Site Plans

RIVERCREST CONDOMINIUMS

Ferry Street · South Hadley, MA

AS PREPARED FOR

Ferry Street
Nominee Trust

P.O. Box 13
510 New Ludlow Road
South Hadley, MA 01075

Dial Before You Dig

Gas, electric, telephone and cable television companies have underground pipes and cables in places you'd least expect.

So it's a good idea for anyone who does any excavating to check beforehand to make sure there is no danger of damaging these facilities.

In fact, state laws in Massachusetts, New Hampshire, Rhode Island and Vermont make it mandatory for anyone doing excavating work to notify utility companies well ahead of time. (Rhode Island and Vermont require 48 hours prior notice and the other two states require 72 hours.)

The utility companies have simplified this notification process by providing a toll-free number. One call to this "Dig Safe" line satisfies the law and enables all of the utilities to receive the information. In Massachusetts, the number is 1-888-344-7233.

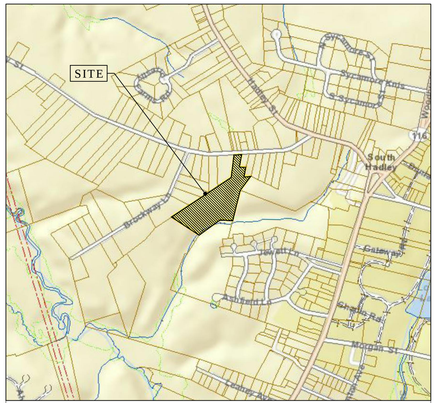
In Maine, New Hampshire, Vermont and Rhode Island, the number is 1-888-344-7233.

If there are underground facilities in your area, the utility company will identify their location for you. This will eliminate the possibility of damage and save you the expense of costly repairs.

So be on the safe side and dial before you start to dig.

DIGSAFE

ZONING INFORMATION		
LOT INFORMATION		
ZONE	RESIDENCE A-1 (RA-1)	
SITE PLAN INFORMATION	REQUIRED	PROVIDED
MINIMUM FRONTAGE	125'	101.84'
MINIMUM/MAXIMUM LOT AREA	22,500 S.F.	471,820 S.F.
MINIMUM FRONT YARD SETBACK	40'	50.3'
MIINIMUM SIDE YARD SETBACK	20'	20.5'
MINIMUM REAR YARD SETBACK	25'	279'±
MAXIMUM LOT COVERAGE	30%	10% ±
MAXIMUM BUILDING HEIGHT	3 STORIES/35'	2 STORIES/<35'



SOURCE: South Hadley GIS (1"=1000')

NORTH

June 18, 2014
Revised: 9/25/14

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BY

RLA

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Land Surveying, Site Design,
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RLA Project Number: 131119

PERMITTING

SYMBOL & LINE LEGEND

- IRON PIPE FOUND
- IRON PIPE TO BE SET
- CONCRETE BOUND FOUND
- CONCRETE BOUND TO BE SET
- COMPUTED POINT
- EXISTING SIGN
- EXISTING MONITORING WELL
- EXISTING LIGHT POLE
- UTILITY POLE
- GUY ANCHOR
- EXISTING ELECTRIC MANHOLE
- EXISTING TELEPHONE MANHOLE
- EXISTING WELL LOCATION
- EXISTING WATER VALVE
- EXISTING WATER SHUT-OFF
- EXISTING HYDRANT
- PROPOSED WATER VAVLE
- PROPOSED HYDRANT
- EXISTING GAS VALVE
- EXISTING SANITARY SEWER MANHOLE
- EXISTING CATCH BASIN
- EXISTING DRAIN MANHOLE
- PROPOSED CATCH BASIN
- PROPOSED MANHOLE
- SOIL BORING LOCATION
- OBSERVATION HOLE LOCATION
- PERC TEST LOCATION
- WETLAND FLAG LOCATION
- M.A.H.W. FLAG LOCATION
- WETLAND
- EXISTING STONE WALL
- TREE LINE
- × 102.4 EXISTING SPOT GRADE
- 219 EXISTING CONTOUR
- × 94.7 PROPOSED SPOT GRADE
- 208 PROPOSED CONTOUR
- EDGE OF FLAGGED WETLANDS
- OHW EXISTING OVERHEAD WIRES
- UEL EXISTING UNDERGROUND ELECTRIC
- TEL EXISTING TELEPHONE LINE
- GAS EXISTING GAS LINE
- WAT EXISTING WATER LINE
- SD EXISTING STORM DRAIN
- SS EXISTING SANITARY SEWER
- LOW LIMIT OF WORK LINE
- EROSION CONTROL BARRIER

ABBREVIATIONS

A.F.F.	–	ABOVE FINISHED FLOOR
A.F.S.	–	ABOVE FINISHED SLAB
APPROX.	–	APPROXIMATE
A.T.F.	–	ABOVE TOP OF FOUNDATION
BLDG.	–	BUILDING
BLK.	–	BLOCK
BOT.	–	BOTTOM
B.O.W.	–	BOTTOM OF WALL
BRG.	–	BEARING
CB.	–	CATCH BASIN
CL	–	CENTERLINE
C.I.	–	CAST IRON
CLR.	–	CLEAR
CONC.	–	CONCRETE
CONT.	–	CONTINUOUS
CONTR.	–	CONTRACTOR
DBL.	–	DOUBLE
DET.	–	DETAIL
D.I.	–	DUCTILE IRON
DIA.	–	DIAMETER
DIM.	–	DIMENSION
DT'L.	–	DETAIL
DWG.	–	DRAWING
EA.	–	EACH
ELEC.	–	ELECTRIC
ELEV.	–	ELEVATION
EXIST.	–	EXISTING
EXT.	–	EXTERIOR
FIN.	–	FINISH
FLR.	–	FLOOR
FOUND.	–	FOUNDATION
FT.	–	FOOT OR FEET
INSTL.	–	INSTALLED
LT.	–	LIGHT
MAX.	–	MAXIMUM
M.A.H.W.	–	MEAN ANNUAL HIGH WATER
MH.	–	MANHOLE
MIN.	–	MINIMUM
MISC.	–	MISCELLANEOUS
N.T.S.	–	NOT TO SCALE
O.A.	–	OVERALL
O.C.	–	ON CENTER
P.S.I.	–	POUNDS PER SQUARE INCH
REINF.	–	REINFORCING
R.H.	–	RIGHT HAND
SHT.	–	SHEET
SPEC.	–	SPECIAL OR SPECIFICATIONS
SQ.	–	SQUARE
ST.	–	STEEL
STA.	–	STATION
T.O.F.	–	TOP OF FOUNDATION
T.O.W.	–	TOP OF WALL
T.S.	–	TOP OF STEEL
TYP.	–	TYPICAL
W/	–	WITH
WTR.	–	WATER
W.W.M.	–	WELDED WIRE MESH

EROSION & SEDIMENT CONTROL NOTES

MANAGEMENT STRATEGIES

1. CONSTRUCTION TRAFFIC SHALL BE LIMITED TO THE CONSTRUCTION ENTRANCE.
2. CONSTRUCTION SEQUENCE SHALL BE PHASED TO AVOID LEAVING LARGE AREAS EXPOSED FOR LONG PERIODS OF TIME.
3. TEMPORARY SEED AND MULCH SHALL BE APPLIED IMMEDIATELY FOLLOWING ROUGH GRADING.
4. SEDIMENTATION CONTROL MEASURES SHALL BE INSPECTED CONTINUOUSLY, ESPECIALLY FOLLOWING STORM EVENTS TO LOCATE FAILING CONTROL MEASURES AND CONDUCT ROUTINE MAINTENANCE OPERATIONS.
5. THE CONSTRUCTION SUPERINTENDENT SHALL INFORM ALL ON-SITE WORKERS OF THE SEDIMENTATION CONTROL PROGRAM.

VEGETATIVE CONTROL PRACTICES

1. TOPSOIL STOCKPILING: TOPSOIL SHALL BE STRIPPED FROM AREAS TO BE DISTURBED AND STOCKPILED FOR LATER USE. STOCKPILE LOCATION SHALL BE APPROVED BY THE OWNER AND ENGINEER/LANDSCAPE ARCHITECT AND BE WITHIN LIMIT OF WORK.
2. TEMPORARY SEEDING: THE TEMPORARY SEDIMENT BASIN, TOPSOIL STOCKPILE AND ROUGH GRADED AREAS SHALL BE SEEDED WITH WINTER RYE AT A RATE OF 30 LBS. PER ACRE ANY SOILS THAT ARE LEFT EXPOSED AND UNDISTURBED FOR MORE THAN 30 DAYS SHALL BE TEMPORARILY SEEDED.

A. SITE PREPARATION
- COMPLETE ALL ROUGH GRADING ACTIVITIES
- REMOVE ALL ROCKS AND DEBRIS LARGER THAN 3" IN DIAMETER FROM AREAS TO BE TEMPORARILY SEEDED. -EVENLY APPLY LIME TO ACHIEVE A PH VALUE OF 6.0.
- EVENLY APPLY 14 LBS. OF 5-10-10 ANALYSIS FERTILIZER TO A DEPTH OF 4" USING SUITABLE EQUIPMENT.
- SEEDBED IS TO BE LEFT IN FIRM AND SMOOTH CONDITION.
- THE LAST TILLAGE OPERATION SHALL BE PERFORMED ACROSS THE SLOPE.

B. ESTABLISHMENT
- EVENLY APPLY SEED IN ACCORDANCE WITH THE SPECIES AND RATE INDICATED ABOVE BY MEANS OF BROADCASTING OR HYDROSEEDING.
- UNLESS HYDROSEEDED, COVER SEED WITH 1/4" TO 1/2" OF TOPSOIL
- APPLY MULCH OR EROSION CONTROL BLANKET IMMEDIATELY FOLLOWING SEEDING.
- VERIFY SEEDING DATES WITH ENGINEER/LANDSCAPE ARCHITECT. IF ENGINEER/LANDSCAPE ARCHITECT DETERMINES THAT SEED CANNOT BE APPLIED DUE TO CLIMATE, TOPSOIL SHALL NOT BE SPREAD AND MULCHING SHALL BE APPLIED TO THE EXPOSED SURFACE TO STABILIZE SOILS UNTIL THE NEXT RECOMMENDED SEEDING PERIOD.
- PERMANENT SEEDING SHALL BE APPLIED BETWEEN APRIL 15 AND SEPTEMBER 30. TEMPORARY SEEDING SHALL BE APPLIED TO ALL DISTURBED AREAS OUTSIDE THIS TIME FRAME, UPON APPROVAL BY THE ENGINEER/LANDSCAPE ARCHITECT.

C. MAINTENANCE
- ALL SEEDED/MULCHED AREAS SHALL BE INSPECTED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHALL BE REPAIRED AS NECESSARY.

NONSTRUCTURAL CONTROL PRACTICES

1. SCARIFICATION: EXPOSED SLOPES EXCEEDING 4:1 SHALL BE SCARIFIED AT RIGHT ANGLES TO THE SLOPE. PROVIDE PERIODIC UPGRADING OF SERRATIONS DURING EXPOSED PERIOD UNTIL VEGETATION IS ESTABLISHED. PROVIDE VEGETATIVE COVER AS SOON AS POSSIBLE.
2. STRAW MULCH: STRAW MULCH SHALL BE APPLIED IN CONJUNCTION WITH TEMPORARY/PERMANENT SEEDING AND TO GRADED AREAS WHICH REMAIN EXPOSED OUTSIDE OF RECOMMENDED SEEDING DATES. MULCH SHALL BE APPLIED AT 90 LBS. PER 1000 S.F. CONTRACTOR SHALL PERIODICALLY INSPECT AND REAPPLY AS NECESSARY, PARTICULARLY FOLLOWING SIGNIFICANT STORM EVENTS.
3. TOPSOIL: DISTURBED AREAS SHALL BE TOPSOILED PRIOR TO SEED APPLICATION. APPLICATION STANDARDS:
   - REMOVE ALL ROCKS AND DEBRIS OVER 1"-1 1/2" IN DIAMETER.
   - SCARIFY SURFACE PRIOR TO SEED APPLICATION.
   - APPLY 6" DEPTH OF TOPSOIL.
4. SILT FENCE: SILT FENCE SHALL BE INSTALLED AROUND THE PERIMETER OF THE SITE, AT CULVERT OUTLET LOCATIONS, OR AS INDICATED ON THE DRAWINGS. SILT FENCE SHALL BE INSPECTED AND REPAIRED ROUTINELY, ESPECIALLY FOLLOWING STORM EVENTS UNTIL THE SITE HAS BEEN STABILIZED (COVER > 70%) BY VEGETATION.

STRUCTURAL CONTROL PRACTICES

1. RIP-RAP OUTLET PROTECTION: RIP-RAP SHALL BE PROVIDED AT ALL PIPE OUTLETS. MATERIAL SHALL BE HARD, DURABLE FIELD OR QUARRY STONE WHICH IS ANGULAR AND RESISTS BREAKING DOWN WHEN EXPOSED TO WATER OR WEATHERING.
2. CONSTRUCTION ENTRANCE: CONSTRUCTION ENTRANCE SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DRAWINGS.
3. DUST CONTROL: A WATER TRUCK SHOULD BE LOCATED ON-SITE FOR DUST CONTROL WHILE WORK IS PROCEEDING. MAINTENANCE SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED WEEKLY AND AFTER EACH SIGNIFICANT RAINFALL EVENT. THE FOLLOWING ITEMS SHALL BE CHECKED IN PARTICULAR:
   A. RIP-RAP OUTLET PROTECTION SHALL BE CHECKED REGULARLY FOR SEDIMENT ACCUMULATION. IF SIGNIFICANT AMOUNTS OF SEDIMENT ACCUMULATE, RIP-RAP SHALL BE REMOVED AND REPLACED.
   B. SILT FENCING SHALL BE INSPECTED REGULARLY FOR UNDERMINING AND DETERIORATION. REMOVE SEDIMENT FROM BEHIND FENCE WHEN IT BECOMES 6 INCHES DEEP.
   C. SEEDED/MULCHED AREAS SHALL BE INSPECTED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHALL BE REPAIRED AS NECESSARY.

SILT FENCE INSTALLATION NOTES

1. THIS SEDIMENT BARRIER UTILIZES MIRAFI ENVIROFENCE (100X) OR EQUAL. IT IS DESIGNED FOR SITUATIONS IN WHICH ONLY SHEET OR OVERLAND FLOWS ARE EXPECTED.
2. THE HEIGHT OF THE BARRIER SHALL NOT EXCEED 36 INCHES (HIGHER BARRIERS MAY IMPOUND VOLUMES OF WATER SUFFICIENT TO CAUSE FAILURE OF THE STRUCTURE). IDEALLY THE FILTER FENCE SHALL BE PLACED 10 FEET AWAY FROM THE TOE OF SLOPE.
3. WHEN JOINTS ARE NECESSARY, FILTER FABRICS SHALL BE SPLICED TOGETHER ONLY AT A SUPPORT STAKES WITH A MINIMUM 6-INCH OVERLAP, AND SECURELY SEALED. SEE MANUFACTURER'S RECOMMENDATION.
4. STAKES SHALL BE SPACED A MAXIMUM OF 10 FEET APART AT THE BARRIER LOCATION AND DRIVEN SECURELY INTO THE GROUND (MINIMUM OF 12 INCHES). IN APPLICATIONS WHERE HEAVY FLOWS ARE EXPECTED SUCH AS IN-STREAM INSTALLATIONS STAKE SPACING SHALL BE PER MANUFACTURER'S RECOMMENDATIONS AND/OR THE ENVIRONMENTAL PROFESSIONALS RECOMMENDATIONS.
5. A TRENCH SHALL BE EXCAVATED APPROXIMATELY 6 INCHES WIDE AND 6 INCHES DEEP ALONG THE LINE OF STAKES AND UPSLOPE FROM THE BARRIER IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
6. THE PRE ASSEMBLED SILT FENCE SYSTEM SHALL BE UNROLLED, POSITION THE STAKES ON THE DOWNHILL SIDE OF THE TRENCH AND HAMMER THE STAKES AT LEAST 12 INCHES INTO THE GROUND.
7. THE BOTTOM SIX (6) INCHES OF THE FABRIC SHALL BE LAID INTO THE TRENCH TO PREVENT UNDERMINING BY STORM WATER RUNOFF.
8. BACKFILL THE TRENCH OVER THE FILTER FABRIC AND COMPACT SUFFICIENTLY TO PREVENT THE RUNOFF FROM ERODING THE BACKFILL.
9. THE FABRIC SHALL NOT EXTEND MORE THAT 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE. FILTER FABRIC SHALL NOT BE STAPLED TO EXISTING TREES OR SUPPORTS OTHER THAN THE STANDARD STAKES.
10. INSTALLED SILT FENCE BARRIERS SHALL BE MAINTAINED ON A REGULAR SCHEDULE WHICH MAY BE PRESCRIBED BY THE LOCAL, STATE OF FEDERAL REGULATORY AUTHORITY; BUT, AT MINIMUM SHALL BE CHECKED WEEKLY AS WELL AS AFTER EACH STORM EVENT. MAINTENANCE SHALL CONSIST OF AN INSPECTION OF THE ENTIRE LENGTH OF THE BARRIER TO DETERMINE IF IT IS FUNCTIONING AS INTENDED. ALL BREAKS, DETACHED FABRIC, SLUMPED FABRIC, CLOGGED FABRIC, AND UNDERMINED AREAS SHALL BE FIXED THE DAY THAT THEY ARE DISCOVERED.
11. WHEN A MAXIMUM OF SIX (6) INCHES OF SEDIMENT HAS ACCUMULATED BEHIND THE SILT FENCE THIS SEDIMENT SHALL BE REMOVED AND THE FENCE SHALL BE INSPECTED FOR TEARS, CLOGGING OF BREAKS. ALL DEFICIENCIES SHALL BE CORRECTED IMMEDIATELY EITHER BY REPAIR OF REPLACEMENT OF THE SILT FENCE BARRIER AND/OR STAKES AS NEEDED.
12. SILT FENCE BARRIERS SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN CLEANED OF SILT AND PERMANENTLY STABILIZED.

HAY BALE INSTALLATION & MAINTENANCE (AS REQ'D)

1. HAY BALES SHALL BE PLACED IN A SINGLE ROW, LENGTHWISE ON THE CONTOUR, WITH ENDS OF ADJACENT BALES TIGHTLY ABUTTING ONE ANOTHER.
2. ALL BALES SHALL BE EITHER WIRE BOUND OR STRING TIES. BALES SHALL BE INSTALLED SO THAT BINDINGS ARE ORIENTED AROUND THE SIDES RATHER THAN ALONG THE TOPS AND BOTTOMS OF THE BALES TO PREVENT DETERIORATION OF THE BINDINGS.
3. THE BARRIER SHALL BE ENTRENCHED AND BACKFILLED. A TRENCH SHALL BE EXCAVATED THE WIDTH OF A BALE AND THE LENGTH OF THE PROPOSED BARRIER TO A MINIMUM DEPTH OF FOUR (4) INCHES AND A MAXIMUM DEPTH OF SIX (6) INCHES. AFTER THE BALES ARE STAKED AND CHINKED, THE EXCAVATED SOIL SHALL BE BACKFILLED AGAINST THE BARRIER. BACKFILL SOIL SHALL CONFORM TO THE GROUND LEVEL ON THE DOWNHILL SIDE AND SHALL BE BUILT UP TO FOUR (4) INCHES AGAINST THE UPHILL SIDE OF THE BARRIER.
4. EACH BALE SHALL BE SECURELY ANCHORED BY AT LEAST TWO (2) STAKES OR REBARS DRIVEN THROUGH THE BALE. THE FIRST STAKE IN EACH BALE SHALL BE DRIVEN TOWARD THE PREVIOUSLY LAID BALE TO FORCE THE BALES TOGETHER. STAKES OR REBARS SHALL BE DRIVEN DEEP ENOUGH INTO THE GROUND TO SECURELY ANCHOR THE BALES.
5. THE GAPS BETWEEN BALES SHALL BE CHINKED (FILLED BY WEDGING) WITH STRAW TO PREVENT WATER FROM ESCAPING BETWEEN THE BALES. (LOOSE STRAW SCATTERED OVER THE AREA IMMEDIATELY UPHILL FROM A STRAW BALE BARRIER TENDS TO INCREASE BARRIER EFFICIENCY.)
6. HAY BALES GENERALLY DETERIORATE IN 2-6 MONTHS AND THUS NEED REPLACEMENT.
7. INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.
8. BALE BARRIERS SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS, BUT NOT BEFORE THE UPSLOPE AREAS HAVE BEEN PERMANENTLY STABILIZED.

