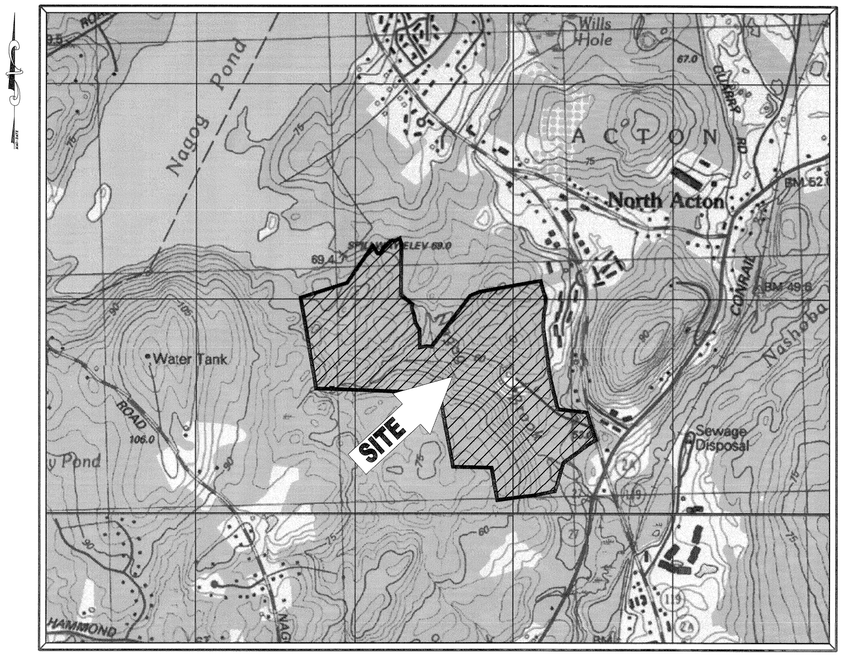
MASSDOT ACCESS PERMIT PLAN SET

FOR:

Pulte Homes

THE RESIDENCES AT QUAIL RIDGE

354 B GREAT ROAD & SKYLINE DRIVE
TOWN OF ACTON
MIDDLESEX COUNTY, MA



AREA MAP
SCALE: 1" = 1000'
(REFERENCE: USGS MAP)

DRAWING INDEX

SHEET TITLE	*SHEET NUMBER*
COVER SHEET	1 OF 8
NOTES SHEET	2 OF 8
MASTER SITE PLAN "A"	3 OF 8
MASTER SITE PLAN "B"	4 OF 8
SITE PLAN	5 OF 8
GRADING PLAN	6 OF 8
CONSTRUCTION DETAILS	7 OF 8
TRAFFIC MANAGEMENT PLAN (BY OTHERS)	8 OF 8
BOUNDARY & TOPOGRAPHIC SURVEY (BY OTHERS)	4 OF 15
BOUNDARY & TOPOGRAPHIC SURVEY (BY OTHERS)	6 OF 15

BOHLER ENGINEERING
352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
508-480-9900 - 508-480-9080 FAX

RECORD OWNER
QR PROPERTIES, LLC
32 SANDYPINE ROAD
TEMPLETON, MA 01468

APPLICANT
PULTE HOMES OF NEW ENGLAND, LLC
115 FLANDERS ROAD, SUITE 200
WESTBOROUGH, MA 01581

BOHLER ENGINEERING
CIVIL & CONSULTING ENGINEERS
SURVEYORS
PROJECT MANAGERS
ENVIRONMENTAL CONSULTANTS
LANDSCAPE ARCHITECTS
CORPORATE OFFICE: ♦ WARREN, NJ
OFFICES: ♦ SOUTHBOROUGH, MA ♦ CHALFONT, PA ♦ BOWIE, MD ♦ PHILADELPHIA, PA ♦ ALBANY, NY ♦ WARRENTON, VA ♦ RONKONKOMA, NY ♦ FORT LAUDERDALE, FL ♦ PORTLAND, ME

THE INFORMATION, DESIGN AND CONCEPTS OF THIS PLAN ARE PROPRIETARY AND SHALL NOT BE COPIED OR USED FOR ANY PURPOSE WITHOUT PRIOR WRITTEN AUTHORIZATION FROM BOHLER ENGINEERING. ONLY APPROVED, SIGNED AND SEALED PLANS SHALL BE UTILIZED FOR CONSTRUCTION PURPOSES. © 2008 BOHLER ENGINEERING

REVISIONS

REV	DATE	COMMENT	BY
1	12/07/11	RESPONSE TO MASSDOT	CFD
2	01/13/12	RESPONSE TO MASSDOT COMMENTS	CFD
3	02/21/12	RESPONSE TO MASSDOT COMMENTS	CFD
4			
5			
6			
7			
8			
9			

THE FOLLOWING STATES REQUIRE NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE.
(MA, ME, NH, RI, VT 1-888-344-7233)
(CT 1-800-922-4455)
(NY 1-800-962-7962)

NOT APPROVED FOR CONSTRUCTION

PROJECT No.:	W111022
DRAWN BY:	CFD
CHECKED BY:	JAB/SPD
DATE:	08/05/2011
SCALE:	AS NOTED
CAD I.D.:	W111022madot3

PROJECT:
SITE PLAN
FOR
Pulte Homes
THE RESIDENCES AT QUAIL RIDGE
LOCATION OF SITE
354 B GREAT ROAD & SKYLINE DR.
TOWN OF ACTON
MIDDLESEX COUNTY, MA

BOHLER ENGINEERING
352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900
Fax: (508) 480-9080
www.BohlerEngineering.com

S.P. DeCOURSEY
STEPHEN P. DeCOURSEY
CIVIL
PROFESSIONAL ENGINEER
MASSACHUSETTS LICENSE No. 45424
NEW HAMPSHIRE LICENSE No. 9308
PENNSYLVANIA LICENSE No. 074E
VERMONT LICENSE No. 7110
CONNECTICUT LICENSE No. 23862
RHODE ISLAND LICENSE No. 7990

SHEET TITLE:
COVER SHEET

SHEET NUMBER:
1

REV 3 - 02/21/2012

P:\111\W111022\DWG\0-Plots\DOT\W111022madot3.dwg, 0(_T)-1 Cover, 4/23/2012, (10:17:14 AM, cdesrosiers, Xerox5100-Lap3, Ubersfrk, 1:1

GENERAL DEMOLITION PLAN NOTES

1. BOHLER ENGINEERING IS NOT RESPONSIBLE FOR JOB SITE SAFETY OR SUPERVISION.
2. ALL DEMOLITION ACTIVITIES ARE TO BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AS WELL AS ALL FEDERAL, STATE AND LOCAL REGULATIONS. ANY DISCREPANCIES OR DEVIATIONS SHALL BE IDENTIFIED BY THE CONTRACTOR TO BOHLER ENGINEERING IN WRITING FOR RESOLUTION PRIOR TO INITIATION OF SITE ACTIVITY.
3. PRIOR TO STARTING ANY DEMOLITION CONTRACTOR IS RESPONSIBLE FOR/TO:
   A. ENSURING THAT COPIES OF ALL APPLICABLE PERMITS AND APPROVALS ARE MAINTAINED ON-SITE AND AVAILABLE FOR REVIEW.
   B. INSTALLING THE REQUIRED SOIL EROSION AND SEDIMENT CONTROL AND/OR TREE PROTECTION MEASURES PRIOR TO SITE DISTURBANCE.
   C. LOCATING (VERTICALLY AND HORIZONTALLY) ALL UTILITIES AND SERVICES, INCLUDING, BUT NOT LIMITED TO GAS, WATER, ELECTRIC, SANITARY AND STORM SEWER, TELEPHONE, CABLE, FIBER OPTIC CABLE, ETC. WITHIN THE LIMITS OF DISTURBANCE. THE CONTRACTOR SHALL USE AND COMPLY WITH THE REQUIREMENTS OF THE APPLICABLE UTILITY NOTIFICATION SYSTEM TO LOCATE ALL THE UNDERGROUND UTILITIES.
   D. PROTECTING AND MAINTAINING IN OPERATION, ALL ACTIVE SYSTEMS THAT ARE NOT BEING REMOVED DURING ALL DEMOLITION ACTIVITIES.
   E. FAMILIARIZING THEMSELVES WITH THE APPLICABLE UTILITY SERVICE PROVIDER AND IS RESPONSIBLE FOR ALL COORDINATION REGARDING UTILITY DEMOLITION REQUIRED FOR THE PROJECT. THE CONTRACTOR SHALL PROVIDE THE OWNER WRITTEN NOTIFICATION THAT THE EXISTING UTILITIES AND SERVICES HAVE BEEN TERMINATED AND ABANDONED IN ACCORDANCE WITH JURISDICTION AND UTILITY COMPANY REQUIREMENTS.
   F. COORDINATION WITH UTILITY COMPANIES REGARDING WORKING "OFF-PEAK" HOURS OR ON WEEKENDS AS MAY BE REQUIRED TO MINIMIZE THE IMPACT ON THE AFFECTED PARTIES.
   G. A COMPLETE INSPECTION FOR CONTAMINANTS BY A LICENSED ENVIRONMENTAL TESTING AGENCY, OF ALL BUILDINGS AND/OR STRUCTURES TO BE REMOVED. SAME SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE, AND FEDERAL ENVIRONMENTAL REGULATIONS. ANY/ALL CONTAMINANTS SHALL BE REMOVED AND DISPOSED OF BY A FEDERALLY LICENSED CONTRACTOR IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS. ALL ENVIRONMENTAL WORK INCLUDING HAZARDOUS MATERIAL, SOILS, ASBESTOS, OR OTHER REFERENCED OR IMPLIED HEREIN IS THE SOLE RESPONSIBILITY OF THE OWNER'S ENVIRONMENTAL CONSULTANT.
5. BOHLER ENGINEERING IS NOT RESPONSIBLE FOR JOB SITE SAFETY OR SUPERVISION. CONTRACTOR IS TO PROCEED WITH THE DEMOLITION IN A SYSTEMATIC AND SAFE MANNER, FOLLOWING ALL THE OSHA REQUIREMENTS, TO ENSURE PUBLIC AND CONTRACTOR SAFETY.
6. THE CONTRACTOR SHALL PROVIDE ALL THE "MEANS AND METHODS" NECESSARY TO PREVENT MOVEMENT, SETTLEMENT, OR COLLAPSE OF EXISTING STRUCTURES, AND ANY OTHER IMPROVEMENTS THAT ARE REMAINING ON-SITE OR OFF-SITE. THE DEMOLITION CONTRACTOR IS RESPONSIBLE FOR ALL REPAIRS OF DAMAGE TO ALL ITEMS THAT ARE TO REMAIN AS A RESULT OF HIS ACTIVITIES. ALL REPAIRS SHALL USE NEW MATERIAL. THE REPAIRS SHALL RESTORE THE ITEM TO THE PRE-DEMOLITION CONDITION.
7. IN THE ABSENCE OF SPECIFICATIONS, THE CONTRACTOR SHALL PERFORM EARTH MOVEMENT ACTIVITIES, DEMOLITION AND REMOVAL OF ALL FOUNDATION WALLS, FOOTINGS, AND OTHER MATERIALS WITHIN THE LIMITS OF DISTURBANCE IN ACCORDANCE WITH DIRECTION BY OWNER'S STRUCTURAL OR GEOTECHNICAL ENGINEER.
8. EXPLOSIVES SHALL NOT BE USED WITHOUT PRIOR WRITTEN CONSENT OF BOTH THE OWNER AND APPLICABLE GOVERNMENTAL AUTHORITIES. ALL THE REQUIRED PERMITS AND EXPLOSIVE CONTROL MEASURES THAT ARE REQUIRED BY THE FEDERAL, STATE, AND LOCAL GOVERNMENTS SHALL BE IN PLACE PRIOR TO STARTING AN EXPLOSIVE PROGRAM. THE CONTRACTOR IS ALSO RESPONSIBLE FOR ALL INSPECTION AND SEISMIC VIBRATION TESTING THAT IS REQUIRED TO MONITOR THE EFFECTS ON ALL LOCAL STRUCTURES.
9. CONTRACTOR SHALL PROVIDE TRAFFIC CONTROL AND GENERALLY ACCEPTED SAFE PRACTICES IN CONFORMANCE WITH: THE CURRENT "MANUAL ON UNIFORM TRAFFIC CONTROL," AS WELL AS FEDERAL, STATE, AND LOCAL REGULATIONS WHEN DEMOLITION RELATED ACTIVITIES IMPACT ROADWAYS OR ROADWAY RIGHTS-OF-WAY.
10. CONDUCT DEMOLITION ACTIVITIES IN SUCH A MANNER TO ENSURE MINIMUM INTERFERENCE WITH ROADS, STREETS, SIDEWALKS, WALKWAYS, AND OTHER ADJACENT FACILITIES. STREET CLOSURE PERMITS MUST BE RECEIVED FROM THE APPROPRIATE GOVERNMENTAL AUTHORITY.
11. DEMOLITION ACTIVITIES AND EQUIPMENT SHALL NOT USE AREAS OUTSIDE THE DEFINED PROPERTY LINE WITHOUT WRITTEN PERMISSION OF THE APPLICABLE PROPERTY OWNER, AND/OR APPROPRIATE GOVERNMENT AGENCY.
12. USE DUST CONTROL MEASURES TO LIMIT AIRBORNE DUST AND DIRT RISING AND SCATTERING IN THE AIR IN ACCORDANCE WITH FEDERAL, STATE, AND/OR LOCAL STANDARDS. AFTER THE DEMOLITION IS COMPLETE, ADJACENT STRUCTURES AND IMPROVEMENTS SHALL BE CLEANED OF ALL DUST AND DEBRIS CAUSED BY THE DEMOLITION OPERATIONS. THE CONTRACTOR IS RESPONSIBLE FOR RETURNING ALL ADJACENT AREAS TO THEIR "PRE-DEMOLITION" CONDITION.
13. CONTRACTOR IS RESPONSIBLE TO SAFEGUARD SITE AS NECESSARY TO PERFORM THE DEMOLITION IN SUCH A MANNER AS TO PREVENT THE ENTRY OF UNAUTHORIZED PERSONS AT ANY TIME.
14. THIS DEMOLITION PLAN IS INTENDED TO IDENTIFY THOSE EXISTING ITEMS/CONDITIONS WHICH ARE TO BE REMOVED. IT IS NOT INTENDED TO PROVIDE DIRECTION OTHER THAN THAT ALL "MEANS AND METHODS" ARE TO BE IN ACCORDANCE WITH STATE, FEDERAL, LOCAL, AND JURISDICTIONAL REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL OSHA AND OTHER SAFETY PRECAUTIONS NECESSARY TO PROVIDE A SAFE WORK SITE.
15. DEBRIS SHALL NOT BE BURIED ON THE SUBJECT SITE. ALL DEMOLITION WASTES AND DEBRIS (SOLID WASTE) SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL TOWN, COUNTY, STATE, AND FEDERAL LAWS AND APPLICABLE CODES.

