

"CRAFTSMAN VILLAGE"

40B COMPREHENSIVE PERMIT AMENDED APPLICATION

at Sugar Road

Bolton, Massachusetts

NOTES:

1. SEE SUPPLEMENTAL DATA SUBMITTED IN CONJUNCTION WITH THIS AMENDED 40B COMPREHENSIVE PERMIT AS REQUIRED BY THE BOLTON ZONING BOARD OF APPEALS. THIS INFORMATION IS HEREBY INCORPORATED AS PART OF THE CONSTRUCTION REQUIREMENTS AND PLAN SET. THIS PLAN, ITS SUPPORTING DOCUMENTATION AND FORM WORK ARE SUBMITTED PURSUANT TO THE PROVISIONS OF THE MASSACHUSETTS GENERAL LAW, CHAPTER 40B.

2. THIS PLAN SET CONTAINS THE SAME DESIGN INFORMATION AS REFERRED TO BY THE BOLTON ZONING BOARD OF APPEALS DECISION DATED JANUARY 16, 2015 AND AMENDED ORDER OF CONDITIONS FROM THE BOLTON CONSERVATION COMMISSION DATED MARCH 6, 2015.

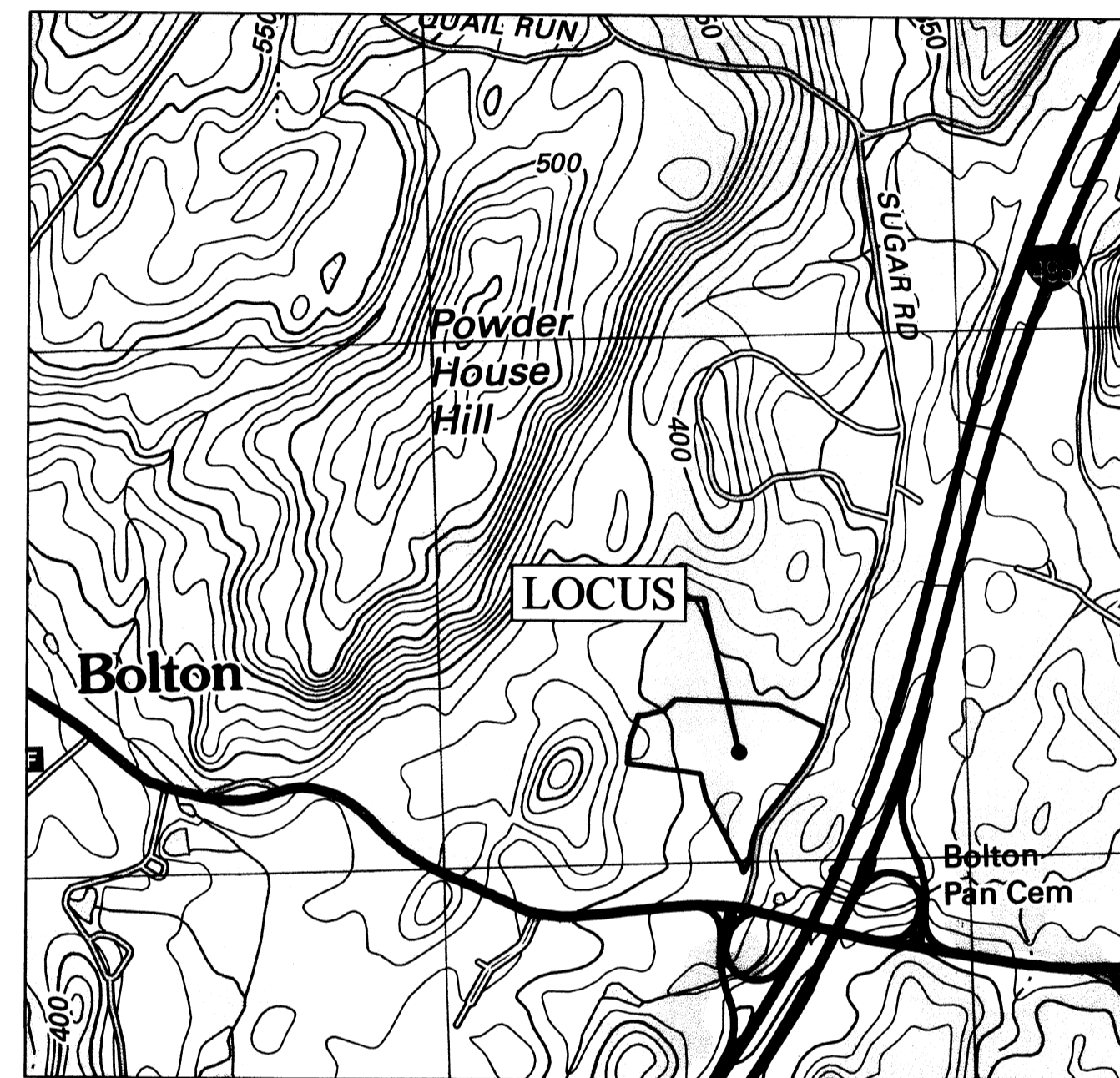
BOLTON ASSESSOR DATA:
MAP-LOT: 4.C-26

REFERENCES:
WORCESTER REGISTRY OF DEEDS
BK 48555 PG 67

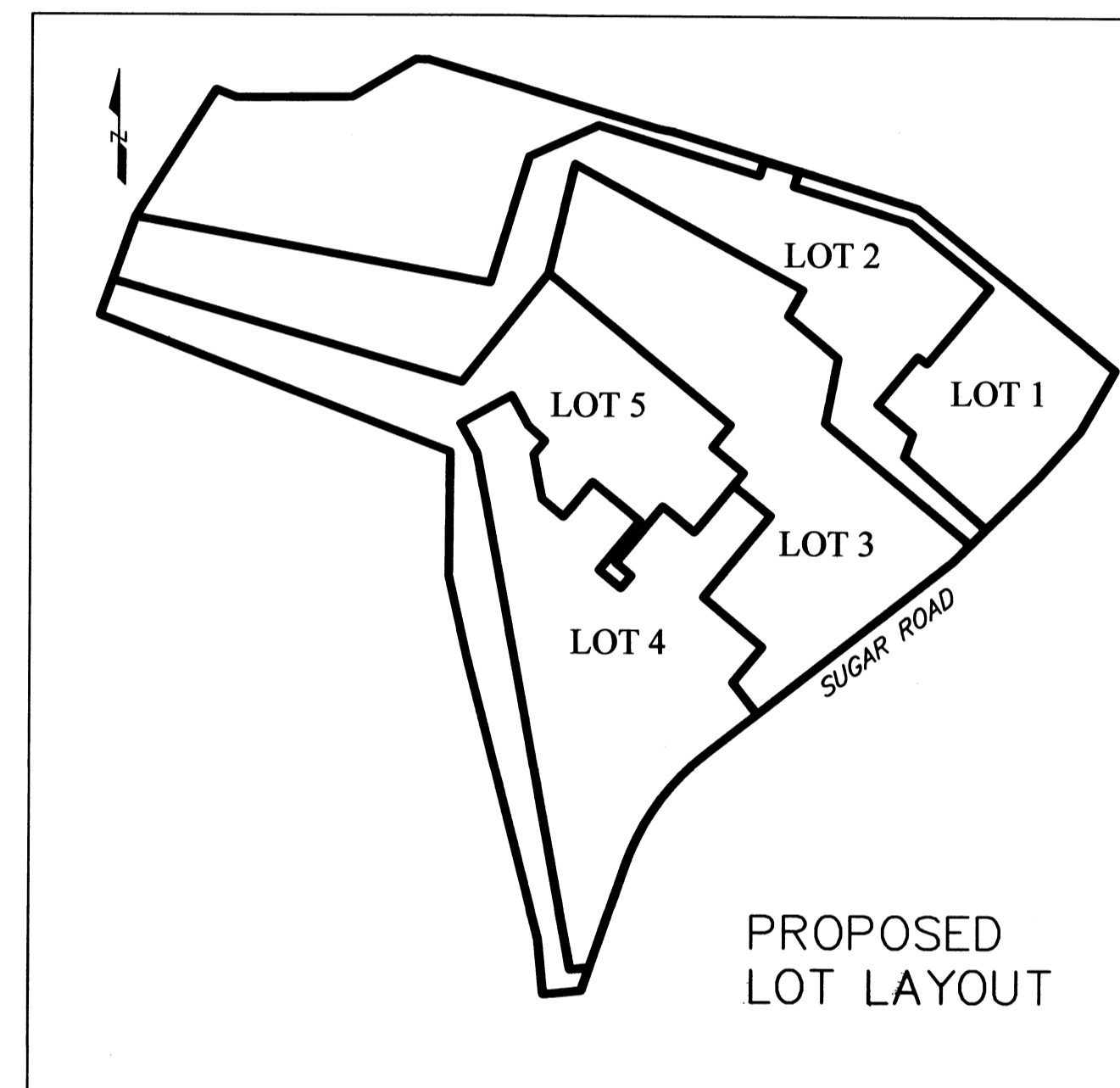
ZONING
RESIDENTIAL
LB-LIMITED BUSINESS
WCOD-WIRELESS COMMUNICATION OVERLAY DISTRICT

SITE DOES NOT CONTAIN ANY FLOOD HAZARD ZONE PER FLOOD INSURANCE RATE MAP 25027C0486F PANEL 486 OF 1075 REVISED JULY 16, 2014.

SITE IS WITHIN A ZONE I & II TO AN OFF-SITE PUBLIC WATER SUPPLY.



LOCUS
SCALE: 1" = 1000'



LOCUS
SCALE: 1" = 200'

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APPLICANT:
Craftsman Village Bolton, LLC
P.O. Box 250
Shrewsbury, MA 01545

PLANNER, LANDSCAPE ARCHITECT, CIVIL ENGINEER & SURVEYOR:
Places Associates, Inc.
256 Great Road, Suite 4
Littleton, MA 01460

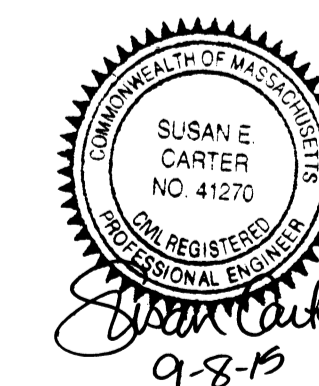
DEVELOPER
Weston Development Group, Inc.
P.O. Box 250
Shrewsbury, MA 01545

REVISIONS:
9-8-15 GAS LINE CROSSING

CONSTRUCTION DOCUMENTS
ISSUED MAY 1, 2015

Bolton Zoning Board of Appeals
CHAPTER 40B - COMPREHENSIVE PERMIT APPROVAL
DATE OF APPROVAL: FEBRUARY 24, 2015
DATE OF ENDORSEMENT:

THIS APPROVAL APPLIES TO ALL PLANS LISTED IN THE SHEET INDEX.



COVER SHEET
LOCATION: SUGAR ROAD
TOWN: BOLTON, MASSACHUSETTS
PREPARED FOR:
CRAFTSMAN VILLAGE
BOLTON, LLC

SCALE: AS NOTED DATE: SEPT. 3, 2014

Places Associates, Inc.
Planning, Landscape Architecture,
Civil Engineering, Surveying
256 GREAT RD, SUITE 4
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PROJECT No.: 14-7101 PLAN No. 7101-CP-0

GENERAL NOTES:

- PRIOR TO THE PREPARATION OF BIDS AND/OR THE INITIATION OF CONSTRUCTION, THE CONTRACTOR SHALL OBTAIN AND CAREFULLY EXAMINE THIS PLAN SET, RELATED CONSTRUCTION PLAN SETS FROM OTHER PROFESSIONAL DISCIPLINES, CONSTRUCTION SPECIFICATIONS, MANUFACTURERS INFORMATION AND ANY APPLICABLE PERMIT REQUIREMENTS/CONDITIONS OF APPROVAL FOR THE PROJECT. SEE NOTE #4 BELOW AS IT RELATES TO THIS REQUIREMENT.
- THE EXISTING UTILITIES SHOWN ON THESE PLANS ARE APPROXIMATE ONLY. DIG SAFE AND THE APPROPRIATE UTILITY COMPANIES SHALL BE CONTACTED BY THE CONTRACTOR PRIOR TO THE INITIATION OF CONSTRUCTION OR ANY EXCAVATION.
- NOT ALL UTILITIES WERE ABLE TO BE LOCATED BY RECORD INFORMATION, SITE SURVEYS OR UTILITY LOCATOR SERVICES. THE DESIGN ENGINEER AND BASE PLAN SURVEYOR DO NOT ACCEPT ANY RESPONSIBILITY FOR DAMAGES INCURRED AS A RESULT OF UTILITIES OR SUBSURFACE STRUCTURES WHICH ARE OMITTED OR INACCUATELY SHOWN. PRIOR TO THE INITIATION OF WORK, THE CONTRACTOR SHALL VERIFY THE LOCATION/ELEVATION OF EXISTING UTILITIES SHOWN ON THE PLAN.
- THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY UPON THE DISCOVERY OF ANY DISCREPANCY BETWEEN THE LOCATION/ELEVATION OF ANY EXISTING CONDITIONS, UTILITIES AND/OR SITE FEATURES SHOWN ON THE PLANS AND THAT WHICH IS FOUND IN THE FIELD. CONSTRUCTION SHALL NOT BE INITIATED WITHOUT DESIGN ENGINEERS SUPPLEMENTAL REVIEW AND MODIFICATIONS, IF REQUIRED. SHOULD THE CONTRACTOR PROCEED WITHOUT ENGINEERS SUPPLEMENTAL DIRECTION, THEY SHALL DO SO AT THEIR OWN RISK AND COST.
- THE CONTRACTOR SHALL RETAIN THE SERVICES OF A REGISTERED PROFESSIONAL LAND SURVEYOR TO PROVIDE LAYOUT & CONTROL FOR THE DEVELOPMENT OF THE SITE.
- THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY UPON THE DISCOVERY OF ANY CONTRADICTORY INCOMPLETE OR MISLABELED INFORMATION SHOWN ON THE PLANS OR PLANS PREPARED BY OTHERS PRIOR TO INITIATING CONSTRUCTION ON SUCH ITEMS. THE CONTRACTOR SHALL ALLOW FOR ADEQUATE TIME FOR THE ENGINEER TO RESPOND/PROVIDE DIRECTION FOR THE PLAN DISCREPANCY, PER NOTE #4 ABOVE.
- ALL CONSTRUCTION UNDER AREAS SUBJECT TO VEHICULAR TRAFFIC (INCLUDING SIDEWALKS) SHALL BE CONSTRUCTED TO WITHSTAND A DIRECT AASHTO H20 DESIGN LOAD. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROTECT ALL UTILITY/SITE IMPROVEMENT AREAS UNDER LANDSCAPED/NON-TRAFFIC BEARING AREAS FROM TEMPORARY CONSTRUCTION LOADS DURING CONSTRUCTION.
- THE CONSTRUCTION SHOWN ON THESE PLANS REQUIRES AN ORDER OF CONDITIONS BE ISSUED BY THE BOLTON CONSERVATION COMMISSION. THE CONTRACTOR SHALL OBTAIN A COPY OF SUCH ORDERS OF CONDITIONS PRIOR TO ANY SITE-RELATED DISTURBANCES AND SHALL COMPLY WITH APPROPRIATE CONDITIONS FOR CONSTRUCTION.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL ADJACENT PROPERTY FROM DAMAGE. ALL DAMAGES BY THE CONTRACTOR OR SUBCONTRACTORS SHALL BE REPAIRED AT NO COST TO THE OWNER. PRE CONSTRUCTION PHOTOS SHALL BE TAKEN AND COPIES SUPPLIED TO THE ENGINEER, PRIOR TO ANY SITE CONSTRUCTION AND OR DISTURBANCE.
- THE CONTRACTOR SHALL MAINTAIN AND PROTECT ALL EXISTING SURVEY MONUMENTS (BOUNDS, PINS, PIPES, DRILL HOLES, ETC.) THROUGHOUT ALL PHASES OF CONSTRUCTION. ANY DISTURBED MONUMENTS SHALL BE REPLACED BY A REGISTERED PROFESSIONAL LAND SURVEYOR AT THE EXPENSE OF THE CONTRACTOR.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING SHOP DRAWINGS OF PRODUCTS/MATERIALS TO THE ENGINEER AND/OR THE LOCAL APPROVING AUTHORITY AS REQUIRED IN THE CONSTRUCTION DOCUMENTS OR IF REQUIRED BY THE LOCAL AUTHORITY HAVING JURISDICTION OVER THE PRODUCT. ADEQUATE TIME SHALL BE ALLOWED FOR THE SHOP DRAWINGS TO BE REVIEWED AND RETURNED TO THE CONTRACTOR PRIOR TO ORDERING THE SPECIFIED PRODUCTS/MATERIALS.
- ALL SUPPLEMENTAL DATA SUBMITTED IN CONJUNCTION WITH THIS PLAN SET AS REQUIRED BY THE APPROPRIATE REGULATIONS IS HEREBY INCORPORATED AS PART OF THE PLAN SET.
- ALL PERMANENT BOUNDARY AND SURVEY MONUMENTS SHALL BE INSTALLED AFTER THE COMPLETION OF ALL HEAVY SITE WORK.
- NO DEBRIS, JUNK, RUBBISH OR OTHER WASTE MATERIALS SHALL BE BURIED, BURNED OR OTHERWISE DISPOSED OF WITHIN THE LIMITS OF THE PROJECT. ALL WASTE, TRASH AND DEBRIS SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN ACCORDANCE WITH APPLICABLE LAWS.
- UNLESS OTHERWISE SPECIFIED OR SHOWN, ALL CONSTRUCTION METHODS AND MATERIALS SHALL CONFORM TO THE STANDARDS DESCRIBED IN THE TOWN OF BOLTON'S SUBDIVISION CONTROL REGULATIONS. IF NOT SPECIFIED THEREIN, SUCH CONSTRUCTION SHALL THEN CONFORM TO THE REQUIREMENTS OF THE MASSACHUSETTS DEPARTMENT OF TRANSPORTATION (MDOT, FORMERLY MASSHIGHWAY) STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES, LATEST VERSION.
- THE CONTRACTOR SHALL APPLY FOR AND OBTAIN, A PERMIT FROM TOWN OF BOLTON TO CONSTRUCT WITHIN A PUBLIC WAY FOR WORK WITHIN SUGAR ROAD. THE CONTRACTOR IS RESPONSIBLE FOR ALL TRENCH PERMITS AND PUBLIC SAFETY MEASURES, INCLUDING POLICE DETAILS IF REQUIRED.

SITE WORK NOTES:

- THE LIMITS OF WORK SHALL BE FIELD ESTABLISHED PRIOR TO INITIATION OF ANY CONSTRUCTION, SITE EXPLORATIONS OR EARTHEN DISTURBANCE.
- EROSION CONTROLS SHALL BE IMPLEMENTED PRIOR TO SITE CLEARING OR DISTURBANCE. SEE EROSION AND SEDIMENTATION CONTROL PLAN.
- EXCEPT FOR THE SETUP FOR ENTRY TO THE SITE, NO CONSTRUCTION OR CONTRACTOR'S VEHICLES SHALL BE PARKED ON SUGAR ROAD, UNLESS COORDINATED WITH ADJACENT PROPERTY OWNERS. ALL CONSTRUCTION STAGING, STOCKPILE AND PARKING AREAS SHALL BE ONSITE.
- LOAM SHALL BE STOCKPILED FOR RE-USE ON THE SITE TO THE EXTENT PRACTICAL, SEE EROSION AND SEDIMENTATION CONTROL PLAN.
- THE SITE SHALL BE KEPT IN A NEAT AND ORDERLY FASHION.
- BURIED GAS LINES AND TANKS ARE TO BE INSTALLED IN ACCORDANCE WITH APPLICABLE LAWS AND REGULATIONS. DEPICTIONS OF LINES, TANKS AND RELATED APPURTENANCES IS FOR COORDINATION PURPOSES ONLY. PLACES ASSOCIATES, INC. DOES NOT DESIGN THESE SYSTEMS AND DOES NOT ACCEPT DESIGN, PERMITTING, CONSTRUCTION OR CERTIFICATION RESPONSIBILITIES FOR THESE SYSTEMS.
- BURIED WATER LINES, PUMPS AND POTABLE WATER DISTRIBUTION SYSTEM IS TO BE INSTALLED IN COMPLIANCE WITH THE APPLICABLE PROVISIONS OF "GUIDELINES FOR PUBLIC WATER SYSTEMS", MASS DEP. APRIL 2014. THE SIZING OF LINES, PUMPS, CONTROLS, FILTERS, ETC. ARE NOT DESIGNED BY PLACES ASSOCIATES, INC. DEPICTIONS OF SUCH SYSTEMS ARE FOR COORDINATION AND REGULATORY COMPLIANCE FOR OFFSETS ONLY. DISINFECTION SHALL COMPLY WITH AWWA C-651-DISINFECTION OF WATER MAINS, LATEST EDITION.
- ANY WORK WITHIN EXISTING TENNESSEE GAS TRANSMISSION LINE EASEMENT REQUIRES COORDINATION WITH KINDER MORGAN GAS COMPANY. CONTRACTOR SHALL COORDINATE WITH KINDER MORGAN, IN ADDITION TO DIGSAFE, PRIOR TO COMMENCEMENT OF ANY SUCH WORK.

MATERIAL DEFINITIONS:

BITUMINOUS CONCRETE PAVEMENT
ALL SITE PAVING SHALL BE HOT MIX ASPHALT (HMA). MIXTURES SHALL BE COMPOSED OF MINERAL AGGREGATE, MINERAL FILLER (IF REQUIRED) AND THE MIXTURE MAY INCLUDE RECLAIMED ASPHALT PAVEMENT AT THE OPTION OF THE CONTRACTOR AND AS PRE-APPROVED BY BOLTON HIGHWAY DEPARTMENT.

THE MIXTURE COMPOSITION AND TOLERANCES SHALL MEET THE SPECIFICATIONS FOR BINDER COURSE AND TOP COURSE MIXTURES AS SPECIFIED IN TABLE A OF SSBH M3.11.03. IF RECLAIMED ASPHALT PAVEMENT (RAP) IS USED IN THE MIXTURE, THE PROPORTION OF RAP TO VIRGIN AGGREGATE SHALL BE LIMITED TO A MAXIMUM OF 40% FOR DRUM MIX PLANTS AND 20% FOR MODIFIED BATCH PLANTS.

CURBING IS TO BE OF A DENSE MIX SPECIFICALLY FOR CURB CONSTRUCTION.

CAST IN PLACE CONCRETE
ALL SITE CAST IN PLACE CONCRETE AND RELATED REINFORCING SHALL MEET THE REQUIREMENTS OF THE MASSACHUSETTS STATE BUILDING CODE, THE AMERICAN CONCRETE INSTITUTE (ACI) AND THE AMERICAN SOCIETY OF TESTING AND MATERIALS (ASTM) FOR PRODUCT MATERIALS, FORM WORK, PLACEMENT AND CURING. ALL SITE CONCRETE SHALL BE AIR ENTRAINED AND HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI UNLESS OTHERWISE REQUIRED IN THE CONSTRUCTION DOCUMENTS.

CONTROLLED DENSITY FILL (CDF)
CONTROL DENSITY FILL SHALL BE A FLOWABLE, SELF-CONSOLIDATING, RIGID SETTING, LOW DENSITY MATERIAL THAT CAN SUBSTITUTE FOR COMPACTED GRAVELS FOR BACKFILLS, FILLS AND STRUCTURAL FILLS. CDF SHALL BE EXCAVATED BY HAND TOOLS AND/OR SMALL EQUIPMENT WHEN PLACED AND CURED. CDF SHALL MEET THE REQUIREMENTS OF SSBH M4.0.08, TYPE 2E, AND SHALL MEET THE FOLLOWING REQUIREMENTS:
A. CDF IS TO BE BATCHED AT A READY MIX PLANT AND IS TO BE USED AT A HIGH OF "VERY HIGH SLUMP FROM 10" TO 12", IT SHALL BE FLOWABLE AND REQUIRE NO VIBRATION AFTER IT HAS BEEN PLACED.
B. CDF SHALL BE A MIXTURE OF PORTLAND CEMENT, FLYASH, SAND AND WATER DESIGNED TO MEET THE CDF REQUIREMENTS. HIGH AIR ENTRAINMENT MAY BE SUBSTITUTED FOR FLYASH WITH AN ADMIXTURES (25%) ADJUSTMENT IN SAND CONTENT.
C. CDF MUST MEET THE FOLLOWING STRENGTH REQUIREMENTS:
-28 DAY COMPRESSIVE STRENGTH: 30-80 PSI
-90 DAY COMPRESSIVE STRENGTH: 100 PSI MAX

WASHED CRUSHED STONE
WASHED CRUSHED STONE SHALL MEET THE REQUIREMENTS OF "CRUSHED STONE" AS ABOVE, EXCEPT THAT IT SHALL BE DOUBLE-WASHED AND BE FREE OF FINES, STONE DUST AND SEDIMENTS.

CRUSHED STONE
CRUSHED STONE SHALL BE THE SIZE AS INDICATED ON THE PLANS. THE STONE SHALL BE FROM A STONE QUARRY THAT PRODUCES HARD, ANGULAR DURABLE WASHED STONE FREE FROM DEBRIS AND ORGANIC MATERIALS. THE STONE SHALL MEET THE REQUIREMENTS OF SSBH M2.01.0

DENSE GRADED CRUSHED STONE
DENSE GRADED CRUSHED STONE SHALL CONSIST OF THE COMBINATION OF CRUSHER-RUN COARSE AGGREGATES (MEETING SSBH M2.01.0) AND FINE AGGREGATE SAND OR STONE SCREENING UNIFORMLY PREMISED WITH A PREDETERMINED QUANTITY OF WATER. COARSE AGGREGATE SHALL CONSIST OF HARD, DURABLE PARTICLES OF FRAGMENTS OF STONE. FINE AGGREGATE SHALL CONSIST OF NATURAL OR CRUSHED SAND. THE GRADATION/MATERIAL SHALL COMPLY WITH THE SPECIFICATIONS OF SSBH M2.01.7

GLACIAL TILL
GLACIAL TILL: NATURAL INORGANIC SOILS APPROVED BY THE ENGINEER AND MEETING THE FOLLOWING REQUIREMENTS:
A. IT SHALL BE FREE OF ORGANIC OR OTHER WEAK OR COMPRESSIBLE MATERIALS, FROZEN MATERIALS AND STONES GREATER THAN TWO INCHES IN MAXIMUM DIMENSION.
B. IT SHALL BE A SILT LOAM AS DEFINED BY THE U.S. DEPARTMENT OF AGRICULTURE SOIL TEXTURAL CLASSIFICATION.
C. THE SOIL SHALL CONSIST OF GREATER THAN 50% SILT, 12% TO 27% CLAY, OR 50% TO 80% SILT AND LESS THAN 12% CLAY.

GRAVEL BORROW
GRAVEL BORROW SHALL CONSIST OF INERT MATERIAL THAT IS HARD, DURABLE STONE AND COURSE SAND, FREE FROM CLAY, SURFACE COATINGS, ORGANIC AND DELETERIOUS MATERIAL. ALL GRAVEL BORROW SHALL MEET THE REQUIREMENTS OF SSBH M1.03.0. MAXIMUM STONE SIZE SHALL BE AS FOLLOWS:
TYPE A: 6" LARGEST DIMENSION
TYPE B: 3" LARGEST DIMENSION
TYPE C: 2" LARGEST DIMENSION

LOAM (BORROW)
LOAM SHALL CONSIST OF NATURAL TOPSOIL, FREE FROM SUB-SOIL, OBTAINED FROM AN AREA WHICH HAS NEVER BEEN STRIPPED. LOAM SHALL BE OF UNIFORM QUALITY, FREE FROM HARD CLODS, STEEP CLAY, HARDPAN, SOO, PARTIALLY DISINTEGRATED STONE, LIME, CEMENT, ASHES, SLAG, CONCRETE, TAR RESIDUE, TARRER PAPER, BOARDS, CHIPS OR ANY OTHER UNDESIRABLE MATERIAL.
LOAM SHALL CONTAIN BETWEEN 3.5 AND 7.5 PERCENT ORGANIC MATTER AS DETERMINED BY LOSS ON IGNITION OF A MOISTURE-FREE SAMPLE DRIED IN ACCORDANCE WITH THE CURRENT METHOD OF THE ASSOCIATION OF OFFICIAL AGRICULTURAL CHEMISTS.
THE ACIDITY RANGE OF THE LOAM SHALL BE PH 6.5 TO PH 7.5 INCLUSIVE.
THE MECHANICAL ANALYSIS OF THE SOIL SHALL BE AS FOLLOWS:

U.S. SIEVE SIZE & NUMBER	PERCENT PASSING	
	MINIMUM	MAXIMUM
1/2 INCH	92%	100%
NO. 100 (SAND)	40%	60%
NO. 100 (SILT & CLAY)	40%	60%

PRIOR TO USE, ALL LOAM SHALL BE TESTED BY THE UMASS EXTENSION CENTER FOR AGRICULTURE, WEBSITE: HTTP://SOILTEST.UMASS.EDU
TESTS SHALL INCLUDE:
ROUTINE ANALYSIS: ORGANIC MATTER; SOLUBLE SALTS; NITRATE AND PARTICLE SIZE ANALYSIS
CROP CODES SHALL BE:
HAT-LAWN ESTABLISHMENT; HC1E-DECIDUOUS TREES AND SHRUBS... ESTABLISHMENT; HC2E-NEEDLELEAF TREES AND SHRUBS... ESTABLISHMENT.
LOAM TESTING SHALL BE CONDUCTED FOR ALL NEW SOURCES OF SUPPLY OR AT THE BEGINNING OF EACH PLANTING SEASON, ADJUST SOIL CONDITIONS PER TEST RESULTS AND LABORATORY RECOMMENDATIONS.

ORDINARY BORROW
ORDINARY BORROW SHALL CONSIST OF MATERIAL NOT SPECIFIED AS ANY OTHER EARTHEN MATERIAL. ORDINARY BORROW SHALL BE WELL GRADED, NATURAL, INORGANIC MATERIAL ACCEPTABLE TO THE ENGINEER FOR THE GENERAL FILLING TO THE SPECIFIED SUB-GRADE. THE MATERIAL SHALL MEET THE FOLLOWING REQUIREMENTS:
A. IT SHALL BE FREE OF ORGANIC OR OTHER WEAK OR COMPRESSIBLE MATERIAL, OF FROZEN MATERIALS AND OF STONES LARGER THAN 6 INCHES IN MAXIMUM DIMENSION.
B. IT SHALL BE OF SUCH NATURE & CHARACTER THAT IT CAN BE COMPACTED TO THE SPECIFIED DENSITIES IN A REASONABLE AMOUNT OF TIME.
C. IT SHALL BE FREE OF HIGHLY PLASTIC CLAYS, OF ALL MATERIALS SUBJECT TO DECAY, DECOMPOSITION, AND OF OTHERS OR OTHER MATERIALS WHICH WILL CORRODE PIPING OR OTHER BURIED MATERIALS.
D. IT SHALL HAVE A MAXIMUM DRY DENSITY OF NOT LESS THAN 100 POUNDS PER CUBIC FOOT AND LESS THAN 40% OF THE MATERIAL SHALL PASS THE NUMBER 200 SIEVE.
E. EXCAVATED ROCK & BOULDERS SMALLER THAN ONE CUBIC YARD IN SIZE MAY BE USED IN FILL AREAS UNDER LAWNS ONLY. PROVIDED THEY ARE A MINIMUM OF 24 INCHES BELOW THE SUBGRADE, PLACED AND COMPACTED IN LAYERS WITH NO JOINTS AND ALL INTERSTICES FILLED.

RIP RAP
RIP-RAP STONE SHALL BE SOUND, DURABLE ROCK, ANGULAR IN SHAPE. RIP RAP SHALL BE FREE FROM DEBRIS, ORGANIC OR DELETERIOUS MATERIAL. ROUNDED STONES, BOULDERS, SANDSTONE OR SIMILAR SOFT STONE OR RELATIVELY THIN SLABS WILL NOT BE PERMITTED UNLESS SPECIFICALLY PERMITTED BY THE DESIGN ENGINEER. ALL RIP RAP MATERIALS SHALL MEET THE REQUIREMENTS OF SSBH M2.02.0.

MATERIAL DEFINITIONS (CONT.):

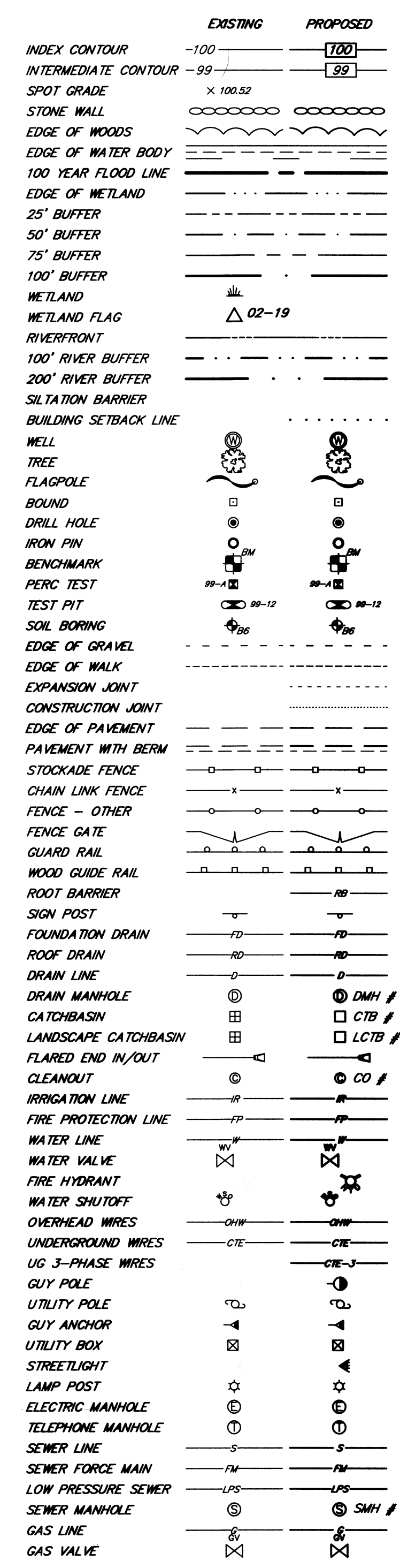
SAND BORROW
SAND BORROW SHALL CONSIST OF CLEAN INERT, HARD, DURABLE GRAINS OF QUARTZ OR OTHER HARD DURABLE ROCK, FREE FROM LOAM OR CLAY, SURFACE COATINGS AND DELETERIOUS MATERIALS. THE ALLOWABLE AMOUNT OF MATERIAL PASSING A #200 SIEVE AS DETERMINED BY AASHTO T 11 SHALL NOT EXCEED 10% MASS. ALL SAND BORROW SHALL MEET THE REQUIREMENTS OF SSBH M1.04.0.

COMPACTION TESTING
ALL EARTHEN MATERIALS SHALL BE COMPACTED TO THE DRY DENSITY INDICATED IN THE CONSTRUCTION DOCUMENTS AND/OR AS IS REQUIRED BY THE CODE OR REGULATION. MAXIMUM DRY DENSITY SHALL BE DETERMINED FROM A SAMPLE OF THE MATERIAL TO BE USED AND TESTED IN ACCORDANCE WITH THE MODIFIED PROCTOR DRY DENSITY TEST AS TESTED IN ASTM D1557, METHOD C. MINIMUM COMPACTION OF SOILS IS 90%; MINIMUM COMPACTION OF STRUCTURAL SOILS AND ROADWAY BASE IS 95%.

AREAS THAT WERE TESTED AND FOUND TO BE INSUFFICIENTLY COMPACTED SHALL BE RE-TESTED AFTER THE ADDITIONAL COMPACTION HAS BEEN COMPLETED.

