

C1.03 EROSION AND SEDIMENT CONTROL PLAN - PHASE 1

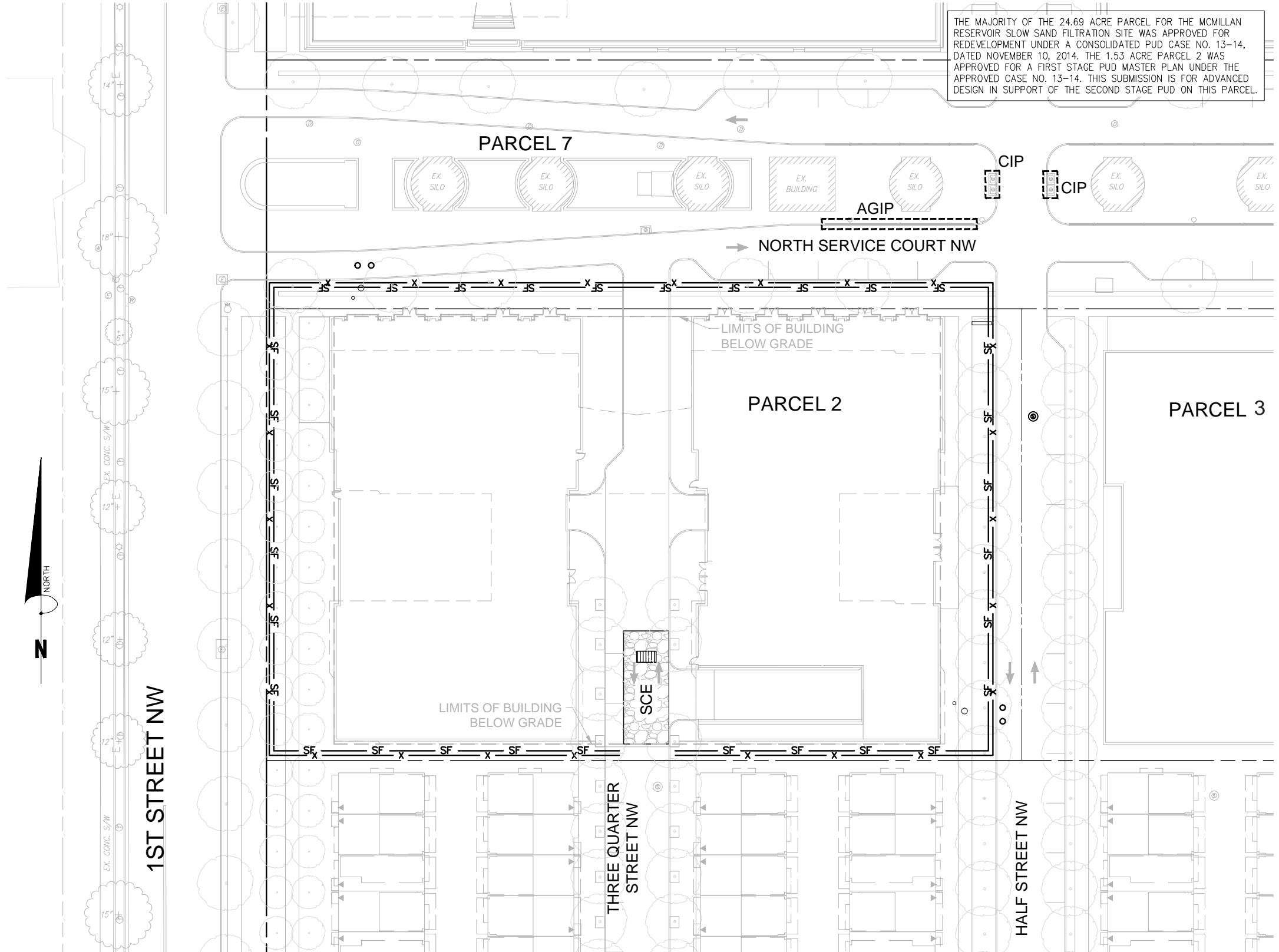
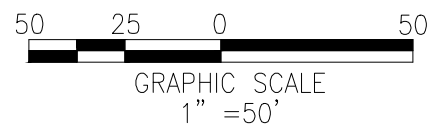


DUST CONTROL NOTES:

1. THE CONTRACTOR SHALL CONDUCT OPERATIONS AND MAINTAIN THE PROJECT SITE AS TO MINIMIZE THE CREATION AND DISPERSION OF DUST. DUST CONTROL SHALL BE USED THROUGHOUT THE WORK AT THE SITE.
2. THE CONTRACTOR MUST PROVIDE CLEAN WATER, FREE FROM SALT, OIL AND OTHER DELETERIOUS MATERIAL TO BE USED FOR ON-SITE DUST CONTROL.
3. THE CONTRACTOR SHALL SUPPLY WATER SPRAYING EQUIPMENT CAPABLE OF ACCESSING ALL WORK AREAS.
4. THE CONTRACTOR SHALL IMPLEMENT STRICT DUST CONTROL MEASURES DURING ACTIVE CONSTRUCTION PERIODS ON SITE. THESE MEASURES WILL GENERALLY CONSIST OF WATER APPLICATIONS THAT SHALL BE APPLIED A MINIMUM OF ONCE PER DAY DURING DRY WEATHER OR MORE OFTEN AS REQUIRED TO PREVENT DUST EMISSIONS.
5. FOR WATER APPLICATION TO UNDISTURBED SOIL SURFACES, THE CONTRACTOR SHALL:
 - A. APPLY WATER WITH EQUIPMENT CONSISTING OF TANK, SPRAY BAR, PUMP WITH DISCHARGE PRESSURE GAUGE;
 - B. ARRANGE SPRAY BAR HEIGHT, NOZZLE SPACING, AND SPRAY PATTERN TO PROVIDE COMPLETE COVERAGE OF GROUND WITH WATER;
 - C. DISPERSE WATER THROUGH NOZZLES ON SPRAY BAR AT 20 PSI (137.8 K PA) MINIMUM. KEEP AREAS DAMP WITHOUT CREATING NUISANCE CONDITIONS SUCH AS PONDING.
6. FOR WATER APPLICATION TO SOIL SURFACES DURING DEMOLITIONS AND/OR EXCAVATION, THE CONTRACTOR SHALL:
 - A. APPLY WATER WITH EQUIPMENT CONSISTING OF A TANK, PUMP WITH DISCHARGE GAUGES, HOSES, AND MIST NOZZLES;
 - B. LOCATE TANK AND SPRAYING EQUIPMENT SO THAT THE ENTIRE DISTURBED AREA CAN BE MISTED WITHOUT INTERFERING WITH DEMOLITION AND/OR EXCAVATION EQUIPMENT OR OPERATIONS. KEEP AREAS DAMP WITHOUT CREATING NUISANCE CONDITIONS SUCH AS PONDING;
 - C. APPLY WATER SPRAY IN A MANNER TO PREVENT MOVEMENT OF SPRAY BEYOND SITE BOUNDARIES.

SEDIMENT AND EROSION CONTROL NOTES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN OF SHEETING AND SHORING AND SUPPORT OF EXISTING UTILITIES AND ADJACENT STRUCTURES. SHORING, BRACING, AND UNDERPINNING DESIGNED BY THE CONTRACTOR'S STRUCTURAL ENGINEER LICENSED IN THE DISTRICT OF COLUMBIA SHALL BE PROVIDED AS NECESSARY TO ENSURE THEIR SUPPORT.
2. PROVIDE SILT FENCE AT THE PERIMETER OF DISTURBED AREA OR EXCAVATION TO REMAIN IN PLACE UNTIL SITE IS STABILIZED OR OTHERWISE APPROVED BY THE INSPECTOR.
3. PROVIDE CONSTRUCTION FENCE AT THE PERIMETER OF DISTURBED AREA OR EXCAVATION TO REMAIN IN PLACE UNTIL SITE IS STABILIZED OR OTHERWISE APPROVED BY THE INSPECTOR.
4. CONTRACTOR TO MAINTAIN ON-SITE STAMPED AND SIGNED, SEDIMENT AND EROSION CONTROL DRAWINGS APPROVED BY THE DEPARTMENT OF THE ENVIRONMENT, WATERSHED PROTECTION DIVISION.
5. THE APPLICATION MUST NOTIFY THE DEPARTMENT OF THE ENVIRONMENT BY PHONE (202-535-2250) AT LEAST 24 HOURS PRIOR TO START OF GRADING ACTIVITY AND WITHIN TWO (2) WEEKS AFTER COMPLETION OF PROJECT TO REQUEST INSPECTION. IF THERE IS NEED TO MAKE CHANGES OR MODIFICATIONS IN THE APPROVED DESIGN, DEPARTMENT OF THE ENVIRONMENT MUST BE NOTIFIED IMMEDIATELY.

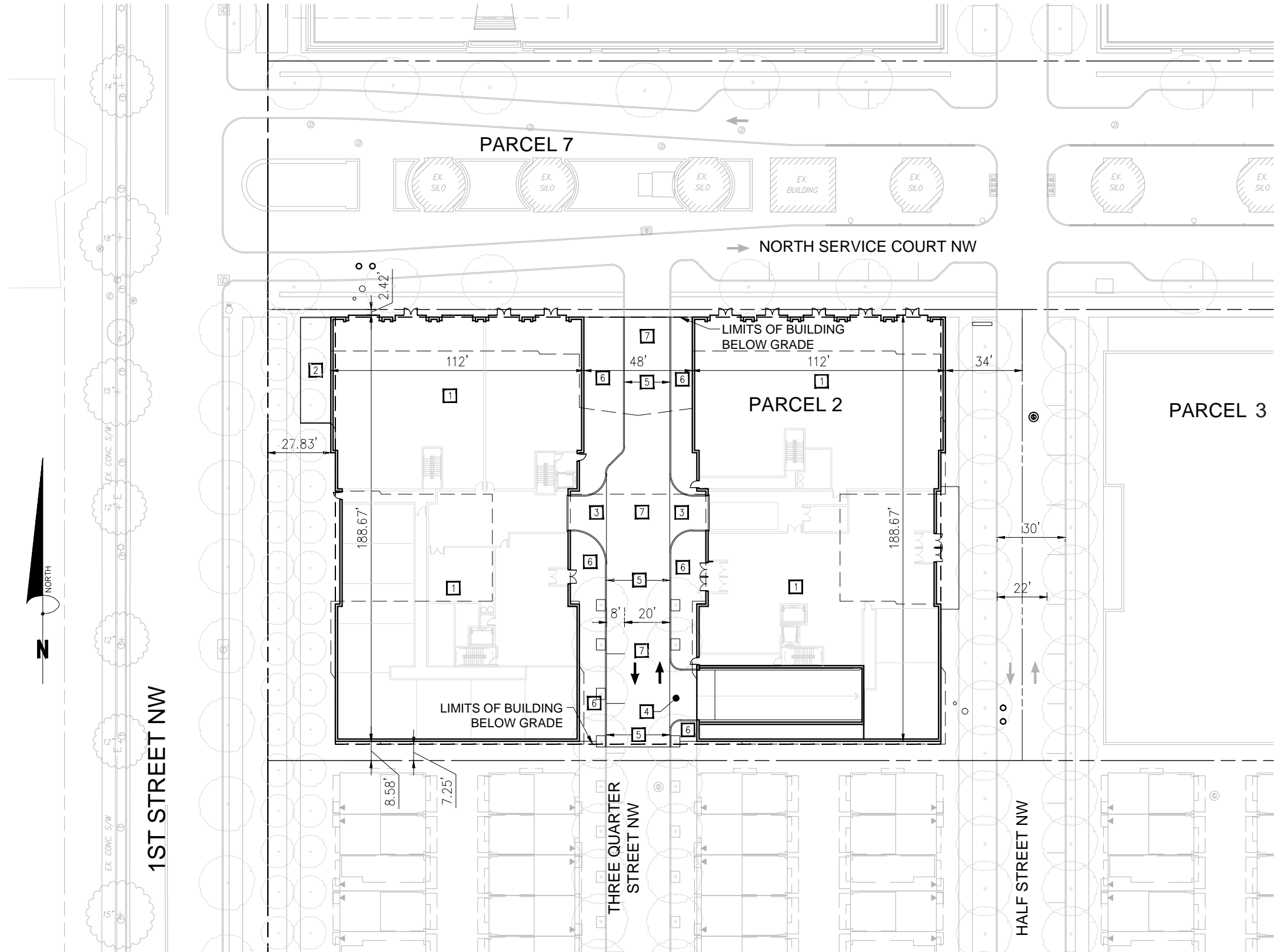
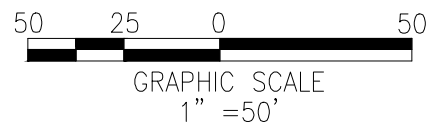


THE MAJORITY OF THE 24.69 ACRE PARCEL FOR THE MCMILLAN RESERVOIR SLOW SAND FILTRATION SITE WAS APPROVED FOR REDEVELOPMENT UNDER A CONSOLIDATED PUD CASE NO. 13-14, DATED NOVEMBER 10, 2014. THE 1.53 ACRE PARCEL 2 WAS APPROVED FOR A FIRST STAGE PUD MASTER PLAN UNDER THE APPROVED CASE NO. 13-14. THIS SUBMISSION IS FOR ADVANCED DESIGN IN SUPPORT OF THE SECOND STAGE PUD ON THIS PARCEL.

SITE KEYNOTES

- 1 NEW BUILDING. REFER TO ARCHITECTURAL DRAWINGS FOR DETAILS.
- 2 NEW OUTDOOR SEATING. REFER TO ARCHITECTURAL DRAWINGS FOR DETAILS.
- 3 NEW DRIVEWAY ENTRANCE FOR LOADING DOCK.
- 4 NEW DRIVEWAY ENTRANCE FOR UNDERGROUND PARKING.
- 5 NEW GRANITE CURB AND BRICK GUTTER.
- 6 NEW HARDSCAPE OVER BUILDING BELOW GRADE.
- 7 NEW ASPHALT OVER BUILDING BELOW GRADE.

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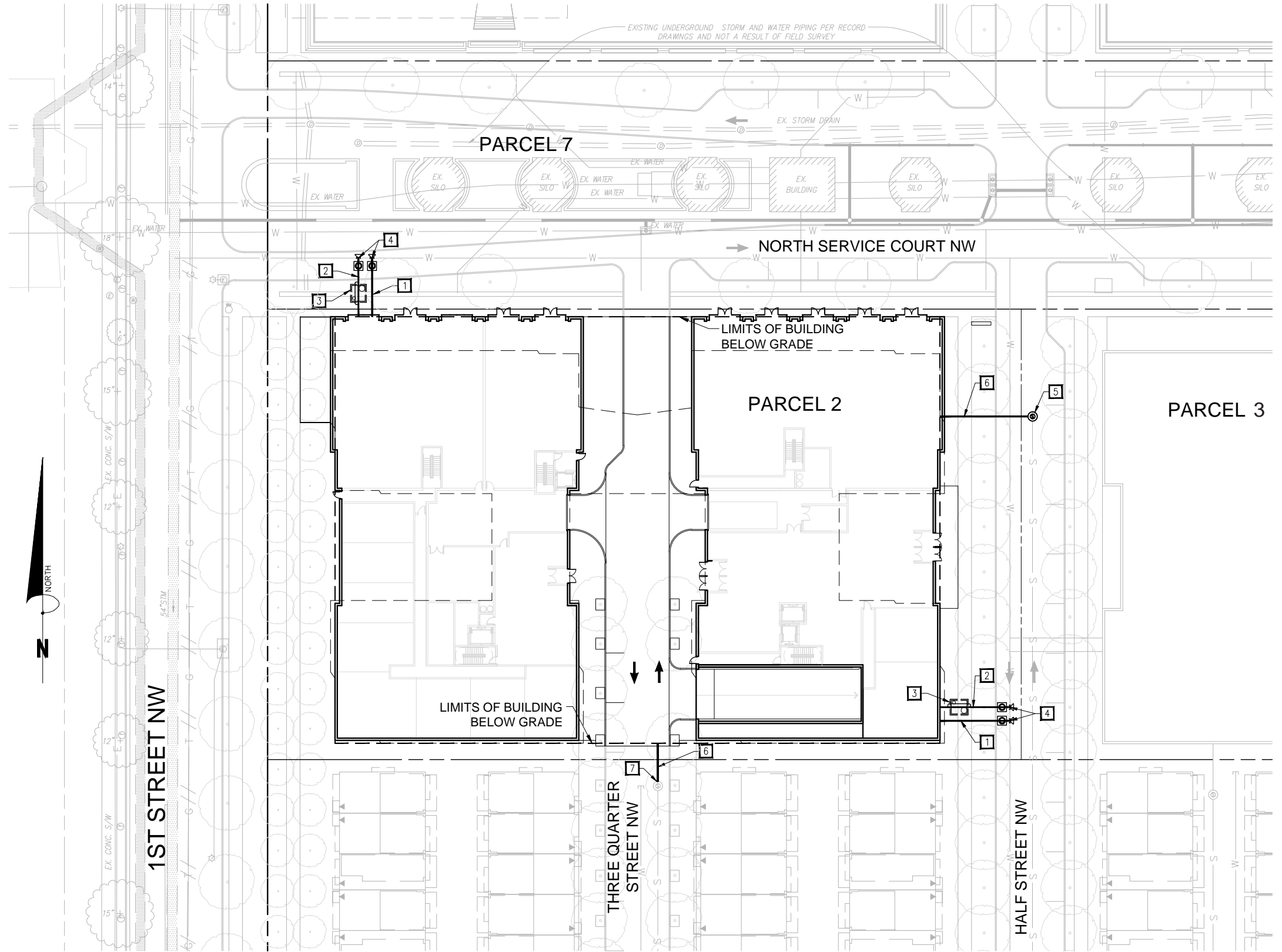
UTILITY KEYNOTES

- 1 NEW 8" DIP FIRE SERVICE.
- 2 NEW 6" DIP DOMESTIC SERVICE.
- 3 NEW 6" WATER METER.
- 4 NEW TEE WITH THRUST BLOCK AND WATER VALVE.
- 5 NEW DOGHOUSE MANHOLE.
- 6 NEW 8" PVC SANITARY LINE.
- 7 NEW CONNECTION TO EXISTING MANHOLE (BUILT UNDER FIRST STAGE).