DEMO NOTES

1. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL RELOCATION, INCLUDING BUT NOT LIMITED TO, ALL UTILITIES, STORM DRAINAGE, SIGNS, TRAFFIC SIGNALS & POLES, ETC. AS REQUIRED. ALL WORK SHALL BE IN ACCORDANCE WITH GOVERNING AUTHORITIES SPECIFICATIONS AND SHALL BE APPROVED BY SUCH.
2. CONTRACTOR SHALL ERECT AND MAINTAIN SAFETY BARRICADES AND POST PROPER NOTICES PRIOR TO THE COMMENCEMENT OF WORK.
3. CONTRACTOR SHALL PROTECT EXISTING SITE IMPROVEMENTS, APPURTENANCES, AND LANDSCAPING TO REMAIN.
4. CONTRACTOR SHALL MAINTAIN EXISTING UTILITIES TO REMAIN IN SERVICE AND PROTECT THEM FROM DAMAGE DURING DEMOLITION OPERATIONS.
5. DO NOT DAMAGE EXISTING UTILITIES TO REMAIN WITHIN PROJECT AREA. ALL DAMAGE TO EXISTING UTILITIES TO REMAIN SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE TO THE SATISFACTION OF THE UTILITY OWNER.
6. CONTRACTOR SHALL PROMPTLY TRANSPORT DEMOLISHED MATERIALS OFF OWNERS PROPERTY AND LEGALLY DISPOSED OF. DO NOT ALLOW DEMOLISHED MATERIAL TO COLLECT ON SITE. CONTRACTOR SHALL PAY ANY DUMPING FEES.
7. THERE SHALL BE NO BURNING OF DEMOLISHED MATERIAL ALLOWED ON SITE.
8. CONTRACTOR SHALL COORDINATE WITH OWNER FOR ANY ITEMS TO BE TURNED OVER TO OWNER.
9. DEMOLISH AND REMOVE ALL PAVEMENT, SLABS, FOOTINGS, SUBSURFACE ELEMENTS, MISCELLANEOUS DEBRIS, ETC. WITHIN PROPERTY LINES UNLESS NOTED OTHERWISE.
10. CONTRACTOR IS RESPONSIBLE FOR CONTROLLING DUST SO THAT DUST DOES NOT CREATE A NUISANCE ON ADJACENT ROADS OR PROPERTIES. SITE CONTRACTOR SHALL BE RESPONSIBLE FOR STREET SWEEPING AND CATCH BASIN CLEANING AFTER EACH PHASE OF CONSTRUCTION AND AS NEED IS DETERMINED BY THE LANDSCAPE ARCHITECT/ENGINEER.
11. CONTRACTOR SHALL REMOVE AND DISPOSE OF ANY ABANDONED SUBSURFACE SOIL ABSORPTION SYSTEM (SAS) AND MISCELLANEOUS DEBRIS.
12. NO ACTIVITY OTHER THAN NORMAL MAINTENANCE SHALL OCCUR OUTSIDE OF LIMIT OF WORK LINES AS SHOWN ON PLAN WITHOUT THE APPROVAL OF THE LANDSCAPE ARCHITECT/ENGINEER.
13. THE CONTRACTOR SHALL NOTIFY DIG SAFE @ 1-888-344-7233 PRIOR TO COMMENCEMENT OF ANY DEMOLITION/CONSTRUCTION ACTIVITY.

LANDSCAPE NOTES

1. THE CONTRACTOR SHALL VERIFY FINAL SELECTION OF PLANT MATERIALS WITH THE LANDSCAPE ARCHITECT AND OWNER PRIOR TO INSTALLATION.
2. NO PLANT MATERIAL WILL BE ACCEPTED WHICH DISPLAYS MAJOR IRREGULARITIES OR DAMAGE. THE OWNER/LANDSCAPE ARCHITECT RETAINS THE RIGHT TO REJECT ANY PLANT MATERIAL DEEMED UNFIT.
3. WARRANTEE: FOR A PERIOD OF TWO GROWING SEASONS FROM THE DATE THAT THE WORK UNDER THIS CONTRACT IS CERTIFIED AS SUBSTANTIALLY COMPLETE, THE CONTRACTOR SHALL: 1) WARRANTEE ALL PLANTS AND SEEDED AREAS UNDER THIS CONTRACT; 2)REMOVE AND REPLACE DURING THIS GUARANTEE PERIOD PLANTS WHICH DIE OR ARE IN POOR CONDITION AS DETERMINED BY THE OWNER; 3) REPLANT WITH STOCK OF SAME SIZE AND QUALITY AS ORIGINALLY SPECIFIED; 4) GUY AND MAINTAIN AS SPECIFIED HEREIN AT NO ADDITIONAL COST TO THE OWNER.
4. ALL NEW LAWN AREAS SHALL RECEIVE A MINIMUM OF 4 INCHES TOPSOIL OF THE PROPER pH AND ORGANIC CONTENT SUITABLE FOR THE HEALTHY GROWTH OF LAWNS. THESE AREAS SHALL BE SEEDED WITH A FINE BLADE LAWN GRASS SEED OR SODDED. ADDITIONAL OFF-SITE TOPSOIL MAY BE REQUIRED.
5. ALL AREAS TO BE MULCHED SHALL RECEIVE 4 INCHES MINIMUM 100% SHREDDED BARK MULCH WITHIN 48 HOURS OF PLANTING UNLESS OTHERWISE NOTED IN PLANTING DETAILS.
6. ALL TREE AND SHRUB PITS SHALL BE AT LEAST 2 FEET WIDER AND 1 FOOT DEEPER THAN THE TREE OR SHRUB ROOT BALL TO BE PLANTED IN IT. BACKFILL SHALL BE HIGH QUALITY LOAM OF THE PROPER pH AND ORGANIC CONTENT SUITABLE FOR THE HEALTHY GROWTH OF PLANT MATERIALS.
7. ALL PLANTS SHALL BE NURSERY GROWN AND CONFORM TO THE LATEST EDITION OF "ANSI Z60.1, AMERICAN STANDARD FOR NURSERY STOCK".
8. EACH PLANT TO BE FREE FROM DISEASE, INSECT INFESTATION, MECHANICAL INJURIES, AND IN ALL RESPECTS BE SUITABLE FOR FIELD PLANTING.
9. EACH PLANT TO BE IN THE TOP OF ITS SIZE CLASS AFTER SHEARING AND PRUNING.
10. ADJACENT TO THE TOP OF ANY WALLS OVER 36" A FENCE OR WALL SHALL BE CONSTRUCTED PER PLAN THAT MEETS LOCAL BUILDING CODE AND ALL OTHER APPLICABLE STATE AND FEDERAL LAWS.
11. SEE DETAIL SHEETS FOR ADDITIONAL DETAILS & SPECIFICATIONS.
12. SHOULD GC OR ANY SUBCONTRACTOR ENCOUNTER A DISCREPANCE/CONFLICT IN THE PLAN AN THE ACTUAL LOCATION OF A SITE FEATURE, THE CONTRACTOR SHALL CONTACT THE LANDSCAPE ARCHITECT/ENGINEER AND OWNER IMMEDIATELY.
13. ALL AREAS DISTURBED DURING CONSTRUCTION NOT DESIGNATED TO RECEIVE OTHER TREATMENT SHALL BE LOAMED TO A MINIMUM DEPTH OF 4" AND SEEDED IN ACCORDANCE WITH THE FOLLOWING:
    A. INCORPORATE GROUND LIMESTONE INTO ALL AREAS TO BE SEEDED AT A RAT OF 50 LBS/1,000 S.F.
    B. APPLY 10-6-4 FERTILIZER TO ALL AREAS TO BE SEEDED AT A RATE OF 2 LBS/1,000 S.F.
    C. THOROUGHLY INCORPORATE LIME AND FERTILIZER INTO SEED BED TO DEPTH OF 3" BY DISCING OR OTHER APPROVED METHOD.
    D. SEED WITH THE FOLLOWING MIXTURE, APPLIED AT A RATE OF 10 LBS/1,000 S.F. SEED MIX:

NAME OF SEED	% BY WEIGHT IN MIXTURE	MIN. % PURITY	MIN. GERMINATION
POS PRETENSES "BARON" BARON BLUEGRASS	50	90	75
FESTUCA RUBRA "PENNLAWN" PENNLAWN FESCUE	25	95	85
LOLIUM PERENNE "PENNFINE" PENNFINE	25	98	95

    E. MULCH ALL SEEDED AREAS WITH STRAW AT A RATE OF 5 LBS/1,000 S.F.UNLESS HYDROSEEDING WAS USED.
    F. ALL SLOPES OF 3:1 OR GREATER AFTER BEING LOAMED, SEEDED AND MULCHED IN ACCORDANCE WITH THE ABOVE SHALL SECURED WITH EROSION CONTROL BLANKETS (NO. AMERICAN GREEN S150 OR EQUAL). OVERLAP ALL NETTING JOINTS A MINIMUM OF 6" AND SECURE WITH DOUBLE ROW OF STAPLES.

PERMITTING

RLA

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NOTES, SYMBOL & LINE LEGEND AND ABBREVIATIONS

Rivercrest Condominiums
Ferry Street
South Hadley, Massachusetts

COMMONWEALTH OF MASSACHUSETTS
ROBERT M. LEVESQUE
NO. 1386
REGISTERED LANDSCAPE ARCHITECT
6/18/14

PREPARED FOR:

Ferry Street Nominee Trust
P.O. Box 13
510 New Ludlow Road
South Hadley, MA 01075

ISSUANCE DATE: June 18, 2014

REVISIONS:	DATE:

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SCALE: AS NOTED

RLA PROJ. NUMBER: 13-1119

DRAWING:	REV.
C-1	0

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GENERAL CONSTRUCTION NOTES

1. PRIOR TO BEGINNING CONSTRUCTION, THE CONTRACTOR OR HIS AUTHORIZED REPRESENTATIVE SHALL CONVENE A PRE-CONSTRUCTION CONFERENCE BETWEEN THE CITY/TOWN REPRESENTATIVES, CONSULTING ENGINEER/LANDSCAPE ARCHITECT, UTILITY COMPANY REPRESENTATIVES, AND ANY OTHER AFFECTED PARTIES.

2. THE OWNER AND R LEVESQUE ASSOCIATES, INC. AND/OR THEIR REPRESENTATIVES, IN PREPARING THESE PLANS HAVE ATTEMPTED TO LOCATE ALL EXISTING UTILITIES IN THE PROJECT AREA. HOWEVER, THERE MAY BE UTILITIES THAT WERE NOT OR COULD NOT BE LOCATED. UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE IN APPROXIMATE LOCATIONS ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATIONS AND ELEVATIONS OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. THE CONTRACTOR SHALL CALL ALL APPROPRIATE UTILITY COMPANIES FOR LOCATIONS OF THEIR UTILITIES AT LEAST 48 HOURS BEFORE COMMENCING EXCAVATION. IN THE EVENT THAT A UTILITY IS SITUATED SUCH THAT CONSTRUCTION CANNOT PROCEED AS SHOWN ON THE PLANS, THE PROJECT ENGINEER/LANDSCAPE ARCHITECT AND OWNER SHALL BE NOTIFIED IMMEDIATELY.

3. THE SITE CONTRACTOR IS RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH OCCUR DUE TO HIS FAILURE TO LOCATE AND PRESERVE ANY AND ALL UTILITIES.

4. ALL FILL WORK REQUIRED TO BRING THE PROPOSED ROADWAY UP TO SUB-GRADE LEVEL SHALL CONFORM TO MHD SPECIFICATIONS SECTION 150.

5. CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE GOVERNING CODES AND BE CONSTRUCTED TO SAME.

6. ALL WORK IN THE CITY/TOWN RIGHT-OF-WAY AND EASEMENTS SHALL BE IN ACCORDANCE WITH THE CITY/TOWN SPECIFICATIONS AND MASSACHUSETTS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.

7. THE CONTRACTOR SHALL GIVE THE CITY/TOWN A MINIMUM OF 48 HOURS NOTICE BEFORE BEGINNING EACH PHASE OF CONSTRUCTION.

8. CONTRACTOR IS RESPONSIBLE FOR REPAIRS OF DAMAGE TO ANY EXISTING IMPROVEMENTS DURING CONSTRUCTION, SUCH AS, BUT NOT LIMITED TO, DRAINAGE, UTILITIES, PAVEMENT, STRIPING, CURB, ETC. REPAIRS SHALL BE EQUAL TO OR BETTER THAN EXISTING CONDITIONS.

9. ALL WORK SHALL BE PERFORMED IN CONFORMANCE WITH THE CONDITIONS OF APPROVAL OUTLINED IN ALL STATE AND LOCAL PERMITS. COPIES OF THE CONDITIONS ARE INCLUDED WITHIN THE PROJECTS TECHNICAL SPECIFICATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REVIEWING THIS INFORMATION PRIOR TO CONSTRUCTION AND CONFORMING TO THE CONDITIONS AS REQUIRED DURING CONSTRUCTION.

10. THE CONTRACTOR SHALL MAINTAIN THE JOB CLEAR OF TRASH AND DEBRIS. THE WORK AREAS ARE TO BE PICKED UP AT THE END OF EACH WORK DAY.

11. ANY TEMPORARY FACILITIES FOR THE STORAGE OR PROTECTION OF TOOLS, EQUIPMENT OR MATERIALS SHALL CONFORM TO LOCAL REGULATIONS AND SHALL BE THE GENERAL CONTRACTORS RESPONSIBILITY. THESE DOCUMENTS DO NOT INCLUDE THE NECESSARY COMPONENTS FOR CONSTRUCTION SAFETY. SAFETY, CARE OF ADJACENT PROPERTIES DURING CONSTRUCTION, AND COMPLIANCE WITH STATE AND FEDERAL REGULATIONS REGARDING SAFETY SHALL BE THE GENERAL CONTRACTORS RESPONSIBILITY.

12. THE GENERAL CONTRACTOR AND HIS SUBCONTRACTORS SHALL VISIT THE SITE AND BECOME FAMILIAR WITH ALL CONDITIONS PRIOR TO SUBMITTING HIS PROPOSAL. NO EXTRAS DUE TO UNFAMILIARITY WITH THE EXISTING SITE OR WORKING CONDITIONS WILL BE ALLOWED.

13. CONTRACTOR SHALL BE REQUIRED TO PERFORM FINAL CLEANUP CONSISTING OF CLEANING THE PROPOSED DRAINAGE AND SEWER SYSTEMS OF ALL DEBRIS PRIOR TO THE ACCEPTANCE BY THE OWNER. ADDITIONALLY, THE PROPOSED ROADWAY SHALL BE CLEANED AND SWEPT BY THE CONTRACTOR PRIOR TO ACCEPTANCE.

14. ALL EXCAVATION SHALL COMPLY WITH OSHA'S LATEST STANDARDS. ALL REQUIREMENTS OF OSHA'S EXCAVATION STANDARDS SHALL BE PROVIDED BY THE CONTRACTOR INCLUDING, BUT NOT LIMITED TO, THE PROVISION FOR A COMPETENT PERSON ON SITE MANAGER AND ANY REQUIRED DOCUMENTATION THAT MAY REQUIRE CERTIFICATION BY A PROFESSIONAL ENGINEER. THE OWNER, THROUGH ITS ENGINEER, SHALL EXPRESSLY NOT PROVIDE ANY OF THE ABOVE REQUIREMENTS DESIGNATED BY OSHA'S EXCAVATION STANDARD.

15. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE COST OF LAYING OUT ALL ITEMS OF THE WORK BASED ON CERTAIN HORIZONTAL CONTROL AND BENCHMARK SUPPLIED BY THE SURVEYOR OF RECORD. ANY DISCREPANCIES SHALL BE IMMEDIATELY REPORTED TO THE ENGINEER.

16. THE CONTRACTOR SHALL PROVIDE ALL MATERIALS, LABOR, EQUIPMENT, PERMITS AND APPURTENANCES NECESSARY TO PROVIDE A COMPLETE PROJECT AS INDICATED ON THE PLANS AND IN THESE SPECIFICATIONS.

17. THE CONTRACTOR SHALL BE RESPONSIBLE FOR A THOROUGH SITE EXAMINATION IN ORDER TO PREPARE SITE FOR CONSTRUCTION.

18. ANY AND ALL DEMOLISHED TREES, STRUCTURES AND OTHER RUBBLE MATERIAL PERTAINING TO THIS PROJECT SHALL BE DISPOSED OF BY THE CONTRACTOR OFF-SITE AT HIS EXPENSE IN ACCORDANCE WITH ALL OF THE CITY/TOWN ORDINANCES AND ALL APPLICABLE STATE AND FEDERAL ENVIRONMENTAL REGULATIONS.

19. ALL PAVEMENT DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE REPLACED IN ACCORDANCE WITH THE SPECIFICATIONS AND AS SHOWN ON THE DRAWINGS.

20. ALL STREET EXCAVATIONS SHALL BE COMPLETELY CLOSED AT THE END OF EACH WORKING DAY BY BACKFILLING OR COVERING WITH STEEL PLATES.

21. ALL MATERIALS AND METHODS ARE TO COMPLY WITH THE CITY/TOWN DPW STANDARDS OR MASSACHUSETTS DEPARTMENT OF TRANSPORTATION (MASSDOT) (WHERE APPLICABLE), UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

22. PERMITS WILL BE REQUIRED BY CONTRACTOR WHEN WORKING WITHIN OR OCCUPYING PUBLIC WAY. CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL REQUIRED WORK PERMITS AND MAINTAINING A COPY OF ALL PERMITS IN A THREE RING BINDER OR PROJECT BOOK AND ON-SITE AT ALL TIMES.

23. BACKFILL WILL BE PLACED IN SUCCESSIVE LAYERS NOT MORE THAN TWELVE INCHES IN THICKNESS AND SHALL BE COMPACTED TO 95% OF MAXIMUM DRY DENSITY DETERMINED BY STANDARD PROCTOR TEST (ASTM 698) FOR ALL APPLICABLE TYPES OF BACKFILL MATERIAL. NO FROZEN MATERIAL SHALL BE USED AS BACKFILL. IF, IN THE OPINION OF THE ENGINEER OR THE DPW, THE EXCAVATED MATERIAL IS UNSUITABLE, THE ENTIRE MATERIAL FOR BACKFILLING SHALL CONSIST OF APPROVED GRAVEL OR APPROVED BORROW, AS DIRECTED. AFTER THOROUGH TAMPING AROUND AND BENEATH THE UTILITY, A SIX-INCH LAYER OF BACKFILL WILL BE THOROUGHLY COMPACTED AS FOLLOWS: IF DRY, SHALL BE MOISTENED AND THEN COMPACTED WITH MECHANICAL TAMPERS OR BY HAND TAMPERS HAVING A TAMPING FACE NOT EXCEEDING 25 SQUARE INCHES IN AREA. THE FINAL TWELVE INCHES OF FILLING WILL, IN ALL CASES, CONSIST OF APPROVED GRAVEL THOROUGHLY TAMPED.

24. CONTRACTOR SHALL PROVIDE FIELD COMPACTION VERIFICATION UTILIZING ASTM D5195-02, STANDARD TEST METHOD FOR DENSITY OF SOIL & ROCK IN-PLACE AT DEPTHS BELOW THE SURFACE BY NUCLEAR METHODS.

25. CONTRACTOR SHALL PROVIDE FIELD COMPACTION RESULTS TO ENGINEER WITHIN 24-HOURS PRIOR TO PLACEMENT OF INFRASTRUCTURE OR BITUMINOUS BINDER.

26. ALL FILL TO BRING PROPOSED ROADWAY UP TO THE SUB-GRADE LEVEL SHALL EXTEND PAST THE EDGE OF THE RIGHT-OF-WAY AT A 2:1 SLOPE. THIS IS TO PROVIDE ADEQUATE SUPPORT FOR THE RIGHT-OF-WAY.

LAYOUT NOTES

1. ALL CONSTRUCTION IN CITY/TOWN RIGHT-OF-WAYS AND/OR EASEMENTS SHALL BE IN ACCORDANCE WITH THE CITY/TOWN STANDARD SPECIFICATIONS.

