

PROJECT PARCEL SITE
TOWN OF WINCHESTER ASSESSOR'S MAP DATA

TAX MAP 9 PARCELS
123, 124, 125

PLANS TO ACCOMPANY PERMIT DOCUMENTS

FOR

FELLS HARDWARE REDEVELOPMENT

654 MAIN STREET

WINCHESTER, MASSACHUSETTS

ORIGINAL ISSUE DATE: AUGUST 18, 2020



LOCATION MAP
1"=800'

INDEX

SHEET I.D.	TITLE	LAST REVISED
C0.0	COVER SHEET	2020.08.20
C0.1	GENERAL NOTES	2020.08.18
C1.0	EXISTING CONDITIONS	2020.08.18
C2.0	SITE LAYOUT AND MATERIALS PLAN	2020.08.18
C2.1	LANDSCAPE PLAN	2020.08.18
C3.0	GRADING AND DRAINAGE PLAN	2020.08.18
C4.0	UTILITY PLAN	2020.08.18
C5.0	EROSION AND SEDIMENTATION CONTROL PLAN	2020.08.18
C5.1	EROSION CONTROL NOTES	2020.08.18
C6.0	DETAILS	2020.08.18
C6.1	DETAILS	2020.08.18
C6.2	DETAILS	2020.08.18
C6.3	DETAILS	2020.08.18

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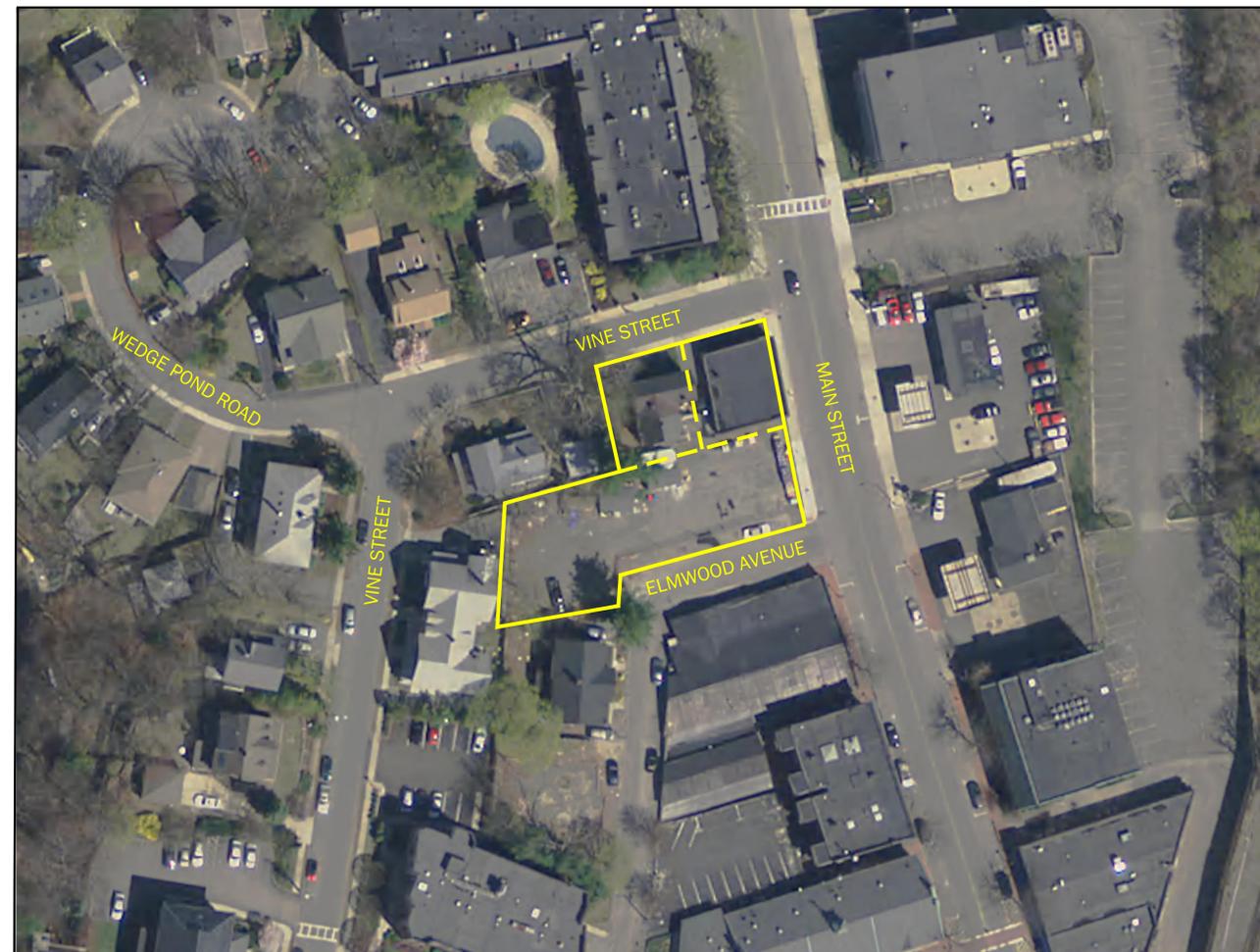
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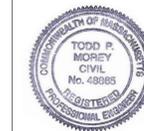
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Project No. C-942
Original Issue Date:
August 18, 2020

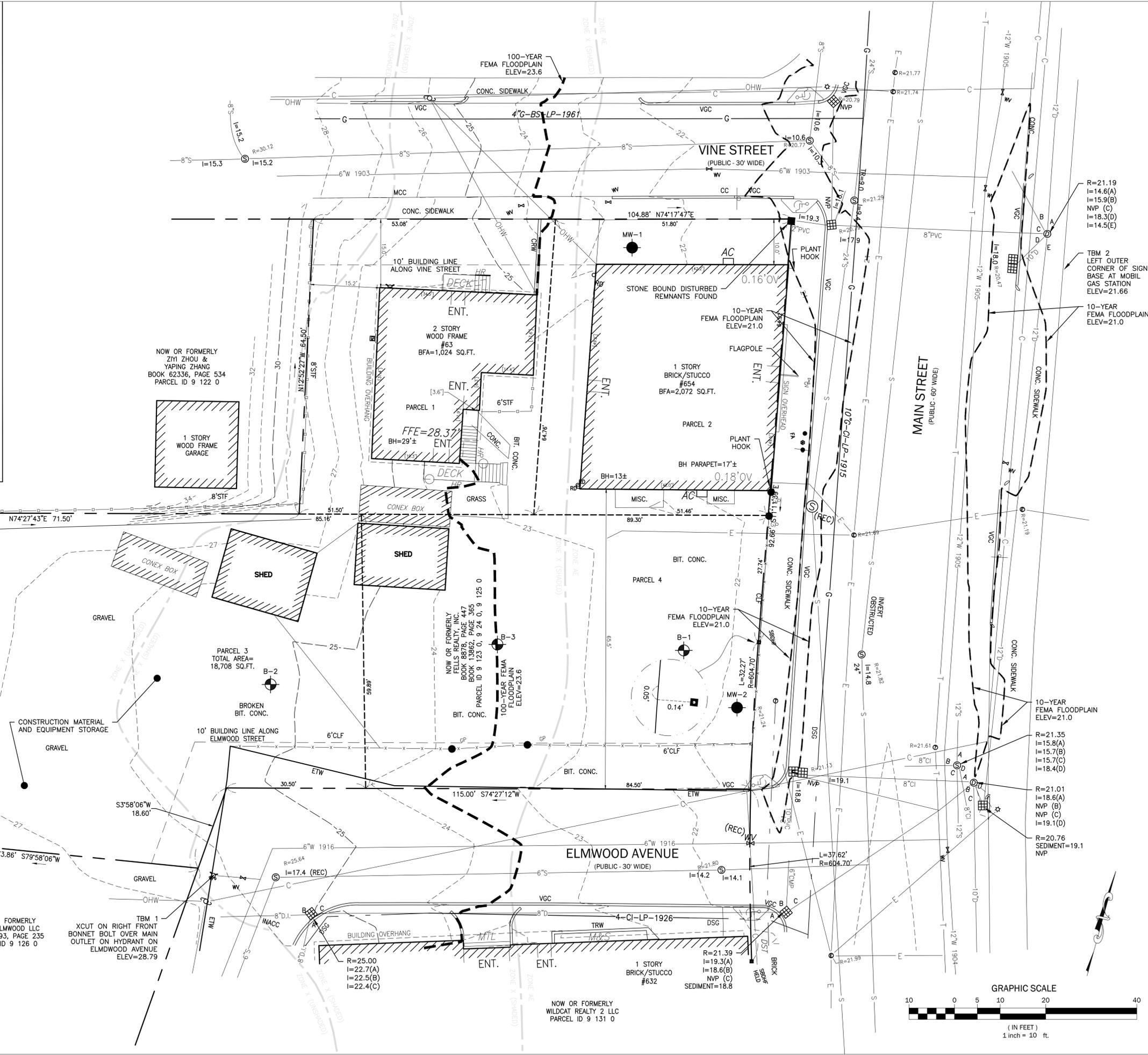
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REVISION	DATE

I HEREBY ACKNOWLEDGE THAT THESE PLANS AND SPECIFICATIONS WERE PREPARED UNDER MY DIRECT SUPERVISION AND THAT I AM REGISTERED IN THE COMMONWEALTH OF MASSACHUSETTS TO PRACTICE AS A PROFESSIONAL ENGINEER.