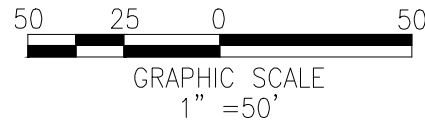
WATER AND SEWER DEMAND

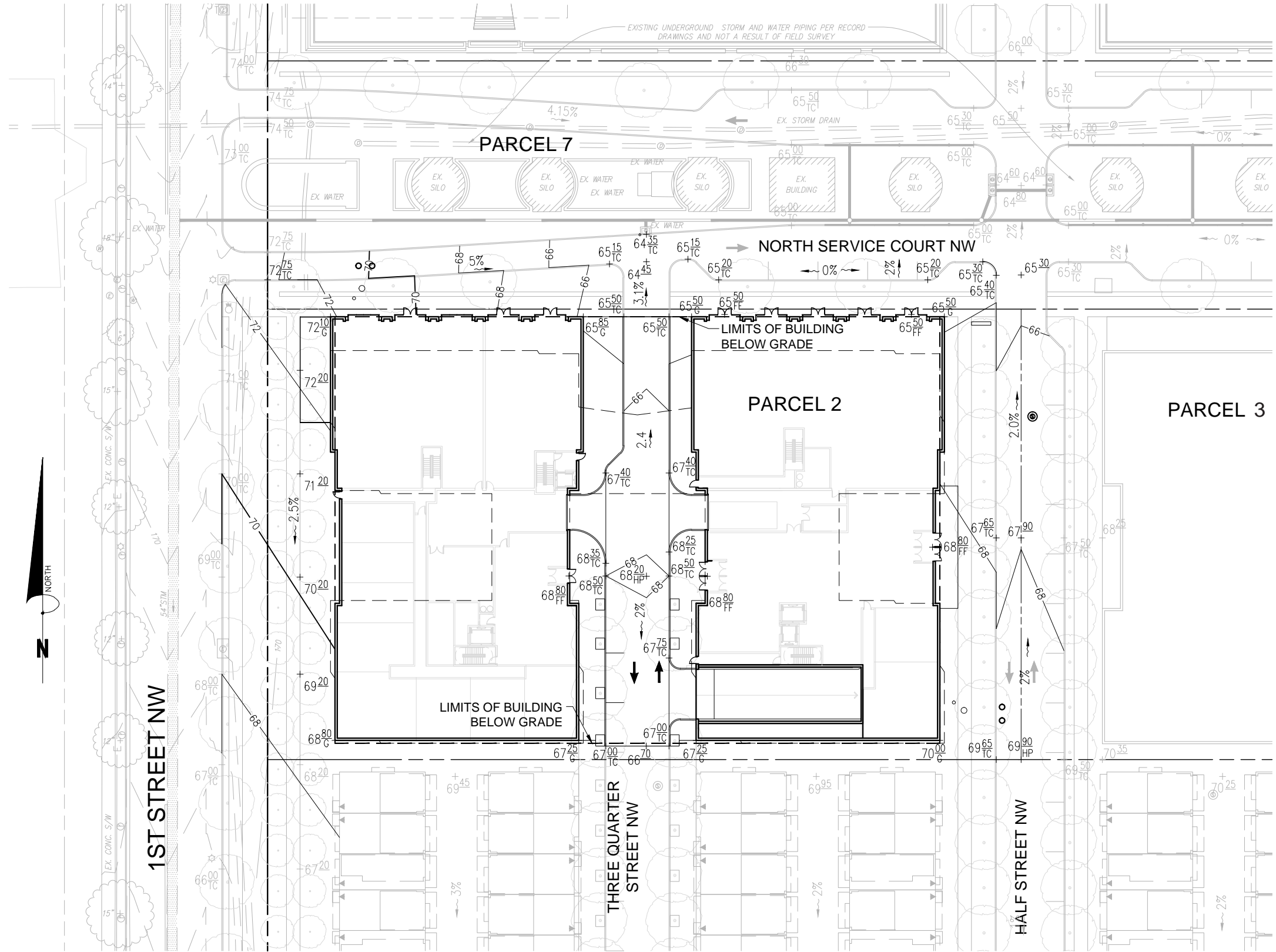
WATER:
 260 GPD PER UNIT X 230 UNITS = 59,800 GPD
 0.20 GPD PER SF X 15,400 SF RETAIL = 3,080 GPD
 TOTAL = 62,880 GPD

SEWER:
 62,880 GPD = 0.097 CFS

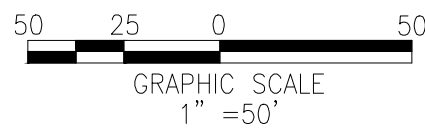


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STANDARDS AND SPECIFICATIONS FOR DUST CONTROL

1. THE CONTRACTOR SHALL CONDUCT OPERATIONS AND MAINTAIN THE PROJECT SITE SO AS TO MINIMIZE THE CREATION AND DISPERSION OF DUST. DUST CONTROL SHALL BE USED THROUGHOUT THE WORK AT THE SITE.
 2. THE CONTRACTOR MUST PROVIDE CLEAN WATER, FREE FROM SALT, OIL AND OTHER DELETERIOUS MATERIAL TO BE USED FOR ON-SITE DUST CONTROL.
 3. THE CONTRACTOR SHALL SUPPLY WATER SPRAYING EQUIPMENT CAPABLE OF ACCESSING ALL WORK AREAS.
 4. THE CONTRACTOR SHALL IMPLEMENT STRICT DUST CONTROL MEASURES DURING ACTIVE CONSTRUCTION PERIODS ON-SITE. THESE CONTROL MEASURES WILL GENERALLY CONSIST OF WATER APPLICATIONS THAT SHALL BE APPLIED A MINIMUM OF ONCE PER DAY DURING DRY WEATHER OR MORE OFTEN AS REQUIRED TO PREVENT DUST EMISSIONS.
 5. FOR WATER APPLICATION TO UNDISTURBED SOIL SURFACES, THE CONTRACTOR SHALL:
 - A. APPLY WATER WITH EQUIPMENT CONSISTING OF TANK, SPRAY BAR, PUMP WITH DISCHARGE PRESSURE GAUGE.
 - B. ARRANGE SPRAY BAR HEIGHT, NOZZLE SPACING AND SPRAY PATTERN TO PROVIDE COMPLETE COVERAGE OF GROUND WITH WATER.
 - C. DISPERSE WATER THROUGH NOZZLES ON SPRAY BAR AT 20 PSI (137.8kPa), MINIMUM. KEEP AREAS DAMP WITHOUT CREATING NUISANCE CONDITIONS SUCH AS FONDING.
 - D. FOR WATER APPLICATION TO SOIL SURFACES DURING DEMOLITION AND/OR EXCAVATION, THE CONTRACTOR SHALL:
 - A. APPLY WATER WITH EQUIPMENT CONSISTING OF A TANK, PUMP WITH DISCHARGE GAUGE, HOSES AND MIST NOZZLES.
 - B. LOCATE TANK AND SPRAYING EQUIPMENT SO THAT THE ENTIRE EXCAVATION AREA CAN BE MISTED WITHOUT INTERFERING WITH DEMOLITION AND/OR EXCAVATION EQUIPMENT OPERATIONS. KEEP AREAS DAMP WITHOUT CREATING NUISANCE CONDITIONS SUCH AS FONDING.
 - C. APPLY WATER SPRAY IN A MANNER TO PREVENT MOVEMENT OF SPRAY BEYOND THE SITE BOUNDARIES.
- DISTRICT OF COLUMBIA STANDARD SEDIMENT CONTROL NOTES**
1. ALL SEDIMENT AND EROSION CONTROL METHODS SHALL BE INSTALLED BEFORE THE START OF AN EXCAVATION AND/OR CONSTRUCTION AS PER STANDARDS AND SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL FOR THE DISTRICT OF COLUMBIA. IF AN ON-SITE INSPECTION REVEALS FURTHER EROSION CONTROL MEASURES ARE NECESSARY THE SAME SHALL BE PROVIDED.
 2. ALL DEBRIS TO BE REMOVED FROM SITE.
 3. ALLEY AND/OR STREETS SHALL BE SWEEP CLEAN AT ALL TIMES DURING EXCAVATION AND CONSTRUCTION.
 4. ALL CATCH BASINS AND AREA DRAINS SHALL BE PROTECTED DURING EXCAVATION AND CONSTRUCTION.
 5. IF ANY CATCH BASIN OR DRAIN BECOMES CLOGGED AS A RESULT OF EXCAVATION OR CONSTRUCTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ITS CLEANING.
 6. WHEN A SEDIMENT TRAP/SEDIMENT TANK HAS REACHED 87% CAPACITY, CLEAN OUT OF SAME IS REQUIRED.
 7. ANY STOCKPILING, REGARDLESS OF LOCATION ON THE SITE, SHALL BE STABILIZED WITHIN 20 DAYS AFTER ITS ESTABLISHMENT AND FOR THE DURATION OF THE PROJECT.
- 37.0 STANDARDS AND SPECIFICATIONS FOR LAND GRADING**
- DEFINITION: RESHAPING OF THE EXISTING LAND SURFACE IN ACCORDANCE WITH A PLAN AS DETERMINED BY ENGINEERING SURVEY AND LAYOUT.
- PURPOSE: THE PURPOSE OF A LAND GRADING SPECIFICATIONS IS TO PROVIDE FOR EROSION CONTROL AND VEGETATIVE ESTABLISHMENT ON THOSE AREAS WHERE THE EXISTING LAND SURFACE IS TO BE RESHAPED BY GRADING ACCORDING TO A PLAN.
- DESIGN CRITERIA: THE GRADING PLAN SHOULD BE BASED UPON THE INCORPORATION OF BUILDING DESIGNS AND STREET LAYOUTS THAT FIT AND UTILIZE EXISTING TOPOGRAPHY AND DESIRABLE NATURAL SURROUNDINGS TO AVOID EXTREME GRADE MODIFICATIONS. INFORMATION SUBMITTED MUST PROVIDE SUFFICIENT TOPOGRAPHIC SURVEYS AND SOIL INVESTIGATIONS TO DETERMINE LIMITATIONS THAT MUST BE IMPOSED UPON THE GRADING OPERATION RELATED TO SOIL STABILITY, EFFECT ON ADJACENT PROPERTIES, AND DRAINAGE PATTERNS. MEASURES FOR DRAINAGE AND WATER REMOVAL, AND VEGETATIVE TREATMENT, ETC.
- THE PLAN MUST SHOW EXISTING AND PROPOSED CONTOURS OF THE AREA(S) TO BE GRADED. THE PLAN SHALL ALSO INCLUDE PRACTICES FOR EROSION CONTROL, SLOPE STABILIZATION, SAFE DISPOSAL OF RUNOFF WATER AND DRAINAGE, SUCH AS WATERWAYS, LINED DITCHES, REVERSE SLOPE BENCHES (INCLUDE GRADE AND CROSS-SECTION), GRADE STABILIZATION STRUCTURES, RETAINING WALLS, AND SURFACE AND SUBSURFACE DRAINS. THE PLAN SHALL ALSO INCLUDE PHASING OF THESE PRACTICES. THE FOLLOWING SHALL BE INCORPORATED INTO THE PLAN:
1. PROVISIONS SHALL BE MADE TO SAFELY CONDUCT SURFACE RUNOFF TO STORM DRAINS, PROTECTED OUTLETS OR TO STABILIZE WATER COURSES TO INSURE THAT SURFACE RUNOFF WILL NOT DAMAGE SLOPES OR OTHER GRADED AREAS.
 2. CUT AND FILL SLOPES THAT ARE TO BE STABILIZED WITH GRASSES SHALL NOT BE STEEPER THAN 2:1 (WHERE THE SLOPE IS TO BE MOVED) THE SLOPE SHOULD BE STEEPER THAN 3:1, 4:1 IS PREFERRED BECAUSE OF SAFETY FACTORS RELATED TO MOWING STEEP SLOPES) SLOPES EXCEEDING 2:1 SHALL REQUIRE SPECIAL DESIGN AND STABILIZATION CONSIDERATIONS THAT SHALL BE ADEQUATELY SHOWN ON THE PLANS.
 3. REVERSE BENCHES SHALL BE PROVIDED WHENEVER THE VERTICAL INTERVAL (HEIGHT) OF ANY 21 SLOPE EXCEEDS 20 FEET; FOR 3:1 SLOPE IS SHALL BE INCREASED TO 30 FEET AND FOR 4:1 TO 40 FEET. BENCHES SHALL BE LOCATED TO DIVIDE THE SLOPE FACE AS EQUALLY AS POSSIBLE AND SHALL CONVERT THE WATER TO A STABLE OUTLET. SOILS, STEPS, ROCK OUTCROPS, ETC., SHALL ALSO BE TAKEN INTO CONSIDERATION WHEN DESIGNING BENCHES.
 4. SURFACE WATER SHALL BE DIVERTED FROM THE FACE OF ALL CUT AND/OR FILL SLOPES BY THE USE OF EARTH DICED, DITCHES, AND SWALES OR CONVEYED DOWNSLOPE BY THE USE OF A DESIGNED STRUCTURE, EXCEPT WHERE:
 - A. THE FACE OF THE SLOPE IS OR SHALL BE STABILIZED AND THE FACE OF ALL GRADED SLOPES SHALL BE PROTECTED FROM SURFACE RUNOFF UNTIL THEY ARE STABILIZED.
- ITOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4-8" LAYER AND LIGHTLY COMPACTED TO A MINIMUM THICKNESS OF 4". SPREADING SHALL BE PERFORMED IN SUCH A MANNER THAT SODDING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS SHALL BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.
- IV. TOPSOIL SHALL BE PLACED WHILE THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED PREPARATION.

37.0 STANDARDS AND SPECIFICATIONS FOR LAND GRADING CONT.

- B. THE FACE OF THE SLOPE SHALL NOT BE SUBJECT TO ANY CONCENTRATE FLOWS OF SURFACE WATER SUCH AS FROM NATURAL DRAINAGEWAYS, GRADED SWALES, DOWNSPOUTS, ETC.
- C. THE FACE OF THE SLOPE WILL BE PROTECTED BY SPECIAL EROSION CONTROL MATERIALS TO INCLUDED, BUT NOT LIMITED TO: APPROVED VEGETATIVE STABILIZATION PRACTICES (SEE SECTION G), RIP-RAP OR OTHER APPROVED STABILIZATION METHODS.
5. CUT SLOPES OCCURRING IN RIFABLE ROCK SHALL BE SERRATED AS SHOWN IN DETAIL 70, SERRATED SLOPES ON THE FOLLOWING DIAGRAM. THESE SERRATIONS SHALL BE MADE WITH CONVENTIONAL EQUIPMENT AS THE EXCAVATION IS MADE EACH STEP OR SERRATION SHALL BE CONSTRUCTED ON THE CONTOUR AND WILL HAVE STEPS CUT AT NOMINAL 2-FOOT INTERVALS WITH NOMINAL 3-FOOT HORIZONTAL SHELVES. THESE STEPS WILL VARY DEPENDING ON THE SLOPE RATIO OR THE CUT SLOPE. THE NOMINAL SLOPE RATIO IS 1.5:1. THESE STEPS WILL WEATHER AND ACT TO HOLD MOISTURE, LIME, FERTILIZER, AND SEED, THUS PRODUCING A MUCH QUICKER AND LONGER LIVED VEGETATIVE COVER AND BETTER SLOPE STABILIZATION. OVERLAND FLOW SHALL BE DIVERTED FROM THE TOP OF ALL SERRATED CUT SLOPES AND CARRIED TO A SUITABLE OUTLET.
6. SUBSURFACE DRAINAGE SHALL BE PROVIDED WHERE NECESSARY TO INTERCEPT SEEPAGE THAT WOULD OTHERWISE ADVERSELY AFFECT SLOPE STABILITY OR CREATE EXCESSIVELY WET SITE CONDITIONS.
7. SLOPES SHALL NOT BE CREATED SO CLOSE TO PROPERTY LINES AS TO ENDANGER ADJOINING PROPERTIES WITHOUT ADEQUATELY PROTECTING SUCH PROPERTIES AGAINST SEDIMENTATION, EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED DAMAGES.
8. FILL MATERIAL SHALL BE FREE OF SNOW, ICE, FROZEN MATERIALS, TRASH, BRICK, CLAY LUMPS, HAZARDOUS MATERIAL, BROKEN CONCRETE, TREE ROOTS, SOIL, ASHES, ONDERS, GLASS, PLASTER, ORGANIC MATTER, BRUSH, LOGS, STUMPS, BUILDING DEBRIS; AND ANY OTHER FOREIGN MATERIAL. IT SHOULD BE FREE OF STONES OVER 2 INCHES IN DIAMETER WHEN COMPACTED BY HAND OR MECHANICAL TAMPERS OR OVER 8 INCHES IN DIAMETER WHERE COMPACTED BY ROLLERS OR OTHER EQUIPMENT. FROZEN MATERIAL SHALL BE PLACED IN THE FILL NOR SHALL THE FILL MATERIAL BE PLACED ON A FROZEN FOUNDATION.
9. STOCKPILES, BORROW AREAS, AND SPOIL SHALL BE SHOWN ON THE PLANS AND SHALL BE SUBJECT TO THE PROVISIONS OF THIS STANDARD AND SPECIFICATION.
10. ALL DISTURBED AREAS SHALL BE STRUCTURALLY OR VEGETATIVELY IN COMPLIANCE WITH 42.0 STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION.

