

# PRELIMINARY SUBDIVISION "THE ORCHARDS"

In  
Littleton, Massachusetts

## PARCEL INFORMATION:

### 1. ASSESSORS:

U01-2-0 15 Great Road  
U01-1-56 70 Grist Mill Road

Nashoba Place Realty Trust  
John R. Keilty, Trustee  
40 Lowell Avenue  
Peabody, MA 01960

Middlesex South Registry of Deeds  
MSRD BK 58154 PG 123

### 2. ASSESSORS: Off Great Road U01-6

JFM Realty Trust  
Leslie French, Trustee  
P.O. Box 1472  
Littleton, MA 01460

MSRD BK 44725 PG 484

### 3. ASSESSORS:

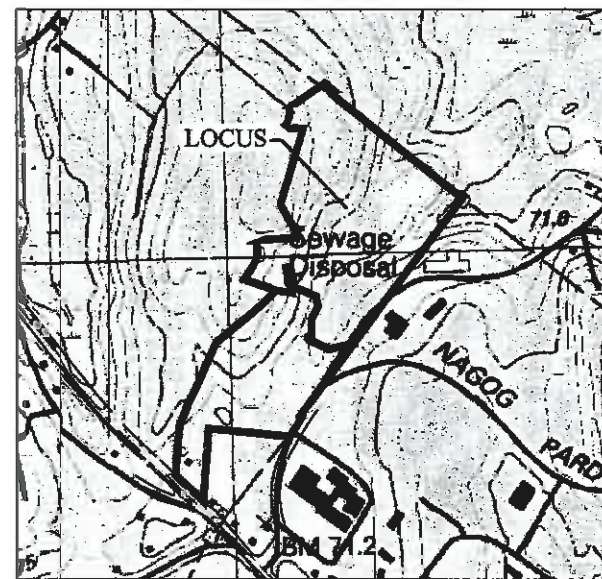
82 Grist Mill Road U01-1-28  
84 Grist Mill Road U01-1-27

Littleton Holding Realty Trust  
John R. Keilty, Trustee  
40 Lowell Road  
Peabody, MA 01960

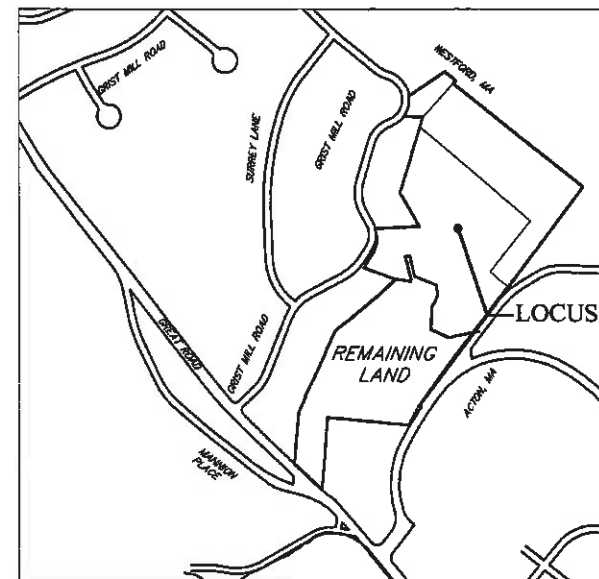
MSRD BK 54533 PG. 583

#### NOTE:

ALL SUPPLEMENTAL DATA SUBMITTED IN CONJUNCTION WITH THIS PRELIMINARY SUBDIVISION AS REQUIRED BY THE SUBDIVISION REGULATIONS IS HEREBY INCORPORATED AS PART OF THE PLAN SET. THIS PLAN, ITS SUPPORTING DOCUMENTATION AND FORM WORK ARE SUBMITTED PURSUANT TO THE PROVISIONS OF THE TOWN OF LITTLETON'S SUBDIVISION REGULATIONS AND MASSACHUSETTS GENERAL LAW, CHAPTER 81 AND PURPOSEFULLY OBTAINS THE PROTECTIONS PROVIDED THEREIN.



LOCUS  
SCALE: 1" = 600'



LOCUS  
SCALE: 1" = 600'

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## APPLICANT:

Fifteen Great Road LLC  
200 Baker Avenue-Suite 303  
Concord, MA 01742

## PLANNER, LANDSCAPE ARCHITECT,

## CIVIL ENGINEER & SURVEYOR:

Places Associates, Inc.  
510 King Street, Suite 9  
Littleton, MA 01460

## ZONING

R-RESIDENTIAL

SITE DOES NOT CONTAIN ANY FLOOD HAZARD ZONE PER FLOOD INSURANCE RATE MAP 25017C243E PANEL 243 OF 656 EFFECTIVE JUNE 4, 2010.

SITE IS NOT LOCATED WITH IN A LITTLETON AQUIFER OR WATERSHED PROTECTION OVERLAY DISTRICT.

SITE CONTAINS GREATER THAN 10 ACRES OF LAND THEREFORE THIS FILING INCLUDES THE OPEN SPACE DEVELOPMENT PLAN IN ADDITION TO THE CONVENTIONAL SUBDIVISION LAYOUT.

RECEIVED

MAR 22 2012

LITTLETON  
PLANNING BOARD



PERMIT SET  
NOT FOR CONSTRUCTION

## THE ORCHARDS COVER SHEET

LOCATION: 15 GREAT ROAD  
TOWN: LITTLETON, MASSACHUSETTS  
PREPARED FOR:

FIFTEEN GREAT  
ROAD LLC

SCALE: AS SHOWN DATE: MARCH 20, 2012

Places Associates, Inc.

Planning, Landscape Architecture,  
Civil Engineering, Surveying  
510 KING STREET, SUITE 9  
LITTLETON, MA 01460  
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PROJECT No.: 11-6303 PLAN No. 6303-PS-1

# 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.
- 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.
- 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 INACCURATELY 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 UTILITIES SHOWN ON THE PLANS AND THAT WHICH IS FOUND IN THE FIELD.
- THE CONTRACTOR SHALL RETAIN THE SERVICES OF A REGISTERED PROFESSIONAL LAND SURVEYOR TO PROVIDE LAYOUT & CONTROL FOR THE DEVELOPMENT OF THE SITE.
- ALL CONSTRUCTION UNDER AREAS SUBJECT TO VEHICULAR TRAFFIC SHALL BE CONSTRUCTED TO WITHSTAND A DIRECT 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 LITTLETON 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.
- 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 ENGINEER SHALL BE NOTIFIED IMMEDIATELY UPON THE DISCOVERY OF ANY CONTRADICTION, INCOMPLETE OR MISLEADING INFORMATION SHOWN ON THE PLANS OR PLANS PREPARED BY OTHERS. THE CONTRACTOR SHALL ALLOW FOR ADEQUATE TIME FOR THE ENGINEER TO RESPOND/PROVIDE DIRECTION FOR THE PLAN DISCREPANCY.
- 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 PROJECT. 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 PRELIMINARY SUBDIVISION AS REQUIRED BY THE SUBDIVISION 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 LITTLETON'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 MASS HIGHWAY TO CONSTRUCT WITHIN A PUBLIC WAY FOR WORK WITHIN GREAT ROAD, STATE ROUTE 2A. CONTROLLED DENSITY FILL SHALL BE USED AS PAVEMENT BASE COURSE WITHIN THE STATE HIGHWAY LAYOUT.
- WETLANDS DELINEATION PERFORMED BY OXBOW ASSOCIATES, INC. OF ACTON, MA IN APRIL 2011. LOCATIONS OF FLAGS WERE FIELD-SURVEY LOCATED BY PLACES ASSOCIATES, INC. THE FINAL WETLANDS LIMITS ARE SUBJECT TO REVIEW AND APPROVAL BY THE LITTLETON CONSERVATION COMMISSION.
- TOWN LINES DEPICTED HEREON ARE DERIVED FROM PLAN RECORD INFORMATION AND WILL BE FIELD SURVEY DETERMINED PRIOR TO SUBMITTAL OF A DEFINITIVE PLAN.

# 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 GRIST MILL ROAD OR GREAT 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.
- 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. THE SITE SHALL BE KEPT IN A NEAT AND ORDERLY FASHION.
- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING A TRENCH OPERATIONS PERMIT PURSUANT TO THE REQUIREMENTS OF THE TOWN OF LITTLETON AND 520 CMR 14.00 (AKA "JACKIE'S LAW").

