

**LOCUS MAP**  
NOT TO SCALE

# SITE DEVELOPMENT PLANS FOR OR BUILDING EXPANSION ANNA JAQUES HOSPITAL

25 HIGHLAND AVENUE  
NEWBURYPORT, MA 01950

**OWNER/APPLICANT:**  
BETH ISRAEL LAHEY HEALTH  
ANNA JAQUES HOSPITAL  
25 HIGHLAND AVENUE  
NEWBURYPORT, MA 01950

**ARCHITECT:**  
JACA ARCHITECTS  
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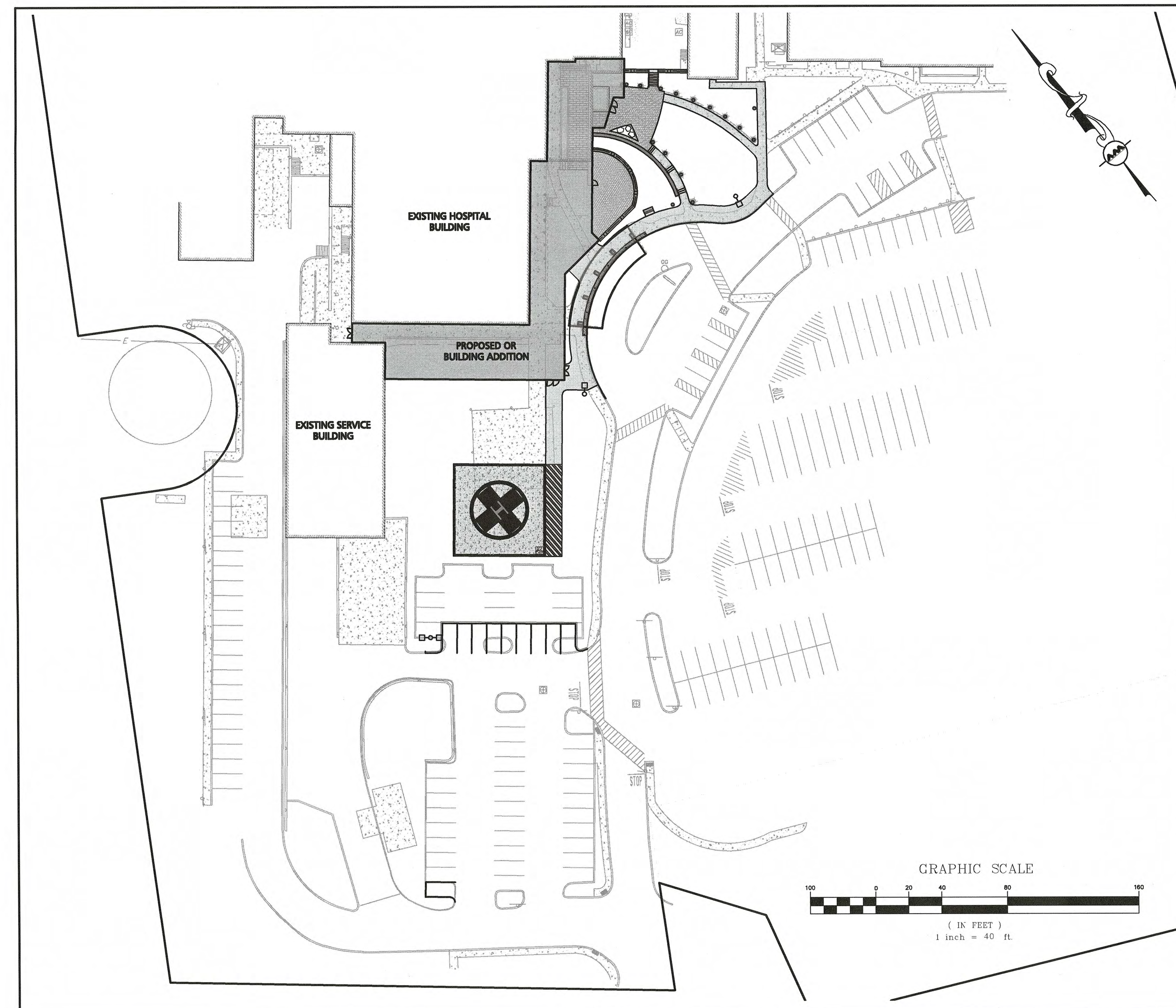
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**LANDSCAPE ARCHITECT:**  
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LIST OF DRAWINGS			
DRAWING TITLE	SHEET NO.	ISSUED	LAST REVISED
EXISTING CONDITIONS PLAN	V-101	11-25-19	01-08-20
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LANDSCAPE DETAILS	L-201	11-25-19	01-08-20



PROFESSIONAL ENGINEER FOR  
ALLEN & MAJOR ASSOCIATES, INC.

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ISSUED FOR SITE PLAN REVIEW &  
SPECIAL PERMIT: JANUARY 8, 2020

ISSUED FOR LOCAL PERMITTING: NOVEMBER 25, 2019







**GENERAL NOTES:**

- FOR EXISTING CONDITIONS SURVEY, SEE PLAN ENTITLED "PARTIAL EXISTING CONDITIONS PLAN", AS PREPARED BY ALLEN & MAJOR ASSOCIATES, INC. ORIGINAL SCALE 1"=30'.
- ZONING DISTRICT IS GENERAL ACUTE CARE MEDICAL (M-1), AND THE SITE IS LOCATED ENTIRELY WITHIN THE CITY OF NEWBURYPORT.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO:
  - SCHEDULE A PRECONSTRUCTION MEETING WITH THE CITY OF NEWBURYPORT TO REVIEW THE CONSTRUCTION SCHEDULE, PERMITTED DRAWINGS AND PERMIT CONDITIONS AT LEAST ONE (1) WEEK PRIOR TO THE COMMENCEMENT OF EARTH DISTURBING ACTIVITIES AT NO ADDITIONAL COST TO OWNER.
  - GIVE REASONABLE NOTICE TO THE CITY OF NEWBURYPORT FOR INSPECTION PRIOR TO INSTALLING ANY PROPOSED STORMWATER MANAGEMENT SYSTEMS, IF APPLICABLE, OR INSTALLATION OF ANY OTHER CRITICAL DESIGN COMPONENTS IDENTIFIED DURING THE ABOVE MENTIONED PRECONSTRUCTION MEETING.
  - AS REQUIRED, PROVIDE AS-BUILT PLANS TO THE CITY OF NEWBURYPORT.
- OVERALL LOT SIZE: 10.56± ACRES. CITY OF NEWBURYPORT PARCEL ID: 39-44.
- DURING CONSTRUCTION, ALL VEHICLES MUST BE PARKED ON SITE.
- DURING CONSTRUCTION, ALL STAGING AND DELIVERIES WILL OCCUR ON SITE.
- EXTERIOR CONSTRUCTION ACTIVITIES ON THE SITE SHALL FOLLOW ALL APPLICABLE REGULATIONS PER THE CITY OF NEWBURYPORT, AS IT RELATES TO CONSTRUCTION HOURS, NOISE AND CONSTRUCTION SCREENING AND FENCING.
- THIS PROJECT WILL BE SERVED BY PUBLIC WATER, NATURAL GAS, TELEPHONE, CABLE AND ELECTRIC. ALL UTILITY CONNECTIONS WILL BE MADE INTERNALLY THROUGH THE EXISTING BUILDING.
- 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 COMMON BUILDING ENTRANCES AND WALKS SHALL BE HANDICAP ACCESSIBLE PER FEDERAL ADA & MA AAB REGULATIONS AT NO ADDITIONAL COST TO THE OWNER.
- ALL SITE WORK DONE FOR THIS PROJECT SHALL BE IN STRICT ACCORDANCE WITH THE SITE PLANS AND SITE WORK SPECIFICATIONS FOR CONSTRUCTION.
- 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 PRECONSTRUCTION MEETING WITH THE APPROPRIATE CITY 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 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 FILL 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 ABANDONED, REMOVED OR RELOCATED AS NECESSARY. SEE SITE PREPARATION & DEMOLITION PLAN FOR MORE DETAIL.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RELOCATIONS, INCLUDING BUT NOT LIMITED TO, ALL UTILITIES, STORM DRAINAGE, SIGNS, TRAFFIC SIGNALS & POLES, ETC. AS REQUIRED. ALL WORK SHALL BE IN ACCORDANCE WITH THE CITY OF NEWBURYPORT'S GOVERNING AUTHORITY'S SPECIFICATIONS AND SHALL BE APPROVED BY SUCH.
- 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 BENCHMARK AND MUST BE VERIFIED BY THE GENERAL CONTRACTOR AT GROUNDBREAKING.
- EXISTING AND PROPOSED GAS SERVICE LOCATIONS ARE APPROXIMATE ONLY. THE CONTRACTOR SHALL CONFIRM WITH THE GAS COMPANY THAT THE GAS LINE INSTALLATION & DISCONNECTION SHALL BE BY THE LOCAL GAS COMPANY. THE CONTRACTOR SHALL GIVE THE GAS COMPANY ADVANCE NOTICE OF WHEN THE GAS LINE CAN BE INSTALLED.
- CONSTRUCTION RELATED ACTIVITIES SHALL OCCUR PER THE CITY OF NEWBURYPORT SPECIAL PERMIT AND MINOR SITE PLAN REVIEW FINAL DECISION.
- EXISTING & PROPOSED ELECTRIC AND COMMUNICATIONS (TELEPHONE AND CABLE) SYSTEMS LOCATIONS ARE APPROXIMATE ONLY AND SHALL BE COORDINATED AND SCHEDULED WITH THE APPROPRIATE UTILITY COMPANY SERVING THE PROJECT SITE.
- 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 THEM AND THE PROPOSED UTILITIES.
- 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, NEWBURYPORT PLANNING PERMITS, NEWBURYPORT CONSERVATION COMMISSION PERMITS, MA DOT ACCESS PERMIT, DEMOLITION PERMITS, PLUMBING, GAS, AND ELECTRICAL PERMITS.
- THE CONTRACTOR SHALL BE FAMILIAR WITH AND ADHERE TO THE NEWBURYPORT PLANNING BOARD'S FINAL DECISION AND REQUIREMENTS AT NO ADDITIONAL COST TO OWNER.
- IT IS THE CONTRACTORS RESPONSIBILITY TO PROPERLY DISPOSE OF AND ABATE ALL BUILDING MATERIALS OR ANY HAZARDOUS MATERIALS ONSITE IN ACCORDANCE WITH ALL STATE, FEDERAL, AND LOCAL LAWS AND REGULATIONS AT NO ADDITIONAL COST TO THE OWNER.
- DURING EXCAVATION, ANY EXISTING LOAM WHICH DOES NOT MEET THE LOAM DETAIL BY THE LANDSCAPE ARCHITECT SHALL BE REMOVED OFFSITE BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

**GRADING & DRAINAGE NOTES:**

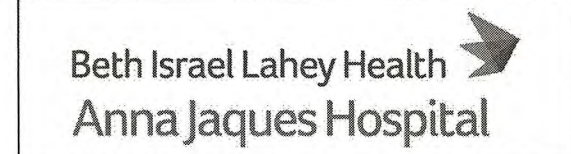
- EXISTING PAVEMENT SHALL BE SAW-CUT AND PAVEMENT JOINT SHALL BE INSTALLED WHERE NECESSARY TO ENSURE A SMOOTH CONTINUOUS GRADE.
- THE ARCHITECTURAL PLANS SHALL BE REFERRED TO IN ORDER TO DETERMINE THE EXACT LOCATIONS OF VESTIBULE, SLOPED PAVING, EXIT PORCHES, HANDICAPPED RAMPS, TRUCK DOCKS, COMPACTOR PAD, ROOF DRAIN LATERALS AND PRECISE BUILDING DIMENSIONS.
- ALL GRADING OPERATIONS SHALL BE COORDINATED WITH THE APPROPRIATE UTILITY COMPANIES.
- IN LANDSCAPED AREAS THE TOP ELEVATION OF MANHOLES SHALL MATCH THE FINISH GRADE OF THE TOPSOIL. IN PAVED AREAS THE TOP ELEVATIONS OF MANHOLES SHALL MATCH FINISH GRADE.
- ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE STABILIZED AS SOON AS POSSIBLE UPON COMPLETION OF CONSTRUCTION WORK IN THE AREA.
- TEMPORARY STRAW BALE PROTECTION AND/OR SILT SACK SHALL BE INSTALLED AND MAINTAINED AT EXISTING DRAINAGE STRUCTURES DURING CONSTRUCTION, TO PREVENT SEDIMENT LADEN RUNOFF FROM ENTERING THE DRAINAGE SYSTEM. SILT SACKS ARE REQUIRED AT ALL EXISTING DRAINAGE STRUCTURE INLETS DURING CONSTRUCTION.
- CONTRACTOR IS RESPONSIBLE FOR DEMOLITION OF EXISTING STRUCTURES INCLUDING REMOVAL OF ANY EXISTING UTILITIES SERVING THE STRUCTURE.
- ALL CATCH BASINS, MANHOLES, INFILTRATION SYSTEM, AND WATER QUALITY STRUCTURES ARE TO BE CLEANED OUT PRIOR TO FINAL APPROVAL TO REMOVE ALL CONSTRUCTION SILT AND DEBRIS.
- 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 PIPE ENTERING STRUCTURES SHALL BE GROUDED TO ASSURE 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 (IF REQUIRED) FOR STORM WATER DISCHARGE ASSOCIATED WITH CONSTRUCTION ACTIVITIES.
- CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS FOR ALL NATURAL AND PAVED AREAS.
- ALL UNSURFACED AREAS DISTURBED BY GRADING OPERATION SHALL RECEIVE SIX INCHES (6") OF TOPSOIL. CONTRACTOR SHALL GRASS DISTURBED AREAS IN ACCORDANCE WITH LANDSCAPE & CIVIL SPECIFICATIONS & DRAWINGS UNTIL A HEALTHY STAND OF GRASS IS OBTAINED.
- CONTRACTOR SHALL APPLY STABILIZATION FABRIC TO ALL SLOPES 3H:1V OR STEEPER.
- ALL DRAINAGE SHALL CONFORM TO LOCAL REQUIREMENTS.

**UTILITY NOTES:**

- THE LATEST STANDARDS OF THE CITY OF NEWBURYPORT SHALL BE FOLLOWED WHEN INSTALLING ANY SANITARY SEWER AND STORM DRAIN WORK. BOTH SEWER AND STORM DRAIN WORK WILL BE INSPECTED BY CITY OF NEWBURYPORT PERSONNEL AND ALL COSTS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- THE LATEST STANDARDS OF THE CITY OF NEWBURYPORT SHALL BE FOLLOWED WHEN INSTALLING ANY WATER LINE WORK. WATER LINE WORK WILL BE INSPECTED BY CITY OF NEWBURYPORT PERSONNEL AND ALL COSTS SHALL INCLUDE PRESSURE TESTING, DISINFECTING, AND FLUSHING OF LINES. INSPECTION COSTS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLATION AND REMOVAL OF ALL NECESSARY DISINFECTING AND FLUSHING TAPS AS DIRECTED BY THE CITY.
- THE CONTRACTOR SHALL REFER TO ARCHITECTURAL & PLUMBING DRAWINGS AND SPECIFICATIONS FOR ACTUAL LOCATION OF ALL ROOF DRAIN LATERALS AND UTILITY ENTRANCES TO INCLUDE SANITARY SEWER LATERALS, DOMESTIC AND FIRE PROTECTION WATER SERVICE, ELECTRIC, TELEPHONE, AND NATURAL GAS. CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES IN SUCH A MANNER AS TO AVOID CONFLICTS AND COORDINATE WITH THE PROPER AGENCY THE LOCATION AND SCHEDULING OF CONNECTIONS WITH THEIR FACILITIES.
- 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 (UNLESS OTHERWISE NOTED):
  - SEWER - PVC (POLYVINYL CHLORIDE), SDR 35
  - DRAIN - HDPE (HIGH DENSITY CORRUGATED POLYETHYLENE PIPE WITH SMOOTH INNER WALL), ASTM D2321 (UNLESS OTHERWISE SPECIFIED ON PLAN)
  - DRAIN - RCP CLASS IV (REINFORCED CONCRETE PIPE, WHERE SPECIFIED ON PLAN)
  - WATER - C.L.D.I. (CEMENT LINED DUCTILE IRON)
- REFER TO DEMOLITION PLAN & PROPOSED UTILITY PLAN FOR EXISTING ITEMS TO BE REMOVED AND FOR UTILITY ABANDONMENT.
- BEFORE UTILITY WORK BEGINS, THE CONTRACTOR WILL COORDINATE WITH THE CITY OF NEWBURYPORT THE APPROPRIATE PERMIT AND INSPECTION FEES.
- ALL UTILITY CONNECTIONS THROUGH THE BUILDING WALL SHALL BE BY MEANS OF FLEXIBLE JOINTS.
- ALL WATER GATES TO PROPOSED HYDRANTS ARE 6" DIAMETER UNLESS NOTED.
- 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.
- 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.
- ALL WATER JOINTS ARE TO BE MECHANICAL JOINTS WITH THRUST BLOCKING AT BENDS.
- CONTRACTOR SHALL MAINTAIN A MINIMUM OF 5'-0" COVER ON ALL WATERLINES AND A MAXIMUM OF 8'-0" COVER.
- 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 ENCASED IN CONCRETE TO MEET THE REQUIREMENTS OF ANSI A21.10 OR ANSI 21.11 (AWWA C-151) (CLASS 50).
- 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.
- ALL HYDRANTS SHALL MEET LOCAL MUNICIPAL SPECIFICATION REQUIREMENTS AND SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF NEWBURYPORT REQUIREMENTS.
- DOMESTIC WATER SERVICES SHALL BE INSTALLED WITH APPROPRIATELY SIZED GATE, BOX, AND TEE FITTINGS.
- ALL WATER MAIN APPURTENANCES, MATERIALS, METHODS OF INSTALLATION AND TESTING REQUIREMENTS SHALL MEET OR EXCEED THE CITY OF NEWBURYPORT REQUIREMENTS.
- PRESSURE AND LEAKAGE TEST, DISINFECTION AND FLUSHING SHALL BE IN ACCORDANCE WITH ALL LOCAL AND MUNICIPAL STANDARDS AND REQUIREMENTS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS IN CONNECTION WITH THE UTILITY TESTS, FLUSHING AND INSPECTIONS AS REQUIRED BY THE LOCAL MUNICIPALITY.
- SEWER PIPE BEDDING MATERIAL SHALL BE AS SPECIFIED ON THE DRAWINGS. IF LOCAL OR STATE AUTHORITIES REQUIRE DIFFERENT BEDDING OR BACKFILL MATERIAL, THEN THE MORE STRINGENT SHALL APPLY.
- DRAWINGS DO NOT NECESSARILY SHOW ALL EXISTING UTILITIES.