STRUCTURAL FILL
STRUCTURAL FILL IS FILL OR REPLACEMENT SOIL MATERIALS LOCATED BELOW AND ADJACENT TO ALL STRUCTURAL FOOTINGS, SLABS AND BUILDINGS, (AS DEFINED BY THE MASSACHUSETTS BUILDING CODE) EXTENDING OUT TEN FEET (10'-0") FROM THE EXTERIOR LIMITS OF SUCH STRUCTURES.
STRUCTURAL FILL SHALL MEET THE FOLLOWING REQUIREMENTS - IN THE ORDER OF PRIORITY:
1. A SITE SPECIFIC GEOTECHNICAL REPORT, SPECIFICATION OR REQUIREMENT PREPARED BY A MASSACHUSETTS REGISTERED PROFESSIONAL ENGINEER.
2. A STRUCTURAL ENGINEERS REPORT, SPECIFICATIONS OR REQUIREMENTS.
3. AN ARCHITECT'S REPORT, SPECIFICATION OR REQUIREMENTS.
4. CRUSHED STONE BEING 3/4" TO 1 1/2" DIAMETER, MEETING SSBH M2.01.0

LEGEND



ABBREVIATIONS

ABBREVIATION	DEFINITION
AASHTO	AMERICAN ASSOC. OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
ABR	ABBREVIATION
AR-1	ACCESSIBLE RAMP - TYPE 1
AR-2	ACCESSIBLE RAMP - TYPE 2
AR-3	ACCESSIBLE RAMP - TYPE 3
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AWWA	AMERICAN WATER WORKS ASSOCIATION
B&B	BALL & BURLAP
BC	BOTTOM CURB ELEVATION
BIT. CONC.	BITUMINOUS CONCRETE
BLDG	BUILDING
BM	BENCHMARK
BR	BOTTOM OF RAMP ELEVATION
BS	BOTTOM OF STAIR ELEVATION
BW	BOTTOM OF WALL
CAL	CALIPER
CB	CONCRETE BOUND
CBM	CAPRECO BERM
CF	CURB FOOT
CI	CAST IRON PIPE
CMP	CORRUGATED METAL PIPE
CO	CONCRETE
CTB	CATCH BASIN
CY	CUBIC YARD
DEP	DEPARTMENT OF ENVIRONMENTAL PROTECTION
DH	DRILL HOLE
DI	DUCTILE IRON PIPE
DI	DIAMETER
DMH	DRAIN MANHOLE
ELV	ELEVATION
EMH	ELECTRIC MANHOLE
EOP	EDGE OF PAVEMENT
EX.	EXISTING
EXT.	EXTENSION
FDN	FOUNDATION
FES	FLARED END SECTION
FTE	FINISH CURB ELEVATION
FG	FINISH GRADE
FND	FOUND
FSB	FIELD STONE BOUND
FT	FEET - LINEAR MEASURE
GAL	GALLON
GPM	GALLONS PER MINUTE
HDP	HIGH DENSITY POLYETHYLENE PIPE
HP	HIGH POINT
HT	HEIGHT
I.PIN	IRON PIN
I.P.	IRON PIPE
ID	INSIDE DIAMETER
IKV	PIPE INVERT ELEVATION
LCTB	LANDSCAPE CATCH BASIN
LF	LINEAR FEET
LP	LOW POINT
MAX	MAXIMUM
MHB	MASS HIGHWAY BOUND
MN	MANHOLE
MUTCD	MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES
ON CENTER	ON CENTER
OD	OUTSIDE DIAMETER
OSHA	OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION
P&P	PLAN AND PROFILE
PSI	POUNDS PER SQUARE INCH
PVC	POLYVINYL CHLORIDE PIPE
RCP	ROUND CONCRETE PIPE
R&S	REMOVE & STOCKPILE ITEM
REQ'D	REQUIRED
S	SLOPE EQUALS
SB	STONE BOUND
SF	SQUARE FEET
SMH	SEWER MANHOLE
SPR	SPREAD
S&S	STAKE & STONE
SSHB	STANDARD SPECIFICATIONS OF HIGHWAYS & BRIDGES, THE COMMONWEALTH OF MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS
STV	STREET VALVE
TBM	TEMPORARY BENCH MARK
TO	TOP OF CURB ELEVATION
TMH	TELEPHONE MANHOLE
TOC	TOP OF CONCRETE ELEVATION
TR	TOP OF RAMP ELEVATION
TS	TOP OF STAIR ELEVATION
TW	TOP OF WALL
TYPE	TYPE FOR ALL ITEMS SHOWN
UP	UTILITY POLE
VBC	VERTICAL BITUMINOUS CURB
VGC	VERTICAL GRANITE CURB
VCTS	VERTICAL GRANITE CURB TRANSITION SEGMENT

REVISIONS:
9-8-15 NO REVISIONS THIS SHEET

**CONSTRUCTION DOCUMENTS
ISSUED MAY 1, 2015**

NOTES AND LEGEND

LOCATION: SUGAR ROAD
TOWN: BOLTON, MASSACHUSETTS

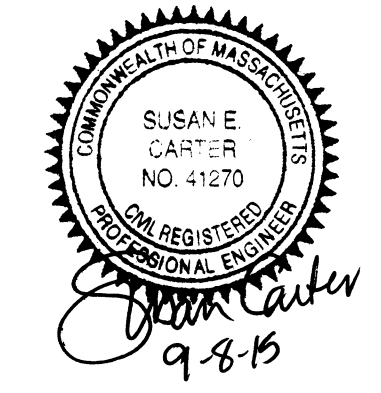
PREPARED FOR:
**CRAFTSMAN VILLAGE
BOLTON, LLC**

SCALE: AS NOTED DATE: SEPT. 3, 2014

Places Associates, Inc.

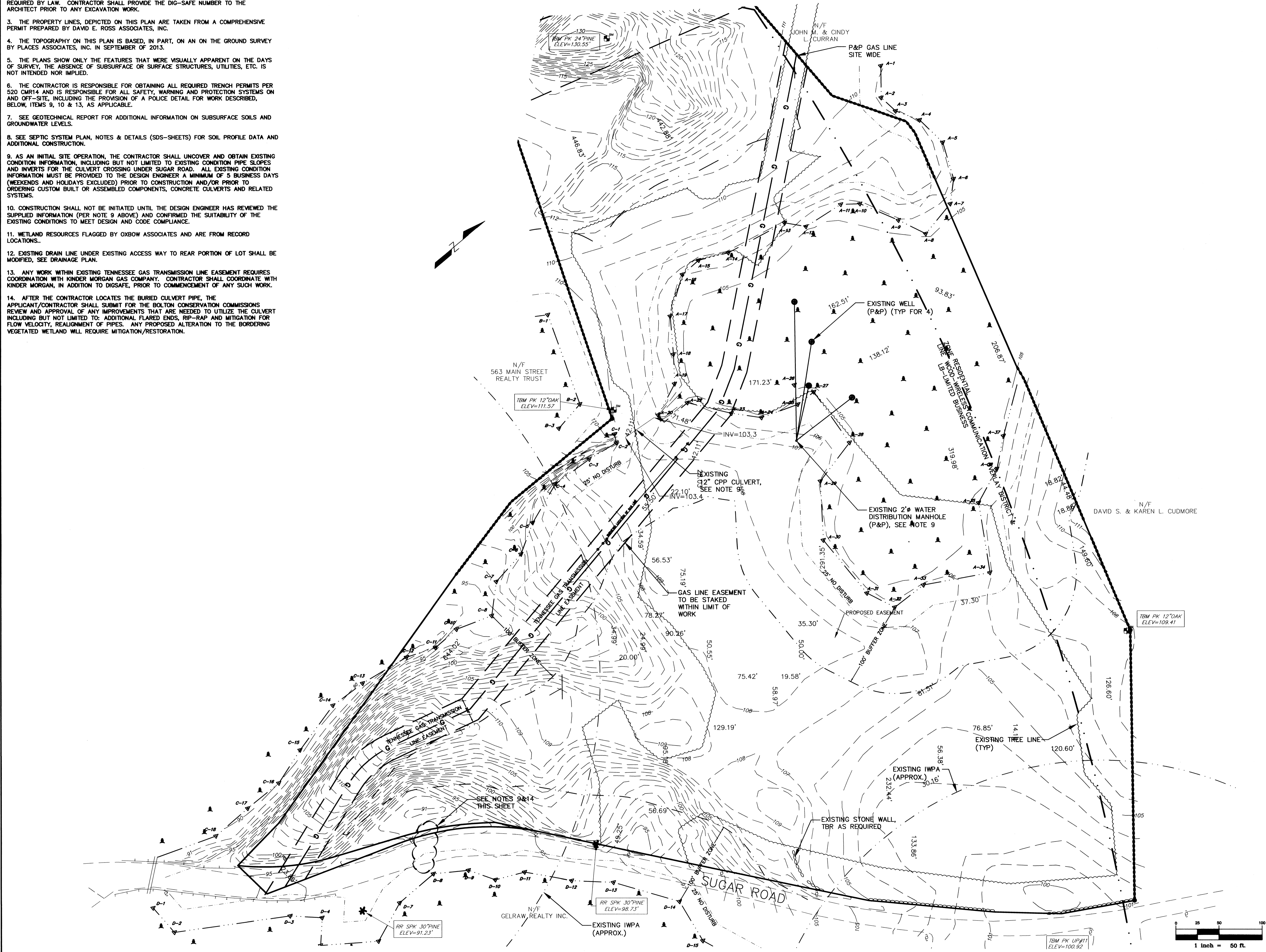
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PROJECT No.: 14-7101 PLAN No. 7101-CP-1



- PLAN NOTES:**
- UTILITIES SHOWN ARE IN BASED ON THE BEST AVAILABLE RECORD DATA AND/OR ACTUAL FIELD LOCATIONS. UNDERGROUND LOCATIONS SHALL BE CONSIDERED APPROXIMATE ONLY.
 - PRIOR TO THE INITIATION OF SITE RELATED ACTIVITIES, DIG-SAFE SHALL BE NOTIFIED AS REQUIRED BY LAW. CONTRACTOR SHALL PROVIDE THE DIG-SAFE NUMBER TO THE ARCHITECT PRIOR TO ANY EXCAVATION WORK.
 - THE PROPERTY LINES, DEPICTED ON THIS PLAN ARE TAKEN FROM A COMPREHENSIVE PERMIT PREPARED BY DAVID E. ROSS ASSOCIATES, INC.
 - THE TOPOGRAPHY ON THIS PLAN IS BASED, IN PART, ON AN ON THE GROUND SURVEY BY PLACES ASSOCIATES, INC. IN SEPTEMBER OF 2013.
 - THE PLANS SHOW ONLY THE FEATURES THAT WERE VISUALLY APPARENT ON THE DAYS OF SURVEY, THE ABSENCE OF SUBSURFACE OR SURFACE STRUCTURES, UTILITIES, ETC. IS NOT INTENDED NOR IMPLIED.
 - THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL REQUIRED TRENCH PERMITS PER 520 CMR14 AND IS RESPONSIBLE FOR ALL SAFETY, WARNING AND PROTECTION SYSTEMS ON AND OFF-SITE, INCLUDING THE PROVISION OF A POLICE DETAIL FOR WORK DESCRIBED, BELOW, ITEMS 9, 10 & 13, AS APPLICABLE.
 - SEE GEOTECHNICAL REPORT FOR ADDITIONAL INFORMATION ON SUBSURFACE SOILS AND GROUNDWATER LEVELS.
 - SEE SEPTIC SYSTEM PLAN, NOTES & DETAILS (SDS-SHEETS) FOR SOIL PROFILE DATA AND ADDITIONAL CONSTRUCTION.
 - AS AN INITIAL SITE OPERATION, THE CONTRACTOR SHALL UNCOVER AND OBTAIN EXISTING CONDITION INFORMATION, INCLUDING BUT NOT LIMITED TO EXISTING CONDITION PIPE SLOPES AND INVERTS FOR THE CULVERT CROSSING UNDER SUGAR ROAD. ALL EXISTING CONDITION INFORMATION MUST BE PROVIDED TO THE DESIGN ENGINEER A MINIMUM OF 5 BUSINESS DAYS (WEEKENDS AND HOLIDAYS EXCLUDED) PRIOR TO CONSTRUCTION AND/OR PRIOR TO ORDERING CUSTOM BUILT OR ASSEMBLED COMPONENTS, CONCRETE CULVERTS AND RELATED SYSTEMS.
 - CONSTRUCTION SHALL NOT BE INITIATED UNTIL THE DESIGN ENGINEER HAS REVIEWED THE SUPPLIED INFORMATION (PER NOTE 9 ABOVE) AND CONFIRMED THE SUITABILITY OF THE EXISTING CONDITIONS TO MEET DESIGN AND CODE COMPLIANCE.
 - WETLAND RESOURCES FLAGGED BY OXBOW ASSOCIATES AND ARE FROM RECORD LOCATIONS.
 - EXISTING DRAIN LINE UNDER EXISTING ACCESS WAY TO REAR PORTION OF LOT SHALL BE MODIFIED, SEE DRAINAGE PLAN.
 - ANY WORK WITHIN EXISTING TENNESSEE GAS TRANSMISSION LINE EASEMENT REQUIRES COORDINATION WITH KINDER MORGAN GAS COMPANY. CONTRACTOR SHALL COORDINATE WITH KINDER MORGAN, IN ADDITION TO DIGSAFE, PRIOR TO COMMENCEMENT OF ANY SUCH WORK.
 - AFTER THE CONTRACTOR LOCATES THE BURIED CULVERT PIPE, THE APPLICANT/CONTRACTOR SHALL SUBMIT FOR THE BOLTON CONSERVATION COMMISSIONS REVIEW AND APPROVAL OF ANY IMPROVEMENTS THAT ARE NEEDED TO UTILIZE THE CULVERT INCLUDING BUT NOT LIMITED TO: ADDITIONAL FLARED ENDS, RIP-RAP AND MITIGATION FOR FLOW VELOCITY, REALIGNMENT OF PIPES. ANY PROPOSED ALTERATION TO THE BORDERING VEGETATED WETLAND WILL REQUIRE MITIGATION/RESTORATION.

GENERAL NOTE:
1. SEE CP-1 FOR NOTES, LEGEND AND ABBREVIATIONS



REVISIONS:
9-8-15 GAS LINE CROSSING



**CONSTRUCTION DOCUMENTS
ISSUED MAY 1, 2015**

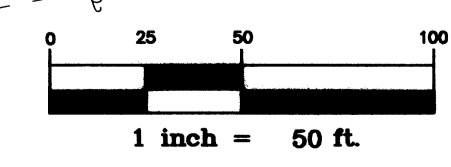
**CRAFTSMAN VILLAGE
EXISTING CONDITIONS
PLAN**

LOCATION: SUGAR ROAD
TOWN: BOLTON, MASSACHUSETTS
PREPARED FOR:
**CRAFTSMAN VILLAGE
BOLTON, LLC**

SCALE: 1"=50' DATE: SEPT 3, 2014

Places Associates, Inc.
Planning, Landscape Architecture,
Civil Engineering, Surveying

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PROJECT No.: 14-7101 PLAN No. 7101-CP-2



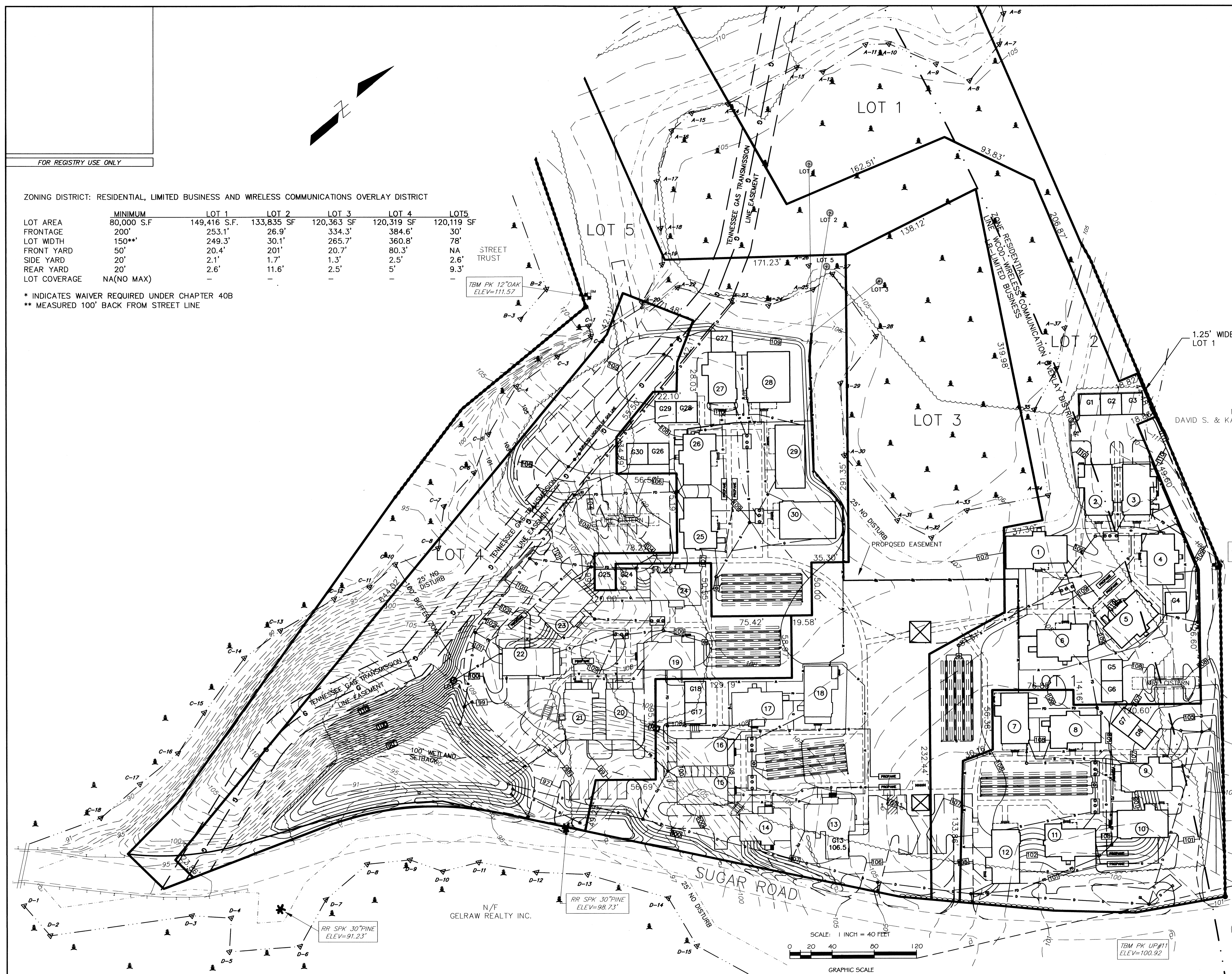
GENERAL NOTE:
1. SEE CP-1 FOR NOTES, LEGEND AND ABBREVIATIONS

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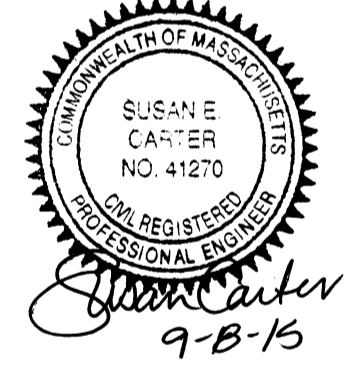
ZONING DISTRICT: RESIDENTIAL, LIMITED BUSINESS AND WIRELESS COMMUNICATIONS OVERLAY DISTRICT

	MINIMUM	LOT 1	LOT 2	LOT 3	LOT 4	LOT 5
LOT AREA	80,000 S.F.	149,416 S.F.	133,835 SF	120,363 SF	120,319 SF	120,119 SF
FRONTAGE	200'	253.1'	26.9'	334.3'	384.6'	30'
LOT WIDTH	150**	249.3'	30.1'	265.7'	360.8'	78'
FRONT YARD	50'	20.4'	201'	20.7'	80.3'	NA
SIDE YARD	20'	2.1'	1.7'	1.3'	2.5'	2.6'
REAR YARD	20'	2.6'	11.6'	2.5'	5'	9.3'
LOT COVERAGE	NA(NO MAX)	-	-	-	-	-

* INDICATES WAIVER REQUIRED UNDER CHAPTER 40B
** MEASURED 100' BACK FROM STREET LINE



REVISIONS:
9-8-15 GAS LINE CROSSING



CONSTRUCTION DOCUMENTS
ISSUED MAY 1, 2015

CRAFTSMAN VILLAGE
COMPOSITE SITE PLAN

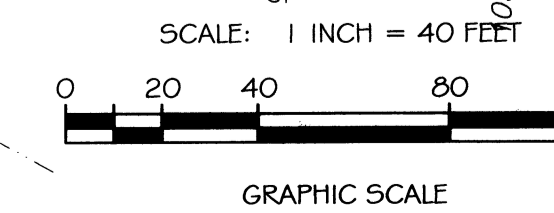
LOCATION: SUGAR ROAD
TOWN: BOLTON, MASSACHUSETTS
PREPARED FOR:
CRAFTSMAN VILLAGE
BOLTON, LLC

SCALE: 1"=40' DATE: SEPT 3, 2014

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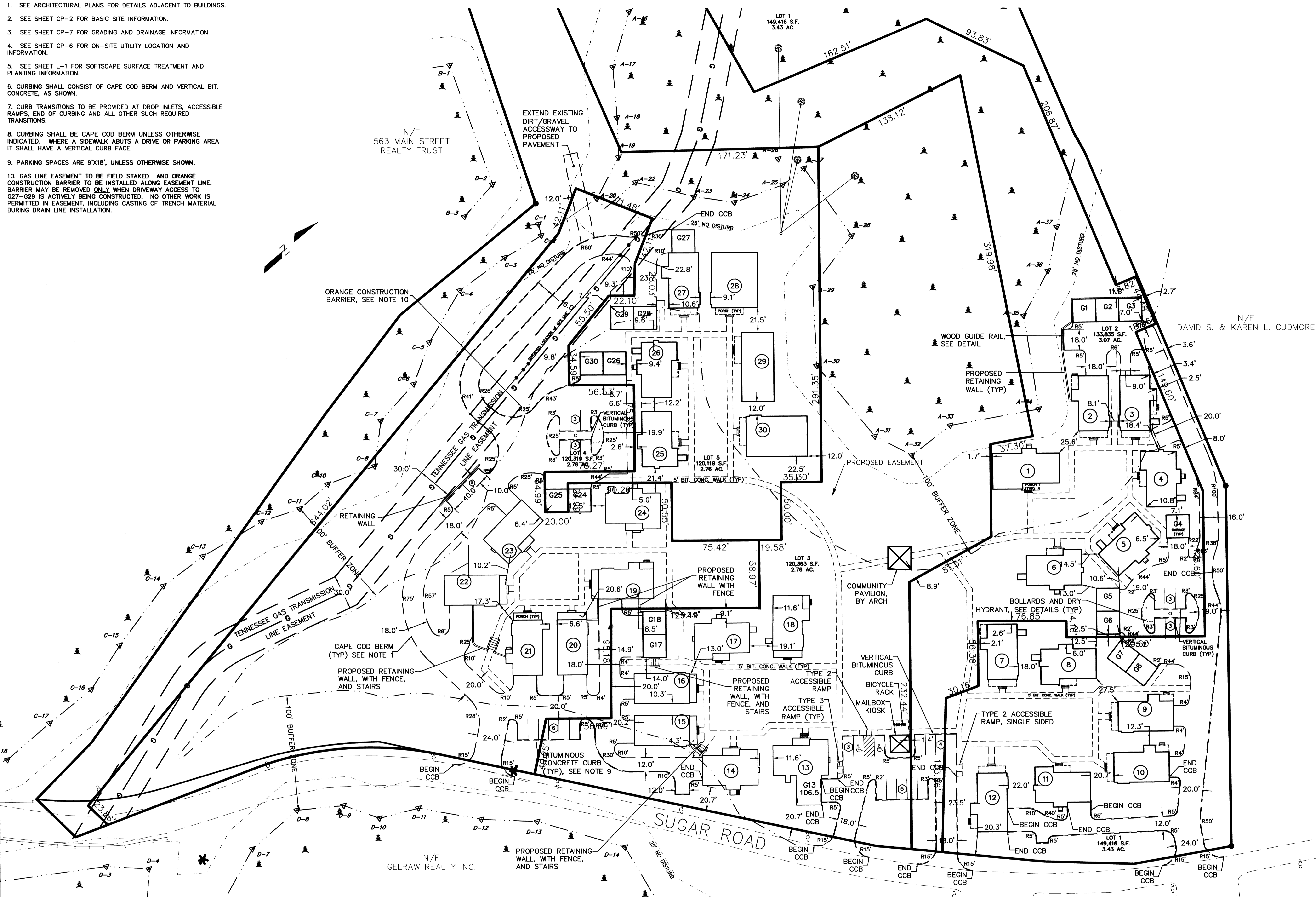
PROJECT No.: 14-7101 PLAN No. 7101-CP-4



PLAN NOTES:

1. SEE ARCHITECTURAL PLANS FOR DETAILS ADJACENT TO BUILDINGS.
2. SEE SHEET CP-2 FOR BASIC SITE INFORMATION.
3. SEE SHEET CP-7 FOR GRADING AND DRAINAGE INFORMATION.
4. SEE SHEET CP-6 FOR ON-SITE UTILITY LOCATION AND INFORMATION.
5. SEE SHEET L-1 FOR SOFTSCAPE SURFACE TREATMENT AND PLANTING INFORMATION.
6. CURBING SHALL CONSIST OF CAPE COD BERM AND VERTICAL BIT. CONCRETE, AS SHOWN.
7. CURB TRANSITIONS TO BE PROVIDED AT DROP INLETS, ACCESSIBLE RAMPS, END OF CURBING AND ALL OTHER SUCH REQUIRED TRANSITIONS.
8. CURBING SHALL BE CAPE COD BERM UNLESS OTHERWISE INDICATED. WHERE A SIDEWALK ABUTS A DRIVE OR PARKING AREA IT SHALL HAVE A VERTICAL CURB FACE.
9. PARKING SPACES ARE 9'X18', UNLESS OTHERWISE SHOWN.
10. GAS LINE EASEMENT TO BE FIELD STAKED AND ORANGE CONSTRUCTION BARRIER TO BE INSTALLED ALONG EASEMENT LINE. BARRIER MAY BE REMOVED ONLY WHEN DRIVEWAY ACCESS TO G27-G29 IS ACTIVELY BEING CONSTRUCTED. NO OTHER WORK IS PERMITTED IN EASEMENT, INCLUDING CASTING OF TRENCH MATERIAL DURING DRAIN LINE INSTALLATION.

GENERAL NOTE:
1. SEE CP-1 FOR NOTES, LEGEND AND ABBREVIATIONS



CONSTRUCTION DOCUMENTS
ISSUED MAY 1, 2015

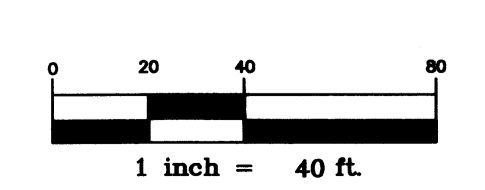
CRAFTSMAN VILLAGE
LAYOUT AND MATERIALS
PLAN

LOCATION: SUGAR ROAD
TOWN: BOLTON, MASSACHUSETTS
PREPARED FOR:
CRAFTSMAN VILLAGE
BOLTON, LLC

SCALE: 1"=40' DATE: SEPT 3, 2014

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REVISIONS:
9-8-15 GAS LINE CROSSING

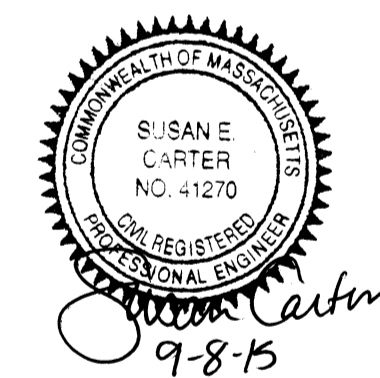
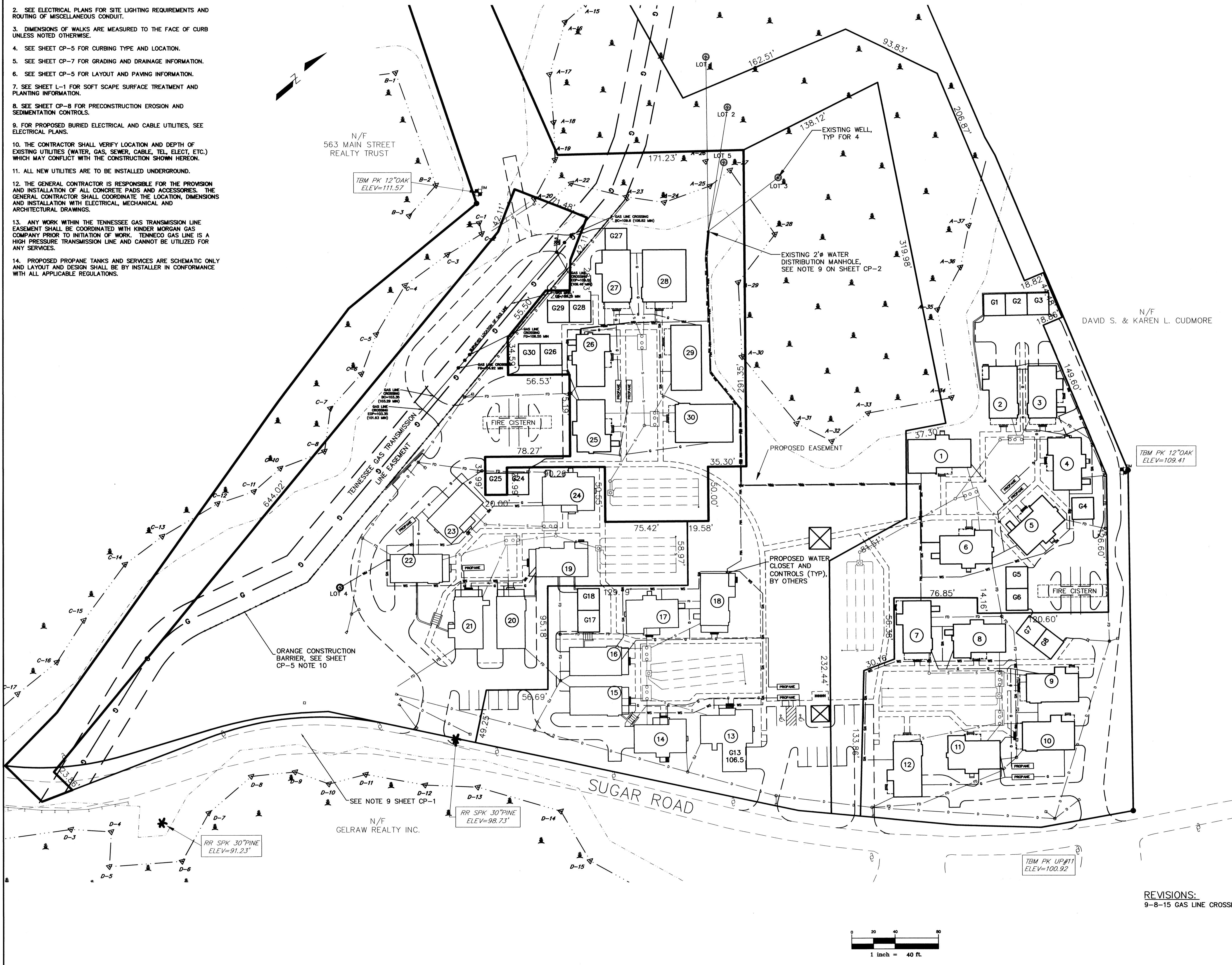


PROJECT No. 14-7101 PLAN No. 7101-CP-5

PLAN NOTES:

1. SEE ARCHITECTURAL PLANS FOR DETAILS ADJACENT TO BUILDINGS.
2. SEE ELECTRICAL PLANS FOR SITE LIGHTING REQUIREMENTS AND ROUTING OF MISCELLANEOUS CONDUIT.
3. DIMENSIONS OF WALKS ARE MEASURED TO THE FACE OF CURB UNLESS NOTED OTHERWISE.
4. SEE SHEET CP-5 FOR CURBING TYPE AND LOCATION.
5. SEE SHEET CP-7 FOR GRADING AND DRAINAGE INFORMATION.
6. SEE SHEET CP-5 FOR LAYOUT AND PAVING INFORMATION.
7. SEE SHEET L-1 FOR SOFT SCAPE SURFACE TREATMENT AND PLANTING INFORMATION.
8. SEE SHEET CP-8 FOR PRECONSTRUCTION EROSION AND SEDIMENTATION CONTROLS.
9. FOR PROPOSED BURIED ELECTRICAL AND CABLE UTILITIES, SEE ELECTRICAL PLANS.
10. THE CONTRACTOR SHALL VERIFY LOCATION AND DEPTH OF EXISTING UTILITIES (WATER, GAS, SEWER, CABLE, TEL, ELECT, ETC.) WHICH MAY CONFLICT WITH THE CONSTRUCTION SHOWN HEREON.
11. ALL NEW UTILITIES ARE TO BE INSTALLED UNDERGROUND.
12. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR THE PROVISION AND INSTALLATION OF ALL CONCRETE PADS AND ACCESSORIES. THE GENERAL CONTRACTOR SHALL COORDINATE THE LOCATION, DIMENSIONS AND INSTALLATION WITH ELECTRICAL, MECHANICAL AND ARCHITECTURAL DRAWINGS.
13. ANY WORK WITHIN THE TENNESSEE GAS TRANSMISSION LINE EASEMENT SHALL BE COORDINATED WITH KINDER MORGAN GAS COMPANY PRIOR TO INITIATION OF WORK. TENNECO GAS LINE IS A HIGH PRESSURE TRANSMISSION LINE AND CANNOT BE UTILIZED FOR ANY SERVICES.
14. PROPOSED PROPANE TANKS AND SERVICES ARE SCHEMATIC ONLY AND LAYOUT AND DESIGN SHALL BE BY INSTALLER IN CONFORMANCE WITH ALL APPLICABLE REGULATIONS.

GENERAL NOTE:
1. SEE CP-1 FOR NOTES, LEGEND AND ABBREVIATIONS



CONSTRUCTION DOCUMENTS
ISSUED MAY 1, 2015

**CRAFTSMAN VILLAGE
UTILITY PLAN**

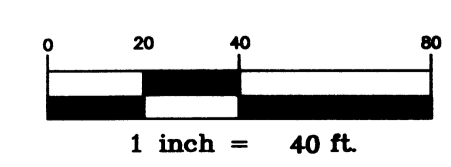
LOCATION: SUGAR ROAD
TOWN: BOLTON, MASSACHUSETTS
PREPARED FOR:
**CRAFTSMAN VILLAGE
BOLTON, LLC**

SCALE: 1"=40' DATE: SEPT 3, 2014

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PROJECT No.: 14-7101 PLAN No. 7101-CP-6

REVISIONS:
9-8-15 GAS LINE CROSSING



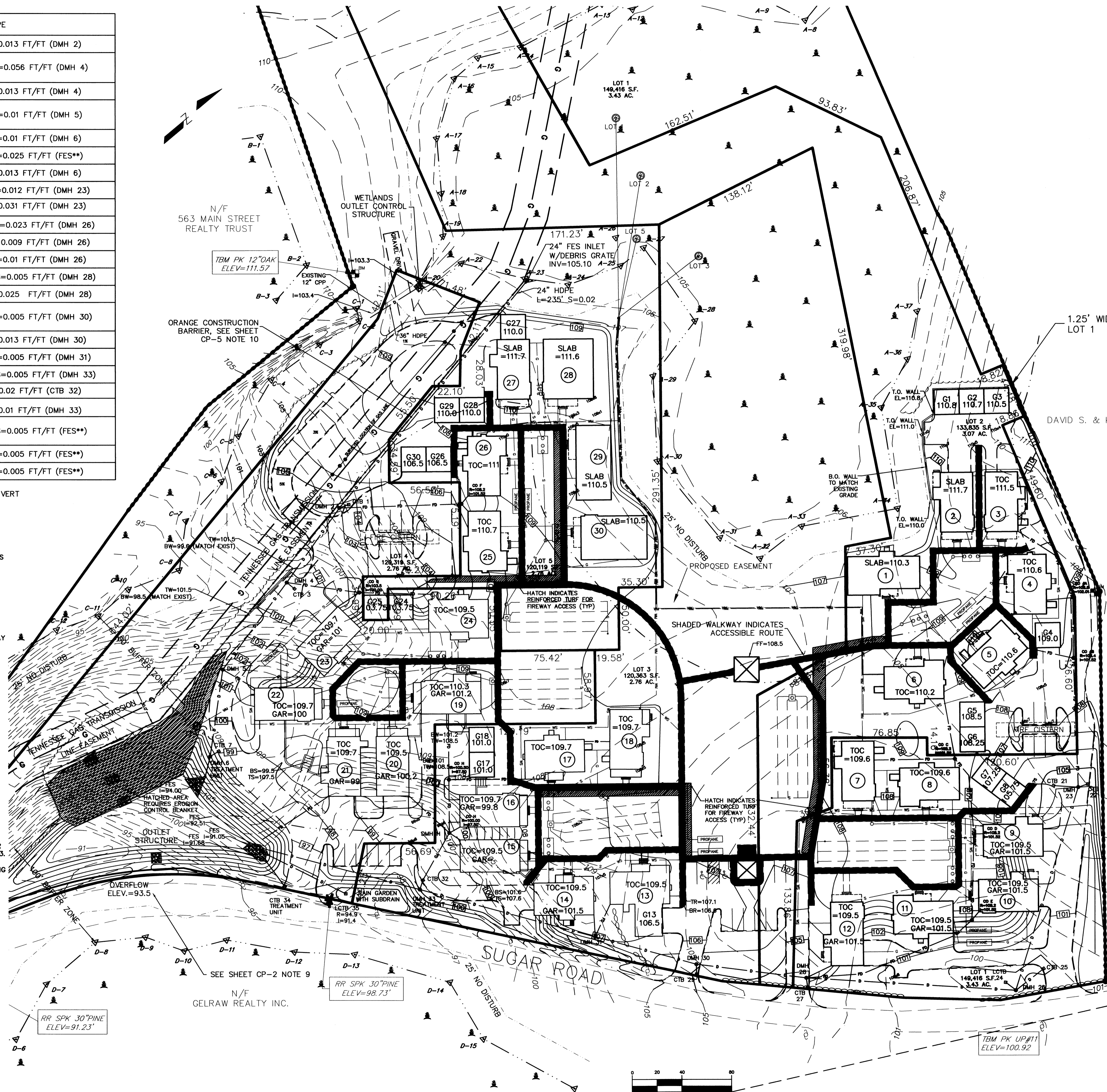
SCHEDULE OF DRAINAGE STRUCTURES

STRUCTURE	RIM ELEV.	DIA. (IN.)	INVERT IN	INVERT OUT	OUTLET PIPE
CTB 1	104.75	12"		101.25	8' 12" HDPE S=0.013 FT/FT (DMH 2)
DMH 2	104.8	12" 6" 24"	101.15 (CTB 1) 101.00 (CO-F) 100.15 (FES**)	100.15	74" 24" HDPE S=0.056 FT/FT (DMH 4)
CTB 3	100.6	12"		97.10	8' 12" HDPE S=0.013 FT/FT (DMH 4)
DMH 4	100.7	6" 12" 24"	97.60 (CO-G) 97.00 (CTB 3) 96.00 (DMH 2)	96.00	87' 24" HDPE S=0.01 FT/FT (DMH 5)
DMH 5	101.4	6" 24"	98.40 (UNIT FD) 95.13 (DMH 4)	95.13	71' 24" HDPE S=0.01 FT/FT (DMH 6)
DMH 6 *	101.6	12" 24"	95.45 (CTB 7) 94.42 (DMH 5)	94.42	17' 24" HDPE S=0.025 FT/FT (FES**)
CTB 7	99.05	12"		95.55	8' 12" HDPE S=0.013 FT/FT (DMH 6)
CTB 21	104.3	12"		100.25	21' 12" HDPE S=0.012 FT/FT (DMH 23)
CTB 22	104.2	12"		100.25	8' 12" HDPE S=0.031 FT/FT (DMH 23)
DMH 23	104.0	12" 6"	100.00 (CTB 21&22) 100.50 (CO-B)	100.00	171' 12" HDPE S=0.023 FT/FT (DMH 26)
LCTB 24	99.7	12"		96.20	11' 12" HDPE S=0.009 FT/FT (DMH 26)
CTB 25	99.9	12"		96.39	29' 12" HDPE S=0.01 FT/FT (DMH 26)
DMH 26***	100.5	6"	96.10 (CTB&DMH23)	95.85	169' 15" HDPE S=0.005 FT/FT (DMH 28)
CTB 27	103.7	12"		99.70	8' 12" HDPE S=0.025 FT/FT (DMH 28)
DMH 28	103.8	6" 12" 15"	100.03 (CO-E) 99.50 (CTB 27) 95.01 (DMH 26)	95.01	90' 15" HDPE S=0.005 FT/FT (DMH 30)
CTB 29	104.9	12"		99.9	8' 12" HDPE S=0.013 FT/FT (DMH 30)
DMH 30	105.0	12" 15"	99.80 (CTB 29) 94.56 (DMH 28)	94.31	85' 18" HDPE S=0.005 FT/FT (DMH 31)
DMH 31	107.0	6" 18"	UNIT 15 FD 93.16 (DMH 30)	93.16	146' 18" HDPE S=0.005 FT/FT (DMH 33)
DMH H	100.0	6"	97.50 (X4)	97.50	51' 6" HDPE S=0.02 FT/FT (CTB 32)
CTB 32	99.2	6"	96.50 (DMH H)	95.20	8' 12" HDPE S=0.01 FT/FT (DMH 33)
DMH 33 *	100.0	12" 18"	95.12 (CTB 32) 92.51 (DMH 31)	92.51	130' 18" HDPE S=0.005 FT/FT (FES**)
CTB 34 *	95.3	12"		91.80	24' 12" HDPE S=0.005 FT/FT (FES**)
LCTB 35	94.9	12"		91.4	70' 12" HDPE S=0.005 FT/FT (FES**)

