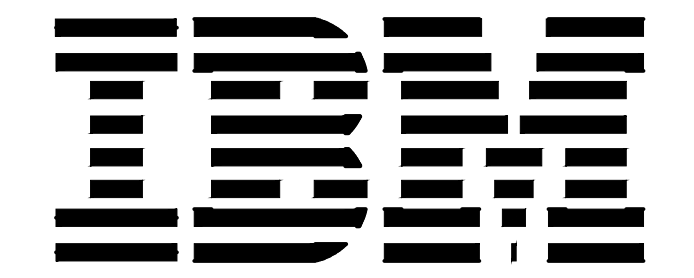


LOCATION MAP
SCALE: 1" = 200'



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FACILITIES DESIGN
COMPUTER GRAPHICS

FACILITIES ENGINEERING
REARRANGEMENT ENGINEERING
FACILITIES PLANNING

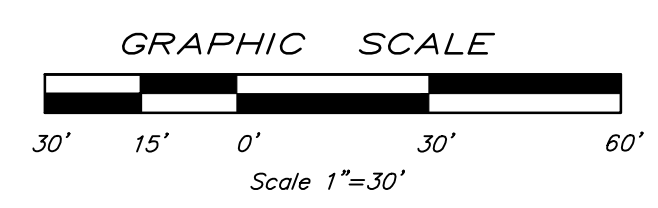
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- NOTES:
1. THIS PLAN IS FOR E & SC PURPOSES ONLY.
 2. CONTRACTOR SHALL FIELD VERIFY ALL UTILITIES AND STRUCTURES.
 3. OB (RESEARCH LABORATORY AND OFFICE IS THE DESIGNATED ZONING DISTRICT.
 4. REMOVE TREES TO PROVIDE 20' CLEAR AREA OUTSIDE FENCE OF BATTERY AREA.
 5. PROVIDE 1' MINIMUM COVER FOR ALL PROPOSED SCH. 40 PVC.

E&S LEGEND

- LIMIT OF DISTURBANCE (0.45 ACRES)
- COMPOST FILTER SOCK (18" DIAMETER)
- ROCK CONSTRUCTION ENTRANCE
- SOIL BOUNDARY AND TYPES
- TREES TO BE REMOVED

SOILS	
SYMBOL	DESCRIPTION
PnB	PAXTON FINE SANDY LOAM, 3 TO 8 PERCENT SLOPES
PnC	PAXTON FINE SANDY LOAM, 8 TO 15 PERCENT SLOPES
Sb	SUN LOAM
Uf	URBAN LAND
W	WATER
WdB	WOODBIDGE LOAM, 3 TO 8 PERCENT SLOPES



DIGITAL FILENAME: 1102200002
C.2-54

110220.0002



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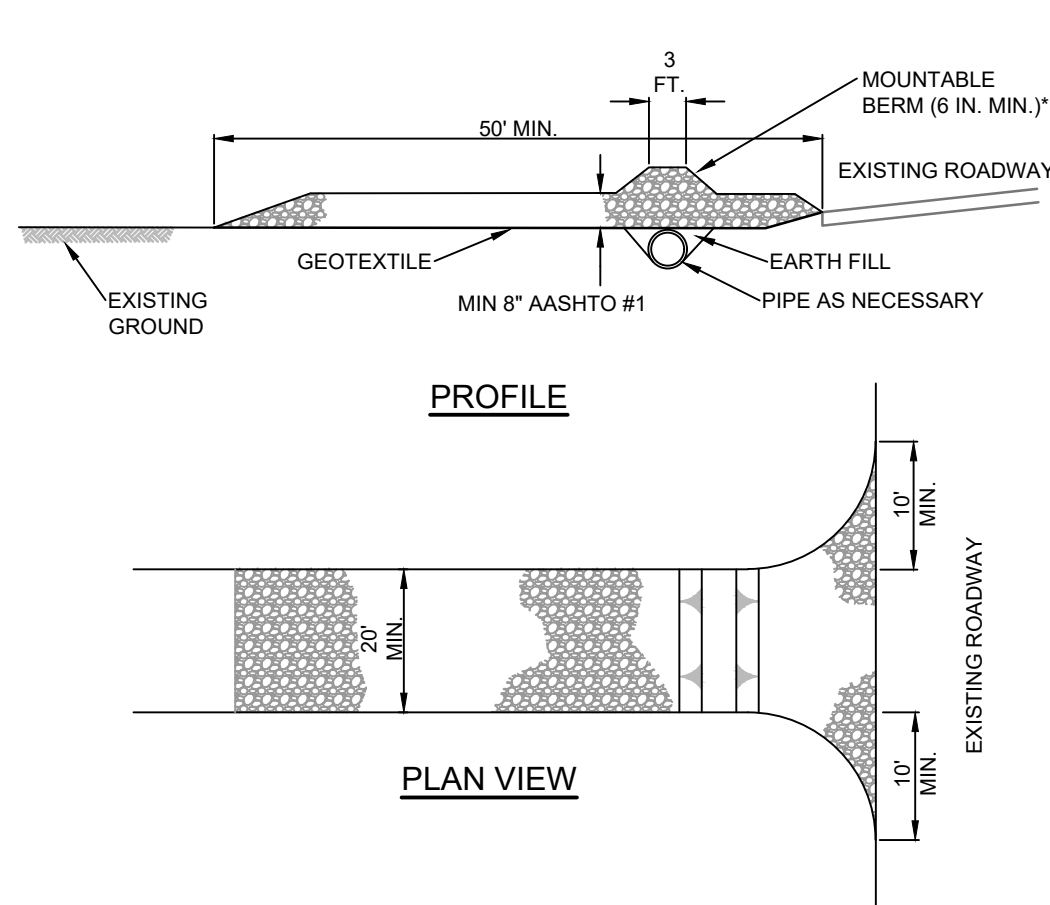
SHEET TITLE:
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BESS SITE**

CIVIL
EROSION & SEDIMENT CONTROL (E & SC) PLAN

DRAWN BY: KKS	SCALE: AS NOTED
CHECKED BY: JC	DATE: 12/16/22
PROJECT NO.	DRAWING NO.

SHEET 2 OF 4

C.2-54



* MOUNTABLE BERM USED TO PROVIDE PROPER COVER FOR PIPE

NOTES:

REMOVE TOPSOIL PRIOR TO INSTALLATION OF ROCK CONSTRUCTION ENTRANCE. EXTEND ROCK OVER FULL WIDTH OF ENTRANCE.

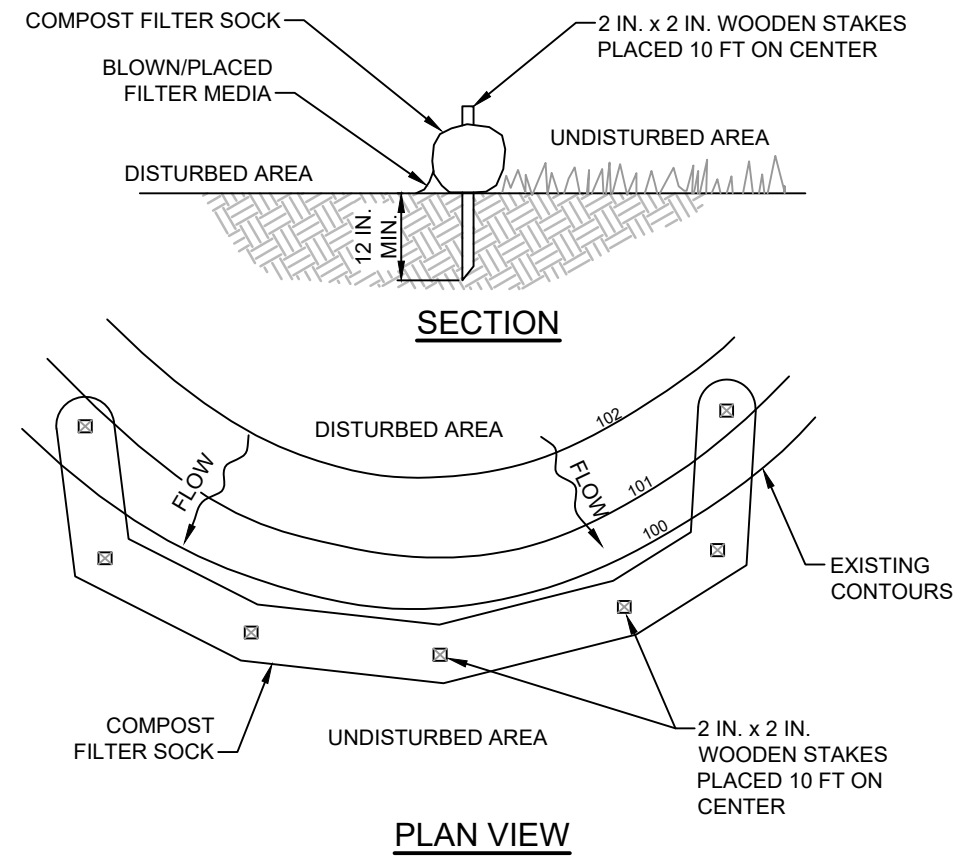
RUNOFF SHALL BE DIVERTED FROM ROADWAY TO A SUITABLE SEDIMENT REMOVAL BMP PRIOR TO ENTERING ROCK CONSTRUCTION ENTRANCE.