**ABBREVIATIONS:**

ABAN	ABANDON		
ADA	AMERICANS WITH DISABILITIES ACTS		
ADJ	ADJUST		
B	BORING		
BC	BOTTOM OF CURB	L	LENGTH
BIT	BITUMINOUS	LP	LIGHT POLE
BLDG	BUILDING		
BM	BENCH MARK		
BOS	BOTTOM OF SLOPE		
BOW	BOTTOM OF WALL	MAT	MATERIAL
BV&B	BUTTERFLY VALVE & BOX	MAX	MAXIMUM
BW	BORDERING VEGETATED WETLAND	MH	MANHOLE
		MIN	MINIMUM
CATV	CABLE TELEVISION	MISC	MISCELLANEOUS
CB	CATCH BASIN	MTD	MOUNTED
CF	CUBIC FEET	MW	MONITORING WELL
CFS	CUBIC FEET PER SECOND		
CL	CAST IRON (PIPE)	N	NORTH
CLD	CENTERLINE	NIC	NOT IN CONTRACT
CLDI	CEMENT LINED DUCTILE IRON (PIPE)	NO	NUMBER
CLF	CHAIN LINK FENCE	NTS	NOT TO SCALE
CMP	CORRUGATED METAL PIPE		
CO	CLEAN OUT	OC	ON CENTER
CONC	CONCRETE	OD	OUTSIDE DIAMETER
CONST	CONSTRUCTION	OH	OVERHEAD WIRE
		OVHD	OVERHEAD
		OW	OBSERVATION WELL
CONT	CONTRACTOR	PC	POINT OF CURVATURE
CRD	COORDINATE	PCC	PRECAST CONCRETE CURB
CUL	CULVERT	PI	POINT OF INTERSECTION
CY	CUBIC YARD	PL	PROPERTY LINE
		POC	POINT ON CURVATURE
DB	DISTRIBUTION BOX	POT	POINT ON TANGENT
DBL	DOUBLE	PROP.	PROPOSED
DEM	DEMOLISH	PROP. P	PROPOSED
DET	DEFLECTION	PT	POINT (OR POINT OF TANGENT)
DI	DIAMETER	PVC	POLYVINYL CHLORIDE (PIPE)
DM	DIMENSION		
DMH	DRAIN MANHOLE	R&R	REMOVE & RESET/REPLACE
DW	DOMESTIC WATER (OR DRY WELL)	R&S	REMOVE & STACK
DWG	DRAWING	RCP	REINFORCED CONCRETE PIPE
DYCL	DOUBLE YELLOW CENTERLINE	RD	ROAD (OR ROOF DRAIN)
		RELOC	RELOCATE
EHH	ELECTRIC HANDHOLE	REM	REMOVE
EL	ELEVATION	RET	RETAIN, RETAINING OR RETENTION
ELEC	ELECTRIC	ROW	RIGHT OF WAY
EMH	ELECTRIC MANHOLE	RR	RAILROAD
EOP	EDGE OF PAVEMENT	RWY	ROADWAY
EOR	EDGE OF ROAD		
EW	EDGE OF WETLANDS	SD	SUBDRAIN
ETC	ELECTRIC, TELEPHONE, CABLE	SF	SQUARE FEET
EXIST	EXISTING	SGC	SLOPED GRANITE CURB
EXT	EXTERIOR	SMH	SEWER MANHOLE
FCC	FLUSH CONCRETE CURB	STANDPIPE	STANDPIPE
FES	FLARED END SECTION	SPEC	SPECIFICATION
FFE	FINISH FLOOR ELEVATION	STA	STATION
FPS	FEET PER SECOND	STD	STANDARD
FS	FIRE SERVICE	SWEL	SOLID WHITE EDGE LINE
FT	FOOT/FEET	SW	SIDEWALK
		SWLL	SOLID WHITE LANE LINE
		SYCL	SOLID YELLOW CENTERLINE
GC	GENERAL CONTRACTOR	TB	TEST BORING
GEN	GENERAL	TC	TOP OF CURB
GG	GAS GATE	TD	TRENCH DRAIN
GR	GUIDE RAIL	TEL	TELEPHONE
GRAN	GRANITE	TMH	TELEPHONE MANHOLE
GV	GATE VALVE	TOS	TOP OF SLOPE
GV&B	GATE VALVE & BOX	TOW	TOP OF WALL
GW	GROUND WATER	TP	TEST PIT
		TYF	TYPICAL
H	HORIZONTAL	UD	UNDERDRAIN
HOR	HORIZONTAL	UP	UTILITY POLE
HT	HEIGHT		
HW	HEADWALL	V	VERTICAL
HWY	HIGHWAY	VCP	VITRIFIED CLAY PIPE
HYD	HYDRANT	VERT	VERTICAL
		VGC	VERTICAL GRANITE CURB
ID	INSIDE DIAMETER	WG	WATER GATE
IN	INCHES	WM	WATER MAIN
INCL	INCLUDE	WMH	WATER MANHOLE
INST	INSTALLED	WSO	WATER SHUTOFF
INV. I.E.	INVERT, INVERT ELEVATION		



Anna Jaques Hospital

OR Building Expansion

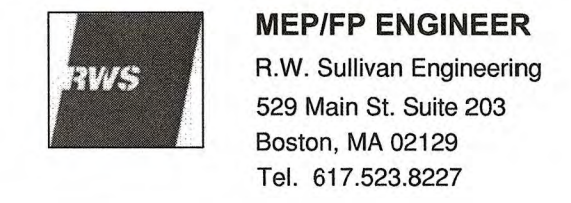
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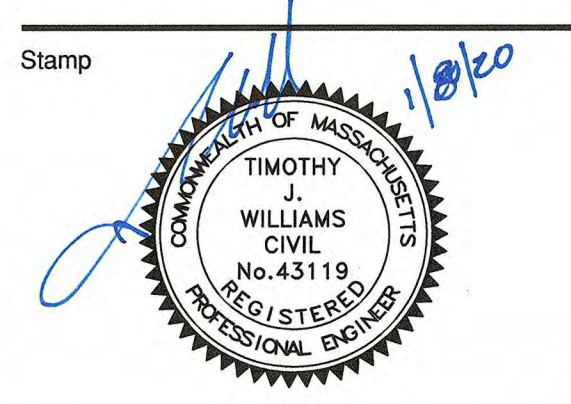
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ISSUED FOR SITE PLAN REVIEW AND SPECIAL PERMIT	01-08-20

Mark	Revision	Date



Drawing Title

ABBREVIATIONS & NOTES

Scale: NO SCALE

Drawing Number:

C-001

JACA Project Number 190042

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ISSUED FOR LOCAL PERMITTING - NOT FOR CONSTRUCTION



**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.
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 CITY HAS STRICTER REQUIREMENTS, WHICH SHALL BE FOLLOWED) IN THAT PORTION OF THE SITE HAS TEMPORARILY 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 SEEDED 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, SEEDED WITH RYE AT 3LBS PER 1,000 SQUARE FOOT AND MULCHED, AND REUSED AS REQUIRED. SILTATION FENCING SHALL BE PLACED DOWN GRADIENT FROM STOCKPILED LOAM. LOAM SHALL BE STOCKPILED AT LOCATIONS DESIGNATED BY THE OWNER AND ENGINEER.
5. ALL FILTER BARRIERS, SILT SACKS, AND EROSION CONTROL BERMS SHALL BE INSTALLED ACCORDING TO THE EROSION CONTROL 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 OF SILT SACKS AND/OR STRAW BALE BARRIERS AROUND EACH INLET AS NOTED ON THE PLANS. INLET PROTECTION MAY BE REMOVED ONLY AFTER FINISHED AREAS ARE PAVED AND THE DESIGNATED 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 STRAW BALES, SILT FENCE AND FILTER FABRIC SHALL REMAIN IN PLACE UNTIL SEEDINGS OR PLANTINGS HAVE BECOME 85-90% ESTABLISHED. THE CITY OF NEWBURYPORT CONSERVATION COMMISSION MUST APPROVE THE REMOVAL OR RELOCATION OF ANY OF THE STRAW BALES AND FILTER FABRIC. ONCE THE STRAWBALES AND SILT FENCE IS REMOVED THE AREAS ARE TO BE LOAM AND SEEDED 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 OWN 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 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 ON-SITE. IN ADDITION TO THE NORMAL WEEKLY INSPECTIONS, THE CONTRACTOR SHALL PERFORM INSPECTIONS 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 IMMEDIATELY PROVIDE ADDITIONAL ON-SITE EROSION AND SEDIMENTATION CONTROL MEASURES TO PREVENT FURTHER DEGRADATION OF THE AREA.
13. FOLLOWING THE TEMPORARY OR FINAL SEEDING, THE CONTRACTOR SHALL INSPECT WORKING AREAS 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 INCLUDING THE ORDER OF CONDITIONS FROM THE CITY OF NEWBURYPORT CONSERVATION COMMISSION. 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 CITY OF NEWBURYPORT.
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.
18. ALL DISTURBED OR EXPOSED AREAS SUBJECT TO EROSION SHALL BE STABILIZED WITH MULCH OR SEEDED 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 STRAW BALE FILTERS AND STONE CHECK DAMS UNTIL DISTURBED AREAS ARE PERMANENTLY STABILIZED.
20. STRAW BALE 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, INSPECTION SHALL TAKE PLACE WEEKLY AND BEFORE AND AFTER EACH RAINFALL EVENT.
22. ALL PROPOSED SLOPES EQUAL TO OR GREATER 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 STRAW BALES AND EXTRA SILTATION FENCING FOR INSTALLATION AT THE DIRECTION OF THE ENGINEER OR THE CITY 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, LOCAL STORMWATER PERMIT 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.
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 CITY OF NEWBURYPORT, EPA, DEP, OR ANY OTHER AUTHORITY REQUESTING WITHIN 3 DAYS OF EACH INSPECTION.
26. APPLICABLE WORK AND MATERIALS SHALL COMPLY WITH ALL CITY OF NEWBURYPORT, MA DEP, EPA CONSTRUCTION GENERAL PERMIT STANDARDS. ALL CONSTRUCTION SHALL CONFORM TO THE APPLICABLE SITE PLAN REGULATIONS FROM THE CITY OF NEWBURYPORT 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.

**EROSION & SEDIMENTATION CONTROL NOTES (CONTINUED):**

- 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 STRUCTURES CAPACITY TO SETTLE AND FILTER FLOW OR IS 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 IMMEDIATELY IF CONSTRUCTION WORK TEMPORARILY OR PERMANENTLY CEASES.
30. ALL DISCHARGES FROM POLLUTION SOURCES IS 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 RESEEDED 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 MAY 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 EROSION CONTROL PLANS 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.

**STORMWATER POLLUTION PREVENTION PLAN**

**2.1 GENERAL**

- 2.1.1. THE FIRST STAGE INVOLVES ACTIVITIES NEEDED TO ADDRESS STORMWATER MANAGEMENT; EXCAVATING MATERIAL DESIGNATED FOR OFF-SITE REMOVAL OR ON-SITE RELOCATION; AND FENCING SELECTED AREAS. STAGE ONE WILL PREPARE SITE FOR CONVENTIONAL CONSTRUCTION.
2.1.2. THE SECOND STAGE WILL CONSIST OF ROUTINE CONSTRUCTION INVOLVING DEMOLITION, PAVING, LANDSCAPING AND UTILITIES.
2.1.3. THERE ARE GENERAL PHASES OF CONSTRUCTION AS IDENTIFIED BELOW. IN EACH PHASE OF CONSTRUCTION, IMPLEMENT STANDARD EROSION AND SEDIMENT CONTROL PRACTICES PRIOR TO INITIATING EARTH DISTURBING ACTIVITIES, AND MAINTAIN THESE PRACTICES THROUGHOUT THE COURSE OF CONSTRUCTION.

TYPICAL PRACTICES TO BE APPLIED TO THE SITE INCLUDE THE FOLLOWING:

PRIOR TO DEMOLITION AND EARTH DISTURBANCE IN ANY WORK AREA, INSTALL SILTATION BARRIERS (BALES OR SILT FENCE WITH BALES) BETWEEN THE WORK AREA AND THE AREA(S) TO WHICH IT DRAINS.

DISCHARGE WATER FROM DEWATERING OPERATIONS TO A TEMPORARY SILTATION TRAP OR SEDIMENTATION BASIN. PROVIDE TEMPORARY BERMS AND SWALES TO DIVERT SURFACE WATER AWAY FROM THE AREAS THAT WILL BE EXPOSED BY CONSTRUCTION ACTIVITY TO MINIMIZE THE AMOUNT OF SURFACE WATER COMING INTO CONTACT WITH EXPOSED SOILS. PROVIDE STABLE OUTLETS FOR THESE DEVICES, AND LINE OR VEGETATE THESE DIVERSIONS TO PROVIDE FOR DEVICES, AND LINE OR VEGETATE THESE DIVERSIONS TO PROVIDE FOR THEIR STABILITY DURING CONSTRUCTION.

LIMIT THE EXTENT OF EXPOSED SOILS TO AREAS THAT CAN BE WORKED AND RESTABILIZED WITHIN THE CONSTRUCTION SEASON AND DURING THE SPECIFIC CONSTRUCTION PHASE. WHEN EARTHWORK CONSTRUCTION ACTIVITY IN AN AREA IS COMPLETE, STABILIZE THE AREA WITH A SUITABLE SURFACE AS DESCRIBED BELOW.

IN ADDITION TO THESE PRACTICES, FOLLOW THE SPECIAL PRACTICES DESCRIBED BELOW. COMPLY WITH THE DIRECTIONS OF THE OWNER'S REPRESENTATIVE TO ADDRESS EROSION AND SEDIMENTATION CONDITIONS THAT MAY ARISE ON A CASE BY CASE BASIS DURING CONSTRUCTION.

THE FOLLOWING IS A DESCRIPTION OF MINIMUM CONSTRUCTION REQUIREMENTS AND DOES NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITIES WITH REGARD TO DETERMINING THE ADEQUACY OF MEANS AND METHODS OF CONSTRUCTION.

**2.2 ESTIMATED CONSTRUCTION SEQUENCING**

THE FOLLOWING IS AN ESTIMATED CONSTRUCTION SEQUENCING. SOME ACTIVITIES MAY OCCUR AT THE SAME TIME RATHER THAN AT SEPARATE TIMES OR OUT OF SEQUENCE DUE TO ACTUAL FIELD CONDITIONS OR OTHER FACTORS. ACTUAL SCHEDULING WILL BE COMPLETED BY THE SITE CONTRACTOR.

