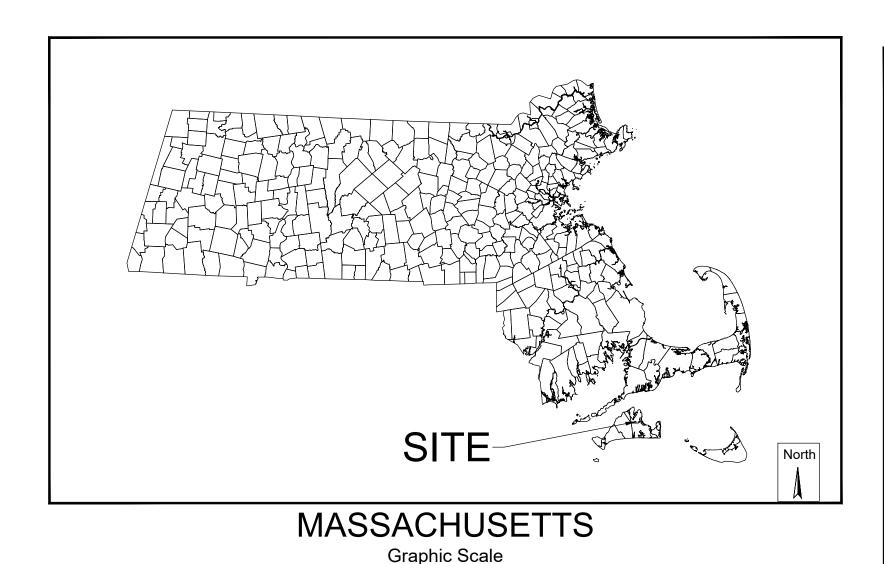
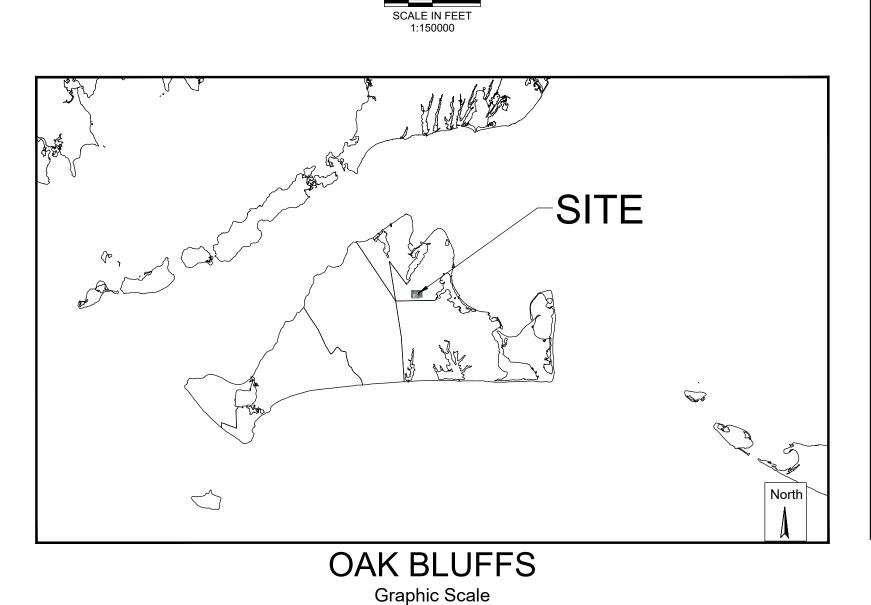
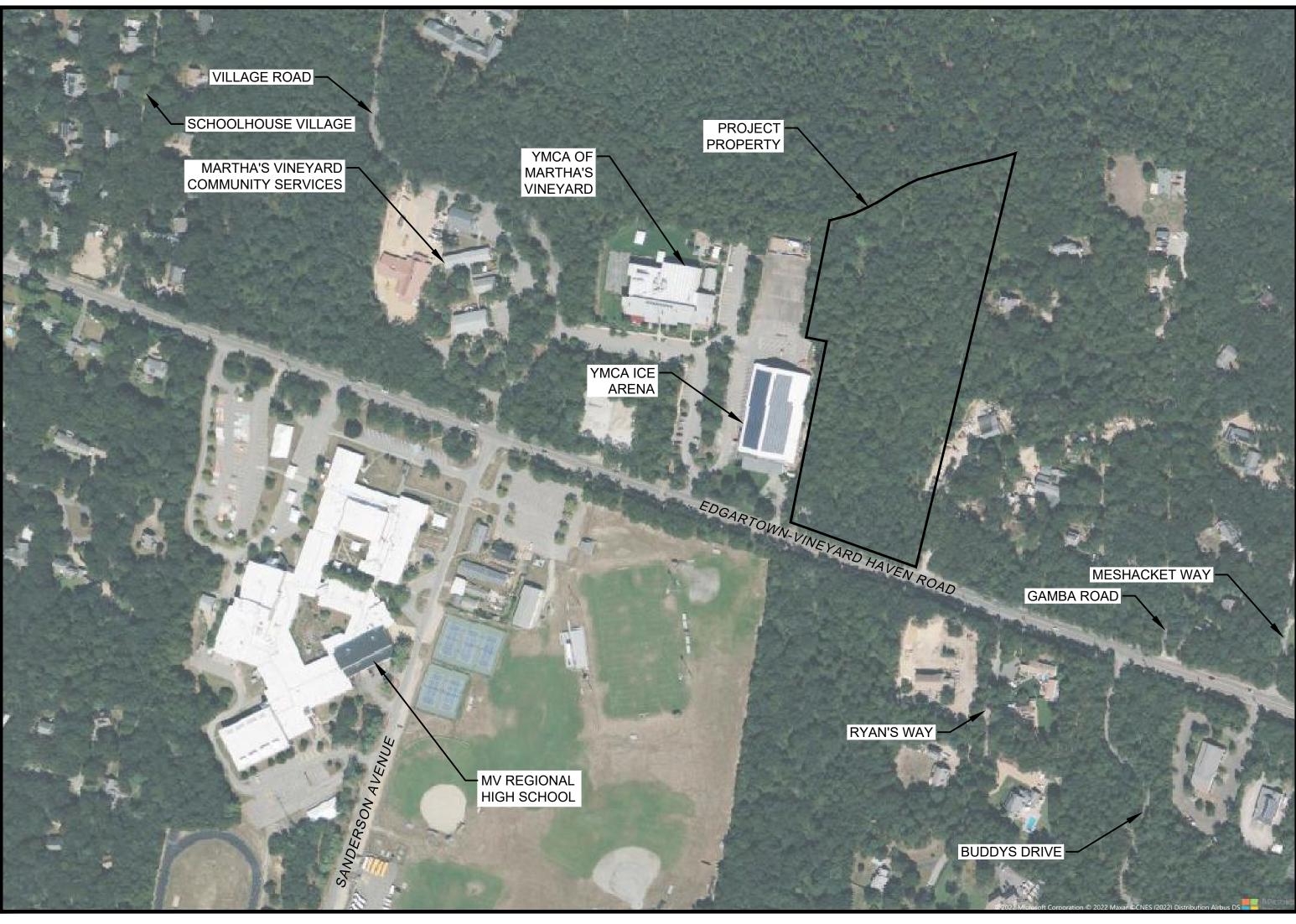
SOUTHERN TIER PERMIT PLANS 85 EDGARTOWN-VINEYARD HAVEN ROAD OAK BLUFFS, MASSACHUSETTS

