

GENERAL NOTES

THE CONTRACTOR SHALL MAKE ALL NECESSARY CONSTRUCTION NOTIFICATIONS AND APPLY FOR AND OBTAIN ALL NECESSARY CONSTRUCTION PERMITS. THE CONTRACTOR SHALL ALSO PAY ALL FEES AND POST ALL BONDS ASSOCIATED WITH THE SAME.

CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR JOB SITE SAFETY AND ALL CONSTRUCTION MEANS AND METHODS.

LIMIT OF WORK SHALL BE EROSION CONTROL BARRIERS, LIMIT OF GRADING AND SITE PROPERTY LINES AND/OR AS INDICATED ON DRAWINGS.

PORTIONS OF THE ROADWAY, SIDEWALK AND ROADSIDE AREA DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED TO THEIR CONDITIONS PRIOR TO DISTURBANCE AT NO COST TO OWNER.

ANY ALTERATION TO THESE DRAWINGS MADE IN THE FIELD DURING CONSTRUCTION SHALL BE RECORDED BY THE CONTRACTOR ON RECORD DOCUMENTS.

ANY AREA OUTSIDE THE LIMIT OF WORK THAT IS DISTURBED SHALL BE RESTORED TO ITS ORIGINAL CONDITION AT NO COST TO OWNER.

SITE ELEMENTS TO REMAIN MUST BE PROTECTED FOR DURATION OF PROJECT.

WORK AREA SHALL BE LEFT FREE OF TRASH, BRUSH AND OTHER CONSTRUCTION DEBRIS.

PLANTING NOTES

ALL PLANT MATERIAL SHALL CONFORM TO THE MINIMUM GUIDELINES ESTABLISHED BY THE AMERICAN STANDARD FOR NURSERY STOCK PUBLISHED BY THE AMERICAN ASSOCIATION OF NURSERYMEN, INC.

ANY PROPOSED SUBSTITUTIONS OF PLANT MATERIAL SHALL BE MADE WITH MATERIAL EQUIVALENT TO THE DESIRED MATERIAL IN OVERALL FORM, HEIGHT, BRANCHING HABIT, FLOWER, LEAF COLOR, FRUIT AND CULTURE. PROPOSED SUBSTITUTIONS WILL ONLY BE CONSIDERED IF SUBMITTED WITH ENUMERATED REASONS WHY SUBSTITUTIONS ARE PROPOSED.

ALL PLANTING BEDS TO BE FILLED WITH SOIL AND CROWNED ABOVE ADJACENT LAWN OR IMPROVED AREAS. ALL PLANTING BEDS TO BE MULCHED WITH AGED PINE BARK MULCH TO A DEPTH OF THREE (3) INCHES.

CAUTION SHALL BE USED NOT TO EXTEND MULCH LAYER ABOVE SOIL LEVEL AT TRUNKS/STEMS OF INSTALLED PLANT MATERIAL.

PROVIDE FIVE (5) FOOT DIAMETER MULCH CIRCLE AROUND ALL INDIVIDUAL TREE PLANTINGS AND CONTINUOUS MULCH BED AROUND SHRUB PLANTINGS.

VERIFY ALL EXISTING UTILITY LINES PRIOR TO PLANTING AND REPORT ANY CONFLICTS TO THE OWNER OR HIS REPRESENTATIVE.

NO PLANT SHALL BE PLANTED BEFORE ACCEPTANCE OF ROUGH GRADING.

PLANT MATERIALS SHALL BEAR SAME RELATIONSHIP TO GRADE AS THEY BORE TO GRADE IN THE NURSERY.

ALL PLANT MATERIALS SHALL BE GUARANTEED FOR ONE YEAR FOLLOWING DATE OF FINAL ACCEPTANCE.

THE LANDSCAPE CONTRACTOR SHALL FURNISH TOPSOIL. TOPSOIL SHALL BE FERTILE, FRAGILE, NATURAL AND PRODUCTIVE TOPSOIL OF GOOD CLAY-LOAM TYPE. IT SHALL BE FREE OF WEED SEEDS. TOPSOIL SHALL BE WITHOUT ADMIXTURE OF SUBSOIL AND SHALL BE REASONABLY FREE OF STONES, LUMPS, ROOTS, STICKS AND OTHER FOREIGN MATTER. TOPSOIL SHALL NOT BE WORKED OR APPLIED IN A MUDDY OR WET CONDITION.

