAGE GRASSES

### MAINTENANCE PROGRAM

- UNTIL THE SITE IS STABILIZED, ALL EROSION AND SEDIMENTATION BMP'S MUST BE MAINTAINED PROPERLY. MAINTENANCE MUST INCLUDE INSPECTIONS OF ALL EROSION AND SEDIMENTATION BMP'S AFTER EACH RUNOFF EVENT AND ON A WEEKLY BASIS. ALL SITE INSPECTIONS WILL BE DOCUMENTED IN AN INSPECTION LOG KEPT FOR THIS PURPOSE. THE COMPLIANCE ACTIONS AND THE DATE, TIME AND NAME OF THE PERSON CONDUCTING THE INSPECTION. THE INSPECTION LOG WILL BE KEPT ON SITE AT ALL TIMES AND MADE AVAILABLE TO THE DISTRICT UPON REQUEST.
- 2. ALL PREVENTIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, REMULCHING AND RENETTING, MUST BE PERFORMED IMMEDIATELY. IF EROSION AND SEDIMENTATION BMP'S FAIL TO PERFORM AS EXPECTED, REPLACEMENT BMP'S OR MODIFICATIONS OF THOSE INSTALLED WILL BE NEEDED.
- 3. WHERE BMP'S ARE FOUND TO FAIL TO ALLEVIATE EROSION OR SEDIMENT POLLUTION, CONTRACTOR SHALL INCLUDE THE FOLLOWING INFORMATION:
- A. THE LOCATION AND SEVERITY OF THE BMP'S FAILURE AND ANY POLLUTION EVENTS.
- B. ALL STEPS TAKEN TO REDUCE, ELIMINATE AND PREVENT THE RECURRENCE OF THE NON-COMPLIANCE. C. THE TIME FRAME TO CORRECT THE NON-COMPLIANCE, INCLUDING THE EXACT DATES WHEN THE ACTIVITY WILL RETURN TO COMPLIANCE.
- 4. AFTER FINAL SITE STABILIZATION HAS BEEN ACHIEVED, TEMPORARY EROSION AND SEDIMENT BMP'S MUST BE REMOVED. AREAS DISTURBED DURING REMOVAL OF THE BMP'S MUST BE STABILIZED IMMEDIATELY.
- 5. SEDIMENT DEPOSITS MUST BE REMOVED WHEN THE LEVEL OF DEPOSITION REACHES THE ELEVATION DEPICTED IN THE DEVICE DETAILS. SEDIMENT DEPOSITS MUST ALSO BE REMOVED AFTER EACH RAINFALL REGARDLESS OF THE DEPOSITION ELEVATION. REMOVED DEPOSITS SHALL BE PLACED ON THE EXISTING EXPOSED SITE OUT OF THE WAY OF CONSTRUCTION AND ABOVE SEDIMENT DEVICES. IF A DEPOSIT IS TRANSPORTED BY TRUCK OVER LOCAL ROADS, IT SHALL BE DONE IN A MANNER WHICH KEEPS ROADS FREE OF SEDIMENT. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE DEVICES ARE NO LONGER REQUIRED MAY BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED, AND SEEDED.

### PPC PLAN

IF THE OPERATOR WILL BE STORING, USING OR TRANSPORTING HAZARDOUS WASTES AND MATERIALS, FUELS, CHEMICALS, OR SOLVENTS ONTO, ON, OR FROM THE PROJECT SITE DURING CONSTRUCTION, A PPC PLAN MUST BE PREPARED BY THE OPERATOR AND AVAILABLE AT THE SITE AT ALL TIMES.