DECEMBER 8, 2022







VICINITY MAP Graphic Scale 1-inch = 200-feet

PROJECT PARTNERS:

EXPANDING ECONOMIC OPPORTUNITY



CIVIL ENGINEER & LANDSCAPE ARCHITECT: Horsley Witten Group

UNION STUDIO ARCHITECTURE & COMMUNITY DESIGN

ARCHITECT:

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GENERAL NOTES:

- THIS PLAN SET IS FOR <u>PERMITTING ONLY</u> AND NOT FOR CONSTRUCTION. ABUTTER INFORMATION FROM ASSESSOR'S MAP.

85 EDGARTOWN VINEYARD HAVEN RD. ZONING DISTRICT: R-3

SOUTHERN TIER PERMIT PLANS 85 EDGARTOWN-VINEYARD HAVEN ROAD OAK BLUFFS, MASSACHUSETTS

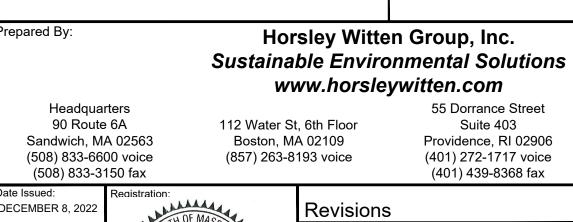
Affirmative Investments, Inc. 33 Union St, 2nd Floor Boston, MA 02108

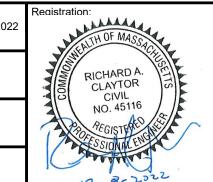
Island Housing Trust P.O. Box 779 West Tisbury, MA 02575