MOUNTABLE BERM SHALL BE INSTALLED WHEREVER OPTIONAL CULVERT PIPE IS USED AND PROPER PIPE COVER AS SPECIFIED BY MANUFACTURER IS NOT OTHERWISE PROVIDED. PIPE SHALL BE SIZED APPROPRIATELY FOR SIZE OF DITCH BEING CROSSED.

MAINTENANCE: ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE IMMEDIATELY. IF EXCESSIVE AMOUNTS OF SEDIMENT ARE BEING DEPOSITED ON ROADWAY, EXTEND LENGTH OF ROCK CONSTRUCTION ENTRANCE BY 50 FOOT INCREMENTS UNTIL CONDITION IS ALLEVIATED OR INSTALL WASH RACK, WASHING THE ROADWAY OR SWEEPING THE DEPOSITS INTO ROADWAY DITCHES, SEWERS, CULVERTS, OR OTHER DRAINAGE COURSES IS NOT ACCEPTABLE.

STANDARD CONSTRUCTION DETAIL ROCK CONSTRUCTION ENTRANCE

NOT TO SCALE



NOTES:

SOCK FABRIC SHALL MEET STANDARDS OF TABLE 4.1 OF THE PA DEP EROSION CONTROL MANUAL. COMPOST SHALL MEET THE STANDARDS OF TABLE 4.2 OF THE PA DEP EROSION CONTROL MANUAL.

COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE BARRIER SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN BARRIER ALIGNMENT. MAXIMUM SLOPE LENGTH ABOVE ANY BARRIER SHALL NOT EXCEED THAT SPECIFIED FOR THE SIZE OF THE SOCK AND THE SLOPE OF ITS TRIBUTARY AREA.

TRAFFIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS.

ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE BARRIER AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.

COMPOST FILTER SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.

BIODEGRADABLE COMPOST FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

TABLE 4.1
COMPOST SOCK FABRIC MINIMUM SPECIFICATIONS

MATERIAL TYPE	3 mil HDPE	5 mil HDPE	5 mil HDPE	MULTI-FILAMENT POLYPROPYLENE (MFPP)	HEAVY DUTY MULTI-FILAMENT POLYPROPYLENE (HDMFPP)
MATERIAL CHARACTERISTICS	PHOTO-DEGRADABLE	PHOTO-DEGRADABLE	BIO-DEGRADABLE	PHOTO-DEGRADABLE	PHOTO-DEGRADABLE
SOCK DIAMETERS	12" 18"	12" 18" 24" 32"	12" 18" 24" 32"	12" 18" 24" 32"	12" 18" 24" 32"
MESH OPENING	3/8"	3/8"	3/8"	3/8"	1/8"
TENSILE STRENGTH	-	26 psi	26 psi	44 psi	202 psi
ULTRAVIOLET STABILITY % ORIGINAL STRENGTH (ASTM G-155)	23% at 1000 hr.	23% at 1000 hr.	-	100% at 1000 hr.	100% at 1000 hr.
MINIMUM FUNCTIONAL LONGEVITY	6 MONTHS	9 MONTHS	6 MONTHS	1 YEAR	2 YEARS

TWO-PLY SYSTEMS

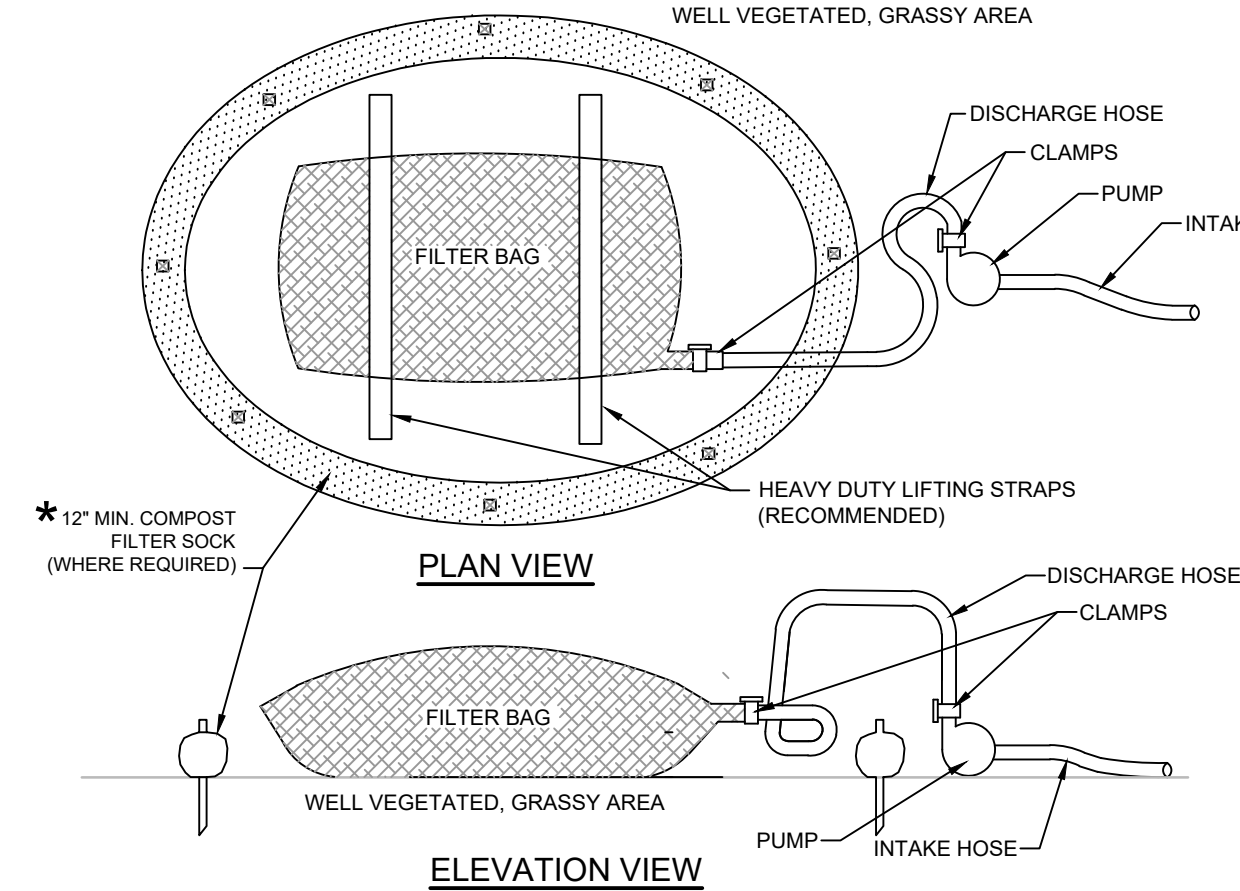
INNER CONTAINMENT NETTING	HDPE BIAXIAL NET CONTINUOUSLY WOUND
	FUSION-WELDED JUNCTURES
OUTER FILTRATION MESH	3/4"x3/4" MAX. APERTURE SIZE
	COMPOSITE POLYPROPYLENE FABRIC (WOVEN LAYER & NON-WOVEN FLEECE MECHANICALLY FUSED VIA NEEDLE PUNCH)
SOCK FABRICS COMPOSED OF BURLAP MAY BE USED ON PROJECTS LASTING 6 MONTHS OR LESS	