38.0 STANDARDS AND SPECIFICATIONS FOR TOPSOIL

- DEFINITION: PLACEMENT OF TOPSOIL OVER PREPARED SUBSOIL PRIOR TO ESTABLISHMENT OF PERMANENT VEGETATION.
- PURPOSE: TO PROVIDE A SUITABLE SOIL MEDIUM FOR VEGETATIVE GROWTH. SOILS OF CONCERN HAVE LOW MOISTURE CONTENT, LOW NUTRIENT LEVELS, LOW PH, MATERIALS TOXIC TO PLANTS, AND/OR UNACCEPTABLE SOIL GRADATION.
- CONDITIONS WHERE PRACTICE APPLIES
- I. THIS PRACTICE IS LIMITED TO AREAS HAVING 2:1 OR FLATTER SLOPES WHERE:
 - A. THE TEXTURE OF THE EXPOSED SUBSOIL/PARENT MATERIAL IS NOT ADEQUATE TO PRODUCE VEGETATIVE GROWTH.
 - B. THE SOIL MATERIAL IS SO SHALLOW THAT THE ROOTING ZONE IS NOT DEEP ENOUGH TO SUPPORT PLANTS OR FURNISH CONTINUING SUPPLIES OF MOISTURE AND PLANT NUTRIENTS.
 - C. THE ORIGINAL SOIL TO BE VEGETATED CONTAINS MATERIAL TOXIC TO PLANT GROWTH.
 - D. THE SOIL IS SO ACIDIC THAT TREATMENT WITH LIMESTONE IS NOT FEASIBLE.
 - II. FOR THE PURPOSE OF THESE STANDARDS AND SPECIFICATIONS, AREAS HAVING SLOPES STEEPER THAN 2:1 REQUIRE SPECIAL CONSIDERATION AND DESIGN FOR ADEQUATE STABILIZATION. AREAS HAVING SLOPES STEEPER THAN 2:1 SHALL HAVE THE APPROPRIATE STABILIZATION SHOWN ON THE PLANS.
 - III. TOPSOIL SALVAGED FROM THE EXISTING SITE MAY BE USED PROVIDED THAT IT MEETS THE STANDARDS AS SET FORTH IN THESE SPECIFICATIONS. TYPICALLY, THE DEPTH OF THE TOPSOIL TO BE SALVAGED FOR A GIVEN SOIL TYPE CAN BE FOUND IN THE REPRESENTATIVE SOIL PROFILE SECTION IN THE NRCS SURVEY PUBLISHED IN THE NRCS DISTRICT OF COLUMBIA SOIL SURVEY MANUAL.
- A. TOPSOIL SPECIFICATIONS – SOIL TO BE USED AS TOPSOIL MUST MEET THE FOLLOWING: A TOPSOIL SHALL BE A LOAM, SANDY LOAM, CLAY LOAM, SILT LOAM, SANDY CLAY LOAM, LOAMY SAND, OTHER SOILS MAY BE USED IF RECOMMENDED BY AN AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE WATERSHED PROTECTION DIVISION. REGARDLESS, TOPSOIL SHALL NOT BE A MIXTURE OF CONTRASTING TEXTURED SUBSOILS AND SHALL CONTAIN LESS THAN 5% BY VOLUME OF CONCRETE, STONES, SLAG, COARSE FRAGMENTS, GRAVEL, STICKS, ROOTS, TRASH, OR OTHER MATERIALS LARGER THAN 1 1/2 INCHES IN DIAMETER.
 - B. TOPSOIL MUST BE FREE OF PLANT OR PLANT PARTS SUCH AS BERMUDA GRASS, QUACKGRASS, JOHNSONGRASS, NUTSGRASS, POISON IVY, THISTLE, AND OTHER POISSONOUS PLANTS OR OTHERS AS SPECIFIED.
 - C. WHERE SUBSOIL IS EITHER HIGHLY ACIDIC OR COMPOSED HEAVY CLAYS, GROUND LIMESTONE SHALL BE SPREAD AT THE RATE OF 4-8 TONS/ACRE (200-400 LBS./1,000 SF) PRIOR TO THE PLACEMENT OF TOPSOIL. LIME SHALL BE DISTRIBUTED UNIFORMLY OVER DESIGNATED AREAS AND WORKED INTO THE SOIL IN CONJUNCTION WITH TILLAGE OPERATIONS AS DESCRIBED IN THE FOLLOWING PROCEDURES.
 - III. FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES:
 - A. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 42.0 VEGETATIVE STABILIZATION – SECTION I – VEGETATIVE STABILIZATION METHOD AND MATERIALS.
 - IV. FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES:
 - A. ON SOIL MEETING TOPSOIL SPECIFICATIONS, OBTAIN TEST RESULTS DICTATING FERTILIZER AND LIME AMENDMENTS REQUIRED TO BRING THE SOIL INTO COMPLIANCE WITH THE FOLLOWING:
 - I. PH FOR TOPSOIL SHALL BE BETWEEN 6.0 AND 7.5. IF THE TESTED SOIL DEMONSTRATES A PH OF LESS THAN 6.0, SUFFICIENT LIME SHALL BE PRESCRIBED TO RAISE THE PH TO 6.5 OR HIGHER.
 - II. ORGANIC CONTENT OF TOPSOIL SHALL NOT BE LESS THAN 1.5% BY WEIGHT.
 - III. TOPSOIL HAVING SOLUBLE SALT CONTENT GREATER THAN 500 PARTS PER MILLION SHALL NOT BE USED.
 - IV. NO SOD OR SEED SHALL BE PLACED ON SOIL WHICH HAS BEEN TREATED WITH SOIL STERILANTS OR CHEMICALS USED FOR WEED CONTROL, UNTIL SUFFICIENT TIME HAS ELAPSED (14 DAYS MINIMUM) TO PERMIT DISSIPATION OF PHYTO-TOXIC MATERIALS.
 - NOTE: TOPSOIL SUBSTITUTES OR AMENDMENTS, AS RECOMMENDED BY A QUALIFIED AGRONOMIST OR SOIL SCIENTIST AND APPROVED BY THE WATERSHED PROTECTION AGENCY, MAY BE USED IN LIEU OF NATURAL TOPSOIL.
 - B. PLACE TOPSOIL (IF REQUIRED) AND APPLY SOIL AMENDMENTS AS SPECIFIED IN 42.0 VEGETATIVE STABILIZATION – SECTION I – VEGETATIVE STABILIZATION METHOD AND MATERIALS.
 - V. TOPSOIL APPLICATION
 - I. WHEN TOPSOILING, MAINTAIN NEEDED EROSION AND SEDIMENT CONTROL PRACTICES SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, EARTH DICED, SLOPE SILT FENCE, SLOPE SILT FENCE AND SEDIMENT TRAPS AND BASINS.
 - II. GRADES IN THE AREAS TO BE TOPSOILED, WHICH HAVE BEEN PREVIOUSLY ESTABLISHED SHALL BE MAINTAINED, ALBERT 4-8" HIGHER IN ELEVATION.
 - III. TOPSOIL SHALL BE UNIFORMLY DISTRIBUTED IN A 4-8" LAYER AND LIGHTLY COMPACTED TO A MINIMUM THICKNESS OF 4". SPREADING SHALL BE PERFORMED IN SUCH A MANNER THAT SODDING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL SOIL PREPARATION AND TILLAGE. ANY IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOILING OR OTHER OPERATIONS SHALL BE CORRECTED IN ORDER TO PREVENT THE FORMATION OF DEPRESSIONS OR WATER POCKETS.
 - IV. TOPSOIL SHALL BE PLACED WHILE THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED PREPARATION.

38.0 STANDARDS AND SPECIFICATIONS FOR TOPSOIL CONT.

- VI. ALTERNATIVE FOR PERMANENT SEEDING – INSTEAD OF APPLYING THE FULL AMOUNTS OF LIME AND COMMERCIAL FERTILIZER, COMPOSTED SLUDGE AND AMENDMENTS MAY BE APPLIED AS SPECIFIED BELOW:
 - A. COMPOSTED SLUDGE MATERIAL FOR USE AS A SOIL CONDITIONER FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES SHALL BE TESTED TO THE PRESCRIBED AMENDMENTS AND FOR SITES HAVING DISTURBED AREAS UNDER 5 ACRES SHALL CONFORM TO THE FOLLOWING REQUIREMENTS.
 - I. COMPOSTED SLUDGE SHALL BE SUPPLIED BY, OR ORIGINATE FROM, A PERSON OR PERSONS THAT ARE PERMITTED (AT THE TIME OF ACQUISITION OF THE COMPOST) BY EITHER THE STATE OF MARYLAND OR THE STATE OF VIRGINIA.
 - II. COMPOSTED SLUDGE SHALL CONTAIN AT LEAST 1.0% NITROGEN, 1.5% PHOSPHOROUS, AND 0.2% POTASSIUM, AND HAVE A PH OF 7.0 TO 8.0. IF COMPOST DOES NOT MEET THESE REQUIREMENTS, THE APPROPRIATE CONSTITUENTS MUST BE ADDED TO MEET THE REQUIREMENTS PRIOR TO USE.
 - III. COMPOSTED SLUDGE SHALL BE APPLIED AT A RATE OF 1 TON/1,980 SF.
 - B. COMPOSTED SLUDGE SHALL BE AMENDED WITH A POTASSIUM FERTILIZER APPLIED AT THE RATE OF 4 LBS./1,000 SF AND 1/3 THE NORMAL LIME APPLICATION RATE. REFERENCES: GUIDELINE SPECIFICATIONS, SOIL PREPARATION AND SODDING, MD-VA, PUB. #1, COOPERATIVE EXTENSIVE SERVICE, UNIVERSITY OF MARYLAND AND VIRGINIA POLYTECHNIC INSTITUTES, REVISED 1973.
- 42.0 STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION**
- SECTION I – VEGETATIVE STABILIZATION METHODS AND MATERIALS A SITE PREPARATION
- I. INSTALL EROSION AND SEDIMENT CONTROL STRUCTURES (EITHER TEMPORARY OR PERMANENT) SUCH AS DIVERSIONS, GRADE STABILIZATION STRUCTURES, BERMS, WATERWAYS, OR SEDIMENT CONTROL BASINS.
 - II. PERFORM ALL GRADING OPERATIONS AT RIGHT ANGLES TO THE SLOPE FINAL GRADING AND SHAPING NOT USUALLY NECESSARY FOR TEMPORARY SEEDING.
 - III. SCHEDULE REQUIRED SOIL TESTS TO DETERMINE SOIL AMENDMENT COMPOSITION AND APPLICATION RATES FOR SITES HAVING DISTURBED AREAS OVER 5 ACRES.
 - B. SOIL AMENDMENTS (FERTILIZER AND LIME SPECIFICATIONS)
 - I. SOIL TESTS MUST BE PERFORMED TO DETERMINE THE EXACT RATIOS AND APPLICATION RATES FOR BOTH LIME AND FERTILIZER ON SITES HAVING DISTURBED AREAS OVER 5 ACRES. SOIL ANALYSIS MAY BE PERFORMED BY THE UNIVERSITY OF THE DISTRICT OF COLUMBIA OR A CERTIFIED COMMERCIAL LABORATORY. SOIL SAMPLES TAKEN FOR ENGINEERING PURPOSES MAY ALSO BE USED FOR CHEMICAL ANALYSES.
 - II. FERTILIZERS SHALL BE UNIFORM IN COMPOSITION, FREE FLOWING AND SUITABLE FOR ACCURATE APPLICATION AND APPROVED EQUIPMENT. MANURE MAY BE SUBSTITUTED FOR FERTILIZER WITH PRIOR APPROVAL FROM THE APPROPRIATE APPROVAL AUTHORITY. FERTILIZERS SHALL ALL BE DELIVERED TO THE SITE FULLY LABELED ACCORDING TO THE APPLICABLE STATE FERTILIZED LAWS AND SHALL BEAR THE NAME OR TRADEMARK, AND WARRANTIES OF THE PRODUCER.
 - III. LIME MATERIALS SHALL BE GROUND LIMESTONE (HYDRATED OR BURNT LIME MAY BE SUBSTITUTED) WHICH CONTAINS AT LEAST 50% TOTAL LIXIDES (CALCIUM OXIDE PLUS MAGNESIUM OXIDE). LIMESTONE SHALL BE GROUND 94 SUCH FINENESS THAT AT LEAST 60% WILL PASS THROUGH #100 MESH SIEVE AND 96-100% WILL PASS THROUGH A #20 SIEVE.
 - IV. 90CORPORATE LIME AND FERTILIZER INTO THE TOP 3-5" OF SOIL BY DISKING OR OTHER SUITABLE MEANS.
 - A. SEEDBED PREPARATION
 - I. TEMPORARY SEEDING
 - A. SEEDBED PREPARATION SHALL CONSIST OF LOOSENING SOIL TO A DEPTH OF 3" TO 6" BY MEANS OF SUITABLE AGRICULTURAL OR CONSTRUCTION EQUIPMENT, SUCH AS DISC HARROWS OR CHISEL PLOWS OR RIPPERS MOUNTED ON THE CONSTRUCTION EQUIPMENT; AFTER THE SOIL IS LOOSENEED, IT SHOULD NOT BE ROLLED OR DRAGGED SMOOTH, BUT LEFT IN THE ROUGHENED CONDITION. SLOPED AREAS (GREATER 3:1) SHOULD BE TRACKED LEAVING THE SURFACE IN AN IRREGULAR CONDITION WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE.
 - B. APPLY FERTILIZER AND LIME AS PRESCRIBED ON THE PLANS.
 - C. INCORPORATE LIME AND FERTILIZER INTO THE TOP 3-5" OF SOIL BY DISKING OR OTHER SUITABLE MEANS.
 - II. PERMANENT SEEDING
 - A. MINIMUM SOIL CONDITIONS REQUIRED FOR PERMANENT VEGETATIVE ESTABLISHMENT:
 - I. SOIL PH SHALL BE BETWEEN 6.9 AND 7.0
 2. SOLUBLE SALTS SHALL BE LESS THAN 500 PARTS PER MILLION (PPM).
 3. THE SOIL SHALL CONTAIN LESS THAN 49% CLAY BUT ENOUGH FINE GRAINED MATERIAL (30% SILT PLUS CLAY) TO PROVIDE THE CAPACITY TO HOLD A MODERATE AMOUNT OF WATER. AN EXCEPTION IS FL LOVEGRASS OR SERECIA LESPEDEZA IS TO BE PLANTED, THAN A SANDY SOIL (10% SILT PLUS CLAY) WOULD BE ACCEPTABLE.
 4. SOIL SHALL CONTAIN 1.5% MINIMUM ORGANIC MATTER BY WEIGHT.
 5. SOIL MUST CONTAIN SUFFICIENT PORE SPACE TO PERMIT ADEQUATE ROOT PENETRATION. 6. IF THESE CONDITIONS CANNOT BE MET BY SOILS ON-SITE, ADDING TOPSOIL IS REQUIRED IN ACCORDANCE WITH SECTION 38, STANDARD AND SPECIFICATION FOR TOPSOIL.
 - B. AREAS PREVIOUSLY GRADED IN CONFORMANCE WITH THE DRAWINGS SHALL BE MAINTAINED IN A TRUE AND EVEN GRADE, THEN SCARIFIED OR OTHERWISE LOOSENEED TO A DEPTH OF 3-5" TO PERMIT BONDING OF THE TOPSOIL TO A SURFACE AREA AND TO CREATE HORIZONTAL EROSION CHECK SLOTS TO PREVENT TOPSOIL FROM SLIDING DOWN A SLOPE.
 - C. APPLY SOIL AMENDMENTS AS PER SOIL TEST OR AS INCLUDED ON THE PLANS. D. MIX SOIL AMENDMENTS INTO THE TOP 3-5" OF TOPSOIL BY DISKING OR OTHER SUITABLE MEANS. LAWN AREAS SHOULD BE RAKED TO SMOOTH THE SURFACE, REMOVE LARGE OBJECTS LIKE STONES AND BRANCHES, AND READY THE AREA FOR SEED APPLICATION, WHERE SITE CONDITIONS WILL NOT PERMIT NORMAL SEEDBED PREPARATION, LOOSEN THE SURFACE SOIL BY DRAGGING WITH A HEAVY CHAIN OR OTHER EQUIPMENT TO ROUGHEN THE SURFACE STEEP SLOPES (STEEPER THAN 3:1) SHOULD BE TRACKED BY A DOZER LEAVING THE SOIL IN AN IRREGULAR CONDITION WITH RIDGES RUNNING PARALLEL TO THE CONTOUR OF THE SLOPE THE TOP 1-3" OF SOIL SHOULD BE LOOSE AND FRABLE. SEEDBED LOOSENING MAY NOT BE NECESSARY ON NEWLY DISTURBED AREAS.
- NOTE: SEED TAGS SHALL BE MADE AVAILABLE TO THE INSPECTOR TO VERIFY TYPE AND RATE OF SEED USED.
- II. INOCULANT – THE INOCULANT FOR TREATING LEGUME SEED 94 THE SEED MIXTURES SHALL BE A PURE CULTURE OF NITROGEN-FIXING BACTERIA PREPARED SPECIFICALLY FOR THE SPECIES. INOCULANTS SHALL NOT BE USED LATER THAN THE DATE INDICATED ON THE CONTAINER. ADD FRESH INOCULANT AS DIRECTED ON THE PACKAGE. USE FOUR TIMES THE RECOMMENDED RATE WITH HYDROSEEDING. NOTE: IT IS VERY IMPORTANT TO KEEP INOCULANT AS COOL AS POSSIBLE UNTIL USED. TEMPERATURES ABOVE 75-89F CAN WEAKEN BACTERIA AND MAKE THE INOCULANT LESS EFFECTIVE.
 - E. METHODS OF SEEDING: APPLY SEED UNIFORMLY WITH HYDROSEEDER (SLURRY INCLUDES SEED AND FERTILIZER), BROADCAST OR DROP SEEDER, OR A CULTIPACKER SEEDER.
 - I. HYDROSEEDING:
 - A. IF FERTILIZER IS BEING APPLIED AT THE TIME OF SEEDING, THE APPLICATIONS RATES AMOUNTS WILL NOT EXCEED THE FOLLOWING NITROGEN: MAXIMUM OF 100 LBS PER ACRE TOTAL OF SOLUBLE NITROGEN: P205 (PHOSPHOROUS); 208LBS/AC; K2O (POTASSIUM); 200 LBS/AC.
 - B. LIME – USE ONLY GROUND AGRICULTURAL LIMESTONE (UP TO 1 TONS PER ACRE MAY BE APPLIED BY HYDROSEEDING). NORMALLY, NOT MORE THAN 2 TONS ARE APPLIED BY HYDROSEEDING AT ANY ONE TIME DO NOT USE BURNT OR HYDRATED LIME WHEN HYDROSEEDING.
 - C. SEED AND FERTILIZER SHALL BE MIXED ON-SITE AND SEEDING SHALL BE DONE IMMEDIATELY AND WITHOUT INTERRUPTION.