113 R2 Water Street

Exeter, NH 03833

(603) 658-1660 voice





22008 1 of 18 C - 1 Date By Appr. Description

PERMITTING SET ONLY NOT FOR CONSTRUCTION

90 Route 6A • Unit 1 • Sandwich, MA 02563

GENERAL CONSTRUCTION NOTES

- ALL SITE WORK TO COMPLETE THIS PROJECT AS INDICATED ON THE DRAWINGS AND IN THE SPECIFICATIONS IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- IMMEDIATELY CONTACT AND COORDINATE WITH THE ENGINEER AND OWNER IF ANY DEVIATION OR ALTERATION OF THE WORK PROPOSED ON THESE DRAWINGS IS REQUIRED
- UTILIZE ALL PRECAUTIONS AND MEASURES TO ENSURE THE SAFETY OF THE PUBLIC, ALL PERSONNEL AND PROPERTY DURING CONSTRUCTION IN ACCORDANCE WITH OSHA STANDARDS, INCLUDING THE INSTALLATION OF TEMPORARY FENCING BARRICADES, SAFETY LIGHTING, CONES, POLICE DETAIL AND/OR FLAGMEN AS DETERMINED NECESSARY BY THE TOWN/CITY/LOCAL MUNICIPALITY. THE CONTRACTOR IS RESPONSIBLE FOR THE COST OF POLICE DETAIL AND FOR COORDINATING WITH THE LOCAL OR STATE POLICE DEPARTMENT FOR ALL REQUIRED POLICE DETAIL.
- MAKE ALL NECESSARY CONSTRUCTION NOTIFICATIONS AND APPLY FOR AND OBTAIN ALL NECESSARY CONSTRUCTION PERMITS. PAY ALL FEES INCLUDING POLICE DETAILS AND POST ALL BONDS, IF NECESSARY, ASSOCIATED WITH THE SAME, AND COORDINATE WITH THE OWNER AND THE ENGINEER.
- ALL EXISTING CONDITIONS SHOWN ARE APPROXIMATE AND ARE BASED ON THE BEST INFORMATION AVAILABLE. PRIOR TO THE START CONSTRUCTION VERIFY THAT THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS DO NOT CONFLICT WITH ANY KNOWN EXISTING OR OTHER PROPOSED IMPROVEMENTS. IF ANY CONFLICTS ARE DISCOVERED, NOTIFY THE OWNER AND THE ENGINEER PRIOR TO INSTALLING ANY PORTION OF THE SITE WORK WHICH WOULD BE AFFECTED.
- THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AND STRUCTURES AS INDICATED ON THE DRAWINGS ARE BASED ON RECORDS OF VARIOUS UTILITY COMPANIES. AND WHEREVER POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED UPON AS BEING EXACT OR COMPLETE. VERIFY THE LOCATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES IN THE FIELD PRIOR TO THE START OF CONSTRUCTION. CONTACT THE APPROPRIATE UTILITY COMPANY, ANY GOVERNING PERMITTING AUTHORITY IN THE TOWN, AND "DIGSAFE" (1-888-344-7233) AT LEAST THREE BUSINESS DAYS PRIOR TO ANY EXCAVATION WORK TO REQUEST EXACT FIELD LOCATION OF UTILITIES. THE CONTRACTOR MUST RESOLVE CONFLICTS BETWEEN THE PROPOSED UTILITIES AND FIELD-LOCATED UTILITIES AND REPORT ANY DISCREPANCIES TO THE ENGINEER IMMEDIATELY. THE ENGINEER ASSUMES NO RESPONSIBILITY FOR DAMAGES INCURRED AS A RESULT OF UTILITIES OMITTED, INCOMPLETELY OR INACCURATELY SHOWN. THE CONTRACTOR MUST MAINTAIN ACCURATE RECORDS OF THE LOCATION AND ELEVATION OF ALL WORK INSTALLED AND EXISTING UTILITIES FOUND DURING CONSTRUCTION FOR THE PREPARATION OF THE AS-BUILT PLAN.
- COORDINATE AND MAKE ALL CONNECTION ARRANGEMENTS WITH UTILITY COMPANIES, AS REQUIRED.
- THE CONTRACTOR MUST MAINTAIN ALL EXISTING UTILITIES IN WORKING ORDER AND FREE FROM DAMAGE DURING THE ENTIRE DURATION OF THE PROJECT. REPAIR ANY DAMAGE TO EXISTING UTILITY LINES OR STRUCTURES INCURRED DURING CONSTRUCTION OPERATIONS AT NO COST TO THE OWNER. THE CONTRACTOR IS RESPONSIBLE FOR ALL COST RELATED TO THE REPAIR OF UTILITIES. EXCAVATION REQUIRED WITHIN THE PROXIMITY OF EXISTING UTILITY LINES MUST BE DONE BY HAND.
- COORDINATE ALL TRENCHING WORK WITHIN ROADWAYS WITH THE PROPER LOCAL & STATE AGENCY. THE CONTRACTOR IS RESPONSIBLE FOR ALL TRENCH SAFETY INCLUDING ANY LOCAL AND/OR STATE PERMITS REQUIRED FOR THE TRENCH WORK. IF THIS WORK IS REQUIRED TO OCCUR OUTSIDE THE AGREED UPON HOURS OF OPERATION FOR THE FACILITY, THE CONTRACTOR MUST PLAN