GENERAL SITE PLAN NOTES

1. THIS PLAN REFERENCES A SURVEY PREPARED BY:

   CONTROL POINT ASSOCIATES, INC.
   35 TECHNOLOGY DRIVE
   WARREN, NEW JERSEY 070959
   DATED: 06/07/11 REVISED THROUGH 08/02/11
2. SPECIFIC RESOURCES, TECHNICAL REPORTS, DESIGN DOCUMENTS, ET. AL. RELATED TO THIS PROJECT INCLUDE (BUT MAY NOT BE LIMITED TO) THE FOLLOWING:

   -SURVEY: "BOUNDARY AND TOPOGRAPHIC SURVEY" PREPARED BY CONTROL POINT ASSOCIATES, INC., WARREN, NJ, DATED 06/07/11, REVISED THROUGH 08/02/11
   -GEOTECH: "PRELIMINARY GEOTECHNICAL INVESTIGATION FOR RESIDENCES AT QUAIL RIDGE, PROPOSED RETAIL DEVELOPMENT", DATED MARCH 2011 BY UTS OF MASSACHUSETTS, INC.
   -GEOTECH: "SITE PLANS ENTITLED "THE RESIDENCES AT QUAIL RIDGE, SENIOR RESIDENCE SPECIAL PERMIT", DATED JULY 18, 2001, PREPARED BY STAMSKI AND MCNARY, INC., 80 HARRIS ST, ACTON, MA.
   -TRAFFIC:
   -ENVIRONMENTAL:

   CONTRACTOR IS RESPONSIBLE FOR OBTAINING THESE DOCUMENTS AND FAMILIARIZING THEMSELVES WITH SAME FOR APPLICATION BOTH PRIOR TO AND DURING CONSTRUCTION.
3. ALL ELEVATIONS SHOWN ARE IN REFERENCE TO THE REFERENCED SURVEYOR'S BENCHMARK AND MUST BE VERIFIED BY THE GENERAL CONTRACTOR PRIOR TO GROUNDBREAK.

   APPLICANT:
   PULTE HOMES OF NEW ENGLAND, LLC
   115 FLANDERS ROAD, SUITE 200
   WESTBOROUGH, MA 01581
4. PARCEL DATA: LOT IS SHOWN AS LOT 29, MAP C-4 & LOTS 4 AND 9, MAP D-4 ON THE TOWN OF ACTON ASSESSOR'S MAP.
5. ALL HANDICAP PARKING SPACES SHALL BE CONSTRUCTED TO MEET CURRENT ADA/AAB REQUIREMENTS.
6. PRIOR TO STARTING CONSTRUCTION, THE CONTRACTOR SHALL ENSURE THAT ALL REQUIRED PERMITS AND APPROVALS HAVE BEEN OBTAINED. NO CONSTRUCTION OR FABRICATION SHALL BEGIN UNTIL THE CONTRACTOR HAS RECEIVED AND THOROUGHLY REVIEWED ALL PLANS AND OTHER DOCUMENTS BY ALL OF THE PERMITTING AUTHORITIES.
7. THE OWNER/CONTRACTOR SHALL BE FAMILIAR WITH AND RESPONSIBLE FOR ANY/ALL CERTIFICATIONS, INSPECTIONS, ETC. REQUIRED BY ALL GOVERNING JURISDICTIONAL AGENCIES DURING AND AFTER CONSTRUCTION FOR SIGN-OFF AND CERTIFICATE OF OCCUPANCY ISSUANCE, INCLUDING BUT NOT LIMITED TO PROCUREMENT OF SERVICES, SCHEDULING OF FIELD OBSERVATIONS AND COORDINATION WITH REPRESENTATIVES OF THE APPROPRIATE PARTIES.
8. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE REQUIREMENTS AND STANDARDS OF THE LOCAL GOVERNING AUTHORITY.
9. THE GEOTECHNICAL REPORT AND RECOMMENDATIONS SET FORTH THEREIN ARE A PART OF THE REQUIRED CONSTRUCTION DOCUMENTS AND IN CASE OF CONFLICT SHALL TAKE PRECEDENCE UNLESS SPECIFICALLY NOTED OTHERWISE ON THE PLANS. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IN WRITING OF ANY SUCH DISCREPANCY BETWEEN GEOTECHNICAL REPORT AND PLANS, ETC.
10. THE PROPERTY SURVEY SHALL BE CONSIDERED A PART OF THESE PLANS.
11. THESE PLANS ARE BASED ON INFORMATION PROVIDED TO BOHLER ENGINEERING AT THE TIME OF PLAN PREPARATION. CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND NOTIFY BOHLER ENGINEERING IF ACTUAL SITE CONDITIONS DIFFER FROM THOSE SHOWN ON THE PLAN, OR IF THE PROPOSED WORK WOULD BE INHIBITED BY ANY OTHER SITE FEATURES.
12. ALL DIMENSIONS SHOWN ON THE PLANS SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. CONTRACTOR SHALL NOTIFY ENGINEER IN WRITING IF ANY DISCREPANCIES EXIST PRIOR TO PROCEEDING WITH CONSTRUCTION. NO EXTRA COMPENSATION SHALL BE PAID TO THE CONTRACTOR FOR WORK HAVING TO BE REDONE DUE TO DIMENSIONS OR GRADES SHOWN INCORRECTLY ON THESE PLANS IF SUCH NOTIFICATION HAS NOT BEEN GIVEN.
13. CONTRACTOR SHALL REFER TO THE ARCHITECTURAL/BUILDING PLANS FOR EXACT LOCATIONS AND DIMENSIONS OF ENTRY/EXIT POINTS, ELEVATIONS, PRECISE BUILDING DIMENSIONS, EXACT BUILDING UTILITY LOCATIONS.
14. DEBRIS SHALL NOT BE BURIED ON THE SUBJECT SITE AND ALL UNSUITABLE EXCAVATED HAZARDOUS MATERIAL, AND DEBRIS (SOLID WASTE) SHALL BE DISPOSED OF IN ACCORDANCE WITH ALL TOWN, COUNTY, STATE AND FEDERAL LAWS AND APPLICABLE CODES.
15. CONTRACTOR IS RESPONSIBLE FOR ALL SHORING REQUIRED DURING EXCAVATION (TO BE PERFORMED IN ACCORDANCE WITH CURRENT OSHA STANDARDS) AND ANY ADDITIONAL PROVISIONS TO ASSURE STABILITY OF CONTIGUOUS STRUCTURES, AS FIELD CONDITIONS DICTATE.
16. CONTRACTOR IS TO EXERCISE EXTREME CARE WHEN PERFORMING ANY WORK ACTIVITIES ADJACENT TO PAVEMENT, STRUCTURES, ETC. TO REMAIN. CONTRACTOR SHALL BE RESPONSIBLE FOR TAKING THE APPROPRIATE MEASURES AS NECESSARY TO ENSURE THE STRUCTURAL STABILITY OF PAVEMENT, STRUCTURES, ETC. TO REMAIN, AND TO PROVIDE A SAFE WORK AREA.
17. CONTRACTOR IS RESPONSIBLE FOR DOCUMENTING ALL EXISTING DAMAGE AND FOR NOTIFYING CONSTRUCTION MANAGER PRIOR TO START OF CONSTRUCTION. CONTRACTOR IS RESPONSIBLE FOR REPAIRING THE DAMAGE DONE TO ANY EXISTING ITEM DURING CONSTRUCTION SUCH AS BUT NOT LIMITED TO DRAINAGE, UTILITIES, PAVEMENT, STRIPING, CURB, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR AND SHALL REPLACE ALL SIGNAL INTERCONNECT CABLE, CONDUITS, AND ANY UNDERGROUND ACCESSORY EQUIPMENT DAMAGED DURING CONSTRUCTION. REPAIR SHALL BE EQUAL TO OR BETTER THAN EXISTING CONDITIONS.
18. ALL CONCRETE SHALL HAVE THE MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS AS INDICATED IN SPECIFICATIONS UNLESS OTHERWISE NOTED ON THE PLANS, DETAILS AND/OR GEOTECHNICAL REPORT.
19. ENGINEER IS NOT RESPONSIBLE FOR CONSTRUCTION METHODS/MEANS FOR COMPLETION OF THE WORK DEPICTED ON THESE PLANS NOR ANY CONFLICTS/SCOPE REVISIONS WHICH RESULT FROM SAME. CONTRACTOR IS RESPONSIBLE FOR DETERMINING METHODS/MEANS FOR COMPLETION OF THE WORK PRIOR TO THE COMMENCEMENT OF CONSTRUCTION AND NOTIFICATION OF OWNER AND ENGINEER OF RECORD WHEN A CONFLICT IS IDENTIFIED.
20. ENGINEER OF RECORD IS NOT RESPONSIBLE FOR JOB SITE SAFETY NOR HAVE THEY BEEN RETAINED FOR SUCH PURPOSES.
21. ALL CONTRACTORS MUST CARRY STATUTORY WORKER'S COMPENSATION INSURANCE, EMPLOYER'S LIABILITY INSURANCE AND APPROPRIATE LIMITS OF COMMERCIAL GENERAL LIABILITY INSURANCE (CGL). ALL CONTRACTORS MUST HAVE THEIR CGL POLICIES ENDORSED TO NAME BOHLER ENGINEERING, AND ITS SUB-CONSULTANTS AS ADDITIONAL INSURED AND TO PROVIDE CONTRACTUAL LIABILITY COVERAGE SUFFICIENT TO INSURE THE HOLD HARMLESS AND INDEMNITY OBLIGATIONS ASSUMED BY THE CONTRACTORS. ALL CONTRACTORS MUST FURNISH BOHLER ENGINEERING WITH CERTIFICATIONS OF INSURANCE AS EVIDENCE OF THE REQUIRED INSURANCE PRIOR TO COMMENCING WORK AND UPON RENEWAL OF EACH POLICY DURING THE ENTIRE PERIOD OF CONSTRUCTION. IN ADDITION, ALL CONTRACTORS WILL, TO THE FULLEST EXTENT PERMITTED BY LAW, INDEMNIFY AND HOLD HARMLESS BOHLER ENGINEERING AND ITS SUB-CONSULTANTS FROM AND AGAINST ANY DAMAGES, LIABILITIES OR COSTS, INCLUDING REASONABLE ATTORNEYS' FEES AND DEFENSE COSTS, ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE PROJECT, INCLUDING ALL CLAIMS BY EMPLOYEES OF THE CONTRACTORS.
22. NEITHER THE PROFESSIONAL ACTIVITIES OF BOHLER ENGINEERING, NOR THE PRESENCE OF BOHLER ENGINEERING OR ITS EMPLOYEES AND SUB-CONSULTANTS AT A CONSTRUCTION/PROJECT SITE, SHALL RELIEVE THE GENERAL CONTRACTOR OF ITS OBLIGATIONS, DUTIES AND RESPONSIBILITIES INCLUDING, BUT NOT LIMITED TO, CONSTRUCTION MEANS, METHODS, SEQUENCE, TECHNIQUES OR PROCEDURES NECESSARY FOR PERFORMING, SUPERINTENDING AND COORDINATING THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS AND ANY HEALTH OR SAFETY PRECAUTIONS REQUIRED BY ANY REGULATORY AGENCIES. BOHLER ENGINEERING AND ITS PERSONNEL HAVE NO AUTHORITY TO EXERCISE ANY CONTROL OVER ANY CONSTRUCTION CONTRACTOR OR ITS EMPLOYEES IN CONNECTION WITH THEIR WORK OR ANY HEALTH OR SAFETY PROGRAMS OR PROCEDURES. THE GENERAL CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR JOB SITE SAFETY. BOHLER ENGINEERING SHALL BE INDEMNIFIED BY THE GENERAL CONTRACTOR AND SHALL BE MADE ADDITIONAL INSURED UNDER THE GENERAL CONTRACTORS POLICIES OF GENERAL LIABILITY INSURANCE.
23. BOHLER ENGINEERING SHALL REVIEW AND APPROVE OR TAKE OTHER APPROPRIATE ACTION ON THE CONTRACTOR SUBMITTALS, SUCH AS SHOP DRAWINGS, PRODUCT DATA, SAMPLES, AND OTHER DATA, WHICH THE CONTRACTOR IS REQUIRED TO SUBMIT, BUT ONLY FOR THE LIMITED PURPOSE OF CHECKING FOR CONFORMANCE WITH THE DESIGN CONCEPT AND THE INFORMATION SHOWN IN THE CONSTRUCTION MEANS OR METHODS, COORDINATION OF THE WORK WITH OTHER TRADES, OR CONSTRUCTION SAFETY PRECAUTIONS, ALL OF WHICH ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. BOHLER ENGINEERING'S REVIEW SHALL BE CONDUCTED WITH REASONABLE PROMPTNESS WHILE ALLOWING SUFFICIENT TIME TO PERMIT ADEQUATE REVIEW. REVIEW OF A SPECIFIC ITEM SHALL NOT INDICATE THAT BOHLER ENGINEERING HAS REVIEWED THE ENTIRE ASSEMBLY OF WHICH THE ITEM IS A COMPONENT. BOHLER ENGINEERING SHALL NOT BE RESPONSIBLE FOR ANY DEVIATIONS FROM THE CONSTRUCTION DOCUMENTS NOT BROUGHT TO THE ATTENTION OF BOHLER ENGINEERING IN WRITING BY THE CONTRACTOR. BOHLER ENGINEERING SHALL NOT BE REQUIRED TO REVIEW PARTIAL SUBMISSIONS OR THOSE FOR WHICH SUBMISSIONS OF CORRELATED ITEMS HAVE NOT BEEN RECEIVED.
24. IN AN EFFORT TO RESOLVE ANY CONFLICTS THAT ARISE DURING THE DESIGN AND CONSTRUCTION OF THE PROJECT OR FOLLOWING THE COMPLETION OF THE PROJECT, BOHLER ENGINEERING AND THE CONTRACTOR MUST AGREE THAT ALL DISPUTES BETWEEN THEM ARISING OUT OF OR RELATING TO THIS AGREEMENT OR THE PROJECT SHALL BE SUBMITTED TO NON-BINDING MEDIATION UNLESS THE PARTIES MUTUALLY AGREE OTHERWISE.
25. THE CONTRACTOR MUST INCLUDE A MEDIATION PROVISION IN ALL AGREEMENTS WITH INDEPENDENT SUBCONTRACTORS AND CONSULTANTS RETAINED FOR THE PROJECT AND TO REQUIRE ALL INDEPENDENT CONTRACTORS AND CONSULTANTS ALSO TO INCLUDE A SIMILAR MEDIATION PROVISION IN ALL AGREEMENTS WITH THEIR SUBCONTRACTORS, SUB-CONSULTANTS, SUPPLIERS AND FABRICATORS, THEREBY PROVIDING FOR MEDIATION AS THE PRIMARY METHOD FOR DISPUTE RESOLUTION BETWEEN THE PARTIES TO ALL THOSE AGREEMENTS.
26. IF THE CONTRACTOR DEVIATES FROM THE PLANS AND SPECIFICATIONS, INCLUDING THE NOTES CONTAINED THEREON, WITHOUT FIRST OBTAINING PRIOR WRITTEN AUTHORIZATION FOR SUCH DEVIATIONS FROM THE OWNER AND ENGINEER, IT SHALL BE RESPONSIBLE FOR THE PAYMENT OF ALL COSTS TO CORRECT ANY WORK DONE, ALL FINES OR PENALTIES ASSESSED WITH RESPECT THERETO AND ALL COMPENSATORY OR PUNITIVE DAMAGES RESULTING THEREFROM. THE CONTRACTOR SHALL INDEMNIFY AND HOLD THE OWNER AND ENGINEER HARMLESS FROM ALL SUCH COSTS TO CORRECT ANY SUCH WORK AND FROM ALL SUCH FINES AND PENALTIES, COMPENSATION AND PUNITIVE DAMAGES AND COSTS OF ANY NATURE RESULTING THEREFROM.