TOPSOIL SHALL BE SPREAD TO A MINIMUM DEPTH OF SIX (6) INCHES AFTER SETTLING ON ALL STRIPPED PLANTED AREAS INCLUDING SLOPE STABILIZATION, LAWN AREAS AND PLANTING BEDS AFTER FILLS ARE PROPERLY SETTLED AND SUBGRADE HAS BEEN APPROVED.

REMOVE ALL ROCKS AND DEBRIS FROM SOIL SURFACE AND GRADE TO AN EVEN SURFACE.

IF CERTAIN AREAS OF THE LAWN DO NOT SHOW A PROMPT "CATCH", THESE SHALL BE RESEED AT THE SAME RATE AND IN THE SAME MANNER AS BEFORE, UNTIL A GROWTH OF GRASS IS ESTABLISHED OVER THE ENTIRE AREA.

PROTECT NEWLY TOPSOILED, GRADED AND/OR SEEDD AREAS FROM TRAFFIC AND EROSION. KEEP AREAS FREE OF TRASH AND DEBRIS RESULTING FROM LANDSCAPE CONTRACTOR OPERATIONS.

REPAIR AND REESTABLISH GRADES IN SETTLED, ERODED AND RUTTED AREAS TO THE SPECIFIED GRADE AND TOLERANCES.

THE LANDSCAPE CONTRACTOR IS TO CLEAN UP AND REMOVE ANY DEBRIS FROM THE SITE CAUSED BY THE LANDSCAPE CONTRACTOR.

PLANT MATERIAL IS TO BE MAINTAINED BY THE LANDSCAPE CONTRACTOR WHILE THE PROJECT IS UNDERWAY.

ALL TREES ALONG SIDEWALKS SHALL HAVE A MINIMUM SIX (6) FOOT BRANCHING HEIGHT.

LAYOUT AND MATERIALS NOTES

ALL LINES AND DIMENSIONS ARE PARALLEL OR PERPENDICULAR TO THE LINES FROM WHICH THEY ARE MEASURED UNLESS OTHERWISE INDICATED.

COORDINATE THE LOCATION OF ALL SITE LIGHT STANDARDS WITH IMPROVEMENTS SHOWN ON THESE DRAWINGS.

CONTRACTOR SHALL REPORT SIGNIFICANT CONFLICTS TO THE OWNER AND THE ENGINEER FOR RESOLUTION.

DIMENSIONS OF PARKING SPACES AND DRIVEWAYS ARE FROM FACE OF CURB TO FACE OF CURB.

DIMENSIONS FROM BUILDING ARE FROM FACE OF BUILDING TO FACE OF CURB. CONTRACTOR SHALL VERIFY ALL CONDITIONS IN THE FIELD AND REPORT ANY DISCREPANCIES TO THE ENGINEER.

THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DISCREPANCIES BETWEEN SITE PLAN DIMENSIONS AND BUILDING PLANS BEFORE PROCEEDING WITH ANY PORTION OF SITE WORK WHICH MAY BE AFFECTED SO THAT PROPER ADJUSTMENTS TO THE SITE LAYOUT CAN BE MADE IF NECESSARY.

PROTECT EXISTING PROPERTY MONUMENTS AND ABUTTING PROPERTIES DURING CONSTRUCTION ACTIVITIES.

ALL LIGHT MOUNTING POLES SHALL BE LOCATED AT A MINIMUM OF THREE (3) FEET FROM BACK OF CURB TO THE CENTER OF THE POLE. POLES SHALL BE SET ABOVE GRADE TO MATCH ADJACENT EXISTING POLES.