- SAWCUT ALL TRENCH WORK WITHIN EXISTING PAVEMENT AS INDICATED ON THE DRAWINGS. BACKFILL AND COMPACT TRENCH WORK AS INDICATED ON THE DRAWING AND IN THE SPECIFICATIONS. IF SETTLEMENT OCCURS DUE TO INADEQUATE COMPACTION, AS DETERMINED BY THE ENGINEER, WITHIN THE WARRANTY PERIOD, CONTRACTOR IS REQUIRED TO REMOVE, PATCH AND REPAVE AFTER ONE COMPLETE 12-MONTH CYCLE.
- IMPORT ONLY CLEAN MATERIAL. MATERIAL FROM AN EXISTING OR FORMER 21E SITE AS DEFINED BY THE MASSACHUSETTS CONTINGENCY PLAN 310 CMR 40,0000 WILL NOT BE ACCEPTED.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ESTABLISH AND MAINTAIN ALL CONTROL POINTS AND BENCHMARKS DURING CONSTRUCTION INCLUDING BENCHMARK LOCATIONS AND ELEVATIONS AT CRITICAL AREAS. COORDINATE WITH THE ENGINEER THE LOCATION OF ALL CONTROL POINTS AND BENCHMARKS.
- SITE LAYOUT SURVEY REQUIRED FOR CONSTRUCTION MUST BE PROVIDED BY THE CONTRACTOR AND PERFORMED BY A MASSACHUSETTS' REGISTERED PROFESSIONAL LAND SURVEYOR. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH THE SURVEYOR FOR ALL SITE SURVEY WORK.
- MAINTAIN ALL GRADE STAKES SET BY THE SURVEYOR. GRADE STAKES ARE TO REMAIN UNTIL A FINAL INSPECTION OF THE ITEM HAS BEEN COMPLETED BY THE ENGINEER. RE-STAKING OF PREVIOUSLY SURVEYED SITE FEATURES IS THE RESPONSIBILITY (INCLUDING
- UNLESS OTHERWISE INDICATED ON THE DRAWINGS AND/OR IN THE SPECIFICATIONS, ALL SITE CONSTRUCTION MATERIALS AND METHODOLOGIES ARE TO CONFORM TO THE MOST RECENT VERSION OF THE MASSACHUSETTS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS (THE COMMONWEALTH OF MASSACHUSETTS DEPARTMENT OF TRANSPORTATION SPECIFICATIONS FOR
- HIGHWAY AND BRIDGES 2020 EDITION, AND THE SUPPLEMENTAL SPECIFICATIONS DATED JUNE 30, 2020). PROVIDE ALL CONSTRUCTION SERVICE IN ACCORDANCE WITH APPLICABLE LAWS AND REGULATIONS REGARDING NOISE, VIBRATION, DUST, SEDIMENTATION CONTAINMENT, AND TRENCH WORK.
- COLLECT SOLID WASTES AND STORE IN A SECURED DUMPSTER. THE DUMPSTER MUST MEET ALL LOCAL AND STATE SOLID WASTE
- RESTORE ALL SURFACES EQUAL TO THEIR ORIGINAL CONDITION AFTER CONSTRUCTION IS COMPLETE PER SPECIFICATIONS. LEAVE ALL AREAS NOT DISTURBED BY CONSTRUCTION IN THEIR NATURAL STATE. TAKE CARE TO PREVENT DAMAGE TO SHRUBS, TREES. OTHER LANDSCAPING AND/OR NATURAL FEATURES. WHEREAS THE PLANS DO NOT SHOW ALL LANDSCAPE FEATURES, EXISTING CONDITIONS MUST BE VERIFIED BY THE CONTRACTOR IN ADVANCE OF THE WORK.
- CONSTRUCT ALL WHEELCHAIR RAMPS IN ACCORDANCE WITH MASSACHUSETTS HIGHWAY DEPARTMENT STANDARD SPECIFICATIONS AND CONSTRUCTION AND TRAFFIC STANDARD DETAILS DRAWING NUMBER 107.1.0 AND 107.2.0. CONSTRUCT RAMPS WITH AN 8% MAX.
- REGULARLY INSPECT THE PERIMETER OF THE PROPERTY TO CLEAN UP AND REMOVE LOOSE CONSTRUCTION DEBRIS BEFORE IT LEAVES THE SITE. PROMPTLY REMOVE ALL DEMOLITION DEBRIS FROM THE SITE TO AN APPROVED DUMP SITE.
- ALL TRUCKS LEAVING THE SITE MUST BE COVERED.
- 22. DO NOT WASH ANY CONCRETE TRUCKS ONSITE. REMOVE BY HAND ANY CEMENT OR CONCRETE DEBRIS LEFT IN THE DISTURBED AREA.
- 23. BURIAL OF ANY STUMPS, SOLID DEBRIS, AND/OR STONES/BOULDERS ONSITE IS PROHIBITED. DO NOT USE ROAD SALT OR OTHER DE-ICING CHEMICALS ON THE ACCESS ROADWAY.
- AT THE END OF CONSTRUCTION, REMOVE ALL CONSTRUCTION DEBRIS AND SURPLUS MATERIALS FROM THE SITE [AS INDICATED IN THE SPECIFICATIONS]. PERFORM A THOROUGH INSPECTION OF THE WORK PERIMETER. COLLECT AND REMOVE ALL MATERIALS AND BLOWN OR WATER CARRIED DEBRIS FROM THE SITE.