(CONTRACTOR TO FOLLOW ANY ADDITIONAL PERMIT REQUIREMENTS OR STEPS AT NO ADDITIONAL COST TO THE OWNERS FROM EITHER STATE OR LOCAL PERMITS)

- INSTALL ALL EROSION CONTROL MEASURES INCLUDING BUT NOT LIMITED TO TEMPORARY STRAW BALE FILTERS, SILT SACKS, CONSTRUCTION ENTRANCES, AND STRAWBALES AND SILT FENCE.
• SETUP STAGING AND MATERIAL STORAGE / STOCKPILE AREAS.
• IF REQUIRED, CONSTRUCT TEMPORARY SILT / DEWATERING BASINS.
• PROTECT AND MARK ALL EXISTING ITEMS NOTED TO REMAIN.
• PERFORM DEMOLITION WORK. SURVEY AND IDENTIFY LIMITS OF SITE CLEARING. CONDUCT SITE CLEARING.
• PULVERIZE EXISTING PAVEMENT TO BE REMOVED AND DEMO EXISTING BUILDING SECTIONS AND MATERIALS AS NOTED.
• REMOVE EXISTING LOAM AND SUBSOIL AND STOCKPILE FOR REUSE.
• PERFORM ROUGH GRADING.
• INSTALL UNDERGROUND UTILITIES.
• PERFORM FINE GRADING; PLACE BINDER PAVEMENT COURSE.
• PLACE PAVEMENT TOP COURSE; CONSTRUCT SIDEWALKS AND ALL OTHER SITE IMPROVEMENTS.
• ERADICATE EXISTING PAVEMENT MARKINGS ON REMAINING PAVEMENT.
• INSTALL NEW PAVEMENT MARKINGS, SITE SIGNAGE & COMPLETE LANDSCAPING.
• REMOVE TEMPORARY SILT CONTROLS AFTER ONCE GIVEN APPROVAL BY NEWBURYPORT CONSERVATION COMMISSION AND SITE IS STABILIZED.

**OPERATION AND MAINTENANCE CONSTRUCTION ACTIVITIES:**

- 1. CONTRACTOR SHALL CONTACT THE CITY OF NEWBURYPORT AT LEAST THREE (3) DAYS PRIOR TO START OF CONSTRUCTION TO ENSURE ALL PRE-CONSTRUCTION MEASURES HAVE BEEN SUFFICIENTLY ADDRESSED.
2. INSTALL STRAWBALES AND SILT FENCE AS SHOWN ON THE EROSION CONTROL PLAN. INSTALL CONSTRUCTION FENCING IF DETERMINED TO BE NECESSARY AT THE COMMENCEMENT OF CONSTRUCTION.
3. INSTALL THE CONSTRUCTION ENTRANCE(S) AT THE LOCATION(S) SHOWN ON THE EROSION CONTROL PLAN.
4. SITE ACCESS SHALL BE ACHIEVED ONLY FROM THE DESIGNATED CONSTRUCTION ENTRANCE(S).
5. STOCKPILES SHALL BE STABILIZED WITH EROSION CONTROL MATTING OR TEMPORARY SEEDING WHENEVER PRACTICABLE, BUT IN NO CASE MORE THAN 14 DAYS AFTER THE CONSTRUCTION ACTIVITY IN THAT PORTION OF THE SITE HAS TEMPORARILY OR PERMANENTLY CEASED.
6. INSTALL SILT SACKS AND STRAWBALES AROUND EACH DRAIN INLET AS SOON AS PRACTICABLE.
7. ALL EROSION CONTROL MEASURES SHALL BE INSPECTED WEEKLY AND AFTER EVERY RAINFALL EVENT.
8. ALL EROSION CONTROL MEASURES SHALL BE MAINTAINED, REPAIRED OR REPLACED AS REQUIRED OR AT THE DIRECTION OF THE OWNER'S ENGINEER, THE CITY ENGINEER, OR THE CITY CONSERVATION AGENT.
9. SEDIMENT ACCUMULATION UP-GRADIENT OF THE STRAWBALES AND SILT FENCE GREATER THAN 6" IN DEPTH SHALL BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS.
10. IF IT APPEARS THAT SEDIMENT IS EXITING THE SITE, SILT SACKS SHALL BE INSTALLED IN ALL CATCH BASINS ADJACENT TO THE SITE. SEDIMENT ACCUMULATION ON ALL ADJACENT CATCH BASIN INLETS SHALL BE REMOVED AND THE SILT SACK REPLACED IF TORN OR DAMAGED.
11. INSTALL STONE OR DIVERSION SWALE STRAW BALE CHECK DAMS ON SITE AS REQUIRED DURING CONSTRUCTION. REFER TO THE SITE PREPARATION & DEMOLITION PLAN & DETAIL SHEET C-501.
12. THE CONTRACTOR SHALL COMPLY WITH THE GENERAL AND EROSION NOTES AS SHOWN ON THE SITE DEVELOPMENT PLANS AND SPECIFICATIONS.
13. THE STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSPECTED WEEKLY. THE ENTRANCES SHALL BE MAINTAINED BY ADDING ADDITIONAL CLEAN, ANGULAR, DURABLE STONE TO REMOVE THE SOIL FROM THE CONSTRUCTION VEHICLE TIRES WHEN EXITING THE SITE. IF SOIL IS STILL LEAVING THE SITE VIA THE CONSTRUCTION VEHICLE TIRES, ADJACENT ROADWAYS SHALL BE KEPT CLEAN BY STREET SWEEPING.
14. DUST POLLUTION SHALL BE CONTROLLED USING ON-SITE WATER TRUCKS AND OR AN APPROVED SOIL STABILIZATION PRODUCT.
15. CARE SHOULD BE TAKEN TO PREVENT DISCHARGE OF SEDIMENT TO ABUTTERS.

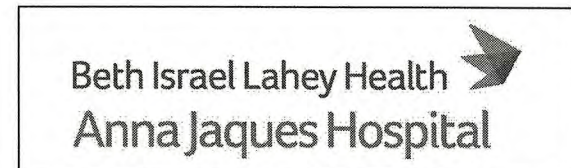
**2.3 MAINTENANCE**

- 2.3.1. DURING THE PERIOD OF CONSTRUCTION AND/OR UNTIL LONG TERM VEGETATION IS ESTABLISHED: SEEDED AREAS WILL BE FERTILIZED AND RESEED AS NECESSARY TO INSURE VEGETATION ESTABLISHMENT.
2.3.2. TEMPORARY SEDIMENTATION BASINS WILL BE CHECKED AFTER EACH SIGNIFICANT RAINFALL AND NO LESS THAN WEEKLY, AND CLEANED AS NEEDED TO RETAIN STORAGE CAPACITY.
2.3.3. TEMPORARY DRAINAGE SWALES WILL BE CHECKED WEEKLY AND REPAIRED WHEN NECESSARY.
2.3.4. THE STRAWBALE AND SILTATION FENCING BARRIERS AND OTHER EROSION AND SEDIMENT CONTROL MEASURES/DEVICES SHALL BE INSPECTED, CLEANED, REPLACED AND/OR REPAIRED AS NECESSARY, AND NO LESS THAN WEEKLY, AND AFTER EACH SIGNIFICANT RAINFALL. ACCUMULATED SEDIMENTS SHALL BE REMOVED WHEN THEY REACH HALF THE HEIGHT OF THE BARRIER.

**2.4. GENERAL**

- 2.4.1. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CONSTRUCTED IN ACCORDANCE WITH (USDA) NATURAL RESOURCES CONSERVATION SERVICE (NRCS, FORMERLY SCS) GUIDELINES AND ALL LOCAL MUNICIPAL REGULATIONS.
2.4.2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTABLISHING AND MAINTAINING ALL CONTROL POINTS AND BENCH MARKS NECESSARY FOR THE WORK.
2.4.3. EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO THE COMMENCEMENT OF ANY SITEWORK OR EARTHWORK OPERATIONS. SHALL BE MAINTAINED DURING CONSTRUCTION, AND SHALL REMAIN IN PLACE UNTIL ALL SITEWORK IS COMPLETE AND GROUNDCOVER IS ESTABLISHED.
2.4.4. ALL WORK SHALL BE IN ACCORDANCE WITH THE PERMITS AND APPROVALS ISSUED BY THE LOCAL PLANNING BOARD, THEIR AGENTS, AND THE CONSTRUCTION SPECIFICATIONS.
2.4.5. STOCKPILES SHALL BE SURROUNDED ON THEIR PERIMETERS WITH STAKED BALES AND/OR SILTATION FENCES TO PREVENT AND/OR CONTROL SILTATION AND EROSION.
2.4.6. TOPS OF STOCKPILES SHALL BE COVERED IN SUCH A MANNER THAT STORMWATER DOES NOT INFILTRATE THE MATERIALS AND THEREBY RENDER THE SAME UNSUITABLE FOR FILL USE.

IF APPLICABLE, EFFORTS SHALL BE MADE TO AVOID STOCKPILING CUT GLACIAL TILL SOILS SINCE STOCKPILING INCREASES EXPOSURE TO PRECIPITATION AND PROVIDES GREATER OPPORTUNITY FOR FROST PENETRATION. SOME OF THE STEPS IN SEQUENCING MAY OCCUR SIMULTANEOUSLY, PARTICULARLY CUT AND FILL OPERATIONS, IN AN EFFORT TO AVOID STOCKPILING.

- 2.4.7. ALL DISTURBED OR EXPOSED AREAS SUBJECT TO EROSION SHALL BE STABILIZED WITH MULCH OR SEEDED 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.
2.4.8. THE LOCATION OF TEMPORARY DRAINAGE SWALES AND SEDIMENTATION TRAPS ARE APPROXIMATE ONLY AND SHALL BE RELOCATED AS REQUIRED AS CONSTRUCTION PROGRESSES.
2.4.9. BALE DIKES SHALL BE CONSTRUCTED AT ALL EXISTING & PROPOSED CATCH BASINS LOCATED IN AREAS SUBJECT TO STORMWATER RUN-OFF FROM PROPOSED CONSTRUCTION, OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE. NO SEDIMENTS SHALL ENTER THE OFF-SITE DRAINAGE SYSTEMS AT ANY TIME. SEDIMENT DISCHARGE TO OFF-SITE PROPERTY IS PROHIBITED.
2.4.10. CULVERT/PIPE INLETS AND OUTFALLS SHALL BE PROTECTED FROM INCOMING SILT UNTIL ALL DISTURBED AREAS TRIBUTARY TO THEM ARE PERMANENTLY STABILIZED.
2.4.11. ANY DEWATERING REQUIRED DURING CONSTRUCTION ON THE SITE SHALL DISCHARGE INTO A DEWATERING FILTER OR THE TEMPORARY SILT BASIN PRIOR TO DISCHARGE TO THE EXISTING DETENTION BASIN OR TO OFF-SITE.
2.4.12. BALES AND SILTATION FENCING AND TEMPORARY SILT BASIN SHALL BE INSPECTED NO LESS THAN WEEKLY AND AFTER EACH SIGNIFICANT RAINFALL AND REPLACED AS REQUIRED.
2.4.13. ALL PROPOSED NON-RIPRAP SLOPES STEEPER THAN 3:1 SHALL BE STABILIZED WITH EROSION CONTROL FABRIC AND PROTECTED FROM EROSION.
2.4.14. THE CONTRACTOR SHALL KEEP ON SITE AT ALL TIMES ADDITIONAL BALES AND EXTRA SILTATION FENCING FOR INSTALLATION AT THE DIRECTION OF THE OWNER'S REPRESENTATIVE OR THE MUNICIPAL AGENTS TO MITIGATE ANY EMERGENCY CONDITION.
2.4.15. BORINGS WERE TAKEN FOR THE PURPOSE OF DESIGN AND SHOW CONDITIONS AT BORING POINTS ONLY. THEY DO NOT NECESSARILY SHOW THE NATURE OF ALL MATERIALS TO BE ENCOUNTERED DURING CONSTRUCTION.
2.4.16. 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.
2.4.17. DISPOSAL OF ALL DEMOLISHED MATERIALS IS THE RESPONSIBILITY OF THE CONTRACTOR AND MUST BE OFF-SITE IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL MUNICIPAL REQUIREMENTS.
2.4.18. THE CONTRACTOR SHALL PROTECT AND/OR CAP OFF ALL EXISTING ON- SITE UTILITY SERVICES DESIGNATED ON THESE DRAWINGS. SERVICES SHALL BE CAPPED OFF WHERE SAME ENTER THE PERIMETER PROPERTY LINE.
2.4.19. THE LIMIT OF WORK LINE FOR THE AREA TO BE CLEARED AND GRUBBED SHALL BE THE SAME AS THE LIMIT OF WORK LINE NECESSARY FOR GRADING PURPOSES, (I.E., THE GRADING LIMITS AROUND THE PERIMETER OF THE PROJECT AREA).
2.4.20. THE AREA OR AREAS OF ENTRANCE AND EXIT TO AND FROM THE SITE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY. ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHT-OF-WAY MUST BE REMOVED IMMEDIATELY.
2.4.21. FOLLOWING THE ADDITION OF A BINDER COURSE, THE CONTRACTOR SHALL SWEEP ALL ON-SITE PAVEMENT, IF NECESSARY, UNTIL ALL SITE CONSTRUCTION IS COMPLETED.


Anna Jaques Hospital

OR Building Expansion

25 Highland Ave, Newburyport, MA 01950



9 Billings Road North Quincy, MA 02171 Tel: 617.769.6300 Fax: 617.769.6399

MEP/FP ENGINEER R.W. Sullivan Engineering 529 Main St, Suite 203 Boston, MA 02129 Tel: 617.523.9227

LAND SURVEY, LANDSCAPE ARCHITECT & CIVIL ENGINEER Allen & Major Associates, Inc. 100 Commerce Way, Suite 5 Woburn, MA 01891 Tel: 781.935.6889

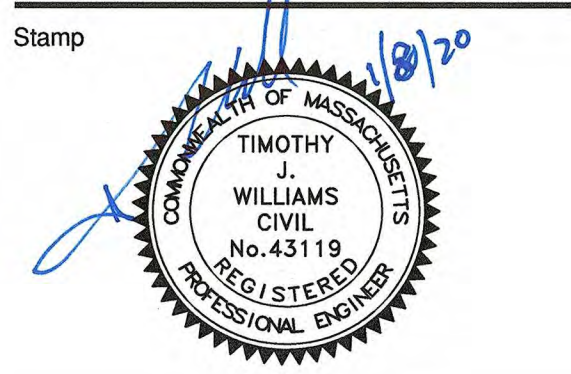
SCHLICK ENGINEERS Schlick Engineering, LLC. 10 Main Street Lakeville, MA 02347 Tel: 774.419.3796

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Table with columns: Mark, Revision, Date. Empty table for tracking changes.