2. IN THE EVENT OF DISCREPANCIES BETWEEN LOCAL SPECIFICATIONS AND SITE SPECIFICATIONS, THE MORE STRINGENT REQUIREMENT SHALL GOVERN.

3. SITE CONTRACTOR SHALL PROTECT ALL BENCHMARKS AND PROPERTY MONUMENTATION AND SHALL REPLACE OR REPAIR, AT HIS OWN EXPENSE, BENCHMARKS AND MONUMENTATION DISTURBED DURING CONSTRUCTION.

4. ALL STRIPING, PAVEMENT MARKINGS, AND TRAFFIC SIGNAGE SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, LATEST EDITION, UNLESS OTHERWISE NOTED ON THE PLANS.

5. ALL WORK SHALL COMPLY WITH FEDERAL, STATE AND LOCAL CODES AND ORDINANCES INCLUDING BUT NOT LIMITED TO: AASHTO, OSHA, EPA, DEP, MASSDOT , ETC. THE GENERAL CONTRACTOR SHALL APPLY FOR ALL PERMITS AND SHALL PAY ALL PERMIT RELATED FEES. ALL NECESSARY PERMITS SHALL BE OBTAINED PRIOR TO THE START OF WORK.

6. ALL DIMENSIONS AND CONDITIONS SHOWN ON THE DRAWINGS ARE TO BE VERIFIED BY THE CONTRACTOR. IF FIELD CONDITIONS VARY SIGNIFICANTLY ENOUGH TO REQUIRE A CHANGE TO THE CONTRACT DOCUMENTS, THE PROJECT PROPONENT AND LANDSCAPE ARCHITECT/ENGINEER SHALL BE NOTIFIED IMMEDIATELY.

7. THE SITE/GENERAL CONTRACTOR AND SUBCONTRACTORS SHALL CONTACT THE OWNER AND LANDSCAPE ARCHITECT/ENGINEER SHOULD HE FIND ANY CONFLICT OR INCONSISTENCY BETWEEN THE WORK SHOWN ON THE DRAWINGS AND NORMAL ACCEPTED CONSTRUCTION PRACTICES, OR HE SHALL ASSUME RESPONSIBILITY FOR ALL CORRECTIONS.

8. ANY CORRECTIONS REQUIRED FOR REVISIONS TO THE CONTRACT DRAWINGS INITIATED BY THE GENERAL CONTRACTOR OR SUBCONTRACTORS WITHOUT PRIOR APPROVAL OF THE OWNER AND OR THE LANDSCAPE ARCHITECT/ENGINEER SHALL BE ACCOMPLISHED AT THE CONTRACTORS RISK.

9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL & LEGAL DISPOSAL OF ALL MATERIAL NECESSARY TO PREPARE THE SITE FOR THE NEW CONSTRUCTION AS SHOWN ON THE SITE DRAWINGS.

10. REPAIR DAMAGED CITY/TOWN ROADS AND CURBS IN ACCORDANCE WITH MASSDOT AND/OR THE CITY/TOWN REGULATIONS.

11. CONTRACTOR SHALL SAWCUT PAVEMENT EDGE WHERE PAVEMENT TO REMAIN IS ADJACENT TO PAVEMENT TO BE REMOVED.

12. CONTRACTOR SHALL PREPARE SITE AS NECESSARY FOR CONSTRUCTION SHOWN ON THE PLANS.

EARTHWORK NOTES

1. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.

2. ALL CUT OR FILL SLOPES SHALL BE 3:1 OR FLATTER UNLESS OTHERWISE NOTED.

3. STORM PIPE SHALL BE AS NOTED ON PLANS.

4. EXISTING DRAINAGE STRUCTURES TO BE INSPECTED AND REPAIRED AS NEEDED, AND EXISTING PIPES TO BE CLEANED OUT TO REMOVE ALL SILT AND DEBRIS.

5. EXISTING GRADE CONTOUR INTERVALS SHOWN AT 1 FOOT INTERVALS.

6. PROPOSED GRADE CONTOUR INTERVALS SHOWN AT 1 FOOT INTERVALS.

7. IF ANY EXISTING STRUCTURES TO REMAIN ARE DAMAGED DURING CONSTRUCTION IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO REPAIR AND/OR REPLACE THE EXISTING STRUCTURE AS NECESSARY TO RETURN IT TO EXISTING CONDITIONS OR BETTER.

8. ALL STORM PIPE ENTERING STRUCTURES SHALL BE SEALED TO ASSURE CONNECTION AT STRUCTURE IS WATERTIGHT.

9. ALL STORM SEWER MANHOLES FRAMES AND GRATES ARE TO BE SET EQUAL TO FINISH GRADES, AND SHALL HAVE TRAFFIC BEARING RING & COVERS (H20).

10. CONTRACTOR SHALL ADJUST AND/OR CUT EXISTING PAVEMENT AS NECESSARY TO ASSURE A SMOOTH FIT AND CONTINUOUS GRADE.

11. CONTRACTOR SHALL ASSURE POSITIVE DRAINAGE AWAY FROM BUILDINGS FOR ALL NATURAL AND PAVED AREAS.

12. ALL UNSURFACED AREAS DISTURBED BY GRADING OPERATION SHALL RECEIVE 4 INCHES OF TOPSOIL. CONTRACTOR SHALL APPLY STABILIZATION FABRIC TO ALL SLOPES 3H:1V OR STEEPER. CONTRACTOR SHALL GRASS DISTURBED AREAS IN ACCORDANCE WITH THE SPECIFICATIONS UNTIL A HEALTHY STAND OF GRASS IS OBTAINED.

13. CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE GOVERNING CODES AND BE CONSTRUCTED TO SAME.

14. IF CONTRACTOR RELOCATES OR SETS NEW BENCHMARKS, THE VERTICAL ELEVATIONS OF THE BENCHMARKS SHALL BE SET WITHIN A TOLERANCE OF 0.010 FT.

15. CONTRACTOR SHALL LEAVE GRADE BEHIND CURB IN ALL PLANTER AREAS A MINIMUM OF 4" LOW FOR THE PLACEMENT OF SUITABLE TOPSOIL OR PLANTING MIX.

PERMITTING

RLA

R LEVESQUE ASSOCIATES, INC
Land Surveying, Site Design, Landscape Architecture, Planning Environmental Permitting

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40 School Street · P.O. Box 640
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CONSTRUCTION NOTES

Rivercrest Condominiums
Ferry Street
South Hadley, Massachusetts

COMMONWEALTH OF MASSACHUSETTS
ROBERT M. LEVESQUE
NO. 1386
REGISTERED LANDSCAPE ARCHITECT
6/18/14

PREPARED FOR:

Ferry Street
Nominee Trust
P.O. Box 13
510 New Ludlow Road
South Hadley, MA 01075

ISSUANCE DATE: June 18, 2014

REVISIONS:	DATE:

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SCALE: AS NOTED

RLA PROJ. NUMBER: 13-1119

DRAWING#	REV.
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NOTES

1. THE RECORD OWNER OF THE SUBJECT PARCEL IS FERRY STREET NOMINEE TRUST. SEE HAMPSHIRE COUNTY REGISTRY OF DEEDS BOOK 9221 PAGE 293.
2. THE EXISTING CONDITIONS AND PROPERTY LINES SHOWN HEREON ARE BASED UPON A PLAN TITLED, "EXISTING CONDITIONS PLAN – FERRY STREET, SOUTH HADLEY, MASSACHUSETTS" PREPARED BY HERITAGE SURVEYS, INC., DATED APRIL 15, 2011 (REVISED: JANUARY 23, 2014) . SEE ALSO HAMPSHIRE COUNTY REGISTRY OF DEEDS BOOK OF PLANS 215 PAGE 86.
3. THE ABUTTING HOUSES ON THIS PLAN WERE TAKEN FROM MASS GIS ORTHO IMAGERY AND NOT THE RESULT OF A SURVEY BY THIS OFFICE.
4. WETLAND BOUNDARIES SHOWN HEREON WERE DELINEATED BY CHARLES H. DAUCHY, ENVIRONMENTAL CONSULTANT, 24 OLD LONG PLAIN ROAD, LEVERETT, MA 01054 ON APRIL 6, 2006, APRIL 20, 2006 AND JUNE 29, 2011 AND APPROVED UNDER AN ORDER OF CONDITIONS DATED DECEMBER 13, 2011.
5. THIS PLAN HAS BEEN PREPARED FOR SITE PLANNING PURPOSES AND SHALL NOT BE USED FOR THE CONVEYANCE OF LAND OR FOR ANY OTHER USE.
6. SUBJECT PARCEL CONTAINS 10.831 ACRES.
7. THE SUBJECT PROPERTIES SHOWN HEREON MAY BE SUBJECT TO RIGHTS AND EASEMENTS AS CONTAINED IN THE VARIOUS DEEDS OF RECORD DESCRIBING SAID PROPERTIES. THE LOCATION AND EXTENT OF ANY SUCH RIGHTS AND EASEMENTS IS NOT THE SUBJECT OF THIS PLAN.
8. SUBJECT PARCEL IS ZONED RESIDENCE A–1 AND AGRICULTURAL ACCORDING TO THE TOWN OF SOUTH HADLEY ZONING MAP. SEE EXISTING CONDITIONS PLAN.
9. THE SUBJECT PARCEL IS NOT LOCATED WITHIN A SPECIAL FLOOD ZONE AREA ACCORDING TO FLOOD INSURANCE RATE MAP NUMBER 250170 0010 A – EFFECTIVE DATE: AUGUST 15, 1979.
10. THE SUBJECT PROPERTY IS NOT LOCATED WITHIN NATURAL HERITAGE & ENDANGERED SPECIES PROGRAM (NHESP) JURISDICTION.

ZONING INFORMATION

LOT INFORMATION		
ZONE	RESIDENCE A–1 (RA–1)	
SITE PLAN INFORMATION	REQUIRED	PROVIDED
MINIMUM FRONTAGE	125'	101.84'
MINIMUM/MAXIMUM LOT AREA	22,500 S.F.	471,820 S.F.
MINIMUM FRONT YARD SETBACK	40'	50.3'
MIINIMUM SIDE YARD SETBACK	20'	20.5'
MINIMUM REAR YARD SETBACK	25'	279'±
MAXIMUM LOT COVERAGE	30%	10% ±
MAXIMUM BUILDING HEIGHT	3 STORIES/35'	2 STORIES/<35'

LAYOUT NOTES

1. SITE CONTRACTOR SHALL REFER TO REMAINING PLAN SET FOR INFORMATION REGARDING SITE LAYOUT.
2. IT SHALL BE THE SITE CONTRACTORS RESPONSIBILITY TO CROSS REFERENCE INFORMATION CONTAINED IN OTHER SHEETS WITH SITE INFORMATION SHOWN HEREON.
3. PRIOR TO SUBMITTING THEIR BID FOR CONSTRUCTION, THE SITE CONTRACTOR SHALL COMMUNICATE ANY DISCREPANCIES BETWEEN THE PROPOSED DESIGN AND THE SAID SPECIFICATIONS WITH THE PROJECT PROPONENT AND LANDSCAPE ARCHITECT/ENGINEER. SHOULD THE SITE CONTRACTOR FAIL TO COMMUNICATE ANY DISCREPANCIES, HE/SHE SHALL BE RESPONSIBLE FOR ANY COSTS RESULTING FROM SAID DISCREPANCY.
4. TRASH TO BE CURB SIDE PICK–UP.
5. SNOW REMOVAL SHALL OCCUR ON STORMS 6–INCHES OR GREATER. ALL SNOW SHALL BE REMOVED AND DISPOSED OF OFF–SITE.

SIGNAGE AND PAVEMENT MARKING NOTES

1. STRIPE ALL PARKING AREAS AS SHOWN, INCLUDING PARKING SPACES, STOP BARS, CROSSWALKS, AND ACCESSIBLE ROUTE MARKINGS AND SYMBOLS USING WHITE TRAFFIC PAINT. PAINTED ISLANDS, FIRE LANES, AND TRAVEL WAY CENTERLINES SHALL BE PAINTED USING WHITE TRAFFIC PAINT. ALL TRAFFIC PAINT SHALL CONFORM TO AASHTO M248 TYPE "N".
2. STOP BARS SHALL BE 12" WIDE (WHITE).
3. ALL PARKING STALL LINES SHALL BE 4" WIDE (WHITE).
4. ALL PAVEMENT MARKINGS AND SIGNS SHALL CONFORM TO "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", "STANDARD ALPHABETS FOR HIGHWAY SIGNS AND PAVEMENT MARKINGS", MASSDOT, STATE BUILDING CODE AND ADA REQUIREMENTS, AND AS SHOWN ON THE PLANS & DETAILS.

ACCESSIBILITY NOTES

1. ALL ACCESSIBLE ROUTES, TRANSITIONS, AND ACCESSIBLE PARKING/LOADING AREAS, INCLUDING ALL ENTRANCES TO BUILDING, SHALL ADHERE TO 521 CMR.
2. SHOULD THE BUILDING ARCHITECT PROVIDE ADDITIONAL ENTRANCES OR MEANS OF EGRESS, ADDITIONAL ACCESSIBLE ROUTES MAY BE REQUIRED.
3. IT IS THE RESPONSIBILITY OF THE ARCHITECT AND CONTRACTOR TO NOTIFY THE ENGINEER AND LANDSCAPE ARCHITECT OF ANY CHANGES TO THE PROPOSED BUILDING THAT WOULD AFFECT THE ACCESSIBILITY REQUIREMENTS OF THE PROPOSED SITE.
4. THE CONTRACTOR SHALL REVIEW IN DETAIL THE REQUIREMENTS OF 521 CMR AND SHALL BE RESPONSIBLE FOR CONFORMANCE WITH SAID REGULATIONS.

PROPOSED UNIT DIMENSIONS
1"=30'

SCALE: 1"=40'

PERMITTING

RLA

R LEVESQUE ASSOCIATES, INC
Land Surveying, Site Design, Landscape Architecture, Planning Environmental Permitting

ph: 413.568.0985 fax: 413.568.0986

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Westfield, MA 01086

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SITE LAYOUT & MATERIALS PLAN

Rivercrest Condominiums
Ferry Street
South Hadley, Massachusetts

6/18/14

PREPARED FOR:

Ferry Street Nominee Trust
P.O. Box 13
510 New Ludlow Road
South Hadley, MA 01075

ISSUANCE DATE: June 18, 2014

REVISIONS:	DATE:

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SCALE: AS NOTED

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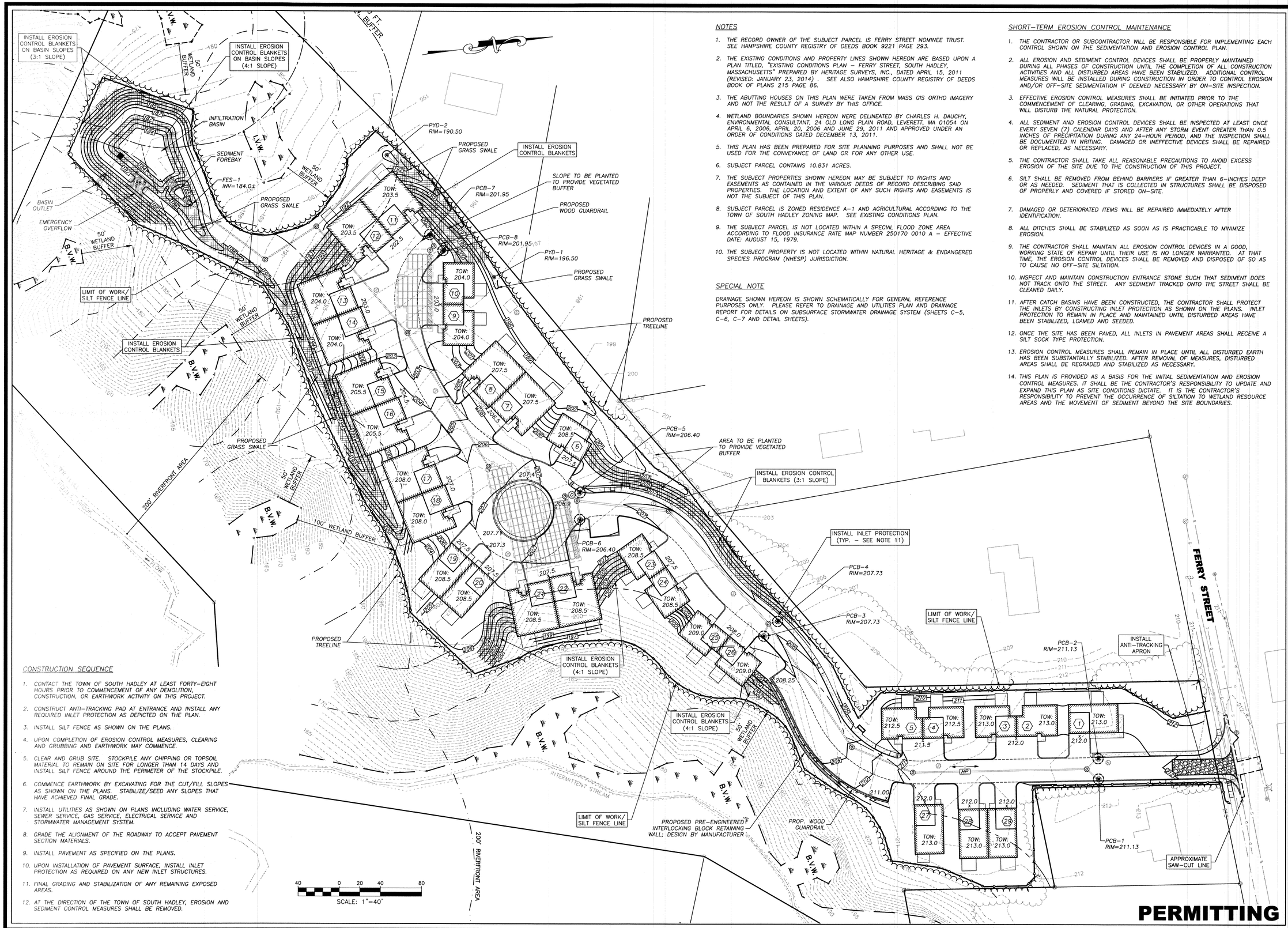

NOTES

1. THE RECORD OWNER OF THE SUBJECT PARCEL IS FERRY STREET NOMINEE TRUST. SEE HAMPSHIRE COUNTY REGISTRY OF DEEDS BOOK 9221 PAGE 293.
2. THE EXISTING CONDITIONS AND PROPERTY LINES SHOWN HEREON ARE BASED UPON A PLAN TITLED, "EXISTING CONDITIONS PLAN – FERRY STREET, SOUTH HADLEY, MASSACHUSETTS" PREPARED BY HERITAGE SURVEYS, INC., DATED APRIL 15, 2011 (REVISED: JANUARY 23, 2014). SEE ALSO HAMPSHIRE COUNTY REGISTRY OF DEEDS BOOK OF PLANS 215 PAGE 86.
3. THE ABUTTING HOUSES ON THIS PLAN WERE TAKEN FROM MASS GIS ORTHO IMAGERY AND NOT THE RESULT OF A SURVEY BY THIS OFFICE.
4. WETLAND BOUNDARIES SHOWN HEREON WERE DELINEATED BY CHARLES H. DAUCHY, ENVIRONMENTAL CONSULTANT, 24 OLD LONG PLAIN ROAD, LEVERETT, MA 01054 ON APRIL 6, 2006, APRIL 20, 2006 AND JUNE 29, 2011 AND APPROVED UNDER AN ORDER OF CONDITIONS DATED DECEMBER 13, 2011.
5. THIS PLAN HAS BEEN PREPARED FOR SITE PLANNING PURPOSES AND SHALL NOT BE USED FOR THE CONVEYANCE OF LAND OR FOR ANY OTHER USE.
6. SUBJECT PARCEL CONTAINS 10.831 ACRES.
7. THE SUBJECT PROPERTIES SHOWN HEREON MAY BE SUBJECT TO RIGHTS AND EASEMENTS AS CONTAINED IN THE VARIOUS DEEDS OF RECORD DESCRIBING SAID PROPERTIES. THE LOCATION AND EXTENT OF ANY SUCH RIGHTS AND EASEMENTS IS NOT THE SUBJECT OF THIS PLAN.
8. SUBJECT PARCEL IS ZONED RESIDENCE A–1 AND AGRICULTURAL ACCORDING TO THE TOWN OF SOUTH HADLEY ZONING MAP. SEE EXISTING CONDITIONS PLAN.
9. THE SUBJECT PARCEL IS NOT LOCATED WITHIN A SPECIAL FLOOD ZONE AREA ACCORDING TO FLOOD INSURANCE RATE MAP NUMBER 250170 0010 A – EFFECTIVE DATE: AUGUST 15, 1979.
10. THE SUBJECT PROPERTY IS NOT LOCATED WITHIN NATURAL HERITAGE & ENDANGERED SPECIES PROGRAM (NHESP) JURISDICTION.