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GRADING, DRAINAGE AND UTILITY NOTES

UNDERGROUND UTILITIES WERE COMPILED FROM AVAILABLE RECORD PLANS OF UTILITY COMPANIES AND PUBLIC AGENCIES, ARE APPROXIMATE AND ASSUMED. BEFORE COMMENCING SITE WORK IN ANY AREA, CONTRACTOR TO SAFELY AT 1'-800-344-7233 TO ACCURATELY LOCATE UNDERGROUND UTILITIES. ANY DAMAGE TO EXISTING UTILITIES OR STRUCTURES SHALL BE THE CONTRACTOR'S RESPONSIBILITY. NO EXCAVATION SHALL BE DONE UNTIL UTILITY COMPANIES ARE PROPERLY NOTICED IN ADVANCE.

ALL SITE WORK SHALL MEET OR EXCEED THE SITE WORK SPECIFICATIONS PREPARED FOR THIS PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THAT THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS DO NOT CONFLICT WITH ANY KNOWN EXISTING OR OTHER PROPOSED IMPROVEMENTS. IF ANY CONFLICTS ARE DISCOVERED, THE CONTRACTOR SHALL NOTIFY THE OWNER AND THE ENGINEER PRIOR TO INSTALLATION OF ANY PORTION OF THE SITE WORK WHICH WOULD BE AFFECTED.

AT ALL LOCATIONS WHERE EXISTING CURBING OR PAVEMENT ABUTS NEW CONSTRUCTION, THE EDGE OF THE EXISTING CURB OR PAVEMENT SHALL BE SAW CUT TO A CLEAN, SMOOTH EDGE. BLEND NEW PAVEMENT, CURBS AND EARTHWORK SMOOTHLY INTO EXISTING BY MATCHING LINES, GRADES AND JOINTS.

THE CONTRACTOR SHALL VERIFY EXISTING GRADES IN THE FIELD AND REPORT ANY DISCREPANCIES IMMEDIATELY TO THE ENGINEER. THE CONTRACTOR SHALL MAKE ALL ARRANGEMENTS FOR THE ALTERATION AND ADJUSTMENT OF GAS, ELECTRIC, TELEPHONE AND ANY OTHER PRIVATE UTILITIES BY THE UTILITY COMPANIES, AS REQUIRED. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED TO THE OWNER AND ENGINEER FOR RESOLUTION.

ALL UTILITY COVERS, GRATES, ETC. SHALL BE ADJUSTED TO BE FLUSH WITH THE PAVEMENT FINISH GRADE UNLESS OTHERWISE NOTED. RIM ELEVATIONS OF DRAINAGE STRUCTURES AND MANHOLES ARE APPROXIMATE.

INSTALL ALL UTILITIES (INCLUDING CONCRETE MECHANICAL PADS) PER UTILITY COMPANY AND LOCAL DPW STANDARDS.

AN EROSION CONTROL BARRIER SHALL BE INSTALLED ALONG THE EDGE OF PROPOSED DEVELOPMENT-AS SHOWN ON THE PLAN PRIOR TO THE COMMENCEMENT OF CONSTRUCTION ACTIVITIES.

EXISTING TREES AND SHRUBS OUTSIDE THE LIMITS OF GRADING SHALL BE REMOVED ONLY UPON PRIOR APPROVAL OF THE OWNER.

CONTRACTOR SHALL PROTECT ALL UNDERGROUND DRAINAGE, SEWER AND UTILITY FACILITIES FROM EXCESSIVE VEHICULAR LOADS DURING CONSTRUCTION. ANY DAMAGE TO THESE FACILITIES RESULTING FROM CONSTRUCTION LOADS WILL BE RESTORED TO ORIGINAL CONDITION AT NO COST TO OWNER.

GAS, ELECTRIC, TELEPHONE AND FIRE ALARM CONNECTIONS (IF APPLICABLE) LOCATIONS AND ROUTING ARE SUBJECT TO REVIEW AND APPROVAL BY APPROPRIATE UTILITY COMPANIES AND FIRE DEPARTMENT.

ABANDON EXISTING UTILITY SERVICES ON SITE ACCORDING TO UTILITY COMPANY AND TOWN OF BOXBOROUGH REQUIREMENTS.