Drawing Title: ABBREVIATIONS & NOTES

Scale: NO SCALE

Drawing Number: C-002

JACA Project Number 190042

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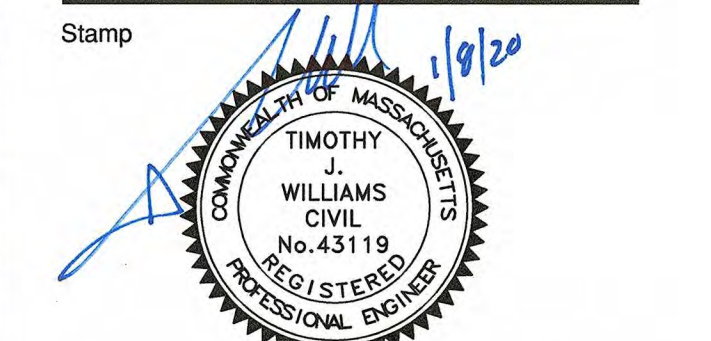


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Mark	Revision	Date



Drawing Title  
**LAYOUT & MATERIALS PLAN**

Scale: 1" = 20'  
Drawing Number:

**C-102**

JACA Project Number 190042

LEGEND	
PROPERTY LINE UNCONFIRMED (SEE NOTES)	---
SIGN	+
PROP. BOLLARD	•
PROP. BUILDING	[Hatched Area]
BUILDING ARCHITECTURE	[Line Style]
BUILDING INTERIOR WALLS	[Line Style]
PROP. CURB	[Line Style]
RETAINING WALL	[Line Style]
PARKING STRIPING	[Line Style]
CONC. SIDEWALK	[Line Style]
ADA DET. WARNING SURFACE	[Line Style]
PROP. PAVERS	[Line Style]
SAW-CUT LINE	---

**NOTES:**

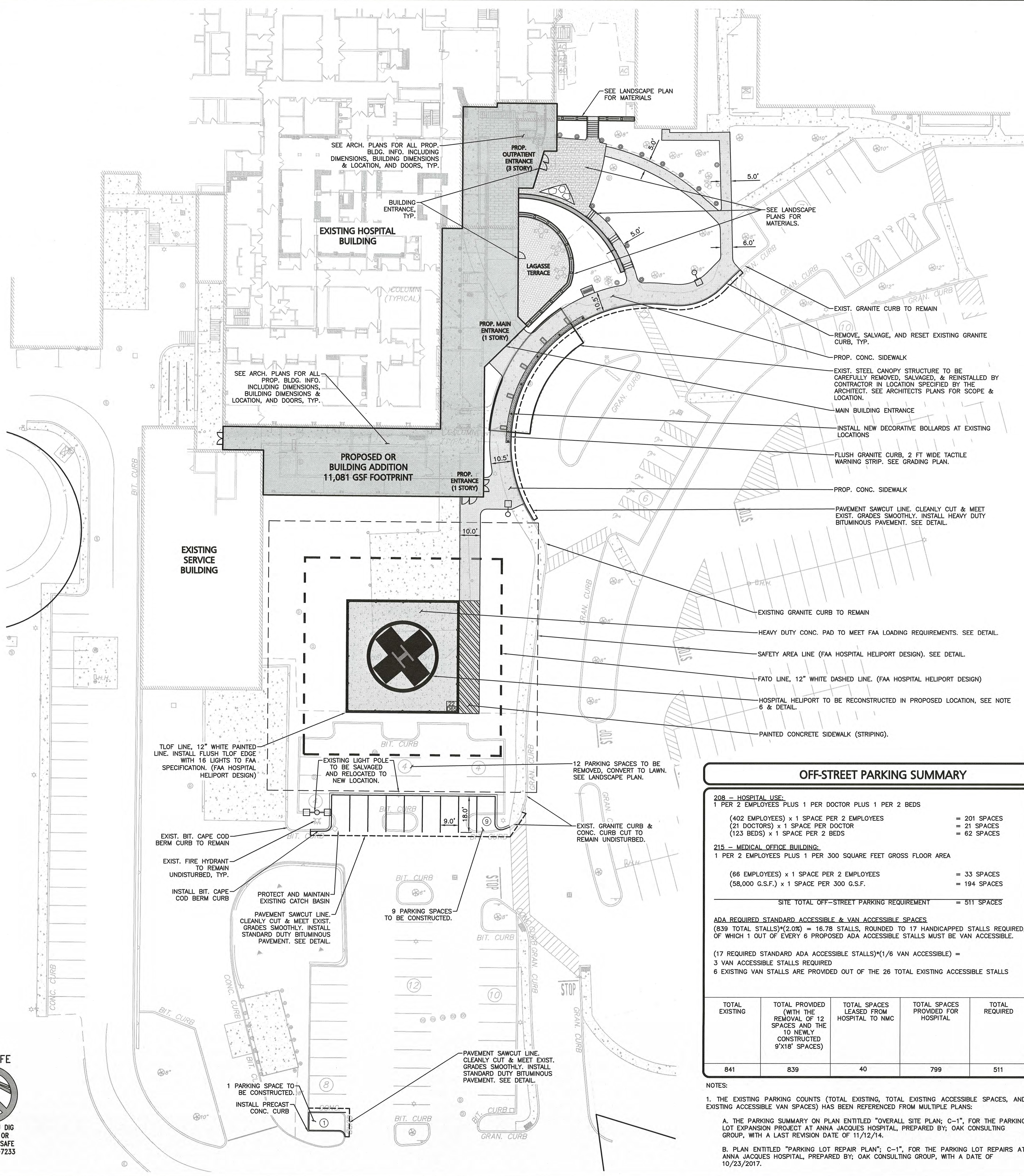
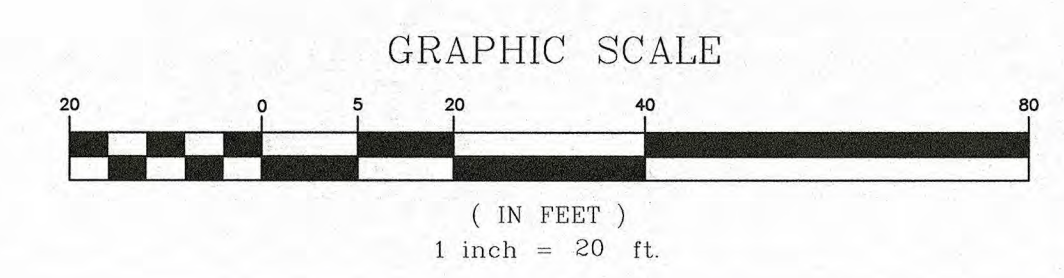
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NEWBURYPORT DEPT. OF PUBLIC WORKS: 1-978-465-4464
- HOSPITAL HELIPORT DESIGN BASED UPON FAA DESIGN REGULATIONS (AC 150/5390-2C, CHAPTER 4 HOSPITAL HELIPORTS). THE DESIGN HAS BEEN BASED UPON THE COAST GUARD'S SIK MH-60 JAYHAWK AS THEY WILL BE UTILIZING THE HELIPORT AND THIS IS A LARGER HELICOPTER THAN THE MIDLIGHT SIK 576. WITHIN THE FAA REGULATIONS THE SIK MH-60 BLACKHAWK DIMENSIONS WERE UTILIZED AS THEY ARE SIMILAR TO THE SIK MH-60 JAYHAWK. SEE DETAILS.
- BUILDING FOOTPRINT PROVIDED TO ALLEN & MAJOR ASSOCIATES FROM CLIENT JACA ARCHITECTS ON NOVEMBER 14, 2019. SEE ARCHITECTURAL PLANS BY JACA ARCHITECTS FOR BUILDING LOCATION, LAYOUT, UTILITY LOCATIONS, DOOR LOCATIONS AND ALL ARCHITECTURAL DETAILS.

OFF-STREET PARKING SUMMARY				
<b>208 - HOSPITAL USE:</b>				
1 PER 2 EMPLOYEES PLUS 1 PER DOCTOR PLUS 1 PER 2 BEDS				
(402 EMPLOYEES) x 1 SPACE PER 2 EMPLOYEES	=	201 SPACES		
(21 DOCTORS) x 1 SPACE PER DOCTOR	=	21 SPACES		
(123 BEDS) x 1 SPACE PER 2 BEDS	=	62 SPACES		
<b>215 - MEDICAL OFFICE BUILDING:</b>				
1 PER 2 EMPLOYEES PLUS 1 PER 300 SQUARE FEET GROSS FLOOR AREA				
(66 EMPLOYEES) x 1 SPACE PER 2 EMPLOYEES	=	33 SPACES		
(58,000 G.S.F.) x 1 SPACE PER 300 G.S.F.	=	194 SPACES		
SITE TOTAL OFF-STREET PARKING REQUIREMENT = 511 SPACES				
<b>ADA REQUIRED STANDARD ACCESSIBLE &amp; VAN ACCESSIBLE SPACES</b>				
(839 TOTAL STALLS)*(2.0%) = 16.78 STALLS, ROUNDED TO 17 HANDICAPPED STALLS REQUIRED, OF WHICH 1 OUT OF EVERY 6 PROPOSED ADA ACCESSIBLE STALLS MUST BE VAN ACCESSIBLE.				
(17 REQUIRED STANDARD ADA ACCESSIBLE STALLS)*(1/6 VAN ACCESSIBLE) = 3 VAN ACCESSIBLE STALLS REQUIRED				
6 EXISTING VAN STALLS ARE PROVIDED OUT OF THE 26 TOTAL EXISTING ACCESSIBLE STALLS				
TOTAL EXISTING	TOTAL PROVIDED (WITH THE REMOVAL OF 12 SPACES AND THE 10 NEWLY CONSTRUCTED 9'X18' SPACES)	TOTAL SPACES LEASED FROM HOSPITAL TO NMC	TOTAL SPACES PROVIDED FOR HOSPITAL	TOTAL REQUIRED
841	839	40	799	511

- NOTES:**
- THE EXISTING PARKING COUNTS (TOTAL EXISTING, TOTAL EXISTING ACCESSIBLE SPACES, AND EXISTING ACCESSIBLE VAN SPACES) HAS BEEN REFERENCED FROM MULTIPLE PLANS:
  - A. THE PARKING SUMMARY ON PLAN ENTITLED "OVERALL SITE PLAN; C-1", FOR THE PARKING LOT EXPANSION PROJECT AT ANNA JACQUES HOSPITAL, PREPARED BY: OAK CONSULTING GROUP, WITH A LAST REVISION DATE OF 11/12/14.
  - B. PLAN ENTITLED "PARKING LOT REPAIR PLAN"; C-1, FOR THE PARKING LOT REPAIRS AT ANNA JACQUES HOSPITAL, PREPARED BY: OAK CONSULTING GROUP, WITH A DATE OF 10/23/2017.

LAND USAGE TABLE - GENERAL ACUTE CARE MEDICAL (M-1) USE: 208 - HOSPITAL / 215 - MEDICAL OFFICE BUILDING			
ITEM	EXISTING <sup>1</sup>	PROPOSED <sup>1,3,4</sup>	REQUIRED/ALLOWED
LOT AREA (S.F.)	10.56 AC. (459,913 S.F.)	10.56 AC. <sup>1</sup> (459,913 S.F.)	4.60 AC. (200,000 S.F.)
FRONTAGE (FEET)	1,451'	1,451'	200'
FRONT YARD SETBACK (FEET)	20'	20'	20'
SIDE YARD SETBACK (FEET)	20'	20'	20'
REAR YARD SETBACK (FEET)	20'	20'	20'
MAX. BUILDING HEIGHT (FEET)	39.4'	36.5'	40'
LOT COVERAGE (%) <sup>2</sup>	20% (91,983 S.F.)	22% (101,323 S.F.)	50% (229,956 S.F.)
OPEN SPACE (%)	N/A	N/A	N/A

- NOTES:**
- ALL EXISTING DIMENSIONAL CALCULATIONS & PROPOSED FRONT YARD, SIDE YARD, REAR YARD SETBACKS, HAVE BEEN REFERENCED FROM THE PARKING SUMMARY ON PLAN TITLED "OVERALL SITE PLAN", FOR THE EXPANSION PROJECT AT ANNA JACQUES HOSPITAL, PREPARED BY: OAK ENGINEERS, DATED: 9/8/2010. THE PROPOSED PROJECT DOES NOT CHANGE THE FRONT YARD, SIDE YARD, & REAR YARD SETBACKS AS THE PROPOSED BUILDING ADDITION IS LOCATED ON THE INTERIOR OF THE PROPERTY AND FURTHER AWAY FROM THE PROPERTY LINE THAN THE EXISTING BUILDING.
  - LOT COVERAGE, THAT PERCENTAGE OF THE LOT AREA WHICH IS DEVOTED TO BUILDING AREA. (SECTION II - DEFINITIONS 2.5.)
  - PROPOSED BUILDING HEIGHT & STORIES IS FROM JACA ARCHITECTS ON DECEMBER 16, 2019.
  - PROPOSED BUILDING FOOTPRINT G.S.F. IS FROM JACA ARCHITECTS ON DECEMBER 16, 2019.



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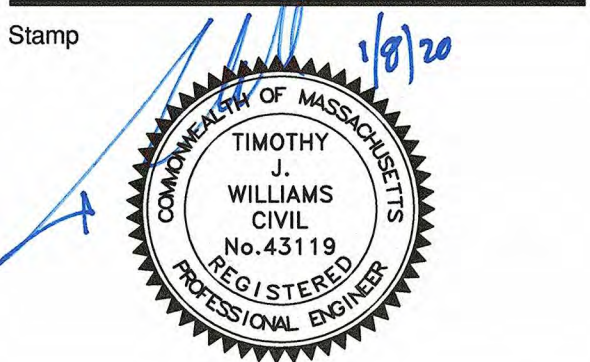


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Drawing Title  
**GRADING &  
DRAINAGE PLAN**

Scale: 1" = 20'

Drawing Number:

**C-103**

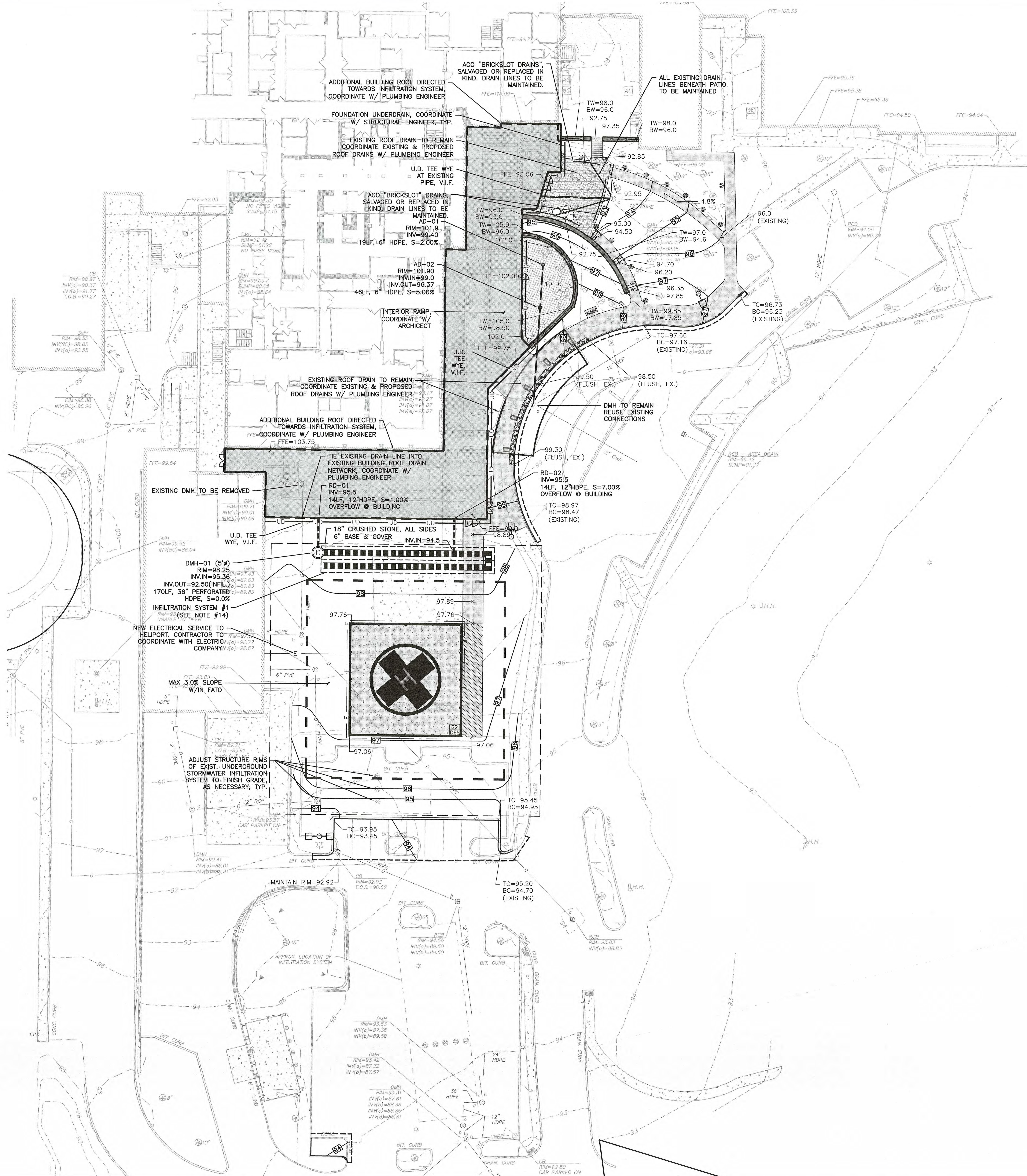
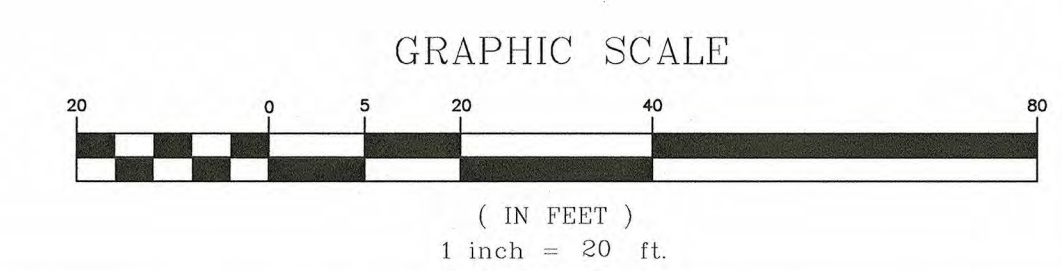
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**LEGEND**

- DRAIN MANHOLE
- AREA DRAIN
- DRAIN LINE
- 5' CONTOUR
- 1' CONTOUR
- SPOT GRADE
- INFILTRATION SYSTEM
- FOUNDATION UNDERDRAIN