SPECIAL NOTE

DRAINAGE SHOWN HEREON IS SHOWN SCHEMATICALLY FOR GENERAL REFERENCE PURPOSES ONLY. PLEASE REFER TO DRAINAGE AND UTILITIES PLAN AND DRAINAGE REPORT FOR DETAILS ON SUBSURFACE STORMWATER DRAINAGE SYSTEM (SHEETS C–5, C–6, C–7 AND DETAIL SHEETS).

CONSTRUCTION SEQUENCE

1. CONTACT THE TOWN OF SOUTH HADLEY AT LEAST FORTY–EIGHT HOURS PRIOR TO COMMENCEMENT OF ANY DEMOLITION, CONSTRUCTION, OR EARTHWORK ACTIVITY ON THIS PROJECT.
2. CONSTRUCT ANTI–TRACKING PAD AT ENTRANCE AND INSTALL ANY REQUIRED INLET PROTECTION AS DEPICTED ON THE PLAN.
3. INSTALL SILT FENCE AS SHOWN ON THE PLANS.
4. UPON COMPLETION OF EROSION CONTROL MEASURES, CLEARING AND GRUBBING AND EARTHWORK MAY COMMENCE.
5. CLEAR AND GRUB SITE. STOCKPILE ANY CHIPPING OR TOPSOIL MATERIAL TO REMAIN ON SITE FOR LONGER THAN 14 DAYS AND INSTALL SILT FENCE AROUND THE PERIMETER OF THE STOCKPILE.
6. COMMENCE EARTHWORK BY EXCAVATING FOR THE CUT/FILL SLOPES AS SHOWN ON THE PLANS. STABILIZE/SEED ANY SLOPES THAT HAVE ACHIEVED FINAL GRADE.
7. INSTALL UTILITIES AS SHOWN ON PLANS INCLUDING WATER SERVICE, SEWER SERVICE, GAS SERVICE, ELECTRICAL SERVICE AND STORMWATER MANAGEMENT SYSTEM.
8. GRADE THE ALIGNMENT OF THE ROADWAY TO ACCEPT PAVEMENT SECTION MATERIALS.
9. INSTALL PAVEMENT AS SPECIFIED ON THE PLANS.
10. UPON INSTALLATION OF PAVEMENT SURFACE, INSTALL INLET PROTECTION AS REQUIRED ON ANY NEW INLET STRUCTURES.
11. FINAL GRADING AND STABILIZATION OF ANY REMAINING EXPOSED AREAS.
12. AT THE DIRECTION OF THE TOWN OF SOUTH HADLEY, EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED.

SHORT–TERM EROSION CONTROL MAINTENANCE

1. THE CONTRACTOR OR SUBCONTRACTOR WILL BE RESPONSIBLE FOR IMPLEMENTING EACH CONTROL SHOWN ON THE SEDIMENTATION AND EROSION CONTROL PLAN.
2. ALL EROSION AND SEDIMENT CONTROL DEVICES SHALL BE PROPERLY MAINTAINED DURING ALL PHASES OF CONSTRUCTION UNTIL THE COMPLETION OF ALL CONSTRUCTION ACTIVITIES AND ALL DISTURBED AREAS HAVE BEEN STABILIZED. ADDITIONAL CONTROL MEASURES WILL BE INSTALLED DURING CONSTRUCTION IN ORDER TO CONTROL EROSION AND/OR OFF–SITE SEDIMENTATION IF DEEMED NECESSARY BY ON–SITE INSPECTION.
3. EFFECTIVE EROSION CONTROL MEASURES SHALL BE INITIATED PRIOR TO THE COMMENCEMENT OF CLEARING, GRADING, EXCAVATION, OR OTHER OPERATIONS THAT WILL DISTURB THE NATURAL PROTECTION.
4. ALL SEDIMENT AND EROSION CONTROL DEVICES SHALL BE INSPECTED AT LEAST ONCE EVERY SEVEN (7) CALENDAR DAYS AND AFTER ANY STORM EVENT GREATER THAN 0.5 INCHES OF PRECIPITATION DURING ANY 24–HOUR PERIOD, AND THE INSPECTION SHALL BE DOCUMENTED IN WRITING. DAMAGED OR INEFFECTIVE DEVICES SHALL BE REPAIRED OR REPLACED, AS NECESSARY.
5. THE CONTRACTOR SHALL TAKE ALL REASONABLE PRECAUTIONS TO AVOID EXCESS EROSION OF THE SITE DUE TO THE CONSTRUCTION OF THIS PROJECT.
6. SILT SHALL BE REMOVED FROM BEHIND BARRIERS IF GREATER THAN 6–INCHES DEEP OR AS NEEDED. SEDIMENT THAT IS COLLECTED IN STRUCTURES SHALL BE DISPOSED OF PROPERLY AND COVERED IF STORED ON–SITE.
7. DAMAGED OR DETERIORATED ITEMS WILL BE REPAIRED IMMEDIATELY AFTER IDENTIFICATION.
8. ALL DITCHES SHALL BE STABILIZED AS SOON AS IS PRACTICABLE TO MINIMIZE EROSION.
9. THE CONTRACTOR SHALL MAINTAIN ALL EROSION CONTROL DEVICES IN A GOOD, WORKING STATE OF REPAIR UNTIL THEIR USE IS NO LONGER WARRANTED. AT THAT TIME, THE EROSION CONTROL DEVICES SHALL BE REMOVED AND DISPOSED OF SO AS TO CAUSE NO OFF–SITE SILTATION.
10. INSPECT AND MAINTAIN CONSTRUCTION ENTRANCE STONE SUCH THAT SEDIMENT DOES NOT TRACK ONTO THE STREET. ANY SEDIMENT TRACKED ONTO THE STREET SHALL BE CLEANED DAILY.
11. AFTER CATCH BASINS HAVE BEEN CONSTRUCTED, THE CONTRACTOR SHALL PROTECT THE INLETS BY CONSTRUCTING INLET PROTECTION AS SHOWN ON THE PLANS. INLET PROTECTION TO REMAIN IN PLACE AND MAINTAINED UNTIL DISTURBED AREAS HAVE BEEN STABILIZED, LOAMED AND SEEDED.
12. ONCE THE SITE HAS BEEN PAVED, ALL INLETS IN PAVEMENT AREAS SHALL RECEIVE A SILT SOCK TYPE PROTECTION.
13. EROSION CONTROL MEASURES SHALL REMAIN IN PLACE UNTIL ALL DISTURBED EARTH HAS BEEN SUBSTANTIALLY STABILIZED. AFTER REMOVAL OF MEASURES, DISTURBED AREAS SHALL BE REGRADED AND STABILIZED AS NECESSARY.
14. THIS PLAN IS PROVIDED AS A BASIS FOR THE INITIAL SEDIMENTATION AND EROSION CONTROL MEASURES. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO UPDATE AND EXPAND THIS PLAN AS SITE CONDITIONS DICTATE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PREVENT THE OCCURRENCE OF SILTATION TO WETLAND RESOURCE AREAS AND THE MOVEMENT OF SEDIMENT BEYOND THE SITE BOUNDARIES.

PERMITTING

RLA

R LEVESQUE ASSOCIATES, INC
Land Surveying, Site Design, Landscape Architecture, Planning Environmental Permitting

ph: 413.568.0985 fax: 413.568.0986

40 School Street · P.O. Box 640
Westfield, MA 01086

rlaland.com

GRADING, EROSION & SEDIMENTATION CONTROL PLAN

Rivercrest Condominiums
Ferry Street
South Hadley, Massachusetts

COMMONWEALTH OF MASSACHUSETTS
ROBERT M. LEVESQUE
NO. 1396
REGISTERED LANDSCAPE ARCHITECT
9/25/14

PREPARED FOR:

Ferry Street Nominee Trust
P.O. Box 13
510 New Ludlow Road
South Hadley, MA 01075

ISSUANCE DATE: June 18, 2014

REVISIONS:	DATE:
Peer review comments	9/25/14

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SCALE: AS NOTED

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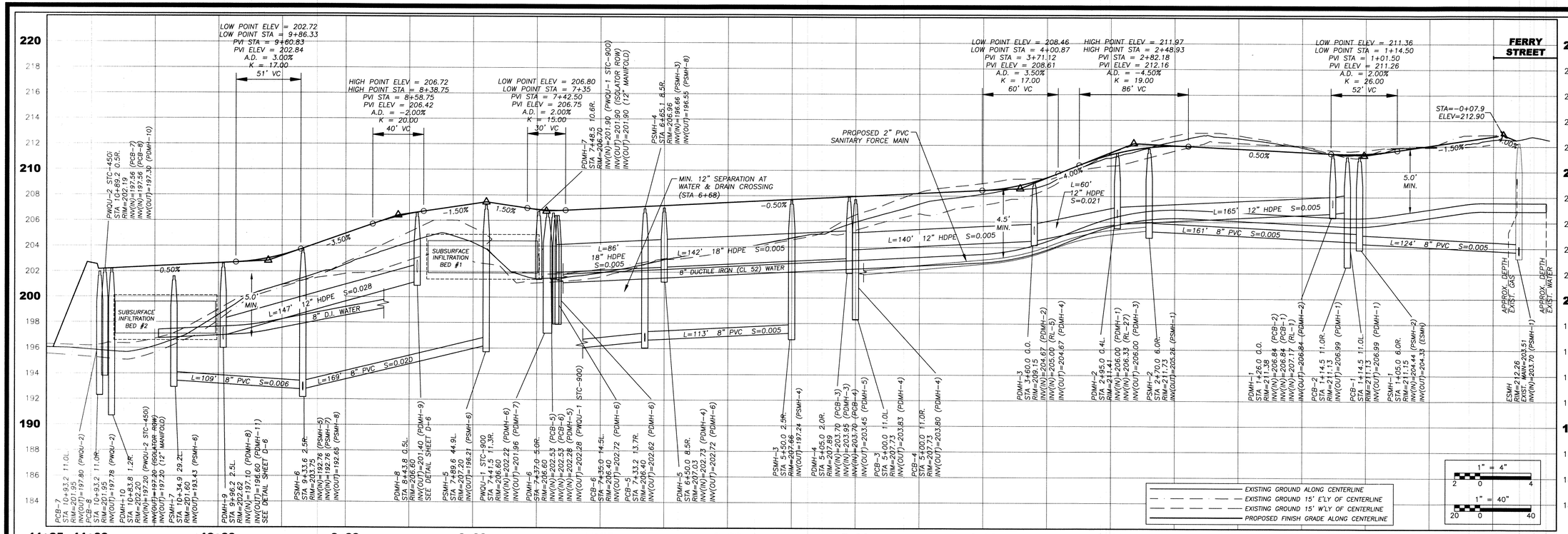
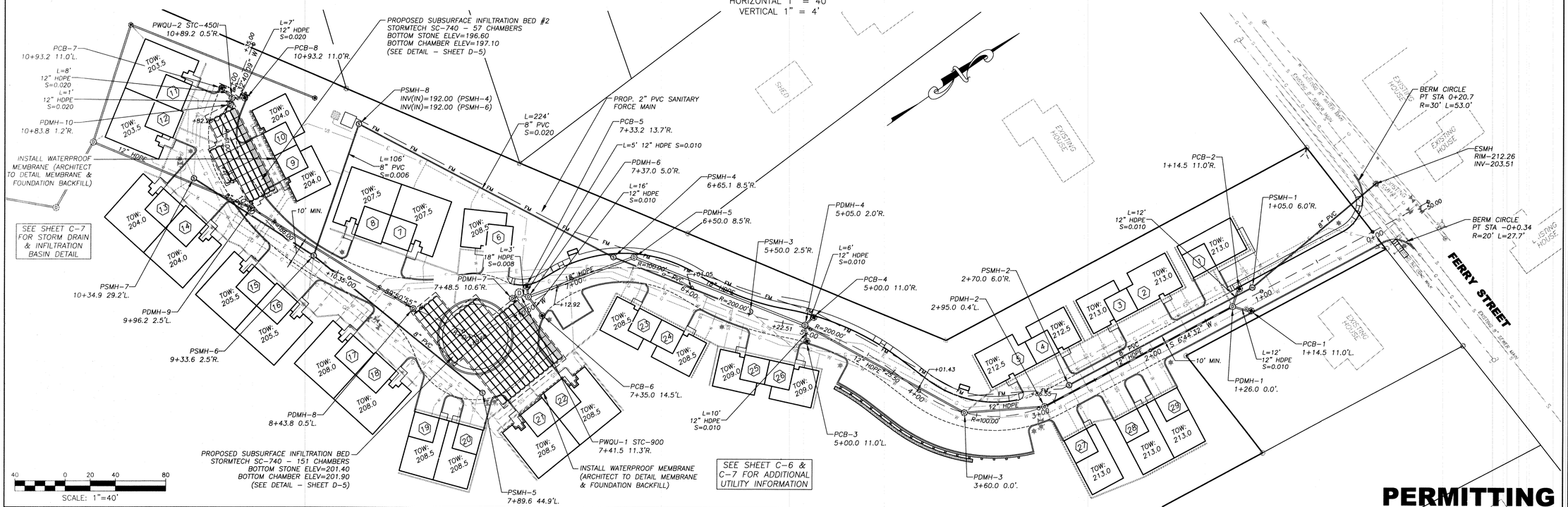


PROFILE ALONG CENTERLINE OF PROPOSED ROADWAY

HORIZONTAL 1" = 40'
VERTICAL 1" = 4'



PERMITTING

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Westfield, MA 01086
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PLAN & PROFILE
Rivercrest Condominiums
Sta -0+50 to Sta 11+50

Rivercrest Condominiums
Ferry Street
South Hadley, Massachusetts

FILIPE J. CRAVO CIVIL No. 46376 REGISTERED PROFESSIONAL ENGINEER
9/25/14

PREPARED FOR:
Ferry Street Nominee Trust
P.O. Box 13
510 New Ludlow Road
South Hadley, MA 01075

ISSUANCE DATE: June 18, 2014	
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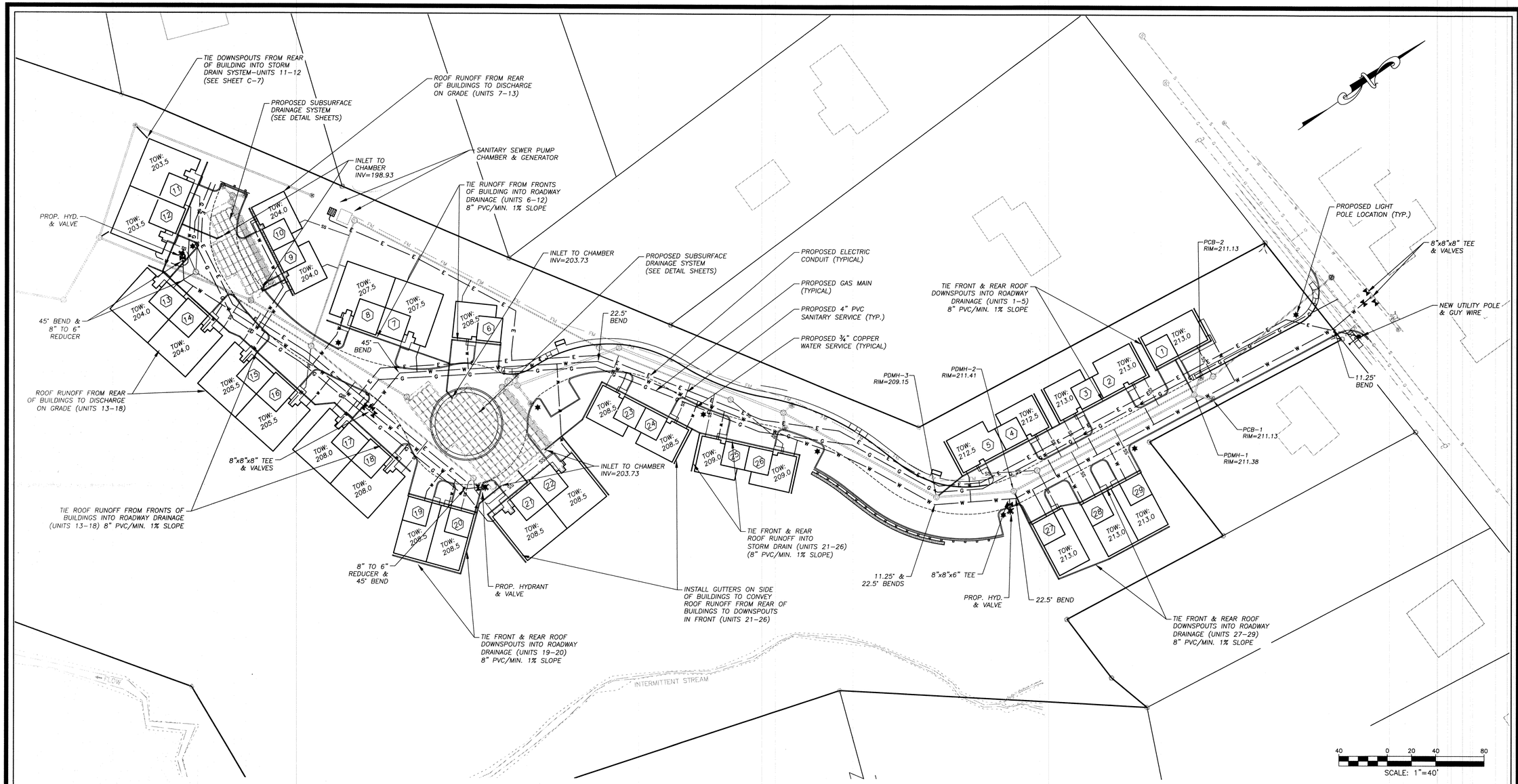

NOTES

1. THE RECORD OWNER OF THE SUBJECT PARCEL IS FERRY STREET NOMINEE TRUST. SEE HAMPSHIRE COUNTY REGISTRY OF DEEDS BOOK 9221 PAGE 293.
2. THE EXISTING CONDITIONS AND PROPERTY LINES SHOWN HEREON ARE BASED UPON A PLAN TITLED, "EXISTING CONDITIONS PLAN – FERRY STREET, SOUTH HADLEY, MASSACHUSETTS" PREPARED BY HERITAGE SURVEYS, INC., DATED APRIL 15, 2011 (REVISED: JANUARY 23, 2014) . SEE ALSO HAMPSHIRE COUNTY REGISTRY OF DEEDS BOOK OF PLANS 215 PAGE 86.
3. THE ABUTTING HOUSES ON THIS PLAN WERE TAKEN FROM MASS GIS ORTHO IMAGERY AND NOT THE RESULT OF A SURVEY BY THIS OFFICE.
4. WETLAND BOUNDARIES SHOWN HEREON WERE DELINEATED BY CHARLES H. DAUCHY, ENVIRONMENTAL CONSULTANT, 24 OLD LONG PLAIN ROAD, LEVERETT, MA 01054 ON APRIL 6, 2006, APRIL 20, 2006 AND JUNE 29, 2011 AND APPROVED UNDER AN ORDER OF CONDITIONS DATED DECEMBER 13, 2011.
5. THIS PLAN HAS BEEN PREPARED FOR SITE PLANNING PURPOSES AND SHALL NOT BE USED FOR THE CONVEYANCE OF LAND OR FOR ANY OTHER USE.
6. SUBJECT PARCEL CONTAINS 10.831 ACRES.
7. THE SUBJECT PROPERTIES SHOWN HEREON MAY BE SUBJECT TO RIGHTS AND EASEMENTS AS CONTAINED IN THE VARIOUS DEEDS OF RECORD DESCRIBING SAID PROPERTIES. THE LOCATION AND EXTENT OF ANY SUCH RIGHTS AND EASEMENTS IS NOT THE SUBJECT OF THIS PLAN.
8. SUBJECT PARCEL IS ZONED RESIDENCE A–1 AND AGRICULTURAL ACCORDING TO THE TOWN OF SOUTH HADLEY ZONING MAP. SEE EXISTING CONDITIONS PLAN.
9. THE SUBJECT PARCEL IS NOT LOCATED WITHIN A SPECIAL FLOOD ZONE AREA ACCORDING TO FLOOD INSURANCE RATE MAP NUMBER 250170 0010 A – EFFECTIVE DATE: AUGUST 15, 1979.
10. THE SUBJECT PROPERTY IS NOT LOCATED WITHIN NATURAL HERITAGE & ENDANGERED SPECIES PROGRAM (NHESP) JURISDICTION.