- NOTES:**
THE EXISTING CONDITIONS PLAN HAS BEEN COMPILED FROM THE FOLLOWING SOURCES AND IS NOT A RESULT OF AN ON THE GROUND SURVEY BY BEALS ASSOCIATES, INC.
- BOUNDARY INFORMATION OBTAINED FROM PLAN ENTITLED "ALTA/NSPS LAND TITLE SURVEY, 648-654 MAIN STREET, 63 VINE STREET, WINCHESTER, MASS." DATED OCTOBER 23, 2019 AND PREPARED BY FELDMAN LAND SURVEYORS.
 - NORTH ARROW BASED ON PLAN ENTITLED "ALTA/NSPS LAND TITLE SURVEY, 648-654 MAIN STREET, 63 VINE STREET, WINCHESTER, MASS." DATED OCTOBER 23, 2019 AND PREPARED BY FELDMAN LAND SURVEYORS.
 - THE SITE DETAIL AND SURFACE IMPROVEMENTS DEPICTED HERON WERE OBTAINED FROM PLAN ENTITLED "ALTA/NSPS LAND TITLE SURVEY, 648-654 MAIN STREET, 63 VINE STREET, WINCHESTER, MASS." DATED OCTOBER 23, 2019 AND PREPARED BY FELDMAN LAND SURVEYORS.
 - UNDERGROUND FEATURES HAVE BEEN COMPILED FROM PLAN ENTITLED "ALTA/NSPS LAND TITLE SURVEY, 648-654 MAIN STREET, 63 VINE STREET, WINCHESTER, MASS." DATED OCTOBER 23, 2019 AND PREPARED BY FELDMAN LAND SURVEYORS. SUPPLEMENTAL INFORMATION OBTAINED FROM AN ONSITE INVESTIGATION PERFORMED BY BEALS ASSOCIATES, INC. ON JULY 30, 2020. DIG-SAFE SHALL BE CONTACTED PRIOR TO ANY EXCAVATION.
 - EXISTING ELEVATIONS, TOPOGRAPHY, AND BENCHMARKS OBTAINED FROM PLAN ENTITLED "ALTA/NSPS LAND TITLE SURVEY, 648-654 MAIN STREET, 63 VINE STREET, WINCHESTER, MASS." DATED OCTOBER 23, 2019 AND PREPARED BY FELDMAN LAND SURVEYORS. ELEVATIONS REFER TO NORTH AMERICAN VERTICAL DATUM OF 1988.
 - THE PROPERTY IS LOCATED WITHIN MAPPED FLOOD ZONES BASED ON THE FEDERAL EMERGENCY MANAGEMENT AGENCY'S (FEMA) FLOOD INSURANCE RATE MAP FOR MIDDLESEX COUNTY, MASSACHUSETTS PANEL 409 OF 656 MAP NUMBER 25017C0409E EFFECTIVE JUNE 4, 2010. THE 100 AND 10 YEAR ELEVATIONS WERE OBTAINED FROM THE FEMA FLOOD PROFILES FOR HORN POND BROOK/FOWEL BROOK IN MIDDLESEX COUNTY, MA, SHEET 261P. THE 100-YEAR FLOODPLAIN LINE DEPICTED HERON IS BASED ON THE FEMA FLOODPLAIN ELEVATION OF 23.60. THE 10-YEAR FLOODPLAIN LINE DEPICTED HERON IS BASED ON THE FEMA FLOODPLAIN ELEVATION OF 21.0.
 - THE SUBJECT PROPERTIES ARE NOT LOCATED WITHIN NATURAL HERITAGE ESTIMATED HABITAT OF RARE OR ENDANGERED SPECIES BASED ON THE 2017 MAPPING.
 - BORINGS PERFORMED BY CARR-DEE CORPORATION ON OCTOBER 23 AND 24, 2019 FOR MCPHAL ASSOCIATES, LLC. MONITORING WELLS WERE INSTALLED BY OTHERS.
 - ANY DISCREPANCIES IN EXISTING CONDITIONS SHALL BE REPORTED BY THE CONTRACTOR TO THE DESIGN ENGINEER PRIOR TO ADDITIONAL CONSTRUCTION ACTIVITIES.



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No.	Revision	Date

TODD P. MOORE
CIVIL ENGINEER
No. 48865
Professional Seal
8.17.2020

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Designed by: DPH | Checked by: TPM
Proj. No.: C-942 | Issue Date: 08.18.20
Drawing Scale: 1"=10'

EXISTING CONDITIONS PLAN

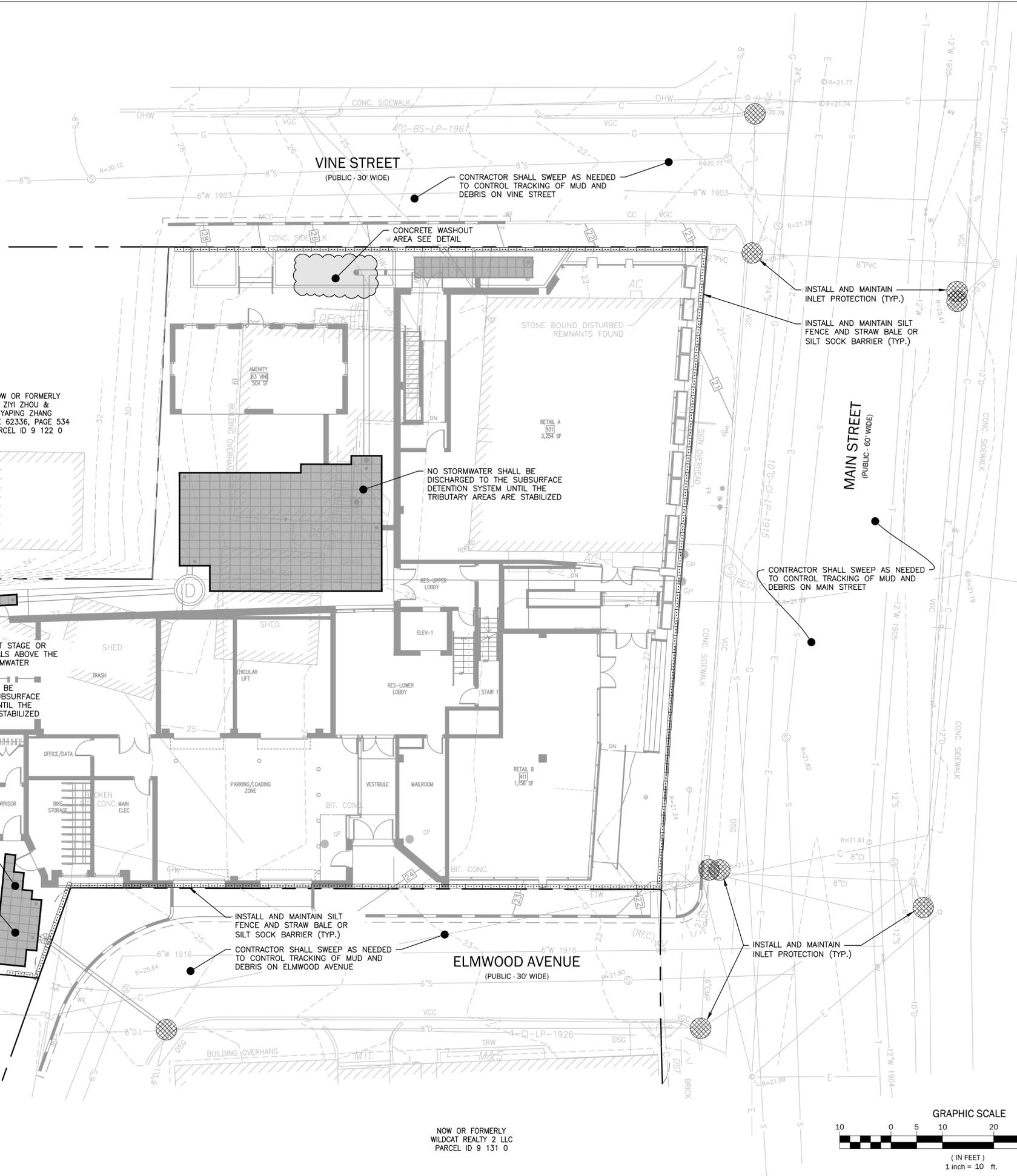
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- NOTES:
1. THERE SHALL BE NO STOCKPILING OF MATERIALS OF ANY KIND OUTSIDE THE LIMITS OF WORK.
 2. THE EROSION CONTROL MEASURES DEPICTED ON THIS PLAN ARE THE MINIMUM REQUIREMENTS. ADDITIONAL CONTROLS MAY BE NECESSARY DURING VARIOUS PHASES OF CONSTRUCTION.
 3. ALL STAKED STRAW BALES AND SILT FENCE SHALL REMAIN IN PLACE AS SHOWN ON THE PLANS UNTIL THE END OF EACH CONSTRUCTION PHASE.
 4. ANY EROSION PROBLEMS SHALL BE IMMEDIATELY CORRECTED ON SITE DURING THE COURSE OF CONSTRUCTION.
 5. ALL DISTURBED OR EXPOSED SOIL SURFACES SHALL BE IMMEDIATELY LOAMED AND SEEDED IN ACCORDANCE WITH PLANS AND SPECIFICATIONS.
 6. ADDITIONAL SILT FENCE (AT LEAST 150 LINEAR FEET) AND 50 STRAW BALES AND WORK STAKES (STORED UNDER COVER) ARE TO BE ON SITE AT ALL TIMES IN CASE REPAIRS ARE NECESSARY.
 7. SEE SHEET C5.1 FOR ADDITIONAL EROSION AND SEDIMENTATION CONTROL NOTES.



