

LOCUS MAP
NOT TO SCALE

SITE DEVELOPMENT PLANS FOR ALTA at RIVER'S EDGE #490 BOSTON POST ROAD WAYLAND, MA

APPLICANT:
WP EAST ACQUISITIONS, LLC
91 HARTWELL AVENUE
LEXINGTON, MA 02421

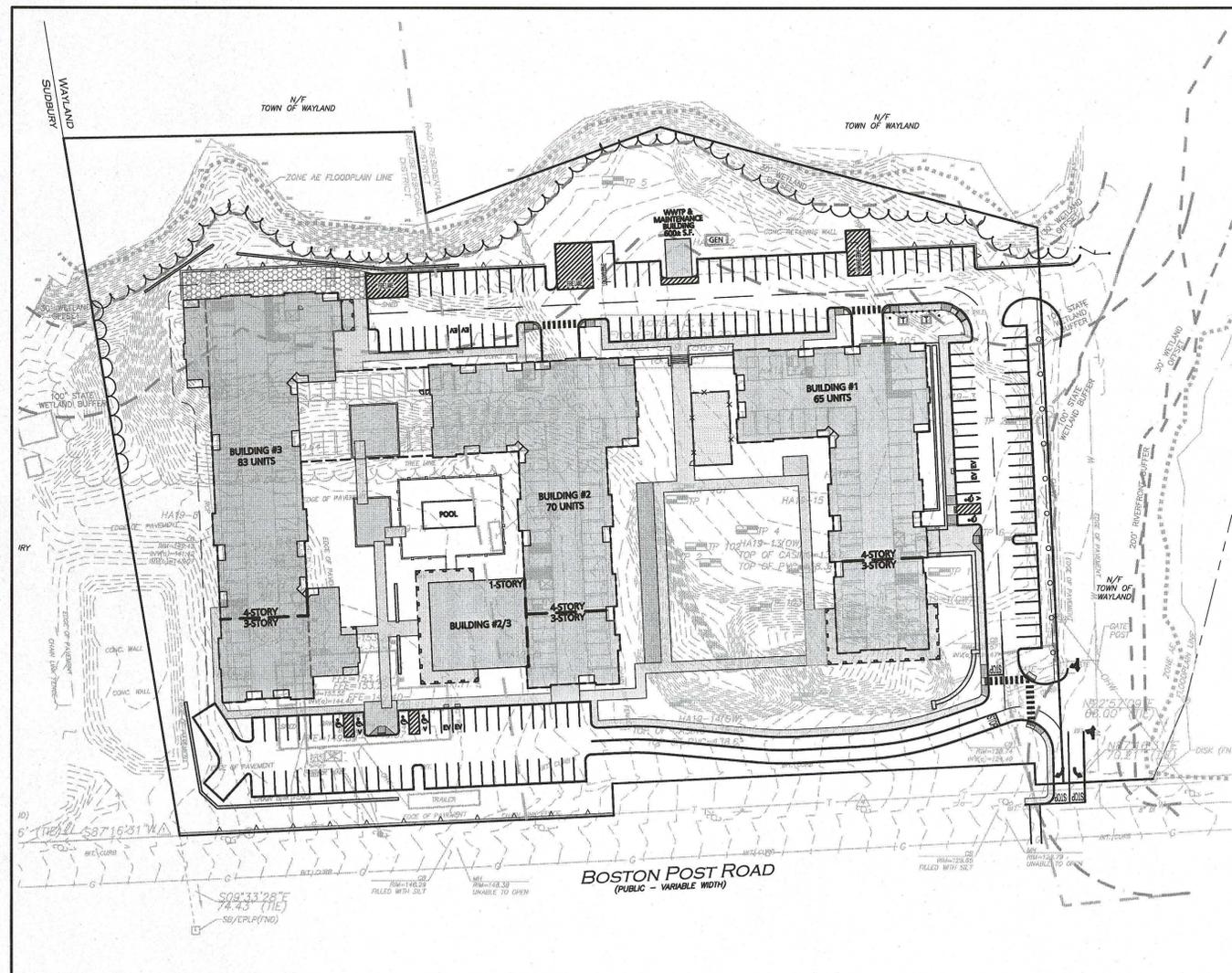
OWNER:
THE TOWN OF WAYLAND
41 COCHITUATE ROAD
WAYLAND, MA
(508) 358-3627

SITE ENGINEER:
ALLEN & MAJOR ASSOCIATES, INC.
100 COMMERCE WAY, SUITE #5
WOBURN, MA 01801
(781) 935-6889

LAND SURVEYOR:
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100 COMMERCE WAY, SUITE #5
WOBURN, MA 01801
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ARCHITECT:
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AT ADMIRAL'S HILL
CHELSEA, MA 02150
(617) 889-4402

LANDSCAPE ARCHITECT:
COPLEY WOLFF DESIGN GROUP, INC.
10 POST OFFICE SQUARE
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PREPARED BY:



ALLEN & MAJOR ASSOCIATES, INC.

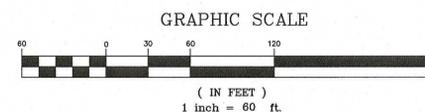
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LIST OF DRAWINGS

CIVIL			
DRAWING TITLE	SHEET NO.	ISSUED	REVISED
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PROFESSIONAL ENGINEER FOR
ALLEN & MAJOR ASSOCIATES, INC.

ISSUED FOR APPROVAL: JUNE 20, 2019
ISSUED FOR NOTICE OF INTENT: JULY 3, 2019
REVISED PER TOWN COMMENTS: SEPTEMBER 27, 2019
REVISED PER TOWN COMMENTS: OCTOBER 10, 2019
REVISED PER TOWN COMMENTS: OCTOBER 18, 2019
REVISED PER TOWN COMMENTS: NOVEMBER 12, 2019

NOTES

GENERAL NOTES:

- TOPOGRAPHIC INFORMATION AND EXISTING SITE FEATURES WERE OBTAINED FROM AN ACTUAL FIELD SURVEY PERFORMED BY ALLEN & MAJOR ASSOCIATES, INC, 100 COMMERCE WAY, WOBURN, MASSACHUSETTS.
- ZONING DISTRICT IS RESIDENTIAL ZONE (R40). REFUSE DISPOSAL DISTRICT (REF) WITH RIVER'S EDGE HOUSING OVERLAY DISTRICT (REHOD).
- OVERALL LOT SIZE: 8.25± ACRES OR 359,286± S.F.
- DURING CONSTRUCTION, ALL VEHICLES MUST BE PARKED ON SITE.
- DURING CONSTRUCTION, ALL STAGING AND DELIVERIES WILL OCCUR ON SITE.
- THIS PROJECT WILL BE SERVED BY PUBLIC WATER AND PRIVATE NATURAL GAS, TELEPHONE, CABLE AND ELECTRIC. SANITARY SEWER SHALL DISCHARGE TO AN ON-SITE WASTEWATER TREATMENT FACILITY WHICH IS PART OF THE PROPOSED PROJECT. ALL UTILITY LINES WILL BE INSTALLED UNDERGROUND UNLESS OTHERWISE NOTED.
- THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AND STRUCTURES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF VARIOUS UTILITY COMPANIES AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THIS INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE LOCATION OF ALL UNDERGROUND UTILITIES AND STRUCTURES SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR MUST CONTACT THE APPROPRIATE UTILITY COMPANY, ANY GOVERNING PERMITTING AUTHORITY, AND "DIGSAFE" AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION WORK TO REQUEST EXACT FIELD LOCATION OF UTILITIES AND THE ENGINEER SHALL BE NOTIFIED IN WRITING OF ANY UTILITIES INTERFERING WITH THE PROPOSED CONSTRUCTION AND APPROPRIATE REMEDIAL ACTION TAKEN BEFORE PROCEEDING WITH THE WORK. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS AT NO ADDITIONAL COST.
- ALL PROPOSED MAIN BUILDING ENTRANCES AND WALKS SHALL BE HANDICAP ACCESSIBLE PER FEDERAL ADA & MA AAB REGULATIONS.
- ALL SITE WORK DONE FOR THIS PROJECT SHALL BE IN STRICT ACCORDANCE WITH THE SITE PLANS AND SITE WORK SPECIFICATIONS FOR CONSTRUCTION. ONCE PROJECT SPECIFICATIONS ARE AVAILABLE, THE DPW SHALL BE ALLOWED TO REVIEW AND APPROVE THE DOCUMENT.
- ANY DAMAGE TO PRIVATE OR PUBLIC PROPERTIES DUE TO THE CONTRACTOR'S ACTIVITIES SHALL BE REPAIRED AND RESTORED BY THE CONTRACTOR AT THEIR OWN EXPENSE.
- ALL PROPERTY MARKERS AND STREET LINE MONUMENTS SHALL BE PROPERLY PROTECTED DURING CONSTRUCTION. ANY DAMAGE TO THESE ITEMS SHALL BE REPAIRED AND RESTORED BY A SURVEYOR REGISTERED IN THE STATE OF MASSACHUSETTS AT THE CONTRACTOR'S EXPENSE.
- ALL APPLICABLE PERMITS AND AN APPROVED SET OF PLANS SHALL BE AVAILABLE AT THE CONSTRUCTION SITE.
- THE CONTRACTOR IS RESPONSIBLE FOR SCHEDULING A PRE-CONSTRUCTION MEETING WITH THE APPROPRIATE TOWN DEPARTMENTS, THE APPROPRIATE UTILITY COMPANIES, THE OWNER AND OWNER'S REPRESENTATIVE. THE MEETING SHALL TAKE PLACE PRIOR TO THE START OF CONSTRUCTION AND THE CONTRACTOR MUST PROVIDE 48 HOURS NOTICE TO ALL ATTENDEES PRIOR TO THE START OF THE MEETING.
- APPROPRIATE WARNING SIGNS, MARKERS, BARRICADES AND/OR FLAG MEN SHALL BE PROVIDED TO REGULATE TRAFFIC. CONSTRUCTION TRAFFIC CONTROLS SHALL BE IMPLEMENTED AND OPERATED ACCORDING TO THE MASS DEPARTMENT OF TRANSPORTATION, THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND THE LOCAL AUTHORITY. THE CONTRACTOR SHALL COORDINATE WITH THE MASS-DOT AND THE WAYLAND POLICE DEPARTMENT REGARDING THE USE OF FLAG-MEN IN THE RIGHT-OF-WAY.
- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ADDITIONAL BENCHMARK INFORMATION IF REQUIRED. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTING ALL EXISTING BENCHMARKS. IF IT IS NECESSARY TO RELOCATE A BENCHMARK, IT SHALL BE RELOCATED BY A MASSACHUSETTS PROFESSIONAL LAND SURVEYOR AND DONE SO AT THE CONTRACTOR'S EXPENSE.
- ALL BUILDING DIMENSIONS ARE MEASURED TO THE OUTSIDE FACE OF THE BUILDING.
- ALL RADII ARE 3 FEET UNLESS OTHERWISE NOTED.
- ALL PARKING LOT AND AISLE DIMENSIONS ARE TAKEN FROM THE FACE OF CURB AND INDICATE EDGE OF PAVEMENT.
- CONSTRUCTION DURING WET WEATHER OR WINTER CONDITIONS IS TO BE ANTICIPATED AND PROVISIONS TO ADEQUATELY ADDRESS THESE CONDITIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AT NO ADDITIONAL COST.
- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND PAYING FOR ANY PERMITS AND/OR CONNECTION FEES REQUIRED TO CARRY OUT THE WORK INCLUDING BUT NOT LIMITED TO DEMOLITION.
- DISPOSAL OF ALL DEMOLISHED MATERIALS INCLUDING EXISTING MISC. CONSTRUCTION DEBRIS IS THE RESPONSIBILITY OF THE CONTRACTOR AND MUST BE DISPOSED OF OFF-SITE IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL MUNICIPAL REQUIREMENTS AT NO ADDITIONAL COST.
- ALL DISTURBED AREAS NOT NOTED TO RECEIVE OTHER TREATMENT ARE TO RECEIVE SIX INCHES (6") MINIMUM OF TOPSOIL & SEED, AND BE MAINTAINED UNTIL ESTABLISHED & ACCEPTED.
- EXISTING STRUCTURES WITHIN CONSTRUCTION LIMITS ARE TO BE PROTECTED, ABANDONED, REMOVED OR RELOCATED AS NECESSARY.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RELOCATIONS, INCLUDING BUT NOT LIMITED TO, ALL UTILITIES, STORM DRAINAGE, SIGNS, & POLES, ETC. AS REQUIRED. ALL WORK SHALL BE IN ACCORDANCE WITH THE LOCAL MUNICIPALITY'S GOVERNING AUTHORITY'S SPECIFICATIONS AND SHALL BE APPROVED BY SAME.
- THE CONTRACTOR SHALL COORDINATE WITH ALL UTILITY COMPANIES TO DETERMINE EXACT POINT OF SERVICE CONNECTION AND DISCONNECTION AT EXISTING UTILITY.
- ALL ELEVATIONS SHOWN ARE IN REFERENCE TO THE BENCHMARKS SHOWN ON THE EXISTING CONDITIONS SITE PLAN AND MUST BE VERIFIED BY THE GENERAL CONTRACTOR AT GROUND BREAKING.

- CONTRACTOR IS RESPONSIBLE FOR DIGGING TEST HOLES AND VERIFYING ANY EXISTING UTILITY OR STRUCTURE PRIOR TO CONSTRUCTION. CONTRACTOR SHALL VERIFY THAT BASED ON EXACT LOCATION OF EXISTING UTILITIES, THERE ARE NO CONFLICTS BETWEEN THE EXISTING AND THE PROPOSED UTILITIES/DRAINAGE STRUCTURES.
- THE CONTRACTOR SHALL ADHERE TO ALL PERMIT CONDITIONS PROVIDED BY ALL GOVERNING AGENCIES AT NO ADDITIONAL COSTS. THIS INCLUDES BUT IS NOT LIMITED TO BUILDING PERMITS, DEMOLITION PERMITS, PLUMBING, GAS, AND ELECTRICAL PERMITS. PERMITS FROM THE PLANNING BOARD OR TOWN COUNCIL.
- DURING EXCAVATION, ANY EXISTING EARTH CUT MATERIALS THAT DO NOT MEET THE "ORDINARY FILL" SPECIFICATIONS OR "LOAM" SPECIFICATIONS AND CANNOT BE REUSED SHALL BE REMOVED OFF-SITE BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNERS. MATERIAL WHICH DOES NOT MEET THE SPECIFICATION INCLUDES ALL BOULDERS, ROCKS, CONSTRUCTION DEBRIS, AND MISC. MATERIAL. PRIOR TO REUSE, CONTRACTOR TO PROVIDE TESTING REPORT OF SIEVE ANALYSIS TO ENGINEER FOR APPROVAL. CONTRACTOR CAN AMEND MATERIALS AND CONTINUE TO RETEST AS NECESSARY AT NO ADDITIONAL COST TO OWNER. AFTER AMENDING, IF MATERIAL STILL DOES NOT MEET THE SPECIFICATIONS, IT IS TO BE REMOVED FROM SITE AT NO ADDITIONAL COST TO THE OWNER AND IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS.
- ANY PROPOSED SIGNAGE SHALL BE APPROVED BY SEPARATE APPLICATION TO THE APPROPRIATE MUNICIPAL AUTHORITY INCLUDING BUT NOT LIMITED TO THE ZONING BOARD OF APPEALS AND TOWN COUNCIL. ALL PROPOSED SIGNAGE MUST MEET THE REQUIREMENTS OF THE LOCAL ZONING CODE.

GRADING & DRAINAGE NOTES:

- EXISTING PAVEMENT SHALL BE SAW-CUT AND PAVEMENT JOINT SHALL BE INSTALLED WHERE NECESSARY TO ENSURE A SMOOTH CONTINUOUS GRADE.
- ALL GRADING OPERATIONS SHALL BE COORDINATED WITH THE APPROPRIATE UTILITY COMPANIES.
- IN LANDSCAPED AREAS THE TOP ELEVATION OF ANY STRUCTURE (DRAIN MANHOLES, SEWER MANHOLES, CATCH BASINS, ETC.) SHALL MATCH THE FINISH GRADE OF THE TOPSOIL. IN PAVED AREAS THE TOP ELEVATIONS OF ANY STRUCTURE SHALL MATCH FINISH GRADE. STRUCTURES THAT ARE PART OF THE SEWER SYSTEM AND PARKING LOT DRAINAGE SHALL BE WATER-TIGHT TO PREVENT INFLOW.
- ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE STABILIZED AS SOON AS POSSIBLE UPON COMPLETION OF CONSTRUCTION WORK IN THE AREA.
- TEMPORARY TUBULAR BARRIER PROTECTION AND/OR SILT SACKS SHALL BE INSTALLED AND MAINTAINED AT EXISTING DRAINAGE STRUCTURES DURING CONSTRUCTION, TO PREVENT SEDIMENT LADEN RUNOFF FROM ENTERING THE DRAINAGE SYSTEM.
- CONTRACTOR IS RESPONSIBLE FOR DEMOLITION OF EXISTING STRUCTURES INCLUDING REMOVAL OF ANY EXISTING UTILITIES SERVING THE STRUCTURE PER DEMOLITION PLAN.
- ALL CATCH BASINS, MANHOLES, INFILTRATION SYSTEMS, AND WATER QUALITY STRUCTURES ARE TO BE CLEANED TO REMOVE ALL CONSTRUCTION SILT AND DEBRIS PRIOR TO FINAL APPROVAL.
- IF ANY EXISTING UTILITY STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTION, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO EXISTING CONDITIONS OR BETTER AT NO ADDITIONAL COST.
- ALL STORM PIPES ENTERING STRUCTURES SHALL BE GROUTED TO ENSURE CONNECTION AT STRUCTURE IS WATERTIGHT.
- ALL STORM DRAIN MANHOLES SHALL HAVE TRAFFIC BEARING RING & COVERS & SHALL BE LABELED "DRAIN".
- THE CONTRACTOR SHALL ADHERE TO ALL TERMS & CONDITIONS AS OUTLINED IN THE GENERAL N.P.D.E.S. PERMIT FOR STORM WATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITIES.
- CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS FOR ALL NATURAL AND PAVED AREAS.
- CONTRACTOR SHALL APPLY STABILIZATION FABRIC TO ALL SLOPES STEEPER THAN 3H:1V.
- ALL DRAINAGE SYSTEM COMPONENTS SHALL CONFORM TO LOCAL REQUIREMENTS.

UTILITY NOTES:

- THE LATEST STANDARDS OF THE LOCAL MUNICIPALITY SHALL BE FOLLOWED WHEN INSTALLING ANY STORM DRAIN WORK. STORM DRAIN WORK WILL BE INSPECTED BY THE LOCAL GOVERNING AUTHORITY PERSONNEL AND ALL COSTS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- 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 ENGINEER FOR RESOLUTION.
- ABANDONED EXISTING UTILITIES AND UTILITIES TO BE ABANDONED SHALL EITHER BE ABANDONED IN PLACE AS NOTED OR SHALL BE REMOVED AND DISPOSED OF AS SPECIFIED. ALL UTILITIES SCHEDULED FOR ABANDONMENT OR REMOVAL AND DISPOSAL MUST BE COORDINATED BY THE CONTRACTOR WITH THE RESPECTIVE UTILITY OWNER. WHEN ABANDONED UTILITIES ARE TO BE LEFT IN PLACE, PLUG OR CAP THE ENDS OF THE CONDUITS AND PIPES. REMOVE ABANDONED UTILITY MANHOLES, JUNCTION BOXES AND SIMILAR STRUCTURES TO A MINIMUM DEPTH OF 4 FEET BELOW FINISHED GRADE AND PUNCTURE OR BREAK THE BOTTOM SLABS OF MANHOLES AND SIMILAR STRUCTURE TO ALLOW DRAINAGE. BACKFILL AND COMPACT EXCAVATIONS RESULTING FROM REMOVAL OF UTILITY FACILITIES, AS REQUIRED TO RESTORE THE ORIGINAL GRADE.
- THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR THE ALTERATION AND ADJUSTMENTS OF NATURAL GAS, ELECTRIC, TELEPHONE AND ANY OTHER UTILITY BY THE UTILITY OWNER.
- THE CONTRACTOR SHALL USE THE FOLLOWING PIPE MATERIALS:
 - DRAIN - HDPE (HIGH DENSITY CORRUGATED POLYETHYLENE PIPE WITH SMOOTH INNER WALL), ASTM D2321 (UNLESS OTHERWISE SPECIFIED ON PLAN)
 - SEWER - PVC (POLYVINYL CHLORIDE), SDR 35
 - WATER - C.L.D.I. (CEMENT-LINED DUCTILE IRON)
- BEFORE UTILITY WORK BEGINS, THE CONTRACTOR WILL COORDINATE WITH

- THE LOCAL MUNICIPALITY FOR THE APPROPRIATE PERMIT AND INSPECTION FEES.
- A MINIMUM OF 10 FEET CLEAR HORIZONTALLY SHALL BE MAINTAINED BETWEEN WATER MAINS AND SANITARY SEWER MAINS AND/OR STORM DRAINS. WHENEVER CONDITIONS PREVENT A LATERAL SEPARATION OF 10 FEET TO A WATER MAIN, THE WATER MAIN SHALL BE LAID IN A SEPARATE TRENCH AND THE DIFFERENCE IN ELEVATION BETWEEN THE WATER MAIN AND THE SEWER MAIN SHALL BE AT LEAST 18 INCHES WHEN THE WATER UTILITY IS ABOVE THE SEWER UTILITY.
 - ALL FILL MATERIAL IS TO BE IN PLACE, AND COMPACTED BEFORE INSTALLATION OF PROPOSED UTILITIES.
 - CONTRACTOR SHALL NOTIFY THE UTILITY AUTHORITY'S INSPECTORS 72 HOURS BEFORE CONNECTING TO ANY EXISTING LINE.
 - MINIMUM TRENCH WIDTH SHALL BE 2 FEET.
 - CONTRACTOR SHALL MAINTAIN A MINIMUM OF 5'-0" COVER AND A MAXIMUM OF 8'-0" COVER ON ALL WATERLINES.
 - IN THE EVENT OF A VERTICAL CONFLICT BETWEEN WATERLINES, SANITARY LINES, STORM LINES AND GAS LINES (EXISTING AND PROPOSED), THE SANITARY LINE SHALL BE DUCTILE IRON PIPE WITH MECHANICAL JOINTS AT LEAST 10 FEET ON BOTH SIDES OF CROSSING. THE WATERLINE SHALL HAVE MECHANICAL JOINTS WITH APPROPRIATE THRUST BLOCKING AS REQUIRED TO PROVIDE A MINIMUM OF 18" CLEARANCE BETWEEN THE PIPES. WHERE THE WATERLINE IS LESS THAN THE 18" VERTICAL CLEARANCE AND MEETING 10' HORIZONTAL CLEARANCE CANNOT BE MET, THE WATER MUST BE WRAPPED IN A POLY WRAP AND ENCASED IN CONCRETE.
 - WATER LINE SHALL BE WRAPPED IN A POLY-WRAP BEFORE BEING ENCASED IN CONCRETE TO ENSURE THAT THE CONCRETE DOES NOT CORRODE THE NEWLY INSTALLED WATER LINE. ALL CONCRETE FOR ENCASEMENTS SHALL HAVE A MINIMUM 28 DAY COMPRESSION STRENGTH OF 3000 P.S.I.
 - CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH THE SPECIFICATIONS OF THE LOCAL AUTHORITIES WITH REGARDS TO MATERIALS AND INSTALLATION OF THE WATER, SEWER, GAS AND ELECTRICAL AND TELECOMMUNICATIONS LINES.
 - ALL NECESSARY INSPECTIONS AND/OR CERTIFICATIONS REQUIRED BY CODES AND/OR UTILITY SERVICE COMPANIES SHALL BE PERFORMED PRIOR TO ANNOUNCED BUILDING POSSESSION AND THE FINAL CONNECTION OF SERVICE.
 - DRAWINGS DO NOT NECESSARILY SHOW ALL EXISTING UTILITIES.

ABBREVIATIONS

ABAN	ABANDON	L	LENGTH
ADJ	ADJUST	LB	LEACHING BASIN
B	BORING	LP	LIGHT POLE
BC	BOTTOM OF CURB	MAT	MATERIAL
BIT	BITUMINOUS	MAX	MAXIMUM
BCB	BITUMINOUS CONCRETE BERM	MH	MANHOLE
BLDG	BUILDING	MIN	MINIMUM
BM	BENCH MARK	MISC	MISCELLANEOUS
BOS	BOTTOM OF SLOPE	MTD	MOUNTED
BOW	BOTTOM OF WALL	MW	MONITORING WELL
BRK	BRICK	N	NORTH
BV&B	BUTTERFLY VALVE & BOX	NIC	NOT IN CONTRACT
BWW	BORDERING VEGETATED WETLAND	NO	NUMBER
		NTS	NOT TO SCALE
CATV	CABLE TELEVISION	OC	ON CENTER
CB	CATCH BASIN	OD	OUTSIDE DIAMETER
CF	CUBIC FEET	OHW	OVERHEAD WIRE
CFS	CUBIC FEET PER SECOND	OVHD	OVERHEAD
CI	CAST IRON (PIPE)	OW	OBSERVATION WELL
CL	CENTERLINE	PC	POINT OF CURVATURE
CLDI	CEMENT LINED DUCTILE IRON (PIPE)	PCC	PRECAST CONCRETE CURB
CM	CONSTRUCTION MANAGER	PI	POINT OF INTERSECTION
CMP	CORRUGATED METAL PIPE	PKG	PARKING
CO	CLEAN OUT	PL	PROPERTY LINE
CONC	CONCRETE	PLMB	PLUMBING
CONST	CONSTRUCTION	POC	POINT ON CURVATURE
CONSTR	CONTRACTOR	POT	POINT ON TANGENT
CRD	COORDINATE	PRC	POINT OF REVERSE CURVATURE
CPP	CORRUGATED POLYETHYLENE PIPE	PROP, P	PROPOSED
CUL	CULVERT	PT	POINT (OR POINT OF TANGENT)
CY	CUBIC YARD	PVC	POLYVINYL CHLORIDE (PIPE)
		R&R	REMOVE & RESET/REPLACE
DB	DISTRIBUTION BOX	R&S	REMOVE & STACK
DBL	DOUBLE	RCP	REINFORCED CONCRETE PIPE
DEM	DEMOLISH	RD	ROAD (OR ROOF DRAIN)
DET	DETENTION	RED	REDUCE
DI	DUCTILE IRON (PIPE)	RELOC	RELOCATE
DIA	DIAMETER	REM	REMOVE
DIM	DIMENSION	RET	RETAIN, RETAINING OR RETENTION
DMH	DRAIN MANHOLE	ROW	RIGHT OF WAY
DW	DOMESTIC WATER (OR DRY WELL)	RR	RAILROAD
DWG	DRAWING	RWL	RAIN WATER LEADER
DYCL	DOUBLE YELLOW CENTERLINE	RWY	ROADWAY
		SD	SUBDRAIN
EHH	ELECTRIC HANDHOLE	SF	SQUARE FEET
EL	ELEVATION	SGC	SLOPED GRANITE CURB
ELEC	ELECTRIC	SMH	SEWER MANHOLE
EMH	ELECTRIC MANHOLE	SP	STANDPIPE
EOP	EDGE OF PAVEMENT	SPEC	SPECIFICATION
EOR	EDGE OF ROAD	STA	STATION
EOW	EDGE OF WETLANDS	STD	STANDARD
ETC	ELECTRIC, TELEPHONE, CABLE	STC	STORMCEPTOR
EXIST	EXISTING	STR	STRUCTURAL
EXT	EXTERIOR	SW	SOLID WHITE EDGE LINE
		SWL	SOLID WHITE LANE LINE
FA	FIRE ALARM	SYCL	SOLID YELLOW CENTERLINE
FCC	FLUSH CONCRETE CURB		
FES	FLARED END SECTION	TB	TEST BORING
FFE	FINISH FLOOR ELEVATION	TC	TOP OF CURB
FLNP	FIRE LANE NO PARKING	TD	TRENCH DRAIN
FPS	FEET PER SECOND	TEL	TELEPHONE
FS	FIRE SERVICE	TMS	TELEPHONE MANHOLE
FT	FOOT/FEET	TOW	TOP OF WALL
		TP	TEST PIT
GC	GENERAL CONTRACTOR	TS&V	TAPPING SLEEVE & VALVE
GEN	GENERAL	TYP	TYPICAL
GG	GAS GATE	UD	UNDERDRAIN
GR	GUIDE RAIL	UL	UNDERWRITERS LABORATORY
GRAN	GRANITE	UP	UTILITY POLES
GV	GATE VALVE	VCP	VITRIFIED CLAY PIPE
GV&B	GATE VALVE & BOX	VERT	VERTICAL
GW	GROUND WATER	VGC	VERTICAL GRANITE CURB
		WD	WOOD
HCR	HANDICAP RAMP	WG	WATER GATE
HOR	HORIZONTAL	WM	WATER MAIN
HT	HEIGHT	WMH	WATER MANHOLE
HW	HEADWALL	WSO	WATER SHUTOFF
HWY	HIGHWAY		
HYD	HYDRANT		
ID	INSIDE DIAMETER		
IN	INCHES		
INCL	INCLUDE		
INST	INSTALLED		
INV, I.E.	INVERT, INVERT ELEVATION		



PROFESSIONAL ENGINEER FOR ALLEN & MAJOR ASSOCIATES, INC.