CONSTRUCTION NOTES

1. UNDERGROUND UTILITIES SHOWN HEREON ARE BASED UPON SURFACE FEATURES AS LOCATED BY SURVEY AND AVAILABLE RECORD DATA AND ARE APPROXIMATE. ACTUAL FIELD LOCATIONS SHOULD BE VERIFIED WITH THE APPROPRIATE UTILITY COMPANY AND/OR MUNICIPAL DEPARTMENT PRIOR TO CONSTRUCTION.
2. ALL LAYOUT WORK REQUIRED SHALL BE PERFORMED BY A LICENSED SURVEYOR OR ENGINEER EMPLOYED BY THE CONTRACTOR.
3. CONTRACTOR TO NOTIFY DIG SAFE A MINIMUM OF 72 HOURS PRIOR TO START OF CONSTRUCTION ACCORDING TO MA GENERAL LAWS.
4. APPROVED PLANS TO BE ON SITE AT ALL TIMES.
5. CHANGES TO THIS PLAN MAY OCCUR AS UNFORESEEN CONDITIONS ARISE. ALL CHANGES TO BE APPROVED BY DESIGN ENGINEER, FIELD INSPECTOR AND TOWN ENGINEER.
6. CONTRACTOR SHALL BE RESPONSIBLE FOR THE MAINTENANCE AND SAFETY OF TRAFFIC ON THE PUBLIC AND PRIVATE WAYS AFFECTED BY THE CONSTRUCTION OF THIS PROJECT.
7. CONTRACTOR SHALL PROTECT ALL SLOPES, VEGETATION, PAVING, WALKS, AND IMPROVEMENTS OUTSIDE THE AREAS TO BE AFFECTED BY THE CONSTRUCTION OF THIS PROJECT.
8. TREES, BRUSH AND STUMPS REMOVED BY CLEARING AND GRUBBING OPERATIONS SHALL BE TRANSPORTED OFF THE PROJECT SITE TO AN APPROVED DISPOSAL LOCATION.
9. CALCIUM CHLORIDE/WATER FOR DUST CONTROL TO BE AVAILABLE AT ALL TIMES.
10. ALL PAVEMENT MARKINGS CHANGED, ALTERED OR REMOVED SHALL BE REAPPLIED.
11. ALL CONSTRUCTION METHODS TO CONFORM TO TOWN OF SOUTH HADLEY PLANNING BOARD REGULATIONS AND BOARD OF PUBLIC WORKS SPECIFICATIONS.
12. SOUTH HADLEY BOARD OF PUBLIC WORKS APPROVAL IS NOT TO BE CONSTRUED AS AN ALL INCLUSIVE APPROVAL AS OTHER APPROVALS MAY BE NECESSARY, I.E. TOWN ENGINEER, CONSERVATION, FIRE DEPARTMENT, WATER DEPARTMENT, ETC.
13. ALL CATCH BASINS TO HAVE 48" SEALED SUMPS AND HOODS.
14. EROSION CONTROL MEASURES TO BE IN PLACE PRIOR TO START OF CONSTRUCTION.

SANITARY SEWER LATERAL INVERT ELEVATIONS

UNIT NUMBER	SEWER LATERAL INVERT	UNIT NUMBER	SEWER LATERAL INVERT
1	205.0	16	195.0
2	206.0	17	196.0
3	206.0	18	196.0
4	206.5	19	198.0
5	206.5	20	198.0
6	196.0	21	198.0
7	195.0	22	198.0
8	193.5	23	198.0
9	193.5	24	198.0
10	193.5	25	198.5
11	195.5	26	198.5
12	195.5	27	206.5
13	196.0	28	206.5
14	196.0	29	206.5
15	195.0	---	---

PERMITTING

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R LEVESQUE ASSOCIATES, INC
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40 School Street · P.O. Box 640
Westfield, MA 01086
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SITE UTILITIES PLAN

Rivercrest Condominiums
Ferry Street
South Hadley, Massachusetts

COMMONWEALTH OF MASSACHUSETTS
FILIPE J. CRAVO
CIVIL
No. 48376
REGISTERED PROFESSIONAL ENGINEER
9/25/14

PREPARED FOR:

Ferry Street Nominee Trust
P.O. Box 13
510 New Ludlow Road
South Hadley, MA 01075

ISSUANCE DATE: June 18, 2014

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DRAWING#	REV.
C-6	0

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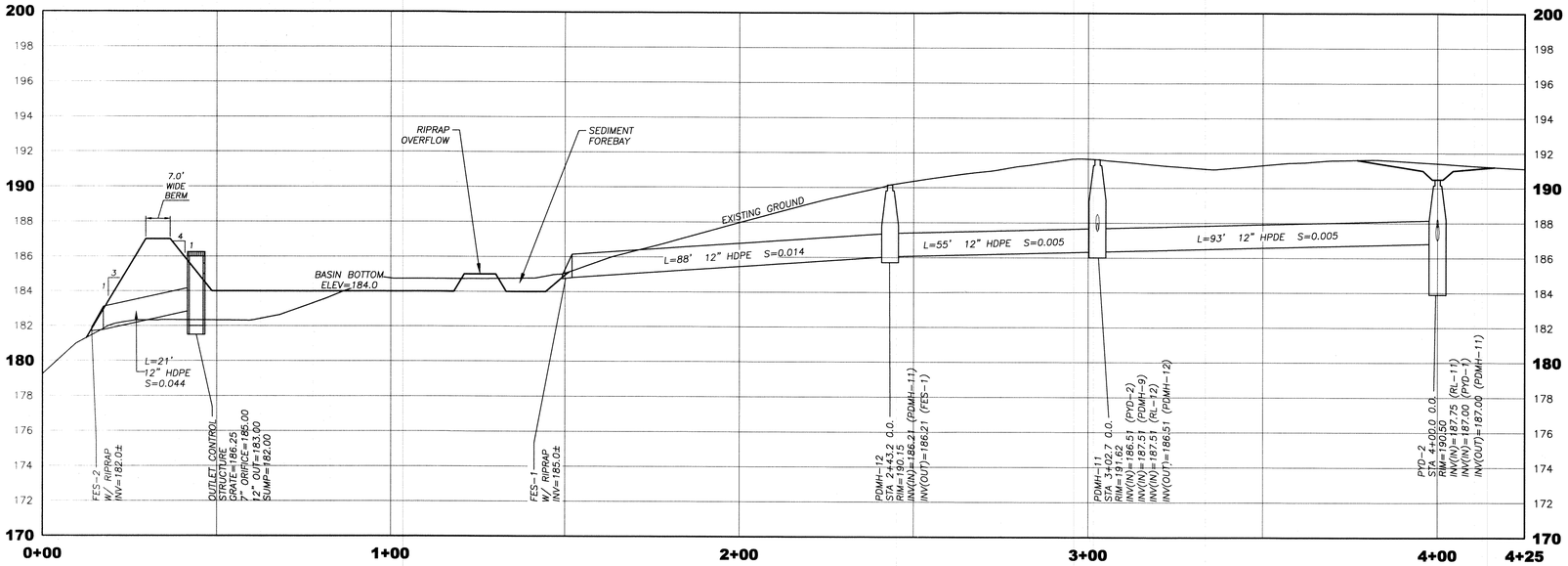
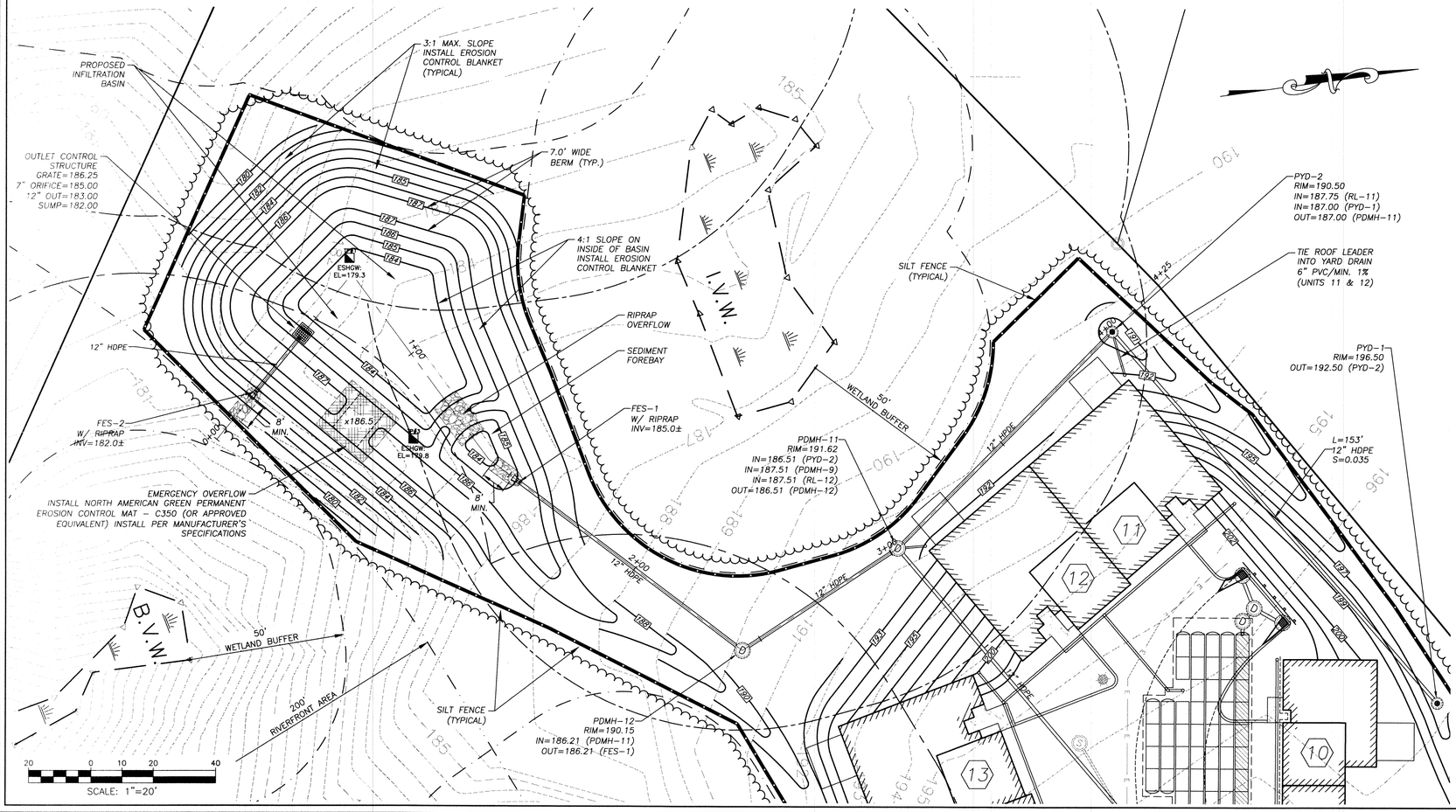


DRAIN LINE AND INFILTRATION BASIN PROFILE

HORIZONTAL 1" = 20'
VERTICAL 1" = 4'



PERMITTING

NOTES

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13. ALL CATCH BASINS TO HAVE 48" SEALED SUMPS AND HOODS.
14. EROSION CONTROL MEASURES TO BE IN PLACE PRIOR TO START OF CONSTRUCTION.

INFILTRATION BASIN NOTES

1. INFILTRATION BASIN BOTTOM TO BE LOCATED A MINIMUM OF 3.0' ABOVE ESTIMATED SEASONAL HIGH GROUNDWATER (ESHGW). TEST PITS TO CONFIRM ESHGW SHALL BE PERFORMED AND INFORMATION SUBMITTED TO ENGINEER PRIOR TO CONSTRUCTION OF BASIN.
2. DO NOT DISCHARGE SEDIMENT–LADEN WATERS FROM CONSTRUCTION ACTIVITIES (RUNOFF, WATER FROM EXCAVATIONS, ETC.) TO THE INFILTRATION BASIN AREAS DURING ANY STAGE OF CONSTRUCTION.
3. DO NOT TRAFFIC EXPOSED SOIL SURFACE WITH HEAVY CONSTRUCTION EQUIPMENT. PERFORM EXCAVATIONS WITH LIGHT EARTH–MOVING EQUIPMENT POSITIONED OUTSIDE THE LIMITS OF THE INFILTRATION COMPONENTS OF THE SYSTEM IF FEASIBLE.
4. IF INFILTRATION BASIN AREAS ARE EXPOSED DURING CONSTRUCTION AND DO RECEIVE SEDIMENT DEPOSITS, BASIN BOTTOM MUST BE OVER EXCAVATED 6–8" INTO NATIVE MATERIAL TO REMOVE SEDIMENT DEPOSITS.
5. ALL DRAINAGE AREAS TO AN INFILTRATION BASIN FACILITY ARE TO BE STABILIZED PRIOR TO INSTALLATION OF TOPSOIL/COMPOST MIX AND SEED MIX.
6. INFILTRATION BASIN BOTTOMS AND EMBANKMENTS TO BE SEEDED AS NOTED ON PLANS. NO TREES OR SHRUBS TO BE PLANTED WITHIN INFILTRATION BASINS OR EMBANKMENTS. DO NOT USE SOD.

RLA

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Land Surveying, Site Design, Landscape Architecture, Planning Environmental Permitting

ph: 413.568.0985 fax: 413.568.0986

40 School Street · P.O. Box 640
Westfield, MA 01086

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STORM DRAIN & INFILTRATION BASIN PLAN

Rivercrest Condominiums
Ferry Street
South Hadley, Massachusetts

COMMONWEALTH OF MASSACHUSETTS
FILIPE J. OLIVEIRA CIVIL No. 48376 REGISTERED PROFESSIONAL ENGINEER
9/25/14

PREPARED FOR:

Ferry Street
Nominee Trust
P.O. Box 13
510 New Ludlow Road
South Hadley, MA 01075

ISSUANCE DATE: June 18, 2014

REVISIONS:	DATE:
Peer review comments	9/25/14

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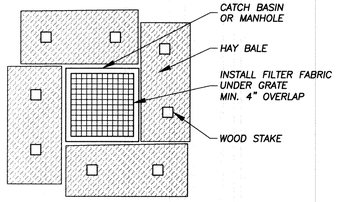
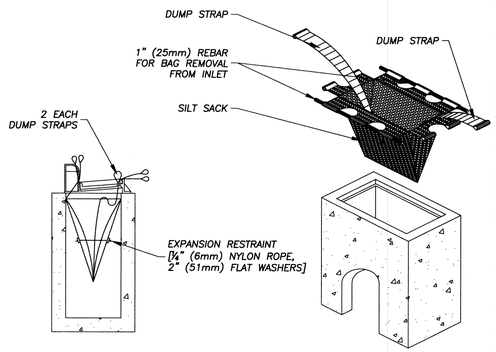
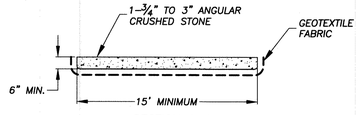


NOTE
INSTALL BARRIER AT EACH CATCH BASIN AND DRAINAGE BASIN. CATCH BASINS IN PAVEMENT AREAS ARE TO RECEIVE ONLY THE FILTER FABRIC TREATMENT.

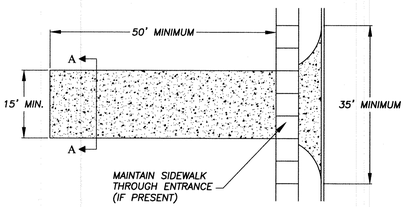
STORM INLET PROTECTION DETAIL
NO SCALE



INLET PROTECTION - SEDIMENT FILTER SACK
NO SCALE



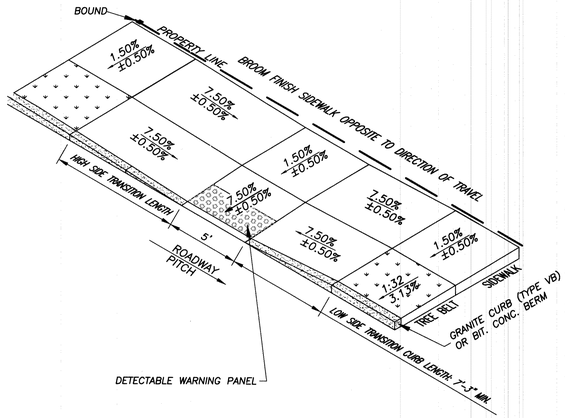
SECTION A–A



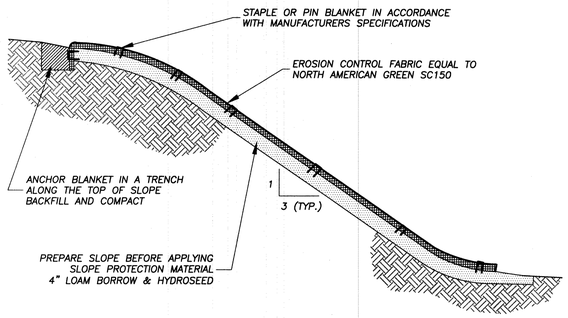
NOTES
1. EACH SITE ENTRANCE IS TO HAVE A TEMPORARY CONSTRUCTION ENTRANCE.
2. STONE IS TO BE 1–3/4" TO 3" ANGULAR CRUSHED STONE.
3. PLACE GEOTEXTILE OVER THE ENTIRE AREA PRIOR TO PLACING OF STONE.
4. ANY SEDIMENT TRACKED INTO THE ROADWAY NEEDS TO BE CLEANED IMMEDIATELY.
5. ADDITIONAL STONE IS TO BE ADDED TO THE PAD AS NEEDED TO MAINTAIN THE ORIGINAL DEPTH.
6. ANY SIDEWALK DAMAGED DURING CONSTRUCTION MUST BE REPLACED AT THE CONTRACTORS/DEVELOPERS EXPENSE.
7. SIDEWALK MUST REMAIN PASSABLE, IF THE SIDEWALK BECOMES UNSAFE OR IMPASSABLE, A TEMPORARY SIDEWALK/ SIDEWALK DETOUR MUST BE PROVIDED.

ANTI-TRACKING APRON
NO SCALE

NOTES:
1. ALL SIDEWALK SLOPES ARE MAXIMUMS, TREE BELT SLOPE IS TO BE MAINTAINED TO THE BEST EXTENT PRACTICABLE.
2. ALL SIDEWALKS ARE TO BE CONSTRUCTED TO THE SAME SPECIFICATION FOUND IN MHD SUPPLEMENTAL SPECIFICATIONS TO THE 1988 STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES. ENGLISH UNITS, JUNE 6, 2006 SECTIONS 701.00 TO 701.61 INCLUSIVE, AS AMENDED – UNLESS OTHERWISE SPECIFIED.
3. ALL SIDEWALKS ARE TO BE 4000 PSI (28 DAY) PORTLAND CEMENT CONCRETE, 6%±1% AIR ENTRAINED.
4. CURBING TO BE VERTICAL GRANITE CURB –OR– CAST IN PLACE PORTLAND CEMENT CONCRETE IF SUBMITTED TO AND APPROVED BY DPW. SCORE LINES @ 5'–0" INTERVALS.
5. WHEN THE SIDEWALK IS INSTALLED ON A CURVE, THE 5'–0" SCORE LINE INTERVAL IS MEASURE ON ALONG THE INSIDE THE CURVE.
6. TOOL ALL JOINTS AND EDGES.
7. SIDEWALK IS TO BE POURED IN ALTERNATING 20' LENGTHS TO ACCOUNT FOR PANEL CONTRACTION DURING DRYING.
8. INSTALL 1/2" THICK PREFORMED EXPANSION JOINT FILLER (M.9.14.0) AT 20' INTERVALS
9. BROOM FINISH SIDEWALK OPPOSITE TO THE DIRECTION OF TRAVEL
10. SIDEWALK IS REQUIRED TO BE COVERED WITH PLASTIC AND KEPT MOIST FOR MINIMUM OF 72 HOURS AFTER IT HAS SET–UP.
11. DETECTABLE WARNING PANEL ARE TO COMPLY WITH ADA 4.29.2
12. DETECTABLE WARNING PANEL TO BE CAST IN PLACE DETECTABLE WARNING PANEL, 24"X60", FEDERAL YELLOW, ITEM#: 2460IDPAD2Y, MFD. BY: ADA SOLUTIONS INC.. 1 SURVEY CIRCLE, 2ND FLR, N. BILLERICA, MA 01862, WWW.ADATILE.COM –OR– APPROVED EQUAL.
13. SIDEWALKS ARE TO BE INSTALLED THROUGH DRIVEWAYS. SIDEWALK FINISH IS TO BE BROOM FINISHED, NO ALTERNATE FINISH IS ALLOWED I.E. STAMPED, EPOXY FINISHED, ETC. THE 1.50% (±0.50%) CROSS SLOPE MUST BE MAINTAINED THROUGH DRIVEWAYS.