* STORMWATER TREATMENT UNIT, SEE DETAIL
 ** FES = FLARED END SECTION, SEE DETAILS AND PLANS FOR LOCATION AND INVERT
 *** 5'Ø MANHOLE REQUIRED

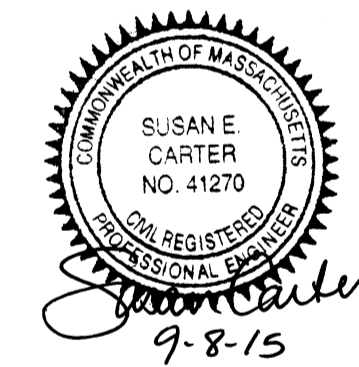
PLAN NOTES:

- SEE ARCHITECTURAL PLANS FOR DETAILS ADJACENT TO BUILDINGS.
- SEE ELECTRICAL PLANS FOR SITE LIGHTING REQUIREMENTS AND ROUTING OF MISCELLANEOUS CONDUIT.
- SEE SHEET CP-2 FOR SITE PLAN INFORMATION.
- SEE SHEET CP-5 FOR LAYOUT AND PAVING INFORMATION.
- SEE SHEET CP-6 FOR ON-SITE UTILITY LOCATION AND INFORMATION.
- SEE SHEET L-1 FOR SOFTSCAPE SURFACE TREATMENT AND PLANTING INFORMATION.
- PRIOR TO THE INITIATION OF ANY SITE EXPLORATION, GRADING OR CONSTRUCTION THAT MAY CREATE UNSTABLE SURFACES, AN EROSION CONTROL BARRIER SHALL BE ERRECTED IN THE LOCATIONS DEPICTED IN THIS PLAN SET.
- ALL PIPE LENGTHS ARE MEASURED FROM CENTER TO CENTER OF STRUCTURES.
- SPOT GRADES ARE TO BE BLENDED IN A UNIFORM MANNER TO THE ADJACENT SPOT GRADE OR CONTOUR. FINISHED FLOOR GRADES OR SLAB GRADES ARE INDICATIVE WHERE DOORS OR SLABS MEET THE SITE. GARAGES SHALL SLOPE UP FROM GRADES INDICATED IF REQUIRED BY THE ARCHITECT OR REGULATION.
- UNLESS OTHERWISE NOTED, ALL CURBING HAS AN EXPOSED HEIGHT OF 0.5 FEET.
- ALL DISTURBED SURFACES ARE TO BE STABILIZED BY THE CONSTRUCTION OF A HARD DURABLE SURFACE (PAVEMENT OR RIP-RAP), BY LOAM AND SEED, OR AS OTHERWISE SHOWN.
- THIS PLAN DEPICTS SITE GRADING AND DRAINAGE. SEE OTHER PLANS FOR LOCATIONS, CONSTRUCTION AND TYPES OF OTHER UTILITIES, SITE FEATURES AND RELATED CONSTRUCTION.
- ALL AREAS INDICATED AS PADS SHALL BE CONCRETE, SEE DETAIL.
- ALL SLOPES OF 3:1 (HORIZ. TO VERT.) OR STEEPER, OR AS OTHERWISE SPECIFIED, ARE TO BE CONSIDERED "STABILIZED SLOPES" AND SHALL HAVE EROSION CONTROL NETTING INSTALLED. SEE SPECIFICATION SECTION 02370, SLOPE STABILIZATION FABRIC.
- SEE ARCH PLANS FOR ALL ROOF DRAIN CONNECTIONS. CONTRACTOR SHALL ACCOMMODATE ALL ROOF DRAIN CONNECTIONS WHETHER DEPICTED ON THIS PLAN OR NOT.
- ACCESSIBLE ROUTES ARE DEFINED BY 521 CMR 20; SITE WALK, ROUTE AND EXTERIOR SPACE DESIGN AND CONSTRUCTION CRITERIA ARE DEFINED IN 521 CMR SECTIONS 20 TO 23. AN ACCESSIBLE ROUTE SHALL HAVE NO LONGITUDINAL SLOPE (DIRECTION OF TRAVEL) IN EXCESS OF 5% AND NO CROSS SLOPE IN EXCESS OF 2%. ALL LANDINGS, PLAZAS, LOADING AND UNLOADING AREAS SHALL HAVE NO SLOPE, AS MEASURED IN ANY DIRECTION THAT EXCEEDS 2%. NO SLOPE AS PART OF AN ACCESSIBLE ROUTE, LOADING AREA, PLAZA OR UNLOADING AREA THAT IS EXTERIOR TO A BUILDING SHALL BE LESS THAN 1% AS MEASURED IN ANY DIRECTION. SLOPES SHALL BE MEASURED IN TWO (2) FOOT LONG INCREMENTS. THE CONTRACTOR SHALL ENSURE THAT ALL CONSTRUCTION MEETS THE ABOVE REGULATIONS AND THE SPECIFICS OF 521 CMR 2.4.40, WITH NO TOLERANCES PERMITTED FOR EXCEEDING ANY MAXIMUM SLOPE. AREAS DEPICTED ON THIS PLAN AS BEING ACCESSIBLE ROUTES OR LOADING AREAS ARE SHADED FOR EMPHASIS.
- CONTRACTOR SHALL VERIFY LOCATION AND ELEVATION OF EXISTING 24" CULVERT UNDER SUGAR ROAD AND ADJUST LOCATION OF OUTLET STRUCTURE TO ALIGN WITH 24" CULVERT.
- UNLESS OTHERWISE NOTED OR SHOWN, SITE GEOTECH FABRIC SHALL BE EQUAL TO MIRAFI 140N, NON-WOVEN.
- IMPORTED SUBSOIL AND PLANTING MIX SHALL BE LOAMY SAND AS SPECIFIED IN THE USDA CLASSIFICATION SYSTEM (TEXTURAL TRIANGLE)
- DRAINAGE SYSTEMS SHALL BE INSTALLED FROM THE DOWNSTREAM END UP, SEE PLAN NOTES SHEET CP-8.



GENERAL NOTE:
 1. SEE CP-1 FOR NOTES, LEGEND AND ABBREVIATIONS

REVISIONS:
 9-8-15 GAS LINE CROSSING



CONSTRUCTION DOCUMENTS
 ISSUED MAY 1, 2015

CRAFTSMAN VILLAGE
 GRADING & DRAINAGE
 PLAN

LOCATION: SUGAR ROAD
 TOWN: BOLTON, MASSACHUSETTS
 PREPARED FOR:
 CRAFTSMAN VILLAGE
 BOLTON, LLC

SCALE: 1"=40' DATE: SEPT 3, 2014

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PROJECT No.: 14-7101 PLAN No. 7101-CP-7

GENERAL:

1. THIS PLAN IS INTENDED TO PROVIDE GUIDANCE AND INSTRUCTION TO THE OWNER AND CONTRACTOR(S) IN THE PREVENTION OF EROSION AND SEDIMENTATION ON AND OFF-SITE. THIS PLAN IS ALSO INTENDED TO ALLOW ANY PERMIT CONDITIONS OR ORDERS OF CONDITIONS TO BE MORE SPECIFIC IN ADDRESSING ITEMS OF CONCERN. IF, UPON ISSUANCE OF THE COMPREHENSIVE PERMIT FROM THE BOLTON ZONING BOARD OF APPEALS OR ANY OTHER CONDITIONS, SAID CONDITIONS SHALL SUPERCEDE THE REQUIREMENTS SPECIFIED ON THIS PLAN.
2. THIS PLAN IS PART OF A SET OF DOCUMENTS THAT ARE TO BE VIEWED AND REVIEWED IN THEIR ENTIRETY. SUCH DOCUMENTS INCLUDE CONSTRUCTION PLANS AND ANY PERMITS ISSUED BY THE TOWN OF BOLTON, AGENTS OF THE TOWN OF BOLTON OR OTHER REGULATORY AGENCIES.
3. PHOTOS ALONG SUGAR ROAD SHALL BE TAKEN PRIOR TO ANY DISTURBANCE WITHIN OR ADJACENT TO THE RIGHT OF WAY TO DOCUMENT PRE-CONSTRUCTION CONDITIONS. PHOTOS SHALL BE PROVIDED TO THE OWNER.

EROSION CONTROL MEASURES:

1. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING THAT EROSION AND SEDIMENTATION ARE CONTROLLED. THIS PLAN SHALL BE ADAPTED TO FIT THE CONTRACTOR'S EQUIPMENT, WEATHER CONDITIONS, AND ANY PERMIT CONDITIONS/ORDERS OF CONDITIONS ISSUED BY THE ZONING BOARD OF APPEALS, ISSUED BY ANY OTHER REGULATORY AGENCY OF THE TOWN OF BOLTON AND ANY SPECIAL CONDITIONS.
2. THE MOST IMPORTANT ASPECTS OF CONTROLLING EROSION AND SEDIMENTATION ARE LIMITING THE EXTENT OF DISTURBANCE AND STABILIZING SURFACES AS SOON AS POSSIBLE. OF SECONDARY IMPORTANCE IN EROSION CONTROL IS THE LIMITING THE SIZE AND LENGTH OF THE TRIBUTARY DRAINAGE AREA WITHIN THE WORK SITE AND DRAINAGE STRUCTURES. THESE FUNDAMENTAL PRINCIPLES SHALL BE THE KEY FACTOR IN THE CONTRACTOR'S CONTROL OF EROSION ON THE SITE.
3. ALL DISTURBED SURFACES SHALL BE STABILIZED A MINIMUM OF 14 DAYS AFTER CONSTRUCTION IN ANY PORTION OF THE SITE HAS CEASED OR IS TEMPORARILY HALTED UNLESS ADDITIONAL CONSTRUCTION IS INTENDED TO BE INITIATED WITHIN 21 DAYS.
4. THE CONTRACTOR IS RESPONSIBLE FOR THE MAINTENANCE AND REPAIR OF ALL EROSION CONTROL DEVICES ON-SITE. ALL EROSION CONTROL DEVICES SHALL BE REGULARLY INSPECTED.
5. AT NO TIME SHALL SILT-LADEN WATER BE ALLOWED TO ENTER SENSITIVE AREAS (WETLANDS, OFF-SITE AREAS AND DRAINAGE SYSTEMS). ANY RUNOFF FROM DISTURBED SURFACES SHALL BE DIRECTED THROUGH SETTLING BASINS AND EROSION CONTROL BARRIERS PRIOR TO ENTERING ANY SENSITIVE AREAS.
6. ALL LOCATIONS OF EROSION AND SEDIMENTATION CONTROL MEASURES REQUIRING THE USE OF SNOW FENCING OR CONSTRUCTION FENCING IN SENSITIVE AREAS SHALL BE SURVEYED BY A REGISTERED LAND SURVEYOR PRIOR TO INSTALLATION.

PRELIMINARY SITE WORK:

1. ALL ORGANIC MATERIAL REMOVED SHOULD BE STOCKPILED PRIOR TO FILLING, SEPARATING THE TOPSOIL FOR FUTURE USE ON THE SITE. EROSION CONTROLS SHALL BE UTILIZED ALONG THE DOWNSLOPE SIDE OF THE PILES IF THE PILES ARE TO REMAIN MORE THAN THREE WEEKS OR SUBJECT TO EROSION CONDITIONS SUCH AS INTENSE RAIN, WIND OR OTHER EXPOSURE.
2. STOCKPILES SHALL BE LOCATED AS REQUIRED. SHOULD ADDITIONAL AREAS BE NEEDED THEY SHALL BE LOCATED WITHIN THE LIMITS OF DISTURBANCE, IN AREAS OF MINIMAL IMPACT. IF A STOCKPILE IS LOCATED ON A SLOPE, THE RUNOFF SHALL BE DIRECTED AWAY FROM THE PILE.
3. IF INTENSE RAINFALL IS ANTICIPATED, THE INSTALLATION OF SUPPLEMENTAL STRAW BALE DIKES, SILT FENCES, OR ARMORED DIKES SHALL BE UTILIZED.
4. IF THE SITE CONSTRUCTION OCCURS AT ANY TIME OTHER THAN THE MAY-NOVEMBER CONSTRUCTION SEASON, THE SITE DRAINAGE SYSTEM SHALL BE INSTALLED, MAINTAINING HYDRAULIC CAPACITY, PRIOR TO ANY ROUGH GRADING.

DRAINAGE SYSTEM:

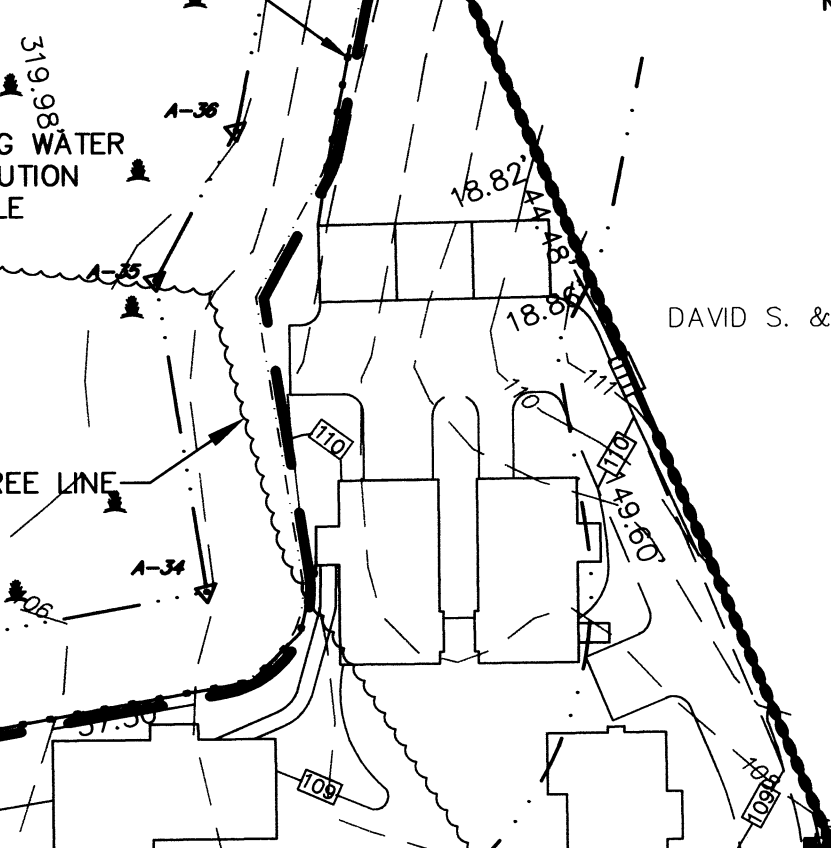
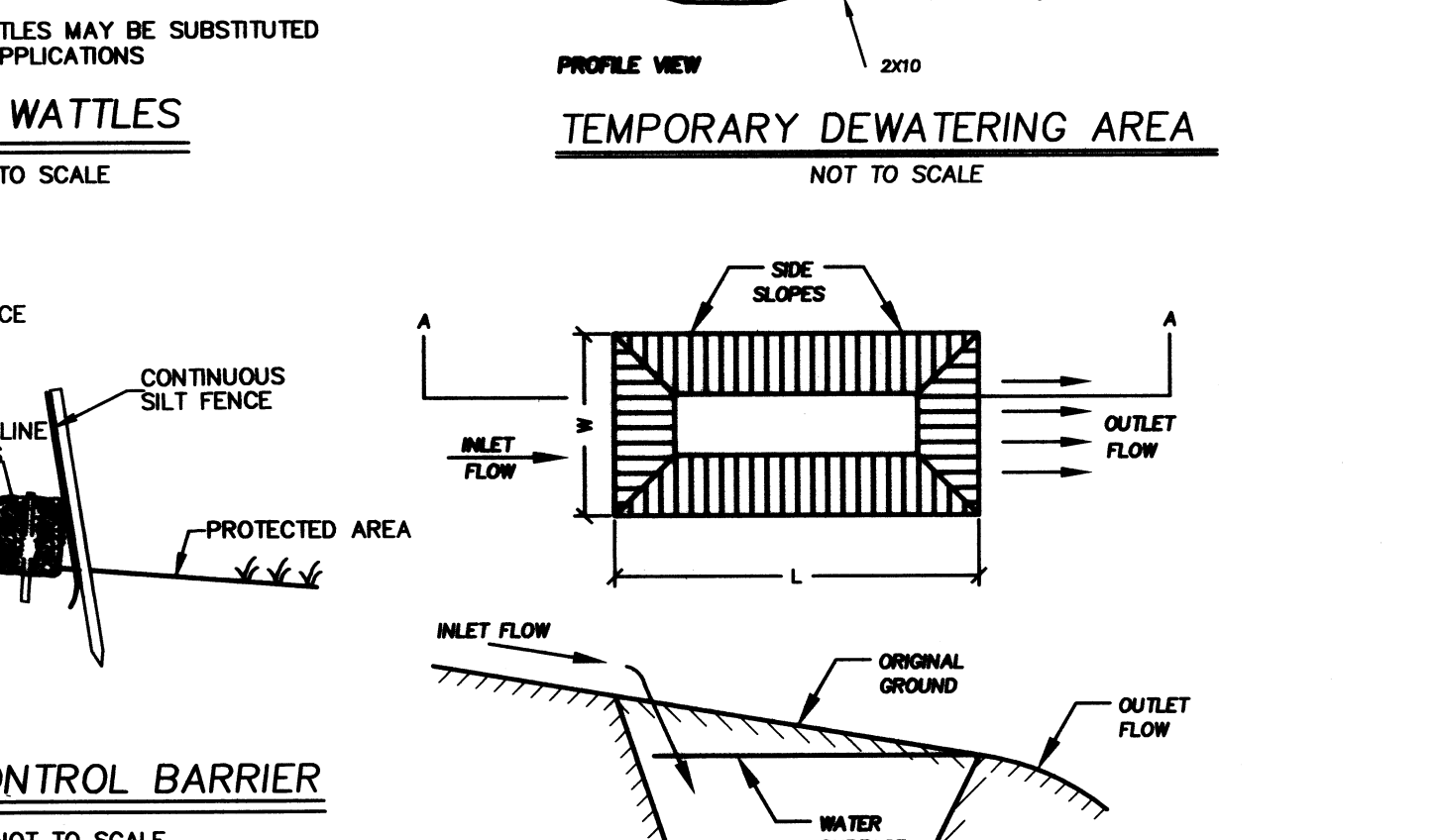
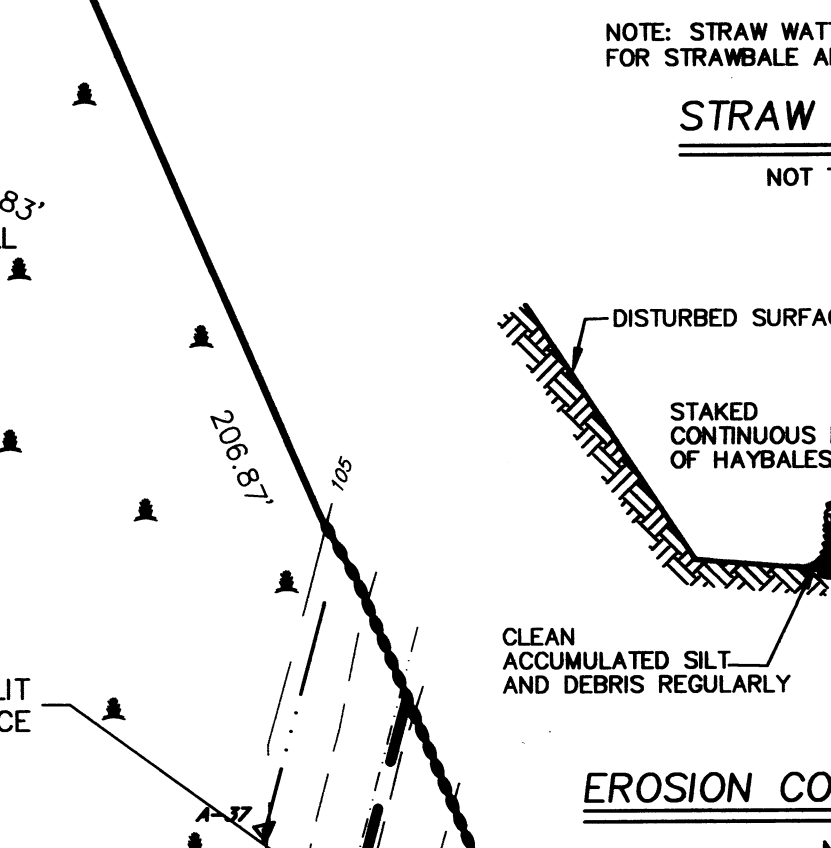
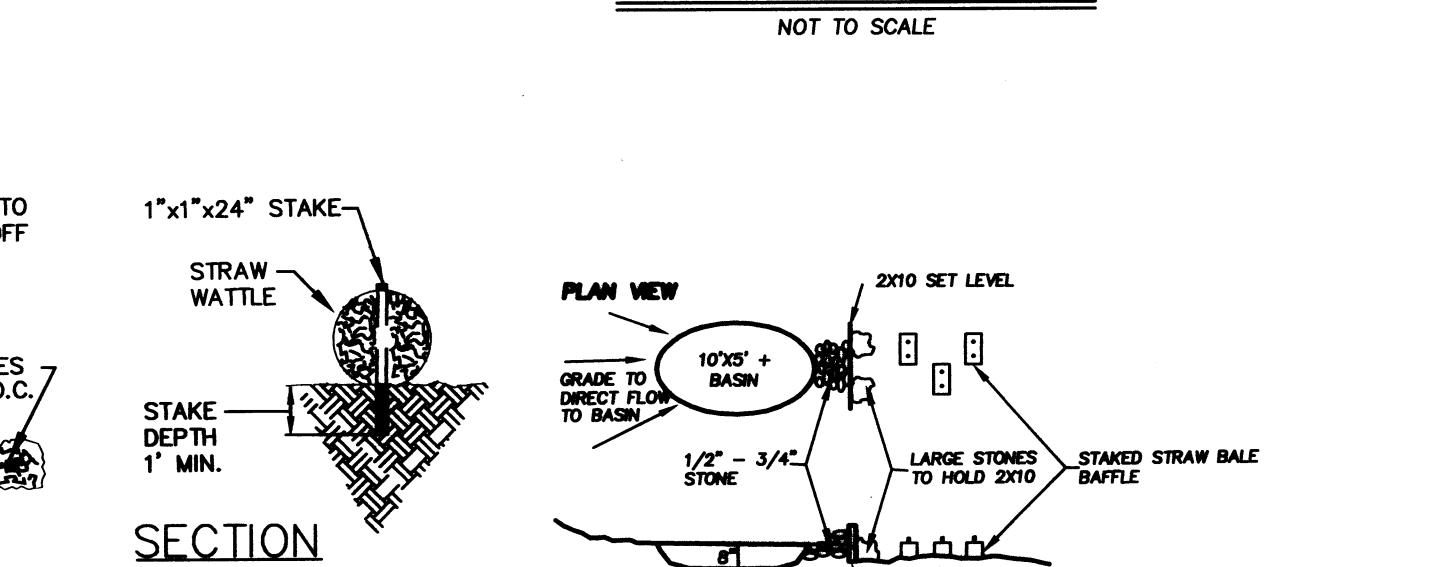
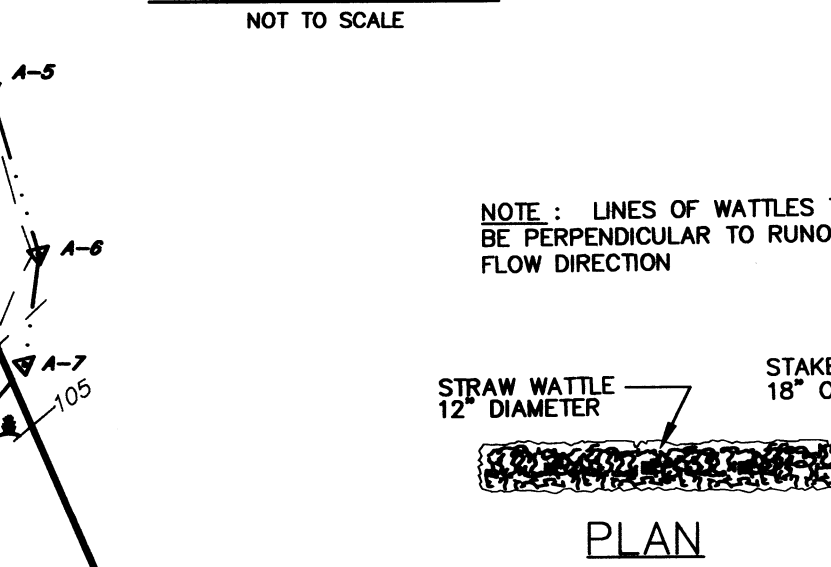
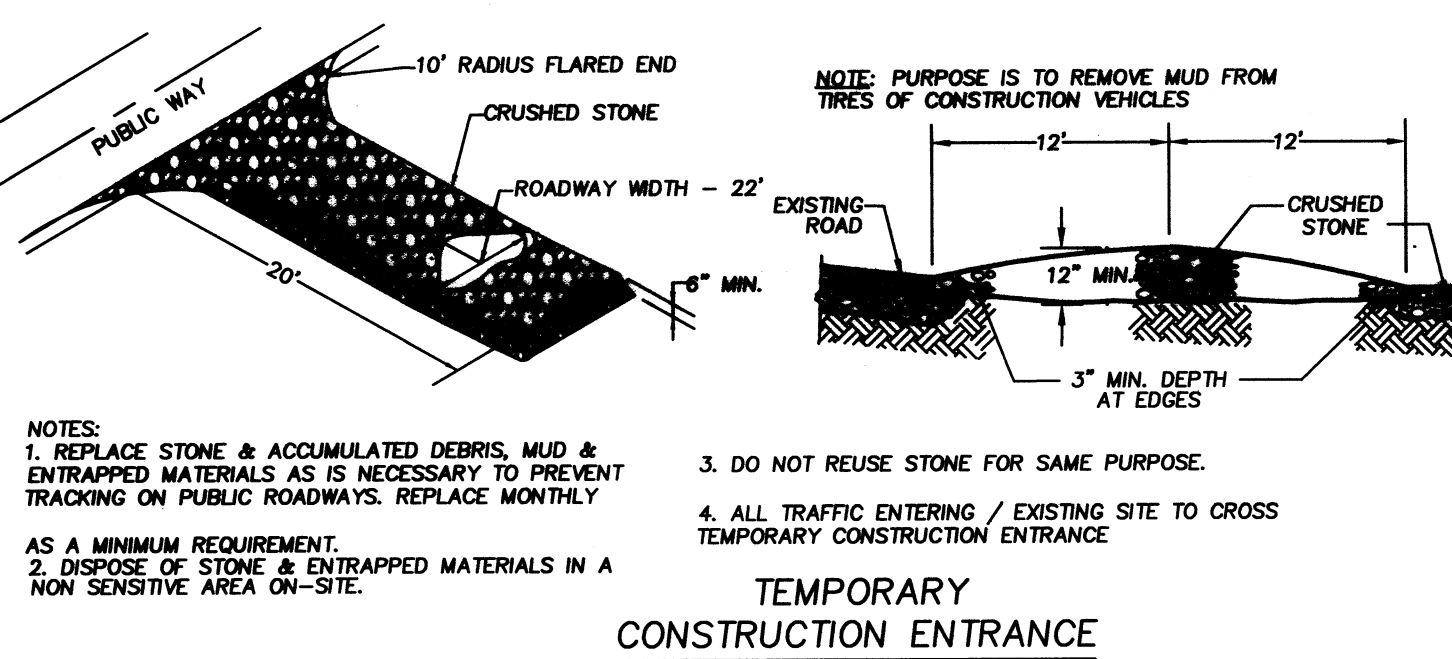
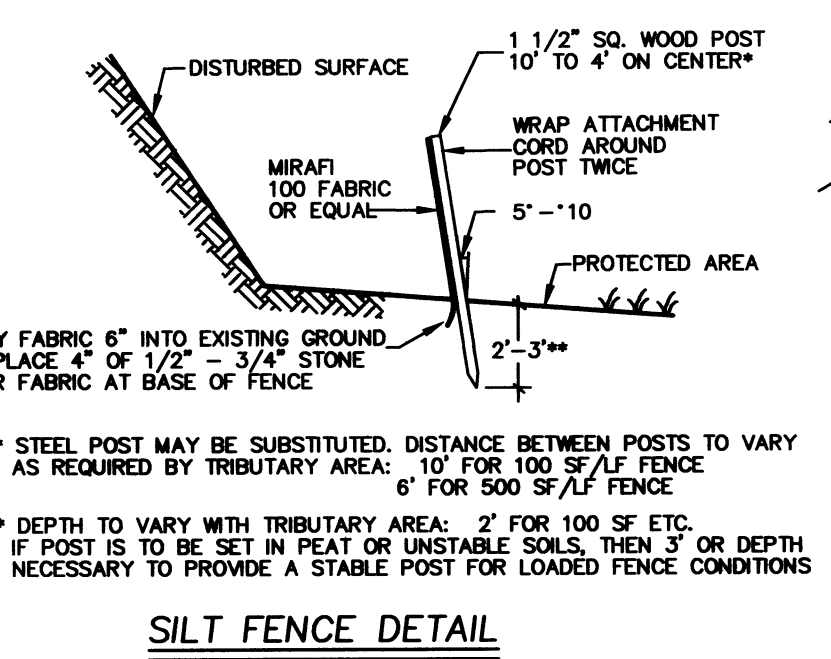
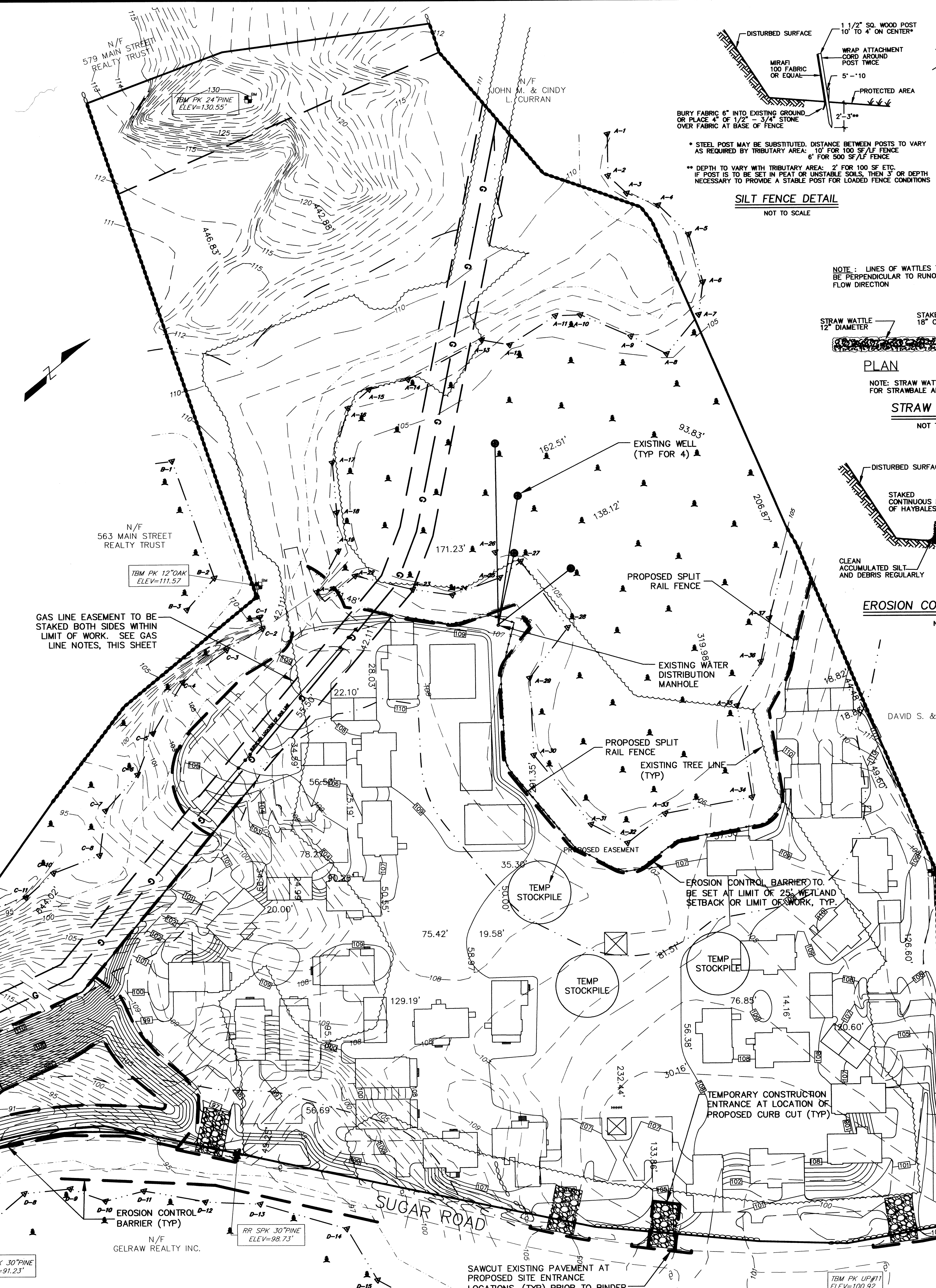
1. THE DRAINAGE SYSTEM SHALL BE INSTALLED FROM THE DOWNSTREAM END UP.
2. A SILT FENCE SHALL BE INSTALLED AT THE OUTFALL OF ALL TEMPORARY BASINS AND SWALES. IT SHALL REMAIN IN PLACE UNTIL ALL TRIBUTARY AREAS ARE STABILIZED.
3. WATER SHALL NOT BE ALLOWED TO ENTER PIPES OR RECHARGE SYSTEMS FROM UN-STABILIZED SURFACES.
4. TRENCH EXCAVATIONS SHALL BE LIMITED TO THE MINIMUM LENGTH REQUIRED FOR DAILY PIPE INSTALLATION. ALL TRENCHES SHALL BE BACKFILLED AS SOON AS POSSIBLE. THE ENDS OF PIPES SHALL BE CLOSED NIGHTLY WITH PLYWOOD AND BACKER BOARD.
5. IT IS IMPORTANT THAT THE BINDER COURSE, WITH BERMS, BE INSTALLED ON THE LIMITS OF THE PARKING AREAS AND ACCESS ROAD AS SOON AS FEASIBLE AS THESE AREAS WILL FUNCTION AS A CONDUIT FOR RUNOFF. CATCH BASINS SHALL BE SET TO BINDER GRADE UNTIL JUST PRIOR TO FINAL PAVING.
6. THE CONTRACTOR SHALL CONSTRUCT THE TEMPORARY DETENTION BASIN TO COLLECT THE ON-SITE DRAINAGE UNTIL THE TRIBUTARY SURFACES ARE STABILIZED.
7. DRAINAGE BASINS AND RECHARGE AREAS SHALL NOT BE OVER-EXCAVATED. NATURAL IN-SITU SOILS SHALL REMAIN AT THE BOTTOM OF ALL SUCH SYSTEMS.

INSTALLATION OF UTILITIES:

1. CARE SHALL BE TAKEN TO ASSURE THAT THE UTILITY TRENCHES DO NOT CHANNELIZE RUNOFF TOWARDS EXISTING STREETS OR OTHER OFF-SITE AREAS.
2. THE INSTALLATION OF SUBSURFACE UTILITIES AND APPURTENANCES SHALL BE IN ACCORDANCE WITH THE APPLICABLE UTILITY COMPANY SPECIFICATIONS.
3. TRENCH EXCAVATIONS SHALL BE LIMITED TO THE MINIMUM LENGTH REQUIRED FOR DAILY UTILITY INSTALLATION. ALL TRENCHES SHALL BE BACKFILLED AS SOON AS POSSIBLE.
4. CONTRACTORS SHALL OBTAIN ALL NECESSARY TRENCH PERMITS FROM THE TOWN OF BOLTON.