42.0 STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION CONT.

- II. DRY SEEDING: THIS INCLUDES USE OF CONVENTIONAL DROP OR BROADCAST SPREADERS.
 - A. SEE SPREAD DRY SHALL BE INCORPORATED INTO THE SUBSOIL AT THE RATES PRESCRIBED ON THE TEMPORARY OR PERMANENT SEEDING SUMMARIES OR TABLES 42 OR 43. THE SEED AREA SHALL THEN BE ROLLED WITH A WEIGHTED ROLLER TO PROVIDE GOOD SEED TO SOIL CONTACT.
 - B. WHERE PRACTICAL, SEED SHOULD BE APPLIED IN TWO DIRECTIONS PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION.
 - I. DRILL OR CULTIPACKER SEEDING: MECHANIZED SEEDERS THAT APPLY AND COVER SEED WITH SOIL.
 - A. CULTIPACKER SEEDERS ARE REQUIRED TO BURY THE SEED IS SUCH A SFASHION AS TO PROVIDE AT LEAST 1-INCH OF SOIL COVERING. SEEDBED MUST BE FIRM AFTER PLANTING. B. WHERE PRACTICAL, SEED SHOULD BE APPLIED IN TWO DIRECTIONS PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION.
 - F. MULCH SPECIFICATIONS (IN ORDER OF PREFERENCE)
 - I. STRAW SHALL CONSIST OF THOROUGHLY THRESHED WHEAT, RYE, OR OAT STRAW, REASONABLY BRIGHT W COLOR, AND SHALL NOT BE MUSTY, MOLLY, CAKED, DECAYED, OR EXCESSIVELY DUSTY AND SHALL BE FREE OF NOXIOUS WEED SEEDS AS SPECIFIED BY THE NRCS SEED LAW.
 - II. MULCH SPECIFICATIONS (IN ORDER OF PREFERENCE)
 - I. STRAW SHALL CONSIST OF THOROUGHLY THRESHED WHEAT, RYE, OR OAT STRAW, REASONABLY BRIGHT W COLOR, AND SHALL NOT BE MUSTY, MOLLY, CAKED, DECAYED, OR EXCESSIVELY DUSTY AND SHALL BE FREE OF NOXIOUS WEED SEEDS AS SPECIFIED BY THE NRCS SEED LAW.
 - II. WOOD CELLULOSE FIBER MULCH (WCFM)
 - A. WCFM SHALL CONSIST OF SPECIALLY PREPARED WOOD CELLULOSE PROCESSED INTO A UNIFORM FIBROUS PHYSICAL STATE.
 - B. WCFM SHALL BE DYED GREEN OR CONTAIN A GREEN DYE IN THE PACKAGE THAT WILL PROVIDE AN APPROPRIATE COLOR TO FACILITATE VISUAL INSPECTION OF THE UNIFORMLY SPREAD SLURRY.
 - C. WCFM, INCLUDING DYE, SHALL CONTAIN NO GERMINATION OR GROWTH INHIBITING FACTORS.
 - D. WCFM MATERIALS SHALL BE MANUFACTURED AND PROCESSED IN SUCH A MANNER THAT THE WOOD CELLULOSE FIBER MULCH WILL REMAIN 94 UNIFORM SUSPENSION 64 WATER UNDER AGITATION AND WILL BLENDH WITH 5% FERTILIZER AND OTHER ADDITIVES TO FORM A HOMOGENEOUS SLURRY. THE MULCH MATERIAL SHALL FORM A BLOTTER-LIKE GROUND COVER, ON APPLICATION, HAVING MOISTURE ABSORPTION AND PERCOLATION PROPERTIES AND SHALL COVER AND HOLD GRASS SEED W CONTACT WITH THE SOIL WITHOUT INHIBITING THE GROWTH OF THE GRASS SEEDLINGS.
 - E. WCFM MATERIAL SHALL CONTAIN NO ELEMENTS OR COMPOUNDS AT CONCENTRATION LEVELS THAT WILL BE PHYTO-TOXIC.
 - F. WCFM MUST CONFORM TO THE FOLLOWING PHYSICAL REQUIREMENTS: FIBER LENGTH APPROXIMATELY 16 MM, DIAMETER APPROXIMATELY 1 MM, PH RANGE OF 4.6 TO 8.5, ASH CONTENT OF 1.6% MAXIMUM, AND WATER HOLDING CAPACITY OF 98% MINIMUM.
 - G. MULCHING SEEDED AREAS – MULCH SHALL BE APPLIED TO ALL SEEDED AREAS IMMEDIATELY AFTER SING.
 - I. IF GRADING IS COMPLETED OUTSIDE OF THE SEEDING SEASON, MULCH ALONE SHALL BE APPLIED AS PRESCRIBED IN THIS SECTION AND MAINTAINED UNTIL THE 599IG SEASON RETURNS AND SEEDING CAN BE PERFORMED ACCORDANCE WITH THESE SPECIFICATIONS.
 - II. WHEN STRAW MULCH IS USED, IT SHALL BE SPREAD OVER ALL SEEDED AREAS AT THE RATE OF 2 TONS/ACRE. MULCH SHALL BE APPLIED TO A UNIFORM LOOSE DEPTH SO THAT THE SOIL SURFACE IS NOT EXPOSED. IF A MULCH ANCHORING TOOL IS TO BE USED, THE RATE SHOULD BE INCREASED TO 25 TONS/ACRE.
 - III. WOOD CELLULOSE FIBER USED AS A MULCH SHALL BE APPLIED AT A NET DRY WEIGHT OF 1,560 LBS. PER ACRE. THE WOOD CELLULOSE FIBER SHALL BE MIXED WITH WATER AND THE MIXTURE SHALL CONTAIN A MAXIMUM OF 50 LBS. OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.
 - H. SECURING STRAW MULCH (MULCH ANCHORING): MULCH ANCHORING SHALL BE PERFORMED IMMEDIATELY FOLLOWING MULCH APPLICATION TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS (LISTED BY PREFERENCE), DEPENDING ON THE SIZE OF AREA AND EROSION HAZARD:
 - I. A MULCH ANCHORING TOOL IS A TRACTOR DRAWN IMPLEMENT DESIGNED TO PUNCH AND ANCHOR MULCH INTO THE SOIL SURFACE A MINIMUM OF 2 INCHES. THIS PRACTICE IS MOST EFFECTIVE ON LARGE AREAS, BUT IS LIMITED TO FLATTER SLOPES WHERE EQUIPMENT CAN OPERATE SAFELY. IF USED ON SLOPING LAND, THIS PRACTICE SHOULD BE USED ON THE CONTOUR IF POSSIBLE.
 - II. WOOD CELLULOSE FIBER MAY BE USED FOR ANCHORING STRAW. THE FIBER SHALL BE APPLIED AT A NEW DRY WEIGHT OF 750 LBS/ACRE. THE WOOD CELLULOSE FIBER SHALL BE MIXED WITH WATER AND MIXTURE SHALL CONTAIN A MAXIMUM OF 50 LBS OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.
 - III. APPLICATION OF LIQUID BINDERS SHOULD BE HEAVIER AT THE EDGES WHERE WIND CATCHES MULCH, SUCH AS IN VALLEYS AND ON CRESTS OF BANKS. THE REMAINDER OF A SHOULD APPEAR UNIFORM AFTER BINDER APPLICATION. SYNTHETIC BINDERS – SUCH AS ACRYLIC DU I (AGRO-TACK), DCA-7B, PEROSECT, TERRA TAX I, TERRA TACK AR OR OTHER APPROVED EQUIP MAY BE USED AT RATES RECOMMENDED BY THE MANUFACTURER TO ANCHOR MULCH.
 - IV. LIGHTWEIGHT PLASTIC NETTING MAY BE STAPLED OVER THE MULCH ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. NETTING IS USUALLY AVAILABLE IN ROLLS 4 TO 15 FEET WIDE AND 300 TO 3,000 FEET LONG.

SECTION II – TEMPORARY SEEDING

VEGETATION – ANNUAL GRASS OR GRASS USED TO PROVIDE COVER ON DISTURBED AREAS FOR UP TO 12 MONTHS. FOR LONGER DURATION OF VEGETATIVE COVER, PERMANENT SING IS REQUIRED.

SEEDING GRASS AND LEGUMES TO ESTABLISH GROUND COVER FOR A MINIMUM PERIOD OF ONE YEAR ON DISTURBED AREAS GENERALLY RECEIVING LOW MAINTENANCE.

A. SEED MIXTURES – PERMANENT SEEDING SUMMARY

SEED MIXTURE (HARDNESS ZONE 7A) FROM TABLE 43				FERTILIZER RATE (10-10-10)	LIME RATE
NO.	SPECIES	APPLICATION RATE (lb/ac)	SEEDING DATES	SEEDING DEPTHS	
	RYE PLUS FOXTAIL MILLET	150	2/1-4-30 5/1-8-30 8/15-11/30	1	2 tons/ac (14 lb/1000 sf)
	WEEPING LOVEGRASS	4	5/1-8/14	1/4	

SECTION III – PERMANENT SEEDING

SEEDING GRASS AND LEGUMES TO ESTABLISH GROUND COVER FOR A MINIMUM PERIOD OF ONE YEAR ON DISTURBED AREAS GENERALLY RECEIVING LOW MAINTENANCE.

A. SEED MIXTURES – PERMANENT SEEDING SUMMARY

SEED MIXTURE (HARDNESS ZONE 7A) FROM TABLE 42				FERTILIZER RATE (10-20-20)			LIME RATE
NO.	SPECIES	APPLICATION RATE (lb/ac)	SEEDING DATES	SEEDING DEPTHS	N	P205	K20
	TALL FESCUE (85%)	125			90 lb/ac (2.0 lb/1000 sf)	175 lb/ac (4.0 lb/1000 sf)	175 lb/ac (4.0 lb/1000 sf)
	PERENNIAL RYEGRASS (10%)	15	3/1-5/15	1/4" MIN.			
	KENTUCKY BLUEGRASS (5%)	10	8/15-11/15	2" MIN.			

42.0 STANDARDS AND SPECIFICATIONS FOR VEGETATIVE STABILIZATION CONT.

- IV. DRY SEEDING: THIS INCLUDES USE OF CONVENTIONAL DROP OR BROADCAST SPREADERS.
 - A. SEE SPREAD DRY SHALL BE INCORPORATED INTO THE SUBSOIL AT THE RATES PRESCRIBED ON THE TEMPORARY OR PERMANENT SEEDING SUMMARIES OR TABLES 42 OR 43. THE SEED AREA SHALL THEN BE ROLLED WITH A WEIGHTED ROLLER TO PROVIDE GOOD SEED TO SOIL CONTACT.
 - B. WHERE PRACTICAL, SEED SHOULD BE APPLIED IN TWO DIRECTIONS PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION.
 - I. DRILL OR CULTIPACKER SEEDING: MECHANIZED SEEDERS THAT APPLY AND COVER SEED WITH SOIL.
 - A. CULTIPACKER SEEDERS ARE REQUIRED TO BURY THE SEED IS SUCH A SFASHION AS TO PROVIDE AT LEAST 1-INCH OF SOIL COVERING. SEEDBED MUST BE FIRM AFTER PLANTING. B. WHERE PRACTICAL, SEED SHOULD BE APPLIED IN TWO DIRECTIONS PERPENDICULAR TO EACH OTHER. APPLY HALF THE SEEDING RATE IN EACH DIRECTION.
 - F. MULCH SPECIFICATIONS (IN ORDER OF PREFERENCE)
 - I. STRAW SHALL CONSIST OF THOROUGHLY THRESHED WHEAT, RYE, OR OAT STRAW, REASONABLY BRIGHT W COLOR, AND SHALL NOT BE MUSTY, MOLLY, CAKED, DECAYED, OR EXCESSIVELY DUSTY AND SHALL BE FREE OF NOXIOUS WEED SEEDS AS SPECIFIED BY THE NRCS SEED LAW.
 - II. WOOD CELLULOSE FIBER MULCH (WCFM)
 - A. WCFM SHALL CONSIST OF SPECIALLY PREPARED WOOD CELLULOSE PROCESSED INTO A UNIFORM FIBROUS PHYSICAL STATE.
 - B. WCFM SHALL BE DYED GREEN OR CONTAIN A GREEN DYE IN THE PACKAGE THAT WILL PROVIDE AN APPROPRIATE COLOR TO FACILITATE VISUAL INSPECTION OF THE UNIFORMLY SPREAD SLURRY.
 - C. WCFM, INCLUDING DYE, SHALL CONTAIN NO GERMINATION OR GROWTH INHIBITING FACTORS.
 - D. WCFM MATERIALS SHALL BE MANUFACTURED AND PROCESSED IN SUCH A MANNER THAT THE WOOD CELLULOSE FIBER MULCH WILL REMAIN 94 UNIFORM SUSPENSION 64 WATER UNDER AGITATION AND WILL BLENDH WITH 5% FERTILIZER AND OTHER ADDITIVES TO FORM A HOMOGENEOUS SLURRY. THE MULCH MATERIAL SHALL FORM A BLOTTER-LIKE GROUND COVER, ON APPLICATION, HAVING MOISTURE ABSORPTION AND PERCOLATION PROPERTIES AND SHALL COVER AND HOLD GRASS SEED W CONTACT WITH THE SOIL WITHOUT INHIBITING THE GROWTH OF THE GRASS SEEDLINGS.
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 - G. MULCHING SEEDED AREAS – MULCH SHALL BE APPLIED TO ALL SEEDED AREAS IMMEDIATELY AFTER SING.
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 - III. WOOD CELLULOSE FIBER USED AS A MULCH SHALL BE APPLIED AT A NET DRY WEIGHT OF 1,560 LBS. PER ACRE. THE WOOD CELLULOSE FIBER SHALL BE MIXED WITH WATER AND THE MIXTURE SHALL CONTAIN A MAXIMUM OF 50 LBS. OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.
 - H. SECURING STRAW MULCH (MULCH ANCHORING): MULCH ANCHORING SHALL BE PERFORMED IMMEDIATELY FOLLOWING MULCH APPLICATION TO MINIMIZE LOSS BY WIND OR WATER. THIS MAY BE DONE BY ONE OF THE FOLLOWING METHODS (LISTED BY PREFERENCE), DEPENDING ON THE SIZE OF AREA AND EROSION HAZARD:
 - I. A MULCH ANCHORING TOOL IS A TRACTOR DRAWN IMPLEMENT DESIGNED TO PUNCH AND ANCHOR MULCH INTO THE SOIL SURFACE A MINIMUM OF 2 INCHES. THIS PRACTICE IS MOST EFFECTIVE ON LARGE AREAS, BUT IS LIMITED TO FLATTER SLOPES WHERE EQUIPMENT CAN OPERATE SAFELY. IF USED ON SLOPING LAND, THIS PRACTICE SHOULD BE USED ON THE CONTOUR IF POSSIBLE.
 - II. WOOD CELLULOSE FIBER MAY BE USED FOR ANCHORING STRAW. THE FIBER SHALL BE APPLIED AT A NEW DRY WEIGHT OF 750 LBS/ACRE. THE WOOD CELLULOSE FIBER SHALL BE MIXED WITH WATER AND MIXTURE SHALL CONTAIN A MAXIMUM OF 50 LBS OF WOOD CELLULOSE FIBER PER 100 GALLONS OF WATER.
 - III. APPLICATION OF LIQUID BINDERS SHOULD BE HEAVIER AT THE EDGES WHERE WIND CATCHES MULCH, SUCH AS IN VALLEYS AND ON CRESTS OF BANKS. THE REMAINDER OF A SHOULD APPEAR UNIFORM AFTER BINDER APPLICATION. SYNTHETIC BINDERS – SUCH AS ACRYLIC DU I (AGRO-TACK), DCA-7B, PEROSECT, TERRA TAX I, TERRA TACK AR OR OTHER APPROVED EQUIP MAY BE USED AT RATES RECOMMENDED BY THE MANUFACTURER TO ANCHOR MULCH.
 - IV. LIGHTWEIGHT PLASTIC NETTING MAY BE STAPLED OVER THE MULCH ACCORDING TO MANUFACTURER'S RECOMMENDATIONS. NETTING IS USUALLY AVAILABLE IN ROLLS 4 TO 15 FEET WIDE AND 300 TO 3,000 FEET LONG.

SECTION II – TEMPORARY SEEDING

VEGETATION – ANNUAL GRASS OR GRASS USED TO PROVIDE COVER ON DISTURBED AREAS FOR UP TO 12 MONTHS. FOR LONGER DURATION OF VEGETATIVE COVER, PERMANENT SING IS REQUIRED.

SEEDING GRASS AND LEGUMES TO ESTABLISH GROUND COVER FOR A MINIMUM PERIOD OF ONE YEAR ON DISTURBED AREAS GENERALLY RECEIVING LOW MAINTENANCE.