REV	DATE	DESCRIPTION
E.	11/12/2019	REVISED PER TOWN COMMENTS
D.	10/18/2019	REVISED PER TOWN COMMENTS
C.	10/10/2019	REVISED PER TOWN COMMENTS
B.	09/27/2019	REVISED PER TOWN COMMENTS
A.	07/03/2019	ISSUED FOR NOTICE OF INTENT

APPLICANT/OWNER:
WP EAST ACQUISITIONS, LLC.
 91 HARTWELL AVENUE
 LEXINGTON, MA 02421

PROJECT:
ALTA AT RIVER'S EDGE
 490 BOSTON POST ROAD
 WAYLAND, MA

PROJECT NO.	1670-09A	DATE:	06-20-2019
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SCALE:	N/A	DWG. NAME:	1670-09A
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DESIGNED BY:	SJL	CHECKED BY:	CMQ
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DRAWING TITLE:	ABBREVIATIONS & NOTES	SHEET No.	C-001
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EROSION CONTROL NOTES

EROSION & SEDIMENTATION CONTROL NOTES:

1. EROSION CONTROL SHALL BE INSTALLED PRIOR TO CONSTRUCTION AND SHALL BE ADEQUATE TO MAINTAIN SEDIMENT ON SITE. ANY MODIFICATIONS TO SILT CONTROLS SHOWN ON THE APPROVED PLANS AS A RESULT OF ACTUAL FIELD CONDITIONS OR CONSTRUCTION PRACTICES SHALL BE INSTALLED IN ACCORDANCE WITH B.M.P. (BEST MANAGEMENT PRACTICES) PER THE E.P.A. 2017 "CONSTRUCTION GENERAL PERMIT" MANUAL AND MASSACHUSETTS 2003 EROSION & SEDIMENT CONTROL GUIDELINES FOR URBAN AND SUBURBAN AREAS, ANY SUCH MODIFICATIONS FROM THE ABOVE MANUALS SHALL BE INSTALLED AS APPROVED BY THE ENGINEER OR THE LOCAL MUNICIPALITY.
2. AREAS OF EXPOSED SOIL UNDERGOING CONSTRUCTION THAT WILL NOT BE COVERED AND OR FINISHED GRADED SHALL BE STABILIZED AS SOON AS PRACTICABLE BUT IN NO CASE MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY (UNLESS MUNICIPALITY HAS STRICTER REQUIREMENTS WHICH SHALL BE FOLLOWED) IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED. TEMPORARY EROSION CONTROL MEASURES SHALL INCLUDE EROSION CONTROL MESH, NETTING OR MULCH AS DIRECTED BY THE OWNER'S REPRESENTATIVE AND SHOWN ON THE DESIGN PLANS. IF MULCH IS USED, STRAW MULCH SHALL BE APPLIED AT THE RATE OF 4 BALES PER 1,000 SQUARE FEET. APPLICATION AREA SHALL BE SUFFICIENTLY COVERED WITH MULCH TO AVOID ANY VISIBLE SOIL EXPOSURE. MULCH SHALL BE KEPT MOIST TO AVOID LOSS DUE TO WIND. MULCH AND NETTING SHALL BE APPLIED IN THE BASE OF ALL GRASSED WATERWAYS, IN VEGETATIVE SLOPES WHICH EXCEED 15% AND DISTURBED AREAS WITHIN 100 FEET OF WETLANDS OR STREAMS.
3. IF DISTURBED AREAS DO NOT RECEIVE FINAL SEEDING BY OCTOBER 1ST OF THE CONSTRUCTION YEAR, THEN ALL DISTURBED AREAS SHALL BE SEED WITH A WINTER COVER CROP AT THE RATE OF 3 LBS PER 1,000 SQUARE FEET. WINTER SEEDING SHALL BE COVERED WITH EROSION CONTROL MESH (MULCH AND NETTING). HEAVY GRADE MATS SHALL BE USED IN THE BASE OF ALL GRASSED WATERWAYS ON VEGETATED SLOPES IN EXCESS OF 15%, AND ANY DISTURBED AREAS WITHIN 100 FEET OF WETLANDS OR STREAMS. MULCH AND NETTING SHALL ALSO BE PROVIDED FOR ADDITIONAL WINTER PROTECTION.
4. ALL TOPSOIL SHALL BE COLLECTED, STOCKPILED, SEED WITH RYE AT 3LBS PER 1,000 SQUARE FOOT AND MULCHED, AND REUSED AS REQUIRED. TUBULAR BARRIERS SHALL BE PLACED DOWN GRADIENT FROM STOCKPILED LOAM. LOAM SHALL BE STOCKPILED AT LOCATIONS DESIGNATED BY THE OWNER AND ENGINEER.
5. ALL TUBULAR BARRIERS, SILT SACKS, AND EROSION CONTROL BERMS SHALL BE INSTALLED ACCORDING TO THE SITE PREPARATION PLAN. THESE SHALL BE MAINTAINED DURING DEVELOPMENT TO REMOVE SEDIMENT FROM RUNOFF WATER. ALL THE FILTER BARRIERS AND EROSION CONTROL BERMS SHALL BE INSPECTED AFTER ANY RAINFALL OR RUNOFF EVENT, MAINTAINED AND CLEANED UNTIL ALL AREAS HAVE AT LEAST 85-90% VIGOROUS PERENNIAL COVER OF GRASSES.
6. ADJACENT ROADS SHALL BE PERIODICALLY SWEEPED OR WASHED TO AVOID TRACKING MUD, DUST OR DEBRIS FROM THE CONSTRUCTION AREA AS OFTEN AS NECESSARY (WHICH COULD BE ON A DAILY BASIS) TO REMOVE ANY SOIL OR SEDIMENTS AT NO ADDITIONAL COST TO THE OWNER. A WATERING TRUCK WILL BE USED TO PERIODICALLY SPRINKLE CONSTRUCTION AREAS IN ORDER TO KEEP THE LEVEL OF DUST TO A MINIMUM DURING THE DRY MONTHS AT NO ADDITIONAL COST TO THE OWNER.
7. THE CONTRACTOR SHALL USE EXTREME CAUTION TO AVOID ALLOWING SEDIMENTS TO ENTER THE STORM DRAIN SYSTEM DURING CONSTRUCTION. BOTH EXISTING AND PROPOSED CATCH BASIN INLETS SHALL BE PROTECTED DURING CONSTRUCTION BY THE USE SILT SACKS AND/OR TUBULAR BARRIERS AROUND EACH INLET AS NOTED ON THE PLANS. INLET PROTECTION MAY BE REMOVED ONLY AFTER FINISHED AREAS ARE PAVED AND THE VEGETATED SLOPES ARE ESTABLISHED WITH AT LEAST 85-90% OF VIGOROUS PERENNIAL GROWTH.
8. AS APPLICABLE, EROSION CONTROL MESH SHALL BE APPLIED IN ACCORDANCE WITH THE PLANS OVER ALL FINISHED SEEDED AREAS AS SPECIFIED ON THE DESIGN PLANS.
9. AT A MINIMUM, ALL TUBULAR BARRIERS AND FILTER FABRIC SHALL REMAIN IN PLACE UNTIL SEEDINGS OR PLANTINGS HAVE BECOME 85-90% ESTABLISHED. THE LOCAL CONSERVATION COMMISSION MUST APPROVE THE REMOVAL OR RELOCATION OF ANY OF THE TUBULAR BARRIERS AND FILTER FABRIC. ONCE THE TUBULAR BARRIERS ARE REMOVED THE AREAS ARE TO BE LOAMED AND SEED TO ACHIEVE FULL STABILIZATION.
10. AT THE OWNER'S DISCRETION ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED TO MAINTAIN STABILITY OF EARTHWORKS AND FINISHED GRADED AREAS. THE CONTRACTOR, AT HIS EXPENSE, WILL BE RESPONSIBLE FOR PROVIDING AND INSTALLING ANY ADDITIONAL MEASURES AS SPECIFIED BY THE OWNER. THIS INCLUDES BUT IS NOT LIMITED TO REQUESTS BY MA DEP, THE ENGINEER AND THE LOCAL MUNICIPALITY, AS AUTHORIZED BY THE OWNER. FAILURE TO COMPLY WITH THE OWNER'S DIRECTIONS WILL RESULT IN DISCONTINUATION OF CONSTRUCTION ACTIVITIES.
11. INSPECTIONS AND MONITORING MAINTENANCE MEASURES SHALL BE APPLIED AS NEEDED DURING THE ENTIRE CONSTRUCTION CYCLE. WEEKLY INSPECTIONS SHALL BE HELD THROUGH THE DURATION OF CONSTRUCTION ACTIVITY. WEEKLY INSPECTION REPORTS SHALL BE MAINTAINED BY THE CONTRACTOR AND LOCATED IN THE CONTRACTORS FIELD OFFICE ONSITE. IN ADDITION TO THE NORMAL WEEKLY INSPECTIONS, THE CONTRACTOR SHALL PERFORM AN INSPECTION OF ALL EROSION CONTROL MEASURES AFTER EACH RAINFALL OR RUNOFF EVENT, AND PERFORM THE NECESSARY REPAIRS. THE INSPECTIONS SHALL INCLUDE BUT NOT BE LIMITED TO THE SITE'S DOWN STREAM DISCHARGE POINTS.
12. IF ANY EVIDENCE OF SEDIMENTATION IS OBSERVED AT THE STORMWATER MANAGEMENT AREA INLETS, THE CONTRACTOR SHALL, AT HIS OWN EXPENSE, PROVIDE A PLAN TO THE ENGINEER TO REMOVE ANY ACCUMULATED SEDIMENT IN THESE AREAS. THE CONTRACTOR SHALL ALSO IMMEDIATELY PROVIDE ADDITIONAL ON SITE EROSION AND SEDIMENTATION CONTROL MEASURES TO PREVENT FURTHER DEGRADATION OF THE AREA.
13. FOLLOWING THE TEMPORARY OR FINAL SEEDINGS, THE CONTRACTOR SHALL INSPECT THE WORK AREA SEMI-MONTHLY TO ENSURE THE AREAS HAVE A MINIMUM OF 85-90% VEGETATED VIGOROUS GROWTH. RE-SEEDING SHALL BE CARRIED OUT BY THE CONTRACTOR WITH FOLLOW UP INSPECTIONS IN THE EVENT OF ANY FAILURES UNTIL VEGETATION IS ADEQUATELY ESTABLISHED.
14. CONTRACTOR & ALL SITE SUBCONTRACTORS SHALL BE FAMILIAR WITH & FOLLOW ALL APPROVED PERMITS AND CONDITIONS. CONTRACTOR SHALL MAINTAIN A COPY OF ALL APPROVED PERMITS ONSITE. ALL CONDITIONS & RECOMMENDATIONS WITHIN THE APPROVED PERMITS SHALL BE COMPLETED.
15. ALL EROSION MEASURES SHALL BE INSTALLED PRIOR TO CONSTRUCTION AND SHALL BE ADEQUATE TO MAINTAIN SEDIMENT ON SITE. ANY MODIFICATIONS SHALL BE INSTALLED AS DIRECTED BY THE ENGINEER OR THE LOCAL MUNICIPALITY.
16. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE MAINTAINED DURING CONSTRUCTION, AND SHALL REMAIN IN PLACE UNTIL ALL SITE WORK IS COMPLETE AND GROUND COVER IS ESTABLISHED.
17. TOP OF STOCKPILES SHALL BE COVERED IN SUCH MANNER THAT STORMWATER DOES NOT INFILTRATE THE MATERIALS AND THEREBY RENDER THE SAME UNSUITABLE FOR FILL USE.

EROSION & SEDIMENTATION CONTROL NOTES (CONTINUED):

18. ALL DISTURBED OR EXPOSED AREAS SUBJECT TO EROSION SHALL BE STABILIZED WITH MULCH OR SEED FOR TEMPORARY VEGETATIVE COVER. NO AREA, SUBJECT TO EROSION SHALL BE LEFT DISTURBED AND UNSTABILIZED FOR PERIODS LONGER THAN IS ABSOLUTELY NECESSARY TO CARRY OUT THAT PORTION OF THE CONSTRUCTION WORK OR SIX MONTHS AFTER SOIL HAS BEEN DISTURBED WHICHEVER IS LESS.
19. CULVERT/PIPE INLETS AND OUTFALLS SHALL BE PROTECTED BY TUBULAR BARRIER FILTERS AND STONE CHECK DAMS UNTIL DISTURBED AREAS ARE PERMANENTLY STABILIZED.
20. TUBULAR BARRIER DIKES SHALL BE CONSTRUCTED AT ALL EXISTING & PROPOSED CATCH BASINS. NO SEDIMENTATION SHALL ENTER THE ON-SITE OR OFF-SITE DRAINAGE SYSTEMS AT ANY TIME.
21. ALL EROSION CONTROL MEASURES SHALL BE ROUTINELY INSPECTED, CLEANED AND REPAIRED OR REPLACED AS NECESSARY THROUGHOUT ALL PHASES OF CONSTRUCTION. IN ADDITION, INSPECTIONS SHALL TAKE PLACE WEEKLY AND BEFORE AND AFTER EACH RAINFALL EVENT.
22. ALL PROPOSED SLOPES STEEPER THAN 3:1 SHALL BE STABILIZED WITH JUTE MESH AND PROTECTED FROM EROSION UNTIL WORK IS COMPLETE AND GROUND COVER IS ESTABLISHED.
23. THE CONTRACTOR SHALL KEEP ON SITE AT ALL TIMES ADDITIONAL TUBULAR BARRIERS FOR INSTALLATION AT THE DIRECTION OF THE ENGINEER OR THE TOWN ENGINEER TO MITIGATE ANY EMERGENCY CONDITION.
24. AS CONSTRUCTION DISTURBANCE IS GREATER THAN 1 ACRE, A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) CONSTRUCTION GENERAL PERMIT NOI, AND STORM WATER POLLUTION PREVENTION PLAN (SWPPP) WILL NEED TO BE SUBMITTED TO THE EPA. THE NPDES PERMIT FOR STORM WATER DISCHARGE, & CONSTRUCTION GENERAL PERMIT NOI WILL BE REQUIRED TO BE SUBMITTED AT LEAST 14 DAYS PRIOR TO COMMENCING CONSTRUCTION BY THE CONTRACTOR. ALLEN & MAJOR WILL PREPARE AND SUBMIT THIS MATERIAL, ON BEHALF OF WP EAST ACQUISITIONS, LLC., PRIOR TO THE START OF CONSTRUCTION.
25. OWNER AND CONTRACTOR ARE RESPONSIBLE FOR COMPLIANCE WITH THE CONSTRUCTION GENERAL PERMIT NOI. WEEKLY SWPPP INSPECTION REPORTS TO BE PERFORMED BY CONTRACTOR. COPIES OF ALL SWPPP INSPECTION REPORTS SHALL BE PROVIDED TO THE LOCAL MUNICIPALITY, EPA, DEP, OR ANY OTHER AUTHORITY REQUESTING WITHIN 3 DAYS OF EACH INSPECTION.
26. APPLICABLE WORK AND MATERIALS SHALL COMPLY WITH ALL LOCAL, MA DEP, EPA CONSTRUCTION GENERAL PERMIT STANDARDS. ALL CONSTRUCTION SHALL CONFORM TO THE APPLICABLE SITE PLAN REGULATIONS FROM THE LOCAL AND USDA SOIL CONSERVATION SERVICE VEGETATIVE PRACTICES IN SITE DEVELOPMENT.
27. A WATERING TRUCK SHALL BE USED TO PERIODICALLY SPRINKLE CONSTRUCTION AREAS IN ORDER TO KEEP THE LEVEL OF DUST TO A MINIMUM DURING THE DRY MONTHS AND AS REQUIRED.
28. IF DEWATERING IS NECESSARY IT SHALL ONLY BE COMPLETED AS FOLLOWS: THE DISCHARGE SHALL BE STOPPED IMMEDIATELY IF THE RECEIVING AREA SHOWS ANY SIGN OF INSTABILITY OR EROSION. ALL CHANNELS, SWALES, AND DITCHES DUG FOR DISCHARGING WATER FROM THE EXCAVATED AREA SHALL BE STABLE PRIOR TO DIRECTING DISCHARGE TO THEM. IF A CONSTRUCTION EQUIPMENT BUCKET IS USED, IT SHALL EMPTY THE MATERIAL TO A STABLE AREA. NO DEWATERING SHALL OCCUR DURING PERIODS OF INTENSE, HEAVY RAIN. FLOW TO THE SEDIMENT REMOVAL STRUCTURE SHALL NOT EXCEED THE STRUCTURE'S CAPACITY TO SETTLE AND FILTER FLOW OR ITS VOLUME CAPACITY. WHENEVER POSSIBLE, THE DISCHARGE FROM THE SEDIMENT REMOVAL STRUCTURE SHALL DRAIN TO A WELL-VEGETATED BUFFER BY SHEET FLOW WHILE MAXIMIZING THE DISTANCE TO THE NEAREST WATER RESOURCE AND MINIMIZING THE SLOPE OF THE BUFFER AREA. THERE SHALL BE NO DIRECT DISCHARGE TO EXISTING WETLANDS OR STREAMS. ALL DISCHARGE SHALL BE IN COMPLIANCE WITH STATE, LOCAL, AND FEDERAL REQUIREMENTS.
29. INITIATE STABILIZATION OF EXPOSED AREAS IMMEDIATELY IF CONSTRUCTION WORK TEMPORARILY OR PERMANENTLY CEASES.
30. ALL DISCHARGES FROM POLLUTION SOURCES ARE PROHIBITED ONSITE SUCH AS FUELS, WASTEWATER FROM WASH OUT OF CONCRETE, WASTEWATER FROM CLEAN OUT OF PAINTS, FORM RELEASE OILS, SOLVENTS, ADHESIVES, CURING COMPOUNDS, POLLUTANTS USED FOR MAINTENANCE OF VEHICLES AND EQUIPMENT, SOAPS & SOLVENTS, TOXIC OR HAZARDOUS SUBSTANCES, CHEMICALS AND OILS. IF A POLLUTANT IS DISCHARGED IT NEEDS TO BE IMMEDIATELY CLEANED UP BY REMOVING THE CHEMICAL AND AFFECTED SOIL OR AREA OF SPILL FROM THE SITE IN ACCORDANCE WITH BOTH THE MANUFACTURER RECOMMENDATIONS, FEDERAL, STATE, AND LOCAL REQUIREMENTS. DO NOT HOSE DOWN AND SPREAD SPILLED ITEM. ALL CHEMICALS USED ON THE SITE SHALL BE IN LEAK-PROOF CONTAINERS STORED AWAY FROM WETLANDS, SURFACE WATERS, STORMWATER INLETS, AND DRAINAGE MEASURES. SPILL KITS SHALL BE AVAILABLE ONSITE FOR EMERGENCY USE. THERE SHALL BE A SECONDARY CONTAINMENT MEASURE OF ALL CHEMICALS IN ADDITION TO SPILL-PROOF CONTAINERS.
31. PRIOR TO COMMENCEMENT OF CONSTRUCTION, APPLICABLE CONTRACTOR PERSONNEL MUST HAVE AN UNDERSTANDING OF THE EPA CONSTRUCTION GENERAL PERMIT REQUIREMENTS AND THEIR SPECIFIC RESPONSIBILITIES UNDER THE PERMIT. AT A MINIMUM, PERSONNEL MUST BE TRAINED AND UNDERSTAND THE FOLLOWING: LOCATION OF ALL STORMWATER CONTROLS AND HOW TO MAINTAIN THEM, PROCEDURES FOR COMPLYING WITH THE POLLUTION PREVENTION REQUIREMENTS, PROCEDURES FOR CONDUCTING INSPECTIONS, RECORDING FINDINGS, AND TAKING CORRECTIVE ACTION.
32. ALL SEDIMENT TRACKED ONTO ROADWAYS MUST BE REMOVED AT END OF EACH WORK DAY.
33. ALL USE OF CATIONIC TREATMENT CHEMICALS (EXAMPLES INCLUDE POLYMERS, CHITOSAN, CATIONIC PAM, FLOCCULANTS OR OTHER CHEMICAL UTILIZED FOR STABILIZATION) ARE PROHIBITED. IF ALL OTHER AVAILABLE STABILIZATION MEASURES ARE NOT POSSIBLE AND USE OF CATIONIC CHEMICALS IS ABSOLUTELY NECESSARY THE CONTRACTOR WILL NEED TO CONTACT THE EPA NEW ENGLAND OFFICE IN WRITING FOR APPROVAL AND SPECIFIC REQUIREMENTS (MAXIMUM DOSAGE RATE, RESIDUAL TESTING, SPECIFIC LIMITATIONS, ETC) PRIOR TO USE.
34. IF USING NON-VEGETATIVE STABILIZATION MEASURES, IT MUST BE COMPLETED NO LATER THAN 14 DAYS AFTER INITIATING STABILIZATION. ALL AREAS OF EXPOSED SOILS MUST BE COVERED.
35. INSPECTIONS OF EROSION CONTROL MEASURES SHALL BE AT LEAST ONCE EVERY 7 DAYS BY THE CONTRACTOR. AT A MINIMUM INSPECTIONS SHALL INCLUDE ALL DISTURBED AREAS, ALL STORMWATER CONTROLS AND POLLUTION PREVENTION MEASURES, ALL LOCATIONS WHERE STABILIZATION MEASURES HAVE BEEN IMPLEMENTED, EQUIPMENT AND MATERIAL STORAGE AREAS, ALL AREAS WHERE STORMWATER FLOWS AND ALL POINTS OF DISCHARGE. WHEN CORRECTIVE ACTIONS ARE REQUIRED, THE CONTRACTOR MUST IMMEDIATELY TAKE ALL STEPS TO PREVENT POLLUTANT DISCHARGES UNTIL A PERMANENT SOLUTION IS IMPLEMENTED. AS NECESSARY NEW OR MODIFIED CONTROLS MUST BE INSTALLED AND OPERATIONAL, THE REPAIR MUST BE COMPLETED WITHIN 7 DAYS FROM THE TIME OF DISCOVERY. WITHIN 24 HOURS OF A TRIGGERING CONDITION OCCURRING THAT REQUIRES A CORRECTIVE ACTION, A CORRECTIVE ACTION REPORT MUST BE COMPLETED.

MAINTENANCE:

ALL MEASURES STATED ON THE STORMWATER POLLUTION PREVENTION PLANS, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION BY CONTRACTOR UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON IN ACCORDANCE WITH THE CONTRACT DOCUMENTS OR THE APPLICABLE PERMIT, WHICHEVER IS MORE STRINGENT, AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:

1. INLET PROTECTION DEVICES AND BARRIERS SHALL BE REPAIRED OR REPLACED IF THEY SHOW SIGNS OF UNDERMINING, OR DETERIORATION.
2. ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO SEE THAT A HEALTHY STAND OF GRASS IS MAINTAINED. AREAS SHOULD BE FERTILIZED, WATERED, AND RESEDED AS NEEDED.
3. ALL SEDIMENT CONTROLS SHALL BE REPAIRED TO THEIR ORIGINAL CONDITIONS IF DAMAGED. SEDIMENT SHALL BE REMOVED FROM THE TUBULAR SEDIMENT CONTROLS WHEN IT REACHES HALF THE HEIGHT OF THE CONTROL MEASURE OR AS REQUESTED BY THE OWNER OR ENGINEER.
4. THE CONSTRUCTION ENTRANCES SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHTS-OF-WAY. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE CONSTRUCTION ENTRANCES AS CONDITIONS DEMAND.
5. THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AS CONDITIONS DEMAND.
6. OUTLET STRUCTURES IN THE SEDIMENTATION BASINS SHALL BE MAINTAINED IN OPERATIONAL CONDITIONS AT ALL TIMES. SEDIMENT SHALL BE REMOVED FROM SEDIMENT BASINS OR TRAPS WHEN THE DESIGN CAPACITY HAS BEEN REDUCED BY 50%.

CONSTRUCTION GENERAL PERMIT NOTES AND NARRATIVE:

NARRATIVE: THE STORMWATER POLLUTION PREVENTION PLANS CONSIST OF THE SITE PREPARATION PLAN TOGETHER WITH AN EXISTING CONDITIONS PLANS, GRADING PLANS, ABBREVIATIONS AND NOTES SHEETS, AND DETAIL SHEETS.

THE EROSION CONTROL PLAN WILL BE IMPLEMENTED TO:

- A. TREAT EROSION AS SOON AS POSSIBLE AFTER DISTURBANCE.
- B. PREVENT SEDIMENT FROM LEAVING THE CONSTRUCTION AREA AND ENTERING THE RECEIVING WATERS.
- C. CONSTRUCTION ACTIVITIES SHALL BE SCHEDULED TO MINIMIZE EROSION.
- D. ONLY DISTURB, CLEAR, OR GRADE AREAS NECESSARY FOR CONSTRUCTION.

N:\PROJECTS\1670-09A\CIVIL DRAWINGS\CURRENT\C-1670-09A-ABBREVIATIONS & NOTES.DWG



PROFESSIONAL ENGINEER FOR
ALLEN & MAJOR ASSOCIATES, INC.

REV	DATE	DESCRIPTION
E.	11/12/2019	REVISED PER TOWN COMMENTS
D.	10/18/2019	REVISED PER TOWN COMMENTS
C.	10/10/2019	REVISED PER TOWN COMMENTS
B.	09/27/2019	REVISED PER TOWN COMMENTS
A.	07/03/2019	ISSUED FOR NOTICE OF INTENT

APPLICANT/OWNER:
WP EAST ACQUISITIONS, LLC.
91 HARTWELL AVENUE
LEXINGTON, MA 02421

PROJECT:
ALTA AT RIVER'S EDGE
490 BOSTON POST ROAD
WAYLAND, MA

PROJECT NO.	1670-09A	DATE:	06-20-2019
SCALE:	N/A	DWG. NAME:	1670-09A
DESIGNED BY:	SJL	CHECKED BY:	CMQ

PREPARED BY:

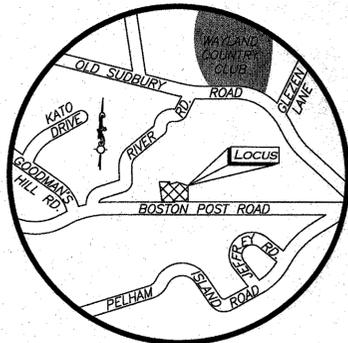
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DRAWING TITLE:	SHEET No.
ABBREVIATIONS & NOTES	C-002

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LOCUS MAP
(NOT TO SCALE)

LEGEND			
DISK	●	WATER GATE	⊕
STONE BOUND (SB)	□	INVERT (INV)	⊖
DRAIN MANHOLE (DMH)	⊙	LIGHT	⊛
SEWER MANHOLE (SMH)	⊗	TREE	⊕
ELECTRIC MANHOLE (EMH)	⊕	SIGN	⊕
MISC. MANHOLE (MH)	⊙	SIGN	⊕
TELEPHONE MANHOLE (TMH)	⊕	TRANSFORMER	⊕
WATER MANHOLE (WMH)	⊕	MONITOR WELL	⊕
CATCH BASIN (CB)	⊕	WETLAND FLAG	⊕
UTILITY POLE	⊕	HAND HOLE	⊕
UTILITY POLE W/RISER	⊕	GAS METER	⊕
GUY WIRE	⊕	CONCRETE	⊕
FIRE HYDRANT	⊕	WETLAND AREA	⊕
GAS GATE	⊕	BUILDING	⊕
		WATER GATE	⊕
		INVERT (INV)	⊖
		LIGHT	⊛
		TREE	⊕
		SIGN	⊕
		SIGN	⊕
		TRANSFORMER	⊕
		MONITOR WELL	⊕
		WETLAND FLAG	⊕
		HAND HOLE	⊕
		GAS METER	⊕
		CONCRETE	⊕
		WETLAND AREA	⊕
		BUILDING	⊕
		BUILDING OVERHANG	⊕
		WETLAND	⊕
		1' CONTOUR	⊕
		5' CONTOUR	⊕
		PROPERTY LINE	⊕
		ABUTTERS LINE	⊕
		TOWN LINE	⊕
		TREE LINE	⊕
		EDGE OF PAVEMENT	⊕
		CURB	⊕
		STOCKADE FENCE	⊕
		CHAIN LINK FENCE	⊕
		WATER LINE	⊕
		DRAIN LINE	⊕
		GAS LINE	⊕
		ELECTRIC LINE	⊕
		TELEPHONE LINE	⊕
		OVERHEAD WIRES	⊕
		FINISHED FLOOR ELEVATION	⊕
		BITUMINOUS	⊕
		CONCRETE	⊕
		REINFORCED CONCRETE PIPE	⊕
		ESCUTCHEON PIN IN LEAD PLUG	⊕
		STONE BOUND W/EPLP	⊕
		FOUND	⊕
		NOW OR FORMERLY	⊕
		BOOK	⊕
		PAGE	⊕



FOR REGISTRY USE ONLY

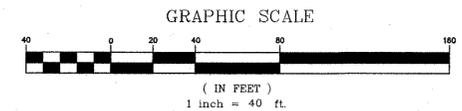
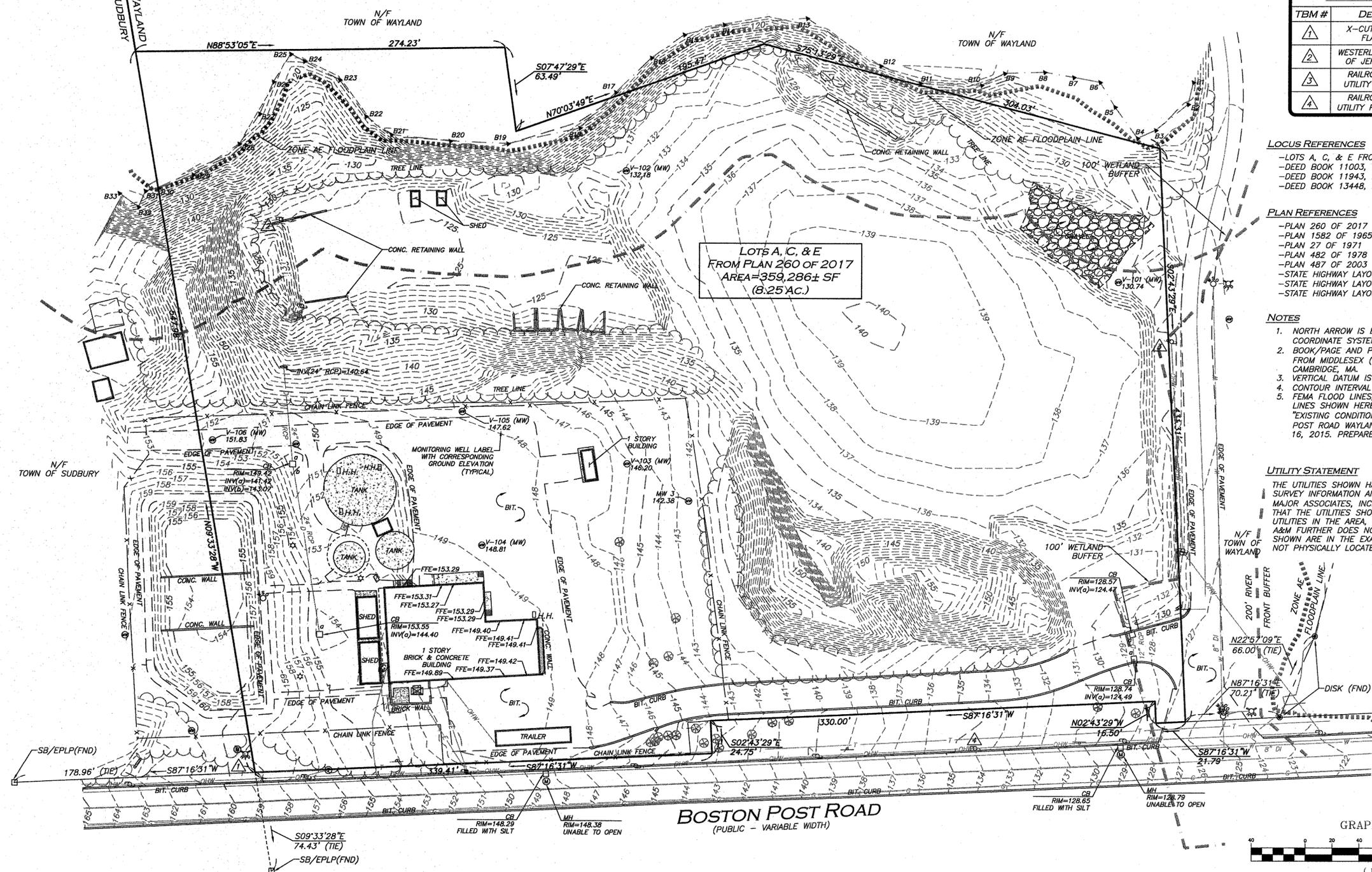
BENCHMARK SUMMARY		
TBM #	DESCRIPTION	ELEV.
1	X-CUT ON HYDRANT FLANGE BOLT	116.23
2	WESTERLY TOP CORNER OF JERSEY BARRIER	127.81
3	RAILROAD SPIKE IN UTILITY POLE (NO #)	131.93
4	RAILROAD SPIKE IN UTILITY POLE #276/110	135.95

LOCUS REFERENCES
 - LOTS A, C, & E FROM PLAN 260 OF 2017
 - DEED BOOK 11003, PAGE 389
 - DEED BOOK 11943, PAGE 420
 - DEED BOOK 13448, PAGE 394

PLAN REFERENCES
 - PLAN 260 OF 2017
 - PLAN 1582 OF 1965
 - PLAN 27 OF 1971
 - PLAN 482 OF 1978
 - PLAN 487 OF 2003
 - STATE HIGHWAY LAYOUT# 493
 - STATE HIGHWAY LAYOUT# 840
 - STATE HIGHWAY LAYOUT# 1857

NOTES
 1. NORTH ARROW IS BASED ON MASSACHUSETTS GRID COORDINATE SYSTEM (MAINLAND ZONE) (NAD 83).
 2. BOOK/PAGE AND PLAN REFERENCES ARE TAKEN FROM MIDDLESEX (SOUTH) REGISTRY OF DEEDS IN CAMBRIDGE, MA.
 3. VERTICAL DATUM IS NAVD 88.
 4. CONTOUR INTERVAL IS ONE FOOT (1').
 5. FEMA FLOOD LINES, WETLAND FLAGS AND WETLAND LINES SHOWN HEREON TAKEN FROM A PLAN ENTITLED "EXISTING CONDITIONS SURVEY 484-490 BOSTON POST ROAD WAYLAND, MASSACHUSETTS". DATED JULY 16, 2015. PREPARED BY WSP SELLS.