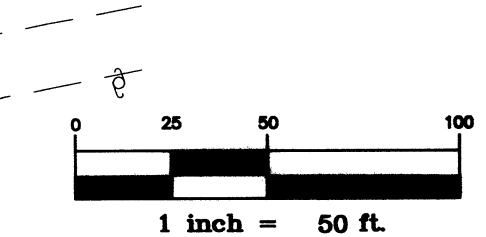
GAS LINE:

1. SITE IS CROSSED BY A HIGH PRESSURE GAS TRANSMISSION LINE, WITH FIELD MARKERS.
2. THE EDGE OF THE GAS EASEMENT SHALL BE STAKED IN THE FIELD PRIOR TO ANY WORK ADJACENT TO THE GAS LINE, AND A TEMPORARY CONSTRUCTION FENCE SHALL BE ERCTED TO PREVENT INTRUSION INTO THIS AREA.
3. KINDER MORGAN ENERGY PARTNERS SHALL BE NOTIFIED IF WORK IS TO OCCUR WITHIN THE EASEMENT. THE ACTUAL DEPTH OF THE LINE SHALL BE FIELD DETERMINED PRIOR TO ANY WORK, INCLUDING LAND CLEARING, WITHIN THE EASEMENT. DETERMINATION OF LOCATION AND DEPTH SHALL BE WITNESSED BY PERSONNEL FROM KINDER MORGAN ENERGY PARTNERS PRESENT.



SLOPES OF STORMWATER BASIN TO BE PROTECTED UNTIL STABILIZED. EROSION BARRIER AT TOE OF SLOPE TO REMAIN UNTIL STABILIZED

REVISIONS:
9-8-15 GAS LINE CROSSING



CONSTRUCTION DOCUMENTS
ISSUED MAY 1, 2015

CRAFTSMAN VILLAGE
EROSION AND
SEDIMENTATION CONTROL
PLAN

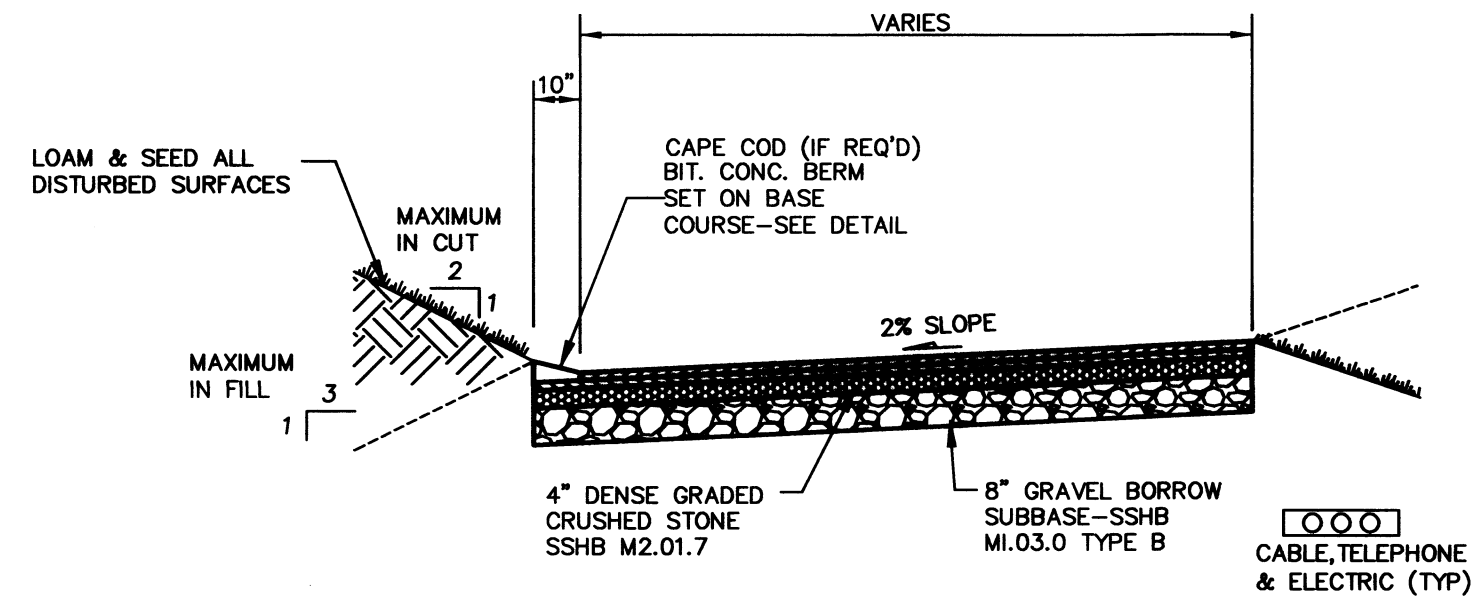
LOCATION: SUGAR ROAD
TOWN: BOLTON, MASSACHUSETTS
PREPARED FOR:

CRAFTSMAN VILLAGE
BOLTON, LLC

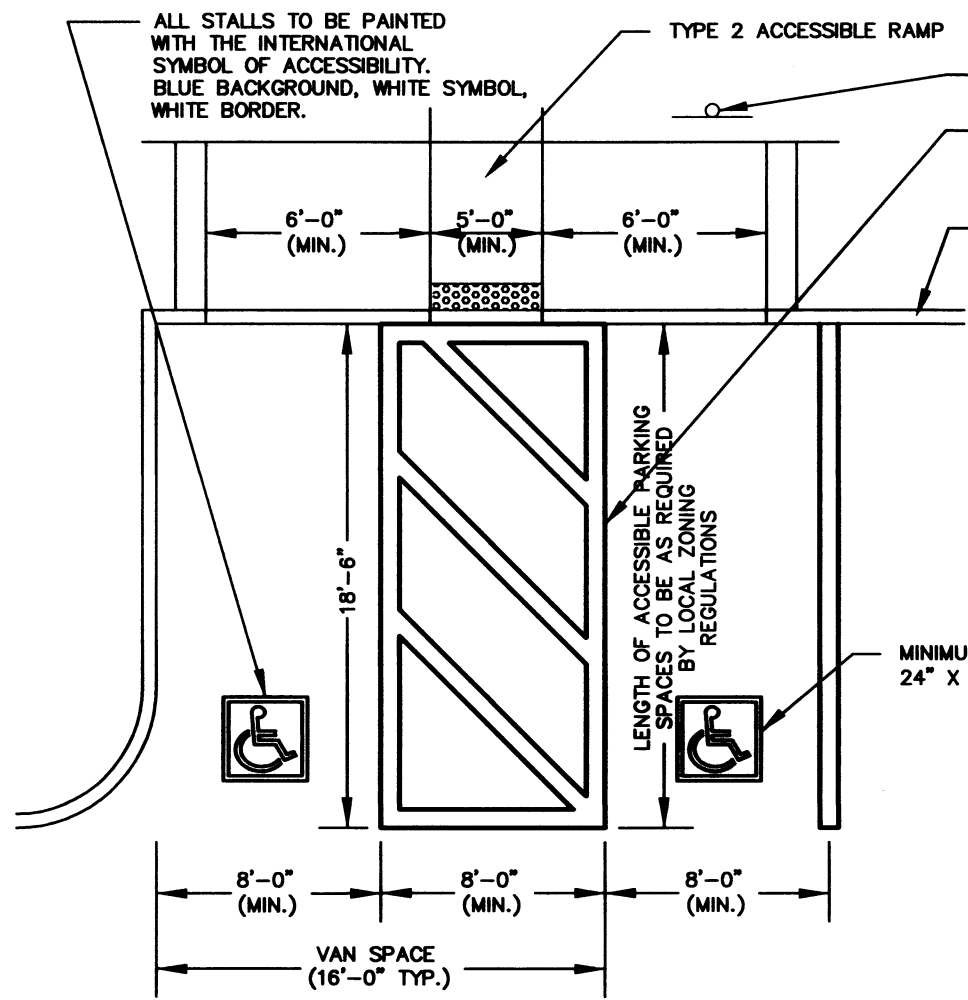
SCALE: 1"=50' DATE: SEPT 3, 2014

Places Associates, Inc.
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Civil Engineering, Surveying
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LITTLETON, MA 01460
978.486.0334 Ph.
978.486.0447 Fax
places@placesassociates.com
PROJECT No.: 14-7101 PLAN No. 7101-CP-8

PAVEMENT
ROADWAY - WEARING COURSE: 1 1/2" BINDER COURSE: 2"
ALL PAVEMENT SHALL BE HOT MIX ASPHALT (HMA).



TYPICAL ROAD CROSS SECTION
NOT TO SCALE



ACCESSIBLE PARKING SPACES
NOT TO SCALE

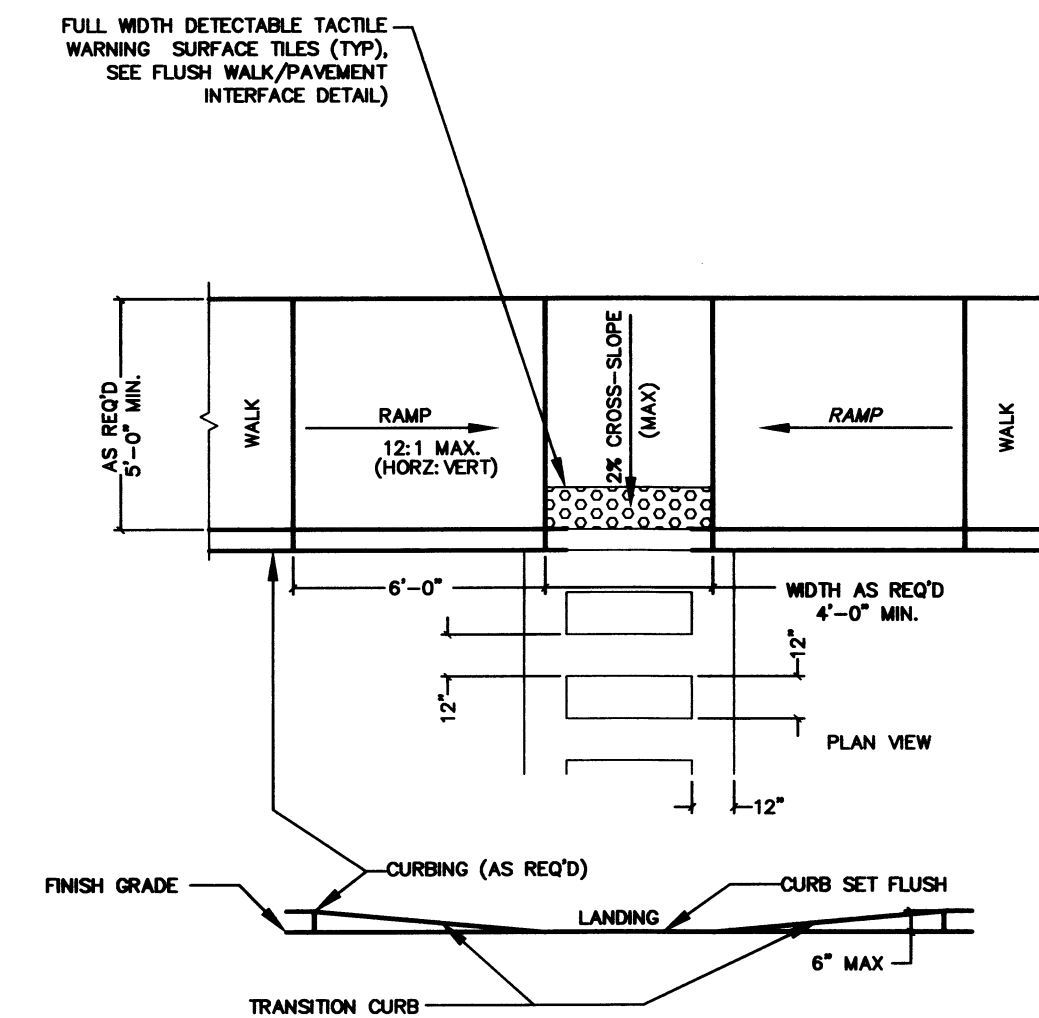
ALL STALLS TO BE PAINTED WITH THE INTERNATIONAL SYMBOL OF ACCESSIBILITY: BLUE BACKGROUND, WHITE SYMBOL, WHITE BORDER.

8" WIDE CONTRAST PAINTED LINES WITH 45 DEGREE LINES SPACED 4" ON CENTER LINES OR OTHER APPROVED HIGH CONTRAST DELINEATION CURB OR BERM AS DEPICTED (SEE PLAN)

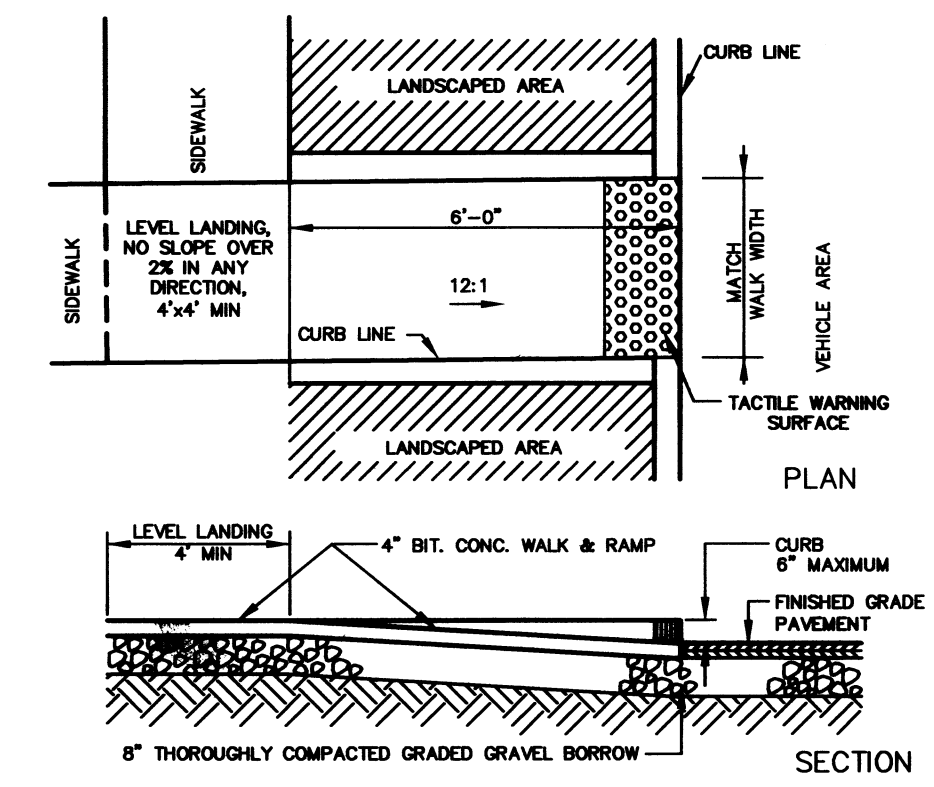
SIGN (TYP. FOR EACH SPACE, SEE NOTE 5)

NOTES:

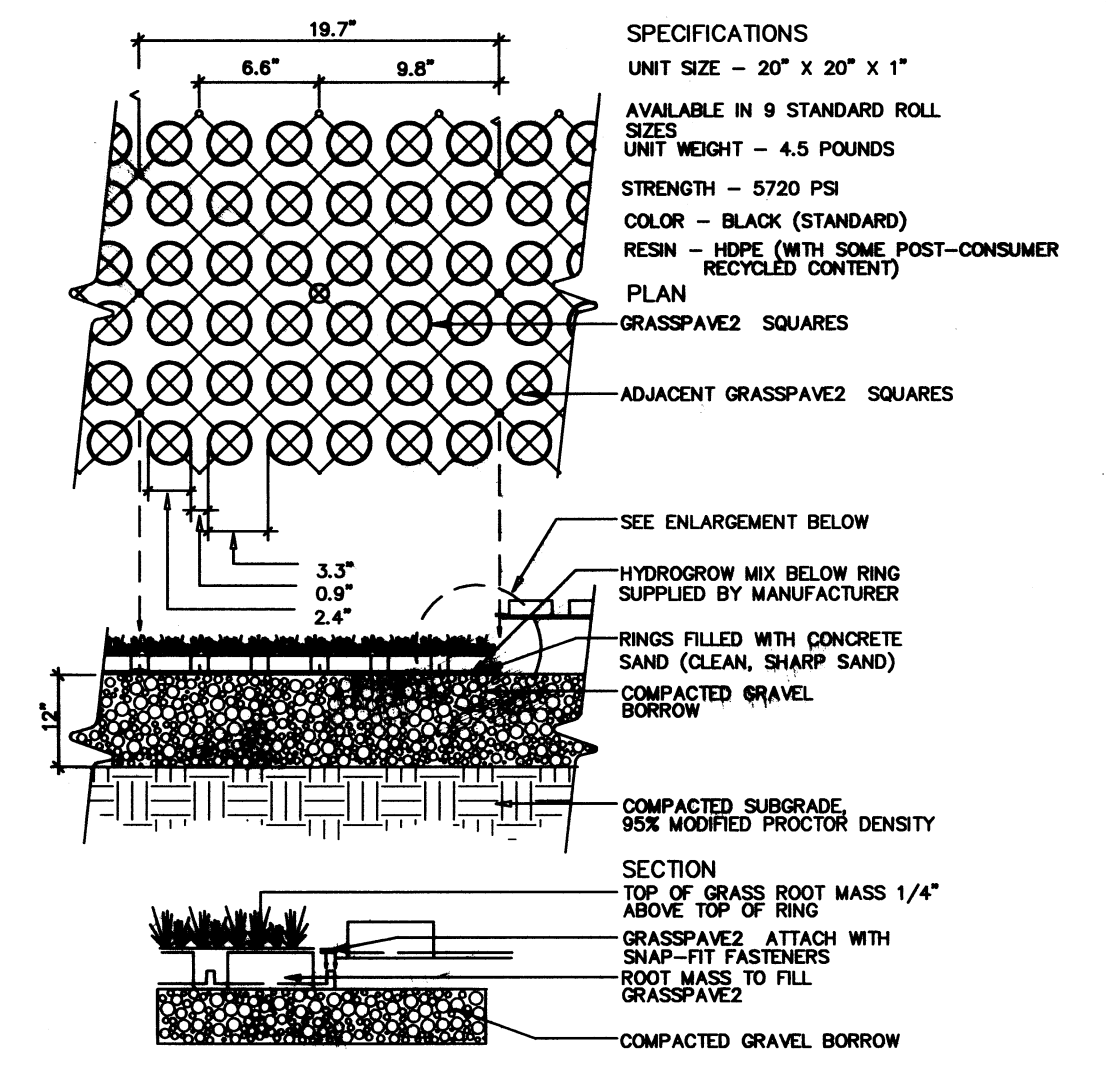
- 1) PARKING SPACES SHALL MEET THE REQUIREMENTS OF THE CODE OF MASSACHUSETTS REGULATIONS ARCHITECTURAL ACCESS BOARD - §21C.04R.
- 2) PARKING SPACES AND ACCESS ISLES SHALL BE LEVEL WITH SURFACE SLOPES NOT EXCEEDING 1:50 (2%) IN ALL DIRECTIONS, AS MEASURED USING A TWO-FOOT LONG "SMART LEVEL." NO ALLOWANCES CAN BE MADE FOR ANY SLOPE - IN ANY DIRECTION - GREATER THAN 2%.
- 3) VAN ACCESSIBLE SPACES: ACCESS AISLES SHALL BE A MINIMUM 8'-0" WIDE. A MINIMUM OF ONE VAN SPACE SHALL BE PROVIDED PER SITE.
- 4) TWO ACCESSIBLE SPACES MAY SHARE A COMMON ACCESS ISLE.
- 5) A SIGN, IDENTIFYING ACCESSIBLE PARKING SPACES AS RESERVED, SHALL BE LOCATED AT THE HEAD OF EACH SPACE AND NO MORE THAN 10'-0" AWAY. THE SIGN SHALL BE AS SPECIFIED BY THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD), R7-8 OR APPROVED EQUAL.
- 6) SIGNS AT THE HEAD OF VAN ACCESSIBLE SPACES SHALL INCLUDE THE WORDS "VAN ACCESSIBLE," R7-8A



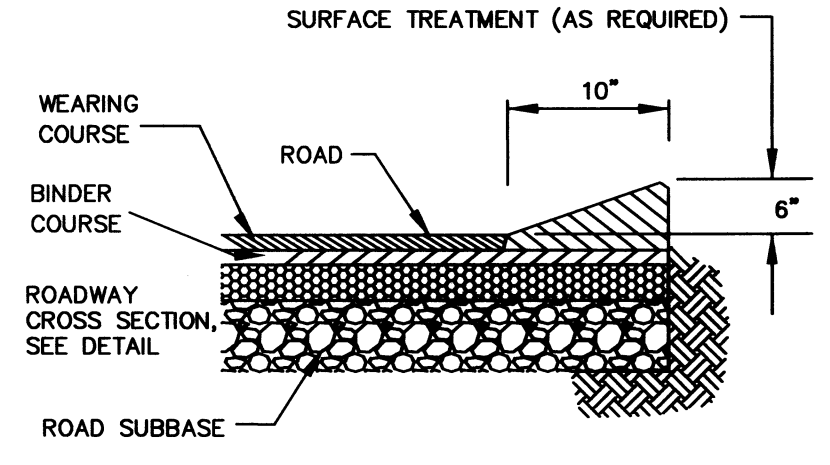
TYPE 2 ACCESSIBLE RAMP
NOT TO SCALE



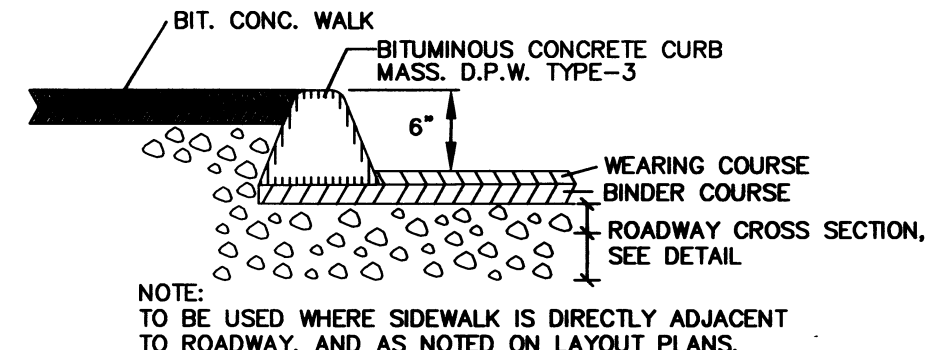
TYPE 3 ACCESSIBLE RAMP
NOT TO SCALE



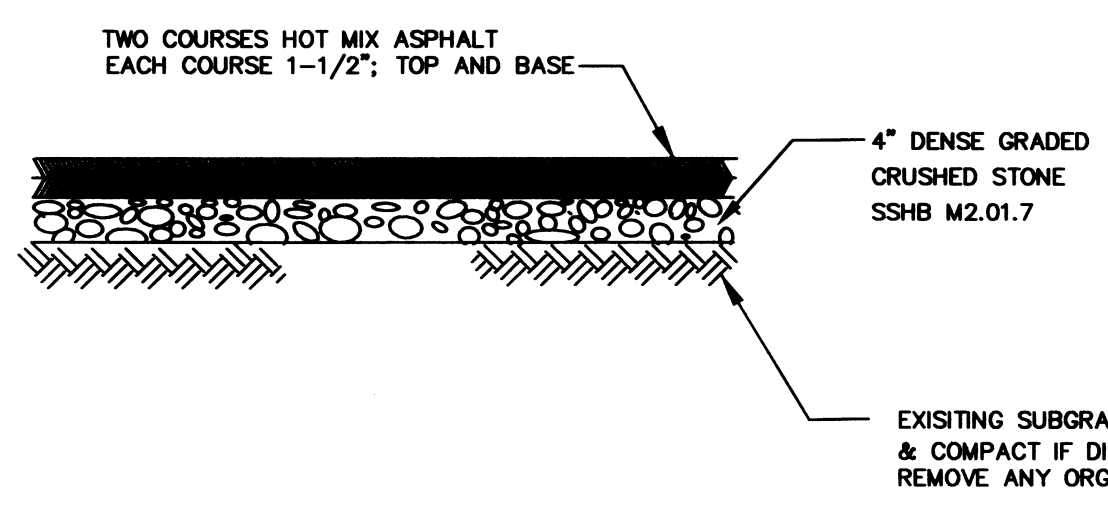
REINFORCED TURF
NOT TO SCALE



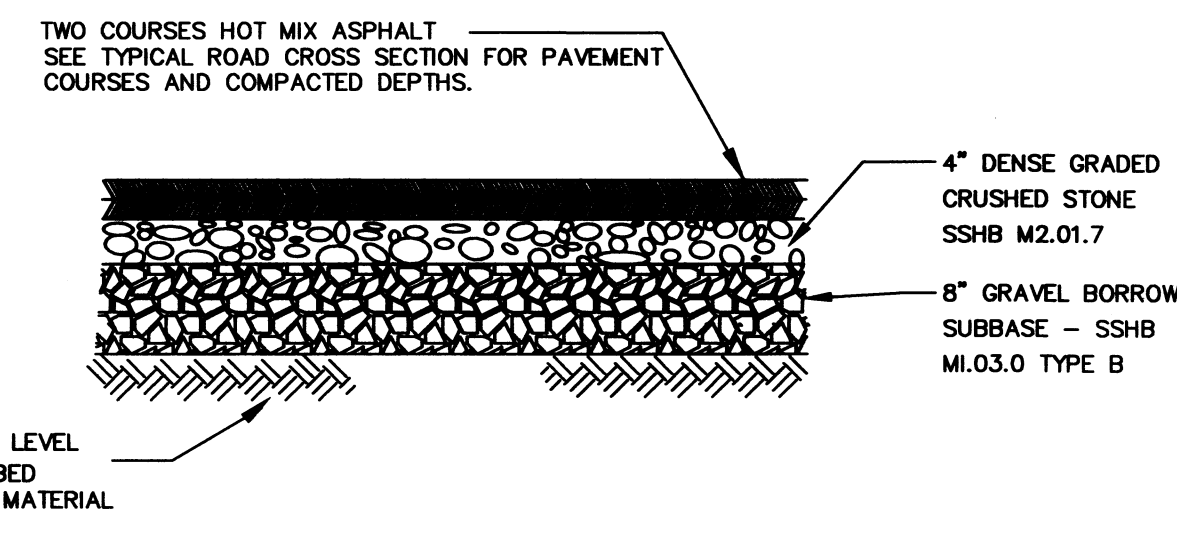
CAPE COD BERM
NOT TO SCALE



VERTICAL BITUMINOUS CURB
NOT TO SCALE



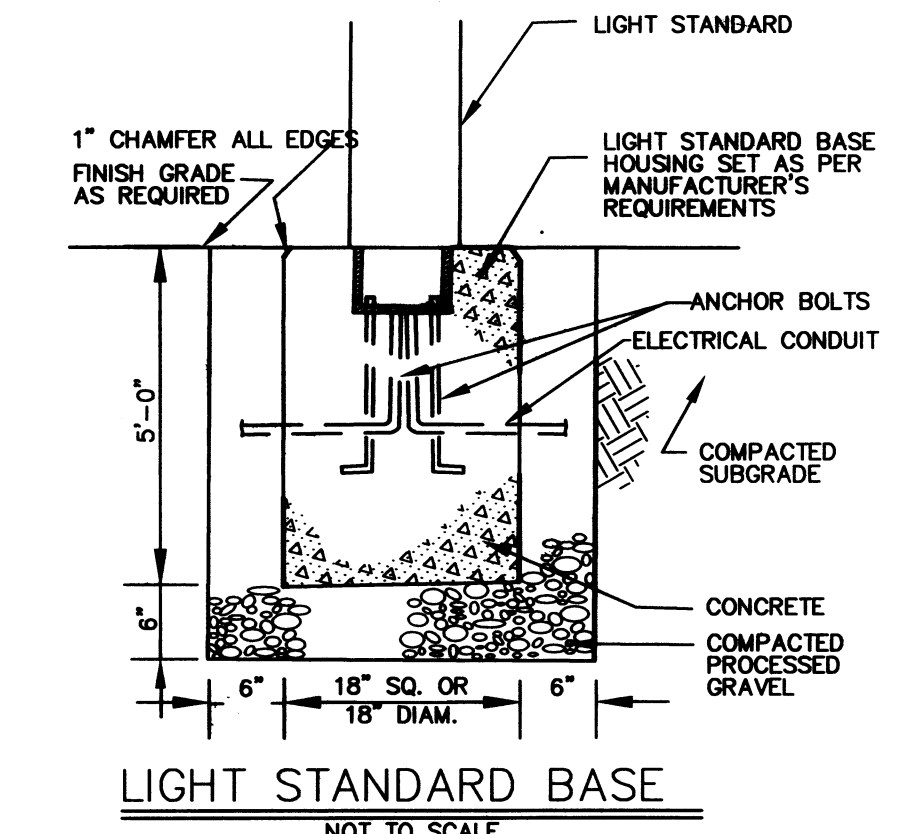
BITUMINOUS CONC. WALK
NOT TO SCALE



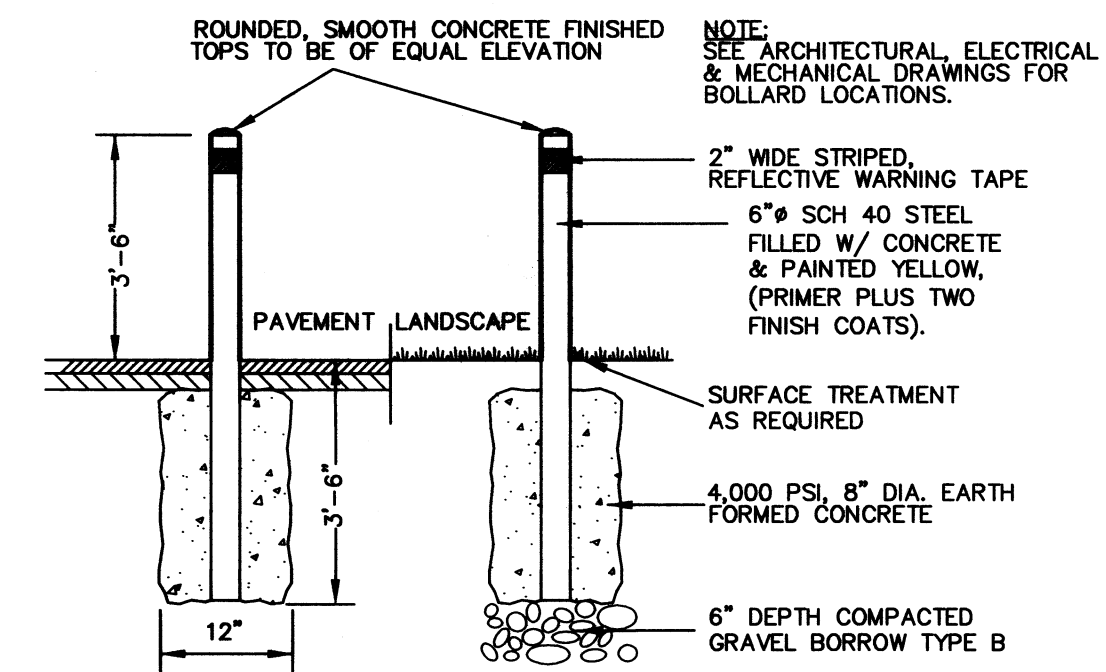
BITUMINOUS CONC. DRIVE & PARKING
NOT TO SCALE

SIGN	LEGEND	DIMENSIONS	SPECIFICATIONS
	R7-8 Missing or Invalid Symbol Reference See OLCMA 3D Projects/R7-8 HCP.pdf Sheet 1	12" X 18"	MUTCD
	R1-1	24" OCTAGONAL	MUTCD
	AT-V0	24" X 8"	N/A
	R5-1	24"	MUTCD
	R7-1	12" X 18"	MUTCD
	NA	18" X 12"	AS APPROVED BY BOLTON CONSERVATION

SIGN LEGEND
NOT TO SCALE

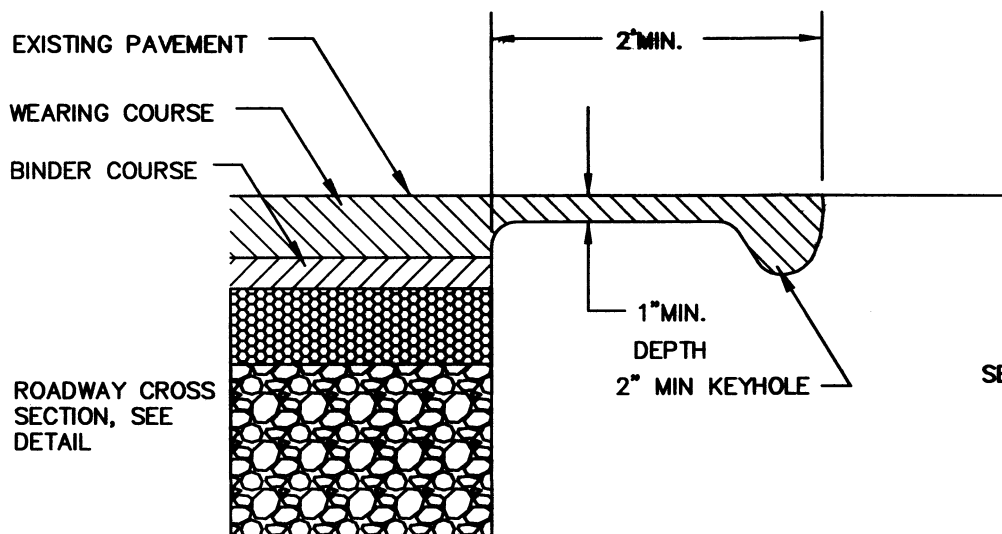


LIGHT STANDARD BASE
NOT TO SCALE

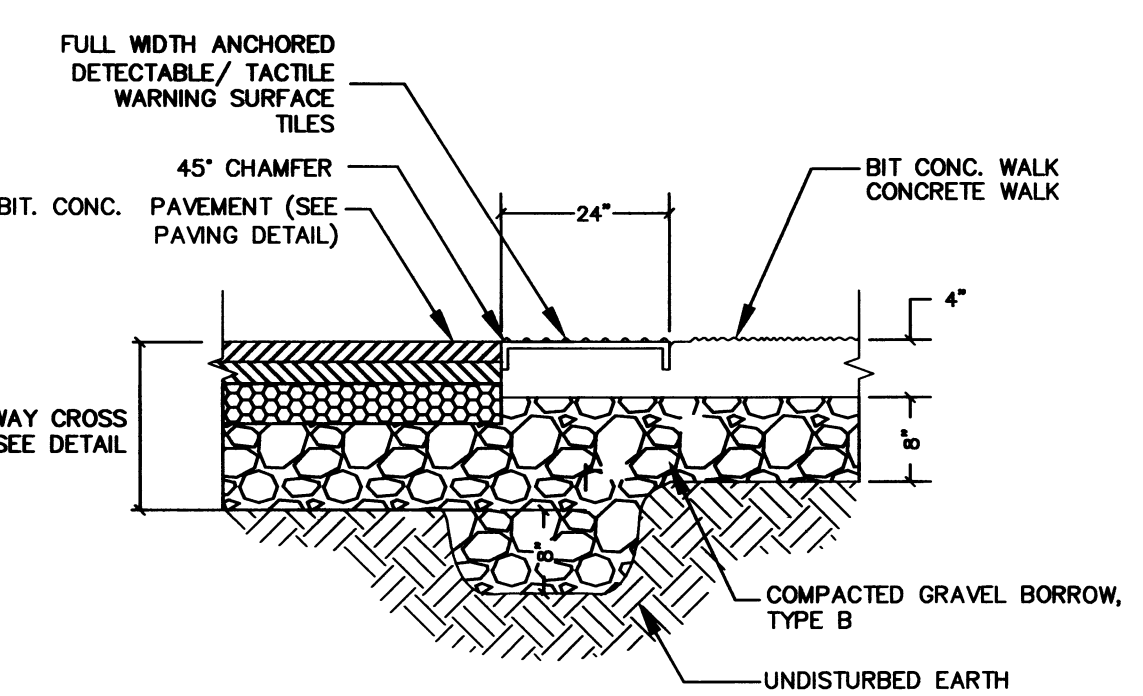


BOLLARD GUARD
NOT TO SCALE

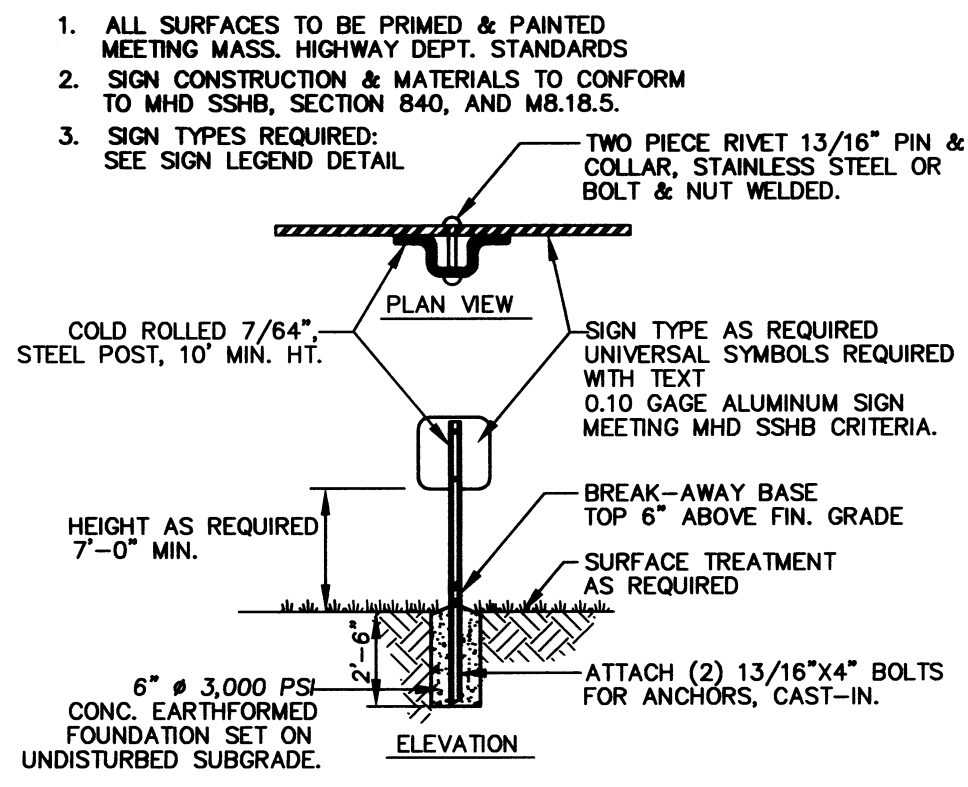
REVISIONS:
9-8-15 NO REVISIONS THIS SHEET