NOW OR FORMERLY A & M REALTY TRUST BOOK 615418, PAGE 113 PARCEL ID 9 121 0

NOW OR FORMERLY 36-40 ELMWOOD LLC BOOK 71293, PAGE 235 PARCEL ID 9 126 0

NOW OR FORMERLY ZIYI ZHOU & YAPING ZHANG BOOK 62336, PAGE 534 PARCEL ID 9 122 0

NOW OR FORMERLY WILDCAT REALTY 2 LLC PARCEL ID 9 131 0

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No.	Revision	Date

Professional Engineer Seal for **TODD P. MORLEY**, No. 48865, State of Massachusetts. Signature dated 8/17/2020.

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Designed by: DPH | Checked by: TPM
 Proj. No.: C-942 | Issue Date: 08.18.20
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Sheet Title
EROSION AND SEDIMENTATION CONTROL PLAN

Sheet Number

C5.0

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3. EROSION CONTROL NARRATIVE

o. OVERVIEW OF SOIL EROSION AND SEDIMENTATION CONCERNS

THE GENERAL GOALS OF THE EROSION AND SEDIMENT CONTROL PLAN ARE:

- PLAN THE PROJECT TO BE CONSTRUCTED FROM AREAS OF FLATTER GRADES AND AWAY FROM RESOURCES OR THE PROPERTY BOUNDARIES TO THE EXTENT PRACTICABLE.
DEVELOP A CAREFUL CONSTRUCTION SEQUENCE.
RAPID STABILIZATION OF DENUDED AREAS TO MINIMIZE THE PERIOD OF SOIL EXPOSURE.
RAPID STABILIZATION OF DRAINAGE PATHS TO AVOID RILL AND GULLY EROSION.
THE USE OF ONSITE MEASURES TO CAPTURE SEDIMENT (STRAW BALES, SILT FENCE, ETC.).
PROTECTION OF NATURAL RESOURCE AREAS AND DRAINAGE COURSES THROUGH BUFFERING AND THE USE OF BEST MANAGEMENT PRACTICES.
THE IMPLEMENTATION OF LONG-TERM MEASURES FOR EROSION/SEDIMENT POLLUTION TREATMENT THROUGH THE CONSTRUCTION OF PERMANENT WATER QUALITY MEASURES.

b. EROSION AND SEDIMENT CONTROL DEVICES

PRIOR TO AND DURING THE DEVELOPMENT OF THE CONSTRUCTION ACTIVITIES, THE SITE CONTRACTOR SHALL IMPLEMENT AT A MINIMUM THE FOLLOWING EROSION AND SEDIMENTATION CONTROL MEASURES.

SILTATION FENCE

SILTATION FENCE SHALL BE INSTALLED DOWNSTREAM OF ANY DISTURBED AREAS TO TRAP RUNOFF BORNE SEDIMENTS UNTIL THE SITE HAS BEEN STABILIZED. THE SILT FENCE SHALL BE INSTALLED PER THE DETAILS ON THE CONSTRUCTION PLANS AND INSPECTED IMMEDIATELY AFTER EACH RAINFALL EVENT AND AT LEAST DAILY DURING PROLONGED RAINFALL. REPAIRS SHALL BE MADE IMMEDIATELY BY THE CONTRACTOR IF THERE ARE ANY SIGNS OF EROSION OR SEDIMENTATION BELOW THE SILT FENCE LINE. IF SUCH EROSION IS OBSERVED, THE CONTRACTOR SHALL TAKE PROACTIVE ACTION TO IDENTIFY THE CAUSE OF THE EROSION AND TAKE ACTION TO AVOID ITS REOCCURENCE. TYPICALLY, THIS REQUIRES THAT STABILIZATION MEASURES BE TAKEN TO THE DISTURBED TRIBUTARY AREA. PROPER PLACEMENT OF STAKES AND KEYING THE BOTTOM OF THE FABRIC INTO THE GROUND IS CRITICAL FOR THE FILTER'S EFFECTIVENESS. IF THERE ARE SIGNS OF UNDERCUTTING AT THE CENTER OR THE EDGES, OR IMPOUNDING OF LARGE VOLUMES OF WATER BEHIND THE FENCE, THE BARRIER SHALL BE REPLACED WITH A STONE CHECK DAM AND MEASURES TAKEN TO AVOID THE CONCENTRATION OF FLOWS NOT INTENDED TO BE DIRECTED TO THE SILT FENCE.

STRAW MULCH

STRAW MULCH INCLUDING HYDRO SEEDING IS INTENDED TO PROVIDE COVER FOR DENUDED OR SEEDED AREAS UNTIL VEGETATION IS ESTABLISHED. MULCHING SHOULD BE OCCURRING SEVERAL TIMES PER WEEK WHEN THE SITE CONSTRUCTION ACTIVITY IS HIGH AND AT SUFFICIENT INTERVALS TO REDUCE THE PERIOD OF EXPOSURE OF BARE SOILS TO THE TIME LIMITS SET FORTH IN THIS PLAN. MULCH PLACED ON SLOPES OF LESS THAN 10 PERCENT SHALL BE ANCHORED BY APPLYING WATER; MULCH PLACED ON SLOPES STEEPER THAN 10 PERCENT SHALL BE COVERED WITH FABRIC NETTING AS IMMEDIATELY AFTER MULCHING AS PRACTICABLE AND ANCHORED WITH STAPLES IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS. PROPOSED DRAINAGE CHANNELS, WHICH ARE TO BE REVEGETATED, SHALL RECEIVE CURLEW BARRIERS AND/OR GREEN SLOTTED MATS SELECTED FOR THE SLOPE, VELOCITY, AND WHETHER THE MEASURE IS TEMPORARY OR INTENDED TO BE IN PLACE FOR A SUSTAINED PERIOD. STRAW MULCH SHALL BE AVAILABLE ON SITE AT ALL TIMES IN ORDER TO PROVIDE IMMEDIATE TEMPORARY STABILIZATION WHEN NECESSARY.