GENERAL GRADING & UTILITY PLAN NOTES

1. LOCATION OF ALL EXISTING AND PROPOSED SERVICES ARE APPROXIMATE AND MUST BE CONFIRMED INDEPENDENTLY WITH LOCAL UTILITY COMPANIES PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION OR EXCAVATION. SANITARY SEWER AND ALL OTHER UTILITY SERVICE CONNECTION POINTS SHALL BE CONFIRMED INDEPENDENTLY BY THE CONTRACTOR IN FIELD PRIOR TO THE COMMENCEMENT OF CONSTRUCTION. ALL DISCREPANCIES SHALL BE REPORTED IMMEDIATELY IN WRITING TO THE ENGINEER. CONSTRUCTION SHALL COMMENCE BEGINNING AT THE LOWEST INVERT (POINT OF CONNECTION) AND PROGRESS UP GRADIENT. ALL PROPOSED INTERFACE POINTS (CROSSINGS) WITH EXISTING UNDERGROUND UTILITIES SHALL BE FIELD VERIFIED BY TEST PIT PRIOR TO COMMENCEMENT OF CONSTRUCTION.
2. ALL UTILITIES AND SERVICES INCLUDING BUT NOT LIMITED TO GAS, WATER, ELECTRIC, SANITARY AND STORM SEWER, TELEPHONE, CABLE, FIBER OPTIC CABLE, ETC. WITHIN THE LIMITS OF DISTURBANCE SHALL BE VERTICALLY AND HORIZONTALLY LOCATED. THE CONTRACTOR SHALL USE AND COMPLY WITH THE REQUIREMENTS OF THE APPLICABLE UTILITY NOTIFICATION SYSTEM TO LOCATE ALL THE UNDERGROUND UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRS OF DAMAGE TO ANY EXISTING UTILITIES DURING CONSTRUCTION AT NO COST TO THE OWNER.
3. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REVIEW ALL OF THE DRAWINGS AND SPECIFICATIONS ASSOCIATED WITH THE PROJECT WORK SCOPE PRIOR TO THE INITIATION OF CONSTRUCTION. SHOULD THE CONTRACTOR FIND A CONFLICT WITH THE DOCUMENTS RELATIVE TO THE SPECIFICATIONS OR THE RELATIVE CODES, IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY BOHLER ENGINEERING IN WRITING PRIOR TO THE START OF CONSTRUCTION. FAILURE BY THE CONTRACTOR TO NOTIFY THE PROJECT ENGINEER SHALL CONSTITUTE ACCEPTANCE OF FULL RESPONSIBILITY BY THE CONTRACTOR TO COMPLETE THE SCOPE OF WORK AS DEFINED BY THE DRAWINGS AND IN FULL COMPLIANCE WITH LOCAL REGULATIONS AND CODES.
4. DEFINE AND LOCATE VERTICALLY AND HORIZONTALLY ALL ACTIVE UTILITY AND/OR SERVICE SYSTEMS THAT ARE TO BE REMOVED. THE CONTRACTOR IS RESPONSIBLE TO PROTECT AND MAINTAIN ALL ACTIVE SYSTEMS THAT ARE NOT BEING REMOVED/RELOCATED DURING SITE ACTIVITY.
5. THE CONTRACTOR SHALL FAMILIARIZE THEMSELVES WITH THE APPLICABLE UTILITY SERVICE PROVIDER REQUIREMENTS AND IS RESPONSIBLE FOR ALL COORDINATION REGARDING UTILITY DEMOLITION AS IDENTIFIED OR REQUIRED FOR PROJECT. THE CONTRACTOR SHALL PROVIDE THE OWNER WRITTEN NOTIFICATION THAT THE EXISTING UTILITIES AND SERVICES HAVE BEEN TERMINATED AND ABANDONED IN ACCORDANCE WITH JURISDICTION AND UTILITY COMPANY REQUIREMENTS.
6. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF SITE PLAN DOCUMENTS AND ARCHITECTURAL DESIGN FOR EXACT BUILDING UTILITY CONNECTION LOCATIONS, GREASE TRAP REQUIREMENTS/DETAILS, DOOR ACCESS, AND EXTERIOR GRADING. THE UTILITY SERVICE SIZES ARE TO BE DETERMINED BY THE ARCHITECT. THE CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES/SERVICES WITH THE INDIVIDUAL COMPANIES, TO AVOID CONFLICTS AND ENSURE PROPER DEPTHS ARE ACHIEVED. THE JURISDICTION UTILITY REQUIREMENTS SHALL ALSO BE MET, AS WELL AS COORDINATING THE UTILITY TIE-INS/CONNECTIONS PRIOR TO CONNECTING TO THE EXISTING UTILITY/SERVICE. WHERE CONFLICTS EXIST WITH THESE SITE PLANS, ENGINEER IS TO BE NOTIFIED PRIOR TO CONSTRUCTION TO RESOLVE SAME.
7. WATER SERVICE MATERIALS, BURIAL DEPTH, AND COVER REQUIREMENTS SHALL BE SPECIFIED BY THE LOCAL UTILITY COMPANY CONTRACTOR'S PRICE FOR WATER SERVICE SHALL INCLUDE ALL FEES AND APPURTENANCES REQUIRED BY THE UTILITY TO PROVIDE A COMPLETE WORKING SERVICE.
8. ALL NEW UTILITIES/SERVICES, INCLUDING ELECTRIC, TELEPHONE, CABLE TV, ETC. ARE TO BE INSTALLED UNDERGROUND. ALL NEW UTILITIES/SERVICES SHALL BE INSTALLED IN ACCORDANCE WITH THE UTILITY/SERVICE PROVIDER INSTALLATION SPECIFICATIONS AND STANDARDS.
9. SITE GRADING SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT REFERENCED IN THIS PLAN SET. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING AND REPLACING WITH SUITABLE MATERIALS AS SPECIFIED IN THE GEOTECHNICAL REPORT, ALL EXCAVATED OR FILLED AREAS SHALL BE COMPACTED AS OUTLINED IN THE GEOTECHNICAL REPORT. MOISTURE CONTENT AT TIME OF PLACEMENT SHALL BE SUBMITTED IN COMPACTION REPORT PREPARED BY A QUALIFIED GEOTECHNICAL ENGINEER, REGISTERED WITH THE STATE WHERE THE WORK IS PERFORMED, VERIFYING THAT ALL FILLED AREAS AND SUB-GRADE AREAS WITHIN THE BUILDING PAD AREA AND AREAS TO BE PAVED HAVE BEEN COMPACTED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS AND THE RECOMMENDATIONS SET FORTH IN THE GEOTECHNICAL REPORT. SUB-BASE MATERIAL FOR SIDEWALKS, CURB, OR ASPHALT SHALL BE FREE OF ORGANICS AND OTHER UNSUITABLE MATERIALS. SHOULD SUB-BASE BE DEEMED UNSUITABLE BY OWNER OR OWNER'S REPRESENTATIVE, SUB-BASE IS TO BE REMOVED AND FILLED WITH APPROVED FILL MATERIAL COMPACTED AS DIRECTED BY THE GEOTECHNICAL REPORT.
10. ALL FILL, COMPACTION, AND BACKFILL MATERIALS REQUIRED FOR UTILITY INSTALLATION SHALL BE AS PER THE RECOMMENDATIONS PROVIDED IN THE GEOTECHNICAL REPORT AND SHALL BE COORDINATED WITH THE APPLICABLE UTILITY COMPANY SPECIFICATIONS.
11. THE CONTRACTOR SHALL COMPLY TO THE FULLEST EXTENT WITH THE LATEST OSHA STANDARDS AND REGULATIONS, OR ANY OTHER AGENCY HAVING JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE "MEANS AND METHODS" REQUIRED TO MEET THE INTENT AND PERFORMANCE CRITERIA OF OSHA, AS WELL AS ANY OTHER ENTITY THAT HAS JURISDICTION FOR EXCAVATION AND/OR TRENCHING PROCEDURES.
12. PAVEMENT SHALL BE SAW CUT IN STRAIGHT LINES TO THE FULL DEPTH OF THE EXISTING PAVEMENT. ALL DEBRIS FROM REMOVAL OPERATIONS SHALL BE REMOVED FROM THE SITE AT THE TIME OF EXCAVATION. STOCKPILING OF DEBRIS WILL NOT BE PERMITTED.
13. THE TOPS OF EXISTING MANHOLES, INLET STRUCTURES, AND SANITARY CLEANOUT TOPS SHALL BE ADJUSTED, IF REQUIRED, TO MATCH PROPOSED GRADES IN ACCORDANCE WITH ALL APPLICABLE STANDARDS.
14. THE CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF EXISTING TOPOGRAPHIC INFORMATION AND UTILITY INVERT ELEVATIONS PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION. CONTRACTOR TO ENSURE 0.75% MINIMUM SLOPE ALONG ALL ISLANDS, GUTTERS, AND CURBS; 1.0% ON ALL CONCRETE SURFACES; AND 1.0% MINIMUM ON ASPHALT, TO PREVENT PONDING. ANY DISCREPANCIES THAT MAY AFFECT THE PUBLIC SAFETY OR PROJECT COST MUST BE IDENTIFIED TO THE ENGINEER IN WRITING IMMEDIATELY. PROCEEDING WITH CONSTRUCTION WITHOUT NOTIFICATION IS DONE SO AT THE CONTRACTOR'S OWN RISK.
15. PROPOSED TOP OF CURB ELEVATIONS ARE GENERALLY 6" ABOVE EXISTING LOCAL ASPHALT GRADE UNLESS OTHERWISE NOTED. FIELD ADJUST TO CREATE A MINIMUM OF 0.75% GUTTER GRADE ALONG CURB FACE. ENGINEER TO APPROVE FINAL CURBING CUT SHEETS PRIOR TO INSTALLATION.
16. REFER TO SITE PLAN FOR ADDITIONAL NOTES.
17. IN CASE OF DISCREPANCIES BETWEEN PLANS OR RELATIVE TO OTHER PLANS, THE SITE PLAN WILL TAKE PRECEDENCE. IMMEDIATELY NOTIFY THE ENGINEER IN WRITING OF ANY CONFLICTS.
18. CONTRACTOR SHALL BE REQUIRED TO SECURE ALL NECESSARY PERMITS AND APPROVALS FOR ALL OFF-SITE MATERIAL SOURCES AND DISPOSAL FACILITIES. CONTRACTOR SHALL SUPPLY A COPY OF APPROVALS TO ENGINEER AND OWNER PRIOR TO INITIATING WORK.