EXCAVATION REQUIRED WITHIN THE PROXIMITY OF EXISTING UTILITY LINES SHALL BE DONE BY HAND. CONTRACTOR SHALL REPAIR ANY DAMAGE TO EXISTING UTILITY LINES OR STRUCTURES INCURRED DURING CONSTRUCTION OPERATIONS AT NO COST TO THE OWNER.

STOCKPILED TOPSOIL SHALL BE PLACED NEATLY IN AN AREA INDICATED BY THE OWNER OUTSIDE OF ANY WETLAND BUFFER ZONE.

PITCH EVENLY BETWEEN SPOT GRADES. ALL PAVED AREAS MUST PITCH TO DRAIN AT A MINIMUM OF 1/8" PER FOOT UNLESS SPECIFIED. ANY DISCREPANCIES NOT ALLOWING THIS MINIMUM PITCH SHALL BE REPORTED TO THE ENGINEER PRIOR TO CONTINUING WORK.

THE CONTRACTOR SHALL SCHEDULE HIS WORK TO ALLOW THE FINISHED SUBGRADE ELEVATIONS TO DRAIN PROPERLY WITHOUT PONDING. SPECIFICALLY ALLOW WATER TO ESCAPE WHERE PROPOSED CURBS MAY RETAIN RUNOFF PRIOR TO APPLICATION OF THE FINISH SUBGRADE AND/OR SURFACE PAVING. PROVIDE TEMPORARY POSITIVE DRAINAGE AS REQUIRED.

COORDINATE UTILITY CONSTRUCTION WITH ALL TRADES AND CORRESPONDING DESIGN PLANS FOR CONNECTION TO EXISTING BUILDING AND SITE UTILITIES.

CONTRACTOR TO VERIFY UTILITY STUB LOCATIONS AND ELEVATIONS IN THE FIELD PRIOR TO COMMENCING WORK.

EROSION CONTROL AND SEDIMENTATION NOTES

CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL MEASURES DURING ENTIRE CONSTRUCTION PERIOD.

ALL STOCKPILE AREAS SHALL BE LOCATED WITHIN LIMIT OF WORK-LINE AND STABILIZED TO PREVENT EROSION.

ALL DEBRIS GENERATED DURING SITE PREPARATION ACTIVITIES SHALL BE LEGALLY DISPOSED OF OFF-SITE.

PROVIDE CURBING AS NECESSARY TO PROTECT EXISTING UTILITY LINES DURING CONSTRUCTION.

ALL TOPSOIL ENCOUNTERED WITHIN WORK AREA SHALL BE STRIPPED TO ITS FULL DEPTH AND STOCKPILED FOR REUSE. EXCESS TOPSOIL SHALL BE DISPOSED OF ON-SITE AS DIRECTED BY OWNER. TOPSOIL PILES SHALL REMAIN SEGREGATED FROM EXCAVATED SURFACE SOIL MATERIALS.

ADDITIONAL EROSION CONTROL MEASURES SHALL BE IMPLEMENTED AS CONDITIONS WARRANT OR AS DIRECTED BY THE OWNER OR OWNER'S REPRESENTATIVE.

ALL POINTS OF CONSTRUCTION EGRESS OR INGRESS SHALL BE MAINTAINED TO PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADS.

ANY SEDIMENT TRACKED ONTO PUBLIC RIGHT-OF-WAYS OR PARKING AREAS SHALL BE SWEEPED AT THE END OF EACH WORKING DAY.

SOIL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSPECTED AND MAINTAINED ON A DAILY BASIS DURING CONSTRUCTION TO INSURE THAT CHANNELS, DITCHES AND PIPES ARE CLEAR OF DEBRIS AND THAT THE EROSION CONTROL BARRIERS ARE INTACT.

DUST SHALL BE CONTROLLED BY SPRINKLING OR OTHER APPROVED METHODS AS NECESSARY, OR AS DIRECTED BY THE OWNER OR HIS REPRESENTATIVE.