TEMPORARY STORMWATER SETTLEMENT BASINS

TEMPORARY STORMWATER SETTLEMENT BASINS MAY BE CONSTRUCTED TO PROVIDE SEDIMENTATION CONTROL FOR STORMWATER RUNOFF FROM THE INDIVIDUAL SITE AREAS DURING CONSTRUCTION. THESE BASINS MAY BECOME NECESSARY WHERE OTHER EROSION CONTROL MEASURES ARE NOT ADEQUATE TO PREVENT OFFSITE SEDIMENTATION. THE BASIN SHOULD ONLY BE USED WHERE THERE IS SUFFICIENT SPACE AND APPROPRIATE TOPOGRAPHY. THE BASIN SHOULD BE LARGE ENOUGH TO HANDLE THE MAXIMUM AMOUNT OF EXPECTED SITE DRAINAGE. THE BASIN MAY BE CONSTRUCTED BY EXCAVATION, CONSTRUCTION OF A COMPACTED EMBANKMENT OR A COMBINATION OF BOTH. IT MAY HAVE ONE OR MORE INFLOW POINTS CARRYING POLLUTED RUNOFF. TO IMPROVE TRAP EFFICIENCY, THE BASIN SHOULD HAVE THE MAXIMUM SURFACE AREA POSSIBLE AND SEDIMENT SHOULD ENTER THE BASIN AS FAR FROM THE OUTLET AS POSSIBLE. THIS PROPOSED INFILTRATION MAY BE USED AS A TEMPORARY SEDIMENT BASIN DURING CONSTRUCTION. CONTRACTOR SHALL INSTALL FILTER FABRIC (MIRAFI 140n OR EQUAL) ON THE BOTTOM OF BASIN PRIOR TO DISCHARGE TO BASIN TO PROTECT SOILS FOR FUTURE INFILTRATION. FABRIC SHALL COVER THE ENTIRE BOTTOM AND EXTEND A MINIMUM THREE FEET UP SIDESLOPES. FABRIC SHALL REMAIN IN PLACE UNTIL SITE HAS BEEN PAVED AND/OR STABILIZED. ENGINEER SHALL INSPECT BOTTOM OF BASIN UPON REMOVAL OF FABRIC TO DETERMINE SUITABILITY OF BASIN FOR INFILTRATION.

RIPRAP SLOPES AND DITCH LININGS

RIPRAP CAN BE USED AS A TEMPORARY (OR PERMANENT) METHOD TO PROTECT DENUDED GROUND FROM RUNOFF WITH EROSION VELOCITIES BY DISSIPATING ENERGY AND SLOWING DOWN SURFACE WATER RUNOFF. WELL GRADED RIPRAP FORMS A DENSE, FLEXIBLE, SELF-HEALING COVER THAT ADAPTS WELL TO UNDERLYING SURFACES. RIPRAP SHALL BE PLACED ON A PROPER FILTER MATERIAL OF SAND, GRAVEL OR FLOW TO PREVENT SOIL FROM PILING UPON THE STONE. FOR MOST APPLICATIONS, GRADED RIPRAP IS PREFERRED TO UNIFORM RIPRAP. GRADED RIPRAP FORMS A FLEXIBLE SELF-HEALING COVER WHILE UNIFORM RIPRAP IS MORE RIGID AND CANNOT WITHSTAND THE MOVEMENT OF THE STONES. GRADED RIPRAP IS CHEAPER TO INSTALL, REQUIRING ONLY THAT THE STONES BE DUMPED SO THAT THEY REMAIN IN A WELL-GRADED MASS. HAND OR MECHANICAL PLACEMENT OF INDIVIDUAL STONES IS LIMITED TO THAT NECESSARY TO ACHIEVE THE PROPER THICKNESS AND LINE. UNIFORM RIPRAP REQUIRES PLACEMENT IN A MORE OR LESS UNIFORM PATTERN, REQUIRING MORE HAND OR MECHANICAL LABOR.

STONE CHECK DAMS

A CHECK DAM IS A SMALL DAM CONSTRUCTED ACROSS A DRAINAGE DITCH, SWALE OR CHANNEL TO REDUCE THE VELOCITY OF THE SURFACE RUNOFF. REDUCED RUNOFF VELOCITY REDUCES EROSION AND GULLING IN THE CHANNEL AND ALLOWS THE SEDIMENT TO SETTLE OUT. WHERE TEMPORARY CHANNELS OR PERMANENT CHANNELS ARE NOT YET VEGETATED, CHANNEL LINING IS INFESABLE AND VELOCITY CHECKS ARE REQUIRED. THIS PRACTICE MAY BE USED AS A TEMPORARY OR EMERGENCY MEASURE TO LIMIT EROSION BY REDUCING FLOW IN SMALL OPEN CHANNELS.

STRAW BALE BARRIERS

STRAW BALE BARRIERS ARE USED SIMILARLY TO SILT FENCE SPECIFICALLY WHERE THE AREA BELOW THE BARRIER IS UNDISTURBED AND VEGETATED. STRAW BALE BARRIERS REQUIRE MORE MAINTENANCE THAN SILT FENCE BARRIERS AND PERMEABILITY THROUGH BALE BARRIERS IS SLOWER THAN SILT FENCE. STRAW BALE BARRIERS SHOULD BE LOCATED WHERE THEY WILL TRAP SEDIMENT. STRAW BALES LOCATED ALONG THE TOP OF A RIDGE SERVE NO USEFUL PURPOSE. STRAW BALE BARRIERS SHALL BE REPLACED WHEN THEY HAVE REACHED THEIR USEFUL LIFE AND THE UPSLOPE AREAS UNSTABILIZED.

CULVERT OUTLET APRONS

OUTLET PROTECTION SHOULD BE INSTALLED AT ALL PIPE, CULVERT OR SWALE OUTLETS WHERE VELOCITY OF FLOW MAY CAUSE EROSION AT THE PIPE OUTLET AND IN THE RECEIVING CHANNEL. EROSION AT THESE LOCATIONS IS COMMON AND CAN CAUSE STRUCTURAL FAILURE WITH SERIOUS DOWNSTREAM PROBLEMS. A RIPRAP LINED APRON IS THE MOST COMMONLY USED STRUCTURE FOR THIS PURPOSE BECAUSE IT IS RELATIVELY LOW COST AND CAN BE INSTALLED EASILY ON MOST SITES.

CONSTRUCTION ENTRANCE

A CONSTRUCTION ENTRANCE SHALL BE CONSTRUCTED AT ALL ACCESS POINTS ONTO THE SITE TO PREVENT TRACKING OF SOIL ONTO ADJACENT LOCAL ROADS. PROPOSED CONSTRUCTION ENTRANCES ARE SHOWN ON THE EROSION AND SEDIMENTATION CONTROL PLAN. CONSTRUCTION ENTRANCES PROVIDE AN AREA WHERE MUD CAN BE REMOVED FROM VEHICLE TIRES BEFORE THEY ENTER A PUBLIC ROAD. IF THE ACTION OF THE VEHICLE TRAVELING OVER THE GRAVEL PAD IS NOT SUFFICIENT TO REMOVE THE MAJORITY OF THE MUD, THEN TIRES MUST BE WASHED BEFORE THE VEHICLE ENTERS A PUBLIC ROAD.

INLET PROTECTION

STORM DRAIN CATCH BASIN INLET PROTECTION SHALL BE PROVIDED THROUGH THE USE OF STONE SEDIMENT BARRIERS OR A PREMANUFACTURED SILTSACK AS DISTRIBUTED BY A.H. HARRIS OR AN EQUAL APPROVED EQUAL. THE BARRIERS SHALL BE INSPECTED AFTER EACH RAINFALL AND REPAIRS OR REPLACEMENT MADE AS NECESSARY. SEDIMENT SHALL BE REMOVED AND THE BARRIER RESTORED TO ITS ORIGINAL DIMENSIONS WHEN SEDIMENT HAS ACCUMULATED TO 1/3 THE DESIGN DEPTH OF THE BARRIER. THE BARRIER OR SILTSACK SHALL BE REMOVED WHEN THE TRIBUTARY DRAINAGE AREA HAS BEEN STABILIZED.

FILTER BAGS

FILTER BAGS WILL BE REQUIRED TO BE ONSITE AND AVAILABLE FOR CONSTRUCTION DEWATERING. THE USE OF FILTER BAGS SHALL BE REQUIRED IN THE EVENT THAT TRENCH DEWATERING ACTIVITIES CANNOT BE DISCHARGED THROUGH A NATURAL BUFFER AREA AT LEAST 100 FEET IN LENGTH OR AT ANY SIGNS OF ANY TURBID DISCHARGE FROM THE SITE.