TABLE 4.2
COMPOST STANDARDS

ORGANIC MATTER CONTENT	25% - 100% (DRY WEIGHT BASIS)
ORGANIC PORTION	FIBROUS AND ELONGATED
pH	5.5 - 8.5
MOISTURE CONTENT	30% - 60%
PARTICLE SIZE	30% - 50% PASS THROUGH 3/8" SIEVE
SOLUBLE SALT CONCENTRATION	5.0 dS/m (meq/100ml) MAXIMUM

STANDARD CONSTRUCTION DETAIL COMPOST FILTER SOCK

NOT TO SCALE



NOTES:

LOW VOLUME FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED "J" TYPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS. HIGH VOLUME FILTER BAGS SHALL BE MADE FROM WOVEN GEOTEXTILES THAT MEET THE FOLLOWING STANDARDS:

PROPERTY	TEST METHOD	MINIMUM STANDARD
AVG. WIDE WIDTH STRENGTH	ASTM D-4884	60 LB/IN
GRAB TENSILE	ASTM D-4632	205 LB
PUNCTURE	ASTM D-4833	110 LB
MULLEN BURST	ASTM D-3786	350 PSI
UV RESISTANCE	ASTM D-4355	70%
AOS % RETAINED	ASTM D-4751	80 SIEVE

A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES SHALL BE PROVIDED. FILTER BAGS SHALL BE REPLACED WHEN THEY BECOME 1/2 FULL OF SEDIMENT. SPARE BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE FILLED. BAGS SHALL BE PLACED ON STRAPS TO FACILITATE REMOVAL. UNUSABLE BAGS COME WITH LIFTING STRAPS ALREADY ATTACHED.

BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREA, AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS, WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE UNDERLAYMENT AND FLOW PATH SHALL BE PROVIDED. BAGS MAY BE PLACED ON FILTER STONE TO INCREASE DISCHARGE CAPACITY. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5%. FOR SLOPES EXCEEDING 5%, CLEAN ROCK OR OTHER NON-ERODIBLE AND NON-POLLUTING MATERIAL MAY BE PLACED UNDER THE BAG TO REDUCE SLOPE STEEPNESS.

* NO DOWNSLOPE SEDIMENT BARRIER IS REQUIRED FOR MOST INSTALLATIONS. COMPOST BERM OR 12" COMPOST FILTER SOCK SHALL BE INSTALLED BELOW BAGS LOCATED IN HO OR EV WATERSHEDS, WITHIN 50 FEET OF ANY RECEIVING SURFACE WATER OR WHERE GRASSY AREA IS NOT AVAILABLE.

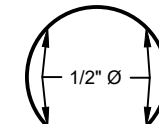
THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE BAGS IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED. A PIECE OF PVC PIPE IS RECOMMENDED FOR THIS PURPOSE.

THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHALL BE FLOATING AND SCREENED.

FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.

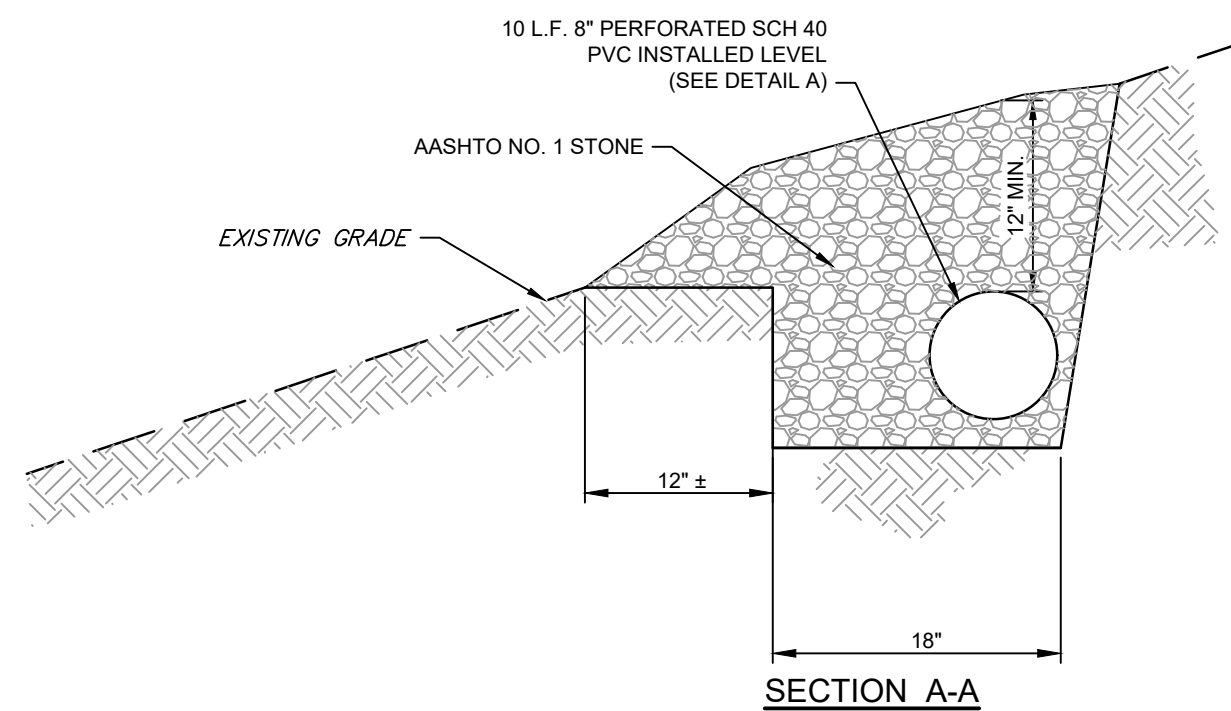
STANDARD CONSTRUCTION DETAIL #3-16 PUMPED WATER FILTER BAG

NOT TO SCALE

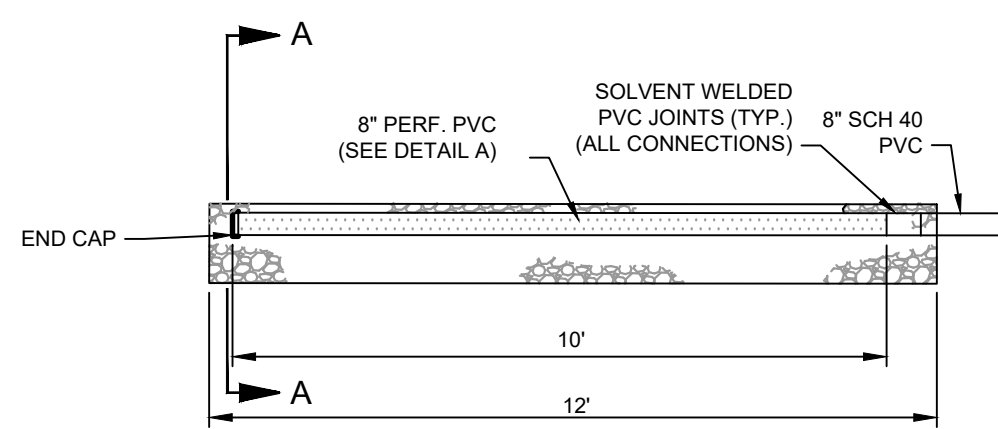


DRILL HOLES IN PERFORATED PIPE SHALL HAVE AT LEAST 100 HOLES @ 1/2" DIA. ALONG ENTIRE LENGTH OF PIPE (DRILL ADDITIONAL HOLES IN PREFAB PERF. AS NEEDED)