BASIC CONSTRUCTION SEQUENCE:

THE FOLLOWING CONSTRUCTION SEQUENCE IS TO BE USED AS A GENERAL GUIDELINE. COORDINATE WITH THE OWNER, ENGINEERS, AND LANDSCAPE ARCHITECT AND SUBMIT A PROPOSED CONSTRUCTION SEQUENCE FOR REVIEW AND APPROVAL PRIOR TO CONSTRUCTION.

- 1. SURVEY AND STAKE THE PROPOSED LIMIT OF DISTURBANCE AND LIMIT OF SEDIMENTATION BARRIERS.
- PLACE SEDIMENTATION BARRIERS AS INDICATED ON DRAWINGS AND STAKED OUT IN THE FIELD. UNDER NO CIRCUMSTANCES IS THE LIMIT OF WORK TO EXTEND BEYOND THE SEDIMENTATION BARRIERS/LIMIT OF DISTURBANCE AS INDICATED ON DRAWINGS AS APPROVED BY THE LOCAL CONSERVATION COMMISSION AND DEPARTMENT OF ENVIRONMENTAL PROTECTION (DEP).
- INSTALL TEMPORARY CONSTRUCTION ENTRANCES IN LOCATIONS INDICATED ON DRAWINGS. NO OTHER ENTRANCES ARE TO BE USED TO GAIN ACCESS TO THE SITE BY ANY CONSTRUCTION OR DELIVERY VEHICLES.
- BEGIN CLEARING THE SITE AS REQUIRED.
- SURVEY AND STAKE CENTERLINE OF THE PROPOSED ROADS, STORMWATER MANAGEMENT AREAS, AND DRAINAGE LINES.
- EXCAVATE AND ROUGH GRADE THE PROPOSED STORMWATER MANAGEMENT AREAS AND ANY ADDITIONAL TEMPORARY BASINS NECESSARY TO CONTROL SITE RUNOFF AND SEDIMENTS. TEMPORARILY STABILIZE/SEED PERMANENT STORMWATER MANAGEMENT AREAS AS NECESSARY TO REDUCE SIDE SLOPE EROSION AND SEDIMENT ACCUMULATION.
- BEGIN CLEARING AND GRUBBING THE AREAS OF ROADWAYS AND STORMWATER MANAGEMENT AREAS. TOPSOIL IS TO BE STRIPPED FROM THE AREA OF THE PROPOSED ROADWAYS AND STORMWATER MANAGEMENT AREAS AND STOCKPILED IN APPROVED LOCATIONS. TOPSOIL STOCKPILES MUST BE PROTECTED BY A SEDIMENT BARRIER.
- INSTALL TEMPORARY CONVEYANCE DEVICES (SWALES, CHECK DAMS, PIPES, ETC.) AS NECESSARY TO CONVEY RUNOFF TO TREATMENT AREAS.
- BEGIN ROUGH GRADING AREAS FOR ROADS, PARKING AND BUILDINGS. BRING ROUGH GRADING TO PROPER ELEVATIONS AS SOON AS PRACTICABLE. COORDINATE WORK TO MINIMIZE TIME SOILS ARE UN-STABILIZED.
- 10. BEGIN UTILITY CONSTRUCTION. THE CONTRACTOR IS FREE TO INSTALL THE UTILITIES IN THE SEQUENCE HE/SHE CHOOSES. IMMEDIATELY REPAIR, REPLACE AND STABILIZE ANY EROSION CONTROL DEVICES DISTURBED DURING THE UNDERGROUND UTILITY CONSTRUCTION. MODIFY TEMPORARY CONVEYANCE DEVICES, AS NECESSARY, TO CONVEY RUNOFF TO TREATMENT AREAS.
- 11. INSTALL DRAINAGE PIPES, DRAINAGE MANHOLES, CATCH BASINS, AND UNDERGROUND DRAINAGE STRUCTURES. BEGIN WORK AT THE STORMWATER MANAGEMENT AREAS AND PROGRESS UP-GRADIENT. PROTECT DISCHARGE OUTLETS WITH RIP-RAP APRONS. THE STORMWATER MANAGEMENT AREA(S) AND DRAINAGE NETWORK ARE TO BE PROTECTED FROM SEDIMENTATION UNTIL ALL UN-STABILIZED AREAS ARE STABILIZED WITH STONE SUB-BASE OR VEGETATION. INSTALL SEDIMENT BARRIERS AT ALL POINTS OF ENTRY INTO THE DRAINAGE NETWORK. TAKE PARTICULAR CARE TO PROTECT THE UNDERGROUND STRUCTURES FROM SEDIMENT
- PERMANENTLY SEED ALL DISTURBED AREAS OUTSIDE OF THE AREA TO BE PAVED.
- UPON COMPLETION OF UNDERGROUND UTILITIES INSTALLATION. PLACE COMPACTED GRAVEL FOUNDATION AND ROUGH GRADE THE ROADWAYS/PARKING AREAS IN ACCORDANCE WITH THE SITE PLANS AND IN ACCORDANCE WITH APPLICABLE STATE AND LOCAL REGULATIONS AS SOON AS POSSIBLE.
- BEGIN ROAD AND PARKING CONSTRUCTION PER SITE PLANS AND IN ACCORDANCE WITH APPLICABLE STATE AND LOCAL REGULATIONS. ROADS AND PARKING AREAS ARE NOT TO BE PAVED UNTIL THE ENTIRE PERMANENT DRAINAGE SYSTEM HAS BEEN INSTALLED AND ALL PIPE CONNECTIONS COMPLETE.
- 15. FINISH PERMANENT STABILIZATION. COMPLETE PERMANENT STORMWATER MANAGEMENT AREA SEEDING AND PLANTING AFTER THE CONTRIBUTING AREA TO THE BASIN HAS REACHED A MINIMUM OF 80% STABILIZATION AND IS NO LONGER REQUIRED AS A CONSTRUCTION SEDIMENTATION BASIN.
- 16. COMPLETE ALL REMAINING PLANTING AND SEEDING.
- SWEEP THE ROADWAY TO REMOVE ALL SEDIMENTS. REPAIR DRAINAGE OUTLETS AND BASINS AS REQUIRED. CLEAN AND FLUSH THE 1. INSTALL SEWER AND WATER MAINS ACCORDING TO THE FOLLOWING GUIDELINES TO PREVENT FREEZING OF THE MAIN OR SEWER DRAINAGE STRUCTURES AND PIPES AT THE END OF CONSTRUCTION AND REMOVE ALL ACCUMULATED SEDIMENTS IN THE STORMWATER MANAGEMENT AREAS. CONTRACTOR MUST INSPECT THE DRAINAGE NETWORK AND REPAIR ANY DAMAGE
- ENGINEER TO APPROVE THE REMOVAL OF ALL TEMPORARY SOIL EROSION AND SEDIMENTATION CONTROL MEASURES FOLLOWING VEGETATIVE ESTABLISHMENT OF ALL DISTURBED AREAS AND DETERMINE WHEN THE CONTRIBUTING AREA HAS REACHED A MINIMUM

GENERAL GRADING AND DRAINAGE NOTES:

- 1. ALL CUT AND FILL SLOPES SHALL BE 3:1 OR FLATTER UNLESS OTHERWISE NOTED
- 2. EXISTING GRADE CONTOUR INTERVALS SHOWN AT 1 FOOT.
- 3. PROPOSED GRADE CONTOUR INTERVALS SHOWN AT 1 FOOT.
- 4. ADJUST AND/OR CUT EXISTING PAVEMENT AS NECESSARY TO ASSURE A SMOOTH FIT AND CONTINUOUS GRADE.
- PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDINGS FOR ALL NATURAL AND PAVED AREAS. IMMEDIATELY NOTIFY THE ENGINEER IF POSITIVE DRAINAGE CANNOT BE PROVIDED.
- 6. UNLESS INDICATED OTHERWISE ON THE DRAWINGS OR DETAIL, A MINIMUM CONCRETE FOUNDATION REVEAL OF 8" TO BE PROVIDED AT ALL BUILDING CORNERS. NOTIFY THE ENGINEER AND ARCHITECT IF ANY DEVIATION OR ALTERATION OF FOUNDATION REVEAL IS
- REQUIRED. 7. REFER TO ARCHITECTURAL PLAN AND SPECIFICATIONS FOR EARTHWORK AND COMPACTION REQUIREMENTS FOR ALL SLABS AND
- 9. ALL EARTHWORK AND SITE PREPARATION MUST BE DONE IN STRICT ACCORDANCE WITH THE RECOMMENDATIONS OF ANY SUBSURFACE INVESTIGATION OR GEOTECHNICAL REPORTS PREPARED FOR THIS SITE.
- 10. ALL DRAINAGE STRUCTURES AND PIPES MUST BE CONNECTED TO THE DRAINAGE SYSTEM PRIOR TO THE INSTALLATION OF ANY PAVEMENT. PAVING WILL <u>NOT BE ALLOWED</u> IF THE DRAINAGE SYSTEM FOR THE PROPOSED PAVED AREA IS NOT COMPLETELY AND PROPERLY INSTALLED. THIS INCLUDES THE STABILIZATION OF ALL DISTURBED AREAS CONTRIBUTING TO THE DRAINAGE SYSTEMS AND ANY STORMWATER BASIN FLOORS AND SIDE SLOPES

DEWATERING:

- 1. A HIGH WATER TABLE IS NOT ANTICIPATED. HOWEVER, IF DEWATERING IS REQUIRED DURING EXCAVATION, TEMPORARILY LOWER THE WATER TABLE [PER SPECIFICATIONS OR] BY PUMPING. INSTALL A DEWATERING BASIN AS INDICATED IN THE DEWATERING BASIN DETAIL AND PROVIDE A DEWATERING PLAN DEPICTING PROPOSED DEWATERING LOCATION FOR REVIEW AND APPROVAL. DIRECT THE PUMP DISCHARGE TO BASIN TO PREVENT SEDIMENTS FROM LEAVING THE CONSTRUCTION AREA. INSTALL ADDITIONAL BASINS IF REQUIRED. INSTALL THE BASIN AS INDICATED ON DRAWINGS IF SO NOTED, OTHERWISE INSTALL THE BASIN(S) WITHIN THE LIMIT OF DISTURBANCE INDICATED BY THE SILT FENCE OR STRAWBALES.
- 2. PRIOR TO ANY DEWATERING, THE DEWATERING PLAN MUST BE APPROVED BY THE ENGINEER.

8. PROPOSED ELEVATIONS ARE SHOWN TO FINISH PAVEMENT OR GRADE UNLESS NOTED OTHERWISE.

IF DEWATERING IS NECESSARY DURING CONSTRUCTION, IMPLEMENT THE PROPER ESC MEASURES ON SITE TO PREVENT EROSION OR SEDIMENT RUNOFF. THESE MEASURES CAN INCLUDE DEWATERING BAGS, TEMPORARY STRAWBALES, SILT FENCES, SILT SOCKS AND/OR OTHER APPROVED DEVICES AS INDICATED IN THE DETAILS.