SLOPE PROTECTION

ADDITIONAL SLOPE PROTECTION WILL BE REQUIRED IN AREAS OF STEEP SLOPES AND WHERE PROPOSED GRADES MEET EXISTING GRADES AT ACUTE ANGLES THAT COULD CAUSE GULLY EROSION. THIS PROTECTION WILL BE MAINLY IN THE FORM OF THE INSTALLATION OF EROSION CONTROL BLANKETS IN AREAS WHERE SLOPES EXCEED 3:1, H.V. UP TO 2:1, H.V. AREAS WHERE SLOPES EXCEED 2:1, H.V. SHOULD BE STABILIZED WITH RIPRAP SLOPE PROTECTION.

LOAM AND SEED

LOAM AND SEED IS INTENDED TO SERVE AS THE PRIMARY PERMANENT REVEGETATION MEASURE FOR ALL DENUDED AREAS NOT PROVIDED WITH OTHER EROSION CONTROL MEASURES, SUCH AS RIPRAP OR PERMANENTLY COVERED WITH ROADWAY GRAVEL, PAVEMENT OR BUILDING AREA.

f. TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES

THE FOLLOWING ARE PLANNED AS TEMPORARY EROSION AND SEDIMENTATION CONTROL MEASURES DURING CONSTRUCTION:

- A CRUSHED STONE-STABILIZED CONSTRUCTION ENTRANCE SHALL BE PLACED AT ANY CONSTRUCTION ACCESS POINTS INTO THE SITE. THE LOCATIONS OF THE CONSTRUCTION ENTRANCES SHOWN ON THE DRAWINGS SHOULD BE CONSIDERED ILLUSTRATIVE AND ADJUSTED AS APPROPRIATE AND LOCATED AT ANY AREA WHERE TRACKING OF MUD AND DEBRIS ONTO EXISTING ROADS, PREVIOUSLY PAVED AREAS WITHIN THE PROJECT, OR STREETS IS A POTENTIAL. STONE STABILIZED CONSTRUCTION ENTRANCES WILL REQUIRE THE STONE TO BE REMOVED AND REPLACED AS IT BECOMES COVERED OR FILLED WITH MUD AND MATERIAL TRACKED BY VEHICLES EXITING THE SITE.
SILTATION FENCE OR AN EQUIVALENT SEDIMENT BARRIER SHALL BE INSTALLED ALONG THE DOWNGRADENT SIDE OF THE PROPOSED IMPROVEMENT AREAS. THE SILTATION FENCE WILL REMAIN IN PLACE AND PROPERLY MAINTAINED UNTIL THE SITE IS ACCEPTABLY REVEGETATED. SILTATION FENCE IS TO BE USED ALONG THE CONTOUR OF SIGNIFICANT FILL SLOPES AS ILLUSTRATED ON THE EROSION CONTROL PLAN SITE DRAWINGS. SILTATION FENCE NEEDS TO BE CHECKED TO INSURE THE BOTTOM IS PROPERLY KEYED IN AND INSPECTED AFTER SIGNIFICANT RAINS.

WOOD CHIPS FROM CLEARING ARE OFTEN USED ON THE CONSTRUCTION SITE IN FRONT OF THE SILT FENCE TO PROVIDE AN EXTRA MARGIN OF SAFETY AND SECURITY FOR THE SILT FENCE. THIS PRACTICE IS ENCOURAGED, PROVIDED THE CHIPS ARE REMOVED OR DISPERSED INTO FORESTED AREAS WHEN THE FENCE IS REMOVED.

- FILTER BAGS SHALL BE INSTALLED IN ACCORDANCE WITH THE DETAILS IN THE PLAN SET. THE FILTER BAG'S FUNCTION ON THE PROJECT IS TO RECEIVE ANY WATER PUMPED FROM EXCAVATIONS DURING CONSTRUCTION, A FILTER BAG SHALL BE INSTALLED AND PREPARED FOR OPERATION PRIOR TO ANY TRENCHING ON SITE. WHEN FILTER BAGS ARE OBSERVED TO BE AT 50% CAPACITY, THEY SHALL BE CLEANED OR REPLACED. STONE UNDER THE FILTER BAGS SHALL BE REMOVED AND REPLACED CONCURRENTLY.

- TEMPORARY STOCKPILES OF COMMON EXCAVATION WILL BE PROTECTED AS FOLLOWS:
TEMPORARY STOCKPILES SHALL NOT BE LOCATED WITHIN 100 FEET OF CRITICAL AREAS AND AT LEAST 50 FEET UPDROVE OF THE PERMETER SILT FENCE.
INACTIVE STOCKPILES SHALL BE STABILIZED WITHIN 5 DAYS BY EITHER TEMPORARILY SEEDING THE STOCKPILE WITH A HYDRO SEED METHOD CONTAINING AN EMULSIFIED MULCH TACKIFIER OR BY COVERING THE STOCKPILE WITH MULCH. IF NECESSARY, MESH SHALL BE INSTALLED TO PREVENT WIND FROM REMOVING THE MULCH.

- OPEN AREAS OF THE SITE SHALL BE LIMITED TO 5 ACRES. ALL DENUDED AREAS WHICH HAVE BEEN ROUGH GRADED SHALL RECEIVE MULCH OR EROSION CONTROL MESH FABRIC WITHIN 7 DAYS OF INITIAL DISTURBANCE OF SOIL. DISTURBED AREAS WITHIN 75' OF CRITICAL AREAS MUST RECEIVE TEMPORARY EROSION CONTROL MEASURES WITHIN 48 HOURS.

- BETWEEN NOVEMBER 1 AND APRIL 1, OPEN AREA SHALL BE LIMITED TO THREE ACRES, AND DISTURBED SOIL SHALL BE COVERED WITH MULCH WITHIN 5 DAYS OF DISTURBANCE, PRIOR TO ANY PREDICTED STORM EVENT OF THE EQUIVALENT OF 1/2" OF EQUIVALENT RAINFALL IN A 24-HOUR PERIOD, OR PRIOR TO ANY WORK SHUTDOWN LASTING MORE THAN 48 HOURS (INCLUDING WEEKENDS AND HOLIDAYS). THE MULCH RATE SHALL BE DOUBLE THE NORMAL RATE.

- FOR WORK THAT IS CONDUCTED BETWEEN NOVEMBER 1 AND APRIL 15 OF ANY CALENDAR YEAR, ALL DENUDED AREAS WILL BE COVERED WITH HAY MULCH, APPLIED AT TWICE THE NORMAL APPLICATION RATE, AND (IN AREAS OVER 10% GRADE) ANCHORED WITH A FABRIC NETTING. THE TIME PERIOD FOR APPLYING MULCH SHALL BE LIMITED TO 5 DAYS FOR ALL AREAS OR IMMEDIATELY IN ADVANCE OF A PREDICTED RAINFALL EVENT.

- THE PAVED ACCESS ROADS SHALL BE SWEEP TO CONTROL MUD AND DUST AS NECESSARY. A STREET SWEEPER SHALL BE AVAILABLE FROM THE CONTRACTOR ON IMMEDIATE NOTICE OR AS REQUESTED BY THE OWNER OR REGULATORY AGENCY.

- STONE CHECK DAMS OR HAY BALE BARRIERS WILL BE INSTALLED AT ANY EVIDENT CONCENTRATED FLOW DISCHARGE POINTS DURING CONSTRUCTION AND EARTHWORK OPERATIONS.

- SILT FENCING WITH A MAXIMUM STAKE SPACING OF 8 FEET SHOULD BE USED, UNLESS THE FENCE IS SUPPORTED BY WIRE FENCING, REINFORCEMENT OF MINIMUM 1/4 GAUGE AND WITH A MAXIMUM MESH SPACING OF 6 INCHES, IN WHICH CASE STAKES MAY BE SPACED A MAXIMUM OF 10 FEET APART. THE BOTTOM OF THE FENCE SHOULD BE PROPERLY ANCHORED A MINIMUM OF 6" PER THE PLAN DETAIL AND BACKFILLED. ANY SILT FENCE IDENTIFIED BY THE OWNER OR REVIEWING AGENCIES AS NOT BEING PROPERLY INSTALLED DURING CONSTRUCTION SHALL BE IMMEDIATELY REPAIRED IN ACCORDANCE WITH THE INSTALLATION DETAILS.