PERMANENT SEED MIXTURE				
	% OF MIXTURE (BY WEIGHT)	% PURITY	% GERMINATION	% WEED SEED
FORMULA B MIXTURE				
SPECIES: PERENNIAL RYE GRASS MIXTURE CREEPING RED FESCUE OR CHEWING FESCUE KENTUCKY BLUEGRASS MIXTURE	20 30 50	98 98 98	90 85 80	0.15 0.15 0.20
TEMPORARY SEED MIXTURE				
	% OF MIXTURE	% PURITY	% GERMINATION	% WEED SEED
FORMULA E MIXTURE				
SPECIES:				
ANNUAL RYEGRASS	100	98	90	0.15

USE EACH SEED MIXTURE IN THE AREAS DESIGNATED AS FOLLOWS OR AS DIRECTED			
FORMULA B MIXTURE	LAWNS (TURF AREAS UNLESS NOTED OTHERWISE)		
FORMULA E MIXTURE	AS NECESSARY		

FORMULA B SEED MIX AGRICULTURAL LIMESTONE FERTILIZER (10-20-20) SLOW-RELEASE NITROGEN FERTILIZER (38-0-0)

FORMULA E SEED MIX

242 LB/AC (50 LB/1000 SY) STRAW MULCH 3 TON/AC

STRAW MULCH 3 TON/AC