DETAIL A



SECTION A-A



PLAN VIEW

LEVEL SPREADER

NOT TO SCALE

EXCAVATION PROTOCOL
T.J. WATSON RESEARCH CENTER
EXCAVATION CHECKLIST

AREA OF EXCAVATION WORK _____

- HAVE THE AREA DRAWING(S) OF EXISTING UTILITIES IN HAND AT THE EXCAVATION SITE? (CIRCLE ANSWER) Y OR N
- HAVE THE AREA OF EXCAVATION BEEN MARKED OUT IN THE FIELD? (CIRCLE ANSWER) Y OR N
- HAVE THE LINE AND GRADE OF KNOWN UTILITIES BEEN MARKED (INCLUDING ADJACENT UTILITIES) AT THE EXCAVATION SITE? (CIRCLE ANSWER) Y OR N
- HAS THE APPROPRIATE TESTING (I.E. GPR, IMAGING, ETC.) OF UNDERGROUND UTILITIES BEEN COMPLETED? (CIRCLE ANSWER) Y OR N
- HAS THE FOREMAN AND DIGGING CREW BEEN REMINDED ONLY HAND DIGGING WAS ALLOWED WITHIN 3 FEET OF KNOWN UTILITIES? (CIRCLE ANSWER) Y OR N
- IS THE EQUIPMENT USED SUITABLE FOR THIS EXCAVATION? (CIRCLE ANSWER) Y OR N

DIGGING EQUIPMENT TO BE USED _____
WORKERS IN CREW (NAMES) _____

CM SUPERINTENDENT / CONTRACTOR SUPERINTENDENT SIGNATURES: _____
DATE: _____ DATE: _____

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IBM T.J. WATSON RESEARCH CENTER FACILITIES ENGINEERING DEPARTMENT
EXCAVATION CHECKLIST
DRAWN BY: AD DATE: 10/23/07 PWS: S4D-018 NO SCALE A-DET-0018

EXCAVATION DRAWING NOTES

- THE LOCATION OF EXISTING UNDERGROUND STRUCTURES AND UTILITIES ARE SHOWN IN AN APPROXIMATE MANNER AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNERS OR THEIR REPRESENTATIVE.
- THE CONTRACTOR SHALL EMPLOY ALL MEANS, METHODS, TECHNIQUES AND PROCEDURES AVAILABLE TO DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES AND STRUCTURES BEFORE COMMENCING EXCAVATION WORK. SUCH MEANS, METHODS, TECHNIQUES AND PROCEDURES SHALL INCLUDE, BUT NOT BE LIMITED TO, EXPLORATORY TEST PITS AND USE OF SPECIALIZED ELECTROMAGNETIC INSTRUMENTS TO TRACE THE HORIZONTAL AND VERTICAL POSITION OF SUBSURFACE, PRE-EXISTING STRUCTURES AND UTILITIES.
- IF IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MARK-OUT THE LOCATION OF SUBSURFACE STRUCTURES AND UTILITIES WITHIN THE WORK LIMITS PRIOR TO THE COMMENCEMENT OF EXCAVATION AND TO MAINTAIN AND MARKER WITHIN PROJECT LIMITS FOR THE DURATION OF THE PROJECT IF THE MARKINGS ARE OBLITERATED, THE CONTRACTOR IS RESPONSIBLE TO REINSTATE SUCH MARKINGS PRIOR TO THE CONTINUANCE OF WORK.
- THE CONTRACTOR IS SPECIFICALLY CAUTIONED TO TAKE MEASUREMENTS AND TO MAINTAIN WRITTEN RECORDS OF UTILITIES AND SUBSURFACE STRUCTURES IN THE FIELD. THE CONTRACTOR ALSO AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MAY BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES AND STRUCTURES.

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EXCAVATION DRAWING NOTES
DRAWN BY: AD DATE: 10/23/07 PWS: S4D-019 NO SCALE A-DET-0019

EXCAVATION PROTOCOL

- THE INTENT OF THIS DOCUMENT IS TO PROVIDE GUIDANCE FOR CONTRACTORS PERFORMING EXCAVATION ON THE GROUNDS OF THE T. J. WATSON RESEARCH CENTER WHERE BURIED SERVICES MAY ALREADY EXIST.
- THROUGH USE OF THIS PROTOCOL IN CONJUNCTION WITH SITE DRAWINGS THE CHANCES OF UNEXPECTEDLY LOCATING BURIED SERVICES (WHICH MAY OR MAY NOT BE ACCURATELY DEPICTED ON SITE DRAWINGS) SHOULD BE MINIMIZED. THE POSSIBILITY OF ANY PRODUCTIVITY LOSSES FOR THE CONTRACTOR AS WELL AS POTENTIAL SERVICE DISRUPTIONS TO THE SITE.
- IN THE EVENT OF AN ACCIDENT OR SERVICE INTERRUPTION, THE CONTRACTOR SHALL IMMEDIATELY PICK UP ANY IBM PHONE AND DIAL 5-3833 TO REPORT THE INCIDENT.

PREVENTIVE MEASURES

PRIOR TO HEAVY EXCAVATION

PREPARING THE DAY BEFORE WORKING OF EXCAVATION:

- THE DAY PRIOR TO EXCAVATION, THE CONTRACTOR'S FOREMAN, CM SUPERINTENDENT AND EXCAVATION TEAM WILL REVIEW THE DRAWINGS AND NEXT DAYS PLANNED WORK AREA(S) TO IDENTIFY POTENTIAL SERVICE CONFLICTS.
- THE AREAS OF EXCAVATION SHALL BE CLEARLY IDENTIFIED IN THE FIELD WITH APPROVED MARKING PAINT. LINE GRADES OF KNOWN UTILITIES BOTH WITHIN AND IMMEDIATELY ADJACENT TO THE EXCAVATION SHALL BE CLEARLY MARKED WITH APPROVED MARKING PAINT IN THE PLANNED EXCAVATION AREA.
- THE EXCAVATION CHECKLIST SHALL BE COMPLETED BY THE CONTRACTOR'S FOREMAN FOR EACH SEPARATE EXCAVATION ON A DAILY BASIS. THE CHECKLIST SHALL BE REVIEWED WITH THE CM SUPERINTENDENT WHO WILL MAINTAIN THE SIGNED DOCUMENT AS A FILE.

EXCAVATION

- THE CONTRACTOR'S FOREMAN AND OPERATOR'S AT THE EXCAVATION SITE WILL HAVE A SET OF DRAWINGS SHOWING UTILITIES.
- NO EXCAVATION FROM THE PLANNED EXCAVATION FOR THAT DAY SHALL PROCEED WITHOUT PROPER AUTHORIZATION FROM THE IBM COORDINATOR.
- NO EXCAVATION WORK SHALL CONTINUE AFTER 3:30 PM WEEKDAYS OR ON WEEKENDS. THIS IS INSTITUTED TO AVOID THE POSSIBILITY OF AN ACCIDENTAL SERVICE DISRUPTION AFTER THE SITE REPAIRS BEING LEFT FOR THE DAY OR WEEKEND.
- IN AREAS OF SUSPECTED CONFLICTS WITH EXISTING UTILITIES THE CONTRACTOR SHALL EXCAVATE A TEST PIT UTILIZING EXTREME CARE TO AVOID CONTACT WITH BURIED SERVICES.
- EXCAVATIONS SHOULD PROGRESS WITH HAND EXCAVATION, THEN A SMALL BACKHOE (NOT A LARGE EXCAVATOR).
- HAND DIGGING WILL TAKE PLACE WITHIN 3 FEET OF KNOWN UTILITIES.
- THE IBM PM SHALL MEET WITH THE CM TO DETERMINE WHERE SURVEYORS SHALL MONITOR AREAS DURING EXCAVATION TO INSURE NO OTHER CONFLICTS ARISE.
- IF REQUIRED, AS SERVICES ARE UNCOVERED, (BOTH EXISTING AND UNKNOWN), THE CONTRACTOR SHALL SURVEY LOCATION AND DEPTH OF THE EXISTING SERVICE AND NOTE THIS INFORMATION ON THE AS BUILT DRAWINGS WHICH WILL BE TURNED OVER TO IBM AT THE END OF THE PROJECT. IF SERVICE IDENTIFICATION CAN NOT EASILY BE MADE, THE CONTRACTOR SHALL NOTIFY THE CM SUPERINTENDENT AND IBM COORDINATOR.