# MATERIAL DEFINITIONS:

BITUMINOUS CONCRETE PAVEMENT	ALL SITE PAVING SHALL BE CLASS 1 BITUMINOUS CONCRETE. MIXTURES SHALL BE COMPOSED OF MINERAL AGGREGATE, MINERAL FILLER (IF REQUIRED) AND BITUMINOUS BINDER. THE MIXTURE MAY INCLUDE RECLAIMED ASPHALT PAVEMENT AT THE OPTION OF THE CONTRACTOR.
C&T IN PLACE CONCRETE	THE MIXTURE COMPOSITION AND TOLERANCES SHALL MEET THE SPECIFICATIONS FOR BINDER COURSE AND TOP COURSE MIXTURES AS SPECIFIED IN TABLE A OF SS&B M2.11.03. 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.
CONTROLLED DENSITY FILL (CDF)	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 HAVE A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI UNLESS OTHERWISE REQUIRED IN THE CONSTRUCTION DOCUMENTS.  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 EXCAVATABLE BY HAND TOOLS AND/OR SHALL EQUIPMENT WHEN PLACED AND CURED. CDF SHALL MEET THE REQUIREMENTS OF SS&B M4.0.09, 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 ADJUSTMENTS (25%) ADJUSTMENT IN SAND CONTENT.  C. CDF MUST MEET THE FOLLOWING STRENGTH REQUIREMENTS: -28 DAY COMPRESSIVE STRENGTH: 70-80 PSI -90 DAY COMPRESSIVE STRENGTH: 100 PSI MAX
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 MATERIAL FREE FROM CLAY, SURFACE COATINGS, ORGANIC. THE STONE SHALL MEET THE REQUIREMENTS OF SS&B M2.0.10.
DENSE GRADED CRUSHED STONE	DENSE GRADED CRUSHED STONE SHALL CONSIST OF THE COMBINATION OF CRUSHER-RUN COARSE AGGREGATES (MEETING SS&B M2.0.10) AND FINE AGGREGATES OF NATURAL SAND OR STONE SCREENING UNFRACTIONED WITH A PREDETERMINED QUANTITY OF WATER. COARSE AGGREGATE SHALL CONSIST OF HARD, DURABLE PARTICLES OF FRAGMENTS OF STONE. MATERIALS THAT BREAK UP WHEN ALTERNATELY FROZEN AND THAWED OR WETTED AND DRIED SHALL NOT BE USED. FINE AGGREGATE SHALL CONSIST OF NATURAL OR CRUSHED SAND. THE GRADATION/MATERIAL SHALL COMPLY WITH THE SPECIFICATIONS OF SS&B M2.0.17.
GLACIAL TILL	A. GLACIAL TILL: NATURAL INORGANIC SOIL APPROVED BY THE ENGINEER AND MEETING THE FOLLOWING REQUIREMENTS:  1. 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, 15% TO 27% CLAY, OR 60% TO 80% SILT AND LESS THAN 12% CLAY.
GRAVEL BORROW	GRAVEL BORROW SHALL CONSIST OF INERT MATERIAL THAT IS HARD, DURABLE STONE, FREE FROM CLAY, SURFACE COATINGS, ORGANIC AND DELETERIOUS MATERIAL. ALL GRAVEL BORROW SHALL MEET THE REQUIREMENTS OF SS&B 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 A SOURCE WHICH HAS NEVER BEEN STRIPPED. LOAM SHALL BE OF UNIFORM QUALITY, FREE FROM HARD CLODS, STIFF CLAY, HARDPAN, SOIL, PARTIALLY DISINTEGRATED STONE, LIME, CEMENT, ASHES, SLAG, CONCRETE, TAR RESIDUE, TARRIED PAPER, BOARDS, CHIPS OR ANY OTHER UNDESIRABLE MATERIAL.  LOAM SHALL CONTAIN BETWEEN 5.5 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 ACTIVITY 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 1" (10)      100% 3/4" (20)      97%      100% NO. 100 (SAND)      40%      60% NO. 100 (SILT & CLAY)      40%      60%
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 CONGERS 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.
RAP RAP	RAP-RAP STONE SHALL BE SOUND, DURABLE ROCK, ANGULAR IN SHAPE. RAP SHALL BE FREE FROM DEBRIS, ORGANIC OR DELETERIOUS MATERIAL. ROUNDED STONES, BOULDERS, SANDSTONE OR SIMILAR SOFT STONES OR RELATIVELY THIN SLABS WILL NOT BE PERMITTED UNLESS SPECIFICALLY PERMITTED BY THE DESIGN ENGINEER. ALL RAP RAP MATERIALS SHALL MEET THE REQUIREMENTS OF SS&B M2.02.0.
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% MAX. ALL SAND BORROW SHALL MEET THE REQUIREMENTS OF SS&B M1.04.0. MAXIMUM STONE SIZE SHALL BE AS DEPICTED IN THE PLANS.
COMPACTION TESTING	ALL EARTHEN MATERIALS SHALL BE COMPACTED TO THE DRY DENSITY INDICATED IN THE CONSTRUCTION DOCUMENTS AND/OR AS IS REQUIRED BY CDF 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 DEFINED IN ASTM D1557, METHOD C.  AREAS THAT WERE TESTED AND FOUND TO BE INSUFFICIENTLY COMPACTED SHALL BE RE-TESTED AFTER THE ADDITIONAL COMPACTING HAS BEEN COMPLETED.

# ABBREVIATIONS

ABBREVIATION	DEFINITION
AASHTO	AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS
ABR	ACCESSIBLE RAMP - TYPE 1
ABR-1	ACCESSIBLE RAMP - TYPE 2
ABR-2	ACCESSIBLE RAMP - TYPE 3
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
B&B	BALL & BEARING
B&B CONC.	BOTTOM CURB ELEVATION
B&B CONC.	BUILDING
B&B CONC.	BENCHMARK
B&B CONC.	BOTTOM RAMP ELEVATION
B&B CONC.	CAULPERS
B&B CONC.	CONCRETE BOUND
B&B CONC.	CUBIC FOOT
B&B CONC.	CAST IRON PIPE
B&B CONC.	CORRODED METAL PIPE
B&B CONC.	CONCRETE
B&B CONC.	CATCH BASIN
B&B CONC.	CUBIC YARD
B&B CONC.	DRILL HOLE
B&B CONC.	DUCTILE IRON PIPE
B&B CONC.	DRAINAGE
B&B CONC.	DRAIN MANHOLE
B&B CONC.	ELEVATION
B&B CONC.	ELECTRIC MANHOLE
B&B CONC.	EXISTING
B&B CONC.	EXTENSION
B&B CONC.	FOUNDATION
B&B CONC.	FLARED END SECTION
B&B CONC.	FINISH FLOOR ELEVATION
B&B CONC.	FINISH GRADE
B&B CONC.	FOUND
B&B CONC.	FIELD STONE BOUND
B&B CONC.	FEET - LINEAR MEASURE
B&B CONC.	GALLON
B&B CONC.	GALLONS PER MINUTE
B&B CONC.	HIGH DENSITY POLYETHYLENE PIPE
B&B CONC.	HIGH POINT
B&B CONC.	HEIGHT
B&B CONC.	IRON PIPE
B&B CONC.	IRON PIPE
B&B CONC.	INSIDE DIAMETER
B&B CONC.	PIPE INSET ELEVATION
B&B CONC.	LOW POINT
B&B CONC.	MANHOLE
B&B CONC.	MASS HIGHWAY BOUND
B&B CONC.	MINIMUM
B&B CONC.	MANUAL OF UNIFORM TRAFFIC CONTROL
B&B CONC.	DEVICES
B&B CONC.	ON CENTER
B&B CONC.	OUTSIDE DIAMETER
B&B CONC.	OCCUPATIONAL SAFETY AND HEALTH
B&B CONC.	ADMINISTRATION
B&B CONC.	PLUG & PIN
B&B CONC.	POUNDS PER SQUARE INCH
B&B CONC.	POLYETHYLENE GLYCOL PIPE
B&B CONC.	ROUND CONCRETE PIPE
B&B CONC.	READY & STOCKPILE ITEM
B&B CONC.	REQUIRED
B&B CONC.	STONE BOUND
B&B CONC.	SEWER MANHOLE
B&B CONC.	SPREAD
B&B CONC.	STAKE & STONE
B&B CONC.	STANDARD SPECIFICATIONS OF HIGHWAYS & BRIDGES, THE COMMONWEALTH OF MASSACHUSETTS DEPARTMENT OF PUBLIC WORKS
B&B CONC.	SLOPED TO VERTICAL CURB TRANSITION
B&B CONC.	SEGMENT
B&B CONC.	TEMPORARY BENCH MARK
B&B CONC.	TOP OF CURB ELEVATION
B&B CONC.	TELEPHONE MANHOLE
B&B CONC.	TOP OF CONCRETE FOUNDATION ELEVATION
B&B CONC.	TOP OF RAMP ELEVATION
B&B CONC.	TYPICAL FOR ALL ITEMS SHOWN
B&B CONC.	UTILITY POLE
B&B CONC.	VERTICAL GRANITE CURB TRANSITION SEGMENT