- GRADING & DRAINAGE NOTES:**
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  - CONTRACTOR SHALL REMOVE OR ROUTE ANY EXISTING UTILITIES THAT CONFLICT WITH EXISTING IMPROVEMENTS.
  - ALL ELEVATIONS REFER TO NAVD 88.
  - ROOF DRAIN LOCATIONS TO BE COORDINATED W/ ARCHITECT.
  - PIPE DIMENSIONS ARE MEASURED FROM THE INSIDE FACE OF THE STRUCTURE.
  - EXISTING PAVEMENT SHALL BE SAW-CUT AND PAVEMENT JOINT SHALL BE INSTALLED WHERE NECESSARY TO ENSURE A SMOOTH CONTINUOUS GRADE.
  - IN LANDSCAPED AREAS THE TOP ELEVATION OF DRAIN RIM/COVER SHALL BE FLUSH WITH FINISH GRADE OF THE LOAM. IN PAVED AREAS THE TOP ELEVATIONS OF MANHOLES SHALL MATCH FINISH GRADE.
  - ALL EXIST. STRUCTURES NEAR AREA OF WORK & NEWLY INSTALLED CATCH BASINS, MANHOLES, AND WATER QUALITY STRUCTURES TO BE CLEANED OUT PRIOR TO FINAL APPROVAL TO REMOVE ANY CONSTRUCTION SILT AND DEBRIS.