HAY BALE CHECK DAMS OR SILT SACKS SHALL BE PROVIDED AROUND ALL EXISTING DRAIN INLETS PRIOR TO CONSTRUCTION ACTIVITIES AND AROUND ALL PROPOSED DRAIN INLETS PRIOR TO PERMANENT PAVEMENT TO CONTROL SILTATION.

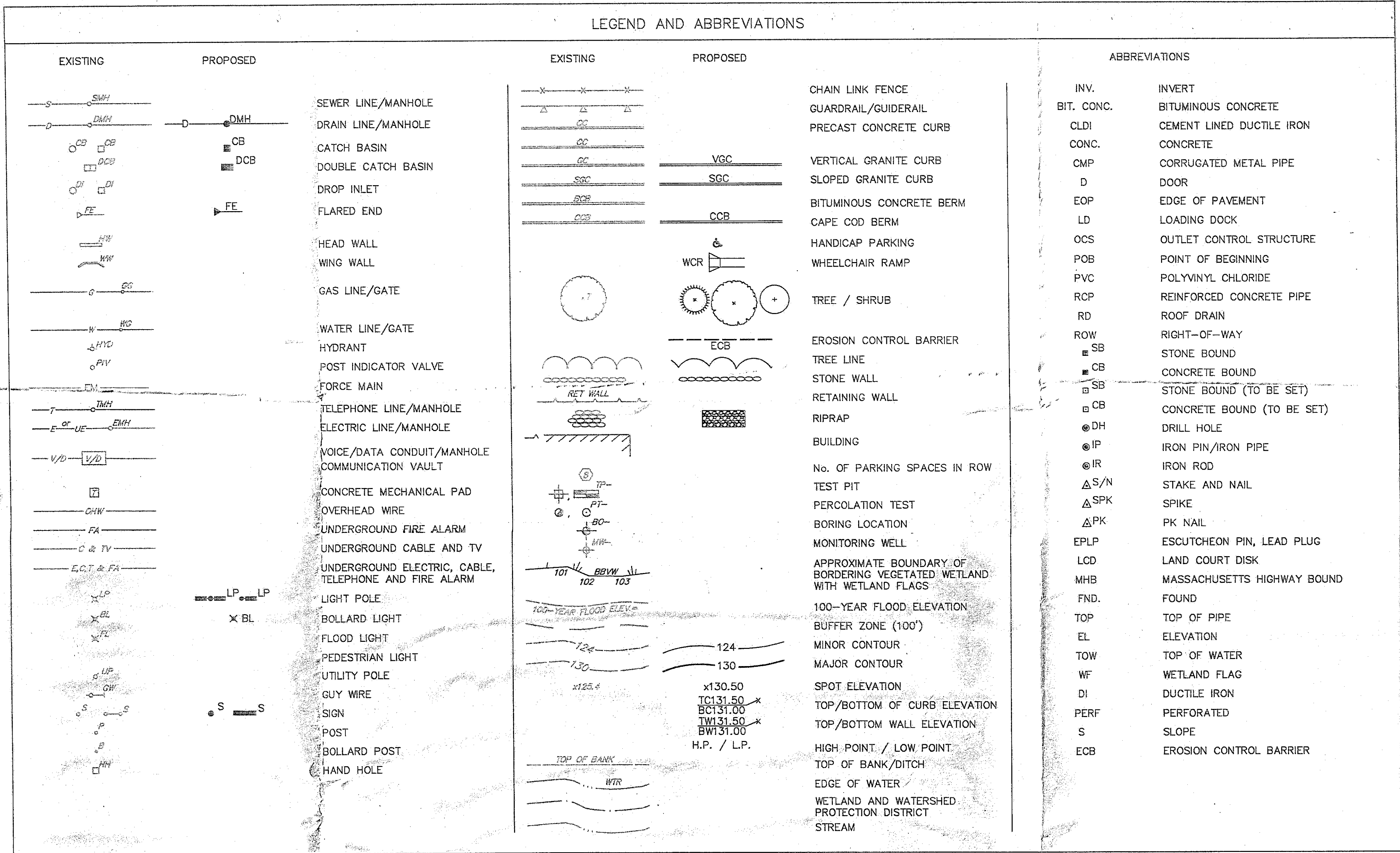
EXTREME CARE SHALL BE EXERCISED SO AS TO PREVENT ANY UNSUITABLE MATERIAL FROM ENTERING NEARBY WETLANDS OR THEIR ASSOCIATED BUFFERS.