UTILITY STATEMENT
 THE UTILITIES SHOWN HAVE BEEN LOCATED FROM FIELD SURVEY INFORMATION AND EXISTING DRAWINGS. ALLEN & MAJOR ASSOCIATES, INC. (A&M) MAKES NO GUARANTEE THAT THE UTILITIES SHOWN HEREON COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. A&M FURTHER DOES NOT WARRANT THAT THE UTILITIES SHOWN ARE IN THE EXACT LOCATION INDICATED. A&M HAS NOT PHYSICALLY LOCATED THE UNDERGROUND UTILITIES.



WE HEREBY CERTIFY THAT:

THIS PLAN IS THE RESULT OF AN ACTUAL ON THE GROUND SURVEY PERFORMED ON OR BETWEEN MARCH 27, 2019 AND MAY 9, 2019. THIS PLAN WAS PREPARED IN ACCORDANCE WITH THE RULES AND REGULATIONS OF THE REGISTERS OF DEEDS DATED JANUARY 1, 1976 AND REVISED JANUARY 12, 1988. ACCORDING TO DEEDS AND PLANS OF RECORD, THE PROPERTY LINES SHOWN ON THIS PLAN ARE THE LINES DIVIDING EXISTING OWNERSHIP, AND THE LINES OF THE STREETS OR WAYS SHOWN ARE THOSE OF PUBLIC OR PRIVATE STREETS AND WAYS ALREADY ESTABLISHED, AND THAT NO NEW LINES FOR THE DIVISION OF EXISTING OWNERSHIP OR FOR NEW WAYS ARE SHOWN. THE ABOVE CERTIFICATION IS INTENDED TO MEET REGISTRY OF DEEDS REQUIREMENTS FOR THE RECORDING OF PLANS AND IS NOT A CERTIFICATION TO THE TITLE OR OWNERSHIP OF THE PROPERTY SHOWN. OWNERS OF ADJOINING PROPERTIES ARE SHOWN ACCORDING TO CURRENT TOWN OF WAYLAND AND TOWN OF SUDBURY ASSESSOR'S INFORMATION. THE ABOVE IS CERTIFIED TO THE BEST OF MY PROFESSIONAL KNOWLEDGE, INFORMATION AND BELIEF.

ALLEN & MAJOR ASSOCIATES, INC.

June 18, 2019
 PROFESSIONAL LAND SURVEYOR FOR ALLEN & MAJOR ASSOCIATES, INC.



REV	DATE	DESCRIPTION

APPLICANT/OWNER:
WP EAST ACQUISITIONS, LLC
 91 HARTWELL AVENUE - 3RD FLOOR
 LEXINGTON, MA 02421

PROJECT:
490 BOSTON POST ROAD
 WAYLAND, MA

PROJECT NO. 1670-09A DATE: 06/17/19

SCALE: 1" = 40' DWG. NAME: 5-1670-09A-EC

DRAFTED BY: COB/KAC CHECKED BY: NIL

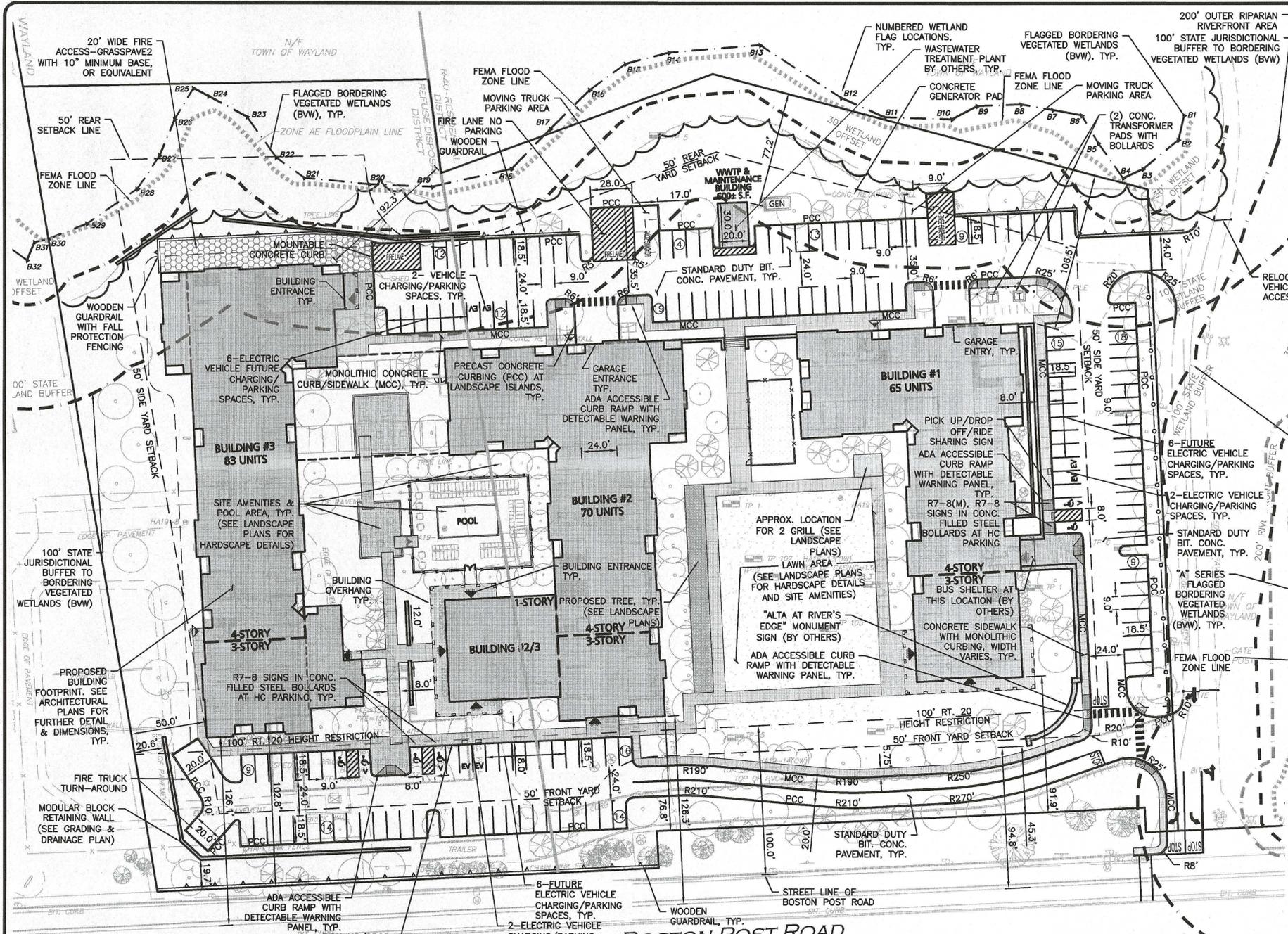


ALLEN & MAJOR ASSOCIATES, INC.
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DRAWING TITLE: **EXISTING CONDITIONS** SHEET No. **V-101**



LEGEND

PROP. PROPERTY LINE	---
SIGN	□
BOLLARD	●
BUILDING	▒
BUILDING ARCHITECTURE	▒
CURB	—
RETAINING WALL	—
PARKING STRIPING	—
TRAFFIC ARROWS	→
HEAVY DUTY CONCRETE	▒
SIDEWALK	—
ADA ACCESSIBLE RAMP	—
ADA DET. WARNING SURFACE	▒
SETBACK LINE	—
PARKING COUNT	⑩
TREE LINE	—
TRANSFORMER	⊠
MONOLITHIC CURBING	MONO.
PRECAST CONC. CURB	PCC

- NOTES:**
- THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.
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 - THE CONTRACTOR SHALL CONTACT "DIGSAFE" AND THE TOWN OF WAYLAND DEPARTMENT OF PUBLIC WORKS AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION WORK TO REQUEST THE LOCATION OF THE EXISTING UTILITIES.

DIGSAFE: 1-800-344-7233
 WAYLAND DEPT. OF PUBLIC WORKS: (508) 358-3672

- SEE THE ABBREVIATIONS AND NOTES PLAN AND DETAILS FOR FURTHER INFORMATION.
- ALL CURBING RADI SHALL BE 3' UNLESS OTHERWISE NOTED. ALL RADI AND DIMENSIONS MEASURED AT FACE OF CURB.
- ALL ADA RAMPS ARE TO BE CONCRETE UNLESS SPECIFIED OTHERWISE.
- EXISTING CONDITIONS BASE PLAN TAKEN FROM AN EXISTING CONDITIONS BASE PLAN ENTITLED "EXISTING CONDITIONS", PREPARED BY ALLEN & MAJOR ASSOCIATES, INC., ORIGINAL SCALE 1"=40', DATED MAY 8, 2019.
- RIVERFRONT FLAGGINGS (RA SERIES) AND A&B SERIES WETLANDS FLAGGINGS TAKEN FROM A PLAN ENTITLED "EXISTING CONDITIONS SURVEY - 484-490 BOSTON POST ROAD - WAYLAND, MASSACHUSETTS," PREPARED BY WSP SELLS DATED JULY 16, 2015, SCALE 1"=60'.
- ALL PAVEMENT MARKINGS AND SIGNAGE SHALL BE COORDINATED WITH THE WAYLAND DPW AND SHALL CONFIRM TO THE LATEST MUTCD STANDARDS.

PARKING SUMMARY CHART

USE: RIVER'S EDGE HOUSING OVERLAY DISTRICT (REHOD)

PARKING SPACES SHALL BE PROVIDED AT A MINIMUM RATIO OF 1.25 PARKING SPACES PER DWELLING UNIT⁽¹⁾

(218 UNITS TOTAL) * (1.25 SPACES/UNITS) = 273 SPACES
 TOTAL OFF-STREET PARKING REQUIREMENT = 273 SPACES

THEREFORE, 273 PARKING SPACES ARE REQUIRED AT A MINIMUM RATIO OF 1.25 SPACES PER 1 DWELLING UNIT.

344 TOTAL PARKING SPACES ARE CURRENTLY PROPOSED, INCLUDING 180 SPACES WITHIN THE PODIUM PARKING AREAS AND 164 SURFACE PARKING STALLS, FOR A PROPOSED PARKING RATIO OF 1.58 SPACES PER 1 DWELLING UNIT.

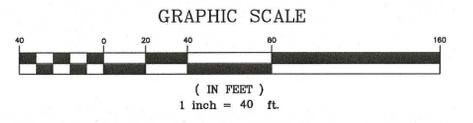
1.58 > 1.25, THEREFORE PROPOSED PARKING COUNT MEETS/EXCEEDS MINIMUM REQUIRED.

ADA REQUIRED: THERE ARE BETWEEN 301 AND 400 TOTAL PARKING SPACES REQUIRING 8 ACCESSIBLE STALLS PER ADA REGULATIONS AND 2 OF THEM TO BE VAN ACCESSIBLE.

ADA PROVIDED: 12 ADA ACCESSIBLE SPACES, 6 OF WHICH SHALL BE VAN ACCESSIBLE

SURFACE PARKING		STRUCTURED PARKING		TOTAL PARKING	
STANDARD SPACES	ACCESSIBLE SPACES	STANDARD SPACES	ACCESSIBLE SPACES	TOTAL PROVIDED	TOTAL REQUIRED
158	6	174	6 ⁽²⁾	344	273

- PARKING NOTES:**
- ...AND MAXIMUM OF 15 PARKING SPACES FOR ANY ACCESSORY CAFE OR DINER IN ADDITION TO SAID DWELLING UNIT PARKING SPACES. IF OVER 50% OF THE TOTAL NUMBER OF DWELLING UNITS ARE AGE RESTRICTED AS SET FORTH IN § 198-2506.6 BELOW, PARKING MAY BE PROVIDED AT A MINIMUM OF 0.50 PARKING SPACE PER AGE-RESTRICTED DWELLING UNIT.
 - INCLUDES 3 VAN ACCESSIBLE PARKING STALLS WITHIN STRUCTURED PODIUM PARKING.



LAND USAGE TABLE - RESIDENTIAL ZONE (R40) & REFUSE DISPOSAL DISTRICT (REF) WITH RIVER'S EDGE HOUSING OVERLAY DISTRICT (REHOD)

ITEM	EXISTING	PROPOSED	REQUIRED/ALLOWED
MINIMUM LOT AREA	359,286± S.F.	359,286± S.F.	40,000 S.F.
MAXIMUM LOT COVERAGE	(1) 3.8% ±	24.6%± ⁽⁴⁾	(8) 20%
MINIMUM FRONTAGE	691.2± FT	691.2± FT	180 FEET
MINIMUM BUILDING SETBACK	(2) 12.1± FT	50.0± FT	50 FT
MINIMUM FRONT YARD	(4) 12.1± FT	19.7 FT	(8) 30 FT
MIN. R.O.W. CENTER LINE SETBACK	84.7 FT	94.8 FT	(6) 55 FT
MINIMUM REAR YARD	(4) 23.7± FT	73.0 FT	(6) 30 FT
MINIMUM SIDE YARD	(4) 87.9± FT	20.6 FT	(8) 75 FT
MAXIMUM BUILDING HEIGHT	(3) 21± FT	52'-7"	(8) 45 FT
MAXIMUM BUILDING HEIGHT	(3) 21± FT	51'-11"	58 FT
MAXIMUM BUILDING SIZE	13,757± GSF	56,366± GSF	150,000 GSF
MINIMUM PARKING AREA	TBD	10.0%	10%
INTERIOR LANDSCAPING			
MAXIMUM NUMBER OF DWELLING UNITS	N/A	218	(8) 190

- LAND USAGE TABLE NOTES:**
- 704.4 - IN ALL ZONING DISTRICTS, THE PERCENTAGE OF A LOT THAT MAY BE COVERED BY ANY BUILDING OR STRUCTURE SHALL MEET THE REQUIREMENTS IN §198-801, TABLE OF DIMENSIONAL REQUIREMENTS.
 - 2505.1 - MINIMUM BUILDING SETBACK FROM THE RIVER'S EDGE HOUSING OVERLAY DEVELOPMENT (REHOD) PERIMETER BOUNDARY SHALL BE 50 FEET.
 - 2505.2 - MAXIMUM BUILDING HEIGHT OF ANY BUILDING OR PORTION THEREOF LOCATED LESS THAN 100 FEET FROM A PUBLIC WAY BOSTON POST ROAD/ROUTE 20 SHALL NOT EXCEED 35 FEET IN HEIGHT. MAXIMUM BUILDING HEIGHT SHALL NOT EXCEED 45 FEET FOR THE REMAINDER OF THE SITE, WITH THE EXCEPTION THAT THE MAXIMUM HEIGHT FOR THE NORTHWEST QUADRANT OF THE SITE SHALL BE 58 FEET IN HEIGHT FOR THIS QUADRANT ONLY. HEIGHT SHALL BE AS DEFINED IN §198-701.1.2. HEIGHT SHALL BE MEASURED FROM THE AVERAGE GRADE OF THE LAND WHERE AVERAGE GRADE SHALL BE DETERMINED BY THE GRADE OF THE LAND IMMEDIATELY ADJACENT TO THE THREE SIDES OF THE BUILDING WHICH DO NOT FACE NORTH, TO REDUCE GRADING ON THE NORTH-FACING SIDES NEAR WETLANDS, AND TO ENCOURAGE UNDERGROUND PARKING IN THESE AREAS. ON THESE NORTH-FACING FACADES ONLY, NOT MORE THAN SIX FEET OF A PARKING LEVEL MAY BE EXPOSED AND ALLOW NATURAL VENTILATION AS LONG AS THIS FACADE AREA IS SCREENED AND BUFFERED WITH LANDSCAPE.
 - FRONT, SIDE, AND REAR YARDS SHALL BE SPACE EXTENDING BETWEEN THE LOT LINE OF A GIVEN YARD AND THE NEAREST POINT OF THE BUILDING OR STRUCTURE. NOTE: STRUCTURES INCLUDE RETAINING WALLS.
 - MINIMUM DIMENSION NOTED INDICATES REQUIREMENTS FOR BOTH R-40 RESIDENTIAL DISTRICT AND REFUSE DISPOSAL DISTRICT.
 - MINIMUM DIMENSION NOTED INDICATED REQUIREMENTS FOR R-40 RESIDENTIAL DISTRICT ONLY.
 - MINIMUM DIMENSION NOTED INDICATES REQUIREMENTS FOR REFUSE DISPOSAL DISTRICT ONLY.
 - RELIEF FROM TOWN OF WAYLAND ZONING BYLAWS REQUIRED.



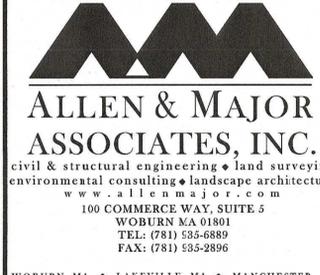
PROFESSIONAL ENGINEER FOR ALLEN & MAJOR ASSOCIATES, INC.

REV	DATE	DESCRIPTION
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D	10/18/2019	REVISED PER TOWN COMMENTS
C	10/10/2019	REVISED PER TOWN COMMENTS
B	09/27/2019	REVISED PER TOWN COMMENTS
A	07/03/2019	ISSUED FOR NOTICE OF INTENT

APPLICANT/OWNER:
WP EAST ACQUISITIONS, LLC.
 91 HARTWELL AVENUE
 LEXINGTON, MA 02421

PROJECT:
ALTA AT RIVER'S EDGE
 490 BOSTON POST ROAD
 WAYLAND, MA

PROJECT NO.	1670-09A	DATE:	06-20-2019
SCALE:	1"=40'	DWG. NAME:	1670-09A
DESIGNED BY:	SJL	CHECKED BY:	CMQ

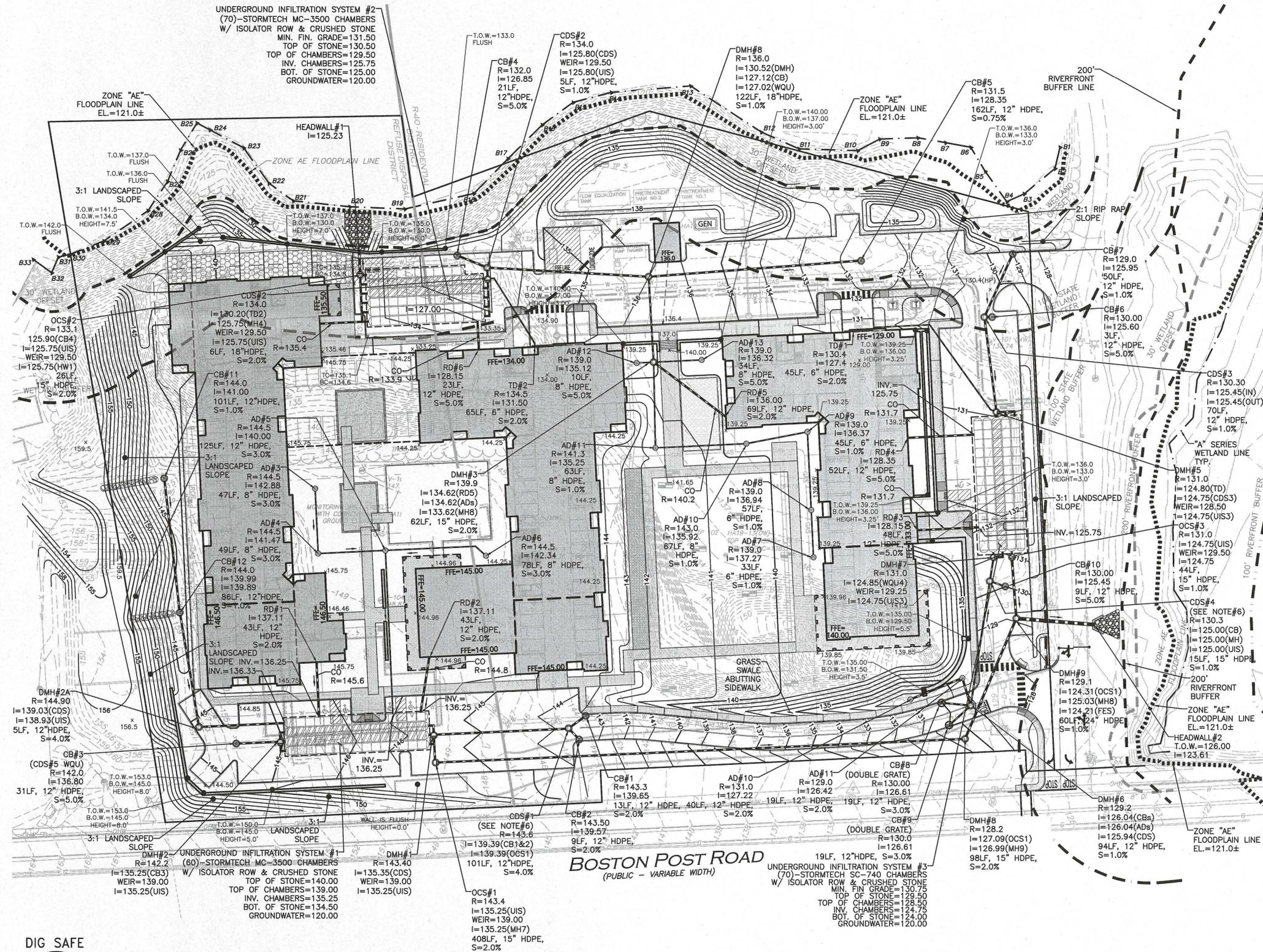


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DRAWING TITLE: **LAYOUT & MATERIALS PLAN** SHEET No. **C-102**

N:\PROJECTS\1670-09A\CIVIL\DRAWINGS\CURRENT\C-1670-09A_GRADING & DRAINAGE.DWG



LEGEND

- DRAIN MANHOLE
- CATCH BASIN
- CATCH BASIN - DOUBLE GRATE
- DRAIN MANHOLE W/ WEIR
- AREA DRAIN
- CLEANOUT
- SPOT GRADE x 148.00
- DRAIN LINE
- 5' CONTOUR -200
- 1' CONTOUR -198
- INFILTRATION SYSTEM
- INFILTRATION CHAMBERS
- ISOLATOR ROW

NOTES:

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- PIPE DIMENSIONS ARE STRUCTURED FROM THE INSIDE FACE OF THE STRUCTURE.
- THE CONTRACTOR SHALL CONTACT "DIGSAFE" AND THE AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION WORK TO REQUEST THE LOCATION OF THE EXISTING UTILITIES. DIGSAFE: 1-888-344-7233
- ANY ROOF DRAINAGE PIPE LOCATED WITHIN 10' OF THE BUILDING FOUNDATION SHALL BE CAST IRON PIPE PER MA PLUMBING CODE.
- ALL "CDS" STRUCTURES HAVE BEEN SIZED USING THE WATER QUALITY FLOW RATE PER MASS STORMWATER HANDBOOK AND SHALL BE CONTECH CDS2015-4-C OR APPROVED EQUIVALENT.
- GROUNDWATER ELEVATIONS ARE ASSUMPTIONS BASED ON INFORMATION PROVIDED IN A GEOTECHNICAL REPORT DATED MAY 2019 BY HALEY ALDRICH. TEST PITS SHALL BE CONDUCTED BY A SOIL EVALUATOR LICENSED IN THE STATE OF MASSACHUSETTS TO VERIFY THE ESTIMATED SEASONAL HIGH GROUNDWATER TABLE (ESHGW) PRIOR TO THE INSTALLATION OF THE INFILTRATION FIELDS.



PROFESSIONAL ENGINEER FOR ALLEN & MAJOR ASSOCIATES, INC.

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APPLICANT/OWNER:

WP EAST ACQUISITIONS, LLC.
91 HARTWELL AVENUE
LEXINGTON, MA 02421

PROJECT:

ALTA AT RIVER'S EDGE
490 BOSTON POST ROAD
WAYLAND, MA

PROJECT NO.	1670-09A	DATE:	06-20-2019
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SCALE:	1"=40'	DWG. NAME:	1670-09A
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DESIGNED BY:	SIL	CHECKED BY:	CMQ
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PREPARED BY:



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DRAWING TITLE:	SHEET NO.
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GRADING & DRAINAGE PLAN C-103

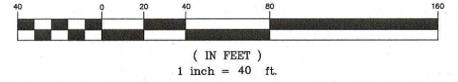
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DIG SAFE



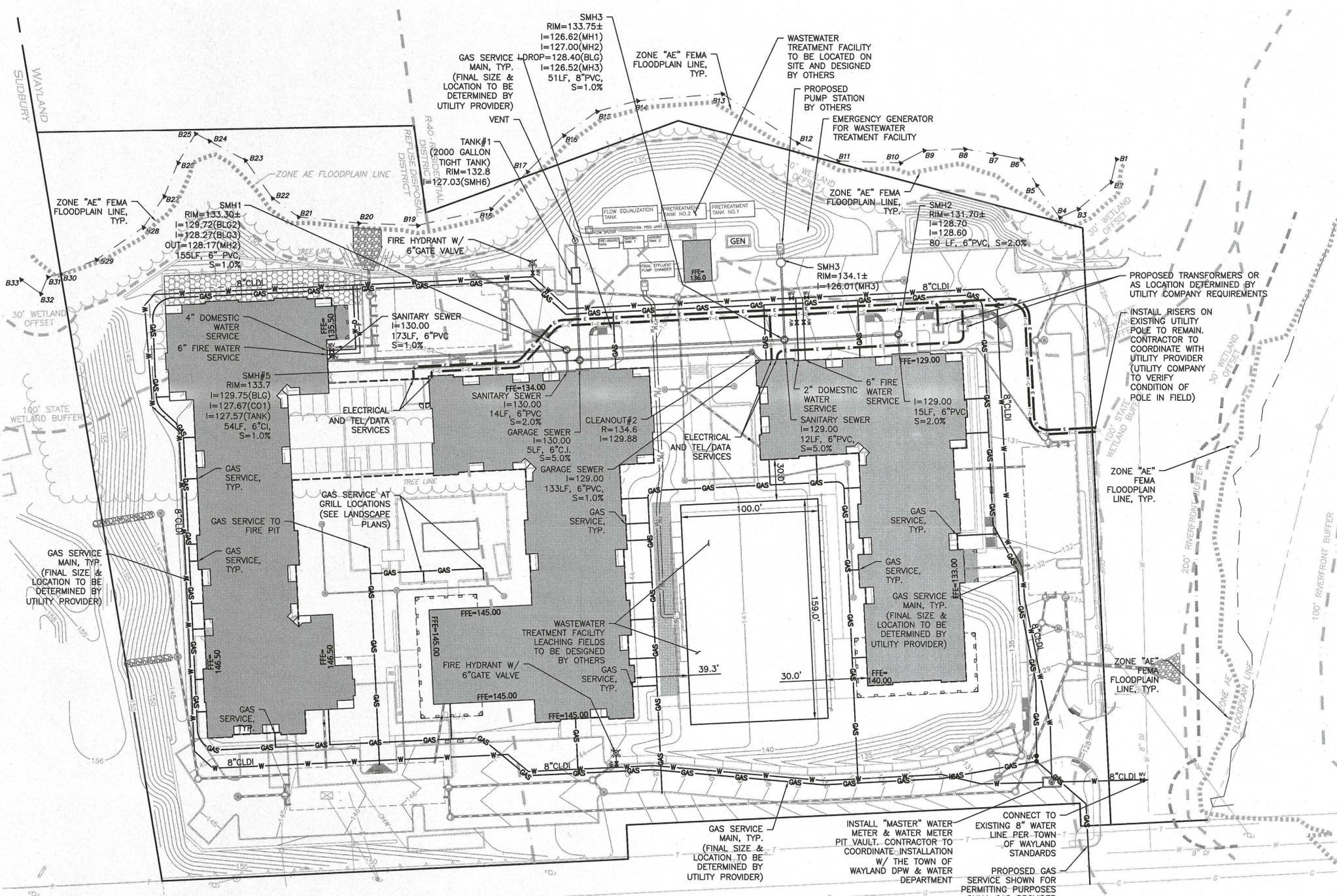
BEFORE YOU DIG
CALL 811 OR
1-888-DIG-SAFE
1-888-344-7233

GRAPHIC SCALE



(IN FEET)
1 inch = 40 ft

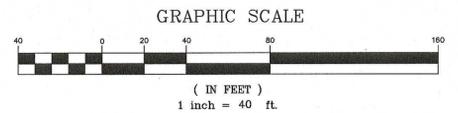
N:\PROJECTS\1670-09A\CIVIL\DRAWINGS\CURRENT\C-1670-09A_UTILITIES.DWG



LEGEND

SEWER MANHOLE	⊙
SEWER CLEANOUT	⊙
SEWER VENT	⊙
SEWER LINE	—
WATER LINE	—
WATER VALVE	WV
HYDRANT	⊙
WATER LINE REDUCER	—
GAS LINE	—
GAS VALVE	GV
OVER HEAD WIRE	OHW
UTILITY POLE	⊙
HAND HOLE	⊙
ELECTRICAL CONDUIT	—

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 - ALL C.L.D.I. WATER PIPE SHALL BE CLASS 52.
 - GAS AND ELECTRIC SERVICE SIZE AND LOCATION SHALL BE DETERMINED BY SERVICE PROVIDER.
 - FIRE & DOMESTIC WATER SERVICE SIZE & LOCATION TO BE CONFIRMED BY MEP ENGINEER.
 - THE PROPOSED IRRIGATION SYSTEM FOR THE DEVELOPMENT SHALL BE SUBMITTED TO WATER DEPARTMENT FOR APPROVAL PRIOR TO CONSTRUCTION.
 - HYDRANTS ARE TO BE INSTALLED PRIOR TO ANY COMBUSTIBLE MATERIALS BEING ON SITE.
 - PRIOR TO SUBMITTING FOR A BUILDING PERMIT, APPLICANT TO CONFIRM FINAL LOCATIONS OF FIRE DEPARTMENT CONNECTIONS WITH THE WAYLAND FIRE DEPARTMENT.
 - THE CONTRACTOR SHALL CONTACT "DIGSAFE" AND THE TOWN OF WAYLAND DEPARTMENT OF PUBLIC WORKS AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION WORK TO REQUEST THE LOCATION OF THE EXISTING UTILITIES.
- DIGSAFE: 1-888-344-7233
 WAYLAND DPW: 508-358-3672
 WAYLAND WATER DEPT.: 508-358-3699



DIG SAFE

BEFORE YOU DIG
 CALL 811 OR
 1-888-DIG-SAFE
 1-888-344-7233

11.12.19

CARLTON M. QUINN
 CIVIL
 No. 49923
 REGISTERED
 PROFESSIONAL ENGINEER

PROFESSIONAL ENGINEER FOR
 ALLEN & MAJOR ASSOCIATES, INC.