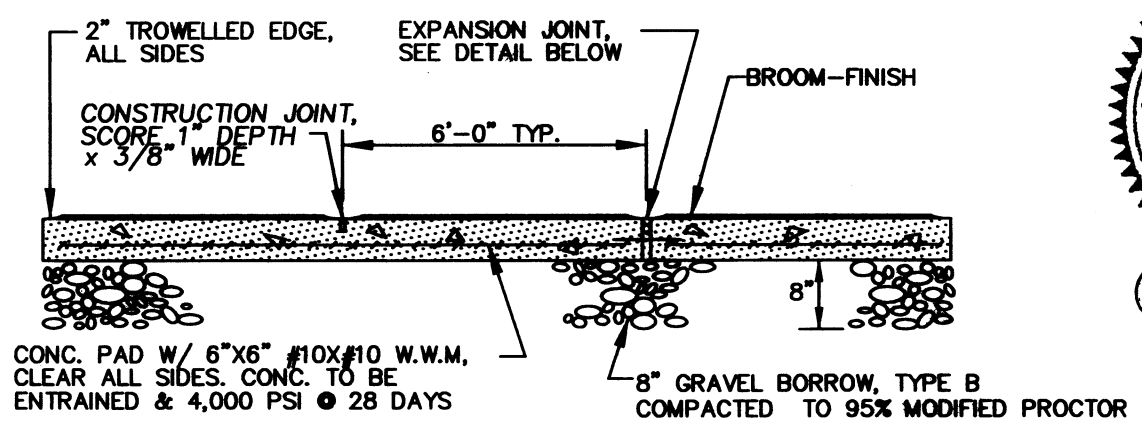
TRANSITION TO EXISTING PAVEMENT
NOT TO SCALE



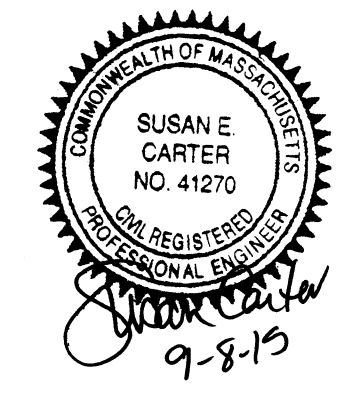
FLUSH WALK/PAVEMENT INTERFACE
NOT TO SCALE



TYPICAL SITE SIGN
NOT TO SCALE



CONCRETE PADS
NOT TO SCALE



CONSTRUCTION DOCUMENTS
ISSUED MAY 1, 2015

CRAFTSMAN VILLAGE
SITE DETAILS

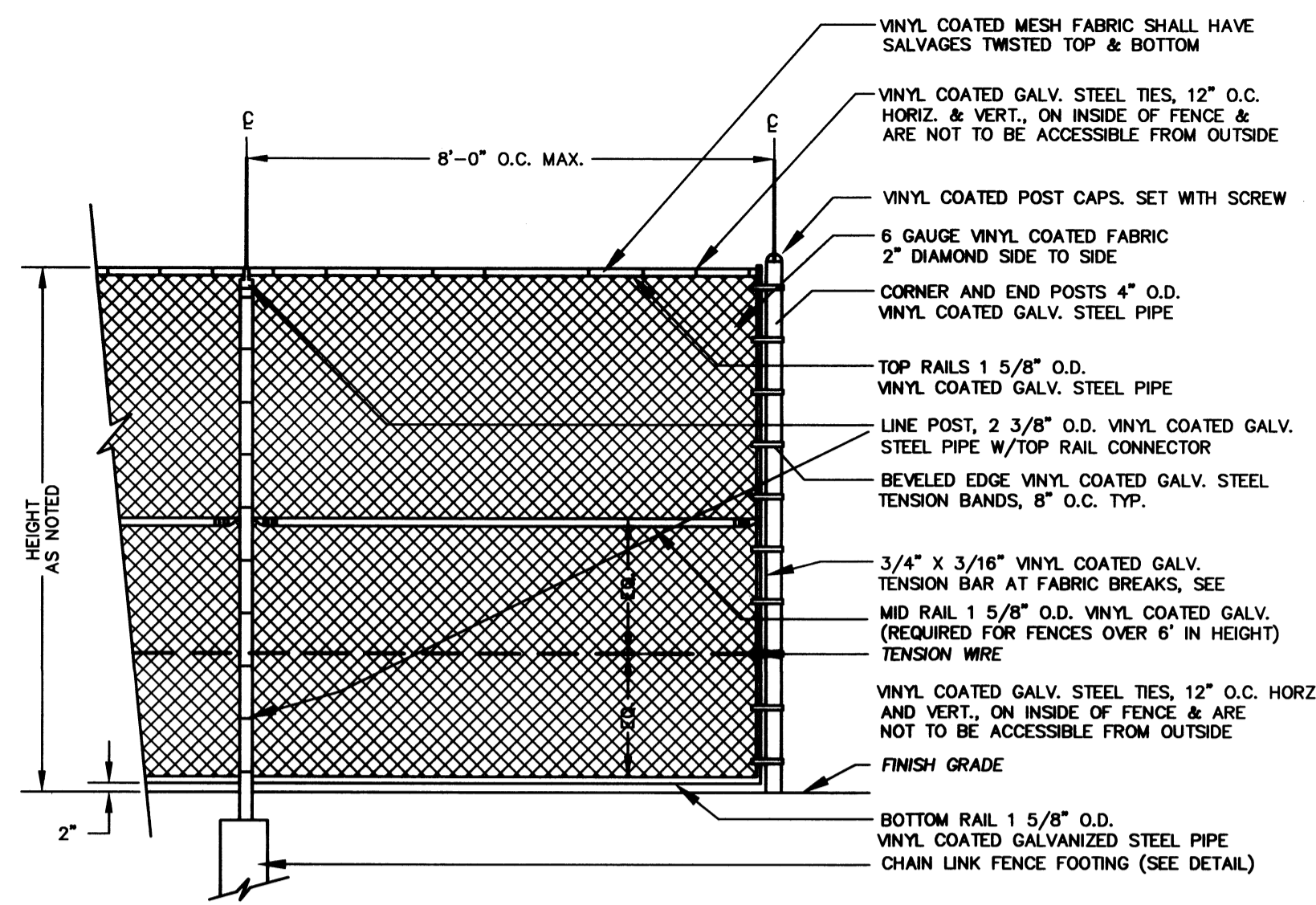
LOCATION: SUGAR ROAD
TOWN: BOLTON, MASSACHUSETTS
PREPARED FOR:
CRAFTSMAN VILLAGE
BOLTON, LLC

SCALE: AS NOTED DATE: SEPT. 3, 2014

Places Associates, Inc.

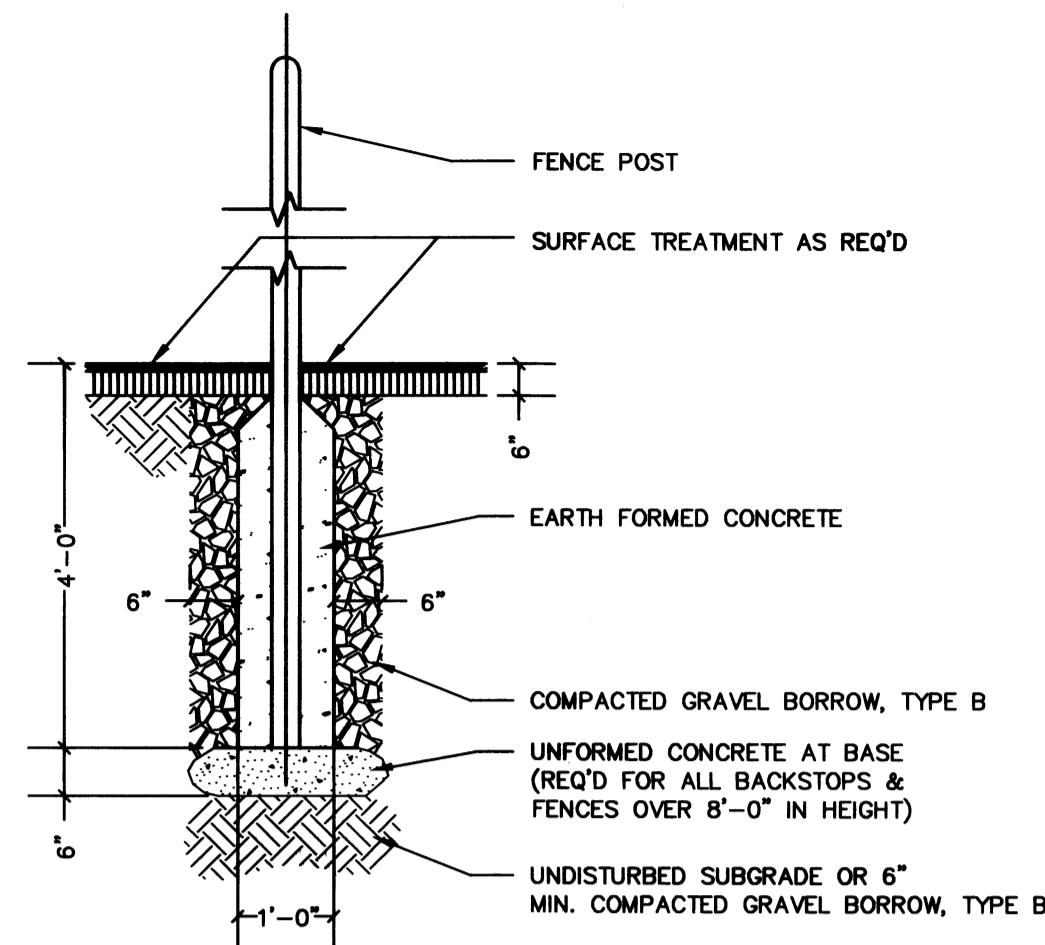
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places@placesassociates.com

PROJECT No.: 14-7101 PLAN No. 7101-CP-9

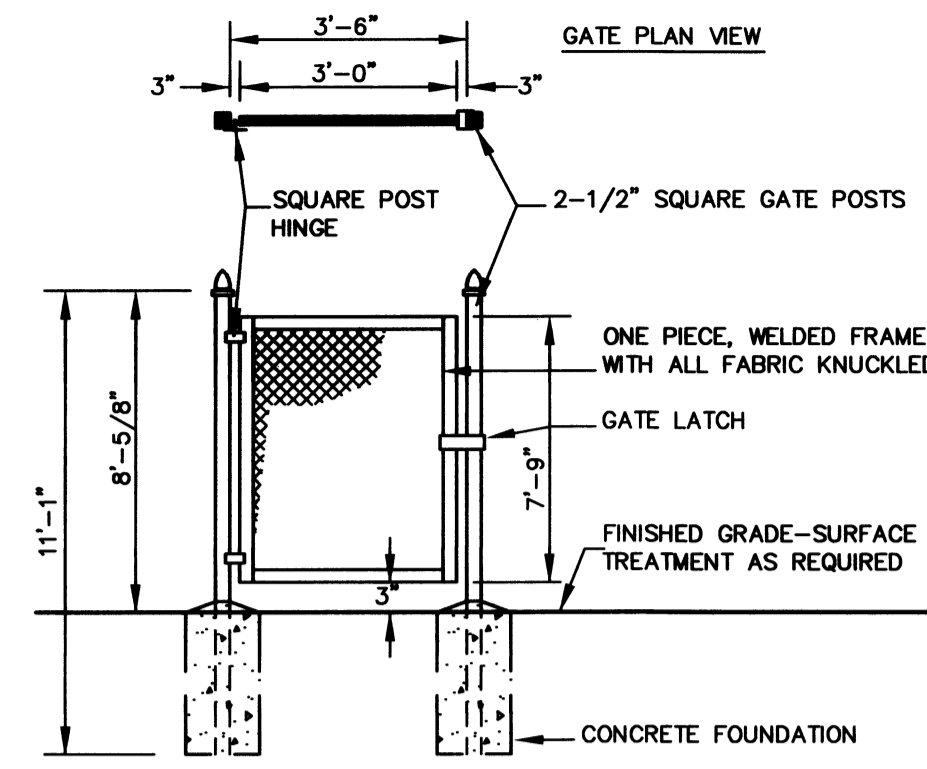


NOTES:
 1. TOPS & BOTTOMS OF ALL FABRIC TO BE TWISTED. ALL FABRIC SHALL BE VINYL-COATED GALVANIZED STEEL AS PER SPEC. ALL POSTS AND HARDWARE TO BE VINYL-COATED GALVANIZED STEEL AS PER SPEC. VINYL COATING TO BE BLACK.
 2. PROVIDE 4" OFFSET END POST TO ALL BUILDINGS AND/OR STRUCTURES.
 3. IF FENCING IS AROUND A POOL, IT IS TO BE A MINIMUM OF 6 FT. HT., ALL GATES TO HAVE CHILD-RESISTANT LATCHES AND BE CAPABLE OF BEING LOCKED.

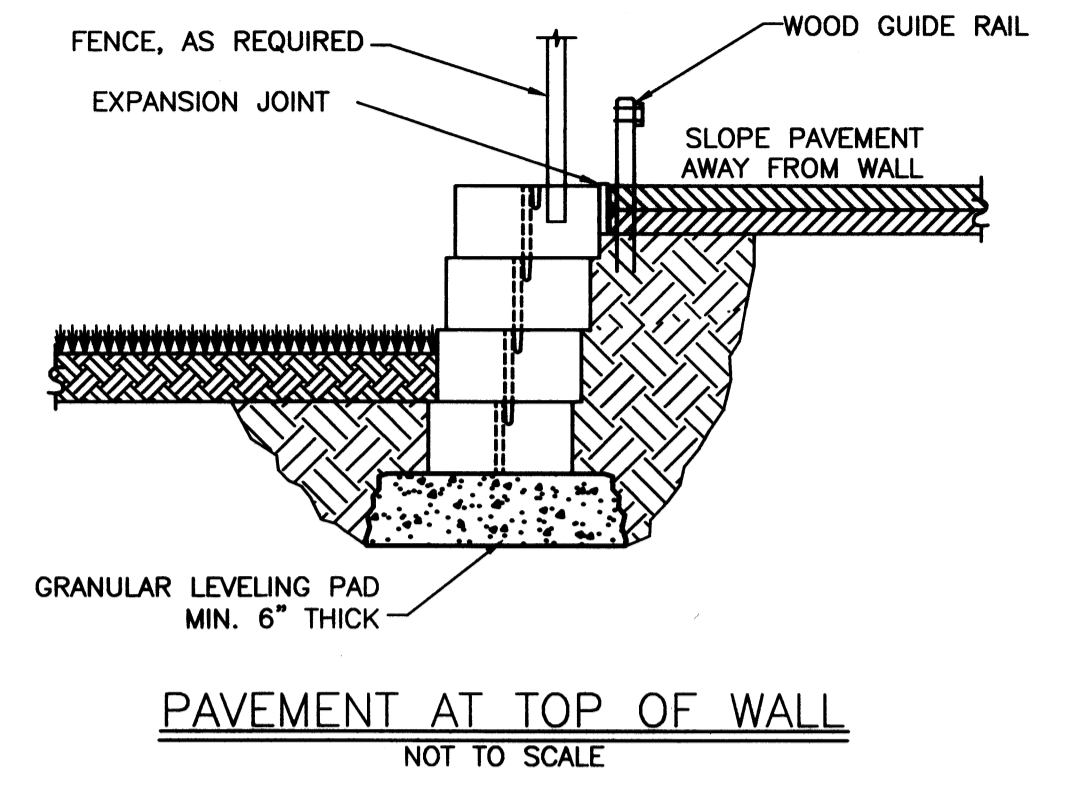
CHAIN LINK FENCE
NOT TO SCALE



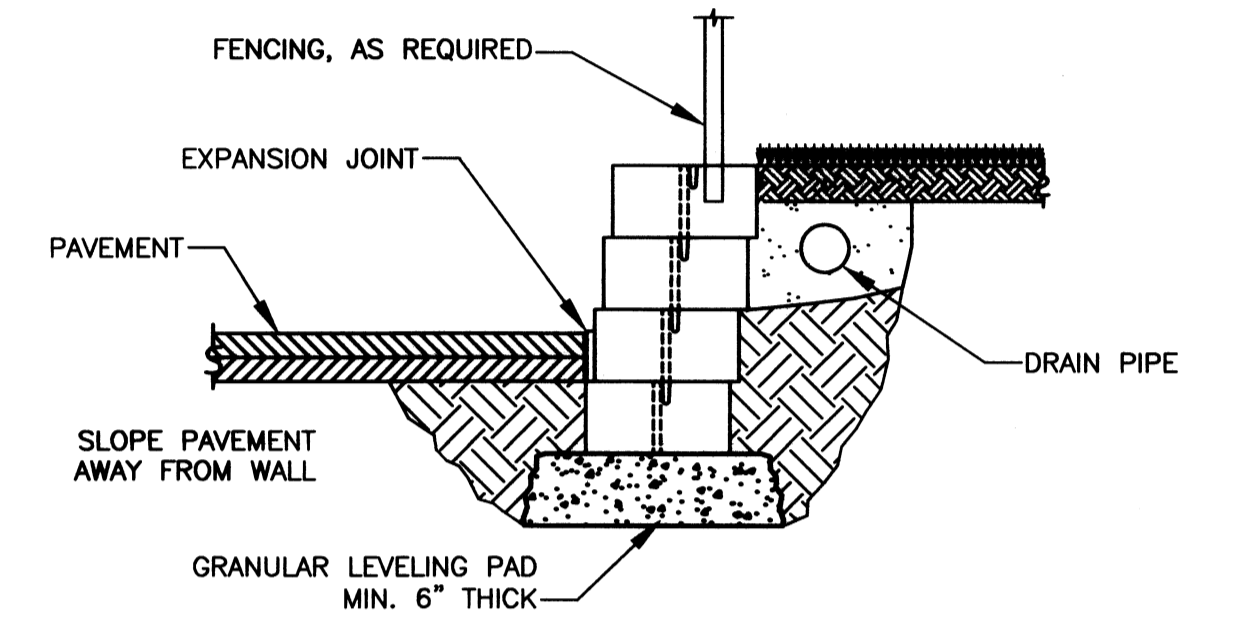
CHAIN LINK FENCE FOOTING
NOT TO SCALE



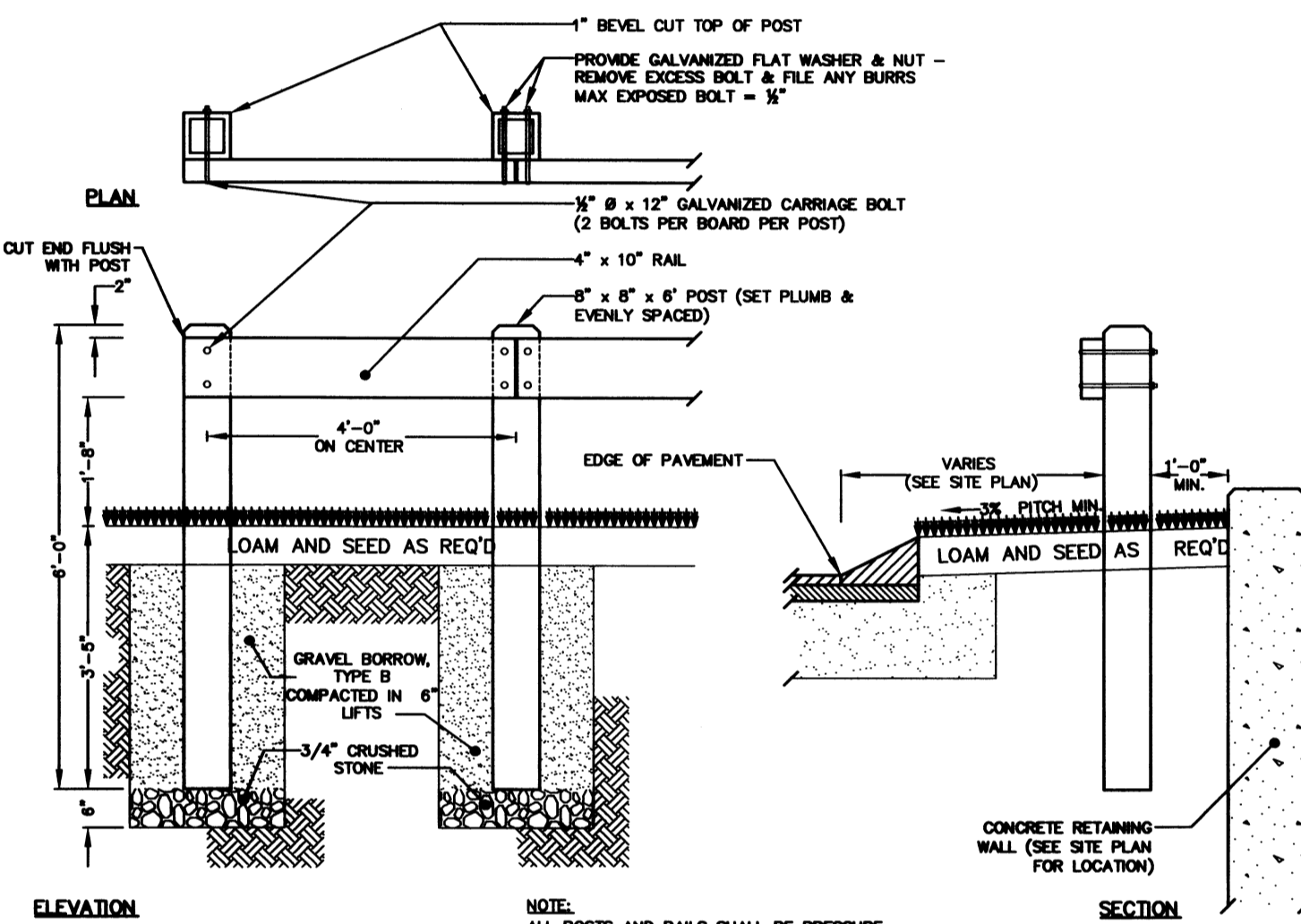
CHAIN LINK GATE
NOT TO SCALE



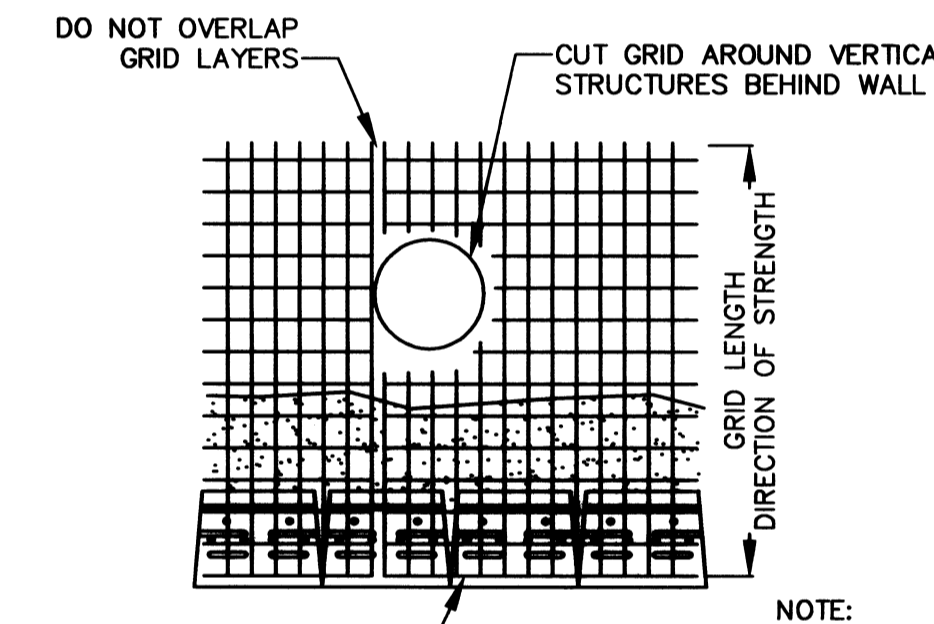
PAVEMENT AT TOP OF WALL
NOT TO SCALE



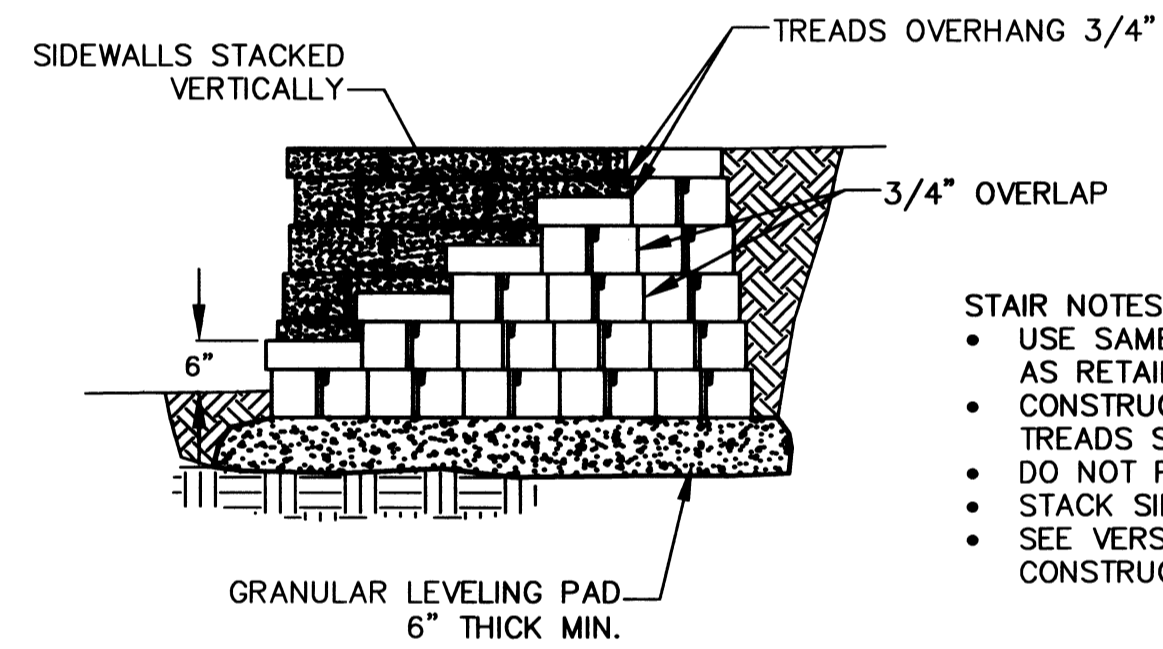
PAVEMENT AT BASE OF WALL
NOT TO SCALE



WOOD GUIDE RAIL
NOT TO SCALE

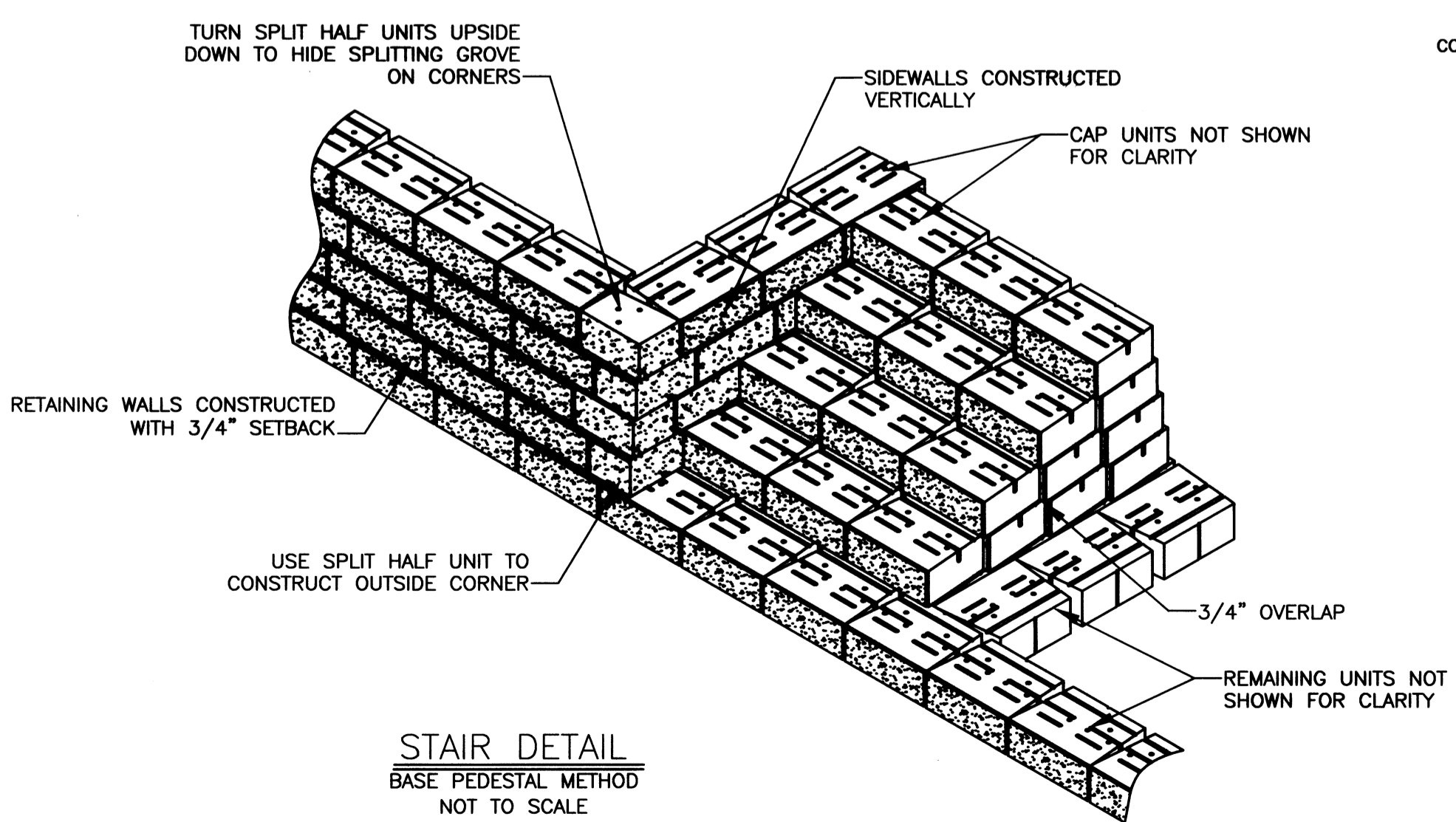


GEOSYNTHETIC AT STRUCTURES BEHIND WALL
NOT TO SCALE

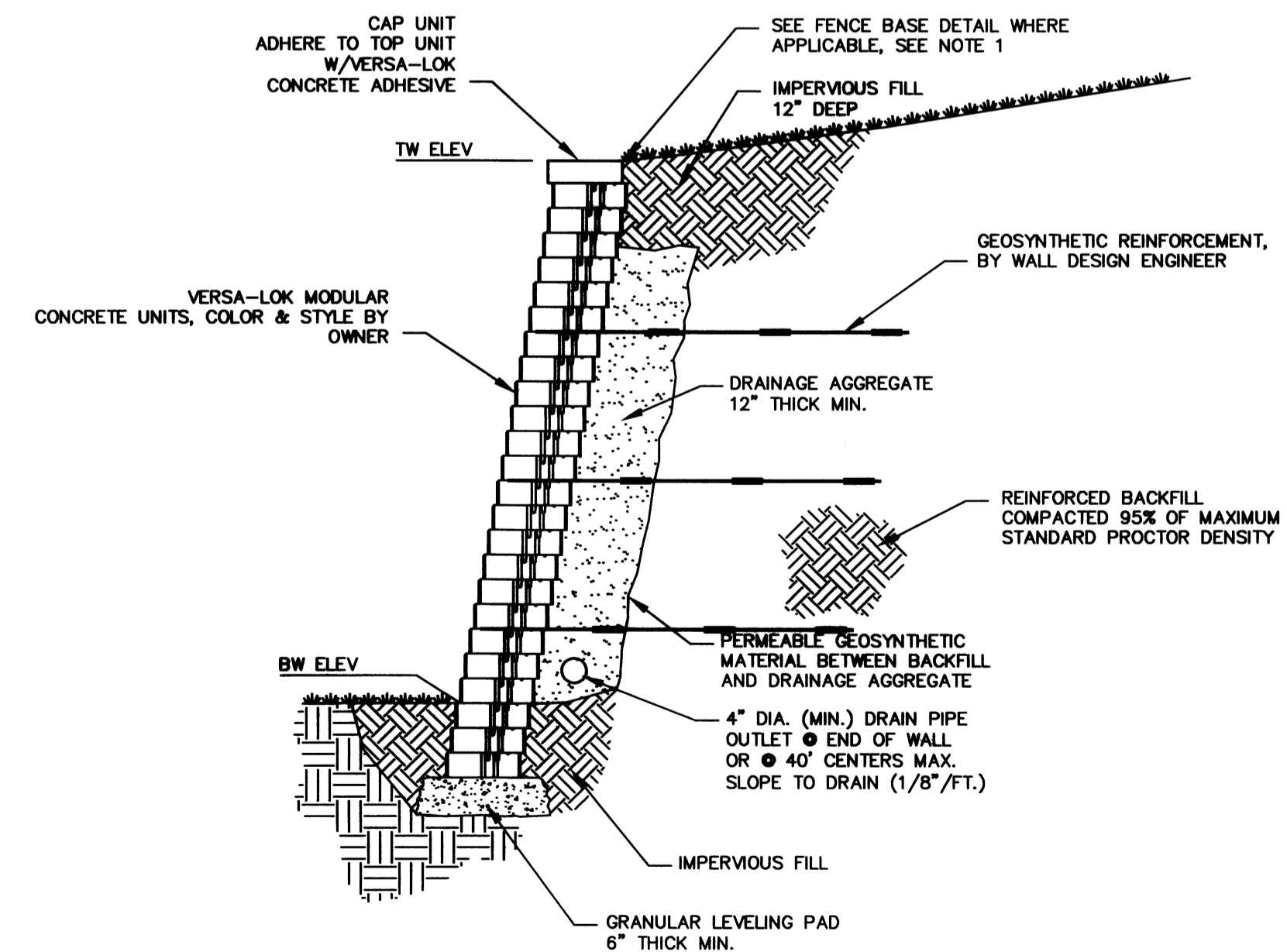


STAIR NOTES:
 • USE SAME LEVELING PAD MATERIAL FOR STAIR PEDESTAL AS RETAINING WALL
 • CONSTRUCT STAIR RISERS FIRST, INSTALL CAPS FOR TREADS SECOND, AND THEN INSTALL SIDEWALLS LAST
 • DO NOT PIN STAIR UNITS
 • STACK SIDEWALLS VERTICALLY, WITHOUT PINNING
 • SEE VERSA-LOK TECH BULLETIN 2 FOR ADDITIONAL STAIR CONSTRUCTION DETAILS

STAIR RISER DETAIL
BASE PEDESTAL METHOD
NOT TO SCALE

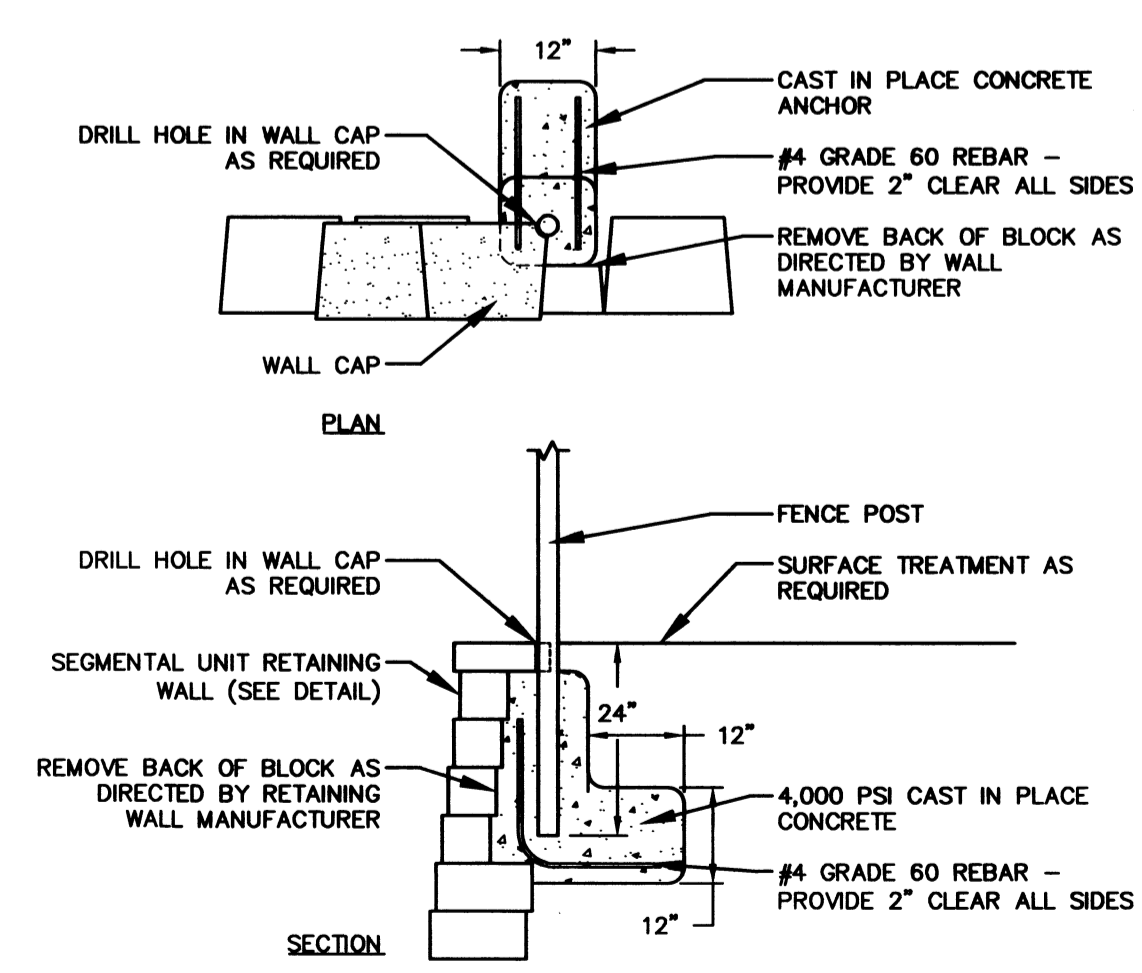


STAIR DETAIL
BASE PEDESTAL METHOD
NOT TO SCALE



NOTES:
 1. WHERE EXPOSED WALL HEIGHT EQUALS OR EXCEEDS 4', A 4" TALL FENCE SHALL BE PROVIDED.
 2. WALLS IN EXCESS OF 6' IN HEIGHT OR ALL WALLS WITH SURCHARGED LOADS AT THE TOP OF THE WALL (E.G. PARKING OR STRUCTURES) SHALL BE DESIGNED BY A MASSACHUSETTS REGISTERED PROFESSIONAL ENGINEER.
 3. THE DESIGN ABOVE IS DIAGRAMMATIC; MANUFACTURE'S CRITERIA SHALL BE ADHERED TO FOR THE INSTALLATION OF ALL SEGMENTAL BLOCK WALLS.