100 LB/AC (21.0 LB/1000 SY) 2 TON/AC (800 LB/1000 SY) 700 LB/AC (140 LB/1000 SY) 50 LB/AC (10 LB/1000 SY)

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TRUCTION

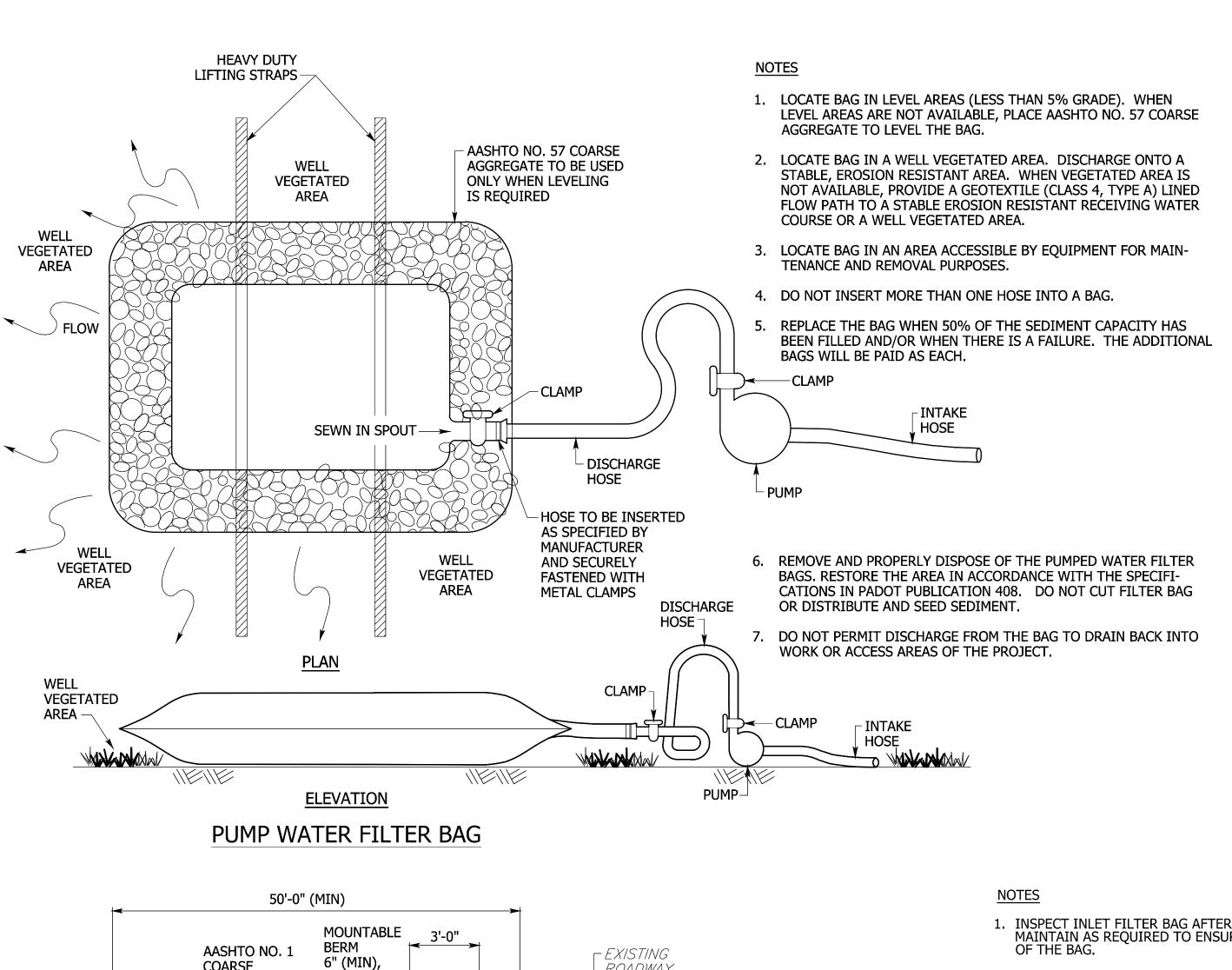
SHEET TITLE **EROSION & SEDIMENTATION** 

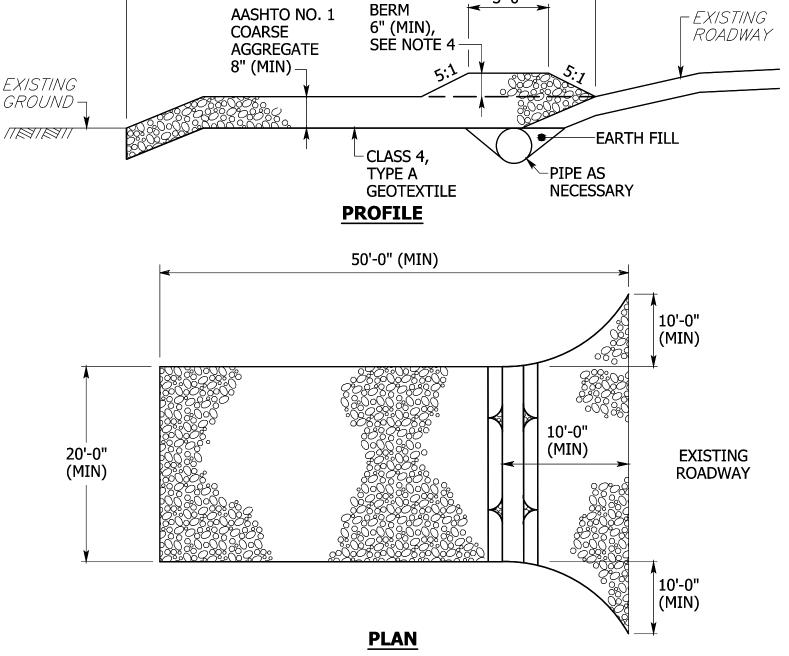
**CONTROL NOTES** 

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INSPECT THE ENTRANCE DAILY. REMOVE ALL SEDIMENT DEPOSITED ON THE PUBLIC ROADWAYS AND

- RETURN TO THE CONSTRUCTION SITE. WASHING OF THE ROADWAY WILL NOT BE PERMITTED.
- MAINTAIN THE SPECIFIED ROCK CONSTRUCTION ENTRANCE THICKNESS. PLACE ADDITIONAL ROCK WHENEVER ROCK BECOMES CLOGGED WITH SEDIMENT.
- MAINTAIN STOCKPILE OF AASHTO NO.1 COARSE AGGREGATE.

INTERFACE AREAS WITH GROUND CONTACT.