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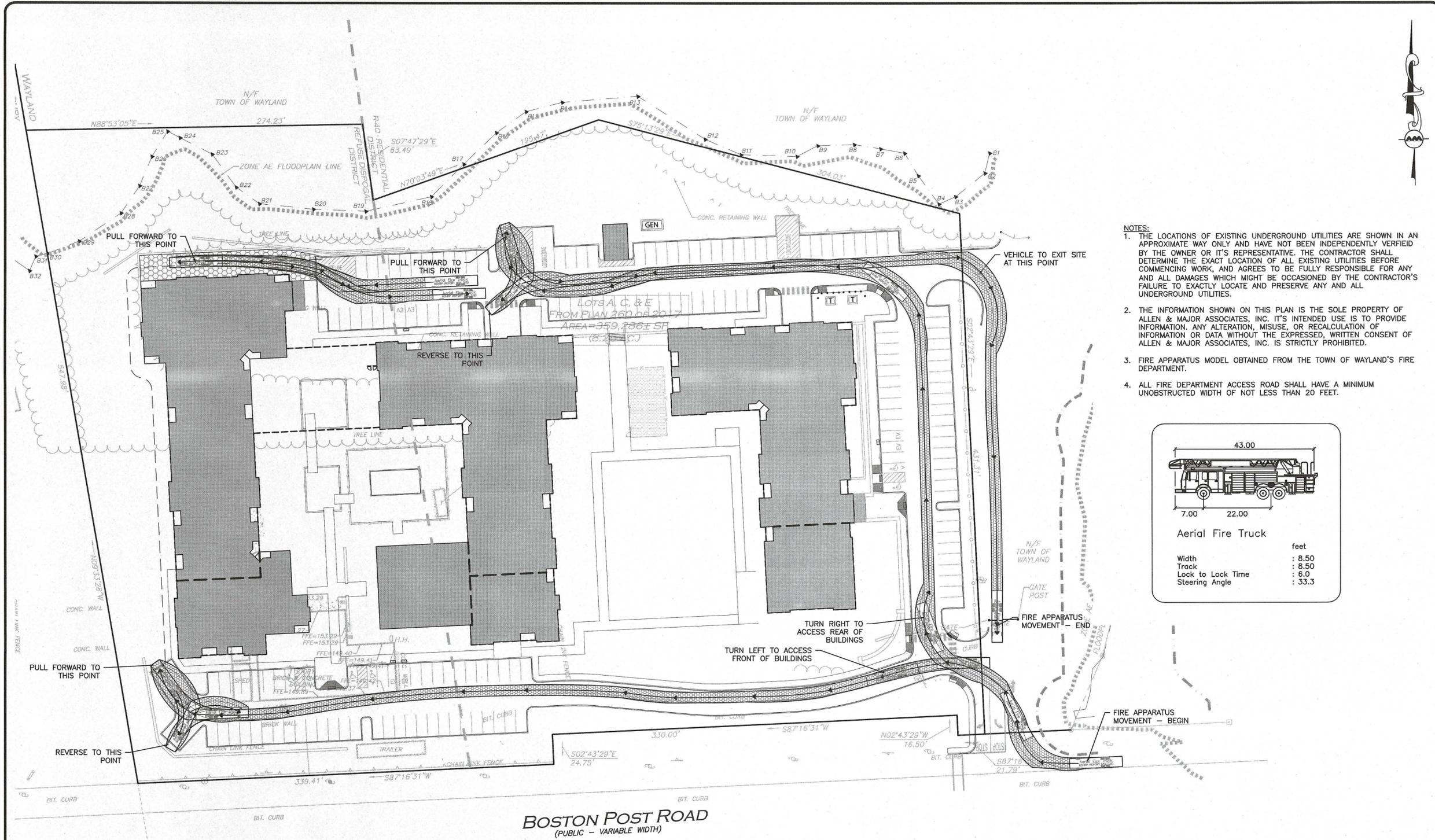
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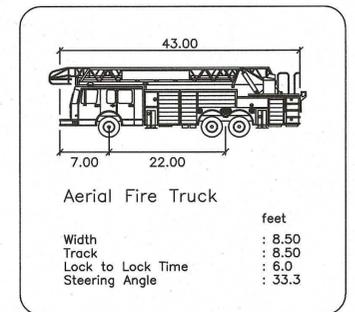
DRAWING TITLE:	SHEET No.
UTILITIES PLAN	C-104

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N:\PROJECTS\1670-09A\CIVIL\DRAWINGS\CURRENT\C-1670-09A-FIRE TRUCK MOVEMENT.DWG



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 3. FIRE APPARATUS MODEL OBTAINED FROM THE TOWN OF WAYLAND'S FIRE DEPARTMENT.
 4. ALL FIRE DEPARTMENT ACCESS ROAD SHALL HAVE A MINIMUM UNOBSTRUCTED WIDTH OF NOT LESS THAN 20 FEET.



PROFESSIONAL ENGINEER FOR ALLEN & MAJOR ASSOCIATES, INC.

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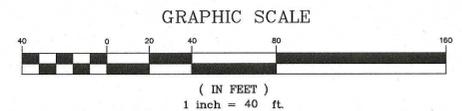
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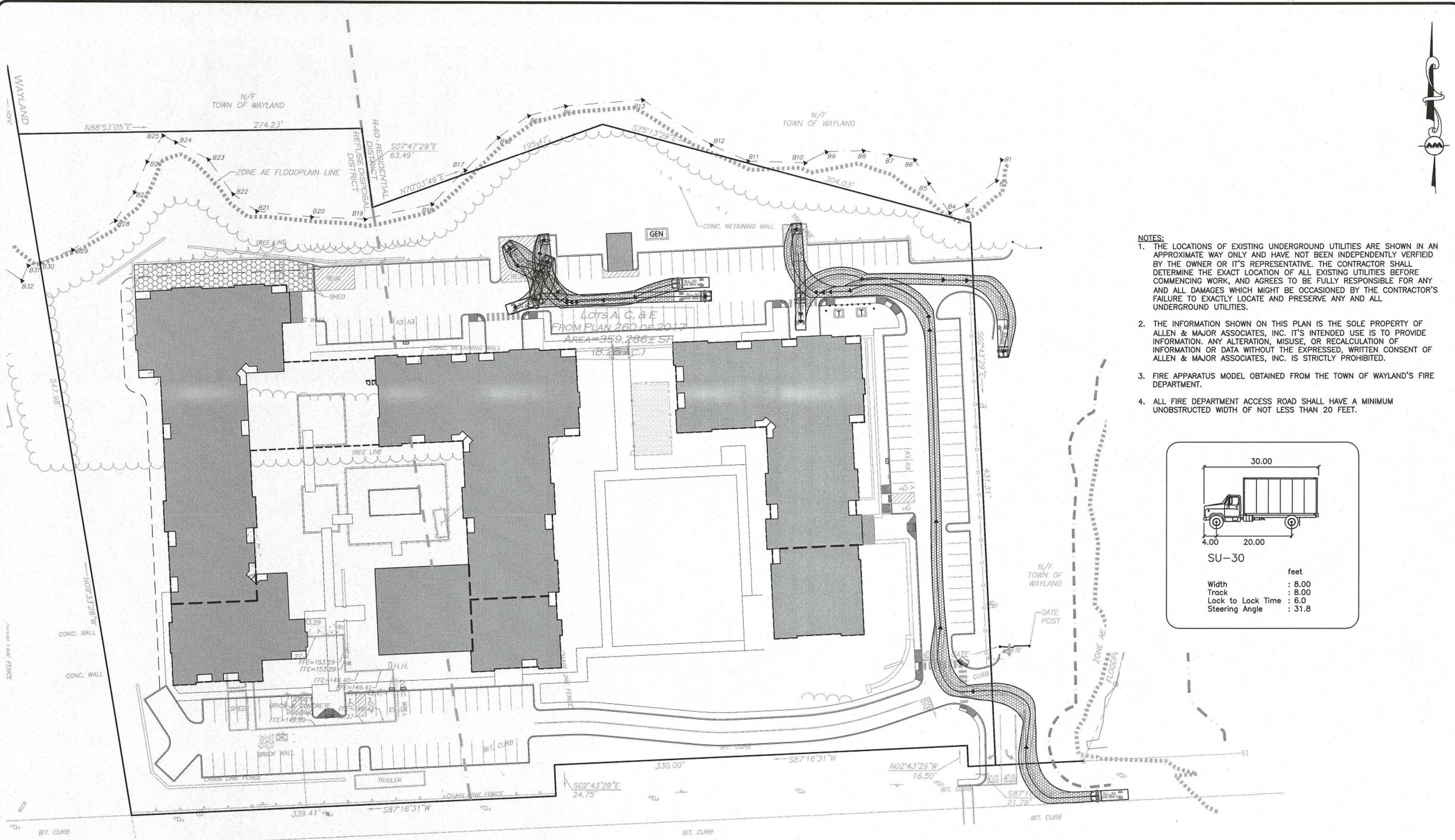
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FIRE TRUCK TURNING PLAN	C-105A



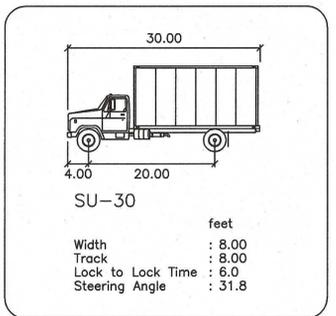
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 CALL 811 OR
 1-888-DIG-SAFE
 1-888-344-7233

N:\PROJECTS\1670-09A\CIVIL\DRAWINGS\CURRENT\C-1670-09A-FIRE TRUCK MOVEMENT.DWG



- NOTES:**
1. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR IT'S REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.
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 3. FIRE APPARATUS MODEL OBTAINED FROM THE TOWN OF WAYLAND'S FIRE DEPARTMENT.
 4. ALL FIRE DEPARTMENT ACCESS ROAD SHALL HAVE A MINIMUM UNOBSTRUCTED WIDTH OF NOT LESS THAN 20 FEET.



PROFESSIONAL ENGINEER FOR ALLEN & MAJOR ASSOCIATES, INC.

REV	DATE	DESCRIPTION
E.	11/12/2019	REVISED PER TOWN COMMENTS
D.	10/18/2019	REVISED PER TOWN COMMENTS
C.	10/10/2019	REVISED PER TOWN COMMENTS
B.	09/27/2019	REVISED PER TOWN COMMENTS
A.	07/03/2019	ISSUED FOR NOTICE OF INTENT

APPLICANT/OWNER:
WP EAST ACQUISITIONS, LLC.
91 HARTWELL AVENUE
LEXINGTON, MA 02421

PROJECT:
ALTA AT RIVER'S EDGE
490 BOSTON POST ROAD
WAYLAND, MA

PROJECT NO.	1670-09A	DATE:	06-20-2019
SCALE:	1" = 40'	DWG. NAME:	1670-09A
DESIGNED BY:	SJL	CHECKED BY:	CMQ

PREPARED BY:

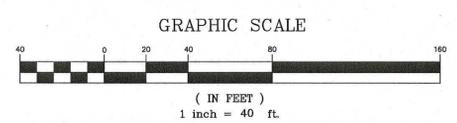
ALLEN & MAJOR ASSOCIATES, INC.
civil & structural engineering • land surveying
environmental consulting • landscape architecture
www.allenmajor.com
100 COMMERCE WAY, SUITE 5
WOBBURN, MA 01801
TEL: (781) 935-6889
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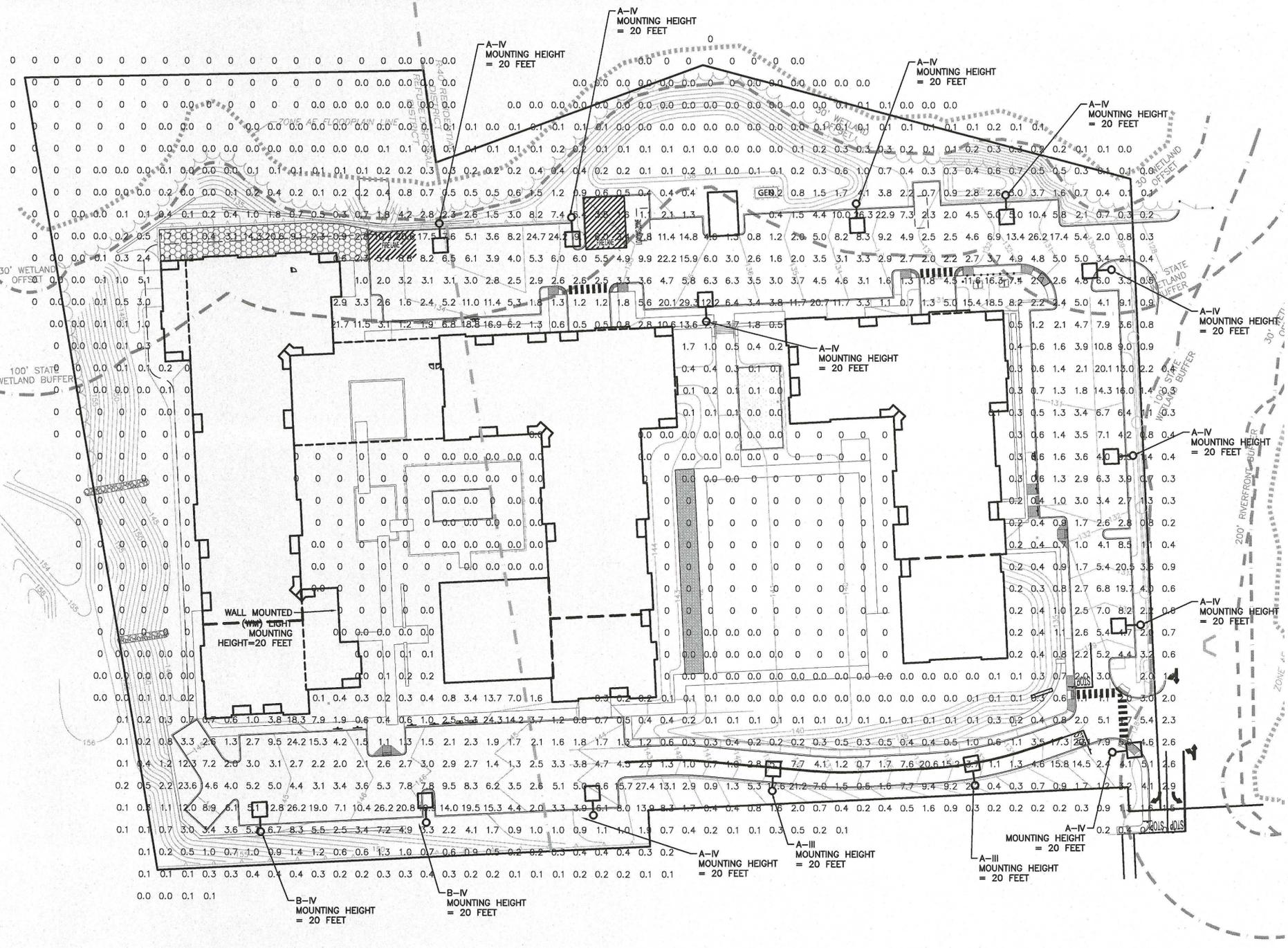
DRAWING TITLE:	SHEET No.
MOVING TRUCK TURNING PLAN	C-105B

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DIG SAFE

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1-888-DIG-SAFE
1-888-344-7233

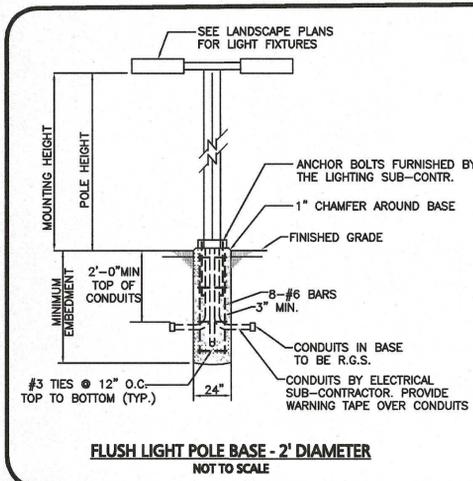


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2. FOOT CANDLE VALUES SHOWN ON THE PLAN ARE PRODUCED UTILIZING DESIGN MASTER PHOTOMETRICS SOFTWARE AND ASSOCIATED IES FILES BY THE MANUFACTURER FOR THE PROPOSED LIGHT FIXTURE.
3. ALL PHOTOMETRIC DATA REFERS TO UNITS IN FOOT CANDLES (FC). THE LIMIT OF 1.0 FC ILLUMINATION IS SHOWN IN A RED SOLID LINE AND THE LIMIT OF THE 0.5 FOOT CANDLE (FC) ILLUMINATION IS SHOWN IN BLUE.
4. ALL POST-TOP AND WALL-MOUNTED LIGHTS ON THE SITE SHALL USE HIGH-EFFICIENCY LED BULBS.
5. COURTYARDS SHALL UTILIZE BOLLARD LIGHTS. LOCATIONS TO BE COORDINATED WITH THE LANDSCAPE ARCHITECT.
6. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR APPROVAL PRIOR TO INSTALLATION OF LIGHTS.

DIG SAFE

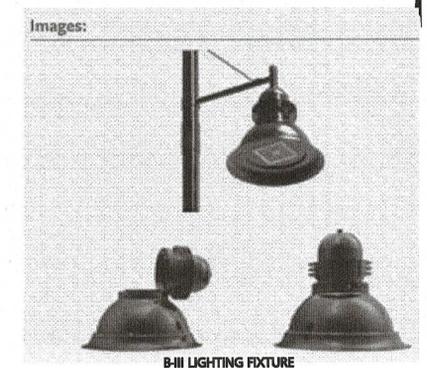
 BEFORE YOU DIG
 CALL 811 OR
 1-888-DIG-SAFE
 1-888-344-7233



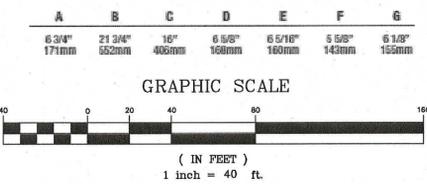
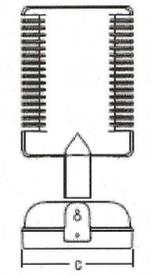
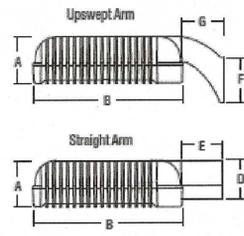
MINIMUM EMBEDMENT GUIDE (ROUND BASE)		
24" DIAMETER ROUND POLE BASE		
POLE HEIGHT	BASES IN GRAVEL AND SANDY SOILS (GW, GP, SW, SP, SM, SC, GM, GC)	
	≤15'	4'-6"
	15'-20'	5'-0"
	20'-25'	5'-6"
	25'-30'	5'-8"
30'-35'	6'-0"	
POLE HEIGHT	BASES IN CLAYEY SOILS (CL, ML, CH, MH)	
	≤15'	8'-0"
	15'-20'	9'-0"
	20'-25'	10'-0"
	25'-30'	10'-6"
30'-35'	11'-6"	

- NOTES:**
1. BASES FOR LIGHTS MOUNTED HIGHER THAN 35' TO BE VERIFIED BY STRUCTURAL ENGINEER.
 2. SEE LANDSCAPE PLANS FOR LIGHTING DETAILS.
 3. CONTRACTOR TO REFERENCE GEO-TECHNICAL REPORT FOR SOIL TYPES.

NOTE:
 1. THE CONTRACTOR SHALL SUBMIT A SHOP DRAWING OF THE SITE LIGHTING FIXTURES TO THE DEVELOPMENT TEAM FOR REVIEW PRIOR TO INSTALLATION IN THE FIELD.



DIMENSIONS



PROFESSIONAL ENGINEER FOR ALLEN & MAJOR ASSOCIATES, INC.

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A.	07/03/2019	ISSUED FOR NOTICE OF INTENT

APPLICANT/OWNER:
WP EAST ACQUISITIONS, LLC.
 91 HARTWELL AVENUE
 LEXINGTON, MA 02421

PROJECT:
ALTA AT RIVER'S EDGE
 490 BOSTON POST ROAD
 WAYLAND, MA

PROJECT NO.	1670-09A	DATE:	06-20-2019
SCALE:	1" = 40'	DWG. NAME:	1670-09A
DESIGNED BY:	SJL	CHECKED BY:	CMQ

PREPARED BY:

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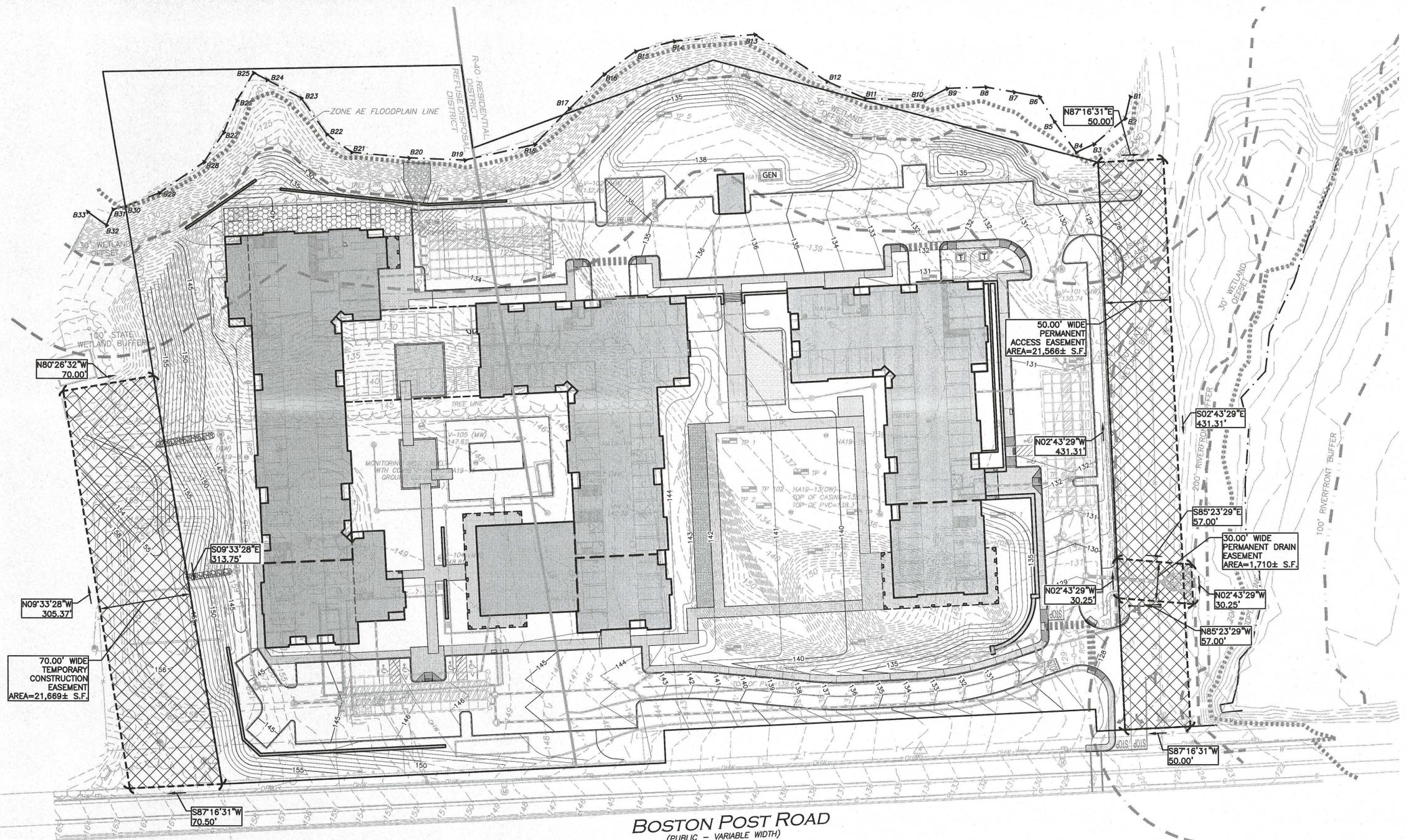
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DRAWING TITLE: **LIGHTING PLAN** SHEET No. **C-106**

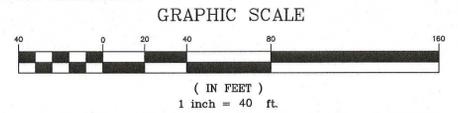
N:\PROJECTS\1670-09A\CIVIL\DRAWINGS\CURRENT\C-1670-09A_LIGHTING.DWG

N:\PROJECTS\1670-09A\CIVIL\DRAWINGS\CURRENT\C-1670-09A_EASEMENT_PLAN.DWG



BOSTON POST ROAD
(PUBLIC - VARIABLE WIDTH)

- NOTES:**
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 3. THE CONTRACTOR SHALL CONTACT "DIGSAFE" AND THE AT LEAST 72 HOURS PRIOR TO ANY EXCAVATION WORK TO REQUEST THE LOCATION OF THE EXISTING UTILITIES. DIGSAFE: 1-888-344-7233
 4. PROPOSED EASEMENTS ILLUSTRATED ARE FOR COORDINATION PROPOSES ONLY. THE LAND OWNER WILL NEED TO COORDINATE AN AGREEMENT TO LEGALLY OBTAIN ILLUSTRATED EASEMENTS PRIOR TO CONSTRUCTION OR ADJUST DESIGN ACCORDINGLY.



PROFESSIONAL ENGINEER FOR ALLEN & MAJOR ASSOCIATES, INC.