BURIED PIPE IDENTIFICATION

- THE CONTRACTOR SHALL IDENTIFY NEW AND EXISTING BURIED SERVICE(S), SURVEY LOCATION AND DEPTH OF THE SERVICE AND NOTE THIS INFORMATION ON THE AS BUILT DRAWINGS WHICH WILL BE TURNED OVER TO IBM AT THE END OF THE PROJECT.
- BACKFILL OF NEW AND EXISTING SERVICES WHICH HAVE BEEN UNCOVERED SHALL CONSIST OF THE FOLLOWING: PLACE 1" LAYER OF WHITE SAND AROUND BURIED LINE. (NOTE - SUPPLIER OF SAND MUST BE PRE-APPROVED BY IBM PRIOR TO DELIVERY TO SITE).
- PLACE METAL WARNING TIE 1 FOOT ABOVE CONCRETE.
- SOIL BACKFILL AND TOPPING AS CALLED FOR. (NOTE - IF BACKFILL MATERIAL IS TO BE BROUGHT IN FROM OFF SITE, THE SUPPLIER MUST BE PRE-APPROVED BY IBM PRIOR TO DELIVERY).

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EXCAVATION PROTOCOL NOTES
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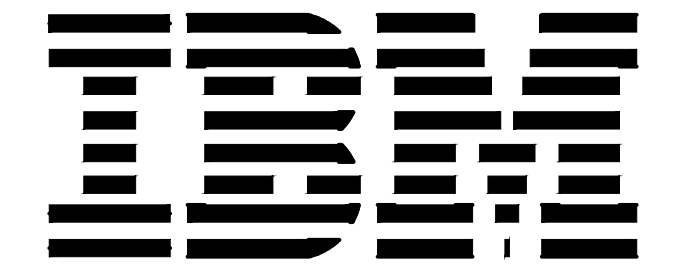
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SHEET TITLE:
WATSON RESEARCH CENTER BESS SITE

CIVIL
E & SC PLAN DETAILS

DRAWN BY: KKS	SCALE: AS NOTED
CHECKED BY: JC	DATE: 12/16/22
PROJECT NO.	DRAWING NO.

SHEET 2 OF 3

C.2-55

GENERAL EROSION AND SEDIMENTATION CONTROL NOTES:

- 1. THE CONTRACTOR SHALL TAKE INTO ACCOUNT THE LOCAL WEATHER FORECAST PRIOR TO BEGINNING ANY EXCAVATION ACTIVITIES.
2. SOIL MAY NEED TO BE STOCKPILED WHILE CONSTITUTE TESTING TAKES PLACE.
3. THE CONTRACTOR SHALL REMOVE FROM THE CONSTRUCTION AREA AND RECYCLE OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES AS APPROVED BY IBM ENVIRONMENTAL AND IN ACCORDANCE WITH THE STATE'S SOLID AND HAZARDOUS WASTE MANAGEMENT REGULATIONS.
...
21. TOTAL DISTURBED AREA IS APPROXIMATELY 0.60 ACRES.

TEMPORARY E&SC MEASURES

EROSION AND SEDIMENT CONTROLS MUST BE CONSTRUCTED AND STABILIZED AND FUNCTIONAL PRIOR TO GENERAL SITE DISTURBANCE. THE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES, WHICH WILL BE USED DURING CONSTRUCTION, INCLUDE:

- 1. COMPOST FILTER SOCK
2. PUMPED WATER FILTER BAG
3. CONCRETE WASHOUT
4. ROCK CONSTRUCTION ENTRANCE

MAINTENANCE OF E&SC FACILITIES

- 1. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE COMPLETE CONSTRUCTION, STABILIZATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL FACILITIES AS PER PERMIT REQUIREMENTS OR AUTHORITIES HAVING JURISDICTION.
2. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED AT LEAST ONCE A WEEK AND AFTER ALL SIGNIFICANT RAINFALLS FOR CONDITION AND INTEGRITY. ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK, INCLUDING CLEAN OUT, REPAIR, REPLACEMENT, REGRAVING, RESEEDING, REMULCHING, AND RENETTING MUST BE PERFORMED IMMEDIATELY. EROSION AND SEDIMENT CONTROLS MUST BE MAINTAINED IN THE FOLLOWING MANNER:

- COMPOST FILTER SOCK:
A. INSPECT SOCKS AFTER EVERY RUNOFF EVENT. ANY NECESSARY REPAIRS SHALL BE MADE IMMEDIATELY.
B. REMOVE ACCUMULATED SEDIMENT AS NEEDED AND WHEN SEDIMENT ACCUMULATES TO 1/2 THE HEIGHT OF THE SOCKS.

- PUMPED WATER FILTER BAG:
A. FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL WITH HIGH STRENGTH, DOUBLE STITCHED "J" TYPE SEAMS.
B. GEOTEXTILE MATERIAL SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS.
C. REPLACE FILTER BAGS WHEN THEY BECOME ONE-HALF FULL.
D. PLACE BAGS ON 4" ASHTOEFT STONE IN A WELL-VEGETATED AREA.
E. BAGS SHALL NOT BE PLACED ON SLOPES GREATER THAN 5%.

- ROCK CONSTRUCTION ENTRANCE:
A. ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL BE CONSTANTLY MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE OF ROCK MATERIAL SHALL BE MAINTAINED ON THE SITE FOR THIS PURPOSE. AT THE END OF EACH CONSTRUCTION DAY, ALL SEDIMENT DEPOSITED ON PUBLIC ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE.

- CONCRETE WASHOUT:
A. WASHOUTS SHALL BE INSPECTED DAILY.
B. DAMAGED OR LEAKING WASHOUTS SHALL BE DEACTIVATED AND REPAIRED OR REPLACED IMMEDIATELY.
C. ACCUMULATED MATERIALS SHALL BE REMOVED WHEN THEY REACH 75% CAPACITY.
D. PLASTIC LINERS SHALL BE REPLACED WITH EACH CLEANING OF THE WASHOUT FACILITY.

BULK EARTHWORK GENERAL NOTES:

ALL EARTHWORK SHALL BE PERFORMED IN GENERAL ACCORDANCE WITH NYSDOT STANDARD SPECIFICATIONS, SECTIONS 200, 600, AND 700, LATEST ADDITION.