# LEGEND

EXISTING	PROPOSED
INDEX CONTOUR	-100
INTERMEDIATE CONTOUR	-50
SPOT GRADE	X 100.52
STONE WALL	X 100.52
EDGE OF WOODS	X 100.52
EDGE OF WATER BODY	X 100.52
100 YEAR FLOOD LINE	X 100.52
EDGE OF WETLAND	X 100.52
25' BUFFER	X 100.52
50' BUFFER	X 100.52
75' BUFFER	X 100.52
100' BUFFER	X 100.52
WETLAND	X 100.52
WETLAND FLAG	X 100.52
RIVERFRONT	X 100.52
100' RIVER BUFFER	X 100.52
200' RIVER BUFFER	X 100.52
SILTATION BARRIER	X 100.52
BUILDING SETBACK LINE	X 100.52
WELL	X 100.52
TRAIL	X 100.52
FLAGPOLE	X 100.52
BOUND	X 100.52
DRILL HOLE	X 100.52
IRON PIPE	X 100.52
BENCHMARK	X 100.52
PERC TEST	X 100.52
TEST PIT	X 100.52
SOIL BORING	X 100.52
EDGE OF GRAVEL	X 100.52
EXPANSION JOINT	X 100.52
CONSTRUCTION JOINT	X 100.52
EDGE OF PAVEMENT	X 100.52
CAPE CDD BERM	X 100.52
BIT CONC. (TYPE 3)	X 100.52
CONCRETE CURB	X 100.52
VERT. GRANITE CURB	X 100.52
SLOPED GRANITE CURB	X 100.52
STOCKADE FENCE	X 100.52
CHAIN LINK FENCE	X 100.52
FENCE - OTHER	X 100.52
FENCE GATE	X 100.52
GUARD RAIL	X 100.52
WOOD GUIDE RAIL	X 100.52
ROOT BARRIER	X 100.52
SIGN POST	X 100.52
FOUNDATION DRAIN	X 100.52
ROOF DRAIN	X 100.52
DRAIN LINE	X 100.52
DRAIN MANHOLE	X 100.52
CATCHBASIN	X 100.52
FLARED END IN/OUT	X 100.52
CLEANOUT	X 100.52
IRRIGATION LINE	X 100.52
FIRE PROTECTION LINE	X 100.52
WATER LINE	X 100.52
WATER VALVE	X 100.52
FIRE HYDRANT	X 100.52
WATER SHUTOFF	X 100.52
OVERHEAD WIRES	X 100.52
UNDERGROUND WIRES	X 100.52
GUY POLE	X 100.52
UTILITY POLE	X 100.52
GUY ANCHOR	X 100.52
UTILITY BOX	X 100.52
STREETLIGHT	X 100.52
LAMP POST	X 100.52
ELECTRIC MANHOLE	X 100.52
TELEPHONE MANHOLE	X 100.52
SEWER LINE	X 100.52
SEWER FORCE MAIN	X 100.52
LOW PRESSURE SEWER	X 100.52
SEWER MANHOLE	X 100.52
GAS LINE	X 100.52
GAS VALVE	X 100.52

# THE ORCHARDS NOTES AND LEGEND

LOCATION: 15 GREAT ROAD  
TOWN: LITTLETON, MASSACHUSETTS  
PREPARED FOR:

# FIFTEEN GREAT ROAD LLC

SCALE: AS NOTED DATE: MARCH 20, 2012

Places Associates, Inc.

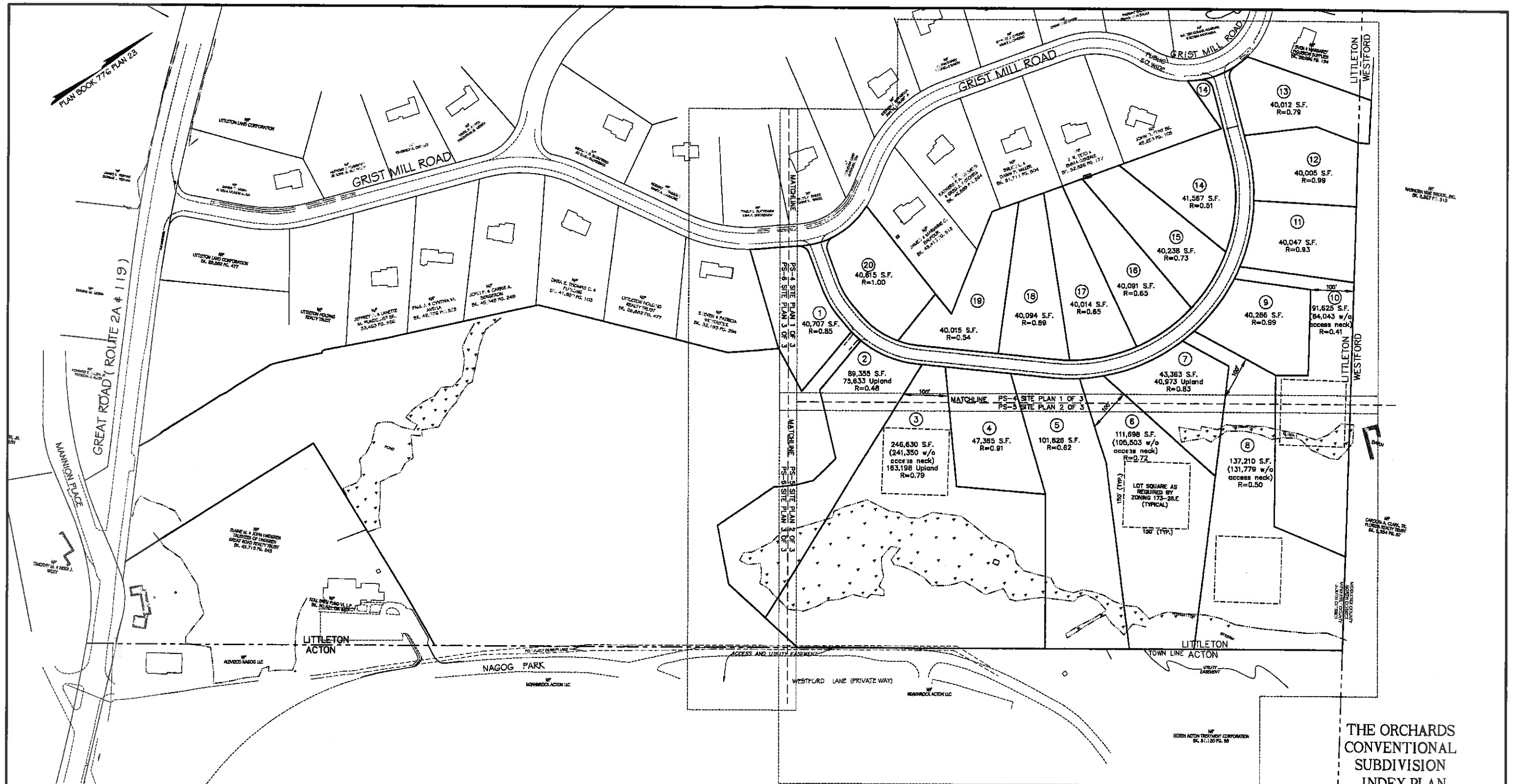
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PROJECT No.: 11-8303 PLAN No. 6303-PS-2



PERMIT SET  
NOT FOR CONSTRUCTION

NOTE: ALL SUPPLEMENTAL DATA SUBMITTED IN CONJUNCTION WITH THIS PRELIMINARY SUBDIVISION AS REQUIRED BY THE SUBDIVISION REGULATIONS IS HEREBY INCORPORATED AS PART OF THE PLAN SET. THIS PLAN, ITS SUPPORTING DOCUMENTATION AND FORM-WORK ARE SUBMITTED PURSUANT TO THE PROVISIONS OF THE TOWN OF LITTLETON'S SUBDIVISION REGULATIONS AND MASSACHUSETTS GENERAL LAWS, CHAPTER 81 AND PURPOSEFULLY OBTAINS THE PROTECTIONS PROVIDED THEREIN.

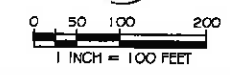


NOTES:

1. PLAN IS THE COMPILATION OF INFORMATION FROM VARIOUS SOURCES INCLUDING RECORD DEEDS, AERIAL TOPOGRAPHY, WETLANDS DELINEATIONS BY OXBOW ASSOCIATES AND LIMITED ON THE GROUND SURVEY BY PLACES ASSOCIATES, INC.
2. REFER TO SHEET PS-2 FOR ADDITIONAL NOTES.



PERMIT SET  
NOT FOR CONSTRUCTION



**THE ORCHARDS  
CONVENTIONAL  
SUBDIVISION  
INDEX PLAN**

LOCATION: 15 GREAT ROAD  
TOWN: LITTLETON, MASSACHUSETTS  
PREPARED FOR:

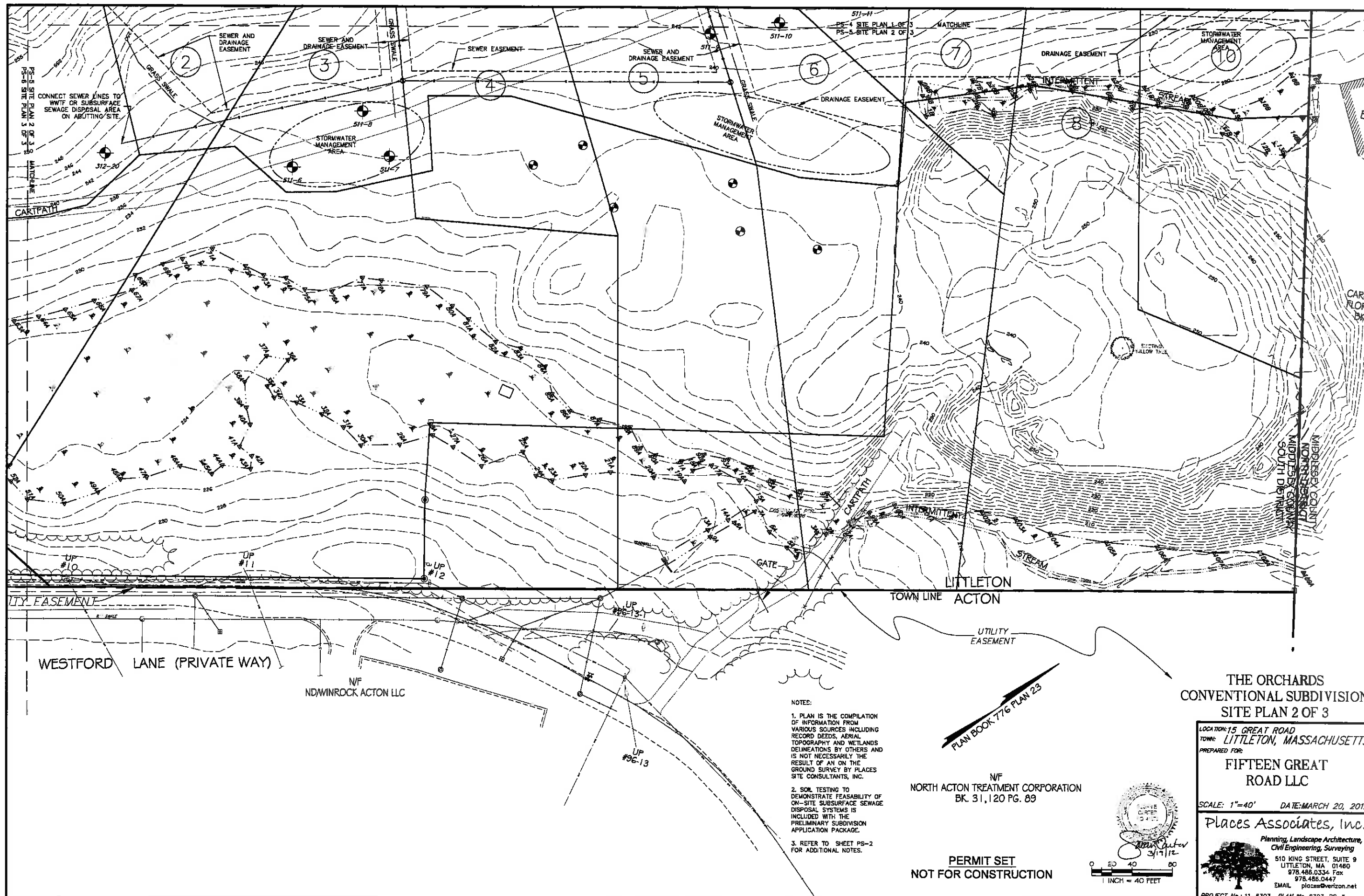
**FIFTEEN GREAT  
ROAD LLC**

SCALE: 1"=100' DATE: MARCH 20, 2012

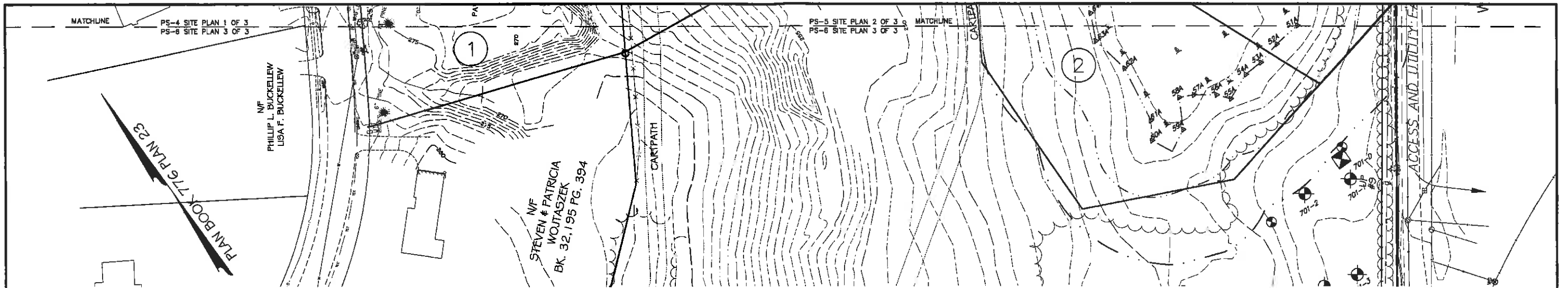
**Places Associates, Inc.**

Planning, Landscape Architecture,  
Civil Engineering, Surveying  
510 KING STREET, SUITE 9  
LITTLETON, MA 01460  
978.486.0334 Fax  
978.486.0447  
EMAIL: places@verizon.net

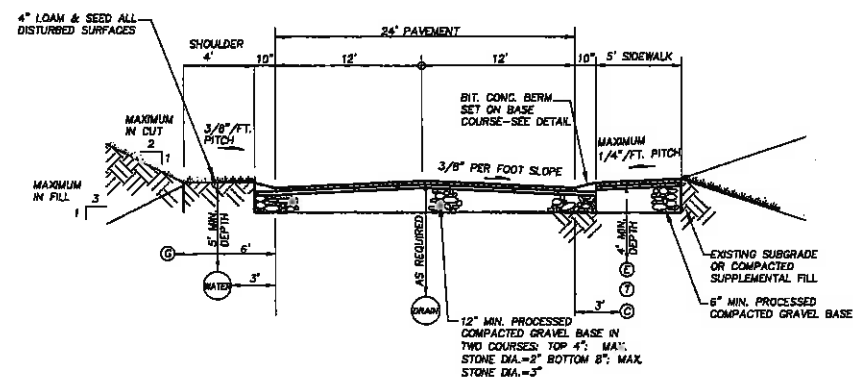
PROJECT No.: 11-6303 PLAN No. 6303-PS-3







PAVEMENT:  
ROADWAY - WEARING COURSE: 1 1/2" BINDER COURSE: 1 1/2"  
SIDEWALK - WEARING COURSE: 1" BINDER COURSE: 1"  
ALL PAVEMENT SHALL BE CLASS 1 TYPE 1 BITUMINOUS CONCRETE.



TYPICAL ROAD CROSS SECTION

NOT TO SCALE

#### NOTES:

1. PLAN IS THE COMPILATION OF INFORMATION FROM VARIOUS SOURCES INCLUDING RECORD DEEDS, AERIAL TOPOGRAPHY AND WETLANDS DELINEATIONS BY OTHERS AND IS NOT NECESSARILY THE RESULT OF AN ON THE GROUND SURVEY BY PLACES SITE CONSULTANTS, INC.

2. SOIL TESTING TO DEMONSTRATE FEASIBILITY OF ON-SITE SUBSURFACE SEWAGE DISPOSAL SYSTEMS IS INCLUDED WITH THE PRELIMINARY SUBDIVISION APPLICATION PACKAGE.

3. REFER TO SHEET PS-2 FOR ADDITIONAL NOTES.

### THE ORCHARDS CONVENTIONAL SUBDIVISION SITE PLAN 3 OF 3

LOCATION: 15 GREAT ROAD  
TOWN: LITTLETON, MASSACHUSETTS  
PREPARED FOR:

FIFTEEN GREAT  
ROAD LLC

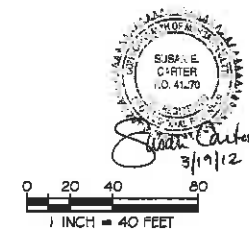
SCALE: 1" = 40' DATE: MARCH 20, 2012

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610 KING STREET, SUITE 9  
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EMAIL: places@verizon.net