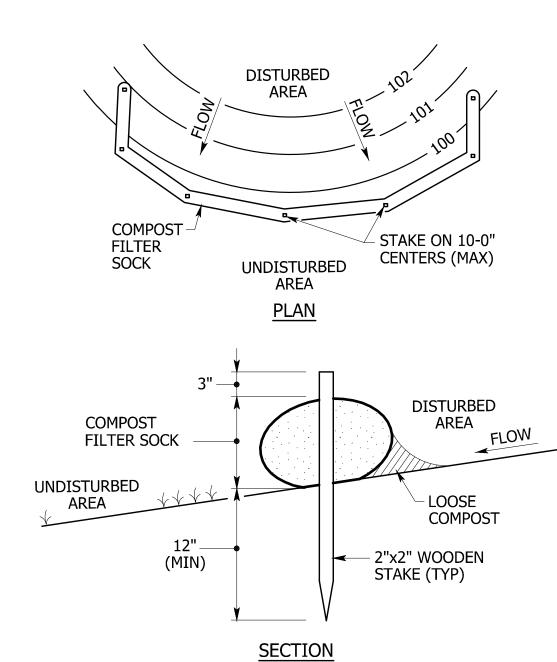
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- CONSTRUCT A MOUNTABLE BERM ONLY WHEN 6" MIN COVER CANNOT BE PROVIDED OVER THE PIPE.
- SATISFACTORILY REMOVE MATERIALS AS PER SPECIFICATION IN SECTION 849 WHEN ROCK CONSTRUCTION ENTRANCE IS NO LONGER NEEDED.
- PROVIDE GEOTEXTILE MATERIAL MEETING THE REQUIREMENTS OF PENNDOT PUBLICATION 408, SECTION 735. FURNISH AND INSTALL IN ACCORDANCE WITH SECTION 212. PROVIDE GEOTEXTILE ALONG ALL
- CONSTRUCT ROCK CONSTRUCTION ENTRANCE WITHIN THE RIGHT-OF-WAY OR EASEMENT AREAS. ENTRANCE MAY BE CONSTRUCTED ON A SKEW IF ADEQUATE PULL OUT SIGHT DISTANCE IS AVAILABLE.

**ROCK CONSTRUCTION ENTRANCE (RCE)** 

# 1. INSPECT INLET FILTER BAG AFTER EACH RUNOFF EVENT. MAINTAIN AS REQUIRED TO ENSURE PROPER FUNCTIONING SANDBAG -2. REMOVE ACCUMULATED SEDIMENT/DEBRIS WHEN THE INLET FILTER REACHES ONE HALF MAXIMUM CAPICITY. 3. REPLACE FILTER BAG IF RIPPED OR TORN. 4. PROVIDE DOWN GRADIENT BERM AS INDICATED. DO NOT USE IN SAG/SUMP CONDITIONS. 5. USE SANDBAGS AT TYPE C INLET CURB OPENINGS TO PREVENT BYPASS FLOW. 6. REMOVE AND PROPERLY DISPOSE OF INLET FILTER BAG WHEN NO LONGER NEEDED. **TYPE C INLET INSTALLATION** 1" REBAR FOR BAG REMOVAL FROM INLET **TYPE M OR S INLET INSTALLATION** 2"X2"X3/4" **RUBBER BLOCK-**(TYP) 1/4" NYLON ROPE **EXPANSION RESTRAINT BAG DETAIL**

FILTER BAG INLET PROTECTION



- 1. REMOVE DEPOSITS WHEN SEDIMENT ACCUMULATION IS ONE THIRD THE HEIGHT OF THE EXPOSED COMPOST FILTER BERM OR ONE HALF OF THE EXPOSED COMPOST FILTER SOCK.
- 2. PLACE COMPOST FILTER SOCK/BERM ON LEVEL GRADE. EXTEND BOTH ENDS OF THE COMPOST FILTER SOCK/BERM AT LEAST 8'-0" UPSLOPE AT 45 DEGREES TO THE MAIN ALIGNMENT.
- 3. REPLACE BIODEGRADABLE FILTER SOCK AFTER 6 MONTHS: PHOTO-DEGRADABLE AFTER 12 MONTHS.