TYPICAL ABBREVIATIONS

KEY	DESCRIPTION
BC	BOTTOM CURB
TC	TOP CURB
EXIST	EXISTING
BM	BENCHMARK
EOP	EDGE OF PAVEMENT
CL	CENTERLINE
FF	FINISHED FLOOR
GF	GARAGE FLOOR (AT DOOR)
VIF	VERIFY IN FIELD
GC	GENERAL CONTRACTOR
BF	BOTTOM OF FOOTING
CF	CELLAR FLOOR
TF	TOP OF FOUNDATION
OCS	OUTLET CONTROL STRUCTURE
BOW	BOTTOM OF WALL GRADE
TOW	TOP OF WALL
GL	GRADE LOWER SIDE OF WALL
GH	GRADE HIGHER SIDE OF WALL
HP	HIGH POINT
LP	LOW POINT
TYP	TYPICAL
INT	INTERSECTION
PC	POINT OF CURVATURE
PT	POINT OF TANGENCY
PI	POINT OF INTERSECTION
PVI	POINT OF VERTICAL INTERSECTION
STA	STATION
GR	GRATE
G	GRADE
INV	INVERT
DIP	DUCTILE IRON PIPE
PVC	POLYVINYL CHLORIDE PIPE
HDPE	HIGH DENSITY POLYETHYLENE PIPE
RCP	REINFORCED CONCRETE PIPE
S	SLOPE
PROP	PROPOSED
BK	BLOCK
TBR	TO BE REMOVED
TPF	TREE PROTECTION FENCE
BLDG

N

W E

S

LEGEND

- REGULAR UNIT
- AFFORDABLE HOUSING
- (1) STREET ADDRESS
- #1 UNIT NUMBER

N/F ACORN PARK REALTY TRUST

N/F SOULOTIS

N/F MONCRIEFF

N/F PURDOM

N/F CRING

N/F WONN

N/F TOWN OF CONCORD

N/F TOWN OF CONCORD WATER WORKS

HAZELNUT STREET

ACORN PARK DR.

N/F PERTZ

N/F EISCHER

N/F OFORI

N/F LUI & ZHONG

N/F KRISHNAN

N/F SUNEEL

N/F SHIMIZU

N/F UTT

N/F JANI

N/F SHANTI

N/F LAPINSKI

N/F ACORN PARK REALTY TRUST

N/F TOWN OF ACTON

N72°12'07"E 682.88'

N86°14'21"E 628.82'

N67°46'43"W 95.78'

N19°29'56"W 322.70'

S00°37'54"W 438.20'

S00°52'22"W 467.15'

S53°17'56"E 205.15'

N67°45'2 1.59

894.42'

S01°44'55"E 245.01'

N77°08'23"E 92.58'

S84°42'52"E 72.96'

N37°17'24"E

N09°43'38"W 123.53'

N16°12'25"W 358.89'

N15°15'30"W 20.71'

N67°58'04"W 45.04'

N09°36'26"W 261.75'

N09°53'53"W 228.54'

N09°44'17"W 158.04'

N09°44'17"W 158.04'

N09°47'18"W 113.68'

S01°56'32"W 16.50'

N01°56'32"E 16.50'

N88°03'28"W 210.97'

N88°03'28"W 129.84'

N88°03'28"W 16.50'

N88°04'25"W 103.73'

N87°21'37"W 39.71'

N89°19'07"W 116.50'

N86°52'16"W 29.68'

30' PROPERTY LINE OFFSET/YARD SETBACK

20' WIDE TRAIL EASEMENT

APPROXIMATE LOCATION OF PROPOSED 20' PUBLIC TRAIL EASEMENT. FINAL LOCATION TO ALIGN WITH EXISTING PATHS AND CONNECT TO EXISTING TRAIL EASEMENT ON-SITE

SKYLINE DRIVE

PARKLAND LANE

PROP. INFILTRATION BASIN #12

PROP. INFILTRATION BASIN #10

PROP. INFILTRATION BASIN #9

PROP. INFILTRATION BASIN #31

PROP. INFILTRATION BASIN #13

PROP. DETENTION BASIN #17

PROP. DETENTION BASIN #15

VERNAL POOL

EDGE OF BORDERING VEGETATED WETLANDS

CWW MON FOUND

CATE TO BE RELOCATED

FLOOD PLAIN

LOT 1
2,304,406 SF±
52.9 AC.±

3' WIDE PATH EXTENSION

EXIST. WOODEN BRIDGE TO REMAIN

40' WIDE RIGHT OF WAY AS SHOWN ON PLAN 453 & 454 OF 1909 (SEE DEED BOOK 3457 PAGE 221)

100 YEAR FLOOD PLAIN PER FEMA FIRM MAP PANEL #25017C0243E JUNE 4, 2010

GRAVEL CART PATH

PROP. MAIL HOUSE WITH (4) 9'x18' PARKING STALLS

COMMON LAND OPEN SPACE PARCEL A

200' RIVER FRONT AREA

ISOLATED WETLANDS

R-8 ZONE

R-10/8 ZONE

ZONE LINE

ARC

DHF

LAND USE DATA

DIMENSIONAL REQUIREMENTS UNDER ZONING SECTION 9B (SENIOR RESIDENCE):

ZONING DISTRICT	RESIDENCE 10/8	
	REQUIRED	PROVIDED
TRACT SIZE	8 ACRES	148.906 AC *
MAX. DENSITY	3 UNITS/ACRE	1.03 UNITS/ACRE
UNITS	446 MAX	153
AFFORDABLE UNITS	8 (5%)	8 (5%)
MIN. SETBACK FROM EXISTING STREET	45 FT	>45 FT
MIN. SETBACK FROM TRACT BOUNDARY	30 FT	>30 FT
MIN. SETBACK FROM COMMON LAND	10 FT	>10 FT
MIN. SEPARATION OF BUILDINGS (W/DOORS)	20 FT	>20 FT
MIN. SEPARATION OF BUILDINGS (NO DOORS)	10 FT	>10 FT
MAX. HEIGHT OF BUILDINGS	36 FT	<36 FT
MAX. HORIZONTAL DIMENSION OF A BUILDING	200 FT	±80 FT

* EXCLUDES LB DISTRICT AREA (155.546 AC.± TOTAL)

COMMON LAND REQUIREMENTS:	REQUIRED	PROVIDED
MIN. AREA OF COMMON LAND	74.453 (50%)	85.469 AC. (57.0%)**
WETLAND ON TRACT	--	21.2527 AC (14.27%)
UPLAND ON COMMON LAND	63.50 AC (85.73%)	69.56 AC (93.4%)**
MIN. AREA OF COMMON LAND LARGE PARCELS	59.562 AC (80%)	85.469 AC. (100%)**
MAX. IMPERVIOUS COVER ON COMMON LAND	4.436 AC (5%)	1.978 AC (2.3%)**

**PROVIDED ON COMMON LAND OPEN SPACE PARCEL A ALONE

PARKING REQUIREMENTS:	REQUIRED	PROVIDED
SINGLE FAMILY AND DUPLEX UNITS (153) 2 SPACES/DWELLING UNIT	306	4 SPACES/DWELLING UNITS
MULTIFAMILY DWELLING UNITS (36) 2 SPACES/DWELLING UNIT	72	N/A
SUPPORT AND CONVENIENCE SERVICES (SCS) GOLF COURSE (9 HOLE) 10 SPACES/HOLE	90****	UNCHANGED
SCS TOTAL	90	125

**** IT IS ANTICIPATED THAT MANY OF THE USERS OF THE GOLF COURSE WILL PARK AT THEIR DWELLING UNIT

100 50 25 0 100

1"= 100'

BOHLER ENGINEERING

CIVIL & CONSULTING ENGINEERS
SURVEYORS
PROJECT MANAGERS
ENVIRONMENTAL CONSULTANTS
LANDSCAPE ARCHITECTS

CORPORATE OFFICE:
♦ WARREN, NJ
OFFICES
♦ SOUTHBOROUGH, MA
♦ BOWIE, MD
♦ TOWSON, MD
♦ HARRISBURG, PA
♦ RONKONKOMA, NY
♦ CHARLESTON, WV
♦ EXTON, PA
♦ PHILADELPHIA, PA
♦ STERLING, VA
♦ FORT LAUDERDALE, FL
♦ ALBANY, NY

THE INFORMATION, DESIGN AND COST DATA OF THIS PLAN ARE PROPRIETARY AND SHALL NOT BE EXPRESS OR IMPLIED IN WHOLE OR IN PART WITHOUT PRIOR WRITTEN AUTHORIZATION FROM BOHLER ENGINEERING. ONLY APPROVED, SIGNED AND SEALED PLANS SHALL BE UTILIZED FOR CONSTRUCTION PURPOSES. © 2008 BOHLER ENGINEERING

REVISIONS

REV	DATE	COMMENT	BY
1	12/07/11	RESPONSE TO MASSDOT	CFD
2	01/13/12	RESPONSE TO MASSDOT COMMENTS	CFD
3	02/21/12	RESPONSE TO MASSDOT COMMENTS	CFD
4			
5			
6			
7			
8			
9			

THE FOLLOWING STATES REQUIRE NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE.
(MA, ME, NH, RI, VT 1-888-344-7233)
(CT 1-800-922-4455)
(NY 1-800-962-7962)