SIDEWALK CURB CUT
NO SCALE



SLOPE PROTECTION MATERIAL INSTALLATION
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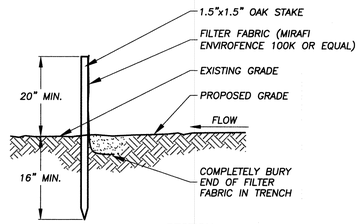

SECTION

SILT FENCE DETAIL
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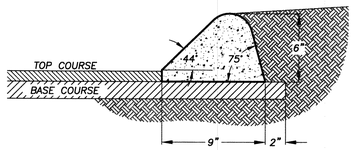
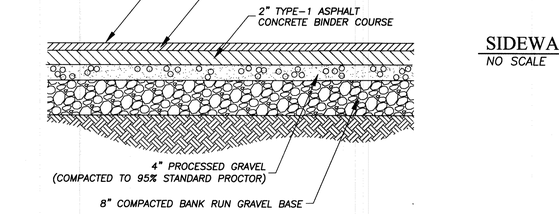


BITUMINOUS CONCRETE BERM (TYPE-2)
NO SCALE



BITUMINOUS CONCRETE PAVING DETAIL
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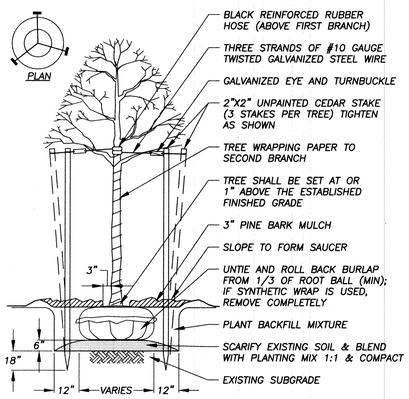

TREE PLANTING DETAIL
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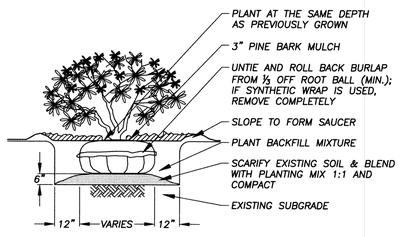
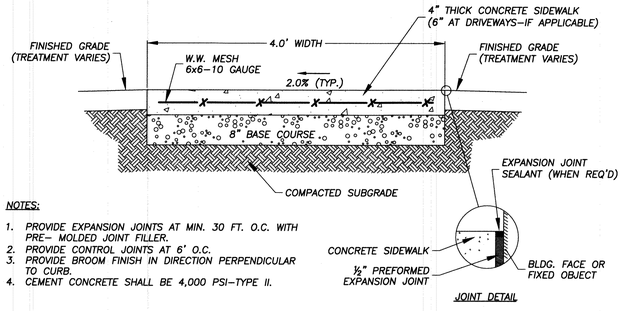
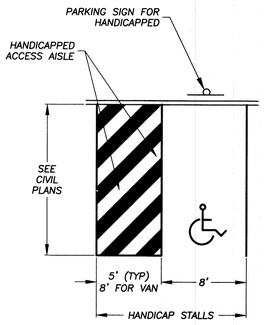


SHRUB PLANTING DETAIL
NO SCALE



NOTES:
1. PROVIDE EXPANSION JOINTS AT MIN. 30 FT. O.C. WITH PRE– MOLDED JOINT FILLER.
2. PROVIDE CONTROL JOINTS AT 6' O.C.
3. PROVIDE BROOM FINISH IN DIRECTION PERPENDICULAR TO CURB.
4. CEMENT CONCRETE SHALL BE 4,000 PSI–TYPE II.

REINFORCED CONCRETE SIDEWALK SECTION
NO SCALE



NOTES:
1. ALL DIMENSIONS TO CENTER OF 4" PAVEMENT STRIPING.
2. ALL STRIPING SHALL BE 4" SOLID WHITE PAVEMENT MARKING PAINT UNLESS OTHERWISE NOTED.
3. CONTRACTOR TO ENSURE HANDICAP ACCESSIBLE PARKING SPACE SHALL HAVE A SLOPE OF 2% OR LESS IN ALL DIRECTIONS.

HANDICAP PARKING STALL
NO SCALE

PERMITTING

R LEVESQUE ASSOCIATES, INC
Land Surveying, Site Design, Landscape Architecture, Planning Environmental Permitting
ph: 413.568.0985 fax: 413.568.0986
40 School Street · P.O. Box 640
Westfield, MA 01086
rlaland.com

DETAILS

Rivercrest Condominiums
Ferry Street
South Hadley, Massachusetts

6/18/14

PREPARED FOR:

Ferry Street Nominee Trust
P.O. Box 13
510 New Ludlow Road
South Hadley, MA 01075

ISSUANCE DATE: June 18, 2014

REVISIONS:	DATE:

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SCALE: AS NOTED

RLA PROJ. NUMBER: 13-1119

DRAWING#	REV.
D-1	0

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PIPE RESTRAINT SCHEDULE FOR GROUND BURIED PRESSURE PIPES									
	LENGTH OF RESTRAINT REQD (FEET)							DESIGN FORCE ON RESTRAINT REQ'D (KIPS) ②	
PIPE \ DEFLECT. ANGLE	2½°	33¾°	45°	56¼°	67½°	78¾°	90° OR TEE	45°	90° OR TEE
6"	3	6	11	16	23	29	37	2.0	5.0
8"	4	8	15	22	31	41	50	3	9.0
10"	5	11	18	28	38	49	61	4.0	14.0
12"	6	13	22	33	45	59	73	6.0	20.0
14"	7	14	25	37	52	68	84	8.0	28.0
16"	8	16	28	42	59	77	95	11.0	36.0
18"	8	18	31	47	66	86	107	14.0	46.0
20"	9	20	35	53	73	95	118	17.0	57.0
24"	11	23	40	61	85	111	138	24.0	81.0
30"	13	29	50	75	105	136	170	37.0	127.0
36"	15	34	59	88	123	160	199	54.0	183.0
42"	17	39	67	101	141	184	223	73.0	250.0
48"	19	43	75	113	157	206	255	96.0	326.0

① THIS TABLE IS BASED ON A TEST PRESSURE OF 180 PSI (OPERATING PRESSURE + WATER HAMMER). FOR OTHER TEST PRESSURES, ALL VALUES TO BE INCREASED OR DECREASED PROPORTIONALLY

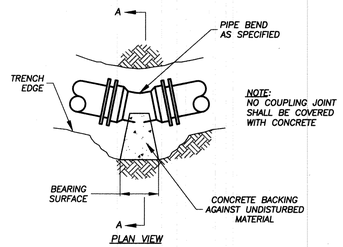
② IN EACH DIRECTION FROM POINT OF DEFLECTION EXCEPT FOR TEE AT WHICH ONLY THE BRANCH IN THE DIRECTION OF THE TEE STEM.

③ IF TIE RODS ARE USED, USE 4 RODS MINIMUM AND ADD ⅛" TO BAR DIA AS CORROSION ALLOWANCE.

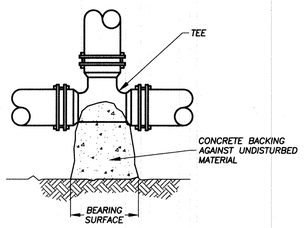
MINIMUM AREA OF BEARING FACE OF CONCRETE THRUST BLOCKS IN SQUARE FEET			
	SOIL BEARING		
PIPE SIZE (INCHES)	1,000 LBS./ SQ. FT.	2,000 LBS./ SQ. FT.	4,000 LBS./ SQ. FT.
DEAD END, TEE OR HYDRANT			
4 OR LESS	6	3	2
6	11	6	3
8	20	10	5
12	34	17	9
16	60	30	15
1/4 BEND – 90°			
4	8	4	2
6	16	8	4
8	28	14	7
12	56	28	14
16	100	50	25
1/8 BEND – 45°			
4	4	2	1
6	9	4	2
8	14	7	4
12	32	16	8
16	60	30	15
1/16 BEND – 22 1/2° OR LESS			
4	2	1	1
6	4	2	1
8	8	4	2
12	15	8	4
16	30	15	8

NOTES: THRUST BLOCKS

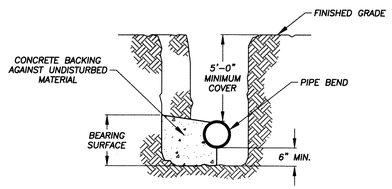
1. FIGURES BASED ON 300 PSI OPERATING PLUS SURGE PRESSURE
2. CONCRETE SHALL NOT BE DUMPED OVER THE FITTING. THE BLOCK MUST BE FORMED
3. RETAINING RODS OR RESTRAINED JOINT PIPE AS APPROVED BY THE ENGINEER MAY BE USED IN PLACE OF THRUST BLOCKS
4. PLACE 15 LB ROOF FELT BETWEEN PIPE AND CONCRETE
5. CONCRETE SHALL NOT COVER PIPE JOINTS
6. ALL BENDS, TEES, HYDRANTS AND DEAD ENDS SHALL BE BRACED WITH CONCRETE THRUST BLOCKS OR SUITABLE RESTRAINING DEVICES
7. BEARING AREA IS AREA OF CONCRETE IN CONTACT WITH WALL OF TRENCH = H x L
8. HEIGHT (H) AND LENGTH (L) AS REQUIRED TO OBTAIN AREA IN TABLE. LENGTH TO BE 2 TIMES HEIGHT
9. ESTIMATED SOIL BEARING LOAD IS 2000 LBS



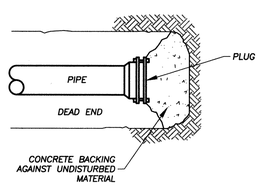
PLAN VIEW



PLAN VIEW

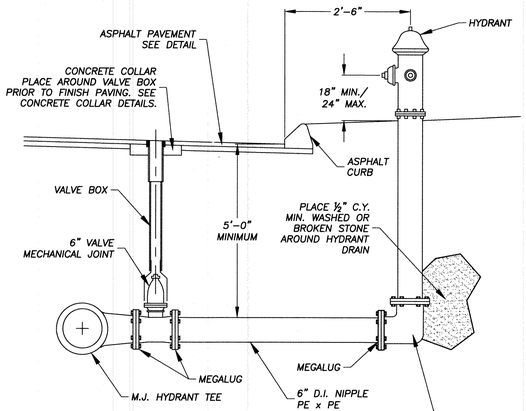


SECTION A – A



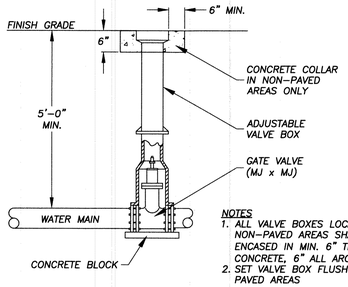
PLAN VIEW

WATER MAIN · HORIZONTAL THRUST BLOCK DETAILS
NO SCALE



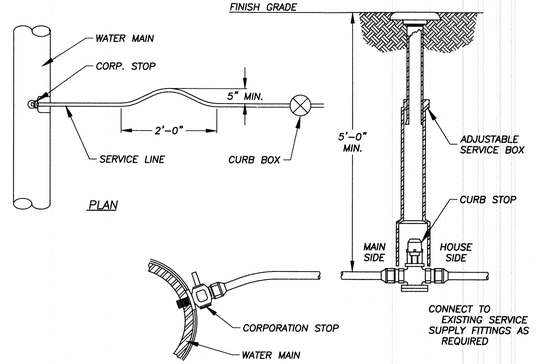
NOTE
WHEN HYDRANT IS ON THE END OF THE LINE PROPER THRUST RESTRAINT IS REQUIRED AND IS TO BE SPECIFIED BY THE DESIGN ENGINEER AND THE PROPER RESTRAINT DISTANCE SHOWN ON THE PLANS

FIRE HYDRANT DETAIL
NO SCALE



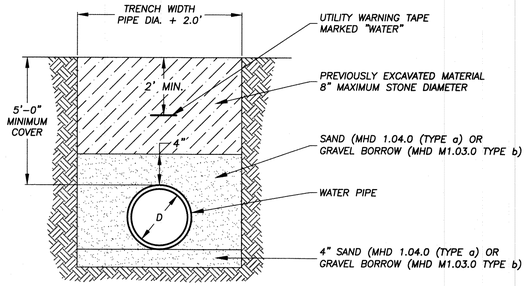
NOTES
1. ALL VALVE BOXES LOCATED IN NON–PAVED AREAS SHALL BE ENCASED IN MIN. 6" THICK CONCRETE, 6" ALL AROUND
2. SET VALVE BOX FLUSH IN PAVED AREAS

TYPICAL BURIED VALVE
NO SCALE



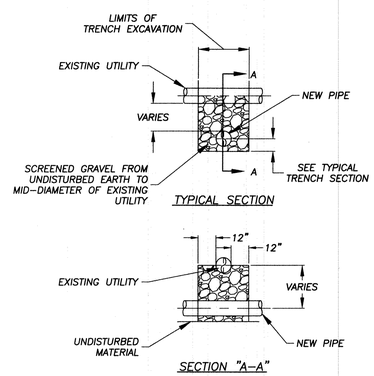
SECTION

TYPICAL WATER SERVICE CONNECTION
NO SCALE



NOTES:
1.) COMPACT ALL BACKFILL MATERIAL WITH VIBRATORY PLATE EQUIPMENT (MINIMUM TWO PASSES) TO A MINIMUM DENSITY OF 95% OF THE STANDARD PROCTOR DENSITY AS DETERMINED BY ASTM D698
2.) PLACE BACKFILL MATERIALS IN MAXIMUM ONE FOOT LIFTS

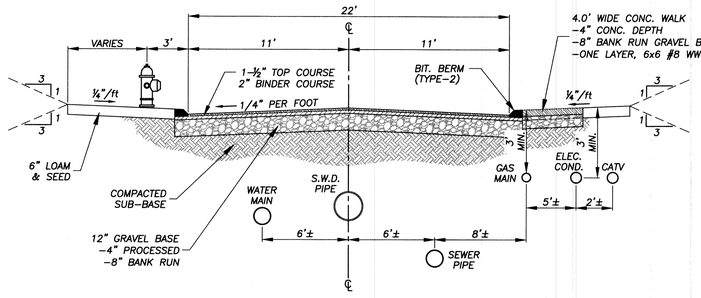
TYPCAL WATER MAIN TRENCH SECTION
NO SCALE



TYPICAL SECTION

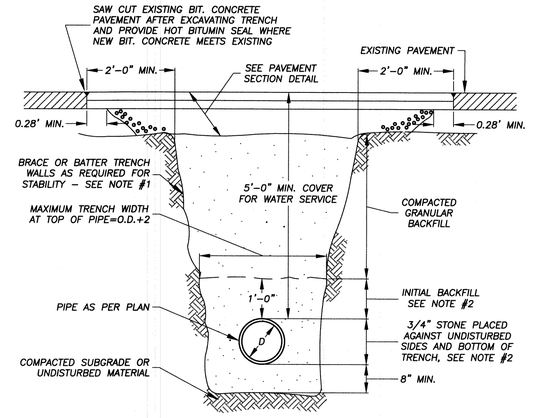
SECTION "A–A"

UTILITY CROSSING DETAIL
NO SCALE



NOTES
1. CONTRACTOR TO PROVIDED A MINIMUM 10' HORIZONTAL SEPARATION BETWEEN WATER AND SEWER LINES MEASURED FROM OUTSIDE FACE OF PIPE.
2. BITUMINOUS EMULSION TACK COAT AT THE RATE OF 1 GAL./20 S.Y. SHALL BE APPLIED TO THE BINDER COURSE PRIOR TO THE INSTALLATION OF THE TOP COURSE.
3. UTILITY LOCATIONS SHOWN ON CROSS–SECTION ABOVE APPLY FROM STA 0+00 TO 3+00. SEE REMAINING PLAN SET FOR UNDERGROUND UTILITY LOCATIONS BEYOND STA 3+00.

TYPICAL ROADWAY CROSS-SECTION
NO SCALE



TRENCH NOTES
1. SHEETING, WHEN REQUIRED TO BE CUT OFF AT LEAST 5 FT. BELOW STREET AND A MINIMUM OF 1 FT. ABOVE TOP OF PIPE. WOOD SHEETING DRIVEN BELOW MID–DIAMETER OF THE PIPE SHALL BE LEFT IN PLACE. STEEL SHEETING DRIVEN BELOW MID–DIAMETER MAY BE WITHDRAWN IF APPROVED IN WRITING BY THE ENGINEER. FOR P.V.C. PIPE, ALL SHEETING DRIVEN BELOW MID–DIAMETER SHALL BE LEFT IN PLACE.
2. SELECTED COMMON FILL, HAND PLACED, FROM MID–DIAMETER OF PIPE TO 12" ABOVE, TOP OF PIPE.
3. TRENCHES LOCATED ON THE ROAD SHOULDER SHALL BE TREATED THE SAME AS STREET EXCEPT FOR PAVING.
4. PROVIDE AT LEAST ONE IMPERVIOUS DAM IN GRAVEL BEDDING BETWEEN EACH MANHOLE WHERE DIRECTED, OR EVERY 300 FT., WHICHEVER IS LESS.
5. COMPACT ALL BACKFILL MATERIAL WITH VIBRATORY PLATE EQUIPMENT (MINIMUM TWO PASSES) TO A MINIMUM DENSITY OF 95 PERCENT OF THE STANDARD PROCTOR DENSITY AS DETERMINED BY ASTM D698.
6. PLACE BACKFILL MATERIALS IN MAXIMUM ONE FOOT LIFTS.

PIPE TRENCH DETAIL (STANDARD)
NO SCALE

PERMITTING

RLA

R LEVESQUE ASSOCIATES, INC
Land Surveying, Site Design, Landscape Architecture, Planning Environmental Permitting

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DETAILS

Rivercrest Condominiums
Ferry Street
South Hadley, Massachusetts

COMMONWEALTH OF MASSACHUSETTS FILIPE J. CRAVO CIVIL NO. 48376 REGISTERED PROFESSIONAL ENGINEER

6/18/14

PREPARED FOR:

Ferry Street Nominee Trust
P.O. Box 13
510 New Ludlow Road
South Hadley, MA 01075

ISSUANCE DATE: June 18, 2014

REVISIONS:	DATE:

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SCALE: AS NOTED

RLA PROJ. NUMBER: 13-1119

DRAWING#	REV.
D-2	0

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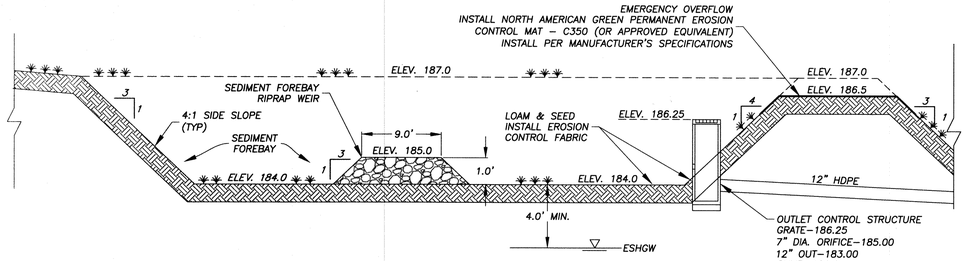
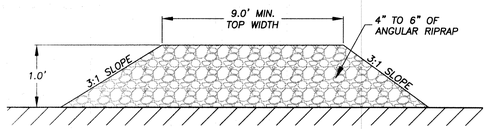


NOTES:

1. SEE GRADING PLAN FOR INFILTRATION BASIN DIMENSIONS AND LOCATION.
2. DURING BASIN EXCAVATION, USE NATIVE SOILS THAT WERE EXCAVATED FROM THE A OR B HORIZONS AND MIX WITH COMPOST, PROPERLY AGED TO KILL ANY SEED STOCK. SCARIFY THE NATIVE MATERIALS AND USE THE COMPOST MATERIAL TO SHAPE THE BASIN. MIX INTO THE PARENT MATERIAL TO A DEPTH OF 12 INCHES.
3. IMMEDIATELY AFTER CONSTRUCTING THE BASIN, STABILIZE THE BOTTOM AND SIDE SLOPES WITH WATER-TOLERANT GRASS.
4. INFILTRATION BASIN BOTTOM TO BE A MINIMUM 4.0' ABOVE ESTIMATED SEASONAL HIGH GROUNDWATER (ESHGW) AS DETERMINED BY SOIL EVALUATIONS LOCATED WITHIN THE EXTENTS OF THE BASIN.