1. EXCAVATION NOTES:

- A. THE IBM TJ1 WASTO EXCAVATION PROTOCOL AS DEFINED IN SMD-119, SMD-120, AND SMD-121 MUST BE ADHERED TO FOR ALL EXCAVATION WORK. THESE DETAILS PROVIDE PREVENTATIVE MEASURES FOR IDENTIFYING AND WORKING NEAR BURIED UTILITIES.
B. BEFORE STARTING EXCAVATION, REMOVE TOPSOIL TO ITS FULL DEPTH FROM ALL AREAS THAT ARE TO BE FURTHER EXCAVATED, RELANDSCAPED OR REGRADED. DO NOT EXCAVATE FROZEN OR SATURATED TOPSOIL. NOTIFY THE PM OR IBM REGARDING SATURATED OR FROZEN TOPSOIL. THE CONTRACTOR WILL NOTIFY IBM IF ADDITIONAL TOPSOIL IS NEEDED OR REQUIRED TO ADEQUATELY COVER THE PROPOSED FINISHED EXCAVATION AREA.
C. TOPSOIL SHALL BE STOCKPILED AT THE SITE AS DIRECTED FOR USE IN FURTHER FINISH GRADING. ALL STOCKPILES SHALL RECEIVE TEMPORARY SEEDING WITH EITHER WINTER RYE FOR STABILIZATION OVER IN THE WINTER OR ANNUAL RYE GRASS FOR SHORT TERM STABILIZATION IN SPRING THROUGH FALL. STOCKPILES SHALL ALSO HAVE EROSION CONTROL MEASURES WHICH INCLUDE BOTH A RING OF SILT FENCE AND HAY BALES.
D. AFTER REMOVAL OF TOPSOIL, THE EXPOSED SUBGRADE SHALL BE PROOF-ROLLED WITH APPROVED CONSTRUCTION EQUIPMENT, SUCH AS A LOADED 10-TON STATIC CAPACITY ROLLER. THE MINIMUM EXTENT OF PROOF-ROLLING SHALL CONSIST OF TWO (2) PASSES WITH APPROVED EQUIPMENT OVER THE ENTIRE AREA RECEIVING NEW FILL.
E. UNSTABLE AREAS SHALL EITHER BE EXCAVATED, SCARIFIED, AERATED AND RE-COMPACTED PRIOR TO FILL PLACEMENT, OR BE REMOVED AND REPLACED WITH CONTROLLED FILL.
F. THE EXPOSED SUBGRADE SHALL BE INSPECTED BY THE GEOTECHNICAL ENGINEER AND TESTED BY PROOF-ROLLING, AS DESCRIBED ABOVE, PRIOR TO PLACEMENT OF COMPACTED FILL.
G. IF CONSTRUCTION SETTLES GREATER THAN 20 DAYS ALL DISTURBED AREAS ARE TO BE SEEDED AND HAY MULCHED THE WITH APPROPRIATE SEED.
H. THE CONTRACTOR IS RESPONSIBLE FOR ADEQUATE COMPACTION AND MUST FILL ANY POST COMPACTION SETTLEMENT AREAS. SETTLED AREAS ARE TO BE FILLED, GRaded, SEEDED AND HAY/STRAW MULCHED AS NEEDED.

2. FILL MATERIALS:

- A. SATISFACTORY MATERIALS PLACED WITHIN SUBGRADE AREAS SHALL CONSIST OF AASHTO CLASSIFICATION A-1-A OR A-1-B SOILS FREE OF EXCESSIVE SILT AND CLAY.
B. SATISFACTORY MATERIALS SHALL NOT CONTAIN ANY DEBRIS, WASTE, OR FROZEN MATERIALS, AND SHALL CONTAIN LESS THAN TWO (2) PERCENT ORGANIC MATERIALS BY WEIGHT.
C. ALL PROPOSED FILL MATERIALS SHOULD BE APPROVED BY THE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT AS CONTROLLED FILL. NO ROCKS OVER 12 INCHES ARE TO BE PLACED BACK IN GENERAL EXCAVATION. NO ROCKS OVER 4 INCHES ARE TO BE PLACED WITH ONE FOOT OF ANY PIPE OR CONDUIT.
D. SATISFACTORY MATERIALS BROUGHT ON SITE ARE TO BE OBTAINED FROM IBM APPROVED SUPPLIERS / SITES. IN THE EVENT THAT SATISFACTORY MATERIALS ARE NOT AVAILABLE FROM IBM APPROVED SUPPLIERS/SITES, THEN REPRESENTATIVE SAMPLES OF PROPOSED FILL MATERIALS SHALL BE SUBMITTED TO IBM BY THE CONTRACTOR A MINIMUM TWO (2) WEEKS PRIOR TO PLACEMENT OF THAT MATERIAL FOR COMPLETION OF THE NECESSARY LABORATORY TESTS.
E. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ADEQUATE MOISTURE CONTENT OF THE SOIL AND MAY HAVE TO PLACE TARPS OVER SOIL PILES DURING WET WEATHER TO ENSURE WORKABILITY OF THE FILL WHEN WEATHER IMPROVES.

3. FILL PLACEMENT:

- A. NEW FILL SHALL NOT BE PLACED ON SURFACES THAT ARE MUDDY OR FROZEN, OR HAVE NOT BEEN APPROVED BY TESTING AND/OR PROOF-ROLLING.
B. ALL FILL MATERIAL COMPACTED BY HEAVY CONSTRUCTION EQUIPMENT SHALL BE PLACED IN MAXIMUM 12-INCH LOOSE LIFTS. ALL FILL MATERIAL COMPACTED BY HAND-OPERATED OR LIGHT CONSTRUCTION EQUIPMENT SHALL BE PLACED IN MAXIMUM 6-INCH LOOSE LIFTS.
C. ALL FILL AREAS SHALL BE SUFFICIENTLY SLOPED AND PROPERLY COMPACTED WITH A SMOOTH DRUM ROLLER AT THE END OF EACH WORK DAY.

4. COMPACTION REQUIREMENTS:

- A. COMPACT SUBGRADE MATERIALS TO THE FOLLOWING PERCENTAGES OF MAXIMUM LAB DENSITY AS DETERMINED BY ASTM D698:
• ROADWAYS/DRIVEWAYS: 95%
• GRASSSED AREAS: 85%
• OTHER AREAS: AS INDICATED BY THE ENGINEER.
B. MAINTAIN OPTIMUM MOISTURE CONTENT OF BACKFILL MATERIALS, WITHIN THE RANGE OF TWO PERCENTAGE POINTS, PLUS OR MINUS, TO ATTAIN REQUIRED COMPACTION DENSITY.
C. FIELD DENSITY TESTS SHALL BE PERFORMED IN ACCORDANCE WITH ASTM D2922 (NUCLEAR METHOD). A MINIMUM OF THREE (3) TESTS SHALL BE PERFORMED FOR EACH LIFT OF FILL PLACED, OR A MINIMUM OF EVERY 2,500 SQUARE FEET OF FILL PLACED, WHICHEVER IS GREATER.
D. IF TESTS INDICATE WORK DOES NOT MEET THE SPECIFIED REQUIREMENTS, FILL MATERIAL SHALL BE REMOVED, REPLACED AND RETESTED UNTIL COMPLIANCE IS ACHIEVED AT NO ADDITIONAL COST TO THE OWNER.
E. ALL COMPACTED FILL SHALL BE TESTED AND APPROVED BY THE GEOTECHNICAL ENGINEER.