A. SEED MIXTURES – PERMANENT SEEDING SUMMARY

<p>DETAIL 1 - STABILIZED CONSTRUCTION ENTRANCE</p> <p>CONSTRUCTION SPECIFICATIONS</p> <ol style="list-style-type: none"> LENGTH - MINIMUM OF 50' (30' FOR SINGLE RESIDENCE LOT). WIDTH - 18" MINIMUM, SHOULD BE FLARED AT THE EXISTING ROAD TO PROVIDE A TURNING RADIUS. GEOTEXTILE FABRIC (FILTER CLOTH) SHALL BE PLACED OVER THE EXISTING GROUND PRIOR TO PLACING STONE. THE PLAN APPROXIMATE AUTHORITY MAY NOT REQUIRE SINGLE FAMILY RESIDENCES TO USE GEOTEXTILE. STONE - CRUSHED AGGREGATE 2" TO 3" OR RECLAIMED OR RECYCLED CONCRETE EQUIVALENT SHALL BE PLACED AT LEAST 6" DEEP OVER THE LENGTH AND WIDTH OF THE ENTRANCE. SURFACE WATER - ALL SURFACE WATER FLOWING TO OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED THROUGH THE ENTRANCE, MAINTAINING POSITIVE DRAINAGE. PIPES INSTALLED THROUGH THE STABILIZED CONSTRUCTION ENTRANCE SHALL BE PROTECTED WITH A MOUNTAIN BERM WITH 5:1 SLOPES AND A MINIMUM OF 6" STONE OVER THE PIPE. WHEN THE SIZES LOCATED AT A HIGH SPOT AND HAS NO DRAINAGE TO CONVEY A PIPE WILL NOT BE NECESSARY. PIPES SHOULD BE SIZED ACCORDING TO THE AMOUNT OF RUNOFF TO CONVEY. A 4" MINIMUM WILL BE REQUIRED. THE MOUNTAIN BERM IS REQUIRED ON ALL SIZES LOCATED AT HIGH SPOTS. LOCATION - A STABILIZED CONSTRUCTION ENTRANCE SHALL BE LOCATED AT EVERY POINT WHERE CONSTRUCTION TRAFFIC ENTERS OR LEAVES A CONSTRUCTION SITE. VEHICLES LEAVING THE SITE MUST TRAVEL OVER THE ENTIRE LENGTH OF THE STABILIZED CONSTRUCTION ENTRANCE. <p>U.S. DEPARTMENT OF AGRICULTURE, PAGE 1-1-3, WATERSHED PROTECTION DIVISION, DISTRICT OF COLUMBIA DEPARTMENT OF HEALTH</p>	<p>DETAIL 4 - SILT FENCE</p> <p>CONSTRUCTION SPECIFICATIONS</p> <ol style="list-style-type: none"> FENCE POSTS SHALL BE A MINIMUM OF 30" LONG DRIVEN 16" MINIMUM INTO THE GROUND. WOOD POSTS SHALL BE 1 1/2" x 1 1/2" SQUARE (MINI CUT) OR 1 3/4" DIAMETER (MINI ROUND) AND SHALL BE OF SOUND QUALITY HARBORWOOD. STEEL POSTS WILL BE STANDARD T OR U SECTION WEIGHING NOT LESS THAN 100 LB PER LINEAL FOOT. GEOTEXTILE SHALL BE FASTENED SECURELY TO EACH FENCE POST WITH WIRE TIES OR STAPLES AT TOP AND MID-SECTION AND SHALL MEET THE FOLLOWING REQUIREMENTS FOR GEOTEXTILE CLASS F. TENSILE STRENGTH: 50 LB/IN (MIN); TEST: ASTM D-4896; TENSILE MODULUS: 100 LB/IN (MIN); TEST: ASTM D-4896; FLOW RATE: 0.3 GAL/72 MINUTE (MAX); TEST: ASTM D-5941; FILTERING EFFICIENCY: 70% (MIN). WHERE ENDS OF GEOTEXTILE FABRIC COME TOGETHER, THEY SHALL BE OVERLAPPED, FOLDED AND STAPLED TO PREVENT BYPASS. SILT FENCE SHALL BE INSPECTED AFTER EACH RAINFALL EVENT AND MAINTAINED WHEN BULGES OCCUR OR WHEN SEDIMENT ACCUMULATION REACHES 50% OF THE FABRIC HEIGHT. <p>U.S. DEPARTMENT OF AGRICULTURE, PAGE 4-1-3, WATERSHED PROTECTION DIVISION, DISTRICT OF COLUMBIA DEPARTMENT OF HEALTH</p>	<p>DETAIL 6A - STANDARD INLET PROTECTION</p> <p>CONSTRUCTION SPECIFICATIONS</p> <ol style="list-style-type: none"> EXCAVATE COMPLETELY AROUND THE INLET TO A DEPTH OF 18" BELOW THE NOTCH ELEVATION. DRIVE THE 2' x 4' CONSTRUCTION GRADE LUMBER POSTS 1" INTO THE GROUND AT EACH CORNER OF THE INLET. PLACE NAIL STRIPS BETWEEN THE POSTS ON THE ENDS OF THE INLET. ASSEMBLE THE TOP PORTION OF THE 2' x 4' FRAME USING THE OVERLAP JOINT SHOWN ON DETAIL 6A. THE TOP OF THE FRAME (NEED) MUST BE 6" BELOW ADJACENT ROADWAYS WHERE FLOODING AND SAFETY ISSUES MAY ARISE. STRETCH THE 1/2" x 1/2" WIRE MESH TIGHTLY AROUND THE FRAME AND FASTEN SECURELY. THE ENDS MUST MEET AND OVERLAP AT A POST. STRETCH THE GEOTEXTILE CLASS E TIGHTLY OVER THE WIRE MESH WITH THE GEOTEXTILE EXTENDING FROM THE TOP OF THE FRAME TO 18" BELOW THE INLET NOTCH ELEVATION. FASTEN THE GEOTEXTILE FIRMLY TO THE FRAME. THE ENDS OF THE GEOTEXTILE MUST MEET AT A POST. BE OVERLAPPED AND FOLDED THAN FASTENING JOINT. BACKFILL AROUND THE INLET IN COMPACTING 4" LAYERS UNTIL THE LAYER OF EARTH IS LEVEL WITH THE NOTCH ELEVATION ON THE ENDS AND TOP ELEVATION ON THE SIDES. IF THE INLET IS NOT IN A SANDP. CONSTRUCT A COMPACTED EARTH DIKE ACROSS THE DITCH LINE DIRECTLY BELOW IT. THE TOP OF THE EARTH DIKE SHOULD BE AT LEAST 6" HIGHER THAN THE TOP OF THE FRAME. THE STRUCTURE MUST BE INSPECTED PERIODICALLY AND AFTER EACH RAIN AND THE GEOTEXTILE REPLACED WHEN IT BECOMES CLOGGED. <p>U.S. DEPARTMENT OF AGRICULTURE, PAGE 6A-1-3, WATERSHED PROTECTION DIVISION, DISTRICT OF COLUMBIA DEPARTMENT OF HEALTH</p>	<p>DETAIL 6B - AT GRADE INLET PROTECTION</p> <p>CONSTRUCTION SPECIFICATIONS</p> <ol style="list-style-type: none"> LIST GRATE AND WRAP WITH GEOTEXTILE CLASS E TO COMPLETELY COVER ALL OPENINGS. THEN SET GRATE BACK IN PLACE. PLACE 3/4" TO 1 1/2" STONE, 4"-6" THICK ON THE GRATE TO SECURE THE FABRIC AND PROVIDE ADDITIONAL FILLATION. <p>U.S. DEPARTMENT OF AGRICULTURE, PAGE 6B-1-3, WATERSHED PROTECTION DIVISION, DISTRICT OF COLUMBIA DEPARTMENT OF HEALTH</p>	<p>DETAIL 6C - CURB INLET PROTECTION (COG OR COS INLETS)</p> <p>CONSTRUCTION SPECIFICATIONS</p> <ol style="list-style-type: none"> ATTACH A CONTINUOUS PIECE OF WIRE MESH (30" MINIMUM WIDTH BY THROAT LENGTH PLUS 4") TO THE 2' x 4" WIRE (MEASURING THROAT LENGTH 2") AS SHOWN ON THE STANDARD DRAWING. PLACE A CONTINUOUS PIECE OF GEOTEXTILE CLASS E THE SAME DIMENSIONS AS THE WIRE MESH OVER THE WIRE MESH AND SECURELY ATTACH IT TO THE 2' x 4" WIRE. SECURELY NAIL THE 2' x 4" WIRE TO A 10" LONG VERTICAL SPACER TO BE LOCATED BETWEEN THE WIRE AND THE INLET FACE (MAX. 4" APART). PLACE THE ASSEMBLY AGAINST THE INLET THROAT AND NAIL (MINIMUM 2" LENGTHS OF 2" x 4" TO THE TOP OF THE WIRE AT SPACER LOCATIONS). THESE 2' x 4" ANCHORS SHALL EXTEND ACROSS THE INLET TUB TO BE HELD IN PLACE BY SANDBAGS OR ALTERNATE WEIGHT. FORM THE 1/2" x 1/2" WIRE MESH AND THE GEOTEXTILE FABRIC TO THE CONCRETE OUTLET AND AGAINST THE FACE OF THE CURB ON BOTH SIDES OF THE INLET. PLACE CLEAN 3/4" x 1 1/2" STONE OVER THE WIRE MESH AND GEOTEXTILE IN SUCH A MANNER TO PREVENT WATER FROM ENTERING THE INLET UNDER OR AROUND THE GEOTEXTILE. THIS TYPE OF PROTECTION MUST BE INSPECTED PERIODICALLY AND THE FILTER CLOTH AND STONE REPAIRED WHEN CLOGGED WITH SEDIMENT. ASSURE THAT THE STORM FLOW DOES NOT BYPASS THE INLET BY INSTALLING A TEMPORARY CURB OR ASPHALT CURB TO DIRECT THE FLOW TO THE INLET. <p>U.S. DEPARTMENT OF AGRICULTURE, PAGE 6C-1-3, WATERSHED PROTECTION DIVISION, DISTRICT OF COLUMBIA DEPARTMENT OF HEALTH</p>	<p>DETAIL 22 - SEDIMENT BASIN/TRAP BAFFLES</p> <p>CONSTRUCTION SPECIFICATIONS</p> <ol style="list-style-type: none"> THE FOLLOWING FORMULA SHOULD BE USED IN DETERMINING THE STORAGE VOLUME OF THE SEDIMENT TANK: 1 CUBIC FOOT OF STORAGE FOR EACH GALLON PER MINUTE OF PUMP DISCHARGE CAPACITY. AN EXAMPLE OF A TYPICAL SEDIMENT TANK IS SHOWN ABOVE. OTHER CONTAINER DESIGNS CAN BE USED IF THE STORAGE VOLUME IS ADEQUATE AND APPROVAL IS OBTAINED FROM THE LOCAL APPROVING AGENCY. TANKS MAY BE CONNECTED IN SERIES. <p>U.S. DEPARTMENT OF AGRICULTURE, PAGE 22-1-3, WATERSHED PROTECTION DIVISION, DISTRICT OF COLUMBIA DEPARTMENT OF HEALTH</p>	<p>DETAIL 74 - TREE PROTECTION</p> <p>TEMPORARY MEASURES</p> <p>FINAL MEASURES</p> <p>CONSTRUCTION SPECIFICATIONS</p> <ol style="list-style-type: none"> ALL PROTECTIVE FENCING SHALL EXTEND BEYOND THE TREE DAPLINE. ALL PROTECTIVE FENCING SHALL EXTEND BEYOND THE TREE DAPLINE. <p>U.S. DEPARTMENT OF AGRICULTURE, PAGE 74-1-3, WATERSHED PROTECTION DIVISION, DISTRICT OF COLUMBIA DEPARTMENT OF HEALTH</p>
<p>DETAIL 6D - MEDIAN INLET PROTECTION</p> <p>CONSTRUCTION SPECIFICATIONS</p> <ol style="list-style-type: none"> FENCE POSTS SHALL BE 30" (MIN) LONG, DRIVEN 16" INTO THE GROUND AND SPACED 5' (MAX) APART. WOOD POSTS SHALL BE 1 1/2" x 1 1/2" SQUARE (MINI CUT) OR 1 3/4" (MIN) DIAMETER (MINI ROUND) AND SHALL BE OF SOUND QUALITY HARBORWOOD. STEEL POSTS SHALL BE STANDARD T OR U SECTION WEIGHING NOT LESS THAN 100 LB/IN LINEAL FOOT. GEOTEXTILE CLASS F SHALL BE FASTENED SECURELY TO EACH POST WITH WIRE TIES OR STAPLES AT TOP AND MID-SECTION. WHERE ENDS OF GEOTEXTILE FABRIC COME TOGETHER THEY SHALL BE OVERLAPPED, FOLDED AND STAPLED TO PREVENT BYPASS. MEDIAN INLET PROTECTION SHALL BE INSPECTED AFTER EACH RAIN AND MAINTAINED WHEN BULGES OCCUR IN THE FABRIC OR WHEN THE STONE GETS CLOGGED. STONE USED TO CONSTRUCT THE NEER SHALL BE 4"-7" WITH A 1" THICK LAYER OF 3/4"-1 1/2" STONE ON THE UPSHORE FACE. <p>U.S. DEPARTMENT OF AGRICULTURE, PAGE 6D-1-3, WATERSHED PROTECTION DIVISION, DISTRICT OF COLUMBIA DEPARTMENT OF HEALTH</p>	<p>DETAIL 6E - AT GRADE INLET GUARD</p> <p>CONSTRUCTION SPECIFICATIONS</p> <ol style="list-style-type: none"> THE TOP MEASUREMENT OF 7-1/2" IS SET TO PROVIDE A 2" EXTENSION FOR OVERFLOW WHILE AVOIDING BLOCKAGE OF THE MANHOLE COVER. MAKE A WATER TIGHT CONNECTION ALONG THE SIDES AND BOTTOM OF THE INLET GUARD WITH THE STREET AND CURB. <p>U.S. DEPARTMENT OF AGRICULTURE, PAGE 6E-1-3, WATERSHED PROTECTION DIVISION, DISTRICT OF COLUMBIA DEPARTMENT OF HEALTH</p>	<p>DETAIL 9 - EARTH DIKE</p> <p>CONSTRUCTION SPECIFICATIONS</p> <ol style="list-style-type: none"> SEED AND COVER WITH STRAW MULCH. SEED AND COVER WITH SOIL STABILIZATION MATTING OR LINE WITH SOIL. 3/4"-1" STONE OR RECYCLED CONCRETE EQUIVALENT PRESSED INTO THE SOIL 7" MINIMUM. <p>U.S. DEPARTMENT OF AGRICULTURE, PAGE 9-1-3, WATERSHED PROTECTION DIVISION, DISTRICT OF COLUMBIA DEPARTMENT OF HEALTH</p>	<p>DETAIL 11 - PERIMETER DIKE / SWALE</p> <p>CONSTRUCTION SPECIFICATIONS</p> <ol style="list-style-type: none"> ALL PERIMETER DIKE/SWALES SHALL HAVE AN UNDISTURBED POSITIVE GRADE TO AN OUTLET. SPOT ELEVATIONS MAY BE NECESSARY FOR GRADES LESS THAN 1%. RUNOFF DIVERTED FROM A DISTURBED AREA SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE. RUNOFF DIVERTED FROM AN UNDISTURBED AREA SHALL OUTLET DIRECTLY INTO AN UNDISTURBED, STABILIZED AREA AT A NON-EROSIVE VELOCITY. ALL TREES, BRUSH, STAMPS, OBSTRUCTIONS, AND OTHER OBJECTIONABLE MATERIAL SHALL BE REMOVED AND DISPOSED OF 50' AS NOT TO INTERFERE WITH THE PROPER FUNCTIONING OF THE DIKE. THE DIKE SHALL BE EXCAVATED OR SHAPED TO LINE, GRADE AND CROSS-SECTION AS REQUIRED TO MEET THE CRITERIA SPECIFIED HEREIN AND BE FREE OF BANK PROJECTIONS OR OTHER IRREGULARITIES WHICH WILL IMPED EARTH MOVEMENT. FILL SHALL BE COMPACTED BY EARTH MOVING EQUIPMENT. ALL EARTH REMOVED AND NOT NEEDED FOR CONSTRUCTION SHALL BE PLACED SO THAT IT WILL NOT INTERFERE WITH THE FUNCTIONING OF THE DIKE. INSPECTION AND MAINTENANCE MUST BE PROVIDED PERIODICALLY AND AFTER EACH RAIN EVENT. <p>U.S. DEPARTMENT OF AGRICULTURE, PAGE 11-1-3, WATERSHED PROTECTION DIVISION, DISTRICT OF COLUMBIA DEPARTMENT OF HEALTH</p>	<p>DETAIL 12 - PIPE OUTLET SEDIMENT TRAP - ST I</p> <p>CONSTRUCTION SPECIFICATIONS</p> <ol style="list-style-type: none"> THE AREA UNDER THE EMBANKMENT SHALL BE CLEARED, GRUBBED AND STRIPPED OF ANY VEGETATION AND ROOT MAT. THE POOL AREA SHALL BE CLEARED. THE FILL MATERIAL FOR THE EMBANKMENT SHALL BE FREE OF ROOTS OR OTHER WOODY VEGETATION AS WELL AS OVER-SIZED STONES, ROCKS, ORGANIC MATERIAL, OR OTHER OBJECTIONABLE MATERIAL. THE EMBANKMENT SHALL BE COMPACTED BY TRAVELING WITH EQUIPMENT WHILE IT IS BEING CONSTRUCTED. THE TOTAL VOLUME AS MEASURED FROM THE BOTTOM TO RISER CREST ELEVATION SHALL BE 3000 CUBIC FEET PER ACRE OF DRAINAGE AREA (SEE TABLE 1). THE TOP OF EMBANKMENT MUST BE 2' ABOVE THE RISER CREST ELEVATION. SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE HALF OF THE NET STORAGE DEPTH OF THE TRAP (500 CUBIC FEET). THE SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE. THE STRUCTURE SHALL BE INSPECTED PERIODICALLY AND AFTER EACH RAIN AND REPAIRS. <p>U.S. DEPARTMENT OF AGRICULTURE, PAGE 12-1-3, WATERSHED PROTECTION DIVISION, DISTRICT OF COLUMBIA DEPARTMENT OF HEALTH</p>	<p>DETAIL 34 - PORTABLE SEDIMENT TANK (HORIZONTAL)</p> <p>CONSTRUCTION SPECIFICATIONS</p> <ol style="list-style-type: none"> THE FOLLOWING FORMULA SHOULD BE USED IN DETERMINING THE STORAGE VOLUME OF THE SEDIMENT TANK: 1 CUBIC FOOT OF STORAGE FOR EACH GALLON PER MINUTE OF PUMP DISCHARGE CAPACITY. AN EXAMPLE OF A TYPICAL SEDIMENT TANK IS SHOWN ABOVE. OTHER CONTAINER DESIGNS CAN BE USED IF THE STORAGE VOLUME IS ADEQUATE AND APPROVAL IS OBTAINED FROM THE LOCAL APPROVING AGENCY. TANKS MAY BE CONNECTED IN SERIES. <p>U.S. DEPARTMENT OF AGRICULTURE, PAGE 34-1-3, WATERSHED PROTECTION DIVISION, DISTRICT OF COLUMBIA DEPARTMENT OF HEALTH</p>	