ADDITIONAL EROSION CONTROL MEASURES SHALL BE LOCATED AS CONDITIONS WARRANT OR AS DIRECTED BY THE OWNER OR HIS REPRESENTATIVE.

CLEAN AND MAINTAIN EROSION CONTROL BARRIER AS REQUIRED DURING CONSTRUCTION OPERATIONS TO ENSURE ITS CONTINUED FUNCTIONALITY.

CONTRACTOR SHALL CLEAN ALL EXISTING AND PROPOSED DRAINAGE STRUCTURES WITHIN THE LIMIT OF WORK AT THE COMPLETION OF CONSTRUCTION ACTIVITIES.

THE CONTRACTOR SHALL REMOVE ALL EROSION CONTROL BARRIERS AFTER REVEGETATION OF DISTURBED AREAS AND AFTER WRITTEN APPROVAL OF THE PROJECT ENGINEER.



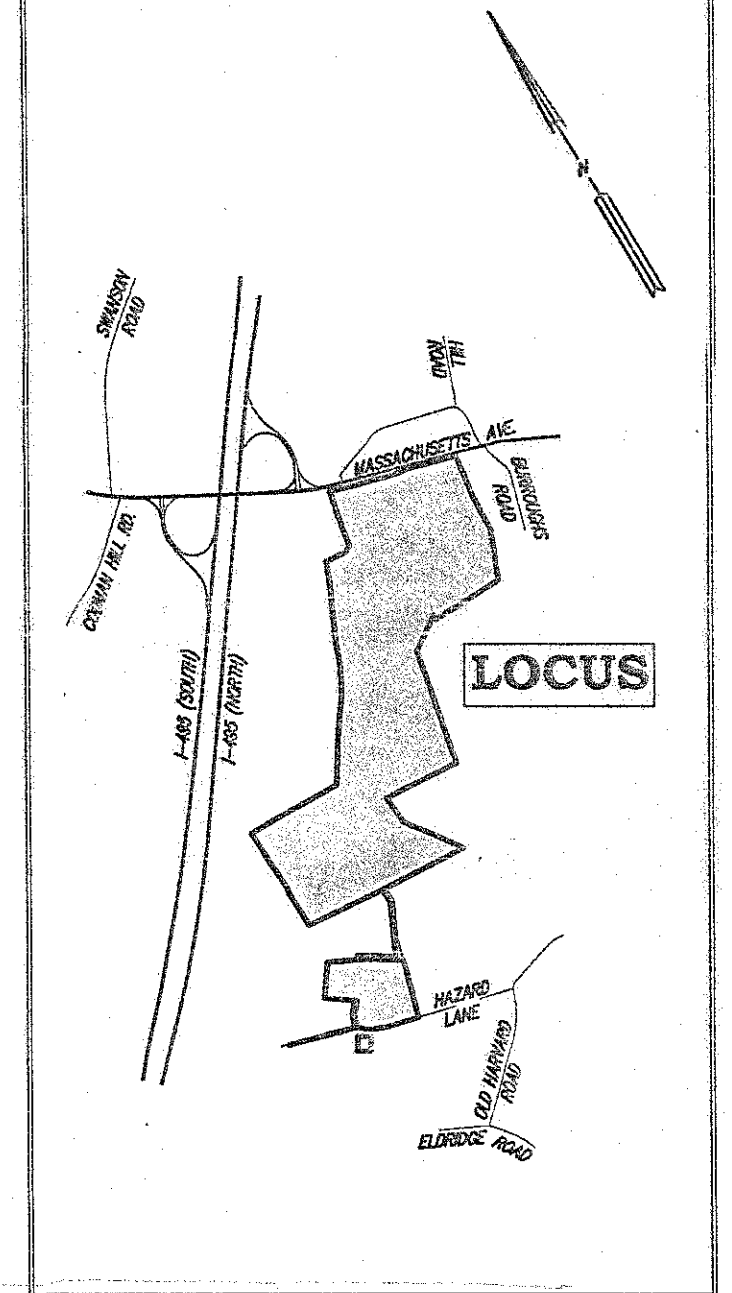
ABBREVIATIONS

INV.	INVERT
BIT. CONC.	BITUMINOUS CONCRETE
CLDI	CEMENT LINED DUCTILE IRON
CONC.	CONCRETE
CMP	CORRUGATED METAL PIPE
D	DOOR
EOP	EDGE OF PAVEMENT
LD	LOADING DOCK
OCS	OUTLET CONTROL STRUCTURE
POB	POINT OF BEGINNING
PVC	POLYVINYL CHLORIDE
RCP	REINFORCED CONCRETE PIPE
RD	ROOF DRAIN
ROW	RIGHT-OF-WAY
SB	STONE BOUND
CB	CONCRETE BOUND
STB	STONE BOUND (TO BE SET)
CB	CONCRETE BOUND (TO BE SET)
DRH	DRILL HOLE
IP	IRON PIN/IRON PIPE
IR	IRON ROD
SN	STAKE AND NAIL
SPK	SPIKE
PK	PK NAIL