- STORM DRAIN CATCH BASIN INLET PROTECTION SHALL BE PROVIDED THROUGH THE USE OF STONE SEDIMENT BARRIERS OR A PREMANUFACTURED SILTSACK* AS DISTRIBUTED BY A.H. HARRIS COMPANY, PORTLAND, MAINE. STONE SEDIMENT BARRIER INSTALLATION DETAILS ARE PROVIDED IN THE PLAN SET. THE BARRIERS OR SILTSACKS* SHALL BE INSPECTED AFTER EACH RAINFALL AND REPAIRS MADE AS NECESSARY, INCLUDING THE REMOVAL OF SEDIMENT. SEDIMENT SHALL BE REMOVED AND THE BARRIER OR SILTSACK* RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO 1/3 THE DESIGN DEPTH OF THE BARRIER. INLET PROTECTION SHALL BE REMOVED WHEN THE TRIBUTARY DRAINAGE AREA HAS BEEN STABILIZED.

- SLOPES STEEPER THAN 3:1 SHALL RECEIVE EROSION CONTROL MESH.
ALL AREAS WHICH FEATURE NARROW ANGLES OF SLOPE INTERFACE BETWEEN PROPOSED SURFACES AND EXISTING SURFACES SHALL RECEIVE EROSION CONTROL MESH TO PREVENT GULLING.
ADDITIONAL SILTATION FENCES OR SEDIMENT BARRIERS SHALL BE INSTALLED AS CONSTRUCTION PROGRESSES.
AREAS OF VISIBLE EROSION SHALL BE STABILIZED WITH CRUSHED STONE OR EQUIVALENT MEASURES.

g. STANDARDS FOR STABILIZING SITES FOR WINTER CONDITIONS

THE CONSTRUCTION OF THE PROJECT WILL EXTEND INTO THE WINTER SEASON. THE CONTRACTOR SHALL SCHEDULE WORK TO AVOID CONSTRUCTION OF STORMWATER BASINS DURING THE WINTER MONTHS. FOR PERMITTED WINTER CONSTRUCTION, THE EROSION CONTROL MEASURES ARE SUBSTANTIALLY MORE STRINGENT DUE TO COLD TEMPERATURES AND LACK OF MOISTURE WHICH AIDS IN DRYING THE SUBGRADE SOILS THROUGH EVAPORATION.

THE WINTER CONSTRUCTION PERIOD IS FROM NOVEMBER 15TH THROUGH MARCH 15TH. IF THE CONSTRUCTION SITE IS NOT STABILIZED WITH PAVEMENT, AGGREGATE SUBBASE GRAVEL, 90% MATURE VEGETATION COVER OR RIPRAP PRIOR TO NOVEMBER 15TH, THEN THE SITE NEEDS TO BE PROTECTED WITH OVER-WINTER STABILIZATION. AN AREA CONSIDERED OPEN IS ANY AREA THAT IS NOT STABILIZED WITH PAVEMENT, VEGETATION, MULCHING, EROSION CONTROL MIX, EROSION CONTROL MATS, RIPRAP OR SUBBASE GRAVEL.

DURING THE WINTER CONSTRUCTION PERIOD THE CONTRACTOR SHALL INSTALL EROSION CONTROL MIX BERMS IN LIEU OF SILT FENCE. DURING THE WINTER CONSTRUCTION PERIOD, A DOUBLE ROW OF SEDIMENT BARRIERS SHALL BE PLACED BETWEEN ANY DRAINAGE PATH AND THE DISTURBED AREA.

IN ADDITION, DURING THE WINTER CONSTRUCTION PERIOD THE AMOUNT OF EXPOSED AREA SHALL BE LIMITED TO THAT WHICH CAN BE MULCHED WITHIN ONE DAY IN THE EVENT OF A PREDICTED STORM AND SHALL NOT EXCEED A MAXIMUM OPEN AREA OF ONE ACRE.

STANDARD FOR THE TIMELY STABILIZATION OF DITCHES AND CHANNELS: THE CONTRACTOR SHALL CONSTRUCT AND STABILIZE ALL STONE-LINED DITCHES AND CHANNELS ON THE SITE BY NOVEMBER 15TH. THE CONTRACTOR SHALL CONSTRUCT AND STABILIZE ALL GRASS LINED DITCHES AND CHANNELS ON THE SITE BY SEPTEMBER 1ST. IF THE CONTRACTOR FAILS TO STABILIZE A DITCH OR CHANNEL TO BE GRASS LINED BY SEPTEMBER 1ST, THEN THE CONTRACTOR SHALL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE DITCH FOR LATE FALL AND WINTER.

i. INSTALL A SOD LINING IN THE DITCH. THE CONTRACTOR SHALL LINE THE DITCH WITH PROPERLY INSTALLED SOD BY OCTOBER 1ST. PROPER INSTALLATION INCLUDES THE APPLICANT PINNING THE SOD ONTO THE SOIL WITH WIRE PINS ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL, AND ANCHORING THE SOD WITH JUTE OR PLASTIC MESH TO PREVENT THE SOD STRIPS FROM SLOUGHING DURING FLOW CONDITIONS.

ii. INSTALL A STONE LINING IN THE DITCH. THE CONTRACTOR SHALL LINE THE DITCH WITH STONE RIPRAP BY NOVEMBER 1ST. THE CONTRACTOR SHALL HIRE A REGISTERED PROFESSIONAL ENGINEER TO DETERMINE THE STONE SIZE AND LINING THICKNESS NEEDED TO WITHSTAND THE ANTICIPATED FLOW VELOCITIES AND FLOW DEPTHS WITHIN THE DITCH. IF NECESSARY, THE CONTRACTOR SHALL REGRADE THE DITCH PRIOR TO PLACING THE STONE LINING SO AS TO PREVENT THE STONE LINING FROM REDUCING THE DITCH'S CROSS SECTIONAL AREA.

STANDARD FOR THE TIMELY STABILIZATION OF DISTURBED SLOPES: THE CONTRACTOR SHALL CONSTRUCT AND STABILIZE STONE COVERED SLOPES BY NOVEMBER 15TH. THE CONTRACTOR SHALL SEED AND MULCH ALL SLOPES TO BE VEGETATED BY SEPTEMBER 1ST. A SLOPE IS CONSIDERED ANY AREA HAVING A GRADE OF GREATER THAN 15% (10n:1n). IF THE CONTRACTOR FAILS TO STABILIZE ANY SLOPE TO BE VEGETATED BY SEPTEMBER 15TH, THEN THE CONTRACTOR SHALL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE SLOPE FOR LATE FALL AND WINTER:

i. STABILIZE THE SOIL WITH TEMPORARY VEGETATION AND EROSION CONTROL MESH. BY OCTOBER 1ST THE CONTRACTOR SHALL SEED THE DISTURBED SLOPE WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1000 SQUARE FEET AND APPLY EROSION CONTROL MATS OVER THE MULCHED SLOPE. THE CONTRACTOR SHALL MONITOR GROWTH OF THE RYE OVER THE NEXT 45 DAYS. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR FAILS TO COVER AT LEAST 75% OF THE DISTURBED SLOPE BY NOVEMBER 15TH, THEN THE CONTRACTOR SHALL COVER THE SLOPE WITH A LAYER OF WOOD WASTE COMPOST AS DESCRIBED IN ITEM III OF THIS STANDARD OR WITH STONE RIP RAP AS DESCRIBED IN ITEM IV OF THIS STANDARD.

ii. STABILIZE THE SLOPE WITH SOD. THE CONTRACTOR SHALL STABILIZE THE DISTURBED SLOPE WITH PROPERLY INSTALLED SOD BY OCTOBER 1ST. PROPER INSTALLATION INCLUDES THE CONTRACTOR PINNING THE SOD ONTO THE SLOPE WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL. THE CONTRACTOR SHALL NOT USE LATE-SEASON SOD INSTALLATION TO STABILIZE SLOPES HAVING A GRADE GREATER THAN 33% (3n: 1v) OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE.

iii. STABILIZE THE SLOPE WITH WOOD WASTE COMPOST. THE CONTRACTOR SHALL PLACE A SIX-INCH LAYER OF WOOD WASTE COMPOST ON THE SLOPE BY NOVEMBER 15TH PRIOR TO PLACING THE WOOD WASTE COMPOST. THE CONTRACTOR SHALL REMOVE ANY SNOW ACCUMULATION ON THE DISTURBED SLOPE. THE CONTRACTOR SHALL NOT USE WOOD WASTE COMPOST TO STABILIZE SLOPES HAVING GRADES GREATER THAN 50% (2h: 1v) OR HAVING GROUNDWATER SEEPS ON THE SLOPE FACE.

iv. STABILIZE THE SLOPE WITH STONE RIPRAP. THE CONTRACTOR SHALL PLACE A LAYER OF STONE RIPRAP ON THE SLOPE BY NOVEMBER 15TH. THE CONTRACTOR SHALL HIRE A REGISTERED PROFESSIONAL ENGINEER TO DETERMINE THE STONE SIZE NEEDED FOR STABILITY AND TO DESIGN A FILTER LAYER FOR UNDERNEATH THE RIPRAP.