<p>PIPE OUTLET SEDIMENT TRAP - ST I</p> <p>CONSTRUCTION SPECIFICATIONS</p> <ol style="list-style-type: none"> CONSTRUCTION OPERATIONS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION ARE ABATED. ONCE CONSTRUCTED, THE TOP AND OUTSIDE FACE OF THE EMBANKMENT SHALL BE STABILIZED WITH SEED AND MULCH. POINTS OF CONCENTRATED INFLOW SHALL BE PROTECTED IN ACCORDANCE WITH GRADE STABILIZATION STRUCTURE CRITERIA. THE REMAINDER OF THE INTERIOR SLOPES SHOULD BE STABILIZED (ONE TIME) WITH SEED AND MULCH UPON TRAP COMPLETION AND MONITORED AND MAINTAINED EROSION FREE USING THE LIFE OF THE TRAP. THE STRUCTURE SHALL BE REMOVED AND AREA STABILIZED WHEN THE DRAINAGE AREA HAS BEEN PROPERLY STABILIZED. ALL OUT AND FILL SLOPES SHALL BE 2:1 OR FLATTER. ALL PIPE CONNECTIONS SHALL BE WATER TIGHT. ABOVE THE NET STORAGE ELEVATION, THE RISER SHALL BE VERTICALLY WITH 1/2" WIDE BY 6" LONG SLOTS OR 1" DIAMETER HOLES SPACED 6" PERFORED AND HORIZONTAL. NO PERFORATIONS WILL BE ALLOWED WITHIN 6" OF THE HORIZONTAL BARREL. THE RISER SHALL BE WRAPPED WITH 1/2" HARDWARE CLOTH (WIRE) THEN WRAPPED WITH GEOTEXTILE CLASS E. THE FILTER CLOTH SHALL EXTEND 4" ABOVE THE HIGHEST SLOT AND 6" BELOW THE LOWEST SLOT. WHERE ENDS OF FILTER CLOTH COME TOGETHER, THEY SHALL BE OVERLAPPED, FOLDED AND FASTENED TO PREVENT BYPASS. FILTER CLOTH SHALL BE REPLACED AS NECESSARY TO PREVENT CLOGGING. STRAPS OR CONNECTING BANDS SHALL BE USED TO HOLD THE FILTER CLOTH AND WIRE FABRIC IN PLACE. THEY SHALL BE PLACED AT THE TOP AND BOTTOM OF THE CLOTH. LAYERS AROUND THE PIPE SPILLWAY SHALL BE HAND COMPACTED IN 4" LAYERS. A MINIMUM OF 2" OF HAND-COMPACTED BACKFILL SHALL BE PLACED OVER THE PIPE SPILLWAY BEFORE CROSSING IT WITH CONSTRUCTION EQUIPMENT. THE RISER SHALL BE ANCHORED WITH EITHER A CONCRETE BASE OR STEEL PLATE BASE TO PREVENT FLOTATION. CONCRETE BASES SHALL BE AT LEAST TWICE THE RISER DIAMETER, 1/4" MINIMUM THICKNESS AND ATTACHED TO THE BOTTOM OF THE RISER BY A CONTINUOUS WELD TO FORM A WATER TIGHT CONNECTION. THEY PLACE 2" OF STONE, GRAVEL OR TAMPED EARTH ON THE PLATE. ANTI SEEP COLLARS SHALL BE CONSTRUCTED IN ACCORDANCE WITH PLANS (REF. TABLE 18 AND DETAILS 17 AND 18). SEDIMENT SHALL BE REMOVED AND TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE HALF OF THE NET STORAGE DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE. <p>U.S. DEPARTMENT OF AGRICULTURE, PAGE 12-1-3, WATERSHED PROTECTION DIVISION, DISTRICT OF COLUMBIA DEPARTMENT OF HEALTH</p>	<p>DETAIL 13 - STONE OUTLET SEDIMENT TRAP - ST II</p> <p>CONSTRUCTION SPECIFICATIONS</p> <ol style="list-style-type: none"> THE AREA UNDER EMBANKMENT SHALL BE CLEARED, GRUBBED AND STRIPPED OF ANY VEGETATION AND ROOT MAT. THE POOL AREA SHALL BE CLEARED. THE FILL MATERIAL FOR THE EMBANKMENT SHALL BE FREE OF ROOTS AND OTHER WOODY VEGETATION AS WELL AS OVER-SIZED STONES, ROCKS, ORGANIC MATERIAL, OR OTHER OBJECTIONABLE MATERIAL. THE EMBANKMENT SHALL BE COMPACTED BY TRAVELING WITH EQUIPMENT WHILE IT IS BEING CONSTRUCTED. ALL OUT AND FILL SLOPES SHALL BE 2:1 OR FLATTER. SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE HALF OF THE NET STORAGE DEPTH OF THE TRAP (1500 CUBIC FEET). THE SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE. THE STRUCTURE SHALL BE INSPECTED PERIODICALLY AND AFTER EACH RAIN AND REPAIRS AS NEEDED. CONSTRUCTION OF TRAPS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION ARE ABATED. ONCE CONSTRUCTED, THE TOP AND OUTSIDE FACE OF THE EMBANKMENT SHALL BE STABILIZED WITH SEED AND MULCH. POINTS OF CONCENTRATED INFLOW SHALL BE PROTECTED IN ACCORDANCE WITH GRADE STABILIZATION STRUCTURE CRITERIA. THE REMAINDER OF THE INTERIOR SLOPES SHOULD BE STABILIZED (ONE TIME) WITH SEED AND MULCH UPON TRAP COMPLETION AND MONITORED AND MAINTAINED EROSION FREE DURING THE LIFE OF THE TRAP. THE STRUCTURE SHALL BE DETAILED BY APPROVED METHODS, REMOVED AND THE AREA STABILIZED WHEN THE DRAINAGE AREA HAS BEEN PROPERLY STABILIZED. REFER TO SECTION C FOR SPECIFICATIONS CONCERNING TRAP DEWATERING. MINIMUM TRAP DEPTH SHALL BE MEASURED FROM THE NEAR ELEVATION. THE ELEVATION OF THE TOP OF ANY DIKE DIRECTING WATER INTO THE TRAP MUST EQUAL OR EXCEED THE ELEVATION OF THE TRAP EMBANKMENT. GEOTEXTILE CLASS SE SHALL BE PLACED OVER THE BOTTOM AND SIDES OF THE OUTLET CHANNEL PRIOR TO THE PLACEMENT OF STONE. SECTIONS OF FILTER CLOTH MUST OVERLAP AT LEAST 1" WITH THE SECTION NEAREST THE ENTRANCE PLACED ON TOP. THE FILTER CLOTH SHALL BE EMBEDDED AT LEAST 6" INTO EXISTING GROUND AT THE ENTRANCE OF THE OUTLET CHANNEL. OUTLET - AN OUTLET SHALL BE PROVIDED, INCLUDING A MEANS OF CONVEYING THE DISCHARGE IN AN EROSION FREE MANNER TO AN EXISTING STABLE CHANNEL. SEDIMENT SHALL BE REMOVED AND TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE HALF OF THE NET STORAGE DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE. <p>U.S. DEPARTMENT OF AGRICULTURE, PAGE 13-1-3, WATERSHED PROTECTION DIVISION, DISTRICT OF COLUMBIA DEPARTMENT OF HEALTH</p>	<p>STONE OUTLET SEDIMENT TRAP - ST II</p> <p>CONSTRUCTION SPECIFICATIONS</p> <ol style="list-style-type: none"> THE AREA UNDER EMBANKMENT SHALL BE CLEARED, GRUBBED AND STRIPPED OF ANY VEGETATION AND ROOT MAT. THE POOL AREA SHALL BE CLEARED. THE FILL MATERIAL FOR THE EMBANKMENT SHALL BE FREE OF ROOTS AND OTHER WOODY VEGETATION AS WELL AS OVER-SIZED STONES, ROCKS, ORGANIC MATERIAL, OR OTHER OBJECTIONABLE MATERIAL. THE EMBANKMENT SHALL BE COMPACTED BY TRAVELING WITH EQUIPMENT WHILE IT IS BEING CONSTRUCTED. ALL OUT AND FILL SLOPES SHALL BE 2:1 OR FLATTER. SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE HALF OF THE NET STORAGE DEPTH OF THE TRAP (1500 CUBIC FEET). THE SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE. THE STRUCTURE SHALL BE INSPECTED PERIODICALLY AND AFTER EACH RAIN AND REPAIRS AS NEEDED. CONSTRUCTION OF TRAPS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION ARE ABATED. ONCE CONSTRUCTED, THE TOP AND OUTSIDE FACE OF THE EMBANKMENT SHALL BE STABILIZED WITH SEED AND MULCH. POINTS OF CONCENTRATED INFLOW SHALL BE PROTECTED IN ACCORDANCE WITH GRADE STABILIZATION STRUCTURE CRITERIA. THE REMAINDER OF THE INTERIOR SLOPES SHOULD BE STABILIZED (ONE TIME) WITH SEED AND MULCH UPON TRAP COMPLETION AND MONITORED AND MAINTAINED EROSION FREE DURING THE LIFE OF THE TRAP. THE STRUCTURE SHALL BE DETAILED BY APPROVED METHODS, REMOVED AND THE AREA STABILIZED WHEN THE DRAINAGE AREA HAS BEEN PROPERLY STABILIZED. REFER TO SECTION C FOR SPECIFICATIONS CONCERNING TRAP DEWATERING. MINIMUM TRAP DEPTH SHALL BE MEASURED FROM THE NEAR ELEVATION. THE ELEVATION OF THE TOP OF ANY DIKE DIRECTING WATER INTO THE TRAP MUST EQUAL OR EXCEED THE ELEVATION OF THE TRAP EMBANKMENT. GEOTEXTILE CLASS SE SHALL BE PLACED OVER THE BOTTOM AND SIDES OF THE OUTLET CHANNEL PRIOR TO THE PLACEMENT OF STONE. SECTIONS OF FILTER CLOTH MUST OVERLAP AT LEAST 1" WITH THE SECTION NEAREST THE ENTRANCE PLACED ON TOP. THE FILTER CLOTH SHALL BE EMBEDDED AT LEAST 6" INTO EXISTING GROUND AT THE ENTRANCE OF THE OUTLET CHANNEL. OUTLET - AN OUTLET SHALL BE PROVIDED, INCLUDING A MEANS OF CONVEYING THE DISCHARGE IN AN EROSION FREE MANNER TO AN EXISTING STABLE CHANNEL. SEDIMENT SHALL BE REMOVED AND TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE HALF OF THE NET STORAGE DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE. <p>U.S. DEPARTMENT OF AGRICULTURE, PAGE 13-1-3, WATERSHED PROTECTION DIVISION, DISTRICT OF COLUMBIA DEPARTMENT OF HEALTH</p>	<p>DETAIL 14 - RIP-RAP OUTLET SEDIMENT TRAP - ST III</p> <p>CONSTRUCTION SPECIFICATIONS</p> <ol style="list-style-type: none"> THE AREA UNDER EMBANKMENT SHALL BE CLEARED, GRUBBED AND STRIPPED OF ANY VEGETATION AND ROOT MAT. THE POOL AREA SHALL BE CLEARED. THE FILL MATERIAL FOR THE EMBANKMENT SHALL BE FREE OF ROOTS OR OTHER WOODY VEGETATION AS WELL AS OVER-SIZED STONES, ROCKS, ORGANIC MATERIAL, OR OTHER OBJECTIONABLE MATERIAL. THE EMBANKMENT SHALL BE COMPACTED BY TRAVELING WITH EQUIPMENT WHILE IT IS BEING CONSTRUCTED. ALL OUT AND FILL SLOPES SHALL BE 2:1 OR FLATTER. ELEVATION OF THE TOP OF ANY DIKE DIRECTING WATER INTO TRAP MUST EQUAL OR EXCEED THE HEIGHT OF TRAP EMBANKMENT. STORAGE AREA PROVIDED SHALL BE FIGURED BY COMPUTING THE VOLUME MEASURED FROM TOP OF EXCAVATION (FOR STORAGE REQUIREMENTS SEE TABLE 12). FILTER CLOTH SHALL BE PLACED OVER THE BOTTOM AND SIDES OF THE OUTLET CHANNEL PRIOR TO PLACEMENT OF STONE. SECTION OF FABRIC MUST OVERLAP AT LEAST 1" WITH SECTION NEAREST THE ENTRANCE PLACED ON TOP. FABRIC SHALL BE EMBEDDED AT LEAST 6" INTO EXISTING GROUND AT ENTRANCE OF OUTLET CHANNEL. STONE USED IN THE OUTLET CHANNEL SHALL BE 4" - 12" PLACED 18" THICK. OUTLET - AN OUTLET SHALL BE PROVIDED, WHICH INCLUDES A MEANS OF CONVEYING THE DISCHARGE IN AN EROSION FREE MANNER TO AN EXISTING STABLE CHANNEL. PROTECTION AGAINST COLLAPSE AT THE DISCHARGE AND SHALL BE PROVIDED AS NECESSARY. OUTLET CHANNEL MUST HAVE POSITIVE DRAINAGE FROM THE TRAP. SEDIMENT SHALL BE REMOVED AND TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE HALF OF THE NET STORAGE DEPTH OF THE TRAP (1500 CUBIC FEET). THE SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE. THE STRUCTURE SHALL BE INSPECTED PERIODICALLY AND AFTER EACH RAIN AND REPAIRS AS NEEDED. CONSTRUCTION OF TRAPS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION ARE ABATED. ONCE CONSTRUCTED, THE TOP AND OUTSIDE FACE OF THE EMBANKMENT SHALL BE STABILIZED WITH SEED AND MULCH. POINTS OF CONCENTRATED INFLOW SHALL BE PROTECTED IN ACCORDANCE WITH GRADE STABILIZATION STRUCTURE CRITERIA. THE REMAINDER OF THE INTERIOR SLOPES SHOULD BE STABILIZED (ONE TIME) WITH SEED AND MULCH UPON TRAP COMPLETION AND MONITORED AND MAINTAINED EROSION FREE DURING THE LIFE OF THE TRAP. THE STRUCTURE SHALL BE DETAILED BY APPROVED METHODS, REMOVED AND THE AREA STABILIZED WHEN THE DRAINAGE AREA HAS BEEN PROPERLY STABILIZED. <p>U.S. DEPARTMENT OF AGRICULTURE, PAGE 14-1-3, WATERSHED PROTECTION DIVISION, DISTRICT OF COLUMBIA DEPARTMENT OF HEALTH</p>	<p>RIP-RAP OUTLET SEDIMENT TRAP - ST III</p> <p>CONSTRUCTION SPECIFICATIONS</p> <ol style="list-style-type: none"> THE AREA UNDER EMBANKMENT SHALL BE CLEARED, GRUBBED AND STRIPPED OF ANY VEGETATION AND ROOT MAT. THE POOL AREA SHALL BE CLEARED. THE FILL MATERIAL FOR THE EMBANKMENT SHALL BE FREE OF ROOTS OR OTHER WOODY VEGETATION AS WELL AS OVER-SIZED STONES, ROCKS, ORGANIC MATERIAL, OR OTHER OBJECTIONABLE MATERIAL. THE EMBANKMENT SHALL BE COMPACTED BY TRAVELING WITH EQUIPMENT WHILE IT IS BEING CONSTRUCTED. ALL OUT AND FILL SLOPES SHALL BE 2:1 OR FLATTER. ELEVATION OF THE TOP OF ANY DIKE DIRECTING WATER INTO TRAP MUST EQUAL OR EXCEED THE HEIGHT OF TRAP EMBANKMENT. STORAGE AREA PROVIDED SHALL BE FIGURED BY COMPUTING THE VOLUME MEASURED FROM TOP OF EXCAVATION (FOR STORAGE REQUIREMENTS SEE TABLE 12). FILTER CLOTH SHALL BE PLACED OVER THE BOTTOM AND SIDES OF THE OUTLET CHANNEL PRIOR TO PLACEMENT OF STONE. SECTION OF FABRIC MUST OVERLAP AT LEAST 1" WITH SECTION NEAREST THE ENTRANCE PLACED ON TOP. FABRIC SHALL BE EMBEDDED AT LEAST 6" INTO EXISTING GROUND AT ENTRANCE OF OUTLET CHANNEL. STONE USED IN THE OUTLET CHANNEL SHALL BE 4" - 12" PLACED 18" THICK. OUTLET - AN OUTLET SHALL BE PROVIDED, WHICH INCLUDES A MEANS OF CONVEYING THE DISCHARGE IN AN EROSION FREE MANNER TO AN EXISTING STABLE CHANNEL. PROTECTION AGAINST COLLAPSE AT THE DISCHARGE AND SHALL BE PROVIDED AS NECESSARY. OUTLET CHANNEL MUST HAVE POSITIVE DRAINAGE FROM THE TRAP. SEDIMENT SHALL BE REMOVED AND TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE HALF OF THE NET STORAGE DEPTH OF THE TRAP (1500 CUBIC FEET). THE SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE. THE STRUCTURE SHALL BE INSPECTED PERIODICALLY AND AFTER EACH RAIN AND REPAIRS AS NEEDED. CONSTRUCTION OF TRAPS SHALL BE CARRIED OUT IN SUCH A MANNER THAT EROSION AND WATER POLLUTION ARE ABATED. ONCE CONSTRUCTED, THE TOP AND OUTSIDE FACE OF THE EMBANKMENT SHALL BE STABILIZED WITH SEED AND MULCH. POINTS OF CONCENTRATED INFLOW SHALL BE PROTECTED IN ACCORDANCE WITH GRADE STABILIZATION STRUCTURE CRITERIA. THE REMAINDER OF THE INTERIOR SLOPES SHOULD BE STABILIZED (ONE TIME) WITH SEED AND MULCH UPON TRAP COMPLETION AND MONITORED AND MAINTAINED EROSION FREE DURING THE LIFE OF THE TRAP. THE STRUCTURE SHALL BE DETAILED BY APPROVED METHODS, REMOVED AND THE AREA STABILIZED WHEN THE DRAINAGE AREA HAS BEEN PROPERLY STABILIZED. <p>U.S. DEPARTMENT OF AGRICULTURE, PAGE 14-1-3, WATERSHED PROTECTION DIVISION, DISTRICT OF COLUMBIA DEPARTMENT OF HEALTH</p>	<p>DETAIL 35 - PORTABLE SEDIMENT TANK (VERTICAL)</p> <p>CONSTRUCTION SPECIFICATIONS</p> <ol style="list-style-type: none"> THE FOLLOWING FORMULA SHOULD BE USED IN DETERMINING THE STORAGE VOLUME OF THE SEDIMENT TANK: 1 CUBIC FOOT OF STORAGE FOR EACH GALLON PER MINUTE OF PUMP DISCHARGE CAPACITY. AN EXAMPLE OF A TYPICAL SEDIMENT TANK IS SHOWN ABOVE. OTHER CONTAINER DESIGNS CAN BE USED IF THE STORAGE VOLUME IS ADEQUATE AND APPROVAL IS OBTAINED FROM THE LOCAL APPROVING AGENCY. TANKS MAY BE CONNECTED IN SERIES. <p>U.S. DEPARTMENT OF AGRICULTURE, PAGE 35-1-3, WATERSHED PROTECTION DIVISION, DISTRICT OF COLUMBIA DEPARTMENT OF HEALTH</p>	