EPLP	ESCUTCHEON PIN, LEAD PLUG
LCD	LAND COURT DISK
MHB	MASSACHUSETTS HIGHWAY BOUND
FND.	FOUND
TOP	TOP OF PIPE
EL	ELEVATION
TOW	TOP OF WATER
WF	WETLAND FLAG
DI	DUCTILE IRON
PERF	PERFORATED
S	SLOPE
ECB	EROSION CONTROL BARRIER

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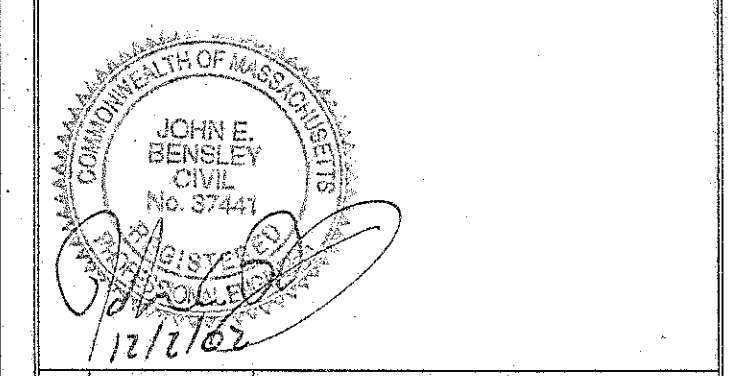
DRAINAGE RIM AND INVERT SCHEDULE

ID	RIM	INVERT	DIAMETER	PIPE	START	END
CB-01	R= 296.50	I= 293.52	15 INCH	RCP	TO	DMH-01
CB-02	R= 297.50	I= 293.87	12 INCH	RCP	TO	DMH-01
CB-03	R= 296.15	I= 293.20	15 INCH	RCP	TO	DMH-01
DMH-01	R= 296.40	I= 293.15	15 INCH	RCP	FROM	CB-01
		I= 293.15	12 INCH	RCP	FROM	CB-02
		I= 293.15	21 INCH	RCP	TO	FE-01
FE-01		I= 293.00	21 INCH	RCP	FROM	DMH-01

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12/02/2002	ISSUED FOR PERMITTING		
ISSUE DATE	DESCRIPTION		
DES	DWN	CHK'D	APP'D

PROJECT:

PARKING AREA EXPANSION CISCO-NEDC SITE 1

1414 MASSACHUSETTS AVENUE
BOXBOROUGH, MA
(MIDDLESEX COUNTY)

SCALE: AS NOTED DATE: 12/02/2002

NOTES, REFERENCES, LEGEND, RIM AND INVERT SCHEDULE

BTI JOB NO. W-0322.19
BTI FILE NO. 0322185A
BTI DWG NO. 0322191
C1.2