NOT APPROVED FOR CONSTRUCTION

PROJECT No.:	W111022
DRAWN BY:	CFD
CHECKED BY:	JAB/SPD
DATE:	08/05/2011
SCALE:	AS NOTED
CAD I.D.:	w111022madot3_Master

PROJECT:

SITE PLAN

FOR

Pulte Homes

THE RESIDENCES AT QUAIL RIDGE

LOCATION OF SITE
354 B GREAT ROAD & SKYLINE DR.
TOWN OF ACTON
MIDDLESEX COUNTY, MA

BOHLER ENGINEERING
352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900
Fax: (508) 480-9080
www.BohlerEngineering.com

S.P. DeCOURSEY
STEPHEN P. DeCOURSEY
CIVIL
No. 35424
REGISTERED PROFESSIONAL ENGINEER
MASSACHUSETTS LICENSE No. 35424
NEW HAMPSHIRE LICENSE No. 9338
VERMONT LICENSE No. 7110
CONNECTICUT LICENSE No. 23862
RHODE ISLAND LICENSE No. 7990

SHEET TITLE:

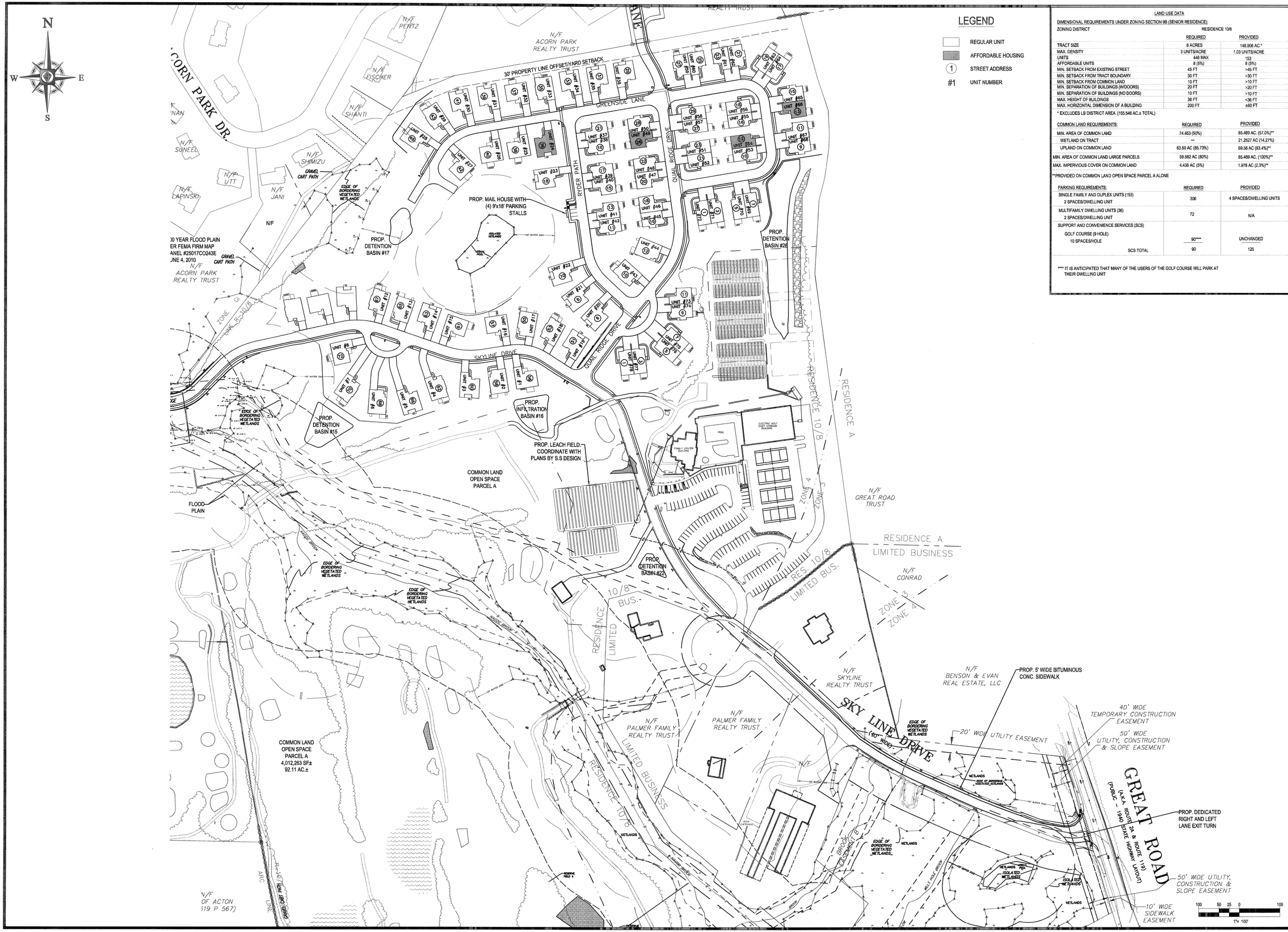
MASTER SITE PLAN "A"

SHEET NUMBER:

3

REV 3 - 02/21/2012

P:\111\W111022\DWG\01-Plans\DOTs\111022madot3_Master.dwg, 03-Overall Site Plan A, 4/23/2010, 10:17:14 AM, cdecosta, XrefsOS16-1pc3, 1pc3, User:43A, 10.9999999



LAND USE DATA		
DIMENSIONAL REQUIREMENTS UNDER ZONING SECTION 9B (SENIOR RESIDENCE):		
ZONING DISTRICT	RESIDENCE 10/8	
	REQUIRED	PROVIDED
TRACT SIZE	8 ACRES	148.906 AC.*
MAX. DENSITY	3 UNITS/ACRE	1.03 UNITS/ACRE
UNITS	446 MAX	153
AFFORDABLE UNITS	8 (5%)	8 (5%)
MIN. SETBACK FROM EXISTING STREET	45 FT	>45 FT
MIN. SETBACK FROM TRACT BOUNDARY	30 FT	>30 FT
MIN. SETBACK FROM COMMON LAND	10 FT	>10 FT
MIN. SEPARATION OF BUILDINGS (W/DOORS)	20 FT	>20 FT
MIN. SEPARATION OF BUILDINGS (NO DOORS)	10 FT	>10 FT
MAX. HEIGHT OF BUILDINGS	36 FT	<36 FT
MAX. HORIZONTAL DIMENSION OF A BUILDING	200 FT	±60 FT

* EXCLUDES LB DISTRICT AREA (155.546 AC.± TOTAL)

COMMON LAND REQUIREMENTS:	REQUIRED	PROVIDED
MIN. AREA OF COMMON LAND	74.453 (50%)	85.469 AC. (57.0%)**
WETLAND ON TRACT	—	21.2527 AC (14.27%)
UPLAND ON COMMON LAND	63.50 AC (85.73%)	69.56 AC (93.4%)**
MIN. AREA OF COMMON LAND LARGE PARCELS	59.562 AC (80%)	85.469 AC. (100%)**
MAX. IMPERVIOUS COVER ON COMMON LAND	4.436 AC (5%)	1.978 AC (2.3%)**

**PROVIDED ON COMMON LAND OPEN SPACE PARCEL A ALONE

PARKING REQUIREMENTS:	REQUIRED	PROVIDED
SINGLE FAMILY AND DUPLEX UNITS (153) 2 SPACES/DWELLING UNIT	306	4 SPACES/DWELLING UNITS
MULTIFAMILY DWELLING UNITS (36) 2 SPACES/DWELLING UNIT	72	N/A
SUPPORT AND CONVENIENCE SERVICES (SCS)		
GOLF COURSE (9 HOLE) 10 SPACES/HOLE	90****	UNCHANGED
SCS TOTAL	90	125

**** IT IS ANTICIPATED THAT MANY OF THE USERS OF THE GOLF COURSE WILL PARK AT THEIR DWELLING UNIT

BOHLER ENGINEERING

CORPORATE OFFICE:
♦ WARREN, NJ
OFFICES:
♦ SOUTHBOROUGH, MA ♦ MALVERN, PA
♦ BOWIE, MD ♦ PHILADELPHIA, PA
♦ TOWSON, MD ♦ STERLING, VA
♦ HANOVER, MD ♦ ALBANY, NY
♦ ROANOKE/VA, NY ♦ FORT LAUDERDALE, FL
♦ CENTER VALLEY, PA ♦ TAMPA, FL

CIVIL & CONSULTING ENGINEERS
SURVEYORS
PROJECT MANAGERS
ENVIRONMENTAL CONSULTANTS
LANDSCAPE ARCHITECTS

THE INFORMATION CONTAINED ON THIS PLAN IS THE PROPERTY AND COPYRIGHT OF BOHLER ENGINEERING AND IS NOT TO BE USED IN WHOLE OR IN PART FOR ANY PURPOSE OTHER THAN FOR WHICH IT WAS PREPARED AND DELIVERED. ANY UNAUTHORIZED USE, ALTERATION OR REPRODUCTION IS STRICTLY PROHIBITED. ANY USE OR REUSE OF THE PLANS WITHOUT WRITTEN VERIFICATION OR ADAPTATION BY BOHLER ENGINEERING FOR THE SPECIFIC PURPOSE INTENDED WILL BE AT USER'S SOLE RISK AND WITHOUT LIABILITY OR LEGAL EXPOSURE TO BOHLER ENGINEERING. ALL PLANS BY BOHLER ENGINEERING ARE TO BE CONSIDERED INSTRUMENTS OF SERVICE AND SHALL REMAIN THE PROPERTY OF BOHLER ENGINEERING WHETHER THE PROJECT FOR WHICH THEY ARE MADE IS EXECUTED OR NOT. THE PLANS ARE NOT TO BE CHANGED OR COPIED IN ANY FORM OR MANNER WHATSOEVER NOR ARE THEY TO BE ASSIGNED TO ANY THIRD PARTY WITHOUT FIRST OBTAINING THE EXPRESS WRITTEN PERMISSION AND CONSENT OF BOHLER ENGINEERING. ANY UNAUTHORIZED USE OF THE PLANS WILL BE AT THE SOLE RISK OF THE PARTY USING OR REUSING THE PLANS WITHOUT BOHLER ENGINEERING'S WRITTEN CONSENT AND SUCH PARTY WILL INDEMNIFY AND HOLD HARMLESS BOHLER ENGINEERING FROM ALL CLAIMS, DAMAGES, LOSSES AND EXPENSES ARISING OUT OF OR RESULTING THEREFROM. ANY MODIFICATIONS TO THE PLANS MUST BE REPORTED IMMEDIATELY TO BOHLER ENGINEERING. BOHLER ENGINEERING WILL NOT BE RESPONSIBLE FOR ANY MODIFICATIONS MADE TO THE PLANS WITHOUT THE WRITTEN VERIFICATION OR ADAPTATION BY BOHLER ENGINEERING FOR THE SPECIFIC PURPOSE INTENDED.