STORMWATER FACILITY OPERATION & MAINTENANCE

- THE CONTRACTOR IS RESPONSIBLE FOR THE PROPER INSPECTION AND MAINTENANCE OF ALL STORMWATER MANAGEMENT FACILITIES AS OUTLINED BELOW DURING CONSTRUCTION AND UNTIL SUCH TIME THAT THE ROADWAYS AND ASSOCIATED UTILITIES ARE ACCEPTED BY THE OWNER AND THE ENGINEER.
- INSPECT AND RESTORE/CLEAN ALL FACILITIES (INLETS, MANHOLES, INFILTRATION BASINS, STORMWATER MANAGEMENT AREAS AS DESCRIBED BELOW OF SEDIMENT AND DEBRIS PRIOR TO THE OWNER'S ACCEPTANCE.
- REMOVE AND DISPOSE ALL SEDIMENT AND DEBRIS TO A PRE-APPROVED LOCATION.
- REFER TO THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) FOR ADDITIONAL INFORMATION PERTAINING TO STORMWATER FACILITY OPERATION AND MAINTENANCE REQUIREMENTS. MAINTAIN A WORKING COPY OF THE SWPPP ON SITE AT ALL TIMES.
- 4. AT A MINIMUM INSPECT MONTHLY AND AFTER STORM EVENTS GREATER THAN OR EQUAL TO 1" OF RAINFALL AS NECESSARY FOR THE ENTIRE DURATION OF THE CONSTRUCTION PROJECT AND THE FIRST 3 MONTHS AFTER CONSTRUCTION TO ENSURE PROPER
- 5. SPECIFIC MAINTENANCE REQUIRED DURING CONSTRUCTION:
 - DRAINAGE STRUCTURES (INLETS, MANHOLES, CATCHBASINS, DIVERSION STRUCTURE, WATER QUALITY UNITS): MONITOR AND REGULARLY INSPECT ALL EXISTING AND PROPOSED DRAINAGE STRUCTURES FOR PROPER OPERATION, COLLECTION OF LITTER OR TRASH, AND STRUCTURAL DETERIORATION. CLEAN AND REMOVE SEDIMENT FRO THE STRUCTURES (INCLUDING SUMPS) AS NECESSARY, AND REPAIR WHEN REQUIRED.
 - B. RIP-RAP SLOPE PROTECTION: MONITOR, REGULARLY INSPECT AND REPAIR AS NECESSARY.
 - C. SEDIMENT FOREBAY: REGULARLY INSPECT TO ENSURE PROPER FUNCTION. REMOVE SEDIMENT BUILD-UP ON THE FLOOR OF THE FOREBAY AND PROPERLY DISPOSE , AS NECESSARY, TO LIMIT CLOGGING. CLEAN SEDIMENT FOREBAYS PRIOR TO COMPLETION OF CONSTRUCTION.
 - D. INFILTRATION BASIN: MONITOR AND INSPECT STRUCTURAL COMPONENTS, INCLUDING WEIR WALLS, DRAINAGE INLETS, FRASH CHECK RACKS, OUTLET STRUCTURES AND SPILLWAY, FOR PROPER FUNCTION. CLEAN AND REPAIR ANY CLOGGED OPENINGS IDENTIFIED DURING INSPECTIONS. FOR PROPER OPERATION. REMOVE SEDIMENT OR ORGANIC BUILD-UP FROM THE CONSTRUCTED WETLAND AS NEEDED FOR PROPER OPERATION. REGULARLY INSPECT TO ENSURE THAT DESIGN INFILTRATION RATES ARE BEING MET. IF SEDIMENT OR ORGANIC DEBRIS BUILD-UP LIMITS THE INFILTRATION CAPABILITIES, REMOVE THE TOP 6" OR GREATER AND SURFACE ROTO-TILLED TO A DEPTH OF 12". RESTORE THE BASIN BOTTOM ACCORDING TO ORIGINAL DESIGN SPECIFICATIONS.
 - E. BIORETENTION SYSTEMS AND RAINGARDENS: REGULARLY INSPECT TO ENSURE PROPER FUNCTION. MONITOR AND INSPECT STRUCTURAL COMPONENTS, INCLUDING WEIR WALLS, DRAINAGE INLETS, OUTLET STRUCTURES AND SPILLWAYS, FOR PROPER FUNCTION. CLEAN AND REPAIR ANY CLOGGED STRUCTURES DURING INSPECTIONS. PRIOR TO THE COMPLETION OF CONSTRUCTION, REMOVE AND REPLACE ILL-ESTABLISHED, DEAD OR SEVERELY DISEASED PLANTS, REMOVE SEDIMENT BUILD-UP AS NEEDED, AND REPLACE SOIL WHEN NECESSARY. IF SEDIMENT OR ORGANIC DEBRIS BUILD-UP LIMITS THE INFILTRATION CAPABILITIES, REMOVE THE TOP 6" OR GREATER AND SURFACE ROTO-TILLED TO A DEPTH OF 12".
 - GRASS SWALES: PERFORM A GENERAL INSPECTION OF THE SWALE AFTER STORM EVENTS GREATER THAN OR EQUAL TO 1" OF RAINFALL OR MORE FREQUENTLY, AS NEEDED. MAINTENANCE CONSISTS OF REMOVAL OF ANY TRASH AND/OR DEBRIS FROM THE BOTTOM OF THE SWALE, REMOVAL OF SEDIMENT BUILDUP WITHIN THE SWALE, CORRECTING ANY EROSION GULLYING, AND RE-SEEDING, AS NECESSARY.
 - ROUTINE MAINTENANCE: OTHER ROUTINE MAINTENANCE INCLUDES THE REMOVAL OF TRASH AND LITTER FROM PAVED AND PERIMETER AREAS, AND STREET AND PARKING LOT SWEEPING UPON COMPLETION OF CONSTRUCTION TO AVOID EXCESSIVE ACCUMULATION OF SEDIMENT IN THE DRAINAGE SYSTEM. INSPECT THE PIPES AND STRUCTURES FOR SEDIMENT ACCUMULATION AND PROPER FLOW.

WATER & SEWER INSTALLATION NOTES

UTILITY TYPE	MIN. COVER OVER TOP OF PIPE	MIN. HORIZONTAL DISTANCE TO DRAIN STRUCTURE		
SANITARY FORCEMAIN	5'	3'		
GRAVITY FORCEMAIN	4'	2'		
WATER MAIN	5'	2'		

- INSULATE SANITARY FORCE MAINS, WATER MAINS, HYDRANT PIPING AND DEAD END WATER LINES S WHERE SOIL COVER OR HORIZONTAL SEPARATION TO PRECAST STRUCTURES IS LESS THAN THE DISTANCE SPECIFIED ABOVE AND/OR WHERE SHOWN ON PLANS.
- 3. INSULATION: 2" THICK POLYURETHANE INSULATION WITH PVC JACKET PLACED AROUND PIPE OR DESIGNER APPROVED EQUAL,
- 4. WATER AND SEWER SEPARATION IS TYPICALLY 10-FEET MINIMUM HORIZONTAL AND 18-INCHES VERTICAL WITH SEWER MAINS BELOW THE WATER MAINS (SEE DETAIL). IF SITE CONDITIONS REQUIRE LESS, THEN INSTALL UTILITIES AS INDICATED ON DETAILS.