  - 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 PIPE ENTERING STRUCTURES SHALL BE GROUTED TO ASSURE CONNECTION AT STRUCTURE IS WATERTIGHT.
  - CONTRACTOR SHALL ENSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS FOR ALL NATURAL AND PAVED AREAS.
  - ALL DRAINAGE SHALL CONFORM TO LOCAL REQUIREMENTS.
  - THE CONTRACTOR SHALL CONFIRM, BY TEST PIT, THE SOILS SURROUNDING INFILTRATION SYSTEM #1 PRIOR TO CONSTRUCTION.
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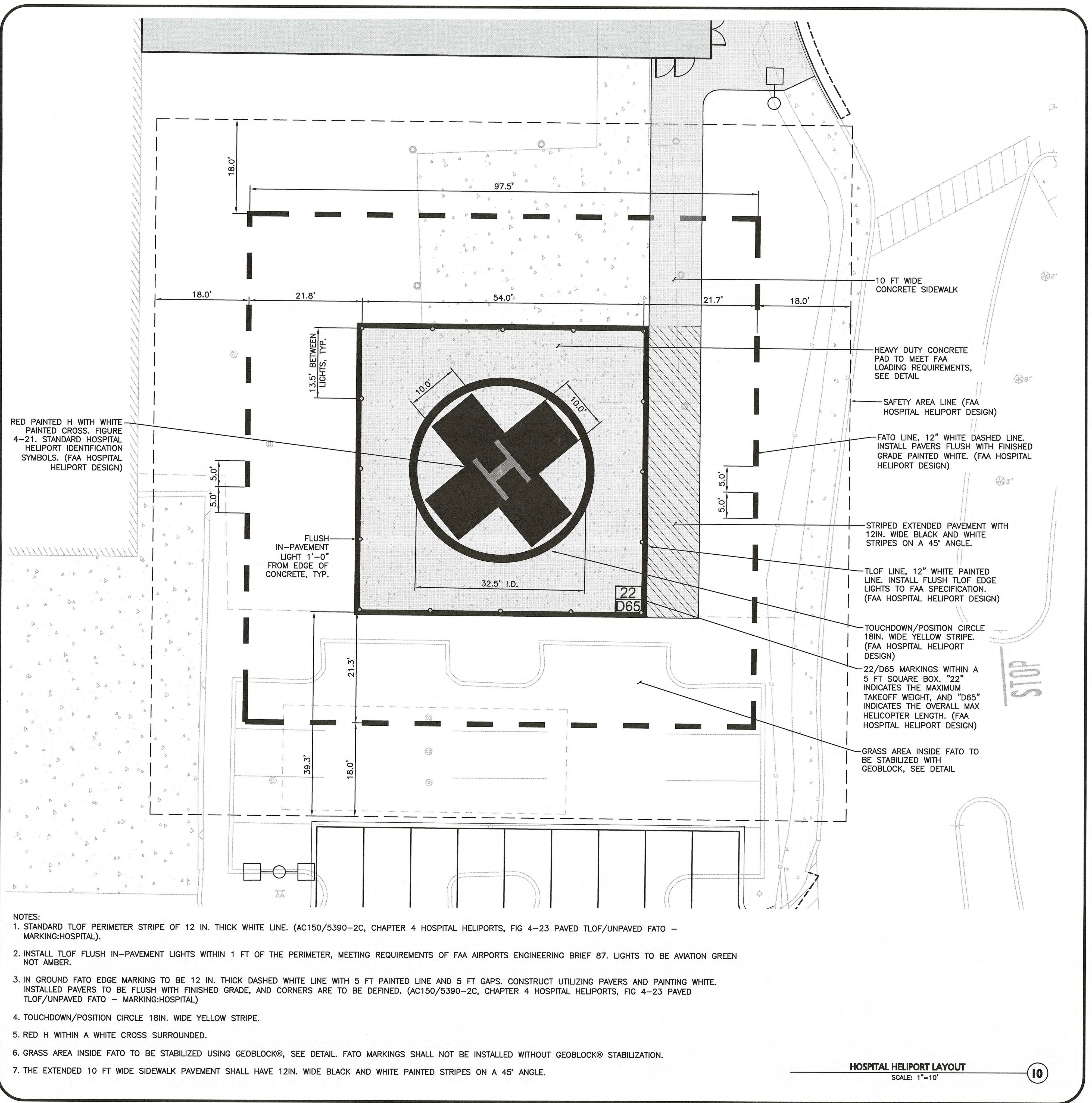
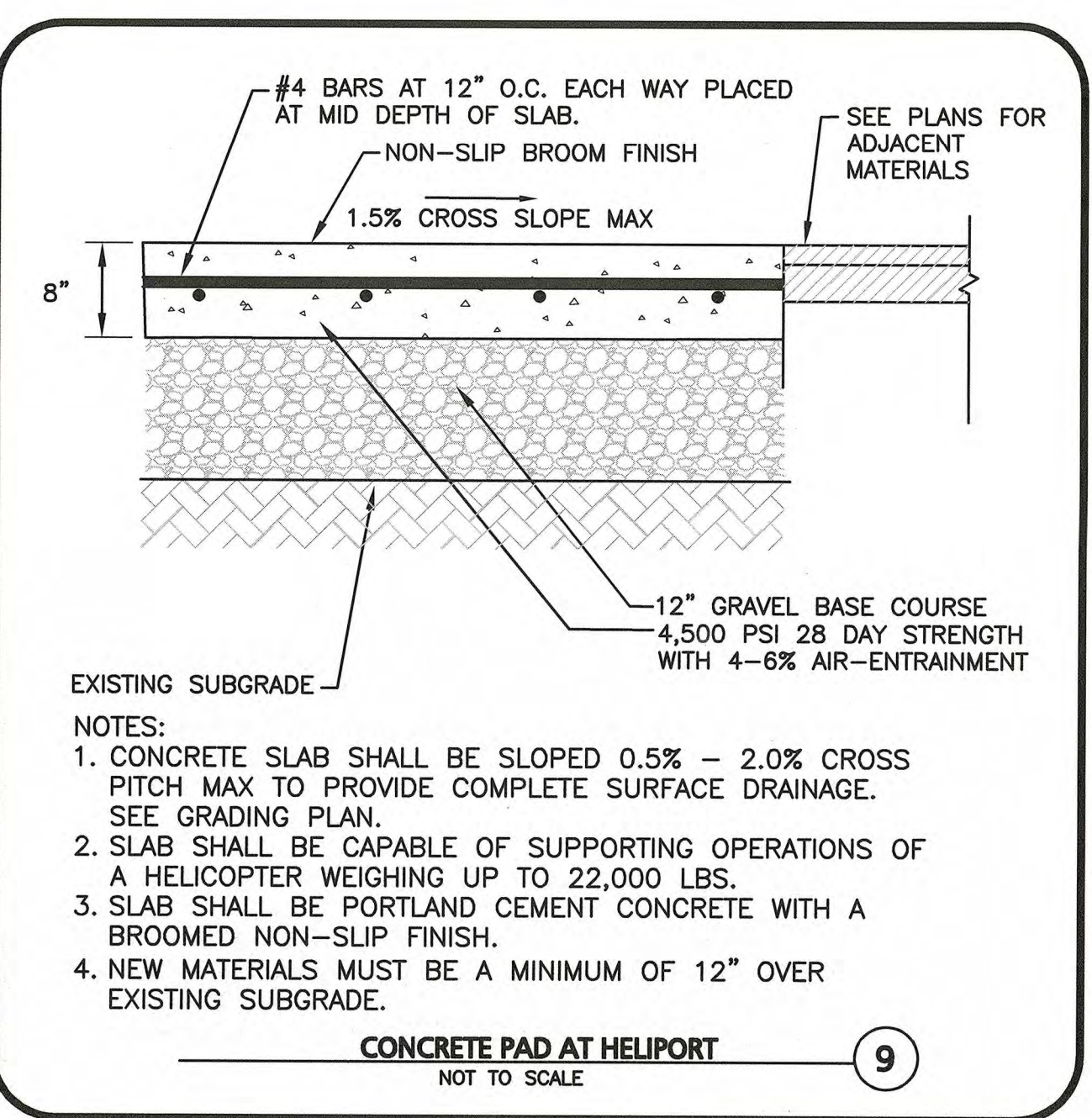
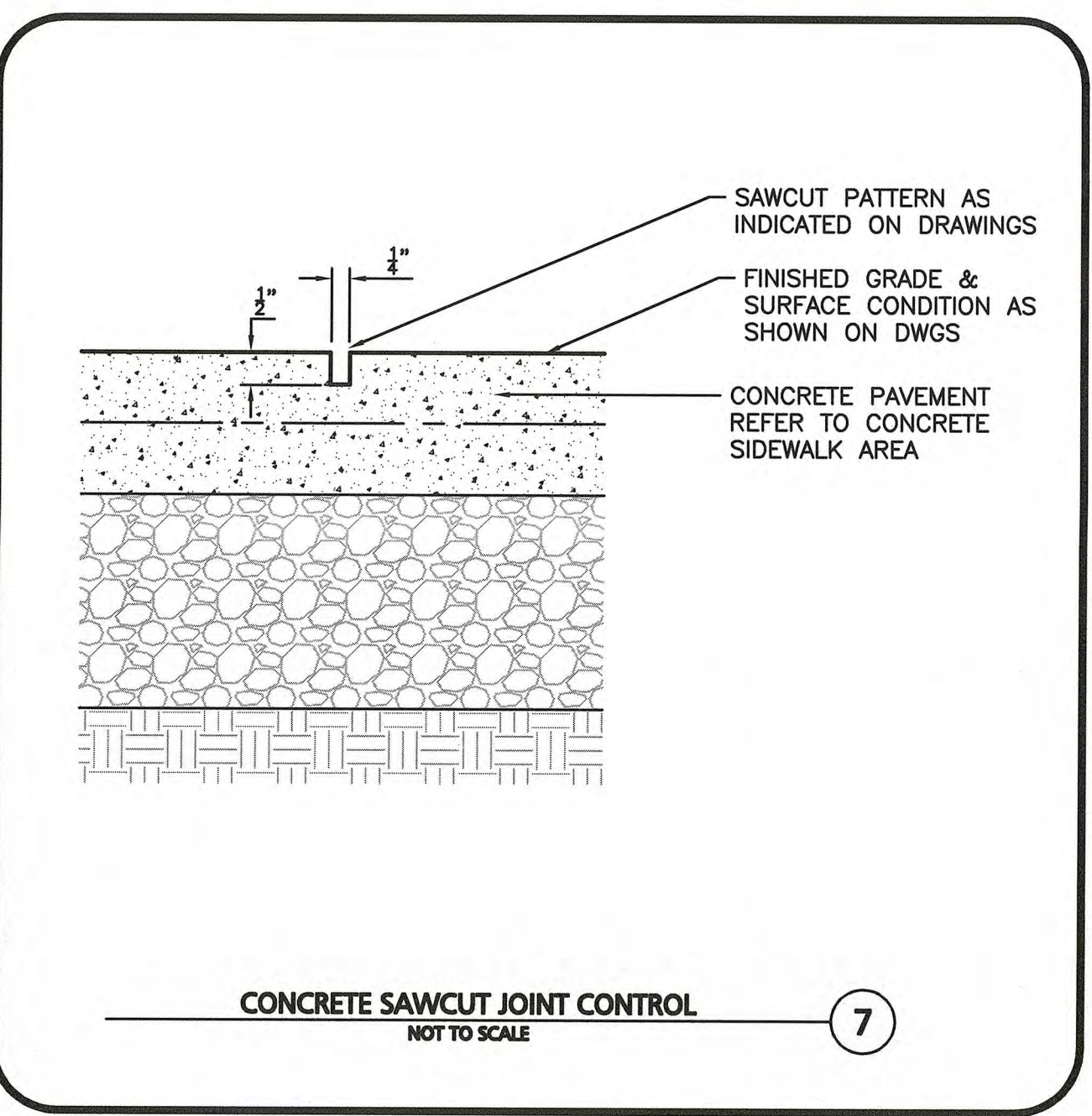
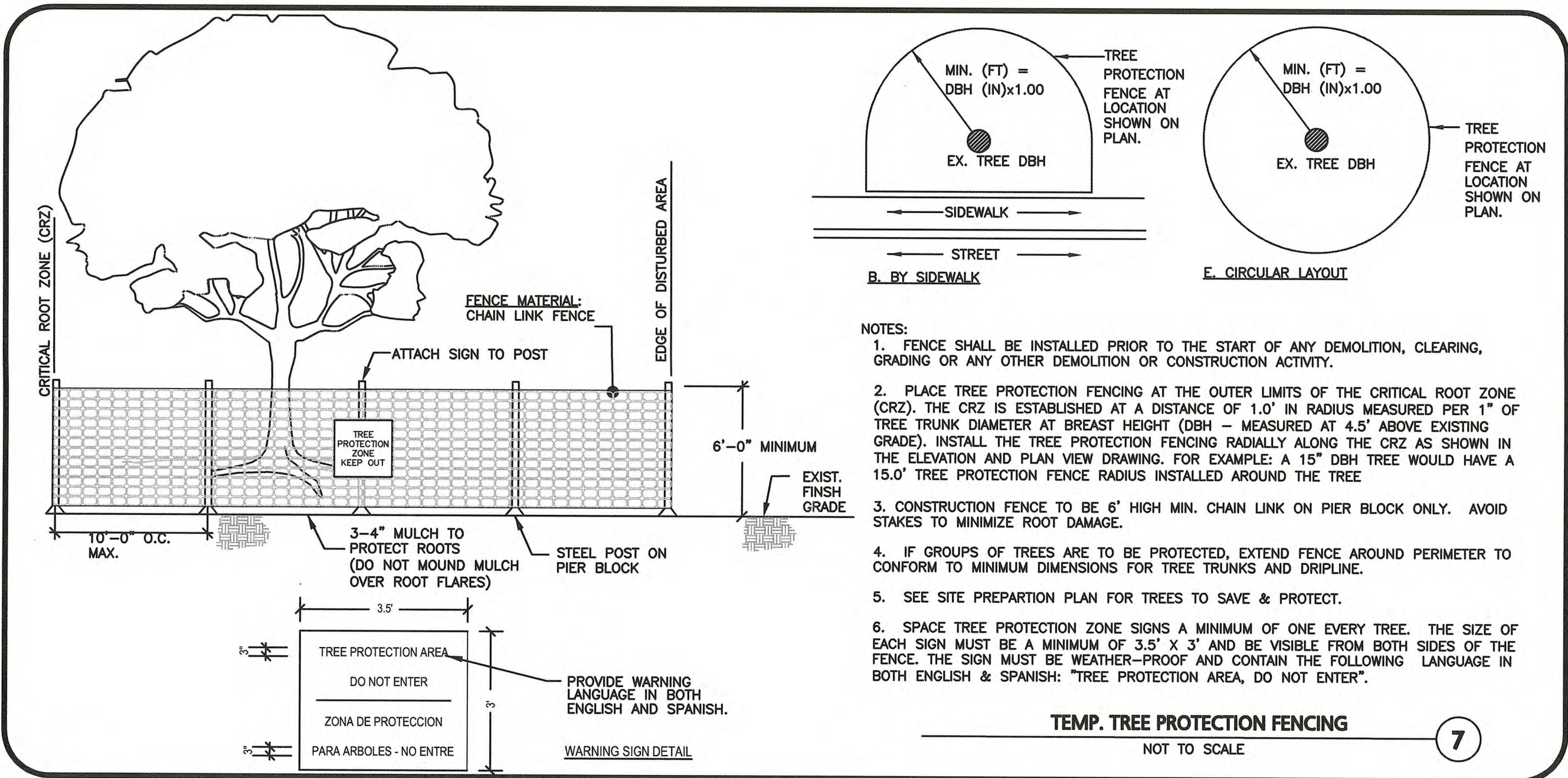
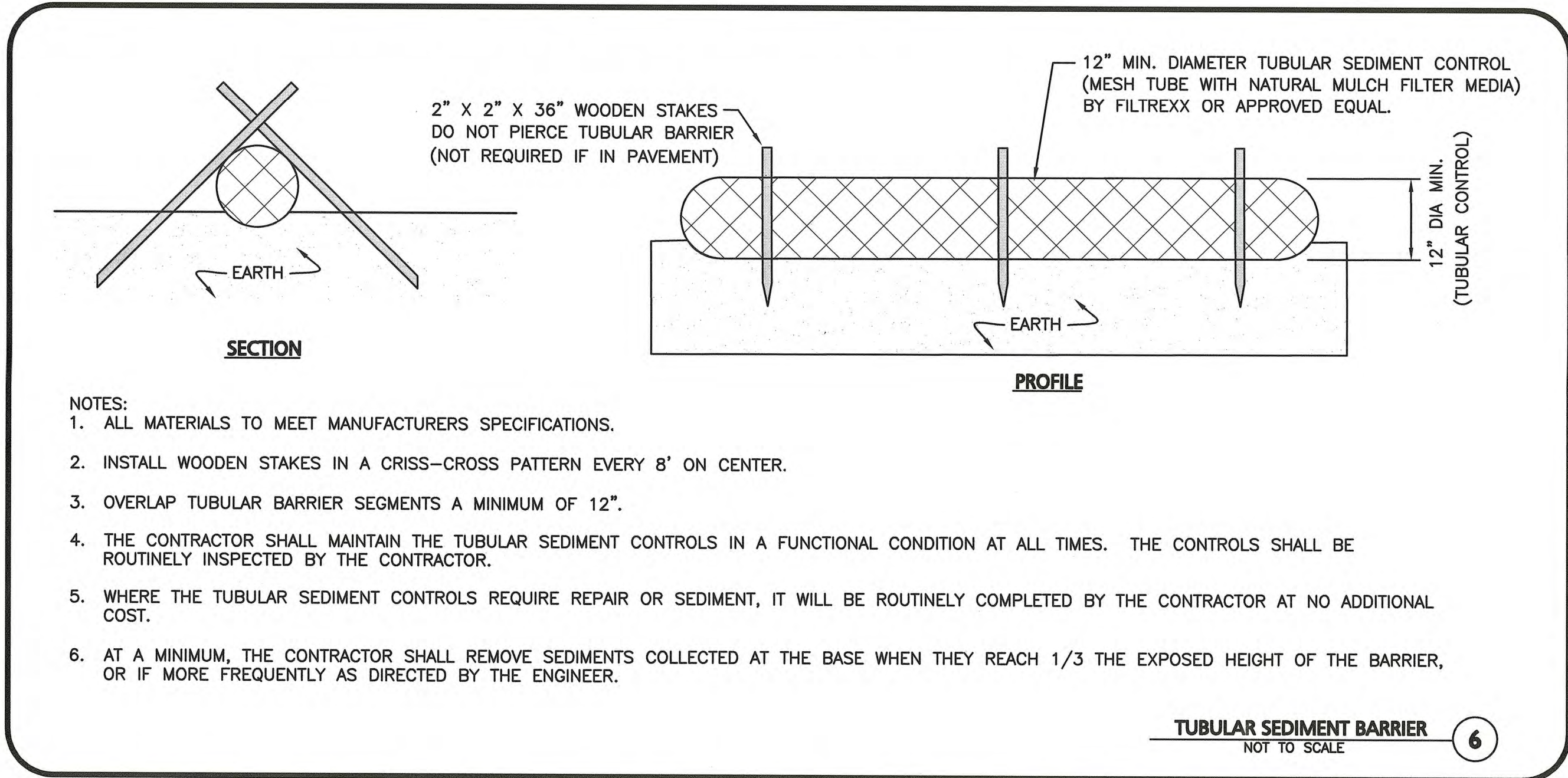
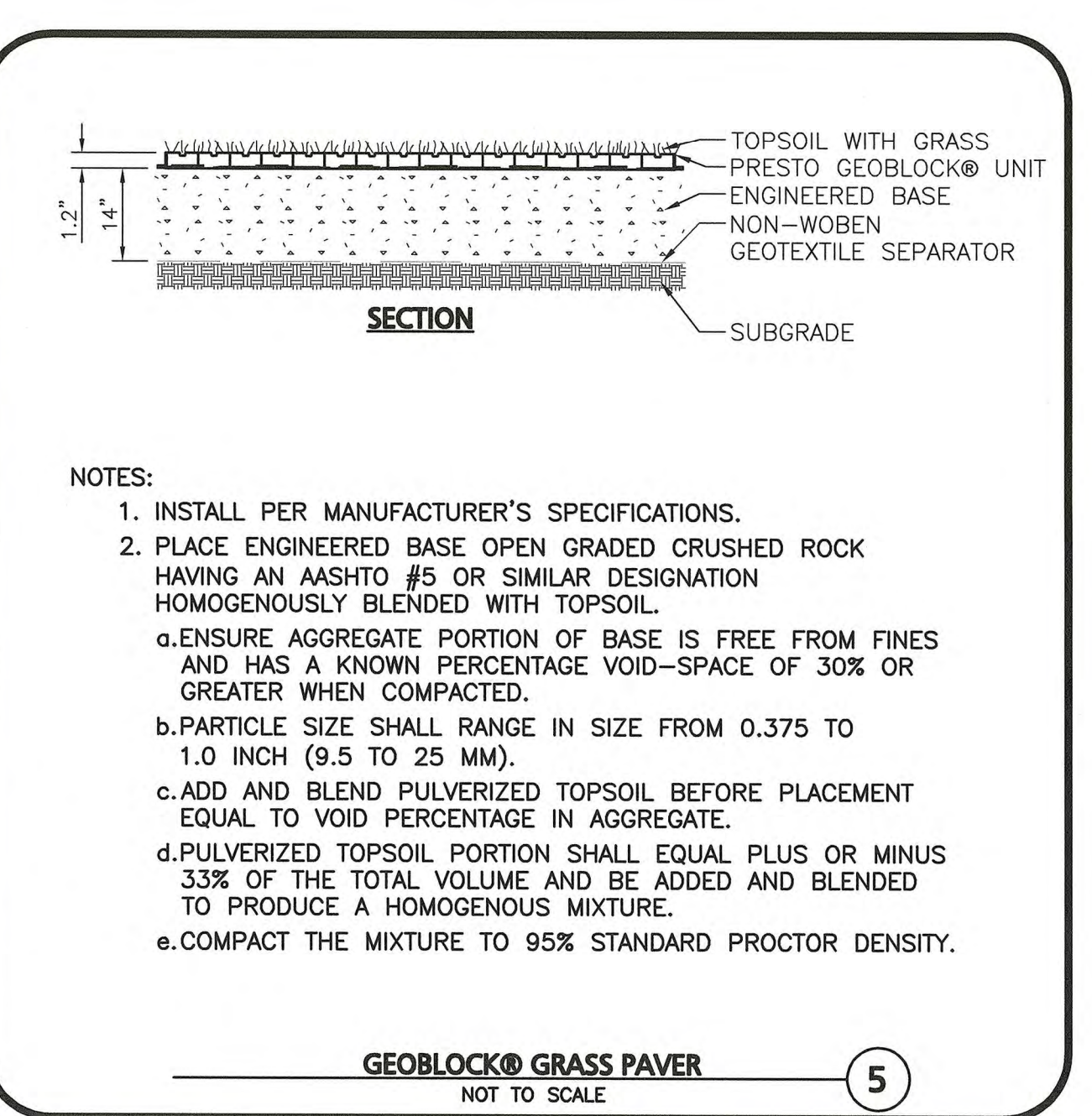
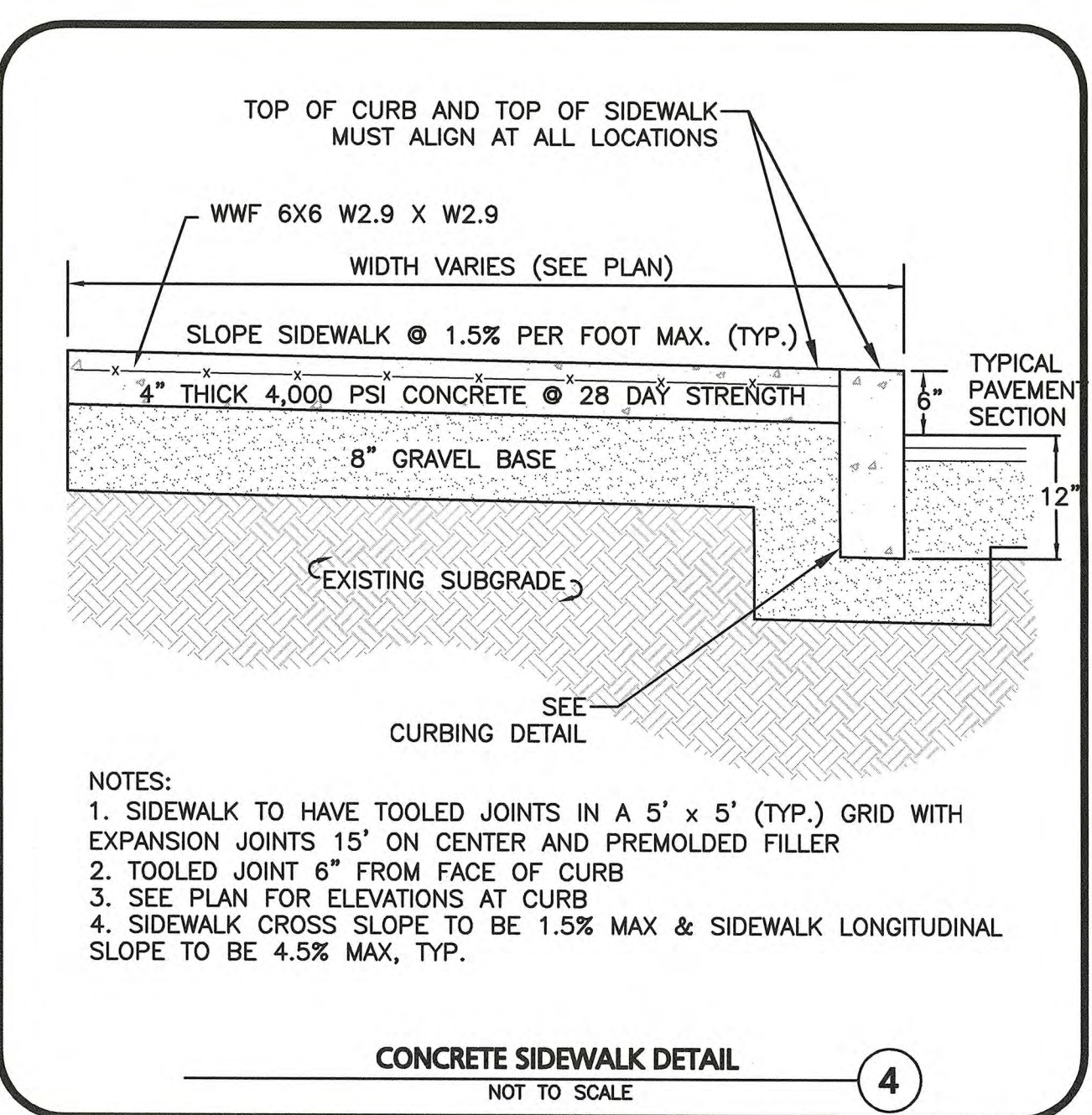
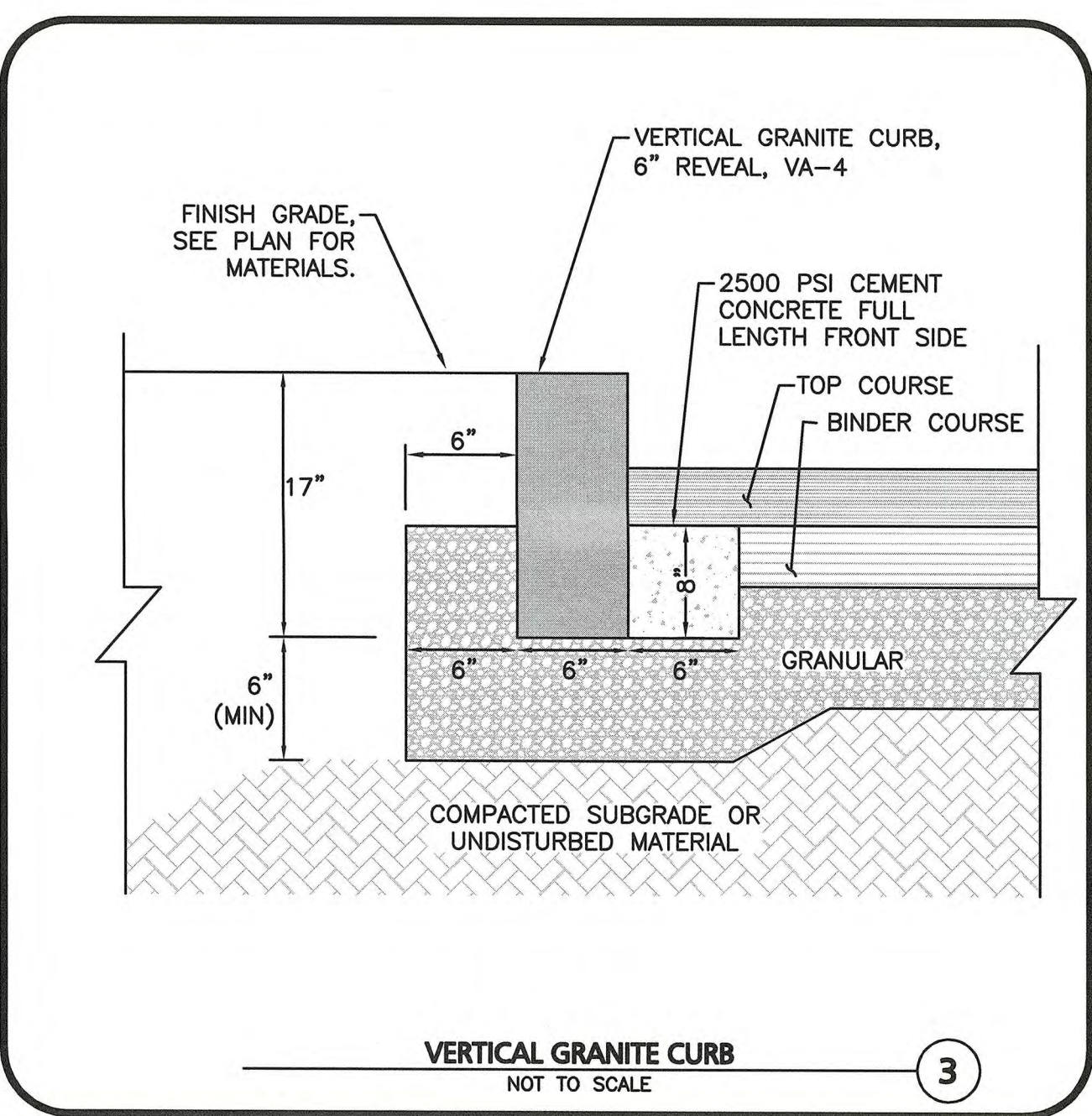
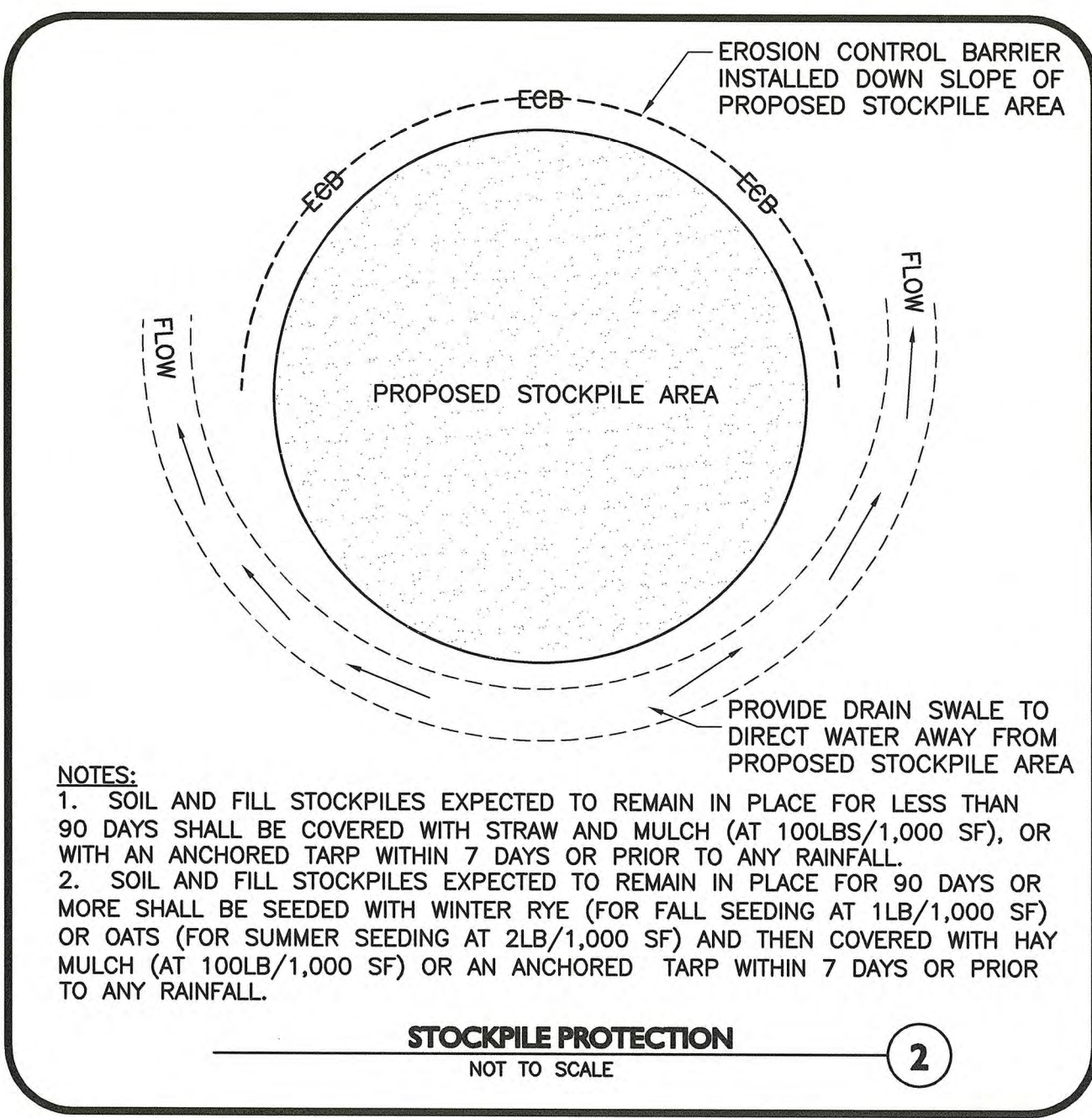
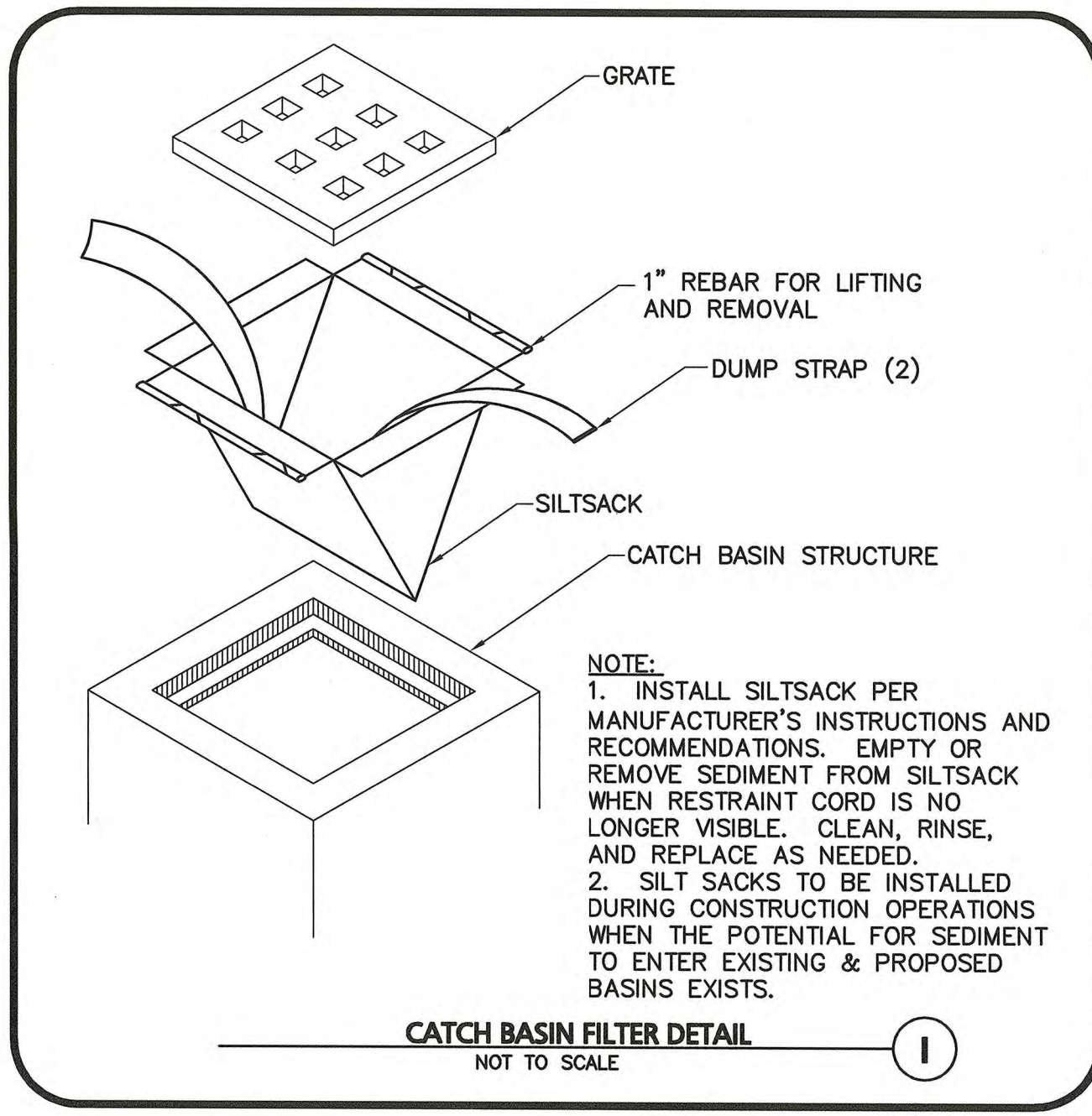