REVISIONS

REV	DATE	COMMENT	BY
1	12/07/11	RESPONSE TO MASSDOT	CFD
2	01/13/12	RESPONSE TO MASSDOT COMMENTS	CFD
3	02/21/12	RESPONSE TO MASSDOT COMMENTS	CFD
4			
5			
6			
7			
8			
9			

THE FOLLOWING STATES REQUIRE NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE.
(MA, ME, NH, RI, VT 1-888-344-7233)
(CT 1-800-922-4455)
(NY 1-800-962-7962)

NOT APPROVED FOR CONSTRUCTION

PROJECT No.:	W111022
DRAWN BY:	CFD
CHECKED BY:	JAB/SPD
DATE:	08/05/2011
SCALE:	AS NOTED
CAD I.D.:	w111022madot3_Master

PROJECT:

SITE PLAN

FOR

Pulte Homes

THE RESIDENCES AT QUAIL RIDGE

LOCATION OF SITE
354 B GREAT ROAD & SKYLINE DR.
TOWN OF ACTON
MIDDLESEX COUNTY, MA

BOHLER ENGINEERING
352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900
Fax: (508) 480-9080
www.BohlerEngineering.com

S.P. DeCOURSEY

STEPHEN P. DeCOURSEY, CIVIL
PROFESSIONAL ENGINEER
MASSACHUSETTS LICENSE No. 49104
NEW HAMPSHIRE LICENSE No. 14008
RHODE ISLAND LICENSE No. 13,429
VERMONT LICENSE No. 7110
CONNECTICUT LICENSE No. 23962
RHODE ISLAND LICENSE No. 7990

SHEET TITLE:

MASTER SITE PLAN "B"

SHEET NUMBER:

4

REV 3 - 02/21/2012

P:\111\W111022\DWG\01-Plan\DOT\w111022madot3_Master Dwg, 04-Overall Site Plan B, 4/23/2010, 10:17:14 AM, cdascolo, Xerox5316-1.pc3, User3/4, 18.9999999%

THIS PLAN TO BE UTILIZED FOR SITE LAYOUT PURPOSES ONLY

N
W E
S

SKYLINE DRIVE (40' WIDE)

GREAT ROAD (A.K.A. ROUTE 2A & ROUTE 119) (PUBLIC – 1940 STATE HIGHWAY LAYOUT)

MAP D-4 LOT 39

MAP D-4 LOT 4

MAP D-4 LOT 25

MAP D-4 LOT 39

20' WIDE UTILITY EASEMENT

40' WIDE TEMPORARY CONSTRUCTION EASEMENT

10' WIDE SIDEWALK EASEMENT

70' WIDE UTILITY CONSTRUCTION & SLOPE EASEMENT

40' WIDE UTILITY CONSTRUCTION & SLOPE EASEMENT

50' WIDE UTILITY CONSTRUCTION & SLOPE EASEMENT

100' BUFFER ZONE

VERNAL POOL

WOODED AREA

ASPHALT DRIVE

DRILL HOLE FOUND

UP/LP #108

METAL GUARD RAIL

ASPHALT WALK

UP #105 w/CONDUITS

UP #104

WF F1 START

WF F2

WF F3

WF F4

WF F5

WF F6

WF F7

WF F8

WF F9

WF F10

WF F11

WF F12

WF F13

WF F14

WF F15

WF F16

WF F19

WF F20

WF F21

WF F22

24" INV.=158.33'

24" INV.=158.51'

WF A5

WF A1

WF B1 START

WF B2

WF B3

WF B4

WF B5

WF B6

WF B7

24" INV.=158.04'

24" INV.=158.21'

WF E1

WF E2

WF E3

WF E4

WF E5

WF E6

WF E7

WF E8

WF E9

WF E10

WF E11

WF E12

WF E13

WF E14

WF E15

WF E16

WF E17

WF E18

WF E19

WF E20

WF E21

WF E22

WF D4

WF D5

WF D6

WF D7

WF D8

WF D9

WF D10

WF D11

WF D12

WF D13

WF D15

WF D16

WF D17

WF D18

WF D19

WF C27

WF C28

WF C29

WF C30

WF C31

WF C32

WF C33

B11

2

125+00

124+00

123+00

122+00

121+00

END TRANSITION STATION 124+80

BEGIN TRANSITION STATION 123+00

BEGIN TRANSITION STATION 122+40

END TRANSITION STATION 120+60

180' TRANSITION TO EXISTING

LIMIT OF CONC. CURB TO BE REPLACED. STATION 124+80. MATCH EXIST. BITUMINOUS CONC. CURB

SAWCUT AND REMOVE PAVEMENT 1' OFF OF EXISTING EDGE (TYP.)

EXIST. PROPERTY LINE (RIGHT OF WAY)

BITUMINOUS CONC. CURB. TO BE REMOVED

PROP. BITUMINOUS CONC. CURB. MATCH EXISTING TYPE (TYPE-2)

MATCH/MEET EXIST. CURBING

PROP. GRANITE TRANSITION CURB

PROP. RAMP WITH DETECTABLE WARNING STRIP

SHADED AREA - LIMIT OF NEW FULL DEPTH PAVEMENT SECTION (TYP.)

REMOVE 20 LF OF EXIST. DYSL

PROP. 8' WIDE PAINTED CROSSWALK

EXIST. SINGLE WHITE LINE TO REMAIN

SAWCUT AND REMOVE PAVEMENT 1' OFF OF EXISTING EDGE (TYP.)

PROP. GRANITE CURB (TYP.)

REMOVE AND REPLACE GUIDERAIL SUCH THAT NEW FACE OF GUIDERAIL ALIGNS WITH BACK OF CURB

REMOVE AND RESET EXIST. SIGN BEHIND GUIDERAIL

BITUMINOUS CONC. CURB. TO BE REMOVED

PROP. BITUMINOUS CONC. CURB. MATCH EXISTING TYPE (TYPE-2)

EXIST. PROPERTY LINE (RIGHT OF WAY)

SAWCUT AND REMOVE PAVEMENT 1' OFF OF EXISTING EDGE (TYP.)

LIMIT OF BITUMINOUS CONC. CURB TO BE REPLACED. STATION 120+60. MATCH EXIST. BITUMINOUS CONC. CURB

EXIST. GUIDERAIL TO REMAIN

PC STATION 123+49.5 OFFSET 16.7' LT

MATCH EXISTING SIDEWALK

ASPHALT CURB

ID SIGN w/ GRANITE PLANTER

PT STATION 123+10 OFFSET 82.0' LT

SHADED AREA - LIMIT OF NEW FULL DEPTH PAVEMENT SECTION (TYP.)

EXIST. TREE TO BE REMOVED

PROP. STOP BAR AND DIRECTIONAL ARROWS. STOP BAR SHALL BE PLACED A MINIMUM OF 4' BEHIND WALK

DYSL/4"

SWSL/4"

SAWCUT AND REMOVE PAVEMENT 1' OFF OF EXISTING EDGE (TYP.)

EXIST. ID SIGN WITH GRANITE PLANTER TO BE REMOVED

PT STATION 122+70.6 OFFSET 87.0' LT

PROP. BITUMINOUS CONC. CURB/BERM (MATCH EXISTING) (TYP.)

PRC STATION 122+57.5 OFFSET 43.0' LT

EXIST. STOP SIGN TO REMAIN

REMOVE PORTION OF EXISTING SIDEWALK AND CURB

PROP. RAMP WITH DETECTABLE WARNING STRIP

MATCH EXISTING SIDEWALK

EXIST. ASPHALT CURB TO BE REMOVED

PC STATION 122+23.7 OFFSET 16.6' LT

45'R

30'R

20'

4.5'

12.0'

12.0'

20'

20 10 5 0 20

1"= 20'

BOHLER ENGINEERING

CORPORATE OFFICE:
◆ WARREN, NJ

CIVIL & CONSULTING ENGINEERS
SURVEYORS
PROJECT MANAGERS
ENVIRONMENTAL CONSULTANTS
LANDSCAPE ARCHITECTS

◆ CHALFONT, PA
◆ PHILADELPHIA, PA
◆ PITTSBURGH, PA
◆ WARRENTON, VA
◆ SOUTHBOROUGH, MA
◆ BOWIE, MD
◆ ALBANY, NY
◆ POMONA, NY
◆ PARSIPPANY, NJ
◆ FORT LAUDERDALE, FL
◆ RALEIGH, NC

THE INFORMATION, DESIGNS AND CONCEPTS OF THIS PLAN ARE PROPRIETARY AND SHALL NOT BE COPIED OR USED FOR ANY PURPOSE WITHOUT PRIOR WRITTEN AUTHORIZATION FROM BOHLER ENGINEERING, INC. FURTHERMORE, ERRORS AND OMISSIONS ON SHOP DRAWINGS OR SUBMITTALS ARE NOT THE RESPONSIBILITY OF BOHLER ENGINEERING

REVISIONS

REV	DATE	COMMENT	BY
1	12/07/11	RESPONSE TO MASSDOT	CFD
2	01/13/12	RESPONSE TO MASSDOT COMMENTS	CFD
3	02/21/12	RESPONSE TO MASSDOT COMMENTS	CFD
4			
5			
6			
7			
8			
9			

THE FOLLOWING STATES REQUIRE NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE:
(MA, ME, NH, RI, VT 1-888-344-7233)
(CT 1-800-922-4455)
(NY 1-800-962-7962)

NOT APPROVED FOR CONSTRUCTION

PROJECT No.:	W111022
DRAWN BY:	CFD
CHECKED BY:	JAB/SPD
DATE:	08/05/2011
SCALE:	AS NOTED
CAD I.D.:	W111022madot3

PROJECT:

SITE PLAN

FOR

Pulte Homes

THE RESIDENCES AT QUAIL RIDGE

LOCATION OF SITE
354 B GREAT ROAD & SKYLINE DR.
TOWN OF ACTON
MIDDLESEX COUNTY, MA

BOHLER ENGINEERING
352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900
Fax: (508) 480-9080
www.BohlerEngineering.com

S.P. DECOURSEY
STEPHEN P. DeCOURSEY
CIVIL
PROFESSIONAL ENGINEER
COMMONWEALTH OF MASSACHUSETTS No. 36424
STATE OF MAINE No. 9308
STATE OF NEW HAMPSHIRE No. 7710
COMMONWEALTH OF PENNSYLVANIA No. 23962
RHODE ISLAND LICENSE No. 7990

SHEET TITLE:

SITE PLAN

SHEET NUMBER:

5

REV 3 - 02/21/2012

P:\111\W111022\DWG\01-Plans\DOT\W111022madot3.dwg, 05-Site Plan, 4/23/2010, 10:17:14 AM, cdesocio, Xerox5510-1pc3, User434, 1:1

THIS PLAN TO BE UTILIZED FOR SITE GRADING PURPOSES ONLY

N
W E
S

20' WIDE UTILITY EASEMENT
DRILL HOLE FOUND
WF F1 START
WF F2
WF F3
WF F4
WF F5
WF F6
WF F7
WF F8
WF F9
WF F10
WF F11
WF F12
WF F13
WF F14
WF F15
WF F16
WF F17
WF F18
WF F19
WF F20
WF F21
WF F22
METAL GUARD RAIL
24" INV.=158.33'
24" INV.=158.51'
MAP D-4 LOT 39
MATCH EXIST. SIDEWALK GRADE
CONCRETE RETAINING WALL
(2) 24" PIPE
UTILITY BOX
WF A5
WF A1
WF B1 START
WF B2
WF B3
WF B4
24" INV.=158.04'
24" INV.=158.21'
CAPE COD BERM
APPROXIMATE LOCATION OF TOWN OF CONCORD RIGHT OF WAY
WF B5
WF B6
WF B7
WF B11
WF B12
10' WIDE SIDEWALK EASEMENT
APPROX. LOC. OF U.G. WATER LINE PER UTILITY MARKOUT
APPROX. LOC. OF U.G. GAS LINE PER UTILITY MARKOUT
125+00
124+00
123+00
122+00
121+00
GREAT ROAD
(A.K.A. ROUTE 2A & ROUTE 119) (PUBLIC - 1940 STATE HIGHWAY LAYOUT)
MAP D-4 LOT 25
MAP D-4 LOT 39
CROSSWALK CROSS SLOPE NOT TO EXCEED 2%
70' WIDE UTILITY CONSTRUCTION & SLOPE EASEMENT
MATCH EXIST. SIDEWALK GRADE
VERNAL POOL
100' BUFFER ZONE
BROOK EASEMENT A
WF E1
WF E2
WF E3
WF E4
WF E5
WF E6
WF E7
WF E8
WF E9
WF E10
WF E11
WF E12
WF E13
WF E14
WF E15
WF E16
WF E17
WF E18
WF E19
WF E20
WF E21
WF E22
WF E23
WF D1
WF D2
WF D3
WF D4
WF D5
WF D6
WF D7
WF D8
WF D9
WF D10
WF D11
WF D12
WF D13
WF D14
WF D15
WF D16
WF D17
WF D18
MAP D-4 LOT 4
50' WIDE UTILITY CONSTRUCTION & SLOPE EASEMENT
40' WIDE UTILITY CONSTRUCTION & SLOPE EASEMENT
WF C27
WF C28
WF C29
WF C30
WF C31
WF C32
BASELINE
CB GRT=166.04
20 10 5 0 20
1"= 20'

P:\1\W\111022\DWG\0-7AsstDOT\W111022madot3.dwg, 06-Grading Plan, 4/23/2010, 10:17:14 AM, cdesocio, Xrefs:516-1.pc3, User:kfA, 1:1

BOHLER ENGINEERING

CIVIL & CONSULTING ENGINEERS
SURVEYORS
PROJECT MANAGERS
ENVIRONMENTAL CONSULTANTS
LANDSCAPE ARCHITECTS

CORPORATE OFFICE:
♦ WARREN, NJ
OFFICES
♦ SOUTHBOROUGH, MA
♦ BOWIE, MD
♦ FLEMINGTON, NJ
♦ RONKONKOMA, NY
♦ ALBUQUERQUE, NM
♦ CHALFONT, PA
♦ PHILADELPHIA, PA
♦ WILMINGTON, DE
♦ RICHMOND, VA
♦ FORT LAUDERDALE, FL
♦ TAMPA, FL

THE INFORMATION, DESIGN AND CONCEPTS OF THIS PLAN ARE PROPRIETARY AND SHALL NOT BE COPIED OR USED FOR ANY PURPOSE WITHOUT PRIOR WRITTEN AUTHORIZATION FROM BOHLER ENGINEERING. ONLY APPROVED, SIGNED AND SEALED PLANS SHALL BE UTILIZED FOR CONSTRUCTION PURPOSES. © 2008 BOHLER ENGINEERING