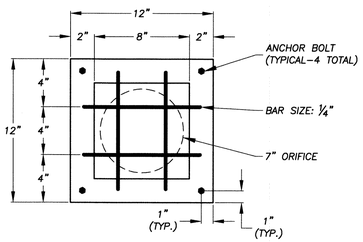
SECTION THROUGH INFILTRATION BASIN

NO SCALE



RIPRAP SEDIMENT FOREBAY

NO SCALE

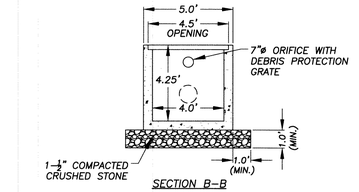


NOTES:

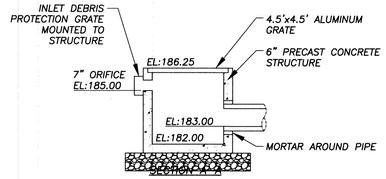
1. BARS TO EXTEND 6" FROM FACE OF STRUCTURE.
2. PROPOSED TRACK RACK BY:
   LANE ENTERPRISES, INC.
   TRASH RACK, LANE MODEL #126
   (OR APPROVED EQUIVALENT)

INLET DEBRIS PROTECTION GRATE

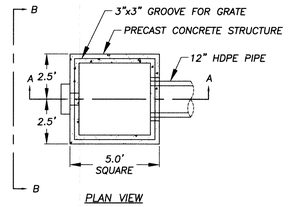
NO SCALE



SECTION B-B



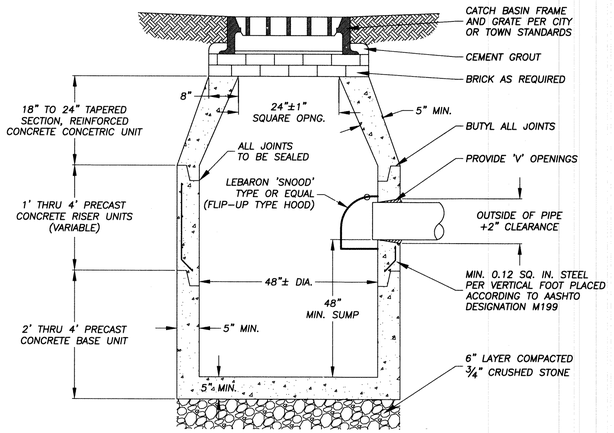
SECTION A-A



PLAN VIEW

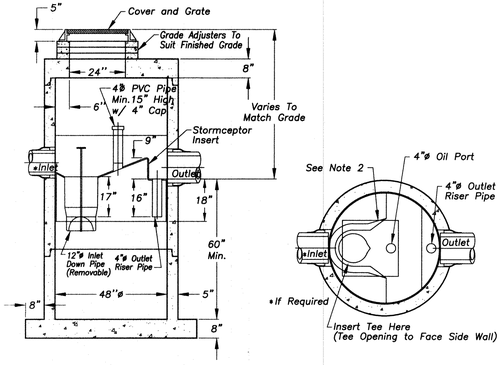
OUTLET CONTROL STRUCTURE

NO SCALE



STANDARD PRECAST CONCRETE CATCH BASIN

NO SCALE



SECTION THRU CHAMBER

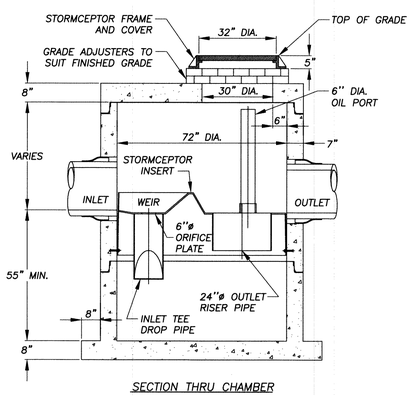
PLAN VIEW

NOTES:

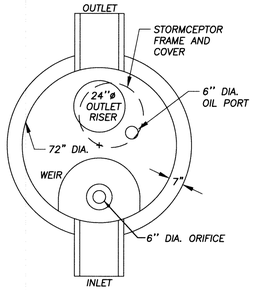
1. THE USE OF FLEXIBLE CONNECTIONS IS RECOMMENDED AT THE INLET AND OUTLET WHERE APPLICABLE.
2. THE COVER SHOULD BE POSITIONED OVER THE 24"ø OUTLET RISER PIPE AND THE 6"ø OIL PORT.
3. THE STORMCEPTOR SYSTEM IS PROTECTED BY ONE OR MORE OF THE FOLLOWING U.S. PATENTS: #4985148, #5498331, #5725760, #5753115, #5849181.
4. CONTACT A CONCRETE PIPE DIVISION REPRESENTATIVE FOR FURTHER DETAILS NOT LISTED ON THIS DRAWING.

STC 450i PRECAST CONCRETE STORMCEPTOR

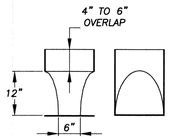
NO SCALE



SECTION THRU CHAMBER



PLAN VIEW OF INSERT



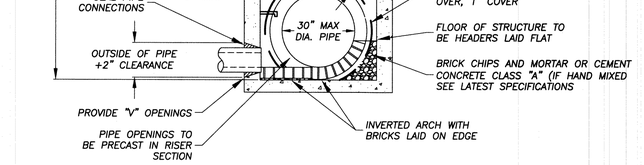
ENLARGED INLET TEE DROP PIPE

NOTES:

1. THE USE OF FLEXIBLE CONNECTIONS IS RECOMMENDED AT THE INLET AND OUTLET WHERE APPLICABLE.
2. THE COVER SHOULD BE POSITIONED OVER THE 24"ø OUTLET RISER PIPE AND THE 6"ø OIL PORT.
3. THE STORMCEPTOR SYSTEM IS PROTECTED BY ONE OR MORE OF THE FOLLOWING U.S. PATENTS: #4985148, #5498331, #5725760, #5753115, #5849181.
4. CONTACT A CONCRETE PIPE DIVISION REPRESENTATIVE FOR FURTHER DETAILS NOT LISTED ON THIS DRAWING.

STC 900 PRECAST CONCRETE STORMCEPTOR

NO SCALE



PRECAST CONCRETE MANHOLE

NO SCALE

R LEVESQUE ASSOCIATES, INC
Land Surveying, Site Design, Landscape Architecture, Planning Environmental Permitting
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DETAILS

Rivercrest Condominiums
Ferry Street
South Hadley, Massachusetts

COMMONWEALTH OF MASSACHUSETTS
FILIPE J. CRAVO
CIVIL
No. 48376
REGISTERED PROFESSIONAL ENGINEER
9/25/14

PREPARED FOR:

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ISSUANCE DATE: June 18, 2014	
REVISIONS:	DATE:
Peer review comments	9/25/14

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SCALE: AS NOTED

RLA PROJ. NUMBER: 13-1119

DRAWING #	REV.
D-3	0

PERMITTING

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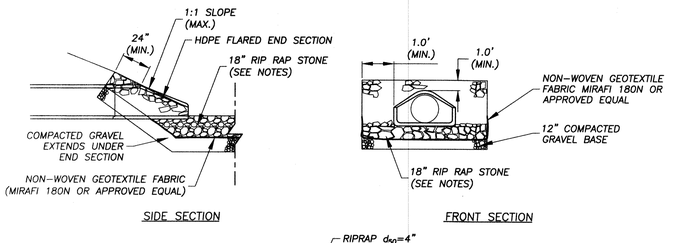
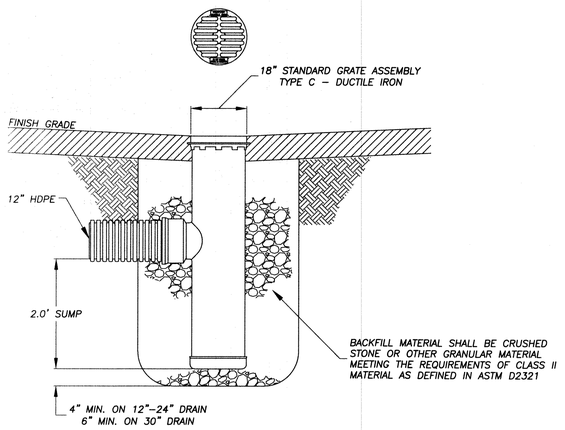


NOTE

FLARED END SECTION PIPE JOINT SHALL BE SIMILAR TO THE MAIN RUN OF PIPE JOINTS

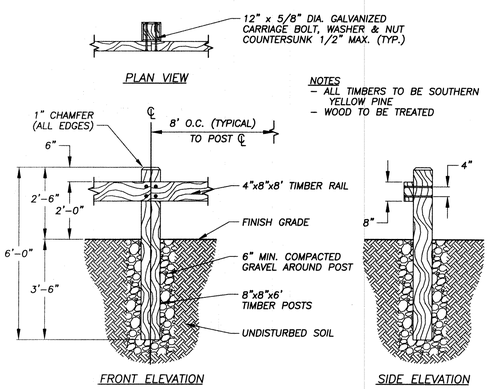
STANDARD RIP RAP PIPE OUTLET

NO SCALE



ADS NYLOPLAST YARD DRAIN BASIN

NO SCALE



WOOD GUARDRAIL

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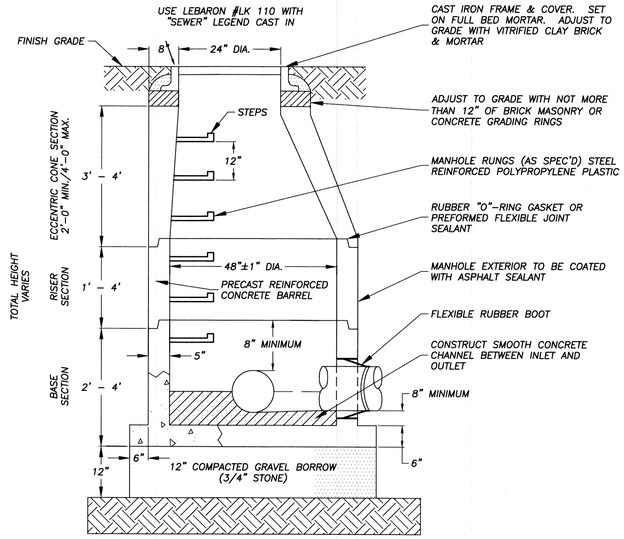
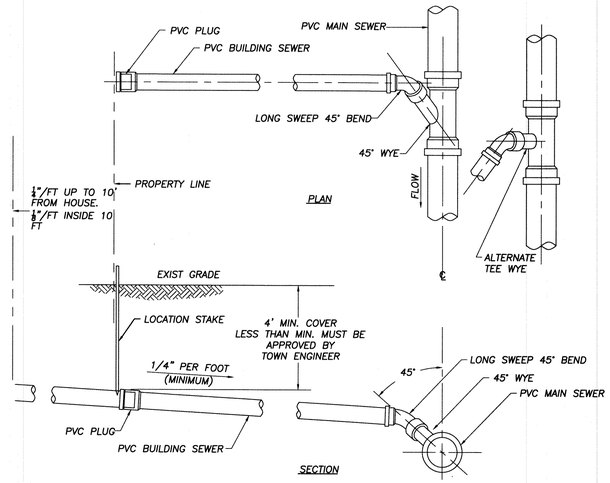


STANDARD SANITARY SEWER MANHOLE DETAIL

NO SCALE

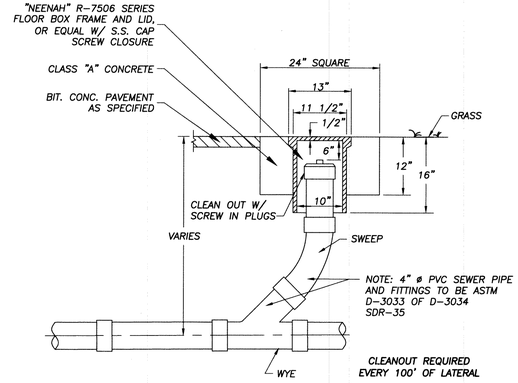


NOTES:

1. BUILDING SEWERS SHALL BE 4"ø EXCEPT AS DIRECTED BY THE ENGINEER
2. LOCATION AND DEPTHS OF BUILDING SEWERS TO BE DETERMINED IN THE FIELD BY THE ENGINEER

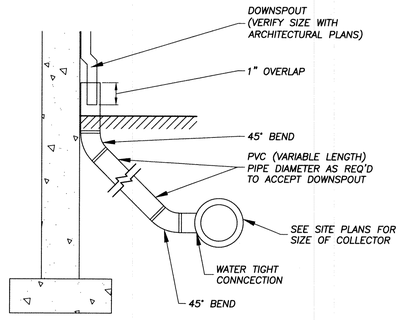
TYPICAL BUILDING SEWER CONNECTION DETAIL

NO SCALE



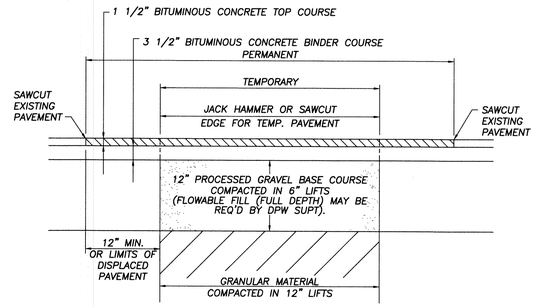
TYPICAL SANITARY CLEANOUT

NO SCALE



DOWNSPOUT COLLECTOR DETAIL

NO SCALE



NOTES:

1. TEMPORARY PAVEMENT OVER TRENCHES IN STREET TO REMAIN FOR A MINIMUM OF 60 DAYS. TEMPORARY PAVEMENT 3" BINDER COURSE IN ONE LIFT – COLD PATCH KNOWN AS "QPR" MAYBE USED WHEN TYPE I–1 IS UNAVAILABLE.
2. REMOVE TEMPORARY PAVEMENT AND REPLACE WITH PERMANENT PAVEMENT
3. PAVEMENT THICKNESS TO BE 5" MINIMUM, OR GREATER TO MATCH EXISTING CONDITIONS.
4. WHERE PAVEMENT IS CUT 2'–0" OR LESS FROM EDGE OF ROAD, REPAVING TO EXTEND TO EDGE OF ROAD.
5. EDGE OF EXISTING PAVEMENT SHALL BE TREATED WITH A TACK COAT PRIOR TO PLACEMENT OF THE PERMANENT PATCH.
6. EXCEPT AS OTHERWISE DIRECTED BY THE D.P.W. SUPT., THE EDGE OF PAVEMENT ADJACENT TO PATCH SHALL BE HEATED WITH INFRARED EQUIPMENT TO SEAL THE JOINTS.

PERMANENT PAVEMENT REPLACEMENT PLAN

NO SCALE

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DETAILS

Rivercrest Condominiums
Ferry Street
South Hadley, Massachusetts

COMMONWEALTH OF MASSACHUSETTS
FILIPE J. CRAVO
CIVIL
No. 46376
REGISTERED PROFESSIONAL ENGINEER

9/25/14

PREPARED FOR:

Ferry Street Nominee Trust
P.O. Box 13
510 New Ludlow Road
South Hadley, MA 01075

ISSUANCE DATE: June 18, 2014

REVISIONS:	DATE:
Peer review comments	9/25/14

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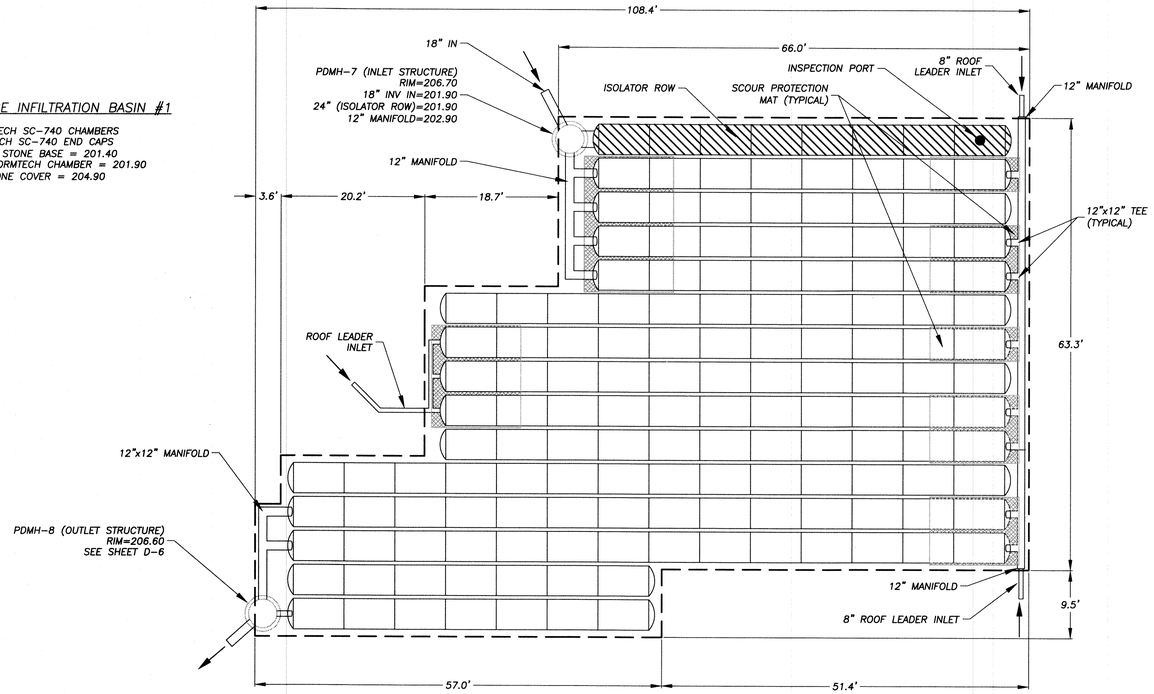
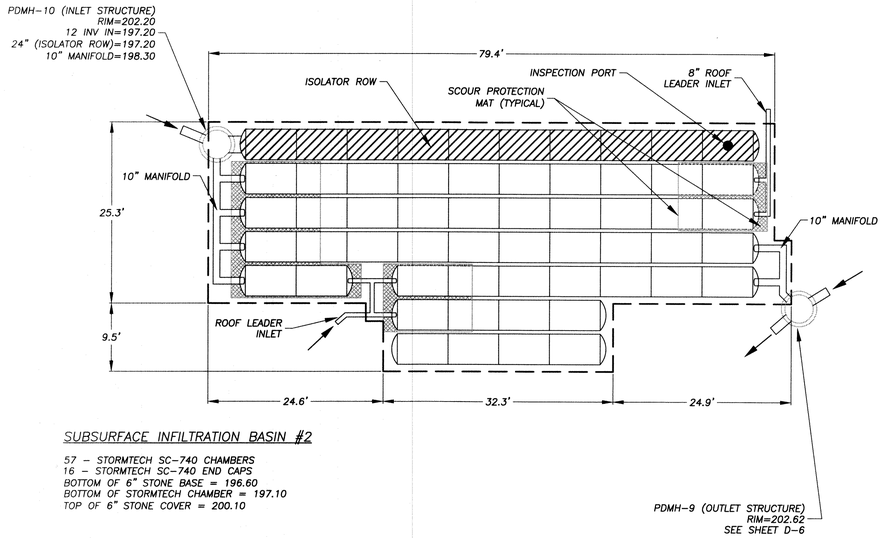