SEGMENTAL UNIT RETAINING WALL
NOT TO SCALE



NOTE:
 THIS DETAIL IS FOR ILLUSTRATIVE PURPOSES ONLY. EXACT DIMENSIONS AND OTHER DESIGN CRITERIA SHALL BE BY THE SEGMENTAL UNIT RETAINING WALL MANUFACTURER AND ENDORSED BY A REGISTERED PROFESSIONAL ENGINEER.

SEGMENTAL UNIT RETAINING WALL FENCE POST ANCHOR
NOT TO SCALE

REVISIONS:
 9-8-15 NO REVISIONS THIS SHEET

CONSTRUCTION DOCUMENTS
ISSUED MAY 1, 2015

CRAFTSMAN VILLAGE
SITE DETAILS

LOCATION: SUGAR ROAD
 TOWN: BOLTON, MASSACHUSETTS
 PREPARED FOR:

CRAFTSMAN VILLAGE
BOLTON, LLC

SCALE: AS NOTED DATE: SEPT. 3, 2014

Places Associates, Inc.

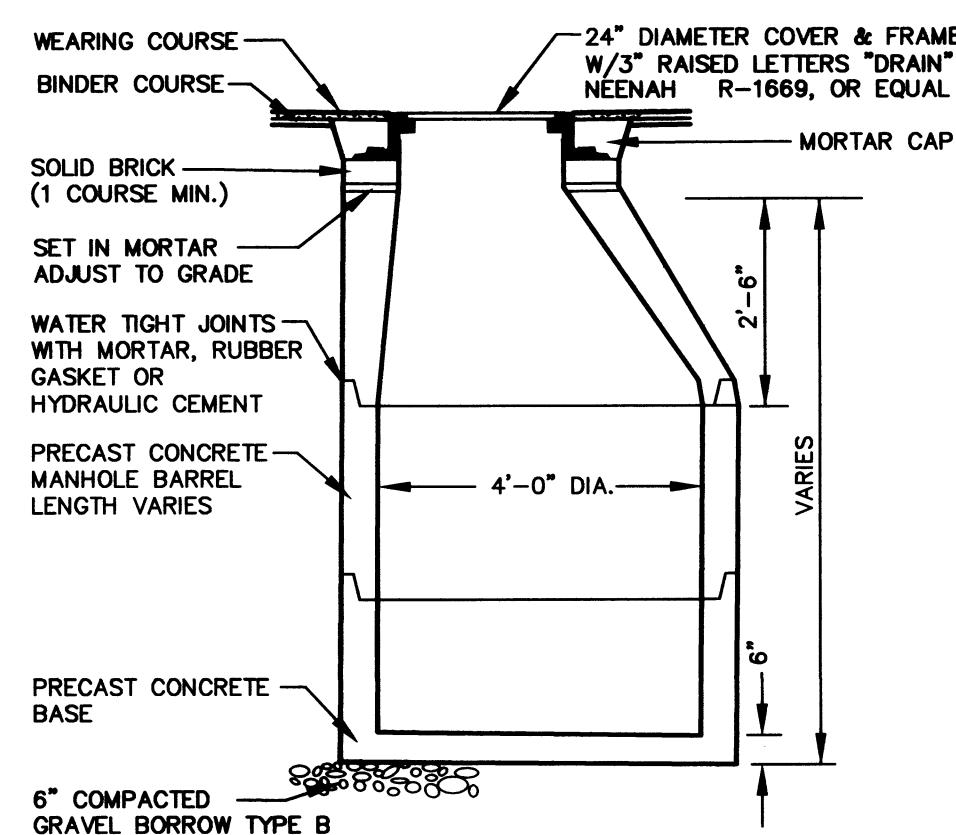
Planning, Landscape Architecture,
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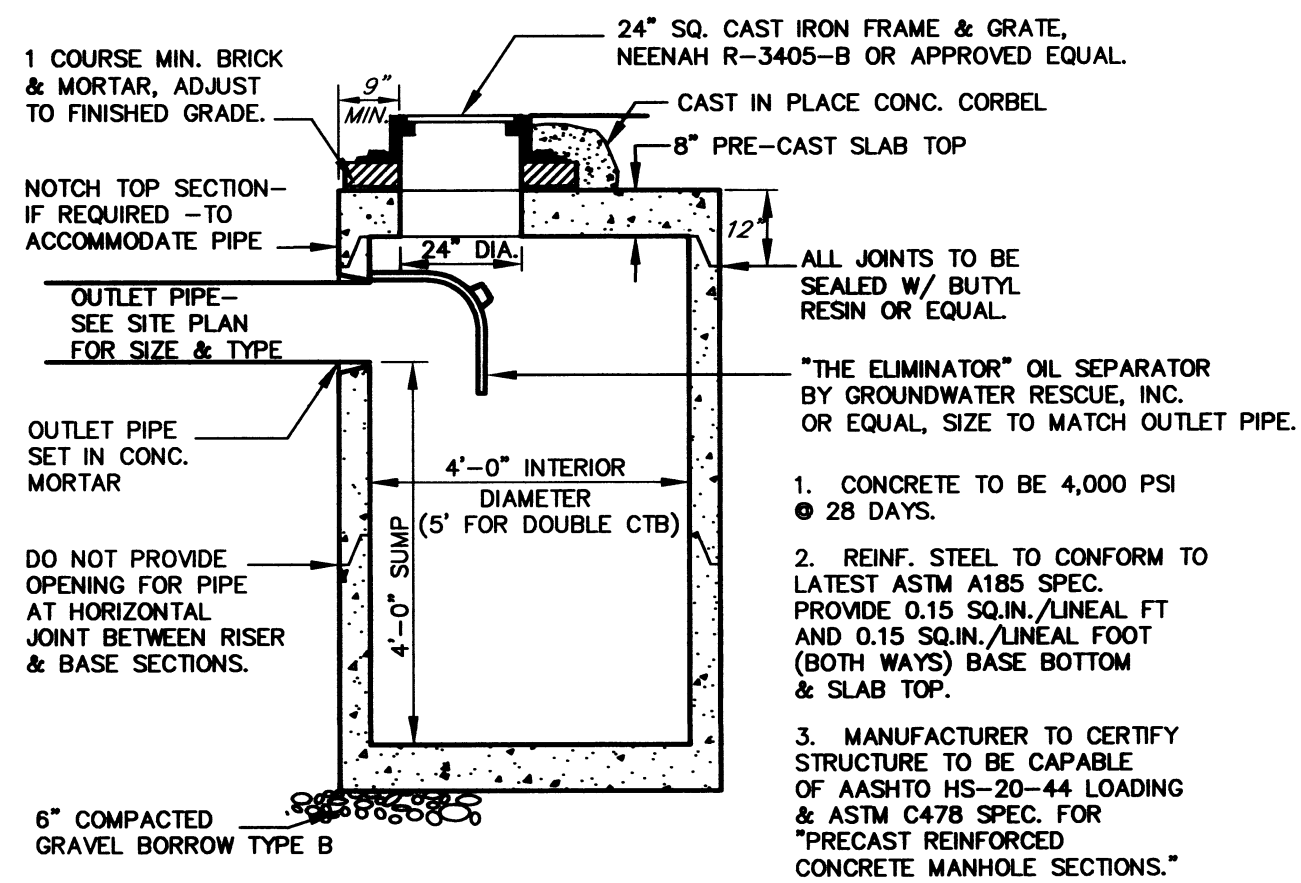
PROJECT No.: 14-7101 PLAN No. 7101-CP-10



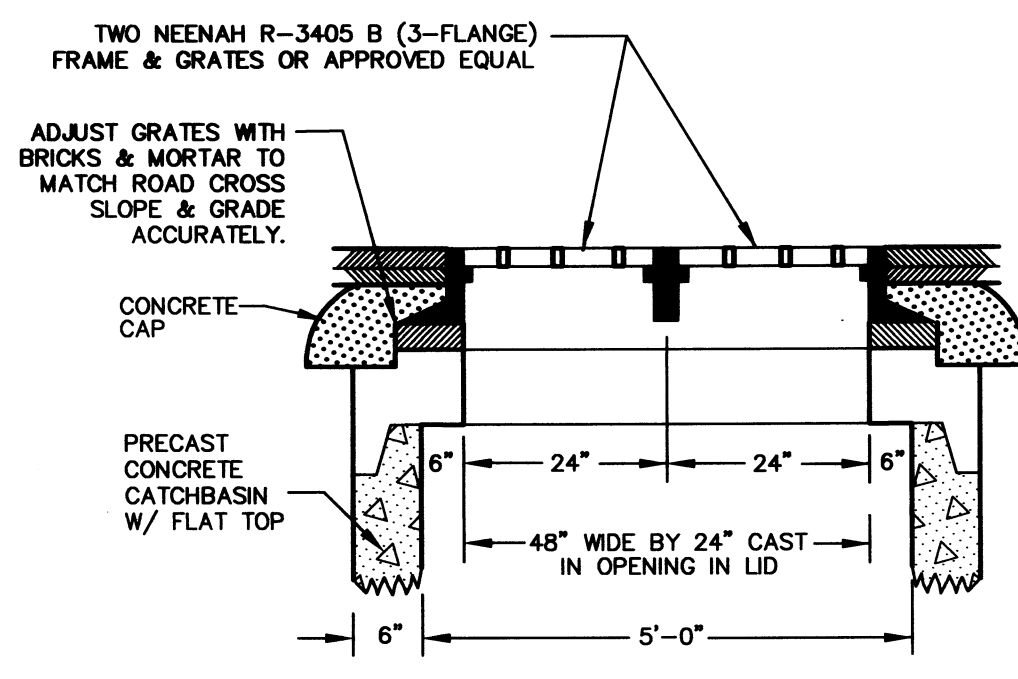
NOTE: FOR CATCHBASINS IN LANDSCAPED AREAS, CREATE 4" CONCRETE PAD 12" AROUND FRAME TO FACILITATE MOWING OPERATIONS



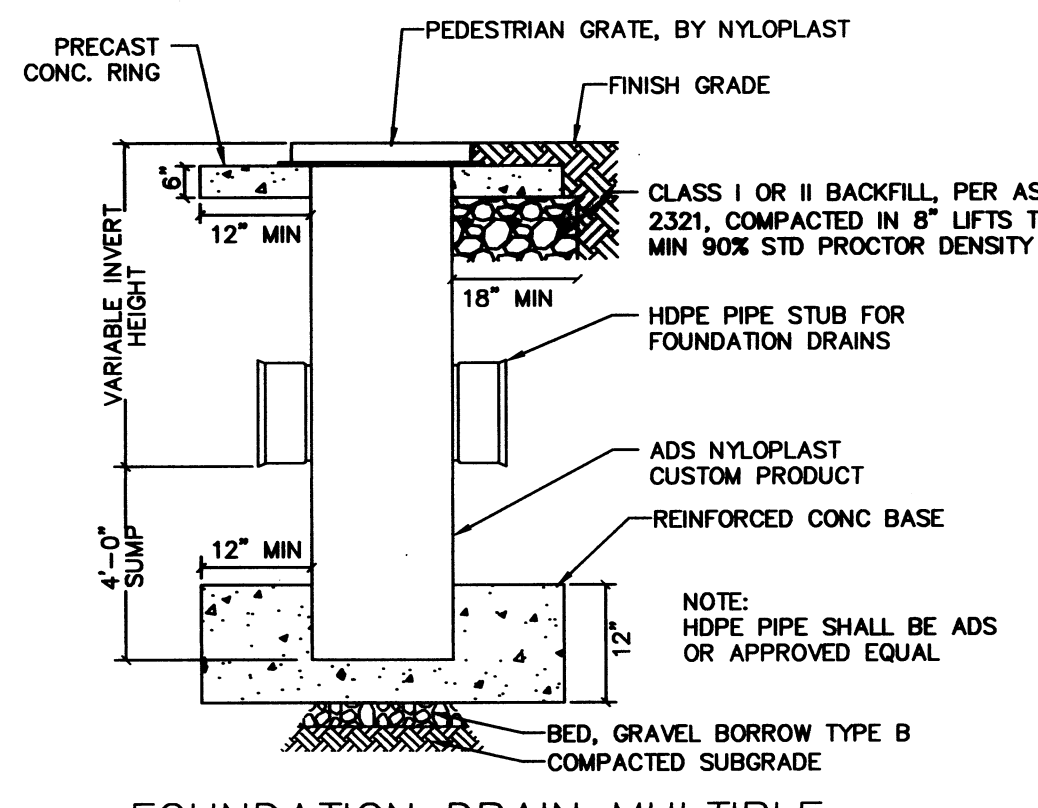
DRAIN MANHOLE DETAIL
NOT TO SCALE



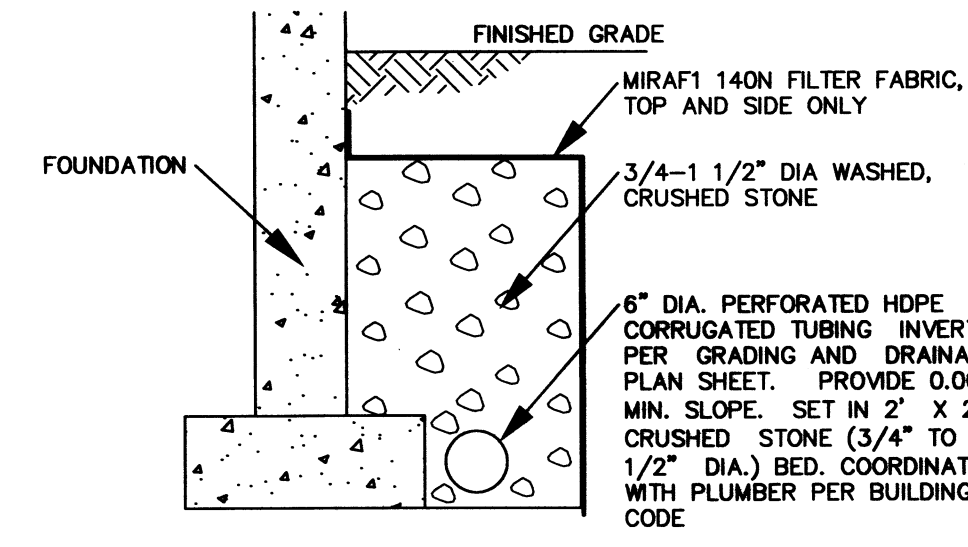
PRECAST FLAT TOP CATCHBASIN
NOT TO SCALE - FOR USE WHERE COVER OVER TOP PIPE IS LESS THAN 2'



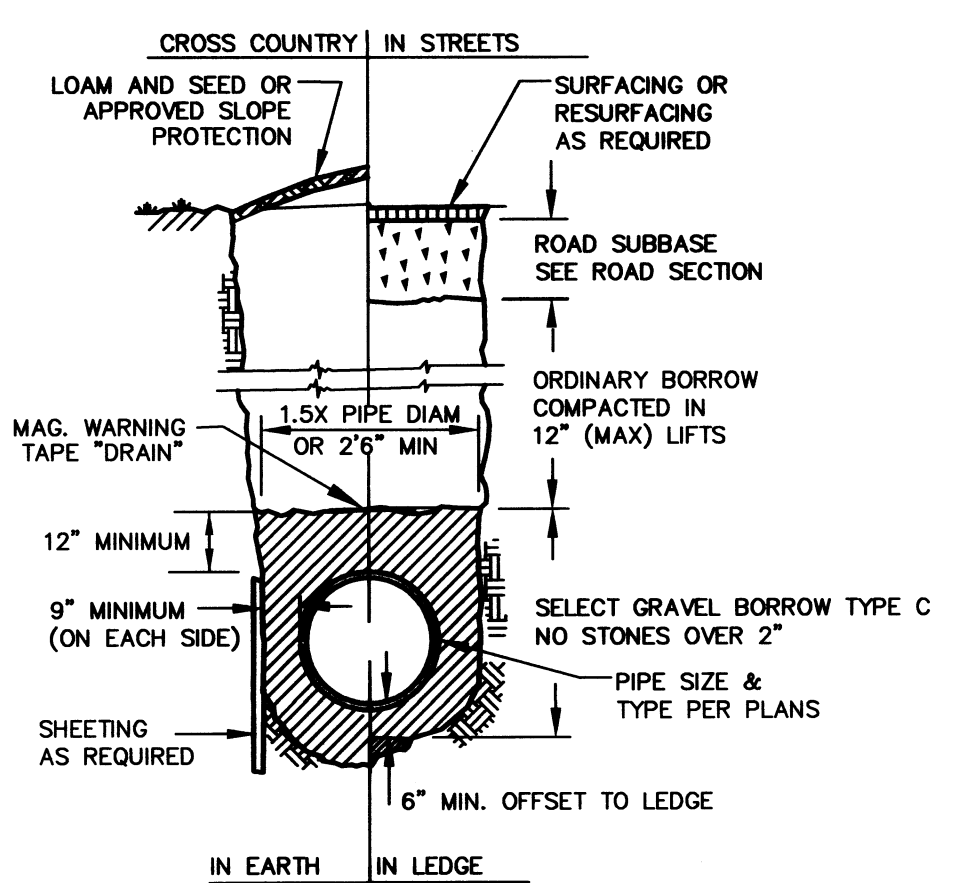
DOUBLE CATCHBASIN DETAIL
NOT TO SCALE



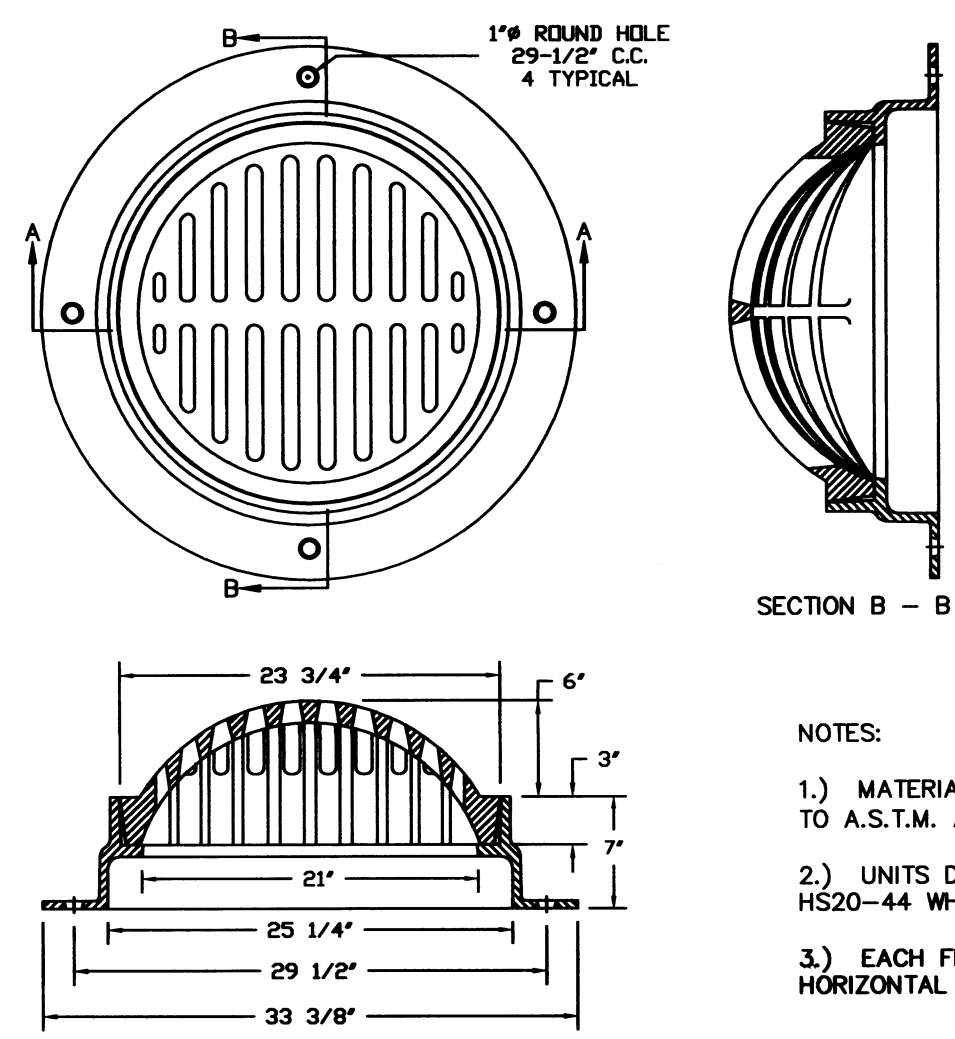
FOUNDATION DRAIN MULTIPLE CONNECTION CLEANOUT
NOT TO SCALE



FOUNDATION DRAIN
NOT TO SCALE

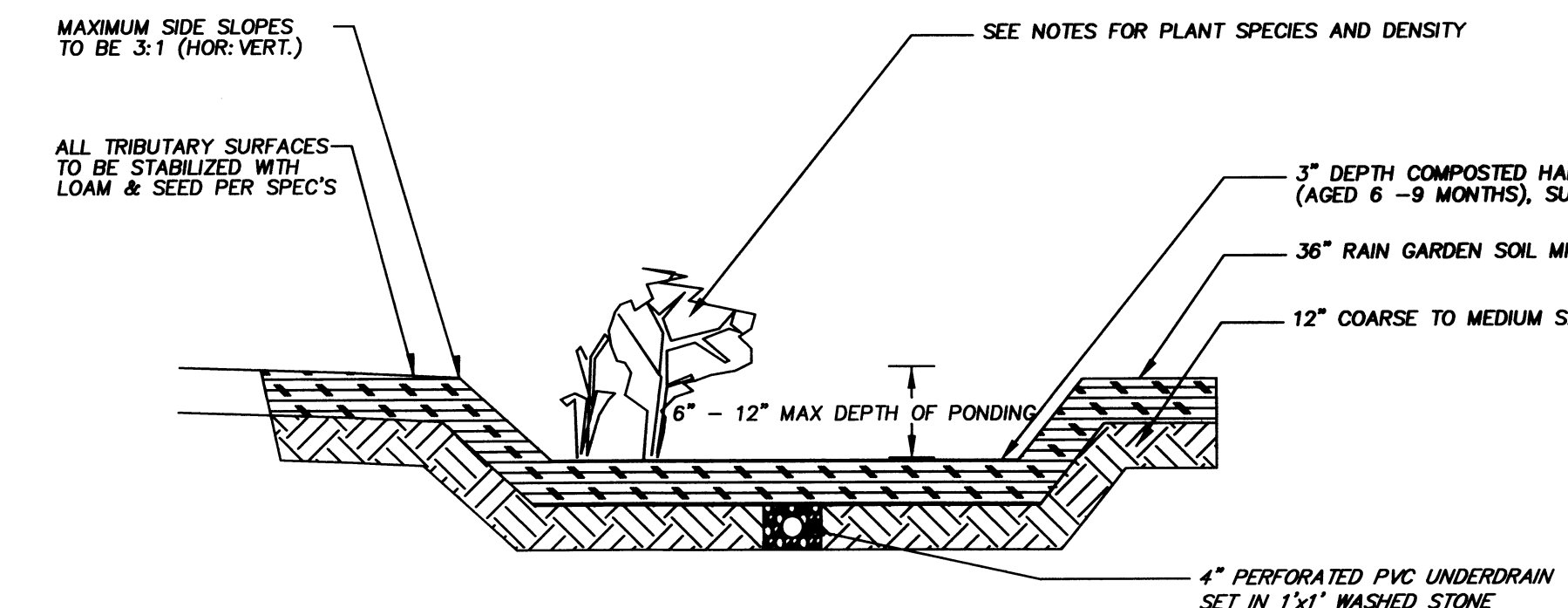


DRAINAGE TRENCH
NOT TO SCALE



LANDSCAPE CATCHBASIN GRATE
NOT TO SCALE

- NOTES:
- MATERIAL SHALL BE GRAY CAST IRON CONFORMING TO A.S.T.M. A48 (LATEST REVISION) CLASS 30B.
 - UNITS DESIGNED HEAVY DUTY FOR A.A.S.H.T.O. HS20-44 WHEEL LOADS.
 - EACH FRAME AND COVER SHALL HAVE MACHINED HORIZONTAL BEARING SURFACES.



RAIN GARDEN CROSS-SECTION
NOT TO SCALE

- RAIN GARDEN CRITERIA:**
- RAIN GARDEN PLANTING PROPOSE IS BASED ON A VARIETY OF SPECIES BEING AVAILABLE ON THE PLANTING DATE. THE SPECIES LIST PROVIDED PRESENTS A VARIETY OF PLANTS THAT MAY BE SUBSTITUTED FOR ONE ANOTHER BASED ON AVAILABILITY AND SEASON.
 - PERENNIAL PLANTS:
SEE BALM (MONARDA DIDYMA)
SMOOTH ASTER (ASTER LAEVIS)
NEW ENGLAND ASTER (ASTER NOVAE-ANGIAE)
SWAMP SUNFLOWER (HELENIUM AUTUMNALE)
MEADOW BLAZING STAR (LAIETIS LIGULISTYLIS)
BLUE LOBELIA (LOBELIA SIPHILIFICA)
YELLOW CONEFLOWER (RATIBIDA DINNATA)
BROWN-EYED SUSAN (RUDBEKIA SUBTOMENTOSA)
PURPLE CONEFLOWER (ECHINACEA PURPUREA)
 - SHRUBS:
RED-TWIGGED DOGWOOD (CORNUS SERICEA)
WINTERBERRY (ILEX VERTICILATA)
BLACK CHOKEBERRY (ARONIA MELANOCARPA)
EASTERN HONEYSUCKLE (PHYSCOCARPUS OPULIFOLIUS)
RED ELDERBERRY (SAMBUCUS PUBENS)
NANNYBERRY (VIBURNUM LENTAGO)
HIGHBUSH BLUEBERRY (VACCINIUM CORYMBOSUM)
CRANBERRY BUSH (VIBURNUM TRILOBUM)
PUSSY WILLOW (SALIX CAPREA)
ARROW-WOOD VIBURNUM (VIBURNUM DENTATUM)
DWARF FOTHERGILLA (FOTHERGILLA GARENII)

RAIN GARDEN SOIL MIXTURE

NETLANDS SOIL MIXTURE SHALL BE MIXED IN A LOCATION THAT WILL NOT PERMIT THE ADDITION OF UNPROTECTED OR FOREIGN MATERIALS INTO THE MIXTURE. MIXING SHALL ACHIEVE A UNIFORM DISTRIBUTION OF THE SPECIFIED MATERIALS, PRIOR TO ITS PLACEMENT.

NETLANDS SOIL MIXTURE SHALL CONSIST OF THE FOLLOWING MATERIALS MEASURED BY VOLUME:

- 4" THICK LAYER FINE SHREDDED HARDWOOD MULCH (AGED A MINIMUM 6 MONTHS)
- LOAM: TWENTY-FIVE PERCENT (25%) OF THE TOTAL VOLUME OF THE MIXTURE SHALL CONSIST OF NATURAL LOAM.
- COARSE SAND: TWENTY-FIVE PERCENT (25%) OF THE TOTAL VOLUME OF THE MIXTURE SHALL CONSIST OF CLEAN SAND OF A UNIFORM TEXTURE FROM NATURAL SOURCES, FREE FROM DELETERIOUS MATTER, LOAM AND CLAY, MEETING THE FOLLOWING GRADATION:

U.S. SIEVE SIZE AND #	PERCENT PASSING	MINIMUM	MAXIMUM
3/8" INCH	100%	100%	100%
#4	95%	70%	100%
#8	70%	50%	100%
#16	50%	25%	100%
#30	25%	10%	100%
#60	10%	5%	100%
#100	5%	0%	100%

REVISIONS:
9-8-15 RAIN GARDEN DETAIL MODIFIED

CONSTRUCTION DOCUMENTS
ISSUED MAY 1, 2015

CRAFTSMAN VILLAGE DRAINAGE DETAILS

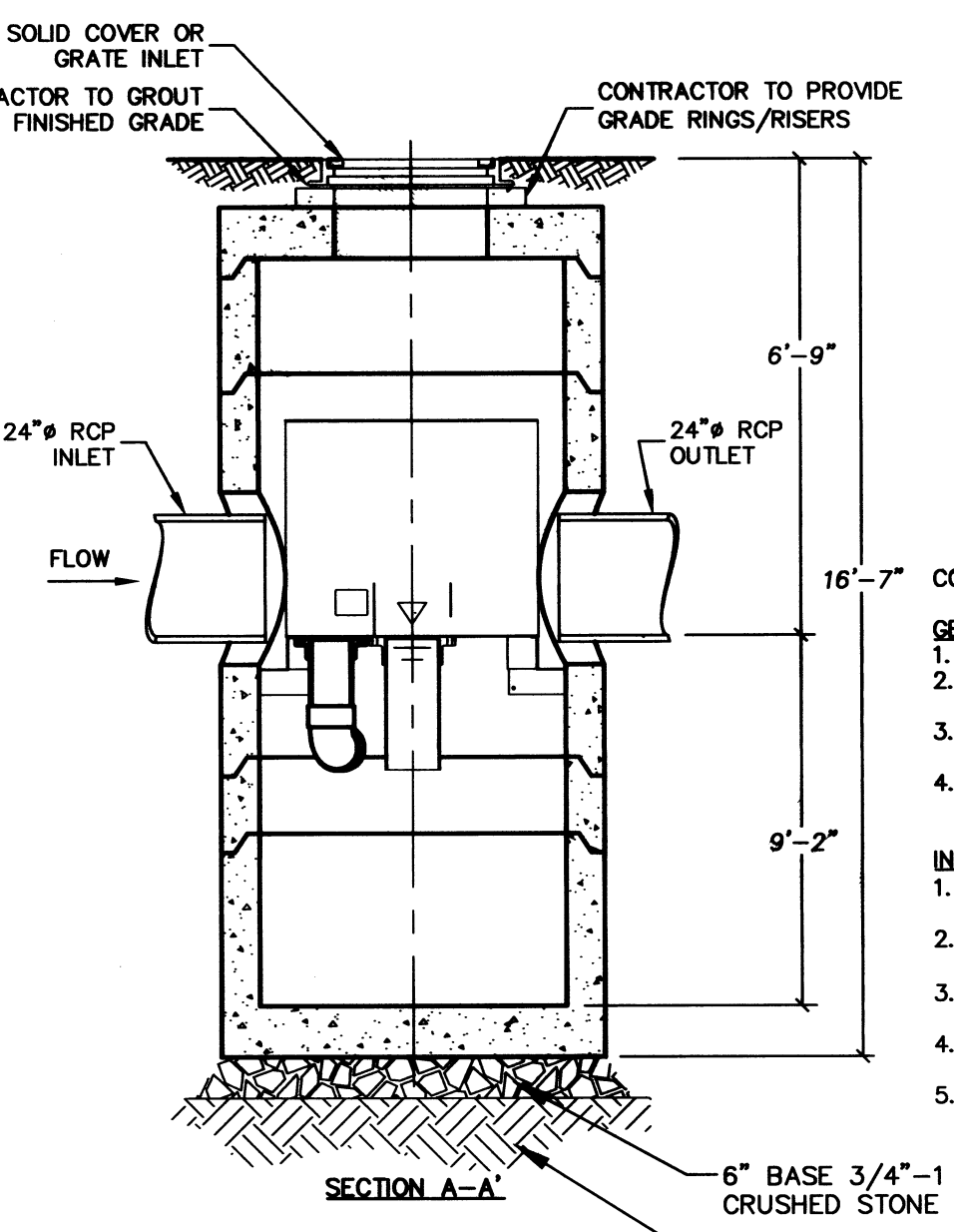
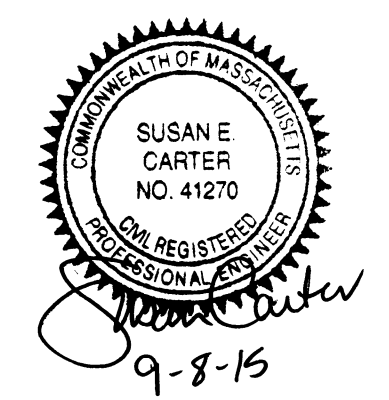
LOCATION: SUGAR ROAD
TOWN: BOLTON, MASSACHUSETTS
PREPARED FOR: CRAFTSMAN VILLAGE BOLTON, LLC

SCALE: AS NOTED DATE: SEPT. 3, 2014

Places Associates, Inc.