STANDARD FOR THE TIMELY STABILIZATION OF DISTURBED SOIL: BY SEPTEMBER 15TH, THE CONTRACTOR SHALL SEED AND MULCH ALL DISTURBED SOILS ON AREAS HAVING A SLOPE LESS THAN 15%. IF THE CONTRACTOR FAILS TO STABILIZE THESE SOILS BY THIS DATE, THEN THE CONTRACTOR SHALL TAKE ONE OF THE FOLLOWING ACTIONS TO STABILIZE THE SOIL FOR LATE FALL AND WINTER.

i. STABILIZE THE SOIL WITH TEMPORARY VEGETATION. BY OCTOBER 1ST, THE CONTRACTOR SHALL SEED THE DISTURBED SOIL WITH WINTER RYE AT A SEEDING RATE OF 3 POUNDS PER 1,000 SQUARE FEET, LIGHTLY MULCH THE SEEDS. THE SOIL WITH HAY OR STRAW AT 75 POUNDS PER 1,000 SQUARE FEET, AND ANCHOR THE MULCH WITH PLASTIC NETTING. THE CONTRACTOR SHALL MONITOR THE GROWTH OF THE RYE OVER THE NEXT 45 DAYS. IF THE RYE FAILS TO GROW AT LEAST THREE INCHES OR FAILS TO COVER AT LEAST 75% OF THE DISTURBED SOIL BEFORE NOVEMBER 15TH, THEN THE CONTRACTOR SHALL MULCH THE AREA FOR OVER-WINTER PROTECTION AS DESCRIBED IN ITEM III OF THIS STANDARD.

ii. STABILIZE THE SOIL WITH SOD. THE CONTRACTOR SHALL STABILIZE THE DISTURBED SOIL WITH PROPERLY INSTALLED SOD BY OCTOBER 1ST. PROPER INSTALLATION INCLUDES THE CONTRACTOR PINNING THE SOD ONTO THE SOIL WITH WIRE PINS, ROLLING THE SOD TO GUARANTEE CONTACT BETWEEN THE SOD AND UNDERLYING SOIL, AND WATERING THE

SOD TO PROMOTE ROOT GROWTH INTO THE DISTURBED SOIL.

iii. STABILIZE THE SOIL WITH MULCH. BY NOVEMBER 15TH, THE CONTRACTOR SHALL MULCH THE DISTURBED SOIL BY SPREADING HAY OR STRAW AT A RATE OF AT LEAST 150 POUNDS PER 1,000 SQUARE FEET ON THE AREA SO THAT NO SOIL IS VISIBLE THROUGH THE MULCH. PRIOR TO APPLYING THE MULCH, THE CONTRACTOR SHALL REMOVE ANY SNOW ACCUMULATION ON THE DISTURBED AREA. IMMEDIATELY AFTER APPLYING THE MULCH, THE CONTRACTOR SHALL ANCHOR THE MULCH WITH PLASTIC NETTING TO PREVENT WIND FROM MOVING THE MULCH OFF THE DISTURBED SOIL.

STANDARD FOR TIMELY STABILIZATION OF SOIL STOCKPILES: STOCKPILES OF SOIL OR SUBSOIL WILL BE MULCHED FOR OVER WINTER PROTECTION WITH HAY OR STRAW AT TWICE THE NORMAL APPLICATION RATE OR WITH A FOUR-INCH THICK LAYER OF EROSION CONTROL MIX. THIS WILL BE COMPLETED WITHIN 24-HOURS OF STOCKPILING OR RE-ESTABLISHED OR RE-ESTABLISHED PRIOR TO ANY TRENCHING ON SITE. ANY SOD STOCKPILE WILL NOT BE PLACED (EVEN COVERED WITH MULCH) WITHIN 100 FEET FROM A NATURAL RESOURCE (I.E. WETLAND, ETC.).

h. SPECIAL MEASURES FOR SUMMER CONDITIONS

THE SUMMER PERIOD IS GENERALLY OPTIMUM FOR CONSTRUCTION FOR THIS SITE BUT IT IS ALSO THE PERIOD WHERE INTENSE SHORT DURATION STORMS ARE MOST COMMON MAKING DENUDED AREAS VERY SUSCEPTIBLE TO EROSION, WHERE DUST CONTROL NEEDS TO BE THE MOST STRINGENT, AND WHERE THE POTENTIAL TO ESTABLISH VEGETATION IS OFTEN RESTRICTED BY MOISTURE DEFICIT. DURING THESE PERIODS THE CONTRACTOR MUST:

- IMPLEMENT A PROGRAM TO APPLY DUST CONTROL MEASURES ON A DAILY BASIS EXCEPT THOSE DAYS WHERE THE PRECIPITATION EXCEEDS 0.25 INCHES;

- SPRAY THE MULCH AFTER ANCHORING WITH WATER TO DAMPEN THE SOIL AND ENCOURAGE EARLY GROWTH. TEMPORARY SEED MAY BE REQUIRED UNTIL THE LATE SUMMER SEEDING SEASON.

- MULCH, COVER, AND MOISTEN STOCKPILES OF FINE-GRAINED MATERIALS THAT ARE SUSCEPTIBLE TO EROSION.

- TAKE ADDITIONAL STEPS NEEDED TO CONTROL FUGITIVE DUST EMISSIONS TO MINIMIZE REDUCTIONS IN VISIBILITY AND THE AIRBORNE DISBURSEMENT OF FINE-GRAINED SOILS. THESE MEASURES MAY ALSO BE REQUIRED IN THE SPRING AND FALL DURING THE DRIER PERIODS OF THESE SEASONS.

i. PERMANENT EROSION CONTROL MEASURES

THE FOLLOWING PERMANENT EROSION CONTROL MEASURES HAVE BEEN DESIGNED AS PART OF THE EROSION AND SEDIMENTATION CONTROL PLAN:

- THE DRAINAGE CONVEYANCE SYSTEMS HAVE BEEN DESIGNED TO INTERCEPT AND CONVEY THE 25-YEAR STORM. IN THE CASE OF OPEN CHANNELS OR SWALES, THIS INCLUDES THE DESIGN OF MEASURES TO RESIST SCOUR OF THE CHANNEL.

- ALL STORM DRAIN PIPES SHALL HAVE RIPRAP APRONS AT THEIR OUTLET TO PROTECT THE OUTLET AND RECEIVING CHANNEL OF THE CULVERTS FROM SCOUR AND DETRIORATION. INSTALLATION DETAILS ARE PROVIDED IN THE PLAN SET. THE APRONS SHALL BE INSTALLED AND STABILIZED PRIOR TO DIRECTING RUNOFF TO THE TRIBUTARY PIPE OR CULVERT.

- ALL AREAS DISTURBED DURING CONSTRUCTION, BUT NOT SUBJECT TO OTHER RESTORATION (PAVING, RIPRAP, ETC.) WILL BE LOAMED, LIMED, FERTILIZED, MULCHED, AND SEEDED. FABRIC NETTING, ANCHORED WITH STAPLES, SHALL BE PLACED OVER THE MULCH IN AREAS WHERE THE FINISH GRADE SLOPE IS GREATER THAN 10 PERCENT. NATIVE TOPSOIL SHALL BE STOCKPILED AND TEMPORARILY STABILIZED WITH SEED AND MULCH AND REUSED FOR FINAL RESTORATION WHEN IT IS OF SUFFICIENT QUALITY.

- CATCH BASINS SHALL BE PROVIDED WITH SEDIMENT SLUMPS FOR ALL OUTLET PIPES THAT ARE 12" IN DIAMETER OR GREATER.

j. TIMING AND SEQUENCE OF THE EROSION CONTROL MEASURES

THE FOLLOWING CONSTRUCTION SEQUENCE SHALL BE REQUIRED TO INSURE THE EFFECTIVENESS OF THE EROSION AND SEDIMENTATION CONTROL MEASURES ARE OPTIMIZED.