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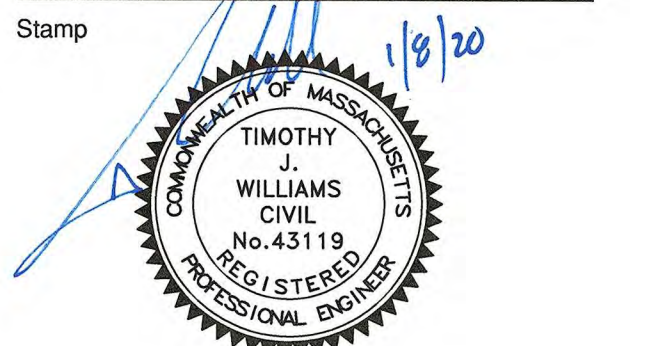


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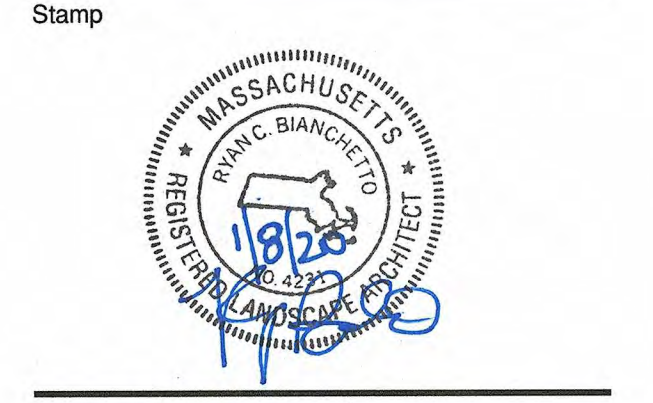
**STRUCTURAL ENGINEER**  
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Drawing by: AM SM RB TJW  
Drawing checked by: RB TJW  
AMM project number: 2699-01

ISSUE	DATE
ISSUED FOR LOCAL PERMITTING	11-25-19
ISSUED FOR SITE PLAN REVIEW AND SPECIAL PERMIT	01-08-20

Mark	Revision	Date



Drawing Title  
**LANDSCAPE DETAILS**

Scale: NTS  
Drawing Number:

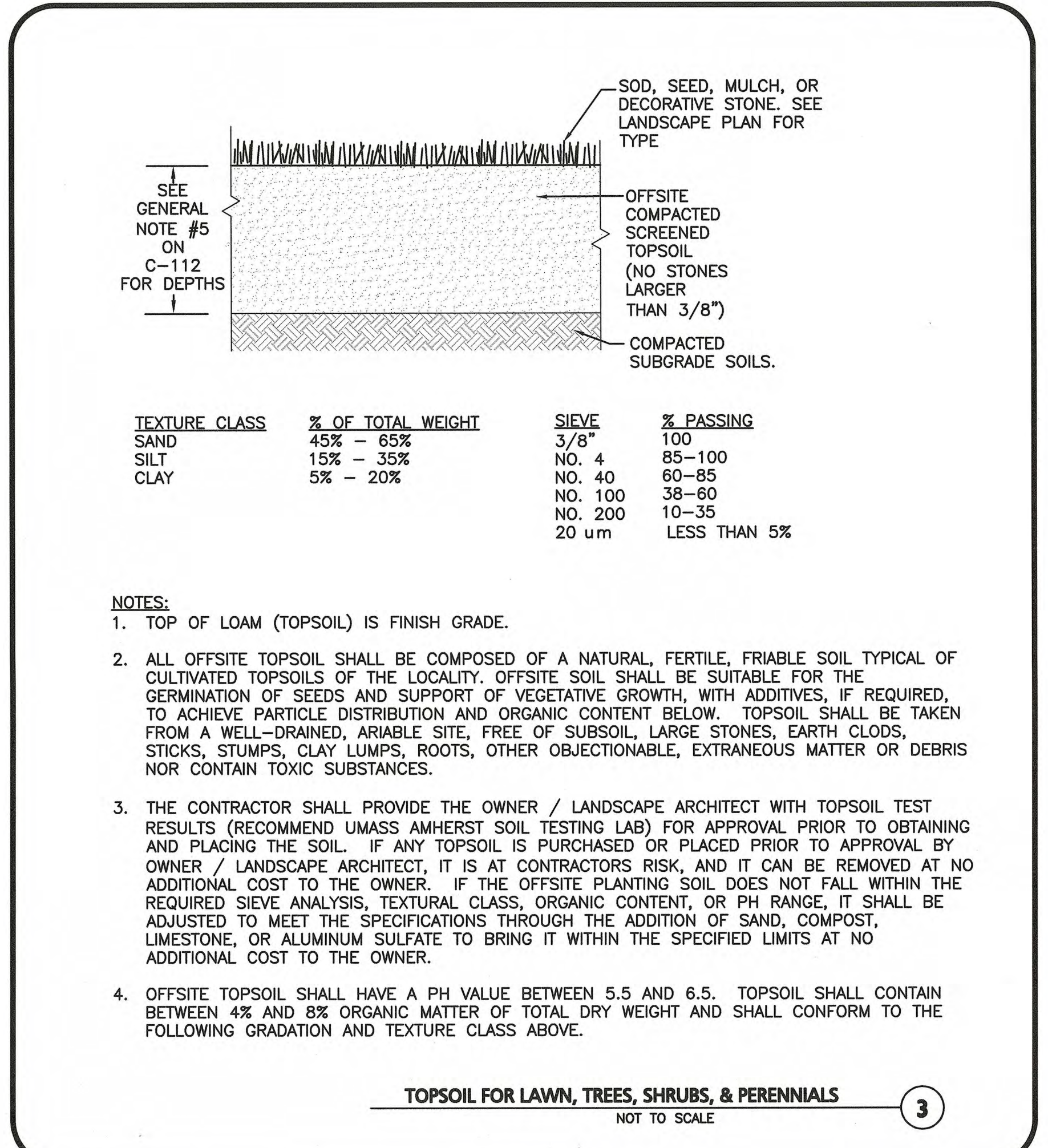
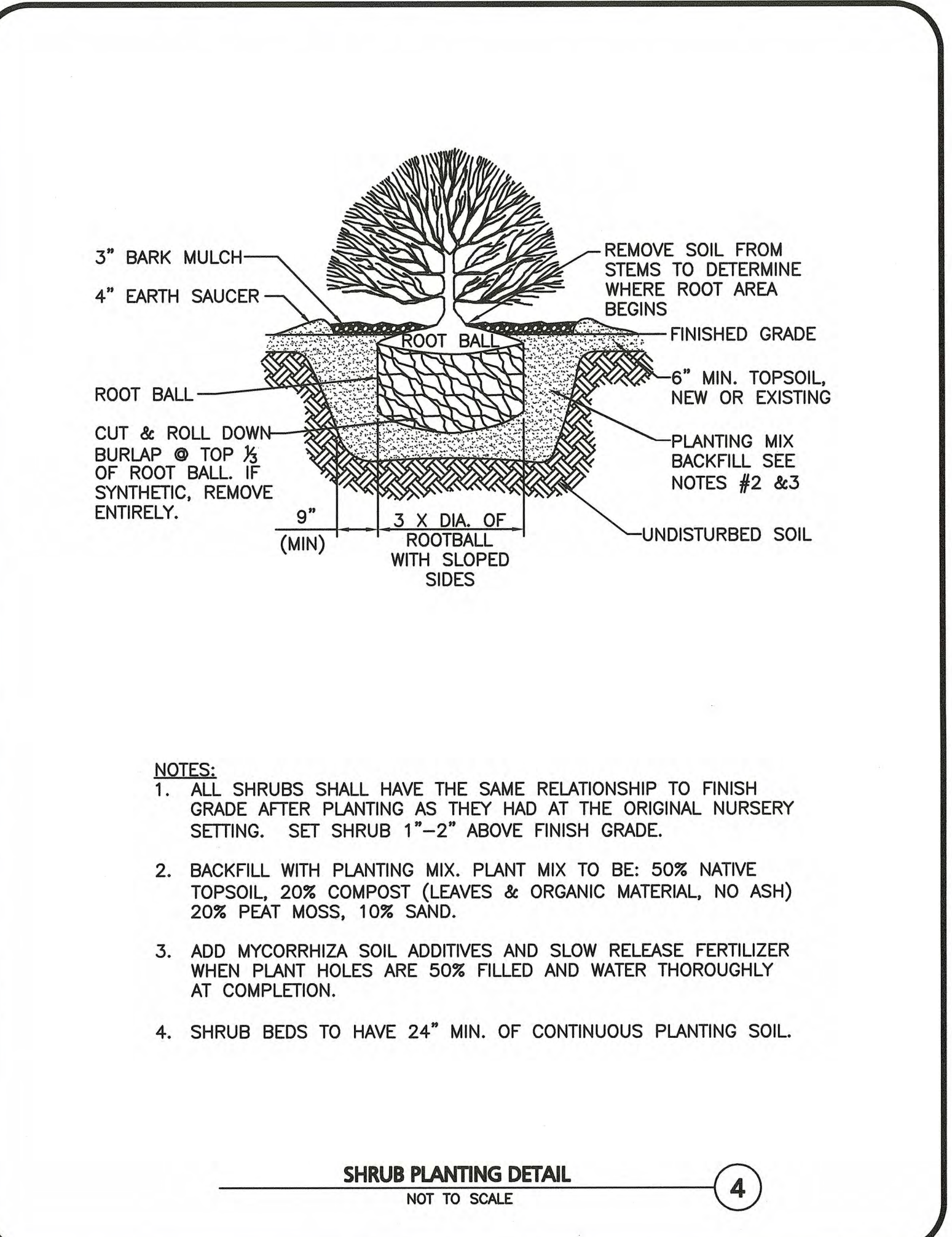
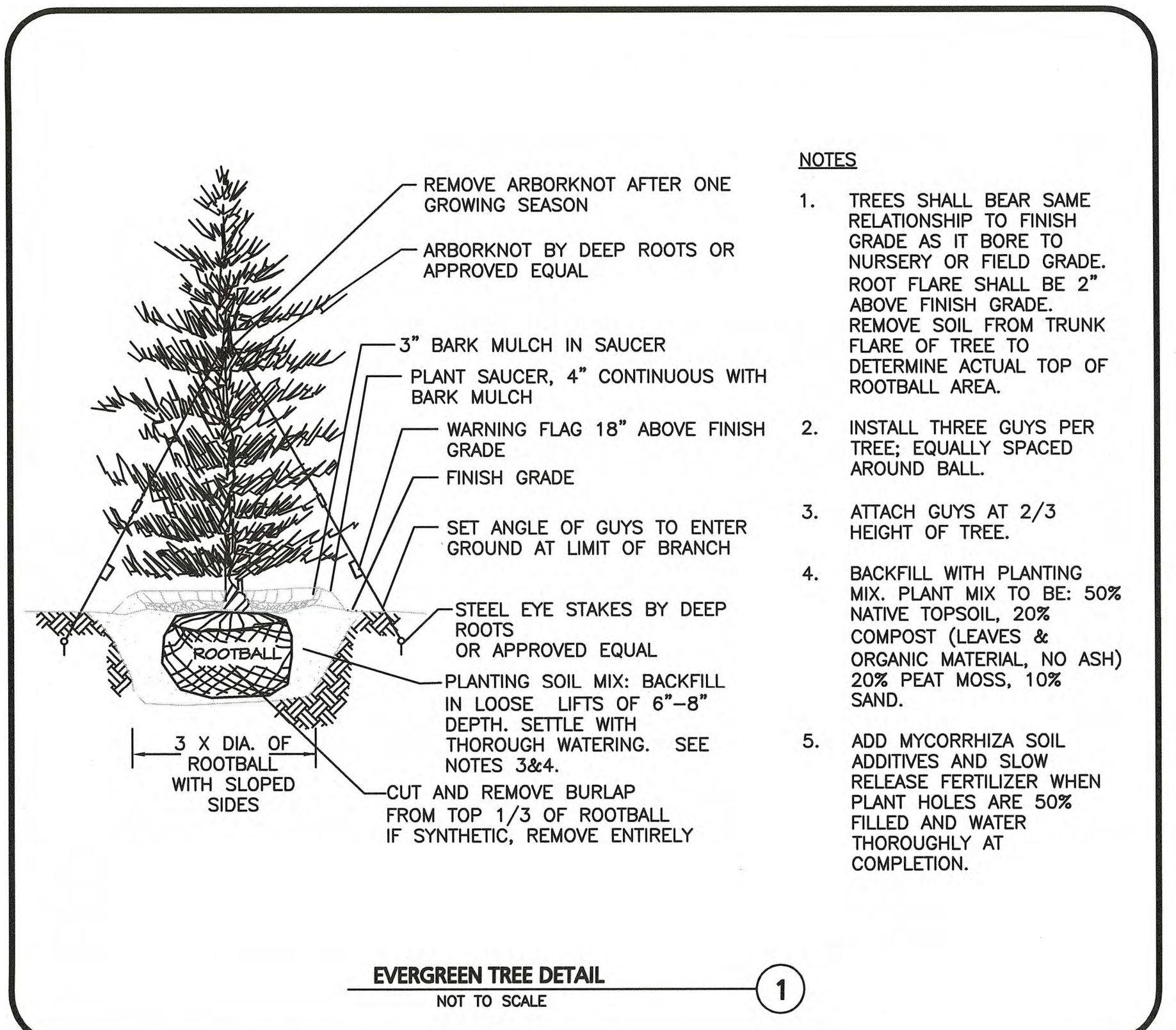
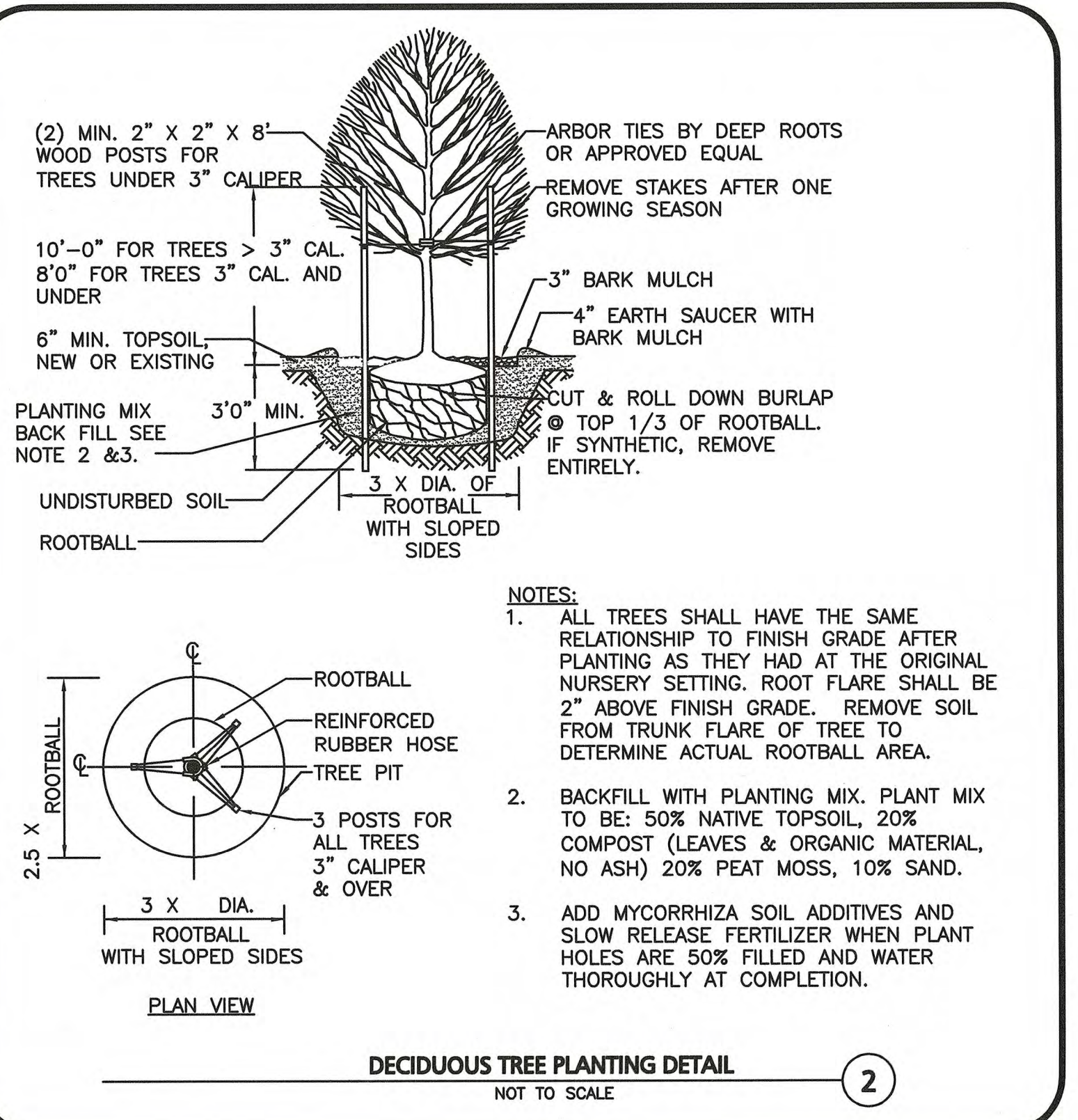
**L-201**  
JACA Project Number 190042