REVISIONS

REV	DATE	COMMENT	BY
1	12/07/11	RESPONSE TO MASSDOT	CFD
2	01/13/12	RESPONSE TO MASSDOT COMMENTS	CFD
3	02/21/12	RESPONSE TO MASSDOT COMMENTS	CFD
4			
5			
6			
7			
8			
9			

THE FOLLOWING STATES REQUIRE NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE.
(MA, ME, NH, RI, VT 1-888-344-7233)
(CT 1-800-922-4455)
(NY 1-800-962-7962)

NOT APPROVED FOR CONSTRUCTION

PROJECT No.:	W111022
DRAWN BY:	CFD
CHECKED BY:	JAB/SPD
DATE:	08/05/2011
SCALE:	AS NOTED
CAD I.D.:	W111022madot3

PROJECT:

SITE PLAN

FOR

Pulte Homes

THE RESIDENCES AT QUAIL RIDGE

LOCATION OF SITE
354 B GREAT ROAD & SKYLINE DR.
TOWN OF ACTON
MIDDLESEX COUNTY, MA

BOHLER ENGINEERING
352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900
Fax: (508) 480-9080
www.BohlerEngineering.com

S.P. DECOURSEY
COMMONWEALTH OF MASSACHUSETTS
STEPHEN P. DeCOURSEY
PROFESSIONAL CIVIL ENGINEER
MASSACHUSETTS LICENSE No. 36424
NEW HAMPSHIRE LICENSE No. 12038
MAINE LICENSE No. 10110
CONNECTICUT LICENSE No. 23862
RHODE ISLAND LICENSE No. 7990

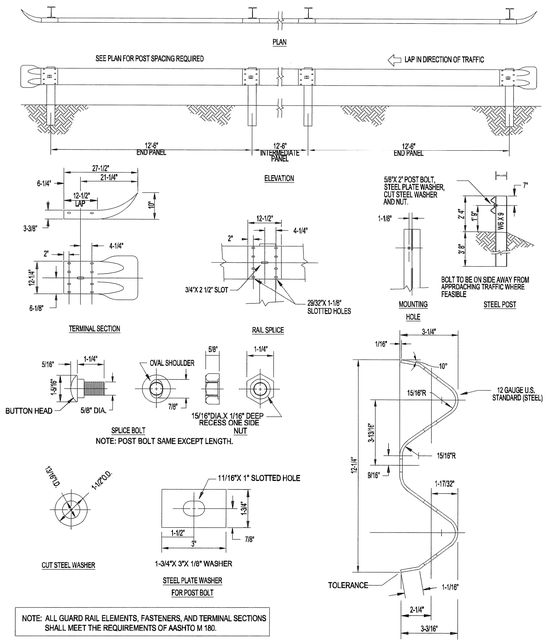
SHEET TITLE:

GRADING PLAN

SHEET NUMBER:

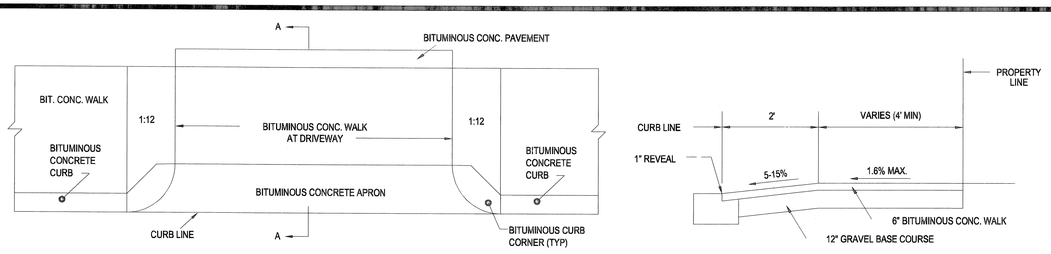
6

REV 3 - 02/21/2012



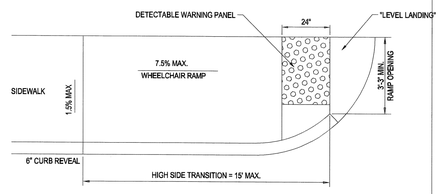
GUIDE RAIL DETAIL

NOT TO SCALE



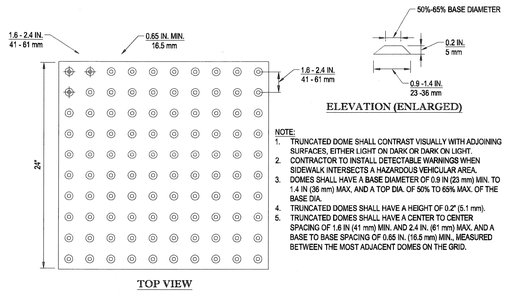
CURB CUT DETAIL

NOT TO SCALE



TYPICAL WHEELCHAIR RAMP

NOT TO SCALE

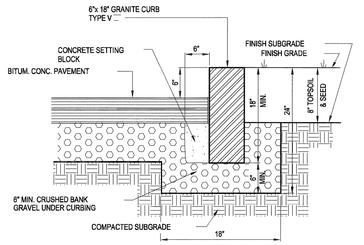


NOTE:
1. TRUNCATED DOME SHALL CONTRAST VISUALLY WITH ADJOINING SURFACES, EITHER LIGHT ON DARK OR DARK ON LIGHT.
2. CONTRACTOR TO INSTALL DETECTABLE WARNINGS WHEN SIDEWALK INTERSECTS A HAZARDOUS VEHICULAR AREA.
3. DOMES SHALL HAVE A BASE DIAMETER OF 0.9 IN (23 mm) MIN. TO 1.4 IN (36 mm) MAX. AND A TOP DIA. OF 50% TO 65% MAX. OF THE BASE DIA.
4. TRUNCATED DOMES SHALL HAVE A HEIGHT OF 0.2" (5.1 mm).
5. TRUNCATED DOMES SHALL HAVE A CENTER TO CENTER SPACING OF 1.6 IN (41 mm) MIN. AND 2.4 IN. (61 mm) MAX. AND A BASE TO BASE SPACING OF 0.65 IN. (16.5 mm) MIN., MEASURED BETWEEN THE MOST ADJACENT DOMES ON THE GRID.

NOTE TO DESIGNER:
IF A WALK CROSSES OR ADJOINS A VEHICULAR WAY WHERE THE WALKING SURFACE AND PAVEMENT ARE NOT SEPERATED BY CURBS, RAILING OR OTHER ELEMENTS, THE BOUNDARY BETWEEN THE AREA SHALL BE DEFINED BY A CONTINUOUS DETECTABLE WARNING WHICH IS MIN. 36" WIDE (ADA ACCESSIBLE GUIDELINES PRINTED 11-4-06) AND MIN. 24" DEPTH.

TRUNCATED DOME PATTERN

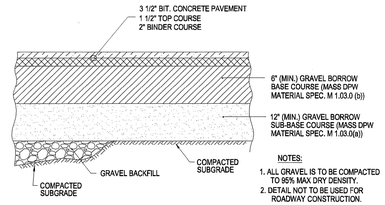
NOT TO SCALE



TYPICAL VERTICAL GRANITE CURB

NOT TO SCALE

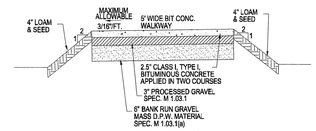
NOTE:
INSTALL VERTICAL GRANITE CURBING TO BE USED AT CULVERT CROSS, QUAILRIDGE DRIVE STA 9+15 TO STA 12+55 BOTH SIDES



NOTES:
1. ALL GRAVEL IS TO BE COMPACTED TO 95% MAX DRY DENSITY.
2. DETAIL NOT TO BE USED FOR ROADWAY CONSTRUCTION.

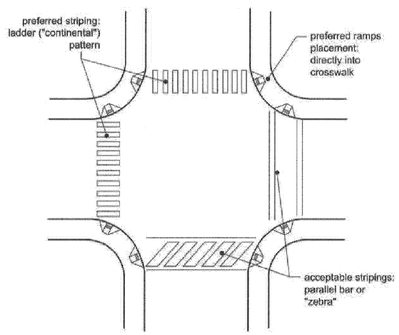
STANDARD PAVEMENT DETAIL

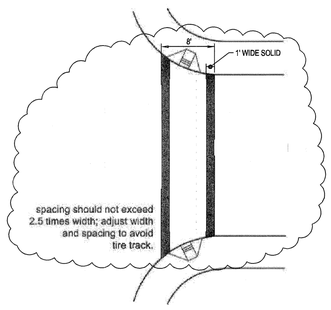
NOT TO SCALE



BITUMINOUS CONCRETE WALKWAY DETAIL

NOT TO SCALE

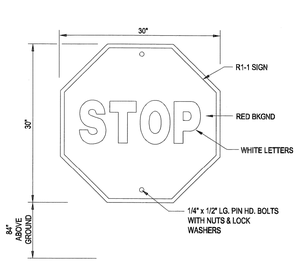




Source: Manual on Uniform Traffic Control Devices (MUTCD), FHWA, Washington DC, 2003.

CROSSWALK DETAIL

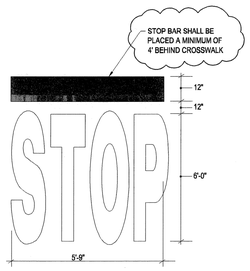
NOT TO SCALE



NOTE: SIGN TO CONFORM TO MUTCD STANDARDS

'STOP' SIGN (R1-1)

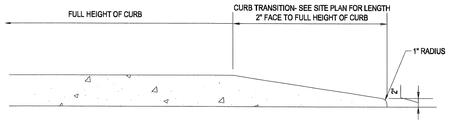
NOT TO SCALE



NOTE: PAVEMENT MARKINGS TO CONFORM TO MUTCD STANDARDS

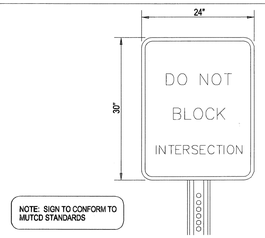
'STOP' BAR DETAIL

NOT TO SCALE



TRANSITION CURB DETAIL

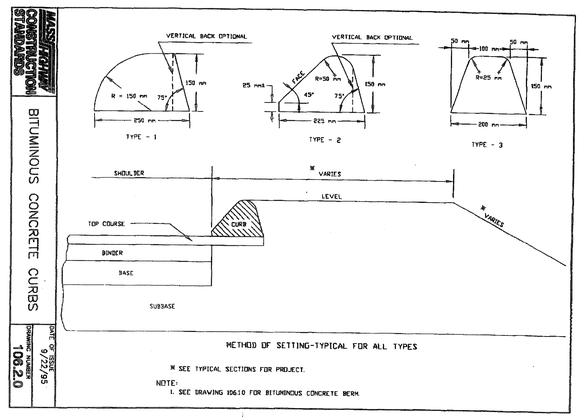
NOT TO SCALE



NOTE: SIGN TO CONFORM TO MUTCD STANDARDS

'DO NOT BLOCK INTERSECTION' SIGN (R10-7)

NOT TO SCALE



MASSDOT BITUMINOUS CONCRETE BERM TYPE 'A' DETAIL

NOT TO SCALE

BOHLER ENGINEERING
CIVIL & CONSULTING ENGINEERS
SURVEYORS
PROJECT MANAGERS
ENVIRONMENTAL CONSULTANTS
LANDSCAPE ARCHITECTS
CORPORATE OFFICE:
◆ WARREN, NJ
OFFICES
◆ SOUTHBOROUGH, MA
◆ BOWIE, MD
◆ TOWSON, MD
◆ STERLING, VA
◆ PHILADELPHIA, PA
◆ CHALFONT, PA
◆ FORT LAUDERDALE, FL
◆ PORTLAND, ME
◆ RONKONKOMA, NY
THE INFORMATION, DESIGN AND CONCEPTS OF THIS PLAN ARE PROPRIETARY AND SHALL NOT BE DISPED, USED FOR ANY PURPOSE, EXCEPT FOR THE AUTHORIZATION FROM BOHLER ENGINEERING, ONLY APPROVED, SIGNED AND SEALED PLANS SHALL BE UTILIZED FOR CONSTRUCTION PURPOSES. © 2008 BOHLER ENGINEERING

REVISIONS

REV	DATE	COMMENT	BY
1	12/07/11	RESPONSE TO MASSDOT	CFD
2	01/13/12	RESPONSE TO MASSDOT COMMENTS	CFD
3	02/21/12	RESPONSE TO MASSDOT COMMENTS	CFD
4			
5			
6			
7			
8			
9			