NOTE: FOR ALL GRADING ACTIVITIES, THE CONTRACTOR SHALL EXERCISE EXTREME CAUTION NOT TO OVEREXPOSE THE SITE BY LIMITING THE DISTURBED AREA AND SHALL STABILIZE ANY STEEP SLOPES WITHIN 24 HOURS IF FINAL SLOPE GRADING AND STABILIZATION WILL NOT BE COMPLETED WITHIN 7 DAYS. ANY FINAL SLOPES SHALL HAVE THE SPECIFIED EROSION CONTROL MEASURES INSTALLED WITHIN 7 DAYS OF FINAL STABILIZATION.

- INSTALL CRUSHED STONE-STABILIZED CONSTRUCTION ENTRANCES AS SHOWN ON THE EROSION AND SEDIMENTATION CONTROL PLAN.

- MARK THE GRADING AND CLEARING LIMITS AND INITIATE CLEARING THAT WILL PERMIT THE CONTRACTOR TO ACCESS THE SITE AND INSTALL SILT FENCE.

- INSTALL SILTATION FENCE WHERE SHOWN ON THE CONTRACT DRAWINGS. DURING PERIODS OF NOVEMBER 1ST THROUGH APRIL 15TH, THE CONTRACTOR SHALL INSTALL EROSION CONTROL MIX BERMS IN LIEU OF SILT FENCE.

- ESTABLISH AND PREPARE FILTER BAG AREAS.

- SHAPE THE SUBGRADE OF THE PROPOSED INFILTRATION BASINS FOR THE AREA OF THE SITE THAT IS UNDER CONSTRUCTION.

- CONSTRUCT DIVERSION AND DRAINAGE CHANNELS TO DIRECT FLOW TO THE STORMWATER FACILITIES FROM THE LOT DEVELOPMENT AND ROADWAY AREAS.

- PREPARE AREA TO RECEIVE EXCAVATED MATERIAL RECOGNIZING THE NEED TO LIMIT THE DENUDED AREA OF THE SITE.

- BEGIN EARTHWORK WITHIN THE BUILDING PAD AREAS.

- CONSTRUCT THE DISTURBED AREAS TO SUBGRADE AND RESTORE THE SLOPES.

- INSTALL STONE AND HAY BALE CHECK DAMS AT ANY CONCENTRATED FLOW DISCHARGE POINTS.

- INSTALL STORM DRAIN AND OTHER UTILITY WORK. INSTALL INLET AND OUTLET PROTECTION IMMEDIATELY AFTER THE INSTALLATION OF ANY CULVERTS. PUMP ANY ACCUMULATED WATER WITHIN THE TRENCHES TO A FILTER BAG.

- PLACE GRAVELS IN THE PAVED AREAS AS SOON AS SUBGRADE IS PREPARED TO MINIMIZE THE PERIOD THAT THE UNPROTECTED SUBGRADE IS EXPOSED AND VULNERABLE TO EROSION FROM RUNOFF EVENTS.

- RAISE CATCH BASINS TO GRADE AND INSTALL INLET PROTECTION DEVICES, THE SILTSACK* INSIDE THE BASIN, AND THE EXTERNAL HAY BALES OR STONE FILTER (IF APPLICABLE).

- INSTALL BINDER PAVEMENT.

- LOAM, LIME, FERTILIZE, SEED AND MULCH ALL DISTURBED AND DENUDED AREAS.

- REMOVE ALL ACCUMULATED SEDIMENT FROM SILT BARRIERS.

- REVIEW STABILITY OF THE SITE. REMOVAL OF EROSION CONTROL MEASURES SHALL BE PERFORMED WITHIN 30 DAYS OF ESTABLISHING PERMANENT STABILIZATION. PERMANENT STABILIZATION IN GRASSSED AREAS IS ESTABLISHED WITH 90% CATCH OF GRASS WITH NO EVIDENCE OF FILLING OR EROSION.

THIS SEQUENCE IS APPLICABLE TO ALL PHASES OF THE PROJECT.

SOIL WILL BE CONSIDERED DISTURBED IF IT DOES NOT HAVE AN ESTABLISHED STAND OF VEGETATION COVERING AT LEAST 90% OF THE SOIL SURFACE OR HAS NOT BEEN MULCHED WITH HAY APPLIED AT A RATE OF 230 LB./1,000 SQ. FT.

k. PROVISIONS FOR MAINTENANCE OF THE EROSION CONTROL MEASURES

THIS PROJECT IS SUBJECT TO THE REQUIREMENTS OF A US EPA NPDES PERMIT AND AN ACCOMPANYING STORMWATER POLLUTION PREVENTION PLAN (SWPPP.) THESE DOCUMENTS REQUIRE THE CONTRACTOR TO PREPARE A LIST AND DESIGNATE BY NAME, ADDRESS AND TELEPHONE NUMBER ALL INDIVIDUALS WHO WILL BE RESPONSIBLE FOR IMPLEMENTATION, INSPECTION AND MAINTENANCE OF ALL EROSION CONTROL MEASURES IDENTIFIED WITHIN THIS SECTION AND AS CONTAINED WITHIN THE CONTRACT DRAWINGS. SPECIFIC RESPONSIBILITIES OF THE INSPECTOR(S) WILL INCLUDE, BUT NOT BE LIMITED TO:

- EXECUTION OF THE CONTRACTOR/SUBCONTRACTOR CERTIFICATION BY ANY AND ALL PARTIES RESPONSIBLE FOR EROSION CONTROL MEASURES ON THE SITE AS REQUIRED BY THE SWPPP.

- ASSURING AND CERTIFYING THE OWNER'S CONSTRUCTION SEQUENCE IS IN CONFORMANCE WITH THE SPECIFIED SCHEDULE OF THIS SECTION. A WEEKLY CERTIFICATION STATING COMPLIANCE, ANY DEVIATIONS, AND CORRECTIVE MEASURES NECESSARY TO COMPLY WITH THE EROSION CONTROL REQUIREMENTS OF THIS SECTION SHALL BE PREPARED AND SIGNED BY THE INSPECTOR(S).

- IN ADDITION TO THE WEEKLY CERTIFICATIONS, THE INSPECTOR(S) SHALL MAINTAIN WRITTEN REPORTS RECORDING CONSTRUCTION ACTIVITIES ON SITE WHICH INCLUDE DATES WHEN MAJOR GRADING ACTIVITIES OCCUR IN A PARTICULAR AREA, DATES WHEN MAJOR CONSTRUCTION ACTIVITIES CEASE IN A PARTICULAR AREA, EITHER TEMPORARY OR PERMANENT, DATES WHEN AN AREA IS STABILIZED.

- INSPECTION OF THE PROJECT WORK SITE AT LEAST ONCE EVERY FOURTEEN (14) CALENDAR DAYS AND

BEFORE AND AFTER EACH SIGNIFICANT RAINFALL EVENT (0.25 INCHES OR MORE IN ANY 24-HOUR PERIOD) DURING CONSTRUCTION UNTIL PERMANENT EROSION CONTROL MEASURES HAVE BEEN PROPERLY INSTALLED AND THE SITE HAS BEEN STABILIZED. INSPECTION OF THE PROJECT WORK SITE SHALL INCLUDE:

A. IDENTIFICATION OF PROPER EROSION CONTROL MEASURE INSTALLATION IN ACCORDANCE WITH THE EROSION CONTROL DETAIL SHEET OR AS SPECIFIED IN THIS SECTION.

B. DETERMINE WHETHER EACH EROSION CONTROL MEASURE IS PROPERLY OPERATING. IF NOT, IDENTIFY DAMAGE TO THE CONTROL DEVICE AND DETERMINE REMEDIAL MEASURES.

C. IDENTIFY AREAS THAT APPEAR VULNERABLE TO EROSION AND DETERMINE ADDITIONAL EROSION CONTROL MEASURES THAT SHOULD BE USED TO IMPROVE CONDITIONS.

D. INSPECT AREAS OF RECENT SEEDING TO DETERMINE PERCENT CATCH OF GRASS. A MINIMUM CATCH OF 90 PERCENT IS REQUIRED PRIOR TO REMOVAL OF EROSION CONTROL MEASURES.

E. RECORD