5. TOPSOIL REQUIREMENTS:

- A. TOPSOIL: ON SITE STOCKPILED MATERIAL APPROVED BY THE ENGINEER OR IMPORTED MATERIAL FREE OF STONES LARGER THAN 1/4 INCH IN SIZE, STICKS AND OTHER DEBRIS, CAPABLE OF SUSTAINING VIGOROUS PLANT GROWTH WITH A PH VALUE BETWEEN 5.4 AND 7.0.
B. PLACE TOPSOIL IN AREAS WHERE SEEDING, SODDING, AND PLANTING IS REQUIRED TO THE INDICATED DEPTH. PLACE TOPSOIL DURING DRY WEATHER.
1. PROVIDE COMPACTED TOPSOIL DEPTH AS NOTED BELOW IN AREAS TO RECEIVE THE FOLLOWING TREATMENT:
A. SEEDED GRASS: 6 INCHES.
B. SOD: 4 INCHES.
C. SHRUB BEDS: 18 INCHES.
D. FLOWER BEDS: 12 INCHES.
E. PLANTER BOXES: 12 INCHES MINIMUM OR TO WITHIN 3 INCHES OF BOX RIM.
C. FINE GRADE TOPSOIL, ELIMINATING ROUGH, HIGH OR LOW AREAS. MAINTAIN PROFILES AND CONTOUR OF SUBGRADE. ALL SLOPES SHALL BE SMOOTH AND CONTINUOUS. THE GRADE CHANGES SHOULD ALLOW A LANDSCAPER TO ADEQUATELY MOW THE LAWN AFTERWARD WITHOUT SCALPING OR BOUNCING.
D. REMOVE ROOTS, WEEDS, ROCKS AND FOREIGN MATERIAL WHILE SPREADING.
E. MANUALLY SPREAD TOPSOIL CLOSE TO TREES, PLANTS, BUILDINGS, AND OTHER STRUCTURES IN ORDER TO PREVENT DAMAGE. TOPSOIL IS TO BE RAKED BY HAND OR BY MECHANICAL MEANS. ROCKS, ROOTS AND DEBRIS COLLECTED DURING RAKING ARE TO BE REMOVED AT THE END OF EACH WORK DAY. PILES OF STONES OR DEBRIS SHALL NOT BE ALLOWED TO ACCUMULATE IN THE FINISHED GRADE AREAS.
F. LIGHTLY COMPACT PLACED TOPSOIL.
G. REMOVE SURPLUS SUBSOIL AND TOPSOIL FROM SITE IF APPROVED BY OWNER.
H. LEAVE STOCKPILE AREA AND SITE CLEAN AND RAKED, READY TO RECEIVE LANDSCAPING.
I. CONTRACTOR SHALL MAINTAIN EROSION CONTROL MEASURES THROUGHOUT THE LIFE OF THE PROJECT. ADDITIONAL EROSION CONTROL MEASURES MAY BE NEEDED TO PROTECT THE FINISHED WORK FROM RAIN WASHOUT AND OTHER WEATHER RELATED EVENTS. THE CONTRACTOR SHALL EVALUATE THE WORK PRIOR TO EACH STORM EVENT TO DETERMINE THAT, BASED ON THE FORECAST, THERE IS ADEQUATE PROTECTION, HAYBALES, HAY MATS AND OTHER MEASURES MAY BE NEEDED TO MINIMIZE EITHER RUNON OR RUNOFF.

SEEDING GENERAL NOTES:

ALL SEEDING SHALL BE PERFORMED IN GENERAL ACCORDANCE WITH NYSDOT STANDARD SPECIFICATIONS, SECTION 600 AND 700, LATEST ADDITION.

1. DEFINITIONS

- A. WEEDS: ANY PLANT NOT GRASS WHICH INCLUDES DANDELION, JIMSONWEED, QUACKGRASS, HORSETAIL, MORNING GLORY, RUSH GRASS, MUSTARD, LAMBSQUARTER, CHICKWEED, CRESS, CRABGRASS, CANADIAN THISTLE, NUTGRASS, POISON OAK, BLACKBERRY, TANSY RAGWORT, BERNIADA GRASS, JOHNSON GRASS, POISON NUT, SEDGE, NIMBLE WILL, BINDWEED, BENT GRASS, WILD GARLIC, PERENNIAL SORREL, AND BROOME GRASS.
B. MULCHING MATERIAL: OAT OR WHEAT STRAW, FREE FROM WEEDS AND SEEDS, FOREIGN MATTER DETRIMENTAL TO PLANT LIFE, AND DRY. HAY OR CHOPPED CORNSTALKS ARE NOT ACCEPTABLE.
C. FERTILIZER: FS O, F, 2#1, TYPE I GRADE A RECOMMENDED FOR GRASS, WITH FIFTY PERCENT (50%) OF THE ELEMENTS DERIVED FROM ORGANIC SOURCES; OF PROPORTION NECESSARY TO ELIMINATE ANY DEFICIENCIES OF TOPSOIL TO THE FOLLOWING PROPORTIONS: NITROGEN TEN PERCENT (10%), PHOSPHORIC ACID TEN PERCENT (10%), SOLUBLE POTASH TEN PERCENT (10%). THE CONTRACTOR SHOULD PLAN ON AT LEAST TWO APPLICATIONS OF FERTILIZER, ONE A STARTER FERTILIZER AND THE OTHER TO PROVIDE NITROGEN FOR THE QUICKLY GERMINATING GRASS.

2. GRASS SEEDING AND SEEDING RESTORATION MIXTURES

Table with columns: RESTORATION CONDITION, TOP SOIL, LIME, BASIC FERTILIZER, STARTER FERTILIZER, SEED MIX & SOWING RATE. Includes rows for Temporary Cover, Lawns (Use Hay Mulch), and Banks Steeper Than or Equal to 3 to 1.

3. FERTILIZING

- A. APPLY PULVERIZED AGRICULTURAL LIMESTONE/DOLOMITE AT A RATE SPECIFIED ABOVE PER ACRE. THE MIXTURE IS TO PROVIDE MAGNESIUM FOR THE NEW GRASS.
B. APPLY FERTILIZER IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. BOTH A STARTER AND MAINTENANCE APPLICATION OF FERTILIZER WILL BE APPLIED TO ENSURE NITROGEN TO THE NEW GRASS.
C. APPLY AFTER SMOOTH RAKING OF TOPSOIL AND PRIOR TO ROLLER COMPACTION.
D. DO NOT APPLY FERTILIZER AT SAME TIME OR WITH SAME MACHINE AS WILL BE USED TO APPLY SEED.
E. MIX FERTILIZER AND LIMESTONE THOROUGHLY INTO UPPER FOUR INCHES OF TOPSOIL.
F. LIGHTLY WATER TO AID THE DISSIPATION OF FERTILIZER.
G. THE CONTRACTOR IS TO PROVIDE CALCULATIONS FOR AREA AND AMOUNTS OF FERTILIZER PRIOR TO ANY APPLICATION AND PROVIDE IBM AND THE CONSTRUCTION MANAGER WITH THE ESTIMATE OF MATERIAL TO BE APPLIED FOR THE GRASS OR LAWN.

4. SEEDING PROCEDURES

- A. APPLY SEED AT THE RATES LISTED ABOVE, EVENLY IN TWO INTERSECTING DIRECTIONS. RAKE IN LIGHTLY TO ACHIEVE GOOD SEED CONTACT WITH SOIL.
B. DO NOT SEED AREAS IN EXCESS OF THAT WHICH CAN BE MULCHED ON SAME DAY.
C. DO NOT SOW IMMEDIATELY FOLLOWING RAIN, WHEN GROUND IS TOO DRY, OR DURING WINDY PERIODS.
D. IMMEDIATELY FOLLOWING SEEDING AND COMPACTING, APPLY MULCH (OAT OR WHEAT STRAW) AT A RATE OF 3 TONS PER ACRE. MAINTAIN CLEAR OF SHRUBS AND TREES.
E. APPLY WATER WITH A FINE SPRAY IMMEDIATELY AFTER EACH AREA HAS BEEN MULCHED. SATURATE TOP FOUR INCHES OF SOIL.
F. IF THE CONTRACTOR ELECTS TO USE HYDROSEEDING IT MUST BE APPROVED BY IBM. HAY MULCH WILL STILL HAVE TO BE USED ON HYDROSEED AREAS TO SHADE AND STABILIZE THE SOIL FROM RAIN IMPACT EROSION.
G. IF AFTER TWO WEEKS THE GRASS SEED HAS NOT SPROUTED IT IS CONSIDERED NOT VIABLE AND MUST BE RESEEDD.

5. TEMPORARY SEEDING

- A. TEMPORARY SEEDING SHALL BE DONE IN AREAS WHERE NO ACTIVE WORK WILL BE PERFORMED FOR 20 DAYS OR MORE. ANY DISTURBED AREA ON WHICH ACTIVITY HAS CEASED FOR MORE THAN 20 DAYS MUST BE SEEDED AND MULCHED IMMEDIATELY.
B. DURING NONGERMINATING PERIODS, ONLY MULCH SHOULD BE APPLIED AT THE RECOMMENDED RATES.
C. DISTURBED AREAS WHICH ARE NOT AT FINISHED GRADE AND WHICH WILL BE REDISTURBED WITHIN ONE (1) YEAR SHALL BE SEEDED AND MULCHED WITH A TEMPORARY SEED MIXTURE.
D. DISTURBED AREAS WHICH ARE EITHER AT FINISHED GRADE OR WILL NOT BE DISTURBED AGAIN WITHIN ONE (1) YEAR SHALL BE SEEDED WITH THE INDICATED PERMANENT SEED MIXTURE AND MULCHED.
E. TEMPORARY SEEDING STEPS:
• APPLY AGRICULTURAL LIMESTONE OR HYDRATED LIME AT A RATE OF ONE HUNDRED POUNDS PER 1000'S F.
• APPLY STARTER FERTILIZER AT THE APPLICATION RATE OF FORTY POUNDS PER 1000'S F.
• WORK THE LIMESTONE AND FERTILIZER INTO THE SOIL TO DEPTH OF THREE INCHES.
• APPLY MULCH AT A RATE OF THREE TONS PER ACRE.