THE FOLLOWING STATES REQUIRE NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTH'S SURFACE ANYWHERE IN THE STATE.
(MA, ME, NH, RI, VT 1-888-344-7233)
(CT 1-800-922-4455)
(NY 1-800-962-7962)

NOT APPROVED FOR CONSTRUCTION

PROJECT No.:	W111022
DRAWN BY:	CFD
CHECKED BY:	JAB/SPD
DATE:	08/05/2011
SCALE:	AS NOTED
CAD I.D.:	W111022madot3

PROJECT:

SITE PLAN

FOR

Pulte Homes

THE RESIDENCES AT QUAIL RIDGE

LOCATION OF SITE
354 B GREAT ROAD & SKYLINE DR.
TOWN OF ACTON
MIDDLESEX COUNTY, MA

BOHLER ENGINEERING
352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900
Fax: (508) 480-9080
www.BohlerEngineering.com

S.P. DeCOURSEY
STEPHEN P. DeCOURSEY
CIVIL
No. 39424
PROFESSIONAL ENGINEER
MASSACHUSETTS No. 39424
NEW HAMPSHIRE No. 9308
MAINE No. 8406
VERMONT LICENSE No. 7110
CONNECTICUT LICENSE No. 23962
RHODE ISLAND LICENSE No. 7990

SHEET TITLE:

CONSTRUCTION DETAILS

SHEET NUMBER:

7

REV 3 - 02/21/2012

P:\111\W111022\DWG\0-Mass\DOT\W111022madot3.dwg, 07-Details, 4/23/2010, 10:17:14 AM, cdenoncio, XrefsX:S:\0-1.jpg3, User:434, i:1

THIS PLAN TO BE UTILIZED FOR SITE LAYOUT PURPOSES ONLY

N

W E

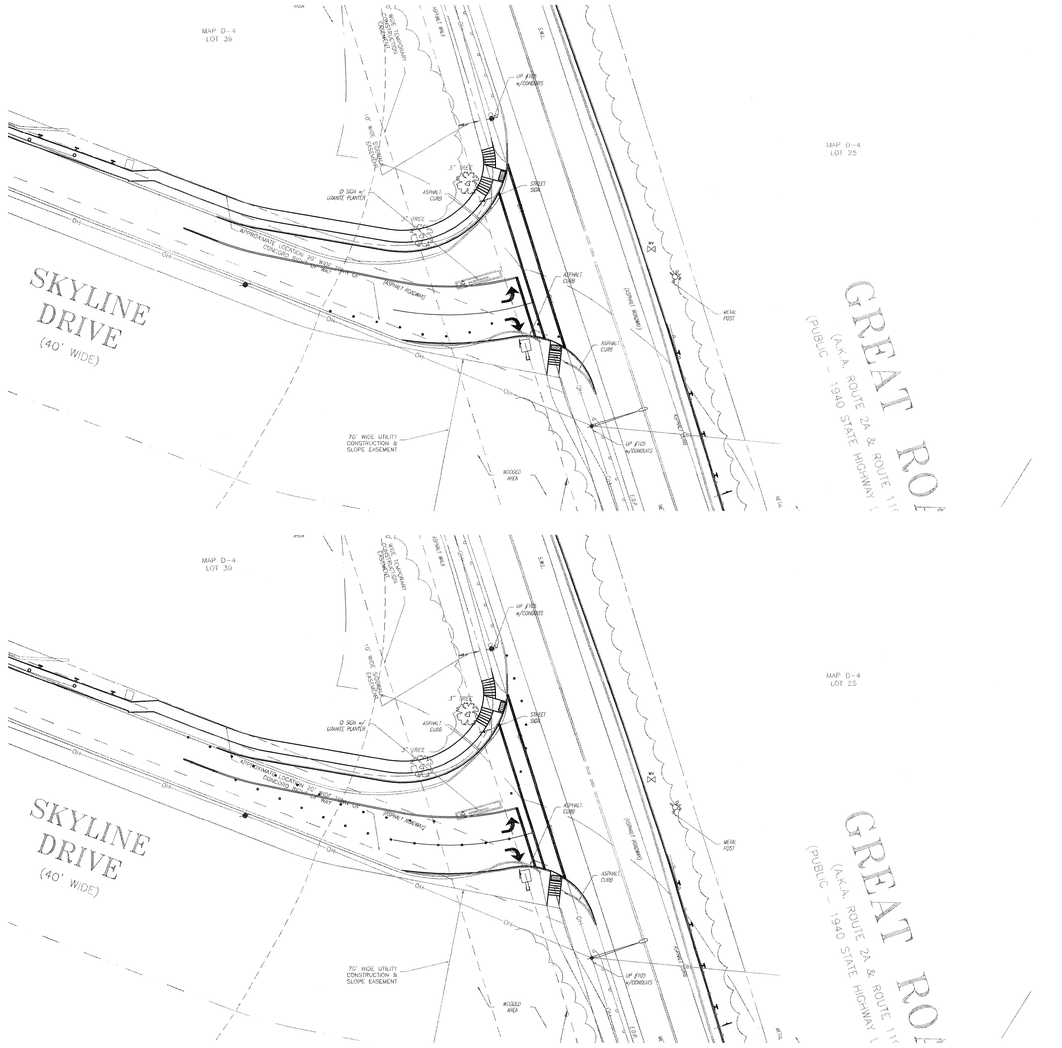
S

TRAFFIC MANAGEMENT PLAN NOTES

1. MANAGEMENT OF TRAFFIC MUST BE MAINTAINED AT ALL TIMES IN ACCORDANCE WITH MASSDOT "STANDARD DETAILS AND DRAWINGS FOR THE DEVELOPMENT OF TRAFFIC MANAGEMENT PLANS". SPECIFICALLY FIGURE TU-2.
2. W5-1 SIGN TO BE PLACED 1000 FT AS APPROACHING THE TAPERING TRAFFIC CONTROL DEVICES IN BOTH DIRECTIONS.
3. W1-4R SIGN TO BE PLACED ON RT 2A EASTBOUND 500 FT. AS APPROACHING TAPERING TRAFFIC CONTROL DEVICES.
4. W1-4L SIGN TO BE PLACED ON RT 2A WESTBOUND 100 FT. WEST OF ROUTE 27 INTERSECTION.
5. FLAGS SHALL BE AT LEAST 10" X 16".
6. DISTANCES ARE A GUIDE AND MAY BE ADJUSTED IN FIELD BY ENGINEER.
7. MAXIMUM SPACING OF CHANNELIZING DEVICES IS EQUAL IN FEET TO SPEED LIMIT.
8. NO TRAFFIC CONTROL DEVICES SHALL REMAIN ON THE ROADWAY AT THE END OF EACH WORK DAY.
9. TAPER FORMULA:
   L = S X W FOR SPEED > 45
   L = [S*2 X W]/60 FOR SPEED < 45
10. ALL WARNING SIGNS SHALL BE BLACK LEGEND ON A REFLECTIVE ORANGE BACKGROUND. FLAGS WILL BE ATTACHED TO ALL ADVANCE WARNING SIGNS.
11. ALL SIGNS AND SUPPORTS SHALL BE INSTALLED IN ACCORDANCE WITH MASSACHUSETTS DEPARTMENT OF TRANSPORTATION STANDARDS.
12. TRAFFIC SIGNS USED DURING WORK HOUR SETUPS SHALL REMAIN IN PLACE ONLY DURING WORK HOURS. TRIPOD MOUNTING IS ACCEPTABLE.
13. REFLECTORIZED DRUMS SHALL REMAIN IN PLACE DURING CONSTRUCTION ACTIVITIES AND/OR WHEN A ROADSIDE HAZARD EXISTS. ANY REFLECTORIZED DRUMS REQUIRED TO REMAIN IN PLACE DURING DARKNESS SHALL BE EQUIPPED WITH FLASHER (TYPE A) OR STEADY BURN (TYPE C) PER MUTCD.
14. ALL DISTANCES SHOWN ARE MINIMUM AND MAY BE ADJUSTED TO MEET FIELD CONDITIONS, WITH APPROVAL OF THE ENGINEER.
15. FULL ROADWAY WIDTH MUST BE RETURNED AT THE END OF EACH WORK DAY.
16. ONE LANE TRAFFIC FLOW SHALL BE REQUIRED DURING ALL OPERATIONS WHICH REDUCE TRAVEL LANE(S) TO LESS THAN 12'.
17. AS CONSTRUCTION OPERATIONS CHANGE, SO SHALL WARNING SIGNS. CONTRACTOR IS RESPONSIBLE FOR MAINTAINING AND ARRANGING SIGNS AS CONSTRUCTION VARIES AND PROCEEDS.

SKYLINE DR TMP:

1. SKYLINE DRIVE MODIFICATIONS CAN OCCUR BEFORE OR AFTER ROUTE 2A WIDENING.
2. WIDEN SOUTHERN EDGE OF SKYLINE DRIVE USING FIRST CONFIGURATION SHOWN. ENTERING TRAFFIC TO ENTER NORTH OF MEDIAN.
3. WIDEN NORTHERN EDGE OF SKYLINE DRIVE USING SECOND CONFIGURATION SHOWN. ENTERING TRAFFIC TO ENTER ON SOUTH SIDE OF MEDIAN.



BOHLER ENGINEERING

CORPORATE OFFICE:
◆ WARREN, NJ
(908) 668-8188

CIVIL & CONSULTING ENGINEERS
SURVEYORS
PROJECT MANAGERS
ENVIRONMENTAL CONSULTANTS
LANDSCAPE ARCHITECTS

◆ CHALFONT, PA
◆ PHILADELPHIA, PA
◆ PITTSBURGH, PA
◆ WARRENTON, VA
◆ FORT LAUDERDALE, FL
◆ AUSTIN, TX
◆ SOUTHBOROUGH, MA
◆ BOWIE, MD
◆ TUCSON, AZ
◆ ALBANY, NY
◆ ROANOKE/SALEM, VA
◆ PENNSYLVANIA, PA
◆ PERKASIE, PA

THE INFORMATION, DESIGN AND CONTENT OF THIS PLAN ARE PROPRIETARY AND SHALL NOT BE COPIED OR USED FOR ANY PURPOSE WITHOUT PRIOR WRITTEN AUTHORIZATION FROM BOHLER ENGINEERING. ONLY APPROVED SIGNED AND SEALED PLANS SHALL BE UTILIZED FOR CONSTRUCTION PURPOSES. © 2008 BOHLER ENGINEERING

REVISIONS

REV	DATE	COMMENT	BY
1	12/07/11	RESPONSE TO MASSDOT	CFD
2	01/13/12	RESPONSE TO MASSDOT COMMENTS	CFD
3	02/21/12	RESPONSE TO MASSDOT COMMENTS	CFD
4			
5			
6			
7			
8			
9			

THE FOLLOWING STATES REQUIRE NOTIFICATION BY EXCAVATORS, DESIGNERS, OR ANY PERSON PREPARING TO DISTURB THE EARTHS SURFACE ANYWHERE IN THE STATE.
(MA, ME, NH, RI, VT 1-888-344-7233)
(CT 1-800-922-4455)
(NY 1-800-962-7962)

NOT APPROVED FOR CONSTRUCTION

PROJECT No.:	W111022
DRAWN BY:	CFD
CHECKED BY:	JAB/SPD
DATE:	08/05/2011
SCALE:	AS NOTED
CAD I.D.:	W111022madot3

PROJECT:

SITE PLAN

FOR

Pulte Homes

THE RESIDENCES AT QUAIL RIDGE

LOCATION OF SITE
354 B GREAT ROAD & SKYLINE DR.
TOWN OF ACTON
MIDDLESEX COUNTY, MA

BOHLER ENGINEERING
352 TURNPIKE ROAD
SOUTHBOROUGH, MA 01772
Phone: (508) 480-9900
Fax: (508) 480-9080
www.BohlerEngineering.com

S.P. DeCOURSEY

COMMONWEALTH OF MASSACHUSETTS
STEPHEN P. DeCOURSEY
CIVIL
No. 34424
REGISTERED PROFESSIONAL ENGINEER

PROFESSIONAL ENGINEER
MASSACHUSETTS LICENSE No. 34424
NEW HAMPSHIRE LICENSE No. 9308
MAINE LICENSE No. 12079
VERMONT LICENSE No. 7110
CONNECTICUT LICENSE No. 23852
RHODE ISLAND LICENSE No. 7990

SHEET TITLE:

TRAFFIC MANAGEMENT PLAN

SHEET NUMBER:

8

REV 3 - 02/21/2012

P:\111\W111022\DWG\01-Plans\DOT\W111022madot3.dwg, 08-TPP, 4/23/2010, 10:71:14 AM, cdesoto, XeroXS10v1.pc3, Uniw434, 1:1