**PLANTING SCHEDULE - TREES, SHRUBS, GROUNDCOVERS & PERENNIALS**

KEY	QUANTITY	BOTANICAL NAME	COMMON NAME	MIN. SIZE	SPACING	COMMENTS
<b>DECIDUOUS TREES</b>						
AGR	TBD	ACER GRISEUM	PAPERBARK MAPLE	2"-2.5" CAL.	AS SHOWN	B&B
ARK	TBD	ACER RUBRUM 'KARPICK'	KARPICK RED MAPLE	3"-3.5" CAL.	AS SHOWN	FASTIGIATE CULTIVAR; TRIM ALL LIMBS BELOW 8 FT. B&B
TC	TBD	TILIA CORDATA 'GREENSPIRE'	GREENSPIRE LITTLELEAF LINDEN	3"-3.5" CAL.	AS SHOWN	B&B
<b>EVERGREEN/FLOWERING TREES</b>						
AC	TBD	ABIES CONCOLOR	WHITE FIR	11'-12' HT.	AS SHOWN	B&B
BL	TBD	BETULA N. 'LITTLE KING'	FOX VALLEY RIVER BIRCH	8'-9'	AS SHOWN	COMPACT CULTIVAR CLUMP; B&B
CC	TBD	CEROIS CANADENSIS 'FOREST PANSY'	FOREST PANSY REDBUD	2"-2.5" CAL.	AS SHOWN	B&B
CK	TBD	CORNUS KOUSA 'HEART THROB'	HEART THROB KOUSA DOGWOOD	8'-10' HT.	AS SHOWN	B&B
<b>SHRUBS</b>						
CL	TBD	CLETHRA ALNIFOLIA 'RUBY SPICE'	RUBY SPICE SUMMERSWEET	2'-3' HT.	AS SHOWN	WHITE FLOWERS, COMPACT FORM
CS	TBD	CORNUS SERICEA 'FALLOW	ARCTIC FIRE RED TWIG DOGWOOD	2'-3' HT.	AS SHOWN	POT
IG	TBD	ILEX GLABRA 'COMPACTA'	COMPACT INKBERRY	2'-2.5' HT.	AS SHOWN	POT
JM	TBD	JUNPERUS CHINENSIS 'MOUNTBATTEN'	MOUNTBATTEN JUNIPER	7'-8' HT.	AS SHOWN	COLUMNAR, POTTED
MD	TBD	MICROBIOTA DECUSSATA	SIBERIAN CARPET CYPRESS	2'-2.5' SPREAD.	AS SHOWN	POT
MPP	TBD	MYRICA PENNSYLVANICA	NORTHERN BAYBERRY	3.5'-4' HT.	AS SHOWN	POT
RDP	TBD	ROSA 'DOUBLE PINK KNOCKOUT ROSES'	DOUBLE KNOCKOUT ROSE	2.5' HT.	AS SHOWN	POT
RB	TBD	RHODODENDRON 'BOULE DE NEIGE'	BOULE DE NEIGE RHODODENDRON	3' HT.	AS SHOWN	POT
VA	TBD	VACCINIUM ANGSTUFIOLIUM	LOWBUSH BLUEBERRY	15"-18" SPREAD	10' O.C.	POT, STAGGERED
<b>ORNAMENTAL GRASSES</b>						
CA	TBD	CALAMAGROSTUS ARUNDINACEA 'KARL FORESTER'	FEATHER REED GRASS	3 GAL.	36" O.C.	STAGGERED
MSG	TBD	MISCANTHUS SINENSIS 'GRAZIELLA'	'GRAZIELLA' MAIDEN GRASS	#15 POT	3.5' O.C.	STAGGERED
PA	TBD	PENNISETUM ALOPECUROIDES 'HAMEL'	DWARF FOUNTAIN GRASS	2 GAL.	24" O.C.	STAGGERED
<b>PERENNIALS, &amp; GROUNDCOVERS</b>						
AN	TBD	ASTER NOVAE ANGLIAE 'PURPLE DOME'	NEW ENGLAND ASTER	2 GAL.	24" O.C.	STAGGERED
AT	TBD	ASTILBE JAPONICA 'RHEINLAND'	RHEINLAND ASTILBE	2 GAL.	24" O.C.	STAGGERED
DP	TBD	DENNSTAEDIA PUNCTILOBULA	HAYSCENTED FERN	2 GAL.	12" O.C.	STAGGERED
HR	TBD	HEMEROCALLIS 'ROSEY RETURNS'	DAYLILY	2 GAL.	18" O.C.	STAGGERED
LP	TBD	LIRIOPE MUSCARI 'VARIEGATA'	VARIEGATED LIRIOPE	2 GAL.	18" O.C.	STAGGERED
PH	TBD	PHLOX STOLONIFERA	CREeping PHLOX	2 GAL.	10" O.C.	STAGGERED
PL	TBD	PEROVSKIA ATRIPLICIFOLIA 'LITTLE SPIRE'	RUSSIAN SAGE	3 GAL.	24" O.C.	COMPACT CULTIVAR STAGGERED
RF	TBD	RUDBECKIA FULGIDA 'GOLDSTURM'	BLACKEYED SUSAN	2 GAL.	18" O.C.	STAGGERED
SA	TBD	SEDUM 'AUTUMN JOY'	AUTUMN JOY SEDUM	2 GAL.	18" O.C.	STAGGERED
VM	TBD	VINCA MINOR	MYRTLE	FLATS	6" O.C.	STAGGERED

**LOAM AND SODDING NOTES**

CONTRACTOR SHALL SOD AREAS NOTED ON THE PLANS.  
SOD IS TO BE A BLEND OF FOUR TO FIVE CURRENT AND IMPROVED HYBRID BLUEGRASS AND FESCUE MIXES APPROPRIATE FOR BOTH SEMI-SHADED AND AREAS OF SUN.  
HYBRIDS MAY INCLUDE: BLACKSTONE KENTUCKY BLUEGRASS, AWARD KENTUCKY BLUEGRASS, CHALLENGER KENTUCKY BLUEGRASS, BLACKBURG II KENTUCKY BLUEGRASS OR COMPARABLE AND EQUAL BLUEGRASS HYBRIDS.  
1. SOD SHALL BE HIGH QUALITY, NURSERY GROWN ON CULTIVATED MINERAL AGRICULTURAL SOILS. SOD SHALL BE MOIST, AND MACHINE CUT AT A UNIFORM SOIL THICKNESS OF AT LEAST 3/8" AT TIME OF CUTTING. MEASUREMENT FOR THICKNESS SHALL INCLUDE TOP GROWTH AND THATCH. SOD SHALL BE FREE OF DISEASES, WEEDS, BARE SPOTS, OR INSECTS.  
2. SODDING TO BE COMPLETED "IN SEASON" BETWEEN APRIL 1 TO JUNE 15 OR AUGUST 15 TO OCTOBER 1, EXCEPT FOR RE-SODDING OF BARE SPOTS. IF UNABLE TO SOD WITHIN THESE TIMEFRAMES, CONTRACTOR TO INSTALL EROSION CONTROL MATS ON ALL SLOPES 3:1 AND GREATER, HYDROSEED ALL EXPOSED AREAS, ADD SOIL STABILIZER 'FLUX TERRA HP-FGM SOIL STABILIZER' AS MANUFACTURED BY 'PROFILE' TO HYDROSEED (AT RATE OF 3,000 LBS PER ACRE), AT NO ADDITIONAL COST TO THE OWNER. CONTRACTOR TO COMPLETE ALL ABOVE "OUT OF SEASON" REQUIREMENTS AND THEN ALSO BE RESPONSIBLE FOR RE-GRADING AND RE-SODDING ALL DISTURBED, ERODED, OR BARE SPOTS WITHIN NEXT CLOSEST PLANTING SEASON IN FALL OR SPRING AT NO ADDITIONAL COST TO OWNER. CONTRACTOR RESPONSIBLE FOR ALL MAINTENANCE UNTIL FINAL ACCEPTANCE OF LAWN AREAS INCLUDING: WATERING, ADDING FERTILIZERS AND LIME AND MOWING AT NO ADDITIONAL COST TO OWNER.  
3. COMMERCIAL FERTILIZER SHALL BE APPLIED AT THE RATE OF 25 POUNDS PER 1000 SQ. FT. OR AS RECOMMENDED BY THE TESTING AGENCY. LIME TO BE SPREAD AT THE RATE OF 100 POUNDS PER 1000 SQ. FT. OR AS RECOMMENDED BY THE TESTING AGENCY. COMMERCIAL FERTILIZER SHALL BE A COMPLETE FERTILIZER CONTAINING AT LEAST 50% OF THE NITROGEN OF WHICH IS DERIVED FROM NATURAL ORGANIC SOURCES OF UREAFORM. IT SHALL CONTAIN THE FOLLOWING PERCENTAGES BY WEIGHT: NITROGEN (N) 10%, PHOSPHORUS (P) 6%, POTASH (K) 4%. LIME SHALL BE AN APPROVED AGRICULTURAL LIMESTONE CONTAINING NOT LESS THAN 85% OF TOTAL CARBONATES. LIMESTONE SHALL BE GROUND TO SUCH FINENESS THAT 50% WILL PASS A 100 MESH SIEVE AND 90% WILL PASS THROUGH A 20 MESH SIEVE.  
4. CONTRACTOR RESPONSIBLE FOR WATERING, MOWING, AND RE-SODDING OF LAWN BARE SPOTS UNTIL A UNIFORM, HEALTHY STAND OF GRASS IS ESTABLISHED AND ACCEPTED.



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