6. SEEDING MAINTENANCE

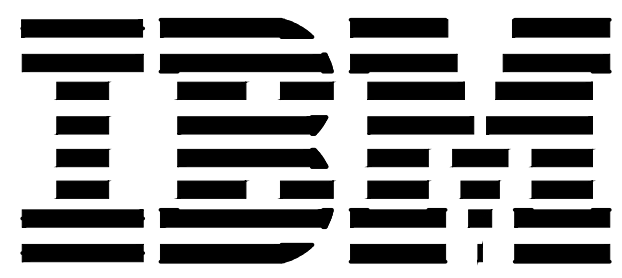
- A. THE CONTRACTOR SHALL MAINTAIN SEEDED AREAS IMMEDIATELY AFTER PLACEMENT UNTIL GRASS IS WELL ESTABLISHED AND EXHIBITS A VIGOROUS GROWING CONDITION.
• MOW GRASS AT REGULAR INTERVALS PRIOR TO FINAL COMPLETION TO MAINTAIN A MAXIMUM HEIGHT OF FOUR INCHES IN LAWN AREAS. DO NOT CUT MORE THAN 1/3 OF GRASS BLADE AT ANY ONE MOWING. NEVER CUT SHORTER THAN 2 1/2 INCHES.
• NEATLY TRIM EDGES AND HAND CLIP WHERE NECESSARY, IN LAWN AREAS.
• IMMEDIATELY REMOVE CLIPPINGS AFTER MOWING AND TRIMMING.
• WATER DAILY TO PREVENT GRASS AND SOIL FROM DRYING OUT.
• ROLL SURFACE TO REMOVE MINOR DEPRESSIONS OR IRREGULARITIES.
• CONTROL GROWTH OF WEEDS. APPLY SELECTIVE HERBICIDES IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. REMEDY DAMAGE RESULTING FROM IMPROPER USE OF HERBICIDES.
• IMMEDIATELY RESEED AND MULCH AREAS WHICH SHOW BARE SPOTS OR ERODED AREAS.
• PROTECT SEEDED AREAS WITH WARNING SIGNS DURING MAINTENANCE PERIOD.
• LIMIT TRAFFIC (PEDESTRIAN AND LIGHT EQUIPMENT) ON FINISH LAWN OR SEEDED AREAS.
B. THE CONTRACTOR SHALL REPLACE TOPSOIL AT ALL ERODED AREAS AND/OR WASHOUTS AND SHALL FILL AND RESEED WITH THE SAME SEED MIX, OR SHALL PLACE SOD OF THE SAME SEED MIX.
C. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING ALL FAILURES WHICH OCCUR WITHIN ONE YEAR OF FINAL COMPLETION AND ACCEPTANCE.

7. LAWN RESTORATION AFTER EROSION CONTROL REMOVAL

- A. ONCE THE NEW GRASS IS ESTABLISHED AND ACCEPTED BY IBM AND THE TOWN, THE EROSION CONTROL MEASURES (SILT FENCE, HAY BALES, AND STAKES) SHALL BE REMOVED AND DISPOSED OF. THE LAWN IN THE IMMEDIATE VICINITY OF THE EROSION CONTROLS SHALL BE RESTORED TO ITS ORIGINAL CONDITION. WORK REQUIRED WILL INCLUDE:
• COLLAPSING AND FILLING AS NEEDED THE STAKE HOLES
• RAKING OUT THE AREA WHERE THE EROSION CONTROLS WERE LOCATED
• REMOVING, IS REQUIRED, EXCESS SALT CAPTURED BY THE EROSION CONTROLS
• RESEEDING PER THE SEEDING INSTRUCTIONS LISTED ABOVE.
B. THE CONTRACTOR SHALL MAINTAIN THIS SEEDED AREA UNTIL THE GRASS IS WELL ESTABLISHED.

CONSTRUCTION SEQUENCE:

- 1. THE PROPOSED LIMITS OF DISTURBANCE SHALL BE CLEARLY MARKED IN THE FIELD, AS INDICATED, PRIOR TO THE START OF CONSTRUCTION ACTIVITIES.
2. INSTALL EROSION AND SEDIMENTATION CONTROL FEATURES AS INDICATED.
3. BEGIN INSTALLATION AND CONSTRUCTION OF ELECTRIC LINES AND CONCRETE PADS AS INDICATED.
4. EXTEND EXISTING RAIN WATER PIPES TO PROPOSED 8" COLLECTOR PIPE AND CONSTRUCT LEVEL SPREADER AS INDICATED.
5. INSTALL ELECTRICAL CONDUIT AS INDICATED. FOR ALL UTILITIES, THE QUANTITY OF EXCAVATION COMPLETED IN ONE (1) DAYS TIME SHALL BE LIMITED TO THE AMOUNT OF PIPING WHICH CAN BE INSTALLED IN ONE (1) WORKING DAYS TIME PERIOD. ALL EXCAVATED MATERIALS IN PAVED AREAS SHALL BE LOADED DIRECTLY INTO A DUMP TRUCK. DO NOT DEPOSIT MATERIAL ON PAVED SURFACES. ALL EXCAVATED MATERIALS IN GRASS AREAS SHALL BE DEPOSITED UPSLOPE OF THE TRENCH. AS SOON AS THE PIPE IS INSTALLED, PLACE DESIGNATED DIRECT COVER AND DESIGNATED TRENCH BACKFILL, AND RESTORE TRENCH TO NEAR ORIGINAL ELEVATION. BACKFILL TRENCH AT END OF EACH WORK DAY. INITIAL GRADE MAY BE SLIGHTLY LOWER THAN SURROUNDING ELEVATIONS TO MINIMIZE RUNOFF.
6. ONCE FINAL STABILIZATION IS ACHIEVED, REMOVE ALL TEMPORARY EROSION AND SEDIMENTATION CONTROL FEATURES. AREAS DISTURBED DURING REMOVAL OF THE CONTROLS SHALL BE STABILIZED IMMEDIATELY. AN AREA SHALL BE CONSIDERED TO HAVE ACHIEVED FINAL STABILIZATION WHEN IT HAS A MINIMUM OF 70% UNIFORM PERENNIAL VEGETATIVE COVER OR OTHER PERMANENT NON-VEGETATIVE COVER WITH A DENSITY SUFFICIENT TO RESIST AN ACCELERATED SURFACE EROSION AND SUBSURFACE CHARACTERISTICS SUFFICIENT TO RESIST SLIDING OR OTHER MOVEMENTS.



THOMAS J. WATSON RESEARCH CENTER YORKTOWN,N.Y.

FACILITIES DESIGN COMPUTER GRAPHICS

FACILITIES ENGINEERING REARRANGEMENT ENGINEERING FACILITIES PLANNING

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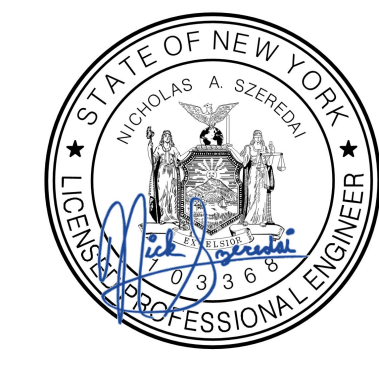


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