WATER SYSTEM INSTALLATION NOTES:

- CONSTRUCT THE WATER MAIN AND ITS APPURTENANCE IN ACCORDANCE WITH THE LOCAL WATER DEPARTMENT'S STANDARDS AND SPECIFICATIONS AND PAY FOR ALL ASSOCIATED FEES AS REQUIRED BY THE WATER DEPARTMENT
- NCHES AND GREATER IN DIAMETER ARE DUCTILE IRON CLASS 52. ONLY USE HDPE 3408 OR AS INDICATED ON DRAWINGS OR AS APPROVED BY THE ENGINEER.
- 3. SUPPLY TWO COPIES OF SWORN CERTIFICATES TO PROVE THAT ALL PIPES AND FITTINGS ARE INSPECTED AND TESTED AS REQUIRED BY THE STANDARD SPECIFICATIONS TO WHICH THE MATERIAL IS MANUFACTURED.
- 4. GATE VALVES: MUELLER (A 2360 SERIES), CLOW (AWWA STANDARD C509 SERIES), AMERICAN DARLING (RESILIENT WEDGE) OR APPROVED
- PROVIDE GATE VALVES ON ALL HYDRANT BRANCHES AND WATER MAIN. THE GATE VALVE TO TURN TO THE RIGHT TO OPEN (CLOCKWISE). ALL BOLTS AND NUTS MUST BE RUST PROOF STEEL
- CLEAR ALL NEWLY INSTALLED WATER SYSTEM COMPONENTS OF ALL FOREIGN MATERIALS SUCH AS DIRT AND MISCELLANEOUS DEBRIS PRIOR
- TO SYSTEM TESTING. NO TESTING IS ALLOWED WITHOUT REMOVAL OF ALL FOREIGN MATERIALS. CONTRACTOR IS RESPONSIBLE FOR CONDUCTING A PRESSURE TEST AND DISINFECTION TEST OF ALL WATER MAINS. THE TESTS MUST WITNESSED BY THE APPROVED INSPECTOR OR THE ENGINEER. THE CONTRACTOR MUST PROVIDE A MINIMUM OF 48-HOUR ADVANCE NOTICE TO THE LOCAL WATER DEPARTMENT PRIOR TO THE PRESSURE AND DISINFECTION TESTS, THE CONTRACTOR MUST PROVIDE ALL NECESSARY
- EQUIPMENT AND CHEMICALS TO PROPERLY CONDUCT THE TESTS. 8. INSTALL AND REMOVE ALL NECESSARY BLOWOFFS REQUIRED FOR THIS PROJECT AT NO EXTRA COST TO THE OWNER.
- 9. COLLECT ALL BACTERIOLOGICAL SAMPLES AND PAY FOR ALL RELATED LABORATORY FEES.
- 10. MAINTAIN UP-TO-DATE AS-BUILT DRAWINGS AND NOTES INDICATING THE HORIZONTAL AND VERTICAL LOCATION WITH TWO TIES OF ALL SYSTEM COMPONENTS INSTALLED. AS-BUILT DRAWINGS AND NOTES WILL BE UTILIZED BY THE ENGINEER FOR THE PREPARATION OF RECORD PLANS.

SEWER SYSTEM OPERATION & MAINTENANCE:

- 1. CLEAN ALL NEWLY INSTALLED FACILITIES, INCLUDING SEWER COLLECTION SYSTEM OF ALL FOREIGN MATERIALS SUCH AS DIRT AND MISCELLANEOUS DEBRIS PRIOR TO SYSTEM TESTING. TESTING MUST BE WITNESSED AND INSPECTED BY THE ENGINEER. NO TESTING IS ALLOWED WITHOUT REMOVAL OF ALL FOREIGN MATERIALS.
- CONDUCT A LEAKAGE TEST OF ALL SEWER MAINS. TEST MUST BE WITNESSED BY THE ENGINEER. THE CONTRACTOR MUST PROVIDE THE ENGINEER WITH A MINIMUM OF 48-HOURS ADVANCE NOTICE TO THE TIME OF THE PRESSURE TEST.
- 3. TEST SEWER PIPES FOR LEAKAGE WITH THE FOLLOWING PROCEDURE. INTRODUCE LOW PRESSURE AIR INTO THE SEAL LINE (WITH PNEUMATIC PLUGS) UNTIL THE INTERNAL AIR PRESSURE REACHES 4 psi GREATER THAN THE AVERAGE BACK PRESSURE OF ANY GROUNDWATER THAT MAY BE OVER THE PIPE. ALLOW AT LEAST 2 MINUTES FOR AIR PRESSURE TO STABILIZE.
 - AFTER THE STABILIZATION PERIOD (3.5 psi MINIMUM PRESSURE IN THE PIPE), THE PORTION OF PIPE TESTED IS ACCEPTABLE IF THE TIME REQUIRED IN MINUTES FOR THE PRESSURE TO DECREASE FROM 3.5 TO 3 psi IS NOT LESS THAN 1.90 TIMES THE LENGTH OF PIPE BEING TESTED.
- 4. VACUUM TEST ALL SEWER MANHOLES. TESTS MUST BE WITNESSED BY THE ENGINEER UNLESS THE SEASONAL GROUNDWATER LEVEL IS MORE THAN 10 FEET FROM THE BOTTOM OF THE MANHOLE.
- 5. MANDREL TEST ALL SEWER MAINS AFTER 30 DAYS. TESTS MUST BE WITNESSED BY A TOWN REPRESENTATIVE OR THE ENGINEER.

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GENERAL		SYMBOLS	5		
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	WETLAND 100 BUFFER	ص UP	1 UTILITY POLE		Prepared For: Affirmative Investments, Inc. 33 Union St, 2nd Floor Boston, MA 02108
	RIVERFRONT BOUNDARY				Prepared For: Affirmative Ir Inc. 33 Union St, 2nd F Boston, MA 02108
	INNER RIVERFRONT (100) OUTER RIVERFRONT (100-200)	•	GUY		Prepared For: Affirmativ Inc. 33 Union St, Boston, MA C
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——— MHW ———	MEAN HIGH WATER	MW	MONITORING WELL		
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