REV	DATE	DESCRIPTION
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LEXINGTON, MA 02421

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WAYLAND, MA

PROJECT NO.	1670-09A	DATE:	06-20-2019
SCALE:	1" = 40'	DWG. NAME:	1670-09A
DESIGNED BY:	SJL	CHECKED BY:	CMQ

PREPARED BY:

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DRAWING TITLE:	SHEET No.
PROPOSED EASEMENTS PLAN	C-107

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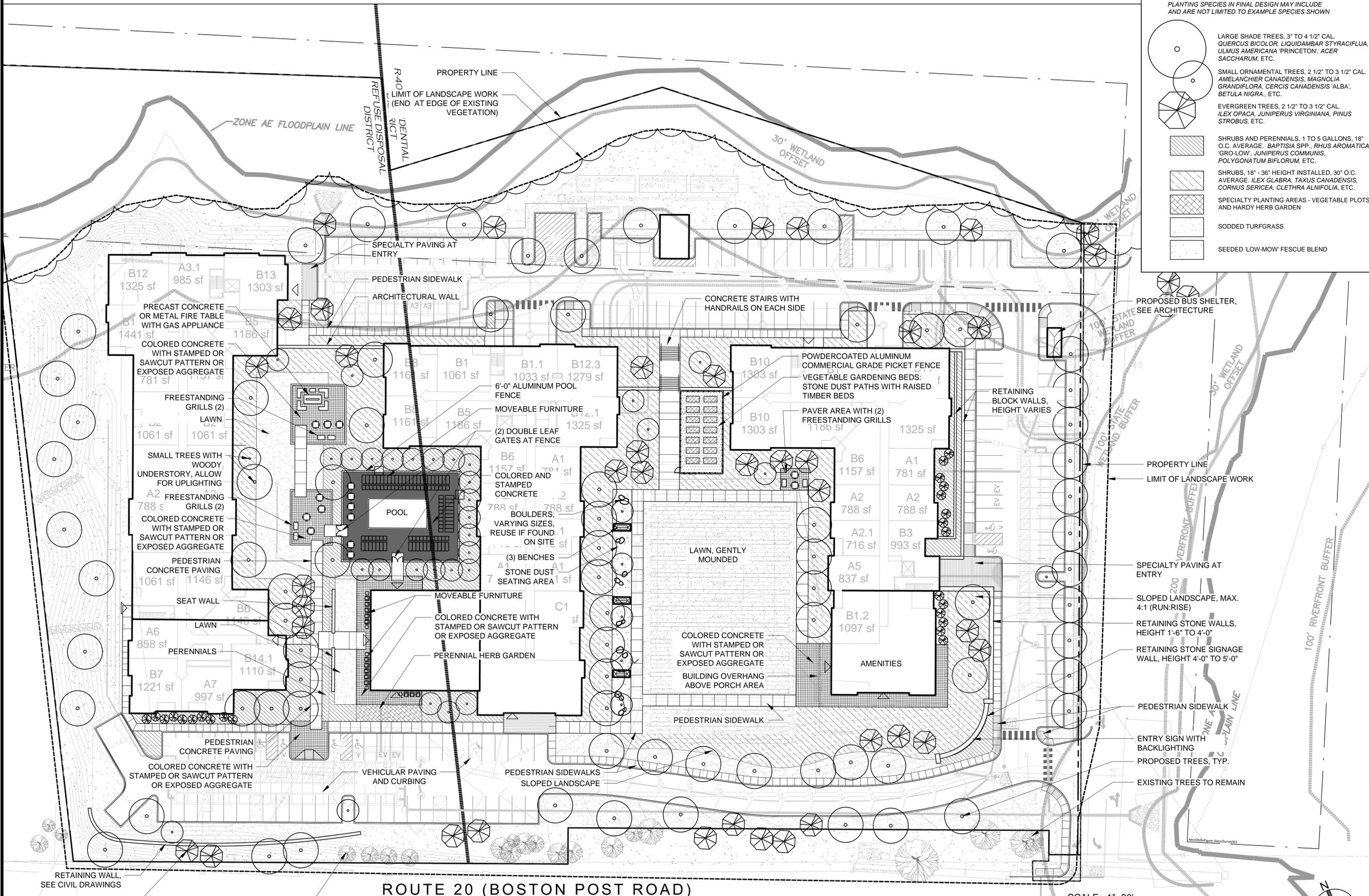


PLANTING LEGEND

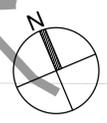
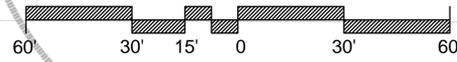
PLANTING SPECIES IN FINAL DESIGN MAY INCLUDE AND ARE NOT LIMITED TO EXAMPLE SPECIES SHOWN

- LARGE SHADE TREES, 3" TO 4 1/2" CAL. QUERCUS BICOLOR, LIQUIDAMBAR STYRACIFLUA, ULMUS AMERICANA 'PRINCETON', ACER SACCHARUM, ETC.
- SMALL ORNAMENTAL TREES, 2 1/2" TO 3 1/2" CAL. AMELANCHIER CANADENSIS, MAGNOLIA GRANDIFLORA, CERCIS CANADENSIS 'ALBA', BETULA NIGRA, ETC.
- EVERGREEN TREES, 2 1/2" TO 3 1/2" CAL. ILEX OPACA, JUNIPERUS VIRGINIANA, PINUS STROBUS, ETC.
- SHRUBS AND PERENNIALS, 1 TO 5 GALLONS, 18" O.C. AVERAGE. BAPTISIA SPP., RHUS AROMATICA 'GRO-LOW', JUNIPERUS COMMUNIS, POLYGONATUM BIFLORUM, ETC.
- SHRUBS, 18" - 36" HEIGHT INSTALLED, 30" O.C. AVERAGE. ILEX GLABRA, TAXUS CANADENSIS, CORNUS SERICEA, CLETHRA ALNIFOLIA, ETC.
- SPECIALTY PLANTING AREAS - VEGETABLE PLOTS AND HARDY HERB GARDEN
- SODDED TURFGRASS
- SEEDED 'LOW-MOW' FESCUE BLEND

10/10/2019 11:39:50 AM - T:11925 WAYLAND HOUSING W/TAT-WOOD PARTNERS/CONSTRUCTION DRAWINGS/CURRENT CHWDG DRAWINGS/WAYLAND_L-100 MATERIALS.DWG - ANDREW ARBAUGH



SCALE: 1"=30'



ALTA RIVER'S EDGE
WAYLAND, MASSACHUSETTS

Consultant:

Revision:

Architect of Record:

Drawn: AJS

Checked: MTD

Scale: NOT TO SCALE

Key Plan:

Project Name:

**Alta at
River's Edge**

Sheet Name:

**PROPOSED
FIRST FLOOR**

Project Number:

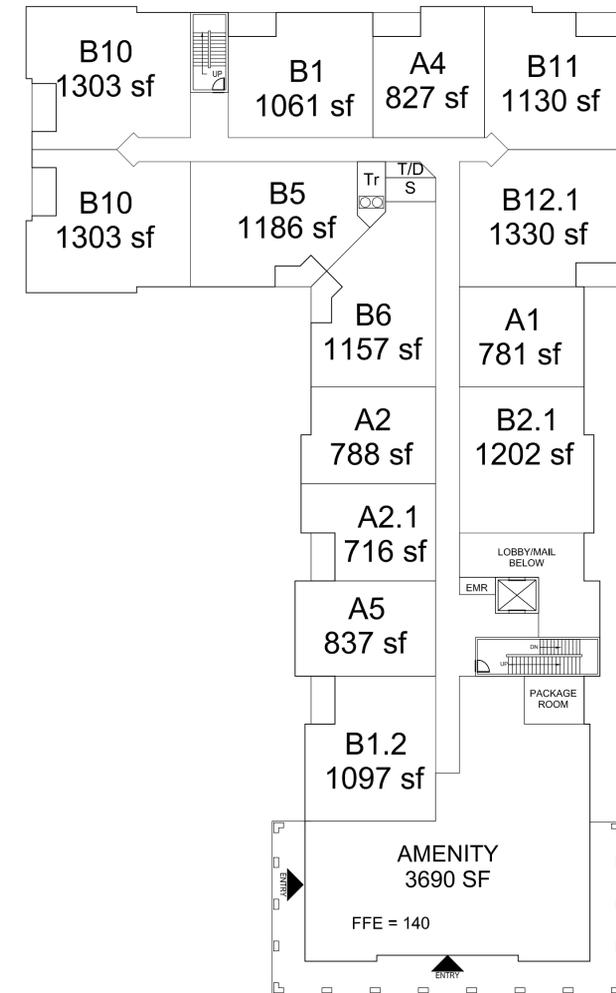
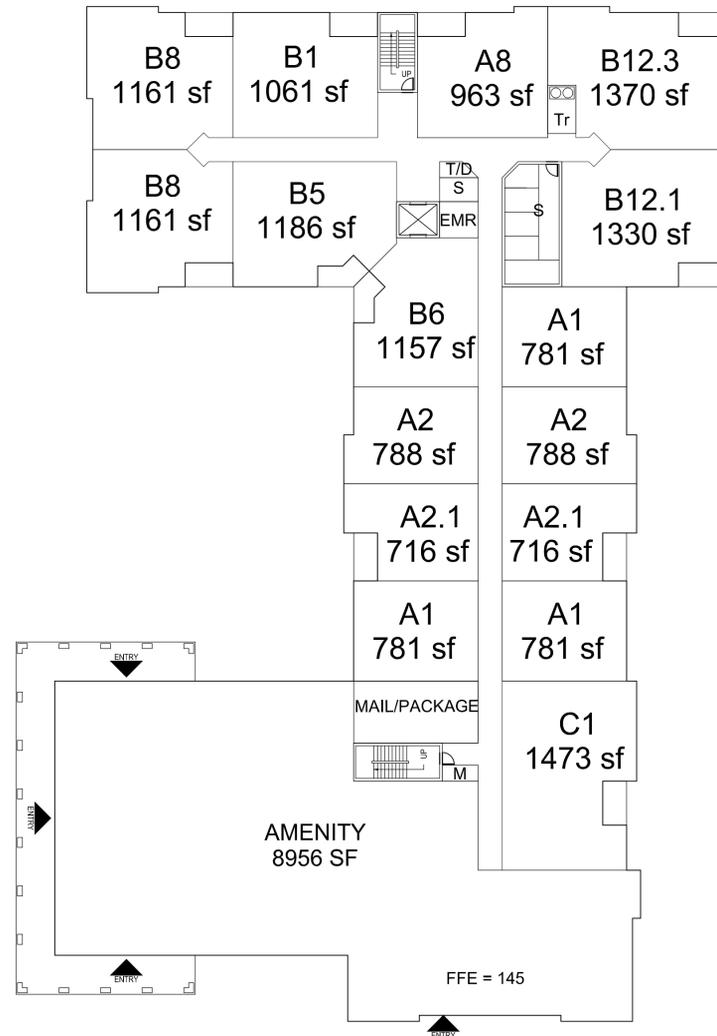
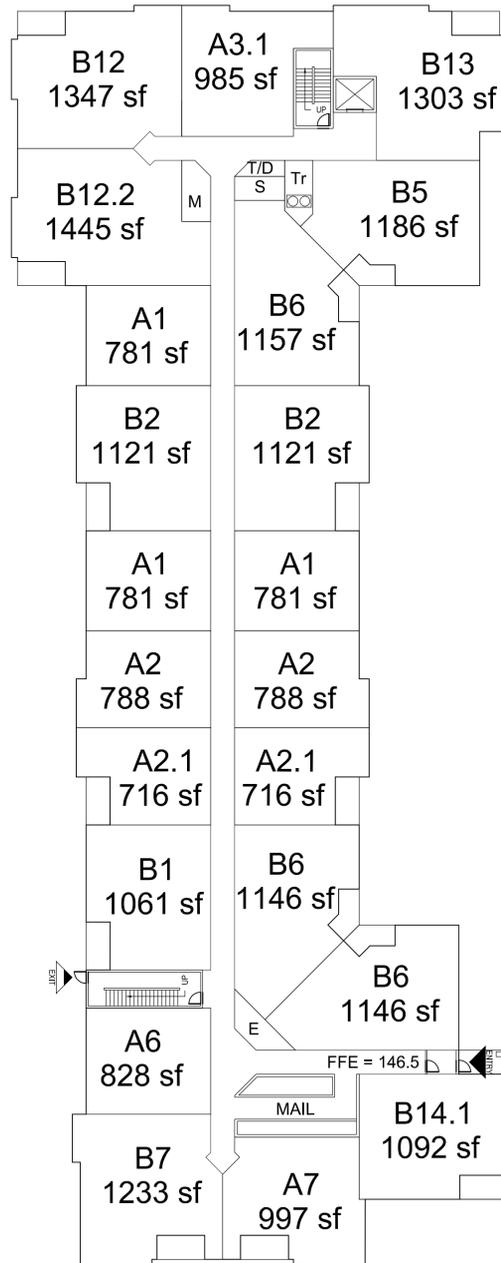
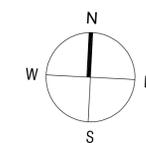
15151

Issue Date:

October 18, 2019

Sheet Number:

A1.02



Consultant:

Revision:

Architect of Record:

Drawn: AJS

Checked: MTD

Scale: NOT TO SCALE
Key Plan:

Project Name:

**Alta at
River's Edge**

Sheet Name:

**PROPOSED SECOND
AND THIRD FLOORS**

Project Number:

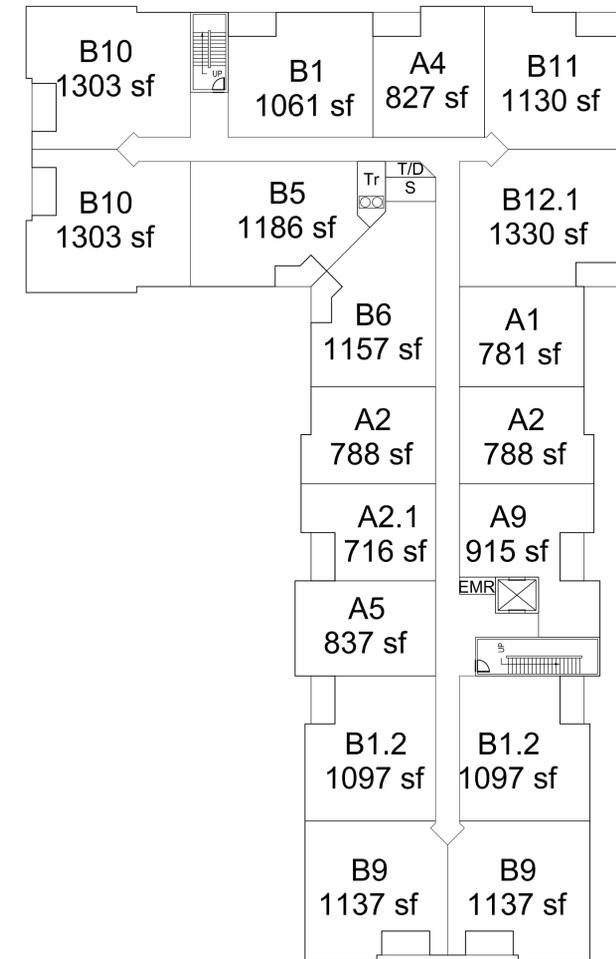
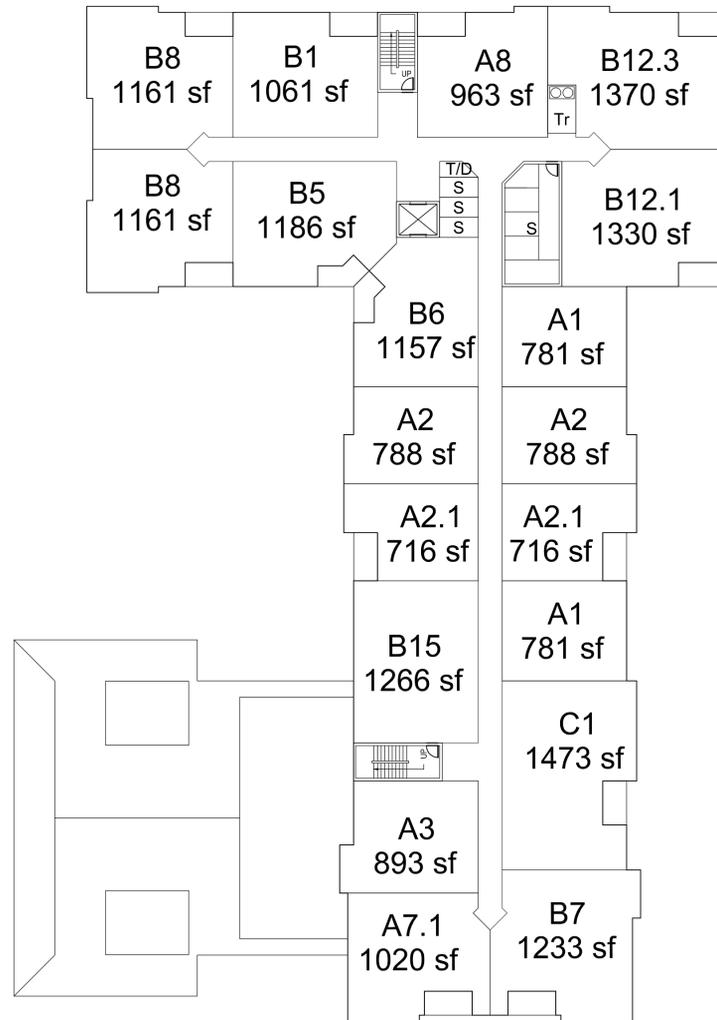
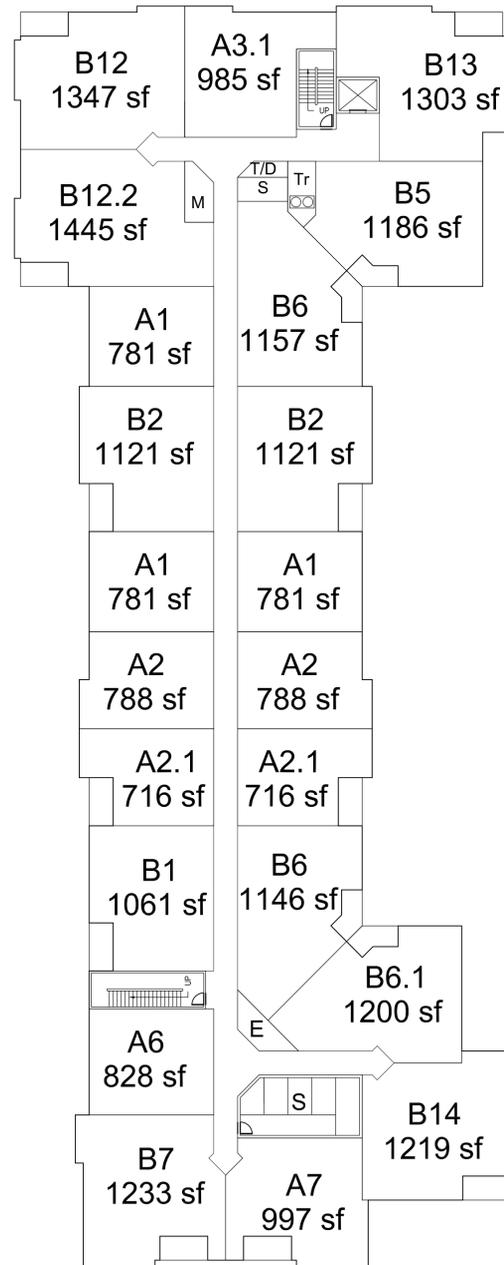
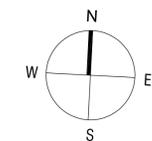
15151

Issue Date:

October 18, 2019

Sheet Number:

A1.03



Consultant:

Revision:

Architect of Record:

Drawn: AJS

Checked: MTD

Scale: NOT TO SCALE

Key Plan:

Project Name:

**Alta at
River's Edge**

Sheet Name:

**PROPOSED
FOURTH FLOOR**

Project Number:

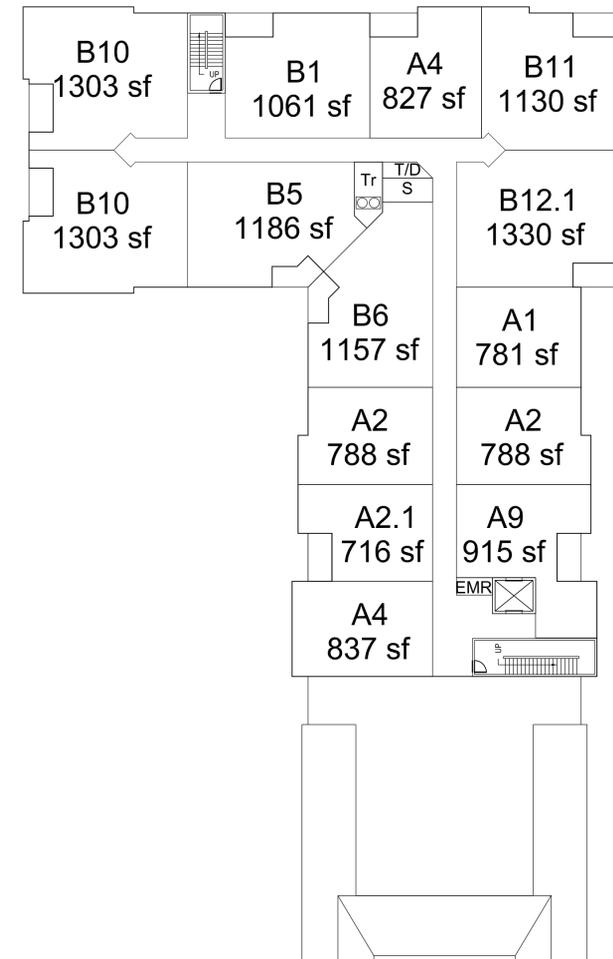
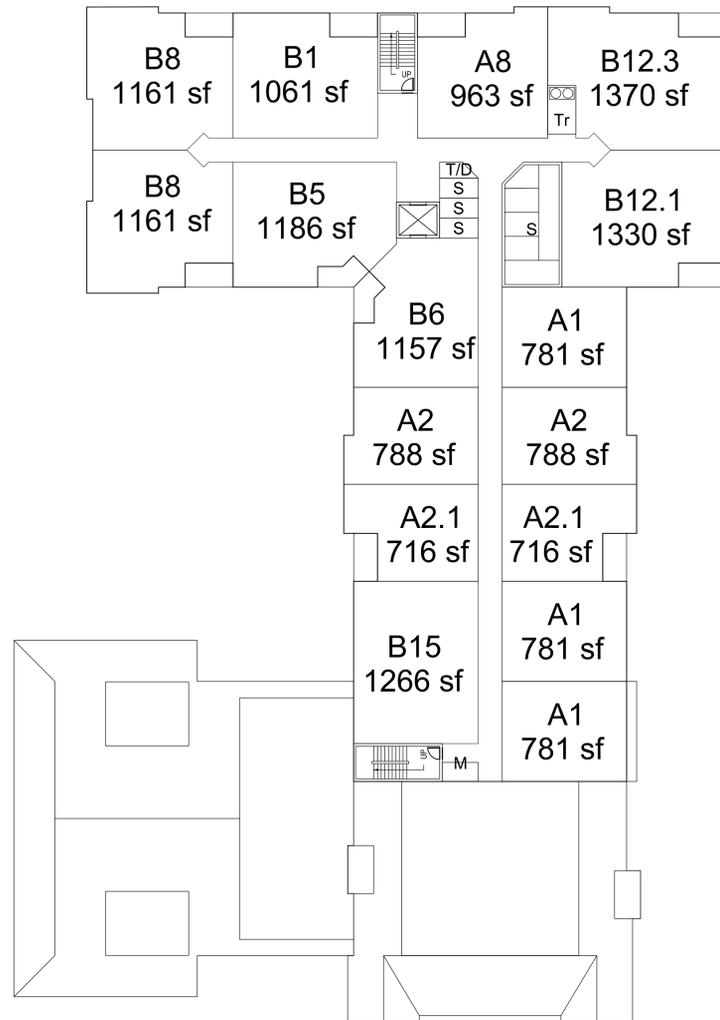
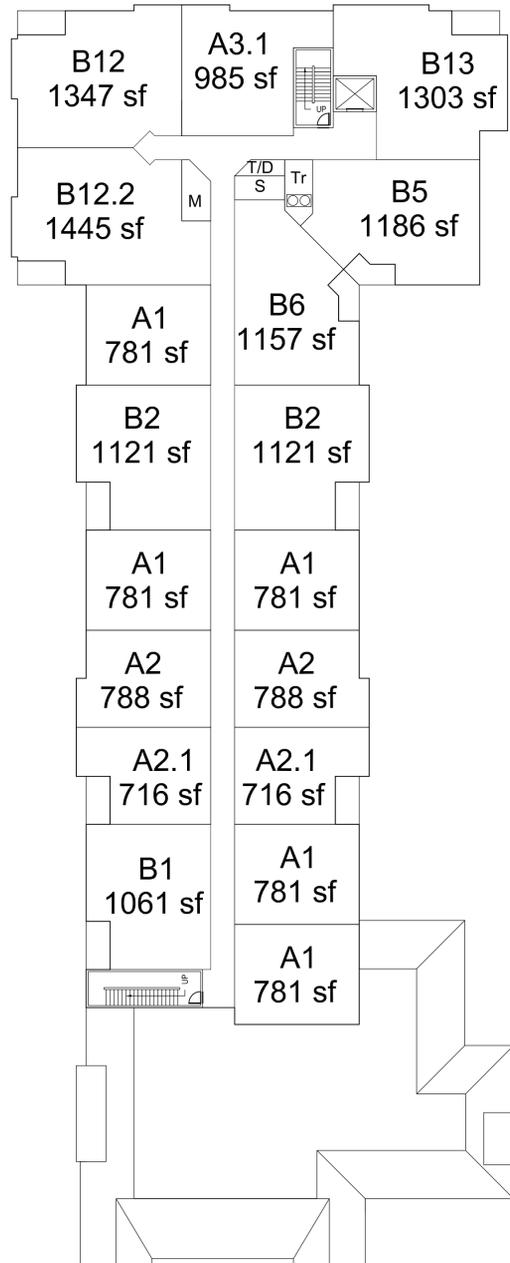
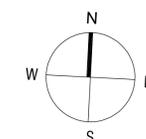
15151

Issue Date:

October 18, 2019

Sheet Number:

A1.04



Consultant:

Revision:

Architect of Record:

Drawn: AJS

Checked: MTD

Scale: NOT TO SCALE
Key Plan:

Project Name:

**Alta at
River's Edge**

Sheet Name:

**SCHEMATIC BUILDING
ELEVATIONS AND
BUILDING SUMMARY**

Project Number:

15151

Issue Date:

October 18, 2019

Sheet Number:

A1.05

SOUTH ELEVATION

NORTH ELEVATION

WEST ELEVATION

EAST ELEVATION



Building 1 Gross Square Footage	
Floor	GSF
4th Floor	16,660
3rd Floor	21,376
2nd Floor	21,376
1st Floor	21,664
Podium	22,329
Total Residential GSF	
81,076	
Total Building GSF (inc Podium)	
103,405	
Podium Parking Spaces	
42	
Amenity Area SF	
3690	
Lobby SF	
790	
Bike Storage	
45	
Building Efficiency	
0.83	

Building 1 Unit Count (Age Restricted):			
Floor	1B	2B	3B Total
4th Floor	7	7	0 14
3rd Floor	7	11	0 18
2nd Floor	7	11	0 18
1st Floor	5	9	0 14
Total	26	38	0 64 Units*

*Age restricted units must be 25% min. of total units.
218* 25 = 54.5 - 55 units min.
This is a requirement per the zoning.
Amenity includes 180 SF Package Room
Lobby (garage level) includes Mail SF

Building 2 Gross Square Footage:	
Floor	GSF
4th Floor	18,963
3rd Floor	23,043
2nd Floor	23,043
1st Floor	28,259
Total Residential GSF	
93,308	
Amenity Area SF	
8,956	
Building Efficiency	
0.76	

Building 2 Unit Count:			
Floor	1B	2B	3B Total
4th Floor	8	8	0 16
3rd Floor	9	9	1 19
2nd Floor	9	9	1 19
1st Floor	8	7	1 16
Total	34	33	3 70 Units

Amenity space includes 485 SF Mail/Package Room

Building 3 Gross Square Footage:	
Floor	GSF
4th Floor	20,295
3rd Floor	26,437
2nd Floor	26,437
1st Floor	26,363
Total Residential GSF	
99,532	
Lobby SF	
2,368	
Building Efficiency	
0.86	

Building 3 Unit Count:			
Floor	1B	2B	3B Total
4th Floor	10	8	0 18
3rd Floor	10	12	0 22
2nd Floor	10	12	0 22
1st Floor	10	12	0 22
Total	40	44	0 84 Units

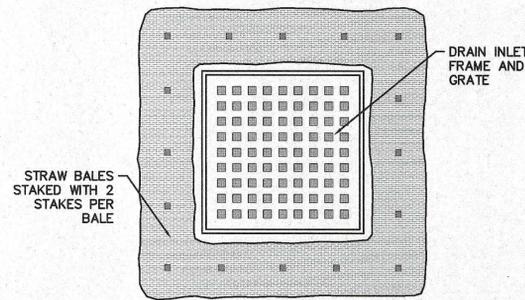
Lobby (garage level)

Building 2/3 Podium:	
Podium GSF	63,336
Total Building 2/3 GSF (Inc Podium)	256,176
Podium Parking Spaces	138
Bike Storage	92

Includes (7) Tandem Spaces

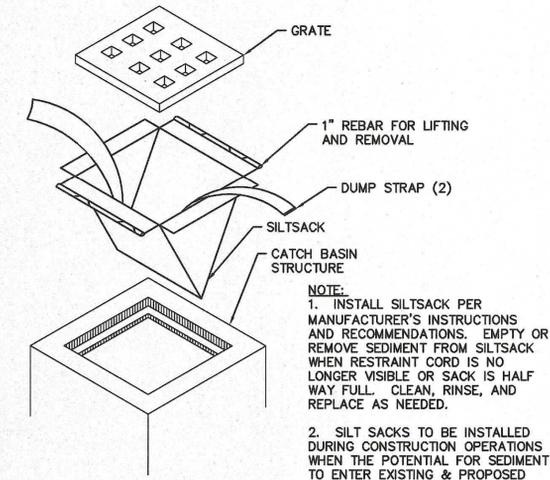
Project Totals:	
Building 1 Residential GSF	81,076
Building 2 Residential GSF	93,308
Building 3 Residential GSF	99,532
TOTAL RESIDENTIAL GSF	273,916
TOTAL RESIDENTIAL NRSF	223,917
AVERAGE NRSF/UNIT	1027
AVERAGE EFFICIENCY	0.82
TOTAL PODIUM GSF	85,665
TOTAL PROJECT GSF (inc podium)	359,581
TOTAL LOT AREA	8.24 Acres
TOTAL AMENITY AREA	12,646
TOTAL UNIT COUNT	218
TOTAL PODIUM PARKING SPACES	180
TOTAL SURFACE PARKING SPACES	168
TOTAL PARKING SPACES	348
PARKING RATIO PER UNIT	1.60

Unit Totals:			
Floor	1B	2B	3B Total
4th Floor	25	23	0 48
3rd Floor	26	32	1 59
2nd Floor	26	32	1 59
1st Floor	23	28	1 52
Total	100	115	3 218 Units
1 BED RATIO:	45.87%		
2 BED RATIO:	52.75%		
3 BED RATIO:	1.38%		
TOTAL:	100%		



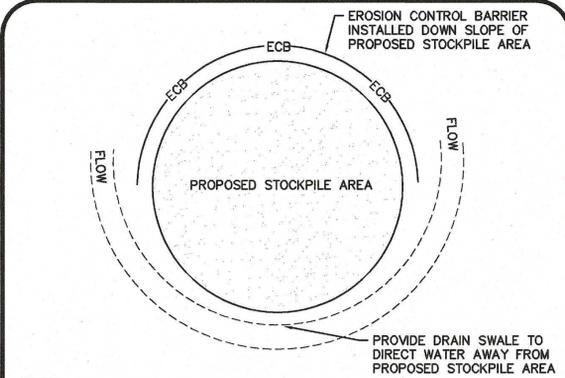
- NOTES:**
1. STRAW BALES SHALL BE POSITIONED IN A ROW SO THAT EACH END TIGHTLY ABUTTS THE ADJACENT BALE.
 2. BALES SHALL BE SECURELY ANCHORED IN PLACE BY STAKES OR RE-BARS DRIVEN THROUGH THE BALES. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARD PREVIOUSLY LAID BALE TO FORCE BALES TOGETHER.
 3. FREQUENT INSPECTIONS SHALL BE CONDUCTED AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY IF NECESSARY.