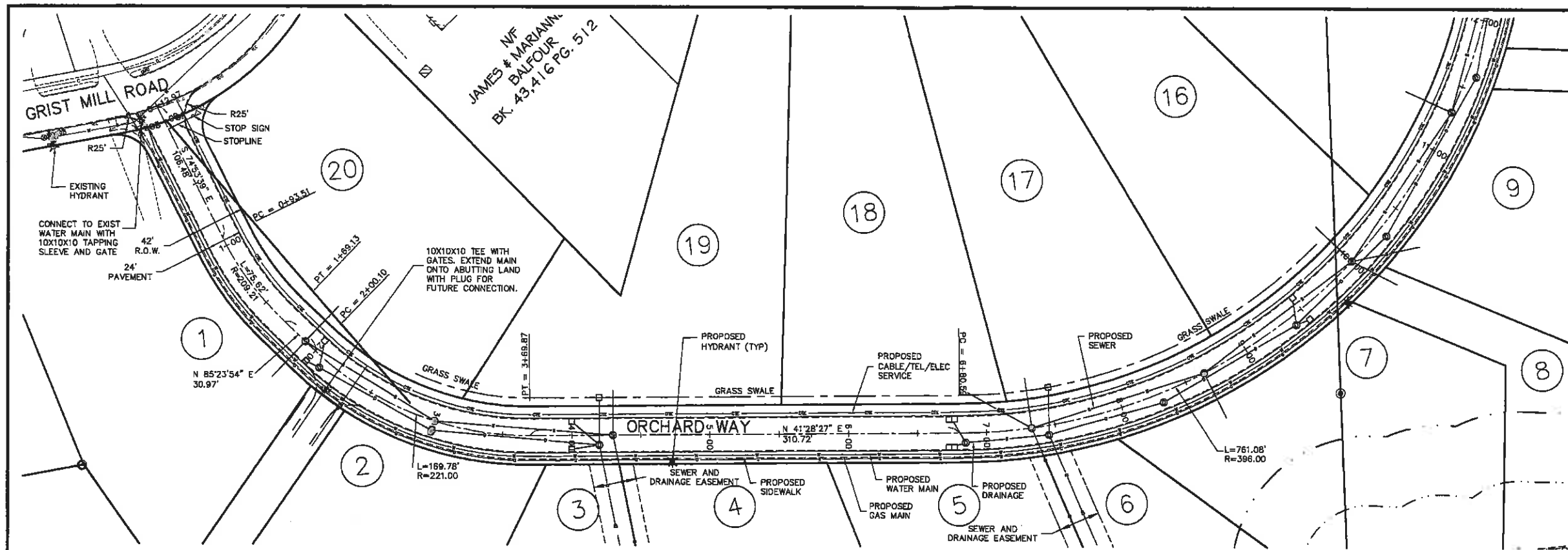
PROJECT No.: 11-6303 PLAN No. 6303-PS-5

PERMIT SET  
NOT FOR CONSTRUCTION



PERMIT SET  
NOT FOR CONSTRUCTION

PLAN BOOK 776 PLAN 23

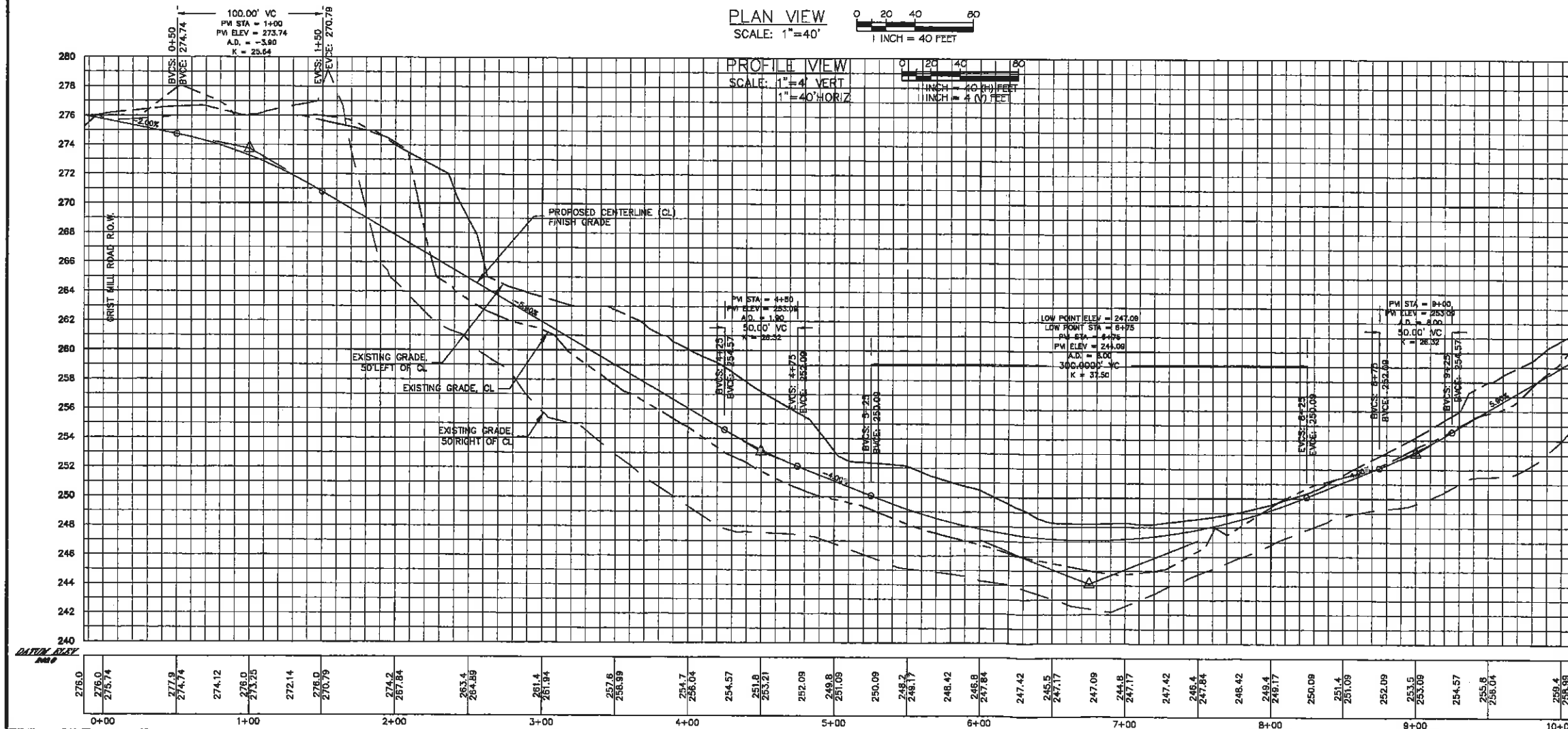


PLAN VIEW  
SCALE: 1"=40'

0 20 40 80  
1 INCH = 40 FEET

PROFILE VIEW  
SCALE: 1"=4' VERT  
1"=40' HORIZ

0 20 40 80  
1 INCH = 40 HORIZONTAL FEET  
1 INCH = 4 VERTICAL FEET



NOTES:

1. PLAN IS THE COMPILATION OF INFORMATION FROM VARIOUS SOURCES INCLUDING RECORD DEEDS, AERIAL TOPOGRAPHY, WETLANDS DELINEATIONS BY ORBOW ASSOCIATES AND LIMITED ON THE GROUND SURVEY BY PLACES ASSOCIATES, INC.
2. REFER TO SHEET PS-2 FOR ADDITIONAL NOTES.

THE ORCHARDS  
CONVENTIONAL SUBDIVISION  
PROFILE OF ORCHARD WAY  
STA 0+00 - STA 10+00

LOCATION: 15 GREAT ROAD  
TOWN: LITTLETON, MASSACHUSETTS  
PREPARED FOR:

FIFTEEN GREAT  
ROAD LLC

SCALE: AS SHOWN DATE: MARCH 20, 2012

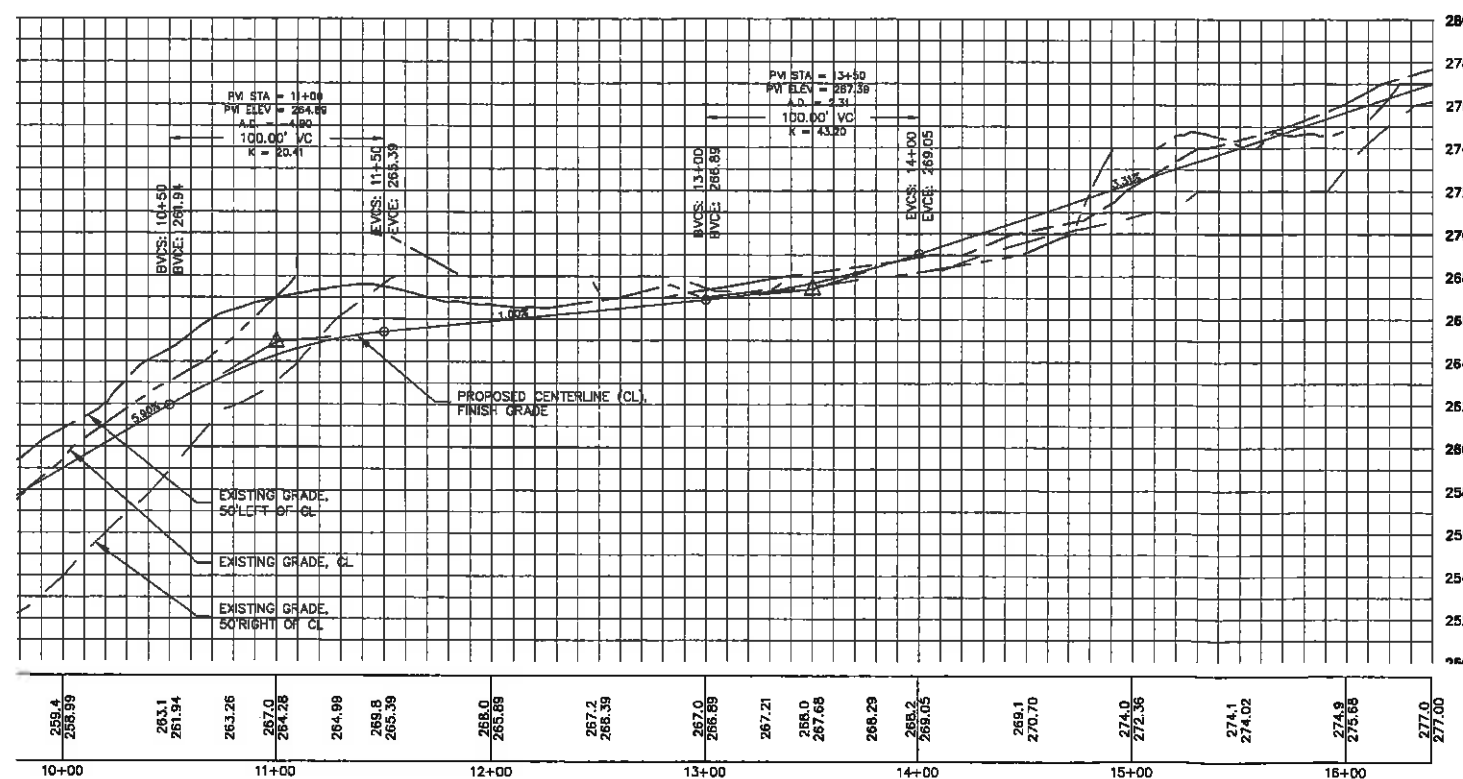
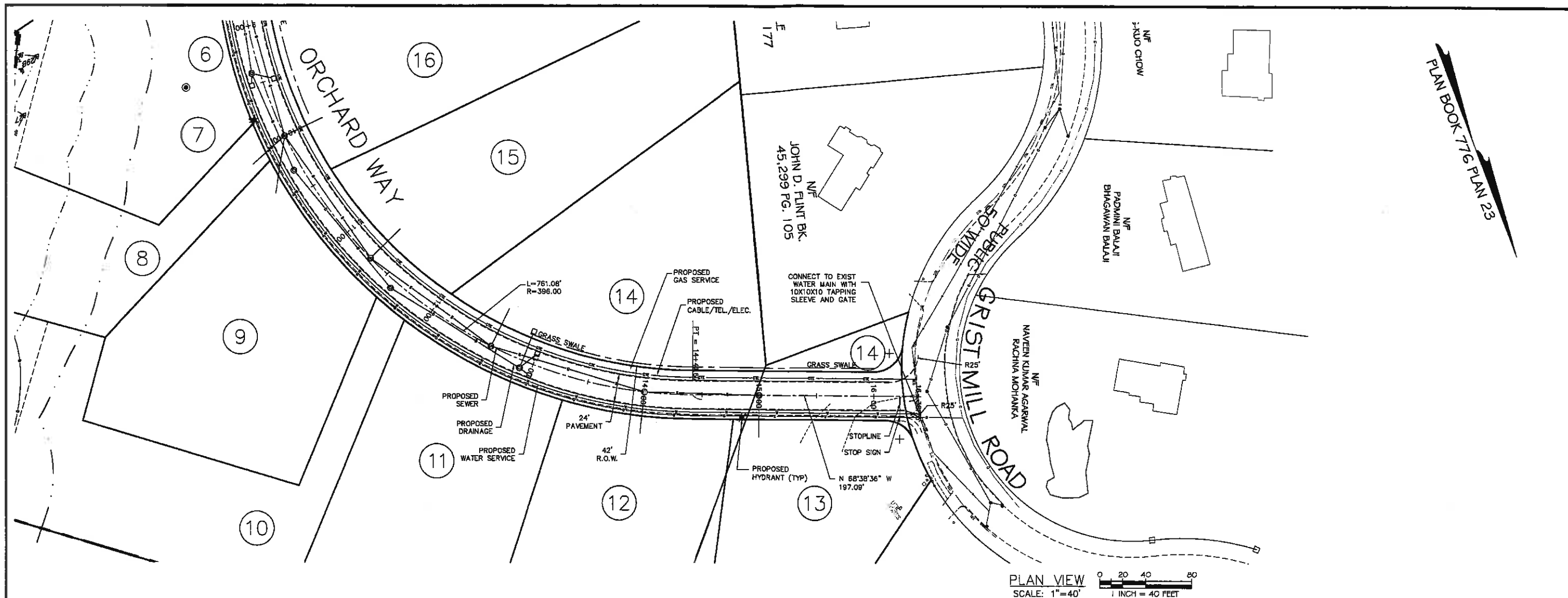
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PROJECT No.: 11-6303 PLAN No. 6303-PS-7