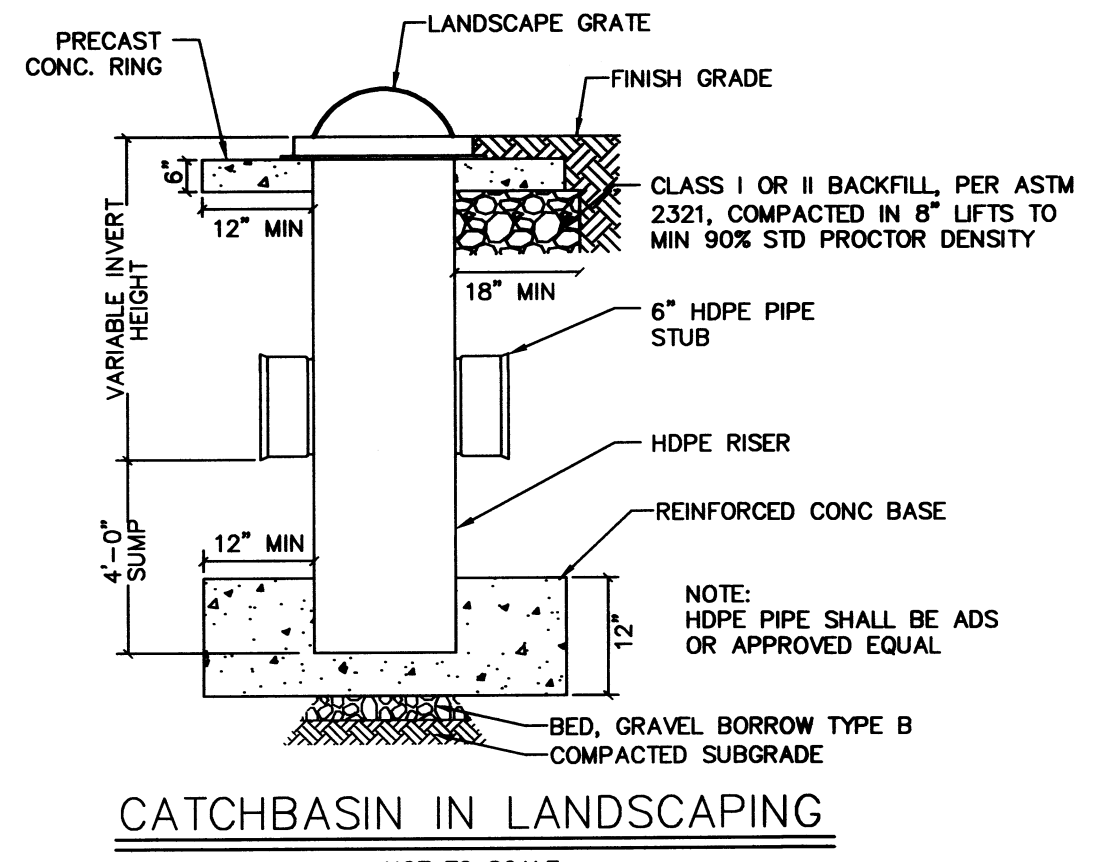
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PROJECT No.: 14-7101 PLAN No. 7101-CP-11

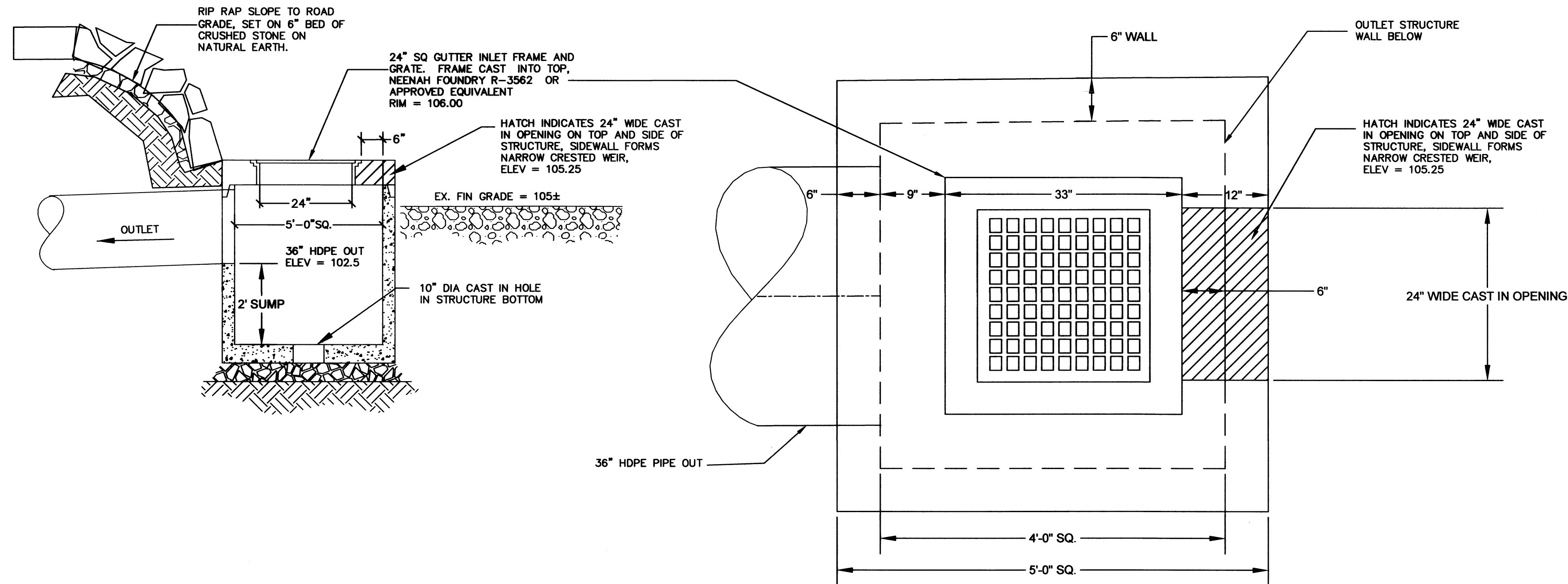


STORMWATER TREATMENT UNIT
NOT TO SCALE

- CONTECH CDS 2015-4, OR APPROVED EQUAL
- GENERAL NOTES**
- CONTECH TO PROVIDE ALL MATERIALS UNLESS NOTED OTHERWISE.
 - FOR FABRICATION DRAWINGS WITH DETAILED STRUCTURE DIMENSIONS AND WEIGHT, CONTACT YOUR CONTECH CONSTRUCTION PRODUCTS REPRESENTATIVE. www.contech-cpi.com
 - WATER QUALITY STRUCTURE SHALL BE IN ACCORDANCE WITH ALL DESIGN DATA AND INFORMATION CONTAINED IN THIS DRAWING.
 - STRUCTURE SHALL MEET AASHTO H20 LOAD RATING. CASTINGS SHALL MEET AASHTO M306, CAST WITH THE CONTECH STORMWATER SOLUTIONS LOGO.
- INSTALLATION NOTES**
- ANY SUB-BASE, BACKFILL DEPTH, AND/OR ANTI-FLOTATION PROVISIONS ARE SITE-SPECIFIC DESIGN CONSIDERATIONS AND SHALL BE SPECIFIED BY ENGINEER OF RECORD.
 - CONTRACTOR TO PROVIDE EQUIPMENT WITH SUFFICIENT LIFTING AND REACH CAPACITY TO LIFT AND SET THE MANHOLE STRUCTURE (LIFTING CLUTCHES PROVIDED).
 - CONTRACTOR TO INSTALL JOINT SEALANT BETWEEN ALL STRUCTURE SECTIONS AND ASSEMBLE STRUCTURE.
 - CONTRACTOR TO PROVIDE, INSTALL, AND GROUT PIPES. MATCH PIPE INVERTS WITH ELEVATIONS SHOWN.
 - 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.



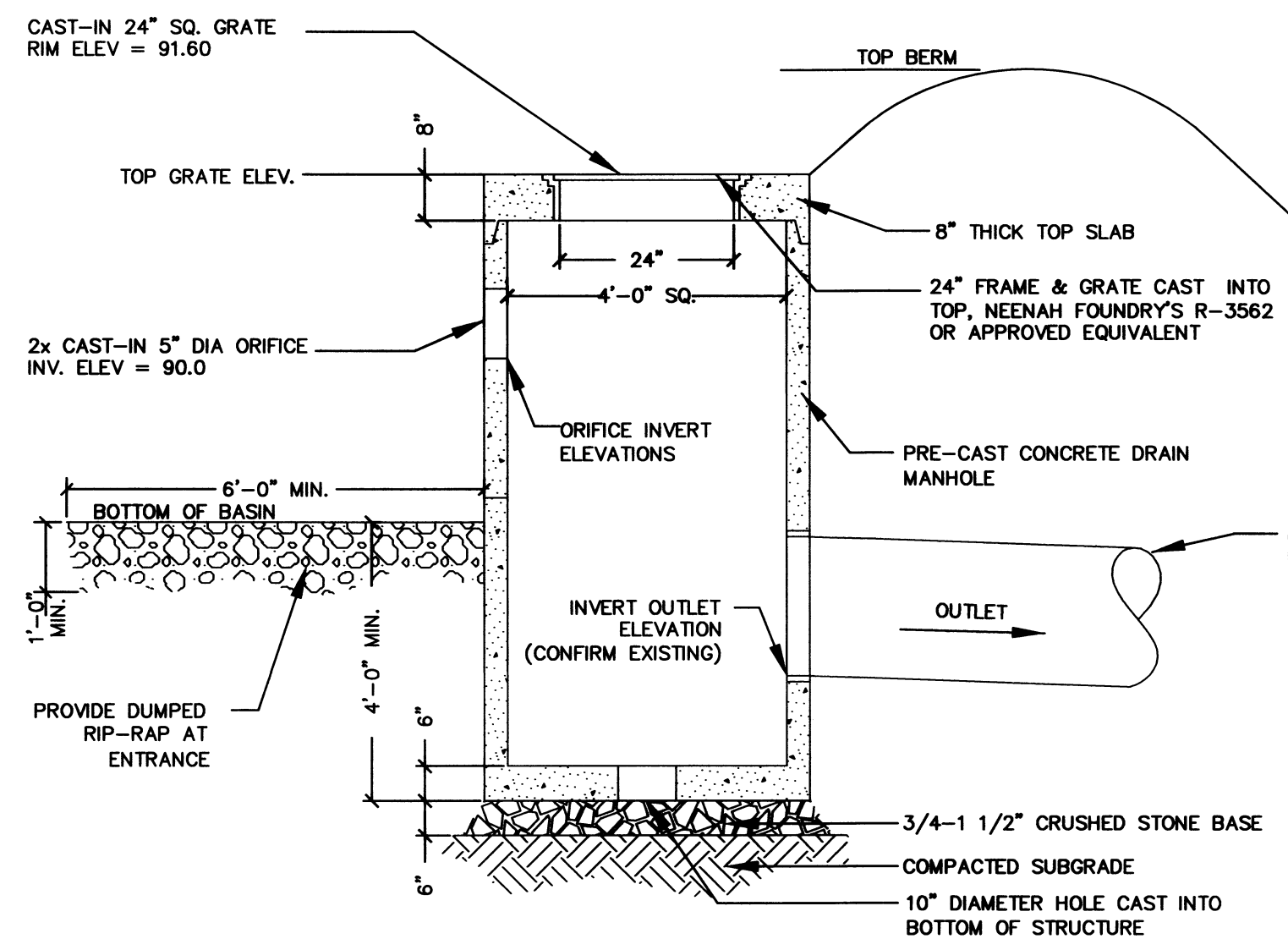
CATCHBASIN IN LANDSCAPING
NOT TO SCALE



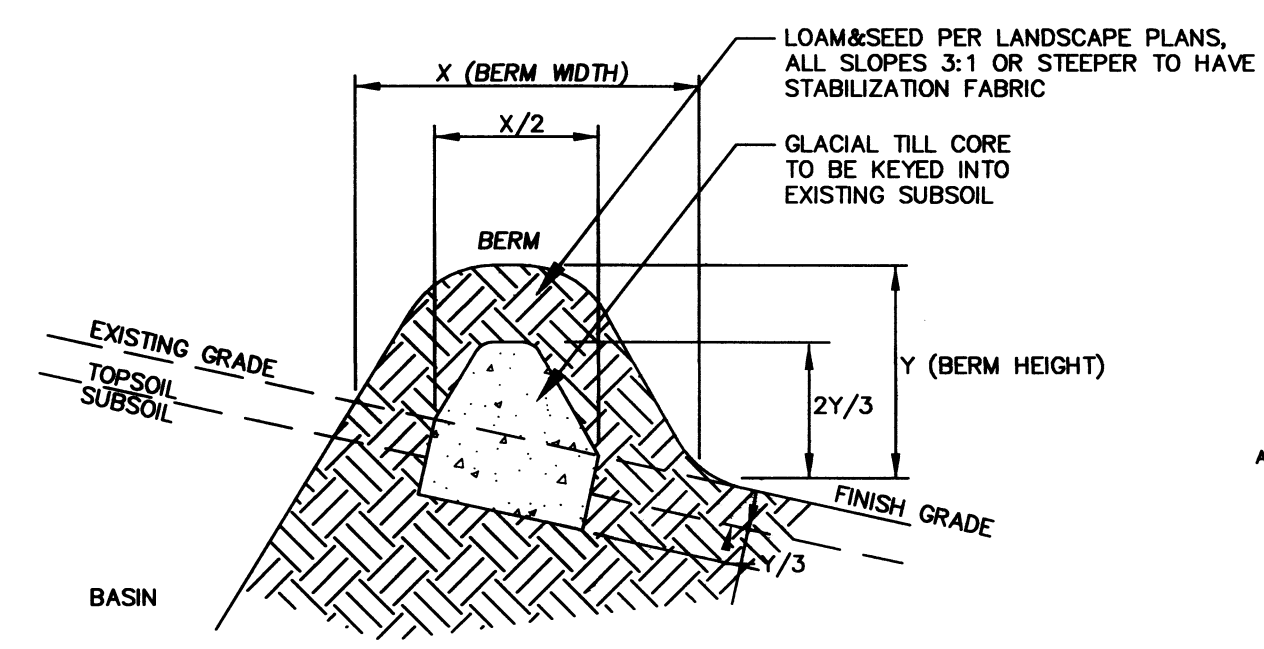
WETLANDS OUTLET CONTROL STRUCTURE
NOT TO SCALE

NOTES FOR BOTH OUTLET STRUCTURES

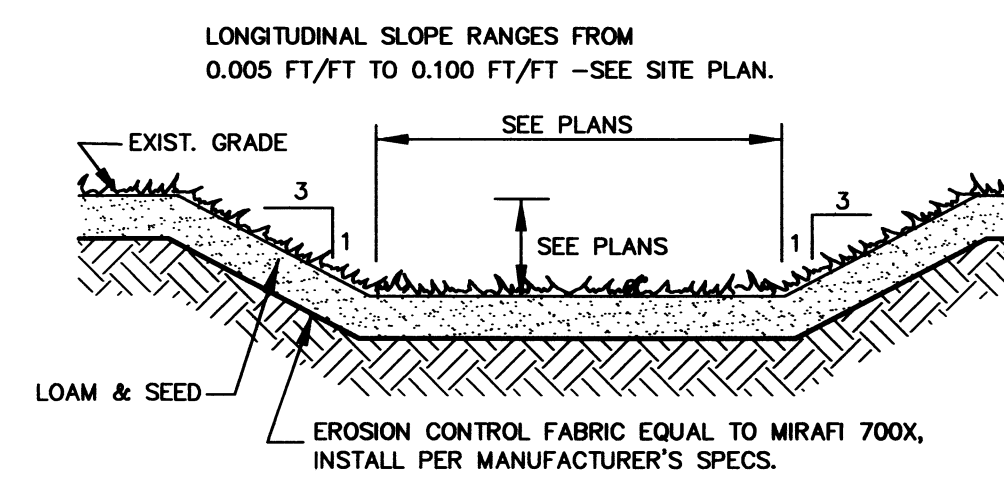
1. CONCRETE TO BE 4,000 PSI @ f = 28 DAYS
2. REINFORCED STEEL TO CONFORM TO LATEST ASTM A185 SPECIFICATIONS. PROVIDE 0.15 SQ. IN./LINEAR FT, BOTH WAYS, TOP & BOTTOM.
3. SUBMIT TO-SCALE SHOP DRAWINGS TO DESIGN ENGINEER OF ALL OUTLET STRUCTURE COMPONENTS PRIOR TO FABRICATION



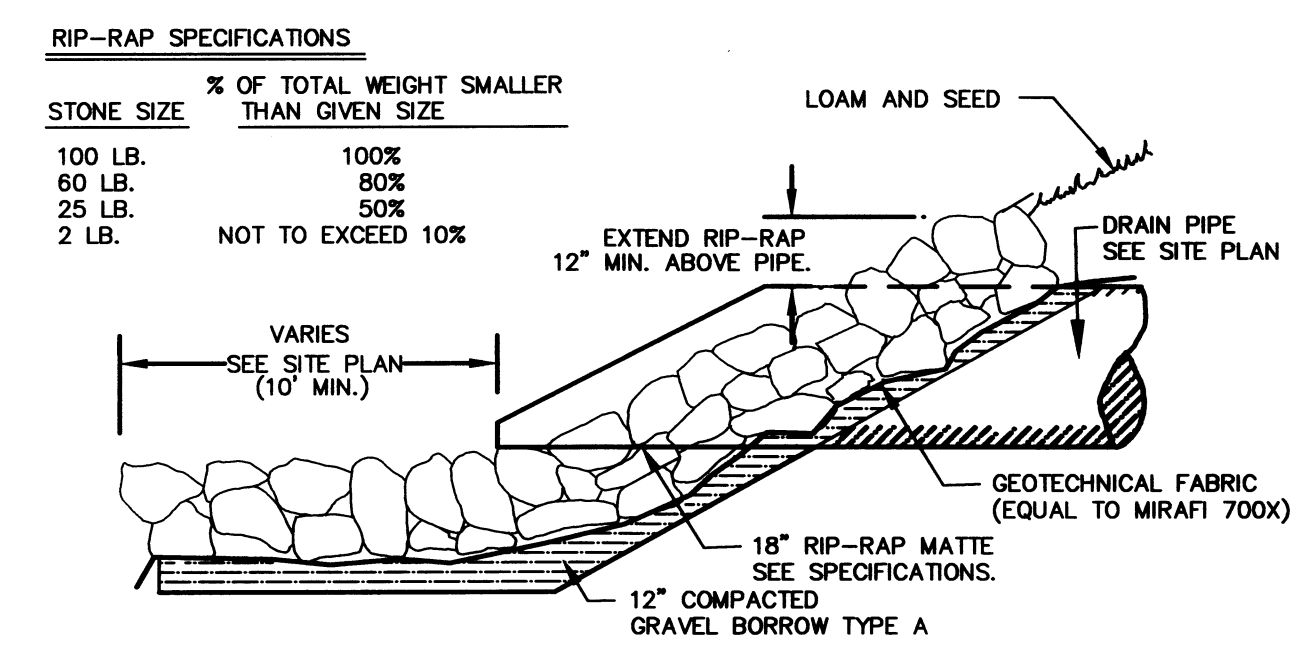
BASIN OUTLET CONTROL STRUCTURE
NOT TO SCALE



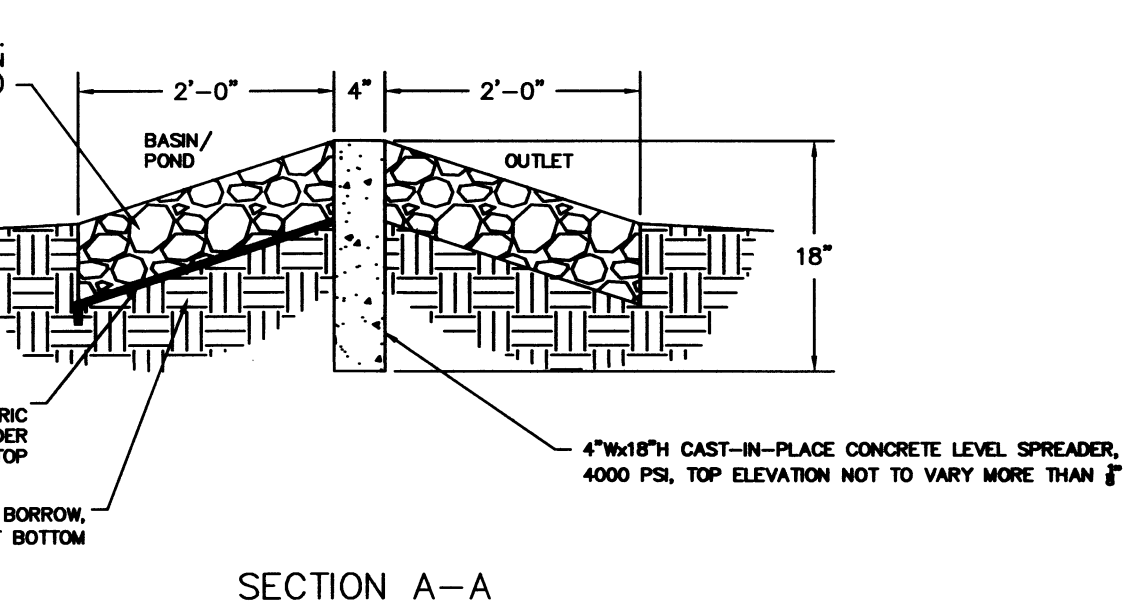
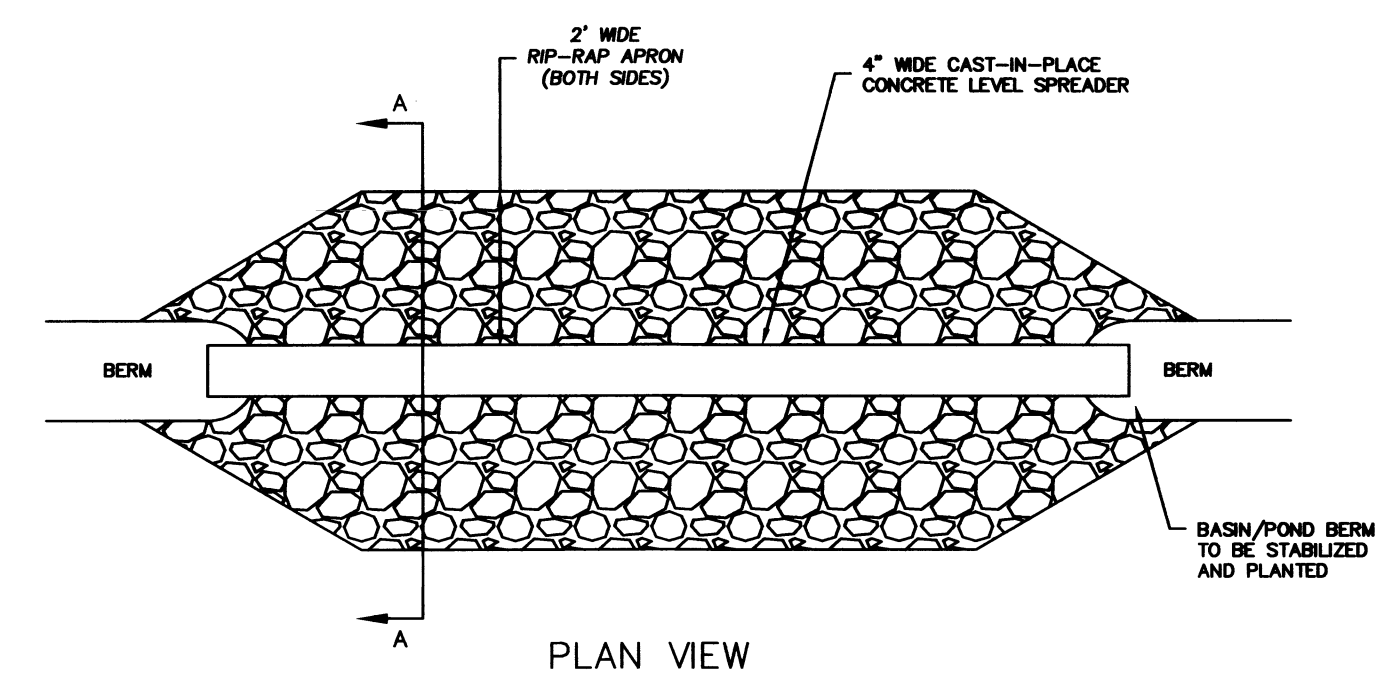
BASIN BERM CROSS SECTION
NOT TO SCALE



GRASSED SWALE
NOT TO SCALE



FLARED END RIP-RAP INLET/OUTLET
NOT TO SCALE



LEVEL SPREADER/BASIN OVERFLOW
NOT TO SCALE

200LB. RIP-RAP SPECIFICATIONS:

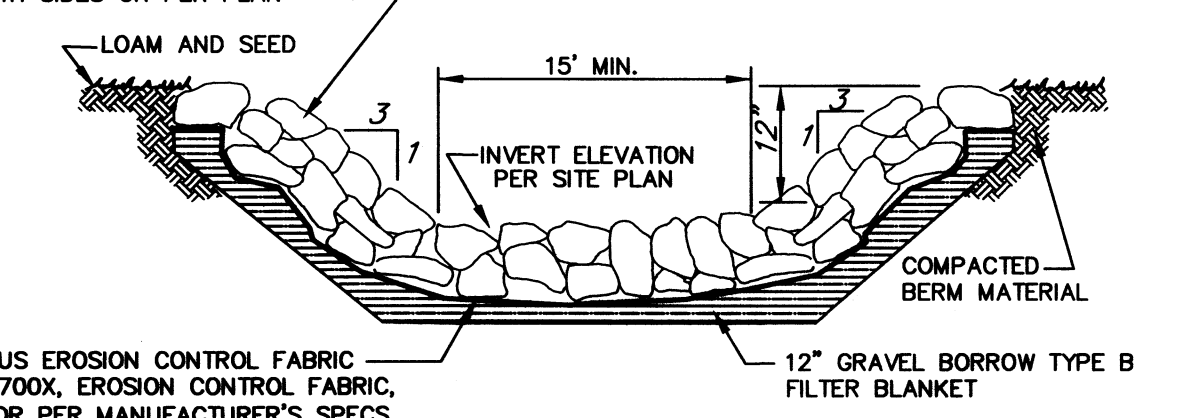
1. ALL STONE SHALL BE CLEAN DURABLE ANGULAR STONE MEETING THE FOLLOWING SPECIFICATIONS:

STONE SIZE	% OF WEIGHT SMALLER THAN GIVEN SIZE
200 LB.	100%
100 LB.	75%
75 LB.	50%
50 LB.	25%
10 LB.	10%

2. THE RIP-RAP SHALL BE UNDERLAYED WITH A FILTER BLANKET CONSISTING OF CLEAN, COARSE GRAVEL WITH NO STONES OVER 4" IN LONGEST DIMENSION AND NO FEWER THAN 10% OF TOTAL VOLUME PASSING A 200# SIEVE.
3. THE FILTER BLANKET NEED NOT BE COMPACTED, BUT SHALL BE GRADED TO A UNIFORM THICKNESS OF 12".
4. THE FILTER BLANKET SHALL BE OVERLAYED WITH A STRUCTURAL/EROSION CONTROL FABRIC OF THE TYPE SPECIFIED. SUCH FABRIC SHALL BE CONTINUOUS IN LENGTHS, EITHER PARALLEL OR PERPENDICULAR TO THE SLOPE AND MUST BE UNDER ALL RIP-RAPPED SURFACES.

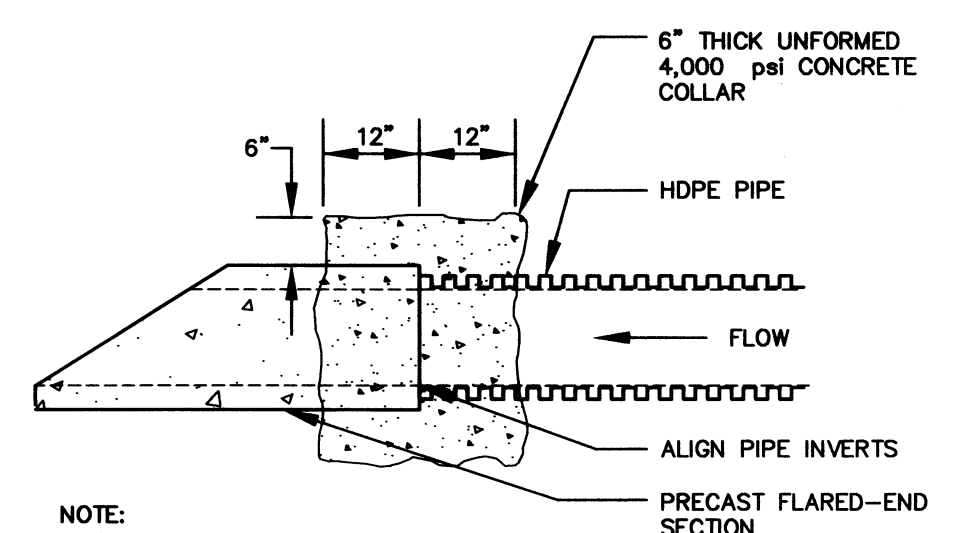
ROUNDED STONES, BOULDERS, SANDSTONE OR SIMILAR

200 LB. RIP-RAP CHINK ALL VOIDS, EXTEND MIN. 20' DOWN HILL BOTH SIDES OR PER PLAN



INSTALL CONTINUOUS EROSION CONTROL FABRIC EQUAL TO MIRAFI 700X, EROSION CONTROL FABRIC, OVERLAP & ANCHOR PER MANUFACTURER'S SPECS.

REINFORCED OVERFLOW BROAD-CRESTED WEIR
NOT TO SCALE



NOTE: OUTLET STRUCTURE INTERIOR DIAMETER TO MATCH DRAIN PIPE INTERIOR DIAMETER

FLARED END SECTION/HDPE PIPE CONNECTION
NOT TO SCALE

REVISIONS:
9-8-15 NO REVISIONS THIS SHEET

CONSTRUCTION DOCUMENTS
ISSUED MAY 1, 2015

CRAFTSMAN VILLAGE DRAINAGE DETAILS

LOCATION: SUGAR ROAD
TOWN: BOLTON, MASSACHUSETTS

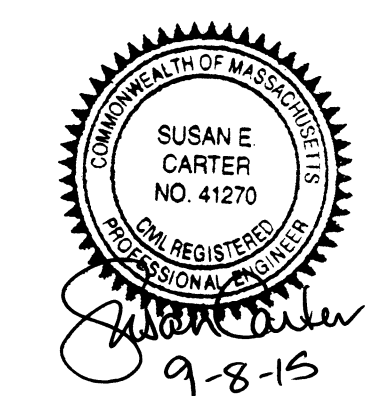
PREPARED FOR:
CRAFTSMAN VILLAGE BOLTON, LLC

SCALE: AS NOTED DATE: SEPT. 3, 2014

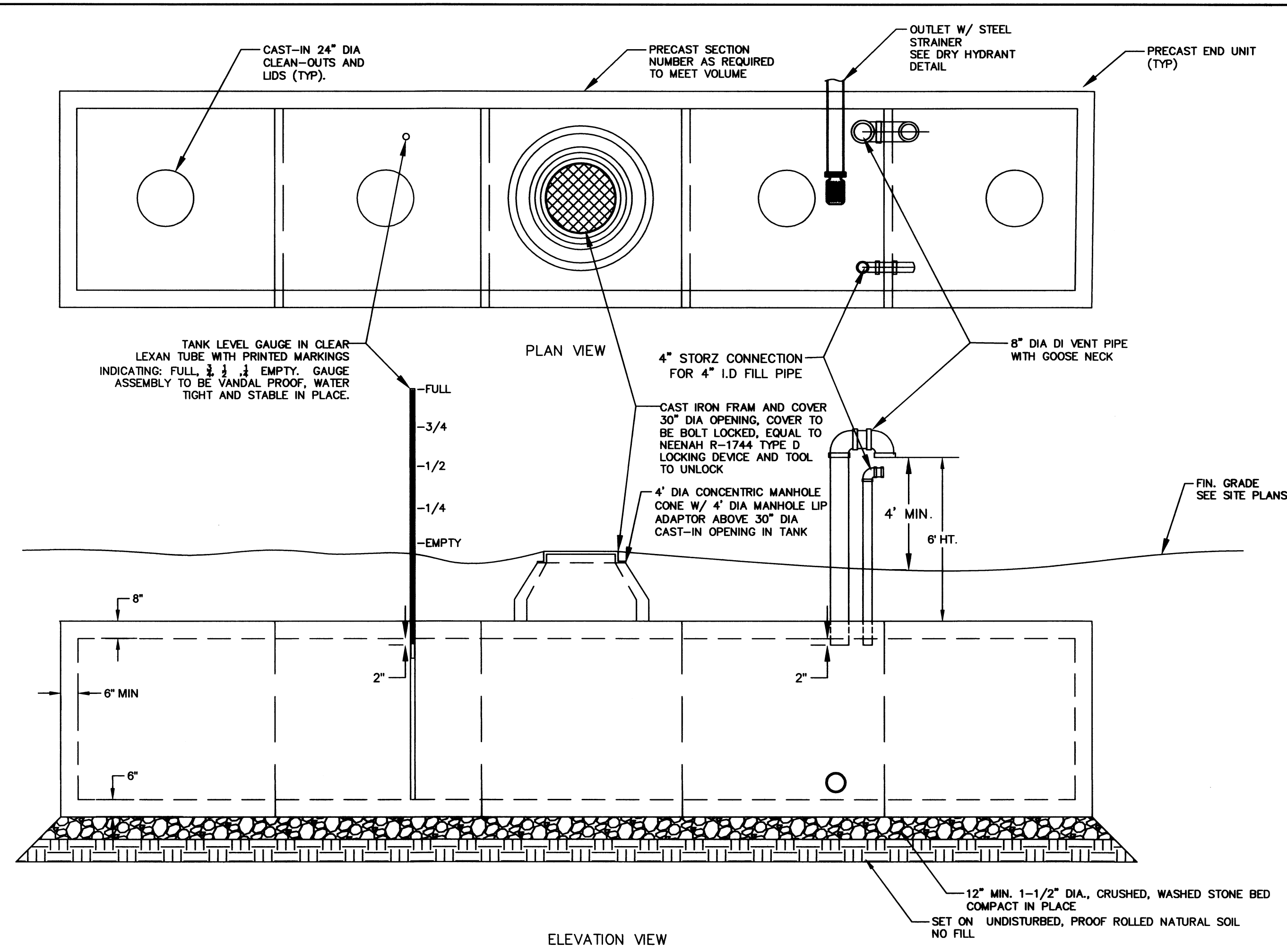
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PROJECT No.: 14-7101 PLAN No. 7101-CP-12

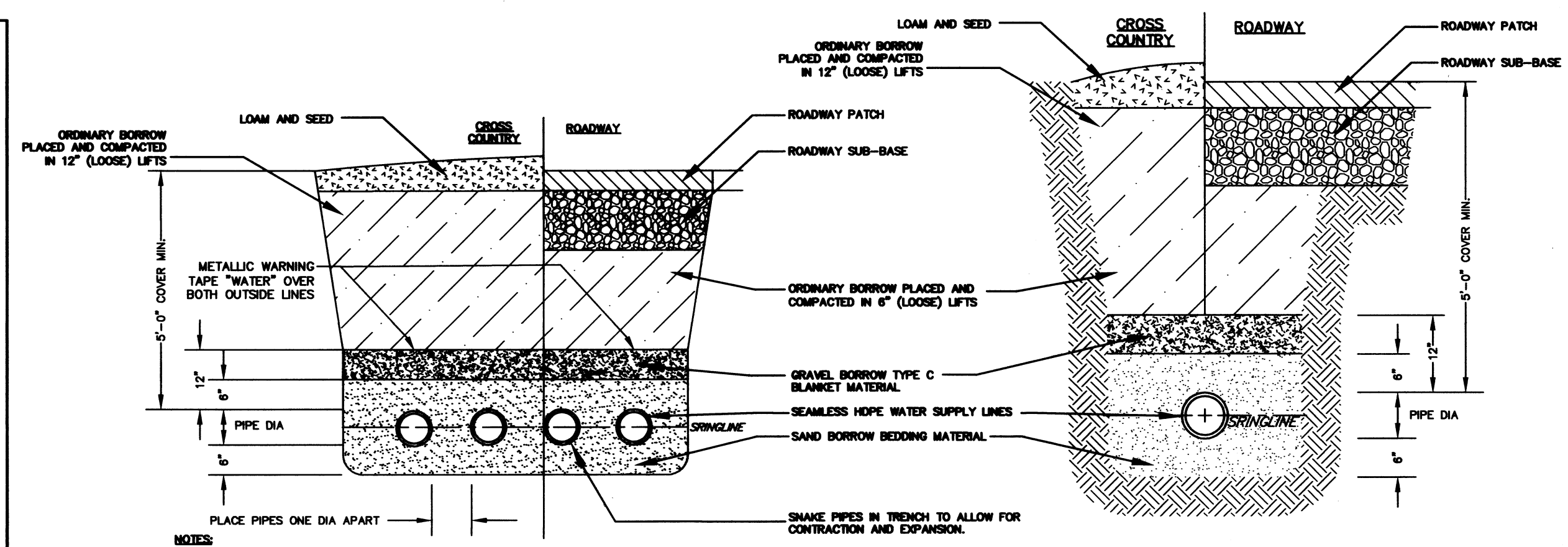


Susan E. Carter
9-8-15



FIRE CISTERN (30K GALLONS)
NOT TO SCALE

1. ALL CONCRETE SHALL BE A MINIMUM OF 5,000 PSI AT 28 DAYS. MANUFACTURER SHALL WARRANT THE STRUCTURE FOR AASHTO HS-20 LOADING FOR THE CONDITIONS SHOWN.
 2. BOX SECTION REINFORCING SHALL BE A MINIMUM OF GRADE 60.
 3. ALL BOX UNITS SHALL HAVE PRE-FORMED, CAST IN BUTYL RUBBER SEALS. UNITS SHALL BE DESIGNED FOR PNEUMATIC JOINING, FIELD APPLIED JOINTS SHALL NOT BE THE PRIMARY SEALING SYSTEM.
 4. EXTERNAL SURFACES OF THE TANK SHALL BE SEALED WATERTIGHT BY BITUMASTIC SEALANT OR OTHER APPROVED WATERPROOFING.
 5. A METHOD OF POSITIVE LEAK PREVENTION MUST BE PROVIDED BY THE TANK MANUFACTURER.
 6. THE ACCESS MANHOLE SHALL BE BROUGHT TO FINISHED GRADE.
 7. BACKFILL ABOVE THE TANK SHALL BE GRAVEL BORROW, TYPE C, NO STONES GREATER THAN 2" IN DIMENSION AND SHALL HAVE A MINIMUM OF 6" OF LOAM AND SEED. NO LANDSCAPE PLANTINGS OTHER THAN LAWN OR HARDSCAPE SHALL BE PLACED ABOVE THE TANK.
 8. ALL PIPES SHALL BE CLEANED, DOUBLE COAT PRIMED AND PAINTED PRIOR TO INSTALLATION. A MINIMUM OF TWO COATS OF EXTERIOR GRADE PAINT SHALL BE APPLIED TO ALL PIPES, COLOR TO BE PER FIRE DEPARTMENT CRITERIA. IF NOT SPECIFIED, ALL FILL AND VENT PIPING TO BE PAINTED BLACK. STORZ CONNECTION TO BE PAINTED RED.
 9. THE CONTRACTOR IS RESPONSIBLE FOR ARRANGING AND COORDINATING ALL REQUIRED INSPECTIONS WITH THE BOLTON FIRE DEPARTMENT.
 10. ALL PENETRATIONS NOT SPECIFIED, SHALL BE FILLED IN WITH MORTAR OR OTHER PERMANENT SEALANT PRIOR TO SEALING THE EXTERIOR OF THE TANK.
 11. ONCE INSTALLED THE TANK SHALL BE LEVEL IN ALL DIMENSIONS.
 12. THE CONTRACTOR IS RESPONSIBLE FOR FILLING THE TANK WITH CLEAN WATER AS MANY TIMES AS IS NECESSARY TO TEST AND VERIFY THE SYSTEM. A MINIMUM OF TWO SEPARATE FILLS WILL BE REQUIRED.
 13. AFTER INSTALLATION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF THE TANK AND ITS COMPONENTS. NO STORAGE OF MATERIALS OR PARKING ABOVE THE TANK SHALL BE ALLOWED.
- BOUYANCY CALCULATIONS:**
1. THE CONTRACTOR SHALL SUPPLY BOUYANCY CALCULATIONS FOR THE ACTUAL CONDITIONS ENCOUNTERED.
 2. BOUYANCY CALCULATIONS SHALL ASSUME THE FOLLOWING CRITERIA:
 - A. THE TANK IS EMPTY.
 - B. GROUNDWATER IS AS MEASURED IN THE AREA OF TANK PLACEMENT BY SPRING WATER LEVEL OBSERVATION AND SOIL EVALUATION BY A DEP CERTIFIED SOIL EVALUATOR.
 - C. OVERBURDEN SOIL SHALL BE CALCULATED AT 100 LBS/CF.
 - D. WEIGHT OF DISPLACED WATER SHALL BE CALCULATED AT 62.4 LBS/CF.
 3. THE CONTRACTOR SHALL PROVIDE SUFFICIENT ANTI-BOUYANCY MEASURES AND DEVICES TO OBTAIN A FACTOR OF SAFETY OF TWO (2).