18" COMPOST FILTER SOCK

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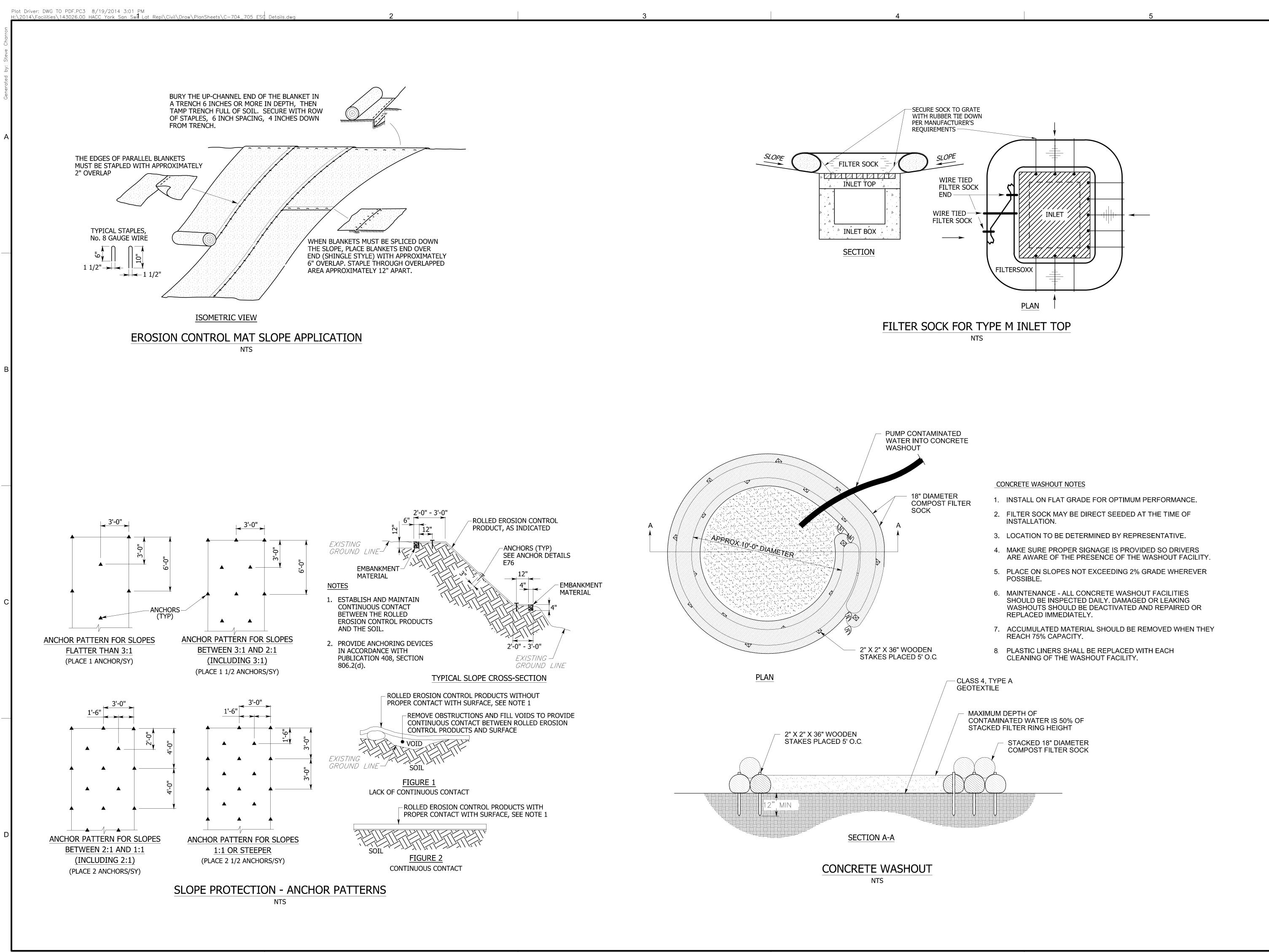
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