GREEN COMMUNITIES PROJECT OVERVIEW WORKSHEET			
Project Name	McMillan	Organization Name	MV&A Architects
Project Address	1st Street NW	Organization Contact	James Voelzke
Project Status	Schematic	Date	18-May-15
<p>PROJECT OVERVIEW WORKSHEET: This document provides a brief overview of the building, including major systems. It is considered a quick way to assess the context in which the Green Communities criteria will be implemented. Please provide the basic building information as requested below.</p> <p>This worksheet must be filled out and submitted before the construction start date. For additional information on how to submit go to www.greencommunitiesonline.org/tools/certification/</p> <p>**Gray text within the spreadsheet indicates the type of information that could occupy that cell. It is not intended to be left in your final submission documents.</p>			

Building Overview				
BUILDING ENVELOPE	Primary Envelope Material	Brick / Metal Panel		
	Foundation	N/A - Foundation is in commercial section - assume Green Communities does not apply		
	Wall(s)	Residential portion - R13 + R3.8 CI required / provided for wood frame, min R11.4 CI required / provided for opaque walls		
	Roof	Thermoplastic membrane roofing on wood trusses - R38 min. required / provided		
	Windows	Residential windows , U = 0.45, air infiltration rate 0.20cfm / sf, SHGC = 0.40		
	Doors	Residential Doors, U=0.77, air infiltration rate = 0.20cfm / sf		
MECHANICAL SYSTEMS		System Type	Fuel Type	Additional Explanation (i.e. multiple systems, alternative fuel source)
	Heating System	Air Source Heat Pump	Electricity	
	Cooling System	Air Source Heat Pump	Electricity	
	Hot Water	Stand Alone Individual Tank	Electricity	
	Alternative Water Sources	If applicable, please identify any systems for alternative water sources and the expected volume to subsidize municipal supply		
	Ventilation	Please identify systems and measures as required by your building code to ensure proper indoor air quality		

Building Data		
BUILDING DATA	Tenancy	
	Current occupancy percentage	n/a
	Year of Most Recent Substantial Rehabilitation or Adaptive Reuse	n/a
	Does the building contain the following?	
	Hallways/lobbies/stairwells	Yes
	Elevator	Yes
	Community room(s)	Yes
	Basement	Yes
	Laundry room(s)	No
	Office(s)	Yes
	Commercial kitchen	No
	Exercise room	Yes
	Swimming pool	Yes
	Parking garage (indoor)	Yes
	Parking lot (outdoor)	No
	Irrigated Lawn/Landscaping	Yes
	Retail Space(s)	Yes
	Who pays tenant electricity, cooling, heating and hot water?	Tenant
	Electric Meter Type	Master w/ sub meters
	Natural Gas Meter Type	Master w/ sub meters
Water Meter Type	Master w/ sub meters	
Fuel for Clothes Dryers	Electric	
Number of units w/ in-unit laundry	TBD	
Total number of common laundry rooms	0	
Total number of elevators	TBD	

Building Code(s) and applicable Green Building/Public Incentive Programs	
Enter the Building Code(s), Energy Code, Green Building Standard(s), and/or Public Incentive program you are required to build in compliance with.	
Building Code	IBC 2015
Energy Code	IEC 2012 Energy Code
Green Building standard	Green Communities
Public Incentive program	

Project Name McMillan Organization Name MV&A Architects
 Project Address 1st Street NW Organization Contact James Voelzke
 Project Status Schematic Date 5/18/2015
INTENDED METHODS WORKSHEET: This worksheet identifies how the project team intends to incorporate all the Mandatory and adequate number of Optional Criteria into the development.
 This worksheet must be filled out and submitted before the construction start date. For additional information on how to submit go to www.greencommunitiesonline.org/tools/certification/
INSTRUCTIONS:
 1) Select an answer provided in the drop-down menu under Column D ("How Criterion will be implemented") for each criterion.
 2) Explain special circumstances or request a waiver using Column E ("If necessary, describe deviations from intended approach"). This may include information on an approach proposed by the project team that does not appear as an option in the drop-down menu.
 3) Indicate where the Criterion references can be found within the project documents in Column F and G ("Criteria Documentation"). This is required for Criterion 1.1b
 4) Indicate the project team member who is responsible for documenting and ensuring the completion of the Criterion under Column 'H' (Champion).
 5) Indicate the number of optional points being pursued by completing Column H ("Intended Points").
 6) Complete by signing the Green Development Agreement at the bottom of this worksheet, which identifies the responsibilities of each project member by Green Communities Criteria category.

** Gray text within the spreadsheet (under "Green Development Agreement" section at bottom) indicates the type of information that could occupy that cell. It is not intended to be left in your final submission documents.

1: INTEGRATIVE DESIGN

Criteria Item	How Criterion will be implemented	If necessary, provide additional information or explanation of alternative approach to meeting this measure	Criteria Documentation		Champion	Intended Points
			Location of Measure in Project Documents	Spec page number / plan type for locating measure		
1.1a Green Development Plan: Integrative Design Meetings	The project team has conducted one or more integrative design meetings(s) and submitted a Green Development Plan or equivalent documentation	Integrated Team Meetings and a Design Community Charrette will be conducted.			Green Building Specialist	M
1.1b Green Development Plan: Criteria Documentation	The project team will create design and construction documentation (i.e. plans, details, and specifications) to include information on implementation of appropriate Enterprise Green Communities Criteria	Documentation is in development.	Project Plans and Specifications		Green Building Specialist	M
1.2a Universal Design (New Construction only)	The project team designed a minimum of 15% of the dwelling units in accordance with ICC/ANSI A117.1, Type A, Fully Accessible guidelines, and the remaining ground floor units and elevator-reachable units with ICC/ANSI A117.1, Type B		Project Plans		Architect	2
1.2b Universal Design (Substantial & Moderate Rehab only)		Project is not a rehab.				0
						2
						Intended Points

2: LOCATION + NEIGHBORHOOD FABRIC

Criteria Item	How Criterion will be implemented	If necessary, provide additional information or explanation of alternative approach to meeting this measure	Criteria Documentation		Champion	Intended Points
			Location of Measure in Project Documents	Spec page number / plan type for locating measure		
2.1 Site Sensitive Selection (New Construction Only)	New development will not be within 100 feet of wetlands, on prime soils, on public parkland, on critical habitat, on the 100 year floodplain, or be on a slope greater than 15%	Site does not have any prohibited characteristics.	Project Plans	Civil sheet 3 of 36	Project Manager	M
2.2 Connections to Existing Development and Infrastructure (New Construction only, except for projects located on rural tribal lands, in colonias communities, or in communities of population less than 10,000)	The project is located on a site with access to existing roads, water, sewers, and other infrastructure within or contiguous (having at least 25% of the perimeter bordering) to existing development, connected to the pedestrian grid, and meeting the septic tank requirements	Site located with adequate connections to infrastructure	Project Plans	Civil Drawings	Engineer (MEP)	M
2.3 Compact Development (New Construction Only)	Provide the net density and net density calculation for the project.	Density is approx. 154 units/acre, exceeding the criteria.	Project Plans	CS-10	Architect	M
2.4 Compact Development	Provide the net density and net density calculation for the project.	Density is approx. 154 units/acre, exceeding the criteria of 15/acre.	Project Plans	CS-10	Architect	5
2.5 Proximity to Services (New Construction only)	Urban/Small City location: Project is 0.25-mile walk distance of at least two, or a 0.5-mile walk distance of at least 4 facilities	TBD	Scope of Work	CS-10	Architect	M
2.6 Preservation of and Access to Open Space	The project has a set aside of a minimum .10% of the total project acreage as open space for residents	Open space calculations show 39% of open space after taking off courtyards, pool deck and balcony terrace.	Project Plans	CS-10	Architect	M
2.7 Preservation of and Access to Open Space	20% = 1 pt, 30% = 2 pts, 40% = 3 pts	Open space calculations show 39% of open space after taking off courtyards, pool deck and balcony terrace.	Project Plans	CS-10 & A101	Architect	2
2.8 Access to Public Transportation	Provide a brief narrative that summarizes the location, quantity and type of public transportation choices around project site	Site is within 1/4 mile from bus stops of X2 bus lines.	Project Plans	CS-10	Architect	5
2.9 Walkable Neighborhoods: Connections to Surrounding Neighborhood	Provide summary of the project's sidewalk and pathway connections to public spaces, open spaces or adjacent development	Project is not in a "Rural/Tribal/Small Town"		N/A		0
2.10 Smart Site Location: Passive Solar Heating / Cooling	Provide a brief narrative that describe passive solar heating/cooling tactics	Not pursued.		N/A		0
2.11 Brownfield or Adaptive Reuse Site	The project is located on an adaptive reuse site	Not an adaptive reuse site.		N/A		0
2.12 Access to Fresh, Local Foods	The project will meet the requirements of Option 2: Community-Supported Agriculture	TBD	Project Plans	CS-10	Project Manager	6
2.13 LEED for Neighborhood Development certification	The project is located in a Stage 2 Pre-Certified LEED for Neighborhood Development plan			N/A		0
						18
						Intended Points

3: SITE IMPROVEMENTS

Criteria Item	How Criterion will be implemented	If necessary, provide additional information or explanation of alternative approach to meeting this measure	Criteria Documentation		Champion	Intended Points
			Location of Measure in Project Documents	Spec page number / plan type for locating measure		
3.1 Environmental Remediation		Remediation is not required as there are no contaminants.		N/A		M
3.2 Erosion and Sedimentation Control (Except for infill sites with buildable area smaller than one acre)	Site will implement EPA's BMP for erosion control at least including measures listed in the criteria	Erosion and Sediment Control measures have been implemented	Project Plans	Civil sheets	Engineer (MEP)	M
3.3 Low Impact Development (New Construction only)	The Architect or Landscape Architect will provide certified tree or plant list showing at least 50% of the site area available for landscaping is planted with native or adaptive species	Landscape vegetation details.	Project Plans	Landscape Drawings	Landscape Architect	M
3.4 Landscaping	The Architect or Landscape Architect will provide certified tree or plant list showing at least 50% of the site area available for landscaping is planted with native or adaptive species	Landscape vegetation details.	Project Plans	Landscape Drawings	Landscape Architect	M
3.5 Efficient Irrigation and Water Reuse	Provide a brief narrative describing type of irrigation systems to be implemented	Irrigation will be design / built water efficient drip irrigation system. The project has a stormwater management system designed to retain 1.2 inches of rainfall onto the site. Two	Project Plans	Project Plans	Landscape Architect	M
3.6 Surface Stormwater Management	Provide a brief narrative of the design strategies and systems that will be implemented, and indicate the calculated volume of water being retained, infiltrated, or harvested on site	Surface stormwater will be used. Surface details.	Project Plans	Project Plans	Landscape Architect	0
						0
						Intended Points

Green Communities Scorecard – Methods Worksheet



4: WATER CONSERVATION

Criteria Item	How Criterion will be implemented	If necessary, provide additional information or explanation of alternative approach to meeting this measure	Criteria Documentation		Champion	Intended Points
			Location of Measure in Project Documents	Spec page number / plan type for locating measure		
4.1 Water-Conserving Fixtures	Project will specify toilets at 1.28 gpf or less, urinals at .5 gpf or less, bathroom faucets at 1.5 gpm or less, and showerheads and kitchen faucets at 2.0 gpm or less	Project will install efficient plumbing fixtures	Project Plans	TBD	Engineer (MEP)	M
4.2 Advanced Water-Conserving Appliances and Fixtures						0
4.3 Water Reuse						0
						0
						Intended Points

5: ENERGY EFFICIENCY

Criteria Item	How Criterion will be implemented	If necessary, provide additional information or explanation of alternative approach to meeting this measure	Criteria Documentation		Champion	Intended Points
			Location of Measure in Project Documents	Spec page number / plan type for locating measure		
Building Performance Standard: Single family & Multifamily, 3 stories or fewer (New Construction only)	The project will certify under ENERGY STAR New Homes version 2, 2.5, or 3	MECH ENG plans to use this approach, which requires certification under ENERGY STAR New Homes v. 2, 2.5 or 3.	Project Plans and Specifications	Mech. Series	Engineer (MEP)	M
Building Performance Standard: Multifamily, 4 stories or more (New Construction Only)	The project is not multi-family (four stories or more) new construction	All units have their own heating/cooling, so 5.1a criteria is acceptable.	Project Plans and Specifications	Mech. Series	Engineer (MEP)	M
Building Performance Standard: Single family & Multifamily, 3 stories or fewer (Substantial and Moderate Rehab)	The project is not a single-family or multifamily (three stories or fewer) rehabilitation	N/A - not a rehab.		N/A		M
Building Performance Standard: Multifamily, 4 stories or more (Substantial and Moderate Rehab)	The project is not a multifamily (four stories or more) rehabilitation	N/A - not a rehab.		N/A		M
Additional Reductions in Energy Use	The project will achieve additional optional points by reducing energy consumption in addition to the mandatory appropriate building performance standard		Project Plans	Mech. Series	Engineer (MEP)	0
Sizing of Heating and Cooling Equipment and Ducts	Heating and cooling equipment will be sized in accordance with the ACCA manual, Parts J and S, or ASHRAE handbooks	Will comply.	Project Plans and Specifications	Mech. Series	Engineer (MEP)	M
ENERGY STAR Appliances	The project will install Energy Star-rated clothes washers, dishwashers, and refrigerators	Will comply.	Specifications	INTERIOR DSN series	Architect	M
Efficient Lighting: Interior Units	Project will follow the follow the ENERGY STAR Multifamily High-Rise guidelines	Will comply.	Specifications	INTERIOR DSN series	Engineer (MEP)	M
Efficient Lighting: Common Areas and Emergency Lighting (all multifamily projects)	Project is following the ENERGY STAR Multifamily High-Rise prescriptive path and will install fixtures that meet the guidelines	Will comply.	Project Plans	Electrical drawing	Engineer (MEP)	M
Efficient Lighting: Exterior	Project will follow the follow the ENERGY STAR Multifamily High-Rise guidelines	Will comply.	Project Plans	Electrical drawing	Engineer (MEP)	M
Electricity Meter (New Construction and Substantial Rehab only)	Individual or sub-meters will be installed in all dwelling units	Will comply. Electricity meter banks are being installed.	Project Plans	Electrical drawing	Engineer (MEP)	M
Electricity Meter (Moderate Rehab only)		N/A - not a rehab.		N/A		0
Renewable Energy	Provide brief narrative describing the types of renewable energy system installed and the estimated percentage of energy it will provide for the overall energy demand of the project	No renewables.		N/A		0
Photovoltaic / Solar Hot Water Ready	Project will site, design, engineer, and wire the project to accommodate the installation of smart meters and/or be able to interface with smart grid systems in the future	Roof orientation criteria not feasible.	Project Plans and Specifications		Architect	0
Advanced Metering Infrastructure		Will comply. Smart meters are being provided by PEPCO	Project Plans and Specifications		Engineer (MEP)	5
						5
						Intended Points

6: MATERIALS BENEFICIAL TO THE ENVIRONMENT

Criteria Item	How Criterion will be implemented	If necessary, provide additional information or explanation of alternative approach to meeting this measure	Criteria Documentation		Champion	Intended Points
			Location of Measure in Project Documents	Spec page number / plan type for locating measure		
Low / No VOC Paints and Primers	All interior paints and primers will meet the MPI and Green Seal standards for VOCs, based on the list provided in the Criteria	Sherwin Williams ProMar 200 No VOC	Project Plans and Specifications	Spec 01-8119 Indoor Air Quality Requirements; IDB-10 Finish Schedule	Green Building Specialist	M
Low / No VOC Adhesives and Sealants	All adhesives will comply with Rule 1168 of the South Coast Air Quality Management District. All caulks and sealants will comply with Regulation 8, Rule 51 of the Bay Area Air Quality Management District (BAAQMD)		Project Plans and Specifications	Spec 01-8119 Indoor Air Quality Requirements; Drawings IDB-10 and 11	Green Building Specialist	M
Construction Waste Management	Provide a brief narrative that lists the materials in the Construction Waste Management Plan, the % recycled, salvaged, or diverted and the strategies to do so	25% min. diversion from landfill	Specifications	Spec 01-7419 Construction Waste Management - section 1.03, pg 2	General Contractor	M
Construction Waste Management: Optional	Provide a brief narrative that lists the materials in the Construction Waste Management Plan, the % recycled, salvaged, or diverted and the strategies to do so	Criteria: 35% = 1 pt., 45% = 2 pts., 55% = 3 pts., 65% = 4 pts., 75% = 5 pts. Team believes 55% is achievable	Specifications	Spec 01-7419 Construction Waste Management - section 1.03, pg 2-3	General Contractor	3
Recycling Storage for Multifamily Project	The project will provide a dedicated, permanent, and accessible area for the collection and storage of materials for recycling	Will comply. Plans and details of residential trash room with chute for recycled materials have been provided. Qualifying materials have 25% pc or 50% pi.	Project Plans	Arch. DWG	Architect	5
Recycled Content Material	Provide a brief narrative that summarizes the building materials made of recycled content material	Exterior Materials: Brick will have flyash, but not likely to be 50% pi. Drywall/int. sheathing will have some recycled content. Flooring: carpet and other is likely to have recycled content.	Project Plans and Specifications	Spec 01-8113 Sustainable Design Requirements	General Contractor	1
Regional Material Selection	The project will use products that are extracted, processed, and manufactured within 500 miles of the project for a minimum of 50%, based on cost, of the building materials' value	Brick and Concrete/Cement and aggregate will comply. Drywall, int. sheathing will comply. Flooring and Cabinets may comply.	Project Plans and Specifications	Spec 01-8113 Sustainable Design Requirements	General Contractor	4
Certified, Salvaged and Engineered Wood Products				N/A	General Contractor	0
Reducing Heat-Island Effect: Roofing	The project will use ENERGY STAR compliant roofing	Membrane/TPO will be highly emissive & reflective.	Specifications	Spec 07-5400 Thermoplastic Membrane Roofing	Architect	3
Reducing Heat-Island Effect: Paving	The project will use materials with a solar reflectance of 0.3, over at least 50% of the site's hardscape area			N/A	Landscape Architect	0
						16
						Intended Points