MULTIPLE WATERLINES IN A TRENCH
NOT TO SCALE

SINGLE WATERLINE INSTALLATION
NOT TO SCALE

WATERLINE NARRATIVE AND SPECIFICATIONS:

1. NARRATIVE:
THE SITE WILL BE SERVED BY INDIVIDUAL WELLS ON EACH LOT. FOUR WELLS EXIST AND ARE LOCATED INSIDE THE NORTHERLY WETLANDS, AS ESTABLISHED TO SUPPORT THE PREVIOUSLY APPROVED COMPREHENSIVE PERMIT. LOT 4 WILL REQUIRE THE DEVELOPMENT OF A NEW WELL PURSUANT TO LOCAL AND STATE PERMITS. NO LOT'S WELL SERVES MORE THAN 12 BEDROOMS TOTAL PER LOT.

A SINGLE WATERLINE (MAIN) WILL TRAVERSE INTERVENING LOTS (THROUGH THE USE OF UTILITY EASEMENT) TO A UNIT IN EACH LOT'S CLUSTER. THIS UNIT WILL BE ONE WITH A FULL BASEMENT. INTERIOR TO THE UNIT WILL BE AN AREA RESERVED AS A WATER CLOSET. THIS AREA WILL CONTAIN THE WELL CONTROLS, BLADDER TANK, ELECTRONICS AND RELATED APPURTENANCES FOR THE LOT'S WATER SUPPLY. A SPLITTER WILL ALSO BE INSTALLED FROM WHICH EACH UNIT'S (WITHIN THE LOT) WATER SUPPLY LINE WILL TO INITIATE FROM AND WILL TERMINATE IN EACH UNIT.

2. SPECIFICATIONS:
THE WATERLINE SPECIFICATIONS PROVIDED BELOW WERE ESTABLISHED FOR PERMITTING AND COMPLIANCE PURPOSES. PLACES ASSOCIATES, INC. IS NOT THE DESIGNER OF THE WATER SUPPLY SYSTEM. COMPLIANCE TO CODE, REGULATION AND CONSTRUCTION PRACTICES ARE THE WELL AND WATER SYSTEMS CONTRACTOR'S RESPONSIBILITY.

WATER LINE PIPES WILL BE 2" TO 1-1/2" INTERIOR DIAMETER, HIGH DENSITY POLYETHYLENE PIPE RATED FOR A 200 PSI AND SPECIFICALLY MADE FOR POTABLE WATER SUPPLY AND DISTRIBUTION PURPOSES AND SHALL MEET AWWA C901-08 STANDARDS.

PIPES SHALL BE PLACED IN A COMMON TRENCH AND WILL BE BEDDED ON AND IN SAND. EACH LINE SHALL HAVE A SEPARATE METALLIC TRACER SYSTEM USING WIRE, METALLIC TRACER TAPE OR OTHER SYSTEM TO ALLOW FOR THE SURFACE DETECTION OF THE BURIED LINE. ALL LINES SHALL HAVE A MINIMUM COVER OF FIVE FEET (5'-0"). LINES SHALL BE "SNAKED" IN THE TRENCHES TO ALLOW FOR EXPANSION AND CONTRACTION OF THE PIPE WHILE IN SERVICE. THE USE OF FITTINGS BETWEEN SERVICE POINTS (MANHOLE OR WATER SERVICES CLOSETS) SHALL BE MINIMIZED.

PRIOR TO BEING PLACED IN SERVICE, EACH LINE SHALL BE TESTED FOR LEAKAGE AND PRESSURE INTEGRITY. ALL LINES SHALL BE FLUSHED AND DISINFECTED PRIOR TO USE.

THE CONTRACTOR IS RESPONSIBLE FOR THE DEVELOPMENT OF AS-BUILT LOCATION PLANS THAT REFERENCE LANDSCAPE FEATURES AND STRUCTURES FOR PULL THE LOCATIONS TO THE LINES.

LINES WHICH CROSS UTILITIES SHALL BE PLACED INSIDE A 3" PVC SLEEVE, WHICH SHALL EXTEND A MINIMUM OF FOUR (4') FEET ON EITHER SIDE OF THE CROSSING. IF A WATERLINE CROSSES A SEWER LINE, IT SHALL BE SLEEVED A MINIMUM OF FIVE (5') FEET ON EITHER SIDE OF THE CROSSING AND THE CROSSING POINT SHALL HAVE CONCRETE ENCASEMENT FOR BOTH LINES TO MAINTAIN THE OFFSETS REQUIRED, SEE DETAILS THIS SHEET.

ALL WATER SERVICE SYSTEMS SHALL MEET THE APPLICATION PLUMBING CODE AND STATE REGULATIONS FOR PRIVATE POTABLE WATER WELL AND DISTRIBUTION SYSTEMS.

WATERLINE SPECIFICATIONS
NOT TO SCALE

REVISIONS:
9-8-15 NO REVISIONS THIS SHEET

CONSTRUCTION DOCUMENTS
ISSUED MAY 1, 2015

CRAFTSMAN VILLAGE
WATER DETAILS

LOCATION: SUGAR ROAD
TOWN: BOLTON, MASSACHUSETTS
PREPARED FOR:

CRAFTSMAN VILLAGE
BOLTON, LLC

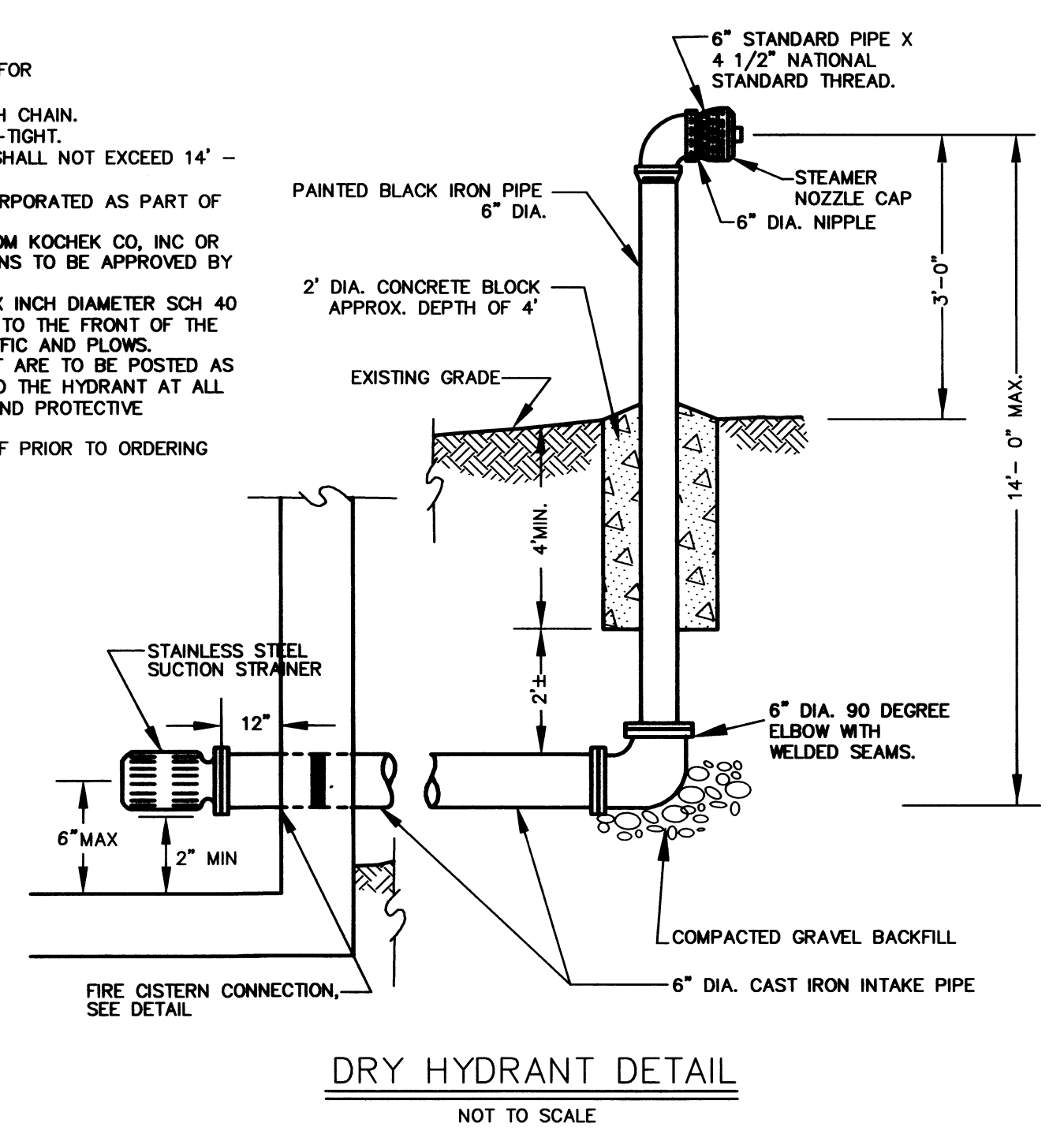
SCALE: AS NOTED DATE: SEPT. 3, 2014

Places Associates, Inc.

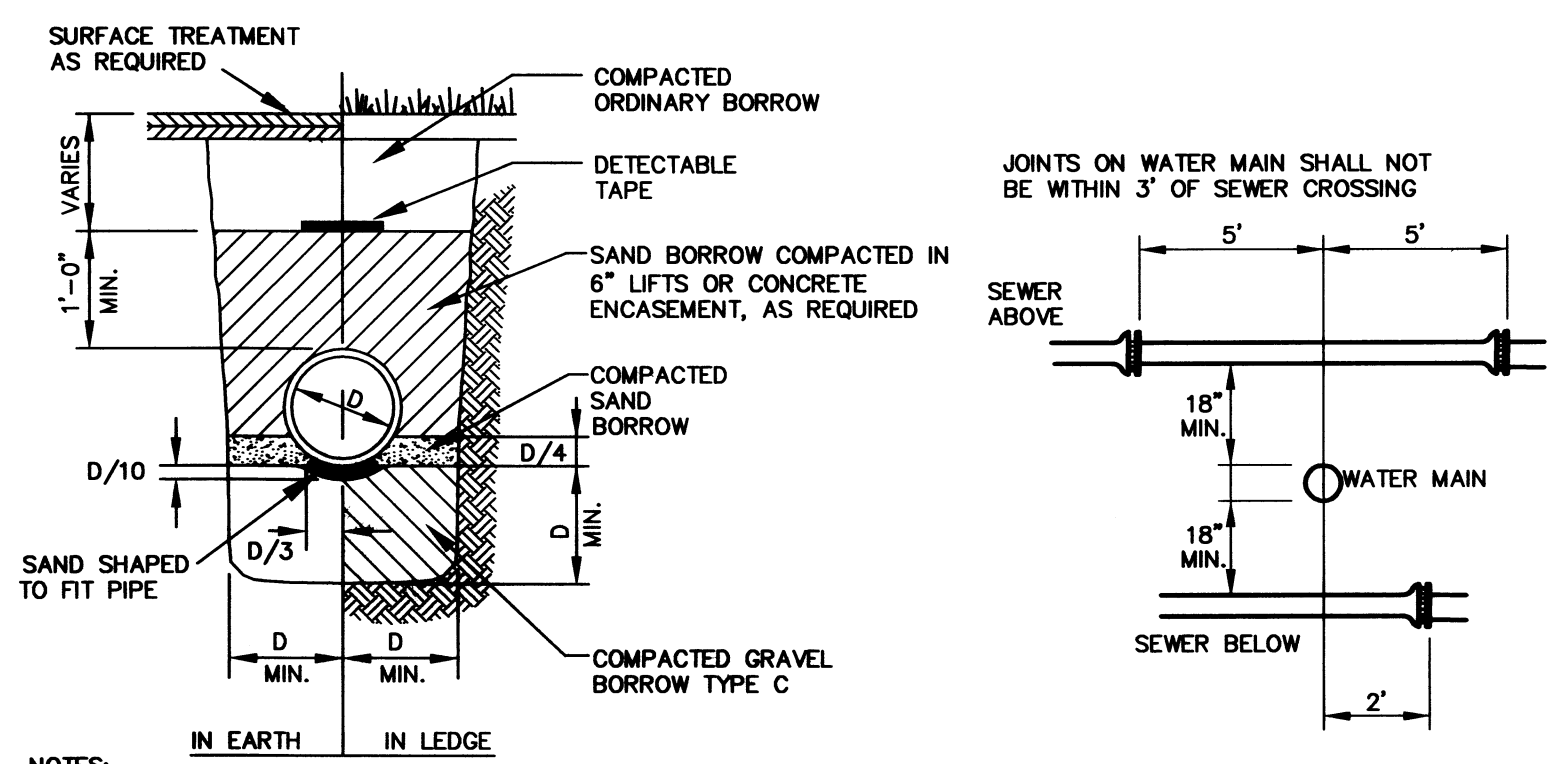
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PROJECT No.: 14-7101 PLAN No. 7101-CP-13

- NOTES:**
1. OUTLET PIPE TO BE CAPABLE OF 1,000 GPM FOR 2/3 OF TANK CAPACITY.
 2. STEAMER CAP SHALL HAVE "T" HANDLES WITH CHAIN.
 3. ALL CONNECTIONS AFTER CAP SHALL BE AIR-TIGHT.
 4. TOTAL DEPT OF STRAINER TO SUCTION CAP SHALL NOT EXCEED 14'-0".
 4. DRY HYDRANT ASSEMBLY MAY BE MADE INCORPORATED AS PART OF CISTERN SYSTEM.
 5. ALL PIPING AND FITTINGS ARE AVAILABLE FROM KOCHER CO, INC OR SUN VALLEY FIRE EQUIPMENT. ALL SUBSTITUTIONS TO BE APPROVED BY DESIGN ENGINEER AND BOLTON FIRE CHIEF.
 6. HYDRANT TO BE PROTECTED BY TWO (2) SIX INCH DIAMETER SCH 40 STEEL BOLLARDS PAINTED YELLOW AND PLACED TO THE FRONT OF THE HYDRANT TO PROTECT IT FROM VEHICULAR TRAFFIC AND PLOWS.
 7. ALL AREAS TO THE FRONT OF THE HYDRANT ARE TO BE POSTED AS "NO PARKING ANYTIME", TO ENSURE ACCESS TO THE HYDRANT AT ALL TIMES. SEE SITE PLANS FOR OTHER MARKING AND PROTECTIVE MEASURES.
 8. PLACEMENT TO BE CONFIRMED BY FIRE CHIEF PRIOR TO ORDERING FABRICATION.



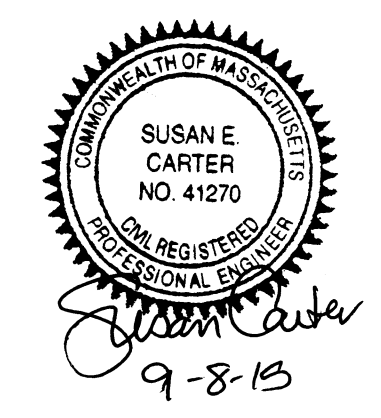
DRY HYDRANT DETAIL
NOT TO SCALE

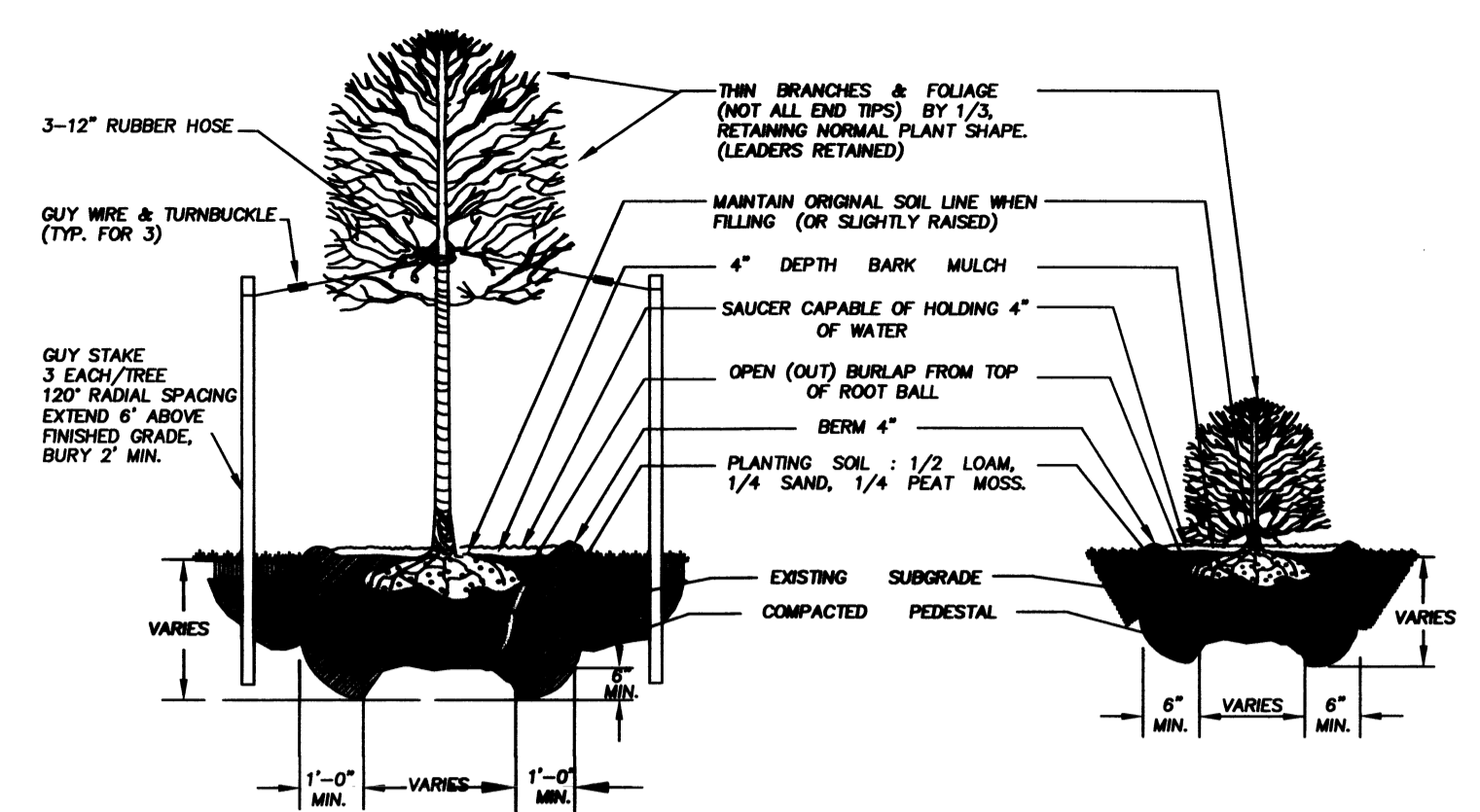


SEWER LINE CROSSING-WATER LINE
NOT TO SCALE

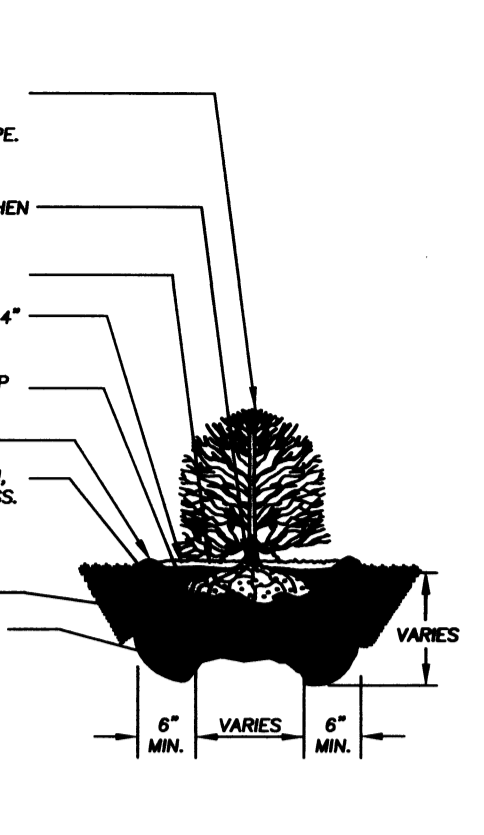
UTILITY TRENCH DETAIL
NOT TO SCALE

- NOTES:**
- THE SEPARATION OF WATER MAINS AND SEWERS SHALL COMPLY WITH THE FOLLOWING GENERAL REQUIREMENTS.
- A. PARALLEL INSTALLATION:**
1. NORMAL CONDITIONS: THE INSIDE EDGE OF A WATER MAIN SHALL BE LAID AT LEAST 10 FEET HORIZONTALLY FROM THE INSIDE EDGE OF ANY SANITARY SEWER, STORM SEWER OR SEWER MANHOLE.
 2. WHEN LOCAL CONDITIONS PREVENT A HORIZONTAL SEPARATION OF 10 FEET, ONE OF TWO METHODS MAY BE EMPLOYED. IN BOTH CASES THE INVERT OF THE WATER LINE MUST BE AT LEAST 18" ABOVE THE CROWN OF THE SEWER LINE.
 - (a) LAY WATER AND SEWER IN SEPARATE TRENCHES
 - (b) LAY THE WATER AND SEWER IN THE SAME TRENCH WITH THE WATER MAIN AT ONE SIDE ON A BENCH OF UNDISTURBED EARTH WITH A MINIMUM HORIZONTAL SEPARATION FROM INSIDE PIPE TO INSIDE PIPE OF 36"
- B. CROSSINGS:**
1. WHEN SEWERS MUST CROSS UNDER WATER MAINS, THE SEWER LAID SUCH THAT THE INVERT OF THE WATER LINE IS AT LEAST 18 INCHES ABOVE THE CROWN OF THE SEWER LINE.
 2. WHEN THE SEWER ELEVATION CANNOT BE VARIED TO MEET THE REQUIREMENT, THE WATER LINE MUST BE RELOCATED OR SLEEVED WITH MECHANICAL JOINT CEMENT LINED DUCTILE IRON PIPE, 2" I.D. LARGER THAN WATER LINE, FOR A DISTANCE OF 10 FT ON EACH SIDE OF THE SEWER.
 3. WHEN IT IS IMPOSSIBLE TO OBTAIN EITHER OR BOTH OF THE ABOVE REQUIREMENTS, BOTH THE WATER AND SEWER LINES SHALL BE CONSTRUCTED OF PRESSURE PIPE RATED TO 150psi MEETING AWWA STANDARDS OR OTHER EQUIVALENT MATERIAL. BOTH PIPES SHALL BE PRESSURE TESTED TO 150psi BY AN APPROVED METHOD TO ASSURE WATER TIGHTNESS OR BOTH PIPES SHALL BE ENCASED IN CONCRETE.





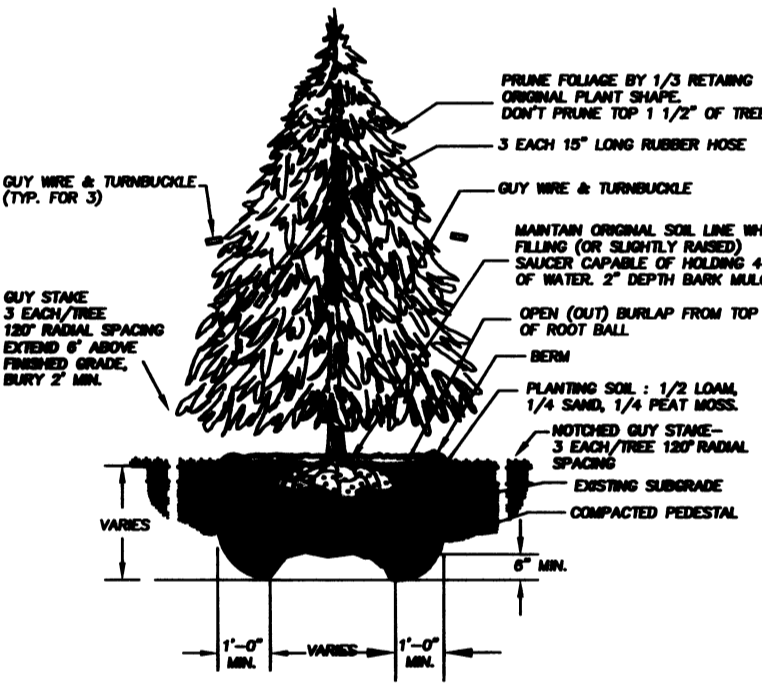
DECIDUOUS TREE PLANTING
NOT TO SCALE



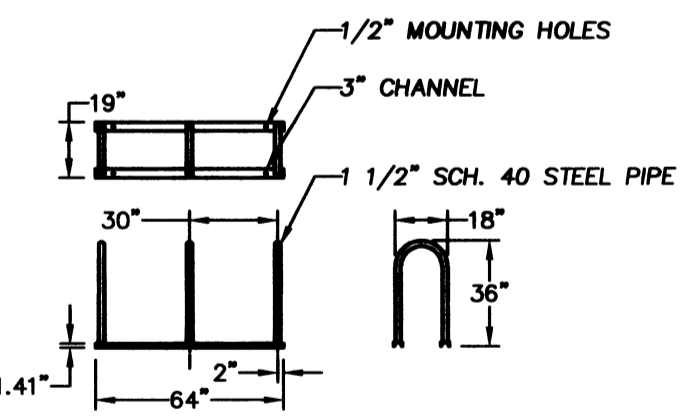
SHRUB PLANTING
NOT TO SCALE

PLANTING NOTES:

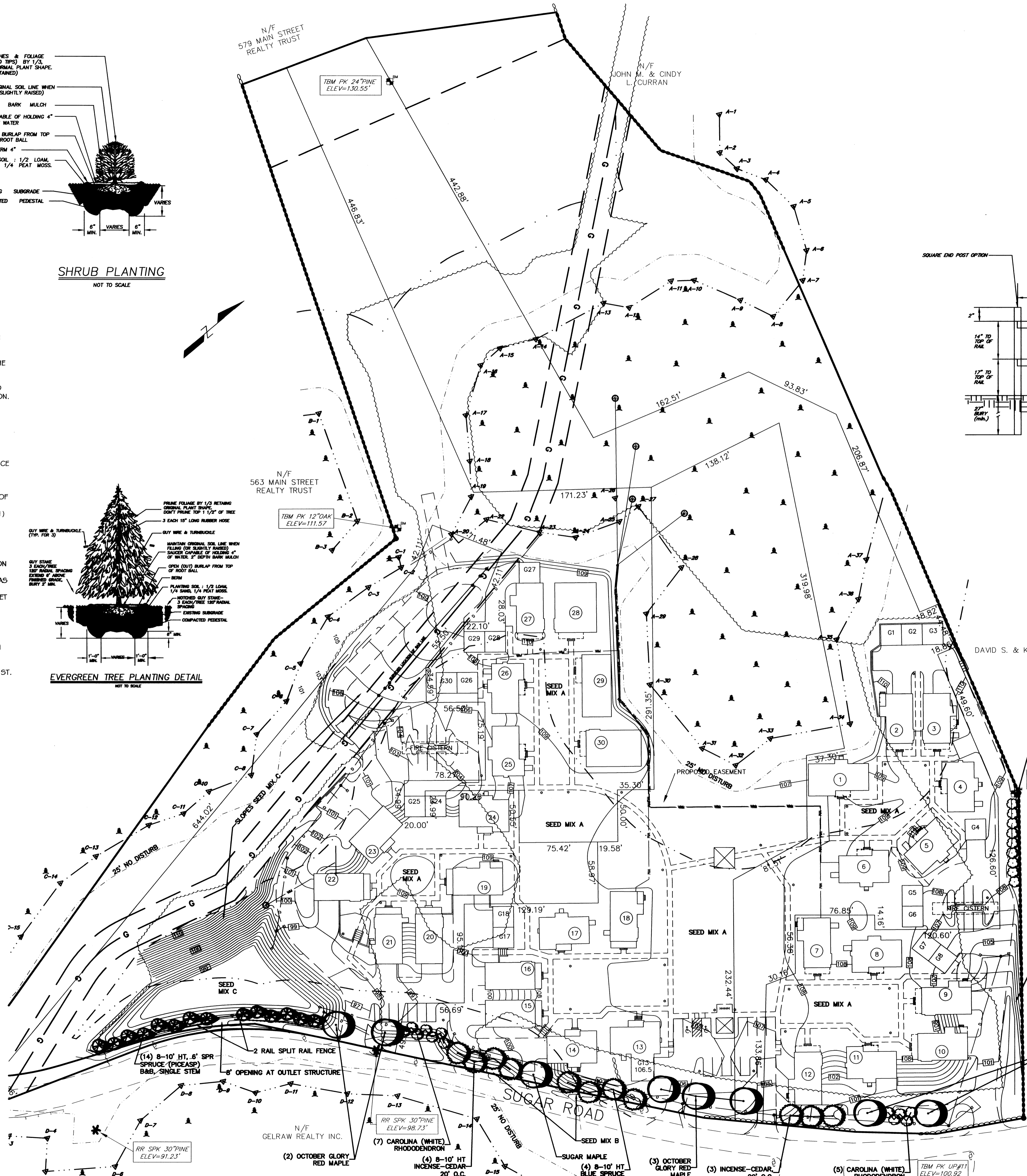
1. THE SPECIES AND VARIETIES LISTED SHALL BE ADHERED TO IN ALL CASES. WHERE A SUBSTITUTION IS PROPOSED, THE CONTRACTOR SHALL PROVIDE THE OWNER A LISTING OF PRICE DIFFERENTIALS AND ALL SUBSTITUTIONS SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT.
2. SEE SITE PLANS AND PLANS FROM OTHER TRADES FOR THE LOCATIONS OF BURIED UTILITIES, UNDERGROUND STRUCTURES AND OTHER OBSTACLES THAT MAY IMPACT THE PLANTING SHOWN HEREON.
3. THE LOCATION OF PLANTS AND PLANT GROUPINGS SHALL BE MODIFIED IN THE FIELD TO ENSURE EQUAL SPACING, THE CORRECT PLANT FACING AND TO PROVIDE FIELD ADJUSTMENTS TO ACCOMMODATE CONSTRUCTION CONDITIONS AND OBSTACLES.
4. IN CASE OF CONFLICT BETWEEN LANDSCAPE PLAN AND PLANTING SCHEDULE, THE GREATER NUMBER OR LARGER QUANTITY SHALL BE PROVIDED.
5. ALL PLANTS AND PLANTING METHODS SHALL BE IN ACCORDANCE WITH THE LATEST VERSION OF "RECOMMENDED STANDARD SPECIFICATION FOR PLANTINGS" AS COMPILED AND ISSUED BY THE ASSOCIATED LANDSCAPE CONTRACTORS OF MASSACHUSETTS.
6. ALL PLANTING BEDS SHALL RECEIVE A MINIMUM OF 6" DEPTH OF SHREDDED BARK MULCH.
7. ALL PLANTS SHALL BE WARRANTED FOR A MINIMUM OF ONE (1) YEAR FROM THE DATE OF ACCEPTANCE BY THE LANDSCAPE ARCHITECT. SHOULD ANY PLANTS DIE, EXHIBIT UNDESIRABLE DIE-BACK OR DISEASE DAMAGE, THEY SHALL BE REPLACED, AT NO ADDITIONAL COST TO THE OWNER WITH PLANTS MEETING THE ORIGINAL SPECIFICATIONS.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROVISION OF ADEQUATE WATER SUPPLIES TO PLANT MATERIALS UNTIL ACCEPTANCE OF THE LANDSCAPE BY THE LANDSCAPE ARCHITECT HAS OCCURRED.
9. THE CALIPER OF ALL TREES SHALL BE MEASURED FOUR (4) FEET ABOVE THE ROOT BALL OR GROUND LINE, WHICHEVER IS HIGHER.
10. PLANTING SEASONS:
 - 10.1. SPRING SEASON FOR ALL PLANTING IS FROM APRIL 1ST TO JULY 15TH.
 - 10.2. FALL SEASON:
 - 10.2.1. FOR ALL EVERGREEN MATERIALS IS FROM AUGUST 15TH TO NOVEMBER 15TH.
 - 10.2.2. FOR ALL DECIDUOUS TREES, SHRUBS AND GROUNDCOVERS IS FROM AUGUST 15TH TO NOVEMBER 15TH.



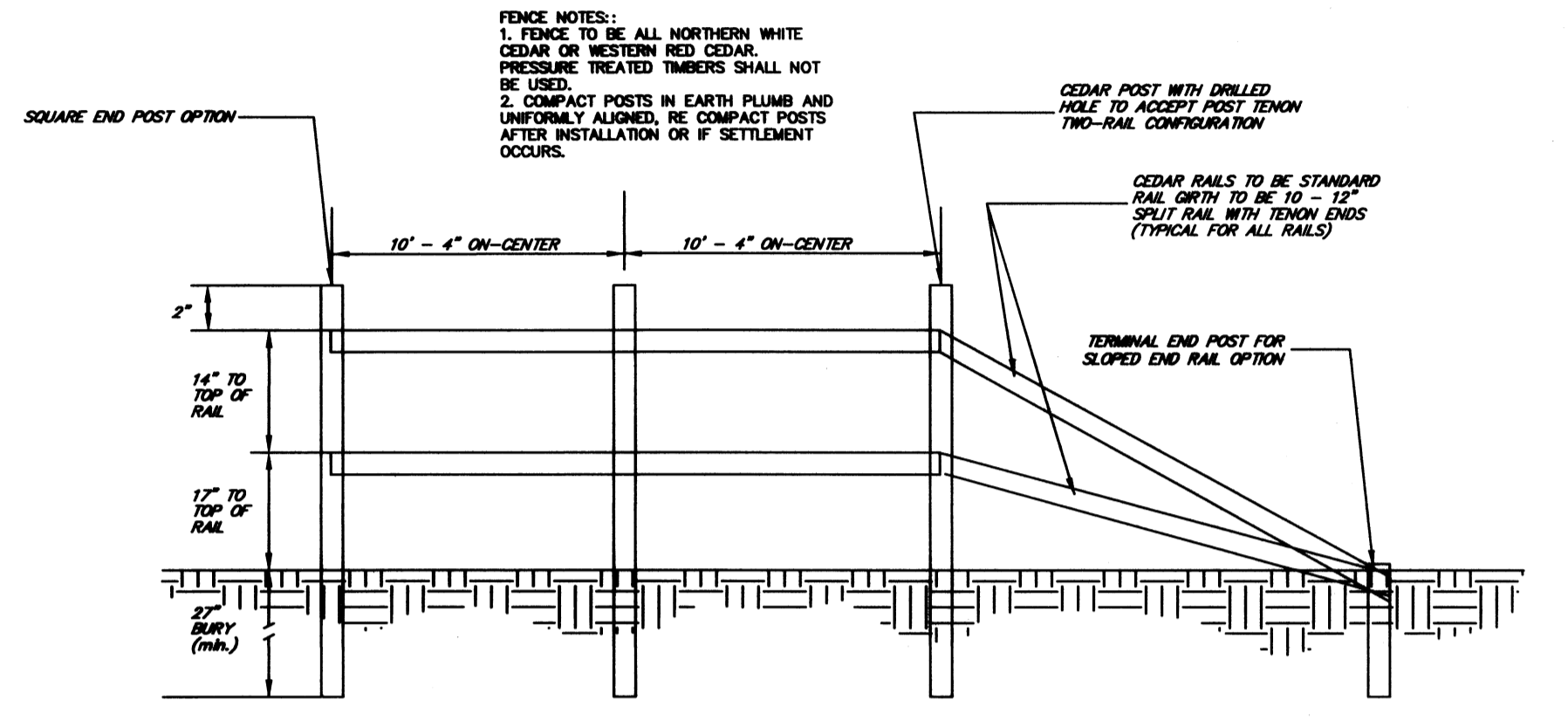
EVERGREEN TREE PLANTING DETAIL
NOT TO SCALE



BIKE RACK
NOT TO SCALE

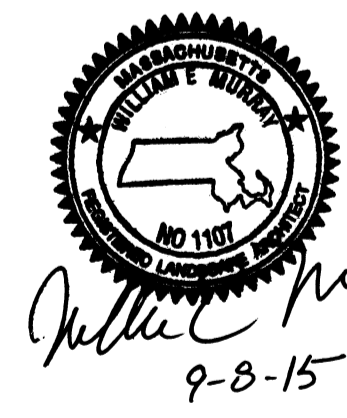


- LANDSCAPE NOTES:
1. ALL SURFACES WHICH ARE NOT STABILIZED BY STRUCTURES AND/OR HARDSCAPE (WALKS, PAVING, PORCHES, ETC.) SHALL HAVE A MINIMUM OF 4" OF LOAM AND SEED APPLIED. SEED MIX SHALL CONSIST OF THREE TYPES:
 - A. TYPE A SHALL BE LOW-WATER DEMAND LAWN MIX.
 - B. TYPE B SHALL BE A NATURALIZED SLOPE AND LANDSCAPE MIX OF INDIGENOUS ROOT STABILIZING AND FLOWERING MIX FOR SLOPES AND UNMAINTAINED AREAS.
 - C. TYPE C SHALL BE BASIN AND WET-MIX FOR DRAINAGE BASIN AND WETLANDS PERIPHERY IMPACTED AREAS.
 2. LAWN AND LANDSCAPED AREAS SHALL HAVE AN AUTOMATIC IRRIGATION SYSTEM INSTALLED.
 3. NO PLANTS LISTED ON THE MASSACHUSETTS DEPARTMENT OF AGRICULTURE PROHIBITED PLANT LIST SHALL BE PLANTED ON THIS SITE.



SPLIT RAIL FENCE
NOT TO SCALE

REVISIONS:
9-8-15 GAS LINE CROSSING



CONSTRUCTION DOCUMENTS
ISSUED MAY 1, 2015

CRAFTSMAN VILLAGE
LANDSCAPE AND LIGHTING
PLAN

LOCATION: SUGAR ROAD
TOWN: BOLTON, MASSACHUSETTS
PREPARED FOR:
CRAFTSMAN VILLAGE
BOLTON, LLC

SCALE: 1"=50' DATE: SEPT 3, 2014

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Civil Engineering, Surveying
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PROJECT No.: 14-7101 PLAN No. 7101-L-1