TYPICAL CATCH BASIN FILTER
NOT TO SCALE



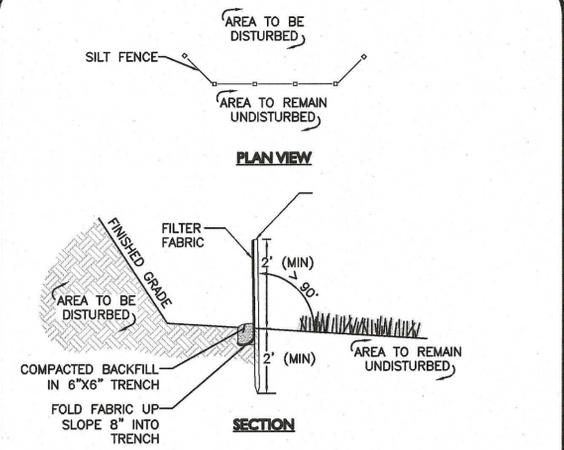
- NOTE:**
1. INSTALL SILTSACK PER MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS. EMPTY OR REMOVE SEDIMENT FROM SILTSACK WHEN RESTRAINT CORD IS NO LONGER VISIBLE OR SACK IS HALF WAY FULL. CLEAN, RINSE, AND REPLACE AS NEEDED.
 2. SILT SACKS TO BE INSTALLED DURING CONSTRUCTION OPERATIONS WHEN THE POTENTIAL FOR SEDIMENT TO ENTER EXISTING & PROPOSED BASINS EXISTS.

SILTSACK INLET DETAIL
NOT TO SCALE



- NOTES:**
1. SOIL AND FILL STOCKPILES EXPECTED TO REMAIN IN PLACE FOR LESS THAN 90 DAYS SHALL BE COVERED WITH STRAW AND MULCH (AT 100 LBS/1,000 S.F.), OR WITH AN ANCHORED TARP WITHIN 7 DAYS OR PRIOR TO ANY RAINFALL.
 2. SOIL AND FILL STOCKPILES EXPECTED TO REMAIN IN PLACE FOR 90 DAYS OR MORE SHALL BE SEEDED WITH WINTER RYE (FOR FALL SEEDING AT 1LB/1,000 SF) OR OATS (FOR SUMMER SEEDING AT 2LB/1,000 SF) AND THEN COVERED WITH HAY MULCH (AT 100LB/1,000 SF) OR AN ANCHORED TARP WITHIN 7 DAYS OR PRIOR TO ANY RAINFALL.

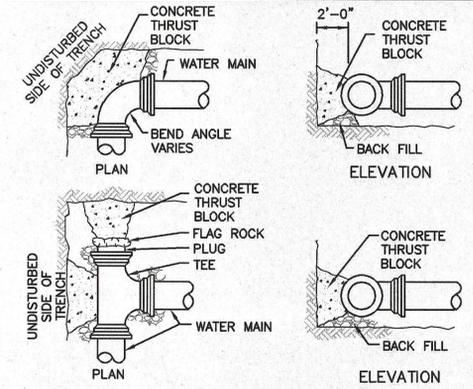
STOCKPILE PROTECTION
NOT TO SCALE



- NOTE:**
DEPTH TO BE 2' UNLESS POST IS TO BE SET IN PEAT THEN 3' OR DEPTH POSSIBLE BY PUSHING BY HAND SHALL BE REQUIRED.

SILT FENCE
NOT TO SCALE

PIPE DIAMETER	MINIMUM THRUST BLOCK BEARING AREAS			
	90° BEND (SQ. FT.)	45° BEND (SQ. FT.)	22.5° BEND (SQ. FT.)	TEES, PLUGS, CAPS & HYDRANTS (SQ.FT.)
6"	5	3	3	4
8"	9	6	3	9
10"	13	7	4	12
12"	20	10	5	16

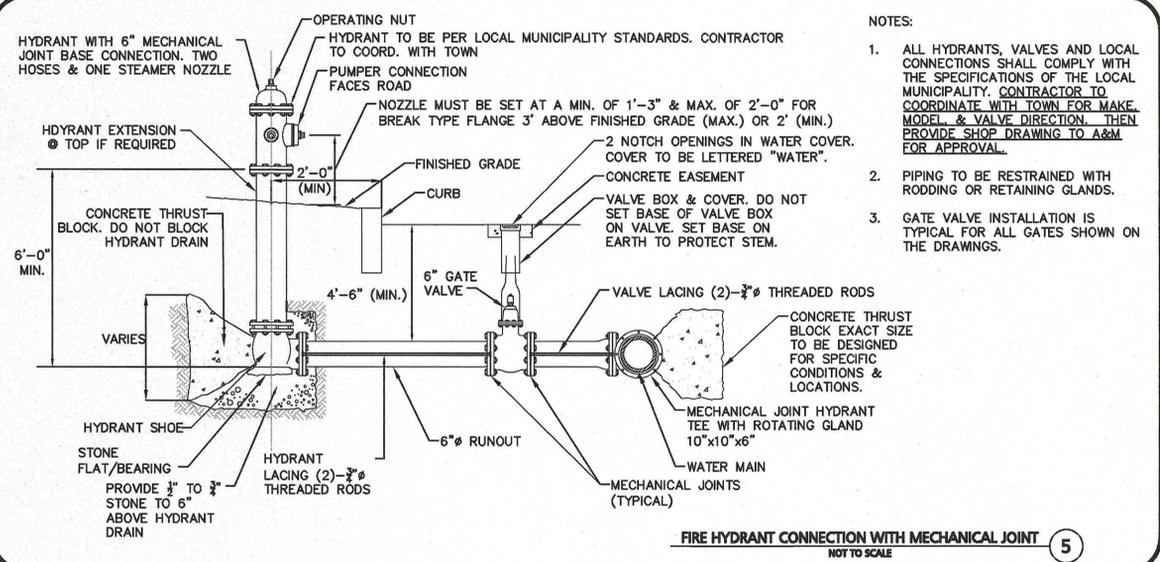


- NOTES:**
1. ALL WATER MAIN FITTINGS, BENDS, TEES, PLUGS ETC. SHALL BE RESTRAINED WITH THRUST BLOCKS EXCEPT WHERE NOTED.
 2. ALL THRUST BLOCKS & COLLARS SHALL BE INSTALLED SO THAT THEY BEAR AGAINST UNDISTURBED EARTH.
 3. SIZE OF CONCRETE THRUST BLOCKS SHALL BE AS NOTED ABOVE.
 4. MINIMUM COMPRESSIVE STRENGTH OF THRUST BLOCK CONCRETE SHALL BE 3,000 P.S.I.
 5. KEEP CONCRETE CLEAR OF MECHANICAL JOINTS.
 6. THE BELOW PREDICATED ON A WATER PRESSURE OF 225 PSI AND A SOIL RESISTANCE OF 2000 PSF (TILL). FOR OTHER SOILS THE VALUES IN THE ABOVE TABLE SHALL BE MULTIPLIED BY:

SOFT CLAY	4	SAND & GRAVEL	1.33
SAND	2	SHALE	0.4

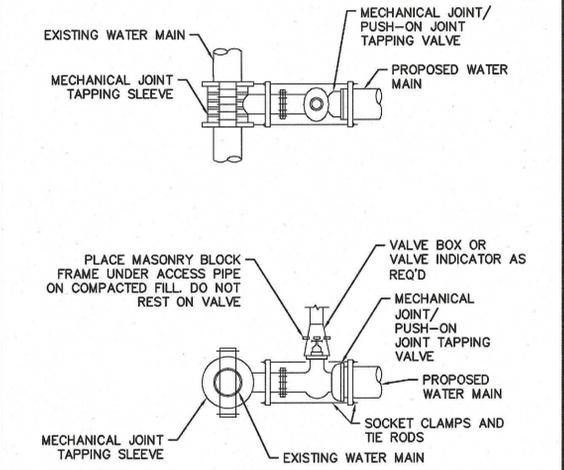
7. ALL CAST-IN-PLACE THRUST BLOCKS SHALL BE FORMED UP WITH PLYWOOD SO THAT CONCRETE IS NOT CAST AROUND FITTINGS OR MECHANICAL JOINTS.

WATER THRUST BLOCKS
NOT TO SCALE

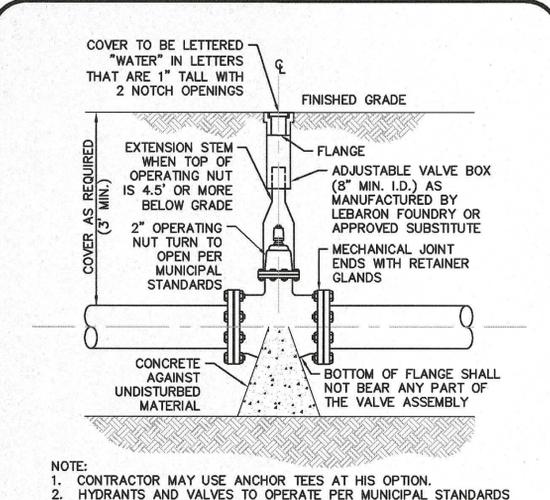


- NOTES:**
1. ALL HYDRANTS, VALVES AND LOCAL CONNECTIONS SHALL COMPLY WITH THE SPECIFICATIONS OF THE LOCAL MUNICIPALITY. CONTRACTOR TO COORDINATE WITH TOWN FOR MAKE, MODEL & VALVE DIRECTION. THEN PROVIDE SHOP DRAWING TO A&M FOR APPROVAL.
 2. PIPING TO BE RESTRAINED WITH RODDING OR RETAINING GLANDS.
 3. GATE VALVE INSTALLATION IS TYPICAL FOR ALL GATES SHOWN ON THE DRAWINGS.

FIRE HYDRANT CONNECTION WITH MECHANICAL JOINT
NOT TO SCALE

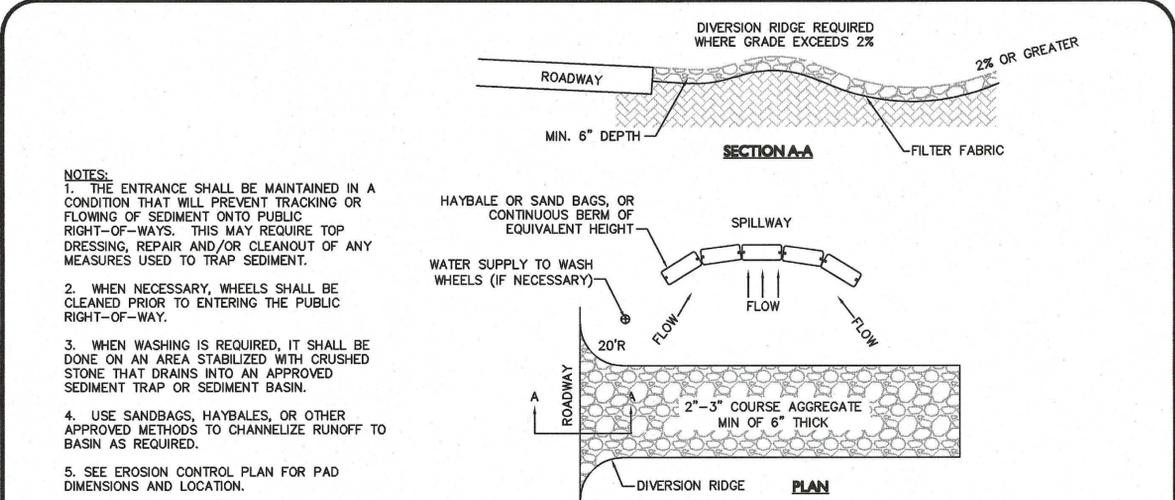


TAPPING SLEEVE AND VALVE
NOT TO SCALE



- NOTE:**
1. CONTRACTOR MAY USE ANCHOR TEES AT HIS OPTION.
 2. HYDRANTS AND VALVES TO OPERATE PER MUNICIPAL STANDARDS

GATE VALVE
NOT TO SCALE



- NOTES:**
1. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEANOUT OF ANY MEASURES USED TO TRAP SEDIMENT.
 2. WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTERING THE PUBLIC RIGHT-OF-WAY.
 3. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.
 4. USE SANDBAGS, HAYBALES, OR OTHER APPROVED METHODS TO CHANNELIZE RUNOFF TO BASIN AS REQUIRED.
 5. SEE EROSION CONTROL PLAN FOR PAD DIMENSIONS AND LOCATION.

TEMPORARY CONSTRUCTION ENTRANCE/TRACKING PAD
NOT TO SCALE



PROFESSIONAL ENGINEER FOR ALLEN & MAJOR ASSOCIATES, INC.

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A.	07/03/2019	ISSUED FOR NOTICE OF INTENT

APPLICANT/OWNER:
WP EAST ACQUISITIONS, LLC.
91 HARTWELL AVENUE
LEXINGTON, MA 02421

PROJECT:
ALTA AT RIVER'S EDGE
490 BOSTON POST ROAD
WAYLAND, MA

PROJECT NO.	1670-09A	DATE:	06-20-2019
SCALE:	AS SHOWN	DWG. NAME:	1670-09A
DESIGNED BY:	SIL	CHECKED BY:	CMQ

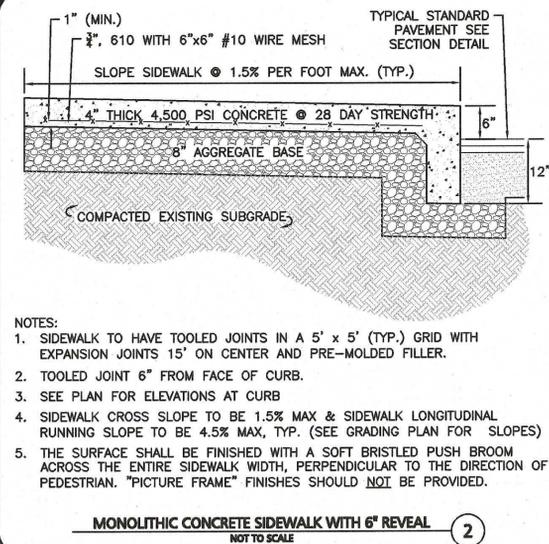
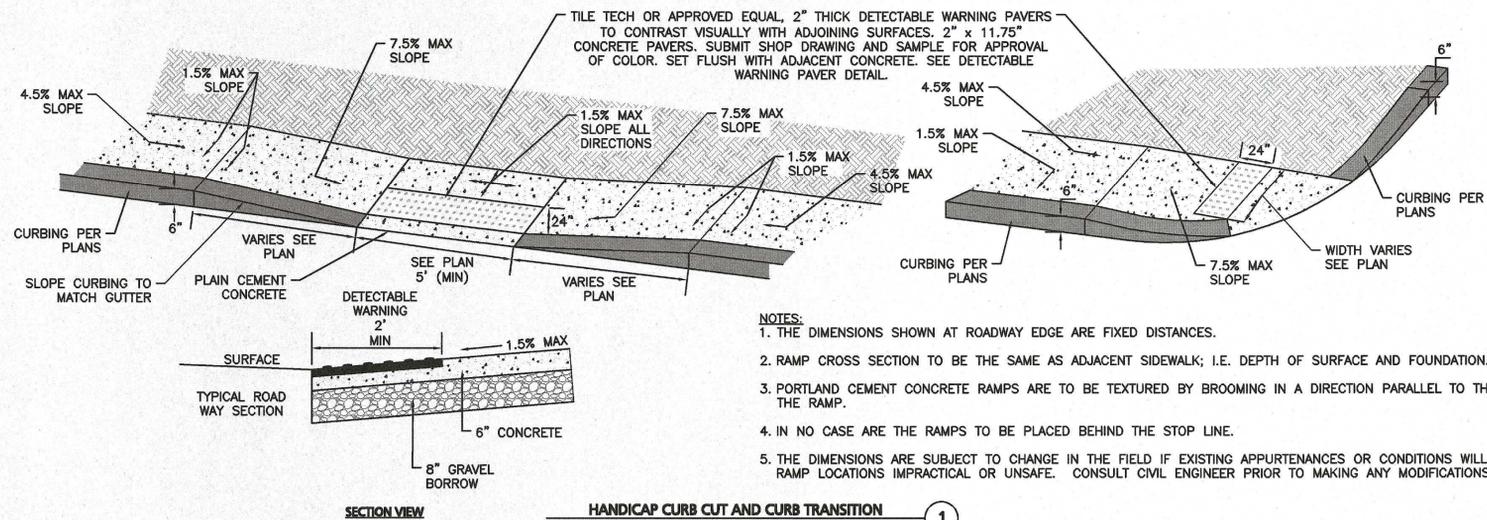
PREPARED BY:

ALLEN & MAJOR ASSOCIATES, INC.
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WOUBURN, MA 01801
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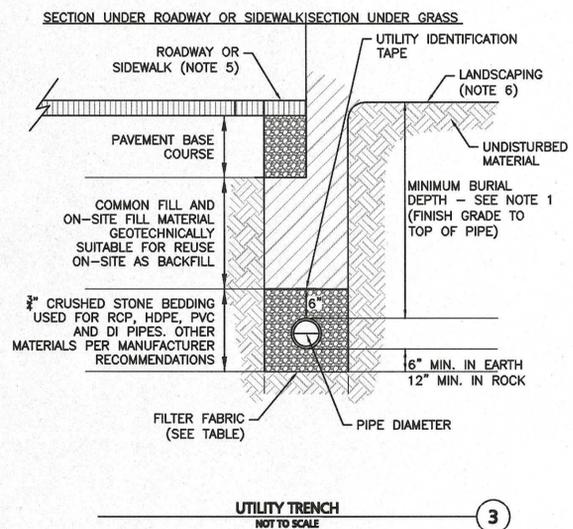
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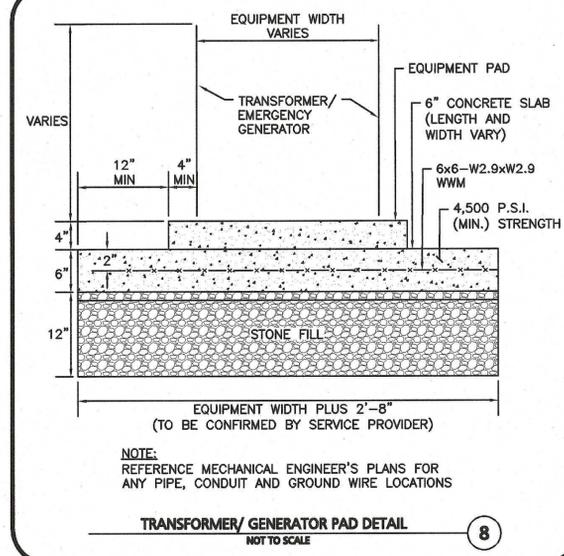
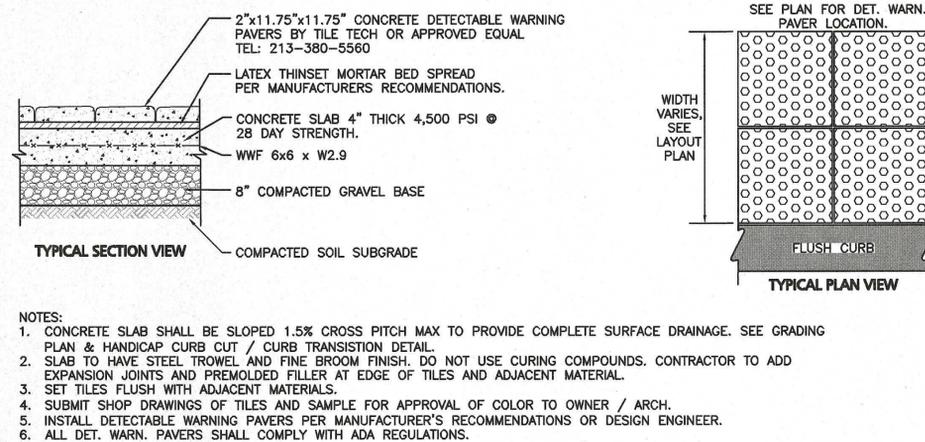
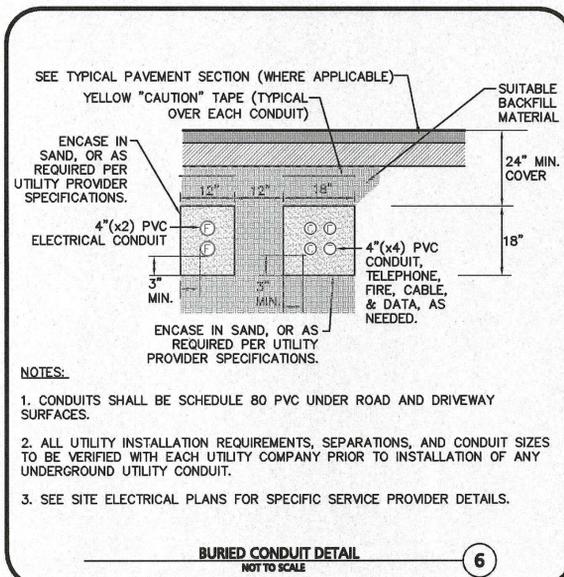
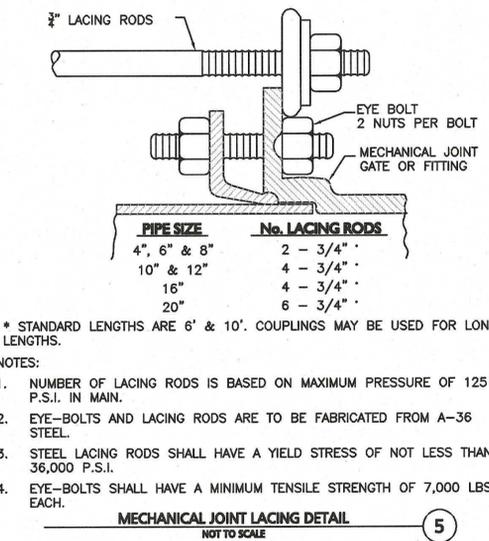
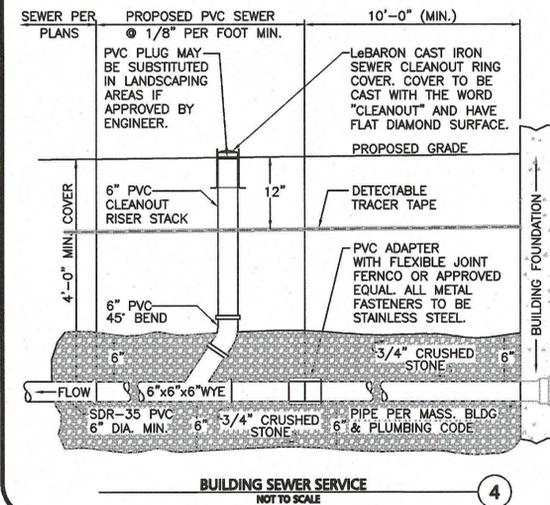


- NOTES:**
- MINIMUM BURIAL DEPTH (FINISH GRADE TO TOP OF PIPE) GRAVITY PIPE (SEWER & DRAIN) - SEE PLAN OR PROFILE PRESSURE PIPE UNDER PAVING - 4' PRESSURE PIPE BENEATH UNPAVED - 3' WATER PIPE - 5'
 - WHERE BACKFILL IS DESIGNATED AS COMPACTED, THIS MEANS 90 TO 95% STANDARD PROCTOR, AASHTO T-99. ALL FILL PLACED BELOW PIPES AND STRUCTURES MUST MEET THIS REQUIREMENT.
 - TRENCHES WITHIN PUBLIC RIGHT OF WAY MAY REQUIRE FLOWABLE FILL. VERIFY WITH MUNICIPAL ENGINEER.
 - WHERE WASTE FILLS ARE ENCOUNTERED AT SUBGRADE LEVEL FOR NEW UTILITIES, THE FILL SHOULD BE OVER-EXCAVATED, THE SUBGRADE SHOULD BE RE-COMPACTED, AND BACKFILL CONSISTING OF PIPE BEDDING MATERIAL, CRUSHED STONE OR OTHER SUITABLE GRANULAR FILL SHOULD BE PLACED TO A SUFFICIENT DEPTH TO CREATE A FIRM AND STABLE SUBGRADE (TYPICALLY 12 TO 18 INCHES OVER-EXCAVATION).
 - REFER TO PAVING, CURBS, WALKS AND DRIVEWAY DETAILS.
 - REFER TO LANDSCAPING DETAILS.



FILTER FABRIC USE

	SOIL TYPE	
	SILT OR CLAY	GRANULAR SOIL
ABOVE GROUND WATER	FILTER FABRIC NOT REQUIRED	FILTER FABRIC NOT REQUIRED
BELOW GROUND WATER	FILTER FABRIC REQUIRED	FILTER FABRIC NOT REQUIRED



11.12.19
CARLTON M. QUINN
CIVIL ENGINEER
No. 49923
PROFESSIONAL ENGINEER
PROFESSIONAL SEAL
PROFESSIONAL ENGINEER FOR ALLEN & MAJOR ASSOCIATES, INC.