SUBSURFACE INFILTRATION BASIN #1

151 – STORMTECH SC-740 CHAMBERS
30 – STORMTECH SC-740 END CAPS
BOTTOM OF 6" STONE BASE = 201.40
BOTTOM OF STORMTECH CHAMBER = 201.90
TOP OF 6" STONE COVER = 204.90

SUBSURFACE INFILTRATION BED #1

NO SCALE



SUBSURFACE INFILTRATION BASIN #2

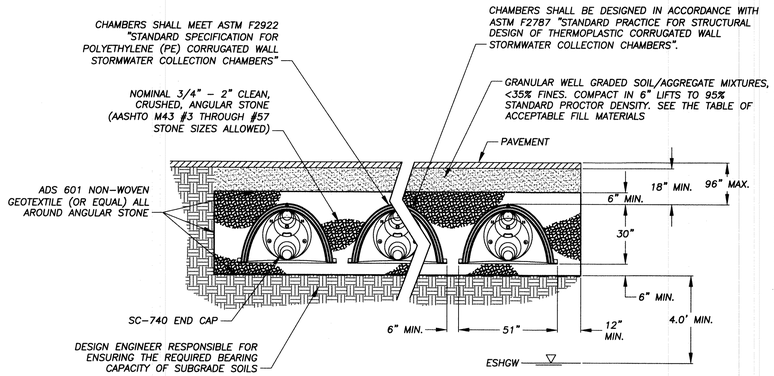
57 – STORMTECH SC-740 CHAMBERS
16 – STORMTECH SC-740 END CAPS
BOTTOM OF 6" STONE BASE = 196.60
BOTTOM OF STORMTECH CHAMBER = 197.10
TOP OF 6" STONE COVER = 200.10

SUBSURFACE INFILTRATION BED #2

NO SCALE

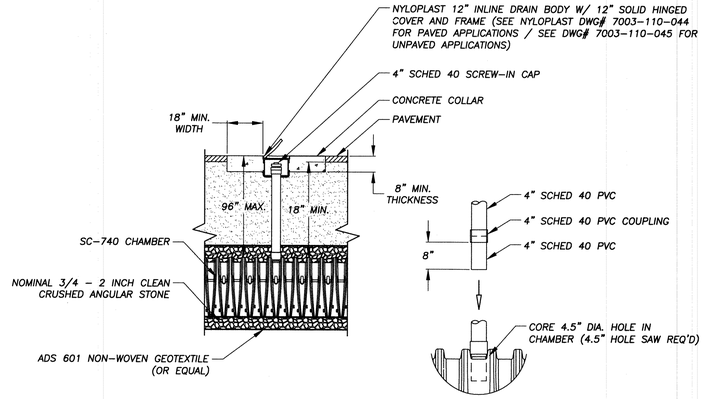
CHAMBER SPECIFICATIONS

1. CHAMBERS SHALL BE STORMTECH SC-740, SC-310 OR APPROVED EQUAL.
2. CHAMBERS SHALL BE MANUFACTURED FROM VIRGIN POLYPROPYLENE OR POLYETHYLENE RESINS TESTED USING ASTM STANDARDS.
3. CHAMBERS SHALL BE DESIGNED IN ACCORDANCE WITH ASTM F2787, "STANDARD PRACTICE FOR STRUCTURAL DESIGN OF THERMOPLASTIC CORRUGATED WALL STORMWATER COLLECTION CHAMBERS".
4. CHAMBER ROWS SHALL PROVIDE CONTINUOUS, UNOBSTRUCTED INTERNAL SPACE WITH NO INTERNAL SUPPORT PANELS.
5. THE STRUCTURAL DESIGN OF THE CHAMBERS, THE STRUCTURAL BACKFILL AND THE INSTALLATION REQUIREMENTS SHALL ENSURE THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12 ARE MET FOR: 1) LONG-DURATION DEAD LOADS AND 2) SHORT-DURATION LIVE LOADS, BASED ON THE AASHTO DESIGN TRUCK WITH CONSIDERATION FOR IMPACT AND MULTIPLE VEHICLE PRESENCE.
6. ONLY CHAMBERS THAT ARE APPROVED BY THE ENGINEER WILL BE ALLOWED. THE CONTRACTOR SHALL SUBMIT (3 SETS) OF THE FOLLOWING TO THE ENGINEER FOR APPROVAL BEFORE DELIVERING CHAMBERS TO THE PROJECT SITE:
   a. A STRUCTURAL EVALUATION BY A REGISTERED STRUCTURAL ENGINEER THAT DEMONSTRATES THAT THE LOAD FACTORS SPECIFIED IN THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, SECTION 12.12 ARE MET. THE 50-YEAR CREEP MODULUS DATA SPECIFIED IN ASTM F2922 MUST BE USED AS A PART OF THE AASHTO STRUCTURAL EVALUATION TO VERIFY LONG-TERM PERFORMANCE.
7. CHAMBERS SHALL BE PRODUCED AT AN ISO 9001 CERTIFIED MANUFACTURING FACILITY.
8. ALL DESIGN SPECIFICATIONS FOR CHAMBERS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S LATEST DESIGN MANUAL.
9. THE INSTALLATION OF CHAMBERS SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S LATEST INSTALLATION INSTRUCTIONS.



STORMTECH SC-740 CROSS-SECTION

NO SCALE

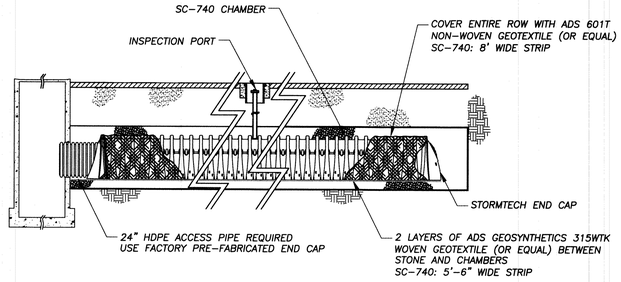


NOTES:
1. INSPECTION PORT MUST BE CONNECTED THROUGH KNOCK-OUT LOCATED AT CENTER OF CHAMBER.
2. ALL SCHEDULE 40 FITTINGS TO BE SOLVENT CEMENTED.

CONNECTION DETAIL
NTS

STORMTECH SC-740 INSPECTION PORT DETAIL

NO SCALE



STORMTECH SC-740 ISOLATOR ROW DETAIL

NO SCALE

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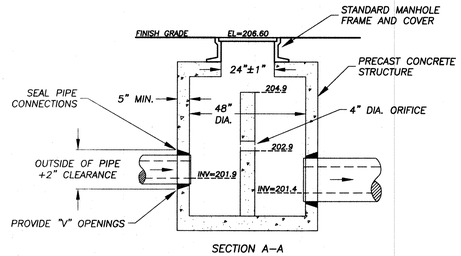
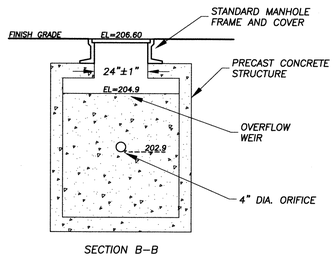
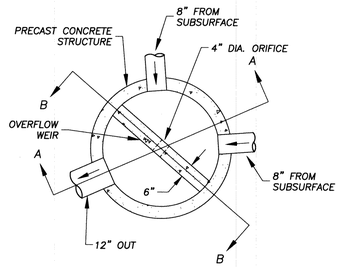


SECTION A–A

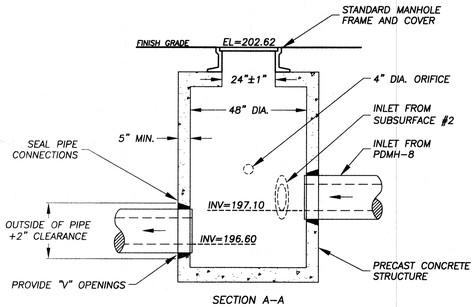


SECTION B–B



OUTLET CONTROL STRUCTURE - SUBSURFACE #1 (PDMH-8)

NO SCALE



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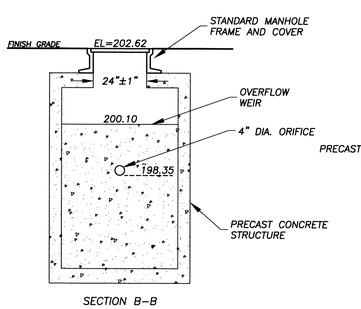
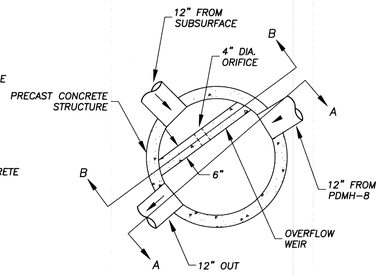


SECTION B–B



OUTLET CONTROL STRUCTURE - SUBSURFACE #2 (PDMH-9)

NO SCALE

SITE UTILITY NOTES

GENERAL:

1. ALL FILL MATERIAL IS TO BE IN PLACE, AND COMPACTED BEFORE INSTALLATION OF PROPOSED UTILITIES.
2. TOPS OF EXISTING MANHOLES SHALL BE SET EQUAL TO FINISH GRADE. IN GRASSED LANDSCAPED AREAS WITH WATER TIGHT LIDS.
3. ALL CONCRETE FOR ENCASEMENTS SHALL HAVE A MINIMUM 28 DAY COMPRESSION STRENGTH AT 3000 P.S.I.
4. DRAWINGS DO NOT PURPORT TO SHOW ALL EXISTING UTILITIES.
5. EXISTING UTILITIES SHALL BE VERIFIED IN FIELD PRIOR TO INSTALLATION OF ANY NEW LINES.
6. SITE/GENERAL CONTRACTOR IS RESPONSIBLE FOR COMPLYING TO THE SPECIFICATIONS OF THE LOCAL AUTHORITIES AT THE CITY WITH REGARD TO MATERIALS AND INSTALLATION OF THE WATER AND SEWER LINES.
7. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THE PLANS.
8. CONTRACTOR SHALL COORDINATE WITH ALL UTILITY COMPANIES FOR INSTALLATION REQUIREMENTS AND SPECIFICATIONS.
9. CONTRACTOR SHALL COORDINATE INSPECTION OF UTILITY LINES WITH APPROPRIATE AUTHORITIES PRIOR TO BACKFILLING TRENCHES.
10. CONTRACTOR SHALL COMPLY WITH THE LATEST OSHA STANDARDS OR DIRECTIVES OR ANY OTHER AGENCY HAVING JURISDICTION FOR EXCAVATION AND TRENCHING PROCEDURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND MAINTENANCE OF ALL SUPPORT SYSTEMS, SLOPING, BENCHING, AND OTHER MEANS OF PROTECTION.
11. CONTRACTOR SHALL COORDINATE INSTALLATION OF UTILITIES WITH LOCAL COMPANIES TO AVOID CONFLICTS AND TO ASSURE THAT PROPER DEPTHS ARE ACHIEVED. CONTRACTOR SHALL COORDINATE WITH LOCAL UTILITY COMPANIES FOR EXACT LOCATION AND SCHEDULING OF CONNECTIONS TO THEIR FACILITIES.
12. THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY, DUE TO THE LACK OF AVAILABLE DOCUMENTATION. ALL UTILITIES, INCLUDING CURB BOXES, MAY NOT BE SHOWN ON THESE DRAWINGS. THE CONTRACTOR SHALL CALL THE "DIG SAFE CENTER" TO HAVE ALL UTILITIES MARKED ON THE GROUND PRIOR TO THE START OF CONSTRUCTION
13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATION OF ALL EXISTING UTILITIES. THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH OCCUR DUE TO HIS FAILURE TO LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.
14. DO NOT INTERRUPT EXISTING UTILITIES WITHOUT AUTHORIZATION FROM THE OWNER, OWNERS OF ADJACENT PROPERTIES, AND THE CORRESPONDING UTILITY OWNER. CONTRACTOR SHALL ARRANGE TO SHUT OFF UTILITIES, AS REQUIRED, WITH THE UTILITY OWNERS.
15. COORDINATE UTILITY TERMINATION WITH UTILITY OWNERS.

SEWER:

1. SANITARY SEWER MAINS AND LATERALS SHALL BE PVC PIPE CONFORMING TO ASTM D 3034–SDR35. THE MINIMUM SIZE FOR SEWER MAINS SHAL BE 8"; SEWER LATERALS SHALL BE 4" MIN.
2. ALL SANITARY SEWERS, SEWER FORCE MAINS, AND SEWER LATERALS SHALL BE INSTALLED IN FIRST–CLASS BEDDING AND IN ACCORDANCE WITH THE DEPARTMENT OF PUBLIC WORKS SPECIFICATIONS. SEWERS SHALL BE INSTALLED TO THE LINE AND GRADE INDICATED ON THE PLANS.
3. ONLY PRECAST CONCRETE MANHOLES OF A DESIGN APPROVED BY THE TOWN ENGINEER SHALL BE INSTALLED ON A SANITARY SEWER MAIN.
4. NO GROUNDWATER OR SURFACE WATER SHALL BE DISCHARGED INTO THE SANITARY SEWER.
5. WHERE ROCK IS ENCOUNTERED, IT SHALL BE REMOVED TO A DEPTH OF ONE FOOT BELOW THE FLOWLINE OF THE SEWER AND THE PIPE LAID IN A PROPERLY COMPACTED GRANULAR MATERIAL APPROVED BY THE TOWN ENGINEER.
6. ONLY GRANULAR MATERIAL APPROVED BY THE TOWN ENGINEER SHALL BE USED AS BACKFILL IN ANY TRENCH EXCAVATION.

WATER:

1. CONTRACTOR SHALL CONTACT THE CITY/TOWN WATER DEPARTMENT FOR SPECIFICATIONS AND MAKE OF VALVES, VALVE BOXES, FIRE HYDRANTS AND ALL OTHER WATER LINE APPURTENANCES.
2. WATER LINE TESTING AND STERILIZATION SHALL BE PERFORMED IN ACCORDANCE WITH LOCAL DPW SPECIFICATIONS AND WATER DISTRIBUTION SYSTEM. CONTRACTOR SHALL COORDINATE TESTING WITH THE CITY WATER DEPARTMENT.
3. ALL WATER MAIN SHALL BE DUCTILE IRON (D.I.), CLASS 52, AWWA C–151 (ANSI A21.40). D.I. PIPE SHALL BE DOUBLE CEMENT LINED WITH A SEAL COAT CONFORMING TO AWWA C–104 (ANSI A–21.4).
4. JOINTS FOR D.I. PIPE SHALL BE PUSH–ON OR OTHERWISE APPROVED, AWWA C151(ANSI A–21.51) WITH GASKETS CONFORMING TO AWWA C–111 (ANSI A–21.11) MAXIMUM LENGTH OF PIPE TO BE 20 L.F.
5. ALL FITTINGS SHALL BE DUCTILE IRON CLASS 53 WITH PRESSURE RATING OF 350 PSI AND MECHANICAL JOINTS CONFORMING TO AWWA C–151 (ANSI A21.51).
6. RETAINER GLANDS: RETAINER GLANDS SHALL BE DESIGNED TO IMPART MULTIPLE WEDGING ACTION AGAINST THE PIPE, INCREASE ITS RESISTANCE AS THE PRESSURE INCREASES. GLANDS SHALL BE MANUFACTURED OF DUCTILE IRON CONFORMING TO ASTM A536–80. RESTRAINING DEVICES SHALL BE DUCTILE IRON HEAT–TREATED TO A MINIMUM HARNESS OF 370 BHN. TWIST–OFF NUTS SHALL BE USED TO INSURE PROPER ACTUATING OF THE RETAINER GLAND. DIMENSIONS OF THE GLAND SHALL BE SUCH THAT IT CAN BE USED WITH THE STANDARD MECHANICAL JOINT BELL AND TEE–HEADED BOLTS CONFORMING TO ANSI/AWWA A21.1 AND ANSI/WWA 153/A21.5. THE RETAINER GLAND SHALL HAVE A WORKING PRESSURE OF 250 PSI WITH A MINIMUM SAFETY FACTOR OF 2:1 AND SHALL BE CERTIFIED BY THE MANUFACTURER TO BE COMPATIBLE WITH THE PIPE CLASS AND PIPE MANUFACTURER FOR ALL SIZES PROVIDED ON THE JOB. THE RETAINER GLAND SHALL BE MEGA–LUG AS MANUFACTURED EBAA IRON, INC., OR APPROVED EQUAL.
7. ALL WATER MAINS, UNLESS OTHERWISE NOTED, SHALL BE INSTALLED WITH A MINIMUM FIVE FEET OF COVER. WHEN CROSSING ABOVE OR BELOW WATER PIPELINES, A MINIMUM VERTICAL SEPARATION OF SIX INCHES SHALL BE PROVIDED. WHEN CROSSING SANITARY SEWERS, A MINIMUM OF 18" SHALL BE PROVIDED.

SITE UTILITY NOTES (CONTINUED)

8. THE INSTALLED WATER MAIN SHALL BE PRESSURE TESTED, FLUSHED AND DISINFECTED BY CONTRACTOR IN ACCORDANCE WITH AWWA C–600 AND AWWA C–651 OR PER CITY/TOWN WATER DEPARTMENT STANDARDS.
9. DUCTILE IRON PIPES SHALL BE INSTALLED IN ACCORDANCE WITH AWWA C–600.
10. ALL MECHANICAL JOINTS ARE TO BE RESTRAINED. FITTINGS SHALL BE RESTRAINED BY MECHANICAL JOINT RESTRAINTS. THE PIPE CONNECTED TO THE FITTING SHALL BE RESTRAINED PER THE RESTRAINT SCHEDULE.
11. THE CONTRACTOR SHALL MARK THE LOCATION OF THE PROPOSED WATER MAIN AT LEAST 48 HOURS PRIOR TO EXCAVATING. EXCAVATION SHALL NOT PROCEED WITHOUT AUTHORIZATION BY THE ENGINEER.
12. ALL WATER MAINS, HYDRANT BRANCHES, AND SERVICES SHALL HAVE UTILITY WARNING TAPE. THE TAPE SHALL BE BURIED APPROXIMATELY 2 FEET BELOW FINISHED GRADE.
13. BACKFILL SHALL BE COMPACTED TO 95 PERCENT OF THE STANDARD PROCTOR DENSITY AS DETERMINED BY ASTM D698. COMPACTION EQUIPMENT USED MUST BE SPECIFICALLY DESIGNED FOR COMPACTION. TAMPING WITH THE BACK OF THE BACK HOE BUCKET IS UNACCEPTABLE COMPACTION.
14. ALL WATER SERVICES SHALL BE 1" DIA. COPPER TUBING TYPE K, SOFT TEMPER CONFORMING TO ASTM B88 UNLESS OTHERWISE NOTED.
15. DEPRESS WATER MAIN UNDER EXISTING SERVICES AND HYDRANT BRANCHES TO MAINTAIN 5'–0" OF COVER.
16. ALL WATER MAINS SHALL BE LAID AT LEAST TEN (10) FEET HORIZONTALLY FROM EXISTING OR PROPOSED SANITARY SEWER. DISTANCE SHALL BE MEASURED EDGE TO EDGE.
17. IDENTIFY EACH PIPE LENGTH & FITTING CLEARLY WITH MANUFACTURE'S NAME & TRADEMARK. NOMINAL PIPE SIZE & MATERIAL DESIGNATION.
18. ALL WATER MAINS & SERVICE PIPES SHALL BE LAID IN A TRENCH SEPARATE FROM ANY OTHER UTILITY (GAS, ELECTRIC, TELEPHONE, ETC.) SHALL BE A MINIMUM NO LESS THAN FIVE (5) FEET FROM ANOTHER UTILITY.
19. ALL MATERIAL SHALL BE IN ACCORDANCE WITH CITY/TOWN WATER DEPARTMENT "RULES & REGULATIONS". ALL WORK TO BE PERFORMED IN ACCORDANCE WITH CITY/TOWN WATER DEPARTMENT "SPECIFICATIONS". CITY/TOWN WATER DEPARTMENT STANDARDS SHALL TAKE PRECEDENCE OVER ANY REQUIREMENTS LISTED ABOVE.

PERMITTING

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