**THE ORCHARDS  
CONVENTIONAL SUBDIVISION  
PROFILE OF ORCHARD WAY  
STA 10+00 - END**

LOCATION: 15 GREAT ROAD  
TOWN: LITTLETON, MASSACHUSETTS  
PREPARED FOR:

**FIFTEEN GREAT  
ROAD II LLC**

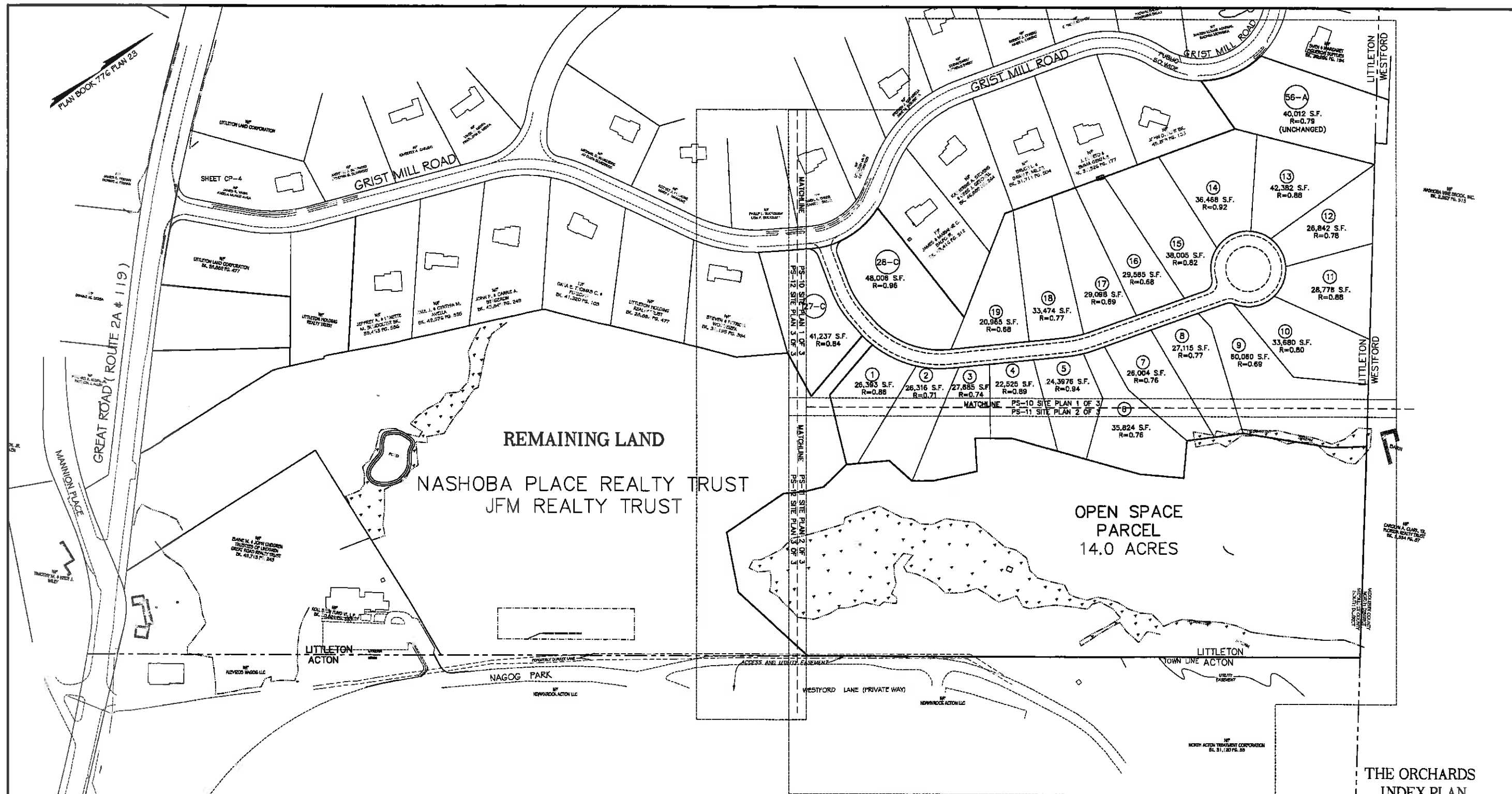
SCALE: AS SHOWN DATE: MARCH 20, 2012

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978.486.0447  
EMAIL: places@verizon.net

PROJECT No.: 11-6303 PLAN No. 6303-PS-8



# NOTES:

1. PLAN IS THE COMPILATION OF INFORMATION FROM VARIOUS SOURCES INCLUDING RECORD DEEDS, AERIAL TOPOGRAPHY, WETLANDS DELINEATIONS BY OXBOW ASSOCIATES AND LIMITED ON THE GROUND SURVEY BY PLACES ASSOCIATES, INC.

2. REFER TO SHEET PS-2 FOR ADDITIONAL NOTES.

PERMIT SET  
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0 50 100 200  
1 INCH = 100 FEET



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Civil Engineering, Surveying

PROJECT No.: 11-6303 PLAN No. 6303-PS-8



LOCATION: 15 GREAT ROAD  
TOWN: LITTLETON, MASSACHUSETTS  
PREPARED FOR:

FIFTEEN GREAT  
ROAD LLC

SCALE: 1"=40' DATE: MARCH 20, 2012

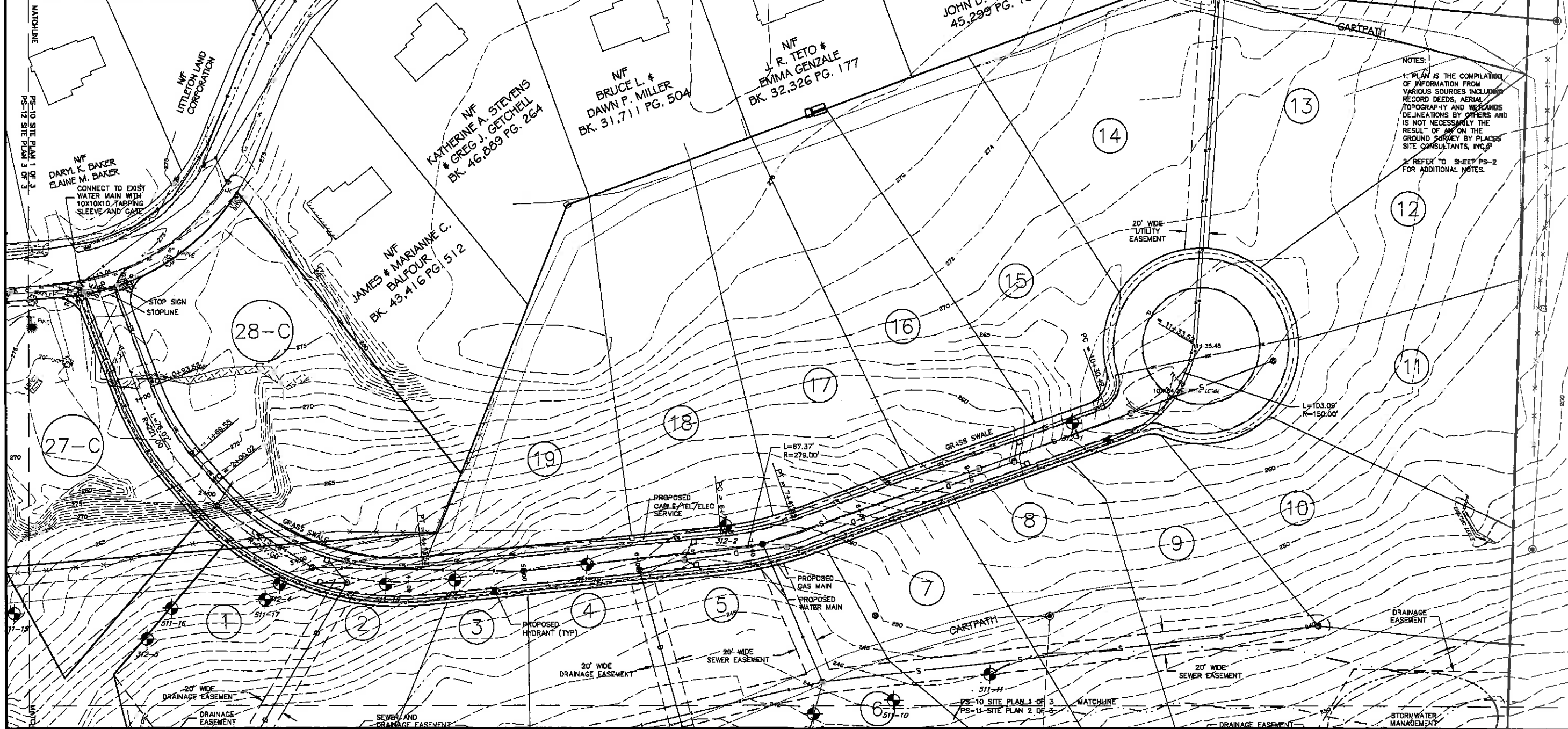
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978.486.0334 Fax  
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EMAIL: places@verizon.net

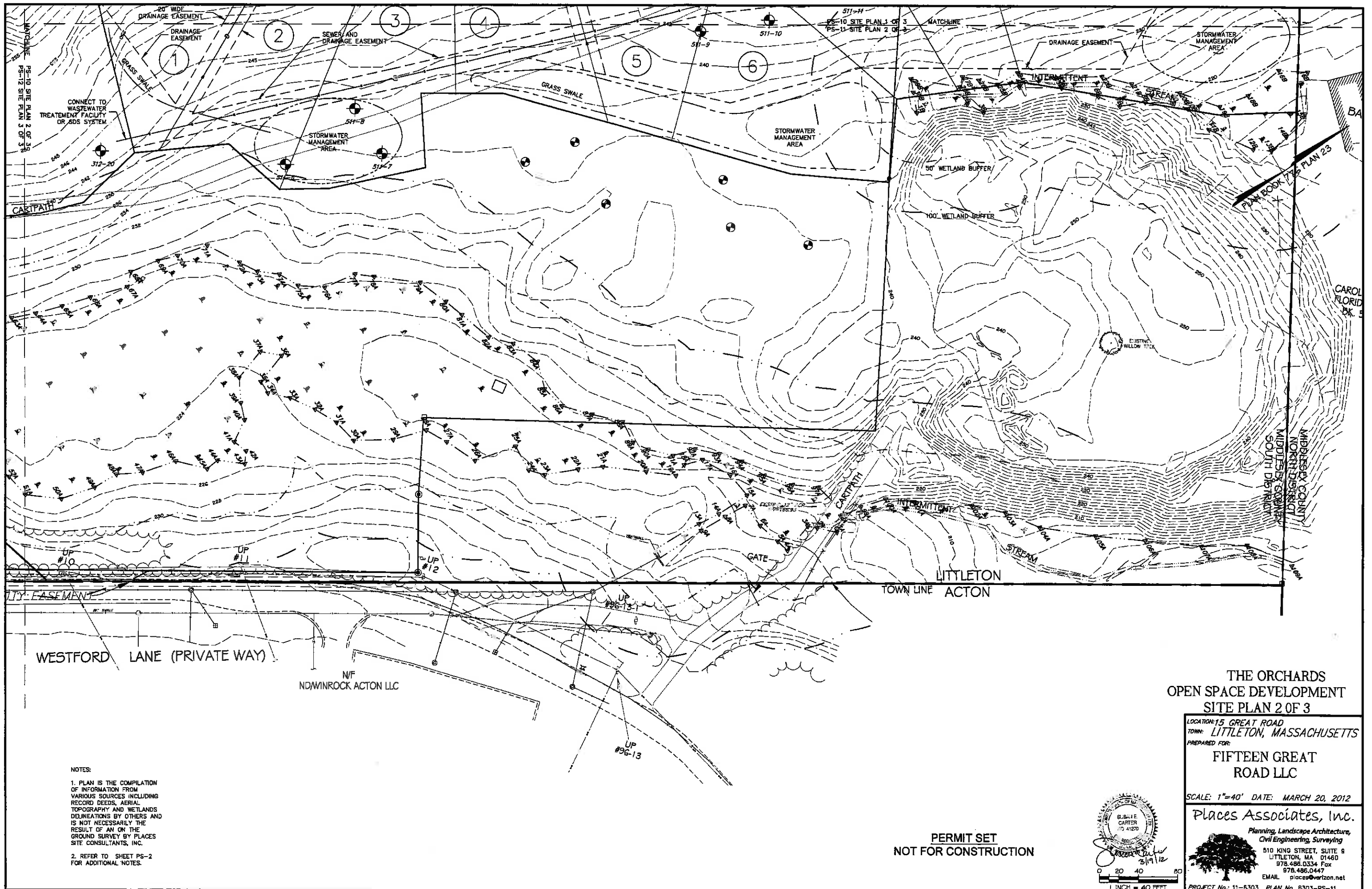
PROJECT No.: 11-6303 PLAN No. 6303-PS-10

THE ORCHARDS  
OPEN SPACE DEVELOPMENT  
SITE PLAN 1 OF 3

PERMIT SET  
NOT FOR CONSTRUCTION



NOTES:  
1. PLAN IS THE COMPILATION  
OF INFORMATION FROM  
VARIOUS SOURCES INCLUDING  
RECORD DEEDS, AERIAL  
TOPOGRAPHY AND WETLANDS  
DELINEATIONS BY OTHERS AND  
IS NOT NECESSARILY THE  
RESULT OF AN ON THE  
GROUND SURVEY BY PLACES  
SITE CONSULTANTS, INC.  
2. REFER TO SHEET PS-2  
FOR ADDITIONAL NOTES.



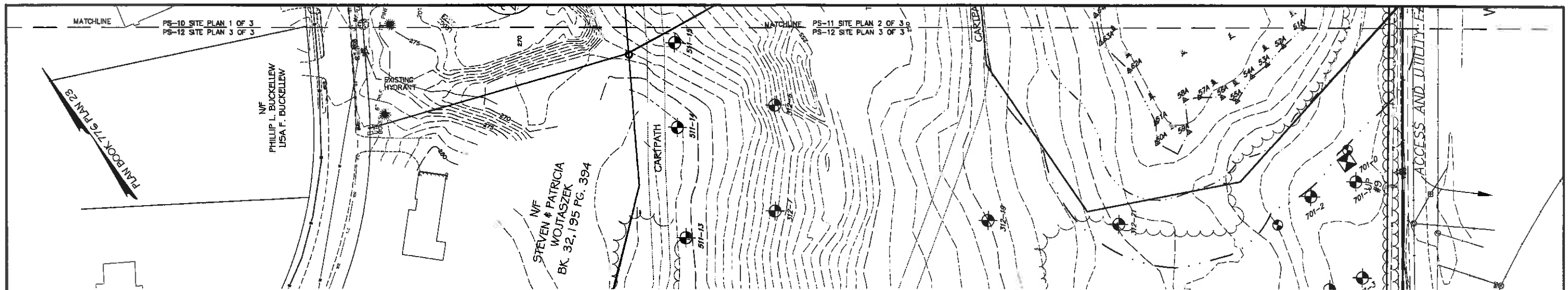
THE ORCHARDS  
OPEN SPACE DEVELOPMENT  
SITE PLAN 2 OF 3

LOCATION: 15 GREAT ROAD  
TOWN: LITTLETON, MASSACHUSETTS  
PREPARED FOR:  
**FIFTEEN GREAT  
ROAD LLC**

SCALE: 1"=40' DATE: MARCH 20, 2012

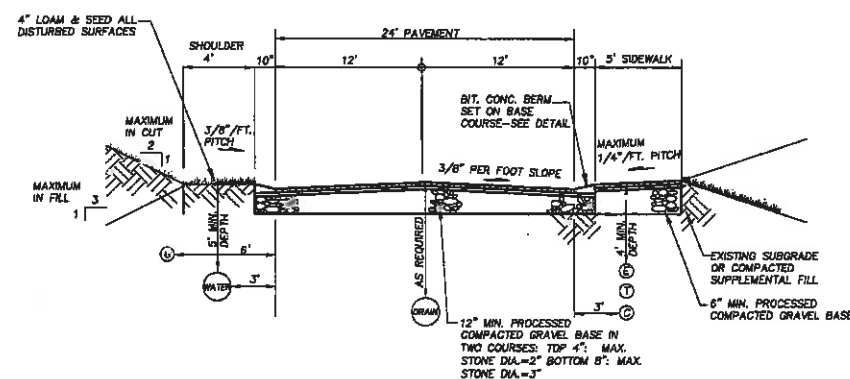
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Civil Engineering, Surveying  
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LITTLETON, MA 01460  
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978.486.0447  
EMAIL: places@verizon.net