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LEXINGTON, MA 02421

PROJECT:
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WAYLAND, MA

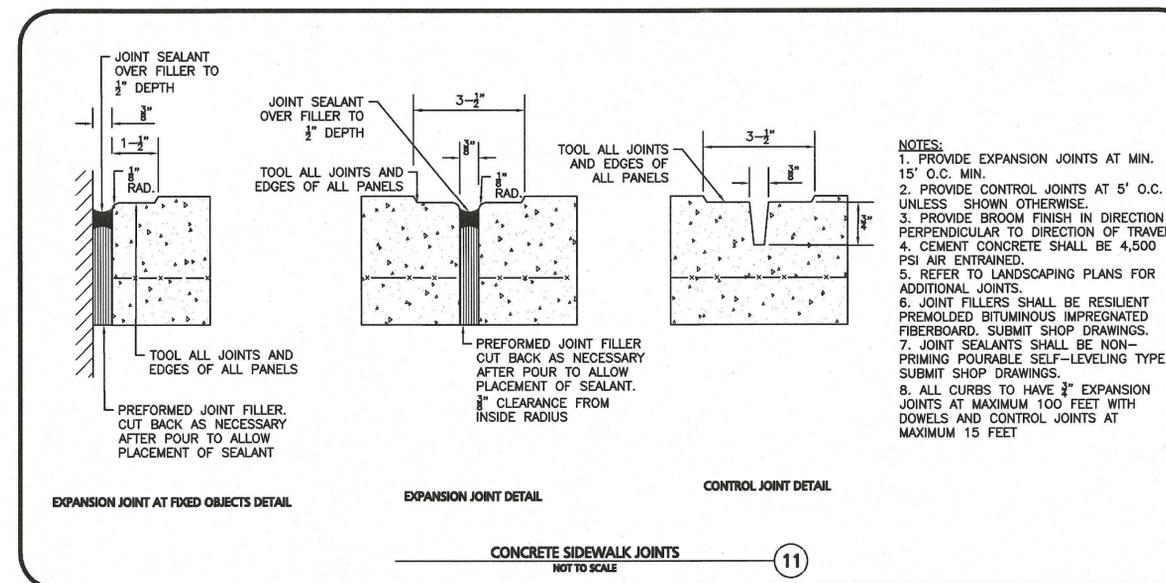
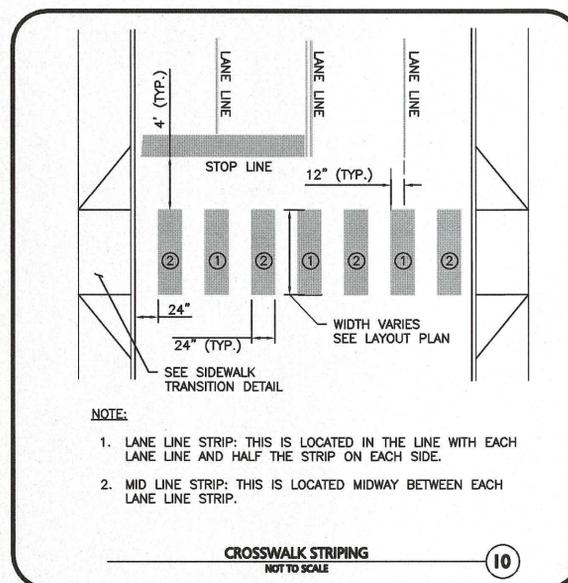
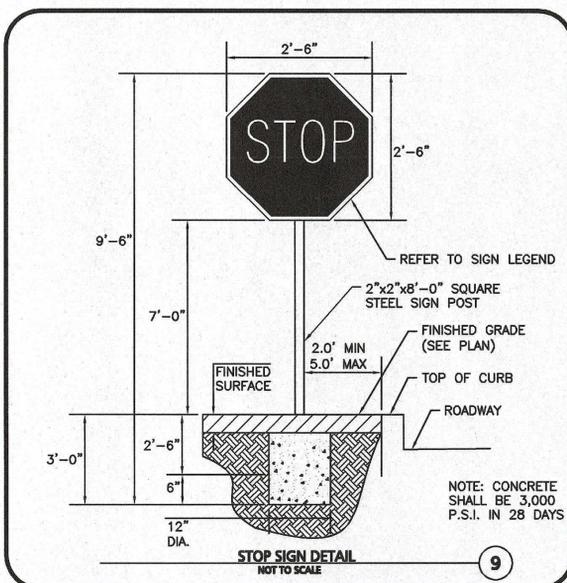
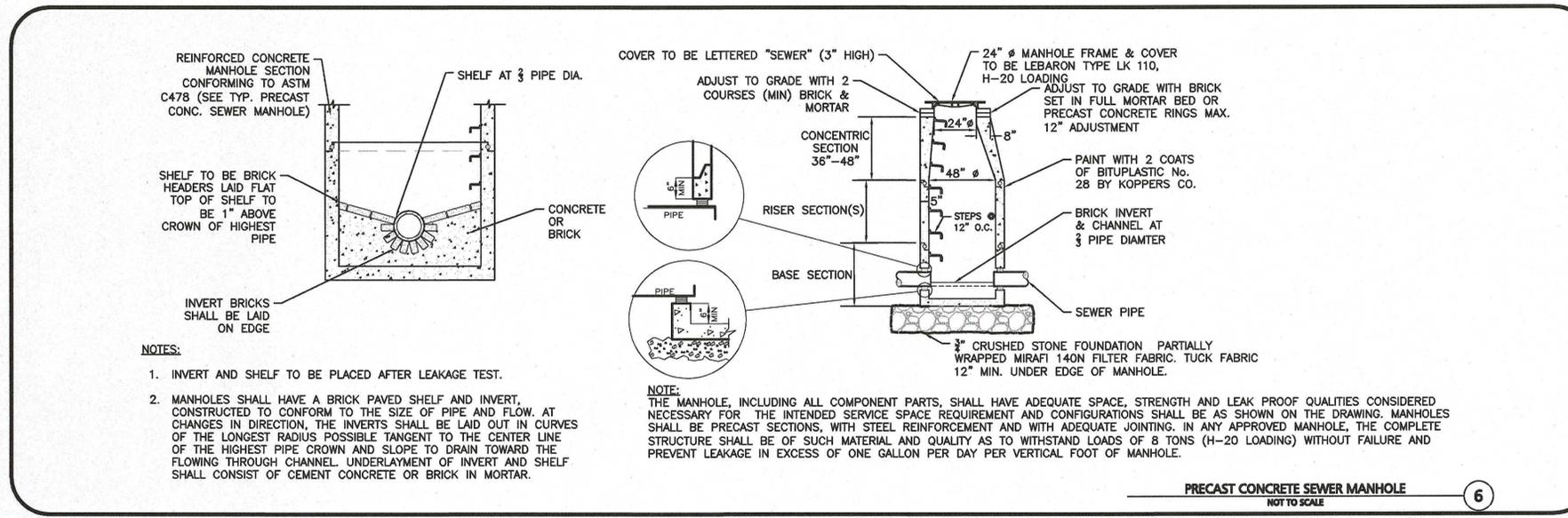
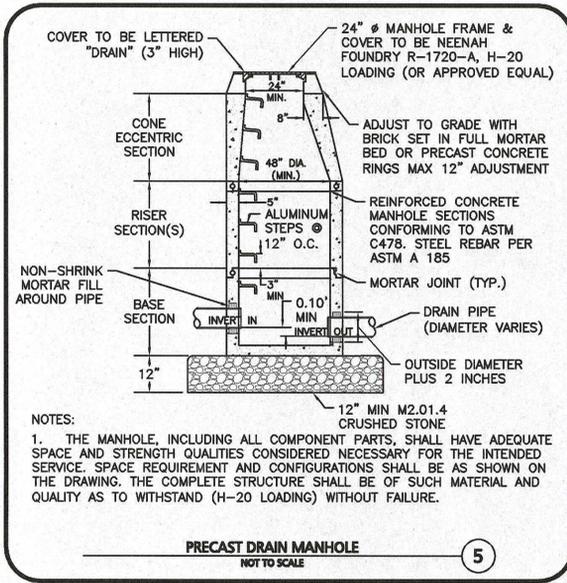
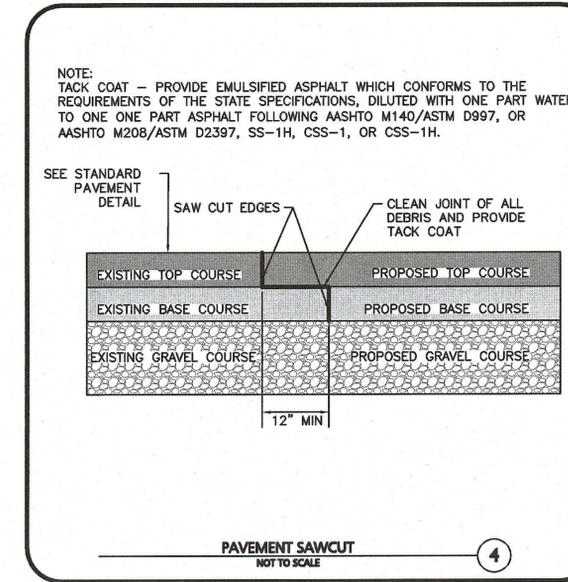
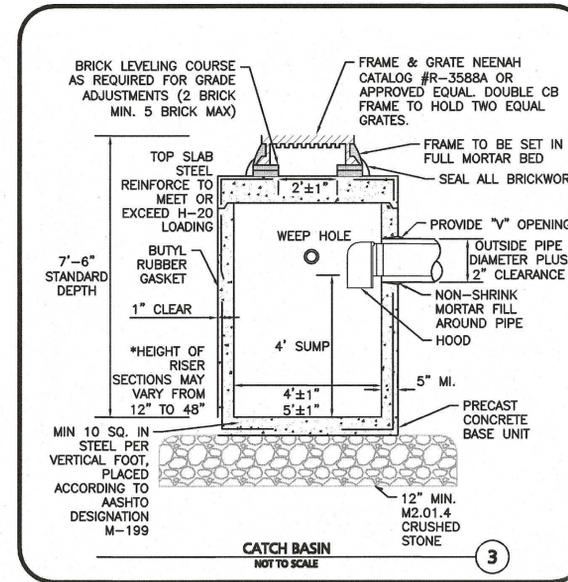
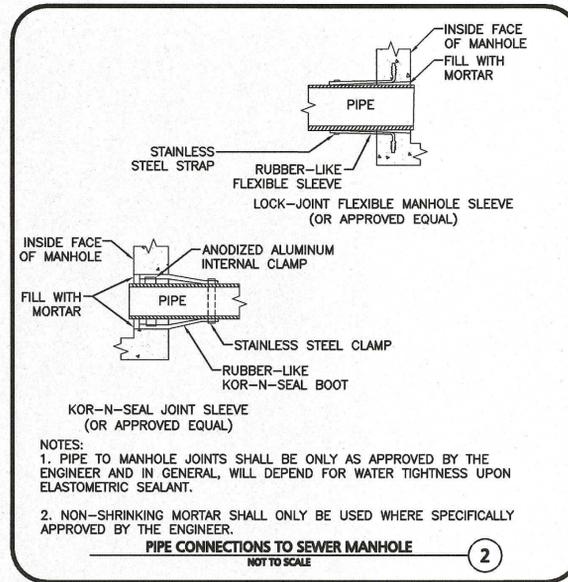
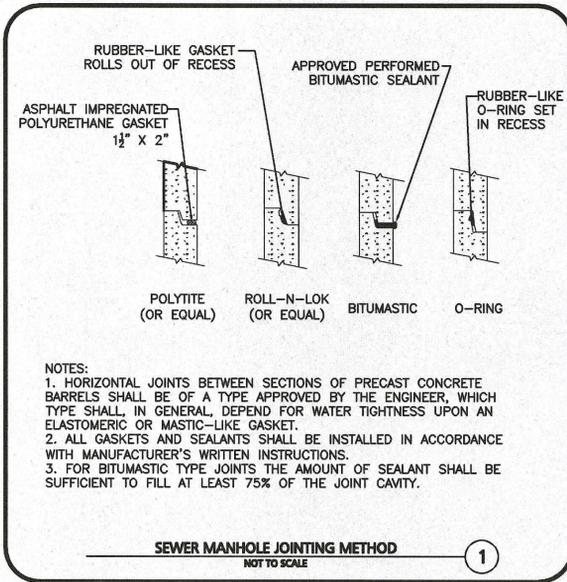
PROJECT NO. 1670-09A DATE: 06-20-2019
SCALE: AS SHOWN DWG. NAME: 1670-09A
DESIGNED BY: SJL CHECKED BY: CMQ
PREPARED BY:

ALLEN & MAJOR ASSOCIATES, INC.
civil & structural engineering • land surveying
environmental consulting • landscape architecture
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PROFESSIONAL ENGINEER FOR ALLEN & MAJOR ASSOCIATES, INC.

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490 BOSTON POST ROAD
WAYLAND, MA

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DESIGNED BY:	SIL	CHECKED BY:	CMQ

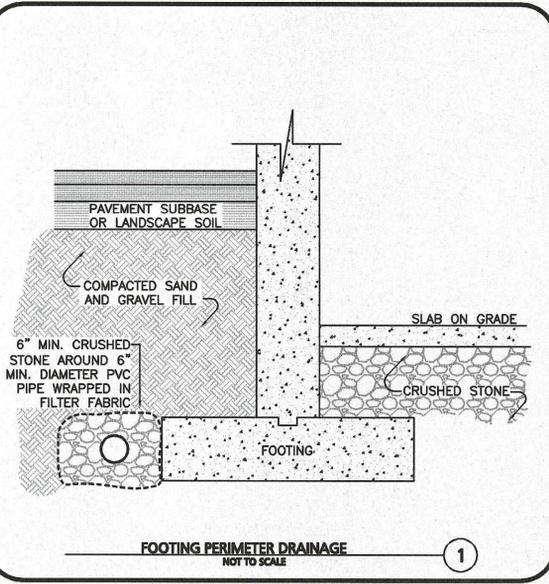
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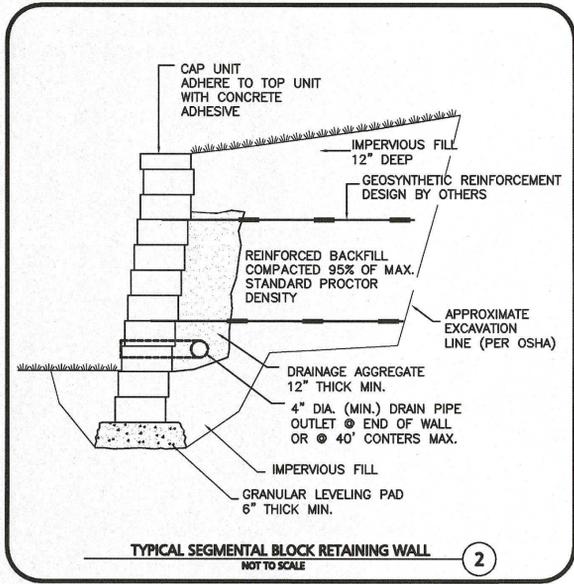
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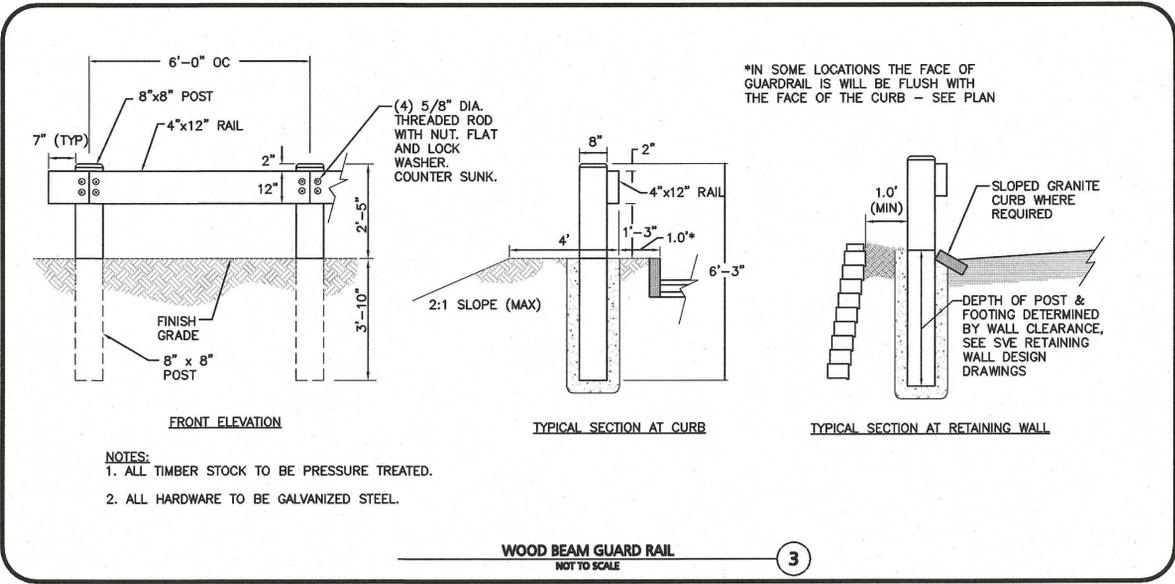
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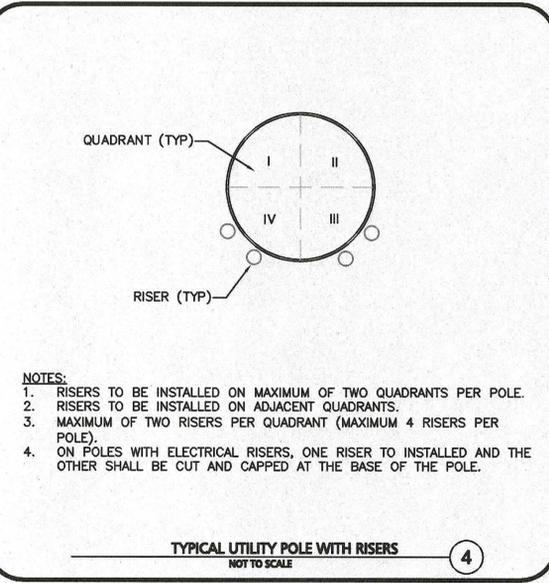
FOOTING PERIMETER DRAINAGE
NOT TO SCALE 1



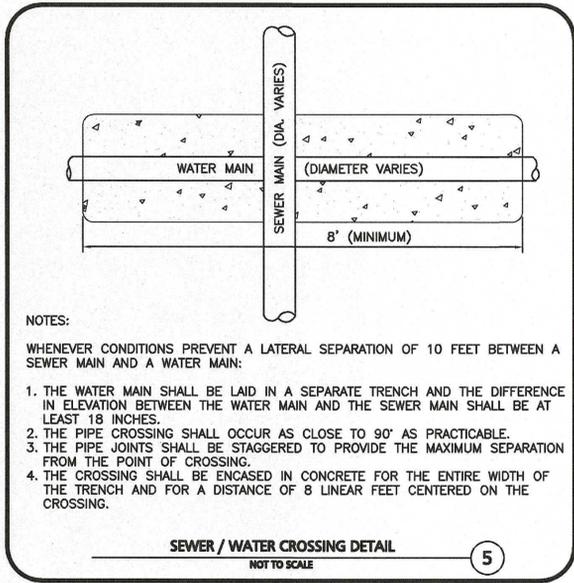
TYPICAL SEGMENTAL BLOCK RETAINING WALL
NOT TO SCALE 2



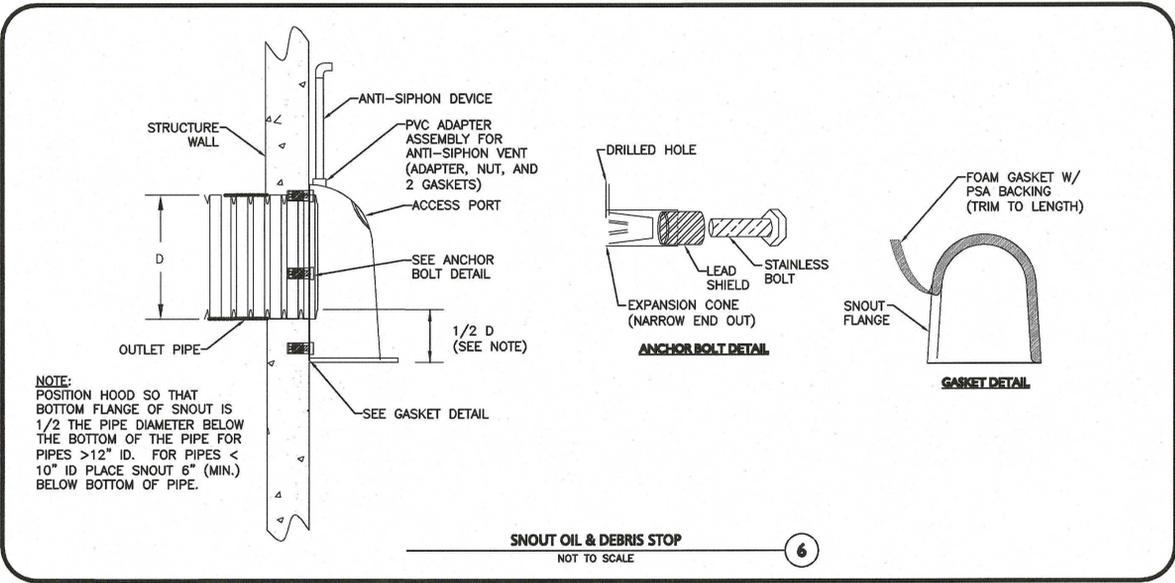
WOOD BEAM GUARD RAIL
NOT TO SCALE 3



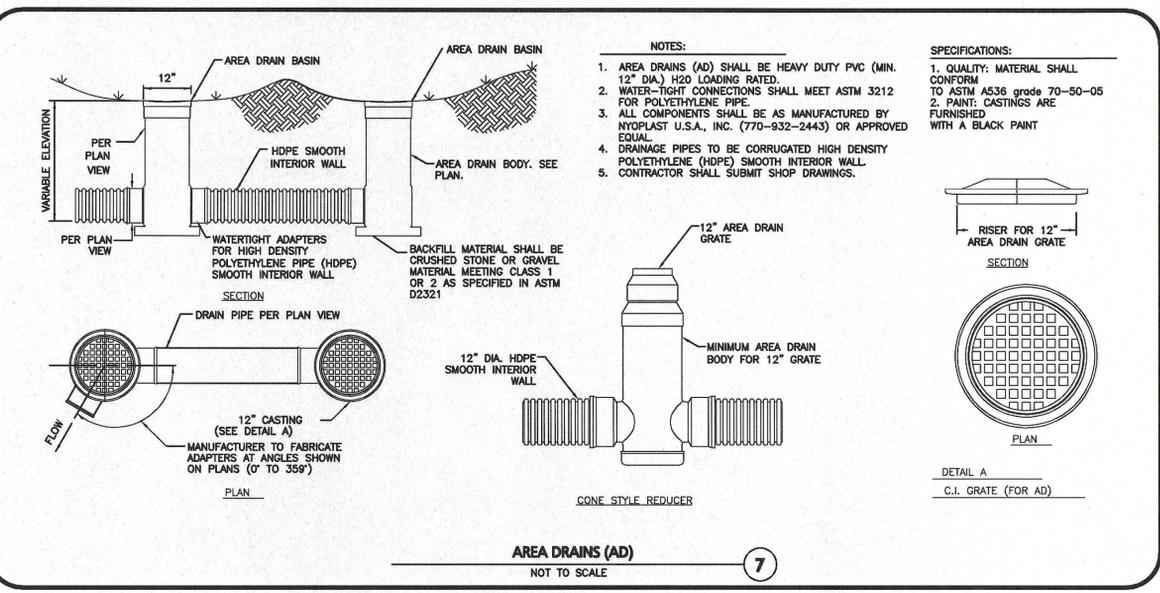
TYPICAL UTILITY POLE WITH RISERS
NOT TO SCALE 4



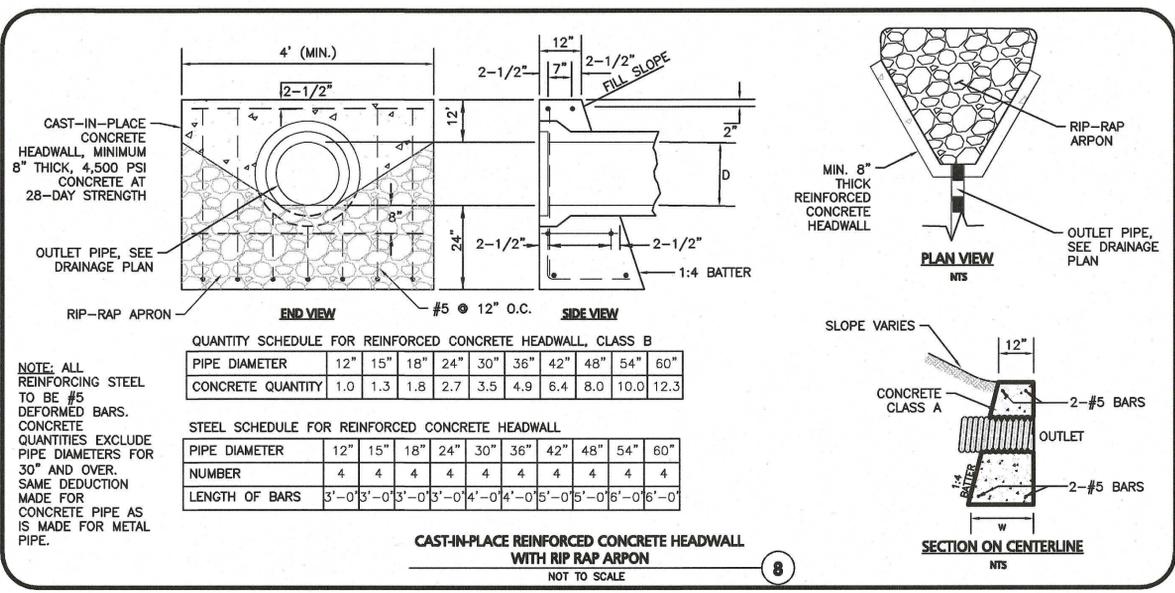
SEWER / WATER CROSSING DETAIL
NOT TO SCALE 5



SNOUT OIL & DEBRIS STOP
NOT TO SCALE 6



AREA DRAINS (AD)
NOT TO SCALE 7



CAST-IN-PLACE REINFORCED CONCRETE HEADWALL WITH RIP-RAP APRON
NOT TO SCALE 8

11.12.19

 CARLTON M. QUINN
 CIVIL
 No. 49923
 REGISTERED PROFESSIONAL ENGINEER
 PROFESSIONAL ENGINEER FOR ALLEN & MAJOR ASSOCIATES, INC.

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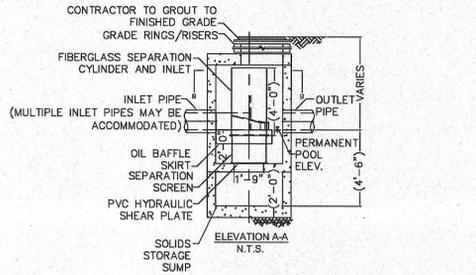
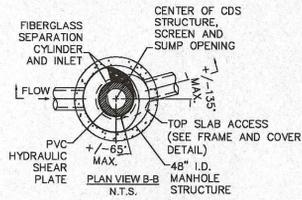
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DRAWING TITLE: **DETAILS** SHEET No. **C-505**

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FRAME AND COVER
(DIAMETER VARIES)
N.T.S.



GENERAL NOTES

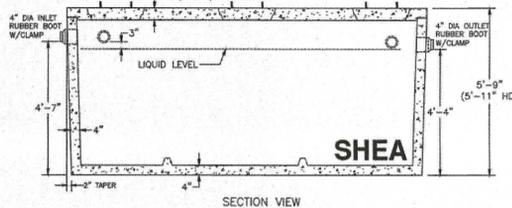
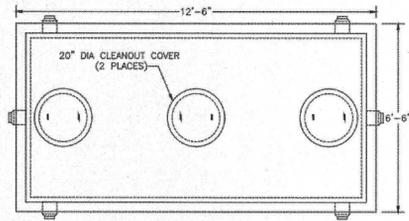
1. CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
2. DIMENSIONS MARKED WITH () ARE REFERENCE DIMENSIONS. ACTUAL DIMENSIONS MAY VARY.
3. FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHTS, PLEASE CONTACT YOUR CONTECH CONSTRUCTION PRODUCTS REPRESENTATIVE. www.contech-cpi.com
4. CDS WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
5. STRUCTURE SHALL MEET AASHTO H20 AND CASTINGS SHALL MEET AASHTO M206 LOAD RATING, ASSUMING GROUNDWATER ELEVATION AT, OR BELOW, THE OUTLET PIPE INVERT ELEVATION. ENGINEER OF RECORD TO CONFIRM ACTUAL GROUNDWATER ELEVATION.
6. PVC HYDRAULIC SHEAR PLATE IS PLACED ON SHELF AT BOTTOM OF SCREEN CYLINDER. REMOVE AND REPLACE AS NECESSARY DURING MAINTENANCE CLEANING.
7. ALL "CDS" STRUCTURES HAVE BEEN SIZED USING THE WATER QUALITY FLOW RATE PER MASS STORMWATER HANDBOOK AND SHALL BE CONTECH CDS2015-4-C OR APPROVED EQUIVALENT.

INSTALLATION NOTES

1. ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
2. CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE CDS MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).
3. CONTRACTOR TO ADD JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS, AND ASSEMBLE STRUCTURE.
4. CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
5. CONTRACTOR TO TAKE APPROPRIATE MEASURES TO ASSURE UNIT IS WATER TIGHT, HOLDING WATER TO FLOWLINE INVERT MINIMUM. IT IS SUGGESTED THAT ALL JOINTS BELOW PIPE INVERTS ARE GROUTED.

TYPICAL WATER QUALITY UNIT
CONTECH CDS-2025-4-C
NOT TO SCALE

1

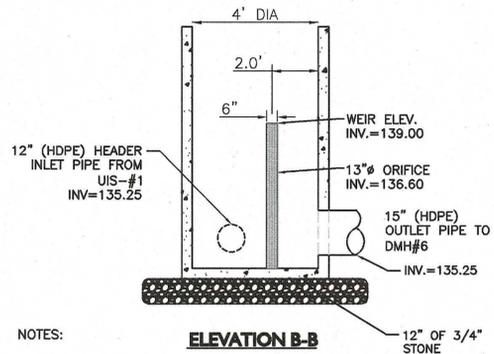
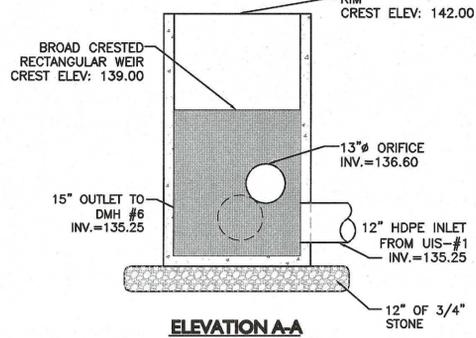
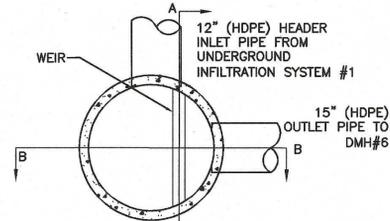


NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. DESIGN CONFORMS WITH 310 CMR, SECTION 15.00 DEP TITLE 5 REGS FOR SEPTIC TANKS.
3. ALL REINFORCEMENT PER ASTM C1227.
4. TEES AND GAS BAFFLE SOLD SEPARATELY.
5. TONGUE & GROOVE JOINT SEALED WITH BUTYLE RESIN.
6. IF COVER EXCEEDS 4 FEET, HEAVY DUTY TANK REQUIRED. ALSO AVAILABLE IN AASHTO HS-20 LOADING.

2,000 GALLON SINGLE-COMPARTMENT TIGHT TANK
NOT TO SCALE

2

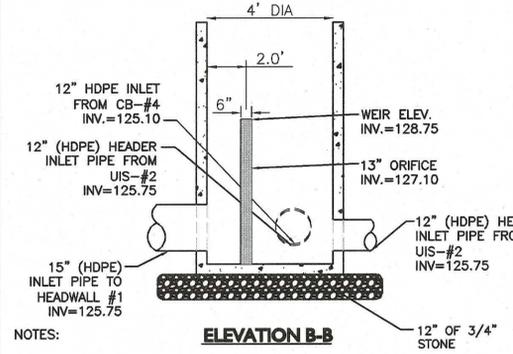
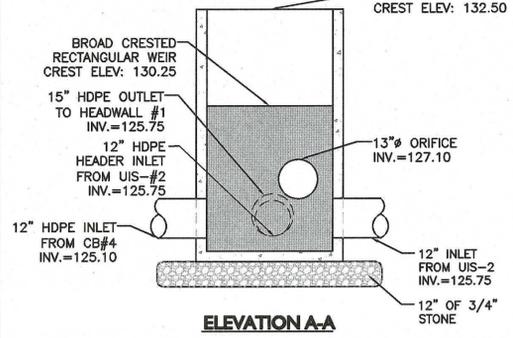
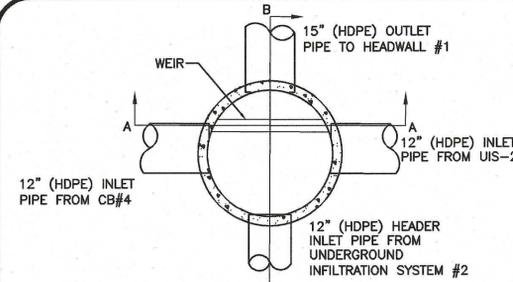


NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. ALL REINFORCEMENT PER ASTM C1227-93.
3. TONGUE & GROOVE JOINT SEALED WITH BUTYLE RESIN OR MASTIC.
4. WALLS ARE TO BE 6" THICK & BOTTOM TO BE 8" THICK.
5. WEIR SHALL BE MADE OF CONCRETE, SHALL BE CAST-IN-PLACE WITHIN THE MANHOLE STRUCTURE, AND SHALL BE MORTARED TO BE WATERTIGHT.

OUTLET CONTROL STRUCTURE #1
NOT TO SCALE

3



NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. ALL REINFORCEMENT PER ASTM C1227-93.
3. TONGUE & GROOVE JOINT SEALED WITH BUTYLE RESIN OR MASTIC.
4. WALLS ARE TO BE 6" THICK & BOTTOM TO BE 8" THICK.
5. WEIR SHALL BE MADE OF CONCRETE, SHALL BE CAST-IN-PLACE WITHIN THE MANHOLE STRUCTURE, AND SHALL BE MORTARED TO BE WATERTIGHT.

OUTLET CONTROL STRUCTURE #2
NOT TO SCALE

4

SAMPLE DETAIL NOT FOR CONSTRUCTION

SAMPLE DETAIL NOT FOR CONSTRUCTION



CARLTON M. QUINN
CIVIL ENGINEER
No. 49923
PROFESSIONAL ENGINEER
FOR ALLEN & MAJOR ASSOCIATES, INC.