7: HEALTHY LIVING ENVIRONMENT

Criteria Item	How Criterion will be implemented	If necessary, provide additional information or explanation of alternative approach to meeting this measure	Criteria Documentation		Champion	Intended Points
			Location of Measure in Project Documents	Spec page number / plan type for locating measure		
7.1 Composite Wood Products that Emit Low / No Formaldehyde		Architect evaluating compliance and Alternate for use of non-compliant products = seal edges & paint	Project Plans and Specifications	Spec 01-8119 Indoor Air Quality Requirements - section 2.01, pg.2, floor finish schedule	General Contractor	M
7.2 Environmentally Preferable Flooring	Any carpet, pad and adhesive will not be installed in entryways, laundry rooms, bathrooms, kitchens/kitchenettes, utility rooms, or any rooms of ground-connected floors. Any carpet products will meet Green Label or Green Label Plus certification. Any hard surface flooring products will be either ceramic tile, unfinished hardwood floors, or in compliance with the FloorScore program criteria	Will comply.	Project Plans and Specifications	TBD	Architect	M
7.3 Environmentally Preferable Flooring: Alternative Sources	The project will use non-vinyl non-carpet floor coverings in all rooms of the building(s)	Area Rug at Clubroom & Carpet at Leasing make this infeasible.		N/A		0
7.4a Exhaust Fans: Bathroom (New Construction and Substantial Rehab only)	The project will install ENERGY STAR-labeled intermittent exhaust fans connected to a light switch and equipped with a humidistat, sensor, or timer	Exhaust Bathroom Fans	Project Plans and Specifications	Spec 01-8113 Sustainable Design Requirements - ; exhaust fans are scheduled on dwgs	Engineer (MEP)	M
7.4b Exhaust Fans: Bathroom (Moderate Rehab only)						0
7.5a Exhaust Fans: Kitchen (New Construction and Substantial Rehab only)	The project will install power-vented fans or range hoods that exhaust to the outdoors at an intermittent rate of 100 cfm, per ASHRAE 62.2-2010	Exhaust Kitchen Fans	Project Plans and Specifications	Spec 01-8113 Sustainable Design Requirements	Engineer (MEP)	M
7.5b Exhaust Fans: Kitchen (Moderate Rehab only)		Not a rehab.				0
7.6a Ventilation (New Construction and Substantial Rehab only)	The project will install a ventilation system that will satisfy the fresh air requirements of ASHRAE 62.2-2010		Project Plans and Specifications	Spec 01-8113 Sustainable Design Requirements	Engineer (MEP)	M
7.6b Ventilation (Moderate Rehab only)		Not a rehab.				0
7.7 Clothes Dryer Exhaust	All clothes dryers will exhaust directly to the outdoors using rigid-type duct work		Project Plans	Spec 01-8113 Sustainable Design Requirements -	Engineer (MEP)	M
7.8 Combustion Equipment	Project will not use combustion equipment in the conditioned space and does not have any attached garages	No combustion equipment. Garage does not connect to units.	Project Plans	MECH series	Engineer (MEP)	M
7.9a Mold Prevention: Water Heaters	All water heaters will be installed with catch pans and drains piped to the exterior of the dwelling	Will comply.	Project Plans	Plumbing Drawings	Engineer (MEP)	M
7.9b Mold Prevention: Surfaces	All surfaces in bathrooms, kitchens, and laundry rooms will use materials that have durable and cleanable surfaces	Will comply.	Project Plans and Specifications	Architectural Drawings	Architect	M
7.9c Mold Prevention: Tub and Shower Enclosures	All bathrooms will have non-paper-faced backing materials such as cement board, fiber cement board, or equivalent	Will comply.	Project Plans and Specifications	Spec 09-2116 Gypsum Board Assemblies	Architect	M
7.10 Vapor Barrier Strategies (New Construction and Rehab projects with foundation work only)	The project will install a vapor barrier and capillary break under the slab		Project Plans and Specifications	Spec 01-8113 Sustainable Design Requirements	Architect	M
7.11 Radon Mitigation (New Construction and Substantial Rehab only)		No units are sub-grade and site is not in EPA area.		N/A		M
7.12 Water Drainage (New Construction and Rehab projects replacing assemblies called out in Criterion only)	The project will install an integrated water drainage system per the Criteria		Project Plans	Architectural Drawings	Architect	M
7.13 Garage Isolation	The project does not have an attached garage	Garage is isolated from residential.	Project Plans	Architectural Drawings	Architect	M
7.14 Integrated Pest Management	Provide a brief narrative that describes specific tactics and strategies used to for the Integrated Pest Management Plan	All wall, floor, and joint penetrations will be sealed with low-VOC caulking or other appropriate sealing methods to prevent pest entry. Non-chemical traps will be used where and when necessary.		Building Policy Manual	Project Manager	M
7.15 Lead-Safe Work Practices (Substantial and Moderate Rehab only)		Not a rehab.		N/A		M
7.16 Smoke-Free Building	The project will enforce a no-smoking policy	DEV plans to incorporate prohibition in Leases.		Unit Leases		9
						Intended Points
						9

8: OPERATIONS + MAINTENANCE

Criteria Item	How Criterion will be implemented	If necessary, provide additional information or explanation of alternative approach to meeting this measure	Criteria Documentation		Champion	Intended Points
			Location of Measure in Project Documents	Spec page number / plan type for locating measure		
8.1 Building Maintenance Manual (all multi-family projects)	Provide a brief narrative of how this project specifically creates or fulfills the intentions of this criteria item	A building maintenance manual that addresses maintenance schedules and other specific instructions related to the		O & M manual Div. 1 Sustainable Design Requirements	Project Manager	M
8.2 Resident's Manual	Provide a brief narrative of how this project specifically creates or fulfills the intentions of this criteria item	A guide for renters that explains the intent, benefits, use, and maintenance of green building features will be provided.			Project Manager	M
8.3 Resident and Property Manager Orientation	Provide a brief narrative of how this project specifically creates or fulfills the intentions of this criteria item	A comprehensive orientation for orientation for residents and property managers using the appropriate building			Project Manager	M
8.4 Project Data Collection and Monitoring System	The project will work with Enterprise to collect and monitor energy, water, and if possible healthy living environments data for a minimum of 5 years	DEV may have opt-out clause in Lease, so that most Residents will participate.		Unit Lease	Project Manager	12
						Intended Points
						12
ENTERPRISE GREEN COMMUNITIES CRITERIA						62
TOTAL INTENDED POINTS						62



LEED v4 for BD+C: New Construction and Major Renovation

Project Checklist

McMillan Parcel 2
Summer 2015

Y ? N

Credit Integrative Process 1

11 0 0 Location and Transportation 16

		Credit	LEED for Neighborhood Development Location	16
1		Credit	Sensitive Land Protection	1
1		Credit	High Priority Site	2
3		Credit	Surrounding Density and Diverse Uses	5
5		Credit	Access to Quality Transit	5
		Credit	Bicycle Facilities	1
		Credit	Reduced Parking Footprint	1
1		Credit	Green Vehicles	1

4 4 0 Sustainable Sites 10

Y		Prereq	Construction Activity Pollution Prevention	Required
1		Credit	Site Assessment	1
		Credit	Site Development - Protect or Restore Habitat	2
1		Credit	Open Space	1
	3	Credit	Rainwater Management	3
2		Credit	Heat Island Reduction	2
	1	Credit	Light Pollution Reduction	1

5 0 0 Water Efficiency 11

Y		Prereq	Outdoor Water Use Reduction	Required
Y		Prereq	Indoor Water Use Reduction	Required
Y		Prereq	Building-Level Water Metering	Required
2		Credit	Outdoor Water Use Reduction	2
3		Credit	Indoor Water Use Reduction	6
		Credit	Cooling Tower Water Use	2
		Credit	Water Metering	1

11 0 0 Energy and Atmosphere 33

Y		Prereq	Fundamental Commissioning and Verification	Required
Y		Prereq	Minimum Energy Performance	Required
Y		Prereq	Building-Level Energy Metering	Required
Y		Prereq	Fundamental Refrigerant Management	Required
4		Credit	Enhanced Commissioning	6
6		Credit	Optimize Energy Performance	18
		Credit	Advanced Energy Metering	1
		Credit	Demand Response	2
		Credit	Renewable Energy Production	3
1		Credit	Enhanced Refrigerant Management	1
		Credit	Green Power and Carbon Offsets	2

3 1 0 Materials and Resources 13

Y		Prereq	Storage and Collection of Recyclables	Required
Y		Prereq	Construction and Demolition Waste Management Planning	Required
		Credit	Building Life-Cycle Impact Reduction	5
		Credit	Building Product Disclosure and Optimization - Environmental Product Declarations	2
1		Credit	Building Product Disclosure and Optimization - Sourcing of Raw Materials	2
1		Credit	Building Product Disclosure and Optimization - Material Ingredients	2
1	1	Credit	Construction and Demolition Waste Management	2

14 0 0 Indoor Environmental Quality 16

Y		Prereq	Minimum Indoor Air Quality Performance	Required
Y		Prereq	Environmental Tobacco Smoke Control	Required
2		Credit	Enhanced Indoor Air Quality Strategies	2
3		Credit	Low-Emitting Materials	3
1		Credit	Construction Indoor Air Quality Management Plan	1
2		Credit	Indoor Air Quality Assessment	2
1		Credit	Thermal Comfort	1
2		Credit	Interior Lighting	2
1		Credit	Daylight	3
1		Credit	Quality Views	1
1		Credit	Acoustic Performance	1

2 0 0 Innovation 6

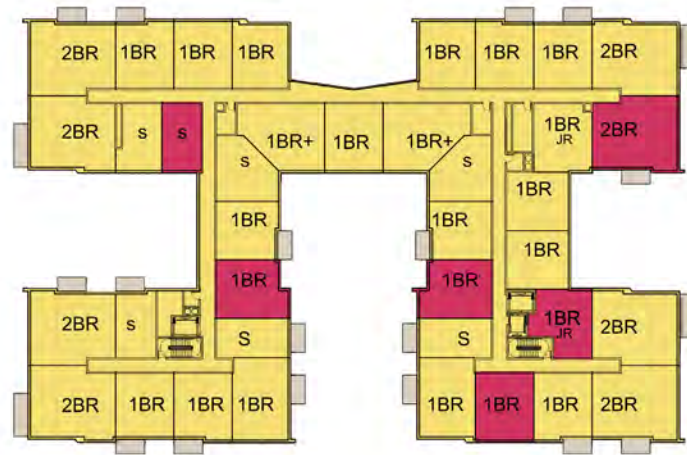
1		Credit	Innovation	5
1		Credit	LEED Accredited Professional	1

2 0 0 Regional Priority 4

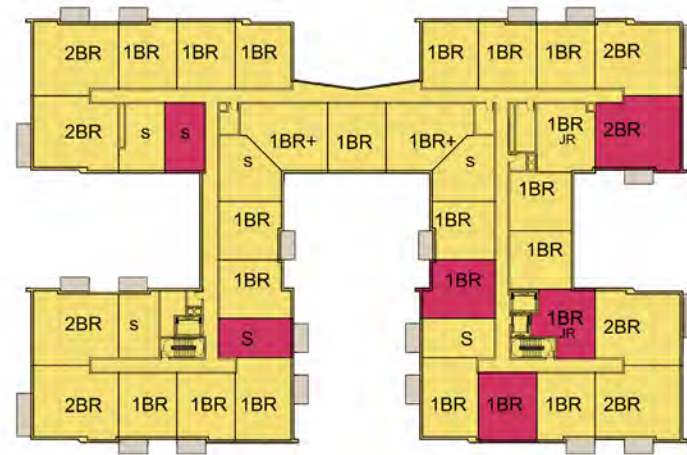
1		Credit	Regional Priority: Access to Quality Transit	1
1		Credit	Regional Priority: Green Vehicle	1
		Credit	Regional Priority: Specific Credit	1
		Credit	Regional Priority: Specific Credit	1

52 5 0 TOTALS Possible Points: 110

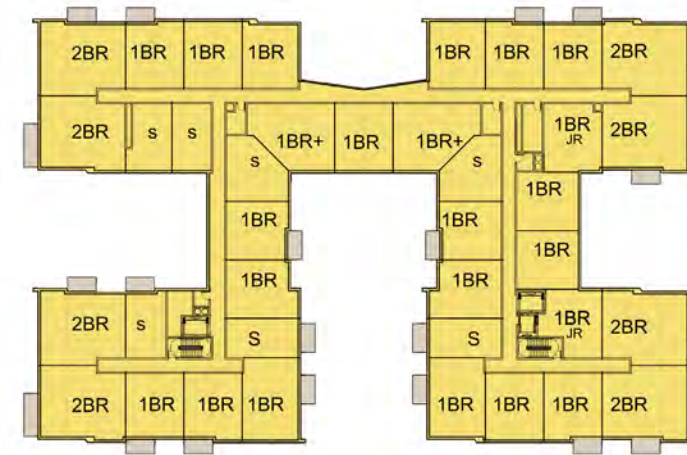
Certified: 40 to 49 points, Silver: 50 to 59 points, Gold: 60 to 79 points, Platinum: 80 to 110



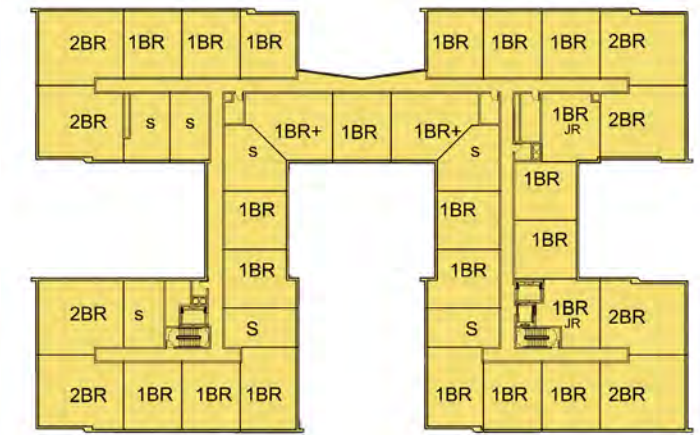
Level 4



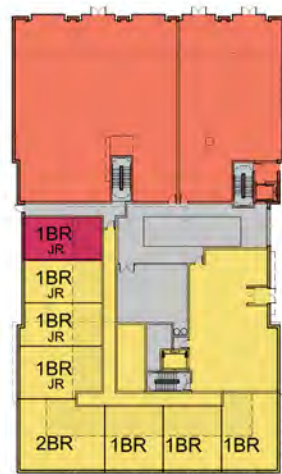
Level 5



Level 6



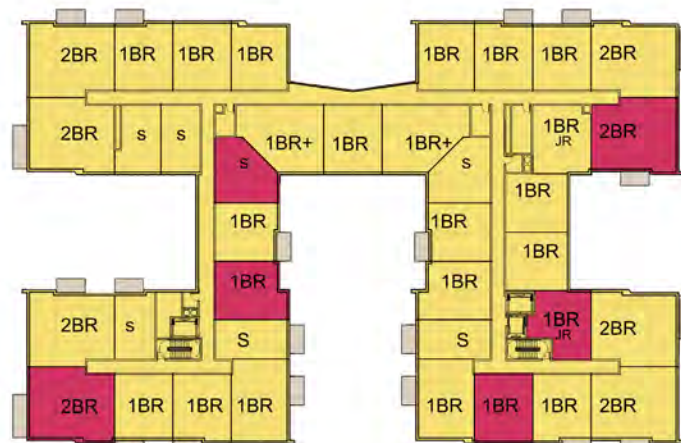
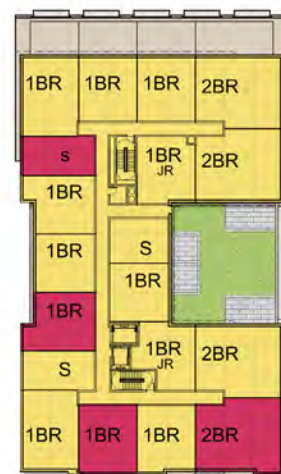
Level 7



Level 1



Level 2



Level 3

Affordable Unit - 80% AMI

Market Rate Unit

NOTES:

- Affordable dwelling units will be available to households making 80% of AMI
- Pursuant to Z.C. Order No. 13-14, the Zoning Commission granted the Applicant flexibility to vary the location and configuration of the affordable units on Parcel 2 "so long as the proportion of studio, efficiency, and one-bedroom affordable units to all affordable units does not exceed the proportion of market-rate studio, efficiency, and one-bedroom units to all market-rate units" (see Page 28 of Order No. 13-14, Finding of Fact #96h). This information has been prepared at the request of DCOP to assist in its development of the setdown report for Z.C. Case No. 13-14A. Noting the flexibility granted by the Zoning Commission, describe above, this information is subject to change with regard to the location and configuration of the affordable units within the building. However, the distribution of unit types across affordable and market-rate will remain consistent with the proportions describe in the table above.

Parcel 2 - Unit Mix			
Market Rate	#	Avg. SF	% Total
Studio	36	515	17.1%
1 Bedroom (Jr)	12	711	5.7%
1 Bedroom	108	708	51.2%
1 Bedroom + Den	11	861	5.2%
Total Studio, 1BR, 1BR + Den	167	677	79.1%
2 Bedroom	44	1,108	20.9%
Total / Average	211	767	100.0%
Total Net SF:		161,799	
Residential Efficiency		81%	
Gross SF - Market Residential		-21,088	
Affordable - 80% AMI			
	#	Avg. SF	% Total
Studio	5	499	20.0%
1 Bedroom (Jr)	4	677	16.0%
1 Bedroom	10	682	40.0%
1 Bedroom + Den	0	0	0.0%
Total Studio, 1BR, 1BR + Den	19	633	76.0%
2 Bedroom	6	1,091	24.0%
Total / Average	25	743	100.0%
Total Net SF:		18,567	
Residential Efficiency		81%	
Gross SF - Affordable Res.		22,922	
Total Building			
	#	Avg. SF	% Total
Studio	41	513	17.37%
1 Bedroom (Jr)	16	703	6.78%
1 Bedroom	118	706	50.00%
1 Bedroom + Den	11	861	4.66%
Total Studio, 1BR, 1BR + Den	186	672	78.8%
2 Bedroom	50	1,106	21.19%
Total / Average	236	764	100.0%
Total Net SF:		180,366	
Residential Efficiency		81%	
Area under 3/4 St. Span		1,834	
Gross SF - Total Residential Includes 1,834 sf under Three Quarter St. Span		224,278	