PROJECT No.: 11-5303 PLAN No. 6303-PS-11



- NOTES:
1. PLAN IS THE COMPILATION OF INFORMATION FROM VARIOUS SOURCES INCLUDING RECORD DEEDS, AERIAL TOPOGRAPHY AND WETLANDS DELINEATIONS BY OTHERS AND IS NOT NECESSARILY THE RESULT OF AN ON THE GROUND SURVEY BY PLACES SITE CONSULTANTS, INC.
  2. REFER TO SHEET PS-2 FOR ADDITIONAL NOTES.

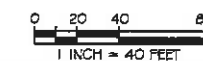
PAVEMENT  
ROADWAY - WEARING COURSE: 1 1/2" BINDER COURSE: 1 1/2"  
SIDEWALK - WEARING COURSE: 1" BINDER COURSE: 1"  
ALL PAVEMENT SHALL BE CLASS 1 TYPE 1 BITUMINOUS CONCRETE.



TYPICAL ROAD CROSS SECTION

NOT TO SCALE

PERMIT SET  
NOT FOR CONSTRUCTION



THE ORCHARDS  
OPEN SPACE DEVELOPMENT  
SITE PLAN 3 OF 3

LOCATION: 15 GREAT ROAD  
TOWN: LITTLETON, MASSACHUSETTS  
PREPARED FOR:

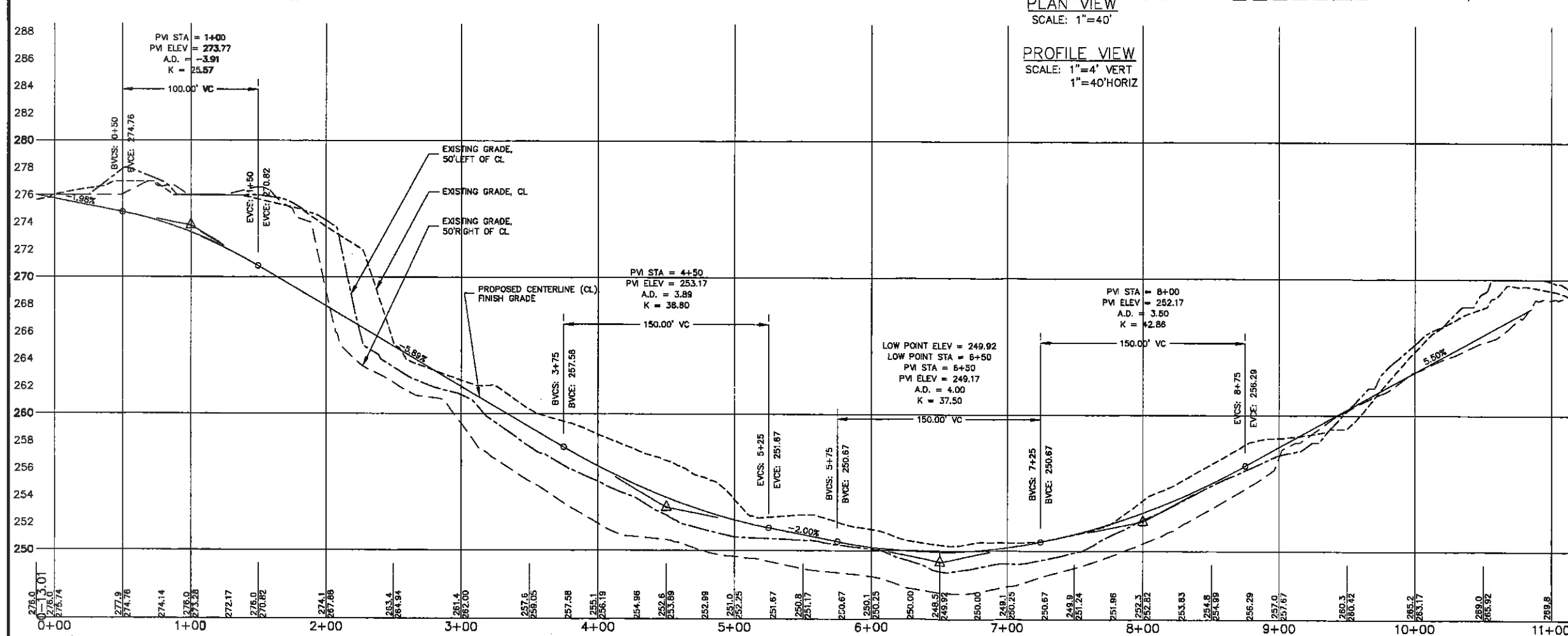
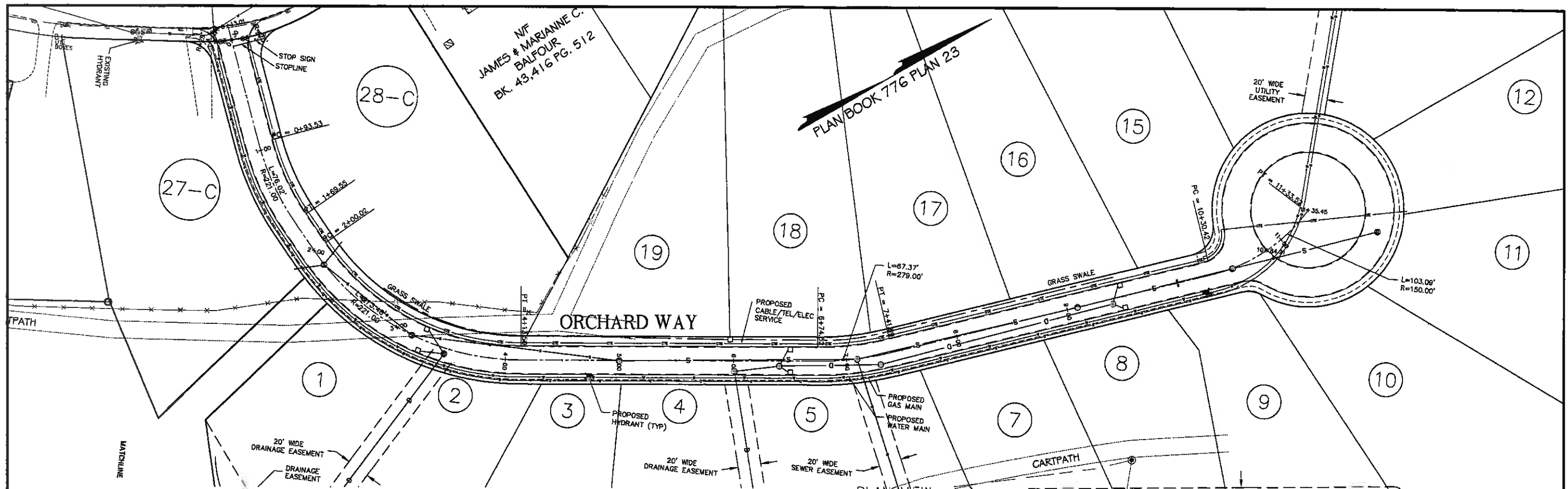
FIFTEEN GREAT  
ROAD LLC

SCALE: 1"=40' DATE: MARCH 20, 2012

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EMAIL: places@verizon.net

PROJECT No.: 11-6303 PLAN No. 6303-PS-12



NOTES:

1. PLAN IS THE COMPILATION OF INFORMATION FROM VARIOUS SOURCES INCLUDING RECORD DEEDS, AERIAL TOPOGRAPHY AND WETLANDS DELINEATIONS BY OTHERS AND IS NOT NECESSARILY THE RESULT OF AN ON THE GROUND SURVEY BY PLACES SITE CONSULTANTS, INC.
2. REFER TO SHEET PS-2 FOR ADDITIONAL NOTES.

**PERMIT SET**  
**NOT FOR CONSTRUCTION**

# THE ORCHARDS OPEN SPACE DEVELOPMENT ORCHARD WAY PROFILE

LOCATION: 15 GREAT ROAD  
TOWN: LITTLETON, MASSACHUSETTS

PREPARED FOR:  
**FIFTEEN GREAT ROAD LLC**

SCALE: AS SHOWN DATE: MARCH 20, 2012

**Places Associates, Inc.**

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Civil Engineering, Surveying  
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PROJECT No.: 11-6303 PLAN No. 6303-PS-13