REV	DATE	DESCRIPTION
E.	11/12/2019	REVISED PER TOWN COMMENTS
D.	10/18/2019	REVISED PER TOWN COMMENTS
C.	10/10/2019	REVISED PER TOWN COMMENTS
B.	09/27/2019	REVISED PER TOWN COMMENTS
A.	07/03/2019	ISSUED FOR NOTICE OF INTENT

APPLICANT/OWNER:

WP EAST ACQUISITIONS, LLC.
91 HARTWELL AVENUE
LEXINGTON, MA 02421

PROJECT:

ALTA AT RIVER'S EDGE
490 BOSTON POST ROAD
WAYLAND, MA

PROJECT NO. 1670-09A DATE: 06-20-2019

SCALE: AS SHOWN DWG. NAME: 1670-09A

DESIGNED BY: SJL CHECKED BY: CMQ

PREPARED BY:



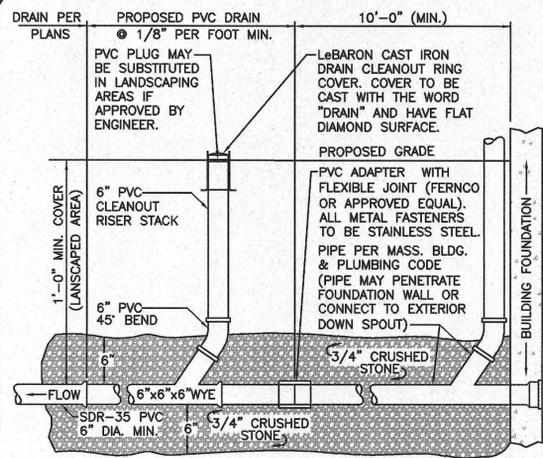
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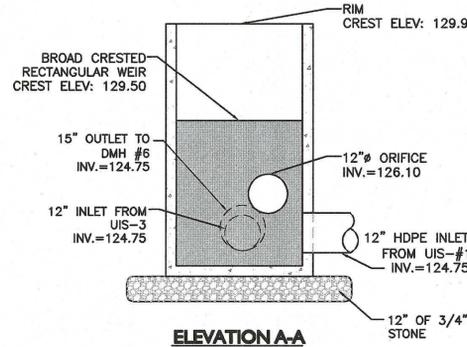
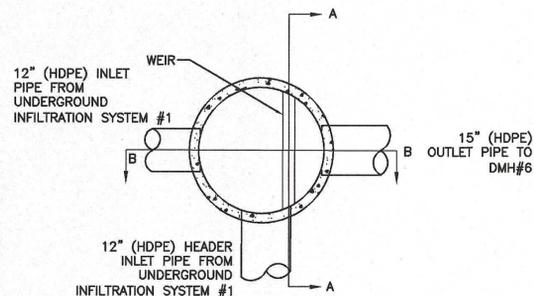
DRAWING TITLE: SHEET No.

DETAILS C-506



ROOF LEADER
NOT TO SCALE

5



NOTES:

1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS.
2. ALL REINFORCEMENT PER ASTM C1227-93.
3. TONGUE & GROOVE JOINT SEALED WITH BUTYLE RESIN OR MASTIC.
4. WALLS ARE TO BE 6" THICK & BOTTOM TO BE 8" THICK.
5. WEIR SHALL BE MADE OF CONCRETE, SHALL BE CAST-IN-PLACE WITHIN THE MANHOLE STRUCTURE, AND SHALL BE MORTARED TO BE WATERTIGHT.

OUTLET CONTROL STRUCTURE #3
NOT TO SCALE

6

SAMPLE DETAIL NOT FOR CONSTRUCTION

STORMWATER CHAMBER SPECIFICATIONS

- CHAMBERS SHALL BE STORMTECH SC-740, SC-310, OR APPROVED EQUAL.
- CHAMBERS SHALL BE MANUFACTURED FROM VIRGIN POLYPROPYLENE OR POLYETHYLENE RESINS.
- CHAMBER BODIES SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORT PANELS THAT WOULD IMPEDE FLOW OR LIMIT ACCESS FOR INSPECTION.
- THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL, AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCES.
- CHAMBERS SHALL MEET ASTM F2922 (POLYETHYLENE) OR ASTM F2418 (POLYPROPYLENE), "STANDARD SPECIFICATION FOR THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- CHAMBERS SHALL BE DESIGNED AND ALLOWABLE LOADS DETERMINED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS". ONLY CHAMBERS THAT ARE APPROVED BY THE SITE DESIGN ENGINEER WILL BE ALLOWED. THE CHAMBER MANUFACTURER SHALL SUBMIT THE FOLLOWING UPON REQUEST TO THE SITE DESIGN ENGINEER FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE:
 - A STRUCTURAL EVALUATION SEALED BY A REGISTERED PROFESSIONAL ENGINEER THAT DEMONSTRATES THAT THE SAFETY FACTORS ARE GREATER THAN OR EQUAL TO 1.95 FOR DEAD LOAD AND 1.75 FOR LIVE LOAD, THE MINIMUM REQUIRED BY ASTM F2787 AND BY AASHTO FOR THERMOPLASTIC PIPE.
 - A STRUCTURAL EVALUATION SEALED BY A REGISTERED PROFESSIONAL ENGINEER THAT DEMONSTRATES THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12, ARE MET. THE 50 YEAR CREEP MODULUS DATA SPECIFIED IN ASTM F2418 OR ASTM F2922 MUST BE USED AS PART OF THE AASHTO STRUCTURAL EVALUATION TO VERIFY LONG-TERM PERFORMANCE.
 - STRUCTURAL CROSS SECTION DETAIL ON WHICH THE STRUCTURAL EVALUATION IS BASED.
- CHAMBERS AND END CAPS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.

IMPORTANT -- NOTES FOR THE BIDDING AND INSTALLATION OF THE SC-310/SC-740 SYSTEM

- STORMTECH SC-310 & SC-740 CHAMBERS SHALL NOT BE INSTALLED UNTIL THE MANUFACTURER'S REPRESENTATIVE HAS COMPLETED A PRE-CONSTRUCTION MEETING WITH THE INSTALLERS.
 - STORMTECH SC-310 & SC-740 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/SC-780 CONSTRUCTION GUIDE".
 - CHAMBERS ARE NOT TO BE BACKFILLED WITH A DOZER OR AN EXCAVATOR SITUATED OVER THE CHAMBERS.
- STORMTECH RECOMMENDS 3 BACKFILL METHODS:
- STONESHOOTER LOCATED OFF THE CHAMBER BED.
 - BACKFILL AS ROWS ARE BUILT USING AN EXCAVATOR ON THE FOUNDATION STONE OR SUB-GRADE.
 - BACKFILL FROM OUTSIDE THE EXCAVATION USING A LONG BOOM HOE OR EXCAVATOR.
- THE FOUNDATION STONE SHALL BE LEVELED AND COMPACTED PRIOR TO PLACING CHAMBERS.
 - JOINTS BETWEEN CHAMBERS SHALL BE PROPERLY SEATED PRIOR TO PLACING STONE.
 - MAINTAIN MINIMUM - 6" (150 mm) SPACING BETWEEN THE CHAMBER ROWS.
 - EMBEDMENT STONE SURROUNDING CHAMBERS MUST BE A CLEAN, CRUSHED, ANGULAR STONE 3/4-2" (20-50 mm).
 - THE CONTRACTOR MUST REPORT ANY DISCREPANCIES WITH CHAMBER FOUNDATION MATERIALS BEARING CAPACITIES TO THE SITE DESIGN ENGINEER.
 - ADS RECOMMENDS THE USE OF "FLEXSTORM CATCH IT" INSERTS DURING CONSTRUCTION FOR ALL INLETS TO PROTECT THE SUBSURFACE STORMWATER MANAGEMENT SYSTEM FROM CONSTRUCTION SITE RUNOFF.

NOTES FOR CONSTRUCTION EQUIPMENT

- STORMTECH SC-310 & SC-740 CHAMBERS SHALL BE INSTALLED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
- THE USE OF CONSTRUCTION EQUIPMENT OVER SC-310 & SC-740 CHAMBERS IS LIMITED:
 - NO EQUIPMENT IS ALLOWED ON BARE CHAMBERS.
 - NO RUBBER Tired LOADERS, DUMP TRUCKS, OR EXCAVATORS ARE ALLOWED UNTIL PROPER FILL DEPTHS ARE REACHED IN ACCORDANCE WITH THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
 - WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT CAN BE FOUND IN THE "STORMTECH SC-310/SC-740/DC-780 CONSTRUCTION GUIDE".
- FULL 36" (900 mm) OF STABILIZED COVER MATERIALS OVER THE CHAMBERS IS REQUIRED FOR DUMP TRUCK TRAVEL OR DUMPING.

USE OF A DOZER TO PUSH EMBEDMENT STONE BETWEEN THE ROWS OF CHAMBERS MAY CAUSE DAMAGE TO THE CHAMBERS AND IS NOT AN ACCEPTABLE BACKFILL METHOD. ANY CHAMBERS DAMAGED BY THE "DUMP AND PUSH" METHOD ARE NOT COVERED UNDER THE STORMTECH STANDARD WARRANTY.

CONTACT STORMTECH AT 1-888-892-2694 WITH ANY QUESTIONS ON INSTALLATION REQUIREMENTS OR WEIGHT LIMITS FOR CONSTRUCTION EQUIPMENT.

GENERAL NOTES

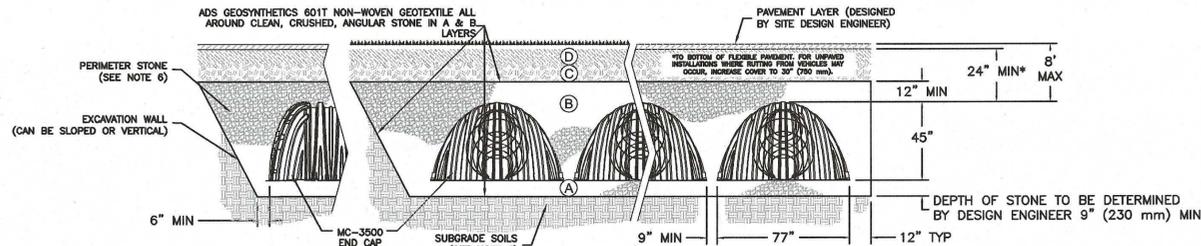
NOT TO SCALE

1

MATERIAL LOCATION	DESCRIPTION	AASHTO MATERIAL CLASSIFICATIONS	COMPACTION / DENSITY REQUIREMENT
D	FINAL FILL: FILL MATERIAL FOR LAYER 'D' STARTS FROM THE TOP OF THE 'C' LAYER TO THE BOTTOM OF FLEXIBLE PAVEMENT OR UNPAVED FINISHED GRADE ABOVE. NOTE THAT PAVEMENT SUB-BASE MAY BE PART OF THE 'D' LAYER.	N/A	PREPARE PER SITE DESIGN ENGINEER'S PLANS. PAVED INSTALLATIONS MAY HAVE STRINGENT MATERIAL AND PREPARATION REQUIREMENTS.
C	INITIAL FILL: FILL MATERIAL FOR LAYER 'C' STARTS FROM THE TOP OF THE EMBEDMENT STONE ('B' LAYER) TO 18" (450 mm) ABOVE THE TOP OF THE CHAMBER. NOTE THAT PAVEMENT SUB-BASE MAY BE A PART OF THE 'C' LAYER.	AASHTO M145' A-1, A-2-4, A-3 OR AASHTO M43' 3, 357, 4, 467, 5, 56, 57, 6, 67, 68, 7, 78, 8, 89, 9, 10	BEGIN COMPACTIONS AFTER 12" (300 mm) OF MATERIAL OVER THE CHAMBERS IS REACHED. COMPACT ADDITIONAL LAYERS IN 6" (150 mm) MAX LIFTS TO A MIN. 95% PROCTOR DENSITY FOR WELL GRADED MATERIAL AND 95% RELATIVE DENSITY FOR PROCESSED AGGREGATE MATERIALS. ROLLER GROSS VEHICLE WEIGHT NOT TO EXCEED 12,000 lbs (53 kN). DYNAMIC FORCE NOT TO EXCEED 20,000 lbs (89 kN).
B	EMBEDMENT STONE: FILL SURROUNDING THE CHAMBERS FROM THE FOUNDATION STONE ('A' LAYER) TO THE 'C' LAYER ABOVE.	AASHTO M43' 3, 357, 4, 467, 5, 56, 57	NO COMPACTION REQUIRED.
A	FOUNDATION STONE: FILL BELOW CHAMBERS FROM THE SUB-GRADE UP TO THE FOOT (BOTTOM) OF THE CHAMBER.	AASHTO M43' 3, 357, 4, 467, 5, 56, 57	PLATE COMPACT OR ROLL TO ACHIEVE A FLAT SURFACE. 1, 3

PLEASE NOTE:

- THE LISTED AASHTO DESIGNATIONS ARE FOR GRADATIONS ONLY. THE STONE MUST ALSO BE CLEAN, CRUSHED, ANGULAR. FOR EXAMPLE, A SPECIFICATION FOR #4 STONE WOULD STATE: "CLEAN, CRUSHED, ANGULAR NO. 4 (AASHTO M43) STONE".
- STORMTECH COMPACTION REQUIREMENTS ARE MET FOR 'A' LOCATION MATERIALS WHEN PLACED AND COMPACTED IN 9" (230 mm) (MAX) LIFTS USING TWO FULL COVERAGES WITH A VIBRATORY COMPACTOR.
- WHERE INFILTRATION SURFACES MAY BE COMPROMISED BY COMPACTION, FOR STANDARD DESIGN LOAD CONDITIONS, A FLAT SURFACE MAY BE ACHIEVED BY RAKING OR DRAGGING WITHOUT COMPACTION EQUIPMENT. FOR SPECIAL LOAD DESIGNS, CONTACT STORMTECH FOR COMPACTION REQUIREMENTS.



NOTES:

- MC-3500 CHAMBERS SHALL CONFORM TO THE REQUIREMENTS OF ASTM F2418 "STANDARD SPECIFICATION FOR POLYPROPYLENE (PP) CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- MC-3500 CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787 "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
- "ACCEPTABLE FILL MATERIALS" TABLE ABOVE PROVIDES MATERIAL LOCATIONS, DESCRIPTIONS, GRADATIONS, AND COMPACTION REQUIREMENTS FOR FOUNDATION, EMBEDMENT, AND FILL MATERIALS.
- THE "SITE DESIGN ENGINEER" REFERS TO THE ENGINEER RESPONSIBLE FOR THE DESIGN AND LAYOUT OF THE STORMTECH CHAMBERS FOR THIS PROJECT.
- THE SITE DESIGN ENGINEER IS RESPONSIBLE FOR ASSESSING THE BEARING RESISTANCE (ALLOWABLE BEARING CAPACITY) OF THE SUBGRADE SOILS AND THE DEPTH OF FOUNDATION STONE WITH CONSIDERATION FOR THE RANGE OF EXPECTED SOIL MOISTURE CONDITIONS.
- PERIMETER STONE MUST BE EXTENDED HORIZONTALLY TO THE EXCAVATION WALL FOR BOTH VERTICAL AND SLOPED EXCAVATION WALLS.
- ONCE LAYER 'C' IS PLACED, ANY SOIL/MATERIAL CAN BE PLACED IN LAYER 'D' UP TO THE FINISHED GRADE. MOST PAVEMENT SUBBASE SOILS CAN BE USED TO REPLACE THE MATERIAL REQUIREMENTS OF LAYER 'C' OR 'D' AT THE SITE DESIGN ENGINEER'S DISCRETION.
- SEE GRADING AND DRAINAGE PLAN, SHEET C-103, FOR MORE INFORMATION.

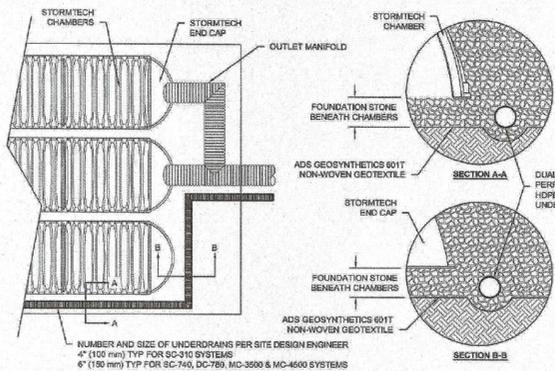
ACCEPTABLE FILL MATERIALS: STORMTECH MC-3500 CHAMBER SYSTEMS

NOT TO SCALE

2



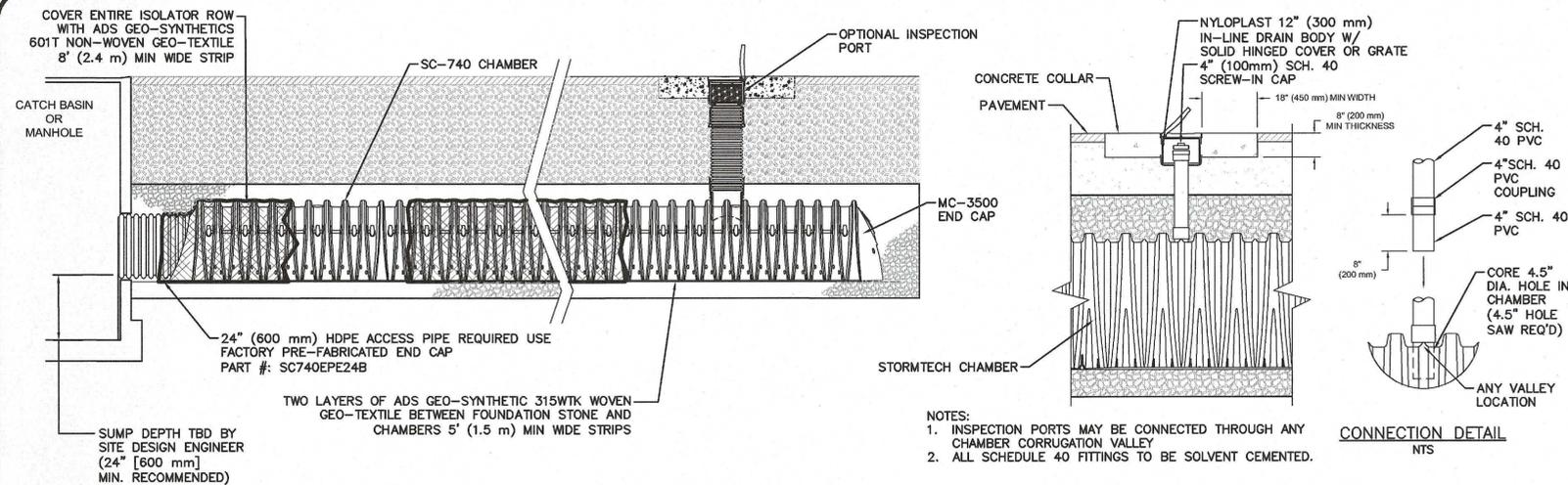
70 INWOOD ROAD, SUITE 3 | ROCKY HILL | CT | 06067
860-529-8188 | 888-892-2694 | WWW.STORMTECH.COM



UNDERDRAIN DETAIL

NOT TO SCALE

3



STORMTECH ISOLATOR ROW*

ISOLATOR ROW & INSPECTION PORT

NOT TO SCALE

4

INSPECTION PORT DETAIL



PROFESSIONAL ENGINEER FOR ALLEN & MAJOR ASSOCIATES, INC.

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A.	07/03/2019	ISSUED FOR NOTICE OF INTENT

APPLICANT/OWNER:
WP EAST ACQUISITIONS, LLC.
91 HARTWELL AVENUE
LEXINGTON, MA 02421

PROJECT:
ALTA AT RIVER'S EDGE
490 BOSTON POST ROAD
WAYLAND, MA

PROJECT NO.	1670-09A	DATE:	06-20-2019
SCALE:	AS SHOWN	DWG. NAME:	1670-09A
DESIGNED BY:	SJL	CHECKED BY:	CMQ

PREPARED BY:

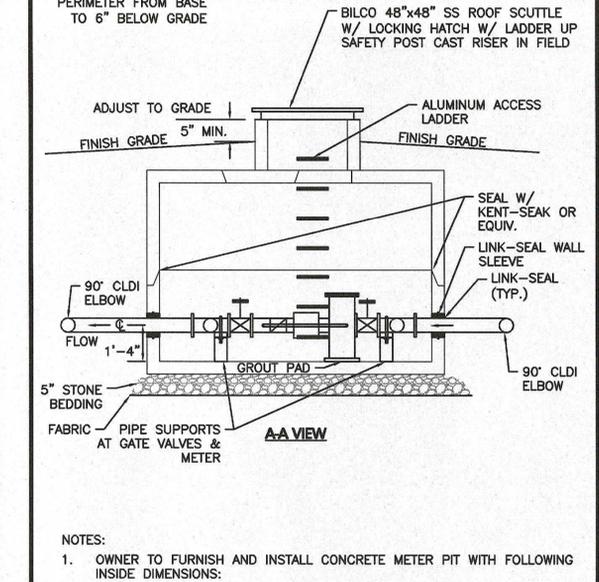
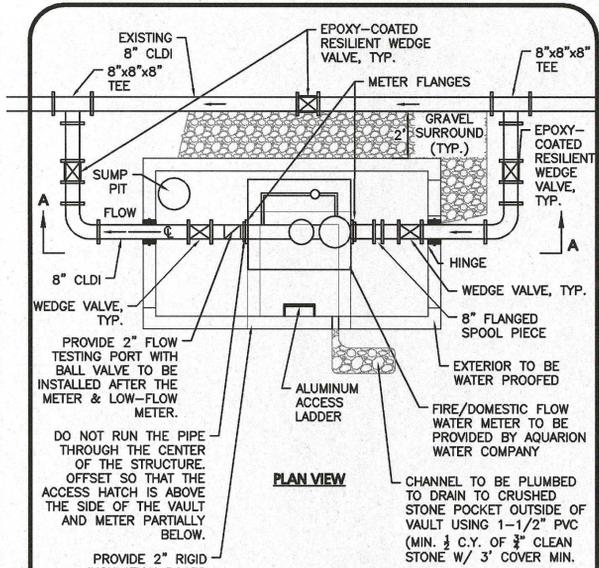
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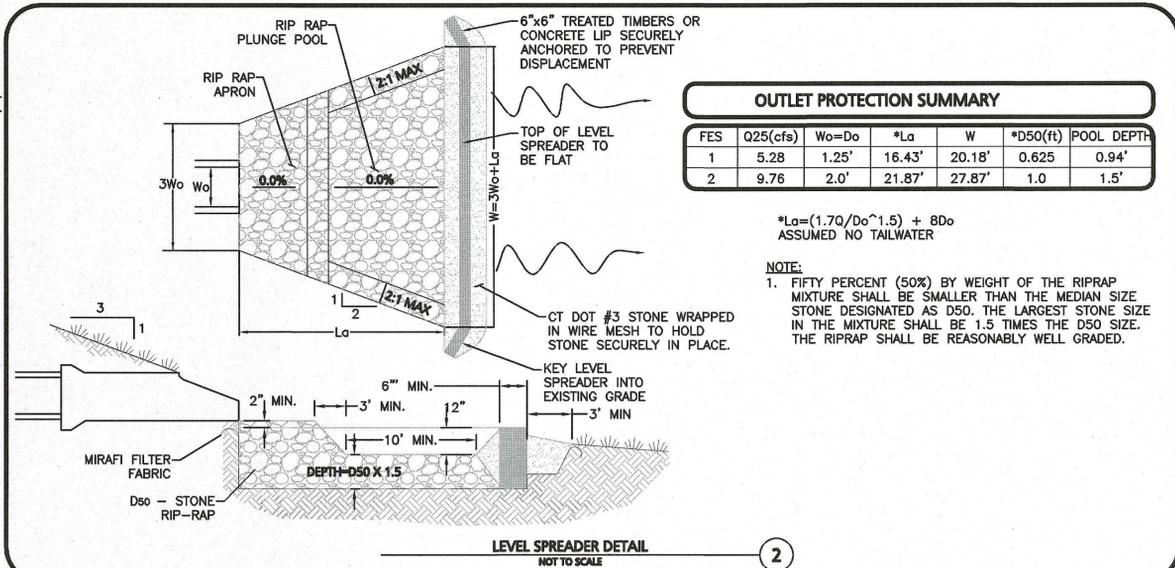
DRAWING TITLE:	SHEET NO.
DETAILS	C-507

N:\PROJECTS\1670-09A\CIVIL\DRAWINGS\CURRENT\C-1670-09A - DETAILS.DWG



- NOTES:**
- OWNER TO FURNISH AND INSTALL CONCRETE METER PIT WITH FOLLOWING INSIDE DIMENSIONS:
FOR 8" METER = 6' WIDE x 12' LONG x 7' HIGH
 - CONCRETE PIT SHALL HAVE:
 - 48"x48" "BILCO" STYLE STAINLESS STEEL ROOF SCUTTLE ENTRY
 - LADDER RUNGS CAST IN PLACE AND SHALL BE MADE OF ALUMINUM
 - DRAIN OUTLET OR SUMP PIT FOR KEEPING WATER BELOW METER
 - OWNER TO FURNISH AND INSTALL ONE PRESSURE TREATED 4"x4" POST FOR REMOTE READER, 3' IN HEIGHT ABOVE GROUND LEVEL (MAY UTILIZE AN EXISTING POST OR WALL WHERE AVAILABLE). FURNISH AND INSTALL 3/4" CONDUIT AT A DEPTH OF 1' BETWEEN THE METER PIT AND INST. AQUARION WATER DEPARTMENT TO WIRE UP REMOTE READER.
 - PIT SHALL BE INSTALLED OFF ROAD OR DRIVEWAY WHERE FEASIBLE.
 - INSTALLATION SHALL BE PRESSURE TESTED AND APPROVED BY THE AQUARION WATER COMPANY PRIOR TO FINAL ACCEPTANCE.
 - WATER METER TO BE PROVIDED BY AQUARION WATER COMPANY. EPOXY-COATED, RESILIENT WEDGE VALVES SHALL BE INSTALLED IMMEDIATELY BEFORE AND AFTER THE METER.
 - ALL VALVES SHALL BE OPEN RIGHT (CLOCKWISE).
 - ALL DUCTILE IRON FITTINGS TO BE CLASS 350.
 - ALL INTERIOR JOINTS SHALL BE FLANGED TYPE. ALL EXTERIOR JOINTS SHALL BE MECHANICAL TYPE.

WATER METER PIT
NOT TO SCALE

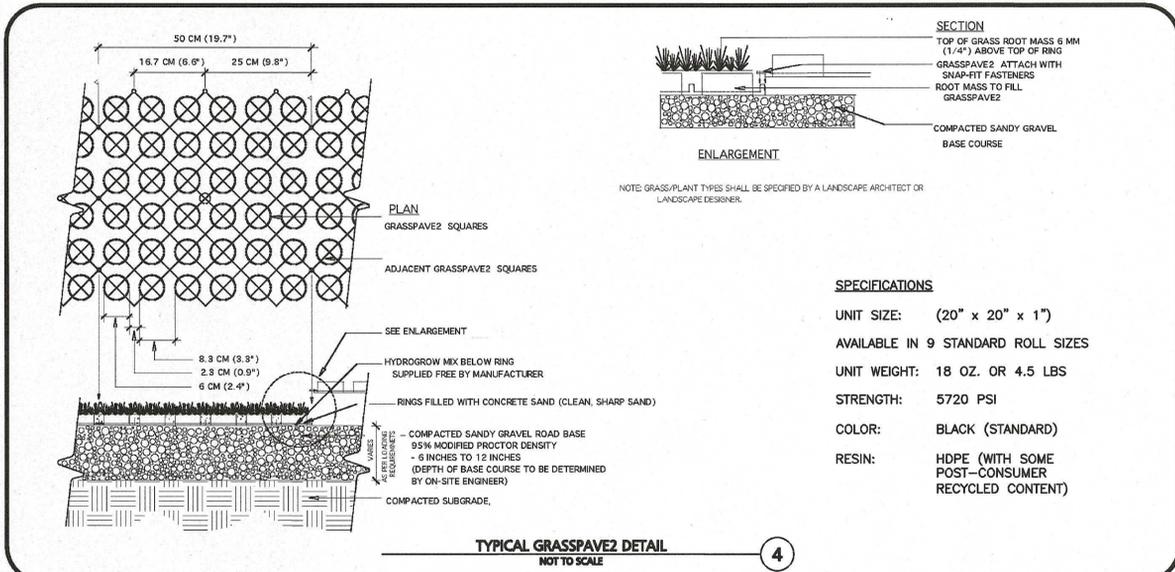


OUTLET PROTECTION SUMMARY

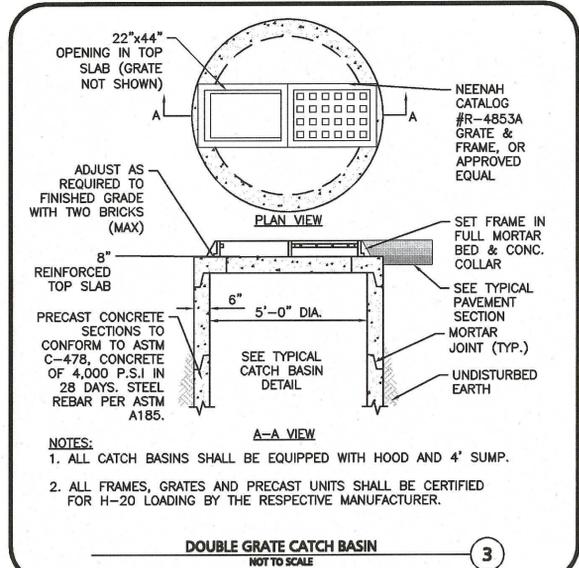
FES	Q25(cfs)	W _o =D _o	*L _a	W	*D50(ft)	POOL DEPTH
1	5.28	1.25'	16.43'	20.18'	0.625	0.94'
2	9.76	2.0'	21.87'	27.87'	1.0	1.5'

*L_a=(1.7Q/D_o^{1.5}) + 8D_o
ASSUMED NO TAILWATER

NOTE:
1. FIFTY PERCENT (50%) BY WEIGHT OF THE RIPRAP MIXTURE SHALL BE SMALLER THAN THE MEDIAN SIZE STONE DESIGNATED AS D50. THE LARGEST STONE SIZE IN THE MIXTURE SHALL BE 1.5 TIMES THE D50 SIZE. THE RIPRAP SHALL BE REASONABLY WELL GRADED.



NOT IN USE
NOT TO SCALE



NOT IN USE
NOT TO SCALE



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PREPARED BY:

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